Preliminary Design Program

Countryside Elementary School

Newton, MA

18 January 2023

DINISCO DESIGN
architects + planners

January 18, 2023

Christina Forde
Massachusetts School Building Authority
40 Broad Street, Suite 500
Boston, MA 02109

Dear Christina,

Please find enclosed the Module 3 Preliminary Design Program (PDP) submission for the Newton Countryside Elementary School Project to the Massachusetts School Building Authority (MSBA). The consultant team, along with the Owner, has followed the current PDP guidelines to develop this submission over the last several months.

As Owner's Project Manager, we have reviewed the submittal and certify that it has been reviewed and approved by the city for submission to the MSBA.

We look forward to your team's feedback and working with you to proceed with the final evaluation of the proposed alternatives in the Preferred Schematic Report.

Sincerely,
DORE + WHITTIER

Steven W. Brown

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1 INTRODUCTION

INTRODUCTION

The purpose of the Preliminary Design Program is to define the programmatic, functional, spatial, and environmental requirements of the educational facility necessary to meet the District's educational program, and perform the review and investigation required to clearly define the existing building deficiencies.

The Study Enrollment Certification is to evaluate design alternatives for two enrollments:

- Grade K-5 in the Countryside Elementary School of 340 students
- Grade K-5 in an expansion of the Countryside Elementary School of 465 students

Based upon the District's educational program we have identified and prepared the educational goals and programmatic space needs for the Countryside Elementary School project. The Countryside Elementary School of Grades K-5 with 340 students does not meet the educational objectives for the District. Therefore, after review and consideration of the two Study Enrollment options, the District prefers proceed with an enrollment of 465 students in Grades K-5 as part of this project.

The space needs along with an evaluation of existing conditions and site development requirements have formed our recommendation for a preliminary evaluation of alternatives. This list will be the basis for the remainder of the Preferred Schematic Report.

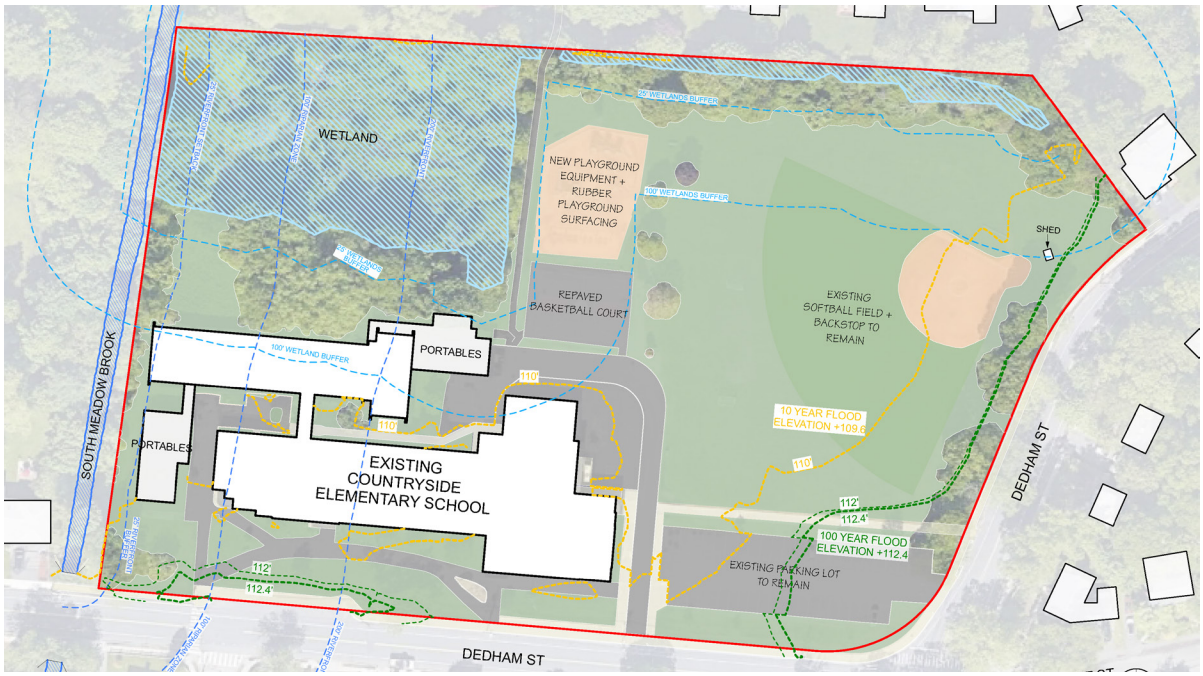
Facility Deficiencies

The Countryside Elementary School is one of fifteen elementary schools in the Newton Public School system. It is located on a 7.39-acre site. The existing school is located directly off of Dedham Street within a residential area. The site is defined by the school building at the southern end of the parcel, adjacent to an on-site wetland, a basketball court and playground in the mid-section of the site with a softball field and staff parking lot at the northern portion of the site. The school parcel is bounded by brooks on the west and south with residential neighborhoods beyond and across the streets on the north and east. The overall site's topography is relatively flat, but the northern edge is defined by a steep embankment from the street/sidewalk elevation to the playfield and grassed areas within the site.

Nearly the entire site is characterized by the Federal Emergency Management Agency (FEMA) as Flood Zone AE (1% Annual Chance of Flooding, with Base Flood Elevation). According to FEMA, the Base Flood Elevation, also referenced as the 100-year flood elevation, along the eastern edge of Zone AE in this area is El.+112.4 feet. The very southern edge of the site appears to overlap with the Regulatory Floodway of South Meadow Brook. A 2022 site survey confirmed the site's flood zone locations. These designations trigger Newton's Floodplain Ordinance which means that any land disturbance will require compensatory flood storage calculations to confirm that the available flood storage will not be reduced. (Source: FEMA FIRM panels 25017C0554E, 25017C0562E, effective 6/4/10)

In addition, the International Building Code (IBC) states that the design and construction of buildings and structures located in flood hazard areas… (including improvements exceeding 50% of the building value) …shall be in accordance with Chapter 5 of the American Society of Civil Engineers (ASCE) ASCE 8 and ASCE 24. Based on Countryside's Class and Zone designations, the minimum elevation of the lowest floor is required to be 1-foot above the base flood elevation (100-year flood elevation, or El.+112.4).

Based upon the preliminary costing, repairs/code upgrades as well as renovation & addition alternatives exceed 50% of the assessed building value (current assessor's value at $20,661,700). Therefore, the first floor of the existing building (El.+110.5) would be required to be raised approximately 3-feet to comply with code. The current first floor floor-to-floor height is 12'-6". When the floor is raised by 3 feet, the floor-to-floor height is 9'-6". Once mechanical equipment is added (requires approximately 3 feet) the floor-to-ceiling height would be approximately 6'-6". **The existing 1953 is constructed in such a way that raising the second floor to increase the first floor height is not viable.**



Countryside School was constructed in 1953 as a small neighborhood school. It was one of five new elementary schools built to accommodate the post-WWII enrollment boom in Newton between 1950-1955. The original building was 35,910 gross square feet and consisted of 13 classrooms, a gym, library, auditorium, main office, two sets of girls' and boys' restrooms, and a pair of staff bathrooms. A 6 classroom annex addition was constructed in 1958 to address the rising school enrollment. A single bathroom with one fixture was added as part of this project. In 1986, two additional annex classrooms were constructed on the north end of the annex. In 1991, 1999, and 2000 a total of four modular classrooms, smaller than regular classrooms, and two offices were constructed. With the five additions, the number of classrooms, staff, and students were doubled with no increase in support spaces such as restrooms, offices, storage, small group instruction, or special education. The total square footage including the original building, the additions and modular space is 56,100 gross square feet.

A vertical lift was installed in 2010. This lift was allowed at the time but is no longer allowed to be constructed as a permanent means of vertical accessible travel.

The HVAC system is steam by natural gas with classroom unit ventilators with supplemental radiation. The annex and modular classrooms are substantially colder in the winter months than the original wing. Two boilers were replaced in 2007 and 2012. The 2007 boiler has been completely submerged at least twice due to flooding in the school. The boiler room has experienced flood levels as high as 12 feet which has taken its toll on all of the mechanical, electrical and plumbing equipment.

The flat roof on the 1953 portion of the original building was replaced in 2012. The roofs on all of the annexes and modular classrooms are beyond their useful life and need to be replaced. Water regularly pools on these roofs.

The windows in the 1953 original portion of the building were replaced in 1990, while the windows in the annexes and modular classrooms are original and mostly beyond their useful life. They are aluminum with thermal break and thermal glazing, fixed and single hung. The thermal efficiency of these systems is extremely low. Cold temperatures in this connection are a challenge during heating season.

Most of the plumbing is original, although some bathroom fixtures have been replaced. Due to elevation challenges throughout the site, the sewage lines cannot pitch adequately to allow for gravity drainage. Thus, there are sewage ejector pumps in small crawl spaces throughout the building. These are no longer allowed by the plumbing code. These pumps have failed numerous times, resulting in sewage flooding throughout the school. The sewage ejector pump directly below the nurse's office creates a sewer gas smell that ebbs and flows based on the operation of these pumps. There are two very large sump pumps in tJ1e boiler room operate continuously. The basement sits 6 feet below the water table and the boiler room sits 12 feet below the water table. When the pumps fail the basement floods within a few hours, which is catastrophic as the much storage for curriculum materials, gym equipment, and custodial supplies and equipment is in the basement. The basement area is chronically damp, and by all records has never been dry. Piping is original in fair to poor condition with limited accessibility. Repairs to any of the failed sewer ejector pumps require crawling 50-100 feet through the sewage. This also means that when these pumps fail, sewage sits beneath the first floor classrooms. Domestic hot water is not available at all sinks. The domestic water circulator is in poor condition.

Lighting and lighting controls were replaced in 2017, but the vast majority of the electrical distribution is original. The entire building was converted to LED lighting including the exterior lighting. The main electrical switch gear is in poor condition and is in a flood-prone area. Electrical service equipment is 400 A, 3 phase, 4 wire, 120/208V in fair condition but without sufficient working clearances. The distribution system consists of circuit breaker panel boards with conduit and wire feeders and is 50+ years old. There is a l 50kW diesel exterior generator that serves corridor, stair lighting and boilers, but it is not in a 2 hour fire-rated room for life safety system equipment.

The fire alarm panel was replaced in 2016, but only a small portion of the devices are addressable. Therefore, responses are likely only to the building, not to a specific area within the building. The fire alarm distribution system is in poor condition and needs to be replaced. The school has no fire suppression system. The multi-zone fire alarm system is ADA compliant with auditorium and corridor smoke detectors and door holders. Heat detectors are located in the basement, and there is a master box.

Program Deficiencies

Newton Public Schools provides a rigorous elementary educational program for students in kindergarten through grade five. Countryside Elementary School is a diverse school, with a growing population of English language learners, and has a strong sense of community and support, celebrating its uniqueness through curriculum, arts and ongoing community service involving students and families.

The school currently has 19 classrooms used for individual grades and a total enrollment of 372 students. One classroom was divided into two classrooms to allow for ELL, Inclusion, and Special Education spaces which also occupy two modulars. A modular classroom has been repurposed for use as an Art Room, as the art program had been offered "on a cart" for a number of years due to lack of space for the program, and recently in a former storage location behind the gymnasium which now serves as the music program and the Extended Day Program. The music program also uses the stage in the cafetorium. Currently there are 10 individual grade classrooms in the 1953 building, and 9 individual grade classrooms in the annex and modulars. The library, gym, and auditorium are all sized for a school population approximately half the size of the current enrollment. The quantity of classrooms is adequate, but conditions are severely lacking. Support spaces are minimal and undersized throughout the school. There is only one breakout space for small group instruction. Many of the Special Education spaces either don't exist or are inadequate. OT/PT has a small office space. Offices for support staff either don't exist or have been placed in areas that should not be occupied. The auditorium was converted to a cafetorium 2009 by removing the seating and evening out the floor. The warming kitchen is across the corridor and very small and inadequate for healthy and nutritious, lunch service.

In general, the shortcomings at the Countryside Elementary School include:

- Special Education – Limited instructional and support spaces
- Music – located in a retrofitted space behind the gym
- Gymnasium – Significantly undersized
- Library – Significantly undersized
- Cafeteria – Undersized
- Kitchen – Significantly undersized even for a warming kitchen
- Medical / Nurse Suite – Undersized
- Administration – Significantly undersized
- Inappropriate space for computer infrastructure, including network server

MSBA Invitation

The MSBA invited Newton Public Schools into the eligibility period on December 15, 2021 and extended an invitation to the Feasibility Study phase on February 15, 2022. Refer to the Appendix for the MSBA Invitation into the eligibility period and Feasibility Study.

Design Enrollment

The Study Enrollment Certification is to evaluate design alternatives for two enrollments:

- Grade K-5 in the Countryside Elementary School of 340 students
- Grade K-5 in an expansion of the Countryside Elementary School of 465 students

A copy of the Enrollment Certification is included in the Appendix of this report.

Capital Budget Statement

It is important for the MSBA and the district to have a complete understanding of the district's financial resources and ability to support a proposed school project. Refer to the attached Capital Budget Statement included in the Appendix of this report.

Newton voters recognized the need for additional revenues to address pressing unfunded capital needs to provide complete streets, functional schools, and serviceable fire stations. An $11.5M debt exclusion and operating override were approved in the spring of 2013, addressing improvements valued at over $140M when calculating the full construction costs: Angier, Zervas and Cabot schools, Fire Station 3, HQs and Wires Division, and roadwork that includes consideration as "Complete Streets". This upfront investment has the added benefits of starting construction while costs are lower, and saving valuable budgetary dollars as less money must then be spent on ongoing maintenance or emergency repairs across the capital assets.

In the fall of 2022, Mayor Fuller proposed a $14.975M debt exclusion and operating override to provide the funds needed for the Countryside School Project, as well as large capital investments at the Franklin and Horace Mann Schools, and strategic annual investments in sustainability, street trees, roads, sidewalks, parks, fields, courts, playgrounds, and older adult programs and services. The vote for this override package will occur in the spring of 2023.

The full Fiscal Years 2024-28 Capital Improvement Plan can be found in the Appendix of this report.

Local Process

The local process began in February 2020 when the School District submitted a Statement of Interest to the MSBA for the Countryside Elementary School. The MSBA invited the City of Newton to participate in a Feasibility Study for this project at the Authority's December 15, 2021 Board Meeting.

Following the February 15, 2022 MSBA Board meeting that invited the City into the Feasibility Study Phase, the search for an Owner's Project Manager (OPM) began. The City selected Dore & Whitter Project Managers in March 10, 2022.

The OPM then worked with the Countryside Elementary School Building Committee and MSBA to select a designer. The RFS for designer services was issued on June 9, 2022 and proposals were received on July 7, 2022. The MSBA Designer Selection Panel selected DiNisco Design at the August 16, 2022 meeting of the MSBA Design Selection Panel.

A working group was established and comprised of representatives from SBC, School Department and City. This group meets with the project team regularly to ensure information is flowing appropriately and in a timely manner as well as ensure community engagement and other meetings occur as required.

The project team has met with Newton Public Schools including the Director of Special Education, had visioning session with the Countryside staff, conferred with the City's Parks & Recreation Department, Chief Environmental Planner, and transportation division to name a few. In addition, the project team and District visited the three new Newton elementary school projects to evaluate educational and design precedents and gather design ideas.

The Countryside School Building Committee has met six times since the full team has been in place:

- 8/23/2022 Building Committee Meeting
- 10/18/22 School Building Committee Meeting
- 11/15/2022 School Building Committee Meeting
- 12/6/2022 School Building Committee Meeting
- 12/20/22 School Building Committee Meeting
- 01/17/2023 School Building Committee Meeting

The presentation materials for each meeting, meeting minutes, and summary materials related to the Project are available electronically at https://www.newtonma.gov/government/public-buildings/capital-projects-investing-now-for-newton-s-future/school-projects/countryside

In addition, the City has continued to keep the community informed about the project. It has sent occasional meeting notices out to residents via direct emails to approximately 40,000 recipients, direct email to a few hundred residents who have signed up for the project listerv, and has sent certified letters to the abutters, and abutters to the abutters, of the Countryside School with the project and meeting information.

Project Directory

A project directory with contact information for representatives of all District stake-holders, Designer and OPM is included in the Appendix of this report.

Project Schedule

The current project schedule is as follows:

Countryside School Building Committee vote for Preferred Schematic:
April 25, 2023

Submission of Preferred Schematic Report: **April 27, 2023**

MSBA Facilities Assessment Subcommittee Presentation:
May 17, 2023 or May24, 2023

MSBA Board of Directors meeting for approval to proceed into Schematic Design:
October 26, 2023

Projected MSBA Board of Directors meeting for approval of Project Scope and Budget Agreement:
Anticipate to be December 13, 2023

Projected City vote for Project Scope and Budget Agreement: **March 2023**

A project schedule with key meetings and approval dates is included in the Appendix of this report. The current project schedule is to have the new school completed 2026-27.

2 EDUCATIONAL PROGRAM

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Week in the Life of Student

Countryside Elementary School Educational Program

Newton Public Schools
December 21, 2022

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Introduction

The Newton Public Schools (NPS) provides educational programs for students in grades preschool through grade 12, as well as post-secondary programs.

Mission of the Newton Public Schools

To educate, prepare, and inspire all students to achieve their full potential as lifelong learners, thinkers, and productive contributors to our global society.

Core Values

The following Core Values are guiding principles for the Newton Public Schools.

Excellence: We will

- Set high expectations and standards for all students and staff
- Educate the whole child by striving for excellence in academic, artistic, physical, interpersonal and vocational pursuits
- Inspire a lifelong love of learning in students and staff

Innovation: We will

- Be a recognized leader in education and curriculum development
- Foster inventiveness, open-mindedness, critical thinking, creativity and collaborative problem-solving in our students and staff
- Continuously assess and improve our teaching and learning

Respect: We will

- Create an environment where everyone feels known, safe, and valued
- Recognize the uniqueness and dignity of individuals of differing races, religions, classes, ethnicities, sexual orientations, learning styles and abilities (Statement of Values and Commitment to Racial Equity)
- Build upon the strengths of our diverse community

Responsibility: We will

- Foster an environment in which all students and adults take responsibility for their individual and collective behavior
- Create a culture of collaboration, collegiality and honest communication
- Cultivate citizens who contribute to and care about their community and the world

These values represent how we want to "live" within our school communities. Core Values are for children and adults to embrace, internalize, model and live by. They are an expression of what is deep and enduring in our school system.

Newton Public Schools System Wide Goals

This attached NPS System Wide Goals 2022-2023 document identifies the priorities of the Newton Public Schools for the 2022-23 school year. Our system-wide goals focus upon academic excellence, educational equity, and social and emotional wellbeing. The goal areas and related actions build upon the work of the 2021-22 school year and reflect the ongoing commitment to system growth and improvement to meet the needs of all learners. While goals are situated within separate categories, it is important to note that the areas of focus are interrelated and inextricably linked. Ensuring positive, productive, and fulfilling learning experiences for all students requires attention to a myriad of factors that create welcoming, inclusive, equitable, challenging, and engaging learning environments necessary for students to thrive.

Teaching Philosophy and Methods

Newton Public Schools provides a rigorous elementary educational program for students in kindergarten through grade five. Countryside Elementary School is a diverse school, with a growing population of English language learners, and has a strong sense of community and support, celebrating its uniqueness through curriculum, arts and ongoing community service involving students and families.

Countryside, similar to all Newton schools, embraces inclusion. It is a school where teachers collaborate to provide best practice instruction and proactive forms of intervention both in and outside the general education classroom. Teaming is central to how the Countryside School community collaborates, and a spirit of inclusive community is core to the culture of the school. Professional Learning Communities and Response To Intervention blocks of time are regularly scheduled at Countryside. Teachers meet weekly to assess data from formative assessments and to plan for lessons for Flexible Grouping Times.

Countryside has 3rd, 4th and 5th grade co-taught models staffed by a full-time general education teacher, a special education teacher and a full-time intern from a local university. This team works to differentiate instruction with a focus on reading strategies across the curriculum. Specialized 1:1 reading instruction and all other academic supports are delivered in the classroom environment requiring additional classroom space that minimizes pull out services.

The English Language Learner Program (ELL) consistently has approximately 40 - 50 students per year. Small groups of students meet with the ELL teacher several times a week both in and outside the classroom for direct English instruction.

The Newton Public Schools, including the Countryside Elementary School, has long been a participating district in the METCO Program. There are currently 20 Boston students at Countryside, with several new students enrolling in the program in grades K-1 each year, as 5th grade students move to middle school. These students and their families are fully included in the Countryside community.

Grade & School Configuration Policies

The Newton Public Schools provides educational programs for students in grades preschool through grade 12, as well as post-secondary programs. As of October 1, 2022, the system-wide K-12 enrollment was 11,721 students. In 2023-2024, the Newton Public Schools is projected to serve close to 11,700 students.

The fifteen elementary schools in Newton educate students from kindergarten through grade five; the four middle schools serve students in grades 6 through 8; and the two high schools serve grades 9 through 12. Students attend the Newton elementary and middle schools in their geographical neighborhoods.

Students at Angier, Countryside, Mason-Rice and Williams Elementary Schools feed into Brown Middle School and then to Newton South High School, with a small percentage (3-4%) of students from Mason-Rice going to Newton North High School.

Students at Bowen, Memorial-Spaulding and Zervas Elementary Schools feed into Oak Hill Middle School and then to Newton South High School.

Burr, Franklin, Horace Mann, Peirce and approximately half of Cabot Elementary School students feed into Day Middle School and then to Newton North High School.

Lincoln-Eliot, Underwood, Ward and approximately half of Cabot Elementary School students feed into Bigelow Middle School and then to Newton North High School.

The Newton Early Childhood Program (NECP) is a district-wide integrated preschool program which is currently located at 150 Jackson Road. This program will move to 687 Watertown Street (the former Horace Mann School) once the NECP construction project is complete in December of 2022. The NECP serves Pre-K students with special needs as well as typically developing children.

The Countryside School currently stands fifth in elementary enrollment size out of fifteen total elementary schools with an enrollment of 372 students as of October 1, 2022. The students at Countryside School proceed to grade 6 at Brown Middle School and then move to Newton South High School for grades 9 through 12.

There is no plan to modify the grade configurations as a result of the Countryside Elementary School project.

Class Size Policies

The Newton School Committee and the Newton Teachers Association recognize that class size is an important factor in quality education. Attempts are made to keep class sizes close to the guidelines listed below, recognizing that in certain cases, some classes may have higher enrollment:

Kindergarten through Second Grade 1 - 22 students

Third through Fifth Grades 1 - 24 students

No changes are proposed to the class size guidelines for the Countryside Elementary School as a result of this project.

Average class sizes for all Newton Elementary Schools and for the Countryside Elementary School as of October 1, 2022 are shown below.

Grade	Countryside ES Average Class Size	All NPS Elementary Schools Average Class Size
Kindergarten	19 students	18.8
Grade 1	16.3 students	19.7
Grade 2	22 students	20
Grade 3	18 students	19.5
Grade 4	21 students	20.2
Grade 5	23.3 students	21.1
Average for K-5	19.7 students	19.9

CLASS SIZE – 340 Student Enrollment

To maintain class sizes, it is strongly recommended that there be three classrooms per grade for kindergarten through grade 3 with two classrooms per grade in grades 4 and 5. The third classroom in grade 3 provides flexibility to be used as a bubble classroom for grades 3 through 5 when a larger than expected cohort occurs. The organization of the classrooms will be important to accommodate a class size that is larger than the typical class size. The proposed breakdown per grade based upon an enrollment of 340 students is shown in the chart below.

GOAL Class Size	K	1	2	3	4	5	Total
# Students (Average)	57	57	57	57	56	56	340
Average # students/class	22	22	22	24	24	24	
# of classrooms	2.59	2.59	2.59	2.37	2.37	2.37	14.88
Round for Total Classrooms / Grade	3	3	3	3	2	2	16

CLASS SIZE – 465 Student Enrollment

To maintain class sizes, it is strongly recommended that there be four classrooms per grade for kindergarten through grade 2 with three classrooms per grade in grades 3 through 5. The organization of the classrooms will be important to accommodate a class size that is larger than the typical class size. The proposed breakdown per grade based upon an enrollment of 465 students is shown in the chart below.

GOAL Class Size	K	1	2	3	4	5	Total
# Students (Average)	78	78	78	77	77	77	465
Average # students/class	22	22	22	24	24	24	
# of classrooms	3.55	3.55	3.55	3.20	3.20	3.20	20.25
Round for Total Classrooms / Grade	4	4	4	3	3	3	21

School Scheduling Method

The Newton Public Schools has articulated specific instructional time allotments for elementary core subjects, which include reading, writing, mathematics, science, social studies and social curriculum. Specialist programs both enhance the core program and provide contractual preparation time for classroom teachers. These time allotments per week for either enrollment of 340 students or 465 students are as follows and no changes are proposed:

- Reading - 300-450 minutes
- Writing - 120-200 minutes
- Mathematics - 275-350 minutes
- Science/Tech Engineering - 90-120 minutes
- Social Studies - 45-120 minutes
- Social Curriculum - 30 minutes
- Art – 45 minutes (K); 50 minutes (1-5); 55 minutes
- Music – 30 minutes (K-2, 4-5); 30 minutes including Recorder (3)
- Chorus – 45 minutes (4, 5)
- Physical Education, Health and Wellness - 60 minutes for 1-5 and 90 minutes for K
- Library – 30 minutes (K, 3-5); 45 minutes (1, 2)

The Newton School Committee recognizes the importance of providing adequate numbers of specialist teachers in both elementary and secondary schools. Elementary specialist teachers are defined as Art, Music, Physical Education, and Library-Media. These programs are a vital component of the complete educational program that are both a value and expectation of the Newton Public Schools to offer all students.

Article 43: “Elementary Preparation Time” of the collective bargaining agreement states that elementary teachers are entitled to a 30-minute duty-free and meeting-free lunch period. In addition, elementary classroom teachers are scheduled for a minimum of 180 minutes of preparation time per week.

The current specialist sections at Countryside Elementary are as follows:

- Art - Nineteen 45-55 minute blocks are taught by one Art teacher.
- Music – Nineteen 30 minute blocks of general music for grades K-5. Additionally, three sections of recorder for grade 3 and two 45-minutes sessions for 4th and 5th grade chorus, by one Music teacher. Fourth grade band lessons are taught by the music teacher and a part time educator comes to teach strings.
- Band or String - In addition to general classroom music and 4th and 5th grade chorus, students in 4th grade may elect to take an introductory band or string instrument. Instrumental lessons are small group, pullout lessons during the school day. Students in 5th grade or other grades who are already proficient on an instrument may elect to participate in the Countryside band or orchestra. The ensemble groups each meet once per week for 45 minutes. Chorus is compulsory for 4th and 5th grade students and is scheduled within the school day. The 4th grade chorus runs for 45 minutes, once per week and the 5th grade chorus runs for 60 minutes,

once per week. General music class meets once per week for grades K-2 and 4-5. The 3rd grade meets for 45 minutes and includes compulsory instruction on the recorder.

- Physical Education, Health, and Wellness - Thirty 30-minute blocks are taught per week for grades 1-5 with six 45-minute blocks for Kindergarten by one Physical Education teacher.
- Library/Media - The Countryside School Library is currently staffed for 4 days of the week. The Library/Media teacher instructs each class in grades K, 3, 4, and 5 for a 30-minute block every school week. Each class in grades 1 and 2 have a library class every week for a 45-minute block of time. Unscheduled times for Library Teachers are designated as flextime. Library flextime is designed to provide unscheduled blocks of time during the school day for collaboration between the library teacher and the classroom teacher, as well as time to manage the library collection.
- Instructional Technology - Instructional technology is integrated into the classrooms and is supported by an Instructional Technology Specialist who typically works with three elementary schools. The Instructional Technology Specialist works as an instructional coach supporting teachers in the use of technology to enhance teaching and learning. Currently, there are no designated classes or labs for the teaching of technology directly to students. Digital literacy skills are taught as part of the library curriculum and regular classroom curriculum.

Teaching Methodology and Structure

Newton Public Schools is committed to providing a rigorous educational program characterized by challenging academic content and engaging, relevant, and culturally responsive instruction. In alignment with our system-wide goals, every school is focused upon academic excellence, educational equity, and social and emotional wellbeing.

Countryside Elementary School is one of fifteen elementary schools in the Newton Public Schools, currently serving approximately 380 students in grades K through five in 19 classrooms. The students at Countryside include Newton residents and students from Boston who attend the Newton Public Schools via the METCO program. Fostering a safe, caring, and welcoming learning environment in which every child experiences a sense of belonging, challenge, joy, and engagement are key priorities at Countryside School.

A variety of programs and structures support the diverse learning needs of students. Teachers provide rigorous instruction aligned with grade level learning standards and work in collaboration with specialists and support staff to ensure student progress. Grade level teams routinely meet with math and literacy coaches to plan instruction, review student progress, and design interventions and enrichment opportunities for students. District level curriculum coordinators provide regular professional development to support teachers in building their content knowledge and pedagogy on an ongoing basis.

Supporting students' academic and social emotional growth is central to the work of Countryside School. Teachers collaborate to provide engaging standards-aligned instruction and timely, supportive interventions both in and outside the general education classroom. Classroom teachers work closely with their grade level colleagues to plan instruction, progress monitor, and design tiered interventions to support student growth and progress. Teachers consult with the Student Intervention Team (SIT), composed of the Literacy Specialist, Math Coach, School Psychologist, Social Emotional Learning Interventionist, and classroom teachers to brainstorm additional strategies and interventions to

implement within 4-6 week instructional cycles. The classroom teacher collects and shares data on the strategies implemented to monitor student progress and adjust support as necessary.

Every year, Countryside students include 40-50 English Language Learners of varied English proficiency and home languages, who learn alongside their grade level peers. Small groups of students meet with the ELL teacher several times a week both in and outside the classroom for direct English instruction.

Newton Public Schools has a long standing commitment to educating students with educational disabilities within the least restrictive environment. In keeping with this commitment, Countryside School includes students with educational disabilities within general education classrooms as much as possible. Individual Education Plans (IEPs) delineate the goals and programming for students with identified disabilities and services are thus, as the name implies, highly individualized.

One model of inclusion, however, is through co-teaching. The co-teaching model pairs a general education teacher with a special educator with a classroom of students, approximately ⅓ of whom have IEPs. At Countryside, co-teaching classrooms are offered in grades 3, 4, and 5. In the co-taught classrooms, the team works to differentiate instruction with a focus on reading strategies across the curriculum. Specialized 1:1 reading instruction and all other academic supports are delivered in the classroom environment requiring additional classroom space that minimizes pull out services. In addition to co-teaching, special educators provide specialized instruction through small group and individual instruction both in the general education classroom and pull-out settings.

NPS offers five district wide programs to provide learning cohorts and highly specialized instruction for elementary students with specific disability profiles. Countryside hosts one such district wide program, known as SPARK. The SPARK Program supports students with a primary educational disability of Autism or a Communication disability. The SPARK program ensures a supportive and cohesive, school learning environment for students who exhibit difficulties with social thinking, anxiety management, sensory and emotional regulation and academic performance related to their disability. The program is run by 2 special education teachers with collaboration and consultation by the general education teachers. SPARK also receives comprehensive consultation from a Board Certified Behavior Analyst (BCBA), speech language pathologist, psychologist, other related service providers as determined by the student's Individualized Education Program (IEP), and partners with experts in the field as appropriate. Goals are embedded in meaningful activities for students and centered around increasing skills and independence.

Countryside School engages in Professional Learning Communities (PLC). The school is organized in six teams from kindergarten through grade five. These teams include general education, special education and ELL teachers. They conduct the data cycle as a collaborative team to improve learning for all students in the grade level. The 60-minute PLC blocks support their ability to collaborate within the school day. The regularly scheduled 30-45 minute grade level intervention blocks provide direct instruction to small groups of students focusing on specific skill development in literacy and math. The teachers implement the Common Core standards, and the rigorous curriculum and assessment expectations set forth by the Newton Public Schools.

Flexible Grouping

General education teachers engage in flexible grouping methods to meet the instructional needs of their students and as determined by the professional learning communities. Grouping and regrouping methods take place weekly within classrooms and among grade level classrooms. General education, special education and ELL teachers collaborate seamlessly to provide tier one (general curriculum), tier

two (strategic intervention) and tier three (intensive intervention) in the inclusive environment. Pullout instruction is provided for students who require it, based on their personalized instructional needs within tier two and tier three programming. There is shared responsibility among the faculty for all students' success. Grade level classrooms are organized within common hallways and adjacent locations. Close proximity is critical in order to achieve the requisite communication and collaboration for flexible grouping methods in a grade level PLC team.

Below is an overview of the general elementary curriculum, methods and practices used by teachers. The curriculum remains the same for either enrollment of 340 students or 465 students.

English Language Arts / Literacy

There is explicit reading instruction in a variety of modes in every grade, continually engaging students at several distinct levels of challenge: an instructional level, just at the edge of the student's ability at that point in time, a challenge level offering harder material and an independent level using easier material to work on fluency and expression and to practice comprehension strategies. The curriculum and delivery method will not change with the “new” facility however there will be appropriate spaces to deliver the curriculum.

Specific instructional components at each grade level include:

- Primary: interactive read aloud, shared reading, guided reading, independent reading, and phonics / word study.
- Intermediate: interactive read aloud, shared reading, guided reading (including strategy lessons, book clubs and literature circles), independent reading, and word study.

There is an emphasis on independent reading and the development of a lifelong reading habit; this includes nightly reading by all students in grades 1 - 8 and accountability by teachers through reading logs and folders.

Explicit writing instruction - Writing Units of Study, Teachers’ College Reading and Writing Project; common writing prompts and scoring methods that include focused experiences in narrative, opinion, and informational, and both written and oral feedback from teachers:

- All grades: authorship experiences that emphasize conferring, revising, editing, publishing and celebrating creative efforts
- Intermediate: focus lessons on a variety of rhetorical and stylistic issues including specific narrative and expository techniques, planning and organizing, rich language, elaboration; serious examination of sentence structure and sentence boundaries; emphasis on writing as a tool to enhance learning and thinking in all subject areas

Assessment practices include:

- Screening and Benchmark assessments - Early Bird, and i-Ready, letter naming fluency, nonsense word fluency, and oral reading fluency, Benchmark Assessment System,
- Summative Assessments - Fundations Unit Tests, Newton Word Pattern Survey (phonics word lists);

Tier 2 Intervention includes:

- Targeted, skills-based interventions in phonemic awareness, phonics, fluency, comprehension, and vocabulary

Integration with Social Sciences and Science:

- Social Sciences and ELA Integrated Units of Study developed by NPS
- Science and ELA Integrated Units of Study developed by NPS;

Although most of the reading and writing instruction takes place within the classroom environment, smaller work areas are necessary to facilitate individualized instruction, both in 1:1 and small group settings. Areas inside and outside the classroom are preferred.

In support of literacy, a new or renovated building will house a Literacy Center which would serve many purposes. The space would be used for professional learning for teachers and assistants, and will provide an alternative location for specialized instruction for small groups or 1:1 intervention. The specialized materials used for literacy intervention would be stored in a centralized location to facilitate access by teachers providing RTI (Response to Intervention) services to students in classrooms and small group spaces. The collection used for literacy instruction would also be housed in the shared literacy center space to facilitate sharing the texts and materials across classes and grade levels.

Mathematics

Students learn mathematics in whole class, small group, and partner configurations. The curriculum includes a variety of hands-on activities and many materials that require storage space in each classroom. Often students are working with manipulatives at their desks or in common spaces such as on the rug or at larger tables. Several times per week students need access to an online program. For this they use their assigned iPads or Chromebooks.

Teachers often project the curriculum and student work using an interactive whiteboard or an ELMO system. This allows all students to be able to see the content, either from their desks or a common space in the classroom. The teachers need to be able to access the technology easily while circulating around the room to check in with students who are engaging with the curriculum. The objective of each lesson is to present students with a variety of experiences in math class where tasks consistently encourage high-level student thinking, synthesis and application. Some of these tasks require a lot of space and materials, such as building cubic meters with meter sticks and tape. Students need to be able to work in small groups with enough space to meet the demands of the task.

NPS uses the Investigations3 curriculum. This includes opportunities for numeracy work, core instruction, practice activities, extension activities, small group work, partner work, math projects and the use of spiral reviews. To foster the mathematical practice standards, teachers lead students in computational and conceptual conversations that stress problem solving, the use of multiple representations through mathematical modeling, and sharing of their ideas. Teachers differentiate lessons by addressing the gaps in student learning and offering adjusted activities that provide an enhanced study of the math concepts. For students who have been identified with intervention needs, a math enhancement block is available. Students with IEPs have their needs met with a combination of co-teaching and pullout services to support their learning.

Math coaches are responsible for supporting classroom educators with instructional practice. Most of the time coaches are working with students and teachers in the classrooms. They also require a separate office to store materials, meet with other educators such as English Language and Special Education teachers, and occasionally work with one or two students.

Math interventionists work with small groups of three to four students outside of the classroom. They need table space for the group that can also accommodate manipulatives that support the

mathematical concepts. They also use whiteboards to model the mathematics and the students use the boards to explain their thinking through annotation or drawing.

The curriculum and delivery method will not change with the "new" facility however there will be appropriate spaces to support delivery of the curriculum.

Science

Teachers implement a hands-on science and engineering curriculum. There are typically three units at each grade level. These units address standards for the following domains: life science, physical science, earth and space science, and engineering.

Instructional components include:

- Investigation - Pairs and groups of students work with a variety of materials to make sense of science phenomena.
- Demonstration - Teachers model science phenomena for the whole class.
- Observation - Students observe scientific models, and living materials, including crabs, butterflies, and wood frogs.
- Reading - Information texts are used to deepen understanding, through teacher read-alouds and paired reading.
- Recording scientific ideas - Students explain their understanding of scientific phenomena through writing, using drawn models to enhance their descriptions.

The materials for science investigations come in unit 'kits.' There are 3 curricular units (3 kits) per year that are stored in 4-8 large storage bins per classroom. Teachers will need space in their classroom to keep 1-3 bins for regular access for a given unit.

In addition to storage space, teachers and students need space to complete investigations. This requires a variety of physical spaces in the classroom including:

- a teacher demonstration area (large teacher or small group desk)
- table or shelf space for science materials set-up prior to distribution
- table space for multi-week observation of living animals (tadpoles, bugs, butterflies) or demonstrations (3-bottle system for water cycle)
- student desks that are flat so that materials that roll and liquids can be used
- adequate physical space to provide for safe movement with science and engineering materials (45 sq. ft. per student for elementary classrooms for science, as recommended by NSTA: Motz, Biehle, and West, 2007)

Additionally, in-classroom sinks are required for investigations at each grade level.

The curriculum and delivery method are not proposed to change.

Social Studies

Students engage in a history/social sciences curriculum that, wherever possible, integrates with the informational skills components of the new Mass Frameworks for English Language Arts (incorporating the Common Core Standards). It is important that there be wall space available for maps and educational posters/displays as well as ample storage capacity for books and other content materials. Classroom space to provide enough room for small group projects and whole class presentations is needed. The curriculum and delivery method will not change with the "new" facility.

World Language

Newton Public Schools does not offer world language instruction at the elementary level and this is not proposed to change.

Social/Emotional Learning

Responsive Classroom provides the underlying foundation of all that we do each and every day at Countryside for all grades. It is a nationally acclaimed approach to teaching and learning, which is founded upon the belief that the social curriculum is as important as the academic curriculum and that the best learning takes place when children live in a school environment that is kind, safe, respectful, and predictable. An area of the classroom is typically zoned for morning meetings and other similar functions. Our approach to social and emotional learning will not change in the "new" facility.

Academic Support Programs

ELL

There are currently 47 English learners enrolled at Countryside Elementary School who are supported by an ELL teacher and an ELL aide. The model is "push in" and "pull out" depending on a student's English proficiency. Students at the entering and developing stage need a designated ELL learning classroom. The curriculum and delivery method will not change with the "new" facility.

Literacy and Math Support

Although most of the reading and writing instruction takes place within the classroom environment, smaller work areas are necessary to facilitate individualized instruction, both in 1:1 and small group settings. Areas inside and outside the classroom are preferred.

In support of literacy, a new building will house a Literacy Center which would serve many purposes. The space would be the location of professional learning for teachers, assistants, and parents. In addition, the Literacy Center will provide an alternative location where teachers may utilize the space for specialized instruction for small groups or 1:1 intervention. The specialized materials used for literacy intervention would also be stored in a centralized location to facilitate access by teachers providing RTI (Response to Intervention) services to students in classrooms and small group spaces. The collection used for literacy instruction would also be housed in the shared literacy center space to facilitate sharing the texts and materials across classes and grade levels.

To support effective math instruction, math coaches work with classroom educators on instructional practice. Most of the time coaches are working with students and teachers in the classrooms. They also require a separate office to store materials, meet with other educators such as English Language and Special Education teachers, and occasionally work with one or two students.

Math interventionists work with small groups of three to four students outside of the classroom. They need table space for the group that can also accommodate manipulatives that support the mathematical concepts. They also use whiteboards to model the mathematics and the students use the boards to explain their thinking through annotation or drawing.

Ideally, each floor would include instructional spaces (small group rooms) adjacent to clusters of classrooms for small group lessons. Literacy specialists, math coaches, ELL teachers and special education staff would utilize the small group rooms.

Student Guidance and Support Programs

Social/Emotional Learning

Responsive Classroom provides the underlying foundation of all that we do each and every day at Countryside for all grades. It is a nationally acclaimed approach to teaching and learning, which is founded upon the belief that the social curriculum is as important as the academic curriculum and that the best learning takes place when children live in a school environment that is kind, safe, respectful, and predictable. An area of the classroom is typically zoned for morning meetings and other similar functions. Our approach to social and emotional learning will not change in the "new" facility.

METCO

The Newton Public Schools, including the Countryside Elementary School, has long been a participating district in the METCO Program. There are currently 20 Boston students at Countryside, with several new students enrolling in the program in grades K-1 each year, as 5th grade students move to middle school. These students and their families are fully included in the Countryside community.

Countryside Children's Center

The Countryside Children's Center (CCC) is the extended day program at Countryside. It currently uses the room behind the gym, the gym and cafeteria for their extended day programs which serve more than 100 students each year.

Teacher Planning

Article 43: "Elementary Preparation Time" of the collective bargaining agreement states:

> Each elementary teacher will be scheduled for a minimum of 180 minutes of preparation time per week (during the regular school day), which is to be scheduled in meaningful units, pro-rated by FTE. Given the minimum scheduled preparation time of 180 minutes per week, elementary teachers will receive a minimum of 30 minutes of duty-free preparation time (excluding their duty-free lunch time) for three (3) days per week, and the Committee will make reasonable efforts to continue providing, subject to economic factors, a minimum of 30 minutes of duty-free preparation time (excluding their duty-free lunch time) on two (2) additional days per week for a total of five (5) days per week."

Teachers provide rigorous instruction aligned with grade level learning standards and work in collaboration with specialists and support staff to ensure student progress. Grade level teams routinely meet with math and literacy coaches to plan instruction, review student progress, and design interventions and enrichment opportunities for students. District level curriculum coordinators provide regular professional development to support teachers in building their content knowledge and pedagogy on an ongoing basis. As noted, elementary classroom teachers are scheduled for a minimum of 180 minutes of preparation time per week.

Existing support and teacher planning spaces are either non-existent, or undersized, throughout the school. Offices for support staff either don't exist, are shared by multiple specialists, or are in sub-optimal locations. General education teachers often remain in their classroom during their planning / preparation time.

Although there will be no changes to the teacher planning time in a new facility, there will be multiple spaces within close proximity to classroom neighborhoods for teacher planning, collaboration, and to support small, flexible group work spaces. The spaces will be designed to accommodate project-based learning, with optimal acoustics to allow for privacy, and flexible furniture to support all students. This would support and promote collaboration, communication and flexible groupings. Having small group rooms in the neighborhood would also promote our sense of inclusion. The classroom spaces in each neighborhood would offer flexibility for project-based learning.

Classrooms across grades provide inclusion for students with special needs so it is critical to provide small quiet working areas within these classrooms to meet the educational needs of the inclusion and integrated students.

In a new facility, there should be enough special education spaces which would be large enough for teacher planning, testing, consultation, and small group instruction. The special education teaching spaces should be centrally located on each academic floor for easy access. A school for 465 students will require two learning centers to meet the needs of the students.

Pre-Kindergarten

The Newton Early Childhood Program (NECP) is a district-wide integrated preschool program. NPS believes that an inclusive education provides all children with the opportunity to learn with and from each other. All children gain valuable experiences in an environment where children are different in their abilities. Our curriculum is based on the Massachusetts Department of Education Guidelines for Preschool Learning Experiences and Massachusetts Department of Education Guidelines for Social and Emotional Learning, and Approaches to Play and Learning, with play as an important vehicle for learning both early academics and social skills. We believe our inclusive program builds a lifelong foundation for respecting human differences, compassion, empathy and kindness.

Each preschool class is staffed with a Masters level teacher and two to four teacher assistants. In addition, speech and language pathologists, occupational therapists, physical therapists and behavior therapists are involved in our classrooms. Our professional staff also includes board certified behavior analysts (BCBAs), vision and mobility specialists, a school psychologist, a social worker, a school nurse, and a physical education teacher.

NECP is currently located at 150 Jackson Road. This program will move to 687 Watertown Street (the former Horace Mann School) once the NECP construction project is complete in December of 2022. There are no proposed changes to the NECP curriculum as a result of the Countryside Elementary School project.

The NECP program currently includes:

- 2 Integrated Classrooms 8:30-1:30 four days/week & 8:30-12:00 Wednesdays
- 2 Integrated Classrooms 9:00-2:00 four days/week & 9:00-12:00 Wednesdays
- 7 Integrated Classrooms 9:00-12:00 Monday-Friday
- 2 Non-Integrated Classrooms 8:30-2:30 three days/week, 8:30-2:00 one day/week, & 8:30-12:00 Wednesdays

For community peer tuition students who are enrolled in some of the 9:00-2:00 programming, the afternoon time offers small group instruction (typically 8-9 students in total) with a focus on social skill development and/or academic intervention. Community peers benefit from the small group instruction

while supporting students with special needs as peer models. It is important to note that your child's 12:00pm-2:00pm group teacher and classroom location may be different from their 9:00am-12:00pm morning classroom (NECP staff facilitate the transition between classes if necessary), and NECP does have two 9:00am-2:00pm classrooms that are a full enrollment (16 student) placement for the whole classroom time.

Kindergarten

Newton Public Schools offers full-day Kindergarten at each of the elementary schools. The curriculum is the same as grades 1 through 5 and is addressed within the curriculum as stated above in the Teaching Methodology and Structure section. There are no proposed changes to the Kindergarten curriculum for an enrollment of 340 students or 465 students

Lunch Programs

The original Countryside building did not have a cafeteria, as students typically went home for lunch when the building was built. In 2009, the auditorium was converted to a cafetorium by removing the seating and leveling the floor. A retractable wall was installed to separate the back part of the auditorium for use as a cafeteria. The retractable wall is moved if use of the whole auditorium is needed. This means that everything in the cafeteria must be mobile so that it can be easily moved out of the way when needed. A small, inadequate warming kitchen is located across the corridor from the cafetorium. This kitchen has older equipment and limited space to expand food options for students beyond basic heat and serve capacity.

Whitsons Culinary Group currently provides food service. Meals are delivered daily because there is no freezer and only limited refrigerator space. Food is heated in an oven across the hall in the small kitchen and then kept in a warming cabinet. Six lunches are served each day, except Wednesday, when the students are dismissed at 12:20, and eat lunch at home. Lunch service begins at 11:30 a.m., with the last lunch concluding at 1:40 p.m. Lunch shifts are organized by individual grade level. Each grade level uses the upper cafeteria to eat in 20-minute intervals. The current location of the cafeteria space is inadequate in terms of space and sound issues.

In the new facility, the size of the cafetorium should accommodate a minimum of two grades eating at a time, for three seatings per day. To fully support the food service program, the kitchen should be adequately sized to accommodate a full-service kitchen as well as serving lines for approximately 115 students with an enrollment of 340 students or approximately 155 students for a student enrollment of 465 at each seating. It is anticipated that a stage will be included in the cafeteria for school performances, assemblies, and other programs. The increased area will allow lunch to be reduced to three seatings and with an appropriately sized and equipped kitchen, food quality would improve and lunch delivery would change so that it aligns with the district's elementary food service program.

Technology Instruction Policies & Program Requirements

Technology Integration

Countryside School currently offers the following instructional technology:

- Every classroom is equipped with:
    - Document Camera

- LCD Projector (Grade 5 classrooms have interactive SmartBoards or Interactive Projectors)

- Students are provided devices for use during school according to the following model:
  - Kindergarten: 1 iPad per 2 students
  - Grades 1 and 2: Fully 1:1 with iPads
  - Grades 3-5: Fully 1:1 with Chromebooks

- Additionally, printers are scattered throughout the building to provide access to printing for both teachers and students. There is approximately one printer in each hallway/wing of the building for shared use.

Technology has become an indispensable component of the learning environment. Technology is used to improve student access to content and learning, provide project-based learning experiences, enhance and diversify methods students use to demonstrate their understanding, and build student digital literacy skills so they can become more self-directed learners in our digital world. A wide variety of software is used by teachers on a regular basis including, but not limited to, Google for Education, BrainPop, Newsela, Seesaw (grades K-2), ST Math, PebbleGo, and SORA. Teachers, as part of their Professional Learning Communities, also use technology to collect and analyze student assessment data.

Given the reliance on technology for instruction, it is imperative the network infrastructure in the school is reliable and robust to support 100s of simultaneous connections without interruption.

There is an *Acceptable Use Policy* for students and staff in the district. All staff members participate in an annual, mandatory training regarding the district policy. All students receive instruction in the *Acceptable Use Policy* during the first two months of the school year.

Library / Media Center

Students meet in library class once every week:
- Grades K, 3, 4, and 5 for a 30-minute block
- Grades 1 and 2 for a 45-minute block of time.

The library serves as an information hub for research and learning about both print and digital resources. During library class students learn research skills and digital literacy skills following a district led curriculum. Newton Public Schools belongs to the Massachusetts State Library System (MSL), allowing students access to online resources such as the Commonwealth eBook program (SORA), Encyclopedia Britannica and the Gale Databases. Each K-5 school in Newton also has a subscription to PebbleGo, PebbleGo Next, BrainPop and TumbleBooks through the library.

The Countryside library has about 9,000 books in its collection that are made available to students, staff and families. A portion of class library time is devoted to students selecting and checking out books on a weekly basis to promote interest in reading.

Technology: Instructional Model

Instructional technology is integrated into the classrooms and is supported by a full-time Instructional Technology Specialist who typically works with three elementary schools. The Instructional Technology Specialist works as an instructional coach supporting teachers in the use of technology to enhance teaching and learning. Currently, there are no designated classes or labs for the teaching of technology

directly to students. Digital literacy skills are taught as part of the library curriculum and regular classroom curriculum.

In the “new” facility all classrooms will have some type of presentation technology (projector and white board) and document cameras. In addition, sound reinforcement technology will be in every classroom, with assisted listening devices with the ability to connect to student hearing devices.

Visual Arts Program

The Newton Public Schools has a vibrant visual arts program. Within the week, all students at Countryside take one 45-55 minute visual art class. The curriculum and delivery method will not change with the “new” facility including the use of a kiln. The 1999 modular classroom is currently being used as an Art Room.

The new art room must be equipped to provide all students with a rigorous, varied, and exciting art education in a variety of high-quality media and with many possibilities for interdisciplinary connection. Ample storage spaces must be provided for flat works on paper or canvas as well as three-dimensional mixed-media sculpture. A clay storage area and well-ventilated kiln and glazing area are required, separate from the areas storing paper or flammable liquids. NPS is well versed with the use of kilns at the elementary school level. The new school will have the proper safety measures to accommodate the art curriculum including the kiln and materials. The kiln will have its own designated room.

The art room must have ample natural light as well as wall space for a projector, whiteboard, and bulletin board surfaces for displaying exemplary student work and additional relevant works of art. Sinks of varying height (suited to a variety of age ranges) must be provided – three to four sinks would be ideal. Cabinets, countertops, drying racks, and storage cubbies must be provided to store the work of hundreds of students as well as all of the supplies to serve the whole school.

Music / Performing Arts Programs

The Newton Public Schools has a vibrant performing arts program. Within the week, grades K-2 and 4-5 take one 30-minute general music class, 3rd grade has one 45 minute class, and 4th and 5th grades take chorus for 45 and 50 minutes each week. Instrumental music lessons (band and strings) are available for students in 4th grade in weekly 30-minute group lessons. The school also provides Band and Orchestra ensembles for grade 5 students and others for one 45-60 minute rehearsal per week. One large music classroom accompanied by one smaller instrument storage room/small group lesson space is desirable to support the music program. The large classroom should provide ample open floor space for dance and movement activities as well as risers for organized seating/standing for singing activities.

Countryside hosts a variety of music concerts (choral and instrumental) throughout the school year. The students perform in an annual variety show or musical theatre production. A cafetorium with an ample stage is preferred to support music and performing arts programs. Steps or risers between the floor and the stage are desirable for preventing the need to move risers from the music classroom. A cafetorium also allows for the stage to be used for music/performance rehearsals before and after lunch as well as for school wide performances and presentations held for students and parents throughout the year.

The curriculum and delivery method will not change with the “new” facility.

Physical Education Program

All students, K-5, participate in instructional, quality physical education programs twice a week, for 30 minutes each class. The curriculum is presented in accordance with the Massachusetts Frameworks and the National Standards for Quality Physical Education, however, still falls short of the recommended time for physical education in elementary schools, which is 225 minutes per week. Adapted Physical Education classes meet once a week in the gymnasium and one-on-one support services within the classroom are provided once a week. The current gym is significantly undersized; a full size gymnasium is needed to fully support the health and physical education program.

In support of the importance of physical activity as a major necessity for student learning, the district requires that all elementary students participate in recess in its state enforced Wellness Policy. The gym should be located to connect directly to outdoor play and recreation space.

The curriculum and delivery method will not change with the "new" facility.

Special Education Programs

Philosophy and Approach: An inclusive education helps prepare students with and without disabilities for life and good citizenship.

The goal is for students to make effective progress within an environment that is supportive and welcoming. This is achieved through collaboration among families, administrators, general education teachers, special education teachers, and related service providers. Providing special education services mainly within the general education setting is called Full Inclusion of the IEP.

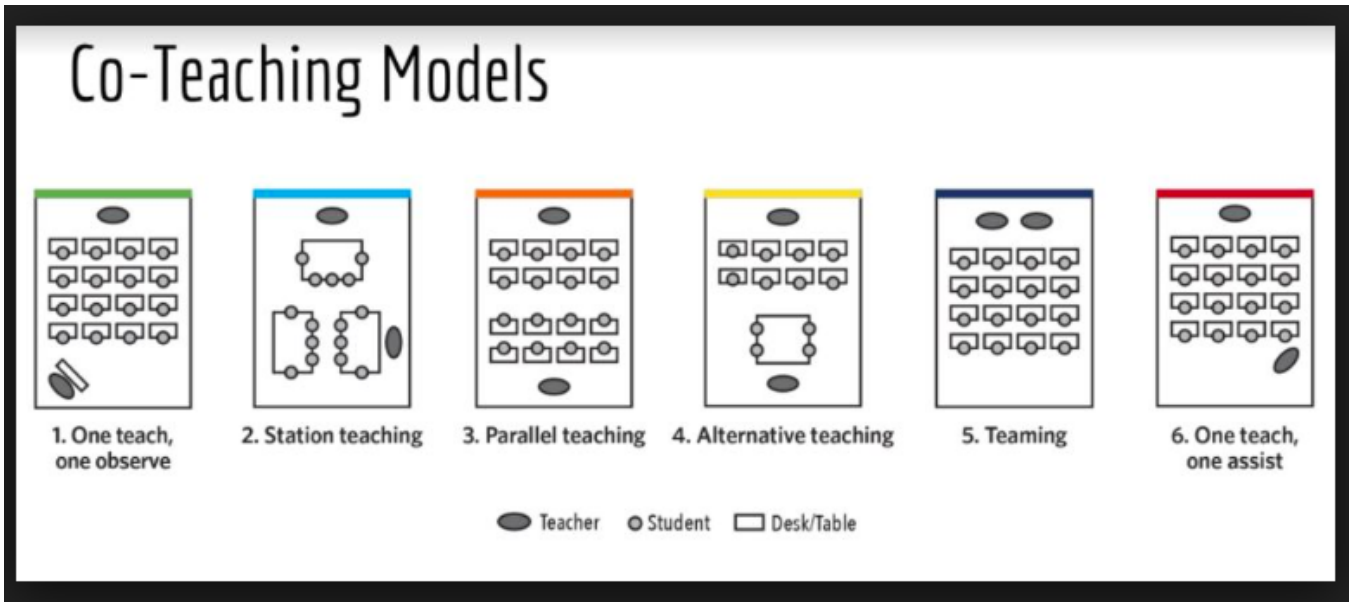
Newton Public Schools (NPS) has a long-standing commitment to educating students with educational disabilities within the least restrictive environment (LRE). This commitment has blossomed over many years into something NPS feels is woven into the fabric of our school communities. Including students with educational disabilities is most successful when school and families and caregivers can collaborate.

This educational model challenges schools to meet the needs of all students by educating learners with disabilities alongside students who do not have identified educational disabilities. The environment necessary to nurture and foster inclusion is built upon a shared belief system between general and special education, and a willingness to merge the talents and resources of teachers.

The mission of all of the schools in Newton is to maximize the potential and independence of each student. An inclusive education helps prepare students with disabilities for an integrated adult life and builds understanding and acceptance within the broader community.

Staffing Patterns

NPS strives to include students with disabilities into the general education classrooms as much as is possible to afford effective progress. One way in achieving this is through co-teaching. Co-teaching can occur in many forms and may include a combination of general education teachers, special education teachers, teaching assistants, and behavior therapists. This can vary between the preschool, elementary, and secondary levels, and can also vary based on the content being delivered. In the field, co-teaching is generally understood to have six basic models. NPS uses these models fluidly, in some form, in all of the schools.



The staff that provides special education services includes special education teachers, inclusion facilitators, aides, behavior therapists and related service providers such as school psychologists, social workers, speech/language pathologists, occupational therapists and physical therapists. In many cases these positions are shared among more than one school, but together they represent a team-based approach to supporting students and families in need at the elementary level in Newton.

Related Services

Related services encompass specialized services from licensed professionals in particular domains. These related services are designed to support skill building necessary for effective access to educational experiences within the life of the school and are provided to students who require this specialized intervention to access their curriculum. Providers effort to provide services within the classroom as much as possible and will pull children out of class only when necessary to provide the needed interventions.

A full list of related service domains are listed below:

Adapted Physical Education (APE)
APE services are for students who need specialized instruction to access the general education physical education curriculum.

Applied Behavior Analysis (ABA)
ABA services are for students who present educational and behavioral needs that benefit from highly structured instruction and interventions inclusive of systematic individualized instruction (e.g. discrete trial training, natural environment training, comprehensive behavior support plans). Applied Behavior Analysis (ABA) is a scientifically validated method to teach a variety of skills and to address challenging behavior. A Board Certified Behavior Analyst (BCBA) provides services and consultation to students and the student's IEP Team and direct service delivery is provided by a behavior therapist, a special education aide with specialized experience and training who implements ABA methods under the direction of a BCBA.

Assistive Technology
Assistive technology must be considered in conjunction with the student's IEP and, when recommended, must support IEP goals and objectives. Assistive technology consultation or assessment determines what is educationally needed for a student to make effective progress as part of FAPE. To determine which device and/or strategy will be the best fit for the student the Assistive Technology Specialist follows the SETT Framework, reviewing the student need, their environment and the tasks they are asked to do in their educational setting to choose the appropriate tool for them.

Counseling Services
Counseling services are for students who have identified social-emotional or mental health needs that interfere with the student's ability to access their education. Services may include individual or group counseling, consultation with teachers, parents and outside providers. Services are provided by social workers, school psychologists, school counselors and counseling interns.

Music Therapy
Music therapy services are provided to assist students in accessing the curriculum. Individual and group music therapy sessions are provided based on student need. Music therapy services are provided through consultation, one-on-one, small group and in-class formats by a music therapist.

Physical Therapy (PT)
Physical therapy services are for students whose physical disabilities interfere with their ability to access their educational program and environment, including students with motor and/or functional limitations caused by neurological or orthopedic impairments. Physical therapy services are provided in consultation, one-on-one, small group and in-class formats by physical therapists.

Occupational Therapy (OT)
Occupational therapy is a related service for students who qualify for special education services. Occupational therapy services promote the development of motor, play, social and adaptive abilities of children who experience a wide range of challenges. The OT evaluation provides information to assist the team in creating an appropriate educational plan to support the student's school participation. Occupational therapy services are provided through consultation, one-on-one, small group and in-class formats by registered occupational therapists (OTR) and/or certified occupational therapy assistants (COTA).

Services for the Deaf and Hard of Hearing
Deaf and Hard of Hearing services are for students who have a diagnosed hearing loss. Deaf and Hard of Hearing services provide students with equal access to all communication, learning, and social activities in the school setting. Deaf and Hard of Hearing services are provided in consultation, one-on-one, small group and in-class formats by a staff of specialists for the deaf and hard of hearing, teachers of the deaf and hard of hearing, sign language interpreters, captionists, signing aides, and classroom aides, as well as a consulting educational audiologist.

Services for the Visually Impaired
Vision and Orientation and Mobility services are for students who have diagnosed vision concerns. Vision and Orientation and Mobility services provide students with Braille literacy instruction, use of assistive technology, transportation access, community, vocational and academic access, and skills of daily living. Vision and Orientation and Mobility services are provided in consultation, one-

on-one, small group and in-class formats by a teacher of the visually impaired (TVI) and an orientation and mobility provider.

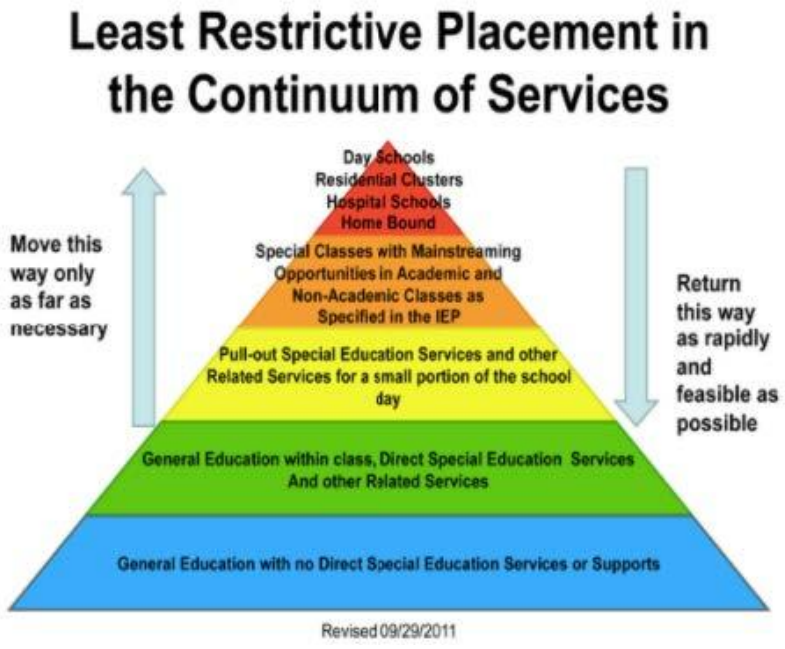
Speech and Language Therapy

Speech and language services are for students whose education is adversely affected by communication difficulties. Treatment can be provided to eligible students who have language, pragmatic, voice, fluency, articulation or augmentative/alternative communication needs that directly impact their ability to access the curriculum. Services are provided by Speech and Language Pathologists (SLP) and Speech and Language Pathology Assistants (SLP-A).

Continuum of Services

Within the continuum of services, we identify the level of special education services needed and customize based on individual needs. Among these designators are full inclusion services, partial inclusion services, and substantially separate services. Although NPS supports the Least Restrictive Environment (LRE), services and support can be provided both within and outside the general education classroom. The nature of this support varies and is specific to a student's needs.

While NPS is deeply committed to supporting students within the least restrictive environment, the district also recognizes that a small percentage of students may need more intensive support during part of their school day. Adding more intensive supports or more restrictive supports may cause the students IEP services to be delivered outside of the general education classroom for part of the day (called partial inclusion on the IEP) or sometimes most of the day (called substantially separate on the IEP). This type of service delivery can be supported through the assigned neighborhood school or supported by a citywide program. The location of the services is proposed by the IEP team. Please review the diagram below to see how inclusive education works within the least restrictive environment.



The full list and descriptions of the citywide special programs is attached to the Educational Program.

The following description responds to the specific special programs at the Countryside Elementary School.

The percentage of students in the district and at Countryside School with an IEP is between 17-19%.

Aligned with NPS' approach to special education, students at the Countryside School are supported through a variety of teaching models - co-teaching, team teaching, flexible grouping, small group instruction, and individualized instruction. Teachers believe that all learners should be provided differentiated forms of instruction and recognize that all students learn in different ways, rates, and timeframes. To that end, the Countryside School continually adapts its staffing support, instructional methodologies, and assessment practices to meet student needs.

Tiered levels of instruction provide the regular education foundation of Countryside School's continuum of service model. Countryside Staff provide tiered levels of instruction to all students (Tier One - the general classroom curriculum; Tier Two - strategic levels of instruction; Tier Three - intensive levels of instruction usually at an individualized level.) If a student demonstrates academic and/or social/emotional/behavioral concerns despite thorough RTI procedures, the teacher refers the student to the building Student Support Team. This Team supports teachers in implementing additional strategies.

Special education services at Countryside School range from the least restrictive (for example, in class support services) to more restrictive (significant amount of multiple services out of the regular education classroom). Countryside School offers rooms available for pullout small group and individual instruction provided by special education teachers and inclusion facilitators who support inclusion for students with significant disabilities. Related service providers include speech/language pathologists, an occupational therapist, a physical therapist, a psychologist, and a social worker. Teachers of deaf/hearing impaired students and vision-impaired students also support students with these disabilities in accessing the curriculum.

The Countryside School utilizes the co-teaching model in grades 3-5, taught by a special education teacher and a regular education teacher, to support students with special needs. These classrooms include regular education students and students with special needs enrolled at Countryside. Students with special needs are supported academically and socially through small group and individual teaching, modifications of the curriculum, and classroom accommodations. The goal of the program is to address students' multiple needs by providing a comprehensive range of services and a consistent, structured, and nurturing environment throughout the school day.

Special education learning spaces should be situated among regular education classrooms. The location of the classrooms should allow staff to communicate and collaborate fluidly throughout the day on student needs and programming. The number of students in these classrooms is monitored to ensure that a lower class size is maintained in order to allow the flexible learning requirements of the students.

In support of the special education services Countryside currently has one Special Education teaching space. The students with a moderate level of special needs who require this service account for over approximately 18% of the total student body. Two Special Education teaching spaces will be required to accommodate the student population of either 340 or 465 students.

Two Speech & Language Pathologists (SLP) currently work at the Countryside School. Looking ahead to

a new consolidated school, there will be a need for dedicated space for Speech and Language.

One Team Specialist works at the Countryside School. The Team Specialist leads special education team meetings, supervises special education staff and organizes all mandated documentation associated with special education services. Looking ahead to a new school, there will be a need for one (1) Team Specialist which will require a dedicated office space as well as require conference space for Team Meetings of staff and parents in a confidential location near the SPED Leadership Team.

One Psychologist works at the Countryside School. The school psychologist at the new school would require a private office for testing and meeting with families and should be adjacent to the administration and team meeting conference space. To ensure confidentiality and privacy, related service providers require individual spaces in the new school.

Countryside elementary school also employs a BCBA who provides services and consultation to students and the student's IEP Team and direct service delivery is provided by a behavior therapist, a special education aide with specialized experience and training who implements ABA methods under the direction of a BCBA. A dedicated office located near the Team Specialist is required.

Countryside Elementary School serves the SPARK citywide special education program. This is strategic positioning for this program, as students from Countryside move up to the Brown Middle School where the SPARK program is located for grades 6-8.

Ages/Grades Served	K-5
Student Profile	The SPARK Programming supports students with the primary educational disability of Autism or a Communication disability with deficits in social pragmatics, communication and social interactions. Students present with a variety of challenges including anxiety, social thinking, self awareness and executive functioning, as well as sensory and emotional regulation. In addition, students' learning may not be at grade level, and their needs are best met in a smaller separate classroom, or in a partial inclusion environment.
Program Offerings	The program is supported by a special education teacher in partnership from general education teachers. SPARK also receives comprehensive consultation from a Board Certified Behavior Analyst (BCBA), speech language pathologist, psychologist, other related service providers as determined by the student's Individualized Education Program (IEP). SPARK provides an educational experience for students within both separate and inclusive instructional settings which are individualized for each student. The team works collaboratively with the student, family, general education teacher, specialists, IEP team members, and community based therapeutic providers to determine how to provide meaningful and consistent supports across settings.
Program Description	The SPARK program ensures a supportive and cohesive, school learning environment for students who exhibit difficulties with social thinking, anxiety management, sensory and emotional regulation and academic performance related to their disability. Goals are embedded in meaningful activities for students and centered around increasing skills and

	independence. These skills are consistently being modeled, monitored, and explicitly taught about flexibility, perspective-taking, and self-advocacy. The SPARK program works collaboratively with all team members to build upon the student's strengths in order to enhance academic and social progress.
Scope of Program	All academic content areas can be provided in a substantially separate or partial inclusion setting as needed. Within the SPARK classrooms, students access the curriculum in a small, supportive environment that focuses on the development of social pragmatics, social skills, sensory and emotional regulation and executive functioning skills. The small group setting allows for pacing of instruction to be flexible and meet individual student needs. As students increase their level of independence they can access more inclusion services and opportunities. Inclusive Practices and Opportunities The continuum of instructional opportunities allows the TEAM to make the least restrictive decision while still offering a therapeutic program. Each student is connected to a general education teacher and classroom where students are able to access academic, specials, and social opportunities. These opportunities are tailored to the individualized student needs.

The last Tiered Focused Monitoring (TFM) (formerly Coordinated Program Review) was April of 2022. There were no issues or problems identified at that review. The SPARK program at Countryside was created after the TFM and therefore it did not appear in that write up.

At this current time there are no additional programs to be addressed with this project.

The programs and services identified above will continue at the "new" Countryside School and no other programs or services will be moved from within the District as a result of this project.

Vocations and Technology programs

There are no vocation or technology programs being offered at the Elementary School level.

Core Academic Space Narrative

Please see the "Teaching Methodology and Structure" section above and the attached "Day in the Life of Student" and "Week in the life of Student" charts for detailed descriptions of core academic educational activities that take place both inside general education classrooms as well as activities that are intended to take place outside of the general classrooms.

Transportation Policies

The Newton Public Schools transportation department is committed to ensuring students are transported safely to and from school. Students typically arrive at school in one of three ways – walk, bike, or bus. In addition, some families choose to drive students to school.

Newton Public Schools provides bus transportation free of charge for all K-5 elementary school students and for 6th grade middle school students who reside more than two miles away from school. Students in grades 7-12 and 6th grade students who live less than two miles from school pay a fee of $350 to ride the bus. There is a family cap of $700, and families may apply for a fee waiver based on

financial hardship so that no student is denied bus transportation. Special education transportation services are separate from regular bus transportation.

Countryside Elementary School currently has three district buses and one Boston bus for students in the METCO program, as well as one district van. Students who are bused are dropped off in a live, bus drop-off lane between 7:50 a.m. and 8:10 a.m. daily. Monday, Tuesday, Thursday and Friday, school dismisses at 2:50 p.m. and on Wednesdays, school dismisses at 12:20 p.m. due to weekly professional development for teaching staff. The school staff provides safety and supervision on the school property during arrival and dismissal times. The city Police Department provides two crossing guards in the vicinity of the school at the intersection of Dedham Street at Woodcliff Road and at the intersection of Dedham Street and Walnut Street.

Functional & Spatial Relationships and Key Programmatic Adjacencies

Functional and spatial relationships and adjacencies are key to the successful design of the new facility. These relationships between classrooms and programs in the school define the programmatic, functional, spatial, and environmental requirements of the educational facility and become the basis for the design at the next phase. Countryside School depends on adjacencies for communication, collaboration, flexible grouping, and teaming. Providing learning areas both in and outside classrooms for small group work, individual tutorial spaces, and additional instructional break out rooms are critical in a school with a focus on universally designed classrooms, requiring specialized instruction and an emphasis on inclusive practices.

Community is a core value among students, staff and parents. Countryside School is a warm and inviting place for children, staff and families. The PTO and parent volunteers are actively involved in before, during and after school programs. Countryside requires a welcoming main office and community arrival space that accommodates the high morning influx of families who walk or get dropped off by parents at school arrival, as well as the active dismissal procedures. The students, faculty and parent community value and require a space for the entire school to gather, both as a common space to gather and celebrate learning and as an area to spotlight the arts through assemblies and performances. A functional dining facility with a reasonable capacity is a need of the school. After school, we provide space for a K-5 extended day program that operates until 6:00 p.m. Up to 100 students participate in this program on a regular basis Monday through Friday.

The Countryside School is a relationship-oriented community that practices and values inclusive partnerships and mutual support in all aspects of the school community. This is the overall spirit of the school that will drive the design of the facility.

Security & Visual Access Requirements

The Newton Public Schools have robust safety and security systems and protocols in place to maintain secure buildings and safe school communities. The district works very closely with our city partners - Newton Fire, Police, and Health and Human Services - on prevention, preparedness and response to a wide range of scenarios.

Recent Safety Updates

From 2018 to 2019, the Newton Public Schools safety team worked in partnership with the Newton Fire Department, Newton Police Department, the Newton Teachers Association and the City of Newton to update the district-wide emergency operations plan. The team worked closely with Preparedness

LLC, a nationally-recognized security and risk assessment firm, to review the existing emergency operations plan and update it to reflect current requirements and best practices for school safety.

The updated, research-based emergency operations plan provides guidance to administrators and staff for the most foreseeable types of emergencies. Importantly, the plan includes not only pre-existing protocols for evacuation, shelter-in-place, and lockdown, but added a specific "hostile event" response. The plan incorporates an options-based response to an active shooter scenario, similar to the well-known ALICE Protocol (Alert, Lockdown, Inform, Counter, Evacuate), as well as research-informed learning from analysis of real active shooter events. New tools, including online and hard copy handbooks as well as classroom posters, were developed to guide staff and students in the event of an emergency.

In addition, grants from the federal government have allowed the Newton Public Schools to implement additional security and safety improvements, including updating shades on classroom windows, locks on classroom doors, and keyless entry to buildings for staff. A two-year grant to the Newton Police Department, called Secure our Schools, funded security cameras at our high schools, as well as replacement of exterior doors, and installation of emergency and exterior lighting. An additional grant has also allowed cameras to be installed at our four middle schools, as well as in our new elementary buildings and in key external areas at other schools as needed. NPS continues to work closely with the police department on this type of safety and security measure.

NPS Safety Teams

The Newton Public Schools organizes safety teams at each of our school buildings and at the district level to prepare for and coordinate response to crisis situations and other emergencies. The district safety team is responsible for updating and disseminating emergency policy and procedures, training materials, and assembling to determine a course of action in times of citywide crisis. The team meets monthly and includes representatives from the different school levels and roles, school nursing staff, as well as the Newton Police Department, Newton Fire Department, NPS psychology department, and other school and community-based mental health professionals.

Each individual school also has a safety team that includes administrators, teachers, and other staff from that school. The team meets periodically throughout the year to review procedures and plan for emergency response. The school safety teams also are convened as needed to evaluate and respond to challenging community situations, plan next steps and offer support to children, parents, and staff. The district safety team offers resources for school-based safety teams to refine their practice, and also supports specific school teams with resources and staffing as needed in the event of a crisis.

Safety Training and Drills

The district has established protocols for addressing a range of crises and emergencies. Each fall, new school leaders are trained in district-specific safety procedures, and all school leaders participate in a refresher training with specific areas of focus for the year. School staff are trained annually in emergency procedures at each school to ensure that all educators, as well as support staff, are prepared to handle any emergency. Each school has supplemental emergency procedures specific to its site and facilities that are part of the annual training. In addition, staff review the emergency procedures poster that is posted in every classroom, as well as the entire emergency operations plan document which is available to all staff as a part of our internal emergency preparedness resources.

Each year, staff and students in all schools practice the full range of drills for our emergency

procedures and protocols. As is done for all safety drills, the practice is tailored to grade levels, using developmentally appropriate language and discussion topics. Scripts are provided for classroom teachers that provide specific examples of developmentally- appropriate language to use in explaining the purpose and procedures of each day. Drills each year include evacuation, shelter-in-place/lockdown/hostile event, and bus evacuation drills.

Most NPS schools complete a full series of these drills in one day as part of an annual safety day in the fall, with a focus on the continuum of response to a safety event and the importance of coordination and communication. In addition, our school nurses also organize drills for our internal Medical Emergency Response Teams, who practice how to respond to a non-responsive individual or other medical emergency. The date of the most recent Medical Emergency Response Plan submission to DESE for Countryside and all NPS schools is August 17, 2022.

Communication Systems

The Newton Public Schools works closely with the staff in our Office of Information Technology to ensure up-to-date communication tools are available to support our emergency response systems. NPS utilizes the SchoolMessenger communication system, which allows us to alert staff and families through a phone call, email, or text message in an emergency. We are able to communicate with families, faculty, and staff 24 hours a day and in multiple languages. SchoolMessenger utilizes data (phone and email address) entered into the district's student information system, Aspen. Families also have the choice to opt out of this messaging.

Schools are also equipped with public address systems to allow for announcements to be made in the building, and building administrators also have “walkie-talkie” systems that allow for direct communication with one another. Newton has also installed hard-wire radio connections between each building and the City of Newton dispatch center, which allows for an emergency call to be made in the event of a hostile event, cutting the time of response for first responders. Annual training is now provided for our main office staff in communicating with the dispatch center in a crisis. The district also offers a 24-hour crisis phone for school and district leaders that is staffed by a highly trained psychologist to support and coordinate responses to events outside of school hours impacting our community.

Telephone systems at schools include the ability to dial 911 directly. Phone systems in schools that rely on internet connectivity also include backup, traditional copper phone lines to specifically route emergency calls. Staff and students are also encouraged to enable WiFi calling on their cell phones to mitigate cell coverage issues in buildings.

NPS Facilities

School leaders and safety teams work closely with the NPS facilities staff to ensure that our buildings meet all safety requirements and are maintained to support our safety protocols and procedures. All middle school and elementary school doors are locked during the day with only one point of entry. Visitors are granted entry to the building through a buzzer system. At the high school level, upper class students are allowed to leave campus and return during the school day when not assigned to classes, but only the main entrances are accessible during the day, and these are adjacent to the main offices in both high schools. Additional key card and passcode entrances have been created to adapt the architecture of the schools to a more secure environment. Parents/families and visitors are required to enter through the main entrance doors and sign in at the office, which is an expectation across all

schools PreK-12.

Countryside Elementary School requires a safe main driveway entrance access to the school site with safe secondary access for emergency needs. Countryside Elementary School also requires:

- Access Control utilizing a security card access device by authorized staff
- Visual Security of the main entrance utilizing a video monitoring system that will be monitored at the school secretary's desk.
- Safe, well-lit parking for staff
- Safe, well-lit parking for visitors in close proximity to the building
- Safe vehicular student drop off and pick up areas without crossing traffic (called a "blue zone" in Newton)
- Safe pathways for pedestrians and bicyclists coming from varied directions to the school
- Safe bus access systems that do not interfere with drop off and pick up traffic
- Safe recess grounds and play fields that can be properly supervised by staff and protected from vehicle traffic
- Visual access of the driveway and parking lots
- Safe access for kitchen, facility and shipping / receiving separate from school traffic to the main entrance
- Safe and appropriate access to the perimeter of the building and play fields

Day in the life of Student

SAMPLE DAILY STUDENT SCHEDULE	
Activity or Subject	Program Details and Educational Benefit
8:10 Arrival	School starts at 8:10 AM
8:10-8:30 AM Morning Meeting	Morning meeting welcomes all students, builds connection and community, and prepares students for the day ahead.
8:30-9:10 Specials	All students in grades K-5 attend Specials classes in the following areas: Library, Art, Music, and Physical Education (PE). **Library**: Develops students' information literacy and skills to access and utilize information in all formats including current and emerging technologies. **Art:** Provides experiences in a variety of visual art media and techniques while developing artistic skills. Students increase their knowledge of art history and develop art appreciation. **Music:** Students learn fundamentals of music through a sequential curriculum, which develops skills and knowledge in music performance, appreciation and history. **PE:** Encourages an active, healthy lifestyle, and positive choices
9:10–10:20 Math	70 Minute Math Block using the Investigations 3 Curriculum which is aligned with the Massachusetts Curriculum Frameworks incorporating the Common Core Standards. This curriculum incorporates teacher-guided exploration of mathematical ideas, individual practice, class discussion, reasoning about mathematical concepts and solving non-routine problems.
10:20–11:50 Reading	90 minutes of Literacy Instruction aligned with the Massachusetts Curriculum Frameworks Specific instructional components at each grade level include: • Primary: interactive read aloud, shared reading, guided reading (including skills based and strategy lessons), independent reading, phonemic awareness, and phonics / word study. • Intermediate: interactive read aloud, shared reading, guided reading (including strategy lessons, book clubs and literature circles), independent reading, and word study.
11:50–12:10 Lunch	There are three lunch blocks. Each lunch block is 40 minutes, 20 minutes to eat lunch and 20 minutes for recess. 11:30-12:10 (grades K and 5). While one grade eats, the other has recess. They swap at 11:50. 12:15-12:55 (grades 1 and 2)

	1:00-1:40 (grades 3 and 4)
12:10–12:30 Recess	Students go outside for recess or play indoors in instances of inclement weather. Recess provides students with the opportunity to engage in structured and unstructured play activities and physical exercise, socialize with peers, and take a break from academic tasks.
12:30–1:45 Writing	Explicit writing instruction occurs using Writing Units of Study, Teachers' College Reading and Writing Project; common writing prompts and scoring methods that include focused experiences in narrative, opinion, and informational, and both written and oral feedback from teachers: • All grades: authorship experiences that emphasize conferring, revising, editing, publishing and celebrating creative efforts • Intermediate: focus lessons on a variety of rhetorical and stylistic issues including specific narrative and expository techniques, planning and organizing, rich language, elaboration; serious examination of sentence structure and sentence boundaries; emphasis on writing as a tool to enhance learning and thinking in all subject areas
1:45-2:15 Academic Intervention and Enrichment Block	Students are flexibly grouped to receive targeted additional support to master grade level standards. Enrichment groups help students who have already mastered grade level standards to deepen and extend their learning. Lessons designed to foster social emotional competencies are provided during this time, as well.
2:15–2:50 Science and Social Studies	**History/Social Science:** Students engage in a history/social sciences curriculum that, wherever possible, integrates with the informational skills components of the Mass Frameworks for English Language Arts. The curriculum provides age-appropriate experiences for students to view and come to understand themselves; their family and cultural heritage; the United States and the world; and the relationship between and among them. Throughout the history program, students are asked to explore the contributions and experiences of different peoples, past and present, appreciate the diverse sources of these contributions, and apply this knowledge as citizens of the United States. **Science:** Teachers implement a hands-on science and engineering curriculum. There are typically three units at each grade level. These units address standards for the following domains: life science, physical science, earth and space science, and engineering.

	Instructional components include: • Investigation - Pairs and groups of students work with a variety of materials to make sense of science phenomena. • Demonstration - Teachers model science phenomena for the whole class. • Observation - Students observe scientific models, and living materials, including crabs, butterflies, and wood frogs. • Reading - Information texts are used to deepen understanding, through teacher read-alouds and paired reading. • Recording scientific ideas - Students explain their understanding of scientific phenomena through writing, using drawn models to enhance their descriptions.
2:50 Dismissal	Students are dismissed at 2:50

Week in the life of Student

SAMPLE WEEKLY STUDENT SCHEDULE	
Weekly Activity or Subject	Program Details and Educational Benefit
Specials	Library, Art, Music, and Physical Education classes are included in all students' schedules to provide a well-rounded curriculum that supports skill development as summarized in the daily schedule above. **Library** Grades K, 3, 4, & 5 have one 30-minute library class each week Grades 1 & 2 have one 45-minute library class each week **Music** K-5 have one 30 minute general music class each week Grade 3 has one 30-minute recorder class each week Grades 4 & 5 have one 45 minute chorus class each week **Visual Art** Kindergarten has one 45-minute art class each week Grades 1-5 have one 55-minute art class each week **Physical Education, Health and Wellness** Kindergarten have two 45-minute classes each week Grades 1-5 have two 30-minute classes each week
Math	5x per week, 70 Minute Math Block / 30 Minutes of Intervention This allows students to work towards meeting grade level benchmarks as detailed above (See Sample Daily Schedule).
Literacy	5x per week for 100 minutes of Reading Instruction per day. 4x45 minutes per week for 180 minutes of Writing Instruction. This allows students to work towards meeting grade level benchmarks as detailed above (See Sample Daily Schedule).
Recess	Students have recess 5x per week for 35 minutes daily (15 minute morning recess and 20 minutes at lunch). This provides down time for students and a time to play.
Science and Social Studies	Science and Social Studies 2.5 hours per week for each subject. This allows students to work towards meeting grade level benchmarks as detailed above (See Sample Daily Schedule).

NPS System Wide Goals
2022-2023

October 3, 2022

INTRODUCTION

This document identifies the priorities of the Newton Public Schools for the 2022-23 school year. The goal areas and related actions build upon the work of the 2021-22 school year and reflect our ongoing commitment to system growth and improvement to meet the needs of all learners. While goals are situated within separate categories, it is important to note that our areas of focus are interrelated and inextricably linked. Ensuring positive, productive, and fulfilling learning experiences for all students requires attention to a myriad of factors that create welcoming, inclusive, equitable, challenging, and engaging learning environments necessary for students to thrive.

OVERVIEW

EDUCATIONAL GOALS

1. **Academic Excellence** - *Cultivate a culture of excellence for all through powerful, responsive and sustaining learning experiences that lead students to be productive, thriving citizens in the world.*
2. **Educational Equity -** *Narrow opportunity and achievement gaps by increasing equitable and universal opportunities for all students, irrespective of race, ethnicity, gender, socioeconomic status or disability to access education and to achieve in alignment with the NPS Statement of Values and Commitment to Racial Equity.*
3. **Social Emotional Wellbeing** - *Enhance student learning, engagement and wellbeing by addressing the whole child with culturally responsive mental health services and supports for all learners.*

FAMILY AND COMMUNITY COMMUNICATION AND ENGAGEMENT GOALS

1. **Communication** - *Strengthen relationships with NPS families and key stakeholders through communication that is timely, responsive, collaborative, and inclusive.*
2. **Connectedness** - *Engage families in school and district initiatives to increase access, involvement, connectedness and support, with a specific focus on diversity, equity, and inclusion initiatives and action steps.*

OPERATIONAL GOALS

1. **School Facilities** - *Maintain and improve existing facilities to provide clean, safe, healthy and sustainable facilities that support the District's educational mission and goals.*
2. **Technology Infrastructure and Devices** - *Network services and devices throughout the district will provide all students and staff access to robust digital learning materials, and the ability to carry through with operational needs of the district.*
3. **Transportation** - *Strengthen and improve transportation practices and protocols to address students' safety, health, traffic congestion, and sustainability.*
4. **COVID Responsiveness** - *Refine and adjust COVID health procedures in response to evolving conditions and recommendations.*

EDUCATIONAL GOALS

EDUCATIONAL GOAL 1: Academic Excellence - *Cultivate a culture of excellence for all through powerful, responsive and sustaining learning experiences that lead students to be productive, thriving citizens in the world.*

Select Reports on Progress	● *Annual MCAS Report* ● *Departmental Updates on Curriculum and Professional Development* ● *NPS literacy and math assessment reports*	
2022-23 Focus Area	Strengthen instructional systems and practices to meet the diverse needs of all learners.	
Rationale	**Targeted Action**	**Outputs and Assessment Measures**
If we provide professional learning experiences tailored to educators' roles that promote student access to grade-level content and standards ***then*** educators will develop new understandings and skills ***which will*** lead to changes in practice as they apply their new learning ***that result in*** equitable learning outcomes for all students.	**Provide professional learning experiences that promote student access to grade-level content and standards in supportive learning environments**: ● Deepen educators' content knowledge and repertoire of instructional strategies to support high levels of achievement and address student needs. ● Enhance evaluator/leader capacity to coach and support high quality instruction, including the use of educator standards and frameworks, to promote student mastery of academic skills. ● Continue to support high school educators' collaboration on curricular and instructional shifts aligned with the redesigned high school schedule. ● Strengthen educators' ability to leverage data to inform instructional decisions to meet student needs. ● Continue to improve our ability to analyze data to inform decisions through embedded professional learning for staff and use of data dashboards. ● Enhance the use of digital tools to increase student access and engagement with learning, and as a tool to expand student demonstration of knowledge. ● Continue to develop assessment strategies to measure impact of professional learning on student outcomes. ● Explore opportunities to gain clarity on depth and consistency of equitable instruction and student progress toward academic mastery.	Outline of professional development offerings for educators in various roles with agendas/learning focus and participation levels. Educator pre-assessments and feedback surveys on professional learning sessions; assessments of progress in educator knowledge. Observations of educator implementation of culturally responsive, standards-based instruction and assessment of learning across classrooms, as indicated by school walkthroughs, routine classroom visits, and observation feedback. Consistent usage of various data sources in educator planning, decision-making and other collaboration. Resources for instructional best practices such as those developed by the Antiracist Curriculum and Instruction committee. Student achievement data from universal assessments (screeners, formative, summative) with a focus on subgroups.

If we continue to revise and support the implementation of an inclusive, diverse, and engaging curriculum ***then*** educators will provide instruction that delivers challenging academic content and is engaging, relevant, and culturally responsive ***which will*** provide a richer learning experience and increase student motivation and investment in learning ***and result in*** improved student learning outcomes and the elimination of disparities by demographics.	**Continue to revise and support the implementation of a challenging, inclusive, and engaging curriculum:** ● Ensure ongoing alignment of instructional materials to grade-level standards and curriculum frameworks. ● Develop new and revise existing curricula as necessary to meet the needs of all students. ● Deepen educators' awareness of bias and its impact on instructional decisions and learning experiences for students. ● Affirm and celebrate students' multifaceted identities through the use of culturally responsive instruction and materials that connect to students' lived experiences.	Documentation of curriculum revision, research, and focus to include meeting minutes and work products with explicit emphasis on equity and educational outcomes. Ongoing revision and implementation of instructional units of study and/or recommended curriculum/materials. Resources that assist educators in evaluating curriculum, instruction, and materials for bias. Inventory of culturally responsive practices that celebrate, affirm, and engage all learners.
If we create and facilitate universally designed tiered supports for all learners ***then*** all students will have access to high quality instruction and timely, effective supports that promote	**Create and facilitate universally designed tiered supports for all learners**: ● Increase alignment of practice and build Multi-Tiered Systems of Support (MTSS) capacity through coaching for principals, MTSS teams, and professional learning communities (PLCs) across the district. ● Increase equitable student access to rigorous academic and social/emotional tiered support and practices.	Needs assessment data regarding MTSS structures and practices. Data review sessions and action plans at the district, school, and department levels. Collaborative inquiry cycles that measure student growth and mastery of content. Targeted action plans to calibrate MTSS practices to student needs. Analysis of the implementation and effectiveness of academic interventions including supplemental learning opportunities. Administrative and teacher team agendas and notes.

academic and social-emotional skill development ***which will*** allow all students to meet the high academic and social and emotional standards that we hold ***that results in*** a school system that supports the diverse needs of all learners.	● Utilize assessment data to inform tiered instructional practices, particularly for students who have been historically marginalized. ● Measure the effectiveness of existing systems/supports to determine alignment with the district's vision and needs. ● Continue to utilize flexible blocks of time in secondary school schedules to meet targeted academic and social/emotional needs of students	

EDUCATIONAL GOAL 2: Educational Equity - *Narrow opportunity and achievement gaps by increasing equitable and universal opportunities for all students, irrespective of race, ethnicity, gender, socioeconomic status or disability to access education and to achieve in alignment with the NPS Statement of Values and Commitment to Racial Equity.*

Select Reports on Progress	● *Human Resources Hiring & Retention Report* ● *School Level and Departmental Updates on Diversity Equity and Inclusion work* ● *Updates on NPS policy and procedure and incident reporting data*	
2022-23 Focus Area	Foster equitable learning environments that support the social emotional well being and academic achievement of all students.	
Rationale	**Targeted Action**	**Outputs and Assessment Measures**
If we provide professional learning experiences to educators that promote deeper understanding of and applied knowledge of culturally responsive and anti-racist practices ***then*** educators will be able to apply this knowledge to their instructional practices ***and will result in*** more inclusive, supportive and equitable learning environments for all students.	**Continue to provide professional learning experiences to educators that promote deeper understanding and applied knowledge in key areas:** ● Provide professional learning on culturally responsive instruction to all preschool and elementary educators, including the training and facilitator of school leaders and school-based leadership teams. ● Continue differentiated antiracist professional learning opportunities facilitated by building-based leaders and leadership teams for all middle and high school educators. ● Continue to provide guidance on the district's critical literacy framework that disrupts the commonplace; interrogate multiple viewpoints; focus on social/political issues, take action and promote social justice ● Advance commitments to develop guidance for gender-inclusive environments	Educator pre-assessments and feedback surveys on professional learning sessions; assessments of changes in educator knowledge List and participation levels of professional development offerings for educators of different levels with agendas/learning focus Results from focus groups, surveys, and/or meetings with students and families to identify strengths and areas for improvement, gather feedback and input Assessments of educator implementation of culturally responsive instruction across classrooms anchored in research-based frameworks. Gender guidance protocols Disaggregated student achievement and social-emotional wellbeing data from universal assessments
If we equip and empower leadership to continue to develop and to support ongoing	**Equip and empower leadership to continue to develop and to support ongoing district initiatives focused on creating more equitable learning environments:** ● Continue to expand the development and reach of the Literacy Equity Project through the remaining elementary schools	Leadership teams participating in ongoing training with dedicated monthly time in ES for full faculty Increase in number of staff & educators taking on leadership roles and facilitation in classroom and community learning spaces

district initiatives focused on creating more equitable learning environments ***then*** leaders will be able to continue and extend the work of these programs ***which will*** lead to improved systems and structures for supporting the achievement of all learners ***and result in*** more equitable learning outcomes for all students.	• Highlight and promote integration of the resources available through the anti-oppressive library • Support leadership in the South Human Rights Council (SHRC) - Newton South High School & Human Rights Council (HRC) - Newton North High School • Continue to support and strengthen NPS Calculus Project programming and leadership structures • Continue to support multi-level groupings at the high school level to promote high achievement, access to equitable learning environments, and universally designed instructional strategies. • Create opportunities for leadership within parent & partner organizations to share learning and build coalition in alignment with NPS' antiracist mission	Examples of student efficacy, engagement and leadership in response to social justice issues and in support of community healing throughout all grades Qualitative assessments, analysis and stories that demonstrate improvement and success in student engagement, physical and emotional safety, joy and belonging. List of steps taken to address identified areas of need
If we analyze district structures and practices with an equity lens ***then*** we will identify additional areas of systemic improvement based on input from a broad range of stakeholders ***which will*** lead to improved school and district practices and policies ***and result in*** more equitable student outcomes.	**Continue to analyze and improve district structures and practices in key areas to ensure equitable outcomes for all students:** • Continue to refine the implementation of the revised NPS Non-Discrimination Protocol • Utilize the DEI Advisory to inform policy and practice with a representative lens of schools, roles and grade level within the district • Support and reinforce the implementation of culturally responsive practices across classrooms of all grade levels to promote increased access and opportunities • Prioritize equitable practices to solicit information regarding the needs/concerns of student and family experiences to help inform and review policies, procedures, systems and structures	Quantitative and qualitative data regarding discriminatory incident reports, i.e. type/frequencies/grade levels, etc. DEI Advisory work products and minutes that reflect district priorities and decision-making inclusive of collaboration and diverse perspectives Focus groups, surveys, self-assessments and facilitated meetings with staff, students and families Evidence of collaboration in the revision, approval and implementation of policies and practices
If we hire a diverse staff representative of our student body	**Continue to ensure NPS staff is representative of the diversity of our student body and community through the following actions:**	Launch first cohort of NPS-Lasell University "Scholars Academy for Paraprofessionals of Color"

then our staff will better reflect the diversity of our community ***which will*** provide opportunities for the voices of historically-underrepresented educators, leaders and role models to impact our decision making ***and result in*** systemic improvements to our district and schools.	• Continue to attend monthly Teacher Diversification Professional Learning Community meetings sponsored by DESE • Reapply for the Teacher Diversification Grant for SY 22-23 to continue to diversify our teaching staff • Provide access and opportunities to our staff of color to advanced degrees and licensure via financial & structural support. i.e. grant opportunities, reimbursements, vouchers, hybrid learning and practicum alignment. • Prioritize the recruitment, hiring, and retention of educators of color with school-based hiring committees, school leaders, district supervisors, and human resource staff. • Consistently utilize Hiring Guidance (that was developed by DEI Dept) to assist hiring managers and administrators to evaluate and update hiring practices, including job descriptions, interview protocols, reduction of unconscious bias in candidate selection to increase recruitment and hiring staff from underrepresented groups • Continue Black, Indigenous, and People of Color (BIPOC) affinity gatherings for staff	Participation in the Teacher Diversification Professional Learning Community, led by DESE Hiring and retention data Frequency and attendance of districtwide affinity groups

EDUCATIONAL GOAL 3: Social Emotional Wellbeing - *Enhance student learning, engagement and wellbeing by addressing the whole child with culturally responsive mental health services and supports for all learners.*

Select Reports on Progress	• *Youth Risk Behavior Survey and Student Connectedness Results Report* • *Student Attendance Data* • *School Level and Departmental Updates on Social Emotional Wellbeing work*	
Rationale	**Targeted Action**	**Outputs and Assessment Measures**
If we promote safe, caring, and welcoming learning environments and ensure students' social and emotional needs are met ***then*** students will be	**Promote safe, caring, and welcoming environments to ensure students' social and emotional needs are met in preparation for learning** • Strengthen and cultivate activities, routines, and structures that promote social and emotional wellbeing for all students • Foster identity-affirming environments through education, curriculum, materials, and supports	Data and Feedback sources • NPS Connectedness Survey • YRBS • Attendance • Advisory Activities • Affinity Groups • Accommodations for all genders • SEL coaching pilot at elementary level

better prepared to learn and grow academically, socially, and emotionally ***which will result in*** improved learning outcomes for students.	• Support the development of student voice, agency and efficacy at all levels • Support school leaders to continue building healthy community and connections among all staff • Investigate and respond to patterns and trends surfaced in Youth Risk Behavior Survey (YRBS) and Connectedness Survey • Collaborate with ITS and SEL staff to provide adult learning experiences that address the whole student • Promote practices in and out of the classroom that reinforce healthy and appropriate use of technology	Artifacts such as schedules, program descriptions, photographs, and lesson plans that demonstrate emphasis on routines, structures, connection, identity, etc. Qualitative assessments, analysis and stories that demonstrate improvement and success in student engagement, physical and emotional safety, joy and belonging Resources for families, educators, and students about healthy and appropriate use of technology for student Re-Assessment of Instructional Support Teams (IST)/Student Intervention Teams (SIT) across NPS Plan for development and strengthening of instructional support systems (e.g. SIT) across all elementary schools; Focus on codification of best practices around measurement and intervention planning Revised NPS Student Technology Acceptable Use Policy and Guidelines Guidance document for developmentally-appropriate, acknowledgement of impactful internal and external community events
If we continue to address the diversity of mental health needs of our community ***then*** we will more effectively support our students as learners and their families ***which will*** make possible deeper engagement in healthy academic and social growth ***and result in*** improved student learning and wellbeing.	**Continue to address a diversity of mental health needs by reinforcing and strengthening systems, structures and existing resources** • Strengthen support for students experiencing chronic absenteeism by connecting to tiered supports (within the school and/or the community) and engaging in family outreach • Continue to learn about and implement research-based strategies and structures for social and emotional support • Investigate SEL universal screening measures/practices to tailor responses and supports • Partner with community organizations to support culturally responsive school environments	Data and Feedback sources • NPS Connectedness Survey • YRBS • Attendance • Elementary Stabilization and Support Program (ESSP) data • Advisory Activities • SEL coaching pilot at elementary level Ongoing partnership and collaboration with William James College's INTERFACE Referral Service Resources for families and educators addressing mental health literacy and crisis intervention Shared and codified best practices for addressing a diverse set of mental health needs by mental health providers in schools and external experts such as developmental-behavioral pediatrician and child psychiatrist
If we develop and strengthen universally designed, tiered	**Continue to develop and strengthen universally designed, tiered social and emotional supports for all learners**	Re-assessment of MTSS structures at elementary schools

social and emotional supports for all learners ***then*** more students will be able to succeed academically within our schools and classrooms without individualized support ***which will result in*** improved outcomes for students through increase in agency and self-efficacy.	● Increase alignment of practice and build Multi-Tiered Systems of Support (MTSS) capacity through coaching ● Build leadership capacity to strengthen structures to use data to inform decisions related to students' academic and social/emotional needs ● Support implementation of practices to sustain a positive community and culture of reconciliation that encourages developmentally-appropriate opportunities for learning, growth, and repair	Plan for development and strengthening of MTSS across all elementary schools; Focus on codification of best practices around data collection and intervention planning Re-assessment of Restorative Justice implementation with focus on routines and structures around that promote active student dialogue and problem solving Reduced exclusionary discipline, reduced disproportionality in discipline rates/types

FAMILY AND COMMUNITY COMMUNICATION AND ENGAGEMENT GOALS

FAMILY AND COMMUNITY ENGAGEMENT GOAL 1: Communication - *Strengthen relationships with NPS families and key stakeholders through communication that is timely, responsive, collaborative, and inclusive.*

Select Reports on Progress	● *Report on newsletter and social media engagement* ● *Recommendation on new communication tool, budget implications, and potential rollout*
2022-23 Focus Areas	Share relevant, timely and accessible information on key priorities for the 2022-23 school year. Prioritize two-way communication channels to ensure the district is aware of and responsive to the community.

Targeted Action	Outputs and Assessment Measures
Leverage new and current communication tools to inform, educate, and engage NPS families and the larger Newton community. ● Finalize selection of new communication tool that will streamline communication and facilitate dialogue and conversation with all families in the district. ● Ensure new communication tool includes a robust translation component to engage and inform ELL families and families requiring information in home language. ● Provide consistent and informative written communications through district newsletter, social media, and website. ● Increase social media use to highlight successful programs, people and opportunities in the Newton Public Schools. ● Promote and use accessibility features for all communication, including but not limited to closed captioning for virtual or televised meetings, accessibility options on websites, translation links on correspondence, and accessibility in written documents.	Share report on rationale for selection of new communication tool and include information on plan for purchase and rollout Compile report on communication documents shared with families and key stakeholders to share information on key issues Report on analytics from newsletters and social media posts gauging number of readers, length of engagement, click-throughs, and level of engagement on social media.
Inform NPS families and larger Newton community on budget development and priorities, superintendent search process, and student enrollment data and shifts. ● Provide specific and detailed information to elected officials and other key stakeholders to ensure they are well-informed for work with their various constituencies and members. ● Ensure NPS families are provided with and informed of opportunities to participate in the superintendent search process. ● Develop communication strategy about enrollment changes and shifts within the district.	

FAMILY AND COMMUNITY ENGAGEMENT GOAL 2: Connectedness - *Engage families in school and district initiatives to increase access, involvement, connectedness and support, with a specific focus on diversity, equity, and inclusion initiatives and action steps.*

Select Reports on Progress	● *Final report on profile of desired superintendent candidate* ● *Report on meetings held, number of attendees, topics discussed and raised* ● *Extraction of survey results on connectedness from surveys already scheduled*
2022-23 Focus Area:	Strengthen two-way communication and increase feedback mechanisms to increase engagement in school and district initiatives.

Targeted Action	**Outputs and Assessment Measures**
Identify opportunities to engage families in dialogue and discussion about district priorities, processes, initiatives, and timely topics. ● Provide a variety of opportunities for all staff and families to engage in conversation and dialogue during the superintendent search process. ● Organize districtwide and school based forums on issues relevant and useful to NPS families. ● Identify areas in which family and community feedback is essential to formulation of new procedures, protocols and communication channels. ● Regularly solicit feedback from PTO leaders to identify current and emerging issues. ● Create opportunities to reconnect with families who have been less physically and personally connected to their school communities during the pandemic.	Development of profile of the desired superintendent candidate Calculate number of families attending meetings and participating in surveys and discussions. Survey to assess connectedness to school and district Feedback from meetings on value and effectiveness, including 1:1 discussion and surveys.
Engage in purposeful work around family collaboration and antiracism in order to actively dismantle systems that create harm and are not inclusive. ● Conduct targeted outreach to families who have not been recently engaged and/or historically excluded. ● Partner with existing groups (FORJ, ELPAC, SEPAC, METCO family council, among others) to share information and identify effective methods for engaging families. ● Highlight antiracism work through established communication channels and engage families in work via organizations like FORJ and others.	

OPERATIONAL GOALS

OPERATIONAL GOAL 1: School Facilities - *Maintain and improve existing facilities to provide clean, safe, healthy and sustainable facilities that support the District's educational mission and goals.*

Select Reports on Progress	● *Updated Long Range Plan Report* ● *Updated CIP Report* ● *Enrollment Analysis and Class Size Report*
2022-23 Focus Area	Continue to cultivate short-term and long-range planning, maintenance, renovation, and building initiatives to support a healthy and sustainable future for NPS.

Targeted Action	Outputs and Assessment Measures
Develop consensus on FY24 Updated Long-Range Plan with new Long Range Planning Working Group and present to the School Committee. ● Periodically update long and short-term plans to improve school facilities, and work with the City to fund and implement the plan. ● Review and coordinate the FY24-FY28 five-year Capital Improvement Plan (CIP), including financial planning, with the City. ● Work with City to determine whether to submit MSBA Core Program application by deadline in April and potential Accelerated Repair Program application in February	Updated Long Range Plan Updated CIP and vote from School Committee MSBA Submission
Work with Public Buildings to ensure current building projects meet all educational program goals, timeline and budget ● Coordinate move, technology, and FFE with construction for NECP at 687 Watertown St. for winter move-in. ● Work with the City, the project team and staff to complete the design for Lincoln-Eliot at 150 Jackson Rd. ● Work with the City and MSBA to select a designer and then work through the Feasibility study phase for Countryside. ● Work with the City, the project team and staff to develop the schematic design for Horace Mann expansion. ● Work with the City on the Feasibility study work for Franklin Elementary School. ● Work with City and Facilities to implement near term needs and develop plan to address long term needs for Underwood and Ward ● Continue planning and staff and community engagement process for building projects.	Successful completion and move-in of NECP 150 Jackson Road final design development anticipated to be bid by Summer 2023. Complete Countryside MSBA designer selection process; conduct enrollment analysis and update educational plan for Feasibility Study. Public meetings on building projects

Continue to monitor and assess enrollment and space utilization and make recommendations that best support the educational needs of our students ● Utilize enrollment trends, student service needs, and the capacity of elementary schools and their feeder pattern schools. ● Initiate Student Assignment Working Group (SAWG) to review and consider buffer zones, feeder pattern schools and other changes if required and as part of planning for new building projects coming online and changes in enrollment. ● Investigate space needs and potential relocation of Community connections to appropriately support the programming.	Preliminary Enrollment Report (October) Consolidated Enrollment Analysis and Class Size Report (December-January). Present results of analysis and any recommendations for feeder patterns and buffer zones.
Promote and increase sustainable practices ● Continue the work of the School Sustainability Working Group (SSWG) ● Monitor, assess, communicate and report on textile recycling bin program ● Coordinate with the city on building projects to meet sustainability goals including reduction/elimination of fossil fuel reliance ● Work with the City to continue to implement solar installations. ● Update website to capture and communicate sustainability efforts. ● See Transportation section for sustainable transportation initiatives and activities.	School Sustainability Working Group meetings Report Revenue from Textile bins Report on solar projects

OPERATIONAL GOAL 2: Technology Infrastructure and Devices - *Network services and devices throughout the district will provide all students and staff access to robust digital learning materials, and the ability to carry through with operational needs of the district.*

Select Reports on Progress	● *Network and Phone System upgrade and status reports* ● *Update on Instructional Technology and 1:1 in the Classroom*
2022-23 Focus Area	Maintain and upgrade systems and procedures to provide robust access to digital resources and ensure data security.

Targeted Action	**Outputs and Assessment Measures**
Upgrade network, servers, and phone systems in order to maintain consistent, reliable, and high quality service. ● Continue to upgrade legacy phone systems to VoIP. ● Complete the upgrade of network equipment at the middle schools, and continue to upgrade network equipment as needed and able throughout the district.	Upgrade status reports Network reliability indicators (i.e., downtime)
Provide in-the-learning-moment device access to students. ● Develop a long-term device replacement plan, including funding to support the 1:1 device program. ● Strengthen repair process for damaged student devices. ● Replace aging student devices used throughout the district to comply with technology requirements for standardized testing.	Defined budget to support the 1:1 device initiative Statistics on 1:1 device repairs
Strengthen procedures and methods to maintain data security. ● Continue to enhance network systems, servers, and software to maintain data security. ● Continue to educate staff on best-practices for data security. ● Assess the need for and implement additional security procedures including 2-factor authentication.	Security assessments Security initiative updates

OPERATIONAL GOAL 3: Transportation - *Strengthen and improve transportation practices and protocols to address students' safety, health, traffic congestion, and sustainability.*

Select Reports on Progress	● *Transportation report and update to School Committee*
2022-23 Focus Area	Continue to improve practice, protocols, and procedures and family communication related to student safety, health, traffic congestion and sustainability

Targeted Action	**Outputs and Assessment Measures**
Continue to improve Transportation Department operating procedures ● Strive for on-time arrival and dismissal times. ● Continue the work of the School Transportation Steering Group (STSG). ● Review and develop transportation plans in collaboration with the City to increase multi-modal and safety pilot programs. ● Continue to update the district website for communication and parent engagement. ● Communicate our protocol and procedures with families, schools, and transportation vendors.	Continue to monitor bus and van arrival and dismissal times. Updated Bus routes and detailed instructions for My School Bucks registration. Monitor and assess the new online fee waiver process in Aspen. Continued refinement and use of Aspen Parent Portal for bus passes Communication to families regarding open bus registration
Support continued evolving collaboration amongst all stakeholders to support quality and equitable transportation services for all students ● Work with DPW to update/replace signs and bike racks as needed. ● Work with building principals and SRTS to develop efficient and safe arrival and dismissal procedures to create as safe an environment as possible, including walk/bike to school programs. ● Continue to communicate to families to receive timely information regarding delays and other critical messages. ● Continue to conduct safety training meetings with HHS and our vendor. ● Review results of transportation survey to families on forms of transportation and barriers to bus/biking/walking. ● Explore opportunities for electric buses with the City and our vendor.	Use of School Messenger to send out rapid communication for urgent messages Meet with and solicit input from STSG on creating safe routes to school. Scheduled safety training meeting with HHS for mid-August for drivers and throughout the school year. Explore grant opportunities for electric school buses and infrastructure with the City.
Continue development of training and education opportunities for students and the community ● Collaborate with building principals and SRTS, and Newton Police to incorporate bike, pedestrian, and bus safety education at elementary schools.	Provided materials and opportunities to incorporate bike, pedestrian and bus safety education

OPERATIONAL GOAL 4: COVID Responsiveness - *Refine and adjust COVID health procedures in response to evolving conditions and recommendations.*

Select Reports on Progress	● *Health guidance from Medical Advisory Group (MAG) and district communications*
2022-23 Focus Area:	Ensure protocols and procedures effectively address ongoing COVID health needs.

Targeted Action	**Outputs and Assessment Measures**
Collaborate with Newton Health and Human Services (HHS) and Medical Advisory Group (MAG) to develop and continuously update protocols within our school environment. ● Update and continue to implement NPS health practices as needed and recommended by HHS and MAG ● Maintain NPS COVID Health team ● Support testing and vaccination/booster clinics as recommended by HHS and MAG ● Continue to conduct triannual ventilation spot-check testing to maximize outdoor fresh air and assess effectiveness through the implementation of CO^2 monitoring ● Inform families and staff of updated protocols and procedures	Updated health guidance from MAG Updated NPS Health and Safety Plan Family and staff communications Vaccine/Booster clinics as recommended

Citywide Special Programs At-a-Glance

Preschool and Elementary

Preschool

Programs	Grades/Ages	School/Location
Early Childhood Services	Preschool	Newton Early Childhood Program
STRIDE	Preschool	Newton Early Childhood Program

Elementary School

Program	Grades/Ages	School/Location
ACHIEVE	2-5	Angier
Bridge	K-5	Peirce
STRIDE	K-5	Bowen, Cabot, Zervas
Spark	K-5	Countryside
Reflections	K-3	Williams

Citywide Special Programs At-a-Glance

Middle School

Middle School

Programs	Grades/Ages	School/Location
Bridge	6-8	Day
Direct Instruction	6-8	Oak Hill
FOCUS	6-8	Brown
Language-based Learning Program	6-8	Oak Hill
Reflections	6-8	Day
SPARK	6-8	Brown
STRIDE	6-8	Brown

Citywide Special Programs At-a-Glance

High School

High School

Programs	Grades/Ages	School/Location
Compass	9-12	North and South
Connections	9-12	North and South
Language-based Learning Program	9-12	South
Pilot	9-12	North
Rise	9-12	South
Southside	9-12	South
Step	9-12	North and South
STRIDE	9-12	North and South

Citywide Special Programs At-a-Glance

High School and Post Graduate

High School - Alternative and Therapeutic

Programs	Grades/Ages	School/Location
Central High School	9-12	Education Center

Post-Graduate

Program	Grades/Ages	School/Location
STRIDE	18-22	North and Education Center
Community Connections	18-22	North and Education Center (Annex)

Citywide Special Programs At-a-Glance

Acronym Definitions

Acronym	Definition
FOCUS	Flexible, Organized, Centered, Understanding, Social Intelligent
SPARK	Social, Pragmatics, Academics, Respect, Knowledge
STRIDE	Structured Teaching through Research and Intensive Experiences

Program Descriptions - Preschool

Newton Early Childhood Program - Preschool (at NECP)

Ages/Grades Served	**Ages 2.9 - 5**
Student Profile	Children (ages 3, 4 and 5), including those turning 5 during the school year (5 after August 31), who have special education needs and require educational and/or related services.
Program Offerings	**Range of Supports:** • 3-hour integrated classes • 5-hour integrated classes • Full-day substantially separate classes • Afternoon programming • Therapeutic-based programming
Program Description	NECP offers a wide range of educational support services for preschool children, including integrated preschool classes. The school class size is 15 to 16 students, with 7 to 8 of whom have moderate to intensive special education needs and then approximately 8 students without disabilities. A substantially separate classroom enrolls 8 to 9 students with intensive special needs.
Scope of Program	Curriculum in the Newton Early Childhood Program is child-centered and offers developmentally appropriate activity based learning for preschool children following the Massachusetts Guidelines for Preschool Learning Experiences. The range of direct services varies widely depending on a student's individualized needs. The type and frequency of service are decided at the child's IEP Team meeting and are listed in the continuum of special education services.
Inclusive Practices and Opportunities	The goal of the program is to address student needs by providing a comprehensive range of services and a consistent, structured and supportive environment throughout the preschool day. The integrated nature of programming at NECP provides opportunities for all students to learn together, in a developmentally appropriate and nurturing environment.

Program Descriptions - Preschool

STRIDE Preschool (at NECP)

Ages/Grades Served	Ages 2.9 - 5
Student Profile	Students in the STRIDE program typically have significant challenges with: • verbal and non-verbal communication (may use augmentative/alternative communication (AAC) devices) • behavior, including inflexibility and restricted/repetitive behaviors • social skills, including very limited social interactions • academics; most students are performing below grade level and have difficulty accessing traditional instruction The majority of students have a diagnosis of autism. All students require intensive, highly specialized and individualized instruction and support to access learning.
Program Offerings	A range of evidence-based instructional strategies are employed including discrete trial instruction (DTI), natural environment training (NET), social skills training, and task analysis of complex skills. STRIDE provides opportunities to participate in sc school setting and are very structured for each student based on the student's areas of strength and need. All activities and programming are designed to provide maximum opportunities for students to generalize their skills, practice social interactions, communication, and recreation skills across settings.
Program Description	STRIDE programming utilizes structured curricula, across all levels, and all instruction is guided by the principles of Applied Behavior Analysis including the ACE® curriculum, allowing staff to assess, teach, and evaluate progress using evidence-based procedures. Lesson plans are customized to address communication, social skills, academics, self-help, health and safety. The STRIDE program is staffed by a multidisciplinary team.

Program Descriptions - Preschool

STRIDE Preschool (at NECP) - continued

Ages/Grades Served	**Ages 2.9 - 5**
Scope of Program	The goal of the program is to increase the student's independence and skill level across domain areas. The STRIDE program supports this skill acquisition by utilizing a staff of multidisciplinary team members that includes certified special education teachers, board certified behavior analysts, adapted physical education teachers, occupational therapists, speech & language pathologists with expertise in augmentative and alternative communication, school psychologists, and trained behavior therapists. There is a low student to staff ratio, and staff are rotated to promote generalization of skills. The STRIDE program's clinical consultation and oversight is provided by a BCBA, and the program is overseen by a special education administrator. Related services are provided as determined by the IEP team and may include: • speech & language services • occupational therapy • physical therapy • vision services • hearing services • nursing services • orientation & mobility services • specialized consultation • transportation services STRIDE programming is continuous throughout the year, which is determined on an individual basis.
Inclusive Practices and Opportunities	To the extent determined appropriate by their IEP team, all students participating in STRIDE have the benefit of participating in activities when it is meaningful to them at NECP. The Newton Public Schools has a strong history of and commitment to inclusive education, and maximizing inclusion opportunities is a unique feature of our program.

Program Descriptions - Elementary

Achieve (at Angier)

Ages/Grades Served	Grades 2-5
Student Profile	Students who access this program have been identified as having an educational disability which is a primary specific learning disability in basic reading and/ or written expression and may have a diagnosis of dyslexia or other language based learning disabilities that significantly impact their ability to read fluently, decode and encode words and may impact their overall reading comprehension skills. Students could also require instruction around reading, writing, listening and speaking skills.
Program Offerings	**The focus of this program is to develop skills in the areas of reading and writing and often math skills as well. Content is provided at the instructional level either within a small group and/or within the co-taught class. There is the opportunity for structured, sequential, multi-sensory, systematic decoding instruction outside the general education classroom. Additionally, there is an embedded system within the co-teaching model which provides specially designed instruction either within the general education class or during pull-out instruction. The structure of Achieve allows for this type of flexibility.**
Program Description	Students attending Achieve often have a primary educational disability within the Specific Learning Disability category. The overall goal of the program is to develop literacy and academic skills and strategies while providing supported access to grade level curriculum. Instruction is provided through a multi-sensory approach in order to support students with reading, writing, listening, speaking, as well as executive functioning skills. Students are provided with consistent instruction which is highly structured and focuses on academic skill acquisition. Executive functioning skill development is emphasized throughout the day. In addition to these language-enriched classrooms, students receive specialized reading instruction and assistive technology consultation geared toward individual needs. Specialized reading instruction that focuses on encoding and decoding with ongoing data collection on progress. Rules based reading instruction is targeted to improve decoding, encoding, and reading fluency through explicit, multisensory instruction.

Program Descriptions - Elementary

Achieve (at Angier) - continued

Ages/Grades Served	**Grades 2-5**
Scope of Program	Achieve is designed to provide students with specialized reading instruction in a separate setting while also affording student access to general education content designed by a team of teachers- a certified special education teacher and a certified general education teacher.
Inclusive Practices and Opportunities	The continuum of instructional opportunities allows the team to make the least restrictive decision while still offering a robust program. Each student is assigned a general education classroom where they are able to access academic, specials (ie: art, PE, music, library) and social opportunities in addition to the services determined by the special education team.

Program Descriptions - Elementary

Bridge (at Peirce)

Ages/Grades Served	Grades K-5
Student Profile	The Bridge Program serves students with a primary disability that results in challenges related to Health Impairment, or Emotional Impairment, and focusing on developing behavioral skills.
Program Offerings	The Bridge team works collaboratively with the student, family, classroom teacher and specialists, IEP team members, and community based therapeutic providers to determine how to most meaningfully provide consistent supports and interventions across settings. The Bridge Program utilizes the curricula and themes of Zones of Regulation, Mind-Up and Social Thinking in addition to other mindfulness techniques. All students in the Bridge Program receive direct, explicit instruction in emotional regulation and social skills. Students also receive in-the-moment coaching throughout the school day to use and generalize skills and tools. Students receive individual counseling and have opportunities to engage in clinical group work when ready to do so. Students with IEP-related academic needs receive academic support from a Bridge special education teacher and related services from the appropriate providers. Decisions related to student programming, plans, and preparedness for less restrictive environments are data-informed and can be adjusted regularly.

Program Descriptions - Elementary

Bridge (at Peirce) - continued

Ages/Grades Served	Grades K-5
Program Description	The Bridge Program at Peirce School is a city-wide therapeutic program for elementary students whose educational disabilities cause challenges related to self-regulation, emotional regulation and social interactions. Students in the Bridge Program require specialized social and emotional instruction and therapeutic support in order to make effective progress. The language and curricula used in the Bridge Program are also integrated into the general education classrooms at the school in order to provide students with a wrap-around therapeutic educational environment. Students receiving support from the Bridge Program participate in targeted social and emotional intervention, skill development and instruction that allows them to more successfully participate in school experiences by embedding supports and coaching throughout their educational programming. The Bridge team works collaboratively with teachers, parents, and students to establish the appropriate level of support to promote generalization and independence. The team works closely with outside providers, therapeutic stakeholders, and families to coordinate wraparound care for students and families. The Bridge Program staffing consists of special educators, a psychologist, a BCBA, related service providers, a social worker and a team of skilled behavior therapists. Bridge staff members participate in specialized training in trauma informed teaching practices, collaborative problem solving, and other interventions important to supporting a therapeutic milieu. Further, The Bridge Program is supported by the school administration and Central Office personnel.
Scope of Program	The Bridge Program aims for long term therapeutic support, so students can benefit from the academic and social opportunities presented within the school. In order to ensure students are provided the opportunity to be educated within the least restrictive setting, students have access to a flexible pullout model where they can access a therapeutic milieu and also their general education classrooms, as needed, at any time throughout their school day. The Bridge Program can provide partial inclusion or substantially separate programming for students experiencing an acute emotional or behavioral crisis. A change in programming and placement to Bridge requires a team discussion and team proposal.
Inclusive Practices and Opportunities	The Bridge Program is designed to provide a therapeutic environment while offering access to an inclusive experience with flexibility to meet individual student needs at any given time. The continuum of instructional opportunities allows the team to make the least restrictive decision while still offering a therapeutic program. Students have access to the special education classroom throughout the school day to use strategies, take breaks, problem solve with therapeutic staff, complete academic work in a quieter space, and/or work on calming/coping strategies.

Program Descriptions - Elementary

SPARK at Countryside

Ages/Grades Served	**K-5**
Student Profile	The SPARK Programming supports students with the primary educational disability of Autism or a Communication disability with deficits in social pragmatics, communication and social interactions. Students present with a variety of challenges including anxiety, social thinking, self awareness and executive functioning, as well as sensory and emotional regulation. In addition, students' learning may not be at grade level, and their needs are best met in a smaller separate classroom, or in a partial inclusion environment.
Program Offerings	The program is supported by a special education teacher in partnership from general education teachers. SPARK also receives comprehensive consultation from a Board Certified Behavior Analyst (BCBA), speech language pathologist, psychologist, other related service providers as determined by the student's Individualized Education Program (IEP). SPARK provides an educational experience for students within both separate and inclusive instructional settings which are individualized for each student. The team works collaboratively with the student, family, general education teacher, specialists, IEP team members, and community based therapeutic providers to determine how to provide meaningful and consistent supports across settings.
Program Description	The SPARK program ensures a supportive and cohesive, school learning environment for students who exhibit difficulties with social thinking, anxiety management, sensory and emotional regulation and academic performance related to their disability. Goals are embedded in meaningful activities for students and centered around increasing skills and independence. These skills are consistently being modeled, monitored, and explicitly taught about flexibility, perspective-taking, and self-advocacy. The SPARK program works collaboratively with all of the team members to build upon the student's strengths in order to enhance academic and social progress.

Program Descriptions - Elementary

SPARK at Countryside - continued

Ages/Grades Served	**K-5**
Scope of Program	All academic content areas can be provided in a substantially separate or partial inclusion setting as needed. Within the SPARK classrooms, students access the curriculum in a small, supportive environment that focuses on the development of social pragmatics, social skills, sensory and emotional regulation and executive functioning skills. The small group setting allows for pacing of instruction to be flexible and meet individual student needs. As students increase their level of independence they can access more inclusion services and opportunities.
Inclusive Practices and Opportunities	The continuum of instructional opportunities allows the TEAM to make the least restrictive decision while still offering a therapeutic program. Each student is connected to a general education teacher and classroom where students are able to access academic, specials, and social opportunities. These opportunities are tailored to the individualized student needs.

Program Descriptions - Elementary

Reflections at Williams

Ages/Grades Served	**K-5**
Student Profile	Reflections is a specialized program designed to address the cognitive, social, communication/language, and physical needs of students. Educational disability categories may include, but are not limited to, intellectual, autism, communication, physical, sensory, and/or health. The learning profiles of the students necessitate extensive content modifications and instructional methodology that integrates functional skills and substantial related services to access general education content.
Program Offerings	A multidisciplinary team of related service providers support students based on a range of individual needs, including consultative and direct services. Related service providers may implement a co-treatment model to meet the unique and complex needs of students in the Reflections classroom. A speech/language pathologist, who specializes in Alternative and Augmentative Communication, provides consultation to the program. Additionally, students in the Reflections program have access to adaptive physical education classes, music therapy, and social skill development groups.
Program Description	The Reflections program is a substantially separate setting where students receive highly specialized instruction in functional academics, daily living skills, safety skills, social skills, communication and language skills, and independent functioning skills. Students engage in evidence-based parallel curricula and spiraled-down grade level content. Instructional methodology integrates multisensory learning, community and safety skills, and extensive content modification, as part of curriculum accessibility.

Program Descriptions - Elementary

Reflections at Williams - continued

Ages/Grades Served	**K-5**
Scope of Program	Reflections program is staffed by a qualified special education teacher who provides specialized instruction using individual, small group and differentiated whole group lessons. The program is supported by teaching assistants who collaborate with the lead teacher in order to provide a combination of instructional, social, and behavioral interventions, while also promoting meaningful inclusion opportunities.
Inclusive Practices and Opportunities	The Reflections program is dedicated to supporting student access to meaningful, inclusive learning opportunities. Students are integrated into the school community and considered valuable members of the Williams Elementary School. Each student is assigned to a grade-level general education classroom and teacher. A multidisciplinary team supports student access to inclusive learning and peer engagement in order to generalize and apply learned functional, academic, and social communication skills.

Program Descriptions - Elementary

STRIDE (Bowen, Cabot and Zervas)

Ages/Grades Served	Grades K-5
Student Profile	Students in the STRIDE program typically have significant challenges with: • verbal and non-verbal communication (may use augmentative/alternative communication (AAC) devices) • behavior, including inflexibility and restricted/repetitive behaviors • social skills, including very limited social interactions • academics; most students are performing below grade level and have difficulty accessing traditional instruction The majority of students have a diagnosis of autism. All students require intensive, highly specialized and individualized instruction and support to access learning.
Program Offerings	A range of evidence-based instructional strategies are employed including discrete trial instruction (DTI), natural environment training (NET), social skills training, and task analysis of complex skills. STRIDE provides opportunities to participate in the general education classroom that are very structured for each student based on the student's areas of strength and need. All activities and programming are designed to provide maximum opportunities for students to generalize their skills, practice social interactions, communication, and recreation skills across settings.
Program Description	STRIDE programming utilizes structured curricula, across all levels, and all instruction is guided by the principles of Applied Behavior Analysis including the ACE® curriculum, allowing staff to assess, teach, and evaluate progress using evidence-based procedures. Lesson plans are customized to address communication, social skills, academics, self-help, health and safety, recreation and physical education, community skills, vocational skills, and transition skills. Specialized academic curriculum is also used as necessary. The STRIDE program is staffed by a multidisciplinary team.

Program Descriptions - Elementary

STRIDE (Bowen, Cabot and Zervas) - continued

Ages/Grades Served	Grades K-5
Scope of Program	The goal of the program is to increase the student's independence and skill level across domain areas. The STRIDE program supports this skill acquisition by utilizing a staff of multidisciplinary team members that includes certified special education teachers, board certified behavior analysts, adapted physical education teachers, occupational therapists, speech & language pathologists with expertise in augmentative and alternative communication, school psychologists, and trained behavior therapists. There is a low student to staff ratio, and staff are rotated to promote generalization of skills. The STRIDE program's clinical consultation and oversight is provided by a BCBA, and the program is overseen district-wide by a special education administrator. Related services are provided as determined by the IEP team and may include: • speech & language services • occupational therapy • physical therapy • vision services • hearing services • nursing services • counseling services • ELL supports • orientation & mobility services • specialized consultation • transportation services STRIDE programming is continuous throughout the year, which is determined on an individual basis. All students access robust community- based instruction as part of their programming. Tiered parent training is offered to families.
Inclusive Practices and Opportunities	To the extent determined appropriate by their IEP team, all students participating in STRIDE have the benefit of participating in general education classes and activities when it is meaningful to them. The Newton Public Schools has a strong history of and commitment to inclusive education, and maximizing inclusion opportunities is a unique feature of our program.

Program Descriptions - Middle

Bridge (at Day)

Ages/Grades Served	Grades 6-8
Student Profile	The Bridge Program serves students with a primary disability that results in challenges related to social, emotional, and behavioral skills; students likely have primary educational disability classification of Emotional Impairment or Health Impairment. Students also are in need of a therapeutic environment and milieu to access their curriculum.
Program Offerings	All students in the Bridge program have access to specialized social and emotional instruction as well as academic instruction. The social emotional interventions follow evidenced based social and emotional curriculum and includes individual and group counseling sessions, and small group social skills instruction. Small group therapy modules are scheduled as needed, based on the individual needs and goals of each student. These offerings are reviewed and revised regularly. The Bridge Program offers a full range of support for students, from full inclusion to substantially separate content area setting for instruction. In order to ensure students are provided the opportunity to be educated within the least restrictive setting, students have access to a flexible pullout model where they can access a therapeutic milieu from their general education classes, as needed, at any time throughout their school day. Students will also receive academic support to further develop executive functioning needs that are impacted by their emotional disabilities.

Program Descriptions - Middle

Bridge (at Day) - continued

Ages/Grades Served	Grades 6-8
Program Description	The Bridge Program at F.A. Day Middle School is a city-wide therapeutic program for students who require specialized social and emotional instruction and therapeutic support in order to make effective progress. The Bridge Program is integrated into every aspect of the F.A. Day Middle School community while also providing students with a therapeutic educational environment. Students receiving support from the Bridge Program participate in targeted social and emotional intervention, skill development, and executive functioning instruction embedded throughout their educational programming. The Bridge team works closely with general education teachers, parents, and students, to deliver flexible staffing supports to create a close ratio of adult support when needed, while also decreasing the intensity of support when appropriate in order to promote generalization of skills and foster independence. The team works closely with outside providers, therapeutic stakeholders, and families to coordinate wraparound care for students and families. The Bridge Program consists of special educators, counselors, and support staff. Bridge is affiliated with a grade-level team at each grade. General education teachers and staff participate in specialized training in trauma informed teaching practices, collaborative problem solving, and other interventions important to supporting therapeutic milieu. Further, The Bridge Program is supported by the school administration and Central Office personnel.
Scope of Program	The Bridge Program serves students with a primary disability that results in challenges related to social, emotional, and behavioral skills; students likely have primary educational disability classification of Emotional Impairment or Health Impairment. Students also are in need of a therapeutic environment and milieu to access their curriculum.
Inclusive Practices and Opportunities	The continuum of instructional opportunities allows the team to make the least restrictive decision while still offering a therapeutic program. Each student is connected to a school based grade team where they are able to access academic, unified arts, and social opportunities. These opportunities are tailored to their individualized needs.

Program Descriptions - Middle

Direct Instruction (at Oak Hill)

Ages/Grades Served	Grades 6-8
Student Profile	Students who participate in Direct Instruction may have been identified as having a wide range of educational disabilities. Their educational disability impacts them in a way that they have reduced or slowed progress with the academic curriculum delivered in general education classrooms. These students are often working several years behind grade-level, and need explicit and intensive instruction in order to close the gap. Many of these students also have challenges with social skills. While these students are socially motivated and share their peers' interests, they may need assistance to develop the social pragmatic skills. Many of these students also have challenges with organization, planning, and work production. They need to be taught strategies to further develop their executive functioning.
Program Offerings	Special education teachers with dual-certification in their content areas teach the core academic classes. Support is provided in general education Fine and Applied Arts classes as well as small group academic strategies by an experienced teacher assistant. Direct Instruction curricula are used to provide explicit, systematic, mastery-based instruction in reading, writing, and math, beginning at the student's current level of academic performance and using data-based decisions to determine instructional next steps. Small-group social studies and science teach key points from the grade-level Massachusetts curriculum frameworks, using differentiated materials based upon the Core Knowledge Foundation curricula. Special education teacher(s) oversee the delivery of specialized academic instruction using Direct Instruction curricula. The program receives comprehensive consultation from a Board Certified Behavior Analyst, speech language pathologist, psychologist, and other related service providers. Students may also have additional individualized services in speech and language, social communication, occupational therapy, adapted physical education, music therapy, and counseling.

Program Descriptions - Middle

Direct Instruction (at Oak Hill) - continued

Ages/Grades Served	Grades 6-8
Program Description	The DIRECT program focuses on meeting students' multi-sensory needs at their current level of academic, executive, and emotional functioning, and directly teaches the skills necessary to succeed in a general education environment. The primary goals of the Direct Instruction multi-sensory classroom include remediating academic deficits, strengthening understanding of the self as a successful learner, improving self-regulation, and teaching executive functioning and social-pragmatic skills. All students participate in a program-wide incentive system used to teach and reinforce behavioral expectations. Classes are consistently structured with clear routines to reduce anxiety and promote independence. Weekly social skills classes teach perspective-taking and self-regulation skills that are then infused into classroom supports.
Scope of Program	The Direct program offers a range of programming from partial inclusion to substantially separate programming that provides opportunities for students to receive structured, systematic, and explicit instruction in reading, writing, and math that targets their areas of academic deficit. Students also participate in small group instruction for science and social studies, with the intention of generalizing the skills developed through English and math instruction to course-specific content.
Inclusive Practices and Opportunities	The continuum of instructional opportunities allows the team to make the least restrictive decision while still offering a therapeutic program. Each student is connected to a school based grade team where they are able to access academic, unified arts, and social opportunities. These opportunities are tailored to their individualized needs.

Program Descriptions - Middle

FOCUS (at Brown)

Ages/Grades Served	Grades 6-8
Student Profile	Students in the FOCUS program have a primary educational disability category of Autism or other similar educational disabilities. Students present with challenges in the areas of social thinking, self-awareness, executive functioning, perspective-taking, and emotional and sensory regulation. Students are able to access their academics within the general education classrooms, but have difficulty negotiating a large school environment independently, as well as understanding and navigating social rules.
Program Offerings	FOCUS is staffed by special education teachers, teaching assistants and behavior therapists. FOCUS special educators are the liaisons to guidance counselors, general education teachers, specialists, and students' families. The special educator teachers also collaborate with outside providers to coordinate a wrap around approach to supporting students. The program benefits from additional consultation resources from speech language pathologists, psychologists and partners with experts in the field. Students in FOCUS are supported by program based support staff in a cohort model.

Program Descriptions - Middle

FOCUS (at Brown) - continued

Ages/Grades Served	Grades 6-8
Program Description	The FOCUS Program at Brown Middle School is a community of diverse learners with a wide range of interests, abilities, and skill sets. FOCUS provides support for students who present with Autism or other similar disabilities, who are able to access their academics within the general education classrooms, but have difficulty negotiating a large school environment independently, as well as understanding and navigating social rules. These students present with challenges in the areas of social thinking, self-awareness, executive functioning, perspective-taking, and emotional and sensory regulation. The goal of FOCUS is to ensure a supportive, cohesive, and challenging middle school learning environment for students who exhibit difficulties with perspective taking, social thinking, executive functioning, emotional regulation, and anxiety management. Our primary goals for students center around increased skills and independence within these areas in addition to flexibility and self-advocacy. We strive for cohesion by collaborating with individuals from each and every facet of our students' educational experiences, so that we may build upon their strengths in order to enhance academic and social progress.
Scope of Program	Students are fully included in general education grade-level academic classes with additional academic, executive functioning and social support provided as needed. Throughout the day, Throughout the day, students are supported by staff that are specifically trained in addressing the needs of this population. Services such as speech language therapy, occupational therapy, and school psychologist support are provided on a case-by-case basis. Students participate in the general education curriculum, with accommodations tailored to their learning style and current performance level as determined by the team and described in their IEP. In addition, students participate in Academic Strategies instruction with curriculum around social thinking, self-advocacy and awareness, executive functioning and metacognition.
Inclusive Practices and Opportunities	FOCUS is a full inclusion to partial inclusion program where students are included in general education classes. Students are connected to school based grade teams where they are able to access academic, unified arts, and social opportunities which are tailored to their individualized needs.

Program Descriptions - Middle

Language Based Learning Program (at Oak Hill)

Ages/Grades Served	Grades 6-8
Student Profile	Students who access this program have been identified as having a primary specific learning disability in basic reading and/ or written expression and may have a diagnosis of dyslexia or other language based learning disabilities. Some of these students will have deficits in spoken language and comprehension of spoken language. Many of these students will have also been diagnosed as having language based learning disabilities. Language-based learning disability (LBLD) refers to a spectrum of difficulties related to the understanding and use of spoken and written language. Student's who require instruction in this program have language based learning disabilities that significantly impact their ability to read fluently, decode and encode words and may impact their overall reading comprehension skills. They also require instruction around reading, writing, listening and speaking skills.
Program Offerings	The focus of this program is about the development of skills in the areas of reading, speaking, listening and writing and require language based instruction. Content is provided at the instructional level in small group and/ or co-taught classes and includes a structured, sequential, multisensory, systematic approach, and moves toward grade level instruction. The focus of this program is to develop skills in the areas of reading and writing and often math skills as well. Content is provided at the instructional level either within a small group and/or within the co-taught class. There is the opportunity for structured, sequential, multisensory, systematic decoding instruction outside the general education classroom. Additionally, there is an embedded system within the co-teaching model which provides specially designed instruction either within the general education class or during pull-out instruction. The structure of the Language Learning program allows for this type of flexibility. Students are served through a partial inclusion model. Academic support focuses on specifically designed instruction in all skill areas that are tied to IEP goals. In the small group academic support students focus on the development of vocabulary (through pre-teaching and reteaching), so they can access the general education content and specifically designed instruction in executive functioning. There is an embedded system of providing specifically designed instruction in executive functioning within the academic support. Support from the Language Learning program is provided in the general education setting through expansive collaboration between the general education teachers and the LLD special educators.

Program Descriptions - Middle

Language Based Learning Program - continued

Ages/Grades Served	Grades 6-8
Program Description	Students attending the language-based learning program have a primary disability of Specific Learning Disability in basic reading skills and/ or written expression. The overall goal of the language-based program is to develop literacy skills and strategies while providing supported access to grade level curriculum. Instructional methodology is through a multi-sensory approach to support students with reading, writing, listening, speaking, as well as executive functioning skills. In all content areas, through a language- based team teaching approach, students are provided with consistent instructional methodology which is highly structured and focuses on oral and visual modalities to support language processing and production. Executive functioning skill development is emphasized throughout all classes and specifically designed instruction for these skills occurs throughout the student's school day. In addition to these language-enriched classes, students receive specialized reading instruction and assistive technology consultation geared toward individual needs. Specialized reading instruction that focuses on encoding and decoding with ongoing data collection on progress. Rules based reading instruction is targeted to improve decoding, encoding, and reading fluency through explicit, multisensory instruction.
Scope of Program	There are two strands within the program, one for students with a need for direct instruction in decoding and encoding strategies and a second strand for students who have a global need for language-based development.
Inclusive Practices and Opportunities	The continuum of instructional opportunities allows the TEAM to make the least restrictive decision while still offering a therapeutic program. Each student is connected to a school based grade team where they are able to access academic, unified arts, and social opportunities. These opportunities are tailored to their individualized needs.

Program Descriptions - Middle

Reflections (at Day)

Ages/Grades Served	Grades 6-8
Student Profile	Students in the Reflections program have a complex cognitive and social profile that necessitates extensive content modifications and instructional methodology that integrates functional skills as part of access to curriculum. Educational disability categories may include, but are not limited to, intellectual, autism, communication, physical, sensory, and/or health. Students in the Reflections program may have historically been in an inclusion placement with the need for significant pull-out instruction away from their general education peers for skill building, and can now receive whole group differentiated instruction as part of the classroom community.
Program Offerings	Students receive academic content instruction in the areas of mathematics, English language arts, science, and social studies. Additional blocks are allotted to provide academic support, social pragmatics intervention, social skill intervention, life skills instruction, music therapy, and community trips, plus related services based on individual need.. Students in Reflections receive extensive training on how to appropriately use assistive technology to make both classroom academics and independent living more easily accessible.
Program Description	The Reflections program provides comprehensive and systematic small group instruction outside the general education setting. Students receiving support through the Reflections program require all major content area instruction in a small group, substantially separate setting in order to embed extensive content modifications and instructional methodology that integrates functional skills as part of access to curriculum. All students have opportunities for inclusive experiences both within the Day Middle School community (e.g. fine and applied arts courses) and the neighborhood community (e.g. community outings). Additional individualized inclusion opportunities (e.g. joining a general education class) are also implemented based on the individual needs, skills, and goals of the students.

Program Descriptions - Middle

Reflections (at Day) - continued

Ages/Grades Served	Grades 6-8
Scope of Program	The Reflections program is a substantially separate school year placement, and mirrors the scope and sequence of the general education curriculum standards through highly individualized and differentiated instruction. A special education teacher delivers specialized instruction in all content areas. The program is staffed by a combination of special education teaching assistants and behavior therapists who collaborate with the lead teacher in order to embed a combination of instructional, social, and behavioral interventions, while also promoting successful inclusion opportunities. A multidisciplinary team supports students based on a range of individual needs, including consultative and direct services.
Inclusive Practices and Opportunities	Students are provided the opportunity to engage in social interactions throughout the school day. Every effort is made to promote social opportunities with peers from across the school throughout the school day and year, specifically ensuring that Reflections students have access to the full school community, including but not limited to lunch peer groups, after school activities and clubs

Program Descriptions - Middle

SPARK (at Brown)

Ages/Grades Served	Grades 6-8
Student Profile	Students in the SPARK program present with a primary educational disability of Autism or a Communication disability with deficits in social pragmatics, communication and social interactions. Students present with a variety of challenges including anxiety, social thinking, self-awareness, and executive functioning, as well as sensory and emotional regulation. In addition, students' learning may not be at grade level, and their needs are best met in a smaller, substantially separate classroom, or co-taught environment.
Program Offerings	Academic instruction is planned between general education and special education teachers with classroom support from teaching assistants and behavior therapists trained to work with students with the SPARK learner profile. Throughout all classes, reinforcement is provided to facilitate each students' ability to develop skills around flexibility, self-awareness, self-regulation, social competency, and anxiety management. As students increase their independence and lower their level of needs, in the Spark program, there are increased opportunities for inclusion to meet the needs of the student while they remain supported by the SPARK Program. Students participate in academic strategies that target specific skills such as executive functioning skills and those skills needed for increased independence to fully engage in the educational experience. In addition, students participate in meaningful inclusion opportunities such as physical education, health and the fine and applied arts rotation. Students receive social thinking, speech language, and counseling support as part of the program. Additional related services are determined by the Team and written into the IEP. Special education teacher(s)oversee the delivery of specialized academic instruction. The program receives comprehensive consultation from a Board Certified Behavior Analyst, speech language pathologist, psychologist, other related service providers, and partners with experts in the field as appropriate. Students in SPARK are supported by program based support staff in a cohort model.

Program Descriptions - Middle

SPARK (at Brown) - continued

Ages/Grades Served	Grades 6-8
Program Description	The SPARK Program supports students with a primary educational disability of Autism or a Communication disability with deficits in social communication and social interactions who require partial inclusion or substantially separate support. The SPARK program ensures a supportive and cohesive, middle school learning environment for students who exhibit difficulties with social thinking, anxiety management, and academic performance related to their disability. Embedded in goals for students centered around increased skills and independence are consistent modeling, monitoring, and explicit teaching about flexibility, perspective-taking, and self-advocacy. We strive for cohesion by collaborating with individuals from each and every facet of our students' educational experiences so that we may build upon their strengths in order to enhance academic and social progress.
Scope of Program	All academic content areas can be provided in a substantially separate setting as needed. These substantially separate classes support students in accessing the curriculum and their educational setting. Within the sub-separate classroom, students access the curriculum in a small, supportive environment that focuses on the development of social pragmatics, social skills and executive functioning skills. The small group setting allows for pacing of instruction to be flexible and meet individual student needs. As students increase their level of independence they can access partial inclusion services also.
Inclusive Practices and Opportunities	The continuum of instructional opportunities allows the TEAM to make the least restrictive decision while still offering a therapeutic program. Each student is connected to a school based grade team where they are able to access academic, unified arts, and social opportunities. These opportunities are tailored to their individualized needs.

Program Descriptions - Middle

STRIDE (at Brown)

Ages/Grades Served	Grades 6-8
Student Profile	Students receiving support through the STRIDE program at the middle school level require intensive behavioral, academic and communication support and receive almost all of their instruction via the methodology of discrete trial instruction.
Program Offerings	A range of evidence-based instructional strategies are employed including discrete trial instruction (DTI), natural environment training (NET), social skills training, and task analysis of complex skills. Each student participates in social pragmatics groups and/or individualized therapies, as written in their IEP. These therapies are provided by a speech language pathologist. Sessions build skills for generalization to school and community settings. In addition, students receive instruction in Activities of Daily Living as well as exposure to Pre-Vocational Training. Community activities are planned and implemented to address student needs in order to be successful in the community. Students participate in community outings individually or in small groups with staff. Each student works on specific, individual goals for each outing. Additionally, students practice age-appropriate leisure and recreation skills. The goal of all programming is to ensure that each student builds a repertoire of academic, social, and life skills that maximize independence, access and integration at school, home and in the community.
Program Description	The program provides an intensive approach to Applied Behavior Analysis (ABA) instruction. The services include a combination of discrete trial sessions, small group activities, incidental teaching strategies and individualized supported inclusion, to students in grades 6 through 8. The program is based on the principles of Applied Behavior Analysis and Positive Behavior Supports with a focus on the use of individualized Behavior Support Plans incorporating function-based strategies including functional communication training and positive reinforcement systems. The goal for students is to increase their independent skills in all areas including academics, recreation, social, communication, self-care, and motor and behavior management. These skills are approached in a variety of settings to promote generalization.

Program Descriptions - Middle

STRIDE (at Brown) - continued

Ages/Grades Served	Grades 6-8
Scope of Program	All educational needs for instruction can be provided in a substantially separate setting. These substantially separate classes support students in accessing the curriculum and their educational setting. Within the sub-separate classroom, students access the curriculum in a small, supportive environment that focuses on the development of social pragmatics, social skills and executive functioning skills. The small group setting allows for a highly individualized approach to instruction and education.
Inclusive Practices and Opportunities	All STRIDE students have the benefit of participating in regular education classes and activities to the extent determined appropriate by their IEP team. This program has a commitment to inclusive education, and maximizing inclusion opportunities. is a unique feature of our program and a priority for our students. Inclusion opportunities are structured for each student based on the student's areas of strength and need. Typically, students will be included in the school community for social opportunities such as lunch, fine and applied arts classes, and physical education. These activities provide opportunities for students to practice social interactions, communication programs, and recreation skills in more natural situations. The amount of time students are included for these activities is individualized based on class structure, target goals, and student interest. Participation in core curriculum classrooms is determined for each student individually.

Program Descriptions - High

Compass (at North and South)

Ages/Grades Served	Grades 9-12
Student Profile	The Compass program services students who have a primary emotional disability and are able to access the general education environment with therapeutic support embedded throughout their educational experience. Compass students are typically academically very capable, but have difficulty socially and emotionally in the larger school environment. Students have access to the full range of courses and services that are available within the school.
Program Offerings	The program addresses a variety of needs by providing the individual student with support and advocacy. Ongoing communication with parents, guardians, and school personnel is an integral part of the program. The Compass Program is a fully inclusive program that allows for students to flexibly leave the general education class setting, when needed, to access therapeutic support and the therapeutic milieu throughout their school day. Students take general education classes and receive support from the program's special education liaison and the school adjustment counselor. The liaison and school adjustment counselor engage in regular communication with general education teachers to provide academic, executive functioning, as well as, social and emotional support so that students can access the general education curriculum. Additionally, the program faculty engage in communication and collaboration with parents and community based mental health providers to encourage a wrap around system of therapeutic support. Students have access to academic support classes within the Compass setting where they receive specifically designed instruction in executive functioning skill development as well as any other academic skill development needed that is impacted by their emotional disability.

Program Descriptions - High

Compass (at North and South) - continued

Ages/Grades Served	Grades 9-12
Program Description	The Compass Program at both Newton South and Newton North High School is a therapeutic program for students who require specialized instruction and therapeutic support in order to make effective progress. Students receiving support from the Compass Program receive targeted intervention in their individualized areas of need, as well as, counseling for social and emotional needs. The Compass program serves as a therapeutic setting for students throughout their school day. Each student has a schedule that specifically meets their emotional and academic needs and enhances their educational strengths. Students meet with their liaisons and school adjustment counselor in the program throughout the week. The goal of the program is to help the student manage academic, social and emotional stress. It seeks to enable the student to become fully integrated in a public high school setting, by building skills that are essential for success during and after high school. The interventions follow evidenced based social and emotional curricula and include DBT (Dialectical Behavioral Therapy) skills, collaborative problem-solving, restorative practices and motivational interviewing in both individual and group settings. The special education providers in the Compass program work closely with general education teachers, parents, and students, to deliver flexible support. The team works closely with outside providers and therapeutic stakeholders in order to coordinate wraparound care for students and families. Identifying the strengths of each student and using them to overcome their deficits is integral in the design of the student's individual program.
Scope of Program	The Compass program can provide long term programming in a range of models from full inclusion to partial inclusion. A change in programming and placement to Compass requires a team discussion and team proposal. While Compass is a full to partial inclusion program, it offers students a flexible push out model for students to access a therapeutic setting as needed throughout the school day if needed when the students are engaging in the general education educational setting.
Inclusive Practices and Opportunities	Compass is a full inclusion to partial inclusion program where students are included in general education classes. Students access the general education setting for electives also and are fully included in all aspects of the educational environment.

Program Descriptions - High

Connections (at North and South)

Ages/Grades Served	Grades 9-12
Student Profile	Students in the Connections program have a complex cognitive and social profile that necessitates extensive content modifications and instructional methodology that integrates functional skills as part of access to curriculum.
Program Offerings	Inclusion facilitators, special education assistants, and specialists staff the program. A case manager, a special educator with experience in intensive special needs, called an inclusion facilitator, plans appropriate interventions, coordinates services for students, models best practices in teaching students with intensive needs, and serves as a resource for students and faculty and parents. The inclusion facilitator works closely with teachers, teaching assistants, specialists and the families of students to ensure that a meaningful educational experience is provided.
Program Description	The Connections program provides highly individualized services, programming, and special instruction to students according to their needs and IEPs. It is based on the belief that all students can learn together in the same schools and classrooms with appropriate supports. The Connections program supports students with moderate to severe disabilities with a goal of maximizing the potential and independence of each student. It is based on the belief that all students can learn together in the same schools and classrooms with appropriate supports. An inclusive education helps prepare students with disabilities for an integrated adult life and builds understanding and acceptance within the broader community.The goal of the high school Connections program is to maximize the potential and independence of each student. An inclusive education helps prepare students with disabilities for an integrated adult life and builds understanding and acceptance within the broader community.

Program Descriptions - High

Connections (at North and South) - continued

Ages/Grades Served	Grades 9-12
Scope of Program	Individual programming is based on each student's required modifications, accommodations, and need for specialized instruction in lieu of general education classes.
Inclusive Practices and Opportunities	A critical component of inclusion is to provide students with disabilities access to the curriculum, regardless of the level. In order to provide successful experiences, an effort is made to place students in a variety of classes. The goal is typically to integrate students as much as possible. Special instruction in mathematics, English language arts, and other content areas are provided as needed and determined by a student's special education team.

Program Descriptions - High

Language Based Learning Program (at North and South)

Ages/Grades Served	Grades 9-12
Student Profile	Students have been identified as having a primary specific learning disability in basic reading and/ or written expression. Many of these students will have also been diagnosed as having language based learning disabilities. Language-based learning disability (LBLD) refers to a spectrum of difficulties related to the understanding and use of spoken and written language. Student's who require instruction in this program have language based learning disabilities that significantly impact their ability to read fluently, decode and encode words and may impact their overall reading comprehension skills. They also require instruction around reading, writing, listening and speaking skills that have language based instructional methodologies. Some students may also require additional support around receptive and expressive language needs.
Program Offerings	The focus of this program is to develop skills in the areas of reading and written expression. Support in math may also be needed when math content is loaded with language. Content is provided at the instructional level either within a small group and co-taught classes. There is the opportunity for structured, sequential, multisensory, systematic decoding instruction outside the general education classroom. Additionally, there is an embedded system within the co-teaching model which provides specially designed instruction either within the general education class or during pull-out instruction. Students who are in the Language Based Learning program receive ELA and Academic Support through the Language Based Program but may access co-taught classes for other content areas. In the small group academic support students focus on the development of vocabulary (through pre-teaching and reteaching) so they can access the general education content, but also on the development of skills related to their IEP. Students also receive specialized instruction in encoding, decoding as well as speech and language services as needed. There is an embedded system of providing specifically designed instruction in executive functioning within the academic support. Support from the Language Based Learning program is provided in the general education setting through a Teaching Assistant and expansive collaboration is done between the teachers and the Language Based Learning program teacher.

Program Descriptions - High

Language Based Learning Program (at North and South) - continued

Ages/Grades Served	Grades 9-12
Program Description	The Language Based Learning Disabilities programs provide intensive instruction to address students' developing language skills. Curriculum is modified and adapted as necessary to include a structured, sequential, multisensory, systematic approach to ensure all learning modalities are engaged. Special education teachers have specialized training in rules based, multi-sensory reading programs, as well as, writing instruction. A speech language pathologist collaborates with the special education teacher to plan and implement appropriate language-based supports throughout all content area classes. The focus in this program is about the development of skills in the areas of reading ,speaking, listening and writing and require language based instruction. The program works with students to teach skills through content and curriculum. Content is provided at the instructional level in small group and/ or co-taught classes, with language based methodology, and moves toward grade level instruction. Academic support focuses on specifically designed instruction in skill areas that are tied to IEP goals and there is a strong focus on the development of the executive functioning skills our language based students require to access their education.
Scope of Program	The Language Based Learning Program can provide long term programming in a range of models from full inclusion to partial inclusion. A change in programming and placement to this program requires a team discussion and team proposal.
Inclusive Practices and Opportunities	The Language Based Learning Program is a full inclusion to partial inclusion program where students are included in general education classes. Students access the general education setting for electives also.

Program Descriptions - High

Pilot and Southside (at North and South)

Ages/Grades Served	Grades 9-12
Student Profile	The Pilot and Southside programs service students with primary emotional disabilities who require therapeutic supports in order to make effective progress. Students may also have other disabilities that impact them. Pilot and Southside students have difficulty making effective progress in the larger school environment and benefit from wraparound therapeutic supports. The programs aim to provide as many inclusion opportunities for its students as is appropriate based on their individualized needs.
Program Offerings	The Pilot and Southside programs address a variety of needs by providing the individual student with support and advocacy. Ongoing communication with parents, guardians, and school personnel is an integral part of the program. Within Pilot and Southside students participate in group and individual counseling. Additionally, students have access to team-building activities in order to create a community of trust within the program. Clinicians and special education teachers engage in regular communication with general education teachers to provide academic, executive functioning as well as social and emotional support so that students can access the general education curriculum. Additionally, the program faculty engage in communication and collaboration with parents and community-based mental health providers to encourage a wrap-around system of therapeutic support. Students have access to academic support classes within the Pilot and Southside settings where they receive specially designed instruction in executive functioning skills development as well as any other academic skills development needed that is impacted by their emotional disability.

Program Descriptions - High

Pilot and Southside (at North and South) - continued

Ages/Grades Served	Grades 9-12
Program Description	The Southside and Pilot programs provide intensive, proactive therapeutic intervention within a highly structured setting. Southside and Pilot are therapeutic programs for students who require specialized instruction due to the nature of their emotional disability, in order to make effective progress. Students receiving support from the Southside and Pilot Programs are supported in a therapeutic setting and receive targeted intervention and skill building opportunities in the areas of their social and emotional skills. The interventions follow evidenced based social and emotional curricula and include DBT (Dialectical Behavioral Therapy) skills, collaborative problem-solving, restorative practices and motivational interviewing in both individual and group settings. The Pilot and Southside Programs offer a full range of support for students who require full inclusion to substantially separate content area settings for instruction. Academic classes provided within the Southside and Pilot settings are small group classes that are highly structured and embed support for executive functioning. The programs aim to provide as many inclusion opportunities for its students as is appropriate based on their individualized needs. For that reason, students are encouraged to enroll in general education classes and electives to the extent that they can be successful in those courses and support is provided to access those classes as needed. Students may also receive academic support to further address executive functioning needs that are impacted by their emotional disabilities. Family involvement plays an important role in this success; as such, parents and guardians will be involved as much as possible.
Scope of Program	The Pilot and Southside Programs allow students to be able to take classes within the programs with flexibility to take classes within the general education class setting. Pilot and Southside offers a full range of services for students who require a continuum from full inclusion to substantially separate settings. When students access a majority of their classes in the general education environment, they still have access to therapeutic support and the therapeutic milieu throughout their school day as needed.
Inclusive Practices and Opportunities	While some students access the majority of clases through the Pilot or Southside program, the program aims to provide inclusion opportunities for its students as is appropriate based on their individualized needs. Educators in these programs promote social opportunities with peers from across the school throughout the school day and year, specifically ensuring that students in these programs have access to the full school community.

Program Descriptions - High

Rise (at South)

Ages/Grades Served	Grades 9-12
Student Profile	Students in the Rise program may present with Autism or similar disabilities with a variety of challenges, including anxiety, social skills, self-awareness, and executive functioning as well as sensory and emotional regulation. Academically, students are able to access the general education curriculum content but may require a varied pace of instruction and also need a focus on social skill and social pragmatic development.
Program Offerings	The goals of the Rise Program are to provide academic support and develop skills needed for post-secondary education and/or work. The Rise program provides students with compensatory strategies that will assist students in becoming independent learners. Students receive Academic Study support with the RISE special education teacher. Additionally, student performance is monitored closely by maintaining effective communication with teachers, specialists, and families.
Program Description	This Rise program is designed to offer students support with self-awareness and regulation, social competency and stress and anxiety management. Additional skills that are addressed through blocks of scheduled Academic Study include self-advocacy, organizational strategies, transition skills, preview and review and study skills. Student performance is monitored closely by maintaining effective communication with teachers, specialists, and families.
Scope of Program	Rise students participate in smaller group academic classes, co-taught classes and general education classes. Students have access to the full range of courses and services that are available within the school.
Inclusive Practices and Opportunities	Rise students have a full range of academic and elective class offerings depending upon their level of need. Students who are taught academic content in substantially separate classes are able to access the general education setting for electives and social opportunities.

Program Descriptions - High

Step (at North and South)

Ages/Grades Served	Grades 9-12
Student Profile	Students in the Step program may present with Autism or similar disabilities with a variety of challenges, including anxiety, social skills, self-awareness, and executive functioning as well as sensory and emotional regulation. The Step program provides support for students who are typically academically very capable, but have difficulty negotiating a large school and understanding social rules. Additionally, students in the program may have high levels of anxiety in the classroom and during unstructured times of their day. Students have access to the full range of courses and services that are available within the school.
Program Offerings	The Step Program is staffed by an inclusion facilitator and program aides. The Step teachers are the liaison to guidance counselors, general education teachers, house deans and students' families. The STEP Program supports student learning in selected general education classes. All content courses are taken in a general education setting with support as determined by the team. Students receive Academic Study support with the STEP special education teachers
Program Description	The Step program is designed to offer students support with self-awareness and regulation, social competency and stress and anxiety management. Additional skills that are addressed include self-advocacy, organizational strategies and study skills. Student performance is monitored closely by maintaining effective communication with teachers, specialists, and families. Students are scheduled into blocks of Academic Study to support the goals and objectives in their IEP. The Academic Support teacher acts as liaison to general education teachers and assists students in becoming aware of strengths and weaknesses in their learning styles. The goals of the program are that students will have support to access the curriculum, develop skills to access their education, as well as those needed for post-secondary education. Additionally, there is a focus on helping improve students' self-advocacy skills. The program also works on developing compensatory strategies that will assist students in becoming independent learners.

Program Descriptions - High

Step (at North and South) - continued

Ages/Grades Served	Grades 9-12
Scope of Program	The Step program can provide long term programming in a range of models from full inclusion to partial inclusion. A change in programming and placement to Step requires a team discussion and team proposal.
Inclusive Practices and Opportunities	Step is a full inclusion to partial inclusion program where students are included in general education classes. Students access the general education setting for electives also.

Program Descriptions - High

STRIDE (at North and South)

Ages/Grades Served	Grades 9-12
Student Profile	Students receiving support through the STRIDE program at the high school level require intensive behavioral, academic and communication support and receive almost all of their instruction via the methodology of discrete trial instruction.
Program Offerings	A range of evidence-based instructional strategies are employed including discrete trial instruction (DTI), natural environment training (NET), social skills training, and task analysis of complex skills. Each student participates in social pragmatics groups and/or individualized therapies, as written in their IEP. These therapies are provided by a speech language pathologist. Sessions build skills for generalization to school and community settings. In addition, students receive instruction in Activities of Daily Living as well as exposure to Pre-Vocational Training. Community activities are planned and implemented to address student needs in order to be successful in the community. Students participate in community outings individually or in small groups with staff. Each student works on specific, individual goals for each outing. Additionally, students practice age-appropriate leisure and recreation skills. The goal of all programming is to ensure that each student builds a repertoire of academic, social, and life skills that maximize independence, access and integration at school, home and in the community.
Program Description	The program provides an intensive approach to Applied Behavior Analysis (ABA) instruction. The services include a combination of discrete trial sessions, small group activities, incidental teaching strategies and individualized supported inclusion, to students in grades 6 through 8. The program is based on the principles of Applied Behavior Analysis and Positive Behavior Supports with a focus on the use of individualized Behavior Support Plans incorporating function-based strategies including functional communication training and positive reinforcement systems. The goal for students is to increase their independent skills in all areas including academics, recreation, social, communication, self-care, and motor and behavior management. These skills are approached in a variety of settings to promote generalization.

Program Descriptions - High

STRIDE (at North and South) - continued

Ages/Grades Served	Grades 9-12
Scope of Program	All educational needs for instruction can be provided in a substantially separate setting. These substantially separate classes support students in accessing the curriculum and their educational setting. Within the sub-separate classroom, students access the curriculum in a small, supportive environment that focuses on the development of social pragmatics, social skills and executive functioning skills. The small group setting allows for a highly individualized approach to instruction and education. As students move into the program for 18-21 year olds, the scope of the program may remain consistent but focuses more on the development of increased independence in relation to transitional related skills.
Inclusive Practices and Opportunities	All STRIDE students have the benefit of participating in regular education classes and activities to the extent determined appropriate by their IEP team. This program has a commitment to inclusive education, and maximizing inclusion opportunities. is a unique feature of our program and a priority for our students. Inclusion opportunities are structured for each student based on the student's areas of strength and need. Typically, students will be included in the school community for social opportunities such as lunch, fine and applied arts classes, and physical education. These activities provide opportunities for students to practice social interactions, communication programs, and recreation skills in more natural situations. The amount of time students are included for these activities is individualized based on class structure, target goals, and student interest. Participation in core curriculum classrooms is determined for each student individually.

Program Descriptions - High

Central High School (at Education Center)

Ages/Grades Served	Grades 9-12
Student Profile	The Central High School Program serves students with a primary disability that results in challenges related to social, emotional, and behavioral skills; students likely have primary educational disability classification of Emotional. Students may have other co-occurring disabilities but the Emotional disability is their primary disability and they require a substantially separate therapeutic environment to access their education.
Program Offerings	Academic classes are delivered in small group classes that are highly structured and follow the foundations of the Massachusetts Curriculum Frameworks for all subject areas. Classes are taught by certified special education teachers who are also licensed in the content areas they teach. The specialized instruction embeds support for executive functioning throughout each class and teaches skills that can be generalized in all settings. Consistent with our experience and history in this program, family involvement plays an important role in their students' success; as such, the Central team collaborates with parents and guardians on a regular basis.
Program Description	The Central High School program is a separate, public day school that provides intensive, therapeutic intervention within a highly structured, small group setting. The program is designed for students who require specialized instruction in both academic and social/emotional domains in order to make effective progress. Students receive targeted intervention and skill building opportunities in the areas of their social and emotional skills embedded throughout the school day. The interventions follow evidenced based social and emotional curricula and include DBT (Dialectical Behavioral Therapy) skills, collaborative problem-solving, restorative practices and motivational interviewing in both individual and group settings.

Program Descriptions - High

Central High School (at Education Center) - continued

Ages/Grades Served	Grades 9-12
Scope of Program	The Central High School Program is poised to provide short term and long term programming for students. Short term programming is accessed through an Extended Evaluation where specific evaluation questions about educational needs are posed. Relatedly, various assessments can be conducted as part of this extended evaluation. Extended evaluation recommendations will be made as a result of the data collected during the extended evaluation period.
Inclusive Practices and Opportunities	While some students access all of their courses through the Central High School program, the program aims to provide inclusion opportunities for its students as is appropriate based on their individualized needs by collaborating with the student's home high school.

Program Descriptions - Post Graduate

Community Connections (at North and Education Center)

Ages/Grades Served	Ages 18-21
Student Profile	Students who are supported in Community Connections often have intensive disabilities that present with complex cognitive profiles and at times, complex social profiles. These may include, but are not limited to, autism spectrum disorder, communication, intellectual, physical, sensory, and/or health disabilities. Students in Community Connections require intensive, substantially separate program interventions that include extensive modifications and instructional methodology to develop transition related skills.
Program Offerings	Learning opportunities are developed to build skills related to personal finances, personal management, personal hygiene/self-care, household management, social skills, community involvement, health/safety practices, lifelong learning, and career development. The program combines classroom-based activities with community experiences to enhance student learning. The program is individualized to address each student's goals and objectives in order to best prepare them for transition to adult life. Special education teachers, social workers, teacher aides, behavior therapists, and specialists staff the program. A special educator experienced in working with students with intensive transition needs, plans appropriate interventions, coordinates services for students, models best practices in teaching students with intensive needs, and serves as a resource for students, faculty, and parents. The program is supported by a DESE endorsed transition specialist/facilitator and a DESE endorsed transition specialist/coordinator.

Program Descriptions - Post Graduate

Community Connections (at North and Education Center) - continued

Ages/Grades Served	Grades 9-12
Program Description	Students who have completed the majority of their high school requirements (ex. may need to complete 1 to 2 required courses), and/or require substantial postgraduate support through program interventions in a number of transition related domains Community Connections is a community based program designed to support students with significant disabilities, who are between the ages of 18-21, and are transitioning from school to adult life. This citywide program is currently based out of Newton North High School and uses community based locations as well as space at the Education Center to support learning opportunities. It is based on the belief that students can learn together in the same schools, classrooms, and in the community with appropriate support. The goal of the Community Connections program is to maximize the potential and independence of each student, while promoting meaningful integration into the community. The program is for students who have completed four years of high school and may or may not be eligible to receive a high school diploma. Community Connections uses a person-centered approach to determine the transition related activities that are coordinated to build a student's weekly schedule. Schedules are developed to strengthen students' functional life skills. The Community Connections program supports students and families to develop relationships with adult service providers as well as other community based resources. Comprehensive transition opportunities occur across a range of community settings; these experiences are focused on independent living, employment, social/leisure/recreation, and lifelong learning.
Scope of Program	The Community Connections Program can provide long term or shorter term programming with a focus on the development of transition related skills.
Inclusive Practices and Opportunities	For postgraduate students, the community is their classroom. The program integrates students into the local Newton community for a range of learning opportunities and inclusive opportunities.

Program Descriptions - Post Graduate

STRIDE (at North and South)

Ages/Grades Served	Ages 18-21
Student Profile	Students receiving support through the STRIDE program at the high school level require intensive behavioral, academic and communication support and receive almost all of their instruction via the methodology of discrete trial instruction.
Program Offerings	A range of evidence-based instructional strategies are employed including discrete trial instruction (DTI), natural environment training (NET), social skills training, and task analysis of complex skills. Each student participates in social pragmatics groups and/or individualized therapies, as written in their IEP. These therapies are provided by a speech language pathologist. Sessions build skills for generalization to school and community settings. In addition, students receive instruction in Activities of Daily Living as well as exposure to Pre-Vocational Training. Community activities are planned and implemented to address student needs in order to be successful in the community. Students participate in community outings individually or in small groups with staff. Each student works on specific, individual goals for each outing. Additionally, students practice age-appropriate leisure and recreation skills. The goal of all programming is to ensure that each student builds a repertoire of academic, social, and life skills that maximize independence, access and integration at school, home and in the community.
Program Description	The program provides an intensive approach to Applied Behavior Analysis (ABA) instruction. The services include a combination of discrete trial sessions, small group activities, incidental teaching strategies and individualized supported inclusion, to students in grades 6 through 8. The program is based on the principles of Applied Behavior Analysis and Positive Behavior Supports with a focus on the use of individualized Behavior Support Plans incorporating function-based strategies including functional communication training and positive reinforcement systems. The goal for students is to increase their independent skills in all areas including academics, recreation, social, communication, self-care, and motor and behavior management. These skills are approached in a variety of settings to promote generalization.

Program Descriptions - Post Graduate

STRIDE (at North and South) - continued

Ages/Grades Served	Grades 9-12
Scope of Program	All educational needs for instruction can be provided in a substantially separate setting. These substantially separate classes support students in accessing the curriculum and their educational setting. Within the sub-separate classroom, students access the curriculum in a small, supportive environment that focuses on the development of social pragmatics, social skills and executive functioning skills. The small group setting allows for a highly individualized approach to instruction and education. As students move into the program for 18-21 year olds, the scope of the program may remain consistent but focuses more on the development of increased independence in relation to transitional related skills.
Inclusive Practices and Opportunities	All STRIDE students have the benefit of participating in regular education classes and activities to the extent determined appropriate by their IEP team. This program has a commitment to inclusive education, and maximizing inclusion opportunities. is a unique feature of our program and a priority for our students. Inclusion opportunities are structured for each student based on the student's areas of strength and need. Typically, students will be included in the school community for social opportunities such as lunch, fine and applied arts classes, and physical education. These activities provide opportunities for students to practice social interactions, communication programs, and recreation skills in more natural situations. The amount of time students are included for these activities is individualized based on class structure, target goals, and student interest. Participation in core curriculum classrooms is determined for each student individually.

3 INITIAL SPACE SUMMARY

Narrative

Initial Space Summaries

Existing Facilities Floor Plans

INTRODUCTION

The initial space summary has been completed for the two study enrollments per the Enrollment Certification as follows:

Enrollment for Grade K-5 in the Countryside Elementary School of 340 students

Enrollment for Grade K-5 in an expansion of the Countryside Elementary School of 465 students

The District's preferred design enrollment is 465 students for Kindergarten through grade 5th in an expansion of the Countryside Elementary School.

General Comment

The Space Summary Template for each of the enrollment options deviates from the MSBA Guidelines as follows. Please refer to **PART 2 I EDUCATIONAL PROGRAM** for detailed information on these programs.

GRADE K-5 IN THE COUNTRYSIDE ELEMENTARY SCHOOL OF 340 STUDENTS

Core Academic Spaces

Using the enrollment of 340 students and dividing it by the number of grades (6 grades, K-5) there will be approximately 57 students per grade. With the average number of 22 or 24 students per classroom, per the class size policy, one (1) additional classroom in total will be required to allow for a bubble grade moving through the upper grades 3 through 5.

GOAL Class Size	K	1	2	3	4	5	Total
# Students (Average)	57	57	57	57	56	56	340
Average # students/ class	22	22	22	24	24	24	
# of classrooms	2.59	2.59	2.59	2.37	2.37	2.37	14.88
Round for total classrooms / grade	3	3	3	3	2	2	16

- One (1) more general classroom grades 1-5 are required compared to MSBA's guideline of twelve (12) classrooms grades 1-5.
- English Learners (EL) Program is a mandated state program. The Newton Public Schools' student population is increasingly multilingual. Every year, Countryside students include 40-50 English Language Learners of varied English proficiency and home languages, who learn alongside their grade level peers. Small groups of students meet with the ELL teacher several times a week both in and outside the classroom for direct English instruction.

  The existing Countryside School has one EL space to serve these students and is anticipating the same in a new facility with either enrollment. The EL teaching model is push in and pull out depending on a student's English proficiency. Students at the entering and developing stage need a designated EL learning classroom in which to meet with the EL teacher. This program requires one (1) classroom at 300 NFA.

- Literacy Center: In support of literacy, a new building will house a Literacy Center which would serve many purposes. The space would be the location of professional learning for teachers, assistants, and parents. In addition, the Literacy Center will provide an alternative location where teachers may utilize the space for specialized instruction for small groups or 1:1 intervention. The specialized materials used for literacy intervention would also be stored in a centralized location to facilitate access by teachers providing RTI (Response to Intervention) services to students in classrooms and small group spaces. The collection used for literacy instruction would also be housed in the shared literacy center space to facilitate sharing the texts and materials across classes and grade levels. The required space needs for the Literacy Professional Center is 925 NFA.
- Math Coaches: To support effective math instruction, math coaches work with classroom educators on instructional practice. Most of the time coaches are working with students and teachers in the classrooms. They also require a separate office to store materials, meet with other educators such as English Language and Special Education teachers. In addition, Math Coaches work with small groups of three to four students outside of the classroom. They need table space for the group that can also accommodate manipulatives that support the mathematical concepts, therefore one space for the math coaches is required at 150 NFA.
- Literacy Specialists: Although most of the reading and writing instruction takes place within the classroom environment, smaller instructional areas are necessary to facilitate individualized instruction, both in 1:1 and small group settings therefore one space for the literacy specialists is required at 175 NFA.

Special Education

NPS strives to include students with disabilities into the general education classrooms as much as is possible to afford effective progress. One way in achieving this is through co-teaching. Co-teaching can occur in many forms and may include a combination of general education teachers, special education teachers, teaching assistants, and behavior therapists. This can vary based on the content being delivered. In the field, co-teaching is generally understood to have six basic models. NPS uses these models fluidly, in some form, in all of the schools.

The staff that provides special education services includes special education teachers, inclusion facilitators, aides, behavior therapists and related service providers such as school psychologists, social workers, speech/language pathologists, occupational therapists and physical therapists. In many cases these positions are shared among more than one school, but together they represent a team-based approach to supporting students and families in need at the elementary level in Newton.

- Countryside Elementary School serves the SPARK citywide special education program. This is strategic positioning for this program, as students from Countryside move up to the Brown Middle School where the SPARK program is located for grades 6-8.

  The SPARK Programming supports students with the primary educational disability of Autism or a Communication disability with deficits in social pragmatics, communication and social interactions. Students present with a variety of challenges including anxiety, social thinking, self awareness and executive functioning, as well as sensory and emotional regulation. In addition, students' learning may not be at grade level, and their needs are best met in a smaller separate classroom, or in a partial inclusion environment. Two full size classrooms of 900 NFA each are required for this program.
- Resource Rooms / Special Education Teaching Spaces: With an enrollment of 340 students two (2) Special Education Teaching spaces are required at 450 NFA each. The net decrease is 100 NFA.

- Small Group Rooms: The District's goal is to provide services in the vicinity of the grade level classrooms. With an enrollment of 340 students allowing for three (3) small group rooms is required. The net decrease is 125 NFA.

For additional detailed information please refer to **PART 2 I EDUCATIONAL PROGRAM**.

The overall NFA for Special Education is 5,185 NFA which is 655 NFA above MSBA guidelines.

Administration & Guidance

The overall required NFA for Administration & Guidance is 125 NFA less than MSBA guidelines based upon the District's most recently completed new elementary school projects.

Custodial & Maintenance

The overall required NFA for Custodial & Maintenance is 190 NFA less than MSBA guidelines based upon the District's most recently completed new elementary school projects.

Other

CASP (Countryside After School Program) is the after-school program for the enrichment and enjoyment of children between 5-12 years of age. These programs, along with some community based after-school programs, are part of the Newton After-School Association (NASA), and is an important program for the families of the Countryside community. The program requires 250 NFA which is above MSBA guidelines.

GRADE K-5 IN AN EXPANSION OF THE COUNTRYSIDE ELEMENTARY SCHOOL OF 465 STUDENTS

It is with great enthusiasm to have the opportunity to provide a state-of-the-art facility to support the Countryside Elementary School and its anticipated growth due to the current developments within the Countryside District.

Core Academic Spaces

Using the enrollment of 465 students and dividing it by the number of grades (6 grades, K-5) there will be approximately 78 students per grade. The number of general education classrooms are in line with MSBA Guidelines.

GOAL Class Size	K	1	2	3	4	5	Total
# Students (Average)	78	78	78	77	77	77	465
Average # students/class	22	22	22	24	24	24	
# of classrooms	3.55	3.55	3.55	3.20	3.20	3.20	20.25
Round for total classrooms / grade	4	4	4	3	3	3	21

- English Learners (EL) Program is a mandated state program. The Newton Public Schools' student population is increasingly multilingual. Every year, Countryside students include 40-50 English Language Learners of varied English proficiency and home languages, who learn alongside their grade level peers. Small groups of students meet with the ELL teacher several times a week both in and outside the classroom for direct English instruction.

The existing Countryside School has one EL space to serve these students and is anticipating the same in a new facility with either enrollment. The EL teaching model is push in and pull out depending on a student's English proficiency. Students at the entering and developing stage need a designated EL learning classroom in which to meet with the EL teacher. This program requires one (1) classroom at 300 NFA.

- Literacy Center: In support of literacy, a new building will house a Literacy Center which would serve many purposes. The space would be the location of professional learning for teachers, assistants, and parents. In addition, the Literacy Center will provide an alternative location where teachers may utilize the space for specialized instruction for small groups or 1:1 intervention. The specialized materials used for literacy intervention would also be stored in a centralized location to facilitate access by teachers providing RTI (Response to Intervention) services to students in classrooms and small group spaces. The collection used for literacy instruction would also be housed in the shared literacy center space to facilitate sharing the texts and materials across classes and grade levels. The required space needs for the Literacy Professional Center is 925 NFA.
- Math Coaches: To support effective math instruction, math coaches work with classroom educators on instructional practice. Most of the time coaches are working with students and teachers in the classrooms. They also require a separate office to store materials, meet with other educators such as English Language and Special Education teachers. In addition, Math Coaches work with small groups of three to four students outside of the classroom. They need table space for the group that can also accommodate manipulatives that support the mathematical concepts, therefore one space for the math coaches is required at 150 NFA.
- Literacy Specialists: Although most of the reading and writing instruction takes place within the classroom environment, smaller instructional areas are necessary to facilitate individualized instruction, both in 1:1 and small group settings therefore one space for the literacy specialists is required at 175 NFA.

Special Education

NPS strives to include students with disabilities into the general education classrooms as much as is possible to afford effective progress. One way in achieving this is through co-teaching. Co-teaching can occur in many forms and may include a combination of general education teachers, special education teachers, teaching assistants, and behavior therapists. This can vary based on the content being delivered. In the field, co-teaching is generally understood to have six basic models. NPS uses these models fluidly, in some form, in all of the schools.

The staff that provides special education services includes special education teachers, inclusion facilitators, aides, behavior therapists and related service providers such as school psychologists, social workers, speech/language pathologists, occupational therapists and physical therapists. In many cases these positions are shared among more than one school, but together they represent a team-based approach to supporting students and families in need at the elementary level in Newton.

- Countryside Elementary School serves the SPARK citywide special education program. This is strategic positioning for this program, as students from Countryside move up to the Brown Middle School where the SPARK program is located for grades 6-8.

  The SPARK Programming supports students with the primary educational disability of Autism or a Communication disability with deficits in social pragmatics, communication and social interactions. Students present with a variety of challenges including anxiety, social thinking, self awareness and executive functioning, as well as sensory and emotional regulation. In addition, students' learning may not be at grade level, and their needs are best met in a smaller separate classroom, or in a partial inclusion environment. Two full size classrooms of 900 NFA each are required for this program.

- Resource Rooms / Special Education Teaching Spaces: With an enrollment of 465 students two (2) Special Education Teaching spaces are required at 450 NFA each. The net decrease is 100 NFA.
- Small Group Rooms: The District's goal is to provide services in the vicinity of the grade level classrooms. With an enrollment of 465 students allowing for one (1) small group room per grade is required. The net increase is 250 NFA.

For additional detailed information please refer to **PART 2 I EDUCATIONAL PROGRAM**.

The overall NFA for Special Education is 5,860 NFA which is 320 NFA above MSBA guidelines.

Dining & Food Service

- The District prefers three seatings for lunch rather than 2 seatings, however it is important to provide sufficient space for full school assemblies. Based upon the District's recently completed new elementary schools, the district believes it can provide a full-service kitchen under the MSBA allowable NFA. Lastly, additional space is required to allow for more space for staff dining. Therefore, the District is allocating a total of 6,350 NFA for this category. This is a reduction of 474 NFA to MSBA Space Guidelines.

Administration & Guidance

The overall required NFA for Administration & Guidance is 255 NFA less than MSBA guidelines based upon the District's most recently completed new elementary school projects.

Custodial & Maintenance

The overall required NFA for Custodial & Maintenance is 235 NFA less than MSBA guidelines based upon the District's most recently completed new elementary school projects.

Other

CASP (Countryside After School Program) is the after-school program for the enrichment and enjoyment of children between 5-12 years of age. These programs, along with some community based after-school programs, are part of the Newton After-School Association (NASA), and is an important program for the families of the Countryside community. The program requires 250 NFA which is above MSBA guidelines.

3 INITIAL SPACE SUMMARY

Initial Space Summaries

Proposed Space Summary- Elementary Schools

Date: 12/6/22 Preliminary Design Program

Countryside Elementary 340 Students	Existing Conditions			PROPOSED									Difference to MSBA Guidelines			MSBA Guidelines (refer to MSBA Educational Program & Space Standard Guidelines)			
				Existing to Remain/Renovated			New			Total									
ROOM TYPE	ROOM NFA[1]	# OF RMS	area totals	ROOM NFA[1]	# OF RMS	area totals	ROOM NFA[1]	# OF RMS	area totals	ROOM NFA[1]	# OF RMS	area totals	ROOM NFA1	# OF RMS	area totals	ROOM NFA[1]	# OF RMS	area totals	Comments
CORE ACADEMIC SPACES			**18,135**			**0**			**17,025**			**17,025**			**2,025**		**15**	**15,000**	
(List classrooms of different sizes separately)																			
Pre-Kindergarten w/ toilet						0			0			0		0	0	1,200		-	1,100 SF min - 1,300 SF max.
Kindergarten w/ toilet	915	3	2,745			0	1,125	3	3,375	1,125	3	3,375		0	-225	1,200	3	3,600	1,100 SF min - 1,300 SF max; 2 sinks min. req
K Project Area							25	3	75	25	3	75		3	75				
General Classrooms - Grade 1-6	790	1	790			0	900	13	11,700	900	13	11,700		1	300	950	12	11,400	900 SF min - 1,000 SF max; 2 sinks min. req
General Classrooms - Grade 1-6	845	10	8,450																
General Classrooms - Grade 1-6	850	1	850																
General Classrooms - Grade 1-6	885	1	885																
General Classrooms - Grade 1-6	900	1	900																
General Classrooms - Grade 1-6	915	2	1,830																
General Classroom Project Area							25	13	325	25	13	325		13	325				
STE Room- Grade 3-6	0	0	0			0	0	0	0	0	0	0				1,080	Refer to STE Guidelines for Additional information		
STE Storage	0	0	0			0	0	0	0	0	0	0				120	Refer to STE Guidelines for Additional information		
ELL Program	840	1	840				300	1	300	300	1	300		1	300				
Professional Literacy Center	0	0	0				925	1	925	925	1	925		1	925				
Math Coach	Shared with BCBA / Team Specialist						150	1	150	150	1	150		1	150				
Literacy Specialists	845	1	845				175	1	175	175	1	175		1	175				
SPECIAL EDUCATION			**3,530**			**0**			**5,185**			**5,185**			**655**			**4,530**	
(List rooms of different sizes separately)																			
Self-Contained SPED SPARK	790	1	790			0	900	2	1,800	900	2	1,800		-1	-1,050	950	3	2,850	900-1,300 SF. equal to surrounding classrooms
Self-Contained SPED SPARK	845	1	845																
Self-Contained SPED - toilet in lower SPARK	0	0	0			0	60	1	60	60	1	60		-2	-120	60	3	180	
Resource Room / Special Ed Teaching Space	245	1	245			0	450	2	900	450	2	900		0	-100	500	2	1,000	1/2 size Genl. Clrm.
Small Group Room / Reading - 1 / 2 grade (breakout)	0	0	0			0	125	3	375	125	3	375		2	-125	500	1	500	1/2 size Genl. Clrm.
OT	120	1	120				200	1	200	200	1	200		1	200				
PT	Shared with OT						450	1	450	450	1	450		1	450				
Quiet Room 1 / academic floor	55	1	55				100	3	300	100	3	300		3	300				
Speech + Language	120	1	120				150	1	150	150	1	150		1	150				
Inclusion Facilitators (office for 6 adults)	720	1	720				250	1	250	250	1	250		1	250				
Team Specialist + IEP Conference Room (12 adults)	180	1	180				400	1	400	400	1	400		1	400				
Psychologist (office, testing, therapy, storage)	115	1	115				150	1	150	150	1	150		1	150				
BCBA	245	1	245				150	1	150	150	1	150		1	150				
ART & MUSIC			**1,480**			**0**			**2,500**			**2,500**			**0**			**2,500**	
Art Classroom - 25 seats	1,000	1	1,000			0	1,000	1	1,000	1,000	1	1,000		0	0	1,000	1	1,000	assumed schedule 2 times / week / student
Art Workroom w/ Storage & kiln	90	1	90			0	150	1	150	150	1	150		0	0	150	1	150	
Music Classroom / Large Group - 25-50 seats	390	1	390			0	1,200	1	1,200	1,200	1	1,200		0	0	1,200	1	1,200	assumed schedule 2 times / week / student
Music Practice / Ensemble	0	0	0			0	75	2	150	75	2	150		0	0	75	2	150	
HEALTH & PHYSICAL EDUCATION			**2,545**			**0**			**6,300**			**6,300**			**0**			**6,300**	Excess PE Spaces Policy
Gymnasium	2,440	1	2,440			0	6,000	1	6,000	6,000	1	6,000		0	0	6,000	1	6,000	6000 SF Min. Size
Gym Storeroom	105	1	105			0	150	1	150	150	1	150		0	0	150	1	150	
Health Instructor's Office w/ Shower & Toilet	0	0	0			0	150	1	150	150	1	150		0	0	150	1	150	
MEDIA CENTER			**1,265**			**0**			**2,200**			**2,200**			**0**			**2,200**	
Media Center / Reading Room	1,265	1	1,265			0	2,200	1	2,200	2,200	1	2,200		0	0	2,200	1	2,200	
DINING & FOOD SERVICE			**4,785**			**0**			**5,703**			**5,703**			**0**			**5,703**	
Cafeteria / Dining	2,820	1	2,820			0	2,550	1	2,550	2,550	1	2,550		0	0	2,550	1	2,550	2 seatings - 15SF per seat
Stage	935	1	935			0	1,000	1	1,000	1,000	1	1,000		0	0	1,000	1	1,000	
Chair / Table / Equipment Storage	0	0	0			0	313	1	313	313	1	313		0	0	313	1	313	
Kitchen	470	1	470			0	1,640	1	1,640	1,640	1	1,640		0	0	1,640	1	1,640	1600 SF for first 300 + 1 SF/student Add'l
Staff Lunch Room	560	1	560			0	200	1	200	200	1	200		0	0	200	1	200	20 SF/Occupant
MEDICAL			**275**			**0**			**510**			**510**			**0**			**510**	
Medical Suite Toilet	275	1	275			0	60	1	60	60	1	60		0	0	60	1	60	
Nurses' Office / Waiting Room						0	250	1	250	250	1	250		0	0	250	1	250	
Examination Room / Resting						0	100	2	200	100	2	200		0	0	100	2	200	
ADMINISTRATION & GUIDANCE			**955**			**0**			**1,930**			**1,930**			**-125**			**2,055**	
General Office / Waiting Room / Toilet	410	1	410			0	600	1	600	600	1	600		0	280	320	1	320	
Teachers' Mail and Time Room	Included in General Office					0	Included in General Office			Included in General Office				-1	-100	100	1	100	
Duplicating Room	110	1	110			0	Included in General Office			Included in General Office				-1	-150	150	1	150	
Records Room	Included in General Office					0	80	1	80	80	1	80		0	-30	110	1	110	
Principal's Office w/ Conference Area	175	1	175			0	300	1	300	300	1	300		0	-75	375	1	375	
Principal's Secretary / Waiting	Included in General Office					0	Included in General Office			Included in General Office				-1	-125	125	1	125	

Proposed Space Summary- Elementary Schools

Date: 12/6/22 Preliminary Design Program

Countryside Elementary 340 Students	Existing Conditions			PROPOSED: Existing to Remain/Renovated			PROPOSED: New			PROPOSED: Total			Difference to MSBA Guidelines			MSBA Guidelines (refer to MSBA Educational Program & Space Standard Guidelines)			
ROOM TYPE	ROOM NFA[1]	# OF RMS	area totals	ROOM NFA[1]	# OF RMS	area totals	ROOM NFA[1]	# OF RMS	area totals	ROOM NFA[1]	# OF RMS	area totals	ROOM NFA1	# OF RMS	area totals	ROOM NFA[1]	# OF RMS	area totals	Comments
Assistant Principal's Office	0	0	0			0	0	0	0	0	0	0		0	0	120	0	-	
Supervisory / Spare Office / Itinerant Staff (was Extended Day - moved to other)						0	0	0	0	0	0	0		-1	-120	120	1	120	
Conference Room	145	1	145			0	200	1	200	200	1	200		0	-50	250	1	250	
Guidance Office	0	0	0			0	0	0	0	0	0	0		-1	-150	150	1	150	
Guidance Storeroom	0	0	0			0	0	0	0	0	0	0		-1	-35	35	1	35	
Teachers' Work Room	Included in Staff Lunch Room					0	200	2	400	200	2	400		1	80	320	1	320	
Staff Lactation Room							50	1	50	50	1	50		1	50				
Social Worker (Office, testing, conferences)	115	1	115				150	1	150	150	1	150		1	150				
SEL Coach / Intervention	Shared with Inclusion						150	1	150	150	1	150		1	150				
CUSTODIAL & MAINTENANCE			**0**			**0**			**1,750**			**1,750**			**-190**			**1,940**	
Custodian's Office						0	150	1	150	150	1	150		0	0	150	1	150	
Custodian's Workshop						0	0	1	0	0	1	0		0	-375	375	1	375	
Custodian's Storage						0	500	1	500	500	1	500		0	125	375	1	375	
Recycling Room / Trash						0	700	1	700	700	1	700		0	300	400	1	400	
Receiving and General Supply						0	Included above			Included above				-1	-213	213	1	213	
Storeroom						0	75	2	150	75	2	150		1	-77	227	1	227	
Network / Telecom Room						0	250	1	250	250	1	250		0	50	200	1	200	
OTHER			**765**			**0**			**250**			**250**			**250**			**0**	
Other *(specify)* Extended Day	765	1	765			0	250	1	250	250	1	250		1	250				
Total Building Net Floor Area (NFA)			**33,735**			**0**			**43,353**			**43,353**			**2,615**			**40,738**	
Proposed Student Capacity / Enrollment																		**340**	Enter grade enrollments below
																		170	Lower Elementary; Grades K-2
																		170	Upper Elementary; Grades 3-6
NON-PROGRAMMED SPACES			**22,365**		% of GFA	**0**		% of GFA	**21,677**		% of GFA	**21,677**							
Remaining[3]					#DIV/0!	**0**		33%	**21,677**		33%	**21,677**							
Total Building Gross Floor Area (GFA)[2]			**56,100**						**65,030**			**65,030**			5,416			**59,613**	
Original building + addition	50,700																		
Portable Classrooms	5,400																		
Grossing factor (GFA/NFA)			**1.66**			**#DIV/0!**			**1.50**			**1.50**						**1.46**	

[1] **Individual Room Net Floor Area (NFA)** Includes the net square footage measured from the inside face of the perimeter walls and includes all specific spaces assigned to a particular program area including such spaces as non-communal toilets and storage rooms.

[2] **Total Building Gross Floor Area (GFA)** Includes the entire building gross square footage measured from the outside face of exterior walls

[3] **Remaining** Includes exterior walls, interior partitions, chases, and other areas not listed above. Do not calculate this area, it is assumed to equal the difference between the Total Building Gross Floor Area and area not accounted for above.

Architect Certification

I hereby certify that all of the information provided in this "Proposed Space Summary" is true, complete and accurate and, except as agreed to in writing by the Massachusetts School Building Authority, in accordance with the guidelines, rules, regulations and policies of the Massachusetts School Building Authority to the best of my knowledge and belief. A true statement, made under the penalties of perjury.

Name of Architect Firm: DiNisco Design

Name of Principal Architect: Vivian Low

Signature of Principal Architect:

Date: 12/6/22

Proposed Space Summary- Elementary Schools

Date: 12/6/22 Preliminary Design Program

Countryside Elementary 465 Students	Existing Conditions			PROPOSED									Difference to MSBA Guidelines			MSBA Guidelines (refer to MSBA Educational Program & Space Standard Guidelines)			
				Existing to Remain/Renovated			New			Total									
ROOM TYPE	ROOM NFA[1]	# OF RMS	area totals	ROOM NFA[1]	# OF RMS	area totals	ROOM NFA[1]	# OF RMS	area totals	ROOM NFA[1]	# OF RMS	area totals	ROOM NFA1	# OF RMS	area totals	ROOM NFA[1]	# OF RMS	area totals	Comments
CORE ACADEMIC SPACES			**18,135**			**0**			**21,875**			**21,875**			**925**		**21**	**20,950**	
(List classrooms of different sizes separately)																			
Pre-Kindergarten w/ toilet			0			0			0			0		0	0	1,200		-	1,100 SF min - 1,300 SF max
Kindergarten w/ toilet	915	3	2,745			0	1,125	4	4,500	1,125	4	4,500		0	-300	1,200	4	4,800	1,100 SF min - 1,300 SF max; 2 sinks min. req
K Project Area							25	4	100	25	4	100		4	100				
General Classrooms - Grade 1-6	790	1	790			0	900	17	15,300	900	17	15,300		0	-850	950	17	16,150	900 SF min - 1,000 SF max; 2 sinks min. req
General Classrooms - Grade 1-6	845	10	8,450																
General Classrooms - Grade 1-6	850	1	850																
General Classrooms - Grade 1-6	885	1	885																
General Classrooms - Grade 1-6	900	1	900																
General Classrooms - Grade 1-6	915	2	1,830																
General Classroom Project Area							25	17	425	25	17	425		17	425				
STE Room- Grade 3-6																1,080	Refer to STE Guidelines for Additional information		
STE Storage																120	Refer to STE Guidelines for Additional information		
ELL Program	840	1	840				300	1	300	300	1	300		1	300				
Literacy Center	0	0	0				925	1	925	925	1	925		1	925				
Math Coach	Shared with BCBA / Team Specialist						150	1	150	150	1	150		1	150				
Literacy Specialists	845	1	845				175	1	175	175	1	175		1	175				
SPECIAL EDUCATION			**3,530**			**0**			**5,860**			**5,860**			**320**			**5,540**	
(List rooms of different sizes separately)																			
Self-Contained SPED SPARK with quiet space	790	1	790			0	900	2	1,800	900	2	1,800		-2	-2,000	950	4	3,800	900-1,300 SF equal to surrounding classrooms
Self-Contained SPED SPARK	845	1	845																
Self-Contained SPED - toilet (lower grade SPARK)	0	0	0			0	60	1	60	60	1	60		-3	-180	60	4	240	
Resource Room / Special Ed Teaching Space	245	1	245			0	450	2	900	450	2	900		0	-100	500	2	1,000	1/2 size Genl. Clrm.
Small Group Room / Reading - 1 / grade (breakout)	0	0	0			0	125	6	750	125	6	750		5	250	500	1	500	1/2 size Genl. Clrm.
OT	120	1	120				200	1	200	200	1	200		1	200				
PT	Shared with OT						450	1	450	450	1	450		1	450				
Quiet Room 1 / academic floor	55	1	55				100	3	300	100	3	300		3	300				
Speech + Language	120	1	120				150	2	300	150	2	300		2	300				
Inclusion Facilitators (office for 6 adults)	720	1	720				200	2	400	200	2	400		2	400				
Team Specialist + IEP Conference Room (12 adults)	180	1	180				400	1	400	400	1	400		1	400				
Psychologist (office, testing, therapy, storage)	115	1	115				150	1	150	150	1	150		1	150				
BCBA	245	1	245				150	1	150	150	1	150		1	150				
ART & MUSIC			**1,480**			**0**			**2,575**			**2,575**			**0**			**2,575**	
Art Classroom - 25 seats	1,000	1	1,000			0	1,000	1	1,000	1,000	1	1,000		0	0	1,000	1	1,000	assumed schedule 2 times / week / student
Art Workroom w/ Storage & kiln	90	1	90			0	150	1	150	150	1	150		0	0	150	1	150	
Music Classroom / Large Group - 25-50 seats	390	1	390			0	1,200	1	1,200	1,200	1	1,200		0	0	1,200	1	1,200	assumed schedule 2 times / week / student
Music Practice / Ensemble	0	0	0			0	75	3	225	75	3	225		0	0	75	3	225	
HEALTH & PHYSICAL EDUCATION			**2,545**			**0**			**6,300**			**6,300**			**0**			**6,300**	Excess PE Spaces Policy
Gymnasium	2,440	1	2,440			0	6,000	1	6,000	6,000	1	6,000		0	0	6,000	1	6,000	6000 SF Min. Size
Gym Storeroom	105	1	105			0	150	1	150	150	1	150		0	0	150	1	150	
Health Instructor's Office w/ Shower & Toilet	0	0	0			0	150	1	150	150	1	150		0	0	150	1	150	
MEDIA CENTER			**1,265**			**0**			**2,763**			**2,763**			**1**			**2,763**	
Media Center / Reading Room	1,265	1	1,265			0	2,763	1	2,763	2,763	1	2,763		0	1	2,763	1	2,763	
DINING & FOOD SERVICE			**4,785**			**0**			**6,350**			**6,350**			**-474**			**6,824**	
Cafeteria / Dining	2,820	1	2,820			0	3,035	1	3,035	3,035	1	3,035		0	-453	3,488	1	3,488	2 seatings - 15SF per seat
Stage	935	1	935			0	1,000	1	1,000	1,000	1	1,000		0	0	1,000	1	1,000	
Chair / Table / Equipment Storage	0	0	0			0	355	1	355	355	1	355		0	0	355	1	355	
Kitchen	470	1	470			0	1,460	1	1,460	1,460	1	1,460		0	-305	1,765	1	1,765	1600 SF for first 300 + 1 SF/student Addt'l
Staff Lunch Room	560	1	560			0	250	2	500	250	2	500		1	284	216	1	216	20 SF/Occupant
MEDICAL			**275**			**0**			**510**			**510**			**0**			**510**	
Medical Suite Toilet	275	1	275			0	60	1	60	60	1	60		0	0	60	1	60	
Nurses' Office / Waiting Room						0	250	1	250	250	1	250		0	0	250	1	250	
Examination Room / Resting						0	100	2	200	100	2	200		0	0	100	2	200	
ADMINISTRATION & GUIDANCE			**845**			**0**			**2,075**			**2,075**			**-255**			**2,330**	
General Office / Waiting Room / Toilet	410	1	410			0	600	1	600	600	1	600		0	218	383	1	383	
Teachers' Mail and Time Room	Included in General Office					0	Included in General Office			Included in General Office				-1	-100	100	1	100	
Duplicating Room	0	0	0			0	Included in General Office			Included in General Office				-1	-150	150	1	150	
Records Room	Included in General Office					0	80	1	80	80	1	80		0	-30	110	1	110	
Principal's Office w/ Conference Area	175	1	175			0	300	1	300	300	1	300		0	-75	375	1	375	
Principal's Secretary / Waiting	Included in General Office					0	Included in General Office			Included in General Office				-1	-125	125	1	125	
Assistant Principal's Office	0	0	0			0	125	1	125	125	1	125		1	125	120	0	-	

Proposed Space Summary- Elementary Schools

Date: 12/6/22 Preliminary Design Program

Countryside Elementary 465 Students	Existing Conditions			PROPOSED									Difference to MSBA Guidelines			MSBA Guidelines (refer to MSBA Educational Program & Space Standard Guidelines)			
				Existing to Remain/Renovated			New			Total									
ROOM TYPE	ROOM NFA[1]	# OF RMS	area totals	ROOM NFA[1]	# OF RMS	area totals	ROOM NFA[1]	# OF RMS	area totals	ROOM NFA[1]	# OF RMS	area totals	ROOM NFA1	# OF RMS	area totals	ROOM NFA[1]	# OF RMS	area totals	Comments
Supervisory / Spare Office / Itinerant Staff (was Extended Day - moved to other)						0	0	0	0	0	0	0		-1	-120	120	1	120	
Conference Room	145	1	145			0	220	1	220	220	1	220		0	-30	250	1	250	
Guidance Office	0	0	0			0	0	0	0	0	0	0		-2	-300	150	2	300	
Guidance Storeroom	0	0	0			0	0	0	0	0	0	0		-1	-35	35	1	35	
Teachers' Work Room	Included in Staff Lunch Room					0	200	2	400	200	2	400		1	18	383	1	383	
Staff Lactation Room							50	1	50	50	1	50		1	50				
Social Worker (Office, testing, conferences) Moved from S	115	1	115				150	1	150	150	1	150		1	150				
SEL Coach / Intervention	Shared with Inclusion						150	1	150	150	1	150		1	150				
CUSTODIAL & MAINTENANCE			**105**			**0**			**1,830**			**1,830**			**-235**			**2,065**	
Custodian's Office						0	100	1	100	100	1	100		0	-50	150	1	150	
Custodian's Workshop						0	0	1	0	0	1	0		0	-375	375	1	375	
Custodian's Storage						0	580	1	580	580	1	580		0	205	375	1	375	
Recycling Room / Trash						0	750	1	750	750	1	750		0	350	400	1	400	
Receiving and General Supply						0	Included above			Included above				-1	-255	255	1	255	
Storeroom	105	1	105			0	75	2	150	75	2	150		1	-160	310	1	310	
Network / Telecom Room						0	250	1	250	250	1	250		0	50	200	1	200	
OTHER			**765**			**0**			**250**			**250**			**250**			**0**	
Other *(specify)* Extended Day (Reduced no K lunch)	765	1	765			0	250	1	250	250	1	250		1	250				
Total Building Net Floor Area (NFA)			**33,730**			**0**			**50,388**			**50,388**			**532**			**49,856**	
Proposed Student Capacity / Enrollment																		**465**	Enter grade enrollments below
																		232	Lower Elementary; Grades K-2
																		233	Upper Elementary; Grades 3-6
NON-PROGRAMMED SPACES			**22,370**		% of GFA	**0**		% of GFA	**25,194**		% of GFA	**25,194**						**24,893**	
Remaining[3]					#DIV/0!	**0**		33%	**25,194**		33%	**25,194**							
Total Building Gross Floor Area (GFA)[2]			**56,100**						**75,582**			**75,582**			833			**74,749**	
Original building + addition	50,700																		
Portable Classrooms	5,400																		
Grossing factor (GFA/NFA)			**1.66**			**#DIV/0!**			**1.50**			**1.50**						**1.50**	

[1] **Individual Room Net Floor Area (NFA)** Includes the net square footage measured from the inside face of the perimeter walls and includes all specific spaces assigned to a particular program area including such spaces as non-communal toilets and storage rooms.

[2] **Total Building Gross Floor Area (GFA)** Includes the entire building gross square footage measured from the outside face of exterior walls

[3] **Remaining** Includes exterior walls, interior partitions, chases, and other areas not listed above. Do not calculate this area, it is assumed to equal the difference between the Total Building Gross Floor Area and area not accounted for above.

Architect Certification

I hereby certify that all of the information provided in this "Proposed Space Summary" is true, complete and accurate and, except as agreed to in writing by the Massachusetts School Building Authority, in accordance with the guidelines, rules, regulations and policies of the Massachusetts School Building Authority to the best of my knowledge and belief. A true statement, made under the penalties of perjury.

Name of Architect Firm: DiNisco Design

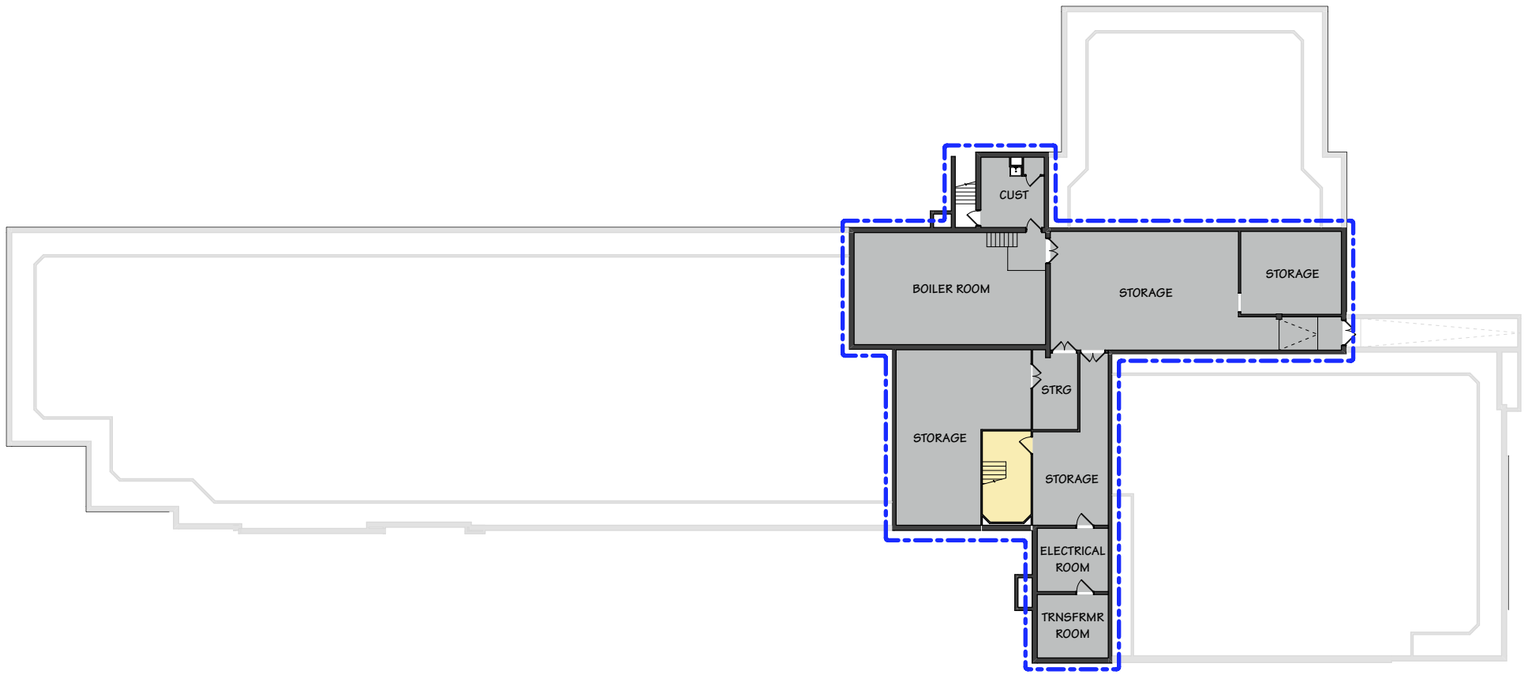
Name of Principal Architect: Vivian Low

Signature of Principal Architect:

Date: 12/6/22

3 INITIAL SPACE SUMMARY

Existing Facilities Floor Plans



COUNTRYSIDE ELEMENTARY SCHOOL

NEWTON, MA

PRELIMINARY DESIGN PROGRAM

EXISTING: BASEMENT PLAN

PERMANENT CONSTRUCTION

TEMPORARY CONSTRUCTION

LEGEND

- CORE ACADEMIC SPACES
- SPECIAL EDUCATION
- ART & MUSIC
- HEALTH & PHYS ED
- MEDIA CENTER
- DINING & FOOD SERVICE
- PLATFORM
- MEDICAL
- ADMIN & GUIDANCE
- OTHER / EXTENDED DAY
- CUST, MAINT, & TOILETS
- CIRCULATION

GROSS SQUARE FOOTAGE

BASEMENT	**5,260 SF**
FIRST FLOOR	39,940 SF
Permanent Construction	*34,540 SF*
Temporary Portables	*5,400 SF*
SECOND FLOOR	10,900 SF
TOTAL	**56,100 SF**

0 16 32 N

21 DECEMBER 2022

DINISCO DESIGN
architects + planners

COUNTRYSIDE ELEMENTARY SCHOOL

NEWTON, MA

PRELIMINARY DESIGN PROGRAM

EXISTING: FIRST FLOOR PLAN

PERMANENT CONSTRUCTION

TEMPORARY CONSTRUCTION

LEGEND

- CORE ACADEMIC SPACES
- SPECIAL EDUCATION
- ART & MUSIC
- HEALTH & PHYS ED
- MEDIA CENTER
- DINING & FOOD SERVICE
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0 16 32

N

21 DECEMBER 2022

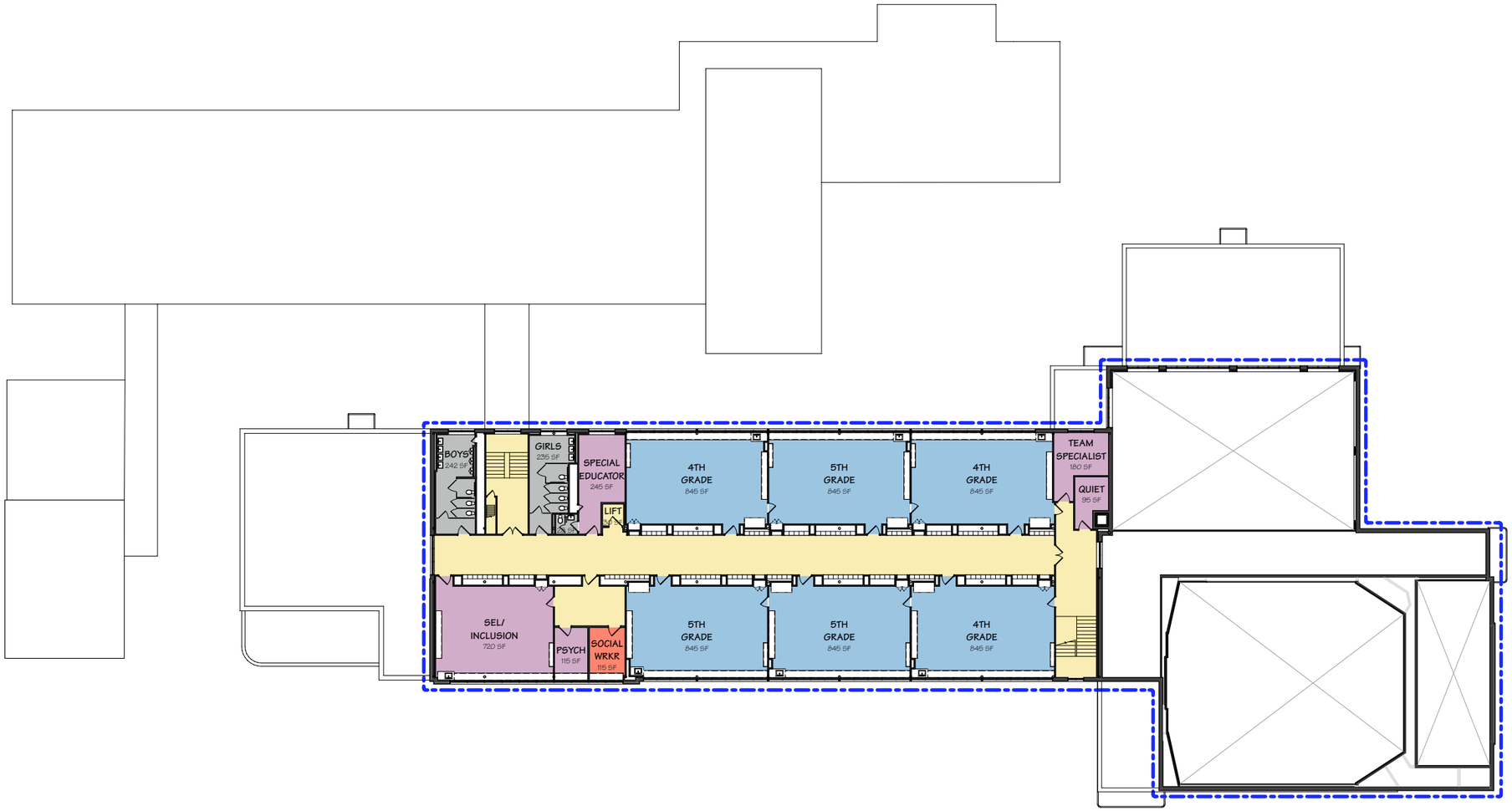
DINISCO DESIGN
architects + planners

COUNTRYSIDE ELEMENTARY SCHOOL

NEWTON, MA

PRELIMINARY DESIGN PROGRAM

EXISTING: SECOND FLOOR PLAN



PERMANENT CONSTRUCTION

TEMPORARY CONSTRUCTION

LEGEND

- CORE ACADEMIC SPACES
- SPECIAL EDUCATION
- ART & MUSIC
- HEALTH & PHYS ED
- MEDIA CENTER
- DINING & FOOD SERVICE
- PLATFORM
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SECOND FLOOR	**10,900 SF**
TOTAL	**56,100 SF**

0 16 32

N

21 DECEMBER 2022

DINISCO DESIGN
architects + planners

4 EVALUATION OF EXISTING CONDITIONS

Legal Deeds to Sites (Electronic Copy Only)

Traffic Study Report (Electronic Copy Only)

Hydrant Flow Test (Electronic Copy Only)

Wetland Resource Area Delineation Report (Electronic Copy Only)

Phase I ESA Report (Electronic Copy Only)

HazMat Report (Electronic Copy Only)

AHERA Report (Electronic Copy Only)

Geotechnical Report (Electronic Copy Only)

Property Location 191 DEDHAM ST | Map ID 83/ 006/ 0011/ / | Bldg Name COUNTRYSIDE SCHOOL | State Use 9340
Vision ID 25782 | Account # 83006 0011 | Bldg # 1 | Sec # 1 of 3 | Card # 1 of 3 | Print Date 12/8/2022 2:47:00 PM

CURRENT OWNER

CITY OF NEWTON
SCHOOL DEPT-COUNTRYSIDE
1000 COMM AVE
NEWTON MA 02459

TOPO	UTILITIES	STRT / ROAD	LOCATION

SUPPLEMENTAL DATA

Alt Prcl ID	83006 0011	Res_RC	
Prop Type	EX	Multi_SBL	
Num Apts		NOTE:	COUNTRYSIDE S
Bill Numbe	2033377	NOTE:	
Traffic	HEAVY	NOTE:	
Map ID	129SW		
GIS ID	F_736525_2939365	Assoc Pid#	

CURRENT ASSESSMENT

Description	Code	Appraised	Assessed
CITY I ED	9340	21,019,500	21,019,500
CITY I ED	9340	9,053,200	9,053,200
EXEMPT	9340	45,000	45,000
	Total	30,117,700	30,117,700

233
NEWTON, MA

VISION

RECORD OF OWNERSHIP

RECORD OF OWNERSHIP	BK-VOL/PAGE		SALE DATE	Q/U	V/I	SALE PRICE	VC
CITY OF NEWTON	00000	0000	01-01-1900	Q	I	1	00

PREVIOUS ASSESSMENTS (HISTORY)

Year	Code	Assessed	Year	Code	Assessed	Year	Code	Assessed
2023	9340		2022	9340		2021	9340	
	9340			9340			9340	
	9340			9340			9340	
	Total	30117700		Total	30117700		Total	27560800

EXEMPTIONS

Year	Code	Description	Amount
		Total	0.00

OTHER ASSESSMENTS

Code	Description	Number	Amount	Comm Int

This signature acknowledges a visit by a Data Collector or Assessor

ASSESSING NEIGHBORHOOD

Nbhd	Nbhd Name	B	Tracing	Batch
3				

NOTES

APPRAISED VALUE SUMMARY

Appraised Bldg. Value (Card)	20,661,700
Appraised Xf (B) Value (Bldg)	357,800
Appraised Ob (B) Value (Bldg)	45,000
Appraised Land Value (Bldg)	9,053,200
Special Land Value	0
Total Appraised Parcel Value	30,117,700
Valuation Method	C
Adjustment:	
Total Appraised Parcel Value	30,117,700

BUILDING PERMIT RECORD

Permit Id	Issue Date	Type	Description	Amount	Insp Date	% Comp	Date Comp	Comments
21040201	04-06-2021	BP	BUILDING PER	8,600				Erect 20x20 and 20x30 tents
18090711	09-24-2018	BP	BUILDING PER	0				INSTALL NEW KITCHEN CAB
15111089	11-24-2015	BP	BUILDING PER	10,000	06-09-2016		01-01-2016	floor out of room 6-A Cut in do
13060743	07-01-2013	BP	BUILDING PER	64,000	05-02-2014		01-01-2014	Install 247 Solar PC modules f
12070790	07-30-2012	BP	BUILDING PER	107,477	06-13-2013		06-13-2013	Install movable partition walls i
12070649	07-20-2012	BP	BUILDING PER	0	06-13-2013		06-13-2013	interior demo only in audotoriu
12060624	06-22-2012	BP	BUILDING PER	432,000	06-13-2013		06-13-2013	Tear off existing roof system d

VISIT / CHANGE HISTORY

Date	Id	Type	Is	Cd	Purpost/Result
06-09-2016	532	06	1	51	Interior Inspection
05-02-2014	532	02	1	52	Exterior Inspection
06-13-2013	532	06	1	51	Interior Inspection
08-07-2012	532	02	6	54	Cyclical Reinspection
12-29-2011	532	02	6	53	Photo
07-13-2011	532	02	6	52	Exterior Inspection
05-20-2010	532	06	1	51	Interior Inspection

LAND LINE VALUATION SECTION

B	Use Code	Description	Zone	D	Frontage	Land Units		NBHD	Location Adjustment		Land Value
1	9340	CITY IMPROVE	PUB			322,065	SF	3		0	9,053,200

Total Card Land Units 322,065 SF | Parcel Total Land Area: 7.3936 | Total Land Value 9,053,200

Property Location 191 DEDHAM ST | Map ID 83/ 006/ 0011/ / | Bldg Name COUNTRYSIDE SCHOOL | State Use 9340
Vision ID 25782 | Account # 83006 0011 | Bldg # 1 | Sec # 1 of 3 | Card # 1 of 3 | Print Date 12/8/2022 2:47:01 PM

CONSTRUCTION DETAIL

Element	Cd	Description
Style:	83	School
Model	94	Commercial
Grade	05	Grade 5
Stories:	2	
Occupancy	1.00	
Exterior Wall 1	20	Brick/Masonry
Exterior Ornmt	01	None
Roof Structure	01	Flat
Roof Cover	06	Rubber
Interior Wall 1	08	Average
Interior Wall 2		
Interior Floor 1	05	Vinyl
Interior Floor 2		
Heating Fuel	06	Typical
Heating Type	05	Hot Water
AC Type	04	Unit/AC
Class	C	CLASS C
Bldg Use	9340	CITY IMPROVED EDUCA
Total Rooms	57	
Total Bedrms	0	
Total Baths	8	
Lighting	04	Good
Heat/AC	03	Typical
Frame Type	03	MASONRY
Baths/Plumbing	02	AVERAGE
Ceiling/Wall	03	PLASTER
Rooms/Prtns	02	AVERAGE
Wall Height	9.00	
% Comm Wall		
1st Floor Use:	903C	

CONSTRUCTION DETAIL (CONTINUED)

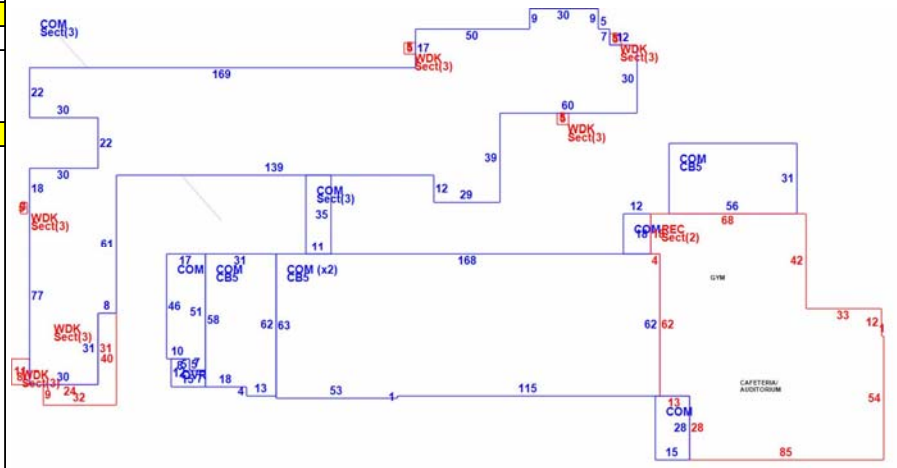
Element	Cd	Description

MIXED USE

Code	Description	Percentage
9340	CITY IMPROVED EDUCATIO	100
		0
		0

COST / MARKET VALUATION

RCN	
Year Built	1950
Effective Year Built	
Depreciation Code	G
Remodel Rating	
Year Remodeled	
Depreciation %	29
Functional Obsol	
External Obsol	
Trend Factor	1
Condition	
Condition %	
Percent Good	71
RCNLD	20,661,700
Dep % Ovr	
Dep Ovr Comment	
Misc Imp Ovr	
Misc Imp Ovr Comment	
Cost to Cure Ovr	
Cost to Cure Ovr Comment	



OB - OUTBUILDING & YARD ITEMS(L) / XF - BUILDING EXTRA FEATURES(B)

Code	Description	L/B	Units	Unit Price	Yr Blt	Cond. Cd	% Good	Grade	Grade Adj	Appr. Value
SLR	SOLAR PANEL	B	247	2040.00	1985		71		0.00	357,800
PAV1	PAVING-ASPH	L	30,000	1.50	2000		100		0.00	45,000

BUILDING SUB-AREA SUMMARY SECTION

Code	Description	Living Area	Floor Area	Eff Area	Unit Cost	Undeprec Value
COM	Commercial	25,977	25,977	25,977		
CB5	Comm Finished Bsmt 100%	14,055	14,055	14,055		
OVR	Overhang	145	145	145		
	Ttl Gross Liv / Lease Area	40,177	40,177	40,177		

Property Location 191 DEDHAM ST | Map ID 83/ 006/ 0011/ / | Bldg Name COUNTRYSIDE SCHOOL | State Use 9340
Vision ID 25782 | Account # 83006 0011 | Bldg # 1 | Sec # 2 of 3 | Card # 2 of 3 | Print Date 12/8/2022 2:47:01 PM

CURRENT OWNER

CITY OF NEWTON
SCHOOL DEPT-COUNTRYSIDE
1000 COMM AVE
NEWTON MA 02459

TOPO	UTILITIES	STRT / ROAD	LOCATION

SUPPLEMENTAL DATA

Alt Prcl ID	83006 0011	Res_RC	
Prop Type	EX	Multi_SBL	
Num Apts		NOTE:	COUNTRYSIDE S
Bill Numbe	2033377	NOTE:	
Traffic	HEAVY	NOTE:	
Map ID	129SW		
GIS ID	F_736525_2939365	Assoc Pid#	

CURRENT ASSESSMENT

Description	Code	Appraised	Assessed
CITY I ED	9340	21,019,500	21,019,500
CITY I ED	9340	9,053,200	9,053,200
EXEMPT	9340	45,000	45,000
	Total	30,117,700	30,117,700

233
NEWTON, MA

VISION

RECORD OF OWNERSHIP

RECORD OF OWNERSHIP	BK-VOL/PAGE		SALE DATE	Q/U	V/I	SALE PRICE	VC
CITY OF NEWTON	00000	0000	01-01-1900	Q	I	1	00

PREVIOUS ASSESSMENTS (HISTORY)

Year	Code	Assessed	Year	Code	Assessed	Year	Code	Assessed
2023	9340		2022	9340		2021	9340	
	9340			9340			9340	
	9340			9340			9340	
	Total	30117700		Total	30117700		Total	27560800

EXEMPTIONS

Year	Code	Description	Amount
		Total	0.00

OTHER ASSESSMENTS

Code	Description	Number	Amount	Comm Int

This signature acknowledges a visit by a Data Collector or Assessor

ASSESSING NEIGHBORHOOD

Nbhd	Nbhd Name	B	Tracing	Batch
3				

NOTES

APPRAISED VALUE SUMMARY

Appraised Bldg. Value (Card)	20,661,700
Appraised Xf (B) Value (Bldg)	357,800
Appraised Ob (B) Value (Bldg)	45,000
Appraised Land Value (Bldg)	9,053,200
Special Land Value	0
Total Appraised Parcel Value	30,117,700
Valuation Method	C
Adjustment:	
Total Appraised Parcel Value	30,117,700

BUILDING PERMIT RECORD

Permit Id	Issue Date	Type	Description	Amount	Insp Date	% Comp	Date Comp	Comments
21040201	04-06-2021	BP	BUILDING PER	8,600				Erect 20x20 and 20x30 tents
18090711	09-24-2018	BP	BUILDING PER	0				INSTALL NEW KITCHEN CAB
15111089	11-24-2015	BP	BUILDING PER	10,000	06-09-2016		01-01-2016	floor out of room 6-A Cut in do
13060743	07-01-2013	BP	BUILDING PER	64,000	05-02-2014		01-01-2014	Install 247 Solar PC modules f
12070790	07-30-2012	BP	BUILDING PER	107,477	06-13-2013		06-13-2013	Install movable partition walls i
12070649	07-20-2012	BP	BUILDING PER	0	06-13-2013		06-13-2013	interior demo only in audotoriu
12060624	06-22-2012	BP	BUILDING PER	432,000	06-13-2013		06-13-2013	Tear off existing roof system d

VISIT / CHANGE HISTORY

Date	Id	Type	Is	Cd	Purpost/Result
06-09-2016	532	06	1	51	Interior Inspection
05-02-2014	532	02	1	52	Exterior Inspection
06-13-2013	532	06	1	51	Interior Inspection
08-07-2012	532	02	6	54	Cyclical Reinspection
12-29-2011	532	02	6	53	Photo
07-13-2011	532	02	6	52	Exterior Inspection
05-20-2010	532	06	1	51	Interior Inspection

LAND LINE VALUATION SECTION

B	Use Code	Description	Zone	D	Frontage	Land Units		NBHD	Location Adjustment		Land Value
1	9340	CITY IMPROVE	PUB			322,065	SF	3		0	9,053,200

Total Card Land Units 322,065 SF | Parcel Total Land Area: 7.3936 | Total Land Value 9,053,200

Property Location	191 DEDHAM ST		Map ID	83/ 006/ 0011/ /	Bldg Name	COUNTRYSIDE SCHOOL	State Use 9340
Vision ID	25782	Account # 83006 0011		Bldg # 1	Sec # 2 of 3	Card # 2 of 3	Print Date 12/8/2022 2:47:01 PM

CONSTRUCTION DETAIL

Element	Cd	Description
Style:	78	Gym
Model	94	Commercial
Grade	05	Grade 5
Stories:	1	
Occupancy	1.00	
Exterior Wall 1	20	Brick/Masonry
Exterior Ornmt	01	None
Roof Structure	01	Flat
Roof Cover	06	Rubber
Interior Wall 1	08	Average
Interior Wall 2		
Interior Floor 1	05	Vinyl
Interior Floor 2		
Heating Fuel	06	Typical
Heating Type	05	Hot Water
AC Type	04	Unit/AC
Class	C	CLASS C
Bldg Use	9340	CITY IMPROVED EDUCA
Total Rooms	1	
Total Bedrms	0	
Total Baths	0	
Lighting	04	Good
Heat/AC	03	Typical
Frame Type	03	MASONRY
Baths/Plumbing	02	AVERAGE
Ceiling/Wall	03	PLASTER
Rooms/Prtns	02	AVERAGE
Wall Height	16.00	
% Comm Wall		
1st Floor Use:	903C	

CONSTRUCTION DETAIL (CONTINUED)

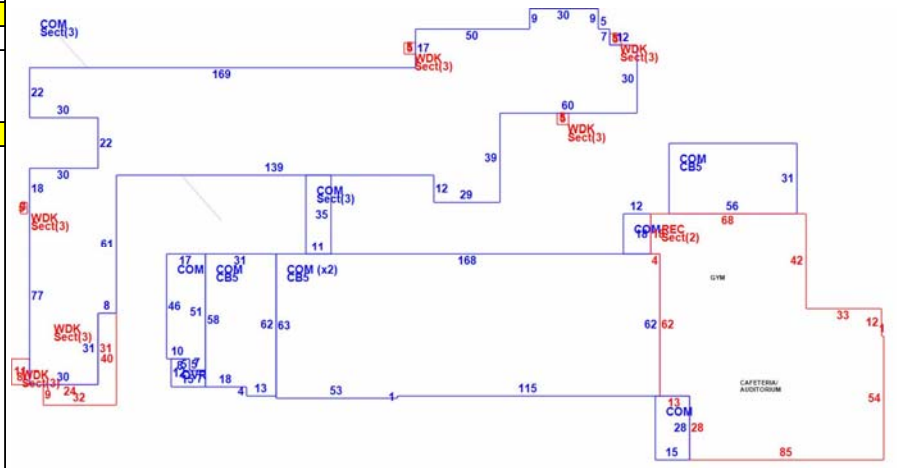
Element	Cd	Description

MIXED USE

Code	Description	Percentage
9340	CITY IMPROVED EDUCATIO	100
		0
		0

COST / MARKET VALUATION

RCN	
Year Built	1950
Effective Year Built	
Depreciation Code	G
Remodel Rating	
Year Remodeled	
Depreciation %	29
Functional Obsol	
External Obsol	
Trend Factor	1
Condition	
Condition %	
Percent Good	71
RCNLD	20,661,700
Dep % Ovr	
Dep Ovr Comment	
Misc Imp Ovr	
Misc Imp Ovr Comment	
Cost to Cure Ovr	
Cost to Cure Ovr Comment	



OB - OUTBUILDING & YARD ITEMS(L) / XF - BUILDING EXTRA FEATURES(B)

Code	Description	L/B	Units	Unit Price	Yr Blt	Cond. Cd	% Good	Grade	Grade Adj	Appr. Value

BUILDING SUB-AREA SUMMARY SECTION

Code	Description	Living Area	Floor Area	Eff Area	Unit Cost	Undeprec Value
REC	Rec Room	0	8,852	8,852		
	Ttl Gross Liv / Lease Area	0	8,852	8,852		

Property Location 191 DEDHAM ST | Map ID 83/ 006/ 0011/ / | Bldg Name COUNTRYSIDE SCHOOL | State Use 9340
Vision ID 25782 | Account # 83006 0011 | Bldg # 1 | Sec # 3 of 3 | Card # 3 of 3 | Print Date 12/8/2022 2:47:02 PM

CURRENT OWNER

CITY OF NEWTON
SCHOOL DEPT-COUNTRYSIDE
1000 COMM AVE
NEWTON MA 02459

TOPO	UTILITIES	STRT / ROAD	LOCATION

SUPPLEMENTAL DATA

Alt Prcl ID	83006 0011	Res_RC	
Prop Type	EX	Multi_SBL	
Num Apts		NOTE:	COUNTRYSIDE S
Bill Numbe	2033377	NOTE:	
Traffic	HEAVY	NOTE:	
Map ID	129SW		
GIS ID	F_736525_2939365	Assoc Pid#	

CURRENT ASSESSMENT

Description	Code	Appraised	Assessed
CITY I ED	9340	21,019,500	21,019,500
CITY I ED	9340	9,053,200	9,053,200
EXEMPT	9340	45,000	45,000
	Total	30,117,700	30,117,700

233
NEWTON, MA

VISION

RECORD OF OWNERSHIP

RECORD OF OWNERSHIP	BK-VOL/PAGE		SALE DATE	Q/U	V/I	SALE PRICE	VC
CITY OF NEWTON	00000	0000	01-01-1900	Q	I	1	00

PREVIOUS ASSESSMENTS (HISTORY)

Year	Code	Assessed	Year	Code	Assessed	Year	Code	Assessed
2023	9340		2022	9340		2021	9340	
	9340			9340			9340	
	9340			9340			9340	
	Total	30117700		Total	30117700		Total	27560800

EXEMPTIONS

Year	Code	Description	Amount
		Total	0.00

OTHER ASSESSMENTS

Code	Description	Number	Amount	Comm Int

This signature acknowledges a visit by a Data Collector or Assessor

ASSESSING NEIGHBORHOOD

Nbhd	Nbhd Name	B	Tracing	Batch
3				

NOTES

APPRAISED VALUE SUMMARY

Appraised Bldg. Value (Card)	20,661,700
Appraised Xf (B) Value (Bldg)	357,800
Appraised Ob (B) Value (Bldg)	45,000
Appraised Land Value (Bldg)	9,053,200
Special Land Value	0
Total Appraised Parcel Value	30,117,700
Valuation Method	C
Adjustment:	
Total Appraised Parcel Value	30,117,700

BUILDING PERMIT RECORD

Permit Id	Issue Date	Type	Description	Amount	Insp Date	% Comp	Date Comp	Comments
21040201	04-06-2021	BP	BUILDING PER	8,600				Erect 20x20 and 20x30 tents
18090711	09-24-2018	BP	BUILDING PER	0				INSTALL NEW KITCHEN CAB
15111089	11-24-2015	BP	BUILDING PER	10,000	06-09-2016		01-01-2016	floor out of room 6-A Cut in do
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12070790	07-30-2012	BP	BUILDING PER	107,477	06-13-2013		06-13-2013	Install movable partition walls i
12070649	07-20-2012	BP	BUILDING PER	0	06-13-2013		06-13-2013	interior demo only in audotoriu
12060624	06-22-2012	BP	BUILDING PER	432,000	06-13-2013		06-13-2013	Tear off existing roof system d

VISIT / CHANGE HISTORY

Date	Id	Type	Is	Cd	Purpost/Result
06-09-2016	532	06	1	51	Interior Inspection
05-02-2014	532	02	1	52	Exterior Inspection
06-13-2013	532	06	1	51	Interior Inspection
08-07-2012	532	02	6	54	Cyclical Reinspection
12-29-2011	532	02	6	53	Photo
07-13-2011	532	02	6	52	Exterior Inspection
05-20-2010	532	06	1	51	Interior Inspection

LAND LINE VALUATION SECTION

B	Use Code	Description	Zone	D	Frontage	Land Units		NBHD	Location Adjustment		Land Value
1	9340	CITY IMPROVE	PUB			322,065	SF	3		0	9,053,200

Total Card Land Units 322,065 SF | Parcel Total Land Area: 7.3936 | Total Land Value 9,053,200

Property Location 191 DEDHAM ST | Map ID 83/ 006/ 0011/ / | Bldg Name COUNTRYSIDE SCHOOL | State Use 9340
Vision ID 25782 | Account # 83006 0011 | Bldg # 1 | Sec # 3 of 3 | Card # 3 of 3 | Print Date 12/8/2022 2:47:02 PM

CONSTRUCTION DETAIL

Element	Cd	Description
Style:	83	School
Model	94	Commercial
Grade	03	Grade 3
Stories:	1	
Occupancy	1.00	
Exterior Wall 1	08	Wood on Sheath
Exterior Ornmt	01	None
Roof Structure	01	Flat
Roof Cover	06	Rubber
Interior Wall 1	08	Average
Interior Wall 2		
Interior Floor 1	05	Vinyl
Interior Floor 2		
Heating Fuel	06	Typical
Heating Type	04	Forced Air-Duc
AC Type	01	None
Class	D	CLASS D
Bldg Use	9340	CITY IMPROVED EDUCA
Total Rooms	10	
Total Bedrms	0	
Total Baths	2	
Lighting	04	Good
Heat/AC	03	Typical
Frame Type	02	WOOD FRAME
Baths/Plumbing	00	NONE
Ceiling/Wall	02	GYPSUM BOARD
Rooms/Prtns	01	LIGHT
Wall Height	8.00	
% Comm Wall		
1st Floor Use:	903C	

CONSTRUCTION DETAIL (CONTINUED)

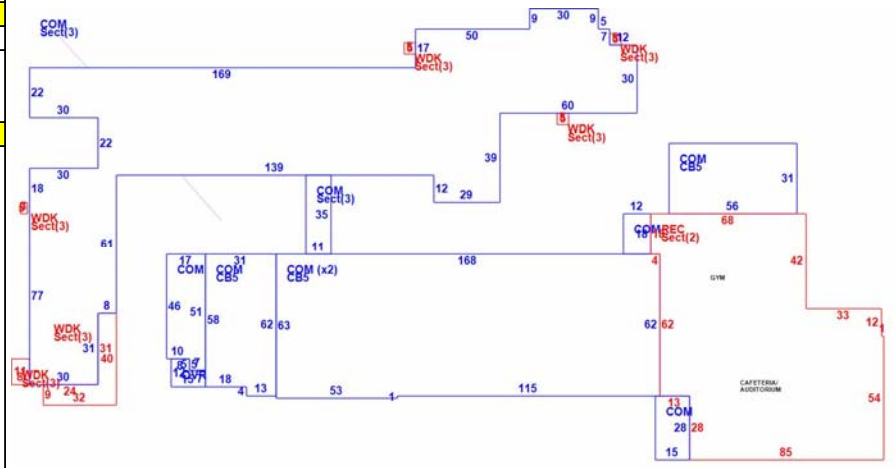
Element	Cd	Description

MIXED USE

Code	Description	Percentage
9340	CITY IMPROVED EDUCATIO	100
		0
		0

COST / MARKET VALUATION

RCN	
Year Built	2000
Effective Year Built	
Depreciation Code	A
Remodel Rating	
Year Remodeled	
Depreciation %	10
Functional Obsol	
External Obsol	
Trend Factor	1
Condition	
Condition %	
Percent Good	90
RCNLD	20,661,700
Dep % Ovr	
Dep Ovr Comment	
Misc Imp Ovr	
Misc Imp Ovr Comment	
Cost to Cure Ovr	
Cost to Cure Ovr Comment	



OB - OUTBUILDING & YARD ITEMS(L) / XF - BUILDING EXTRA FEATURES(B)

Code	Description	L/B	Units	Unit Price	Yr Blt	Cond. Cd	% Good	Grade	Grade Adj	Appr. Value

BUILDING SUB-AREA SUMMARY SECTION

Code	Description	Living Area	Floor Area	Eff Area	Unit Cost	Undeprec Value
COM	Commercial	16,038	16,038	16,038		
WDK	Deck, Wood	0	714	714		
	Ttl Gross Liv / Lease Area	16,038	16,752	16,752		

BOOK
7743
PAGE
462

Under suspension of rules
Read twice and adopted,
20 Yeas 1 Absent

(sgd) Frank M. Grant, Clerk.

EXECUTIVE DEPARTMENT
Approved, April 18, 1951.

(sgd) Theodore R. Lockwood, Mayor.

A True Copy
Attest:
City Clerk of Newton, Mass.

Rec'd & entered for record May 17, 1951 at 4h. 20m. P.M. #271

CITY OF NEWTON
IN BOARD OF ALDERMEN

#99003

April 16, 1951.

WHEREAS, in the opinion of the Board of Aldermen of the City of Newton, the public necessity and convenience require that a certain parcel of land bounded generally by DEDHAM STREET and PRIVATE LAND, hereinafter more particularly described, should be taken in fee for municipal purposes, to wit: for school and school yard purposes, and

WHEREAS, said board has appointed a time for a public hearing and has caused a notice thereof and of its intention in the matter to be given as required by law relating to takings for municipal purposes, and

WHEREAS, said hearing has been held, and an appropriation has been made for the purposes, it is therefore

ORDERED, that the following described parcel of land be and the same is hereby taken for said municipal purposes.

DESCRIPTION OF LAND TAKEN

Beginning at a point in the westerly line of Dedham Street distant 225.88 feet northerly from the northerly tangent point of a curve of 367.02 feet radius in said westerly line of Dedham Street; thence northwesterly 228.30 feet by the division line between lands of Edward J. Halloran and Gertrude A. Halloran and Edward F. Halloran and Richard Halloran and over land taken by the City of Newton for Drainage Purposes (South Meadow Brook) under order number 46791, approved June 19, 1919; thence n.e.430 ft; thence n.w, 345.86 ft., thence n.e. 150 ft; thence southeasterly 10.00 feet; thence by a curve to the left in a southeasterly direction of 213.67 feet radius, 116.47 feet; thence southeasterly 167.00 feet; thence by a curve to the right in a southeasterly direction of 159.00 feet radius, 81.19 feet; thence by a curve to the right in a southeasterly, southerly and southwesterly direction of 72.14 feet radius, 64.89 feet; thence southwesterly 582.38 feet to the point of beginning, the last six described lines being by the southwesterly and westerly line of Dedham Street, the last nine described lines being over said land of Edward J. Halloran and Gertrude A. Halloran. Said parcel containing 194,895 square feet of land, or 4.47 acres.

The above described parcel of land, so far as known to the Board of Aldermen, belongs to the following named persons:

BOOK 2070 P 252
BOOK 12645 P 320

Edward J. Halloran & Gertrude A. Halloran

Said Board of Aldermen do assess and award as the damages sustained by the following persons the amount set against their names:

NAMES	AMOUNT
Edward J. Halloran & Gertrude A. Halloran	$ 33,850.00

Under suspension of rules
Read twice and adopted,
20 Yeas 1 Absent

A True Copy
Attest:
City Clerk of Newton, Mass.

EXECUTIVE DEPARTMENT
Approved.....April 18, 1951.

(sgd) Frank M. Grant, City Clerk

Theodore R. Lockwood, Mayor.

Rec'd & entered for record May 17, 1951 at 4h. 20m. P.M. #272

CITY OF NEWTON
IN BOARD OF ALDERMEN
April 16, 1951.

#99004

WHEREAS, in the opinion of the Board of Aldermen of the City of Newton, it is necessary for the public convenience and the public health, that a common sewer should be laid, made, repaired and maintained through

COMMONWEALTH AVENUE (North side) (a public way)

from Prince Street westerly as shown on a plan thereof numbered 32003 in the office of the City Engineer of said City: it is therefore

ORDERED, that said common sewer be and the same hereby is authorized to be laid, made, repaired and maintained as a common sewer of said City of Newton as shown on said plan and as hereinafter described.

And the Board of Aldermen hereby certify that it is expected that the estates abutting on Commonwealth Avenue as set out in the plan thereof in the office of the City Engineer of said City, a copy of which is attached hereto and made a part hereof, will receive benefit or advantage other than the general advantage to the community from such improvement, and it is hereby estimated that the lots will be assessed as sewer assessments the amounts herein set out against their respective numbers.

Sec.	Blk.	Lot	Names	Amounts.
32	60	5	Ruth F. Epstein	$ 318.91
32	60	5A	Antonio Pelleriti	510.30
32	60	5B	Antonio Pelleriti	512.78
				$ 1,341.99

Bk 13849 Pg 180

And it is further

ORDERED, That the expenditure of the sum of Four thousand four hundred dollars be and the same hereby is authorized for the construction of said sewer to be charged to the sewer construction account, provided, however, that said sum shall include the value of all materials taken from stock on hand. This expenditure is authorized under the provisions of Order #98355, approved January 4, 1951.

PRINCE ST. SEWER LIEN

Be filed with [illegible]

CITY OF NEWTON #1065-57

IN BOARD OF ALDERMEN

November 4, 1957

WHEREAS, in the opinion of the Board of Aldermen of the City of Newton, the public necessity and convenience require that a certain parcel of land off Dedham Street, hereinafter more particularly described, should be taken in fee for municipal purposes, to wit: school and school yard purposes, and

WHEREAS, said board has appointed a time for a public hearing and has caused a notice thereof and of its intention in the matter to be given as required by law relating to takings for municipal purposes, and

WHEREAS, said hearing has been held, and an appropriation has been made for the purpose, it is therefore

ORDERED, that the following described parcel of land be and the same is hereby taken in fee for municipal purposes.

DESCRIPTION OF LAND TAKEN

Beginning at a point in the [redacted]westerly line of land taken by the City of Newton in fee for school and school yard purposes under Order. No. 99003, approved April 18, 1951 at the intersection of said [redacted]westerly line with the north[redacted]erly line of land of Edward F. Halloran & Richard Halloran; thence [redacted]westerly 215.76 feet by said land of Edward F. Halloran et al; thence north[redacted]erly 672.08 feet over land of Edward J. Halloran & Gertrude A. Halloran; thence southeasterly 345.82 feet; thence [redacted] southerly 430.00 feet to the point of beginning, the last two described lines being by said land taken by the City of Newton for school and school yard purposes as aforesaid, said parcel containing 122,981 square feet of land.

The above described parcel is shown on a plan numbered 34758 entitled "Private Land off Dedham Street, Land taken in fee for School and School Yard Purposes" dated September 23, 1957, signed by U. M. Schiavone, City Engineer and recorded with the Engineering Department.

The above described parcel is registered land. The number of the certificate, volume and page in which said certificate is registered in the records for registered land for the southern district of Middlesex County and the owner of said parcel to be taken for municipal purposes is as follows:

Owner	No. of Certificate	Vol.	Page
Edward J. Halloran & Gertrude A. Halloran	47960	320	385

The above described parcel of land so far as known to the Board of Aldermen, belongs to the following person:

Edward J. Halloran & Gertrude A. Halloran (husband & wife)
Ld. Ct. Cert. 47960, Bk. 320, Pg. 385.

IT IS FURTHER ORDERED, that the sum of Two Thousand Dollars ($2,000.00) to be taken from School Building Loan Account under G. L. Chapter 44, Section 7, Sub-Section 3, as authorized by Board Order No. 223-57, adopted by the Board of Aldermen on March 4, 1957, be and is hereby appropriated, granted and expenditure authorized by the Law Department under direction of His Honor the Mayor as an award for damages to be paid to the following individuals with the respective awards set against their names.

Sec.	Blk.	Lot	Names	Amounts
83	6	12	Edward J. Halloran & Gertrude A. Halloran Ld. Ct. Cert. 47960, Bk. 320, Pg. 385.	$ 2,000.00

And it is further ORDERED, that the trees, fences, building and other structures attached to the real estate are hereby taken.

Under Suspension of Rules
Readings Waived, Adopted
18 Yeas 1 Nay 2 Absent
(Ald. Cannon Voting Nay)
(Ald. Anderson & Shattuck Absent)

(Sgd) MONTE G. BASBAS, City Clerk

EXECUTIVE DEPARTMENT

Approved..November....6....1957

(Sgd) HOWARD WHITMORE, JR., Mayor

Chairman of
(Sgd) EARLE D. WOOD, Committee on Finance

324688

Cert. # 47960 Bk 320
Pg 385
have been changed
to Cert # 8F363
Bk 572
Pg 13

Albert A. Morse

324688

DOCUMENT NO.

Partial PHOTOSTAT COPY WANTED 84
NOV 26 1958

Middlesex South Registry District
NOV 20 1957
RECEIVED FOR REGISTRATION
ON 10 30 M A M
NOTED ON CERTIFICATE NO. 8836 3
IN REGISTRATION BOOK 572 PAGE 13
$3.00

5-3

Endorsed by O'Day
Checked by Collins

October 18, 2022

Ms. Donna DiNisco, Principal
DiNisco Design
99 Chauncy Street
Boston, MA 02111

Re: **Professional Traffic Engineering Services**
Existing Conditions Report
Countryside Elementary School
Newton, Massachusetts
Pare Project No. 22166.00

Dear Ms. DiNisco:

Pare Corporation (Pare) has completed an existing traffic conditions assessment for the Countryside Elementary School at 191 Dedham Street in Newton, MA. Pare understands that the City of Newton is pursuing the construction of a new or renovated elementary school to replace the Countryside Elementary School. There are currently 372 students enrolled at the existing school and the new school will be designed for an enrollment of 340 or 465 students. The grade structure at the new school will include kindergarten through grade five.

This assessment has been completed to gain an understanding of the traffic operations at the existing school and identify transportation related opportunities and constraints at the site. The report includes a summary of observations at the site during the morning arrival period and the afternoon dismissal period on September 27, 2022. A parking inventory during school hours has also been provided for the school. Weather conditions were sunny, and temperatures were in the low 60's to low 70's.

The purpose of this existing conditions traffic assessment is to review existing traffic conditions at and around the school including traffic circulation patterns of school buses, parents and staff, arrival and dismissal operations, parking demands, and pedestrian and vehicular safety. A full Traffic Impact Analysis (TIA) will be conducted at a future date and will provide a more detailed and specific assessment of the future traffic conditions associated with the new building project and the quantitative impact of the new traffic generated by the potential future growth in school enrollment.

A study area map, showing the location of the Countryside Elementary School and the surrounding area, is shown in Figure 1.

PROJECT NO. 22166.00 DATE: SEPTEMBER 2022

PARE

FIGURE 1

LOCUS MAP

COUNTRYSIDE ELEMENTARY SCHOOL
NEWTON, MASSACHUSETTS

EXISTING CONDITIONS

The existing Countryside Elementary School, located at 191 Dedham Street, is situated on the west side of Dedham Street between Walnut Street and Bound Brook Road. Countryside Elementary School currently has an enrollment of 372 students and has a total of 81 faculty and staff. Access to/from the site for faculty and staff is provided at the north side of the site via one driveway on Dedham Street. Signage restricts access to the parking lot for staff only, shown in **Photo 3**. This is the only parking lot provided on the site and provides 41 spaces. Parent drop-off and pickup operations occur on Dedham Street and the adjacent local roadway network, requiring students to walk on and across Dedham Street. There is a pedestrian walkway on the western side of the building that connects to a local neighborhood on Andrew Street. Bus pickup and drop-off occurs along Dedham Street, parking along the eastern side of the building.

The study area is defined as the significant intersections in the vicinity of the site that may be impacted. Listed below are the intersections included in the study area:

Study Area Intersections:

- Dedham Street at Walnut Street
- Dedham Street at Bound Brook Road

Intersections

Dedham Street at Walnut Street

The intersection of Dedham Street and Walnut Street operates as an all way stop-controlled T-intersection. Dedham Street makes up the western and southern legs, while Walnut Street makes up the northern leg. The western leg is comprised of one travel lane allowing northbound and southbound movements, and one receiving lane, divided by a raised median. The southern leg is comprised of one travel lane allowing northbound travel, and one receiving lane. The northern leg is comprised of one travel lane allowing westbound and southbound travel, and one receiving lane. There are concrete sidewalks along the perimeter of the intersections, and crosswalks across the western and southern legs.

Photo 1: Dedham Street at Walnut Street

Dedham Street at Bound Brook Road

Photo 2: Dedham Street at Bound Brook Road

The intersection of Dedham Street and Bound Brook Road operates as a three legged, two-way-stop-controlled, T-intersection, although the stop sign on Bound Brook Road is not present. Dedham Street makes up the northern and southern leg, while Bound Brook Road makes up the western leg. The northern leg is comprised on one travel leg allowing westbound and southbound travel, and one receiving leg. The southern leg is comprised of travel lane allowing westbound and northbound travel. The western leg allows two-way access, however, there is no striping present to delineate lane separation. There are concrete sidewalks along the perimeter of the intersection.

Arrival and Dismissal Operations

A review of the existing traffic conditions at and around the school were completed through field observations conducted during school arrival and dismissal periods. Parking occupancy was also recorded at the school parking lot. All observations at the Countryside Elementary School were conducted on Tuesday, September 27, 2022 while the school was operating under typical conditions. The following describes the traffic operations observed at the school with supplemental photos providing additional details. Additionally, **Figure 2** graphically displays the arrival and dismissal operations of the school.

During the morning arrival period, traffic circulation operates by means of parents walking their children to the school after parking along the local roadways, namely Dedham Street. The school has blue painted curbing along Dedham Street to delineate areas for parents to live park and drop their children off, called the "blue zone", measuring approximately 500 feet in length. This area was observed to hold 17 cars and had spots open regularly during the morning arrival period, with a noted high turnover rate. Additionally, parents park further along Dedham Street and along local streets in the area, such as Woodcliff Road and Bound Brook Road. Signage along Woodcliff Road indicates restricted parking during school hours. Faculty members were observed to park along Dedham Street. Once parents park, they would exit their vehicles and walk their children to the front of the building using sidewalks along Dedham Street. To assist with pedestrians crossing Dedham Street, two crossing guards are present: one is located at the intersection of Dedham Street at Woodcliff Road, and one is located at the intersection of Dedham Street at Walnut Street. Additionally, parents will walk their children through Andrew Street to the school via a paved walkway at the rear of the building, shown in **Photo 4**. Students enter the school through different doorways around the school, depending on their grade. After walking their children to the school, parents will walk back to their parked vehicles, being assisted by the crossing guards, as necessary.

A total of four buses were observed during the morning arrival, with arrival times of 8:02 A.M., 8:09 A.M., 8:11 A.M., and 8:15 A.M. Buses unload along Dedham Street within the bus pull-off area on the west side of the road. The bus pullout area is denoted by yellow curbing and signage as shown below in **Photo 5**. Due to the staggered arrival times, only one bus occupied this area at a given time, however the bus pull-off area has an approximate maximum capacity of only two buses. During the morning arrival period, parking restrictions prevent passenger cars from entering the bus pull-off area. One van was observed unloading within the school driveway adjacent to the north side of the building.

Roadway signs on Dedham Street reflect parking restrictions and school operations, preventing driveways from being blocked and attempting to mitigate the parked vehicles from congesting side streets. Example signage is shown in **Photos 6 and 7**. Flashing school speed limit signs, shown in **Photo 8**, are placed at the intersection of Dedham Street at Walnut Street and Dedham Street at Cannon Street. The intersection of Dedham Street at Woodcliff Road is lacking ADA (Americans with Disabilities Act) compliant ramps and is missing a stop sign for its eastern leg. The sidewalk network in the area is generally in fair or good condition but have a few instances of sidewalks in poor condition as shown in **Photo 9**.

Photo 3: Signage placed to indicate parking in lot is restricted to faculty/staff only

Photo 4: Paved pathway at rear of school to allow children to be brought to the school from the local neighborhood along Andrew Street

Photo 5: Signage outlining parking restriction for bus pull-off area, with yellow curb striping to further guide buses and restrict passenger cars from using the area.

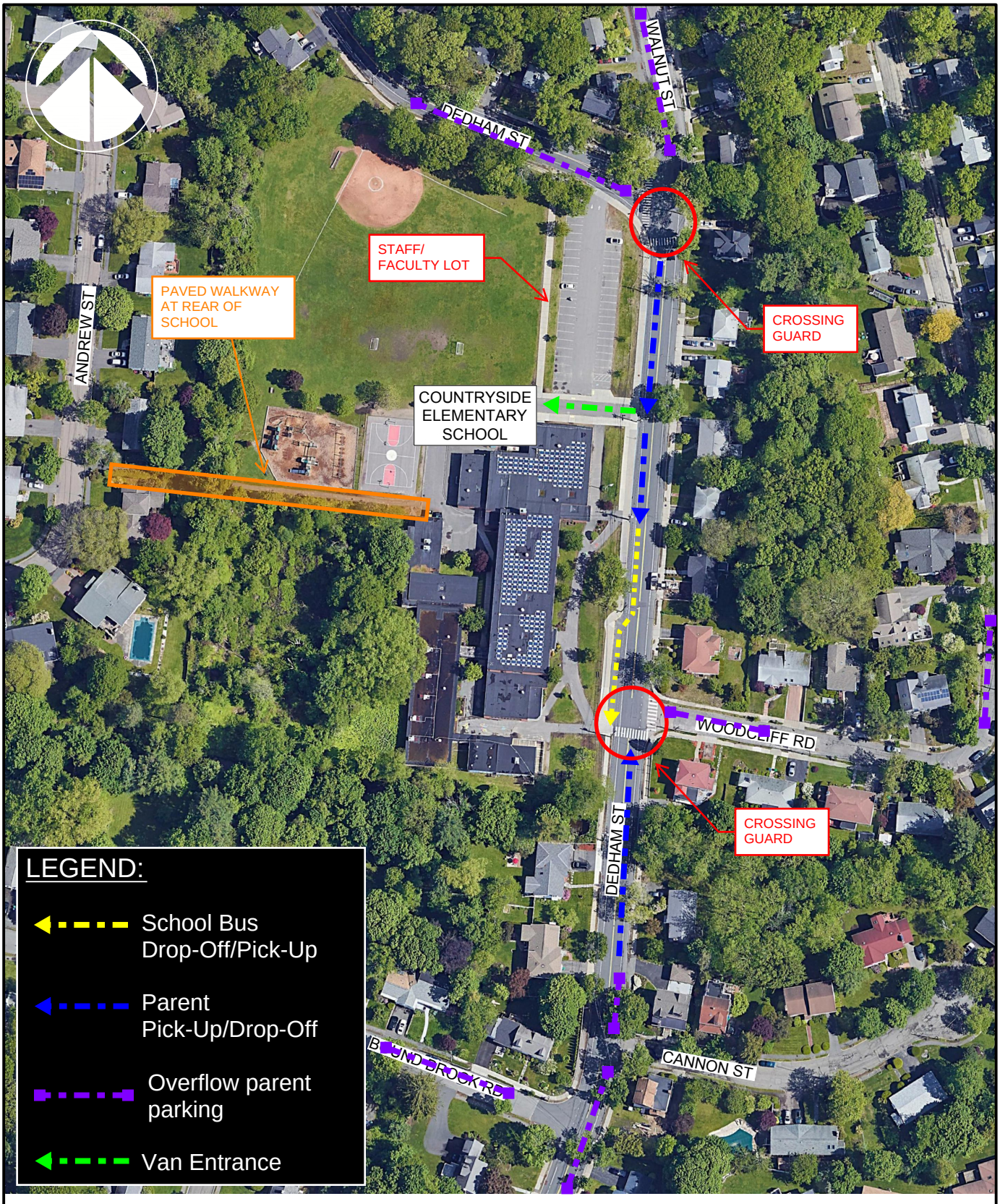
Photo 6: Signage to indicate parking restrictions along Woodcliff Road, one of the side streets parents park on during arrival and dismissal operations

Photo 7: Signage indicating restricted parking within the "blue zone" to prevent parent pick-up and drop-off operations from being hindered, with a red plaque outlining idling is prohibited, also.

Photo 8: Flashing school zone speed limit signs at the beginning of "blue zone"

Photo 9: Instance of concrete sidewalk in poor condition beyond the intersection of Dedham Street at Walnut Street, along Walnut Street

Photo 10: Narrow parking lane along Dedham Street, causing parked cars to partially park on curb



PROJECT NO. 22166.00 DATE: SEPTEMBER 2022

PARE

FIGURE 2

CIRCULATION MAP

COUNTRYSIDE ELEMENTARY SCHOOL
NEWTON, MASSACHUSETTS

The afternoon dismissal procedure operates in a similar pattern to the morning arrival procedure. The one difference in operations occurs at the bus pull off area. Only three buses were observed with arrival times of 2:51 P.M., 3:00 P.M., and 3:13 P.M. Contrary to the morning arrival period, there were instances where parents pulled into the bus pull off area and were told to move their vehicles by the crossing guard. One van was observed loading within the site driveway immediately north of the building. Parents who would arrive early would park along the various side streets, with only a few instances of parents occupying the blue zone. The parents arriving early would then exit their cars and walk to the school's various entrances and congregate while they await dismissal. For dismissal operations, a mix of children walking to their parents parked cars and parents walking their children from the school to their parked cars was observed, with an approximate distribution of each scenario difficult to pinpoint due to the extremely high pedestrian volume during dismissal.

Additional Observations

Several additional observations regarding traffic circulation and safety were noted by Pare during the field review and include the following:

- Limited on-site parking for faculty and staff exacerbates parking availability issues with parent pick-up and drop-off
- In general, the afternoon operations operated smoother than the morning operations
- Maximum queuing occurs along Dedham Street as the southern crossing guard stops traffic for children to load onto the school buses
- Dedham Street's approximate width of 34' provides substandard travel lane and parking lane widths. This leads to greater congestion along Dedham Street in the vicinity of the school, vehicle maneuverability challenges and difficulty loading/unload students.
- The parking lanes along Dedham Street (both north and east of the school) are between six and six and a half feet, below the standard 8' width (see **Photo 10)**
- By the end of the afternoon observation period, there were approximately 30 to 40 children playing on the playground after dismissal, implying a proportion of students stay on the site after dismissal, influencing the number of parent vehicle and student walker volumes
- The portion of students walking to/from school is relatively high compared to other schools and is indicative of the number of the dense residential neighborhood surrounding the site.
- Signage in the area ranges from good condition to poor condition, with minor damage and fading to some. Generally, signage within the area does not abide by current Manual of Uniform Traffic Control (MUTCD) standards.
- There were a few instances where parents would perform a three-point turn while heading southbound along Dedham Street in front of the school to acquire a parking space on the eastern side of the road. Each observed instance occurred off peak, limiting the impact to through traffic.
- Parking restrictions are regularly ignored during arrival and dismissal operations
- Between five to ten students were observed biking to school, with a bike rack present on the northern side of the building. Students would bike to school using either the pathway along the western side of the school, or using the sidewalk network present.

Traffic Volume Data

Pare recorded the volume of parent vehicles, school buses, and vans during the morning arrival period and afternoon dismissal period. These quantities are presented below in **Table 1**.

Table 1: Countryside Elementary School Observed Trips

Period	Parent Vehicle Drop-offs/ Pick-ups	Buses	Vans
Morning Arrival	81	4	1
Afternoon Dismissal	54	3	1

As mentioned previously, pedestrian traffic is extremely heavy during the morning arrival and school dismissal periods and was deemed too extensive for Pare to manually count during observations. Due to this, pedestrian counts are not included.

Parking Lot Survey

Parking space occupancy was recorded following the school start time (approximately 8:30) and prior to the school dismissal (approximately 2:30 P.M.). **Table 2** below shows the results of the parking inventory.

Table 2: Countryside Elementary School Parking Summary

Period	Occupied Spaces	Vacant Spaces	Total Parking Spaces
Morning	36	5	41
Afternoon	37	4	41

It should be noted that, in addition to the cars parked at the lot, at least 27 cars were parked along Dedham Street that are assumed to also be faculty/staff.

CONCLUSIONS AND RECOMMENDATIONS

The compilation of the existing conditions assessment has been provided to establish baseline traffic conditions for the traffic study. Pare was able to obtain existing information regarding the arrival and dismissal operations at the existing school, number of parent drop-offs at the school, parking demand at the school, and a sense of the traffic circulation patterns within the study area.

With the necessity for most parents to walk their children to the school, pedestrian traffic during morning arrival and afternoon dismissal is extremely heavy. The intended parking area to accommodate the parent drop-off and pick-up is unable to accommodate operations, so much of the parent drop-off is done around the local roads surrounding the school. This issue worsens due to the faculty/staff parking being unable to adequately meet the parking demand, causing a portion of the faculty/staff to also park along the local roadway network. School bus loading/unloading operations on Dedham Street interrupt the flow of traffic, resulting in short periods of congestion during the arrival and dismissal periods.

Based on these observations, Pare recommends the following be considered as the project design progresses:

- Separate parent drop-off/pick-up traffic from bus traffic during arrival and dismissal periods
- Consider locating school bus loading/unloading zone on-site to avoid impact to through traffic on Dedham Street.
- Improve the sidewalk network in areas where it currently does not meet ADA standards
- Provide school zone and student crosswalk signage and striping to meet current standards.
- Add stop-sign on Woodcliff Road at Dedham Street
- Consider revising existing on-street parking practices and roadway striping on Dedham Street to provide travel lane and parking lane widths consistent with current standards. Consider prohibiting parking on one side of the roadway while widening the parking lane on the school side of the roadway.
- Consider increasing the on-site parking lot capacity to accommodate all staff/faculty while also providing additional spots for visitor parking
- Locate and size parent drop-off/pick-up locations to adequately accommodate parent drop-off/pick-up volumes, including the increased enrollment of the proposed school
- Provide on-site pedestrian connections between the proposed building and the existing neighborhood pedestrian connections
- Consider preventing the parents from parking along the “blue zone” and walking their children to the school. In tandem with this restriction, place faculty outside to assist in drop-off/pick-up operations for the parent drop-off/pick-up area

If you have any questions or concerns or wish to discuss further, please feel free to contact me at your convenience.

Sincerely,

Timothy Thomson
Senior Project Engineer

EB/TT/kls

Z:\JOBS\22 Jobs\22166.00 DiNisco - Newton Countryside Elem Traffic - MA\REPORTS\Existing Conditions\Countryside Elementary Existing Conditions_101822.docx

City of Newton

Department of Public Works - Utilities Division

60 Elliot Street – Newton, MA. 02461 – Phone: 617.796.1640

Flow Test

Date: 10-14-2022 Time: 12:30 pm

Location: 191 Dedham St

Hydrant Gauges

Hydrant Location 137 Dedham St (Darling Hyd)

Static (psi):	87	Residual (psi):	72

Hydrant Flowed

Hydrant Location 162 Dedham St (Ecley Hyd)

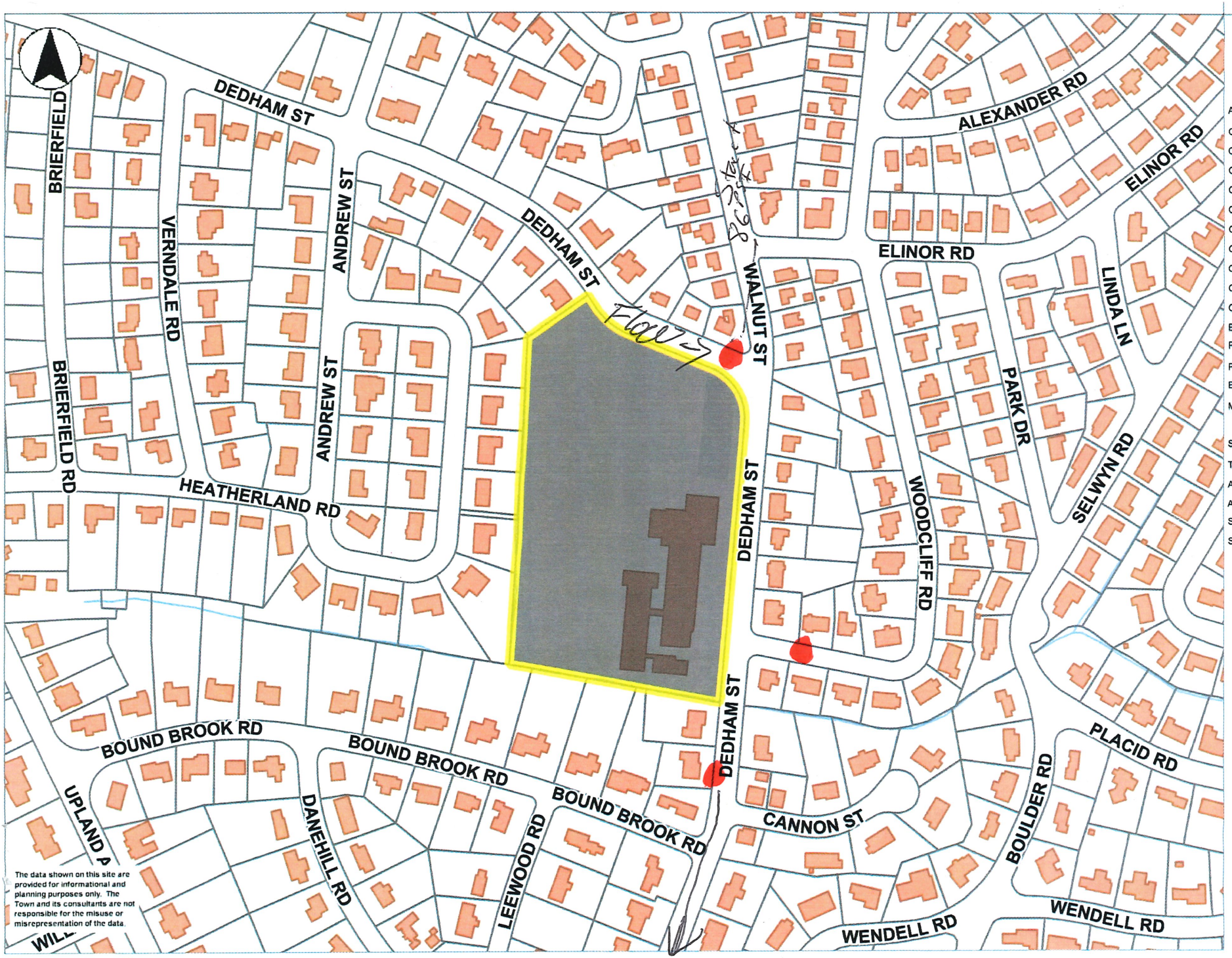
Diameter (in)	Coefficient	Pitot (psi)	Flow (gpm)
2.5"	.9	4/8	1160

Flow Test Results:

Total Flow: gpm 1160

Flow @ 20 psi: gpm

REMARKS: Test preformed by A. MacMillan.
8" water Main.
Cast Iron Cement lined.



The data shown on this site are provided for informational and planning purposes only. The Town and its consultants are not responsible for the misuse or misrepresentation of the data.

0 360 720 ft

Printed on 10/11/2022 at 07:46 AM

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Newton, MA DPW - MapsOnline

DGT Associates
Surveying & Engineering

1071 Worcester Rd.
Framingham, MA 01701
508.879.0030
www.dgtassociates.com

25807

Mr. Art Cabral
Newton Public Buildings
52 Elliot Street
Newton Highlands, MA 02461

August 10, 2022

RE: Countryside Elementary School, Newton, MA
Wetland Resource Area Delineation

Dear Mr. Cabral,

DGT Associates performed a field delineation of the boundaries of Wetland Resource Areas under the Mass. Wetlands Protection Act (MWPA) that are at the subject property on July 5, 2022. The wetland resource areas included Bordering Vegetated Wetlands (BVW), the Bank of an intermittent stream and the Bank/Mean Annual High Water of South Meadow Book, which is classified as a perennial stream. The MAHW was delineated as it is the inner boundary of the "200 foot Riverfront Area" which is a wetlands resource area under the MWPA.

The delineations were performed by this writer, Fredric King, for use in planning for the site. Following the field delineation, the marker flags were located by the DGT Surveyors and are shown on the Existing Conditions Plan.

Another Wetland Resource Area under the MWPA at this site is Bordering Land Subject to Flooding (BLSF). This boundary is determined and mapped by the Federal Emergency Management Agency and this boundary is shown on the existing conditions survey.

GENERAL SITE DESCRIPTION:

The site is a 7.26 acre tract of City owned property containing the Countryside Elementary School at 191 Dedham Street in Newton Highlands, Massachusetts. The property contains the school building, driveways, parking areas, athletic fields, basketball court, playground, walkways and landscaping.

The wetlands resource areas include an intermittent stream along the western side of the site, South Meadow Brook along the south property boundary, and vegetated wetlands bordering on the northerly end of the intermittent stream as well as vegetated wetland in the southwest portion of the site that borders on both the intermittent stream and South Meadow Brook.

All the wetlands resource areas on the project site are within the watershed of South Meadow Brook that enters the site from a culvert under Dedham Street at the southwest corner and flows westerly along the south property boundary. South Meadow Brook is tributary to the Charles River located approximately 1 mile downstream from the site.

South Meadow Brook is presumed to be a Perennial Stream and is therefore classified as a "River" under the Mass. Wetlands Protection Act. Further information on this is included later in this report.

BORDERING VEGETATED WETLANDS

The delineation of Bordering Vegetated Wetlands was performed in accordance with current Mass. Department of Environmental Protection methodology as contained in the DEP Handbook "Delineating Bordering Vegetated Wetlands Under the Massachusetts Wetlands Protection Act" dated March 1995. The delineation was performed by this writer, Fredric King, Senior Wetland Specialist for DGT.

The delineation was performed using vegetation, soils, and other indicators of wetland hydrology. To set the line, continual visual estimations of vegetation species dominance and observation of wetland hydrology were made along with frequent observations of soils using a hand soil auger. To aid in this delineation and to provide the required supporting documentation, two observation transects with sample plots were performed and documented. The data collected is included in the attached DEP Field Data Forms in Attachment 2.

The boundaries of the BVW were delineated with numbered blue survey ribbons and are shown on the "Topographic and Boundary Survey Plan."

MAIN WETLAND

This wetland in the southwest portion of the site is a mix of wooded swamp and shrub swamp that transitions to a shallow marsh in the middle portion of the area. The flagging of the main wetland in the southwestern portion of the site begins at the southwest corner at Flag BVW-1 and ends at the intermittent stream at flag BVW-31.

BVW-1 to BVW-5 follows the bank of the Brook and these flags are intended to indicate that the BVW in that area goes all the way to the stream and includes the area north of that boundary. The remainder of the boundary generally follows the base of the sloped terrain, with the exception of a portion between BVW 6 to 9 where the slope is more gradual. Transect 1 with two sample plots was performed near BVW-7 to help determine that portion of the boundary.

For this BVW, it is clear that the upland area near the boundary is the limit of filled land. This is likely from the construction of the school in the 1950s.

NORTHWEST BVW:

The BVW associated with the upper (northerly) portion of the westerly intermittent stream is only at the northerly end of the stream. Flagging begins at BVW B-1 on the west side of the beginning of the stream, and ends at BVW B-9 near Bank Flag B-19.

This area is primarily a shrub swamp bordering on the intermittent stream. There are some trees are along the bank of the intermittent stream.

In the area along the stream off the maintained grass field south of where the BVW ends, the groundcover contains a significant percentage of Jewelweed (Impatiens capensis). This is a wetland indicator plant, however, there are other upland species mixed in and there are no hydric soils or other indicators of wetland hydrology, making this an upland area. To document that condition a sample plot was performed (T2-P1) that confirms the upland status of that area.

MEAN ANNUAL HIGH WATER (MAHW) for inner Riverfront delineation:

South Meadow Brook is a man-made stream that runs along the southern boundary of the site. The brook is shown as a heavy line on the latest USGS topographic maps, so it is presumed to be a "River" under the Mass. Wetlands Protection Act Regulations, unless the presumption is overcome as prescribed in the regulations. The brook had only a small amount of flow and with ponded water in low spots during the delineation work on July 5, 2022. According to the Mass. DEP, this was during a period of moderate to severe drought, so this low flow condition would be expected. The watershed of the brook to this site is more than 1 square mile. Under these conditions, the brook is presumed to be a River under the MWPA.

The delineation of MAHW was performed utilizing "bankfull indicators" per Mass. DEP Guidelines contained in their publication "Bankfull Indicators & Mean Annual High Water". In all cases there was clear evidence of "bankfull indicators". The indicators included bank undercuts, erosion scars, changes in vegetation, growth characteristics of trees and their roots, and changes in bark growth. The banks are relatively high with a concrete lining on the lower bank, and vegetated above that level. The MAHW is on the upper Bank of the stream, so the MAHW was marked along the top of the bank. The MAHW line was delineated with pink survey ribbon marked MAHW-1 to MAHW-18. Note that the southerly side of the stream was not flagged.

Since the banks are very steep, these MAHW flags may also serve as the "Bank" limit for this stream. The Photos in Attachment 1 show the stream on the date of the delineation.

INTERMITTENT STREAM BANKS

The intermittent stream along the western boundary of the site appears to be a man-made channel that starts in the northwest corner of the site and ends at South Meadow Brook. The banks are relatively straight and steep, up to the flat adjacent land. The upper portion of the banks are vegetated. The stream was dry at the time of the delineation.

There is a culverted stream crossing for a pedestrian walkway that connects the site to Andrew Street, and there are two drain outfalls from the site into the stream.

Under the Mass. Wetlands Protection Act, the upper boundary of the Bank is defined as the *"first observable break in the slope or the mean annual flood level, whichever is **lower**."* The area of flow is well defined as can be seen in the photo in Attachment 1. For this delineation stream, the delineation was made at the top of the bank which is the first observable break in slope.

The stream banks were delineated with numbered pink survey ribbon in two sections. The portion of the stream south of the pedestrian walkway crossing was numbered Bank A-1 to Bank A-6. The northern portion of the stream above the crossing was numbered Bank B-1 to Bank B-25.

BORDERING LAND SUBJECT TO FLOODING (BLSF)

A portion of the site is shown on the latest FEMA National Flood Insurance Program mapping as being in a "Zone AE" with the elevation of the one percent chance of flooding (AKA 100 year flood) determined to be 112.4. The area within the 100 year flood is classified as "Bordering Land Subject to Flooding" which is a protected Resource Area under the MWPA. This line is shown on the "Topographic and Boundary Survey Plan prepared by DGT. As can be seen on the plan, the majority of the site is within the BLSF.

Please note that the delineations performed are based on best professional judgment and interpretation per the applicable regulatory guidelines. The delineations are not an official "Determination" under the applicable wetlands laws and regulations until accepted by the Conservation Commission or Mass. DEP through the filing of an Abbreviated Notice of Resource Area Delineation or a Notice of Intent under the Mass. Wetlands Protection Act. Until officially accepted, the delineation should be considered approximate and used only for preliminary planning purposes.

If you have any questions regarding the delineation or this report, please contact me.

Sincerely,

Fredric W. King

Fredric W. King, PE
Senior Engineer
& Wetland Specialist

Attachment 1: Stream Photos
Attachment 2: DEP Field Data Forms

The Existing Conditions Survey Plan entitles "Topographic and Boundary Survey" by DGT Associates is provided separately.

ATTACHMENT 1

STREAM PHOTOS

SOUTH MEADOW BROOK LOOKING UPSTREAM
Note concrete lining at the base of the banks.

SOUTH MEADOW BROOK LOOKING DOWNSTREAM

WESTERLY DRAIN DITCH (INTERMITTENT STREAM)

ATTACHMENT 2

DEP WETLANDS FIELD DATA FORMS

DEP Bordering Vegetated Wetlands (310 CMR 10.55) Delineation Field Data Form

Applicant: Newton Public Buildings Dept. Prepared by: Fred King Project location: 191 Dedham St, Newton, MA DEP File #:

Check all that apply:

☐ Vegetation alone presumed adequate to delineate BVW boundary: fill out Section I only

☒ Vegetation and other indicators of hydrology used to delineate BVW boundary: fill out Sections I and II

☐ Method other than dominance test used (attach additional information)

Section I. Vegetation Observation Plot Number: P1 Transect Number: T1 Date of Delineation: 7/5/2022

A. Sample Layer and Plant Species (by common/scientific name)	B. Percent Cover (or basal area)	C. Percent Dominance	D. Dominant Plant (yes or no)	E. Wetland Indicator Category*
Trees				
Apple (Malus spp) 8", 6"	78 sq in	72.9	Yes	UP
American Elm (Ulmus americana) 6"	29 sq in	27.0	Yes	FACW-
Shrub/Sapling/Vine				
Eastern False Willow (Baccaris halimifolia))	10.5	100	Yes	FACW
Ground Cover				
Jewel-weed (Impatiens capensis)	63.0	41.5	Yes	FACW
Garlic Mustard (Alliaria petiolata)	85.5	56.4	Yes	FACU-
Rough Stemmed Goldenrod (Solidago rugosa)	3.0	2.1	No	FAC

* Use an asterisk to mark wetland indicator plants: plant species listed in the Wetlands Protection Act (MGL c.131, s.40); plants in the genus *Sphagnum*; plants listed as FAC, FAC+, FACW-, FACW+, or OBL; or plants with physiological or morphological adaptations. If any plants are identified as wetland indicator plants due to physiological or morphological adaptations, describe the adaptations next to the asterisk.

Vegetation conclusion:

Number of dominant wetland indicator plants: 3 **Number of dominant non-wetland indicator plants:** 2

Is the number of dominant wetland plants equal to or greater than the number of dominant non-wetland plants? Yes X **No**

If vegetation alone is presumed adequate to delineate the BVW boundary, submit this form with the Request for Determination of Applicability or Notice of Intent.

MA DEP; 3/95

Section II. Indicators of Hydrology

Hydric Soil Interpretation

1. Soil Survey

Is there a published soil survey for this site? Yes X No

title/date: Soil Survey of Middlesex County, Mass
Date 2009

map number:

soil type mapped: Udorthents (655) except Merrimack 626B in NW corner.

hydric soil inclusions: Walpole series near dranage ways.

Are field observations consistent with soil survey? Yes X

Remarks: The wetland area in the southwest portion of the site and along the western side drainage may be Walpole series soil

2. Soil Description

Horizon	Depth	Matrix Color	Mottles Color
A - FSL	0 - 8”	10 YR 2/2	None
B - LFS	8-16”	10 YR 6/2	10 YR 5/8 Many Stony

Remarks: Saturated @ 15”

3. Other:

Conclusion: Is soil hydric? Yes X No

Other Indicators of Hydrology: (check all that apply and describe)

- ☐ Site inundated: _____
- ☐ Depth to free water in observation hole: _____
- ☒ Depth to soil saturation in observation hole: 15”
- ☐ Water marks: _____
- ☐ Drift lines: _____
- ☐ Sediment deposits: _____
- ☐ Drainage patterns in BVW: _____
- ☐ Oxidized rhizospheres: _____
- ☐ Water-stained leaves: _____
- ☐ Recorded data (stream, lake, or tidal gauge; aerial photo; other): _____
- ☐ Other: _____

Vegetation and Hydrology Conclusion

	Yes	No
Number of wetland indicator plants ≥ number of non-wetland indicator plants	X	
Wetland hydrology present: hydric soil present	X	
other indicators of hydrology Present	X	
Sample location is in a BVW	X	

Submit this form with the Request for Determination of Applicability or Notice of Intent.

DEP Bordering Vegetated Wetlands (310 CMR 10.55) Delineation Field Data Form

Applicant: Newton Public Buildings Dept. Prepared by: Fred King Project location: 191 Dedham St, Newton, MA DEP File #:

Check all that apply:

☐ Vegetation alone presumed adequate to delineate BVW boundary: fill out Section I only

☒ Vegetation and other indicators of hydrology used to delineate BVW boundary: fill out Sections I and II

☐ Method other than dominance test used (attach additional information)

Section I. Vegetation Observation Plot Number: P2 Transect Number: T1 Date of Delineation: 7/5/2022

A. Sample Layer and Plant Species (by common/scientific name)	B. Percent Cover (or basal area)	C. Percent Dominance	D. Dominant Plant (yes or no)	E. Wetland Indicator Category*
Trees				
Apple (Malus spp) 8", 8"	99 sq in	38.9	Yes	UP
Black Cherry (Prunus setotina) 8, 10, 6"	155 sq in	61.1	Yes	FACU
Shrub/Sapling/Vine				
Multiflora Rose (Rosa multiflora)	3.0	12.4	No	FACU
Eastern False Willow (Baccaris halimifolia))	10.5	43.8	Yes	FACW
Black Cherry (Prunus serotina)	10.5	43.8	Yes	FACU
Ground Cover				
Jewel-weed (Impatiens capensis)	20.5	29.7	Yes	FACW
Garlic Mustard (Alliaria petiolata)	38.0	55.1	Yes	FACU-
Asian Bittersweet (Celastrus orbiculatus))	10.5	15.2	No	UP

* Use an asterisk to mark wetland indicator plants: plant species listed in the Wetlands Protection Act (MGL c.131, s.40); plants in the genus *Sphagnum*; plants listed as FAC, FAC+, FACW-, FACW+, or OBL; or plants with physiological or morphological adaptations. If any plants are identified as wetland indicator plants due to physiological or morphological adaptations, describe the adaptations next to the asterisk.

Vegetation conclusion:

Number of dominant wetland indicator plants: 2 **Number of dominant non-wetland indicator plants:** 4

Is the number of dominant wetland plants equal to or greater than the number of dominant non-wetland plants? Yes **No** X

If vegetation alone is presumed adequate to delineate the BVW boundary, submit this form with the Request for Determination of Applicability or Notice of Intent.

MA DEP; 3/95

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hydric soil inclusions: Walpole series near dranage ways.

Are field observations consistent with soil survey? Yes X

Remarks: The wetland area in the southwest portion of the site and along the western side drainage may be Walpole series soil

2. Soil Description

Horizon	Depth	Matrix Color	Mottles Color
A - FSL	0 - 7"	10 YR 3/2	None
B - LFS	7-16"	10 YR 4/3	None Stony

Remarks: No saturation or water found at 16"

3. Other:

Conclusion: Is soil hydric? Yes No X

Other Indicators of Hydrology: (check all that apply and describe)

- ☐ Site inundated: _____
- ☐ Depth to free water in observation hole: _____
- ☐ Depth to soil saturation in observation hole: _____
- ☐ Water marks: _____
- ☐ Drift lines: _____
- ☐ Sediment deposits: _____
- ☐ Drainage patterns in BVW: _____
- ☐ Oxidized rhizospheres: _____
- ☐ Water-stained leaves: _____
- ☐ Recorded data (stream, lake, or tidal gauge; aerial photo; other): _____
- ☐ Other: _____

Vegetation and Hydrology Conclusion

	Yes	No
Number of wetland indicator plants ≥ number of non-wetland indicator plants	☐	X
Wetland hydrology present: hydric soil present	☐	X
other indicators of hydrology Present	☐	X
Sample location is in a BVW	☐	X

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☒ Vegetation and other indicators of hydrology used to delineate BVW boundary: fill out Sections I and II

☐ Method other than dominance test used (attach additional information)

Section I. Vegetation Observation Plot Number: P1 Transect Number: T2 Date of Delineation: 7/5/2022

A. Sample Layer and Plant Species (by common/scientific name)	B. Percent Cover (or basal area)	C. Percent Dominance	D. Dominant Plant (yes or no)	E. Wetland Indicator Category*
Trees				
Red Maple (Acer rubrum) 14”	154 sq in	100	Yes	FAC
Shrub/Sapling/Vine				
Multiflora Rose (Rosa multiflora)	63.0	75.4	Yes	FACU
Apple (Malus spp)	20.5	24.6	Yes	UP
Ground Cover				
Jewel-weed (Impatiens capensis)	38.0	78.4	Yes	FACW
Garlic Mustard (Alliaria petiolata)	10.5	21.6	Yes	FACU-

* Use an asterisk to mark wetland indicator plants: plant species listed in the Wetlands Protection Act (MGL c.131, s.40); plants in the genus *Sphagnum*; plants listed as FAC, FAC+, FACW-, FACW+, or OBL; or plants with physiological or morphological adaptations. If any plants are identified as wetland indicator plants due to physiological or morphological adaptations, describe the adaptations next to the asterisk.

Vegetation conclusion:

Number of dominant wetland indicator plants: 2 **Number of dominant non-wetland indicator plants:** 3

Is the number of dominant wetland plants equal to or greater than the number of dominant non-wetland plants? Yes **No** X

If vegetation alone is presumed adequate to delineate the BVW boundary, submit this form with the Request for Determination of Applicability or Notice of Intent.

MA DEP; 3/95

Section II. Indicators of Hydrology

Hydric Soil Interpretation

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Are field observations consistent with soil survey? Yes X

Remarks: The wetland area in the southwest portion of the site and along the western side drainage may be Walpole series soil

2. Soil Description

Horizon	Depth	Matrix Color	Mottles Color
A - FSL	0 - 6"	10 YR 3/2	None
B - LFS	6-17"	10 YR 4/3	None Stony

Remarks: No saturation or water found at 16"

3. Other:

Conclusion: Is soil hydric? Yes No X

Other Indicators of Hydrology: (check all that apply and describe)

- ☐ Site inundated: _____
- ☐ Depth to free water in observation hole: _____
- ☐ Depth to soil saturation in observation hole: _____
- ☐ Water marks: _____
- ☐ Drift lines: _____
- ☐ Sediment deposits: _____
- ☐ Drainage patterns in BVW: _____
- ☐ Oxidized rhizospheres: _____
- ☐ Water-stained leaves: _____
- ☐ Recorded data (stream, lake, or tidal gauge; aerial photo; other): _____
- ☐ Other: _____

Vegetation and Hydrology Conclusion

	Yes	No
Number of wetland indicator plants ≥ number of non-wetland indicator plants	☐	X
Wetland hydrology present: hydric soil present	☐	X
other indicators of hydrology Present	☐	X
Sample location is in a BVW	☐	X

Submit this form with the Request for Determination of Applicability or Notice of Intent.

Lord Environmental, Inc.
Consulting & Licensed Site Professional Services

1506 Providence Highway - Suite 30
Norwood, MA 02062-4647

Voice: 781.255.5554
Fax: 781.255.5535
www.lordenv.com

PHASE I ENVIRONMENTAL SITE ASSESSMENT
&
SUBSURFACE INVESTIGATION

Countryside Elementary School
191 Dedham Street
Newton, Massachusetts

Prepared for:

Mr. Arthur Cabral
City of Newton, Public Buildings Department
52 Elliot Street
Newton, MA 02461

Prepared by:

Lord Environmental, Inc.
1506 Providence Highway, Suite 30
Norwood, Massachusetts 02062

Project # 3145

September 28, 2022

Lord Environmental, Inc.
Consulting & Licensed Site Professional Services

1506 Providence Highway - Suite 30
Norwood, MA 02062-4647

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September 28, 2022

Mr. Arthur Cabral
City of Newton, Public Buildings Department
52 Elliot Street
Newton, MA 02461

RE: Phase I Environmental Site Assessment & Subsurface Investigation:
191 Dedham Street
Newton, Massachusetts

Dear Mr. Cabral:

Lord Environmental, Inc. has completed a Phase I Environmental Site Assessment and Subsurface Investigation for the above-referenced property (the "Site"). Environmental investigations were completed with consideration to standard industry practice and the ASTM E 1527 site assessment standard entitled "Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process". The purpose of this assessment was to identify "Recognized Environmental Conditions" as defined in ASTM E 1527-21, and to determine if additional investigation is warranted.

This assessment did not identify any Recognized Environmental Conditions (REC) in connection with the Site at 191 Dedham Street in Newton, MA. Additionally, laboratory analysis of composite samples collected during a subsurface investigation at the Site did not have concentrations of analyzed contaminants above the applicable reportable concentrations for soil (RCS-1). One Historic REC was identified as the result of a fuel oil overfill incident that was remediated in 2011.

Please refer to the attached report for specific details and findings of our assessment. We appreciate the opportunity to have provided our professional environmental consulting and analytical services.

Sincerely,
LORD ENVIRONMENTAL, INC.

Oliver P. Leek
Senior Project Manager

Enc.: Phase I ESA

TABLE OF CONTENTS

1.0 INTRODUCTION

1.1 Definitions

Recognized Environmental Conditions (REC) are defined as the presence or likely presence of hazardous substances or petroleum products in, on, or at the subject property under conditions that indicate an existing release to the environment, or the presence of hazardous substances or petroleum products in, on, or at the subject property under conditions that pose a material threat of a future release to the environment.

Controlled Recognized Environmental Conditions (CREC) are defined as a Recognized Environmental Condition resulting from a past release of hazardous substances or petroleum products that has been addressed to the satisfaction of the applicable regulatory authority, with hazardous substances or petroleum products allowed to remain in place subject to the implementation of required controls. For example, activity and use limitations or other property limitations.

Historic Recognized Environmental Conditions (HREC) are defined as a past release of hazardous substances or petroleum products affecting the subject property that has been addressed to the satisfaction of the applicable regulatory authority or meeting unrestricted use criteria established by a regulatory authority, without subjecting the property to any controls. For example, activity and use limitations or other property limitations.

Business Environmental Risks (BER) are defined as a risk which can have a material environmental or environmentally driven impact on the business associated with the current or planned use of commercial real estate, not necessarily limited to those environmental issues required to be investigated in this practice.

1.2 Purpose

Lord Environmental, Inc. (LEI) has completed a Phase I Environmental Site Assessment and Subsurface Investigation for the property located at 191 Dedham St, Newton, Massachusetts (the "Site" or "subject property"). The purpose of this assessment was to identify "Recognized Environmental Conditions" (RECs) as defined in ASTM standard E 1527-21 (the "Standard"), and to determine if additional investigation is warranted.

Our opinion regarding RECs is based upon on the scope of work, information obtained during the course of implementing the scope of work, conditions observed at the time the scope was implemented, applicable regulatory requirements in effect at the time the scope was implemented, our professional experience, and our understanding of the client's intended use for the subject property.

The Phase I consisted of a Site reconnaissance and an assessment of the Site and surrounding properties for visual and/or olfactory evidence of the use, storage, and/or release of oil and/or hazardous material. The Phase I also included a review of federal,

state, and local agency files regarding the history of the Site and surrounding area relative to the use, storage and/or release of oil and/or hazardous material. Additionally, LEI conducted a Limited Subsurface Investigation using a direct-push drill rig to collect soil samples. Soil samples collected were analyzed for disposal characterization parameters. No concentrations of contaminants exceeded the applicable reportable concentrations for soil (RCS-1).

Please note that an investigation for the presence of mold and radon in building materials, indoor air quality, PFAS, or regulatory compliance is beyond the scope of work described by ASTM E 1527-21, therefore LEI did not explore those conditions.

1.3 Significant Assumptions

Factual information regarding operations, conditions, and other data provided by the Client, site contacts, third parties, and governmental agencies are assumed to be correct and complete.

1.4 Special Terms and Conditions

The Phase I ESA and Subsurface Investigation was conducted by LEI on behalf of the Client consistent with the agreed upon Scope of Work and LEI Standard Terms and Conditions. No other special terms and conditions were established in connection with these services.

2.0 SCOPE OF SERVICES

This assessment was performed following standard industry practice and with consideration to the ASTM E 1527-21 site assessment standard entitled "Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process. The investigation included completion of the following tasks:

1. A field investigation was performed including a visual surficial inspection of the Site and abutting properties; and

2. The following agencies were contacted to inquire of past ownership, complaints, or violations concerning environmental issues at the Site and vicinity.

   - The Massachusetts Department of Environmental Protection (MADEP)
   - The Newton Tax Assessor's Office
   - The Newton Town Clerk's Office
   - The Newton Health Department
   - The Newton Building Department
   - The Newton Sewer & Water Department
   - The Newton Fire Prevention Office
   - Environmental Data Resources Inc.

- Sanborn Fire Insurance Maps

3. The following agencies were contacted to determine the physical characteristics of the Site and vicinity:

   - USGS Topographical Maps
   - MADEP Priority Resource Maps
   - MADEP Wetlands Inventory Maps
   - Federal Emergency Management Agency Flood Zone Maps
   - USDA Soil Survey Maps
   - UC Davis Soil Maps

4. A Limited Subsurface Investigation was completed that included the performance of test borings, and soil sampling for laboratory analyses.

5. A summary report was prepared describing the conduct and findings of the investigation and our conclusions regarding the presence of Recognized Environmental Conditions as well as the results of the Limited Subsurface Investigation.

3.0 SITE DESCRIPTION

3.1 Site Location and Parcel Legal Description

The address is listed as 191 Dedham Street in Newton, MA. The property consists of 7.4 acres of land comprised of the Countryside School and associated surrounding lawn. The Site is listed as Parcel ID 83006-0011 on the Site's property card. A Site Location Map is included as **Figure 1**, an Assessor's Map is included as **Figure 2** and a Site Plan depicting pertinent Site features is included as **Figure 3**.

Information provided in the Environmental Data Resource Inc. (EDR) First Report indicates that the Site longitude and latitude are approximately -71.202896° west and 42.313384° north, respectively. Universal Transverse Mercatur (UTM) coordinates are approximately 4,686,708 meters north by 318,450 meters east.

3.2 Site and Vicinity General Characteristics

The Site consists of an elementary school located in a public use (PUB) zone of Newton, MA. Abutting properties in all four cardinal directions are residential.

3.3 Current Property Use

The Site is currently comprised of the Countryside Elementary School and grounds.

3.4 Description of Improvements

The Site contains one two-story brick building with a concrete basement. Also attached to the main building are some more recently built modular classrooms. Remaining space consists of lawn space, a playground area, baseball field, basketball court, and parking areas.

A detailed Site description is presented in **Section 4.0**.

3.4.1 Wastewater

The Site building is connected to the municipal sewer system.

3.4.2 Water Supply

The Site building receives municipal water.

3.4.3 Wells

No potable, irrigation, injection, dry, other monitoring, or abandoned wells were observed during the Site inspection. However, due to an overfill and subsequent soil excavation and required assessment, groundwater monitoring wells were installed in the courtyard area (former location of USTs) in 2010.

3.4.4 Heating/Cooling System

The building is heated with gas fired steam furnaces. The furnaces are also capable of running on heating oil and four (4) 275-gallon aboveground storage tanks (ASTs) are present in the boiler room. Heating oil was formerly stored in an underground storage tank located in the courtyard outside the boiler room.

3.4.5 Solid Waste Disposal

Solid waste disposal is facilitated with dumpsters located in the northern courtyard portion of the Site.

There were no other areas of solid waste disposal, mounds or depressions, or areas apparently filled or graded by non-natural causes suggesting solid waste disposal observed.

3.4.6 Storage Tanks

Four 275-gallon ASTs, installed in 2011, for fuel oil are located in the basement boiler room of the Site. These tanks are manifolded and strapped down to the basement floor

due to flooding concerns. These tanks were observed to be empty or almost empty (based on the gauges) during the Site reconnaissance. Fuel oil storage prior to the aforementioned ASTs was in two (2) 5,000-gallon double-walled steel USTs located in the courtyard to the west of the boiler room. These two USTs were removed in November 2011. Upon removal, confirmatory soil sampling did not indicate a release of petroleum above reporting thresholds. These USTs were reportedly installed in 1987. No information regarding a previous tank or tanks was available at the City of Newton Fire Department.

An overfill of one of the USTs occurred in February 2011 which resulted in the release of approximately 10-15 gallons of fuel oil from the vent pipe and to the tank pad. Further information on this release in included in **Section 5.5**.

3.4.7 Transformers, Hydraulic Equipment and Other Potential Evidence of the Potential Use of Polychlorinated Biphenyls

Polychlorinated Biphenyls (PCBs) can be found in hydraulic-oil filled electrical equipment (such as motors and pumps), capacitors or transformers, and fluorescent light ballasts manufactured prior to July 2, 1979.

An elevator is present in the school. During the Site inspection the elevator was on the ground level. The elevator was reportedly installed in 2010 and does not have any underground components.

Fluorescent light fixtures were present in the building. No additional evidence of the potential use of polychlorinated biphenyls (PCBs) was observed at the Site during the inspections.

3.5 Current Uses of Adjoining Properties

Residential properties surround the Site. No bulk fuel storage was observed on adjacent properties. The table below summarizes current abutting land usage.

Table 1
Area Land Usage

Usage	Orientation
Residential	North
Residential	South
Residential	East
Residential	West

4.0 USER PROVIDED INFORMATION

A summary of user provided information is provided below.

4.1 User Questionnaire

A User Questionnaire was sent to Mr. Arthur Cabral, the client. Mr. Cabral's responses are listed below. A copy of the User Questionnaire is provided in **Appendix D**.

Table 2
User Questionnaire

A User Questionnaire was provided to the User (Client) to assist the User and LEI in gathering information from the User that may be material to identifying RECs. The following answers were provided by the User's Representative.	**Response Inquiry**
Name and title	Arthur Cabral, Owner's Representative
Tenure with Site	49 years
Are you aware of any environmental cleanup liens against the property that are filed or recorded under federal, tribal, state or local law?	No
Are you aware of any Activity and Use Limitations, such as engineering controls, land use restrictions or institutional controls that are in place at the site and/or have been filed or recorded in a registry under federal, tribal, state or local law?	No
As the user of this ESA do you have any specialized knowledge or experience related to the property or nearby properties? For example, are you involved in the same line of business as the current or former occupants of the property or an adjoining property so that you would have specialized knowledge of the chemicals and processes used by this type of business?	Former user was residential
Does the purchase price paid for this property reasonably reflect the fair market value of the property? If you conclude that there is a difference, have you considered whether the lower purchase price is because contamination is known or believed to be present at the property?	N/A
Are you aware of commonly known or reasonably ascertainable information about the property that would help the environmental professional to identify conditions indicative of releases or threatened releases? For example, as user:	
Do you know the past uses of the property?	Residential
Do you know of specific chemicals that are present or once were present at the property?	No known chemicals are on site
Do you know of spills or other chemical releases that have taken place at the property?	There have been none to the best of my knowledge
Do you know of any environmental cleanups that have taken place at the property?	There have been none to the best of my knowledge
As the user of this ESA, based on your knowledge and experience related to the property are there any obvious indicators that point to the presence or likely presence of contamination at the property?	There is no known contamination at this property

4.2 Title Records

LEI did not review the property title. However, based on the Assessor's Field Card, the Site has been owned by the City of Newton since 1900. Based on information provided by the Client, portions of the Site (western portion) were subject to an eminent domain taking in 1957.

4.3 Environmental Liens, Activity and Use Limitations

Mr. Cabral has no knowledge of environmental liens, and the agency check revealed no listing for an Activity and Use Limitation in connection with the Site.

4.4 Specialized Knowledge

No other specialized knowledge of Recognized Environmental Conditions was provided to LEI by the user.

4.5 Commonly Known or Reasonably Ascertainable Information

No commonly known or reasonably ascertainable information regarding Recognized Environmental Conditions was provided to LEI by the user.

4.6 Valuation Reduction for Environmental Issues

According to the User, the purchase price reflects true market value.

4.7 Owner, Property Manager, and Occupant Information

According to the Newton Assessor's Department, the current owner of the property is:

City of Newton School Department
1000 Commonwealth Ave
Newton, MA 02459

4.8 Reason for Performing Phase I Study

A Phase I ESA and Subsurface Investigation is being conducted at the request of the client for preliminary information so decisions can be made regarding possible refurbishing or re-building the school.

5.0 RECORDS REVIEWS

A review of federal, state and local regulatory agency files was conducted in accordance with ASTM E 1527-21 standards to identify the use, generation, storage, treatment,

disposal and/or release of oil and/or hazardous materials that may potentially impact the Site.

5.1 Municipal Offices

5.1.1 Assessor's Office

LEI accessed property records from the municipal Assessor's Office on July 22, 2022, in order to review historical ownership information for the Site. This data was reviewed for the purposes of land use determination and should not be relied upon as a complete chain-of-title. **Table 3** is a summary of ownership information obtained at the assessor's office for the Site.

Table 3
Chain of Title

Grantee	Date of Acquisition	Book/Page
City of Newton School Department	01/01/1900	-

5.1.2 Health Department

LEI contacted the municipal Health Department on July 22, 2022, to request records pertaining to the use, storage or release of oil or other hazardous materials at the Site. The following documents were provided by the department:

- Certificate of Compliance, MA Wetlands Protection Act and Certificate Pursuant to Floodplain/ Watershed Protection Provisions
- Five Asbestos Notification Forms dated 12/23/2019, 10/01/2020, 01/30/2020, 01/29/2021, and 03/17/2022.

5.1.3 Building Department (Inspectional Services)

LEI contacted the municipal Building Department July 22, 2022, to request records pertaining to the use, storage or release of oil or other hazardous materials at the Site. No records were on-file with the department.

5.1.4 Public Works Department

LEI contacted the municipal Public Works Department on July 22, 2022, to confirm whether the Site receives both municipal water and sewer. No response was provided from the Public Works Department. However, the subject property is served by municipal water and sewer services.

5.1.5 Clerk's Office

LEI contacted the municipal Clerk's Office July 22, 2022, to request records pertaining to the use, storage or release of oil or other hazardous materials at the Site. The Clerk's

Office did not provide any documentation.

5.1.6 Fire Prevention

LEI contacted the municipal Fire Prevention Office on July 22, 2022, to request records pertaining to the use, storage or release of oil or other hazardous materials at the Site. The following documents were provided by the department:

- Application/Permit for Storage Tank Removal for two, 5,000-gallon USTs containing #2 fuel oil
- Untitled document that mentions a permit was issued on February 24, 1984. A note is written at the bottom of the document that mentions the removal of two, 5,000 gallon USTs from the property on August 10, 2011.
- Untitled document that mentions four, 275 gallon ASTs, with a permit issued on September 29, 2011.

5.2 Sanborn/Historical Map Review

As Site history as a school has been documented since 1950, Sanborn Fire Insurance Maps were not reviewed.

5.3 Historical Aerial Photograph Review

Aerial photographs from 1938, 1955, 1969, 1971, 1978, 1995, 2001, 2003, 2004, 2005, 2008, 2010, 2012, 2013, 2014, 2016 and 2018 were reviewed through the Historic Aerials website (www.historicaerials.com) and a current 2022 aerial photograph was reviewed from Google Earth. The following summarizes the aerial photographs reviewed.

In the 1938 aerial photo, the Site is undeveloped with residences to the north, east, and south with a wooded area to the west. The school appears to have already been constructed by 1955. An addition was constructed somewhere between 1957 and 1969 on the southwest side of the building. By 1994, an addition of modular classrooms was added to the south side of the building and additional modular classrooms had been added by 2001 to the north side of the west wing of the school.

5.4 Radius Search for Properties of Environmental Concern

A radius search was conducted for federal and state-listed sites of potential environmental concern as outlined in ASTM E 1527 guidelines. The search was performed using software developed by Environmental Data Resources Inc. (EDR).

Sites identified within the designated ASTM search radii are summarized in the following table. The EDR report is included in **Appendix B.**

Table 5
Properties of Potential Environmental Concern

Site Type	Site Name	Site Address	Distance from Subject Property	RTN / Status	Notes
State Site, LUST	Countryside Elementary School	191 Dedham St	0.00mi	**3-0029786/ RAO**	
State Site	Property	284 Woodcliff Rd	0.062mi E	3-0004138/ DEPNFA	
State Site, LAST	No Location Aid	44 Andrew St	0.073mi W	3-0025249/ RAO 3-0022151/ RAO	
State Site	No Location Aid	59 Marsellis Dr	0.213mi SE	3-0010449/ RAO	
State Site	No Location Aid	40 Druid Hill Rd	0.229mi S	3-0034358/ PSNC	
LUST	Residential Property	27 Selwyn Rd	0.287mi ENE	3-0027804/ RAO	
State Site, LUST	Exxon Service Station	90-92 Winchester St	0.307mi NW	3-0012176/ RAO 3-0000684/ RAO	
State Site, LUST	Corner Highland St and Worcester St	90 Winchester St	0.307mi NW	3-0010238/ RAO	
State Site	Easy St and Needham St	19-31 Needham St	0.332mi WNW	3-0017576/ RAONR	
State Site	No Location Aid	19-33 Needham St	0.336mi WNW	3-0012967/ RAONR 3-0012525/ RAO AUL	
State Site	55-71 Needham St	55-71 Needham St	0.358mi W	3-0032062/ PSC AUL	
LUST	Residence	5 Shuman Cir	0.359mi ESE	3-0025840/ RAO	
LUST	Bruno's Auto	50 Winchester St	0.362mi NW	3-0022143/ RAO	
State Site	No Location Aid	49 Needham St	0.364mi WNW	3-0011543/ RAO	
State Site, LUST	No Location Aid	79 Needham St	0.378mi W	3-0014077/ RAONR 3-0010891/ RAONR 3-0003058/ RAO AUL	
State Site	Boston Office Furniture	71 Needham St	0.382mi W	3-0003552/ RAO	
State Site	Commercial Property	100 Needham St	0.385mi W	3-0002632/ LSPNFA	
State Site, LUST	New England Concrete	99 Needham St	0.397mi W	3-0003877/ WCSPRM	
LUST	No Location Aid	1637 Center St	0.418mi NNW	3-0014590/ RAO 3-0015828/ RAO	
State Site	No Location Aid	57 Cloverdale Rd	0.425mi NNE	3-0029451/ RAO	
State Site, LUST	Protech Company	70 Jaconnet St	0.426mi W	3-0004342/ RAO	
State Site	No Location Aid	111 Needham St	0.438mi W	3-0030460/ RAO	
State Site	Boston Edison Co	Elliot St Station 292	0.456mi WNW	3-0004719/ RAO	
State Site	Building G	50 Industrial Pl	0.465mi WSW	3-0012758/ RAO	
State Site	HC Starck Inc Shipping Docks	50 Industrial Pl	0.465mi WSW	3-0031109/ RAO	
State Site	HC Starck	45 Industrial Pl	0.468mi WSW	3-0010052/ RAO 3-0037115/ PSNC	
State Site	Sierra Trading Post	141 Needham St	0.473mi W	3-0001491/ RAO	
State Site	Highland Service Center	1186 Walnut St	0.481mi NNW	3-0034258/ PSC AUL	
LUST	MA0032	964 Boylston St	0.485mi NW	3-0032119/ PSNC	
LUST	Purity Supreme	978 Boylston St	0.493mi NW	3-0004588/ RAO	
State Site	At Corner of Floral	1175 Walnut St	0.494mi NNW	3-0014942/ RAO	

Notes:
N=north, S=south, W=west, E=east

Elev. Diff: = Difference in elevation from Site
TSDF = Treatment Storage & Disposal Facilities
ERNS = Environmental Response Notification System
NFA – LSP Opinion of No Further Action
RAO = Closed in accordance with MADEP Regulations
NPL = National Priorities List
UST = Underground Storage Tank
NI = None Identified
UST = Underground Storage Tank
F = Final
DPS = Downgradient Property Status (contamination is from an upgradient source)
RCRIS = Resource Conservation and Recovery Information System
Tier II = Listed with MADEP due to oil or hazardous material in soil/groundwater (not closed)

5.5 Massachusetts Department of Environmental Protection Review

Pertinent files were reviewed at the Massachusetts Department of Environmental Protection (MADEP). Those properties shown in bold in the preceding table were reviewed and are summarized below. All other reported releases within a 0.5-mile radius of the Site have reviewed and determined to have been closed in apparent compliance with existing regulations or are located in an area downgradient/crossgradient of the Site and are not deemed to pose a risk to the Site.

The Site: Countryside Elementary School, RTN# 3-0029786/ RAO.

On February 16, 2011, a release of 10-15 gallons of #2 fuel oil during a delivery to two, 5,000-gallon USTs occurred due to an overfill. The release affected the immediate vicinity where the UST vent pipes are located and affected the roof of the building, the ground surface below the vent, and the concrete tank pad and surrounding area in the northern courtyard of the Site.

As a result of this release, remedial actions included the application of absorbent materials, removal of 6 tons of oil and oil impacted snow, water, and absorbent materials, and the excavation and off-site disposal of 19.8 tons of impacted soil. Soil, groundwater, and soil vapor samples were collected by Environmental Compliance Services (ECS). According to the Immediate Response Action Completion Statement written by ECS in October 2012, there were no current discernable impacted soil areas. Based on the groundwater samples taken from five monitoring wells, no analytes were detected above the laboratory reporting limits. Initially, soil vapor results from February 2012 indicated a potential for indoor air impact. However, soil vapor was resampled in March and June 2012 where results were above laboratory reporting limits, but not above MassDEP Residential Sub-Slab Soil Gas Screening Values. Based on these results, ECS concluded that a vapor intrusion pathway was unlikely.

An MCP method 1 Risk Characterization was implemented to evaluate risk at the Site. Conclusions indicated no significant risk to human health, safety, public welfare, and the environment exists for the current and foreseeable future site use scenarios. A Class A-2 RAO statement was subsequently submitted to DEP.

In the RAO are details regarding the removal of the two 5,000-gallon USTs in August 2010 in conjunction with remediation subsequent to the overfill incident. When the tanks were removed, the pea-stone surrounding the tanks collapsed and no confirmatory soil

samples were able to be collected. Subsequent subsurface investigation presented in the RAO indicated that Site conditions pose "No Significant Risk", and therefore, a measurement for contamination was taken regarding the former USTs.

5.6 Previous Reports

All previous reports obtained during the assessment have been outlined above in **Section 5.5**.

5.7 Physical Setting Sources

LEI reviewed information provided by the United States Geological Survey (USGS) in connection with physiographic conditions, soil, and bedrock types. LEI also reviewed the MassGIS Resource Map for the area and located natural resources during the Site Reconnaissance. According to the USGS Quadrangle Topographical Map, the elevation of the Site is approximately 117 feet above mean sea level. Topography of the Site vicinity is relatively flat with a slight gradient to the southeast. The direction of groundwater flow in the vicinity likely follows this gradient and flows towards South Meadow Brook. As outlined in the 2012 ECS Class A-2 RAO for the Site, groundwater in the vicinity of the former UST was calculated to flow to the southeast.

Review of the Flood Insurance Rate Map, published by the Federal Emergency Management Agency (FEMA) indicates that the Site is in Zone AE, which has a 1% chance of annual of a flood hazard.

Review of the MassGIS Bureau of Waste Site Cleanup Priority Resources Map published by the MADEP, indicates that the Site is not located in a Protected Water Source Area.

Review of the National Wetlands Inventory from the U.S fish and Wildlife Service, indicates a wooded marsh is present in the southwest portion of the site.

Review of the UC Davis Soil Web App indicated that soil in the vicinity of the Site is classified as Udorthents, wet substratum, which is comprised of soil 85% Udorthents, 8% Urban land, 4% Freetown, 3% Swansea.

5.8 Historical Use Information

Research regarding historical land usage of the Site and surrounding properties was conducted using data obtained from historical maps, parties familiar with the Site, and municipal officials. Based on information gathered throughout the course of this assessment, the following history of the Site has been prepared:

- The Site appears to have been used as a school since its construction in 1950.
- Abutting properties appear to have been residential from at least 1938-present day.

6.0 SITE RECONNAISSANCE

6.1 Methodology and Limiting Conditions

On July 22, 2022, LEI personnel conducted on-Site inspections, which consisted of a visual examination of the Site and portions of adjacent properties and interviews with Site personnel. Areas were examined for surficial indications of releases of oil and/or hazardous materials (OHM).

A Site Plan depicting significant features observed is included as **Figure 3** and photographs are included in **Appendix A** of this report.

6.2 Interior Inspection

The Site building is the Countryside Elementary School. The interior of the building consists of classrooms and associated school-related spaces on the first and second floors of the building. Various cleaners and waxes were present as the School was being prepared for the start of the academic year.

An elevator was observed on the first floor that operates as a lift to the second floor. This lift was installed in 2010 and has no subsurface components.

A two-story basement exists at the Site. The basement is accessed via a set of stairs from the courtyard and from a ramp at the north of the Site building. The basement level is used for storage and the custodian's office. Below this level is the boiler room. In the boiler room are two steam furnaces that are currently fired with natural gas. However, the furnaces are capable of running on fuel oil. Adjacent to the boilers are four aboveground storage tanks (ASTs) for fuel oil that were observed to be empty or almost empty. As the boiler room is significantly below grade (and below the groundwater table at times, there is a sump with two pumps to keep the facilities dry.

Floor drains were located throughout the first floor of the building. It is likely that these drains are connected to the municipal sewer system based on the observations made in the basement during the Site inspection.

Various placards were visible in the boiler room indicating that asbestos is present. Various paints and cleaning chemicals were observed in the basement during the Site inspection. These materials were stored in a neat and orderly fashion and no leaking was identified.

6.3 Exterior Inspection

The exterior portion of the Site consists of the exterior portions of the School building, courtyard, grassy areas, a playground, playing fields, and woods.

On the north side of the building is electrical equipment associated with a solar array on the roof. Also adjacent to the north wall of the school is a diesel-powered generator with the diesel tank located below and attached to the unit. Modular classrooms are located to the northwest of the original school building. Playing fields are located on the northwestern portion of the Site and a playground is situated just northwest of the Site building. Woods and wetland are located to the west of the Site building.

South Meadow Brook is located immediately to the south of the Site property.

No evidence of any releases or dumping of OHM was observed in areas encompassing the exterior of the Site through the course of our inspection. LEI did not observe any odors, pools of liquid, ponds, lagoons, stressed vegetation, suspicious containers or tanks, or other solid waste during the reconnaissance.

7.0 INTERVIEWS

LEI received a User Questionnaire from Mr. Arthur Cabral, Site representative for the City of Newton, to assess property conditions and the potential for Recognized Environmental Conditions. Mr. Cabral's response to the User Questionnaire is provided in **Section 4.1**.

8.0 SUBSURFACE INVESTIGATION

On July 22, 2022, LEI directed New England Geotech of Jamestown, Rhode Island in the advancement of ten (10) soil borings at the Site with a track-mounted direct-push rig. Soil borings were advanced to a maximum of 15 feet below surface grade (bsg) with the majority being advanced to ten feet bsg. Groundwater was encountered at approximately 7-13 feet bsg. Fill was observed in most of the soil boring locations to varying depths. Some of the fill included wood, brick, and glass. Native material below the fill included fine to coarse sand, gravel, peat, and clay. See **Appendix F** for copies of the Boring Logs.

Soil samples were field-screened with a photo-ionization detector (PID) for total organic vapors (TOV). No elevated TOV readings were observed in any of the soil samples collected. Composite soil samples were created from the fill (designated "Fill Comp") and from the native material (designated "Native Comp") and sent to Alpha Analytical labs (Alpha) of Westborough, Massachusetts for analyses of disposal parameters that include total petroleum hydrocarbons (TPH), volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), polychlorinated biphehyls (PCBs), and metals.

Laboratory analysis did not indicate the presence of PCBs above laboratory method detection limits in either of the composite samples. Concentrations of metals and

compounds, where detected above laboratory method detections limits, were below applicable reportable concentrations (RCS-1) to the Massachusetts Department of Environmental Protection. A data table that summarizes these results with comparisons to RCS-1 standards is included in **Appendix E** along with the laboratory certificates of analysis and chain-of-custody documentation.

9.0 SUMMARY OF FINDINGS AND CONCLUSION

9.1 Findings

Lord Environmental, Inc. has completed a Phase I Environmental Site Assessment of the Site. This assessment was performed with consideration to standard industry practice and the ASTM E 1527-21 site assessment standard entitled "Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process". Our findings are presented below:

1. Information provided by the Newton Assessor's Office online property card lists the Site as 191 Dedham Street, Newton, MA.

2. The Site is owned by the City of Newton and consists of the Countryside School. Surrounding properties are used for residential purposes.

3. Lord Environmental, Inc. conducted an inspection of the Site consisting of a visual examination of the Site, immediate surrounding features, and abutting properties.

   An elevator is present in the school. This elevator was installed in 2010 and does not have any subsurface components. Floor drains were identified in the Site building. Based on observations made during the Site inspection, these floor drains are likely tied into the municipal sewer system. A boiler room in the basement houses four fuel oil aboveground storage tanks (ASTs). The tanks were observed to be empty or almost empty during the Site inspection.

4. Municipal file records were requested by LEI for the use, storage or release of oil or other hazardous materials on the Site. The following documents were provided from the Fire Department and Health Department:

   Fire Department:

   - Application/Permit for Storage Tank Removal for two, 5,000-gallon USTs containing #2 fuel oil.
   - Untitled document that mentions a permit was issued on February 24, 1984. A note is written at the bottom of the document that mentions the removal of two, 5,000 gallon USTs from the property on August 10, 2011.
   - Untitled document that mentions four, 275 gallon ASTs, with a permit issued on September 29, 2011.

Health Department:

- Certificate of Compliance, MA Wetlands Protection Act and Certificate Pursuant to Floodplain/ Watershed Protection Provisions
- Five Asbestos Notification Forms dated 12/23/2019, 10/01/2020, 01/30/2020, 01/29/2021, and 03/17/2022.

5. Pertinent files were reviewed at the Massachusetts Department of Environmental Protection (MADEP).

   On February 16, 2011, a release of 10-15 gallons of #2 fuel oil during a delivery to two, 5,000-gallon USTs. The release affected the immediate vicinity where the UST vent pipes are located and migrated to the area where the modular classroom is located.

   As a result of this release, remedial actions included the application of absorbent materials, removal of 6 tons of oil and oil impacted snow, water, and absorbent materials, and the excavation and off-site disposal of 19.8 tons of impacted soil. Soil, groundwater, and soil vapor samples were collected by Environmental Compliance Services (ECS). According to the Immediate Response Action Completion Statement written by ECS in October 2012, there were no current discernable impacted soil areas. Based on the groundwater samples taken from five monitoring wells, no analytes were detected above the laboratory reporting limits. Initially, soil vapor results from February 2012 indicated a potential for indoor air impact. However, soil vapor was resampled in March and June 2012 where results were above laboratory reporting limits, but not above MassDEP Residential Sub-Slab Soil Gas Screening Values. Based on these results, ECS concluded that a vapor intrusion pathway was unlikely.

   An MCP method 1 Risk Characterization was implemented to evaluate risk at the Site. Conclusions indicate no significant risk to human health, safety, public welfare, and the environment exists for the current and foreseeable future site use scenarios. A Class A-2 RAO statement was subsequently submitted to DEP.

   All other reported releases within a 0.5-mile radius of the Site have been closed in apparent compliance with existing regulations or are located in an area downgradient (lower elevation) of the Site.

   Therefore, the remaining identified properties are not likely to have current or former releases of hazardous substances and/or petroleum products with the potential to migrate to the property that would result in a material threat to public health or the environment. Migration refers to the movement of hazardous substances or petroleum products in any form, including solid and liquid at the surface or subsurface and vapor in the subsurface.

6. Results of the Limited Subsurface Investigation indicated that contaminant concentrations, where detected, were below applicable reportable concentrations for soil (RCS-1) to DEP.

9.2 Conclusions

This assessment has not identified any RECs in conjunction with the Site. However, a Historic REC exists related to an overfill of former USTs at the Site in 2011. This release was remediated and a Class A-2 RAO was filed in 2012.

Any exceptions to, or deletions from, ASTM Practice E 1527 are described in **Section 10** of this report. Please note that an investigation for the presence of mold and PFAS in building materials, indoor air quality, or regulatory compliance is beyond the scope of work described by ASTM E 1527-21, therefore LEI did not explore those conditions.

10.0 RESTRICTIVE CONDITIONS

10.1 Limitations & Deviations

LEI recognizes the following limitations and/or deviations from the Standard with respect to this Phase I Environmental Site Assessment:

- LEI did not interview past owners of the Site;
- LEI did not interview owners of neighboring property;
- LEI did not review Title Records for the Site; and
- LEI did not conduct an evaluation of the purchase price of the Site compared to the fair market value.

10.2 Significance of Data Gaps

As described above, the deviations from the Standard constitute data gaps.

These data gaps do not raise reasonable concerns that would affect the ability to identify conditions indicative of a release or threatened release or Recognized Environmental Conditions (RECs) based upon other information collected during the course of the Phase I Environmental Site Assessment.

- Although the past owner and owners of neighboring property were not interviewed, site and surrounding area history does not indicate prior use involving oil and/or hazardous materials.
- In Massachusetts, all environmental liens and Activity and Use Limitations are identified on the MADEP sites database, which has been searched.
- Based on Site History, there is no reasonable indication that property value has been affected due to environmental concerns.

11.0 LIMITATIONS

No warranty, whether expressed or implied, is given with respect to this report or any opinions expressed herein. It is expressly understood that this report and the opinions expressed herein are based upon Site conditions, as they existed only at the time of assessment. Nothing in this report constitutes a legal opinion or legal service, and should not be relied upon as such.

The data reported and the findings, observations, and opinions expressed in the report are limited by the Scope of Work. The Scope of Work was performed based on budgetary, time, and other constraints imposed by the Client, and the agencies and persons reviewed.

In preparing this report, Lord Environmental, Inc. has relied upon and presumed accurate certain information about the Site and adjacent properties provided by governmental

agencies, the client and others identified in the report. Except as otherwise stated in the report, Lord Environmental, Inc. has not attempted to verify the accuracy or completeness of any such information.

This report has been prepared on behalf of and for the exclusive use of the client, and those immediate entities involved with the proximate financing of this project, solely for use in the environmental evaluation of the Site. Any reuse or reliance on this report by any other third party shall be done only with the written consent of LEI.

To be compliant with E-1527-21, subject to the responsibilities of the User, the assessment is presumed to be viable when it is conducted within 180 days prior to the date of acquisition of the subject property, or the date of the intended transaction (such as a lease or refinance).

12.0 SIGNATURES AND ENVIRONMENTAL PROFESSIONAL STATEMENT

LEI declares that, to the best of our professional knowledge and belief, we meet the definition of *Environmental Professional* as defined in §312.10 of 40 CFR 312. LEI has the specific qualifications based on education, training, and experience to assess a property of the nature, history, and setting of the subject property. LEI has developed and performed All Appropriate Inquiries in conformance with the standards and practices set forth in 40 CFR Part 312.

This report is dated this September 28, 2022 and is signed by individuals who are duly authorized to do so.

Oliver P. Leek
Senior Project Manager

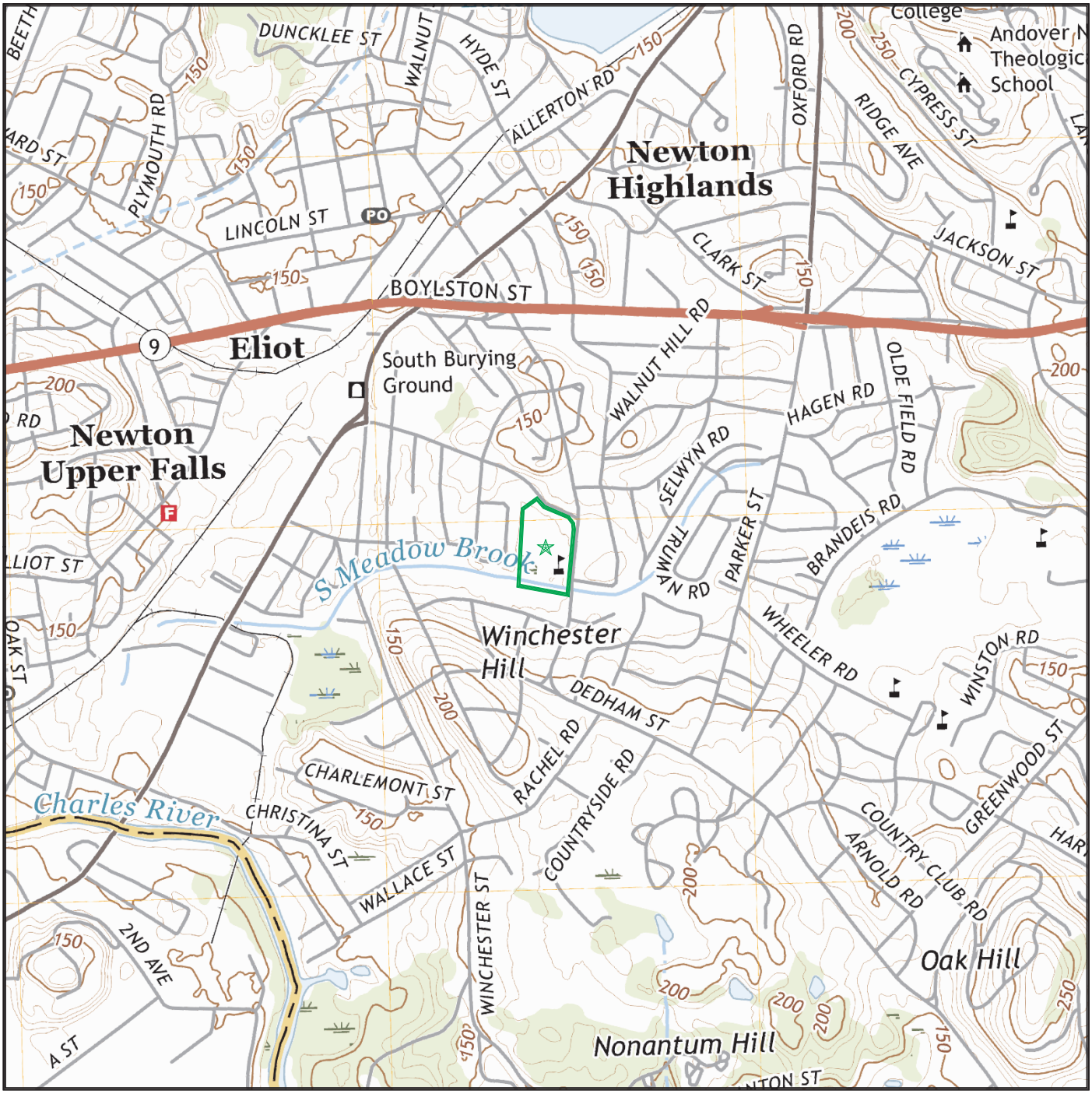
Ralph J. Tella, L.S.P.
President

APPENDIX A

Figure 1

USGS 7.5 Minute Topographic Map

191 DEDHAM STREET NEWTON HIGHLANDS, MA 02461



Map Image Position: TP
Map Reference Code & Name: 11747378 Newton
Map State(s): MA
Version Date: 2018

Figure 2: Assessor's Map

Property Information

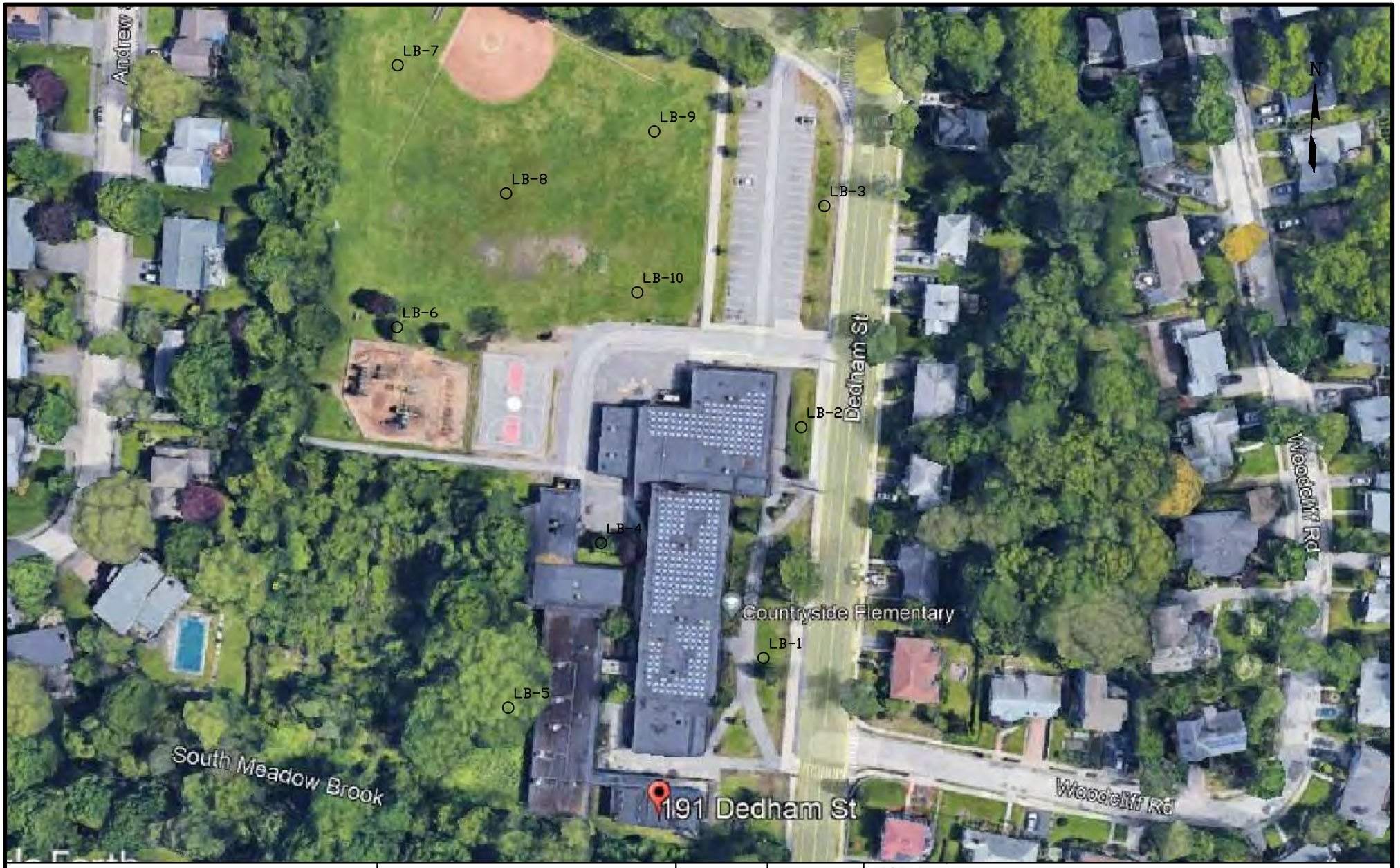
Property ID	83006 0011
Location	191 DEDHAM ST
Owner	CITY OF NEWTON

MAP FOR REFERENCE ONLY
NOT A LEGAL DOCUMENT

City of Newton, MA makes no claims and no warranties, expressed or implied, concerning the validity or accuracy of the GIS data presented on this map.

Geometry updated 06/28/2022
Data updated 11/14/2018

Print map scale is approximate. Critical layout or measurement activities should not be done using this resource.



LORD ENVIRONMENTAL, INC.
1506 PROVIDENCE HWY #30 (781) 255-5554
NORWOOD, MA

SITE:
COUNTRYSIDE SCHOOL
191 DEDHAM STREET
NEWTON, MA

TITLE:
SITE PLAN
WITH BORING LOCATIONS

FILE:
FIGURE 3 3145

DRAWN BY:	FIGURE:
PL	3
SHEET:	DATE/REV:
1 of 1	9/18/2022

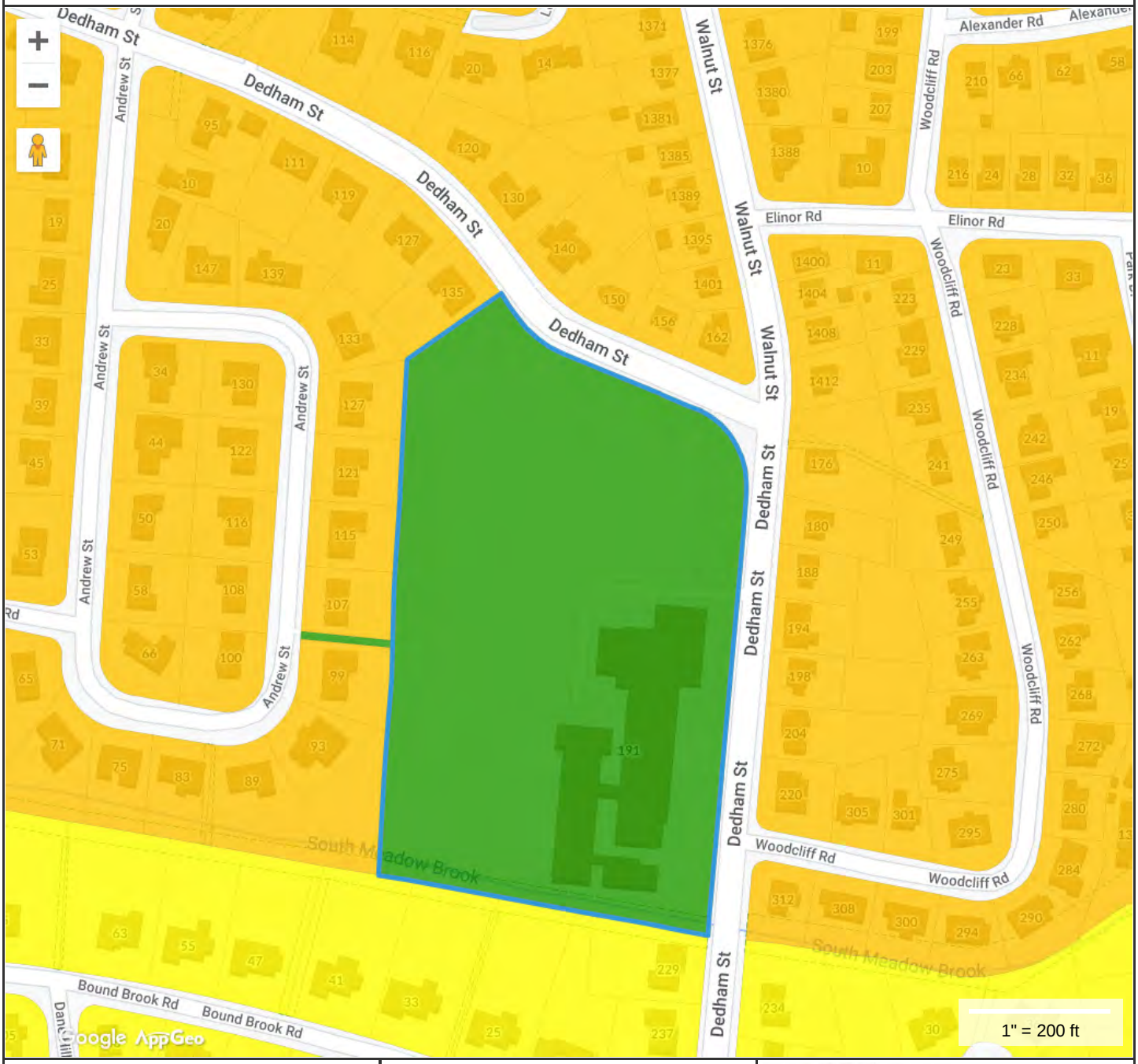
LEGEND:

○ SOIL SAMPLING LOCATION

NOTES:

1. FIGURE TO APPROX. SCALE BASED ON AERIAL PHOTO

Figure 4: Zoning Map



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Geometry updated 06/28/2022
Data updated 11/14/2018

Zoning
- Single Residence 1
- Single Residence 2
- Single Residence 3
- Multi Residence 1
- Multi Residence 2
- Multi Residence 3
- Multi Residence 4
- Business 1
- Business 2
- Business 4
- Business 5
- Limited Manufacturing
- Manufacturing
- Mixed Use 1
- Mixed Use 2
- Mixed Use 3
- Mixed Use 4
- Open Space/Recreation
- Public Use

Map Theme Legends

Zoning

Figure 5

MassDEP - Bureau of Waste Site Cleanup

Phase 1 Site Assessment Map: 500 feet & 0.5 Mile Radii

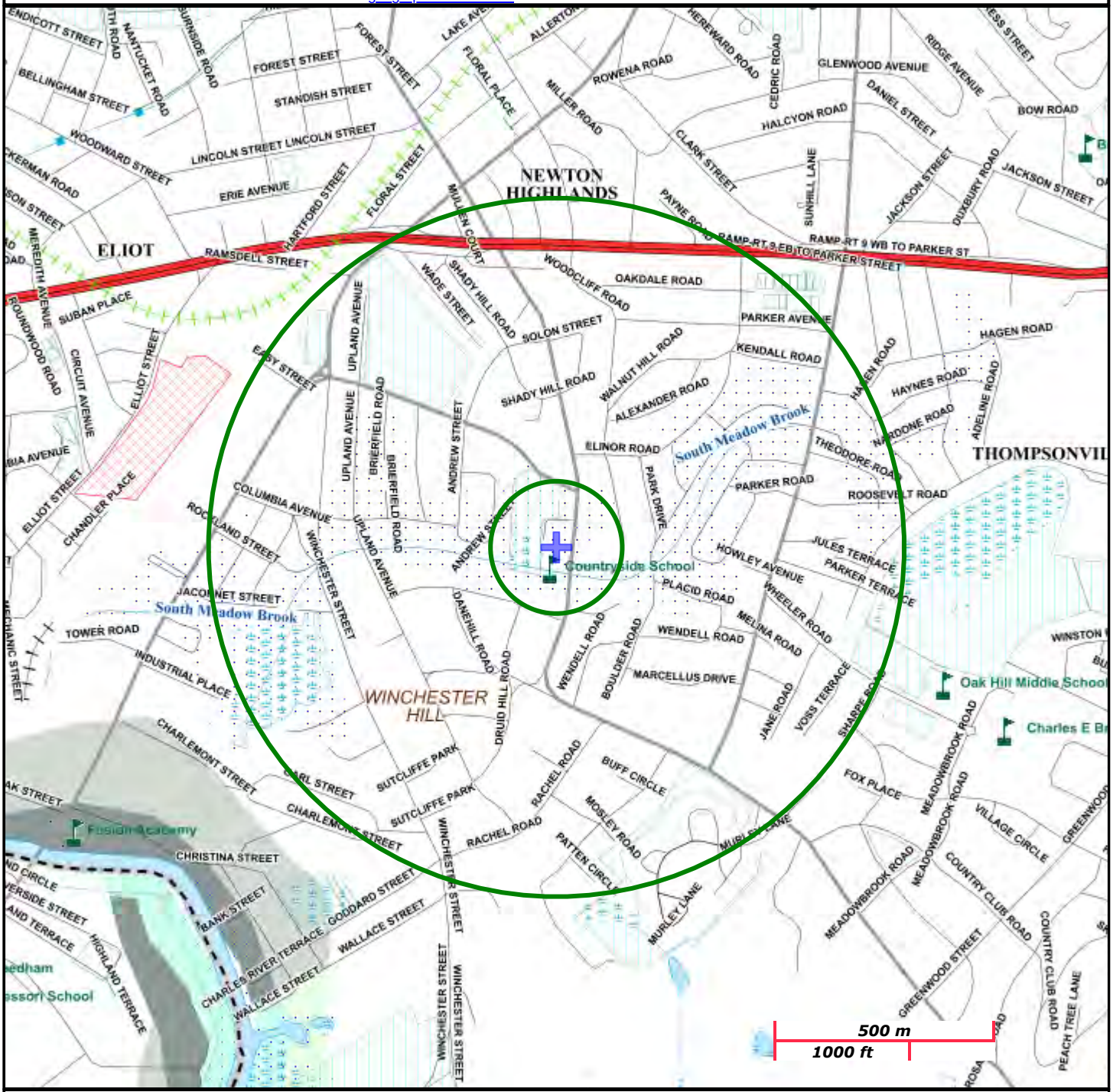
Site Information:

191 DEDHAM STREET NEWTON, MA

NAD83 UTM Meters:
4686873mN , 318491mE (Zone: 19)
July 22, 2022

The information shown is the best available at the date of printing. However, it may be incomplete. The responsible party and LSP are ultimately responsible for ascertaining the true conditions surrounding the site. Metadata for data layers shown on this map can be found at: https://www.mass.gov/orgs/massgis-bureau-of-geographic-information.

MassDEP
Commonwealth of Massachusetts
Department of Environmental Protection



Roads: Limited Access, Divided, Other Hwy, Major Road, Minor Road, Track, Trail

Boundaries: Town, County, DEP Region; Train; Powerline; Pipeline; Aqueduct

Basins: Major, PWS; Streams: Perennial, Intermittent, Man Made Shore, Dam

Aquifers: Medium Yield, High Yield, EPA Sole Source

Non Potential Drinking Water Source Area: Medium, High (Yield)

PWS Protection Areas: Zone II, IWPA, Zone A

Hydrography: Open Water, PWS Reservoir, Tidal Flat

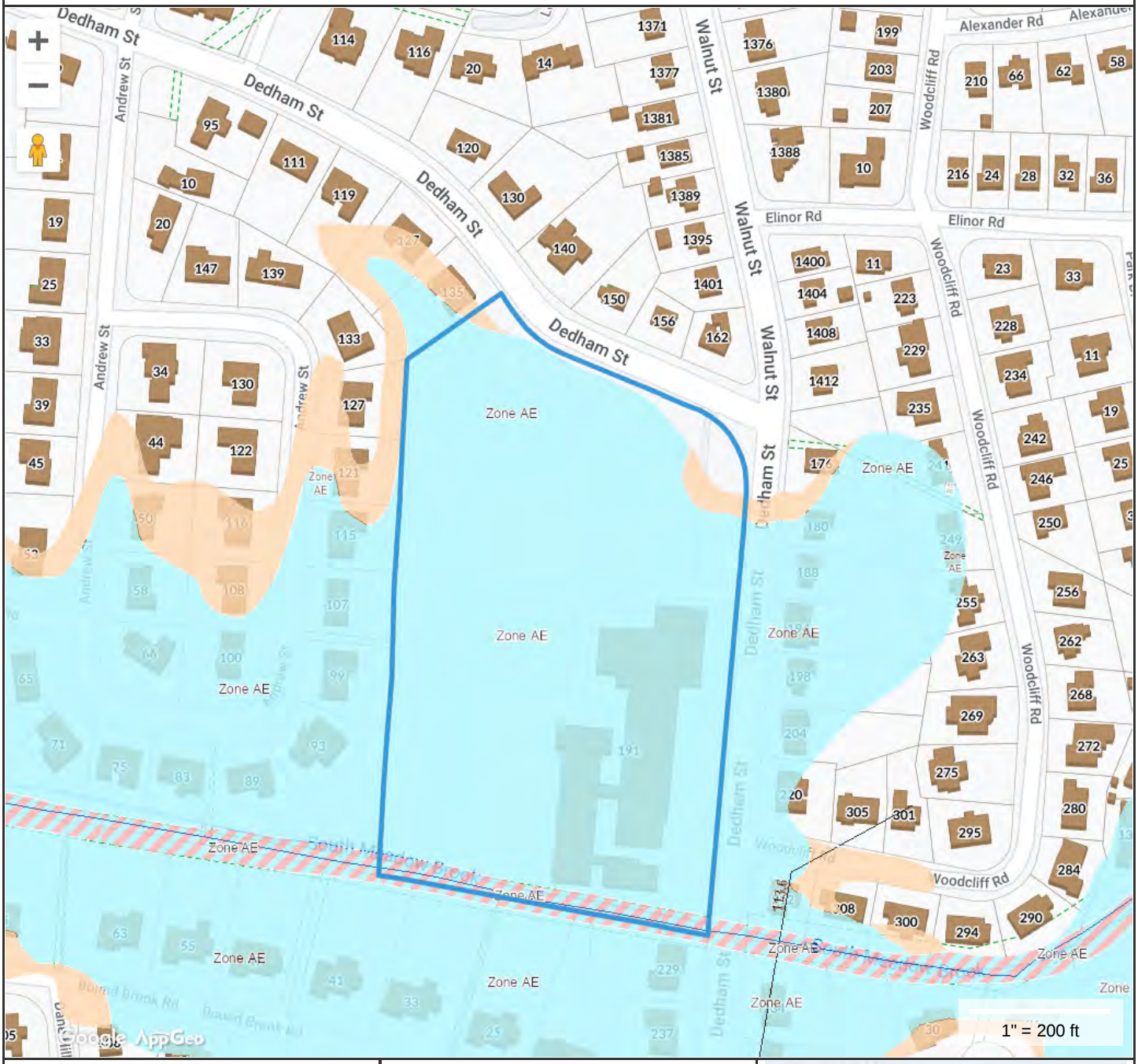
Wetlands: Freshwater, Saltwater, Cranberry Bog

FEMA 100yr Floodplain; Protected Open Space; ACEC

NHESP Pri-Hab of Rare Species; Vernal Pool: Cert., Potential

Solid Waste Landfill; PWS: Com.GW,SW, Emerg., Non-Com.

Figure 6: FEMA Flood Map



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Location	191 DEDHAM ST
Owner	CITY OF NEWTON

MAP FOR REFERENCE ONLY
NOT A LEGAL DOCUMENT

City of Newton, MA makes no claims and no warranties, expressed or implied, concerning the validity or accuracy of the GIS data presented on this map.

Geometry updated 06/28/2022
Data updated 11/14/2018

Flood Hazard Zones
- 1% Annual Chance Flood Hazard
- Regulatory Floodway
- Special Floodway
- Area of Undetermined Flood Hazard
- 0.2% Annual Chance Flood Hazard
- Future Conditions 1% Annual Chance Flood Hazard
- Area with Reduced Risk Due to Levee
- Area with Risk Due to Levee

Cross-Sections

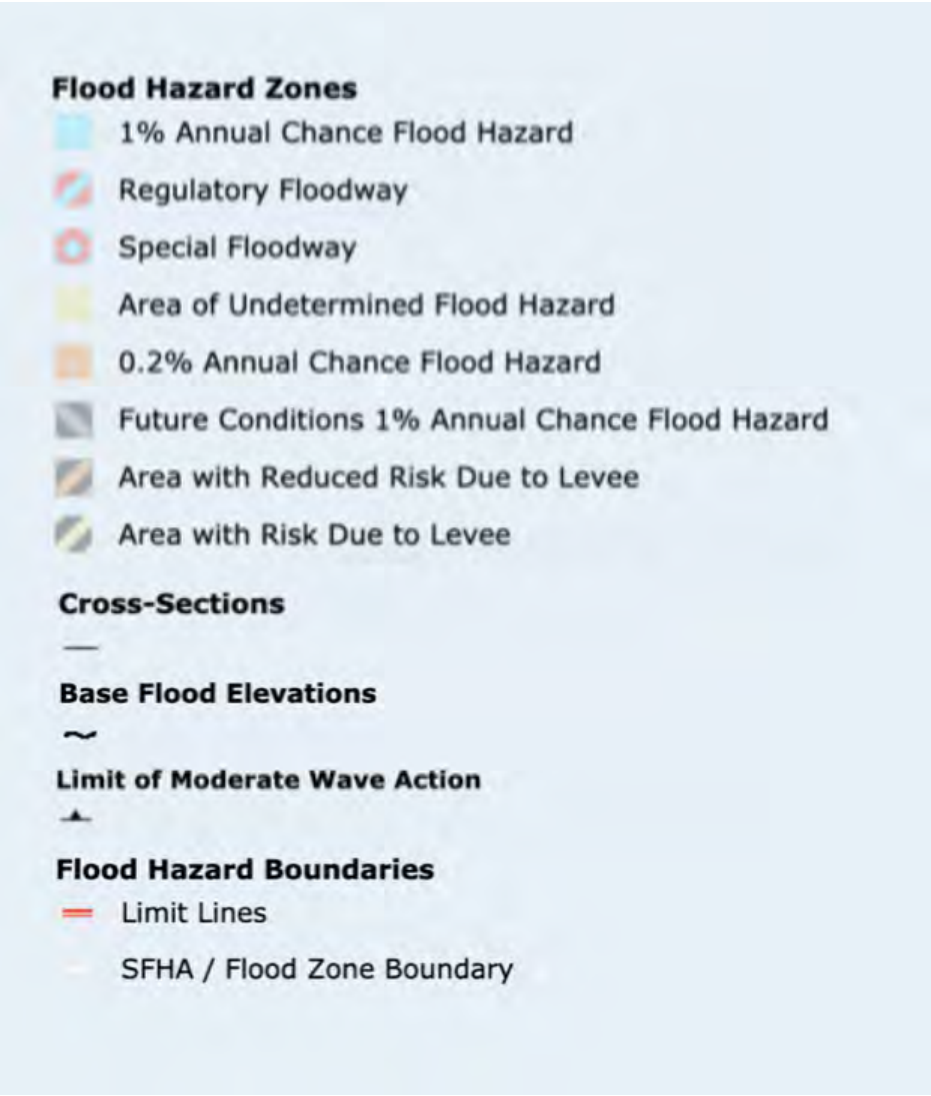
Base Flood Elevations

Limit of Moderate Wave Action

Flood Hazard Boundaries
- Limit Lines
- SFHA / Flood Zone Boundary

Map Theme Legends

FEMA Flood Zones



FEMA Map Service Center

Figure 7: Wetlands Map

Property Information

Property ID	83006 0011
Location	191 DEDHAM ST
Owner	CITY OF NEWTON

MAP FOR REFERENCE ONLY
NOT A LEGAL DOCUMENT

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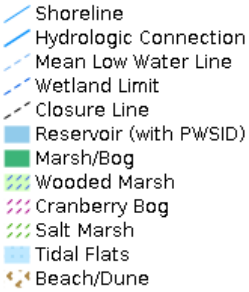
Geometry updated 06/28/2022
Data updated 11/14/2018

MassDEP Wetlands

- Shoreline
- Hydrologic Connection
- Mean Low Water Line
- Wetland Limit
- Closure Line
- Reservoir (with PWSID)
- Marsh/Bog
- Wooded Marsh
- Cranberry Bog
- Salt Marsh
- Tidal Flats
- Beach/Dune

Map Theme Legends

MassDEP Wetlands



MassDEP Wetlands,

Photo #1:	Front view of building.

Photo #2:	Playing fields in the northern portion of the Site.

Photo #3:	Elevator.

Photo #4:	Generator and solar equipment at the north exterior of the building.

Photo #5:	Asbestos placard in the boiler room at the Site.

Photo #6:	First floor hallway and floor wax.

Photo #7:	Typical storage in the basement of the Site.

Photo #8:	Four fuel oil ASTs in the boiler room.

APPENDIX B

191 Dedham Street
191 Dedham Street
Newton Highlands, MA 02461

Inquiry Number: 7062824.1s
July 22, 2022

EDR FIRST REPORT

A Search of ASTM E1527-21 §8.2.2 Databases

Table of Contents

This report includes a search of reasonably available environmental records to assist the professional in compliance with Section 8.2.2 Standard Federal, State, and Tribal Environmental Record Source of ASTM Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process (E1527-21). Additional environmental records sources may be available for your property.

Target Site: 191 DEDHAM STREET
NEWTON HIGHLANDS, MA 02461

Site Location

	Degrees (Decimal)	Degrees (Min/Sec)	UTMs
Longitude:	71.202896	71.2028960 - 71ˆ 12’ 10.42’’	Easting: 318450.0
Latitude:	42.313384	42.3133840 - 42ˆ 18’ 48.18’’	Northing: 4686708.0
Elevation:	117 ft. above sea level		Zone: Zone 19

Search Summary

TARGET SITE: **191 DEDHAM STREET**
NEWTON HIGHLANDS, MA 02461

Category	Database	Update	Radius	Site	1/8	1/4	1/2	> 1/2	Orphan	TOTALS
Lists of Federal NPL (Superfund) sites										
	NPL	04/27/2022	1.000	0	0	0	0	0	0	0
	Proposed NPL	04/27/2022	1.000	0	0	0	0	0	0	0
	NPL LIENS	10/15/1991	TP	0	-	-	-	-	0	0
Lists of Federal Delisted NPL sites										
	Delisted NPL	04/27/2022	1.000	0	0	0	0	0	0	0
Lists of Federal sites subject to CERCLA removals and CERCLA orders										
	FEDERAL FACILITY	05/25/2021	0.500	0	0	0	0	-	0	0
	SEMS	04/27/2022	0.500	0	0	0	0	-	0	0
Lists of Federal CERCLA sites with NFRAP										
	SEMS-ARCHIVE	04/27/2022	0.500	0	0	0	0	-	0	0
Lists of Federal RCRA facilities undergoing Corrective Action										
	CORRACTS	06/20/2022	1.000	0	0	0	0	0	0	0
Lists of Federal RCRA TSD facilities										
	RCRA-TSDF	06/20/2022	0.500	0	0	0	0	-	0	0
Lists of Federal RCRA generators										
	RCRA-LQG	06/20/2022	0.250	0	0	0	-	-	0	0
	RCRA-SQG	06/20/2022	0.250	0	0	0	-	-	0	0
	RCRA-VSQG	06/20/2022	0.250	0	0	0	-	-	0	0
Federal institutional controls / engineering controls registries										
	LUCIS	02/08/2022	0.500	0	0	0	0	-	0	0
	US ENG CONTROLS	02/21/2022	0.500	0	0	0	0	-	0	0
	US INST CONTROLS	02/21/2022	0.500	0	0	0	0	-	0	0
Federal ERNS list										
	ERNS	06/14/2022	TP	0	-	-	-	-	0	0
Lists of state- and tribal hazardous waste facilities										
	SHWS	05/26/2022	1.000	1	2	2	20	33	8	66
Lists of state and tribal landfills and solid waste disposal facilities										
	SWF/LF	01/14/2020	0.500	0	0	0	0	-	0	0

Search Summary

TARGET SITE: **191 DEDHAM STREET**
NEWTON HIGHLANDS, MA 02461

Category	Database	Update	Radius	Site	1/8	1/4	1/2	> 1/2	Orphan	TOTALS
Lists of state and tribal leaking storage tanks										
	LAST	05/26/2022	0.500	0	1	0	0	-	0	1
	LUST	05/26/2022	0.500	1	0	0	11	-	0	12
	INDIAN LUST	04/28/2021	0.500	0	0	0	0	-	0	0
Lists of state and tribal registered storage tanks										
	FEMA UST	10/14/2021	0.250	0	0	0	-	-	0	0
	UST	05/05/2022	0.250	0	0	0	-	-	0	0
	AST	02/24/2022	0.250	0	0	0	-	-	0	0
	INDIAN UST	10/14/2021	0.250	0	0	0	-	-	0	0
State and tribal institutional control / engineering control registries										
	INST CONTROL	05/26/2022	0.500	0	0	0	4	-	1	5
Lists of state and tribal voluntary cleanup sites										
	INDIAN VCP	07/27/2015	0.500	0	0	0	0	-	0	0
Lists of state and tribal brownfield sites										
	BROWNFIELDS	04/05/2017	0.500	0	0	0	0	-	0	0
	- Totals --			2	3	2	35	33	9	84

Sites Sorted by Distance

TARGET PROPERTY ADDRESS:

191 DEDHAM STREET
NEWTON HIGHLANDS, MA 02461

Click on Map ID to see full detail.

MAP ID	SITE NAME	ADDRESS	DATABASE ACRONYMS	RELATIVE ELEVATION	DIST (ft, mi.) DIRECTION
1	COUNTRYSIDE ELEMENTA	191 DEDHAM STREET	SHWS, LUST		TP
2	PROPERTY	284 WOODCLIFF RD	SHWS	Higher	326, 0.062, East
3	NO LOCATION AID	44 ANDREW ST	SHWS, LAST	Higher	386, 0.073, West
4	NO LOCATION AID	59 MARSELLIS DR	SHWS	Higher	1127, 0.213, SE
5	NO LOCATION AID	40 DRUID HILL ROAD	SHWS	Higher	1208, 0.229, South
6	RESIDENTIAL PROPERTY	27 SELWYN RD	LUST	Lower	1517, 0.287, ENE
A7	EXXON SERVICE STATIO	90-92 WINCHESTER ST	SHWS, LUST	Higher	1620, 0.307, NW
A8	CORNER HIGHLAND ST/W	90 WINCHESTER ST	SHWS, LUST	Higher	1620, 0.307, NW
B9	EASY ST AND NEEDHAM	19 TO 31 NEEDHAM ST	SHWS	Higher	1752, 0.332, WNW
B10	NO LOCATION AID	19-33 NEEDHAM ST	SHWS, INST CONTROL	Higher	1772, 0.336, WNW
C11	55 - 71 NEEDHAM STRE	55 - 71 NEEDHAM STRE	SHWS, INST CONTROL	Higher	1892, 0.358, West
12	RESIDENCE	5 SHUMAN CIR	LUST	Lower	1897, 0.359, ESE
13	BRUNOS AUTO	50 WINCHESTER ST	LUST	Higher	1911, 0.362, NW
C14	NO LOCATION AID	49 NEEDHAM ST	SHWS	Higher	1920, 0.364, WNW
D15	NO LOCATION AID	79 NEEDHAM ST	SHWS, LUST, INST CONTROL	Lower	1997, 0.378, West
C16	BOSTON OFFICE FURNIT	71 NEEDHAM ST	SHWS	Lower	2016, 0.382, West
17	COMMERCIAL PROPERTY	100 NEEDHAM ST	SHWS	Lower	2032, 0.385, West
D18	NEW ENGLAND CONCRETE	99 NEEDHAM ST	SHWS, LUST	Lower	2098, 0.397, West
19	NO LOCATION AID	1637 CENTER ST	LUST	Higher	2205, 0.418, NNW
20	NO LOCATION AID	57 CLOVERDALE RD	SHWS	Higher	2243, 0.425, NNE
21	PROTOTECH COMPANY	70 JACONNET ST	SHWS, LUST	Higher	2247, 0.426, West
22	NO LOCATION AID	111 NEEDHAM STREET	SHWS	Lower	2312, 0.438, West
23	BOSTON EDISON CO	ELLIOT STREET STA 29	SHWS	Higher	2407, 0.456, WNW
E24	BUILDING G	50 INDUSTRIAL PL	SHWS	Lower	2457, 0.465, WSW
E25	HC STARCK INC SHIPPI	50 INDUSTRIAL PLACE	SHWS	Lower	2457, 0.465, WSW
E26	H.C. STARCK	45 INDUSTRIAL PLACE	SHWS	Lower	2470, 0.468, WSW
27	SIERRA TRADING POST	141 NEEDHAM ST	SHWS	Lower	2496, 0.473, West
F28	HIGHLAND SERVICE CEN	1186 WALNUT ST	SHWS, INST CONTROL	Higher	2540, 0.481, NNW
G29	MA0032	964 BOYLSTON ST	LUST	Higher	2563, 0.485, NW
30	PURITY SUPREME	978 BOYLSTON STREET	LUST	Higher	2605, 0.493, NW
F31	AT CORNER OF FLORAL	1175 WALNUT ST	SHWS	Higher	2607, 0.494, NNW
G32	ANTONS CLEANERS	980 BOYLSTON STREET	SHWS	Higher	2649, 0.502, NW
H33	JIFFY LUBE	191 NEEDHAM ST	SHWS	Higher	2714, 0.514, West
I34	HC STARCK	152 CHARLEMONT ST	SHWS	Higher	2760, 0.523, SW
I35	NO LOCATION AID	160 CHARLEMONT ST	SHWS	Lower	2813, 0.533, WSW
36	CHARLES ST	70 TO 80 ELLIOT ST	SHWS	Higher	2818, 0.534, WNW
H37	RESTAURANT	215-227 NEEDHAM ST	SHWS	Higher	2852, 0.540, WSW
38	FORMER INDUSTRIAL PR	241-281 NEEDHAM STRE	SHWS	Lower	3170, 0.600, WSW
J39	BIGELOW OIL CO INC	50 TOWER RD	SHWS	Higher	3171, 0.601, West

Sites Sorted by Distance

TARGET PROPERTY ADDRESS:

191 DEDHAM STREET
NEWTON HIGHLANDS, MA 02461

Click on Map ID to see full detail.

MAP ID	SITE NAME	ADDRESS	DATABASE ACRONYMS	RELATIVE ELEVATION	DIST (ft, mi.) DIRECTION
J40	FORMER INDUSTRIAL PR	55 TOWER ROAD	SHWS	Higher	3196, 0.605, West
41	PROPERTY	25-27 CHRISTINA ST	SHWS	Lower	3212, 0.608, SW
42	BROWN MIDDLE SCHOOL	125 MEADOWBROOK RD	SHWS	Higher	3248, 0.615, ESE
43	CHIPOTLE 1250	300 NEEDHAM ST	SHWS	Lower	3374, 0.639, WSW
44	JOHN WEEKS HOUSE PRO	7 HEREWARD ROAD	SHWS	Higher	3884, 0.736, NNE
45	NEWTON SOUTH HIGH SC	146 BRANDIES RD	SHWS	Higher	4217, 0.799, East
46	FORMER INDUSTRIAL PR	156 OAK STREET	SHWS	Lower	4266, 0.808, WSW
47	NO LOCATION AID	DUDLEY ST AND BOYLST	SHWS	Higher	4400, 0.833, ENE
48	THERMO IEC	300 SECOND AVE	SHWS	Lower	4461, 0.845, SW
K49	NO LOCATION AID	12 HIGHLAND TER	SHWS	Lower	4536, 0.859, SW
50	COMMERCIAL BUILDING	21 HIGHLAND CIRCLE	SHWS	Lower	4545, 0.861, WSW
51	BOWEN SCHOOL	280 CYPRESS ST	SHWS	Higher	4579, 0.867, NE
52	NO LOCATION AID	100-124 SECOND AVE	SHWS	Lower	4687, 0.888, SW
K53	NO LOCATION AID	95 HIGHLAND AVE	SHWS	Lower	4689, 0.888, WSW
L54	NR A ST	254 SECOND AVE	SHWS	Lower	4729, 0.896, SW
55	FOOTBALL FIELD	140 BRANDEIS RD	SHWS	Higher	4735, 0.897, East
56	RADIANT FUEL CO INC	59 PAUL ST	SHWS	Higher	4774, 0.904, NNE
57	NO LOCATION AID	203 COUNTRY CLUB LN	SHWS	Higher	4797, 0.909, SE
L58	THE KENDRICK APARTME	275 SECOND AVENUE	SHWS	Lower	4812, 0.911, SW
59	BELL & HOWELL CO	45 FOURTH AVE	SHWS	Lower	4919, 0.932, SSW
60	SHELL SERVICE STATIO	387 BOYLSTON ST	SHWS	Higher	5041, 0.955, ENE
61	LARQUIN CORP	1191 CHESTNUT ST	SHWS	Higher	5042, 0.955, WSW
62	PROPERTY	163 HIGHLAND AVE	SHWS	Lower	5127, 0.971, WSW
M63	INDUSTRIAL PROPERTY	53-83 115-119 FOURTH	SHWS	Lower	5170, 0.979, SSW
M64	NO LOCATION AID	77 4TH AVE	SHWS	Lower	5256, 0.995, SSW

Sites Sorted by Database

TARGET PROPERTY SEARCH RESULTS

The target property was identified in the following records. For more information on this property see page 1 of the attached EDR Radius Map report:

Site	Database(s)	EPA ID
COUNTRYSIDE ELEMENTA 191 DEDHAM STREET NEWTON, MA 02461	SHWS Release Tracking Number: 3-0029786 Current Status: RAO LUST Release Tracking Number / Current Status: 3-0029786 / RAO	N/A

SURROUNDING SITES: SEARCH RESULTS

Lists of state- and tribal hazardous waste facilities

SHWS: Reportable Releases Database

Site	Address	Direction / Distance	Map ID	Page
PROPERTY Release Tracking Number: 3-0004138 Current Status: DEPNFA	284 WOODCLIFF RD	E (0.062 mi. / 326 ft.)	2	4
NO LOCATION AID Release Tracking Number: 3-0025249 Current Status: RAO	***44 ANDREW ST***	***W (0.073 mi. / 386 ft.)***	***3***	***5***
NO LOCATION AID Release Tracking Number: 3-0010449 Current Status: RAO	59 MARSELLIS DR	SE (0.213 mi. / 1127 ft.)	4	5
NO LOCATION AID Release Tracking Number: 3-0034358 Current Status: PSNC	40 DRUID HILL ROAD	S (0.229 mi. / 1208 ft.)	5	5
EXXON SERVICE STATIO Release Tracking Number: 3-0012176 Current Status: RAO	***90-92 WINCHESTER ST***	***NW (0.307 mi. / 1620 ft.)***	***A7***	***6***
CORNER HIGHLAND ST/W Release Tracking Number: 3-0010238 Current Status: RAO	***90 WINCHESTER ST***	***NW (0.307 mi. / 1620 ft.)***	***A8***	***7***
EASY ST AND NEEDHAM Release Tracking Number: 3-0017576 Current Status: RAONR	19 TO 31 NEEDHAM ST	WNW (0.332 mi. / 1752 ft.)	B9	8
NO LOCATION AID Release Tracking Number: 3-0012967 Release Tracking Number: 3-0012525 Current Status: RAONR Current Status: RAO	***19-33 NEEDHAM ST***	***WNW (0.336 mi. / 1772 ft.)***	***B10***	***8***
55 - 71 NEEDHAM STRE Release Tracking Number: 3-0032062 Current Status: PSC	***55 - 71 NEEDHAM STRE***	***W (0.358 mi. / 1892 ft.)***	***C11***	***9***

Sites Sorted by Database

Site	Address	Direction / Distance	Map ID	Page
NO LOCATION AID Release Tracking Number: 3-0011543 Current Status: RAO	49 NEEDHAM ST	WNW (0.364 mi. / 1920 ft.)	C14	10
NO LOCATION AID Release Tracking Number: 3-0014077 Current Status: RAONR	***79 NEEDHAM ST***	***W (0.378 mi. / 1997 ft.)***	***D15***	***10***
BOSTON OFFICE FURNIT Release Tracking Number: 3-0003552 Current Status: RAO	71 NEEDHAM ST	W (0.382 mi. / 2016 ft.)	C16	11
COMMERCIAL PROPERTY Release Tracking Number: 3-0002632 Current Status: LSPNFA	100 NEEDHAM ST	W (0.385 mi. / 2032 ft.)	17	12
NEW ENGLAND CONCRETE Release Tracking Number: 3-0003877 Current Status: WCSPRM	***99 NEEDHAM ST***	***W (0.397 mi. / 2098 ft.)***	***D18***	***12***
NO LOCATION AID Release Tracking Number: 3-0029451 Current Status: RAO	57 CLOVERDALE RD	NNE (0.425 mi. / 2243 ft.)	20	13
PROTOTECH COMPANY Release Tracking Number: 3-0004342 Current Status: RAO	***70 JACONNET ST***	***W (0.426 mi. / 2247 ft.)***	***21***	***13***
NO LOCATION AID Release Tracking Number: 3-0030460 Current Status: RAO	111 NEEDHAM STREET	W (0.438 mi. / 2312 ft.)	22	14
BOSTON EDISON CO Release Tracking Number: 3-0004719 Current Status: RAO	ELLIOT STREET STA 29	WNW (0.456 mi. / 2407 ft.)	23	15
BUILDING G Release Tracking Number: 3-0012758 Current Status: RAO	50 INDUSTRIAL PL	WSW (0.465 mi. / 2457 ft.)	E24	15
HC STARCK INC SHIPPI Release Tracking Number: 3-0031109 Current Status: RAO	50 INDUSTRIAL PLACE	WSW (0.465 mi. / 2457 ft.)	E25	15
H.C. STARCK Release Tracking Number: 3-0010052 Release Tracking Number: 3-0037115 Current Status: RAO Current Status: PSNC	45 INDUSTRIAL PLACE	WSW (0.468 mi. / 2470 ft.)	E26	16
SIERRA TRADING POST Release Tracking Number: 3-0001491 Current Status: RAO	141 NEEDHAM ST	W (0.473 mi. / 2496 ft.)	27	16
HIGHLAND SERVICE CEN Release Tracking Number: 3-0034258 Current Status: PSC	***1186 WALNUT ST***	***NNW (0.481 mi. / 2540 ft.)***	***F28***	***17***
AT CORNER OF FLORAL Release Tracking Number: 3-0014942 Current Status: RAO	1175 WALNUT ST	NNW (0.494 mi. / 2607 ft.)	F31	18
ANTONS CLEANERS Release Tracking Number: 3-0020924 Current Status: RAO	980 BOYLSTON STREET	NW (0.502 mi. / 2649 ft.)	G32	19

Sites Sorted by Database

Site	Address	Direction / Distance	Map ID	Page
JIFFY LUBE Release Tracking Number: 3-0028874 Current Status: RAO	191 NEEDHAM ST	W (0.514 mi. / 2714 ft.)	H33	19
HC STARCK Release Tracking Number: 3-0018154 Release Tracking Number: 3-0010102 Current Status: RAO	152 CHARLEMONT ST	SW (0.523 mi. / 2760 ft.)	I34	20
NO LOCATION AID Release Tracking Number: 3-0015489 Release Tracking Number: 3-0014383 Current Status: RAO Current Status: DPS	160 CHARLEMONT ST	WSW (0.533 mi. / 2813 ft.)	I35	20
CHARLES ST Release Tracking Number: 3-0017658 Current Status: RAO	70 TO 80 ELLIOT ST	WNW (0.534 mi. / 2818 ft.)	36	21
RESTAURANT Release Tracking Number: 3-0001895 Current Status: RAO	215-227 NEEDHAM ST	WSW (0.540 mi. / 2852 ft.)	H37	21
FORMER INDUSTRIAL PR Release Tracking Number: 3-0036492 Current Status: TIERII	241-281 NEEDHAM STRE	WSW (0.600 mi. / 3170 ft.)	38	22
BIGELOW OIL CO INC Release Tracking Number: 3-0033617 Current Status: PSNC	50 TOWER RD	W (0.601 mi. / 3171 ft.)	J39	22
FORMER INDUSTRIAL PR Release Tracking Number: 3-0036491 Release Tracking Number: 3-0036376 Current Status: TIERII Current Status: RAONR	55 TOWER ROAD	W (0.605 mi. / 3196 ft.)	J40	23
PROPERTY Release Tracking Number: 3-0003266 Current Status: RAO	25-27 CHRISTINA ST	SW (0.608 mi. / 3212 ft.)	41	23
BROWN MIDDLE SCHOOL Release Tracking Number: 3-0010600 Current Status: RAO	125 MEADOWBROOK RD	ESE (0.615 mi. / 3248 ft.)	42	24
CHIPOTLE 1250 Release Tracking Number: 3-0004014 Current Status: TIERII	300 NEEDHAM ST	WSW (0.639 mi. / 3374 ft.)	43	24
JOHN WEEKS HOUSE PRO Release Tracking Number: 3-0035045 Current Status: PSNC	7 HEREWARD ROAD	NNE (0.736 mi. / 3884 ft.)	44	25
NEWTON SOUTH HIGH SC Release Tracking Number: 3-0011879 Current Status: RAO	146 BRANDIES RD	E (0.799 mi. / 4217 ft.)	45	25
FORMER INDUSTRIAL PR Release Tracking Number: 3-0036490 Current Status: TIERII	156 OAK STREET	WSW (0.808 mi. / 4266 ft.)	46	26
NO LOCATION AID Release Tracking Number: 3-0018018 Current Status: RAO	DUDLEY ST AND BOYLST	ENE (0.833 mi. / 4400 ft.)	47	26

Sites Sorted by Database

Site	Address	Direction / Distance	Map ID	Page
THERMO IEC Release Tracking Number: 3-0003212 Current Status: RAO	300 SECOND AVE	SW (0.845 mi. / 4461 ft.)	48	27
NO LOCATION AID Release Tracking Number: 3-0020151 Current Status: RAO	12 HIGHLAND TER	SW (0.859 mi. / 4536 ft.)	K49	27
COMMERCIAL BUILDING Release Tracking Number: 3-0037228 Current Status: UNCLSS	21 HIGHLAND CIRCLE	WSW (0.861 mi. / 4545 ft.)	50	27
BOWEN SCHOOL Release Tracking Number: 3-0033005 Current Status: PSNC	280 CYPRESS ST	NE (0.867 mi. / 4579 ft.)	51	28
NO LOCATION AID Release Tracking Number: 3-0017899 Current Status: RAO	100-124 SECOND AVE	SW (0.888 mi. / 4687 ft.)	52	28
NO LOCATION AID Release Tracking Number: 3-0014537 Current Status: DPS	95 HIGHLAND AVE	WSW (0.888 mi. / 4689 ft.)	K53	29
NR A ST Release Tracking Number: 3-0013937 Current Status: RAO	254 SECOND AVE	SW (0.896 mi. / 4729 ft.)	L54	29
FOOTBALL FIELD Release Tracking Number: 3-0021719 Current Status: RAO	140 BRANDEIS RD	E (0.897 mi. / 4735 ft.)	55	30
RADIANT FUEL CO INC Release Tracking Number: 3-0001402 Current Status: LSPNFA	59 PAUL ST	NNE (0.904 mi. / 4774 ft.)	56	30
NO LOCATION AID Release Tracking Number: 3-0011246 Current Status: RAO	203 COUNTRY CLUB LN	SE (0.909 mi. / 4797 ft.)	57	30
THE KENDRICK APARTME Release Tracking Number: 3-0036886 Current Status: UNCLSS	275 SECOND AVENUE	SW (0.911 mi. / 4812 ft.)	L58	31
BELL & HOWELL CO Release Tracking Number: 3-0003506 Current Status: RAO	45 FOURTH AVE	SSW (0.932 mi. / 4919 ft.)	59	31
SHELL SERVICE STATIO Release Tracking Number: 3-0001468 Current Status: RAO	387 BOYLSTON ST	ENE (0.955 mi. / 5041 ft.)	60	32
LARQUIN CORP Release Tracking Number: 3-0020076 Release Tracking Number: 3-0010690 Current Status: DPS Current Status: RAO	1191 CHESTNUT ST	WSW (0.955 mi. / 5042 ft.)	61	32
PROPERTY Release Tracking Number: 3-0003044 Current Status: WCSPRM	163 HIGHLAND AVE	WSW (0.971 mi. / 5127 ft.)	62	33
INDUSTRIAL PROPERTY Release Tracking Number: 3-0002662 Current Status: DPS	53-83 115-119 FOURTH	SSW (0.979 mi. / 5170 ft.)	M63	33

Sites Sorted by Database

Site	Address	Direction / Distance	Map ID	Page
NO LOCATION AID Release Tracking Number: 3-0013333 Current Status: RAO	77 4TH AVE	SSW (0.995 mi. / 5256 ft.)	M64	34

Lists of state and tribal leaking storage tanks

LAST: Leaking Aboveground Storage Tank Sites

Site	Address	Direction / Distance	Map ID	Page
NO LOCATION AID Release Tracking Number / Current Status: 3-0022151 / RAO	***44 ANDREW ST***	***W (0.073 mi. / 386 ft.)***	***3***	***5***

LUST: Leaking Underground Storage Tank Listing

Site	Address	Direction / Distance	Map ID	Page
RESIDENTIAL PROPERTY Release Tracking Number / Current Status: 3-0027804 / RAO	27 SELWYN RD	ENE (0.287 mi. / 1517 ft.)	6	6
EXXON SERVICE STATIO Release Tracking Number / Current Status: 3-0000684 / RAO	***90-92 WINCHESTER ST***	***NW (0.307 mi. / 1620 ft.)***	***A7***	***6***
CORNER HIGHLAND ST/W Release Tracking Number / Current Status: 3-0010238 / RAO	***90 WINCHESTER ST***	***NW (0.307 mi. / 1620 ft.)***	***A8***	***7***
RESIDENCE Release Tracking Number / Current Status: 3-0025840 / RAO	5 SHUMAN CIR	ESE (0.359 mi. / 1897 ft.)	12	9
BRUNOS AUTO Release Tracking Number / Current Status: 3-0022143 / RAO	50 WINCHESTER ST	NW (0.362 mi. / 1911 ft.)	13	10
NO LOCATION AID Release Tracking Number / Current Status: 3-0010891 / RAONR Release Tracking Number / Current Status: 3-0003058 / RAO	***79 NEEDHAM ST***	***W (0.378 mi. / 1997 ft.)***	***D15***	***10***
NEW ENGLAND CONCRETE Release Tracking Number / Current Status: 3-0003877 / WCSPRM	***99 NEEDHAM ST***	***W (0.397 mi. / 2098 ft.)***	***D18***	***12***
NO LOCATION AID Release Tracking Number / Current Status: 3-0014590 / RAO Release Tracking Number / Current Status: 3-0015828 / RAO	1637 CENTER ST	NNW (0.418 mi. / 2205 ft.)	19	13
PROTOTECH COMPANY Release Tracking Number / Current Status: 3-0004342 / RAO	***70 JACONNET ST***	***W (0.426 mi. / 2247 ft.)***	***21***	***13***
MA0032 Release Tracking Number / Current Status: 3-0032119 / PSNC	964 BOYLSTON ST	NW (0.485 mi. / 2563 ft.)	G29	17
PURITY SUPREME Release Tracking Number / Current Status: 3-0004588 / RAO	978 BOYLSTON STREET	NW (0.493 mi. / 2605 ft.)	30	18

Sites Sorted by Database

State and tribal institutional control / engineering control registries

INST CONTROL: Sites With Activity and Use Limitation

Site	Address	Direction / Distance	Map ID	Page
NO LOCATION AID Release Tracking Number: 3-0012525 Release Tracking Number: 3-0012967	***19-33 NEEDHAM ST***	***WNW (0.336 mi. / 1772 ft.)***	***B10***	***8***
55 - 71 NEEDHAM STRE Release Tracking Number: 3-0032062	***55 - 71 NEEDHAM STRE***	***W (0.358 mi. / 1892 ft.)***	***C11***	***9***
NO LOCATION AID Release Tracking Number: 3-0003058	***79 NEEDHAM ST***	***W (0.378 mi. / 1997 ft.)***	***D15***	***10***
HIGHLAND SERVICE CEN Release Tracking Number: 3-0034258	***1186 WALNUT ST***	***NNW (0.481 mi. / 2540 ft.)***	***F28***	***17***

1.00 Mile Map

191 DEDHAM STREET NEWTON HIGHLANDS, MA 02461

Black Rings Represent Qtr. Mile Radius

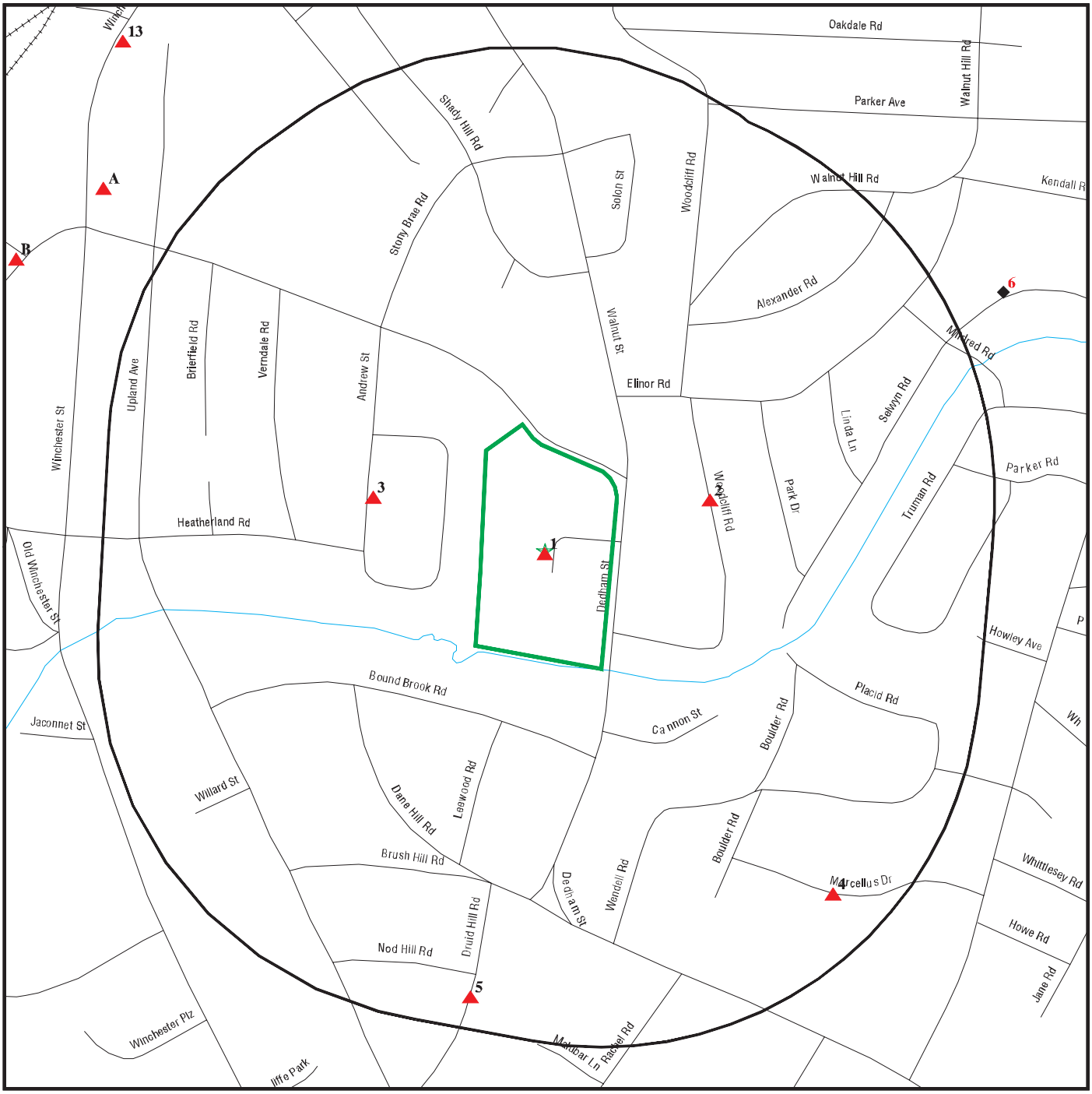
- ★ **Target Property (Latitude: 42.313384 Longitude: 71.202896)**
- ▲ **High or Equal Elevation Sites**
- ◆ **Low Elevation Sites**
- **National Priority List Sites**

EDR First Report

22-07-22.11:02:23.Fri

0.250 Mile Map

191 DEDHAM STREET NEWTON HIGHLANDS, MA 02461



Black Rings Represent Qtr. Mile Radius

- ★ **Target Property (Latitude: 42.313384 Longitude: 71.202896)**
- ▲ **High or Equal Elevation Sites**
- ◆ **Low Elevation Sites**
- **National Priority List Sites**

EDR First Report

Mapped Sites Summary

Target Property: 191 DEDHAM STREET
NEWTON HIGHLANDS, MA 02461

SHWS, LUST

EDR ID: S110822200 **DIST/DIR:** 0.000 **ELEVATION:** 117 **MAP ID:** 1

NAME: COUNTRYSIDE ELEMENTA
ADDRESS: 191 DEDHAM STREET
NEWTON, MA 02461

Click here for full text details

SHWS
Release Tracking Number: 3-0029786
Current Status: RAO
LUST
Release Tracking Number / Current Status: 3-0029786 / RAO

Click here to access the MA DEP site for this facility

SHWS

EDR ID: S100830615 **DIST/DIR:** 0.062 East **ELEVATION:** 119 **MAP ID:** 2

NAME: PROPERTY
ADDRESS: 284 WOODCLIFF RD
NEWTON, MA 02158

Click here for full text details

SHWS
Release Tracking Number: 3-0004138
Current Status: DEPNFA

Mapped Sites Summary

Target Property: 191 DEDHAM STREET
NEWTON HIGHLANDS, MA 02461

SHWS, LAST

EDR ID: S105596559 **DIST/DIR:** 0.073 West **ELEVATION:** 117 **MAP ID:** 3

NAME: NO LOCATION AID
ADDRESS: 44 ANDREW ST
NEWTON, MA 02461

Click here for full text details

SHWS
Release Tracking Number: 3-0025249
Current Status: RAO
LAST
Release Tracking Number / Current Status: 3-0022151 / RAO

SHWS

EDR ID: S102085144 **DIST/DIR:** 0.213 SE **ELEVATION:** 141 **MAP ID:** 4

NAME: NO LOCATION AID
ADDRESS: 59 MARSELLIS DR
NEWTON, MA

Click here for full text details

SHWS
Release Tracking Number: 3-0010449
Current Status: RAO

SHWS

EDR ID: S107350378 **DIST/DIR:** 0.229 South **ELEVATION:** 193 **MAP ID:** 5

NAME: NO LOCATION AID
ADDRESS: 40 DRUID HILL ROAD
NEWTON, MA

Click here for full text details

- Continued on next page -

Mapped Sites Summary

Target Property: 191 DEDHAM STREET
NEWTON HIGHLANDS, MA 02461

SHWS

EDR ID: S107350378 **DIST/DIR:** 0.229 South **ELEVATION:** 193 **MAP ID:** 5

NAME: NO LOCATION AID
ADDRESS: 40 DRUID HILL ROAD
NEWTON, MA

SHWS
Release Tracking Number: 3-0034358
Current Status: PSNC

LUST

EDR ID: S109146584 **DIST/DIR:** 0.287 ENE **ELEVATION:** 116 **MAP ID:** 6

NAME: RESIDENTIAL PROPERTY
ADDRESS: 27 SELWYN RD
NEWTON, MA 02461

Click here for full text details

LUST
Release Tracking Number / Current Status: 3-0027804 / RAO

Click here to access the MA DEP site for this facility

SHWS, LUST

EDR ID: S101504924 **DIST/DIR:** 0.307 NW **ELEVATION:** 118 **MAP ID:** A7

NAME: EXXON SERVICE STATIO
ADDRESS: 90-92 WINCHESTER ST
NEWTON, MA 02158

Click here for full text details

- Continued on next page -

Mapped Sites Summary

Target Property: 191 DEDHAM STREET
NEWTON HIGHLANDS, MA 02461

SHWS, LUST

EDR ID: S101504924 **DIST/DIR:** 0.307 NW **ELEVATION:** 118 **MAP ID:** A7

NAME: EXXON SERVICE STATIO
ADDRESS: 90-92 WINCHESTER ST
NEWTON, MA 02158

SHWS
Release Tracking Number: 3-0012176
Current Status: RAO
LUST
Release Tracking Number / Current Status: 3-0000684 / RAO

Click here to access the MA DEP site for this facility

SHWS, LUST

EDR ID: S103545676 **DIST/DIR:** 0.307 NW **ELEVATION:** 118 **MAP ID:** A8

NAME: CORNER HIGHLAND ST/W
ADDRESS: 90 WINCHESTER ST
NEWTON, MA 02158

Click here for full text details

SHWS
Release Tracking Number: 3-0010238
Current Status: RAO
LUST
Release Tracking Number / Current Status: 3-0010238 / RAO

Click here to access the MA DEP site for this facility

Mapped Sites Summary

Target Property: 191 DEDHAM STREET
NEWTON HIGHLANDS, MA 02461

SHWS

EDR ID: S103811933 **DIST/DIR:** 0.332 WNW **ELEVATION:** 120 **MAP ID:** B9

NAME: EASY ST AND NEEDHAM
ADDRESS: 19 TO 31 NEEDHAM ST
NEWTON, MA 02158

Click here for full text details

SHWS
Release Tracking Number: 3-0017576
Current Status: RAONR

SHWS, INST CONTROL

EDR ID: S102086721 **DIST/DIR:** 0.336 WNW **ELEVATION:** 121 **MAP ID:** B10

NAME: NO LOCATION AID
ADDRESS: 19-33 NEEDHAM ST
NEWTON, MA 02461

Click here for full text details

SHWS
Release Tracking Number: 3-0012967
Release Tracking Number: 3-0012525
Current Status: RAONR
Current Status: RAO
INST CONTROL
Release Tracking Number: 3-0012525
Release Tracking Number: 3-0012967

Mapped Sites Summary

Target Property: 191 DEDHAM STREET
NEWTON HIGHLANDS, MA 02461

SHWS, INST CONTROL

EDR ID: S116358058 **DIST/DIR:** 0.358 West **ELEVATION:** 117 **MAP ID:** C11

NAME: 55 - 71 NEEDHAM STRE
ADDRESS: 55 - 71 NEEDHAM STRE
NEWTON, MA 02461

Click here for full text details

SHWS
Release Tracking Number: 3-0032062
Current Status: PSC
INST CONTROL
Release Tracking Number: 3-0032062

LUST

EDR ID: S108034591 **DIST/DIR:** 0.359 ESE **ELEVATION:** 116 **MAP ID:** 12

NAME: RESIDENCE
ADDRESS: 5 SHUMAN CIR
NEWTON, MA 02459

Click here for full text details

LUST
Release Tracking Number / Current Status: 3-0025840 / RAO

Click here to access the MA DEP site for this facility

Mapped Sites Summary

Target Property: 191 DEDHAM STREET
NEWTON HIGHLANDS, MA 02461

LUST

EDR ID: S105595526 **DIST/DIR:** 0.362 NW **ELEVATION:** 123 **MAP ID:** 13

NAME: BRUNOS AUTO
ADDRESS: 50 WINCHESTER ST
NEWTON, MA

Click here for full text details

LUST
Release Tracking Number / Current Status: 3-0022143 / RAO

Click here to access the MA DEP site for this facility

SHWS

EDR ID: S101034032 **DIST/DIR:** 0.364 WNW **ELEVATION:** 118 **MAP ID:** C14

NAME: NO LOCATION AID
ADDRESS: 49 NEEDHAM ST
NEWTON UPPER FALLS, MA 02164

Click here for full text details

SHWS
Release Tracking Number: 3-0011543
Current Status: RAO

SHWS, LUST, INST CONTROL

EDR ID: S101025698 **DIST/DIR:** 0.378 West **ELEVATION:** 116 **MAP ID:** D15

NAME: NO LOCATION AID
ADDRESS: 79 NEEDHAM ST
NEWTON, MA 02161

Click here for full text details

- Continued on next page -

Mapped Sites Summary

Target Property: 191 DEDHAM STREET
NEWTON HIGHLANDS, MA 02461

SHWS, LUST, INST CONTROL

EDR ID: S101025698 **DIST/DIR:** 0.378 West **ELEVATION:** 116 **MAP ID:** D15

NAME: NO LOCATION AID
ADDRESS: 79 NEEDHAM ST
NEWTON, MA 02161

SHWS
Release Tracking Number: 3-0014077
Current Status: RAONR
LUST
Release Tracking Number / Current Status: 3-0010891 / RAONR
Release Tracking Number / Current Status: 3-0003058 / RAO

Click here to access the MA DEP site for this facility
INST CONTROL
Release Tracking Number: 3-0003058

SHWS

EDR ID: S100830596 **DIST/DIR:** 0.382 West **ELEVATION:** 115 **MAP ID:** C16

NAME: BOSTON OFFICE FURNIT
ADDRESS: 71 NEEDHAM ST
NEWTON, MA 02158

Click here for full text details

SHWS
Release Tracking Number: 3-0003552
Current Status: RAO

Mapped Sites Summary

Target Property: 191 DEDHAM STREET
NEWTON HIGHLANDS, MA 02461

SHWS

EDR ID: S100830612 **DIST/DIR:** 0.385 West **ELEVATION:** 113 **MAP ID:** 17

NAME: COMMERCIAL PROPERTY
ADDRESS: 100 NEEDHAM ST
NEWTON, MA 02158

Click here for full text details

SHWS
Release Tracking Number: 3-0002632
Current Status: LSPNFA

SHWS, LUST

EDR ID: U001006443 **DIST/DIR:** 0.397 West **ELEVATION:** 113 **MAP ID:** D18

NAME: NEW ENGLAND CONCRETE
ADDRESS: 99 NEEDHAM ST
NEWTON, MA 02461

Click here for full text details

SHWS
Release Tracking Number: 3-0003877
Current Status: WCSPRM

LUST
Release Tracking Number / Current Status: 3-0003877 / WCSPRM

Click here to access the MA DEP site for this facility

Mapped Sites Summary

Target Property: 191 DEDHAM STREET
NEWTON HIGHLANDS, MA 02461

LUST

EDR ID: S105809843 **DIST/DIR:** 0.418 NNW **ELEVATION:** 142 **MAP ID:** 19

NAME: NO LOCATION AID
ADDRESS: 1637 CENTER ST
NEWTON, MA 02160

Click here for full text details

LUST
Release Tracking Number / Current Status: 3-0014590 / RAO
Release Tracking Number / Current Status: 3-0015828 / RAO

Click here to access the MA DEP site for this facility

SHWS

EDR ID: S107370131 **DIST/DIR:** 0.425 NNE **ELEVATION:** 125 **MAP ID:** 20

NAME: NO LOCATION AID
ADDRESS: 57 CLOVERDALE RD
NEWTON, MA 02461

Click here for full text details

SHWS
Release Tracking Number: 3-0029451
Current Status: RAO

SHWS, LUST

EDR ID: S105199785 **DIST/DIR:** 0.426 West **ELEVATION:** 117 **MAP ID:** 21

NAME: PROTOTECH COMPANY
ADDRESS: 70 JACONNET ST
NEWTON, MA 02158

Click here for full text details

- Continued on next page -

Mapped Sites Summary

Target Property: 191 DEDHAM STREET
NEWTON HIGHLANDS, MA 02461

SHWS, LUST

EDR ID: S105199785 **DIST/DIR:** 0.426 West **ELEVATION:** 117 **MAP ID:** 21

NAME: PROTOTECH COMPANY
ADDRESS: 70 JACONNET ST
NEWTON, MA 02158

SHWS
Release Tracking Number: 3-0004342
Current Status: RAO
LUST
Release Tracking Number / Current Status: 3-0004342 / RAO

Click here to access the MA DEP site for this facility

SHWS

EDR ID: S111411853 **DIST/DIR:** 0.438 West **ELEVATION:** 113 **MAP ID:** 22

NAME: NO LOCATION AID
ADDRESS: 111 NEEDHAM STREET
NEWTON, MA

Click here for full text details

SHWS
Release Tracking Number: 3-0030460
Current Status: RAO

Mapped Sites Summary

Target Property: 191 DEDHAM STREET
NEWTON HIGHLANDS, MA 02461

SHWS

EDR ID: S105810562 **DIST/DIR:** 0.456 WNW **ELEVATION:** 142 **MAP ID:** 23

NAME: BOSTON EDISON CO
ADDRESS: ELLIOT STREET STA 29
NEWTON, MA 02158

Click here for full text details

SHWS
Release Tracking Number: 3-0004719
Current Status: RAO

SHWS

EDR ID: S102086899 **DIST/DIR:** 0.465 WSW **ELEVATION:** 116 **MAP ID:** E24

NAME: BUILDING G
ADDRESS: 50 INDUSTRIAL PL
NEWTON, MA 02461

Click here for full text details

SHWS
Release Tracking Number: 3-0012758
Current Status: RAO

SHWS

EDR ID: S112288318 **DIST/DIR:** 0.465 WSW **ELEVATION:** 116 **MAP ID:** E25

NAME: HC STARCK INC SHIPPI
ADDRESS: 50 INDUSTRIAL PLACE
NEWTON, MA 02461

Click here for full text details

SHWS

- Continued on next page -

Mapped Sites Summary

Target Property: 191 DEDHAM STREET
NEWTON HIGHLANDS, MA 02461

SHWS

EDR ID: S112288318 **DIST/DIR:** 0.465 WSW **ELEVATION:** 116 **MAP ID:** E25

NAME: HC STARCK INC SHIPPI
ADDRESS: 50 INDUSTRIAL PLACE
NEWTON, MA 02461

Release Tracking Number: 3-0031109
Current Status: RAO

SHWS

EDR ID: S102084861 **DIST/DIR:** 0.468 WSW **ELEVATION:** 116 **MAP ID:** E26

NAME: H.C. STARCK
ADDRESS: 45 INDUSTRIAL PLACE
NEWTON, MA 02461

Click here for full text details

SHWS
Release Tracking Number: 3-0010052
Release Tracking Number: 3-0037115
Current Status: RAO
Current Status: PSNC

SHWS

EDR ID: 1000769026 **DIST/DIR:** 0.473 West **ELEVATION:** 113 **MAP ID:** 27

NAME: SIERRA TRADING POST
ADDRESS: 141 NEEDHAM ST
NEWTON HIGHLANDS, MA 02461

Click here for full text details

- Continued on next page -

Mapped Sites Summary

Target Property: 191 DEDHAM STREET
NEWTON HIGHLANDS, MA 02461

SHWS

EDR ID: 1000769026 **DIST/DIR:** 0.473 West **ELEVATION:** 113 **MAP ID:** 27

NAME: SIERRA TRADING POST
ADDRESS: 141 NEEDHAM ST
NEWTON HIGHLANDS, MA 02461

SHWS
Release Tracking Number: 3-0001491
Current Status: RAO

SHWS, INST CONTROL

EDR ID: 1000242278 **DIST/DIR:** 0.481 NNW **ELEVATION:** 153 **MAP ID:** F28

NAME: HIGHLAND SERVICE CEN
ADDRESS: 1186 WALNUT ST
NEWTON, MA 02461

Click here for full text details

SHWS
Release Tracking Number: 3-0034258
Current Status: PSC
INST CONTROL
Release Tracking Number: 3-0034258

LUST

EDR ID: U003655006 **DIST/DIR:** 0.485 NW **ELEVATION:** 147 **MAP ID:** G29

NAME: MA0032
ADDRESS: 964 BOYLSTON ST
NEWTON, MA 02461

Click here for full text details

- Continued on next page -

Mapped Sites Summary

Target Property: 191 DEDHAM STREET
NEWTON HIGHLANDS, MA 02461

LUST

EDR ID: U003655006 **DIST/DIR:** 0.485 NW **ELEVATION:** 147 **MAP ID:** G29

NAME: MA0032
ADDRESS: 964 BOYLSTON ST
NEWTON, MA 02461

LUST
Release Tracking Number / Current Status: 3-0032119 / PSNC

Click here to access the MA DEP site for this facility

LUST

EDR ID: S100830616 **DIST/DIR:** 0.493 NW **ELEVATION:** 144 **MAP ID:** 30

NAME: PURITY SUPREME
ADDRESS: 978 BOYLSTON STREET
NEWTON, MA 02158

Click here for full text details

LUST
Release Tracking Number / Current Status: 3-0004588 / RAO

Click here to access the MA DEP site for this facility

SHWS

EDR ID: S102618415 **DIST/DIR:** 0.494 NNW **ELEVATION:** 155 **MAP ID:** F31

NAME: AT CORNER OF FLORAL
ADDRESS: 1175 WALNUT ST
NEWTON, MA 02461

Click here for full text details

- Continued on next page -

Mapped Sites Summary

Target Property: 191 DEDHAM STREET
NEWTON HIGHLANDS, MA 02461

SHWS

EDR ID: S102618415 **DIST/DIR:** 0.494 NNW **ELEVATION:** 155 **MAP ID:** F31

NAME: AT CORNER OF FLORAL
ADDRESS: 1175 WALNUT ST
NEWTON, MA 02461

SHWS
Release Tracking Number: 3-0014942
Current Status: RAO

SHWS

EDR ID: 1000382068 **DIST/DIR:** 0.502 NW **ELEVATION:** 147 **MAP ID:** G32

NAME: ANTONS CLEANERS
ADDRESS: 980 BOYLSTON STREET
NEWTON, MA 02461
MIDDLESEX

Click here for full text details

SHWS
Release Tracking Number: 3-0020924
Current Status: RAO

SHWS

EDR ID: S101033201 **DIST/DIR:** 0.514 West **ELEVATION:** 117 **MAP ID:** H33

NAME: JIFFY LUBE
ADDRESS: 191 NEEDHAM ST
NEWTON, MA 02159

Click here for full text details

SHWS

- Continued on next page -

Mapped Sites Summary

Target Property: 191 DEDHAM STREET
NEWTON HIGHLANDS, MA 02461

SHWS

EDR ID: S101033201 **DIST/DIR:** 0.514 West **ELEVATION:** 117 **MAP ID:** H33

NAME: JIFFY LUBE
ADDRESS: 191 NEEDHAM ST
NEWTON, MA 02159

Release Tracking Number: 3-0028874
Current Status: RAO

SHWS

EDR ID: S101018247 **DIST/DIR:** 0.523 SW **ELEVATION:** 117 **MAP ID:** I34

NAME: HC STARCK
ADDRESS: 152 CHARLEMONT ST
NEWTON, MA 02461

Click here for full text details

SHWS
Release Tracking Number: 3-0018154
Release Tracking Number: 3-0010102
Current Status: RAO

SHWS

EDR ID: S101020161 **DIST/DIR:** 0.533 WSW **ELEVATION:** 112 **MAP ID:** I35

NAME: NO LOCATION AID
ADDRESS: 160 CHARLEMONT ST
NEWTON, MA 02461

Click here for full text details

SHWS

- Continued on next page -

Mapped Sites Summary

Target Property: 191 DEDHAM STREET
NEWTON HIGHLANDS, MA 02461

SHWS

EDR ID: S101020161 **DIST/DIR:** 0.533 WSW **ELEVATION:** 112 **MAP ID:** I35

NAME: NO LOCATION AID
ADDRESS: 160 CHARLEMONT ST
NEWTON, MA 02461

Release Tracking Number: 3-0015489
Release Tracking Number: 3-0014383
Current Status: RAO
Current Status: DPS

SHWS

EDR ID: S103546380 **DIST/DIR:** 0.534 WNW **ELEVATION:** 127 **MAP ID:** 36

NAME: CHARLES ST
ADDRESS: 70 TO 80 ELLIOT ST
NEWTON, MA 02461

Click here for full text details

SHWS
Release Tracking Number: 3-0017658
Current Status: RAO

SHWS

EDR ID: S100363107 **DIST/DIR:** 0.540 WSW **ELEVATION:** 117 **MAP ID:** H37

NAME: RESTAURANT
ADDRESS: 215-227 NEEDHAM ST
NEWTON, MA 02158

Click here for full text details

- Continued on next page -

Mapped Sites Summary

Target Property: 191 DEDHAM STREET
NEWTON HIGHLANDS, MA 02461

SHWS

EDR ID: S100363107 **DIST/DIR:** 0.540 WSW **ELEVATION:** 117 **MAP ID:** H37

NAME: RESTAURANT
ADDRESS: 215-227 NEEDHAM ST
NEWTON, MA 02158

SHWS
Release Tracking Number: 3-0001895
Current Status: RAO

SHWS

EDR ID: S128182743 **DIST/DIR:** 0.600 WSW **ELEVATION:** 115 **MAP ID:** 38

NAME: FORMER INDUSTRIAL PR
ADDRESS: 241-281 NEEDHAM STRE
NEWTON, MA 02464

Click here for full text details

SHWS
Release Tracking Number: 3-0036492
Current Status: TIERII

SHWS

EDR ID: 1000519977 **DIST/DIR:** 0.601 West **ELEVATION:** 117 **MAP ID:** J39

NAME: BIGELOW OIL CO INC
ADDRESS: 50 TOWER RD
NEWTON, MA 02464

Click here for full text details

SHWS

- Continued on next page -

Mapped Sites Summary

Target Property: 191 DEDHAM STREET
NEWTON HIGHLANDS, MA 02461

SHWS

EDR ID: 1000519977 **DIST/DIR:** 0.601 West **ELEVATION:** 117 **MAP ID:** J39

NAME: BIGELOW OIL CO INC
ADDRESS: 50 TOWER RD
NEWTON, MA 02464

Release Tracking Number: 3-0033617
Current Status: PSNC

SHWS

EDR ID: S127336049 **DIST/DIR:** 0.605 West **ELEVATION:** 117 **MAP ID:** J40

NAME: FORMER INDUSTRIAL PR
ADDRESS: 55 TOWER ROAD
NEWTON, MA 02464

Click here for full text details

SHWS
Release Tracking Number: 3-0036491
Release Tracking Number: 3-0036376
Current Status: TIERII
Current Status: RAONR

SHWS

EDR ID: S100363100 **DIST/DIR:** 0.608 SW **ELEVATION:** 100 **MAP ID:** 41

NAME: PROPERTY
ADDRESS: 25-27 CHRISTINA ST
NEWTON, MA 02158

Click here for full text details

- Continued on next page -

Mapped Sites Summary

Target Property: 191 DEDHAM STREET
NEWTON HIGHLANDS, MA 02461

SHWS

EDR ID: S100363100 **DIST/DIR:** 0.608 SW **ELEVATION:** 100 **MAP ID:** 41

NAME: PROPERTY
ADDRESS: 25-27 CHRISTINA ST
NEWTON, MA 02158

SHWS
Release Tracking Number: 3-0003266
Current Status: RAO

SHWS

EDR ID: S101419083 **DIST/DIR:** 0.615 ESE **ELEVATION:** 125 **MAP ID:** 42

NAME: BROWN MIDDLE SCHOOL
ADDRESS: 125 MEADOWBROOK RD
NEWTON, MA 02161

Click here for full text details

SHWS
Release Tracking Number: 3-0010600
Current Status: RAO

SHWS

EDR ID: S121826473 **DIST/DIR:** 0.639 WSW **ELEVATION:** 109 **MAP ID:** 43

NAME: CHIPOTLE 1250
ADDRESS: 300 NEEDHAM ST
NEWTON, MA 02459

Click here for full text details

SHWS

- Continued on next page -

Mapped Sites Summary

Target Property: 191 DEDHAM STREET
NEWTON HIGHLANDS, MA 02461

SHWS

EDR ID: S121826473 **DIST/DIR:** 0.639 WSW **ELEVATION:** 109 **MAP ID:** 43

NAME: CHIPOTLE 1250
ADDRESS: 300 NEEDHAM ST
NEWTON, MA 02459

Release Tracking Number: 3-0004014
Current Status: TIERII

SHWS

EDR ID: S107382100 **DIST/DIR:** 0.736 NNE **ELEVATION:** 147 **MAP ID:** 44

NAME: JOHN WEEKS HOUSE PRO
ADDRESS: 7 HEREWARD ROAD
NEWTON CENTER, MA 02459

Click here for full text details

SHWS
Release Tracking Number: 3-0035045
Current Status: PSNC

SHWS

EDR ID: S101419730 **DIST/DIR:** 0.799 East **ELEVATION:** 134 **MAP ID:** 45

NAME: NEWTON SOUTH HIGH SC
ADDRESS: 146 BRANDIES RD
NEWTON, MA 02159

Click here for full text details

SHWS
Release Tracking Number: 3-0011879

- Continued on next page -

Mapped Sites Summary

Target Property: 191 DEDHAM STREET
NEWTON HIGHLANDS, MA 02461

SHWS

EDR ID: S101419730 **DIST/DIR:** 0.799 East **ELEVATION:** 134 **MAP ID:** 45

NAME: NEWTON SOUTH HIGH SC
ADDRESS: 146 BRANDIES RD
NEWTON, MA 02159

Current Status: RAO

SHWS

EDR ID: S127336048 **DIST/DIR:** 0.808 WSW **ELEVATION:** 112 **MAP ID:** 46

NAME: FORMER INDUSTRIAL PR
ADDRESS: 156 OAK STREET
NEWTON, MA 02464

Click here for full text details

SHWS
Release Tracking Number: 3-0036490
Current Status: TIERII

SHWS

EDR ID: S103812099 **DIST/DIR:** 0.833 ENE **ELEVATION:** 195 **MAP ID:** 47

NAME: NO LOCATION AID
ADDRESS: DUDLEY ST AND BOYLST
NEWTON, MA

Click here for full text details

SHWS
Release Tracking Number: 3-0018018
Current Status: RAO

Mapped Sites Summary

Target Property: 191 DEDHAM STREET
NEWTON HIGHLANDS, MA 02461

SHWS

EDR ID: 1000216541 **DIST/DIR:** 0.845 SW **ELEVATION:** 100 **MAP ID:** 48

NAME: THERMO IEC
ADDRESS: 300 SECOND AVE
NEEDHAM, MA 02494
NORFOLK

Click here for full text details

SHWS
Release Tracking Number: 3-0003212
Current Status: RAO

SHWS

EDR ID: S104847514 **DIST/DIR:** 0.859 SW **ELEVATION:** 101 **MAP ID:** K49

NAME: NO LOCATION AID
ADDRESS: 12 HIGHLAND TER
NEEDHAM, MA 02494

Click here for full text details

SHWS
Release Tracking Number: 3-0020151
Current Status: RAO

SHWS

EDR ID: S128182839 **DIST/DIR:** 0.861 WSW **ELEVATION:** 80 **MAP ID:** 50

NAME: COMMERCIAL BUILDING
ADDRESS: 21 HIGHLAND CIRCLE
NEEDHAM, MA 02494

Click here for full text details

SHWS

- Continued on next page -

Mapped Sites Summary

Target Property: 191 DEDHAM STREET
NEWTON HIGHLANDS, MA 02461

SHWS

EDR ID: S128182839 **DIST/DIR:** 0.861 WSW **ELEVATION:** 80 **MAP ID:** 50

NAME: COMMERCIAL BUILDING
ADDRESS: 21 HIGHLAND CIRCLE
NEEDHAM, MA 02494

Release Tracking Number: 3-0037228
Current Status: UNCLSS

SHWS

EDR ID: S101034044 **DIST/DIR:** 0.867 NE **ELEVATION:** 180 **MAP ID:** 51

NAME: BOWEN SCHOOL
ADDRESS: 280 CYPRESS ST
NEWTON, MA 02159

Click here for full text details

SHWS
Release Tracking Number: 3-0033005
Current Status: PSNC

SHWS

EDR ID: S103546543 **DIST/DIR:** 0.888 SW **ELEVATION:** 105 **MAP ID:** 52

NAME: NO LOCATION AID
ADDRESS: 100-124 SECOND AVE
NEEDHAM, MA 02494

Click here for full text details

SHWS
Release Tracking Number: 3-0017899

- Continued on next page -

Mapped Sites Summary

Target Property: 191 DEDHAM STREET
NEWTON HIGHLANDS, MA 02461

SHWS

EDR ID: S103546543 **DIST/DIR:** 0.888 SW **ELEVATION:** 105 **MAP ID:** 52

NAME: NO LOCATION AID
ADDRESS: 100-124 SECOND AVE
NEEDHAM, MA 02494

Current Status: RAO

SHWS

EDR ID: S102404012 **DIST/DIR:** 0.888 WSW **ELEVATION:** 102 **MAP ID:** K53

NAME: NO LOCATION AID
ADDRESS: 95 HIGHLAND AVE
NEEDHAM, MA 02194

Click here for full text details

SHWS
Release Tracking Number: 3-0014537
Current Status: DPS

SHWS

EDR ID: S102087707 **DIST/DIR:** 0.896 SW **ELEVATION:** 103 **MAP ID:** L54

NAME: NR A ST
ADDRESS: 254 SECOND AVE
NEEDHAM, MA 02192

Click here for full text details

SHWS
Release Tracking Number: 3-0013937
Current Status: RAO

Mapped Sites Summary

Target Property: 191 DEDHAM STREET
NEWTON HIGHLANDS, MA 02461

SHWS

EDR ID: S101047615 **DIST/DIR:** 0.897 East **ELEVATION:** 122 **MAP ID:** 55

NAME: FOOTBALL FIELD
ADDRESS: 140 BRANDEIS RD
NEWTON, MA 02459

Click here for full text details

SHWS
Release Tracking Number: 3-0021719
Current Status: RAO

SHWS

EDR ID: U000228991 **DIST/DIR:** 0.904 NNE **ELEVATION:** 148 **MAP ID:** 56

NAME: RADIANT FUEL CO INC
ADDRESS: 59 PAUL ST
NEWTON, MA 02459

Click here for full text details

SHWS
Release Tracking Number: 3-0001402
Current Status: LSPNFA

SHWS

EDR ID: S102687260 **DIST/DIR:** 0.909 SE **ELEVATION:** 202 **MAP ID:** 57

NAME: NO LOCATION AID
ADDRESS: 203 COUNTRY CLUB LN
NEWTON, MA

Click here for full text details

SHWS

- Continued on next page -

Mapped Sites Summary

Target Property: 191 DEDHAM STREET
NEWTON HIGHLANDS, MA 02461

SHWS

EDR ID: S102687260 **DIST/DIR:** 0.909 SE **ELEVATION:** 202 **MAP ID:** 57

NAME: NO LOCATION AID
ADDRESS: 203 COUNTRY CLUB LN
NEWTON, MA

Release Tracking Number: 3-0011246
Current Status: RAO

SHWS

EDR ID: S128182744 **DIST/DIR:** 0.911 SW **ELEVATION:** 102 **MAP ID:** L58

NAME: THE KENDRICK APARTME
ADDRESS: 275 SECOND AVENUE
NEEDHAM, MA 02494

Click here for full text details

SHWS
Release Tracking Number: 3-0036886
Current Status: UNCLSS

SHWS

EDR ID: S101856544 **DIST/DIR:** 0.932 SSW **ELEVATION:** 97 **MAP ID:** 59

NAME: BELL & HOWELL CO
ADDRESS: 45 FOURTH AVE
NEEDHAM, MA 02192

Click here for full text details

SHWS
Release Tracking Number: 3-0003506

- Continued on next page -

Mapped Sites Summary

Target Property: 191 DEDHAM STREET
NEWTON HIGHLANDS, MA 02461

SHWS

EDR ID: S101856544 **DIST/DIR:** 0.932 SSW **ELEVATION:** 97 **MAP ID:** 59

NAME: BELL & HOWELL CO
ADDRESS: 45 FOURTH AVE
NEEDHAM, MA 02192

Current Status: RAO

SHWS

EDR ID: S101017775 **DIST/DIR:** 0.955 ENE **ELEVATION:** 214 **MAP ID:** 60

NAME: SHELL SERVICE STATIO
ADDRESS: 387 BOYLSTON ST
NEWTON, MA 02158

Click here for full text details

SHWS
Release Tracking Number: 3-0001468
Current Status: RAO

SHWS

EDR ID: S104545418 **DIST/DIR:** 0.955 WSW **ELEVATION:** 124 **MAP ID:** 61

NAME: LARQUIN CORP
ADDRESS: 1191 CHESTNUT ST
NEWTON, MA 02464

Click here for full text details

SHWS
Release Tracking Number: 3-0020076
Release Tracking Number: 3-0010690

- Continued on next page -

Mapped Sites Summary

Target Property: 191 DEDHAM STREET
NEWTON HIGHLANDS, MA 02461

SHWS

EDR ID: S104545418 **DIST/DIR:** 0.955 WSW **ELEVATION:** 124 **MAP ID:** 61

NAME: LARQUIN CORP
ADDRESS: 1191 CHESTNUT ST
NEWTON, MA 02464

Current Status: DPS
Current Status: RAO

SHWS

EDR ID: S100363073 **DIST/DIR:** 0.971 WSW **ELEVATION:** 104 **MAP ID:** 62

NAME: PROPERTY
ADDRESS: 163 HIGHLAND AVE
NEEDHAM, MA 02192

Click here for full text details

SHWS
Release Tracking Number: 3-0003044
Current Status: WCSPRM

SHWS

EDR ID: S105199538 **DIST/DIR:** 0.979 SSW **ELEVATION:** 98 **MAP ID:** M63

NAME: INDUSTRIAL PROPERTY
ADDRESS: 53-83 115-119 FOURTH
NEEDHAM, MA 02192

Click here for full text details

SHWS
Release Tracking Number: 3-0002662

- Continued on next page -

Mapped Sites Summary

Target Property: 191 DEDHAM STREET
NEWTON HIGHLANDS, MA 02461

SHWS

EDR ID: S105199538 **DIST/DIR:** 0.979 SSW **ELEVATION:** 98 **MAP ID:** M63

NAME: INDUSTRIAL PROPERTY
ADDRESS: 53-83 115-119 FOURTH
NEEDHAM, MA 02192

Current Status: DPS

SHWS

EDR ID: S102087289 **DIST/DIR:** 0.995 SSW **ELEVATION:** 96 **MAP ID:** M64

NAME: NO LOCATION AID
ADDRESS: 77 4TH AVE
NEEDHAM, MA 02192

Click here for full text details

SHWS
Release Tracking Number: 3-0013333
Current Status: RAO

Count: 8 records. ORPHAN SUMMARY

City	EDR ID	Site Name	Site Address	Zip	Database(s)
NEWTON	S121394326	MILE MARKER 128.5 NEAR DUDLEY ROAD	BOYLSTON STREET	02459	SHWS
NEWTON	S119713245	GASOLINE STATION	1365 CENTRE STREET	02459	SHWS
NEWTON	S120630241	CITY OF NEWTON DPW YARD	60-80 ELLIOT STREET	02464	SHWS
NEWTON	S108476811	NSTAR NEWTON STATION 292	48 ELLIOT ST	02461	SHWS, INST CONTROL
NEWTON	S118947477	POLE 385/7	JUNIPER LANE	02459	SHWS
NEWTON	S118337289	NO LOCATION AID	11 MEREDITH AVENUE	02464	SHWS
NEWTON	S103812264	BTWN COMM AVE AND HIGHLAND AVE	WALNUT ST	02459	SHWS
NEWTON	S107405644	POLE NO 478/3A NEAR NO 20	WOODWARD ST	02461	SHWS

RECORDS SEARCHED / DATA CURRENCY TRACKING

St	Acronym	Full Name	Gov Date	Arvl. Date	Active Date	Last EDR Contact
MA	AST	Aboveground Storage Tank Database	02/24/2022	04/12/2022	07/01/2022	07/11/2022
MA	AST 2	Aboveground Storage Tanks	07/12/2022	07/13/2022	07/15/2022	07/07/2022
MA	BROWNFIELDS	Completed Brownfields Covenants Listing	04/05/2017	08/03/2017	10/10/2017	04/29/2022
MA	BROWNFIELDS 2	Potential Brownfields Listing	12/03/2019	01/29/2021	04/21/2021	04/29/2022
MA	INST CONTROL	Sites With Activity and Use Limitation	05/26/2022	07/05/2022	07/07/2022	07/05/2022
MA	LAST	Leaking Aboveground Storage Tank Sites	05/26/2022	07/05/2022	07/07/2022	07/05/2022
MA	LF PROFILES	Landfill Profiles Listing	07/01/2015	10/27/2015	12/14/2015	06/30/2022
MA	LUST	Leaking Underground Storage Tank Listing	05/26/2022	07/05/2022	07/07/2022	07/05/2022
MA	PFAS	PFAS Contaminated Sites Listing	03/28/2022	03/30/2022	06/28/2022	06/28/2022
MA	SHWS	Site Transition List	05/26/2022	07/05/2022	07/07/2022	07/05/2022
MA	SWF/LF	Solid Waste Facility Database/Transfer Stations	01/14/2020	04/03/2020	06/18/2020	07/01/2022
MA	UST	Summary Listing of all the Tanks Registered in the State of	05/05/2022	05/06/2022	07/01/2022	07/07/2022
US	BRS	Biennial Reporting System	12/31/2019	03/02/2022	03/25/2022	06/21/2022
US	CORRACTS	Corrective Action Report	06/20/2022	06/21/2022	06/28/2022	06/21/2022
US	Delisted NPL	National Priority List Deletions	04/27/2022	05/05/2022	05/31/2022	07/01/2022
US	ERNS	Emergency Response Notification System	06/14/2022	06/15/2022	06/21/2022	06/15/2022
US	FEDERAL FACILITY	Federal Facility Site Information listing	05/25/2021	06/24/2021	09/20/2021	06/27/2022
US	FEDLAND	Federal and Indian Lands	04/02/2018	04/11/2018	11/06/2019	07/08/2022
US	FEMA UST	Underground Storage Tank Listing	10/14/2021	11/05/2021	02/01/2022	06/29/2022
US	INDIAN LUST R1	Leaking Underground Storage Tanks on Indian Land	04/28/2021	06/11/2021	09/07/2021	06/13/2022
US	INDIAN LUST R10	Leaking Underground Storage Tanks on Indian Land	10/12/2021	11/15/2021	02/08/2022	06/13/2022
US	INDIAN LUST R4	Leaking Underground Storage Tanks on Indian Land	05/28/2021	06/22/2021	09/20/2021	06/13/2022
US	INDIAN LUST R5	Leaking Underground Storage Tanks on Indian Land	10/12/2021	11/15/2021	02/08/2022	06/13/2022
US	INDIAN LUST R6	Leaking Underground Storage Tanks on Indian Land	10/12/2021	11/15/2021	02/08/2022	06/13/2022
US	INDIAN LUST R7	Leaking Underground Storage Tanks on Indian Land	10/12/2021	11/15/2021	02/08/2022	06/13/2022
US	INDIAN LUST R8	Leaking Underground Storage Tanks on Indian Land	10/12/2021	11/15/2021	02/08/2022	06/13/2022
US	INDIAN LUST R9	Leaking Underground Storage Tanks on Indian Land	10/12/2021	11/15/2021	02/08/2022	06/13/2022
US	INDIAN UST R1	Underground Storage Tanks on Indian Land	10/14/2021	11/15/2021	02/08/2022	06/13/2022
US	INDIAN UST R10	Underground Storage Tanks on Indian Land	10/12/2021	11/15/2021	02/08/2022	06/13/2022
US	INDIAN UST R4	Underground Storage Tanks on Indian Land	05/28/2021	06/22/2021	09/20/2021	06/13/2022
US	INDIAN UST R5	Underground Storage Tanks on Indian Land	04/06/2021	06/11/2021	09/07/2021	06/13/2022
US	INDIAN UST R6	Underground Storage Tanks on Indian Land	10/12/2021	11/15/2021	02/08/2022	06/13/2022
US	INDIAN UST R7	Underground Storage Tanks on Indian Land	10/12/2021	11/15/2021	02/08/2022	06/13/2022
US	INDIAN UST R8	Underground Storage Tanks on Indian Land	10/12/2021	11/15/2021	02/08/2022	06/13/2022
US	INDIAN UST R9	Underground Storage Tanks on Indian Land	10/12/2021	11/15/2021	02/08/2022	06/13/2022
US	INDIAN VCP R1	Voluntary Cleanup Priority Listing	07/27/2015	09/29/2015	02/18/2016	06/15/2022
US	INDIAN VCP R7	Voluntary Cleanup Priority Lisitng	03/20/2008	04/22/2008	05/19/2008	07/08/2021
US	LUCIS	Land Use Control Information System	02/08/2022	02/11/2022	05/10/2022	05/05/2022
US	MINES MRDS	Mineral Resources Data System	04/06/2018	10/21/2019	10/24/2019	05/27/2022
US	NPL	National Priority List	04/27/2022	05/05/2022	05/31/2022	07/01/2022
US	NPL LIENS	Federal Superfund Liens	10/15/1991	02/02/1994	03/30/1994	08/15/2011
US	PCS	Permit Compliance System	07/14/2011	08/05/2011	09/29/2011	06/28/2022
US	PCS ENF	Enforcement data	12/31/2014	02/05/2015	03/06/2015	06/28/2022
US	PCS INACTIVE	Listing of Inactive PCS Permits	11/05/2014	01/06/2015	05/06/2015	06/28/2022
US	PRP	Potentially Responsible Parties	01/25/2022	02/03/2022	02/25/2022	07/01/2022
US	Proposed NPL	Proposed National Priority List Sites	04/27/2022	05/05/2022	05/31/2022	07/01/2022
US	RCRA-LQG	RCRA - Large Quantity Generators	06/20/2022	06/21/2022	06/28/2022	06/21/2022

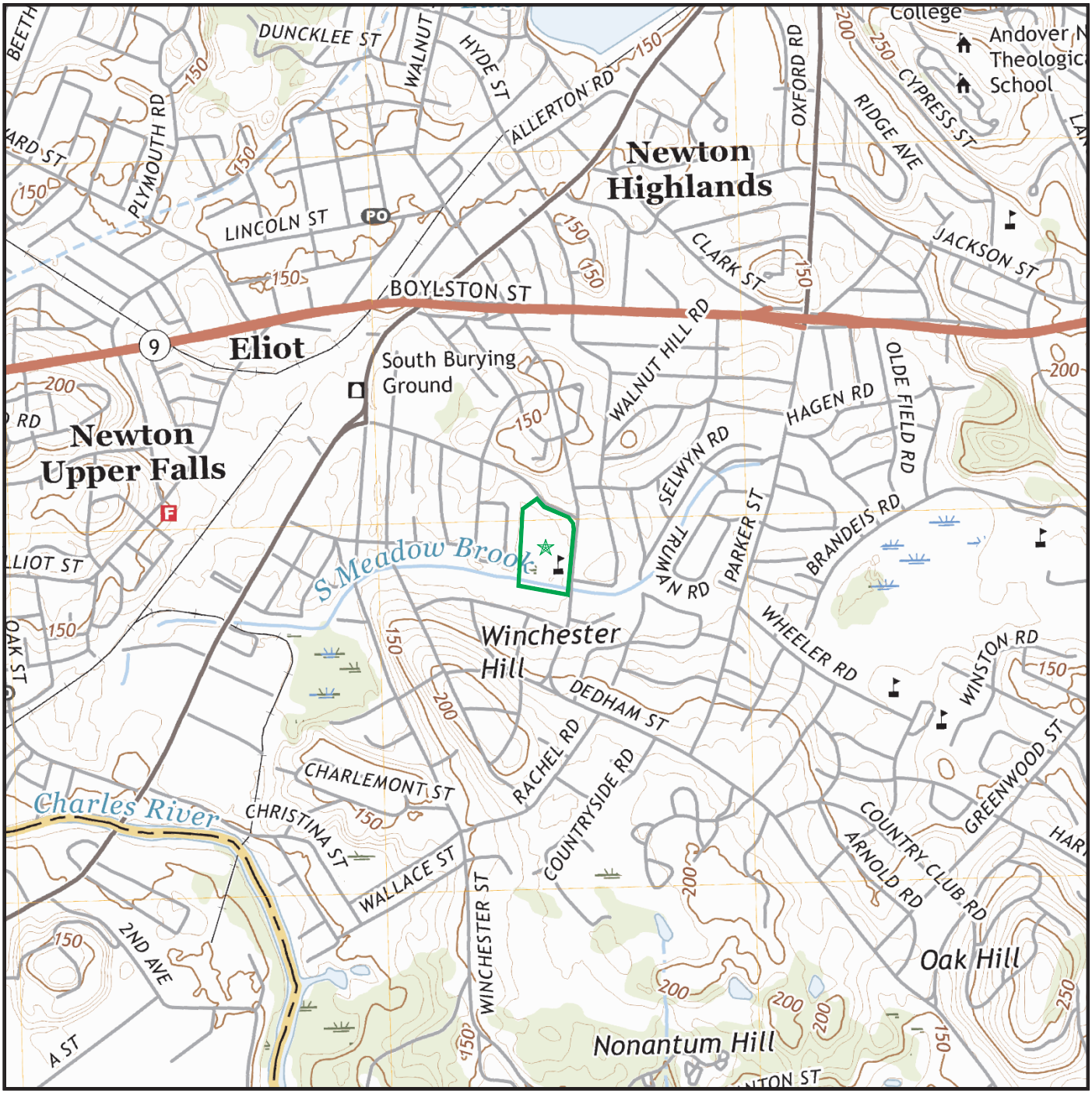
RECORDS SEARCHED / DATA CURRENCY TRACKING

St	Acronym	Full Name	Gov Date	Arvl. Date	Active Date	Last EDR Contact
US	RCRA-SQG	RCRA - Small Quantity Generators	06/20/2022	06/21/2022	06/28/2022	06/21/2022
US	RCRA-TSDF	RCRA - Treatment, Storage and Disposal	06/20/2022	06/21/2022	06/28/2022	06/21/2022
US	RCRA-VSQG	RCRA - Very Small Quantity Generators (Formerly Conditionall	06/20/2022	06/21/2022	06/28/2022	06/21/2022
US	SEMS	Superfund Enterprise Management System	04/27/2022	05/05/2022	05/31/2022	07/01/2022
US	SEMS-ARCHIVE	Superfund Enterprise Management System Archive	04/27/2022	05/05/2022	05/31/2022	07/01/2022
US	US AIRS (AFS)	Aerometric Information Retrieval System Facility Subsystem (	10/12/2016	10/26/2016	02/03/2017	09/26/2017
US	US AIRS MINOR	Air Facility System Data	10/12/2016	10/26/2016	02/03/2017	09/26/2017
US	US ENG CONTROLS	Engineering Controls Sites List	02/21/2022	02/23/2022	05/24/2022	05/24/2022
US	US INST CONTROLS	Institutional Controls Sites List	02/21/2022	02/23/2022	05/24/2022	05/04/2022

STREET AND ADDRESS INFORMATION

USGS 7.5 Minute Topographic Map

191 DEDHAM STREET NEWTON HIGHLANDS, MA 02461



Map Image Position: TP
Map Reference Code & Name: 11747378 Newton
Map State(s): MA
Version Date: 2018

EDR First Report

APPENDIX C

City of Newton

Request Visibility: Unpublished

Request 22-604 Open

Dates

Received

July 22, 2022 via web

Requester

Katelyn Putt

kputt@lordenv.com

1506 Providence Hwy, Suite 30 , Norwood, MA, 02062

7817388673

Lord Environmental Inc

Request

Good Morning,

Lord Environmental is currently in the process of conducting a Phase I Environmental Site Assessment on the property 191 Dedham Street, Newton MA (Countryside Elementary School). As part of the Phase I process, we reach out to municipal offices to see who may hold records regarding use, storage, and releases of oil or other hazardous materials in connection with the property. Typical records we look for are as follows:

- Storage tanks (underground or aboveground)
- Storage of oil or other hazardous materials
- Release or spills of oil or other hazardous material

Staff Assigned

Departments

City Clerk

Point of contact

Carol Moore

- Current or historic heating systems (natural gas, coal, oil)
- Previous environmental assessments

Thank you in advance for your time!

Show less

Timeline | Documents

External Message

Requester + Staff

The City has received your request for public records pursuant to M.G.L. c. 66. In accordance with c. 66, the City will respond within ten business days unless an extension is required to comply with this request. If the response takes more than two hours to fulfill, the City may charge a reasonable fee including $.05 per copy and up to $25 per hour. The City will notify you of any cost prior to fulfilling the request.

In accordance with the state regulations pertaining to public records, you have the right to appeal the response to your request for records to the Supervisor of Public Records pursuant to 950 CMR 32.08.

July 22, 2022, 10:55am

Public

Department Assignment

City Clerk

Request Opened Public

Request received via web

City of Newton

Request Visibility: Unpublished

Request 22-604 Closed

Dates

Received

July 22, 2022 via web

Requester

Katelyn Putt

kputt@lordenv.com

1506 Providence Hwy, Suite 30 ,
Norwood, MA, 02062

7817388673

Lord Environmental Inc

Staff Assigned

Departments

City Clerk

Point of contact

Carol Moore

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- Storage tanks (underground or aboveground)
- Storage of oil or other hazardous materials
- Release or spills of oil or other hazardous material
- Current or historic heating systems (natural gas, coal, oil)...

Show more

Timeline Documents

Request Closed

Public

This is a Duplicate Request that inspectional services does not have additional documents to add. Responsive documents can be found on request 22-605 and 22-603

In accordance with the state regulations pertaining to public records, you have the right to appeal the response to your request for records to the Supervisor of Public Records pursuant to 950 CMR 32.08.

External Message

Requester + Staff

The City has received your request for public records pursuant to M.G.L. c. 66. In accordance with c. 66, the City will respond within ten business days unless an extension is required to comply with this request. If the response takes more than two hours to fulfill, the City may charge a reasonable fee including $.05 per copy and up to $25 per hour. The City will notify you of any cost prior to fulfilling the request.

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right to appeal the response to your request for records to the Supervisor of Public Records pursuant to 950 CMR 32.08.

July 22, 2022, 10:55am

Department Assignment

Public

City Clerk

Request Opened

Public

Request received via web

City of Newton

Request Visibility: Unpublished

Request 22-603 Open

Dates

Received

July 22, 2022 via web

Requester

Katelyn Putt

kputt@lordenv.com

1506 Providence Hwy, Suite 30 , Norwood, MA, 02062

7817388673

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- Storage of oil or other hazardous materials
- Release or spills of oil or other hazardous material

Staff Assigned

Departments

Fire

Point of contact

Michael Bianchi

- Current or historic heating systems (natural gas, coal, oil)
- Previous environmental assessments

Thank you in advance for your time!

Show less

Timeline | Documents

External Message

Requester + Staff

The City has received your request for public records pursuant to M.G.L. c. 66. In accordance with c. 66, the City will respond within ten business days unless an extension is required to comply with this request. If the response takes more than two hours to fulfill, the City may charge a reasonable fee including $.05 per copy and up to $25 per hour. The City will notify you of any cost prior to fulfilling the request.

In accordance with the state regulations pertaining to public records, you have the right to appeal the response to your request for records to the Supervisor of Public Records pursuant to 950 CMR 32.08.

July 22, 2022, 10:52am

Public

Department Assignment

Fire

Request Opened Public

Request received via web

STREET & NO. 191 Dedham Street, Newton, Ma.

NAME Countryside School

NAME OF BURNER H.B. Smith Boiler Burner Unit Gun
Mod. No. LO-28-S-6

LOCATION & CAP. OF TANK Existing

INSTALLER Ace Heating Service, Inc. P.O. Box 301
Allston, Ma.

PERMIT ISSUED 2-24-84 **INSPECTED BY**

2- 5,000 gal UST removed 8-10-2011
Lt. K. Clinton 11-1055 LT Sweeney 5/24

STREET & NO. 191 DEDHAM ST.

NAME COUNTRYSIDE SCHOOL

NAME OF BURNER

LOCATION & CAP OF TANKS 4-275 GAL AST

INSTALLER PETROLEUM MANAGEMENT

PERMIT ISSUED 9-29-2011 INSPECTED BY
PERMIT 11-1269

Lt. K. Clinton
9-30-2011

Print/Type: Original application and issues duplicate as Permit.

11-1055 card mailed

Commonwealth of Massachusetts

CID# _____

Department of Fire Services — Office of the State Fire Marshal

APPLICATION and PERMIT

200.00 Fee: ~~0~~ Paid

for storage tank removal and transportation to approved tank disposal yard in accordance with the provisions of M.G.L. Chapter 148, Section 38A, 527 CMR 9.00, application is hereby made by:

Tank Owner

Countryside School

Tank Owner Name (please print) City of Newton X _____ (Signature (if applying for permit))

Address 191 Dedham St. (Street) Newton (City) MA (State) _____ (Zip)

Removal Contractor

Company Name (Print) Petroleum Mgt. Services Inc

Address (Print) P.O. Box 368 Reading, MA

Signature (if applying for permit) _____ President

☐ IFCI* Certified Other _____

Contamination Assessment

Co. or Individual (Print) Lord Associates

Address (Print) 520 Providence Hwy Dedham

Signature (if applying for permit) _____

☐ IFCI* Certified ☐ LSP # _____ Other _____

Tank Information

Tank Location Countryside School (Street Address) _____ (City)

Tank Capacity (gallons) (2) 5,000 gallon Substance Last Stored #2 oil

Tank Dimensions (diameter x length) 6' X 23'10"

Remarks: 300° double wall "Enviro" tanks installed in 1987.

Disposal Information

Firm transporting waste Lighthouse Env. Solutions State Lic. # MA #481

Hazardous waste manifest# _____ E.P.A. # MA000510404

Approved tank disposal yard Allied Recycling Tank yard # 015

Type of inert gas Venting Tank yard address 1901 Main St. Walpole

Approvals

City or Town Newton FDID# 17202 Permit# 11-1055

Date of issue 11/8/11 Date of expiration _____

Dig safe approval number: _____ Dig Safe Toll Free Tel. Number - 800-322-4844

Signature / Title of Officer granting permit _____ 8/10/11

After removal(s) ("Consumptive Use" fuel oil tanks exempted) send Form FP-290R signed by Local Fire Dept. to UST Regulatory Compliance Unit, Department of Fire Services, P.O. Box 1025, State Road, Stow, MA 01775.

*International Fire Code Institute

FP-292 (revised 4/97)

City of Newton

Request Visibility: Unpublished

Request 22-603 Closed

Dates

Received

July 22, 2022 via web

Requester

Katelyn Putt

kputt@lordenv.com

1506 Providence Hwy, Suite 30 , Norwood, MA, 02062

7817388673

Lord Environmental Inc

Request

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- Storage of oil or other hazardous materials
- Release or spills of oil or other hazardous material

Staff Assigned

Departments

Fire

Point of contact

Michael Bianchi

- Current or historic heating systems (natural gas, coal, oil)...

Show more

Timeline | Documents

Request Closed

Public

The City has finalized its review of your request for public records. A search of all public records in the custody and control of the City reveals that the attached documents are responsive to your request. There is no charge associated with this request. Please know in the future you can add multiple departments to one request and not have to open 6 different requests for the same information. This completes the City's response.

In accordance with the state regulations pertaining to public records, you have the right to appeal the response to your request for records to the Supervisor of Public Records pursuant to 950 CMR 32.08.

Document(s) Released to Requester

Public

191 dedham st.pdf

External Message

Requester + Staff

July 22, 2022, 10:52am

Department Assignment Public

Fire

Request Opened Public

Request received via web

City of Newton

Request Visibility: Unpublished

Request 22-605 Open

Dates

Received

July 22, 2022 via web

Requester

Katelyn Putt

kputt@lordenv.com

1506 Providence Hwy, Suite 30 , Norwood, MA, 02062

7817388673

Lord Environmental Inc

Request

Good Morning,

Lord Environmental is currently in the process of conducting a Phase I Environmental Site Assessment on the property 191 Dedham Street, Newton MA (Countryside Elementary School). As part of the Phase I process, we reach out to municipal offices to see who may hold records regarding use, storage, and releases of oil or other hazardous materials in connection with the property. Typical records we look for are as follows:

- Storage tanks (underground or aboveground)
- Storage of oil or other hazardous materials
- Release or spills of oil or other hazardous material

Staff Assigned

Departments

Health & Human Services

Point of contact

Shameka Hill

- Current or historic heating systems (natural gas, coal, oil)...

Show more

Timeline | Documents

External Message

Requester + Staff

The City has received your request for public records pursuant to M.G.L. c. 66. In accordance with c. 66, the City will respond within ten business days unless an extension is required to comply with this request. If the response takes more than two hours to fulfill, the City may charge a reasonable fee including $.05 per copy and up to $25 per hour. The City will notify you of any cost prior to fulfilling the request.

In accordance with the state regulations pertaining to public records, you have the right to appeal the response to your request for records to the Supervisor of Public Records pursuant to 950 CMR 32.08.

July 22, 2022, 10:56am

Department Assignment

Public

Health & Human Services

Request Opened Public

Request received via web

CITY OF NEWTON, MASSACHUSETTS

City Hall
1000 Commonwealth Avenue
Newton, Massachusetts 02159
Telephone: (617) 552-7135 Telecopier: (617) 965-6620

DEPARTMENT OF PLANNING AND DEVELOPMENT

Eugene A. Bober, Director

Conservation Commission

September 27, 1991

James W. Cameron, Commissioner
Public Buildings Department
City of Newton
52 Elliot Street
Newton Highlands, MA 02161

RE: Project No. 239-224 To Construct Modular Classroom (Temporary Structure) with Lowest Flood Elevation at 119' (Newton Base) at 191 Dedham Street, Newton Highlands, on Zone A-5 Flood Hazard Area Bordering South Meadow Brook Floodway.

Dear Mr. Cameron:

I enclose the Certificate of Compliance for satisfactory completion of Project 239-224 pursuant to the Wetlands Protection Act, G.L. Ch. 131, s. 40 and to the Newton Floodplain/Watershed Protection Ordinance, Section 22-22.

Please note that this Certificate must be recorded at the Middlesex County (South) Registry of Deeds in Cambridge in order for the Project 239-224 property to be easily conveyed from one owner to others in the future.

Very truly yours,
FOR THE COMMISSION

Robert D. Merryman
Wetlands/Floodplain Administrator

Encls. (2)
CC: Dennis L. Ditelberg, Chairman, Conservation Commission
WETLANDS DIVISION, Dept. of Environmental Protection
J. David Naparstek, Health Commissioner
James L. Hickey, Commissioner of Public Works
Walter B. Adams, Commissioner, Inspectional Services Department
Paul W. Giunta, City Engineer

310 CMR 10.99

Form 8

Commonwealth of Massachusetts

DEP File No. 239-224
(To be provided by DEP)

City/Town: City of Newton

Applicant: Newton Building Dept.

Certificate of Compliance

Massachusetts Wetlands Protection Act, G.L. c. 131, §40

And Certificate Pursuant to Floodplain/Watershed Protection Provisions in City of Newton Revised Ordinances, Section 22-22.

From Newton Conservation Commission (Issuing Authority)

To Commissioner James Cameron, Public Buildings Department (Name), 52 Elliot St., Newton Highlands, MA 0216 (Address)

Date of Issuance September 26, 1991

This Certificate is issued for work regulated by an Order of Conditions issued to Newton Public Buildin Commissioner dated July 19, 1990 and issued by the Conservation Commission

1. ☒ It is hereby certified that the work regulated by the above-referenced Order of Conditions has been satisfactorily completed.

2. ☐ It is hereby certified that only the following portions of the work regulated by the above-referenced Order of Conditions have been satisfactorily completed: (If the Certificate of Compliance does not include the entire project, specify what portions are included.)

3. ☐ It is hereby certified that the work regulated by the above-referenced Order of Conditions was never commenced. The Order of Conditions has lapsed and is therefore no longer valid. No future work subject to regulation under the Act may be commenced without filing a new Notice of Intent and receiving a new Order of Conditions.

(Leave Space Blank)

4. ☐ This certificate shall be recorded in the Registry of Deeds or the Land Court for the district in which the land is located. The Order was originally recorded on August 8, 1990 (date) at the Registry of Middlesex (South), Book _____, Page _____. Instrument #35

5. ☐ The following conditions of the Order shall continue: (Set forth any conditions contained in the Final Order, such as maintenance or monitoring, which are to continue for a longer period.)

Issued by Newton Conservation Commission

Signature(s) [signature] chairman

[signature]

[signature]

[signature]

[signature]

[signature]

For the Conservation Commission:

Wetlands/Floodplain Administrator

When issued by the Conservation Commision this Certificate must be signed by a majority of is members.

On this 27th day of September, 19 91, before me personally appeared Robert Merryman, to me known to be the person described in and who executed the foregoing instrument and acknowledged that he/she executed the same as his/her free act and deed.

Dolores B Alvin

Notary Public

4/6/95

My commission expires

Detach on dotted line and submit to the Newton Conservation Commission and Inspectional Serv

To Newton Conservation Commission
Issuing Authority

Please be advised that the Certificate of Compliance for the project at 191 Dedham St., Newton Highlands, MA

File Number 239-224 has been recorded at the Registry of _____

and has been noted in the chain of title of the affected property on _____, 19 _____

(recorded land, the instrument number which identifies this transaction is _____

(registered land, the document number which identifies this transaction is _____

Signature _____ Applicant

Massachusetts Department of Environmental Protection

BWP AQ 04 (ANF-001)

Asbestos Notification Form

Privacy

Asbestos Project #

[ ] Project Revision

[ ] Project Cancellation

A. Asbestos Abatement Description

1. Facility Location:

COUNTRYSIDE SCHOOL	191 DEDHAM STREET
a. Name of Facility	b. Street Address
NEWTON / MA	02461 / 000-000-0000
c. City/Town / d. State	e. Zip Code / f. Telephone
JOSEPH CROSSEN	FACILITIES DIRECTOR
g. Facility Contact Person Name	h. Facility Contact Person Title
Worksite Location:	BOILER ROOM
	i. Building Name, Wing, Floor, Room, etc.

Instructions 1. All sections of this form must be completed in order to comply with MassDEP notification requirements of 310 CMR 7.15 and Department of Labor Standards (DLS) notification requirements of 453 CMR 6.12

2. Is the facility occupied? [x] a. Yes [ ] b. No

3. Is this a fee exempt notification (city, town, district, municipal housing authority, state facility, or owner-occupied residential property of four units or less)? [x] a. Yes [ ] b. No

4. Blanket Permit Project Approval, if applicable:

Approval ID #

5. Non-Traditional Asbestos Abatement Work Practice Approval, if applicable:

Approval ID #

MassDEP Use Only

Date Received

6. Asbestos Contractor:

NEW ENGLAND SURFACE MAINTENANCE LLP	850 WASHINGTON ST
a. Name	b. Address
WEYMOUTH / MA	02189 / Privacy
c. City/Town / d. State	e. Zip Code / f. Telephone
Privacy	h. Contract Type: [x] 1. Written [ ] 2. Verbal
g. DLS License #	

7. JOHN P. VALLIQUETTE — Privacy
   a. Name of Contractor's On-Site Supervisor/Foreman — b. DLS Certification #
8. LEONARD J. BUSA — Privacy
   a. Name of Project Monitor — b. DLS Certification #
9. UNIVERSAL ENVIRONMENTAL CONSULTANTS — Privacy
   a. Name of Asbestos Analytical Lab — b. DLS Certification #
10. 12/22/2019 — Privacy
    a. Project Start Date (MM/DD/YYYY) — b. End Date (MM/DD/YYYY)

N/A	7-3
c. Work Hours - Monday Through Friday	d. Work Hours - Saturday & Sunday

11. What type of project is this?

[ ] a. Demolition [x] b. Renovation [ ] c. Repair [ ] d. Other - Please Specify:

12. Abatement procedures (check all that apply):

[ ] a. Glove Bag [ ] b. Encapsulation [ ] c. Enclosure [ ] d. Disposal Only [ ] e. Cleanup [x] f. Full Containment

[ ] g. Other - Please Specify:

13. Job is being conducted: [✓] a. Indoors [ ] b. Outdoors

14 a. Total amount of each type of asbestos Containing materials (ACM) to be removed, enclosed, or encapsulated:

	1. Lin. Ft.	2. Sq. Ft.
1. Linear Feet (Lin. Ft.)	20	
b. Boiler, Breaching, Duct, Tank Surface Coatings		
c. Transite Pipe		
d. Pipe Insulation	20	
e. Transite Shingles		
f. Spray-On Fireproofing		
g. Transite Panels		
h. Cloths, Woven Fabrics		
i. Other - Please Specify:		
j. Insulating Cement		

15. Describe the decontamination system(s) to be used:

AS REQUIRED

16. Describe the containerization/disposal methods to comply with 310 CMR 7.15 and 453 CMR 6.14(2)(g):

AS REQUIRED

17. For Emergency Asbestos Operations, the MassDEP and DLS officials who evaluated the emergency:

ANDREW DANIKAS	INSPECTOR
a. Name of MassDEP Official	b. Title of MassDEP Official
12/23/2019	Privacy
c. Date of Authorization (MM/DD/YYYY)	d. Waiver #
ON-LINE	ON-LINE
e. Name of DLS Official	f. Title of DLS Official
12/23/2019	Privacy
g. Date of Authorization (MM/DD/YYYY)	h. Waiver #

18. Do prevailing wage rates as per M.G.L. c. 149, § 26, 27 or 27A–F apply to this project? [✓] a. Yes [ ] b. No

B. Facility Description

1. Current or prior use of facility: SCHOOL

2. Is the facility owner-occupied residential with 4 units or less? [ ] a. Yes [✓] b. No

3.

CITY OF NEWTON		52 ELLIOT STREET	
a. Facility Owner Name		b. Address	
NEWTON HIGHLANDS	MA	02461	000-000-0000
c. City/Town	d. State	e. Zip Code	f. Telephone

4.

X		X	
a. Name of Facility Owner's On-Site Manager		b. Address	
X	MA	00000	000-000-0000
c. City/Town	d. State	e. Zip Code	f. Telephone

5.

X	X
a. Name of General Contractor	b. Address

X	MA	00000	000-000-0000
c. City/Town	d. State	e. Zip Code	f. Telephone

X

g. Contractor's Worker's Compensation Insurer

X	01/01/2021
h. Policy #	i. Expiration Date (MM/DD/YYYY)

6. What is the size of this facility?

50000	2
a. Square Feet	b. # of Floors

Note: Temporary storage of Asbestos containing waste material is only allowed at the place of business of a DLS licensed Asbestos contractor or a transfer station that is permitted by MassDEP and operated in compliance with Solid Waste Regulations 310 CMR 19.000

C. Asbestos Transportation & Disposal

1. Transporter of asbestos-containing waste material from site of generation:

[ ] a. Directly to Landfill or [✓] b. To Temporary Storage Location/Transfer Station

NEW ENGLAND SURFACE MAINTENANCE, LLP	850 WASHINGTON STREET
c. Name of Transporter	d. Address

WEYMOUTH	MA	02189	Privacy
e. City/Town	f. State	g. Zip Code	h. Telephone

2. If a temporary storage location/transfer station is used, list name of transporter of asbestos containing waste material from temporary storage location/transfer station to final disposal site:

RED TECHNOLOGIES	10 NORTHWOOD DRIVE
a. Name of Transporter	b. Address

BLOOMFIELD	CT	06002	Privacy
c. City/Town	d. State	e. Zip Code	f. Telephone

3. Name and address of temporary storage location/transfer station for the asbestos containing waste material:

RED TECHNOLOGIES	203 PICKERING STREET
a. Temporary Storage Location Name	b. Address

PORTLAND	CT	06480	Privacy
c. City/Town	d. State	e. Zip Code	f. Telephone

4. Name and location of final disposal site (asbestos landfill):

MINERVA ENTERPRISES	MINERVA
a. Final Disposal Site Name	b. Final Disposal Site Owner Name

9000 MINERVA ROAD

c. Address

Note: Contractor must sign this form for DLS notification purposes

WAYNESBURG	OH	44688	Privacy
d. City/Town	e. State	f. Zip Code	g. Telephone

D. Certification

"I certify that I have personally examined the foregoing and am familiar with the information contained in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including possible fines and imprisonment. The undersigned hereby states that I have read the

JIM DOYLE	JIM DOYLE
1. Name	2. Authorized Signature
PARTNER	12/23/2019
3. Position/Title	4. Date (MM/DD/YYYY)
Privacy	NESM, LLP
5. Telephone	6. Representing
850 WASHINGTON STREET	WEYMOUTH
7. Address	8. City/Town
MA	02189
9. State	10. Zip Code

Commonwealth of Massachusetts regulations governing asbestos abatement (453 CMR 6.00 promulgated by the Department of Labor Standards and 310 CMR 7.15 promulgated by the Department of Environmental Protection), and that I am aware that this permit application or notification shall not be deemed valid unless payment of the applicable fee is made."

Redaction Log

Reason	Page (# of occurrences)	Description
Privacy Information	**1** (6) **2** (2) **3** (5)	---

Redaction Log

Reason	Page (# of occurrences)	Description
Privacy Information	**1** (1)	---

Massachusetts Department of Environmental Protection

BWP AQ 04 (ANF-001)

Asbestos Notification Form

Privacy

Asbestos Project #

☐ Project Revision

☐ Project Cancellation

A. Asbestos Abatement Description

1. Facility Location:

COUNTRYSIDE SCHOOL		191 DEDHAM STREET	
a. Name of Facility		b. Street Address	
NEWTON	MA	02461	000-000-0000
c. City/Town	d. State	e. Zip Code	f. Telephone
JOSEPH CROSSEN		FACILITIES MANAGER	
g. Facility Contact Person Name		h. Facility Contact Person Title	

Worksite Location: BOILER ROOM

i. Building Name, Wing, Floor, Room, etc.

Instructions 1. All sections of this form must be completed in order to comply with MassDEP notification requirements of 310 CMR 7.15 and Department of Labor Standards (DLS) notification requirements of 453 CMR 6.12

2. Is the facility occupied? ☑ a. Yes ☐ b. No

3. Is this a fee exempt notification (city, town, district, municipal housing authority, state facility, or owner-occupied residential property of four units or less)? ☑ a. Yes ☐ b. No

4. Blanket Permit Project Approval, if applicable: Approval ID #

5. Non-Traditional Asbestos Abatement Work Practice Approval, if applicable: Approval ID #

MassDEP Use Only

Date Received

6. Asbestos Contractor:

NEW ENGLAND SURFACE MAINTENANCE LLP		850 WASHINGTON ST	
a. Name		b. Address	
WEYMOUTH	MA	02189	Privacy
c. City/Town	d. State	e. Zip Code	f. Telephone
AC000196		h. Contract Type: ☑ 1. Written ☐ 2. Verbal	
g. DLS License #			

7. JOSE VILLALTA — Privacy
   a. Name of Contractor's On-Site Supervisor/Foreman — b. DLS Certification #
8. LEONARD J. BUSA — Privacy
   a. Name of Project Monitor — b. DLS Certification #
9. UNIVERSAL ENVIRONMENTAL CONSULTANTS — Privacy
   a. Name of Asbestos Analytical Lab — b. DLS Certification #
10. 10/01/2020 — 10/01/2020
    a. Project Start Date (MM/DD/YYYY) — b. End Date (MM/DD/YYYY)
    1--10 — c. Work Hours - Monday Through Friday
    N/A — d. Work Hours - Saturday & Sunday

11. What type of project is this?

☐ a. Demolition ☑ b. Renovation ☐ c. Repair ☐ d. Other - Please Specify:

12. Abatement procedures (check all that apply):

☑ a. Glove Bag ☐ b. Encapsulation ☐ c. Enclosure ☐ d. Disposal Only ☐ e. Cleanup ☐ f. Full Containment

☐ g. Other - Please Specify:

13. Job is being conducted: [x] a. Indoors [ ] b. Outdoors

14 a. Total amount of each type of asbestos Containing materials (ACM) to be removed, enclosed, or encapsulated:

	1. Linear Feet (Lin. Ft.)	2. Square Feet (Sq. Ft.)
	50	

	1. Lin. Ft.	2. Sq. Ft.		1. Lin. Ft.	2. Sq. Ft.
b. Boiler, Breaching, Duct, Tank Surface Coatings			c. Transite Pipe		
d. Pipe Insulation	50		e. Transite Shingles		
f. Spray-On Fireproofing			g. Transite Panels		
h. Cloths, Woven Fabrics			i. Other - Please Specify:		
j. Insulating Cement					

15. Describe the decontamination system(s) to be used:

AS REQUIRED

16. Describe the containerization/disposal methods to comply with 310 CMR 7.15 and 453 CMR 6.14(2)(g):

AS REQUIRED

17. For Emergency Asbestos Operations, the MassDEP and DLS officials who evaluated the emergency:

ANDREW DANIKAS	INSPECTOR
a. Name of MassDEP Official	b. Title of MassDEP Official
09/30/2020	Privacy
c. Date of Authorization (MM/DD/YYYY)	d. Waiver #
ON-LINE	ON-LINE
e. Name of DLS Official	f. Title of DLS Official
10/01/2020	Privacy
g. Date of Authorization (MM/DD/YYYY)	h. Waiver #

18. Do prevailing wage rates as per M.G.L. c. 149, § 26, 27 or 27A–F apply to this project? [x] a. Yes [ ] b. No

B. Facility Description

1. Current or prior use of facility: SCHOOL

2. Is the facility owner-occupied residential with 4 units or less? [ ] a. Yes [x] b. No

3.	CITY OF NEWTON		52 ELLIOT STREET	
	a. Facility Owner Name		b. Address	
	NEWTON HIGHLANDS	MA	02461	000-000-0000
	c. City/Town	d. State	e. Zip Code	f. Telephone
4.	X		X	
	a. Name of Facility Owner's On-Site Manager		b. Address	
	X	MA	00000	000-000-0000
	c. City/Town	d. State	e. Zip Code	f. Telephone
5.	X		X	
	a. Name of General Contractor		b. Address	

X	MA	00000	000-000-0000
c. City/Town	d. State	e. Zip Code	f. Telephone

X

g. Contractor's Worker's Compensation Insurer

X	01/01/2021
h. Policy #	i. Expiration Date (MM/DD/YYYY)

6. What is the size of this facility?

50000	3
a. Square Feet	b. # of Floors

Note: Temporary storage of Asbestos containing waste material is only allowed at the place of business of a DLS licensed Asbestos contractor or a transfer station that is permitted by MassDEP and operated in compliance with Solid Waste Regulations 310 CMR 19.000

C. Asbestos Transportation & Disposal

1. Transporter of asbestos-containing waste material from site of generation:

☐ a. Directly to Landfill or ☑ b. To Temporary Storage Location/Transfer Station

NEW ENGLAND SURFACE MAINTENANCE, LLP	850 WASHINGTON STREET
c. Name of Transporter	d. Address

WEYMOUTH	MA	02189	Privacy
e. City/Town	f. State	g. Zip Code	h. Telephone

2. If a temporary storage location/transfer station is used, list name of transporter of asbestos containing waste material from temporary storage location/transfer station to final disposal site:

RED TECHNOLOGIES	10 NORTHWOOD DRIVE
a. Name of Transporter	b. Address

BLOOMFIELD	CT	06002	Privacy
c. City/Town	d. State	e. Zip Code	f. Telephone

3. Name and address of temporary storage location/transfer station for the asbestos containing waste material:

RED TECHNOLOGIES	203 PICKERING STREET
a. Temporary Storage Location Name	b. Address

PORTLAND	CT	06480	[redacted]
c. City/Town	d. State	e. Zip Code	f. Telephone

4. Name and location of final disposal site (asbestos landfill):

MINERVA ENTERPRISES	MINERVA
a. Final Disposal Site Name	b. Final Disposal Site Owner Name

9000 MINERVA ROAD

c. Address

WAYNESBURG	OH	44688	Privacy
d. City/Town	e. State	f. Zip Code	g. Telephone

Note: Contractor must sign this form for DLS notification purposes

D. Certification

"I certify that I have personally examined the foregoing and am familiar with the information contained in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including possible fines and imprisonment. The undersigned hereby states that I have read the

JIM DOYLE	JIM DOYLE
1. Name	2. Authorized Signature
PARTNER	10/01/2020
3. Position/Title	4. Date (MM/DD/YYYY)
Privacy	NESM, LLP
5. Telephone	6. Representing
850 WASHINGTON STREET	WEYMOUTH
7. Address	8. City/Town
MA	02189
9. State	10. Zip Code

Commonwealth of Massachusetts regulations governing asbestos abatement (453 CMR 6.00 promulgated by the Department of Labor Standards and 310 CMR 7.15 promulgated by the Department of Environmental Protection), and that I am aware that this permit application or notification shall not be deemed valid unless payment of the applicable fee is made."

Redaction Log

Reason	Page (# of occurrences)	Description
no reason	**3** (1)	---
Privacy Information	**1** (5) **2** (2) **3** (4)	---

Massachusetts Department of Environmental Protection

BWP AQ 04 (ANF-001)

Asbestos Notification Form

Privacy

Asbestos Project #

☐ Project Revision

☐ Project Cancellation

A. Asbestos Abatement Description

1. Facility Location:

COUNTRYSIDE SCHOOL			191 DEDHAM STREET	
a. Name of Facility			b. Street Address	
NEWTON	MA	02461	000-000-0000	
c. City/Town	d. State	e. Zip Code	f. Telephone	
JOSEPH CROSSEN			FACILITIES DIRECTOR	
g. Facility Contact Person Name			h. Facility Contact Person Title	

Worksite Location: BASEMENT

i. Building Name, Wing, Floor, Room, etc.

Instructions 1. All sections of this form must be completed in order to comply with MassDEP notification requirements of 310 CMR 7.15 and Department of Labor Standards (DLS) notification requirements of 453 CMR 6.12

2. Is the facility occupied? ☑ a. Yes ☐ b. No

3. Is this a fee exempt notification (city, town, district, municipal housing authority, state facility, or owner-occupied residential property of four units or less)? ☑ a. Yes ☐ b. No

4. Blanket Permit Project Approval, if applicable: Approval ID #

5. Non-Traditional Asbestos Abatement Work Practice Approval, if applicable: Approval ID #

MassDEP Use Only

Date Received

6. Asbestos Contractor:

NEW ENGLAND SURFACE MAINTENANCE LLP			850 WASHINGTON ST	
a. Name			b. Address	
WEYMOUTH	MA	02189	Privacy	
c. City/Town	d. State	e. Zip Code	f. Telephone	
Privacy			h. Contract Type: ☑ 1. Written ☐ 2. Verbal	
g. DLS License #				

7. JOSE VILLALTA — a. Name of Contractor's On-Site Supervisor/Foreman; Privac — b. DLS Certification #

8. RICHARD K. BOWEN — a. Name of Project Monitor; Privacy — b. DLS Certification #

9. FLI ENVIRONMENTAL INC — a. Name of Asbestos Analytical Lab; Privacy — b. DLS Certification #

10.

01/30/2020	01/30/2020
a. Project Start Date (MM/DD/YYYY)	b. End Date (MM/DD/YYYY)
6-11:30	N/A
c. Work Hours - Monday Through Friday	d. Work Hours - Saturday & Sunday

11. What type of project is this?

☐ a. Demolition ☑ b. Renovation ☐ c. Repair ☐ d. Other - Please Specify:

12. Abatement procedures (check all that apply):

☐ a. Glove Bag ☐ b. Encapsulation ☐ c. Enclosure ☐ d. Disposal Only ☐ e. Cleanup ☑ f. Full Containment

☐ g. Other - Please Specify:

13. Job is being conducted: [x] a. Indoors [ ] b. Outdoors

14 a. Total amount of each type of asbestos Containing materials (ACM) to be removed, enclosed, or encapsulated:

	1. Linear Feet (Lin. Ft.)	2. Square Feet (Sq. Ft.)
	20	

	1. Lin. Ft.	2. Sq. Ft.		1. Lin. Ft.	2. Sq. Ft.
b. Boiler, Breaching, Duct, Tank Surface Coatings			c. Transite Pipe		
d. Pipe Insulation	20		e. Transite Shingles		
f. Spray-On Fireproofing			g. Transite Panels		
h. Cloths, Woven Fabrics			i. Other - Please Specify:		
j. Insulating Cement					

15. Describe the decontamination system(s) to be used:

AS REQUIRED

16. Describe the containerization/disposal methods to comply with 310 CMR 7.15 and 453 CMR 6.14(2)(g):

AS REQUIRED

17. For Emergency Asbestos Operations, the MassDEP and DLS officials who evaluated the emergency:

PETER SEWARD	INSPECTOR
a. Name of MassDEP Official	b. Title of MassDEP Official
01/29/2020	Privacy
c. Date of Authorization (MM/DD/YYYY)	d. Waiver #
ON-LINE	ON-LINE
e. Name of DLS Official	f. Title of DLS Official
01/30/2020	Privacy
g. Date of Authorization (MM/DD/YYYY)	h. Waiver #

18. Do prevailing wage rates as per M.G.L. c. 149, § 26, 27 or 27A–F apply to this project? [x] a. Yes [ ] b. No

B. Facility Description

1. Current or prior use of facility: SCHOOL

2. Is the facility owner-occupied residential with 4 units or less? [ ] a. Yes [x] b. No

3.	CITY OF NEWTON		52 ELLIOT STREET	
	a. Facility Owner Name		b. Address	
	NEWTON HIGHLANDS	MA	02461	000-000-0000
	c. City/Town	d. State	e. Zip Code	f. Telephone
4.	X		X	
	a. Name of Facility Owner's On-Site Manager		b. Address	
	X	MA	00000	000-000-0000
	c. City/Town	d. State	e. Zip Code	f. Telephone
5.	X		X	
	a. Name of General Contractor		b. Address	

X	MA	00000	000-000-0000
c. City/Town	d. State	e. Zip Code	f. Telephone

X

g. Contractor's Worker's Compensation Insurer

X	01/01/2021
h. Policy #	i. Expiration Date (MM/DD/YYYY)

6. What is the size of this facility?

80000	3
a. Square Feet	b. # of Floors

Note: Temporary storage of Asbestos containing waste material is only allowed at the place of business of a DLS licensed Asbestos contractor or a transfer station that is permitted by MassDEP and operated in compliance with Solid Waste Regulations 310 CMR 19.000

C. Asbestos Transportation & Disposal

1. Transporter of asbestos-containing waste material from site of generation:

☐ a. Directly to Landfill or ☑ b. To Temporary Storage Location/Transfer Station

NEW ENGLAND SURFACE MAINTENANCE, LLP	850 WASHINGTON STREET
c. Name of Transporter	d. Address

WEYMOUTH	MA	02189	Privacy
e. City/Town	f. State	g. Zip Code	h. Telephone

2. If a temporary storage location/transfer station is used, list name of transporter of asbestos containing waste material from temporary storage location/transfer station to final disposal site:

RED TECHNOLOGIES	10 NORTHWOOD DRIVE
a. Name of Transporter	b. Address

BLOOMFIELD	CT	06002	Privacy
c. City/Town	d. State	e. Zip Code	f. Telephone

3. Name and address of temporary storage location/transfer station for the asbestos containing waste material:

RED TECHNOLOGIES	203 PICKERING STREET
a. Temporary Storage Location Name	b. Address

PORTLAND	CT	06480	Privacy
c. City/Town	d. State	e. Zip Code	f. Telephone

4. Name and location of final disposal site (asbestos landfill):

MINERVA ENTERPRISES	MINERVA
a. Final Disposal Site Name	b. Final Disposal Site Owner Name

9000 MINERVA ROAD

c. Address

Note: Contractor must sign this form for DLS notification purposes

WAYNESBURG	OH	44688	Privacy
d. City/Town	e. State	f. Zip Code	g. Telephone

D. Certification

"I certify that I have personally examined the foregoing and am familiar with the information contained in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including possible fines and imprisonment. The undersigned hereby states that I have read the

JIM DOYLE	JIM DOYLE
1. Name	2. Authorized Signature
PARTNER	01/30/2020
3. Position/Title	4. Date (MM/DD/YYYY)
Privacy	NESM, LLP
5. Telephone	6. Representing
850 WASHINGTON STREET	WEYMOUTH
7. Address	8. City/Town
MA	02189
9. State	10. Zip Code

Commonwealth of Massachusetts regulations governing asbestos abatement (453 CMR 6.00 promulgated by the Department of Labor Standards and 310 CMR 7.15 promulgated by the Department of Environmental Protection), and that I am aware that this permit application or notification shall not be deemed valid unless payment of the applicable fee is made."

Redaction Log

Reason	Page (# of occurrences)	Description
Privacy Information	**1** (6) **2** (2) **3** (5)	---

Massachusetts Department of Environmental Protection

BWP AQ 04 (ANF-001)

Asbestos Notification Form

Privacy

Asbestos Project #

☐ Project Revision

☐ Project Cancellation

A. Asbestos Abatement Description

1. Facility Location:

COUNTRYSIDE SCHOOL		191 DEDHAM STREET	
a. Name of Facility		b. Street Address	
NEWTON	MA	02461	000-000-0000
c. City/Town	d. State	e. Zip Code	f. Telephone
JOSEPH CROSSEN		FACILITIES DIRECTOR	
g. Facility Contact Person Name		h. Facility Contact Person Title	

Worksite Location: CRAWLSPACE

i. Building Name, Wing, Floor, Room, etc.

Instructions 1. All sections of this form must be completed in order to comply with MassDEP notification requirements of 310 CMR 7.15 and Department of Labor Standards (DLS) notification requirements of 453 CMR 6.12

2. Is the facility occupied? ☑ a. Yes ☐ b. No

3. Is this a fee exempt notification (city, town, district, municipal housing authority, state facility, or owner-occupied residential property of four units or less)? ☑ a. Yes ☐ b. No

4. Blanket Permit Project Approval, if applicable:

Approval ID #

5. Non-Traditional Asbestos Abatement Work Practice Approval, if applicable:

Approval ID #

MassDEP Use Only

Date Received

6. Asbestos Contractor:

NEW ENGLAND SURFACE MAINTENANCE LLP		850 WASHINGTON ST	
a. Name		b. Address	
WEYMOUTH	MA	02189	Privacy
c. City/Town	d. State	e. Zip Code	f. Telephone
Privac		h. Contract Type: ☑ 1. Written ☐ 2. Verbal	
g. DLS License #			

7. JOSE VILLALTA — Privacy
   a. Name of Contractor's On-Site Supervisor/Foreman — b. DLS Certification #
8. LEONARD J. BUSA — Privacy
   a. Name of Project Monitor — b. DLS Certification #
9. UNIVERSAL ENVIRONMENTAL CONSULTANTS — Privacy
   a. Name of Asbestos Analytical Lab — b. DLS Certification #
10. 01/29/2021 — 01/29/2021
    a. Project Start Date (MM/DD/YYYY) — b. End Date (MM/DD/YYYY)
    3PM-10PM — N/A
    c. Work Hours - Monday Through Friday — d. Work Hours - Saturday & Sunday

11. What type of project is this?

☐ a. Demolition ☐ b. Renovation ☑ c. Repair ☐ d. Other - Please Specify:

12. Abatement procedures (check all that apply):

☑ a. Glove Bag ☐ b. Encapsulation ☐ c. Enclosure ☐ d. Disposal Only ☐ e. Cleanup ☑ f. Full Containment

☐ g. Other - Please Specify:

13. Job is being conducted: [x] a. Indoors [ ] b. Outdoors

14 a. Total amount of each type of asbestos Containing materials (ACM) to be removed, enclosed, or encapsulated:

	1. Linear Feet (Lin. Ft.)	2. Square Feet (Sq. Ft.)
	10	

	1. Lin. Ft.	2. Sq. Ft.		1. Lin. Ft.	2. Sq. Ft.
b. Boiler, Breaching, Duct, Tank Surface Coatings			c. Transite Pipe		
d. Pipe Insulation	10		e. Transite Shingles		
f. Spray-On Fireproofing			g. Transite Panels		
h. Cloths, Woven Fabrics			i. Other - Please Specify:		
j. Insulating Cement					

15. Describe the decontamination system(s) to be used:

AS REQUIRED

16. Describe the containerization/disposal methods to comply with 310 CMR 7.15 and 453 CMR 6.14(2)(g):

AS REQUIRED

17. For Emergency Asbestos Operations, the MassDEP and DLS officials who evaluated the emergency:

PETER SEWARD	INSPECTOR
a. Name of MassDEP Official	b. Title of MassDEP Official
01/29/2021	Privacy
c. Date of Authorization (MM/DD/YYYY)	d. Waiver #
ON LINE	ON LINE
e. Name of DLS Official	f. Title of DLS Official
01/29/2021	Privacy
g. Date of Authorization (MM/DD/YYYY)	h. Waiver #

18. Do prevailing wage rates as per M.G.L. c. 149, § 26, 27 or 27A–F apply to this project? [x] a. Yes [ ] b. No

B. Facility Description

1. Current or prior use of facility: SCHOOL

2. Is the facility owner-occupied residential with 4 units or less? [ ] a. Yes [x] b. No

3.	CITY OF NEWTON		3 CITY HALL SQUARE	
	a. Facility Owner Name		b. Address	
	NEWTON HIGHLANDS	MA	02461	000-000-0000
	c. City/Town	d. State	e. Zip Code	f. Telephone
4.	X		X	
	a. Name of Facility Owner's On-Site Manager		b. Address	
	X	MA	00000	000-000-0000
	c. City/Town	d. State	e. Zip Code	f. Telephone
5.	X		X	
	a. Name of General Contractor		b. Address	

X	MA	00000	000-000-0000
c. City/Town	d. State	e. Zip Code	f. Telephone

X

g. Contractor's Worker's Compensation Insurer

X	01/01/2022
h. Policy #	i. Expiration Date (MM/DD/YYYY)

6. What is the size of this facility?

80000	2
a. Square Feet	b. # of Floors

Note: Temporary storage of Asbestos containing waste material is only allowed at the place of business of a DLS licensed Asbestos contractor or a transfer station that is permitted by MassDEP and operated in compliance with Solid Waste Regulations 310 CMR 19.000

C. Asbestos Transportation & Disposal

1. Transporter of asbestos-containing waste material from site of generation:

☐ a. Directly to Landfill or ☑ b. To Temporary Storage Location/Transfer Station

NEW ENGLAND SURFACE MAINTENANCE, LLP	850 WASHINGTON STREET
c. Name of Transporter	d. Address

WEYMOUTH	MA	02189	Privacy
e. City/Town	f. State	g. Zip Code	h. Telephone

2. If a temporary storage location/transfer station is used, list name of transporter of asbestos containing waste material from temporary storage location/transfer station to final disposal site:

RED TECHNOLOGIES	10 NORTHWOOD DRIVE
a. Name of Transporter	b. Address

BLOOMFIELD	CT	06002	Privacy
c. City/Town	d. State	e. Zip Code	f. Telephone

3. Name and address of temporary storage location/transfer station for the asbestos containing waste material:

RED TECHNOLOGIES	203 PICKERING STREET
a. Temporary Storage Location Name	b. Address

PORTLAND	CT	06480	Privacy
c. City/Town	d. State	e. Zip Code	f. Telephone

4. Name and location of final disposal site (asbestos landfill):

MINERVA ENTERPRISES	MINERVA
a. Final Disposal Site Name	b. Final Disposal Site Owner Name

9000 MINERVA ROAD

c. Address

WAYNESBURG	OH	44688	Privacy
d. City/Town	e. State	f. Zip Code	g. Telephone

Note: Contractor must sign this form for DLS notification purposes

D. Certification

"I certify that I have personally examined the foregoing and am familiar with the information contained in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including possible fines and imprisonment. The undersigned hereby states that I have read the

JIM DOYLE	JIM DOYLE
1. Name	2. Authorized Signature
PARTNER	01/29/2021
3. Position/Title	4. Date (MM/DD/YYYY)
Privacy	NESM, LLP
5. Telephone	6. Representing
850 WASHINGTON STREET	WEYMOUTH
7. Address	8. City/Town
MA	02189
9. State	10. Zip Code

Commonwealth of Massachusetts regulations governing asbestos abatement (453 CMR 6.00 promulgated by the Department of Labor Standards and 310 CMR 7.15 promulgated by the Department of Environmental Protection), and that I am aware that this permit application or notification shall not be deemed valid unless payment of the applicable fee is made."

Redaction Log

Reason	Page (# of occurrences)	Description
Privacy Information	**1** (6) **2** (2) **3** (5)	---

Massachusetts Department of Environmental Protection

BWP AQ 04 (ANF-001)

Asbestos Notification Form

Privacy

Asbestos Project #

☐ Project Revision

☐ Project Cancellation

A. Asbestos Abatement Description

1. Facility Location:

COUNTRYSIDE SCHOOL	191 DEDHAM STREET
a. Name of Facility	b. Street Address
NEWTON / MA	02461 / 000-000-0000
c. City/Town / d. State	e. Zip Code / f. Telephone
JOSEPH CROSSEN	FACILITIES DIRECTOR
g. Facility Contact Person Name	h. Facility Contact Person Title
Worksite Location:	2ND FLOOR
	i. Building Name, Wing, Floor, Room, etc.

Instructions 1. All sections of this form must be completed in order to comply with MassDEP notification requirements of 310 CMR 7.15 and Department of Labor Standards (DLS) notification requirements of 453 CMR 6.12

2. Is the facility occupied? ☐ a. Yes ☐ b. No

3. Is this a fee exempt notification (city, town, district, municipal housing authority, state facility, or owner-occupied residential property of four units or less)? ☐ a. Yes ☐ b. No

4. Blanket Permit Project Approval, if applicable:

Approval ID #

5. Non-Traditional Asbestos Abatement Work Practice Approval, if applicable:

Approval ID #

MassDEP Use Only

Date Received

6. Asbestos Contractor:

NEW ENGLAND SURFACE MAINTENANCE LLP	850 WASHINGTON ST
a. Name	b. Address
WEYMOUTH / MA	02189 / Privacy
c. City/Town / d. State	e. Zip Code / f. Telephone
Privacy	h. Contract Type: 1. Written 2. Verbal
g. DLS License #	

7. JOSE VILLALTA — Privacy
   a. Name of Contractor's On-Site Supervisor/Foreman — b. DLS Certification #

8. LEONARD J. BUSA — Privacy
   a. Name of Project Monitor — b. DLS Certification #

9. UNIVERSAL ENVIRONMENTAL CONSULTANTS INC — Privacy
   a. Name of Asbestos Analytical Lab — b. DLS Certification #

10. 03/31/2022 — 03/31/2022
    a. Project Start Date (MM/DD/YYYY) — b. End Date (MM/DD/YYYY)
    3PM-10PM — N/A
    c. Work Hours - Monday Through Friday — d. Work Hours - Saturday & Sunday

11. What type of project is this?

☐ a. Demolition ☐ b. Renovation ☐ c. Repair ☐ d. Other - Please Specify:

12. Abatement procedures (check all that apply):

☐ a. Glove Bag ☐ b. Encapsulation ☐ c. Enclosure ☐ d. Disposal Only ☐ e. Cleanup ☐ f. Full Containment

☐ g. Other - Please Specify:

13. Job is being conducted: [ ] a. Indoors [ ] b. Outdoors

14 a. Total amount of each type of asbestos Containing materials (ACM) to be removed, enclosed, or encapsulated:

1. Linear Feet (Lin. Ft.)	2. Square Feet (Sq. Ft.)
10	

	1. Lin. Ft.	2. Sq. Ft.		1. Lin. Ft.	2. Sq. Ft.
b. Boiler, Breaching, Duct, Tank			c. Transite Pipe		
Surface Coatings d. Pipe Insulation			e. Transite Shingles		
f. Spray-On Fireproofing			g. Transite Panels		
h. Cloths, Woven Fabrics			i. Other - Please Specify:		
j. Insulating Cement			VIBRATION DAMPER	10	

15. Describe the decontamination system(s) to be used:

AS REQUIRED

16. Describe the containerization/disposal methods to comply with 310 CMR 7.15 and 453 CMR 6.14(2)(g):

AS REQUIRED

17. For Emergency Asbestos Operations, the MassDEP and DLS officials who evaluated the emergency:

a. Name of MassDEP Official	b. Title of MassDEP Official
c. Date of Authorization (MM/DD/YYYY)	d. Waiver #
e. Name of DLS Official	f. Title of DLS Official
g. Date of Authorization (MM/DD/YYYY)	h. Waiver #

18. Do prevailing wage rates as per M.G.L. c. 149, § 26, 27 or 27A–F apply to this project? [ ] a. Yes [ ] b. No

B. Facility Description

1. Current or prior use of facility: SCHOOL

2. Is the facility owner-occupied residential with 4 units or less? [ ] a. Yes [ ] b. No

3.	CITY OF NEWTON	52 ELLIOT STREET		
	a. Facility Owner Name	b. Address		
	NEWTON HIGHLANDS	MA	02461	000-000-0000
	c. City/Town	d. State	e. Zip Code	f. Telephone
4.	X	X		
	a. Name of Facility Owner's On-Site Manager	b. Address		

X		MA	00000	000-000-0000

5. C X Zi X

a. Name of General Contractor — b. Address

X	MA	00000	000-000-0000
c. City/Town	d. State	e. Zip Code	f. Telephone

X

g. Contractor's Worker's Compensation Insurer

X	01/01/2023
h. Policy #	i. Expiration Date (MM/DD/YYYY)

6. What is the size of this facility?

50000	3
a. Square Feet	b. # of Floors

Note: Temporary storage of Asbestos containing waste material is only allowed at the place of business of a DLS licensed Asbestos contractor or a transfer station that is permitted by MassDEP and operated in compliance with Solid Waste Regulations 310 CMR 19.000

C. Asbestos Transportation & Disposal

1. Transporter of asbestos-containing waste material from site of generation:

☐ a. Directly to Landfill or ☐ b. To Temporary Storage Location/Transfer Station

NEW ENGLAND SURFACE MAINTENANCE, LLP		850 WASHINGTON STREET	
c. Name of Transporter		d. Address	
WEYMOUTH	MA	02189	Privacy
e. City/Town	f. State	g. Zip Code	h. Telephone

2. If a temporary storage location/transfer station is used, list name of transporter of asbestos containing waste material from temporary storage location/transfer station to final disposal site:

RED TECHNOLOGIES		173 PICKERING STREET	
a. Name of Transporter		b. Address	
PORTLAND	CT	06480	Privacy
c. City/Town	d. State	e. Zip Code	f. Telephone

3. Name and address of temporary storage location/transfer station for the asbestos containing waste material:

RED TECHNOLOGIES		173 PICKERING STREET	
a. Temporary Storage Location Name		b. Address	
PORTLAND	CT	06480	Privacy
c. City/Town	d. State	e. Zip Code	f. Telephone

4. Name and location of final disposal site (asbestos landfill):

MINERVA ENTERPRISES	M
a. Final Disposal Site Name	b. Final Disposal Site Owner Name

9000 MINERVA ROAD

c. Address

Note: Contractor must sign this form for DLS notification purposes

WAYNESBURG	OH	44688	Privacy
d. City/Town	e. State	f. Zip Code	g. Telephone

D. Certification

"I certify that I have personally examined the foregoing and am familiar with the information contained in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and

JIM DOYLE	JIM DOYLE
1. Name	2. Authorized Signature
PARTNER	03/17/2022
3. Position/Title	4. Date (MM/DD/YYYY)
Privacy	NESM, LLP
5. Telephone	6. Representing
Privacy	WEYMOUTH

complete. I am aware that there are significant penalties for submitting false information, including possible fines and imprisonment. The undersigned hereby states that I have read the Commonwealth of Massachusetts regulations governing asbestos abatement (453 CMR 6.00 promulgated by the Department of Labor Standards and 310 CMR 7.15 promulgated by the Department of Environmental Protection), and that I am aware that this permit application or notification shall not be deemed valid unless payment of the applicable fee is made."

7. Address

8. City/Town

MA

9. State

02189

10. Zip Code

Redaction Log

Reason	Page (# of occurrences)	Description
Privacy Information	**1** (6) **3** (6)	---

City of Newton

Request Visibility: Unpublished

Request 22-605 Closed

Dates

Received

July 22, 2022 via web

Requester

Katelyn Putt

kputt@lordenv.com

1506 Providence Hwy, Suite 30 , Norwood, MA, 02062

7817388673

Lord Environmental Inc

Request

Good Morning,

Lord Environmental is currently in the process of conducting a Phase I Environmental Site Assessment on the property 191 Dedham Street, Newton MA (Countryside Elementary School). As part of the Phase I process, we reach out to municipal offices to see who may hold records regarding use, storage, and releases of oil or other hazardous materials in connection with the property. Typical records we look for are as follows:

- Storage tanks (underground or aboveground)
- Storage of oil or other hazardous materials
- Release or spills of oil or other hazardous material

Staff Assigned

Departments

Health & Human Services

Point of contact

Shameka Hill

- Current or historic heating systems (natural gas, coal, oil)...

Show more

Timeline | Documents

Request Closed

Public

The City has finalized its review of your request for public records. A search of all public records in the custody and control of the City reveals that the attached documents are responsive to your request. There is no charge associated with this request. This completes the City's response.

In accordance with the state regulations pertaining to public records, you have the right to appeal the response to your request for records to the Supervisor of Public Records pursuant to 950 CMR 32.08.

Document(s) Released to Requester

Public

191 Dedham Street Wetlands.pdf
191 Dedham St ANF 2020.pdf-redacted.pdf
191 Dedham St ANF 2019.pdf-redacted.pdf-redacted.pdf
191 Dedham St. ANF 2020.pdf-redacted.pdf

191 Dedham St ANF 2021.pdf-redacted.pdf
191 Dedham Street Asbestos 03.25.2022.pdf-redacted.pdf

External Message Requester + Staff

July 22, 2022, 10:56am

Department Assignment Public

Health & Human Services

Request Opened Public

Request received via web

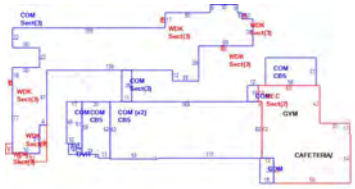
Property Record Card

Property

Property SBL	83006 0011
Address	191 DEDHAM ST
Tax Bill Number	2033377
Land Use	9340
Land Use Description	CITY IMPROVED EDUCATION
Lot Size	322,065 sq ft
Zoning	PUB
Map ID	129SW
ID	83006 0011

Primary Property Image

Property Sketch



Current Owner

Owner Information	CITY OF NEWTON SCHOOL DEPT-COUNTRYSIDE 1000 COMM AVE NEWTON, MA 02459

Sale History

Owner	CITY OF NEWTON
Co Owner	SCHOOL DEPT-COUNTRYSIDE
Sale Date	1900-01-01
Sale Price	$0
Legal Reference	

Assessment History

Assessed Value	Fiscal Year
$30,117,700	2022
$27,560,800	2021
$27,560,800	2020
$27,560,800	2019

Visit History

Visit Date	Type
2016-06-09	Interior
2014-05-02	Exterior
2013-06-13	Interior

Building General

Building Style	School
Year Built	1950
Story Height	2
Neighborhood Code	3

Building Exterior

Deck Area	714
Porch Area	sq ft

Building Interior

Rooms	57
Baths	8
Heat Type	Hot Water
Fuel Type	Typical
Air Conditioning	Unit/AC
Building Size	56,215 sq ft
Unfinished Attic Area	sq ft
Basement Area	8,852
Finished Basement Area	8852 sq ft

Building Area

Building Type	COMMERCIAL
Gross Building Area	65,781 sq ft
Effective Area	65,781 sq ft
Building Area	56,215 sq ft

Condominium

Number of Units	1

Detached Structures

Apartments

APPENDIX D

USER QUESTIONNAIRE

INTRODUCTION

Lord Environmental, Inc. has been retained to conduct a Phase I Environmental Site Assessment on the property addressed__191 Dedham Street, Newton, MA__. In accordance with our contract and the ASTM Method, we are required to ask the following questions. Please answer to the best of your ability and in good faith. This questionnaire may be used to qualify for one of the *Landowner Liability Protections* (LLPs) offered by the Small Business Liability Relief and Brownfields Revitalization Act of 2001, the *User* must provide the following information (if available) to the *Environmental Professional*. Failure to provide this information could result in a determination that "*all appropriate inquiry*" is not complete.

1. **Environmental cleanup liens that are filed or recorded against the site (40 CFR 312.25).**
   Are you aware of any environmental cleanup liens against the property that are filed or recorded under federal, tribal, state or local law? Ans. No

2. **Activity and Use Limitations that are in place on the site or that have been filed or recorded in a registry (40 CFR 312.26).**
   Are you aware of any AULs, such as *engineering controls*, land use restrictions or *institutional controls* that are in place at the site and/or have been filed or recorded in a registry under federal, state, tribal or local law? Ans. No

3. **Specialized knowledge or experience of the person seeking to qualify for the LLP (40 CFR 312.28).**
   As the *User* of this ESA, do you have any specialized knowledge or experience related to the property or nearby properties? For example, are you involved in the same line of business as the current or former occupants of the property or an adjoining property so that you would have specialized knowledge of the chemicals and processes used by this type of business? Ans. Former user of the property was Residential

4. **Relationship of the purchase price to the fair market value of the property if it were not contaminated (40 CFR 312.29).**
   Does the purchase price being paid for this property reasonably reflect the fair market value of the property? If you conclude that there is a difference, have you considered whether the lower price is because contamination is known or believed to be present at the property? Ans. N/A

5. **Commonly known or reasonably ascertainable information about the property (40 CFR 312.30).** Are you aware of commonly known or reasonably ascertainable information about the property that would help the environmental professional to identify conditions indicative of releases or threatened releases? For example, as *User*,

   a.) Do you know the past uses of the property? Ans. Residential

   b.) Do you know of specific chemicals that are present or once present at the property? Ans. No known chemicals are on site

   c.) Do you know of spills or other chemical releases that have taken place at the property? Ans. There have been none to the best of my knowledge

   d.) Do you know of any environmental cleanups that have taken place at the property? Ans. There have been none to the best of my knowledge

6. **The degree of obviousness of the presence of contamination at the property and the ability to detect the contamination by appropriate investigation (40 CFR 312.31).** As the *User* of this ESA, based on your knowledge and experience related to the property, are there any obvious indicators that point to the presence of contamination at the property? Ans. There is no known contamination at this property.

Site Address: <u>Countryside School, 191 Dedham Street, Newton Highlands, MA 02461</u>

Person Completing Questionnaire: _____Arthur Cabral_____

Phone # and/or email address: ___(617) 594-2457; acabral@newtonma.gov____

Relationship to Site: _____Owner's representative_____

Years associated with site: _____49 years_____

Date: ____September 13, 2022_____

Signature:  **_____**

APPENDIX E

TABLE 1						
Sample Results Comparison with Reportable Concentrations RCS-1 Criteria.						
Countryside School, Newton, MA						
CLIENT SAMPLE ID			FILL COMP		NATIVE COMP	
SAMPLING DATE			22-JUL-22		22-JUL-22	
	RCS-1-14	Units		Qual		Qual
General Chemistry						
Specific Conductance @ 25 C		umhos/cm	41		87	
Solids, Total		%	91.1		84.5	
pH (H)		SU	6.8		6.1	
Flash Point		deg F	>150		>150	
Cyanide, Reactive		mg/kg	10	U	10	U
Sulfide, Reactive		mg/kg	10	U	10	U
Total Metals						
Antimony, Total	20	mg/kg	2.95		2.31	U
Arsenic, Total	20	mg/kg	4.73		2.25	
Barium, Total	1000	mg/kg	85.5		38	
Beryllium, Total	90	mg/kg	0.206		0.231	U
Cadmium, Total	70	mg/kg	0.684		0.462	U
Chromium, Total	100	mg/kg	9.96		7.31	
Lead, Total	200	mg/kg	71.4		7.45	
Mercury, Total	20	mg/kg	0.069	U	0.075	U
Nickel, Total	600	mg/kg	8.34		6.4	
Selenium, Total	400	mg/kg	0.825	U	0.923	U
Silver, Total	100	mg/kg	0.412	U	0.462	U
Titanium, Total		mg/kg	184		181	
Vanadium, Total	400	mg/kg	13.2		11	
Zinc, Total	1000	mg/kg	87.5		18.8	
Volatile Organics by EPA 5035						
1,1,1,2-Tetrachloroethane	0.1	mg/kg	0.00029	U	0.00058	U
1,1,1-Trichloroethane	30	mg/kg	0.00029	U	0.00058	U
1,1,2,2-Tetrachloroethane	0.005	mg/kg	0.00029	U	0.00058	U
1,1,2-Trichloroethane	0.1	mg/kg	0.00057	U	0.0012	U
1,1-Dichloroethane	0.4	mg/kg	0.00057	U	0.0012	U
1,1-Dichloroethene	3	mg/kg	0.00057	U	0.0012	U
1,1-Dichloropropene		mg/kg	0.00029	U	0.00058	U
1,2,3-Trichlorobenzene		mg/kg	0.0011	U	0.0023	U
1,2,3-Trichloropropane	100	mg/kg	0.0011	U	0.0023	U
1,2,4-Trichlorobenzene	2	mg/kg	0.0011	U	0.0023	U
1,2,4-Trimethylbenzene	1000	mg/kg	0.0011	U	0.0023	U
1,2-Dibromo-3-chloropropane	10	mg/kg	0.0017	U	0.0035	U
1,2-Dibromoethane	0.1	mg/kg	0.00057	U	0.0012	U
1,2-Dichlorobenzene	9	mg/kg	0.0011	U	0.0023	U
1,2-Dichloroethane	0.1	mg/kg	0.00057	U	0.0012	U
1,2-Dichloroethene, Total		mg/kg	0.00057	U	0.0012	U
1,2-Dichloropropane	0.1	mg/kg	0.00057	U	0.0012	U
1,3,5-Trimethylbenzene	10	mg/kg	0.0011	U	0.0023	U

1,3-Dichlorobenzene	3	mg/kg	0.0011	U	0.0023	U
1,3-Dichloropropane	500	mg/kg	0.0011	U	0.0023	U
1,3-Dichloropropene, Total	0.01	mg/kg	0.00029	U	0.00058	U
1,4-Dichlorobenzene	0.7	mg/kg	0.0011	U	0.0023	U
1,4-Dichlorobutane		mg/kg	0.0057	U	0.012	U
2,2-Dichloropropane		mg/kg	0.0011	U	0.0023	U
2-Butanone	4	mg/kg	0.0057	U	0.012	U
2-Hexanone	100	mg/kg	0.0057	U	0.012	U
4-Methyl-2-pentanone	0.4	mg/kg	0.0057	U	0.012	U
Acetone	6	mg/kg	0.014	U	0.032	
Acrylonitrile		mg/kg	0.0023	U	0.0047	U
Benzene	2	mg/kg	0.00029	U	0.00058	U
Bromobenzene	100	mg/kg	0.0011	U	0.0023	U
Bromochloromethane		mg/kg	0.0011	U	0.0023	U
Bromodichloromethane	0.1	mg/kg	0.00029	U	0.00058	U
Bromoform	0.1	mg/kg	0.0023	U	0.0047	U
Bromomethane	0.5	mg/kg	0.0011	U	0.0023	U
Carbon disulfide	100	mg/kg	0.0057	U	0.012	U
Carbon tetrachloride	5	mg/kg	0.00057	U	0.0012	U
Chlorobenzene	1	mg/kg	0.00029	U	0.00058	U
Chloroethane	100	mg/kg	0.0011	U	0.0023	U
Chloroform	0.2	mg/kg	0.00086	U	0.0018	U
Chloromethane	100	mg/kg	0.0023	U	0.0047	U
cis-1,2-Dichloroethene	0.1	mg/kg	0.00057	U	0.0012	U
cis-1,3-Dichloropropene	0.01	mg/kg	0.00029	U	0.00058	U
Dibromochloromethane	0.005	mg/kg	0.00057	U	0.0012	U
Dibromomethane	500	mg/kg	0.0011	U	0.0023	U
Dichlorodifluoromethane	1000	mg/kg	0.0057	U	0.012	U
Ethyl ether	100	mg/kg	0.0011	U	0.0023	U
Ethyl methacrylate		mg/kg	0.0057	U	0.012	U
Ethylbenzene	40	mg/kg	0.00057	U	0.0012	U
Hexachlorobutadiene	30	mg/kg	0.0023	U	0.0047	U
Isopropylbenzene	1000	mg/kg	0.00057	U	0.0012	U
Methyl tert butyl ether	0.1	mg/kg	0.0011	U	0.0023	U
Methylene chloride	0.1	mg/kg	0.0029	U	0.0058	U
n-Butylbenzene		mg/kg	0.00057	U	0.0012	U
n-Propylbenzene	100	mg/kg	0.00057	U	0.0012	U
Naphthalene	4	mg/kg	0.0023	U	0.0047	U
o-Chlorotoluene	100	mg/kg	0.0011	U	0.0023	U
o-Xylene	100	mg/kg	0.00057	U	0.0012	U
p-Chlorotoluene		mg/kg	0.0011	U	0.0023	U
p-Isopropyltoluene	100	mg/kg	0.00057	U	0.0012	U
p/m-Xylene	100	mg/kg	0.0011	U	0.0023	U
sec-Butylbenzene		mg/kg	0.00057	U	0.0012	U
Styrene	3	mg/kg	0.00057	U	0.0012	U
tert-Butylbenzene	100	mg/kg	0.0011	U	0.0023	U
Tetrachloroethene	1	mg/kg	0.00029	U	0.00058	U
Tetrahydrofuran	500	mg/kg	0.0023	U	0.0047	U
Toluene	30	mg/kg	0.00066		0.0012	U
trans-1,2-Dichloroethene	1	mg/kg	0.00086	U	0.0018	U
trans-1,3-Dichloropropene	0.01	mg/kg	0.00057	U	0.0012	U
trans-1,4-Dichloro-2-butene		mg/kg	0.0029	U	0.0058	U

Trichloroethene	0.3	mg/kg	0.00029	U	0.00058	U
Trichlorofluoromethane	1000	mg/kg	0.0023	U	0.0047	U
Vinyl acetate	1000	mg/kg	0.0057	U	0.012	U
Vinyl chloride	0.7	mg/kg	0.00057	U	0.0012	U
Xylenes, Total	100	mg/kg	0.00057	U	0.0012	U
Semivolatile Organics by GC/MS						
1,2,4-Trichlorobenzene	2	mg/kg	0.18	U	0.19	U
1,2-Dichlorobenzene	9	mg/kg	0.18	U	0.19	U
1,3-Dichlorobenzene	3	mg/kg	0.18	U	0.19	U
1,4-Dichlorobenzene	0.7	mg/kg	0.18	U	0.19	U
1-Methylnaphthalene		mg/kg	0.18	U	0.19	U
2,4,5-Trichlorophenol	4	mg/kg	0.18	U	0.19	U
2,4,6-Trichlorophenol	0.7	mg/kg	0.11	U	0.12	U
2,4-Dichlorophenol	0.7	mg/kg	0.16	U	0.17	U
2,4-Dimethylphenol	0.7	mg/kg	0.18	U	0.19	U
2,4-Dinitrophenol	3	mg/kg	0.87	U	0.93	U
2,4-Dinitrotoluene	0.7	mg/kg	0.18	U	0.19	U
2,6-Dinitrotoluene	100	mg/kg	0.18	U	0.19	U
2-Chloronaphthalene	1000	mg/kg	0.18	U	0.19	U
2-Chlorophenol	0.7	mg/kg	0.18	U	0.19	U
2-Methylnaphthalene	0.7	mg/kg	0.22	U	0.23	U
2-Methylphenol	500	mg/kg	0.18	U	0.19	U
2-Nitroaniline		mg/kg	0.18	U	0.19	U
2-Nitrophenol	100	mg/kg	0.39	U	0.42	U
3,3'-Dichlorobenzidine	3	mg/kg	0.18	U	0.19	U
3-Methylphenol/4-Methylphenol	500	mg/kg	0.26	U	0.28	U
3-Nitroaniline		mg/kg	0.18	U	0.19	U
4,6-Dinitro-o-cresol	50	mg/kg	0.47	U	0.5	U
4-Bromophenyl phenyl ether	100	mg/kg	0.18	U	0.19	U
4-Chloroaniline	1	mg/kg	0.18	U	0.19	U
4-Chlorophenyl phenyl ether	1000	mg/kg	0.18	U	0.19	U
4-Nitroaniline	1000	mg/kg	0.18	U	0.19	U
4-Nitrophenol	100	mg/kg	0.25	U	0.27	U
Acenaphthene	4	mg/kg	0.14	U	0.15	U
Acenaphthylene	1	mg/kg	0.14	U	0.15	U
Aniline	1000	mg/kg	0.22	U	0.23	U
Anthracene	1000	mg/kg	0.11	U	0.12	U
Azobenzene	50	mg/kg	0.18	U	0.19	U
Benzidine		mg/kg	0.6	U	0.64	U
Benzo(a)anthracene	7	mg/kg	0.11	U	0.12	U
Benzo(a)pyrene	2	mg/kg	0.14	U	0.15	U
Benzo(b)fluoranthene	7	mg/kg	0.11	U	0.12	U
Benzo(ghi)perylene	1000	mg/kg	0.14	U	0.15	U
Benzo(k)fluoranthene	70	mg/kg	0.11	U	0.12	U
Benzoic Acid		mg/kg	0.59	U	0.63	U
Benzyl Alcohol		mg/kg	0.18	U	0.19	U
Biphenyl	0.05	mg/kg	0.41	U	0.44	U
Bis(2-chloroethoxy)methane	500	mg/kg	0.2	U	0.21	U
Bis(2-chloroethyl)ether	0.7	mg/kg	0.16	U	0.17	U
Bis(2-chloroisopropyl)ether	0.7	mg/kg	0.22	U	0.23	U
Bis(2-ethylhexyl)phthalate	90	mg/kg	0.18	U	0.19	U

Butyl benzyl phthalate	**100**	**mg/kg**	**0.18**	**U**	**0.19**	**U**
Carbazole		**mg/kg**	**0.18**	**U**	**0.19**	**U**
Chrysene	**70**	**mg/kg**	**0.11**	**U**	**0.12**	**U**
Di-n-butylphthalate	**50**	**mg/kg**	**0.18**	**U**	**0.19**	**U**
Di-n-octylphthalate	**1000**	**mg/kg**	**0.18**	**U**	**0.19**	**U**
Dibenzo(a,h)anthracene	**0.7**	**mg/kg**	**0.11**	**U**	**0.12**	**U**
Dibenzofuran	**100**	**mg/kg**	**0.18**	**U**	**0.19**	**U**
Diethyl phthalate	**10**	**mg/kg**	**0.18**	**U**	**0.19**	**U**
Dimethyl phthalate	**0.7**	**mg/kg**	**0.18**	**U**	**0.19**	**U**
Fluoranthene	**1000**	**mg/kg**	**0.13**		**0.12**	**U**
Fluorene	**1000**	**mg/kg**	**0.18**	**U**	**0.19**	**U**
Hexachlorobenzene	**0.7**	**mg/kg**	**0.11**	**U**	**0.12**	**U**
Hexachlorobutadiene	**30**	**mg/kg**	**0.18**	**U**	**0.19**	**U**
Hexachlorocyclopentadiene	**50**	**mg/kg**	**0.52**	**U**	**0.55**	**U**
Hexachloroethane	**0.7**	**mg/kg**	**0.14**	**U**	**0.15**	**U**
Indeno(1,2,3-cd)pyrene	**7**	**mg/kg**	**0.14**	**U**	**0.15**	**U**
Isophorone	**100**	**mg/kg**	**0.16**	**U**	**0.17**	**U**
n-Nitrosodi-n-propylamine	**50**	**mg/kg**	**0.18**	**U**	**0.19**	**U**
n-Nitrosodimethylamine	**50**	**mg/kg**	**0.36**	**U**	**0.39**	**U**
Naphthalene	**4**	**mg/kg**	**0.18**	**U**	**0.19**	**U**
NDPA/DPA	**100**	**mg/kg**	**0.14**	**U**	**0.15**	**U**
Nitrobenzene	**500**	**mg/kg**	**0.16**	**U**	**0.17**	**U**
p-Chloro-m-cresol	**1000**	**mg/kg**	**0.18**	**U**	**0.19**	**U**
Pentachlorophenol	**3**	**mg/kg**	**0.14**	**U**	**0.15**	**U**
Phenanthrene	**10**	**mg/kg**	**0.11**	**U**	**0.12**	**U**
Phenol	**1**	**mg/kg**	**0.18**	**U**	**0.19**	**U**
Pyrene	**1000**	**mg/kg**	**0.12**		**0.12**	**U**
Pyridine	**500**	**mg/kg**	**0.2**	**U**	**0.21**	**U**
Polychlorinated Biphenyls by GC						
Aroclor 1016	**1**	**mg/kg**	**0.0355**	**U**	**0.0377**	**U**
Aroclor 1221	**1**	**mg/kg**	**0.0355**	**U**	**0.0377**	**U**
Aroclor 1232	**1**	**mg/kg**	**0.0355**	**U**	**0.0377**	**U**
Aroclor 1242	**1**	**mg/kg**	**0.0355**	**U**	**0.0377**	**U**
Aroclor 1248	**1**	**mg/kg**	**0.0355**	**U**	**0.0377**	**U**
Aroclor 1254	**1**	**mg/kg**	**0.0355**	**U**	**0.0377**	**U**
Aroclor 1260	**1**	**mg/kg**	**0.0355**	**U**	**0.0377**	**U**
Aroclor 1262	**1**	**mg/kg**	**0.0355**	**U**	**0.0377**	**U**
Aroclor 1268	**1**	**mg/kg**	**0.0355**	**U**	**0.0377**	**U**
PCBs, Total	**1**	**mg/kg**	**0.0355**	**U**	**0.0377**	**U**
Petroleum Hydrocarbon Quantitation						
TPH (C10-C36)	**1000**	**mg/kg**	**87.5**		**126**	

ANALYTICAL REPORT

Lab Number:	L2239780
Client:	Lord Environmental, Inc. 1506 Providence Highway - Suite 30 Norwood, MA 02062
ATTN:	Oliver Leek
Phone:	(781) 255-5554
Project Name:	COUNTRYSIDE
Project Number:	3145
Report Date:	08/22/22

Certifications & Approvals: MA (M-MA086), NH NELAP (2064), CT (PH-0574), IL (200077), ME (MA00086), MD (348), NJ (MA935), NY (11148), NC (25700/666), PA (68-03671), RI (LAO00065), TX (T104704476), VT (VT-0935), VA (460195), USDA (Permit #P330-17-00196).

Eight Walkup Drive, Westborough, MA 01581-1019
508-898-9220 (Fax) 508-898-9193 800-624-9220 - www.alphalab.com

Project Name: COUNTRYSIDE
Project Number: 3145

Lab Number: L2239780
Report Date: 08/22/22

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L2239780-01	FILL COMP	SOIL	NEWTON	07/22/22 13:00	07/26/22
L2239780-02	NATIVE COMP	SOIL	NEWTON	07/22/22 13:00	07/26/22

Project Name:	COUNTRYSIDE	**Lab Number:**	L2239780
Project Number:	3145	**Report Date:**	08/22/22

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively.

When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances, the specific failure is not narrated but noted in the associated QC Outlier Summary Report, located directly after the Case Narrative. QC information is also incorporated in the Data Usability Assessment table (Format 11) of our Data Merger tool, where it can be reviewed in conjunction with the sample result, associated regulatory criteria and any associated data usability implications.

Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

HOLD POLICY - For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Alpha Project Manager and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Project Management at 800-624-9220 with any questions.

Project Name:	COUNTRYSIDE	**Lab Number:**	L2239780
Project Number:	3145	**Report Date:**	08/22/22

Case Narrative (continued)

Sample Receipt

L2239780-01 and -02: The water-preserved VOA vials for Volatile Organics Low-Level analysis were received at the laboratory beyond the 48 hour holding time required for freezing. The client was notified and the results of the analysis are reported.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature: Caitlin Walukevich

Caitlin Walukevich

Title: Technical Director/Representative

Date: 08/22/22

ORGANICS

VOLATILES

Project Name: COUNTRYSIDE **Lab Number:** L2239780

Project Number: 3145 **Report Date:** 08/22/22

SAMPLE RESULTS

Lab ID: L2239780-01
Client ID: FILL COMP
Sample Location: NEWTON

Date Collected: 07/22/22 13:00
Date Received: 07/26/22
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 1,8260C
Analytical Date: 07/29/22 01:48
Analyst: AJK
Percent Solids: 91%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
Methylene chloride	ND		ug/kg	2.9	--	1
1,1-Dichloroethane	ND		ug/kg	0.57	--	1
Chloroform	ND		ug/kg	0.86	--	1
Carbon tetrachloride	ND		ug/kg	0.57	--	1
1,2-Dichloropropane	ND		ug/kg	0.57	--	1
Dibromochloromethane	ND		ug/kg	0.57	--	1
1,1,2-Trichloroethane	ND		ug/kg	0.57	--	1
Tetrachloroethene	ND		ug/kg	0.29	--	1
Chlorobenzene	ND		ug/kg	0.29	--	1
Trichlorofluoromethane	ND		ug/kg	2.3	--	1
1,2-Dichloroethane	ND		ug/kg	0.57	--	1
1,1,1-Trichloroethane	ND		ug/kg	0.29	--	1
Bromodichloromethane	ND		ug/kg	0.29	--	1
trans-1,3-Dichloropropene	ND		ug/kg	0.57	--	1
cis-1,3-Dichloropropene	ND		ug/kg	0.29	--	1
1,3-Dichloropropene, Total	ND		ug/kg	0.29	--	1
1,1-Dichloropropene	ND		ug/kg	0.29	--	1
Bromoform	ND		ug/kg	2.3	--	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	0.29	--	1
Benzene	ND		ug/kg	0.29	--	1
Toluene	0.66		ug/kg	0.57	--	1
Ethylbenzene	ND		ug/kg	0.57	--	1
Chloromethane	ND		ug/kg	2.3	--	1
Bromomethane	ND		ug/kg	1.1	--	1
Vinyl chloride	ND		ug/kg	0.57	--	1
Chloroethane	ND		ug/kg	1.1	--	1
1,1-Dichloroethene	ND		ug/kg	0.57	--	1
trans-1,2-Dichloroethene	ND		ug/kg	0.86	--	1

Project Name: COUNTRYSIDE **Lab Number:** L2239780

Project Number: 3145 **Report Date:** 08/22/22

SAMPLE RESULTS

Lab ID: L2239780-01 Date Collected: 07/22/22 13:00

Client ID: FILL COMP Date Received: 07/26/22

Sample Location: NEWTON Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
Trichloroethene	ND		ug/kg	0.29	--	1
1,2-Dichlorobenzene	ND		ug/kg	1.1	--	1
1,3-Dichlorobenzene	ND		ug/kg	1.1	--	1
1,4-Dichlorobenzene	ND		ug/kg	1.1	--	1
Methyl tert butyl ether	ND		ug/kg	1.1	--	1
p/m-Xylene	ND		ug/kg	1.1	--	1
o-Xylene	ND		ug/kg	0.57	--	1
Xylenes, Total	ND		ug/kg	0.57	--	1
cis-1,2-Dichloroethene	ND		ug/kg	0.57	--	1
1,2-Dichloroethene, Total	ND		ug/kg	0.57	--	1
Dibromomethane	ND		ug/kg	1.1	--	1
1,4-Dichlorobutane	ND		ug/kg	5.7	--	1
1,2,3-Trichloropropane	ND		ug/kg	1.1	--	1
Styrene	ND		ug/kg	0.57	--	1
Dichlorodifluoromethane	ND		ug/kg	5.7	--	1
Acetone	ND		ug/kg	14	--	1
Carbon disulfide	ND		ug/kg	5.7	--	1
2-Butanone	ND		ug/kg	5.7	--	1
Vinyl acetate	ND		ug/kg	5.7	--	1
4-Methyl-2-pentanone	ND		ug/kg	5.7	--	1
2-Hexanone	ND		ug/kg	5.7	--	1
Ethyl methacrylate	ND		ug/kg	5.7	--	1
Acrylonitrile	ND		ug/kg	2.3	--	1
Bromochloromethane	ND		ug/kg	1.1	--	1
Tetrahydrofuran	ND		ug/kg	2.3	--	1
2,2-Dichloropropane	ND		ug/kg	1.1	--	1
1,2-Dibromoethane	ND		ug/kg	0.57	--	1
1,3-Dichloropropane	ND		ug/kg	1.1	--	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	0.29	--	1
Bromobenzene	ND		ug/kg	1.1	--	1
n-Butylbenzene	ND		ug/kg	0.57	--	1
sec-Butylbenzene	ND		ug/kg	0.57	--	1
tert-Butylbenzene	ND		ug/kg	1.1	--	1
o-Chlorotoluene	ND		ug/kg	1.1	--	1
p-Chlorotoluene	ND		ug/kg	1.1	--	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	1.7	--	1
Hexachlorobutadiene	ND		ug/kg	2.3	--	1

Project Name: COUNTRYSIDE **Lab Number:** L2239780

Project Number: 3145 **Report Date:** 08/22/22

SAMPLE RESULTS

Lab ID: L2239780-01 Date Collected: 07/22/22 13:00

Client ID: FILL COMP Date Received: 07/26/22

Sample Location: NEWTON Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
Isopropylbenzene	ND		ug/kg	0.57	--	1
p-Isopropyltoluene	ND		ug/kg	0.57	--	1
Naphthalene	ND		ug/kg	2.3	--	1
n-Propylbenzene	ND		ug/kg	0.57	--	1
1,2,3-Trichlorobenzene	ND		ug/kg	1.1	--	1
1,2,4-Trichlorobenzene	ND		ug/kg	1.1	--	1
1,3,5-Trimethylbenzene	ND		ug/kg	1.1	--	1
1,2,4-Trimethylbenzene	ND		ug/kg	1.1	--	1
trans-1,4-Dichloro-2-butene	ND		ug/kg	2.9	--	1
Ethyl ether	ND		ug/kg	1.1	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	126		70-130
Toluene-d8	100		70-130
4-Bromofluorobenzene	102		70-130
Dibromofluoromethane	109		70-130

Project Name: COUNTRYSIDE **Lab Number:** L2239780

Project Number: 3145 **Report Date:** 08/22/22

SAMPLE RESULTS

Lab ID: L2239780-02 Date Collected: 07/22/22 13:00
Client ID: NATIVE COMP Date Received: 07/26/22
Sample Location: NEWTON Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 1,8260C
Analytical Date: 07/29/22 02:15
Analyst: AJK
Percent Solids: 85%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
Methylene chloride	ND		ug/kg	5.8	--	1
1,1-Dichloroethane	ND		ug/kg	1.2	--	1
Chloroform	ND		ug/kg	1.8	--	1
Carbon tetrachloride	ND		ug/kg	1.2	--	1
1,2-Dichloropropane	ND		ug/kg	1.2	--	1
Dibromochloromethane	ND		ug/kg	1.2	--	1
1,1,2-Trichloroethane	ND		ug/kg	1.2	--	1
Tetrachloroethene	ND		ug/kg	0.58	--	1
Chlorobenzene	ND		ug/kg	0.58	--	1
Trichlorofluoromethane	ND		ug/kg	4.7	--	1
1,2-Dichloroethane	ND		ug/kg	1.2	--	1
1,1,1-Trichloroethane	ND		ug/kg	0.58	--	1
Bromodichloromethane	ND		ug/kg	0.58	--	1
trans-1,3-Dichloropropene	ND		ug/kg	1.2	--	1
cis-1,3-Dichloropropene	ND		ug/kg	0.58	--	1
1,3-Dichloropropene, Total	ND		ug/kg	0.58	--	1
1,1-Dichloropropene	ND		ug/kg	0.58	--	1
Bromoform	ND		ug/kg	4.7	--	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	0.58	--	1
Benzene	ND		ug/kg	0.58	--	1
Toluene	ND		ug/kg	1.2	--	1
Ethylbenzene	ND		ug/kg	1.2	--	1
Chloromethane	ND		ug/kg	4.7	--	1
Bromomethane	ND		ug/kg	2.3	--	1
Vinyl chloride	ND		ug/kg	1.2	--	1
Chloroethane	ND		ug/kg	2.3	--	1
1,1-Dichloroethene	ND		ug/kg	1.2	--	1
trans-1,2-Dichloroethene	ND		ug/kg	1.8	--	1

Project Name: COUNTRYSIDE **Lab Number:** L2239780

Project Number: 3145 **Report Date:** 08/22/22

SAMPLE RESULTS

Lab ID: L2239780-02 Date Collected: 07/22/22 13:00

Client ID: NATIVE COMP Date Received: 07/26/22

Sample Location: NEWTON Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
Trichloroethene	ND		ug/kg	0.58	--	1
1,2-Dichlorobenzene	ND		ug/kg	2.3	--	1
1,3-Dichlorobenzene	ND		ug/kg	2.3	--	1
1,4-Dichlorobenzene	ND		ug/kg	2.3	--	1
Methyl tert butyl ether	ND		ug/kg	2.3	--	1
p/m-Xylene	ND		ug/kg	2.3	--	1
o-Xylene	ND		ug/kg	1.2	--	1
Xylenes, Total	ND		ug/kg	1.2	--	1
cis-1,2-Dichloroethene	ND		ug/kg	1.2	--	1
1,2-Dichloroethene, Total	ND		ug/kg	1.2	--	1
Dibromomethane	ND		ug/kg	2.3	--	1
1,4-Dichlorobutane	ND		ug/kg	12	--	1
1,2,3-Trichloropropane	ND		ug/kg	2.3	--	1
Styrene	ND		ug/kg	1.2	--	1
Dichlorodifluoromethane	ND		ug/kg	12	--	1
Acetone	32		ug/kg	29	--	1
Carbon disulfide	ND		ug/kg	12	--	1
2-Butanone	ND		ug/kg	12	--	1
Vinyl acetate	ND		ug/kg	12	--	1
4-Methyl-2-pentanone	ND		ug/kg	12	--	1
2-Hexanone	ND		ug/kg	12	--	1
Ethyl methacrylate	ND		ug/kg	12	--	1
Acrylonitrile	ND		ug/kg	4.7	--	1
Bromochloromethane	ND		ug/kg	2.3	--	1
Tetrahydrofuran	ND		ug/kg	4.7	--	1
2,2-Dichloropropane	ND		ug/kg	2.3	--	1
1,2-Dibromoethane	ND		ug/kg	1.2	--	1
1,3-Dichloropropane	ND		ug/kg	2.3	--	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	0.58	--	1
Bromobenzene	ND		ug/kg	2.3	--	1
n-Butylbenzene	ND		ug/kg	1.2	--	1
sec-Butylbenzene	ND		ug/kg	1.2	--	1
tert-Butylbenzene	ND		ug/kg	2.3	--	1
o-Chlorotoluene	ND		ug/kg	2.3	--	1
p-Chlorotoluene	ND		ug/kg	2.3	--	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	3.5	--	1
Hexachlorobutadiene	ND		ug/kg	4.7	--	1

Project Name: COUNTRYSIDE **Lab Number:** L2239780

Project Number: 3145 **Report Date:** 08/22/22

SAMPLE RESULTS

Lab ID: L2239780-02 Date Collected: 07/22/22 13:00

Client ID: NATIVE COMP Date Received: 07/26/22

Sample Location: NEWTON Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
Isopropylbenzene	ND		ug/kg	1.2	--	1
p-Isopropyltoluene	ND		ug/kg	1.2	--	1
Naphthalene	ND		ug/kg	4.7	--	1
n-Propylbenzene	ND		ug/kg	1.2	--	1
1,2,3-Trichlorobenzene	ND		ug/kg	2.3	--	1
1,2,4-Trichlorobenzene	ND		ug/kg	2.3	--	1
1,3,5-Trimethylbenzene	ND		ug/kg	2.3	--	1
1,2,4-Trimethylbenzene	ND		ug/kg	2.3	--	1
trans-1,4-Dichloro-2-butene	ND		ug/kg	5.8	--	1
Ethyl ether	ND		ug/kg	2.3	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	127		70-130
Toluene-d8	100		70-130
4-Bromofluorobenzene	103		70-130
Dibromofluoromethane	108		70-130

Project Name: COUNTRYSIDE
Project Number: 3145
Lab Number: L2239780
Report Date: 08/22/22

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 07/28/22 21:46
Analyst: LAC

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by EPA 5035 Low - Westborough Lab for sample(s): 01-02 Batch: WG1669748-5					
Methylene chloride	ND		ug/kg	5.0	--
1,1-Dichloroethane	ND		ug/kg	1.0	--
Chloroform	ND		ug/kg	1.5	--
Carbon tetrachloride	ND		ug/kg	1.0	--
1,2-Dichloropropane	ND		ug/kg	1.0	--
Dibromochloromethane	ND		ug/kg	1.0	--
1,1,2-Trichloroethane	ND		ug/kg	1.0	--
2-Chloroethylvinyl ether	ND		ug/kg	20	--
Tetrachloroethene	ND		ug/kg	0.50	--
Chlorobenzene	ND		ug/kg	0.50	--
Trichlorofluoromethane	ND		ug/kg	4.0	--
1,2-Dichloroethane	ND		ug/kg	1.0	--
1,1,1-Trichloroethane	ND		ug/kg	0.50	--
Bromodichloromethane	ND		ug/kg	0.50	--
trans-1,3-Dichloropropene	ND		ug/kg	1.0	--
cis-1,3-Dichloropropene	ND		ug/kg	0.50	--
1,3-Dichloropropene, Total	ND		ug/kg	0.50	--
1,1-Dichloropropene	ND		ug/kg	0.50	--
Bromoform	ND		ug/kg	4.0	--
1,1,2,2-Tetrachloroethane	ND		ug/kg	0.50	--
Benzene	ND		ug/kg	0.50	--
Toluene	ND		ug/kg	1.0	--
Ethylbenzene	ND		ug/kg	1.0	--
Chloromethane	ND		ug/kg	4.0	--
Bromomethane	ND		ug/kg	2.0	--
Vinyl chloride	ND		ug/kg	1.0	--
Chloroethane	ND		ug/kg	2.0	--
1,1-Dichloroethene	ND		ug/kg	1.0	--
trans-1,2-Dichloroethene	ND		ug/kg	1.5	--

Project Name: COUNTRYSIDE
Project Number: 3145
Lab Number: L2239780
Report Date: 08/22/22

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 07/28/22 21:46
Analyst: LAC

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by EPA 5035 Low - Westborough Lab for sample(s): 01-02 Batch: WG1669748-5					
Trichloroethene	ND		ug/kg	0.50	--
1,2-Dichlorobenzene	ND		ug/kg	2.0	--
1,3-Dichlorobenzene	ND		ug/kg	2.0	--
1,4-Dichlorobenzene	ND		ug/kg	2.0	--
Methyl tert butyl ether	ND		ug/kg	2.0	--
p/m-Xylene	ND		ug/kg	2.0	--
o-Xylene	ND		ug/kg	1.0	--
Xylenes, Total	ND		ug/kg	1.0	--
cis-1,2-Dichloroethene	ND		ug/kg	1.0	--
1,2-Dichloroethene, Total	ND		ug/kg	1.0	--
Dibromomethane	ND		ug/kg	2.0	--
1,4-Dichlorobutane	ND		ug/kg	10	--
1,2,3-Trichloropropane	ND		ug/kg	2.0	--
Styrene	ND		ug/kg	1.0	--
Dichlorodifluoromethane	ND		ug/kg	10	--
Acetone	ND		ug/kg	25	--
Carbon disulfide	ND		ug/kg	10	--
2-Butanone	ND		ug/kg	10	--
Vinyl acetate	ND		ug/kg	10	--
4-Methyl-2-pentanone	ND		ug/kg	10	--
2-Hexanone	ND		ug/kg	10	--
Ethyl methacrylate	ND		ug/kg	10	--
Acrolein	ND		ug/kg	25	--
Acrylonitrile	ND		ug/kg	4.0	--
Bromochloromethane	ND		ug/kg	2.0	--
Tetrahydrofuran	ND		ug/kg	4.0	--
2,2-Dichloropropane	ND		ug/kg	2.0	--
1,2-Dibromoethane	ND		ug/kg	1.0	--
1,3-Dichloropropane	ND		ug/kg	2.0	--

Project Name: COUNTRYSIDE **Lab Number:** L2239780

Project Number: 3145 **Report Date:** 08/22/22

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 07/28/22 21:46
Analyst: LAC

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by EPA 5035 Low - Westborough Lab for sample(s): 01-02 Batch: WG1669748-5					
1,1,1,2-Tetrachloroethane	ND		ug/kg	0.50	--
Bromobenzene	ND		ug/kg	2.0	--
n-Butylbenzene	ND		ug/kg	1.0	--
sec-Butylbenzene	ND		ug/kg	1.0	--
tert-Butylbenzene	ND		ug/kg	2.0	--
1,3,5-Trichlorobenzene	ND		ug/kg	2.0	--
o-Chlorotoluene	ND		ug/kg	2.0	--
p-Chlorotoluene	ND		ug/kg	2.0	--
1,2-Dibromo-3-chloropropane	ND		ug/kg	3.0	--
Hexachlorobutadiene	ND		ug/kg	4.0	--
Isopropylbenzene	ND		ug/kg	1.0	--
p-Isopropyltoluene	ND		ug/kg	1.0	--
Naphthalene	ND		ug/kg	4.0	--
n-Propylbenzene	ND		ug/kg	1.0	--
1,2,3-Trichlorobenzene	ND		ug/kg	2.0	--
1,2,4-Trichlorobenzene	ND		ug/kg	2.0	--
1,3,5-Trimethylbenzene	ND		ug/kg	2.0	--
1,2,4-Trimethylbenzene	ND		ug/kg	2.0	--
trans-1,4-Dichloro-2-butene	ND		ug/kg	5.0	--
Ethyl ether	ND		ug/kg	2.0	--
Methyl Acetate	ND		ug/kg	4.0	--
Ethyl Acetate	ND		ug/kg	10	--
Isopropyl Ether	ND		ug/kg	2.0	--
Cyclohexane	ND		ug/kg	10	--
Tert-Butyl Alcohol	ND		ug/kg	20	--
Ethyl-Tert-Butyl-Ether	ND		ug/kg	2.0	--
Tertiary-Amyl Methyl Ether	ND		ug/kg	2.0	--
1,4-Dioxane	ND		ug/kg	80	--
Methyl cyclohexane	ND		ug/kg	4.0	--

Project Name: COUNTRYSIDE
Project Number: 3145
Lab Number: L2239780
Report Date: 08/22/22

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 07/28/22 21:46
Analyst: LAC

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by EPA 5035 Low - Westborough Lab for sample(s): 01-02 Batch: WG1669748-5					
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND		ug/kg	4.0	--

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	107		70-130
Toluene-d8	100		70-130
4-Bromofluorobenzene	103		70-130
Dibromofluoromethane	98		70-130

Lab Control Sample Analysis
Batch Quality Control

Project Name: COUNTRYSIDE
Project Number: 3145
Lab Number: L2239780
Report Date: 08/22/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by EPA 5035 Low - Westborough Lab Associated sample(s): 01-02 Batch: WG1669748-3 WG1669748-4								
Methylene chloride	89		91		70-130	2		30
1,1-Dichloroethane	97		98		70-130	1		30
Chloroform	95		97		70-130	2		30
Carbon tetrachloride	89		89		70-130	0		30
1,2-Dichloropropane	97		99		70-130	2		30
Dibromochloromethane	96		99		70-130	3		30
1,1,2-Trichloroethane	99		103		70-130	4		30
2-Chloroethylvinyl ether	95		98		70-130	3		30
Tetrachloroethene	90		90		70-130	0		30
Chlorobenzene	89		91		70-130	2		30
Trichlorofluoromethane	89		90		70-139	1		30
1,2-Dichloroethane	97		100		70-130	3		30
1,1,1-Trichloroethane	90		91		70-130	1		30
Bromodichloromethane	93		95		70-130	2		30
trans-1,3-Dichloropropene	102		105		70-130	3		30
cis-1,3-Dichloropropene	98		101		70-130	3		30
1,1-Dichloropropene	94		95		70-130	1		30
Bromoform	94		96		70-130	2		30
1,1,2,2-Tetrachloroethane	96		101		70-130	5		30
Benzene	93		94		70-130	1		30
Toluene	95		99		70-130	4		30
Ethylbenzene	92		94		70-130	2		30
Chloromethane	91		93		52-130	2		30

Lab Control Sample Analysis
Batch Quality Control

Project Name: COUNTRYSIDE
Project Number: 3145
Lab Number: L2239780
Report Date: 08/22/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by EPA 5035 Low - Westborough Lab Associated sample(s): 01-02 Batch: WG1669748-3 WG1669748-4								
Bromomethane	87		89		57-147	2		30
Vinyl chloride	96		98		67-130	2		30
Chloroethane	104		105		50-151	1		30
1,1-Dichloroethene	93		93		65-135	0		30
trans-1,2-Dichloroethene	92		93		70-130	1		30
Trichloroethene	95		93		70-130	2		30
1,2-Dichlorobenzene	89		91		70-130	2		30
1,3-Dichlorobenzene	90		90		70-130	0		30
1,4-Dichlorobenzene	88		90		70-130	2		30
Methyl tert butyl ether	97		101		66-130	4		30
p/m-Xylene	91		93		70-130	2		30
o-Xylene	92		93		70-130	1		30
cis-1,2-Dichloroethene	91		93		70-130	2		30
Dibromomethane	94		96		70-130	2		30
1,4-Dichlorobutane	105		108		70-130	3		30
1,2,3-Trichloropropane	99		101		68-130	2		30
Styrene	94		96		70-130	2		30
Dichlorodifluoromethane	81		82		30-146	1		30
Acetone	**147**	Q	**173**	Q	54-140	16		30
Carbon disulfide	87		88		59-130	1		30
2-Butanone	106		114		70-130	7		30
Vinyl acetate	96		107		70-130	11		30
4-Methyl-2-pentanone	100		107		70-130	7		30

Lab Control Sample Analysis
Batch Quality Control

Project Name: COUNTRYSIDE
Project Number: 3145

Lab Number: L2239780
Report Date: 08/22/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by EPA 5035 Low - Westborough Lab Associated sample(s): 01-02 Batch: WG1669748-3 WG1669748-4								
2-Hexanone	108		112		70-130	4		30
Ethyl methacrylate	96		101		70-130	5		30
Acrolein	99		103		70-130	4		30
Acrylonitrile	101		105		70-130	4		30
Bromochloromethane	91		93		70-130	2		30
Tetrahydrofuran	107		115		66-130	7		30
2,2-Dichloropropane	93		93		70-130	0		30
1,2-Dibromoethane	90		92		70-130	2		30
1,3-Dichloropropane	99		101		69-130	2		30
1,1,1,2-Tetrachloroethane	93		95		70-130	2		30
Bromobenzene	90		92		70-130	2		30
n-Butylbenzene	96		96		70-130	0		30
sec-Butylbenzene	92		93		70-130	1		30
tert-Butylbenzene	90		90		70-130	0		30
1,3,5-Trichlorobenzene	91		91		70-139	0		30
o-Chlorotoluene	94		93		70-130	1		30
p-Chlorotoluene	95		94		70-130	1		30
1,2-Dibromo-3-chloropropane	81		85		68-130	5		30
Hexachlorobutadiene	89		89		67-130	0		30
Isopropylbenzene	93		94		70-130	1		30
p-Isopropyltoluene	92		92		70-130	0		30
Naphthalene	92		93		70-130	1		30
n-Propylbenzene	95		96		70-130	1		30

Lab Control Sample Analysis
Batch Quality Control

Project Name: COUNTRYSIDE
Project Number: 3145
Lab Number: L2239780
Report Date: 08/22/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by EPA 5035 Low - Westborough Lab Associated sample(s): 01-02 Batch: WG1669748-3 WG1669748-4								
1,2,3-Trichlorobenzene	90		91		70-130	1		30
1,2,4-Trichlorobenzene	89		91		70-130	2		30
1,3,5-Trimethylbenzene	92		93		70-130	1		30
1,2,4-Trimethylbenzene	92		92		70-130	0		30
trans-1,4-Dichloro-2-butene	113		116		70-130	3		30
Ethyl ether	103		106		67-130	3		30
Methyl Acetate	104		111		65-130	7		30
Ethyl Acetate	114		122		70-130	7		30
Isopropyl Ether	107		110		66-130	3		30
Cyclohexane	100		100		70-130	0		30
Tert-Butyl Alcohol	100		105		70-130	5		30
Ethyl-Tert-Butyl-Ether	101		105		70-130	4		30
Tertiary-Amyl Methyl Ether	95		100		70-130	5		30
1,4-Dioxane	107		112		65-136	5		30
Methyl cyclohexane	94		95		70-130	1		30
1,1,2-Trichloro-1,2,2-Trifluoroethane	95		94		70-130	1		30

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	103		103		70-130
Toluene-d8	102		102		70-130
4-Bromofluorobenzene	103		104		70-130
Dibromofluoromethane	97		98		70-130

SEMIVOLATILES

Project Name: COUNTRYSIDE
Project Number: 3145
Lab Number: L2239780
Report Date: 08/22/22

SAMPLE RESULTS

Lab ID: L2239780-01
Client ID: FILL COMP
Sample Location: NEWTON

Date Collected: 07/22/22 13:00
Date Received: 07/26/22
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 1,8270D
Analytical Date: 08/19/22 16:34
Analyst: CMM
Percent Solids: 91%

Extraction Method: EPA 3546
Extraction Date: 07/31/22 00:11

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	ND		ug/kg	140	--	1
Benzidine	ND		ug/kg	600	--	1
1,2,4-Trichlorobenzene	ND		ug/kg	180	--	1
Hexachlorobenzene	ND		ug/kg	110	--	1
Bis(2-chloroethyl)ether	ND		ug/kg	160	--	1
2-Chloronaphthalene	ND		ug/kg	180	--	1
1,2-Dichlorobenzene	ND		ug/kg	180	--	1
1,3-Dichlorobenzene	ND		ug/kg	180	--	1
1,4-Dichlorobenzene	ND		ug/kg	180	--	1
3,3'-Dichlorobenzidine	ND		ug/kg	180	--	1
2,4-Dinitrotoluene	ND		ug/kg	180	--	1
2,6-Dinitrotoluene	ND		ug/kg	180	--	1
Azobenzene	ND		ug/kg	180	--	1
Fluoranthene	130		ug/kg	110	--	1
4-Chlorophenyl phenyl ether	ND		ug/kg	180	--	1
4-Bromophenyl phenyl ether	ND		ug/kg	180	--	1
Bis(2-chloroisopropyl)ether	ND		ug/kg	220	--	1
Bis(2-chloroethoxy)methane	ND		ug/kg	200	--	1
Hexachlorobutadiene	ND		ug/kg	180	--	1
Hexachlorocyclopentadiene	ND		ug/kg	520	--	1
Hexachloroethane	ND		ug/kg	140	--	1
Isophorone	ND		ug/kg	160	--	1
Naphthalene	ND		ug/kg	180	--	1
Nitrobenzene	ND		ug/kg	160	--	1
NDPA/DPA	ND		ug/kg	140	--	1
n-Nitrosodi-n-propylamine	ND		ug/kg	180	--	1
Bis(2-ethylhexyl)phthalate	ND		ug/kg	180	--	1
Butyl benzyl phthalate	ND		ug/kg	180	--	1

Project Name: COUNTRYSIDE **Lab Number:** L2239780

Project Number: 3145 **Report Date:** 08/22/22

SAMPLE RESULTS

Lab ID: L2239780-01 Date Collected: 07/22/22 13:00

Client ID: FILL COMP Date Received: 07/26/22

Sample Location: NEWTON Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Di-n-butylphthalate	ND		ug/kg	180	--	1
Di-n-octylphthalate	ND		ug/kg	180	--	1
Diethyl phthalate	ND		ug/kg	180	--	1
Dimethyl phthalate	ND		ug/kg	180	--	1
Benzo(a)anthracene	ND		ug/kg	110	--	1
Benzo(a)pyrene	ND		ug/kg	140	--	1
Benzo(b)fluoranthene	ND		ug/kg	110	--	1
Benzo(k)fluoranthene	ND		ug/kg	110	--	1
Chrysene	ND		ug/kg	110	--	1
Acenaphthylene	ND		ug/kg	140	--	1
Anthracene	ND		ug/kg	110	--	1
Benzo(ghi)perylene	ND		ug/kg	140	--	1
Fluorene	ND		ug/kg	180	--	1
Phenanthrene	ND		ug/kg	110	--	1
Dibenzo(a,h)anthracene	ND		ug/kg	110	--	1
Indeno(1,2,3-cd)pyrene	ND		ug/kg	140	--	1
Pyrene	120		ug/kg	110	--	1
Biphenyl	ND		ug/kg	410	--	1
Aniline	ND		ug/kg	220	--	1
4-Chloroaniline	ND		ug/kg	180	--	1
1-Methylnaphthalene	ND		ug/kg	180	--	1
2-Nitroaniline	ND		ug/kg	180	--	1
3-Nitroaniline	ND		ug/kg	180	--	1
4-Nitroaniline	ND		ug/kg	180	--	1
Dibenzofuran	ND		ug/kg	180	--	1
2-Methylnaphthalene	ND		ug/kg	220	--	1
n-Nitrosodimethylamine	ND		ug/kg	360	--	1
2,4,6-Trichlorophenol	ND		ug/kg	110	--	1
p-Chloro-m-cresol	ND		ug/kg	180	--	1
2-Chlorophenol	ND		ug/kg	180	--	1
2,4-Dichlorophenol	ND		ug/kg	160	--	1
2,4-Dimethylphenol	ND		ug/kg	180	--	1
2-Nitrophenol	ND		ug/kg	390	--	1
4-Nitrophenol	ND		ug/kg	250	--	1
2,4-Dinitrophenol	ND		ug/kg	870	--	1
4,6-Dinitro-o-cresol	ND		ug/kg	470	--	1
Pentachlorophenol	ND		ug/kg	140	--	1

Project Name: COUNTRYSIDE **Lab Number:** L2239780

Project Number: 3145 **Report Date:** 08/22/22

SAMPLE RESULTS

Lab ID: L2239780-01 Date Collected: 07/22/22 13:00

Client ID: FILL COMP Date Received: 07/26/22

Sample Location: NEWTON Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Phenol	ND		ug/kg	180	--	1
2-Methylphenol	ND		ug/kg	180	--	1
3-Methylphenol/4-Methylphenol	ND		ug/kg	260	--	1
2,4,5-Trichlorophenol	ND		ug/kg	180	--	1
Benzoic Acid	ND		ug/kg	590	--	1
Benzyl Alcohol	ND		ug/kg	180	--	1
Carbazole	ND		ug/kg	180	--	1
Pyridine	ND		ug/kg	200	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	61		25-120
Phenol-d6	57		10-120
Nitrobenzene-d5	62		23-120
2-Fluorobiphenyl	62		30-120
2,4,6-Tribromophenol	55		10-136
4-Terphenyl-d14	60		18-120

Project Name: COUNTRYSIDE
Project Number: 3145
Lab Number: L2239780
Report Date: 08/22/22

SAMPLE RESULTS

Lab ID: L2239780-02
Client ID: NATIVE COMP
Sample Location: NEWTON

Date Collected: 07/22/22 13:00
Date Received: 07/26/22
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 1,8270D
Analytical Date: 08/19/22 16:57
Analyst: CMM
Percent Solids: 85%

Extraction Method: EPA 3546
Extraction Date: 07/31/22 00:11

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	ND		ug/kg	150	--	1
Benzidine	ND		ug/kg	640	--	1
1,2,4-Trichlorobenzene	ND		ug/kg	190	--	1
Hexachlorobenzene	ND		ug/kg	120	--	1
Bis(2-chloroethyl)ether	ND		ug/kg	170	--	1
2-Chloronaphthalene	ND		ug/kg	190	--	1
1,2-Dichlorobenzene	ND		ug/kg	190	--	1
1,3-Dichlorobenzene	ND		ug/kg	190	--	1
1,4-Dichlorobenzene	ND		ug/kg	190	--	1
3,3'-Dichlorobenzidine	ND		ug/kg	190	--	1
2,4-Dinitrotoluene	ND		ug/kg	190	--	1
2,6-Dinitrotoluene	ND		ug/kg	190	--	1
Azobenzene	ND		ug/kg	190	--	1
Fluoranthene	ND		ug/kg	120	--	1
4-Chlorophenyl phenyl ether	ND		ug/kg	190	--	1
4-Bromophenyl phenyl ether	ND		ug/kg	190	--	1
Bis(2-chloroisopropyl)ether	ND		ug/kg	230	--	1
Bis(2-chloroethoxy)methane	ND		ug/kg	210	--	1
Hexachlorobutadiene	ND		ug/kg	190	--	1
Hexachlorocyclopentadiene	ND		ug/kg	550	--	1
Hexachloroethane	ND		ug/kg	150	--	1
Isophorone	ND		ug/kg	170	--	1
Naphthalene	ND		ug/kg	190	--	1
Nitrobenzene	ND		ug/kg	170	--	1
NDPA/DPA	ND		ug/kg	150	--	1
n-Nitrosodi-n-propylamine	ND		ug/kg	190	--	1
Bis(2-ethylhexyl)phthalate	ND		ug/kg	190	--	1
Butyl benzyl phthalate	ND		ug/kg	190	--	1

Project Name: COUNTRYSIDE **Lab Number:** L2239780

Project Number: 3145 **Report Date:** 08/22/22

SAMPLE RESULTS

Lab ID: L2239780-02 Date Collected: 07/22/22 13:00

Client ID: NATIVE COMP Date Received: 07/26/22

Sample Location: NEWTON Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Di-n-butylphthalate	ND		ug/kg	190	--	1
Di-n-octylphthalate	ND		ug/kg	190	--	1
Diethyl phthalate	ND		ug/kg	190	--	1
Dimethyl phthalate	ND		ug/kg	190	--	1
Benzo(a)anthracene	ND		ug/kg	120	--	1
Benzo(a)pyrene	ND		ug/kg	150	--	1
Benzo(b)fluoranthene	ND		ug/kg	120	--	1
Benzo(k)fluoranthene	ND		ug/kg	120	--	1
Chrysene	ND		ug/kg	120	--	1
Acenaphthylene	ND		ug/kg	150	--	1
Anthracene	ND		ug/kg	120	--	1
Benzo(ghi)perylene	ND		ug/kg	150	--	1
Fluorene	ND		ug/kg	190	--	1
Phenanthrene	ND		ug/kg	120	--	1
Dibenzo(a,h)anthracene	ND		ug/kg	120	--	1
Indeno(1,2,3-cd)pyrene	ND		ug/kg	150	--	1
Pyrene	ND		ug/kg	120	--	1
Biphenyl	ND		ug/kg	440	--	1
Aniline	ND		ug/kg	230	--	1
4-Chloroaniline	ND		ug/kg	190	--	1
1-Methylnaphthalene	ND		ug/kg	190	--	1
2-Nitroaniline	ND		ug/kg	190	--	1
3-Nitroaniline	ND		ug/kg	190	--	1
4-Nitroaniline	ND		ug/kg	190	--	1
Dibenzofuran	ND		ug/kg	190	--	1
2-Methylnaphthalene	ND		ug/kg	230	--	1
n-Nitrosodimethylamine	ND		ug/kg	390	--	1
2,4,6-Trichlorophenol	ND		ug/kg	120	--	1
p-Chloro-m-cresol	ND		ug/kg	190	--	1
2-Chlorophenol	ND		ug/kg	190	--	1
2,4-Dichlorophenol	ND		ug/kg	170	--	1
2,4-Dimethylphenol	ND		ug/kg	190	--	1
2-Nitrophenol	ND		ug/kg	420	--	1
4-Nitrophenol	ND		ug/kg	270	--	1
2,4-Dinitrophenol	ND		ug/kg	930	--	1
4,6-Dinitro-o-cresol	ND		ug/kg	500	--	1
Pentachlorophenol	ND		ug/kg	150	--	1

Project Name: COUNTRYSIDE **Lab Number:** L2239780

Project Number: 3145 **Report Date:** 08/22/22

SAMPLE RESULTS

Lab ID: L2239780-02 Date Collected: 07/22/22 13:00

Client ID: NATIVE COMP Date Received: 07/26/22

Sample Location: NEWTON Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Phenol	ND		ug/kg	190	--	1
2-Methylphenol	ND		ug/kg	190	--	1
3-Methylphenol/4-Methylphenol	ND		ug/kg	280	--	1
2,4,5-Trichlorophenol	ND		ug/kg	190	--	1
Benzoic Acid	ND		ug/kg	630	--	1
Benzyl Alcohol	ND		ug/kg	190	--	1
Carbazole	ND		ug/kg	190	--	1
Pyridine	ND		ug/kg	210	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	60		25-120
Phenol-d6	61		10-120
Nitrobenzene-d5	56		23-120
2-Fluorobiphenyl	57		30-120
2,4,6-Tribromophenol	53		10-136
4-Terphenyl-d14	56		18-120

Project Name: COUNTRYSIDE
Project Number: 3145

Lab Number: L2239780
Report Date: 08/22/22

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270D
Analytical Date: 08/04/22 21:48
Analyst: CMM

Extraction Method: EPA 3546
Extraction Date: 07/31/22 00:11

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 01-02 Batch: WG1669368-1					
Acenaphthene	ND		ug/kg	130	--
Benzidine	ND		ug/kg	550	--
1,2,4-Trichlorobenzene	ND		ug/kg	170	--
Hexachlorobenzene	ND		ug/kg	100	--
Bis(2-chloroethyl)ether	ND		ug/kg	150	--
2-Chloronaphthalene	ND		ug/kg	170	--
1,2-Dichlorobenzene	ND		ug/kg	170	--
1,3-Dichlorobenzene	ND		ug/kg	170	--
1,4-Dichlorobenzene	ND		ug/kg	170	--
3,3'-Dichlorobenzidine	ND		ug/kg	170	--
2,4-Dinitrotoluene	ND		ug/kg	170	--
2,6-Dinitrotoluene	ND		ug/kg	170	--
Azobenzene	ND		ug/kg	170	--
Fluoranthene	ND		ug/kg	100	--
4-Chlorophenyl phenyl ether	ND		ug/kg	170	--
4-Bromophenyl phenyl ether	ND		ug/kg	170	--
Bis(2-chloroisopropyl)ether	ND		ug/kg	200	--
Bis(2-chloroethoxy)methane	ND		ug/kg	180	--
Hexachlorobutadiene	ND		ug/kg	170	--
Hexachlorocyclopentadiene	ND		ug/kg	480	--
Hexachloroethane	ND		ug/kg	130	--
Isophorone	ND		ug/kg	150	--
Naphthalene	ND		ug/kg	170	--
Nitrobenzene	ND		ug/kg	150	--
NDPA/DPA	ND		ug/kg	130	--
n-Nitrosodi-n-propylamine	ND		ug/kg	170	--
Bis(2-ethylhexyl)phthalate	ND		ug/kg	170	--
Butyl benzyl phthalate	ND		ug/kg	170	--
Di-n-butylphthalate	ND		ug/kg	170	--

Project Name: COUNTRYSIDE
Project Number: 3145

Lab Number: L2239780
Report Date: 08/22/22

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270D
Analytical Date: 08/04/22 21:48
Analyst: CMM

Extraction Method: EPA 3546
Extraction Date: 07/31/22 00:11

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 01-02 Batch: WG1669368-1					
Di-n-octylphthalate	ND		ug/kg	170	--
Diethyl phthalate	ND		ug/kg	170	--
Dimethyl phthalate	ND		ug/kg	170	--
Benzo(a)anthracene	ND		ug/kg	100	--
Benzo(a)pyrene	ND		ug/kg	130	--
Benzo(b)fluoranthene	ND		ug/kg	100	--
Benzo(k)fluoranthene	ND		ug/kg	100	--
Chrysene	ND		ug/kg	100	--
Acenaphthylene	ND		ug/kg	130	--
Anthracene	ND		ug/kg	100	--
Benzo(ghi)perylene	ND		ug/kg	130	--
Fluorene	ND		ug/kg	170	--
Phenanthrene	ND		ug/kg	100	--
Dibenzo(a,h)anthracene	ND		ug/kg	100	--
Indeno(1,2,3-cd)pyrene	ND		ug/kg	130	--
Pyrene	ND		ug/kg	100	--
Biphenyl	ND		ug/kg	380	--
Aniline	ND		ug/kg	200	--
4-Chloroaniline	ND		ug/kg	170	--
1-Methylnaphthalene	ND		ug/kg	170	--
2-Nitroaniline	ND		ug/kg	170	--
3-Nitroaniline	ND		ug/kg	170	--
4-Nitroaniline	ND		ug/kg	170	--
Dibenzofuran	ND		ug/kg	170	--
2-Methylnaphthalene	ND		ug/kg	200	--
n-Nitrosodimethylamine	ND		ug/kg	330	--
2,4,6-Trichlorophenol	ND		ug/kg	100	--
p-Chloro-m-cresol	ND		ug/kg	170	--
2-Chlorophenol	ND		ug/kg	170	--

Project Name: COUNTRYSIDE
Project Number: 3145

Lab Number: L2239780
Report Date: 08/22/22

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270D
Analytical Date: 08/04/22 21:48
Analyst: CMM

Extraction Method: EPA 3546
Extraction Date: 07/31/22 00:11

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 01-02 Batch: WG1669368-1					
2,4-Dichlorophenol	ND		ug/kg	150	--
2,4-Dimethylphenol	ND		ug/kg	170	--
2-Nitrophenol	ND		ug/kg	360	--
4-Nitrophenol	ND		ug/kg	230	--
2,4-Dinitrophenol	ND		ug/kg	800	--
4,6-Dinitro-o-cresol	ND		ug/kg	430	--
Pentachlorophenol	ND		ug/kg	130	--
Phenol	ND		ug/kg	170	--
2-Methylphenol	ND		ug/kg	170	--
3-Methylphenol/4-Methylphenol	ND		ug/kg	240	--
2,4,5-Trichlorophenol	ND		ug/kg	170	--
Benzoic Acid	ND		ug/kg	540	--
Benzyl Alcohol	ND		ug/kg	170	--
Carbazole	ND		ug/kg	170	--
Pyridine	ND		ug/kg	180	--

Surrogate	%Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	56		25-120
Phenol-d6	57		10-120
Nitrobenzene-d5	54		23-120
2-Fluorobiphenyl	57		30-120
2,4,6-Tribromophenol	53		10-136
4-Terphenyl-d14	59		18-120

Lab Control Sample Analysis
Batch Quality Control

Project Name: COUNTRYSIDE
Project Number: 3145
Lab Number: L2239780
Report Date: 08/22/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-02 Batch: WG1669368-2 WG1669368-3								
Acenaphthene	66		54		31-137	20		50
Benzidine	36		30		10-66	18		50
1,2,4-Trichlorobenzene	63		53		38-107	17		50
Hexachlorobenzene	65		56		40-140	15		50
Bis(2-chloroethyl)ether	66		51		40-140	26		50
2-Chloronaphthalene	66		56		40-140	16		50
1,2-Dichlorobenzene	63		51		40-140	21		50
1,3-Dichlorobenzene	62		50		40-140	21		50
1,4-Dichlorobenzene	64		52		28-104	21		50
3,3'-Dichlorobenzidine	54		46		40-140	16		50
2,4-Dinitrotoluene	70		57		40-132	20		50
2,6-Dinitrotoluene	71		58		40-140	20		50
Azobenzene	58		49		40-140	17		50
Fluoranthene	67		55		40-140	20		50
4-Chlorophenyl phenyl ether	70		59		40-140	17		50
4-Bromophenyl phenyl ether	66		56		40-140	16		50
Bis(2-chloroisopropyl)ether	64		52		40-140	21		50
Bis(2-chloroethoxy)methane	61		51		40-117	18		50
Hexachlorobutadiene	63		53		40-140	17		50
Hexachlorocyclopentadiene	54		42		40-140	25		50
Hexachloroethane	58		46		40-140	23		50
Isophorone	60		49		40-140	20		50
Naphthalene	66		54		40-140	20		50

Lab Control Sample Analysis
Batch Quality Control

Project Name: COUNTRYSIDE
Project Number: 3145
Lab Number: L2239780
Report Date: 08/22/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-02 Batch: WG1669368-2 WG1669368-3								
Nitrobenzene	58		48		40-140	19		50
NDPA/DPA	67		58		36-157	14		50
n-Nitrosodi-n-propylamine	60		48		32-121	22		50
Bis(2-ethylhexyl)phthalate	67		55		40-140	20		50
Butyl benzyl phthalate	66		51		40-140	26		50
Di-n-butylphthalate	67		55		40-140	20		50
Di-n-octylphthalate	69		56		40-140	21		50
Diethyl phthalate	65		56		40-140	15		50
Dimethyl phthalate	66		56		40-140	16		50
Benzo(a)anthracene	68		57		40-140	18		50
Benzo(a)pyrene	71		58		40-140	20		50
Benzo(b)fluoranthene	69		57		40-140	19		50
Benzo(k)fluoranthene	75		60		40-140	22		50
Chrysene	71		59		40-140	18		50
Acenaphthylene	68		56		40-140	19		50
Anthracene	67		55		40-140	20		50
Benzo(ghi)perylene	64		56		40-140	13		50
Fluorene	68		58		40-140	16		50
Phenanthrene	68		55		40-140	21		50
Dibenzo(a,h)anthracene	68		58		40-140	16		50
Indeno(1,2,3-cd)pyrene	70		60		40-140	15		50
Pyrene	68		55		35-142	21		50
Biphenyl	69		56		37-127	21		50

Lab Control Sample Analysis
Batch Quality Control

Project Name: COUNTRYSIDE
Project Number: 3145
Lab Number: L2239780
Report Date: 08/22/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-02 Batch: WG1669368-2 WG1669368-3								
Aniline	51		42		40-140	19		50
4-Chloroaniline	50		41		40-140	20		50
1-Methylnaphthalene	62		52		26-130	18		50
2-Nitroaniline	69		57		47-134	19		50
3-Nitroaniline	60		50		26-129	18		50
4-Nitroaniline	71		58		41-125	20		50
Dibenzofuran	67		56		40-140	18		50
2-Methylnaphthalene	69		57		40-140	19		50
n-Nitrosodimethylamine	57		48		22-100	17		50
2,4,6-Trichlorophenol	72		58		30-130	22		50
p-Chloro-m-cresol	68		56		26-103	19		50
2-Chlorophenol	70		56		25-102	22		50
2,4-Dichlorophenol	68		56		30-130	19		50
2,4-Dimethylphenol	64		53		30-130	19		50
2-Nitrophenol	68		55		30-130	21		50
4-Nitrophenol	57		48		11-114	17		50
2,4-Dinitrophenol	62		50		4-130	21		50
4,6-Dinitro-o-cresol	78		61		10-130	24		50
Pentachlorophenol	59		47		17-109	23		50
Phenol	73		60		26-90	20		50
2-Methylphenol	67		54		30-130.	21		50
3-Methylphenol/4-Methylphenol	68		55		30-130	21		50
2,4,5-Trichlorophenol	70		59		30-130	17		50

Lab Control Sample Analysis

Batch Quality Control

Project Name: COUNTRYSIDE

Project Number: 3145

Lab Number: L2239780

Report Date: 08/22/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-02 Batch: WG1669368-2 WG1669368-3								
Benzoic Acid	23		19		10-110	19		50
Benzyl Alcohol	65		53		40-140	20		50
Carbazole	68		55		54-128	21		50
Pyridine	48		40		10-93	18		50

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
2-Fluorophenol	73		59		25-120
Phenol-d6	72		58		10-120
Nitrobenzene-d5	62		52		23-120
2-Fluorobiphenyl	71		58		30-120
2,4,6-Tribromophenol	72		59		10-136
4-Terphenyl-d14	71		59		18-120

PETROLEUM HYDROCARBONS

Project Name: COUNTRYSIDE
Project Number: 3145
Lab Number: L2239780
Report Date: 08/22/22

SAMPLE RESULTS

Lab ID: L2239780-01
Client ID: FILL COMP
Sample Location: NEWTON

Date Collected: 07/22/22 13:00
Date Received: 07/26/22
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 1,8015D(M)
Analytical Date: 08/01/22 04:54
Analyst: MC
Percent Solids: 91%

Extraction Method: EPA 3546
Extraction Date: 07/30/22 21:08

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Petroleum Hydrocarbon Quantitation - Westborough Lab						
TPH (C10-C36)	87500		ug/kg	35900	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
o-Terphenyl	49		40-140

Project Name: COUNTRYSIDE
Project Number: 3145
Lab Number: L2239780
Report Date: 08/22/22

SAMPLE RESULTS

Lab ID: L2239780-02
Client ID: NATIVE COMP
Sample Location: NEWTON

Sample Depth:
Matrix: Soil
Analytical Method: 1,8015D(M)
Analytical Date: 08/01/22 02:00
Analyst: MC
Percent Solids: 85%

Date Collected: 07/22/22 13:00
Date Received: 07/26/22
Field Prep: Not Specified

Extraction Method: EPA 3546
Extraction Date: 07/30/22 21:08

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Petroleum Hydrocarbon Quantitation - Westborough Lab						
TPH (C10-C36)	126000		ug/kg	38600	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
o-Terphenyl	67		40-140

Project Name: COUNTRYSIDE
Project Number: 3145

Lab Number: L2239780
Report Date: 08/22/22

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8015D(M)
Analytical Date: 08/01/22 00:16
Analyst: MC

Extraction Method: EPA 3546
Extraction Date: 07/30/22 13:36

Parameter	Result	Qualifier	Units	RL	MDL
Petroleum Hydrocarbon Quantitation - Westborough Lab for sample(s): 01-02 Batch: WG1669305-1					
TPH (C10-C36)	ND		ug/kg	32600	--

Surrogate	%Recovery	Qualifier	Acceptance Criteria
o-Terphenyl	66		40-140

Lab Control Sample Analysis

Batch Quality Control

Project Name: COUNTRYSIDE

Project Number: 3145

Lab Number: L2239780

Report Date: 08/22/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Petroleum Hydrocarbon Quantitation - Westborough Lab Associated sample(s): 01-02 Batch: WG1669305-2								
TPH (C10-C36)	65		-		40-140	-		40

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
o-Terphenyl	55				40-140

PCBS

Project Name: COUNTRYSIDE
Project Number: 3145
Lab Number: L2239780
Report Date: 08/22/22

SAMPLE RESULTS

Lab ID: L2239780-01
Client ID: FILL COMP
Sample Location: NEWTON

Date Collected: 07/22/22 13:00
Date Received: 07/26/22
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 1,8082A
Analytical Date: 08/01/22 23:59
Analyst: MEO
Percent Solids: 91%

Extraction Method: EPA 3546
Extraction Date: 08/01/22 00:03
Cleanup Method: EPA 3665A
Cleanup Date: 08/01/22
Cleanup Method: EPA 3660B
Cleanup Date: 08/01/22

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Polychlorinated Biphenyls by GC - Westborough Lab							
Aroclor 1016	ND		ug/kg	35.5	--	1	A
Aroclor 1221	ND		ug/kg	35.5	--	1	A
Aroclor 1232	ND		ug/kg	35.5	--	1	A
Aroclor 1242	ND		ug/kg	35.5	--	1	A
Aroclor 1248	ND		ug/kg	35.5	--	1	A
Aroclor 1254	ND		ug/kg	35.5	--	1	A
Aroclor 1260	ND		ug/kg	35.5	--	1	A
Aroclor 1262	ND		ug/kg	35.5	--	1	A
Aroclor 1268	ND		ug/kg	35.5	--	1	A
PCBs, Total	ND		ug/kg	35.5	--	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	58		30-150	B
Decachlorobiphenyl	51		30-150	B
2,4,5,6-Tetrachloro-m-xylene	59		30-150	A
Decachlorobiphenyl	54		30-150	A

Project Name: COUNTRYSIDE
Project Number: 3145
Lab Number: L2239780
Report Date: 08/22/22

SAMPLE RESULTS

Lab ID: L2239780-02
Client ID: NATIVE COMP
Sample Location: NEWTON

Date Collected: 07/22/22 13:00
Date Received: 07/26/22
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 1,8082A
Analytical Date: 08/02/22 00:07
Analyst: MEO
Percent Solids: 85%

Extraction Method: EPA 3546
Extraction Date: 08/01/22 00:03
Cleanup Method: EPA 3665A
Cleanup Date: 08/01/22
Cleanup Method: EPA 3660B
Cleanup Date: 08/01/22

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Polychlorinated Biphenyls by GC - Westborough Lab							
Aroclor 1016	ND		ug/kg	37.7	--	1	A
Aroclor 1221	ND		ug/kg	37.7	--	1	A
Aroclor 1232	ND		ug/kg	37.7	--	1	A
Aroclor 1242	ND		ug/kg	37.7	--	1	A
Aroclor 1248	ND		ug/kg	37.7	--	1	A
Aroclor 1254	ND		ug/kg	37.7	--	1	A
Aroclor 1260	ND		ug/kg	37.7	--	1	A
Aroclor 1262	ND		ug/kg	37.7	--	1	A
Aroclor 1268	ND		ug/kg	37.7	--	1	A
PCBs, Total	ND		ug/kg	37.7	--	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	56		30-150	B
Decachlorobiphenyl	48		30-150	B
2,4,5,6-Tetrachloro-m-xylene	56		30-150	A
Decachlorobiphenyl	50		30-150	A

Project Name: COUNTRYSIDE
Project Number: 3145

Lab Number: L2239780
Report Date: 08/22/22

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8082A
Analytical Date: 08/02/22 00:15
Analyst: MEO

Extraction Method: EPA 3546
Extraction Date: 08/01/22 00:03
Cleanup Method: EPA 3665A
Cleanup Date: 08/01/22
Cleanup Method: EPA 3660B
Cleanup Date: 08/01/22

Parameter	Result	Qualifier	Units	RL	MDL	Column
Polychlorinated Biphenyls by GC - Westborough Lab for sample(s): 01-02 Batch: WG1669526-1						
Aroclor 1016	ND		ug/kg	31.5	--	A
Aroclor 1221	ND		ug/kg	31.5	--	A
Aroclor 1232	ND		ug/kg	31.5	--	A
Aroclor 1242	ND		ug/kg	31.5	--	A
Aroclor 1248	ND		ug/kg	31.5	--	A
Aroclor 1254	ND		ug/kg	31.5	--	A
Aroclor 1260	ND		ug/kg	31.5	--	A
Aroclor 1262	ND		ug/kg	31.5	--	A
Aroclor 1268	ND		ug/kg	31.5	--	A
PCBs, Total	ND		ug/kg	31.5	--	A

Surrogate	%Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	66		30-150	B
Decachlorobiphenyl	58		30-150	B
2,4,5,6-Tetrachloro-m-xylene	67		30-150	A
Decachlorobiphenyl	61		30-150	A

Lab Control Sample Analysis
Batch Quality Control

Project Name: COUNTRYSIDE
Project Number: 3145

Lab Number: L2239780
Report Date: 08/22/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits	Column
Polychlorinated Biphenyls by GC - Westborough Lab Associated sample(s): 01-02 Batch: WG1669526-2 WG1669526-3									
Aroclor 1016	71		74		40-140	4		50	A
Aroclor 1260	65		69		40-140	6		50	A

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	64		66		30-150	B
Decachlorobiphenyl	57		61		30-150	B
2,4,5,6-Tetrachloro-m-xylene	66		69		30-150	A
Decachlorobiphenyl	62		66		30-150	A

METALS

Project Name: COUNTRYSIDE **Lab Number:** L2239780

Project Number: 3145 **Report Date:** 08/22/22

SAMPLE RESULTS

Lab ID: L2239780-01 Date Collected: 07/22/22 13:00

Client ID: FILL COMP Date Received: 07/26/22

Sample Location: NEWTON Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Percent Solids: 91%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Antimony, Total	2.95		mg/kg	2.06	--	1	08/02/22 09:40	08/03/22 15:07	EPA 3050B	1,6010D	NB
Arsenic, Total	4.73		mg/kg	0.412	--	1	08/02/22 09:40	08/03/22 15:07	EPA 3050B	1,6010D	NB
Barium, Total	85.5		mg/kg	0.412	--	1	08/02/22 09:40	08/03/22 15:07	EPA 3050B	1,6010D	NB
Beryllium, Total	0.206		mg/kg	0.206	--	1	08/02/22 09:40	08/03/22 15:07	EPA 3050B	1,6010D	NB
Cadmium, Total	0.684		mg/kg	0.412	--	1	08/02/22 09:40	08/03/22 15:07	EPA 3050B	1,6010D	NB
Chromium, Total	9.96		mg/kg	0.412	--	1	08/02/22 09:40	08/03/22 15:07	EPA 3050B	1,6010D	NB
Lead, Total	71.4		mg/kg	2.06	--	1	08/02/22 09:40	08/03/22 15:07	EPA 3050B	1,6010D	NB
Mercury, Total	ND		mg/kg	0.069	--	1	08/02/22 12:15	08/11/22 08:00	EPA 7471B	1,7471B	DMB
Nickel, Total	8.34		mg/kg	1.03	--	1	08/02/22 09:40	08/03/22 15:07	EPA 3050B	1,6010D	NB
Selenium, Total	ND		mg/kg	0.825	--	1	08/02/22 09:40	08/03/22 15:07	EPA 3050B	1,6010D	NB
Silver, Total	ND		mg/kg	0.412	--	1	08/02/22 09:40	08/03/22 15:07	EPA 3050B	1,6010D	NB
Titanium, Total	184		mg/kg	0.412	--	1	08/02/22 09:40	08/03/22 15:07	EPA 3050B	1,6010D	NB
Vanadium, Total	13.2		mg/kg	0.412	--	1	08/02/22 09:40	08/03/22 15:07	EPA 3050B	1,6010D	NB
Zinc, Total	87.5		mg/kg	2.06	--	1	08/02/22 09:40	08/03/22 15:07	EPA 3050B	1,6010D	NB

Project Name: COUNTRYSIDE **Lab Number:** L2239780

Project Number: 3145 **Report Date:** 08/22/22

SAMPLE RESULTS

Lab ID: L2239780-02 Date Collected: 07/22/22 13:00

Client ID: NATIVE COMP Date Received: 07/26/22

Sample Location: NEWTON Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Percent Solids: 85%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Antimony, Total	ND		mg/kg	2.31	--	1	08/02/22 09:40	08/03/22 15:12	EPA 3050B	1,6010D	NB
Arsenic, Total	2.25		mg/kg	0.462	--	1	08/02/22 09:40	08/03/22 15:12	EPA 3050B	1,6010D	NB
Barium, Total	38.0		mg/kg	0.462	--	1	08/02/22 09:40	08/03/22 15:12	EPA 3050B	1,6010D	NB
Beryllium, Total	ND		mg/kg	0.231	--	1	08/02/22 09:40	08/03/22 15:12	EPA 3050B	1,6010D	NB
Cadmium, Total	ND		mg/kg	0.462	--	1	08/02/22 09:40	08/03/22 15:12	EPA 3050B	1,6010D	NB
Chromium, Total	7.31		mg/kg	0.462	--	1	08/02/22 09:40	08/03/22 15:12	EPA 3050B	1,6010D	NB
Lead, Total	7.45		mg/kg	2.31	--	1	08/02/22 09:40	08/03/22 15:12	EPA 3050B	1,6010D	NB
Mercury, Total	ND		mg/kg	0.075	--	1	08/02/22 12:15	08/11/22 08:03	EPA 7471B	1,7471B	DMB
Nickel, Total	6.40		mg/kg	1.15	--	1	08/02/22 09:40	08/03/22 15:12	EPA 3050B	1,6010D	NB
Selenium, Total	ND		mg/kg	0.923	--	1	08/02/22 09:40	08/03/22 15:12	EPA 3050B	1,6010D	NB
Silver, Total	ND		mg/kg	0.462	--	1	08/02/22 09:40	08/03/22 15:12	EPA 3050B	1,6010D	NB
Titanium, Total	181		mg/kg	0.462	--	1	08/02/22 09:40	08/03/22 15:12	EPA 3050B	1,6010D	NB
Vanadium, Total	11.0		mg/kg	0.462	--	1	08/02/22 09:40	08/03/22 15:12	EPA 3050B	1,6010D	NB
Zinc, Total	18.8		mg/kg	2.31	--	1	08/02/22 09:40	08/03/22 15:12	EPA 3050B	1,6010D	NB

Project Name: COUNTRYSIDE **Lab Number:** L2239780

Project Number: 3145 **Report Date:** 08/22/22

Method Blank Analysis
Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Mansfield Lab for sample(s): 01-02 Batch: WG1669103-1										
Antimony, Total	ND		mg/kg	2.00	--	1	08/02/22 09:40	08/03/22 14:12	1,6010D	NB
Arsenic, Total	ND		mg/kg	0.400	--	1	08/02/22 09:40	08/03/22 14:12	1,6010D	NB
Barium, Total	ND		mg/kg	0.400	--	1	08/02/22 09:40	08/03/22 14:12	1,6010D	NB
Beryllium, Total	ND		mg/kg	0.200	--	1	08/02/22 09:40	08/03/22 14:12	1,6010D	NB
Cadmium, Total	ND		mg/kg	0.400	--	1	08/02/22 09:40	08/03/22 14:12	1,6010D	NB
Chromium, Total	ND		mg/kg	0.400	--	1	08/02/22 09:40	08/03/22 14:12	1,6010D	NB
Lead, Total	ND		mg/kg	2.00	--	1	08/02/22 09:40	08/03/22 14:12	1,6010D	NB
Nickel, Total	ND		mg/kg	1.00	--	1	08/02/22 09:40	08/03/22 14:12	1,6010D	NB
Selenium, Total	ND		mg/kg	0.800	--	1	08/02/22 09:40	08/03/22 14:12	1,6010D	NB
Silver, Total	ND		mg/kg	0.400	--	1	08/02/22 09:40	08/03/22 14:12	1,6010D	NB
Titanium, Total	ND		mg/kg	0.400	--	1	08/02/22 09:40	08/03/22 14:12	1,6010D	NB
Vanadium, Total	ND		mg/kg	0.400	--	1	08/02/22 09:40	08/03/22 14:12	1,6010D	NB
Zinc, Total	ND		mg/kg	2.00	--	1	08/02/22 09:40	08/03/22 14:12	1,6010D	NB

Prep Information

Digestion Method: EPA 3050B

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Mansfield Lab for sample(s): 01-02 Batch: WG1669104-1										
Mercury, Total	ND		mg/kg	0.083	--	1	08/02/22 12:15	08/11/22 07:24	1,7471B	DMB

Prep Information

Digestion Method: EPA 7471B

Lab Control Sample Analysis

Batch Quality Control

Project Name: COUNTRYSIDE

Project Number: 3145

Lab Number: L2239780

Report Date: 08/22/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-02 Batch: WG1669103-2 SRM Lot Number: D113-540								
Antimony, Total	149		-		20-250	-		
Arsenic, Total	94		-		70-130	-		
Barium, Total	83		-		75-125	-		
Beryllium, Total	81		-		75-125	-		
Cadmium, Total	86		-		75-125	-		
Chromium, Total	88		-		70-130	-		
Lead, Total	87		-		72-128	-		
Nickel, Total	88		-		70-130	-		
Selenium, Total	88		-		66-134	-		
Silver, Total	91		-		70-131	-		
Titanium, Total	92		-		22-178	-		
Vanadium, Total	89		-		74-126	-		
Zinc, Total	84		-		70-130	-		
Total Metals - Mansfield Lab Associated sample(s): 01-02 Batch: WG1669104-2 SRM Lot Number: D113-540								
Mercury, Total	94		-		60-140	-		

Matrix Spike Analysis
Batch Quality Control

Project Name: COUNTRYSIDE
Project Number: 3145

Lab Number: L2239780
Report Date: 08/22/22

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-02 QC Batch ID: WG1669103-3 QC Sample: L2238717-43 Client ID: MS Sample												
Antimony, Total	12.4	51.7	53.2	79		-	-		75-125	-		20
Arsenic, Total	2.03	12.4	12.4	84		-	-		75-125	-		20
Barium, Total	22.6	207	192	82		-	-		75-125	-		20
Beryllium, Total	ND	5.17	4.39	85		-	-		75-125	-		20
Cadmium, Total	ND	5.48	4.53	83		-	-		75-125	-		20
Chromium, Total	887	20.7	744	**0**	Q	-	-		75-125	-		20
Lead, Total	38.9	54.8	79.8	75		-	-		75-125	-		20
Nickel, Total	32.7	51.7	73.9	80		-	-		75-125	-		20
Selenium, Total	ND	12.4	10.3	83		-	-		75-125	-		20
Silver, Total	ND	31	25.3	82		-	-		75-125	-		20
Titanium, Total	157	103	276	115		-	-		75-125	-		20
Vanadium, Total	12.4	51.7	53.8	80		-	-		75-125	-		20
Zinc, Total	24.3	51.7	65.9	80		-	-		75-125	-		20
Total Metals - Mansfield Lab Associated sample(s): 01-02 QC Batch ID: WG1669104-3 QC Sample: L2241019-01 Client ID: MS Sample												
Mercury, Total	ND	1.27	1.31	103		-	-		80-120	-		20

Lab Duplicate Analysis
Batch Quality Control

Project Name: COUNTRYSIDE
Project Number: 3145

Lab Number: L2239780
Report Date: 08/22/22

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-02 QC Batch ID: WG1669103-4 QC Sample: L2238717-43 Client ID: DUP Sample						
Lead, Total	38.9	38.8	mg/kg	0		20
Total Metals - Mansfield Lab Associated sample(s): 01-02 QC Batch ID: WG1669104-4 QC Sample: L2241019-01 Client ID: DUP Sample						
Mercury, Total	ND	ND	mg/kg	NC		20

INORGANICS
&
MISCELLANEOUS

Project Name: COUNTRYSIDE
Project Number: 3145
Lab Number: L2239780
Report Date: 08/22/22

SAMPLE RESULTS

Lab ID: L2239780-01
Client ID: FILL COMP
Sample Location: NEWTON
Sample Depth:
Matrix: Soil

Date Collected: 07/22/22 13:00
Date Received: 07/26/22
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Specific Conductance @ 25 C	41		umhos/cm	10	--	1	-	07/27/22 13:26	1,9050A	KS
Solids, Total	91.1		%	0.100	NA	1	-	07/27/22 12:06	121,2540G	RI
pH (H)	6.8		SU	-	NA	1	-	07/27/22 08:45	1,9045D	KS
Flash Point	>150		deg F	70	NA	1	-	08/02/22 16:00	1,1010A	MD
Cyanide, Reactive	ND		mg/kg	10	--	1	07/28/22 13:42	07/28/22 15:47	125,7.3	MJ
Sulfide, Reactive	ND		mg/kg	10	--	1	07/28/22 13:42	07/28/22 15:19	125,7.3	MJ

Project Name: COUNTRYSIDE
Project Number: 3145
Lab Number: L2239780
Report Date: 08/22/22

SAMPLE RESULTS

Lab ID: L2239780-02
Client ID: NATIVE COMP
Sample Location: NEWTON
Sample Depth:
Matrix: Soil

Date Collected: 07/22/22 13:00
Date Received: 07/26/22
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Specific Conductance @ 25 C	87		umhos/cm	10	--	1	-	07/27/22 13:26	1,9050A	KS
Solids, Total	84.5		%	0.100	NA	1	-	07/27/22 12:06	121,2540G	RI
pH (H)	6.1		SU	-	NA	1	-	07/27/22 08:45	1,9045D	KS
Flash Point	>150		deg F	70	NA	1	-	08/02/22 16:00	1,1010A	MD
Cyanide, Reactive	ND		mg/kg	10	--	1	07/29/22 12:35	07/29/22 15:14	125,7.3	MJ
Sulfide, Reactive	ND		mg/kg	10	--	1	07/29/22 12:35	07/29/22 14:39	125,7.3	MJ

Project Name: COUNTRYSIDE
Project Number: 3145
Lab Number: L2239780
Report Date: 08/22/22

Method Blank Analysis
Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab for sample(s): 01 Batch: WG1668020-1										
Sulfide, Reactive	ND		mg/kg	10	--	1	07/28/22 13:42	07/28/22 15:12	125,7.3	MJ
General Chemistry - Westborough Lab for sample(s): 01 Batch: WG1668473-1										
Cyanide, Reactive	ND		mg/kg	10	--	1	07/28/22 13:42	07/28/22 15:41	125,7.3	MJ
General Chemistry - Westborough Lab for sample(s): 02 Batch: WG1668626-1										
Sulfide, Reactive	ND		mg/kg	10	--	1	07/29/22 12:35	07/29/22 14:38	125,7.3	MJ
General Chemistry - Westborough Lab for sample(s): 02 Batch: WG1668925-1										
Cyanide, Reactive	ND		mg/kg	10	--	1	07/29/22 12:35	07/29/22 15:14	125,7.3	MJ

Lab Control Sample Analysis

Batch Quality Control

Project Name: COUNTRYSIDE

Project Number: 3145

Lab Number: L2239780

Report Date: 08/22/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01-02 Batch: WG1667889-1								
pH	100		-		99-101	-		
General Chemistry - Westborough Lab Associated sample(s): 01-02 Batch: WG1667895-1								
Specific Conductance	99		-		99-101	-		
General Chemistry - Westborough Lab Associated sample(s): 01 Batch: WG1668020-2								
Sulfide, Reactive	111		-		60-125	-		40
General Chemistry - Westborough Lab Associated sample(s): 01 Batch: WG1668473-2								
Cyanide, Reactive	64		-		30-125	-		40
General Chemistry - Westborough Lab Associated sample(s): 02 Batch: WG1668626-2								
Sulfide, Reactive	84		-		60-125	-		40
General Chemistry - Westborough Lab Associated sample(s): 02 Batch: WG1668925-2								
Cyanide, Reactive	63		-		30-125	-		40
General Chemistry - Westborough Lab Associated sample(s): 01-02 Batch: WG1670290-1								
Flash Point	101		-		96-104	-		

Lab Duplicate Analysis
Batch Quality Control

Project Name: COUNTRYSIDE
Project Number: 3145

Lab Number: L2239780
Report Date: 08/22/22

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01-02 QC Batch ID: WG1667889-2 QC Sample: L2239335-01 Client ID: DUP Sample						
pH	8.8	8.8	SU	0		5
General Chemistry - Westborough Lab Associated sample(s): 01-02 QC Batch ID: WG1667895-2 QC Sample: L2239335-11 Client ID: DUP Sample						
Specific Conductance	560	470	umhos/cm	17		20
General Chemistry - Westborough Lab Associated sample(s): 01-02 QC Batch ID: WG1668005-1 QC Sample: L2239891-01 Client ID: DUP Sample						
Solids, Total	84.4	84.5	%	0		20
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG1668020-3 QC Sample: L2239970-01 Client ID: DUP Sample						
Sulfide, Reactive	ND	ND	mg/kg	NC		40
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG1668473-3 QC Sample: L2239970-01 Client ID: DUP Sample						
Cyanide, Reactive	ND	ND	mg/kg	NC		40
General Chemistry - Westborough Lab Associated sample(s): 02 QC Batch ID: WG1668626-3 QC Sample: L2240310-01 Client ID: DUP Sample						
Sulfide, Reactive	ND	ND	mg/kg	NC		40
General Chemistry - Westborough Lab Associated sample(s): 02 QC Batch ID: WG1668925-3 QC Sample: L2240310-01 Client ID: DUP Sample						
Cyanide, Reactive	ND	ND	mg/kg	NC		40
General Chemistry - Westborough Lab Associated sample(s): 01-02 QC Batch ID: WG1670290-2 QC Sample: L2240687-02 Client ID: DUP Sample						
Flash Point	<70	<70	deg F	NC		

Project Name: COUNTRYSIDE
Project Number: 3145

Lab Number: L2239780
Report Date: 08/22/22

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Cooler Information

Cooler	Custody Seal
A	Absent

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L2239780-01A	Vial MeOH preserved	A	NA		3.6	Y	Absent		8260HLW(14)
L2239780-01B	Vial water preserved	A	NA		3.6	Y	Absent	**26-JUL-22 22:03**	8260HLW(14)
L2239780-01C	Vial water preserved	A	NA		3.6	Y	Absent	**26-JUL-22 22:03**	8260HLW(14)
L2239780-01D	Glass 250ml/8oz unpreserved	A	NA		3.6	Y	Absent		8270TCL(14),REACTS(14),FLASH(),TS(7),PH-9045(1),PCB-8082(365),TPH-DRO-D(14),REACTCN(14),COND-9050(28)
L2239780-01X	Glass 60ml unpreserved split	A	NA		3.6	Y	Absent		BE-TI(180),AS-TI(180),BA-TI(180),AG-TI(180),NI-TI(180),CR-TI(180),ZN-TI(180),TI-TI(180),SB-TI(180),SE-TI(180),PB-TI(180),V-TI(180),HG-T(28),CD-TI(180)
L2239780-02A	Vial MeOH preserved	A	NA		3.6	Y	Absent		8260HLW(14)
L2239780-02B	Vial water preserved	A	NA		3.6	Y	Absent	**26-JUL-22 22:03**	8260HLW(14)
L2239780-02C	Vial water preserved	A	NA		3.6	Y	Absent	**26-JUL-22 22:03**	8260HLW(14)
L2239780-02D	Glass 250ml/8oz unpreserved	A	NA		3.6	Y	Absent		8270TCL(14),REACTS(14),TS(7),FLASH(),PH-9045(1),TPH-DRO-D(14),REACTCN(14),PCB-8082(365),COND-9050(28)
L2239780-02X	Glass 60ml unpreserved split	A	NA		3.6	Y	Absent		BE-TI(180),BA-TI(180),AS-TI(180),AG-TI(180),CR-TI(180),NI-TI(180),SB-TI(180),SE-TI(180),PB-TI(180),TI-TI(180),ZN-TI(180),V-TI(180),HG-T(28),CD-TI(180)

*Values in parentheses indicate holding time in days

Project Name:	COUNTRYSIDE	**Lab Number:**	L2239780
Project Number:	3145	**Report Date:**	08/22/22

GLOSSARY

Acronyms

DL - Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the limit of quantitation (LOQ). The DL includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

EDL - Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).

EMPC - Estimated Maximum Possible Concentration: The concentration that results from the signal present at the retention time of an analyte when the ions meet all of the identification criteria except the ion abundance ratio criteria. An EMPC is a worst-case estimate of the concentration.

EPA - Environmental Protection Agency.

LCS - Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.

LCSD - Laboratory Control Sample Duplicate: Refer to LCS.

LFB - Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.

LOD - Limit of Detection: This value represents the level to which a target analyte can reliably be detected for a specific analyte in a specific matrix by a specific method. The LOD includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

LOQ - Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

MDL - Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

MS - Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available. For Method 332.0, the spike recovery is calculated using the native concentration, including estimated values.

MSD - Matrix Spike Sample Duplicate: Refer to MS.

NA - Not Applicable.

NC - Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.

NDPA/DPA - N-Nitrosodiphenylamine/Diphenylamine.

NI - Not Ignitable.

NP - Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.

NR - No Results: Term is utilized when 'No Target Compounds Requested' is reported for the analysis of Volatile or Semivolatile Organic TIC only requests.

RL - Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

RPD - Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.

SRM - Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.

STLP - Semi-dynamic Tank Leaching Procedure per EPA Method 1315.

TEF - Toxic Equivalency Factors: The values assigned to each dioxin and furan to evaluate their toxicity relative to 2,3,7,8-TCDD.

TEQ - Toxic Equivalent: The measure of a sample's toxicity derived by multiplying each dioxin and furan by its corresponding TEF and then summing the resulting values.

TIC - Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

Report Format: Data Usability Report

Project Name:	COUNTRYSIDE	**Lab Number:**	L2239780
Project Number:	3145	**Report Date:**	08/22/22

Footnotes

1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Chlordane: The target compound Chlordane (CAS No. 57-74-9) is reported for GC ECD analyses. Per EPA,this compound "refers to a mixture of chlordane isomers, other chlorinated hydrocarbons and numerous other components." (Reference: USEPA Toxicological Review of Chlordane, In Support of Summary Information on the Integrated Risk Information System (IRIS), December 1997.)

Difference: With respect to Total Oxidizable Precursor (TOP) Assay analysis, the difference is defined as the Post-Treatment value minus the Pre-Treatment value.

Final pH: As it pertains to Sample Receipt & Container Information section of the report, Final pH reflects pH of container determined after adjustment at the laboratory, if applicable. If no adjustment required, value reflects Initial pH.

Frozen Date/Time: With respect to Volatile Organics in soil, Frozen Date/Time reflects the date/time at which associated Reagent Water-preserved vials were initially frozen. Note: If frozen date/time is beyond 48 hours from sample collection, value will be reflected in 'bold'.

Gasoline Range Organics (GRO): Gasoline Range Organics (GRO) results include all chromatographic peaks eluting from Methyl tert butyl ether through Naphthalene, with the exception of GRO analysis in support of State of Ohio programs, which includes all chromatographic peaks eluting from Hexane through Dodecane.

Initial pH: As it pertains to Sample Receipt & Container Information section of the report, Initial pH reflects pH of container determined upon receipt, if applicable.

PAH Total: With respect to Alkylated PAH analyses, the 'PAHs, Total' result is defined as the summation of results for all or a subset of the following compounds: Naphthalene, C1-C4 Naphthalenes, 2-Methylnaphthalene, 1-Methylnaphthalene, Biphenyl, Acenaphthylene, Acenaphthene, Fluorene, C1-C3 Fluorenes, Phenanthrene, C1-C4 Phenanthrenes/Anthracenes, Anthracene, Fluoranthene, Pyrene, C1-C4 Fluoranthenes/Pyrenes, Benz(a)anthracene, Chrysene, C1-C4 Chrysenes, Benzo(b)fluoranthene, Benzo(j)+(k)fluoranthene, Benzo(e)pyrene, Benzo(a)pyrene, Perylene, Indeno(1,2,3-cd)pyrene, Dibenz(ah)+(ac)anthracene, Benzo(g,h,i)perylene. If a 'Total' result is requested, the results of its individual components will also be reported.

PFAS Total: With respect to PFAS analyses, the 'PFAS, Total (5)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA and PFOS. In addition, the 'PFAS, Total (6)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA, PFDA and PFOS. For MassDEP DW compliance analysis only, the 'PFAS, Total (6)' result is defined as the summation of results at or above the RL. Note: If a 'Total' result is requested, the results of its individual components will also be reported.

Total: With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

Data Qualifiers

A - Spectra identified as "Aldol Condensates" are byproducts of the extraction/concentration procedures when acetone is introduced in the process.

B - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).

C - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.

D - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.

E - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.

F - The ratio of quantifier ion response to qualifier ion response falls outside of the laboratory criteria. Results are considered to be an estimated maximum concentration.

G - The concentration may be biased high due to matrix interferences (i.e, co-elution) with non-target compound(s). The result should be considered estimated.

H - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.

I - The lower value for the two columns has been reported due to obvious interference.

J - Estimated value. This represents an estimated concentration for Tentatively Identified Compounds (TICs).

M - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.

Report Format: Data Usability Report

Project Name:	COUNTRYSIDE	**Lab Number:**	L2239780
Project Number:	3145	**Report Date:**	08/22/22

Data Qualifiers

ND - Not detected at the reporting limit (RL) for the sample.

NJ - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.

P - The RPD between the results for the two columns exceeds the method-specified criteria.

Q - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)

R - Analytical results are from sample re-analysis.

RE - Analytical results are from sample re-extraction.

S - Analytical results are from modified screening analysis.

V - The surrogate associated with this target analyte has a recovery outside the QC acceptance limits. (Applicable to MassDEP DW Compliance samples only.)

Z - The batch matrix spike and/or duplicate associated with this target analyte has a recovery/RPD outside the QC acceptance limits. (Applicable to MassDEP DW Compliance samples only.)

Report Format: Data Usability Report

Project Name:	COUNTRYSIDE	**Lab Number:**	L2239780
Project Number:	3145	**Report Date:**	08/22/22

REFERENCES

1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - VI, 2018.

121 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WEF. Standard Methods Online.

125 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates IIIA, April 1998.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.

Certification Information

The following analytes are not included in our Primary NELAP Scope of Accreditation:

Westborough Facility
EPA 624/624.1: m/p-xylene, o-xylene, Naphthalene
EPA 625/625.1: alpha-Terpineol
EPA 8260C/8260D: NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.
EPA 8270D/8270E: NPW: Dimethylnaphthalene,1,4-Diphenylhydrazine, alpha-Terpineol; SCM: Dimethylnaphthalene,1,4-Diphenylhydrazine.
SM4500: NPW: Amenable Cyanide; SCM: Total Phosphorus, TKN, NO2, NO3.

Mansfield Facility
SM 2540D: TSS
EPA 8082A: NPW: PCB: 1, 5, 31, 87,101, 110, 141, 151, 153, 180, 183, 187.
EPA TO-15: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.
Biological Tissue Matrix: EPA 3050B

The following analytes are included in our Massachusetts DEP Scope of Accreditation

Westborough Facility:

Drinking Water
EPA 300.0: Chloride, Nitrate-N, Fluoride, Sulfate; **EPA 353.2**: Nitrate-N, Nitrite-N; **SM4500NO3-F**: Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE, EPA 180.1, SM2130B, SM4500Cl-D, SM2320B, SM2540C, SM4500H-B, SM4500NO2-B**
EPA 332: Perchlorate; **EPA 524.2:** THMs and VOCs; **EPA 504.1:** EDB, DBCP.
Microbiology: **SM9215B; SM9223-P/A, SM9223B-Colilert-QT,SM9222D**.

Non-Potable Water
SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH: Ammonia-N and Kjeldahl-N, **EPA 350.1**: Ammonia-N, **LACHAT 10-107-06-1-B**: Ammonia-N, **EPA 351.1, SM4500NO3-F, EPA 353.2**: Nitrate-N**, SM4500P-E, SM4500P-B, E, SM4500SO4-E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D, EPA 300: Chloride, Sulfate, Nitrate.**
EPA 624.1: Volatile Halocarbons & Aromatics,
EPA 608.3: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs
EPA 625.1: SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045**: PCB-Oil.
Microbiology: **SM9223B-Colilert-QT; Enterolert-QT, SM9221E, EPA 1600, EPA 1603, SM9222D.**

Mansfield Facility:

Drinking Water
EPA 200.7: Al, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Na, Ag, Ca, Zn. **EPA 200.8:** Al, Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn. **EPA 245.1** Hg.
EPA 522, EPA 537.1.

Non-Potable Water
EPA 200.7: Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn.
EPA 200.8: Al, Sb**,** As, Be, Cd, Cr, Cu, Fe, Pb, Mn, Ni, K, Se, Ag, Na, TL, Zn.
EPA 245.1 Hg.
SM2340B

For a complete listing of analytes and methods, please contact your Alpha Project Manager.

CHAIN OF COUSTODY

PAGE ____ OF ____

ALPHA ANALYTICAL
WESTBORO, MA TEL: 508-898-9220 FAX: 508-898-9193
MANSFIELD, MA TEL: 508-822-9300 FAX: 508-822-3288

Date Rec'd in Lab: 7/26/22

ALPHA Job #: L2239780

Client Information

Client: Lord
Address: Norwood, MA
Phone: 781 255 5554
Fax:
Email: oleek@lordenv.com
☐ These samples have been previously analyzed by Alpha

Project Information

Project Name: Countryside
Project Location: Newton
Project #: 3145
Project Manager: O. Leek
ALPHA Quote #:

Turn-Around Time

☒ Standard ☐ RUSH (only confirmed if pre-approved)
Date Due: Time:

Report Information - Data Deliverables

☐ FAX ☐ EMAIL
☐ ADEx ☐ Add'l Deliverables

Billing Information

☐ Same as Client info PO #:

Regulatory Requirements/Report Limits

State /Fed Program | Criteria

Other Project Specific Requirements/Comments/Detection Limits:

ANALYSIS: Comm 97 | Remainder of MCP 14 Metals | pH | Flash | Reactive Sulfide/Cyanide

SAMPLE HANDLING
Filtration ________
☐ Done
☐ Not needed
☐ Lab to do
Preservation
☐ Lab to do
(Please specify below)

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	Comm 97	Remainder of MCP 14 Metals	pH	Flash	Reactive Sulfide/Cyanide	Sample Specific Comments	TOTAL # BOTTLES
39780-01	Fill Comp	7/22/22	1:00	S	OL	X	X	X	X	X		4
-02	Native Comp	7/22/22	1:00	S	OL	X	X	X	X	X		4

Container Type
Preservative

Relinquished By:	Date/Time	Received By:	Date/Time
Oliver Leek	7/26/22 12:35	[signature] AAL	7/26/22 1235
[signature]	7/26/22 1730	[signature]	7/26/22 1730

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. All samples submitted are subject to Alpha's Terms and Conditions. See reverse side.

FORM NO: 01-01 (rev. 14-OCT-07)

APPENDIX F

Lord Environmental, Inc.

Consulting & LSP Services

1506 Providence Highway
Suite 30
Norwood, MA 02062
Voice: 781.255.5554

SOIL TEST BORING LOG & WELL COMPLETION REPORT

BORING: **LB-1**
WELL: NA

CONTRACTOR:	New England GeoTech	**SITE LOCATION:**	191 Dedham Street	**WELL RISER:**	NA
DRILLER:	Maynor Mendoza	**PROJECT NO.:**	3145	**WELL SCREEN:**	NA
SUPERVISOR:	Oliver P. Leek	**START DATE:**	722/22	**OBSERVED DTW:**	13.5'
EQUIPMENT:	Geoprobe 7822	**FINISH DATE:**	07/22/22		

DIRECT-PUSH BORING & WELL COMPLETION LOG

DEPTH (FT)	SAMPLE ID	% RECOVERY	SAMPLE INTERVAL	PID READING ppm-v	SOIL DESCRIPTION	WELL COMPLETION
0.0 – 5.0	LB-1, 0-5'	80%	0-5'	0	FILL with loamy sand to 1.5 feet then sand and gravel FILL with some wood to 4 feet. Silty sand from 4-5 feet.	
5.0 – 10.0	LB-1, 5-10'	80%	5-10'	0	Fine to medium SAND and gravel and pulverized rock.	
10.0 – 15.0	LB-1, 10-15'	60%	10-15'	0	Fine to medium SAND and gravel, wet at 13.5 feet. ▽	
15.0					BOTTOM OF BORING AT 15'	

TERMS

Proportion	Definition
trace	0% - 10%
little	10% - 20%
some	20% - 35%
and	35% - 50%

NOTES

Lord Environmental, Inc.

Consulting & LSP Services

1506 Providence Highway
Suite 30
Norwood, MA 02062
Voice: 781.255.5554

SOIL TEST BORING LOG & WELL COMPLETION REPORT

BORING: **LB-2**
WELL: NA

CONTRACTOR:	New England GeoTech	**SITE LOCATION:**	191 Dedham Street	**WELL RISER:**	NA
DRILLER:	Maynor Mendoza	**PROJECT NO.:**	3145	**WELL SCREEN:**	NA
SUPERVISOR:	Oliver P. Leek	**START DATE:**	722/22	**OBSERVED DTW:**	NA
EQUIPMENT:	Geoprobe 7822	**FINISH DATE:**	07/22/22		

DIRECT-PUSH BORING & WELL COMPLETION LOG

DEPTH (FT)	SAMPLE ID	% RECOVERY	SAMPLE INTERVAL	PID READING ppm-v	SOIL DESCRIPTION	WELL COMPLETION
0.0 – 5.0	LB-2, 0-5'	80%	0-5'	0	Loam to 1 foot then loamy sand from 1-2 feet. Fine to medium SAND and gravel from 3-4.5 feet. Clayey sand from 4.5-5 feet.	
5.0 – 10.0	LB-2, 5-10'	80%	5-10'	0	Fine to medium SAND and gravel with pulverized rock from 5-8 feet. Peat from 8-8.5 feet. Clayey sand from 8.5-10 feet, damp at 9 feet.	
10.0 – 26.0					BOTTOM OF BORING AT 10'	

TERMS

Proportion	Definition
trace	0% - 10%
little	10% - 20%
some	20% - 35%
and	35% - 50%

NOTES

Lord Environmental, Inc.

Consulting & LSP Services

1506 Providence Highway
Suite 30
Norwood, MA 02062
Voice: 781.255.5554

SOIL TEST BORING LOG & WELL COMPLETION REPORT

BORING: **LB-3**
WELL: NA

CONTRACTOR:	New England GeoTech	**SITE LOCATION:**	191 Dedham Street	**WELL RISER:**	NA
DRILLER:	Maynor Mendoza	**PROJECT NO.:**	3145	**WELL SCREEN:**	NA
SUPERVISOR:	Oliver P. Leek	**START DATE:**	722/22	**OBSERVED DTW:**	12'
EQUIPMENT:	Geoprobe 7822	**FINISH DATE:**	07/22/22		

DIRECT-PUSH BORING & WELL COMPLETION LOG

DEPTH (FT)	SAMPLE ID	% RECOVERY	SAMPLE INTERVAL	PID READING ppm-v	SOIL DESCRIPTION	WELL COMPLETION
0.0 – 5.0	LB-3, 0-5'	80%	0-5'	0	FILL with loamy sand to 1 foot then sand and gravel FILL from 1-5 feet.	
5.0 – 10.0	LB-3, 5-10'	90%	5-10'	0	Fine to medium SAND and gravel from 5-7 feet. FILL with glass and possible ash from 7-8 feet. Peaty sand from 8-9.5 feet. Moist clayey sand from 9.5-10 feet	
11.0 – 15.0	LB-3, 10-15'	70%	10-15'	0	Moist clayey SAND from 10-12 feet, then grey/blue sandy clay from 12-15 feet, damp at 12 feet.	▽
16.0 – 26.0					BOTTOM OF BORING AT 15'	

TERMS

Proportion	Definition
trace	0% - 10%
little	10% - 20%
some	20% - 35%
and	35% - 50%

NOTES

Lord Environmental, Inc.

Consulting & LSP Services

1506 Providence Highway
Suite 30
Norwood, MA 02062
Voice: 781.255.5554

SOIL TEST BORING LOG & WELL COMPLETION REPORT

BORING: **LB-4**
WELL: NA

CONTRACTOR:	New England GeoTech	**SITE LOCATION:**	191 Dedham Street	**WELL RISER:**	NA
DRILLER:	Maynor Mendoza	**PROJECT NO.:**	3145	**WELL SCREEN:**	NA
SUPERVISOR:	Oliver P. Leek	**START DATE:**	722/22	**OBSERVED DTW:**	7'
EQUIPMENT:	Geoprobe 7822	**FINISH DATE:**	07/22/22		

DIRECT-PUSH BORING & WELL COMPLETION LOG

DEPTH (FT)	SAMPLE ID	% RECOVERY	SAMPLE INTERVAL	PID READING ppm-v	SOIL DESCRIPTION	WELL COMPLETION
0.0 – 5.0	LB-4, 0-5'	80%	0-5'	0	Loam to 1 foot then fine to coarse SAND and gravel from 1-5 feet.	
5.0 – 10.0	LB-4, 5-10'	100%	5-10'	0	Peat from 5-7 feet. Clayes sand and clay from 7-10 feet.	▽
					BOTTOM OF BORING AT 10'	

TERMS

Proportion	Definition
trace	0% - 10%
little	10% - 20%
some	20% - 35%
and	35% - 50%

NOTES

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SOIL TEST BORING LOG & WELL COMPLETION REPORT

BORING: **LB-5**
WELL: NA

CONTRACTOR:	New England GeoTech	**SITE LOCATION:**	191 Dedham Street	**WELL RISER:**	NA
DRILLER:	Maynor Mendoza	**PROJECT NO.:**	3145	**WELL SCREEN:**	NA
SUPERVISOR:	Oliver P. Leek	**START DATE:**	722/22	**OBSERVED DTW:**	7'
EQUIPMENT:	Geoprobe 7822	**FINISH DATE:**	07/22/22		

DIRECT-PUSH BORING & WELL COMPLETION LOG

DEPTH (FT)	SAMPLE ID	% RECOVERY	SAMPLE INTERVAL	PID READING ppm-v	SOIL DESCRIPTION	WELL COMPLETION
0.0 – 5.0	LB-5, 0-5'	80%	0-5'	0	Loamy sand to 2 feet then fine to coarse SAND and gravel with fine gravel and pulverized rock from 2-5 feet.	
5.0 – 10.0	LB-5, 5-10'	100%	5-10'	0	Silty fine SAND from 5-7 feet. Sandy clay from 7-10 feet, damp from 7-8 feet.	▽
10.0					BOTTOM OF BORING AT 10'	

TERMS

Proportion	Definition
trace	0% - 10%
little	10% - 20%
some	20% - 35%
and	35% - 50%

NOTES

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SOIL TEST BORING LOG & WELL COMPLETION REPORT

BORING: **LB-6**
WELL: NA

CONTRACTOR:	New England GeoTech	**SITE LOCATION:**	191 Dedham Street	**WELL RISER:**	NA
DRILLER:	Maynor Mendoza	**PROJECT NO.:**	3145	**WELL SCREEN:**	NA
SUPERVISOR:	Oliver P. Leek	**START DATE:**	722/22	**OBSERVED DTW:**	8.5'
EQUIPMENT:	Geoprobe 7822	**FINISH DATE:**	07/22/22		

DIRECT-PUSH BORING & WELL COMPLETION LOG

DEPTH (FT)	SAMPLE ID	% RECOVERY	SAMPLE INTERVAL	PID READING ppm-v	SOIL DESCRIPTION	WELL COMPLETION
0.0 – 5.0	LB-6, 0-5'	80%	0-5'	0	Loamy sand to 1 foot then fine to coarse SAND and gravel with fine gravel and pulverized rock from 2-4.5 feet. Peat from 4.5-5 feet	
5.0 – 10.0	LB-6, 5-10'	70%	5-10'	0	Silty fine SAND from 5-8.5 feet. Damp clayey sand from 8.5-10 feet.	▽
10.0					BOTTOM OF BORING AT 10'	

11.0 12.0 13.0 14.0 15.0 16.0 17.0 18.0 19.0 20.0 21.0 22.0 23.0 24.0 25.0 26.0

TERMS

Proportion	Definition
trace	0% - 10%
little	10% - 20%
some	20% - 35%
and	35% - 50%

NOTES

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SOIL TEST BORING LOG & WELL COMPLETION REPORT

BORING: **LB-7**
WELL: NA

CONTRACTOR:	New England GeoTech	**SITE LOCATION:**	191 Dedham Street	**WELL RISER:**	NA
DRILLER:	Maynor Mendoza	**PROJECT NO.:**	3145	**WELL SCREEN:**	NA
SUPERVISOR:	Oliver P. Leek	**START DATE:**	722/22	**OBSERVED DTW:**	NA
EQUIPMENT:	Geoprobe 7822	**FINISH DATE:**	07/22/22		

DIRECT-PUSH BORING & WELL COMPLETION LOG

DEPTH (FT)	SAMPLE ID	% RECOVERY	SAMPLE INTERVAL	PID READING ppm-v	SOIL DESCRIPTION	WELL COMPLETION
0.0 – 5.0	LB-7, 0-5'	70%	0-5'	0	Loamy sand to 0.5 feet then fine to medium SAND and gravel with fine gravel and pulverized rock from 0.5-4 feet. Peat from 4-4.25 feet, thwen clayey sand to 5 feet.	
5.0 – 10.0	LB-7, 5-10'	80%	5-10'	0	Fine to medium silty sand and gravvel with some pulverized rock.	
10.0 – 26.0					BOTTOM OF BORING AT 10'	

TERMS

Proportion Definition

trace	0% - 10%
little	10% - 20%
some	20% - 35%
and	35% - 50%

NOTES

Lord Environmental, Inc.

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SOIL TEST BORING LOG & WELL COMPLETION REPORT

BORING: **LB-8**
WELL: NA

CONTRACTOR:	New England GeoTech	**SITE LOCATION:**	191 Dedham Street	**WELL RISER:**	NA
DRILLER:	Maynor Mendoza	**PROJECT NO.:**	3145	**WELL SCREEN:**	NA
SUPERVISOR:	Oliver P. Leek	**START DATE:**	722/22	**OBSERVED DTW:**	7'
EQUIPMENT:	Geoprobe 7822	**FINISH DATE:**	07/22/22		

DIRECT-PUSH BORING & WELL COMPLETION LOG

DEPTH (FT)	SAMPLE ID	% RECOVERY	SAMPLE INTERVAL	PID READING ppm-v	SOIL DESCRIPTION	WELL COMPLETION
0.0 – 5.0	LB-8, 0-5'	80%	0-5'	0	Loamy sand to 0.5 feet then fine to medium SAND and gravel with fine gravel and pulverized rock from 0.5-4.5 feet.	
5.0 – 10.0	LB-8, 5-10'	90%	5-10'	0	Peaty sand from 5-6 feet. Clay from 6-8.5 feet. Clayey sand from 8.5-10 feet. Damp at 7 feet	▽
10.0					BOTTOM OF BORING AT 10'	

TERMS

Proportion Definition

trace	0% - 10%
little	10% - 20%
some	20% - 35%
and	35% - 50%

NOTES

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SOIL TEST BORING LOG & WELL COMPLETION REPORT

BORING: **LB-9**
WELL: NA

CONTRACTOR:	New England GeoTech	**SITE LOCATION:**	191 Dedham Street	**WELL RISER:**	NA
DRILLER:	Maynor Mendoza	**PROJECT NO.:**	3145	**WELL SCREEN:**	NA
SUPERVISOR:	Oliver P. Leek	**START DATE:**	722/22	**OBSERVED DTW:**	NA
EQUIPMENT:	Geoprobe 7822	**FINISH DATE:**	07/22/22		

DIRECT-PUSH BORING & WELL COMPLETION LOG

DEPTH (FT)	SAMPLE ID	% RECOVERY	SAMPLE INTERVAL	PID READING ppm-v	SOIL DESCRIPTION	WELL COMPLETION
0.0 – 5.0	LB-9, 0-5'	80%	0-5'	0	Loamy sand to 1 foot, then fine to medium SAND and gravel with fine gravel and pulverized rock from 1-5 feet.	
5.0 – 10.0	LB-9, 5-10'	100%	5-10'	0	Silty fine to coarse SAND from 5-7 feey. Fine to medium sand and gravel with pulverized rock from 7-9 feet. Refusal on rock at 9 feet.	
10.0 – 26.0					BOTTOM OF BORING AT 9' AT RESUSAL	

TERMS

Proportion	Definition
trace	0% - 10%
little	10% - 20%
some	20% - 35%
and	35% - 50%

NOTES

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SOIL TEST BORING LOG & WELL COMPLETION REPORT

BORING: **LB-10**
WELL: NA

CONTRACTOR:	New England GeoTech	**SITE LOCATION:**	191 Dedham Street	**WELL RISER:**	NA
DRILLER:	Maynor Mendoza	**PROJECT NO.:**	3145	**WELL SCREEN:**	NA
SUPERVISOR:	Oliver P. Leek	**START DATE:**	722/22	**OBSERVED DTW:**	7'
EQUIPMENT:	Geoprobe 7822	**FINISH DATE:**	07/22/22		

DIRECT-PUSH BORING & WELL COMPLETION LOG

DEPTH (FT)	SAMPLE ID	% RECOVERY	SAMPLE INTERVAL	PID READING ppm-v	SOIL DESCRIPTION	WELL COMPLETION
0.0 – 5.0	LB-10, 0-5'	90%	0-5'	0	Loamy sand to 1 foot, then FILL with brick and gravel from 1-5 feet.	
5.0 – 10.0	LB-10, 5-10'	80%	5-10'	0	Peaty sand from 5-7 feet. Silty fine to medium sand from 7-8.5 feet. Clayey sand from 8.5-10 feet. Damp at 7 feet.	▽
					BOTTOM OF BORING AT 10'	

TERMS

Proportion	Definition
trace	0% - 10%
little	10% - 20%
some	20% - 35%
and	35% - 50%

NOTES

FINAL REPORT
FOR
EXISTING CONDITIONS EVALUATION
HAZARDOUS MATERIALS IDENTIFICATION
STUDY
AT THE
COUNTRYSIDE ELEMENTARY SCHOOL
NEWTON, MA

PROJECT NO: 222 544.00

Survey Dates:
April 7, 2022
June 3, 2022
September 26, 2022

CONDUCTED BY:

UNIVERSAL ENVIRONMENTAL CONSULTANTS
12 Brewster Road
Framingham, MA 01702

UEC universal environmental consultants

September 29, 2022

Mr. Arthur Cabral
City of Newton Public Buildings
52 Elliot Street
Newton, MA 02459

Reference: Report for Hazardous Materials Identification Study
Countryside Elementary School, Newton, MA

Dear Mr. Cabral:

Thank you for the opportunity for Universal Environmental Consultants (UEC) to provide professional services.

Enclosed please find the report for Hazardous Materials Identification Study at the Countryside Elementary School, Newton, MA.

Please do not hesitate to call should you have any questions.

Very truly yours,

Universal Environmental Consultants

Ammar M. Dieb
President

UEC:\222 544.00\Report.DOC

Enclosure

INTRODUCTION:
Universal Environmental Consultants (UEC) has been providing comprehensive asbestos services since 2001 and has completed projects throughout New England. We have completed projects for a variety of clients including commercial, industrial, municipal, and public and private schools. We maintain appropriate asbestos licenses and staff with a minimum of thirty-two years of experience.

UEC was contracted by the City of Newton to conduct the following services at the Countryside Elementary School, Newton, MA:

- Asbestos Containing Materials (ACM) determination inspection and sampling.
- Polychlorinated Biphenyls (PCB's)-Electrical Equipment and Light Fixtures inspection.
- PCB's Caulking Inspection.
- Lead Based Paint (LBP) inspection.
- Airborne Mold inspection and sampling.
- Radon sampling.
- Mercury in Rubber Flooring inspection.

The scope of work included the inspection of accessible ACM, collection of bulk samples from materials suspected to contain asbestos, determination and quantities of types of ACM found and cost estimates for remediation. *A comprehensive survey per the Environmental Protection Agency (EPA) NESHAP regulation would be required prior to any renovation or demolition activities.*

Bulk samples analyses for asbestos were performed using the standard Polarized Light Microscopy (PLM) Method in accordance with EPA standard. Bulk samples were collected by Massachusetts licensed asbestos inspectors Mr. Jason Becotte (AI-034963), Mr. George Bezreh (AI-900609) and Mr. Leonard J. Busa (AI-00189). Samples were analyzed by Massachusetts licensed laboratories Asbestos Identification Laboratory and EMSL, Woburn, MA.

Airborne mold samples were analyzed by an EPA approved laboratory EMSL, Woburn, MA.

Radon samples were analyzed by an EPA approved laboratory AccuStar, Ward Hill, MA.

Samples results are attached.

FINDINGS:
Asbestos Containing Materials (ACM):
The regulations for asbestos inspection are based on representative sampling. It would be impractical and costly to sample all materials in all areas. Therefore, representative samples of each homogenous area were collected and analyzed or assumed.

All suspect materials were grouped into homogenous areas. By definition, a homogenous area is one in which the materials are evenly mixed and similar in appearance and texture throughout. A homogeneous area shall be determined to be ACM based on findings that the results of at least one sample collected from that area shows that asbestos is present in an amount of 1 percent or greater in accordance with EPA regulations. Per the Department of Environmental Protection (DEP) any amount of asbestos found must be disposed as asbestos.

No additional suspect and accessible ACM were found during this survey. However, hidden ACM may be found during the renovation and demolition activities.

Number of Samples Collected:
April 7, 2022
Two (2) bulk samples were collected from materials suspected of containing asbestos, including:

Type and Location of Sample

1. Glue daub for fiberglass 1' x 1' acoustical ceiling tile at cafetorium

2. Glue daub for fiberglass 1’ x 1’ acoustical ceiling tile at cafetorium

Sample Results:

Type and Location of Sample	**Sample Result**
1. Glue daub for fiberglass 1’ x 1’ acoustical ceiling tile at cafetorium	No Asbestos Detected
2. Glue daub for fiberglass 1’ x 1’ acoustical ceiling tile at cafetorium	No Asbestos Detected

June 3, 2022
Fifty-nine (59) bulk samples were collected from materials suspected of containing asbestos, including:

Type and Location of Sample

1. Generator exhaust insulation at generator room
2. Generator exhaust insulation at generator room
3. Generator exhaust insulation at generator room
4. Tank insulation at boiler room
5. Tank insulation at boiler room
6. Tank insulation at boiler room
7. Exhaust breeching insulation at boiler room
8. Exhaust breeching insulation at boiler room
9. Exhaust breeching insulation at boiler room
10. Pipe insulation at basement
11. Pipe insulation at basement
12. Pipe insulation at basement
13. 2’ x 2’ Suspended acoustical ceiling tile at custodian office
14. 2’ x 2’ Suspended acoustical ceiling tile at second floor guidance office
15. 2’ x 4’ Suspended acoustical ceiling tile at teacher’s room
16. 2’ x 4’ Suspended acoustical ceiling tile at teacher’s room
17. 1’ x 1’ Acoustical ceiling tile at room 10
18. 1’ x 1’ Acoustical ceiling tile at room 13
19. Glue daub for 1’ x 1’ acoustical ceiling tile at room 10
20. Glue daub for 1’ x 1’ acoustical ceiling tile at room 13
21. Fiberglass 1’ x 1’ acoustical wall tile at room 10
22. Fiberglass 1’ x 1’ acoustical wall tile at room 15
23. Transite wall panel at auditorium
24. Transite wall panel at auditorium
25. 9” x 9” Vinyl floor tile at library
26. 9” x 9” Vinyl floor tile at main office
27. Mastic for 9” x 9” vinyl floor tile at library
28. Mastic for 9” x 9” vinyl floor tile at main office
29. Grey/colors 12” x 12” vinyl floor tile at room 10
30. Grey/colors 12” x 12” vinyl floor tile at room 12
31. Brown mastic for grey/colors 12” x 12” vinyl floor tile at room 10
32. Brown mastic for grey/colors 12” x 12” vinyl floor tile at room 12
33. Light blue 12” x 12” vinyl floor tile at kitchen
34. Light blue 12” x 12” vinyl floor tile at kitchen
35. Mastic for light blue 12” x 12” vinyl floor tile at kitchen
36. Mastic for light blue 12” x 12” vinyl floor tile at kitchen
37. Plaster at stage exit hallway
38. Plaster at room 1
39. Plaster at room 6
40. Plaster at library
41. Plaster at room 10
42. Plaster at room 11

43. Plaster at room 15
44. 2’ x 4’ Suspended acoustical ceiling tile at 1986 wing room 1A
45. 2’ x 4’ Suspended acoustical ceiling tile at 1986 wing room 2A
46. White sink coating at 1986 wing room 1A
47. White sink coating at 1986 wing room 2A
48. Black sink coating at 1986 wing room 3A
49. Black sink coating at 1986 wing room 6A
50. Joint compound at 1986 wing room 2A
51. Joint compound at 1986 wing room 6A
52. Grey/colors 12” x 12” vinyl floor tile at 1986 wing room 2A
53. Grey/colors 12” x 12” vinyl floor tile at 1986 wing room 6A
54. Mastic for grey/colors 12” x 12” vinyl floor tile at 1986 wing room 2A
55. Mastic for grey/colors 12” x 12” vinyl floor tile at 1986 wing room 6A
56. Beige 12” x 12” vinyl floor tile at modular
57. Beige 12” x 12” vinyl floor tile at modular
58. 2’ x 4’ Suspended acoustical ceiling tile at modular
59. 2’ x 4’ Suspended acoustical ceiling tile at modular

Sample Results:

Type and Location of Sample	**Sample Result**
1. Generator exhaust insulation at generator room	45% Asbestos
2. Generator exhaust insulation at generator room	Not Analyzed
3. Generator exhaust insulation at generator room	Not Analyzed
4. Tank insulation at boiler room	2% Asbestos
5. Tank insulation at boiler room	Not Analyzed
6. Tank insulation at boiler room	Not Analyzed
7. Exhaust breeching insulation at boiler room	2% Asbestos
8. Exhaust breeching insulation at boiler room	Not Analyzed
9. Exhaust breeching insulation at boiler room	Not Analyzed
10. Pipe insulation at basement	45% Asbestos
11. Pipe insulation at basement	Not Analyzed
12. Pipe insulation at basement	Not Analyzed
13. 2’ x 2’ Suspended acoustical ceiling tile at custodian office	No Asbestos Detected
14. 2’ x 2’ Suspended acoustical ceiling tile at second floor guidance office	No Asbestos Detected
15. 2’ x 4’ Suspended acoustical ceiling tile at teacher’s room	No Asbestos Detected
16. 2’ x 4’ Suspended acoustical ceiling tile at teacher’s room	No Asbestos Detected
17. 1’ x 1’ Acoustical ceiling tile at room 10	No Asbestos Detected
18. 1’ x 1’ Acoustical ceiling tile at room 13	No Asbestos Detected
19. Glue daub for 1’ x 1’ acoustical ceiling tile at room 10	No Asbestos Detected
20. Glue daub for 1’ x 1’ acoustical ceiling tile at room 13	No Asbestos Detected
21. Fiberglass 1’ x 1’ acoustical wall tile at room 10	No Asbestos Detected
22. Fiberglass 1’ x 1’ acoustical wall tile at room 15	No Asbestos Detected
23. Transite wall panel at auditorium	30% Asbestos
24. Transite wall panel at auditorium	Not Analyzed
25. 9” x 9” Vinyl floor tile at library	5% Asbestos
26. 9” x 9” Vinyl floor tile at main office	Not Analyzed
27. Mastic for 9” x 9” vinyl floor tile at library	No Asbestos Detected
28. Mastic for 9” x 9” vinyl floor tile at main office	No Asbestos Detected
29. Grey/colors 12” x 12” vinyl floor tile at room 10	No Asbestos Detected
30. Grey/colors 12” x 12” vinyl floor tile at room 12	No Asbestos Detected
31. Brown mastic for grey/colors 12” x 12” vinyl floor tile at room 10	No Asbestos Detected
32. Brown mastic for grey/colors 12” x 12” vinyl floor tile at room 12	No Asbestos Detected
33. Light blue 12” x 12” vinyl floor tile at kitchen	No Asbestos Detected
34. Light blue 12” x 12” vinyl floor tile at kitchen	No Asbestos Detected

35. Mastic for light blue 12” x 12” vinyl floor tile at kitchen	No Asbestos Detected
36. Mastic for light blue 12” x 12” vinyl floor tile at kitchen	No Asbestos Detected
37. Plaster at stage exit hallway	No Asbestos Detected
38. Plaster at room 1	No Asbestos Detected
39. Plaster at room 6	No Asbestos Detected
40. Plaster at library	No Asbestos Detected
41. Plaster at room 10	No Asbestos Detected
42. Plaster at room 11	No Asbestos Detected
43. Plaster at room 15	No Asbestos Detected
44. 2’ x 4’ Suspended acoustical ceiling tile at 1986 wing room 1A	No Asbestos Detected
45. 2’ x 4’ Suspended acoustical ceiling tile at 1986 wing room 2A	No Asbestos Detected
46. White sink coating at 1986 wing room 1A	No Asbestos Detected
47. White sink coating at 1986 wing room 2A	No Asbestos Detected
48. Black sink coating at 1986 wing room 3A	15% Asbestos
49. Black sink coating at 1986 wing room 6A	Not Analyzed
50. Joint compound at 1986 wing room 2A	No Asbestos Detected
51. Joint compound at 1986 wing room 6A	2% Asbestos
52. Grey/colors 12” x 12” vinyl floor tile at 1986 wing room 2A	No Asbestos Detected
53. Grey/colors 12” x 12” vinyl floor tile at 1986 wing room 6A	No Asbestos Detected
54. Mastic for grey/colors 12” x 12” vinyl floor tile at 1986 wing room 2A	No Asbestos Detected
55. Mastic for grey/colors 12” x 12” vinyl floor tile at 1986 wing room 6A	No Asbestos Detected
56. Beige 12” x 12” vinyl floor tile at modular	No Asbestos Detected
57. Beige 12” x 12” vinyl floor tile at modular	No Asbestos Detected
58. 2’ x 4’ Suspended acoustical ceiling tile at modular	No Asbestos Detected
59. 2’ x 4’ Suspended acoustical ceiling tile at modular	No Asbestos Detected

September 26, 2022
Twenty-six (26) bulk samples were collected from materials suspected of containing asbestos, including:

Type and Location of Sample

1. Flashing over foundation at right of door 1
2. Flashing over foundation at right of door 1
3. Flashing over foundation at right of door 2
4. Damproofing on foundation wall at left of door 1
5. Damproofing on foundation wall at left of door 1
6. Unit vent grille pink caulking
7. Unit vent grille pink caulking
8. Vertical pink caulking in brick
9. Vertical pink caulking in brick
10. Vertical grey caulking in metal window frame seams
11. Vertical grey caulking in metal window frame seams
12. Horizontal window framing caulking
13. Horizontal window framing caulking
14. Horizontal grey caulking in stone sill
15. Horizontal grey caulking in stone sill
16. Glazing caulking for old window by door 1
17. Glazing caulking for old window by door 2
18. Vertical pink caulking in brick
19. Damproofing/flashing behind brick at right of door 1
20. Transite panel under window
21. Window framing caulking at 1986 wing
22. Window framing caulking at 1986 wing
23. Window framing caulking at 1986 wing
24. Caulking on metal system at 1986 wing

25. Caulking on metal system at 1986 wing
26. Flashing/paper behind brick at 1986 wing

Sample Results:

Type and Location of Sample	**Sample Result**
1. Flashing over foundation at right of door 1	No Asbestos Detected
2. Flashing over foundation at right of door 1	No Asbestos Detected
3. Flashing over foundation at right of door 2	No Asbestos Detected
4. Damproofing on foundation wall at left of door 1	No Asbestos Detected
5. Damproofing on foundation wall at left of door 1	No Asbestos Detected
6. Unit vent grille pink caulking	No Asbestos Detected
7. Unit vent grille pink caulking	No Asbestos Detected
8. Vertical pink caulking in brick	No Asbestos Detected
9. Vertical pink caulking in brick	No Asbestos Detected
10. Vertical grey caulking in metal window frame seams	No Asbestos Detected
11. Vertical grey caulking in metal window frame seams	No Asbestos Detected
12. Horizontal window framing caulking	No Asbestos Detected
13. Horizontal window framing caulking	No Asbestos Detected
14. Horizontal grey caulking in stone sill	No Asbestos Detected
15. Horizontal grey caulking in stone sill	No Asbestos Detected
16. Glazing caulking for old window by door 1	2% Asbestos
17. Glazing caulking for old window by door 2	2% Asbestos
18. Vertical pink caulking in brick	No Asbestos Detected
19. Damproofing/flashing behind brick at right of door 1	20% Asbestos
20. Transite panel under window	30% Asbestos
21. Window framing caulking at 1986 wing	20% Asbestos
22. Window framing caulking at 1986 wing	10% Asbestos
23. Window framing caulking at 1986 wing	20% Asbestos
24. Caulking on metal system at 1986 wing	15% Asbestos
25. Caulking on metal system at 1986 wing	20% Asbestos
26. Flashing/paper behind brick at 1986 wing	No Asbestos Detected

September 26, 2022
Roofing Material:
Thirty (30) bulk samples were collected from materials suspected of containing asbestos, including:

Type and Location of Sample

1. Roof core
2. Roof caulking at T Bar at brick wall
3. Roof caulking at brick wall
4. Roof caulking at stack pipe
5. Roof core
6. Roof caulking at window
7. Roof caulking at stack pipe
8. Roof core
9. Roof core
10. Roof caulking/mastic at curb
11. Roof caulking at stack pipe
12. Roof core
13. Roof core
14. Roof mastic at curb
15. Roof core
16. Roof core

17. Roof core
18. Roof core
19. Roof caulking at brick wall
20. Roof core
21. Roof core
22. Roof caulking at stack pipe
23. Roof core
24. Roof core
25. Roof caulking at brick wall
26. Roof core
27. Roof core
28. Roof mastic at curb
29. Roof core
30. Roof core

Sample Results:

Type and Location of Sample	**Sample Result**
1. Roof core	No Asbestos Detected
2. Roof caulking at T Bar at brick wall	No Asbestos Detected
3. Roof caulking at brick wall	No Asbestos Detected
4. Roof caulking at stack pipe	No Asbestos Detected
5. Roof core	No Asbestos Detected
6. Roof caulking at window	No Asbestos Detected
7. Roof caulking at stack pipe	No Asbestos Detected
8. Roof core	No Asbestos Detected
9. Roof core	No Asbestos Detected
10. Roof caulking/mastic at curb	No Asbestos Detected
11. Roof caulking at stack pipe	No Asbestos Detected
12. Roof core	No Asbestos Detected
13. Roof core	No Asbestos Detected
14. Roof mastic at curb	No Asbestos Detected
15. Roof core	No Asbestos Detected
16. Roof core	No Asbestos Detected
17. Roof core	No Asbestos Detected
18. Roof core	No Asbestos Detected
19. Roof caulking at brick wall	No Asbestos Detected
20. Roof core	No Asbestos Detected
21. Roof core	No Asbestos Detected
22. Roof caulking at stack pipe	No Asbestos Detected
23. Roof core	No Asbestos Detected
24. Roof core	No Asbestos Detected
25. Roof caulking at brick wall	No Asbestos Detected
26. Roof core	No Asbestos Detected
27. Roof core	No Asbestos Detected
28. Roof mastic at curb	No Asbestos Detected
29. Roof core	No Asbestos Detected
30. Roof core	No Asbestos Detected

Observations and Conclusions:

The condition of ACM is very important. ACM in good condition does not present a health issue unless it is disturbed. Therefore, it is not necessary to remediate ACM in good condition unless it will be disturbed through renovation, demolition, or other activity.

1. Generator exhaust insulation was found to contain asbestos.

2. Tank insulation was found to contain asbestos.
3. Exhaust breeching insulation was found to contain asbestos.
4. Pipe insulation was found to contain asbestos.
5. Transite wall panel was found to contain asbestos.
6. 9" x 9" Vinyl floor tile was found to contain asbestos.
7. 2' x 2' Suspended acoustical ceiling tile type II at the gymnasium was assumed to contain asbestos.
8. Black sink coating at the 1986 wing was found to contain asbestos.
9. Joint compound at the 1986 wing was found to contain asbestos.
10. Glazing caulking for old windows at both the original and the 1986 wing was found to contain asbestos.
11. Caulking on metal system at 1986 wing was found to contain asbestos.
12. Damproofing/flashing behind brick was found to contain asbestos. The demolition contractor will have to segregate the ACM from non-ACM building surfaces for proper disposal in an EPA approved landfill that does not recycle. A non-traditional abatement plan would have to be required for DEP for approval. Additional destructive testing is needed to determine the extent/location of the ACM.
13. Window framing caulking at 1986 wing was found to contain asbestos.
14. Caulking on metal system at 1986 wing was found to contain asbestos.
15. Paper/mastic under gymnasium hardwood floor was assumed to contain asbestos.
16. Underground sewer pipes were assumed to contain asbestos.
17. All other suspect materials were found not to contain asbestos. Hidden ACM may be found during renovation and demolition activities.

Polychlorinated Biphenyls (PCB's)-Electrical Equipment and Light Fixtures:
Observations and Conclusions:
Visual inspection of various equipments such as light fixtures, thermostats, exit signs and switches was performed for the presence of PCB's and mercury. Ballasts in light fixtures were assumed to contain PCB's. Tubes in light fixtures, thermostats, signs, and switches were assumed to contain mercury. It would be very costly to test those equipments and dismantling would be required to access. Therefore, the above mentioned equipments should be considered to contain PCB's and mercury and disposed in an EPA approved landfill as part of the demolition project.

PCB's in Caulking:
PCB's are manmade chemicals that were widely produced and distributed across the country from the 1950s to 1977 until the production of PCB's was banned by the US Environmental Protection Agency (EPA) law which became effective in 1978. PCB's are a class of chemicals made up of more than 200 different compounds. PCB's are non-flammable, stable, and good insulators so they were widely used in a variety of products including electrical transformers and capacitors, cable and wire coverings, sealants and caulking, and household products such as television sets and fluorescent light fixtures. Because of their chemical properties, PCB's are not very soluble in water, and they do not break down easily in the environment. PCB's also do not readily evaporate into air but tend to remain as solids or thick liquids. Even though PCB's have not been produced or used in the country for more than 30 years, they are still present in the environment in the air, soil, and water and in our food. EPA requires that all construction waste including caulking be disposed as PCB's if PCB's level exceed 50 mg/kg (ppm). An abatement plan might also be required.

Observations and Conclusions:
Building materials and caulking were assumed to contain PCB's since the original building was constructed prior to 1978.

Lead Based Paint (LBP):
Observations and Conclusions:
LBP was assumed to exist on painted surfaces. A school is not considered a regulated facility. All LBP activities performed, including waste disposal, should be in accordance with applicable Federal, State, or local laws, ordinances, codes, or regulations governing evaluation and hazard reduction. In the event of discrepancies, the most protective requirements prevail. These requirements can be found in OSHA 29 CFR 1926-Construction Industry Standards, 29 CFR 1926.62-Construction Industry Lead Standards, 29 CFR 1910.1200-Hazards Communication, 40 CFR 261-EPA Regulations. According to OSHA, any amount of LBP triggers compliance.

Airborne Mold:
Airborne mold testing was performed utilizing Zefon International Incorporated's Air-O-Cell® sampling device following all manufacturer supplied recommended sampling procedures. Air-O-Cell® is a direct read total particulate air sampling device. It works using the inertial impaction principle similar to other spore trap devices. It is designed for the rapid collection and analysis of airborne particulate including bioaerosols. The particulate includes fibers (e.g., asbestos, fiberglass, cellulose, clothing fibers) opaque particles (e.g., fly ash, combustion particles, copy toner, oil droplets, paint), and bioaerosols (e.g., mold spores, pollen, insect parts, skin cell fragments).[1]

The method involves drawing a known quantity of air through a sterile sampling cassette. Subsequent to sampling, the cassette is sealed and transferred to a microbiology laboratory under chain of custody protocol for microscopic analysis. This method counts both viable and nonviable mold spores.

AIRBORNE MOLD and PARTICULATE

Lab ID #	Location	Total Mold Counts/M³	Pollen	Insect Fragment	Hyphal Fragments
132206653-0001	Room 3	1,160	ND	ND	60
132206653-0002	Main Office	320	20	ND	100
132206653-0003	Room 6A	1,110	ND	ND	80
132206653-0004	Room 17	1,350	ND	ND	ND
132206653-0005	Room 13	1,950	7	ND	20
132206653-0006	Gymnasium	877	ND	ND	60
132206653-0007	Outside	6,304	ND	ND	250

AIRBORNE MOLD and PARTICULATE
(Subjective Scales)

Lab ID #	Location	Skin Fragment Density (SFD)	Fibrous Particulates (FP)	Total Background Particulate (TBP)
132206653-0001	Room 3	1	1	2
132206653-0002	Main Office	1	1	2
132206653-0003	Room 6A	1	1	1
132206653-0004	Room 17	1	1	1
132206653-0005	Room 13	1	1	1
132206653-0006	Gymnasium	1	1	3
132206653-0007	Outside	1	1	1

Observations and Conclusions:
There are currently no guidelines or standards promulgated by a government agency or widely recognized scientific organizations for the interpretation of airborne mold spore levels. The most commonly employed tool used to assess if mold growth is occurring and there is amplification in a structure is to evaluate the indoor levels and species as well as to compare levels and species of mold outdoors to indoors. Typically, if there were more molds indoors, and/or if species were present indoors which were not present outdoors, then growth and amplification is likely occurring and further evaluation and perhaps remediation is recommended.

[1] Zefon International Inc. <www.zefon.com>

Indoor airborne mold spore concentrations were found to be lower than the outside sample. Based on comparisons with historical data from projects of similar type, building utilization, geographic location and season, the indoor airborne levels are considered average. Indoor mold spore counts in early fall are typically in the 1,500-3,500-spores/cubic meter range.

Pollen, insect fragments and Hyphal fragments were either not detected or present in the samples. Hyphal fragment is a non-reproductive part of the mold.

Total background particulate on all samples was assessed as "1-3" on a scale of 1-5 where 1 is low and 5 is high. Skin fragment density on all samples was assessed as "1" on a scale of 1-4 where 1 is low and 4 is high. The total background levels are measured to determine airborne dust not related to airborne mold. Skin fragments are measured to determine proper housing cleaning.

Radon:
Number of Samples Collected
Twelve (12) air samples were collected at the following locations:

Location of Material

1. Stage
2. Gymnasium
3. Room 3
4. Room 5
5. Room 2
6. Room 6
7. Main Office
8. Library
9. Room 3A
10. Room 6A
11. Room 9A
12. Teacher's Lounge

Sample Results:

Location of Material	Sample Result
1. Stage	0.5 pCi\L
2. Gymnasium	0.4 pCi\L
3. Room 3	0.6 pCi\L
4. Room 5	<0.4 pCi\L
5. Room 2	<0.4 pCi\L
6. Room 6	0.4 pCi\L
7. Main Office	0.4 pCi\L
8. Library	0.4 pCi\L
9. Room 3A	0.5 pCi\L
10. Room 6A	0.4 pCi\L
11. Room 9A	0.6 pCi\L
12. Teacher's Lounge	

Observations and Conclusions:
The measured radon concentrations of the samples were found to be lower than the EPA guideline of 4 picoCuris of radon per liter of air (pCi/L). No further action is required.

Mercury in Rubber Flooring:
Observations and Conclusions:
No rubber flooring exists.

COST ESTIMATES:
The cost includes removal and disposal of all accessible ACM, other hazardous material (excluding PCB's), and an allowance for removal of inaccessible or hidden ACM that may be found during renovation or demolition project. Quantities listed below were based on actual field measurement and should be within 5% +/-.

Location	Material	Approximate Quantity	Cost Estimate ($)
1953 Wing:			
Various Locations	9" x 9" Vinyl Floor Tile	2,360 SF	14,160.00
	Pipe and Hard Joint Insulation	600 LF	18,000.00
	Hidden Pipe and Hard Joint Insulation	1,500 LF[2]	50,000.00
	Ceiling/Walls Demolition to Access ACM	7,500 SF[2]	25,000.00
	Light Fixtures	Unknown	50,000.00
	Hidden ACM and Miscellaneous HAZ MAT	Unknown	25,000.00
Auditorium	Transite Wall Panels	700 SF	14,000.00
Tunnels	Pipe and Hard Joint Insulation	100 LF	5,000.00
	Debris	500 SF	2,500.00
Boiler Room	Pipe and Hard Joint Insulation	140 LF	4,200.00
	Exhaust Breeching Insulation	300 SF	9,000.00
	Tank Insulation	130 SF	3,900.00
Generator Room	Generator Exhaust Insulation	10 LF	1,000.00
Gymnasium	Hardwood Flooring/Paper/Mastic	3,500 SF	35,000.00
	2' x 2' Suspended Acoustical Ceiling Tile	2,400 SF	24,000.00
Exterior	Old Windows	42 Total	16,800.00
	Damproofing/Flashing	1,000 Tons[1,2]	200,000.00
1986 Wing:			
Various Locations	Black Sink Coating	6 Total	1,800.00
	Joint Compound	15,100 SF	75,500.00
	Light Fixtures	Unknown	15,000.00
	Hidden ACM and Miscellaneous HAZ MAT	Unknown	5,000.00
Exterior	Windows	270 Total	108,000.00
	Transite Panels	43 Total	43,000.00
Site	Transite Sewer Pipe	1,000 LF[1, 2]	75,000.00
Estimated costs for NESHAP Inspection Services			15,000.00
Estimated costs for Design, Construction Monitoring and Air Sampling Services			84,140.00
Construction Manager Fee			75,000.00
		TOTAL:	***910,000.00***

[1]: Part of total demolition/Site Work.

[2]: Estimated.

DESCRIPTION OF SURVEY METHODS AND LABORATORY ANALYSES:

Asbestos:
Asbestos samples were collected using a method that prevents fiber release. Homogeneous sample areas were determined by criteria outlined in EPA document 560/5-85-030a. Bulk material samples were analyzed by PLM using EPA/600/R-93/116 method. Samples were analyzed by Massachusetts licensed laboratories Asbestos Identification Laboratory and EMSL, Woburn, MA.

Airborne Mold:
The samples were analyzed by an EPA approved laboratory EMSL, Woburn, MA.

Radon:
Radon samples were analyzed by an EPA licensed laboratory AccuStar, Ward Hill, MA.

LIMITATIONS AND CONDITIONS:
This report has been completed based on visual and physical observations made and information available at the time of the site visits, as well as an interview with the Owner's representatives. This report is intended to be used as a summary of available information on existing conditions with conclusions based on a reasonable and knowledgeable review of evidence found in accordance with normally accepted industry standards, state, and federal protocols, and within the scope and budget established by the client. Any additional data obtained by further review must be reviewed by UEC and the conclusions presented herein may be modified accordingly.

This report and attachments, prepared for the exclusive use of Owner for use in an environmental evaluation of the subject site, are an integral part of the inspections and opinions should not be formulated without reading the report in its entirety. No part of this report may be altered, used, copied, or relied upon without prior written permission from UEC, except that this report may be conveyed in its entirety to parties associated with Owner for this subject study.

Inspected By:

Jason Becotte
Asbestos Inspector

Inspected By:

George Bezreh
Asbestos Inspector

Inspected By:

Leonard Busa
Asbestos Inspector

Asbestos Identification Laboratory.

165 New Boston St., Ste 227
Woburn, MA 01801
781-932-9600

Web: www.asbestosidentificationlab.com Email: mikemanning@asbestosidentificationlab.com

NVLAP® Testing Lab Code: 200919-0

Batch: 77874

Ammar Dieb
Universal Environmental Consultants
12 Brewster Road
Framingham, MA 01702

Project Information

Countryside School - Newton, MA

Method: BULK PLM ANALYSIS, EPA/600/R-93/116

Dear Ammar Dieb,

Asbestos Identification Laboratory has completed the analysis of the samples from your office for the above referenced project. The Analysis Method is BULK PLM ANALYSIS, EPA/600/R-93/116The information and analysis contained in this report have been generated using the EPA /600/R-93/116 Method for the Determination of Asbestos in Bulk Building Materials. Materials or products that contain more than 1% of any kind or combination of asbestos are considered an asbestos containing building material as determined by the EPA. This Polarized Light Microscope (PLM) technique may be performed either by visual estimation or point counting. Point counting provides a determination of the area percentage of asbestos in a sample. If the asbestos is estimated to be less than 10% by visual estimation of friable material, the determination may be repeated using the point counting technique. The results of the point counting supersede visual PLM results. Results in this report only relate to the items tested. This report may not be used by the customer to claim product endorsement by NVLAP or any other U.S. Government Agency.
Laboratory results represent the analysis of samples as submitted by the customer. Information regarding sample location, description, area, volume, etc., was provided by the customer. Asbestos Identification Laboratory is not responsible for sample collection activities or analytical method limitations. Unless notified in writing to return samples, Asbestos Identification Laboratory discards customer samples after 30 days. Samples containing subsamples or layers will be analyzed separately when applicable. Reports are kept at Asbestos Identification Laboratory for three years. This report shall not be reproduced, except in full, without the written consent of Asbestos Identification Laboratory.

- NVLAP Lab Code: 200919-0
- Massachusetts Certification License: AA000208
- State of Connecticut, Department of Public Health Approved Environmental Laboratory Registration Number: PH-0142
- State of Maine, Department of Environmental Protection Asbestos Analytical Laboratory License Number: LB-0078(Bulk) LA-0087(Air)
- State of Rhode Island and Providence Plantations. Department of Health Certification: AAL-121
- State of Vermont, Department of Health Environmental Health License AL934461

Thank you Ammar Dieb for your business.

Michael Manning
Owner/Director

Ammar Dieb
Universal Environmental Consultants
12 Brewster Road
Framingham, MA 01702

Project Information

Countryside School - Newton, MA

Method: BULK PLM ANALYSIS, EPA/600/R-93/116

FieldID / LabID	Material	Location	Color	Non-Asbestos %	Asbestos %
1 / 863315	Glue Daub for FG 1x1 AT	Cafeteria Ceiling	brown	Non-Fibrous 100	None Detected
2 / 863316	Glue Daub for FG 1x1 AT	Cafeteria Ceiling	brown	Non-Fibrous 100	None Detected

Sampled: April 07, 2022 **Received:** April 08, 2022 **Analyzed:** April 08, 2022

Monday 11 April 2022

Analyzed by: 

Batch: 77874

CHAIN OF CUSTODY

Universal Environmental Consultants
12 Brewster Road
Framingham, MA 01702
Tel: (508) 628-5486 - Fax: (508) 628-5488
adieb@uec-env.com

PLM
24-hour TAT

Town/City: Newton, MA Building Name Countryside School

Sample	Description of Material	Sample Location
1	Glue dab for FG 1x1 AT	cafeterium ceiling
2	1 1	1 1

Reported By: Jason Becotte Date: 4-7-22 Due Date: **24-Hours**

Received By: RR 4/8/22 Date:

Asbestos Identification Laboratory.

165 New Boston St., Ste 227
Woburn, MA 01801
781-932-9600

Web: www.asbestosidentificationlab.com Email: mikemanning@asbestosidentificationlab.com

NVLAP® Testing Lab Code: 200919-0

Batch: 80465

Ammar Dieb
Universal Environmental Consultants
12 Brewster Road
Framingham, MA 01702

Project Information

Countryside Elementary,
Newton,
Ma

Method: BULK PLM ANALYSIS, EPA/600/R-93/116

Dear Ammar Dieb,

Asbestos Identification Laboratory has completed the analysis of the samples from your office for the above referenced project. The Analysis Method is BULK PLM ANALYSIS, EPA/600/R-93/116The information and analysis contained in this report have been generated using the EPA /600/R-93/116 Method for the Determination of Asbestos in Bulk Building Materials. Materials or products that contain more than 1% of any kind or combination of asbestos are considered an asbestos containing building material as determined by the EPA. This Polarized Light Microscope (PLM) technique may be performed either by visual estimation or point counting. Point counting provides a determination of the area percentage of asbestos in a sample. If the asbestos is estimated to be less than 10% by visual estimation of friable material, the determination may be repeated using the point counting technique. The results of the point counting supersede visual PLM results. Results in this report only relate to the items tested. This report may not be used by the customer to claim product endorsement by NVLAP or any other U.S. Government Agency.
Laboratory results represent the analysis of samples as submitted by the customer. Information regarding sample location, description, area, volume, etc., was provided by the customer. Information provided by the customer can affect the validity of results. Asbestos Identification Laboratory is not responsible for sample collection activities or analytical method limitations. Unless notified in writing to return samples, Asbestos Identification Laboratory discards customer samples after 30 days. Samples containing subsamples or layers will be analyzed separately when applicable. Reports are kept at Asbestos Identification Laboratory for three years. All customer information will be maintained in confidentiality. This report shall not be reproduced, except in full, without the written consent of Asbestos Identification Laboratory.

- NVLAP Lab Code: 200919-0
- Massachusetts Certification License: AA000208
- State of Connecticut, Department of Public Health Approved Environmental Laboratory Registration Number: PH-0142
- State of Maine, Department of Environmental Protection Asbestos Analytical Laboratory License Number: LB-0078(Bulk) LA-0087(Air)
- State of Rhode Island and Providence Plantations. Department of Health Certification: AAL-121
- State of Vermont, Department of Health Environmental Health License AL934461

Thank you Ammar Dieb for your business.

Michael Manning
Owner/Director

Ammar Dieb
Universal Environmental Consultants
12 Brewster Road
Framingham, MA 01702

Project Information

Countryside Elementary,
Newton,
Ma

Method: BULK PLM ANALYSIS, EPA/600/R-93/116

FieldID / LabID	Material	Location	Color	Non-Asbestos %	Asbestos %
1 / 894069	Generator Exhaust Insulation	Generator Room	white	Non-Fibrous 55	**Detected** Chrysotile 45
2 / 894070	Generator Exhaust Insulation	Generator Room			Not Analyzed
3 / 894071	Generator Exhaust Insulation	Generator Room			Not Analyzed
4 / 894072	Tank Insulation	Boiler Room	gray	Fiberglass 8 Cellulose 55 Non-Fibrous 35	**Detected** Chrysotile 2
5 / 894073	Tank Insulation	Boiler Room			Not Analyzed
6 / 894074	Tank Insulation	Boiler Room			Not Analyzed
7 / 894075	Exhaust Breeching Insulation	Boiler Room	gray	Fiberglass 10 Cellulose 53 Non-Fibrous 35	**Detected** Chrysotile 2
8 / 894076	Exhaust Breeching Insulation	Boiler Room			Not Analyzed
9 / 894077	Exhaust Breeching Insulation	Boiler Room			Not Analyzed
10 / 894078	Pipe Insulation	Basement	white	Non-Fibrous 55	**Detected** Chrysotile 40 Amosite 5
11 / 894079	Pipe Insulation	Basement			Not Analyzed
12 / 894080	Pipe Insulation	Basement			Not Analyzed
13 / 894081	2x2 SAT	Custodian Office	gray	Fiberglass 40 Cellulose 45 Non-Fibrous 15	None Detected
14 / 894082	2x2 SAT	2nd Fl. Guidance Office	gray	Fiberglass 40 Cellulose 45 Non-Fibrous 15	None Detected
15 / 894083	2x4SAt	Teachers Room	gray	Fiberglass 40 Cellulose 45 Non-Fibrous 15	None Detected
16 / 894084	2x4 SAT	Teachers Room	gray	Fiberglass 40 Cellulose 45 Non-Fibrous 15	None Detected

Sampled: June 03, 2022 **Received:** June 06, 2022 **Analyzed:** June 07, 2022

Wednesday 08 June 2022

Analyzed by: **Batch:** 80465

Ammar Dieb
Universal Environmental Consultants
12 Brewster Road
Framingham, MA 01702

Project Information

Countryside Elementary,
Newton,
Ma

Method: BULK PLM ANALYSIS, EPA/600/R-93/116

FieldID / LabID	Material	Location	Color	Non-Asbestos %	Asbestos %
17 / 894085	1x1 AT Ceiling	Room 10	gray	Fiberglass 50 Cellulose 35 Non-Fibrous 15	None Detected
18 / 894086	1x1 AT Ceiling	Room 13	gray	Fiberglass 50 Cellulose 35 Non-Fibrous 15	None Detected
19 / 894087	Brown Glue Daub	Room 10	brown	Other 5 Non-Fibrous 95	None Detected
20 / 894088	Brown Glue Daub	Room 13	brown	Other 5 Non-Fibrous 95	None Detected
21 / 894089	1x1 FG AT Wall Glue	Room 10	tan	Non-Fibrous 100	None Detected
22 / 894090	1x1 FG AT Wall Glue	Room 15	tan	Non-Fibrous 100	None Detected
23 / 894091	Transite Wall Panel	Auditorium	gray	Non-Fibrous 70	**Detected** **Chrysotile 30**
24 / 894092	Traniste Wall Panel	Auditorium			Not Analyzed
25 / 894093	98x9 VFT	Library	gray	Non-Fibrous 95	**Detected** **Chrysotile 5**
26 / 894094	9x9 VFT	Main Office			Not Analyzed
27 / 894095	Black Mastic	On #25	black	Non-Fibrous 100	None Detected
28 / 894096	Black Mastic	On #26	black	Non-Fibrous 100	None Detected
29 / 894097	Gray W/ Color Flecks 12x12 VFT	Room 10	tan	Non-Fibrous 100	None Detected
30 / 894098	Gray W/ Color Flecks 12x12 VFT	Room 12	tan	Non-Fibrous 100	None Detected
31 / 894099	Brown Mastic	On #29	tan	Non-Fibrous 100	None Detected
32 / 894100	Brown Mastic	On #30	tan	Non-Fibrous 100	None Detected

Sampled: June 03, 2022 **Received:** June 06, 2022 **Analyzed:** June 07, 2022

Wednesday 08 June 2022

Analyzed by: **Batch:** 80465

Ammar Dieb
Universal Environmental Consultants
12 Brewster Road
Framingham, MA 01702

Project Information

Countryside Elementary,
Newton,
Ma

Method: BULK PLM ANALYSIS, EPA/600/R-93/116

FieldID / LabID	Material	Location	Color	Non-Asbestos %	Asbestos %
33 / 894101	Light Blue 12x12 VFT	Kitchen	gray	Non-Fibrous 100	None Detected
34 / 894102	Light Blue 122x12 VFt	Kitchen	gray	Non-Fibrous 100	None Detected
35 / 894103	Mastic	Kitchen	multi	Non-Fibrous 100	None Detected
36 / 894104	Mastic	Kitchen	multi	Non-Fibrous 100	None Detected
37 / 894105	Plaster	Stage Exit Hallway	tan	Non-Fibrous 100	None Detected
38 / 894106	Plaster	room 1	multi	Non-Fibrous 100	None Detected
39 / 894107	Plaster	Room 6	multi	Non-Fibrous 100	None Detected
40 / 894108	Plaster	Library	multi	Non-Fibrous 100	None Detected
41 / 894109	Plaster	Room 10	multi	Non-Fibrous 100	None Detected
42 / 894110	Plaster	Rtoom 11	multi	Non-Fibrous 100	None Detected
43 / 894111	Plaster	Room 15	multi	Non-Fibrous 100	None Detected
44 / 894112	2x4 SAt	1986 Room 1A	gray	Fiberglass 35 Cellulose 50 Non-Fibrous 15	None Detected
45 / 894113	2x4 SAT	1986 Room 2A	gray	Fiberglass 35 Cellulose 50 Non-Fibrous 15	None Detected
46 / 894114	White Sink Coating	1986 Room 1A	tan	Cellulose 20 Non-Fibrous 80	None Detected
47 / 894115	White Sink Coating	1986 Room 2A	tan	Cellulose 20 Non-Fibrous 80	None Detected
48 / 894116	Black Sink Coating	1986 Room 3A	black	Non-Fibrous 85	**Detected** **Chrysotile 15**

Sampled: June 03, 2022 **Received:** June 06, 2022 **Analyzed:** June 07, 2022

Wednesday 08 June 2022

Analyzed by: **Batch:** 80465

Ammar Dieb
Universal Environmental Consultants
12 Brewster Road
Framingham, MA 01702

Project Information

Countryside Elementary,
Newton,
Ma

Method: BULK PLM ANALYSIS, EPA/600/R-93/116

FieldID / LabID	Material	Location	Color	Non-Asbestos %	Asbestos %
49 / 894117	Black Sink Coating	1986 Room 6A			Not Analyzed
50 / 894118	Joint Compound	1986 Room 2A	white	Non-Fibrous 100	None Detected
51 / 894119	Joint Compound	1986 Room 6A	tan	Non-Fibrous 98	**Detected** Chrysotile 2
52 / 894120	Gray W/ Color Flecks 12x12 VFT	1986 Room 2A	tan	Non-Fibrous 100	None Detected
53 / 894121	Gray W/ Color Flecks 12x12 VFT	1986 Room 6A	tan	Non-Fibrous 100	None Detected
54 / 894122	Mastic	On #52	tan	Non-Fibrous 100	None Detected
55 / 894123	Mastic	On #53	multi	Non-Fibrous 100	None Detected
56 / 894124	Beige 12x12 VFT	Modular Art 10A	tan	Non-Fibrous 100	None Detected
57 / 894125	Beige 12x12 VFT	Modular Art 10A	tan	Non-Fibrous 100	None Detected
58 / 894126	2x4 SAT	Modular Art 10A	gray	Fiberglass 30 Cellulose 55 Non-Fibrous 15	None Detected
59 / 894127	2x4 SAT	Modular Room 12A	gray	Fiberglass 30 Cellulose 55 Non-Fibrous 15	None Detected

Sampled: June 03, 2022 **Received:** June 06, 2022 **Analyzed:** June 07, 2022

Wednesday 08 June 2022

Analyzed by: **Batch:** 80465

CHAIN OF CUSTODY

Universal Environmental Consultants
12 Brewster Road
Framingham, MA 01702
Tel: (508) 628-5486 - Fax: (508) 628-5488
adieb@uec-env.com

PLM Positive Stop
48 -hour TAT

Town/City: Newton, MA Building Name Countryside Elementary

Sample	Description of Material	Sample Location
1	Generater exhaust Insulation	Generater room
2	"	"
3	"	"
4	Tank Insulation	Boiler room
5	"	"
6	"	"
7	exhaust Breeching Insulation	Boiler room
8	"	"
9	"	"
10	Pipe Insulation	Basement
11	"	"
12	"	"
13	2x2 SAT	Custodian office
14	1 1	2nd fl. Guidance office
15	2x4 SAT	Teachers Room
16	1 1	1 1
17	1x1 AT ceiling	Room 10
18	1 1	Room 13
19	Brown glue dots	Room 10
20	1 1	Room 13

Reported By: Jason Becotte Date: 6-3-22

Received By: [signature] Date: 6/6/22

Due Date: **24-Hours**

CHAIN OF CUSTODY

Universal Environmental Consultants
12 Brewster Road
Framingham, MA 01702
Tel: (508) 628-5486 - Fax: (508) 628-5488
adieb@uec-env.com

PLM

Town/City: Newton MA Building Name Countryside Elementary

Sample	Description of Material	Sample Location
21	1x1 FGAT wall glue	Room 10
22	〃 〃	Room 15
23	Transite wall panel	Auditorium
24	〃 〃	〃 〃
25	9x9 VFT	Library
26	〃 〃	main office
27	Black Mastic	on # 25
28	〃 〃	on # 26
29	Gray w/color flecks 12x12 VFT	Room 10
30	〃 〃	Room 12
31	Brown mastic	on # 29
32	〃 〃	on # 30
33	Light Blue 12x12 VFT	Kitchen
34	〃 〃	〃 〃
35	mastic	〃 〃
36	〃 〃	〃 〃
37	plaster	Stage exit Hallway
38	〃 〃	Room 1
39	〃 〃	Room 6
40	〃 〃	Library

Reported By: Jason Beaulieu Date: 6-3-22 Due Date: **24-Hours**

Received By: ---------- Date: ----------

CHAIN OF CUSTODY

PLM

Universal Environmental Consultants
12 Brewster Road
Framingham, MA 01702
Tel: (508) 628-5486 - Fax: (508) 628-5488
adieb@uec-env.com

Town/City: Newton, MA Building Name Countryside Elementary

Sample	Description of Material	Sample Location
41	Plaster	Room 10
42	" "	Room 11
43	" "	Room 15
44	2x4 SAT	1986 Room 1A
45	" "	1986 Room 2A
46	white sink coating	1986 Room 1A
47	" "	1986 Room 2A
48	Black sink coating	1986 Room 3A
49	" "	1986 Room 6A
50	Joint compound	1986 Room 2A
51	" "	1986 Room 6A
52	Gray w/color Flecks 12x12 VFT	1986 Room 2A
53	" "	1986 Room 6A
54	mastic	on # 52
55	" "	on # 53
56	Beige 12x12 VFT	modular Art 10A
57	" "	" "
58	2x4 SAT	modular Art 10A
59	" "	modular Room 12A

Reported By: Jason Becotte Date: 6-3-22

Received By: [signature] Date: 6/6/22

Due Date: **24-Hours**

Asbestos Identification Laboratory.

165 New Boston St., Ste 227
Woburn, MA 01801
781-932-9600

Web: www.asbestosidentificationlab.com Email: mikemanning@asbestosidentificationlab.com

NVLAP® Testing Lab Code: 200919-0

Batch: 85620

Ammar Dieb
Universal Environmental Consultants
12 Brewster Road
Framingham, MA 01702

Project Information

Countryside School,
Newton,
MA

Method: BULK PLM ANALYSIS, EPA/600/R-93/116

Dear Ammar Dieb,

Asbestos Identification Laboratory has completed the analysis of the samples from your office for the above referenced project. The Analysis Method is BULK PLM ANALYSIS, EPA/600/R-93/116The information and analysis contained in this report have been generated using the EPA /600/R-93/116 Method for the Determination of Asbestos in Bulk Building Materials. Materials or products that contain more than 1% of any kind or combination of asbestos are considered an asbestos containing building material as determined by the EPA. This Polarized Light Microscope (PLM) technique may be performed either by visual estimation or point counting. Point counting provides a determination of the area percentage of asbestos in a sample. If the asbestos is estimated to be less than 10% by visual estimation of friable material, the determination may be repeated using the point counting technique. The results of the point counting supersede visual PLM results. Results in this report only relate to the items tested. This report may not be used by the customer to claim product endorsement by NVLAP or any other U.S. Government Agency.
Laboratory results represent the analysis of samples as submitted by the customer. Information regarding sample location, description, area, volume, etc., was provided by the customer. Asbestos Identification Laboratory is not responsible for sample collection activities or analytical method limitations. Unless notified in writing to return samples, Asbestos Identification Laboratory discards customer samples after 30 days. Samples containing subsamples or layers will be analyzed separately when applicable. Reports are kept at Asbestos Identification Laboratory for three years. This report shall not be reproduced, except in full, without the written consent of Asbestos Identification Laboratory.

- NVLAP Lab Code: 200919-0
- Massachusetts Certification License: AA000208
- State of Connecticut, Department of Public Health Approved Environmental Laboratory Registration Number: PH-0142
- State of Maine, Department of Environmental Protection Asbestos Analytical Laboratory License Number: LB-0078(Bulk) LA-0087(Air)
- State of Rhode Island and Providence Plantations. Department of Health Certification: AAL-121
- State of Vermont, Department of Health Environmental Health License AL934461

Thank you Ammar Dieb for your business.

Michael Manning
Owner/Director

Ammar Dieb
Universal Environmental Consultants
12 Brewster Road
Framingham, MA 01702

Project Information

Countryside School,
Newton,
MA

Method: BULK PLM ANALYSIS, EPA/600/R-93/116

FieldID / LabID	Material	Location	Color	Non-Asbestos %	Asbestos %
1 / 947355	Flashing over Foundation	Exterior Right of Door #1 (Front of Bldg.)	black	Fiberglass 40 Non-Fibrous 60	None Detected
2 / 947356	Flashing over Foundation	Exterior Left of Door #1 (Front of Bldg.)	black	Fiberglass 40 Non-Fibrous 60	None Detected
3 / 947357	Flashing over Foundation	Exterior by Door #2 (Rear)	black	Fiberglass 20 Non-Fibrous 80	None Detected
4 / 947358	Damproofing on Foundation	Exterior Left of Door #1	black	Non-Fibrous 100	None Detected
5 / 947359	DP on Foundation	Exterior Right of Door #1	black	Non-Fibrous 100	None Detected
6 / 947360	Pink Grill Caulk	Exterior	brown	Non-Fibrous 100	None Detected
7 / 947361	Pink Grill Caulk	Exterior	brown	Non-Fibrous 100	None Detected
8 / 947362	Vertical Pink in Brick	Exterior	brown	Non-Fibrous 100	None Detected
9 / 947363	Vertical Pink in Brick	Exterior	brown	Non-Fibrous 100	None Detected
10 / 947364	Vertical Gray in Metal Window Frame Seams (Light Gray)	Exterior	gray	Non-Fibrous 100	None Detected
11 / 947365	Vertical Gray in Metal Window Frame Seams (Light Gray)	Exterior	gray	Non-Fibrous 100	None Detected
12 / 947366	Horizontal Window Frame Caulk (Dark Gray)	Exterior	gray	Non-Fibrous 100	None Detected
13 / 947367	Horiz. Win. Fr. (Dk. Gray)	Exterior	gray	Non-Fibrous 100	None Detected
14 / 947368	Horiz. Gray in Stone Sill	Exterior	gray	Non-Fibrous 100	None Detected
15 / 947369	Vertical Gray in Stone Sill	Exterior	gray	Non-Fibrous 100	None Detected
16 / 947370	Glazing for Old Window (at Door #1)	Exterior	gray	Non-Fibrous 98	**Detected** **Chrysotile 2**

Sampled: September 26, 2022 **Received:** September 27, 2022 **Analyzed:** September 27, 2022

Wednesday 28 September

Analyzed by: 

Batch: 85620

Ammar Dieb
Universal Environmental Consultants
12 Brewster Road
Framingham, MA 01702

Project Information

Countryside School,
Newton,
MA

Method: BULK PLM ANALYSIS, EPA/600/R-93/116

FieldID / LabID	Material	Location	Color	Non-Asbestos %	Asbestos %
17 / 947371	Glazing for Old Win (at Door #21)	Exterior	gray	Non-Fibrous 98	**Detected** Chrysotile 2
18 / 947372	Vertical Pink in Brick	Exterior	brown	Non-Fibrous 100	None Detected
19 / 947373	DP? or Flashing? Residue Behind Brick	Exterior Right of Door #1	black	Non-Fibrous 80	**Detected** Chrysotile 20
20 / 947374	Transite Panel under Window	Exterior Rear Addition	multi	Fiberglass 10 Non-Fibrous 60	**Detected** Chrysotile 30
21 / 947375	Window Frame Caulk	Exterior Rear Addition	tan	Non-Fibrous 80	**Detected** Chrysotile 20
22 / 947376	Win. Fr. Caulk	Exterior Rear Addition	gray	Non-Fibrous 90	**Detected** Chrysotile 10
23 / 947377	Win. Fr. Caulk	Exterior Rear Addition	tan	Non-Fibrous 80	**Detected** Chrysotile 20
24 / 947378	Caulking at Metal System	Exterior Rear Addition	tan	Non-Fibrous 85	**Detected** Chrysotile 15
25 / 947379	Caulk at Metal System	Exterior Rear Addition	tan	Non-Fibrous 80	**Detected** Chrysotile 20
26 / 947380	Flashing and Paper Behind Brick	Exterior Rear Addition C'rm 1A as Reference	black	Cellulose 40 Non-Fibrous 60	None Detected

Sampled: September 26, 2022 **Received:** September 27, 2022 **Analyzed:** September 27, 2022

Wednesday 28 September

Analyzed by: 

Batch: 85620

1 of 2

CHAIN OF CUSTODY

ALL bulks taken @ Exterior

Universal Environmental Consultants
12 Brewster Road
Framingham, MA 01702
Tel: (508) 628-5486 - Fax: (508) 628-5488
adieb@uec-env.com

Town/City: Newton, MA Building Name Countryside School

Sample	Description of Material	Sample Location
1	Flashing over foundation	right of door #1 (Front of Bldg)
2	Flashing over foundation	Left of door #1 " "
3	Flashing over foundation	by door #2 (rear)
4	damproofing on foundation	Left of door #1
5	dp on foundation	right of door #1
6	pink grille caulk	
7	pink grille caulk	
8	verticle pink in brick	
9	vert. pink in brick	
10	verticle grey in metal	window frame seams (light grey)
11	vert. grey in metal	window frame seams (light grey)
12	horizontal window frame caulk	(dark grey)
13	horiz. win fr. dk grey	
14	horiz grey in stone sill	
15	verticle grey in stone sill	
16	glazing for old window	(@ door #1)
17	glazing for old win	(@ door #21)
18	verticle pink in brick	
19	dp? or flashing? residue	(right of door #1) (behind Brick)
20	Transide panel under window	rear addition

Reported By: [signature] Date: 9/26/22 Due Date: 24-Hours

Received By: [signature] Date: 9/27/22

CHAIN OF CUSTODY

Universal Environmental Consultants
12 Brewster Road
Framingham, MA 01702
Tel: (508) 628-5486 - Fax: (508) 628-5488
adieb@uec-env.com

Town/City: Newton, MA Building Name Countryside School

Sample	Description of Material	Sample Location
21	window frame caulk	rear addition EXTERIOR
22	win fr caulk	
23	win fr caulk	
24	caulking @ metal system	
25	caulk @ metal system	
26	flashing & paper behind brick	trim 1-A as reference

Reported By: [signature] Date: 9-26-22 Due Date: **24-Hours**

Received By: ---------- Date: ----------

OrderID: 132206748

132206748

CHAIN OF CUSTODY

Page 1 of 2

Universal Environmental Consultants
12 Brewster Road
Framingham, MA 01702
Tel: (508) 628-5486 - Fax: (508) 628-5488
adieb@uec-env.com

Roof

Town/City: Newton, MA Building Name Country Day School

Sample	Description of Material	Sample Location
1	Roof core	See Map for location
2	caulking	at T Bar at brick/see Map
3	caulking	at window reglet at brick wall/see Map
4	caulking	at stack pipe/see Map
5	Roof core	see Map for location
6	caulking	at window reglet/see Map
7	caulking	stack pipe/see Map
8	Roof Core	see Map for location
9	Roof core	see Map for location
10	caulking/mastic	at curb see Map for location
11	caulking	around curb/see Map for location
12	caulking	at stack pipe/see Map for location
13	Roof core	See Map for location
14	Mastic	at curb/see Map for location
15	Roof core	see Map for location
16	Roof core	See Map for location
17	Roof core	see Map for location
18	Roof core	see Map for location
19	caulking	at brick wall
20	Roof core	see Map for location

Reported By: George Bezreh Date: 9/26/22 Due Date: 24-Hours

Received By: ---------- Date: ----------

RECD EMSL-BOSTON SEP 28 2022 RHB 0832

Fed Ex 817652690362

OrderID: 132206748

132206748

CHAIN OF CUSTODY

Page 2 of 2

Universal Environmental Consultants
12 Brewster Road
Framingham, MA 01702
Tel: (508) 628-5486 - Fax: (508) 628-5488
adieb@uec-env.com

x Roof 4

Town/City: Newton, MA Building Name Country day School

Sample	Description of Material	Sample Location
21	Roof core	See Map for location
22	caulking	stack pipe / see Map for location
23	Roof core	See Map for location
24	Roof core	see Map for location
25	Caulking	at brick wall / See Map for location
26	Roof core	See Map for location
27	Roof core	see Map for location
28	mastic	at curb / see map for location
29	Roof core	See Map for location
30	Roof core	see Map for location

Reported By: George Bezek Date: 9/26/22 Due Date: 24-Hours

Received By: Date:

REC'D RHB 0830
EMSL-BOSTON SEP 28 2022
FED EX 8176 5269 2362

EMSL Analytical, Inc.

5 Constitution Way, Unit A Woburn, MA 01801

Tel/Fax: (781) 933-8411 / (781) 933-8412

http://www.EMSL.com / bostonlab@emsl.com

EMSL Order:	132206748
Customer ID:	UEC63
Customer PO:	
Project ID:	

Attention:	Ammar Dieb	**Phone:**	(617) 984-9772
	Universal Environmental Consultants	**Fax:**	(508) 628-5488
	12 Brewster Road	**Received Date:**	09/28/2022 8:30 AM
	Framingham, MA 01702	**Analysis Date:**	09/29/2022
		Collected Date:	09/26/2022
Project:	Roof - Countryside School; Newton, MA		

Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

			Non-Asbestos		Asbestos
Sample	**Description**	**Appearance**	**% Fibrous**	**% Non-Fibrous**	**% Type**
1 *132206748-0001*	See Map for Location - Roof Core	Black Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
2 *132206748-0002*	at T Bar at Brick / See Map - Caulking	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
3 *132206748-0003*	at Window Reglet at Brick Wall / See Map - Caulking	Gray Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
4 *132206748-0004*	at Stack Pipe / See Map - Caulking	Tan Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
5 *132206748-0005*	See Map for Location - Roof Core	Black Fibrous Homogeneous	10% Glass	90% Non-fibrous (Other)	None Detected
6 *132206748-0006*	at Window Reglet / See Map - Caulking	Gray/Black Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
7 *132206748-0007*	Stack Pipe / See Map - Caulking	White/Black Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
8 *132206748-0008*	See Map for Location - Roof Core	Black Fibrous Homogeneous	10% Glass	90% Non-fibrous (Other)	None Detected
9 *132206748-0009*	See Map for Location - Roof Core	Brown/Black Fibrous Homogeneous	5% Glass	95% Non-fibrous (Other)	None Detected
10 *132206748-0010*	at Curb / See Map for Location - Caulking/Mastic	Black Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
11 *132206748-0011*	Around Curb / See Map for Location - Caulking	Black Fibrous Homogeneous	10% Cellulose	90% Non-fibrous (Other)	None Detected
12 *132206748-0012*	at Stack Pipe / See Map for Location - Caulking	White/Black Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
13 *132206748-0013*	See Map for Location - Roof Core	Black Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
14 *132206748-0014*	at Curb / See Map for Location - Mastic	Black Fibrous Homogeneous	10% Cellulose	90% Non-fibrous (Other)	None Detected
15 *132206748-0015*	See Map for Location - Roof Core	Gray/Black Fibrous Homogeneous	20% Cellulose	80% Non-fibrous (Other)	None Detected
16 *132206748-0016*	See Map for Location - Roof Core	Black Fibrous Homogeneous	5% Cellulose	95% Non-fibrous (Other)	None Detected

Initial report from: 09/29/2022 08:19:12

EMSL Analytical, Inc.
5 Constitution Way, Unit A Woburn, MA 01801
Tel/Fax: (781) 933-8411 / (781) 933-8412
http://www.EMSL.com / bostonlab@emsl.com

EMSL Order:	132206748
Customer ID:	UEC63
Customer PO:	
Project ID:	

Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

			Non-Asbestos		Asbestos
Sample	**Description**	**Appearance**	**% Fibrous**	**% Non-Fibrous**	**% Type**
17 *132206748-0017*	See Map for Location - Roof Core	Black Fibrous Homogeneous	10% Cellulose 5% Glass	85% Non-fibrous (Other)	None Detected
18 *132206748-0018*	See Map for Location - Roof Core	Black Fibrous Homogeneous	4% Cellulose 8% Glass	88% Non-fibrous (Other)	None Detected
19 *132206748-0019*	at Brick Wall - Caulking	Tan/Black Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
20 *132206748-0020*	See Map for Location - Roof Core	Gray/Black/Yellow Fibrous Homogeneous	15% Cellulose	85% Non-fibrous (Other)	None Detected
21 *132206748-0021*	See Map for Location - Roof Core	Gray/Black Fibrous Homogeneous	5% Cellulose	95% Non-fibrous (Other)	None Detected
22 *132206748-0022*	Stack Pipe / See Map for Location - Caulking	Gray Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
23 *132206748-0023*	See Map for Location - Roof Core	Black Fibrous Homogeneous	12% Cellulose	88% Non-fibrous (Other)	None Detected
24 *132206748-0024*	See Map for Location - Roof Core	Tan/Black Fibrous Homogeneous	3% Cellulose 10% Glass	87% Non-fibrous (Other)	None Detected
25 *132206748-0025*	at Brick Wall / See Map for Location - Caulking	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
26 *132206748-0026*	See Map for Location - Roof Core	Gray/Black/Yellow Fibrous Homogeneous	10% Cellulose 10% Glass	80% Non-fibrous (Other)	None Detected
27 *132206748-0027*	See Map for Location - Roof Core	Black/Yellow Fibrous Homogeneous	10% Glass	90% Non-fibrous (Other)	None Detected
28 *132206748-0028*	at Curb / See Map for Location - Mastic	Black Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
29 *132206748-0029*	See Map for Location - Roof Core	Black Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
30 *132206748-0030*	See Map for Location - Roof Core	Black Fibrous Homogeneous	2% Cellulose	98% Non-fibrous (Other)	None Detected

Initial report from: 09/29/2022 08:19:12

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5 Constitution Way, Unit A Woburn, MA 01801
Tel/Fax: (781) 933-8411 / (781) 933-8412
http://www.EMSL.com / bostonlab@emsl.com

EMSL Order:	132206748
Customer ID:	UEC63
Customer PO:	
Project ID:	

Analyst(s)
Ramon Buenaventura (30)

Steve Grise, Laboratory Manager
or Other Approved Signatory

Initial report from: 09/29/2022 08:19:12

OrderID: 132206653

132206653

UEC universal environmental consultants
12 Brewster Road
Framingham, MA 01702
Phone: 508.628.5486
Fax: 508.628.5488

CHAIN OF CUSTODY

BUILDING / SITE NAME: Countryside School
TOWN / CITY: Newton
WORK AREA:
STATE: MA

Analysis Type	Turnaround Time (x) 6-8 Hr	12 Hr	24 Hr	48 Hr	72 hr
TEM / AHERA					
TEM / Level II					
TEM / Dust					
TEM / Bulk					
TEM / Water					
PLM					
Mold			X		
Other:					

Specific Project Notes

SAMPLE ID	MATERIAL DESCRIPTION	SAMPLE LOCATION	START	STOP	TIME	L/MIN	VOLUME
1	3479 0438	Room 3 middle of room	4:09	4:19	10	15	150
2	3479 0440	Main Office	4:11	4:21	10	15	150
3	3479 0409	Room 6A middle of room	4:15	4:25	10	15	150
4	3479 0441	Room 17 middle of rm	4:26	4:36	10	15	150
5	3479 0423	Room 13 middle of rm	4:29	4:39	10	15	150
6	3479 0412	Gym	4:31	4:41	10	15	150
7	3479 0426	Outside	4:47	4:57	10	15	150

SAMPLED BY: Sydney Towne 9/23/22 5:09 PM DATE/TIME:
RECEIVED BY: DATE/TIME:
RELINQUISHED BY: DATE/TIME:
RECEIVED IN LAB BY: DATE/TIME:

REC'D RTB 0830
EMSL-BOSTON SEP 26 2022
DRCB Box

EMSL Analytical, Inc.

5 Constitution Way, Unit A Woburn, MA 01801

Tel/Fax: (781) 933-8411 / (781) 933-8412

http://www.EMSL.com / bostonlab@emsl.com

EMSL Order: 132206653
Customer ID: UEC63
Customer PO:
Project ID:

Attention: Ammar Dieb
Universal Environmental Consultants
12 Brewster Road
Framingham, MA 01702

Project: Countryside School; Newton, MA

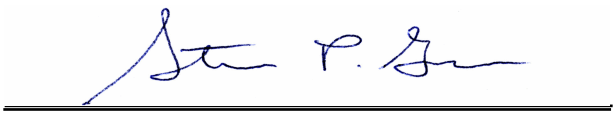
Phone: (617) 984-9772
Fax: (508) 628-5488
Collected Date: 09/23/2022
Received Date: 09/26/2022 08:30 AM
Analyzed Date: 09/27/2022

Test Report:Air-O-Cell(™) Analysis of Fungal Spores & Particulates by Optical Microscopy (Methods MICRO-SOP-201, ASTM D7391)

Lab Sample Number:	132206653-0001			132206653-0002			132206653-0003		
Client Sample ID:	1			2			3		
Volume (L):	150			150			150		
Sample Location:	Room 3 Middle of Room			Main Office			Room 6A Middle of Room		
Spore Types	**Raw Count**	**Count/M³**	**% of Total**	**Raw Count**	**Count/M³**	**% of Total**	**Raw Count**	**Count/M³**	**% of Total**
Alternaria (Ulocladium)	-	-	-	-	-	-	-	-	-
Ascospores	3	60	5.2	-	-	-	3	60	5.4
Aspergillus/Penicillium	20	410	35.3	4	80	25	14	290	26.1
Basidiospores	5	100	8.6	4	80	25	4	80	7.2
Bipolaris++	-	-	-	-	-	-	-	-	-
Chaetomium++	-	-	-	-	-	-	-	-	-
Cladosporium	18	370	31.9	5	100	31.3	30	620	55.9
Curvularia	4	80	6.9	1	20	6.3	-	-	-
Epicoccum	-	-	-	-	-	-	-	-	-
Fusarium++	-	-	-	-	-	-	-	-	-
Ganoderma	-	-	-	-	-	-	-	-	-
Myxomycetes++	7	100	8.6	2	40	12.5	2	40	3.6
Pithomyces++	1	20	1.7	-	-	-	1	20	1.8
Rust	-	-	-	-	-	-	-	-	-
Scopulariopsis/Microascus	-	-	-	-	-	-	-	-	-
Stachybotrys/Memnoniella	-	-	-	-	-	-	-	-	-
Unidentifiable Spores	1	20	1.7	-	-	-	-	-	-
Aureobasidium++	-	-	-	-	-	-	-	-	-
Nigrospora	-	-	-	-	-	-	-	-	-
Oidium++	-	-	-	-	-	-	-	-	-
Spegazzinia	-	-	-	-	-	-	-	-	-
Total Fungi	**59**	**1160**	**100**	**16**	**320**	**100**	**54**	**1110**	**100**
Hyphal Fragment	3	60	-	5	100	-	4	80	-
Insect Fragment	-	-	-	-	-	-	-	-	-
Pollen	-	-	-	1	20	-	-	-	-
Analyt. Sensitivity 600x	-	21	-	-	21	-	-	21	-
Analyt. Sensitivity 300x	-	7*	-	-	7*	-	-	7*	-
Skin Fragments (1-4)	-	1	-	-	1	-	-	1	-
Fibrous Particulate (1-4)	-	1	-	-	1	-	-	1	-
Background (1-5)	-	2	-	-	2	-	-	1	-

++ Includes other spores with similar morphology; see EMSL's fungal glossary for each specific category.

No discernable field blank was submitted with this group of samples.



Steve Grise, Laboratory Manager
or other Approved Signatory

Initial report from: 09/27/2022 09:50 AM

For information on the fungi listed in this report, please visit the Resources section at www.emsl.com

EMSL Analytical, Inc.

5 Constitution Way, Unit A Woburn, MA 01801

Tel/Fax: (781) 933-8411 / (781) 933-8412

http://www.EMSL.com / bostonlab@emsl.com

EMSL Order: 132206653
Customer ID: UEC63
Customer PO:
Project ID:

Attention: Ammar Dieb
Universal Environmental Consultants
12 Brewster Road
Framingham, MA 01702

Project: Countryside School; Newton, MA

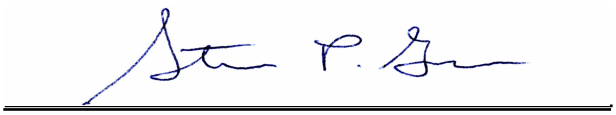
Phone: (617) 984-9772
Fax: (508) 628-5488
Collected Date: 09/23/2022
Received Date: 09/26/2022 08:30 AM
Analyzed Date: 09/27/2022

Test Report:Air-O-Cell(™) Analysis of Fungal Spores & Particulates by Optical Microscopy (Methods MICRO-SOP-201, ASTM D7391)

Lab Sample Number:	132206653-0004			132206653-0005			132206653-0006		
Client Sample ID:	4			5			6		
Volume (L):	150			150			150		
Sample Location:	Room 17 Middle of Room			Room 13 Middle of Room			Gym		
Spore Types	**Raw Count**	**Count/M³**	**% of Total**	**Raw Count**	**Count/M³**	**% of Total**	**Raw Count**	**Count/M³**	**% of Total**
Alternaria (Ulocladium)	3	60	4.4	1	20	1	1	20	2.3
Ascospores	6	100	7.4	13	270	13.8	2	40	4.6
Aspergillus/Penicillium	12	250	18.5	8	200	10.3	17	350	39.9
Basidiospores	10	210	15.6	7	100	5.1	2	40	4.6
Bipolaris++	-	-	-	-	-	-	-	-	-
Chaetomium++	-	-	-	-	-	-	-	-	-
Cladosporium	22	450	33.3	58	1200	61.5	3	60	6.8
Curvularia	-	-	-	-	-	-	2	40	4.6
Epicoccum	-	-	-	1	20	1	-	-	-
Fusarium++	-	-	-	-	-	-	-	-	-
Ganoderma	1	20	1.5	1	20	1	2	40	4.6
Myxomycetes++	9	200	14.8	4	80	4.1	6	100	11.4
Pithomyces++	2	40	3	-	-	-	3	60	6.8
Rust	-	-	-	-	-	-	-	-	-
Scopulariopsis/Microascus	-	-	-	-	-	-	-	-	-
Stachybotrys/Memnoniella	-	-	-	-	-	-	-	-	-
Unidentifiable Spores	-	-	-	-	-	-	3	60	6.8
Aureobasidium++	-	-	-	2	40	2.1	1	20	2.3
Nigrospora	-	-	-	-	-	-	1*	7*	0.8
Oidium++	-	-	-	-	-	-	2	40	4.6
Spegazzinia	1	20	1.5	-	-	-	-	-	-
Total Fungi	**66**	**1350**	**100**	**95**	**1950**	**100**	**45**	**877**	**100**
Hyphal Fragment	-	-	-	1	20	-	3	60	-
Insect Fragment	-	-	-	-	-	-	-	-	-
Pollen	-	-	-	1*	7*	-	-	-	-
Analyt. Sensitivity 600x	-	21	-	-	21	-	-	21	-
Analyt. Sensitivity 300x	-	7*	-	-	7*	-	-	7*	-
Skin Fragments (1-4)	-	1	-	-	1	-	-	1	-
Fibrous Particulate (1-4)	-	1	-	-	1	-	-	1	-
Background (1-5)	-	1	-	-	1	-	-	3	-

++ Includes other spores with similar morphology; see EMSL's fungal glossary for each specific category.

No discernable field blank was submitted with this group of samples.



Steve Grise, Laboratory Manager
or other Approved Signatory

Initial report from: 09/27/2022 09:50 AM

For information on the fungi listed in this report, please visit the Resources section at www.emsl.com

EMSL Analytical, Inc.

5 Constitution Way, Unit A Woburn, MA 01801

Tel/Fax: (781) 933-8411 / (781) 933-8412

http://www.EMSL.com / bostonlab@emsl.com

EMSL Order: 132206653
Customer ID: UEC63
Customer PO:
Project ID:

Attention: Ammar Dieb
Universal Environmental Consultants
12 Brewster Road
Framingham, MA 01702

Project: Countryside School; Newton, MA

Phone: (617) 984-9772
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Collected Date: 09/23/2022
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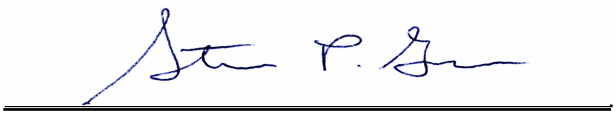
Test Report:Air-O-Cell(™) Analysis of Fungal Spores & Particulates by Optical Microscopy (Methods MICRO-SOP-201, ASTM D7391)

Lab Sample Number:	**132206653-0007**		
Client Sample ID:	**7**		
Volume (L):	**150**		
Sample Location:	**Outside**		
Spore Types	**Raw Count**	**Count/M³**	**% of Total**
Alternaria (Ulocladium)	-	-	-
Ascospores	15	310	4.9
Aspergillus/Penicillium	16	330	5.2
Basidiospores	14	290	4.6
Bipolaris++	1*	7*	0.1
Chaetomium++	-	-	-
Cladosporium	237	4860	77.1
Curvularia	2	40	0.6
Epicoccum	-	-	-
Fusarium++	-	-	-
Ganoderma	4	80	1.3
Myxomycetes++	8	200	3.2
Pithomyces++	1	20	0.3
Rust	-	-	-
Scopulariopsis/Microascus	-	-	-
Stachybotrys/Memnoniella	-	-	-
Unidentifiable Spores	2	40	0.6
Aureobasidium++	4	80	1.3
Nigrospora	1*	7*	0.1
Oidium++	2	40	0.6
Spegazzinia	-	-	-
Total Fungi	**307**	**6304**	**100**
Hyphal Fragment	12	250	-
Insect Fragment	-	-	-
Pollen	-	-	-
Analyt. Sensitivity 600x	-	21	-
Analyt. Sensitivity 300x	-	7*	-
Skin Fragments (1-4)	-	1	-
Fibrous Particulate (1-4)	-	1	-
Background (1-5)	-	1	-

++ Includes other spores with similar morphology; see EMSL's fungal glossary for each specific category.

No discernable field blank was submitted with this group of samples.



Steve Grise, Laboratory Manager
or other Approved Signatory

Initial report from: 09/27/2022 09:50 AM

For information on the fungi listed in this report, please visit the Resources section at www.emsl.com

AccuStar
Professional Radon Laboratory Services Since 1984

Radon in Air

NELAC NY 11769
NRPP 103216 AL
NRSB ARL0017

EPA Method #402-R-92-004
Liquid Scintillation
NRPP Device Code 8088
NRSB Device Code 12193

Laboratory Report for:

Universal Environmental Consultant
12 Brewster Road
Framingham MA 01702

Property Tested:

Countryside School
191 Dedham Street
Newton MA 02461

Log Number	Device Number	Test Exposure Duration:				Area Tested	Result pCi/L
8238032	4775922	09/23/2022	5:14 pm	09/26/2022	7:36 am	Stage in Café	0.5
8238033	4775960	09/23/2022	5:16 pm	09/26/2022	7:38 am	Gym on Thermostat	0.4
8238034	4775961	09/23/2022	5:17 pm	09/26/2022	7:40 am	Room 3	0.6
8238035	4775953	09/23/2022	5:18 pm	09/26/2022	7:43 am	Room 5	< 0.4
8238036	4775931	09/23/2022	5:19 pm	09/26/2022	7:46 am	Room 2	< 0.4
8238037	4775944	09/23/2022	5:21 pm	09/26/2022	7:49 am	Room 6	0.4
8238038	4775957	09/23/2022	5:22 pm	09/26/2022	7:51 am	Main Office	0.4
8238039	4775932	09/23/2022	5:23 pm	09/26/2022	7:54 am	Library	0.4
8238040	4775912	09/23/2022	5:30 pm	09/26/2022	7:56 am	Room 3A	0.4
8238041	4775950	09/23/2022	5:31 pm	09/26/2022	8:01 am	Room 6A	0.5
8238042	4775954	09/23/2022	5:34 pm	09/26/2022	8:04 am	Room 9A	0.4

Comment: Universal Environmental Consultant was emailed a copy of this report.

Test Performed By: Placed: Sydney Towne Retrieved: Sydney Towne

Distributed by: Universal Environmental Consultant

Date Received: 09/28/2022 Date Logged: 09/28/2022 Date Analyzed: 09/28/2022 Date Reported: 09/29/2022

Report Reviewed By: _____ Report Approved By: _____

Shawn Price, Director of Laboratory Operations, AccuStar Labs

Disclaimer:

The counting uncertainty of this radon measurement is ~+/- 10 %. Factors contributing to uncertainty include statistical variations, daily and seasonal variations in radon concentrations, sample collection techniques and operation of the dwelling. Interference with test conditions may influence the test results.

This report may only be transferred to a third party in its entirety. Laboratory personnel were not involved in the placement or retrieval of the samples. Analytical results relate to the samples as received by the laboratory. Results shown on this report represent levels of radon gas measured between the dates shown in the room or area of the site identified above as "Property Tested". Incorrect information will affect results. The results may not be construed as either predictive or supportive of measurements conducted in any area of this structure at any other time. AccuStar Labs, its employees and agents are not responsible for the consequences of any action taken or not taken based upon the results reported or any verbal or written interpretation of the results.

AccuStar
Professional Radon Laboratory Services Since 1984

Radon in Air

NELAC NY 11769
NRPP 103216 AL
NRSB ARL0017

EPA Method #402-R-92-004
Liquid Scintillation
NRPP Device Code 8088
NRSB Device Code 12193

Laboratory Report for:

Universal Environmental Consultant
12 Brewster Road
Framingham MA 01702

Property Tested:

Countryside School
191 Dedham Street
Newton MA 02461

Log Number	Device Number	Test Exposure Duration:		Area Tested	Result pCi/L
8238043	4775921	09/23/2022 5:37 pm	09/26/2022 8:07 am	Teachers Lounge	0.6

Comment: Universal Environmental Consultant was emailed a copy of this report.

Test Performed By: Placed: Sydney Towne Retrieved: Sydney Towne

Distributed by: Universal Environmental Consultant

Date Received: 09/28/2022 Date Logged: 09/28/2022 Date Analyzed: 09/28/2022 Date Reported: 09/29/2022

Report Reviewed By: _____ Report Approved By: _____

Shawn Price, Director of Laboratory Operations, AccuStar Labs

Disclaimer:

The counting uncertainty of this radon measurement is ~+/- 10 %. Factors contributing to uncertainty include statistical variations, daily and seasonal variations in radon concentrations, sample collection techniques and operation of the dwelling. Interference with test conditions may influence the test results.

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NEWTON PUBLIC SCHOOLS

2022
AHERA THREE-YEAR
RE-INSPECTION REPORT
FOR THE
COUNTRYSIDE ELEMENTARY SCHOOL
191 DEDHAM STREET
NEWTON HIGHLANDS, MA

UNIVERSAL ENVIRONMENTAL CONSULTANTS
12 Brewster Road
Framingham, MA 01702

TABLE OF CONTENTS

CERTIFIED PERSONNEL INFORMATION

INSPECTOR INFORMATION

INSPECTOR NAME: Jason Becotte

CONSULTING FIRM: Universal Environmental Consultants

STATE OF ACCREDITATION: Massachusetts

ACCREDITATION NUMBER: AI-034963

I certify as an inspector that I have re-inspected the said building in accordance with AHERA regulations 40 CFR Part 763 Section 763.88.

INSPECTOR SIGNATURE: 

DATE: June 3, 2022

MANAGEMENT PLANNER INFORMATION

MANAGEMENT PLANNER NAME: Leonard Busa

CONSULTING FIRM: Universal Environmental Consultants

STATE OF ACCREDITATION: Massachusetts

ACCREDITATION NUMBER: AP-030673

I certify as a Management Planner that I have reviewed this re-inspection report for the said building in accordance with AHERA regulations 40 CFR Part 763 Section 763.88.

MANAGEMENT PLANNER SIGNATURE: 

DATE: June 8, 2022

DESIGNATED PERSON INFORMATION & STATEMENT OF ASSURANCES

INFORMATION

Name of Designated Person: Joseph F. Crossen **Telephone No.:** 617-559-9004

Address: 100 Walnut Street Newton, MA 02460

Course Name	Training Organization	Date	Hours of Training
Asbestos Coordinator/LEA Designated Person	Institute for Environmental Education, Inc.	2/7/2022	8 Hrs.

In accordance with 40 CFR §763.93(i) of the Environmental Protection Agency Asbestos-Containing Material in Schools regulation, the undersigned Local Education Agency (LEA) Designated Person (DP) hereby certifies that the following general responsibilities of the LEA under 40 CFR §763.84 have been or will be met:

1. Ensure that the activities of any persons, who perform inspections, reinspections, and periodic surveillance, develop and update management plans, and develop and implement response actions, including operations and maintenance, are carried out in accordance with Part 763, Subpart E.
2. Ensure that all custodial and maintenance employees are properly trained as required by Part 763, Subpart E and other applicable Federal and/or State regulations (e.g., the Occupational Safety and Health Administration asbestos standard for construction, the EPA worker protection rule, or applicable State regulations).
3. Ensure that workers and building occupants, or their legal guardians, are informed at least once each school year about inspections, response actions, and post-response action activities, including periodic reinspection and surveillance activities that are planned or in progress.
4. Ensure that short-term workers (e.g., telephone repair workers, utility workers, or exterminators) who may come in contact with asbestos in a school are provided information regarding the locations for Asbestos-Containing Building Materials (ACBM) and suspected ACBM assumed to be Asbestos-Containing Materials (ACM).
5. Ensure that warning labels are posted in accordance with 40 CFR §763.95.
6. Ensure that management plans are available for inspection and notification of such availability has been provided as specified in the management plan under 40 CFR §763.93(g).
7. Designate a person to ensure that requirements under §763.84 are properly implemented and ensure that the designated person receives adequate training to perform duties assigned under §763.84. Such training shall provide, as necessary, basic knowledge of: health effects of asbestos; detection, identification, and assessment of ACM; options for controlling ACBM; asbestos management programs; relevant Federal and State regulations concerning asbestos, including those in Part 763, Subpart E and those of the Occupational Safety and Health Administration, U.S. Department of Transportation and the U.S. Environmental Protection Agency.
8. Consider whether any conflict of interest may arise from the inter-relationship among accredited personnel and whether that should influence the selection of accredited personnel to perform activities under Part 763, Subpart E.

Designated Person's Signature: Joseph F Crossen Date: 2/22/22

INTRODUCTION:

On October 22, 1986**,** President Reagan signed into law an amendment to the Toxic Substance Control Act requiring schools to determine the presence of Asbestos Containing Materials in all school buildings. That amendment, called the Asbestos Hazard Emergency Response Act (AHERA) required that all school buildings be visually inspected by accredited inspectors and that bulk samples of suspected materials are taken where the material was not assumed to be asbestos. It further required that management plans be created for each individual building and that the maintenance and custodial personnel receive training. The plan must be implemented, and the training must be completed by July 9, 1989. This document is the Asbestos Management Plan, which provides the means and the methods to effectively deal with Asbestos Containing Materials.

The AHERA regulation also requires that each school building be re-inspected every three years encompassing the following actions:

1. Visually re-inspect, and reassess, under 40 CFR Part 763 Section 763.88, the condition of all friable known or assumed ACM.
2. Visually inspect material that was previously considered non-friable ACM and touch the material to determine whether it has become friable since the last inspection or re-inspection.
3. Identify any homogeneous areas with material that has become friable since the last inspection or re-inspection.
4. For each homogeneous area of newly friable material that is already assumed to be ACM, bulk samples may be collected and submitted for analysis in accordance with 40 CFR Part 763 Section 763.86 and 40 CFR Part 763 Section 763.87.
5. Assess, under 40 CFR Part 763 Section 763.88, the condition of the newly friable material in areas where samples are collected and newly friable materials in areas that are assumed to be ACM.
6. Reassess, under 40 CFR Part 763 Section 763.88, the condition of friable known or assumed ACM previously identified.

All findings in this re-inspection report must be included in the original AHERA Management Plan.

DLS regulation also requires that each school building be re-inspected every three years encompassing the following actions:

(a) Inspections:

All local education agencies (LEAs) are required to inspect each school building that they lease, own, or otherwise use as a school building to identify all locations of friable and non-friable ACM, except for those buildings which have been inspected as required by the AHERA and for which documentation of said inspection was filed with the State as required by the AHERA prior to publication of 454 CMR 28.13(2).

The inspection must be conducted as described under 454 CMR 28.13(2)(b) and (c) prior to use as a school building.

1. Each inspection must be made by a currently licensed asbestos inspector.
2. For each area of a school building, except as excluded under 454 CMR 28.13(12), each licensed Inspector performing an inspection must:

    a. Visually inspect the area to identify the locations of all suspected ACM.
    b. Touch all suspected ACM to determine whether it is friable.
    c. Identify all homogeneous areas of friable suspected ACM and all homogeneous areas of non-friable suspected ACM.
    d. For each identified homogeneous area that is not assumed to be ACM, collect, and submit for analysis bulk samples under 454 CMR 28.13(4).

e. Assess under 454 CMR 28.13(4) friable material in areas where samples are collected, friable material in areas that are assumed to be ACM, and friable ACM identified during a previous inspection: and
f. Record the following and submit to the person designated under 454 CMR 28.13(1), a copy of such record for inclusion in the management plan within 30 days of the inspection:

    i. An inspection report with the date of the inspection, signed by each licensed person making the inspection and must include the license number and expiration date along with a copy of current training certificate of the inspector.
    ii. An inventory of the locations of the homogeneous areas where samples are collected, exact location where each bulk sample is collected, dates that samples are collected, homogeneous areas where friable suspected ACM is assumed to be ACM, and homogeneous areas where non-friable suspected ACM is assumed to be ACM.
    iii. A description of the manner used to determine sampling locations, the name and signature of each DLS licensed inspector who collected the samples, including license number and expiration date along with a copy of current training certificates.
    Iv A list of whether the homogeneous areas identified under 454 CMR 28.12(2)(a)2.e.iv. are surfacing material, thermal system insulation, or miscellaneous material; and v. Assessments made of friable material, the name and signature of each licensed inspector making the assessment, his or her license number and expiration date and current training certificate.

(b) Re-inspection:

1. At least once every three years after a management plan is implemented, each local education agency must conduct a reinspection of all friable and nonfriable known or assumed ACM and any not previously identified suspect ACM, regardless of whether or not these areas were included in the original inspection and management plan, in each school building that they lease, own, or otherwise use as a school building. Each local education agency must submit to the Department within 30 days of the reinspection, documentation that a reinspection has been performed. This documentation must be submitted on a form prescribed by the Director and submitted electronically to the Department's website by the LEA.
2. Each inspection must be made by a licensed inspector.
3. For each area of a school building, each person performing a reinspection must:

    a. Visually reinspect and reassess under 454 CMR 28.13(6) the condition of all friable and non-friable known or assumed ACM.
    b. Visually inspect material that was previously considered non-friable ACM and touch the material to determine whether it has become friable since the last inspection or reinspection.
    c. Visually inspect and assess under 454CMR 28.13(5) materials such as, but not restricted to, ceiling tile, wallboard, plaster walls, linoleum, fire doors, duct insulation and vibration dampening cloth, which are considered suspect ACM.
    d. Identify any homogeneous areas with material that has become friable since the last inspection or reinspection.
    e. For each homogeneous area of newly friable material that is already assumed to be ACM, may collect, and submit bulk samples for analysis in accordance with 454 CMR 28.13(3) and (4).
    f. Any remaining ACM that is present and was previously unidentified and is now accessible and visible will be included in the reinspection and provided a physical assessment under 454 CMR 28.13(6).
    g. Assess under 454 CMR 28.13(5) the condition of the newly friable material in areas where samples are collected, and newly friable materials in areas that are assumed to be ACM.
    h. Reassess under 454 CMR 28.13(5) the condition of friable known or assumed ACM previously identified.

        i. Record the following and submit to the person designated under 454 CMR 28.13(1) a copy of such record for inclusion in the management plan within 30 days of the reinspection:
        i. The date of the reinspection, the name and signature of the person making the reinspection, and any changes in the condition of known or assumed ACM.

ii. The exact locations where samples are collected during the reinspection, a description of the manner used to determine sampling locations, the name and signature of each licensed inspector who collected the samples, license number and expiration date.
iv. Any assessments or reassessments made of friable material, the name and signature of the licensed inspector making the assessments, license number and expiration date; and
v. General. Thermal system insulation that has retained its structural integrity and that has an undamaged protective jacket or wrap that prevents fiber release shall be treated as non-friable and therefore is subject only to periodic surveillance and preventive measures, as necessary.

2.0 SUMMARY:

A. Inspection:

All known or assumed to be ACM homogeneous areas were taken from the existing Management Plans and previous re-inspection reports or obtained during the inspection. Each of the ACM homogeneous[1] areas found in the existing Management Plans were reviewed and reassessed by the accredited inspector licensed in the State of Massachusetts. The reassessment was conducted by physically examining the ACM or suspect materials to determine friability and level of damage. These assessments can be found in the Inspection Spread Sheets, which also includes ACM, which found to be physically damaged that might requires corrective actions.

B. Inspection Spread Sheets of Asbestos Containing Materials:

The assessment chart contains homogeneous areas,' type of material, location of material, classification of ACM, friability and AHERA Assessment as follows:

AHERA ASSESSMENT CATEGORIES

CATEGORY 1	Damaged or significantly damaged thermal system insulation ACM
CATEGORY 2	Damaged friable surfacing ACM
CATEGORY 3	Significantly damaged friable surfacing ACM
CATEGORY 4	Damaged or significantly damaged friable miscellaneous ACM
CATEGORY 5	ACM with potential for damage
CATEGORY 6	ACM with potential for significant damage
CATEGORY 7	Any remaining friable ACM or friable suspected ACM

C. LEA Responsibilities:

The following requirements must be implemented as part of the EPA AHERA regulations.

- The LEA must designate a person who will be responsible of all AHERA requirements. The DP must have the required training (8 hours) that has to be performed at an EPA approved training provider.
- All custodians must have required training (2 hours).
- Surveillance inspections of all Schools must be performed every six months by either a licensed asbestos inspector or the DP.
- All Schools must be inspected every three years and the Management Plans updated by a licensed asbestos inspector.
- Parents and teachers must be notified on a yearly basis of the presence of the AHERA Management Plans.
- Three-year inspections of all Schools must be performed by a licensed asbestos inspector.

[1] Homogeneous Area: Classification type for materials of similar appearance and texture. That is, materials throughout the facility that appear to be the same are grouped as one homogeneous area.

3.0 GLOSSARY OF TERMS

ABIH	American Board of Industrial Hygiene
Abatement	Any work done to minimize asbestos hazards including removal, encapsulation, and enclosure
Acoustical Insulation	Insulation used for the control of sound
Acoustical Tile	A finishing material in a building usually found in the ceiling or walls for the purpose of noise control.
AIHA Accredited Laboratory	A certification given by the AIHA to an analytical laboratory that has successfully participated in the "Proficiency Analytical Testing" program for quality control as established by the National Institute for Occupational Safety and Health
Airborne Asbestos Analysis	Determination of the amount of asbestos fibers suspended in a given amount of air
Air Monitoring	The process of measuring the airborne fiber concentration of a specific quantity of air over a given amount of time
Air Plenum	Any space used to convey air in a building or structure, the space above a suspended ceiling is often used as an air plenum.
Air Sample	Sample of air taken for the purpose of determining a quantity of material found in the air.
Ambient Air	The surrounding air or atmosphere in a given area under normal conditions.
Approved Landfill	A site for the disposal of asbestos containing and other hazardous materials that are being removed
Asbestos	A generic name given to a number of naturally occurring hydrated mineral silicates that possess a unique crystalline structure, are incombustible in air, and are separable into fibers. Asbestos includes the Asbestiform varieties of Chrysotile (serpentine); Crocidolite (riebeckite); Amosite (cummingtonite-grunerite); Anthophyllite; and Actinolite.
Asbestos Abatement	Procedures to control fiber release from asbestos—containing materials in buildings.
Asbestos Exposure Assessment System	A decision tool which can be used to determine the extent of the asbestos hazard that exists in a building, and which can also be used to develop corrective actions.
Asbestos Fibers	Fibers greater than 5 microns long and a length to width ratio of at least 3:1, generated from an asbestos containing material.
Asbestos Standard	Refer to the OSHA requirements in the general industry standards regarding asbestos exposure (29 CFR 1910.1001), and EPA National Emission Standard for Hazardous Air Pollutants (NESHAP) (40 CFR 61,

	subpart 14) or Asbestos Abatement Projects (40 CFR Part 763) applicable for public employees
Asbestosis	A non-malignant, progressive, irreversible lung disease caused by the inhalation of asbestos dust and characterized by diffuse fibrosis. This disease usually occurs after high level exposures.
Atmosphere Supplying Respirators	Respiratory protection devices which exclude workplace air altogether and provide clean air from some independent source.
Bid	A statement of the price at which a contractor will complete a given project
Bulk Sample	Physical sample of the material (i.e., piece of covering or ceiling material). This is in contrast to an air sample where the air itself is sampled for fibers. Bulk samples are taken to determine if a material contains asbestos
Cancer	A cellular tumor which normally leads to premature death of its host unless controlled.
Ceiling Concentration	The maximum allowable level of toxic material that can be present at any given point in time
CFM	Cubic feet per minute
Clean Area	The first stage of the decontamination enclosure system in which workers prepared to enter the work area.
Contract Specifications	A set of guidelines that a contractor must follow when conducting an asbestos abatement job.
DEP	Department of Environmental Protection
Dirty Area	Any area in which the concentration of airborne asbestos fibers exceeds 0.01-f/cc, or where there is visible asbestos residue.
DLS	Department of Labor Standards
Electron Microscopy	A method of asbestos sample analysis which utilizes an electron beam to differentiate between fibers.
EPA	Environmental Protection Agency (Federal Agency)
F/CC	Fibers per cubic centimeters of air (a cubic centimeter is about the size of a sugar cube).
Friable Asbestos	Any materials that contain more than 1% asbestos by weight and can be crumbled, pulverized, or reduced to powder by hand pressure (i.e., asbestos pipe coverings, boiler casings, I-beam spray-on).
Glove bag	Plastic bag-type enclosure placed around asbestos-containing pipe lagging so that it may be removed without generating airborne fibers into the atmosphere.
HEPA	High Efficiency Particulate Air (Filter)

MSDS	Material Safety Data Sheet
Negative Pressure	An atmosphere created in a work area enclosure such that airborne fibers will tend to be drawn through the filtration system rather than leak out into the surrounding areas. The air pressure inside the work area is less than that outside the work area.
Non-friable Asbestos	Materials which contain mostly binder and do not generate dust under normal conditions. Note: non friable materials can become friable if cut, ground, sanded, etc. (i.e., floor tiles).
Operations & Maintenance Plan	Specific procedures and practices developed for the interim control of asbestos containing materials in buildings until it is removed.
OSHA	The Occupational Safety and Health Administration which was created by the Occupational Safety and Health Act of 1970; serves as the enforcement agency for safety and health in. the workplace environment.
Transmission Electron Microscopy (TEM)	A method of microscopic analysis which utilizes an electron beam that is focused onto a thin sample. As the beam penetrates (transmits) through the sample, the difference in densities produces an image on a fluorescent screen from which samples can be identified and counted.

SOURCE:

Asbestos Policy & Procedure Manual, "Guidelines for Management and Maintenance Personnel" Massachusetts Division of Occupational Hygiene Asbestos Program

4.0 RESOURCES REQUIRED FOR THE LEA

The following is an estimated cost required to carry out re-inspections, operation and maintenance, periodic surveillance and training and all other related costs. Abatement related costs are listed below.

The annual estimated cost is $2,500.00.

5.0 RESOURCES REQUIRED TO-COMPLETE RESPONSE ACTIONS:

The following are estimated costs to properly remove and dispose of all ACM, to properly remove or repair and dispose of damaged ACM in the building in accordance with federal and state regulations. All abatement activities will be performed by Massachusetts licensed asbestos abatement contractors under the supervision of Massachusetts licensed asbestos project monitor. All asbestos abatement activities must be designed by a Massachusetts licensed asbestos designer. The estimated costs do not include replacement.

An EPA NESHAP regulation inspection must be performed prior to renovation or demolition projects. The listed costs do not apply since additional ACM might be found on the exterior of the building and in concealed locations. The costs also do not replacement and or re-insulation.

Various activities might be performed by in house trained personnel. Refer to the O&M Plan.

The estimated cost to remove and dispose of all accessible ACM in the building is $245,000.00. The estimated cost for design, construction monitoring, and air sampling is $35,000.00.

The estimated cost to remove/repair the damaged ACM (Excluding Tunnels/Crawl Space) is $9,500.00. The estimated cost for design, construction monitoring, and air sampling is $1,500.00

6.0 OBSERVATIONS AND RECOMMENDATIONS:

A Massachusetts licensed asbestos inspector was on site to perform the AHERA Third Year Re-Inspection. Please refer to this page in conjunction with the spreadsheets located in section two of this report for information regarding the location, condition, and recommended response actions for ACM located throughout the building. Refer to O&M Program for preventive measures.

- Pipe insulation was assumed to contain asbestos. The ACM was found to be damaged at the pipe tunnels/crawl space and basement. ACM debris was found. The ACM should be repaired. Refer to O&M Plan for recommended procedures and notes.
- ACM Debris was found at the tunnels/crawl space and basement water meter room. Seal access and remove as needed.
- All remaining ACM was found to be in good condition.
- Refer to the original management plan and previous inspection reports for suspect materials previously sampled.

7.0 DATES FOR RECOMMENDED RESPONSE ACTIONS:

Most ACM in the building were found to be in good condition. Continue O&M activities and insure that no ACM is being disturbed. Remove ACM as needed.

The damaged ACM pipe and hard joint insulation should be repaired starting July 1, 2022 and be completed by August 31, 2022.

8.0 MATERIALS FOUND NOT TO CONTAIN ASBESTOS

The following suspect materials were found not to contain asbestos.

Grey/color 12” x 12” vinyl floor tile.

Mastic for grey/color 12” x 12” vinyl floor tile.
Light blue 12” x 12” vinyl floor tile.
Mastic for light blue 12” x 12” vinyl floor tile.
Mastic for 9” x 9” vinyl floor tile.
Plaster.
2’ x 4’ Suspended acoustical ceiling tile.
1’ x 1’ Acoustical ceiling tile.
Glue daub for 1’ x 1’ acoustical ceiling tile.
Glue daub for 1’ x 1’ acoustical wall tile.
2’ x 2’ Suspended acoustical ceiling tile.
White sink coating.

Record Keeping Review

	LEA (Yes/No)	UEC (Yes/No)	Comments
Designated Person Statement: Is the report signed and also includes the LEA Designated Person information and training documentations.	Yes	Yes	
Training Documentation: Have all custodial and maintenance personnel received two-hour awareness training.	Yes	Yes	LEA was informed that Training is required for new hires.
Annual Notifications: Has the LEA posted or provided the annual notifications. If so, how.	Yes	Yes	Annual notifications are being posted in the School's facilities website.
Periodic Surveillance: Are dated copies in the plan for each 6-month surveillance inspection.	Yes	Yes	UEC will be performing the required Surveillance Inspections.
Outside Contractors: Does the LEA notify outside vendors that asbestos is present? Method used.	_____	No	LEA Shall use form found in the O&M Plan for Notifications.
Response Action Records: For any asbestos abatement in the last 3 years, are response action records included in the plan (Refer to the checklist or record).	Yes	Yes	LEA shall keep all logs within the AHERA Plan.
Bulk Sample Reports: Are laboratory reports included for any suspect ACM that is not assumed ACM? Does the chain of custody list type and location of the suspect material sampled?	Yes	Yes	
Management Plan/Third Year Re-Inspection Report: Is a copy located in each school office and the LEA office.	_____	No	LEA shall place one copy at the office of the principal.
Warning Signs: Are warning signs posted in routine maintenance and storage areas where ACM is present.	Yes	Yes	LEA shall place labels as required.
Architect Statement: Is the architect statement present for any new construction, renovation or addition.	Yes	Yes	For new or renovated schools.

Comments:

_____

_____

INSTITUTE FOR ENVIRONMENTAL EDUCATION

This is to certify that

Joseph F. Crossen

1377 Sanborn Avenue, West Roxbury, MA 02132

has attended the 8-hour course

Asbestos Coordinator/ LEA Designated Person

Course Location
Institute for Environmental Education
16 Upton Drive Wilmington, MA 01887

February 7, 2022
Course Dates

22-4666-107-275753
Certificate Number

Training Director

LEA DESIGNATED PERSON RESPONSIBILITY

The LEA shall be responsible for the following:

1. Arranging and coordinating training for all faculty and staff with annual updates for new personnel.
2. Arranging for abatement procedures called for in the abatement recommended actions.
3. Complying with all state, OSHA, or EPA rules or regulations regarding asbestos abatement activities.
4. Routine maintenance activities by in-house personnel.
5. Coordinating and overseeing work done by outside contractors if the possibility exists that ACBM can be disturbed by this work.
6. Establishment of a respiratory protection program for "Asbestos Maintenance" in accordance with OSHA recommendations.
7. Procurement and maintenance of specialized equipment and supplies needed for implementation of this plan.
8. Monitoring of all asbestos containing materials in the building.
9. Ensure that all asbestos waste generated at the school is packaged, transported, and disposed of in accordance with EPA requirements and that the necessary chain of custody documentation is maintained.
10. Warnings, notifications, and record keeping as outlined in U.S. EPA Regulations 40 CFR Part 763.
11. Maintenance of all medical records required by OSHA for any school employees involved in in-house repair or removal of ACBM.
12. Updating existing management program every six months.
13. Labeling Asbestos Containing Building Materials.

A. RESOURCES NEEDED:

EQUIPMENT:

- HEPA vacuum
- Half-face respirator
- Emergency repair tool kit
- Disposable type suits
- 6-mil polyethylene sheeting
- Asbestos labeled bags

SUPPORT PERSONNEL:

- Licensed Consultant
- Trained Maintenance Personnel

B. NOTIFICATION:

The LEA is responsible for informing all building occupants annually of the asbestos control program at the school. Notification serves two purposes: It alerts affected parties to a potential hazard in the building; and it provides basic information on avoiding the hazard. Building occupants, employees, and others who are aware of the presence of ACBM are less likely to disturb the material and cause fiber release. It is recommended to post in the school's web site.

C. PERIODIC SURVEILLANCE:

At least once every six months, the LEA or his/her designee will conduct periodic surveillance in each building that contains asbestos-containing thermal system insulation. Each person performing periodic surveillance shall:

1. Visually inspect all areas that have been identified as ACBM

2. Record the data of the surveillance, his or her name, and any changes in the condition of ACBM
3. Submit to the Asbestos Control Manager a copy of such a record or report for inclusion into the management plan or permanent asbestos file

D. RE-INSPECTION:

1. Re-inspection of friable and non-friable ACBM every three years
2. Inspection by an accredited inspector
3. Re-inspection shall include:
   A. Visual re-inspection of all friable ACBM and newly friable ACBM
   B. Re-assessment of all friable ACBM
   C. Recheck all previously non-friable ACBM to determine if they have become friable
   D. Identify newly friable materials
   E. Collect and submit samples of newly friable ACBM if previously assumed to be ACBM
   F. Assess under 763.88, newly friable ACBM
   G. Reassess condition of previously identified friable ACBM
   H. Record and submit:
      1. Re-inspection report
      2. Inventory of homogeneous areas. Exact sample site locations
      3. Description of manner used to determine sample site locations

E. RECORDKEEPING:

The O&M plan contains the specifications and forms for keeping records regarding any repair or removal work involving ACBM. The record keeping procedure assures that:

1. Major repair work carried out by outside contractor is documented
2. Minor repair work by qualified in-house worker is documented
3. Monitoring of remaining asbestos is recorded
4. Personnel records for training and medical monitoring are kept

In general, this record keeping system must track two types of data: data on the physical condition of the ACBM's and actions taken on those ACBM's; the data associated with the personnel involved with the asbestos management program.

Tracking of the ACBM's maybe thought of as the tracking of physical inventory. The condition of the material recorded at intervals (record of the inspection and surveillance), that recording of substantive changes in material status (removal, enclosure or encapsulation), various required reports to governing bodies (notices of abatement and disposal actions to the EPA) and the recording of a new audited inventory in the context of the 3-year re-inspection.

Personnel tracking require: identity; training; medical monitoring; and exposure of the individual to be recorded on a form (which is to be on file for a period of at least 30 years). The following record formats and descriptions are intended as generalized basic examples of the type of records required for daily use.

LIST OF REQUIRED RECORDKEEPING (763.94)

1. Records location
   A. Removal records retention
   B. Records as part of the management plan

2. For each preventive measure:
    A. Detailed written description of measure or action including,
        1. Location of measure or action
        2. Methods used
        3. Reasons for selecting the measure of action
        4. Name and addresses of all contractors involved
    B. Identification of person taking clearance air samples
        1. Locations where samples were collected
        2. Date of collection
        3. Name and address of analysis lab
        4. Date of analysis
        5. Method of analysis
        6. Name and signature of person performing the analysis
        7. Statement that lab meets 763 .90(1) (2) (ii)
3. For each person required to be trained under 763.92(a) (1) and (2):
        A. Name and job title.
        B. Date training completed
        C. Location of training
        D. Hours of training
4. For each periodic surveillance under 763 .91 (c):
        A. Name of person performing surveillance
        B. Date of surveillance
        C. Any changes in the conditions of materials
5. For each cleaning under 763.91(d):
        A. Name of each person performing cleaning
        B. State and completion dates
        C. Locations
        D. Description of activity
        E. Method of used
6. For each time an O&M activity is performed under 763.91(d):
        A. Name of each person performing activity
        B. State and completion dates
        C. Locations
        D. Description of activity
        E. Measure used
        F. Locations of storage/disposal site
7. For each time that a major asbestos activity under 763.9 1(a) is performed:
        A. Name, signature, state of accreditation, number of persons performing activities.
        B. Start and completion dates,
        C. Locations and description of activity.
        D. Methods used.
        E. Location of storage disposal site.
        F. Results of any air sampling analysis performed.
8. For each fiber release episode under 763.91(f):
        A. Date and location of the episode,
        B. Method of repair,
        C. Preventive measures taken.
        D. Name of each person performing work.
        E. Location of storage/disposal site.

THIRD YEAR RE-INSPECTION SPREADSHEETS

The regulations require that this report provide a considerable quantity of specific data related to asbestos containing materials within buildings. The information contained in these spreadsheets provides a condensed, easy to use summary of much of that data. It indicates whether or not the various building materials contain asbestos. If they do, the spreadsheets indicate where the asbestos is located, what kind of asbestos it is, and most importantly, what actions are recommended to be taken. The measures include both scheduled action by asbestos abatement contractors as well as day to day activities by the building's custodial and maintenance personnel.

You should find these spreadsheets easy to use and very helpful. To assist you in its use, the following pages provide column by column explanations of the spreadsheets.

HOMOGENEOUS AREA:
This column defines the various homogeneous areas throughout the building. It is important that you understand the concept of a homogeneous area. It is really very simple. By definition a homogeneous area is one in which the materials, are evenly mixed and similar in appearance and texture throughout. All that means is that the materials appear to be the same. Therefore, during the survey, all the materials throughout the school that appeared to be the same were grouped into homogeneous areas. For example, a given building may have had a white, speckled 2' x 2' suspended ceiling in several of the classrooms. Therefore, one homogeneous area was described as 2' x 2' suspended ceiling and its area was comprised of every school classroom in which that suspended ceiling was present. Another example is hard joints on pipe insulation. Generally, hard, joints on pipe insulation are similar in texture and appearance. Therefore, all joints on a particular type of pipe were considered one homogeneous area.

As you can see a homogeneous area is just the means by which similar materials are grouped. The importance of the homogeneous area is that it provides a method to determine whether or not a material contains asbestos without having to sample every building material in every room. When homogeneous areas have been defined, representative samples of that material are taken and tested to determine whether or not they contain asbestos. Based on those test results, it can logically be presumed whether or not all the material in a given homogeneous area does or does not contain asbestos.

Turning to the spreadsheet you will see that in the first column each homogeneous area is assigned a number starting with 1. The number of homogeneous areas in each building will vary depending on how many types of building materials there are.

DESCRIPTION:
This column provides a brief description of what each homogeneous area is and lists all the areas within the building in which that material is present. For example, a description of one homogeneous area may be "Joint Insulation". Then under that description, will be a listing of all the rooms in the school in which that joint insulation is present.

SAMPLE NUMBER:
This column is for the sample number. The number is comprised of three numbers divided by dashes. The first number identifies the date the sample was taken. The second number identifies the each individual sample number taken in the specific building. For each homogeneous area, the sample numbers are listed only in the rooms where actual samples were taken. For all the other rooms within a homogeneous area where there is no sample number listed, there was no sample taken. However, because the materials are in the same homogeneous area, it is assumed that the materials are similar.

ASBESTOS TYPE:
If there is asbestos present, this column defines the percentage of asbestos and the type asbestos. These are defined by a number and a four letter abbreviation. The number is the percentage of asbestos and the four letter abbreviation represents the type of asbestos. In the lower left hand corner of each spreadsheet there is a legend

which explains what each abbreviation stands for. For example, CHRY stands for Chrysotile. If no asbestos was found in the sample, "0%" or "ND" is listed in the column. Please note that only the specific samples taken indicate the type and percentage of asbestos. For all other areas within a homogeneous area where no specific sample was taken, the material is either assumed positive or negative based on the results of the actual samples.

MATERIAL:
The next three columns describe the material by the following criteria:
Type:
This column identifies the type of material as "S" for Surfacing, "T" for Thermal or "M" for Miscellaneous. Surfacing materials include such items as acoustical spray, wall and ceiling plaster, and spray on fireproofing. Thermal materials include such items as hard joints, boiler insulation, and duct insulation. Miscellaneous materials include such items as suspended acoustical tile and vinyl floor tile.
Location:
This column places the location of the sample into two broad categories. Either "AC" for above ceiling or "BC" for below the ceiling;
Quantity:
This column represents the quantity of material present. In the case of pipe insulation the quantity is linear feet. In case of hard joints the quantity is for each joint.

FRIABILITY:
If a material contains asbestos, this column indicates whether the material is friable or non-friable. A friable material is one that contains 1% or more of asbestos by weight and can be crumbled, pulverized, or reduced to powder by hand pressure. Non-friable materials are all other types of asbestos containing materials.

It is important to remember that the danger of asbestos is when the fibers become airborne. Therefore, the friable asbestos is potentially more dangerous than the non-friable asbestos. In this column each material containing asbestos is defined by "F" for friable or "NF" for non-friable.

AHERA ASSESSMENT CATEGORIES:
This column indicates the assessments made in accordance with EPA guidelines.

RECOMMENDATIONS:
This column indicates the recommended action and dates to complete the work (if needed).

AHERA ASSESSMENT CATEGORIES

CATEGORY 1	Damaged or significantly damaged thermal system insulation ACM
CATEGORY 2	Damaged friable surfacing ACM
CATEGORY 3	Significantly damaged friable surfacing ACM
CATEGORY 4	Damaged or significantly damaged friable miscellaneous ACM
CATEGORY 5	ACBM with potential for damage
CATEGORY 6	ACBM with potential for significant damage
CATEGORY 7	Any remaining friable ACBM or friable suspected ACBM

6-MONTH SURVEILLANCE

INFORMATION

NAME: _____

CONSULTING FIRM/LEA: _____

ACCREDITATION NUMBER (If Applicable): _____

I certify that I have performed a surveillance inspection of the said building in accordance with AHERA regulations 40 CFR Part 763.

SIGNATURE: _____

DATE: _____

COMMENTS: _____

12-MONTH SURVEILLANCE

INFORMATION

NAME: _____

CONSULTING FIRM/LEA: _____

ACCREDITATION NUMBER (If Applicable): _____

I certify that I have performed a surveillance inspection of the said building in accordance with AHERA regulations 40 CFR Part 763.

SIGNATURE: _____

DATE: _____

COMMENTS: _____

_____

_____

_____

_____

_____

_____

_____

_____

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_____

18-MONTH SURVEILLANCE

INFORMATION

NAME: _____

CONSULTING FIRM/LEA: _____

ACCREDITATION NUMBER (If Applicable): _____

I certify that I have performed a surveillance inspection of the said building in accordance with AHERA regulations 40 CFR Part 763.

SIGNATURE: _____

DATE: _____

COMMENTS: _____

24-MONTH SURVEILLANCE

INFORMATION

NAME: _____

CONSULTING FIRM/LEA: _____

ACCREDITATION NUMBER (If Applicable): _____

I certify that I have performed a surveillance inspection of the said building in accordance with AHERA regulations 40 CFR Part 763.

SIGNATURE: _____

DATE: _____

COMMENTS: _____

_____

_____

_____

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_____

30-MONTH SURVEILLANCE

INFORMATION

NAME: _____

CONSULTING FIRM/LEA: _____

ACCREDITATION NUMBER (If Applicable): _____

I certify that I have performed a surveillance inspection of the said building in accordance with AHERA regulations 40 CFR Part 763.

SIGNATURE: _____

DATE: _____

COMMENTS: _____

_____

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_____

_____

_____

COUNTRYSIDE ELEMENTARY SCHOOL

HOM. AREA	DESCRIPTION	SAMPLE DATE	ASBESTOS (Y/N/A)	DAM	QUANTITY	FRIABLE	2022 ASSESSMENT 40 CFR 763.88	RESPONSE ACTION START/END DATES	SPECIAL CLEANING NEEDED	TYPE OF DAMAGE	RECOMMENDATIONS REFER TO REPORT FOR DATES AND COST ESTIMATES
	1953 BUILDING										
1	**GREY/COLOR FLECKS 12" X 12" VINYL FLOOR TILE**										
	SECOND FLOOR HALLWAY	6/3/22	N	N	1,600 SF						
	ROOM 10			N	760 SF						
	SECOND FLOOR GUIDANCE OFFICE			N	420 SF						
	ROOM 11			N	760 SF						
	ROOM 12			N	760 SF						
	ROOM 13			N	760 SF						
	ROOM 14			N	760 SF						
	ROOM 15			N	760 SF						
	ROOM 16			N	760 SF						
	OFFICE 17			N	275 SF						
	NURSE			N	300 SF						
	ROOM 1			N	760 SF						
	ROOM 2			N	760 SF						
	ROOM 3			N	760 SF						
	ROOM 4			N	760 SF						
	ROOM 5			N	760 SF						
	ROOM 6			N	380 SF						
	ROOM 7			N	380 SF						
	OFFICE 8			N	275 SF						
	TEACHER'S ROOM			N	550 SF						
	FIRST FLOOR HALLWAY			N	2,700 SF						
	AUDITORIUM			N	3,000 SF						
2	**9" X 9" VINYL FLOOR TILE**										
	LIBRARY UNDER CARPET	6/3/22	Y	N	1,130 SF	NF	5		N		GOOD CONDITION - O&M
	SERVER CLOSET			N	70 SF	NF	5		N		GOOD CONDITION - O&M
	MAIN OFFICE SUITE UNDER CARPET			N	1,000 SF	NF	5		N		GOOD CONDITION - O&M
	FIRST FLOOR CUSTODIAL CLOSET			N	30 SF	NF	5		N		GOOD CONDITION - O&M
	STAGE EXIT HALLWAY			N	30 SF	NF	5		N		GOOD CONDITION - O&M
	GYMNASIUM OFFICE			N	100 SF	NF	5		N		GOOD CONDITION - O&M
3	**LIGHT BLUE 12" X 12" VINYL FLOOR TILE**										
	KITCHEN	6/3/22	N	N	360 SF						

ASBESTOS TYPE
CHRY Chrysotile
AMOS Amosite
ACTI Actinolite
ANTH Anthophyllite
CROC Crocidolite
NA/PS Not Analyzed/Positive Stop

QUANTITY
SF Square Feet
LF Linear Feet
EA Each
TO Total

TYPE OF MATERIAL
M Miscellaneous
S Surfacing
T Thermal

ASBESTOS
Y Yes
N No
A Assumed

NOTES
HV - HEPA VACCUUM
2X/WK - TWICE PER WEEK
1X/WK - ONCE PER WEEK
L - LOOSE
DE - DETERRIORATED
D - DAMAGED
SD - SIGNIFICANT DAMAGE

(1) Damaged or significantly damaged thermal system insulation ACM.
(2) Damaged friable surfacing ACM.
(3) Significantly damaged friable surfacing ACM.
(4) Damaged or significantly damaged friable miscellaneous ACM.
(5) ACBM with potential for damage.
(6) ACBM with potential for significant damage.
(7) Any remaining friable ACBM or friable suspected ACBM.

HOM. AREA	DESCRIPTION	SAMPLE DATE	ASBESTOS (Y/N/A)	DAM	QUANTITY	FRIABLE	2022 ASSESSMENT 40 CFR 763.88	RESPONSE ACTION START/END DATES	SPECIAL CLEANING NEEDED	TYPE OF DAMAGE	RECOMMENDATIONS REFER TO REPORT FOR DATES AND COST ESTIMATES
4	**MASTIC FOR GREY/COLOR FLECKS 12" X 12" VINYL FLOOR TILE**										
	SECOND FLOOR HALLWAY	6/3/22	N	N	1,600 SF						
	ROOM 10			N	760 SF						
	SECOND FLOOR GUIDANCE OFFICE			N	420 SF						
	ROOM 11			N	760 SF						
	ROOM 12			N	760 SF						
	ROOM 13			N	760 SF						
	ROOM 14			N	760 SF						
	ROOM 15			N	760 SF						
	ROOM 16			N	760 SF						
	OFFICE 17			N	275 SF						
	NURSE			N	300 SF						
	ROOM 1			N	760 SF						
	ROOM 2			N	760 SF						
	ROOM 3			N	760 SF						
	ROOM 4			N	760 SF						
	ROOM 5			N	760 SF						
	ROOM 6			N	380 SF						
	ROOM 7			N	380 SF						
	OFFICE 8			N	275 SF						
	TEACHER'S ROOM			N	550 SF						
	FIRST FLOOR HALLWAY			N	2,700 SF						
	AUDITORIUM			N	3,000 SF						
5	**MASTIC FOR 9" X 9" VINYL FLOOR TILE**										
	LIBRARY UNDER CARPET	6/3/22	N	N	1,130 SF						
	SERVER CLOSET			N	70 SF						
	MAIN OFFICE SUITE UNDER CARPET			N	1,000 SF						
	FIRST FLOOR CUSTODIAL CLOSET			N	30 SF						
	STAGE EXIT HALLWAY			N	30 SF						
	GYMNASIUM OFFICE			N	100 SF						
6	**MASTIC FOR LIGHT BLUE 12" X 12" VINYL FLOOR TILE**										
	KITCHEN	6/3/22	N	N	360 SF						

ASBESTOS TYPE
CHRY Chrysotile
AMOS Amosite
ACTI Actinolite
ANTH Anthophyllite
CROC Crocidolite
NA/PS Not Analyzed/Positive Stop

QUANTITY
SF Square Feet
LF Linear Feet
EA Each
TO Total

TYPE OF MATERIAL
M Miscellaneous
S Surfacing
T Thermal

ASBESTOS
Y Yes
N No
A Assumed

NOTES
HV - HEPA VACCUUM
2X/WK - TWICE PER WEEK
1X/WK - ONCE PER WEEK
L - LOOSE
DE - DETERRIORATED
D - DAMAGED
SD - SIGNIFICANT DAMAGE

(1) Damaged or significantly damaged thermal system insulation ACM.
(2) Damaged friable surfacing ACM.
(3) Significantly damaged friable surfacing ACM.
(4) Damaged or significantly damaged friable miscellaneous ACM.
(5) ACBM with potential for damage.
(6) ACBM with potential for significant damage.
(7) Any remaining friable ACBM or friable suspected ACBM.

HOM. AREA	DESCRIPTION	SAMPLE DATE	ASBESTOS (Y/N/A)	DAM	QUANTITY	FRIABLE	2022 ASSESSMENT 40 CFR 763.88	RESPONSE ACTION START/END DATES	SPECIAL CLEANING NEEDED	TYPE OF DAMAGE	RECOMMENDATIONS REFER TO REPORT FOR DATES AND COST ESTIMATES
7	**TRANSITE WALL PANELS**										
	AUDITORIUM	6/3/22	Y	N	700 SF	NF	5		N		GOOD CONDITION - O&M
8	**PLASTER**										
	ROOM 10	6/3/22	N	N	1,500 SF						
	SECOND FLOOR GUIDANCE OFFICE			N	800 SF						
	ROOM 11			N	1,500 SF						
	ROOM 12			N	1,500 SF						
	ROOM 13			N	1,500 SF						
	ROOM 14			N	1,500 SF						
	ROOM 15			N	1,500 SF						
	ROOM 16			N	1,500 SF						
	OFFICE 17			N	550 SF						
	LIBRARY			N	2,300 SF						
	NURSE			N	700 SF						
	MAIN OFFICE SUITE			N	1,900 SF						
	ROOM 1			N	1,500 SF						
	ROOM 2			N	1,500 SF						
	ROOM 3			N	1,500 SF						
	ROOM 4			N	1,500 SF						
	ROOM 5			N	1,500 SF						
	ROOM 6			N	750 SF						
	ROOM 7			N	750 SF						
	OFFICE 8			N	550 SF						
	FISRT FLLOOR BATHROOMS			N	600 SF						
	SECOND FLOOR BATHROOMS			N	600 SF						
	KITCHEN			N	360 SF						
	STAGE EXIT HALLWAY			N	150 SF						
	AUDITORIUM			N	3,000 SF						
8	**PIPE INSULATION**										
	PIPE TUNNELS/CRAWL SPACE	6/3/22	Y	N		N	5		N		FAIR CONDITION - O&M
	PIPE TUNNELS/CRAWL SPACE			**Y**	**100 LF**	**Y**	**1**		**N**	**D/DEBRIS**	**SEAL ACCESS-REMOVE WHEN NEEDED**
	BASEMENT WATER METER (DEBRIS)			**Y**	**15 SF**	**Y**	**1**	**7/1/22-8/31/22**	**N**	**D/DEBRIS**	**SEAL ACCESS-REMOVE WHEN NEEDED**
	BASEMENT			**Y**	**3 LF**	**Y**	**1**	**7/1/22-8/31/22**	**HV-WET CLEAN 1X/WK**	**SPOT DAMAGE**	**REPAIR- O&M**
	BASEMENT			N	545 LF	N	6		N		GOOD CONDITION - O&M
	CUSTODIAN OFFICE			N	35 LF	N	6		N		GOOD CONDITION - O&M
	BOILER ROOM			N	140 LF	N	6		N		GOOD CONDITION - O&M

ASBESTOS TYPE
CHRY Chrysotile
AMOS Amosite
ACTI Actinolite
ANTH Anthophyllite
CROC Crocidolite
NA/PS Not Analyzed/Positive Stop

QUANTITY
SF Square Feet
LF Linear Feet
EA Each
TO Total

TYPE OF MATERIAL
M Miscellaneous
S Surfacing
T Thermal

ASBESTOS
Y Yes
N No
A Assumed

NOTES
HV - HEPA VACCUUM
2X/WK - TWICE PER WEEK
1X/WK - ONCE PER WEEK
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9	**GENERATOR EXHAUST INSULATION**										
	GENERATOR ROOM	6/3/22	Y	N	10 LF	NF	5		N		GOOD CONDITION - O&M
10	**EXHAUST BREECHING INSULATION**										
	BOILER ROOM	6/3/22	Y	**Y**	**300 SF**	**F**	**1**	**7/1/22-8/31/22**	**HV-WET CLEAN 1X/WK**	**WRAP FALLRING**	**REPAIR- O&M**
11	**TANK INSULATION**										
	BOILER ROOM	6/3/22	Y	N	130 SF	NF	5		N		GOOD CONDITION - O&M
12	**2' X 2' SUSPENDED ACOUSTICAL CEILING TILE TYPE I**										
	CUSTODIAN OFFICE	6/3/22	N	N	185 SF						
	SECOND FLOOR GUIDANCE OFFICE			N	420 SF						
	ROOM 14			N	760 SF						
	ROOM 16			N	760 SF						
	LIBRARY			N	1,130 SF						
	MAIN OFFICE SUITE			N	460 SF						
	ROOM 3			N	760 SF						
	ROOM 4			N	760 SF						
	ROOM 5			N	760 SF						
13	**2' X 2' SUSPENDED ACOUSTICAL CEILING TILE TYPE II**										
	GYMNASIUM		A	N	2,400 SF	F	7		HV-WET CLEAN 1X/WK		GOOD CONDITION - O&M
14	**2' X 4' SUSPENDED ACOUSTICAL CEILING TILE**										
	TEACHER'S ROOM	6/3/22	N	N	550 SF						
	AFTER SCHOOL ROOM			N	1,130 SF						

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15	**1' X 1' ACOUSTICAL CEILING TILE TYPE I**										
	SECOND FLOOR HALLWAY	6/3/22	N	N	1,600 SF						
	ROOM 10			N	200 SF						
	ROOM 11			N	200 SF						
	ROOM 12			N	200 SF						
	ROOM 13			N	200 SF						
	ROOM 15			N	200 SF						
	OFFICE 17			N	275 SF						
	NURSE			N	300 SF						
	MAIN OFFICE SUITE			N	420 SF						
	ROOM 1			N	200 SF						
	ROOM 2			N	200 SF						
	ROOM 6			N	100 SF						
	ROOM 7			N	100 SF						
	OFFICE 8			N	275 SF						
	FISRT FLOOR HALLWAY			N	2,700 SF						
	AUDITORIUM			N	500 SF						
16	**1' X 1' ACOUSTICAL CEILING WALL TILE FIBERGLASS TILE**										
	ROOM 10			N	150 SF						THE TILES ARE FIBERGLASS
	ROOM 11			N	150 SF						
	ROOM 12			N	150 SF						
	ROOM 13			N	150 SF						
	ROOM 14			N	150 SF						
	ROOM 15			N	150 SF						
	ROOM 16			N	150 SF						
	ROOM 1			N	150 SF						
	ROOM 2			N	150 SF						
	ROOM 3			N	150 SF						
	ROOM 4			N	150 SF						
	ROOM 5			N	150 SF						
	ROOM 6			N	75 SF						
	ROOM 7			N	75 SF						
	AUDITORIUM			N	300 SF						

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17	**GLUE DAUD FOR 1' X 1' ACOUSTICAL CEILING TILE TYPE I**										
	SECOND FLOOR HALLWAY	6/3/22	N	N	1,600 SF						
	ROOM 10			N	200 SF						
	ROOM 11			N	200 SF						
	ROOM 12			N	200 SF						
	ROOM 13			N	200 SF						
	ROOM 15			N	200 SF						
	OFFICE 17			N	275 SF						
	NURSE			N	300 SF						
	MAIN OFFICE SUITE			N	420 SF						
	ROOM 1			N	200 SF						
	ROOM 2			N	200 SF						
	ROOM 6			N	100 SF						
	ROOM 7			N	100 SF						
	OFFICE 8			N	275 SF						
	FISRT FLOOR HALLWAY			N	2,700 SF						
	AUDITORIUM			N	500 SF						
18	**GLUE DAUB FOR 1' X 1' ACOUSTICAL FIBERGLASS WALL TILE**										
	ROOM 10	6/3/22	N	N	150 SF						
	ROOM 11			N	150 SF						
	ROOM 12			N	150 SF						
	ROOM 13			N	150 SF						
	ROOM 14			N	150 SF						
	ROOM 15			N	150 SF						
	ROOM 16			N	150 SF						
	ROOM 1			N	150 SF						
	ROOM 2			N	150 SF						
	ROOM 3			N	150 SF						
	ROOM 4			N	150 SF						
	ROOM 5			N	150 SF						
	ROOM 6			N	75 SF						
	ROOM 7			N	75 SF						
	AUDITORIUM			N	300 SF						

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	1986 BUILDING										
1	**GREY/COLOR FLECKS 12" X 12" VINYL FLOOR TILE**										
	ROOM 1A	6/3/22	N	N	860 SF						
	ROOM 2A			N	860 SF						
	ROOM 3A			N	860 SF						
	ROOM 4A			N	860 SF						
	ROOM 5A			N	860 SF						
	ROOM 6A			N	860 SF						
	ROOM 7A			N	860 SF						
	ROOM 8A			N	860 SF						
	HALLWAY			N	2,300 SF						
2	**MASTIC FOR GREY/COLOR FLECKS 12" X 12" VINYL FLOOR TILE**										
	ROOM 1A	6/3/22	N	N	860 SF						
	ROOM 2A			N	860 SF						
	ROOM 3A			N	860 SF						
	ROOM 4A			N	860 SF						
	ROOM 5A			N	860 SF						
	ROOM 6A			N	860 SF						
	ROOM 7A			N	860 SF						
	ROOM 8A			N	860 SF						
	HALLWAY			N	2,300 SF						
3	**2' X 4' SUSPENDED ACOUSTICAL CEILING TILE**										
	ROOM 1A	6/3/22	N	N	860 SF						
	ROOM 2A			N	860 SF						
4	**WHITE SINK COATING**										
	ROOM 1A	6/3/22	N	N	1 EA						
	ROOM 2A			N	1 EA						

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5	**BLACK SINK COATING**										
	ROOM 3A	6/3/22	Y	N	1 EA	NF	5		N		GOOD CONDITION - O&M
	ROOM 4A			N	1 EA	NF	5		N		GOOD CONDITION - O&M
	ROOM 5A			N	1 EA	NF	5		N		GOOD CONDITION - O&M
	ROOM 6A			N	1 EA	NF	5		N		GOOD CONDITION - O&M
	ROOM 7A			N	1 EA	NF	5		N		GOOD CONDITION - O&M
	ROOM 8A			N	1 EA	NF	5		N		GOOD CONDITION - O&M
6	**SHEETROCK AND JOINT COMPOUND**										
	ROOM 1A	6/3/22	Y	N	1,600 SF	NF	5		N		GOOD CONDITION - O&M
	ROOM 2A			N	1,600 SF	NF	5		N		GOOD CONDITION - O&M
	ROOM 3A			N	1,600 SF	NF	5		N		GOOD CONDITION - O&M
	ROOM 4A			N	1,600 SF	NF	5		N		GOOD CONDITION - O&M
	ROOM 5A			N	1,600 SF	NF	5		N		GOOD CONDITION - O&M
	ROOM 6A			N	1,600 SF	NF	5		N		GOOD CONDITION - O&M
	ROOM 7A			N	1,600 SF	NF	5		N		GOOD CONDITION - O&M
	ROOM 8A			N	1,600 SF	NF	5		N		GOOD CONDITION - O&M
	HALLWAY			N	2,300 SF	NF	5		N		GOOD CONDITION - O&M
	MODULAR BUILDING										
1	**2' X 4' SUSPENDED ACOUSTICAL CEILING TILE**										
	ART 10A	6/3/22	N	N	1,100 SF						
	ROOM 11A			N	850 SF						
	ROOM 12A			N	850 SF						
	HALLWAY			N	980 SF						
	OFFICE 13A			N	130 SF						
	OFFICE 14A			N	130 SF						
2	**BEIGE 12" X 12" VINYL FLOOR TILE**										
	ART 10A		N	N	1,100 SF						

ASBESTOS TYPE
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AMOS Amosite
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ANTH Anthophyllite
CROC Crocidolite
NA/PS Not Analyzed/Positive Stop

QUANTITY
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LF Linear Feet
EA Each
TO Total

TYPE OF MATERIAL
M Miscellaneous
S Surfacing
T Thermal

ASBESTOS
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3	MASTIC FOR BEIGE 12" X 12" VINYL FLOOR TILE										
	ART 10A	6/3/22	N	N	1,100 SF						

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OPERATIONS AND MAINTENANCE PLAN
COUNTRYSIDE ELEMENTARY SCHOOL

INTRODUCTION:
This operations and maintenance plan detail each type of repair, removal, or maintenance activity that is likely to be necessary to keep Asbestos Containing Materials in good condition.

All Personnel MUST have a minimum of 16-hours training to perform any repair or removal for up to three (3) linear feet or square feet.

The following Asbestos Containing Material (ACM) that is either, previously found, found, or assumed to contain asbestos:

Found to be ACM:

- Pipe and hard joint insulation.
- Generator exhaust insulation.
- Tank insulation.
- Exhaust breeching insulation.
- 9" x 9" vinyl floor tile.
- Black sink coating.
- Joint compound.
- Transite.

Assumed to be ACM:

- 2' x 2' Suspended acoustical ceiling tile at the Gymnasium.

OBJECTIVE:
The three main objectives of an Operations and Maintenance (O&M) program are:

1. To clean up existing contamination
2. To minimize future fiber release by controlling access to Asbestos Containing Material (ACM)
3. To maintain ACM until it is eventually removed.

Since by law all but small quantities of ACM must be removed from buildings before demolition, this O&M program is not a permanent solution. It is implemented as part of an overall asbestos management plan that has as its goal the elimination of asbestos exposure within the facility. The O&M program likewise is not a means by which full scale asbestos abatement is accomplished. Rather, intentional disruption of ACM should be limited to repair or removal of small areas of significantly damaged ACM, or small areas where removal is necessary to facilitate maintenance/renovation activities.

As long as ACM remains in the building, the O&M plan must remain in effect. Unless the program is implemented properly, exposure of maintenance workers and building occupants may not decrease. ACM may be disturbed by improper cleaning or repair methods. The O&M program should be established as soon as the presence of ACM is confirmed or assumed to be present. It must address friable material as well as material about to become friable, such as transite board to be cut or drilled. The O&M includes a general set of procedures that apply to periodic inspection, building renovation, maintenance, cleaning, and work done to maintain the material in good condition.

Though an O&M program may initially seem the most cost-effective solution to an asbestos problem, there are many additional costs that must be taken into consideration. Money that could have been spent on removal must be spent on worker training, respirators, and health monitoring. These costs continue until the ACM is removed. Asbestos removal is required during renovation or demolition.

Operation and Maintenance plans vary with the type of material present in the building. All maintenance activities are regulated under the EPA CFR 763.121 “Worker Protection Act,” OSHA 29 CFR 1926.1101 Asbestos Construction Standard, or Section 19 or the Occupational Health and Safety Act. Worker protection and safety requirements are of major importance if workers are exposed to the material in any way. Workers must be fit tested and respiratory equipment maintained. Medical examinations are also required in order to work with asbestos. These projects involve only areas that include less than three square or linear feet. Any larger project MUST be performed by a licensed contractor. Be certain that the LEA is aware of all activities involving ACM. All outside contractors must also be notified of the location of asbestos containing material. Building occupants and the parents of children must also be notified in writing. The following types of activities can be performed by in-house trained personnel:

- Normal maintenance HEPA vacuuming and wet wiping
- Repair or removal of pipe insulation.
- Removal of damaged vinyl asbestos tiles.
- Repair or removal of small quantities of ACM on beams or above ceiling.
- Replacement of gasket or valve.
- Installation or removal of small section of drywall.
- Installation of electrical conduits through or near ACM.
- Removal of small quantities of ACM for maintenance activities.
- Removal of material that can be contained in one glove bag.
- Minor repairs to asbestos containing wallboard.
- Small repairs that can be performed in a mini enclosure, including enclosure, encapsulation, and removal.

These activities must be used for maintenance or emergency repair, NOT just for removal. The following sections will explain how to perform each asbestos related activity. A sample form for documenting O&M activities is also included at the end of this section.

ORGANIZATIONAL STRUCTURE
The LEA Designated Person (DP) is responsible for the total implementation of this program and keeping the school board informed of all pertinent asbestos related activities. The DP is the main contact for any information on the asbestos control program. The responsibilities of the DP are included in this report.

NOTIFICATION OF OCCUPANTS
The DP is responsible for informing all building occupants, employees, parents, contractors, annually of the asbestos control program. Notification serves two purposes: it alerts affected parties to a potential hazard in the buildings, and it provides basic information on avoiding the hazard. Building occupants, employees, and others who are aware of the presence of ACM are less likely to disturb the material and cause fiber release. All new employees and building occupants during their initial orientation shall be informed of the asbestos control program and locations of ACM at this school.

LABELING
Labeling in areas where ACM is located is required in the case of thermal system insulation in mechanical rooms. Labeling is not intended as general information. It serves as a final line of defense to prevent unprotected individuals from disturbing ACM or entering areas where repair or renovation activities involving ACM are underway. Warning signs used in conjunction with small renovation or repair that involves the disruption of ACM should be posted at the entrances and around the perimeter of the project and in accordance with OSHA Asbestos Standard for the Construction Industry (29 CFR l926.1101). Warning labels must be put on all asbestos containing thermal system insulation in mechanical rooms that say the following:

CAUTION
ASBESTOS HAZARDOUS
DO NOT DISTURB WITHOUT PROPER

TRAINING AND EQUIPMENT

All labels shall be prominently displayed in readily visible locations and shall remain posted until the ACM that is labeled is removed.

TRAINING

Training of service (custodial and maintenance) workers is one of the most important aspects of an effective O&M plan. Training serves to establish proper awareness and understanding of work practices that are vital to the success of the program. All service workers should receive at least two hours of general awareness training. This training session should include, at a minimum, all the information outlined in the notification section. Service personnel who conduct any activities that will result in the disturbance of ACM must receive 14 hours of additional training which should include cleaning techniques, appropriate practices for handling ACM, the proper use of personal protective equipment, and hands on training. The training program should be conducted by the DP, or a person trained in asbestos control.

It should be noted that only up to three (3) linear feet of square feet could be performed by the trained personnel.

RESPIRATORY PROTECTION

Any employer who requires or permits employees to wear a respirator must have a written respiratory protection program. This is required by OSHA in both of their asbestos standards (29 CFR 1910.1001 and l926.1101) and respiratory regulations (29 CFR 1910.134). The written respiratory program establishes standard operating procedures for the use and maintenance of respiratory equipment. The OSHA regulations outline exactly what must be included in a written program. Minimum respiratory protection requirements include the use of a half-face HEPA filter negative pressure respirator. A higher degree of protection can be achieved using a full-face mask or a power-assisted air purifying respirator (PAPR). It is preferable to use the highest level of protection possible when dealing with asbestos. Every worker who uses a respirator must have a medical exam and be fit tested. Never attempt to disturb asbestos without using properly fitted protective equipment. Personal exposure monitoring is required for workers to ensure that air levels are within the legal limits.

MEDICAL SURVEILLANCE

Employers are required to institute a medical surveillance program for all employees who are assigned to wear a negative-pressure respirator. All examinations and procedures must be performed by or under the supervision of a licensed physician at no cost to the employee. The purpose of the medical surveillance program is to establish an employee's fitness to wear a respirator, and to detect any changes in the gastrointestinal and cardiopulmonary systems as a result of working in asbestos contaminated areas. The OSHA regulation outlines what is required in the medical surveillance program.

PREVENTIVE MEASURES

The purpose of this is to eliminate the possibility of any disturbance and/or fiber release due to unknown activities. At a minimum, the following should be implemented:

1. Do not dry clean or sweep.
2. Do not cut, penetrate, sand, drill, break, nail into the ACM.
3. Do not hang plants, pictures, wires from the ACM.
4. Do not place items against the ACM.
5. Do not replace light fixtures where ACM, such as plaster, fireproofing and tiles is found.
6. Should ACM becomes damaged, seal, isolate the area and notify the consultant.

DESIGN AND AIR CLEARANCE REQUIREMENTS:

The work (greater than 3 LF or 3 SF) must be designed a Massachusetts licensed asbestos abatement designer and clearance air sampling is performed by a Massachusetts licensed project monitor. The purpose of the design is to include but not limited to the following:

- Scope of work.
- Location of work.
- Method to be utilized.
- Type of clearance air sampling.
- Scheduling and other related information.

CLEANING PROCEDURES

The cleaning activities described in this section are necessary for many different types of ACM. This section is referenced in the spread sheets for homogenous areas of friable asbestos containing surfacing material, friable thermal system insulation and friable miscellaneous materials. The following friable ACM was found.

- Pipe insulation at the pipe tunnels/crawl space and basement.
- ACM Debris was found at the tunnels/crawl space and basement water meter room. Seal access and remove as needed.

1. **Initial Cleaning**
   Unless the building has been cleaned within the previous 6 months, all areas of a school building where friable ACM, damaged or significantly damaged thermal system insulation ACM, or friable suspected ACM assumed to be ACM are present shall be cleaned at least once after the completion of the inspection required by Sec. 763.85(a) and before the initiation of any response action, other than O&M activities or repair, according to the following procedures:
   a. Do not dry clean or sweep.
   b. HEPA-vacuum or steam-clean all carpets.
   c. HEPA-vacuum or wet-clean all other floors and all other horizontal surfaces.
   d. Dispose of all debris, filters, mop-heads, and cloths in sealed, leak-tight containers.
2. **Periodic Cleaning**
   Custodial staff should perform a thorough cleaning a minimum of twice weekly where friable ACM found. HEPA vacuum or steam clean all carpets, wet mop all other floors, and wipe all other horizontal surfaces with damp cloths. Dispose of debris, filters, mop heads, and cloths in sealed plastic bags according to EPA regulations. Report the presence of debris observed near ACM to the DP immediately. If debris accumulates, cleaning should be performed more often, and repair or removal should be completed to eliminate the hazard.
3. **Emergency Procedures**
   If an emergency occurs, immediately notify the LEA, and restrict access to the area. Common emergencies include pipe leaks, boiler breakdowns, and water damage. Keep the phone number of a dependable local contractor for problems that may be larger than the in-house staff can handle. If you are not certain of the size or the extent of the damage, have a contractor and consultant look at it immediately.
4. **Specialized Cleaning Procedures**
   Special cleaning practices should be followed in buildings with ACM. Cleaning up existing asbestos contamination within a building is one of the primary objectives of the O&M program. Things not to do when cleaning asbestos containing materials:
   a. Do not sand backing material.
   b. Do not dust with a wire brush.
   c. Do not dry sweep floors.
   d. Do not use an ordinary vacuum to clean up asbestos debris.
   c. Do not use any method that might disturb the ACM.

The following precautions should always be used when cleaning ACM:

- All dusting and mopping of the ACM must be conducted using “wet” cleaning techniques (mops or cloths dampened with water or dust suppressant) or with special vacuum cleaner’s equipment with High Efficiency Particulate Air (HEPA) filters.
- Spray (mist) bottled of water or dust suppressant should be available and used to keep the mops and cloths damp.

- Cleaning materials (mop heads, cloths, etc.) should be washed after each cleaning, changed at regular intervals, and discarded as asbestos waste
- The materials should be placed in 6 mil plastic bags, the bags sealed and labeled:

"DANGER CONTAINS ASBESTOS FIBERS
AVOID
CREATING DUST
CANCER AND LUNG DISEASE HAZARD,"

And the bags deposited in an approved landfill. A disposal company could then transport the waste to an approved landfill periodically.

For each time that cleaning under Sec. 763.91(c) is performed, the local education agency shall record the name of each person performing the cleaning, the date of such cleaning, the locations cleaned, and the methods used to perform such cleaning.

MAINTENANCE OF VINYL FLOORING (VAT)
Refer to the attached "Recommended Work Practice for Removal of Resilient Floor Covering" for more detailed procedures.

Proper upkeep, disturbance, and removal of vinyl asbestos flooring are explained in this section. This section is referenced in the spread sheets for all homogenous areas of asbestos containing vinyl asbestos flooring. Although the main emphasis of this section is for vinyl asbestos flooring, the practices described in subsection three and four for drilling and removing vinyl asbestos flooring are recommended procedures for all vinyl flooring. It must be remembered that even for vinyl flooring which lab analysis has determined to be asbestos free, the mastic used on it and on all vinyl base boards could contain asbestos and should never be made friable by sanding. Any vinyl flooring not identified by this inspection which may be revealed upon removal of carpeting should be considered to contain asbestos until lab analysis proves otherwise.

1. **Care of Vinyl Floor Tile (VAT)**
   Do not sand, abrade, wire brush or the use of any method that might release fibers of vinyl asbestos tiles (VAT). VAT are unlikely to release any fibers unless cut or sanded. Use HEPA attachments described in the section on cutting non friable materials. The adhesive that is used to stick floor tiles to the floor is likely to have asbestos in it also. Do not sand or wire brush the adhesive. The best way to deal with VAT is to use regular detergent and floor wax. Keep a heavy layer of wax on the surface and that will act as an encapsulant. Use all procedures outlined in the sections for respiratory protection, protective clothing, and work area preparation. Remember that the adhesive probably has more asbestos than the tile itself. Dispose contaminated material and replace the tile with non-asbestos tile. Since the sharp tile edges could cut through a bag, wrap the tile in plastic and put them in a box. Wrap the box and put it in a bag or drum.
2. **Stripping/Waxing VAT**
   a. Wet methods must always be used when stripping, waxing, or buffing asbestos containing vinyl flooring.
   b. Never dry buff the asbestos-containing vinyl flooring.
   c. Always have a HEPA vacuum and respirators available if needed.
   d. If a HEPA vacuum is required, all filters, cleaning clothes, and debris should be disposed of as asbestos waste.
3. **Drilling of VAT**
   If it is necessary to drill into asbestos containing vinyl flooring (making the ACM friable) the following precautions must be followed.
   a. Worker or workers should wear NIOSH/MSHS approved respirators equipped with HEPA filter cartridges.
   b. Wet wipe the area to be drilled.
   c. Use a HEPA vacuum adjacent to the drilling operation to pick up fibers and debris as the drilling occurs.

d. Dispose of any debris as asbestos waste as outlined in the previous section.
e. Clean up area as outlined above.

4. Removing or Repairing VAT

a. To remove small sections of floor tiles, dry ice or heat from a portable heater can be applied to the tops of the tiles, and then the tiles can be pried up.
b. Use a 'wet' or solvent method to remove and clean the adhesive.
c. Do not sand the adhesive from the base flooring.
d. A HEPA vacuum or wet wiping should be used to clean up as outlined above.
e. All tiles, cloths, and debris must be disposed of as asbestos waste.

MAINTENANCE FOR THERMAL INSULATION

Maintenance activities affecting asbestos containing thermal system insulation generally involve plumbing-type repairs. Frequently the ACM must be removed to provide access to the valve, flange, or related system part needing maintenance. The extent of special work practices is tailor to reflect the likelihood that the ACM will be disturbed and that asbestos fibers will be released. Four categories of potential disturbance are defined: (1) contact with ACM is very unlikely, (2) accidental disturbance of ACM is possible, (3) disturbance of ACM is intended or likely - small disturbances (under three (3) feet of thermal system insulation), and (4) disturbance of ACM is intended or likely large disturbances (greater than three (3) feet of thermal system insulation).

1. Contact with ACM Unlikely

Repairs which can be performed without contacting or disturbing the ACM require only normal care, good workmanship, and respirators. A HEPA vacuum should be available for use if required.

2. Accidental Disturbance of ACM Possible

Maintenance tasks that involve no direct contact with ACM may cause accidental disturbance. Vibrations created by maintenance activities in one part of a piping network will be transmitted to other parts. Vibrations could then cause fibers to be released from insulation which is exposed or not in good condition. If in doubt about the possibility of fiber release, thoroughly inspect the asbestos—containing material before undertaking the maintenance or repair work. Then, either correct the problem before starting, or assume that the maintenance work may cause accidental disturbance and fiber release. In this case, the following procedures should be used:

a. Approval should be obtained from the DP before beginning work. The DP or supervisor should make an initial visit to the work site.
b. The work should be scheduled after normal working hours, if possible, or access to the work area should be controlled: doors should be locked from the inside and signs posted to prevent unauthorized persons from entering the work area
(e.g., MAINTENANCE WORK IN PROGRESS, DO NOT ENTER"). Note emergency exits must remain in operation.
c. The air-handling system should be shut off or temporarily modified to prevent the distribution of any released fibers to areas outside the work site.
d. A 6-mil polyethylene plastic drop cloth should be placed beneath the location of the maintenance work, extending at least 10 feet beyond all sides of the work site.
e. Plastic sheets (6-mil polyethylene) should be cut and taped around any asbestos containing insulation which might be accidentally disturbed. The plastic should be misted with amended water before sealing with tape. Workers should wear full respiratory protection and protective clothing.
f. After the maintenance work is completed, all tools, ladders, and other equipment should be HEPA-vacuumed or wiped with a damp cloth. Special care should be taken when removing the plastic from the insulation to minimize disturbance of ACM dust or debris that may have fallen from the insulation.
g. If any debris is apparent on the drop cloth, floor, or elsewhere, it should be HEPA-vacuumed.
h. The plastic drop cloth should be wiped with a dampen cloth, carefully folded, and discarded as asbestos waste.
i. All clothes, vacuum bags/filters, and other disposable materials should be discarded in sealed and labeled plastic bags as asbestos waste.
j. Workers should HEPA-vacuum respirators and protective clothing at the work site. The clothing should then be discarded as asbestos waste. If the ACM was disturbed during the course of the

work, the workers should leave their respirators on, proceed to a shower room, shower with respirators on, and clean their respirators while in the shower.

3. **Small Disturbance of ACM Intended**
   Where less than 3 feet of asbestos containing thermal system insulation must be removed to maintain or repair the thermal system, the following procedures should be used:
   a. Approval should be obtained from the DP before beginning work. The DP or supervisor should make an initial visit to the work site.
   b. The work should be scheduled after normal working hours, if possible, or access to the work area should be controlled: doors should be locked from the inside and signs posted to prevent unauthorized persons from entering the work area (e.g., "MAINTENANCE WORK IN PROGRESS, DO NOT ENTER"). Note, emergency exists must remain in operation.
   c. The air-handling system should be shut off or temporarily modified to prevent the distribution of any released fibers to areas outside the work site.
   d. Maintenance workers should wear at least air-purifying respirators with HEPA filters and protective clothing (suit, hood, and boots) in case of a fiber release accident.
   e. The asbestos containing thermal system insulation should be removed as necessary for the repairs, and the repairs made using standard glove bag techniques where possible (refer to the EPA publication: "Asbestos-in-Building Technical Bulletin: Abatement of Asbestos containing Pipe Insulation," 1986-2 and the OSHA Construction Industry Rule). Glove bags are fastened around the part to be repaired, the insulation is removed with knives and saws to make the part accessible, and the repairs are made using tools contained in the glove bag tool pouch.
   f. At the conclusion of the work, Maintenance workers should clean their clothing using a HEPA vacuum and wet wiping.
   g. All glove bags and any other used materials (including disposable clothing) should be discarded as asbestos waste, if the ACM was disturbed during the course of the work; the workers should leave their respirators on, proceed to a shower room, shower with respirators on, and clean their respirators while in the shower.
   h. Non asbestos insulating material can be installed as necessary to replace insulation which was removed.

4. **Large Disturbance of ACM Intended**
   When more than 3 feet of asbestos containing thermal system insulation must be removed to maintain or repair the thermal system, this is considered to be a large-scale disturbance of ACM, and glove bags are not feasible. With this situation an outside contractor should be hired for the removal project before the maintenance work begins.

   If maintenance personnel are to conduct the asbestos removal, they must be thoroughly trained in removal techniques as required by OSHA. If the maintenance activities are likely to cause disturbance of ACM on pipes, boilers, or ducts at sites other than just those undergoing repair (due to vibration, etc.), then the entire room or area must be isolated and large-scale asbestos removal procedures employed. These include construction of containment barriers and ventilation system: use of protective clothing, and "type C" respirators by workers; proper disposal of asbestos debris; and proper cleanup of the work site followed by clearance air monitoring.

MAINTENANCE OF CEILING TILES

This section of the O&M plan provides the information necessary for managing, removing, and replacing ACM ceiling tiles. Always refer to this section before removing and replacing a ceiling tile. Remember, only areas of less than three square feet may be removed and only for necessary repair or maintenance activities.

Do not cut, penetrate, hang anything, or disturb the tiles as debris will be generated. It is, recommended that a licensed asbestos abatement contractor perform the work to minimize significant disturbance of the ceiling tiles.

MAINTENANCE OF SINK DAMPROOFING
Do not scrape the ACM. For removal retain the services of a licensed contractor. The ACM would still have to be disposed properly. Follow procedures listed in the Massachusetts Regulations 6.13 “Work Practices Involving Non-Friable Asbestos).

MAINTENANCE OF JOINT COMPOUND
Do not scrape, sand, drill into, or remove the ACM. For removal retain the services of a licensed contractor. The ACM would still have to be disposed properly. Follow procedures listed in the Massachusetts Regulations 6.13 “Work Practices Involving Non-Friable Asbestos).

PROCEDURES FOR FIBER RELEASE EPISODES
As long as ACM remains in the building, a fiber release episode could occur. A fiber release episode is when the ACM becomes damaged in such a way as to release asbestos fibers to the atmosphere. Knowing the procedures necessary to control a fiber release episode is essential in any building which contains ACM. Reference to this section is recommended for all homogenous areas of asbestos containing friable surfacing material and thermal system insulation including pipe, joint, tank, duct, and boiler insulation, which are listed on the sp read sheets of section four. Building custodial and maintenance staff should refer to this section to prevent a fiber release episode and to be thoroughly prepared for procedures should one occur. Custodial and maintenance workers should report to the DP the presence of debris on the floor, water, or physical damage to the ACM, or any other evidence of possible fiber release. Fiber release episodes can also occur during maintenance or renovation projects. The DP should assign a suitably trained in—house team to clean up debris and make repairs as soon as possible. For fiber release episodes of asbestos containing thermal system insulation the following procedures should be used.

1. Workers should wear at minimum air purifying respirators with HEPA filters.
2. Debris should be thoroughly saturated with water or amended water using a mister with a very fine spray. The debris should then be placed in a labeled 6-mil plastic bag for disposal and the floor should be cleaned with dampen cloths or a mop, or the debris can be collected with, a HEPA vacuum cleaner.
3. Read the HEPA vacuum manual to thoroughly understand its operation before using it. Ask the sales representative for a detailed demonstration of how to use the HEPA vacuum. Always empty the vacuum under controlled conditions, remove the filter after dampening it and treat all waste as contaminated material. Misuse of a HEPA vacuum can cause a major contamination problem.
4. All debris and materials used in the cleanup should be discarded as asbestos waste.
5. Workers should vacuum their disposable suits, if used, before leaving the work site and discard them as asbestos waste.
6. The damaged ACM should be repaired with asbestos-free spackling, plaster, cement, insulation, re-wettable fiberglass or sealed with latex paint or an encapsulant.
7. Each fiber release episode should be documented, and a report should be filed in this management plan or in the permanent asbestos file.

GLOVEBAG REMOVAL PROCEDURES FOR REPAIR OR MAINTENANCE

This section explains the proper procedures for glove bag removal of ACM. All homogenous areas of asbestos containing pipe and joint insulation recorded of the spread sheets reference this section of the O&M plan. Custodial and maintenance personnel should review this section if glove bagging is necessary to access an area where repair of maintenance is required. Remember, glove bag removal involves only areas less than 3 square or linear feet and can be done only for maintenance purposes not for the sake of removal alone.

The work area must be secured according to the section on work area preparation. All persons not involved in the procedure must leave the site and warning signs must be posted. Try to perform the work when the building is unoccupied. Building occupants are very curious as to whether this type of operation could be harmful. The work area floor must be covered with plastic in~ case of breakage. Be

generous with the plastic it is a lot less expensive to be cautious with protection than to clean up a contaminated area. The glove bag must fully cover the three feet or less to be removed, since the bag cannot be moved once it is in place. All tools such as wire cutters, bone saw, nylon brush and knife are to be placed in the pouch that is inside the bag. The tools are reached by using the gloves.

Inspect the work area and determine the location boundaries of the work to be accomplished. Be sure it is not over three feet! Cut the sides of the glove bag down far enough to place it over the pipe. Support the bottom of the glove bag to prevent the weight of the debris and water from causing the bag to leak or break. Always be as cautious as possible when dealing with asbestos.

Attach the top seam of the glove bag by taping with heavy duct tape. Use several different pieces overlapping each other instead of one long piece. Staple the tape at intervals of two or three inches. Fold the taped flap over on itself and tape again. Tape the bottom seam of the bag also. These precautions can prevent a costly and dangerous fiber release.

Tape the openings on each side of the glove bag where the pipes protrude. Put several layers of duct tape to ensure that there is no fiber release. The glove bag must then be smoke tested to ensure that there are no leaks. An aspirator bulb filled with smoke is inserted into an opening pre cut by the manufacturer. The same opening will be used to insert a sprayer wand used to wet the material. If there is not opening on the glove bag, cut a small hole through a duct tape patch and insert the smoke tube. The duct tape patch ensures that the bag will not rip along that opening. Patch any area that leaks with duct tape. Upon insuring that the bag is air-tight, insert the spray wand and HEPA vacuum hose into either hole made by the manufacturer or self placed patched hole. Duct tape the equipment into the holes securely. The holes should be in the upper 1/3 of the bag so it is easy to wet, the material. Use the best quality glove bags possible which will have, reinforced entry holes for the smoke tube, spray wand, and HEPA-VAC hose. Some bags even have zippers, which eliminates the cutting section. Fold the taped flap over it itself and tape again. Tape the bottom seam of the bag also.

Completely wet the section of pipe to be removed, however, do not fill the glove bag with water. The solution used to wet the material must be “amended water.’ The solution can be obtained through asbestos supply companies (or soap can be used). The amended water ensures that the material is wetted as evenly as possible. Using a razor, knife, or bone saw, cut through to the pipe on both sides and remove the material as smoothly as possible. Use a retractable blade and always retract it when not in use being careful not to cut the bag open by mistake. A second person must keep the material wet using the wand. Soak the bare pipe and hand clean is using the rags and nylon brush that are in the pouch contained within the bag. Threaded areas of pipes and joint areas require particular attention to clean.

Wash down the interior of the glove bag and pipe section one final time to ensure that all debris is at the bottom of the bag. Place all tools into the hand part of one of the gloves. Pull the glove inside out, seal it with duct tape and cut between the sealed areas. Re-tape the glove and place it in a bucket of water. Later, the glove may be untied, and the tools cleaned. Activate the HEPA vacuum and collapse the bag as much as possible. Do not collapse too much or the bag will be damaged. The HEPA vacuum should continue to run during the entire process of removing the glove bag.

Twist the glove bag closed and tape it shut. A disposal bag should be placed over the glove bag while it is still on the pipe. Carefully cut the glove bag from the pipe and place in the disposal bag. Dispose of properly as asbestos containing waste.

The ends of the pipe must be covered with re-wettable fiberglass. Cut a large enough piece to cover the area and dip it in a bucket of clean water. Wrap it around the end of the pipe and smooth until all openings are covered. Spray the bare pipe with encapsulant to lock down any remaining fibers. The pipe may be painted with heat resistant latex paint if desired.

REMOVAL OF ACM

1. All removal or repair projects should be correctly and safely set up. These are minimum work practices required by state and federal law. Work may not be performed if the area exceeds three square or linear feet. You must have a contractor do the work if it exceeds these size limits. Refer back to this section whenever you plan to disturb asbestos containing material. The initial set up of any job that disturbs asbestos is as important as the actual removal itself. The following steps must be followed to ensure a safe project.

    a. Restrict entry by physical isolation or scheduling to ensure unauthorized persons do not enter the area.
    b. Post warning signs at all entrances to the site to prevent unauthorized entry.
    c. Shut of f air handling equipment or modify all air conditioning, heating, ventilation systems, etc. Restrict air movement (fans, windows).
    d. Remove moveable objects and cover remaining items with plastic. Duct tape 6-mill plastic over any remaining surfaces and duct tape to provide an air-tight seal. Decontaminate any objects that have debris by wet-wiping and HEPA vacuuming.
    e. Isolate the work area by sealing and taping vents, windows, air conditioners, ducts, drains, grills, windows, and doors etc. with plastic. If the building is occupied, the entrances to the work area must be sealed and caulked with plywood, gypsum board or a solid material. Plastic does not qualify as a critical barrier. Glove bag operations are exempt from this requirement. Ceramic tiles on floors, walls or ceiling that are impervious (no cracks, holes, fissures) need not be covered. If there is uncertainty regarding permeability, put up plastic.
    f. Cover walls and ceilings with plastic sheeting with seams and joints sealed with duct tape to make an impervious barrier to the floor, ceiling, wall etc. Two layers of plastic are required for the floor and walls with an overlap of 12” on the wall. The wall covering must overlap the floor.
    g. Ground fault circuit interrupters must always be used when working in a WET environment.
    h. Clean fixtures and equipment in the work area using proper cleaning methods.
    i. Properly dispose of all ACM in properly labeled, leak proof containers.
2. Asbestos projects that involve less than 25 square or linear feet require the use of a change room that is used as the sole entrance and exit to the facility. Before leaving the removal area to enter the change room HEPA vacuum and wet wipe the protective clothing. All other equipment must be decontaminated by wet-wiping and HEPA vacuuming or by wrapping the material in two layers of 6 mil plastic or put in a drum with a locking lid. Glove bag operations are exempt from this requirement. Use of a changing room is applicable to removal of surface material where a glove bag cannot be used.
3. Read the HEPA vacuum manual to thoroughly understand its operation before using it. Ask the sales representative for a detailed demonstration of how to use the HEPA vacuum. Always empty the vacuum under controlled conditions, remove the filter after dampening it and treat all waste as contaminated material. Misuse of a HEPA vacuum can cause a major contamination problem.
4. Any material that is enclosed must be clearly identified in the building records. The enclosure must be airtight wooden structures must be made with tongue and groove construction and caulked. Gypsum board seams must be taped. Drills and other tools should have a HEPA attachment and all electrical conduits, telephone lines, etc. must be moved so there is not reason to re-enter the area. If this cannot be accomplished, the area should not be contained. Any wrapped material such as a boiler or pipe must be labeled as asbestos. Suspended ceilings can not quality as enclosure since it is not airtight.
5. Liquid Encapsulant must be applied with an airless sprayer and are not to be used on severely damaged or deteriorating surfaces.
6. Asbestos must be wet when it is disturbed in any way. The material must be wet enough to keep the dust down, but not wet enough to cause the water to leak out of the project area. A surfactant must be used, as this increases the ability of the water to penetrate the fibers. During the project, dispose of asbestos as it accumulates in double 6-mil labeled bags or drums with locking lids. Do not remove the material and leave it on the floor. When working at heights do not throw debris to the ground, have another individual put the debris in the disposal container.

DISPOSAL OF ASBESTOS WASTE
Proper disposal of asbestos containing material is an important procedure for the well being of the environment. This section of the O&M plan is referenced for all asbestos containing material that was sampled and all material assumed to be ACM that is recorded on the spread sheets. Always refer to this section when disposing of asbestos waste. All asbestos containing materials, waste, bags, and equipment (such as mop heads or air filters) must be disposed of in a labeled 6-mu polyethylene bag. The bag must be placed in a sealed impermeable container such as a drum. Water used for cleaning must be either filtered or placed in an impermeable container. A single drum may be used until it is full. The drum must be disposed of at a licensed landfill and a disposal receipt with the location obtained to prove that the waste was disposed of it legally. An interim storage area must be secured and locked with only trained personnel having access to it.

Transportation must be done in closed trucks (not rented) and the truck wet cleaned after each use. The easiest way to dispose of small amounts of asbestos is to accumulate it and have a licensed contractor remove it. Find a local company willing to provide this service to you.

In a secured and isolated storage is limited to 30-days. Contract the DEP for any questions.

OUTSIDE SERVICE CONTRACTORS
If any outside contractor is employed to do work where the ACM may be disturbed (such as periodic cleaning, major renovation, or pipe repairs), contracts with such companies should include provisions to ensure that the workers can and will follow appropriate work practices. The contractor should provide proof that his workers have been properly notified about ACM in the building where the work is to take place (***see contractor acknowledgement form at the end of this section***). For a major renovation or removal, the contractor should also provide copies of the respiratory protection, medical surveillance, and worker training documentation submitted to OSHA. Also, the contractor should provide historical air monitoring data with emphasis on projects similar to those likely to be encountered in the building for examples of previous projects.

PERIODIC SURVEILLANCE OF ACM
At least once every six (6) months, the DP or his designee will conduct periodic surveillance in each building that contains asbestos. Each person performing periodic surveillance shall:

1. Visually inspect all areas that have been identified as asbestos containing.
2. Record the data of the surveillance, any changes in the conditions of the ACM, and the name of the individual conducting the surveillance.
3. Submit to the DP a copy of such a record or report for inclusion into the management plan or permanent asbestos file.

The DP is responsible for compliance to this section. An example of the periodic surveillance form to be used is shown at the end of this section.

EQUIPMENT NEEDED
Every school should have on-site at least one HEPA vacuum cleaner to be used when needed. Also at least one half-mask air-purifying respirator for each worker who may be required to wear one will be needed. An asbestos emergency repair kit which contains the equipment and tools necessary for repair of damage asbestos containing insulation and asbestos disposal bags is also recommended. Disposable suits may also be needed for maintenance workers.

A written respirator program as well as a written medical monitoring plan must be kept, and all work must comply with the written programs.

RECORDKEEPING
All written records discussed in this Operations and Maintenance program should be maintained as part of this management plan.

PERIODIC SURVEILLANCE REPORT

RETURN COMPLETED FORM TO ASBESTOS PROGRAM MGR.

PAGE___ OF___

DATE: ___ ___,____

Building Number and Name

ROOM Number and Name

Building Location

IF THE STATUS OF THE ACBM HAS CHANGED. THEN PHOTOGRAPH THE AREA AND RECORD THE PHOTOGRAPH NUMBER IN THE SPACE PROVIDED. NOTIFY THE ASBESTOS PROGRAM MANAGER CONCERNING THE CHANGE.

SAMPLE AREA/LOT OR SALIENT ID	SAMPLE AREA/LOT OR SALIENT DESCRIPTION	LAST MAT. COND.			CHANGE ?		NEW PHOTO NUMBER	NOTES
		T	DC	PD	YES	NO		

Signature of Person Completing Report

Title of Person Completing Report

* REFERS TO MATERIAL TYPE AND DAMAGE CATEGORIES
. T – MATERIAL TYPE AS:
. S – SURFACING
. M – MISCELLANEOUS
. T – THERMAL SYSTEM

DC – DAMAGE CONDITION
. ND – NO DAMAGE
. D – DAMAGE
. SD – SIGNIFICANT DAMAGE

PD – POTENTIAL DAMAGE CATEGORIES
. NPD – NO POTENTIAL DAMAGE
. PD – POTENTIAL DAMAGE
. PSD – POTENTIAL SIG. DAMAGE

OPERATIONS AND MAINTENANCE ACTIVITIES

BUILDING NAME: _____

ADDRESS: _____

ROOM NUMBER(s): _____

QUANTITY OF ACM REMOVED OR REPAIRED: _____

ACTIVITY START DATE: _____ **ACTIVITY END DATE:** _____

DESCRIPTION OF METHOD(S) USED DURING O&M ACTIVITY:

PERSONNEL PERFORMING ACTIVITIES:

NAME: _____

SIGNATURE: _____ DATE: _____

NAME: _____

SIGNATURE: _____ DATE: _____

NAME: _____

SIGNATURE: _____ DATE: _____

STORAGE OR DISPOSAL SITE INFORMATION:

STORAGE / DISPOSAL SITE NAME: _____

ADDRESS: _____

_____

******NOTE: ATTACH ALL WASTE SHIPMENT RECORDS******

CONTRACTOR ACKNOWLEDGEMENT FORM

PART A (To be completed by the LEA Designated Person)

☐ No known Asbestos Containing Materials (ACM) will be impacted by the work required to be performed by the outside contractor(s).

☐ ACM may be impacted by the work required to be performed by the outside contractor(s). The outside contractor(s) has been notified as to the types and locations of ACM present. Notification has also been made with respect to proper work procedures as included in the inspection report Operations and Maintenance Program.

LEA Designated Person: _____

Signature: _____ Date: _____

PART B (To be completed by the Outside Contractor(s))

As an Outside Contractor I acknowledge that I have been informed about the ACM in the area in which contract work will be performed and that the statement in Part A of the form is accurate to the best of my knowledge.

Name of Employee: _____

Company: _____

Address: _____

_____

Telephone: _____

Signature: _____ Date: _____

EMPLOYEE TRAINING

NAME: ______________________ DATE: ____________
SIGNATURE: ______________________ JOB TITLE: ____________
BUILDING: ______________________
TRAINING PROVIDER: ______________________ COURSE TITLE: ____________
ADDRESS: ______________________ COURSE LENGTH: ______
______________________ CERTIFICATION NO: ____________

NAME: ______________________ DATE: ____________
SIGNATURE: ______________________ JOB TITLE: ____________
BUILDING: ______________________
TRAINING PROVIDER: ______________________ COURSE TITLE: ____________
ADDRESS: ______________________ COURSE LENGTH: ______
______________________ CERTIFICATION NO: ____________

NAME: ______________________ DATE: ____________
SIGNATURE: ______________________ JOB TITLE: ____________
BUILDING: ______________________
TRAINING PROVIDER: ______________________ COURSE TITLE: ____________
ADDRESS: ______________________ COURSE LENGTH: ______
______________________ CERTIFICATION NO: ____________

NAME: ______________________ DATE: ____________
SIGNATURE: ______________________ JOB TITLE: ____________
BUILDING: ______________________
TRAINING PROVIDER: ______________________ COURSE TITLE: ____________
ADDRESS: ______________________ COURSE LENGTH: ______
______________________ CERTIFICATION NO: ____________

AHERA RESPONSE ACTIONS RECORDS CHECKLIST

LOCAL EDUCATION AGENCY (LEA): _____

NAME OF SCHOOL: _____

ADDRESS: _____

DESIGNATED PERSON: _____

DESCRIPTION OF RESPONSE ACTION / PROJECT DESIGN:

- ❑ METHODS USED
- ❑ LOCATION OF RESPONSE ACTION
- ❑ START DATE
- ❑ COMPLETION DATE

PROJECT DESIGNER:

- ❑ NAME
- ❑ CERTIFICATION NUMBER

CONTRACTORS & WORKERS CONDUCTING ACTIVITY

- ❑ NAME
- ❑ ADDRESS
- ❑ CERTIFICATION NUMBER
- ❑ NAME / LOCATION OF STORAGE / DISPOSAL SITE

CLEARANCE DOCUMENTATION

- ❑ DATE VISUAL INSPECTION WAS CONDUCTED
- ❑ NAME OF PERSON PERFORMING VISUAL INSPECTION
- ❑ AIR SAMPLES COLLECTED AT COMPLETION OF RESPONSE ACTION USING AGGRESSIVE SAMPLING METHODS
- ❑ NAME, SIGNATURE AND CERTIFICATION NUMBER OF PROJECT MONITOR COLLECTING AIR SAMPLES
- ❑ DATE OF SAMPLE COLLECTION
- ❑ SAMPLE LOCATIONS
- ❑ AIR SAMPLES ANALYZED AT ACCREDITED LABORATORY
- ❑ LABORATORY NAME AND CERTIFICATION NUMBER
- ❑ ANALYSIS METHOD
    - ❑ PHASE CONTRAST MICROSCOPY (PCM)
    - ❑ TRANSMISSION ELECTRON MICROSCOPY (TEM)
- ❑ NAME AND SIGNATURE OF ANALYSTS
- ❑ RESULTS OF ANALYSIS (ATTACH LAB REPORT

SMALL SCALE, SHORT DURATION OPERATIONS AND MAINTENANCE ACTIVITIES CHECKLIST

LOCAL EDUCATION AGENCY (LEA): _____

NAME OF SCHOOL: _____

ADDRESS: _____

ROOM NUMBER: _____

QUANTITIES OF ACM (Removed or Repaired): _____

DESIGNATED PERSON: _____

DATE OF ACTIVITY: _____

METHOD USED: _____

NAME OF PERSON(S) PERFORMING WORK/CLEANING:

_____
(Name and Signature)

_____
(Name and Signature)

_____
(Name and Signature)

STORAGE OR DISPOSAL SITE: _____

_____
(Address and Phone Number)

THE COMMONWEALTH OF MASSACHUSETTS
EXECUTIVE OFFICE OF LABOR AND WORKFORCE DEVELOPMENT
DEPARTMENT OF LABOR STANDARDS

FIBER RELEASE EPISODE
GIUDANCE FOR THE DESIGNATED PERSON

A **fiber release episode**, as defined by the Department of Labor Standards (DLS) at 454 CMR 28.02 and AHERA 40 CFR 763.83, means any uncontrolled or unintentional disturbance of asbestos containing material (ACM) resulting in a visible emission.

The use of best practices when responding to a fiber release episode will ensure that building occupants are protected, and that the fiber release episode is promptly and effectively remediated. The minimum requirements for responding to a fiber release episode are set forth in 454 CMR 28.13(7)(e)1 and 2. The Designated Person should assess the situation, implement initial steps to contain the release, and contact their asbestos consultant to assist with a prompt and effective response action.

A **minor** fiber release involves the disturbance of three or fewer square or linear feet of ACM. A **major** fiber release involves the disturbance of greater than three square or linear feet of asbestos. The response action for any **major** fiber release episode requires a project design specifying means and methods and must be conducted by a licensed asbestos contractor. The Local Education Agency (LEA) must notify DLS of any major fiber release within 24 hours of its occurrence, and if necessary, file written notification to the state [454 CMR 28.13(7)(e)2.d].

The initial steps that the Designated Person must take to protect building occupants include:

1. Isolating the area. Restrict access to the area by the general public. Foot traffic through the area can spread the extent of contamination to clean areas of the building and expose building occupants to asbestos fibers.
2. Post warning signs at all access points to the area. Signs should be large and readily visible. Signs should indicate: Restricted Area. Asbestos Hazard. No entry without proper training and equipment.
3. Shut down or temporarily modify the air handling system to prevent the distribution of airborne asbestos fibers to unaffected areas of the building.
4. Notify DLS within 24 hours of the release. Submit the standardized reporting form to DLS at Zachariah.Costa@mass.gov.
5. Contact the asbestos consultant to evaluate the situation, develop a project design for a major fiber release, and assist the Designated Person in developing a remediation strategy. The strategy may include bulk sampling, air sampling and/or wipe sampling.
6. Contact the asbestos contractor to clean visible debris and remove or repair damaged or exposed ACM as a result of a major fiber release.

Keep a record of the event in the AHERA management plan: date & location, description of episode, what interim control measures were used, the project design, contractor information and any air testing reports.

FIBER RELEASE EPISODE
NOTIFICATION FORM

Date(s) episode occurred:_____ Time of Day:_____

Was the building occupied: Yes_____ No_____

Name of School:_____

School Address:_____

Location where the episode occurred (include room number or clear designation of the area):_____
_____

Amount of ACM involved:_____ Type of ACM:_____

Describe what happened to create the fiber release episode:
_____
_____
_____
_____

What Preventive measures were used to protect building occupants?

- ☐ Isolate the area-Restrict entry (poly on doors, hard barriers)
- ☐ Post warning signs
- ☐ Modify HVAC to affected area
- ☐ Air testing performed
- ☐ Asbestos Consultant contacted for evaluation
- ☐ Project Design prepared--greater than 3 linear/square feet

Name of Consultant:_____

Name of asbestos contractor_____

Date corrective action was started/will start: _____

Submit this form within 24 hours of event pursuant to 454 CMR 28.13(7)(e)2.d.
to: Zachariah.Costa@mass.gov

Note: retain a copy of this notice in your AHERA management plan.

DEPARTMENT
OF
LABOR STANDARDS
2021

454 CMR 28

454 CMR 28.00: THE REMOVAL, CONTAINMENT, MAINTENANCE, OR ENCAPSULATION OF ASBESTOS

Section

28.01: Purpose and Scope

(1) Purpose. 454 CMR 28.00 shall constitute requirements necessary to protect the health and safety of workers and the general public and establishes:

(a) Requirements necessary to protect the health and safety of the general public and persons engaged in, or associated with, the repair, removal, enclosure, encapsulation or disturbance of asbestos or asbestos-containing material.

(b) Standards of competency, certification and licensure for persons or entities engaged in or performing repair, removal, enclosure or encapsulation of asbestos or asbestos-containing material.

(c) Minimum standards to be used by insurers in the inspection of risk, measurement of hazards and the determination of adequate and reasonable rates of insurance as prescribed by the provisions of M.G.L. c. 152, § 65J.

(d) Standards for the certification and licensure of persons, firms, corporations or other entities who or which enter into, engage in or work at:

1. The business of repair, removal, enclosure or encapsulation of asbestos or asbestos-containing material;
2. The business of providing asbestos consulting services, including asbestos inspection services, asbestos risk assessment and management planning services, asbestos project design services and asbestos monitoring services;
3. The business of providing asbestos training where such training is required by 454 CMR 28.00; or
4. The business of providing asbestos analytical services.

(2) Scope. 454 CMR 28.00 applies to:

(a) all work, including construction, demolition, alteration or repair, involving any building or structure, including those owned or leased by the commonwealth or any of its political subdivisions or authorities, where such work involves the use or handling of asbestos or material containing asbestos, including the disposal of materials containing asbestos and asbestos contaminated waste. 454 CMR 28.00 also applies to asbestos training, consultation and/or analytical services including, but not limited to:

1. Asbestos inspection and hazard assessment services;

28.01: continued

2. The preparation of asbestos project designs, asbestos project oversight and/or monitoring;
3. Asbestos training required by 454 CMR 28.00; and
4. Asbestos analysis performed in connection with any of the above services.

(b) Nothing in 454 CMR 28.00 shall relieve any person from complying with all other applicable federal, state and local laws and regulations including, but not limited to, 42 U.S.C. § 7412 (Clean Air Act), 40 CFR Part 61, Subpart M (Asbestos National Emission Standard for Hazardous Air Pollutants), and 310 CMR 7.15: *U Asbestos*.

(3) Exceptions. The Director of the Department of Labor Standards may grant exceptions to 454 CMR 28.00 in those instances where it is clearly evident that existing conditions prevent compliance, or where compliance will create an undue hardship, but only in circumstances in which granting the exception will maintain the protection of the health and safety of workers and the general public.

Requests for exceptions to 454 CMR 28.00 must be submitted in writing to the Director and shall specify those provisions of 454 CMR 28.00 for which exceptions are sought, the reasons for requesting the exceptions and any proposed alternatives to the requirements of 454 CMR 28.00.

Exceptions granted by the Director may contain expiration dates otherwise they shall remain in force until rescinded.

(4) Alternative Methods. The Director shall have the authority to allow the use of newly-developed techniques, methods, or equipment that provide a level of protection for workers and the general public that equals or exceeds that specified by 454 CMR 28.00.

(5) Non-traditional Asbestos Abatement Work Practices. A person may apply to the Massachusetts Department of Environmental Protection to utilize Non-traditional Asbestos Abatement Work Practices that result in the need to deviate from normal work practices per of 310 CMR 7.15: *U Asbestos*.

(6) Right of Entry. Pursuant to M.G.L. c. 149, §§ 6, 6A, 10 and 17, the Director or the Director's authorized representative(s) shall have the right of entry to any work site, place of employment or other location for the purpose of conducting investigations or inspections of that worksite or associated records.

(7) Regulations Incorporated. The following rules and regulations of the United States Environmental Protection Agency are hereby incorporated by reference:

(a) Asbestos-containing Materials in Schools Rule; 40 CFR Part 763, Subpart E;
(b) Asbestos-containing Materials in Schools Rule; 40 CFR Part 763, Appendix C through Subpart E, Asbestos Model Accreditation Plan; and
(c) Asbestos Worker Protection Rule; 40 CFR Part 763, Subpart G.

28.02: Definitions

For the purpose of 454 CMR 28.00, the following definitions shall apply:

Accessible. Material that is subject to disturbance by building occupants or custodial or maintenance personnel in the course of their normal activities.

Accredited or Accreditation. Accredited in accordance with Title II of the Toxic Substance Control Act (TSCA), § 206, and the Department of Labor Standards.

Adequately Wet. To sufficiently mix or penetrate with liquid to reduce the release of particulates. If visible emissions are observed coming from asbestos-containing material, then that material has not been adequately wetted.

28.02: continued

Aggressive Method. Removal or disturbance of building material by sanding, abrading, grinding or other method that breaks, crumbles, or disintegrates intact ACM. When referring to clearance air sampling means to actively disturb air and dust to test for possible presence of asbestos.

AHERA. The Asbestos Hazard Emergency Response Act, 15 U.S.C. § 2641 *et seq*., and the regulations promulgated thereunder, including 40 CFR Part 763.

Air Erosion. The passage of air over friable asbestos-containing material (ACM) which may result in the release of asbestos fibers.

Amended Water. Water to which a surfactant (wetting agent) has been added to increase the ability of the liquid to penetrate ACM.

Asbestos. The asbestiform varieties of chrysotile, amosite, crocidolite, tremolite, anthophyllite, actinolite, and any of these minerals that has been chemically treated and/or altered. For purposes of 454 CMR 28.00, Asbestos includes Presumed Asbestos Containing Material (PACM), as defined in 454 CMR 28.02: Asbestos Containing Material (ACM).

Asbestos Abatement. Any activity which has as its principal purpose the removal, enclosure or encapsulation of asbestos-containing material.

Asbestos Analytical Services. Services involving the identification or measurement of asbestos in materials including, but not limited to:

(a) The counting or enumeration of asbestos fibers in the air (air monitoring); and

(b) The identification and quantification of asbestos in materials (bulk sample analysis), where such analyses are performed in connection with any asbestos hazard assessment, building inventory, exposure measurement, abatement project or associated project.

Asbestos Analytical Service Supervisor. A person so designated pursuant to 454 CMR 28.06, who is jointly responsible, along with other responsible persons, if any, of a certified asbestos analytical service for the adherence to the applicable analytical protocols, the maintenance of proper quality control procedures and the accuracy of the analytical results.

Asbestos Associated Project. Work operation involving the disturbance of three or fewer linear feet of asbestos located on pipes, ducts or wires or three or fewer square feet of asbestos surfacing located on structures or components other than pipes, ducts or wires and which does not have as its principal purpose the removal, enclosure or encapsulation of asbestos or asbestos containing material. Such activity shall include, but not be limited to, general building maintenance, electrical and low voltage wiring, plumbing, carpentry, masonry, HVAC and heating service.

Asbestos Associated Project Worker. Any person who has successfully completed the training specified in 454 CMR 28.05(8) and whose work is limited to Asbestos Associated Projects.

Asbestos Consultants. Licensed persons who perform design, oversight or assessment functions in asbestos abatement or asbestos hazard control, including asbestos inspectors, management planners, project designers and project monitors.

Asbestos Consulting Service. Advice, analysis or assistance relating to one or more of the following: asbestos inspection, asbestos risk assessment, asbestos management planning, asbestos project design or asbestos project monitoring.

Asbestos Consulting Service Provider. Any firm corporation business or entity who or which has a valid certificate issued by the Commonwealth pursuant to 454 CMR 28.07(1) for the purpose of entering into or engaging in the business of asbestos consulting services.

Asbestos Containing Material (ACM):

(a) Any material containing more than one percent asbestos, as determined by the methods set forth at 454 CMR 28.06(7) or any other method approved or recognized by the EPA for asbestos bulk sample analysis; or

(b) Any material designated as an asbestos-containing material by the EPA.

28.02: continued

Asbestos Containing Waste (ACW). Any ACM removed during a demolition or renovation project and anything contaminated with asbestos in the course of a demolition or renovation project including, but not limited to, asbestos waste from control devices including filters, bags or containers that previously contained asbestos, contaminated clothing, materials used to enclose the work area during the demolition or renovation operation, and demolition or renovation debris.

Asbestos Contractor. Any certified firm, corporation, business or other entity who performs, engages in or otherwise works at the business of Asbestos Abatement.

Asbestos Debris. Pieces of ACM and PACM that can be identified by color, texture, or composition, or dust, if the dust is determined by an accredited inspector to be ACM.

Asbestos Inspector. A licensed person who identifies, assesses the condition of, or collects pre-abatement samples of asbestos-containing materials.

Asbestos Management Planner. A licensed person who uses data gathered by asbestos inspectors to assess asbestos hazards, determine appropriate response actions and develop implementation plans.

Asbestos Project Designer. A licensed person who determines how asbestos abatement work should be conducted by preparing plans, designs, procedures, work scope or other substantive direction or criteria.

Asbestos Project Design. A site specific written work plan describing the means and methods for asbestos removal, enclosure, encapsulation or repair projects that exceed three linear or square feet of asbestos containing material in facilities, required for facilities subject to AHERA. The Project Design will describe the types, quantities and locations of ACM affected, and any specific characteristics related to the work site, and must be developed and signed by a licensed Project Designer.

Asbestos Project Monitor. A licensed person who:

(a) Collects air and bulk samples and performs visual inspections for the purpose of determining asbestos project completion;

(b) Collects environmental asbestos air samples for the purpose of assessing present or future potential for exposure to airborne asbestos; or

(c) Functions as the on-site representative of the facility owner or other persons by overseeing the activities of the asbestos contractor.

Asbestos Response Action. Any work operation involving the disturbance of more than three linear feet of friable asbestos on or in pipes, ducts or wires or more than three square feet of friable asbestos on or in structures or components other than pipes, ducts or wires.

Asbestos Supervisor. A licensed individual or agent of a licensed asbestos abatement entity having managerial or supervisory authority over asbestos workers with responsibility for the completion of asbestos response actions or portions thereof.

Asbestos Training Provider. Certified firms, corporations or other entities who enter into, engage in or work at the business of providing asbestos training.

Asbestos Work. The business of repair, removal, enclosure or encapsulation of asbestos or asbestos containing material in a facility.

Asbestos Worker. A licensed person not acting as a supervisor who performs asbestos work as an employee, or who performs such work under the direction and control of another, with or without compensation.

Category I Non-friable Asbestos-containing Building Material. Asbestos-containing packings, gaskets, resilient floor coverings, and asphalt roofing products containing more than 1% asbestos as determined using the method specified in EPA 600/R-93/116, or equivalent.

28.02: continued

Category II Non-friable Asbestos-containing Building Material. Any material excluding Category I non-friable ACM containing more than 1% asbestos as determined using the method specified in EPA 600/R-93/116, or equivalent, which when dry cannot be crumbled, pulverized or reduced to powder by hand pressure.

Cease and Desist Order. An order issued by the Director closing any work site where the Director determines that violations of a work place standard concerning the protection of the occupational health and safety of workers or the general public or of any standard or requirement of licensure/certification exist.

Certificate. A document issued by the Department:

(a) Permitting an individual (sole proprietor) or entity to engage in activities pertaining to asbestos abatement, asbestos analysis, asbestos training or asbestos consultation work;

(b) Permitting an Asbestos Contractor to engage in the activities set forth in 454 CMR 28.02: Asbestos Contractor;

(c) Permitting an Asbestos Training Provider to offer the training specified for the licensure or certification of persons engaging in asbestos abatement work regulated by 454 CMR 28.00; or

(d) Permitting an Asbestos Analytical Service to offer and perform asbestos analysis.

Certification. The issuance of a certificate pursuant to 454 CMR 28.00 authorizing a firm, corporation or business entity to engage in activities pertaining to asbestos work, including consultation activities, abatement removal or encapsulation of ACM, training, or asbestos analysis.

Class I Asbestos Work. Activities involving the removal of TSI and surfacing ACM and PACM.

Class II Asbestos Work. Activities involving the removal of ACM which is not thermal system insulation or surfacing material. This includes, but is not limited to, the removal of asbestos-containing wallboard, floor tile and sheeting, roofing and siding shingles, and construction mastics.

Class III Asbestos Work. Activities that constitute repair and maintenance operations, where "ACM", including TSI and surfacing ACM and PACM, is likely to be disturbed.

Class IV Asbestos Work. Maintenance and custodial activities during which employees contact, but do not disturb, ACM or PACM and activities to clean up dust, waste and debris resulting from Class I, II, and III activities.

Clean Room. An uncontaminated room having facilities for the storage of employees' street clothing and uncontaminated materials and equipment.

Clearance Air Monitoring. Air monitoring conducted by a licensed asbestos project monitor at the conclusion of an asbestos response action which is used in combination with visual inspection to assess adequacy of cleanup and project completion.

Competent Person. One who is capable of identifying existing asbestos hazards in the workplace and selecting the appropriate control strategy for asbestos exposure and who has the authority to take prompt corrective measures to eliminate them. In addition, for Class I and Class II work, a Competent Person is one who is specially trained in a course which meets the criteria of EPA's Model Accreditation Plan (40 CFR Part 763) for supervisor, or its equivalent, and, for Class III and Class IV work, one who is trained in a manner consistent with EPA requirements for training of local education agency maintenance and custodial staff as set forth at 40 CFR 763.92(a)(2) or 454 CMR 28.13(8). Such training must be approved and conducted by a DLS Certified Asbestos Training Provider.

28.02: continued

Containment. As defined in 454 CMR 28.02: Enclosure.

Critical Barrier. Work area preparation enclosure consisting of at least one layer of plastic sheeting sealed over all openings into a work area or any other similarly placed physical barrier sufficient to prevent airborne asbestos in a work area from migrating to an adjacent area.

Cutting. To penetrate with a sharp-edged instrument and includes sawing, but does not include shearing, slicing, or punching.

Damaged ACM. ACM which has deteriorated or sustained physical injury or where the ACM has delaminated from its bond to the substrate. Such damage or deterioration may be illustrated by the separation of ACM into layers; separation of ACM from the substrate; flaking, blistering, or crumbling of the ACM surface; water damage; significant or repeated water stains, scrapes, gouges, mars or other signs of physical injury on the ACM. Asbestos debris originating from the ACM in question may also indicate damage.

Decontamination Area. An enclosed area adjacent and/or connected to the regulated area per 454 CMR 28.10(4)(b)5. and consisting of an equipment room, shower area, and clean room, which is used for the decontamination of workers, materials, and equipment that are contaminated with asbestos.

Demolition. The wrecking or taking out of any load-supporting structural member of a facility together with any related handling operations or the intentional burning of any facility.

Department. The Massachusetts Department of Labor Standards, as established by M.G.L. c. 23, §§ 1 and 11A.

Designated Person. A person appointed by the Local Education Agency (LEA), under 40 CFR 763.84(g), or 454 CMR 28.13(1)(b), who is trained to ensure the proper implementation of AHERA in school buildings.

Director. The Director of the Massachusetts Department of Labor Standards or his or her designee.

Disturbance. A physical disruption of the matrix of an asbestos-containing material or PACM which predisposes the material to fiber release or the generation of asbestos-containing dust or debris.

Emergency Project. Any asbestos project necessary to protect or preserve life or property from imminent harm, damage or deterioration, or is necessary to protect equipment from damage, or is necessary to avoid imposing an unreasonable financial burden as determined by the Director. Emergency Project includes operations necessitated by non-routine failures of equipment.

Employee Exposure. Employee exposure to asbestos.

Encapsulation. The application of a coating or liquid sealant to asbestos-containing material to reduce the tendency of the material to release fibers.

Enclosure. The covering or wrapping of friable asbestos-containing material in, under or behind air-tight barriers.

Engage. The phrase "engage in . . . the business of Asbestos Abatement, Consultation, Training, or Analytical Service" includes, but is not limited to, advertising Asbestos services, offering advice or training and/or submitting bids for projects where the majority of the contract-value is represented by requirements authorized by 454 CMR 28.00.

Entity. Any partnership, firm, association, corporation, sole proprietorship or any other business concern, state or local government agency or institution or political subdivisions or authorities thereof, or any religious, social or union organization, whether operated for profit or otherwise.

28.02: continued

EPA. The United States Environmental Protection Agency.

Equipment Room and/or (Change Room). A contaminated room located within the decontamination area that is supplied with impermeable bags or containers for the disposal of contaminated protective clothing and equipment.

Facility. Any building or structure including, but not limited to, those used for institutional, residential, commercial or industrial purposes, single family homes and vessels while ashore or in dry dock, and any associated equipment.

Facility Component. Any part of a facility including, but not limited to, any equipment, pipe, duct, boiler, tank, turbine, furnace, building material, insulation, load supporting and non-load supporting structural member, or non-structural member at the facility including Asbestos Cement Pipe (AC Pipe).

Fiber. A particulate form of asbestos, 5 micrometers or longer, with a length-to-width ratio of at least 3 to 1.

Fiber Release Episode. Any uncontrolled or unintentional disturbance of ACM resulting in visible emission.

Friable. A material that when dry, may be crumbled, pulverized, or reduced to powder by hand pressure, and includes previously non-friable material after such previously non-friable material becomes damaged to the extent that when dry it may be crumbled, pulverized, or reduced to powder by hand pressure.

Friable Asbestos-containing Material (Friable ACM). Any material containing more than 1% asbestos, which when dry may be crumbled, pulverized, or reduced to powder by hand pressure, or that has been subjected to sanding, grinding, cutting, or abrading or has been crumbled, shattered, or pulverized by mechanical means such as, but not limited to, the use of excavators, bulldozers, heavy equipment, or power and/or hand tool. Friable Asbestos-containing Material includes non-friable asbestos-containing material after such previously non-friable material becomes damaged or disturbed to the extent that when dry it may be crumbled, pulverized, or reduced to powder by hand pressure, or that has been subjected to sanding, grinding, cutting, or abrading or has been crumbled, shattered, or pulverized by mechanical means such as, but not limited to, the use of excavators, bulldozers, heavy equipment, or power and/or hand tool. The characteristic of friability shall apply to the asbestos material and is not influenced or affected by coverings, coatings or other means of separating asbestos materials by hand

Functional Space. A room, group of rooms, or homogeneous area (including crawl spaces or the space between a dropped ceiling and the floor or roof deck above), such as classroom(s), a cafeteria, gymnasium, hallway(s), designated by a person licensed to prepare management plans, design abatement projects, or conduct response actions.

Glove Bag. A manufactured plastic bag-type of enclosure with built in gloves, which is placed with an air tight seal around a facility component that permits asbestos-containing material in or on the Facility Component to be removed without releasing asbestos fibers into the air

Grinding. To reduce to powder or small fragments and includes mechanical grating, chipping or drilling.

HEPA Filtration. High efficiency particulate air filtration capable of filtering 0.3 micron particles with 99.97% efficiency.

HEPA Vacuum. A vacuum cleaner which has been designed with a high-efficiency particulate air (HEPA) filter as the last filtration stage. A HEPA filter is a filter that is capable of capturing particles of 0.3 microns with 99.97% efficiency. The vacuum cleaner must be HEPA rated and designed so that all the air drawn into the machine is expelled through the HEPA filter with none of the air leaking past it.

High-efficiency Particulate Air (HEPA) Filter. A filter capable of trapping and retaining at least 99.97% of all mono-dispersed particles of 0.3 micrometers in diameter.

28.02: continued

Homogeneous Area. An area of surfacing material, thermal system insulation material, or miscellaneous material that is uniform in size, color and texture and was applied at approximately the same time.

Inspection. Any activity undertaken in a facility or location for the purpose of determining the presence, location and/or condition of asbestos-containing material or PACM, whether by visual or physical examination and/or by the collection of samples of such material. Inspection includes recordkeeping performed in connection with such asbestos inspection activities and re-inspections of friable and non-friable asbestos-containing material, but does not include the following:

(a) Periodic surveillance of the type described in 40 CFR Part 763.92(b) solely for the purpose of recording or reporting a change in the condition of known or assumed asbestos-containing material;

(b) Inspections performed by employees or agents of federal, state or local government solely for the purpose of determining compliance with applicable statutes;

(c) Visual inspections of the type described in 40 CFR Part 763.90(i) that are conducted solely for the purpose of determining completion of asbestos response actions; or

(d) Sampling conducted by an employer or his or her agent immediately in advance of a work operation that would disturb a material of unknown asbestos content, where the sole purpose of the sampling is to determine potential worker or occupant exposure to asbestos.

Intact. Not having been made friable by mechanical action including, but not limited to, crumbling, pulverization, abrading, grinding, sawing, sanding, and not deteriorated to an extent where asbestos fibers contained within the material are no longer bound by the matrix of the material and not otherwise deteriorated.

License. One of the following documents issued by the Department:

(a) Permitting an individual to engage in activities pertaining to asbestos consulting activities including project monitoring, inspection, management planning, and project design;

(b) Permitting an Asbestos Supervisor to engage in the activities set forth in 454 CMR 28.02: Asbestos Supervisor; or

(c) Permitting an Asbestos Worker to engage in the activities set forth in 454 CMR 28.02: Asbestos Worker.

Licensure. The issuance of a license pursuant to 454 CMR 28.00 authorizing an individual to engage in activities pertaining to asbestos abatement, asbestos analysis, or asbestos consultation work.

Local Education Agency (LEA). A local Education Agency includes any of the following:

(a) Any local educational agency as defined in the Elementary and Secondary Education Act of 1965, § 198 (20 U.S.C. 6301, *et seq.)*.

(b) The owner of any nonpublic, nonprofit elementary or secondary school building.

(c) The governing authority of any school operated under the defense dependent's education system provided for under the Defense Dependents' Education Act of 1978 (20 U.S.C. 921, *et seq*.).

Major Fiber Release Episode. Any uncontrolled, intentional or unintentional disturbance of asbestos-containing material which produces visible debris, or emission and which:

(a) Involves the disturbance of:

1. More than three linear feet of friable asbestos-containing material on or in pipes, ducts or wires; or

2. More than three square feet of asbestos-containing material on or in structures or components other than pipes, ducts or wires.

(b) Produces an amount of asbestos-containing material (ACM) not smaller than a three foot glove bag or that which cannot be contained by a single 60-inch x 60-inch glove bag of conventional manufacture.

Management Plans. Plans that are required to be developed for any facility subject to AHERA, and include, but are not limited to:

28.02: continued

(a) An inspection report with general building description;
(b) Hazards assessments of all ACM and assumed ACM;
(c) Identification of any ACM or assumed ACM remaining in the building;
(d) Detailed written descriptions of response actions appropriate for the ACM identified;
(e) An Operations & Maintenance (O&M) program; and
(f) Evaluation of resources needed to implement the response actions and O&M.

Minor Fiber Release Episode. Any uncontrolled, intentional or unintentional disturbance of asbestos-containing material which produces visible debris, or emission and which:

(a) Involves the disturbance of:
1. Three or fewer linear feet of friable asbestos-containing material on or in pipes, ducts or wires; or
2. Three or fewer square feet of asbestos-containing material on or in structures or components other than pipes, ducts or wires; and
(b) Produces an amount of asbestos-containing material which can be contained by a single 60-inch x 60-inch glove bag of conventional manufacture.

Miscellaneous ACM. Miscellaneous material that is ACM in a facility, including a school building.

Miscellaneous Material. Interior building material on structural components, structural members or fixtures, such as floor and ceiling tiles, but does not include surfacing material or thermal system insulation.

NIOSH. The National Institute of Occupational Safety and Health.

NIST. The National Institute of Standards and Technology.

Non-friable. Material which when dry may not be crumbled, pulverized, or reduced to powder by hand pressure.

Non-friable Asbestos-containing Materials (Non-friable ACM). Any material which contains more than 1% asbestos bound by a matrix which cannot, when dry, be crumbled, pulverized, or reduced to powder by hand pressure and that has not been subjected to sanding, grinding, cutting, or abrading and has not been crumbled, shattered, or pulverized by mechanical means such as, but not limited to, the use of excavators, bulldozers, heavy equipment, or power and/or hand tool. The class of non-friable asbestos-containing materials that typically includes, but is not limited to: asbestos cement pipe; sheathing siding and shingles; vinyl asbestos building materials, such as floor tiles; and asphaltic asbestos building materials, including asphaltic asbestos shingles and felts.

Operations and Maintenance (O&M) Program. A formulated plan of training, cleaning, work practices, and surveillance to maintain asbestos-containing materials (ACM) within facilities in good condition. The goal is to minimize exposure of all building occupants to asbestos fibers. To accomplish this objective, an O&M program includes work practices to:

(a) Maintain asbestos-containing material in intact condition;
(b) Ensure cleanup of asbestos fibers previously released;
(c) Prevent further release by minimizing disturbance or damage to asbestos-containing materials during renovation, maintenance, cleaning and general facility operations; and
(d) Provide for the long-term surveillance of actual or potential asbestos hazards in a facility.

Operations and Maintenance Work. Repair and maintenance work for buildings not subject to 454 CMR 28.13 (AHERA) and does not exceed ten square feet or 25 linear feet of material subject to 454 CMR 28.11.

Operations and Maintenance Worker. Any person who has successfully completed the training specified at 454 CMR 28.05(8).

28.02: continued

OSHA. The Occupational Safety and Health Administration of the United States Department of Labor.

Owner/Operator. (Reserved)

Person. (Reserved)

Personal Exposure Monitoring. The collection of air samples from the breathing zone of a person performing asbestos work for the purpose of determining that person's level of exposure to airborne asbestos fibers.

Phase Contrast Microscopy (PCM). The procedure outlined in NIOSH Method 7400 for the evaluation of fibers in air samples.

Planned Renovation Operations. A renovation operation, or a number of such operations, in which some RACM will be removed or stripped within a given period of time and that can be predicted. Individual nonscheduled operations are included if a number of such operations can be predicted to occur during a given period of time based on operating experience

Polarized Light Microscopy (PLM). Refers to EPA 600/R-93/116 or equivalent.

Potential for Damage. Circumstances in which either applies:

(a) ACM is in an area regularly used by building occupants, including maintenance personnel, in the course of their normal activities.

(b) There are indications that there is a reasonable likelihood that the material or its covering will become damaged, deteriorated, or delaminated due to factors such as changes in building use, changes in operations and maintenance practices, changes in occupancy, or recurrent damage.

Potential for Significant Damage. Circumstances in which any apply:

(a) ACM is in an area regularly used by building occupants, including maintenance personnel, in the course of their normal activities.

(b) There are indications that there is a reasonable likelihood that the material or its covering will become significantly damaged, deteriorated, or delaminated due to factors such as changes in building use, changes in operations and maintenance practices, changes in occupancy, or recurrent damage.

(c) The material is subject to major or continuing disturbance, due to factors including, but not limited to, accessibility or, under certain circumstances, vibration or air erosion.

Presumed Asbestos Containing Material (PACM). Building materials that potentially contain asbestos until such a time that the material is tested and found to be non-asbestos containing. The material is "presumed" to contain asbestos unless it is demonstrated, in accordance with this standard, that PACM does not contain asbestos.

Preventive Measures. Actions taken to reduce disturbance of ACM or otherwise eliminate the reasonable likelihood of the material's becoming damaged or significantly damaged.

Private Residence. A facility used exclusively for residential purposes containing three or fewer living units.

Regulated Asbestos Containing Material (RACM). Includes any of the folowing:

(a) Friable ACM;

(b) Category I non-friable ACM that has become friable;

(c) Category I non-friable ACM that will be or has been subjected to sanding, grinding, cutting, or abrading; or

(d) Category II non-friable ACM that has a high probability of becoming or has become crumbled, pulverized, or reduced to powder by the forces expected to act on the material in the course of demolition or renovation operations.

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Renovation. Altering a facility or one or more facility components in any way, including the stripping or removal of ACM from a facility component. Operations in which load-supporting structural members are wrecked or taken out are "demolitions".

Repair. Overhauling, rebuilding, reconstructing, or reconditioning by sealing patching, enclosing or encapsulating structures or substrates, including encapsulation or other repair of ACM or PACM attached to structures or substrates intended to prevent fiber release.

Resilient Floor Covering. Floor tile, including asphalt and vinyl floor tile, and sheet vinyl floor covering.

Response Action. A method, including removal, encapsulation, enclosure, repair, and operation and maintenance that protects human health and the environment from ACM.

Responsible Person(s). Persons having management control over the entity or employer. In the case of a corporation, the responsible person(s) shall be officers of the corporation and any other managing agent(s) of such corporation. In the case of a sole proprietorship or a partnership, the responsible person(s) shall be the owners or partners and any other managing agent(s) of such sole proprietorship or partnership.

Routine Maintenance Area. An area, such as a boiler room, storage room, custodial area or mechanical room, that is not normally frequented by students and in which maintenance employees or contract workers regularly conduct maintenance activities.

Sampling. The process of obtaining representative portions of materials suspected of containing asbestos, including the taking of bulk portions of materials for analysis to determine composition, and the collection of air for the purposes of measuring asbestos content.

School. Any elementary or secondary school as defined in the Elementary and Secondary Education Act of 1965, § 198 (20 U.S.C. § 6301, *et seq*.).

School Building. Includes each of the following:

(a) Any structure suitable for use as a classroom, including a school facility such as a library, school eating facility, or facility used for the preparation of food.

(b) Any gymnasium or other facility which is specially designed for athletic or recreational activities for an academic course in physical education.

(c) Any other facility used for the instruction or housing of students or for the administration of educational or research programs.

(d) Any maintenance, storage, or utility facility, including any hallway, essential to the operation of any facility described in School Building(a), (b), or (c).

(e) Any portico or covered exterior hallway or walkway.

(f) Any exterior portion of a mechanical system used to condition interior space.

Significantly Damaged ACM. Damaged ACM where the damage is extensive and severe and includes material with one or more of the following characteristics: Damage over more than $^{1}/_{10}$ of the surface if the damage is distributed, or more than ¼ if the damage is localized. Asbestos debris originating from the ACM in question may also indicate significant damage.

Small-scale Asbestos Project. Any work operation involving the disturbance of:

(a) three or fewer linear feet of friable asbestos on or in pipes, ducts or wires; or

(b) three or fewer square feet of friable or non-friable asbestos on or in structures or components other than pipes, ducts or wires.

Small-scale, Short-duration Activities (SSSD). Repairs, involving encapsulation, enclosure, or removal, to small amounts of friable ACM only if required in the performance of emergency or routine maintenance activity and not intended solely as asbestos abatement. Such work may not exceed amounts greater than those which can be contained in a single prefabricated mini-enclosure. Such an enclosure shall conform spatially and geometrically to the localized work area, in order to perform its intended containment function. SSSD includes tasks such as, but not limited to:

(a) Removal of asbestos-containing insulation on pipes;

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(b) Removal of small quantities of asbestos-containing insulation on beams or above ceilings;
(c) Replacement of an asbestos-containing gasket on a valve. Installation or removal of a small section of drywall;
(d) Installation of electrical conduits through or proximate to asbestos-containing materials;
(e) Removal of small quantities of ACM only if required in the performance of another maintenance activity not intended as asbestos abatement;
(f) Removal of asbestos-containing thermal system insulation not to exceed amounts greater than that which can be contained in a single glove bag;
(g) Minor repairs to damaged thermal system insulation which do not require removal; or
(h) Repairs to a piece of asbestos-containing wallboard.

State. The Commonwealth of Massachusetts

State of the Art. The latest and most sophisticated or advanced stage of technology or science that is generally accepted by, and applied to the fields of asbestos abatement, asbestos consulting, asbestos analysis and asbestos training. State of the art practices and procedures shall be in accordance with applicable state and federal regulations, professional standards generally recognized by the asbestos consulting industry and asbestos professional associations, and in accordance with current practices taught by Certified Training Providers.

Surfacing Material. Material in a building that is sprayed-on, troweled-on, or otherwise applied to surfaces, such as acoustical plaster on ceilings and fireproofing materials on structural members, or other materials on surfaces for acoustical, fireproofing, or other purposes containing more than 1% asbestos

Thermal System Insulation (TSI). ACM in a building applied to pipes, fittings, boilers, breeching, tanks, ducts, or other interior structural components to prevent heat loss or gain, or water condensation, or for other purposes.

Transmission Electron Microscopy (TEM). The method outlined in 40 CFR Part 763, Appendix A through Subpart E, for the identification of asbestos in air samples.

Vibration. The periodic motion of ACM which may result in the release of asbestos fibers.

Visible Debris. Any visually detectable particulate residue, such as dust, dirt or other extraneous material emission which may or may not contain asbestos.

Work Area. The area or location where asbestos abatement or asbestos-associated work is being performed including, but not limited to, areas used for accessing the location where asbestos work is being performed; areas used for the storage of equipment or materials related to asbestos work; and such other areas of a facility or location that the Director determines to be hazardous to the health and safety of workers and the general public as a result of such asbestos work.

Work Practices. The minimum standards, procedures or actions taken or used for repair, removal, enclosure or encapsulation of asbestos, or for renovation, demolition, maintenance or repair of facilities containing asbestos. Work Practices also includes the minimum standards, procedures or actions taken or used by persons engaged in inspection, analysis, risk assessment or other activities relating to asbestos work.

Working Day. Monday through Friday, excluding holidays that fall on Monday through Friday.

28.03: General Requirements

(1) Worker Protection. The requirements of the OSHA Asbestos Construction Standard, 29 CFR Part 1926.1101, including paragraphs (f), (h), (i) and (m), and other applicable OSHA standards shall apply to the personal protection and medical monitoring of employees, including employees of the Commonwealth or any of its political subdivisions, who perform work subject to these regulations. In addition, in accordance with 454 CMR 28.08(3)(d), Asbestos Contractors must maintain as records the results of all personal exposure monitoring, respirator fit testing and medical examinations required by 29 CFR Part 1926 and other applicable OSHA standards as a condition of licensure. Violations of OSHA regulations pertaining to worker protection may be referred to OSHA for enforcement action. The personal protection and medical monitoring of employees of the Commonwealth and its political subdivisions and other persons exempted from enforcement by federal OSHA must be in accordance with the provisions of 454 CMR 28.04, and M.G.L. c. 149, § 6½, which the Department enforces. Responsibility for compliance with such worker protection requirements rests with the employer and the Responsible Person(s) designated thereby.

(2) Requirements for the Use of Personnel.

(a) Persons engaged in Asbestos Work subject to 454 CMR 28.00 shall only perform or be assigned to perform those tasks authorized by 454 CMR 28.00. Performance of unauthorized tasks or functions shall be cause for administrative license action, civil penalty, or both.

(b) Persons must be at least 18 years of age or older to perform any Asbestos Work subject to 454 CMR 28.00 or to receive licensure in any asbestos-related discipline pursuant to 454 CMR 28.00.

(3) Requirement to Abate Asbestos Hazards. Asbestos-containing Materials that would be disturbed during the course of Asbestos-associated Work must be abated prior to the commencement of such work.

(4) Requirement for Schools to Comply with AHERA. Public and nonpublic elementary and secondary schools (K-12) shall comply with MA-AHERA found at 454 CMR 28.13.

28.04: Worker Protection Requirements

(1) Personal Exposure Monitoring. The employer must conduct personal exposure monitoring on all employees who perform Asbestos Abatement, Asbestos Associated Project Work and Operations and Maintenance Work, in accordance with OSHA Asbestos Regulations at 29 CFR Part 1926.1101, or EPA Asbestos Regulations at 40 CFR Part 763, Subpart G, and M.G.L. c. 149, §§ 6, and 6½, as applicable.

(2) Respiratory Protection.

(a) The employer must provide respiratory protection as specified at 29 CFR Part 1926.1101(h).

(b) Where powered air purifying respirators are used, a supply of charged replacement batteries, HEPA (NIOSH N, R or P 100) filters and flow test meters must be available at the worksite.

(c) Person(s) performing glove bag work and cleanup of Minor Fiber Release Episodes must wear a half-mask, dual cartridge, and HEPA filtered respirator (N, R or P 100) as the minimum level of respiratory protection.

(d) When negative air pressure respirators are used, they must be properly fit tested in accordance with OSHA Asbestos Regulations 29 CFR Part 1926.1101, using protocols detailed in Appendix C of that document.

(3) Protective Clothing and Equipment.

(a) The employer must provide all employees who perform Asbestos Abatement, Asbestos Associated Project Work or Operations and Maintenance Work with full-body disposable clothing consisting of material impermeable by asbestos fibers, and other equipment as required by the OSHA Asbestos Regulations at 29 CFR Part 1926.1101, and M.G.L. c. 149, §§ 6 and 6½, as applicable.

(b) Nonskid footwear must be provided to employees where slipping hazards exist. Disposable protective clothing must be adequately sealed to the footwear to prevent contamination.

(c) Employees must be provided with eye protection, gloves and hard hats, as required by OSHA Asbestos Regulations at 29 CFR Part 1926.1101, and M.G.L. c. 149, §§ 6, and 6½ as applicable.

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(4) Medical Monitoring. The employer must provide employees engaged in Asbestos Abatement, Asbestos Associated Project Work or Operations and Maintenance Work with the medical monitoring specified by OSHA Asbestos Regulations at 29 CFR Part 1926.1101(m). Physical examinations must be given by a board eligible/licensed occupational health physician or by a licensed physician with known expertise in occupational health. Persons other than licensed physicians who administer the pulmonary function testing must have completed a training course in spirometry sponsored by an appropriate academic or professional institution. All X-rays shall be classified only by a B-Reader, a board eligible/certified radiologist, or an experienced physician with known expertise in pneumoconiosis.

28.05: Certification and Requirements for Certified Training Providers

All training for Asbestos Associated Project Workers, Workers, Supervisors, Project Monitors, Inspectors, Management Planners and Project Designers conducted within the boundaries of Massachusetts shall be conducted only by Certified Training Providers.

Training Requirement for Reciprocity of Courses. Training must be provided by an EPA or Authorized State Training Provider in order to be considered for reciprocity and must be in substantial compliance with the content and time requirements set forth in 454 CMR 28.05.

(1) Advertising of Training and Refresher Courses.

(a) A training provider may not advertise a course as one approved by the Department until such approval is granted;

(b) A training provider may not include any false or misleading information regarding the contents, instructors, or number of classroom hours of any course approved under 454 CMR 28.05; and

(c) Once approved, the training provider shall use the course number in the course syllabus, in all other course materials used in connection with the course, and in all written advertising materials used in connection with the course.

(2) Licensed Asbestos Training Providers Must Perform the following as a Condition of Certification.

(a) Notify the Director, in writing, at least ten days prior to the commencement of any asbestos training course for which Licensure is required by 454 CMR 28.00, with the course title, location and anticipated start and end dates of said course.

(b) Notify the Director, in writing, of any changes in the start and end dates, course content, training methods, facilities, *etc*., which would alter the course of instruction from that originally submitted for Certification. (Minor changes in agenda, such as guest speakers, if otherwise qualified, and course schedule, are acceptable.)

(c) Notify the Director prior to the cancellation of any course.

(d) Verify the identity of each person who requests training by requiring that the applicant submit a form of government-issued, pictured identification. A list of acceptable identification is available at the Department's website.

(e) Where the applicant is requesting refresher training, verify that no more than one year has elapsed since the expiration date of the applicable initial or refresher training certificate most recently issued to the applicant.

(f) Require each person who receives training to sign in and out of each training session by completing the appropriate entries in a sign-in/out log at the time of each entry and exiting of the training area. Said sign-in/out log must include printed name, signature, Massachusetts License Number, where applicable, and the time of each entry or exiting.

(g) Require each person who completes the course and takes the examination required by 454 CMR 28.05(4)(a) through (f) and 454 CMR 28.05(5) to sign their examination answer sheet.

(h) Issue a training certificate to each student who successfully completes the asbestos training course. Said original training certificates must include the following:

1. A unique certificate number;

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2. Name of student;
3. License number of student, if available;
4. Discipline of the training course completed and course number;
5. Dates and duration of the training course;
6. Date of the examination;
7. Name of the lead instructor;
8. An expiration date of one year after the date upon which the person successfully completed the course and examination;
9. The name, address, telephone number, and license of the training provider that issued the certificate; and
10. A statement that the person receiving the certificate has completed the requisite training for asbestos accreditation under TSCA Title II.

(i) Certificates issued after July 1, 2021, must include a photophraph of the student on the face of the training certificate.

(j) Maintain the training records as required by 454 CMR 28.05(2)(r).

(k) Utilize and distribute information and training materials furnished by the Department.

(l) Provide written course materials, oral instruction and written examinations only in language in which each student is fluent, except that said written course materials, oral instruction and written examinations for Asbestos Supervisors and all Asbestos Consultant Disciplines must be in English, in accordance with EPA regulations and policies.

Obtain separate approval from the Department for each language in which courses will be conducted.

(m) Within five calendar days after the conclusion of each initial and refresher training course, provide to the Director: the title of the course; the date(s) on which the course was provided; the location where the course was given; the name, address, and Social Security Number of each student who successfully completed the course; the examination score of each person who took the course and the serial number of the training certificate issued to each student.

(n) Allow auditing inspections of approved training courses by the Director or his or her representative. Applicants from outside the Commonwealth shall, at the Department's option, bear the costs to the Department for one course audit per year for each course for which approval is granted pursuant to 454 CMR 28.05. Said costs shall include two-way travel, food and lodging expenses for one individual for the entire length of each course.

(o) Refresher courses shall be conducted as separate and distinct courses and not combined with any other training during the period of the refresher course. For each discipline, the refresher course shall review and discuss changes in Federal, State, and local regulations, developments in state-of-the-art procedures, and a review of key aspects of the initial training course as determined by the State. After completing the annual refresher course, persons shall have their accreditation extended for an additional year from the date of the refresher.

(p) Grace Period. Where an initial or refresher training certificate has expired, the holder shall have a grace period of one year from the date of expiration of said training certificate in which to take another refresher training course in the same discipline in *lieu* of re-taking the applicable initial course of training. This grace period does not apply to licenses or applications submitted to the Department.

(q) Any person who has successfully completed Asbestos-associated Project Worker training previously required by 454 CMR 28.00 prior to April 2, 2021 shall not be required to take another initial training course to fulfill his or her initial training requirements for participation in Operations and Maintenance Projects. Persons desiring to participate in Operations and Maintenance Projects shall have received the initial training specified at 454 CMR 28.05(8) and, where more than five years have elapsed since the date of the previous training, the refresher training specified by 454 CMR 28.05(8)(e) shall be required. The refresher training requirements of the OSHA Asbestos Standard 29 CFR Part 1926.1101 shall also apply to the training of Asbestos Operations and Maintenance Workers.

(r) Certified Training Providers shall maintain records for 15 years for the following documentation:

1. Copies of all written materials required to be submitted with the application for certification and course approval by 454 CMR 28.05;
2. Copies of all pre-course notifications required to be filed by 454 CMR 28.05 with applicable course agendas;

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3. Copies of all post-course notifications required by 454 CMR 28.05, including the name, address, telephone number, Social Security Identification Number and final examination score of each person who completed each course;
4. A copy of the certificate of completion of each student passing the course; and
5. The name, business address and telephone number of the person(s) who proctored the examinations.

(3) Provisions for Virtual Training Courses.

(a) Virtual courses shall only be approved for Training Providers already approved and who conduct in-person training. Separate approval is required for each type of virtual training a Training Provider intends to conduct.

(b) Training Providers must continue to offer in-person training even after virtual training is approved.

(c) Training Providers must submit a separate application for each course they intend to conduct as virtual training.

(d) Virtual training shall meet the requirements and conditions of 454 CMR 28.05(1) and (2).

(e) Training Providers shall include a Department login with password with their pre-course notification as required under 454 CMR 28.05(2)(a) and (b) to allow for course audits. Initial approval for a virtual course will be provisional until the Department has audited the course and given full approval.

(f) Training Providers shall have systems in place that authenticate the identity of the students taking the training and their eligibility to enroll in the course. Student authentication must be provided by or obtained from the student submitting personal and sensitive information to the training provider such as name, address, social security number, date of birth, license number, email address and/or special question and answer combination. That information may then be requested prior to beginning the virtual training, and at intermittent, designated intervals during the training. The Department recommends that appropriate encryption technologies be employed to protect sensitive user information. Such systems will help to deter fraud, including the falsification of student identity.

(g) Students must provide a self-attestation verifying identity and certifying they will not conduct fraud, cheat, or otherwise undermine the integrity of the course and test.

(h) A unique identifier must be assigned to each student for them to launch and relaunch the course.

(i) The Training Provider must track each student's course log-ins, launches, progress, and completion, and maintain these records in accordance with 454 CMR 28.05(2)(r).

(j) Training Providers must have systems in place that reduce opportunities for fraud, cheating or other actions that would undermine the integrity of the training.

(k) Virtual training must meet the same requirements as in-person training as listed in 454 CMR 28.05(4) and (5).

(l) Virtual training must be conducted in real time by a live instructor using real time web conferencing and audio.

Video and audio recordings typically used during an in-person training to augment learning may be used for online training as well.

(m) The instructor and students must have their cameras and microphones enabled.

1. The instructor must be seen and heard by all students.
2. The instructor must be able to see and hear all students.
3. Should there be an interruption of the instructor's camera or audio the course must be paused until they can both be restored.
4. Any student who loses camera or audio during the course will not receive credit for that portion of the course.

(n) Virtual courses may only be used for the portion of a course that does not require hands-on training. Hands-on training, where required, must be performed in-person.

(o) Any test of hands-on skills shall be conducted in-person.

(p) A final written test for virtual courses shall be provided and students required to pass as listed in 454CMR 28.05(6) and (7).

(q) Virtual final tests shall be conducted in a manner to prevent use of notes, cheating or other actions that would undermine the integrity of the testing process.

1. Tests shall be timed.
2. The instructor shall be able to monitor each student taking the test.

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(r) The Department requires training providers to issue course evaluations for their virtual courses to help determine the strengths and weaknesses of such courses and to promote continuous improvement.

(s) Virtual, web based, or online training courses provided in other states shall not meet requirements for reciprocity.

(t) Training certificates issued after completion of a virtual course will only be accepted from Training Providers certified by the Department.

(4) Massachusetts Specific Model Accreditation Plan (MAP) Training Requirements. The following sections describe the course content for asbestos training as set forth at 40 CFR Part 763, Appendix C: Subpart E - Asbestos Model Accreditation Plan, and includes specific training required by Massachusetts and its regulations. Initial Training Courses and Curriculum:

(a) Workers. Asbestos abatement worker course (initial) shall include a minimum of four training days with a minimum of 14 hours of hands-on training, including individual respirator fit testing. The training course shall address the following topics:

1. Physical Characteristics of Asbestos. Identification of asbestos, aerodynamic characteristics, typical uses, and physical appearance, and a summary of abatement control options.
2. Potential Health Effects Related to Asbestos Exposure. The nature of asbestos related diseases; routes of exposure; dose response relationships and the lack of a safe exposure level; the synergistic effect between cigarette smoking and asbestos exposure; the latency periods for asbestos related diseases; a discussion of the relationship of asbestos exposure to asbestosis, lung cancer, mesothelioma, and cancer of other organs.
3. Employee Personal Protective Equipment. Classes and characteristics of respirator types; limitations of respirators; proper selection, inspection; donning, use, maintenance, and storage procedures for respirators; methods for field testing of the face piece to face seal (positive and negative-pressure fit checks); qualitative and quantitative fit testing procedures; variability between field and laboratory protection factors that alter respiratory fit (*e.g.*, facial hair); the components of a proper respiratory protection program; selection and use of personal protective clothing; use, storage, and handling of non-disposable clothing; and regulations covering personal protective equipment.
4. State of the Art Work Practices. Proper work practices for asbestos abatement activities, including descriptions of proper construction; maintenance of barriers and decontamination enclosure systems; positioning of warning signs; lock-out of electrical and ventilation systems; proper working techniques for minimizing fiber release; use of wet methods; use of negative pressure exhaust ventilation equipment; use of high-efficiency particulate air (HEPA) vacuums; proper clean up and disposal procedures; work practices for removal, encapsulation, enclosure, and repair of ACM; emergency procedures for sudden releases; potential exposure situations; transport and disposal procedures; and recommended and prohibited work practices.
5. Personal Hygiene. Entry and exit procedures for the work area; use of showers; avoidance of eating, drinking, smoking, and chewing (gum or tobacco) in the work area; and potential exposures, such as family exposure.
6. Additional Safety Hazards. Hazards encountered during abatement activities and how to deal with them, including electrical hazards, heat stress, air contaminants other than asbestos, fire and explosion hazards, scaffold and ladder hazards, slips, trips, and falls, and confined spaces.
7. Medical Monitoring. OSHA and EPA Worker Protection Rule requirements for physical examinations, including a pulmonary function test, chest X-rays, and a medical history for each employee.
8. Air Monitoring. Procedures to determine airborne concentrations of asbestos fibers, focusing on how personal air sampling is performed and the reasons for it.
9. Relevant Federal, State and local regulatory requirements, procedures, and standards. With particular attention directed at relevant EPA, OSHA, and State regulations concerning asbestos abatement workers.
10. Establishment of respiratory protection programs.
11. Role of other licensed asbestos professionals.
12. Course Review. A review of key aspects of the training course.

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(b) Supervisors. Asbestos Supervisor course (initial) shall include a minimum of five training days with a minimum of 14 hours of hands-on training, including individual respirator fit testing. Hands-on training must permit supervisors to have actual experience performing tasks associated with asbestos abatement. The training course shall address the following topics:

1. The Physical Characteristics of Asbestos and Asbestos-containing Materials. Identification of asbestos, aerodynamic characteristics, typical uses, physical appearance, a review of hazard assessment considerations, and a summary of abatement control options.

2. Potential Health Effects Related to Asbestos Exposure. The nature of asbestos related diseases; routes of exposure; dose response relationships and the lack of a safe exposure level; synergism between cigarette smoking and asbestos exposure; and latency period for diseases.

3. Employee Personal Protective Equipment. Classes and characteristics of respirator types; limitations of respirators; proper selection, inspection, donning, use, maintenance, and storage procedures for respirators; methods for field testing of the face piece to face seal (positive and negative-pressure fit checks); qualitative and quantitative fit testing procedures; variability between field and laboratory protection factors that alter respiratory fit (*e.g.*, facial hair); the components of a proper respiratory protection program; selection and use of personal protective clothing; and use, storage, and handling of non-disposable clothing; and regulations covering personal protective equipment.

4. State of the Art Work Practices. Proper work practices for asbestos abatement activities, including descriptions of proper construction and maintenance of barriers and decontamination enclosure systems; positioning of warning signs; lock-out of electrical and ventilation systems; proper working techniques for minimizing fiber release; use of wet methods; use of negative pressure exhaust ventilation equipment; use of HEPA vacuums; and proper clean up and disposal procedures. Work practices for removal, encapsulation, enclosures, and repair of ACM; emergency procedures for unplanned releases; potential exposure situations; transport and disposal procedures; and recommended and prohibited work practices. New abatement-related techniques and methodologies may be discussed.

5. Personal Hygiene. Entry and exit procedures for the work area; use of showers; and avoidance of eating, drinking, smoking, and chewing (gum or tobacco) in the work area. Potential exposures, such as family exposure, shall also be included.

6. Additional Safety Hazards. Hazards encountered during abatement activities and how to deal with them, including electrical hazards, heat stress, air contaminants other than asbestos, fire and explosion hazards, scaffold and ladder hazards, slips, trips and falls, and confined spaces.

7. Medical Monitoring. OSHA and EPA Worker Protection Rule requirements for physical examinations, including a pulmonary function test, chest X-rays and a medical history for each employee.

8. Air Monitoring. Procedures to determine airborne concentrations of asbestos fibers, including descriptions of aggressive air sampling, sampling equipment and methods, reasons for air monitoring, types of samples and interpretation of results. EPA recommends that transmission electron microscopy (TEM) be used for analysis of final air clearance samples, and that sample analysis be performed by laboratories accredited by the National Institute of Standards and Technology's (NIST) National Voluntary Laboratory Accreditation Program (NVLAP).

9. Relevant Federal, State, and local regulatory requirements, procedures, and standards, including:

a. Requirements of TSCA Title II, including 40 CFR Part 763, Subpart E (AHERA).

b. National Emissions Standards for Hazardous Air Pollutants (40 CFR Part 61), Subparts A (General Provisions) and M (National Emission Standard for Asbestos).

c. OSHA standards for permissible exposure to airborne concentrations of asbestos fibers and respiratory protection (29 CFR 1010.1001 and 29 CFR 1910.134).

d. OSHA Asbestos Construction Standard (29 CFR 1926.1101).

e. EPA Worker Protection Rule, (40 CFR Part 763, Subpart G).

f. Requirements of the Department and the Massachusetts Department of Environmental Protection (MassDEP) relating to asbestos.

28.05: continued

10. Respiratory Protection Programs and Medical Monitoring Programs.
11. Insurance and Liability Issues. Contractor issues; worker's compensation coverage and exclusions; third-party liabilities and defenses; insurance coverage and exclusions.
12. Recordkeeping for Asbestos Abatement Projects. Records required by Federal, State, and local regulations; records recommended for legal and insurance purposes.
13. Supervisory Techniques for Asbestos Abatement Activities. Supervisory practices to enforce and reinforce the required work practices and discourage unsafe work practices.
14. Role of other licensed asbestos professionals.
15. Contract Specifications. Discussions of key elements that are included in contract specifications.
16. Course Review. A review of the key aspects of the training course.

(c) Inspectors. Asbestos Inspector course (initial) shall include a minimum of three days of training as outlined in 454 CMR 28.05(4)(c)1. through 15. The course shall include lectures, demonstrations, four hours of hands-on training, individual respirator fit-testing, course review, and a written examination. The inspector training course shall adequately address the following topics:

1. Background Information on Asbestos. Identification of asbestos, and examples and discussion of the uses and locations of asbestos in buildings; physical appearance of asbestos.
2. Potential Health Effects Related to Asbestos Exposure. The nature of asbestos related diseases; routes of exposure; dose response relationships and the lack of a safe exposure level; the synergistic effect between cigarette smoking and asbestos exposure; the latency periods for asbestos related diseases; a discussion of the relationship of asbestos exposure to asbestosis, lung cancer, mesothelioma, and cancer of other organs.
3. Functions/Qualifications and Role of Inspectors. Discussions of prior experience and qualifications for inspectors and management planners; discussions of the functions of a licensed inspector as compared to those of a licensed management planner; discussion of inspection process including inventory of ACM and physical assessment.
4. Role of other licensed asbestos professionals.
5. Legal Liabilities and Defenses. Responsibilities of the inspector and management planner; a discussion of comprehensive general liability policies, claims made and occurrence policies, environmental and pollution liability policy clauses; state liability insurance requirements; bonding and the relationship of insurance availability to bond availability.
6. Understanding Building Systems. The interrelationship between building systems, including: an overview of common building physical plan layout; heat, ventilation and air conditioning (HVAC) system types, physical organization, and where asbestos is found on HVAC components; building mechanical systems, their types and organization, and where to look for asbestos on such systems; inspecting electrical systems, including appropriate safety precautions; reading blueprints and as built drawings.
7. Public/Employee/Building Occupant Relations. Notifying employee organizations about the inspection; signs to warn building occupants; tact in dealing with occupants and the press; scheduling of inspections to minimize disruptions; and education of building occupants about actions being taken.
8. Pre-inspection Planning and Review of Previous Inspection Records. Scheduling the inspection and obtaining access; building record review; identification of probable homogeneous areas from blueprints or as built drawings; consultation with maintenance or building personnel; review of previous inspection, sampling and abatement records of a building; the role of the inspector in exclusions for previously performed inspections.
9. Inspecting for Friable and Non-friable ACM and Assessing the Condition of Friable ACM. Procedures to follow in conducting visual inspections for friable and non-friable ACM; types of building materials that may contain asbestos; touching materials to determine friability; open return air plenums and their importance in HVAC systems; assessing damage, significant damage, potential damage, and potential significant damage; amount of suspected ACM, both in total quantity and as a percentage of the total area; type of damage; accessibility; material's potential for disturbance; known or suspected causes of damage or significant damage; and deterioration as assessment factors.

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10. Bulk Sampling/Documentation of Asbestos. Detailed discussion of the "Simplified Sampling Scheme for Friable Surfacing Materials (EPA 560/5 85 030a October 1985 "EPA Pink Book")"; techniques to ensure sampling in a randomly distributed manner for other than friable surfacing materials; sampling of non-friable materials; techniques for bulk sampling; inspector's sampling and repair equipment; patching or repair of damage from sampling; discussion of polarized light microscopy; choosing an accredited laboratory to analyze bulk samples; quality control and quality assurance procedures. EPA's recommendation that all bulk samples collected from school or public and commercial buildings be analyzed by a laboratory accredited under the NVLAP administered by NIST.

11. Inspector Respiratory Protection and Personal Protective Equipment. Classes and characteristics of respirator types; limitations of respirators; proper selection, inspection, donning, use, maintenance, and storage procedures for respirators; methods for field testing of the face piece to face seal (positive and negative-pressure fit checks); qualitative and quantitative fit testing procedures; variability between field and laboratory protection factors that alter respiratory fit (*e.g.*, facial hair); the components of a proper respiratory protection program; selection and use of personal protective clothing; use, storage, and handling of non-disposable clothing.

12. Recordkeeping and Writing the Inspection Report. Labeling of samples and keying sample identification to sampling location; recommendations on sample labeling; detailing of ACM inventory; photographs of selected sampling areas and examples of ACM condition; information required for inclusion in the management plan required for school buildings under AHERA, § 203 (i)(1). EPA recommends that States develop and require the use of standardized forms for recording the results of inspections in schools or public or commercial buildings, and that the use of these forms be incorporated into the curriculum of training be conducted for licensure.

13. Regulatory Review. The following topics should be covered: National Emission Standards for Hazardous Air Pollutants (NESHAP; 40 CFR Part 61, Subparts A and M); EPA Worker Protection Rule (40 CFR Part 763, Subpart G); OSHA Asbestos Construction Standard (29 CFR Part 1926.1101); OSHA respirator requirements (29 CFR Part 1910.134); the Asbestos Containing Materials in Schools rule (40 CFR Part 763, Subpart E); applicable State and local regulations, and differences between Federal and State requirements where they apply, and the effects, if any, on public and non-public schools or commercial public buildings.

14. Field Trip. This includes a field exercise, including a walk through inspection; on site discussion about information gathering and the determination of sampling locations; on site practice in physical assessment; classroom discussion of field exercise.

15. Course Review. A review of key aspects of the training course.

(d) Management Planners. Asbestos Management Planner course (initial) shall include a minimum of three days of inspector training as outlined above and two days of management planner training. Possession of current and valid inspector training certificate shall be a prerequisite for admission to the management planner training. The management planner training course shall adequately address the following topics:

1. Course Overview. The role and responsibilities of the management planner; operations and maintenance programs; setting work priorities; protection of building occupants.

2. Evaluation/Interpretation of Survey Results. Review of AHERA requirements for inspection and management plans for school buildings as given in AHERA § 203(i)(1); interpretation of field data and laboratory results; and comparison of field inspector's data sheet with laboratory results and site survey.

3. Hazard Assessment. Amplification of the difference between physical assessment and hazard assessment; the role of the management planner in hazard assessment; explanation of significant damage, damage, potential damage, and potential significant damage; use of a description (or decision tree) code for assessment of ACM; assessment of friable ACM; relationship of accessibility, vibration sources, use of adjoining space, and air plenums and other factors to hazard assessment.

4. Legal Implications. Liability; insurance issues specific to planners; liabilities associated with interim control measures, in house maintenance, repair, and removal; and use of results from previously performed inspections.

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5. Evaluation and Selection of Control Options. Overview of encapsulation, enclosure, interim operations and maintenance, and removal; advantages and disadvantages of each method; response actions described *via* a decision tree or other appropriate method; work practices for each response action; staging and prioritizing of work in both vacant and occupied buildings; the need for containment barriers and decontamination in response actions.

6. Role of Other Professionals. Use of industrial hygienists, engineers, and architects in developing technical specifications for response actions; any requirements that may exist for architect sign off of plans; team approach to design of high-quality job specifications.

7. Role of Other Licensed Asbestos Professionals.

8. Developing an Operations and Maintenance (O&M) Plan. Purpose of the plan; discussion of applicable EPA guidance documents; what actions should be taken by custodial staff; proper cleaning procedures; steam cleaning and HEPA vacuuming; reducing disturbance of ACM; scheduling O&M for off hours; rescheduling or canceling renovations in areas with ACM; boiler room maintenance; disposal of ACM; in house procedures for ACM bridging and penetrating encapsulant; pipe fittings; metal sleeves; polyvinyl chloride (PVC), canvas, and wet wraps; muslin with straps; fiber mesh cloth; mineral wool, and insulating cement; discussion of employee protection programs and staff training; case study in developing an O&M plan (development, implementation process, and problems that have been experienced).

9. Regulatory Review. Focusing on the OSHA Asbestos Construction Standard found at 29 CFR 1926.1101; the National Emission Standard for Hazardous Air Pollutants (NESHAP) found at 40 CFR Part 61, Subparts A (General Provisions) and M (National Emission Standard for Asbestos); EPA Worker Protection Rule found at 40 CFR Part 763, Subpart G; AHERA; applicable State regulations.

10. Recordkeeping for the Management Planner. Use of field inspector's data sheet along with laboratory results; ongoing recordkeeping as a means to track asbestos disturbance; procedures for recordkeeping. EPA recommends that States require the use of standardized forms for purposes of management plans and incorporate the use of such forms into the initial training course for management planners.

11. Assembling and Submitting the Management Plan. Plan requirements in AHERA; the management plan as a planning tool.

12. Financing Abatement Actions. Economic analysis and cost estimates; development of cost estimates; present costs of abatement versus future operations and maintenance costs.

13. Course Review. A review of key aspects of the training course.

(e) Project Designers. Asbestos Project Designer course (initial) shall include a minimum of three days of training as outlined below. The project designer course shall include lectures, demonstrations, a field trip, course review and a written examination. The abatement project designer training course shall adequately address the following topics:

1. Background Information on Asbestos. Identification of asbestos; examples and discussion of the uses and locations of asbestos in buildings; physical appearance of asbestos.

2. Potential Health Effects Related to Asbestos Exposure. Nature of asbestos-related diseases; routes of exposure; dose response relationships and the lack of a safe exposure level; the synergistic effect between cigarette smoking and asbestos exposure; the latency period for asbestos related diseases; a discussion of the relationship between asbestos exposure and asbestosis, lung cancer, mesothelioma, and cancers of other organs.

3. Overview of Abatement Construction Projects. Abatement as a portion of a renovation project; OSHA requirements for notification of other contractors on a multi-employer site (29 CFR 1926.1101).

4. Safety System Design Specifications. Design, construction, and maintenance of containment barriers and decontamination enclosure systems; positioning of warning signs; electrical and ventilation system lock out; proper working techniques for minimizing fiber release; entry and exit procedures for the work area; use of wet methods; proper techniques for initial cleaning; use of negative-pressure exhaust ventilation equipment; use of HEPA vacuums; proper clean up and disposal of asbestos; work practices as they apply to encapsulation, enclosure, and repair; use of glove bags and a demonstration of glove bag use.

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5. Field Trip. A visit to an abatement site or other suitable building site, including on site discussions of abatement design and building walk through inspection. Include discussion of rationale for the concept of functional spaces during the walk-through.

6. Employee Personal Protective Equipment. Classes and characteristics of respirator types; limitations of respirators; proper selection, inspection; donning, use, maintenance, and storage procedures for respirators; methods for field testing of the face piece to face seal (positive and negative-pressure fit checks); qualitative and quantitative fit testing procedures; variability between field and laboratory protection factors that alter respiratory fit (*e.g.*, facial hair); the components of a proper respiratory protection program; selection and use of personal protective clothing; use, storage, and handling of non-disposable clothing.

7. Additional Safety Hazards. Hazards encountered during abatement activities and how to deal with them, including electrical hazards, heat stress, air contaminants other than asbestos, fire, and explosion hazards.

8. Fiber Aerodynamics and Control. Aerodynamic characteristics of asbestos fibers; importance of proper containment barriers; settling time for asbestos fibers; wet methods in abatement; aggressive air monitoring following abatement; and aggressive air movement and negative-pressure exhaust ventilation as a clean-up method.

9. Designing Abatement Solutions. Discussions of repair, removal, enclosure, and encapsulation methods; and asbestos waste disposal.

10. Final Clearance Process. Discussion of the need for a written sampling rationale for aggressive final air clearance; requirements of a complete visual inspection; and the relationship of the visual inspection to final air clearance. Department regulations regarding final clearance process.

11. Budgeting/Cost Estimating. Development of cost estimates; present costs of abatement versus future operation and maintenance costs; setting priorities for abatement jobs to reduce cost.

12. Writing Abatement Specifications. Preparation of and need for a written project design; means and methods specifications versus performance specifications; design of abatement in occupied buildings; modification of guide specifications for a particular building; worker and building occupant health/medical considerations; and replacement of ACM with non-asbestos containing substitutes.

13. Preparing Abatement Drawings. Significance and need for drawings; use of as built drawings as base drawings; use of inspection photographs and on-site reports; methods of preparing abatement drawings; diagraming containment barriers; relationship of drawings to design specifications; and particular problems related to abatement drawings.

14. Contract Preparation and Administration.

15. Legal/Liabilities/Defenses. Insurance considerations; bonding; hold-harmless clauses; use of abatement contractor's liability insurance; and claims made versus occurrence policies.

16. Replacement. Replacement of asbestos with asbestos free substitutes.

17. Role of Other Consultants. Development of technical specification sections by industrial hygienists or engineers; and the multi-disciplinary team approach to abatement design.

18. Role of Other Licensed Asbestos Professionals.

19. Occupied Buildings. Special design procedures required in occupied buildings; education of occupants; extra monitoring recommendations; staging of work to minimize occupant exposure; and scheduling of renovation to minimize exposure.

20. Relevant Federal, State and local regulatory requirements, procedures and standards including, but not limited to:

a. Requirements of TSCA Title II, including 40 CFR Part 763, Subpart E (AHERA).

b. National Emission Standards for Hazardous Air Pollutants, (40 CFR Part 61) Subparts A (General Provisions) and M (National Emission Standard for Asbestos).

c. OSHA Respirator Standard found at 29 CFR 1910.134.

d. EPA Worker Protection Rule found at 40 CFR Part 763, Subpart G.

e. OSHA Asbestos Construction Standard found at 29 CFR 1926.1101.

f. OSHA Hazard Communication Standard found at 29 CFR 1926.1200.

g. Requirements of the Department and the Mass DEP relating to asbestos.

h. Course Review. A review of key aspects of the training course.

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(f) Project Monitors. Asbestos Project Monitor course (initial) shall include a minimum of five days of training covering the topics outlined below. The course outlined in 454 CMR 28.05(4)(f)1. through 15. consists of lectures and demonstrations, at least six hours of hands-on training, course review, and a written examination. The hands-on training component might be satisfied by having the student simulate participation in or performance of any of the relevant job functions or activities (or by incorporation of the workshop component described in item "n" below of this unit). The project monitor training course shall adequately address the following topics:

1. Roles and Responsibilities of the Project Monitor. Definition and responsibilities of the project monitor, including regulatory/specification compliance monitoring, air monitoring, conducting visual inspections, and final clearance monitoring.
2. Characteristics of Asbestos and Asbestos-containing Materials. Typical uses of asbestos; physical appearance of asbestos; review of asbestos abatement and control techniques; presentation of the health effects of asbestos exposure, including routes of exposure, dose-response relationships, and latency periods for asbestos-related diseases.
3. Federal Asbestos Regulations. Overview of pertinent EPA regulations, including: NESHAP, 40 CFR Part 61, Subparts A and M; AHERA, 40 CFR Part 763, Subpart E; and the EPA Worker Protection Rule, 40 CFR Part 763, and Subpart G. Overview of pertinent OSHA regulations, including Construction Industry Standard for Asbestos, 29 CFR 1926.1101; Respirator Standard, 29 CFR 1910.134; and the Hazard Communication Standard, 29 CFR 1926.1200. Applicable State and local asbestos regulations; and regulatory interrelationships.
4. Understanding Building Construction and Building Systems. Building construction basics, building physical plan layout; understanding building systems (HVAC, electrical, *etc*.); layout and organization; where asbestos is likely to be found on building systems; and renovations and the effect of asbestos abatement on building systems.
5. Asbestos Abatement Contracts, Specifications, and Drawings. Basic provisions of the contract; relationships between the principal parties, establishing chain of command; types of specifications, including means and methods, performance, and proprietary and nonproprietary; reading and interpreting records and abatement drawing; discussion of change orders; and common enforcement responsibilities and authority of project monitor.
6. Asbestos Response Actions and Abatement Practices. Pre-work inspections; pre-work considerations, precleaning of the work area, removal of furniture, fixtures, and equipment; shutdown/modification of building systems; construction and maintenance of containment barriers, proper demarcation of work areas; work area entry/exit, hygiene practices; determining the effectiveness of air filtration equipment; techniques for minimizing fiber release, wet methods, continuous cleaning; abatement methods other than removal; abatement area clean-up procedures; waste transport and disposal procedures; and contingency planning for emergency response.
7. Asbestos Abatement Equipment. Typical equipment found on an abatement project; air filtration devices, vacuum systems, negative pressure differential monitoring; HEPA filtration units, theory of filtration, design/construction of HEPA filtration units, qualitative and quantitative performance of HEPA filtration units, sizing the ventilation requirements, location of HEPA filtration units, qualitative and quantitative tests of containment barrier integrity; and best available technology.
8. Personal Protective Equipment. Proper selection of respiratory protection; classes and characteristics of respirator types, limitations of respirators; proper use of other safety equipment, protective clothing selection, use, and proper handling, hard/bump hats, safety shoes; breathing air systems, high pressure *v*. low pressure, testing for Grade D air, and determining proper backup air volumes.

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9. Air Monitoring Strategies. Sampling equipment, sampling pumps (low *v*. high volume), flow regulating devices (critical and limiting orifices), use of fibrous aerosol monitors on abatement projects; sampling media, types of filters, types of cassettes, filter orientation, storage and shipment of filters; calibration techniques, primary calibration standards, secondary calibration standards, temperature/pressure effects, frequency of calibration, recordkeeping and field work documentation, calculations; air sample analysis, techniques available and limitations of AHERA on their use, transmission electron microscopy (background to sample preparation and analysis, air sample conditions which prohibit analysis, EPA's recommended technique for analysis of final air clearance samples), phase contrast microscopy (background to sample preparation, and AHERA's limits on the use of phase contrast microscopy), what each technique measures; analytical methodologies, AHERA TEM protocol, NIOSH 7400, OSHA reference method (non-clearance), EPA recommendation for clearance (TEM); sampling strategies for clearance monitoring, types of air samples (personal breathing zone v. fixed-station area) sampling location and objectives (pre-abatement, during abatement, and clearance monitoring), number of samples to be collected, minimum and maximum air volumes, clearance monitoring (post-visual-inspection) (number of samples required, selection of sampling locations, period of sampling, aggressive sampling, interpretations of sampling results, calculations), quality assurance; special sampling problems, crawl spaces, acceptable samples for laboratory analysis, and sampling in occupied buildings (barrier monitoring).

10. Safety and Health Issues Other than Asbestos. Confined-space entry, electrical hazards, fire and explosion concerns, ladders and scaffolding, heat stress, air contaminants other than asbestos, fall hazards, and hazardous materials on abatement projects.

11. Conducting Visual Inspections. Inspections during abatement, visual inspections using ASTM E1368 Standard Practice for Visual Inspection of Asbestos Abatement Projects; conducting inspections for completeness of removal; and discussion of "how clean is clean?"

12. Role of Other Licensed Asbestos Professionals.

13. Legal Responsibilities and Liabilities of Project Monitors. Specification enforcement capabilities; regulatory enforcement; licensing; and powers delegated to project monitors through contract documents.

14. Recordkeeping and Report Writing. Developing project logs/daily logs (what should be included, who sees them); final report preparation; and recordkeeping under Federal regulations.

15. Workshops (six hours spread over three days). Contracts, specifications and drawings: This workshop could consist of each participant being issued a set of contracts, specifications, and drawings and then being asked to answer questions and make recommendations to a project architect, engineer or to the building owner based on given conditions and these documents.

Air monitoring strategies/asbestos abatement equipment: This workshop could consist of simulated abatement sites for which sampling strategies would have to be developed (*i.e*., occupied buildings, industrial situations). Through demonstrations and exhibition, the project monitor may also be able to gain a better understanding of the function of various pieces of equipment used on abatement projects (air filtration units, water filtration units, negative pressure monitoring devices, sampling pump calibration devices, *etc*.).

Conducting visual inspections: This workshop could consist, ideally, of an interactive video in which a participant is "taken through" a work area and asked to make notes of what is seen. A series of questions will be asked which are designed to stimulate a person's recall of the area. This workshop could consist of a series of two or three videos with different site conditions and different degrees of asbestos contamination.

(5) Refresher Training. For all disciplines, annual refresher training as a requirement for relicensing as indicated in 454 CMR 28.05(5)(a) through (f):

(a) Workers. One full day (eight hours) of refresher training.

(b) Contractor/Supervisors. One full day (eight hours) of refresher training.

(c) Inspectors. Half day (four hours) of refresher training.

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(d) Management Planners. ½ day (four hours) of inspector refresher training and ½ day (four hours) of refresher training for management planners.
(e) Project Designers. One full day (eight hours) of refresher training.
(f) Project Monitors. One full day (eight hours) of refresher training.

The refresher courses shall be specific to each discipline. Refresher courses shall be conducted as separate and distinct courses and not combined with any other training during the period of the refresher course. For each discipline, the refresher course shall review and discuss changes in Federal, State, and local regulations, developments in state-of-the-art procedures, and a review of key aspects of the initial training course as determined by the DLS. After completing the annual refresher course, persons shall have their license extended for an additional year from the date of the refresher course.

(6) MAP Initial Course Examinations. The following are the requirements for examination in each initial MAP discipline:
(a) Worker. 50 multiple-choice questions;
(b) Contractor/Supervisor. 100 multiple-choice questions;
(c) Inspector. 50 multiple-choice questions;
(d) Management Planner. 50 multiple-choice questions;
(e) Project Designer. 100 multiple-choice questions;
(f) Project Monitor. 100 multiple-choice questions.

(7) MAP Refresher Course Examinations.
(a) Training providers shall determine successful completion of a refresher course by conducting a written examination consisting of 25 questions at the conclusion of the course.
(b) For all of the above courses; a score of 70% or higher shall be considered passing.

(8) Requirements for Operations and Maintenance Training (O&M) and Single Specialized Materials (Class II and III) Work.
(a) Asbestos 16-hour Operations & Maintenance (Class III OSHA).
1. Initial training for maintenance workers involved in general maintenance and asbestos material repair tasks. The course agenda includes physical characteristics of asbestos. Potential health effects related to asbestos exposure; Federal and State regulations; proper asbestos-related work practices; respirator user, care, and fit testing; protective clothing; hands-on exercises; and proper decontamination procedures. This course fulfills training requirements for Asbetos Associated Project Worker, OSHA Class III work, for OSHA Competent Person for Classes III and IV, and AHERA O&M. Course shall be 16 hours in length with a written multiple choice exam of 25 questions with a passing grade of 70% or above. Training certificates shall be annual.
2. Initial training for Asbestos Operations and Maintenance Workers may be given on non-consecutive days, provided that the entire course of instruction is given within a two-week period.
3. Single Specialized Material Training for Roofing, Flooring, Siding and Joint Compounds may be provided in accordance with OSHA training requirements.
4. Refresher training for asbestos O&M workers including review of topics originally presented in the initial course is required annually. This course features a presentation of new developments in government regulations, state-of-the-art work practices and asbestos abatement industry standards. Course shall be four hours in length with a written multiple choice exam of 25 questions with a passing grade of 70% or above.

(b) Class III Asbestos Work (16-hour). Repair and maintenance operations, where ACM, including TSI and surfacing ACM and PACM is likely to be disturbed. Course Topics/Agenda:
1. History, Types and Use of Asbestos and Asbestos Containing Materials;
2. Health Hazards of Asbestos Exposure;
3. OSHA, EPA and State Regulatory Requirements;
4. Other Safety and Health Hazards;
5. Medical Surveillance Program;
6. Respiratory Protection/Fit Testing;
7. Respiratory Care, Use and Maintenance;

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8. Personal Protective Equipment;
9. Glove Bag and Mini-enclosure Removal Demonstration;
10. Class III Control Measures and Work Practices;
11. State-of-the-art equipment and practices;
12. Setup of dust tight barriers and small-scale containments;
13. Containment Clean up and decontamination;
14. Personal Hygiene;
15. HEPA Vacuum use, care and maintenance; and
16. Course Review.

(c) Class IV Asbestos Work (two-hour). Maintenance and custodial activities during which employees contact, but do not disturb, ACM or PACM, and activities to clean up dust, waste and debris resulting from Class I, II and III Activities.

(d) Issue a training certificate to each student who successfully completes the asbestos training course. Said original training certificates must include the following:

1. A unique certificate number;
2. Name of accredited person;
3. Discipline of the training course completed;
4. Dates of the training course;
5. Date of the examination;
6. An expiration date of five years after the date upon which the person successfully completed the course and examination; and
7. The name, address, and telephone number of the training provider that issued the certificate.

(e) Refresher Training within five years shall be ½ day (four hours) in duration. There is no grace period.

(f) Written multiple choice exam of 25 question with a passing grade of 70% or above for initial and refresher training.

(9) The Asbestos Pipe Specialized Initial Training shall consist of:

(a) eight hours training to include hands-on training.

(b) The training course shall address at least the following topics:

1. Types and uses of asbestos and identification of the material;
2. The nature of asbestos-related diseases and routes of exposure;
3. Applicable federal and state regulations regarding asbestos;
4. Proper techniques for cutting and removing asbestos-cement pipe, including a review of Proper use of respirator/PPE;
5. Pipe cutting demonstration(s) and pipe wrapping hands-on activity;
6. Proper final visual inspection and waste disposal procedures; and
7. Review of MassDEP's related reporting forms.

(c) Refresher Training within five years shall be ½ day (four hours) in duration. There is no grace period.

(d) Written multiple choice exam of 25 question with a passing grade of 70% or above for initial and refresher training.

28.06: Certification and Other Requirements for Asbestos Analytical Services

(1) Scope of Services. Businesses or persons who provide, engage in or work at the business of providing Asbestos Analytical Services must be duly certified pursuant to 454 CMR 28.06 prior to engaging in such work and must otherwise comply with the requirements of 454 CMR 28.06. Certified Asbestos Analytical Services may only engage in and provide those services for which they are certified. Separate certification is granted for each class of Asbestos Analytical Service, as set forth at 454 CMR 28.06(2)(a) through (d).

(2) Applicants for certification as providers of Asbestos Analytical Services shall receive separate approval to provide the services listed at 454 CMR 28.06(2)(a) through (d).

(a) Class A Certification holders shall be authorized to use polarized light microscopy (PLM) for the analysis of bulk asbestos samples originating in all facilities and locations subject to the requirements of 454 CMR 28.00, including school buildings and other facilities subject to the requirements of MA AHERA 454 CMR 28.13.

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(b) Class B Certification holders shall be authorized to use polarized light microscopy (PLM) for the analysis of bulk asbestos samples originating in all facilities and locations subject to the requirements of 454 CMR 28.00, except school buildings and other facilities subject to the requirements of MA AHERA 454 CMR 28.13.

(c) Class C Certification holders shall be authorized to use phase contrast microscopy (PCM) for the analysis of air samples originating in all facilities and locations subject to the requirements of 454 CMR 28.00, including school buildings and other facilities subject to the requirements of MA AHERA 454 CMR 28.13.

(d) Class D Certification holders shall be authorized to use transmission electron microscopy (TEM) for the analysis of air and bulk asbestos samples originating in all facilities and locations subject to the requirements of 454 CMR 28.00, including school buildings and other facilities subject to the requirements of MA AHERA 454 CMR 28.13.

(3) Application for Certification as a Provider of Asbestos Analytical Services. Applicants for certification as providers of Analytical Services shall submit the following to the Director:

(a) A completed application form with attachments as prescribed by the Director, which shall, at a minimum, include the following:

1. A list of all names, acronyms or other identifiers by which the applicant does or has done business, and the address(es) and telephone number(s) of the business.
2. The type(s) of approval/certification listed at 454 CMR 28.06(2)(a) through (d) for which the applicant is applying.
3. A list of the states in which the applicant holds, or has held, a license or certification, accreditation, or other approval for Asbestos Analytical Services.
4. Corporate Articles of Organization and a Certificate of Good Standing issued by the Massachusetts Secretary of the Commonwealth or a business certificate, if applicable, for the Asbestos Analytical Service of the applicant issued by the city or town where the business is located.
5. A certified and notarized statement by a Responsible Person of the applicant that the applicant has paid all tax obligations current and due to the Commonwealth as of the date of application.
6. A certificate of insurance or a letter of binder from an insurance carrier indicating that the work to be performed by the applicant is covered by a current workers' compensation policy or self-insurance program acceptable to the Commonwealth or a notarized statement that the Asbestos Analytical Service has no employees.
7. A list of all citations or notices of violation relating to occupational health and safety and environmental protection, including notices of noncompliance, notices of responsibility, notices of intent to assess an administrative penalty, orders, consent orders and court judgments, received by the Responsible Persons of the applicant in the five years prior to the date of application, and the issuing agency or department and final disposition of such citation or notice.
8. A list of the names and addresses of all persons designated as Asbestos Analytical Service Supervisors of the Asbestos Analytical Service pursuant to 454 CMR 28.06(4)(a) and (b).
9. A listing of all Responsible Persons and employees of the applicant who will be performing asbestos analysis.
10. Legible copies of certificates of training or other training records for all persons listed at 454 CMR 28.06(3)(a)8., indicating that each such person has fulfilled the applicable asbestos analytical training required by 454 CMR 28.06(5)(d).

(b) A copy of the laboratory standard operating procedures manual for asbestos analysis performed by the applicant, which shall minimally include:

1. Copies of all applicable analytical protocols and procedures referenced at 454 CMR 28.06(6);
2. An inventory of the analytical equipment used by the applicant, with a description of associated equipment calibration and maintenance procedures and schedules;
3. A description of chain of custody procedures, including handling, storage and disposal procedures for asbestos samples; and
4. A description of the quality control procedures and programs utilized by the applicant.

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(c) Results indicating proficiency in the two most recent rounds of the applicable quality control program(s) required by 454 CMR 28.06(5). Documentation shall be in the form of legible copies of official correspondence or certificates from the provider of the applicable quality control program. Applicants from within the Commonwealth seeking Certification as Class B or Class C Analytical Service Provider may submit the single most recent quality control round result, but their Certification and approval pursuant to 454 CMR 28.06(2) may be contingent upon the results of a laboratory inspection at the discretion of the Director.

(d) A fee payable to the Commonwealth of Massachusetts in the amount of the entire annual fee established for such Certification by M.G.L. c. 7, § 3B, plus any applicable surcharges. An applicant that is concomitantly applying for a Certification as an Asbestos Consulting Firm pursuant to 454 CMR 28.07 need only pay one fee. A schedule of asbestos and lead licensing fees and surcharges is available from any Department office upon request. If the Director denies, revokes, suspends or refuses to renew a Certification for reasons specified in 454 CMR 28.16, the fee payment is not refundable.

(e) Such other information as the Director may reasonably require.

(4) Renewal of an Asbestos Analytical Service Certification. A Certification issued by the Department to an Analytical Service Provider is valid for a period of one year. The Director may renew an Asbestos Analytical Service Certification upon written application for renewal by the Certification holder. Renewal applications should be submitted to the Department no later than 30 calendar days before the expiration of the current Certification. The submission of a renewal application later than 30 days before the expiration of the current Certification may result in renewal after the expiration of the current Certification. Said application for renewal shall include submission of the items referenced at 454 CMR 28.06(3)(a) through (e).

Applicants may submit application for renewal at Department's website for renewal with the following provisions of 454 CMR 28.06(4):

(a) Applicant may submit readable electronic versions of updated materials in *lieu* of printed materials.

(b) Application for renewal must be received at least 14 days prior, but not more than 30 days in advance, to allow for processing.

(5) Operating Requirements for Analytical Service Provider. Because of the highly diversified, technical nature of asbestos analysis, comprehensive requirements for the conduct of the work are not set forth in 454 CMR 28.00. Certified providers of Analytical Services shall conduct asbestos analytical work in accordance with officially recognized methodologies and generally accepted industrial hygiene laboratory practices. Providers of Analytical Services shall minimally adhere to the following operating requirements, as a condition of certification:

(a) Designation of Asbestos Analytical Service Supervisor. Applicants for certification as providers of Analytical Services shall designate a qualified Asbestos Analytical Service Supervisor, who shall be jointly responsible with other Responsible Persons of the Certified Asbestos Analytical Service, if any, for the adherence to the applicable analytical protocols, the maintenance of proper quality control procedures and the accuracy of the analytical results.

(b) Use of Personnel. The Asbestos Analytical Service Supervisor and the Responsible Persons of the Certified Asbestos Analytical Service shall ensure that no person shall perform, or be directed to perform, any asbestos analysis in the direct business interest of an Asbestos Analytical Service, unless that person is a Responsible Person or an employee of said Asbestos Analytical Service.

(c) Possession of Adequate Equipment and Supplies. Analytical Service Provider shall possess all equipment and supplies necessary to perform the services offered. Equipment shall be calibrated and maintained as specified by the analytical protocols used or generally accepted industrial hygiene practices.

(d) Training. All employees and Responsible Persons of an Asbestos Analytical Service who perform any asbestos analysis shall have successfully completed appropriate training, as specified at 454 CMR 28.05(4)(d)1. through 3.:

1. Training Requirements for Class A and Class B Certification. All employees and Responsible Persons of Class A and Class B Analytical Service Provider shall have successfully completed an approved course of training in the techniques and procedures for identification of asbestos in bulk samples (*e.g.*, McCrone Research Institute Asbestos Bulk Analysis course, or an equivalent course acceptable to the Director).

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2. Training Requirements for Class C Certificates. All employees and Responsible Persons of Class C Analytical Service Provider shall have successfully completed the NIOSH #582 Course, "Sampling and Evaluating Airborne Asbestos" or an equivalent course acceptable to the Director.

3. Training Requirements for Class D Certificates. All employees and Responsible Persons of Class D Analytical Service Provider shall have successfully completed an approved course of training in the techniques and procedures for identification of asbestos in air samples using TEM (*e.g.*, McCrone Research Institute Asbestos Analysis by Transmission Electronic Microscopy course), or an equivalent course acceptable to the Director.

(6) Required Participation in Quality Control Testing Programs. All Certified Analytical Service Providers shall participate and maintain proficiency or accreditation in official quality control testing programs, as specified at 454 CMR 28.06(5)(a) through (d):

(a) Certified Class A Analytical Service Provider shall maintain accredited status in the National Voluntary Laboratory Accreditation Program of the NIST.

(b) Certified Class B Analytical Service Provider shall:

1. Maintain accredited status in the National Voluntary Laboratory Accreditation Program of the NIST; or

2. Maintain proficiency in the Bulk Asbestos Quality Assurance Program of the American Industrial Hygiene Association or in an equivalent quality assurance program acceptable to the Director.

(c) Certified Class C Analytical Service Provider shall:

1. Participate and maintain proficiency in the Proficiency Analytical Testing (PAT) Program of the American Industrial Hygiene Association; and one of the following:

2. Effective January 1, 2022 all analysts performing such testing for said analytical service are listed in the Asbestos Analysts Registry (AAR) of the American Industrial Hygiene Association and maintain proficiency in the Asbestos Analysis Testing (AAT) Program of the American Industrial Hygiene Association (AIHA);

3. All analysts performing such testing for said analytical service participate in an annual Department provided Asbestos Analyst Testing Program; or

4. AIHA IHLAP accreditation for PCM.

(d) Certified Class D Analytical Service Provider shall maintain accredited status in "Airborne Asbestos Fiber Analysis" in the National Voluntary Laboratory Accreditation Program (NVLAP) of the NIST.

(7) Required Use of Official Analytical Protocols. In performing asbestos analysis, Certified Analytical Service Provider shall use official protocols, as set forth at 454 CMR 28.06(6)(a) through (c):

(a) Certified Class A and Class B Analytical Service Provider shall use the "Interim Method for the Determination of Asbestos in Bulk Insulation Samples" found at 40 CFR Part 763, Appendix A through Subpart F (cannot be used to analyze non-friable organically bound materials) or the "Method for the Determination of Asbestos in Bulk Building Materials" (EPA/600/R-93/116) for the analysis of bulk asbestos samples by polarizing light microscopy.

(b) Certified Class C Analytical Service Provider shall use the NIOSH Method 7400 for the determination of asbestos in clearance air monitoring samples and air samples collected to assess environmental asbestos exposures. Analytical services may use either the NIOSH Method 7400 or the OSHA Reference Method (29 CFR Part 1910.1001, Appendix A, 51 FR No. 119, 22739, June 20, 1986) for the analysis of personal air monitoring samples.

(c) Certified Class D Analytical Service Provider shall use the "Interim Transmission Electron Microscopy Methods - Mandatory and Nonmandatory - and Mandatory Section to Determine Completion of Response Actions", referenced at 40 CFR Part 763, Appendix A, for airborne asbestos analysis by TEM.

(8) Requirement to Maintain Records. Analytical Service Provider shall maintain records, as provided by 454 CMR 28.15.

(9) Requirement for Microscope Calibration When NIOSH Method 7400 is Used. Where the NIOSH Method 7400 is used for the determination of asbestos in air samples, the alignment of the microscope utilized for the analysis shall be checked and adjusted if necessary and the phase shift detection limit ascertained as specified in the Method.

28.06: continued

(a) These checks shall be carried out at least daily each day analysis is performed or each time the microscope is moved to a new location, whichever is more frequent.
(b) A centering telescope for the microscope being used and an HSE/NPL phase contest test slide shall be available at the location where the analysis is being carried out.
(c) Maintain as part of the laboratory quality assurance program a set of reference slides to be used on a daily basis, per the 7400 Method item 12(A), and estimate the laboratory intra- and inter-microscopist precision, per 12(B). Reference slides shall be changed as often as necessary to ensure that the analyst does not become accustomed to the slides.
(d) Perform blind recounts by the same microscopist on 10% of filters counted (slides relabeled by a person other than the microscopist) using the appropriate calculation to determine whether a pair of counts by the same microscopist on the same filter shall be rejected, per 7400 Method item14.
(e) Records of all calibration procedures listed under 454 CMR 28.06(8) shall be maintained as records, as provided by 454 CMR 28.06(8), as well as records of all repairs and maintenance of the microscope.

(10) Maintenance, Submission and Retention of Records. Analytical Service Providers, shall maintain the records as indicated at 454 CMR 28.06(10)(b) through (d) and make said records available to the Director upon request. Entities shall provide photocopies of such records or documents within ten business days of receipt of a written request from the Director. Records and documents required to be kept by 454 CMR 28.06 shall be retained for a period of 30 years from the date of project or activity completion. Entities or persons ceasing to do business, or relocating the principal place of business shall so notify the Director in writing within 30 days of such event. The Director, on receipt of such notification may instruct that the records be surrendered to the Department, or may specify a repository for such records. The entity or person shall comply with the Director's instructions within 60 days.

Certified Analytical Service Provider shall maintain the following records at the principal place of business:

(a) Copies of all documents required for Certification pursuant to 454 CMR 28.06, including quality control results.
(b) Records of all analyses performed, including the identity of the sender, the field identification number, the laboratory identification number, the date collected, the location from which the sample was collected, the method used and the analytical results. Air sample results shall include the start and end times of the sample collection, the start and end flow rates and the sample volume.
(c) Names, addresses, telephone numbers and training documents of each person who performed asbestos analysis for the Certified Asbestos Analytical Service, with the dates of employment or utilization.
(d) Records of field and bench microscope calibrations as prescribed at 454 CMR 28.06(9).

28.07: Certification of Consulting Service Providers and Individual Asbestos Consultants

(1) Scope of Certification of Asbestos Consulting Service Providers. Firms, corporations, businesses or entities performing Asbestos Consulting functions listed in 454 CMR 28.07(5)(a)1. through 4. shall be Certified prior to engaging in such services. A Certificate issued by the Department to a provider of Asbestos Consulting Services is valid for a period of one year.

(2) Asbestos Consulting Service Providers must ensure employees have required current training and appropriate licenses pursuant to 454 CMR 28.07(5)(b)1. through 4. prior to engaging in those services.

(3) Applicants for Certification as providers of Asbestos Consulting Services shall submit the following to the Director:

(a) A completed application form with attachments as prescribed by the Director which shall, at a minimum, include the following:

1. A list of all names, acronyms or other identifiers by which the applicant does or has done business, and the address(es) and telephone number(s) of the business(es).
2. A list of the states in which the applicant holds, or has held, a license or certification, accreditation, or other approval for Asbestos Consulting Services.

28.07: continued

3. A list of the consultant disciplines listed at 454 CMR 28.07(5)(a)1. through 4. for which the applicant seeks approval to provide asbestos consulting services.

4. Corporate Articles of Organization and a Certificate of Good Standing issued by the Massachusetts Secretary of the Commonwealth or a business certificate, if applicable, for the Asbestos Consulting Service of the applicant issued by the city or town where the business is located.

5. A list of the names and addresses of all Responsible Persons and managers of the applicant who have primary responsibility for, and control over, Asbestos Consulting Work of the applicant.

6. A certified and notarized statement by a Responsible Person of the applicant that the applicant has paid all tax obligations current and due to the Commonwealth, including any applicable Unemployment Insurance payments, as of the date of application.

7. A certificate of insurance or a letter of binder from an insurance carrier indicating that the work to be performed by the applicant is covered by a current workers' compensation policy or self-insurance program acceptable to the Commonwealth or a notarized statement that the Asbestos Consulting Service has no employees.

8. A list of all citations or notices of violation relating to occupational safety and environmental protection, including notices of noncompliance, notices of responsibility, notices of intent to assess an administrative penalty, orders, consent orders and court judgements, received by the Responsible Persons of the applicant in the five years prior to the date of application, and the issuing agency or department and final disposition of such citation or notice.

9. A copy of the standard operating procedures to be used by the applicant in the performance of consulting activities.

(b) Legible copies of asbestos training certificates which document that a Responsible Person or manager of the applicant listed pursuant to 454 CMR 28.07(3)(a)5. has successfully completed the applicable initial and refresher training requirements for the Asbestos Consultant disciplines specified at 454 CMR 28.07(5)(b)1. through 4. in which the applicant intends to offer Asbestos Consulting Services. The Director may, at his or her discretion, require the applicant to produce further evidence of fulfillment of the training requirements of 454 CMR 28.07(3)(b).

(c) A fee payable to the Commonwealth of Massachusetts in the amount of the entire annual fee established for such Certification by M.G.L. c. 7, § 3B, plus any applicable surcharges. An applicant that is simultaneously applying for a Certification as an Asbestos Analytical Service pursuant to 454 CMR 28.07 need only pay one fee. Single proprietorships and partnerships who have no employees are exempted from paying a fee for Licensure as an Asbestos Consulting Service. If the Director denies, revokes, suspends or refuses to renew a license for reasons specified in 454 CMR 28.15, the fee payment is not refundable.

(d) Such other information as the Director may reasonably require.

(4) Renewal of an Asbestos Consulting Service Certification. The Director may renew an Asbestos Consulting Service Certification upon written application for renewal by the Certification holder. Renewal applications should be submitted to the Department no later than 30 calendar days before the expiration of the current Certificate. The submission of a renewal application later than 30 days before the expiration of the current Certificate may result in renewal after the expiration of the current Certificate. Said application for renewal shall include submission of the items referenced at 454 CMR 28.07(3)(a)1. through 9. The application may be made electronically at the Department's website or be mailed to the Department.

(5) Licensure of Asbestos Consultants.

(a) Scope of Licenses. Persons performing the Asbestos Consulting functions listed in 454 CMR 28.07(5)(a)1. through 4. shall be licensed in the appropriate discipline prior to engaging in such work. Persons performing the work of more than one Asbestos Consultant discipline shall be separately licensed, except that a person who is licensed as an Asbestos Management Planner may perform the functions of an Asbestos Inspector without being separately licensed.

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1. Asbestos Inspector. Licensure as an Asbestos Inspector authorizes the consultant to review building records, perform visual inspections, collect samples, prepare written inventories and conduct other forms of investigation necessary to determine and document the presence and condition of known or suspect ACM in facilities. Licensed Asbestos Inspectors shall apply current concepts and state of the art knowledge to evaluate the conditions and accessibility of ACM and shall otherwise conduct their activities according to procedures described in 454 CMR 28.00 and current EPA guidance documents or applicable federal laws or rules and regulations.

2. Asbestos Management Planner. Licensure as an Asbestos Management Planner authorizes the consultant to utilize information developed from facility inspections to assess potential hazards of ACM and to select and recommend asbestos hazard control and response actions.

3. Asbestos Project Designer. Licensure as an Asbestos Project Designer authorizes the consultant to design Asbestos Response Actions through preparation of job specifications, bidding documents, architectural drawings and schematic representations of material locations. Except as mandated by AHERA for Asbestos Response Actions conducted in school facilities, the preparation of asbestos project designs is recommended, but not required by 454 CMR 28.00. Where asbestos project designs are prepared, such preparation shall only be performed by persons licensed as Asbestos Project Designers pursuant to 454 CMR 28.07.

4. Asbestos Project Monitor. Licensure as an Asbestos Project Monitor authorizes the consultant to function as the on-site representative of the facility owner or other persons, interpret project specifications or asbestos management plans and monitor and evaluate contractor or employee compliance with applicable rules, regulations, or specifications, including the collection of air samples and to conduct clearance inspections at Asbestos Project sites. Licensure as an Asbestos Project Monitor or any other Asbestos Consultant discipline is not required for persons collecting only (asbestos) personal air monitoring samples.

(b) Qualifications for Licensure. Asbestos Consultants must possess the applicable prerequisites for Licensure listed at 454 CMR 28.07(4)(b)1. through 4.

1. Asbestos Inspectors. Applicants must have successfully completed the training requirements set forth at 454 CMR 28.05(4)(c) and must have, at a minimum:

a. A high school diploma and a minimum of six months experience in an occupation comparable to that of asbestos inspection or two months field experience under the direct supervision of a licensed Asbestos Inspector or Management Planner on no fewer than 15 inspections; or

b. A combination of education and experience equivalent to that set forth in 454 CMR 28.07(5)(b)1.a., as determined by the Director.

2. Asbestos Management Planners. Applicants must have successfully completed the training requirements set forth at 454 CMR 28.05(4)(d) and must have, at a minimum:

a. An associate degree or certificate in project planning, management, environmental sciences, engineering, construction, architecture, industrial hygiene, occupational health, or a related scientific field; and

b. Six months experience in the asbestos abatement field, including experience in asbestos management planning; or

c. A combination of education and experience equivalent to that set forth in 454 CMR 28.07(5)(b)2.a. and b., as determined by the Director.

3. Asbestos Project Designers. Applicants must have successfully completed the training requirements set forth at 454 CMR 28.05(4)(e) and must have, at a minimum:

a. A bachelor's degree in industrial hygiene, occupational health, or environmental, biological or physical science;

b. Current status as a registered architect or engineer with a minimum of 12 months experience in asbestos abatement fields; or

c. A combination of education and experience equivalent to that set forth in 454 CMR 28.07(5)(b)3.a. and b., as determined by the Director.

4. Asbestos Project Monitors. Applicants must have successfully completed the training requirements set forth at 454 CMR 28.05(4)(f) and must have, at a minimum:

a. Two years of college credit or an associate or technical degree or equivalent;

28.07: continued

b. Two years of experience in the asbestos abatement field may be used to substitute for college credit requirement above;

c. Field experience in performing project monitoring work under the direct supervision of a licensed Asbestos Project Monitor on no fewer than 15 Asbestos Response Actions occurring over a period of at least two months; or

d. A combination of education and experience equivalent to that set forth in 454 CMR 28.07(5)(b)4.a. and b., as determined by the Director.

(c) Application for Licensure as an Asbestos Consultant. Applicants for Licensure in one or more of the consultant disciplines must submit the following:

1. A completed application form with attachments as prescribed by the Director.

2. Proof of Age and Identification. A list of acceptable forms of identification is available from any Department office upon request.

3. Asbestos training certificates indicating that the applicant has successfully completed the applicable initial and refresher training requirements specified by 454 CMR 28.05(2), (4)(c) through (f), or (5). Where the Department or the asbestos licensing agency of another state has previously licensed the applicant in the applicable discipline, only those certificates for training that has been received since the effective date of the most recently issued Asbestos Consultant License need be presented. Legible copies of asbestos training certificates may be presented as evidence of successful completion of the required training, except that the training certificate for the most recently received training must be an original. DLS License cards must be presented as documentation of past Licensure. The Director may, at his or her discretion, require the applicant to produce further evidence of having fulfilled the applicable training or Licensing requirements of 454 CMR 28.07(5)(b)1. through 4.

4. Documentation of fulfillment of applicable experience requirements, as set forth in 454 CMR 6.07(5)(b)1. through 4.

5. A list of all citations or notices of violation relating to occupational health and safety and environmental protection, including notices of noncompliance, notices of responsibility, notices of intent to assess an administrative penalty, orders, consent orders and court judgments, received by the applicant in the five years prior to the date of application, and the issuing agency or department and final disposition of such citation or notice.

6. Such other information as the Director may reasonably require.

7. A fee payable to the Commonwealth of Massachusetts in the amount of the entire annual fee established for such certificate by M.G.L. c. 7, § 3B, plus any applicable surcharges. A schedule of asbestos and lead licensing fees and surcharges is available from any Department office upon request. A person applying for Licensure as an Asbestos Inspector and as an Asbestos Management Planner at the same time need pay only one fee. If the Director denies, revokes, suspends or refuses to renew a license for reasons specified in 454 CMR 28.16, the fee payment is not refundable.

(d) Renewal of an Asbestos Consultant License. An Asbestos Consultant license is valid for a period of one year. The Director may renew an Asbestos Consultant license, provided the current license holder makes written application for renewal or files for renewal electronically from the DLS webpage. Application for renewal should be made no later than seven calendar days before the expiration of the current license. The submission of a renewal application later than seven days before the expiration of the current license may result in renewal after the expiration of the current license. Said application for renewal must include submission of the items referenced at 454 CMR 28.07(5)(c)1. through 7., including a current certificate of refresher training in the discipline for which Licensure is sought, as specified at 454 CMR 28.05(5).

28.07: continued

(6) Delivery of Services by Certified Asbestos Consulting Service Providers and Asbestos Consultants.

(a) Requirement for Use of State-of-the-art Consultative Practices. Because of the highly diversified, technical nature of Asbestos Consulting Work, comprehensive requirements for the conduct of this work are not set forth in 454 CMR 28.00. Certified Asbestos Consulting Service Providers and Asbestos Consultants must ensure that the functions authorized at 454 CMR 28.07(1)(a)1. through 5., as applicable, are performed in accordance with the requirements of 454 CMR 28.00, applicable EPA asbestos standards and protocols, including 40 CFR Part 763, Subpart E, other applicable federal standards and in accordance with professional standards generally recognized as "state of the art" or "best practices" by the Asbestos Consulting industry and asbestos professional associations, and in accordance with current practices taught by Certified Training Providers. The Department has final determination as to what constitutes "State-of-the-art".

(b) Requirement for Signing Entry/Exit Logs at Asbestos Response Action Worksites. Asbestos Consultants who enter the Work Area of an Asbestos Response Action must make the entries in the sign-in/out log specified at 454 CMR 28.10(4)(a)2. as a condition of Licensure.

(7) Maintenance, Submission and Retention of Records. Asbestos Consulting Service Providers, must maintain the records as indicated at 454 CMR 28.06(8) and make said records available to the Director upon request. Entities must provide photocopies of such records or documents within ten business days of receipt of a written request from the Director. Records and documents required to be kept by 454 CMR 28.15 must be retained for a period of 30 years from the date of project or activity completion. Entities or persons ceasing to do business, or relocating the principal place of business must so notify the Director in writing within 30 days of such event. The Director, on receipt of such notification may instruct that the records be surrendered to the Department, or may specify a repository for such records. The entity or person must comply with the Director's instructions within 60 days.

(8) Certified Asbestos Consulting Service Providers must maintain the following records at the principal place of business:

(a) Copies of all documents required for Certification pursuant to 454 CMR 28.07.

(b) Records of all recommendations provided, records of services including sampling times and locations, asbestos air and bulk sampling, including the date collected, the location from which the sample was collected, the method used and the analytical results. Air sample results must include the start and end times of the sample collection, the flow rate, volume of air collected and the sample locations and including the identity of the sender, and the laboratory identification number providing analysis.

(c) Names, license number and expiration, addresses, telephone numbers and training documents of each person who performed asbestos consultation for the Certified Asbestos Consultation Services, with the dates of employment or utilization.

28.08: Certification of Asbestos Contractors and Licensure of Asbestos Supervisors and Workers

No business, firm, corporation, person or other entity shall enter into, engage in or work at the business of Asbestos Abatement unless such business, firm corporation, person or other entity has been duly certified (business) and licensed (individual) in accordance with 454 CMR 28.08. All persons who perform the functions of Asbestos Workers, Asbestos Supervisors, or Asbestos Contractors at worksites where Asbestos Response Actions are carried out must be licensed pursuant to 454 CMR 28.08 and possess current training certification in the discipline authorized.

All certifications and licenses under 454 CMR 28.08 shall be valid for a period of one year.

(1) Application for Certification. Applicants for Certification as Asbestos Contractors (business) must submit the following to the Director:

(a) A completed application form with attachments as prescribed by the Director, which must, at a minimum, include the following:

1. A list of all names, acronyms or other identifiers by which the applicant does or has done business, the address(es) and telephone number(s) of the business.

28.08: continued

2. A list of the states in which the applicant holds, or has held, a license or certification, accreditation, or other approval for Asbestos Work.

3. A list of the names and addresses of all Asbestos Abatement firms or entities in which the Responsible Persons of the applicant have or have had a financial interest or management responsibility.

4. Corporate Articles of Organization and a Certificate of Good Standing issued by the Massachusetts Secretary of the Commonwealth or a business certificate, if applicable, for the asbestos contracting firm of the applicant issued by the city or town where the business is located.

5. A certified and notarized statement by a Responsible Person of the applicant that the applicant has paid all tax obligations current and due to the Commonwealth, including any applicable Unemployment Insurance payments, as of the date of application.

6. A certificate of insurance or a letter of binder from an insurance carrier indicating that the Asbestos Work to be performed by the applicant is covered by a current workers' compensation policy or self-insurance program acceptable to the Commonwealth or a notarized statement that the contractor has no employees. Certificates of Insurance and letters of binder must indicate that the applicant has coverage under Workers Compensation Classification Codes 5472 or 5473.

7. A list of all citations or notices of violation relating to occupational health and safety and environmental protection, including notices of noncompliance, notices of responsibility, notices of intent to assess an administrative penalty, orders, consent orders and court judgments, received by the Responsible Persons of the applicant in the five years prior to the date of application, and the issuing agency or department and final disposition of such citation or notice.

8. A statement made under the penalties of perjury by a Responsible Person of the applicant that all employees to be engaged in Asbestos Work are licensed, or will be licensed prior to any work being performed by them, pursuant to the requirements of 454 CMR 28.00.

9. A list of the names and addresses of all Responsible Persons and managers of the applicant who have primary responsibility for, and control over, Asbestos Work of the applicant.

10. A respiratory protection and worker health and safety program evidencing compliance with 29 CFR Part 1910.134.

11. Written procedures for complying with OSHA or EPA personal and medical monitoring requirements.

(b) Asbestos training certificates indicating that a Responsible Person or manager of the applicant asbestos contractor business listed pursuant to 454 CMR 28.08(1)(a)9. has successfully completed the applicable initial and refresher training requirements for Asbestos Supervisors specified by 454 CMR 28.05(4)(b) or (5). Where an applicant has previously been issued an Asbestos Supervisor License or Training Certification, only those certificates for training that have been received by the Responsible Person since the effective date of the most recently issued Asbestos Contractor Business Certification need be presented. Legible copies of asbestos training certificates may be presented as evidence of successful completion of the required training, except that the training certificate for the most recently received training must be an original. The Director may, at his or her discretion, require the applicant to produce further evidence of having fulfilled the applicable training or Licensure requirements of this subsection, 454 CMR 28.05(4)(b) or (5).

(c) Such other information as the Director may reasonably require.

(d) A fee payable to the Commonwealth of Massachusetts in the amount of the entire annual fee established for such license by M.G.L. c. 7, § 3B, plus any applicable surcharges. A schedule of asbestos and lead licensing fees and surcharges is available from any Department office upon request or the Department's website. If the Director denies, revokes, suspends or refuses to renew a certificate for reasons specified in 454 CMR 28.16, the fee payment is not refundable.

28.08: continued

(2) Renewal of an Asbestos Contractor Certificate. The Director may renew an Asbestos Contractor Certificate upon written application for renewal by the license holder. Renewal applications should be submitted to the Department no later than 30 calendar days before the expiration of the current license. The submission of a renewal application later than 30 days before the expiration of the current certificate may result in renewal after the expiration of the current license. Said application for renewal must include submission of the items referenced at 454 CMR 28.08(1)(a) through (d), including a current certificate of training indicating that a Responsible Person or manager of the applicant listed pursuant to 454 CMR 28.05(4)(b) has successfully completed the refresher training requirements for Asbestos Supervisors specified by 454 CMR 28.05(5). Applications may also be filed online on the Department's website.

(3) Licensure of Asbestos Workers and Asbestos Supervisors.

(a) Application for Licensure as an Asbestos Worker. Applicants for Licensure as Asbestos Workers must submit the following:

1. A completed application form with attachments as prescribed by the Director.
2. Proof of Age and Identification. A list of acceptable forms of identification is available from any Department office upon request.
3. Asbestos training certificates indicating that the applicant has successfully completed the applicable initial and refresher training requirements specified by 454 CMR 28.05(4)(a) or (5). Where an applicant has previously been issued an Asbestos Worker License by the Department or the asbestos licensing agency of another state, only those certificates for training that has been received since the effective date of the most recently issued Asbestos Worker License need be presented. Legible copies of asbestos training certificates may be presented as evidence of successful completion of the required training, except that the training certificate for the most recently received training must be an original. License cards must be presented as documentation of past Licensure. The Director may, at his or her discretion, require the applicant to produce further evidence of having fulfilled the applicable training or Licensing requirements of 454 CMR 28.08(3)(a)3., 28.05(4)(a) or 28.05(5).
4. A list of all citations or notices of violation relating to occupational health and safety and environmental protection, including notices of noncompliance, notices of responsibility, notices of intent to assess an administrative penalty, orders, consent orders and court judgments, received by the applicant in the five years prior to the date of application, and the issuing agency or department and final disposition of such citation or notice.
5. Such other information as the Director may reasonably require.
6. A fee payable to the Commonwealth of Massachusetts in the amount of the entire annual fee established for such certificate by M.G.L. c. 7, § 3B, plus any applicable surcharges. A schedule of asbestos and lead licensing fees and surcharges is available from any Department office upon request and at the Department's website. If the Director denies, revokes, suspends or refuses to renew a license for reasons specified in 454 CMR 28.16, the fee payment is not refundable.

(b) Renewal of an Asbestos Worker License. An Asbestos Worker license is valid for a period of one year. The Director may renew an Asbestos Worker license, provided the current license holder makes written application for renewal. Application for renewal should be made no later than seven calendar days before the expiration of the current license. The submission of a renewal application later than seven days before the expiration of the current license may result in renewal after the expiration of the current license. Said application for renewal must include submission of the items referenced at 454 CMR 28.08(3)(a)1. through 6., including a current certificate of refresher training specified by 454 CMR 28.05(5).

(c) Application for Licensure as an Asbestos Supervisor. In accordance with policies of the EPA set forth pursuant to 40 CFR Part 763, Subpart E, Asbestos Supervisors must be fluent in written and spoken English as a condition of Licensure. Applicants for Licensure as Asbestos Supervisors must submit the following:

1. A completed application form with attachments as prescribed by the Director.
2. Proof of Age and Identification. A list of acceptable forms of identification is available from any Department office upon request.

28.08: continued

3. Asbestos training certificates indicating that the applicant has successfully completed the applicable initial and refresher training requirements specified by 454 CMR 28.05(4)(b), or 454 CMR 28.05(5). Where an applicant has previously been issued an Asbestos Supervisor Certificate by the Department or the asbestos licensing agency of another state, only those certificates for training that have been received since the effective date of the most recently issued Asbestos Supervisor License need be presented. Legible copies of asbestos training certificates may be presented as evidence of successful completion of the required training, except that the training certificate for the most recently received training must be an original. License cards must be presented as documentation of past Licensure. The Director may, at his or her discretion, require the applicant to produce further evidence of having fulfilled the applicable training or Licensing requirements of 454 CMR 28.08(3)(c)3., 28.05(2), 28.05(4)(b) or 28.05(5).

4. Proof of Licensure as an Asbestos Worker or Asbestos Supervisor for at least six months. License cards must be presented as documentation of past Licensure.

5. A list of all citations or notices of violation relating to occupational health and safety and environmental protection, including notices of noncompliance, notices of responsibility, notices of intent to assess an administrative penalty, orders, consent orders and court judgments, received by the applicant in the five years prior to the date of application, and the issuing agency or department and final disposition of such citation or notice.

6. Such other information as the Director may reasonably require.

7. A fee payable to the Commonwealth of Massachusetts in the amount of the entire annual fee established for such license by M.G.L. c. 7, § 3B, plus any applicable surcharges. A schedule of asbestos and lead licensing fees and surcharges is available from any Department office upon request and at the Department's website. If the Director denies, revokes, suspends or refuses to renew a license for reasons specified in 454 CMR 28.16, the fee payment is not refundable.

(d) Renewal of an Asbestos Supervisor License. An Asbestos Supervisor license is valid for a period of one year. The Director may renew an Asbestos Supervisor license, provided the current license holder makes written application for renewal. Application for renewal should be made no later than seven calendar days before the expiration of the current license. The submission of a renewal application later than seven days before the expiration of the current license may result in renewal after the expiration of the current license. Renewal applications may be submitted electronically at the Department's website or by mail to the Department. Said application for renewal must include submission of the items referenced at 454 CMR 28.08(3)(a) through (e), including a current certificate of refresher training specified by 454 CMR 28.05(5).

(e) Recordkeeping Requirements of Asbestos Contractors and Supervisors.

1. Maintenance, Submission and Retention of Records. Asbestos Contractors shall maintain the records as indicated at 454 CMR 28.08(3)(e)2.a. through k. and make said records available to the Director upon request. Entities shall provide photocopies of such records or documents within ten business days of receipt of a written request from the Director. Records and documents required to be kept by 454 CMR 28.08 shall be retained for a period of 30 years from the date of project or activity completions. Entities or persons ceasing to do business, or relocating the principal place of business shall so notify the Director in writing within 30 days of such event. The Director, on receipt of such notification may instruct that the records be surrendered to the Director, or may specify a repository for such records. The entity or person shall comply with the Director's instructions within 60 days.

2. Central Location. The following records and documents shall be maintained by Asbestos Contractors at the principal place of business:

a. Copies of all written materials required to be submitted for Asbestos Contractor licensure pursuant to 454 CMR 28.08.

b. Certificates of Insurance, or legible copies thereof, documenting the Workers Compensation Insurance coverage carried by the Asbestos Contractor. Certificates of Insurance shall indicate that the applicant has coverage under Workers Compensation Classification Codes 5472 or 5473.

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c. Name, address, telephone number, License number and dates of employment of every Asbestos Worker and Supervisor employed by or included within the corporate structure of the Asbestos Contractor.

d. Copies of all asbestos training certificates required by 454 CMR 28.08(3)(a)3. and 454 CMR 28.08(3)(c)3. for every Asbestos Worker and Supervisor utilized by the Asbestos Contractor to perform Asbestos Work.

e. Copies of all Asbestos Worker and Supervisor License cards issued by the Department pursuant to 454 CMR 28.08 for every Asbestos Worker and Supervisor utilized by the Asbestos Contractor to perform Asbestos Work.

f. All records and documents required by 29 CFR 1910.134 and 1926.1101 and any other applicable federal, state or local law, regulation or ordinance.

g. Copies of all contracts awarded for Asbestos Work.

h. Copies of all notifications made by the Asbestos Contractor pursuant to 454 CMR 28.09.

i. Copies of all asbestos analysis and exposure monitoring reports in the possession of the Asbestos Contractor relating to past or present Asbestos Work, including clearance air monitoring reports required by 454 CMR 28.08(3)(e)3.

j. Receipts and documentation of disposal of asbestos waste, showing dates, locations and amounts of asbestos waste disposed, including the identification of the source of the asbestos waste and the transporter (company name or driver name, if an employee of the contractor).

k. Copies of all records required to be maintained on-site by 454 CMR 28.10(3)(e)3.

3. On-site. The following records and documents shall be maintained by the Asbestos Contractor at the asbestos worksite for the duration of the project:

a. A current copy of 454 CMR 28.00. The copy may be available in readable electronic format.

b. A copy of all contract, project design or technical specifications governing the project in the possession of the Asbestos Contractor.

c. A listing of each of the contractors, sub-contractors and consultants on the project.

d. A legible copy of the Massachusetts License card of each Asbestos Worker and each Asbestos Supervisor utilized by the Asbestos Contractor at the worksite.

e. A legible copy of the current certificate of asbestos training of each Asbestos Worker and each Asbestos Supervisor utilized by the Asbestos Contractor at the worksite.

f. The daily sign in/out log required to be maintained by 454 CMR 28.10(4)(a)2.

g. Records of all on-site air monitoring pertaining to the project in the possession of the Asbestos Contractor.

28.09: Notification of Asbestos Project

An Asbestos Contractor or operator of an Asbestos Abatement must notify the Director before engaging in any such work.

(1) Notification must be on forms jointly prescribed by the Director and the MassDEP.

(2) Notification must be electronically-filed, postmarked or hand-delivered at least ten working days before the project start date or, in the case of an Emergency Project, within one working day after the project start date.

(a) Notification must be cancelled, amended, edited and/or resubmitted if work dates change. Intermittent work notifications may be updated by email or phone to the Department as allowed under 310 CMR 7.15(6)(g)4.

(b) Asbestos Contractors who notify for a project and are found to be working during dates not covered by the notification are in violation.

(c) Asbestos Contractors who notify for a project and are found to NOT be working during dates covered by the notification are in violation.

28.09: continued

(3) Fulfillment of the asbestos project notification requirements of the MassDEP through submission of a completed Notification Form ANF-001 (BWP AQ-04) with the appropriate fee where required, satisfies the notification requirements of 454 CMR 28.09.

(4) Fulfillment of the notification requirements of 454 CMR 28.09 shall not relieve the Asbestos Contractor, operator of the project or facility owner of the responsibility for making written notification as may be required by any other municipality, agency of the Commonwealth, or any agency of the federal government.

28.10: Work Practices and Other Requirements for Asbestos Response Actions

(1) Required Use of Certified Asbestos Contractors. Except as allowed by 454 CMR 28.10(1)(a), only Asbestos Contractors certified pursuant to 454 CMR 28.03(2) and 28.05 shall carry out Asbestos Response Actions.

Exception to Certification Requirement for Entities Conducting Response Actions in their Own Facilities. Persons, firms, corporations or other entities who carry out Asbestos Response Actions at their own property or usual place of business or employment using their own regular employees or Responsible Persons need not be licensed as Asbestos Contractors, provided that the requirements of 454 CMR 28.10(2) and (3) are met, and the work is otherwise conducted in accordance with the applicable requirements of 454 CMR 28.00. Uncertified entities who conduct Response Actions in their own Facilities shall be responsible for complying with the notification requirements of 454 CMR 28.09.

(2) Requirement for On-site Supervisor. The Responsible Persons of the certified Asbestos Contractor or other entity carrying out an Asbestos Response Action must ensure that a licensed Asbestos Supervisor who is an employee or Responsible Person of said Asbestos Contractor or entity is present at the work site and in control of the work at all times when work is in progress.

(3) Requirement for Use of Licensed Asbestos Workers. The Responsible Persons of the certified Asbestos Contractor or other entity carrying out an Asbestos Response Action must ensure that all persons who perform the functions of Asbestos Workers in the Work Area are employees or Responsible Persons of said Asbestos Contractor or entity and that said persons are licensed pursuant to 454 CMR 28.03(3).

(4) Required Work Practices. Asbestos Contractors, Asbestos Supervisors and others carrying out, or having supervisory authority over, Asbestos Response Actions must ensure that the work practice requirements of 454 CMR 28.10 are met.

(a) Work Area Preparation.

1. Exclusion of Persons from the Work Area. All persons not directly involved in the work operation must be excluded from the Work Area.
2. Sign In/Out Log. The Asbestos Contractor or other entity carrying out an Asbestos Response Action must ensure that each person entering or leaving the Work Area individually completes the appropriate entries in a sign-in/out log. The sign in/out log must include: the location of the project; current date; printed name; signed name; Massachusetts License number, where applicable; and the time of each entry or exiting.
3. Posting of Warning Signs. Warning signs meeting the specifications set forth in 29 CFR Part 1926.1101(k)(7) must be posted at all approaches to the Work Area. Signs must be posted a sufficient distance from the Work Area to permit a person to read the sign(s) and take precautionary measures to avoid exposure to asbestos. Signs must be in place from Work Area preparation until final clearance.
4. Shutdown of HVAC Systems. The facility heating, ventilating and air conditioning (HVAC) systems of the Work Area must be shut down, locked out and isolated.
5. Removal of Moveable Objects. All moveable objects must be removed from the Work Area prior to an asbestos response action. Items to be reused which may have been contaminated with asbestos must be decontaminated by HEPA vacuuming or wet cleaning prior to their being removed from the Work Area.

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6. Non-movable Objects. All non-moveable or fixed objects remaining within the Work Area that have not been contaminated with asbestos must be wrapped or covered with six-mil thick (minimum) plastic sheeting. Plastic sheet coverings must be completely sealed with duct tape or equivalent.

7. Isolation of Work Area. The Work Area must be isolated by sealing all openings including, but not limited to, windows, doors, ventilation openings, drains, grilles, and grates with six-mil thick (minimum) plastic sheeting and duct tape or the equivalent. For Asbestos Response Actions performed in Public Facilities, large openings such as open doorways, elevator doors, and passageways must be first sealed with solid construction, such as plywood over studding, which must constitute the outermost boundary of the asbestos Work Area. All cracks, seams and openings in such solid construction must be caulked or otherwise sealed, so as to prevent the movement of asbestos fibers out of the Work Area.

8. Covering of Ceiling, Floor and Wall Surfaces. Except as allowed by 454 CMR 28.10(4)(a)8.a. through c., ceiling, floor and wall surfaces must be covered with plastic sheeting. All seams and joints must be sealed with duct tape or equivalent. Floor covering must consist of at least two layers of six-mil plastic sheeting, with the edges up-turned to cover at least the bottom 12 inches of the adjoining wall(s). Wall and ceiling covering must consist of a minimum of two layers of four-mil plastic sheeting. Wall covering must extend from ceiling to floor and overlap the up-turned floor coverings without protruding onto the floor. Duct tape or equivalent must be used to seal the seams in the plastic sheeting at the wall to floor joints.

a. Exception to Covering Requirement Where Surfaces Are Impervious. Compliance with 454 CMR 28.10(4)(a)8. is optional where these surfaces are covered by ceramic tile or other impervious materials that are free from holes, drains, cracks, fissures or other openings and which may be thoroughly decontaminated by washing at the conclusion of the work, provided that such action does not result in the passage of asbestos fibers from the Work Area.

b. Exception to Covering Requirement for Abatement Surfaces. Compliance with 454 CMR 28.10(4)(a)8. is not required for those floor and wall surfaces from which asbestos coverings are removed.

c. Exception to Wall Surface Covering Requirement Where Glove Bags Are Used. Covering of wall and ceiling surfaces is optional for Asbestos Response Actions where Glove bags are used as the sole means of removal or repair, provided that the Work Area is isolated in accordance with 454 CMR 28.10(4)(a)7., that all moveable objects in the Work Area are removed in accordance with 454 CMR 28.10(4)(a)5., that immoveable objects remaining in the Work Area are covered in accordance with 454 CMR 28.10(4)(a)6. and that all other relevant requirements of 454 CMR 28.10(4)(a)8.b.i. Where Glove bags are used, the floor of the Work Area must be covered with a minimum of one layer of six-mil thick plastic sheeting.

9. GFCI Protection. All sources of electric power for the Work Area must be ground fault circuit interrupter (GFCI) protected.

(b) Use of Decontamination Facilities.

1. Requirement for Use. Asbestos Contractors and others carrying out Asbestos Response Actions must supply and ensure the use of a three-compartment decontamination facility, as prescribed by 29 CFR Part 1926.1101(j)(1). Except as may be required during emergencies which endanger life or health, the decontamination facility must be the sole means through which the isolated work space is accessed while work is in progress.

2. Exception to Decontamination System Requirement for Work Less than 25 Linear/Ten Square Feet. A change room may be used in *lieu* of the three-compartment decontamination facility specified by 454 CMR 28.10(4)(b)1. on projects which involve the disturbance of less than 25 linear feet or less than ten square feet of ACM. Change rooms must be constructed and operated in accordance with OSHA Asbestos Regulations 29 CFR Part 1926.1101(j)(2).

3. Warm Water Required. Warm water must be supplied to the showers of the decontamination facility required by 454 CMR 28.10(4)(b)1.

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4. Decontamination of Personnel Required. No abatement personnel may leave the Work Area without first decontaminating their persons by showering, wet washing or HEPA vacuuming to remove all asbestos debris.

5. Location of Decontamination Facilities. Where feasible, decontamination facilities must be contiguous with the Work Area. Where this is not feasible, the decontamination facility must be sited as closely as possible to the Work Area. Persons using such a remotely-sited decontamination facility must remove visible debris from their persons by HEPA vacuuming prior to donning clean disposable coveralls while still in the Work Area, and then proceed directly to the remote decontamination system to shower and change clothes.

6. Equipment Decontamination. No equipment, supplies, or materials (except properly containerized waste material) must be removed from an asbestos Work Area, unless such equipment, supplies or materials have been thoroughly cleaned free of asbestos debris. Where decontamination is not feasible, such materials must be wrapped in a minimum of two layers of six-mil polyethylene sheeting with all joints, seams and overlaps sealed with tape or containerized in a metal, plastic or fiber drum with a locking lid. Said wrapped equipment, supplies or materials must be labeled as being asbestos-contaminated prior to removal from the Work Area. HEPA vacuums must be emptied of contents prior to removal from the Work Area. Air filtration devices must have used pre-filters and intermediate filters removed and replaced with fresh filters prior to removal from the Work Area. Used HEPA filters, intermediate and pre-filters must be disposed of as asbestos waste.

7. Requirements for Clean Room. A clean area or room (clean room) must be provided with lockers or other appropriate containers for the storage of each worker's clothes and personal items. A trash container for non-contaminated waste must be provided in the clean room and emptied at the end of each work day. The clean room must be maintained in a clean and sanitary condition at all times.

(c) Requirement for Work Area Ventilation System. A HEPA-filtered Work Area ventilation system must be used to maintain a reduced atmospheric pressure of at least -0.02 column inches of water pressure differential within the contained Work Area. The system must be in operation at all times from the commencement of the asbestos project until the requirements of 454 CMR 28.10(11)(a) and (b) have been met. The ventilation equipment utilized must be of sufficient capacity to provide a minimum of four air changes per hour. Ventilation units must be operated in accordance with Appendix J of EPA Guidance Document EPA 560/5 85 024 and 29 CFR Part 1926.1101(g)(5)(i). Make up air entering the Work Area must pass through the decontamination area whenever possible. Exhaust air must be HEPA-filtered before being discharged outside of the Work Area. Exhaust air tubes or ducts associated with the Work Area ventilation system must be free of leaks. Where feasible, exhaust air must be discharged to the outside of the building. If access to the outside is not available, exhaust air may be discharged to an area within the building, but in no case must exhaust air be discharged into occupied areas of the building or into areas of the building which contain exposed or damaged asbestos. When exhaust air is discharged to the interior of a building, the outflow must be sampled and analyzed at least twice per day per machine, using sampling and analysis methods prescribed by the NIOSH Analytical Method 7400 referenced at 40 CFR Part 763, Appendix A. If at any time fiber levels in the exhausted air exceed 0.01 fibers/cc, the work operation must stop immediately, and the corresponding ventilation unit(s) must be shut off and repaired or replaced before the Asbestos Response Action is resumed.

1. Exception to Work Area Ventilation System Requirement for Work Less than 25 Linear/Ten Square Feet. Compliance with 454 CMR 28.10(4)(c) is optional for Asbestos Response Actions which involve the removal, encapsulation or enclosure of 25 or fewer linear feet of asbestos on or in pipes, ducts or wires or ten or fewer square feet of asbestos on or in structures or components other than pipes, ducts or wires.

2. Exception to Work Area Ventilation System Requirement Where Glove Bags Are Used. Compliance with 454 CMR 28.10(4)(c) is optional for Asbestos Response Actions where Glove bags are used as the sole means of removal or repair.

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(d) Work Procedures.

1. Wetting of Asbestos. Prior to removal, ACM must be adequately wetted with Amended Water. Water must not be applied in amounts that will cause run off or leakage of the water from the Work Area. Once removed, ACM must be kept wet until containerized pursuant to 454 CMR 28.10(4)(d)2. and 310 CMR 7.15: *U Asbestos*.

2. Containerization of Asbestos. Removed ACM and asbestos-contaminated debris within the Work Area must be promptly cleaned up and containerized. Containerized ACM must be removed from the Work Area at least once each working shift. Waste not containing components with sharp edges must be containerized in two plastic bags (six-mil minimum thickness each bag, one inside the other) or in metal, plastic or fiber drums with locking lids. ACM with sharp edged components must be contained in leak-proof metal, plastic or plastic-lined, drums or boxes. Large components removed intact must be wrapped in a minimum of two layers of six-mil polyethylene sheeting with all joints and seams sealed with duct tape, and labeled as ACM prior to removal from the contained Work Area.

3. Material Deposition. ACM must not be dropped or thrown from heights greater than 15 feet. Asbestos-containing asphaltic shingles or felts shall not be dropped or thrown to the ground. Unless the material is carried or passed to the ground by hand, it shall be lowered to the ground by crane or hoist or transferred in dust-tight chutes.

4. Enclosure. Where ACM is enclosed during an Asbestos Response Action, the following provisions must also apply:

a. Enclosures over pipes, ducts, tanks, boilers or other objects must be labeled as containing ACM and identified on building records.

b. Enclosure systems must be constructed to be dust tight.

5. Encapsulation. Encapsulants must not be applied to severely damaged or deteriorating ACM.

6. Demolition. The notification provisions 454 CMR 28.09 and the provisions of 454 CMR 28.10 apply to the demolition of any facility containing ACM. Such work must also be performed in conformance with 310 CMR 7.00: *Air Pollution Control*, 310 CMR 19.000: *Solid Waste Management* and 310 CMR 40.000: *Massachusetts Contingency Plan* and the requirements of the EPA National Emission Standard for Asbestos (NESHAP), as contained in 40 CFR Part 61, Subpart M.

7. Abatement of Friable ACM Exposed during Response Action. Any Friable ACM that has been exposed as a result of an Asbestos Response Action must be suitably removed, enclosed or encapsulated in accordance with 454 CMR 28.10(4)(d)4. or 28.10(4)(d)5.

(5) Specific Work Practice Requirements for Glove Bag Operations. Asbestos Contractors and others having supervisory authority over Asbestos Response Actions involving glove bag use must ensure that the following work practice requirements are met:

(a) Glove bags must be used only on those structures or surfaces for which they are specifically designed, and they must be used without modification. Glove bags must be constructed of six-mil thick (minimum) plastic sheeting and be seamless at the bottom.

(b) Glove bags must be used only once and must not be moved along the surface to which they are applied.

(c) Glove bags must not be applied to structures hotter than 150°F, or per manufacturer's specifications.

(d) The Work Area may be isolated in accordance with 454 CMR 28.10(4)(a)7. and must be cleaned of visible debris by wet wiping or HEPA vacuuming prior to installation of the glove bag.

(e) Glove bags must be installed so as to form an airtight covering over the structure to which they are applied, and smoke testing used to validate airtight installation. Any friable ACM in the immediate area of glove bag attachment must be wrapped and sealed in two layers of six-mil plastic sheeting or otherwise rendered intact prior to glove bag installation. Where points of attachment of the glove bag are not intact, they must be rendered intact by wrapping with re-wettable fiberglass cloth, or an equivalent material, prior to attaching the glove bag. All openings in the glove bag must be sealed against leakage with duct tape or equivalent material.

(f) ACM must be wet with Amended Water prior to its removal and maintained in a wet condition inside the glove bag.

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(g) Any ACM that has been exposed as result of the glove bag operation must be suitably removed, encapsulated or enclosed so as to prevent the leakage of asbestos fibers prior to the removal of the glove bag.

(h) All surfaces from which ACM has been removed inside the glove bag and the upper portions of the glove bag itself must be cleaned free of visible debris prior to removal of the glove bag.

(i) Debris must be isolated in the bottom of the glove bag by twisting the bag so as to form a closure in the middle. This closure must then be taped around with duct tape or equivalent material. Air in the glove bag must be exhausted with a HEPA vacuum cleaner prior to its removal.

(j) Following removal from the structure, the glove bag and its contents must be containerized in accordance with 454 CMR 28.10(4)(d)2. and disposed of in accordance with 454 CMR 28.10(8)(a).

(6) Cleanup. Following an Asbestos Response Action, the Asbestos Contractor or entity performing the work must decontaminate all contaminated surfaces within the Work Area using HEPA vacuuming or wet cleaning techniques, including surfaces contaminated prior to the Asbestos Response Action. All equipment and materials used and all surfaces from which ACM has been removed must be decontaminated. If asbestos materials were not substantially intact at time of removal; an inch of soil must be removed from dirt floors and disposed of as asbestos containing waste. All cleanup materials must be disposed of as asbestos waste. Cleanup must be to the level of no visible debris.

(7) Clearance Monitoring. Following the cleanup required by 454 CMR 28.10(6), the facility owner, Asbestos Contractor, entity conducting the Asbestos Response Action, or the Asbestos Project Monitor employed to oversee the work operation must ensure that the clearance monitoring requirements of 454 CMR 28.10(4)(9), (10) and (11) are met. Until these conditions are achieved all Work Area barriers must remain in place, Work Area ventilation systems (if required) will remain in operation, respirators and other personal protective equipment must be worn and all other work practice controls, as required by 454 CMR 28.10(4) must remain in effect.

(8) Disposal Requirements.

(a) Waste. Any ACM and any materials contaminated with ACM that are removed from a facility must be handled and disposed of as an asbestos containing waste in conformance with EPA NESHAPS Regulations at 40 CFR Part 61 and 310 CMR 7.00: *Air Pollution Control* and 310 CMR 19.000: *Solid Waste Management*.

(b) Transport. Only asbestos waste which has been properly containerized pursuant to 454 CMR 28.10(6) may be transported from the point of generation. Transport must be in covered vehicles or locked containers. Transportation of asbestos waste must be in conformance with EPA NESHAP Regulations at 40 CFR Part 61 and applicable standards of the U.S. Department of Transportation, OSHA and the MassDEP.

(9) Clearance Monitoring Procedures. The clearance monitoring procedures specified by 454 CMR 28.10(10) and (11) must be performed only by a licensed Asbestos Project Monitor who is not an employee or Responsible Person of the Asbestos Contractor or entity which conducted the work, and therefore, must be contracted by the facility owner/operator directly, including any Class C Analytical Services providing Project Monitor services. The Asbestos Contractor may not subcontract with an Asbestos Project Monitor, or Asbestos Consulting Service Provider, to perform the visual inspection required by 454 CMR 28.10(10) or the clearance air monitoring required by 454 CMR 28.10(11) for an Asbestos Response Action conducted in a facility subject to the requirements of AHERA.

(10) Visual Inspections. A licensed Asbestos Project Monitor must inspect all surfaces within the Work Area for dust, debris and other particulate residue. Should any Visible Debris be found in the Work Area, it must be repeatedly cleaned by the Asbestos Contractor or entity performing the work in accordance with 454 CMR 28.10(6) until the no visible debris criterion is achieved. Where clearance air monitoring is required by 454 CMR 28.10(11), the achievement of the no visible debris criterion must precede the collection of clearance air monitoring samples.

28.10: continued

(11) Clearance Air Monitoring. The clearance air monitoring requirements of 454 CMR 28.10(11) must be met for all Asbestos Response Actions, except for those involving the complete demolition of facilities, or those conducted in facilities not subject to the requirements of AHERA where the Glove Bag is used as the sole means of removal or repair.

(a) Clearance Air Monitoring Requirements for Larger Asbestos Response Actions Conducted in School Facilities Subject to AHERA. For Asbestos Response Actions conducted in school facilities subject to AHERA which involve the removal, encapsulation or enclosure of greater than 160 square feet or 260 linear feet of friable ACM, clearance air monitoring samples must be collected and analyzed by transmission electron microscopy (TEM) as prescribed by 40 CFR Part 763, Appendix A through Subpart E with analysis by an Asbestos Analytical Service Provider.

1. In addition to adhering to the above, the licensed Asbestos Project Monitor must use a rotameter or other appropriate flow measuring device, the calibration of which is traceable to a primary standard, to measure the air flow in the sampling train immediately prior to and immediately following the collection of the clearance air monitoring samples.

2. Air samples must be collected within a negative pressure enclosure using the aggressive sampling methods described in 40 CFR Part 763, Subpart E, Appendix A.

3. The analysis of all clearance air monitoring samples collected pursuant to the requirements of 454 CMR 28.10(11) must be analyzed by Analytical Service Provider certified and approved pursuant to 454 CMR 28.06.

4. Where clearance air monitoring samples are collected and analyzed pursuant to the requirements of 454 CMR 28.10(11), an Asbestos Response Action must be considered complete when the average concentration of asbestos in five air samples collected within the work area and analyzed by the TEM protocol described in 40 CFR Part 763, Subpart E, Appendix A, is not statistically different, as determined through application of the Z-test calculation found in that Appendix A, from the average asbestos concentration of five air samples collected at the same time outside the work area and analyzed in the same manner, and the average asbestos concentration of the three field blanks described in the same Appendix A of Subpart E, of 70 structures per square millimeter.

5. An action may also be considered complete if the volume of air drawn for each of the five samples collected within the work area is equal to or greater than 1,199 L of air for a 25 mm filter or equal to or greater than 2,799 liters of air for a 37 mm filter, and the average concentration of asbestos as analyzed by the TEM method in 40 CFR Part 763, Subpart E, Appendix A, for the five air samples does not exceed the filter background level of 70 structures per square millimeter.

6. Should the work area fail the clearance air testing requirements of 454 CMR 28.10(11)(4) or (5), as applicable, it must be repeatedly cleaned by the Asbestos Contractor or other entity performing the work as prescribed by 454 CMR 28.10(6) until the requirements of 454 CMR 28.10(11)(4) or (5) are met.

(b) Clearance Air Monitoring Requirements for Smaller Asbestos Response Actions Conducted in School Facilities and Asbestos Response Actions of All Sizes Conducted in Non-school Facilities. For Asbestos Response Actions conducted in school facilities subject to AHERA which involve the removal, encapsulation or enclosure of 160 square feet (or less) or 260 linear feet (or less) of ACM, and for all Asbestos Response Actions conducted in all non-school facilities, clearance monitoring samples must be collected and analyzed using either the transmission electron microscopy (TEM) method prescribed by 454 CMR 28.10(1)(4) or (5) the phase contrast microscopy method, NIOSH Analytical Method 7400. Where the TEM method of analysis is elected, the sampling, analysis, and clearance level requirements must be as prescribed at 454 CMR 28.10(11), and 40 CFR Part 763, Appendix A through Subpart E. Where the phase contrast microscopy method, NIOSH Method 7400, is used, clearance air monitoring samples must be collected and analyzed as prescribed by the NIOSH 7400 Method and 454 CMR 28.10(11)(b)1. through 4.

1. In addition to adhering to the above, the licensed Asbestos Project Monitor must use a rotameter or other appropriate flow measuring device that has been calibrated to a primary standard within the past six months, to measure the air flow in the sampling train immediately prior to and immediately following the collection of the clearance air monitoring samples.

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2. Air samples must be collected within a negative pressure enclosure using the aggressive sampling methods described in 40 CFR Part 763, Subpart E, Appendix A.

3. For facilities subject to the requirements of AHERA at least five samples, or one sample per room, whichever is greater, must be collected and analyzed. For non-AHERA facilities at least one sample for each 500 linear/1000 square feet of asbestos or portion thereof, or one sample per room, whichever is greater, must be collected and analyzed. The collection and analysis of all samples must be in accordance with the NIOSH 7400 Method. No fewer than 1080 liters of air must be collected for clearance air samples where the NIOSH 7400 Method is used for analysis.

4. Where clearance air monitoring samples are collected and analyzed using phase contrast microscopy pursuant to 454 CMR 28.10(11)(b), an Asbestos Response Action must be considered complete when the concentration of asbestos in each of the air samples collected inside the contained work space is less than or equal to 0.010 fibers per cubic centimeter of air.

5. Should the work area fail the clearance air testing requirements of 454 CMR 28.10(11)(b)5., it must be repeatedly cleaned by the Asbestos Contractor or other entity performing the work as prescribed by 454 CMR 28.10(6) until the requirements of 454 CMR 28.10(11)(b)4. are met.

6. All analyses of clearance air monitoring samples by phase contrast microscopy pursuant to 454 CMR 28.10(11)(b) must be performed by an Asbestos Analytical Service licensed and approved pursuant to 454 CMR 28.06(1)(c).

28.11: Requirements and Work Practices for Floor and Wall Asbestos Operations and Maintenance Projects

(1) Applicability of Standards. Operations and Maintenance Projects, as defined at 454 CMR 28.02, shall be carried out in accordance with the requirements of 454 CMR 28.11. Where Operations and Maintenance Projects cannot be carried out in accordance with the requirements of 454 CMR 28.11, said Projects shall be carried out in accordance with 454 CMR 28.10. For buildings not subject to 454 CMR 28.13 (AHERA), the amount of material disturbed during Operations & Maintenance Projects shall not exceed ten square feet or 25 linear feet and is not the sum of the individual layers (ten square feet of floor tile and ten square feet of related asbestos mastics would be considered ten square feet of material).

(2) General Requirements for Asbestos Operations and Maintenance Projects.

(a) Exemption from Licensing Requirements; Requirements for Training.

1. Persons or entities who carry out Asbestos Operations and Maintenance Projects need not be certified as Asbestos Contractors or licensed as Asbestos Workers or Asbestos Supervisors, provided that all persons participating in the work have received the Asbestos Operations and Maintenance Projects Worker training specified by 454 CMR 28.05(8), and the applicable refresher training specified at 454 CMR 28.05(8)(a)4. and the work is conducted in accordance with the applicable provisions of 454 CMR 28.11.

2. Persons performing Operations and Maintenance Work involving only the removal of asphaltic shingles and felts according to requirements set forth at 454 CMR 28.11(5) may comply with the OSHA training requirements set forth at 29 CFR Part 1926.1101(k)(9)(iv) or the corresponding EPA training requirements specified by 40 CFR Part 763, Subpart G, as applicable, in *lieu* of fulfilling the training requirements of 454 CMR 28.05(8) and 28.05(8)(d).

3. Persons who have received the Asbestos Worker training specified at 454 CMR 28.05(4)(a) or the Asbestos Supervisor training specified at 454 CMR 28.05(4)(b) and the applicable refresher training specified at 454 CMR 28.05(5) will be considered to have met the training requirements for participation in Asbestos Operations and Maintenance Projects.

4. Persons carrying out Asbestos Operations and Maintenance Projects in their own single-family, owner-occupied homes are exempted from the training requirements of 454 CMR 28.05(8) and (8)(d).

(b) Personal Protection. All employees who perform Asbestos Operations and Maintenance Projects shall be comply with personal protection in accordance with the requirements of 454 CMR 28.04.

28.11: continued

(c) Notification Requirements. Persons or entities carrying out Asbestos Operations and Maintenance Projects shall comply with the applicable notification requirements of 454 CMR 28.09 and 28.11.

(3) General Work Practice Requirements. Persons or entities carrying out, or having supervisory authority over Asbestos Operations and Maintenance Projects shall ensure that the work practice requirements of 454 CMR 28.11(3)(a) through (3)(k) are met. Persons or entities carrying out, or having supervisory authority over, Asbestos Operations and Maintenance Projects involving the removal or disturbance of: vinyl asbestos tile; sheet asbestos-containing floor coverings; asbestos-containing floor mastic; asbestos-containing gypsum board and joint compounds; shall additionally comply with the applicable requirements of 454 CMR 28.11(4) through (6).

(a) All persons not directly involved in the work shall be excluded from the Work Area for the duration of the project by physical barriers or other appropriate means.

(b) Dust tight barriers shall be constructed, as necessary, to ensure that asbestos-containing dust released during work activities is contained within the Work Area. Glove bags and prefabricated mini-enclosures are permitted in place of constructed barriers.

(c) Sources of electric power for power tools or other equipment used in the Work Area shall be ground fault circuit interrupter (GFCI) protected.

(d) ACM shall be wet with Amended Water before it is disturbed, and it shall be kept wet throughout the work operation until properly containerized. In accordance with 454 CMR 28.10(4)(d)1., an exception to the wetting requirement may be granted by the Director, where wetting of Asbestos-containing Material would create slipping, electrical or other safety hazards.

(e) Where ACM is being removed, it shall be removed in an intact state to the greatest feasible extent.

(f) Where power tools are used to cut, chip or abrade an Asbestos-containing Material, said power tools shall be equipped with HEPA-filtered local exhaust attachments specifically manufactured for the tools being used.

(g) Any friable ACM exposed as a result of the work operation shall be enclosed behind dust-tight barriers or encapsulated. Encapsulants shall not be applied to severely damaged or deteriorated ACM.

(h) HEPA vacuuming or wet cleaning shall be used to decontaminate the Work Area and any equipment used in the work operation until all surfaces are free of Visible Debris. The use of compressed air or dry-sweeping is prohibited.

(i) HEPA vacuums shall be emptied and decontaminated in accordance with 454 CMR 28.10(4)(b)6.

(j) Clearance Inspections. All surfaces within the Work Area shall be visually inspected for dust, debris and other particulate residue by persons who have been trained pursuant to 454 CMR 28.05(4)(c) or (f) who are not employees or Responsible Persons of the Contractor or other entity performing the work. The Work Area shall be repeatedly cleaned by the Contractor or other entity carrying out the work operation until the no Visible Debris criterion is achieved.

(k) Disposal Requirements. Asbestos-containing debris shall be containerized, labeled, transported and disposed in accordance with 454 CMR 28.10(4)(d)2. and (5)(i); 310 CMR 7.00: *Air Pollution Control* and 310 CMR 19.000: *Solid Waste Management*; the EPA National Emission Standard for Asbestos (NESHAP) as contained in 40 CFR Part 61, Subpart M; and other applicable state and federal standards.

(4) Special Procedures for the Removal of Asbestos Floor Tile, Sheet Floor Coverings and Asbestos Mastics as Operations and Maintenance Work.

(a) General Requirements.

1. Persons carrying out the removal of asbestos floor tile, sheet floor coverings and mastics must presume that said materials contain asbestos, unless asbestos bulk analysis or manufacturer's specifications indicate otherwise.

2. Asbestos floor tile, sheet floor coverings and mastics being removed must not be sanded, dry-swept, dry-scraped, drilled without a HEPA shroud, sawed, abrasive-blasted, mechanically chipped or pulverized.

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3. All furniture and other movable objects must be removed from the Work Area before asbestos response action begins. All non-moveable objects in the Work Area must be wrapped or covered with six-mil thick (minimum) plastic sheeting. Plastic sheet coverings must be completely sealed with duct tape or equivalent.

4. The entire floor surface from which asbestos floor tile or sheet floor coverings are to be removed must be vacuumed with a HEPA vacuum prior to removal of the floor tile or coverings.

5. Work shall be in compliance with the Resilient Floor Coverings Institute (RFCI) document Recommended Work Practices for Removal of Resilient Floor Coverings Published January 2018 found at www.rfci.com and on the Department's website, incorporated by reference.

(b) Procedures for Removal of Asbestos Floor Tile.

1. Except as allowed by 454 CMR 28.11(4)(b)3., floor tiles must be wetted with amended water prior to removal and kept wet throughout the removal process.

2. Floor tiles must be individually removed by prying upward with hand scrapers or similar hand-held tools in a manner which minimizes breakage. Removal with spud-bars, ice scrapers or similar implements is not allowed. Where tile do not readily release from underlying mastic, the removal tool may be struck with a hammer to facilitate release. Floor tile must be removed in an intact state to the extent feasible.

3. Surfaces of tiles may be heated with a heat gun or other heat source to soften the adhesive and facilitate tile removal. Where heat is used to facilitate removal, the wetting of the tile specified by 454 CMR 28.11(4)(b)1. may be delayed until after release of the tile from the floor surface.

4. Removed floor tile and asbestos-contaminated debris within the Work Area must be promptly cleaned up and containerized while still wet. Containerized ACM must be removed from the Work Area at least once each working shift. Waste not containing components with sharp edges must be containerized in two plastic bags (six-mil minimum thickness each bag, one inside the other) or in metal, plastic or fiber drums with locking lids. Floor tile with sharp edges and sharp edged components likely to puncture the plastic bags specified above must be contained in leak-proof metal, plastic or plastic-lined, drums or boxes. The outer surface or layer of waste material shall be free of asbestos contamination before exiting the Work Area.

5. Following containerization of floor tile and associated debris, the floor surface must be HEPA-vacuumed while still wet and then allowed to dry.

6. Immediately after drying, the floor surface must be HEPA-vacuumed again before the visual inspection required by 454 CMR 28.11(3)(j) is performed.

(c) Procedures for Removal of Sheet Asbestos Flooring.

1. Where it is necessary to cut sheet asbestos flooring to facilitate handling, the same must be cut with a knife. Tearing or sawing of sheet asbestos flooring as a method of removal is prohibited.

2. Where sheet asbestos flooring adheres to the floor surface, points of adhesion must be continually misted or sprayed with amended water as these points are separated during the removal process. Hand scrapers or similar hand tools may be used to facilitate release of the sheet flooring from the underlying surface.

3. Removed sheet flooring and asbestos-contaminated debris within the Work Area must be promptly cleaned up and containerized while still wet. Containerized ACM must be removed from the Work Area at least once each working shift. Waste not having sharp-edged components must be containerized in two plastic bags (six-mil minimum thickness each bag, one inside the other) or in metal, plastic or plastic-lined drums or boxes. Removed material or debris with sharp edges and sharp edged components likely to puncture the plastic bags specified above must be contained in leak-proof metal, plastic or plastic-lined, drums or boxes. The outer surface or layer of waste material shall be free of asbestos contamination before exiting the Work Area.

4. Following containerization of sheet floor covering and associated debris, the floor surface must be HEPA-vacuumed while still wet and then allowed to dry.

5. Immediately after drying, the floor surface must be HEPA-vacuumed again before the visual inspection required by 454 CMR 28.11(3)(j) is performed.

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(5) Special Procedures for the Removal or Repair of Asbestos-containing Gypsum Board/Joint Compound Systems as Operations and Maintenance Work.

(a) Where removal of sections of gypsum board is required, said sections must be removed intact to the greatest extent feasible.

(b) Where gypsum board/joint compound systems must be cut to allow removal or refitting of sections, only the minimum number of cuts necessary to accomplish said removal or refitting must be permitted.

(c) Manually operated tools or power tools fitted with HEPA-filtered vacuum attachments must be used for the cutting or resurfacing of asbestos-containing gypsum board/joint compound systems.

(d) Where manually operated tools are used for the cutting or resurfacing of gypsum board/joint compound systems, the area being cut must be continually misted with amended water during the cutting operation.

(e) Dry sanding of asbestos-containing wallboard/joint compound systems during refinishing operations must not be allowed; only wet sanding is permitted.

(f) Where holes of ½" or less in diameter are to be drilled through asbestos gypsum board/joint compound systems, the area encompassing the hole must be covered with a sufficient quantity of shaving foam, or other suitable engineering control, to catch the generated chips and dust. Where holes of greater than ½" are to be drilled, the area being drilled must be continually misted with Amended Water during the drilling operation.

28.12 Special Procedures for the Removal of Asbestos Roofing and Siding Materials

(1) Requirements for Asphaltic Shingles and Felts.

(a). Asphaltic shingles and felts must be removed intact to the greatest extent feasible.

(b). Roof level heating and ventilation air intake sources must be isolated by covering with plastic sheeting prior to the start of the work.

(c). Wet methods must be used to remove asphaltic shingles and felts that are not intact, or will be rendered non-intact by the removal, unless such wet methods are not feasible or will create safety hazards. This requirement notwithstanding, removal or repair of sections of intact roofing does not require the use of wet methods or HEPA vacuuming as long as the methods used in the removal or repair do not render the roofing material non-intact, and no visible emissions are produced.

(d). Where cutting machines are used in the removal of asphaltic shingles and felts, said cutting machines shall be equipped with a HEPA vacuum to capture dust produced by the cutting process. Cutting machines that are not equipped with a HEPA vacuum to capture dust produced by the cutting process shall only be used inside a work area for which containment sufficient to prevent visible emissions of fugitive dust to the ambient air has been established.

(e). Where cutting machines are used in the removal of asphaltic shingles and felts, the material shall be adequately wetted throughout the cutting process.

(f). Dust produced by power roof cutters operating on aggregate surfaces must be removed by HEPA vacuuming. Dust produced by power roof cutters operating on non-aggregate, smooth surfaces must be removed by HEPA vacuuming or wet wiping along the cut line.

(g). Asbestos-containing shingles or felts must not be dropped or thrown to the ground. Unless the material is carried or passed to the ground by hand, it must be lowered to the ground by crane or hoist or transferred in dust-tight chutes.

(h). Intact asphaltic shingles and felts must be lowered to the ground not later than the end of each shift. Where feasible, non-intact asphaltic shingles and felts must be kept wet at all times while on the roof, placed in an impermeable waste bag (six-mil minimum thickness) or wrapped in plastic sheeting (six-mil minimum thickness), sealed with duct tape and lowered to the ground not later than the end of each work shift.

(2) Requirements for Cementitious Asbestos-Containing Shingles, Siding and Panels.

(a). Tarpaulin or plastic sheeting will be spread on the ground under the areas where the shingles, siding or panels are being removed. Said tarpaulin or plastic sheeting must extend away from the edge of the building and to either side of the work area a sufficient distance to catch any debris generated by the work operation. Tarpaulin or sheeting must be cleaned of accumulated debris no later than the end of each work shift.

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(b) Openings of windows on the side of the building where the work is taking place must be closed or sealed with polyethylene sheeting and duct tape in a manner sufficient to prevent leakage of dust or debris to interior spaces.

(c) Cementitious asbestos-containing shingles, siding and panels must be removed whole and intact to the greatest feasible extent. Methods predisposing shingles siding or panels to breakage during removal is prohibited.

(d) Each panel or shingle must be adequately wetted with Amended Water prior to removal.

(e) Nails securing shingles must be cut or pulled prior to shingle removal. Shingles, siding or panels must be carefully lowered to the ground to avoid breakage.

(f) Removed shingles, siding or panels and associated debris must be containerized in leak-proof metal, plastic or plastic-lined drums or boxes or wrapped with double thickness plastic sheeting (six-mil minimum thickness each layer) sealed with duct tape no later than the end of each work shift. The outer surface or layer of waste material shall be free of asbestos contamination before exiting the Work Area.

(g) Persons performing work involving only the removal of asbestos roofing and siding materials may comply with the OSHA training requirements set forth at 29 CFR 1926.1101(k)(9)(iv) or the corresponding EPA training requirements specified by 40 CFR Part 763, Subpart G, as applicable, in *lieu* of fulfilling the training requirements of 454 CMR 28.00.

(h) Clearance Inspections. The Work Area and perimeter shall be visually inspected for dust, debris and other particulate residue. The Work Area and perimeter shall be repeatedly cleaned by the Contractor or other entity carrying out the work operation until the no Visible Debris criterion is achieved.

(i) Persons performing work involving only the removal of asbestos roofing and siding materials must retain records and documents for a period of at least 15 years.

28.13: Requirements for Schools Subject to AHERA

In accordance with Massachusetts Department of Labor Standards Delegation from EPA effective October 24, 1998, published in the *Federal Register* on Tuesday, October 27, 1998, schools subject to AHERA must comply with 454 CMR 28.13 after July 1, 2020. Inspections, samplings, assessments, and response actions conducted prior to July 1, 2020 must be in accordance with 40 CFR Part 763, and 454 CMR 28.13. Unless required by circumstances such as renovation and demolition activities, resampling of materials is not required by 454 CMR 28.13. All definitions for terms in this document are found at 454 CMR 28.02, which are as consistent as practicable with EPA and OSHA.

454 CMR:

28.13(1): *General Local AgencyRequirements*;
28.13(2): *Inspections and Reinspections*;
28.13(3): *Sampling*;
28.13(4): *Analysis*;
28.13(5): *Assessment*;
28.13(6): *Response Actions*;
28.13(7): *Operations and Maintenance*;
28.13(8): *Training and Periodic Surveillance*;
28.13(9): *Management Plans*;
28.13(10): *Recordkeeping*;
28.13(11): *Warning Labels*;
28.13(12): *Exclusions*; and
28.13(13): *Effective Date*.

(1) General Local Education Agency (LEA) Requirements.

(a) Each local education agency must:

1. Ensure that the activities of any persons who perform inspections, reinspections, and periodic surveillance, develop and update management plans, and develop and implement response actions, including operations and maintenance, are carried out in accordance with 454 CMR 28.00.

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2. Ensure that all custodial and maintenance employees are properly trained as required by this document and other applicable Federal and/or State regulations (*e.g.*, the Occupational Safety and Health Administration asbestos standard for construction, 29 CFR 1926.1101, or 454 CMR 25.00: *Occupational Safety and Health for Public Sector Workers*).

3. Ensure that workers and building occupants, or their legal guardians, are informed at least once each school year about inspections, response actions, and post-response action activities, including periodic reinspection and surveillance activities that are planned or in progress.

4. Ensure that short-term workers (*e.g.*, telephone repair workers, utility workers, computer cabling or exterminators) who may come in contact with asbestos in a school are provided information regarding the locations of ACM and suspected ACM assumed to be ACM.

5. Ensure that warning labels are posted in accordance with 454 CMR 28.13(11).

6. Ensure that management plans are available for inspection and notification of such availability has been provided as specified in the management plan under 454 CMR 28.13(9).

(b) Designate a person to ensure that requirements under 454 CMR 28.12(1) are properly implemented. Ensure that the designated person receives adequate training to perform duties assigned under 454 CMR 28.12(1). Such training must provide, as necessary, basic knowledge of:

1. Health effects of asbestos;
2. Detection, identification, and assessment of ACM;
3. Options for controlling ACM;
4. Asbestos management programs;
5. Relevant Federal and State regulations concerning asbestos, including those referenced herein and those of the Occupational Safety and Health Administration, U.S. Department of Labor, the U.S. Department of Transportation and the U.S. Environmental Protection Agency; and
6. Consider whether any conflict of interest may arise from the interrelationship among accredited and licensed personnel and whether that should influence the selection of accredited and/or licensed personnel to perform activities under 454 CMR 28.12.

(2) Inspections and Reinspections.

(a) Inspections. All local education agencies (LEAs) are required to inspect each school building that they lease, own or otherwise use as a school building to identify all locations of friable and non-friable ACM, except for those buildings which have been inspected as required by the AHERA and for which documentation of said inspection was filed with the State as required by the AHERA prior to publication of 454 CMR 28.13(2).

The inspection must be conducted as described under 454 CMR 28.13(2)(b) and (c) prior to use as a school building.

1. Each inspection must be made by a currently licensed asbestos inspector.
2. For each area of a school building, except as excluded under 454 CMR 28.13(12), each licensed Inspector performing an inspection must:
   a. Visually inspect the area to identify the locations of all suspected ACM;
   b. Touch all suspected ACM to determine whether it is friable;
   c. Identify all homogeneous areas of friable suspected ACM and all homogeneous areas of non-friable suspected ACM;
   d. For each identified homogeneous area that is not assumed to be ACM, collect and submit for analysis bulk samples under 454 CMR 28.13(4);
   e. Assess under 454 CMR 28.13(4) friable material in areas where samples are collected, friable material in areas that are assumed to be ACM, and friable ACM identified during a previous inspection; and
   f. Record the following and submit to the person designated under 454 CMR 28.13(1), a copy of such record for inclusion in the management plan within 30 days of the inspection:
      i. An inspection report with the date of the inspection, signed by each licensed person making the inspection and must include the license number and expiration date along with a copy of current training certificate of the inspector.

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ii. An inventory of the locations of the homogeneous areas where samples are collected, exact location where each bulk sample is collected, dates that samples are collected, homogeneous areas where friable suspected ACM is assumed to be ACM, and homogeneous areas where non-friable suspected ACM is assumed to be ACM;

iii. A description of the manner used to determine sampling locations, the name and signature of each DLS licensed inspector who collected the samples, including license number and expiration date along with a copy of current training certificates;

iv. A list of whether the homogeneous areas identified under 454 CMR 28.12(2)(a)2.e.iv. are surfacing material, thermal system insulation, or miscellaneous material; and

v. Assessments made of friable material, the name and signature of each licensed inspector making the assessment, his or her license number and expiration date and current training certificate.

(b) Reinspections.

1. At least once every three years after a management plan is implemented, each local education agency must conduct a reinspection of all friable and nonfriable known or assumed ACM and any not previously identified suspect ACM, regardless of whether or not these areas were included in the original inspection and management plan, in each school building that they lease, own, or otherwise use as a school building.

Each local education agency must submit to the Department within 30 days of the reinspection, documentation that a reinspection has been performed. This documentation must be submitted on a form prescribed by the Director and submitted electronically to the Department's website by the LEA.

2. Each inspection must be made by a licensed inspector.

3. For each area of a school building, each person performing a reinspection must:

a. Visually reinspect and reassess under 454 CMR 28.13(6) the condition of all friable and non-friable known or assumed ACM;

b. Visually inspect material that was previously considered non-friable ACM and touch the material to determine whether it has become friable since the last inspection or reinspection;

c. Visually inspect and assess under 454CMR 28.13(5) materials such as, but not restricted to, ceiling tile, wallboard, plaster walls, linoleum, fire doors, duct insulation and vibration dampening cloth, which are considered suspect ACM;

d. Identify any homogeneous areas with material that has become friable since the last inspection or reinspection;

e. For each homogeneous area of newly friable material that is already assumed to be ACM, may collect and submit bulk samples for analysis in accordance with 454 CMR 28.13(3) and (4);

f. Any remaining ACM that is present and was previously unidentified, and is now accessible and visible will be included in the reinspection, and provided a physical assessment under 454 CMR 28.13(6);

g. Assess under 454 CMR 28.13(5) the condition of the newly friable material in areas where samples are collected, and newly friable materials in areas that are assumed to be ACM;

h. Reassess under 454 CMR 28.13(5) the condition of friable known or assumed ACM previously identified;

i. Record the following and submit to the person designated under 454 CMR 28.13(1) a copy of such record for inclusion in the management plan within 30 days of the reinspection:

i. The date of the reinspection, the name and signature of the person making the reinspection, and any changes in the condition of known or assumed ACM;

ii. The exact locations where samples are collected during the reinspection, a description of the manner used to determine sampling locations, the name and signature of each licensed inspector who collected the samples, license number and expiration date;

iii. Any assessments or reassessments made of friable material, the name and signature of the licensed inspector making the assessments, license number and expiration date; and

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iv. General. Thermal system insulation that has retained its structural integrity and that has an undamaged protective jacket or wrap that prevents fiber release shall be treated as non-friable and therefore is subject only to periodic surveillance and preventive measures as necessary.

(3) Sampling.

(a) Surfacing Material. A licensed inspector must collect bulk samples of surfacing material, in a statistically random manner which is representative of the homogeneous area of friable surfacing material that is not assumed to be ACM, and must collect such samples as follows:

1. At least three bulk samples from each homogeneous area that is 1,000 square feet or less, except as provided in 454 CMR 28.13(4);

2. At least five bulk samples must be collected from each homogeneous area that is greater than 1,000 square feet, but less than or equal to 5,000 square feet, except as provided in 454 CMR 28.13(4); or

3. At least seven bulk samples must be collected from each homogeneous area that is greater than 5,000 square feet, except as provided in 454 CMR 28.13(5).

(b) Thermal System Insulation.

1. Except as provided in 454 CMR 28.13(4), a licensed inspector must collect, in a randomly distributed manner, at least three bulk samples from each homogeneous area of thermal system insulation that is not assumed to be ACM.

2. A licensed inspector must collect at least one bulk sample from each homogeneous area of patched thermal system insulation that is not assumed to be ACM if the patched section is less than six linear or square feet.

3. In a manner sufficient to determine whether the material is ACM or not ACM, a licensed inspector must collect bulk samples from each insulated mechanical system that is not assumed to be ACM where cement or plaster is used on fittings such as tees, elbows, or valves, except as provided under 454 CMR 28.13(4). At least one sample per fitting.

4. Bulk samples are not required to be collected from any homogeneous area where the licensed inspector has determined that the thermal system insulation is fiberglass, foam glass, rubber, or other non-ACM.

5. Miscellaneous material. In a manner sufficient to determine whether material is ACM or not ACM, a licensed inspector must collect bulk samples from each homogeneous area of friable miscellaneous material that is not assumed to be ACM.

6. Non-friable suspected ACM. If any homogeneous area of non-friable suspected ACM is not assumed to be ACM, then a licensed inspector must collect, in a manner sufficient to determine whether the material is ACM or not ACM, bulk samples from the homogeneous area of non-friable suspected ACM that is not assumed to be ACM.

(4) Analysis.

(a) Local education agencies must have bulk samples, collected under 454 CMR 28.13(3) and submitted for analysis and analyzed for asbestos using laboratories certified by the Department.

(b) Bulk samples must not be composited for analysis and must be analyzed for asbestos content by polarized light microscopy (PLM), using the EPA "Method for the Determination of Asbestos in Bulk Building Materials" (EPA/600/R-93/116), or TEM for non-friable materials.

(c) A homogeneous area is considered not to contain ACM only if the results of all samples required to be collected from the area show asbestos in amounts of 1% or less.

(d) A homogeneous area must be determined to contain ACM based on a finding that the results of at least one sample collected from the area shows that asbestos is present in an amount greater than 1%.

(e) The name and address of each certified Asbestos Analytical Service performing an analysis, the date of analysis, and the name and signature of the person performing the analysis must be submitted to the person designated under 454 CMR 28.13(1) for inclusion into the management plan within 30 days of the analysis.

(f) The Inspector must be independent of the Asbestos Analytical Service analyzing the samples.

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(5) Assessment.

(a) For each inspection and reinspection under 454 CMR 28.13(2)(a) and (b) and previous inspections specified under 454 CMR 28.13(1), the local education agency must have an licensed inspector provide a written assessment of all friable known or assumed ACM in the school building.

(b) Each licensed inspector providing a written assessment must sign and date the assessment, provide his or her current license and training certificate, and submit a copy of the assessment to the person designated under 454 CMR 28.13(5) for inclusion in the management plan within 30 days of the assessment.

(c) The licensed inspector must classify and give reasons in the written assessment for classifying the ACM and suspected ACM assumed to be ACM in the school building into one of the following categories:

1. Damaged or significantly damaged thermal system ACM;
2. Damaged friable surfacing ACM;
3. Significantly damaged friable surfacing ACM;
4. Damaged or significantly damaged friable miscellaneous ACM;
5. ACM with potential for damage;
6. ACM with potential for significant damage; and
7. Any remaining friable ACM or friable suspected ACM.

(d) Assessment must include the following considerations:

1. Location and the amount of the material, both in total quantity and as a percentage of the functional space;
2. Condition of the material, specifying:
3. Type of damage or significant damage (*e.g.*, flaking, blistering, water damage, or other signs of physical damage);
4. Severity of damage (*e.g.*, major flaking, severely torn jackets, as opposed to occasional flaking, minor tears to jackets);
5. Extent or spread of damage over large areas or large percentages of the homogeneous area;
6. Whether the material is accessible;
7. The material's potential for disturbance;
8. Known or suspected causes of damage or significant damage (*e.g.*, air erosion, vandalism, vibration, water); and
9. Preventive measures which might eliminate the reasonable likelihood of undamaged ACM from becoming damaged or significantly damaged.

(e) The local education agency must select a Management Planner licensed to develop management plans to review the results of each inspection, reinspection, and assessment for the school building and to conduct any other necessary activities in order to recommend in writing to the local education agency appropriate response actions. The licensed person must sign and date the recommendation, provide his or her current license and training certificate, and, if applicable, provide his or her accreditation number, and submit a copy of the recommendation to the person designated under 454 CMR 28.13(7) for inclusion in the management plan.

(f) The Management Planner is responsible for informing the LEA in writing if the Management Plan is missing in part or in whole. The LEA is then responsible for replacing the missing portions of the Management Plan.

(6) Response Action.

(a) The local education agency must select and implement in a timely manner the appropriate response actions in 454 CMR 28.13(5) consistent with the assessment conducted in 454 CMR 28.13(5). The response actions selected shall be sufficient to protect human health and the environment. The local education agency may then select, from the response actions which protect human health and the environment, that action which is the least burdensome. For purposes of determining which of these response actions is the least burdensome, the local education agency may consider local circumstances, including occupancy and use patterns within the school building, and its economic concerns, including short-term and long-term costs. The response action must at a minimum meet the requirements as set forth in 454 CMR 12.13(6)(a) through (h). No asbestos abatement shall be performed in a school building while school is in session during normal school hours without the prior written approval of the Department, except for an emergency project.

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(b) If damaged or significantly damaged thermal system insulation ACM is present in a building, the local education agency must:

1. Repair the damaged area; or
2. Remove the damaged material if it is not feasible, due to technological factors, to repair the damage; and
3. Maintain all thermal system insulation ACM and its covering in an intact state and undamaged condition.

(c) If damaged friable surfacing ACM or damaged friable miscellaneous ACM is present in a building, the local education agency must select the response actions that best protects human health and the environment from among the following:

1. Encapsulation;
2. Enclosure;
3. Removal; or
4. Repair.

(d) If significantly damaged friable surfacing ACM or significantly damaged friable miscellaneous ACM is present in a building the local education agency must:

1. Immediately isolate the functional space and restrict access, unless the licensed management planner determines that isolation is not necessary to protect human health and the environment; and
2. Remove the material in the functional space or, depending upon whether the licensed management planner determines that enclosure or encapsulation would be sufficient to protect human health and the environment, enclose or encapsulate.

(e) If any friable surfacing ACM, thermal system ACM, or friable miscellaneous ACM that has potential for damage is present in a building, the local education agency must at least implement an O & M program, as described under 454 CMR 28.13(7).

(f) If any friable surfacing ACM, thermal system insulation ACM, or friable miscellaneous ACM that has potential for significant damage is present in a building, the local education agency must:

1. Implement an O & M program as described under 454 CMR 28.13(7);
2. Immediately isolate the area and restrict access if necessary to avoid an imminent and substantial endangerment to human health or the environment;
3. Institute preventive measures appropriate to eliminate the reasonable likelihood that the ACM or its covering will become significantly damaged, deteriorated, or delaminated; and
4. Remove the material as soon as possible if appropriate preventive measures cannot be effectively implemented. Or, unless other response actions are determined to protect human health and the environment, immediately isolate the area and restrict access if necessary to avoid an imminent and substantial endangerment to human health or the environment.

(g) Response actions including removal, encapsulation, enclosure, or repair, other than small-scale, short-duration repairs, must be designed and conducted by persons licensed to design and conduct response actions.

(h) Completion of Response Actions.

1. At the conclusion of any action to remove, encapsulate, or enclose ACM or material assumed to be ACM, a licensed person designated by the local education agency must visually inspect each functional space where such action was conducted to determine whether the action has been properly completed.
2. A licensed project monitor designated by the local education agency must collect air samples using aggressive sampling as described in 40 CFR Part 763, Subpart E, Appendix A, to monitor air for clearance after each removal, encapsulation, and enclosure project involving ACM, except for projects that are small scale short durations as defined in 454 CMR 28.10 (2).
3. Local education agencies must have air samples collected under 454 CMR 28.12(6)(h) analyzed for asbestos using laboratories accredited by the National Institute of Standards and Technology with current certification from DLS to conduct such analysis using transmission electron microscopy (TEM) or, under circumstances permitted in 454 CMR 28.12(6)(h), laboratories enrolled in the American Industrial Hygiene Association Proficiency Analytical Testing Program for phase contrast microscopy (PCM).

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4. Except as provided in 454 CMR 28.12(5) and (6), an action to remove, encapsulate, or enclose ACM must be considered complete when the average concentration of asbestos of five air samples collected within the affected functional space and analyzed by the TEM method in 40 CFR Part 763, Subpart E, Appendix A, is not statistically significantly different, as determined by the Z-test calculation found in Appendix A from the average asbestos concentration of five air samples collected at the same time outside the affected functional space and analyzed in the same manner, and the average asbestos concentration of the three field blanks described in Appendix A is below the filter background level, as defined in Appendix A, of 70 structures per square millimeter (70 s/sq mm).

5. An action must also be considered complete if the volume of air drawn for each of the five samples collected within the affected functional space is equal to or greater than 1,199 liters of air for a 25 mm filter or equal to or greater than 2,799 liters of air for a 37 mm filter, and the average concentration of asbestos as analyzed by the TEM method in 40 CFR Part 763, Subpart E, Appendix A, for the five air samples does not exceed the filter background level, as defined in Appendix A, of 70 structures per square millimeter (70 s/sq mm). If the average concentration of asbestos of the five air samples within the affected functional space exceeds 70 structures per square millimeter (70 s/sq mm), or if the volume of air in each of the samples is less than 1,199 liters of air for a 25 mm filter or less than 2,799 liters of air for a 37 mm filter the action must be considered complete only when the requirements of 454 CMR 28.12(4) or (6) are met.

6. At any time, a local education agency may analyze air monitoring samples collected for clearance purposes by phase contrast microscopy (PCM) to confirm completion of removal, encapsulation, or enclosure of ACM that is greater than a small scale short duration as defined in 454 CMR 28.02, and less than or equal to 160 square feet or 260 linear feet. The action must be considered complete when the results of samples collected in the affected functional space and analyzed by phase contrast microscopy using the most current National Institute for Occupational Safety & Health (NIOSH) Method 7400, Issue 3, dated April 29, 2019 show that the concentration of fibers for each of the five or more samples is less than or equal to a limit of quantitation for PCM - 0.01 fibers per cubic centimeter (0.01 f/cc) of air.

7. To determine the amount of ACM affected under 454 CMR 28.12(6), the local education agency must add the total square or linear footage of ACM within the containment barriers used to isolate the functional space for the action to remove, encapsulate, or enclose the ACM. Contiguous portions of material subject to such action conducted concurrently or at approximately the same time within the same school building must not be separated to qualify under 454 CMR 28.12(6).

(i) The requirements of 454 CMR 28.12(6) in no way supersede the worker protection and work practice requirements under any applicable state regulation, including M.G.L. c. 149, § 6½.

(7) Operations and Maintenance (O & M).

(a) Applicability. The local education agency must implement an O & M program under 454 CMR 28.12(7) whenever any friable ACM is present or assumed to be present in a building that it leases, owns, or otherwise uses as a school building. Any material identified as non-friable ACM or non-friable assumed ACM must be treated as friable ACM for purposes of 454 CMR 28.12(7) when the material is about to become friable as a result of activities performed in the school building.

(b) Cleaning.

1. Initial Cleaning. Unless the building has been cleaned using equivalent methods within the previous six months, all areas of a school building where friable ACM, damaged or significantly damaged thermal system insulation ACM, or friable suspected ACM assumed to be ACM are present must be cleaned at least once after the completion of the required initial inspection under 454 CMR 28.13(7)(a) and before the initiation of any response action, other than O & M activities or repair, according to the following procedures:

a. HEPA-vacuum or steam-clean all carpets;

b. HEPA-vacuum or wet-clean all other floors and all other horizontal surfaces; and

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c. Dispose of all debris, filters, mop heads, and cloths in sealed, leak-tight containers.

2. Additional Cleaning. The licensed management planner must make a written recommendation to the local education agency whether additional cleaning is needed, and if so, the methods and frequency of such cleaning.

(c) Operations and Maintenance Activities. The local education agency must ensure that the procedures described in 454 CMR 28.12(7)(c)1. through 6. to protect building occupants must be followed for any operations and maintenance activities disturbing friable ACM.

1. Restrict entry into the area by persons other than those necessary to perform the maintenance project, either by physically isolating the area or by scheduling.

2. Post signs to prevent entry by unauthorized persons.

3. Shut off or temporarily modify the air-handling system and restrict other sources of air movement.

4. Use work practices or other controls, such as: wet methods, protective clothing, HEPA-vacuums, mini-enclosures or glove bags, as necessary to inhibit the spread of any released fibers.

5. Clean all fixtures or other components in the immediate work area.

6. Place the asbestos debris and other cleaning materials in a sealed, leak-tight container.

(d) Maintenance Activities Other than Small Scale Short Duration Ones. The response action for any maintenance activities disturbing friable ACM, other than small scale short durations, must be designed by persons licensed to design response actions and conducted by persons licensed to conduct response actions.

(e) Fiber Release Episodes.

1. Minor fiber release episode. The local education agency must ensure that the procedures described below are followed in the event of a minor fiber release episode (*i.e.*, the falling or dislodging of three square or linear feet or less of friable ACM).

a. Thoroughly saturate the debris using wet methods;

b. Clean the area, as described in 454 CMR 28.13(7)(d);

c. Place the asbestos debris in a sealed, leak-tight container;

d. Repair the area of damaged ACM with materials such as; asbestos-free spackling, plaster, cement, or insulation; or seal with latex paint or an encapsulant; or immediately have the appropriate response action implemented as required by 454 CMR 28.13(2).

2. Major Fiber Release Episode. The local education agency must ensure that the procedures described in 454 CMR 28.12(7)(e)2.a. through d. are followed in the event of a major fiber release episode (*i.e.*, the falling or dislodging of more than three square or linear feet of friable ACM).

a. Restrict entry into the area and post signs to prevent entry into the area by persons other than those necessary to perform the response action.

b. Shut off or temporarily modify the air-handling system to prevent the distribution of fibers to other areas in the building.

c. The response action for any major fiber release episode must be designed by persons licensed to design response actions and conducted by persons licensed to conduct response actions.

d. The local education agency must notify the Department of any major fiber release episode within 24 hours of its occurrence and, if necessary, provide written notification as required by applicable federal and/or state regulations.

(8) Training and Periodic Surveillance.

(a) Training.

1. The local education agency must ensure, prior to the implementation of the O & M provisions of the management plan, that all members of its maintenance and custodial staff (custodians, electricians, heating/air conditioning engineers, plumbers, *etc.*) who may work in a building that contains ACM receive awareness training of at least two hours, whether or not they are required to work with ACM. New custodial and maintenance employees must be trained within 60 days after commencement of employment. Training must include, but not be limited to:

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a. Information regarding asbestos and its various uses and forms;

b. Information on the health effects associated with asbestos exposure;

c. Locations of ACM identified throughout each school building in which they work;

d. Recognition of damage, deterioration, and delamination of ACM; and

e. Name and telephone number of the person designated to carry out general local education agency responsibilities under 454 CMR 28.13(1) and the availability and location of the management plan.

2. The local education agency must ensure that all members of its maintenance and custodial staff who conduct any activities that will result in the disturbance of ACM must receive training described in 454 CMR 28.13(1) and 14 hours of additional training. Additional training must include, but not be limited to:

a. Descriptions of the proper methods of handling ACM;

b. Information on the use of respiratory protection as contained in the EPA/NIOSH Guide to Respiratory Protection for the Asbestos Abatement Industry, September 1986 (EPA 560/OPTS-86-001), as amended, and other personal protection measures;

c. The provisions of 454 CMR 28.13(7), 40 CFR Part 763, Subpart E, Appendices A, B, C, D of EPA regulations contained in 40 CFR Part 763, Subpart G, and in 40 CFR Part 61, Subpart M, and OSHA regulations contained in 29 CFR 1926.1101, as respectively amended; and M.G.L. c. 149, § 6½; and

d. Hands-on training in the use of respiratory protection, other personal protection measures, and good work practices.

3. Local education agency maintenance and custodial staff who have attended a training program accredited under the EPA Model Accreditation Plan, which includes as a minimum all of the training requirements listed in 454 CMR 28.13(8), must be considered trained for the purposes of 454 CMR 28.13(8).

(b) Periodic Surveillance.

1. At least once every six months after a management plan is in effect, each local education agency must conduct periodic surveillance in each building that it leases, owns, or otherwise uses as a school building that contains ACM or is assumed to contain ACM. The reinspection required every three years under 454 CMR 28.13(2) will satisfy the six-month periodic surveillance requirement if the reinspection coincides with the date of the six month surveillance inspection.

2. Each person performing periodic surveillance must:

a. Visually inspect all areas that are identified in the management plan as ACM or assumed ACM;

b. Record the date of the surveillance, his or her name, and any changes in the condition of the materials; and

c. Submit to the person designated to carry out general local education agency responsibilities under 454 CMR 28.13(1) a copy of such record for inclusion in the management plan.

(9) Management Plans.

(a) Each local education agency must develop an asbestos management plan for each school, including all buildings that they lease, own, or otherwise use as school buildings, and submit the plan to the Department.

(b) Each local education agency must implement its management plan prior to its use or occupancy of the building or part of the building as a school.

(c) Each local education agency shall maintain and update its management plan to keep it current with ongoing operations and maintenance, periodic surveillance, inspection, reinspection, and response action activities. All provisions required to be included in the management plan under 454 CMR 28.12(9) shall be retained as part of the management plan, as well as any information that has been revised to bring the plan up-to-date.

(d) The management plan shall be developed by a licensed management planner and shall include:

1. A list of the name and address of each school building and whether the school building contains friable ACM, non-friable ACM and friable and non-friable suspected ACM assumed to be ACM;

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2. A list of specific steps or actions to be completed prior to the use or occupancy of the building or part of the building as a school;

3. For each inspection conducted before December 14, 1987:

a. The date of the inspection;

b. A blueprint, diagram, or written description of each school building that identifies clearly each location and approximate square or linear footage of any homogeneous or sampling area where material was sampled for ACM, and, if possible, the exact locations where bulk samples were collected, and the dates of collection;

c. A copy of the analyses of any bulk samples, dates of analyses, and a copy of any other certified Asbestos Analytical Service reports pertaining to the analyses;

d. A description of any response actions or preventive measures taken to reduce asbestos exposure including, if possible, the names and addresses of all contractors involved, start and completion dates of the work, and results of any air samples analyzed during and upon completion of the work; and

e. A description of assessments, required to be made under 454 CMR 28.13(5) of material that was identified before December 14, 1987, as friable ACM or friable suspected ACM assumed to be ACM, and the name, signature, and current license and training certificate, and if applicable, accreditation number of each licensed person making the assessments.

4. For each inspection and reinspection conducted under 454 CMR 28.13(2):

a. The date of the inspection or reinspection, and the name and signature, current license and training certificate inspector performing the inspection or reinspection;

b. Blueprint, diagram, or written description of each school building which identifies clearly each location and approximate square or linear footage of homogeneous areas where material was sampled for ACM, the exact location where each bulk sample was collected, date of collection, homogeneous areas where friable suspected ACM is assumed to be ACM, and where nonfriable suspected ACM is assumed to be ACM;

c. A description of the manner used to determine sampling locations, and the name and signature of each licensed inspector collecting samples, a copy of the current license and training certificate;

d. A copy of the analyses of any bulk samples collected and analyzed, the name and address of any Asbestos Analytical Service that analyzed bulk samples, a statement that the Asbestos Analytical Service meets the applicable requirements of 454 CMR 28.13(4), the date of analysis, and the name and signature of the person performing the analysis; and

e. A description of assessments, required to be made under 454 CMR 28.13(5), of all ACM and suspected ACM assumed to be ACM, and the name, signature, current license and training certificate, and if applicable, accreditation number of each licensed person making the assessments.

5. The name, address, and telephone number of the person designated under 454 CMR 28.13(1) to ensure that the duties of the local education agency are carried out, and the course name, and dates and hours of training taken by that person to carry out the duties;

6. The recommendations made to the local education agency regarding response actions, per 454 CMR 28.13(6)(e), including the name, signature, current license and training certificate of each person making the recommendations.;

7. A detailed description of preventive measures and response actions to be taken, including methods to be used for any friable ACM, the locations where such measures and action will be taken, reasons for selecting the response action or preventive measure, and a schedule for beginning and completing each preventive measure and response action;

8. With respect to the person or persons who inspected for ACM and who will design or carry out response actions, except for operations and maintenance with respect to the ACM, a statement that the person has current license(s) and training;

9. A detailed description, which shall be updated as response actions are completed, in the form of a blueprint, diagram, or in writing of any ACM or suspected ACM assumed to be ACM which remains in the school once response actions are undertaken pursuant to 454 CMR 28.13(6);

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10. A plan for reinspection under 454 CMR 28.13(2), a plan for operations and maintenance activities under 454 CMR 28.13(7) and a plan for periodic surveillance under 454 CMR 28.13(8), a description of the recommendation made by the management planner regarding additional cleaning of 454 CMR 28.13(7)(b)2. as part of an operations and maintenance program, and the response of the local education agency to the recommendations issued;

11. A description of steps taken to inform workers and building occupants, or their legal guardians, about inspections, reinspections, response actions, and post-response action activities, including periodic reinspection and surveillance activities that are planned or in progress;

12. An evaluation of the resources needed to complete response actions successfully and carry out reinspection, operations and maintenance, periodic surveillance and training; and

13. With respect to each consultant who contributed to the management plan, the name, license and current training of the individual.

(e) Upon submission of a management plan to the Department, a local education agency shall maintain in its administrative office a complete, updated copy of a management plan for each school under its administrative control or direction.

1. The management plans shall be available, without cost or restriction, for inspection by representatives of EPA and the State, the public, including teachers, other school personnel and their representatives, and parents. The local education agency may charge a reasonable cost to make copies of management plans.

2. Each school shall maintain in its administrative office a complete, updated copy of the management plan for that school. Management plans shall be available for inspection, without cost or restriction, to workers before work begins in any area of a school building. The school shall make management plans available upon demand for inspection to representatives of EPA and the State. The school shall make management plans available to the public, including parents, teachers, and other school personnel and their representatives within five working days after receiving a request for inspection. The school may charge a reasonable cost to make copies of the management plan.

3. Upon submission of its initial management plan to the Department and at least once each school year, the local education agency shall notify in writing parents, teachers, and employee organizations of the availability of management plans and shall include in the management plan a description of the steps taken to notify such organizations, and a dated copy of the notification. In the absence of any such organizations for parents, teachers, or employees, the local education agency shall provide written notice to that relevant group of the availability of management plans and shall include in the management plan a description of the steps taken to notify such groups, and a dated copy of the notification.

(f) Records required under 454 CMR 28.13(10) shall be made by local education agencies and maintained as part of the management plan.

(g) Each management plan must contain a true and correct statement, signed by the individual designated by the local education agency under 454 CMR 28.13(1), which certifies that the general local education agency responsibilities, as stipulated by 454 CMR 28.13(1) have been met or will be met.

(10) Recordkeeping.

(a) Records required under 454 CMR 28.13(10) shall be maintained in a centralized location in the administrative office of both the school and the local education agency as part of the management plan. For each homogeneous area where all ACM has been removed, the local education agency shall ensure that such records are retained for three years after the next reinspection required under 454 CMR 28.13(2)(b)1.

(b) For each preventive measure and response action taken for friable and non-friable ACM and friable and non-friable suspected ACM assumed to be ACM, the local education agency shall maintain as part of the management plan the following:

1. A detailed written description of the measure or action, including methods used, the location where the measure or action was taken, reasons for selecting the measure or action, start and completion dates of the work, names and addresses of all contractors involved, and if applicable, their current license and training certificate, and if ACM is removed, the name and location of storage or disposal site of the ACM; and

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2. The name, signature, current license and training certificate of any person collecting any air sample required to be collected at the completion of certain response actions specified by 454 CMR 28.13(6)(h), the locations where samples were collected, date of collection, the name and address of the Asbestos Analytical Service analyzing the samples, the date of analysis, the results of the analysis, the method of analysis, the name and signature of the person performing the analysis, and a statement that the Asbestos Analytical Service meets the applicable requirements of 454 CMR 28.13(6)(h)3.

(c) For each person required to be trained under 454 CMR 28.13(8)(a)1. and 2., the local education agency shall record the person's name and job title, the date that training was completed by that person, the location of the training, and the number of hours completed in such training.

(d) For each time that periodic surveillance under 454 CMR 28.13(8)(b) is performed, the local education agency shall record the name of each person performing the surveillance, the date of the surveillance, and any changes in the conditions of the materials.

(e) For each time that cleaning under 454 CMR 28.13(7)(b) is performed, the local education agency shall record the name of each person performing the cleaning, the date of such cleaning, the locations cleaned, and the methods used to perform such cleaning.

(f) For each time that an operations and maintenance activity under 454 CMR 28.13(7)(c) of is performed, the local education agency shall record the name of each person performing the activity, the start and completion dates of the activity, the locations where such activity occurred, a description of the activity including preventive measures used, and if ACM is removed, the name and location of the storage or disposal site of the ACM.

(g) For each time that major asbestos activity under 454 CMR 28.13(7) is performed, the local education agency shall record the name and signature, current license and training certificate of each person performing the activity, the start and completion dates of the activity, the locations where such activity occurred, a description of the activity, including preventive measures used, and if ACM is removed, the name and location of the storage or disposal site of the ACM.

(h) For each fiber release episode under 454 CMR 28.08(6), the local education agency shall record the date and location of the episode, the method of repair, preventive measures or response action taken, the name of each person performing the work, and if ACM is removed, the name and location of the storage or disposal site of ACM.

(11) Warning Labels.

(a) The local education agency must attach a warning label adjacent to any friable or nonfriable ACM or suspected ACM assumed to be ACM located in routine maintenance areas (such as boiler and mechanical rooms) and storage areas at each school building. These labels must be placed adjacent to the following locations:

1. Friable ACM for which the response was any action other than removal; and
2. ACM for which no response action was carried out.

(b) All labels must be of large size and prominently displayed in readily visible locations so that persons may read the signs and take necessary protective steps before entering the area. All labels must remain posted until the ACM that is labeled is removed.

(c) The warning label shall read, in bright colors, as follows:

CAUTION: ASBESTOS, HAZARDOUS, DO NOT DISTURB WITHOUT PROPER TRAINING AND EQUIPMENT.

(d) The local education agency must post these labels in a bilingual form whenever it determines that a significant employee population requires a translated format.

(12) Exclusions.

(a) A local education agency shall not be required to perform an inspection under 454 CMR 28.13(2)(a) in any sampling area or homogeneous area of a school building where any of the following conditions apply.

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1. A licensed inspector has determined that, based on sampling records, friable ACM was identified in that homogeneous or sampling area during an inspection conducted before December 14, 1987. The inspector must sign and date a statement to that effect with his or her current license and training certificate and if applicable, accreditation number and, within 30 days after such determination, submit a copy of the statement to the person designated under 454 CMR 28.13(1) for inclusion in the management plan. However, a licensed inspector must assess the friable ACM under 454 CMR 28.13(6).

2. A license inspector has determined, based on sampling records, that non-friable ACM was identified in that homogeneous or sampling area during an inspection conducted before December 14, 1987. The inspector must sign and date a statement to that effect with his or her current license and training certificate and within 30 days after such determination, submit a copy of the statement to the person designated under 454 CMR 28.13(2)(a) for inclusion in the management plan. However, an inspector must identify whether material that was non-friable has become friable since that previous inspection and must assess the newly friable ACM under 454 CMR 28.13(5).

3. Based on sampling records and inspection records, a licensed inspector has determined that no ACM is present in the homogeneous or sampling area and the records show that the area was sampled, before December 14, 1987, under 454 CMR 28.13(2)(a), in a random manner and with a sufficient number of samples to reasonably ensure that the area is not ACM.

a. The inspector must sign and date a statement, with his or her current license and training certificate, that the homogeneous or sampling area determined not to be ACM was sampled in substantial compliance with 454 CMR 28.13(2)(a);

b. Within 30 days after the inspector's determination, the local education agency must submit a copy of the inspector's statement to the Department and must include the statement in the management plan for that school.

4. A licensed inspector has determined, based on records of an inspection conducted before December 14, 1987, that suspected ACM identified in that homogeneous or sampling area is assumed to be ACM. The inspector must sign and date a statement to that effect, with his or her current license and training certificate, within 30 days of such determination, submit a copy of the statement to the person designated under 454 CMR 28.13(5) for inclusion in the management plan. However, an inspector must identify whether material that was non-friable suspected ACM assumed to be ACM has become friable since the previous inspection and must assess the newly friable material and previously identified friable suspected ACM assumed to be ACM under 454 CMR 28.13(5).

5. Based on inspection records and contractor and clearance records, an inspector has determined that no ACM is present in the homogeneous or sampling area where asbestos removal operations have been conducted before December 14, 1987, and must sign and date a statement to that effect and include his or her current license and training certificate and, if applicable, accreditation number. The local education agency must submit a copy of the statement to the Department and must include the statement in the management plan for that school.

6. An architect or project engineer responsible for the construction of a new school building built after October 12, 1988, or a licensed inspector signs a statement that no ACM was specified as a building material in any construction document for the building, or, to the best of his or her knowledge, no ACM was used as a building material in the building. The local education agency must submit a copy of the signed statement of the architect, project engineer, or licensed inspector to the Department and must include the statement in the management plan for that school.

(b) The exclusions, under 454 CMR 28.12, from conducting the inspection under 454 CMR 28.13(2)(a), must apply only to homogeneous or sampling areas of a school building that were inspected and sampled before October 17, 1987. The local education agency must conduct an inspection under 454 CMR 28.13(2)(a) of all areas inspected before October 17, 1987 that were not sampled or were not assumed to be ACM.

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(c) If ACM is subsequently found in a homogeneous or sampling area of a local education agency that had been identified as receiving an exclusion by an inspector under 454 CMR 28.13(12)(a)3. or 4., or by an architect, project engineer or licensed inspector under 454 CMR 28.13(12)(a)6. the local education agency shall have 180 days following the date of identification of ACM to comply with 454 CMR 28.00.

28.14: Work Practices for Asbestos Cement Pipe (ACP)

(1) Asbestos Cement Pipe Maintenance and Repair Requirements.

(a) Public and Private Utility Contractors or other entities who have completed the "eight-hour OSHA Class II Asbestos Training: Asbestos Cement Pipe (ACP) Worker Safety" course found at 454 CMR 28.05 or a course similar in length and content reviewed and approved in writing by the Department shall comply with the following provisions and procedures.

1. Complete a survey as required under 310 CMR 7.15(12A)(b).

2. Asbestos-cement pipe shall be handled in a manner that will minimize the risk of making it friable ACM or releasing asbestos dust into the environment, and with minimal disturbance.

3. Expose the asbestos cement pipe without disturbing the pipe. Excavate no closer than six inches of the pipe. Carefully uncover the remainder of the soil surrounding the pipe by hand or with a shovel.

4. An assessment shall be made by a person trained per 454 CMR 28.05(9) to determine if the pipe is damaged, cracked or broken.

a. Not Damaged (intact and not deteriorated):

i Place six-mil thick polyethylene ("poly") sheeting under the asbestos cement pipe to prevent soil contamination.

ii. Adequately wet the asbestos cement pipe with amended water using surfactant or liquid soap before and during removal to avoid creating airborne dust.

iii. Separate the asbestos cement pipe at the nearest coupling (bell or compression fitting).

iv. Slide the pipe apart at the joints (no saw cutting) or use other methods that do not cause the pipe to break, become friable or otherwise create the potential to release asbestos fibers.

v. Wrap the wet asbestos cement pipe and other debris in two layers of six-mil polyethylene sheeting, seal with duct tape and label in accordance with all applicable regulatory requirements. This can be done in the trench or adjacent to the trench.

vi. If the trench is filled with water, the placement of polyethylene sheeting is not required.

vii. Manage wrapped asbestos cement pipe, polyethylene sheeting and any other material contaminated with visible asbestos debris as asbestos-containing waste (ACW) in accordance with 310 CMR 7.15: *U Asbestos* and 310 CMR 19.061: *Special Waste*

b. Damaged (deteriorated or not intact) or when cutting or mechanical breakage (*e.g.*, with saws, snap or blade cutting, and/or tapping) is necessary:

i. Place six-mil thick polyethylene sheeting under the asbestos cement pipe to prevent soil contamination.

ii. Adequately wet asbestos cement pipe with amended water where cutting or breaking will occur.

iii. Saw cutting of asbestos cement pipe shall only be conducted with a HEPA-shrouded vacuum attachment or wet cutting equipment, unless it is conducted within a small enclosure that isolates the area in which the saw cutting is being conducted to prevent the release of asbestos fibers to ambient air.

iv. Wrap wet asbestos cement pipe in two layers of six-mil polyethylene sheeting, seal with duct tape and label. Work shall be done either in the trench or adjacent to the trench.

v. Manage wrapped asbestos cement pipe, polyethylene sheeting and any other material contaminated with visible asbestos debris as asbestos-containing waste (ACW) in accordance with 310 CMR 7.15: *U Asbestos* and 310 CMR 19.061: *Special Waste*

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c. For activities that disturb friable ACM, no visible emissions shall be discharged to the outside air during the collection, processing, packaging or transporting of any ACM or ACW.

5. The final visual inspection shall be satisfied by complying with the following requirements:

a. The visual inspection shall be performed by a person trained per 454 CMR 28.05(9).

b. The person conducting the final visual inspection shall:

c. Inspect the work area to ensure there was no visible debris remaining:

i. In the excavation trench;

ii. In soil excavated from the trench;

iii. In the surrounding area adjacent to the trench after the removal of the asbestos cement pipe; and

iv. On any tools used during the removal/repair/replacement activities.

d. Ensure that all ACM has been removed for proper storage/disposal.

e. Sign and date the documentation of the final inspection as evidence that the inspection was performed and that the condition of "no remaining visible debris" was met. Owners/operators shall keep such documentation at their regular place of business for two years from the date of final visual inspection and provide it to the Department upon request.

28.15: Recordkeeping

(1) Maintenance, Submission and Retention of Records. Certified Asbestos Training Providers, Contractors, Analytical Service Provider, Asbestos Consulting Services and employers of Operations and Maintenance Workers must maintain the records as indicated at 454 CMR 28.15(2) through (4) and make said records available to the Director upon request.

(2) Entities must provide photocopies of such records or documents within ten business days of receipt of a written request from the Director.

(3) Records and documents required to be kept by 454 CMR 28.10 must be retained for a period of 30 years from the date of project or activity completion, except that records required to be kept by 454 CMR 28.11(2) must be kept for a period of at least 15 years.

(4) Entities or persons ceasing to do business or relocating the principal place of business must notify the Director in writing within 30 days of such event. The Director, on receipt of such notification, may instruct that the records be surrendered to the Department or may specify a repository for such records. The entity or person must comply with the Director's instructions within 60 days.

28.16: Administrative License and Certificate Actions/Denial, Revocation, Suspension or Refusal to Renew a License

(1) General Administrative Proceedings. The Director may deny, revoke, suspend or refuse to renew a license or certificate issued pursuant to 454 CMR 28.00 upon finding of sufficient cause. License and Certificate applicants or holders must be advised by the Director in writing of the proposed denial, revocation, suspension or refusal to renew and the reasons therefore. Said parties have the right to appeal the Director's determination through an administrative hearing in accordance with the provisions of M.G.L. c. 30A, and 801 CMR 1.00: *Standard Adjudicatory Rules of Practice and Procedure* by submitting a written request for such hearing within 14 calendar days of receiving notice of such administrative action.

(2) Sufficient Cause. The following shall be sufficient cause for the Director's denial, revocation, suspension or refusal to renew a license or certificate issued pursuant to 454 CMR 28.00:

(a) False statements in the application.

(b) Omission or falsification of documentation or information required to be submitted to the Director pursuant to any provisions of 454 CMR 28.00.

28.16: continued

(c) Failure to comply with the applicable provisions of M.G.L. c. 149 or M.G.L. c. 111F, 454 CMR 28.00, or rules or orders issued thereunder.
(d) Failure to comply with laws, rules and regulations relating to occupational or public health and safety and environmental protection.
(e) Failure to maintain records required by 454 CMR 28.00 or documents incorporated by reference herein or make them available to the Director upon request.
(f) Outstanding debt to the Department.
(g) Failure to make corrective actions based on enforcement issued by a regulatory agency, including, but not limited to, notices of noncompliance, notices of responsibility, notices of intent to assess an administrative penalty, orders, consent orders, court judgments, written warnings, cease work orders, settlement agreements, and civil citations.
(h) In the case of Certified Asbestos Training Providers, or applicants for certification as Asbestos Training Providers, the following shall also constitute sufficient cause:
1. Failure to demonstrate the ability to provide the training courses for which the applicant seeks to be certified in compliance with the requirements of 454 CMR 28.09;
2. Failure to provide or maintain the standards of training required by 454 CMR 28.00; or
3. Failure to provide minimum instruction required by 453 CMR 28.00.
(i) In the case of Certified Asbestos Consulting Services and Asbestos Consultants or applicants for certification thereto, the following shall also constitute sufficient cause:
1. Gross technical errors or errors of judgment;
2. Failure to properly execute authorized consultative activities;
(j) In the case of certified providers of Analytical Services, or applicants for certification as providers of Analytical Services, the following shall also constitute sufficient cause:
1. Failure to maintain successful participation in required proficiency testing programs;
2. Gross technical errors or errors of judgment relating to activities covered by the License; and
3. Loss of professional accreditation or license, where such is a required qualification.
(k) Any other cause affecting the responsibility of the license or certificate holder which the Director determines to be of such serious and compelling nature as to warrant denial, suspension, revocation or refusal to renew.

(3) Conditional Licenses and Certificates, Consent Agreements and Probation. The Director may issue licenses and certificates subject to conditions specified therein, enter into consent agreements with the holder or place the license or certificate holder on probation for sufficient cause.

(4) Order of Summary Suspension and Hearing. The Director may summarily suspend a license or certificate on an emergency basis if, in his or her determination, the actions of the license or certificate holder present an immediate and serious threat to the health, safety or welfare of the workers or the general public. The Director shall issue a written order of summary suspension, stating the reason(s) therefor. The summary suspension order shall also notify the license or certificate holder of the date, time, and place of a hearing on the necessity for the summary suspension. Such hearing shall be held within seven days of issuance of the summary suspension order and shall be conducted in accordance with the provisions of M.G.L. c. 30A, and 801 CMR 1.00: *Standard Adjudicatory Rules of Practice and Procedure*. At the license or certificates holder's request, the Director may reschedule this hearing to a date and time mutually agreeable to the license or certificate holder and the Director. Any rescheduling of the hearing granted at the license or certificate holder's request shall not operate to lift the summary suspension order. Summary suspensions may be issued in conjunction with license or certificate revocations, suspensions, or refusals to renew.

28.17: Cease and Desist Orders

(1) General. The Director, upon determination that there is a violation of any work place standard which compromises the protection of the general public or the occupational health and safety of workers, or of any standard or requirement for licensure or certification, may order any worksite to be closed by way of the issuance of a Cease and Desist order enforceable in the appropriate courts of the Commonwealth. For purposes of such Cease and Desist orders, the worksite may include the area where asbestos related work is being performed and other areas of a facility or location which the Director determines may be hazardous to the health and safety of workers and the general public as a result of such asbestos work.

28.17: continued

(2) Form and Content of Order. Cease and Desist Orders shall be in writing and shall, at a minimum, contain the following:

(a) A description of the premises or work area to which the order applies;

(b) Violations or conditions serving as the basis for issuing the order; and

(c) Any conditions that must be met or remedial action to be taken before the order can be lifted.

(3) Issuance of Cease and Desist Orders. A Cease and Desist order shall be effective immediately upon delivery in hand or by certified mail to any Responsible Person or agent of the contractor or entity performing the work. A copy of the order shall also be delivered in hand or by certified mail to the facility owner or his or her agent to the address on record with the Secretary of State. A party objecting to such order must comply with such order but may make a written request for a hearing pursuant to M.G.L. c. 30A within ten days following service of the order.

(4) Posting of the Worksite. At the time the Cease and Desist Order becomes effective, the Director shall cause the worksite to be conspicuously posted, such posting to contain the content of the Cease and Desist Order and any other information the Director determines necessary to secure the worksite and to adequately warn of hazards. Notices must remain posted until the order is lifted.

(5) Access to Closed Worksite. Access to the worksite closed by a cease and desist order must be restricted to the Department and other persons authorized by the Director.

(6) Rescission of Cease and Desist Orders. The Director may rescind a Cease and Desist Order following his or her determination that the conditions which resulted in the issuance of said Cease and Desist Orders have been corrected and that all administrative orders or conditions issued in connection with the same have been complied with. Notices rescinding Cease and Desist Orders, which shall be in writing, shall be delivered in hand or by certified mail to any Responsible Person or agent of the contractor or entity performing the work. A copy of the rescission notice shall also be delivered in hand or by certified mail to the facility owner or his or her agent.

(7) Administrative Orders. In accordance with M.G.L c. 149, §§ 6 and 6F½, the Director or his or her representative may issue orders for the correction of unsafe conditions at Asbestos work sites. Persons, firms or other entities who fail to comply with said orders shall be subject to the penalties provided by M.G.L c. 149, §§ 6, 6F and 6F½, and 454 CMR 29.00: *Civil Administrative Penalties*.

28.18: Responsibility For Compliance; Penalties

(1) Any person, firm, corporation, or other entity performing work subject to the requirements of 454 CMR 28.00, including, without limitation, Asbestos Contractors, Asbestos Workers, Supervisors, and, Asbestos Consulting Services, Asbestos Consultants, Providers of Asbestos Training and Analytical Service Provider must be responsible for compliance with the provisions thereof.

(2) Any person, firm, corporation, or other entity who or which violates the provisions of 454 CMR 28.00 shall be subject to the administrative sanctions specified herein and any civil penalty allowed by M.G.L. c. 149, § 6F½, the laws of the Commonwealth, and, pursuant to M.G.L. c. 149, § 6F, may be punished by a fine of not less than $100 and not more than $5000 for each offense.

28.19: Severability

If any provision of 454 CMR 28.00 shall be held inconsistent with the laws of the Commonwealth, or held unconstitutional, either on its face, or as applied, the inconsistency or unconstitutionality shall not affect the remaining provisions.

28.20: Fees

A schedule of fees is available at the Department's website.

REGULATORY AUTHORITY

454 CMR 28.00: M.G.L. c. 149, §§ 6 through 6G.

OrderID: 132203070

CHAIN OF CUSTODY 132203070

Universal Environmental Consultants
12 Brewster Road
Framingham, MA 01702
Tel: (508) 628-5486 - Fax: (508) 628-5488
adieb@uec-env.com

PLM
48-hour TAT

Town/City: Newton, MA Building Name Bowen School

Sample	Description of Material	Sample Location
1	2x4 SAT Lumpy	Gym
2	1 1	1 1
3	2x2 SAT	main office suite
4	1 1	main Lobby
5	2x4 SAT	Room 209
6	1 1	Room 213
7	Joint Compound	Room 209
8	1 1	Room 213
9	Plaster	Auditorium
10	| |	1st Fl. Classroom Hallway
11	| |	Room 122
12	| |	Room 126
13	| |	2nd Fl. Classroom Hallway
14	| |	Room 202
15	| |	Room 204
16	Beige 12x12 VFT	Auditorium
17	1 1	| |
18	Yellow Glue	| |
19	1 1	| |
20	Old Black mastic	|

Reported By: Jason Becotte Date: 5-4-22 Due Date: **24-Hours**

Received By: ---------- Date: ----------

REC'D RHB 0830
EMSL-BOSTON MAY 05 2022
Prof BA

OrderID: 132203070

CHAIN OF CUSTODY 132203070

PLM

Universal Environmental Consultants
12 Brewster Road
Framingham, MA 01702
Tel: (508) 628-5486 - Fax: (508) 628-5488
adieb@uec-env.com

Town/City: Newton, MA Building Name Bowen School

Sample	Description of Material	Sample Location
21	old Black mastic	Auditorium
22	Blue checkerboard 12x12 VFT	Room 126
23	1 1	Room 204
24	Yellow Glue	on # 22
25	1 1	on # 23
26	1x1 AT ceiling	1ST fl. classroom Hallway
27	1 1	| |
28	Glue daub	| |
29	1 1	| |
30	1x1 AT wall	Room 126
31	1 1	Room 202
32	Glue daub	on # 30
33	1 1	on # 31
34	Gray sink coating	Room 126
35	1 1	Room 205
36	Cork ceiling	Boiler room
37	1 1	1 1
38	2x2 SAT	modular D
39	1 1	modular A
40	Gray sink coating	modular D

Reported By: Jason Beaute Date: 5-4-22 Due Date: **24-Hours**

Received By: ---------- Date: ----------

OrderID: 132203070

CHAIN OF CUSTODY 132203070

PLM

Universal Environmental Consultants
12 Brewster Road
Framingham, MA 01702
Tel: (508) 628-5486 - Fax: (508) 628-5488
adieb@uec-env.com

Town/City: Newton, MA Building Name Bowen School

Sample	Description of Material	Sample Location
41	Gray sink coating	modular A
42	Light Blue 12x12 VFT	modular D
43	" "	modular A
44	Yellow Glue	on # 42
45	" "	on # 43

Reported By: Jason Becotte Date: 5-4-22 Due Date: **24-Hours**

Received By: Date:

REC'D EMSL-BOSTON MAY 05 2022 RHB 0830

EMSL Analytical, Inc.

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http://www.EMSL.com / bostonlab@emsl.com

EMSL Order: 132203070
Customer ID: UEC63
Customer PO:
Project ID:

Attention: Ammar Dieb
Universal Environmental Consultants
12 Brewster Road
Framingham, MA 01702

Project: Bowen School; Newton, MA

Phone: (617) 984-9772
Fax: (508) 628-5488
Received Date: 05/05/2022 8:30 AM
Analysis Date: 05/07/2022
Collected Date: 05/04/2022

Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

			Non-Asbestos		Asbestos
Sample	**Description**	**Appearance**	**% Fibrous**	**% Non-Fibrous**	**% Type**
01 *132203070-0001*	Gym - 2x4 SAT Lumpy	Gray/White Fibrous Homogeneous	40% Cellulose 40% Min. Wool	20% Non-fibrous (Other)	None Detected
02 *132203070-0002*	Gym - 2x4 SAT Lumpy	Gray/White Fibrous Homogeneous	40% Cellulose 40% Min. Wool	20% Non-fibrous (Other)	None Detected
03 *132203070-0003*	Main Office Suite - 2x2 SAT	Gray/White Fibrous Homogeneous	40% Cellulose 40% Min. Wool	20% Non-fibrous (Other)	None Detected
04 *132203070-0004*	Main Lobby - 2x2 SAT	Gray/White Fibrous Homogeneous	40% Cellulose 40% Min. Wool	20% Non-fibrous (Other)	None Detected
05 *132203070-0005*	Room 209 - 2x4 SAT	Gray/White Fibrous Homogeneous	40% Cellulose 40% Min. Wool	20% Non-fibrous (Other)	None Detected
06 *132203070-0006*	Room 213 - 2x4 SAT	Gray/White Fibrous Homogeneous	40% Cellulose 40% Min. Wool	20% Non-fibrous (Other)	None Detected
07 *132203070-0007*	Room 209 - Joint Compound	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
08 *132203070-0008*	Room 213 - Joint Compound	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
09 *132203070-0009*	Auditorium - Plaster	Gray Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
10 *132203070-0010*	1st Floor Classroom Hallway - Plaster	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
11 *132203070-0011*	Room 122 - Plaster	Gray Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
12 *132203070-0012*	Room 126 - Plaster	Gray Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
13 *132203070-0013*	2nd Floor Classroom Hallway - Plaster	Gray Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
14 *132203070-0014*	Room 202 - Plaster	Gray Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
15 *132203070-0015*	Room 204 - Plaster	Gray Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
16 *132203070-0016*	Auditorium - 12x12 Beige VFT	Beige Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected

Initial report from: 05/09/2022 08:49:21

EMSL Analytical, Inc.
5 Constitution Way, Unit A Woburn, MA 01801
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EMSL Order: 132203070
Customer ID: UEC63
Customer PO:
Project ID:

Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

			Non-Asbestos		Asbestos
Sample	**Description**	**Appearance**	**% Fibrous**	**% Non-Fibrous**	**% Type**
17 *132203070-0017*	Auditorium - 12x12 Beige VFT	Beige Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
18 *132203070-0018*	Auditorium - Yellow Glue	Yellow Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
19 *132203070-0019*	Auditorium - Yellow Glue	Yellow Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
20 *132203070-0020*	Auditorium - Old Black Mastic	Black Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
21 *132203070-0021*	Auditorium - Old Black Mastic	Black Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
22 *132203070-0022*	Room 126 - 12x12 Blue Checkerboard VFT	Blue Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
23 *132203070-0023*	Room 204 - 12x12 Blue Checkerboard VFT	Blue Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
24 *132203070-0024*	on #22 - Yellow Glue	Yellow Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
25 *132203070-0025*	on #23 - Yellow Glue	Yellow Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
26 *132203070-0026*	1st Floor Classroom Hallway - 1x1 AT Ceiling	Gray/White Fibrous Homogeneous	40% Cellulose 40% Min. Wool	20% Non-fibrous (Other)	None Detected
27 *132203070-0027*	1st Floor Classroom Hallway - 1x1 AT Ceiling	Gray/White/Yellow Fibrous Homogeneous	40% Cellulose 40% Min. Wool	20% Non-fibrous (Other)	None Detected
28 *132203070-0028*	1st Floor Classroom Hallway - Glue Daub	Brown Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
29 *132203070-0029*	1st Floor Classroom Hallway - Glue Daub	Brown Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
30 *132203070-0030*	Room 126 - 1x1 AT Wall	Tan/White Fibrous Homogeneous	90% Cellulose	10% Non-fibrous (Other)	None Detected
31 *132203070-0031*	Room 202 - 1x1 AT Wall	Tan/White Fibrous Homogeneous	90% Cellulose	10% Non-fibrous (Other)	None Detected
32 *132203070-0032*	on #30 - Glue Daub	Brown Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
33 *132203070-0033*	on #31 - Glue Daub	Brown Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
34 *132203070-0034*	Room 126 - Gray Sink Coating	Gray Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
35 *132203070-0035*	Room 205 - Gray Sink Coating	Gray Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected

Initial report from: 05/09/2022 08:49:21

EMSL Analytical, Inc.
5 Constitution Way, Unit A Woburn, MA 01801
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http://www.EMSL.com / bostonlab@emsl.com

EMSL Order: 132203070
Customer ID: UEC63
Customer PO:
Project ID:

Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

			Non-Asbestos		Asbestos
Sample	**Description**	**Appearance**	**% Fibrous**	**% Non-Fibrous**	**% Type**
36 *132203070-0036*	Boiler Room - Cork Ceiling	Brown Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
37 *132203070-0037*	Boiler Room - Cork Ceiling	Brown Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
38 *132203070-0038*	Modular D - 2x2 SAT	Gray/White Fibrous Homogeneous	40% Cellulose 40% Min. Wool	20% Non-fibrous (Other)	None Detected
39 *132203070-0039*	Modular A - 2x2 SAT	Gray/White Fibrous Homogeneous	40% Cellulose 40% Min. Wool	20% Non-fibrous (Other)	None Detected
40 *132203070-0040*	Modular D - Gray Sink Coating	Gray Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
41 *132203070-0041*	Modular A - Gray Sink Coating	Gray Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
42 *132203070-0042*	Modular D - 12x12 Light Blue VFT	Blue Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
43 *132203070-0043*	Modular A - 12x12 Light Blue VFT	Blue Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
44 *132203070-0044*	on #42 - Yellow Glue	Yellow Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
45 *132203070-0045*	on #43 - Yellow Glue	Yellow Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected

Analyst(s)
Kevin Pine (45)

Steve Grise, Laboratory Manager
or Other Approved Signatory

Initial report from: 05/09/2022 08:49:21

OrderID: 132203016

CHAIN OF CUSTODY 132203016

Universal Environmental Consultants
12 Brewster Road
Framingham, MA 01702
Tel: (508) 628-5486 - Fax: (508) 628-5488
adieb@uec-env.com

PLM
24-hour TAT

Town/City: Newton, MA Building Name Bowen School

Sample	Description of Material	Sample Location
1	Dark Blue 12x12 VFT	Stairwell landing at 124-205
2	" "	" "
3	Yellow glue	" "
4	" "	" "

Reported By: Jason Beaudette Date: 5-4-22 Due Date: **24-Hours**

Received By: ---------- Date: ----------

REC'D RMB 0830
EMSL-BOSTON MAY 05 2022
DRd BY

EMSL Analytical, Inc.

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http://www.EMSL.com / bostonlab@emsl.com

EMSL Order:	132203016
Customer ID:	UEC63
Customer PO:	
Project ID:	

Attention:	Ammar Dieb	**Phone:**	(617) 984-9772
	Universal Environmental Consultants	**Fax:**	(508) 628-5488
	12 Brewster Road	**Received Date:**	05/05/2022 8:30 AM
	Framingham, MA 01702	**Analysis Date:**	05/06/2022
		Collected Date:	05/04/2022
Project:	Bowen School; Newton, MA		

Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

			Non-Asbestos		Asbestos
Sample	**Description**	**Appearance**	**% Fibrous**	**% Non-Fibrous**	**% Type**
1 *132203016-0001*	Stairwell Landing at 124-205 - 12x12 Dark Blue VFT	Blue Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
2 *132203016-0002*	Stairwell Landing at 124-205 - 12x12 Dark Blue VFT	Blue Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
3 *132203016-0003*	Stairwell Landing at 124-205 - Yellow Glue	Yellow Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
4 *132203016-0004*	Stairwell Landing at 124-205 - Yellow Glue	Yellow Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected

Analyst(s)

Ramon Buenaventura (4)

Steve Grise, Laboratory Manager
or Other Approved Signatory

Initial report from: 05/06/2022 08:30:19

Recommended Work Practices for Removal of Resilient Floor Coverings

Supersedes Recommended Work Practices Published in August 2004

JANUARY 2018

RFCi
Resilient Floor Covering Institute

115 Broad Street, Suite 201, LaGrange, GA 30240 | phone: 706.882.3833
fax: 706.882.3880 | www.rfci.com

RFCI
Resilient Floor Covering Institute

Recommended Work Practices for Removal of Resilient Floor Coverings

WARNING 

Do not sand, dry sweep, dry scrape, drill, saw, beadblast, or mechanically chip or pulverize existing resilient flooring, backing, lining felt, asphaltic "cutback" adhesive, or other adhesive.

These products may contain asbestos fibers and/or crystalline silica.

Avoid creating dust. Inhalation of such dust is a cancer and respiratory tract hazard. Smoking by individuals exposed to asbestos fibers greatly increases the risk of serious bodily harm.

Unless positively certain that the product is a non-asbestos-containing material, you must presume it contains asbestos. Regulations may require that the material be tested to determine asbestos content.

Similarly, absent testing data or objective evidence that work with the product will **not** result in exposures to crystalline silica greater than allowed by applicable regulations, protection may be required.

RFCI's Recommended Work Practices for Removal of Resilient Floor Coverings are a defined set of instructions addressed to the task of removing all resilient floor covering structures.

January 2018

IN CANADA

The Recommended Work Practices for the Removal of Resilient Floor Covering Materials are intended for use in the United States. The work practices for the removal of in-place resilient floor coverings and associated adhesives described in this publication have not been reviewed with either National or Provincial officials in Canada to determine their applicability when asbestos-containing or assumed to be asbestos-containing resilient floor covering materials are encountered .
These work practices are recommended when removing resilient floor covering and its associated adhesives that have been determined not to be asbestos-containing.

To determine what are acceptable work practices and the associated requirements for the removal of resilient floor covering that is assumed to contain asbestos or has been determined to contain asbestos, you should contact your local or provincial officials.

As an alternative to the removal of any in-place resilient floor covering materials, refer to page 10 (Alternative to Removal of Existing Resilient Floor Coverings).

TABLE OF CONTENTS

NOTICE

Various Federal, State and local government agencies have regulations governing the removal of in-place asbestos-containing material. If you contemplate the removal of a resilient floor covering structure that contains (or is presumed to contain) asbestos, you must review and comply with all applicable regulations.

This booklet replaces all prior editions of the RFCI and Armstrong Recommended Work Practices Publications. Please note that these recommended work practices are subject to change as new practices are incorporated. It is your responsibility to determine that the recommended work practices you use are those in effect.

Important Information for Installers of Resilient Floor Coverings Concerning Existing Resilient Floor Covering Structures

- Vinyl asbestos tile and asphalt tile contain asbestos fibers, as did some asphaltic "cutback" adhesives and the backings of many sheet vinyl floorings and lining felts. The presence of the asbestos in these products is not readily identifiable.

- While resilient floor covering products manufactured today do not contain asbestos, the asbestos used in the older products was encapsulated in the matrix of the product. The Environmental Protection Agency (EPA) recognizes that those products are non-friable (i.e. when dry cannot be crumbled, pulverized or reduced to powder by hand pressure) unless certain activities prohibited by the removal practices in this booklet occur.

- Unless positively certain that the product you intend to remove is a non-asbestos containing material, you must presume it contains asbestos. Regulations may require that the material be tested to determine asbestos content.

- RFCI's Recommended Work Practices are a defined set of instructions addressed to the task of removing all resilient floor covering structures whether or not they contain asbestos. When RFCI's Recommended Work Practices are followed, resilient floor covering structures that contain (or are presumed to contain) asbestos can be removed in a manner that will comply with the current Occupational Exposure to Asbestos Standard's Permissible Exposure Limits (PEL) issued by the Occupational Safety and Health Administration (OSHA).

- Numerous products, devices and techniques have been recently introduced and/or recommended for the removal of resilient floor covering st ructures. Before you use any practices other than those identified in this booklet for the removal of an in-place resilient floor-covering product that contains (or is presumed to contain) asbestos, you must determine that the practice meets all applicable regulations or standards including the OSHA standards for occupational exposure to asbestos and the EPA asbestos regulations. You must also determine that any materials used during the removal practice will be compatible with the new floor covering to be installed.

Mold and Mildew

Prior to removing an existing resilient floor following the **RFCI Recommended Work Practices for Removal of Resilient Floor Coverings** (unless state or local law requires other measures) or installing a new floor, if there are visible indica tions of mold or mildew or the presence of a strong musty odor in the area where resilient flooring is to be removed or installed, the source of the problem should be identified and corrected before proceeding with the flooring work. In virtually all situations, if there is a mold issue, there is or has been an excessive moisture issue. Visible signs of mold or mildew (such as discoloration) can indicate the presence of mold or mildew on the subfloor, on the underlayment, on the back of the flooring, and sometimes even on the floor surface. If mold or mildew is discovered during the removal or installation of resilient flooring, all flooring work should stop until the mold/mildew problem (and any related moisture problem) has been addressed. Before installing the new resilient flooring, make sure the underlayment and/or subfloor is allowed to thoroughly dry and that any residual effect of excessive moisture, mold, or structural damage has been corrected.

To deal with mold and mildew issues, you should refer to the U.S. Environmental Protection Agency (EPA) guidelines that address mold and mildew. Depending on the mold or mildew condition present, those remediation options range from cleanup measures using gloves and biocide to hiring a professional mold and mildew remediation contractor to address the condition. Remediation measures may require structural repairs such as replacing the underlayment and/or subfloor contaminated with mold and mildew as a result of prolonged exposure to moisture.

The EPA mold guidelines are contained in two publications "A Brief Guide to Mold, Moisture and Your Home" (EPA 402-K-02-003) and "Mold Remediation in Schools and Commercial Buildings" (EPA 402-K-01-001). Appendix B of the "Mold Reme diation in Schools and Commercial Buildings" publication describes potential health effects from exposure to mold, such as allergic and asthma reactions and irritation to eyes, skin, nose and throat. These publications can be located on EPA's website at www.epa.gov/iaq/molds

OSHA REQUIREMENTS

A. Asbestos

In August 1994, OSHA published revised asbestos standards which affect some of the operations described in this booklet. OSHA has determined that intact resilient floor covering materials can be removed under a "negative exposure assessment" in compliance with the revised standards by appropriately trained workers using the Recommended Work Practices.

- "Intact" is defined to mean that the asbestos-containing material has not crumbled, been pulverized, or otherwise deteriorated so that it is no longer likely to be bound with its matrix. The incidental breakage of flooring materials, or slicing of sheet vinyl floor covering with a sharp-edged instrument, during removal operations conducted in accordance with the Recommended Work Practices does not mean that the materials are not removed in an "intact" condition . OSHA has recognized that resilient floor covering materials are considered nonfriable if intact and generally do not emit airborne fibers unless subjected to sanding, sawing or other aggressive operations.

- Installers of resilient floor covering materials that plan to use the Recommended Work Practices outlined in this book to remove intact and nonfriable asbestos containing flooring materials are required to complete an 8-hour training program.

- Employers must designate a "competent person" with 4 hours of additional training to be responsible for the health and safety of the workers at the floor removal job site.

- OSHA has determined that the competent person can make a "negative exposure assessment" based upon data in the OSHA asbestos rulemaking record (including data from the Environ Reports) showing that use of the Recommended Work Practices during removal of intact flooring material consistently results in worker exposures below the levels permitted in the OSHA standards.

- Where other workers or persons may have access to the flooring removal worksite, the employer must establish a demarcated "regulated area" (e.g. using barrier tape or closing room doors to enclose a work area) and post warning signs.

- Workers who engage in the removal of asbestos-containing flooring materi als for more than 30 days per year (one hour or more per day) must receive medical su rveillance .

- Employers are required to maintain certain training and workplace and medical records.

OSHA REQUIREMENTS

B. Crystalline Silica

In March 2016, OSHA published a revised rule relating to occupational exposure to respirable crystalline silica which could affect some of the operations described in this booklet. In general, the revised rule established a new permissible exposure limit (PEL) of 50 ug/m^3 for respirable silica. The rule also requires exposure assessments, the use of exposure control methods, respiratory protection, medical surveillance, hazard communication information, and recordkeeping.

More specifically, the revised standard requires employers:

- to assess employee exposures to silica if exposures may be at or above an action level of 25 ug/m^3 (micrograms per cubic meter of air) when averaged over an eight hour day;
- to protect workers from respirable crystalline silica exposures above the permissible exposure limit of 50 ug/m^3, when averaged over an eight hour day;
- to limit worker access to areas where they could be exposed to crystalline silica above the PEL;
- to use dust controls to protect workers from exposures above the PEL, and where that is not possible, to provide respirators;
- to use feasible housekeeping methods that do not create airborne dust;
- to establish and implement a written exposure control plan that identifies tasks that involve exposure and protection methods; and
- to offer medical exams every three years for workers who are exposed at or above the action level for at least 30 days per year; and to provide certain training and maintain certain records.

Most provisions of the rule took effect on January 23, 2018, except that the medical surveillance provisions will become applicable on June 23, 2020.

EPA LEAD-BASED PAINT REQUIREMENTS

Effective July 6, 2010, EPA has established training, certification, and work practice requirements for paid renovation, repair, or remodeling work that disturbs more than 6 square feet of lead-based paint per room within a 30 day period in a home (e.g. single-family, apartments) or a facility occupied by children under age of 6 (e.g., daycare center, preschool) built prior to 1978. 40 C.F.R. § 745.80 et seq. In these pre-1978 facilities, it is assumed that any painted surfaces contain lead paint, unless EPA-approved testing is performed to show that the disturbed surfaces are lead-free.

The removal or installation of resilient flooring in these pre-1978 buildings may involve disturbing or removing molding, baseboards, or floors (e.g., wood) that have been painted with lead-based paint or cutting off the bottom of painted doors or molding to allow the new floors to fit. To determine whether more than 6 square feet in a room is disturbed, multiply the total length of the disturbed painted material by its height (both numbers in feet). For example, if a 4 inch high baseboard (1/3 foot) is being removed as part of an installation or removal, over 18 linear feet of this baseboard would have to be removed to trigger the rule (1/3 foot x 18 feet= 6 square feet). For more examples, see http:// www.epa.gov/lead/pubs/ rrp-faq.pdf.

If the rule is triggered the following training, certification, and work practices are required:

- Employees performing the work must have completed a lead-safe work practices training course of 8 hours in length approved by EPA, which training is valid for 5 years.

- The firm performing the work must be lead-safe certified by EPA, which requires the submission of an application and fee to EPA. The application fee is typically $300 for a five year certification and it may take up to 90 days to process the application. The application procedures for each state can be found at the link in the paragraph above.

- Before beginning work, your firm must: (1) notify the residents of the affected homes or the parents of the affected children by providing the EPA Renovate Right pamphlet (http://www.epa.gov/lead/pubs/renovaterightbrochure.pdf); and (2) must maintain its notification records for 3 years.

- Your firm and employees must use lead-safe work practices, including posting warning signs; isolating the work area with plastic sheeting or other materials; removing or covering furniture; cleaning and inspecting the worksite when the work is finished; and disposing of any waste in a safe manner.

Some states operate their own lead-based paint programs and may have more stringent requirements than the EPA rule. See http://www.epa.gov/lead/pubs/renovation.htm#states for a list of states with their own rules.

GENERAL RULES FOR REMOVAL OF RESILIENT FLOOR COVERING

When following the Recommended Work Practices there are several general rules to follow:

Never sand, dry scrape, drill, saw, beadblast, or mechanically chip or pulverize any resilient flooring, backing, lining felt, asphaltic "cutback" adhesive, or other adhesive to remove them from the floor. See "Warning Statement" on page one.

- Unless positively certain the product you intend to remove is a non-asbestos containing material, you must presume it contains asbestos. Regulations may require that the material be tested to determine asbestos content.
- Removal of existing floor covering should be considered the last alternative.
- Use a vacuum equipped with HEPA filter, disposable dust bag, and metal floor attachment (no brush).
- All sheet floor removals must be done using detergent solution.
- All felt scraping must be done wet.
- Prior to removal, all tile must be wetted (except in cases where heat will be applied).
- Do not dry sweep.
- Material removed must be placed in heavy-duty impermeable bags at least 6 mils thick or in a leak-tight container, properly labeled and disposed of in an authorized landfill.

ALTERNATIVES TO REMOVAL OF EXISTING RESILENT FLOOR COVERINGS

Removal of the in-place resilient floor should be considered the final alternative. It is preferred you leave the existing resilient floor covering in place and go over the top (single flooring layer only) with the new floor.

Alternatives to the removal of an existing resilient floor over approved subfloors are:

- Installing directly over a single layer of approved existing resilient flooring.
- Filling the embossing of the in-place resilient flooring with embossing leveler before installation (residential use only).
- Covering existing resilient flooring on an approved suspended wood subfloor with a recommended wood underlayment.

When you plan to install a new resilient sheet or tile floor covering over an existing resilient floor covering, follow the installation instructions published by the manufacturer. Those instructions will tell you what must be done to the existing surface before the new resilient floor covering can be installed. Remove wax and other finishes by wet stripping only.

Contact a local established floorcovering dealer for additional information.

REMOVAL OF RESILIENT SHEET FLOORING

Supplies and Tools

- Safety glasses and gloves
- Stiff-bladed wall or floor scraper
- Utility or hook knife
- Tank-type High Efficiency Particulate Air (HEPA) wet/dry vacuum cleaner with disposable dust bag and metal floor attachment (no brush)
- Hand-held tank sprayer
- Large-size heavy-duty impermeable trash bags (at least 6 mils thick) or closed leak-tight containers with ties, tape, or string to tie the bags shut, and appropriate labels stating, for example "Caution- Contains Asbestos. Avoid Opening or Breaking Bag or Container. Breathing Asbestos is Hazardous to Your Health". It may also be appropriate to include in the label a warning regarding the presence of crystalline silica.
- A liquid dishwashing detergent which is stated to contain anionic, nonionic and amphoteric surfactant s. Mix this specified liquid dishwashing detergent with water to make a dilute solution (16 oz. specified liquid dishwashing detergent in one gallon of water)
- Ground fault circuit interrupter for electrical connection of the HEPA vacuum and any other electrical connections required

REMOVAL OF FULLY-ADHERED RESILIENT SHEET FLOORING

WARNING 

Do not sand, dry sweep, dry scrape, drill, saw, beadblast or mechanically chip or pulverize existing resilient flooring, backing, lining felt, asphaltic "cutback" adhesive, or other adhesive. See "Warning Statement" on page one.

- Remove all furniture and appliances from the work area.
- Remove any binding strips or other restrictive moldings from doorways, walls, etc.
- Prepare the specified liquid dishwashing detergent solution (16 oz. of specified liquid dishwashing detergent to one gallon of water) and pour into a hand sprayer.
- Before removal begins, vacuum the entire floor using a HEPA vacuum with a metal floor attachment.

WARNING 

Electrical shock hazard exists. Use a ground fault interrupter for any electrical connections of equipment used in a wet environment

- Make a series of parallel slices 4" to 8" apart through the top layer of the flooring and about halfway through the backing, parallel to the wall, for the entire floor.

WARNING 

Resilient flooring becomes slippery when wet with the specified liquid dishwashing detergent solution. Use caution to contain the solution in the immediate work area.

- Wear layer removal: One worker starts at the end of the room farthest from the entrance door and pries up the corner of the strip, separating the backing from the wear layer. As the strip is being removed, another worker sprays a constant mist of the specified liquid dishwashing detergent solution into the delamination nip point to minimize any airborne dust particles. When done properly, the felt remaining on the floor and on the back of the strip will be thoroughly wet. Do only one three strip area at a time. Stand on the remaining floor covering or clean floor (to the extent feasible, minimize standing on the felt). The sliced strips should be peeled from the backing by pulling or rolling around a core which will control the stripping angle to create a uniform tension (some resilient flooring wear layers may not be readily strippable and may require wet-scraping). Tie or tape the removed material securely and place in the heavy-duty impermeable trash bag or closed leak-tight container for disposal.

- Remove and dispose of each succeeding strip in the above manner. Minimize walking on the exposed felt to the extent feasible. Worker footwear must be cleaned or removed before leaving work area. Close full bags tightly, and seal securely for disposal. Identify with an appropriate label stating, for example "Caution-Contains Asbestos. Asbestos is Hazardous to Your Health." It may also be appropriate to include in the label a warning regarding the presence of crystalline silica. Dispose in an approved landfill only.

- Occasionally, parts of the top or inner layer will stick to the backing. This can often be eliminated by peeling in the opposite direction. The stiff-bladed scraper may aid in the removal or peeling of these layers.

- Wet-scraping residual felt :
    (1) After three strips of flooring material are removed, any residual felt must be wet scraped. Thoroughly wet the residual felt with the specified liquid dishwashing detergent solution. Wait a few minutes to allow the specified liquid dishwashing detergent solution to soak into the felt.

    (2) Stand on the remaining floor covering to the extent feasible (not the felt) and use the stiff bladed scraper to scrape up the wet felt.

    (3) Rewet the felt if the specified liquid dishwashing detergent solution has not completely penetrated, if drying occurs, or if dry felt is exposed during scraping. Pick up the scrapings while still wet as they are removed from the floor and place in a heavy-duty impermeable trash bag or leak-tight container. Wet-scrape all felt from this floor area before proceeding further.

PRECAUTION:
Excessive moisture can cause permanent damage to wood underlayments. It is the installer's responsibility to use the correct amount of specified liquid dishwashing detergent solution to prevent underlayment damage. A floor that has been wet-scraped must be allowed to dry before installing any new resilient flooring.

(4) When this floor area has been cleaned free of felt, vacuum with HEPA vacuum cleaner with the metal floor attachment. Position the vacuum cleaner so that the discharge air does not blow on the area being cleaned.

(5) Repeat the above on the next series of strips.

(6) Repeat this operation until the felt has been removed from the whole floor. Close full bags tightly and seal securely for disposal. Identify with an appropriate label stating, for example "Caution-Contains Asbestos. Avoid Opening or Breaking Bag or Container. Breathing Asbestos is Hazardous to Your Health." It may also be appropriate to include in the label a warning regarding the presence of crystalline silica. Dispose in an approved landfill only.

(7) When the entire floor has been removed, let it dry and vacuum with HEPA vacuum cleaner with the metal floor attachment. Position the vacuum cleaner so that the discharge air does not blow on the area being cleaned.

(8) After vacuuming, used HEPA filters and cleaner bags should be removed according to the manufacturer's instructions and placed in a heavy-duty impermeable trash bag or leaktight container with an appropriate label stating, for example "Caution-Contains Asbestos Avoid Opening or Breaking Bag or Container. Breathing Asbestos is Hazardous to Your Health." It may also be appropriate to include in the label a warning regarding the presence of crystalline silica. Close and seal the trash bag securely for disposal. Dispose in an approved landfill only.

(9) The floor is now ready to have a new resilient floor covering installed. Follow the manufacturer's installation instructions.

REMOVAL OF UNADHERED (LOOSE-LAY) OR PERIPHERALLY-ADHERED RESILIENT SHEET FLOORING

WARNING 

Do not sand, dry sweep, dry scrape, drill, saw, beadblast, or mechanically chip or pulverize existing resilient flooring, backing, lining felt, asphaltic "cutback" adhesive, or other adhesive. See "Warning Statement" on page one.

- Remove all furniture and appliances from the work area.
- Remove any binding strips or other restrictive moldings from doorways, walls, etc.
- Prepare the specified liquid dishwashing detergent solution (16 oz. of specified liquid dishwashing detergent to one gallon of water) and pour into a hand sprayer.
- Before removal begins, vacuum the entire floor using a HEPA vacuum with a metal floor attachment.

WARNING 

Electrical shock hazard exists. Use a ground fault interrupter for any electrical connections of equipment used in a wet environment

- If flooring is unadhered, start at the end of the room farthest from the entrance doorway and slice a strip 18" wide in the unadhered flooring. One worker removes the sliced strip while another worker sprays the specified liquid dishwashing detergent solution directly into the separation nip point. Minimize standing on the exposed subfloor during the removal process to the extent feasible.

CAUTION 

Resilient flooring becomes slippery when wet with specified liquid dishwashing detergent solution. Use caution to contain the solution in the immediate work area. Standing on a new sheet of plywood or non-slip surface while working is recommended.

- Roll the wet strip tightly and tie or tape securely so it will not unroll. Place it in a heavy-duty, impermeable trash bag or closed leak-tight container big enough to accommodate several rolls for disposal.

Use this method for nonbonded areas of peripherally-adhered floors. To remove bonded areas, follow instructions under "Removal of Fully-Adhered Resilient Sheet Flooring."

- Clean the exposed floor with a HEPA vacuum cleaner with the metal floor attachment. Position the vacuum cleaner so that the discharge air does not blow on the area being cleaned.

- Repeat the above, slicing, rolling and disposing of one strip at a time and cleaning the newly exposed area immediately until the entire floor covering has been removed. Let the floor dry, then vacuum with a HEPA vacuum cleaner using metal floor attachment.

- After vacuuming, used HEPA filters and cleaner bags should be removed according to manufacturer's instructions and placed in a heavy-duty impermeable trash bag or leak-tight container with an appropriate label stating, for example "Caution-Contains Asbestos . Avoid Opening or Breaking Container. Breathing Asbestos is Hazardous to Your Health:" It may also be appropriate to include in the label a warning regarding the presence of crystalline silica. Close and seal the trash bags or leak-tight container securely for disposal. Dispose in an approved landfill only.

- The floor is now ready for installation of new floor covering using the manufacturer's installation instructions.

REMOVAL OF RESILIENT TILE

Supplies and Tools

- Safety glasses and gloves
- Short or long-handled scraper (DO NOT USE SPUD BAR OR MECHANICAL CHIPPER)
- Hammer
- Commercial-type hand-held hot-air gun or a radiant heat source such as an infrared machine
- Large size, heavy-duty labeled, impermeable trash bags with minimum 6 mil thickness (or closed leak-tight containers), with ties, tape or string to tie shut, and tags for labeling
- Tank-type High Efficiency Particulate Air (HEPA) wet/dry vacuum cleaner with disposable dust bag and metal floor attachment (no brush)
- Hand-held tank sprayer
- Ground fault circuit interrupter for electrical connection of the HEPA vacuum and any other electrical connections required

REMOVAL PROCEDURE

WARNING

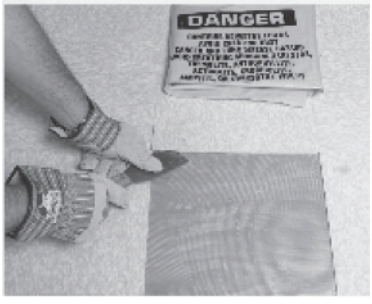
Do not sand, dry sweep, dry scrape, drill, saw, beadblast, or mechanically chip or pulverize existing resilient flooring, backing lining felt, asphaltic "cutback" adhesive, or other adhesive. See "Warning Statement" on page one.

- Remove all furniture and appliances from the work area. Remove any binding strips or other restrictive moldings from doorways, walls, etc.
- Before removal begins, vacuum the entire floor using a HEPA vacuum with a metal floor attachment.
- Floor tiles must be wetted (misted with hand sprayer) before actual removal begins (unless heat will be used to remove tile s).

WARNING

Electrical shock hazard exists. Use a ground fault interrupter for any electrical connections of equipment used in a wet environment.

- Those areas normally exposed to heavy foot traffic patterns usually have tiles adhered the tightest. In starting the tile removal process, select those areas which receive the least traffic. Try to remove individual tiles in one piece although some breakage of tiles is unavoidable.
- Start the removal by carefully wedging a short or long handled scraper in the seam of two adjoining tiles and gradually forcing the edge of one of the tiles up and away from the floor. Continue to force the balance of the tile up by working the scraper beneath the tile and exerting both a forward pressure and a twisting action on the blade to promote release of the tile from the adhesive and the floor.



- After the tiles are removed, place them, without further breakage, in a heavy-duty impermeable trash bag or closed leak-tight container which will be used for disposal. Removed tiles can be placed in empty tile cartons first and then placed in the heavy-duty impermeable trash bag. To prevent tearing of the heavy-duty impermeable trash bag, place only one full carton of removed tile in a bag.

- With the removal of the first tile, accessibility of other tiles is imp roved. Force the scraper under the exposed edge of another tile, and continue to exert a prying, twisting force to the scraper as it is moved under the tile until the tile releases from the floor. Remove and dispose of each tile in the manner described above.

- Minimize walking on the exposed adhesive to the extent feasible. Worker footwear must be cleaned or removed before leaving work area. Close full bags tightly and seal securely for disposal. Identify with an appropriate label stating, for example "Caution-Contains Asbestos. Avoid Opening or Breaking Container. Breathing Asbestos is Hazardous to Your Health." It may also be appropriate to include in the label a warning regarding the presence of crystalline silica. Dispose in an approved landfill only.

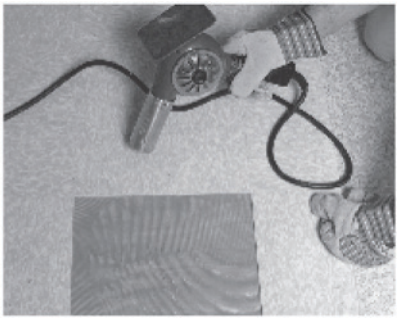
- Some tiles will release quite easily while others require varying degrees of force. Where the adhesive is spread heavily or the tile is bonded tightly, it may prove easier to force the scraper under the tightly adhered areas by striking the scraper handle with a hammer, using blows of moderate force while maintaining the scraper at a 25° to 30° angle to the floor.

CAUTION

Wear safety glasses when using this procedure.

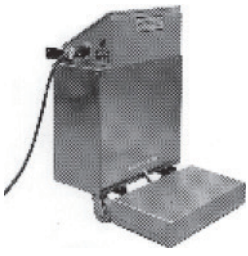
- If you encounter areas where even the above methods will not remove the tiles, the removal procedure can be simplified by thoroughly heating the tiles with a hot air gun or a radiant heat source until the heat penetrates through the tile and softens the adhesive.

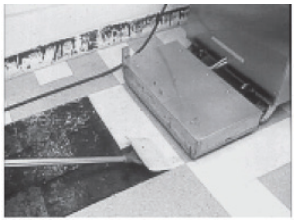
- Alternatively, without first prying up floor tiles using a scraper, a heat source like a hot air gun or infrared heat machine can be used to apply heat to the floor tiles and then the tiles may be removed by hand or by using a scraper. (Wetting the tiles is not required for this alternative removal method). When using this procedure, walking on exposed adhesive may be unavoidable. Worker footwear must be cleaned or removed before leaving the work area.

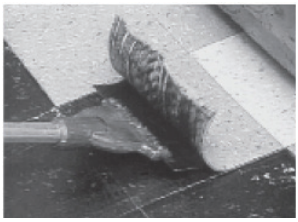


CAUTION

Handle the hot-air gun or radiant heat source carefully to avoid burn injury. Do not handle the heated tiles or adhesive without suitable glove protection. Do not use a blowtorch or open flame. Use caution not to burn or char tiles. Work area must be adequately ventilated.







- When using an infrared heat machine, follow manufacturer's instructions.

- After tiles are removed, place them in a heavy-duty impermeable trash bag or other closed leak-tight container without further breakage. Removed tiles can be placed in empty tile cartons first and then placed in the heavy duty impermeable trash bag s. To prevent tearing of the heavy-duty impermeable trash bag, place only one full carton of removed tile in a bag.

- Close the full bags of removed tile tightly and seal securely for disposal. Identify with an appropriate label stating, for example "Caution- Contains Asbestos. Avoid Opening or Breaking Container. Breathing Asbestos is Hazardous to Your Health." It may also be appropriate to include in the label a warning regarding the presence of crystalline silica. Dispose in an approved landfill only.

WARNING

Do not sand, dry sweep, dry scrape, drill, saw, beadblast, or mechanically chip or pulverize existing resilient flooring, backing, lining felt, asphaltic "cutback" adhesive, or other adhesive. See "Warning Statement" on page one.

- See Section 5, "Removal of Residual Adhesives" for proper treatment of remaining adhesive.

REMOVAL OF RESIDUAL ADHESIVE

The removal of latex based adhesives commonly used with vinyl sheet floors and some tiles can be accomplished by wetting the adhesive residue (which will soften the adhesive) and scraping. Do not use an excessive amount of water which can damage wood subfloors. The treatment of residual asphaltic "cutback" adhesive, which is covered in this section, is dependent upon the type of new resilient floor covering material to be installed and the type of subfloor. Recommendations for the treatment of residual asphaltic "cutback" adhesive are shown on pages 21 through 26.

NOTE

There are commercial adhesive removal products containing solvents that are effective in removing cutback or emulsion adhesives and comply with OSHA requirements (e.g. flashpoint greater than 140° F). These products may be used for adhesive removal; however, they may leave a solvent residue within the subfloor that can adversely affect the new adhesive or floor covering. Thus, the warranties provided by the manufacturers of new floor covering materials will not cover instances where subfloor conditions damage their products or affect their installation.

The use of asbestos encapsulants or bridging materials over asphaltic adhesive is not recommended as those products may affect the bonding properties of the new adhesive. The application of asphaltic "cutback" adhesives, if recommended by the replacement flooring manufacture, has been demonstrated to be a suitable adhesive when applied over existing cutback adhesive. The use of any new adhesive must be consistent with the installation recommendations of the replacement-flooring manufacturer.

Supplies and Tools

- Safety glasses and gloves
- Stiff-bladed wall or floor scraper
- Tank-type High Efficiency Particulate Air (HEPA) wet/dry vacuum cleaner with disposable dust bag and metal floor attachment (no brush)
- Large-size, heavy-duty, impermeable trash bags (or closed leak-tight containers) with ties, tape, or string to tie the bags shut, and tags for labeling.
- Slip-resistant shoes or rubber boots
- Ground fault circuit interrupter for electrical connection of the HEPA vacuum and any other electrical connections required
- Hand-held sprayer

- A liquid dishwashing detergent which is stated to contain anionic, nonionic and amphoteric surfactants. Mix this specified liquid dishwashing detergent with water to make a dilute solution (1 oz. of the specified liquid dishwashing detergent to one gallon of water)

- Floor machine fitted with 3M black floor pad (or equivalent)

- Removal solution-e.g. "mop on, mop off, no machine scrub," tripping solution See note on page 23 regarding use of other solutions

- Water-absorbent material

RESIDUAL ASPHALTIC "CUTBACK" ADHESIVE

CONCRETE SUBFLOOR			WOOD UNDERLAYMENT SUBFLOOR	
New Material to Be Installed	Removal of Residual Adhesive	Alternative to Removal	Removal of Residual Adhesive	Alternative to Removal
Resilient floor tile to be installed using cutback adhesive.	Residual adhesive must be wet-scraped so that no ridges or puddles are evident and what remains is a thin, smooth film. See wet-scraping of residual adhesive.	Application of a cementitious underlayment that is approved by the underlayment manufacturer for use over residual asphaltic "cutback" adhesive.[2]	The use of a cutback adhesive over wood underlayment subfloor is not recommended.	The use of a cutback adhesive over wood underlayment subfloor is not recommended
Resilient floor tile to be installed using an adhesive other than cutback adhesive.	Residual adhesive must be wet-scraped so that no ridges or puddles are evident and what remains is a thin, smooth film. See wet-scraping of residual adhesive.	Application of a cementitious underlayment that is approved by the underlayment manufacturer for use over residual asphaltic "cutback" adhesive.[2]	Complete removal of Wood Underlayment. See Complete Removal of Wood Underlayment Under Existing Tile.	Covering residual asphaltic "cutback" adhesive on an approved wood subfloor with a recommended wood underlayment.[2] When installing this new wood underlayment, felt or polyethylene sheeting may be placed over the residual adhesive to prevent a cracking or tacky sound when walking on the floor.
Any vinyl-backed sheet flooring	100% of the residual adhesive must be removed from the area to be covered. See removal of residual adhesive.	Application of a cementitious underlayment that is approved by the underlayment manufacturer for use over residual asphaltic "cutback" adhesive.[2]	Complete removal of Wood Underlayment. See Complete Removal of Wood Underlayment Under Existing Tile	Covering residual asphaltic "cutback" adhesive on an approved wood subfloor with a recommended wood underlayment.[2] When installing this new wood underlayment, felt or polyethylene sheeting may be placed over the residual adhesive to prevent a cracking or tacky sound when walking on the floor.
Felt-backed sheet flooring.	Enough of the residual adhesive must be removed so that 80% to 100% of the original substrate of the overall area is exposed.[1] See removal of residual adhesive.	Application of a cementitious underlayment that is approved by the underlayment manufacturer for use over residual asphaltic "cutback" adhesive.[2]	Complete removal of Wood Underlayment. See Complete Removal of Wood Underlayment Under Existing Tile	Covering residual asphaltic "cutback" adhesive on an approved wood subfloor with a recommended wood underlayment.[2] When installing this new wood underlayment, felt or polyethylene sheeting may be placed over the residual adhesive to prevent a cracking or tacky sound when walking on the floor.

[1] Amount of adhesive which must be removed varies. Check with manufacturer of replacement felt-backed sheet flooring for requirements.

[1]All warranties and/or guarantees concerning underlayment's performance rest with the underlayment manufacturer and not with the resilient floor covering manufacturer.

WET-SCRAPING RESIDUAL ADHESIVE

WARNING

Do not sand, dry sweep, dry scrape, drill, saw, beadblast, or mechanically chip or pulverize existing resilient flooring, backing, lining felt, asphalic "cutback" adhesive, or other adhesive. See "Warning Statement" on page one.

If new resilient floor tile is to be installed over a concrete subfloor using an asphaltic adhesive, the residual asphaltic "cutback" adhesive must be left so that no ridges or puddles are evident and what remains is a thin, smooth film. This can be accomplished by wet-scraping the residual adhesive.

Wet-Scraping residual asphaltic "cutback" adhesive:

- Moisten an area with water mixed with the specified liquid dishwashing detergent (1 oz. specified liquid dishwashing detergent to one gallon of water) to aid in wetting the adhesive. Make sure that the area stays moist. Wet-scrape with a stiff-bladed wall or floor scraper removing ridges and any loose adhesive. Make sure the adhesive is kept wet.
- Place loosened adhesive residue into a heavy-duty impermeable trash bag or leak-tight container with an appropriate label stating, for example: "Caution -Contains Asbestos. Avoid Opening or Breaking Container. Breathing Asbestos is Hazardous to Your Health." It may also be appropriate to include in the label a warning regarding the presence of crystalline silica. Close and seal the trash bag securely for disposal. Dispose in an approved landfill only.
- Wet vacuum standing water with the HEPA vacuum cleaner.
- Continue above steps until what remains of the residual asphaltic "cutback" adhesive is a thin, smooth film.
- Clean the entire floor with the HEPA vacuum cleaner using the metal floor attachment.
- After vacuuming, used HEPA filters and cleaner bags should be removed according to manufacturer's instructions and placed in a heavy-duty, imperme able trash bag or leak tight container with an appropriate label stating, for example: "Caution-Contains Asbestos. Avoid Opening or Breaking Container. Breathing Asbestos is Hazardous to Your Health." It may also be appropriate to include in the label a warning regarding the presence of crystalline silica. Close and seal the trash bags or containers securely for disposal. Dispose in an approved landfill only.

COMPLETE REMOVAL OF ASPHALTIC "CUTBACK" ADHESIVE

WARNING 

Do not sand, dry sweep, dry scrape, drill, saw, beadblast or mechanically chip or pulverize existing resilient flooring, backing, lining fell, asphaltic "cutback" adhesive, or other adhesive. See "Warning Statement" on page one.

REMOVAL METHOD

- Start in corner of the room farthest from the entrance door. Apply the removal solution (e.g. "mop on, mop off, no machine scrub," stripping solution) by using a hand sprayer or mop over an area of residual adhesive so that the adhesive in this area always remains wet during its removal. Allow the area to soak for 5-10 minutes. Remove the adhesive using a floor machine equipped with a 3M black floor pad (or equivalent), ensuring that the floor is kept wet in the area where the machine is operating.

WARNING 

Electrical shock hazard exists. Use a ground fault circuit interrupter for any electrical connections of equipment used in a wet environment.

- Occasionally push away the adhesive slurry from the subfloor with a wall or floor scraper or squeegee to check for complete removal. Continue to use the floor machine, equipped with black pad, in the same area until the concrete subfloor is cleaned to the degree necessary for the new floor installation.

- Adhesive around the edge of the room and in areas that were missed or difficult to reach with the machine can be removed with a hand-held piece of the black floor pad using the above procedures.

WARNING 

Electrical shock hazard exists. Use a ground fault interrupter for any electrical connections of equipment used in a wet environment.

- Wet HEPA vacuum the adhesive slurry. When the HEPA vacuum is full, place commercially suitable water absorbent into the HEPA container until the adhesive slurry is absorbed. An absorbent material may be used on the slurry to absorb the adhesive residue. Place the adhesive waste from the HEPA vacuum or floor into heavy-duty, impermeable bags or leak-tight containers with an appropriate label stating, for example "Caution-Contains Asbestos Avoid Creating Dust. Avoid Opening or Breaking Container. Breathing Asbestos May Cause Bodily Harm." It may also be appropriate to include in the label a warning regarding the presence of crystalline silica. Close and seal the trash bag securely for disposal. Dispose in an approved landfill only.

- Rinse floor area with clean water using a hand sprayer or mop. Worker footwear should also be cleaned and rinsed.

- Wet-vacuum standing water with HEPA vacuum cleaner.

- Continue above steps until the entire room is complete.

- Allow subfloor to dry and vacuum with a HEPA vacuum with metal floor attachment.

- Minimize walking on the wet adhesive to the extent feasible. Worker footwear must be cleaned or removed before leaving the work area.

COMPLETE REMOVAL OF WOOD UNDERLAYMENT

Supplies and Tools

- Safety glasses and gloves
- Chisel
- Hammer or mallet
- Short and long-handled pry bars
- Utility or hook knife
- Stiff-bladed wall or floor scraper
- Large-size, heavy-duty, impermeable trash bags (or leak-tight container) with ties, tape, or string to tie the bag shut and tag for labeling
- Tank-type High Efficiency Particulate Air (HEPA) wet/dry vacuum cleaner with disposable dust bags and metal floor attachment (no brush)
- Hand sprayer
- A liquid dishwashing detergent which is stated to contain anionic, nonionic and amphoteric surfactants
- 6-mil polyethylene sheeting
- Duct tape
- Ground fault circuit interrupter for electrical connection of the HEPA vacuum and any other electrical connections required
- For tile removal only-Commercial-type, handheld, hot-air gun or a radiant heat source such as infrared machine

COMPLETE REMOVAL OF WOOD UNDERLAYMENT {SUBFLOOR) UNDER EXISTING SHEET FLOORING

WARNING

Do not sand, dry sweep, dry scrape, drill, saw, beadblast, or mechanically chip or pulverize existing resilient flooring, backing, lining felt, asphaltic "cutback" adhesive, or other adhesive. See "Warning Statement" on page one.

- Remove all furniture and appliances from the work area.
- Remove any binding strips or other restrictive moldings from doorways, walls, etc.
- Prepare the specified liquid dishwashing detergent solution (16 oz. of specified liquid dishwashing detergent to one gallon of water) and pour into a hand sprayer.
- Before removal begins, vacuum the entire floor using a HEPA vacuum with a metal floor attachment

WARNING

Electrical shock hazard exists. Use a ground fault interrupter for any electrical connections of equipment used in a wet environment.

- Starting at the doorway or a floor ventilation vent, locate a joint in an underlayment board.
- Slice a strip of flooring 4 to 8 inches wide centered over the underlayment joint in the panel to be removed. Slice through the top and inner layers of flooring and about halfway through the backing. Continue this procedure for all underlayment joints over the entire floor.

CAUTION

Resilient flooring becomes slippery when wet with specified liquid dishwashing detergent solution. Use caution to contain the solution in the immediate work area.

- One worker pries up the corner of a strip, separating the backing from the wear layer. As the strip is being removed, another worker sprays a constant mist of the specified liquid dishwashing detergent solution into the delamination nip point to minimize any airborne dust particle s. When done properly, the felt remaining on the floor and on the back of the strip will be thoroughly wet. Stand on the remaining floor covering or clean floor (do not stand on the felt).

The sliced strips should be peeled from the backing by pulling or rolling around a core which will control the stripping angle to create a uniform tension (some resilient flooring wear layers may not be readily strippable and may require wet-scraping). Tie or tape the removed material securely and place in a heavy-duty, impermeable, trash bag or closed leak tight container for disposal.

- Remove and dispose of each succeeding strip in the above manner. Minimize walking on the exposed felt to the extent feasible. Worker footwear must be cleaned or removed before leaving work area. Close full bags tightly, and seal securely for disposal. Identify with an appropriate label stating, for example "Caution-Contains Asbestos Avoid Opening or Breaking Container. Breathing Asbestos is Hazardous to Your Health:" It may also be appropriate to include in the label a warning regarding the presence of crystalline silica. Dispose in an approved landfill only.

- Occasionally, parts of the top or inner layer will stick to the backing. This can often be eliminated by peeling in the opposite direction. The stiff bladed scraper may aid in the removal or peeling of these layers.

WARNING 

Do not sand, dry sweep, dry scrape, drill, saw, beadblast, or mechanically chip or pulverize existing resilient flooring, backing, lining felt, asphaltic "cutback" adhesive, or other adhesive. See "Warning Statement" on page one.

- Remove all furniture and appliances from the work area.

- Remove any binding strips or other restrictive moldings from doorways, walls, etc.

- Prepare the specified liquid dishwashing detergent solution (16 oz. of specified liquid dishwashing detergent to one gallon of water) and pour into a hand sprayer.

- Before removal begins, vacuum the entire floor using a HEPA vacuum with a metal floor attachment

- Wet-scraping residual felt-follow instructions for wet-scraping residual felt on Page 12.

- For procedures for removing wood underlayment boards see Page 32.

COMPLETE REMOVAL OF WOOD UNDERLAYMENT {SUBFLOOR) UNDER EXISTING TILE FLOORING

- Before removal begins, the entire floor is vacuumed using a HEPA vacuum with a metal floor attachment.

WARNING 

Electrical shock hazard exists. Use a ground fault interrupter for any electrical connections of equipment used in a wet environment.

- Floor tiles must be wetted (misted with hand sprayer) before actual removal begins (unless heat will be used to remove tiles).

WARNING 

Resilient flooring becomes slippery when wet with the specified liquid dishwashing detergent solution. Use caution to contain the solution in the immediate work area.

- Starting at the doorway or a floor ventilation vent, locate a joint in an underlayment board.

- Start the removal of the tile at the underlayment joint by carefully wedging the scraper in the seam of two adjoining tiles and gradually forcing the edge of one of the tiles up and away from the floor. Do not intentionally break off pieces of the tile, but continue to force the balance of the tile up by working the scraper beneath the tile and exerting both a forward pressure and a twisting action of the blade to promote release of the tile from the adhesive and the floor. Continue to remove tiles in this manner at all underlayment joints until all board joints are exposed.

- After the tiles are removed place them, without further breakage into smaller pieces, in a heavy-duty impermeable trash bag or closed leak-tight container which will be used for disposal. Removed tiles can be placed in empty tile cartons first and then placed in heavy-duty, impermeable, trash bags. To prevent tearing of the heavy-duty, impermeable, trash bag, place only one full carton of removed tile in a bag.

- With the removal of the first tile, accessibility of the other tiles is improved. Force the scraper under the exposed edge of another tile, and continue to exert a prying, twisting force to the scraper as it is moved under the tile until the tile releases from the underlayment. Remove and dispose of each tile in the manner above. Minimize walking on the exposed adhesive to the extent feasible. Worker footwear must be cleaned or removed before leaving area. Close full bags or leak-tight container tightly and seal securely for disposal. Identify with an appropriate label stating, for example "Caution-Contains Asbestos. Avoid Opening or Breaking Container. Breathing Asbestos is Hazardous to Your Health." It may also be appropriate to

include in the label a warning regarding the presence of crystalline silica. Dispose in an approved landfill only.

- Some tiles will release quite easily while others require varying degrees of force. Where the adhesive is spread heavily or the tile is bonded tightly, it may prove easier to force the scraper through the tightly adhered areas by striking the scraper handle with a hammer, using blows of moderate force while maintaining the scraper at a 25° to 30° angle to the floor.

- If you encounter areas where even the above methods will not remove the tiles, the removal procedure can be simplified by thoroughly heating the tiles with a hot-air gun or a radiant heat source until the heat penetrates through the tile and softens the adhesive.

- When using automated infrared heating machines, follow the manufacturer's instructions.

WARNING 

Handle the hot-air gun or radiant heat source carefully to avoid burn injury. Do not handle the heated tiles or adhesive without suitable glove protection. Do not use a blowtorch or open flame. Use caution not to burn or char tiles. Work area must be adequately ventilated.

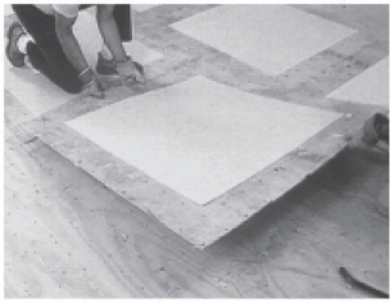
REMOVAL OF WOOD UNDERLAYMENT BOARDS

WARNING

Do not sand, dry sweep, dry scrape, drill, saw, beadblast or mechanically chip or pulverize existing resilient flooring, backing, lining felt, asphaltic "cutback" adhesive, or other adhesive. See "Warning Statement" on page one.

- After all felt from sheet flooring has been wetscraped or tiles removed from the underlayment joints, drive a chisel, using a hammer or mallet, between the underlayment board and the subfloor. Use the chisel to pry up the underlayment enough to insert a pry bar and remove the chisel. Slowly and carefully use pry bars to pry up the underlayment board a little at a time until the board is completely loose and can be removed.

- Caution must be used to avoid breaking the underlayment board. The underlay ment board should be removed in one piece. If the underlayment board breaks, slice through the sheet resilient flooring at the break and spray any exposed felt with the specified liquid dishwashing detergent solution. Allow the specified liquid dishwashing detergent solution to penetrate for a few minutes, then continue lifting the broken underlayment. In the case of a broken underlayment board with tile adhered, wet (mist) the broken tile and carefully remove any loose pieces.



- Wear heavy gloves and be careful of wood splinters and fasteners sticking out of the back of the underlayment. Each underlayment board (or piece of board) should be removed from the work area as soon as it has been pried up to avoid injuries (such as stepping on a nail). Fasteners protruding from removed board should be flattened with a hammer. Place removed underlayment boards on skids with the nails pointing downward. Wrap skid with 6-mil polyethylene plastic sheeting and secure with duct tape. Identify with an appropriate label stating, for example "Caution-Contains Asbestos. Avoid Opening or Breaking Container. Breathing Asbestos is Hazardous to Your Health." It may also be appropriate to include in the label a warning regarding the presence of crystalline silica. Dispose in an approved landfill only.

- If the underlayment panel extends under cabinets or wall partitions, it will be necessary to slice through the flooring with a knife as close to the vertical surface as possible. Deeply score the panel. This should allow for removal.

- After each panel has been removed, pull out any nails or fasteners still in the subfloor.

- A chisel is not needed to start the removal of boards after the first board has been removed. Simply work the pry bar under the exposed edge of the next board.

- When removal of the underlayment under the existing floor is complete, thoroughly check the exposed subfloor. Rena ii loose areas and reset any "popped" nails or fasteners.

- Vacuum up any residue using the HEPA vacuum cleaner with the metal floor attachment.

- After vacuuming, used HEPA filters and cleaner bags should be removed according to the manufacturer's instructions and placed in a heavy-duty, impermeable, trash bag or leak-tight container with an appropriate label stating, for example "Caution-Contains Asbestos. Avoid Opening or Breaking Container. Breathing Asbestos is Hazardous to Your Health." It may also be appropriate to include in the label a warning regarding the presence of crystalline silica. Close and seal the trash bag or container securely for disposal. Dispose in an approved landfill only.

- Prepare the subfloor by installing new underlayment and or floor covering according to the manufacturer's installation instructions.

115 Broad Street, Suite 201
LaGrange, GA 30240
706.882.3833

January 2018

This book replaces all prior editions of the RFCI and Armstrong Recommended Work Practices publications . Future editions of these work practices may be issued to replace this publication .

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November 23, 2022
File No. 175875.00

Ms. Vivian Low
DINISCO DESIGN | architects + planners
99 Chauncy Street, Suite 901
Boston, MA 02111

Re: Preliminary Geotechnical Engineering Report
Proposed Countryside Elementary School
191 Dedham Street
Newton, Massachusetts

Dear Ms. Low:

In accordance with our agreement executed on September 19, 2022, GZA GeoEnvironmental, Inc. (GZA) is pleased to submit this geotechnical engineering report for the above-referenced project. The objectives of our services were to evaluate subsurface conditions and to provide preliminary geotechnical recommendations for design and construction for the proposed additions to the existing Countryside Elementary School at 191 Dedham Street in Newton, Massachusetts (site). Please note that this report is subject to the Limitations attached as **Appendix A**. Elevations cited in this report are referenced to NAVD88.

BACKGROUND

Our understanding of the project is based on discussions with DiNisco Design (DiNisco), a proposed redevelopment sketch provided by DiNisco dated August 22, 2022, a plan entitled "Proposed Test Pit & Boring Locations" with topographic data provided by DiNisco dated September 1, 2022, "Topographic and Boundary Survey," developed by DGT Associates dated August 9, 2022, original school construction plans prepared by Cram & Ferguson, Architects entitled "Countryside Elementary School," dated November 1951, and plans for subsequent additions in 1957 and 1986.

The existing Countryside Elementary School building is located at the southern portion of the site. Associated play areas, fields, and parking lots occupy the northern and eastern portions of the site. The site is bordered to the north and east by Dedham Street, beyond which are residential properties and to the south and west by residential properties. Refer to **Figure 1** for a Site Locus.

An easement for South Meadow Brook is located on the southern parcel line, with wetlands located on the southwest portion of the site. A majority of the site is located within the FEMA flood zone and City Floodplain District. Based on the FEMA Flood plans, the site is within a Zone AE with a Base Flood Elevation[1] of approximately 112 feet. The referenced survey plan indicates existing ground surface elevations range from approximately El. 105 feet to 117 feet across the site, with existing grades within the proposed building footprint ranging from El. 109 to 115 feet.

[1] The Base Flood Elevation is the elevation of surface water that has a 1 percent chance of equaling or exceeding that level in any given year.

A new school building is proposed on the northern portion of the site within the existing ball field, playing fields and parking lot. The proposed multi-story school building will have a footprint of approximately 100 feet wide by 350 feet long. No basements are planned. The proposed finished floor elevation is planned to be approximately El. 113.5 feet, to raise the first-floor elevation above the FEMA and City Flood Plain levels, while limiting the amount of fill to be placed in the flood plain. Based on this proposed first-floor elevation, up to 4 feet of fill will be required within a majority of the proposed building area, with cuts of up to 2 feet in the northeast corner of the proposed building area. Several retaining walls are planned on the north side of the site to transition the higher site grades on the northern portion of the site; however, the retaining wall locations and heights are not yet known. A new parking lot will be constructed in the southeastern portion of the site. Fields, play areas, and trails are proposed on the central and western portions of the site.

SCOPE OF SERVICES

GZA performed the following scope of services:

1. Developed and executed a subsurface exploration program consisting of seven soil borings and five test pits to evaluate soil and groundwater conditions.
2. Performed gradation analyses on five soil samples collected from the borings to confirm field classifications and assist in evaluating potential on-site reuse of soils excavated during construction.
3. Developed geotechnical design recommendations/construction considerations and prepared this report summarizing our findings.

SUBSURFACE EXPLORATIONS

EXPLORATIONS BY OTHERS

Test borings were conducted prior to the original school construction in the early 1950s. Four of these borings (number 6, 7, 8, and 9) were located within or close to the currently proposed school location. The boring data, included in the 1951 plan set, showed the previous borings encountered fill and peat underlain by possible glacial till; in some borings the peat was at the surface. Boring refusal was noted in the borings at depths ranging from 10 to 28.5 feet. Although an elevation datum is not referenced in the plans, it appears that current site grades are close to (within 1 to 2 feet) of the 1951 grades.

More recently, Lord Environmental performed 10 borings as part of an environmental assessment for this school project. The borings were advanced by a direct-push rig to depths of 9 to 15 feet below ground surface (bgs). Four of these borings, LB-6, LB-7, LB-8 and LB-9, were located within or close to the proposed school building location.

Logs of the previous borings and location plans for the previous borings are included in **Appendix B.**

RECENT GZA EXPLORATIONS

GZA undertook an exploration program of borings and test pits located within, or close to the proposed construction areas as described below. Exploration locations were coordinated with DiNisco and with the project site/civil engineer, Horsley Witten. We estimated the ground surface elevation at each exploration from the contours shown on the plan entitled "Proposed Test Pit & Boring Locations," with topographic data from plans developed by DGT Associates, dated August 9, 2022. Approximate exploration locations are shown on **Figure 2.**

Test Borings

GZA engaged Drilex Environmental, Inc. of Auburn, Massachusetts to perform seven borings, GZ-1 through GZ-7, using an ATV-mounted drill rig on October 8 and 15, 2022. The borings were advanced using hollow stem auger techniques to depths ranging from 15.5 to 27 feet below ground surface (bgs).

In general, Standard Penetration Tests (SPTs) were performed, and split spoon samples were obtained, continuously in the top 6 to 8 feet, and then at 5-foot intervals to the bottom of the borehole. Split spoon sampling was typically conducted in accordance with ASTM D1586 (using a two-inch outside-diameter sampler driven 24 inches by blows from a 140-pound automatic hammer falling freely for 30-inches). The number of blows required to drive the sampler each six-inch increment was recorded and the Standard Penetration Resistance (N-value) was determined as the sum of the blows over the middle 12 inches of penetration. The borings were backfilled with drill cuttings to the existing ground surface. Asphalt was repaired with cold patch materials at the one boring located in a paved area.

A GZA representative observed the borings, classified the soil samples and prepared the boring logs attached as **Appendix C**.

Test Pits

GZA engaged Cryan Landscape Contractors, Inc of Attleboro, Massachusetts to excavate seven test pits at the site on October 22, 2022, TP-1 through TP-5, TP-1A and TP-5A. The test pits were advanced to depths ranging from 2.5 to 7 feet. An infiltration test was performed at test pit GZ-1A. The test pits were backfilled with excavated soils, placed in about 8- to 12-inch-thick lifts, each tamped with the heel of the backhoe bucket. Vegetated areas were reseeded over the existing topsoil.

A GZA representative observed the test pits, classified the soil samples and prepared the test pit logs attached as **Appendix D**. The infiltration test result is presented in **Appendix E**.

LABORATORY TESTING

Four soil samples obtained from the borings were submitted to Thielsch Laboratories in Cranston, Rhode Island for gradation analysis to confirm field classifications and assist in evaluating on-site reuse of soils excavated during construction. A fifth sample was submitted for Atterberg Limit testing to help evaluate the plasticity of the sample. In addition, one sample of the organic soils was submitted for an organic content test. Geotechnical laboratory test results are attached as **Appendix F.**

SUBSURFACE CONDITIONS

Below the existing topsoil or asphalt, subsurface conditions encountered in the borings and test pits in the proposed building area generally consisted of the following strata (in order of increasing depth): Topsoil/subsoil, Fill, Organic Soils, Silt and Clay, and Glacial Till. Not all strata were encounter in all the explorations. Borings GZ-1, GZ-3, and GZ-6 terminated in Glacial Till, and the remainder of the borings terminated in Silt and Clay at elevations ranging from approximately EL 95.5 to 82 feet. Three of the borings, GZ-2, GZ-3, and GZ-5, terminated at refusal, indicating possible bedrock ranging from El. 86 and 95.

The strata encountered in the borings and test pits are described below in further detail. The depths and thicknesses referenced herein should be considered approximate. Refer to the boring logs attached as **Appendix C** and test pit logs (with photos) attached in **Appendix D** for more detailed subsurface conditions at specific exploration locations.

Topsoil/Subsoil – A 0.5- to 2-foot-thick layer of topsoil and/or topsoil and subsoil was encountered in the GZA borings and test pits, except for boring GZ-4 which was conducted in a parking lot. The topsoil/subsoil layer consisted of dark brown fine to coarse Sand, with up to 50 percent Silt and up to 35 percent Gravel.

Fill – Fill was encountered below the asphalt or topsoil/subsoil in the GZA borings and test pits, except for boring GZ-2. Where encountered, the fill was observed to be approximately 2 to 8.5 feet thick, and generally consisted of dark brown to tan to gray, fine to coarse Sand, with up to 50 percent Gravel, up to 35 percent Silt, and up to 10 percent brick. SPT N-Values within the Fill ranged from 4 to 49 blows per foot (bpf), indicating that the Fill was loose to dense. Cobbles and boulders were encountered within the Fill in test pits TP-1, TP-3, TP-4, TP-5, and TP-5A. Drill rig chatter and grinding that is indicative of cobbles and/or boulders was observed in the Fill in borings GZ-4, GZ-6, and GZ-7. Test pits TP-5 and 5A were terminated at depths of 2.5 and 4.5 feet, respectively, on what appeared to be nested boulders at the bottom, or within, the fill. Test pit TP-3 was terminated at a depth on 7 feet on what appeared to be a buried stump.

Organic Soil – Organics Soils were encountered in four of the seven GZA borings (GZ-2, GZ-5, GZ-6, and GZ-7) and five of the seven GZA test pits (TP-1A, TP-1 to TP-4). Organic soils were also noted on the logs of the borings conducted by others in 1951 for the original school construction and by Lord Environmental in 2022. The Organic Soil stratum was approximately 1 to 4 feet thick. The Organic Soils generally varied from dark brown and black Organic Silt with up to 35 percent sand, 20 percent clay, and up to 20 percent gravel; to Peat. In some locations, the Organic Soils may have been buried topsoil/subsoil layers. SPT N-Values within the Organic Soil ranged from 6 to 22 blows per foot (bpf), indicating that the Organic Soil was loose to medium dense.

Silty Sand – Silty Sand was encountered below the Organic Soil in TP-1, TP-1A, and TP-2. Test pits TP-1 and TP-2 were terminated in this stratum at a depth of 6.5 feet bgs on what was observed to be very dense soils. The Silty Sand consisted of gray, fine Sand, with up to 35 percent Silt and up to 20 percent Gravel.

Silt and Clay – Silt and Clay was encountered below the fill and/or organic soils in the GZA borings and one of the GZA test pits (TP-4). The test pits only excavated to depths of 2.5 to 7 feet and likely terminated above the stratum. The Silt and Clay consisted of light brown or gray, Silt & Clay or Clayey Silt, with up to 35 percent Gravel, up to 20 percent Sand. SPT N-Values within the Silt and Clay ranged from 11 to 39 bpf, indicating a consistency of stiff to hard.

Glacial Till – Glacial Till was encountered below the fill or Silt and Clay layer in three of the borings; GZ-1, GZ-3, and GZ-6 at depths of 4 to 18.5 feet bgs. These depths correspond to approximate elevations of 91.5 to 107. The Glacial Till generally consisted of light brown and gray, mostly consisting of Silt, Sandy Silt, Silty Clay and Clayey Silt, with 20 to 50 percent fine to coarse Sand and 20 to 50 percent Gravel; and Sand and Gravel with up to 20 percent Sand and Silt. SPT N-Values ranged from 32 bpf to 50 blows over 6 inches, indicating that the Glacial Till was stiff to very hard in consistency.

GROUNDWATER

Groundwater was observed in borings GZ-1 through GZ-7 during drilling at depths of about 5 to 13 feet bgs. A stabilized groundwater reading was obtained at boring GZ-4 at a depth of 8.5 feet bgs, corresponding to El.103.5. Groundwater was encountered in five of the test pits at 3.5 to 6 feet bgs, corresponding to elevations 105.5 to 103 feet. Mottling, indicative of seasonal high-water levels, was noted in five test pits at approximate elevations of 104 to 106, as noted on the test pit logs.

It should be noted that fluctuations in groundwater levels may occur due to variations in season, rainfall, site features and other factors different from those existing at the time of the explorations and measurements.

As noted above, the majority of the site is with a FEMA and City of Newton Flood zone. The Base Flood elevation is 112 feet.

IMPLICATIONS OF SUBSURFACE CONDITIONS

Based on our understanding of the proposed new building, the following geotechnical issues that will impact foundation design and construction have been identified:

- presence of unsuitable fill and organic soils;
- relatively high groundwater table; and
- presence of potentially compressible soils.

The existing fill and organics and are considered unsuitable for direct support of the proposed building due to their uncertain composition, uncertain density, and potential compressibility. Thus, shallow footings and a slab-on-grade are not feasible without improving the unsuitable soils in place using a recognized ground improvement method such as aggregate piers (APs). Removal and replacement with off-site structural fill are not economically feasible or practical due to the relatively shallow depth of the groundwater table. Deep foundations consisting of driven piles are considered technically feasible; however, a framed structural slab, pile caps and piles would be significantly more expensive that footings and slab on grade after ground improvement.

Ground improvement with APs would allow for shallow foundation and slab-on-grade construction without excavating and replacing the existing unsuitable soils. APs improve the ground by stiffening the soil matrix, unlike deep foundations (piles) that penetrate through unsuitable soils and carry loads down into an underlying bearing layer. With APs, loads are distributed into the improved soil mass by contact with the APs and the stiffened soil matrix. APs are typically designed and constructed by a specialty design-build contractor and are installed either before or after site grading operations. There are several different proprietary installation methods for APs, and the installation method should be selected by the specialty design-build contractor and tested prior to production installation. The project bid documents should include a performance specification that provides minimum performance criteria. Compared to pile foundations, APs have higher potential settlement. If the potential settlement associated with APs is not acceptable to the project team, then piles are preferred. Note that, as compared to driven piles, AP installation results in relatively low vibration levels.

The Organic Soils and Silt and Clay strata are considered to be compressible under increased loads from the new fill required for the proposed raise-in-grade. We anticipate the raise in grade will cause surface settlement outside of the building footprint on the order of 2 to 4 inches over time, assuming up to a 4-foot raise in grade. Such settlement would likely compromise the structural integrity of the site retaining walls not founded on APs.

FINDINGS AND RECOMMENDATIONS

The geotechnical design and construction recommendations presented below are based on our evaluation of the available data and design concepts provided to GZA and are subject to the limitations contained in **Appendix A**. References to the IBC refer to the International Building Code 2015 with Massachusetts State Building Code 9th Edition (MSBC) amendments.

DESIGN RECOMMENDATIONS

Foundation Type and Capacity

We recommend the unsuitable existing fill, organics soils and Silt and Clay and be improved with aggregate piers (APs) to allow the building to be supported on shallow spread footing foundations with a slab on grade. We recommend that APs extend through the Fill, Organics, and Clayey Silt, to the Glacial Till. The anticipated depths of the aggregate pier foundation elements may range from 8 to about 25 feet below existing grade.

Ground improvement will be necessary throughout both footing and slab areas of the building, and below site retaining walls. Typically, 3 to 6 ground improvement elements are required below column footings, while ground improvement elements are required at about 6- to 8-foot spacing along perimeter footings, and 8- to 10-foot spacing below floor slabs. After improvement of the site soils with APs, the building and retaining walls could then be supported on traditional shallow footings with a slab-on-grade. Grouted APs may be required below footing locations to meet required settlement tolerances. The final ground improvement method and design should be determined by the specialty design-build foundation contractor based on available subsurface information, and the layout/loading of the proposed building.

We recommend a maximum net allowable bearing pressure of 5 kips per square foot (5 ksf) for footings supported on the areas where the ground has been improved with APs.

For foundations that are smaller than 3-feet-wide, reduce the bearing value to one third of the above allowable bearing pressure value multiplied by the least lateral footing dimension in feet. Continuous wall footings should be at least 18 inches wide; isolated footings at least 24 inches wide.

For frost protection, exterior footings and interior footings in unheated areas should bear at least 4 feet below final exterior grades. Interior footings in heated areas should bear at least 1.5 feet below bottom of slab.

Building Slab

A slab-on-grade is recommended after improving the site soils with APs. We recommend at least 12 inches of Sand-Gravel Fill be provided as a base course below the slab. The top of the ground improvement elements should be at least 1 foot below the bottom of slab, or deeper if required by the design/build contractor. Subgrade preparation recommendations are presented later in this report.

Foundation Settlement

Assuming the recommendations provided in this report are adopted for design and construction, post-construction total settlement is anticipated to be up to about 1 inch with up to ½ inch differential settlement over about 30 feet. The ground improvement specification should include a maximum settlement criterion.

Design Groundwater Table

As noted above, the Base Flood Elevation is approximately El. 112. We recommend that a design groundwater table of El. 113, or higher, be adopted for the site in accordance with the MSBC and ASCE 24-14.

Below-Grade Foundation Walls

Below-grade building walls should be designed to resist lateral earth pressures assuming “at-rest” conditions. We recommend using an equivalent fluid weight of 60 pounds per cubic foot (pcf) above the design groundwater level and 90 pcf below the design groundwater level to calculate lateral earth pressures, assuming that the walls are backfilled with soil fill. In addition, the walls should be designed for any permanent surcharge loads and temporary surcharge pressures (such as construction equipment or traffic). This pressure assumes the wall is backfilled with free-draining Structural Fill, with a fines content (passing the No. 200 sieve) of less than 8 percent within at least a horizontal distance of 3 feet from the back of walls. Where the calculated earth pressure behind walls is less than 250 pounds per square foot (psf), it should be increased to 250 psf to account for stresses created by compaction within 5-feet of the wall. Exterior foundation walls should be designed to resist earthquake forces in accordance with Section 1610.2 of the MSBC.

Site Retaining Walls

Site retaining walls will be necessary to achieve proposed grades surrounding the proposed building. We anticipate modular block and mechanically stabilized earth (MSE) retaining walls will be proposed for site retaining walls that are not attached to the building. MSE walls consist of a system of mortarless modular blocks connected to soil reinforcing grids embedded between compacted lifts of free-draining granular backfill behind the wall. The blocks and reinforcing grids are placed manually. The geogrids typically extend behind the wall for a distance of at least 70 percent of the wall height. Modular block gravity walls not requiring geogrids rely mainly upon the weight of the wall to resist the lateral forces.

Lateral earth pressures for design of the site retaining walls should be calculated assuming the following parameters in the table below.

Recommended Geotechnical Design Parameters for Retaining Wall Design

Soil Strata [1]	Friction Angle ϕ (degrees)	Total Unit Weight (pcf)
Reinforced Soil (New Fill/Structural Fill)	35	125
Retained Soil (Existing Onsite Soil)	32	120

Notes:
1. New Fill/Structural Fill consists of Granular Fill, Sand-Gravel or ¾" Crushed Stone placed and compacted in controlled lifts.
2. Assume groundwater at El. 113, or higher.

The walls should be designed for seismic and surcharge loadings in accordance with the MSBC.

Proprietary retaining walls should be designed by the manufacturer or their representative according to a performance-based specification prepared by GZA. The wall designer should be a licensed Professional Engineer in the Commonwealth of Massachusetts. We recommend that GZA be engaged to review the design on behalf of the Owner.

Seismic Design

Soils encountered in the building area are not considered susceptible to liquefaction based on criteria set forth in Section 1806.4 of the MSBC. In accordance with Section 1613.5.2 of the IBC, we recommend that Site Class D be used for seismic design assuming that building foundations are designed and constructed as recommended herein.

In accordance with the MSBC 9th Edition, the structure should be designed using the following seismic parameters:

S_S =0.208g S_1=0.068g
S_{DS} =0.222g S_{D1}=0.109g

Where:

- S_S and S_{DS} are the spectral acceleration and design spectral response acceleration parameters at 0.2-second period, respectively; and
- S_1 and S_{D1} are the spectral acceleration and design spectral response acceleration parameters at 1.0-second period, respectively.

Permanent Groundwater Control

We recommend a perimeter drain be provided at the lowest level footing grade along the proposed building foundation wall. The perimeter drain should consist of a 4-inch diameter perforated HDPE pipe placed just above footing grade and should be surrounded by an annulus of at least 6 inches of ¾-inch crushed stone wrapped in non-woven filter fabric. Free-draining Structural Fill, with a fines content (passing the No. 200 sieve) of less than 8 percent, should be placed within 3 feet horizontally of the perimeter foundation walls and hydraulically connected to the Crushed Stone around the perimeter drain. The perimeter drains should drain by gravity to a drainage manhole outside the building. The project Civil Engineer should select the final discharge location and design a drainage system. Local, state and/or federal permits may be required depending on the drains' final discharge point.

Damp-proofing of the building slabs and below grade foundation walls should be in accordance with Section 1805 of the IBC.

CONSTRUCTION CONSIDERATIONS

Aggregate Pier Installation and Testing

The AP specialty contractor should submit their design to GZA for review and acceptance prior to mobilizing to the site. The design should be developed based on a performance-based aggregate pier specification prepared by GZA. The submittal should be stamped by a qualified Professional Engineer licensed in the Commonwealth of Massachusetts experienced in the design and construction of APs. Non-displacement methods that do not generate spoils should be used for aggregate pier installation.

Prior to the start of production installation, several demonstration piers should be installed in the building area using the specialty contractor's standard installation procedures. A modulus test should be performed on one AP of each AP type proposed (if more than one type is planned). The modulus testing setup, procedures and location should be submitted for review to GZA prior to mobilizing to the site. Production aggregate pier installation should not begin until after successful completion of the modulus test and review/acceptance of the results by GZA.

Note that cobbles and boulders were observed in the fill. This may require pre-excavation at some locations if it becomes difficult to install the APs.

Footing and Slab Subgrade Preparation

Existing topsoil should be stripped from the proposed building area.

After existing fill, organic soils and Silt and Clay have been improved with aggregate piers, the slab area base course subgrade should be proof-compacted with at least six passes of a vibratory drum roller (with a minimum static drum weight of 10,000-pounds capable of at least 20,000-pounds of dynamic force), before placing the base course. Weak or soft spots identified during proof-compaction should be over-excavated and replaced with compacted Sand-Gravel Fill. Note that the APs may be installed before or after fill is placed to raise the grade in the building area. If the APs are installed prior to raising the grade, fill placed within the building area should consist of compacted Granular Fill. Recommended fill gradations are presented in **Table 1**.

Final excavations to footing subgrade should not be made until the areas are ready for concrete placement. Final excavation in soil should be made using a smooth-edge bucket, where possible. Footing subgrades should be proof-compacted with at least six passes of a large vibratory plate compactor. A 4- to 6-inch layer of ¾-inch Crushed Stone

is recommended to help protect the footing subgrade. The Contractor should verify that the aggregate piers are visible as designed at the footing subgrade before placing the Crushed Stone or formwork.

Care should be taken to avoid excess traffic on the prepared subgrades prior to placement of concrete foundations and backfill material. The exposed soil subgrade should be adequately dewatered, protected against precipitation and the subgrade should not be allowed to freeze.

Fill Material and Compaction

The minimum gradation requirements for various fill materials and their recommended uses are provided in **Table 1**. Fill placed in the upper 3 feet of the proposed building slab should have a maximum particle size of 3 inches. The recommended minimum compaction for fill, based on percentage of maximum dry density as defined by ASTM D-1557 Method C, is specified below for different areas. When placed, Crushed Stone should be placed in maximum 6-inch-thick lifts (when compacted by a vibratory plate compactor) and compacted to an unyielding surface.

Fill Area	Percent of Maximum Dry Density
Within Building Area and Within 1H:1V Bearing Zone of Footings[2]	95
Beneath Pavement (upper 2 feet)	95
More than 2 feet below Pavement	92
Within Exterior 5 feet of Building Foundations	92
Beneath Landscape Areas	90

Extra care should be used when compacting adjacent to foundation walls and footings. Where walls are buried on both sides, backfill and compaction should proceed on both sides of the wall so that the difference in top of fill on either side of the wall does not exceed 2 feet. Where buried walls are backfilled only on one side, only hand-operated rollers or plate compactors weighing not more than 250 pounds should be used within a lateral distance of 5 feet of walls. Refer to **Table 2** for minimum recommended compaction methods.

Frozen soil should not be placed as fill. In addition, fill should not be placed over frozen soil. Protect footings, slabs and footing and slab subgrades from frost at all times during construction.

Reuse of Existing Soils

Based on visual and laboratory classifications, some of the existing Fill materials may meet gradation and material requirements for Granular fill. These materials may be reused below slab and pavement basecourse, provided they can be compacted as required herein. However, the natural Silt and Clay has a high percentage of fines and will be difficult to reuse. Fill for use as building slab and pavement basecourses will need to be imported to the site. In addition, imported fill will be required for the Sand-Gravel or Crushed Stone "pad" above the APs.

Excavated soil from the Site may need to be exported depending on final site grades. Excess excavated soil should be disposed of in accordance with applicable local, state and federal regulations. Off-site disposal of soil may require chemical laboratory precharacterization testing to assess disposal options, depending on the receiving facility.

[2] Fill placed in the building area before the APs are installed, should be compacted to at least 90 percent of the maximum dry density; over compaction of the fill prior to installing the APs will make installing the APs more difficult.

Excavation Slopes and Temporary Earth Support

The Owner and the Contractor should make themselves aware of and become familiar with applicable local, state, and federal safety regulations, including the current Occupational Safety and Health Administration (OSHA) Excavation and Trench Safety Standards. Construction site safety generally is the sole responsibility of the Contractor, who shall also be solely responsible for the means, methods, and sequencing of construction operations. We are providing this information solely as a service to our Client. Under no circumstances should the information provided below be interpreted to mean that GZA is assuming responsibility for construction site safety or the Contractor's activities; such responsibility is not being implied and should not be inferred.

Where space is not available to safely lay back excavations, a temporary earth support system will be required. Temporary earth support systems, if required, should be selected by the Contractor and be designed by an experienced Professional Engineer registered in the Commonwealth of Massachusetts and retained by the Contractor.

The Contractor should be aware that slope height, slope inclination, or excavation depths (including utility trench excavations) should in no case exceed those specified in local, state, or federal safety regulations, e.g.; OSHA Health and Safety Standards for Excavations, 29 CFR Part 1926, or successor regulations. Such regulations are strictly enforced and, if they are not followed, the Owner, Contractor, and/or earthwork and utility subcontractors could be liable for substantial penalties.

As a safety measure, it is recommended that all vehicles and soil piles be kept a minimum lateral distance from the crest of the slope equal to no less than the slope height. Exposed slope faces should also be protected against the elements.

PROTECTION OF EXISTING STRUCTURES AND UTILITIES

Existing utilities within the proposed building area, if any, should be removed. Protection of existing structures, utilities, and other facilities to remain should be made the responsibility of the Contractor in the contract documents. The contract documents should include provisions requiring the Contractor to take adequate measures to protect and support existing nearby structures and utilities from excessive vibration and/or movement.

FINAL DESIGN AND CONSTRUCTION

We trust that the information presented herein addresses your needs related to the preliminary geotechnical aspects of the project at this time for the proposed Countryside Elementary School renovations. Additional explorations and a final geotechnical report may be required depending on final design and final building layout. GZA would be pleased provide a proposal for final design items such as additional borings and final report, earthwork specifications and review of near-final foundation and site/civil plans for geotechnical issues to confirm that our recommendations are incorporated into the design documents.

During construction, we recommend that GZA be engaged to review contractor submittals and to observe subgrade preparation and building earthwork construction for compliance with our recommendations, project foundation plans, and specifications.

We thank you for the opportunity to work on this project and would look forward to our continued involvement. Please do not hesitate to contact the undersigned if you have any questions.

Very truly yours,

GZA GEOENVIRONMENTAL, INC.

Heather Audet, P.E.
Senior Project Manager

Bruce W. Fairless, P.E.
Consultant/Reviewer

Mary B. Hall, P.E.
Senior Principal

Attachments: Tables
Figures
Appendix A – Limitations
Appendix B –Previous Subsurface Data
Appendix C – Boring Logs
Appendix D – Test Pit Logs
Appendix E – Infiltration Test Results
Appendix F – Geotechnical Laboratory Test Results

TABLES

Countryside Elementary School
Newton, MA

TABLE 1
RECOMMENDED USE AND GRADATION CRITERIA FOR FILL MATERIALS

Granular Fill: Within building area below slab-on-grade base course, and within 2 feet of pavement base course.

Sand-Gravel: For use as slab-on-grade base course and below footings.

Crushed Stone: For use in bottom of excavations to aid in construction, maintaining subgrade stability during wet conditions, and below footings.

Ordinary Fill: General landscape areas, or more than 2 feet below pavement.

GRADATION REQUIREMENTS

Sieve Size	Percent Finer by Weight
Granular Fill shall be free from ice and snow, roots, sod, rubbish and other deleterious or organic matter. Granular Fill shall conform to the following gradation requirements:	
⅔ of the loose lift thickness	100
No. 10	30 - 90
No. 40	10 - 70
No. 200	*0 - 15 * 0 -8 for backfill behind walls
Sand-Gravel shall consist of durable sand and gravel and shall be free from ice and snow, roots, sod, rubbish and other deleterious or organic matter. Sand-Gravel shall conform to the following gradation requirements:	
3 inch	100
½ inch	50 - 85
No. 4	40 - 75
No. 40	10 - 35
No. 200	0 - 8
Crushed Stone shall consist of durable crushed rock or durable crushed gravel stone and shall be free from ice and snow, clay, loam and other deleterious material. Crushed Stone shall conform to the following gradation requirements:	
1 inch	100
3/4 inch	90 - 100
1/2 inch	10 - 50
3/8 inch	0 - 20
No. 4	0 - 5
Ordinary Fill shall be free from trash, ice, snow, tree stumps, roots, organic materials, and other deleterious matter. Ordinary Fill shall contain no stone greater than two-thirds (⅔) the loose lift thickness with a maximum stone size of six (6) inches in diameter and contain no more than 30% passing the No. 200 sieve. It shall have physical properties such that it can be readily spread and compacted during filling.	

Countryside Elementary School
Newton, Massachusetts

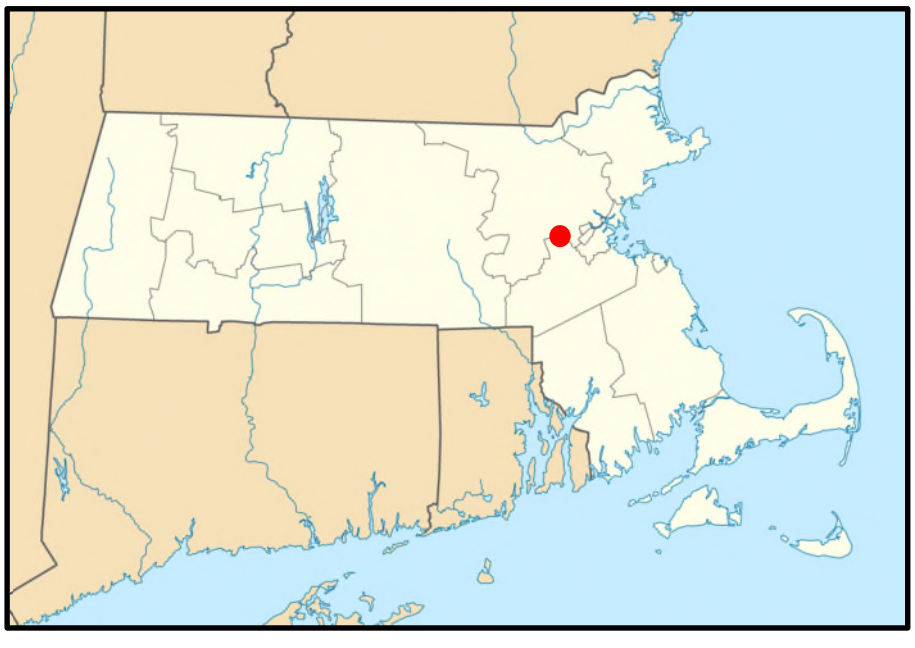
TABLE 2
RECOMMENDED COMPACTION METHODS

Compaction Method	Maximum Stone Size*	Maximum Loose Lift Thickness		Minimum Number of Passes	
		Below Structures and Pavement	Less Critical Area	Below Structures and Pavement	Less Critical Area
GRANULAR FILL, SAND-GRAVEL FILL, CRUSHED STONE **					
Hand-operated vibratory plate or light roller in confined areas	4"	6"	8"	4	4
Hand-operated vibratory drum rollers weighing at least 1,000# in confined areas	6"	10"	12"	4	4
Light vibratory drum roller minimum weight at drum 3,000# minimum dynamic force 10,000#	8"	12"	18"	4	4
Medium vibratory drum roller minimum weight at drum 10,000# minimum dynamic force 20,000#	8"	18"	24"	6	6

*And no more than two-thirds (⅔) loose lift thickness.

** Crushed Stone greater than 4 inches in thickness should be enveloped on all sides with non-woven filter fabric (Mirafi 140N or equivalent).

FIGURES

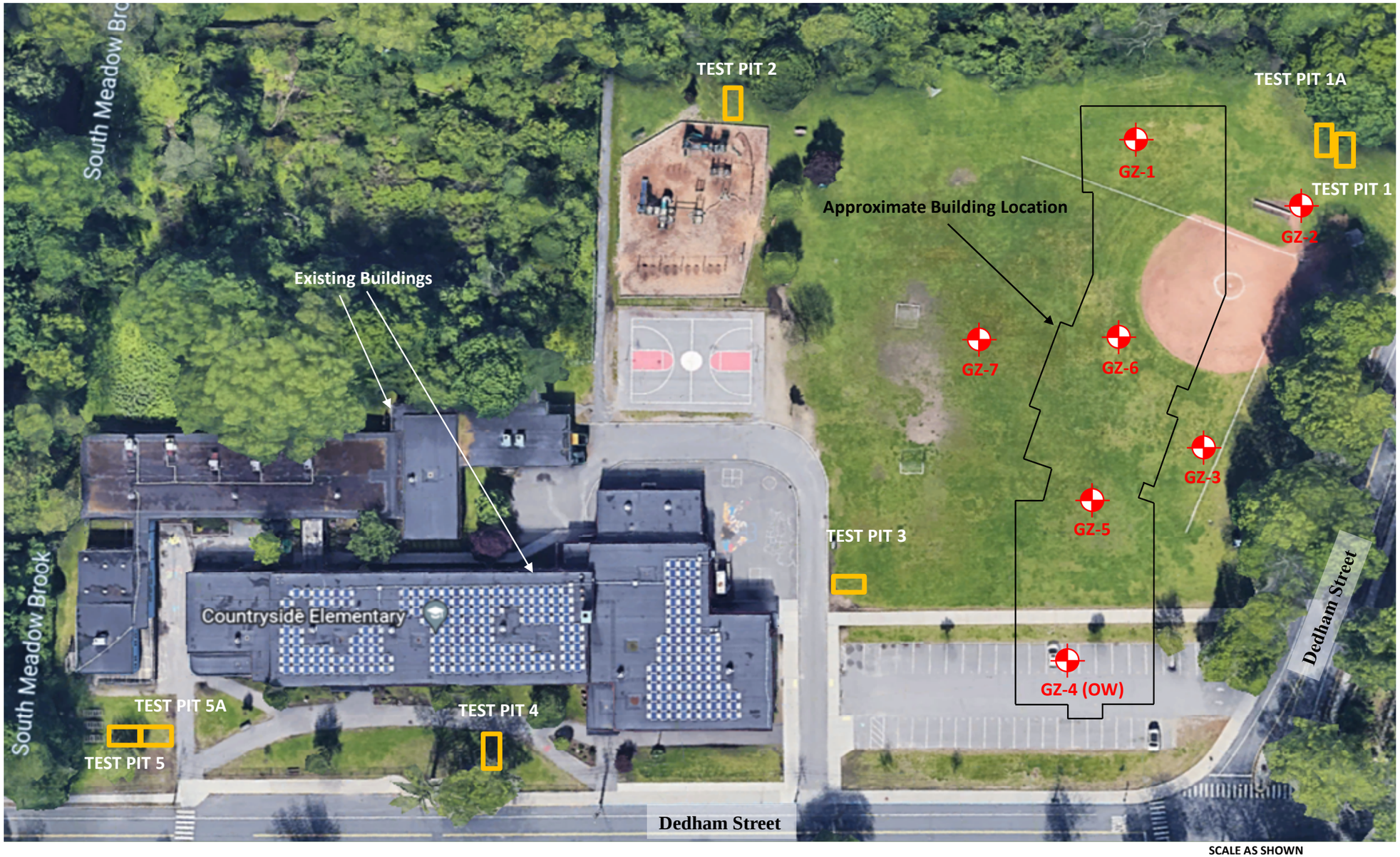


SOURCE: USGS TOPOGRAPHIC QUADRANGLES SCANNED BY THE NATIONAL GEOGRAPHIC SOCIETY & I-CUBED, COPYRIGHT 2011

Data Supplied by : esri

N W E S

JOB NO. 01.0175875.00	**SITE LOCUS PLAN**		PROJ MGR: HA PREPARED BY: AL DATE: NOVEMBER 11, 2022 Reviewed BY: HA DATE: NOVEMBER 11, 2022
FIGURE NO. 1	Countryside Elementary School Renovations Newton, Massachusetts	0 1,000 2,000 4,000 6,000 SCALE IN FEET	GZA GeoEnvironmental, Inc.



SCALE AS SHOWN

N

NOTES:

1. BASE PLAN FROM GOOGLE EARTH COPYRIGHT 2022.
2. APPROXIAMTE BUILDING LOCATION FROM UPDATED PHASE 3 REDEVELOPMENT BASE PLAN FROM ELECTRONIC IMAGE SENT ELECTRONICALLY, BY DINISCO DESIGN, ON SEPTEMBER 6, 2022.
3. BORING AND TEST PIT LOCATIONS WERE BASED ON TAPE MEASUREMENTS FROM EXISTING SITE FEATURES. LOCATIONS SHOWN SHOULD BE CONSIDERED ACCURATE ONLY TO THE DEGREE IMPLIED BY THE METHOD USED.

LEGEND

BORING PERFORMED BY DRILEX ENVIRONMENTAL BORING CONTRACTORS OF AUBURN, MA, OCTOBER 8 AND 15, 2022 AND OBSERVED BY GZA PERSONNEL. OW INDICATES OBSERVATION WELL INSTALLED.

TEST PIT PERFORMED BY CRYAN LANDSCAPE CONTRACTORS, INC. OF ATTLEBORO, MA, OCTOBER 22, 2022 AND OBSERVED BY GZA PERSONNEL.

PROJ MGR: HA
PREPARED BY: AL
Reviewed BY: HA
DATE: NOVEMBER 21, 2022

GZA GeoEnvironmental, Inc.

APPROXIMATE SCALE
0' 50' 100'

EXPLORATION LOCATION PLAN

Countryside Elementary School
Newton, Massachusetts

JOB NO.
01.0175875.00

FIGURE NO.
2

APPENDIX A - LIMITATIONS

USE OF REPORT

1. GZA GeoEnvironmental, Inc. (GZA) prepared this report on behalf of, and for the exclusive use of our Client for the stated purpose(s) and location(s) identified in the Proposal for Services and/or Report. Use of this report, in whole or in part, at other locations, or for other purposes, may lead to inappropriate conclusions; and we do not accept any responsibility for the consequences of such use(s). Further, reliance by any party not expressly identified in the contract documents, for any use, without our prior written permission, shall be at that party's sole risk, and without any liability to GZA.

STANDARD OF CARE

2. GZA's findings and conclusions are based on the work conducted as part of the Scope of Services set forth in Proposal for Services and/or Report, and reflect our professional judgment. These findings and conclusions must be considered not as scientific or engineering certainties, but rather as our professional opinions concerning the limited data gathered during the course of our work. If conditions other than those described in this report are found at the subject location(s), or the design has been altered in any way, GZA shall be so notified and afforded the opportunity to revise the report,as appropriate, to reflect the unanticipated changed conditions .

3. GZA's services were performed using the degree of skill and care ordinarily exercised by qualified professionals performing the same type of services, at the same time, under similar conditions, at the same or a similar property. No warranty, expressed or implied, is made.

4. In conducting our work, GZA relied upon certain information made available by public agencies, Client and/or others. GZA did not attempt to independently verify the accuracy or completeness of that information. Inconsistencies in this information which we have noted, if any, are discussed in the Report.

SUBSURFACE CONDITIONS

5. The generalized soil profile(s) provided in our Report are based on widely-spaced subsurface explorations and are intended only to convey trends in subsurface conditions. The boundaries between strata are approximate and idealized, and were based on our assessment of subsurface conditions. The composition of strata, and the transitions between strata, may be more variable and more complex than indicated. For more specific information on soil conditions at a specific location refer to the exploration logs. The nature and extent of variations between these explorations may not become evident until further exploration or construction. If variations or other latent conditions then become evident, it will be necessary to reevaluate the conclusions and recommendations of this report.

6. In preparing this report, GZA relied on certain information provided by the Client, state and local officials, and other parties referenced therein which were made available to GZA at the time of our evaluation. GZA did not attempt to independently verify the accuracy or completeness of all information reviewed or received during the course of this evaluation.

7. Water level readings have been made in test holes (as described in this Report) at the specified times and under the stated conditions. These data have been reviewed and interpretations have been made in this Report. Fluctuations in the level of the groundwater however occur due to temporal or spatial variations in areal recharge rates, soil heterogeneities, the presence of subsurface utilities, and/or natural or artificially induced perturbations. The water table encountered in the course of the work may differ from that indicated in the Report.

8. Recommendations for foundation drainage, waterproofing, and moisture control address the conventional geotechnical engineering aspects of seepage control. These recommendations may not preclude an environment that allows the infestation of mold or other biological pollutants.

COMPLIANCE WITH CODES AND REGULATIONS

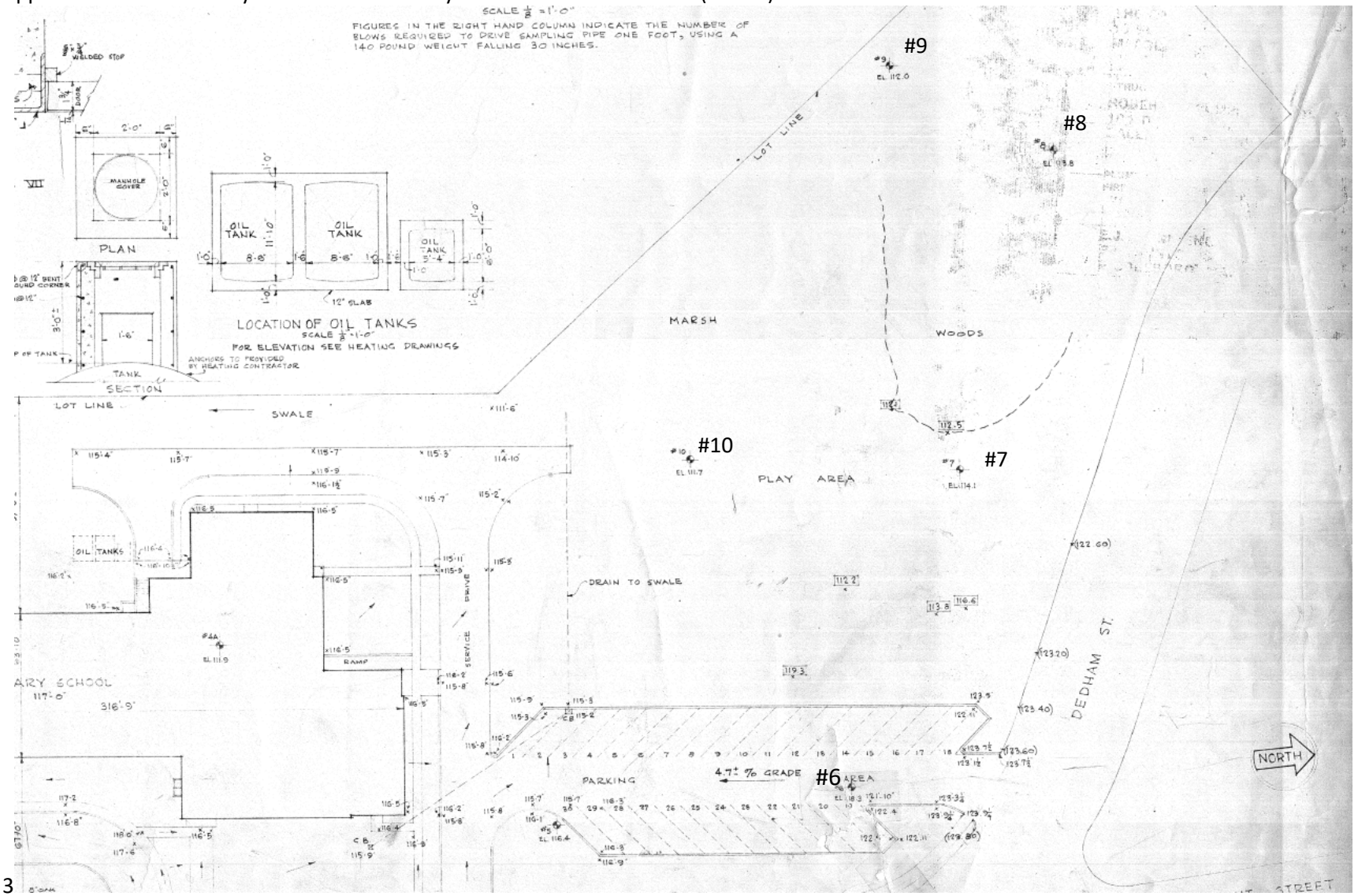
9. We used reasonable care in identifying and interpreting applicable codes and regulations. These codes and regulations are subject to various, and possibly contradictory, interpretations. Compliance with codes and regulations by other parties is beyond our control.

ADDITIONAL SERVICES

10. GZA recommends that we be retained to provide services during any future: site observations, design, implementation activities, construction and/or property development/redevelopment. This will allow us the opportunity to: i) observe conditions and compliance with our design concepts and opinions; ii) allow for changes in the event that conditions are other than anticipated; iii) provide modifications to our design; and iv) assess the consequences of changes in technologies and/or regulations.

APPENDIX B - PREVIOUS SUBSURFACE DATA

Information from design plans for Countryside Elementary School prepared by Cram & Ferguson, Architects of Boston, MA, dated November 1951.
Borings located on northern portion of the site.
Appears that datum is City of Newton. 6.53 City of Newton = 0.0 NAVD88 (in feet)



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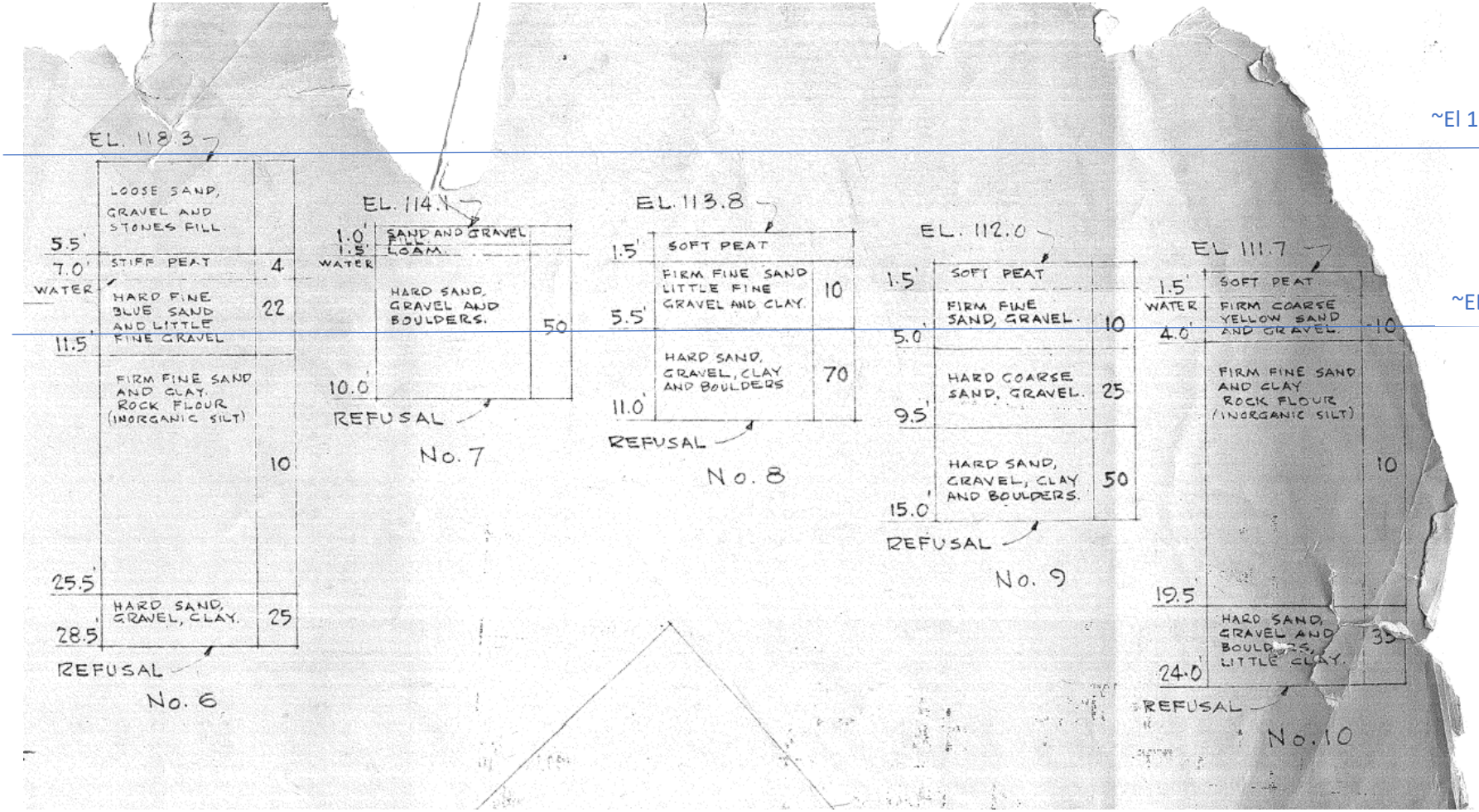
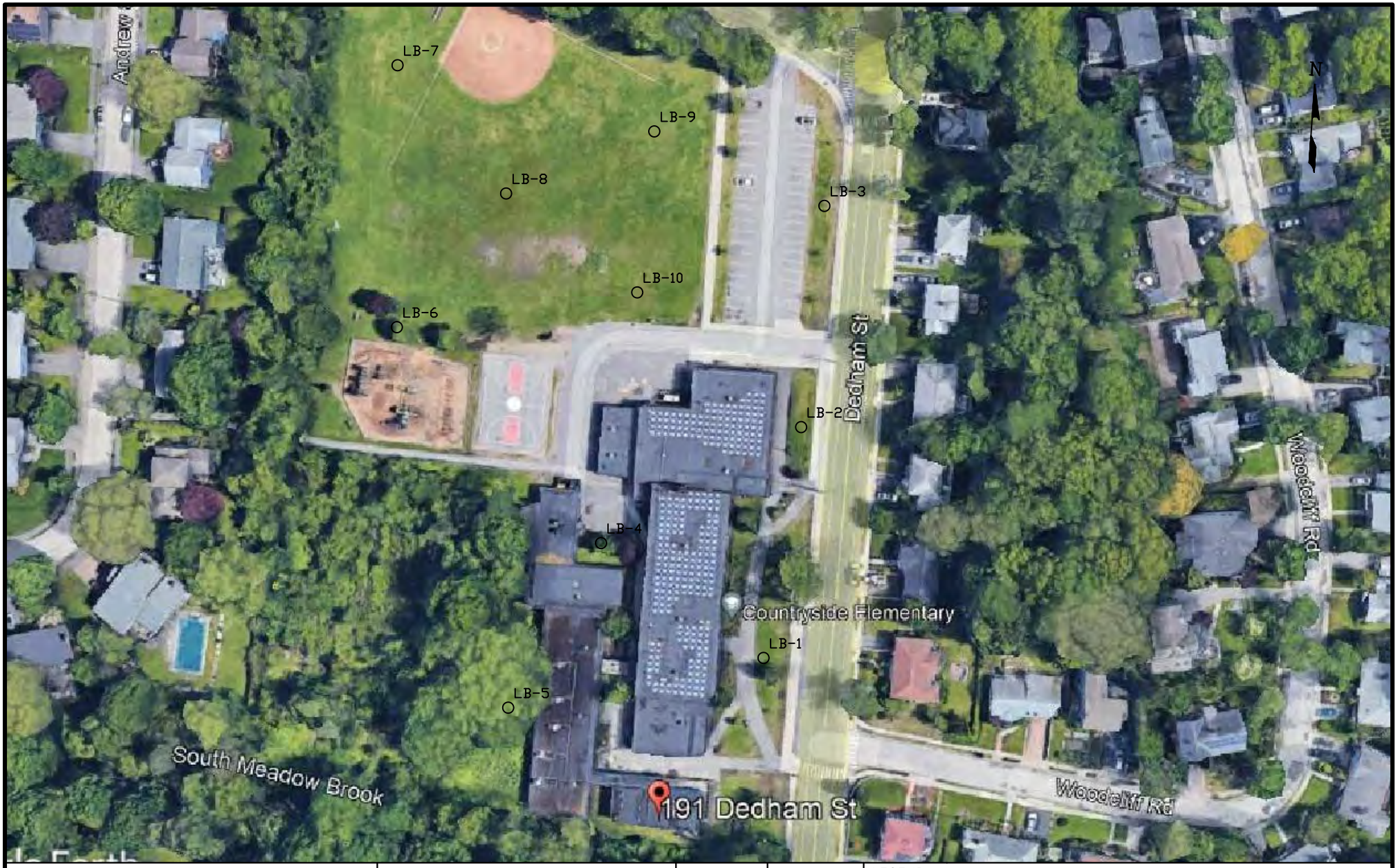
Borings located on northern portion of the site.
Appears that datum is City of Newton. 6.53 City of Newton = 0.0 NAVD88 (in feet)



~El 112 NAVD88

~EL 106 NAVD88



LORD ENVIRONMENTAL, INC.
1506 PROVIDENCE HWY #30 (781) 255-5554
NORWOOD, MA

SITE:
COUNTRYSIDE SCHOOL
191 DEDHAM STREET
NEWTON, MA

TITLE:
SITE PLAN
WITH BORING LOCATIONS

FILE:
FIGURE 3 3145

DRAWN BY:	FIGURE:
PL	3
SHEET:	DATE/REV:
1 of 1	9/18/2022

LEGEND:

○ SOIL SAMPLING LOCATION

NOTES:

1. FIGURE TO APPROX. SCALE BASED ON AERIAL PHOTO

Lord Environmental, Inc.

Consulting & LSP Services

1506 Providence Highway
Suite 30
Norwood, MA 02062
Voice: 781.255.5554

SOIL TEST BORING LOG & WELL COMPLETION REPORT

BORING: **LB-1**
WELL: NA

CONTRACTOR:	New England GeoTech	**SITE LOCATION:**	191 Dedham Street	**WELL RISER:**	NA
DRILLER:	Maynor Mendoza	**PROJECT NO.:**	3145	**WELL SCREEN:**	NA
SUPERVISOR:	Oliver P. Leek	**START DATE:**	722/22	**OBSERVED DTW:**	13.5'
EQUIPMENT:	Geoprobe 7822	**FINISH DATE:**	07/22/22		

DIRECT-PUSH BORING & WELL COMPLETION LOG

DEPTH (FT)	SAMPLE ID	% RECOVERY	SAMPLE INTERVAL	PID READING ppm-v	SOIL DESCRIPTION	WELL COMPLETION
0.0 – 5.0	LB-1, 0-5'	80%	0-5'	0	FILL with loamy sand to 1.5 feet then sand and gravel FILL with some wood to 4 feet. Silty sand from 4-5 feet.	
5.0 – 10.0	LB-1, 5-10'	80%	5-10'	0	Fine to medium SAND and gravel and pulverized rock.	
11.0 – 15.0	LB-1, 10-15'	60%	10-15'	0	Fine to medium SAND and gravel, wet at 13.5 feet. ▽	
16.0					BOTTOM OF BORING AT 15'	

TERMS

Proportion	Definition
trace	0% - 10%
little	10% - 20%
some	20% - 35%
and	35% - 50%

NOTES

Lord Environmental, Inc.

Consulting & LSP Services

1506 Providence Highway
Suite 30
Norwood, MA 02062
Voice: 781.255.5554

SOIL TEST BORING LOG & WELL COMPLETION REPORT

BORING: **LB-2**
WELL: NA

CONTRACTOR:	New England GeoTech	**SITE LOCATION:**	191 Dedham Street	**WELL RISER:**	NA
DRILLER:	Maynor Mendoza	**PROJECT NO.:**	3145	**WELL SCREEN:**	NA
SUPERVISOR:	Oliver P. Leek	**START DATE:**	722/22	**OBSERVED DTW:**	NA
EQUIPMENT:	Geoprobe 7822	**FINISH DATE:**	07/22/22		

DIRECT-PUSH BORING & WELL COMPLETION LOG

DEPTH (FT)	SAMPLE ID	% RECOVERY	SAMPLE INTERVAL	PID READING ppm-v	SOIL DESCRIPTION	WELL COMPLETION
0.0 – 5.0	LB-2, 0-5'	80%	0-5'	0	Loam to 1 foot then loamy sand from 1-2 feet. Fine to medium SAND and gravel from 3-4.5 feet. Clayey sand from 4.5-5 feet.	
5.0 – 10.0	LB-2, 5-10'	80%	5-10'	0	Fine to medium SAND and gravel with pulverized rock from 5-8 feet. Peat from 8-8.5 feet. Clayey sand from 8.5-10 feet, damp at 9 feet.	
10.0 – 26.0					BOTTOM OF BORING AT 10'	

TERMS

Proportion	Definition
trace	0% - 10%
little	10% - 20%
some	20% - 35%
and	35% - 50%

NOTES

Lord Environmental, Inc.

Consulting & LSP Services

1506 Providence Highway
Suite 30
Norwood, MA 02062
Voice: 781.255.5554

SOIL TEST BORING LOG & WELL COMPLETION REPORT

BORING: **LB-3**
WELL: NA

CONTRACTOR:	New England GeoTech	**SITE LOCATION:**	191 Dedham Street	**WELL RISER:**	NA
DRILLER:	Maynor Mendoza	**PROJECT NO.:**	3145	**WELL SCREEN:**	NA
SUPERVISOR:	Oliver P. Leek	**START DATE:**	722/22	**OBSERVED DTW:**	12'
EQUIPMENT:	Geoprobe 7822	**FINISH DATE:**	07/22/22		

DIRECT-PUSH BORING & WELL COMPLETION LOG

DEPTH (FT)	SAMPLE ID	% RECOVERY	SAMPLE INTERVAL	PID READING ppm-v	SOIL DESCRIPTION	WELL COMPLETION
0.0 – 5.0	LB-3, 0-5'	80%	0-5'	0	FILL with loamy sand to 1 foot then sand and gravel FILL from 1-5 feet.	
5.0 – 10.0	LB-3, 5-10'	90%	5-10'	0	Fine to medium SAND and gravel from 5-7 feet. FILL with glass and possible ash from 7-8 feet. Peaty sand from 8-9.5 feet. Moist clayey sand from 9.5-10 feet	
10.0 – 15.0	LB-3, 10-15'	70%	10-15'	0	Moist clayey SAND from 10-12 feet, then grey/blue sandy clay from 12-15 feet, damp at 12 feet.	▽
15.0 – 26.0					BOTTOM OF BORING AT 15'	

TERMS

Proportion	Definition
trace	0% - 10%
little	10% - 20%
some	20% - 35%
and	35% - 50%

NOTES

Lord Environmental, Inc.

Consulting & LSP Services

1506 Providence Highway
Suite 30
Norwood, MA 02062
Voice: 781.255.5554

SOIL TEST BORING LOG & WELL COMPLETION REPORT

BORING: **LB-4**
WELL: NA

CONTRACTOR:	New England GeoTech	**SITE LOCATION:**	191 Dedham Street	**WELL RISER:**	NA
DRILLER:	Maynor Mendoza	**PROJECT NO.:**	3145	**WELL SCREEN:**	NA
SUPERVISOR:	Oliver P. Leek	**START DATE:**	722/22	**OBSERVED DTW:**	7'
EQUIPMENT:	Geoprobe 7822	**FINISH DATE:**	07/22/22		

DIRECT-PUSH BORING & WELL COMPLETION LOG

DEPTH (FT)	SAMPLE ID	% RECOVERY	SAMPLE INTERVAL	PID READING ppm-v	SOIL DESCRIPTION	WELL COMPLETION
0.0 – 5.0	LB-4, 0-5'	80%	0-5'	0	Loam to 1 foot then fine to coarse SAND and gravel from 1-5 feet.	
5.0 – 10.0	LB-4, 5-10'	100%	5-10'	0	Peat from 5-7 feet. Clayes sand and clay from 7-10 feet.	▽
					BOTTOM OF BORING AT 10'	

11.0 12.0 13.0 14.0 15.0 16.0 17.0 18.0 19.0 20.0 21.0 22.0 23.0 24.0 25.0 26.0

TERMS

Proportion	Definition
trace	0% - 10%
little	10% - 20%
some	20% - 35%
and	35% - 50%

NOTES

Lord Environmental, Inc.

Consulting & LSP Services

1506 Providence Highway
Suite 30
Norwood, MA 02062
Voice: 781.255.5554

SOIL TEST BORING LOG & WELL COMPLETION REPORT

BORING: **LB-5**
WELL: NA

CONTRACTOR:	New England GeoTech	**SITE LOCATION:**	191 Dedham Street	**WELL RISER:**	NA
DRILLER:	Maynor Mendoza	**PROJECT NO.:**	3145	**WELL SCREEN:**	NA
SUPERVISOR:	Oliver P. Leek	**START DATE:**	722/22	**OBSERVED DTW:**	7'
EQUIPMENT:	Geoprobe 7822	**FINISH DATE:**	07/22/22		

DIRECT-PUSH BORING & WELL COMPLETION LOG

DEPTH (FT)	SAMPLE ID	% RECOVERY	SAMPLE INTERVAL	PID READING ppm-v	SOIL DESCRIPTION	WELL COMPLETION
0.0 – 5.0	LB-5, 0-5'	80%	0-5'	0	Loamy sand to 2 feet then fine to coarse SAND and gravel with fine gravel and pulverized rock from 2-5 feet.	
5.0 – 10.0	LB-5, 5-10'	100%	5-10'	0	Silty fine SAND from 5-7 feet. Sandy clay from 7-10 feet, damp from 7-8 feet.	▽
10.0	BOTTOM OF BORING AT 10'					

TERMS

Proportion	Definition
trace	0% - 10%
little	10% - 20%
some	20% - 35%
and	35% - 50%

NOTES

Lord Environmental, Inc.

Consulting & LSP Services

1506 Providence Highway
Suite 30
Norwood, MA 02062
Voice: 781.255.5554

SOIL TEST BORING LOG & WELL COMPLETION REPORT

BORING: **LB-6**
WELL: NA

CONTRACTOR:	New England GeoTech	**SITE LOCATION:**	191 Dedham Street	**WELL RISER:**	NA
DRILLER:	Maynor Mendoza	**PROJECT NO.:**	3145	**WELL SCREEN:**	NA
SUPERVISOR:	Oliver P. Leek	**START DATE:**	722/22	**OBSERVED DTW:**	8.5'
EQUIPMENT:	Geoprobe 7822	**FINISH DATE:**	07/22/22		

DIRECT-PUSH BORING & WELL COMPLETION LOG

DEPTH (FT)	SAMPLE ID	% RECOVERY	SAMPLE INTERVAL	PID READING ppm-v	SOIL DESCRIPTION	WELL COMPLETION
0.0 – 5.0	LB-6, 0-5'	80%	0-5'	0	Loamy sand to 1 foot then fine to coarse SAND and gravel with fine gravel and pulverized rock from 2-4.5 feet. Peat from 4.5-5 feet	
5.0 – 10.0	LB-6, 5-10'	70%	5-10'	0	Silty fine SAND from 5-8.5 feet. Damp clayey sand from 8.5-10 feet.	▽
10.0					BOTTOM OF BORING AT 10'	

11.0 12.0 13.0 14.0 15.0 16.0 17.0 18.0 19.0 20.0 21.0 22.0 23.0 24.0 25.0 26.0

TERMS

Proportion	Definition
trace	0% - 10%
little	10% - 20%
some	20% - 35%
and	35% - 50%

NOTES

Lord Environmental, Inc.

Consulting & LSP Services

1506 Providence Highway
Suite 30
Norwood, MA 02062
Voice: 781.255.5554

SOIL TEST BORING LOG & WELL COMPLETION REPORT

BORING: **LB-7**
WELL: NA

CONTRACTOR:	New England GeoTech	**SITE LOCATION:**	191 Dedham Street	**WELL RISER:**	NA
DRILLER:	Maynor Mendoza	**PROJECT NO.:**	3145	**WELL SCREEN:**	NA
SUPERVISOR:	Oliver P. Leek	**START DATE:**	722/22	**OBSERVED DTW:**	NA
EQUIPMENT:	Geoprobe 7822	**FINISH DATE:**	07/22/22		

DIRECT-PUSH BORING & WELL COMPLETION LOG

DEPTH (FT)	SAMPLE ID	% RECOVERY	SAMPLE INTERVAL	PID READING ppm-v	SOIL DESCRIPTION	WELL COMPLETION
0.0 – 5.0	LB-7, 0-5'	70%	0-5'	0	Loamy sand to 0.5 feet then fine to medium SAND and gravel with fine gravel and pulverized rock from 0.5-4 feet. Peat from 4-4.25 feet, thwen clayey sand to 5 feet.	
5.0 – 10.0	LB-7, 5-10'	80%	5-10'	0	Fine to medium silty sand and gravvel with some pulverized rock.	
10.0 – 26.0					BOTTOM OF BORING AT 10'	

TERMS

Proportion	Definition
trace	0% - 10%
little	10% - 20%
some	20% - 35%
and	35% - 50%

NOTES

Lord Environmental, Inc.

Consulting & LSP Services

1506 Providence Highway
Suite 30
Norwood, MA 02062
Voice: 781.255.5554

SOIL TEST BORING LOG & WELL COMPLETION REPORT

BORING: **LB-8**
WELL: NA

CONTRACTOR:	New England GeoTech	**SITE LOCATION:**	191 Dedham Street	**WELL RISER:**	NA
DRILLER:	Maynor Mendoza	**PROJECT NO.:**	3145	**WELL SCREEN:**	NA
SUPERVISOR:	Oliver P. Leek	**START DATE:**	722/22	**OBSERVED DTW:**	7'
EQUIPMENT:	Geoprobe 7822	**FINISH DATE:**	07/22/22		

DIRECT-PUSH BORING & WELL COMPLETION LOG

DEPTH (FT)	SAMPLE ID	% RECOVERY	SAMPLE INTERVAL	PID READING ppm-v	SOIL DESCRIPTION	WELL COMPLETION
0.0 – 5.0	LB-8, 0-5'	80%	0-5'	0	Loamy sand to 0.5 feet then fine to medium SAND and gravel with fine gravel and pulverized rock from 0.5-4.5 feet.	
5.0 – 10.0	LB-8, 5-10'	90%	5-10'	0	Peaty sand from 5-6 feet. Clay from 6-8.5 feet. Clayey sand from 8.5-10 feet. Damp at 7 feet	▽
10.0					BOTTOM OF BORING AT 10'	

TERMS

Proportion Definition

trace	0% - 10%
little	10% - 20%
some	20% - 35%
and	35% - 50%

NOTES

Lord Environmental, Inc.

Consulting & LSP Services

1506 Providence Highway
Suite 30
Norwood, MA 02062
Voice: 781.255.5554

SOIL TEST BORING LOG & WELL COMPLETION REPORT

BORING: **LB-9**
WELL: NA

CONTRACTOR:	New England GeoTech	**SITE LOCATION:**	191 Dedham Street	**WELL RISER:**	NA
DRILLER:	Maynor Mendoza	**PROJECT NO.:**	3145	**WELL SCREEN:**	NA
SUPERVISOR:	Oliver P. Leek	**START DATE:**	722/22	**OBSERVED DTW:**	NA
EQUIPMENT:	Geoprobe 7822	**FINISH DATE:**	07/22/22		

DIRECT-PUSH BORING & WELL COMPLETION LOG

DEPTH (FT)	SAMPLE ID	% RECOVERY	SAMPLE INTERVAL	PID READING ppm-v	SOIL DESCRIPTION	WELL COMPLETION
0.0 – 5.0	LB-9, 0-5'	80%	0-5'	0	Loamy sand to 1 foot, then fine to medium SAND and gravel with fine gravel and pulverized rock from 1-5 feet.	
5.0 – 10.0	LB-9, 5-10'	100%	5-10'	0	Silty fine to coarse SAND from 5-7 feey. Fine to medium sand and gravel with pulverized rock from 7-9 feet. Refusal on rock at 9 feet.	
10.0					BOTTOM OF BORING AT 9' AT RESUSAL	

TERMS

Proportion	Definition
trace	0% - 10%
little	10% - 20%
some	20% - 35%
and	35% - 50%

NOTES

Lord Environmental, Inc.

Consulting & LSP Services

1506 Providence Highway
Suite 30
Norwood, MA 02062
Voice: 781.255.5554

SOIL TEST BORING LOG & WELL COMPLETION REPORT

BORING: **LB-10**
WELL: NA

CONTRACTOR:	New England GeoTech	**SITE LOCATION:**	191 Dedham Street	**WELL RISER:**	NA
DRILLER:	Maynor Mendoza	**PROJECT NO.:**	3145	**WELL SCREEN:**	NA
SUPERVISOR:	Oliver P. Leek	**START DATE:**	722/22	**OBSERVED DTW:**	7'
EQUIPMENT:	Geoprobe 7822	**FINISH DATE:**	07/22/22		

DIRECT-PUSH BORING & WELL COMPLETION LOG

DEPTH (FT)	SAMPLE ID	% RECOVERY	SAMPLE INTERVAL	PID READING ppm-v	SOIL DESCRIPTION	WELL COMPLETION
0.0 – 5.0	LB-10, 0-5'	90%	0-5'	0	Loamy sand to 1 foot, then FILL with brick and gravel from 1-5 feet.	
5.0 – 10.0	LB-10, 5-10'	80%	5-10'	0	Peaty sand from 5-7 feet. Silty fine to medium sand from 7-8.5 feet. Clayey sand from 8.5-10 feet. Damp at 7 feet.	▽
					BOTTOM OF BORING AT 10'	

TERMS

Proportion	Definition
trace	0% - 10%
little	10% - 20%
some	20% - 35%
and	35% - 50%

NOTES

APPENDIX C – BORING LOGS

TEST BORING LOG

GZA GeoEnvironmental, Inc. *Engineers and Scientists*	**DiNisco Design** **Newton Countryside Elementary School** **Newton, Massachusetts**	**BORING NO.:** GZ-1 **SHEET:** 1 of 1 **PROJECT NO:** 01.0175875.00 **REVIEWED BY:** HLA

Drilling Co.: Drilex Environmental, Inc. **Foreman:** Enzo Gravante **Logged By:** A. Lupo	**Type of Rig:** ATV **Rig Model:** CME55LC **Drilling Method:** Drive & Wash	**Boring Location:** See Plan **Ground Surface Elev. (ft.):** 109 **Final Boring Depth (ft.):** 22 **Date Start - Finish:** 10/8/2022 - 10/8/2022	**H. Datum:** See Plan **V. Datum:** NAVD88

Auger/Casing Type: Auger **I.D./O.D.:** 4/4.25 **Hmr Weight (lb.):** **Hmr Fall (in.):** **Other:**	**Sampler Type:** Split Spoon **I.D./O.D (in.):** 1.375/2 **Sampler Hmr Wt (lb.):** 140 **Sampler Hmr Fall (in.):** 30 **Other:** Auto Hammer	**Groundwater Depth (ft.)**

Date	Time	Water Depth	Casing	Stab. Time
10/8/22	0900	5.5		5 min.

Depth (ft)	Casing Blows/ Core Rate Min/ft	Sample No.	Sample Depth (ft.)	Pen. (in)	Rec. (in)	Blows (per 6 in.)	SPT Value	Sample Description Modified Burmister	Remark	Field Test Data	Stratum Depth (ft)	Stratum Description	Stratum Elev. (ft)	Equipment Installed
		S-1	0-2	24	10	11 20 23 19	43	S-1: Dense, dark brown, fine to medium SANd, some Silt, little Gravel, trace Organics/Roots, dry.	1			TOPSOIL/SUBSOIL		No Equipment Installed
		S-2	2-4	24	2	11 12 5 3	17	S-2: Medium dense, brown/light brown, fine to coarse SAND and GRAVEL, little Silt, dry. (Fill)	2		2'		107.0'	
		S-3	4-6	24	11	8 9 14 11	23	S-3: Very stiff, brown/gray, Clayey SILT, some Gravel, little Sand, moist.			4'	FILL	105.0'	
5												CLAYEY SILT		
											8'		101.0'	
10		S-4	10-12	24	11	7 28 14 11	42	S-4: Dense, gray/light brown, Clayey SILT, little fine Sand, moist.						
									3					
15		S-5	15-17	24	12	20 14 20 50	34	S-5: Dense, gray/light brown, SILT, some Sand, some Gravel, dry.				GLACIAL TILL		
									4					
20		S-6	20-22	24	13	19 31 19 36	50	S-6: Very dense, gray/light brown, fine to medium GRAVEL, little Sand, little Silt, wet.			22'		87.0'	
								Bottom of boring at 22 feet.	5					
25														
30														

REMARKS

1. Ground surface elevation estimated from ground surface contours shown on "Proposed Test Pit and Boring Locations" Plan provided by DiNisco Design on September 22, 2022.
2. Gravel stuck in the split spoon tip in sample S-2.
3. Auger grinding observed at 13.5 feet below ground surface (bgs).
4. Auger grinding observed at 17 feet bgs.
5. Boring terminated at 22 feet bgs. Borehole backfilled with drill cuttings.

See log key for explanation of sample descriptions and identification procedures. Stratification lines represent approximate boundaries between soil and bedrock types. Actual transitions may be gradual. Water level readings have been made at the times and under the conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the times the measurements were made.

Boring No.: GZ-1

TEST BORING LOG

GZA GeoEnvironmental, Inc.
Engineers and Scientists

DiNisco Design
Newton Countryside Elementary School
Newton, Massachusetts

BORING NO.: GZ-2
SHEET: 1 of 1
PROJECT NO: 01.0175875.00
REVIEWED BY: HLA

Drilling Co.: Drilex Environmental, Inc.
Foreman: Enzo Gravante
Logged By: A. Lupo

Type of Rig: ATV
Rig Model: CME55LC
Drilling Method: Drive & Wash

Boring Location: See Plan
Ground Surface Elev. (ft.): 110
Final Boring Depth (ft.): 17.5
Date Start - Finish: 10/8/2022 - 10/8/2022

H. Datum: See Plan
V. Datum: NAVD88

Auger/Casing Type: Auger
I.D./O.D.: 4/4.25
Hmr Weight (lb.):
Hmr Fall (in.):
Other:

Sampler Type: Split Spoon
I.D./O.D (in.): 1.375/2
Sampler Hmr Wt (lb.): 140
Sampler Hmr Fall (in.): 30
Other: Auto Hammer

Groundwater Depth (ft.)

Date	Time	Water Depth	Casing	Stab. Time
10/8/22	1030	13		5 min.

Depth (ft)	Casing Blows/ Core Rate Min/ft	Sample No.	Sample Depth (ft.)	Pen. (in)	Rec. (in)	Blows (per 6 in.)	SPT Value	Sample Description Modified Burmister	Remark	Field Test Data	Stratum Depth (ft)	Stratum Description	Stratum Elev. (ft)	Equipment Installed
		S-1	0-2	24	11	5 9 10 6	19	S-1: Medium dense, dark brown, fine to coarse SAND, little Gravel, little Silt, trace Organics, dry.	1			TOPSOIL/SUBSOIL		No Equipment Installed
		S-2	2-4	24	16	6 3 5 7	8	S-2: (Top 9") Dark brown/black, Organic SILT, little fine to medium Sand, dry.			2'		108.0'	
5		S-3	4-6	24	19	10 11 10 7	21	(Buried Topsoil) S-2: (Bottom 7") Gray/brown, Silty CLAY, some fine to coarse Sand, dry. S-3: Very stiff, brown, Clayey SILT, moist.			2.75'	ORGANIC SILT	107.3'	
									2					
10		S-4	10-12	24	21	13 19 20 26	39	S-4: Hard, gray/brown, Clayey SILT, little Gravel, trace fine to coarse Sand, moist.				CLAYEY SILT		
									3					
15		S-5	15-17	24	22	9 15 15 21	30	S-5: Hard, gray/tan, Clayey SILT, little fine to coarse Sand, trace Gravel, moist.						
									4		17.5'		92.5'	
								Bottom of boring at 17.5 feet.	5					
20														
25														
30														

REMARKS

1. Ground surface elevation estimated from ground surface contours shown on "Proposed Test Pit and Boring Locations" Plan provided by DiNisco Design on September 22, 2022.
2. Auger grinding observed at 7 feet below ground surface (bgs); possible cobble or boulder.
3. Auger grinding observed at 13 feet bgs.
4. Auger grinding observed at 17 feet bgs.
5. Maximum downward pressure 1,000 psi for 5 minutes. Auger refusal at 17.5 feet bgs on possible bedrock. Boring terminated at 17.5 feet bgs. Borehole backfilled with cuttings.

See log key for explanation of sample descriptions and identification procedures. Stratification lines represent approximate boundaries between soil and bedrock types. Actual transitions may be gradual. Water level readings have been made at the times and under the conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the times the measurements were made.

Boring No.: GZ-2

TEST BORING LOG

GZA GeoEnvironmental, Inc.
Engineers and Scientists

DiNisco Design
Newton Countryside Elementary School
Newton, Massachusetts

BORING NO.: GZ-3
SHEET: 1 of 1
PROJECT NO: 01.0175875.00
REVIEWED BY: HLA

Drilling Co.: Drilex Environmental, Inc.
Foreman: Enzo Gravante
Logged By: A. Lupo

Type of Rig: ATV
Rig Model: CME55LC
Drilling Method: Drive & Wash

Boring Location: See Plan
Ground Surface Elev. (ft.): 111
Final Boring Depth (ft.): 15.5
Date Start - Finish: 10/8/2022 - 10/8/2022

H. Datum: See Plan
V. Datum: NAVD88

Auger/Casing Type: Auger
I.D./O.D.: 4/4.25
Hmr Weight (lb.):
Hmr Fall (in.):
Other:

Sampler Type: Split Spoon
I.D./O.D (in.): 1.375/2
Sampler Hmr Wt (lb.): 140
Sampler Hmr Fall (in.): 30
Other: Auto Hammer

Groundwater Depth (ft.)

Date	Time	Water Depth	Casing	Stab. Time
10/8/22	1300	9.25		5 min.

Depth (ft)	Casing Blows/ Core Rate Min/ft	Sample No.	Sample Depth (ft.)	Pen. (in)	Rec. (in)	Blows (per 6 in.)	SPT Value	Sample Description Modified Burmister	Remark	Field Test Data
0		S-1	0-2	24	18	10 17 8 2	25	S-1: (Top 8") Dark brown, fine to coarse SAND, little Gravel, little Silt, trace Organics. S-1: (Bottom 10") Brown, fine to coarse GRAVEL and fine to coarse SAND, little Silt, dry.	1	
		S-2	2-4	24	9	8 11 12 18	23			
5		S-3	4-6	24	18	16 26 17 12	43	S-2: Medium dense, light brown, fine to coarse SAND, little Gravel, little Silt, dry. S-3: Hard, brown, Clayey SILT, some fine to medium Sand, some Gravel, dry.	2	
10		S-4	10-10.5	6	6	50/6"	R	S-4: Hard, dark brown/gray, Clayey SILT, little Sand and Gravel, wet.	3	
15		S-5	15-15.5	6	6	50/6"	R	S-5: Hard, brown/gray, SILT & CLAY, some fine to coarse Sand, some Gravel, wet.	4 5	
20								Bottom of boring at 15.5 feet.		
25										
30										

Depth (ft)	Stratum Description	Elev. (ft)
0.75'	TOPSOIL	110.3'
	FILL	
4'		107.0'
	GLACIAL TILL	
15.5'		95.5'

Equipment Installed

No Equipment Installed

REMARKS

1. Ground surface elevation estimated from ground surface contours shown on "Proposed Test Pit and Boring Locations" Plan provided by DiNisco Design on September 22, 2022.
2. Auger grinding observed 6.5 to 10 feet below ground surface (bgs) with increased resistance.
3. Drill rig stalled out due to soil density and pressure applied.
4. Maximum downward pressure 700 psi for 10 minutes. Auger refusal at 15.5 feet bgs on possible bedrock.
5. Boring terminated at 15.5 feet bgs. Borehole backfilled with cuttings.

See log key for explanation of sample descriptions and identification procedures. Stratification lines represent approximate boundaries between soil and bedrock types. Actual transitions may be gradual. Water level readings have been made at the times and under the conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the times the measurements were made.

Boring No.: GZ-3

TEST BORING LOG

GZA GeoEnvironmental, Inc.
Engineers and Scientists

DiNisco Design
Newton Countryside Elementary School
Newton, Massachusetts

BORING NO.: GZ-4
SHEET: 1 of 1
PROJECT NO: 01.0175875.00
REVIEWED BY: HLA

Drilling Co.: Drilex Environmental, Inc.
Foreman: Jamie Hastings
Logged By: A. Lupo

Type of Rig: ATV
Rig Model: CME55LC
Drilling Method: Drive & Wash

Boring Location: See Plan
Ground Surface Elev. (ft.): 114
Final Boring Depth (ft.): 22
Date Start - Finish: 10/15/2022 - 10/15/2022

H. Datum: See Plan
V. Datum: NAVD88

Auger/Casing Type: Auger
I.D./O.D.: 4/4.25
Hmr Weight (lb.):
Hmr Fall (in.):
Other:

Sampler Type: Split Spoon
I.D./O.D (in.): 1.375/2
Sampler Hmr Wt (lb.): 140
Sampler Hmr Fall (in.): 30
Other: Auto Hammer

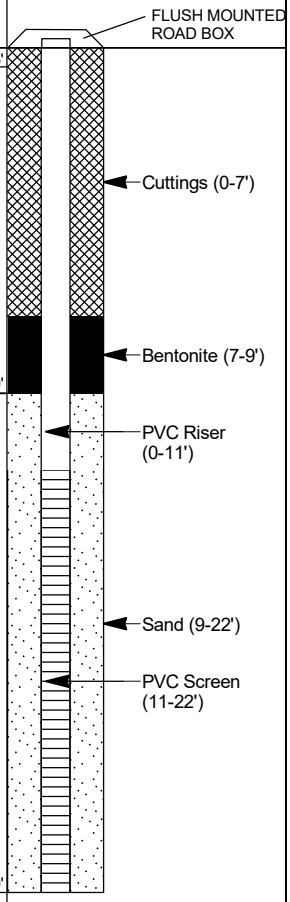
Groundwater Depth (ft.)

Date	Time	Water Depth	Casing	Stab. Time
10/15/22	0920	18		5 min.
10/15/22	0925	18	10 min.	
10/22/22	0750	8.5	Well	~1 week

Depth (ft)	Casing Blows/ Core Rate Min/ft	Sample No.	Sample Depth (ft.)	Pen. (in)	Rec. (in)	Blows (per 6 in.)	SPT Value	Sample Description Modified Burmister	Remark	Field Test Data
		S-1	0.5-2	24	11	10 11 15 24	26	S-1: Medium dense, brown/dark brown, fine to coarse SAND, some Gravel, trace Silt, dry.	1	
		S-2	2-4	24	15	13 9 5 2	14	S-2: Medium dense, brown/dark brown, fine to coarse SAND, some Gravel, little Silt, dry.	2	
5		S-3	4-6	24	13	3 2 2 6	4	S-3: Loose, dark brown, fine to medium SAND and fine to coarse GRAVEL, some Silt, moist.	3	
		S-4	6-8	24	1	6 2 2 1	4	S-4: Loose, dark brown, fine to medium SAND, some Silt, little (+) Gravel, moist.		
10		S-5	10-12	24	20	1 6 8 6	14	S-5: Stiff, gray, SILT & CLAY, trace fine Sand, trace Organics, dry/moist.		
15		S-6	15-17	24	20	5 6 6 8	12	S-6: Stiff, gray, SILT & CLAY, trace fine Sand, dry/moist.		
20		S-7	20-22	24	17	6 6 10 10	16	S-7: Very stiff, brown, SILT & CLAY, little fine Sand, wet.		
								Bottom of boring at 22 feet.	4	
25										
30										

Depth (ft)	Stratum Description	Elev. (ft)
0.5'	ASPHALT	113.5'
	FILL	
9'		105.0'
	SILT AND CLAY	
22'		92.0'

Equipment Installed



REMARKS

1. Ground surface elevation estimated from ground surface contours shown on "Proposed Test Pit and Boring Locations" Plan provided by DiNisco Design on September 22, 2022.
2. Auger grinding observed at 3 feet below ground surface (bgs); possible cobble or boulder.
3. Auger grinding observed at 5 feet bgs; possible cobble or boulder.
4. Boring terminated at 22 feet bgs. Monitoring well installed. Pavement repaired with cold patch.

See log key for explanation of sample descriptions and identification procedures. Stratification lines represent approximate boundaries between soil and bedrock types. Actual transitions may be gradual. Water level readings have been made at the times and under the conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the times the measurements were made.

Boring No.: GZ-4

TEST BORING LOG

GZA GeoEnvironmental, Inc.
Engineers and Scientists

DiNisco Design
Newton Countryside Elementary School
Newton, Massachusetts

BORING NO.: GZ-5
SHEET: 1 of 1
PROJECT NO: 01.0175875.00
REVIEWED BY: HLA

Drilling Co.: Drilex Environmental, Inc.
Foreman: Jamie Hastings
Logged By: A. Lupo

Type of Rig: ATV
Rig Model: CME55LC
Drilling Method: Drive & Wash

Boring Location: See Plan
Ground Surface Elev. (ft.): 110
Final Boring Depth (ft.): 24
Date Start - Finish: 10/15/2022 - 10/15/2022

H. Datum: See Plan
V. Datum: NAVD88

Auger/Casing Type: Auger
I.D./O.D.: 4/4.25
Hmr Weight (lb.):
Hmr Fall (in.):
Other:

Sampler Type: Split Spoon
I.D./O.D (in.): 1.375/2
Sampler Hmr Wt (lb.): 140
Sampler Hmr Fall (in.): 30
Other: Auto Hammer

Groundwater Depth (ft.)

Date	Time	Water Depth	Casing	Stab. Time
10/15/22	1400	5		5 min.

Depth (ft)	Casing Blows/ Core Rate Min/ft	Sample No.	Sample Depth (ft.)	Pen. (in)	Rec. (in)	Blows (per 6 in.)	SPT Value	Sample Description Modified Burmister	Remark	Field Test Data	Stratum Description (Depth (ft) / Elev. (ft))	Equipment Installed
		S-1	0-2	24	13	5 6 7 14	13	S-1: Medium dense, brown/dark brown, fine to coarse SAND, some Gravel, some Silt, trace Organics and Roots, moist.	1		0.5' TOPSOIL 109.5'	No Equipment Installed
		S-2	2-4	24	7	12 5 9 10	14	S-2: Medium dense, brown/dark brown, fine to coarse SAND, some Silt, little Gravel, trace Organics, moist.			FILL 4' 106.0'	
5		S-3	4-6	24	10	1 2 5 7	7	S-3: Loose, dark brown, Organic SILT, little Gravel, little fine to coarse Sand, wet.	2		ORGANIC SILT 8' 102.0'	
10		S-4	10-12	24	14	4 6 5 5	11	S-4: Stiff, gray, SILT & CLAY, trace Gravel, little fine to coarse Sand, wet.				
15		S-5	15-17	24	9	6 8 8 8	16	S-5: Very stiff, brown, Clayey SILT, little fine to coarse Sand, wet.	3		SILT AND CLAY TO CLAYEY SILT	
20		S-6	20-22	24	5	25 9 10 14	19	S-6: Very stiff, grayish brown, Clayey SILT, little Gravel, little fine to coarse Sand, wet.	4		24' 86.0'	
25								Bottom of boring at 24 feet.	5 6			
30												

REMARKS

1. Ground surface elevation estimated from ground surface contours shown on "Proposed Test Pit and Boring Locations" Plan provided by DiNisco Design on September 22, 2022.
2. Auger grinding observed at 6.5 feet below ground surface (bgs); possible cobble or boulder.
3. Auger grinding observed at 13.5 feet bgs.
4. Auger grinding observed at 23 feet bgs.
5. Auger grinding observed at 24 feet bgs with 500, psi for 5 minutes.
6. Auger refusal at 24 feet bgs on possible bedrock. Borehole backfilled with cuttings.

See log key for explanation of sample descriptions and identification procedures. Stratification lines represent approximate boundaries between soil and bedrock types. Actual transitions may be gradual. Water level readings have been made at the times and under the conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the times the measurements were made.

Boring No.: GZ-5

TEST BORING LOG

GZA GeoEnvironmental, Inc.
Engineers and Scientists

DiNisco Design
Newton Countryside Elementary School
Newton, Massachusetts

BORING NO.: GZ-6
SHEET: 1 of 1
PROJECT NO: 01.0175875.00
REVIEWED BY: HLA

Drilling Co.: Drilex Environmental, Inc.
Foreman: Enzo Gravante
Logged By: A. Lupo

Type of Rig: ATV
Rig Model: CME55LC
Drilling Method: Drive & Wash

Boring Location: See Plan
Ground Surface Elev. (ft.): 110
Final Boring Depth (ft.): 22
Date Start - Finish: 10/8/2022 - 10/8/2022

H. Datum: See Plan
V. Datum: NAVD88

Auger/Casing Type: Auger
I.D./O.D.: 4/4.25
Hmr Weight (lb.):
Hmr Fall (in.):
Other:

Sampler Type: Split Spoon
I.D./O.D (in.): 1.375/2
Sampler Hmr Wt (lb.): 140
Sampler Hmr Fall (in.): 30
Other: Auto Hammer

Groundwater Depth (ft.)

Date	Time	Water Depth	Casing	Stab. Time
10/8/22	1210	9		5 min.

Depth (ft)	Casing Blows/ Core Rate Min/ft	Sample No.	Sample Depth (ft.)	Pen. (in)	Rec. (in)	Blows (per 6 in.)	SPT Value	Sample Description Modified Burmister	Remark	Field Test Data
		S-1	0-2	24	18	3 15 24 9	39	S-1: (Top 11") Brown, fine to coarse SAND, little Gravel, little Silt, trace Organics, trace brick, dry.	1	
		S-2	2-4	24	6	44 20 15 9	35	S-1: (Bottom 7") White/light brown, fine GRAVEL, some fine to coarse Sand, trace Silt, trace Brick, dry.		
5		S-3	4-6	24	12	2 6 16 9	22	S-2: Dense, white/light brown, fine to coarse SAND and GRAVEL, trace (+) Brick, trace (-) Silt, dry.	2	
								S-3: (Top 10") Dark brown/black, PEAT and Organic SILT, little Sand, little Gravel, trace Wood.		
10		S-4	10-12	24	20	7 7 8 10	15	S-3: (Bottom 2") Gray, fine to coarse GRAVEL and SAND, little Silty Clay, moist. S-4: Stiff, brown, Clayey SILT, little Sand, moist.		
15		S-5	15-17	24	17	9 9 9 7	18	S-5: Very stiff, brown, SILT & CLAY, little Sand, moist.	3	
20		S-6	20-22	24	15	10 17 15 21	32	S-6: Hard, light brown/gray, Clayey SILT, some fine to coarse Sand, some Gravel, moist.		
								Bottom of boring at 22 feet.	4	
25										
30										

Depth (ft)	Stratum Description	Elev. (ft)
1'	TOPSOIL	109.0'
	FILL	
4'		106.0'
5.5'	PEAT/ORGANIC SILT	104.5'
	SILT AND CLAY	
18.5'		91.5'
	GLACIAL TILL	
22'		88.0'

Equipment Installed
No Equipment Installed

REMARKS

1. Ground surface elevation estimated from ground surface contours shown on "Proposed Test Pit and Boring Locations" Plan provided by DiNisco Design on September 22, 2022.
2. Auger grinding observed at 3.5 feet below ground surface (bgs); possible cobble or boulder.
3. Auger grinding observed at 17.5 feet bgs.
4. Boring terminated at 22 feet bgs. Borehole backfilled with cuttings.

See log key for explanation of sample descriptions and identification procedures. Stratification lines represent approximate boundaries between soil and bedrock types. Actual transitions may be gradual. Water level readings have been made at the times and under the conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the times the measurements were made.

Boring No.: GZ-6

TEST BORING LOG

GZA GeoEnvironmental, Inc.
Engineers and Scientists

DiNisco Design
Newton Countryside Elementary School
Newton, Massachusetts

BORING NO.: GZ-7
SHEET: 1 of 1
PROJECT NO: 01.0175875.00
REVIEWED BY: HLA

Drilling Co.: Drilex Environmental, Inc.
Foreman: Jamie Hastings
Logged By: A. Lupo

Type of Rig: ATV
Rig Model: CME55LC
Drilling Method: Drive & Wash

Boring Location: See Plan
Ground Surface Elev. (ft.): 109
Final Boring Depth (ft.): 27
Date Start - Finish: 10/15/2022 - 10/15/2022

H. Datum: See Plan
V. Datum: NAVD88

Auger/Casing Type: Auger
I.D./O.D.: 4/4.25
Hmr Weight (lb.):
Hmr Fall (in.):
Other:

Sampler Type: Split Spoon
I.D./O.D (in.): 1.375/2
Sampler Hmr Wt (lb.): 140
Sampler Hmr Fall (in.): 30
Other: Auto Hammer

Groundwater Depth (ft.)

Date	Time	Water Depth	Casing	Stab. Time
10/15/22	1230	15		5 min.

Depth (ft)	Casing Blows/ Core Rate Min/ft	Sample No.	Sample Depth (ft.)	Pen. (in)	Rec. (in)	Blows (per 6 in.)	SPT Value	Sample Description Modified Burmister	Remark	Field Test Data	Stratum Description (Depth (ft) / Elev. (ft))	Equipment Installed
		S-1	0-2	24	13	3 5 9 15	14	S-1: Medium dense, dark brown/brown, fine to coarse SAND, little Silt, little Gravel, trace Organics, moist.	1			No Equipment Installed
		S-2	2-4	24	13	22 24 25 14	49	S-2: Dense, brown, fine to coarse SAND, some Gravel, some Silt, moist.	2		FILL 4' 105.0'	
5		S-3	4-6	24	1	4 1 5 15	6	S-3: Loose, dark brown, Organic SILT, some fine to medium Sand, trace Roots, wet.			ORGANIC SILT 5.5' 103.5'	
10		S-4	10-12	24	15	6 7 6 5	13	S-4: Stiff, gray, Clayey SILT, little fine Sand, dry/moist.				
15		S-5	15-17	24	19	5 5 9 8	14	S-5: Stiff, gray, SILT & CLAY, moist.			SILT AND CLAY	
20		S-6	20-22	24	17	3 5 7 8	12	S-6: Stiff, gray/brown, SILT & CLAY, moist.	3			
25		S-7	25-27	24	12	9 16 5 6	21	S-7: Very stiff, light brown/gray, SILT & CLAY, some fine to coarse Sand, some (-) Gravel, moist.			27' 82.0'	
30								Bottom of boring at 27 feet.	4			

REMARKS

1. Ground surface elevation estimated from ground surface contours shown on "Proposed Test Pit and Boring Locations" Plan provided by DiNisco Design on September 22, 2022.
2. Auger grinding observed at 2.5 feet below ground surface (bgs); possible cobble or boulder.
3. Observable change of material from auger cuttings.
4. Boring terminated at 27 feet bgs. Borehole backfilled with cuttings.

See log key for explanation of sample descriptions and identification procedures. Stratification lines represent approximate boundaries between soil and bedrock types. Actual transitions may be gradual. Water level readings have been made at the times and under the conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the times the measurements were made.

Boring No.: GZ-7

APPENDIX D - TEST PIT LOGS

GZA
GeoEnvironmental, Inc.
Engineers/Scientists
249 Vanderbilt Avenue
Norwood, MA 02062

Countryside Elementary School	
DINISCO DESIGN | architects + planners	
191 Dedham Street	
Newton, Massachusetts	
Test Pit No.	TP-1
Page No.	1 of 1
File No.	01.0175875.00
Checked By:	HA

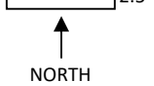
GZA Rep.	Shiv Bhardwaj	Contractor	Cryan Landscape Contractors, Inc.			Date	10/22/2022
		Operator	Hassler Lopez			Ground Elev.	109
Weather	Sunny, 40s-60s	Make	CAT	Model	305E2 CR	Time Started	1127
		Capacity	~ 1/4 CY	Reach	~ 10.5 FT	Time Completed	1148

Depth	Soil Description	Sample No.	Field Test Data	Excav. Effort	Boulders: Count/ Class	Note No.
0	Dark brown, SILT, some fine Sand, trace Roots, moist			E		1
0.5'	(TOPSOIL)					
1'	Dark brown, fine to coarse SAND and SILT, little fine Gravel, trace Roots, moist			E		2
2'	(FILL)			M		3
3'	Gray to brown, f-c SAND and f-c GRAVEL, trace Silt, moist to wet			M	1B	4
3.5'	(FILL)					
4'	Dark brown, Clayey ORGANIC SILT, trace fine to coarse Sand, trace Roots, wet			D		5
4.5'	(ORGANIC SILT)					
5'	Gray, fine SAND, some Silt, little fine Gravel, wet			D		6
6'	(SILTY SAND)					
6.5'	Excavator refusal on very dense soils					
7'	Bottom of Test Pit 6.5 feet below ground surface.					
8'						
9'						
10'						
11'						
12'						
13'						
14'						
15'						
16'						

Notes:

1. Ground surface elevation estimated from ground surface contours shown on the plan entitled "Proposed Test Pit & Boring Locations", prepared by DINISCO DESIGN of Boston, Massachusetts and are cited in NAVD88.
2. Roots observed to approximately 2 feet and from approximately 3.5 to 4.5 feet below ground surface (bgs).
3. Mottling observed at approximately 3 feet bgs.
4. Encountered probable groundwater seeping through sidewalls at approximately 3.5 feet bgs.
5. Slight orange staining/soil mottling observed in the excavation sidewalls from approximately 6 to 6.5 feet bgs.
6. Test pit terminated at approximately 6.5 feet bgs on very dense soils. Upon completion, test pit was backfilled with excavated material in lifts and tamped with the heel of the excavator bucket.

Test Pit Plan



Boulder Class

Letter Designation	Size Range Classification
A	6" - 17"
B	18" - 36"
C	36" and Larger

Excavation Effort
E-----Easy
M-----Moderate
D-----Difficult

Proportions Used

TRACE (TR.)	0 - 10%
LITTLE (LI.)	10 - 20%
SOME (SO.)	20 - 35%
AND	35 - 50%

Abbreviations
F = Fine
M = Medium
C = Coarse
V = Very
F/M = Fine to medium
F/C = Fine to coarse
GR = Gray
BN = Brown
YEL = Yellow

GROUNDWATER
(X) Encountered
( ) Not Encountered

Elapsed Time to Reading (Hours)	Depth to Ground-water
~5 minutes	3.5 feet

Stratification lines represent approximate boundaries between soil types, transitions may be gradual. Water level readings have been made at times and under conditions stated. Fluctuations of groundwater may occur due to factors other than those present at the time measurements were made.

GZA
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249 Vanderbilt Avenue
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Countryside Elementary School
DINISCO DESIGN | architects + planners
191 Dedham Street
Newton, Massachusetts

Test Pit No. TP-1A
Page No. 1 of 1
File No. 01.0175875.00
Checked By: HA

GZA Rep. Shiv Bhardwaj
Weather Sunny, 40s-60s

Contractor Cryan Landscape Contractors, Inc.
Operator Hassler Lopez
Make CAT Model 305E2 CR
Capacity ~ 1/4 CY Reach ~ 10.5 FT

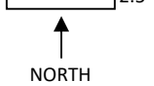
Date 10/22/2022
Ground Elev. 109
Time Started 1149
Time Completed 1313

Depth	Soil Description	Sample No.	Field Test Data	Excav. Effort	Boulders: Count/ Class	Note No.
0	Dark brown, SILT, some fine Sand, trace Roots, moist (TOPSOIL)			E		1
0.5'						
1'	Dark brown, fine to coarse SAND and SILT, little fine Gravel, trace Roots, moist (FILL)			E		2
2'						
2'	Gray to brown, fine to coarse SAND and fine GRAVEL, little Silt, moist (FILL)			M		3
3'						
3'	Dark brown, Clayey ORGANIC SILT, trace fine to coarse Sand, trace Roots, wet (ORGANIC SILT)			M		4
4'						
4'				M		5, 6
4.5'	Gray, fine SAND, some Silt, little fine Gravel, wet (SILTY SAND)					
5'						
6'	Bottom of Test Pit 4.5 feet below ground surface.					
7'						
8'						
9'						
10'						
11'						
12'						
13'						
14'						
15'						
16'						

Notes:

1. Ground surface elevation estimated from ground surface contours shown on the plan entitled "Proposed Test Pit & Boring Locations", prepared by DINISCO DESIGN of Boston, Massachusetts and are cited in NAVD88.
2. Roots observed to approximately 2 feet and from approximately 3 to 4 feet below ground surface (bgs).
3. Mottling observed at approximately 3 feet bgs.
4. Encountered probable groundwater seeping through sidewalls at approximately 3.5 feet bgs.
5. A falling head infiltration test was performed with a single ring infiltrometer at approximately 4.5 feet bgs within the silty sand stratum.
6. Test pit terminated at approximately 4.5 feet bgs (target depth for infiltration test). Upon completion, test pit was backfilled with excavated material in lifts and tamped with the heel of the excavator bucket.

Test Pit Plan



Boulder Class

Letter Designation	Size Range Classification
A	6" - 17"
B	18" - 36"
C	36" and Larger

Excavation Effort
E-----Easy
M-----Moderate
D-----Difficult

Proportions Used

TRACE (TR.)	0 - 10%
LITTLE (LI.)	10 - 20%
SOME (SO.)	20 - 35%
AND	35 - 50%

Abbreviations
F = Fine
M = Medium
C = Coarse
V = Very
F/M = Fine to medium
F/C = Fine to coarse
GR = Gray
BN = Brown
YEL = Yellow

GROUNDWATER
(X) Encountered
( ) Not Encountered

Elapsed Time to Reading (Hours)	Depth to Ground-water
~25 minutes	3.5 feet

Stratification lines represent approximate boundaries between soil types, transitions may be gradual. Water level readings have been made at times and under conditions stated. Fluctuations of groundwater may occur due to factors other than those present at the time measurements were made.

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Countryside Elementary School
DINISCO DESIGN | architects + planners
191 Dedham Street
Newton, Massachusetts

Test Pit No. TP-2
Page No. 1 of 1
File No. 01.0175875.00
Checked By: HA

GZA Rep. Shiv Bhardwaj
Weather Sunny, 40s-60s

Contractor Cryan Landscape Contractors, Inc.
Operator Hassler Lopez
Make CAT Model 305E2 CR
Capacity ~ 1/4 CY Reach ~ 10.5 FT

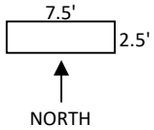
Date 10/22/2022
Ground Elev. 107
Time Started 1044
Time Completed 1120

Depth	Soil Description	Sample No.	Field Test Data	Excav. Effort	Boulders: Count/ Class	Note No.
0	Dark brown, SILT, some fine Sand, trace Roots, moist			E		1
0.8'	(TOPSOIL)					
1'	Dark brown, fine to coarse SAND and SILT, little fine Gravel, trace Roots, moist			E		2
1.9'	(FILL)			M		3
2'	Gray to brown, fine to coarse SAND and fine GRAVEL, little Silt, moist to wet			M		4
3'	(FILL)			M		
4'				D		5
5'	Dark brown, Clayey ORGANIC SILT, trace fine to coarse Sand, trace Roots, wet			D		6
5'	(ORGANIC SILT)					
5.5'	Gray, fine SAND, some Silt, little fine Gravel, wet					
6'	(SILTY SAND)					
6.5'	Excavator refusal on very dense soils					
7'	Bottom of Test Pit 6.5 feet below ground surface.					
8'						
9'						
10'						
11'						
12'						
13'						
14'						
15'						
16'						

Notes:

2. Roots observed to approximately 1.5 feet and from approximately 5 to 5.5 feet below ground surface (bgs).
3. Mottling observed at approximately 3 feet bgs.
4. Encountered probable groundwater seeping through sidewalls at approximately 4 feet bgs.
5. Slight orange staining/soil mottling observed in the excavation sidewalls from approximately 5.5 to 6.5 feet bgs.
6. Test pit terminated at approximately 6.5 feet bgs on very dense soils. Upon completion, test pit was backfilled with excavated material in lifts and tamped with the heel of the excavator bucket.

Test Pit Plan



Boulder Class

Letter Designation	Size Range Classification
A	6" - 17"
B	18" - 36"
C	36" and Larger

Excavation Effort
E-----Easy
M-----Moderate
D-----Difficult

Proportions Used

TRACE (TR.)	0 - 10%
LITTLE (LI.)	10 - 20%
SOME (SO.)	20 - 35%
AND	35 - 50%

Abbreviations
F = Fine
M = Medium
C = Coarse
V = Very
F/M = Fine to medium
F/C = Fine to coarse
GR = Gray
BN = Brown
YEL = Yellow

GROUNDWATER
(X) Encountered
( ) Not Encountered

Elapsed Time to Reading (Hours)	Depth to Ground-water
~5 minutes	4 feet

Stratification lines represent approximate boundaries between soil types, transitions may be gradual. Water level readings have been made at times and under conditions stated. Fluctuations of groundwater may occur due to factors other than those present at the time measurements were made.

GZA
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Countryside Elementary School
DINISCO DESIGN | architects + planners
191 Dedham Street
Newton, Massachusetts

Test Pit No. TP-3
Page No. 1 of 1
File No. 01.0175875.00
Checked By: HA

GZA Rep. Shiv Bhardwaj
Weather Sunny, 40s-60s

Contractor Cryan Landscape Contractors, Inc.
Operator Hassler Lopez
Make CAT Model 305E2 CR
Capacity ~ 1/4 CY Reach ~ 10.5 FT

Date 10/22/2022
Ground Elev. 109
Time Started 0946
Time Completed 1031

Depth	Soil Description	Sample No.	Field Test Data	Excav. Effort	Boulders: Count/ Class	Note No.
0						
0.5'	Dark brown, SILT, some fine Sand, trace Roots, moist (TOPSOIL)			E		1
1.8'	Dark brown, fine to coarse SAND and SILT, little fine Gravel, trace Roots, dry (FILL)			E		2, 3
3'	Gray, SILT & CLAY, moist (FILL)			M	1A	4, 5
4'	Dark brown to brown, Clayey ORGANIC SILT, trace fine to coarse Sand, trace Roots, wet (ORGANIC SILT)			D		
				D		
	Gray to dark brown, fine to coarse SAND and SILT & CLAY, some fine to coarse Gravel, trace Wood, trace Roots, moist (POSSIBLE FILL)			D		
7'	Excavator refusal on wood Bottom of Test Pit 7 feet below ground surface.			D		6

Notes:

1. Ground surface elevation estimated from ground surface contours shown on the plan entitled "Proposed Test Pit & Boring Locations", prepared by DINISCO DESIGN of Boston, Massachusetts and are cited in NAVD88.
2. Roots observed to approximately 2 feet and from approximately 3 to 4 feet below ground surface (bgs).
3. Orange staining/soil mottling observed in the excavation sidewalls from approximately 2 to 3 feet bgs.
4. Mottling observed at approximately 3 feet bgs.
5. Apparent moisture observed in material at approximately 3 feet bgs, but not in underlain material to indicate possible perched water at approximately 3 feet bgs.
6. Test pit terminated at approximately 7 feet bgs on wood. Upon completion, test pit was backfilled with excavated material in lifts and tamped with the heel of the excavator bucket.

Test Pit Plan
8' × 2.5'
NORTH

Boulder Class

Letter Designation	Size Range Classification
A	6" - 17"
B	18" - 36"
C	36" and Larger

Excavation Effort
E-----Easy
M-----Moderate
D-----Difficult

Proportions Used

TRACE (TR.)	0 - 10%
LITTLE (LI.)	10 - 20%
SOME (SO.)	20 - 35%
AND	35 - 50%

Abbreviations
F = Fine
M = Medium
C = Coarse
V = Very
F/M = Fine to medium
F/C = Fine to coarse
GR = Gray
BN = Brown
YEL = Yellow

GROUNDWATER
( ) Encountered
(X) Not Encountered

Elapsed Time to Reading (Hours)	Depth to Ground-water
	SEE NOTE 5

Stratification lines represent approximate boundaries between soil types, transitions may be gradual. Water level readings have been made at times and under conditions stated. Fluctuations of groundwater may occur due to factors other than those present at the time measurements were made.

GZA
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249 Vanderbilt Avenue
Norwood, MA 02062

Countryside Elementary School
DINISCO DESIGN | architects + planners
191 Dedham Street
Newton, Massachusetts

Test Pit No. TP-4
Page No. 1 of 1
File No. 01.0175875.00
Checked By: HA

GZA Rep. Shiv Bhardwaj
Weather Sunny, 40s-60s

Contractor Cryan Landscape Contractors, Inc.
Operator Hassler Lopez
Make CAT Model 305E2 CR
Capacity ~ 1/4 CY Reach ~ 10.5 FT

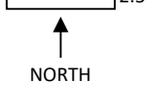
Date 10/22/2022
Ground Elev. 111
Time Started 0909
Time Completed 0932

Depth	Soil Description	Sample No.	Field Test Data	Excav. Effort	Boulders: Count/ Class	Note No.
0						
0.5'	Dark brown, SILT, some fine Sand, trace Roots, moist (TOPSOIL)			E		1
1'	Dark brown, fine to coarse SAND and SILT, little fine Gravel, trace Roots, dry (FILL)			E		2
2'				E/M		
3'	Brown, fine to coarse GRAVEL and fine to coarse SAND, some Silt, trace Cobbles, dry (FILL)			M	1A	
4'				D		
5'	Dark brown, Clayey ORGANIC SILT, trace fine to coarse Sand, trace Roots, moist (ORGANIC SILT)			D		3, 4
6'				D		5, 6
6.5'	Gray, SILT & CLAY, trace Roots, wet (SILT & CLAY)					
7'	Excavator refusal on very stiff soils Bottom of Test Pit 6.5 feet below ground surface.					
8'						
9'						
10'						
11'						
12'						
13'						
14'						
15'						
16'						

Notes:

1. Ground surface elevation estimated from ground surface contours shown on the plan entitled "Proposed Test Pit & Boring Locations", prepared by DINISCO DESIGN of Boston, Massachusetts and are cited in NAVD88.
2. Roots observed to approximately 2 feet and from approximately 5 to 6 feet below ground surface (bgs).
3. Mottling observed at approximately 5.5 feet bgs.
4. Slight orange staining/soil mottling observed in the excavation sidewalls from approximately 6 to 6.5 feet bgs.
5. Apparent moisture observed in material at approximately 6.5 feet bgs to indicate possible groundwater.
6. Test pit terminated at approximately 6.5 feet bgs on very stiff soils. Upon completion, test pit was backfilled with excavated material in lifts and tamped with the heel of the excavator bucket.

Test Pit Plan



Boulder Class

Letter Designation	Size Range Classification
A	6" - 17"
B	18" - 36"
C	36" and Larger

Excavation Effort
E-----Easy
M-----Moderate
D-----Difficult

Proportions Used

TRACE (TR.)	0 - 10%
LITTLE (LI.)	10 - 20%
SOME (SO.)	20 - 35%
AND	35 - 50%

Abbreviations
F = Fine
M = Medium
C = Coarse
V = Very
F/M = Fine to medium
F/C = Fine to coarse
GR = Gray
BN = Brown
YEL = Yellow

GROUNDWATER
(X) Encountered
( ) Not Encountered

Elapsed Time to Reading (Hours)	Depth to Ground-water
~5 minutes	6.5 feet

Stratification lines represent approximate boundaries between soil types, transitions may be gradual. Water level readings have been made at times and under conditions stated. Fluctuations of groundwater may occur due to factors other than those present at the time measurements were made.

GZA
GeoEnvironmental, Inc.
Engineers/Scientists
249 Vanderbilt Avenue
Norwood, MA 02062

Countryside Elementary School
DINISCO DESIGN | architects + planners
191 Dedham Street
Newton, Massachusetts

Test Pit No. TP-5
Page No. 1 of 1
File No. 01.0175875.00
Checked By: HA

GZA Rep. Shiv Bhardwaj
Weather Sunny, 40s-60s

Contractor Cryan Landscape Contractors, Inc.
Operator Hassler Lopez
Make CAT Model 305E2 CR
Capacity ~ 1/4 CY Reach ~ 10.5 FT

Date 10/22/2022
Ground Elev. 111
Time Started 0830
Time Completed 0840

Depth	Soil Description	Sample No.	Field Test Data	Excav. Effort	Boulders: Count/ Class	Note No.
0						
0.5'	Dark brown, SILT, some fine Sand, trace Roots, moist (TOPSOIL)			E	1A	1
1'						
1.5'	Dark brown, fine to coarse SAND and SILT, little fine Gravel, Trace Roots, dry (FILL)			E/M		2
2'						
2.5'	Brown, fine to coarse GRAVEL and fine to coarse SAND, some Silt, trace Cobbles, trace Ceramic, dry (FILL)			D	1A, 2B	3, 4
3'						
4'	Excavator refusal on possible nested boulders					
	Bottom of Test Pit 2.5 feet below ground surface.					
5'						
6'						
7'						
8'						
9'						
10'						
11'						
12'						
13'						
14'						
15'						
16'						

Notes:

1. Ground surface elevation estimated from ground surface contours shown on the plan entitled "Proposed Test Pit & Boring Locations", prepared by DINISCO DESIGN of Boston, Massachsetts and are cited in NAVD88.
2. Roots observed to approximately 1.5 feet feet below ground surface (bgs).
3. No mottling observed on test pit sidewalls.
4. Test pit terminated at approximately 2.5 feet bgs on possible nested boulders. Refusal was encountered across the length of the test pit. Upon completion, test pit was backfilled with excavated material in lifts and tamped with the heel of the excavator bucket.

Test Pit Plan

Boulder Class

Letter Designation	Size Range Classification
A	6" - 17"
B	18" - 36"
C	36" and Larger

Excavation Effort
E-----Easy
M-----Moderate
D-----Difficult

Proportions Used

TRACE (TR.)	0 - 10%
LITTLE (LI.)	10 - 20%
SOME (SO.)	20 - 35%
AND	35 - 50%

Abbreviations
F = Fine
M = Medium
C = Coarse
V = Very
F/M = Fine to medium
F/C = Fine to coarse
GR = Gray
BN = Brown
YEL = Yellow

GROUNDWATER
( ) Encountered
(X) Not Encountered

Elapsed Time to Reading (Hours)	Depth to Ground-water

Stratification lines represent approximate boundaries between soil types, transitions may be gradual. Water level readings have been made at times and under conditions stated. Fluctuations of groundwater may occur due to factors other than those present at the time measurements were made.

GZA
GeoEnvironmental, Inc.
Engineers/Scientists
249 Vanderbilt Avenue
Norwood, MA 02062

Countryside Elementary School
DINISCO DESIGN | architects + planners
191 Dedham Street
Newton, Massachusetts

Test Pit No. TP-5A
Page No. 1 of 1
File No. 01.0175875.00
Checked By: HA

GZA Rep. Shiv Bhardwaj
Weather Sunny, 40s-60s

Contractor Cryan Landscape Contractors, Inc.
Operator Hassler Lopez
Make CAT Model 305E2 CR
Capacity ~ 1/4 CY Reach ~ 10.5 FT

Date 10/22/2022
Ground Elev. 111
Time Started 0840
Time Completed 0851

Depth	Soil Description	Sample No.	Field Test Data	Excav. Effort	Boulders: Count/ Class	Note No.
0						
0.5'	Dark brown, SILT, some fine Sand, trace Roots, moist (TOPSOIL)			E		1
1.8'	Dark brown, fine to coarse SAND, some Silt, little fine Gravel, trace Roots, dry (FILL)			E	1A	2
				M		
	Brown, fine to coarse GRAVEL and fine to coarse SAND, some Silt, trace Cobbles, dry (FILL)			D	1B	
4.5'				D	1B	3, 4
	Excavator refusal on possible nested boulders Bottom of Test Pit 4.5 feet below ground surface.					

Notes:

1. Ground surface elevation estimated from ground surface contours shown on the plan entitled "Proposed Test Pit & Boring Locations", prepared by DINISCO DESIGN of Boston, Massachusetts and are cited in NAVD88.
2. Roots observed to approximately 1.5 feet below ground surface (bgs).
3. No mottling observed on test pit sidewalls.
4. Test pit terminated at approximately 4.5 feet bgs on possible nested boulders. Refusal was encountered across the length of the test pit. Upon completion, test pit was backfilled with excavated material in lifts and tamped with the heel of the excavator bucket.

Test Pit Plan
7' × 2.5'
NORTH

Boulder Class

Letter Designation	Size Range Classification
A	6" - 17"
B	18" - 36"
C	36" and Larger

Excavation Effort
E-----Easy
M-----Moderate
D-----Difficult

Proportions Used

TRACE (TR.)	0 - 10%
LITTLE (LI.)	10 - 20%
SOME (SO.)	20 - 35%
AND	35 - 50%

Abbreviations
F = Fine
M = Medium
C = Coarse
V = Very
F/M = Fine to medium
F/C = Fine to coarse
GR = Gray
BN = Brown
YEL = Yellow

GROUNDWATER
( ) Encountered
(X) Not Encountered

Elapsed Time to Reading (Hours)	Depth to Ground-water

Stratification lines represent approximate boundaries between soil types, transitions may be gradual. Water level readings have been made at times and under conditions stated. Fluctuations of groundwater may occur due to factors other than those present at the time measurements were made.

PHOTOGRAPH LOG

Client Name:
DiNisco Design

Site Location:
Countryside Elementary School
Newton, MA

Project No.:
01.0175875.00

	
Test Pit TP-1	

PHOTOGRAPH LOG

Client Name:
DiNisco Design

Site Location:
Countryside Elementary School
Newton, MA

Project No.:
01.0175875.00

Test Pit TP-2

PHOTOGRAPH LOG

Client Name:
DiNisco Design

Site Location:
Countryside Elementary School
Newton, MA

Project No.:
01.0175875.00

Test Pit TP-3

PHOTOGRAPH LOG

Client Name:
DiNisco Design

Site Location:
Countryside Elementary School
Newton, MA

Project No.:
01.0175875.00

Test Pit TP-4

PHOTOGRAPH LOG

Client Name:
DiNisco Design

Site Location:
Countryside Elementary School
Newton, MA

Project No.:
01.0175875.00

Test Pit 5

APPENDIX E – GEOTECHNICAL LABORATORY RESULTS

Thielsch
DIVISION OF THE RISE GROUP

195 Frances Avenue
Cranston RI, 02910
Phone: (401)-467-6454
Fax: (401)-467-2398
thielsch.com
Let's Build a Solid Foundation

Client Information:
GZA GeoEnvironmental
Norwood, MA
PM: Heather Audet
Assigned By: Heather Audet
Collected By: A. Lupo

Project Information:
Counrtyside Elementary School
Newton, MA
GZA Project Number: 01.0175875.00
Summary Page: 1 of 1
Report Date: 10.26.22

LABORATORY TESTING DATA SHEET, Report No.: 7422-K-158

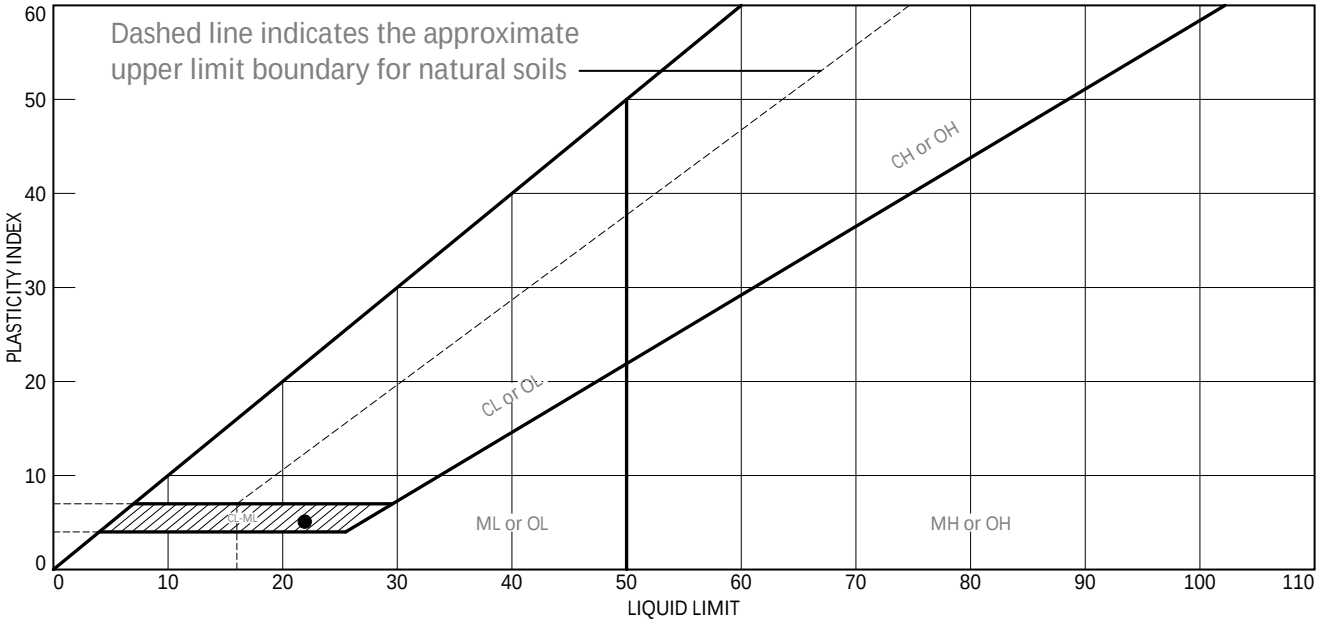
Source	Sample No.	Depth (ft)	Laboratory No.	Identification Tests								Proctor / CBR / Permeability Tests								Laboratory Log and Soil Description
				As Rcvd Moisture Content %	LL %	PL %	Gravel %	Sand %	Fines %	Org. %	pH	Dry unit wt. (pcf)	Test Moisture Content %	γ_d MAX (pcf) W_{opt} (%)	γ_d MAX (pcf) W_{opt} (%) (Corr.)	Target Test Setup as % of Proctor	CBR @ 0.1"	CBR @ 0.2"	Permeability cm/sec	
				D2216	D4318		D6913			D2974	D4792			D1557						
GZ-2	S-3	4-6	22-S-4081	14.5	22	17														Brown Clayey SILT
GZ-4	S-3	4-6	22-S-4082				34.5	43.6	21.9											Dark Brown f-m SAND and f-c GRAVEL, some Silt
GZ-3	S-1B	0-2	22-S-4083				43.7	37.8	18.5											Brown f-c GRAVEL and f-c SAND, little Silt

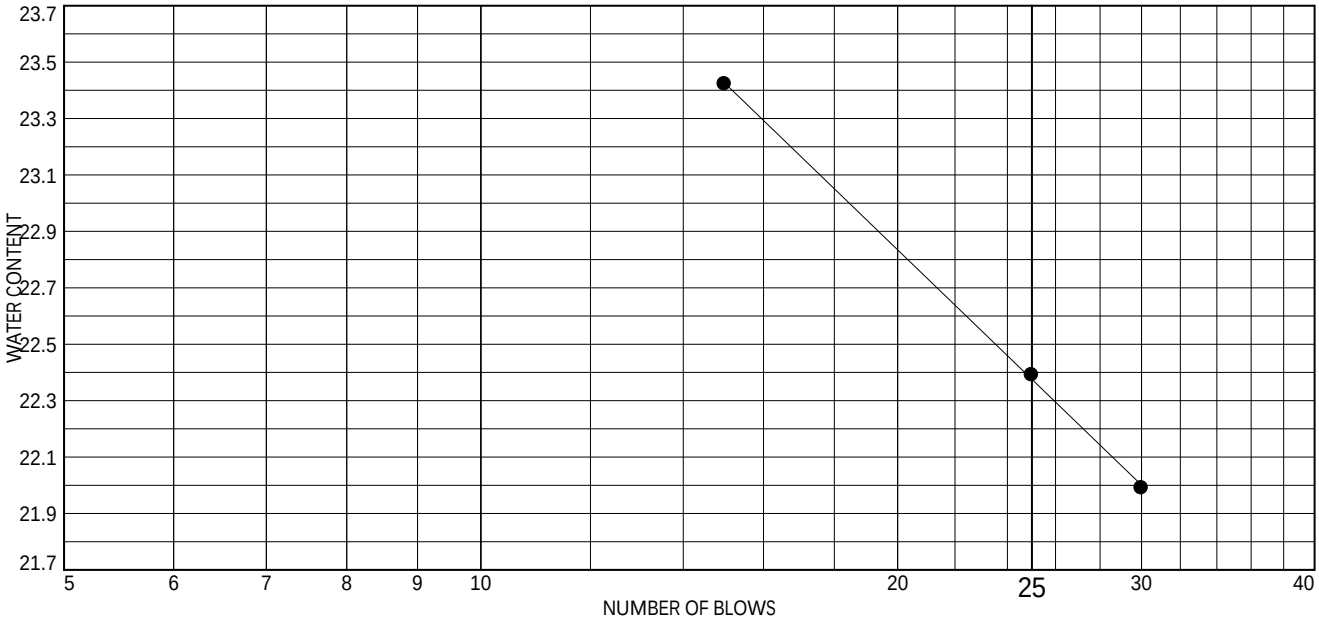
Date Received: *10.19.22*

Reviewed By:

Date Reviewed: *10.25.22*

LIQUID AND PLASTIC LIMITS TEST REPORT





	MATERIAL DESCRIPTION	LL	PL	PI	%<#40	%<#200	USCS
●	Brown Clayey SILT	22	17	5			

Project No. 01.0175875.00 Client: GZA GeoEnvironmental

Project: Countryside Elementary School

Newton, MA

Source of Sample: Borings Depth: 4-6'

Sample Number: GZ-2 / S-3

Thielsch Engineering Inc.

Cranston, RI

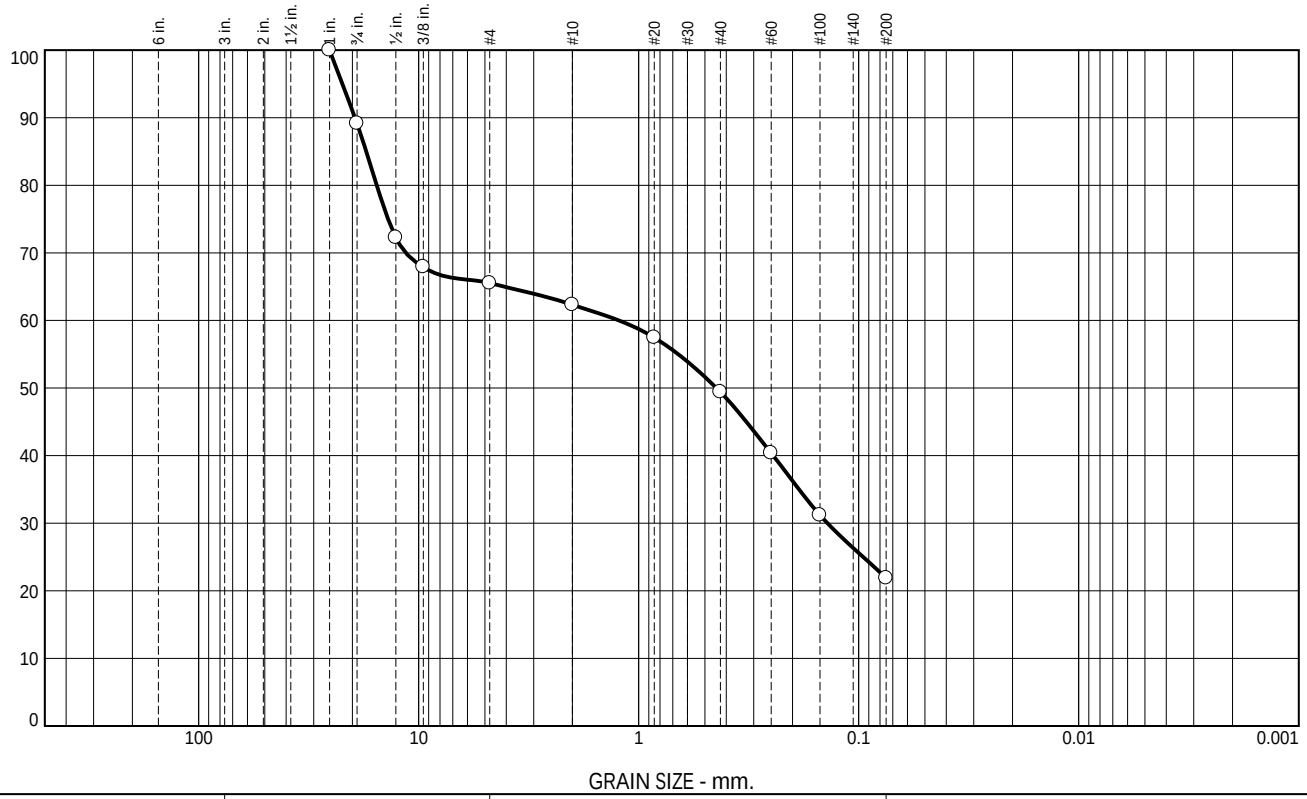
Remarks:

Figure 22-L-4081

Tested By: SL Checked By: Rebecca Roth

Particle Size Distribution Report

ASTM D6913



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	10.9	23.6	3.2	12.9	27.5	21.9	

Test Results (ASTM D6913)

Sieve Size or Diam. (mm.)	Finer (%)	Spec.* (%)	Out of Spec. (%)	Pct. of Fines
1"	100.0			
3/4"	89.1			
1/2"	72.3			
3/8"	67.9			
#4	65.5			
#10	62.3			
#20	57.5			
#40	49.4			
#60	40.4			
#100	31.2			
#200	21.9			

* (no specification provided)

Material Description

Dark Brown f-m SAND and f-c GRAVEL, some Silt

Atterberg Limits

PL= NP LL= NV PI= NP

Coefficients

D_{90}= 19.4748 D_{85}= 17.3005 D_{60}= 1.2294
D_{50}= 0.4431 D_{30}= 0.1386 D_{15}=
D_{10}= C_u= C_c=

Classification

USCS= SM AASHTO= A-1-b

Test Remarks

Source of Sample: Borings Depth: 4-6'
Sample Number: GZ-4 / S-3 Sample Date: 10.24.22

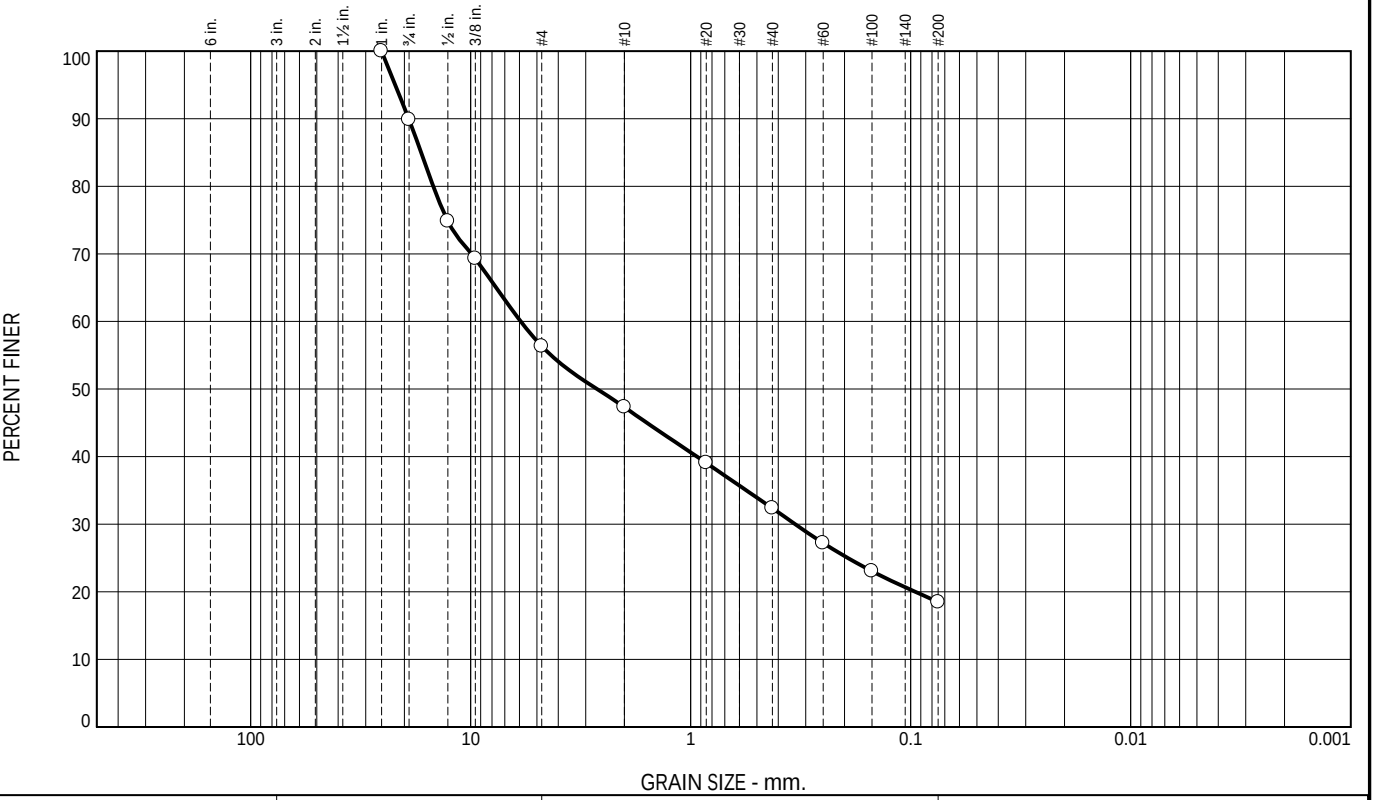
Thielsch Engineering Inc.
Cranston, RI

Client: GZA GeoEnvironmental
Project: Countryside Elementary School
Newton, MA
Project No: 01.0175875.00 Figure 22-S-4082

Tested By: RB Checked By: Rebecca Roth

Particle Size Distribution Report

ASTM D6913



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	10.1	33.6	9.0	14.9	13.9	18.5	

Test Results (ASTM D6913)

Sieve Size or Diam. (mm.)	Finer (%)	Spec.* (%)	Out of Spec. (%)	Pct. of Fines
1"	100.0			
3/4"	89.9			
1/2"	74.8			
3/8"	69.3			
#4	56.3			
#10	47.3			
#20	39.1			
#40	32.4			
#60	27.2			
#100	23.0			
#200	18.5			

* (no specification provided)

Material Description

Brown f-c GRAVEL and f-c SAND, little Silt

Atterberg Limits

PL= NP LL= NV PI= NP

Coefficients

D_{90}= 19.1209 D_{85}= 16.7906 D_{60}= 5.9216
D_{50}= 2.6650 D_{30}= 0.3348 D_{15}=
D_{10}= C_u= C_c=

Classification

USCS= GM AASHTO= A-1-b

Test Remarks

Source of Sample: Borings Depth: 0-2'
Sample Number: GZ-3 / S-1B Sample Date: 10.24.22

Thielsch Engineering Inc.

Cranston, RI

Client: GZA GeoEnvironmental
Project: Countryside Elementary School
Newton, MA
Project No: 01.0175875.00 Figure 22-S-4083

Tested By: RB Checked By: Rebecca Roth

Thielsch
DIVISION OF THE RISE GROUP

195 Frances Avenue
Cranston RI, 02910
Phone: (401)-467-6454
Fax: (401)-467-2398
thielsch.com
Let's Build a Solid Foundation

Client Information:
GZA GeoEnvironmental
Norwood, MA
PM: Joseph Benoit
Assigned By: Joseph Benoit
Collected By: Shiv Bhardwaj

Project Information:
Countryside Elem School
Newton, MA
GZA Project Number: 01.0175875.00
Summary Page: 1 of 1
Report Date: 11.10.22

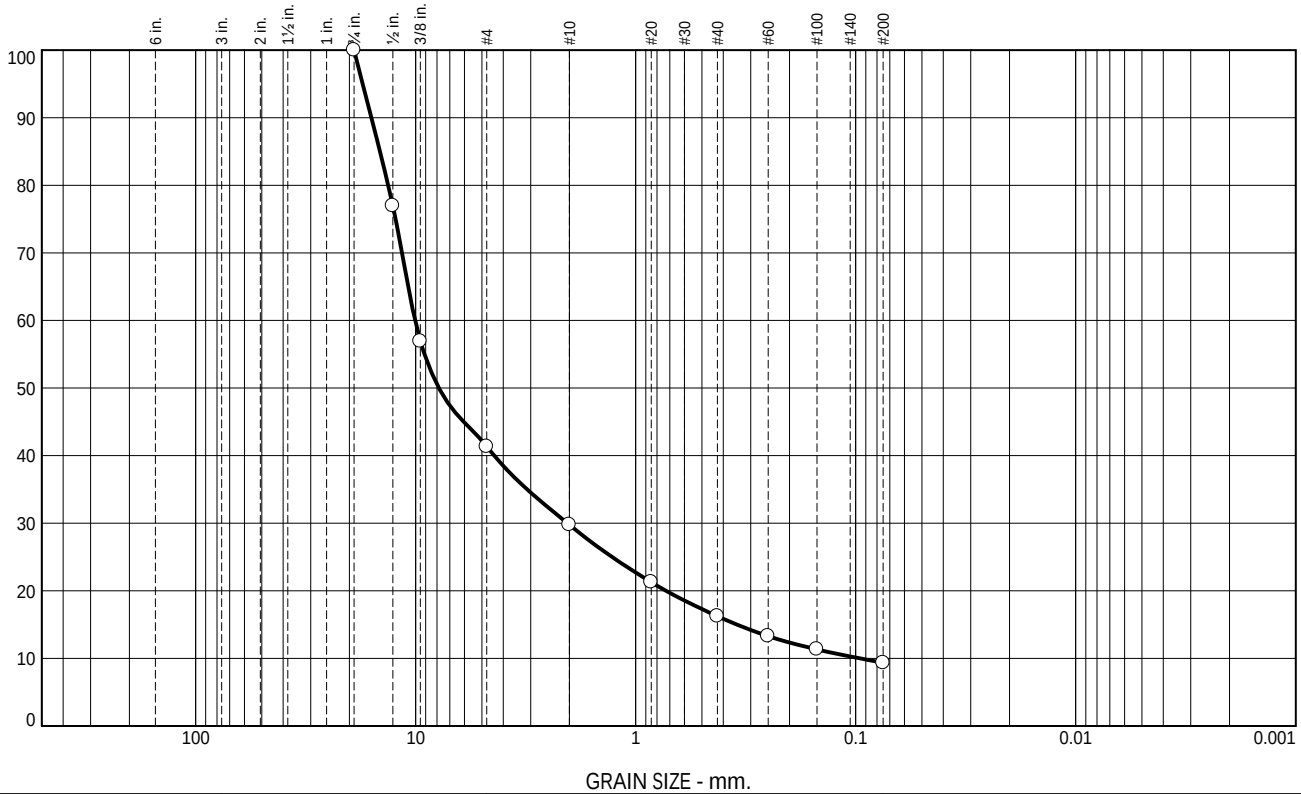
LABORATORY TESTING DATA SHEET, Report No.: 7422-L-107

Boring ID	Sample ID	Depth (Ft)	Laboratory No.	Identification Tests								Proctor / Thermal Resistivity							Laboratory Log and Soil Description
				As Received Water Content %	LL %	PL %	Gravel %	Sand %	Fines %	Org. %	G_s	Dry unit wt. pcf	Test Water Content %	γ_d MAX (pcf) W_{opt} (%)	γ_d MAX (pcf) W_{opt} (%) (Corr.)	Target Test Setup as % of Proctor	Thermal Resistivity Optimum (°C*cm/W)	Thermal Resistivity Oven Dried (°C*cm/W)	
				D2216	D4318		D6913			D2974	D854			D1557			D5334		
GZ-6	S-1B	1.5-2	22-S-4328				58.7	32.0	9.3										Gray fine GRAVEL, some f-c Sand, trace Silt
TP-1	-	2-3	22-S-4330				35.6	55.6	8.8										Brown f-c SAND and f-c GRAVEL, trace Silt

Date Received: *11.02.22* Reviewed By: Date Reviewed: *11.10.22*

Particle Size Distribution Report

ASTM D6913



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	0.0	58.7	11.5	13.6	6.9	9.3	

Test Results (ASTM D6913)

Sieve Size or Diam. (mm.)	Finer (%)	Spec.* (%)	Out of Spec. (%)	Pct. of Fines
3/4"	100.0			
1/2"	77.0			
3/8"	56.9			
#4	41.3			
#10	29.8			
#20	21.3			
#40	16.2			
#60	13.3			
#100	11.3			
#200	9.3			

* (no specification provided)

Material Description

Grey fine GRAVEL, some f-c Sand, trace Silt

Atterberg Limits

PL= NP LL= NV PI= NP

Coefficients

D_{90}= 15.8935 D_{85}= 14.5289 D_{60}= 10.0709
D_{50}= 7.8421 D_{30}= 2.0422 D_{15}= 0.3466
D_{10}= 0.0956 C_u= 105.39 C_c= 4.33

Classification

USCS= GP-GM AASHTO= A-1-a

Test Remarks

Sample visually classified as non-plastic.

Source of Sample: Borings Depth: 1.5-2'
Sample Number: GZ-6 / S-1B Sample Date: 11.09.22

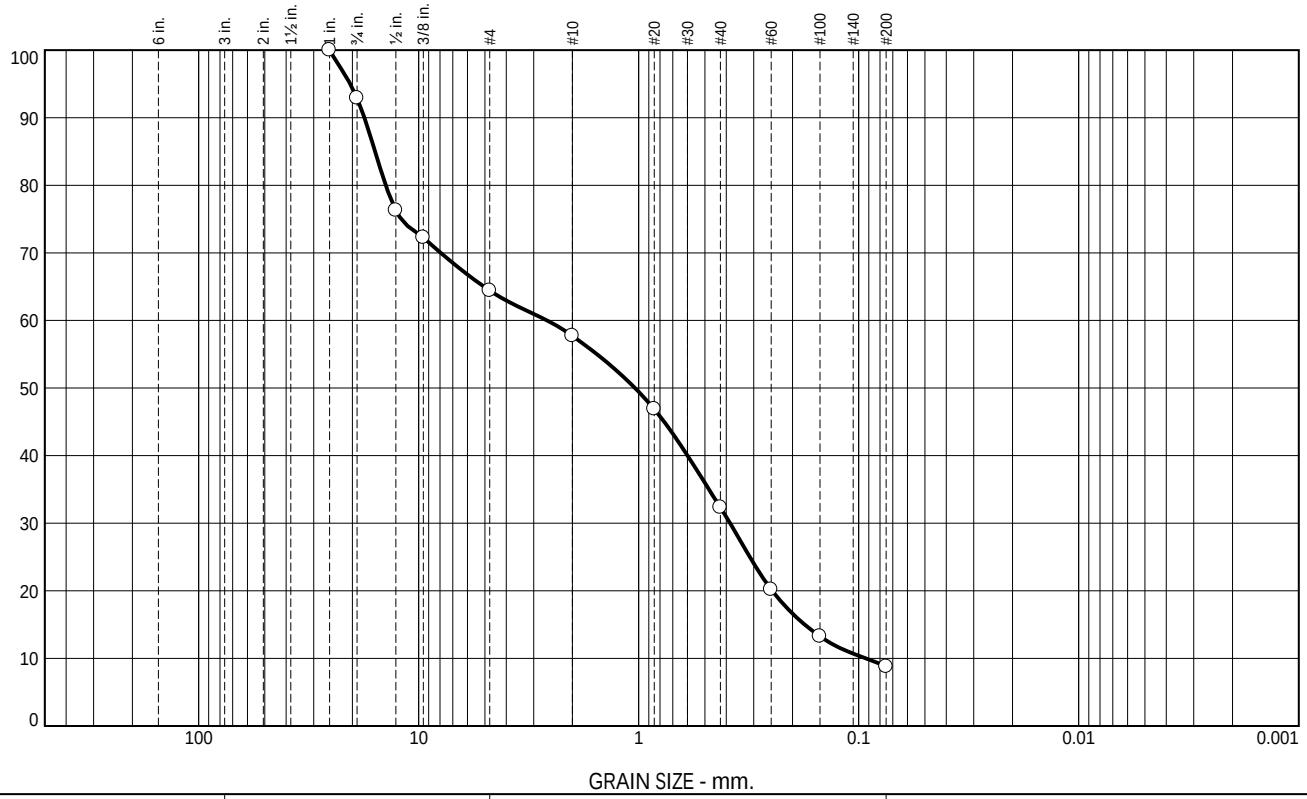
Thielsch Engineering Inc.
Cranston, RI

Client: GZA GeoEnvironmental
Project: Countryside Elementary School
Newton, MA
Project No: 01.0175875.00 Figure 22-S-4328

Tested By: JF / RB Checked By: Rebecca Roth

Particle Size Distribution Report

ASTM D6913



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	7.1	28.5	6.7	25.4	23.5	8.8	

Test Results (ASTM D6913)

Sieve Size or Diam. (mm.)	Finer (%)	Spec.* (%)	Out of Spec. (%)	Pct. of Fines
1"	100.0			
3/4"	92.9			
1/2"	76.3			
3/8"	72.3			
#4	64.4			
#10	57.7			
#20	46.9			
#40	32.3			
#60	20.2			
#100	13.3			
#200	8.8			

* (no specification provided)

Material Description

Brown f-c SAND and f-c GRAVEL, trace Silt

Atterberg Limits

PL= NP LL= NV PI= NP

Coefficients

D_{90}= 17.6384 D_{85}= 15.7831 D_{60}= 2.6124
D_{50}= 1.0393 D_{30}= 0.3840 D_{15}= 0.1760
D_{10}= 0.0929 C_u= 28.11 C_c= 0.61

Classification

USCS= SP-SM AASHTO= A-1-b

Test Remarks

Source of Sample: Test Pit Depth: 2-3'
Sample Number: TP-1 Sample Date: 11.09.22

Thielsch Engineering Inc.

Cranston, RI

Client: GZA GeoEnvironmental
Project: Countryside Elementary School
Newton, MA
Project No: 01.0175875.00 Figure 22-S-4330

Checked By: Rebecca Roth

APPENDIX F – INFILTRATION TEST RESULTS

IN SITU INFILTRATION TEST RESULTS

Location: TP-1A

General Test Information

Date of Test	10/22/2022	
Casing Inside Diameter (in)	11.9	
Depth to Bottom of Casing (feet)	4.5	(measured from ground surface)
Depth to Bottom of Test Pit (feet)	4.0	(measured from ground surface)
Casing Stickup (feet)	-0.5	(measured from ground surface)
Ground Surface Elevation (feet)	109	
Approx. Groundwater Level Depth (feet)	3.5	(measured from ground surface)

Test Data

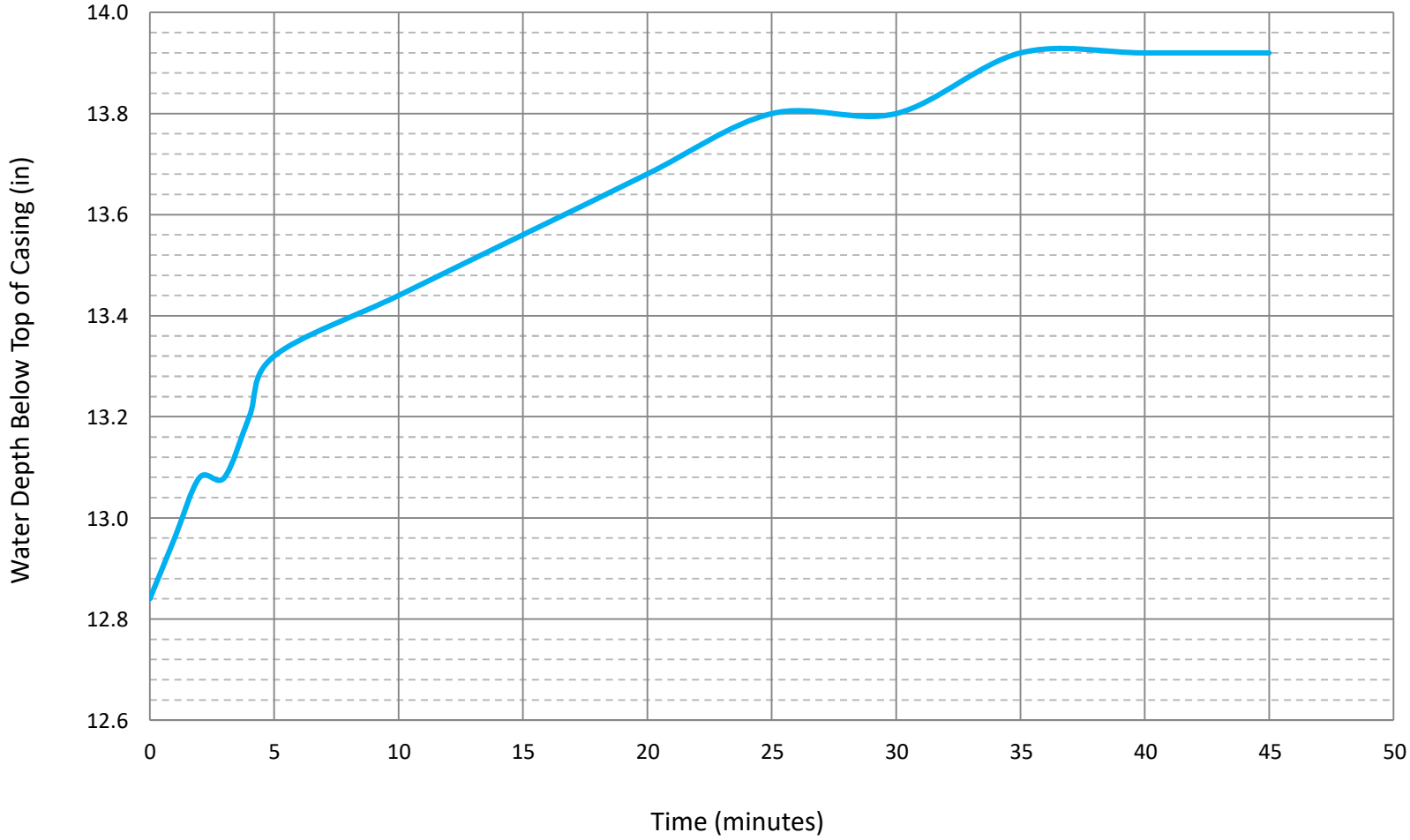
Time Elapsed		Depth of Water from Top of Casing		Total Drop of Water	Infiltration Rate
(minute)	(second)	(feet)	(inches)	(inches)	(in/hr)
0.00	0	1.07	12.8	0.0	-
1.0	60	1.08	13.0	0.1	7.2
2.0	120	1.09	13.1	0.2	7.2
3.0	180	1.09	13.1	0.2	0.0
4.0	240	1.10	13.2	0.4	7.2
5.0	300	1.11	13.3	0.5	7.2
10.0	600	1.12	13.4	0.6	1.4
15.0	900	1.13	13.6	0.7	1.4
20.0	1200	1.14	13.7	0.8	1.4
25.0	1500	1.15	13.8	1.0	1.4
30.0	1800	1.15	13.8	1.0	0.0
35.0	2100	1.16	13.9	1.1	1.4
40.0	2400	1.16	13.9	1.1	0.0
45.0	2700	1.16	13.9	1.1	0.0

Average infiltration rate (in/hr) estimated from straight-line portion of the graph	**2.1**

Notes

1. Data presented represents falling head infiltration testing conducted by GZA using a single ring infiltrometer. Test hole presoaked for approximatley 10 minutes prior to recording water level drop.
2. Refer to Appendix C of the report for the soil conditions observed at test pit TP-1A.
3. Ground surface elevation estimated using "Proposed Test Pit and Boring Locations" Plan provided by DiNisco Design of Boston, Massachusetts on September 22, 2022 and is cited in unknown vertical datum
4. The infiltration rate was estimated from the approximate straight-line portion of the graphed data (5 to 35 minutes) comparing the water level drop over time.

TP-1A In Situ Infiltration Testing
Change in Depth vs. Time



4 EVALUATION OF EXISTING CONDITIONS

Countryside Elementary School & Site Existing Conditions Report

Legal Deeds to Sites (Electronic Copy Only)

Traffic Study Report (Electronic Copy Only)

Hydrant Flow Test (Electronic Copy Only)

Wetland Resource Area Delineation Report (Electronic Copy Only)

Phase I ESA Report (Electronic Copy Only)

HazMat Report (Electronic Copy Only)

AHERA Report (Electronic Copy Only)

Geotechnical Report (Electronic Copy Only)

COUNTRYSIDE ELEMENTARY SCHOOL

Property Data

Address: 191 Dedham Street
Newton, MA 02461

Use: Elementary School
(Grades K through 5)

Site Area: 7.39 acres

Date Built: 1953

Renovations:

Additions & Reno: 1958 – 6 classroom annex addition
1986 – 2 classroom annex addition & renovations
1991, 1999, 2000 – 4 modular classrooms and 2 modular offices

Occupancy Group: E – Educational

Construction Class: Type IIB (noncombustible, unprotected)

Zoning District: Public Use (the site itself); Single Residence 3 to the west, north, and east; Single Residence 2 to the south

Flood Zone: Zones X, AE, Regulatory Floodway (and small area of Minimal Flood Hazard)

Building Data

No. Floors: 2 (modular classroom and annexes are single story)

Gross Area 56,150 GSF

Structure: 1953 + 1958 - Steel framed with open web steel joists and conventional spread concrete footings. Basement and first floor of the original building are soil-supported concrete slab on grade. Portions of the first floor over the basement and boiler room are framed w/ one-way, reinforced concrete joist slab system. Second floor and roof are 2" thick concrete slabs supported by open web steel bar joists.

Exterior Walls: 1953 - Brick veneer masonry on unreinforced CMU backup and precast concrete panels.

1958 Addition – mix of glazing and wall panels

1986 Addition – mix of glazing and brick veneer or insulated metal panels with steel stud backup wall.

Roofing: 1953 Building - Single-ply EPDM roofing ca. 2012.

1958 & 1986 Addition – Asphaltic built-up roof

Window Systems: 1953 Building - double-glazed aluminum frame system consisting of fixed transoms and operable units.

1958 & 1986 addition – single-pane steel frame system consisting of fixed and limited awning windows.

Modular classrooms – double-glazed vinyl sliding windows

Exterior Doors: Hollow metal doors in steel frames.

Interior Doors: Wood and hollow metal doors in hollow metal frames.

Interior Walls: Painted CMU and exposed brick masonry.

Floors:	Typically vinyl composition tile (VCT) throughout, hardwood flooring at the Gym, resinous flooring (epoxy) at toilet rooms and carpet in office areas.
Ceilings:	Plaster ceilings, some with adhered 12”x12” tile throughout most of the original school building; suspended 24”x24” acoustic tile at first floor classrooms (original building), and gym. Suspended 24”x48” acoustical tile in modular classsroms. Exposed structure ceiling at Annexes.
Sprinklers:	None
HVAC:	Spaces within the original (c.1953) and annex (c.1958) buildings are mechanically heated and ventilated via unit ventilators with central roof exhaust fans. The gym and cafetorium are heated and ventilated by the original steam system. Classrooms in the portables are heated and cooled by gas/electric rooftop units which are in poor condition. The original building was steam heated with oil fired boilers. The steam boilers were replaced in 2007 and 2012 and the heating system was converted to natural gas in 2011. While there has been selective replacement of components, most of the distribution system is original and beyond its useful life.
Sewerage:	6” connection to municipal sewer system on eastern Dedham Street.
Water:	3” service from main running on eastern Dedham Street.
Electric:	120/208 volts, 3-phase, 600 amp in the original main building 120/208 volts, 3-phase, 200 amp in the rear portable classrooms 120/208 volts, 3-phase, 400 amp in front portable classrooms 150 KW, 120/208V, 3-phase diesel emergency generator
Gas:	Service main from eastern Dedham Street

INTRODUCTION

The purpose of this section is to report the physical conditions of the existing building in order to identify the maintenance needs, capacity of existing systems, and the potential for expansion. Information has been obtained from historic drawings, previous reports and studies, on-site visual inspection, and interviews with school staff and maintenance personnel. No intrusive investigations or test opening have been performed to date.

General

The Countryside Elementary School is located at 191 Dedham Street in Newton, MA on an approximately 7.39 acre parcel.

The school parcel is bounded by wetlands and brooks on the west and south with residential neighborhoods beyond and across the streets on the north and east.

Countryside is one of fifteen (15) elementary schools in the district with an enrollment of 372 students during the 2022-23 academic year.

Originally constructed in 1953, the two-story building has had several additions:

1958 – 6 classroom annex addition
1986 – 2 classroom annex addition & renovations
1991, 1999, 2000 – 4 modular classrooms and 2 modular offices

However, there have been no recent significant upgrades or renovations to the existing brick and mortar structures.

Legal Title

The City of Newton has legal title to the school property.

Historical Significance

The MACRIS database at the Massachusetts Historical Commission, contain an entry for the Countryside Elementary School. The inventory B form describes the historical significance of the the Countryside Elementary School as follows:

The Countryside School was built in 1953 to accommodate the growing post WWII baby-boom population. Additions to the building became necessary in 1958 and 1986. In 1991, 1999, 2000 4 modular classrooms and 2 modular offices were added. In an ongoing effort to improve the energy efficiency of city-owned buidings, metal replacement windows were installed in 1991.

A complete ENF and associated filings will be submitted if necessary.

SITE – LANDSCAPE

The existing school is approximately 50 feet from Dedham Street and is located on the property's eastern and northern property lines. The building sits low on the site, within the floodplain. The building runs north-south parallel to the east property line.

Primary Issues

- Vehicular pavement is in various stages of failure.
- Overturned, damaged, and poor-quality curbing.
- Pedestrian pavement is in various stages of failure.
- Non-accessible egress around the building.
- Limited and dead-end parking.
- Limited drop-off locations for both bus and parent drop-off.
- Two handicap spaces are required. One handicap spaces is provided.
- Non-accessible playground surfaces have created multiple ADA and MAAB code compliance issues.

Site Access and Pavements — Vehicular

The school has one parking area on the northeast corner of the property. The parking area provides 44 parking spaces with one handicapped space. Two handicap spaces are required, with one of the spaces designated as a van space. The handicapped space appears to be accessible. The parking lot access is off of the north property line. The parking lot is dead-end, with bollards on the southern end to prevent cars from driving over the sidewalk.

There is a drop-off location/blue zone along the southwestern edge of the property along Dedham Street. The drop-off is a 100-foot lay-by drop-off.

There is a fire lane access off of Dedham Street between the building and the north parking lot. The fire lane wraps around the north and west corners of the building. There appears to be a mountable curb and a wide enough fire lane at the southern end of the building for fire access. The lane is between the building and temporary classroom structures.

Vehicular paving throughout the site is bituminous paving and is in poor condition. Granite curbing is around the parking lot, fire lane, and Dedham Street. It is in poor condition.

Site Access and Pavements — Pedestrian

There is pedestrian access from the surrounding neighborhoods. The pedestrian connections include:

- Pedestrian concrete sidewalk along the north and eastern property line connecting the northwest, north, and eastern neighborhoods.
- Pedestrian crosswalk at the corner of Dedham and Walnut Street
- Pedestrian crosswalk at the corner of Dedham Street and Woodcliff Road
- Bituminous pavement pedestrian walk at the center of the site towards the western property line connecting the western neighborhoods and to the stream.

The pedestrian pavement around Dedham Street and the parking lot area is concrete pavement. It is in fair to poor condition. The rest of the pedestrian pavement is bituminous and fair to poor condition.

Two paved courtyards are between the school building and the temporary classroom building structures. They are paved with bituminous pavement and are in poor condition. Egresses to these courtyards are not accessible.

Landscape

There is a mature tree buffer around the western and southern edge of the side, with a small grove of oak trees along the northern property line. A brook and wetland area is located on the site's southwestern corner. Trees and underbrush surround this area. A brook/wetland continues north along the western property line.

The site's topography is high on the northern property line and drops about 7 feet toward the building. The grade falls further in the wetland and brook areas.

There is a baseball diamond on the northwestern edge of the site. The field, backstop, and infield are in poor condition. Two small soccer nets are set up in the outfield of the baseball diamond. The area is in poor condition.

Around the northwestern and west corners of the school building, there is an asphalt play area, basketball court, and play structure. The asphalt play area is in fair condition. The basketball court is in poor condition. The play area is not ADA accessible, with no accessible path into the woodchip area. The playground has a large play structure and a swing set. There are benches within the play area and a buddy bench.

Miscellaneous

Throughout the site, there are dedicated benches and memorials. Towards the left of the main entrance, there are three dedicated benches. Within the southern courtyard is a dedicated statue of a girl and a bunny. Around the play areas, there are dedicated wood benches as well as granite plaques in the ground around some trees. There is one dedicated granite bench within this area.

In the north courtyard, an outdoor classroom is shaded by a tree. The classroom consists of wood logs within a grassed area. The outdoor classroom is not accessible.

South, on the site, there are raised planter beds for an outdoor garden area.

There is limited lighting around the site, with most lighting illuminated by wall packs on the building façade.

There is a chain-link fence along the brook's pedestrian path. It is in fair to poor condition.

SITE – CIVIL

General

The site is located west and south of Dedham Street, north of South Meadow Brook and Bound Brook Road, and east of Andrew Street, with a thin wooded area with a potential intermittent stream separating the site from the residential properties on Andrew Street. An approximately 4-foot high fence runs along the apparent western property boundary in this area. In general, the site slopes down to the west and south, away from Dedham Street.

The northern portion of the site contains a parking lot in the northeast corner, along Dedham Street at the intersection of Dedham Street and Walnut Street, with access to and from Dedham Street to the north only. A baseball field, athletic field, and adjacent grassy areas are located to the west of the parking area, extending to the northwest corner of the site. South of the parking lot is an access driveway to Dedham Street.

The interconnected school buildings are in the southeast corner of the site. The original 1954 school building is along Dedham Street and connected to the 1958 annex classrooms via a passageway off the southwest portion of the 1954 building. Connected to the 1958 annex classrooms to the north are the 1986 annex classrooms, followed by the 2000 modular classrooms to their north. Connected to the 1958 annex classrooms to the east is the 1991 modular classroom off of the southeast side of the 1958 annex classrooms, with the 1999 modular classroom to the east of the 1991 modular classroom.

The access driveway to Dedham Street runs along the northern edge of the 1954 school building and wraps around it to a courtyard area between the 2000 modular classrooms, 1986 annex classrooms, and 1954 school building. A pedestrian path continues south from this courtyard to the passageway between the 1954 school building and 1958 annex classrooms. South of the passageway, another pedestrian path and smaller courtyard extend south and east to Dedham Street between the 1958 annex classrooms, 1954 school building, and 1991 and 1999 modular classrooms. Additional landscaping, picnic tables, and seating areas are present within the internal courtyard areas adjacent to the access driveway and pedestrian paths. In addition, several raised planting beds are present in the southeast corner of the site on Dedham Street.

Off of the northwest corner of the 1954 school building is a small asphalt multi-purpose play area (i.e., schoolyard), located between the building and the access driveway. A thin landscaped grass strip and walkways are located between the school buildings and Dedham Street. South of the baseball field and grassy areas are a playground and basketball court, on the northwest side of the building. An approximately 5-foot-wide pedestrian path runs east-west along the southern edge of the playground and basketball court, from the Andrew Street neighborhood to the site. At the apparent western property boundary, this path is bisected by a thin wooded area and potential intermittent stream that runs north to south. South of this path, in the southwest corner of the site, is a wetland resource area. South Meadow Brook is located south of the wetland flowing east to west.

The school's dumpster is located on the north side of the 2000 modular classrooms, just to the southeast of the basketball court. In addition, there are two large blue dumpsters for clothes and shoes donations on the northwest side of the school building on Dedham Street. There are also waste and recycling bins between the access road and the baseball field.

Soils

According to the Natural Resources Conservation Service (NRCS) Web Soil Survey, nearly the entire site is soil type Udorthents, wet substratum. The northwest corner is soil type Merrimac-Urban land complex, 0 to 8 percent slopes, and a small area in the very northeast corner is Charlton-Urban land-Hollis complex, 3 to 15 percent slopes, rocky. Areas to the south (south of South Meadow Brook) are soil type Paxton-Urban land complex, 3 to 15 percent slopes.

- According to NRCS, soil type Udorthents, loamy “consists of nearly level to hilly areas of poorly drained and very poorly drained soils that have been filled in with various types of soil material, rubble and refuse. Depth of the fill material ranges from 2 to 20 feet or more. Areas of this unit are irregular in shape and range in size from 6 to 150 acres. The areas were typically flood plains, meadows, and swamps that were filled for various urban land use purposes.”
- According to NRCS soil type Merrimac-Urban land complex, 0 to 8 percent slopes “consists of very deep, somewhat excessively drained Merrimac and similar soils, and areas of Urban land on broad plains. Individual areas of this unit are rectangular or irregular in shape and range from 6 to 1,680 acres. These areas are 40 percent Merrimac soils, 40 percent Urban land, and 20 percent other soils.”
- According to NRCS, soi type Charlton-Urban land-Hollis complex, 3 to 15 percent slopes, rocky “consists of very deep, well drained Charlton soils; areas of Urban land; and shallow, somewhat excessively drained Hollis soils on uplands. Individual areas of this unit are irregular in shape and range from 10 to 700 acres in size…This complex is about 40 percent Charlton soils, 40 percent Urban land, 10 percent Hollis soils, and 10 percent other soils. Up to 2 percent of the surface is bedrock outcrop.”
- According to NRCS soil type Paxton-Urban land complex, 3 to 15 percent slopes “consists of very deep, rolling, well drained Paxton and similar soils, and areas of Urban land on convex slopes of glaciated hills. The areas are oval or irregular in shape and range from 6 to 350 acres in size. These areas are 40 percent Paxton soils, 40 percent Urban land, and 20 percent other soils.” (Source: USDA NRCS)

Wetlands and Floodplains

The site includes approximately The southwest corner of the site is occupied by a wetland area characterized by MassDEP as Shrub Swamp. South Meadow Brook runs eat to west along the southern property boundary. In addition, a potential intermittent stream runs along the western property boundary north to south into South Meadow Brook. Historic maps (e.g., 1893, 1903, 1944, 1946) of the area illustrate South Meadow Brook and wetlands in these areas prior to the construction of the school, with the wetlands extending east of Dedham Street at one time. The presence of these areas would trigger Newton’s 100-foot buffer zone for vegetated wetlands and intermittent streams and the 200-foot Riverfront Area for perennial streams, requiring an Order of Conditions from the Newton Conservation Commission. Based on a 2022 site survey, the 100-foot wetland buffer extends onto areas of the school buildings, playground, and basketball court, while the 100-foot riparian zone and 200-foot riverfront areas extent onto areas of the school buildings. More detailed wetland delineation and confirmation from the Newton Conservation Commission would be needed to confirm extent, designation, and applicability. (Source: MassMapper, ESRI Historic Topographical Maps)

Nearly the entire site is characterized by the Federal Emergency Management Agency (FEMA) as Flood Zone AE (1% Annual Chance of Flooding, with Base Flood Elevation), with the northeastern and northwestern edges Zone X (0.2% Annual Chance of Flooding). The very northeast corner (i.e., roughly the northeast quarter of the parking lot) of the site is characterized by FEMA as an area of minimal flood hazard. According to FEMA, the Base Flood Elevation along the eastern edge of Zone AE in this area is 112 feet. The very southern edge of the site appears to overlap with the Regulatory Floodway of South Meadow Brook. A 2022 site survey confirmed these flood zone locations. These designations would trigger Newton’s Floodplain Ordinance. Any land disturbance will require compensatory flood storage calculations to confirm that the available flood storage will not be reduced.

(Source: FEMA FIRM panels 25017C0554E, 25017C0562E, effective 6/4/10)

The Newton Department of Public Works completed a stormwater project in 2012 that addressed chronic flooding in the courtyard of the school, which often resulted in flooding of the school itself.

Zone II Aquifers and Regulated Water Supplies

There are no water supply aquifers (Zone IIs) or outstanding resource waters on the site or in the immediate vicinity. (Source: MassMapper)

Wildlife Habitat

There is no Natural Heritage and Endangered Species Program (NHESP) Estimated Habitats of Rare Wildlife or Priority Habitats of Rare Species on the site or in the immediate vicinity. (Source: MassMapper)

Trees

There are several scattered small trees around the outside of the parking lot. Several larger trees are present in front (east) of the 1954 school building and entrance. There are several large trees along the northern edge of the site and baseball field on Dedham Street and several trees between the baseball field and playground and basketball court to its south.

The western edge of the site has a thin strip of wooded land between the site and the Andrew Street residential neighborhood to the west.

The southwestern corner of the site is a wooded wetland referenced above.

Infrastructure

Stormwater Management

There are four catch basins on the north side of the school within the parking lot and access driveway. The catch basins appear to be piped to the municipal system in Dedham Street. The municipal drainage system in Dedham Street outfalls to South Meadow Brook.

There are five catch basins on the east side of the school that are piped to the municipal system in Dedham Street.

It appears that the catch basin on the west side of the school building discharges into the wetland resource area.

Based on 1951 original construction plans for the school, the roof of the 1951 building drains to South Meadow Brook, via a 10-inch pipe.

There is an 8-inch drain line between the 1951 building and the 1957 addition, discharging to South Meadow Brook.

The drainpipe sizes and inverts will need to be confirmed by an on the ground field survey.

Water Supply System

Based on 1951 original construction plans for the school, a 3-inch domestic water service is connected to the building just south of the exterior door to the auditorium (Door #21) and is tapped off of an 8-inch water main in Dedham Street. Based on subsequent plans for the school, the 1957 and 1986 additions are connected to this water service via pipes located in the passageway between the two buildings.

The adequacy of the water system with respect to pressure should be verified by a hydrant flow test. It has been reported that there are chronic problems with non-compliant sewage ejector pumps, sewer flooding, and sewer odors in the building.

Sanitary Sewer

Based on the 1951 original construction plans for the school, a 6-inch sanitary sewer service exits the building, just south of the exterior door to the auditorium (Door #21), travels southeast across the domestic water and gas service connections to the building to a manhole and 12-inch sewer main in Dedham Street. Based on subsequent plans for the school, the 1957 addition is connected to this sanitary service via a 3-inch pipe in the passageway between the two buildings, while the 1985 addition is connected to this sanitary service via a 4-inch pipe, piped to a manhole in the courtyard north of the passageway.

Precise locations and capacities of sewer connections will need to be field verified.

Gas Utility

Based on the 1951 original construction plans for the school, the building is connected to a 12-inch gas main in Dedham Street. Gas enters the building, just south of the exterior door to the auditorium (Door #21), to the south of the domestic water connection. The gas connection in Dedham Street is located between the sewer and water connections in Dedham Street. According to the Existing Conditions report, "The heating system was converted to natural gas in 2011."

Electrical Utility

Overhead electrical lines run via utility poles along Dedham Street and appear to connect to the building via wires above the exterior door to the auditorium (Door #21). Precise locations and connections will need to be verified. Electric equipment for the buildings solar panels is located on the northwest corner of the 1957 building.

Vehicular Circulation and Parking

There are approximately 44 staff parking spots, including 1 accessible parking spot, in the parking lot on Dedham Street in the northeast corner of the site. Parent and guardian drop-off occurs on Dedham Street to the east of this parking lot. School bus and van drop-off occurs farther south on Dedham Street, between the two exterior doors on Dedham Street (Doors #1 and #21). There is curbing between the parking lot and access driveway to Dedham Street that loops around the back of the building, and a Do Not Enter sign is present at the intersection of this access driveway and Dedham Street.

SITE DESCRIPTION

The existing school is located directly off of Dedham Street within a residential area. The site is defined by the school building at the southern end of the parcel, adjacent to an on site wetland, a basketball court and playground in the mid section of the site with a softball field and staff parking lot at the northern portion of the site. The school parcel is bounded by brooks on the west and south with residential neighborhoods beyond and across the streets on the north and east. The overall site's topography is relatively flat, but the northern edge is defined by a steep embankment from the street/sidewalk elevation to the playfield and grassed areas within the site.

TRAFFIC STUDY

An existing traffic conditions assessment for the Countryside Elementary School site dated October 18, 2022 by Pare Corporation is attached at the end of this section.

STRUCTURAL

Introduction

Foley Buhl Roberts & Associates, Inc. (FBRA) is collaborating with *DiNisco Design, Inc. (DDI)* and their consultants in the review and evaluation of structural issues/conditions at the Countryside Elementary School in Newton, Massachusetts. The purpose of this report is to identify and describe the structural systems of the building and to comment on the structural issues/conditions observed. General comments relating to potential renovations, alterations, and additions to the school (governed by the Existing Building Code of Massachusetts (EBCM - 9th Edition)) are presented as well.

Structural conditions at the Countryside Elementary School were reviewed at the site by FBRA on August 30, 2022.

The following documents were reviewed in the preparation of this Existing Conditions Structural Report:

Countryside Elementary School: Structural Drawings F-1 to F-4 and various Architectural Drawings, prepared by Cram & Ferguson Architects, Boston, Massachusetts; dated November 19, 1951.

Addition to the Countryside School: Structural Drawing S-1 prepared by Goldberg, LeMessurier Associates, Cambridge, Massachusetts, and various Architectural Drawings, prepared by Hugh Stubbins & Associates, Architects, Cambridge, Massachusetts (Drawing A-1 (Foundation Plan) missing). All drawings are undated (Circa 1957).

Additions and Renovations to Countryside School - Newton, Mass: Structural Drawing S-1 and various Architectural Drawings, prepared by Whitman & Howard, Inc., Wellesley, Massachusetts, dated December 1986.

Countryside Elementary School Existing Conditions Report: Undated.

No exploratory demolition, ceiling tile removal or structural materials testing was conducted in conjunction with this review; accordingly, observations are based solely on the documents referenced above and on a limited visual survey of those areas of the building which were accessible and exposed to view.

General Description

The Countryside Elementary School is located at 191 Dedham Street in Newton, MA. The original two-story building was constructed in 1953 on a relatively level section of the site. A one-story classroom addition (annex) was constructed to the west of the original building in 1957. In 1986, a one story, two classroom addition (annex) was constructed at the north end of the 1957 addition. Four modular classrooms have since been added at various locations in 1991, 1999 and 2000. The total floor area is approximately 49,612 gross square feet.

The Countryside Elementary School is basically rectangular in plan. The main (south) entrance is on the east side of the original building and leads to a central, north-south main corridor. First floor program spaces include classrooms, offices, the library, a kitchen, a gym, an auditorium, and various support spaces. The gym and the auditorium (partially used as the cafeteria) are located at the north end of the building and can also be accessed by the north entry. A partial basement and a boiler room are located at the northwest end of the building. Additional classrooms are located at the second floor of the original building. Subsequent additions and modulars added classroom spaces; however, additional support spaces were not provided.

The second floor and roof of the original building are steel framed, with open web steel bar joists supported by steel beams. The first floor is a soil-supported concrete slab on grade. Portions of the first floor (over the partial basement and boiler room) are framed with a one-way, reinforced concrete joist slab system. The basement floor was constructed with a structural slab, designed to resist hydrostatic uplift based on a high water elevation of 111'- 6" (approximately 3'-7" to 8'-7" above the high and low basement floor sections, respectively and 5'-6" below the first floor). Foundations are conventional spread footings. Typical exterior walls of the original building consist of a 4" brick veneer with a masonry backup wall.

The roof of the 1957 addition and the roof of the connecting (ramped) corridor to the original building are framed with metal deck supported by steel beams and columns. First floor construction is a soil-supported concrete slab on grade. Foundations are conventional spread footings. Typical exterior wall construction is a mix of glazing and wall panels.

The roof of the 1986 addition is framed with metal deck supported by steel beams and columns. First floor construction is precast, prestressed concrete plank (with a concrete topping), supported by reinforced concrete grade beams, spanning over the crawl space below. Foundations are conventional spread footings. Typical exterior wall construction is a mix of glazing and brick veneer or insulated metal panels with a steel stud backup wall.

A lift was installed in 2010 to access the second floor of the original building; however, the lift does not meet current code requirements.

With the exception of repurposing several classrooms and the locker room/storage space on the west side of the gymnasium, it does not appear that any major renovations or alterations to the original building or the additions have been undertaken since they were constructed.

The original building and the 1957 addition were designed and constructed prior to the introduction of the Massachusetts State Building Code. The 1986 addition would have been designed and constructed in accordance with the 4th Edition of the Massachusetts State Building Code.

Structural Systems Description

Structural Materials: No original Specifications were available; limited information is presented on the referenced drawings. Concrete for footings, foundation walls and slabs of the original building is 2,500 psi strength at 28 days. Reinforcing steel properties are unknown; however, reinforcing is assumed to be deformed bars with a 40 ksi yield strength. Structural steel likely has a yield strength of 33 ksi or 36 ksi. Concrete for the 1986 addition is noted to be 4,000 psi at 28 days.

Subsurface Soils/Foundations/Groundwater: No Geotechnical Reports or subsurface soils information was available; however, as noted above, foundations for the original building and the subsequent additions are conventional shallow spread footings. Perimeter foundation walls of the original building and subsequent additions are reinforced concrete construction (8" to 16" thick), with a continuous strip footing). Interior and perimeter columns are supported on individual spread footings of various sizes. Both the original building and the 1986 addition foundations were designed for a 2.0 tons per square foot allowable soil bearing pressure. The design groundwater elevation is at EL. 111'-6"; basement floors have been designed for hydrostatic uplift, as previously noted.

Structural Bays/Spans: The structural bay size varies throughout the original building and the additions; refer to the original Architectural and Structural Drawings.

Story Heights: Story heights vary; refer to the original Architectural Drawings for additional information.

Design Live Loads: The Structural Drawings for the original building indicate that the roof structure was designed for a 40 psf snow load. Snow drift loading does not appear to have been addressed in the design. The design roof load for the 1957 addition is not noted on the available Structural Drawings. The roof of the 1986 addition was designed for a 30 psf snow load plus drifting snow. Note that the current edition of the Massachusetts State Building Code (780 CMR - 9th Edition) requires a minimum flat (or low-slope) roof design snow load of 30 psf (higher at snow drift areas).

The original building was designed for a typical floor live load of 50 psf at classrooms and 100 psf at corridors and public spaces (meets current code requirements). The design live load for the framed first floor of the 1986 addition is noted to be 45 psf, which does not meet current code requirements.

Representative structural calculations generally confirm the design loads noted on the Structural Drawings. A comprehensive structural evaluation of the original building and the subsequent additions is beyond the scope of this report.

Expansion Joints: It appears that an expansion joint was provided between the 1957 corridor link and the original building. An expansion joint was also provided between the 1986 addition and the 1957 classroom addition.

Roof Construction: Roof construction of the original building consists of a 2" thick concrete slab supported by open web steel bar joists spaced at 2'-0" o.c. Joists are supported by wide flange steel beams spanning in the east-west direction and supported by steel columns. Perimeter steel beams have been encased in concrete for fire protection. Elsewhere, roof construction may be protected (to some degree) by the original plaster ceiling. The roof of the 1957 addition is framed with a 7½" deep metal roof deck spanning 28'-0" in the north-south direction to wide flange steel beams that are supported by steel columns. Roof construction of the 1986 addition consists of a 1½" deep metal roof deck spanning 5½ +/- feet in the north-south direction to open web steel bar joists. Joists are supported by steel beams and columns.

Second Floor Construction (Original 1953 Building): Second floor construction in the 1953 original building is similar to the roof construction, consisting of a 2" thick concrete slab supported by open web steel bar joists spaced at 2'-0" o.c. Joists are supported by wide flange steel beams spanning in the east-west direction and supported by steel columns. Perimeter steel beams have been encased in concrete for fire protection. Elsewhere, roof construction may be protected (to some degree) by the original plaster ceiling.

First Floor Construction: Typical first floor construction in the original building is a 5" thick, soil-supported concrete slab on grade, reinforced with welded wire fabric. A 4'-0" wide utility tunnel was constructed at the building perimeter; a 4" thick, reinforced concrete slab spans over the tunnel. First floor construction over the basement is a reinforced concrete, one-way joist slab with 4" or 5" wide by 10" or 12" deep concrete ribs spaced at 24" or 25" o.c., with a 2½" thick, integral concrete topping slab (12½" or 14½" total slab thickness).

Basement Floor Construction (Original 1953 Building): A one-way, reinforced concrete slab was constructed at the basement level, designed to resist hydrostatic uplift from the high water table. The design water elevation is noted to be Elevation 111'- 6". The slab thickness is 11" at the (deeper) boiler room and 8" at the (higher) typical basement floor.

Wall Construction: Typical exterior wall construction in the original building consists of a 4" brick veneer (no cavity), with an 8"or a 12" thick, unreinforced masonry block backup wall (12" or 16" total wall thickness; the latter at taller walls). Original exterior wall construction was a composite brick and block wall, 12" or 16" thick. The face brick was reportedly removed and replaced with a 4" brick veneer in 1991. Weep holes and control joints were observed in the present brick veneer. Removal of the original face brick from the masonry backup may have impacted the structural integrity of the exterior walls. Details of the present wall construction are unknown, as no drawings or reports were available. New windows were also installed at the time.

Typical exterior wall construction at the 1957 addition is a mix of glazing and wall panels. Exterior wall construction at the 1986 addition is a mix of glazing and brick veneer or insulated metal panels, with a steel stud backup wall.

Fire Resistance: The original building and the additions are generally classified as Type IIB Construction (Noncombustible, Unprotected); unprotected steel floor and roof framing have no fire resistance rating. The floor and roof structure of the original building may be protected (to a degree) by the original plaster ceiling; further review and investigation would be required to make that determination. There are no sprinklers in the building.

Lateral Load Resistance: As the original building and the 1957 addition were designed and constructed prior to the introduction of the Massachusetts State Building Code (MBC), those structures do not meet current wind and seismic load requirements (strength and detailing). There does not appear to be a clearly defined lateral force resisting system in either direction in either building. However, the perimeter and interior unreinforced masonry walls of the original building provide a level lateral force resistance (by default). The moment connected roof beams of the 1957 addition may be providing a degree of lateral force resistance in the east-west direction. Although the 1986 addition was designed and constructed under the 4th Edition of the Massachusetts State Building Code, there is no clearly defined lateral force resisting system and the building does not meet current code requirements.

Structural Condition / Comments

Structural Conditions at the Countryside Elementary School were reviewed (where accessible and exposed) on August 30, 2022. Generally speaking, floor and roof construction appear to be performing satisfactorily; there is no evidence of structural distress that would indicate significantly overstressed, deteriorated, or failed structural members.

Foundations appear to be performing adequately; there are no apparent signs of significant, total or differential settlements.

Structural/structurally related conditions observed during the August 30, 2022 site visit and associated comments are noted below. Relevant photographs are included at the end of this report. All items would be addressed in conjunction with a potential, future renovation of the building, unless noted otherwise.

1. Flooding: As noted above, the basement and boiler room floors were constructed below the design groundwater elevation and were designed for hydrostatic uplift. Reportedly, these area experience chronic flooding; sump pumps are frequently replaced and not adequate to prevent flooding. Damage to services has occurred and the structure has likely been compromised to a degree. Standing water was observed in the basement during our visit. The continuous introduction of moisture into the building is a major concern. Any effort to rectify this situation would be both challenging and costly.
2. Exterior Walls (1953 Original Building): As noted earlier in this report, it appears that the original face brick was removed in 1991 and replaced with a new, 4" brick veneer. Depending on the as-built details, the structural integrity of the exterior walls may have been compromised. Further review/investigation is recommended.
3. Exterior:
    - Masonry veneer is generally in satisfactory condition, with limited cracking or deterioration of the face brick observed. Repointing of approximately 5% of exterior brick veneer may be needed, in conjunction with a potential future renovation of the building.
    - Efflorescence was observed in some locations on exterior walls of the original building. Cleaning the veneer is recommended, in conjunction with a potential future renovation of the building.
    - Loose lintels over window/door openings and above unit ventilators have rusted in some locations; cleaning and coating with zinc-rich paint or replacement (if necessary) is recommended. Note that the unit ventilators are located close to the exterior grade and require maintenance during the winter months.
    - Exterior concrete elements (brick areaway walls and stair/ramp walls, etc.) have deteriorated in some locations; Repair/replacement of these elements should be undertaken, in conjunction with a potential future renovation of the building.
    - The exterior stair (west side) and ramp (north side) that lead to the basement/boiler room from the outside of the building are a potential channel for water to enter the building. Drains at the bottom landings of these elements should be maintained on a regular basis to ensure that they are functioning properly.
    - Metal doors have rusted in some locations; cleaning and coating and/or repair is required.
    - Plant growth has damaged the roof and ceiling of the 1957 addition in some locations (south end).
4. Roofing: The roof was not accessed during our visit. Reportedly, the roof of the original (1953) building was replaced in 2012. The ages of the other roofs (additions and modulars) are not known; however, they are reportedly in poor condition.
5. Exterior stairs at the modulars and the additions are failing/in poor condition. Repair/replacement is recommended.
6. Snow Loads: The snow load capacity of the roofs has not been fully evaluated (beyond the scope of this report). However, as noted earlier in this report, the 30 psf design snow load meets current code requirements. The current code requires a minimum, flat (or low slope) roof design snow load of 30 psf for a school building in Newton. As the design of the building preceded the introduction of the Massachusetts State Building Code, it is unlikely that provisions were made in the structural design for snow drift loading. Drifting snow loads on lower roofs can be significantly higher. FBRA recommends that these conditions be evaluated in conjunction with a future renovation of the school (such an evaluation is beyond the scope of this report). In the interim, these conditions should be monitored during periods of heavy snow.

7. Lateral Force Resistance/Seismic Hazards: As previously noted in this report, there are no clearly defined lateral force resisting systems (LFRS) in the original building or the additions. Unreinforced, interior and exterior masonry walls provide a degree of lateral force resistance (by default) in the original building. The original building and the additions do not meet current seismic code requirements. Lateral force resistance issues and seismic hazards would need to be evaluated and addressed in conjunction with a potential, future renovation of the school. Refer to additional comments in the next section of this report.
8. Ponding: An evaluation of potential rainwater ponding on the various flat roof areas should be conducted, in conjunction with a future renovation of the school (such an evaluation is beyond the scope of this report). In the interim, roof drains should be periodically inspected and maintained to ensure that they are clear and functioning properly.
9. Masonry Walls: Interior CMU partitions and perimeter CMU backup walls are generally in satisfactory condition. However, cracks in the west masonry exterior wall (former storage area) were observed during our visit. These cracks are relatively large and should be monitored and repaired if conditions worsen. The anchorage/bracing of all interior and exterior masonry walls as well as their height-to-thickness ratios will need to be evaluated (per code) in the event that the building is renovated in the future.
10. Floor tiles have moved and/or deteriorated in some locations. It appears that some of the conditions observed may be due to moisture issues. Further review and evaluation would be recommended, in conjunction with a potential, future renovation of the building.

Refer to the documents prepared by the Architect and the other consultants for additional comments and recommendations relating to the building envelope and MEP/FP systems in the original building and the additions.

Renovations and Additions – Code Requirements

General comments relating to potential renovations, alterations, and additions to the Countryside Elementary School are presented in this section. Renovations, alterations, repairs, and additions to existing buildings in Massachusetts are governed by the provisions of the Massachusetts State Building Code (MSBC; 780 CMR - 9th Edition) and the Existing Building Code of Massachusetts (EBCM; 780 CMR - 9th Edition, Chapter 34.00). These documents are based on amended versions of the 2015 *International Building Code (IBC)* and the 2015 *International Existing Building Code (IEBC)*, respectively.

Code Compliance Methods

Section 104.2.2.1 of the EBCM requires that the existing building be investigated and evaluated in sufficient detail as to ascertain the effects of the proposed work on the structural systems (both gravity load carrying elements and lateral force (wind and seismic) resisting elements).

The EBCM defines three (3) compliance methods for the repair, alteration, change of occupancy, addition, or relocation of an existing building. The method of compliance is chosen by the Design Team (based on the project scope and cost considerations) and cannot be combined with other methods.

The *Prescriptive Compliance Method* (IEBC Chapter 4) prescribes specific minimum requirements for construction related to additions, alterations, repairs, fire escapes, glass replacement, change of occupancy, historic buildings, moved buildings and accessibility. If the impact of the proposed alterations and additions to structural elements carrying gravity loads and lateral loads is minimal (less than 5% and 10% respectively), structural/seismic reinforcing of an existing building are not required. Provided that not more than 50% of the spaces in the building are reconfigured, seismic hazards such as bracing the tops of interior masonry walls and partitions, anchorage of floor and roof diaphragms to the exterior walls, bracing of parapets and chimneys, etc. would not be required by code, but could be addressed on a voluntary basis. If the area of reconfigured spaces exceeds 50% of the gross floor area, these seismic hazards must be addressed by code. ***Note that, in determining the area of reconfigured spaces, the new floor layout would need to be compared to the original (not the current) floor layout (typical for all compliance methods).***

The more widely chosen (and appropriate for this project) *Work Area Compliance Method* (IEBC Chapters 5 through 13) is based on a proportional approach to compliance, where upgrades to an existing building are triggered by the type and extent of work. The Work Area Compliance Method includes requirements for three levels of alterations, in addition to requirements for repairs, changes in occupancy, additions, historic buildings or moved buildings. A complete seismic evaluation of the existing building is required under the following conditions: Level 2 alterations where the demand (mass/seismic force) to capacity (lateral force resistance) ratio of lateral load resisting elements has been increased by more than 10%, all Level 3 alterations, a change in occupancy to a higher category (not applicable to this project) and where structurally attached additions (vertical or horizontal) are planned (any major addition(s) to the building will be structurally separated, so this is not applicable). Provided that not more than 50% of the spaces in the building are reconfigured (since the original construction), renovations would be classified as *Level 2*. Assuming that modifications to the existing masonry walls providing lateral force resistance will not be significant (i.e., less than 10%), seismic upgrades or seismic strengthening of the building would not be required by code. However, addressing certain seismic hazards by bracing the tops of interior masonry walls and partitions, anchoring floor and roof diaphragms to the exterior masonry walls, bracing of chimneys, etc. could be done on a voluntary basis. In a ***Level 3*** alteration (more than 50% of the building reconfigured), these seismic hazards must be addressed by code.

The less frequently chosen *Performance Compliance Method* (IEBC Chapter 14) provides for evaluating a building based on fire safety, means of egress and general safety (19 parameters total). This method allows for the evaluation of the existing building to demonstrate that proposed alterations, while not meeting new construction requirements, will maintain existing conditions to at their current levels (at a minimum) or improve conditions, as required. A structural investigation and analysis of the existing building is required to determine the adequacy of the structural systems for the proposed alteration, addition or change of occupancy. A report of the investigation and evaluation, along with proposed compliance alternatives must be submitted to the code official for approval.

Under all compliance methods, an evaluation of the roof diaphragm strength and anchorage of the diaphragm to the perimeter structure is required if the building is re-roofed, the building is in Risk Category IV and the ultimate design wind speed at the site exceeds 150 mph. As the Countryside Elementary School is a Risk Category III building and the ultimate design wind speed is 138 mph for a school building in Newton, these requirements would not apply.

Additions – General Comments – EBCM

The design and construction of a new addition to the Countryside Elementary School would be conducted in accordance with the code for new construction. Any planned, major additions should be structurally separated from the existing, adjacent construction by an expansion/seismic joint to avoid an increase in gravity loads or lateral loads to existing structural elements.

Renovations/Alterations – General Comments – EBCM

Where proposed alterations to existing, structural elements carrying gravity loads result in a stress increase of over 5%, the affected element will need to be reinforced or replaced (if necessary) to comply with the code for new construction.

Alterations to existing structural elements that are resisting lateral loads (i.e., full height, masonry walls/ partitions that are built on column lines between columns in the original building), which result in an increase in the lateral force demand (seismic load) to capacity (seismic resistance) ratio of over 10% should be avoided, if possible. Essentially, this means that removal of masonry walls resisting lateral forces (or creating large openings in these walls) should be avoided; otherwise, seismic strengthening of the building as well as additional seismic upgrades may be triggered.

Repair/reinforcing of conditions that do not meet current code requirements must be evaluated to determine if any danger to the occupants exists. In particular, as it does not appear that snow drift has been considered in the design of the original building low roofs, a structural evaluation of this roof construction would be warranted.

PHOTOGRAPHS

Photo No. 1: Concrete joist first floor slab over basement

Photo No. 2: 1957 addition roof structure

Photo No. 3: Standing water in 1951 basement

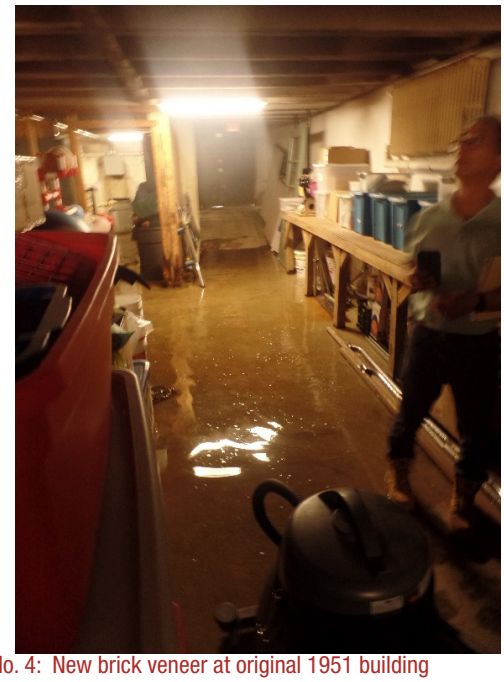


Photo No. 4: New brick veneer at original 1951 building

Photo No. 5: Unit ventilator grille at 1951 original building

Photo No. 6: Brick deterioration at 1951 building areaway walls

Photo No. 7: Exterior ramp to 1951 basement

Photo No. 8: Exterior stair to 1951 boiler room

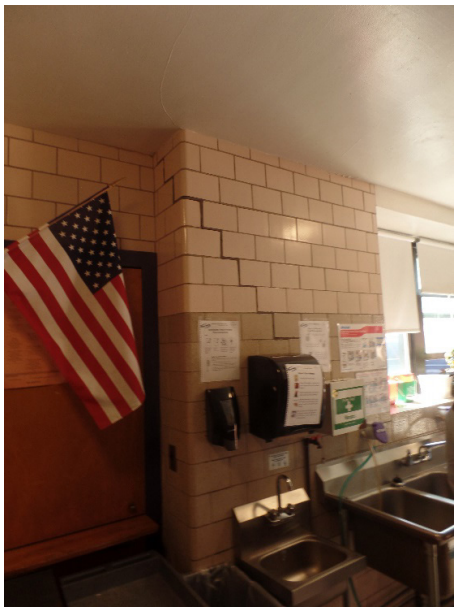


Photo No. 9: Step cracking in masonry in 1951 building

Photo No. 10: Cracked masonry at 1951 west wall window jamb

ARCHITECTURAL SYSTEMS

Exterior Walls

The typical exterior wall assembly used throughout the original 1953 building is 4" brick veneer (no cavity) on 8" or 12" thick unreinforced concrete masonry block wall. The original facebrick was removed and replaced with a 4" brick veneer in 1991. The exterior wall assemblies do not meet current energy code requirements for new construction.

While the condition of the exterior walls, appears generally in good condition from visual inspection, the replacement of the removal of the original face brick may have impacted the structural integrity of the exterior walls.

Exterior walls of the 1958 Annex are primarily metal curtainwall and insulated panels with 4" brick veneer end walls constructed similarly to the original building. The 1986 Annex addition was designed to match asthetically, except the brick veneer end wall was constructed with a 5/8" cavity between the veneer and backup stud framing.

Exterior walls of the modular classrooms have vertical wood siding that is in poor condition and, although repainted in the past five years, is chronically wet and rotting in some areas.

Roofing

The flat roof on the original building was replaced in 2012 and is an adhered single-ply membrane (EPDM), with aluminum flashings, facias, and caps. The roofs of the annexes and modular classrooms are built-up roofing and have been patched and repaired and are beyond their useful life and need to be replaced.

Windows

The windows in the original 1953 building were replaced in 1991 with aluminum double hung/transom window units but the windows in the annex, connector between the annex and original building, and modular classrooms are original. The windows in the annex and connector are single pane, steel framed curtainwall with limited vented (awning) units that are not thermally broken, while the windows in the modular classrooms are a combination of single and double pane vinyl replacement windows (sliders). All of the window systems within the entire school are beyond their useful life and are in poor condition.

Exterior Doors

All exterior doors are hollow metal leaves, set in original steel frames. The steel sidelights that surround the exterior doors at the main and secondary entrances of the original 1953 building are in poor condition.

Interior Walls

Interior partitions are typically painted plaster and gypsum wallboard with glazed concrete masonry units at the corridors of the original 1953 building. Interior walls are generally in good condition, with isolated areas of cracking and moisture damage.

Interior Doors

The original flush wood doors in hollow metal frames remain in-place throughout the building. Some interior doors are equipped with vision panels. Knob hardware has been replaced with lever-type hardware at most doors.

Flooring

Finish flooring throughout the building varies and appears original to the building in some instances. Flooring is typically vinyl composition tile (VCT); this includes all Classrooms, Corridors, Kitchen and the Cafeteria. The Stage and Gymnasium floor surfaces are hardwood flooring with game lines at the Gym. Resinous flooring is installed in the toilet rooms. Mechanical and service spaces are exposed concrete though some janitor's closets have VCT.

Ceilings

Ceilings throughout the original building corridors, toilet rooms, second floor classrooms, cafetorium and kitchen are painted original plaster with an added layer of 12"x12" adhered acoustical ceiling tile in some areas (corridors, stair wells, first floor cafeteria lobby and alcoves). The existing plaster ceilings are in fair condition, except at the kitchen and some toilet rooms where the plaster shows signs of damage, repair, and cracking. The adhered 12"x12" acoustical ceiling tiles are generally in fair condition, but select areas show damage and adhesive failure (missing tiles). Classrooms on the first floor have a suspended 2'x2' acoustical ceiling tile and grid system and are in good condition. Ceiling heights are ypically 10'-3" except where new acoustical ceiling systems are suspended.

Ceilings in the Gym are suspened 2x2 acoustical ceiling tile and grid and are in fair to poor condition.

Ceilings at the connector and 1958 annex addition are exposed underside of steel deck, painted. Ceiling heights at the connector and annex are approximately 8'-11" above the finish floor.

Lockers & Cubbies

Full height metal lockers are provided for students in corridors near classrooms in the original part of the school. Plywood cubbies for kindergarten students are located along the Kindergarten wing corridor. These are in poor condition.

FOODSERVICE

The Countryside Elementary School serves approximately 374 students in grades Kindergarten through five. In short, the space which houses the warming kitchen is in very poor condition. Almost all of the kitchen equipment is worn save one two door refrigerator that is in fair condition. The kitchen is undersized and underequipped.

Ceilings and walls are constructed of appropriate materials but significant cracks in the block mortar joins cause Health Code violations. Surfaces must be smooth and easily cleaned. The floor is a vinyl tile however many tiles are missing with the adhesive being exposed. Lighting is poor and exposed conduits and piping on the walls cause obstructions that make it difficult to easily clean surfaces. In modern kitchens these conduits and pipes are concealed behind walls or above ceilings in order to create flat unobstructed surfaces.

The following observation will reference codes and standards. For the purposes of this report when we reference the health code, we will be citing the Federal Food Code 2017 addition published by the FDA as well as the Merged Massachusetts Food Code. Additionally, the National Sanitation Foundation (NSF) is an independent governing body and testing agency that develops standards for equipment design that is to be used in commercial foodservice applications. All equipment in a commercial kitchen must comply with NSF standards in order to be compliant for use.

The following are detailed observations we noted during our site visit.

Image 1:

Wood is a prohibited material within the kitchen environment. Material must be smooth, non-absorbent, and easy to clean. Equipment must be marked with the NSF designations which conforms it's safe to use with food. Detergents and cleaners are to be stored separately from food and non-food storage. Due to a lack of space and equipment this is not possible.

Image 1

Image 2:

The warming oven is located adjacent to the back door. The door lacks a screen which prevents flying insect from entering the space. The hood above the oven is not large enough to capture and contain heat and cooking vapors. Behind the oven is a heating radiator which impossible to clean.

Image 3:

The flooring is in poor condition. The floor must be a monolithic surface that is easily cleaned, non-absorbent, and offers some level of slip resistance. Vinyl tile is not monolithic due to the seams. This type of floor is also very slippery when wet. Where the tiles are missing the concrete floor is porous and not easily cleaned.

Image 2

Image 4:

The three-compartment sink is missing drain boards on each end. Drain boards for drying washed ware is a requirement of the Health Code. The floor in front of the pot wash sink is a concern as it can be wet and vinyl is slippery when wet.

The balance of the kitchen equipment is comprised of a hand washing sink, a two-door reach-in refrigerator which appears to be in good condition, and wood wall cabinets that are being used for paper goods and food storage. A direct connection to the serving area is nonexistent. A direct connection is needed to facilitate direct replenishment and support during and between lunch servings.

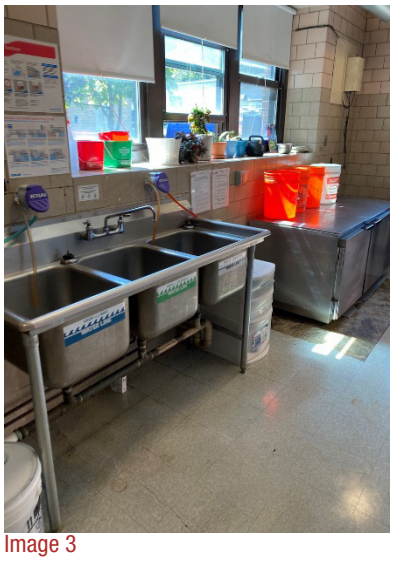


Image 3

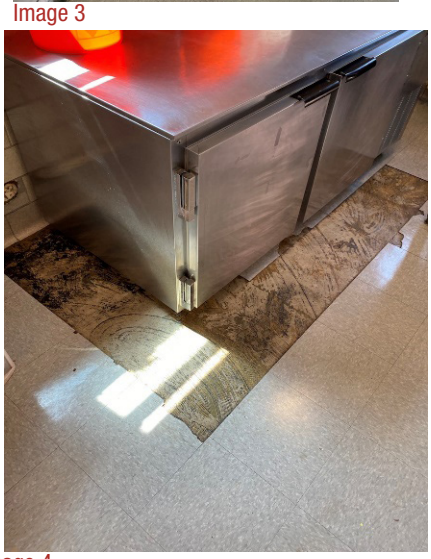


Image 4

Recommendations:

A reorganized and expanded kitchen is warranted. The serving line is lacking and the ability to hold hot and cold food during serving is critical. The equipment mix must be expanded in order to meet modern standards for a foodservice operation.

1. Eliminate all wood surfaces. Replace them with appropriate materials that are complaint with the modern health code standards.
2. An appropriately sized walk-in cooler and freezer must be added for proper storage capacity and provide for the ability to adequately store cold food at stable temperatures.

CODE

The existing Countryside Elementary School building was built as an educational facility in 1953. The building includes classrooms, a gymnasium, cafetorium, library, and administrative offices.

The following is a chart of codes applicable to the development of the project:

Code Type	Applicable Code (Model Code Basis)
Building	780 CMR: Massachusetts State Building Code, 9th Edition • Amended 2015 International Building Code (IBC) • Amended 2015 International Existing Building Code (IEBC)
Fire Prevention	527 CMR: Massachusetts Fire Prevention Regulations M.G.L. Chapter 148 Section 26G – Sprinkler Protection
Accessibility	521 CMR: Massachusetts Architectural Access Board Regulations 2010 ADA Standards
Electrical	527 CMR 12.00: Massachusetts Electrical Code • Amended 2020 National Electrical Code
Elevators	524 CMR: Massachusetts Elevator Code • Amended ASME A17.1-2013/CSA B44-13
Mechanical	2015 International Mechanical Code (IMC)
Plumbing	248 CMR: Massachusetts Plumbing Code
Energy Conservation	2018 International Energy Conservation Code (IECC)

Occupancy Classification

The existing building is considered Use Group E. Assembly spaces (i.e. cafeteria) that are associated with a Use Group E occupancy are also considered Use Group E (IBC 303.1.3). If these spaces are used for non-school events however they must be classified as a Use Group A occupancy.

Construction Type

From visual analysis and limited above-ceiling inspection, the building appears to be Type IIB construction (non-combustible, unprotected).

Interior Finishes

The existing finishes generally consist of painted drywall or masonry that complies with the code requirements for new construction (IEBC 803.4). All wall finishes, ceiling finishes, and trim materials installed as part of a future project must comply with IBC Table 803.11.

Means of Egress

The means of egress including the number of exits and egress capacity must be sufficient for the number of occupants on all floors (780 CMR 102.6.4). The first floor has multiple exterior exit doors and the relatively small second floor includes three exit stairs that provide capacity well in excess of the building's occupant load and therefore comply with this requirement.

All of the larger assembly spaces with greater than 50 occupants are provided with at least two egress doors as required. All of the existing primary egress doors swing in the direction of egress as required. The existing primary egress doors with latches appear to include panic hardware as required.

The building does not contain dead-end corridors.

Energy Code

New work is subject to the International Energy Conservation Code (IECC) or ANSI/ASHRAE/IESNA 90.1 with Massachusetts Amendments (Massachusetts Energy Code). Alterations to existing buildings are permitted without requiring the entire building to comply with the energy requirements of the International Energy Conservation Code (IECC). The alterations (new elements and additions) must conform to the energy requirements of the IECC as they relate to new construction only (IEBC 811.1).

The Massachusetts Stretch Code has been adopted by the City of Newton.

Ventilation Requirements

All reconfigured spaces must provide mechanical or natural ventilation in accordance with the International Mechanical Code, except that existing ventilation systems are permitted to remain provided they achieve not less than 5cfm of outdoor air per person and not less than 15 cfm of ventilation air per person (IEBC Section 809).

Flood Hazard Requirements within Flood Hazard Areas

When work to the existing building exceeds 50% Substantial Improvements as defined by the International Existing Building Code (IEBC), the building must comply with the IBC Flood Hazard requirements.

[BS] 701.3 Flood Hazard Areas. In *flood hazard areas, alterations* that constitute *substantial improvement* shall require that the building comply with Section 1612 of the *International Building Code* or Secion R322 of the *International Residential Code*, as applicable.

[BS] SUBSTANTIAL IMPROVEMENT. For the purpose of determining compliance with the flood provisions of this code, any ***repair, alteration, addition***, or improvement of a building or structure, the cost of which equals or exceeds 50 percent of the market value of the structure, before the improvement or ***repair*** is started. If the structure has sustained ***substantial damage***, any repairs are considered ***substantial improvement*** regardless of the actual ***repair*** work performed. The term does not, however, include either:

1. Any project for improvement of a building required to correct existing health, sanitary, or safety code violations identified by the ***code official*** and that is the minmum necessary to ensure saft living conditions; or
2. Any *alteration* of a historic structure, provided that the ***alteration*** will not preclude the structure's continued designation as a historic structure.

Architectural Access Board Regulations (MAAB)

The existing building does not fully comply with MAAB regulations.

A limited use elevator provides access to the second floor classrooms in the original building.

The building includes several toilet rooms with multiple fixtures – one is equipped with an accessible toilet stall but none of the other toilet rooms are accessible.

Classroom sinks and sink areas are not accessible. Signage does not meet current MAAB regulations and does not include raised characters or Braille.

While most doors along the main corridors of the original building have lever hardware, knob hardware remain in several locations. Also, door openings into many of the classrooms of the original building do not have the required clearance on the latch side of the door. All doors in the annexes and modulars are equipped with lever hardware.

Handrails at the 2 sets of stairs in the original building are not code compliant.

Future alterations to the building must comply with the requirements of the Massachusetts Architectural Access Board Regulations (521 CMR). For existing building alterations, the requirements of 521 CMR are based on the cost of the proposed work.

If the cost of the proposed work is greater than 30% of the full and fair cash value of the existing building, the entire building is required to comply with 521 CMR (521 CMR Section 3.3.2). All portions of the building open to the general public (students, visitors, etc) must be upgraded to comply in full with the current requirements of 521 CMR.

PHASE I ENVIRONMENTAL SITE ASSESSMENT

Lord Environmental, Inc. prepared a Phase I Environmental Site Assessment & Subsurface Investigation Report for the Countryside Elementary School on September 28, 2022. Please refer to the electronic copy of this report for the Phase I Environmental Site Assessment and Subsurface Investigation Report.

HAZARDOUS MATERIALS ASSESSMENT SURVEY

Universal Environmental Consultants prepared an Existing Conditions Evaluation and Hazardous Materials Identifcation Study Report for the Countryside Elementary School on September 26, 2022. Please refer to the electronic copy of this report for the Hazardous Materials Identifcation Study.

HVAC, PLUMBING & FIRE PROTECTION SYSTEMS

1. Built in phases:
    a. 1953 Original Building (69 years old)- 35,910 SF, included 2-story classroom wing, kitchen, Gym and the Cafetorium.
    b. 1958 Six Classroom Annex (64 years old) - single story.
    c. 1986 Two Classroom Annex (36 years old) - single story.
    d. 1991, 1999 & 2000 Modulars- 4 classrooms + office, 13,702 SF (average 23 years old).
2. Single story building with total floor area of 49,612 SF, or 38% expansion since 1953.
3. Chronic flooding of basement.

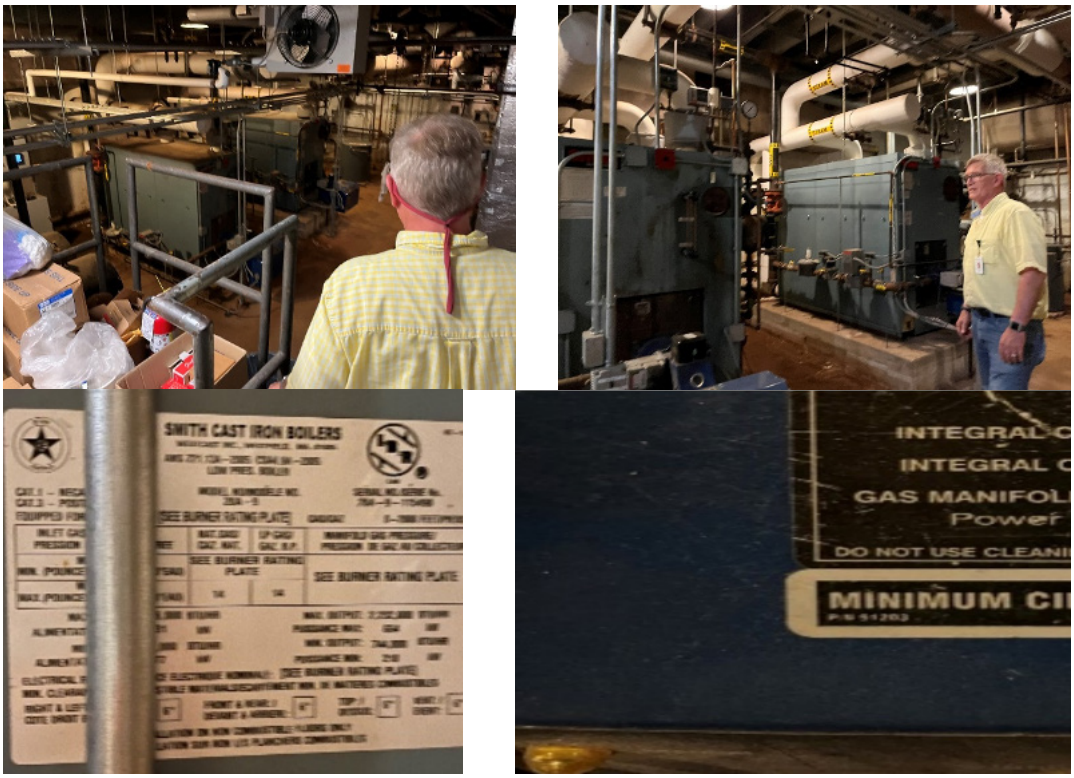
Executive Summary:

1. The HVAC System:
    a. Original building was steam heated with oil fired boilers.
    b. Subsequent annexes were hot water heated and ventilated, using hot water generated with the steam converter. The 1958 Annex have packaged rooftop units for air conditioning, which are in very poor shape.
    c. Original and Annex buildings' classrooms are heated and ventilated by unit ventilators and central roof exhaust fans.
    d. Converted to gas in 2011.
    e. Modular buildings have heating and air conditioning by gas/electric rooftop units in very poor shape.
    f. Cafetorium and Gym are heated and ventilated.
    g. Offices are heated by the base steam heating system and cooled by window AC units.
    h. Kitchen is not a full cooking type. Its convection oven has a type-II galvanized exhaust hood, but without makeup air system.
    i. Most all components, with exception of boilers, are the original vintage which are well past its useful life.
    j. Some parts of pipe insulated appears to have encapsulated ACM (Asbestos Contaminated Material), specifically at fittings.
    k. Most components are over 40 years past its useful life and are in need of total replacement.
    l. Town's new Bylaw dictates carbon-neutral all-electric system such as ground source heat pump system (aka geothermal) or air source heat pump system (aka VRF).
2. Plumbing System:
    a. Potable water is fed from the municipal supply.
    b. Sanitary waste system is connected to the municipal system.
    c. Accessible parts of plumbing waste piping were replaced, but the building has much plumbing piping in concealed spaces which cannot be inspected.
    d. Domestic hot water is generated by indirect heater, which means boiler has to run year-round.
    e. Most components are over 40 years past its useful life and are in need of total replacement.
    f. Town's new Bylaw dictates carbon-neutral all-electric system such as ground source heat pump system (aka geothermal), air source heat pump system (aka VRF), or electric-on-demand domestic hot water heaters.

3. Fire Protection System:
    a. This building is not protected by a sprinkler system.
    b. This building needs a sprinkler system added.

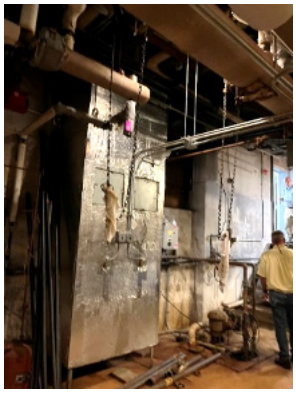
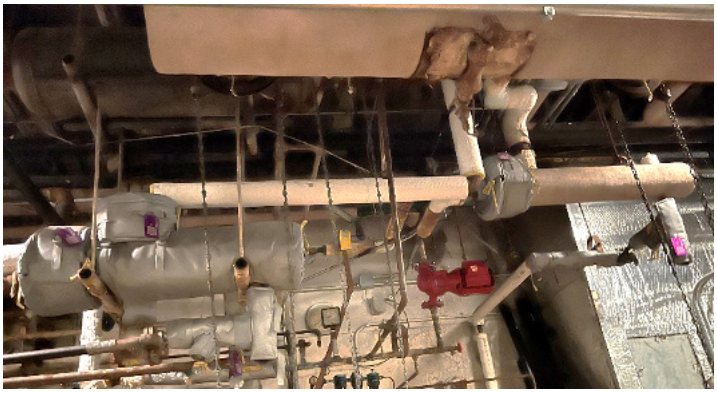
Mechanical:

1. Overall Description:
    a. Most of the building is heated and ventilated only:
        1. Original1953 building had oil fired steam boilers and steam heat.
        2. Six Classroom Annex 1958 has packaged gas/electric rooftop units, in very poor shape.
        3. Two classroom 1986 annex building had hot water heat.
        4. Modular buildings 19991, 1999 & 2000 have gas/electric rooftop units, which are extremely noisy and are in poor shape.
        5. Offices have window AC units, which are extremely noisy.
    b. Cast iron boilers were installed in 2007 and 2012, but both were submerged underwater numerous times during floods.
    c. Converted to gas in 2011.
    d. Heating pipe runs in crawl space pipe chase along the perimeter.
    e. Mostly the original pneumatic controls, with limited overlapping of DDC system.
    f. Mostly all components are well past its useful life, especially the piping with repair no longer being possible, are in need of complete replacement.
2. Photo Essay



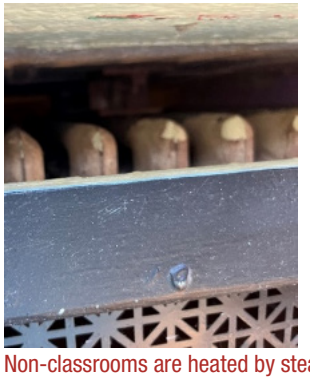
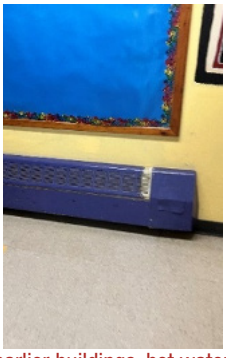
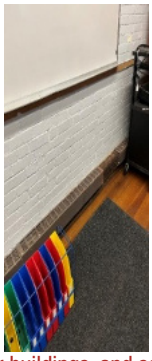
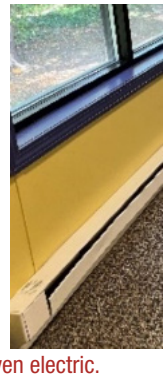
Two gas fired Smith cast iron low-pressure steam boilers with 2.8 million BTUH input Power Flame burner. The boilers were replaced in 2007 and 2012. School was converted to gas in 2011. Boiler room has been flodded numerous times over the years.


L - Original vintage boiler breeching. R - Recently replaced condensate receiver, but all the piping are the original. Note that entire floor is deeply stained from chronic flooding.

L - Boiler combustion air. R - Steam to hot water converters

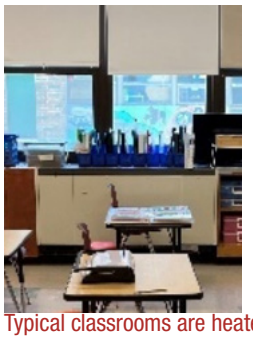
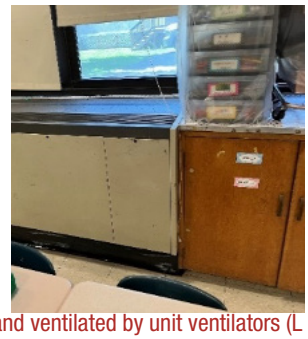
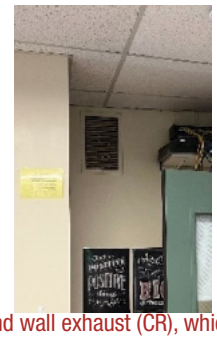
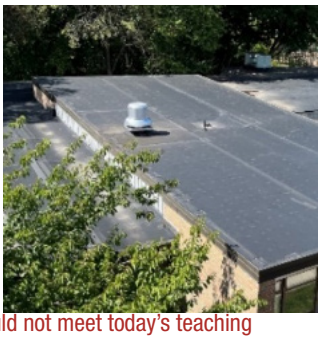

L - Pipe space runs along the perimeter to feed the radiators and unit ventilators.
R - One of the many access panels to the pipe space

Non-classrooms are heated by steam in the earlier buildings, hot water in later buildings, and some even electric.



Typical classrooms

Typical classrooms are heated and ventilated by unit ventilators (L & CL) and wall exhaust (CR), which would not meet today's teaching environment acoustical requirements. R - Central roof exhaust fan assure

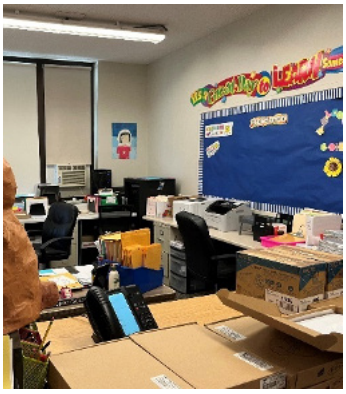
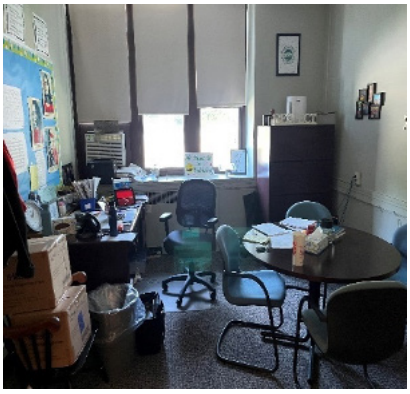


L - Modular annex with end mounted trailer home type AC unit. C - 1958 Annex with gas rooftop provides HVAC for the classrooms. R - Exposed ductwork with no attenuation on return ductwork, resulting in noise level far above what is considered acceptable in today's teaching environment.


Cafetorium is heated and ventilated by the original system.

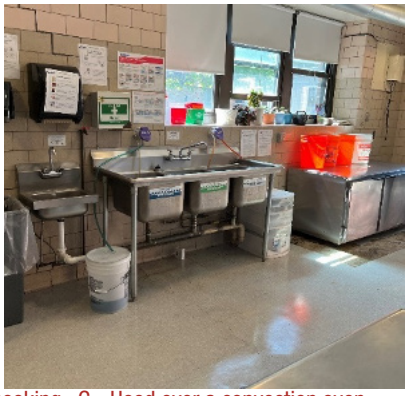


L&C - Gym is heated by steam radiator placed high just below the windows. R - Showing small ventilation ductwork feeding a grilled above the storage door.

Nurses' Offices are heated by the original steam system and cooled by window AC units.





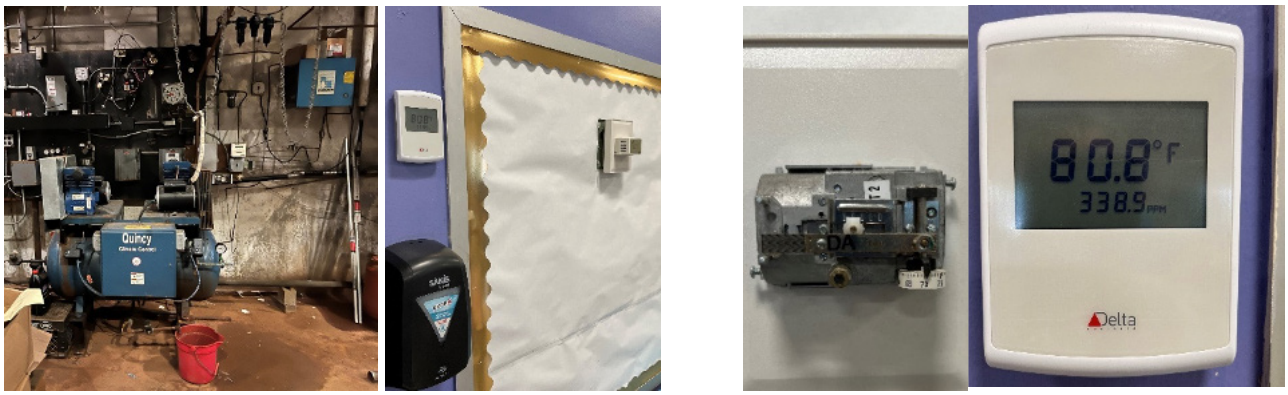
L - Kitchen is limited to preparation and warming functions and without the accommodation for full cooking. C - Hood over a convection oven. R - Hand and pot sinks.



Potential ACM encapsulation was observed at pipe fitting insulation.

Kiln hood and exhaust are no longer used.

L - Four 325-gallon fuel oil tanks were found in the boiler room, with the red strapping apparently installed to prevent floating during floods. R - Diesel standby generator with a belly tank.



L - Pneumatic control compressor and dryer were in fair working order and are operating. CL - Some spaces were found with two thermostats. CR - Right side thermostat was found to be Johnson Controls pneumatic thermostat; left side thermostat was Delta DDC Controls.

Delta DDC Controllers were found in the modular building.

3. Remaining Useful Life:

	BOMA Useful	Actual Years	BOMA Remain	
Components	**Years in Life (Yrs.)**			**Comments**
Air handling units	25	69	-44	
Boilers, cast iron	30	12	+18	Multiple floods
Radiators	30	69	-39	
Cabinet heaters	20	64	-44	
Convectors, fintube	15	36	-21	
Ductwork, Ventilation	30	69	-39	
Ductwork, AC	30	36	- 6	
Fans	20	52	-32	
Pumps	25	20	+ 5	Age estimated.
Controls	20	69	-49	DDC is newer.
Piping	30	69	-39	
Boiler metal flues	20	69	-49	
Masonry chimney	50	69	-19	

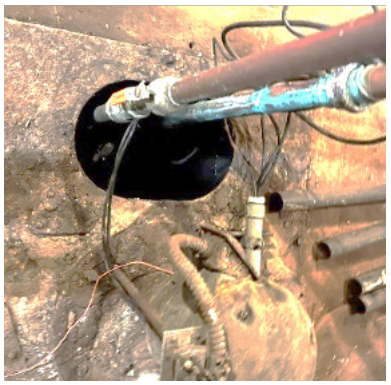
a. Conclusion - all components are well past its useful life and are in need of complete replacement.

PLUMBING:

1. Overall Description:
   a. Most of the is the original 1953 vintage, which is now 69 years old.
   b. Potable water is connected to the municipal system.
   c. Sanitary drain system is connected to the municipal system.
   d. Fixtures have been repaired/ replaced as required.
   e. Original waste and potable water piping.
   f. Chronic flooding issue of the basement level results in requirement for frequent sump pump replacements. Due to the multiple addition of this school, one sump pump system is three in series… that is first set pumps to the second set, which pumps to the third set before being discharged to the storm water system.
   g. Converted to gas in 2011.
   h. Gas fired tank type domestic hot water heater.
   i. Mostly all components are well past its useful life, especially the concealed piping, are in need of complete replacement.

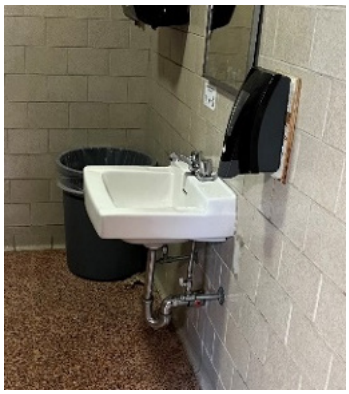
2. Photo Essay





L&C - Chronic flooding of basement level. R - One of numerous sump pumps, which have to be replaced frequently due to its nearly continuous operation.

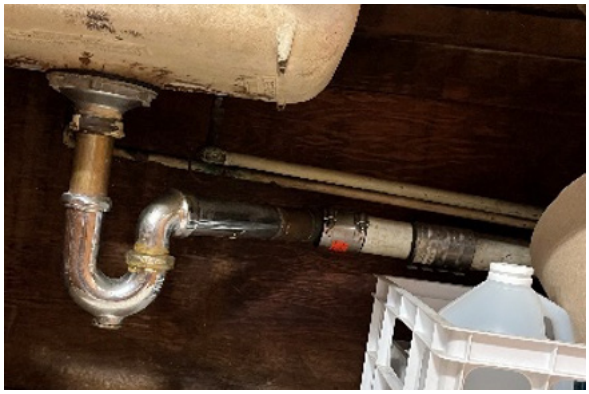
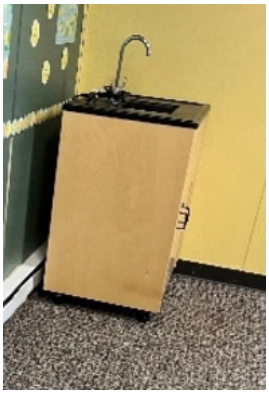




L - Urinals in the older part of the building are not code compliant. All - Vitreous china parts of the fixtures are original but are in fair condition. Faucets, flushometers and valves have been replkaced as needed and are in fair shape.




Vitreous china parts of the fixtures in the newer part of the building are original but are in fair condition. Faucets, flushometers and valves have been replaced as needed and are in fair shape.

L - Typical classroom original vintage sink. C - Inspection shows that waste piping has been repaired numerously using a PVC pipe section and neoprene plumbing patches.

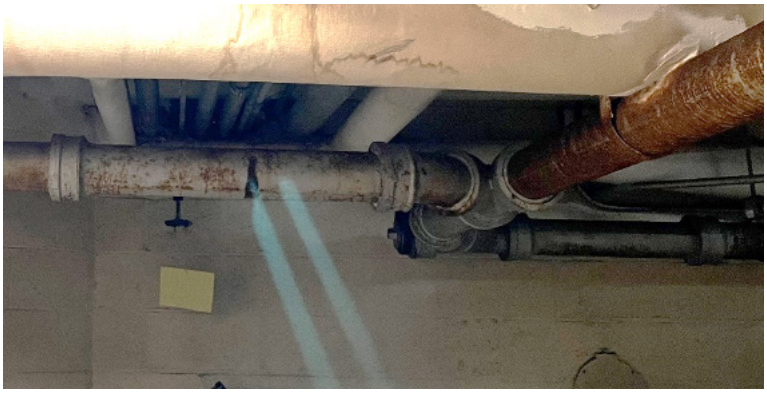

Art Room sink is residential laundry type sink, which is code compliant and functional but an unusual application for an institutional building.


L&C - Original vintage janitor's sink. R - Water cooler.

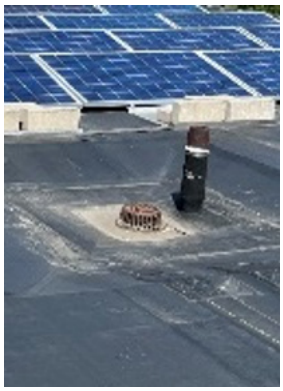

L - Kitchen is not a full cooking type but just a warm-up and preparation type. R - Note that section of hand sink waste piping has been replaced with non-compliant PVC piping; grease interceptor could not be located.

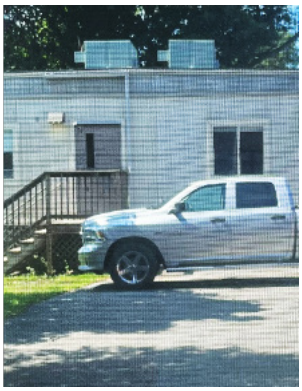


L - Boiler gas piping. C - Recently installed gas fired tank type domestic hot water heater. R - Heater flue.




L - Shows original vintage cast iron waste piping in basement with lead / okum packing, showing exterior corrosion. R - Same area shows extensive portion which has been replaced.





L&C - Original roof drains without overflow. R - Modulars have downspouts.

3. Remaining Useful Life:

	BOMA Useful	Actual Years	BOMA Remain	
Components	**Years in Life (Yrs.)**			**Comments**
Water heater	15	5	+10	estimated.
Fixtures		30	69	Faucets were replaced as needed.
Potable water piping	69	-39		
Waste water piping	30	69	-39	
Storm water piping	30	69	-39	
Gas piping, LP, threaded	11	+19	Installed in 2011.	

a. Conclusion – All components are well past its useful life and are in need of complete replacement.

Fire Protection:

1. Overall Description:
   a. This building has not sprinklered.
   b. Kitchen does not have a cooking line hood.
2. Conclusion: Needs to be fully sprinklered to comply with Code.

ELECTRICAL

Existing Conditions Evaluations:

The building was constructed in 1953, with additions added in 1958, and 1986. Modular classrooms were added in 1991, 1999, and 2000. The majority of the electric service equipment and wiring are original to the original construction and additions. The main building electrical equipment and systems are between 36 and 70 years old and well past their life expectancies. The electrical systems have been maintained by the owner over the years, however they do not properly support current educational needs. Modular classroom electrical equipment is 22 to 30 years old.

Electrical Service

The building is served by two incoming electric services

Eversource Utility #1 is an underground secondary underground electric service which emanates from a pole mounted transformer mounted on a utility pole on Dedham Street. Utility pole is located directly in front of the cafeteria. Pole #117/22. Utility meter located in basement.

Eversource Utility #2 is an aerial secondary electric service which emanates from a pole mounted transformer mounted on a utility pole on Dedham Street. Utility pole is located on the property line. Pole #117/25. Utility meter located on the side of the modular building.

The building was original served by primary switches, vault transformer and primary electric service cables that were installed by Boston Edison, now Eversource. This is equipment is de-energized. The vault door was locked and we were unable to verify that the equipment has been removed by Eversource.

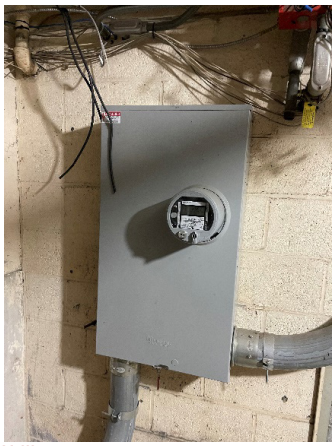
The building is served by four sources of power

1. Eversource Utility #1
2. Eversource Utility #2
3. Emergency Generator
4. Roof PV System

The building is served by four normal electric services:

1. Main Building
2. Rear Modular Classrooms
3. Front Modular Classrooms

Transformer vault door. Need to confirm transformers have been removed.


Utility meter #1

Electrical Distribution

The original main building electric service #1 is rated at 600-amperes, 120/208-volts, 3-phase and consists of a main circuit breaker, CT cubicle with meter, and a main distribution panel.

The rear modular classroom electric services #2 is rated at 200-amperes, 120/208-volts, 3-phase and consists of a disconnect switch and panel. The panel feeder is tapped of the service feeders for electric service #1.

Electric service #1 and #2 are located in the basement electric room are served by Eversource Utility #1.

The front modular classroom electric services #3 is rated at 400-amperes, 120/208-volts, 3-phase and consists of a panel located in the front modular classroom. Electric service #3 is served by Eversource Utility #2.

Despite being maintained by the owner; many of the 1951 and 1957 electric service panels are still operational, and well past their life expectancy.

Service #1

Service #2 and PV disconnect switch


Service #3 in modular classroom


Original 1953 distribution panel

During our walk-through of the building, it appeared to us that the Frank Adams panelboards and associated feeders have not been upgraded or replaced. We did notice that a newer panelboard was installed to serve selected new loads as required.

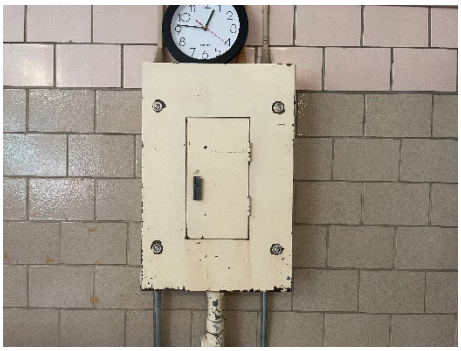
In addition, starters and disconnect switches have been replaced during maintenance programs.

Frank Adams has been out of the switchboard and panelboard business for fifty years. The electric service equipment is past its life expectancy, is in poor condition and needs to be replaced.

Water infiltration has been an issue in the basement. All electrical equipment including the main electric service equipment is vulnerable to water damage.


Water damaged equipment


Panel in corridor


Panel

Emergency Light and Power System

The building is served by a 150 KW, 120/208V, 3-phase diesel emergency generator with sub base tank manufactured by Olympian. The generator is located adjacent to the building, but the exhaust stack does not extend above the building roof. The automatic transfer switch, and panelboards are located in the basement electric room in the same room as the normal electrical equipment.

The original 20 KW generator was abandoned in place, it is located in the basement electric room.

The emergency equipment being installed in the same room as the normal electric service panels is a present day code violation. MA Electrical Code Article 700 requires the normal and emergency electrical equipment to be separated from normal power equipment. In addition, the generator location does not allow for code required work space for the generator and wall mounted electrical panels.

The emergency lighting consists of emergency only lighting fixtures. TEC did not observe the emergency lighting levels. Based on past experience, it is doubtful that all areas are properly covered by emergency lighting as required by code. In addition, emergency battery units have been installed in many areas in the main building. It's doubtful, the emergency generator lighting is properly function.

The most of the emergency electric service equipment is in poor condition, are almost 70 years old, and well past its life expectancy. The emergency system does not meet current life safety codes, and needs to be replaced.

Modular classroom emergency lighting is provided by self-contained emergency battery units. TEC did not rest or inspect the emergency battery system.

Generator with PV equipment adjacent

Transfer switch

Abandoned generator

Emergency battery units

Emergency battery units

Lighting Systems

There are multiple types of lensed lighting fixtures in the building:

- Two rows of linear 1'x4' surface mounted fixtures with wrap around lens in most classroom.
- 2'x2' recessed lens troffers in modular classrooms
- 1'x4' surface mounted fixtures with wrap around lens cafeterias.
- 2'x4' recessed fixtures in the gym
- 1'x4' lensed surface fixtures and 2'x4' parabolic in offices
- Corridors: pendants and 1"x4" surface linear fixtures.

During a 2017 utility retrofit programs, fluorescents lamps were replaced with LED tube lamps or the fixtures were replaced with a LED fixtures. Occupancy sensor controls were installed

Overall quality of the lighting is fair to poor condition but the lighting creates glare. Glare was observed on whiteboards and computer screens.

All lighting appears to be controlled by local switches including corridors. Corridors are controlled by local switches. There are occupancy sensors in classrooms and other spaces in building.

Site lighting: There are no lighting fixtures in the parking lot. There are lighting fixtures at egress doors. There are a few wall mounted full cut wall packs on the building.

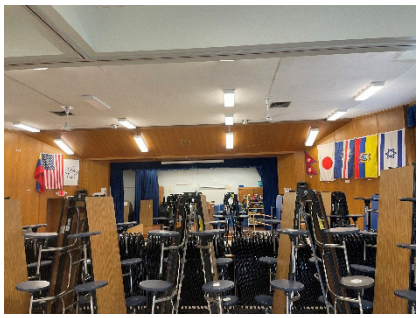
TEC did not observe the site lighting functioning so we can not confirm light levels or if there is emergency egress lighting at doors. However, based on the quantity of site lighting fixtures, the entire site lighting system is completely inadequate for egress from the building and in the parking lots.

Typical Classroom

Typical Classroom

Typical Classroom

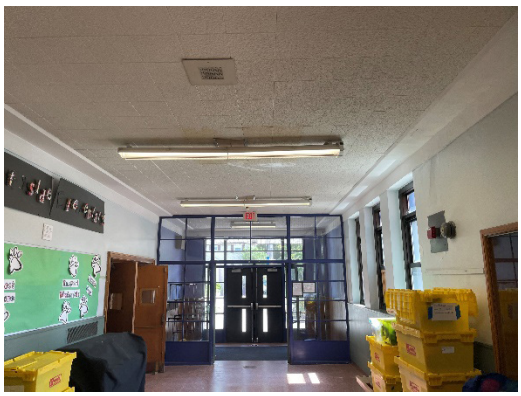
Typical room lighting controls



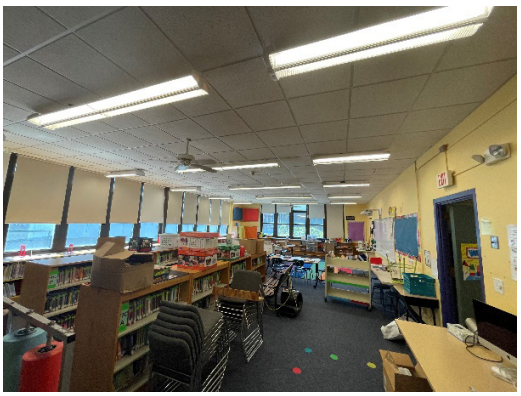
Cafeteria

Stage in Cafeteria

Lighting relays



Corridor



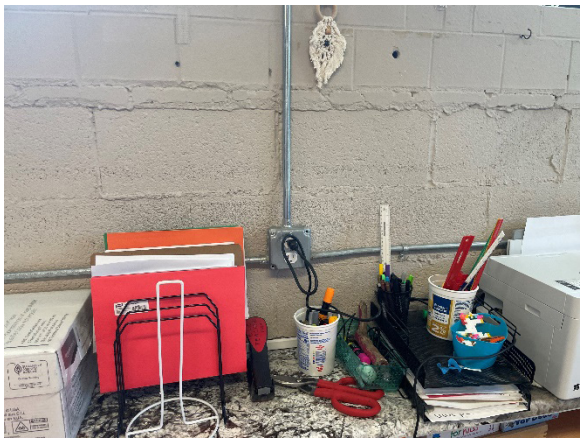
Library - Normal and emergency battery unit

Receptacle Systems

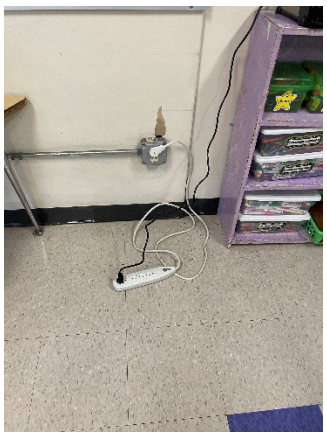
There are a limited number of receptacles in all spaces including classrooms and offices. Originally, there was two to three receptacles in each classroom and observed two receptacles in many classrooms. The receptacles are of the grounded type.

Receptacles in surface mounted raceways have been added in classrooms and other spaces to meet increased power needs for technology, however the quantity of receptacles is insufficient for current classroom and office requirements.

Power strips are being used in several areas. Power strips are a fire hazard to use. With the minimum number of circuits, power strips can easily overload a circuit.



Receptacle



Power strip / Receptacle

Fire Alarm System

The building does not have a sprinkler system. The fire alarm system consists of a control panel, manual pull stations, smoke and heat detectors, and horn/strobe notification devices. Fire alarm devices are a combination of addressable and conventual zoned devices. The control panel is a Notifier panel located in the main entrance. The Notifier panel was installed in 2016

The previous fire alarm control panel is located in the main entrance and is used as a junction box. The previous fire alarm system was a four zone FCI fire alarm system. Devices have been updated or replaced over the years. There are multiple generations of fire alarm system devices.

There are multiple fire alarm system code violations:

- Many pull stations are not located within 5'-0" of the egress door jambs. Also, some are installed above ADA height.
- Without a sprinkler system, the smoke detectors coverage should be 100% of all rooms. Smoke and heat detectors are installed in the majority of rooms but not 100%.
- Horns are used for the audio notification, present day codes require voice.
- The AV notification system provides very minimal coverage.
- Devices are not mounted at ADA heights.

TEC did not witness the fire alarm system operation and are unable to comment on its operation. However, the fire alarm system is obsolete and well beyond its life expectancy.

The fire alarm system is in poor to failing condition, well past its life expectancy, and needs to be replaced.

Control Panel

AV notification device and bell

Smoke Detectors - Different models

Pull station not at door

New detector in old base

FA devices, emerg. lighting / exit sign

Exit Signs

There appears to be exit signs in all paths of egress. There are several different generations of exit signs in the building. Overall exit signs conditions are fair.

Exit sign in gym

Exit Sign

Exit sign with emergency lighting

Exit sign not working

Structured Cabling System

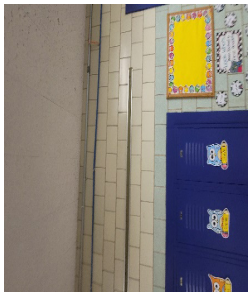


Figure 1

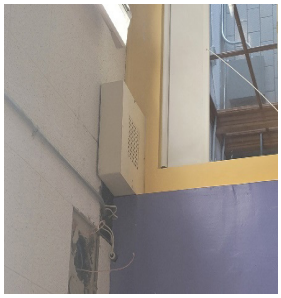


Figure 2

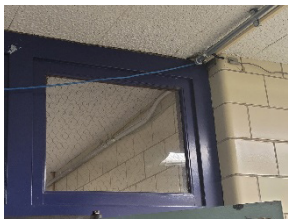


Figure 3

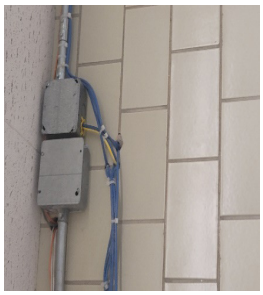


Figure 4

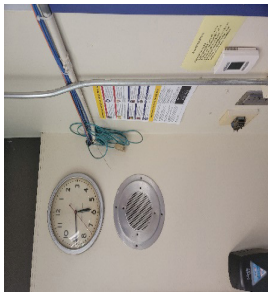


Figure 5

Figure 6

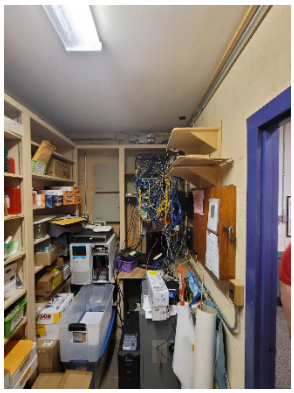


Figure 7

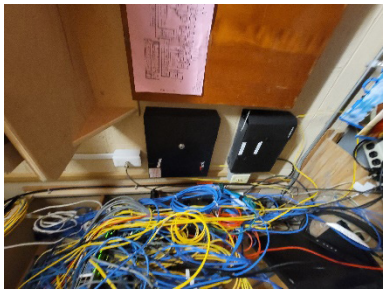


Figure 8

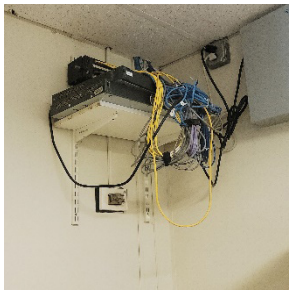


Figure 9

The School has Category 5e and 6 UTP data cabling installed throughout. Much of the data cabling has been added to the building over time and cable runs fully exposed in numerous locations outside conduit or raceway (Figures 1-5), with some cabling loosely contained in surface mount raceway (Figure 6).

All the voice and data a cabling appears to be in working order although it does not meet the latest cabling standards for structured cabling systems and does not meet building codes for the way it is installed. The MDF is comprised of a wall mount rack collocated at one end of an accessible storage closet in the administrative office area (Figure 7). Structured voice and data cabling is terminated onto wall mounted data patch panels in a wooden open frame wall cabinet. Building communication services including telephone and RCN fiber optics are terminated on the wall in this location (Figure 8). A telephone system controller is also located in this room. The room lacks security, power and environmental conditioning, or adequate cable management. There is a separate location high up on a wall in another shared space where additional cabling is terminated on a wall mount patch panel and connecting to a network switch that is sitting a shelf. It was assumed but not evident that this location was connect to the MDF via fiber optic cabling.

Structured voice and data cabling appears to be installed to all rooms and spaces throughout the school providing connectivity for telephones, network peripherals, and wireless access devices.

Distributed Communications System

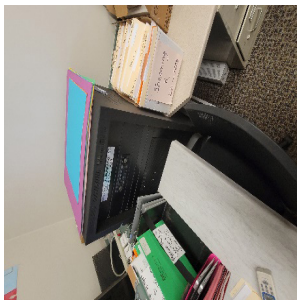


Figure 8

Figure 9

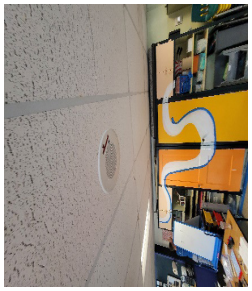


Figure 10

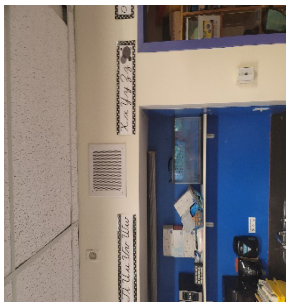


Figure 11

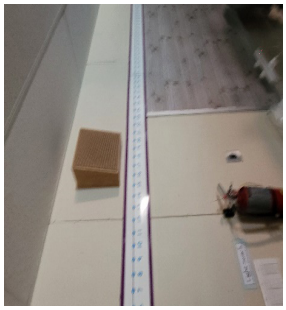


Figure 12

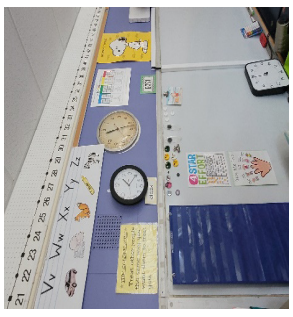


Figure 13

Figure 14

The public address main system cabinet is in the main office area. It appears to be a Bogen public address system, which is an analog system with analog end points. The speakers throughout the school are a mixture of older horn speakers (Figure 9), flush mount ceiling and wall mount speakers (Figures 10 and 11), as well as surface mount speakers (Figure 12). The master clock system does not work and battery-operated wall clocks of various types and sizes are located throughout the school. (Figure 13). All rooms appear to be equipped with older style toggle call in switches (Figure 14). It was noted that the intercom and paging system doesn't work and that areas exist in the school where pages are not heard.

Local Sound Systems

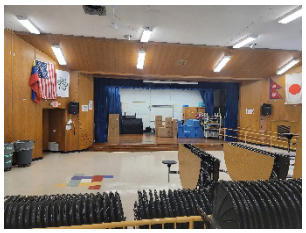


Figure 15

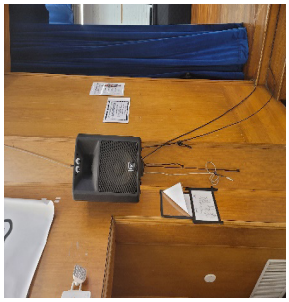


Figure 16

Figure 17

Figure 18

There is a Cafetorium with antiquated audio-visual system equipment that includes older EV program loudspeakers mounted on either side of the proscenium (Figures 15 and 16). Sound system equipment includes an older Pevey mixer amplifier on a cart with an older portable Pevey speaker and two Audio-Technica wireless handheld microphones and receivers (Figure 17). The stage is equipped with a pull-down screen presumably used with portable projection system (Figure 18). The equipment was not tested and may be functional, but none of it is current audio-visual technology according to today's large venue spaces in schools.

Network and Wireless

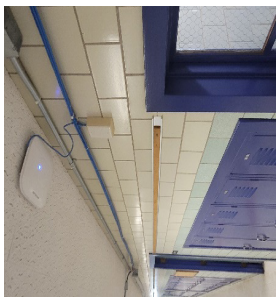


Figure 19

Figure 20

Cisco PoE network switches are installed in MDF and in the small wiring center located on the wall. These two locations are presumably where all structured network voice and data cabling originates and is terminated. Network switches support all hard-wired data cabling and wireless access points throughout the School.

Cisco Wireless Access devices mounted to the underside of the suspended ceiling were observed throughout the school including corridors (Figure 19) and office and instructional spaces (Figure 20).

Security Systems

Figure 21

Figure 23

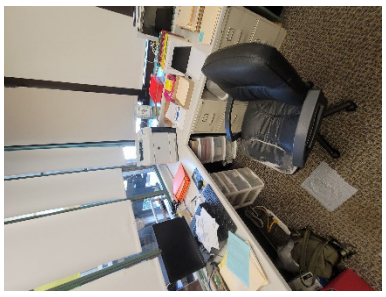


Figure 22

Figure 24

An Aiphone video intercom system with the capability of remote visual monitoring was observed at the main entrance to the building (Figure 21). This system has a management console in the main office for remotely viewing and communicating with visitors at the exterior of the building and unlocking the main entrance door.

There is good visibility by the main office to anyone entering using the exterior video intercom system (Figure 22). However, the main vestibule provides no way to contain someone for processing once they are let into the building. A secured entry system for processing visitors to the building should be added.

There is an older intrusion alarm system (figure 23) which most likely works with door contacts installed at exterior doors. Current motion sensor technology was not observed in corridors. Rooms on the ground floor with accessible windows do not appear to be equipped with motion sensors. An upgraded intrusion system with motion sensors in all ground floor rooms with windows with exterior door contacts should be considered.

Surveillance cameras were not observed around the perimeter of the building or at the main entrance to the School. Cameras were not observed at interior locations including corridors, stairwells, and large assembly spaces. A modern high resolution IP based surveillance system should be added.

There is an access control system installed with Card Readers at various exterior doors including the main entrance (Figure 24)

Operation of the installed system was not observed.

Classroom Technology

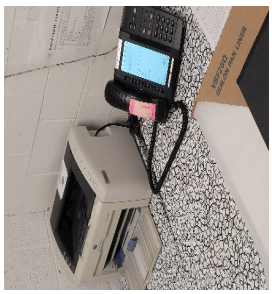


Figure 25

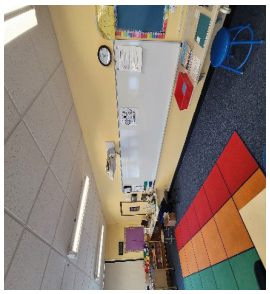


Figure 26

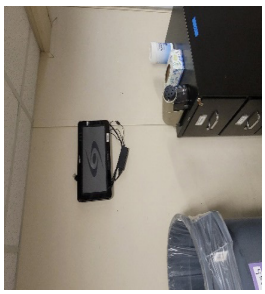


Figure 27

Figure 28

Figure 29

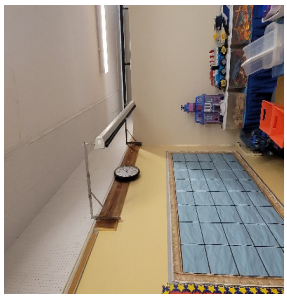


Figure 30

Telephone handset were not observed in the classrooms and educational spaces and are only provided in administrative locations (Figure 25).

Wireless Access Points were observed in classrooms and throughout the school. Older model ultra-short interactive projectors were observed in classrooms (Figure 26). Many classrooms, but not all were equipped with speech reinforcement systems mounted to the wall (Figure 26). Most classrooms observed included an Elmo document camera (Figure 27).

Work group and personal laser printers were observed in some classrooms (Figure 28).

Some classrooms that were observed included older pull down projection screens (Figure 29), presumably for use with either older overhead projectors or standard throw projectors on carts.

5 SITE DEVELOPMENT REQUIREMENTS

Site Development Narrative

Structures & Fences

Site Access & Circulation

Parking & Paving

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Site Orientation / Location Considerations

SITE DEVELOPMENT REQUIREMENTS

Introduction

The Countryside Elementary School is located at 191 Dedham Street in Newton Highlands. The school is owned by the City of Newton and operated by Newton Public Schools. It is one of fifteen (15) elementary schools in the City with an enrollment of 372 students during the 2022-23 academic year.

The site is located west and south of Dedham Street, north of South Meadow Brook and Bound Brook Road, and east of Andrew Street, with a thin wooded area with a potential intermittent stream separating the site from the residential properties on Andrew Street. In general, the site slopes down to the west and south, away from Dedham Street.

The northern portion of the site contains a parking lot in the northeast corner, along Dedham Street at the intersection of Dedham Street and Walnut Street, with acceses to and from Dedham Street to the north only. A baseball field, athletic field, and adjacent grassy areas are located to the west of the parking area, extending to the northwest corner of the site. South of the parking lot is an access driveway to Dedham Street.

The existing school is located at the southeast corner of the site. The original 1953 2-story school building was constructed along Dedham Street with a 1958 annex classroom addition connecting via a passageway off the southwest portion of the original building. A 2-classroom addition was added to the 1958 annex classrooms to the north in 1986, followed by the 2000 modular classrooms to their north. Two separate modular classroom structures were added in 1991 and 1999 –each flanking the 1958 and 1986 annex additions.

The service access driveway to Dedham Street runs along the northern edge of the original school building and wraps around to a courtyard area between the modular classrooms, annex classrooms, and original school building. A pedestrian path continues south from this courtyard to the passageway between the original school building and annex classrooms. South of the passageway, another pedestrian path and smaller courtyard extend south and east to Dedham Street between the annex classrooms, original school building, and modular classrooms. Additional landscaping, picnic tables, and seating areas are present within the internal courtyard areas adjacent to the access driveway and pedestrian paths. In addition, several raised planting beds are present in the southeast corner of the site on Dedham Street.

Off the northwest corner of the original school building is a small asphalt multi-purpose play area (i.e., schoolyard), located between the building and the access driveway. A thin landscaped grass strip and walkways are located between the school buildings and Dedham Street. South of the baseball field and grassy areas are a playground and basketball court, on the northwest side of the building. An approximately 5-foot-wide pedestrian path runs east-west along the southern edge of the playground and basketball court, from the Andrew Street neighborhood to the site. At the apparent western property boundary, this path is bisected by a thin wooded area and potential intermittent stream that runs north to south. South of this path, in the southwest corner of the site, is a wetland resource area. South Meadow Brook is located south of the wetland flowing east to west.

A survey of the existing conditions has been completed by a licensed MA surveyor and is included in the electronic copy of the Preliminary Design Program. The survey includes the wetlands and riverfront area delineation.

Structures and Fences

In addition to the existing school building and playground equipment, there is a small storage shed located behind the softball field backstop. Other than those elements there are no other built structures on the site.

All the fencing located on the school site is chain link. A 4' tall fence is located just beyond the sidewalk along Dedham Street and runs parallel to the school, starting at the southeast corner of the site and ending at about 100 feet away from the end of the school building. This fence also runs parallel to the South Meadow Brook along the southern property line, picks up again just north of the wetland area, adjacent to the walking path to the Andrew Street neighborhood to the east with a break at the path intersection, and continues along the western property line of the site. A 6' fence separates the playground/play structure area from the basketball court. Finally, two 6' fences are located to each side of the softball field backstop at the northwest corner of the site.

Site Access, Circulation and Accessibility

Vehicular access to the school is along Dedham Street, which is a two-way street. A bus drop-off zone (yellow painted curb) is located in front of the school with a pull-off area, and car drop off/pick up zones (blue painted curbs) are located on both sides of Dedham Street, parallel to both northbound and southbound travel lanes. Parents also park along the north Dedham Street and adjacent neighborhood streets to walk their children to and from the school.

Service and delivery vehicles utilize the loading dock on the north end of the school building.

An unmarked emergency lane is provided around the building, giving vehicles access to a large part of the building perimeter during an emergency.

Pedestrian access is well accommodated with a variety of public sidewalks that run along the entire length of Dedham Street, connecting the school to the surrounding neighborhoods. These connections include:

- Pedestrian concrete sidewalk along the north and eastern property line connecting the northwest, north, and eastern neighborhoods,
- A paved path to Andrew Street to the west,
- Walnut Street to the north.

There are two crosswalks with crossing guards that direct pedestrians to the school. A crossing guard manages pedestrian traffic at the intersection of Dedham Street and Woodcliff Road, and a second crossing guard manages pedestrian traffic at the intersection of Dedham Street and Walnut Street to the north.

The portion of Countryside students walking to/from school is relatively high, compared to other schools. Students enter and exit the school through different doorways around the school, depending on their grade.

Accessible routes to the school are limited by a lack of ADA compliant ramps at the Dedham Street and Woodcliff Road intersections. Sidewalks are generally in fair condition with a few instances of sidewalks in poor condition at the northern Dedham Street. Based on 44 existing parking spaces, 2 accessible spaces are required. There is (1) accessible parking space in the parking lot, approximately 250 feet from the main entrance to the school. This space is marked on the pavement but lacks signage.

The project will address these deficiencies; all work as part of the project scope shall be ADA and MAAB compliant.

Parking and Paving

The existing school parking lot is designated for staff only except for an accessible parking space that can be used by visitors. There are (44) striped parking spaces (including one accessible space) located within the parking lot for staff. Visitors parallel park along Dedham Street both on the north and east as well as in and around the surrounding neighborhood. Sidewalks are in fair to good condition and connect the neighborhood to the school. The single parking space designated as handicap accessible is located approximately 250 feet from the main entrance to the school. As previously indicated, this parking space does not comply with the signage requirements of the current ADA and MAAB code.

The pedestrian pavement along the Dedham Street sidewalks and the parking lot area is concrete pavement. It is in fair to poor condition. The remainder of the pedestrian pavement around the school is bituminous and is in fair to poor condition.

ADA/MAAB

The project will address accessibility deficiencies related to the site to the extent required by the MAAB. All work as part of the project scope shall be ADA/MAAB compliant. The area around the school is relatively flat due to the previous development of the site. It is possible to bring the non-compliant pedestrian walkways into compliance with current ADA and MAAB requirements through re-paving and minor re-grading. Additional handicap parking spaces could be added to the staff parking lot with minor modifications to meet current ADA and MAAB requirements. However, this would not bring the parking closer to the main entrance. Alternatively, designated accessible parallel parking spaces can be added near the front of the school. A comprehensive approach to the site design will be part of the project scope, considering separation of buses, automobiles and safe accessible parking and routes to school. Crosswalks shall be modified to incorporate curb cuts, ramps, tactile warning surfaces, and striping compliant with MAAB guidelines and City of Newton standards.

Zoning Setbacks and Limitations

The Countryside Elementary School site is located within the City of Newton's Public Use (PU) District and abuts the Single Residence 2 (SR2) District at the south property line and the Single Residence 3 (SR3) zoning district to the west, north and east. Schools or other educational purposed (non-profit) are allowed within this district, subject to listed standards and review and approval by the City's Planning Board. The Site Plan Review process shall begin once a preferred schematic has been selected. The preferred schematic shall be evaluated against the applicability requirements for Site Plan Review.

As a baseline, the typical dimensional controls for the adjacent SR3 district will be used at the west, north and east property lines and dimensional controls for the SR2 district will be used at the south property line. Since the school is on a corner lot, there are (2) front yard setbacks of 30-feet with a side yard setback of 15-feet at both the west and south property lines, and 30-foot maximum height requirements for a flat roof. The current school building and site design comply with these dimensional controls. Other dimensional limits are as follows:

	SR2	SR3
Lot Area (min)	15,000 SF	10,000 SF
Lot Coverage (max)	20%	30%
Open Space (min)	65%	50%
Lot Frontage (min)	100 ft	80 ft
Build Factor (max)	25	20

Easements

The site contains no easements.

Wetlands and/or Flood Restrictions

The southwest corner of the Countryside site is occupied by a wetland area characterized by MassDEP as Shrub Swamp. South Meadow Brook runs eat to west along the southern property boundary. In addition, a potential intermittent stream runs along the western property boundary north to south into South Meadow Brook. Historic maps (e.g., 1893, 1903, 1944, 1946) of the area illustrate South Meadow Brook and wetlands in these areas prior to the construction of the school, with the wetlands extending east of Dedham Street at one time. The presence of these areas would trigger Newton's 100-foot buffer zone for vegetated wetlands and intermittent streams and the 200-foot Riverfront Area for perennial streams, requiring an Order of Conditions from the Newton Conservation Commission. Based on a 2022 site survey, the 100-foot wetland buffer extends onto areas of the existing school buildings, playground, and basketball court. Additionally, the 100-foot riparian zone and 200-foot riverfront areas also extend onto areas of the school buildings. More detailed wetland delineation and confirmation from the Newton Conservation Commission would be needed to confirm extent, designation, and applicability. (Source: MassMapper, ESRI Historic Topographical Maps)

Nearly the entire site is characterized by the Federal Emergency Management Agency (FEMA) as Flood Zone AE (1% Annual Chance of Flooding, with Base Flood Elevation). According to FEMA, the Base Flood Elevation, also referenced as the 100-year flood elevation, along the eastern edge of Zone AE in this area is El.+112.4 feet. The very southern edge of the site appears to overlap with the Regulatory Floodway of South Meadow Brook. A 2022 site survey confirmed the site's flood zone locations. These designations trigger Newton's Floodplain Ordinance which means that any land disturbance will require compensatory flood storage calculations to confirm that the available flood storage will not be reduced. (Source: FEMA FIRM panels 25017C0554E, 25017C0562E, effective 6/4/10)

Based upon the preliminary costing, repairs/code upgrades as well as renovation & addition alternatives exceed 50% of the assessed building value (current assessor's value at $20,661,700). Therefore, the first floor of the existing building (El.+110.5) would be required to be raised approximately 3-feet to comply with code. The current first floor floor-to-floor height is 12'-6". When the floor is raised by 3 feet, the floor-to-floor height is 9'-6". Once mechanical equipment is added (requires approximately 3 feet) the floor-to-ceiling height would be approximately 6'-6". **The existing 1953 is constructed in such a way that raising the second floor to increase the first floor height is not viable.**

Emergency Vehicle Access

Emergency vehicles access the school site from both north and south directions along Dedham Street. An unmarked fire lane is provided around the north side of the existing building, providing vehicles access to a large part of the building perimeter during an emergency. Countryside Elementary School requires a safe main driveway and entrance access to the school site with safe secondary access for emergency needs. The Design Team will meet with public safety officials, including the police and fire departments, during the design process to ensure that their requirements are incorporated into the preferred solution.

Safety and Security Requirements

The Countryside Elementary school is located within a densely settled residential neighborhood with vehicular access and multiple pedestrian connections to the surrounding streets. The scope of any site design shall require detailed planning with Newton Public Schools and the abutting neighbors to ensure safe and viable access and operation of the facility and neighborhood. Newton Public Schools (NPS) in conjunction with Mass Safe Routes to School Campaign to promote walking, biking and taking the bus to school through encouragement, education, infrastructure improvements, and safety enforcement.

School leaders and safety teams work closely with the NPS facilities staff to ensure that the Countryside building meets all safety requirements and is maintained to support safety protocols and procedures. All school doors are locked during the day with only one point of entry. Visitors are granted entry to the building through a buzzer system. Parents/families and visitors are required to enter through the main entrance doors and sign in at the office.

Utilities

Domestic water, electrical power, gas service, stormwater drainage and sanitary sewer are presently available and in use at the Countryside Elementary School site.

Domestic Water Service

A 3-inch domestic water service is connected to the building just south of the exterior door to the auditorium (Door #21) and is tapped off of an 8-inch water main in Dedham Street. The 1958 and 1986 additions are connected to this water service via pipes located in the passageway between the two buildings.

Electrical

The building is served by two incoming electric services:

Eversource Utility #1 is an underground secondary underground electric service which emanates from a pole mounted transformer mounted on a utility pole on Dedham Street. The utility pole is located directly in front of the cafeteria. Pole #117/22. Utility meter located in basement.

Eversource Utility #2 is an aerial secondary electric service which emanates from a pole mounted transformer mounted on a utility pole on Dedham Street. Utility pole is located on the property line. Pole #117/25. Utility meter located on the side of the modular building.

A 150 KW 120/208V, 3-phase diesel emergency generator is located on the north side, adjacent to the original building. Nearby is the equipment for the rooftop solar panels.

Stormwater

There are four catch basins on the north side of the school within the parking lot and access driveway. The catch basins appear to be piped to the municipal system in Dedham Street. The municipal drainage system in Dedham Street outfalls to South Meadow Brook.

There are five catch basins on the east side of the school that are piped to the municipal system in Dedham Street. It appears that the catch basin on the west side of the school building discharges into the wetland resource area.

Based on 1951 original construction plans for the school, the roof of the original building drains to South Meadow Brook, via a 10-inch pipe. There is an 8-inch drain line between the original building and the 1958 addition, discharging to South Meadow Brook. The drainpipe sizes and inverts will need to be confirmed by an on the ground field survey.

Fire Service

The current school building does not have a fire protection system. A hydrant flow test has been conducted with results showing that there is adequate pressure to support a new fire protection system for a 3-story building. A fire pump is not required.

Sanitary Service

It has been reported that there are chronic problems with non-compliant sewage ejector pumps, sewer flooding, and sewer odors in the building. A 6" sanitary line connects the existing building to the sanitary service line along Dedham Street near the domestic water service.

Gas Service

A 2 ½" gas service connection from Dedham Street enters the building near the domestic water service.

Athletic Fields / Outdoor Educational Spaces

The existing school playground consists of a paved (asphalt) area at the north side of the original building with a few painted games, a basketball court with 2 hoops and painted game lines, and a playground area with swings and climbing structures. The playground surfacing consists of wood chips and is not accessible. The playground structures are in fair to good condition but do not accommodate any accessible play. Several benches are distributed around the perimeter of the playground on either grass or wood chips and are not accessible. The basketball court surfacing is in poor condition, and the goal posts are exhibiting rusting and are not salvageable for future use.

A softball field is located at the northwest corner of the parcel. The field, backstop and infield are in poor condition.

Opportunities to provide outdoor learning spaces to reinforce the curriculum shall be studied in conjunction with the selection of a preferred schematic.

Site Orientation, Location Considerations and Issues

The long axis of the existing 1953 and 1958 Annex building runs North to South, with all classrooms facing East and West. This is not ideal for control of sunlight for natural daylighting or control of glare. The existing building does not have solar controlling components that are built into the design. All perimeter windows are equipped with roller shades.

Maximizing north/south orientation of the classrooms is an important objective. This will afford the most usable and controllable natural daylighting of these spaces, which is beneficial from an indoor environmental standpoint and will, through the use of daylighting controls of the classroom lighting system, realize significant electrical energy savings. The existing school does not take full advantage of the site orientation. Careful consideration will be given to optimize the orientation of any new construction.

COUNTRYSIDE ELEMENTARY SCHOOL

Newton, MA

PRELIMINARY DESIGN PROGRAM

EXISTING SITE SURVEY

- Structures and fences
- Code requirements
- Zoning setback and limitations
- Easements
- Wetlands and flood restrictions
- Athletic fields and outdoor educational space
- Site orientation

LEGEND

- PROPERTY LINE
- ZONING SETBACK
- ZONING DISTRICT BOUNDARY
- WETLAND BUFFER
- RIVERFRONT ZONE
- FLOOD ZONE BOUNDARY
- FENCE
- WETLAND

Notes:

1.The project site is located within the Public Use District (PU) and abuts Single Residence 3 District (SR3) to the north, east and west, and abuts the Single Residence 2 District (SR2) to the south.

2. Dimensional Regulations for SR2 District:
Front Yard = 30 FT Min. Setback
Side Yard = 15 FT Min. Setback
Rear Yard = 15 FT Min. Setback

3. Dimensional Regulations for SR3 District:
Front Yard = 30 FT Min. Setback
Side Yard = 10 FT Min. Setback
Rear Yard = 15 FT Min. Setback

0 32 64 N

10 JANUARY 2023

DINISCO DESIGN
architects + planners

COUNTRYSIDE ELEMENTARY SCHOOL

Newton, MA

PRELIMINARY DESIGN PROGRAM

EXISTING SITE WETLANDS AND FLOODPLAIN

- Wetlands and flood restrictions

LEGEND

- PROPERTY LINE
- 10 YEAR FLOOD ELEVATION
- 100 YEAR FLOOD ELEVATION
- WETLAND BUFFER
- RIVERFRONT ZONE
- 100 YEAR FLOODPLAIN

0 32 64

N

10 JANUARY 2023

DINISCO DESIGN
architects + planners

UTILITY NOTES

THE PRINCIPAL GUIDELINES FOR UNDERGROUND UTILITY MAPPING ARE THE AMERICAN SOCIETY OF CIVIL ENGINEERS (ASCE) CI/ASCE 38-02, STANDARD GUIDELINE FOR THE COLLECTION AND DEPICTION OF EXISTING SUBSURFACE UTILITY DATA, 2003.

UTILITY QUALITY LEVEL INFORMATION INDEX (ASCE/CI 38-02):

QUALITY LEVEL D: "QLD". UTILITY INFORMATION PLOTTED ON THE DRAWING BASED SOLELY ON RECORD INFORMATION, INDIVIDUAL RECOLLECTIONS OR THE EXISTENCE OF UTILITY SERVICE. IT SHALL BE NOTED THAT ALL INFORMATION SHOWN (OTHER THAN AT TEST HOLE LOCATIONS, SEE "QLA" BELOW), INCLUDE BUT NOT LIMITED TO UTILITY SIZE, CAPACITY, MATERIAL COMPOSITION, CONDITION OR SERVICE STATUS SHALL BE CONSIDERED "QLD" EVEN THOUGH THE UTILITY MAY BE PLOTTED AND LABELED AS "QLC" OR "QLB".

QUALITY LEVEL C: "QLC". UTILITY INFORMATION OBTAINED AS ABOVE FOR QUALITY LEVEL D, PLOTTED TO CORRELATE WITH SURFACE UTILITY FEATURES WHICH HAVE BEEN FIELD VERIFIED, SURVEY LOCATED AND ACCURATELY REDUCED ONTO THE DESIGN/CONSTRUCTION DOCUMENTS. INCLUDED IN THIS CATEGORY ARE UTILITY DEPICTIONS, WHICH IN THE PROFESSIONAL OPINION OF THE SUBSURFACE UTILITY ENGINEER REPRESENT THE MOST PROBABLE APPROXIMATE HORIZONTAL LOCATION, TYPE AND/OR EXISTENCE OF A UTILITY.

QUALITY LEVEL B: "QLB". UTILITY INFORMATION DERIVED BY ESTABLISHING THE SURFACE HORIZONTAL LOCATION OF A UTILITY USING ELECTRONIC METHODS. SAID INFORMATION IS SUBSEQUENTLY FIELD LOCATED AND ACCURATELY REDUCED ONTO THE DESIGN/CONSTRUCTION DOCUMENTS.

QUALITY LEVEL A: "QLA". UTILITY INFORMATION WHICH HAS BEEN VISUALLY VERIFIED, SURVEY LOCATED (BOTH HORIZONTALLY AND VERTICALLY) AND ACCURATELY REDUCED ONTO THE DESIGN/CONSTRUCTION DOCUMENTS. THIS IS TYPICALLY SHOWN AS A TEST HOLE OR OTHER DIMENSIONED INFORMATION.

ALL UNDERGROUND UTILITIES SHOWN HEREON ARE QUALITY LEVEL "D" (QLD) PER ASCE STANDARD 38-02 DESIGNATION UNLESS OTHERWISE NOTED. THEY ARE APPROXIMATE ONLY AND WERE COMPILED ACCORDING AND WERE COMPILED ACCORDING TO AVAILABLE RECORDS FROM THE VARIOUS COMPANIES AND PUBLIC AGENCIES. ACTUAL LOCATIONS MUST BE DETERMINED IN THE FIELD. BEFORE DESIGNING, EXCAVATING, BLASTING, INSTALLING, BACKFILLING, GRADING, PAVEMENT RESTORATION, REPAVING OR OTHER CONSTRUCTION, ALL UTILITY COMPANIES MUST BE NOTIFIED INCLUDING THOSE IN CONTROL OF UTILITIES NOT SHOWN ON THIS PLAN. SEE CHAPTER 370, ACTS OF 1963, MASSACHUSETTS. CALL "DIG-SAFE" AT 1-888-344-7233 OR DIAL 811. DGT SURVEY GROUP ASSUMES NO RESPONSIBILITY FOR DAMAGES INCURRED AS A RESULT OF UTILITIES OMITTED OR INACCURATELY SHOWN. BEFORE FUTURE CONNECTIONS, THE APPROPRIATE UTILITY ENGINEERING DEPARTMENTS MUST BE CONSULTED.

UTILITY LEGEND

QUALITY LEVEL "A" INFORMATION ("QLA")

C-QLA	COMMUNICATIONS: CABLE TELEVISION, ALARM OR SIGNAL LINES
D-QLA	DRAIN
E-QLA	ELECTRIC: ELEC. POWER LINES, CABLES, CONDUIT & LIGHTING CABLES
FO-QLA	COMMUNICATIONS: FIBER OPTIC
G-QLA	PRODUCT: GAS, OIL, STEAM, PETROLEUM OR GASEOUS MATERIALS
S-QLA	SEWER
T-QLA	COMMUNICATIONS: TELEPHONE
U-QLA	UNVERIFIED / UNKNOWN UTILITY TYPE
W-QLA	WATER: LOW PRESSURE, HIGH PRESSURE, FIRE SERVICE

QUALITY LEVEL "B" INFORMATION ("QLB")

C-QLB	COMMUNICATIONS: CABLE TELEVISION, ALARM OR SIGNAL LINES
D-QLB	DRAIN
E-QLB	ELECTRIC: ELEC. POWER LINES, CABLES, CONDUIT & LIGHTING CABLES
FO-QLB	COMMUNICATIONS: FIBER OPTIC
G-QLB	PRODUCT: GAS, OIL, STEAM, PETROLEUM OR GASEOUS MATERIALS
S-QLB	SEWER
T-QLB	COMMUNICATIONS: TELEPHONE
U-QLB	UNVERIFIED / UNKNOWN UTILITY TYPE
W-QLB	WATER: LOW PRESSURE, HIGH PRESSURE, FIRE SERVICE

QUALITY LEVEL "C" INFORMATION ("QLC")

C-QLC	COMMUNICATIONS: CABLE TELEVISION, ALARM OR SIGNAL LINES
D-QLC	DRAIN
E-QLC	ELECTRIC: ELEC. POWER LINES, CABLES, CONDUIT & LIGHTING CABLES
FO-QLC	COMMUNICATIONS: FIBER OPTIC
G-QLC	PRODUCT: GAS, OIL, STEAM, PETROLEUM OR GASEOUS MATERIALS
S-QLC	SEWER
T-QLC	COMMUNICATIONS: TELEPHONE
U-QLC	UNVERIFIED / UNKNOWN UTILITY TYPE
W-QLC	WATER: LOW PRESSURE, HIGH PRESSURE, FIRE SERVICE

QUALITY LEVEL "D" INFORMATION ("QLD")

C	COMMUNICATIONS: CABLE TELEVISION, ALARM OR SIGNAL LINES
D	DRAIN
E	ELECTRIC: ELEC. POWER LINES, CABLES, CONDUIT & LIGHTING CABLES
FO	COMMUNICATIONS: FIBER OPTIC
G	PRODUCT: GAS, OIL, STEAM, PETROLEUM OR GASEOUS MATERIALS
S	SEWER
T	COMMUNICATIONS: TELEPHONE
U	UNVERIFIED / UNKNOWN UTILITY TYPE
W	WATER: LOW PRESSURE, HIGH PRESSURE, FIRE SERVICE

NOTES

1. RECORD OWNER IS CITY OF NEWTON. SEE REGISTRATION BK. 572 PG. 13 & DEED BK. 7743 PG. 462.
2. ELEVATIONS REFER TO THE NAVD88 DATUM, DETERMINED BY GPS OBSERVATIONS USING GEOID18.
3. SEE NEWTON ASSESSOR'S PARCEL 83006 0011.
4. OWNERS OF ADJOINING PROPERTIES ARE ACCORDING TO CURRENT ASSESSOR'S RECORDS.
5. SEE MIDDLESEX SOUTH DISTRICT REGISTRY OF DEEDS FOR RECORD DOCUMENTS.
6. TOPOGRAPHIC FEATURES, SITE DETAILS AND SIGNIFICANT IMPROVEMENTS DEPICTED HEREON, WERE OBTAINED FROM A FIELD SURVEY CONDUCTED BY DGT ASSOCIATES IN JULY & NOVEMBER 2022.
7. THIS TOPOGRAPHIC SURVEY BY DGT ASSOCIATES WAS PREPARED TO MEET NATIONAL MAP ACCURACY STANDARDS AT A SCALE OF 1"=20' HORIZONTALLY AND A 1 FOOT CONTOUR INTERVAL VERTICALLY. ANY REPRODUCTIONS OR RESCALING MAY AFFECT THE MAP ACCURACY.
8. WETLAND FLAGGING WAS CONDUCTED ON JULY 5, 2022 BY FREDERICK KING FROM DGT ASSOCIATES, INC.
9. THIS PARCEL LIES IN ZONE X WITH "NO SCREEN" (AREA OF MINIMAL FLOOD HAZARD); ZONE X "SCREENED" (0.2% ANNUAL CHANCE FLOOD HAZARD, AREAS OF 1% ANNUAL CHANCE FLOOD WITH AVERAGE DEPTH LESS THAN ONE FOOT OR WITH DRAINAGE AREAS OF LESS THAN ONE SQUARE MILE); AND ZONE AE (SPECIAL FLOOD HAZARD AREA) AS SHOWN ON FEMA FLOOD INSURANCE RATE MAPS NUMBER 25017C0554E & 25017C0562E DATED JUNE 4, 2010. THE LINES OF THE PROPOSED FLOOD ZONES SHOWN ON PRELIMINARY FLOOD INSURANCE RATE MAPS NUMBER 25017C0554F & 25017C0562F DATED AUGUST 13, 2021 ARE ALSO SHOWN ON THIS PLAN.
10. THE ELEVATION OF FLOOD ZONE AE IS 112.4 (NAVD88) IN BOTH THE CURRENT (JUNE 4, 2010) AND PRELIMINARY (AUGUST 13, 2021) FLOOD INSURANCE STUDIES, AND IS SHOWN ON THIS PLAN BASED ON THE GROUND ELEVATIONS SURVEYED BY DGT ASSOCIATES, INC.
11. LEGAL STATUS OF EASEMENTS, WAYS, AND RESTRICTIONS NOT DETERMINED BY THIS SURVEY.
12. RECORD PLANS FOR WATER AND DRAINAGE IN THE STREET RIGHT OF WAY WERE REQUESTED FROM, BUT NOT PROVIDED BY, THE CITY OF NEWTON.

LEGEND

AC		ASPHALT CURB	INV=		INVERT ELEVATION OF PIPE
BANK#3	▲	RIVER BANK FLAG	LP	☼	LIGHT POLE
B.M.	◆	BENCH MARK	MAHW#3	▲	MEAN ANNUAL HIGH WATER FLAG
BP	●	BOLLARD OR GUARD POST	MH	Ⓢ	MAN HOLE
CB	■	CATCH BASIN	MH	▣	SQUARE MAN HOLE
CC		CONCRETE CURB	MW	⊖	MONITORING WELL
CLF		CHAIN LINK FENCE	N/F		NOW OR FORMERLY
CONC.		CONCRETE	POST	○	POST
CSW		CONCRETE SIDEWALK	RCB	●	ROUND CATCH BASIN
DMH	Ⓓ	DRAIN MANHOLE	RET-WALL		RETAINING WALL
EHH	▣	ELECTRIC HAND HOLE/PULL BOX	SGC		SLOPED GRANITE CURB
EMH	Ⓔ	ELECTRIC MANHOLE	SIGN	┤	SIGN
EOP		EDGE OF PAVEMENT	SIGN POST	○	SIGN POST
FF=	◆	FINISHED FLOOR ELEVATION	SILL=522.33	◆	SILL ELEVATION
FP	○	FLAG POLE	SLAB=518.11	◆	GARAGE SLAB ELEVATION
GC		GRANITE CURB	SMH	Ⓢ	SEWER MANHOLE
GG	■	GAS GATE	+125.33		SPOT ELEVATION, HARD SURFACE
GM	●	GAS METER	+125.3		SPOT ELEVATION, SOFT GROUND
GP	○	GUY POLE	T3-P3	◆	WETLAND TRANSECT BORING
GW	○	GUY WIRE	TOC=125.33	◆	TOP OF CONCRETE ELEVATION
HW		HEAD WALL	TOW=522.3	◆	TOP OF WALL ELEVATION
				┼	TRAFFIC SIGNAL
			UP	○	UTILITY POLE
			UP W/ WF#A2	○⊸	UTILITY POLE WITH LIGHT WITH WETLAND FLAG
			WG	⋈	WATER GATE
			WSO	⋈	WATER SHUT-OFF

BOUNDARY MONUMENTS OR MARKERS

(F)		FOUND
SBDH	■	STONE BOUND WITH DRILL HOLE

DGT Associates
Surveying & Engineering
Framingham • Boston • Worcester • Preston, CT
1071 Worcester Road
Framingham, MA 01701
508-879-0030
www.DGTassociates.com

ISSUED FOR:

EXISTING CONDITIONS BASE PLAN

COMMONWEALTH OF MASSACHUSETTS
PETER A. LOTHIAN
NO. 40978
PROFESSIONAL LAND SURVEYOR
1/9/2023

NO.	APP	DATE	DESCRIPTION
1	PAL	9-JAN-23	EXPANDED SURVEY

DATE: **9-AUG-2022**

SCALE: **1" = 20'**

DESIGN:	DRAFTED:	CHECKED:
XXX	PAL	PAL

PROJECT TITLE:

COUNTRYSIDE ELEMENTARY SCHOOL

#191 DEDHAM STREET
NEWTON, MASSACHUSETTS

SHEET TITLE:

TOPOGRAPHIC AND BOUNDARY SURVEY

SHEET: **1 OF 3**

PROJECT NO.: **F-25807**

EC-1

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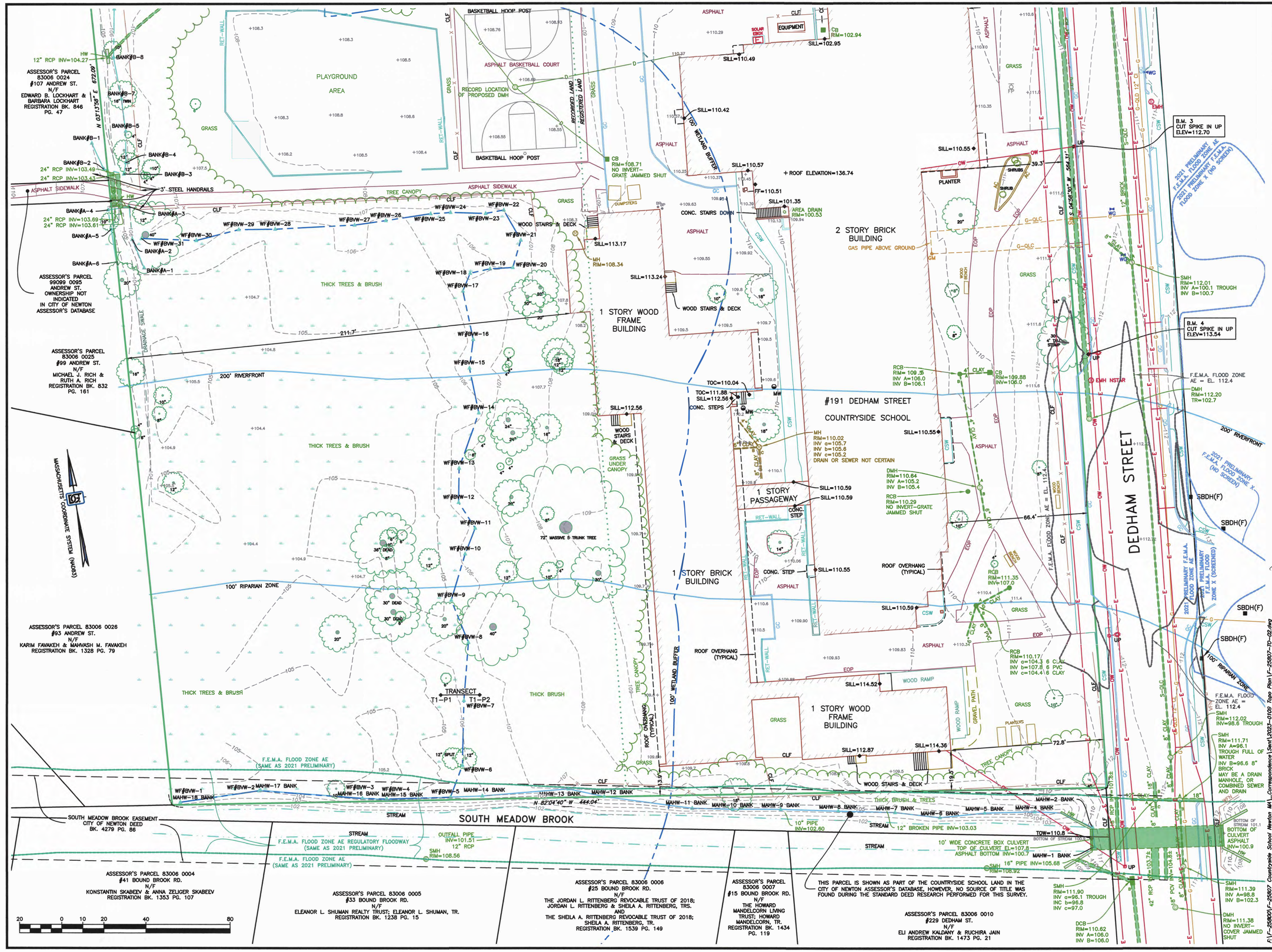

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NO.	APP	DATE	DESCRIPTION
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DATE: **9-AUG-2022**

SCALE: **1" = 20'**

DESIGN:	DRAFTED:	CHECKED:
XXX	PAL	PAL

PROJECT TITLE:

COUNTRYSIDE ELEMENTARY SCHOOL

#191 DEDHAM STREET NEWTON, MASSACHUSETTS

SHEET TITLE:

TOPOGRAPHIC AND BOUNDARY SURVEY

SHEET: **2 OF 3**

PROJECT NO.: **F-25807**

EC-2

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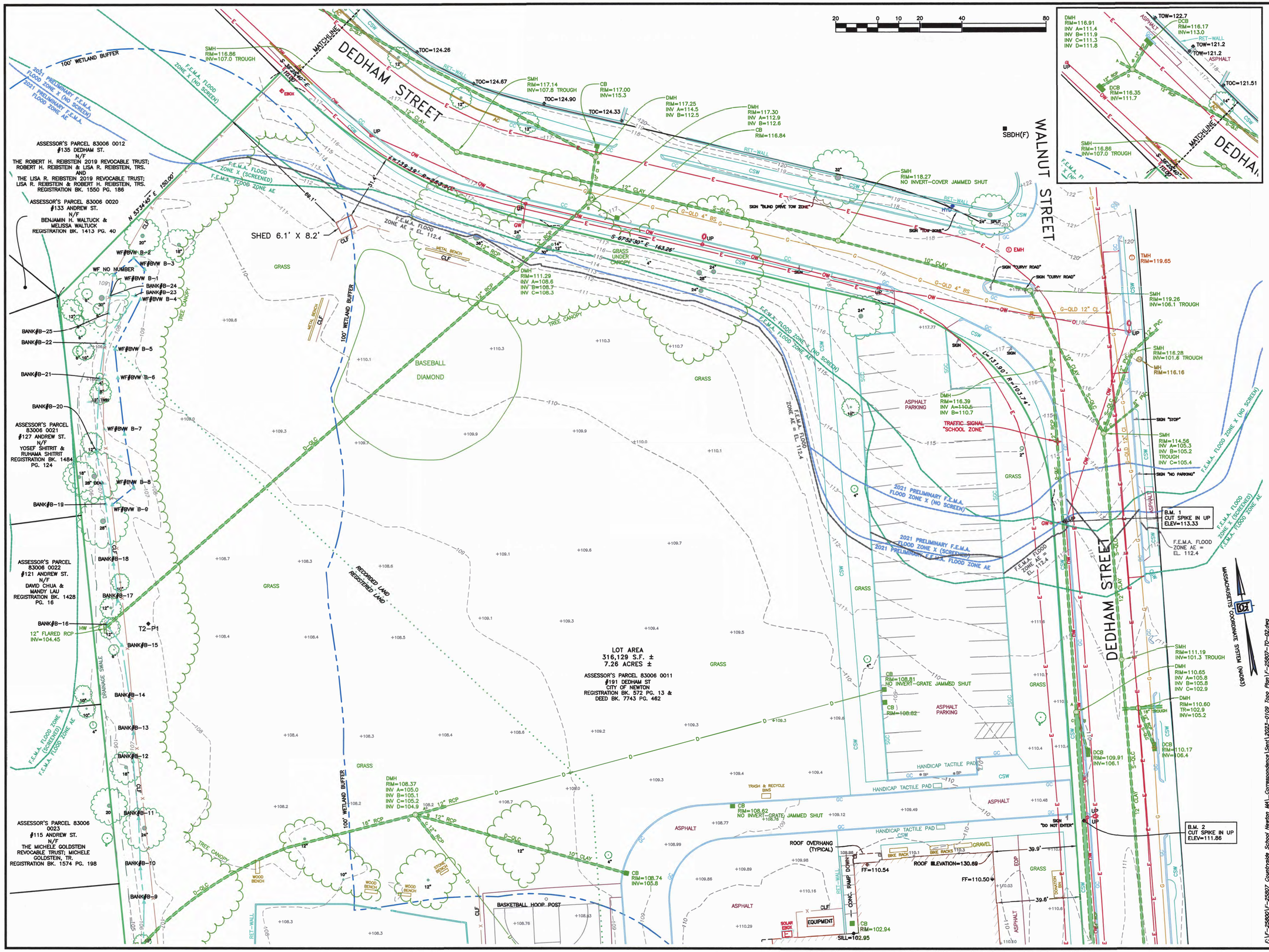

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ISSUED FOR:

EXISTING CONDITIONS BASE PLAN

COMMONWEALTH OF MASSACHUSETTS
PETER A. LOTHIAN
NO. 40978
PROFESSIONAL LAND SURVEYOR
1/9/2023

NO.	APP	DATE	DESCRIPTION
1	PAL	9-JAN-23	EXPANDED SURVEY

DATE: 9-AUG-2022

SCALE: 1"=20'

DESIGN:	DRAFTED:	CHECKED:
XXX	PAL	PAL

PROJECT TITLE:

COUNTRYSIDE ELEMENTARY SCHOOL

#191 DEDHAM STREET
NEWTON, MASSACHUSETTS

SHEET TITLE:

TOPOGRAPHIC AND BOUNDARY SURVEY

SHEET: 3 OF 3

PROJECT NO.: F-25807

EC-3

F:\F-25800\F-25807 Countryside School Newton MA_Correspondence\Sent\2023-0109 Topo Plan\F-25807-TO-02.dwg

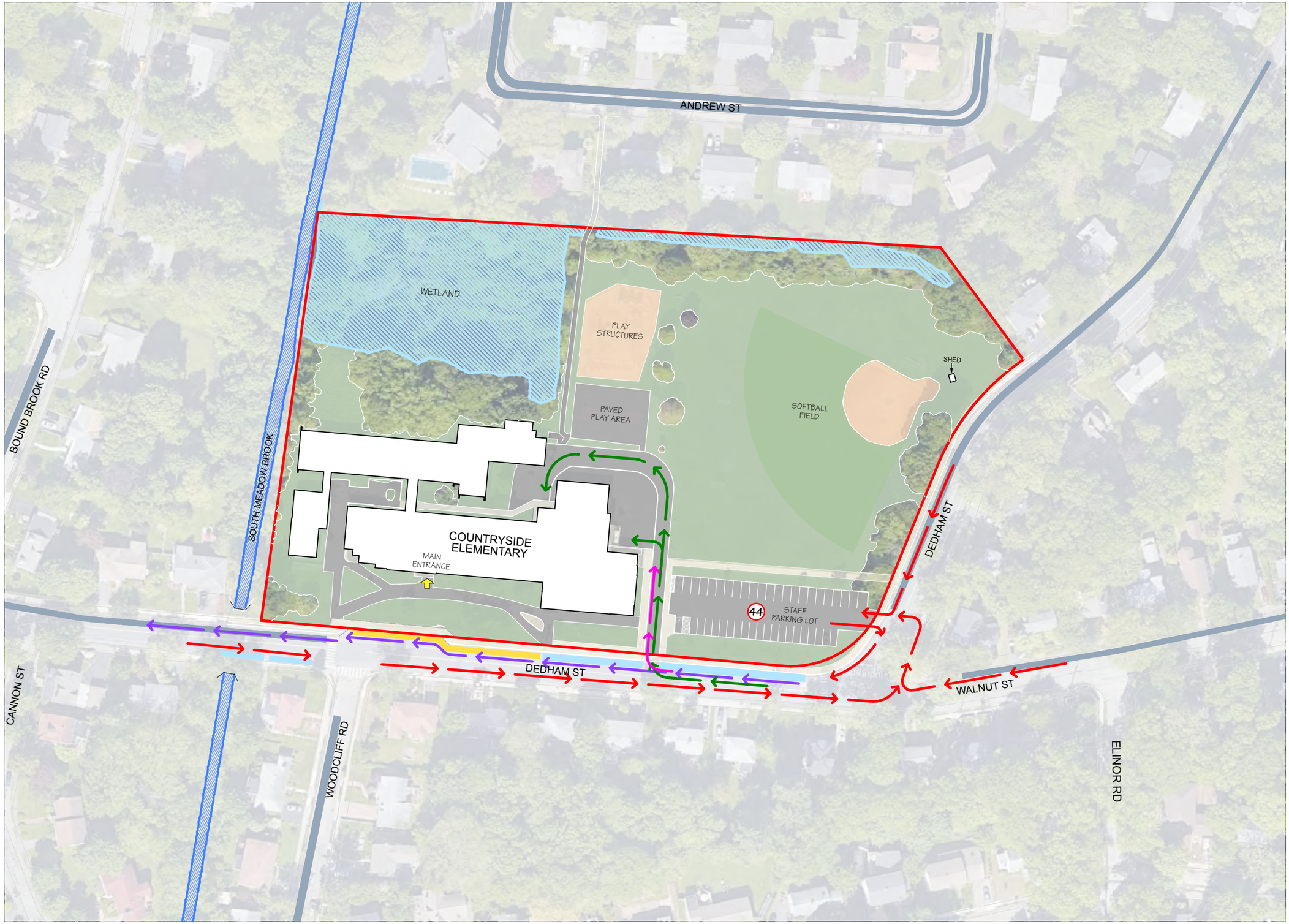
COUNTRYSIDE ELEMENTARY SCHOOL

Newton, MA

PRELIMINARY DESIGN PROGRAM

EXISTING PARKING & VEHICULAR CIRCULATION

- Site access and circulation
- Parking and paving



LEGEND

- BUSES
- VANS
- CARS
- SERVICE
- BUILDING ENTRANCE
- XX STAFF PARKING SPACES
- PARENT DROP-OFF/PICK-UP
- BUS DROP-OFF/PICK-UP
- PARENT PARK & WALK

0 50 100 N

10 JANUARY 2023

DINISCO DESIGN
architects + planners

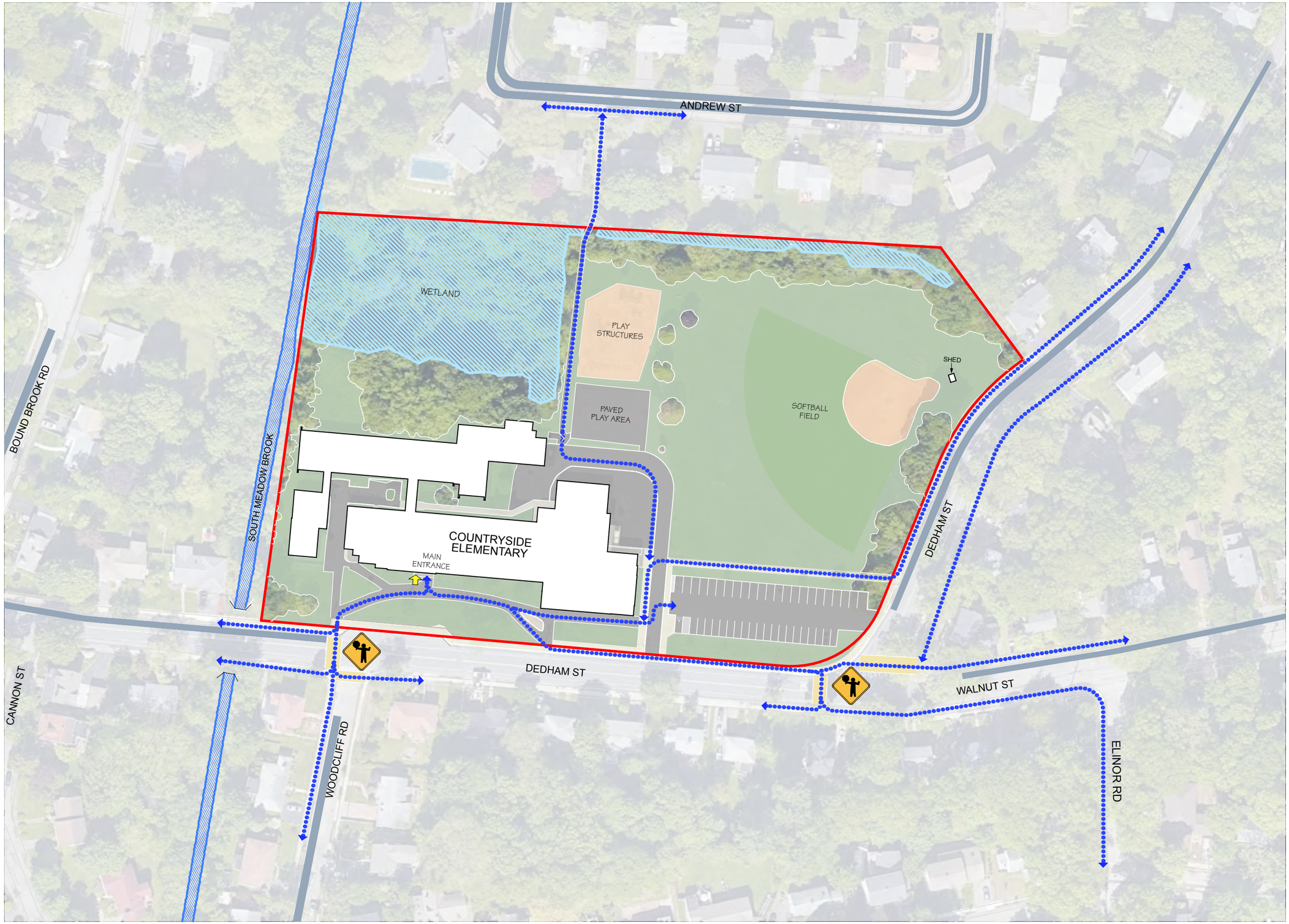
COUNTRYSIDE ELEMENTARY SCHOOL

Newton, MA

PRELIMINARY DESIGN PROGRAM

EXISTING PEDESTRIAN CIRCULATION

- Site access and circulation



LEGEND

- PEDESTRIAN CIRCULATION
- PARENT PARK & WALK
- BUILDING ENTRANCE
- CROSSWALK
- INTERSECTIONS w/ CROSSING GUARDS

0 50 100 N

10 JANUARY 2023

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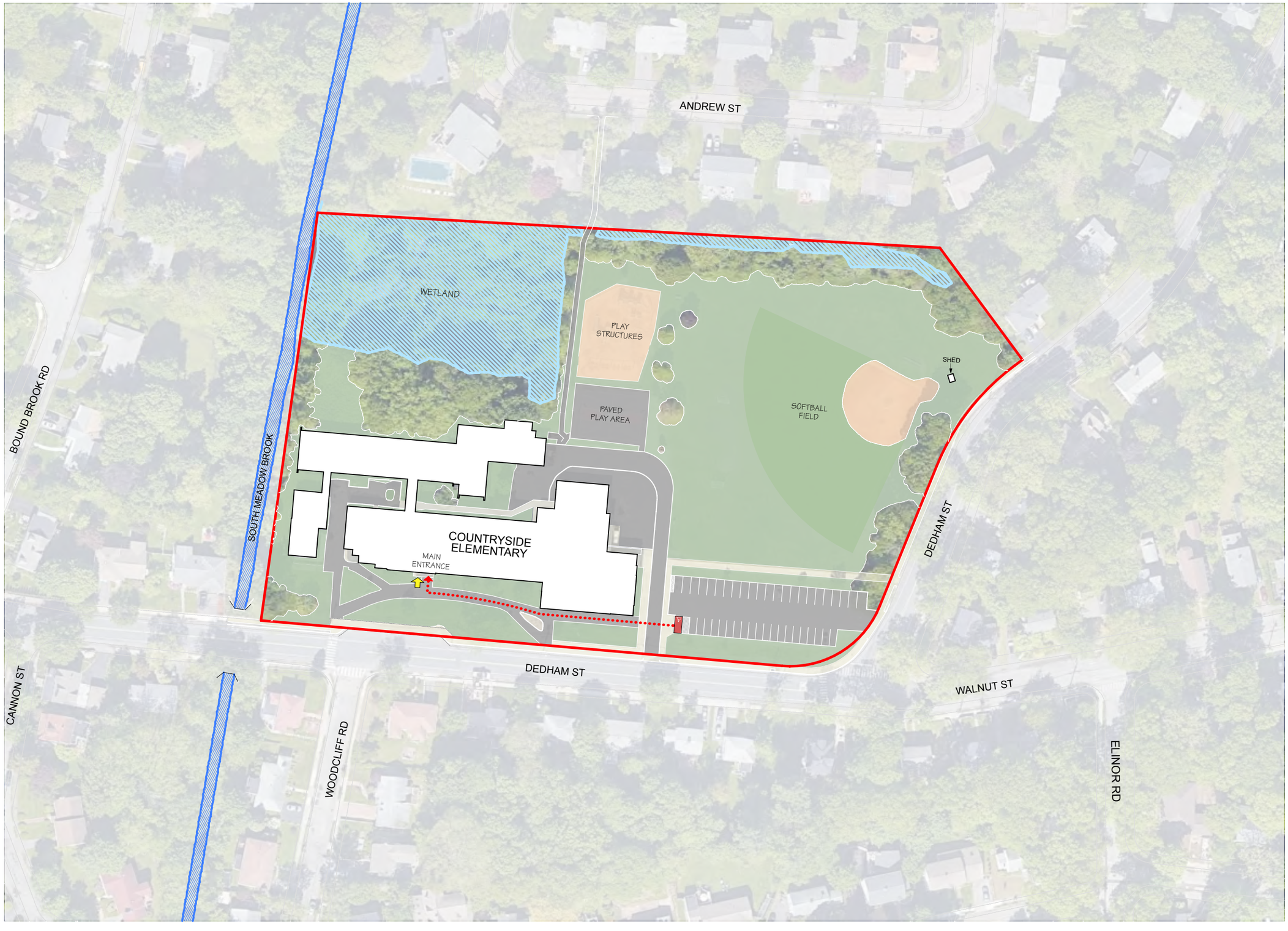
architects + planners



COUNTRYSIDE ELEMENTARY SCHOOL

Newton, MA

PRELIMINARY DESIGN PROGRAM

EXISTING ACCESSIBILITY

- Accessibility requirements

LEGEND

- ACCESSIBLE PARKING
- PATH OF TRAVEL
- BUILDING ENTRANCE

0 50 100 N

10 JANUARY 2023

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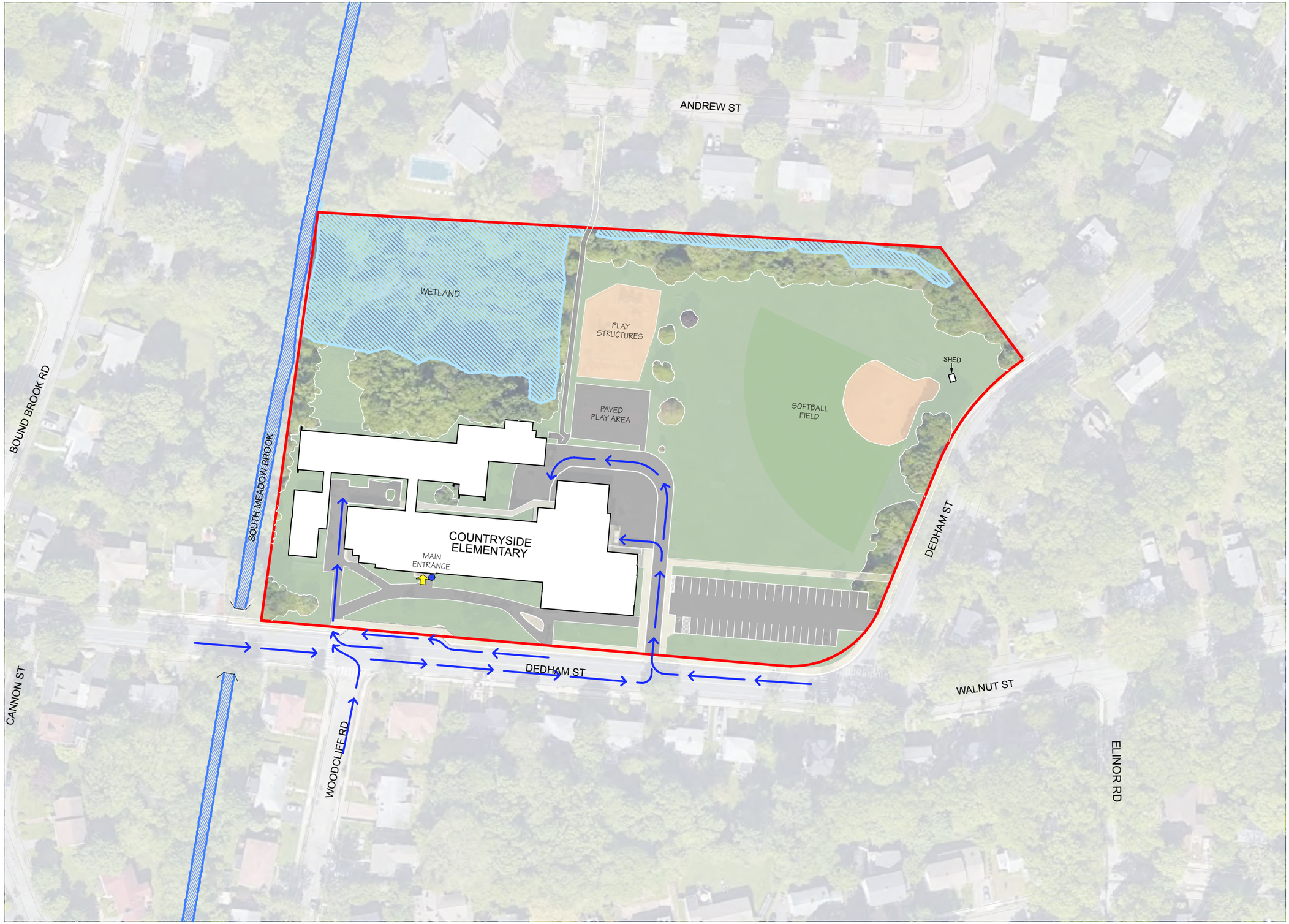

COUNTRYSIDE ELEMENTARY SCHOOL

Newton, MA

PRELIMINARY DESIGN PROGRAM

EXISTING SAFETY AND SECURITY

- Emergency vehicle access
- Site safety & security

LEGEND

- BUILDING ENTRANCE
- VIDEO PHONE
- EMERGENCY VEHICLES

0 50 100

N

10 JANUARY 2023

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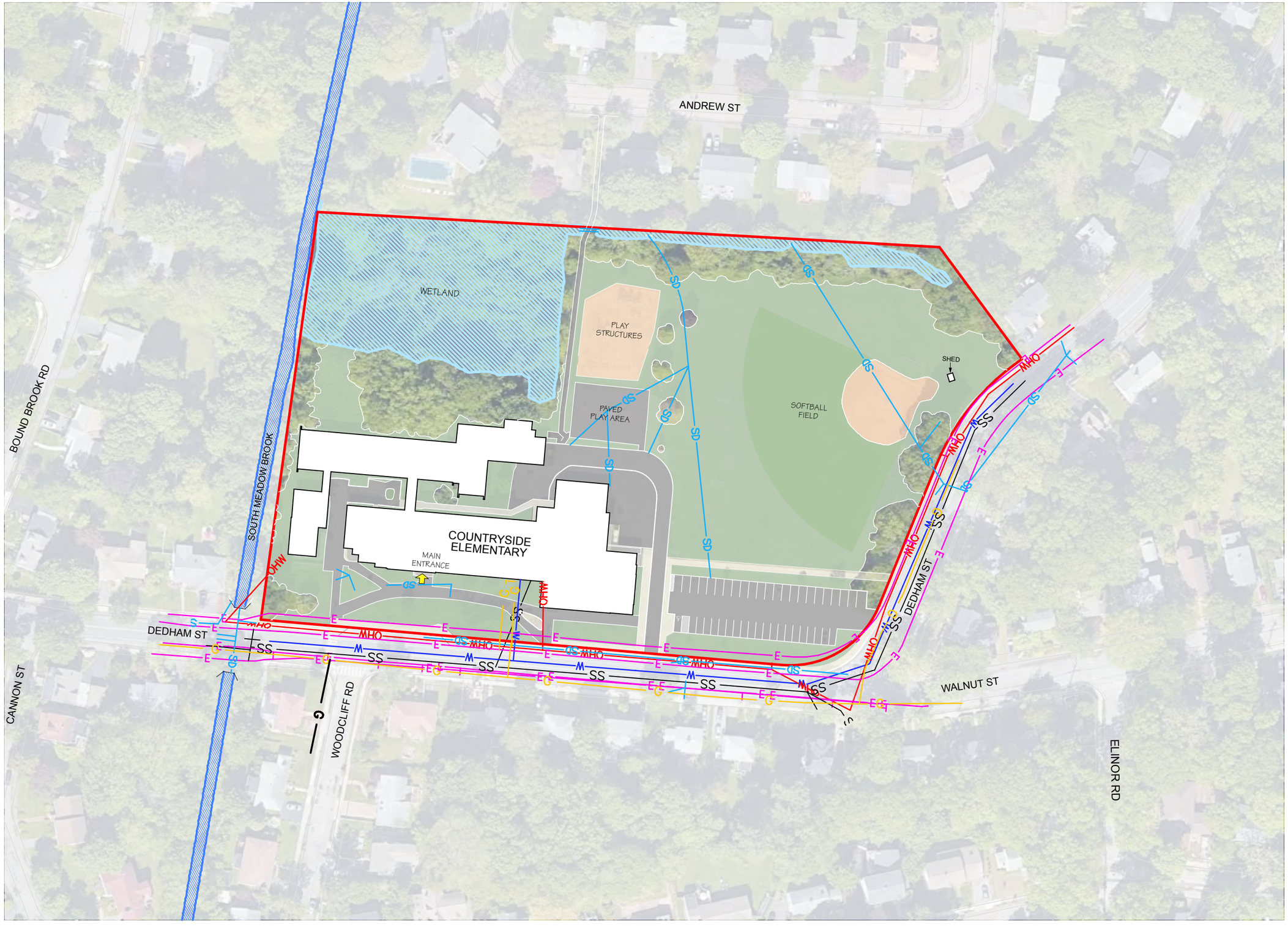

COUNTRYSIDE ELEMENTARY SCHOOL

Newton, MA

PRELIMINARY DESIGN PROGRAM

EXISTING UTILITIES

- Utilities

LEGEND

- W — WATER LINE
- G — GAS LINE
- SS — SEWER LINE
- OHW — OVERHEAD WIRE
- E — ELECTRIC DUCTBANK
- SD — STORM DRAIN

Notes:

1. For additional information on line sizes, meter/fixture locations, and additional underground structures, refer to Existing Conditions survey.

0 50 100

N

10 JANUARY 2023

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6 PRELIMINARY EVALUATION OF ALTERNATIVES

School Assignment Practices

Tuition Agreements

Rental or Acquisition of Existing Buildings

Code Upgrade Option

Renovation and/or Addition Options

New Building Options & Potential Locations

Cost Summary of Options

PRELIMINARY EVALUATION OF ALTERNATIVES

Introduction

The broad variety of possibilities for the Countryside Elementary School have been investigated and evaluated based upon the two enrollment options, educational program, initial space summaries, existing conditions, site development requirements as well as alternative sites. The preliminary approaches (alternatives) identify concepts that are educationally appropriate and cost effective so further evaluation may be conducted prior to arriving at a preferred solution.

As part of the process, in addition to evaluating new construction and renovation/addition options, the following items were evaluated and considered.

School Assignment Practices

NPS has fifteen elementary schools in its district. It is important to maintain these neighborhood schools where many students can walk to school. However, looking holistically at the district, there is not sufficient space within any of the neighboring elementary school districts to relocate all the students from the Countryside School. Therefore, alternatives such as re-districting or using vacant space in another school facility do not exist.

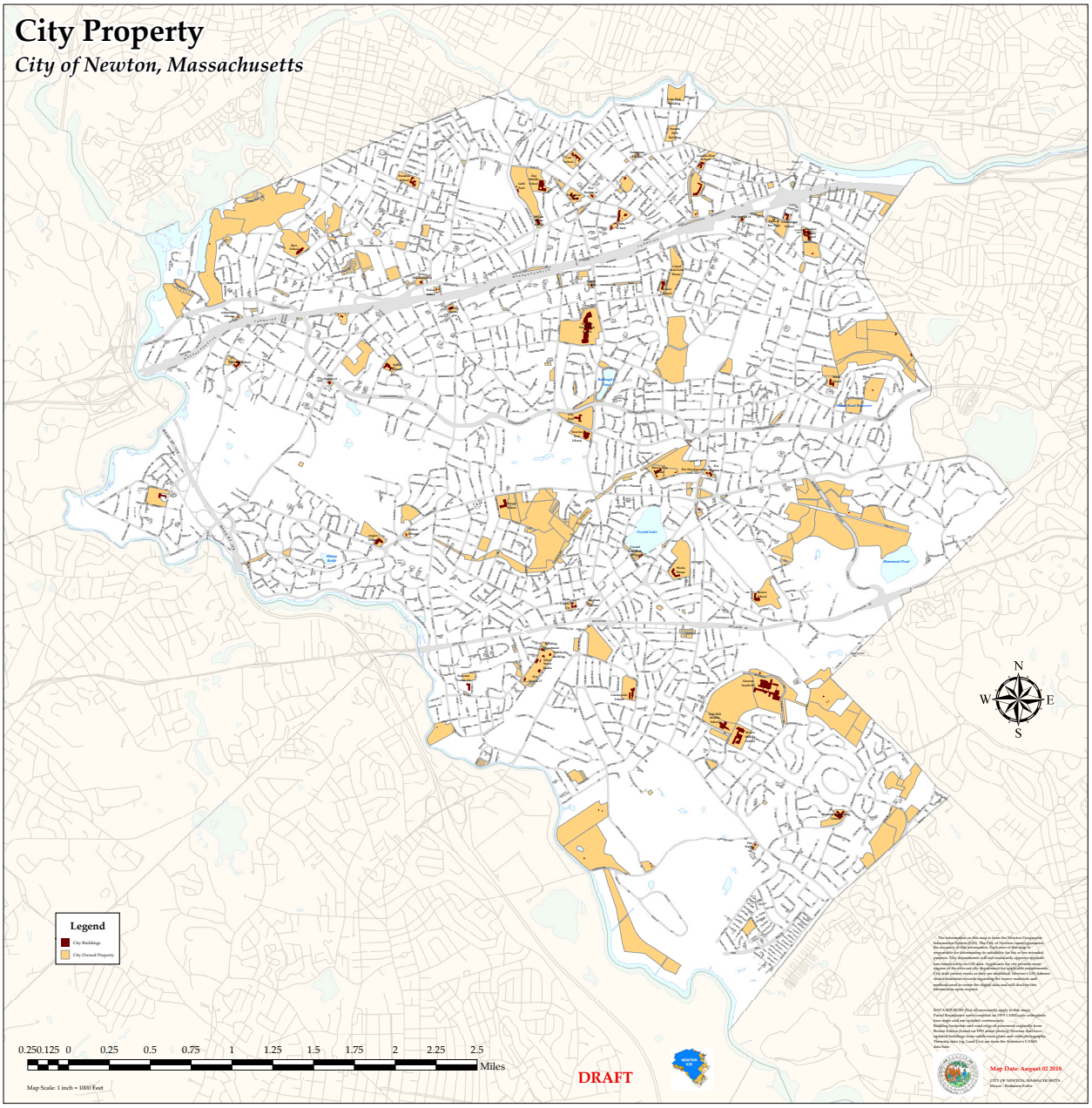
Tuition Agreements

Each year School Committee members consider whether Newton should be in the School Choice Program and accept school choice pupils from other districts during the upcoming school year. Newton is currently not a School Choice District for the 2022-23 school year. The only program Newton Public Schools currently participates in is the Metropolitan Council for Educational Opportunity (METCO) program.

Site Analysis

The City of Newton, in partnership with DiNisco Design, Dore and Whittier, the Countryside School Building Committee, and the community conducted a thorough site selection analysis for the Countryside School Project. We established site selection criteria and utilized a matrix to help display and discuss the opportunities and challenges that each site presented. These materials were presented to and discussed with the Countryside School Building Committee and Community.

We started with a list of 141 city-owned parcels within Newton. All but eight of these sites were both outside the Countryside School district as well as had such significant legal, cost, schedule, and programmatic challenges such that they were deemed not viable. The following map and table show the 141 city-owned sites that were initially evaluated.


City Property
City of Newton, Massachusetts
Legend
City Buildings
City Owned Property
0.250.125 0 0.25 0.5 0.75 1 1.25 1.5 1.75 2 2.25 2.5
Miles
Map Scale: 1 inch = 1000 Feet
DRAFT
N
W
E
S
Map Date: August 02 2018

Site	Location	Lot Size - Square Feet	Distance From Walnut-Beacon	Building Area - Square Feet	Building Age	Use/Program
City Hall	1000 Commonwealth Avenue	432308	2554	81000	1932	Multiple city departments utilize City Hall for a wide variety of functions. Spaces are rented, and programs are held there frequently.
Main Library	330 Homer Street	200635	1905	93000	1991	Library, rentals, programs, etc
Auburndale Branch Library	371 Auburn Street	18926	12724	4830	1927	Auburndale Improvement Society operates the main floor as a community library. Friends of the Library use the basement for books donations and periodic book sales.
Waban Branch Library	1608 Beacon Street	45833	6811	6378	1929	Waban Improvement Society operates the main floor as a community library. Public Buildings Department uses the basement as a wood shop.
Nonantum Branch Library	144 Bridge Street	11517	10982	7364	1957	Ciociaro Social Club rents and operates out of the main floor.
Newton Corner Library	124 Vernon Street	8000	10560	10032	1848	Newton Innovation Center
1294 Centre Street	1294 Centre Street	16160	3377	6050	1927	Under Renovation.
Senior Center	345 Walnut Street	25909	6705	9850	1938	Senior Services and Programs

Site	Location	Lot Size - Square Feet	Distance From Walnut-Beacon	Building Area - Square Feet	Building Age	Use/Program
Crystal Lake Bath House	16 Rogers Street	24000	2558	9581	1931	Recreation Swimming Summer Only
Hawthorne Field House	17 Hawthorne Street	20000	10137	5752	1950	After School and Summer Programs, leagues, rentals
70 Crescent Street	70 Crescent Street	40000	9979	3208	1930	Rec Maintenance and currently in re-use process.
Recreation Garage Crescent	70 Crescent Street	Inc Abv	9979	4600	1940	Rec Maintenance and currently in re-use process.
Lower Falls Community Center	545 Grove Street	371358	13939	10519	1958	Daycare, After School and Summer Programs, leagues, rentals
Upper Falls Community Center	45 Pettee Street	20000	7392	13418	1955	Daycare, Summer Programs, leagues, rentals
Albemarle Field House	250 Albemarle Road	3600	10190	2072	1956	Senior Programs and Summer Camps
Forte Park Field House	229 California Street	4000	13041	750	1990	Bathrooms for the Field
Auburndale Cove Field House	West Pine Street	900	14520	1329	1967	Ice Skating Warming Center and Rentals
Burr Park Field House	142 Park Street	3000	10454	5200	1919	Daycare and Summer Programs
Cabot Park Field House	101 East Side Parkway	4260	7814	1264	1926	Daycare and Summer Programs
Lyons Field House	Lyons Field	Inc Abv	13569	1050	2013	Bathrooms for the Field
Newton Center Field House	69 Tyler Terrace	107000	2688	5250	1892	After School and Summer Programs, leagues, rentals
Newton Center Metal Storage Building	Tyler Terrace	Inc Abv	2324	1200	1980	Untreated Storage

Site	Location	Lot Size - Square Feet	Distance From Walnut-Beacon	Building Area - Square Feet	Building Age	Use/Program
Bobby Braceland Field House	98 Pennsylvania Avenue	200	9134	800	1965	Untreated Storage
Nahanton Park Field House	Nahanton Park	15000	11932	2090	1996	Summer Programs
Gath Pool Facility	256 Albemarle	28900	9979	10350	1965	Recreation Swimming Summer Only
Quinobequin Pump Station Building	136 Quinobequin	67350	11352	4596	1980	Sewer Pump Station
Elliot Street Pump Station Building	391 Elliot Street	26130	8395	1500	1990	Sewer Pump Station
Elliot Street DPW Stable	74 Elliot Street	480443	5596	15858	1927	DPW Operations Center, Foremen/ Supervisors, Dispatch, employee lockers, break room,
Elliot Street DPW Garage	70 Elliot Street	Inc Abv	5755	10500	1959	Repair and Maintenance of fleet and equipment
Elliot Street Salt Shed	70 Elliot Street	Inc Abv	6072	7800	1994	Salt Storage
DPW Utilities Building	60 Elliot Street	Inc Abv	5491	21664	1935	Utilities Dept operations center, parts and equipment supply center.
Public Buildings	52 Elliot Street	52557	5385	7640	1968	Public Buildings Operations Center
Craft Street Stable-DPW OPS Center	90 Craft Street	179301	9028	18900	1894	DPW Operations Center, Foremen/ Supervisors, Dispatch, employee lockers, break room,
Craft Street Garage	110 Craft Street	Inc Abv	8976	26775	1919	Repair and Maintenance of fleet and equipment. Traffic Division and Environmental Affairs Division.

Site	Location	Lot Size - Square Feet	Distance From Walnut-Beacon	Building Area - Square Feet	Building Age	Use/Program
Craft Street Salt Shed	110 Craft Street	Inc Abv	8606	6305	2013	Salt Storage
Craft Street Storage Building	110 Craft Street	Inc Abv	8500	3570	2013	Untreated Storage of street sweepers, trucks, etc
Craft Street Wash Building	110 Craft Street	Inc Abv	8870	1056	1987	Wash bay used to wash fleet equipment
Craft Street Sweeper Shed	110 Craft Street	Inc Abv	8606	900	1980	Sweeper brush storage
Rumford Avenue Landfill Office	Rumford Avenue	2127597	13675	400	1950	Staff Office
Manet Road Reservoir Gatehouse Building	2 Manet Road Rear	372379	9398	1507	1925	Reservoir Gatehouse
Waban Hill Reservoir Gatehouse	Ward Street	220450	8553	214	1875	Reservoir Gatehouse
Fire Station #1	241 Church Street	27650	10032	14808	1965	Fire Station
Fire Station #2	1750 Commonwealth Avenue	24275	9240	24700	1964	Fire Station
Fire Station #3	31 Willow Street	60850	3815	23973	2017	Fire Station
Fire Station #4	195 Craft Street	30838	9504	14780	1955	Fire Station
Fire Station #7	144 Elliot Street	60352	6441	16100	1955	Fire Station
Fire Station #10	755 Dedham Street	42500	12566	6731	2015	Fire Station
Fire Headquarters	1164 Centre Street	Inc Abv	3652	6130	1928	Fire Prevention and Chief's Offices
Fire Wires Building	755 Dedham Street Rear	Inc Abv	12619	4036	2015	Fire and Wires Division bays, storage, and offices.
Manet Road Communications Building	2 Manet Road	Inc Abv	9451	836	2016	Emergency Communications
Ober Road Communications Building	Ober Road	10545	11510	160	2018	Emergency Communications

Site	Location	Lot Size - Square Feet	Distance From Walnut-Beacon	Building Area - Square Feet	Building Age	Use/Program
Police Headquarters	1321 Washington Street	79724	8712	20676	1932	All Police Functions except for Detectives Division and Community Services
Police Garage	1321 Washington Street Rear	Inc Abv	8923	7548	1959	Police fleet maintenance and evidence secure storage.
Police Annex	25 Chestnut Street	28528	8236	4528	1925	Detectives Division and Community Services
Jackson Homestead	527 Washington Street	41422	9504	7212	1809	Historical museum and archives
Kennard Estate	246 Dudley Road	20000	9926	15715	1907	Parks and Recreation Headquarters
Brigham House	20 Hartford Street	28622	3640	5081	1883	Private Community Center 15+ years into the 99 year lease
150 Jackson Road	150 Jackson Road	248844	10296	102264	1965	Occupied by NECP/NPS
Angino Farm	303 Nahanton Street	98406	12302	5028	1855	Newton Community Farm operate the farm under a 20 year llicense from the City
Angier School	1697 Beacon Street	291730	7075	76500	2015	Elementary School 24 CR's
Bowen School	280 Cypress Street	105000	6177	69535	1952	Elementary School
Burr School	171 Pine Street	376730	12196	55399	1967	Elementary School
Cabot School	229 Cabot Street	99822	6758	84186	1929	Elementary School 24 CR's
Carr School	225 Nevada Street	340560	10824	53532	1936	Elementary School
Countryside School	191 Dedham Street	322065	6652	49612	1953	Elementary School 23 CR's

Site	Location	Lot Size - Square Feet	Distance From Walnut-Beacon	Building Area - Square Feet	Building Age	Use/Program
Franklin School	125 Derby Street	237611	11510	62746	1939	Elementary School 21 CR's
Lincoln-Eliot School	191 Pearl Street	62069	10982	51074	1939	Elementary School
Horace-Mann School	687 Watertown Street	69433	8817	40600	1965	Elementary School
Pierce School	170 Temple Street	160122	7814	36050	1951	Elementary School 16 CR's
Memorial-Spaulding	250 Brookline Street	243333	13252	68775	1954	Elementary School
Mason Rice	149 Pleasant Street	174000	2087	43000	1959	Elementary School
Underwood School	101 Vernon Street	43856	10876	43300	1924	Elementary School
Ward School	10 Dolphin Road	137650	8395	38000	1928	Elementary School
Williams School	141 Grove Street	134887	12091	41700	1950	Elementary School
Zervas School	30 Beethoven Avenue	283916	2952	78800	2017	Elementary School 24 CR's
Bigelow Middle School	42 Vernon Street	122350	10929	92500	1967	Middle School
Brown Middle School	125 Meadowbrook Road	360183	9134	148000	1956	Middle School
Day Middle School	21 Minot Place	373413	9873	151301	1971	Middle School
Oak Hill Middle School	130 Wheeler Road	456280	8712	96200	1936	Middle School
Education Center	100 Walnut Street	164663	9504	70000	1928	Central Administration and Alt Ed Programs
Newton North High School	457 Walnut Street	1045658	5177	410000	2010	High School
Newton South High School	140 Brandeis Road	1458270	8289	385000	1959	High School
Albemarle	Albemarle Road	735508	9926	NA	NA	Football, Basketball, Baseball, Soccer, etc

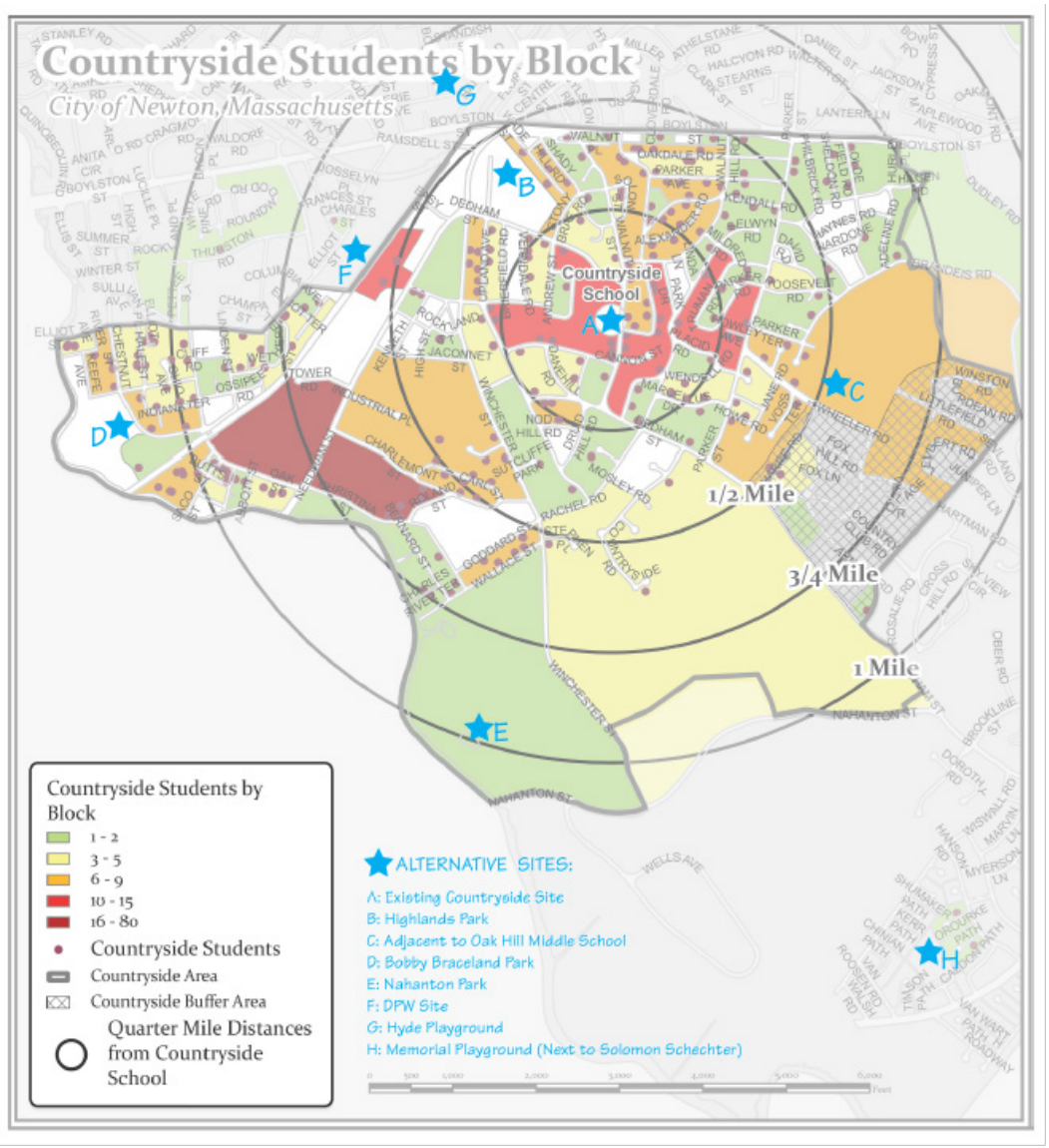
Site	Location	Lot Size - Square Feet	Distance From Walnut-Beacon	Building Area - Square Feet	Building Age	Use/Program
Auburndale Cove	West Pine Street	1647688	14648	NA	NA	Tennis, Baseball, Basketball, Playgrounds
Braceland	1146 Chestnut Street	381980	9187	NA	NA	Tennis, Baseball, Basketball, Soccer, Playgrounds
Bowen Upper Playground	Langley Path	402500	6600	NA	NA	Baseball, Basketball, Soccer, Playgrounds
Boyd Park	20 Jackson Road	100000	11457	NA	NA	Basketball, Baseball, Playground
Bullough's Pond	Bullough Park	61500	2995	NA	NA	Passive Recreation
Burr Park	142 Park Street	220000	10507	NA	NA	Tennis, Baseball, Basketball, etc
Cabot Park	3 Parkview Avenue	500000	7814	NA	NA	Tennis, Baseball, Basketball, Playgrounds
Captain Ryan's Park	1321 Washington Street	22000	8764	NA	NA	Passive Recreation
Carleton Park	55 Carleton Street	4700	11352	NA	NA	Passive Recreation
Chaffin Park	124 Vernon Street	39793	10560	NA	NA	Passive Recreation
Charlesbank Playground	26 Nonantum Place	20000	11880	NA	NA	Playground
Clafflin Playground	466 Lowell Avenue	51004	3960	NA	NA	Dog Park
Cold Springs Park	1187 Beacon Street	2860000	1576	NA	NA	Tennis, Baseball, Basketball, Soccer, Trails, etc
Old Cold Springs Park	81 Dunklee Street	Inc Abv	2449	NA	NA	Baseball, Trails, and Dog Park
Coletti-Magni Park	386-392 Watertown Street	20000	10876	NA	NA	Passive Recreation

Site	Location	Lot Size - Square Feet	Distance From Walnut-Beacon	Building Area - Square Feet	Building Age	Use/Program
Cronin's Cove	Lake Avenue	20000	2111	NA	NA	Passive Recreation
Crystal Lake	Lake Avenue	84000	2487	NA	NA	Passive Recreation and Swimming
Davis Playground	Eden Avenue	71094	10718	NA	NA	Basketball, Softball, Playground, etc
Edmands Park	Blake Street	1602100	5860	NA	NA	Passive Recreation
Eliot Memorial Park	Eliot Memorial Road	8000	8659	NA	NA	Passive Recreation
Elmwood Park	Elmwood Avenue	27712	6969	NA	NA	Passive Recreation
Emerson Playground	1 Pettee Street	105000	7180	NA	NA	Basketball, Softball, Soccer, Playground, etc
Farlow Park	129 Church Street	163875	10507	NA	NA	Basketball, Baseball, Soccer, etc
Forte Park	235 California Street	262102	13147	NA	NA	Basketball, Baseball, Softball, Soccer, Playground, etc
Hunnewell Playground	Grasmere Street	199217	13305	NA	NA	Softball, Soccer, Lacrosse, etc
Hyde Playground	90 Lincoln Street	45492	3812	NA	NA	Baseball, Softball, Soccer, Playground, etc
Islington Oval	Islington Road	64000	14889	NA	NA	Passive Recreation
Kennard Park	246 Dudley Road	2091035	9768	NA	NA	Passive Recreation, Dense Forests, and Trails
Levingston Cove	Lake Avenue	Inc Abv	2024	NA	NA	Passive Recreation
Lowell Park	Lowell-Watertown	31347	9134	NA	NA	Passive Recreation
Lyons Park	Comm Ave Auburndale	Inc Abv	13728	NA	NA	Baseball and Passive Recreation
Nahanton Park	455 Nahanton Street	2470563	11299	NA	NA	Soccer and Passive Recreation
Newton Centre Green	1221 Centre Street	60740	3397	NA	NA	Passive Recreation

Site	Location	Lot Size - Square Feet	Distance From Walnut-Beacon	Building Area - Square Feet	Building Age	Use/Program
Newton Center Playground	81 Tyler Terrace	672790	3181	NA	NA	Basketball, Baseball, Softball, Playground, Tennis, etc
Newton Highlands Playground	Winchester Street	546945	4799	NA	NA	Football, Tennis, Basketball, Baseball, etc
Pelligrini Playground	11 Hawthorn Street	183577	9926	NA	NA	Tennis, Basketball, Playground, Passive Recreation, etc
Reverand Ford Playground	Curve Street	58088	9873	NA	NA	Playground and Passive Recreation
Richard McGrath Park	1600 Washington Street	459769	8659	NA	NA	Tennis, Baseball, Softball, Soccer, etc
Richardson Playground	Allen Avenue	130000	3904	NA	NA	Baseball, Soccer, Playground, etc
River Street Playground	River Street	70560	10876	NA	NA	Playground
Solomon Schecter Playground	Stein Circle	127687	14942	NA	NA	Tennis, Baseball, Softball, Playground, etc.
Spears Park	Washinton-Walnut Park	14027	9820	NA	NA	Passive Recreation
Stearns Park	54 Jasset Street	146473	11774	NA	NA	Baseball, Softball, Soccer, Basketball, Playground, etc
Veteran's Memorial Park	Washington-Lewis Terrace	24480	9187	NA	NA	Passive Recreation
Ward Park	Montrose Street	150250	8553	NA	NA	Basketball, Baseball, Softball, etc
Warren Lincoln Playground	44 Montclair Road	235882	6019	NA	NA	Baseball, Softball, Soccer, Playground, etc
Washington Park	Washington Park	46220	6811	NA	NA	Passive Recreation
Webster Park	Warren Street	313634	6336	NA	NA	Passive Recreation

Site	Location	Lot Size - Square Feet	Distance From Walnut-Beacon	Building Area - Square Feet	Building Age	Use/Program
Weeks Park	31 Lockley Road	653724	3365	NA	NA	Soccer, Lacrosse, and Tennis
Wellington Playground	Kilburn Road	84238	9979	NA	NA	Tennis, Basketball, Playground, etc
West Newton Commons	Elm-Webster	158114	9504	NA	NA	Baseball, Softball, Soccer, etc
NEMBF Site	82-84 Needham Street	63416	5913	NA	NA	Lot For Sale
Commonwealth Golf Course	212 Kenrick Street	3124000	10137	NA	NA	Public Golf Course
Newton Cemetery	791 Walnut Street	4419631	2964	NA	NA	Cemetary
Newton Centre Triangle	Beacon-Langley-Centre	75900	3614	NA	NA	Municipal Parking Lot
Avery Woods	351 Craft Street	264000	10454	NA	NA	Dense Wooded Area
Former Pine Street Dump	Pine Street	443309	11985	NA	NA	Dense Wooded Area and Old City Dump
Webster Woods	416 Hammond Pond Parkway	5016000	7814	NA	NA	Passive Recreation. Dense Forest. Hiking Trails.

The eight remaining sites were all within, or very close to within, the Countryside School district. A criteria matrix was developed to evaluate each of the remaining sites.



COUNTRYSIDE ELEMENTARY SCHOOL - NEWTON,MA

ALTERNATIVE SITE SELECTION MATRIX

● Favorable ⊙ Neutral ○ Unfavorable

	CRITERIA	IN COUNTRYSIDE DISTRICT							
		A	B	C	F	D	G	H	E
	Countryside ES Comparison: Site size: 7.39 acres Usable site area: ~5.37 acres	Existing Countryside site	Highlands Park	Adjacent to Oak Hill Middle School	DPW site (Elliot St)	Bobby Braceland Park	Hyde Playground (Lincoln St)	Memorial Playground (Next to Solomon Schechter)	Nahanton Park
SITE									
1	Maintains neighborhood 'walkability'	●	○	○	○	○	○	○	○
2	Distance from existing Countryside (miles)	---	0.4	0.6	0.6	1.2	0.95	1.64	0.94
3	Size of site (acres)	7.4	12.6	3.1	11.7	8.8	1.0	2.9	2.29
4	Maximum buildable area	5.4	7.4	3.1	2.7	4.0	1.0	2.8	2.29
5	Current land use restrictions	●	○	⊙	⊙	○	○	○	○
6	Legal restrictions	●	○	⊙	⊙	○	○	○	○
7	Site acquisition and legal issues	●	⊙	⊙	⊙	⊙	⊙	⊙	⊙
8	Minimizes busing	●	○	○	○	○	○	○	○
9	Optimizes parking and play capacity	●	●	○	○	○	○	○	○
10	Minimizes building height	●	●	●	●	●	○	⊙	⊙
11	Does not increase demand for on street parking	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙
COST									
1	Minimizes phasing logistics	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙
2	Minimizes busing	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙
3	Reduces need for swing space	⊙	●	●	●	●	●	●	●
RECREATIONAL									
1	Minimizes recreational impact	○	○	○	⊙	○	○	○	○
	GROSS SCORING	7	-2	-2	-1	-4	-6	-5	-5

Highlands Park, Bobby Braceland Park, Emerson Playground, Memorial Playground, and Nahanton Park all presented significant challenges with regards to Article 97 legal protection, as well as varying degrees of deed and conservation restrictions. Legal challenges aside, none of these sites were deemed favorable for a myriad of reasons illustrated above.

The Elliot Street Public Works Yard although sizeable, presented some different challenges. The site has an Area Use Limitation, AUL, and is a 21E site with soil contamination typically seen in Public Works yards that existed prior to the 1960's. In addition to this significant challenge, the site is outside the Countryside School district and is fully utilized by Public Works for a variety of critical City services. The cost to clean or cap a portion of the site would be prohibitive, and the schedule to complete this work and to recreate the facilities removed by taking this land for the school project would have a significant adverse impact to the Countryside School project. It is estimated that the total cost to make a portion of this site available for the Countryside School would be approximately $30M, and it would take 4-5 years to complete the design, cleanup, and construction of the other facilities needed to make any land available. If this site were selected, almost every student attending the Countryside School would need to be driven, as it would no longer be walkable for all but a small handful of students.

The land adjacent to the Oak Hill School might be the next best option aside from the current Countryside School site. This land provides roughly 3.1 acres of buildable area, and it falls within the Countryside School district. Although the land is under the custody and control of Newton Public Schools, it has been used for park purposes for more than a century, so through the prior public use doctrine, there could be an argument that the land is protected by Article 97. The other significant challenge this site presents is its proximity to the Oak Hill and Brown Middle Schools. The site is directly adjacent by a few feet to the Oak Hill Middle School which contains 661 students and is 700 feet from the Brown Middle School which contains 759 students. Additionally, these two middle schools contain roughly 235 staff. This site is 1,500 feet away from Newton South High School which contains 257 staff, and 1,836 students. The land in question is currently programmed for use by both the Oak Hill and Brown Middle Schools, so the loss of this land would harm and detract from the physical education and extra-curricular programs of both schools. Additionally, significant parking and traffic challenges exist today by having two large middle schools directly adjacent to one another. Adding an elementary school to this site would create unavoidable and detrimental hardships to all three schools and the surrounding neighborhood. Lastly, although this site falls within the Countryside School district, this location is far removed from where the vast majority of the student live.

The site of the current Countryside School has some challenges, but the opportunities far outweigh them. The school is centrally located within the district as well as being centered within the area of highest concentration of Countryside students. The site is under our control and provides the land area needed to complete this project. The site allows the flexibility to support several options with respect to the design approach and has broad support as the preferred site by the parents and neighborhood. The site has the lowest level of legal restrictions. It is the most cost-effective from a development perspective and is the most favorable from a schedule impact standpoint. The site is not without challenges, as much of the site falls within the flood zone. This will impact our approach to the preferred concept, and ultimately to the final design of the building and the site. That being said, the current Countryside School site provides the City of Newton the best possible outcome from a cost, schedule, and educational standpoint.

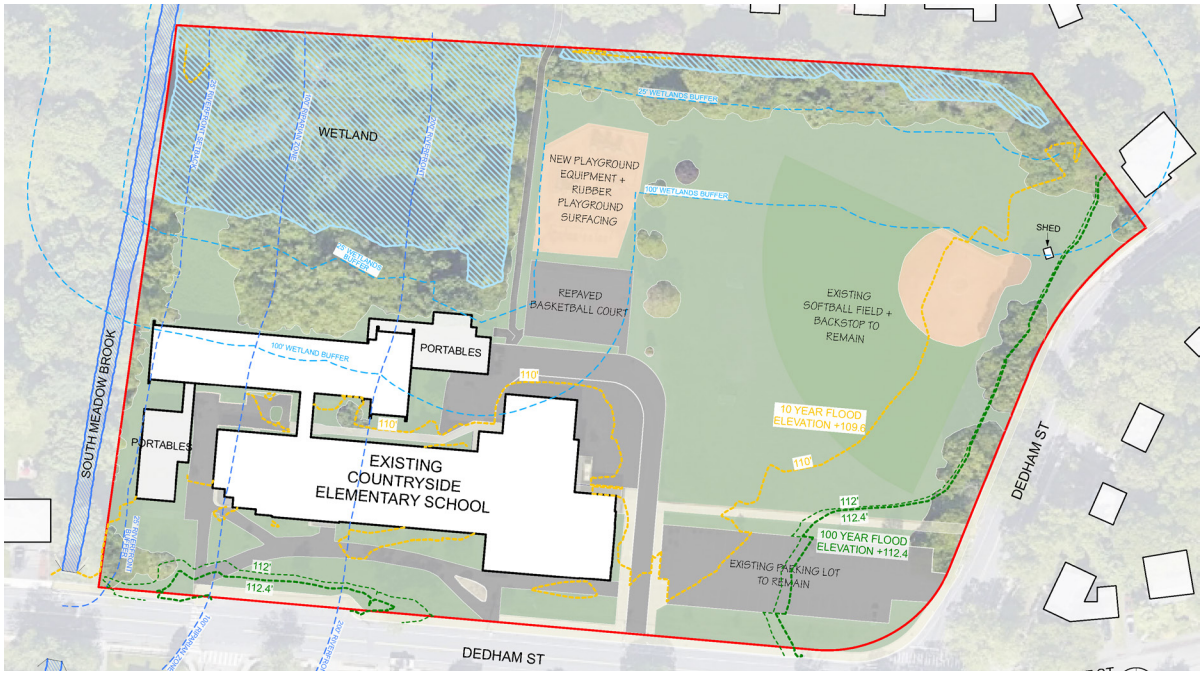
Countryside School Site

As stated in the Site Development narrative, nearly the entire site is characterized by the Federal Emergency Management Agency (FEMA) as Flood Zone AE (1% Annual Chance of Flooding, with Base Flood Elevation). According to FEMA, the Base Flood Elevation, also referenced as the 100-year flood elevation, along the eastern edge of Zone AE in this area is El.+112.4 feet. The very southern edge of the site appears to overlap with the Regulatory Floodway of South Meadow Brook. A 2022 site survey confirmed the site's flood zone locations. These designations trigger Newton's Floodplain Ordinance which means that any land disturbance will require compensatory flood storage calculations to confirm that the available flood storage will not be reduced. (Source: FEMA FIRM panels 25017C0554E, 25017C0562E, effective 6/4/10)

In addition, the International Building Code (IBC) states that the design and construction of buildings and structures located in flood hazard areas… (including improvements exceeding 50% of the building value) …shall be in accordance with Chapter 5 of the American Society of Civil Engineers (ASCE) ASCE 8 and ASCE 24. Based on Countryside's Class and Zone designations, the minimum elevation of the lowest floor is required to be 1-foot above the base flood elevation (100-year flood elevation, or El.+112.4).

Based upon the preliminary costing, repairs/code upgrades as well as renovation & addition alternatives exceed 50% of the assessed building value (current assessor's value at $20,661,700). Therefore, the first floor of the existing building (El.+110.5) would be required to be raised approximately 3-feet to comply with code. The current first floor floor-to-floor height is 12'-6". When the floor is raised by 3 feet, the floor-to-floor height is 9'-6". Once mechanical equipment is added (requires approximately 3 feet) the floor-to-ceiling height would be approximately 6'-6". **The existing 1953 building is constructed in such a way that raising the second floor to increase the first floor height is not physically possible and therefore not viable.** Hence, while alternatives and pricing have been developed for repairs/code upgrades and renovation & addition neither are viable when taking into consideration the ASCE 8 and ASCE 24 requirements.

For any new construction alternative, the lowest floor elevation of the building shall be set at least one foot above the base flood elevation at El. +113.4.



Rental or Acquisition

As part of the site analysis undertaken, there are no reasonable rental or existing buildings that could be made available within the Countryside District that could be considered for the new school.

City of Newton's Sustainability Guidelines

The City of Newton's sustainability guidelines regarding the design and construction of new municipal buildings and the major renovation of existing municipal buildings strive to reach the best balance among many goals. Key goals include those pertaining to building function, construction budget, operating costs, siting, appearance, maintenance requirements, longevity, and flexibility for future needs.

In all new buildings and in the renovation of existing buildings the City strives to minimize building energy use. To attain that goal, the City has a building design and operation approach that will reduce life cycle costs, demonstrate significant improvements over previous designs, help define a path to net zero, and educate the community regarding feasibility and value. The path to net zero includes reducing building energy use as much possible and maximizing the use of on-site renewable power and heat.

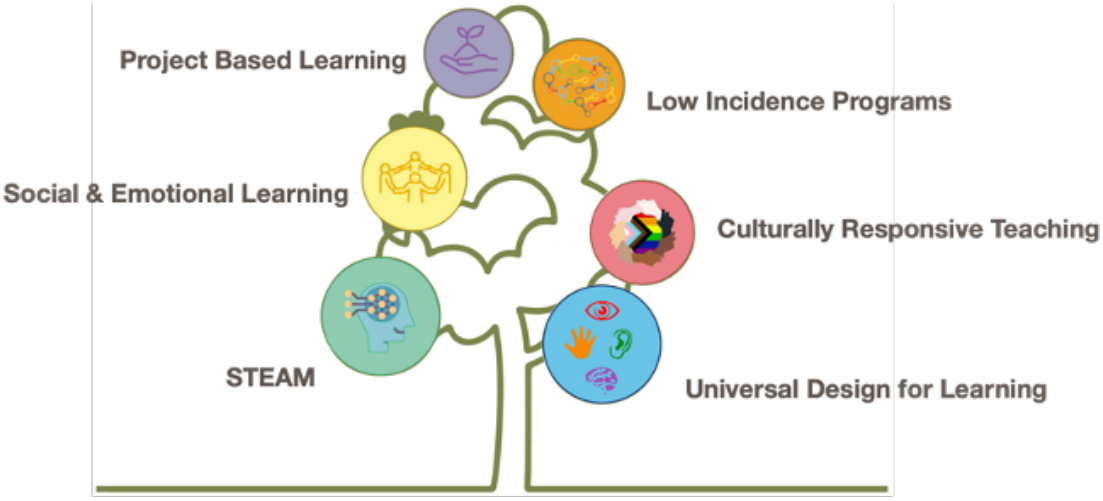
Based upon these guidelines, the "new" Countryside School shall be an all-electric building. In addition, it will provide the infrastructure for photovoltaic arrays as well as electric vehicle charging station infrastructure in the parking lots.

Preliminary Evaluation of Alternatives

Educational visioning sessions established the educational priorities for the project. The visioning sessions included educators and are summarized below.

Educational Priorities

- Student Centered Programming
- Personalized Learning and Support
- Inclusive and Differentiated Instruction
- Tiered Approach to Intervention
- Special Education Support
- Responsive Classroom Approach
- Multi-Sensory Approach
- Social-Emotional Learning
- Community Meetings and Gatherings
- Project-Based Learning
- Outdoor Learning and Connections
- Movement and Play



In addition to the educational priorities, the visioning sessions established architectural priorities for the project.

Architectural Priorities

- Agile Classrooms
- Thoughtful Grade Level Configuration
- Classroom Neighborhoods
- Special Educational Spaces
- Learning Center
- Breakout and Quiet Spaces
- Enrichment Spaces
- ELL
- Collaborative, Meeting, Small Group and Gathering Spaces
- Hallway Learning
- Accessibility to Resources
- Professional Work Areas
- Outdoor Learning Spaces
- Age-Appropriate Outdoor Play
- Warmth, Welcoming and Safety
- Comfort and Flexibility
- Practicality and Durability
- Appropriate Aesthetic
- Wayfinding and Streetscapes
- Display and Exhibition
- Sustainability
- Robust Technology

Furthermore, priorities have also been established along with criteria to weigh each alternative to be considered. The priorities include:

- Equity to other recently updated elementary schools
- Cost and schedule
- Educational program fit
- Safety & security
- Community use
- Building attributes
- Site attributes
- Sustainability

APPROACH NO. 1 – CODE UPGRADE / REPAIRS ONLY @ COUNTRYSIDE (340 STUDENTS)

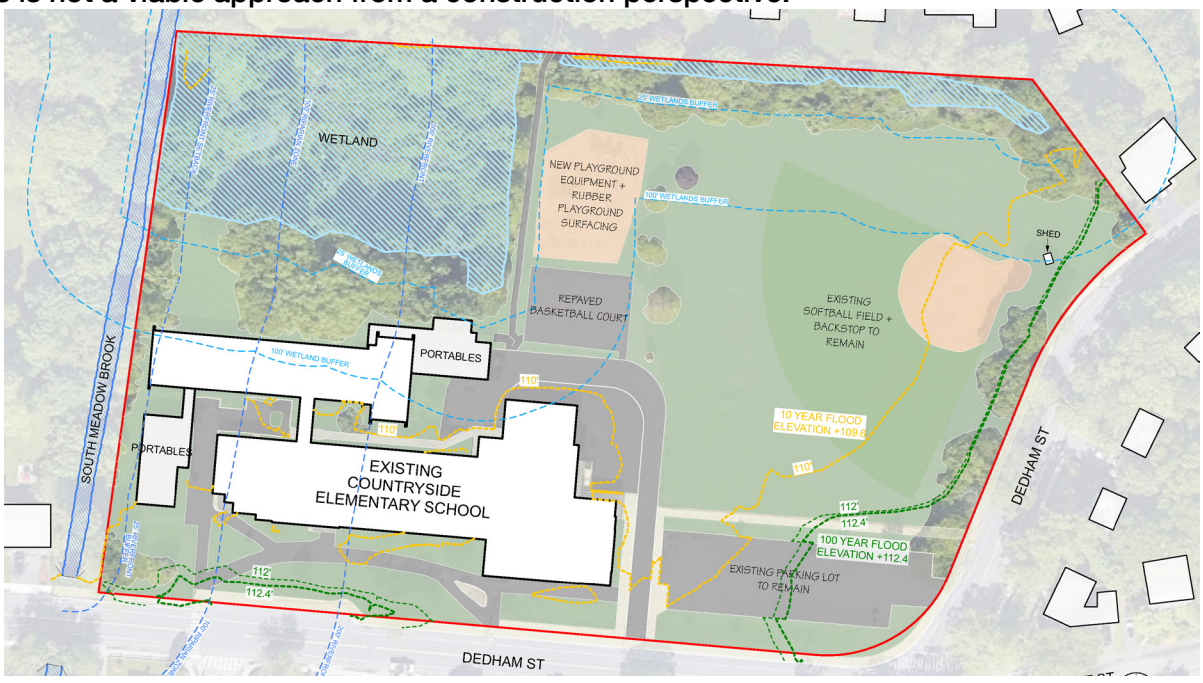
The code upgrade option includes repair of systems and/or scope required for code compliance with no modification of existing spaces or their function. This option will not meet the program requirements for the Countryside Elementary School for 340 students. The existing 56,100 SF school, which includes 5,400 of portable classrooms, was constructed circa 1953 with several additions through 2000 and is smaller than required for the educational program, based on the design enrollment of 340 K-5 students. The sizes of many of spaces are inadequate, based on today's standards, and there are limited special education spaces, which are insufficient for the program needs. The cafeteria, gymnasium and library are undersized and the stage in the cafeteria is used for the music program. Refer to PART 3 – INITIAL SPACE SUMMARY for a detailed comparison of the existing spaces to the required needs of today's educational program.

This approach would require the existing building to be vacant during construction. While Newton Public Schools has a vacant school which has been designated as a swing space school, it is across the city (approximately 30 minute commute each way) and would require transporting the students at a significant cost.

In addition, as referenced earlier, the existing building is located within the riverfront area and wetland buffer. At +el. 110.5, the first floor is less than 1 foot above the 10-year flood elevation (+el. 109.6) and is within the 100-year flood elevation (+112.4). The IBC States improvements exceeding 50% of the building value must comply with flood requirements for first floor construction. The American Society of Civil Engineers (ASCE 24) requires the first floor to be 1-foot above the base flood elevation (100-year flood elevation). Therefore, the first floor would need to be raised approximately 3-feet to comply with code.

The current first floor floor-to-floor height is 12'-6". When the floor is raised by 3 feet, the floor-to-floor height is 9'-6". Once mechanical equipment is added (requires approximately 3 feet) the floor-to-ceiling height would be approximately 6'-6". The existing 1953 building is constructed in such a way that raising the second floor to increase the first floor height **is not physically possible and therefore this is not a viable solution**. Hence, while alternatives and pricing have been developed for repairs/code upgrades and renovation & addition neither are viable when taking into consideration the ASCE 8 and ASCE 24 requirements.

This is not a viable approach from a construction perspective.



APPROACH NO. 2 RENOVATION / ADDITION @ COUNTRYSIDE (340 STUDENTS)

Renovating the main, original building of approximately 22,900 SF with an addition of approximately 39,800 SF has been considered. This approach would remove much of the existing facility inside of the 100-foot wetland buffer. However, an important consideration for this approach is that the overall volume of the renovation / addition must not exceed the existing building volume due to the floodplain restrictions.

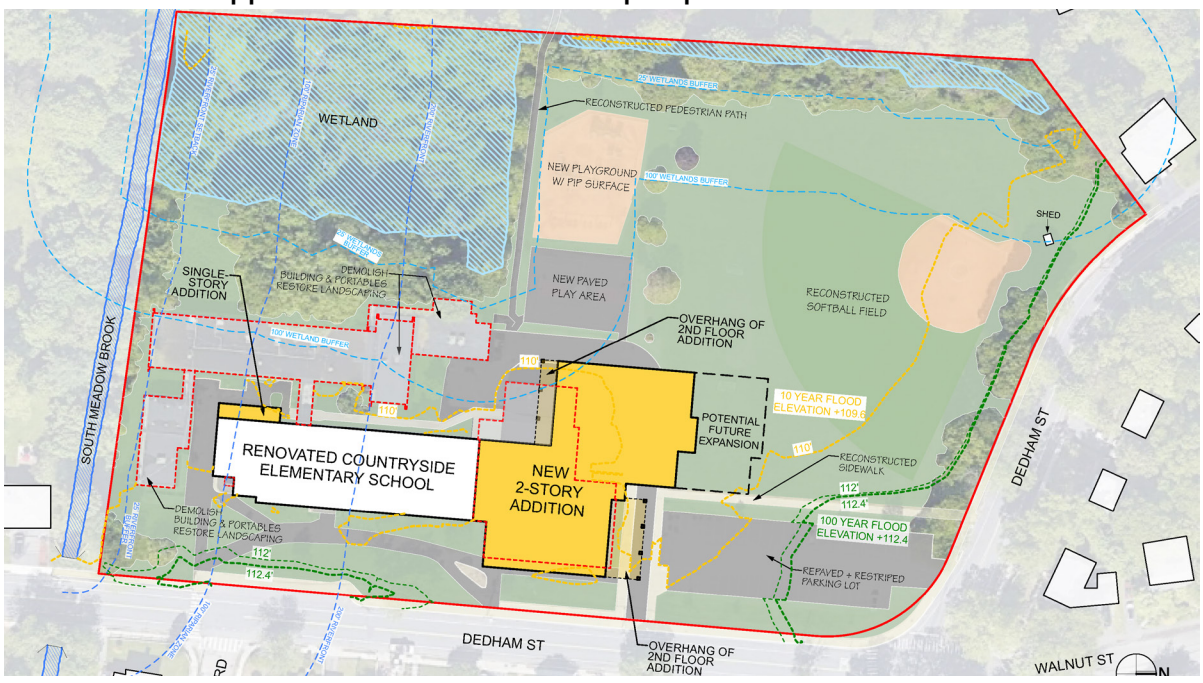
The renovation / addition meets MSBA space guidelines and provides adequate programmatic spatial relationships and adjacencies, however the classrooms would have east / west solar orientation and the gym would be located on the second floor so as not to exceed the existing building volume. Locating the gym on the second floor does not meet the criteria for community use and access. Lastly, any potential future expansion can only occur on the upper floors on piers due to the floodplain restrictions.

This approach would require the existing building to be vacant during construction. While Newton Public Schools has a vacant school which has been designated as a swing space school, it is across the city (approximately 30 minute commute each way) and would require transporting the students at a significant cost.

From a constructability perspective this approach is not viable. It has the same IBC requirements as the code upgrade / repairs approach. The existing building is located within the riverfront area and wetland buffer. At +el. 110.5, the first floor is less than 1 foot above the 10-year flood elevation (+el. 109.6) and is within the 100-year flood elevation(+112.4). The IBC States improvements exceeding 50% of the building value must comply with flood requirements for first floor construction. The American Society of Civil Engineers (ASCE 24) requires the first floor to be 1-foot above the base flood elevation (100-year flood elevation). Therefore, the first floor would need to be raised approximately 3-feet to comply with code.

The current first floor floor-to-floor height is 12'-6". When the floor is raised by 3 feet, the floor-to-floor height is 9'-6". Once mechanical equipment is added (requires approximately 3 feet) the floor-to-ceiling height would be approximately 6'-6". The existing 1953 building is constructed in such a way that raising the second floor to increase the first floor height **is not physically possible and therefore this is not a viable solution**. Hence, while alternatives and pricing have been developed for repairs/code upgrades and renovation & addition neither are viable when taking into consideration the ASCE 8 and ASCE 24 requirements.

This is not a viable approach from a construction perspective.

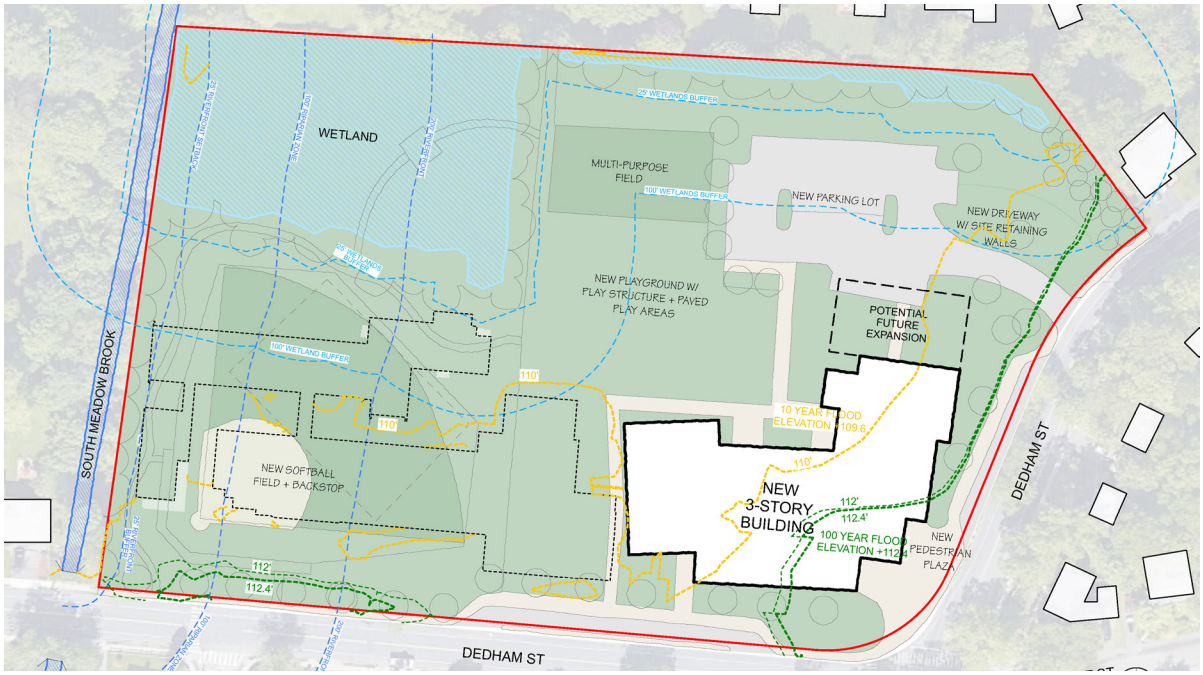


APPROACH NO. 3 NEW CONSTRUCTION @ COUNTRYSIDE (340 STUDENTS)

The new construction approach meets MSBA space guidelines, provides a compact footprint to maximize time on learning and provides the ideal programmatic spatial relationships and adjacencies. Classrooms are arranged to provide for north / south solar orientation. The gym would be located on the first floor meeting the criteria for community use and access.

From a constructability perspective, new construction at the existing Countryside School is possible. The Countryside School site provides sufficient space for a new building for 340 K-5 students. Potential future expansion can only occur on the upper floors on piers due to the floodplain restrictions.

This approach is to construct the new school adjacent to the existing building while occupying the existing school. After the new school is completed and occupied, the existing school would be demolished and the remaining site work would be completed. The current Countryside School site, at 7.39 acres, is large enough to meet the exterior program requirements such as vehicular drop off/pick-up, parking, pedestrian access, gathering, outdoor play, service/delivery, and emergency access and concept plans have verified this.



APPROACH NO. 4 CODE UPGRADE / REPAIRS ONLY @ COUNTRYSIDE (465 STUDENTS)

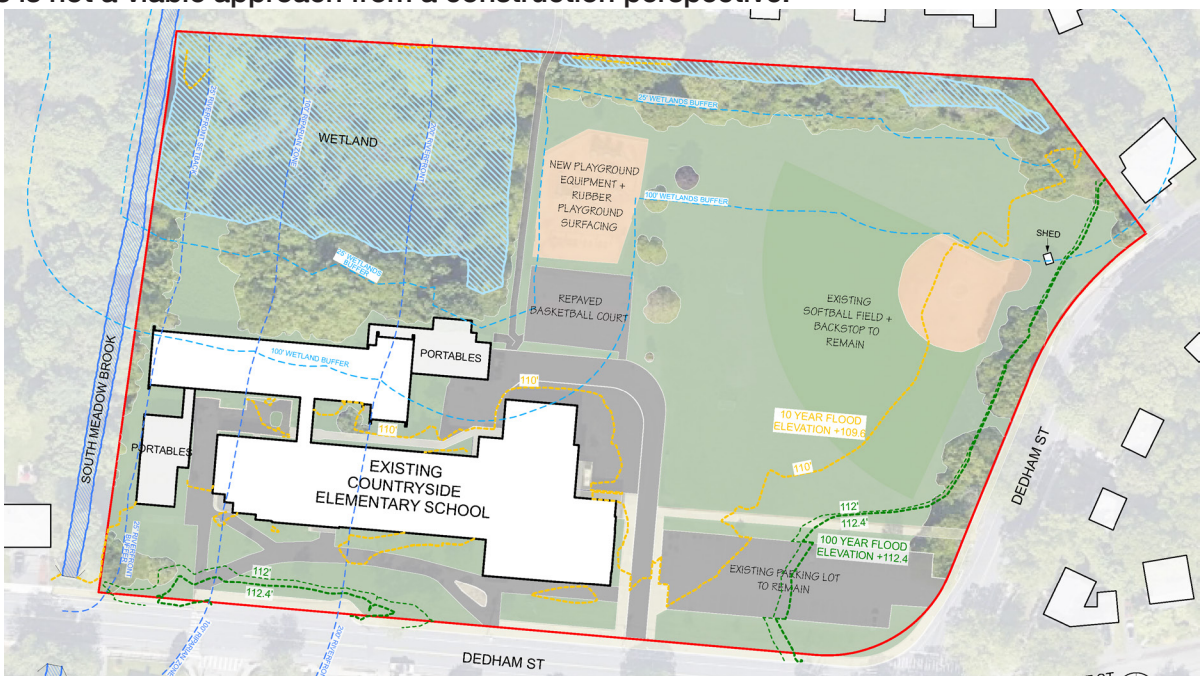
Similar to Approach No. 1, the code upgrade option includes repair of systems and/or scope required for code compliance with no modification of existing spaces or their function. This option will not meet the program requirements for the Countryside Elementary School for 465 students. The existing 56,100 SF school, which includes 5,400 of portable classrooms, was constructed circa 1953 with several additions through 2000 and is smaller than required for the educational program, based on the design enrollment of 465 K-5 students. The sizes of many of spaces are inadequate, based on today's standards, and there are limited special education spaces, which are insufficient for the program needs. The cafeteria, gymnasium and library are undersized and the stage in the cafeteria is used for the music program. Refer to PART 3 – INITIAL SPACE SUMMARY for a detailed comparison of the existing spaces to the required needs of today's educational program.

This approach would require the existing building to be vacant during construction. While Newton Public Schools has a vacant school which has been designated as a swing space school, it is across the city (approximately 30 minute commute each way) and would require transporting the students at a significant cost.

In addition, as referenced earlier, the existing building is located within the riverfront area and wetland buffer. At +el. 110.5, the first floor is less than 1 foot above the 10-year flood elevation (+el. 109.6) and is within the 100-year flood elevation (+112.4). The IBC States improvements exceeding 50% of the building value must comply with flood requirements for first floor construction. The American Society of Civil Engineers (ASCE 24) requires the first floor to be 1-foot above the base flood elevation (100-year flood elevation). Therefore, the first floor would need to be raised approximately 3-feet to comply with code.

The current first floor floor-to-floor height is 12'-6". When the floor is raised by 3 feet, the floor-to-floor height is 9'-6". Once mechanical equipment is added (requires approximately 3 feet) the floor-to-ceiling height would be approximately 6'-6". The existing 1953 building is constructed in such a way that raising the second floor to increase the first floor height **is not physically possible and therefore this is not a viable solution**. Hence, while alternatives and pricing have been developed for repairs/code upgrades and renovation & addition neither are viable when taking into consideration the ASCE 8 and ASCE 24 requirements.

This is not a viable approach from a construction perspective.



APPROACH NO. 5 RENOVATION / ADDITION @ COUNTRYSIDE (465 STUDENTS)

Renovating the main, original building of approximately 22,900 SF with a two-story addition of approximately 46,900 SF has been considered. This approach would remove much of the existing facility inside of the 100-foot wetland buffer. However, an important consideration for this approach is that the overall volume of the renovation / addition must not exceed the existing building volume due to the floodplain restrictions and therefore the second floor of the addition would overhand the first floor of the addition. In addition, any future expansion can only occur on the upper floor on piers due to floodplain restrictions.

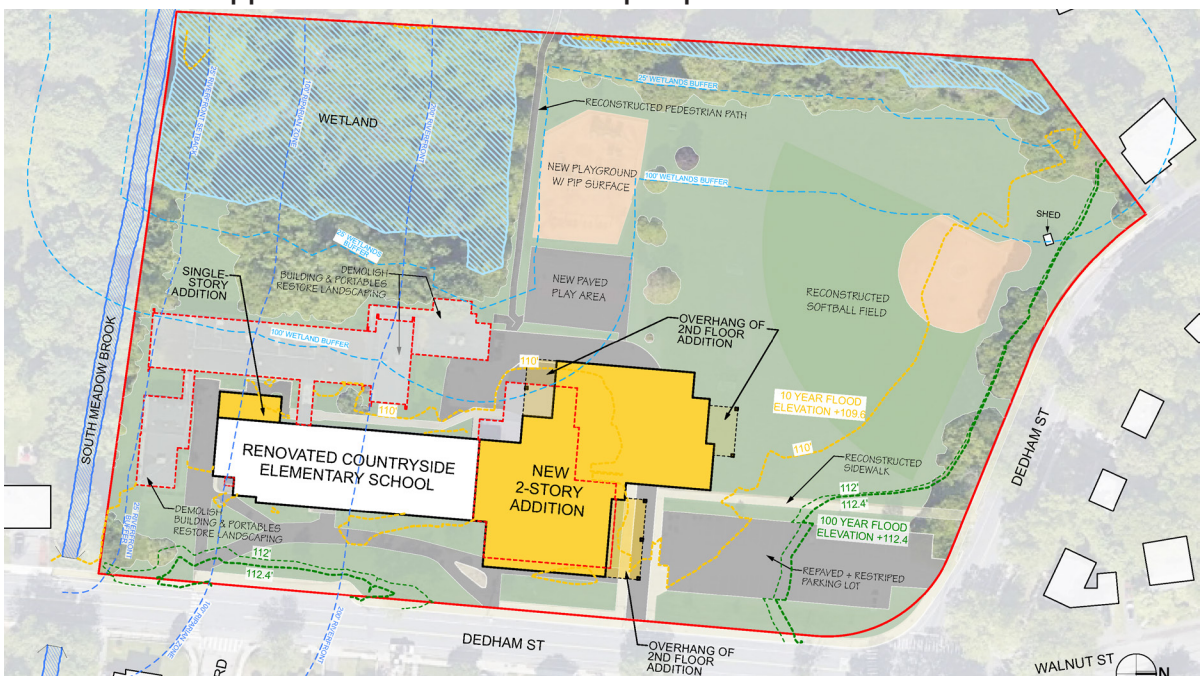
The renovation / addition meets MSBA space guidelines and provides adequate programmatic spatial relationships and adjacencies, however the classrooms would have east / west solar orientation and the gym would be located on the second floor so as not to exceed the existing building volume. Locating the gym on the second floor does not meet the criteria for community use and access

This approach would require the existing building to be vacant during construction. While Newton Public Schools has a vacant school which has been designated as a swing space school, it is across the city (approximately 30 minute commute each way) and would require transporting the students at a significant cost.

From a constructability perspective this approach is not viable. It has the same IBC issues as the code upgrade / repairs approach. The existing building is located within the riverfront area and wetland buffer. At +el. 110.5, the first floor is less than 1 foot above the 10-year flood elevation (+el. 109.6) and is within the 100-year flood elevation (+112.4). The IBC States improvements exceeding 50% of the building value must comply with flood requirements for first floor construction. The American Society of Civil Engineers (ASCE 24) requires the first floor to be 1-foot above the base flood elevation (100-year flood elevation). Therefore, the first floor would need to be raised approximately 3-feet to comply with code.

The current first floor floor-to-floor height is 12'-6". When the floor is raised by 3 feet, the floor-to-floor height is 9'-6". Once mechanical equipment is added (requires approximately 3 feet) the floor-to-ceiling height would be approximately 6'-6". The existing 1953 building is constructed in such a way that raising the second floor to increase the first floor height **is not physically possible and therefore this is not a viable solution**. Hence, while alternatives and pricing have been developed for repairs/code upgrades and renovation & addition neither are viable when taking into consideration the ASCE 8 and ASCE 24 requirements.

This is not a viable approach from a construction perspective.

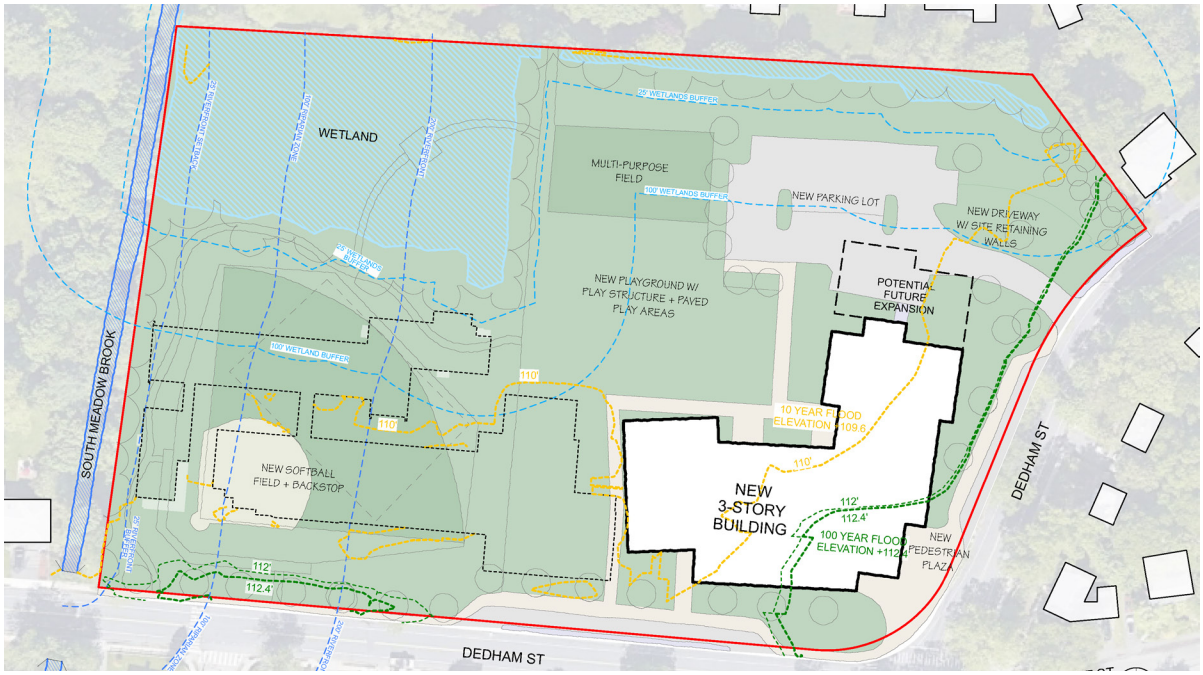


APPROACH NO. 6 NEW CONSTRUCTION @ COUNTRYSIDE (465 STUDENTS)

The new construction approach meets MSBA space guidelines, provides a compact footprint to maximize time on learning and provides the ideal programmatic spatial relationships and adjacencies. Classrooms are arranged to provide for north / south solar orientation. The gym would be located on the first floor meeting the criteria for community use and access.

From a constructability perspective, new construction at the existing Countryside School is possible. The Countryside School site provides sufficient space for a new building for 465 K-5 students. Potential future expansion can only occur on the upper floors on piers due to the floodplain restrictions.

This approach is to construct the new school adjacent to the existing building while occupying the existing school. After the new school is completed and occupied, the existing school would be demolished and the remaining site work would be completed. The current Countryside School site, at 7.39 acres, is large enough to meet the exterior program requirements such as vehicular drop off/pick-up, parking, pedestrian access, gathering, outdoor play, service/delivery, and emergency access and concept plans have verified this.



CRITERIA MATRIX

A criteria matrix has been developed to weigh each approach objectively demonstrating how each approach meets the educational and visioning goals as well as the overall priorities for the project.

COUNTRYSIDE ELEMENTARY SCHOOL — 191 Dedham Street, Newton, MA — **Criteria Matrix**

● Favorable ⦿ Netural ○ Unfavorable

	BUILDING EVALUATION CRITERIA MATRIX	340 STUDENT ENROLLMENT			465 STUDENT ENROLLMENT		
		1	2	3	4	5	6
		REPAIR ONLY Full renovation, no addition	ADD/RENO Renovation + Addition	NEW CONST. Full demo + new construction	REPAIR ONLY Full renovation, no addition	ADD/RENO Renovation + Addition	NEW CONST. Full demo + new construction
	Building and Site Facts						
1	Student enrollment population	340	340	340	465	465	465
2	Size of site (acres)	7.39	7.39	7.39	7.39	7.39	7.39
3	Site Environmental (wetlands, etc.)	2.02	2.02	2.02	2.02	2.02	2.02
4	Meets MA Flood Regulations (prereq.)	NO	NO	YES	NO	NO	YES
5	Site usable (acres)	5.37	5.37	5.37	5.37	5.37	5.37
6	Classroom count	19	16	16	19	21	21
7	Building gross square feet (GSF)	56,150	62,635	65,000	56,150	69,765	75,500
8	Site improvements area (SF)	50,000	230,000	250,000	50,000	230,000	250,000
	Cost and Schedule						
1	Project Cost, $million	○	○	●	○	○	⦿
2	LCCA /annual expenses	⦿	⦿	⦿	⦿	⦿	⦿
3	Allows students to move in to new school 2026-27	●	●	●	●	●	●
4	Requires swing space	○	○	●	○	○	●
5	Requires CM@Risk (i.e. due to scheduling for early release packages)	○	○	●	○	○	●
6	Maintains standard site plan approval schedule	○	○	○	○	○	●
	Educational						
1	Meets educational program for all students (pre-req.)	○	○	○	○	●	●
2	Meets space program (prereq.)	○	●	●	○	●	●
3	Provides flexibility for future growth	○	○	○	○	○	●
4	Provides flexibility for educational innovations / pedagogy	○	⦿	●	○	⦿	●
5	Optimizes configuration and adjacency of teaching spaces	○	○	●	○	○	●
6	Provides outdoor learning opportunities	○	●	●	○	●	●
7	Allows for efficient program design layout	○	○	●	○	○	●
8	Minimizes school disruption	○	○	○	○	○	●
	Safety & Security						
1	Optimizes safety and efficiency of on-site bus and van drop off	○	○	●	○	○	●
2	Separates safe circulation of bus, vehicle, pedestrian and bike access	○	○	●	○	○	●
3	Improves off site traffic impact	○	○	●	○	○	●
4	Optimizes site for safe pedestrian and bike access	○	⦿	●	○	⦿	●
5	Optimizes safe building access	○	●	●	○	●	●
	Community						
1	Provides accessibility to community used spaces (interior)	○	○	●	○	○	●
2	Accommodates community program needs / extended day program	○	●	●	○	●	●
3	Enhances community connections	○	○	○	○	⦿	●
4	Enhances community green/open space and playground	○	⦿	●	○	⦿	●
5	Construction Impact on abutters	⦿	⦿	⦿	⦿	⦿	⦿
	Building						
1	Meets current building codes (prereq.)	○	○	●	○	○	●
2	Meets MAAB/ADA requirements (prereq.)	●	●	●	●	●	●
3	Meets healthy building environment (prereq.)	●	●	●	●	●	●
4	Meets hazardous material remedial requirements (prereq.)	●	●	●	●	●	●
5	Allows for a contextually sensitive design	○	⦿	●	○	⦿	●
6	Optimizes use of natural light and daylighting	○	○	●	○	○	●
7	Optimizes connection of outdoor/indoor space, integration with site	○	⦿	●	○	⦿	●
8	Allows efficient attainment of Green School/Stretch Code requirements	●	●	●	●	●	●

COUNTRYSIDE ELEMENTARY SCHOOL — 191 Dedham Street, Newton, MA							Criteria Matrix
		● Favorable		⦿ Netural		○ Unfavorable	
		340 STUDENT ENROLLMENT			465 STUDENT ENROLLMENT		
		1	2	3	4	5	6
	BUILDING EVALUATION CRITERIA MATRIX	REPAIR ONLY Full renovation, no addition	ADD/RENO Renovation + Addition	NEW CONST. Full demo + new construction	REPAIR ONLY Full renovation, no addition	ADD/RENO Renovation + Addition	NEW CONST. Full demo + new construction
Site							
1	Meets MAAB/ADA requirements (prereq.)	●	●	●	●	●	●
2	Meets environmental remedial requirements (prereq.)	○	⦿	●	○	⦿	●
3	Maximizes efficient utilization of site	○	○	●	○	○	●
4	Optimizes outdoor program space and green space	⦿	⦿	●	⦿	⦿	●
5	Optimizes safety and efficiency of on-site bus and van drop off	○	⦿	●	○	⦿	●
6	Separates safe circulation of bus, vehicle, pedestrian and bike access	○	○	●	○	○	●
7	Provides sufficient parking for teachers, staff + visitors	⦿	⦿	⦿	⦿	⦿	⦿
8	Improves off site traffic impact	○	⦿	●	○	⦿	●
9	Optimizes site for safe pedestrian and bike access	○	○	●	○	○	●
10	Allows for future expansion	○	○	○	○	●	●
Sustainability							
1	Minimizes embodied carbon footprint with building reuse	●	●	○	●	●	○
2	Achieves City goal for fossil free building HVAC systems	●	●	●	●	●	●
3	Optimizes building orientation	○	○	●	○	○	●
4	Optimizes solar (PV) opportunities	○	○	●	○	○	●
5	Allows efficient attainment of Green School/Stretch Code requirements	○	⦿	●	○	⦿	●
6	Optimizes building envelope thermal performance	○	⦿	●	○	⦿	●
Gross Scoring		Not Viable	Not Viable	31	Not Viable	Not Viable	42

A full-size version of this matrix is appended to this Section.

The Repair/Code Upgrades and Renovation/Addition Approaches (Approaches 1, 2, 4 & 5) are not viable from a constructability perspective due to the IBC issues. The existing building is located within the riverfront area and wetland buffer. At +el. 110.5, the first floor is less than 1 foot above the 10-year flood elevation (+el. 109.6) and is within the 100-year flood elevation (+112.4). The IBC states improvements exceeding 50% of the building value must comply with flood requirements for first floor construction. The American Society of Civil Engineers (ASCE 24) requires the first floor to be 1-foot above the base flood elevation (100-year flood elevation). Therefore, the first floor would need to be raised approximately 3-feet to comply with code.

Based upon the preliminary costing, repairs/code upgrades as well as renovation & addition alternatives exceed 50% of the assessed building value (current assessor's value at $20,661,700). Therefore, the first floor of the existing building (El.+110.5) would be required to be raised approximately 3-feet to comply with code. The current first floor floor-to-floor height is 12'-6". When the floor is raised by 3 feet, the floor-to-floor height is 9'-6". Once mechanical equipment is added (requires approximately 3 feet) the floor-to-ceiling height would be approximately 6'-6". **The existing 1953 building is constructed in such a way that raising the second floor to increase the first floor height is not physically possible and therefore not viable.** Hence, while alternatives and pricing have been developed for repairs/code upgrades and renovation & additions, neither are viable when taking into consideration the ASCE 8 and ASCE 24 requirements.

Approach 3 is based upon the enrollment of 340 students, which is a reduction from the current student enrollment. This approach may appear plausible, however, there are many consequences to the reduced enrollment:

- Based upon the enrollment, there would be approximately 57 students per grade. This would require three general classrooms per grade in grades K-3 based upon the class size policy.
- A full complement of core spaces such as art, music, gymnasium and library would be required to serve the school. The unintended consequence is a large capital investment would be required to serve a smaller number of students.
- There will be inequities between Countryside and the other elementary schools. The small grade size would limit the social and emotional growth of the students as well as limit staff collaboration with their peers.
- There will be increases in operating expenses for additional staff that would be required to support the number of classrooms per grade.
- Further re-districting would be required creating an additional burden to the families in the Countryside School district and possibly other elementary school districts.

Therefore, Approach 3 with an enrollment of 340 students does not merit further evaluation. However, this information will be used for comparative purposes only at the Preferred Schematic Report.

Based upon the existing building deficiencies, floodplain issues, recent new housing developments in the City bringing in a significant number of new students to the Countryside district, and maintaining parody amongst the other Newton Elementary schools, it is the City's desire to focus on Approach 6 - New Construction at the Countryside School site for 465 students moving forward.

COST SUMMARY

Cost considerations are important factors in determining the most cost-effective solution for the Countryside Elementary School Project. Below are the cost comparison ranges of the Alternatives identified above.

Approach / Alternative	# of Students	Program Area	Gross Square Footage	Construction Cost	Project Cost	Duration / Year Complete
No. 1 @ 340 Students Code Upgrade	340 Students	33,735 NFA	56,100 GSF	NOT VIABLE*	NOT VIABLE*	24 months (2026-27)
No. 2 @ 340 Students Renovation/ Addition	340 Students	43,353 NFA	62,635 GSF	NOT VIABLE*	NOT VIABLE*	30 months (2026-27)
No. 3 @ 340 Students New Construction	340 Students	43,353 NFA	65,030 GSF	$45,000,000 - $53,000,000	$56,000,000 - $66,000,000	24 months (2026-27)
No. 4 @ 465 Students Code Upgrade	465 Students	33,735 NFA	56,100 GSF	NOT VIABLE*	NOT VIABLE*	24 months (2026-27)
No. 5 @ 465 Students Renovation/ Addition	465 Students	50,388 NFA	69,765 GSF	NOT VIABLE*	NOT VIABLE*	30 months (2026-27))
No. 6 @ 465 Students New Construction	465 Students	50,388 NFA	75,582 GSF	$49,000,000 - $58,000,000	$60,000,000 - $72,000,000	24 months (2026-27)

* Due to the IBC requirements to raise the first floor for Repair / Code Upgrades and Renovation / Addition alternatives, it was not possible to obtain a construction cost to raise the first and second floor of the existing building as this is not physically feasible. However, a construction cost for Repair / Code Upgrades and Renovation / Addition alternatives solely based upon cost per square foot without taking this condition into consideration is as follows, recognizing these alternatives are not viable for the Countryside School.

Approach / Alternative	# of Students	Program Area	Gross Square Footage	Construction Cost	Project Cost	Duration / Year Complete
No. 1 @ 340 Students Code Upgrade	340 Students	33,730 NFA	56,100 GSF	$31,000,000	$38,000,000	24 months (2026-27)
No. 2 @ 340 Students Renovation/ Addition	340 Students	43,353 NFA	62,635 GSF	$52,000,000	$65,000,000	30 months (2026-27)
No. 4 @ 465 Students Code Upgrade	465 Students	33,730 NFA	56,100 GSF	$31,000,000	$38,000,000	24 months (2026-27)
No. 5 @ 465 Students Renovation/ Addition	465 Students	50,388 NFA	69,765 GSF	$56,000,000	$70,000,000	30 months (2026-27))

The project budget range for a 465 student, new school of $60M-$72M is based upon the preliminary nature of this PDP submission and will be refined as the project moves forward. Various items contribute to this range:

* Current / volatile construction market (increase of labor costs, material costs, supply chain disruptions)
* Unprecedented escalation
* Local labor market
* Global political conditions / uncertainties

While a range is provided, the owner strives for a targeted total project budget of $61M. However, the owner is aware of the current market, escalation, and supply chain issues. As such the $61M figure assumes that these market pressures do not continue to drive construction costs at the same rate seen in 2022 in 2023 and beyond.

As the preferred solution is refined more exact requirements and decisions will include:

* Construction delivery method
* Site development requirements
* All electric building systems (ASHP vs GSHP)
* Sustainable building / site elements

RECOMMENDATION

Based upon the existing building deficiencies, floodplain issues, recent new housing developments in the City bringing in a significant number of new students to the Countryside District, and maintaining parody amongst the other Newton Elementary schools, it is the City's desire to focus on Approach 6 – New Construction at the Countryside School site for 465 students moving forward.

COUNTRYSIDE ELEMENTARY SCHOOL — 191 Dedham Street, Newton, MA — **Criteria Matrix**

● Favorable ⦿ Netural ○ Unfavorable

		340 STUDENT ENROLLMENT			465 STUDENT ENROLLMENT		
		1	2	3	4	5	6
	BUILDING EVALUATION CRITERIA MATRIX	**REPAIR ONLY Full renovation, no addition**	**ADD/RENO Renovation + Addition**	**NEW CONST. Full demo + new construction**	**REPAIR ONLY Full renovation, no addition**	**ADD/RENO Renovation + Addition**	**NEW CONST. Full demo + new construction**
Building and Site Facts							
1	Student enrollment population	340	340	340	465	465	465
2	Size of site (acres)	7.39	7.39	7.39	7.39	7.39	7.39
3	Site Environmental (wetlands, etc.)	2.02	2.02	2.02	2.02	2.02	2.02
4	Meets MA Flood Regulations (prereq.)	NO	NO	YES	NO	NO	YES
5	Site usable (acres)	5.37	5.37	5.37	5.37	5.37	5.37
6	Classroom count	19	16	16	19	21	21
7	Building gross square feet (GSF)	56,150	62,635	65,000	56,150	69,765	75,500
8	Site improvements area (SF)	50,000	230,000	250,000	50,000	230,000	250,000
Cost and Schedule							
1	Project Cost, $million	○	○	●	○	○	⦿
2	LCCA /annual expenses	⦿	⦿	⦿	⦿	⦿	⦿
3	Allows students to move in to new school 2026-27	●	●	●	●	●	●
4	Requires swing space	○	○	●	○	○	●
5	Requires CM@Risk (i.e. due to scheduling for early release packages)	○	○	●	○	○	●
6	Maintains standard site plan approval schedule	○	○	○	○	○	●
Educational							
1	Meets educational program for all students (pre-req.)	○	○	○	○	●	●
2	Meets space program (prereq.)	○	●	●	○	●	●
3	Provides flexibility for future growth	○	○	○	○	○	●
4	Provides flexibility for educational innovations / pedagogy	○	⦿	●	○	⦿	●
5	Optimizes configuration and adjacency of teaching spaces	○	○	●	○	○	●
6	Provides outdoor learning opportunities	○	●	●	○	●	●
7	Allows for efficient program design layout	○	○	●	○	○	●
8	Minimizes school disruption	○	○	○	○	○	●
Safety & Security							
1	Optimizes safety and efficiency of on-site bus and van drop off	○	○	●	○	○	●
2	Separates safe circulation of bus, vehicle, pedestrian and bike access	○	○	●	○	○	●
3	Improves off site traffic impact	○	○	●	○	○	●
4	Optimizes site for safe pedestrian and bike access	○	⦿	●	○	⦿	●
5	Optimizes safe building access	○	●	●	○	●	●
Community							
1	Provides accessibility to community used spaces (interior)	○	○	●	○	○	●
2	Accommodates community program needs / extended day program	○	●	●	○	●	●
3	Enhances community connections	○	○	○	○	⦿	●
4	Enhances community green/open space and playground	○	⦿	●	○	⦿	●
5	Construction Impact on abutters	⦿	⦿	⦿	⦿	⦿	⦿
Building							
1	Meets current building codes (prereq.)	○	○	●	○	○	●
2	Meets MAAB/ADA requirements (prereq.)	●	●	●	●	●	●
3	Meets healthy building environment (prereq.)	●	●	●	●	●	●
4	Meets hazardous material remedial requirements (prereq.)	●	●	●	●	●	●
5	Allows for a contextually sensitive design	○	⦿	●	○	⦿	●
6	Optimizes use of natural light and daylighting	○	○	●	○	○	●
7	Optimizes connection of outdoor/indoor space, integration with site	○	⦿	●	○	⦿	●
8	Allows efficient attainment of Green School/Stretch Code requirements	●	●	●	●	●	●
Site							
1	Meets MAAB/ADA requirements (prereq.)	●	●	●	●	●	●
2	Meets environmental remedial requirements (prereq.)	○	⦿	●	○	⦿	●
3	Maximizes efficient utilization of site	○	○	●	○	○	●
4	Optimizes outdoor program space and green space	⦿	⦿	●	⦿	⦿	●
5	Optimizes safety and efficiency of on-site bus and van drop off	○	⦿	●	○	⦿	●
6	Separates safe circulation of bus, vehicle, pedestrian and bike access	○	○	●	○	○	●
7	Provides sufficient parking for teachers, staff + visitors	⦿	⦿	⦿	⦿	⦿	⦿
8	Improves off site traffic impact	○	⦿	●	○	⦿	●
9	Optimizes site for safe pedestrian and bike access	○	○	●	○	○	●
10	Allows for future expansion	○	○	○	○	●	●
Sustainability							
1	Minimizes embodied carbon footprint with building reuse	●	●	○	●	●	○
2	Achieves City goal for fossil free building HVAC systems	●	●	●	●	●	●
3	Optimizes building orientation	○	○	●	○	○	●
4	Optimizes solar (PV) opportunities	○	○	●	○	○	●
5	Allows efficient attainment of Green School/Stretch Code requirements	○	⦿	●	○	⦿	●
6	Optimizes building envelope thermal performance	○	⦿	●	○	⦿	●
Gross Scoring		**Not Viable**	**Not Viable**	**31**	**Not Viable**	**Not Viable**	**42**

7 LOCAL ACTIONS & APPROVALS

Local Actions & Approvals Certification

Certified Copy of SBC Minutes for PDP Submission

Meeting Agendas & Minutes (See Appendix)

NEWTON
PUBLIC SCHOOLS
Equity & Excellence

COUNTRYSIDE SCHOOL BUILDING COMMITTEE

January 18, 2023

Having been sent a complete draft on January 10th, 2023, the Countryside School Building Committee convened on the evening of January 17th, 2023, and reviewed the composition and key components of the project's Preliminary Design Program (PDP) submittal, and voted the following authorizations:

Authorize Submission of PDP to the Massachusetts School Building Authority (MSBA):

Andreae Downs moved to authorize OPM Dore & Whittier Management Partners to submit the Preliminary Design Program on behalf of the City of Newton to the Massachusetts School Building Authority; the motion was seconded by David Kalis.

Vote: 8 - 0 - 0

Countryside School Building Committee Co-Chair:

_____ Date: January 18, 2023

Name: Liam T. Hurley
Assistant Superintendent / Chief Financial and Administrative Officer

Ruthanne Fuller
Mayor

City of Newton, Massachusetts
Office of the Mayor

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(617) 796-1100
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(617) 796-1089
Email
rfuller@newtonma.gov

1/18/2023

Ms. Mary Pichetti
Director of Capital Planning
40 Broad Street
Boston, Massachusetts 02109

Dear Ms. Pichetti:

The City of Newton and Countryside School Building Committee ("CsSBC") has completed its review of the Feasibility Study Preliminary Design Program for the Countryside Elementary school project (the "Project"), and on January 17, 2023, the CsSBC voted to approve and authorize the Owner's Project Manager to submit the Feasibility Study related materials to the MSBA for its consideration. A draft copy (certified copy to follow) of the SBC meeting minutes, which includes the specific language of the vote and the number of votes in favor, opposed, and abstained, are attached.

Since the MSBA's Board of Directors invited the District to conduct a Feasibility Study on December 15, 2021, the CsSBC has held 10 meetings (all held virtually at 6:00pm using the City's zoom credentials) regarding the proposed project, in compliance with the state Open Meeting Law. These meetings include:

- January 18, 2022
- March 22, 2022
- May 24, 2022
- June 21, 2022
- August 23, 2022
- October 18, 2022
- November 15, 2022
- December 6, 2022
- December 20, 2022
- January 17, 2023

Notices for these meetings were posted and made available for public review in Newton City Hall (1000 Commonwealth Avenue, Newton Centre, MA 02459), as well as on-line on the City's municipal website: https://www.newtonma.gov/government/city-clerk/city-council/electronic-posting-board

In addition to the SBC meetings listed above, the district held 14 public meetings, which were posted in compliance with the state Open Meeting Law, at which the Project was discussed. These meetings include:

- February 1, 2022, at 3:30p – Voluntary community informational meeting and site inspection. Countryside Library
- March 14, 2022, at 6:30p - Commission on Disability
- April 6, 2022, at 7p - Public Facilities & Programs & Services Committee
- May 23, 2022, at 7p - School Committee
- June 22, 2022, at 7p -Public Facilities & Programs & Services Committee
- July 28, 2022, at 7p - Newton Historical Commission
- September 1, 2022, at 7p - Conservation Commission
- September 12, 2022, at 7p - School Committee Meeting
- October 17, 2022, at 7p - School Committee Meeting
- November 7, 2022, at 7p - School Committee Meeting
- December 5, 2022, at 7p - School Committee Meeting
- December 19, 2022, at 7p - School Committee Meeting
- January 4, 2023, at 7p - Update to City Council - Programs & Services Committee
- January 9, 2023, at 7p - School Committee Meeting

The presentation materials for each meeting, meeting minutes, and summary materials related to the Project are available locally for public review at the project's website:

www.countrysideelementaryschoolproject.com > SBC Committee
(https://www.countrysideelementaryschoolproject.com/committee)

To the best of my knowledge and belief, each of the meetings listed above complied with the requirements of the Open Meeting Law, M.G.L. c. 30A, §§ 18-25 and 940 CMR 29 *et seq.*

If you have any questions or require any additional information, please contact the Owner's Project Manager, Dore & Whittier Partners – Steve Brown, Sr. Project Manager, sbrown@doreandwhittier.com.

By signing this Local Action and Approval Certification, I hereby certify that, to the best of my knowledge and belief, the information supplied by the District in this Certification is true, complete, and accurate.	By signing this Local Action and Approval Certification, I hereby certify that, to the best of my knowledge and belief, the information supplied by the District in this Certification is true, complete, and accurate.	By signing this Local Action and Approval Certification, I hereby certify that, to the best of my knowledge and belief, the information supplied by the District in this Certification is true, complete, and accurate.
By:	**By:**	**By:**
Title: Chief Executive Officer/Mayor	**Title: Superintendent of Schools**	**Title: Chair of the School Committee**
Date: January 18, 2023	**Date: January 18, 2023**	**Date: January 18, 2023**

8 APPENDIX

Countryside Elementary School Statement of Interest
MSBA Feasibility Study Invitation
Design Enrollment Certification
Capital Budget Statement
Project Directory
Project Schedule
SBC Agendas & Meeting Minutes
Visioning Presentations

Massachusetts School Building Authority

Next Steps to Finalize Submission of your FY 2020 Statement of Interest

Thank you for submitting your FY 2020 Statement of Interest (SOI) to the MSBA electronically. **Please note, the District's submission is not yet complete**. The District is required to mail all required supporting documentation, which is described below.

VOTES: Each SOI must be submitted with the proper vote documentation. This means that (1) the required governing bodies have voted to submit each SOI, (2) the specific vote language required by the MSBA has been used, and (3) the District has submitted a record of the vote in the format required by the MSBA.

- **School Committee Vote:** Submittal of all SOIs must be approved by a vote of the School Committee.
  - For documentation of the vote of the School Committee, Minutes of the School Committee meeting at which the vote was taken must be submitted with the original signature of the Committee Chairperson. The Minutes must contain the actual text of the vote taken which should be substantially the same as the MSBA's SOI vote language.
- **Municipal Body Vote:** SOIs that are submitted by cities and towns must be approved by a vote of the appropriate municipal body (e.g., City Council/ Aldermen/Board of Selectmen) in addition to a vote of the School Committee.
  - Regional School Districts do not need to submit a vote of the municipal body.
  - For the vote of the municipal governing body, a copy of the text of the vote, which shall be substantially the same as the MSBA's SOI vote language, must be submitted with a certification of the City/Town Clerk that the vote was taken and duly recorded, and the date of the vote must be provided.

ADDITIONAL DOCUMENTATION FOR SOI PRIORITIES #1 AND #3: If a District selects Priority #1 and/or Priority #3, the District is required to submit additional documentation with its SOI.

- If a District selects Priority #1, Replacement or renovation of a building which is structurally unsound or otherwise in a condition seriously jeopardizing the health and safety of the school children, where no alternative exists, the MSBA requires a hard copy of the engineering or other report detailing the nature and severity of the problem and a written professional opinion of how imminent the system failure is likely to manifest itself. The District also must submit photographs of the problematic building area or system to the MSBA.
- If a District selects Priority #3, Prevention of a loss of accreditation, the SOI will not be considered complete unless and until a summary of the accreditation report focused on the deficiency as stated in this SOI is provided.

ADDITIONAL INFORMATION: In addition to the information required above, the District may also provide any reports, pictures, or other information they feel will give the MSBA a better understanding of the issues identified at a facility.

If you have any questions about the SOI process please contact the MSBA at 617-720-4466 or SOI@massschoolbuildings.org.

Massachusetts School Building Authority

School District Newton

District Contact TEL:

Name of School Countryside

Submission Date 4/10/2020

SOI CERTIFICATION

To be eligible to submit a Statement of Interest (SOI), a district must certify the following:

- ☑ The district hereby acknowledges and agrees that this SOI is NOT an application for funding and that submission of this SOI in no way commits the MSBA to accept an application, approve an application, provide a grant or any other type of funding, or places any other obligation on the MSBA.
- ☑ The district hereby acknowledges that no district shall have any entitlement to funds from the MSBA, pursuant to M.G.L. c. 70B or the provisions of 963 CMR 2.00.
- ☑ The district hereby acknowledges that the provisions of 963 CMR 2.00 shall apply to the district and all projects for which the district is seeking and/or receiving funds for any portion of a municipally-owned or regionally-owned school facility from the MSBA pursuant to M.G.L. c. 70B.
- ☑ The district hereby acknowledges that this SOI is for one existing municipally-owned or regionally-owned public school facility in the district that is currently used or will be used to educate public PreK-12 students and that the facility for which the SOI is being submitted does not serve a solely early childhood or Pre-K student population.
- ☑ After the district completes and submits this SOI electronically, the district must mail hard copies of the required documentation described under the "Vote" tab, on or before the deadline.
- ☑ The district will schedule and hold a meeting at which the School Committee will vote, using the specific language contained in the "Vote" tab, to authorize the submission of this SOI. This is required for cities, towns, and regional school districts.
- ☑ Prior to the submission of the SOI, the district will schedule and hold a meeting at which the City Council/Board of Aldermen or Board of Selectmen/equivalent governing body will vote, using the specific language contained in the "Vote" tab, to authorize the submission of this SOI. This is not required for regional school districts.
- ☑ On or before the SOI deadline, the district will submit the minutes of the meeting at which the School Committee votes to authorize the Superintendent to submit this SOI. The District will use the MSBA's vote template and the vote will specifically reference the school and the priorities for which the SOI is being submitted. The minutes will be signed by the School Committee Chair. This is required for cities, towns, and regional school districts.
- ☑ The district has arranged with the City/Town Clerk to certify the vote of the City Council/Board of Aldermen or Board of Selectmen/equivalent governing body to authorize the Superintendent to submit this SOI. The district will use the MSBA's vote template and submit the full text of this vote, which will specifically reference the school and the priorities for which the SOI is being submitted, to the MSBA on or before the SOI deadline. This is not required for regional school districts.
- ☑ The district hereby acknowledges that this SOI submission will not be complete until the MSBA has received all of the required vote documentation in a format acceptable to the MSBA. If Priority 1 is selected, your SOI will not be considered complete unless and until you provide the required engineering (or other) report, a professional opinion regarding the problem, and photographs of the problematic area or system. If Priority 3 is selected, your SOI will not be considered complete unless and until you provide a summary of the accreditation report focused on the deficiency as stated in this SOI.

LOCAL CHIEF EXECUTIVE OFFICER/DISTRICT SUPERINTENDENT/SCHOOL COMMITTEE CHAIR
(E.g., Mayor, Town Manager, Board of Selectmen)

Chief Executive Officer *	**School Committee Chair**	**Superintendent of Schools**
(signature)	(signature)	(signature)
Date	Date	Date

* Local chief executive officer: In a city or town with a manager form of government, the manager of the municipality; in other cities, the mayor; and in other towns, the board of selectmen unless, in a city or town, some other municipal office is designated to the chief executive office under the provisions of a local charter. Please note, in districts where the Superintendent is also the Local Chief Executive Officer, it is required for the same person to sign the Statement of Interest Certifications twice.

Massachusetts School Building Authority

School District Newton

District Contact TEL:

Name of School Countryside

Submission Date 4/10/2020

Note

The following Priorities have been included in the Statement of Interest:

1. ☐ Replacement or renovation of a building which is structurally unsound or otherwise in a condition seriously jeopardizing the health and safety of school children, where no alternative exists.
2. ☐ Elimination of existing severe overcrowding.
3. ☐ Prevention of the loss of accreditation.
4. ☐ Prevention of severe overcrowding expected to result from increased enrollments.
5. ☑ Replacement, renovation or modernization of school facility systems, such as roofs, windows, boilers, heating and ventilation systems, to increase energy conservation and decrease energy related costs in a school facility.
6. ☐ Short term enrollment growth.
7. ☑ Replacement of or addition to obsolete buildings in order to provide for a full range of programs consistent with state and approved local requirements.
8. ☐ Transition from court-ordered and approved racial balance school districts to walk-to, so-called, or other school districts.

SOI Vote Requirement

☑ I acknowledge that I have reviewed the MSBA's vote requirements for submitting an SOI which are set forth in the Vote Tab of this SOI. I understand that the MSBA requires votes from specific parties/governing bodies, in a specific format using the language provided by the MSBA. Further, I understand that the MSBA requires certified and signed vote documentation to be submitted with the SOI. I acknowledge that my SOI will not be considered complete and, therefore, will not be reviewed by the MSBA unless the required accompanying vote documentation is submitted to the satisfaction of the MSBA.

SOI Program: Core
Potential Project Scope: Potential New School
Is this a Potential Consolidation? No

Is this SOI the District Priority SOI? Yes
School name of the District Priority SOI: Countryside

Is this part of a larger facilities plan? Yes
If "YES", please provide the following:
Facilities Plan Date: 6/1/2007
Planning Firm: HMFH Architects, Inc.(2007,2011);Self-prepared 2012- present

Please provide a brief summary of the plan including its goals and how the school facility that is the subject of this SOI fits into that plan:

In a context of significant enrollment growth, Newton has been engaged in long-range planning since the early 2000's. Over a 15 year period, significant growth occurred resulting in a K12 population increase from 11,267 to 12,685 students, 13% growth between 2004 and 2019. The K5 population had the steepest increase from 4,938 to 5,824 students by 2017-18, or 17% growth, and has now stabilized. After sustained 13-year growth, every grade cohort has experienced growth that is now integrated in all grade levels. Projections for next year indicate a small decline in enrollment (of 15 students), as a larger grade 12 class graduates this summer than the combined total of projected incoming kindergartners and students moving into the district. The current five-year enrollment projections through 2024-25 show small overall district enrollment declines, as larger classes graduate grade 12 and smaller kindergarten classes are projected to enter.

A formal master plan was initiated by the district in 2007, and conducted by HMFH Inc. The plan provided facility conditions assessment, space needs and long-range utilization using both engineering/facility and educational standards. HMFH completed an plan update in 2011 with the launch of Newton's current long-range plan to correct educational facilities deficiencies by sequencing major and mid-sized projects at 15 elementary schools, which at that time included two of the oldest schools in the worst condition in the state (Angier, Cabot).

Newton updates its long-range plan annually and has developed consensus for the elementary facilities plan that provides critically needed modernization and capacity expansion. The plan is coordinated with the city's capital plan which outlines multiyear financial support. It is based on detailed enrollment projections that document the capacity needed to address classroom shortages for both regular education and the needs of special populations. Significant progress has been made on the plan which identified Angier and Cabot as Newton's top priorities due to age, condition and overcrowding. A 2013 debt exclusion funded the Angier, Zervas and Cabot schools plus ten modular classrooms to address short term severe crowding. In partnership with the MSBA, a newly constructed Angier reopened in January 2016 and Cabot reopened in September 2019. Zervas was the second school to be rebuilt as its location and site offered an excellent opportunity to expand capacity, and was funded locally. Zervas reopened in September 2017 with six additional classrooms and with an enlarged school district. Cabot reopened in September 2019 with four additional classrooms. These three projects have added capacity for approximately 200 students and, through redistricting, have eased crowding at other schools. While enrollment recently stabilized, two of Newton's 15 elementary schools still have enrollment close to capacity in 2019-20. Local enrollment pressure points continue to require careful management. Newton is studying the potential impact of 1,565 planned housing units in three large and three small residential developments. One of the proposals has been issued a special permit for an 800-unit development by Northland Investment Corporation located in the Countryside Elementary School district. This project was recently approved in a local referendum. The potential enrollment impact at Countryside is currently estimated at 83 students, for a total school enrollment of 429 students in ten years (2029-30). Countryside Elementary is the district's number one priority Statement of Interest which was filed with the MSBA in April 2019.

Countryside Elementary School was constructed in 1953 as a small neighborhood school. Since that time the neighborhood has grown tremendously adding enrollment pressures that led Newton to add an annex only five years later in 1958. In the past 60+ years enrollment pressures continued not only from increases in single family residences but also from large scale apartment development, e.g. the Avalon Bay project on Needham Street. This growth resulted in the addition of modular classrooms adjacent to the annex which has created very inefficient circulation. The modulars were installed over two decades ago. Recent periods of enrollment crowding above 500 students at Countryside required the drastic action of relocating of an entire kindergarten class to different schools.

A properly reconstructed Countryside School is the next highest priority on Newton's long-range plan due to facility condition and its failure to support the educational program. The district also recognizes that there is considerable future residential development in the planning stages and there are no longer any intermediate

actions, such as the installation of modular building on a very constrained and wet site. The MSBA's 2016 School Survey determined that Countryside is "overcapacity" in utilization of general space.

Please provide the current student to teacher ratios at the school facility that is the subject of this SOI: 22 students per teacher

Please provide the originally planned student to teacher ratios at the school facility that is the subject of this SOI: 21 students per teacher

Does the District have a Master Educational Plan that includes facility goals for this building and all school buildings in District? Yes

If "YES", please provide the author and date of the District's Master Educational Plan.

Newton has developed Education Plans in conjunction with the Angier, Zervas and Cabot school building projects that document Newton's educational plan for modern school buildings that support standards for teaching and learning in the 21st century. Standards promote the education, health and well-being of all students; highly effective teaching environments, efficient operations, and anticipate future programmatic change while maintaining standards of performance and reliability.

Is there overcrowding at the school facility? No

If "YES", please describe in detail, including specific examples of the overcrowding.

Has the district had any recent teacher layoffs or reductions? No

If "YES", how many teaching positions were affected? 0
At which schools in the district?
Please describe the types of teacher positions that were eliminated (e.g., art, math, science, physical education, etc.).

Has the district had any recent staff layoffs or reductions? No

If "YES", how many staff positions were affected? 0
At which schools in the district?
Please describe the types of staff positions that were eliminated (e.g., guidance, administrative, maintenance, etc.).

Please provide a description of the program modifications as a consequence of these teacher and/or staff reductions, including the impact on district class sizes and curriculum.

There were no teacher or staff reductions, as a result, this question does not apply.

Please provide a description of the local budget approval process for a potential capital project with theMSBA. Include schedule information (i.e. Town Meeting dates, city council/town council meetings dates, regional school committee meeting dates). Provide, if applicable, the District's most recent budget approval process that resulted in a budget reduction and the impact of the reduction to the school district (staff reductions, discontinued programs, consolidation of facilities).

The FY20 School Committee Approved Budget is $236,372,312, and includes an $8.8 million increase, 3.9% over the FY19 budget of $227,560,263. The budget process began in November 2018 with the approval by the School Committee of the District wide Goals which directs budget priorities. The budget process involves a comprehensive review by district and school administrators of existing and proposed school functions, planning for adjusted costs and future changes or new educational initiatives. The budget process culminates in a public presentation by the Superintendent, public meetings to review specific areas of the budget, public hearings, a school committee straw vote and a final vote of approval. Following the Newton Public Schools' process, the budget is presented to the City Council, reviewed and voted by that body in conjunction with the approval of the city of Newton's operating and capital annual budgets. The FY20 budget continues to support Newton Public Schools core mission to meet the diverse educational, social and emotional needs of all students while narrowing the achievement gap, promoting critical thinking skills, providing mental health supports, and sustaining teacher professional development and collaboration.

FY20 budget also expands the ongoing maintenance of buildings and expands in-district special education facilities and added Full Day Kindergarten programming to all elementary schools.

General Description

BRIEF BUILDING HISTORY: Please provide a detailed description of when the original building was built, and the date(s) and project scopes(s) of any additions and renovations (maximum of 5000 characters).

Countryside School was constructed in 1953 as a small neighborhood school. It was one of five new elementary schools built to accommodate the post-WWII enrollment boom in Newton between 1950-1955. The original building was 35,910 gross square feet and consisted of 13 classrooms, a gym, library, auditorium, main office, two sets of girls' and boys' restrooms, and a pair of staff bathrooms. A 6 classroom annex addition was constructed in 1958 to address the rising school enrollment. A single bathroom with one fixture was added as part of this project. In 1986, two additional annex classrooms were constructed on the north end of the annex. In 1991, 1999, and 2000 a total of four modular classrooms, smaller than regular classrooms, and two offices were constructed. With the five additions, the number of classrooms, staff, and students were doubled with no increase in support spaces such as restrooms, offices, storage, small group instruction, or special education. The total square footage including the original building, the additions and modular space is 65,000 gsf.

The school had as many as 25 classrooms at one time and 500 students (during enrollment peaks in 1998 and 2010), but currently 19 classrooms are being used for individual grades and a total enrollment of 413 students. In addition, one classroom was divided into two classrooms to allow for ELL, Inclusion, and Special Education spaces which also occupy two modulars. A modular classroom is currently being repurposed for use as an Art Room, as the art program had been offered "on a cart" for a number of years due to lack of space for the program, and recently in a former storage location behind the gymnasium. The music program does not have its own space, and currently occupies the stage in the cafetorium. Currently there are 10 individual grade classrooms in the 1953 building, and 9 individual grade classrooms in the annex and modulars. The library, gym, and auditorium are all sized for a school population approximately half the size of the current enrollment. The quantity of classrooms is adequate, but conditions are severely lacking. Support spaces are minimal and undersized throughout the school. There is only one breakout space for small group instruction. Many of the Special Education spaces either don't exist or are inadequate. OT/PT has a small office space. Offices for support staff either don't exist, or have been placed in areas that should not be occupied. The auditorium was converted to a cafetorium 2009 by removing the seating and evening out the floor. The warming kitchen is across the corridor and very small and inadequate for healthy and nutritious lunch service. The HVAC system is steam by natural gas with classroom unit ventilators with supplemental radiation. The annex and modular classrooms are substantially colder in the winter months than the original wing. Two boilers were replaced in 2007 and 2012. The 2007 boiler has been completely submerged at least twice due to flooding n the school. The boiler room has experience flood levels as high as 12 feet which has taken its toll on all of the mechanical, electrical and plumbing equipment.

A vertical lift was installed in 2010. This lift was allowed at the time but is no longer allowed to be constructed as a permanent means of vertical accessible travel. The cab of the lift is approximately 3 ft. by 4 ft. A school building security project was implemented, funded through a Homeland Security Grant. Electronic access card readers were installed on two exterior doors. All appropriate staff has electronic access via key fob device. Access to the building is much more secure and records of access by individuals is monitored via a live database.

TOTAL BUILDING SQUARE FOOTAGE: Please provide the original building square footage PLUS the square footage of any additions.

65000

SITE DESCRIPTION: Please provide a detailed description of the current site and any known existing conditions that would impact a potential project at the site. Please note whether there are any other buildings, public or private, that share this current site with the school facility. What is the use(s) of this building(s)? (maximum of 5000 characters).

Countryside School sits on a 322,065 square foot parcel (7.39 acres), which is comprised of approximately 65,000 sf of wetlands, 120,000 square feet of school and parking, and 137,065 square feet of open space currently used as a baseball field and playground. Approximately 2/3 of the site sits within the 200 foot Riverfront Protection Act area, including half of the existing building. The water table is close to grade throughout most of the eastern portion of the site, including the areas where the annexes and modular classrooms are sited. The Department of Public Works completed a storm water project in 2012 that addressed chronic flooding in the courtyard of the school, which often resulted in flooding of the school itself. Site grading at the perimeter causes standing water accumulation at the main entry and creates a safety risk.

ADDRESS OF FACILITY: Please type address, including number, street name and city/town, if available, or describe the location of the site. (Maximum of 300 characters)

191 Dedham Street, Newton Highlands, MA 02461

BUILDING ENVELOPE: Please provide a detailed description of the building envelope, types of construction materials used, and any known problems or existing conditions (maximum of 5000 characters).

The flat roof on the 1953 portion of the original building was replaced in 2012. The roofs on all of the annexes and modular classrooms are beyond their useful life and need to be replaced. Water regularly pools on these roofs. Exterior walls of the 1953 building are load bearing and made of masonry with concrete sills and polished granite at the main entries, all in good condition with some staining at the sills.

The windows in the 1953 original portion of the building were replaced in 1990, while the windows in the annexes and modular classrooms are original and mostly beyond their useful life. They are aluminum with thermal break and thermal glazing, fixed and single hung. These are difficult to operate and have metal louvers in poor condition. Other windows are steel frame, single-pane glazing with metal louvers that are original and in poor condition. The connection from the main building to the additions is comprised of single pane hollow metal steel framed curtain wall, which is the same system for the windows in the annex classrooms. The thermal efficiency of these systems is extremely low. Cold temperatures in this connection are a challenge during heating season. The modular classrooms are a combination of single and double pane vinyl replacement windows, single pane metal windows, and storm windows. Some doors are inaccessible and original to the building and in very poor condition. Newer doors are in good condition. Areaways are brick/CMU with metal grates in good condition. The exterior steps are concrete as are stoops and ramps with; metal handrails and guardrails, in good condition, but rails are rusting. Canopies are metal-edged, flat roofed with brick piers and metal panel soffits. The metal is worn and faded. There are no structural concerns. Flooding at the basement level may cause a health risk.

Has there been a Major Repair or Replacement of the EXTERIOR WALLS? YES
Year of Last Major Repair or Replacement:(YYYY) 1990
Description of Last Major Repair or Replacement:
Exterior masonry sytem was replaced in 1990.

Roof Section A
Is the District seeking replacement of the Roof Section? NO
Area of Section (square feet) 26790
Type of ROOF (e.g., PVC, EPDM, Shingle, Slate, Tar & Gravel, Other (please describe)
EPDM
Age of Section (number of years since the Roof was installed or replaced) 7
Description of repairs, if applicable, in the last three years. Include year of repair:
N/A

Roof Section B
Is the District seeking replacement of the Roof Section? YES
Area of Section (square feet) 14376
Type of ROOF (e.g., PVC, EPDM, Shingle, Slate, Tar & Gravel, Other (please describe)
Rubber

Age of Section (number of years since the Roof was installed or replaced) 12
Description of repairs, if applicable, in the last three years. Include year of repair:
2009-2018
This roof section has had over 40 requests for repairs since the beginning of 2009. Major and minor repairs have been made over the years.

Window Section A
Is the District seeking replacement of the Windows Section? NO
Windows in Section (count) 176
Type of WINDOWS (e.g., Single Pane, Double Pane, Other (please describe))
Double Pane/Thermopane
Age of Section (number of years since the Windows were installed or replaced) 29
Description of repairs, if applicable, in the last three years. Include year of repair:
None

Window Section B
Is the District seeking replacement of the Windows Section? YES
Windows in Section (count) 219
Type of WINDOWS (e.g., Single Pane, Double Pane, Other (please describe))
Thermopane in modular classrooms and single pane in 1958 and 1986 Annex Additions. The windows Annex portion of Section B are 60 years old and the modulars windows range from 19-28 years old.
Age of Section (number of years since the Windows were installed or replaced) 60
Description of repairs, if applicable, in the last three years. Include year of repair:
Non

MECHANICAL and ELECTRICAL SYSTEMS: Please provide a detailed description of the current mechanical and electrical systems and any known problems or existing conditions (maximum of 5000 characters).

HVAC: The system is steam by natural gas with classroom unit ventilators with supplemental radiation. The steam boilers were replaced in 2007 and 2012. The 2007 boiler has been completely submerged twice due to flooding in the school. The boiler room has seen flood levels as high as 12 feet which has taken its toll on the mechanical, electrical, and plumbing equipment. The heating system was converted to natural gas in 2011 and underground oil tanks were removed the same year. Some of the classroom unit ventilators and rooftop HVAC equipment has been replaced over the years, but most of the distribution system is original, beyond its useful life, and in poor condition. There is limited control over the heating systems, and with the exception of some of the modular classrooms, the school is not air conditioned. Two of the 9 RTU's were replaced in 2018 but the remaining 7 RTU's for the HVAC systems in the annexes and modulars are beyond useful life, failed, and/or in poor condition. With exposed ductwork and mechanical systems, the acoustical performance negatively impacts the learning environment. Dual range actuators for the outside air dampers have been installed in the classrooms.

Plumbing: Most of the plumbing is original although some bathroom fixtures have been replaced. Due to elevation challenges throughout the site, the sewage lines cannot pitch adequately to allow for gravity drainage. Thus there are sewage ejector pumps in small crawl spaces throughout the building. These are no longer allowed by the plumbing code. These pumps have failed numerous times, resulting in sewage flooding throughout the school. The sewage ejector pump directly below the nurse's office creates a sewer gas smell that ebbs and flows based on the operation of these pumps. There are two very large sump pumps in the boiler room operate continuously. The basement sits 6 feet below the water table and the boiler room sits 12 feet below the water table. When the pumps fail the basement floods within a few hours, which is catastrophic as the much storage for curriculum materials, gym equipment, and custodial supplies and equipment is in the basement. The basement area is chronically damp, and by all records has never been dry. Piping is original in fair to poor condition with limited accessibility. Repairs to any of the failed sewer ejector pumps require crawling 50-100 feet through the sewage. This also means that when these pumps fail, sewage sits beneath the first floor classrooms. Domestic hot water is not available at all sinks. The domestic water circulator is in poor condition.

Fire Protection and Detection: The fire alarm panel was replaced in 2016, but only a small portion of the devices are addressable. Therefore, responses are likely only to the building, not to a specific area within the building. The fire alarm distribution system is in poor condition and needs to be replaced. The school has no fire suppression system. The multi-zone fire alarm system is ADA compliant with auditorium and corridor smoke detectors and door holders. Heat detectors are located in the basement, and there is a master box.

Accessibility: A vertical lift was installed in 2010, which provides programmatic access to the 2nd floor. This lift was allowed at the time, but is no longer allowed to be constructed as a permanent means of vertical accessible travel. The "cab" of the lift is approximately 3' by 4' and can only accommodate one child and an adult, and in some cases an adult cannot fit. Some restrooms have had minor investments made to improve accessibility, but currently there are no girls' restrooms that have the clearances needed to allow for wheelchair access, and there no accessible restroom stalls. The boys' restrooms have accessible stalls, but clearances are insufficient for wheelchair access. The ramp leading from the 1953 building, to the annexes is not ADA or MAAB compliant. The playground is not programmatically accessible. The door hardware is not accessible, and the signage throughout the building is not ADA compliant.

Electrical: Lighting and lighting controls were replaced in 2017, but the vast majority of the electrical distribution is original. The entire building was converted to LED lighting including the exterior lighting. The main electrical switch gear is in poor condition and is in a flood-prone area. Electrical service equipment is 400A, 3 phase, 4 wire, 120/208V in fair condition but without sufficient working clearances. The distribution system consists of circuit breaker panel boards with conduit and wire feeders and is 50+ years old. There is a 150kW diesel exterior generator that serves corridor, stair lighting and boilers, but it is not in a 2 hour fire-rated room for life safety system equipment.

Boiler Section 1
Is the District seeking replacement of the Boiler? YES
Is there more than one boiler room in the School? NO
What percentage of the School is heated by the Boiler? 100
Type of heating fuel (e.g., Heating Oil, Natural Gas, Propane, Other)
Natural Gas
Age of Boiler (number of years since the Boiler was installed or replaced) 12
Description of repairs, if applicable, in the last three years. Include year of repair:
While only 12 years old, the 2007 boiler has been submerged in flood waters twice decreasing its useful life.

Boiler Section 2
Is the District seeking replacement of the Boiler? YES
Is there more than one boiler room in the School? NO
What percentage of the School is heated by the Boiler? 100
Type of heating fuel (e.g., Heating Oil, Natural Gas, Propane, Other)
Natural Gas
Age of Boiler (number of years since the Boiler was installed or replaced) 7
Description of repairs, if applicable, in the last three years. Include year of repair:
As part of a renovation/addition and reconfiguration to the HVAC system, this boiler should be replaced although it has not had repairs in the last three years.

Has there been a Major Repair or Replacement of the HVAC SYSTEM? NO
Year of Last Major Repair or Replacement:(YYYY) 1953
Description of Last Major Repair or Replacement:
The HVAC System is original to the building. Some classroom unit ventilators have been replaced over the years. Repaired minor steam leaks 2010 and completed a steam trap survey and implemented all of the recommendations of that survey. Installation of 2 new RTU's (rooftop units) in Annex portion of the building in 2018.

Has there been a Major Repair or Replacement of the ELECTRICAL SERVICES AND DISTRIBUTION SYSTEM? NO

Year of Last Major Repair or Replacement:(YYYY) 1999

Description of Last Major Repair or Replacement:

The vast majority of the electrical distribution system is original. Some electrical modifications were made in 1958 to accommodate the annex addition and again in 1999 to accommodate modular classrooms. The main electrical switch gear is in poor condition and resides in an area prone to flooding. In 2017, lighting controls were replaced and the entire building was converted to LED lighting including the exterior lighting. As part of the renovation/addition project all electrical systems are to upgraded to current code.

BUILDING INTERIOR: Please provide a detailed description of the current building interior including a description of the flooring systems, finishes, ceilings, lighting, etc. (maximum of 5000 characters).

Partitions are glazed CMU at the corridors, painted plaster walls are typical with 1x1 ACT at the upper walls, and painted gypsum board, in good condition, but there is no acoustic privacy in some sensitive spaces. Door surrounds are not accessible. There is VAT, VCT, carpet, and terrazzo in fair condition throughout the building. Ceilings are 1x1 ACT, painted plaster; 2x2 ACT and 2x4 ACT. There are wood solid core doors; some painted, with metal and wood frames in fair condition, some are original. Doorways are not accessible, hardware is not accessible either. Built-in furnishings are made of wood, metal, and laminate and are in poor shape, original to the building. Two classrooms do not have sinks, other sinks are not accessible. Lockers are metal, single-tier, 15x60 for 2 students. There are also wooden cubbies that are open. Rolling shades are typical and in good condition. Adult bathrooms are CMU, ceramic tile, VCT, and have wood/metal partitions. They are in poor condition, not accessible, and are too few in quantity and are poorly distributed. Student bathrooms are original and are in poor condition, are not accessible, too few in quantity, and are poorly distributed. They are glazed CMU full height, 2x2 terrazzo tile, painted plaster ceilings, and half have painted steel partitions. In 2008 half of the partitions were replaced with high-density PVC and the floors were refinished with epoxy. The stairs are painted concrete with steel nosing, with wood/metal handrails and guardrails. Railings and stair nosing are not accessible. There is no elevator and there is no signage. In the gymnasium there is a wood athletic floor and backstops are in good condition. Walls are glazed CMU, full height with 2x2 ACT, but there is a major vertical crack. The cafetorium has VAT and a poured concrete floor; painted plaster, and acoustic treatments at the ceiling, in good condition. There is wood paneling at the platform surround and wainscot and painted plaster with acoustic treatments at the walls. The wood platform is not accessible and is in poor condition. The auditorium was converted to a cafetorium in 2009 with a new flat floor installed. The stage is used for music instruction. There are floor to ceiling folding wall panels that can divide the space into lunch areas separate from the music area. The kitchen is for warming only and is small but is functional. The telephone system is good with multiple outside lines. Lighting is generally 2x2 and 2x4 recessed fluorescent; surface wrap around in classrooms and some corridors. Receptacles are generally standard type and are over 50 years old. There are key fob operated devices at specific doors. Motion detectors are in corridors and stairs that notify UL Central Station. There is a push button video access device at two front doors and a buzzer in the office area. The sound and intercom system consists of privacy switches and surface speakers in classrooms; corridor speakers, and exterior speakers. The classrooms and offices have battery clocks. Corridor speakers have bell tone. There is data in classrooms and office areas and some wireless. A vertical lift was installed, summer 2010. Interior finishes are to be updated as part of the proposed Renovation/addition project. The vast majority of the electrical distribution system is original. In 2017 the entire building was converted to LED lighting including the exterior lighting.

PROGRAMS and OPERATIONS: Please provide a detailed description of the current grade structure and programs offered and indicate whether there are program components that cannot be offered due to facility constraints, operational constraints, etc. (maximum of 5000 characters).

The grade structure at Countryside Elementary School is Kindergarten through Grade 5. The Newton Public Schools has articulated specific instructional time allotments for elementary core subjects, which include reading, writing, mathematics, science, social studies and social curriculum. Specialist programs both enhance the core program and provide contractual preparation time for classroom teachers.

Programs offered include:
Regular education classrooms for grades K-5
Full neighborhood inclusion
Three co-taught classes taught jointly by regular and special education teachers.
Special Education programs including, occupational/physical therapy, speech, applied behavioral analysis
English Language Learners programs/sheltered English instruction, and the STRIDE program.
After school program

The district has been required to take measures so that every available space within each building can be utilized to support teaching and learning and to meet the needs of students. The Countryside building does not accommodate small group instruction associated with an inclusive education practices adopted by Newton, as required by special education laws.

EDUCATIONAL SPACES: Please provide a detailed description of the Educational Spaces within the facility, a description of the number and sizes (in square feet) of classrooms, a description of science rooms/labs including ages and most recent updates, a description of the cafeteria, gym and/or auditorium and a description of the media center/library (maximum of 5000 characters).

Countryside has 24 core academic spaces:
19 instructional classrooms (1 of these is in modular classroom)
1 reading program/literacy (½ classroom shared with ELL)
1 ELL room (½ classroom shared with reading program/literacy)
2 small group instruction (small classrooms)
1 Learning center

Student Services spaces:
1 District Wide SPED - STRIDE classroom
1 small group instruction (small classroom)
1 special education room (small classroom)
1 OT/PT (modular shared with Speech/Language)
1 Speech/language (modular shared with OT/PT)
1 inclusion classroom (modular)

Other instructional spaces:
1 Art classroom (modular)
1 Music (on stage of cafetorium)

The average size of classrooms is 777 nsf

Room 1- 770 nsf, Literacy/ELL
Room 2 - 770 nsf, Gr.1
Room 3 - 770 nsf, Gr. 4 (co-taught)
Room 4 - 770 nsf, Gr.1
Room 5 - 770 nsf, Gr. 1
Room 6 - 770 nsf, divided in two each 385 nsf., special education & ELL
Room 10 - 667 nsf - Gr. 5
Room 11 - 770 nsf, Gr. 5 (co-taught)
Room 12 - 770 nsf, Gr. 5
Room 13 - 770 nsf, Gr. 4
Room 14 - 770 nsf, districtwide sped program
Room 15 - 770 nsf, Gr. 5
Room 16 - 770 nsf, Gr. 4
Room 1a - 783 nsf, Annex, Gr. 3

Room 2a - 783 nsf, Annex, Gr. 3
Room 3a- 810 nsf, Annex, Gr. K
Room 4a - 810 nsf, Annex, Gr. K
Room 5a - 810 nsf, Annex, Gr. K
Room 6a - 810 nsf, Annex, Gr. 2
Room 7a - 810 nsf, Annex, Gr. 2 (co-taught)
Room 8a - 810 nsf, Annex, Gr. 2
Room 9a - 728 nsf,1991 Modular, Inclusion
Room 10a - 728 nsf, 1991 Modular, Art room
Room 11a - 812 nsf, 2000 Modular, Gr. 3
Room 12a - 812 nsf, 2000 Modular, Small Group Instruction
Music - Stage, area included in Cafetorium nsf
Library - 1032 nsf;
Cafetorium, 4080 nsf (includes 916 sf stage/music area)
Gym 2400 nsf
CASP aftercare, 1102 sf (behind the gym)

CAPACITY and UTILIZATION: Please provide the original design capacity and a detailed description of the current capacity and utilization of the school facility. If the school is overcrowded, please describe steps taken by the administration to address capacity issues. Please also describe in detail any spaces that have been converted from their intended use to be used as classroom space (maximum of 5000 characters).

Countryside School has a current enrollment of 413 students. The facility constraints at Countryside to deliver the full education program have been addressed to the extent possible by utilizing modular structures and adapting spaces with the building to maximize space available for the programs. Spaces have been subdivided for teachers and programs to share them. Twenty-five percent of the classrooms, the library and music classroom are undersized when compared to MSBA guidelines for elementary schools. Spaces have been converted from their intended use, the former kindergarten classroom is now the library. Larger specialist spaces have been partitioned off to create multiple small specialist rooms and a storage room has been converted to a tutorial space. Along with creative reassignment of spaces, capacity issues have been addressed at Countryside by adding four modular classrooms.

The MSBA capacity rating for the Countryside School is noted as "overcapacity" in the 2016 MSBA School Survey Report. Without reliance on the outdated aging temporary classrooms, Countryside would be overcrowded. These modular classrooms are located at both ends of a 1958 six classroom annex wing where issues of condition, temperature and humidity are significant, and are exacerbated in the modular classrooms. While overcrowding on Newton's southside has been relieved with the completion of Angier and Zervas, a mixed use project by the Northland Investment Corporation has been approved in the Countryside district which proposes 800 housing units, 123 of which will be affordable units. This project is expected to generate 165 public school students, with an estimate of 83 students at Countryside. As a result, enrollment at Countryside could come close to its current capacity.

MAINTENANCE and CAPITAL REPAIR: Please provide a detailed description of the district's current maintenance practices, its capital repair program, and the maintenance program in place at the facility that is the subject of this SOI. Please include specific examples of capital repair projects undertaken in the past, including any override or debt exclusion votes that were necessary (maximum of 5000 characters).

Regular maintenance and preventative maintenance programs are funded annually by the district in accordance with the City of Newton's Charter Maintenance Ordinance with a funding requirement of up to 2% of the prior fiscal year budget. The schools have followed and exceeded this requirement in order to maintain its aging building stock. In addition, capital repairs are undertaken in conjunction with funding from the City of Newton's Capital Improvement Program (CIP) with financing from bonding and/or the use of free cash for one-time expenses. No capital repair projects at the Countryside Elementary School have required override or debt exclusion votes.

Preventative maintenance (PM) and regular repair and maintenance work orders are processed in a web-based electronic system enabling efficiency and data gathering. Custodians receive annual training on PM procedures. The district's PM program includes: 1) Asbestos inspection every 3 years, 2) Boiler cleaning annually, 3) Elevator inspections, 4) Emergency generator inspections monthly, 5) Fire suppression testing annually, 6) Replacing carpet with vinyl tile, 7) HVAC maintenance including duct cleaning, 8) Infrared roof inspection, 9) Steam trap replacement, 10) Unit vent filter changes 3x/year.

The district's Summer Projects program customizes repairs and improvements to each building, including items as painting, flooring, bathroom upgrades and space re-organization to meet enrollment/programmatic demands.

The City's Capital Improvement Program funds larger construction or repair projects from a plan formulated jointly with the Public Buildings Department and include includes the following types of projects district-wide: 1) Construction/additions/renovations, 2) Accessibility improvements, 3) Communication system upgrades, 4) Large-scale masonry repairs/waterproofing, 5) Generators, 6) HVAC system, including replacement of boilers, roof top units, univents, 7) Energy efficient lighting installation, 8) Roof/gutter replacements, and 9) Building-wide window/door replacements.

The following capital projects were implemented at Countryside and funded by the City's capital improvement program and operations budget. Installation of modulars, replacements of roof top ventilation units, major replacements of wall and window systems. In 2017 lighting controls were replaced and the entire building was converted to LED lighting including the exterior lighting. As part of the renovation/addition project all electrical systems are to upgraded to current code.

The current City of Newton Capital Improvement Program includes $50,000,000 in funds toward a renovation/replacement project at Countryside School. The source of these funds is 'alternate funding', contingent upon local approval.

Priority 5

Question 1: Please provide a detailed description of the issues surrounding the school facility systems (e.g., roof, windows, boilers, HVAC system, and/or electrical service and distribution system) that you are indicating require repair or replacement. Please describe all deficiencies to all systems in sufficient detail to explain the problem.

Roof: The flat roof on the 1953 portion of the original building (Roof Section A) was replaced in 2012 and is in good condition. The roofs on all of the annexes and modular classrooms are beyond their useful life and need to be replaced. Water pools on them. This roof section over the annex (Roof Section B) has had over 40 requests for repairs since the beginning of 2009. Major and minor repairs have been made over the years.

Boilers and HVAC: The HVAC system is steam by natural gas with classroom unit ventilators with supplemental radiation. The steam boilers were replaced in 2007 and 2012. The 2007 boiler has been completely submerged at least twice due to flooding in the school. The boiler room itself has seen flood levels as high as 12 feet which has taken its toll on all of the mechanical, electrical, and plumbing equipment. The heating system was converted to natural gas in 2011, and the underground oil storage tanks were removed the same year. Some of the classroom unit ventilators and rooftop hvac equipment has been replaced over the years, but most of the distribution system is original, beyond its useful life, and in poor condition. With the exception of some of the modular classrooms, the building is not air conditioned. A complete steam trap survey was conducted and the district implemented all of the recommendations of that survey. Two of the 9 RTU's were replaced in 2018 but the remaining 7 RTU's (rooftop units) that are part of the HVAC systems in the annexes and modulars are beyond useful life, failing, failed, and/or in poor condition. With exposed ductwork and mechanical systems, the acoustical performance negatively impacts the learning environment. . Dual range actuators for the outside air dampers have been installed in the classrooms. As part of the proposed project all HVAC systems are to be updated.

Plumbing: Most of the plumbing in the building is original although some bathroom fixtures have been replaced. Due to elevation challenges throughout the site, the sewage lines cannot pitch adequately to allow for gravity drainage. This means that there are sewage ejector pumps in the small crawl spaces throughout the building. These are not allowed by the plumbing code. These pumps have failed countless times, resulting in sewage flooding throughout the school. One example of this is the sewage ejector pump directly below the nurse's office. The smell of sewer gases always exists, but this ebbs and flows based on the operation of these pumps. There are two very large sump pumps in the boiler room that never stop running. The basement sits 6 feet below the water table, and the boiler room sits 12 feet below the water table. When the pumps fail the basement floods within a few hours, which is catastrophic as the only storage for curriculum materials, gym equipment, and custodial supplies and equipment is in the basement. The basement area is chronically wet, and by all records has never been dry. Piping is original in fair to poor condition with limited accessibility. Repairs to any of the failed sewer ejector pumps require crawling 50-100 feet through the sewage. This also means that when these pumps fail, sewage sits beneath the first floor classrooms. Domestic hot water is not available at all sinks. The domestic water circulator is in poor condition. As part of the proposed project all plumbing systems are to be updated.

Fire Protection and Detection: The fire alarm panel was replaced in 2016, but only a small portion of the devices are addressable. Therefore, responses are likely only to the building, and not to a specific area within the building. The fire alarm distribution system is in poor condition and needs to be replaced. The school has no fire suppression systems. The multi-zone fire alarm system is ADA compliant with auditorium and corridor smoke detectors and door holders. Heat detectors are located in the basement, and there is a master box. As part of the proposed Renovation/addition project all Fire Protection and Detections Systems are to be updated.

Accessibility: A vertical lift was installed in 2010, which provides programmatic access to the 2nd floor of the building. This lift was allowed at the time, but is no longer allowed to be constructed as a permanent means of vertical accessible travel. The "cab" of the lift is approximately 3' by 4', which means that it can only accommodate one child and an adult, and in some cases an adult cannot fit. A few restrooms have had minor investments made to improve accessibility, but currently there are no girls restrooms that have the clearances needed to allow for wheelchair access, and once in there are no accessible restroom stalls exist. The boy's restrooms have accessible stalls, but clearances are not sufficient for wheelchair access. The ramp leading from the 1953 building, to the annexes is not ADA or MAAB compliant. The

playground is not programmatically accessible. The door hardware is not accessible, and the signage throughout the building is not ADA compliant. As part of the proposed project Accessibility issues are to be updated to meet current ADA standards.

Electrical: Lighting and lighting controls were replaced in 2017, but the vast majority of the electrical distribution is original. The entire building was converted to LED lighting including the exterior lighting. The main electrical switch gear is in poor condition and resides in an area prone to flooding. Electrical service equipment is 400A, 3 phase, 4 wire, 120/208V in fair condition, but without sufficient working clearances. The distribution system consists of circuit breaker panel boards with conduit and wire feeders and is 50+ years old. There is a 150kW diesel exterior generator that serves corridor and stair lighting and boilers, but it is not in a 2 hour fire-rated room for life safety system equipment. The multi-zone fire alarm system is ADA compliant with auditorium and corridor smoke detectors and door holders. Heat detectors are located in the basement, and there is a master box. As part of the proposed project electrical systems are to be updated to meet current codes.

Priority 5

Question 2: Please describe the measures the district has already taken to mitigate the problem/issues described in Question 1 above.

The roofing system over the original 1953 section of the building was replaced with an EPDM roof in 2012. The roofing system over the 1958 annex building has had major repairs numerous times over the years and should be replaced.

Based on current best practices and Newton's education mission, educational and building standards that address the reduction of energy consumption have been established as part of the facilities operations plan. In recent years, energy efficient lighting has been installed throughout the district by partnering with the NSTAR Lighting Rebate Program. The City has hired an energy specialist to oversee the implementation of measures and policies that have a direct impact on reduced energy consumption while improving equipment operation and occupant comfort. The district has clear policies and procedures for reducing energy use throughout the day and evening. Heat is not turned on within school buildings until October 15 of each year. During the school day thermostats are kept at the lowest required temperatures. Staff are encouraged to arrange classroom furnishing to maximize distribution of heat. Policies are in place to turn off lights and use natural lighting whenever possible. The district periodically sends out reminders regarding these energy conservation policies.

In 2012, the City of Newton entered into a contract with Thielsch Engineering. This company has conducted an energy audit of the Countryside School and has reviewed the historic consumption of all utilities and the available energy cost savings that will result from recommended energy conservation projects that will deliver those savings.

Priority 5

Question 3: Please provide a detailed explanation of the impact of the problem/issues described in Question 1 above on your district's educational program. Please include specific examples of how the problem prevents the district from delivering the educational program it is required to deliver and how students and/or teachers are directly affected by the problem identified.

Teaching and Learning at Countryside is highly impacted by the facility due to its age and condition, and the reliance on the 9-classroom annex/modular wing built with temporary construction methods, and also due to the fact that the facility severely lacks adequate support spaces. The condition of building systems creates environmental conditions that do not support teaching and learning: The vast majority of mechanical, electrical, and plumbing systems at Countryside are original and not up to current code. The HVAC distribution system is mostly original to the buildings creating uneven heating conditions. Ventilation is below standard and lacking in some spaces. Increased levels of humidity are present throughout the building. The school has too few toilet rooms for both students and staff.

The difficult layout of the building that results in navigation through multiple levels and a lengthy breezeway dividing the facility impedes access to instruction for students including a general lack of ADA accessibility. The building is not accessible or ADA compliant in many ways, reliant upon an inadequate lift for programmatic accessibility. While there is a cafetorium it is not near the warming kitchen.

The facility relies on undersized spaces for instruction and lacks small instructional spaces required with current educational practices and the full inclusion of students with a spectrum of needs. When built, Countryside did not have SPED and ELL programs, children went home for lunch, kindergarten was a half-day double session, no after school programs existed, nor was there dedicated space for art and music instruction. SPED programs require self-contained classrooms and ancillary spaces for speech and language, OT and PT, ABA space (for autism spectrum disorders) and small group tutorial spaces. The impact of substandard spaces on teachers and student learning is significant. Many of the classrooms are undersized.

Priority 5

Question 4: Please describe how addressing the school facility systems you identified in Question 1 above will extend the useful life of the facility that is the subject of this SOI and how it will improve your district's educational program.

The heating system of a building is a major piece of building infrastructure, and its replacement and/or modernization will extend the useful life of the facility. Since the heating system of this facility was constructed, technology has changed significantly; today there are high efficiency boilers, variable speed drives and sophisticated electronic controls for heating system management. Decreased maintenance needs for heating systems increases not only its useful life but has a positive effect on the building as a whole. Approximately one-third of our maintenance and repair budget is devoted to repairing failing heating equipment. There is an opportunity cost in this scenario whereby other facility systems must compete for dollars. Heating system emergencies take a high priority over other maintenance concerns. Heating system upgrades will reduce the operating cost and allow those dollars to be spent on preventative maintenance and other types of facility improvements. In addition, the recurrent flooding issues will only be resolved with a major reconfiguration to the site and removal of the modular buildings in any building project.

Please also provide the following:

Have the systems identified above been examined by an engineer or other trained building professional?:
YES

If "YES", please provide the name of the individual and his/her professional affiliation (maximum of 250 characters):

Josh Morse, Public Buildings Commissioner

HMFH Architects Inc. Long-Range Facilities Master Plan 2007, updated 2011

The date of the inspection:

A summary of the findings (maximum of 5000 characters):

Summary of findings by Josh Morse in Existing Conditions Report

The fact that half of the classrooms at Countryside reside in temporary modulars or poorly designed annexes, coupled with the overall condition of the original building, yields a strong need for capital investment. It is recommended that the 12 modular and annex classrooms be demolished, the 1954 building be renovated, and an 11-classroom addition with all of the appropriate support spaces be constructed. The removal of the 12 modulars and annexes will result in the loss of 11 classrooms and the art room, but the new addition will create 11 new classrooms, as well as appropriate spaces for ELL, Inclusion, and the Specialists Offices, which will restore two original classrooms in the 1954 building. In the end, this will yield 24 classrooms with all of the appropriate support spaces, and a school capable of handling upwards of 500 students. It is expected that the addition would be approximately 30,000 square feet, which would bring the total building gross area up to 65,910 square feet.

Forty percent (40%) grossing/efficiency factor applied to the above yields a 30,000 square foot addition. A full programmatic evaluation may yield variances in the space needs, but those variances will have very minimal impacts to the footprint of the proposed addition.

The general scope of the renovation of the existing facility would be as follows:

Roof replacement

Mechanical system replacements, including air conditioning.

Plumbing and Restroom Upgrades

Electrical improvements and service replacement

Fire Suppression Installation

Fire Alarm Replacement

Accessibility upgrades

Window and Door replacement

Envelope repairs

Interior finish upgrades and FF&E

Priority 7

Question 1: Please provide a detailed description of the programs not currently available due to facility constraints, the state or local requirement for such programs, and the facility limitations precluding the programs from being offered.

While the necessary education programs are currently being offered, they are being offered under constraints and in substandard spaces as described in the answer to Question 3.

Significant enrollment growth at Countryside has occurred since the 1958 annex was added. This resulted in the addition of four modular classrooms adjacent to the annex. The modular construction has created very inefficient circulation. The modulars were installed over two decades ago. While enrollment has almost double since the original building was constructed, only one more toilet room was added. Crowded conditions exist in the school because of the serious lack of adequate support spaces including: student and adult toilets, cafeteria space, library space, special education space, music, and professional and team collaborative space.

Priority 7

Question 2: Please describe the measures the district has taken or is planning to take in the immediate future to mitigate the problem(s) described above.

In the City of Newton's Capital Improvement Program (CIP), $50,000,000, is included in the next five years to renovate/add to Countryside School as 'alternate funding' depending upon local approval.

Priority 7

Question 3: Please provide a detailed explanation of the impact of the problem described in this priority on your district's educational program. Please include specific examples of how the problem prevents the district from delivering the educational program it is required to deliver and how students and/or teachers are directly affected by the problem identified.

Teaching and Learning at Countryside is highly impacted by the facility due to its age and condition, and the reliance on the 9-classroom annex/modular wing built with temporary construction methods, and also due to the fact that the facility severely lacks adequate support spaces. Significant enrollment growth at Countryside has occurred since the 1958 annex was added. This resulted in the addition of four modular classrooms adjacent to the annex. The modular construction has created very inefficient circulation. The modulars were installed over two decades ago. While enrollment has almost double since the original building was constructed, only one more toilet room was added. Crowded conditions exist in the school because of the serious lack of adequate support spaces including: student and adult toilets, cafeteria space, library space, special education space, music, and professional and team collaborative space.

The facility constraints at Countryside to deliver the full education program have been addressed to the extent possible by utilizing modular structures and adapting spaces with the building to maximize space available for the programs. Spaces have been subdivided for teachers and programs to share them. Twenty-five percent of the classrooms, the library and music classroom are undersized when compared to MSBA guidelines for elementary schools. Spaces have been converted from their intended use, the former kindergarten classroom is now the library. Larger specialist spaces have been partitioned off to create multiple small specialist rooms and a storage room has been converted to a tutorial space. Along with creative reassignment of spaces, capacity issues have been addressed at Countryside by adding four modular classrooms.

The facility relies on undersized spaces for instruction and lacks small instructional spaces required with current educational practices and the full inclusion of students with a spectrum of needs. When built, Countryside did not have SPED and ELL programs, children went home for lunch, kindergarten was a half-day double session, no after school programs existed, nor was there dedicated space for art and music instruction. SPED programs require self-contained classrooms and ancillary spaces for speech and language, OT and PT, ABA space (for autism spectrum disorders) and small group tutorial spaces. The impact of substandard spaces on teachers and student learning is significant. Many of the classrooms are undersized or simply not available.

Vote

REQUIRED FORM OF VOTE TO SUBMIT AN SOI

REQUIRED VOTES

If the SOI is being submitted by a City or Town, a vote in the following form is required from both the City Council/Board of Aldermen **OR** the Board of Selectmen/equivalent governing body **AND** the School Committee.

If the SOI is being submitted by a regional school district, a vote in the following form is required from the Regional School Committee only. FORM OF VOTE Please use the text below to prepare your City's, Town's or District's required vote(s).

FORM OF VOTE

Please use the text below to prepare your City's, Town's or District's required vote(s).

Resolved: Having convened in an open meeting on _____, prior to the closing date, the _____ *[City Council/Board of Aldermen, Board of Selectmen/Equivalent Governing Body/School Committee]* of _____ *[City/Town]*, in accordance with its charter, by-laws, and ordinances, has voted to authorize the Superintendent to submit to the Massachusetts School Building Authority the Statement of Interest dated _____ for the _____ *[Name of School]* located at _____ *[Address]* which describes and explains the following deficiencies and the priority category(s) for which an application may be submitted to the Massachusetts School Building Authority in the future

_____

_____

_____

_____

_____

_____; *[Insert a description of the priority(s) checked off on the Statement of Interest Form and a brief description of the deficiency described therein for each priority]:* and hereby further specifically acknowledges that by submitting this Statement of Interest Form, the Massachusetts School Building Authority in no way guarantees the acceptance or the approval of an application, the awarding of a grant or any other funding commitment from the Massachusetts School Building Authority, or commits the City/Town/Regional School District to filing an application for funding with the Massachusetts School Building Authority.

Name of School	---- - SAMPLE SCHOOL[DRAFT]---- -

CERTIFICATIONS

The undersigned hereby certifies that, to the best of his/her knowledge, information and belief, the statements and information contained in this statement of Interest and attached hereto are true and accurate and that this Statement of Interest has been prepared under the direction of the district school committee and the undersigned is duly authorized to submit this Statement of Interest to the Massachusetts School Building Authority. The undersigned also hereby acknowledges and agrees to provide the Massachusetts School Building Authority, upon request by the Authority, any additional information relating to this Statement of Interest that may be required by the Authority.

Chief Executive Officer *	**School Committee Chair**	**Superintendent of Schools**
(signature)	(signature)	(signature)
Date	Date	Date

* Local chief executive officer: In a city or town with a manager form of government, the manager of the municipality; in other cities, the mayor; and in other towns, the board of selectmen unless, in a city or town, some other municipal office is designated to the chief executive office under the provisions of a local charter. Please note, in districts where the Superintendent is also the Local Chief Executive Officer, it is required for the same person to sign the Statement of Interest Certifications twice.

NEWTON PUBLIC SCHOOLS
Equity & Excellence

NEWTON SCHOOL COMMITTEE

Newton School Committee Members
MAYOR RUTHANNE FULLER– EX OFFICIO

WARD	
I	Bridget Ray-Canada, Vice -Chair
II	Margaret Albright
III	Anping Shen
IV	Tamika Olszewski
V	Emily Prenner
VI	Ruth Goldman, Chair
VII	Kathleen Shields
VIII	Matthew Miller

Resolved: Having convened in an open meeting on February 10, 2020 prior to the SOI submission closing date, the School Committee of Newton Massachusetts, in accordance with its charter, by-laws, and ordinances, has voted to authorize the Superintendent to submit to the Massachusetts School Building Authority the Statement of Interest Form on or before April 8, 2020 for the Countryside Elementary School located at 191 Dedham Street which describes and explains the following deficiencies and the priority category(s) for which an application may be submitted to the Massachusetts School Building Authority in the future for replacement, renovation or modernization of school facility systems such as roofs, windows, boilers, heating and ventilation systems, to increase energy conservation and decrease energy related costs in a school facility: replacement of or addition to obsolete buildings in order to provide for a full range of programs consistent with state and approved local requirements; and hereby further specifically acknowledges that by submitting this Statement of Interest Form, the Massachusetts School Building Authority in no way guarantees the acceptance or the approval of an application, the awarding of a grant or any other funding commitment from the Massachusetts School Building Authority, or commits the City/Town/Regional School District to filing an application for funding with the Massachusetts School Building Authority.

Motion: Olszewski
Second: Shen
Vote: 9-0-0

School Committee Chair

Ruth Goldman Date: February 11, 2020
Ruth Goldman (signature)

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www.newton.k12.ma.us • schoolcommittee@newton.k12.ma.us

#167-20(A)

CITY OF NEWTON

IN CITY COUNCIL

March 16, 2020

Resolution to the Newton Superintendent of Schools Authorizing the Superintendent to Submit to the Massachusetts School Building Authority a Statement of Interest for the Countryside Elementary School by April 8, 2020

BE IT RESOLVED: Having convened in an open meeting on March 16, 2020 prior to the closing date, the City Council of Newton, in accordance with its charter, by-laws, and ordinances, has voted to authorize the Superintendent to submit to the Massachusetts School Building Authority the Statement of Interest Form dated April 8, 2020 for the Countryside Elementary School located at 191 Dedham which describes and explains the following deficiencies and the priority category(s) for which an application may be submitted to the Massachusetts School Building Authority in the future for replacement, renovation or modernization of school facility systems, such as roofs, windows, boilers, heating and ventilation systems, to increase energy conservation and decrease energy related costs in a school facility; and the replacement of or addition to obsolete buildings in order to provide for a full range of programs consistent with state and approved local requirements; and hereby further specifically acknowledges that by submitting this Statement of Interest Form, the Massachusetts School Building Authority in no way guarantees the acceptance or the approval of an application, the awarding of a grant or any other funding commitment from the Massachusetts School Building Authority, or commits the Newton School District to filing an application for funding with the Massachusetts School Building Authority.

Under Suspension of Rules
Readings Waived and Approved
24 Yeas 0 Nays

(SGD) DAVID A. OLSON, City Clerk

A True Copy
Attest
City Clerk of Newton, Mass.

Massachusetts School Building Authority

Deborah B. Goldberg
Chairman, State Treasurer

James A. MacDonald
Chief Executive Officer

John K. McCarthy
Executive Director / Deputy CEO

February 15, 2022

The Honorable Ruthanne Fuller
Mayor, City of Newton
Newton City Hall
1000 Commonwealth Avenue
Newton Centre, MA 02459

Re: City of Newton, Countryside Elementary School

Dear Mayor Fuller:

Enclosed for your records, please find a copy of the fully-executed Feasibility Study Agreement and Exhibits A-C for the Countryside Elementary School project in the City of Newton (the "District").

Also, attached for your convenience, please find instructions for entering project budgets in the Massachusetts School Building Authority (the "MSBA") ProPay System, and the Feasibility Study Agreement Budget Revision Request Form. Please note the MSBA will not process reimbursement requests until the District has entered the budget and the budget has been accepted by the MSBA.

Please feel free to contact me if you have any questions.

Regards,

Emma Parish
Project Coordinator

Cc: Legislative Delegation
Susan S. Albright, President, Newton City Council
Joshua R. Morse, Public Buildings Commissioner, City of Newton
Alejandro M. Valcarce, Deputy Public Buildings Commissioner, City of Newton
Tamika Olszewski, Chair, Newton School Committee
Dr. David A. Fleishman, Superintendent, Newton Public Schools
Liam Hurley, Assistant Superintendent/Chief Financial and Administrative Officer, Newton Public Schools
File: 10.2 Letters (Region 4)

District: City of Newton
School: Countryside Elementary School
Project ID: 202002070040

MASSACHUSETTS SCHOOL BUILDING AUTHORITY
FEASIBILITY STUDY AGREEMENT

This Feasibility Study Agreement, dated the 14th day of February, 2022(the "Agreement") is between the Massachusetts School Building Authority (the "**Authority**"), a public instrumentality of the Commonwealth of Massachusetts established by Chapter 70B of the Massachusetts General Laws and Chapters 208 & 210 of the Acts of 2004 of the Commonwealth, in each case as amended from time to time, and the City of Newton (the "**District**").

WHEREAS, the District submitted a Statement of Interest to the Authority for the Countryside Elementary School (hereinafter **"School"**), and the District prioritized this Statement of Interest as its priority to receive any potential funding from the Authority;

WHEREAS, on April 14, 2021, the Board of Directors of the Authority voted to invite the District to the MSBA's Eligibility Period, and on June 1, 2021 to commence the Eligibility Period, and the District has completed all applicable preliminary requirements to the satisfaction of the MSBA;

WHEREAS, on December 15, 2021, the Board of Directors of the Authority shall have voted to authorize the Parties to enter into this Agreement upon the terms and conditions stated herein;

WHEREAS, the Feasibility Study is one step in the multi-step process of the Authority's grant program for school building construction and renovation projects, and the invitation to collaborate on conducting and/or reviewing a Feasibility Study is not approval of a project or any funding by the Authority, except as expressly provided in this Agreement;

WHEREAS, the Authority's grant program for school building renovation and construction projects is a non-entitlement, discretionary program based on need, as determined by the Authority;

WHEREAS, the District has submitted a signed Initial Compliance Certification, as described in 963 CMR 2.02, 2.03 & 2.10(2), in the form prescribed by the Authority, and it has been accepted by the Authority;

WHEREAS, the District has formed a School Building Committee to monitor the Feasibility Study and advise the District during the study;

WHEREAS, the Authority may reimburse the District for a portion of eligible, approved costs incurred in connection with the Feasibility Study undertaken by the District for the School under certain terms and conditions, hereinafter provided, and subject to the provisions of M.G.L. c. 70B, 963 CMR 2.00 *et seq.* and all applicable policies and guidelines of the Authority;

NOW THEREFORE, in consideration of the promises and the agreements, provisions and covenants contained in this Agreement, and for other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the Authority and the District (together, the "Parties") agree as follows:

SECTION 1
DEFINITIONS

1.1 Capitalized terms not specifically defined in this Definitions section shall have the meanings ascribed to them in either M.G.L. c. 70B or 963 CMR 2.00 *et seq*.

"Budget" shall mean a complete and full enumeration of all costs, including both hard costs and soft costs, so-called, that the District reasonably estimates, to the best of its knowledge and belief, will be incurred in connection with the planning, development, and the completion of the Feasibility Study, which Budget shall be approved by the Authority and attached hereto as **Exhibit A**, as it may be updated from time to time.

"Design Contract" shall mean the standard design contract developed and prescribed by the Authority, as it may be amended by the Authority from time to time that shall be executed by the District and the Designer for design services related to the Proposed Project.

"Designer" shall mean the individual, corporation, partnership, sole proprietorship, joint stock company, joint venture, or other entity engaged in the practice of architecture, landscape architecture, or engineering that meets the requirements of M.G.L. c. 7C, § 44 and has been procured and contracted by the District to conduct a Feasibility Study, in accordance with the provisions of Sections 2.1(a)(i) and 2.1(a)(ii) of this Agreement.

"Excusable Delay" shall mean a delay of the Feasibility Study that either (a) is solely because of a natural event, such as flood, storms, or lightning, that is not preventable by any human agency, or (b) is reasonably determined by the Authority to be excusable, provided that the failure of the District to have exclusive ownership, control and use of site will not extend the "Term of the Agreement" established in Section 2.2.

"Feasibility Study" shall mean a study as described in 963 CMR 2.10(8) and in any applicable policies and guidelines of the Authority and, in relation to a Major Reconstruction Project or Repair Project, as described in M.G.L. c. 70B, 963 CMR 2.00 *et seq.* and any applicable policies and guidelines of the Authority, shall also include an engineering study, in a format prescribed by or otherwise acceptable to the Authority, to investigate potential options and solutions, including cost estimates, for the deficiencies and issues identified in the Statement of Interest or as otherwise determined by the Authority.

"Owner's Project Manager" shall mean the individual corporation, partnership, sole proprietorship, joint stock company, joint venture, or other entity under contract with, designated, or assigned by the District and approved by the Authority, to fully and completely manage and coordinate administration of the Project to completion. The Owner's Project Manager must meet the qualifications set forth in M.G.L. c. 149, § 44A ½, 963 CMR 2.00 *et seq.*, and all applicable policies and guidelines of the Authority.

"Scope" shall mean the scope of the Feasibility Study as described in 963 CMR 2.10(8) and any applicable policies and guidelines of the Authority or as otherwise determined in writing by the Authority and as more fully described in **Exhibit B** attached hereto, as it may be updated from time to time as mutually agreed upon by the District and the Authority.

"Schedule" shall mean the schedule for the Feasibility Study, which schedule shall be updated from time to time and approved by the Authority.

"School" shall mean the Countryside Elementary School located in the District.

"Statement of Interest" shall mean the Statement of Interest, as defined in 963 CMR 2.09 and all applicable policies and guidelines of the Authority, submitted to the Authority by the District for the School.

SECTION 2
FEASIBILITY STUDY

Subject to the terms and conditions of this Agreement, and in reliance on the representations, warranties and covenants contained herein, the Parties hereby agree as follows:

2.1 Feasibility Study.

(a.) The Parties hereby agree that the District shall undertake a Feasibility Study to investigate potential options and solutions, including cost estimates, to the School's deficiencies and issues as identified in the Statement of Interest or as otherwise determined by the Authority and in accordance with the Scope, Budget, and Schedule approved by the Authority, provided that the Authority has the unconditional unilateral right to alter that approved Scope, Budget, and/or Schedule for the Authority's convenience and the Authority will not be liable to the District for any loss and/or damage that arises, in whole or in part, out of any such alteration. The adequacy, sufficiency and/or acceptability of a Feasibility Study or a Prior Study, as defined in Section 2.1(c) of this Agreement, for the purposes of the Authority's grant program shall be determined by the Authority within its sole discretion. Any determination by the Authority that a Feasibility Study or Prior Study is adequate, sufficient or acceptable for the Authority's purposes shall not be

construed as a certification or approval by the Authority of the studies, plans, drawings, designs, cost estimates, specifications or any other information or materials contained therein and no MSBA requirement that the District study a particular Option shall constitute an MSBA approval of that Option, in whole or in part. The District, its officials, employees and agents are and shall remain responsible for the Feasibility Study and/or Prior Study and the building designs, site plans, drawings, cost estimates, specifications and other materials and information relative thereto that the District submits to the Authority. The Authority's review of the Feasibility Study and/or Prior Study and any studies, plans, drawings, designs, cost estimates, specifications or any other information or materials contained therein or related thereto is solely for the purpose of determining whether they meet the provisions of this Agreement and the Authority's regulations, standards, policies, guidelines and other requirements and whether the District will be eligible for potential funding from the Authority for the Proposed Project. Approval of a Proposed Project shall only be determined by a vote of the Authority's Board in accordance with 963 CMR 2.00 et seq. and the applicable policies and guidelines of the Authority.

(i.) The District shall procure a Designer to conduct the Feasibility Study pursuant to the provisions of M.G.L. c. 7C, § 44 through 58, 963 CMR 2.10(8), 963 CMR 2.12, and any other applicable laws and regulations; provided, however, that if the estimated construction cost of the Proposed Project is determined to be more than five million dollars ($5,000,000), then the District shall select the Feasibility Study Designer using the Authority's Designer Selection Panel in accordance with 963 CMR 2.00 *et seq.* and all applicable policies and guidelines of the Authority. The District shall not use a Designer who was procured by the District prior to July 1, 2007, to conduct the Feasibility Study, unless the Designer is acceptable to the Authority. It is further provided that, if said Designer who was procured by the District prior to July 1, 2007, is unacceptable to the Authority, the District shall conduct a new procurement for a Feasibility Study Designer pursuant to the applicable provisions of M.G.L. c. 7C, § 44 through 58, 963 CMR 2.10(8), 963 CMR 2.12, and any rules, regulations, policies and guidelines of the Authority.

(ii.) The District shall use the Authority's Design Contract to contract with the Designer for the

Feasibility Study. The District shall monitor the performance of the Designer and shall require the Designer to fully comply with all provisions of the Design Contract, including, but not limited to, all provisions affecting the interests of the Authority.

(iii.) If, at any time, the construction cost of the Proposed Project is estimated to be more than one million five hundred thousand dollars ($1,500,000), or if the construction cost of the Proposed Project is estimated to be equal to or less than one million five hundred thousand dollars ($1,500,000) and the Authority so requires, at any time, as a condition to qualify for funding by the Authority, the District shall procure and maintain under contract, or otherwise assign, an Owner's Project Manager, pursuant to M.G.L. c. 149, § 44A ½ , 963 CMR 2.00, *et seq.* and any applicable policies and guidelines of the Authority. The selection of an Owner's Project Manager shall be subject to the review and approval of the Authority as required by M.G.L. 70B, 963 CMR 2.00, *et seq.*, and any applicable policies and guidelines of the Authority. Any costs associated with an Owner's Project Manager who is not approved by the Authority shall not be eligible for reimbursement.

(iv.) Where applicable, the District shall use the Authority's model request for services and standard contract to procure and contract with any Owner's Project Manager for the Proposed Project, including the Feasibility Study stage of the Proposed Project. The District shall monitor the performance of the Owner's Project Manager and shall require the Owner's Project Manager to fully comply with all provisions of the contract between the District and the Owner's Project Manager including, but not limited to, all provisions affecting the interests of the Authority.

(b.) Subject to the satisfaction of or compliance with, as reasonably determined by the Authority, all of the terms and conditions of this Agreement, the applicable provisions of M.G.L. c. 70B, Chapters 208 and 210 of the Acts of 2004, and 963 CMR 2.00 *et seq.* and any other rule, regulation, policy or guideline of the Authority, and further subject to the Authority's approval of the Scope, Budget and Schedule and the District's

approval, authorization and appropriation for the Feasibility Study using forms prescribed by or otherwise acceptable to the Authority, the Authority hereby agrees to pay to the District an amount that shall under no circumstances exceed the lesser of (i) 32.47% of the eligible, approved costs of the Feasibility Study, as determined by the Authority, or (ii) $405,875.00. The Parties hereby acknowledge and agree that $405,875.00 is the maximum amount of funding that the District may receive from the Authority for the Feasibility Study, and that the final amount of eligible Feasibility Study costs approved by the Authority may equal an amount less than $405,875.00, as determined by an audit or audits conducted by the Authority. Any costs and expenditures that are determined by the Authority to be either in excess of the $405,875.00 or ineligible for payment by the Authority shall be the sole responsibility of the District. The reimbursement rate set forth above, and as more fully described in the Reimbursement Rate Summary, attached hereto as **Exhibit "C"**, is the rate at which the District may be reimbursed for the eligible, approved costs of the Feasibility Study.

In the event that the Authority reasonably determines that the Feasibility Study is not in accordance or compliance with the Scope, Schedule, Budget, all of the terms and conditions of this Agreement, the provisions of M.G.L. c. 70B, Chapters 208 and 210 of the Acts of 2004, 963 CMR 2.00 *et seq*. and any other rule, regulation, policy or guideline of the Authority, or is delayed (other than an Excusable Delay) or is not duly authorized, approved and funded by the District in accordance with applicable law and as required by the Authority, then the Authority may temporarily and/or permanently withhold payments to the District for any eligible, approved costs of the Feasibility Study, provided that the Authority shall not unreasonably withhold any such payments and further provided that the Authority shall give written notice to the District of any such withholding. Notwithstanding the foregoing, failure by the Authority to provide such written notice timely shall not create or result in any entitlement to payment for the District. In the event that the Authority either temporarily or permanently withholds payment for the Feasibility Study, the District hereby agrees and acknowledges that the Authority shall have no liability for any such withholding of payment or any loss that may occur as a result of any such withholding of payment.

The District shall not be eligible to receive any funding for the Authority's share of the eligible, approved Feasibility Study costs, or any portion thereof, unless and until the Authority has approved the Scope, Budget, and Schedule. The Authority shall reimburse the District only for costs incurred by the District in connection with the Feasibility Study that are timely submitted to the Authority, eligible for reimbursement pursuant to Authority policies, procedures, and guidelines, and audited and approved by the Authority.

(c) Notwithstanding any provision of this Agreement, a District will not be eligible for reimbursement for costs that arise out of any study of the deficiencies and issues identified in the Statement of Interest to the extent that those costs were incurred by the District prior to the date of the Execution of this Agreement.

2.2 Term of Agreement.

No Project Scope and Budget Agreement for a Proposed Project, which arises out of the provisions of this Agreement will be approved by the Authority's Board until on or after July 1, 2023. Subject to that limitation, the Agreement will terminate upon (1) the approval of a Project Scope and Budget Agreement for a Proposed Project by the Authority's Board and the (2) execution of a Project Scope and Budget Agreement by the Authority and the District for that Proposed Project or (2) Nine Hundred and Thirteen (913) Days after the date upon which the Authority's Board votes to invite the District into Feasibility Study, whichever occurs sooner.

SECTION 3
COVENANTS

The District covenants and agrees that as long as this Agreement is in effect, the District shall and shall cause its employees, officers, agents, and representatives to perform and comply with all covenants of this Agreement.

3.1 The District hereby agrees that it shall make available for inspection by, and submit to, the Authority any and all information and documentation related to the Feasibility Study, including, but not limited to budget information, progress reports, and draft copies that may be requested by the Authority, promptly and in no event later than the deadline stated in any such request.

3.2 The District hereby agrees that it shall work with the Authority in developing the Scope, Budget and Schedule for the Feasibility Study and it acknowledges and agrees that the Authority's funding for the Feasibility Study is subject to the Authority's approval of the Scope, Budget and Schedule.

3.3 The District hereby acknowledges and agrees that the Authority shall not provide any amounts in excess of the amount determined under Section 2.1(b) of this Agreement.

3.4 The District hereby acknowledges and agrees that the Authority may, in its sole discretion, determine that certain costs incurred by the District in connection with the Feasibility Study are not eligible for reimbursement by the Authority, pursuant to any applicable provisions of M.G.L. c. 70B, 963 CMR 2.00 *et seq.*, including, but not limited to, sections 2.10 & 2.16(5), and any other policies and guidelines of the Authority.

3.5 The District shall comply with all provisions of this Agreement; the provisions of all other agreements between the Authority and the District that relate to the Feasibility Study; the provisions of M.G.L. c. 70B, 963 CMR 2.00 *et seq.*, and all policies and guidelines of the Authority; and all provisions of law applicable to the Feasibility Study, this Agreement, and any other agreements and documents related to the Feasibility Study, and shall take all action necessary to fulfill its obligations under this Agreement.

3.6 The District hereby acknowledges and agrees that the Authority shall not be required or obligated to make any payment for any eligible Feasibility Study costs while an Event of Default, as defined in section 8 of this Agreement, shall have occurred.

3.7 The District shall, and shall cause any Owner's Project Manager and Designer and their employees, subconsultants and agents to, keep adequate records of the Feasibility Study and make all Feasibility Study records and the Feasibility Study site(s) available to the Authority or representatives of the Authority for review during the course of the Feasibility Study.

3.8 The District hereby acknowledges and agrees that the duties of any Owner's Project Manager hired by and/or assigned to the Proposed Project by the District shall include, but not be limited to, fully and completely managing and coordinating on behalf of the District the administration of the Feasibility Study to completion. Any Owner's Project Manager hired by and/or assigned to the Proposed Project by the District shall be responsible for overseeing, tracking, and managing the Budget and Schedule. In the event that an Owner's Project Manager is not required for the Proposed Project, the District shall have the aforesaid duties and responsibilities in addition to any others imposed by M.G.L. c. 70B, 963 CMR, et seq., the policies and guidelines of the Authority, and any other applicable provisions of law.

3.9 The District hereby agrees that the Authority shall have free access to, and open communication with, any Owner's Project Manager hired by and/or assigned to the Proposed Project by the District and that the Authority shall have full and complete access to all information and documentation relating to the Proposed Project to the same extent that the District has such access. The District agrees that it shall require any such Owner's Project Manager to fully cooperate with the Authority in all matters related to the Proposed Project; to promptly communicate, transmit, and/or make available for inspection and copying any and all information and documentation requested by the Authority; to fully, accurately and promptly complete all forms and writings requested by the Authority; and to give complete, accurate, and prompt responses to any and all questions, inquiries and requests for information posed by the Authority. The District agrees that it shall not in any way, directly or indirectly, limit, obstruct, censor, hinder or otherwise interfere with the free flow of communication and information between the Owner's Project Manager and the Authority in all matters related to the Proposed Project and as provided herein; that it shall not suffer the same to occur by the act or omission of any other person or entity; and that it shall not retaliate against the Owner's Project Manager for communicating information to the Authority as provided herein. The District agrees to execute, deliver and/or communicate to the Owner's Project Manager

any and all authorizations, approvals, waivers, agreements, directives, and actions that are necessary to fulfill its obligations under this paragraph. The District further agrees that the Authority shall bear no liability whatsoever arising out of the Authority's knowledge or receipt of information communicated to the Authority by the Owner's Project Manager and that the District shall remain responsible for the management and completion of the Proposed Project.

3.10 The District hereby acknowledges and agrees that the duties of the Designer shall include, but not be limited to, those described in this Agreement, including, but not limited to, the Scope attached hereto as Exhibit B; 963 CMR 2.10(8); any applicable rules, regulations, policies and guidelines of the Authority; and any standard scope of services and the Design Contract prescribed by the Authority.

3.11 The District hereby acknowledges and agrees that neither the District nor any of its employees, officials, agents, consultants or contractors shall submit any false or intentionally misleading information or documentation to the Authority in connection with this Feasibility Study Agreement or the Feasibility Study, and further acknowledges and agrees that the submission of any such information or documentation may cause the Authority to suspend, revoke or terminate any and all payments otherwise due to the District and/or recover any previous payments made to the District, and the District may be ineligible for any funding from the Authority. The District hereby further agrees that it shall have a continuing obligation to update and notify the Authority in writing when it knows or has any reason to know that any information or documentation submitted to the Authority contains false, misleading or incorrect information.

3.12 The District hereby acknowledges and agrees that the Authority shall bear no responsibility or liability of any sort for the results of any Feasibility Study, environmental assessment, geotechnical site testing, any necessary site remediation, clean-up, or other site remediation services.

3.13 The District hereby acknowledges and agrees that it shall provide a final Feasibility Study report to the Authority, which shall be in a format that is prescribed by or otherwise acceptable to the Authority.

3.14 The District hereby acknowledges and agrees that the Authority's grant program is a non-entitlement, discretionary program based on need, and the Feasibility Study may not result in a school construction, renovation or repair project that is eligible for funding by the Authority.

3.15 The District shall not combine, consolidate, or conjoin in any way the procurement, pre-qualification or selection of an Owner's Project Manager or Designer for the Proposed Project with the procurement, pre-qualification or selection of an Owner's Project Manager or Designer for any other construction, repair or renovation project without the express prior written approval of a duly authorized representative of the Authority. Any costs incurred by the District that relate to, or arise out of, the use of a combined, consolidated or conjoined procurement, pre-qualification or selection

process as proscribed above, including, but not limited to, the preparation of bid documents, requests for services, and requests for qualifications, without the express prior written approval of a duly authorized representative of the Authority shall not be eligible for reimbursement.

SECTION 4
PAYMENTS AND AUDIT

4.1 Subject to the terms and conditions of the Agreement, the Authority shall reimburse the District for eligible, approved costs incurred in connection with the Feasibility Study in accordance with the following:

(a) Using the Authority's Pro-Pay system, the District shall submit requests for reimbursement on a monthly basis to the Authority in a format prescribed by the Authority. Each monthly request for reimbursement shall be approved locally by a duly authorized representative of the District, shall be in a form acceptable to the Authority, shall include reasonable detail, including, but not limited to (1) the amount of funding requested, (2) the nature of the materials or property or services received, (3) the total value of the work performed and materials furnished by the Owner's Project Manager, if any, the Designer, and each consultant, subconsultant or vendor to date, and (4) the value of the work completed during the Feasibility Study. The District agrees that each request for reimbursement shall be accompanied by the invoices for each of the amounts requisitioned and any other supporting documentation and information substantiating the District's request for reimbursement, as the Authority may request, in a form satisfactory to the Authority.

(b) Each request for reimbursement shall include a written certification signed by a duly authorized representative of the District stating that: (1) such request for reimbursement is solely for Feasibility Study costs, (2) the obligations itemized in the request for reimbursement have not been the basis for a prior request for reimbursement submitted by the District that has been paid or rejected by the Authority, (3) the reimbursement requested is due for work actually and properly performed or materials or property actually supplied prior to the date of the requisition, (4) the reimbursement requested is for costs that already have been duly paid by the District, and (5) such reimbursement requested is within the Budget approved by the Authority.

(c) The Authority shall review all requests for reimbursement properly submitted pursuant to this Agreement as soon as reasonably possible. The Authority shall not consider requests for reimbursement that are not, as reasonably determined by the Authority, (1) timely and properly submitted, (2) in accordance with the most recent Budget approved by the Authority, and (3) for eligible Feasibility Study costs incurred by the

District. The District understands and agrees that no reimbursement shall be made by the Authority unless the District has complied with all of the terms and conditions of this Agreement, the applicable provisions of M.G.L. c. 70B, chapters 208 and 210 of the Acts of 2004, 963 CMR 2.00 *et seq.*, and all policies and guidelines of the Authority.

(d) After receipt from the District of a timely and properly submitted request for reimbursement pursuant to this Agreement, the Authority shall make payment to the District of the Authority's share of approved, eligible Feasibility Study costs, subject to the terms and conditions of this Agreement. The District hereby agrees and acknowledges that the amount of approved, eligible Feasibility Study costs reimbursed by the Authority may be subject to change, pending audit, including but not limited to an audit pursuant to Section 4.2 of this Agreement and the final close-out audit pursuant to Section 4.3 of this Agreement.

4.2 The Authority may review and perform a preliminary audit on each request for reimbursement submitted pursuant to this Agreement to ensure that only eligible costs of the Feasibility Study are approved and paid by the Authority. Any such preliminary audits shall be conducted in accordance with 963 CMR 2.16 and other policies and guidelines of the Authority. In the event that the Authority determines that an item contained in a request for reimbursement submitted by the District pursuant to this Agreement is not eligible for reimbursement by the Authority, the Authority shall adjust a subsequent reimbursement to the District to account for the ineligible costs. The District hereby acknowledges and agrees that each audit conducted pursuant to this Section 4.2 is preliminary, and the Authority may further adjust and alter the results of a preliminary audit after it conducts subsequent audits or a final close-out audit of the Feasibility Study.

4.3 The District hereby acknowledges and agrees that a final, close-out audit of the Feasibility Study by the Authority shall include an audit of all requests for reimbursement submitted and all reimbursements made by the Authority. The final, close-out audit shall be conducted in accordance with 963 CMR 2.16 and any other applicable regulations, policies and guidelines of the Authority. The District shall make all documents and materials requested by the Authority or its representatives available in a timely manner. The District further acknowledges and agrees that the final, close-out audit of the Feasibility Study may not occur until such time as the Authority conducts its final, close-out audit of the project that may result from the Feasibility Study, should the District be approved for any such project. Any adjustments applicable as a result of the final, close-out audit may be made in the final amount of the Total Facilities Grant, as determined by the Authority.

SECTION 5
REPRESENTATIONS AND WARRANTIES

The District hereby warrants and represents that each of the following statements is true, correct and complete:

5.1 The District is validly organized and existing under and by virtue of the laws of the Commonwealth, has full power and authority to own its properties and carry on its business as now conducted, and has full power and authority to execute, deliver and perform its obligations under this Agreement and all other documents related to the Feasibility Study.

5.2 The District is duly authorized to execute and deliver this Agreement and has taken all necessary steps to authorize the execution and delivery of this Agreement, to undertake the Feasibility Study and to perform and consummate all transactions contemplated by this Agreement.

5.3 The undersigned has the full legal authority to execute this Agreement on behalf of the District and to bind the District to its provisions.

5.4 This Agreement does not and will not, to any material extent, conflict with, or result in violation of any applicable provisions of law, including, but not limited to, any statute, charter, by-law, ordinance, rule or regulation, or any judgment, order, rule or regulation of any court or other agency of government.

5.5 The District has all requisite legal power and authority to own and operate the School that is the subject of the Feasibility Study and to undertake and oversee the Feasibility Study or, in the case of a school facility that is leased by the District, the District has all of the requisite legal power and authority to control and operate the School that is the subject of the Feasibility Study and to undertake and oversee the Feasibility Study pursuant to a lease which assures that the District has exclusive jurisdiction and control of the School and the land upon which it is situated for the anticipated useful life of the Proposed Project.

5.6 No information furnished by or on behalf of the District to the Authority in this Agreement, the Budget, the Initial Compliance Certification, or any other document, certificate or written statement furnished to the Authority in connection with the Feasibility Study contains any untrue statement of a material fact or omitted, omits or will omit to state a material fact necessary in order to make the statements contained in this Agreement or therein not misleading in light of the circumstances in which the same were made.

5.7 The District has duly obtained all necessary votes, resolutions, authorizations, appropriations and local approvals, in accordance with formats prescribed by or otherwise acceptable to the Authority, and has taken all actions necessary or required by law to enable it to enter into this Agreement and to fund and perform its obligations hereunder, in accordance with the Authority's guidelines, regulations, policies and standards. This Agreement constitutes a valid and binding obligation of the District, enforceable in accordance with its terms, except as such enforceability may be limited by bankruptcy, insolvency, moratorium, reorganization or other laws heretofore or hereafter enacted and general equity principles.

5.8 No litigation before or by any court, public board or body is pending or threatened against the District or the Authority seeking to restrain or enjoin the execution and delivery of this Agreement or the Feasibility Study, or contesting or affecting the validity of this Agreement or the power of the District to pay its share of the Feasibility Study.

5.9 The District has implemented policies and procedures to prevent and eliminate fraud, waste and abuse of public funds in connection with the Feasibility Study and any future construction or renovation projects that may be forthcoming as a result of the Feasibility Study.

5.10 The District has submitted all audit materials requested by the Authority in connection with any project for which the District has received or anticipates receiving funding from the Authority.

5.11 All meetings of all public bodies in the District that relate in any way to the Proposed Project, including, but not limited to, the meetings of the District's school building committee, have been conducted, and shall be conducted, in compliance with the provisions of G.L. c. 30A, §§ 18 – 25, 940 CMR 29.00 *et seq.*, the so-called Open Meeting Law, and all other applicable law.

SECTION 6
INSURANCE

6.1 The District shall obtain and maintain all insurance required by law and insurance of such types and limits and upon such terms and conditions as may be required by, or as may be acceptable to, the Authority.

6.2 The District shall require by contractual obligation, and shall also ensure by the exercise of due diligence, that any Designer hired by the District in connection with the Feasibility Study obtain and maintain, at a minimum, insurance of such types and limits and upon such terms and conditions as may be required by law and as may be prescribed by the Authority in the Design Contract between the Designer and the District.

6.3 Except where the Owner's Project Manager is an existing employee of the District, the District shall require by contractual obligation, and shall also ensure by the exercise of due diligence, that any Owner's Project Manager hired by the District obtain and maintain, at a minimum, insurance of such types and limits and upon such terms and conditions as may be required by law and as may be prescribed by the Authority in its standard contract for Owner's Project Manager services which is incorporated by reference herein.

SECTION 7
COMPLIANCE WITH CONTRACT DOCUMENTS, PROJECT PERMITS AND OTHER APPLICABLE LAW

7.1 The District shall take all reasonable actions designed to ensure that the Feasibility Study complies with all applicable contract documents, building codes, laws, rules and regulations and to ensure that all necessary project permits have been obtained. Notwithstanding any right of approval or review held or exercised by the Authority in connection with this Agreement or the Feasibility Study, the District shall be responsible for the successful performance and completion of the Feasibility Study in accordance with this Agreement, the Design Contract, design documents and project permits, if any, and for the economical and efficient operation and administration of the Feasibility Study.

SECTION 8
DEFAULTS AND REMEDIES

8.1 The occurrence of any of the following events shall constitute, and is herein defined to be, an Event of Default under this Agreement:

(a) If the District shall fail to perform and observe any covenant, agreement or condition on its part provided in this Agreement and such failure shall continue for a period of thirty (30) days after written notice thereof shall be given to the District by the Authority; provided if such failure cannot be remedied within such thirty (30) day period, it shall not constitute an Event of Default hereunder if corrective action satisfactory to the Authority, as determined by the Authority in writing, is instituted by the District within such period and diligently pursued until the failure is remedied. Any forbearance or failure of the Authority in giving such written notice shall not amount to any waiver of the Authority's rights under this Agreement as to the same or subsequent breaches and shall not preclude the Authority from pursuing any of its rights or remedies provided under this Agreement or as otherwise provided by law.

(b) If any representation or warranty made by the District in this Agreement or in any other agreement entered into by the District with the Authority shall prove to have been incorrect or to be misleading in any material respect.

8.2 If any Event of Default hereunder shall occur and be continuing, the Authority may proceed to protect its rights under this Agreement, and may: (a) terminate this Agreement, (b) permanently withhold or temporarily suspend payment of any eligible, approved costs to the District, (c) recover any payments of eligible, approved costs previously made to the District, and/or (d) exercise any other right or remedy upon such default as may be granted to the Authority under this Agreement or under any other applicable provision of law.

8.3 No remedy conferred upon or reserved to the Authority is intended to be exclusive and every such remedy shall be cumulative and shall be in addition to every other remedy given under this Agreement or now or hereafter existing at law or in equity. No delay or omission to exercise any right, remedy or power accruing upon any Event of Default shall impair any such right, remedy or power or shall be construed to be a waiver thereof, but any such right, remedy or power may be exercised from time to time and as often as the Authority may deem expedient.

SECTION 9
OTHER TERMS

9.1 Governing Law. This Agreement shall be governed by, construed, and enforced in accordance with, the laws of the Commonwealth of Massachusetts.

9.2 Venue. Any civil action brought against the Authority by the District, or any person or entity claiming by, through or under it, that arises out of the provisions of this Agreement, shall only be brought in the Superior Court for Suffolk County, Massachusetts. The District, for itself and for any person or entity claiming by, through or under it, hereby waives any defenses that it may have as to the venue to which it has agreed herein, including, but not limited to, any claim that this venue is improper or that the forum is inconvenient. The District for itself and for any person or entity claiming by, through or under it, hereby waives all rights, if any, to a jury trial in any such civil action that may arise out of the provisions of this Agreement.

9.3 Indemnification of the Authority by the District. To the fullest extent permitted by law, the District shall indemnify and hold harmless the Authority and its officers, agents and employees from and against any and all claims, actions, damages, liabilities, injuries, costs, fees, expenses, or losses, including, without limitation, reasonable attorney's fees and costs of investigation and litigation, whatsoever which may be incurred by, or for which liability may be asserted against, the Authority or any of its officers, agents or employees arising out of any activities undertaken by, for, or on behalf of the District in the execution or implementation of this Agreement or with respect to the Feasibility Study, including, but not limited to, the performance of any contract or obligation directly or indirectly related to the Feasibility Study. Such obligation shall not be construed to negate or abridge any other obligation of indemnification running to the Authority which would otherwise exist.

9.4 Members, Employees Not Liable. No member or employee of the Authority shall be charged or held personally or contractually liable by or to the District under any term or provision of this Agreement or because of any breach thereof or because of its execution or attempted execution.

9.5 Assignability. The District shall not assign any interest, in whole or in part, in this Agreement and shall not transfer any interest in the same, whether by assignment or novation, without the prior written approval of the Authority.

9.6 Payment Not A Waiver.

The Authority's payment(s) to the District under this Agreement or its review, approval or acceptance of any actions by the District under this Agreement shall not operate as a waiver of any rights under this Agreement and the District shall remain liable to the Authority for all damages incurred by the Authority as a result of the District's failure to perform in accordance with the terms and conditions of this Agreement.

The rights and remedies of the Authority provided for under this Agreement are in addition to any other rights or remedies provided by law. The Authority may assert a right to recover damages by any appropriate means, including, but not limited to, set-off, suit, withholding, recoupment, or counterclaim either during or after performance of this Agreement.

9.7 Notices. Any notices required or permitted to be given by either of the Parties hereunder shall be given in writing and shall be delivered to the addressee (a) in-hand (b) by certified mail, postage prepaid, return receipt requested; (c) by facsimile; or (d) by a commercial overnight courier that guarantees next day delivery and provides a receipt, and such notices shall be addressed as follows:

If to the Authority:

Massachusetts School Building Authority
40 Broad Street, Suite 500
Boston, MA 02109
Attention: Director of Capital Planning
Facsimile: (617) 720-8460

If to the District:

City of Newton
Newton City Hall
1000 Commonwealth Avenue
Newton, MA 02459
Attention: Public Buildings Commissioner
Facsimile: 617-796-1601

or to such other address or addressee as the District and the Authority may from time to time specify in writing. Any notice shall be effective only upon receipt, which for any notice given by facsimile shall mean notice that has been received by the party to whom it is sent as evidenced by a confirmation slip that bears the time and date of receipt.

9.8 Severability. If any provisions of this Agreement shall for any reason be held to be invalid or unenforceable, the invalidity or unenforceability of such provision shall not affect any of the remaining provisions of this Agreement, and this Agreement shall be

construed and enforced as if such invalid or unenforceable provision had not been contained herein.

9.9 Counterparts. This Agreement may be executed in one or more counterparts, any of which shall be regarded for all purposes as an original and all of which constitute but one and the same instrument. Each party agrees that it will execute any and all documents or other instruments, and take such other actions as may be necessary to give effect to the terms of this Agreement.

9.10 No Waiver. No waiver by either party of any term or conditions of this Agreement shall be deemed or construed as a waiver of any other terms or conditions, nor shall a waiver of any breach be deemed to constitute a waiver of any subsequent breach, whether of the same or of a different section, subsection, paragraph, clause, phrase, or other provision of this Agreement.

9.11 Integration. This Agreement merges and supersedes all prior negotiations, representations, and agreements between the Parties hereto relating to the Feasibility Study and constitutes the entire agreement between the Parties hereto with respect to the Feasibility Study and the Authority's funding of a portion of the eligible, approved costs of the Feasibility Study.

9.12 Amendments. This Feasibility Study Agreement may be amended only through a written amendment signed by duly authorized representatives of the District and the Authority.

District: City of Newton
School: Countryside Elementary School
Project ID: 202002070040

IN WITNESS WHEREOF, the Parties have executed this Agreement on this 14th day of February, 2022.

MASSACHUSETTS SCHOOL BUILDING AUTHORITY
By,

John K. McCarthy
Executive Director

CITY OF NEWTON
By,

Ruth Fuller

Ruthanne Fuller
NAME (type or print)

Mayor
TITLE (type or print)

EXHIBIT A

FEASIBILITY STUDY BUDGET

City of Newton
Countryside Elementary School

The total Budget for the Feasibility Study conducted pursuant to this Agreement, which is attached hereto and incorporated by reference herein, shall be no more than $1,250,000 based upon the following estimates:

Owner's Project Manager:	$280,000
Designer:	$655,000
Environmental and Site Testing:	$250,000
Other:	$65,000

EXHIBIT B

SCOPE OF THE FEASIBILITY STUDY

City of Newton
Countryside Elementary School

The Scope of the Feasibility Study conducted under this Agreement, which is attached hereto and incorporated by reference herein, shall consist of the development of a Feasibility Study/Schematic Design for the evaluation of a renovation of the existing school, a renovation of and addition to the existing school and/or new construction for the Countryside Elementary School (the "Proposed Project") in the City of Newton (the "District"). Pursuant to the Massachusetts School Building Authority's (the "MSBA") regulations, 963 CMR 2.06, the space allowance for the Proposed Project shall meet all applicable MSBA regulations and guidelines.

The Feasibility Study shall contain all information required by 963 CMR 2.10(8) and any other applicable rules, regulations, policies, guidelines and directives of the MSBA including, but not limited to, a final design program, educational space summary, budget statement for preferred educational objectives, and a proposed total project budget. The Feasibility Study for this Proposed Project may examine an option to expand the enrollment in grades K-5 in the Countryside Elementary School, which for purposes of the design, shall be based on no more than 465 students. Exclusive of the expansion proposal, and using information from the base enrollment projection, a design enrollment shall be based on no more than 340 students in grades K-5 for the Countryside Elementary School. The District will prepare and submit to the MSBA the educational space summary for both options for review and acceptance. Upon acceptance of the educational space summaries, the District will commence with the evaluation of alternatives. The Schematic Design that is developed pursuant to this Agreement shall be based upon the final design enrollment, which shall be subject to the written approval of the MSBA. The Schematic Design shall include, but not be limited to, the information required by the MSBA's Feasibility Study Guidelines, including, but not limited to, a site development plan, environmental assessment, geotechnical assessment, geotechnical analysis, code analysis, utility analysis, schematic building floor plans, schematic exterior building elevations, narrative building systems descriptions, NE-CHPS scorecard or LEED for Schools checklist, outline specifications, cost estimates, project schedule and proposed total project budget.

In conducting the Feasibility Study and developing the Schematic Design, the District shall, in a sufficient and timely manner as determined by the MSBA, initiate such notification procedures, undertake such review processes, and obtain such determinations and approvals as may be required by 963 CMR 2.03(2)(h) & (i), including, but not limited to, such procedures, reviews, determinations, and approvals as may be required by the Massachusetts Historical Commission (the "MHC") and/or the Massachusetts Environmental Policy Act. At its earliest opportunity, the District shall seek a written determination from the MHC as to whether the MHC intends to undertake a review of the Proposed Project.

The District shall be responsible for conducting such geotechnical evaluations, site investigations, soils explorations and environmental assessments as are reasonable and necessary to determine whether any significant environmental, geotechnical or other physical conditions exist that may have an impact upon eventual construction on the proposed site. The MSBA may

require the District to fully fund certain environmental or geotechnical site testing beyond initial investigatory costs. The MSBA shall bear no responsibility or liability of any sort for the results of any geotechnical evaluations or site testing, soils explorations, environmental assessments, nor for any site remediation, clean-up, or other site remediation services.

The development of the Schematic Design shall be subject to continuing review by the MSBA in accordance with the provisions of this Agreement, the MSBA's Feasibility Study guidelines and any other applicable rule, regulation, policy, guideline or directive of the MSBA. The District shall be responsible for submitting to the MSBA all documentation that is required to complete the Feasibility Study and Schematic Design and to support the preparation of a Project Scope and Budget Agreement.

Exhibit C

Calendar Year 2021

Newton

Countryside Elementary School - 202002070040

MSBA Reimbursement Rate Calculation

Base Points	31.00
Income Factor	-
Property Wealth Factor	1.47
Poverty Factor	-
Subtotal: Reimbursement Rate Before Incentives	32.47

Incentive Points

Maintenance (0-2)	-
CM @ Risk (0-1) Only projects invited to Capital Pipeline prior to 1/2/17	-
Newly Formed Regional District (0-6)	-
Major Reconstruction or Reno/Reuse (0-5)	-
Overlay Zoning 40R & 40S (0-1)	-
Overlay Zoning 100 units or 50% of units for 1, 2 or 3 family structures (0-0.5)	-
Energy Efficiency - "Green Schools" (0 or 2)	-
Model Schools (5) Only projects invited to Capital Pipeline prior to 1/2/16	-
Total Incentive Points	-
MSBA Reimbursement Rate	32.47

MASSACHUSETTS SCHOOL BUILDING AUTHORITY
CITY OF NEWTON
COUNTRYSIDE ELEMENTARY SCHOOL
STUDY ENROLLMENT CERTIFICATION

As a result of a collaborative analysis with the Massachusetts School Building Authority (the "MSBA") of enrollment projections and space capacity needs for the Countryside Elementary School (the "Proposed Project"), the City of Newton hereby acknowledges and agrees that the design of alternatives, which may be evaluated as a part of the feasibility study for the Countryside Elementary School, shall be based in accordance with the following:

Enrollment for Grades K-5, in the Countryside Elementary School	Enrollment for Grades K-5, in an expansion of the Countryside Elementary School
340 students	465 students

The City of Newton further acknowledges and agrees that pursuant to 963 CMR 2.00 *et seq.*, the MSBA shall determine the square feet per student space allowance and total square footage according to the enrollments noted above. The City of Newton acknowledges and agrees that it has no right or entitlement to any particular design enrollment, square feet per student space allowance, or total square footage and that it has no right or entitlement to a design enrollment any greater than any of the enrollments noted above, and further acknowledges and agrees that it shall not bring any claim or action, legal or equitable, against the MSBA, or any of its officers or employees, for the purpose of obtaining an increase in the design enrollment for the Proposed Project that it has acknowledged and agreed to herein. The City of Newton further acknowledges and agrees that, among other things, the design enrollment, square feet per student space allowance, and total square footage of the Proposed Project shall be subject to the approval of the MSBA's Board and that the final approval of a Proposed Project shall be within the sole discretion of the MSBA's Board.

The undersigned, for themselves and the City of Newton, hereby certify that they have read and understand the contents of this study enrollment certification and that each of the above statements is true, complete and accurate. The undersigned hereby certify that they have been duly authorized by the appropriate governmental body to execute this Certification on behalf of the City of Newton and to bind the City of Newton to its terms.

Ruthanne Fuller
Chief Executive Officer

11/18/2021
Date

Ruth Goldma
Duly Authorized Representative of School Committee

11/17/21
Date

Superintendent of Schools

11/17/21
Date

Massachusetts School Building Authority

November 17, 2021

The Honorable Ruthanne Fuller
Mayor, City of Newton
Newton City Hall
1000 Commonwealth Avenue
Newton Centre, MA 02459

Re: City of Newton, Countryside Elementary School

Dear Mayor Fuller:

I would like to thank representatives of the City of Newton (the "District") for meeting with Massachusetts School Building Authority (the "MSBA") staff on September 17, 2021 and November 16, 2021, and for the additional materials provided on October 8, 2021 to review enrollment projections and methodologies for the Countryside Elementary School project (the "Proposed Project"). As discussed, the next critical step is for the MSBA and the District to agree on a study enrollment for the Countryside Elementary School.

The MSBA works with local communities to create affordable, sustainable, and energy efficient schools across Massachusetts. A critical early component in achieving these objectives begins with an appropriate design enrollment that positions the District to efficiently meet space capacity needs throughout potential future enrollment variations.

The MSBA uses a data driven enrollment projection methodology based on the widely accepted modified grade-to-grade cohort survival methodology (the "enrollment methodology"). The MSBA's enrollment methodology generates a baseline enrollment projection as discussed during the November 16, 2021, enrollment meeting, and as further described on the MSBA's website found under the 'Building With Us', 'MSBA Enrollment Methodology' section. For specifics on how the MSBA's methodology impacts the Countryside Elementary School project, please refer to the District's Enrollment Projection package, provided to the District on November 16, 2021.

Based on information supplied by the District, data from sources such as the Department of Elementary and Secondary Education ("DESE") and Department of Public Health, and discussion with the District, the MSBA has been able to create an enrollment projection for the Countryside Elementary School project, as follows.
The Countryside Elementary School presently serves the District's grades K-5 enrollment, accordingly, this analysis will be focused on those grades.

The table below illustrates the District's K-12 enrollment during the most recent ten-year period, including enrollment for the 2021-2022 school year as reported by DESE, and this year's enrollment data that was provided by the District.

School Year	K-5	6-8	9-12	Total
2012-2013	5,788	2,713	3,608	12,109
2013-2014	5,796	2,843	3,748	12,387
2014-2015	5,832	2,800	3,814	12,446
2015-2016	5,781	2,813	3,856	12,450
2016-2017	5,800	2,857	3,947	12,604
2017-2018	5,824	2,866	4,013	12,703
2018-2019	5,787	2,849	4,016	12,652
2019-2020	5,626	2,901	4,043	12,570
2020-2021	5,054	2,903	3,913	11,870
2021-2022	5,048	2,832	3,916	11,796

The total grade K-5 enrollment as reported by the District for the 2021-2022 school year was 5,048 students, which reflects a decrease of 784 students (-16%) from the grade K-5 enrollment reported for the 2014-2015 school year, which was the maximum grade K-5 enrollment reported in the preceding ten years. Additionally, the current year's grade K-5 enrollment reflects a decrease of approximately 586 students (- 12%) from the average grade K-5 enrollment reported during the preceding ten-year period. The MSBA understands that the District is proposing a design enrollment to accommodate approximately 465 students in grades K-5 at the Countryside Elementary School, similar to the capacity and organization as that of the recently completed Angier Elementary School.

With respect to future enrollments, the MSBA's base enrollment projection indicates the District's grade K-5 enrollment will continue to experience a declining trend through the 2028-2029 school year, then begin to rise slightly through the 2031-2032 school year. In accordance with the MSBA's Enrollment Methodology, the baseline enrollment is calculated using the ten-year average of projected enrollments. As such, the average grade K-5 base enrollment projection through the 2031-2032 school year is 4,420 students.

As a result of a sensitivity analysis performed by the MSBA on this base enrollment projection and further discussion with the District, the following adjustment has been made to the base enrollment projection:

- Development
    - Based on the discussions between the District and the MSBA, and the anticipated development information provided by the District, the MSBA enrollment model has been adjusted to use the five-year 75th percentile cohort survival rate for 2023 and 2024 rather than the five-year average cohort survival rate, which is utilized throughout the base enrollment forecast.

  - This adjustment added 75 students to the base enrollment projection for the grade K-5 enrollment as compared to the base enrollment projection.

- Out-of-District Enrollment
  - In order to adjust for fluctuations to the out-of-district enrollment patterns of the District's residents over time, the MSBA has made an additional adjustment to the base enrollment projection.
  - In order to make this adjustment, the MSBA adjusted the grade-to-grade survival ratios for grades K-5 by a total of 3.3 % throughout a four-year period in the projection.
  - This adjustment added 130 students to the base grade K-5 enrollment as compared to the projection without this adjustment.

The Countryside Elementary School is one of 15 neighborhood elementary schools serving students in grades K-5 across the district and has served an average of 7.3% of the District's K-5 students over the last five years. Based on the supplemental information provided on October 8, 2021 and discussions with the District on November 16, 2021, the MSBA understands that as part of the Feasibility Study the District would like to include options for a school designed for 465 students, and that expanding the Countryside Elementary School would:

- Allow all students who live in the Avalon Apartment Complex, which is located in the Countryside Elementary School district, to attend their neighborhood elementary school rather than being split between the Countryside and Zervas Elementary Schools;
- Support anticipated development along the Needham Street Corridor, and the longer-term potential for development in the southern area of Newton;
- Allow the phasing out of eight temporary modular classrooms and provide space for special education and support spaces in the adjacent Mason Rice and Bowen Elementary Schools through buffer zone adjustments;
- Align with the sizes of the recently constructed Angier, Zervas, and Cabot Elementary Schools; and,
- Allow for enrollments that support full-time specialists in each building, rather than sharing across schools.

As a result of analysis on the average base enrollment projection, the adjustments to the base projection described above, based on the historical enrollment trends of the District, discussions outlined above, and for planning and study purposes only, the MSBA recommends study enrollments for the Proposed Project as follows:

- Grade K-5 enrollment based on recent elementary school enrollment patterns at the Countryside Elementary School: 340 students; and
- Grade K-5 enrollment for expanded Countryside Elementary School: 465 students

Please note that these recommendations for multiple study enrollments do not represent an affirmation by the MSBA for approval and/or funding of any of these options, and are intended only to provide a framework to inform the feasibility study to be conducted as a means of determining the most cost effective and educationally sound solution, which will be agreed upon by the District and the MSBA.

The MSBA believes that this study enrollment recommendation will position the District to efficiently meet space capacity needs throughout future enrollment variations. Please sign and return the attached certification within 14 calendar days to confirm agreement on this study enrollment. If the District feels that this study enrollment does not meet the needs of the District, please respond to this letter via e-mail to Emma Parish and propose three meeting/conference call times for which the District can be available to discuss enrollment.

If you have any questions regarding this matter, please do not hesitate to contact me or Emma Parish (Emma.Parish@MassSchoolBuildings.org) at 617-720-4466.

Sincerely,

Mary Pichetti
Director of Capital Planning

Cc: Legislative Delegation
Susan S. Albright, President, Newton City Council
Ruth Goldman, Chair, Newton School Committee
Dr. David A. Fleishman, Superintendent, Newton Public Schools
File: 10.2 Letters (Region 4)

City of Newton, Massachusetts
Mayor Ruthanne Fuller
Capital Improvement Plan
FY2024-FY2028

October 17, 2022

FY2024–FY2028
Capital Improvement Plan

October 17, 2022

Transportation Network Improvement Program

Newton Center for Active Living

Water, Sewer, Stormwater Infrastructure

New Lincoln-Eliot Elementary School

City of Newton, Massachusetts

Mayor Ruthanne Fuller

RUTHANNE FULLER
MAYOR

City of Newton, Massachusetts
Office of the Mayor

Telephone
(617) 796-1100

Telefax
(617) 796-1113

TDD
(617) 796-1089

E-mail
rfuller@newtonma.gov

October 17, 2022

Honorable City Council
Newton City Hall
1000 Commonwealth Avenue
Newton Centre, MA 02459

Councilors:

I respectfully submit the City of Newton FY2024–FY2028 Five-Year Financial Forecast and Long Range Financial Plan and the FY2024–FY2028 Five-Year Capital Improvement Plan.

Since January 1, 2018, our team at City Hall has continuously updated our Financial Plan so we can meet the needs of our residents and students, make the investments required in our capital assets, support our business and non-profit community, and respond to crises. We have judiciously invested every hard-earned taxpayer dollar and all available revenues in this pursuit.

Over the past two and a half years, this financial planning has sometimes felt like an ever-changing 3D chess board.

With the dramatic human and financial impact of the pandemic, we paused almost all capital investments for a time, slowed some initiatives, while simultaneously increasing funding for health measures, human services, emergency housing relief, mental/social/emotional supports, distance learning, ventilation, PPE, and COVID-19 testing. And now, both our municipal and school department staffs are managing in an environment replete with inflationary price increases, staffing challenges, and supply chain disruptions.

One-time federal funds from FEMA, CARES, ESSER and ARPA have been a godsend. These Federal dollars let us make investments quickly in our students and schools, our COVID response, and human services. We are providing both immediate emergency relief and a forthcoming economic stability and mobility program to those hurt disproportionately by the pandemic. We are funding new affordable housing and retrofitting our current stock to be more energy efficient. We helped the youngest users of our Library by building a new and improved Children's Room and the oldest residents of our City by designing a new Senior Center and acquiring property next door to the site for more green space. At a time when the outdoors provided a healthy outlet, we are investing in our parks, athletic fields and lighting, trails, playgrounds and recreation facilities . . . and planting more trees. We are paving streets and making routes to schools, in our villages, and across our neighborhoods safer. We are making our sidewalks and playgrounds more accessible. We are supporting small businesses, restauranteurs and artists. We have set aside the funding for a new reading curriculum once NPS decides which one is best for our students. We are investing in the designs for future improvements to the village center in Newton Highlands, to Washington Street, to our police facilities, and to four elementary school buildings − Lincoln-Eliot, Countryside, Horace Mann and Franklin. These investments of Federal funds, while only one-time monies, are helping Newton recover, make transformative changes, and provide a better future for all of us.

We have managed the City's finances carefully and are rock solid, despite the dramatic economic cycles all of us are enduring. Working with Finance Chair Becky Grossman and the City Council, we are ensuring taxpayer dollars are invested wisely. Accountability and transparency are core to our approach; for example, residents can track on our website every Federal dollar we received. Every year that I have been Mayor, the City of Newton has received the highest credit rating possible from Moody's, a triple Aaa; this in turn means we have the lowest possible borrowing rates.

Our mantra is continuous improvement. We focus on driving efficiencies and top notch customer service. We implemented a state-of-the-art municipal information and permitting program, NewGov, streamlining our process for users and making our employees more effective; kudos to John Lojek and Deb Finamore in Inspectional Services, Sherri Lougee in Health & Human Services, and Nick Cence in the Department of Public Works. We saved money and improved service by in-sourcing yard waste collection; thank you, Waneta Trabert, our Director of Sustainable Materials Management, and DPW Commissioner Jim McGonagle. We are taking advantage of technology to merge our financial functions, make our Treasurer's Department more efficient, and move towards a paperless future with gratitude in particular to Joe Mulvey and Ron Mendes, our IT Director and Treasurer respectively. We moved away from paper and onto online, consolidated systems for bus registrations and so much more for parents and guardians with appreciation to Liam Hurley's team at NPS.

It's clear that this work is done by people. I know I speak for all of us when I thank the employees of our City and Schools. I am grateful to each and every one of them for making Newton such an extraordinary place, for their willingness to partner with us, and for serving our residents, students, businesses, non-profits and visitors so well.

We do all this good work by attracting and retaining great staff through fair salaries, good working conditions, excellent health care plans, funded pensions and retiree health care, training and professional development. My Administration will continue to work collaboratively and respectfully with union leadership on agreements that are fair to the employees and taxpayers alike, and are financially sustainable.

Tonight, I am delivering to our residents, the City Council and the School Committee two plans - our Capital Improvement Plan for Fiscal Years 2024 to 2028, and our Long-Range Financial Plan & Five-Year Financial Forecast.

The Capital Improvement Plan is mission and risk-based. The investments over five years will sustain our schools, help our older adults, improve our streets, reduce our carbon footprint, and add to the vitality of our villages. Water, sewer and stormwater systems, buildings, and public safety assets will be improved and updated. Current and future Newtonians will benefit from the investments that enhance our open spaces, parks, and recreational and cultural facilities. Funding these capital assets is important and necessary.

The Long-Range Financial Plan & Five-Year Financial Forecast is a comprehensive, multi-year, fiscally sustainable roadmap for meeting the current and long-term needs of our City. The Financial Plan weaves together our bonded debt outlays, appropriations within the City's operating budget − including the allocation for the Newton Public Schools (by far our largest department and the beating heart of our community), possible uses of funding from the Community Preservation Act, as well as funding from the Feds, the State and Free Cash.

The Financial Forecast makes clear the challenge we face. Funds from the general operating budget, our debt capacity, the one-time Federal pandemic funding, and other revenue sources cannot absorb all our essential capital and ongoing operating investments in a timely manner and keep us a triple Aaa rated City.

We are blessed to live in Newton for Newton is one of the best places to live, raise a family and retire. In March Boston Magazine again named Newton as one of the great communities in which to reside. A few weeks ago, our schools were listed as among the best in the Commonwealth by Niche. In the heart of the pandemic last year, Dr. Ashish Jha declared that Newton was one of the safest places in the world with respect to the coronavirus. It's all true. We have one of the best school systems. We are one of the safest cities in the country. We are surrounded by neighbors helping neighbors. The Paddy's Road Race and Harvest Fair yesterday were living proof of what a great community this is.

We are right to have high expectations. Like all of you, I'm conscious of how much work lies ahead so we continue to be the community of choice that has attracted, in particular, so many families, generation after generation − how much of our aging infrastructure and roads still need updating; how much more we need to do for our students and older residents; how many more actions we must take locally to confront the global climate crisis; how much more care our athletic fields, parks, playgrounds and trees need. We have much that needs to be done and done soon.

Therefore, tonight I will present another important step in the path to build toward the future and meet our expectations of what kind of community we believe we should be.

I have docketed a proposal to increase the tax levy by way of a general operating override and two debt exclusion overrides.

The general operating override of $9,175,000 includes seven elements:

- $4.5 million for our public schools to support a strong and engaging academic program of study that meets the needs of all learners, address the rising mental health needs of our students, and continue the use of modern, innovative, and readily accessible technology for personalized and engaging learning
- $775,000 of annual bonding for the needed addition to and renovation of the Horace Mann Elementary School − thus right-sizing classrooms and providing a cafetorium, a library, and special education and student service spaces for a school bursting at the seams
- $1 million to improve and do the necessary maintenance on our athletic fields, courts, parks and playgrounds which stretch over 600 acres and include 165 locations
- $500,000 to move our City and School buildings away from fossil fuels and accelerate our progress to carbon neutrality, environmental sustainability and climate resiliance
- $500,000 to replant our urban tree canopy and nurture our trees, making Newton more beautiful, heat resistant, and less flood prone
- $500,000 to provide our older adults, our largest and fastest growing group, with the programs, services and support they are asking for and deserve
- $1.4 million to repair our crumbling roads and sidewalks and to make them safer and accessible for people walking, biking, riding and driving

The two additional debt exclusion overrides which total $5.8 million of annual bonding allow us to completely rebuild and renew both the Countryside and Franklin Elementary Schools. The new schools

will be modern, accessible, and green. Like Angier, Zervas and Cabot, they will be designed to sit well on their individual sites with a cafetorium, a library, a gym, classrooms, art, music and support spaces, thus serving as quality facilities for teaching and learning for our Kindergarten through Grade 5 students.

I propose the City hold a special election for this purpose next spring on March 14, 2023.

This will be almost exactly 10 years since Newtonians approved the last override and 20 years after the preceding one. The money from the 2013 override was well spent; carefully invested in projects completed on budget and resulting in improved services, schooling and roads; students, educators and fire fighters are now in terrific new buildings − Angier, Zervas, Cabot, Fire Station 3 and Fire Headquarters. The strong leadership provided then from people including Commissioner of Public Buildings Josh Morse continues today.

Importantly, a March vote would allow Newton to have a timely answer as to whether our school system would have the resources to address the needs of our students appropriately in next year's budget.

Some in our community would have preferred that we ask for even more than the total of $14,975,000 and might suggest this is not enough to address all our needs.

Yet, I know for others in our community, this additional investment will be difficult.

To that end, I've docketed this evening the paperwork to double our tax relief assistance in our seven programs for eligible residents who are disabled, older, or veterans as well as the paperwork to expand access to our other two relief programs, Newton's tax deferral and water/sewer discount programs.

What will be the financial impact of this proposal for each of us? We have just put a calculator on the website. Go to newtonma.gov to find it and much more information about our proposal.

The calculator shows that for owners of a home valued at Newton's median of $1.2 million, the impact would be $290 next year, growing by another $183 in 7 years' time when all the bonding is in place for the Countryside and Franklin school buildings. For perspective, for the owner of a residence valued at $750,000, the impact is $173 next year and an additional $110 by FY30.

While tonight I am presenting a proposal for an override, this is a community decision. I've listened to so many people who live and work here since I've become Mayor, whether in the grocery store aisle or at a village day, during a ribbon cutting or at a concert intermission. I heard from you during over 130 open office hours and Mayoral Meet-Ups. Each time I send out an email with an update, you ping me back. As we crafted this proposal, I reached out to each member of the City Council and School Committee.

I also heard from a tremendous number of parents who want more resources for the Newton Public Schools. Countless older residents who want more funds for critical programs and services at the Senior Center have spoken up. I listened carefully when many of you advocated for more investments in our parks, playgrounds, courts, athletic fields, and trees. Our community members are a constant, unwavering force advocating for more investment in actions to combat climate change. Not a day goes by that I don't hear about the need to pave more streets and improve transportation safety. This proposal addresses these important priorities I heard **from** Newtonians **for** Newton. Together we will invest in the future. Together we will move Newton forward.

This is a critical moment for our community.

In 2002 and 2013, Newtonians voted yes for overrides, laying the groundwork for the wonderful community that we are fortunate to call home today.

Now it is our turn to vote.

Over the next few months, I and the tremendous teams at City Hall and the Newton Public Schools will make ourselves available to everyone across our 13 villages at Town Hall meetings, Roundtable discussions, Chats, and Question and Answer sessions. We kick things off with a virtual Town Hall this Thursday, October 20 at 7:00 p.m. Please come. Ask questions. Share your thoughts and suggestions. You will find the schedule and lots of additional information at Newtonma.gov.

Now is the time to come together, join in our shared values, and invest in this wonderful community.

Sincerely,

Ruthanne Fuller
Mayor

EXECUTIVE SUMMARY

Mayor Fuller's proposed capital investments in the next five years are broad and deep. They will sustain our schools and students, help our older residents, improve our streets and sidewalks, revitalize our park system, and add to the vitality of our villages. Water and sewer systems and public safety assets will be reliable and up-to-date. Quality of life for both current and future generations will be improved with investments in capital assets that address needs in the environment, our open spaces, parks, fields and recreational facilities, our cultural life, and our City services.

The City of Newton FY2024-2028 Capital Improvement Plan (CIP) is a mission and risk-based prioritized list of investments in the capital assets of the City of Newton. The prioritization plan reflects a thorough analysis of the City's capital needs, the vision and goals of each department along with the services they will provide over the coming years, and Mayor Ruthanne Fuller's thirteen overarching goals:

- Ensuring academic excellence and educational equity
- Keeping Newton safe
- Making Newton more "all age" friendly with a focus on seniors
- Improving streets, sidewalks, and mobility & public buildings and infrastructure
- Preserving neighborhoods, increasing affordable housing, and diversifying housing options
- Promoting vibrant, walkable and financially robust village centers & commercial corridors
- Addressing climate change and sustaining our environment
- Protecting woods and open spaces & caring for our parks and recreation spaces
- Fostering art, culture, and community life
- Facilitating a healthy, accessible and supportive Newton
- Providing excellent and responsive City services
- Assuring the City's financial health and spending wisely
- Meeting COVID-19 needs

Capital improvements, as well as services and programs in the Operating Budget and Enterprise activities, all help the City Administration address needs in the thirteen overarching goal areas. The Long-Range Financial Plan's thoughtful assumptions for future revenues and expenditures during the COVID-19 pandemic and beyond guide capital spending investments over the next five years.

At the onset of the pandemic, the Administration made the decision to delay or put "on hold" most capital projects. Last year we used several funding sources, especially federal American Rescue Plan Act (ARPA) monies, for capital projects and non-capital programs to help the City reopen, recover, and rebound. The Library Children's Room Expansion project is one such project – put on hold initially and then restarted when the City pivoted as fiscal conditions stabilized and ARPA funds allowed the $1.8 million construction to move forward. The expanded room, and associated changes to the first and third floor of the library, are allowing our youngsters and their parents and caregivers to re-emerge as COVID recedes in a wonderful, supportive space.

The capital assets of the City of Newton are both massive and varied. They include:

- Buildings: 85 Total – 24 schools, 13 public safety, 15 public works, 19 parks, recreation and culture, and 14 municipal buildings totaling 3.0 million square feet and occupying 535 acres of land (about 4.6% of the total City)
- Roads, Sidewalks, and Traffic Signals: 276 miles of roads – 1,241 public streets and 196 private ways, 450 miles of sidewalks, 106 Signalized Intersections, 5000 accessible sidewalk ramps
- Water, Sewer, and Storm Water Infrastructure: 319 miles of water mains, 300 miles of sewer and ≈280 miles of storm drains, along with the valves, manholes, culverts, catch basins, pump stations, storage facilities and other associated features
- Parks and Recreational Facilities: 51 parks, 40 sports fields, 63 baseball/softball fields, 42 tot lots, 67 tennis courts, 26 basketball courts; 1 outdoor pool complex, 1 lake swim beach facility, 21,000 street trees, and 7 off-leash dog parks
- Motorized Vehicles & Equipment: 331 vehicles/major equipment for City operations and 81 police vehicles
- Information Technology: Storage area network, wired/wireless communications, hardware/software, and fiber optic cable to support 3,500 persons

This FY2024-2028 Capital Improvement Plan includes 215 new and continuing projects, with an estimated investment of $410 million during the five-year period. This includes $45 million to be docketed during the remainder of this fiscal year which ends on June 30, 2023. The CIP includes 57 ongoing projects with all or some funding approved, totaling $135 million.

Based on the overall projected capital spending in the FY2024-2028 CIP, debt service as a percent of General Fund revenues will range from 5.2% to 5.5% for the next five years which is in line with the City of Newton's financial guidelines. We expect the specific projects, the overall costs and the level of debt service to continue to be refined as we move forward.

The Administration continues to analyze the ongoing needs of the City's assets. As a result, since the FY2023 – FY2027 CIP document was issued a year ago, there were three new projects included in the Supplemental CIP approved in June 2022 and 13 new projects added in this FY2024 – FY2028 Capital Improvement Plan. Many updates were made to project descriptions, funding, time schedules and priorities, as well.

The new projects include:

New Projects Added in Supplemental FY2023 – FY2027 CIP (June 2022)

- Feasibility Study for Indoor Pool
- Newton North High School Tennis Court Resurfacing
- Newton Centre Playground Safety Surfacing Replacement

New Projects Added in FY2024 – FY2028 CIP (October 2022)

- Revised Lead & Copper Rule Implementation Plan
- Phase 1 Phosphorus Control Plan (PCP)
- Sewer Inflow/Infiltration Project Area 9 Phase 2 – Waban, Upper Falls & Oak Hill
- Complete Streets Improvements – Newton Corner and Mass Pike Interchange at Exit 127 Off-Ramp
- Accessible Playground Surfacing Improvements

- Riverside Greenway – Pigeon Hill Trail Improvements
- Police Headquarters Facility Project
- Complete Streets Improvements – Intersection at Walnut Street & Watertown Street and Walnut Street & Lowell Avenue
- Complete Streets Improvements – Intersection at Parker Street & Wheeler Road
- Complete Streets Improvements – Intersection at Bridge Street & California Street
- EV Bus Infrastructure
- Police Storage Area Network
- IT Infrastructure Refurbishment Plan

Purpose

Capital improvement planning allows the leaders of the City of Newton to identify and prioritize capital needs, funding capacity and sources, and the impact of these investments on the operating budget. Capital assets – buildings, streets and sidewalks, water, sewer & stormwater infrastructure, technology, and major equipment – are the essential physical foundation for providing services to our residents, businesses and non-profits. Preparing and adopting a comprehensive, multi-year and fiscally sustainable capital plan allows us to meet both the current and long-term needs of the City. It forces us to prioritize capital requests and develop a long-term, viable financial plan in a transparent manner as the capital needs and operating goals will always exceed our financial capacity.

Funding

Capital assets with a life expectancy of 10 or more years that cost more than $150,000 are typically paid for through bond sales by the City of Newton.

Massachusetts municipal finance law limits the total amount of long-term debt that the City can incur for most purposes to not more than 5% of the City's equalized valuation (i.e., the taxable value of the real estate tax base). The City's current (October 2022) equalized valuation is approximately $36.8 billion, which means that the current statutory debt limit is approximately $1.84 billion. Current outstanding principal of bonded debt is significantly lower and approximates $362 million or 20% of the City's debt capacity.

In conjunction with the state statutory debt limit, the City of Newton has developed its own financial policy of having debt service on long term bonded debt range between 4.0% and 7.5% of the annual General Fund budget. Debt service, which includes both principal and interest, totals 5.2% of the Fiscal Year 2023 Municipal Budget.

We have made significant investments in capital assets in the last decade and need to continue to do so. A conscious decision was made to increase funding for capital assets as their deteriorated condition was impacting service delivery and quality of life. Debt payments for principal and interest on our bonds have grown from $8.3 million or 3% of revenues in FY2009 to $24.9 million or 5.2% in FY2023.

In addition to the bonded debt in the City's operating budget, significant capital investments are necessary in the water, sewer and stormwater infrastructure systems. The water, sewer and stormwater systems are in separate enterprise accounts rather than part of the City's General

Fund because fees, rather than taxes, pay for these services. Capital investments in these systems are also often bonded and are paid by the enterprise accounts.

Further, the City includes appropriations within the City's operating budget, the Community Preservation Act, as well as the use of Free Cash to accomplish infrastructure improvements.

The City also leverages funding from the State and Federal government to pay for capital improvements. Funding sources range from the Massachusetts School Building Authority and the State Chapter 90 infrastructure funds to the Massachusetts Transportation Improvement Program (TIP) and the federal Community Development Block Grant (CDBG) program. Private developers also provide mitigation funds that help fund investments including street, sidewalk and traffic signal improvements, undergrounding of utilities, and water and sewer upgrades. At the urging of Mayor Fuller and the support of the City Council, the Northland and Riverside projects included $1.5 million in funding for future capital improvements at both the Countryside and Williams Elementary Schools. ARPA funds and Free Cash also play a role in helping fund certain capital projects.

The Fuller Administration will continue to utilize these different funding sources to further improve the City's infrastructure.

To ensure the continued health and sustainability of the City of Newton for decades to come, we must continue to base our strategic long-term financial plan on careful analysis, thoughtful deliberation and prudent decision-making. This definitive commitment to strategic long-term financial planning will continue to allow us to take actions that will better position the City of Newton to sustain its success and fulfill its mission of being a great place in which to raise a family, to work and to play, and to retire.

The decisions embedded in both the Financial Forecast and the Capital Improvement Plan allow the City of Newton to remain in a strong position with the ability to provide great schools and services.

Methodology

The City significantly advanced the Capital Improvement Plan prioritization methodology in FY2013. The CIP became more holistic, thorough, systematic and transparent. It used a risk-based approach, incorporating two essential elements: probability of failure of the capital asset and the consequence of failure.

As with any planning process, there are opportunities to re-assess and make adjustments to the methodology. Several major changes were made three years ago in the FY2020 - FY2024 CIP. Most importantly, the concept of linking the importance of the capital asset to the mission of the City and the department's work was incorporated. In addition, when considering the impact on mission, we added two new categories: the impact of the capital asset on (1) Newton's economic health and vibrancy and on (2) equity (e.g., socio-economic, race and ethnicity, geographic, age considerations) and accessibility. We broadened the "Energy Consumption/Conservation" category to "Energy Consumption, Conservation and Environmental Sustainability." We folded the category of "Property Damage" into the category of "Future Costs and/or Savings or Revenues," rather than have it be a standalone criterion. Those changes were continued for this FY2024-FY2028 CIP. The mathematical formula and the prioritization methodology can be found in the appendix.

For the first time, the FY2024 – FY2028 CIP will include a tab section showing the individual project criteria ratings developed by the CIP Steering Committee.

Overview of FY2024 – FY2028 Capital Investments

▪ Ensuring Academic Excellence and Educational Equity

Achieving the goals of academic excellence, educational equity and social & emotional supports for our students requires quality teaching and learning environments. Newton Public Schools facilities should enhance students' ability to receive the highest quality learning experience; enable faculty and staff to perform at their highest ability in a secure, healthy, comfortable environment, conducive to teaching and learning; and allow the City's youngest residents to reach their full potential.

The Public Buildings Department and Newton Public Schools are working together on five major school projects currently. This work follows on the great success of the Angier, Zervas, Cabot (all three funded by the 2013 Override votes) and Oak Hill addition projects completed over the last seven years.

Construction of the Newton Early Childhood Program facility at 687 Watertown Street is nearly complete and students will begin learning there in January 2023. That $13 million project will establish for the first time a permanent home for the city-wide integrated pre-school program.

The $50 million Lincoln-Eliot Elementary School project at 150 Jackson Road has received Site Plan Approval/project funding and now is in the final design phase. Construction is expected to start in 2023 and occupancy is expected in September 2025.

Feasibility and design work has begun on three schools included in the 2023 Debt Exclusion and Operating Override votes – Countryside, Franklin and Horace Mann addition projects.

Planning for the Countryside and Franklin Elementary Schools, which need complete renovations or new buildings is well underway. We anticipate the work on each 21-22 classroom building to cost approximately $61 million. In April 2021, the Massachusetts School Building Authority (MSBA) accepted the Countryside School into their Eligibility Phase for the Core Program, the first stage of their school funding program. The City is using $1.25 million of ARPA funding to complete the feasibility study for that critical project. $100,000 of ARPA funding is also being used for both the Franklin and Horace Mann projects. The Horace Mann addition and renovation project is expected to cost $23 million.

The two oldest Newton Public School buildings, Ward and Underwood Elementary Schools, will reach their centennials this decade. Both schools have low enrollment compared to our other elementary schools, outdated and undersized facilities, and are located on small NPS properties. Interestingly, the Ward and Underwood districts are adjacent to each other. The City has allocated $100,000 to help NPS provide professional services to evaluate the facilities, analyze enrollments and educational models, and clarify the challenges and opportunities to help with the decision making.

The FY2024-FY2028 CIP also includes funding for critical building system improvement projects for school buildings such as roof and HVAC system replacements. The significant $4+ million system-wide ventilation system overhaul of every Newton Public School building completed two winters ago by the Public Buildings Department with NPS has proven to be very successful.

In addition to the school building work, the City is completing athletic field lighting projects at both high schools using $1.4 million in ARPA funds and expects to allocate $2.1 million in Free Cash to replace the two aging synthetic turf fields at Newton South High School in 2023.

- ## Keeping Newton Safe

Keeping Newton safe requires excellence in police, fire, building inspections, public health and emergency medical services. These in turn require capital investments in specialized equipment, vehicles, communications technology, and facilities. Newton has consistently been ranked as one of the safest cities in the country and is one of very few municipalities in Massachusetts with a Class 1 insurance rating for fire safety and services; is the Fuller Administration is committed to continued excellence in public safety.

Key investments with Police and Fire Department facilities and major equipment are well underway.

The Fire Department took ownership of their new Fire Pumper Truck #2 in January 2021 to keep front-line fire equipment in compliance with National Fire Protection Association (NFPA) standards. Replacements for Engine #7 and Ladder #3 are planned in FY2023 and FY2025 respectively to follow the NFPA standards. The City plans to use $2.8 million in Free Cash to fund these two key front-line equipment replacements. Communications system improvements for both the Fire and Police departments to reduce dead spots and radio system issues inside buildings are set to be made in FY2023. The Fuller Administration recently docketed $950,000 for this work which was approved by the City Council to complete the purchase and installation of this system called Simulcast.

The City allocated $500,000 in ARPA funds to make important ventilation improvements at Fire Stations #1 and #2. This work will include installation of central and localized ventilation systems at Station #1 and replacement of windows with operable units at Station #2. This work will complement $300,000 in improvements made in 2020 to replace windows at Station #1 and restore a central ventilation system in the attic at Station #2.

Significant building repairs, renovations, safety improvements and upgrades are planned for Newton Police Headquarters during the FY2023 – FY2028 time frame as well as ongoing replacement of police vehicles with funding through the operating budget. Construction of $1.4 million in HVAC improvements at the Police Headquarters is underway using ARPA funds. This project also includes new IT connectivity improvements, computers and phones for Police Headquarters.

This is the start of a series of improvements each year at Police Headquarters including site security, parking lot reconstruction and accessibility improvements, roof replacement work, plumbing improvements, and interior space improvements. In total, the proposed FY2024-FY2028 CIP includes an investment of $12 million in improvements at this critical City facility and employee workspace. One important part of these improvements will be the creation of an on-site adaptive police training facility which is particularly timely as NPD increases its significant training programs for 21st century policing.

▪ Making Newton More "All Age" Friendly with a Focus on Seniors

The City's Department of Senior Services, which has been headquartered at the Senior Center in Newtonville, focuses on optimizing the quality of life for older adults and those who support them through welcoming, respectful and meaningful opportunities that empower older people to remain independent and vital.

Due to the inadequate facilities at the Senior Center, the FY2024 – FY2028 CIP includes complete funding for the Newton Center for Active Living (NewCAL) project, recently approved by the Newton City Council. The NewCAL project mission calls for a 'right sized," well-equipped, comfortable Center to meet the unique interests and needs of older adults, both those currently using the Senior Center and many others who are not. When NewCAL building spaces are not programmed for older adults, the goal is to offer well-managed, quality and enriching community and multigenerational experiences for all residents of Newton."

Newton is at the threshold of a major advancement in becoming more age-friendly. Groundbreaking for the Newton Center for Active Living, NewCAL, is set for next summer with the new facility on Walnut Street in Newtonville expected to open in two years from now in the summer or fall of 2024. Our project team worked together with thousands of residents to design a world-class facility that is age-friendly, barrier-free, universally accessible, welcoming, inclusive, exciting, and attractive. In collaboration with one of our neighbors, we acquired an adjacent parcel using ARPA funds to allow for significantly more green space in the future than what exists at the Senior Center today. We will continue to work with the City Council, Design Review Committee, Council on Aging, and many other committees and commissions as we finalize the design and move into construction on this incredible facility. The building will be heated and cooled using all-electric equipment, and we are laser-focused on driving our embodied carbon down as low as possible with our design and material specifications. We are using passive house standards to maximize thermal performance and minimize building air leakage. Beyond the wonderful passive and active recreational opportunities, and critical services for older residents that this facility will provide, it will also provide a hub for the performing and visual arts community which will enrich expand the senior programming opportunities.

The proposed 2023 Operating Override includes $500,000 to boost significantly the City's commitment to funding Senior Services' programming and operations. The new funds will allow us to increase access to the most popular programs and services including fitness, education, arts, music, social services and transportation. These new resources will be dedicated to helping this fast-growing Newton demographic group.

▪ Improving Streets, Sidewalks and Mobility & Public Buildings and Infrastructure

Capital improvements to the City's vast system of roads and sidewalks, water, sewer and stormwater systems, and public buildings will positively impact public safety, economic development, environmental sustainability, public accessibility and Newton residents' quality of life.

The ten-year Transportation Network Improvement Program (formerly called the Accelerated Pavement Management Program) enters its seventh year in FY2024 with a $9.5 million investment to improve Newton's aging road network using a data-driven prioritization system. The program also includes a substantial commitment to renovating sidewalks based on an extensive analysis of the 414 miles of sidewalk and curb ramp infrastructure.

To begin the transportation network program, the City conducted an automated pavement inspection of all City streets to provide a Pavement Condition Index (PCI) for each roadway segment in the City. The PCI is a 0-100 rating system (100 being a roadway in new condition, and 0 being a roadway in extremely poor condition). The City used the inspection data to develop a proactive capital plan for our roadways. The plan utilizes prioritization strategies such as roadway condition, preventative maintenance, cost benefit value analysis, and complete street ideologies to determine the schedule for road improvements. The program addresses road condition, intersection safety, accessibility, pedestrian and bicycle improvements, tree planting and new pavement markings, as well as rehabilitation of City-owned parking lots. The accelerated program has already raised the average PCI from 62.5 to 72, which is more than halfway to the program's goal of 80. Streets are scanned every third year using the latest pavement assessment technology to continuously improve our roadway repair and maintenance program. Once the City reaches the 80 PCI level, the program can begin to shift to a "maintenance" mode rather than catching up after too many decades of underinvestment.

Significant progress has been over the past few years made on major thoroughfares including Washington, Walnut, Chestnut, Cherry, Centre, Crafts, Dedham, Woodward, Adams, California and Watertown Streets, as well as Commonwealth Avenue. Mayor Fuller has also just allocated $4 million of ARPA funds for an accelerated neighborhood road paving project to supplement the City's accelerated road repair program. Those funds will allow us to repave those roads in our neighborhoods which are in the poorest condition (below 50 PCI) along their full length over the next two years. There are approximately 80 neighborhood roads spread across the City that meet the under 50 PCI classification. Some require a maintenance overlay while others need more substantial rehabilitation. The first group of roads (approximately 40) will be identified late this winter for the 2023 paving season.

MassDOT's significant $34 million Needham Street reconstruction project began this year with work on the Needham side of the Charles River. The project, scheduled to be completed in the Fall of 2024, will significantly improve 1.7 miles of Needham Street in Newton for motorists, bicyclists, public transit users and pedestrians.

MassDOT has begun a Newton Corner Traffic Signal and Safety Improvements Project focused on both the I-90 Exit 127 off-ramps and the intersecting streets to the larger circle. The project's stated goal according to MassDOT is to identify, evaluate and develop concept level short-term improvement alternatives to address safety and operational deficiencies associated with the roadway. Given the traffic volume, congestion and known safety challenges in Newton Corner, this will be a high priority collaboration opportunity for the City of Newton.

The Massachusetts Department of Conservation & Recreation is designing a major "Complete Streets" makeover to Hammond Pond Parkway running from Route 9 to Beacon Street. This project will create a separated shared use path along the parkway for bicyclists and walkers and slim the vehicle travel lanes from four to two. This state-funded project is expected to start construction in Spring 2023.

The Commonwealth Avenue Carriageway project in Auburndale continues to move forward with design at 75% and MassDOT set to undertake the $4.6 million construction work to create a shared-use path for pedestrians and bicycles on a redesigned and reconfigured carriageway. The City is completing the final design using CPA funding. The path will connect the Charles River Trail at Lyons Field to a new shared-use path on the bridge over the Charles River to Weston.

MassDOT will also reconstruct the Commonwealth Avenue/Auburn Street intersection into a roundabout and renovate the bridge crossing the Charles River into Weston.

DPW is completing substantial improvements to the Newton Free Library parking lot this fall. This project increases parking supply for the busy Library, enhances stormwater and drainage systems, and improves accessible parking and pedestrian pathways. This $2.4 million project also helps the City achieve credits for the federal MS4 stormwater permit with phosphorous reduction in the Laundry Brook sub watershed of the Charles River.

The City maintains approximately 100 signalized locations, with the traffic signals ranging in age from 1958 to 2022. The traffic signal infrastructure is complex with many different types of signal equipment including those for ADA compliance. A 2012 Traffic Signal Evaluation, and more recent prioritization planning, guides DPW's plans to upgrade the most inefficient, frustrating, and unsafe signal infrastructure. The primary goals are to reduce the number of vehicle/bicycle/pedestrian crashes and develop a system that can be maintained in an efficient and proactive manner. The top priority locations in the CIP are the Beacon Street at Walnut Street (4 Corners), Commonwealth Avenue at Chestnut Street, Cherry Street at both Webster and Derby Streets, and Beacon Street at Chestnut Street.

The City continues to invest CIP funds to ensure our fleet of larger equipment is safe, efficient and operational. The Fleet Division purchases and maintains vehicles and equipment for all departments. New purchases replace older less efficient trucks with modern ones that include clean burning, emission compliant technology. This CIP includes funds to continue to update the Department of Public Works fleet, with FY2024 targeted purchases of dump trucks, street sweepers, plow trucks, sidewalk tractors, backhoes and utility trucks. Fleet improvements are also planned for Parks, Recreation & Culture, Public Buildings, and Forestry vehicles. The City currently leases most of its electric sedans and hybrid/electric SUVs.

Using water, sewer, and stormwater funds from fees, the Department of Public Works Utilities Division is continuing the aggressive long-term program to improve the conditions of all three systems. A 20-Year Water System Capital Improvement Program will enter its tenth year, targeting replacement of leak-prone, aging pipelines and coordinating the work with scheduled street repairs. A list and map of the upgrades planned over the next five years is included in this CIP. Eliminating leaky pipes will help lower the "unaccounted-for water" in the system and decrease the City's Massachusetts Water Resource Authority (MWRA) assessments. In FY2023 approximately 15,000' (2.8 miles) of watermain was rehabilitated.

Improvements to Newton's major water storage facility, the Waban Hill Covered Reservoir in Chestnut Hill built in 1891, will commence construction this fiscal year, FY2023. This project includes new valves, piping, and roofing systems as well as the cleaning of four 2.5 million-gallon chambers. DPW will also undertake a complete overhaul of the City's 26,000 residential water meters over the next several years. This project will also install a new automatic meter reader system that includes an online customer portal in every residence. The 125 largest commercial water meters will be replaced to assure accuracy and reduce maintenance costs.

The Sewer System Capital Improvement Program continues into its tenth year, systematically working across the City's 300-mile sewer system to address aging pipes, reduce inflow and infiltration (I&I), and decrease the growth in MWRA's sewer-based charges and assessments. To date, 99 miles of sewer main have been lined, 3,947 manholes rehabilitated, and 228 failed sewer mains excavated and replaced. This work has eliminated nearly 2 million gallons per day from reaching the MWRA's collection system and Deer Island Treatment Plant. Work in the next four

project areas, Areas 8-11, will include the investigation and possible relining of 94 miles of sewer line and rehabilitation of over 3,100 manholes. After the eleven sewer project areas are completed, the City will reassess the asset priorities, maintenance needs and set further targets for I&I reduction.

The Utilities Division is using the recently completed study of all 11 sewer pump stations to begin a series of operational upgrades and renovations over several years. These are critical for system reliability. In FY2023 the first phase of this project will include a total replacement of the Oldham Road Pump station (near the intersection of Washington Street and Commonwealth Avenue), heating and ventilation in all the pump stations, and gate valve replacements at the Quinobequin Road and Elliott Street pump stations.

The City's Stormwater Infrastructure Improvement Program will significantly ramp up over the next five years to improve the aging stormwater system and make sure Newton addresses federal and state regulatory requirements contained in the Federal Clean Water Act's "MS4" Program. The MS4 Program targets urban areas within impaired river basins such as the Charles River. Stormwater projects include sediment removal from the City Hall Ponds, culvert replacements, the stabilization of several segments of Cheesecake Brook, an extension of drainage lines to the Union Street area in Newton Centre, Edmunds Brook spillway improvements, and DPW yard drainage work. Also, repairs will be made to the Bullough's Pond Dam to meet the state's Dam Safety requirements. All these projects and program needs are funded by stormwater fees.

The Public Buildings Department is responsible for the care and maintenance of 85 municipal and school buildings across the city, totaling 3 million square feet. The Public Buildings staff is managing many large school and municipal projects (e.g., Newton Early Childhood Program, NewCAL, Lincoln-Eliot, Countryside, Franklin, Horace Mann, Fire and Police building improvements) in the next five years. In addition, Public Buildings is also undertaking renovations at City Hall, solar facility installations in parking lots and on rooftops, and HVAC upgrades at the Newton Free Library. Public Buildings also manages thousands of work orders from small maintenance to mid-sized construction projects through the School Charter Maintenance and the Public Buildings Maintenance accounts.

- ## Preserving Neighborhoods, Increasing Affordable Housing, and Diversifying Housing Options

The City continues to advance affordable housing, diversify housing options, and preserve neighborhoods. These efforts do not typically use CIP funding; the City instead uses Community Development Block Grant (CDBG), federal HOME grants, Community Preservation Act (CPA) dollars, and Inclusionary Zoning funds to leverage non-City affordable housing dollars. The City also uses the Inclusionary Zoning Ordinance and the City Council Special Permit and Zoning Board of Appeals 40B processes to add affordable units with new or substantially renovated developments.

A major step forward this year was the creation of the Newton Affordable Housing Trust. The Trust's mission is to preserve existing affordable housing units and create new ones that are affordable to low and moderate-income households, which are households which make less than 80% of the Area Median Income (AMI). The Trust has the ability to create a streamlined process to provide funding to new affordable housing projects and take advantage of development opportunities which might otherwise not be available to the City. Two major funding sources for the Trust are CPA funds and Inclusionary Zoning funds. Newton's Community Preservation

Committee members recently decided to allocate 35% of its annual budget to the Trust for affordable housing.

The West Newton Armory provides a unique opportunity for the City to create 100% affordable housing in a village location in West Newton Square. The City took official ownership of the property from the State in September 2021 for $1 dollar. We have selected a development partner, a partnership between Metro West Collaborative Development and Civico Development, who has advanced plans and project funding significantly over the past year for 43 units of affordable rental housing in a historically appropriate renovation/addition. Funding for the project includes CDBG, HOME, CPA, Inclusionary Zoning funds, the state's Low Income Housing Tax Credit Program, and other federal and state resources. The project recently submitted a 40B comprehensive permit application to the City's Zoning Board of Appeals (ZBA). The public hearing will open in mid-October 2022 and the developer will submit a funding application to the state in early 2023.

Another public hearing that the ZBA will open in October 2022 is for the Northland Investment Company's proposal for a new comprehensive permit project located behind Needham Street between Charlemont and Christina Streets. Of the 410 proposed residential units, 25% of them, or 103 units, will be reserved as affordable for households earning up to 80% of the Area Median Income (AMI). In addition, Toll Brothers recently submitted a Project Eligibility application to MassHousing for a project at 528 Boylston Street, on the south side of Route 9 between Olde Field Road and Dudley Road. The proposal is for 244 units, 61 of which (25%) would be affordable at 80% AMI. If the application for project eligibility is approved by MassHousing, the developer could then submit a Comprehensive Permit application to the Newton ZBA.

Two projects approved in 2020 and 2021 under 40B are currently under construction – the Residences on the Charles in Nonantum and Dunstan East in West Newton. A total of 496 units, 114 of which will be affordable up to 80% AMI (with some affordable at 50% AMI), will be ready for occupancy in the next few years.

Recent affordable housing efforts that received CDBG, HOME, Inclusionary Zoning, Community Preservation Act funding or significant City staff assistance include:
28 Austin Street (23 units occupied in 2019), 236 Auburn Street (8 units occupied in 2020), Newton Housing Authority's Haywood House (55 new affordable senior units under construction, occupancy expected in spring 2023), 2Life Communities' Golda Meir Expansion (68 new affordable senior units under construction, occupancy also expected in spring 2023), 2Life Communities' Coleman House (substantial preservation and rehabilitation of 146 affordable senior units, currently under construction), and Cascap Inc.'s Nonantum Village Place (rehabilitation and restoration of 35 affordable senior units, currently under construction).
With the approval of the Northland and Riverside development projects, and smaller residential projects, there have been 607 total affordable units either occupied, under construction, or approved since the beginning of 2018.
To assist our older resident homeowners on fixed and limited incomes be able to age in place and stay in Newton, we have enabled more expansive senior property tax deferrals.

- ## Promoting Vibrant, Walkable and Financially Robust Village Centers and Commercial Corridors

Promoting vibrant village centers and commercial corridors that are both walkable and financially robust is an important goal with City-wide positive impacts. The City's investments in these areas come in a variety of forms from zoning reforms to physical improvements to roads, traffic signals, sidewalks, pedestrian and bicycle friendly streetscapes, beautification projects (including

benches, lighting, trees and more) and updating our parking meters and kiosks. Funding for investments often also include those made by the state government (particularly MassDOT) and the private sector.

The Newtonville Village Center and West Newton Square improvement projects have transformed these places to make them much more friendly to shoppers, pedestrians, sidewalk diners, and bicyclists while improving traffic operations, tree canopy and greenspaces. The current CIP includes village center improvement work at Pettee Square in Upper Falls and in Newton Highlands (Centre/Walnut/Lincoln Streets). The City has designated $1 million in ARPA funds for the Highlands Village Center project and initial public input on the project has begun. The City is actively seeking state construction funding for the Pettee Square project which is fully designed. The CIP also now includes a Washington Street Redesign/Pilot project and MassDOT's new Newton Corner traffic safety project.

This year DPW completed a comprehensive inventory of the city's sidewalk network infrastructure that includes pedestrian curb ramps. DPW staff are using a specialized GIS tool created to simplify the inventorying and evaluation of the sidewalks and ramps. The inventory includes nearly 415 miles of sidewalks and over 5,000 pedestrian curb ramps. The information is being compiled into a report which will be shared in the coming months.

Over the past five years the City has constructed 34 miles of new sidewalk and over 1,000 new pedestrian curb ramps. The City will be using the information in the GIS analysis to prioritize areas for reconstruction or repair, prioritizing high-pedestrian zones like schools, village centers, parks, and community facility locations. Other considerations for prioritization include ADA compliance and identified safe routes to schools. In FY2023, sidewalk focus areas include addressing 311 maintenance requests, school walking routes near Peirce, Mason Rice, and Cabot Elementary Schools as well as the City Hall campus. Known target areas for FY2024 sidewalk work include Williams, Underwood, and Ward Elementary Schools.

There are significant street safety improvements, traffic calming and pedestrian safety needs along the City's 300 miles of roads and at our 2500 intersections. The Fuller Administration has accelerated the pace of implementing traffic calming projects with the use of increased DPW operating funds, ARPA funds ($2 million allocated in September 2022), and hopefully with 2023 Operating Override designated funds.

DPW's Transportation Operations team has developed a multi-factor prioritization system to evaluate the hundreds of street safety and traffic calming requests that come in from residents and City Councilors concerned about traffic volumes, speeds and safety. This data-driven evaluation process prioritizes the requests and is updated annually. Design improvements are specific to each location. The techniques include speed feedback displays, pedestrian actuated devices, new or improved pavement markings, and roadway geometry changes (e.g., moving curbs or using tactile techniques such as flexible posts). Over the past two years, DPW has implemented permanent traffic calming measures at 13 locations. Nine projects are in design and ARPA funds will add 15 Rapid Rectangular Flashing Beacons (RRFBs) at locations prioritized using a system to rank crosswalks for this technology. The Operating Override funds are expected to double the pace of traffic calming efforts.

Mayor Fuller has allocated $3 million in ARPA funds to the Washington Street Redesign and Pilot Project. The goals are to improve safety for all users, add protected bike lanes, improve pedestrian accommodations and crossings, optimize bus operations, and improve the public realm. The project may reallocate the right of way from 4 to 3 vehicular lanes (including turn lanes). The

designs will build off previous work of the City's 2019 Washington Street Vision Plan and the Boston Region MPO's 2015 Washington Street Subregional Priority Roadway Study in Newton. The first phase is to design and then pilot a realignment of a section of the Washington Street corridor from Chestnut Street to Lowell Avenue in between West Newton Square and Newtonville. The pilot will maintain as much parking as possible and add bikes lanes. After the pilot, the City will move forward, applying complete streets design principles that work well for this unique street for the entire length of Washington Street along the Mass Pike. The project is aimed to lay the groundwork for transforming this transit-rich corridor into a vibrant, thriving economic development and residential corridor.

MassDOT has begun a Newton Corner Traffic Signal and Safety Improvements Project focused on both the I-90 Exit 127 off-ramps and the intersecting streets to the larger circle. The project's stated goal according to MassDOT is to identify, evaluate and develop concept level short-term improvement alternatives to address safety and operational deficiencies associated with the roadway. Given the traffic volume, congestion and known safety challenges in Newton Corner, this will be a high priority collaboration opportunity for the City of Newton.

▪ Addressing Climate Change and Sustaining our Environment

The City of Newton has finalized its first-ever Climate Action Plan, a living five-year plan for 2020-2024 that also sets a path to our long-term goal of a carbon-neutral Newton by 2050. The title of the Plan is "Use Less and Green the Rest." The Plan includes six areas of action:

- Implementing the plan by adapting internal operations and working with partners;
- Promoting clean and renewable power;
- Greening Newton's transportation and streetscapes;
- Improving new construction and major renovations;
- Improving existing buildings; and,
- Reducing emissions associated with consumption and disposal.

While much of the focus of the Climate Action Plan is on changing behavior by residents, businesses and developers with their buildings and vehicles (where the vast majority of greenhouse gases are generated), there are several areas involving municipal assets that the Plan calls for new City investment using either operating or capital funds.

The Climate Action Plan included two early action items for the City which the Fuller Administration has implemented. The first was the hiring of an Energy Coach to help promote energy efficient design and lowered use of fossil fuels in new construction and major renovations. As of September 2022, the Coach has conducted over 300 consults with Newton residents and builders. The second was launching the HeatSmart Newton program to promote the use of heat pump technology and partner with local installers to help homeowners. The HeatSmart program has led to at least 143 installations of heat pumps in Newton homes (other installations are taking place outside of the program). A new program begun in 2022 has been the Home Performance Contractor partnership with a firm that conducts home energy assessments and weatherization projects. The Energy Coach has also begun a regular Newton Climate Newsletter, partnered with Village Bank for a Climate Change Microgrant Program, and begun the *4 Our Future* campaign that focuses on greening residential buildings.

The City has incorporated sustainable design principles into all new building projects, including school & municipal facilities and Complete Street projects. Our three new schools – Angier,

Zervas, and Cabot – are all highly sustainable facilities. The renovations of 687 Watertown Street (the former Horace Mann) to become the Newton Early Childhood Program (NECP) facility will remove all fossil fuel sources for heating and cooling, a first in Newton. That will also occur with the NewCAL project as well as the Lincoln-Eliot, Franklin, Horace Mann, and Countryside Elementary School projects. Using funds from the proposed 2023 Operating Override, the City will be replacing fossil fuel HVAC systems at municipal and school facilities beginning with the Newton Free Library and Peirce Elementary School, the last school on oil heat. The Public Buildings Department has developed sustainable design principles for all projects in collaboration with the Design Review Committee.

Newton has become a regional leader on solar electricity production. The City's solar arrays at the Rumford landfill and on municipal building roofs and parking lots generated over 5 million kilowatt hours (kwh) of electricity in 2022, saving the City over $500,000. Phase 3 solar projects are starting to come online and will produce another 3.3 million kWh of solar power. With the completion of Phase 3, the city's solar facilities will generate the equivalent of 40% of total municipal and school electricity use.

The City has completed the replacement of all passenger vehicles in the municipal fleet with electric cars and has been installing electric car charging stations at both municipal buildings and in city and school parking lots. There are currently 19 City-owned public chargers at 12 locations and three more chargers planned for NewMo vehicles. As part of the Climate Action Plan implementation, this CIP envisions installation of 68 additional public charger points in village center parking and school parking lots. Newton will use a combination of resources to fund the installations, including Eversource's Make-Ready Program and state grants expected from the recently approved state climate and infrastructure bills.

The City continues to make progress on bike and pedestrian infrastructure. Newton led, with five other municipalities, the first bikeshare expansion into new municipalities since bikeshare's inception in Boston in 2011, adding 55 stations collectively since 2020. Newton is the largest of these expansion municipalities with 16 stations and approximately 130 bikes. Bluebikes Newton will result in upwards of 10,000 trips in 2022, exceeding 1,000 trips per month from April through October. Year-over-year ridership has doubled for the 6 months from April-September in 2022 compared to 2021. Using $80,000 in ARPA funding, the Fuller Administration will take the next significant step forward by developing a comprehensive, long-term bicycle and pedestrian master plan. Providing a high-quality bicycle and pedestrian network will enhance the quality of life for our residents and visitors of all ages, help reduce greenhouse gas emissions, increase public health, and support community and economic development. The plan will identify all the key corridors, intersections, segments and gaps that will comprise a complete bike and pedestrian network, and provide design recommendations, cost estimates and a prioritized implementation schedule.

The City will continue its aggressive efforts to create energy efficiencies in school and municipal buildings. The City is applying for its eighth straight Green Communities Grant to help continue this work. This grant will be used to continue the LED lighting conversion at South High School and for a phased decarbonization of Fire Station #1 on Church Street. The City has been the recipient of over $1.6 million in grants and over $2.4 million in utility rebates associated with those funded projects. Twenty-five buildings, schools and all municipal streetlights have been converted to LED lighting since 2013, saving 3 million kWh per year. Public Buildings recently converted the Auburndale Library from oil fired steam heating to a heat pump system, completed the construction of a fully electric addition at Oak Hill School, and is in construction on the

electrification of the NECP at 687 Watertown Street. New buildings are being designed to be fully electric including NewCAL, Lincoln-Eliot, Countryside, Franklin, and Horace Mann.

Climate change has already brought stormwater impacts to the metro Boston area, with intensification of severe events creating flooding, water quality problems, and droughts. Several stormwater projects included in the CIP will help the City address water quality conditions in the Charles River Watershed. The MS4 municipal stormwater permits will lead to additional new City projects that improve water quality. Projects will help address localized flooding problems by improving existing infrastructure and/or creating water detention systems. The City will also be continue to incorporate stormwater improvements into road and intersection reconstruction projects.

- ## Protecting Woods and Open Spaces & Caring for our Parks and Recreational Spaces

Over the last several years, the City has greatly accelerated projects and efforts to enhance and protect our natural and recreational resources. These projects are in keeping with Newton's Open Space & Recreation Plan (2020-2027), a collective vision for the City's open space and recreational spaces that establishes priorities and makes the City eligible to apply for certain State funding programs.

Newton has a substantial number of conservation areas, parks, sports fields, tennis courts, play structures, open spaces, trail networks, a lake swim beach and an outdoor pool complex that require upkeep, maintenance and ongoing renovations. Many of the renovation projects are funded through the Parks, Recreation and Culture Department's operating budget, ARPA funds, CPA funds, state grants and with other sources tapped as well. The Fuller Administration has identified a backlog of needed renovation and improvements to major elements of the City's park system and is taking rapid steps to move projects forward. In addition, the proposed 2023 Operating Override proposes a $1 million allocation to significantly improve funding for athletic field, parks and playground maintenance. This much needed funding boost will allow a full and systematic maintenance program for all parks assets including fields, playgrounds, courts, pathways, lighting and park amenities (e.g., benches, tables). This 18% budgetary boost to parks and recreational spending will greatly help transform the department's maintenance program and the quality of recreational experience throughout the park system covering over 600 acres at 165 locations.

The new Office of Parks & Open Space within the Parks, Recreation and Culture Department was created in 2021 to manage the consultants, inter-departmental collaboration and public participation required for project success. Below are some of their key projects:

Gath Pool: Gath Pool serves as Newton's sole outdoor public swimming pool, welcoming over 30,000 swimmers each season, The pool facility is now nearly 60 years old with aging systems and equipment that are past useful life. The pool's decks and infrastructure do not meet ADA accessibility requirements. Several leaks in the underground piping and gutter systems cause significant water loss each day. With the help of an aquatics design consultant, the project team incorporated input from diverse user groups and stakeholders into the new pool's design. The City's Parks, Recreation and Culture (PRC) and Public Buildings Departments received $485,600 in CPA funding to bring the project to full design. Construction is expected to begin after the 2023 summer swim season next year. The new pool facility will include a splash pad, universal access,

leisure and play areas for pool patrons, flexible pool spaces for simultaneous use by different groups, and provide an improved experience for both recreational and competitive swimmers.

Athletic Field Renovations: The City has greatly strengthened athletic field maintenance with large budgetary increases in the operating budget and has outlined a series of major renovations to a number of fields. The improved playing conditions will allow for increases in playing time for our school teams and youth sports leagues. The fields selected for major renovations were based on stakeholder group input, including youth sports leagues and school athletics leaders, and designs were based on feedback received during community meetings which were held for each field project. Using $420,000 in CPA funds, the City worked closely with design/engineering consultants to detail improvements at these locations including a first batch of critical fields – Burr Elementary School, McGrath Park, Russ Halloran Sports Complex at Albemarle, and Brown-Oak Hill Fields. These upcoming projects will include accessibility improvements and many of the great suggestions that were heard from sport group advocated and neighbors through community listening sessions. PRC will be seeking CPA funding for several of the athletic field projects this fall.

New field lights for Newton South's Brandeis Road synthetic turf field have been installed and Newton North's stadium synthetic turf field are underway, both using ARPA funds. The City has also begun engineering work to determine the best way to replace our three aging, heavily-used, synthetic turf fields (two at South, one at North). Use of $2.1 million in Free Cash is planned for construction/installation of the two older fields at South during 2023. Replacement of the Newton North field will be done in coming years.

Crystal Lake: Crystal Lake is a precious gem situated in the center of the city. There are multiple projects underway to improve shoreline and water quality conditions in the lake and to upgrade its busy swimming beach area. DPW has completed a water treatment program to reduce the risk of harmful algal blooms and to improve water clarity. Frequent street sweeping has also reduced phosphorous loading into the lake. PRC, in coordination with the Conservation Commission, has completed the design of shoreline, erosion control, and accessibility improvements to the Levingston Cove area. This $1.8 million project will break ground this fall. PRC's project for the "left beach" and park area is now in the design phase with active community participation underway. Project goals include better connectivity throughout the park, a universal accessible design, protecting the lake and shore from pollution and erosion, and an improved guest experience. The design is funded with ARPA funds and a state appropriation

Playgrounds and Courts: Playgrounds, courts (whether tennis, pickleball or basketball) and park spaces are also receiving increased attention. $250,000 in ARPA funding is being used to build additional playground structure elements at the Horace Mann Elementary School. PRC is using both the expanded playground funding in the City Operating Budget and ARPA funds to complete a playground rebuild this coming year at Forte Park and accessible matting installation at Auburndale Cove, Williams Elementary and Davis Playgrounds (the latter next to Family Access in West Newton Square). $322,000 from Free Cash is being allocated to resurface the large play structure areas at Newton Centre Playground that had deteriorated quickly in the last year. That project will be completed this Fall 2022. PRC has also prioritized resurfacing efforts for their 60+ tennis courts. The 10 courts at Newton North were fully restored with crack sealing and full surface refinishing this summer. The bank of courts at Lower Falls received the same treatment and crack sealing work at the Stearns Park courts will keep water from penetrating the surface. Rapidly growing pickleball is being focused on at the McGrath and Auburndale Cove courts that are strategically located at more distance from neighbors given the noise conflicts associated with the

sport. $150,000 in improvements to Cabot Park will also be made, including new basketball ball structures, lighting upgrades, and an accessible pathway.

Trail Improvements: Trail improvement projects are also receiving investments by the City and partner organizations. Following recommendations in the Open Space Plan, the City created an Open Space and Recreation Plan (OSRP) Implementation Committee and a Trails Advisory Group comprising City staff and residents to coordinate efforts on a regular basis. Phase 2 of the Marty Sender Path from Auburndale Cove to Lyons Field has moved into the design phase with active public involvement. Trail improvements are completed in the Old Deer Park and planned along the Riverwalk-Upper Falls Greenway area, Kessler Woods, and the Riverside Greenway-Pigeon Hill area.

New Community Garden: Using ARPA funds, PRC recently began planning efforts for a new community garden at Spears Park off Washington Street in Nonantum/Newton Corner. This will be the first community garden on the north side of the city, complementing the existing gardens in Nahanton Park on the south side.

The Urban Forestry Program in PRC works to preserve and expand a safe, healthy public tree population, currently about 21,000, and maximize the benefits gained from the urban forest. The City's Forestry staff, with help from contractors and the wonderful volunteers from the Newton Tree Conservancy, plant and care for young trees, prune trees of all ages, identify and remove dangerous trees and limbs, and complete stump removal and grinding. These investments have begun turning Newton greener, especially with strategic planting efforts in low tree canopy areas. Our significant investments in new trees over the past decade need to be carefully nurtured to assure they grow and thrive into full canopy trees. The City allocated $250,000 in ARPA funds to purchase a new watering truck and to conduct pruning of young trees, and to address the backlog of mature street tree pruning.

The proposed 2023 Operating Override includes a $500,000 boost to the Urban Forestry program to increase dramatically the level of street tree planting, pruning and young tree care efforts. Tree planting using City funds will jump from 500 to 900 per year. The Newton Tree Conservancy assists in planting hundreds of additional street trees per year. With an increased level of care, the young and new trees will be stronger and survive to be long-term environmental and community assets. Mature trees will be pruned every five years and by 2030 there will be over 6,000 total new trees planted across the City.

▪ Fostering Arts, Culture and Community Life

Newton's vibrant community life, including substantial arts and cultural programs provided in partnership with numerous organizations, nourishes our souls, brings us together, enlivens our villages, and brings customers to our restaurants and small businesses. The City plays a significant role in hosting these programs in public buildings and parks, supporting arts and culture throughout the City and in our schools, and fostering collaboration between organizations.

To strengthen and grow arts and cultural opportunities in Newton, the City completed *CREATE NEWTON: Newton's Comprehensive Arts & Culture Plan* in December 2019. The goals and strategies laid out in this Plan offer a road map for advancing arts and culture in the city. The plan serves as a framework that allows major stakeholders to work together to implement the priority items and next steps.

To help the arts sector rebound from the pandemic, the City deployed $75,000 in ARPA funds for *Revitalize Creative Newton*, a grant program for the arts and culture sector of Newton to cover expenses related to reopening and resuming cultural programming and services. The City also collaborated in 2021 with Newton Community Pride, the non-profit organization promoting and organizing arts and culture activities in the City, along with the Heller School at Brandeis University, to closely examine the economic impact of arts and culture in the City. The Heller report found about $19 million in arts/culture expenditures annually in the City and that there was a significant social impact on attendees to events, including a reduction in feelings of isolation, strengthened community connection, increased cultural understanding and the promotion of happiness and well-being.

The Cultural Development staff in the Parks, Recreation & Culture Department, plays a central role in organizing civic, artistic and cultural events and programs in the City, often in collaboration with other City departments and non-profit organizations. Major events include July 4th Celebrations, Harvest Fair, Holiday Lights, Family Fun Fest, Summer Concerts, and Halloween Window Painting. They also create public art projects such as Flutter (wooden painted butterflies in the parks), Haiku Newton, Artful Pianos, and Art in Bloom Newton.

A major challenge for the Newton arts and cultural scene has been finding large performance venues that are readily available for non-school, community organizations. The City plans to use the large existing auditorium at 150 Jackson Road (the former Aquinas Junior College) as a combination community space on nights and weekends and elementary space for the new Lincoln-Eliot School during school times. The City has designated $1.8 million in ARPA funds to help renovate this space with a modern stage, accessible seating, and sound/lighting. The Office of Cultural Development will manage this new space upon completion in late 2025.

The Newton Center for Active Living (NewCAL) at the Senior Center site in the village center of Newtonville will also be a great facility to foster arts, culture and community life for all ages. It will have a dining and performance hall with a 250+ seat capacity. That wonderful new facility is expected to open in late 2024.

The Newton Free Library is the one of the top circulation libraries in Massachusetts and a busy center for the City's community life. Now thirty years old, the City has needed to adapt the building spaces to meet today's needs and to undertake facility maintenance projects. The $1.8 million project to expand and improve the undersized Children's Room, funded with ARPA dollars, was completed during the Summer of 2022 and is already a hub for expanded children's library activities. One of the first projects envisioned with the proposed 2023 Operating Override's $500,000 for sustainability work is to replace the Library's aging heating and cooling system with an all-electric system that ensures a stable, comfortable indoor climate for the entire building, including the Druker Auditorium, a key civic space.

While the pandemic greatly limited in-person, indoor events, the creative community and the City pivoted to offer virtual programming and physically distanced events. One such series of events has been summer outdoor concerts at the open space adjacent to the Newton Centre Playground, dubbed the Newton Centre Bowl. The location is large, has nice physical features for performances (a hillside ideal for audience seating) and is close to businesses in Newton Centre. The City will continue to explore the feasibility of a small-scale pavilion that would be designed to peacefully coexist with the park and playground setting. PRC has also partnered with the MassArt Graduate Architecture Program on a community-build project in Cabot Park to create a small pavilion and outdoor classroom in a space previously occupied by a little-used play structure. This

project is expected to be completed this Fall 2022 and provide space for a wide variety of activities for children and adults.

▪ Facilitating a Healthy, Accessible and Supportive Newton

The health and safety of and support for Newton's residents and City employees due to the COVID-19 pandemic has been of paramount importance during 2020-2022. Facilitating a healthy, accessible and supportive community includes a wide range of programs from quite a few departments, including the Health and Human Services Department (e.g., school nurses, community social workers, food insecurity programs such as Grab and Go meals, contact tracing and COVID-19 protocols and information, vaccine and flu clinics) to Senior Services to Parks, Recreation and Culture's programs for individuals with disabilities. It also includes physical accessibility improvements.

The Fuller Administration is using ARPA funding to assist those Newtonians who suffered disproportionately as a result of the pandemic. ARPA investments complement funding previously deployed, including $418,000 in CARES funds, $2.7 million of CPA funds, $1.7 million in Community Development funds, and $1.1 million in Emergency Solutions Grants. All of these dollars have supported pandemic relief, housing and rental assistance, and health and human services. Newton's Annual Action Plan uses an additional $3.5 million in Federal funds to support affordable housing, rental assistance, human services, and architectural access in Fiscal Year 2023.

Mayor Fuller has also dedicated another $2 million in ARPA funds to support low-income residents and residents impacted by the pandemic, both of which are disproportionately people of color. This allocation of funds comes after the completion of the Community Needs Assessment in February 2022, which includes a series of short-term and long-term recommended actions. We will make $250,000 available for low-barrier emergency expenses such as rent and utility assistance to address immediate hardships and $1.75 million for long-term economic mobility and self-sufficiency initiatives that address systemic barriers.

One of our important goals is to make a permanent impact on affordable housing availability and stability. These ARPA investments, coupled with the development of the West Newton Armory and our support of the good work of partners such as 2LifeCommunities, the Newton Housing Authority, the Newton Community Development Foundation, and MetroWest, reinforces our forward momentum.

The CIP continues to determine priority rankings of capital projects based on accessibility considerations and the City's ADA coordinator is involved in each project's design. The ADA coordinator has completed a draft City accessibility evaluation that highlights and prioritizes needed accessibility investments. In the CIP, the City is making a series of investments in accessibility capital projects, including playground surface improvements and new accessible paths/trails at Cabot, Auburndale Cove, Lyons Field, McGrath and Riverwalk parks. The City has also designated $500,000 in ARPA funds to accelerate the critical work of making our community more accessible. This funding will accelerate the construction of Commission On Disability priority projects, including new curb ramps in Newton Centre, Waban and Newtonville plus accessible playground matting in West Newton (Davis) and two locations in Auburndale (Cove and Williams).

A major milestone will be reached this winter when the permanent home for the City-wide Newton Early Childhood Program (NECP) will be completed and open at 687 Watertown Street in January 2023. NECP, which currently has approximately 200 students and utilizes 13 classrooms, is an inclusive education program that provides all children with the opportunity to learn with and from each other. All children gain valuable experiences in an environment where children are different in their abilities. The inclusive program builds a lifelong foundation for respecting human differences, compassion, empathy and kindness. The program also serves 100 or more students on a part-time basis for services, including speech therapy, occupational therapy and physical therapy. To keep pace with the consistent long-term trend of increased need for special education services, and to find a permanent NECP home, the City is almost complete with the construction of a full $13 million renovation to the previous Horace Mann School building. NECP will now have a total of 17 classrooms available, expanded individual and small group spaces, dedicated therapy spaces, easy van drop-off/pick-up, outdoor play space chosen for these students as well as flexible spaces to be able to support needs of young children in Newton.

▪ Providing Excellent and Responsive City Services

Providing excellent and responsive City services is a core managerial task and technology is one of the key tools for ensuring its implementation. Hardware and software investments allow us, for example, to run our City's 311 System, road pavement condition analysis, and field inspections by multiple City departments. The full conversion of the City's financial system to MUNIS has been successfully completed as well as upgrades to the City website. Along with a full replacement of all water meters and installation of transponders that connect directly to the billing department, the City will be creating a new online web portal for customers to track their water usage and notify them of possible leaks.

The City completed the first phases of implementing a first-ever citywide Municipal Information and Permitting System, called NewGov, that integrates, streamlines and automates the multiple systems that City residents and businesses, as well as City staff, currently use. A new permitting system has been transformative for departments ranging from Inspectional Services and Planning to the Clerk's Office, Health & Human Services, Engineering, Fire and Assessing. NewGov provides online permit applications for residents, businesses and contractors (e.g., building, gas/electrical, restaurants) and allow them to track status and coordinate inspections and make payments. The system has workflow configurations that prompt departments on next steps on permit and license reviews, approvals and any follow-up reminders. New field tablets have successfully allowed inspectors to directly enter information from sites. NewGov will also produce a range of regular reports for departments to analyze trends and make process improvements. The public is now able to see a wide range of information on permits and licenses tied to a specific property. Other components will be phased in over the next year. The City's total investment in the new system is $1.137 million, as approved by the City Council in January 2021.

The CIP also includes funding for the City Clerk's Office to purchase new voting equipment in FY2023 or FY2024, with the timing of the purchases determined after consultations with the new City Clerk.

A major initiative for responsive City service for FY2023 was a switch from contracting yard waste pickup to an in-house program run by the Department of Public Work's Sustainable Materials Management staff. After significant contractor challenges with on-time yard waste pickup, the

City took the entire program in-house in early 2022 by hiring staff and leasing vehicles. This effort has both saved the City money so far and provided on-time pickup of yard waste bags and barrels which residents greatly value.

- ## Assuring the City's Financial Health and Spending Wisely

The FY2024 – FY2028 Financial Forecast is a comprehensive strategy to ensure the City of Newton's fiscal health during this particularly difficult economic and budgetary period and to prioritize spending on both capital assets and City operations. This CIP prioritizes capital spending on over 200 projects to match the City's financial capabilities and make the City a better place for our residents and businesses.

- ## Meeting COVID-19 Needs

The City has undertaken a series of capital projects over the past 30 months to modify City buildings, working conditions and public interaction areas to limit the spread of COVID-19. These projects have been funded by a combination of federal relief sources, School funds and City funds. Over the past two years $2.2 million in ARPA funds have been used to create building adaptations in Police Headquarters, Fire Stations #1 and #2, City Hall's basement areas, and the War Memorial Auditorium. These adaptations to critical buildings will improve ventilation and air circulation for hundreds of employees as well as the public visiting these facilities. This follows $4 million in upgrades to the ventilation in Newton Public School buildings in the winter of 2020-2021.

CIP by Priority FY2024-FY2028

								Total	Total	Total	Total	Total	Total	Total
								$ 152,702,634	$ 44,633,490	$ 127,527,773	$ 81,192,380	$104,925,500	$ 40,801,600	$ 23,628,000
Priority	**Dept**	**Asset Category**	**Project Title**	**Project Description / Justification**	**Est Cost in FY2023**	**Priority Factor**	**Funding Source**	**Approved Funding**	**FY2023 to be Docketed/Approved**	**FY2024**	**FY2025**	**FY2026**	**FY2027**	**FY2028**
1	DPW	Complete Streets	Needham Street Upgrades	TIP Project to Pave and Improve Needham Street - Funded and managed by MassDOT.	$ 34,250,360	80.5	State TIP Funding	$ 34,250,360	$ -	$ -	$ -	$ -	$ -	$ -
2	DPW/ Sewer	Sewer	Sewer Inflow /Infiltration Project - Area 7 - Upper Falls, Highlands, Thompsonville	Part of 10 Phase program to remove excess inflow and infiltration into sewer system.	$ 7,919,115	73.0	MWRA Grant/Loan	$ 7,919,115	$ -	$ -	$ -	$ -	$ -	$ -
3	DPW/ Sewer	Sewer	Sewer Inflow/ Infiltration Project - Area 8 - Upper Falls, Highlands, Thompsonville & Oak Hill	Part of 10 Phase program to remove excess inflow and infiltration into sewer system.	$ 7,453,196	70.2	MWRA Grant/Loan/Sewer Funds	$ 7,453,196	$ -	$ -	$ -	$ -	$ -	$ -
4	DPW/ Water	Water	Commercial & Residential Water Meter Replacement Project	Removal & Replacement of 125 commercial electromagnetic water meters sized 2"-8" diameter, +/-26,000 residential meters sized 5/8"-1 1/2", installation of new AMI system with customer portal.	$ 16,625,000	70.1	Water / Sewer Funds	$ 16,625,000	$ -	$ -	$ -	$ -	$ -	$ -
5	DPW/ Water	Water	Waban Hill Covered Reservoir	Rehabilitation of pipes, valves, all appurtenances and roof replacement. Includes cleaning, inspection, design, and construction services.	$ 1,485,000	68.6	Water Funds	$ 1,185,000	$ 300,000	$ -	$ -	$ -	$ -	$ -
6	DPW	Complete Streets	Transportation Network Improvement Program - Paving/Sidewalks/Accessibility	10 year Paving Initiative - Repair and Pave Scheduled Streets, Sidewalks, traffic calming and pavement markings throughout the City.	$ 95,000,000	68.4	Chapt 90/ Free Cash/ARPA /Other Funds	$ -	$ 9,500,000	$ 9,500,000	$ 9,500,000	$ 9,500,000	$ 9,500,000	$ 9,500,000
7	Schools	Building	Newton Early Childhood Program	Address long term facility needs of the NECP at 687 Watertown Street.	$ 13,000,000	66.7	Bonding	$ 13,000,000	$ -	$ -	$ -	$ -	$ -	$ -
8	Schools	Building	Lincoln-Eliot at 150 Jackson Road	Project to meet the needs of the Lincoln-Eliot School, including facility and site improvements and accessibility, needed playground, and field space.	$ 47,000,000	66.3	Bonding/ARPA	$ 750,000	$ 3,250,000	$ 21,500,000	$ 21,500,000	$ -	$ -	$ -
9	Parks & Rec	Building	City Auditorium at 150 Jackson Road	Renovate existing auditorium to create Indoor theater and musical arts performance venue with stage, backstage area, storage, seating, and rehearsal space. Will be fully accessible.	$ 3,000,000	66.3	Bonding/ARPA	$ 1,800,000	$ -	$ -	$ 1,200,000	$ -	$ -	$ -
10	Senior Center	Building	Newton Center for Active Living - NewCAL	Design and build a senior and community center, the Newton Center for Active Living.	$ 20,600,000	66.3	Bonding/ARPA	$ 1,100,000	$ 2,500,000	$ 12,000,000	$ 6,500,000	$ -	$ -	$ -
11	DPW/ Water	Water	Revised Lead and Copper Rule	EPA requires a complete system wide lead inventory to be submitted by 10/16/2024. This inventory will be used in determining future lead reduction efforts.	$ 150,000	65.2	Water Funds	$ -	$ 150,000	$ -	$ -	$ -	$ -	$ -
12	Parks & Rec	Parks / Open Space	Newton South Brandeis Field Lights	Installation of field lights at Newton South High School Brandeis Rd Field.	$ 700,000	65.2	ARPA	$ 700,000	$ -	$ -	$ -	$ -	$ -	$ -
13	Parks & Rec	Parks / Open Space	Newton North High School Field Lights	Installation of field lights at Newton North High School Stadium.	$ 700,000	65.2	ARPA /NNHS Boosters Club	$ 700,000	$ -	$ -	$ -	$ -	$ -	$ -
14	DPW/ Storm	Storm	Bullough's Pond Dam	Complete State-Required repair work for dam safety.	$ 3,000,000	65.0	Stormwater	$ 618,620	$ -	$ -	$ 2,381,380	$ -	$ -	$ -
15	DPW/ Water	Water	Replace Water Pipelines - Phase 8	Cleaning and lining of water pipes to improve water quality, reduce water leakage and ensure pipe integrity and capacity. Precedes scheduled roadway paving. Project is currently Phase 8 of 20-phase program. Ward Street Phase I (Manet Rd to Waverley Ave).	$ 4,263,490	63.6	MWRA Loan/Water Funds	$ 4,263,490	$ -	$ -	$ -	$ -	$ -	$ -
16	Parks & Rec	Parks / Open Space	Gath Memorial Pool Project	Replace Gath Pool with lap pool, community pool, and splash pad. Replace all mechanical systems, improve accessibility, improve bath house interior. Pool area will be bubble ready.	$ 6,060,000	63.5	CPA Eligible/ARPA	$ 486,500	$ 6,000,000	$ -	$ -	$ -	$ -	$ -
17	DPW/ Storm	Storm	Phase 1 Phosphorus Control Plan (PCP)	Development of City's PCP required by US EPA under the MS4 general permit	$ 953,000	62.8	Stormwater	$ 300,000	$ 395,000	$ -	$ 258,000	$ -	$ -	$ -
18	DPW/ Sewer	Sewer	Sewer Inflow/Infiltration Project - Area 9 - Waban, Upper Falls & Oak Hill	Part of 10 Phase program to remove excess inflow and infiltration into sewer system.	$ 4,200,000	62.4	Sewer Funds	$ 1,095,023	$ -	$ 3,104,977	$ -	$ -	$ -	$ -
19	DPW/ Sewer	Sewer	Sewer Inflow/Infiltration Project - Area 9 Phase 2 - Waban, Upper Falls & Oak Hill	Part of 10 Phase program to remove excess inflow and infiltration into sewer system and includes post-flow.	$ 5,000,000	62.4	Sewer Funds	$ -	$ -	$ -	$ 5,000,000	$ -	$ -	$ -
20	DPW	Complete Streets	Newton Free Library Parking Space Expansion, Repaving, Drainage, and Landscaping Improvements	The library parking lot will be reconfigured and reconstructed to add parking spaces and improve accessibility and drainage.	$ 2,438,903	62.1	Bonding/Stormwater Funds	$ 2,438,903	$ -	$ -	$ -	$ -	$ -	$ -
21	DPW	Large Vehicle / Equipment	City-wide Municipal Vehicles and Equipment	Vehicle and Equipment Replacement Program for Construction and other city operations (not including public safety vehicles).	$ 30,000,000	61.5	Bonding/Other Funds/Free Cash	$ -	$ 2,000,000	$ 2,500,000	$ 2,500,000	$ 2,500,000	$ 2,500,000	$ 2,500,000
22	Planning	Complete Streets	Washington Place Mitigation Project	Implement mitigation projects in Newtonville arising from Washington Place development in Newtonville, including sidewalks and fencing.	$ 700,000	61.2	Mitigation Funds	$ 286,500	$ -	$ -	$ -	$ 413,500	$ -	$ -
23	Public Safety	Emergency Comms	Radio System Infrastructure	Install continuous power, repeaters & receivers, and other radio system infrastructure improvements.	$ 1,244,365	61.1	Other Funds	$ 1,244,365	$ -	$ -	$ -	$ -	$ -	$ -
24	Planning	Building	West Newton Armory Reuse - Affordable Housing	Project to convert the Armory into 100% affordable housing.	$ 27,800,000	59.6	CPA Eligible/CDBG/Other Funds	$ 5,160,000	$ -	$ -	TBD	TBD	$ -	$ -

CIP by Priority FY2024-FY2028

								Total	Total	Total	Total	Total	Total	Total
								$ 152,702,634	$ 44,633,490	$ 127,527,773	$ 81,192,380	$104,925,500	$ 40,801,600	$ 23,628,000
Priority	Dept	Asset Category	Project Title	Project Description / Justification	Est Cost in FY2023	Priority Factor	Funding Source	Approved Funding	FY2023 to be Docketed/Approved	FY2024	FY2025	FY2026	FY2027	FY2028
25	Parks & Rec	Parks / Open Space	Cabot Park Improvements	As part of the $49 million Cabot School Project debt exclusion this project update recreational amenities including basketball court, and accessible pathways from Norwood to Newtonville Ave.	$ 150,000	59.5	Cabot School Project	$ 150,000	$ -	$ -	$ -	$ -	$ -	$ -
26	Parks & Rec	Parks / Open Space	Horace Mann School Playground	Build new additional playground facilities.	$ 250,000	59.5	ARPA	$ 250,000	$ -	$ -	$ -	$ -	$ -	$ -
27	Parks & Rec	Parks / Open Space	Levingston Cove, Shoreline improvements at Crystal Lake	Renovation of entire lakefront park to include improvements to accessibility, drainage, erosion and water quality.	$ 2,005,500	59.1	CPA Eligible/ State Funds/ARPA	$ 2,005,500	$ -	$ -	$ -	$ -	$ -	$ -
28	Schools	HVAC/Boilers	Peirce Elementary - Heating System improvements	Heating system improvements, switch from oil system to all-electric system.	$ 865,000	59.1	Other Funds	$ -	$ 65,000	$ -	$ -	$ -	$ 800,000	$ -
29	DPW/ Sewer	Sewer	Pump Station Upgrades	Design and construct Sewer Pump Stations upgrades as part of 10-phase program.	$ 23,000,000	58.8	Sewer Funds	$ 447,000	$ 4,263,490	$ 1,200,000	$ 1,500,000	$ 1,500,000	$ 2,000,000	$ 2,000,000
30	Police	Building	Comprehensive Police HQ Facility Renovation and Upgrade Project	HVAC, communications, training facility & space, site security, parking lot, HQ roof replacement, interior renovation and reconfiguration, accessibility improvements, emergency electrical, garage mechanical & electrical upgrades, concrete repairs and windows, doors & building envelope.	$ 13,500,000	58.4	Bonding/ARPA	$ 2,000,000	$ 500,000	$ 3,000,000	$ 3,000,000	$ 5,000,000	$ -	$ -
31	IT	Software	New Municipal Information and Permitting System (NewGov)	Implement a first-ever Newton Municipal Information and Permitting System.	$ 1,137,285	58.0	Free Cash	$ 1,137,285	$ -	$ -	$ -	$ -	$ -	$ -
32	Clerk	Equipment	New Voting Equipment	Replace current equipment with new state-approved voting equipment.	$ 250,000	57.8	Free Cash	$ -	$ 250,000	$ -	$ -	$ -	$ -	$ -
33	Public Buildings	Building	Wash Bay Refurbishment	Refurbish Crafts Street vehicle wash bay with automated vehicle wash system, including capture/recycle wash water, code upgrades for utilities and building.	$ 1,000,000	57.5	Stormwater	$ 500,000	$ 500,000	$ -	$ -	$ -	$ -	$ -
34	Fire Dept	Large Vehicle / Equipment	New pumper truck (Engine 7)	Replace 2007 pumper truck (Engine 7) that will soon be beyond the NFPA standard of 15 years.	$ 800,000	57.4	Free Cash	$ -	$ 800,000	$ -	$ -	$ -	$ -	$ -
35	Parks & Rec	Parks / Open Space	Marty Sender Path Phase 2 - Boardwalk and trail improvements	Install accessible, shared-use trail and boardwalk over flood-prone area.	$ 400,000	57.3	CPA Eligible/Other Funds/State Funds	$ -	$ 400,000	$ -	$ -	$ -	$ -	$ -
36	Parks & Rec	Parks / Open Space	Burr Elementary School Fields Development	Renovate natural grass area to maximize athletic field space and install irrigation. Install new accessible perimeter pathway.	TBD	57.0	CPA Eligible	$ -	TBD	$ -	$ -	$ -	$ -	$ -
37	Schools	Building	Countryside School- Renovation/Addition	Feasibility Study/Design and Construction.	$ 61,000,000	56.2	Alternate Funding /MSBA Eligible/ARPA	$ 1,250,000	$ 2,000,000	$ 57,750,000	$ -	$ -	$ -	$ -
38	Schools	Building	Franklin School - Renovation/Addition	Feasibility Study/Design and Construction.	$ 61,000,000	56.2	Alternate Funding /Other Funds/ARPA	$ 200,000	$ 50,000	$ 500,000	$ 2,500,000	$ 57,750,000	$ -	$ -
39	Public Buildings	Building	Newton Commonwealth Golf Course Maintenance Facility Project	Renovation and Addition to the Golf Course Maintenance Facility.	$ 3,737,000	55.3	Golf Course Funding	$ 3,737,000	$ -	$ -	$ -	$ -	$ -	$ -
40	DPW/ Storm	Storm	City Hall Ponds	Removal of accumulated sediment from three ponds adjacent to City Hall.	$ 1,040,000	55.1	Stormwater Funds	$ 650,000	$ 390,000	$ -	$ -	$ -	$ -	$ -
41	DPW	Complete Streets	Complete Streets Improvements - Newton Corner and Mass Pike interchange at Exit 127 Off-Ramp	Upgrade traffic signal equipment, improve multimodal safety and operations at this intersection. The city will work closely with MassDot to provide feedback and comments	TBD	54.2	State Funds	$ -	$ -	$ -	$ -	$ -	$ -	$ -
42	Parks & Rec	Parks / Open Space	Engineering and Design of Athletic Field Improvements	Engineering and design work for projects on the 5 year athletic field improvements plan. Improvements to include accessibility enhancements, field reconfigurations, and upgrades to supporting athletic field amenities.	$ 420,000	53.9	CPA Eligible	$ 420,000	$ -	$ -	$ -	$ -	$ -	$ -
43	Library	Building	Library HVAC Improvements	HVAC system upgrades to electrify the building.	$ 750,000	53.7	Other Funds	$ -	$ 100,000	$ -	$ 650,000	$ -	$ -	$ -
44	Parks & Rec	Parks / Open Space	Brown/ Oak Hill Middle Schools Fields Development	Renovate natural grass area to maximize athletic field space and increase accessibility.	TBD	53.2	CPA Eligible	$ -	TBD	$ -	$ -	$ -	$ -	$ -
45	Parks & Rec	Parks / Open Space	McGrath Park Fields Redesign and Development	Reconfigure athletic fields and courts, expand irrigation, install new accessible perimeter pathway.	TBD	53.1	CPA Eligible/CDBG Eligible	$ -	TBD	$ -	$ -	$ -	$ -	$ -
46	Parks & Rec	Building	Pellegrini Park Field House - Exterior Improvements	Envelope repairs, replace upper gym membrane roof with a new EPDM roof.	$ 200,000	53.1	Other Funds	$ -	$ 200,000	$ -	$ -	$ -	$ -	$ -
47	Planning	Complete Streets	Pettee Square/Upper Falls Greenway Improvements	Targeted improvements to Pettee Square in Newton Upper Falls and extension of the Upper Falls Greenway to Curtis Street.	$ 3,028,296	52.2	State MassWorks Grant /Other Funds	$ 396,500	$ -	$ 2,631,796	$ -	$ -	$ -	$ -
48	DPW/ Storm	Storm	Elliot & Crafts Street DPW Operations Yard	Modifications to existing storm water infrastructure to meet NPDES MS4 General Permits BMP's.	$ 1,000,000	51.8	Stormwater	$ -	$ 200,000	$ 200,000	$ 200,000	$ 200,000	$ 200,000	$ -
49	DPW/ Water	Water	Replace Water Pipelines - Phase 9	Cleaning and lining of water pipes to improve water quality, reduce water leakage and ensure pipe integrity and capacity. Precedes scheduled Needham Street roadway paving.	$ 7,236,730	51.3	Water Funds	$ 7,236,730	$ -	$ -	$ -	$ -	$ -	$ -
50	DPW/ Water	Water	Replace Water Pipelines - Phase 10	Cleaning and lining of water pipes to improve water quality, reduce water leakage and ensure pipe integrity and capacity. Precedes scheduled roadway paving. Project will be in Phase 10 of 20-phase program.	$ 4,750,000	51.3	MWRA Loan/Water Funds	$ -	$ 4,750,000	$ -	$ -	$ -	$ -	$ -

CIP by Priority FY2024-FY2028

								Total	Total	Total	Total	Total	Total	Total
								$ 152,702,634	$ 44,633,490	$ 127,527,773	$ 81,192,380	$104,925,500	$ 40,801,600	$ 23,628,000
Priority	Dept	Asset Category	Project Title	Project Description / Justification	Est Cost in FY2023	Priority Factor	Funding Source	Approved Funding	FY2023 to be Docketed/Approved	FY2024	FY2025	FY2026	FY2027	FY2028
51	DPW/ Storm	Storm	Edmands Brook Drainage Basin	Design for flood mitigation and the reduction of Phosphorus for the NPDES MS4 Permit.	$ 1,404,000	49.5	Stormwater/Other Funds	$ 104,000	$ 400,000	$ -	$ 900,000	$ -	$ -	$ -
52	Parks & Rec	Parks / Open Space	Russ Halloran Sports and Recreation Complex at Albemarle Master Plan	Develop a phased park-wide master plan. Replace 50-year-old sports lighting, reconfigure existing fields for improved and expanded play, and expand lighting to Murphy Field. Improve accessibility and drainage. Potential Synthetic Turf field to include football/soccer/lacrosse field along Crafts Street.	$ 5,270,000	48.9	CPA Eligible/Sport Group Contributions/Other Funds	$ -	$ 3,270,000	$ 2,000,000	$ -	$ -	$ -	$ -
53	Parks & Rec	Bridge	Cheesecake Brook Footbridge	Project to replace or add new footbridge structure over Cheesecake Brook near Albemarle Field.	$ 400,000	48.7	Bonding/Other Funds	$ -	$ -	$ -	$ 400,000	$ -	$ -	$ -
54	Planning	Complete Streets	Reconstruction of Commonwealth Avenue (Route 30) from East of Auburn St to Ash St	Transform the Commonwealth Avenue Carriageway between Lyons Field and the Charles River at Auburn Street. Project aims to create safe bicycle and pedestrian facilities to improve connectivity to green space, trails, and other recreational opportunities.	$ 7,401,000	48.6	CPA Eligible/State Funding/	$ 723,000	$ -	$ -	$ 6,678,000	$ -	$ -	$ -
55	Fire Dept	Building	Fire Station # 2 Projects	Windows, HVAC - Heat Pumps, Sprinklers & Interior Upgrades.	$ 1,067,000	48.6	ARPA / Free Cash	$ 300,000	$ -	$ -	$ -	$ 767,000	$ -	$ -
56	DPW/ Storm	Storm	South Meadow Brook Culvert under Needham Street	Phase 1 - Inspection & assessment of Box Culvert. Phase 2 - Design & Rehabilitation of Box Culvert.	$ 3,205,000	48.2	Stormwater	$ 280,000	$ -	$ -	$ -	$ 500,000	$ 2,425,000	$ -
57	DPW	Complete Streets	Complete Streets Improvements - Newton Highlands	Upgrade traffic signal equipment, improve multimodal safety and operations, enhance streetscape and sidewalks, lighting, implement signal coordination, and paving.	TBD	47.5	Bonding /Other Funds/ARPA/ State Funds	$ 1,000,000	$ -	$ -	$ -	$ -	$ -	$ -
58	Planning	Complete Streets	Design and Implement Washington Street Pilot	Design for Washington St. pilot to improve safety and pedestrian accommodations, Improve traffic flow, ADA compliance.	$ 3,500,000	47.2	ARPA/Other Funds	$ 3,500,000	$ -	$ -	$ -	$ -	$ -	$ -
59	Planning	Complete Streets	Crafts @ Albemarle Intersection Improvements (SRTS)	State funded project to upgrade the intersections of Crafts Street – Albemarle Road and Albemarle Road – North Street, to improve bicycle and pedestrian accommodations near the Horace Mann Elementary School, Day Middle School and NECP. Project includes new fully actuated crosswalk system and a rapid-flashing beacon crosswalk.	$ 900,000	47.2	State TIP Funding	$ -	$ -	$ -	$ 900,000	$ -	$ -	$ -
60	Parks & Rec	Parks / Open Space	Create a new Park at 150 Jackson Road	Project to create meaningful open space, passive and active recreation elements for both the Lincoln-Eliot School and the community.	TBD	46.8	Bonding/Other Funds	$ -	$ -	$ -	$ -	$ -	$ -	$ -
61	Schools	HVAC/Boilers	Newton North Pool Air Handling Unit (AHU)	The unit is deteriorating and needs replacing and heating capability.	$ 425,000	46.8	Bonding	$ -	$ -	$ -	$ -	$ 425,000	$ -	$ -
62	Parks & Rec	Parks / Open Space	Upper Falls Splash Park	New splash park to be built by Northland development as part of larger project. To be owned and operated by Parks, Rec and Culture. Expected in late 2024.	$ 1,000,000	46.4	Other Funds	$ 1,000,000	$ -	$ -	$ -	$ -	$ -	$ -
63	Public Buildings	Climate Action	Municipal EV Chargers	Purchase and install EV chargers at municipal and school parking lots throughout the city (electrical connections provided by Eversource grants).	$ 615,000	46.0	Grants / Other Funds	$ -	$ -	$ 300,000	$ 315,000	$ -	$ -	$ -
64	Schools	Building	Horace Mann School Addition and Improvement	Horace Mann School Facilities upgrades.	$ 23,000,000	45.6	Alternate Funding /Other Funds/ARPA	$ 100,000	$ 200,000	$ 2,150,000	$ 6,000,000	$ 6,550,000	$ -	$ -
65	Schools	Roof	Bigelow School - Roof Replacement	Replace entire building roof system, enabling solar pv installation.	$ 1,500,000	45.3	Bonding/MSBA Eligible	$ -	$ -	$ -	$ -	$ 1,500,000	$ -	$ -
66	Schools	Roof	Lincoln-Eliot - Roof Replacement	Replace the 1973 portion of roof that is beyond its useful life, enabling solar pv installation.	$ 210,000	45.0	Bonding	$ -	$ -	$ -	$ -	$ 210,000	$ -	$ -
67	Parks & Rec	Parks / Open Space	Newton South High School Synthetic Turf Field and Track Replacement	Replacement of synthetic turf and track at Brandeis Road and Stadium fields. Current field was installed in 2009.	$ 2,100,000	44.5	Free Cash	$ 67,000	$ 1,433,000	$ -	$ -	$ -	$ -	$ -
68	DPW/ Water	Water	Replace Water Pipelines - Phase 11	Cleaning and lining of water pipes to improve water quality, reduce water leakage and ensure pipe integrity and capacity. Precedes scheduled roadway paving. Project will be in Phase 11 of 20-phase program.	$ 4,750,000	44.0	MWRA Loan/Water Funds	$ -	$ -	$ 4,750,000	$ -	$ -	$ -	$ -
69	DPW/ Water	Water	Replace Water Pipelines - Phase 12	Cleaning and lining of water pipes to improve water quality, reduce water leakage and ensure pipe integrity and capacity. Precedes scheduled roadway paving.	$ 4,750,000	44.0	MWRA Loan/Water Funds	$ -	$ -	$ -	$ 4,750,000	$ -	$ -	$ -
70	DPW/ Sewer	Sewer	Sewer Inflow/Infiltration Project - Area 10 - Waban, Newton Highlands, Newton Centre, & Newton Corner	Part of 10-phase program to remove excess inflow and infiltration into sewer system. Ward St from Waverley Ave to Centre St.	$ 4,888,308	44.0	Sewer Funds	$ 813,308	$ -	$ 300,000	$ -	$ 3,775,000	$ -	$ -
71	Schools	Building	Ward/Underwood Schools - Renovation/ Replacement	Ward & Underwood School facilities project. The two oldest schools in the system are approaching their centennials. Both schools have low enrollment, outdated and undersized facilities, are located on small NPS properties, with districts that are adjacent to each other.	TBD	43.7	Bonding/MSBA Eligible/ARPA	$ 100,000	$ -	$ -	$ -	$ -	$ -	$ -
72	Schools	Roof	Underwood School - Roof Replacement	Replace deteriorating built up gymnasium roof that is beyond its useful life. Will enable solar pv installation.	$ 300,000	43.4	Bonding	$ -	$ -	$ -	$ -	$ 300,000	$ -	$ -

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Priority	Dept	Asset Category	Project Title	Project Description / Justification	Est Cost in FY2023	Priority Factor	Funding Source	Approved Funding	FY2023 to be Docketed/Approved	FY2024	FY2025	FY2026	FY2027	FY2028
73	Parks & Rec	Parks / Open Space	Newton North High School Synthetic Turf Field and Track Replacement	Replacement of synthetic turf and track at Newton North High School. Current field was installed in 2010.	$ 1,100,000	43.3	Free Cash / Other Funds	$ 33,000	$ 667,000	$ -	$ -	$ -	$ -	$ -
74	DPW/ Storm	Storm	Union Street Drainage	The extension of storm drains on Union Street to alleviate flooding and icing issues in the area of Herrick Road.	$ 850,000	43.0	Stormwater	$ -	$ 100,000	$ 750,000	$ -	$ -	$ -	$ -
75	Fire Dept	Building	Fire Station # 1 Projects	Sprinklers, HVAC & Interior Upgrades.	$ 450,000	42.1	ARPA / Free Cash	$ 200,000	$ -	$ -	$ -	$ 250,000	$ -	$ -
76	Fire Dept	Large Vehicle / Equipment	Replace Emergency Response Van (ERU)	Purchase a new ERU van. It carries haz-mat equipment such as booms, speedi-dry, Level 3 haz-mat suits etc.	$ 350,000	42.1	Bonding/Free Cash	$ -	$ -	$ -	$ -	$ 350,000	$ -	$ -
77	Parks & Rec	Parks / Open Space	Crystal Lake Phase II Improvements ("Left Beach" and Park Area)	Stabilize "Left beach" and create a sustainable shoreline area for sunbathing, access into the water, and improved recreation, enhance connectivity and accessibility.	$ 1,500,000	41.5	CPA Eligible/ARPA/State Funds	$ 175,000	$ -	$ 1,325,000	$ -	$ -	$ -	$ -
78	Parks & Rec	Parks / Open Space	Accessible Playground Surfacing Improvements	Install accessible playground surface matting systems at playgrounds throughout the city	$ 2,000,000	40.9	Other Funds/State Funds/ARPA	$ 142,000	$ -	$ 100,000	$ 100,000	$ 100,000	$ 100,000	$ 100,000
79	DPW/ Sewer	Sewer	Sewer Inflow/Infiltration Project - Area 11 - Chestnut Hill, Newton Corner, Oak Hill, & Thompsonville	Part of 10 Phase program to remove excess inflow and infiltration into sewer system. Will be in Phase 10 of City-Wide Sewer Initiative.	$ 4,000,000	39.6	Sewer Funds	$ 774,000	$ -	$ -	$ -	$ -	$ 1,613,000	$ 1,613,000
80	Schools	Roof	Mason Rice School - Replace Roof	Replace the 1990's Sarnifil roofing system on the main portion of the building. Will enable solar pv installation. Potential application to MSBA.	$ 938,600	39.3	Bonding/MSBA Eligible	$ -	$ -	$ -	$ -	$ -	$ 938,600	$ -
81	Planning	Complete Streets	Design and implement multi-modal improvements on Albemarle and Brookside from Charles River to Washington	Design and implement a two-way bike facility, improved pedestrian accommodations and streamlined pickup and drop off areas. Early implementation of the project does not include reconstruction of the road.	$ 2,200,000	39.1	Bonding/Other Funds/State Grants	$ 200,000	$ -	$ -	$ 200,000	$ -	$ 2,000,000	$ -
82	Parks & Rec	Parks / Open Space	Pellegrini Field Sports Lights	Replace sports lighting and poles at Pellegrini.	$ 750,000	39.0	CPA Eligible/Other Funds	$ -	$ -	$ -	$ -	$ -	$ -	$ -
83	Schools	HVAC/Boilers	Replace Boilers - Ward	Replace boilers at Ward Elementary School.	$ 250,000	38.7	Bonding	$ -	$ -	$ -	$ -	$ 250,000	$ -	$ -
84	DPW/ Storm	Storm	Evaluation, design and construction of Cheesecake Brook-Commonwealth Av. to the rear of 1600 Washington Street	Replace culvert headwall, remove remaining fieldstone channel walls to restore natural brook channel and provide buffer for nutrient removal (water quality).	$ 900,000	38.5	Stormwater	$ -	$ -	$ -	$ 200,000	$ 700,000	$ -	$ -
85	DPW/ Storm	Storm	Cheesecake Brook -1660 Washington St. to Watertown St.	Inspection & Assessment, Design and Rehabilitation of +/-6000 LF of Box Culvert.	$ 900,000	38.5	Stormwater	$ -	$ -	$ -	$ -	$ 200,000	$ 700,000	$ -
86	Fire Dept	Large Vehicle / Equipment	Replace Fire Dept Aerial Ladder #3	Replace 2009 Ladder 3. Ladder 3 becomes a spare, replacing spare Ladder 4.	$ 1,450,000	38.3	Bonding	$ -	$ -	$ -	$ 1,450,000	$ -	$ -	$ -
87	Parks & Rec	Parks / Open Space	Crescent Street Project - Rehab and expand Ford Park	Rehabilitation and expansion of Ford Playground to include improvements to stormwater , accessibility, and overall park experience.	$ 1,600,000	37.9	CPA Eligible	$ 156,000	$ -	$ -	$ 1,444,000	$ -	$ -	$ -
88	Library	Building	Library Roof Membrane	Replace 8,000 sf of ballasted rubber membrane roof installed ca1990. Will enable solar pv installation.	$ 285,000	37.7	Bonding	$ -	$ -	$ -	$ -	$ 285,000	$ -	$ -
89	Parks & Rec	Parks / Open Space	Newton Centre Performing Arts Pavilion	Install outdoor permanent performance pavilion and stage at Newton Centre Playground including electricity, lighting, accessible seating area, stage access, and restroom plan.	$ 2,000,000	37.6	ARPA/Other Funds	$ 50,000	$ -	$ -	$ -	$ 1,950,000	$ -	$ -
90	Public Buildings	Building	War Memorial Accessibility/Historic Improvements	Repair and repoint stone cornice. Implement recommendations from 2007 Study of the Memorial Stairs.	$ 2,332,000	37.5	CPA Eligible	$ -	$ -	$ 1,166,000	$ 1,166,000	$ -	$ -	$ -
91	DPW/ Storm	Storm	Cheesecake Brook-Watertown St. to Charles River	Inspection & Assessment, Design and Rehabilitation of Fieldstone Channel walls and floor.	$ 1,450,000	36.7	Stormwater	$ -	$ -	$ -	$ -	$ 150,000	$ -	$ 1,300,000
92	DPW/ Water	Water	Replace Water Pipelines - Phase 13	Cleaning and lining of water pipes to improve water quality, reduce water leakage and ensure pipe integrity and capacity. Precedes scheduled roadway paving. Project will be in Phase 13 of 20-phase program.	$ 4,750,000	36.7	MWRA Loan/Water Funds	$ -	$ -	$ -	$ -	$ 4,750,000	$ -	$ -
93	DPW/ Water	Water	Replace Water Pipelines - Phase 14	Cleaning and lining of water pipes to improve water quality, reduce water leakage and ensure pipe integrity and capacity. Precedes scheduled roadway paving. Project will be in Phase 14 of 20-phase program.	$ 4,750,000	36.7	MWRA Loan/Water Funds	$ -	$ -	$ -	$ -	$ -	$ 4,750,000	$ -
94	Public Buildings	Building	Waban Community Library-Accessibility Upgrades	Upgrade toilet rooms, Replace door hardware; Modify door at stairwell or install automatic door opener.	$ 150,000	36.4	CDBG Eligible/CPA Eligible - potential for partial	$ -	$ -	$ -	$ -	$ -	$ -	$ -
95	Planning	Building	Walker Center House Rehabilitation	Restoration and upgrades to convert the former Walker Center historical properties located on Hancock and Grove Streets to become affordable family housing units.	TBD	36.4	CPA Eligible/Other Funds/Grants/ARPA	$ 2,450,000	$ -	TBD	$ -	$ -	$ -	$ -
96	DPW	Complete Streets	Complete Streets Improvements - Beacon @ Walnut (4 Corners)	Upgrade traffic signal equipment, improve multimodal safety and operations, install ADA compliant ramps.	$ 2,500,000	36.1	Bonding/Other Funds	$ -	$ -	$ -	$ -	$ 500,000	$ 2,000,000	$ -
97	Parks & Rec	Building	Jeanette Curtis West Rec Ctr (The Hut)	Address facility needs for multiple programs.	$ 2,500,000	36.0	Bonding	$ -	$ -	$ -	$ -	$ -	$ -	$ -

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Priority	Dept	Asset Category	Project Title	Project Description / Justification	Est Cost in FY2023	Priority Factor	Funding Source	Approved Funding	FY2023 to be Docketed/Approved	FY2024	FY2025	FY2026	FY2027	FY2028
98	DPW	Complete Streets	Complete Streets Improvements - Cherry @ Webster, Cherry @ Derby	Upgrade traffic signal equipment, improve multimodal safety and operations at these two intersections.	$ 1,400,000	36.0	Bonding	$ -	$ -	$ -	$ -	$ 150,000	$ 1,250,000	$ -
99	DPW	Complete Streets	Municipal Parking Lot Improvement Plan	Reconstruction of Municipal parking lots including ADA and stormwater improvements.	$ 3,750,000	35.7	Bonding/Other Funds	$ -	$ -	$ -	$ -	$ 750,000	$ 750,000	$ 750,000
100	DPW	Complete Streets	Complete Streets Improvements - Commonwealth Ave. @ Chestnut Street	Update outdated traffic signal equipment and bring curb, ramps and surrounding sidewalks into ADA compliance.	$ 1,400,000	35.5	Bonding	$ -	$ -	$ -	$ -	$ 150,000	$ 1,250,000	$ -
101	Schools	Building	Memorial Spaulding School - Replace Roof	Replace 1980's Built up roof area. It has reached its life expectancy.	$ 1,300,000	35.5	Bonding/MSBA Eligible	$ -	$ -	$ -	$ -	$ 1,300,000	$ -	$ -
102	Parks & Rec	Parks / Open Space	Tennis Courts - Replace Burr Park Tennis Courts	Redesign & construct existing tennis courts at Burr Park (Waverley Park). Work includes repair and replacement of existing retaining walls.	$ 1,100,000	35.2	Bonding	$ -	$ -	$ -	$ -	$ 1,100,000	$ -	$ -
103	Public Buildings	Building	City Hall Restroom Upgrades	Phased project -Upgrade City Hall Restrooms. Will improve accessibility.	$ 200,000	34.8	Bonding/Other Funds/CDBG	$ -	$ -	$ -	$ -	$ 200,000	$ -	$ -
104	Schools	Building	Ed Center - Mechanical Upgrades	Replace boiler, second boiler and hot water conversion in out years. Boilers are over 35 years old.	$ 450,000	34.4	Bonding	$ -	$ -	$ -	$ -	$ -	$ -	$ 450,000
105	Schools	HVAC/Boilers	Brown Middle School - Boiler Replacement and Mechanical System Improvements Phase I & II	Replace boilers and determine most energy efficient solution for mechanical system.	$ 1,500,000	34.4	Bonding/Green Communities/MSBA Eligible	$ -	$ -	$ -	$ -	$ -	$ -	$ 1,500,000
106	Schools	Building	Williams School - Accessibility Upgrades	Upgrade door hardware, openings, toilet rooms, railings, and signage for accessibility.	$ 500,000	34.3	Bonding	$ -	$ -	$ -	$ -	$ -	$ -	$ -
107	Schools	Building	Memorial Spaulding School - Accessibility Upgrades	Upgrade toilet rooms, door hardware, water fountains, and signage for accessibility.	$ 500,000	34.3	Bonding	$ -	$ -	$ -	$ -	$ -	$ -	$ -
108	Schools	HVAC/Boilers	Newton South High School - Mechanical Upgrades - Library	Replace air handlers, roof top equipment, electrification retrofit, and hydronic/ACCU system due to burner failures and outdated controls.	$ 300,000	34.2	Bonding	$ -	$ -	$ -	$ -	$ -	$ -	$ -
109	Police	Building	Police Annex - Emergency Generator	Replace generator with emergency battery back-up system, and install energy electrical distribution throughout the building. Update system for ADA compliance. Upgrade exterior lighting & occupancy sensors.	$ 200,000	33.9	Bonding	$ -	$ -	$ -	$ -	$ -	$ -	$ -
110	Schools	HVAC/Boilers	Memorial Spaulding School - Heating System improvements	Replace controls, air handlers. Replace 2nd boiler, hot water conversion, electrification retrofit, and Direct Digital Controls conversion.	$ 250,000	33.5	Bonding/MSBA Eligible	$ -	$ -	$ -	$ -	$ -	$ -	$ -
111	Fire Dept	Building	Fire Station #2, West Newton - Renovation	Fire Station work includes mechanical, electrical, plumbing, code compliance and accessibility upgrades.	$ 25,000,000	33.5	Bonding	$ -	$ -	$ -	$ -	$ -	$ -	$ -
112	Fire Dept	Large Vehicle / Equipment	Replace Fire Pumper Truck (Engine 4)	Engine 4 replacement (2010).	$ 800,000	32.8	Bonding	$ -	$ -	$ -	$ -	$ -	$ 800,000	$ -
113	Planning	Complete Streets	Complete Streets Improvements - Washington Street - West Newton to Newton Corner - Construction	Construction to improve safety and pedestrian accommodations, improve traffic flow, ADA compliance.	$ 30,000,000	32.3	Bonding/Other Funds	$ -	$ -	$ -	$ -	$ -	$ 2,500,000	$ 2,500,000
114	Parks & Rec	Building	Kennard Estates Site Improvements	Install utilities, pave parking lot.	$ 425,000	32.0	Bonding	$ -	$ -	$ -	$ -	$ -	$ -	$ -
115	DPW/ Storm	Storm	Cheesecake Brook Roadway Culvert Crossings	Design & Construction of culvert improvements at Parsons, Cross and Eddy Street.	$ 750,000	32.0	Stormwater	$ -	$ -	$ -	$ -	$ -	$ -	$ 150,000
116	Schools	Roof	Bowen School - Roof Replacement	Replace 1950's portion of the building's roofing system as it has reached its life expectancy. Will enable solar pv installation.	$ 450,000	31.5	Bonding/MSBA Eligible	$ -	$ -	$ -	$ -	$ -	$ -	$ -
117	Parks & Rec	Parks / Open Space	Old Cold Spring Field	Renovation of existing field space to include regrading, drainage, irrigation and accessibility improvements.	$ 350,000	31.2	Bonding/CPA Eligible	$ -	$ -	$ -	$ -	$ -	$ -	$ -
118	Jackson Homestead	Building	Jackson Homestead - Basement	Finish basement galleries: New flooring; envelope treatment, gallery walls, (keep water and condensation out).	$ 1,075,000	31.1	CPA Eligible/Other Funds	$ 275,000	$ -	$ 800,000	$ -	$ -	$ -	$ -
119	DPW/ Storm	Storm	Reduce Impervious Area	Reduce Impervious Area to 5 Municipal Properties per NPDES MS4 Requirements.	$ 650,000	31.0	Stormwater	$ -	$ -	$ -	$ -	$ -	$ 325,000	$ 325,000
120	DPW/ Storm	Storm	Laundry Brook Culvert-Parkview to Mass Pike	Rehabilitation +/-1000 LF Box Culvert based on FY 18 evaluation.	$ 650,000	30.9	Stormwater	$ -	$ -	$ -	$ -	$ -	$ 650,000	$ -
121	Parks & Rec	Parks / Open Space	Riverside Greenway - Pigeon Hill Trail Improvements	Restoration of former connectivity walking trail that was severed during Mass Pike construction.	$ 550,000	30.9	CPA Eligible/State Funds	$ 212,000	$ -	$ -	$ -	$ -	$ -	$ -
122	Public Buildings	Building	Elliot Street Sand Salt Shed - Replacement	Replace salt shed.	$ 500,000	30.5	Bonding	$ -	$ -	$ -	$ -	$ -	$ -	$ -
123	DPW/ Sewer	Sewer	Sewer Inflow/Infiltration- Cheesecake and Laundry Brook Drainage	Investigation, Design & Construction of sewer laterals & manholes along interceptor sewers within Cheesecake and Laundry Brook Drainage Basins.	$ 2,000,000	30.3	Sewer Funds	$ -	$ -	$ -	$ -	$ -	$ 2,000,000	$ -

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Priority	Dept	Asset Category	Project Title	Project Description / Justification	Est Cost in FY2023	Priority Factor	Funding Source	Approved Funding	FY2023 to be Docketed/Approved	FY2024	FY2025	FY2026	FY2027	FY2028
124	Fire Dept	Building	Fire Station #1 (Newton Corner) - Renovation	Fire Station work includes mechanical, electrical, plumbing, code compliance and accessibility upgrades.	$ 15,000,000	30.2	Bonding	$ -	$ -	$ -	$ -	$ -	$ -	$ -
125	Parks & Rec	Building	Auburndale Cove Fieldhouse - Building Upgrades	Project to fully upgrade existing building or replace with new structure.	$ 1,000,000	30.1	Bonding	$ -	$ -	$ -	$ -	$ -	$ -	$ -
126	DPW/ Storm	Storm	Laundry Brook Culvert-Hull street to Bridges Avenue	Design and construction of culvert rehabilitation from Hull St to Bridges Ave.	$ 750,000	30.1	Stormwater	$ -	$ -	$ -	$ -	$ 750,000	$ -	$ -
127	Schools	Building	Ed Center Elevator & Accessibility Upgrades	Upgrade elevator, restrooms, door hardware, and signage for accessibility.	$ 1,500,000	29.9	Bonding	$ -	$ -	$ -	$ -	$ -	$ -	$ -
128	Public Buildings	Building	Crafts St DPW Operations (Stable)	Design and Construction for renovated interior including mechanical, electrical, plumbing, and accessibility upgrades.	$ 3,000,000	29.8	CPA Eligible	$ -	$ -	$ -	$ -	$ -	$ -	$ -
129	Parks & Rec	Building	Burr Park Field House - Accessibility/Site Upgrades	Accessibility upgrades to toilet rooms and fixtures, signage, drinking fountain, and door hardware. Provide accessible path to entrance and an accessible parking space.	$ 250,000	29.8	Bonding/CPA Eligible	$ -	$ -	$ -	$ -	$ -	$ -	$ -
130	Parks & Rec	Building	Kennard Estate	Accessibility upgrades, gutters, plumbing/electrical.	$ 500,000	28.9	Bonding/CPA Eligible	$ -	$ -	$ -	$ -	$ -	$ -	$ -
131	Parks & Rec	Parks / Open Space	Lyons Field Drainage Improvements	Renovation of the natural grass field to improve drainage.	TBD	28.9	Stormwater/Other Funds	$ -	$ -	$ -	$ -	$ -	$ -	$ -
132	Schools	Building	Peirce School - Accessibility Upgrades	Upgrades to door hardware, toilet rooms, railings, and signage for accessibility.	$ 300,000	28.5	Bonding	$ -	$ -	$ -	$ -	$ -	$ -	$ -
133	DPW	Complete Streets	Complete Streets Improvements - Beacon @ Chestnut	Upgrade traffic signal equipment, improve multimodal safety, accessibility and operations.	$ 1,400,000	28.5	Bonding/Free Cash	$ -	$ -	$ -	$ -	$ 150,000	$ 1,250,000	$ -
134	Parks & Rec	Building	Crystal Lake Bathhouse - Renovate/Replace	Renovate/Replace bathhouse and improve swim beach front.	$ 5,000,000	28.3	CPA Eligible/Other Funds	$ -	$ -	$ -	$ -	$ -	$ -	$ -
135	Schools	Building	Bowen School - Mechanical Upgrades	Replace interior air handlers in first year. Direct Digital Controls conversion.	$ 500,000	28.1	Bonding	$ -	$ -	$ -	$ -	$ -	$ -	$ -
136	Schools	Building	Bigelow School - Accessibility Upgrades	Upgrade toilet rooms, elevator, door hardware and signage for accessibility.	$ 1,000,000	28.0	Bonding	$ -	$ -	$ -	$ -	$ -	$ -	$ -
137	Public Buildings	Building	Auburndale Community Library -Exterior Windows & Doors	Remove existing exterior wood doors and frames and replace with new doors and hardware. Repair/replace building windows.	$ 200,000	27.9	CPA Eligible	$ -	$ -	$ -	$ -	$ -	$ -	$ -
138	Parks & Rec	Parks / Open Space	Forte Park Field Improvements	Renovate natural grass area to maximize athletic field space for softball field, soccer/lacrosse. Improvements include relighting and improved accessibility.	$ 2,000,000	27.9	Bonding/CPA Eligible/ Developer Mitigation	$ 200,000	$ -	$ -	$ -	$ -	$ -	$ -
139	Public Buildings	Building	Vernon St. Building - Building Envelope	Repair front entry concrete. Install new side entry stairs and handrails. Remove and replace wood stairs. Install vents throughout balance of soffits.	$ 335,850	27.9	Bonding/CPA Eligible	$ -	$ -	$ -	$ -	$ -	$ -	$ -
140	Schools	HVAC/Boilers	FA Day School - VAV Coil Work	Replace variable air volume (VAV) coil work.	$ 400,000	27.7	Bonding	$ -	$ -	$ -	$ -	$ -	$ 400,000	$ -
141	Schools	Complete Streets	Schools - Repave Parking Areas	Repave parking areas and sidewalks in poor condition at, Brown, Mason Rice, Oak Hill, Williams and Peirce.	$ 400,000	27.5	Bonding/Other Funds	$ -	$ -	$ -	$ -	$ -	$ -	$ -
142	Police	Building	Police Annex - Exterior Windows & Doors & Building Envelope	Restore/replace windows and doors with historically appropriate energy efficient units. Repoint exterior brick and entry ramp. Repair stone lintels.	$ 200,000	27.4	Bonding/CPA Eligible	$ -	$ -	$ -	$ -	$ -	$ -	$ -
143	Schools	Building	Brown School - Accessibility Upgrades	Upgrade existing elevator for code compliance, signage, hardware, and reconfigure locker rooms for accessibility.	$ 750,000	27.2	Bonding	$ -	$ -	$ -	$ -	$ -	$ -	$ -
144	Schools	Building	Mason Rice School - Accessibility Upgrades	Upgrade hardware, toilet rooms, and water fountains for accessibility.	$ 500,000	27.0	Bonding	$ -	$ -	$ -	$ -	$ -	$ -	$ -
145	Schools	Building	Mason-Rice School - Mid-Range Renovation/Addition	Feasibility Study/Design and construction, including electrification.	$ 15,000,000	26.9	Bonding	$ -	$ -	$ -	$ -	$ -	$ -	$ -
146	Schools	Building	FA Day School - Accessibility Upgrades / Replace Elevator	Upgrades for ADA Compliant elevator, toilet rooms, door hardware, and signage.	$ 750,000	26.7	Bonding	$ -	$ -	$ -	$ -	$ -	$ -	$ -
147	DPW	Complete Streets	Complete Streets Improvements - Newton Centre	Upgrade traffic signal equipment, improve multimodal safety and operations, enhance streetscape, implement signal coordination.	$ 7,500,000	26.6	Bonding	$ -	$ -	$ -	$ -	$ -	$ -	$ -
148	Schools	Building	Mason Rice School - Mechanical Upgrades	Direct Digital Controls conversion and upgrade heating distribution system.	$ 1,000,000	26.5	Bonding	$ -	$ -	$ -	$ -	$ -	$ -	$ -
149	Schools	Building	Peirce/Williams Feasibility/Addition	Feasibility Study/Design and Construction, including electrification of Williams, to add capacity.	$ 30,000,000	26.3	Bonding	$ -	$ -	$ -	$ -	$ -	$ -	$ -
150	Schools	Building	Peirce School - Plumbing Upgrades	Upgrades to toilet rooms and water fountains.	$ 500,000	26.3	Bonding	$ -	$ -	$ -	$ -	$ -	$ -	$ -
151	Public Buildings	Building	Former Newton Centre Library	Building requires envelope work. Cost for complete building renovation.	$ 1,500,000	25.7	CPA Eligible	$ -	$ -	$ -	$ -	$ -	$ -	$ -

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Priority	Dept	Asset Category	Project Title	Project Description / Justification	Est Cost in FY2023	Priority Factor	Funding Source	Approved Funding	FY2023 to be Docketed/Approved	FY2024	FY2025	FY2026	FY2027	FY2028
152	Library	Building	Library - Phase 3: Interior Renovations	Create more first floor public space by relocating staff offices to 3rd floor; replace 1991 carpet, repaint, replace worn furnishings.	$ 5,000,000	25.6	Bonding	$ -	$ -	$ -	$ -	$ -	$ -	$ 100,000
153	Parks & Rec	Building	Emerson Community Center - Accessibility Upgrades	Upgrade toilet rooms, install accessible door hardware and drinking fountains; Resurface main entrance ramp and install handrails.	$ 250,000	25.2	Bonding	$ -	$ -	$ -	$ -	$ -	$ -	$ -
154	Parks & Rec	Parks / Open Space	Braceland Park - Update Master Plan for Park Renovation	Park renovation based on previous master plan and any required adjustments to the plan. Construction to include new athletic fields, play structures, basketball court and other improvements including accessibility.	$ 2,000,000	25.2	Bonding/CPA Eligible	$ -	$ -	$ -	$ -	$ -	$ -	$ -
155	Schools	Building	Bowen School - Accessibility Upgrades	Upgrades to toilet rooms, signage, hardware, railings and assembly spaces for accessibility.	$ 500,000	25.2	Bonding	$ -	$ -	$ -	$ -	$ -	$ -	$ -
156	Public Buildings	Building	Auburndale Community Library -Accessibility and Site Upgrades	ADA upgrade for the building.	$ 265,000	24.8	CPA Eligible	$ -	$ -	$ -	$ -	$ -	$ -	$ -
157	Schools	Building	Williams School - Space and Building System Improvements	Address building system needs and possible cafeteria and classroom addition.	$ 1,500,000	24.6	Bonding/Alternate Funding	$ -	$ -	$ -	$ -	$ -	$ -	$ -
158	Schools	Roof	Burr School - Replace Roof	Replace the total building roofing system installed in 1999.	$ 995,000	24.6	Bonding	$ -	$ -	$ -	$ -	$ -	$ -	$ -
159	Parks & Rec	Building	Burr Park Field House - Building Envelope and Window Restoration (Waverley Ave. / Park St.)	Repair damaged exterior brick walls and trim. Remove entry landing stairs and railings and install new code-compliant landing, stairs and railings. Restore windows.	$ 313,500	24.6	CPA Eligible	$ -	$ -	$ -	$ -	$ -	$ -	$ -
160	Public Buildings	Building	Crafts Street Garage - Accessibility Upgrades	Install accessible ramp at entrance. Provide accessible toilet rooms. Resurface and re-grade pavement to comply with ADA requirements; Provide accessible parking space.	$ 194,000	24.5	Bonding	$ -	$ -	$ -	$ -	$ -	$ -	$ -
161	Parks & Rec	Building	Newton Highlands Playground - Phase II Support Building	Construction of prefabricated restrooms and storage building.	$ 300,000	23.9	Bonding/Other Funds/State Contract	$ -	$ -	$ -	$ -	$ -	$ -	$ -
162	Police	Building	Police Annex - Mechanical Upgrades	Install VRF heating and cooling to replace the aging boiler.	$ 200,000	23.9	Bonding	$ -	$ -	$ -	$ -	$ -	$ -	$ -
163	Police	Building	Police Annex - Roof Restoration/ Replacement	Remove and replace slate roofing, gutters and downspouts. Install new EPDM Roof. Reattach downspouts.	$ 255,825	23.5	CPA Eligible	$ -	$ -	$ -	$ -	$ -	$ -	$ -
164	Public Buildings	Building	City Hall exterior restoration	Exterior restoration of all non-masonry surfaces and painting of all exterior exposed surfaces for the City Hall building.	$ 3,000,000	23.4	Bonding/Free Cash	$ -	$ -	$ -	$ -	$ -	$ -	$ -
165	Police	Building	Police Annex - Accessibility Upgrades	Provide accessible toilet rooms, door hardware, signage and drinking fountain. Provide a lower transaction counter.	$ 200,000	23.0	CDBG Eligible	$ -	$ -	$ -	$ -	$ -	$ -	$ -
166	Public Buildings	Building	Nonantum Library-Accessibility/Site	Reconfigure entry vestibules and reconstruct ADA compliant ramp. Upgrades for toilet rooms and drinking fountain.	$ 204,000	23.0	CPA Eligible/CDBG Eligible	$ -	$ -	$ -	$ -	$ -	$ -	$ -
167	Parks & Rec	Building	Emerson Community Center - Electrical Upgrades	Replace switchboard and increase service size to meet electrical demands. Replace original overloaded electrical panels. Install emergency audiovisual horn strobes.	$ 150,000	22.9	Bonding	$ -	$ -	$ -	$ -	$ -	$ -	$ -
168	Parks & Rec	Building	Feasibility Study for New Indoor Swimming Pool	A feasibility study to research issues and options for creation of a second City indoor swimming pool.	$ 200,000	22.5	Bonding	$ -	$ -	$ -	$ -	$ -	$ -	$ -
169	Public Buildings	Building	Kennard Estate-Building Envelope, Windows and Doors	Replace shingles and flashings. Repair foundation walls. Replace wood windows and shutters with historic, appropriate units.	$ 240,000	22.3	Bonding/CPA Eligible	$ -	$ -	$ -	$ -	$ -	$ -	$ -
170	Public Buildings	Building	Crafts St DPW Operations (Stable) - Restore Building Envelope, Windows & Roof	Preserve/repair historic significance, lintels, sills, brick veneer, windows, doors, roof and cupola as historically appropriate.	$ 2,000,000	21.9	CPA Eligible	$ -	$ -	$ -	$ -	$ -	$ -	$ -
171	Public Buildings	Building	Vernon St. Building - Exterior Windows & Doors	Restore/replace historic exterior doors and windows. Weatherstrip and seal for energy efficiency. Window bay foundation repairs.	$ 217,000	21.7	CPA Eligible	$ -	$ -	$ -	$ -	$ -	$ -	$ -
172	Public Buildings	Building	Crafts Street Garage - Mechanical Upgrades	Complete roof top unit work begun in stimulus project. Replace fans, duct work, unit heaters.	$ 400,000	21.7	Bonding	$ -	$ -	$ -	$ -	$ -	$ -	$ -
173	Police	Building	New Police Headquarters Facility Project	Design and Construction of a new Police Headquarters Facility	TBD	21.4	Bonding	$ -	$ -	$ -	$ -	$ -	$ -	$ -
174	Public Buildings	Building	City Hall - Electrical Upgrades	Replace emergency generator and electrical upgrades.	$ 225,000	21.3	Bonding	$ -	$ -	$ -	$ -	$ -	$ -	$ -
175	DPW	Bridge	Concord St Bridge over Charles River	Repair bridge in collaborative effort with the Town of Weston.	$ 1,000,000	21.3	Bonding	$ -	$ -	$ -	$ -	$ -	$ -	$ -
176	Public Buildings	Building	DPW/Parks & Recreation Facility Project	Project to address facility needs of P&R and DPW.	$ 400,000	21.0	Bonding	$ -	$ -	$ -	$ -	$ -	$ -	$ -
177	Parks & Rec	Parks / Open Space	Chaffin Park Wall	Replacement of existing wall along perimeter of Chaffin Park (Vernon and Centre Streets).	$ 200,000	21.0	CPA Eligible	$ -	$ -	$ -	$ -	$ -	$ -	$ -

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178	Parks & Rec	Building	Pellegrini Park Field House - Electrical Upgrades	Upgrade lighting and power distribution for energy efficiency. Provide protective cages over gym fixtures. Replace electric panels.	$ 176,000	20.8	Bonding	$ -	$ -	$ -	$ -	$ -	$ -	$ -
179	Public Buildings	Building	Elliot St. Operations Building - Building Envelope	Repair foundation walls and rebuild ramp foundation walls. Repair/replace areaway retaining wall. Repair cracks; repoint mortar joints.	$ 123,000	20.7	Bonding	$ -	$ -	$ -	$ -	$ -	$ -	$ -
180	DPW	Complete Streets	Complete Streets Improvements - Intersection at Walnut Street/Watertown Street and Walnut Street/Lowell Avenue	Replace traffic signal equipment, improve multimodal safety and operations, install ADA compliant ramps, implement traffic calming, reduce excess pavement area	$ 2,500,000	20.7	Bonding	$ -	$ -	$ -	$ -	$ -	$ -	$ 200,000
181	Public Buildings	Building	City Hall - Exterior Windows & Doors	Restore/replace windows in phases to improve energy efficiency, functionality and comfort, and to preserve exterior wall.	$ 3,125,000	20.5	Potential for partial CPA Eligibility	$ -	$ -	$ -	$ -	$ -	$ -	$ -
182	Public Buildings	Building	Waban Community Library-Building Envelope and Entrance	Replace main entry walk and foundation walls and install railing. Rebuild side stairs at main entry. Rebuild stairs at rear entry. Install hand rail on one side of rear entry wall. Repair flashing of parapet walls.	$ 325,000	20.5	CPA Eligible	$ -	$ -	$ -	$ -	$ -	$ -	$ -
183	Clerk	Building	City Hall - Increase City Clerk Archive Storage	Develop plans to expand archival storage to accommodate and preserve archival collections and to comply with MGL mandated record storage requirements.	$ 100,000	20.5	CPA Eligible	$ -	$ -	$ -	$ -	$ -	$ -	$ -
184	Fire Dept	Large Vehicle / Equipment	Replace Fire Pumper Truck (Engine 10)	Engine 10 replacement (2012).	$ 800,000	20.3	Bonding	$ -	$ -	$ -	$ -	$ -	$ -	$ -
185	DPW	Complete Streets	Complete Streets Improvements - Intersection at Parker Street / Wheeler Road	Replace traffic signal equipment, improve multimodal safety and operations, install ADA compliant ramps, reduce excess pavement area	$ 1,750,000	20.1	Bonding	$ -	$ -	$ -	$ -	$ -	$ -	$ -
186	Public Buildings	Building	City Hall - Cupola/Roof Repair/Replacement	Install new membrane roof on flat roofs. Repair/replace gutters on balcony roofs. Replace metal roofing/flashing as required. Update and restore Cupola.	$ 1,700,000	19.8	Bonding	$ -	$ -	$ -	$ -	$ -	$ -	$ -
187	DPW	Complete Streets	Complete Streets Improvements - Intersection at Auburn Street/Grove Street/Central Street	Upgrade traffic signal equipment and make ADA improvements.	$ 850,000	19.8	Bonding	$ -	$ -	$ -	$ -	$ -	$ 100,000	$ 600,000
188	Schools	Building	Bigelow School - Mechanical Distribution Upgrades	Project to replace unit ventilators, valves, controls, and distribution system components that are beyond their useful life.	$ 500,000	19.3	Bonding	$ -	$ -	$ -	$ -	$ -	$ -	$ -
189	Public Buildings	Building	Auburndale Community Library - Building Envelope and Roof	Repair broken roof slates. Reflash where leaks are occurring. Repair/replace gutters and downspouts. Pitch rain leaders away from building. Repair concrete ramp.	$ 260,900	19.3	CPA Eligible	$ -	$ -	$ -	$ -	$ -	$ -	$ -
190	Schools	Building	Underwood School - Electrical Upgrades	Upgrades to electrical panels and sub-panels and emergency generator.	$ 100,000	19.0	Bonding	$ -	$ -	$ -	$ -	$ -	$ -	$ -
191	Jackson Homestead	Parks / Open Space	Restoration of Historic East Burying Grounds	Tree work. Tomb restoration, gravestone repair, and other restoration. Repair stone gate posts. Install educational signage.	$ 85,000	18.4	CPA Eligible	$ -	$ -	$ -	$ -	$ -	$ -	$ -
192	Fire Dept	Large Vehicle / Equipment	Replace Fire Dept Aerial Ladder #1	Ladder 1 (2013) replacement.	$ 1,450,000	18.4	Bonding	$ -	$ -	$ -	$ -	$ -	$ -	$ -
193	Jackson Homestead	Building	Jackson Homestead - Exterior Windows & Doors	Restore existing windows, storm windows, shutters, and doors as historically appropriate.	$ 250,000	18.0	CPA Eligible	$ -	$ -	$ -	$ -	$ -	$ -	$ -
194	Library	Building	Newton Free Library - Generator Replacement	Library used as cooling station for residents. Existing energy agreement mandates peak usage on auxiliary power when regional demand is high extreme.	$ 250,000	17.6	Bonding	$ -	$ -	$ -	$ -	$ -	$ -	$ -
195	Public Buildings	Building	Elliot St. Garage - Roof Repair/Replacement	Replace/repair EPDM roof. Replace damaged roof panels. Will enable solar pv installation.	$ 372,000	16.9	Bonding	$ -	$ -	$ -	$ -	$ -	$ -	$ -
196	DPW	Complete Streets	Complete Streets Improvements - Intersection at Bridge Street/California Street	Complete Streets Improvements - Intersection at Bridge Street/California Street	$ 1,000,000	16.8	Bonding/Mitigation Fund	$ -	$ -	$ -	$ -	$ -	$ -	$ -
197	Schools	Building	Mason Rice School - Electrical Upgrades	Replace emergency generator, electrical panels and sub-panels.	$ 325,000	16.6	Bonding	$ -	$ -	$ -	$ -	$ -	$ -	$ -
198	Schools	Infrastructure	EV Bus Infrastructure	Project to determine a location and create the infrastructure needed to support an EV bus fleet.	TBD	16.2	Bonding/State Grants/Other Funds	$ -	$ -	$ -	$ -	$ -	$ -	$ -
199	Public Buildings	Building	Elliot St. Operations Building - Roof Repair/ Replacement	Remove and replace corrugated fiberglass roof. Repair/ replace existing slate roof and add ice shield to prevent ice damming and icicle build-up. Repair/replace gutters.	$ 275,000	16.1	Bonding	$ -	$ -	$ -	$ -	$ -	$ -	$ -
200	DPW/ Storm	Storm	Pellegrini Park Drain Replacement	Storm drain between Jenison and Hawthorne needs to be replaced due to structural failure, causing flooding at Jenison @ Judkins.	$ 200,000	16.1	Stormwater	$ -	$ -	$ -	$ -	$ -	$ -	$ 40,000
201	Public Buildings	Building	City Hall - Mechanical Upgrades	Replace condensing units, ductwork and fans. Add mini-split A/C units in conjunction with window restoration/replacement.	$ 500,000	15.3	Bonding	$ -	$ -	$ -	$ -	$ -	$ -	$ -
202	Public Buildings	Building	Elliot St. Operations Building - Interior and Finish Upgrades	Repaint steel framing in attic. Repair deteriorated concrete and CMU. Upgrade lighting and install new acoustical ceilings.	$ 275,000	14.0	Bonding	$ -	$ -	$ -	$ -	$ -	$ -	$ -
203	Schools	HVAC/Boilers	Oak Hill School - Mechanical Upgrades - Roof Top Units and Distribution System	Replace Roof top air handling units and distribution system to electrify the systems.	$ 250,000	13.5	Bonding	$ -	$ -	$ -	$ -	$ -	$ -	$ -
204	Public Buildings	Building	City Hall - Envelope - Masonry Repairs	Ongoing program to repair and repoint exterior masonry to preserve building envelope. Address worst areas first.	$ 150,000	13.4	Bonding	$ -	$ -	$ -	$ -	$ -	$ -	$ -

CIP by Priority FY2024-FY2028

								Total	Total	Total	Total	Total	Total	Total
								$ 152,702,634	$ 44,633,490	$ 127,527,773	$ 81,192,380	$104,925,500	$ 40,801,600	$ 23,628,000
Priority	**Dept**	**Asset Category**	**Project Title**	**Project Description / Justification**	**Est Cost in FY2023**	**Priority Factor**	**Funding Source**	**Approved Funding**	**FY2023 to be Docketed/Approved**	**FY2024**	**FY2025**	**FY2026**	**FY2027**	**FY2028**
205	IT	Hardware / Software	Police IT Storage Area Network	Replacement of outdated servers, consolidation of systems, organization of data by divisions with enhanced security and support	$ 150,000	12.4	Free Cash	$ -	$ -	$ -	$ -	$ -	$ -	$ -
206	IT	Infrastructure	IT Infrastructure Refreshment Plan	Core switch replacement at Police, Fire, City Hall; Enhancement to our load balancing/FTD scheme; A real wireless solution, new in the box- first ever; SAN Enhancements	$ 200,000	12.3	Free Cash	$ -	$ -	$ -	$ -	$ -	$ -	$ -
207	Parks & Rec	Parks / Open Space	Nahanton Park - Nature Center Accessibility	Renovation of two existing parking areas and upgrades to pedestrian connection to Nature Center - Canoe and Kayak Rental Building.	$ 150,000	12.2	Bonding/CPA Eligible	$ -	$ -	$ -	$ -	$ -	$ -	$ -
208	DPW	Complete Streets	Complete Streets Improvements - Wells Ave @ Nahanton	Upgrade traffic signal equipment, install ADA compliant ramps, improve multimodal safety, accessibility, and operations.	$ 4,000,000	11.8	Bonding/Other Funds	$ -	$ -	$ -	$ -	$ -	$ -	$ -
209	Fire Dept	Large Vehicle / Equipment	Apparatus Replacement Plan	Replacement of R1 vehicle (2016).	$ 1,200,000	10.5	Bonding	$ -	$ -	$ -	$ -	$ -	$ -	$ -
210	Schools	Building	Bigelow School - Replace Windows and Doors	Replace aging windows and exterior doors to improve comfort, operation, and energy efficiency.	$ 1,400,000	9.8	Bonding	$ -	$ -	$ -	$ -	$ -	$ -	$ -
211	Public Buildings	Building	Waban Community Library-Exterior Windows & Doors	Restore exterior wood door and install panic hardware. Replace areaway and rear door. Restore windows.	$ 118,500	9.7	CPA Eligible	$ -	$ -	$ -	$ -	$ -	$ -	$ -
212	DPW/ Storm	Storm	Hammond Brook-Glen Ave. to Centre St.	Cleaning, Inspection, Structural Evaluation, Design, Rehabilitation and Construction of Hammond Brook Culvert.	$ 600,000	9.7	Stormwater	$ -	$ -	$ -	$ -	$ -	$ -	$ -
213	Historic Newton	Parks / Open Space	Restoration of Historic West Burying Grounds	Preservation of gravestones. Repair stone wall boundary. Install educational signage.	$ 75,000	9.6	CPA Eligible/Other Funds	$ -	$ -	$ -	$ -	$ -	$ -	$ -
214	Historic Newton	Parks / Open Space	Restoration of Historic South Burying Grounds	Preservation of gravestones. Tree work. Repair stone wall boundary. Install educational signage.	$ 75,000	9.6	CPA Eligible/Other Funds	$ -	$ -	$ -	$ -	$ -	$ -	$ -
215	Schools	Building	Williams School - Mechanical Upgrades	HVAC distribution upgrades in the boiler room and throughout the school, and electrify the systems.	$ 200,000	9.2	Bonding	$ -	$ -	$ -	$ -	$ -	$ -	$ -
				Total Need:	**$ 861,339,962**			**$ 152,702,634**	**$ 44,633,490**	**$ 127,527,773**	**$ 81,192,380**	**$104,925,500**	**$ 40,801,600**	**$ 23,628,000**

CIP by Asset Category FY2024-FY2028

								Total	Total	Total	Total	Total	Total	Total
								$ 152,702,634	$ 44,633,490	$ 127,527,773	$ 81,192,380	$104,925,500	$ 40,801,600	$ 23,628,000
Priority	Dept	Asset Category	Project Title	Project Description / Justification	Est Cost in FY2023	Priority Factor	Funding Source	Approved Funding	FY2023 to be Docketed/Approved	FY2024	FY2025	FY2026	FY2027	FY2028
53	Parks & Rec	Bridge	Cheesecake Brook Footbridge	Project to replace or add new footbridge structure over Cheesecake Brook near Albemarle Field.	$ 400,000	48.7	Bonding/Other Funds	$ -	$ -	$ -	$ 400,000	$ -	$ -	$ -
175	DPW	Bridge	Concord St Bridge over Charles River	Repair bridge in collaborative effort with the Town of Weston.	$ 1,000,000	21.3	Bonding	$ -	$ -	$ -	$ -	$ -	$ -	$ -
7	Schools	Building	Newton Early Childhood Program	Address long term facility needs of the NECP at 687 Watertown Street.	$ 13,000,000	66.7	Bonding	$ 13,000,000	$ -	$ -	$ -	$ -	$ -	$ -
8	Schools	Building	Lincoln-Eliot at 150 Jackson Road	Project to meet the needs of the Lincoln-Eliot School, including facility and site improvements and accessibility, needed playground, and field space.	$ 47,000,000	66.3	Bonding/ARPA	$ 750,000	$ 3,250,000	$ 21,500,000	$ 21,500,000	$ -	$ -	$ -
9	Parks & Rec	Building	City Auditorium at 150 Jackson Road	Renovate existing auditorium to create Indoor theater and musical arts performance venue with stage, backstage area, storage, seating, and rehearsal space. Will be fully accessible.	$ 3,000,000	66.3	Bonding/ARPA	$ 1,800,000	$ -	$ -	$ 1,200,000	$ -	$ -	$ -
10	Senior Center	Building	Newton Center for Active Living - NewCAL	Design and build a senior and community center, the Newton Center for Active Living.	$ 20,600,000	66.3	Bonding/ARPA	$ 1,100,000	$ 2,500,000	$ 12,000,000	$ 6,500,000	$ -	$ -	$ -
24	Planning	Building	West Newton Armory Reuse - Affordable Housing	Project to convert the Armory into 100% affordable housing.	$ 27,800,000	59.6	CPA Eligible/CDBG/Other Funds	$ 5,160,000	$ -	$ -	TBD	TBD	$ -	$ -
30	Police	Building	Comprehensive Police HQ Facility Renovation and Upgrade Project	HVAC, communications, training facility & space, site security, parking lot, HQ roof replacement, interior renovation and reconfiguration, accessibility improvements, emergency electrical, garage mechanical & electrical upgrades, concrete repairs and windows, doors & building envelope.	$ 13,500,000	58.4	Bonding/ARPA	$ 2,000,000	$ 500,000	$ 3,000,000	$ 3,000,000	$ 5,000,000	$ -	$ -
33	Public Buildings	Building	Wash Bay Refurbishment	Refurbish Crafts Street vehicle wash bay with automated vehicle wash system, including capture/recycle wash water, code upgrades for utilities and building.	$ 1,000,000	57.5	Stormwater	$ 500,000	$ 500,000	$ -	$ -	$ -	$ -	$ -
37	Schools	Building	Countryside School- Renovation/Addition	Feasibility Study/Design and Construction.	$ 61,000,000	56.2	Alternate Funding /MSBA Eligible/ARPA	$ 1,250,000	$ 2,000,000	$ 57,750,000	$ -	$ -	$ -	$ -
38	Schools	Building	Franklin School - Renovation/Addition	Feasibility Study/Design and Construction.	$ 61,000,000	56.2	Alternate Funding /Other Funds/ARPA	$ 200,000	$ 50,000	$ 500,000	$ 2,500,000	$ 57,750,000	$ -	$ -
39	Public Buildings	Building	Newton Commonwealth Golf Course Maintenance Facility Project	Renovation and Addition to the Golf Course Maintenance Facility.	$ 3,737,000	55.3	Golf Course Funding	$ 3,737,000	$ -	$ -	$ -	$ -	$ -	$ -
43	Library	Building	Library HVAC Improvements	HVAC system upgrades to electrify the building.	$ 750,000	53.7	Other Funds	$ -	$ 100,000	$ -	$ 650,000	$ -	$ -	$ -
46	Parks & Rec	Building	Pellegrini Park Field House - Exterior Improvements	Envelope repairs, replace upper gym membrane roof with a new EPDM roof.	$ 200,000	53.1	Other Funds	$ -	$ 200,000	$ -	$ -	$ -	$ -	$ -
55	Fire Dept	Building	Fire Station # 2 Projects	Windows, HVAC - Heat Pumps, Sprinklers & Interior Upgrades.	$ 1,067,000	48.6	ARPA / Free Cash	$ 300,000	$ -	$ -	$ -	$ 767,000	$ -	$ -
64	Schools	Building	Horace Mann School Addition and Improvement	Horace Mann School Facilities upgrades.	$ 23,000,000	45.6	Alternate Funding /Other Funds/ARPA	$ 100,000	$ 200,000	$ 2,150,000	$ 6,000,000	$ 6,550,000	$ -	$ -
71	Schools	Building	Ward/Underwood Schools - Renovation/ Replacement	Ward & Underwood School facilities project. The two oldest schools in the system are approaching their centennials. Both schools have low enrollment, outdated and undersized facilities, are located on small NPS properties, with districts that are adjacent to each other.	TBD	43.7	Bonding/MSBA Eligible/ARPA	$ 100,000	$ -	$ -	$ -	$ -	$ -	$ -
75	Fire Dept	Building	Fire Station # 1 Projects	Sprinklers, HVAC & Interior Upgrades.	$ 450,000	42.1	ARPA / Free Cash	$ 200,000	$ -	$ -	$ -	$ 250,000	$ -	$ -
88	Library	Building	Library Roof Membrane	Replace 8,000 sf of ballasted rubber membrane roof installed ca1990. Will enable solar pv installation.	$ 285,000	37.7	Bonding	$ -	$ -	$ -	$ -	$ 285,000	$ -	$ -
90	Public Buildings	Building	War Memorial Accessibility/Historic Improvements	Repair and repoint stone cornice. Implement recommendations from 2007 Study of the Memorial Stairs.	$ 2,332,000	37.5	CPA Eligible	$ -	$ -	$ 1,166,000	$ 1,166,000	$ -	$ -	$ -
94	Public Buildings	Building	Waban Community Library-Accessibility Upgrades	Upgrade toilet rooms, Replace door hardware; Modify door at stairwell or install automatic door opener.	$ 150,000	36.4	CDBG Eligible/CPA Eligible - potential for partial	$ -	$ -	$ -	$ -	$ -	$ -	$ -
95	Planning	Building	Walker Center House Rehabilitation	Restoration and upgrades to convert the former Walker Center historical properties located on Hancock and Grove Streets to become affordable family housing units.	TBD	36.4	CPA Eligible/Other Funds/Grants/ARPA	$ 2,450,000	$ -	TBD	$ -	$ -	$ -	$ -
97	Parks & Rec	Building	Jeanette Curtis West Rec Ctr (The Hut)	Address facility needs for multiple programs.	$ 2,500,000	36.0	Bonding	$ -	$ -	$ -	$ -	$ -	$ -	$ -
101	Schools	Building	Memorial Spaulding School - Replace Roof	Replace 1980's Built up roof area. It has reached its life expectancy.	$ 1,300,000	35.5	Bonding/MSBA Eligible	$ -	$ -	$ -	$ -	$ 1,300,000	$ -	$ -
103	Public Buildings	Building	City Hall Restroom Upgrades	Phased project -Upgrade City Hall Restrooms. Will improve accessibility.	$ 200,000	34.8	Bonding/Other Funds/CDBG	$ -	$ -	$ -	$ -	$ 200,000	$ -	$ -
104	Schools	Building	Ed Center - Mechanical Upgrades	Replace boiler, second boiler and hot water conversion in out years. Boilers are over 35 years old.	$ 450,000	34.4	Bonding	$ -	$ -	$ -	$ -	$ -	$ -	$ 450,000

CIP by Asset Category FY2024-FY2028

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								$ 152,702,634	$ 44,633,490	$ 127,527,773	$ 81,192,380	$104,925,500	$ 40,801,600	$ 23,628,000
Priority	Dept	Asset Category	Project Title	Project Description / Justification	Est Cost in FY2023	Priority Factor	Funding Source	Approved Funding	FY2023 to be Docketed/Approved	FY2024	FY2025	FY2026	FY2027	FY2028
106	Schools	Building	Williams School - Accessibility Upgrades	Upgrade door hardware, openings, toilet rooms, railings, and signage for accessibility.	$ 500,000	34.3	Bonding	$ -	$ -	$ -	$ -	$ -	$ -	$ -
107	Schools	Building	Memorial Spaulding School - Accessibility Upgrades	Upgrade toilet rooms, door hardware, water fountains, and signage for accessibility.	$ 500,000	34.3	Bonding	$ -	$ -	$ -	$ -	$ -	$ -	$ -
109	Police	Building	Police Annex - Emergency Generator	Replace generator with emergency battery back-up system, and install energy electrical distribution throughout the building. Update system for ADA compliance. Upgrade exterior lighting & occupancy sensors.	$ 200,000	33.9	Bonding	$ -	$ -	$ -	$ -	$ -	$ -	$ -
111	Fire Dept	Building	Fire Station #2, West Newton - Renovation	Fire Station work includes mechanical, electrical, plumbing, code compliance and accessibility upgrades.	$ 25,000,000	33.5	Bonding	$ -	$ -	$ -	$ -	$ -	$ -	$ -
114	Parks & Rec	Building	Kennard Estates Site Improvements	Install utilities, pave parking lot.	$ 425,000	32.0	Bonding	$ -	$ -	$ -	$ -	$ -	$ -	$ -
118	Jackson Homestead	Building	Jackson Homestead - Basement	Finish basement galleries: New flooring; envelope treatment, gallery walls, (keep water and condensation out).	$ 1,075,000	31.1	CPA Eligible/Other Funds	$ 275,000	$ -	$ 800,000	$ -	$ -	$ -	$ -
122	Public Buildings	Building	Elliot Street Sand Salt Shed - Replacement	Replace salt shed.	$ 500,000	30.5	Bonding	$ -	$ -	$ -	$ -	$ -	$ -	$ -
124	Fire Dept	Building	Fire Station #1 (Newton Corner) - Renovation	Fire Station work includes mechanical, electrical, plumbing, code compliance and accessibility upgrades.	$ 15,000,000	30.2	Bonding	$ -	$ -	$ -	$ -	$ -	$ -	$ -
125	Parks & Rec	Building	Auburndale Cove Fieldhouse - Building Upgrades	Project to fully upgrade existing building or replace with new structure.	$ 1,000,000	30.1	Bonding	$ -	$ -	$ -	$ -	$ -	$ -	$ -
127	Schools	Building	Ed Center Elevator & Accessibility Upgrades	Upgrade elevator, restrooms, door hardware, and signage for accessibility.	$ 1,500,000	29.9	Bonding	$ -	$ -	$ -	$ -	$ -	$ -	$ -
128	Public Buildings	Building	Crafts St DPW Operations (Stable)	Design and Construction for renovated interior including mechanical, electrical, plumbing, and accessibility upgrades.	$ 3,000,000	29.8	CPA Eligible	$ -	$ -	$ -	$ -	$ -	$ -	$ -
129	Parks & Rec	Building	Burr Park Field House - Accessibility/Site Upgrades	Accessibility upgrades to toilet rooms and fixtures, signage, drinking fountain, and door hardware. Provide accessible path to entrance and an accessible parking space.	$ 250,000	29.8	Bonding/CPA Eligible	$ -	$ -	$ -	$ -	$ -	$ -	$ -
130	Parks & Rec	Building	Kennard Estate	Accessibility upgrades, gutters, plumbing/electrical.	$ 500,000	28.9	Bonding/CPA Eligible	$ -	$ -	$ -	$ -	$ -	$ -	$ -
132	Schools	Building	Peirce School - Accessibility Upgrades	Upgrades to door hardware, toilet rooms, railings, and signage for accessibility.	$ 300,000	28.5	Bonding	$ -	$ -	$ -	$ -	$ -	$ -	$ -
134	Parks & Rec	Building	Crystal Lake Bathhouse - Renovate/Replace	Renovate/Replace bathhouse and improve swim beach front.	$ 5,000,000	28.3	CPA Eligible/Other Funds	$ -	$ -	$ -	$ -	$ -	$ -	$ -
135	Schools	Building	Bowen School - Mechanical Upgrades	Replace interior air handlers in first year. Direct Digital Controls conversion.	$ 500,000	28.1	Bonding	$ -	$ -	$ -	$ -	$ -	$ -	$ -
136	Schools	Building	Bigelow School - Accessibility Upgrades	Upgrade toilet rooms, elevator, door hardware and signage for accessibility.	$ 1,000,000	28.0	Bonding	$ -	$ -	$ -	$ -	$ -	$ -	$ -
137	Public Buildings	Building	Auburndale Community Library -Exterior Windows & Doors	Remove existing exterior wood doors and frames and replace with new doors and hardware. Repair/replace building windows.	$ 200,000	27.9	CPA Eligible	$ -	$ -	$ -	$ -	$ -	$ -	$ -
139	Public Buildings	Building	Vernon St. Building - Building Envelope	Repair front entry concrete. Install new side entry stairs and handrails. Remove and replace wood stairs. Install vents throughout balance of soffits.	$ 335,850	27.9	Bonding/CPA Eligible	$ -	$ -	$ -	$ -	$ -	$ -	$ -
142	Police	Building	Police Annex - Exterior Windows & Doors & Building Envelope	Restore/replace windows and doors with historically appropriate energy efficient units. Repoint exterior brick and entry ramp. Repair stone lintels.	$ 200,000	27.4	Bonding/CPA Eligible	$ -	$ -	$ -	$ -	$ -	$ -	$ -
143	Schools	Building	Brown School - Accessibility Upgrades	Upgrade existing elevator for code compliance, signage, hardware, and reconfigure locker rooms for accessibility.	$ 750,000	27.2	Bonding	$ -	$ -	$ -	$ -	$ -	$ -	$ -
144	Schools	Building	Mason Rice School - Accessibility Upgrades	Upgrade hardware, toilet rooms, and water fountains for accessibility.	$ 500,000	27.0	Bonding	$ -	$ -	$ -	$ -	$ -	$ -	$ -
145	Schools	Building	Mason-Rice School - Mid-Range Renovation/Addition	Feasibility Study/Design and construction, including electrification.	$ 15,000,000	26.9	Bonding	$ -	$ -	$ -	$ -	$ -	$ -	$ -
146	Schools	Building	FA Day School - Accessibility Upgrades / Replace Elevator	Upgrades for ADA Compliant elevator, toilet rooms, door hardware, and signage.	$ 750,000	26.7	Bonding	$ -	$ -	$ -	$ -	$ -	$ -	$ -
148	Schools	Building	Mason Rice School - Mechanical Upgrades	Direct Digital Controls conversion and upgrade heating distribution system.	$ 1,000,000	26.5	Bonding	$ -	$ -	$ -	$ -	$ -	$ -	$ -
149	Schools	Building	Peirce/Williams Feasibility/Addition	Feasibility Study/Design and Construction, including electrification of Williams, to add capacity.	$ 30,000,000	26.3	Bonding	$ -	$ -	$ -	$ -	$ -	$ -	$ -
150	Schools	Building	Peirce School - Plumbing Upgrades	Upgrades to toilet rooms and water fountains.	$ 500,000	26.3	Bonding	$ -	$ -	$ -	$ -	$ -	$ -	$ -
151	Public Buildings	Building	Former Newton Centre Library	Building requires envelope work. Cost for complete building renovation.	$ 1,500,000	25.7	CPA Eligible	$ -	$ -	$ -	$ -	$ -	$ -	$ -
152	Library	Building	Library - Phase 3: Interior Renovations	Create more first floor public space by relocating staff offices to 3rd floor; replace 1991 carpet, repaint, replace worn furnishings.	$ 5,000,000	25.6	Bonding	$ -	$ -	$ -	$ -	$ -	$ -	$ 100,000

CIP by Asset Category FY2024-FY2028

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Priority	Dept	Asset Category	Project Title	Project Description / Justification	Est Cost in FY2023	Priority Factor	Funding Source	Approved Funding	FY2023 to be Docketed/Approved	FY2024	FY2025	FY2026	FY2027	FY2028
153	Parks & Rec	Building	Emerson Community Center - Accessibility Upgrades	Upgrade toilet rooms, install accessible door hardware and drinking fountains; Resurface main entrance ramp and install handrails.	$ 250,000	25.2	Bonding	$ -	$ -	$ -	$ -	$ -	$ -	$ -
155	Schools	Building	Bowen School - Accessibility Upgrades	Upgrades to toilet rooms, signage, hardware, railings and assembly spaces for accessibility.	$ 500,000	25.2	Bonding	$ -	$ -	$ -	$ -	$ -	$ -	$ -
156	Public Buildings	Building	Auburndale Community Library -Accessibility and Site Upgrades	ADA upgrade for the building.	$ 265,000	24.8	CPA Eligible	$ -	$ -	$ -	$ -	$ -	$ -	$ -
157	Schools	Building	Williams School - Space and Building System Improvements	Address building system needs and possible cafeteria and classroom addition.	$ 1,500,000	24.6	Bonding/Alternate Funding	$ -	$ -	$ -	$ -	$ -	$ -	$ -
159	Parks & Rec	Building	Burr Park Field House - Building Envelope and Window Restoration (Waverley Ave. / Park St.)	Repair damaged exterior brick walls and trim. Remove entry landing stairs and railings and install new code-compliant landing, stairs and railings. Restore windows.	$ 313,500	24.6	CPA Eligible	$ -	$ -	$ -	$ -	$ -	$ -	$ -
160	Public Buildings	Building	Crafts Street Garage - Accessibility Upgrades	Install accessible ramp at entrance. Provide accessible toilet rooms. Resurface and re-grade pavement to comply with ADA requirements; Provide accessible parking space.	$ 194,000	24.5	Bonding	$ -	$ -	$ -	$ -	$ -	$ -	$ -
161	Parks & Rec	Building	Newton Highlands Playground - Phase II Support Building	Construction of prefabricated restrooms and storage building.	$ 300,000	23.9	Bonding/Other Funds/State Contract	$ -	$ -	$ -	$ -	$ -	$ -	$ -
162	Police	Building	Police Annex - Mechanical Upgrades	Install VRF heating and cooling to replace the aging boiler.	$ 200,000	23.9	Bonding	$ -	$ -	$ -	$ -	$ -	$ -	$ -
163	Police	Building	Police Annex - Roof Restoration/ Replacement	Remove and replace slate roofing, gutters and downspouts. Install new EPDM Roof. Reattach downspouts.	$ 255,825	23.5	CPA Eligible	$ -	$ -	$ -	$ -	$ -	$ -	$ -
164	Public Buildings	Building	City Hall exterior restoration	Exterior restoration of all non-masonry surfaces and painting of all exterior exposed surfaces for the City Hall building.	$ 3,000,000	23.4	Bonding/Free Cash	$ -	$ -	$ -	$ -	$ -	$ -	$ -
165	Police	Building	Police Annex - Accessibility Upgrades	Provide accessible toilet rooms, door hardware, signage and drinking fountain. Provide a lower transaction counter.	$ 200,000	23.0	CDBG Eligible	$ -	$ -	$ -	$ -	$ -	$ -	$ -
166	Public Buildings	Building	Nonantum Library-Accessibility/Site	Reconfigure entry vestibules and reconstruct ADA compliant ramp. Upgrades for toilet rooms and drinking fountain.	$ 204,000	23.0	CPA Eligible/CDBG Eligible	$ -	$ -	$ -	$ -	$ -	$ -	$ -
167	Parks & Rec	Building	Emerson Community Center - Electrical Upgrades	Replace switchboard and increase service size to meet electrical demands. Replace original overloaded electrical panels. Install emergency audiovisual horn strobes.	$ 150,000	22.9	Bonding	$ -	$ -	$ -	$ -	$ -	$ -	$ -
168	Parks & Rec	Building	Feasibility Study for New Indoor Swimming Pool	A feasibility study to research issues and options for creation of a second City indoor swimming pool.	$ 200,000	22.5	Bonding	$ -	$ -	$ -	$ -	$ -	$ -	$ -
169	Public Buildings	Building	Kennard Estate-Building Envelope, Windows and Doors	Replace shingles and flashings. Repair foundation walls. Replace wood windows and shutters with historic, appropriate units.	$ 240,000	22.3	Bonding/CPA Eligible	$ -	$ -	$ -	$ -	$ -	$ -	$ -
170	Public Buildings	Building	Crafts St DPW Operations (Stable) - Restore Building Envelope, Windows & Roof	Preserve/repair historic significance, lintels, sills, brick veneer, windows, doors, roof and cupola as historically appropriate.	$ 2,000,000	21.9	CPA Eligible	$ -	$ -	$ -	$ -	$ -	$ -	$ -
171	Public Buildings	Building	Vernon St. Building - Exterior Windows & Doors	Restore/replace historic exterior doors and windows. Weatherstrip and seal for energy efficiency. Window bay foundation repairs.	$ 217,000	21.7	CPA Eligible	$ -	$ -	$ -	$ -	$ -	$ -	$ -
172	Public Buildings	Building	Crafts Street Garage - Mechanical Upgrades	Complete roof top unit work begun in stimulus project. Replace fans, duct work, unit heaters.	$ 400,000	21.7	Bonding	$ -	$ -	$ -	$ -	$ -	$ -	$ -
173	Police	Building	New Police Headquarters Facility Project	Design and Construction of a new Police Headquarters Facility	TBD	21.4	Bonding	$ -	$ -	$ -	$ -	$ -	$ -	$ -
174	Public Buildings	Building	City Hall - Electrical Upgrades	Replace emergency generator and electrical upgrades.	$ 225,000	21.3	Bonding	$ -	$ -	$ -	$ -	$ -	$ -	$ -
176	Public Buildings	Building	DPW/Parks & Recreation Facility Project	Project to address facility needs of P&R and DPW.	$ 400,000	21.0	Bonding	$ -	$ -	$ -	$ -	$ -	$ -	$ -
178	Parks & Rec	Building	Pellegrini Park Field House - Electrical Upgrades	Upgrade lighting and power distribution for energy efficiency. Provide protective cages over gym fixtures. Replace electric panels.	$ 176,000	20.8	Bonding	$ -	$ -	$ -	$ -	$ -	$ -	$ -
179	Public Buildings	Building	Elliot St. Operations Building - Building Envelope	Repair foundation walls and rebuild ramp foundation walls. Repair/replace areaway retaining wall. Repair cracks; repoint mortar joints.	$ 123,000	20.7	Bonding	$ -	$ -	$ -	$ -	$ -	$ -	$ -
181	Public Buildings	Building	City Hall - Exterior Windows & Doors	Restore/replace windows in phases to improve energy efficiency, functionality and comfort, and to preserve exterior wall.	$ 3,125,000	20.5	Potential for partial CPA Eligibility	$ -	$ -	$ -	$ -	$ -	$ -	$ -
182	Public Buildings	Building	Waban Community Library-Building Envelope and Entrance	Replace main entry walk and foundation walls and install railing. Rebuild side stairs at main entry. Rebuild stairs at rear entry. Install hand rail on one side of rear entry wall. Repair flashing of parapet walls.	$ 325,000	20.5	CPA Eligible	$ -	$ -	$ -	$ -	$ -	$ -	$ -

CIP by Asset Category FY2024-FY2028

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								$ 152,702,634	$ 44,633,490	$ 127,527,773	$ 81,192,380	$104,925,500	$ 40,801,600	$ 23,628,000
Priority	Dept	Asset Category	Project Title	Project Description / Justification	Est Cost in FY2023	Priority Factor	Funding Source	Approved Funding	FY2023 to be Docketed/Approved	FY2024	FY2025	FY2026	FY2027	FY2028
183	Clerk	Building	City Hall - Increase City Clerk Archive Storage	Develop plans to expand archival storage to accommodate and preserve archival collections and to comply with MGL mandated record storage requirements.	$ 100,000	20.5	CPA Eligible	$ -	$ -	$ -	$ -	$ -	$ -	$ -
186	Public Buildings	Building	City Hall - Cupola/Roof Repair/Replacement	Install new membrane roof on flat roofs. Repair/replace gutters on balcony roofs. Replace metal roofing/flashing as required. Update and restore Cupola.	$ 1,700,000	19.8	Bonding	$ -	$ -	$ -	$ -	$ -	$ -	$ -
188	Schools	Building	Bigelow School - Mechanical Distribution Upgrades	Project to replace unit ventilators, valves, controls, and distribution system components that are beyond their useful life.	$ 500,000	19.3	Bonding	$ -	$ -	$ -	$ -	$ -	$ -	$ -
189	Public Buildings	Building	Auburndale Community Library - Building Envelope and Roof	Repair broken roof slates. Reflash where leaks are occurring. Repair/replace gutters and downspouts. Pitch rain leaders away from building. Repair concrete ramp.	$ 260,900	19.3	CPA Eligible	$ -	$ -	$ -	$ -	$ -	$ -	$ -
190	Schools	Building	Underwood School - Electrical Upgrades	Upgrades to electrical panels and sub-panels and emergency generator.	$ 100,000	19.0	Bonding	$ -	$ -	$ -	$ -	$ -	$ -	$ -
193	Jackson Homestead	Building	Jackson Homestead - Exterior Windows & Doors	Restore existing windows, storm windows, shutters, and doors as historically appropriate.	$ 250,000	18.0	CPA Eligible	$ -	$ -	$ -	$ -	$ -	$ -	$ -
194	Library	Building	Newton Free Library - Generator Replacement	Library used as cooling station for residents. Existing energy agreement mandates peak usage on auxiliary power when regional demand is high extreme.	$ 250,000	17.6	Bonding	$ -	$ -	$ -	$ -	$ -	$ -	$ -
195	Public Buildings	Building	Elliot St. Garage - Roof Repair/Replacement	Replace/repair EPDM roof. Replace damaged roof panels. Will enable solar pv installation.	$ 372,000	16.9	Bonding	$ -	$ -	$ -	$ -	$ -	$ -	$ -
197	Schools	Building	Mason Rice School - Electrical Upgrades	Replace emergency generator, electrical panels and sub-panels.	$ 325,000	16.6	Bonding	$ -	$ -	$ -	$ -	$ -	$ -	$ -
199	Public Buildings	Building	Elliot St. Operations Building - Roof Repair/ Replacement	Remove and replace corrugated fiberglass roof. Repair/ replace existing slate roof and add ice shield to prevent ice damming and icicle build-up. Repair/replace gutters.	$ 275,000	16.1	Bonding	$ -	$ -	$ -	$ -	$ -	$ -	$ -
201	Public Buildings	Building	City Hall - Mechanical Upgrades	Replace condensing units, ductwork and fans. Add mini-split A/C units in conjunction with window restoration/replacement.	$ 500,000	15.3	Bonding	$ -	$ -	$ -	$ -	$ -	$ -	$ -
202	Public Buildings	Building	Elliot St. Operations Building - Interior and Finish Upgrades	Repaint steel framing in attic. Repair deteriorated concrete and CMU. Upgrade lighting and install new acoustical ceilings.	$ 275,000	14.0	Bonding	$ -	$ -	$ -	$ -	$ -	$ -	$ -
204	Public Buildings	Building	City Hall - Envelope - Masonry Repairs	Ongoing program to repair and repoint exterior masonry to preserve building envelope. Address worst areas first.	$ 150,000	13.4	Bonding	$ -	$ -	$ -	$ -	$ -	$ -	$ -
210	Schools	Building	Bigelow School - Replace Windows and Doors	Replace aging windows and exterior doors to improve comfort, operation, and energy efficiency.	$ 1,400,000	9.8	Bonding	$ -	$ -	$ -	$ -	$ -	$ -	$ -
211	Public Buildings	Building	Waban Community Library-Exterior Windows & Doors	Restore exterior wood door and install panic hardware. Replace areaway and rear door. Restore windows.	$ 118,500	9.7	CPA Eligible	$ -	$ -	$ -	$ -	$ -	$ -	$ -
215	Schools	Building	Williams School - Mechanical Upgrades	HVAC distribution upgrades in the boiler room and throughout the school, and electrify the systems.	$ 200,000	9.2	Bonding	$ -	$ -	$ -	$ -	$ -	$ -	$ -
63	Public Buildings	Climate Action	Municipal EV Chargers	Purchase and install EV chargers at municipal and school parking lots throughout the city (electrical connections provided by Eversource grants).	$ 615,000	46.0	Grants / Other Funds	$ -	$ -	$ 300,000	$ 315,000	$ -	$ -	$ -
1	DPW	Complete Streets	Needham Street Upgrades	TIP Project to Pave and Improve Needham Street - Funded and managed by MassDOT.	$ 34,250,360	80.5	State TIP Funding	$ 34,250,360	$ -	$ -	$ -	$ -	$ -	$ -
6	DPW	Complete Streets	Transportation Network Improvement Program - Paving/Sidewalks/Accessibility	10 year Paving Initiative - Repair and Pave Scheduled Streets, Sidewalks, traffic calming and pavement markings throughout the City.	$ 95,000,000	68.4	Chapt 90/ Free Cash/ARPA /Other Funds	$ -	$ 9,500,000	$ 9,500,000	$ 9,500,000	$ 9,500,000	$ 9,500,000	$ 9,500,000
20	DPW	Complete Streets	Newton Free Library Parking Space Expansion, Repaving, Drainage, and Landscaping Improvements	The library parking lot will be reconfigured and reconstructed to add parking spaces and improve accessibility and drainage.	$ 2,438,903	62.1	Bonding/Stormwater Funds	$ 2,438,903	$ -	$ -	$ -	$ -	$ -	$ -
22	Planning	Complete Streets	Washington Place Mitigation Project	Implement mitigation projects in Newtonville arising from Washington Place development in Newtonville, including sidewalks and fencing.	$ 700,000	61.2	Mitigation Funds	$ 286,500	$ -	$ -	$ -	$ 413,500	$ -	$ -
41	DPW	Complete Streets	Complete Streets Improvements - Newton Corner and Mass Pike interchange at Exit 127 Off-Ramp	Upgrade traffic signal equipment, improve multimodal safety and operations at this intersection. The city will work closely with MassDot to provide feedback and comments	TBD	54.2	State Funds	$ -	$ -	$ -	$ -	$ -	$ -	$ -
47	Planning	Complete Streets	Pettee Square/Upper Falls Greenway Improvements	Targeted improvements to Pettee Square in Newton Upper Falls and extension of the Upper Falls Greenway to Curtis Street.	$ 3,028,296	52.2	State MassWorks Grant /Other Funds	$ 396,500	$ -	$ 2,631,796	$ -	$ -	$ -	$ -
54	Planning	Complete Streets	Reconstruction of Commonwealth Avenue (Route 30) from East of Auburn St to Ash St	Transform the Commonwealth Avenue Carriageway between Lyons Field and the Charles River at Auburn Street. Project aims to create safe bicycle and pedestrian facilities to improve connectivity to green space, trails, and other recreational opportunities.	$ 7,401,000	48.6	CPA Eligible/State Funding/	$ 723,000	$ -	$ -	$ 6,678,000	$ -	$ -	$ -

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								$ 152,702,634	$ 44,633,490	$ 127,527,773	$ 81,192,380	$104,925,500	$ 40,801,600	$ 23,628,000
Priority	Dept	Asset Category	Project Title	Project Description / Justification	Est Cost in FY2023	Priority Factor	Funding Source	Approved Funding	FY2023 to be Docketed/Approved	FY2024	FY2025	FY2026	FY2027	FY2028
57	DPW	Complete Streets	Complete Streets Improvements - Newton Highlands	Upgrade traffic signal equipment, improve multimodal safety and operations, enhance streetscape and sidewalks, lighting, implement signal coordination, and paving.	TBD	47.5	Bonding /Other Funds/ARPA/ State Funds	$ 1,000,000	$ -	$ -	$ -	$ -	$ -	$ -
58	Planning	Complete Streets	Design and Implement Washington Street Pilot	Design for Washington St. pilot to improve safety and pedestrian accommodations, Improve traffic flow, ADA compliance.	$ 3,500,000	47.2	ARPA/Other Funds	$ 3,500,000	$ -	$ -	$ -	$ -	$ -	$ -
59	Planning	Complete Streets	Crafts @ Albemarle Intersection Improvements (SRTS)	State funded project to upgrade the intersections of Crafts Street – Albemarle Road and Albemarle Road – North Street, to improve bicycle and pedestrian accommodations near the Horace Mann Elementary School, Day Middle School and NECP. Project includes new fully actuated crosswalk system and a rapid-flashing beacon crosswalk.	$ 900,000	47.2	State TIP Funding	$ -	$ -	$ -	$ 900,000	$ -	$ -	$ -
81	Planning	Complete Streets	Design and implement multi-modal improvements on Albemarle and Brookside from Charles River to Washington	Design and implement a two-way bike facility, improved pedestrian accommodations and streamlined pickup and drop off areas. Early implementation of the project does not include reconstruction of the road.	$ 2,200,000	39.1	Bonding/Other Funds/State Grants	$ 200,000	$ -	$ -	$ 200,000	$ -	$ 2,000,000	$ -
96	DPW	Complete Streets	Complete Streets Improvements - Beacon @ Walnut (4 Corners)	Upgrade traffic signal equipment, improve multimodal safety and operations, install ADA compliant ramps.	$ 2,500,000	36.1	Bonding/Other Funds	$ -	$ -	$ -	$ -	$ 500,000	$ 2,000,000	$ -
98	DPW	Complete Streets	Complete Streets Improvements - Cherry @ Webster, Cherry @ Derby	Upgrade traffic signal equipment, improve multimodal safety and operations at these two intersections.	$ 1,400,000	36.0	Bonding	$ -	$ -	$ -	$ -	$ 150,000	$ 1,250,000	$ -
99	DPW	Complete Streets	Municipal Parking Lot Improvement Plan	Reconstruction of Municipal parking lots including ADA and stormwater improvements.	$ 3,750,000	35.7	Bonding/Other Funds	$ -	$ -	$ -	$ -	$ 750,000	$ 750,000	$ 750,000
100	DPW	Complete Streets	Complete Streets Improvements - Commonwealth Ave. @ Chestnut Street	Update outdated traffic signal equipment and bring curb, ramps and surrounding sidewalks into ADA compliance.	$ 1,400,000	35.5	Bonding	$ -	$ -	$ -	$ -	$ 150,000	$ 1,250,000	$ -
113	Planning	Complete Streets	Complete Streets Improvements - Washington Street - West Newton to Newton Corner - Construction	Construction to improve safety and pedestrian accommodations, improve traffic flow, ADA compliance.	$ 30,000,000	32.3	Bonding/Other Funds	$ -	$ -	$ -	$ -	$ -	$ 2,500,000	$ 2,500,000
133	DPW	Complete Streets	Complete Streets Improvements - Beacon @ Chestnut	Upgrade traffic signal equipment, improve multimodal safety, accessibility and operations.	$ 1,400,000	28.5	Bonding/Free Cash	$ -	$ -	$ -	$ -	$ 150,000	$ 1,250,000	$ -
141	Schools	Complete Streets	Schools - Repave Parking Areas	Repave parking areas and sidewalks in poor condition at, Brown, Mason Rice, Oak Hill, Williams and Peirce.	$ 400,000	27.5	Bonding/Other Funds	$ -	$ -	$ -	$ -	$ -	$ -	$ -
147	DPW	Complete Streets	Complete Streets Improvements - Newton Centre	Upgrade traffic signal equipment, improve multimodal safety and operations, enhance streetscape, implement signal coordination.	$ 7,500,000	26.6	Bonding	$ -	$ -	$ -	$ -	$ -	$ -	$ -
180	DPW	Complete Streets	Complete Streets Improvements - Intersection at Walnut Street/Watertown Street and Walnut Street/Lowell Avenue	Replace traffic signal equipment, improve multimodal safety and operations, install ADA compliant ramps, implement traffic calming, reduce excess pavement area	$ 2,500,000	20.7	Bonding	$ -	$ -	$ -	$ -	$ -	$ -	$ 200,000
185	DPW	Complete Streets	Complete Streets Improvements - Intersection at Parker Street / Wheeler Road	Replace traffic signal equipment, improve multimodal safety and operations, install ADA compliant ramps, reduce excess pavement area	$ 1,750,000	20.1	Bonding	$ -	$ -	$ -	$ -	$ -	$ -	$ -
187	DPW	Complete Streets	Complete Streets Improvements - Intersection at Auburn Street/Grove Street/Central Street	Upgrade traffic signal equipment and make ADA improvements.	$ 850,000	19.8	Bonding	$ -	$ -	$ -	$ -	$ -	$ 100,000	$ 600,000
196	DPW	Complete Streets	Complete Streets Improvements - Intersection at Bridge Street/California Street	Complete Streets Improvements - Intersection at Bridge Street/California Street	$ 1,000,000	16.8	Bonding/Mitigation Fund	$ -	$ -	$ -	$ -	$ -	$ -	$ -
208	DPW	Complete Streets	Complete Streets Improvements - Wells Ave @ Nahanton	Upgrade traffic signal equipment, install ADA compliant ramps, improve multimodal safety, accessibility, and operations.	$ 4,000,000	11.8	Bonding/Other Funds	$ -	$ -	$ -	$ -	$ -	$ -	$ -
23	Public Safety	Emergency Comms	Radio System Infrastructure	Install continuous power, repeaters & receivers, and other radio system infrastructure improvements.	$ 1,244,365	61.1	Other Funds	$ 1,244,365	$ -	$ -	$ -	$ -	$ -	$ -
32	Clerk	Equipment	New Voting Equipment	Replace current equipment with new state-approved voting equipment.	$ 250,000	57.8	Free Cash	$ -	$ 250,000	$ -	$ -	$ -	$ -	$ -
205	IT	Hardware / Software	Police IT Storage Area Network	Replacement of outdated servers, consolidation of systems, organization of data by divisions with enhanced security and support	$ 150,000	12.4	Free Cash	$ -	$ -	$ -	$ -	$ -	$ -	$ -
28	Schools	HVAC/Boilers	Peirce Elementary - Heating System improvements	Heating system improvements, switch from oil system to all-electric system.	$ 865,000	59.1	Other Funds	$ -	$ 65,000	$ -	$ -	$ -	$ 800,000	$ -
61	Schools	HVAC/Boilers	Newton North Pool Air Handling Unit (AHU)	The unit is deteriorating and needs replacing and heating capability.	$ 425,000	46.8	Bonding	$ -	$ -	$ -	$ -	$ 425,000	$ -	$ -
83	Schools	HVAC/Boilers	Replace Boilers - Ward	Replace boilers at Ward Elementary School.	$ 250,000	38.7	Bonding	$ -	$ -	$ -	$ -	$ 250,000	$ -	$ -
105	Schools	HVAC/Boilers	Brown Middle School - Boiler Replacement and Mechanical System Improvements Phase I & II	Replace boilers and determine most energy efficient solution for mechanical system.	$ 1,500,000	34.4	Bonding/Green Communities/MSBA Eligible	$ -	$ -	$ -	$ -	$ -	$ -	$ 1,500,000

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Priority	Dept	Asset Category	Project Title	Project Description / Justification	Est Cost in FY2023	Priority Factor	Funding Source	Approved Funding	FY2023 to be Docketed/Approved	FY2024	FY2025	FY2026	FY2027	FY2028
108	Schools	HVAC/Boilers	Newton South High School - Mechanical Upgrades - Library	Replace air handlers, roof top equipment, electrification retrofit, and hydronic/ACCU system due to burner failures and outdated controls.	$ 300,000	34.2	Bonding	$ -	$ -	$ -	$ -	$ -	$ -	$ -
110	Schools	HVAC/Boilers	Memorial Spaulding School - Heating System improvements	Replace controls, air handlers. Replace 2nd boiler, hot water conversion, electrification retrofit, and Direct Digital Controls conversion.	$ 250,000	33.5	Bonding/MSBA Eligible	$ -	$ -	$ -	$ -	$ -	$ -	$ -
140	Schools	HVAC/Boilers	FA Day School - VAV Coil Work	Replace variable air volume (VAV) coil work.	$ 400,000	27.7	Bonding	$ -	$ -	$ -	$ -	$ -	$ 400,000	$ -
203	Schools	HVAC/Boilers	Oak Hill School - Mechanical Upgrades - Roof Top Units and Distribution System	Replace Roof top air handling units and distribution system to electrify the systems.	$ 250,000	13.5	Bonding	$ -	$ -	$ -	$ -	$ -	$ -	$ -
198	Schools	Infrastructure	EV Bus Infrastructure	Project to determine a location and create the infrastructure needed to support an EV bus fleet.	TBD	16.2	Bonding/State Grants/Other Funds	$ -	$ -	$ -	$ -	$ -	$ -	$ -
206	IT	Infrastructure	IT Infrastructure Refreshment Plan	Core switch replacement at Police, Fire, City Hall; Enhancement to our load balancing/FTD scheme; A real wireless solution, new in the box- first ever; SAN Enhancements	$ 200,000	12.3	Free Cash	$ -	$ -	$ -	$ -	$ -	$ -	$ -
21	DPW	Large Vehicle / Equipment	City-wide Municipal Vehicles and Equipment	Vehicle and Equipment Replacement Program for Construction and other city operations (not including public safety vehicles).	$ 30,000,000	61.5	Bonding/Other Funds/Free Cash	$ -	$ 2,000,000	$ 2,500,000	$ 2,500,000	$ 2,500,000	$ 2,500,000	$ 2,500,000
34	Fire Dept	Large Vehicle / Equipment	New pumper truck (Engine 7)	Replace 2007 pumper truck (Engine 7) that will soon be beyond the NFPA standard of 15 years.	$ 800,000	57.4	Free Cash	$ -	$ 800,000	$ -	$ -	$ -	$ -	$ -
76	Fire Dept	Large Vehicle / Equipment	Replace Emergency Response Van (ERU)	Purchase a new ERU van. It carries haz-mat equipment such as booms, speedi-dry, Level 3 haz-mat suits etc.	$ 350,000	42.1	Bonding/Free Cash	$ -	$ -	$ -	$ -	$ 350,000	$ -	$ -
86	Fire Dept	Large Vehicle / Equipment	Replace Fire Dept Aerial Ladder #3	Replace 2009 Ladder 3. Ladder 3 becomes a spare, replacing spare Ladder 4.	$ 1,450,000	38.3	Bonding	$ -	$ -	$ -	$ 1,450,000	$ -	$ -	$ -
112	Fire Dept	Large Vehicle / Equipment	Replace Fire Pumper Truck (Engine 4)	Engine 4 replacement (2010).	$ 800,000	32.8	Bonding	$ -	$ -	$ -	$ -	$ -	$ 800,000	$ -
184	Fire Dept	Large Vehicle / Equipment	Replace Fire Pumper Truck (Engine 10)	Engine 10 replacement (2012).	$ 800,000	20.3	Bonding	$ -	$ -	$ -	$ -	$ -	$ -	$ -
192	Fire Dept	Large Vehicle / Equipment	Replace Fire Dept Aerial Ladder #1	Ladder 1 (2013) replacement.	$ 1,450,000	18.4	Bonding	$ -	$ -	$ -	$ -	$ -	$ -	$ -
209	Fire Dept	Large Vehicle / Equipment	Apparatus Replacement Plan	Replacement of R1 vehicle (2016).	$ 1,200,000	10.5	Bonding	$ -	$ -	$ -	$ -	$ -	$ -	$ -
12	Parks & Rec	Parks / Open Space	Newton South Brandeis Field Lights	Installation of field lights at Newton South High School Brandeis Rd Field.	$ 700,000	65.2	ARPA	$ 700,000	$ -	$ -	$ -	$ -	$ -	$ -
13	Parks & Rec	Parks / Open Space	Newton North High School Field Lights	Installation of field lights at Newton North High School Stadium.	$ 700,000	65.2	ARPA /NNHS Boosters Club	$ 700,000	$ -	$ -	$ -	$ -	$ -	$ -
16	Parks & Rec	Parks / Open Space	Gath Memorial Pool Project	Replace Gath Pool with lap pool, community pool, and splash pad. Replace all mechanical systems, improve accessibility, improve bath house interior. Pool area will be bubble ready.	$ 6,060,000	63.5	CPA Eligible/ARPA	$ 486,500	$ 6,000,000	$ -	$ -	$ -	$ -	$ -
25	Parks & Rec	Parks / Open Space	Cabot Park Improvements	As part of the $49 million Cabot School Project debt exclusion this project update recreational amenities including basketball court, and accessible pathways from Norwood to Newtonville Ave.	$ 150,000	59.5	Cabot School Project	$ 150,000	$ -	$ -	$ -	$ -	$ -	$ -
26	Parks & Rec	Parks / Open Space	Horace Mann School Playground	Build new additional playground facilities.	$ 250,000	59.5	ARPA	$ 250,000	$ -	$ -	$ -	$ -	$ -	$ -
27	Parks & Rec	Parks / Open Space	Levingston Cove, Shoreline improvements at Crystal Lake	Renovation of entire lakefront park to include improvements to accessibility, drainage, erosion and water quality.	$ 2,005,500	59.1	CPA Eligible/ State Funds/ARPA	$ 2,005,500	$ -	$ -	$ -	$ -	$ -	$ -
35	Parks & Rec	Parks / Open Space	Marty Sender Path Phase 2 - Boardwalk and trail improvements	Install accessible, shared-use trail and boardwalk over flood-prone area.	$ 400,000	57.3	CPA Eligible/Other Funds/State Funds	$ -	$ 400,000	$ -	$ -	$ -	$ -	$ -
36	Parks & Rec	Parks / Open Space	Burr Elementary School Fields Development	Renovate natural grass area to maximize athletic field space and install irrigation. Install new accessible perimeter pathway.	TBD	57.0	CPA Eligible	$ -	TBD	$ -	$ -	$ -	$ -	$ -
42	Parks & Rec	Parks / Open Space	Engineering and Design of Athletic Field Improvements	Engineering and design work for projects on the 5 year athletic field improvements plan. Improvements to include accessibility enhancements, field reconfigurations, and upgrades to supporting athletic field amenities.	$ 420,000	53.9	CPA Eligible	$ 420,000	$ -	$ -	$ -	$ -	$ -	$ -
44	Parks & Rec	Parks / Open Space	Brown/ Oak Hill Middle Schools Fields Development	Renovate natural grass area to maximize athletic field space and increase accessibility.	TBD	53.2	CPA Eligible	$ -	TBD	$ -	$ -	$ -	$ -	$ -
45	Parks & Rec	Parks / Open Space	McGrath Park Fields Redesign and Development	Reconfigure athletic fields and courts, expand irrigation, install new accessible perimeter pathway.	TBD	53.1	CPA Eligible/CDBG Eligible	$ -	TBD	$ -	$ -	$ -	$ -	$ -

CIP by Asset Category FY2024-FY2028

								Total	Total	Total	Total	Total	Total	Total
								$ 152,702,634	$ 44,633,490	$ 127,527,773	$ 81,192,380	$104,925,500	$ 40,801,600	$ 23,628,000
Priority	Dept	Asset Category	Project Title	Project Description / Justification	Est Cost in FY2023	Priority Factor	Funding Source	Approved Funding	FY2023 to be Docketed/Approved	FY2024	FY2025	FY2026	FY2027	FY2028
52	Parks & Rec	Parks / Open Space	Russ Halloran Sports and Recreation Complex at Albemarle Master Plan	Develop a phased park-wide master plan. Replace 50-year-old sports lighting, reconfigure existing fields for improved and expanded play, and expand lighting to Murphy Field. Improve accessibility and drainage. Potential Synthetic Turf field to include football/soccer/lacrosse field along Crafts Street.	$ 5,270,000	48.9	CPA Eligible/Sport Group Contributions/Other Funds	$ -	$ 3,270,000	$ 2,000,000	$ -	$ -	$ -	$ -
60	Parks & Rec	Parks / Open Space	Create a new Park at 150 Jackson Road	Project to create meaningful open space, passive and active recreation elements for both the Lincoln-Eliot School and the community.	TBD	46.8	Bonding/Other Funds	$ -	$ -	$ -	$ -	$ -	$ -	$ -
62	Parks & Rec	Parks / Open Space	Upper Falls Splash Park	New splash park to be built by Northland development as part of larger project. To be owned and operated by Parks, Rec and Culture. Expected in late 2024.	$ 1,000,000	46.4	Other Funds	$ 1,000,000	$ -	$ -	$ -	$ -	$ -	$ -
67	Parks & Rec	Parks / Open Space	Newton South High School Synthetic Turf Field and Track Replacement	Replacement of synthetic turf and track at Brandeis Road and Stadium fields. Current field was installed in 2009.	$ 2,100,000	44.5	Free Cash	$ 67,000	$ 1,433,000	$ -	$ -	$ -	$ -	$ -
73	Parks & Rec	Parks / Open Space	Newton North High School Synthetic Turf Field and Track Replacement	Replacement of synthetic turf and track at Newton North High School. Current field was installed in 2010.	$ 1,100,000	43.3	Free Cash / Other Funds	$ 33,000	$ 667,000	$ -	$ -	$ -	$ -	$ -
77	Parks & Rec	Parks / Open Space	Crystal Lake Phase II Improvements ("Left Beach" and Park Area)	Stabilize "Left beach" and create a sustainable shoreline area for sunbathing, access into the water, and improved recreation, enhance connectivity and accessibility.	$ 1,500,000	41.5	CPA Eligible/ARPA/State Funds	$ 175,000	$ -	$ 1,325,000	$ -	$ -	$ -	$ -
78	Parks & Rec	Parks / Open Space	Accessible Playground Surfacing Improvements	Install accessible playground surface matting systems at playgrounds throughout the city	$ 2,000,000	40.9	Other Funds/State Funds/ARPA	$ 142,000	$ -	$ 100,000	$ 100,000	$ 100,000	$ 100,000	$ 100,000
82	Parks & Rec	Parks / Open Space	Pellegrini Field Sports Lights	Replace sports lighting and poles at Pellegrini.	$ 750,000	39.0	CPA Eligible/Other Funds	$ -	$ -	$ -	$ -	$ -	$ -	$ -
87	Parks & Rec	Parks / Open Space	Crescent Street Project - Rehab and expand Ford Park	Rehabilitation and expansion of Ford Playground to include improvements to stormwater , accessibility, and overall park experience.	$ 1,600,000	37.9	CPA Eligible	$ 156,000	$ -	$ -	$ 1,444,000	$ -	$ -	$ -
89	Parks & Rec	Parks / Open Space	Newton Centre Performing Arts Pavilion	Install outdoor permanent performance pavilion and stage at Newton Centre Playground including electricity, lighting, accessible seating area, stage access, and restroom plan.	$ 2,000,000	37.6	ARPA/Other Funds	$ 50,000	$ -	$ -	$ -	$ 1,950,000	$ -	$ -
102	Parks & Rec	Parks / Open Space	Tennis Courts - Replace Burr Park Tennis Courts	Redesign & construct existing tennis courts at Burr Park (Waverley Park). Work includes repair and replacement of existing retaining walls.	$ 1,100,000	35.2	Bonding	$ -	$ -	$ -	$ -	$ 1,100,000	$ -	$ -
117	Parks & Rec	Parks / Open Space	Old Cold Spring Field	Renovation of existing field space to include regrading, drainage, irrigation and accessibility improvements.	$ 350,000	31.2	Bonding/CPA Eligible	$ -	$ -	$ -	$ -	$ -	$ -	$ -
121	Parks & Rec	Parks / Open Space	Riverside Greenway - Pigeon Hill Trail Improvements	Restoration of former connectivity walking trail that was severed during Mass Pike construction.	$ 550,000	30.9	CPA Eligible/State Funds	$ 212,000	$ -	$ -	$ -	$ -	$ -	$ -
131	Parks & Rec	Parks / Open Space	Lyons Field Drainage Improvements	Renovation of the natural grass field to improve drainage.	TBD	28.9	Stormwater/Other Funds	$ -	$ -	$ -	$ -	$ -	$ -	$ -
138	Parks & Rec	Parks / Open Space	Forte Park Field Improvements	Renovate natural grass area to maximize athletic field space for softball field, soccer/lacrosse. Improvements include relighting and improved accessibility.	$ 2,000,000	27.9	Bonding/CPA Eligible/ Developer Mitigation	$ 200,000	$ -	$ -	$ -	$ -	$ -	$ -
154	Parks & Rec	Parks / Open Space	Braceland Park - Update Master Plan for Park Renovation	Park renovation based on previous master plan and any required adjustments to the plan. Construction to include new athletic fields, play structures, basketball court and other improvements including accessibility.	$ 2,000,000	25.2	Bonding/CPA Eligible	$ -	$ -	$ -	$ -	$ -	$ -	$ -
177	Parks & Rec	Parks / Open Space	Chaffin Park Wall	Replacement of existing wall along perimeter of Chaffin Park (Vernon and Centre Streets).	$ 200,000	21.0	CPA Eligible	$ -	$ -	$ -	$ -	$ -	$ -	$ -
191	Jackson Homestead	Parks / Open Space	Restoration of Historic East Burying Grounds	Tree work. Tomb restoration, gravestone repair, and other restoration. Repair stone gate posts. Install educational signage.	$ 85,000	18.4	CPA Eligible	$ -	$ -	$ -	$ -	$ -	$ -	$ -
207	Parks & Rec	Parks / Open Space	Nahanton Park - Nature Center Accessibility	Renovation of two existing parking areas and upgrades to pedestrian connection to Nature Center - Canoe and Kayak Rental Building.	$ 150,000	12.2	Bonding/CPA Eligible	$ -	$ -	$ -	$ -	$ -	$ -	$ -
213	Historic Newton	Parks / Open Space	Restoration of Historic West Burying Grounds	Preservation of gravestones. Repair stone wall boundary. Install educational signage.	$ 75,000	9.6	CPA Eligible/Other Funds	$ -	$ -	$ -	$ -	$ -	$ -	$ -
214	Historic Newton	Parks / Open Space	Restoration of Historic South Burying Grounds	Preservation of gravestones. Tree work. Repair stone wall boundary. Install educational signage.	$ 75,000	9.6	CPA Eligible/Other Funds	$ -	$ -	$ -	$ -	$ -	$ -	$ -
65	Schools	Roof	Bigelow School - Roof Replacement	Replace entire building roof system, enabling solar pv installation.	$ 1,500,000	45.3	Bonding/MSBA Eligible	$ -	$ -	$ -	$ -	$ 1,500,000	$ -	$ -
66	Schools	Roof	Lincoln-Eliot - Roof Replacement	Replace the 1973 portion of roof that is beyond its useful life, enabling solar pv installation.	$ 210,000	45.0	Bonding	$ -	$ -	$ -	$ -	$ 210,000	$ -	$ -
72	Schools	Roof	Underwood School - Roof Replacement	Replace deteriorating built up gymnasium roof that is beyond its useful life. Will enable solar pv installation.	$ 300,000	43.4	Bonding	$ -	$ -	$ -	$ -	$ 300,000	$ -	$ -

CIP by Asset Category FY2024-FY2028

								Total	Total	Total	Total	Total	Total	Total
								$ 152,702,634	$ 44,633,490	$ 127,527,773	$ 81,192,380	$104,925,500	$ 40,801,600	$ 23,628,000
Priority	Dept	Asset Category	Project Title	Project Description / Justification	Est Cost in FY2023	Priority Factor	Funding Source	Approved Funding	FY2023 to be Docketed/Approved	FY2024	FY2025	FY2026	FY2027	FY2028
80	Schools	Roof	Mason Rice School - Replace Roof	Replace the 1990's Sarnifil roofing system on the main portion of the building. Will enable solar pv installation. Potential application to MSBA.	$ 938,600	39.3	Bonding/MSBA Eligible	$ -	$ -	$ -	$ -	$ -	$ 938,600	$ -
116	Schools	Roof	Bowen School - Roof Replacement	Replace 1950's portion of the building's roofing system as it has reached its life expectancy. Will enable solar pv installation.	$ 450,000	31.5	Bonding/MSBA Eligible	$ -	$ -	$ -	$ -	$ -	$ -	$ -
158	Schools	Roof	Burr School - Replace Roof	Replace the total building roofing system installed in 1999.	$ 995,000	24.6	Bonding	$ -	$ -	$ -	$ -	$ -	$ -	$ -
2	DPW/ Sewer	Sewer	Sewer Inflow /Infiltration Project - Area 7 - Upper Falls, Highlands, Thompsonville	Part of 10 Phase program to remove excess inflow and infiltration into sewer system.	$ 7,919,115	73.0	MWRA Grant/Loan	$ 7,919,115	$ -	$ -	$ -	$ -	$ -	$ -
3	DPW/ Sewer	Sewer	Sewer Inflow/ Infiltration Project - Area 8 - Upper Falls, Highlands, Thompsonville & Oak Hill	Part of 10 Phase program to remove excess inflow and infiltration into sewer system.	$ 7,453,196	70.2	MWRA Grant/Loan/Sewer Funds	$ 7,453,196	$ -	$ -	$ -	$ -	$ -	$ -
18	DPW/ Sewer	Sewer	Sewer Inflow/Infiltration Project - Area 9 - Waban, Upper Falls & Oak Hill	Part of 10 Phase program to remove excess inflow and infiltration into sewer system.	$ 4,200,000	62.4	Sewer Funds	$ 1,095,023	$ -	$ 3,104,977	$ -	$ -	$ -	$ -
19	DPW/ Sewer	Sewer	Sewer Inflow/Infiltration Project - Area 9 Phase 2 - Waban, Upper Falls & Oak Hill	Part of 10 Phase program to remove excess inflow and infiltration into sewer system and includes post-flow.	$ 5,000,000	62.4	Sewer Funds	$ -	$ -	$ -	$ 5,000,000	$ -	$ -	$ -
29	DPW/ Sewer	Sewer	Pump Station Upgrades	Design and construct Sewer Pump Stations upgrades as part of 10-phase program.	$ 23,000,000	58.8	Sewer Funds	$ 447,000	$ 4,263,490	$ 1,200,000	$ 1,500,000	$ 1,500,000	$ 2,000,000	$ 2,000,000
70	DPW/ Sewer	Sewer	Sewer Inflow/Infiltration Project - Area 10 - Waban, Newton Highlands, Newton Centre, & Newton Corner	Part of 10-phase program to remove excess inflow and infiltration into sewer system. Ward St from Waverley Ave to Centre St.	$ 4,888,308	44.0	Sewer Funds	$ 813,308	$ -	$ 300,000	$ -	$ 3,775,000	$ -	$ -
79	DPW/ Sewer	Sewer	Sewer Inflow/Infiltration Project - Area 11 - Chestnut Hill, Newton Corner, Oak Hill, & Thompsonville	Part of 10 Phase program to remove excess inflow and infiltration into sewer system. Will be in Phase 10 of City-Wide Sewer Initiative.	$ 4,000,000	39.6	Sewer Funds	$ 774,000	$ -	$ -	$ -	$ -	$ 1,613,000	$ 1,613,000
123	DPW/ Sewer	Sewer	Sewer Inflow/Infiltration- Cheesecake and Laundry Brook Drainage	Investigation, Design & Construction of sewer laterals & manholes along interceptor sewers within Cheesecake and Laundry Brook Drainage Basins.	$ 2,000,000	30.3	Sewer Funds	$ -	$ -	$ -	$ -	$ -	$ 2,000,000	$ -
31	IT	Software	New Municipal Information and Permitting System (NewGov)	Implement a first-ever Newton Municipal Information and Permitting System.	$ 1,137,285	58.0	Free Cash	$ 1,137,285	$ -	$ -	$ -	$ -	$ -	$ -
14	DPW/ Storm	Storm	Bullough's Pond Dam	Complete State-Required repair work for dam safety.	$ 3,000,000	65.0	Stormwater	$ 618,620	$ -	$ -	$ 2,381,380	$ -	$ -	$ -
17	DPW/ Storm	Storm	Phase 1 Phosphorus Control Plan (PCP)	Development of City's PCP required by US EPA under the MS4 general permit	$ 953,000	62.8	Stormwater	$ 300,000	$ 395,000	$ -	$ 258,000	$ -	$ -	$ -
40	DPW/ Storm	Storm	City Hall Ponds	Removal of accumulated sediment from three ponds adjacent to City Hall.	$ 1,040,000	55.1	Stormwater Funds	$ 650,000	$ 390,000	$ -	$ -	$ -	$ -	$ -
48	DPW/ Storm	Storm	Elliot & Crafts Street DPW Operations Yard	Modifications to existing storm water infrastructure to meet NPDES MS4 General Permits BMP's.	$ 1,000,000	51.8	Stormwater	$ -	$ 200,000	$ 200,000	$ 200,000	$ 200,000	$ 200,000	$ -
51	DPW/ Storm	Storm	Edmands Brook Drainage Basin	Design for flood mitigation and the reduction of Phosphorus for the NPDES MS4 Permit.	$ 1,404,000	49.5	Stormwater/Other Funds	$ 104,000	$ 400,000	$ -	$ 900,000	$ -	$ -	$ -
56	DPW/ Storm	Storm	South Meadow Brook Culvert under Needham Street	Phase 1 - Inspection & assessment of Box Culvert. Phase 2 - Design & Rehabilitation of Box Culvert.	$ 3,205,000	48.2	Stormwater	$ 280,000	$ -	$ -	$ -	$ 500,000	$ 2,425,000	$ -
74	DPW/ Storm	Storm	Union Street Drainage	The extension of storm drains on Union Street to alleviate flooding and icing issues in the area of Herrick Road.	$ 850,000	43.0	Stormwater	$ -	$ 100,000	$ 750,000	$ -	$ -	$ -	$ -
84	DPW/ Storm	Storm	Evaluation, design and construction of Cheesecake Brook- Commonwealth Av. to the rear of 1600 Washington Street	Replace culvert headwall, remove remaining fieldstone channel walls to restore natural brook channel and provide buffer for nutrient removal (water quality).	$ 900,000	38.5	Stormwater	$ -	$ -	$ -	$ 200,000	$ 700,000	$ -	$ -
85	DPW/ Storm	Storm	Cheesecake Brook -1660 Washington St. to Watertown St.	Inspection & Assessment, Design and Rehabilitation of +/-6000 LF of Box Culvert.	$ 900,000	38.5	Stormwater	$ -	$ -	$ -	$ -	$ 200,000	$ 700,000	$ -
91	DPW/ Storm	Storm	Cheesecake Brook-Watertown St. to Charles River	Inspection & Assessment, Design and Rehabilitation of Fieldstone Channel walls and floor.	$ 1,450,000	36.7	Stormwater	$ -	$ -	$ -	$ -	$ 150,000	$ -	$ 1,300,000
115	DPW/ Storm	Storm	Cheesecake Brook Roadway Culvert Crossings	Design & Construction of culvert improvements at Parsons, Cross and Eddy Street.	$ 750,000	32.0	Stormwater	$ -	$ -	$ -	$ -	$ -	$ -	$ 150,000
119	DPW/ Storm	Storm	Reduce Impervious Area	Reduce Impervious Area to 5 Municipal Properties per NPDES MS4 Requirements.	$ 650,000	31.0	Stormwater	$ -	$ -	$ -	$ -	$ -	$ 325,000	$ 325,000
120	DPW/ Storm	Storm	Laundry Brook Culvert-Parkview to Mass Pike	Rehabilitation +/-1000 LF Box Culvert based on FY 18 evaluation.	$ 650,000	30.9	Stormwater	$ -	$ -	$ -	$ -	$ -	$ 650,000	$ -
126	DPW/ Storm	Storm	Laundry Brook Culvert-Hull street to Bridges Avenue	Design and construction of culvert rehabilitation from Hull St to Bridges Ave.	$ 750,000	30.1	Stormwater	$ -	$ -	$ -	$ -	$ 750,000	$ -	$ -

CIP by Asset Category FY2024-FY2028

								Total	Total	Total	Total	Total	Total	Total
								$ 152,702,634	$ 44,633,490	$ 127,527,773	$ 81,192,380	$104,925,500	$ 40,801,600	$ 23,628,000
Priority	Dept	Asset Category	Project Title	Project Description / Justification	Est Cost in FY2023	Priority Factor	Funding Source	Approved Funding	FY2023 to be Docketed/Approved	FY2024	FY2025	FY2026	FY2027	FY2028
200	DPW/ Storm	Storm	Pellegrini Park Drain Replacement	Storm drain between Jenison and Hawthorne needs to be replaced due to structural failure, causing flooding at Jenison @ Judkins.	$ 200,000	16.1	Stormwater	$ -	$ -	$ -	$ -	$ -	$ -	$ 40,000
212	DPW/ Storm	Storm	Hammond Brook-Glen Ave. to Centre St.	Cleaning, Inspection, Structural Evaluation, Design, Rehabilitation and Construction of Hammond Brook Culvert.	$ 600,000	9.7	Stormwater	$ -	$ -	$ -	$ -	$ -	$ -	$ -
4	DPW/ Water	Water	Commercial & Residential Water Meter Replacement Project	Removal & Replacement of 125 commercial electromagnetic water meters sized 2"-8" diameter, +/-26,000 residential meters sized 5/8"-1 1/2", installation of new AMI system with customer portal.	$ 16,625,000	70.1	Water / Sewer Funds	$ 16,625,000	$ -	$ -	$ -	$ -	$ -	$ -
5	DPW/ Water	Water	Waban Hill Covered Reservoir	Rehabilitation of pipes, valves, all appurtenances and roof replacement. Includes cleaning, inspection, design, and construction services.	$ 1,485,000	68.6	Water Funds	$ 1,185,000	$ 300,000	$ -	$ -	$ -	$ -	$ -
11	DPW/ Water	Water	Revised Lead and Copper Rule	EPA requires a complete system wide lead inventory to be submitted by 10/16/2024. This inventory will be used in determining future lead reduction efforts.	$ 150,000	65.2	Water Funds	$ -	$ 150,000	$ -	$ -	$ -	$ -	$ -
15	DPW/ Water	Water	Replace Water Pipelines - Phase 8	Cleaning and lining of water pipes to improve water quality, reduce water leakage and ensure pipe integrity and capacity. Precedes scheduled roadway paving. Project is currently Phase 8 of 20-phase program. Ward Street Phase I (Manet Rd to Waverley Ave).	$ 4,263,490	63.6	MWRA Loan/Water Funds	$ 4,263,490	$ -	$ -	$ -	$ -	$ -	$ -
49	DPW/ Water	Water	Replace Water Pipelines - Phase 9	Cleaning and lining of water pipes to improve water quality, reduce water leakage and ensure pipe integrity and capacity. Precedes scheduled Needham Street roadway paving.	$ 7,236,730	51.3	Water Funds	$ 7,236,730	$ -	$ -	$ -	$ -	$ -	$ -
50	DPW/ Water	Water	Replace Water Pipelines - Phase 10	Cleaning and lining of water pipes to improve water quality, reduce water leakage and ensure pipe integrity and capacity. Precedes scheduled roadway paving. Project will be in Phase 10 of 20-phase program.	$ 4,750,000	51.3	MWRA Loan/Water Funds	$ -	$ 4,750,000	$ -	$ -	$ -	$ -	$ -
68	DPW/ Water	Water	Replace Water Pipelines - Phase 11	Cleaning and lining of water pipes to improve water quality, reduce water leakage and ensure pipe integrity and capacity. Precedes scheduled roadway paving. Project will be in Phase 11 of 20-phase program.	$ 4,750,000	44.0	MWRA Loan/Water Funds	$ -	$ -	$ 4,750,000	$ -	$ -	$ -	$ -
69	DPW/ Water	Water	Replace Water Pipelines - Phase 12	Cleaning and lining of water pipes to improve water quality, reduce water leakage and ensure pipe integrity and capacity. Precedes scheduled roadway paving.	$ 4,750,000	44.0	MWRA Loan/Water Funds	$ -	$ -	$ -	$ 4,750,000	$ -	$ -	$ -
92	DPW/ Water	Water	Replace Water Pipelines - Phase 13	Cleaning and lining of water pipes to improve water quality, reduce water leakage and ensure pipe integrity and capacity. Precedes scheduled roadway paving. Project will be in Phase 13 of 20-phase program.	$ 4,750,000	36.7	MWRA Loan/Water Funds	$ -	$ -	$ -	$ -	$ 4,750,000	$ -	$ -
93	DPW/ Water	Water	Replace Water Pipelines - Phase 14	Cleaning and lining of water pipes to improve water quality, reduce water leakage and ensure pipe integrity and capacity. Precedes scheduled roadway paving. Project will be in Phase 14 of 20-phase program.	$ 4,750,000	36.7	MWRA Loan/Water Funds	$ -	$ -	$ -	$ -	$ -	$ 4,750,000	$ -
				Total Need:	$ 861,339,962			$ 152,702,634	$ 44,633,490	$ 127,527,773	$ 81,192,380	$104,925,500	$ 40,801,600	$ 23,628,000

CIP by Funding Source FY2024-FY2028

								Total	Total	Total	Total	Total	Total	Total
								$ 152,702,634	$ 44,633,490	$ 127,527,773	$ 81,192,380	$104,925,500	$ 40,801,600	$ 23,628,000
Priority	Dept	Asset Category	Project Title	Project Description / Justification	Est Cost in FY2023	Priority Factor	Funding Source	Approved Funding	FY2023 to be Docketed/Approved	FY2024	FY2025	FY2026	FY2027	FY2028
37	Schools	Building	Countryside School- Renovation/Addition	Feasibility Study/Design and Construction.	$ 61,000,000	56.2	Alternate Funding /MSBA Eligible/ARPA	$ 1,250,000	$ 2,000,000	$ 57,750,000	$ -	$ -	$ -	$ -
38	Schools	Building	Franklin School - Renovation/Addition	Feasibility Study/Design and Construction.	$ 61,000,000	56.2	Alternate Funding /Other Funds/ARPA	$ 200,000	$ 50,000	$ 500,000	$ 2,500,000	$ 57,750,000	$ -	$ -
64	Schools	Building	Horace Mann School Addition and Improvement	Horace Mann School Facilities upgrades.	$ 23,000,000	45.6	Alternate Funding /Other Funds/ARPA	$ 100,000	$ 200,000	$ 2,150,000	$ 6,000,000	$ 6,550,000	$ -	$ -
26	Parks & Rec	Parks / Open Space	Horace Mann School Playground	Build new additional playground facilities.	$ 250,000	59.5	ARPA	$ 250,000	$ -	$ -	$ -	$ -	$ -	$ -
12	Parks & Rec	Parks / Open Space	Newton South Brandeis Field Lights	Installation of field lights at Newton South High School Brandeis Rd Field.	$ 700,000	65.2	ARPA	$ 700,000	$ -	$ -	$ -	$ -	$ -	$ -
55	Fire Dept	Building	Fire Station # 2 Projects	Windows, HVAC - Heat Pumps, Sprinklers & Interior Upgrades.	$ 1,067,000	48.6	ARPA / Free Cash	$ 300,000	$ -	$ -	$ -	$ 767,000	$ -	$ -
75	Fire Dept	Building	Fire Station # 1 Projects	Sprinklers, HVAC & Interior Upgrades.	$ 450,000	42.1	ARPA / Free Cash	$ 200,000	$ -	$ -	$ -	$ 250,000	$ -	$ -
13	Parks & Rec	Parks / Open Space	Newton North High School Field Lights	Installation of field lights at Newton North High School Stadium.	$ 700,000	65.2	ARPA /NNHS Boosters Club	$ 700,000	$ -	$ -	$ -	$ -	$ -	$ -
58	Planning	Complete Streets	Design and Implement Washington Street Pilot	Design for Washington St. pilot to improve safety and pedestrian accommodations, Improve traffic flow, ADA compliance.	$ 3,500,000	47.2	ARPA/Other Funds	$ 3,500,000	$ -	$ -	$ -	$ -	$ -	$ -
89	Parks & Rec	Parks / Open Space	Newton Centre Performing Arts Pavilion	Install outdoor permanent performance pavilion and stage at Newton Centre Playground including electricity, lighting, accessible seating area, stage access, and restroom plan.	$ 2,000,000	37.6	ARPA/Other Funds	$ 50,000	$ -	$ -	$ -	$ 1,950,000	$ -	$ -
7	Schools	Building	Newton Early Childhood Program	Address long term facility needs of the NECP at 687 Watertown Street.	$ 13,000,000	66.7	Bonding	$ 13,000,000	$ -	$ -	$ -	$ -	$ -	$ -
61	Schools	HVAC/Boilers	Newton North Pool Air Handling Unit (AHU)	The unit is deteriorating and needs replacing and heating capability.	$ 425,000	46.8	Bonding	$ -	$ -	$ -	$ -	$ 425,000	$ -	$ -
66	Schools	Roof	Lincoln-Eliot - Roof Replacement	Replace the 1973 portion of roof that is beyond its useful life, enabling solar pv installation.	$ 210,000	45.0	Bonding	$ -	$ -	$ -	$ -	$ 210,000	$ -	$ -
72	Schools	Roof	Underwood School - Roof Replacement	Replace deteriorating built up gymnasium roof that is beyond its useful life. Will enable solar pv installation.	$ 300,000	43.4	Bonding	$ -	$ -	$ -	$ -	$ 300,000	$ -	$ -
83	Schools	HVAC/Boilers	Replace Boilers - Ward	Replace boilers at Ward Elementary School.	$ 250,000	38.7	Bonding	$ -	$ -	$ -	$ -	$ 250,000	$ -	$ -
86	Fire Dept	Large Vehicle / Equipment	Replace Fire Dept Aerial Ladder #3	Replace 2009 Ladder 3. Ladder 3 becomes a spare, replacing spare Ladder 4.	$ 1,450,000	38.3	Bonding	$ -	$ -	$ -	$ 1,450,000	$ -	$ -	$ -
88	Library	Building	Library Roof Membrane	Replace 8,000 sf of ballasted rubber membrane roof installed ca1990. Will enable solar pv installation.	$ 285,000	37.7	Bonding	$ -	$ -	$ -	$ -	$ 285,000	$ -	$ -
97	Parks & Rec	Building	Jeanette Curtis West Rec Ctr (The Hut)	Address facility needs for multiple programs.	$ 2,500,000	36.0	Bonding	$ -	$ -	$ -	$ -	$ -	$ -	$ -
98	DPW	Complete Streets	Complete Streets Improvements - Cherry @ Webster, Cherry @ Derby	Upgrade traffic signal equipment, improve multimodal safety and operations at these two intersections.	$ 1,400,000	36.0	Bonding	$ -	$ -	$ -	$ -	$ 150,000	$ 1,250,000	$ -
100	DPW	Complete Streets	Complete Streets Improvements - Commonwealth Ave. @ Chestnut Street	Update outdated traffic signal equipment and bring curb, ramps and surrounding sidewalks into ADA compliance.	$ 1,400,000	35.5	Bonding	$ -	$ -	$ -	$ -	$ 150,000	$ 1,250,000	$ -
102	Parks & Rec	Parks / Open Space	Tennis Courts - Replace Burr Park Tennis Courts	Redesign & construct existing tennis courts at Burr Park (Waverley Park). Work includes repair and replacement of existing retaining walls.	$ 1,100,000	35.2	Bonding	$ -	$ -	$ -	$ -	$ 1,100,000	$ -	$ -
104	Schools	Building	Ed Center - Mechanical Upgrades	Replace boiler, second boiler and hot water conversion in out years. Boilers are over 35 years old.	$ 450,000	34.4	Bonding	$ -	$ -	$ -	$ -	$ -	$ -	$ 450,000
106	Schools	Building	Williams School - Accessibility Upgrades	Upgrade door hardware, openings, toilet rooms, railings, and signage for accessibility.	$ 500,000	34.3	Bonding	$ -	$ -	$ -	$ -	$ -	$ -	$ -
107	Schools	Building	Memorial Spaulding School - Accessibility Upgrades	Upgrade toilet rooms, door hardware, water fountains, and signage for accessibility.	$ 500,000	34.3	Bonding	$ -	$ -	$ -	$ -	$ -	$ -	$ -
108	Schools	HVAC/Boilers	Newton South High School - Mechanical Upgrades - Library	Replace air handlers, roof top equipment, electrification retrofit, and hydronic/ACCU system due to burner failures and outdated controls.	$ 300,000	34.2	Bonding	$ -	$ -	$ -	$ -	$ -	$ -	$ -
109	Police	Building	Police Annex - Emergency Generator	Replace generator with emergency battery back-up system, and install energy electrical distribution throughout the building. Update system for ADA compliance. Upgrade exterior lighting & occupancy sensors.	$ 200,000	33.9	Bonding	$ -	$ -	$ -	$ -	$ -	$ -	$ -
111	Fire Dept	Building	Fire Station #2, West Newton - Renovation	Fire Station work includes mechanical, electrical, plumbing, code compliance and accessibility upgrades.	$ 25,000,000	33.5	Bonding	$ -	$ -	$ -	$ -	$ -	$ -	$ -
112	Fire Dept	Large Vehicle / Equipment	Replace Fire Pumper Truck (Engine 4)	Engine 4 replacement (2010).	$ 800,000	32.8	Bonding	$ -	$ -	$ -	$ -	$ -	$ 800,000	$ -
114	Parks & Rec	Building	Kennard Estates Site Improvements	Install utilities, pave parking lot.	$ 425,000	32.0	Bonding	$ -	$ -	$ -	$ -	$ -	$ -	$ -

CIP by Funding Source FY2024-FY2028

								Total	Total	Total	Total	Total	Total	Total
								$ 152,702,634	$ 44,633,490	$ 127,527,773	$ 81,192,380	$104,925,500	$ 40,801,600	$ 23,628,000
Priority	Dept	Asset Category	Project Title	Project Description / Justification	Est Cost in FY2023	Priority Factor	Funding Source	Approved Funding	FY2023 to be Docketed/Approved	FY2024	FY2025	FY2026	FY2027	FY2028
122	Public Buildings	Building	Elliot Street Sand Salt Shed - Replacement	Replace salt shed.	$ 500,000	30.5	Bonding	$ -	$ -	$ -	$ -	$ -	$ -	$ -
124	Fire Dept	Building	Fire Station #1 (Newton Corner) - Renovation	Fire Station work includes mechanical, electrical, plumbing, code compliance and accessibility upgrades.	$ 15,000,000	30.2	Bonding	$ -	$ -	$ -	$ -	$ -	$ -	$ -
125	Parks & Rec	Building	Auburndale Cove Fieldhouse - Building Upgrades	Project to fully upgrade existing building or replace with new structure.	$ 1,000,000	30.1	Bonding	$ -	$ -	$ -	$ -	$ -	$ -	$ -
127	Schools	Building	Ed Center Elevator & Accessibility Upgrades	Upgrade elevator, restrooms, door hardware, and signage for accessibility.	$ 1,500,000	29.9	Bonding	$ -	$ -	$ -	$ -	$ -	$ -	$ -
132	Schools	Building	Peirce School - Accessibility Upgrades	Upgrades to door hardware, toilet rooms, railings, and signage for accessibility.	$ 300,000	28.5	Bonding	$ -	$ -	$ -	$ -	$ -	$ -	$ -
135	Schools	Building	Bowen School - Mechanical Upgrades	Replace interior air handlers in first year. Direct Digital Controls conversion.	$ 500,000	28.1	Bonding	$ -	$ -	$ -	$ -	$ -	$ -	$ -
136	Schools	Building	Bigelow School - Accessibility Upgrades	Upgrade toilet rooms, elevator, door hardware and signage for accessibility.	$ 1,000,000	28.0	Bonding	$ -	$ -	$ -	$ -	$ -	$ -	$ -
140	Schools	HVAC/Boilers	FA Day School - VAV Coil Work	Replace variable air volume (VAV) coil work.	$ 400,000	27.7	Bonding	$ -	$ -	$ -	$ -	$ -	$ 400,000	$ -
143	Schools	Building	Brown School - Accessibility Upgrades	Upgrade existing elevator for code compliance, signage, hardware, and reconfigure locker rooms for accessibility.	$ 750,000	27.2	Bonding	$ -	$ -	$ -	$ -	$ -	$ -	$ -
144	Schools	Building	Mason Rice School - Accessibility Upgrades	Upgrade hardware, toilet rooms, and water fountains for accessibility.	$ 500,000	27.0	Bonding	$ -	$ -	$ -	$ -	$ -	$ -	$ -
145	Schools	Building	Mason-Rice School - Mid-Range Renovation/Addition	Feasibility Study/Design and construction, including electrification.	$ 15,000,000	26.9	Bonding	$ -	$ -	$ -	$ -	$ -	$ -	$ -
146	Schools	Building	FA Day School - Accessibility Upgrades / Replace Elevator	Upgrades for ADA Compliant elevator, toilet rooms, door hardware, and signage.	$ 750,000	26.7	Bonding	$ -	$ -	$ -	$ -	$ -	$ -	$ -
147	DPW	Complete Streets	Complete Streets Improvements - Newton Centre	Upgrade traffic signal equipment, improve multimodal safety and operations, enhance streetscape, implement signal coordination.	$ 7,500,000	26.6	Bonding	$ -	$ -	$ -	$ -	$ -	$ -	$ -
148	Schools	Building	Mason Rice School - Mechanical Upgrades	Direct Digital Controls conversion and upgrade heating distribution system.	$ 1,000,000	26.5	Bonding	$ -	$ -	$ -	$ -	$ -	$ -	$ -
149	Schools	Building	Peirce/Williams Feasibility/Addition	Feasibility Study/Design and Construction, including electrification of Williams, to add capacity.	$ 30,000,000	26.3	Bonding	$ -	$ -	$ -	$ -	$ -	$ -	$ -
150	Schools	Building	Peirce School - Plumbing Upgrades	Upgrades to toilet rooms and water fountains.	$ 500,000	26.3	Bonding	$ -	$ -	$ -	$ -	$ -	$ -	$ -
152	Library	Building	Library - Phase 3: Interior Renovations	Create more first floor public space by relocating staff offices to 3rd floor; replace 1991 carpet, repaint, replace worn furnishings.	$ 5,000,000	25.6	Bonding	$ -	$ -	$ -	$ -	$ -	$ -	$ 100,000
153	Parks & Rec	Building	Emerson Community Center - Accessibility Upgrades	Upgrade toilet rooms, install accessible door hardware and drinking fountains; Resurface main entrance ramp and install handrails.	$ 250,000	25.2	Bonding	$ -	$ -	$ -	$ -	$ -	$ -	$ -
155	Schools	Building	Bowen School - Accessibility Upgrades	Upgrades to toilet rooms, signage, hardware, railings and assembly spaces for accessibility.	$ 500,000	25.2	Bonding	$ -	$ -	$ -	$ -	$ -	$ -	$ -
158	Schools	Roof	Burr School - Replace Roof	Replace the total building roofing system installed in 1999.	$ 995,000	24.6	Bonding	$ -	$ -	$ -	$ -	$ -	$ -	$ -
160	Public Buildings	Building	Crafts Street Garage - Accessibility Upgrades	Install accessible ramp at entrance. Provide accessible toilet rooms. Resurface and re-grade pavement to comply with ADA requirements; Provide accessible parking space.	$ 194,000	24.5	Bonding	$ -	$ -	$ -	$ -	$ -	$ -	$ -
162	Police	Building	Police Annex - Mechanical Upgrades	Install VRF heating and cooling to replace the aging boiler.	$ 200,000	23.9	Bonding	$ -	$ -	$ -	$ -	$ -	$ -	$ -
167	Parks & Rec	Building	Emerson Community Center - Electrical Upgrades	Replace switchboard and increase service size to meet electrical demands. Replace original overloaded electrical panels. Install emergency audiovisual horn strobes.	$ 150,000	22.9	Bonding	$ -	$ -	$ -	$ -	$ -	$ -	$ -
168	Parks & Rec	Building	Feasibility Study for New Indoor Swimming Pool	A feasibility study to research issues and options for creation of a second City indoor swimming pool.	$ 200,000	22.5	Bonding	$ -	$ -	$ -	$ -	$ -	$ -	$ -
172	Public Buildings	Building	Crafts Street Garage - Mechanical Upgrades	Complete roof top unit work begun in stimulus project. Replace fans, duct work, unit heaters.	$ 400,000	21.7	Bonding	$ -	$ -	$ -	$ -	$ -	$ -	$ -
173	Police	Building	New Police Headquarters Facility Project	Design and Construction of a new Police Headquarters Facility	TBD	21.4	Bonding	$ -	$ -	$ -	$ -	$ -	$ -	$ -
174	Public Buildings	Building	City Hall - Electrical Upgrades	Replace emergency generator and electrical upgrades.	$ 225,000	21.3	Bonding	$ -	$ -	$ -	$ -	$ -	$ -	$ -

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Priority	Dept	Asset Category	Project Title	Project Description / Justification	Est Cost in FY2023	Priority Factor	Funding Source	Approved Funding	FY2023 to be Docketed/Approved	FY2024	FY2025	FY2026	FY2027	FY2028
175	DPW	Bridge	Concord St Bridge over Charles River	Repair bridge in collaborative effort with the Town of Weston.	$ 1,000,000	21.3	Bonding	$ -	$ -	$ -	$ -	$ -	$ -	$ -
176	Public Buildings	Building	DPW/Parks & Recreation Facility Project	Project to address facility needs of P&R and DPW.	$ 400,000	21.0	Bonding	$ -	$ -	$ -	$ -	$ -	$ -	$ -
178	Parks & Rec	Building	Pellegrini Park Field House - Electrical Upgrades	Upgrade lighting and power distribution for energy efficiency. Provide protective cages over gym fixtures. Replace electric panels.	$ 176,000	20.8	Bonding	$ -	$ -	$ -	$ -	$ -	$ -	$ -
179	Public Buildings	Building	Elliot St. Operations Building - Building Envelope	Repair foundation walls and rebuild ramp foundation walls. Repair/replace areaway retaining wall. Repair cracks; repoint mortar joints.	$ 123,000	20.7	Bonding	$ -	$ -	$ -	$ -	$ -	$ -	$ -
180	DPW	Complete Streets	Complete Streets Improvements - Intersection at Walnut Street/Watertown Street and Walnut Street/Lowell Avenue	Replace traffic signal equipment, improve multimodal safety and operations, install ADA compliant ramps, implement traffic calming, reduce excess pavement area.	$ 2,500,000	20.7	Bonding	$ -	$ -	$ -	$ -	$ -	$ -	$ 200,000
184	Fire Dept	Large Vehicle / Equipment	Replace Fire Pumper Truck (Engine 10)	Engine 10 replacement (2012).	$ 800,000	20.3	Bonding	$ -	$ -	$ -	$ -	$ -	$ -	$ -
185	DPW	Complete Streets	Complete Streets Improvements - Intersection at Parker Street / Wheeler Road	Replace traffic signal equipment, improve multimodal safety and operations, install ADA compliant ramps, reduce excess pavement area.	$ 1,750,000	20.1	Bonding	$ -	$ -	$ -	$ -	$ -	$ -	$ -
186	Public Buildings	Building	City Hall - Cupola/Roof Repair/Replacement	Install new membrane roof on flat roofs. Repair/replace gutters on balcony roofs. Replace metal roofing/flashing as required. Update and restore Cupola.	$ 1,700,000	19.8	Bonding	$ -	$ -	$ -	$ -	$ -	$ -	$ -
187	DPW	Complete Streets	Complete Streets Improvements - Intersection at Auburn Street/Grove Street/Central Street	Upgrade traffic signal equipment and make ADA improvements.	$ 850,000	19.8	Bonding	$ -	$ -	$ -	$ -	$ -	$ 100,000	$ 600,000
188	Schools	Building	Bigelow School - Mechanical Distribution Upgrades	Project to replace unit ventilators, valves, controls, and distribution system components that are beyond their useful life.	$ 500,000	19.3	Bonding	$ -	$ -	$ -	$ -	$ -	$ -	$ -
190	Schools	Building	Underwood School - Electrical Upgrades	Upgrades to electrical panels and sub-panels and emergency generator.	$ 100,000	19.0	Bonding	$ -	$ -	$ -	$ -	$ -	$ -	$ -
192	Fire Dept	Large Vehicle / Equipment	Replace Fire Dept Aerial Ladder #1	Ladder 1 (2013) replacement.	$ 1,450,000	18.4	Bonding	$ -	$ -	$ -	$ -	$ -	$ -	$ -
194	Library	Building	Newton Free Library - Generator Replacement	Library used as cooling station for residents. Existing energy agreement mandates peak usage on auxiliary power when regional demand is high extreme.	$ 250,000	17.6	Bonding	$ -	$ -	$ -	$ -	$ -	$ -	$ -
195	Public Buildings	Building	Elliot St. Garage - Roof Repair/Replacement	Replace/repair EPDM roof. Replace damaged roof panels. Will enable solar pv installation.	$ 372,000	16.9	Bonding	$ -	$ -	$ -	$ -	$ -	$ -	$ -
197	Schools	Building	Mason Rice School - Electrical Upgrades	Replace emergency generator, electrical panels and sub-panels.	$ 325,000	16.6	Bonding	$ -	$ -	$ -	$ -	$ -	$ -	$ -
199	Public Buildings	Building	Elliot St. Operations Building - Roof Repair/ Replacement	Remove and replace corrugated fiberglass roof. Repair/ replace existing slate roof and add ice shield to prevent ice damming and icicle build-up. Repair/replace gutters.	$ 275,000	16.1	Bonding	$ -	$ -	$ -	$ -	$ -	$ -	$ -
201	Public Buildings	Building	City Hall - Mechanical Upgrades	Replace condensing units, ductwork and fans. Add mini-split A/C units in conjunction with window restoration/replacement.	$ 500,000	15.3	Bonding	$ -	$ -	$ -	$ -	$ -	$ -	$ -
202	Public Buildings	Building	Elliot St. Operations Building - Interior and Finish Upgrades	Repaint steel framing in attic. Repair deteriorated concrete and CMU. Upgrade lighting and install new acoustical ceilings.	$ 275,000	14.0	Bonding	$ -	$ -	$ -	$ -	$ -	$ -	$ -
203	Schools	HVAC/Boilers	Oak Hill School - Mechanical Upgrades - Roof Top Units and Distribution System	Replace Roof top air handling units and distribution system to electrify the systems.	$ 250,000	13.5	Bonding	$ -	$ -	$ -	$ -	$ -	$ -	$ -
204	Public Buildings	Building	City Hall - Envelope - Masonry Repairs	Ongoing program to repair and repoint exterior masonry to preserve building envelope. Address worst areas first.	$ 150,000	13.4	Bonding	$ -	$ -	$ -	$ -	$ -	$ -	$ -
209	Fire Dept	Large Vehicle / Equipment	Apparatus Replacement Plan	Replacement of R1 vehicle (2016).	$ 1,200,000	10.5	Bonding	$ -	$ -	$ -	$ -	$ -	$ -	$ -
210	Schools	Building	Bigelow School - Replace Windows and Doors	Replace aging windows and exterior doors to improve comfort, operation, and energy efficiency.	$ 1,400,000	9.8	Bonding	$ -	$ -	$ -	$ -	$ -	$ -	$ -
215	Schools	Building	Williams School - Mechanical Upgrades	HVAC distribution upgrades in the boiler room and throughout the school, and electrify the systems.	$ 200,000	9.2	Bonding	$ -	$ -	$ -	$ -	$ -	$ -	$ -
57	DPW	Complete Streets	Complete Streets Improvements - Newton Highlands	Upgrade traffic signal equipment, improve multimodal safety and operations, enhance streetscape and sidewalks, lighting, implement signal coordination, and paving.	TBD	47.5	Bonding /Other Funds/ARPA/ State Funds	$ 1,000,000	$ -	$ -	$ -	$ -	$ -	$ -
157	Schools	Building	Williams School - Space and Building System Improvements	Address building system needs and possible cafeteria and classroom addition.	$ 1,500,000	24.6	Bonding/Alternate Funding	$ -	$ -	$ -	$ -	$ -	$ -	$ -
8	Schools	Building	Lincoln-Eliot at 150 Jackson Road	Project to meet the needs of the Lincoln-Eliot School, including facility and site improvements and accessibility, needed playground, and field space.	$ 47,000,000	66.3	Bonding/ARPA	$ 750,000	$ 3,250,000	$ 21,500,000	$ 21,500,000	$ -	$ -	$ -
9	Parks & Rec	Building	City Auditorium at 150 Jackson Road	Renovate existing auditorium to create Indoor theater and musical arts performance venue with stage, backstage area, storage, seating, and rehearsal space. Will be fully accessible.	$ 3,000,000	66.3	Bonding/ARPA	$ 1,800,000	$ -	$ -	$ 1,200,000	$ -	$ -	$ -

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Priority	Dept	Asset Category	Project Title	Project Description / Justification	Est Cost in FY2023	Priority Factor	Funding Source	Approved Funding	FY2023 to be Docketed/Approved	FY2024	FY2025	FY2026	FY2027	FY2028
10	Senior Center	Building	Newton Center for Active Living - NewCAL	Design and build a senior and community center, the Newton Center for Active Living.	$ 20,600,000	66.3	Bonding/ARPA	$ 1,100,000	$ 2,500,000	$ 12,000,000	$ 6,500,000	$ -	$ -	$ -
30	Police	Building	Comprehensive Police HQ Facility Renovation and Upgrade Project	HVAC, communications, training facility & space, site security, parking lot, HQ roof replacement, interior renovation and reconfiguration, accessibility improvements, emergency electrical, garage mechanical & electrical upgrades, concrete repairs and windows, doors & building envelope.	$ 13,500,000	58.4	Bonding/ARPA	$ 2,000,000	$ 500,000	$ 3,000,000	$ 3,000,000	$ 5,000,000	$ -	$ -
142	Police	Building	Police Annex - Exterior Windows & Doors & Building Envelope	Restore/replace windows and doors with historically appropriate energy efficient units. Repoint exterior brick and entry ramp. Repair stone lintels.	$ 200,000	27.4	Bonding/CPA Eligible	$ -	$ -	$ -	$ -	$ -	$ -	$ -
117	Parks & Rec	Parks / Open Space	Old Cold Spring Field	Renovation of existing field space to include regrading, drainage, irrigation and accessibility improvements.	$ 350,000	31.2	Bonding/CPA Eligible	$ -	$ -	$ -	$ -	$ -	$ -	$ -
129	Parks & Rec	Building	Burr Park Field House - Accessibility/Site Upgrades	Accessibility upgrades to toilet rooms and fixtures, signage, drinking fountain, and door hardware. Provide accessible path to entrance and an accessible parking space.	$ 250,000	29.8	Bonding/CPA Eligible	$ -	$ -	$ -	$ -	$ -	$ -	$ -
130	Parks & Rec	Building	Kennard Estate	Accessibility upgrades, gutters, plumbing/electrical.	$ 500,000	28.9	Bonding/CPA Eligible	$ -	$ -	$ -	$ -	$ -	$ -	$ -
139	Public Buildings	Building	Vernon St. Building - Building Envelope	Repair front entry concrete. Install new side entry stairs and handrails. Remove and replace wood stairs. Install vents throughout balance of soffits.	$ 335,850	27.9	Bonding/CPA Eligible	$ -	$ -	$ -	$ -	$ -	$ -	$ -
154	Parks & Rec	Parks / Open Space	Braceland Park - Update Master Plan for Park Renovation	Park renovation based on previous master plan and any required adjustments to the plan. Construction to include new athletic fields, play structures, basketball court and other improvements including accessibility.	$ 2,000,000	25.2	Bonding/CPA Eligible	$ -	$ -	$ -	$ -	$ -	$ -	$ -
169	Public Buildings	Building	Kennard Estate-Building Envelope, Windows and Doors	Replace shingles and flashings. Repair foundation walls. Replace wood windows and shutters with historic, appropriate units.	$ 240,000	22.3	Bonding/CPA Eligible	$ -	$ -	$ -	$ -	$ -	$ -	$ -
207	Parks & Rec	Parks / Open Space	Nahanton Park - Nature Center Accessibility	Renovation of two existing parking areas and upgrades to pedestrian connection to Nature Center - Canoe and Kayak Rental Building.	$ 150,000	12.2	Bonding/CPA Eligible	$ -	$ -	$ -	$ -	$ -	$ -	$ -
138	Parks & Rec	Parks / Open Space	Forte Park Field Improvements	Renovate natural grass area to maximize athletic field space for softball field, soccer/lacrosse. Improvements include relighting and improved accessibility.	$ 2,000,000	27.9	Bonding/CPA Eligible/ Developer Mitigation	$ 200,000	$ -	$ -	$ -	$ -	$ -	$ -
76	Fire Dept	Large Vehicle / Equipment	Replace Emergency Response Van (ERU)	Purchase a new ERU van. It carries haz-mat equipment such as booms, speedi-dry, Level 3 haz-mat suits etc.	$ 350,000	42.1	Bonding/Free Cash	$ -	$ -	$ -	$ -	$ 350,000	$ -	$ -
133	DPW	Complete Streets	Complete Streets Improvements - Beacon @ Chestnut	Upgrade traffic signal equipment, improve multimodal safety, accessibility and operations.	$ 1,400,000	28.5	Bonding/Free Cash	$ -	$ -	$ -	$ -	$ 150,000	$ 1,250,000	$ -
164	Public Buildings	Building	City Hall exterior restoration	Exterior restoration of all non-masonry surfaces and painting of all exterior exposed surfaces for the City Hall building.	$ 3,000,000	23.4	Bonding/Free Cash	$ -	$ -	$ -	$ -	$ -	$ -	$ -
105	Schools	HVAC/Boilers	Brown Middle School - Boiler Replacement and Mechanical System Improvements Phase I & II	Replace boilers and determine most energy efficient solution for mechanical system.	$ 1,500,000	34.4	Bonding/Green Communities/MSBA Eligible	$ -	$ -	$ -	$ -	$ -	$ -	$ 1,500,000
196	DPW	Complete Streets	Complete Streets Improvements - Intersection at Bridge Street/California Street	Complete Streets Improvements - Intersection at Bridge Street/California Street	$ 1,000,000	16.8	Bonding/Mitigation Fund	$ -	$ -	$ -	$ -	$ -	$ -	$ -
65	Schools	Roof	Bigelow School - Roof Replacement	Replace entire building roof system, enabling solar pv installation.	$ 1,500,000	45.3	Bonding/MSBA Eligible	$ -	$ -	$ -	$ -	$ 1,500,000	$ -	$ -
80	Schools	Roof	Mason Rice School - Replace Roof	Replace the 1990's Sarnifil roofing system on the main portion of the building. Will enable solar pv installation. Potential application to MSBA.	$ 938,600	39.3	Bonding/MSBA Eligible	$ -	$ -	$ -	$ -	$ -	$ 938,600	$ -
101	Schools	Building	Memorial Spaulding School - Replace Roof	Replace 1980's Built up roof area. It has reached its life expectancy.	$ 1,300,000	35.5	Bonding/MSBA Eligible	$ -	$ -	$ -	$ -	$ 1,300,000	$ -	$ -
110	Schools	HVAC/Boilers	Memorial Spaulding School - Heating System improvements	Replace controls, air handlers. Replace 2nd boiler, hot water conversion, electrification retrofit, and Direct Digital Controls conversion.	$ 250,000	33.5	Bonding/MSBA Eligible	$ -	$ -	$ -	$ -	$ -	$ -	$ -
116	Schools	Roof	Bowen School - Roof Replacement	Replace 1950's portion of the building's roofing system as it has reached its life expectancy. Will enable solar pv installation.	$ 450,000	31.5	Bonding/MSBA Eligible	$ -	$ -	$ -	$ -	$ -	$ -	$ -
71	Schools	Building	Ward/Underwood Schools - Renovation/ Replacement	Ward & Underwood School facilities project. The two oldest schools in the system are approaching their centennials. Both schools have low enrollment, outdated and undersized facilities, are located on small NPS properties, with districts that are adjacent to each other.	TBD	43.7	Bonding/MSBA Eligible/ARPA	$ 100,000	$ -	$ -	$ -	$ -	$ -	$ -
53	Parks & Rec	Bridge	Cheesecake Brook Footbridge	Project to replace or add new footbridge structure over Cheesecake Brook near Albemarle Field.	$ 400,000	48.7	Bonding/Other Funds	$ -	$ -	$ -	$ 400,000	$ -	$ -	$ -

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Priority	Dept	Asset Category	Project Title	Project Description / Justification	Est Cost in FY2023	Priority Factor	Funding Source	Approved Funding	FY2023 to be Docketed/Approved	FY2024	FY2025	FY2026	FY2027	FY2028
60	Parks & Rec	Parks / Open Space	Create a new Park at 150 Jackson Road	Project to create meaningful open space, passive and active recreation elements for both the Lincoln-Eliot School and the community.	TBD	46.8	Bonding/Other Funds	$ -	$ -	$ -	$ -	$ -	$ -	$ -
96	DPW	Complete Streets	Complete Streets Improvements - Beacon @ Walnut (4 Corners)	Upgrade traffic signal equipment, improve multimodal safety and operations, install ADA compliant ramps.	$ 2,500,000	36.1	Bonding/Other Funds	$ -	$ -	$ -	$ -	$ 500,000	$ 2,000,000	$ -
99	DPW	Complete Streets	Municipal Parking Lot Improvement Plan	Reconstruction of Municipal parking lots including ADA and stormwater improvements.	$ 3,750,000	35.7	Bonding/Other Funds	$ -	$ -	$ -	$ -	$ 750,000	$ 750,000	$ 750,000
113	Planning	Complete Streets	Complete Streets Improvements - Washington Street - West Newton to Newton Corner - Construction	Construction to improve safety and pedestrian accommodations, improve traffic flow, ADA compliance.	$ 30,000,000	32.3	Bonding/Other Funds	$ -	$ -	$ -	$ -	$ -	$ 2,500,000	$ 2,500,000
141	Schools	Complete Streets	Schools - Repave Parking Areas	Repave parking areas and sidewalks in poor condition at, Brown, Mason Rice, Oak Hill, Williams and Peirce.	$ 400,000	27.5	Bonding/Other Funds	$ -	$ -	$ -	$ -	$ -	$ -	$ -
208	DPW	Complete Streets	Complete Streets Improvements - Wells Ave @ Nahanton	Upgrade traffic signal equipment, install ADA compliant ramps, improve multimodal safety, accessibility, and operations.	$ 4,000,000	11.8	Bonding/Other Funds	$ -	$ -	$ -	$ -	$ -	$ -	$ -
103	Public Buildings	Building	City Hall Restroom Upgrades	Phased project -Upgrade City Hall Restrooms. Will improve accessibility.	$ 200,000	34.8	Bonding/Other Funds/CDBG	$ -	$ -	$ -	$ -	$ 200,000	$ -	$ -
21	DPW	Large Vehicle / Equipment	City-wide Municipal Vehicles and Equipment	Vehicle and Equipment Replacement Program for Construction and other city operations (not including public safety vehicles).	$ 30,000,000	61.5	Bonding/Other Funds/Free Cash	$ -	$ 2,000,000	$ 2,500,000	$ 2,500,000	$ 2,500,000	$ 2,500,000	$ 2,500,000
161	Parks & Rec	Building	Newton Highlands Playground - Phase II Support Building	Construction of prefabricated restrooms and storage building.	$ 300,000	23.9	Bonding/Other Funds/State Contract	$ -	$ -	$ -	$ -	$ -	$ -	$ -
81	Planning	Complete Streets	Design and implement multi-modal improvements on Albemarle and Brookside from Charles River to Washington	Design and implement a two-way bike facility, improved pedestrian accommodations and streamlined pickup and drop off areas. Early implementation of the project does not include reconstruction of the road.	$ 2,200,000	39.1	Bonding/Other Funds/State Grants	$ 200,000	$ -	$ -	$ 200,000	$ -	$ 2,000,000	$ -
198	Schools	Infrastructure	EV Bus Infrastructure	Project to determine a location and create the infrastructure needed to support an EV bus fleet.	TBD	16.2	Bonding/State Grants/Other Funds	$ -	$ -	$ -	$ -	$ -	$ -	$ -
20	DPW	Complete Streets	Newton Free Library Parking Space Expansion, Repaving, Drainage, and Landscaping Improvements	The library parking lot will be reconfigured and reconstructed to add parking spaces and improve accessibility and drainage.	$ 2,438,903	62.1	Bonding/Stormwater Funds	$ 2,438,903	$ -	$ -	$ -	$ -	$ -	$ -
25	Parks & Rec	Parks / Open Space	Cabot Park Improvements	As part of the $49 million Cabot School Project debt exclusion this project update recreational amenities including basketball court, and accessible pathways from Norwood to Newtonville Ave.	$ 150,000	59.5	Cabot School Project	$ 150,000	$ -	$ -	$ -	$ -	$ -	$ -
165	Police	Building	Police Annex - Accessibility Upgrades	Provide accessible toilet rooms, door hardware, signage and drinking fountain. Provide a lower transaction counter.	$ 200,000	23.0	CDBG Eligible	$ -	$ -	$ -	$ -	$ -	$ -	$ -
94	Public Buildings	Building	Waban Community Library-Accessibility Upgrades	Upgrade toilet rooms, Replace door hardware; Modify door at stairwell or install automatic door opener.	$ 150,000	36.4	CDBG Eligible/CPA Eligible - potential for partial	$ -	$ -	$ -	$ -	$ -	$ -	$ -
6	DPW	Complete Streets	Transportation Network Improvement Program - Paving/Sidewalks/Accessibility	10 year Paving Initiative - Repair and Pave Scheduled Streets, Sidewalks, traffic calming and pavement markings throughout the City.	$ 95,000,000	68.4	Chapt 90/ Free Cash/ARPA /Other Funds	$ -	$ 9,500,000	$ 9,500,000	$ 9,500,000	$ 9,500,000	$ 9,500,000	$ 9,500,000
36	Parks & Rec	Parks / Open Space	Burr Elementary School Fields Development	Renovate natural grass area to maximize athletic field space and install irrigation. Install new accessible perimeter pathway.	TBD	57.0	CPA Eligible	$ -	TBD	$ -	$ -	$ -	$ -	$ -
42	Parks & Rec	Parks / Open Space	Engineering and Design of Athletic Field Improvements	Engineering and design work for projects on the 5 year athletic field improvements plan. Improvements to include accessibility enhancements, field reconfigurations, and upgrades to supporting athletic field amenities.	$ 420,000	53.9	CPA Eligible	$ 420,000	$ -	$ -	$ -	$ -	$ -	$ -
44	Parks & Rec	Parks / Open Space	Brown/ Oak Hill Middle Schools Fields Development	Renovate natural grass area to maximize athletic field space and increase accessibility.	TBD	53.2	CPA Eligible	$ -	TBD	$ -	$ -	$ -	$ -	$ -
87	Parks & Rec	Parks / Open Space	Crescent Street Project - Rehab and expand Ford Park	Rehabilitation and expansion of Ford Playground to include improvements to stormwater , accessibility, and overall park experience.	$ 1,600,000	37.9	CPA Eligible	$ 156,000	$ -	$ -	$ 1,444,000	$ -	$ -	$ -
90	Public Buildings	Building	War Memorial Accessibility/Historic Improvements	Repair and repoint stone cornice. Implement recommendations from 2007 Study of the Memorial Stairs.	$ 2,332,000	37.5	CPA Eligible	$ -	$ -	$ 1,166,000	$ 1,166,000	$ -	$ -	$ -
128	Public Buildings	Building	Crafts St DPW Operations (Stable)	Design and Construction for renovated interior including mechanical, electrical, plumbing, and accessibility upgrades.	$ 3,000,000	29.8	CPA Eligible	$ -	$ -	$ -	$ -	$ -	$ -	$ -
137	Public Buildings	Building	Auburndale Community Library -Exterior Windows & Doors	Remove existing exterior wood doors and frames and replace with new doors and hardware. Repair/replace building windows.	$ 200,000	27.9	CPA Eligible	$ -	$ -	$ -	$ -	$ -	$ -	$ -
151	Public Buildings	Building	Former Newton Centre Library	Building requires envelope work. Cost for complete building renovation.	$ 1,500,000	25.7	CPA Eligible	$ -	$ -	$ -	$ -	$ -	$ -	$ -
156	Public Buildings	Building	Auburndale Community Library -Accessibility and Site Upgrades	ADA upgrade for the building.	$ 265,000	24.8	CPA Eligible	$ -	$ -	$ -	$ -	$ -	$ -	$ -

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								$ 152,702,634	$ 44,633,490	$ 127,527,773	$ 81,192,380	$104,925,500	$ 40,801,600	$ 23,628,000
Priority	Dept	Asset Category	Project Title	Project Description / Justification	Est Cost in FY2023	Priority Factor	Funding Source	Approved Funding	FY2023 to be Docketed/Approved	FY2024	FY2025	FY2026	FY2027	FY2028
159	Parks & Rec	Building	Burr Park Field House - Building Envelope and Window Restoration (Waverley Ave. / Park St.)	Repair damaged exterior brick walls and trim. Remove entry landing stairs and railings and install new code-compliant landing, stairs and railings. Restore windows.	$ 313,500	24.6	CPA Eligible	$ -	$ -	$ -	$ -	$ -	$ -	$ -
163	Police	Building	Police Annex - Roof Restoration/ Replacement	Remove and replace slate roofing, gutters and downspouts. Install new EPDM Roof. Reattach downspouts.	$ 255,825	23.5	CPA Eligible	$ -	$ -	$ -	$ -	$ -	$ -	$ -
170	Public Buildings	Building	Crafts St DPW Operations (Stable) - Restore Building Envelope, Windows & Roof	Preserve/repair historic significance, lintels, sills, brick veneer, windows, doors, roof and cupola as historically appropriate.	$ 2,000,000	21.9	CPA Eligible	$ -	$ -	$ -	$ -	$ -	$ -	$ -
171	Public Buildings	Building	Vernon St. Building - Exterior Windows & Doors	Restore/replace historic exterior doors and windows. Weatherstrip and seal for energy efficiency. Window bay foundation repairs.	$ 217,000	21.7	CPA Eligible	$ -	$ -	$ -	$ -	$ -	$ -	$ -
177	Parks & Rec	Parks / Open Space	Chaffin Park Wall	Replacement of existing wall along perimeter of Chaffin Park (Vernon and Centre Streets).	$ 200,000	21.0	CPA Eligible	$ -	$ -	$ -	$ -	$ -	$ -	$ -
182	Public Buildings	Building	Waban Community Library-Building Envelope and Entrance	Replace main entry walk and foundation walls and install railing. Rebuild side stairs at main entry. Rebuild stairs at rear entry. Install hand rail on one side of rear entry wall. Repair flashing of parapet walls.	$ 325,000	20.5	CPA Eligible	$ -	$ -	$ -	$ -	$ -	$ -	$ -
183	Clerk	Building	City Hall - Increase City Clerk Archive Storage	Develop plans to expand archival storage to accommodate and preserve archival collections and to comply with MGL mandated record storage requirements.	$ 100,000	20.5	CPA Eligible	$ -	$ -	$ -	$ -	$ -	$ -	$ -
189	Public Buildings	Building	Auburndale Community Library - Building Envelope and Roof	Repair broken roof slates. Reflash where leaks are occurring. Repair/replace gutters and downspouts. Pitch rain leaders away from building. Repair concrete ramp.	$ 260,900	19.3	CPA Eligible	$ -	$ -	$ -	$ -	$ -	$ -	$ -
191	Jackson Homestead	Parks / Open Space	Restoration of Historic East Burying Grounds	Tree work. Tomb restoration, gravestone repair, and other restoration. Repair stone gate posts. Install educational signage.	$ 85,000	18.4	CPA Eligible	$ -	$ -	$ -	$ -	$ -	$ -	$ -
193	Jackson Homestead	Building	Jackson Homestead - Exterior Windows & Doors	Restore existing windows, storm windows, shutters, and doors as historically appropriate.	$ 250,000	18.0	CPA Eligible	$ -	$ -	$ -	$ -	$ -	$ -	$ -
211	Public Buildings	Building	Waban Community Library-Exterior Windows & Doors	Restore exterior wood door and install panic hardware. Replace areaway and rear door. Restore windows.	$ 118,500	9.7	CPA Eligible	$ -	$ -	$ -	$ -	$ -	$ -	$ -
27	Parks & Rec	Parks / Open Space	Levingston Cove, Shoreline improvements at Crystal Lake	Renovation of entire lakefront park to include improvements to accessibility, drainage, erosion and water quality.	$ 2,005,500	59.1	CPA Eligible/ State Funds/ARPA	$ 2,005,500	$ -	$ -	$ -	$ -	$ -	$ -
16	Parks & Rec	Parks / Open Space	Gath Memorial Pool Project	Replace Gath Pool with lap pool, community pool, and splash pad. Replace all mechanical systems, improve accessibility, improve bath house interior. Pool area will be bubble ready.	$ 6,060,000	63.5	CPA Eligible/ARPA	$ 486,500	$ 6,000,000	$ -	$ -	$ -	$ -	$ -
77	Parks & Rec	Parks / Open Space	Crystal Lake Phase II Improvements ("Left Beach" and Park Area)	Stabilize "Left beach" and create a sustainable shoreline area for sunbathing, access into the water, and improved recreation, enhance connectivity and accessibility.	$ 1,500,000	41.5	CPA Eligible/ARPA/State Funds	$ 175,000	$ -	$ 1,325,000	$ -	$ -	$ -	$ -
45	Parks & Rec	Parks / Open Space	McGrath Park Fields Redesign and Development	Reconfigure athletic fields and courts, expand irrigation, install new accessible perimeter pathway.	TBD	53.1	CPA Eligible/CDBG Eligible	$ -	TBD	$ -	$ -	$ -	$ -	$ -
166	Public Buildings	Building	Nonantum Library-Accessibility/Site	Reconfigure entry vestibules and reconstruct ADA compliant ramp. Upgrades for toilet rooms and drinking fountain.	$ 204,000	23.0	CPA Eligible/CDBG Eligible	$ -	$ -	$ -	$ -	$ -	$ -	$ -
24	Planning	Building	West Newton Armory Reuse - Affordable Housing	Project to convert the Armory into 100% affordable housing.	$ 27,800,000	59.6	CPA Eligible/CDBG/Other Funds	$ 5,160,000	$ -	$ -	TBD	TBD	$ -	$ -
82	Parks & Rec	Parks / Open Space	Pellegrini Field Sports Lights	Replace sports lighting and poles at Pellegrini.	$ 750,000	39.0	CPA Eligible/Other Funds	$ -	$ -	$ -	$ -	$ -	$ -	$ -
118	Jackson Homestead	Building	Jackson Homestead - Basement	Finish basement galleries: New flooring; envelope treatment, gallery walls, (keep water and condensation out).	$ 1,075,000	31.1	CPA Eligible/Other Funds	$ 275,000	$ -	$ 800,000	$ -	$ -	$ -	$ -
134	Parks & Rec	Building	Crystal Lake Bathhouse - Renovate/Replace	Renovate/Replace bathhouse and improve swim beach front.	$ 5,000,000	28.3	CPA Eligible/Other Funds	$ -	$ -	$ -	$ -	$ -	$ -	$ -
213	Historic Newton	Parks / Open Space	Restoration of Historic West Burying Grounds	Preservation of gravestones. Repair stone wall boundary. Install educational signage.	$ 75,000	9.6	CPA Eligible/Other Funds	$ -	$ -	$ -	$ -	$ -	$ -	$ -
214	Historic Newton	Parks / Open Space	Restoration of Historic South Burying Grounds	Preservation of gravestones. Tree work. Repair stone wall boundary. Install educational signage.	$ 75,000	9.6	CPA Eligible/Other Funds	$ -	$ -	$ -	$ -	$ -	$ -	$ -
95	Planning	Building	Walker Center House Rehabilitation	Restoration and upgrades to convert the former Walker Center historical properties located on Hancock and Grove Streets to become affordable family housing units.	TBD	36.4	CPA Eligible/Other Funds/Grants/ARPA	$ 2,450,000	$ -	TBD	$ -	$ -	$ -	$ -
35	Parks & Rec	Parks / Open Space	Marty Sender Path Phase 2 - Boardwalk and trail improvements	Install accessible, shared-use trail and boardwalk over flood-prone area.	$ 400,000	57.3	CPA Eligible/Other Funds/State Funds	$ -	$ 400,000	$ -	$ -	$ -	$ -	$ -
52	Parks & Rec	Parks / Open Space	Russ Halloran Sports and Recreation Complex at Albemarle Master Plan	Develop a phased park-wide master plan. Replace 50-year-old sports lighting, reconfigure existing fields for improved and expanded play, and expand lighting to Murphy Field. Improve accessibility and drainage. Potential Synthetic Turf field to include football/soccer/lacrosse field along Crafts Street.	$ 5,270,000	48.9	CPA Eligible/Sport Group Contributions/Other Funds	$ -	$ 3,270,000	$ 2,000,000	$ -	$ -	$ -	$ -

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								$ 152,702,634	$ 44,633,490	$ 127,527,773	$ 81,192,380	$104,925,500	$ 40,801,600	$ 23,628,000
Priority	Dept	Asset Category	Project Title	Project Description / Justification	Est Cost in FY2023	Priority Factor	Funding Source	Approved Funding	FY2023 to be Docketed/Approved	FY2024	FY2025	FY2026	FY2027	FY2028
54	Planning	Complete Streets	Reconstruction of Commonwealth Avenue (Route 30) from East of Auburn St to Ash St	Transform the Commonwealth Avenue Carriageway between Lyons Field and the Charles River at Auburn Street. Project aims to create safe bicycle and pedestrian facilities to improve connectivity to green space, trails, and other recreational opportunities.	$ 7,401,000	48.6	CPA Eligible/State Funding/	$ 723,000	$ -	$ -	$ 6,678,000	$ -	$ -	$ -
121	Parks & Rec	Parks / Open Space	Riverside Greenway - Pigeon Hill Trail Improvements	Restoration of former connectivity walking trail that was severed during Mass Pike construction.	$ 550,000	30.9	CPA Eligible/State Funds	$ 212,000	$ -	$ -	$ -	$ -	$ -	$ -
31	IT	Software	New Municipal Information and Permitting System (NewGov)	Implement a first-ever Newton Municipal Information and Permitting System.	$ 1,137,285	58.0	Free Cash	$ 1,137,285	$ -	$ -	$ -	$ -	$ -	$ -
32	Clerk	Equipment	New Voting Equipment	Replace current equipment with new state-approved voting equipment.	$ 250,000	57.8	Free Cash	$ -	$ 250,000	$ -	$ -	$ -	$ -	$ -
34	Fire Dept	Large Vehicle / Equipment	New pumper truck (Engine 7)	Replace 2007 pumper truck (Engine 7) that will soon be beyond the NFPA standard of 15 years.	$ 800,000	57.4	Free Cash	$ -	$ 800,000	$ -	$ -	$ -	$ -	$ -
67	Parks & Rec	Parks / Open Space	Newton South High School Synthetic Turf Field and Track Replacement	Replacement of synthetic turf and track at Brandeis Road and Stadium fields. Current field was installed in 2009.	$ 2,100,000	44.5	Free Cash	$ 67,000	$ 1,433,000	$ -	$ -	$ -	$ -	$ -
205	IT	Hardware / Software	Police IT Storage Area Network	Replacement of outdated servers, consolidation of systems, organization of data by divisions with enhanced security and support	$ 150,000	12.4	Free Cash	$ -	$ -	$ -	$ -	$ -	$ -	$ -
206	IT	Infrastructure	IT Infrastructure Refreshment Plan	Core switch replacement at Police, Fire, City Hall; Enhancement to our load balancing/FTD scheme; A real wireless solution, new in the box- first ever; SAN Enhancements.	$ 200,000	12.3	Free Cash	$ -	$ -	$ -	$ -	$ -	$ -	$ -
73	Parks & Rec	Parks / Open Space	Newton North High School Synthetic Turf Field and Track Replacement	Replacement of synthetic turf and track at Newton North High School. Current field was installed in 2010.	$ 1,100,000	43.3	Free Cash / Other Funds	$ 33,000	$ 667,000	$ -	$ -	$ -	$ -	$ -
39	Public Buildings	Building	Newton Commonwealth Golf Course Maintenance Facility Project	Renovation and Addition to the Golf Course Maintenance Facility.	$ 3,737,000	55.3	Golf Course Funding	$ 3,737,000	$ -	$ -	$ -	$ -	$ -	$ -
63	Public Buildings	Climate Action	Municipal EV Chargers	Purchase and install EV chargers at municipal and school parking lots throughout the city (electrical connections provided by Eversource grants).	$ 615,000	46.0	Grants / Other Funds	$ -	$ -	$ 300,000	$ 315,000	$ -	$ -	$ -
22	Planning	Complete Streets	Washington Place Mitigation Project	Implement mitigation projects in Newtonville arising from Washington Place development in Newtonville, including sidewalks and fencing.	$ 700,000	61.2	Mitigation Funds	$ 286,500	$ -	$ -	$ -	$ 413,500	$ -	$ -
2	DPW/ Sewer	Sewer	Sewer Inflow /Infiltration Project - Area 7 - Upper Falls, Highlands, Thompsonville	Part of 10 Phase program to remove excess inflow and infiltration into sewer system.	$ 7,919,115	73.0	MWRA Grant/Loan	$ 7,919,115	$ -	$ -	$ -	$ -	$ -	$ -
3	DPW/ Sewer	Sewer	Sewer Inflow/ Infiltration Project - Area 8 - Upper Falls, Highlands, Thompsonville & Oak Hill	Part of 10 Phase program to remove excess inflow and infiltration into sewer system.	$ 7,453,196	70.2	MWRA Grant/Loan/Sewer Funds	$ 7,453,196	$ -	$ -	$ -	$ -	$ -	$ -
15	DPW/ Water	Water	Replace Water Pipelines - Phase 8	Cleaning and lining of water pipes to improve water quality, reduce water leakage and ensure pipe integrity and capacity. Precedes scheduled roadway paving. Project is currently Phase 8 of 20-phase program. Ward Street Phase I (Manet Rd to Waverley Ave).	$ 4,263,490	63.6	MWRA Loan/Water Funds	$ 4,263,490	$ -	$ -	$ -	$ -	$ -	$ -
50	DPW/ Water	Water	Replace Water Pipelines - Phase 10	Cleaning and lining of water pipes to improve water quality, reduce water leakage and ensure pipe integrity and capacity. Precedes scheduled roadway paving. Project will be in Phase 10 of 20-phase program.	$ 4,750,000	51.3	MWRA Loan/Water Funds	$ -	$ 4,750,000	$ -	$ -	$ -	$ -	$ -
68	DPW/ Water	Water	Replace Water Pipelines - Phase 11	Cleaning and lining of water pipes to improve water quality, reduce water leakage and ensure pipe integrity and capacity. Precedes scheduled roadway paving. Project will be in Phase 11 of 20-phase program.	$ 4,750,000	44.0	MWRA Loan/Water Funds	$ -	$ -	$ 4,750,000	$ -	$ -	$ -	$ -
69	DPW/ Water	Water	Replace Water Pipelines - Phase 12	Cleaning and lining of water pipes to improve water quality, reduce water leakage and ensure pipe integrity and capacity. Precedes scheduled roadway paving.	$ 4,750,000	44.0	MWRA Loan/Water Funds	$ -	$ -	$ -	$ 4,750,000	$ -	$ -	$ -
92	DPW/ Water	Water	Replace Water Pipelines - Phase 13	Cleaning and lining of water pipes to improve water quality, reduce water leakage and ensure pipe integrity and capacity. Precedes scheduled roadway paving. Project will be in Phase 13 of 20-phase program.	$ 4,750,000	36.7	MWRA Loan/Water Funds	$ -	$ -	$ -	$ -	$ 4,750,000	$ -	$ -
93	DPW/ Water	Water	Replace Water Pipelines - Phase 14	Cleaning and lining of water pipes to improve water quality, reduce water leakage and ensure pipe integrity and capacity. Precedes scheduled roadway paving. Project will be in Phase 14 of 20-phase program.	$ 4,750,000	36.7	MWRA Loan/Water Funds	$ -	$ -	$ -	$ -	$ -	$ 4,750,000	$ -
23	Public Safety	Emergency Comms	Radio System Infrastructure	Install continuous power, repeaters & receivers, and other radio system infrastructure improvements.	$ 1,244,365	61.1	Other Funds	$ 1,244,365	$ -	$ -	$ -	$ -	$ -	$ -
28	Schools	HVAC/Boilers	Peirce Elementary - Heating System improvements	Heating system improvements, switch from oil system to all-electric system.	$ 865,000	59.1	Other Funds	$ -	$ 65,000	$ -	$ -	$ -	$ 800,000	$ -
43	Library	Building	Library HVAC Improvements	HVAC system upgrades to electrify the building.	$ 750,000	53.7	Other Funds	$ -	$ 100,000	$ -	$ 650,000	$ -	$ -	$ -

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Priority	Dept	Asset Category	Project Title	Project Description / Justification	Est Cost in FY2023	Priority Factor	Funding Source	Approved Funding	FY2023 to be Docketed/Approved	FY2024	FY2025	FY2026	FY2027	FY2028
46	Parks & Rec	Building	Pellegrini Park Field House - Exterior Improvements	Envelope repairs, replace upper gym membrane roof with a new EPDM roof.	$ 200,000	53.1	Other Funds	$ -	$ 200,000	$ -	$ -	$ -	$ -	$ -
62	Parks & Rec	Parks / Open Space	Upper Falls Splash Park	New splash park to be built by Northland development as part of larger project. To be owned and operated by Parks, Rec and Culture. Expected in late 2024.	$ 1,000,000	46.4	Other Funds	$ 1,000,000	$ -	$ -	$ -	$ -	$ -	$ -
78	Parks & Rec	Parks / Open Space	Accessible Playground Surfacing Improvements	Install accessible playground surface matting systems at playgrounds throughout the city.	$ 2,000,000	40.9	Other Funds/State Funds/ARPA	$ 142,000	$ -	$ 100,000	$ 100,000	$ 100,000	$ 100,000	$ 100,000
181	Public Buildings	Building	City Hall - Exterior Windows & Doors	Restore/replace windows in phases to improve energy efficiency, functionality and comfort, and to preserve exterior wall.	$ 3,125,000	20.5	Potential for partial CPA Eligibility	$ -	$ -	$ -	$ -	$ -	$ -	$ -
18	DPW/ Sewer	Sewer	Sewer Inflow/Infiltration Project - Area 9 - Waban, Upper Falls & Oak Hill	Part of 10 Phase program to remove excess inflow and infiltration into sewer system.	$ 4,200,000	62.4	Sewer Funds	$ 1,095,023	$ -	$ 3,104,977	$ -	$ -	$ -	$ -
19	DPW/ Sewer	Sewer	Sewer Inflow/Infiltration Project - Area 9 Phase 2 - Waban, Upper Falls & Oak Hill	Part of 10 Phase program to remove excess inflow and infiltration into sewer system and includes post-flow.	$ 5,000,000	62.4	Sewer Funds	$ -	$ -	$ -	$ 5,000,000	$ -	$ -	$ -
29	DPW/ Sewer	Sewer	Pump Station Upgrades	Design and construct Sewer Pump Stations upgrades as part of 10-phase program.	$ 23,000,000	58.8	Sewer Funds	$ 447,000	$ 4,263,490	$ 1,200,000	$ 1,500,000	$ 1,500,000	$ 2,000,000	$ 2,000,000
70	DPW/ Sewer	Sewer	Sewer Inflow/Infiltration Project - Area 10 - Waban, Newton Highlands, Newton Centre, & Newton Corner	Part of 10-phase program to remove excess inflow and infiltration into sewer system. Ward St from Waverley Ave to Centre St.	$ 4,888,308	44.0	Sewer Funds	$ 813,308	$ -	$ 300,000	$ -	$ 3,775,000	$ -	$ -
79	DPW/ Sewer	Sewer	Sewer Inflow/Infiltration Project - Area 11 - Chestnut Hill, Newton Corner, Oak Hill, & Thompsonville	Part of 10 Phase program to remove excess inflow and infiltration into sewer system. Will be in Phase 10 of City-Wide Sewer Initiative.	$ 4,000,000	39.6	Sewer Funds	$ 774,000	$ -	$ -	$ -	$ -	$ 1,613,000	$ 1,613,000
123	DPW/ Sewer	Sewer	Sewer Inflow/Infiltration- Cheesecake and Laundry Brook Drainage	Investigation, Design & Construction of sewer laterals & manholes along interceptor sewers within Cheesecake and Laundry Brook Drainage Basins.	$ 2,000,000	30.3	Sewer Funds	$ -	$ -	$ -	$ -	$ -	$ 2,000,000	$ -
41	DPW	Complete Streets	Complete Streets Improvements - Newton Corner and Mass Pike interchange at Exit 127 Off-Ramp	Upgrade traffic signal equipment, improve multimodal safety and operations at this intersection. The city will work closely with MassDot to provide feedback and comments	TBD	54.2	State Funds	$ -	$ -	$ -	$ -	$ -	$ -	$ -
47	Planning	Complete Streets	Pettee Square/Upper Falls Greenway Improvements	Targeted improvements to Pettee Square in Newton Upper Falls and extension of the Upper Falls Greenway to Curtis Street.	$ 3,028,296	52.2	State MassWorks Grant /Other Funds	$ 396,500	$ -	$ 2,631,796	$ -	$ -	$ -	$ -
1	DPW	Complete Streets	Needham Street Upgrades	TIP Project to Pave and Improve Needham Street - Funded and managed by MassDOT.	$ 34,250,360	80.5	State TIP Funding	$ 34,250,360	$ -	$ -	$ -	$ -	$ -	$ -
59	Planning	Complete Streets	Crafts @ Albemarle Intersection Improvements (SRTS)	State funded project to upgrade the intersections of Crafts Street – Albemarle Road and Albemarle Road – North Street, to improve bicycle and pedestrian accommodations near the Horace Mann Elementary School, Day Middle School and NECP. Project includes new fully actuated crosswalk system and a rapid-flashing beacon crosswalk.	$ 900,000	47.2	State TIP Funding	$ -	$ -	$ -	$ 900,000	$ -	$ -	$ -
14	DPW/ Storm	Storm	Bullough's Pond Dam	Complete State-Required repair work for dam safety.	$ 3,000,000	65.0	Stormwater	$ 618,620	$ -	$ -	$ 2,381,380	$ -	$ -	$ -
17	DPW/ Storm	Storm	Phase 1 Phosphorus Control Plan (PCP)	Development of City's PCP required by US EPA under the MS4 general permit	$ 953,000	62.8	Stormwater	$ 300,000	$ 395,000	$ -	$ 258,000	$ -	$ -	$ -
33	Public Buildings	Building	Wash Bay Refurbishment	Refurbish Crafts Street vehicle wash bay with automated vehicle wash system, including capture/recycle wash water, code upgrades for utilities and building.	$ 1,000,000	57.5	Stormwater	$ 500,000	$ 500,000	$ -	$ -	$ -	$ -	$ -
48	DPW/ Storm	Storm	Elliot & Crafts Street DPW Operations Yard	Modifications to existing storm water infrastructure to meet NPDES MS4 General Permits BMP's.	$ 1,000,000	51.8	Stormwater	$ -	$ 200,000	$ 200,000	$ 200,000	$ 200,000	$ 200,000	$ -
56	DPW/ Storm	Storm	South Meadow Brook Culvert under Needham Street	Phase 1 - Inspection & assessment of Box Culvert. Phase 2 - Design & Rehabilitation of Box Culvert.	$ 3,205,000	48.2	Stormwater	$ 280,000	$ -	$ -	$ -	$ 500,000	$ 2,425,000	$ -
74	DPW/ Storm	Storm	Union Street Drainage	The extension of storm drains on Union Street to alleviate flooding and icing issues in the area of Herrick Road.	$ 850,000	43.0	Stormwater	$ -	$ 100,000	$ 750,000	$ -	$ -	$ -	$ -
84	DPW/ Storm	Storm	Evaluation, design and construction of Cheesecake Brook-Commonwealth Av. to the rear of 1600 Washington Street	Replace culvert headwall, remove remaining fieldstone channel walls to restore natural brook channel and provide buffer for nutrient removal (water quality).	$ 900,000	38.5	Stormwater	$ -	$ -	$ -	$ 200,000	$ 700,000	$ -	$ -
85	DPW/ Storm	Storm	Cheesecake Brook -1660 Washington St. to Watertown St.	Inspection & Assessment, Design and Rehabilitation of +/-6000 LF of Box Culvert.	$ 900,000	38.5	Stormwater	$ -	$ -	$ -	$ -	$ 200,000	$ 700,000	$ -
91	DPW/ Storm	Storm	Cheesecake Brook-Watertown St. to Charles River	Inspection & Assessment, Design and Rehabilitation of Fieldstone Channel walls and floor.	$ 1,450,000	36.7	Stormwater	$ -	$ -	$ -	$ -	$ 150,000	$ -	$ 1,300,000
115	DPW/ Storm	Storm	Cheesecake Brook Roadway Culvert Crossings	Design & Construction of culvert improvements at Parsons, Cross and Eddy Street.	$ 750,000	32.0	Stormwater	$ -	$ -	$ -	$ -	$ -	$ -	$ 150,000
119	DPW/ Storm	Storm	Reduce Impervious Area	Reduce Impervious Area to 5 Municipal Properties per NPDES MS4 Requirements.	$ 650,000	31.0	Stormwater	$ -	$ -	$ -	$ -	$ -	$ 325,000	$ 325,000
120	DPW/ Storm	Storm	Laundry Brook Culvert-Parkview to Mass Pike	Rehabilitation +/-1000 LF Box Culvert based on FY 18 evaluation.	$ 650,000	30.9	Stormwater	$ -	$ -	$ -	$ -	$ -	$ 650,000	$ -
126	DPW/ Storm	Storm	Laundry Brook Culvert-Hull street to Bridges Avenue	Design and construction of culvert rehabilitation from Hull St to Bridges Ave.	$ 750,000	30.1	Stormwater	$ -	$ -	$ -	$ -	$ 750,000	$ -	$ -

CIP by Funding Source FY2024-FY2028

								Total	Total	Total	Total	Total	Total	Total
								$ 152,702,634	$ 44,633,490	$ 127,527,773	$ 81,192,380	$104,925,500	$ 40,801,600	$ 23,628,000
Priority	Dept	Asset Category	Project Title	Project Description / Justification	Est Cost in FY2023	Priority Factor	Funding Source	Approved Funding	FY2023 to be Docketed/Approved	FY2024	FY2025	FY2026	FY2027	FY2028
200	DPW/ Storm	Storm	Pellegrini Park Drain Replacement	Storm drain between Jenison and Hawthorne needs to be replaced due to structural failure, causing flooding at Jenison @ Judkins.	$ 200,000	16.1	Stormwater	$ -	$ -	$ -	$ -	$ -	$ -	$ 40,000
212	DPW/ Storm	Storm	Hammond Brook-Glen Ave. to Centre St.	Cleaning, Inspection, Structural Evaluation, Design, Rehabilitation and Construction of Hammond Brook Culvert.	$ 600,000	9.7	Stormwater	$ -	$ -	$ -	$ -	$ -	$ -	$ -
40	DPW/ Storm	Storm	City Hall Ponds	Removal of accumulated sediment from three ponds adjacent to City Hall.	$ 1,040,000	55.1	Stormwater Funds	$ 650,000	$ 390,000	$ -	$ -	$ -	$ -	$ -
51	DPW/ Storm	Storm	Edmands Brook Drainage Basin	Design for flood mitigation and the reduction of Phosphorus for the NPDES MS4 Permit.	$ 1,404,000	49.5	Stormwater/Other Funds	$ 104,000	$ 400,000	$ -	$ 900,000	$ -	$ -	$ -
131	Parks & Rec	Parks / Open Space	Lyons Field Drainage Improvements	Renovation of the natural grass field to improve drainage.	TBD	28.9	Stormwater/Other Funds	$ -	$ -	$ -	$ -	$ -	$ -	$ -
4	DPW/ Water	Water	Commercial & Residential Water Meter Replacement Project	Removal & Replacement of 125 commercial electromagnetic water meters sized 2"-8" diameter, +/-26,000 residential meters sized 5/8"-1 1/2", installation of new AMI system with customer portal.	$ 16,625,000	70.1	Water / Sewer Funds	$ 16,625,000	$ -	$ -	$ -	$ -	$ -	$ -
5	DPW/ Water	Water	Waban Hill Covered Reservoir	Rehabilitation of pipes, valves, all appurtenances and roof replacement. Includes cleaning, inspection, design, and construction services.	$ 1,485,000	68.6	Water Funds	$ 1,185,000	$ 300,000	$ -	$ -	$ -	$ -	$ -
11	DPW/ Water	Water	Revised Lead and Copper Rule	EPA requires a complete system wide lead inventory to be submitted by 10/16/2024. This inventory will be used in determining future lead reduction efforts.	$ 150,000	65.2	Water Funds	$ -	$ 150,000	$ -	$ -	$ -	$ -	$ -
49	DPW/ Water	Water	Replace Water Pipelines - Phase 9	Cleaning and lining of water pipes to improve water quality, reduce water leakage and ensure pipe integrity and capacity. Precedes scheduled Needham Street roadway paving.	$ 7,236,730	51.3	Water Funds	$ 7,236,730	$ -	$ -	$ -	$ -	$ -	$ -
				Total Need:	$ 861,339,962			$ 152,702,634	$ 44,633,490	$ 127,527,773	$ 81,192,380	$104,925,500	$ 40,801,600	$ 23,628,000

CIP by Department FY2024-FY2028

								Total	Total	Total	Total	Total	Total	Total
								$ 152,702,634	$ 44,633,490	$ 127,527,773	$ 81,192,380	$104,925,500	$ 40,801,600	$ 23,628,000
Priority	Dept	Asset Category	Project Title	Project Description / Justification	Est Cost in FY2023	Priority Factor	Funding Source	Approved Funding	FY2023 to be Docketed/Approved	FY2024	FY2025	FY2026	FY2027	FY2028
32	Clerk	Equipment	New Voting Equipment	Replace current equipment with new state-approved voting equipment.	$ 250,000	57.8	Free Cash	$ -	$ 250,000	$ -	$ -	$ -	$ -	$ -
183	Clerk	Building	City Hall - Increase City Clerk Archive Storage	Develop plans to expand archival storage to accommodate and preserve archival collections and to comply with MGL mandated record storage requirements.	$ 100,000	20.5	CPA Eligible	$ -	$ -	$ -	$ -	$ -	$ -	$ -
1	DPW	Complete Streets	Needham Street Upgrades	TIP Project to Pave and Improve Needham Street - Funded and managed by MassDOT.	$ 34,250,360	80.5	State TIP Funding	$ 34,250,360	$ -	$ -	$ -	$ -	$ -	$ -
6	DPW	Complete Streets	Transportation Network Improvement Program - Paving/Sidewalks/Accessibility	10 year Paving Initiative - Repair and Pave Scheduled Streets, Sidewalks, traffic calming and pavement markings throughout the City.	$ 95,000,000	68.4	Chapt 90/ Free Cash/ARPA /Other Funds	$ -	$ 9,500,000	$ 9,500,000	$ 9,500,000	$ 9,500,000	$ 9,500,000	$ 9,500,000
20	DPW	Complete Streets	Newton Free Library Parking Space Expansion, Repaving, Drainage, and Landscaping Improvements	The library parking lot will be reconfigured and reconstructed to add parking spaces and improve accessibility and drainage.	$ 2,438,903	62.1	Bonding/Stormwater Funds	$ 2,438,903	$ -	$ -	$ -	$ -	$ -	$ -
21	DPW	Large Vehicle / Equipment	City-wide Municipal Vehicles and Equipment	Vehicle and Equipment Replacement Program for Construction and other city operations (not including public safety vehicles).	$ 30,000,000	61.5	Bonding/Other Funds/Free Cash	$ -	$ 2,000,000	$ 2,500,000	$ 2,500,000	$ 2,500,000	$ 2,500,000	$ 2,500,000
41	DPW	Complete Streets	Complete Streets Improvements - Newton Corner and Mass Pike interchange at Exit 127 Off-Ramp	Upgrade traffic signal equipment, improve multimodal safety and operations at this intersection. The city will work closely with MassDot to provide feedback and comments	TBD	54.2	State Funds	$ -	$ -	$ -	$ -	$ -	$ -	$ -
57	DPW	Complete Streets	Complete Streets Improvements - Newton Highlands	Upgrade traffic signal equipment, improve multimodal safety and operations, enhance streetscape and sidewalks, lighting, implement signal coordination, and paving.	TBD	47.5	Bonding /Other Funds/ARPA/ State Funds	$ 1,000,000	$ -	$ -	$ -	$ -	$ -	$ -
96	DPW	Complete Streets	Complete Streets Improvements - Beacon @ Walnut (4 Corners)	Upgrade traffic signal equipment, improve multimodal safety and operations, install ADA compliant ramps.	$ 2,500,000	36.1	Bonding/Other Funds	$ -	$ -	$ -	$ -	$ 500,000	$ 2,000,000	$ -
98	DPW	Complete Streets	Complete Streets Improvements - Cherry @ Webster, Cherry @ Derby	Upgrade traffic signal equipment, improve multimodal safety and operations at these two intersections.	$ 1,400,000	36.0	Bonding	$ -	$ -	$ -	$ -	$ 150,000	$ 1,250,000	$ -
99	DPW	Complete Streets	Municipal Parking Lot Improvement Plan	Reconstruction of Municipal parking lots including ADA and stormwater improvements.	$ 3,750,000	35.7	Bonding/Other Funds	$ -	$ -	$ -	$ -	$ 750,000	$ 750,000	$ 750,000
100	DPW	Complete Streets	Complete Streets Improvements - Commonwealth Ave. @ Chestnut Street	Update outdated traffic signal equipment and bring curb, ramps and surrounding sidewalks into ADA compliance.	$ 1,400,000	35.5	Bonding	$ -	$ -	$ -	$ -	$ 150,000	$ 1,250,000	$ -
133	DPW	Complete Streets	Complete Streets Improvements - Beacon @ Chestnut	Upgrade traffic signal equipment, improve multimodal safety, accessibility and operations.	$ 1,400,000	28.5	Bonding/Free Cash	$ -	$ -	$ -	$ -	$ 150,000	$ 1,250,000	$ -
147	DPW	Complete Streets	Complete Streets Improvements - Newton Centre	Upgrade traffic signal equipment, improve multimodal safety and operations, enhance streetscape, implement signal coordination.	$ 7,500,000	26.6	Bonding	$ -	$ -	$ -	$ -	$ -	$ -	$ -
175	DPW	Bridge	Concord St Bridge over Charles River	Repair bridge in collaborative effort with the Town of Weston.	$ 1,000,000	21.3	Bonding	$ -	$ -	$ -	$ -	$ -	$ -	$ -
180	DPW	Complete Streets	Complete Streets Improvements - Intersection at Walnut Street/Watertown Street and Walnut Street/Lowell Avenue	Replace traffic signal equipment, improve multimodal safety and operations, install ADA compliant ramps, implement traffic calming, reduce excess pavement area	$ 2,500,000	20.7	Bonding	$ -	$ -	$ -	$ -	$ -	$ -	$ 200,000
185	DPW	Complete Streets	Complete Streets Improvements - Intersection at Parker Street / Wheeler Road	Replace traffic signal equipment, improve multimodal safety and operations, install ADA compliant ramps, reduce excess pavement area	$ 1,750,000	20.1	Bonding	$ -	$ -	$ -	$ -	$ -	$ -	$ -
187	DPW	Complete Streets	Complete Streets Improvements - Intersection at Auburn Street/Grove Street/Central Street	Upgrade traffic signal equipment and make ADA improvements.	$ 850,000	19.8	Bonding	$ -	$ -	$ -	$ -	$ -	$ 100,000	$ 600,000
196	DPW	Complete Streets	Complete Streets Improvements - Intersection at Bridge Street/California Street	Complete Streets Improvements - Intersection at Bridge Street/California Street	$ 1,000,000	16.8	Bonding/Mitigation Fund	$ -	$ -	$ -	$ -	$ -	$ -	$ -
208	DPW	Complete Streets	Complete Streets Improvements - Wells Ave @ Nahanton	Upgrade traffic signal equipment, install ADA compliant ramps, improve multimodal safety, accessibility, and operations.	$ 4,000,000	11.8	Bonding/Other Funds	$ -	$ -	$ -	$ -	$ -	$ -	$ -
2	DPW/ Sewer	Sewer	Sewer Inflow /Infiltration Project - Area 7 - Upper Falls, Highlands, Thompsonville	Part of 10 Phase program to remove excess inflow and infiltration into sewer system.	$ 7,919,115	73.0	MWRA Grant/Loan	$ 7,919,115	$ -	$ -	$ -	$ -	$ -	$ -
3	DPW/ Sewer	Sewer	Sewer Inflow/ Infiltration Project - Area 8 - Upper Falls, Highlands, Thompsonville & Oak Hill	Part of 10 Phase program to remove excess inflow and infiltration into sewer system.	$ 7,453,196	70.2	MWRA Grant/Loan/Sewer Funds	$ 7,453,196	$ -	$ -	$ -	$ -	$ -	$ -
18	DPW/ Sewer	Sewer	Sewer Inflow/Infiltration Project - Area 9 - Waban, Upper Falls & Oak Hill	Part of 10 Phase program to remove excess inflow and infiltration into sewer system.	$ 4,200,000	62.4	Sewer Funds	$ 1,095,023	$ -	$ 3,104,977	$ -	$ -	$ -	$ -
19	DPW/ Sewer	Sewer	Sewer Inflow/Infiltration Project - Area 9 Phase 2 - Waban, Upper Falls & Oak Hill	Part of 10 Phase program to remove excess inflow and infiltration into sewer system and includes post-flow.	$ 5,000,000	62.4	Sewer Funds	$ -	$ -	$ -	$ 5,000,000	$ -	$ -	$ -
29	DPW/ Sewer	Sewer	Pump Station Upgrades	Design and construct Sewer Pump Stations upgrades as part of 10-phase program.	$ 23,000,000	58.8	Sewer Funds	$ 447,000	$ 4,263,490	$ 1,200,000	$ 1,500,000	$ 1,500,000	$ 2,000,000	$ 2,000,000
70	DPW/ Sewer	Sewer	Sewer Inflow/Infiltration Project - Area 10 - Waban, Newton Highlands, Newton Centre, & Newton Corner	Part of 10-phase program to remove excess inflow and infiltration into sewer system. Ward St from Waverley Ave to Centre St.	$ 4,888,308	44.0	Sewer Funds	$ 813,308	$ -	$ 300,000	$ -	$ 3,775,000	$ -	$ -

CIP by Department FY2024-FY2028

								Total	Total	Total	Total	Total	Total	Total
								$ 152,702,634	$ 44,633,490	$ 127,527,773	$ 81,192,380	$104,925,500	$ 40,801,600	$ 23,628,000
Priority	Dept	Asset Category	Project Title	Project Description / Justification	Est Cost in FY2023	Priority Factor	Funding Source	Approved Funding	FY2023 to be Docketed/Approved	FY2024	FY2025	FY2026	FY2027	FY2028
79	DPW/ Sewer	Sewer	Sewer Inflow/Infiltration Project - Area 11 - Chestnut Hill, Newton Corner, Oak Hill, & Thompsonville	Part of 10 Phase program to remove excess inflow and infiltration into sewer system. Will be in Phase 10 of City-Wide Sewer Initiative.	$ 4,000,000	39.6	Sewer Funds	$ 774,000	$ -	$ -	$ -	$ -	$ 1,613,000	$ 1,613,000
123	DPW/ Sewer	Sewer	Sewer Inflow/Infiltration- Cheesecake and Laundry Brook Drainage	Investigation, Design & Construction of sewer laterals & manholes along interceptor sewers within Cheesecake and Laundry Brook Drainage Basins.	$ 2,000,000	30.3	Sewer Funds	$ -	$ -	$ -	$ -	$ -	$ 2,000,000	$ -
14	DPW/ Storm	Storm	Bullough's Pond Dam	Complete State-Required repair work for dam safety.	$ 3,000,000	65.0	Stormwater	$ 618,620	$ -	$ -	$ 2,381,380	$ -	$ -	$ -
17	DPW/ Storm	Storm	Phase 1 Phosphorus Control Plan (PCP)	Development of City's PCP required by US EPA under the MS4 general permit	$ 953,000	62.8	Stormwater	$ 300,000	$ 395,000	$ -	$ 258,000	$ -	$ -	$ -
40	DPW/ Storm	Storm	City Hall Ponds	Removal of accumulated sediment from three ponds adjacent to City Hall.	$ 1,040,000	55.1	Stormwater Funds	$ 650,000	$ 390,000	$ -	$ -	$ -	$ -	$ -
48	DPW/ Storm	Storm	Elliot & Crafts Street DPW Operations Yard	Modifications to existing storm water infrastructure to meet NPDES MS4 General Permits BMP's.	$ 1,000,000	51.8	Stormwater	$ -	$ 200,000	$ 200,000	$ 200,000	$ 200,000	$ 200,000	$ -
51	DPW/ Storm	Storm	Edmands Brook Drainage Basin	Design for flood mitigation and the reduction of Phosphorus for the NPDES MS4 Permit.	$ 1,404,000	49.5	Stormwater/Other Funds	$ 104,000	$ 400,000	$ -	$ 900,000	$ -	$ -	$ -
56	DPW/ Storm	Storm	South Meadow Brook Culvert under Needham Street	Phase 1 - Inspection & assessment of Box Culvert. Phase 2 - Design & Rehabilitation of Box Culvert.	$ 3,205,000	48.2	Stormwater	$ 280,000	$ -	$ -	$ -	$ 500,000	$ 2,425,000	$ -
74	DPW/ Storm	Storm	Union Street Drainage	The extension of storm drains on Union Street to alleviate flooding and icing issues in the area of Herrick Road.	$ 850,000	43.0	Stormwater	$ -	$ 100,000	$ 750,000	$ -	$ -	$ -	$ -
84	DPW/ Storm	Storm	Evaluation, design and construction of Cheesecake Brook-Commonwealth Av. to the rear of 1600 Washington Street	Replace culvert headwall, remove remaining fieldstone channel walls to restore natural brook channel and provide buffer for nutrient removal (water quality).	$ 900,000	38.5	Stormwater	$ -	$ -	$ -	$ 200,000	$ 700,000	$ -	$ -
85	DPW/ Storm	Storm	Cheesecake Brook -1660 Washington St. to Watertown St.	Inspection & Assessment, Design and Rehabilitation of +/-6000 LF of Box Culvert.	$ 900,000	38.5	Stormwater	$ -	$ -	$ -	$ -	$ 200,000	$ 700,000	$ -
91	DPW/ Storm	Storm	Cheesecake Brook-Watertown St. to Charles River	Inspection & Assessment, Design and Rehabilitation of Fieldstone Channel walls and floor.	$ 1,450,000	36.7	Stormwater	$ -	$ -	$ -	$ -	$ 150,000	$ -	$ 1,300,000
115	DPW/ Storm	Storm	Cheesecake Brook Roadway Culvert Crossings	Design & Construction of culvert improvements at Parsons, Cross and Eddy Street.	$ 750,000	32.0	Stormwater	$ -	$ -	$ -	$ -	$ -	$ -	$ 150,000
119	DPW/ Storm	Storm	Reduce Impervious Area	Reduce Impervious Area to 5 Municipal Properties per NPDES MS4 Requirements.	$ 650,000	31.0	Stormwater	$ -	$ -	$ -	$ -	$ -	$ 325,000	$ 325,000
120	DPW/ Storm	Storm	Laundry Brook Culvert-Parkview to Mass Pike	Rehabilitation +/-1000 LF Box Culvert based on FY 18 evaluation.	$ 650,000	30.9	Stormwater	$ -	$ -	$ -	$ -	$ -	$ 650,000	$ -
126	DPW/ Storm	Storm	Laundry Brook Culvert-Hull street to Bridges Avenue	Design and construction of culvert rehabilitation from Hull St to Bridges Ave.	$ 750,000	30.1	Stormwater	$ -	$ -	$ -	$ -	$ 750,000	$ -	$ -
200	DPW/ Storm	Storm	Pellegrini Park Drain Replacement	Storm drain between Jenison and Hawthorne needs to be replaced due to structural failure, causing flooding at Jenison @ Judkins.	$ 200,000	16.1	Stormwater	$ -	$ -	$ -	$ -	$ -	$ -	$ 40,000
212	DPW/ Storm	Storm	Hammond Brook-Glen Ave. to Centre St.	Cleaning, Inspection, Structural Evaluation, Design, Rehabilitation and Construction of Hammond Brook Culvert.	$ 600,000	9.7	Stormwater	$ -	$ -	$ -	$ -	$ -	$ -	$ -
4	DPW/ Water	Water	Commercial & Residential Water Meter Replacement Project	Removal & Replacement of 125 commercial electromagnetic water meters sized 2"-8" diameter, +/-26,000 residential meters sized 5/8"-1 1/2", installation of new AMI system with customer portal.	$ 16,625,000	70.1	Water / Sewer Funds	$ 16,625,000	$ -	$ -	$ -	$ -	$ -	$ -
5	DPW/ Water	Water	Waban Hill Covered Reservoir	Rehabilitation of pipes, valves, all appurtenances and roof replacement. Includes cleaning, inspection, design, and construction services.	$ 1,485,000	68.6	Water Funds	$ 1,185,000	$ 300,000	$ -	$ -	$ -	$ -	$ -
11	DPW/ Water	Water	Revised Lead and Copper Rule	EPA requires a complete system wide lead inventory to be submitted by 10/16/2024. This inventory will be used in determining future lead reduction efforts.	$ 150,000	65.2	Water Funds	$ -	$ 150,000	$ -	$ -	$ -	$ -	$ -
15	DPW/ Water	Water	Replace Water Pipelines - Phase 8	Cleaning and lining of water pipes to improve water quality, reduce water leakage and ensure pipe integrity and capacity. Precedes scheduled roadway paving. Project is currently Phase 8 of 20-phase program. Ward Street Phase I (Manet Rd to Waverley Ave).	$ 4,263,490	63.6	MWRA Loan/Water Funds	$ 4,263,490	$ -	$ -	$ -	$ -	$ -	$ -
49	DPW/ Water	Water	Replace Water Pipelines - Phase 9	Cleaning and lining of water pipes to improve water quality, reduce water leakage and ensure pipe integrity and capacity. Precedes scheduled Needham Street roadway paving.	$ 7,236,730	51.3	Water Funds	$ 7,236,730	$ -	$ -	$ -	$ -	$ -	$ -
50	DPW/ Water	Water	Replace Water Pipelines - Phase 10	Cleaning and lining of water pipes to improve water quality, reduce water leakage and ensure pipe integrity and capacity. Precedes scheduled roadway paving. Project will be in Phase 10 of 20-phase program.	$ 4,750,000	51.3	MWRA Loan/Water Funds	$ -	$ 4,750,000	$ -	$ -	$ -	$ -	$ -
68	DPW/ Water	Water	Replace Water Pipelines - Phase 11	Cleaning and lining of water pipes to improve water quality, reduce water leakage and ensure pipe integrity and capacity. Precedes scheduled roadway paving. Project will be in Phase 11 of 20-phase program.	$ 4,750,000	44.0	MWRA Loan/Water Funds	$ -	$ -	$ 4,750,000	$ -	$ -	$ -	$ -
69	DPW/ Water	Water	Replace Water Pipelines - Phase 12	Cleaning and lining of water pipes to improve water quality, reduce water leakage and ensure pipe integrity and capacity. Precedes scheduled roadway paving.	$ 4,750,000	44.0	MWRA Loan/Water Funds	$ -	$ -	$ -	$ 4,750,000	$ -	$ -	$ -

CIP by Department FY2024-FY2028

								Total	Total	Total	Total	Total	Total	Total
								$ 152,702,634	$ 44,633,490	$ 127,527,773	$ 81,192,380	$104,925,500	$ 40,801,600	$ 23,628,000
Priority	Dept	Asset Category	Project Title	Project Description / Justification	Est Cost in FY2023	Priority Factor	Funding Source	Approved Funding	FY2023 to be Docketed/Approved	FY2024	FY2025	FY2026	FY2027	FY2028
92	DPW/ Water	Water	Replace Water Pipelines - Phase 13	Cleaning and lining of water pipes to improve water quality, reduce water leakage and ensure pipe integrity and capacity. Precedes scheduled roadway paving. Project will be in Phase 13 of 20-phase program.	$ 4,750,000	36.7	MWRA Loan/Water Funds	$ -	$ -	$ -	$ -	$ 4,750,000	$ -	$ -
93	DPW/ Water	Water	Replace Water Pipelines - Phase 14	Cleaning and lining of water pipes to improve water quality, reduce water leakage and ensure pipe integrity and capacity. Precedes scheduled roadway paving. Project will be in Phase 14 of 20-phase program.	$ 4,750,000	36.7	MWRA Loan/Water Funds	$ -	$ -	$ -	$ -	$ -	$ 4,750,000	$ -
34	Fire Dept	Large Vehicle / Equipment	New pumper truck (Engine 7)	Replace 2007 pumper truck (Engine 7) that will soon be beyond the NFPA standard of 15 years.	$ 800,000	57.4	Free Cash	$ -	$ 800,000	$ -	$ -	$ -	$ -	$ -
55	Fire Dept	Building	Fire Station # 2 Projects	Windows, HVAC - Heat Pumps, Sprinklers & Interior Upgrades.	$ 1,067,000	48.6	ARPA / Free Cash	$ 300,000	$ -	$ -	$ -	$ 767,000	$ -	$ -
75	Fire Dept	Building	Fire Station # 1 Projects	Sprinklers, HVAC & Interior Upgrades.	$ 450,000	42.1	ARPA / Free Cash	$ 200,000	$ -	$ -	$ -	$ 250,000	$ -	$ -
76	Fire Dept	Large Vehicle / Equipment	Replace Emergency Response Van (ERU)	Purchase a new ERU van. It carries haz-mat equipment such as booms, speedi-dry, Level 3 haz-mat suits etc.	$ 350,000	42.1	Bonding/Free Cash	$ -	$ -	$ -	$ -	$ 350,000	$ -	$ -
86	Fire Dept	Large Vehicle / Equipment	Replace Fire Dept Aerial Ladder #3	Replace 2009 Ladder 3. Ladder 3 becomes a spare, replacing spare Ladder 4.	$ 1,450,000	38.3	Bonding	$ -	$ -	$ -	$ 1,450,000	$ -	$ -	$ -
111	Fire Dept	Building	Fire Station #2, West Newton - Renovation	Fire Station work includes mechanical, electrical, plumbing, code compliance and accessibility upgrades.	$ 25,000,000	33.5	Bonding	$ -	$ -	$ -	$ -	$ -	$ -	$ -
112	Fire Dept	Large Vehicle / Equipment	Replace Fire Pumper Truck (Engine 4)	Engine 4 replacement (2010).	$ 800,000	32.8	Bonding	$ -	$ -	$ -	$ -	$ -	$ 800,000	$ -
124	Fire Dept	Building	Fire Station #1 (Newton Corner) - Renovation	Fire Station work includes mechanical, electrical, plumbing, code compliance and accessibility upgrades.	$ 15,000,000	30.2	Bonding	$ -	$ -	$ -	$ -	$ -	$ -	$ -
184	Fire Dept	Large Vehicle / Equipment	Replace Fire Pumper Truck (Engine 10)	Engine 10 replacement (2012).	$ 800,000	20.3	Bonding	$ -	$ -	$ -	$ -	$ -	$ -	$ -
192	Fire Dept	Large Vehicle / Equipment	Replace Fire Dept Aerial Ladder #1	Ladder 1 (2013) replacement.	$ 1,450,000	18.4	Bonding	$ -	$ -	$ -	$ -	$ -	$ -	$ -
209	Fire Dept	Large Vehicle / Equipment	Apparatus Replacement Plan	Replacement of R1 vehicle (2016).	$ 1,200,000	10.5	Bonding	$ -	$ -	$ -	$ -	$ -	$ -	$ -
213	Historic Newton	Parks / Open Space	Restoration of Historic West Burying Grounds	Preservation of gravestones. Repair stone wall boundary. Install educational signage.	$ 75,000	9.6	CPA Eligible/Other Funds	$ -	$ -	$ -	$ -	$ -	$ -	$ -
214	Historic Newton	Parks / Open Space	Restoration of Historic South Burying Grounds	Preservation of gravestones. Tree work. Repair stone wall boundary. Install educational signage.	$ 75,000	9.6	CPA Eligible/Other Funds	$ -	$ -	$ -	$ -	$ -	$ -	$ -
31	IT	Software	New Municipal Information and Permitting System (NewGov)	Implement a first-ever Newton Municipal Information and Permitting System.	$ 1,137,285	58.0	Free Cash	$ 1,137,285	$ -	$ -	$ -	$ -	$ -	$ -
205	IT	Hardware / Software	Police IT Storage Area Network	Replacement of outdated servers, consolidation of systems, organization of data by divisions with enhanced security and support	$ 150,000	12.4	Free Cash	$ -	$ -	$ -	$ -	$ -	$ -	$ -
206	IT	Infrastructure	IT Infrastructure Refreshment Plan	Core switch replacement at Police, Fire, City Hall; Enhancement to our load balancing/FTD scheme; A real wireless solution, new in the box- first ever; SAN Enhancements	$ 200,000	12.3	Free Cash	$ -	$ -	$ -	$ -	$ -	$ -	$ -
118	Jackson Homestead	Building	Jackson Homestead - Basement	Finish basement galleries: New flooring; envelope treatment, gallery walls, (keep water and condensation out).	$ 1,075,000	31.1	CPA Eligible/Other Funds	$ 275,000	$ -	$ 800,000	$ -	$ -	$ -	$ -
191	Jackson Homestead	Parks / Open Space	Restoration of Historic East Burying Grounds	Tree work. Tomb restoration, gravestone repair, and other restoration. Repair stone gate posts. Install educational signage.	$ 85,000	18.4	CPA Eligible	$ -	$ -	$ -	$ -	$ -	$ -	$ -
193	Jackson Homestead	Building	Jackson Homestead - Exterior Windows & Doors	Restore existing windows, storm windows, shutters, and doors as historically appropriate.	$ 250,000	18.0	CPA Eligible	$ -	$ -	$ -	$ -	$ -	$ -	$ -
43	Library	Building	Library HVAC Improvements	HVAC system upgrades to electrify the building.	$ 750,000	53.7	Other Funds	$ -	$ 100,000	$ -	$ 650,000	$ -	$ -	$ -
88	Library	Building	Library Roof Membrane	Replace 8,000 sf of ballasted rubber membrane roof installed ca1990. Will enable solar pv installation.	$ 285,000	37.7	Bonding	$ -	$ -	$ -	$ -	$ 285,000	$ -	$ -
152	Library	Building	Library - Phase 3: Interior Renovations	Create more first floor public space by relocating staff offices to 3rd floor; replace 1991 carpet, repaint, replace worn furnishings.	$ 5,000,000	25.6	Bonding	$ -	$ -	$ -	$ -	$ -	$ -	$ 100,000
194	Library	Building	Newton Free Library - Generator Replacement	Library used as cooling station for residents. Existing energy agreement mandates peak usage on auxiliary power when regional demand is high extreme.	$ 250,000	17.6	Bonding	$ -	$ -	$ -	$ -	$ -	$ -	$ -

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Priority	Dept	Asset Category	Project Title	Project Description / Justification	Est Cost in FY2023	Priority Factor	Funding Source	Approved Funding	FY2023 to be Docketed/Approved	FY2024	FY2025	FY2026	FY2027	FY2028
9	Parks & Rec	Building	City Auditorium at 150 Jackson Road	Renovate existing auditorium to create Indoor theater and musical arts performance venue with stage, backstage area, storage, seating, and rehearsal space. Will be fully accessible.	$ 3,000,000	66.3	Bonding/ARPA	$ 1,800,000	$ -	$ -	$ 1,200,000	$ -	$ -	$ -
12	Parks & Rec	Parks / Open Space	Newton South Brandeis Field Lights	Installation of field lights at Newton South High School Brandeis Rd Field.	$ 700,000	65.2	ARPA	$ 700,000	$ -	$ -	$ -	$ -	$ -	$ -
13	Parks & Rec	Parks / Open Space	Newton North High School Field Lights	Installation of field lights at Newton North High School Stadium.	$ 700,000	65.2	ARPA /NNHS Boosters Club	$ 700,000	$ -	$ -	$ -	$ -	$ -	$ -
16	Parks & Rec	Parks / Open Space	Gath Memorial Pool Project	Replace Gath Pool with lap pool, community pool, and splash pad. Replace all mechanical systems, improve accessibility, improve bath house interior. Pool area will be bubble ready.	$ 6,060,000	63.5	CPA Eligible/ARPA	$ 486,500	$ 6,000,000	$ -	$ -	$ -	$ -	$ -
25	Parks & Rec	Parks / Open Space	Cabot Park Improvements	As part of the $49 million Cabot School Project debt exclusion this project update recreational amenities including basketball court, and accessible pathways from Norwood to Newtonville Ave.	$ 150,000	59.5	Cabot School Project	$ 150,000	$ -	$ -	$ -	$ -	$ -	$ -
26	Parks & Rec	Parks / Open Space	Horace Mann School Playground	Build new additional playground facilities.	$ 250,000	59.5	ARPA	$ 250,000	$ -	$ -	$ -	$ -	$ -	$ -
27	Parks & Rec	Parks / Open Space	Levingston Cove, Shoreline improvements at Crystal Lake	Renovation of entire lakefront park to include improvements to accessibility, drainage, erosion and water quality.	$ 2,005,500	59.1	CPA Eligible/ State Funds/ARPA	$ 2,005,500	$ -	$ -	$ -	$ -	$ -	$ -
35	Parks & Rec	Parks / Open Space	Marty Sender Path Phase 2 - Boardwalk and trail improvements	Install accessible, shared-use trail and boardwalk over flood-prone area.	$ 400,000	57.3	CPA Eligible/Other Funds/State Funds	$ -	$ 400,000	$ -	$ -	$ -	$ -	$ -
36	Parks & Rec	Parks / Open Space	Burr Elementary School Fields Development	Renovate natural grass area to maximize athletic field space and install irrigation. Install new accessible perimeter pathway.	TBD	57.0	CPA Eligible	$ -	TBD	$ -	$ -	$ -	$ -	$ -
42	Parks & Rec	Parks / Open Space	Engineering and Design of Athletic Field Improvements	Engineering and design work for projects on the 5 year athletic field improvements plan. Improvements to include accessibility enhancements, field reconfigurations, and upgrades to supporting athletic field amenities.	$ 420,000	53.9	CPA Eligible	$ 420,000	$ -	$ -	$ -	$ -	$ -	$ -
44	Parks & Rec	Parks / Open Space	Brown/ Oak Hill Middle Schools Fields Development	Renovate natural grass area to maximize athletic field space and increase accessibility.	TBD	53.2	CPA Eligible	$ -	TBD	$ -	$ -	$ -	$ -	$ -
45	Parks & Rec	Parks / Open Space	McGrath Park Fields Redesign and Development	Reconfigure athletic fields and courts, expand irrigation, install new accessible perimeter pathway.	TBD	53.1	CPA Eligible/CDBG Eligible	$ -	TBD	$ -	$ -	$ -	$ -	$ -
46	Parks & Rec	Building	Pellegrini Park Field House - Exterior Improvements	Envelope repairs, replace upper gym membrane roof with a new EPDM roof.	$ 200,000	53.1	Other Funds	$ -	$ 200,000	$ -	$ -	$ -	$ -	$ -
52	Parks & Rec	Parks / Open Space	Russ Halloran Sports and Recreation Complex at Albemarle Master Plan	Develop a phased park-wide master plan. Replace 50-year-old sports lighting, reconfigure existing fields for improved and expanded play, and expand lighting to Murphy Field. Improve accessibility and drainage. Potential Synthetic Turf field to include football/soccer/lacrosse field along Crafts Street.	$ 5,270,000	48.9	CPA Eligible/Sport Group Contributions/Other Funds	$ -	$ 3,270,000	$ 2,000,000	$ -	$ -	$ -	$ -
53	Parks & Rec	Bridge	Cheesecake Brook Footbridge	Project to replace or add new footbridge structure over Cheesecake Brook near Albemarle Field.	$ 400,000	48.7	Bonding/Other Funds	$ -	$ -	$ -	$ 400,000	$ -	$ -	$ -
60	Parks & Rec	Parks / Open Space	Create a new Park at 150 Jackson Road	Project to create meaningful open space, passive and active recreation elements for both the Lincoln-Eliot School and the community.	TBD	46.8	Bonding/Other Funds	$ -	$ -	$ -	$ -	$ -	$ -	$ -
62	Parks & Rec	Parks / Open Space	Upper Falls Splash Park	New splash park to be built by Northland development as part of larger project. To be owned and operated by Parks, Rec and Culture. Expected in late 2024.	$ 1,000,000	46.4	Other Funds	$ 1,000,000	$ -	$ -	$ -	$ -	$ -	$ -
67	Parks & Rec	Parks / Open Space	Newton South High School Synthetic Turf Field and Track Replacement	Replacement of synthetic turf and track at Brandeis Road and Stadium fields. Current field was installed in 2009.	$ 2,100,000	44.5	Free Cash	$ 67,000	$ 1,433,000	$ -	$ -	$ -	$ -	$ -
73	Parks & Rec	Parks / Open Space	Newton North High School Synthetic Turf Field and Track Replacement	Replacement of synthetic turf and track at Newton North High School. Current field was installed in 2010.	$ 1,100,000	43.3	Free Cash / Other Funds	$ 33,000	$ 667,000	$ -	$ -	$ -	$ -	$ -
77	Parks & Rec	Parks / Open Space	Crystal Lake Phase II Improvements ("Left Beach" and Park Area)	Stabilize "Left beach" and create a sustainable shoreline area for sunbathing, access into the water, and improved recreation, enhance connectivity and accessibility.	$ 1,500,000	41.5	CPA Eligible/ARPA/State Funds	$ 175,000	$ -	$ 1,325,000	$ -	$ -	$ -	$ -
78	Parks & Rec	Parks / Open Space	Accessible Playground Surfacing Improvements	Install accessible playground surface matting systems at playgrounds throughout the city	$ 2,000,000	40.9	Other Funds/State Funds/ARPA	$ 142,000	$ -	$ 100,000	$ 100,000	$ 100,000	$ 100,000	$ 100,000
82	Parks & Rec	Parks / Open Space	Pellegrini Field Sports Lights	Replace sports lighting and poles at Pellegrini.	$ 750,000	39.0	CPA Eligible/Other Funds	$ -	$ -	$ -	$ -	$ -	$ -	$ -
87	Parks & Rec	Parks / Open Space	Crescent Street Project - Rehab and expand Ford Park	Rehabilitation and expansion of Ford Playground to include improvements to stormwater , accessibility, and overall park experience.	$ 1,600,000	37.9	CPA Eligible	$ 156,000	$ -	$ -	$ 1,444,000	$ -	$ -	$ -
89	Parks & Rec	Parks / Open Space	Newton Centre Performing Arts Pavilion	Install outdoor permanent performance pavilion and stage at Newton Centre Playground including electricity, lighting, accessible seating area, stage access, and restroom plan.	$ 2,000,000	37.6	ARPA/Other Funds	$ 50,000	$ -	$ -	$ -	$ 1,950,000	$ -	$ -

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Priority	Dept	Asset Category	Project Title	Project Description / Justification	Est Cost in FY2023	Priority Factor	Funding Source	Approved Funding	FY2023 to be Docketed/Approved	FY2024	FY2025	FY2026	FY2027	FY2028
97	Parks & Rec	Building	Jeanette Curtis West Rec Ctr (The Hut)	Address facility needs for multiple programs.	$ 2,500,000	36.0	Bonding	$ -	$ -	$ -	$ -	$ -	$ -	$ -
102	Parks & Rec	Parks / Open Space	Tennis Courts - Replace Burr Park Tennis Courts	Redesign & construct existing tennis courts at Burr Park (Waverley Park). Work includes repair and replacement of existing retaining walls.	$ 1,100,000	35.2	Bonding	$ -	$ -	$ -	$ -	$ 1,100,000	$ -	$ -
114	Parks & Rec	Building	Kennard Estates Site Improvements	Install utilities, pave parking lot.	$ 425,000	32.0	Bonding	$ -	$ -	$ -	$ -	$ -	$ -	$ -
117	Parks & Rec	Parks / Open Space	Old Cold Spring Field	Renovation of existing field space to include regrading, drainage, irrigation and accessibility improvements.	$ 350,000	31.2	Bonding/CPA Eligible	$ -	$ -	$ -	$ -	$ -	$ -	$ -
121	Parks & Rec	Parks / Open Space	Riverside Greenway - Pigeon Hill Trail Improvements	Restoration of former connectivity walking trail that was severed during Mass Pike construction.	$ 550,000	30.9	CPA Eligible/State Funds	$ 212,000	$ -	$ -	$ -	$ -	$ -	$ -
125	Parks & Rec	Building	Auburndale Cove Fieldhouse - Building Upgrades	Project to fully upgrade existing building or replace with new structure.	$ 1,000,000	30.1	Bonding	$ -	$ -	$ -	$ -	$ -	$ -	$ -
129	Parks & Rec	Building	Burr Park Field House - Accessibility/Site Upgrades	Accessibility upgrades to toilet rooms and fixtures, signage, drinking fountain, and door hardware. Provide accessible path to entrance and an accessible parking space.	$ 250,000	29.8	Bonding/CPA Eligible	$ -	$ -	$ -	$ -	$ -	$ -	$ -
130	Parks & Rec	Building	Kennard Estate	Accessibility upgrades, gutters, plumbing/electrical.	$ 500,000	28.9	Bonding/CPA Eligible	$ -	$ -	$ -	$ -	$ -	$ -	$ -
131	Parks & Rec	Parks / Open Space	Lyons Field Drainage Improvements	Renovation of the natural grass field to improve drainage.	TBD	28.9	Stormwater/Other Funds	$ -	$ -	$ -	$ -	$ -	$ -	$ -
134	Parks & Rec	Building	Crystal Lake Bathhouse - Renovate/Replace	Renovate/Replace bathhouse and improve swim beach front.	$ 5,000,000	28.3	CPA Eligible/Other Funds	$ -	$ -	$ -	$ -	$ -	$ -	$ -
138	Parks & Rec	Parks / Open Space	Forte Park Field Improvements	Renovate natural grass area to maximize athletic field space for softball field, soccer/lacrosse. Improvements include relighting and improved accessibility.	$ 2,000,000	27.9	Bonding/CPA Eligible/ Developer Mitigation	$ 200,000	$ -	$ -	$ -	$ -	$ -	$ -
153	Parks & Rec	Building	Emerson Community Center - Accessibility Upgrades	Upgrade toilet rooms, install accessible door hardware and drinking fountains; Resurface main entrance ramp and install handrails.	$ 250,000	25.2	Bonding	$ -	$ -	$ -	$ -	$ -	$ -	$ -
154	Parks & Rec	Parks / Open Space	Braceland Park - Update Master Plan for Park Renovation	Park renovation based on previous master plan and any required adjustments to the plan. Construction to include new athletic fields, play structures, basketball court and other improvements including accessibility.	$ 2,000,000	25.2	Bonding/CPA Eligible	$ -	$ -	$ -	$ -	$ -	$ -	$ -
159	Parks & Rec	Building	Burr Park Field House - Building Envelope and Window Restoration (Waverley Ave. / Park St.)	Repair damaged exterior brick walls and trim. Remove entry landing stairs and railings and install new code-compliant landing, stairs and railings. Restore windows.	$ 313,500	24.6	CPA Eligible	$ -	$ -	$ -	$ -	$ -	$ -	$ -
161	Parks & Rec	Building	Newton Highlands Playground - Phase II Support Building	Construction of prefabricated restrooms and storage building.	$ 300,000	23.9	Bonding/Other Funds/State Contract	$ -	$ -	$ -	$ -	$ -	$ -	$ -
167	Parks & Rec	Building	Emerson Community Center - Electrical Upgrades	Replace switchboard and increase service size to meet electrical demands. Replace original overloaded electrical panels. Install emergency audiovisual horn strobes.	$ 150,000	22.9	Bonding	$ -	$ -	$ -	$ -	$ -	$ -	$ -
168	Parks & Rec	Building	Feasibility Study for New Indoor Swimming Pool	A feasibility study to research issues and options for creation of a second City indoor swimming pool.	$ 200,000	22.5	Bonding	$ -	$ -	$ -	$ -	$ -	$ -	$ -
177	Parks & Rec	Parks / Open Space	Chaffin Park Wall	Replacement of existing wall along perimeter of Chaffin Park (Vernon and Centre Streets).	$ 200,000	21.0	CPA Eligible	$ -	$ -	$ -	$ -	$ -	$ -	$ -
178	Parks & Rec	Building	Pellegrini Park Field House - Electrical Upgrades	Upgrade lighting and power distribution for energy efficiency. Provide protective cages over gym fixtures. Replace electric panels.	$ 176,000	20.8	Bonding	$ -	$ -	$ -	$ -	$ -	$ -	$ -
207	Parks & Rec	Parks / Open Space	Nahanton Park - Nature Center Accessibility	Renovation of two existing parking areas and upgrades to pedestrian connection to Nature Center - Canoe and Kayak Rental Building.	$ 150,000	12.2	Bonding/CPA Eligible	$ -	$ -	$ -	$ -	$ -	$ -	$ -
22	Planning	Complete Streets	Washington Place Mitigation Project	Implement mitigation projects in Newtonville arising from Washington Place development in Newtonville, including sidewalks and fencing.	$ 700,000	61.2	Mitigation Funds	$ 286,500	$ -	$ -	$ -	$ 413,500	$ -	$ -
24	Planning	Building	West Newton Armory Reuse - Affordable Housing	Project to convert the Armory into 100% affordable housing.	$ 27,800,000	59.6	CPA Eligible/CDBG/Other Funds	$ 5,160,000	$ -	$ -	TBD	TBD	$ -	$ -
47	Planning	Complete Streets	Pettee Square/Upper Falls Greenway Improvements	Targeted improvements to Pettee Square in Newton Upper Falls and extension of the Upper Falls Greenway to Curtis Street.	$ 3,028,296	52.2	State MassWorks Grant /Other Funds	$ 396,500	$ -	$ 2,631,796	$ -	$ -	$ -	$ -
54	Planning	Complete Streets	Reconstruction of Commonwealth Avenue (Route 30) from East of Auburn St to Ash St	Transform the Commonwealth Avenue Carriageway between Lyons Field and the Charles River at Auburn Street. Project aims to create safe bicycle and pedestrian facilities to improve connectivity to green space, trails, and other recreational opportunities.	$ 7,401,000	48.6	CPA Eligible/State Funding/	$ 723,000	$ -	$ -	$ 6,678,000	$ -	$ -	$ -
58	Planning	Complete Streets	Design and Implement Washington Street Pilot	Design for Washington St. pilot to improve safety and pedestrian accommodations, Improve traffic flow, ADA compliance.	$ 3,500,000	47.2	ARPA/Other Funds	$ 3,500,000	$ -	$ -	$ -	$ -	$ -	$ -

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Priority	Dept	Asset Category	Project Title	Project Description / Justification	Est Cost in FY2023	Priority Factor	Funding Source	Approved Funding	FY2023 to be Docketed/Approved	FY2024	FY2025	FY2026	FY2027	FY2028
59	Planning	Complete Streets	Crafts @ Albemarle Intersection Improvements (SRTS)	State funded project to upgrade the intersections of Crafts Street – Albemarle Road and Albemarle Road – North Street, to improve bicycle and pedestrian accommodations near the Horace Mann Elementary School, Day Middle School and NECP. Project includes new fully actuated crosswalk system and a rapid-flashing beacon crosswalk.	$ 900,000	47.2	State TIP Funding	$ -	$ -	$ -	$ 900,000	$ -	$ -	$ -
81	Planning	Complete Streets	Design and implement multi-modal improvements on Albemarle and Brookside from Charles River to Washington	Design and implement a two-way bike facility, improved pedestrian accommodations and streamlined pickup and drop off areas. Early implementation of the project does not include reconstruction of the road.	$ 2,200,000	39.1	Bonding/Other Funds/State Grants	$ 200,000	$ -	$ -	$ 200,000	$ -	$ 2,000,000	$ -
95	Planning	Building	Walker Center House Rehabilitation	Restoration and upgrades to convert the former Walker Center historical properties located on Hancock and Grove Streets to become affordable family housing units.	TBD	36.4	CPA Eligible/Other Funds/Grants/ARPA	$ 2,450,000	$ -	TBD	$ -	$ -	$ -	$ -
113	Planning	Complete Streets	Complete Streets Improvements - Washington Street - West Newton to Newton Corner - Construction	Construction to improve safety and pedestrian accommodations, improve traffic flow, ADA compliance.	$ 30,000,000	32.3	Bonding/Other Funds	$ -	$ -	$ -	$ -	$ -	$ 2,500,000	$ 2,500,000
30	Police	Building	Comprehensive Police HQ Facility Renovation and Upgrade Project	HVAC, communications, training facility & space, site security, parking lot, HQ roof replacement, interior renovation and reconfiguration, accessibility improvements, emergency electrical, garage mechanical & electrical upgrades, concrete repairs and windows, doors & building envelope.	$ 13,500,000	58.4	Bonding/ARPA	$ 2,000,000	$ 500,000	$ 3,000,000	$ 3,000,000	$ 5,000,000	$ -	$ -
109	Police	Building	Police Annex - Emergency Generator	Replace generator with emergency battery back-up system, and install energy electrical distribution throughout the building. Update system for ADA compliance. Upgrade exterior lighting & occupancy sensors.	$ 200,000	33.9	Bonding	$ -	$ -	$ -	$ -	$ -	$ -	$ -
142	Police	Building	Police Annex - Exterior Windows & Doors & Building Envelope	Restore/replace windows and doors with historically appropriate energy efficient units. Repoint exterior brick and entry ramp. Repair stone lintels.	$ 200,000	27.4	Bonding/CPA Eligible	$ -	$ -	$ -	$ -	$ -	$ -	$ -
162	Police	Building	Police Annex - Mechanical Upgrades	Install VRF heating and cooling to replace the aging boiler.	$ 200,000	23.9	Bonding	$ -	$ -	$ -	$ -	$ -	$ -	$ -
163	Police	Building	Police Annex - Roof Restoration/ Replacement	Remove and replace slate roofing, gutters and downspouts. Install new EPDM Roof. Reattach downspouts.	$ 255,825	23.5	CPA Eligible	$ -	$ -	$ -	$ -	$ -	$ -	$ -
165	Police	Building	Police Annex - Accessibility Upgrades	Provide accessible toilet rooms, door hardware, signage and drinking fountain. Provide a lower transaction counter.	$ 200,000	23.0	CDBG Eligible	$ -	$ -	$ -	$ -	$ -	$ -	$ -
173	Police	Building	New Police Headquarters Facility Project	Design and Construction of a new Police Headquarters Facility	TBD	21.4	Bonding	$ -	$ -	$ -	$ -	$ -	$ -	$ -
33	Public Buildings	Building	Wash Bay Refurbishment	Refurbish Crafts Street vehicle wash bay with automated vehicle wash system, including capture/recycle wash water, code upgrades for utilities and building.	$ 1,000,000	57.5	Stormwater	$ 500,000	$ 500,000	$ -	$ -	$ -	$ -	$ -
39	Public Buildings	Building	Newton Commonwealth Golf Course Maintenance Facility Project	Renovation and Addition to the Golf Course Maintenance Facility.	$ 3,737,000	55.3	Golf Course Funding	$ 3,737,000	$ -	$ -	$ -	$ -	$ -	$ -
63	Public Buildings	Climate Action	Municipal EV Chargers	Purchase and install EV chargers at municipal and school parking lots throughout the city (electrical connections provided by Eversource grants).	$ 615,000	46.0	Grants / Other Funds	$ -	$ -	$ 300,000	$ 315,000	$ -	$ -	$ -
90	Public Buildings	Building	War Memorial Accessibility/Historic Improvements	Repair and repoint stone cornice. Implement recommendations from 2007 Study of the Memorial Stairs.	$ 2,332,000	37.5	CPA Eligible	$ -	$ -	$ 1,166,000	$ 1,166,000	$ -	$ -	$ -
94	Public Buildings	Building	Waban Community Library-Accessibility Upgrades	Upgrade toilet rooms, Replace door hardware; Modify door at stairwell or install automatic door opener.	$ 150,000	36.4	CDBG Eligible/CPA Eligible - potential for partial	$ -	$ -	$ -	$ -	$ -	$ -	$ -
103	Public Buildings	Building	City Hall Restroom Upgrades	Phased project -Upgrade City Hall Restrooms. Will improve accessibility.	$ 200,000	34.8	Bonding/Other Funds/CDBG	$ -	$ -	$ -	$ -	$ 200,000	$ -	$ -
122	Public Buildings	Building	Elliot Street Sand Salt Shed - Replacement	Replace salt shed.	$ 500,000	30.5	Bonding	$ -	$ -	$ -	$ -	$ -	$ -	$ -
128	Public Buildings	Building	Crafts St DPW Operations (Stable)	Design and Construction for renovated interior including mechanical, electrical, plumbing, and accessibility upgrades.	$ 3,000,000	29.8	CPA Eligible	$ -	$ -	$ -	$ -	$ -	$ -	$ -
137	Public Buildings	Building	Auburndale Community Library -Exterior Windows & Doors	Remove existing exterior wood doors and frames and replace with new doors and hardware. Repair/replace building windows.	$ 200,000	27.9	CPA Eligible	$ -	$ -	$ -	$ -	$ -	$ -	$ -
139	Public Buildings	Building	Vernon St. Building - Building Envelope	Repair front entry concrete. Install new side entry stairs and handrails. Remove and replace wood stairs. Install vents throughout balance of soffits.	$ 335,850	27.9	Bonding/CPA Eligible	$ -	$ -	$ -	$ -	$ -	$ -	$ -
151	Public Buildings	Building	Former Newton Centre Library	Building requires envelope work. Cost for complete building renovation.	$ 1,500,000	25.7	CPA Eligible	$ -	$ -	$ -	$ -	$ -	$ -	$ -
156	Public Buildings	Building	Auburndale Community Library -Accessibility and Site Upgrades	ADA upgrade for the building.	$ 265,000	24.8	CPA Eligible	$ -	$ -	$ -	$ -	$ -	$ -	$ -

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Priority	Dept	Asset Category	Project Title	Project Description / Justification	Est Cost in FY2023	Priority Factor	Funding Source	Approved Funding	FY2023 to be Docketed/Approved	FY2024	FY2025	FY2026	FY2027	FY2028
160	Public Buildings	Building	Crafts Street Garage - Accessibility Upgrades	Install accessible ramp at entrance. Provide accessible toilet rooms. Resurface and re-grade pavement to comply with ADA requirements; Provide accessible parking space.	$ 194,000	24.5	Bonding	$ -	$ -	$ -	$ -	$ -	$ -	$ -
164	Public Buildings	Building	City Hall exterior restoration	Exterior restoration of all non-masonry surfaces and painting of all exterior exposed surfaces for the City Hall building.	$ 3,000,000	23.4	Bonding/Free Cash	$ -	$ -	$ -	$ -	$ -	$ -	$ -
166	Public Buildings	Building	Nonantum Library-Accessibility/Site	Reconfigure entry vestibules and reconstruct ADA compliant ramp. Upgrades for toilet rooms and drinking fountain.	$ 204,000	23.0	CPA Eligible/CDBG Eligible	$ -	$ -	$ -	$ -	$ -	$ -	$ -
169	Public Buildings	Building	Kennard Estate-Building Envelope, Windows and Doors	Replace shingles and flashings. Repair foundation walls. Replace wood windows and shutters with historic, appropriate units.	$ 240,000	22.3	Bonding/CPA Eligible	$ -	$ -	$ -	$ -	$ -	$ -	$ -
170	Public Buildings	Building	Crafts St DPW Operations (Stable) - Restore Building Envelope, Windows & Roof	Preserve/repair historic significance, lintels, sills, brick veneer, windows, doors, roof and cupola as historically appropriate.	$ 2,000,000	21.9	CPA Eligible	$ -	$ -	$ -	$ -	$ -	$ -	$ -
171	Public Buildings	Building	Vernon St. Building - Exterior Windows & Doors	Restore/replace historic exterior doors and windows. Weatherstrip and seal for energy efficiency. Window bay foundation repairs.	$ 217,000	21.7	CPA Eligible	$ -	$ -	$ -	$ -	$ -	$ -	$ -
172	Public Buildings	Building	Crafts Street Garage - Mechanical Upgrades	Complete roof top unit work begun in stimulus project. Replace fans, duct work, unit heaters.	$ 400,000	21.7	Bonding	$ -	$ -	$ -	$ -	$ -	$ -	$ -
174	Public Buildings	Building	City Hall - Electrical Upgrades	Replace emergency generator and electrical upgrades.	$ 225,000	21.3	Bonding	$ -	$ -	$ -	$ -	$ -	$ -	$ -
176	Public Buildings	Building	DPW/Parks & Recreation Facility Project	Project to address facility needs of P&R and DPW.	$ 400,000	21.0	Bonding	$ -	$ -	$ -	$ -	$ -	$ -	$ -
179	Public Buildings	Building	Elliot St. Operations Building - Building Envelope	Repair foundation walls and rebuild ramp foundation walls. Repair/replace areaway retaining wall. Repair cracks; repoint mortar joints.	$ 123,000	20.7	Bonding	$ -	$ -	$ -	$ -	$ -	$ -	$ -
181	Public Buildings	Building	City Hall - Exterior Windows & Doors	Restore/replace windows in phases to improve energy efficiency, functionality and comfort, and to preserve exterior wall.	$ 3,125,000	20.5	Potential for partial CPA Eligibility	$ -	$ -	$ -	$ -	$ -	$ -	$ -
182	Public Buildings	Building	Waban Community Library-Building Envelope and Entrance	Replace main entry walk and foundation walls and install railing. Rebuild side stairs at main entry. Rebuild stairs at rear entry. Install hand rail on one side of rear entry wall. Repair flashing of parapet walls.	$ 325,000	20.5	CPA Eligible	$ -	$ -	$ -	$ -	$ -	$ -	$ -
186	Public Buildings	Building	City Hall - Cupola/Roof Repair/Replacement	Install new membrane roof on flat roofs. Repair/replace gutters on balcony roofs. Replace metal roofing/flashing as required. Update and restore Cupola.	$ 1,700,000	19.8	Bonding	$ -	$ -	$ -	$ -	$ -	$ -	$ -
189	Public Buildings	Building	Auburndale Community Library - Building Envelope and Roof	Repair broken roof slates. Reflash where leaks are occurring. Repair/replace gutters and downspouts. Pitch rain leaders away from building. Repair concrete ramp.	$ 260,900	19.3	CPA Eligible	$ -	$ -	$ -	$ -	$ -	$ -	$ -
195	Public Buildings	Building	Elliot St. Garage - Roof Repair/Replacement	Replace/repair EPDM roof. Replace damaged roof panels. Will enable solar pv installation.	$ 372,000	16.9	Bonding	$ -	$ -	$ -	$ -	$ -	$ -	$ -
199	Public Buildings	Building	Elliot St. Operations Building - Roof Repair/ Replacement	Remove and replace corrugated fiberglass roof. Repair/ replace existing slate roof and add ice shield to prevent ice damming and icicle build-up. Repair/replace gutters.	$ 275,000	16.1	Bonding	$ -	$ -	$ -	$ -	$ -	$ -	$ -
201	Public Buildings	Building	City Hall - Mechanical Upgrades	Replace condensing units, ductwork and fans. Add mini-split A/C units in conjunction with window restoration/replacement.	$ 500,000	15.3	Bonding	$ -	$ -	$ -	$ -	$ -	$ -	$ -
202	Public Buildings	Building	Elliot St. Operations Building - Interior and Finish Upgrades	Repaint steel framing in attic. Repair deteriorated concrete and CMU. Upgrade lighting and install new acoustical ceilings.	$ 275,000	14.0	Bonding	$ -	$ -	$ -	$ -	$ -	$ -	$ -
204	Public Buildings	Building	City Hall - Envelope - Masonry Repairs	Ongoing program to repair and repoint exterior masonry to preserve building envelope. Address worst areas first.	$ 150,000	13.4	Bonding	$ -	$ -	$ -	$ -	$ -	$ -	$ -
211	Public Buildings	Building	Waban Community Library-Exterior Windows & Doors	Restore exterior wood door and install panic hardware. Replace areaway and rear door. Restore windows.	$ 118,500	9.7	CPA Eligible	$ -	$ -	$ -	$ -	$ -	$ -	$ -
23	Public Safety	Emergency Comms	Radio System Infrastructure	Install continuous power, repeaters & receivers, and other radio system infrastructure improvements.	$ 1,244,365	61.1	Other Funds	$ 1,244,365	$ -	$ -	$ -	$ -	$ -	$ -
7	Schools	Building	Newton Early Childhood Program	Address long term facility needs of the NECP at 687 Watertown Street.	$ 13,000,000	66.7	Bonding	$ 13,000,000	$ -	$ -	$ -	$ -	$ -	$ -
8	Schools	Building	Lincoln-Eliot at 150 Jackson Road	Project to meet the needs of the Lincoln-Eliot School, including facility and site improvements and accessibility, needed playground, and field space.	$ 47,000,000	66.3	Bonding/ARPA	$ 750,000	$ 3,250,000	$ 21,500,000	$ 21,500,000	$ -	$ -	$ -
28	Schools	HVAC/Boilers	Peirce Elementary - Heating System improvements	Heating system improvements, switch from oil system to all-electric system.	$ 865,000	59.1	Other Funds	$ -	$ 65,000	$ -	$ -	$ -	$ 800,000	$ -
37	Schools	Building	Countryside School- Renovation/Addition	Feasibility Study/Design and Construction.	$ 61,000,000	56.2	Alternate Funding /MSBA Eligible/ARPA	$ 1,250,000	$ 2,000,000	$ 57,750,000	$ -	$ -	$ -	$ -
38	Schools	Building	Franklin School - Renovation/Addition	Feasibility Study/Design and Construction.	$ 61,000,000	56.2	Alternate Funding /Other Funds/ARPA	$ 200,000	$ 50,000	$ 500,000	$ 2,500,000	$ 57,750,000	$ -	$ -

CIP by Department FY2024-FY2028

								Total	Total	Total	Total	Total	Total	Total
								$ 152,702,634	$ 44,633,490	$ 127,527,773	$ 81,192,380	$104,925,500	$ 40,801,600	$ 23,628,000
Priority	Dept	Asset Category	Project Title	Project Description / Justification	Est Cost in FY2023	Priority Factor	Funding Source	Approved Funding	FY2023 to be Docketed/Approved	FY2024	FY2025	FY2026	FY2027	FY2028
61	Schools	HVAC/Boilers	Newton North Pool Air Handling Unit (AHU)	The unit is deteriorating and needs replacing and heating capability.	$ 425,000	46.8	Bonding	$ -	$ -	$ -	$ -	$ 425,000	$ -	$ -
64	Schools	Building	Horace Mann School Addition and Improvement	Horace Mann School Facilities upgrades.	$ 23,000,000	45.6	Alternate Funding /Other Funds/ARPA	$ 100,000	$ 200,000	$ 2,150,000	$ 6,000,000	$ 6,550,000	$ -	$ -
65	Schools	Roof	Bigelow School - Roof Replacement	Replace entire building roof system, enabling solar pv installation.	$ 1,500,000	45.3	Bonding/MSBA Eligible	$ -	$ -	$ -	$ -	$ 1,500,000	$ -	$ -
66	Schools	Roof	Lincoln-Eliot - Roof Replacement	Replace the 1973 portion of roof that is beyond its useful life, enabling solar pv installation.	$ 210,000	45.0	Bonding	$ -	$ -	$ -	$ -	$ 210,000	$ -	$ -
71	Schools	Building	Ward/Underwood Schools - Renovation/ Replacement	Ward & Underwood School facilities project. The two oldest schools in the system are approaching their centennials. Both schools have low enrollment, outdated and undersized facilities, are located on small NPS properties, with districts that are adjacent to each other.	TBD	43.7	Bonding/MSBA Eligible/ARPA	$ 100,000	$ -	$ -	$ -	$ -	$ -	$ -
72	Schools	Roof	Underwood School - Roof Replacement	Replace deteriorating built up gymnasium roof that is beyond its useful life. Will enable solar pv installation.	$ 300,000	43.4	Bonding	$ -	$ -	$ -	$ -	$ 300,000	$ -	$ -
80	Schools	Roof	Mason Rice School - Replace Roof	Replace the 1990's Sarnifil roofing system on the main portion of the building. Will enable solar pv installation. Potential application to MSBA.	$ 938,600	39.3	Bonding/MSBA Eligible	$ -	$ -	$ -	$ -	$ -	$ 938,600	$ -
83	Schools	HVAC/Boilers	Replace Boilers - Ward	Replace boilers at Ward Elementary School.	$ 250,000	38.7	Bonding	$ -	$ -	$ -	$ -	$ 250,000	$ -	$ -
101	Schools	Building	Memorial Spaulding School - Replace Roof	Replace 1980's Built up roof area. It has reached its life expectancy.	$ 1,300,000	35.5	Bonding/MSBA Eligible	$ -	$ -	$ -	$ -	$ 1,300,000	$ -	$ -
104	Schools	Building	Ed Center - Mechanical Upgrades	Replace boiler, second boiler and hot water conversion in out years. Boilers are over 35 years old.	$ 450,000	34.4	Bonding	$ -	$ -	$ -	$ -	$ -	$ -	$ 450,000
105	Schools	HVAC/Boilers	Brown Middle School - Boiler Replacement and Mechanical System Improvements Phase I & II	Replace boilers and determine most energy efficient solution for mechanical system.	$ 1,500,000	34.4	Bonding/Green Communities/MSBA Eligible	$ -	$ -	$ -	$ -	$ -	$ -	$ 1,500,000
106	Schools	Building	Williams School - Accessibility Upgrades	Upgrade door hardware, openings, toilet rooms, railings, and signage for accessibility.	$ 500,000	34.3	Bonding	$ -	$ -	$ -	$ -	$ -	$ -	$ -
107	Schools	Building	Memorial Spaulding School - Accessibility Upgrades	Upgrade toilet rooms, door hardware, water fountains, and signage for accessibility.	$ 500,000	34.3	Bonding	$ -	$ -	$ -	$ -	$ -	$ -	$ -
108	Schools	HVAC/Boilers	Newton South High School - Mechanical Upgrades - Library	Replace air handlers, roof top equipment, electrification retrofit, and hydronic/ACCU system due to burner failures and outdated controls.	$ 300,000	34.2	Bonding	$ -	$ -	$ -	$ -	$ -	$ -	$ -
110	Schools	HVAC/Boilers	Memorial Spaulding School - Heating System improvements	Replace controls, air handlers. Replace 2nd boiler, hot water conversion, electrification retrofit, and Direct Digital Controls conversion.	$ 250,000	33.5	Bonding/MSBA Eligible	$ -	$ -	$ -	$ -	$ -	$ -	$ -
116	Schools	Roof	Bowen School - Roof Replacement	Replace 1950's portion of the building's roofing system as it has reached its life expectancy. Will enable solar pv installation.	$ 450,000	31.5	Bonding/MSBA Eligible	$ -	$ -	$ -	$ -	$ -	$ -	$ -
127	Schools	Building	Ed Center Elevator & Accessibility Upgrades	Upgrade elevator, restrooms, door hardware, and signage for accessibility.	$ 1,500,000	29.9	Bonding	$ -	$ -	$ -	$ -	$ -	$ -	$ -
132	Schools	Building	Peirce School - Accessibility Upgrades	Upgrades to door hardware, toilet rooms, railings, and signage for accessibility.	$ 300,000	28.5	Bonding	$ -	$ -	$ -	$ -	$ -	$ -	$ -
135	Schools	Building	Bowen School - Mechanical Upgrades	Replace interior air handlers in first year. Direct Digital Controls conversion.	$ 500,000	28.1	Bonding	$ -	$ -	$ -	$ -	$ -	$ -	$ -
136	Schools	Building	Bigelow School - Accessibility Upgrades	Upgrade toilet rooms, elevator, door hardware and signage for accessibility.	$ 1,000,000	28.0	Bonding	$ -	$ -	$ -	$ -	$ -	$ -	$ -
140	Schools	HVAC/Boilers	FA Day School - VAV Coil Work	Replace variable air volume (VAV) coil work.	$ 400,000	27.7	Bonding	$ -	$ -	$ -	$ -	$ -	$ 400,000	$ -
141	Schools	Complete Streets	Schools - Repave Parking Areas	Repave parking areas and sidewalks in poor condition at, Brown, Mason Rice, Oak Hill, Williams and Peirce.	$ 400,000	27.5	Bonding/Other Funds	$ -	$ -	$ -	$ -	$ -	$ -	$ -
143	Schools	Building	Brown School - Accessibility Upgrades	Upgrade existing elevator for code compliance, signage, hardware, and reconfigure locker rooms for accessibility.	$ 750,000	27.2	Bonding	$ -	$ -	$ -	$ -	$ -	$ -	$ -
144	Schools	Building	Mason Rice School - Accessibility Upgrades	Upgrade hardware, toilet rooms, and water fountains for accessibility.	$ 500,000	27.0	Bonding	$ -	$ -	$ -	$ -	$ -	$ -	$ -
145	Schools	Building	Mason-Rice School - Mid-Range Renovation/Addition	Feasibility Study/Design and construction, including electrification.	$ 15,000,000	26.9	Bonding	$ -	$ -	$ -	$ -	$ -	$ -	$ -
146	Schools	Building	FA Day School - Accessibility Upgrades / Replace Elevator	Upgrades for ADA Compliant elevator, toilet rooms, door hardware, and signage.	$ 750,000	26.7	Bonding	$ -	$ -	$ -	$ -	$ -	$ -	$ -
148	Schools	Building	Mason Rice School - Mechanical Upgrades	Direct Digital Controls conversion and upgrade heating distribution system.	$ 1,000,000	26.5	Bonding	$ -	$ -	$ -	$ -	$ -	$ -	$ -
149	Schools	Building	Peirce/Williams Feasibility/Addition	Feasibility Study/Design and Construction, including electrification of Williams, to add capacity.	$ 30,000,000	26.3	Bonding	$ -	$ -	$ -	$ -	$ -	$ -	$ -

CIP by Department FY2024-FY2028

								Total	Total	Total	Total	Total	Total	Total
								$ 152,702,634	$ 44,633,490	$ 127,527,773	$ 81,192,380	$104,925,500	$ 40,801,600	$ 23,628,000
Priority	**Dept**	**Asset Category**	**Project Title**	**Project Description / Justification**	**Est Cost in FY2023**	**Priority Factor**	**Funding Source**	**Approved Funding**	**FY2023 to be Docketed/Approved**	**FY2024**	**FY2025**	**FY2026**	**FY2027**	**FY2028**
150	Schools	Building	Peirce School - Plumbing Upgrades	Upgrades to toilet rooms and water fountains.	$ 500,000	26.3	Bonding	$ -	$ -	$ -	$ -	$ -	$ -	$ -
155	Schools	Building	Bowen School - Accessibility Upgrades	Upgrades to toilet rooms, signage, hardware, railings and assembly spaces for accessibility.	$ 500,000	25.2	Bonding	$ -	$ -	$ -	$ -	$ -	$ -	$ -
157	Schools	Building	Williams School - Space and Building System Improvements	Address building system needs and possible cafeteria and classroom addition.	$ 1,500,000	24.6	Bonding/Alternate Funding	$ -	$ -	$ -	$ -	$ -	$ -	$ -
158	Schools	Roof	Burr School - Replace Roof	Replace the total building roofing system installed in 1999.	$ 995,000	24.6	Bonding	$ -	$ -	$ -	$ -	$ -	$ -	$ -
188	Schools	Building	Bigelow School - Mechanical Distribution Upgrades	Project to replace unit ventilators, valves, controls, and distribution system components that are beyond their useful life.	$ 500,000	19.3	Bonding	$ -	$ -	$ -	$ -	$ -	$ -	$ -
190	Schools	Building	Underwood School - Electrical Upgrades	Upgrades to electrical panels and sub-panels and emergency generator.	$ 100,000	19.0	Bonding	$ -	$ -	$ -	$ -	$ -	$ -	$ -
197	Schools	Building	Mason Rice School - Electrical Upgrades	Replace emergency generator, electrical panels and sub-panels.	$ 325,000	16.6	Bonding	$ -	$ -	$ -	$ -	$ -	$ -	$ -
198	Schools	Infrastructure	EV Bus Infrastructure	Project to determine a location and create the infrastructure needed to support an EV bus fleet.	TBD	16.2	Bonding/State Grants/Other Funds	$ -	$ -	$ -	$ -	$ -	$ -	$ -
203	Schools	HVAC/Boilers	Oak Hill School - Mechanical Upgrades - Roof Top Units and Distribution System	Replace Roof top air handling units and distribution system to electrify the systems.	$ 250,000	13.5	Bonding	$ -	$ -	$ -	$ -	$ -	$ -	$ -
210	Schools	Building	Bigelow School - Replace Windows and Doors	Replace aging windows and exterior doors to improve comfort, operation, and energy efficiency.	$ 1,400,000	9.8	Bonding	$ -	$ -	$ -	$ -	$ -	$ -	$ -
215	Schools	Building	Williams School - Mechanical Upgrades	HVAC distribution upgrades in the boiler room and throughout the school, and electrify the systems.	$ 200,000	9.2	Bonding	$ -	$ -	$ -	$ -	$ -	$ -	$ -
10	Senior Center	Building	Newton Center for Active Living - NewCAL	Design and build a senior and community center, the Newton Center for Active Living.	$ 20,600,000	66.3	Bonding/ARPA	$ 1,100,000	$ 2,500,000	$ 12,000,000	$ 6,500,000	$ -	$ -	$ -
				Total Need:	**$ 861,339,962**			**$ 152,702,634**	**$ 44,633,490**	**$ 127,527,773**	**$ 81,192,380**	**$104,925,500**	**$ 40,801,600**	**$ 23,628,000**

Project Criteria Scores FY2024-FY2028

						Overall Condition input	% Life Left as input	CONSEQUENCES OF FAILURE (IF NOT IMPLEMENTING PROGRAM) RATINGS AND WEIGHTS --0 (No Impact) to 10 (High Impact)										
						Weight	Weight	Weight										
						2	1	9.0	6.0	8.0	10.0	6.0	7.0	6.0	6.0	6.0		
Priority	Dept	Asset Category	Project Title	Project Description / Justification	Est Cost in FY2023	Overall Condition 0: Worse to 10: Best	% Life Left 0: Expired to 100: New	City Operations	Programs / Services	Costs/ Savings Ratio and Revenue	Codes/ Health & Safety	Community Vibrancy/ Economic Health	Quality of Life	Energy, Sustainability	Dept. Mission or Vision	Accessibility/ Equity	Priority Factor	Funding Source
1	DPW	Complete Streets	Needham Street Upgrades	TIP Project to Pave and Improve Needham Street - Funded and managed by MassDOT.	$ 34,250,360	1	10%	10	10	6	10	10	10	4	10	10	80.5	State TIP Funding
2	DPW/ Sewer	Sewer	Sewer Inflow /Infiltration Project - Area 7 - Upper Falls, Highlands, Thompsonville	Part of 10 Phase program to remove excess inflow and infiltration into sewer system.	$ 7,919,115	1	10%	9	9	9	10	8	8	5	10	3	73.0	MWRA Grant/Loan
3	DPW/ Sewer	Sewer	Sewer Inflow/ Infiltration Project - Area 8 - Upper Falls, Highlands, Thompsonville & Oak Hill	Part of 10 Phase program to remove excess inflow and infiltration into sewer system.	$ 7,453,196	1	10%	9	9	9	8	10	8	3	10	3	70.2	MWRA Grant/Loan/Sewer Funds
4	DPW/ Water	Water	Commercial & Residential Water Meter Replacement Project	Removal & Replacement of 125 commercial electromagnetic water meters sized 2"-8" diameter, +/-26,000 residential meters sized 5/8"-1 1/2", installation of new AMI system with customer portal.	$ 16,625,000	2	10%	10	10	10	6	10	8	3	10	9	70.1	Water / Sewer Funds
5	DPW/ Water	Water	Waban Hill Covered Reservoir	Rehabilitation of pipes, valves, all appurtenances and roof replacement. Includes cleaning, inspection, design, and construction services.	$ 1,485,000	2	20%	10	10	10	10	7	8	5	10	5	68.6	Water Funds
6	DPW	Complete Streets	Transportation Network Improvement Program - Paving/Sidewalks/Accessibility	10 year Paving Initiative - Repair and Pave Scheduled Streets, Sidewalks, traffic calming and pavement markings throughout the City.	$ 95,000,000	2	20%	9	10	9	8	10	8	3	10	10	68.4	Chapt 90/ Free Cash/ARPA /Other Funds
7	Schools	Building	Newton Early Childhood Program	Address long term facility needs of the NECP at 687 Watertown Street.	$ 13,000,000	2	20%	8	8	5	10	9	9	6	10	10	66.7	Bonding
8	Schools	Building	Lincoln-Eliot at 150 Jackson Road	Project to meet the needs of the Lincoln-Eliot School, including facility and site improvements and accessibility, needed playground, and field space.	$ 47,000,000	2	20%	8	10	4	8	8	10	8	10	10	66.3	Bonding/ARPA
9	Parks & Rec	Building	City Auditorium at 150 Jackson Road	Renovate existing auditorium to create Indoor theater and musical arts performance venue with stage, backstage area, storage, seating, and rehearsal space. Will be fully accessible.	$ 3,000,000	2	20%	8	10	4	8	8	10	8	10	10	66.3	Bonding/ARPA
10	Senior Center	Building	Newton Center for Active Living - NewCAL	Design and build a senior and community center, the Newton Center for Active Living.	$ 20,600,000	2	20%	8	10	4	8	8	10	8	10	10	66.3	Bonding/ARPA
11	DPW/ Water	Water	Revised Lead and Copper Rule	EPA requires a complete system wide lead inventory to be submitted by 10/16/2024. This inventory will be used in determining future lead reduction efforts.	$ 150,000	1	10%	8	8	5	10	5	5	6	10	7	65.2	Water Funds
12	Parks & Rec	Parks / Open Space	Newton South Brandeis Field Lights	Installation of field lights at Newton South High School Brandeis Rd Field.	$ 700,000	1	10%	5	8	6	8	7	8	8	8	8	65.2	ARPA
13	Parks & Rec	Parks / Open Space	Newton North High School Field Lights	Installation of field lights at Newton North High School Stadium.	$ 700,000	1	10%	5	8	6	8	7	8	8	8	8	65.2	ARPA /NNHS Boosters Club
14	DPW/ Storm	Storm	Bullough's Pond Dam	Complete State-Required repair work for dam safety.	$ 3,000,000	1	10%	10	8	3	10	7	8	1	10	6	65.0	Stormwater
15	DPW/ Water	Water	Replace Water Pipelines - Phase 8	Cleaning and lining of water pipes to improve water quality, reduce water leakage and ensure pipe integrity and capacity. Precedes scheduled roadway paving. Project is currently Phase 8 of 20-phase program. Ward Street Phase I (Manet Rd to Waverley Ave).	$ 4,263,490	1	20%	10	10	10	7	4	7	3	10	3	63.6	MWRA Loan/Water Funds
16	Parks & Rec	Parks / Open Space	Gath Memorial Pool Project	Replace Gath Pool with lap pool, community pool, and splash pad. Replace all mechanical systems, improve accessibility, improve bath house interior. Pool area will be bubble ready.	$ 6,060,000	2	10%	6	10	8	8	8	7	3	10	9	63.5	CPA Eligible/ARPA
17	DPW/ Storm	Storm	Phase 1 Phosphorus Control Plan (PCP)	Development of City's PCP required by US EPA under the MS4 general permit	$ 953,000	3	0%	8	10	8	10	7	8	8	10	0	62.8	Stormwater
18	DPW/ Sewer	Sewer	Sewer Inflow/Infiltration Project - Area 9 - Waban, Upper Falls & Oak Hill	Part of 10 Phase program to remove excess inflow and infiltration into sewer system.	$ 4,200,000	2	20%	9	9	9	8	10	8	3	10	3	62.4	Sewer Funds
19	DPW/ Sewer	Sewer	Sewer Inflow/Infiltration Project - Area 9 Phase 2 - Waban, Upper Falls & Oak Hill	Part of 10 Phase program to remove excess inflow and infiltration into sewer system and includes post-flow.	$ 5,000,000	2	20%	9	9	9	8	10	8	3	10	3	62.4	Sewer Funds
20	DPW	Complete Streets	Newton Free Library Parking Space Expansion, Repaving, Drainage, and Landscaping Improvements	The library parking lot will be reconfigured and reconstructed to add parking spaces and improve accessibility and drainage.	$ 2,438,903	1	10%	7	8	5	5	7	6	7	9	10	62.1	Bonding/Stormwater Funds
21	DPW	Large Vehicle / Equipment	City-wide Municipal Vehicles and Equipment	Vehicle and Equipment Replacement Program for Construction and other city operations (not including public safety vehicles).	$ 30,000,000	2	40%	10	10	8	6	8	10	8	10	6	61.5	Bonding/Other Funds/Free Cash
22	Planning	Complete Streets	Washington Place Mitigation Project	Implement mitigation projects in Newtonville arising from Washington Place development in Newtonville, including sidewalks and fencing.	$ 700,000	2	20%	10	6	5	10	10	7	1	10	8	61.2	Mitigation Funds
23	Public Safety	Emergency Comms	Radio System Infrastructure	Install continuous power, repeaters & receivers, and other radio system infrastructure improvements.	$ 1,244,365	1	10%	10	8	3	8	5	6	2	10	8	61.1	Other Funds
24	Planning	Building	West Newton Armory Reuse - Affordable Housing	Project to convert the Armory into 100% affordable housing.	$ 27,800,000	1	10%	6	8	3	5	8	7	5	10	10	59.6	CPA Eligible/CDBG/Other Funds

Project Criteria Scores FY2024-FY2028

						Overall Condition input	% Life Left as input	CONSEQUENCES OF FAILURE (IF NOT IMPLEMENTING PROGRAM) RATINGS AND WEIGHTS --0 (No Impact) to 10 (High Impact)										
						Weight	Weight	Weight										
						2	1	9.0	6.0	8.0	10.0	6.0	7.0	6.0	6.0	6.0		
Priority	Dept	Asset Category	Project Title	Project Description / Justification	Est Cost in FY2023	Overall Condition 0: Worse to 10: Best	% Life Left 0: Expired to 100: New	City Operations	Programs / Services	Costs/ Savings Ratio and Revenue	Codes/ Health & Safety	Community Vibrancy/ Economic Health	Quality of Life	Energy, Sustainability	Dept. Mission or Vision	Accessibility/ Equity	Priority Factor	Funding Source
25	Parks & Rec	Parks / Open Space	Cabot Park Improvements	As part of the $49 million Cabot School Project debt exclusion this project update recreational amenities including basketball court, and accessible pathways from Norwood to Newtonville Ave.	$ 150,000	3	30%	8	8	10	10	6	10	3	10	10	**59.5**	Cabot School Project
26	Parks & Rec	Parks / Open Space	Horace Mann School Playground	Build new additional playground facilities.	$ 250,000	3	10%	10	10	1	10	8	10	0	10	10	**59.5**	ARPA
27	Parks & Rec	Parks / Open Space	Levingston Cove, Shoreline improvements at Crystal Lake	Renovation of entire lakefront park to include improvements to accessibility, drainage, erosion and water quality.	$ 2,005,500	1	10%	8	7	5	5	7	6	5	7	10	**59.1**	CPA Eligible/ State Funds/ARPA
28	Schools	HVAC/Boilers	Peirce Elementary - Heating System improvements	Heating system improvements, switch from oil system to all-electric system.	$ 865,000	2	20%	7	8	7	7	8	7	10	10	3	**59.1**	Other Funds
29	DPW/ Sewer	Sewer	Pump Station Upgrades	Design and construct Sewer Pump Stations upgrades as part of 10-phase program.	$ 23,000,000	3	30%	8	9	8	8	9	9	8	10	7	**58.8**	Sewer Funds
30	Police	Building	Comprehensive Police HQ Facility Renovation and Upgrade Project	HVAC, communications, training facility & space, site security, parking lot, HQ roof replacement, interior renovation and reconfiguration, accessibility improvements, emergency electrical, garage mechanical & electrical upgrades, concrete repairs and windows, doors & building envelope.	$ 13,500,000	2	20%	9	5	1	10	6	8	7	10	9	**58.4**	Bonding/ARPA
31	IT	Software	New Municipal Information and Permitting System (NewGov)	Implement a first-ever Newton Municipal Information and Permitting System.	$ 1,137,285	1	10%	10	7	5	3	5	6	5	9	9	**58.0**	Free Cash
32	Clerk	Equipment	New Voting Equipment	Replace current equipment with new state-approved voting equipment.	$ 250,000	2	20%	8	10	4	8	7	8	1	9	10	**57.8**	Free Cash
33	Public Buildings	Building	Wash Bay Refurbishment	Refurbish Crafts Street vehicle wash bay with automated vehicle wash system, including capture/recycle wash water, code upgrades for utilities and building.	$ 1,000,000	0	0%	5	7	7	10	3	5	2	10	0	**57.5**	Stormwater
34	Fire Dept	Large Vehicle / Equipment	New pumper truck (Engine 7)	Replace 2007 pumper truck (Engine 7) that will soon be beyond the NFPA standard of 15 years.	$ 800,000	1	10%	9	5	4	8	4	5	7	10	4	**57.4**	Free Cash
35	Parks & Rec	Parks / Open Space	Marty Sender Path Phase 2 - Boardwalk and trail improvements	Install accessible, shared-use trail and boardwalk over flood-prone area.	$ 400,000	2	20%	10	10	0	10	6	10	0	7	10	**57.3**	CPA Eligible/Other Funds/State Funds
36	Parks & Rec	Parks / Open Space	Burr Elementary School Fields Development	Renovate natural grass area to maximize athletic field space and install irrigation. Install new accessible perimeter pathway.	TBD	2	20%	5	10	4	6	9	6	8	10	9	**57.0**	CPA Eligible
37	Schools	Building	Countryside School- Renovation/Addition	Feasibility Study/Design and Construction.	$ 61,000,000	2	20%	7	9	3	6	4	8	10	8	10	**56.2**	Alternate Funding /MSBA Eligible/ARPA
38	Schools	Building	Franklin School - Renovation/Addition	Feasibility Study/Design and Construction.	$ 61,000,000	2	20%	7	9	3	6	4	8	10	8	10	**56.2**	Alternate Funding /Other Funds/ARPA
39	Public Buildings	Building	Newton Commonwealth Golf Course Maintenance Facility Project	Renovation and Addition to the Golf Course Maintenance Facility.	$ 3,737,000	2	20%	10	3	2	7	10	8	4	10	8	**55.3**	Golf Course Funding
40	DPW/ Storm	Storm	City Hall Ponds	Removal of accumulated sediment from three ponds adjacent to City Hall.	$ 1,040,000	3	30%	8	10	7	9	8	8	8	9	3	**55.1**	Stormwater Funds
41	DPW	Complete Streets	Complete Streets Improvements - Newton Corner and Mass Pike interchange at Exit 127 Off-Ramp	Upgrade traffic signal equipment, improve multimodal safety and operations at this intersection. The city will work closely with MassDot to provide feedback and comments	TBD	1	30%	6	5	3	6	8	8	4	10	10	**54.2**	State Funds
42	Parks & Rec	Parks / Open Space	Engineering and Design of Athletic Field Improvements	Engineering and design work for projects on the 5 year athletic field improvements plan. Improvements to include accessibility enhancements, field reconfigurations, and upgrades to supporting athletic field amenities.	$ 420,000	2	20%	4	10	4	6	7	9	3	10	10	**53.9**	CPA Eligible
43	Library	Building	Library HVAC Improvements	HVAC system upgrades to electrify the building.	$ 750,000	2	20%	8	8	5	5	5	9	9	10	2	**53.7**	Other Funds
44	Parks & Rec	Parks / Open Space	Brown/ Oak Hill Middle Schools Fields Development	Renovate natural grass area to maximize athletic field space and increase accessibility.	TBD	2	20%	7	7	3	7	6	10	1	9	10	**53.2**	CPA Eligible
45	Parks & Rec	Parks / Open Space	McGrath Park Fields Redesign and Development	Reconfigure athletic fields and courts, expand irrigation, install new accessible perimeter pathway.	TBD	3	30%	7	9	7	7	7	8	6	8	10	**53.1**	CPA Eligible/CDBG Eligible
46	Parks & Rec	Building	Pellegrini Park Field House - Exterior Improvements	Envelope repairs, replace upper gym membrane roof with a new EPDM roof.	$ 200,000	2	20%	4	10	4	6	9	8	5	8	8	**53.1**	Other Funds
47	Planning	Complete Streets	Pettee Square/Upper Falls Greenway Improvements	Targeted improvements to Pettee Square in Newton Upper Falls and extension of the Upper Falls Greenway to Curtis Street.	$ 3,028,296	2	20%	5	3	4	8	8	8	4	10	9	**52.2**	State MassWorks Grant /Other Funds
48	DPW/ Storm	Storm	Elliot & Crafts Street DPW Operations Yard	Modifications to existing storm water infrastructure to meet NPDES MS4 General Permits BMP's.	$ 1,000,000	3	30%	8	8	6	10	8	7	7	10	1	**51.8**	Stormwater
49	DPW/ Water	Water	Replace Water Pipelines - Phase 9	Cleaning and lining of water pipes to improve water quality, reduce water leakage and ensure pipe integrity and capacity. Precedes scheduled Needham Street roadway paving.	$ 7,236,730	3	30%	10	10	10	7	4	7	3	10	3	**51.3**	Water Funds
50	DPW/ Water	Water	Replace Water Pipelines - Phase 10	Cleaning and lining of water pipes to improve water quality, reduce water leakage and ensure pipe integrity and capacity. Precedes scheduled roadway paving. Project will be in Phase 10 of 20-phase program.	$ 4,750,000	3	30%	10	10	10	7	4	7	3	10	3	**51.3**	MWRA Loan/Water Funds

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						Weight	Weight	Weight										
						2	1	9.0	6.0	8.0	10.0	6.0	7.0	6.0	6.0	6.0		
Priority	Dept	Asset Category	Project Title	Project Description / Justification	Est Cost in FY2023	Overall Condition 0: Worse to 10: Best	% Life Left 0: Expired to 100: New	City Operations	Programs / Services	Costs/ Savings Ratio and Revenue	Codes/ Health & Safety	Community Vibrancy/ Economic Health	Quality of Life	Energy, Sustainability	Dept. Mission or Vision	Accessibility/ Equity	Priority Factor	Funding Source
51	DPW/ Storm	Storm	Edmands Brook Drainage Basin	Design for flood mitigation and the reduction of Phosphorus for the NPDES MS4 Permit.	$ 1,404,000	3	30%	6	5	5	8	8	8	7	10	7	49.5	Stormwater/Other Funds
52	Parks & Rec	Parks / Open Space	Russ Halloran Sports and Recreation Complex at Albemarle Master Plan	Develop a phased park-wide master plan. Replace 50-year-old sports lighting, reconfigure existing fields for improved and expanded play, and expand lighting to Murphy Field. Improve accessibility and drainage. Potential Synthetic Turf field to include football/soccer/lacrosse field along Crafts Street.	$ 5,270,000	2	20%	6	8	4	7	10	7	0	8	5	48.9	CPA Eligible/Sport Group Contributions/Other Funds
53	Parks & Rec	Bridge	Cheesecake Brook Footbridge	Project to replace or add new footbridge structure over Cheesecake Brook near Albemarle Field.	$ 400,000	2	20%	6	4	4	3	9	9	4	8	10	48.7	Bonding/Other Funds
54	Planning	Complete Streets	Reconstruction of Commonwealth Avenue (Route 30) from East of Auburn St to Ash St	Transform the Commonwealth Avenue Carriageway between Lyons Field and the Charles River at Auburn Street. Project aims to create safe bicycle and pedestrian facilities to improve connectivity to green space, trails, and other recreational opportunities.	$ 7,401,000	3	30%	6	5	4	8	8	8	4	10	10	48.6	CPA Eligible/State Funding/
55	Fire Dept	Building	Fire Station # 2 Projects	Windows, HVAC - Heat Pumps, Sprinklers & Interior Upgrades.	$ 1,067,000	3	30%	6	9	3	10	6	8	7	9	4	48.6	ARPA / Free Cash
56	DPW/ Storm	Storm	South Meadow Brook Culvert under Needham Street	Phase 1 - Inspection & assessment of Box Culvert. Phase 2 - Design & Rehabilitation of Box Culvert.	$ 3,205,000	2	20%	7	6	6	7	6	6	3	8	4	48.2	Stormwater
57	DPW	Complete Streets	Complete Streets Improvements - Newton Highlands	Upgrade traffic signal equipment, improve multimodal safety and operations, enhance streetscape and sidewalks, lighting, implement signal coordination, and paving.	TBD	4	40%	7	8	6	8	9	8	7	10	9	47.5	Bonding /Other Funds/ARPA/ State Funds
58	Planning	Complete Streets	Design and Implement Washington Street Pilot	Design for Washington St. pilot to improve safety and pedestrian accommodations, Improve traffic flow, ADA compliance.	$ 3,500,000	4	40%	7	8	3	10	9	10	4	10	10	47.2	ARPA/Other Funds
59	Planning	Complete Streets	Crafts @ Albemarle Intersection Improvements (SRTS)	State funded project to upgrade the intersections of Crafts Street – Albemarle Road and Albemarle Road – North Street, to improve bicycle and pedestrian accommodations near the Horace Mann Elementary School, Day Middle School and NECP. Project includes new fully actuated crosswalk system and a rapid-flashing beacon crosswalk.	$ 900,000	3	30%	7	7	4	7	7	8	2	10	9	47.2	State TIP Funding
60	Parks & Rec	Parks / Open Space	Create a new Park at 150 Jackson Road	Project to create meaningful open space, passive and active recreation elements for both the Lincoln-Eliot School and the community.	TBD	1	30%	6	6	2	6	7	7	3	6	8	46.8	Bonding/Other Funds
61	Schools	HVAC/Boilers	Newton North Pool Air Handling Unit (AHU)	The unit is deteriorating and needs replacing and heating capability.	$ 425,000	2	30%	8	8	4	7	6	6	4	8	3	46.8	Bonding
62	Parks & Rec	Parks / Open Space	Upper Falls Splash Park	New splash park to be built by Northland development as part of larger project. To be owned and operated by Parks, Rec and Culture. Expected in late 2024.	$ 1,000,000	3	20%	5	7	3	8	7	9	6	4	8	46.4	Other Funds
63	Public Buildings	Climate Action	Municipal EV Chargers	Purchase and install EV chargers at municipal and school parking lots throughout the city (electrical connections provided by Eversource grants).	$ 615,000	1	30%	6	4	7	7	2	5	7	7	3	46.0	Grants / Other Funds
64	Schools	Building	Horace Mann School Addition and Improvement	Horace Mann School Facilities upgrades.	$ 23,000,000	3	30%	8	8	2	7	5	6	5	9	9	45.6	Alternate Funding /Other Funds/ARPA
65	Schools	Roof	Bigelow School - Roof Replacement	Replace entire building roof system, enabling solar pv installation.	$ 1,500,000	3	30%	8	8	1	7	7	6	8	9	5	45.3	Bonding/MSBA Eligible
66	Schools	Roof	Lincoln-Eliot - Roof Replacement	Replace the 1973 portion of roof that is beyond its useful life, enabling solar pv installation.	$ 210,000	1	20%	8	7	5	6	4	4	5	4	2	45.0	Bonding
67	Parks & Rec	Parks / Open Space	Newton South High School Synthetic Turf Field and Track Replacement	Replacement of synthetic turf and track at Brandeis Road and Stadium fields. Current field was installed in 2009.	$ 2,100,000	3	10%	8	8	3	7	5	6	2	8	4	44.5	Free Cash
68	DPW/ Water	Water	Replace Water Pipelines - Phase 11	Cleaning and lining of water pipes to improve water quality, reduce water leakage and ensure pipe integrity and capacity. Precedes scheduled roadway paving. Project will be in Phase 11 of 20-phase program.	$ 4,750,000	4	40%	10	10	10	7	4	7	3	10	3	44.0	MWRA Loan/Water Funds
69	DPW/ Water	Water	Replace Water Pipelines - Phase 12	Cleaning and lining of water pipes to improve water quality, reduce water leakage and ensure pipe integrity and capacity. Precedes scheduled roadway paving.	$ 4,750,000	4	40%	10	10	10	7	4	7	3	10	3	44.0	MWRA Loan/Water Funds
70	DPW/ Sewer	Sewer	Sewer Inflow/Infiltration Project - Area 10 - Waban, Newton Highlands, Newton Centre, & Newton Corner	Part of 10-phase program to remove excess inflow and infiltration into sewer system. Ward St from Waverley Ave to Centre St.	$ 4,888,308	4	40%	9	9	9	8	5	8	3	10	3	44.0	Sewer Funds

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						2	1	9.0	6.0	8.0	10.0	6.0	7.0	6.0	6.0	6.0		
Priority	Dept	Asset Category	Project Title	Project Description / Justification	Est Cost in FY2023	Overall Condition 0: Worse to 10: Best	% Life Left 0: Expired to 100: New	City Operations	Programs / Services	Costs/ Savings Ratio and Revenue	Codes/ Health & Safety	Community Vibrancy/ Economic Health	Quality of Life	Energy, Sustainability	Dept. Mission or Vision	Accessibility/ Equity	Priority Factor	Funding Source
71	Schools	Building	Ward/Underwood Schools - Renovation/ Replacement	Ward & Underwood School facilities project. The two oldest schools in the system are approaching their centennials. Both schools have low enrollment, outdated and undersized facilities, are located on small NPS properties, with districts that are adjacent to each other.	TBD	3	20%	5	6	2	6	5	8	5	8	10	**43.7**	Bonding/MSBA Eligible/ARPA
72	Schools	Roof	Underwood School - Roof Replacement	Replace deteriorating built up gymnasium roof that is beyond its useful life. Will enable solar pv installation.	$ 300,000	3	20%	6	6	2	8	4	6	7	8	6	**43.4**	Bonding
73	Parks & Rec	Parks / Open Space	Newton North High School Synthetic Turf Field and Track Replacement	Replacement of synthetic turf and track at Newton North High School. Current field was installed in 2010.	$ 1,100,000	3	10%	8	8	3	6	5	6	2	8	4	**43.3**	Free Cash / Other Funds
74	DPW/ Storm	Storm	Union Street Drainage	The extension of storm drains on Union Street to alleviate flooding and icing issues in the area of Herrick Road.	$ 850,000	2	20%	4	8	4	6	5	6	3	7	6	**43.0**	Stormwater
75	Fire Dept	Building	Fire Station # 1 Projects	Sprinklers, HVAC & Interior Upgrades.	$ 450,000	3	20%	3	8	3	8	4	8	5	9	4	**42.1**	ARPA / Free Cash
76	Fire Dept	Large Vehicle / Equipment	Replace Emergency Response Van (ERU)	Purchase a new ERU van. It carries haz-mat equipment such as booms, speedi-dry, Level 3 haz-mat suits etc.	$ 350,000	3	10%	8	8	3	10	2	4	3	8	0	**42.1**	Bonding/Free Cash
77	Parks & Rec	Parks / Open Space	Crystal Lake Phase II Improvements ("Left Beach" and Park Area)	Stabilize "Left beach" and create a sustainable shoreline area for sunbathing, access into the water, and improved recreation, enhance connectivity and accessibility.	$ 1,500,000	3	30%	7	6	3	7	7	6	0	7	10	**41.5**	CPA Eligible/ARPA/State Funds
78	Parks & Rec	Parks / Open Space	Accessible Playground Surfacing Improvements	Install accessible playground surface matting systems at playgrounds throughout the city	$ 2,000,000	2	20%	3	6	0	9	3	6	0	9	10	**40.9**	Other Funds/State Funds/ARPA
79	DPW/ Sewer	Sewer	Sewer Inflow/Infiltration Project - Area 11 - Chestnut Hill, Newton Corner, Oak Hill, & Thompsonville	Part of 10 Phase program to remove excess inflow and infiltration into sewer system. Will be in Phase 10 of City-Wide Sewer Initiative.	$ 4,000,000	4	50%	9	8	9	7	5	8	3	9	3	**39.6**	Sewer Funds
80	Schools	Roof	Mason Rice School - Replace Roof	Replace the 1990's Sarnifil roofing system on the main portion of the building. Will enable solar pv installation. Potential application to MSBA.	$ 938,600	3	30%	8	4	5	5	4	5	7	8	4	**39.3**	Bonding/MSBA Eligible
81	Planning	Complete Streets	Design and implement multi-modal improvements on Albemarle and Brookside from Charles River to Washington	Design and implement a two-way bike facility, improved pedestrian accommodations and streamlined pickup and drop off areas. Early implementation of the project does not include reconstruction of the road.	$ 2,200,000	3	30%	4	6	4	6	5	7	4	8	7	**39.1**	Bonding/Other Funds/State Grants
82	Parks & Rec	Parks / Open Space	Pellegrini Field Sports Lights	Replace sports lighting and poles at Pellegrini.	$ 750,000	3	20%	4	8	1	8	5	6	4	6	6	**39.0**	CPA Eligible/Other Funds
83	Schools	HVAC/Boilers	Replace Boilers - Ward	Replace boilers at Ward Elementary School.	$ 250,000	2	10%	4	5	2	5	4	3	8	8	4	**38.7**	Bonding
84	DPW/ Storm	Storm	Evaluation, design and construction of Cheesecake Brook-Commonwealth Av. to the rear of 1600 Washington Street	Replace culvert headwall, remove remaining fieldstone channel walls to restore natural brook channel and provide buffer for nutrient removal (water quality).	$ 900,000	3	30%	7	7	2	7	4	5	6	9	2	**38.5**	Stormwater
85	DPW/ Storm	Storm	Cheesecake Brook -1660 Washington St. to Watertown St.	Inspection & Assessment, Design and Rehabilitation of +/-6000 LF of Box Culvert.	$ 900,000	3	30%	7	7	2	7	4	5	6	9	2	**38.5**	Stormwater
86	Fire Dept	Large Vehicle / Equipment	Replace Fire Dept Aerial Ladder #3	Replace 2009 Ladder 3. Ladder 3 becomes a spare, replacing spare Ladder 4.	$ 1,450,000	2	20%	7	3	4	6	1	7	4	6	3	**38.3**	Bonding
87	Parks & Rec	Parks / Open Space	Crescent Street Project - Rehab and expand Ford Park	Rehabilitation and expansion of Ford Playground to include improvements to stormwater , accessibility, and overall park experience.	$ 1,600,000	4	50%	7	7	6	4	7	7	6	8	10	**37.9**	CPA Eligible
88	Library	Building	Library Roof Membrane	Replace 8,000 sf of ballasted rubber membrane roof installed ca1990. Will enable solar pv installation.	$ 285,000	3	30%	7	7	4	4	4	5	7	7	4	**37.7**	Bonding
89	Parks & Rec	Parks / Open Space	Newton Centre Performing Arts Pavilion	Install outdoor permanent performance pavilion and stage at Newton Centre Playground including electricity, lighting, accessible seating area, stage access, and restroom plan.	$ 2,000,000	2	40%	5	3	4	4	8	7	0	7	9	**37.6**	ARPA/Other Funds
90	Public Buildings	Building	War Memorial Accessibility/Historic Improvements	Repair and repoint stone cornice. Implement recommendations from 2007 Study of the Memorial Stairs.	$ 2,332,000	4	50%	7	7	7	5	8	8	7	7	4	**37.5**	CPA Eligible
91	DPW/ Storm	Storm	Cheesecake Brook-Watertown St. to Charles River	Inspection & Assessment, Design and Rehabilitation of Fieldstone Channel walls and floor.	$ 1,450,000	4	20%	7	7	2	7	4	5	6	9	2	**36.7**	Stormwater
92	DPW/ Water	Water	Replace Water Pipelines - Phase 13	Cleaning and lining of water pipes to improve water quality, reduce water leakage and ensure pipe integrity and capacity. Precedes scheduled roadway paving. Project will be in Phase 13 of 20-phase program.	$ 4,750,000	5	50%	10	10	10	7	4	7	3	10	3	**36.7**	MWRA Loan/Water Funds

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Priority	Dept	Asset Category	Project Title	Project Description / Justification	Est Cost in FY2023	Overall Condition 0: Worse to 10: Best	% Life Left 0: Expired to 100: New	City Operations	Programs / Services	Costs/ Savings Ratio and Revenue	Codes/ Health & Safety	Community Vibrancy/ Economic Health	Quality of Life	Energy, Sustainability	Dept. Mission or Vision	Accessibility/ Equity	Priority Factor	Funding Source
93	DPW/ Water	Water	Replace Water Pipelines - Phase 14	Cleaning and lining of water pipes to improve water quality, reduce water leakage and ensure pipe integrity and capacity. Precedes scheduled roadway paving. Project will be in Phase 14 of 20-phase program.	$ 4,750,000	5	50%	10	10	10	7	4	7	3	10	3	**36.7**	MWRA Loan/Water Funds
94	Public Buildings	Building	Waban Community Library-Accessibility Upgrades	Upgrade toilet rooms, Replace door hardware; Modify door at stairwell or install automatic door opener.	$ 150,000	3	10%	2	4	2	10	6	2	0	6	10	**36.4**	CDBG Eligible/CPA Eligible - potential for partial
95	Planning	Building	Walker Center House Rehabilitation	Restoration and upgrades to convert the former Walker Center historical properties located on Hancock and Grove Streets to become affordable family housing units.	TBD	2	40%	2	3	2	6	1	7	8	8	9	**36.4**	CPA Eligible/Other Funds/Grants/ARPA
96	DPW	Complete Streets	Complete Streets Improvements - Beacon @ Walnut (4 Corners)	Upgrade traffic signal equipment, improve multimodal safety and operations, install ADA compliant ramps.	$ 2,500,000	4	50%	8	6	3	7	7	7	4	7	8	**36.1**	Bonding/Other Funds
97	Parks & Rec	Building	Jeanette Curtis West Rec Ctr (The Hut)	Address facility needs for multiple programs.	$ 2,500,000	1	10%	1	3	1	8	5	3	2	3	10	**36.0**	Bonding
98	DPW	Complete Streets	Complete Streets Improvements - Cherry @ Webster, Cherry @ Derby	Upgrade traffic signal equipment, improve multimodal safety and operations at these two intersections.	$ 1,400,000	4	40%	7	6	4	8	5	5	2	8	8	**36.0**	Bonding
99	DPW	Complete Streets	Municipal Parking Lot Improvement Plan	Reconstruction of Municipal parking lots including ADA and stormwater improvements.	$ 3,750,000	5	40%	6	7	3	6	8	8	6	9	9	**35.7**	Bonding/Other Funds
100	DPW	Complete Streets	Complete Streets Improvements - Commonwealth Ave. @ Chestnut Street	Update outdated traffic signal equipment and bring curb, ramps and surrounding sidewalks into ADA compliance.	$ 1,400,000	4	40%	5	5	3	7	6	5	4	9	10	**35.5**	Bonding
101	Schools	Building	Memorial Spaulding School - Replace Roof	Replace 1980's Built up roof area. It has reached its life expectancy.	$ 1,300,000	4	30%	5	8	4	6	6	5	6	7	4	**35.5**	Bonding/MSBA Eligible
102	Parks & Rec	Parks / Open Space	Tennis Courts - Replace Burr Park Tennis Courts	Redesign & construct existing tennis courts at Burr Park (Waverley Park). Work includes repair and replacement of existing retaining walls.	$ 1,100,000	4	30%	5	8	4	6	6	8	0	7	6	**35.2**	Bonding
103	Public Buildings	Building	City Hall Restroom Upgrades	Phased project -Upgrade City Hall Restrooms. Will improve accessibility.	$ 200,000	3	30%	7	1	1	8	6	5	1	7	7	**34.8**	Bonding/Other Funds/CDBG
104	Schools	Building	Ed Center - Mechanical Upgrades	Replace boiler, second boiler and hot water conversion in out years. Boilers are over 35 years old.	$ 450,000	2	30%	4	6	2	5	2	5	8	6	3	**34.4**	Bonding
105	Schools	HVAC/Boilers	Brown Middle School - Boiler Replacement and Mechanical System Improvements Phase I & II	Replace boilers and determine most energy efficient solution for mechanical system.	$ 1,500,000	4	40%	7	6	4	5	5	5	7	7	6	**34.4**	Bonding/Green Communities/MSBA Eligible
106	Schools	Building	Williams School - Accessibility Upgrades	Upgrade door hardware, openings, toilet rooms, railings, and signage for accessibility.	$ 500,000	4	30%	6	8	4	4	5	4	4	6	9	**34.3**	Bonding
107	Schools	Building	Memorial Spaulding School - Accessibility Upgrades	Upgrade toilet rooms, door hardware, water fountains, and signage for accessibility.	$ 500,000	4	30%	6	8	4	4	4	4	5	6	9	**34.3**	Bonding
108	Schools	HVAC/Boilers	Newton South High School - Mechanical Upgrades - Library	Replace air handlers, roof top equipment, electrification retrofit, and hydronic/ACCU system due to burner failures and outdated controls.	$ 300,000	3	30%	7	4	1	8	2	5	6	5	4	**34.2**	Bonding
109	Police	Building	Police Annex - Emergency Generator	Replace generator with emergency battery back-up system, and install energy electrical distribution throughout the building. Update system for ADA compliance. Upgrade exterior lighting & occupancy sensors.	$ 200,000	0	0%	4	4	1	3	3	5	1	10	0	**33.9**	Bonding
110	Schools	HVAC/Boilers	Memorial Spaulding School - Heating System improvements	Replace controls, air handlers. Replace 2nd boiler, hot water conversion, electrification retrofit, and Direct Digital Controls conversion.	$ 250,000	4	20%	7	8	4	4	2	6	5	7	2	**33.5**	Bonding/MSBA Eligible
111	Fire Dept	Building	Fire Station #2, West Newton - Renovation	Fire Station work includes mechanical, electrical, plumbing, code compliance and accessibility upgrades.	$ 25,000,000	3	40%	6	5	3	7	2	5	4	7	5	**33.5**	Bonding
112	Fire Dept	Large Vehicle / Equipment	Replace Fire Pumper Truck (Engine 4)	Engine 4 replacement (2010).	$ 800,000	3	30%	7	4	1	8	1	5	4	7	3	**32.8**	Bonding
113	Planning	Complete Streets	Complete Streets Improvements - Washington Street - West Newton to Newton Corner - Construction	Construction to improve safety and pedestrian accommodations, improve traffic flow, ADA compliance.	$ 30,000,000	4	20%	6	8	0	4	4	6	1	7	9	**32.3**	Bonding/Other Funds
114	Parks & Rec	Building	Kennard Estates Site Improvements	Install utilities, pave parking lot.	$ 425,000	2	20%	4	6	1	7	1	4	1	7	4	**32.0**	Bonding
115	DPW/ Storm	Storm	Cheesecake Brook Roadway Culvert Crossings	Design & Construction of culvert improvements at Parsons, Cross and Eddy Street.	$ 750,000	2	20%	4	4	2	6	2	6	4	5	2	**32.0**	Stormwater
116	Schools	Roof	Bowen School - Roof Replacement	Replace 1950's portion of the building's roofing system as it has reached its life expectancy. Will enable solar pv installation.	$ 450,000	4	50%	6	8	4	6	5	5	6	6	4	**31.5**	Bonding/MSBA Eligible

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						Weight	Weight	Weight										
						2	1	9.0	6.0	8.0	10.0	6.0	7.0	6.0	6.0	6.0		
Priority	Dept	Asset Category	Project Title	Project Description / Justification	Est Cost in FY2023	Overall Condition 0: Worse to 10: Best	% Life Left 0: Expired to 100: New	City Operations	Programs / Services	Costs/ Savings Ratio and Revenue	Codes/ Health & Safety	Community Vibrancy/ Economic Health	Quality of Life	Energy, Sustainability	Dept. Mission or Vision	Accessibility/ Equity	Priority Factor	Funding Source
117	Parks & Rec	Parks / Open Space	Old Cold Spring Field	Renovation of existing field space to include regrading, drainage, irrigation and accessibility improvements.	$ 350,000	3	30%	6	1	1	8	3	5	0	7	7	31.2	Bonding/CPA Eligible
118	Jackson Homestead	Building	Jackson Homestead - Basement	Finish basement galleries: New flooring; envelope treatment, gallery walls, (keep water and condensation out).	$ 1,075,000	3	30%	4	7	2	4	4	6	3	4	7	31.1	CPA Eligible/Other Funds
119	DPW/ Storm	Storm	Reduce Impervious Area	Reduce Impervious Area to 5 Municipal Properties per NPDES MS4 Requirements.	$ 650,000	4	50%	6	8	4	6	4	6	4	6	5	31.0	Stormwater
120	DPW/ Storm	Storm	Laundry Brook Culvert-Parkview to Mass Pike	Rehabilitation +/-1000 LF Box Culvert based on FY 18 evaluation.	$ 650,000	4	50%	6	7	4	6	4	5	6	9	2	30.9	Stormwater
121	Parks & Rec	Parks / Open Space	Riverside Greenway - Pigeon Hill Trail Improvements	Restoration of former connectivity walking trail that was severed during Mass Pike construction.	$ 550,000	3	20%	4	3	2	2	7	5	4	6	7	30.9	CPA Eligible/State Funds
122	Public Buildings	Building	Elliot Street Sand Salt Shed - Replacement	Replace salt shed.	$ 500,000	4	30%	6	6	4	8	6	4	1	6	0	30.5	Bonding
123	DPW/ Sewer	Sewer	Sewer Inflow/Infiltration- Cheesecake and Laundry Brook Drainage	Investigation, Design & Construction of sewer laterals & manholes along interceptor sewers within Cheesecake and Laundry Brook Drainage Basins.	$ 2,000,000	3	30%	5	5	5	5	2	4	3	6	3	30.3	Sewer Funds
124	Fire Dept	Building	Fire Station #1 (Newton Corner) - Renovation	Fire Station work includes mechanical, electrical, plumbing, code compliance and accessibility upgrades.	$ 15,000,000	4	40%	7	5	3	7	2	3	4	8	5	30.2	Bonding
125	Parks & Rec	Building	Auburndale Cove Fieldhouse - Building Upgrades	Project to fully upgrade existing building or replace with new structure.	$ 1,000,000	4	40%	5	8	1	6	5	4	3	8	6	30.1	Bonding
126	DPW/ Storm	Storm	Laundry Brook Culvert-Hull street to Bridges Avenue	Design and construction of culvert rehabilitation from Hull St to Bridges Ave.	$ 750,000	5	40%	8	7	2	7	4	5	6	9	2	30.1	Stormwater
127	Schools	Building	Ed Center Elevator & Accessibility Upgrades	Upgrade elevator, restrooms, door hardware, and signage for accessibility.	$ 1,500,000	2	20%	3	4	2	5	5	2	2	3	8	29.9	Bonding
128	Public Buildings	Building	Crafts St DPW Operations (Stable)	Design and Construction for renovated interior including mechanical, electrical, plumbing, and accessibility upgrades.	$ 3,000,000	2	20%	5	4	1	5	4	3	1	6	4	29.8	CPA Eligible
129	Parks & Rec	Building	Burr Park Field House - Accessibility/Site Upgrades	Accessibility upgrades to toilet rooms and fixtures, signage, drinking fountain, and door hardware. Provide accessible path to entrance and an accessible parking space.	$ 250,000	3	30%	5	3	1	7	2	5	2	4	8	29.8	Bonding/CPA Eligible
130	Parks & Rec	Building	Kennard Estate	Accessibility upgrades, gutters, plumbing/electrical.	$ 500,000	3	30%	4	4	1	6	1	4	3	8	6	28.9	Bonding/CPA Eligible
131	Parks & Rec	Parks / Open Space	Lyons Field Drainage Improvements	Renovation of the natural grass field to improve drainage.	TBD	4	40%	7	8	3	4	4	6	3	7	1	28.9	Stormwater/Other Funds
132	Schools	Building	Peirce School - Accessibility Upgrades	Upgrades to door hardware, toilet rooms, railings, and signage for accessibility.	$ 300,000	5	50%	6	8	2	9	3	7	0	7	8	28.5	Bonding
133	DPW	Complete Streets	Complete Streets Improvements - Beacon @ Chestnut	Upgrade traffic signal equipment, improve multimodal safety, accessibility and operations.	$ 1,400,000	5	50%	6	5	3	7	6	6	3	7	8	28.5	Bonding/Free Cash
134	Parks & Rec	Building	Crystal Lake Bathhouse - Renovate/Replace	Renovate/Replace bathhouse and improve swim beach front.	$ 5,000,000	3	30%	2	6	2	4	5	4	2	6	7	28.3	CPA Eligible/Other Funds
135	Schools	Building	Bowen School - Mechanical Upgrades	Replace interior air handlers in first year. Direct Digital Controls conversion.	$ 500,000	5	20%	5	5	3	5	4	6	8	6	0	28.1	Bonding
136	Schools	Building	Bigelow School - Accessibility Upgrades	Upgrade toilet rooms, elevator, door hardware and signage for accessibility.	$ 1,000,000	4	40%	6	5	1	5	4	6	1	6	8	28.0	Bonding
137	Public Buildings	Building	Auburndale Community Library -Exterior Windows & Doors	Remove existing exterior wood doors and frames and replace with new doors and hardware. Repair/replace building windows.	$ 200,000	4	20%	4	8	4	4	3	4	4	5	2	27.9	CPA Eligible
138	Parks & Rec	Parks / Open Space	Forte Park Field Improvements	Renovate natural grass area to maximize athletic field space for softball field, soccer/lacrosse. Improvements include relighting and improved accessibility.	$ 2,000,000	2	10%	3	2	2	3	4	3	2	5	7	27.9	Bonding/CPA Eligible/ Developer Mitigation
139	Public Buildings	Building	Vernon St. Building - Building Envelope	Repair front entry concrete. Install new side entry stairs and handrails. Remove and replace wood stairs. Install vents throughout balance of soffits.	$ 335,850	3	30%	3	4	2	6	5	8	0	4	3	27.9	Bonding/CPA Eligible
140	Schools	HVAC/Boilers	FA Day School - VAV Coil Work	Replace variable air volume (VAV) coil work.	$ 400,000	4	20%	6	3	3	4	4	4	5	6	2	27.7	Bonding
141	Schools	Complete Streets	Schools - Repave Parking Areas	Repave parking areas and sidewalks in poor condition at, Brown, Mason Rice, Oak Hill, Williams and Peirce.	$ 400,000	5	30%	6	7	4	4	4	4	1	4	10	27.5	Bonding/Other Funds
142	Police	Building	Police Annex - Exterior Windows & Doors & Building Envelope	Restore/replace windows and doors with historically appropriate energy efficient units. Repoint exterior brick and entry ramp. Repair stone lintels.	$ 200,000	3	30%	5	4	3	4	2	3	5	7	2	27.4	Bonding/CPA Eligible
143	Schools	Building	Brown School - Accessibility Upgrades	Upgrade existing elevator for code compliance, signage, hardware, and reconfigure locker rooms for accessibility.	$ 750,000	3	30%	5	1	1	6	3	3	1	5	9	27.2	Bonding

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Priority	Dept	Asset Category	Project Title	Project Description / Justification	Est Cost in FY2023	Overall Condition 0: Worse to 10: Best	% Life Left 0: Expired to 100: New	City Operations	Programs / Services	Costs/ Savings Ratio and Revenue	Codes/ Health & Safety	Community Vibrancy/ Economic Health	Quality of Life	Energy, Sustainability	Dept. Mission or Vision	Accessibility/ Equity	Priority Factor	Funding Source
144	Schools	Building	Mason Rice School - Accessibility Upgrades	Upgrade hardware, toilet rooms, and water fountains for accessibility.	$ 500,000	4	40%	4	5	1	7	1	6	1	8	7	27.0	Bonding
145	Schools	Building	Mason-Rice School - Mid-Range Renovation/Addition	Feasibility Study/Design and construction, including electrification.	$ 15,000,000	4	40%	4	6	2	5	4	5	5	6	4	26.9	Bonding
146	Schools	Building	FA Day School - Accessibility Upgrades / Replace Elevator	Upgrades for ADA Compliant elevator, toilet rooms, door hardware, and signage.	$ 750,000	5	50%	6	8	2	6	2	8	0	8	8	26.7	Bonding
147	DPW	Complete Streets	Complete Streets Improvements - Newton Centre	Upgrade traffic signal equipment, improve multimodal safety and operations, enhance streetscape, implement signal coordination.	$ 7,500,000	5	50%	6	5	2	6	7	6	1	6	9	26.6	Bonding
148	Schools	Building	Mason Rice School - Mechanical Upgrades	Direct Digital Controls conversion and upgrade heating distribution system.	$ 1,000,000	4	20%	4	6	2	6	2	4	5	5	1	26.5	Bonding
149	Schools	Building	Peirce/Williams Feasibility/Addition	Feasibility Study/Design and Construction, including electrification of Williams, to add capacity.	$ 30,000,000	4	40%	4	6	2	5	4	4	5	6	4	26.3	Bonding
150	Schools	Building	Peirce School - Plumbing Upgrades	Upgrades to toilet rooms and water fountains.	$ 500,000	3	30%	4	4	4	6	3	4	0	4	3	26.3	Bonding
151	Public Buildings	Building	Former Newton Centre Library	Building requires envelope work. Cost for complete building renovation.	$ 1,500,000	4	40%	4	5	2	6	4	6	3	6	2	25.7	CPA Eligible
152	Library	Building	Library - Phase 3: Interior Renovations	Create more first floor public space by relocating staff offices to 3rd floor; replace 1991 carpet, repaint, replace worn furnishings.	$ 5,000,000	2	30%	3	3	2	3	4	2	2	7	5	25.6	Bonding
153	Parks & Rec	Building	Emerson Community Center - Accessibility Upgrades	Upgrade toilet rooms, install accessible door hardware and drinking fountains; Resurface main entrance ramp and install handrails.	$ 250,000	3	10%	2	3	1	3	3	4	1	5	9	25.2	Bonding
154	Parks & Rec	Parks / Open Space	Braceland Park - Update Master Plan for Park Renovation	Park renovation based on previous master plan and any required adjustments to the plan. Construction to include new athletic fields, play structures, basketball court and other improvements including accessibility.	$ 2,000,000	5	50%	4	6	6	4	6	6	3	6	5	25.2	Bonding/CPA Eligible
155	Schools	Building	Bowen School - Accessibility Upgrades	Upgrades to toilet rooms, signage, hardware, railings and assembly spaces for accessibility.	$ 500,000	4	30%	4	5	1	5	3	4	0	5	9	25.2	Bonding
156	Public Buildings	Building	Auburndale Community Library -Accessibility and Site Upgrades	ADA upgrade for the building.	$ 265,000	4	40%	2	5	3	5	4	4	1	4	10	24.8	CPA Eligible
157	Schools	Building	Williams School - Space and Building System Improvements	Address building system needs and possible cafeteria and classroom addition.	$ 1,500,000	3	30%	5	5	0	5	3	4	0	6	3	24.6	Bonding/Alternate Funding
158	Schools	Roof	Burr School - Replace Roof	Replace the total building roofing system installed in 1999.	$ 995,000	4	40%	4	6	2	5	1	4	5	10	0	24.6	Bonding
159	Parks & Rec	Building	Burr Park Field House - Building Envelope and Window Restoration (Waverley Ave. / Park St.)	Repair damaged exterior brick walls and trim. Remove entry landing stairs and railings and install new code-compliant landing, stairs and railings. Restore windows.	$ 313,500	3	50%	2	5	2	4	5	6	3	7	2	24.6	CPA Eligible
160	Public Buildings	Building	Crafts Street Garage - Accessibility Upgrades	Install accessible ramp at entrance. Provide accessible toilet rooms. Resurface and re-grade pavement to comply with ADA requirements; Provide accessible parking space.	$ 194,000	4	20%	3	3	1	4	2	4	4	4	9	24.5	Bonding
161	Parks & Rec	Building	Newton Highlands Playground - Phase II Support Building	Construction of prefabricated restrooms and storage building.	$ 300,000	6	40%	4	6	4	6	4	8	0	8	6	23.9	Bonding/Other Funds/State Contract
162	Police	Building	Police Annex - Mechanical Upgrades	Install VRF heating and cooling to replace the aging boiler.	$ 200,000	3	30%	5	4	2	4	0	3	6	5	1	23.9	Bonding
163	Police	Building	Police Annex - Roof Restoration/ Replacement	Remove and replace slate roofing, gutters and downspouts. Install new EPDM Roof. Reattach downspouts.	$ 255,825	5	50%	5	7	2	6	2	5	7	8	0	23.5	CPA Eligible
164	Public Buildings	Building	City Hall exterior restoration	Exterior restoration of all non-masonry surfaces and painting of all exterior exposed surfaces for the City Hall building.	$ 3,000,000	3	30%	2	5	3	3	4	4	2	8	0	23.4	Bonding/Free Cash
165	Police	Building	Police Annex - Accessibility Upgrades	Provide accessible toilet rooms, door hardware, signage and drinking fountain. Provide a lower transaction counter.	$ 200,000	5	50%	6	8	1	6	1	4	0	6	9	23.0	CDBG Eligible
166	Public Buildings	Building	Nonantum Library-Accessibility/Site	Reconfigure entry vestibules and reconstruct ADA compliant ramp. Upgrades for toilet rooms and drinking fountain.	$ 204,000	4	40%	3	4	1	5	4	4	1	4	9	23.0	CPA Eligible/CDBG Eligible
167	Parks & Rec	Building	Emerson Community Center - Electrical Upgrades	Replace switchboard and increase service size to meet electrical demands. Replace original overloaded electrical panels. Install emergency audiovisual horn strobes.	$ 150,000	3	30%	4	4	1	6	2	3	1	7	0	22.9	Bonding
168	Parks & Rec	Building	Feasibility Study for New Indoor Swimming Pool	A feasibility study to research issues and options for creation of a second City indoor swimming pool.	$ 200,000	5	50%	3	8	0	3	8	9	0	10	2	22.5	Bonding
169	Public Buildings	Building	Kennard Estate-Building Envelope, Windows and Doors	Replace shingles and flashings. Repair foundation walls. Replace wood windows and shutters with historic, appropriate units.	$ 240,000	3	30%	2	5	2	4	2	4	5	5	0	22.3	Bonding/CPA Eligible

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170	Public Buildings	Building	Crafts St DPW Operations (Stable) - Restore Building Envelope, Windows & Roof	Preserve/repair historic significance, lintels, sills, brick veneer, windows, doors, roof and cupola as historically appropriate.	$ 2,000,000	4	30%	4	4	1	6	3	3	5	4	0	21.9	CPA Eligible
171	Public Buildings	Building	Vernon St. Building - Exterior Windows & Doors	Restore/replace historic exterior doors and windows. Weatherstrip and seal for energy efficiency. Window bay foundation repairs.	$ 217,000	3	30%	3	2	3	3	3	3	4	4	3	21.7	CPA Eligible
172	Public Buildings	Building	Crafts Street Garage - Mechanical Upgrades	Complete roof top unit work begun in stimulus project. Replace fans, duct work, unit heaters.	$ 400,000	3	30%	3	3	6	3	3	3	3	3	0	21.7	Bonding
173	Police	Building	New Police Headquarters Facility Project	Design and Construction of a new Police Headquarters Facility	TBD	4	30%	4	4	1	3	2	4	3	6	4	21.4	Bonding
174	Public Buildings	Building	City Hall - Electrical Upgrades	Replace emergency generator and electrical upgrades.	$ 225,000	3	30%	3	4	1	6	2	4	1	5	0	21.3	Bonding
175	DPW	Bridge	Concord St Bridge over Charles River	Repair bridge in collaborative effort with the Town of Weston.	$ 1,000,000	4	50%	3	2	5	5	2	3	5	4	4	21.3	Bonding
176	Public Buildings	Building	DPW/Parks & Recreation Facility Project	Project to address facility needs of P&R and DPW.	$ 400,000	3	30%	2	4	2	4	3	4	0	5	3	21.0	Bonding
177	Parks & Rec	Parks / Open Space	Chaffin Park Wall	Replacement of existing wall along perimeter of Chaffin Park (Vernon and Centre Streets).	$ 200,000	4	40%	1	7	2	3	7	7	1	5	0	21.0	CPA Eligible
178	Parks & Rec	Building	Pellegrini Park Field House - Electrical Upgrades	Upgrade lighting and power distribution for energy efficiency. Provide protective cages over gym fixtures. Replace electric panels.	$ 176,000	4	30%	2	2	1	8	1	2	4	7	1	20.8	Bonding
179	Public Buildings	Building	Elliot St. Operations Building - Building Envelope	Repair foundation walls and rebuild ramp foundation walls. Repair/replace areaway retaining wall. Repair cracks; repoint mortar joints.	$ 123,000	4	50%	5	5	1	5	3	5	2	6	0	20.7	Bonding
180	DPW	Complete Streets	Complete Streets Improvements - Intersection at Walnut Street/Watertown Street and Walnut Street/Lowell Avenue	Replace traffic signal equipment, improve multimodal safety and operations, install ADA compliant ramps, implement traffic calming, reduce excess pavement area	$ 2,500,000	6	60%	4	5	2	7	6	5	2	8	8	20.7	Bonding
181	Public Buildings	Building	City Hall - Exterior Windows & Doors	Restore/replace windows in phases to improve energy efficiency, functionality and comfort, and to preserve exterior wall.	$ 3,125,000	3	20%	2	4	3	2	3	3	4	4	1	20.5	Potential for partial CPA Eligibility
182	Public Buildings	Building	Waban Community Library-Building Envelope and Entrance	Replace main entry walk and foundation walls and install railing. Rebuild side stairs at main entry. Rebuild stairs at rear entry. Install hand rail on one side of rear entry wall. Repair flashing of parapet walls.	$ 325,000	3	30%	2	3	1	4	3	1	1	4	8	20.5	CPA Eligible
183	Clerk	Building	City Hall - Increase City Clerk Archive Storage	Develop plans to expand archival storage to accommodate and preserve archival collections and to comply with MGL mandated record storage requirements.	$ 100,000	2	80%	3	8	1	3	4	3	0	10	0	20.5	CPA Eligible
184	Fire Dept	Large Vehicle / Equipment	Replace Fire Pumper Truck (Engine 10)	Engine 10 replacement (2012).	$ 800,000	4	40%	4	4	1	5	5	2	3	3	3	20.3	Bonding
185	DPW	Complete Streets	Complete Streets Improvements - Intersection at Parker Street / Wheeler Road	Replace traffic signal equipment, improve multimodal safety and operations, install ADA compliant ramps, reduce excess pavement area	$ 1,750,000	6	60%	3	5	2	7	6	5	2	8	8	20.1	Bonding
186	Public Buildings	Building	City Hall - Cupola/Roof Repair/Replacement	Install new membrane roof on flat roofs. Repair/replace gutters on balcony roofs. Replace metal roofing/flashing as required. Update and restore Cupola.	$ 1,700,000	3	30%	2	5	1	3	2	5	4	4	0	19.8	Bonding
187	DPW	Complete Streets	Complete Streets Improvements - Intersection at Auburn Street/Grove Street/Central Street	Upgrade traffic signal equipment and make ADA improvements.	$ 850,000	5	50%	3	4	3	4	4	6	3	4	5	19.8	Bonding
188	Schools	Building	Bigelow School - Mechanical Distribution Upgrades	Project to replace unit ventilators, valves, controls, and distribution system components that are beyond their useful life.	$ 500,000	4	40%	2	4	1	2	2	4	8	6	2	19.3	Bonding
189	Public Buildings	Building	Auburndale Community Library - Building Envelope and Roof	Repair broken roof slates. Reflash where leaks are occurring. Repair/replace gutters and downspouts. Pitch rain leaders away from building. Repair concrete ramp.	$ 260,900	3	20%	2	2	1	3	4	4	4	4	0	19.3	CPA Eligible
190	Schools	Building	Underwood School - Electrical Upgrades	Upgrades to electrical panels and sub-panels and emergency generator.	$ 100,000	3	30%	2	2	1	8	1	2	1	5	0	19.0	Bonding
191	Jackson Homestead	Parks / Open Space	Restoration of Historic East Burying Grounds	Tree work. Tomb restoration, gravestone repair, and other restoration. Repair stone gate posts. Install educational signage.	$ 85,000	5	50%	3	4	3	6	4	5	0	7	0	18.4	CPA Eligible
192	Fire Dept	Large Vehicle / Equipment	Replace Fire Dept Aerial Ladder #1	Ladder 1 (2013) replacement.	$ 1,450,000	6	60%	6	8	3	5	4	4	3	5	3	18.4	Bonding
193	Jackson Homestead	Building	Jackson Homestead - Exterior Windows & Doors	Restore existing windows, storm windows, shutters, and doors as historically appropriate.	$ 250,000	3	10%	2	3	1	2	3	2	3	4	2	18.0	CPA Eligible
194	Library	Building	Newton Free Library - Generator Replacement	Library used as cooling station for residents. Existing energy agreement mandates peak usage on auxiliary power when regional demand is high extreme.	$ 250,000	4	40%	3	4	1	4	3	5	1	5	0	17.6	Bonding
195	Public Buildings	Building	Elliot St. Garage - Roof Repair/Replacement	Replace/repair EPDM roof. Replace damaged roof panels. Will enable solar pv installation.	$ 372,000	6	60%	3	4	6	8	1	1	5	8	0	16.9	Bonding
196	DPW	Complete Streets	Complete Streets Improvements - Intersection at Bridge Street/California Street	Complete Streets Improvements - Intersection at Bridge Street/California Street	$ 1,000,000	7	60%	3	5	2	7	6	5	2	8	8	16.8	Bonding/Mitigation Fund
197	Schools	Building	Mason Rice School - Electrical Upgrades	Replace emergency generator, electrical panels and sub-panels.	$ 325,000	4	40%	4	4	1	4	2	3	1	5	0	16.6	Bonding

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198	Schools	Infrastructure	EV Bus Infrastructure	Project to determine a location and create the infrastructure needed to support an EV bus fleet.	TBD	5	50%	3	4	2	1	2	4	10	5	0	16.2	Bonding/State Grants/Other Funds
199	Public Buildings	Building	Elliot St. Operations Building - Roof Repair/ Replacement	Remove and replace corrugated fiberglass roof. Repair/ replace existing slate roof and add ice shield to prevent ice damming and icicle build-up. Repair/replace gutters.	$ 275,000	4	40%	3	4	2	5	1	1	2	5	0	16.1	Bonding
200	DPW/ Storm	Storm	Pellegrini Park Drain Replacement	Storm drain between Jenison and Hawthorne needs to be replaced due to structural failure, causing flooding at Jenison @ Judkins.	$ 200,000	5	50%	4	4	3	2	2	6	4	4	0	16.1	Stormwater
201	Public Buildings	Building	City Hall - Mechanical Upgrades	Replace condensing units, ductwork and fans. Add mini-split A/C units in conjunction with window restoration/replacement.	$ 500,000	6	60%	5	5	4	6	2	5	0	5	0	15.3	Bonding
202	Public Buildings	Building	Elliot St. Operations Building - Interior and Finish Upgrades	Repaint steel framing in attic. Repair deteriorated concrete and CMU. Upgrade lighting and install new acoustical ceilings.	$ 275,000	3	30%	2	3	1	2	2	4	1	3	0	14.0	Bonding
203	Schools	HVAC/Boilers	Oak Hill School - Mechanical Upgrades - Roof Top Units and Distribution System	Replace Roof top air handling units and distribution system to electrify the systems.	$ 250,000	5	50%	3	4	2	1	2	5	4	4	0	13.5	Bonding
204	Public Buildings	Building	City Hall - Envelope - Masonry Repairs	Ongoing program to repair and repoint exterior masonry to preserve building envelope. Address worst areas first.	$ 150,000	7	40%	3	4	1	1	9	7	1	6	0	13.4	Bonding
205	IT	Hardware / Software	Police IT Storage Area Network	Replacement of outdated servers, consolidation of systems, organization of data by divisions with enhanced security and support	$ 150,000	6	40%	4	3	2	2	1	2	2	6	2	12.4	Free Cash
206	IT	Infrastructure	IT Infrastructure Refreshment Plan	Core switch replacement at Police, Fire, City Hall; Enhancement to our load balancing/FTD scheme; A real wireless solution, new in the box- first ever; SAN Enhancements	$ 200,000	7	40%	5	3	2	3	2	3	2	5	2	12.3	Free Cash
207	Parks & Rec	Parks / Open Space	Nahanton Park - Nature Center Accessibility	Renovation of two existing parking areas and upgrades to pedestrian connection to Nature Center - Canoe and Kayak Rental Building.	$ 150,000	7	70%	4	4	3	2	2	6	4	4	9	12.2	Bonding/CPA Eligible
208	DPW	Complete Streets	Complete Streets Improvements - Wells Ave @ Nahanton	Upgrade traffic signal equipment, install ADA compliant ramps, improve multimodal safety, accessibility, and operations.	$ 4,000,000	8	60%	3	4	2	5	5	4	2	8	8	11.8	Bonding/Other Funds
209	Fire Dept	Large Vehicle / Equipment	Apparatus Replacement Plan	Replacement of R1 vehicle (2016).	$ 1,200,000	7	70%	4	4	3	2	2	6	4	4	3	10.5	Bonding
210	Schools	Building	Bigelow School - Replace Windows and Doors	Replace aging windows and exterior doors to improve comfort, operation, and energy efficiency.	$ 1,400,000	7	70%	3	4	3	2	2	6	4	4	2	9.8	Bonding
211	Public Buildings	Building	Waban Community Library-Exterior Windows & Doors	Restore exterior wood door and install panic hardware. Replace areaway and rear door. Restore windows.	$ 118,500	7	70%	4	4	3	2	2	6	4	4	0	9.7	CPA Eligible
212	DPW/ Storm	Storm	Hammond Brook-Glen Ave. to Centre St.	Cleaning, Inspection, Structural Evaluation, Design, Rehabilitation and Construction of Hammond Brook Culvert.	$ 600,000	7	70%	4	4	3	2	2	6	4	4	0	9.7	Stormwater
213	Historic Newton	Parks / Open Space	Restoration of Historic West Burying Grounds	Preservation of gravestones. Repair stone wall boundary. Install educational signage.	$ 75,000	7	70%	4	4	3	2	3	5	4	4	0	9.6	CPA Eligible/Other Funds
214	Historic Newton	Parks / Open Space	Restoration of Historic South Burying Grounds	Preservation of gravestones. Tree work. Repair stone wall boundary. Install educational signage.	$ 75,000	7	70%	4	4	3	2	3	5	4	4	0	9.6	CPA Eligible/Other Funds
215	Schools	Building	Williams School - Mechanical Upgrades	HVAC distribution upgrades in the boiler room and throughout the school, and electrify the systems.	$ 200,000	7	70%	3	4	3	2	2	6	4	4	0	9.2	Bonding
				Total Need:	**$ 861,339,962**													

ACCESSIBILITY

The City of Newton is committed to act vigorously toward implementation of the requirements of the Americans with Disabilities Act (ADA) and will work to assure that each service, program, and activity of the City will be conducted so that, when viewed in its entirety, it is readily accessible to and usable by individuals with disabilities.

The Americans with Disabilities Act, enacted July 26, 1990, prohibits discrimination based on disability and ensures equal opportunity for persons with disabilities. Equal opportunities include employment, state and local government services, public accommodations, commercial facilities, and transportation. Under the ADA, the City of Newton was required to and developed a Transition Plan in April 1991 which would ensure that no qualified individuals would be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any programs. The ADA was intended to be much more than a set of architectural barrier removal guidelines, it is civil rights legislation. Cities and towns are required to take all necessary steps in order to treat residents with disabilities with the same respect accorded non-disabled residents; the City of Newton is committed to that core principle.

The City of Newton hired its first ever full time ADA Coordinator in May 2015. Since that time the ADA Coordinator has conducted an Accessibility Self-Assessment of the City's infrastructure with DPW, Public Buildings/Schools, and Parks, Recreation, and Culture departments, has conducted public meetings, has worked on the coordination of the update of the City's Transition Plan, and has worked in consultation with the Newton Commission On Disability, City senior management, and the Mayor's Office to identify, prioritize, and implement required improvements.

Topics to be covered in this section include accessibility ratings of the following:

- Public Buildings and School Buildings;
- Parks and Playgrounds;
- Traffic Signals;
- Curb ramps; and
- Public Parking Lot Improvements.

The Accessibility Self-Assessment has informed the City's updating of the ADA/504 Transition Plan, a multi-year plan to make structural facility changes. The 2022 ADA/504 Transition Plan (to be adopted in the fall of 2022) includes the Accessibility 6-Year Plan, in Appendix A, defining the timeline and funding schedule for implementation. Many of the projects are under the purview of Public Works, Public Buildings, and Parks, Recreation, and Culture departments, to improve a range of facilities including buildings, playgrounds, sidewalks, curb ramps, intersection crossings, and parking lots. Funding comes from capital, operating, CDBG, CPA, and the Commission on Disability sources. Some accessibility improvements are made during larger projects such as a school renovation while others are specifically targeted. Targeted projects include a 3-year project, completed in FY21, to eliminate the backlog of installing Accessible Pedestrian Signals (APS) at all signalized intersections, playground improvements, installation of a new accessible restroom at City Hall, and curb ramps at hundreds of locations.

Accessibility Upgrades
5 Year CIP, FY2024-FY2028

Priority	Project Title	Project Description	FY2024	FY2025	FY2026	FY2027
1	Sidewalks	Annual DPW (in house crews, material costs)	$ 265,000	$ 265,000	$ 265,000	$ 265,000
2	CDBG Accessibility	Annual Appropriation designation for accessibility improvements	$ 95,000	$ 95,000	$ 95,000	$ 95,000
3	Newton Early Childhood Program	Major school project to make school fully accessible	$ -	$ -	$ -	$ -
4	Lincoln-Eliot at 150 Jackson Road	Major school project to make school fully accessible	$ 21,500,000	$ 21,500,000	$ -	$ -
5	Countryside School - Renovation/Addition	Major school project that will make the school fully accessible.	$ 57,750,000	$ -	$ -	$ -
6	Franklin - Renovation/Addition	Major school project that will make the school fully accessible.	$ 500,000	$ 2,500,000	$ 57,750,000	$ -
7	Transportation Network Improvement - Sidewalk & ADA Ramp Work	Program work on roads across the city each year including sidewalk & ADA ramp work	$ 1,300,000	$ 1,300,000	$ 1,300,000	$ 1,300,000
8	Police Headquarters - Site Security, Parking Lot, Accessibility	Reconstruct exterior ramp to code compliant slope. Provide accessible parking & signage	$ 1,200,000	$ -	$ -	$ -
9	Public Parking Lots	1-2 parking Lots per Year with line and accessibility improvements	$ 600,000	$ 600,000	$ 600,000	$ 600,000
10	War Memorial Accessibility/Historic Improvements	Repair and repoint stone cornice. Rebuild/reset main entry stairs and install code-compliant railings. Implement recommendations from 2007 Study of the Memorial Stairs.	$ 1,166,000	$ 1,166,000	$ -	$ -

Accessibility Upgrades
5 Year CIP, FY2024-FY2028

Priority	Project Title	Project Description	FY2024	FY2025	FY2026	FY2027
11	Ward/Underwood Schools - Renovation/ Replacement	Major school project that will make the schools fully accessible.	$ -	$ -	$ -	$ -
12	Playground Renovations	Retrofit 1-2 play structures to make accessible routes	$ 30,000	$ 30,000	$ 30,000	$ 30,000
13	Marty Sender Path Phase 2 - Boardwalk and trail improvements	Install accessible trail boardwalk over flood-prone area, improve surface.	$ -	$ -	$ -	$ -
14	Peirce School - Accessibility Upgrades	Upgrades to door hardware, toilet rooms, railings, and signage for accessibility.	$ -	$ -	$ -	$ -
15	Waban Library-Accessibility Upgrades	Upgrade toilet rooms, signage and replace door hardware; Modify door at stairwell or install automatic door opener.	$ -	$ -	$ -	$ -
16	Ed Center Elevator & Accessibility Upgrades	Upgrade elevator, restrooms, door hardware, and signage for accessibility	$ -	$ -	$ -	$ -
17	FA Day School - Accessibility Upgrades / Replace Elevator	Upgrades for ADA Compliant elevator, restrooms, door hardware and signage	$ -	$ -	$ -	$ -
18	Memorial Spaulding School - Accessibility Upgrades	Upgrade toilet rooms, door hardware, water fountains, and signage for accessibility.	$ -	$ -	$ -	$ -
19	Burr Park Field House - Accessibility/Site Upgrades	Accessibility upgrades to toilet rooms and fixtures, signage, drinking fountain, and door hardware. Provide accessible path to entrance and an accessible parking space.	$ -	$ -	$ -	$ -
20	Williams School - Accessibility Upgrades	Upgrade door hardware, openings, toilet rooms, railings, and signage for accessibility.	$ -	$ -	$ -	$ -

Accessibility Upgrades
5 Year CIP, FY2024-FY2028

Priority	Project Title	Project Description	FY2024	FY2025	FY2026	FY2027
21	Bigelow School - Accessibility Upgrades	Upgrade restrooms, elevator, door hardware and signage for accessibility	$ -	$ -	$ -	$ -
22	Mason Rice School - Accessibility Upgrades	Upgrade restrooms, elevator, door hardware and signage for accessibility	$ -	$ -	$ -	$ -
23	Emerson Community Center - Accessibility Upgrades	Upgrade toilet rooms, install accessible door hardware and drinking fountains; Resurface main entrance ramp and install handrails.	$ -	$ -	$ -	$ -
24	Bowen School - Accessibility Upgrades	Upgrades to restrooms and signage	$ -	$ -	$ -	$ -
25	Police Annex - Accessibility Upgrades	Provide accessible toilet rooms, door hardware, signage and drinking fountain. Provide a lower transaction counter.	$ -	$ -	$ -	$ -
26	Crafts Street Garage - Accessibility Upgrades	Install accessible ramp at entrance. Provide accessible toilet rooms. Resurface and re-grade pavement to comply with ADA requirements; Provide accessible parking space.	$ -	$ -	$ -	$ -
27	Brown School - Accessibility Upgrades	Upgrade existing elevator for code compliance, signage, hardware, and reconfigure locker rooms for accessibility.	$ -	$ -	$ -	$ -
28	Auburndale Community Library - Accessibility and Site Upgrades	ADA upgrade for the building.	$ -	$ -	$ -	$ -
29	Nonantum Library- Accessibility/Site	Reconfigure entry vestibules and reconstruct ADA compliant ramp. Upgrades for toilet rooms and drinking fountain.	$ -	$ -	$ -	$ -
			$ 84,406,000	**$ 27,456,000**	**$ 60,040,000**	**$ 2,290,000**

CLIMATE ACTION PLAN

Climate change is an urgent crisis. The City of Newton is deep into implementation of its first-ever Climate Action Plan, a five-year plan for 2020-2024 that also sets a long-term goal of a carbon-neutral Newton by 2050.

This Plan focuses on points of municipal leverage, where City of Newton ordinances, leadership, investment, and advocacy can have the most impact. Newton's Climate Action Plan builds on the City's recent efforts and outlines steps that the City has under way and/or will take to significantly reduce greenhouse gas (GHG) emissions across the community over the term of the Plan and meet the long-term goal of carbon neutrality. The longer we delay taking ambitious action to reduce GHG emissions, the greater the environmental, public health, and economic problems will be and the harder and costlier it will be to achieve our goal.

In the Plan, while leading by example, the City seeks to equip our residents and businesses with the tools and support needed to make climate-conscious choices that reduce the community's GHG emissions.

The Plan addresses six areas of action:

A. Implementing Newton's Climate Action Plan: The City is committed to ensuring the success of this Climate Action Plan by adapting internal operations and working with dedicated partners.
B. Promoting Clean and Renewable Energy: "Greening" the sources supplying electricity to the City is vital to the pathway to carbon neutrality. The City will continue to promote Newton Power Choice (now with a default rate of 82% green power, the highest in the State), increase local renewable energy production through the installation of municipal solar arrays and the promotion of private solar installations, and offset its own GHG emissions with the purchase of renewable electricity supply. The City is also working with State legislators to promote clean energy legislation.
C. Greening Newton's Transportation and Streetscapes: After buildings, the next largest source of GHG emissions in Newton is transportation. The City will support Newton's residents, workforce, and visitors in switching to battery electric and plug-in hybrid vehicles; reducing single-occupancy vehicle trips; and increasing biking, walking, telecommuting, public transportation, and shared trips.
D. Improving New Construction and Major Renovations: Energy use reduction and electrification are the backbones of our GHG emissions reduction plan. As new developments are built and renovations are undertaken, the choices made by developers and architects will have a significant impact on the City's GHG emissions profile. The City is taking steps to ensure that construction meets standards necessary to achieve carbon neutrality by 2050. This includes the recent passage of a Home Rule petition that would allow the City to require electrification of all new and substantially renovated buildings, and support for legislation that would impose a similar requirement statewide.
E. Improving Existing Buildings: Existing residential and commercial buildings in Newton are responsible for much of the City's GHG emissions. The City will work with homeowners to increase energy efficiency, reduce reliance on natural gas and heating oil, and increase the use of efficient electric appliances for heating, cooling, cooking, clothes drying, and hot water. The City is increasing the use of heat pumps in its existing building stock, as well. The City's first-ever "Energy Coach" is helping educate and encourage homeowners,

architects and builders to install highly energy-efficient systems in place of fossil fuel systems wherever possible.

Two significant initiatives, the "4 Our Future" campaign, focused on residential buildings, and the Building Emissions Reduction and Disclosure Ordinance (BERDO), focused on large commercial buildings and currently being considered by the City Council, promote efficiency improvements in existing buildings.

F. Reducing Emissions associated with Consumption and Disposal: By promoting and facilitating weekly curbside recycling collection, subscription and drop-off food waste diversion, and materials recovery and reuse at the Newton Resource Recovery Center, the City is helping Newtonians limit their consumption of goods and services and disposal of materials.

   An ordinance currently under consideration will help reduce embodied carbon in building construction.

The Plan lays out general strategies and specific actions in each of these areas. Most of the actions will be undertaken by existing staff, in collaboration with the Newton Citizens' Commission on Energy and the community's environmental and transportation advocates.

The recommended actions that require new and additional City investments include a variety of transportation measures and building projects.

We note also that there were two early action items in the Climate Action Plan for the City. The first was the hiring of an Energy Coach to help promote energy efficient design and lowered use of fossil fuels in new construction and major renovations. The Energy Coach is off to an excellent start. The second was launching the HeatSmart Newton program to promote the use of heat pump technology and partner with local installers to help homeowners. The HeatSmart program has led to over 100 installations of heat pumps in Newton homes (other installations are taking place outside of the program).

EV Charger Installation in Municipal and School Parking Lots

Accelerating the transition to electric vehicles (EVs) is crucial for achieving the goals of our Climate Action Plan. Installing EV chargers in municipal parking lots to respond to existing demand for EV chargers and to drive additional demand for EVs is crucial to this effort.

The City's focus during FY 2024-2028 will be on charger installations at village centers, municipal locations, and schools. The Plan promotes EV chargers in 10 village center lots, eight chargers in two other non-school municipal locations, and 33 in 23 school locations

The installation of EV chargers involves investment in infrastructure and in the chargers themselves. The *infrastructure costs* are a significant majority of the cost, at about $50,000 per location. Infrastructure is now provided at no cost to the City through Eversource's Make Ready program. While there are no guarantees, it is expected that Eversource will be able to continue to provide this infrastructure at no cost to the City if the City has purchase orders in hand for the corresponding chargers.

As for *charger costs*, ChargePoint Level 2 chargers installed (with five years of network and maintenance services) cost approximately $14,291 each. Some state Department of Energy Resources grants can reduce the costs to the City by 60-100%.

BERDO (Building Emissions Reduction and Disclosure Ordinance)

The FY24-28 CIP includes a plan for electrifying City-owned buildings, which will help bring them into compliance with a BERDO ordinance. The ARPA plan also provides funding that can help affordable housing to comply with BERDO and provide a healthier environment by reducing GHG gas emissions in living units of lower-income households.

Stormwater Management

One critical program to address ongoing and future climate risks is the City's progressive Stormwater Management Program. Newton was one of the first communities in the Northeast to implement a fee system to fund needed stormwater projects and programs. This fee system, based on impervious surface area for non-residential properties, was updated in 2018 to adequately fund the future program and make payments more closely linked to impacts. The City's 20-year Stormwater Infrastructure Improvement Plan and NPDES "MS4" stormwater permit are guiding documents for stormwater projects and programs. The FY 2024-2028 CIP details 18 projects, with $19 million in spending, that both improve water quality and help the stormwater system better react to more intense rainfall events created by climate change.

The new stormwater ordinance and permit program, in effect since June 2022, requires stormwater mitigation for land disturbing activities on both private and commercial properties. There are three types of permits: land disturbance, minor stormwater, and major stormwater, depending on the size and scope of the development. The stormwater permit is administered by the Engineering Division of the Department of Public Works.

To date, Engineering Division has issued 5 minor stormwater permits, and 14 major stormwater permits (no land disturbance permits). These permits are applied for via the NewGov permitting software. This software allows tracking, inspections, and follow up inspections. The permits require phosphorus removal calculations to be submitted. Engineering Division personnel check the phosphorus removal calculations using the EPA's "BATT" tool, which also tracks phosphorus removal for the MS4 permit.

School and Municipal Buildings and Solar

The City has also invested a great deal of time, effort, and money in building-energy retrofits, sustainable design, and energy efficient construction of our school and municipal buildings. The City has been implementing energy efficiency retrofits annually, often with state Green Communities Act grant funding, and will continue to do so**. The City has been the recipient of over $1.6 million in Green Communities grants and over $2.4 million in utility rebates related to these efforts.**

Twenty-five buildings, schools and all municipal streetlights have been converted to LED lighting since 2013, saving 3 million kWh per year. All our new schools have been designed and constructed for high levels of energy efficiency including:

- Newton North High School – LEED Gold
- Angier Elementary School – LEED Gold

- Zervas Elementary School – LEED Silver (recognized as a top LEED certified school by the USGBC https://www.usgbc.org/articles/explore-30-leedcertified-schools-2019)
- Cabot Elementary School – LEED Gold as submitted

The renovation of 687 Watertown Street (former Horace Mann Elementary School) for the Newton Early Childhood Program has an all-electric heating system with high efficiency heat pumps that use no fossil fuels. The Auburndale Community Library has been converted from an oil-fired steam boiler heating source to energy-efficient electric heat pump technology. **All new construction and major renovations of City buildings will be all electric and fossil fuel free. Projects under design are 150 Jackson Road and NewCal. Projects in the CIP queue include Horace Mann, Countryside and Franklin schools.**

Over the past decade the City has increased total municipal building area by more than 15% through new construction, building additions, and the purchase of a new school property. Most of this new building area is also air-conditioned, which increases energy consumption. Notwithstanding these changes, the City has decreased total building energy consumption by 11% over that same time period. This has been accomplished through energy-conscious sustainable design and investment in building energy retrofits.

In addition, the City is generating over 5 million kWh of solar power on municipal properties, and another 2 million kWh of solar power will be added when the Phase 3 solar project is completed. This solar power will be equivalent to 40% of our municipal electricity use. The City will seek opportunities for both energy efficiency and solar projects over the years to come.

Transportation

Complete Streets: The Climate Action Plan outlines the need for the City to initiate small, medium, and large Green Infrastructure and Complete Streets projects specifically aimed at supporting bike and pedestrian travel, reducing GHG emissions, and increasing tree and shrub installations.

Complete Street principles, as identified in Newton's 2018 Street Design Guide, involve creating welcoming and safe infrastructure to support people on bike and foot, as well as incorporating green infrastructure stormwater features, supporting the reduction of impervious areas, and increasing carbon capture.

The West Newton Square and Walnut Street-Newtonville projects for 2020-2021 are great examples of these projects included in past CIP's. The City is currently advancing major Complete Streets projects on the Commonwealth Avenue Carriageway, Washington Street, Albemarle, and Crafts/North/Albemarle. In addition, with $2M in recently announced ARPA funds, the City will embark on numerous Traffic Calming projects supporting biking, walking and transit. These projects are detailed in later sections of the CIP.

With respect to transit, the Mayor has secured $85 million in funding from the state supplemental budget to cover 50% of the costs of the Newton Commuter Rail Accessibility Project.

The City's Bluebikes bike share system has taken off in Newton. Now with 16 stations operating in Newton, Bluebikes is on track to provide upwards of 10,000 trips in 2022.

The City currently operates NewMo, a citywide shared ride transportation system aimed at helping residents, employees and visitors get to and from public transportation and around Newton. NewMo has exploded in popularity and now provides 250-300 trips per weekday and more than

65,000 trips per year. In 2022 and 2023, the City will begin converting NewMo vehicles to EVs, beginning by introducing EVs in the fall and growing up to six EVs within a year.

Other Complete Streets projects, as well as Operating Budget-supported efforts to increase bicycle lanes and bike sharing, are detailed in later sections of the CIP.

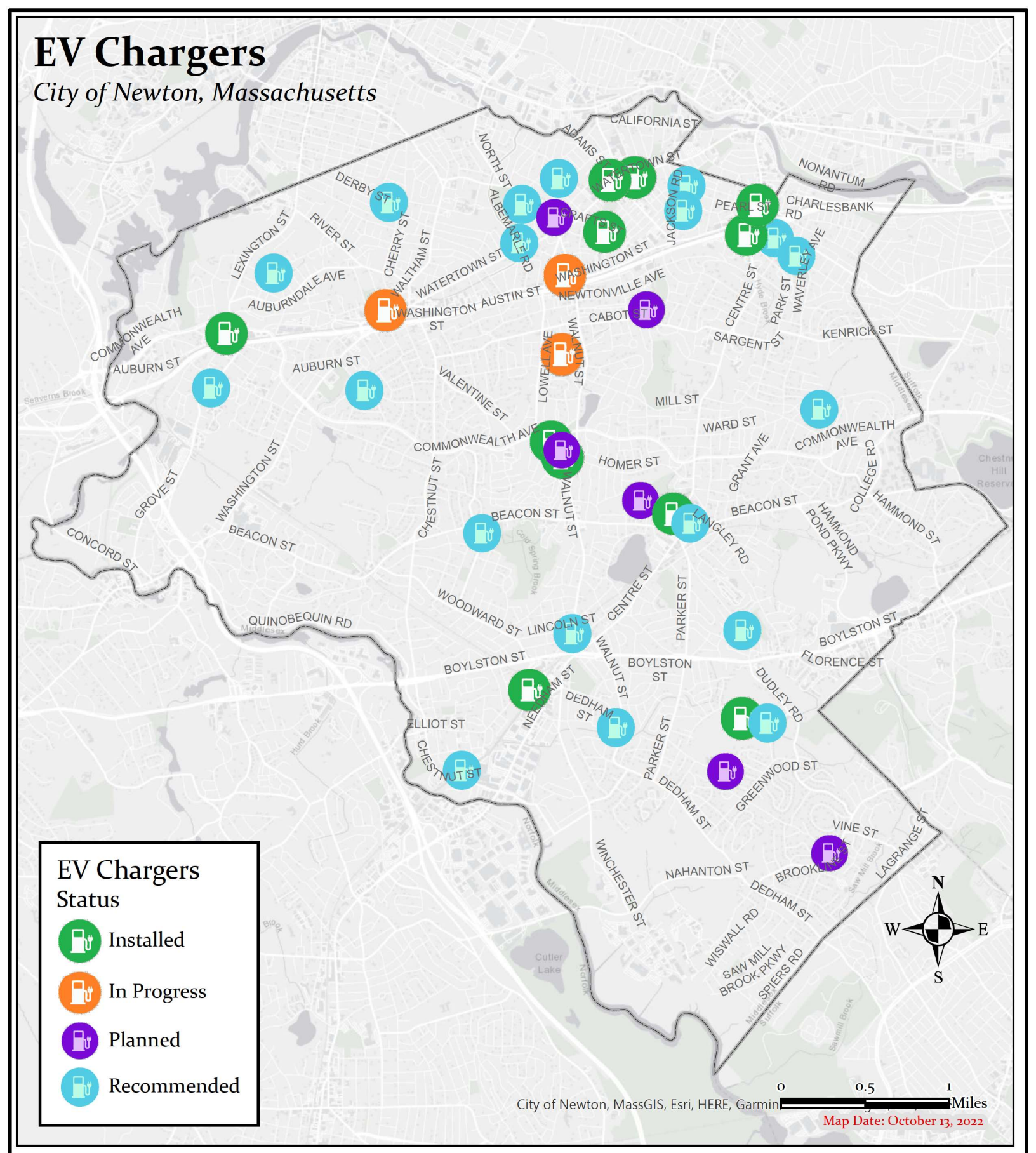
Other Municipal Implementation Projects and Programs

The City continues to undertake a range of other projects and programs that are related to implementation of the Climate Action Plan or address climate-related vulnerabilities and mitigation.

- Considering the State's opt-in stretch code;
- Increasing City tree planting and maintenance;
- Revising the Floodplain Ordinance;
- Providing a broad range of public education, health, and wellness programs.

EV Chargers

City of Newton, Massachusetts



EV Chargers
Status

- Installed
- In Progress
- Planned
- Recommended

NEWTON GIS

CITY OF NEWTON, MASSACHUSETTS
Mayor - Ruthanne Fuller

The information on this map is from the Newton Geographic Information System (GIS). The City of Newton cannot guarantee the accuracy of this information. Each user of this map is responsible for determining its suitability for his or her intended purpose. City departments will not necessarily approve applications based solely on GIS data.

NEWTON PUBLIC SCHOOLS

One of the highest priorities for Mayor Fuller and the Newton Public Schools is ensuring that the Newton Public Schools have facilities that enhance students' ability to receive the highest quality learning experience; enable faculty and staff to perform at their highest ability in a secure, comfortable environment, conducive to teaching and learning; and allow the City's youngest residents to reach their full potential. Therefore, the Mayor's Office and the School Administration meet regularly throughout the year to assess school projects and to prioritize school facility needs.

The School Department occupies 2.35 million square feet in 25 buildings, approximately 75% of the total square footage in all City of Newton buildings. This includes 21 schools, the Newton Early Childhood Program (NECP) and the Education Center. The passage of the March 2013 override questions provided $103 million to complete major construction projects at three City elementary schools: Angier, Zervas and Cabot. State MSBA funding complementing the override funding for the Angier and Cabot projects. These three schools were built and opened during the 2015-2019 period. Using $13 million in City capital funding the NECP project at 687 Watertown Street is nearing completion this Winter. The $49.5 million new Lincoln-Eliot Elementary School at 150 Jackson Road (one block from current home) is now in final design using City capital funding. This new school is expected to open in September 2025.

Three major elementary school projects are proposed in the 2023 Debt Exclusion and Operating Override questions including: Countryside (renovation/replacement); Franklin (renovation/ replacement) and Horace Mann (addition and some additional renovations). These projects are discussed below.

There are many more capital requirements to address in a district the size of the Newton Public School system with 25 buildings. These are reflected in the CIP and the Newton Public School's Long-Range Facilities Planning Timeline that goes out 25 years and touches all elementary and middle schools. Recognizing that major school replacements and/or large renovations require a lengthy timeline, the School Administration has developed a list of major project needs to maintain and preserve facilities in addition to required preventive maintenance. The project timeline for major school building projects is updated annually to reflect current building conditions and enrollment needs.

Major School Building Projects

The following projects are included in the FY2024 – FY2028 CIP:

1. Newton Early Childhood Program (former Horace Mann at 687 Watertown Street) – This $13 million project to create a new home for the NECP at 687 Watertown Street was ready to be put out to bid, but was put on hold in the spring of 2020 due to the financial uncertainty caused by COVID-19. The project was restarted in June 2021, construction began in October 2021 and is expected to wrap up in December with occupancy in January 2023. The renovated building will include 17 classrooms, support spaces, a new van loop, air-conditioning and an energy system that will operate without fossil fuel.

2. Lincoln-Eliot Elementary School at 150 Jackson Road – This project, now at $49.5 million and approved by the City Council, is headed into final design with construction expected to begin in Summer/Fall 2023. This complete renovation and addition project at 150 Jackson Road will create a new home for the Lincoln-Eliot Elementary School that meets all MSBA space

guidelines and establishes a joint community/school full-sized auditorium for a wide variety of uses. Occupancy is anticipated in the fall of 2025.

3. Countryside Elementary School – This project is now listed in the CIP at $61 million, with escalation resulting from inflation in the building industry. On April 14, 2021, the Massachusetts School Building Authority (MSBA) Board of Directors voted to invite the Countryside Elementary School into the Eligibility Period of the MSBA's core grant program. Countryside faces considerable accessibility problems, insufficient special education and support spaces, poor building conditions, inadequate classrooms/library/music, art/physical education spaces as well as chronic flooding. The design of this project is well underway with a debt exclusion override proposed for the funding source.

   The current Countryside School lacks sufficient special education and general education support spaces which has resulted in the use of hallways and modular spaces. The modular classrooms are beyond their useful life. A new building or substantial renovation is required to address these multiple deficiencies. The existing 49,612 gross square foot school was originally constructed in 1953 as a neighborhood school consisting of 13 classrooms, a gym, library, auditorium, main office, two sets of girls and boys restrooms, and a pair of staff bathrooms. A 6-classroom annex addition was constructed in 1958 to address rising enrollment. A single fixture bathroom was added as part of this project. In 1986, two additional annex classrooms were constructed, and in 1991, 1999, and 2000, a total of four modular classrooms and two offices were added. In total, the number of classrooms doubled while existing support spaces in the main building continue to serve a significantly larger student population (e.g., cafeteria, library/media, bathroom facilities, nurse, and administration).

4. Franklin Elementary School – This project is now listed in the CIP at $61 million, with escalation resulting from inflation in the building industry. As with Countryside, this 1938 building with 62,746 square feet has changed significantly from its original 13 classroom design. Major building systems, including the roof, exterior masonry, windows and boiler need to be replaced. Franklin lacks sufficient special education and general education support spaces which has resulted in the use of basement spaces which were not originally designed or intended to be teaching spaces. A new building or substantial renovation is required to address these multiple deficiencies. The school was co-listed with Countryside as top priorities by Newton Public Schools in requests for MSBA funding for several years. The state chose to fund Countryside so this project will be fully funded by the City through the proposed 2023 Debt Exclusion Override for the project. A feasibility study for Franklin, including a full School Building Committee, has begun to evaluate program, enrollment, space/facility/ campus layout options, and costs.

5. Horace Mann Elementary School – This project is now listed in the CIP at $23 million, with escalation resulting from inflation in the building industry. The City has already invested approximately $15 million since 2014 to renovate the former Carr School at 225 Nevada Street for use first as swing space and then as the permanent home for the Horace Mann Elementary School. The City and School Department then added two modular classrooms to the building in December 2019 and completed installation of additional sinks on the second floor and the enlargement of six classrooms over the summer of 2020. Planning and a feasibility study for a longer-term capital project that will provide permanent additional building space and other improvements began over the winter of 2020, was also put on hold due to COVID-19, and then restarted in 2021. The study concluded that the school facility lacked appropriately sized classrooms, special education and student services spaces, a functional cafeteria or performance space, a media center or library, and needed improved clustering of educational

spaces. The project's Working Group and School Building Committee have worked to identify a new building addition and interior renovations that can be conducted while the school is occupied that address the deficiencies identified in the study. The proposed 2023 Operating Override includes funds to cover the debt service payments on about $13 million of the $23 million project bonds. Also, the City is planning on using Free Cash to cover a portion of the project construction costs.

6. Ward/Underwood Elementary Schools – Since studies are ongoing about these two older school facilities the CIP does not list a full project cost at this point. Ward, built in 1928, is an outdated facility with poor accessibility. The total enrollment of this school, below 200 students in October 2022, is the lowest of the 15 elementary schools. A series of summer work improvements were completed during Summer 2019 and the top priority parking lot repaving was finished in Summer 2022. Underwood, built in 1924, is now the oldest school building in the district. Prior to COVID-19, the School Department had initiated an Underwood-Ward Task Force to jointly address these two aging schools. Due to the financial uncertainties stemming from COVID-19, the Taskforce was put on hold in 2020. In September 2022 the City allocated $100,000 in ARPA funds to help NPS provide professional services to evaluate the facilities, analyze enrollments and educational models, and clarify the challenges and opportunities to help with the decision making.

Maintenance Capital Projects

Roof replacements, generators, boilers, air handlers, windows, masonry and other systems are integrated into the CIP based on an assessment of need over the next five years and beyond.

1. Bigelow School – Roof Replacement: This $1.5 million project will replace the entire building roof system which is beyond its useful life. This project is potentially eligible for partial funding through the MSBA Accelerated Repair Program. The City may solicit proposals for rooftop solar once the roof replacement is completed.

2. Peirce Elementary School – Heating System Improvements: This building is operating on one 69-year-old oil-fired boiler which is at the end of life. Peirce is one of the last school buildings using oil. The City has commissioned a study to determine options for heating this building with high efficiency heat pump technology in place of fossil fuel fired equipment. The project includes new controls and removal of an underground tank. Funding is $865,000, derived from the proposed 2023 Operating Override.

3. Newton North High School Pool Air Handling Unit: This unit is deteriorating and needs to be replaced. Funding is $425,000 in FY2026.

4. Lincoln-Eliot Elementary School – Replace Roof: Replace the 1973 portion of roof that is beyond its useful life as this building will continue to be used as the new swing space for the District. Funding is $210,000 in FY2026. The City may solicit proposals for rooftop solar once the roof replacement is completed.

5. Mason-Rice Elementary School – Replace Roof: Replace the 1990s roofing system which has reached its life expectancy. Funding is $938,600 in FY2026. This project may be eligible for partial funding through the MSBA Accelerated Repair Program. The City may solicit proposals for rooftop solar once the roof replacement is completed.

6. **Brown Middle School HVAC System:** Project to replace boilers that are beyond their useful life and determine the most energy efficient solution for mechanical system improvements. Estimated cost is $1.5 million.

7. **Replace Boiler at Ward Elementary School:** This project is a placeholder to address failed boilers, if replacement is needed before a long-term capital project as this school is undertaken. Estimated cost is $250,000.

8. **Underwood School Roof Replacement:** Replace roof sections that have deteriorated and are beyond their useful life. Funding is $300,000 in FY26.

9. **Memorial Spaulding Elementary School - Replace Roof:** Replace 1980s built-up roof that is beyond its useful life. Funding is $1.3 million in FY2026. This project may be eligible for partial funding through the MSBA Accelerated Repair Program. Once the roof is replaced the City may seek proposals to install rooftop solar.

10. **Memorial-Spaulding Elementary School – Heating System Improvements:** Replace second boiler, along with controls, air handlers and hot water conversion. Funding is $250,000 in FY2026 for design. It is anticipated that an application for MSBA Accelerated Repair Program funding will be submitted.

11. **Education Center Mechanical Upgrades:** Replace boiler that is more than 35 years old and beyond its useful life. Estimate cost of $450,000.

12. **Bowen Elementary School – Roof Replacement:** Replace the 1950s portion of the building roof which has exceeded its life expectancy. Funding is $450,000 in FY2027. This project may be eligible for the MSBA Accelerated Repair Program.

Other School-Related Capital Projects

In addition to the Newton Public Schools CIP projects listed above, there are many school-related CIP projects fall within the Public Buildings Department, the Department of Public Works and the Parks, Recreation & Culture Department. Some of these projects include:

- Newton South High School Brandeis Field Lights
- Newton North High School Stadium Field Lights
- Horace Mann Elementary School Playground
- Lincoln-Eliot at 150 Jackson Road City Auditorium Renovation
- Newton South High School Synthetic Turf Field Replacement
- Newton North High School Synthetic Turf Field Replacement
- Design and engineering for athletic field upgrades at multiple schools
- Complete Streets projects that improve traffic, pedestrian safety and add bike lanes near schools
- Electric vehicle charging stations

PUBLIC BUILDINGS

The Public Buildings Department is responsible for the care and maintenance of 84 municipal and school buildings in the City of Newton. These buildings total 2,966,136 square feet and are sited on 535 acres of municipal property. These properties make up almost 5% of the land mass of Newton. Over the last decade, we have invested over $400 million on hundreds of capital building projects on these assets. These buildings are staffed by approximately 3,000 employees and receive over 20,000 visitors or users daily.

These assets yield a net present value of approximately $4 billion.

Comprehensive building assessments were previously completed on all the municipal and school buildings, and these assessments are updated and maintained annually. These assessments are a vital tool in establishing and maintaining the building projects listed and evaluated in the Capital Improvement Plan.

The Department has completed a number of upgrades and renovations at various schools, and other municipal buildings:

- Main Library Children's Room Expansion (2022)
- Crafts Street Stable – Boiler Replacement (2021)
- 23 School Buildings had their HVAC systems serviced, repaired and then had air flow testing and balancing of the ventilation equipment and exhaust fans performed (2021)
- Hawthorn Field House (Pelligrini) Lower Roof Replacement (2022)
- Lighting efficiency upgrades at Newton South High School and the NECP Building (687 Watertown St.) and the insulation and air sealing on the Nonantum Library (Green Communities grant funds) (2022)

The Public Buildings Department has also completed Solar Projects which have produced kilowatt hours:

- Solar Rooftop Installations at Education Center, Zervas School, and Fire Station 3 (2020)
- Solar canopies at North High School Lowell Ave, North HS Walnut St. and the Newton Free Library (2021)

The Public Buildings Department is currently working on the following capital projects:

- Newton Center for Active Living (NewCAL) Project – Design Development (at current Senior Center site location)
- Lincoln-Eliot Elementary School at 150 Jackson Road Facility Project – Design Development, previously on hold due to pandemic related financial uncertainties
- Newton Early Childhood Program (PreK) Facility Project – expected completion December 2022
- Commonwealth Golf Course Project – Design (separately funded)
- Comprehensive Police HQ Facility Renovation and Upgrade Project - Feasibility

The Public Buildings Department is currently working on the following Solar projects:

- Solar Canopies at five additional locations (Brown MS, Wheeler Road, Memorial Spaulding ES, Ed Center, Pleasant St. parking lot)
- Solar Rooftop installations at two additional schools (Angier gym & Cabot)

In addition to the large building construction and solar projects, over the past ten years we have completed over 60,000 work orders for projects ranging from small maintenance to mid-sized construction projects valued at as much as $500,000 through School Charter Maintenance and the Public Buildings Maintenance accounts. Additionally, we have completed approximately 50 projects through our "<$75K account" over the last five years. These projects include accessibility improvements, security upgrades, energy investments, painting, flooring and preservation, programmatic spatial improvements, roofing system major repairs and/or replacements, exterior building envelope and masonry repairs, HVAC equipment and plumbing fixture replacements, office modifications, and weatherization projects.

The Public Buildings Department is also responsible for the procurement of 20 million kWh per year of electricity for all City buildings and schools. A new electricity contract was awarded for the period from Nov.1, 2020 through Nov. 30, 2024 that is continuing to save the City money compared to Eversource basic service rates. The City saved $879,000 in FY2022 compared to Eversource basic service rates. The Department also procures natural gas supply for all municipal accounts and saved over $300,000 in FY2022 compared to National Grid supply rates.

The Department will continue its role as administrator of the City's Green Communities designation. In 2010 Newton met the requirements to become designated a Green Community by the Massachusetts Department of Energy Resources under the Green Communities Act of 2008. The Department of Public Buildings oversees the City's compliance with the GC Act. By virtue of its Green Communities designation, the City is eligible for annual grants for energy efficiency improvements in City facilities. The Department has received over $1.64 million in grants which have been used to make energy efficiency improvements in several City buildings and schools.

The following is a summary report of 63 municipal buildings, followed by the latest building inventory of our 89 school and municipal buildings.

MUNICIPAL BUILDINGS (NON-SCHOOL) REPORT

City Hall

1000 Commonwealth Avenue

Built in 1932, this is an 81,000 square foot civic building that is individually listed on the National Registry of Historic Places, and houses most of the city departments. Beyond normal municipal operations, City Hall is used for children's programs, art exhibits, open studios, festivals, musical performances, theatrical performances, public meetings, and a variety of other community and cultural programming.

Newton Free Library

330 Homer Street

Built in 1991, this is a 93,000 square foot public library. In addition to traditional library activities, the building is used for children's programs, art exhibits, open studios, musical performances, community educational events, public meetings, and a variety of other community and cultural programming.

Auburndale Branch Library

371 Auburn Street

Built in 1927, this is a 4,830 square foot building. Up until 2008, it was publicly staffed and operated as a branch library. Since 2009, it has operated as a volunteer run community library. The building is also frequently used for public meetings and a variety of community programs. The Friends of the Newton Library operate a book donation and sale shop out of the basement of the building.

Waban Branch Library

1608 Beacon Street

Built in 1929, this is a 6,378 square foot building. Up until 2008, it was publicly staffed and operated as a branch library. Since 2009, it has operated as a volunteer run community library. The building is also frequently used for public meetings and a variety of community programs. The Public Buildings Department uses the basement area as a wood shop and repair facility. The facility is also used as a polling center by the Newton Elections Department.

Nonantum Branch Library

114 Bridge Street

Built in 1957, this is a 7,364 square foot building. Up until 2008, it was publicly staffed and operated as a branch library. Since 2009, it has operated as a social club. The building is occasionally used for public meetings and a variety of community programs.

Newton Corner Branch Library (Chaffin House)

124 Vernon Street

Built in 1848, this is a 10,032 square foot Greek Revival style building. This property was acquired by the City in 1930 for the purposes of conversion to a children's library. Up until 2008, it was publicly staffed and operated as a branch library. Since 2008, it went through periods of vacancy, use as Parks and Recreation Headquarters, use as the Newton Innovation Center, and has previously housed City Financial Staff. The building is also occasionally used for community meeting space, as well as the City's Engineering Department Inspection Staff.

1294 Centre Street

Built in 1927, this is a 6,050 square foot building that is individually listed on the National Registry of Historic Places. It was closed as a branch library in 1991 and was then used as the Health Department Headquarters until 2013 when they moved to City Hall. Since 2013, the building had been vacant. In 2018, small investments were made to the roof, masonry, windows, and interior spaces so that the building can be reactivated for city and public use. The building is currently used by the Parks and Recreation Department for various programs.

Senior Center

345 Walnut Street

Built in 1938, this is a 9,850 square foot Classical Revival building that is individually listed on the National Registry of Historic Places. Operating exclusively as a branch library up until 1981, the "Senior Drop-In Center" then moved into the building. In 1991, the branch library was closed, and in 1993 the building was renovated into a Senior Center. It currently serves as the center for senior activities and programs for the City. It is also used frequently by people of all ages for a variety of programs, meetings, and events.

Crystal Lake Bathhouse

30 Rogers Street

Built in 1931, this is a 9,581 square foot seasonal building that provides restrooms and changing facilities for use of the Crystal Lake Public Beach for approximately two months during the summer.

Hawthorne Field House (Pelligrini)

17 Hawthorne Street

Built in 1950, this is a 5,752 square foot building that consists of a gym, bathrooms, kitchen, and storage. This facility provides space for after school and summer programs, basketball, volleyball, and pickleball recreational leagues, and support for the adjacent playground and fields.

70 Crescent Street (Former Parks & Recreation HQ)

Built in 1930, this is a 3,208 square foot residential property that has been used for private purposes, a State Police Facility, and then ultimately acquired by the City and used as the Parks and Recreation Headquarters until 2011. Since then, the property has been vacant with the exception of the basement, where Parks and Recreation Maintenance has a break room and restroom. This building has been surplused and plans call for it to be demolished.

Parks and Recreation Maintenance Garage

70 Crescent Street (Rear)

Built in 1940, this is a 4,600 square foot block maintenance and storage building. It is currently used by the Parks and Recreation Maintenance Division for equipment storage and repair. This building has been surplused and plans call for it to be demolished.

Lower Falls Community Center (Hamilton)

545 Grove Street

Built in 1958, this is a 10,519 square foot facility that was once part of the former Hamilton School. It is currently used for daycare, afterschool, and summer programs. The facility is heavily used for summer camps, rentals, volleyball, badminton, basketball, pickleball, dance, yoga, Pilates, Girl Scouts, catch ball, voting and other municipal activities. It contains a gym, kitchen, classrooms, and offices. The remainder of the physically attached former Hamilton School is owned and operated as the Hamilton Grove Apartments by the Newton Housing Authority.

Upper Falls Community Center (Emerson)

45 Pettee Street

Built in 1904, this is a 13,418 square foot facility that was once part of the former Emerson School. It is currently used for daycare, afterschool, senior activities and summer programs. The facility is heavily used for rentals, basketball leagues, and other municipal activities. It contains a gym, kitchen, classrooms, and offices. The remainder of the physically attached former Emerson School is owned and operated by the Falls Ridge Condo Association.

Albemarle Field House

250 Albemarle Road

Built in 1956, this is a 2,072 square foot facility used for senior programming and summer camps. The senior programming includes yoga, painting sessions, and other social activities. It also provides restrooms for the adjacent fields and is the source of electrical power for the field complex.

Forte Park Field House

R233 California Street

Built in 1960, this is a 750 square foot building which houses restrooms, storage, and electrical power for the adjacent field.

Auburndale Cove Field House

West Pine Street

Built in 1967, this is a 1,329 square foot building which houses restrooms and storage for the adjacent field, and is primarily used as a warming center when the cove is open for skating and for rentals during the warmer seasons.

Burr Park Field House

142 Park Street

Built in 1919, this is a 5,200 square foot building which is used as a daycare and learning center for preschoolers. This building is also used for a summer camp.

Cabot Park Field House

101 East Side Parkway

Built in 1926, this is a 1,264 square foot building which is used as a daycare facility and summer science programming.

Lyons Field House

Built in 2013, this is a 1,050 square foot building consisting of bathrooms and a concession stand to support the adjacent field in Auburndale.

Newton Centre Field House (Hut) (Jeanette Curtis West Recreation Center)

69 Tyler Terrace

Built in 1892, this is a 5,250 square foot building consisting of a small gym, restrooms, kitchen, storage, and small multipurpose rooms. It was built in 1892 as the Trinity Parish Church and was acquired by the City in 1898 and moved to its current location. It is used for afterschool, summer programs, vacation camps, zumba, judo, karate, cricket, tap dance, yoga, rentals, and a variety of other programs.

Newton Centre Metal Storage Building

Built in 1980, this is a 1,200 square foot untreated metal storage building used by Parks and Recreation. This building is adjacent to Tyler Terrace across from the Mason Rice School Playground.

Bobby Braceland Field House

98 Pennsylvania Avenue

Built in 1965, this is an 800 square foot building consisting of restrooms and storage. The restrooms are no longer in use, and the building is actively used for park maintenance equipment.

Nahanton Park Field House

455 Nahanton Street

Built in 1996, this is a 2,090 square foot building consisting of restrooms, an office, and a multipurpose room. This building is used for summer programs, boat rentals, Eagle Scouts, preschool programs, and public meeting space.

Gath Pool Facility

256 Albemarle Road

Built in 1965, this is a 10,350 square foot facility which consists of restrooms, changing rooms, offices, storage, and a large pool support system area. This building is seasonal and is used for approximately two months during the summer.

Quinobequin Pump Station Building

136 Quinobequin Road

Built in 1980, this is a 4,596 square foot sewer pump station building.

Elliot Street Pump Station Building

391 Elliot Street

Built in 1990, this is a 1,500 square foot sewer pump station building.

Elliot Street Department of Public Works (DPW) Stable

74 Elliot Street

Built in 1927, this 15,858 square foot building is individually listed on the National Registry of Historic Places. The Stable and Garage building was constructed at a time when the municipality was transitioning from the use of horses to the use of trucks. The design makes use of site grading to allow this transition to happen. The lower floor, with its wide bays opening to the south, was designed for use as a truck garage. The upper floor, accessed by ramps at the east and west, originally housed 26 horse stalls. It was designed for conversion to a garage once the horses were no longer needed. Currently the stable has 71 employees assigned to it. This includes 8 members of the Forestry Division, and 63 members of the Highway Division.

Elliot Street Department of Public Works (DPW) Garage

70 Elliot Street

Built in 1959, this is a 10,500 square foot garage consisting of four bays used for vehicle storage and staging, and two mechanics bays used for repair and maintenance.

Elliot Street Department of Public Works (DPW) Salt Shed

Elliot Street DPW Yard

Built in 1994, this is a 7,800 square foot wood framed open-air structure which houses a large amount of the road salt used by DPW.

Department of Public Works (DPW) Utilities Building

60 Elliot Street

Built in 1935 as a refuse incinerator building, this 21,664 square foot building was renovated in 1997 for the current use as the Utilities Division Facility. Added to the rear of the 1935 building, is a six garage bay metal prefab addition used for Utilities Division vehicle storage. The original building consists of parts storage on the first floor, a large break room, water meter storage room, and a small office on the second floor, and a handful of offices and a large conference room on the third floor. There are 66 employees assigned to this building, with only 6 of them routinely using office space scattered throughout the three floors. The other 60 Utility employees assigned to this building use it for timeclock and breakroom access.

Public Buildings Department

52 Elliot Street

This building is 7,640 square feet. The building is comprised of a 3,780 square foot concrete block garage built in 1968, a 1,700 square foot metal prefab garage added in 1976, and a 2,160 square foot wood framed modular section added in 1980. This facility has 25 employees assigned to it, 12 of which have assigned offices that are heavily occupied. The other 13 employees are trades craftsmen who use the facility for work assignments and bathrooms.

Crafts Street Stable

90 Crafts Street

This is an 18,900 square foot building that was built in 1894. The Crafts Street City Stable is a two and a half story brick L-shaped structure with a steep hipped roof designed in the Colonial Revival Style by the architect William F. Goodwin. The building is the second of two stables constructed by the City of Newton in the mid-1890s to house the horses, wagons and other equipment owned by Newton's Highway Department. This building consists of three floors. The first floor is predominantly cold storage. The second floor is split between heated storage, offices, bathrooms, and a large breakroom. The attic is cold storage. This building is used by 7 beautification employees who work for the Parks and Recreation Department.

Crafts Street Department of Public Works (DPW) Garage

110 Crafts Street

This is a 21,000 square foot garage, with a 5,775 square foot attached building to the north. This structure was built in 1919, renovated 1936, and then again in 1986. This garage building consists of 15 bays for the repair and maintenance of the municipal fleet, which consists of approximately 350 vehicles and apparatus. Additionally, the garage contains a repair parts stockroom, as well as a central office. Connected to the north side of the garage in 1936, the Transportation and Environmental Division building contains a single garage bay, the sign shop, and office space, supporting 7 office staff and 14 field employees. The Fleet Division operates out of the garage, and consists of 2 office staff, and 12 fleet service employees.

Crafts Street Department of Public Works (DPW) Salt Shed

Crafts Street DPW Yard

Constructed in 2014, this facility is 6,305 square feet and houses road salt for the north side of the City. The building is a fabric membrane, stretched over a steel structure, with a v-block concrete foundation.

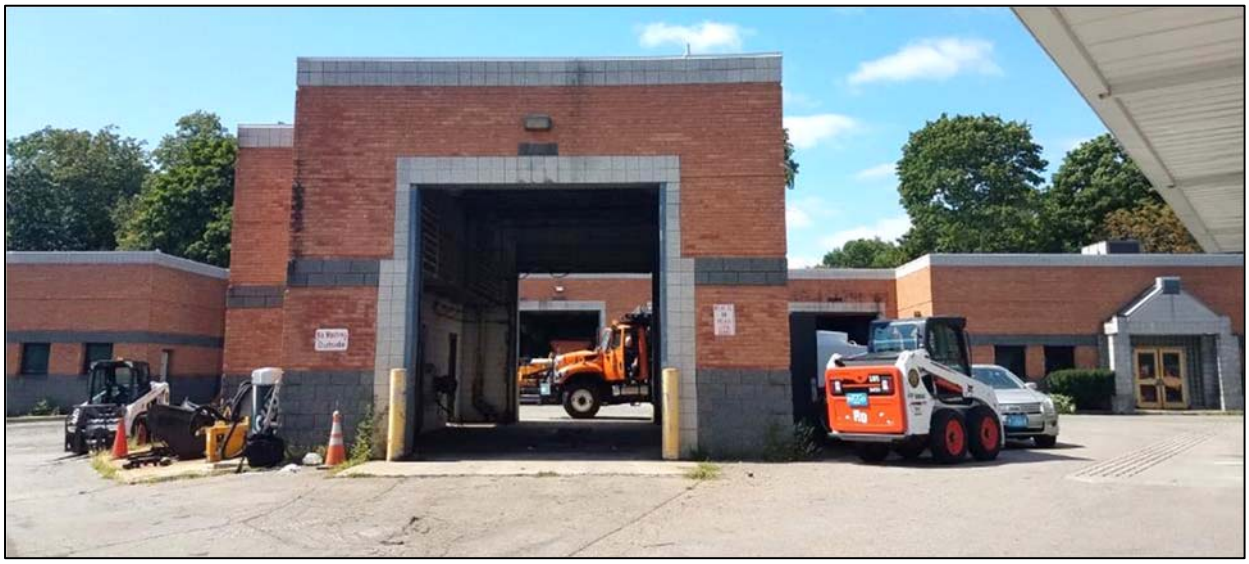
Crafts Street Department of Public Works (DPW) Equipment Storage Shed

90 Crafts Street

Constructed in 2014, this facility is 3,570 square feet and is used for equipment and vehicle storage. The building is a fabric membrane, stretched over a steel structure, with a v-block concrete foundation.

Crafts Street Department of Public Works (DPW) Wash Building

90 Crafts Street



Constructed in 1986, this building is 1,056 square feet and consists of a single wash bay, with a small room to the south which contains the support systems.

Crafts Street Department of Public Works (DPW) Sweeper Shed

Crafts Street DPW Yard

Constructed in the 1950's, this 900 square foot prefab metal storage building is used to house sweeper brushes and repair parts for the street sweepers.

Rumford Avenue Landfill Office

115 Rumford Avenue, Auburndale

Built in 1950, this 400 square foot building is an office and warming area for the DPW employees who staff the recycling and processing center.

Rumford Avenue Landfill Office Trailer

Built in 2019, this 390 square foot trailer is an additional office and warming area for the DPW employees who staff the recycling and processing center.

Manet Road (Waban Hill) Reservoir Gatehouse Building

2 Manet Road Rear

Built in 1925, this is a 1,507 square foot building which supports the City's Waban Hill Reservoir.

Old Waban Reservoir Gatehouse Building

Ward Street

Built in 1875, this is a 214 square foot Waban Reservoir Gatehouse; the property was purchased by the City from MWRA in 2014 through a surplus process. The reservoir is no longer used for water supply purposes and Parks & Rec is in the process of developing a park with public access.

Fire Station #1

241 Church Street, Newton Corner

Built in 1965, this is a 14,808 square foot fire station with 3 apparatus bays.

Fire Station #2

1750 Commonwealth Avenue, Auburndale/West Newton

Built in 1964, this is a 24,700 square foot fire station with 4 apparatus bays.

Fire Station #3

31 Willow Street, Newton Centre

Built in 2017, this is a 23,973 square foot fire station with 5 apparatus bays, training facilities, an emergency operations center, emergency communications equipment and tower, and the Newton fire museum.

Fire Station #4

195 Crafts Street, Newtonville/Nonantum

Built in 1955 and renovated in 2010, this is a 14,780 square foot fire station with 4 apparatus bays, and a training room.

Fire Station #7

144 Elliot Street, Newton Upper Falls

Built in 1955 and renovated in 2012, this is a 16,100 square foot fire station with 3 apparatus bays fronting Elliot Street, and 3 mechanics bays down back. This building contains the Fire Mechanics Division which handles the light maintenance and repair of the fire apparatus and equipment.

Fire Station #10

755 Dedham Street, Oak Hill

Built in 2015, this is a 6,731 square foot fire station with 2 apparatus bays. A confined space rescue training facility and drafting tank are located behind this facility.

Fire Headquarters

1164 Centre Street, Newton Centre

Built in 1928 and renovated in 2017, this is a 6,130 square foot Fire Headquarters building which houses the Fire Prevention Division, Newton Fire central administration, and the Chief's Office.

Fire Department Wires Division Building

755 Dedham Street Rear, Oak Hill

Built in 2015, this is a 4,036 Fire and Wires Division building. It consists of 2 maintenance bays, wire spool storage, offices, a conference room, and a breakroom.

Manet Road Communications Building

2 Manet Road, Chestnut Hill

Built in 2016, this 836 square foot prefab concrete building houses communications equipment.

Ober Road Communications Building

Ober Road, Oak Hill

Built in 2018, this 160 square foot prefab wood framed shed houses communications equipment.

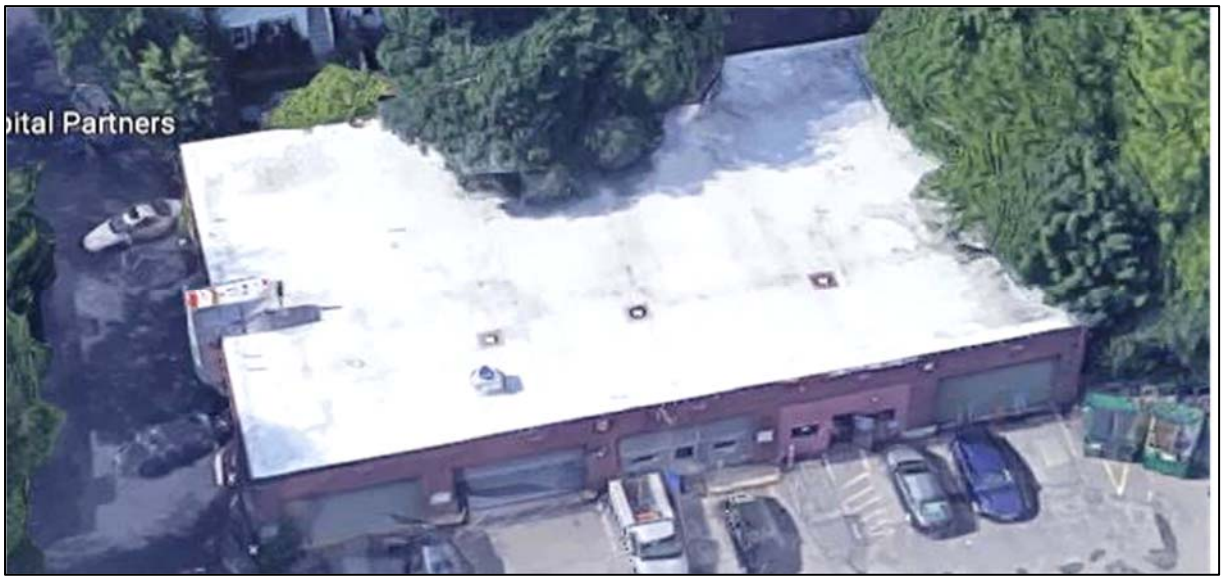
Police Headquarters

1321 Washington Street, West Newton

Built in 1932, and renovated in 1993, this 20,676 square foot building houses Dispatch, Patrol, Detectives Bureau, Special Operations, Information Technology, Details, and the Chief's Office. Headquarters also houses the small training room, fingerprint lab, cell blocks, sally port, gym and locker rooms, firing range and armory, server room, and museum displays. The building operates 24/7/365, with varying staff levels throughout the day and night.

Police Garage

1321 Washington Street Rear, West Newton



Built in 1959, and partially renovated in 1993, this 7,548 square foot cinder block slab on grade building houses mechanical repairs, storage, property and evidence, and support services.

Police Annex

25 Chestnut Street, West Newton

Built in 1925 as a branch library, this is a 4,528 square foot building. It was closed as a branch library in 1984 and is currently used as an annex to Police Headquarters. It houses the Detectives Division on the main floor, and Animal Control, Community Services, and a number of other police functions and offices in the basement.

Jackson Homestead

527 Washington Street, Nonantum

Built in 1809, this 7,212 square foot Federal Style field stoned foundation residential building is individually listed on the National Registry of Historic Places, as well as the National Park Service's National Underground Railroad Network to Freedom. This property was acquired by the City of Newton in 1949 and opened to the public in 1950 as the City Museum. In 2015, a large capital project renovated the archives sections of the building, made significant accessibility improvements to the entrance and main floor and installed fire suppression and detection systems throughout the building. It houses museum staff and patrons.

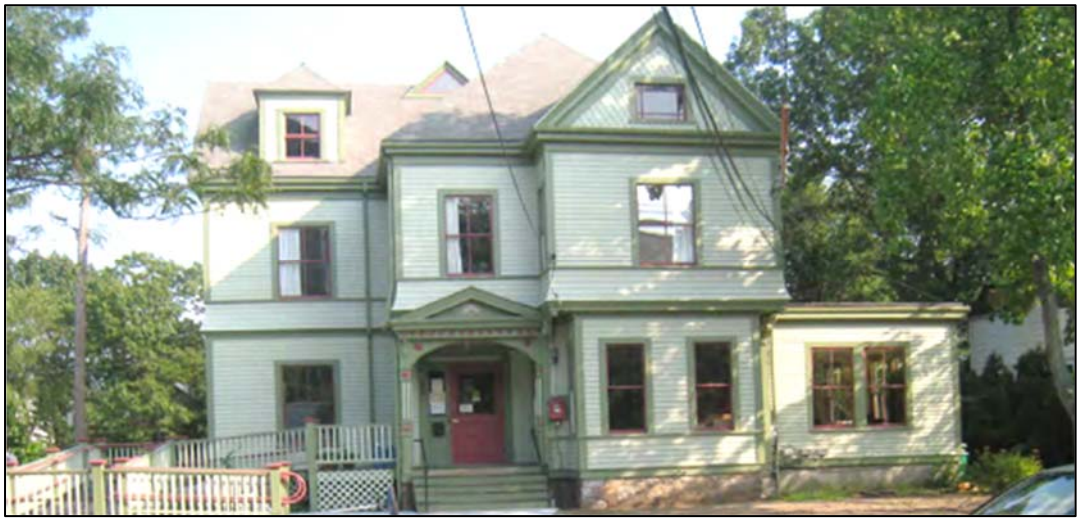
Kennard Estate

246 Dudley Road, Newton Centre/Oak Hill

Built in 1907, this 15,715 square foot Shingle-style field stoned foundation residential property was acquired by the City in 1978. It currently houses the Parks and Recreation administrative and program offices.

Brigham House

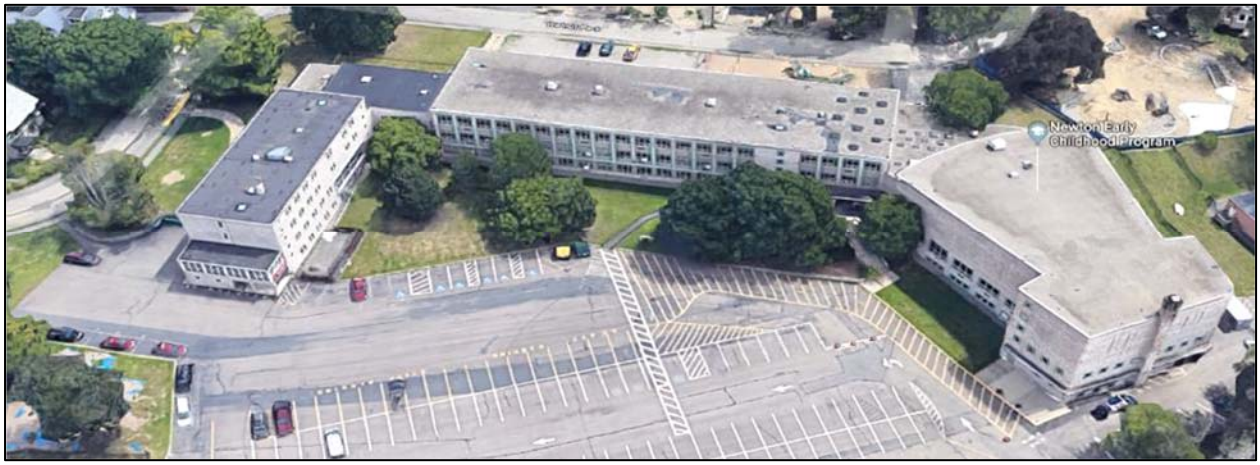
20 Hartford Street, Newton Highlands



Built in 1883, this 5,081 square foot Queen Anne style residential property was acquired by the City in 1951 for use as a branch library. The building did not open to the public until after a renovation/addition in 1958. In 2001, the city leased the building for the purposes of a teen center and social services. The building was renovated in 2009.

150 Jackson Road Complex

150 Jackson Road, Nonantum



Built in 1965, this 102,264 square foot building was the former Aquinas Junior College. The convent and chapel make up 26,264 square feet, while the other 76,500 square feet are the academic spaces. The City acquired this property in 2015 and replaced the windows in 2016. It is currently occupied by the Newton Early Childhood Program, also known as the Preschool Program, and they are using the first and second floors of the academic core. The convent and chapel are vacant. The auditorium and cafeteria are periodically used for programming and rentals. This will be the new home of the Lincoln-Eliot Elementary School anticipated in 2025.

687 Watertown Street

687 Watertown Street

Built in 1965, this 40,600 square foot building was previously home to Horace Mann Elementary School. The city has moved the school into the Carr building and plans to make this building the new home of the Newton Early Childhood Program (NECP) anticipated in late Fall of 2022.

Angino Farm

303 Nahanton Street

Built in 1855, this 5,028 square foot residential property was acquired by the City in 2004 and it has been occupied by the Angino Farmer since 2006.

Angino Farm Barn

303 Nahanton Street Rear

Built in 1886, this 2,888 square foot barn was acquired by the city in 2004 and was renovated in 2008. It contains a community kitchen, large multipurpose room, restrooms, and storage.

West Newton Armory

1135 Washington Street

Built in 1912, this 18,607 square foot building was acquired by the City in 2021 and After being declared surplus by the National Guard. The City plans to redevelop the building into 100% affordable housing.

Williams School Adjacent Properties

136 Hancock Street

This property, purchased in 2021, will be used for the Williams Elementary School future school improvements/renovations and affordable housing.

161 (169) Grove Street

This property, purchased in 2021, will be used for the Williams Elementary School future school improvements/renovations and affordable housing.

Municipal Building Inventory FY2024-FY2028

Municipal (Non-School) Buildings							
#	Building	Year	Square Feet	Department	Use/Program	Address	Site Area (sf)
1	City Hall	1932	81,000	Public Buildings	Multiple city departments utilize City Hall for a wide variety of functions. Spaces are rented, and programs are held there frequently.	1000 Commonwealth Avenue	432,308
2	Main Library	1991	93,000	Library	Library, rentals, programs, etc	330 Homer Street	200,635
3	Auburndale Branch Library	1927	4,830	Library	Auburndale Improvement Society operates the main floor as a community library. Friends of the Library use the basement for books donations and periodic book sales.	371 Auburn Street	18,926
4	Waban Branch Library	1929	6,378	Library	Waban Improvement Society operates the main floor as a community library. Public Buildings Department uses the basement as a wood shop.	1608 Beacon Street	45,833
5	Nonantum Branch Library	1957	7,364	Library	Ciociaro Social Club rents and operates out of the main floor.	144 Bridge Street	11,517
6	Newton Corner Library	1848	10,032	Parks and Rec	Newton Innovation Center	124 Vernon Street	239,818
7	1294 Centre Street	1927	6,050	Public Buildings	Under Renovation.	1294 Centre Street	16,160
8	Senior Center	1938	9,850	Senior Services	Senior Services and Programs	345 Walnut Street	25,909
9	Crystal Lake Bath House	1931	9,581	Parks and Rec	Recreation Swimming Summer Only	16 Rogers Street	106,999
10	Hawthorne Field House	1950	5,752	Parks and Rec	After School and Summer Programs, leagues, rentals	17 Hawthorne Street	183,577
11	70 Crescent Street	1930	3,208	Parks and Rec	Rec Maintenance and currently in re-use process.	70 Crescent Street	98,088
12	Recreation Garage Crescent	1940	4,600	Parks and Rec	Rec Maintenance and currently in re-use process.	70 Crescent Street	Inc Abv

#	Building	Year	Square Feet	Department	Use/Program	Address	Site Area (sf)
13	Lower Falls Community Center	1958	10,519	Parks and Rec	Daycare, After School and Summer Programs, leagues, rentals	545 Grove Street	371,358
14	Upper Falls Community Center	1955	13,418	Parks and Rec	Daycare, Summer Programs, leagues, rentals	45 Pettee Street	125,000
15	Albemarle Field House	1956	2,072	Parks and Rec	Senior Programs and Summer Camps	250 Albemarle Road	735,508
16	Forte Park Field House	1960	750	Parks and Rec	Bathrooms for the Field	229 California Street	262,102
17	Auburndale Cove Field House	1967	1,329	Parks and Rec	Ice Skating Warming Center and Rentals	West Pine Street	1,647,688
18	Burr Park Field House	1919	5,200	Parks and Rec	Daycare and Summer Programs	142 Park Street	223,000
19	Cabot Park Field House	1926	1,264	Parks and Rec	Daycare and Summer Programs	101 East Side Parkway	504,260
20	Lyons Field House	2013	1,050	Parks and Rec	Bathrooms for the Field	Lyons Field	Inc Abv
21	Newton Center Field House	1892	5,250	Parks and Rec	After School and Summer Programs, leagues, rentals	69 Tyler Terrace	779,790
22	Newton Center Metal Storage Building	1980	1,200	Parks and Rec	Untreated Storage	Tyler Terrace	Inc Abv
23	Bobby Braceland Field House	1965	800	Parks and Rec	Untreated Storage	98 Pennsylvania Avenue	381,980
24	Nahanton Park Field House	1996	2,090	Parks and Rec	Summer Programs	Nahanton Park	2,470,563
25	Gath Pool Facility	1965	10,350	Parks and Rec	Recreation Swimming Summer Only	256 Albemarle	Inc Abv
26	Quinobequin Pump Station Building	1980	4,596	DPW	Sewer Pump Station	136 Quinobequin	67,350
27	Elliot Street Pump Station Building	1990	1,500	DPW	Sewer Pump Station	391 Elliot Street	26,130
28	Elliot Street DPW Stable	1927	15,858	DPW	DPW Operations Center, Foremen/Supervisors, Dispatch, employee lockers, break room	74 Elliot Street	480,443
29	Elliot Street DPW Garage	1959	10,500	DPW	Repair and Maintenance of fleet and equipment	70 Elliot Street	Inc Abv
30	Elliot Street Salt Shed	1994	7,800	DPW	Salt Storage	70 Elliot Street	Inc Abv
31	DPW Utilities Building	1935	21,664	DPW	Utilities Dept operations center, parts and equipment supply center	60 Elliot Street	Inc Abv
32	DPW Fabric Storage Building	2016		DPW	Utilities Dept Storage	Elliot Street	Inc Abv

#	Building	Year	Square Feet	Department	Use/Program	Address	Site Area (sf)
33	Public Buildings	1968	7,640	Public Buildings	Public Buildings Operations Center	52 Elliot Street	52,557
34	Craft Street Stable-DPW OPS Center	1894	18,900	DPW	DPW Operations Center, Foremen/Supervisors, Dispatch, employee lockers, break room	90 Craft Street	179,301
35	Craft Street Garage	1919	26,775	DPW	Repair and Maintenance of fleet and equipment. Traffic Division and Environmental Affairs Division	110 Craft Street	Inc Abv
36	Craft Street Salt Shed	2013	6,305	DPW	Salt Storage	110 Craft Street	Inc Abv
37	Craft Street Storage Building	2013	3,570	DPW	Untreated Storage of street sweepers, trucks, etc	110 Craft Street	Inc Abv
38	Craft Street Wash Building	1987	1,056	DPW	Wash bay used to wash fleet equipment	110 Craft Street	Inc Abv
39	Craft Street Sweeper Shed	1980	900	DPW	Sweeper brush storage	110 Craft Street	Inc Abv
40	Rumford Avenue Landfill Office	1950	400	DPW	Staff Office	Rumford Avenue	2,127,597
41	Rumford Avenue Office Trailer	2019	390	DPW	Staff Office	Rumford Avenue	Inc Abv
42	Manet Road Reservoir Gatehouse Building	1925	1,507	DPW	Reservoir Gatehouse	2 Manet Road Rear	372,379
43	Waban Hill Reservoir Gatehouse	1875	214	DPW/P&R	Reservoir Gatehouse	Ward Street	220,450
44	Fire Station #1	1965	14,808	Fire	Fire Station	241 Church Street	27,650
45	Fire Station #2	1964	24,700	Fire	Fire Station	1750 Commonwealth Avenue	24,275
46	Fire Station #3	2017	23,973	Fire	Fire Station	31 Willow Street	60,850
47	Fire Station #4	1955	14,780	Fire	Fire Station	195 Craft Street	30,838
48	Fire Station #7	1955	16,100	Fire	Fire Station	144 Elliot Street	60,352
49	Fire Station #10	2015	6,731	Fire	Fire Station	755 Dedham Street	42,500
50	Fire Headquarters	1928	6,130	Fire	Fire Prevention and Chief's Offices	1164 Centre Street	Inc Abv
51	Fire Wires Building	2015	4,036	Fire	Fire and Wires Division bays, storage, and offices	755 Dedham Street Rear	Inc Abv
52	Manet Road Communications Building	2016	836	Police/Fire	Emergency Communications	2 Manet Road	Inc Abv
53	Ober Road Communications Building	2018	160	Police/Fire	Emergency Communications	Ober Road	10,545

#	Building	Year	Square Feet	Department	Use/Program	Address	Site Area (sf)
54	Police Headquarters	1932	20,676	Police	All Police Functions except for Detectives Division and Community Services	1321 Washington Street	79,724
55	Police Garage	1959	7,548	Police	Police fleet maintenance and evidence secure storage	1321 Washington Street Rear	Inc Abv
56	Police Annex	1925	4,528	Police	Detectives Division and Community Services	25 Chestnut Street	28,528
57	Jackson Homestead	1809	7,212	Newton History	Historical museum and archives	527 Washington Street	41,422
58	Kennard Estate	1907	15,715	Public Buildings	Parks and Recreation Headquarters	246 Dudley Road	2,091,035
59	Brigham House	1883	5,081	99 Year Lease	Private Community Center 15+ years into the 99 year lease	20 Hartford Street	28,622
60	Angino Farm	1855	5,028	Public Buildings	Newton Community Farm operates the farm under a 20 year llicense from the City	303 Nahanton Street	98,406
61	Angino Farm Barn	1886	2,888	Public Buildings	Newton Community Farm operates the farm under a 20 year llicense from the City	303 Nahanton Street Rear	Inc Abv
62	West Newton Armory	1912	18,607	Public Buildings	To be used for Low Income Housing	1135 Washington Street	33,150
63	136-144 Hancock St, 169 Grove St			Public Buildings	To be used for Williams Elementary School future school improvements/renovations and affordable housing	136-144 Hancock St, 169 Grove St	
		Total	**607,442**			**Total**	**15,065,123**

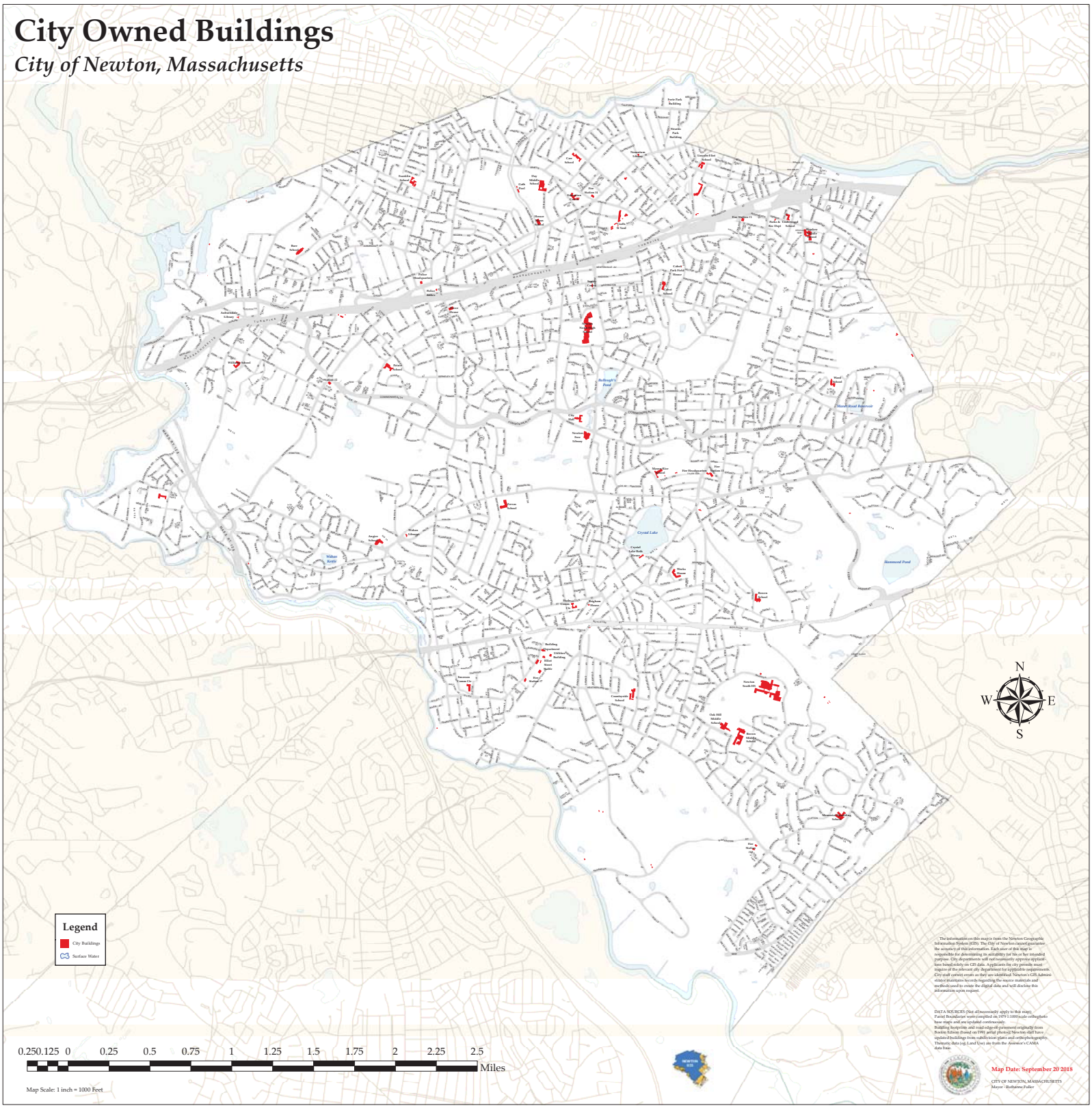
Newton Public Schools Buildings							
#	**Building**	**Year**	**Square Feet**	**Department**	**Use/Program**	**Address**	**Site Area (sf)**
1	Angier School	2015	76,500	Newton Public Schools	Elementary School	1697 Beacon Street	291,730
2	Bowen School	1952	69,535	Newton Public Schools	Elementary School	280 Cypress Street	502,500
3	Burr School	1967	55,399	Newton Public Schools	Elementary School	171 Pine Street	376,730
4	Cabot School	1929	84,186	Newton Public Schools	Elementary School	229 Cabot Street	99,822
5	Horace Mann School	1936	53,532	Newton Public Schools	Elementary School	225 Nevada Street	340,560

#	Building	Year	Square Feet	Department	Use/Program	Address	Site Area (sf)
6	Countryside School	1953	49,612	Newton Public Schools	Elementary School	191 Dedham Street	322,065
7	Franklin School	1939	62,746	Newton Public Schools	Elementary School	125 Derby Street	237,611
8	Lincoln-Eliot School	1939	51,074	Newton Public Schools	Elementary School	191 Pearl Street	162,069
9	NECP (former Horace Mann School)	1965	40,600	Newton Public Schools	Elementary School	687 Watertown Street	69,433
10	Pierce School	1951	36,050	Newton Public Schools	Elementary School	170 Temple Street	160,122
11	Memorial-Spaulding	1954	68,775	Newton Public Schools	Elementary School	250 Brookline Street	243,333
12	Mason Rice	1959	43,000	Newton Public Schools	Elementary School	149 Pleasant Street	174,000
13	Underwood School	1924	43,300	Newton Public Schools	Elementary School	101 Vernon Street	43,856
14	Ward School	1928	38,000	Newton Public Schools	Elementary School	10 Dolphin Road	587,900
15	Williams School	1950	41,700	Newton Public Schools	Elementary School	141 Grove Street	134,887
16	Zervas School	2017	78,800	Newton Public Schools	Elementary School	30 Beethoven Avenue	283,916
17	Bigelow Middle School	1967	92,500	Newton Public Schools	Middle School	42 Vernon Street	122,350
18	Brown Middle School	1956	153,020	Newton Public Schools	Middle School	125 Meadowbrook Road	360,183
19	Day Middle School	1971	151,301	Newton Public Schools	Middle School	21 Minot Place	373,413
20	Oak Hill Middle School	1936	96,200	Newton Public Schools	Middle School	130 Wheeler Road	456,280
21	Education Center	1928	70,000	Newton Public Schools	Central Administration and Alt Ed Programs	100 Walnut Street	164,663
22	Newton North High School	2010	410,000	Newton Public Schools	High School	457 Walnut Street	1,045,658
23	Newton South High School	1959	389,550	Newton Public Schools	High School	140 Brandeis Road	1,458,270

#	Building	Year	Square Feet	Department	Use/Program	Address	Site Area (sf)
24	Newton South High Metal Building/Modular Classrooms	1978 / 2016	4,481	Newton Public Schools	High School	140 Brandeis Road	Included Above
25	150 Jackson Road	1965	102,264	Newton Public Schools	Formerly occupied by NECP/NPS	150 Jackson Road	248,844
		Total	**2,362,125**			**Total**	**8,260,195**

City Owned Buildings

City of Newton, Massachusetts



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DATA SOURCES (Not all necessarily apply to this map):
Parcel Boundaries were compiled on 1979 1:1800 scale orthophoto base maps and are updated continuously.
Building footprints and road edge of pavement originally from Boston Edison (based on 1991 aerial photos). Newton staff have updated buildings from subdivision plans and orthophotography.
Thematic data (eg. Land Use) are from the Assessor's CAMA data base.

COMPLETE STREETS

Newton's Transportation Network Improvement Program is a citywide planning and prioritization tool that assists in guiding data-driven decisions to perform timely maintenance and rehabilitation which best benefits Newton. The objectives of Newton's Transportation Network Improvement Program are to strategically enhance the City of Newton's roadway and sidewalk network and provide an improved level of service. The City strives to provide a great user experience for all modes of transportation including pedestrian, bicycling, riding public transportation or driving an automobile. The goal of the City is to accommodate all users equally with a transportation network which can be utilized by everyone regardless of age, ability, income, or preferred mode of transportation.

The City of Newton's transportation network is comprised of a variety of assets that work together to provide mobility for all users. This collection of assets is key to connecting people to destinations within the City and the overall region, spurring economic development and supporting small business owners throughout the community. An important step in developing a prioritization strategy for future infrastructure projects is to understand current infrastructure conditions. Over the past five years the City has developed an inventory and assessment process for roadway rehabilitation.

Roadway Management

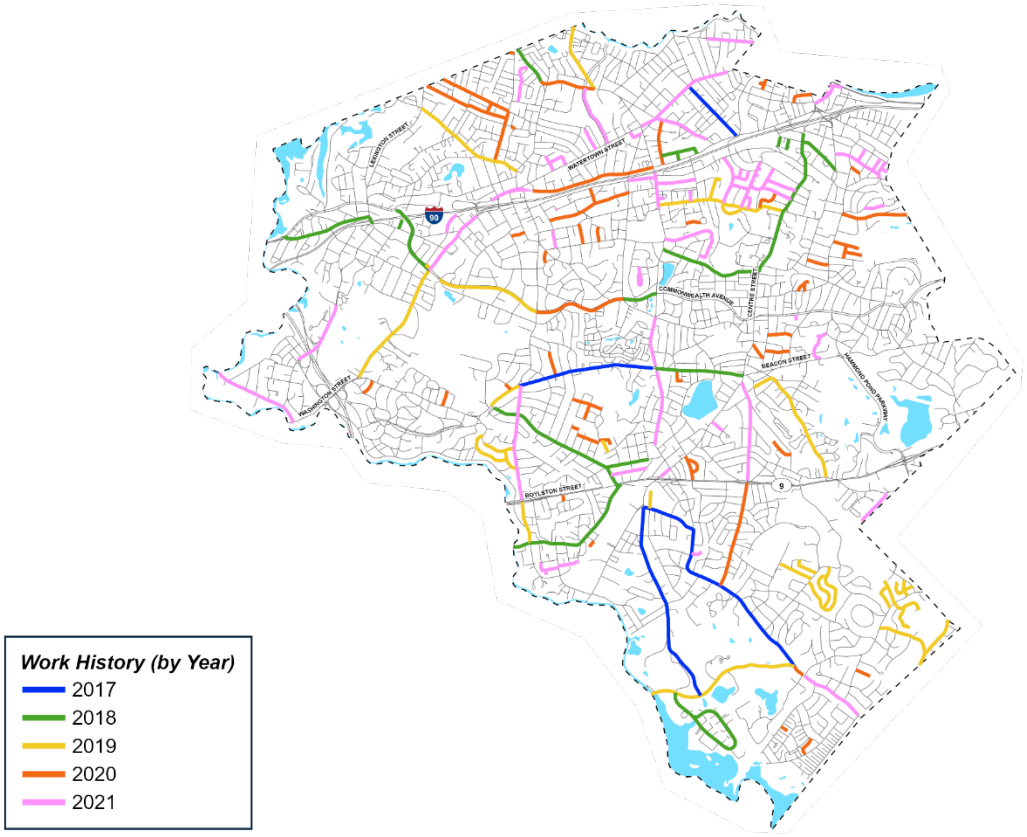
The City prioritizes improvements to the roadway network by utilizing our Pavement Management database. Pavement management is the practice of planning pavement maintenance to maximize the value of a roadway network. It is a strategic process that identifies a maintenance and rehabilitation schedule that will allow for a desired state of good repair over the lifecycle of the pavement.

In New England, asphalt pavement can expect to remain serviceable for up to 15 years depending on a variety of factors including traffic volumes, construction quality, and weather. Throughout the pavement lifecycle, the surface begins to deteriorate and shows signs of cracking, rutting, potholes, and raveling. These distresses appear and will gradually increase in size and quantity over time as the surface continues to deteriorate. Throughout the pavement lifecycle, maintenance and preservation treatments can be performed to extend the useful life of the asphalt pavement. In general, these treatments are less costly and less intrusive to the end user than minor or major rehabilitation, which involves replacing the pavement surface or rebuilding the pavement structure completely.

The City manages and maintains 278 centerline miles of roadway. To aid in identifying proper treatment selection, each roadway is inspected and given a Pavement Condition Index (PCI) based on a 0-100 rating scale, 100 being a roadway in new condition and a 0 being a roadway in poor condition. The City has been on a consistent cycle of re-assessing pavement condition every 2-3 years utilizing the latest inspection technology. This consistency of the inspection cycle allows City decision makers to have accurate inspection information to realize cost savings and extend the life of roadways. Inspections were recently completed in August of 2022.

Roadway Work History

Over the past five years, the City has invested significant funding to enhance the overall user experience while traveling through the City. This work has been completed using a number of different treatments and has been broken down as follows:



2017-2018		
Year and Treatment	Length (ft)	Length (miles)
Crack Seal	31,655	6.00
Preservation	35,630	6.75
Hot In-Place	5,650	1.07
Rehabilitation	24,497	4.64
Total 2021	**97,432**	**18.45**

2019		
Year and Treatment	Length (ft)	Length (miles)
Preservation	30,810	5.84
Rehabilitation	27,425	5.19
Maintenance Overlay	18,470	3.50
Total 2021	**76,705**	**14.53**

2020		
Year and Treatment	Length (ft)	Length (miles)
Crack Seal	23,850	4.52
Preservation	4,000	0.76
Hot In-Place	4,000	0.76
Rehabilitation	23,150	4.38
Maintenance Overlay	20,365	3.86
Concrete Overlays	2,000	0.38
Total 2021	**77,365**	**14.65**

2021		
Year and Treatment	Length (ft)	Length (miles)
Cold In-Place	6,960	1.32
Concrete Overlays	6,500	1.23
Fog Seal	4,600	0.87
Maintenance Overlay	35,630	6.75
Mill and Overlay	22,750	4.31
Overlay	1,000	0.19
Total 2021	**77,440**	**14.67**

Capital Planning & Action Planning

Newton strives to spend city funds in the most efficient manner possible. A pavement management program typically prioritizes roadway projects using a cost-benefit value (CBV) analysis. This analysis assigns a value to each roadway segment based on:

- The average daily traffic anticipated on the roadway
- The cost of the maintenance necessary at the time of inspections
- The presumed life extension (in years) of the suggested maintenance
- The condition rating of the roadway segment

With the new inspection data, roadway repairs will be re-prioritized in the winter of 2022.

From there, additional factors are taken into consideration to determine which roadways are the best candidates for rehabilitation, such as:

- Underground Utility Condition: To coordinate the reconstruction of a roadway around other capital plans for underground utility work so that paving can be completed after any water, sewer, gas, or electrical work takes place so that freshly paved roadways will not be disturbed.
- Constructability & Mobilization Considerations: Project of similar nature should be grouped, when possible, to cut down on mobilization costs
- Design Process and Considerations: As previously discussed, Newton takes a holistic approach to transportation projects and the various treatment options to improve the safety of the roadway and make it more accessible to all users.
- Existing Conditions: Using the right treatments on the right roadways.
- Complete Streets Sidewalks/ADA and Bicycle Network: The City of Newton is committed to developing complete streets throughout the community. The City strives to accommodate all users equally by creating a roadway network that meets the needs of everyone, without regard to age, ability, income, or mode(s) of transportation.
- Community Needs: Newton recognizes the importance of prioritizing routes to locations such as:
    - School Zones & designated Safe Routes to School walking routes
    - Commercial Areas & areas with a concentrated older adult population
    - Areas surrounding other public facilities or gathering places including, but not limited to, Libraries, Municipal Buildings, Parks, Playgrounds, etc.

The Transportation Network Improvement Program is meant to be a living, breathing document. Newton is committed to continually updating the information to maintain useful infrastructure data for decision-making purposes.

Sidewalk Management

Newton's Transportation Network Improvement Program is a citywide planning and prioritization program that assists in guiding data-driven decisions to perform timely maintenance and rehabilitation which best benefits Newton. The objectives of Newton's Transportation Network Improvement Program are to strategically enhance the City of Newton's roadway and sidewalk network and provide an improved level of service.

The program began with a focus on the roads. As the program has evolved, so have the priorities. With that in mind, the City of Newton completed an inventory of sidewalk network infrastructure (sidewalks and pedestrian curb ramps) along all City-owned roadways using a specialized GIS tool created to simplify the inventorying and evaluation of assets. This inventory included nearly 415 miles of sidewalks and over 5,000 pedestrian curb ramps. The completion of this inventory allows for an understanding of what the assets' current conditions are and where improvements need to be made. It should be noted that evaluation of Newton's pedestrian infrastructure is ongoing, and therefore all values cited below are approximate. The Department of Public Works (DPW) is working to finalize existing conditions and report on findings in Winter 2022.

Sidewalk Work History

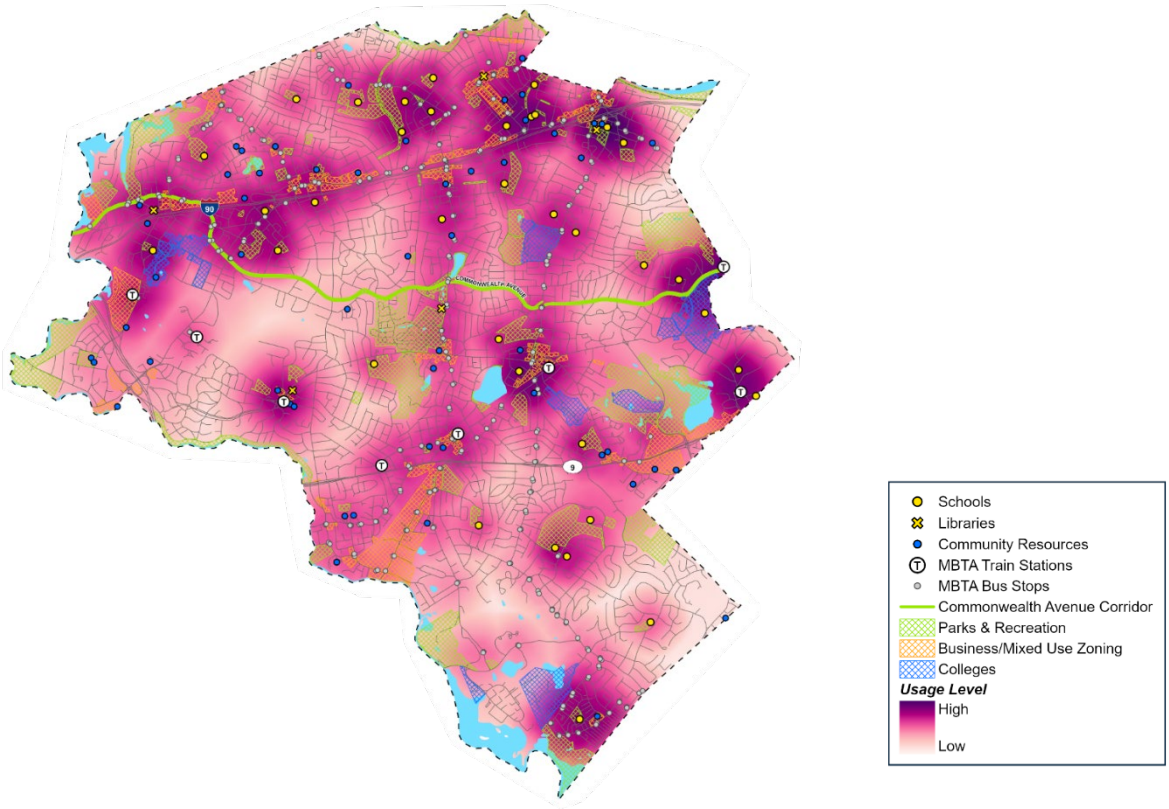
In conjunction with the Transportation Network Improvement Program, the City has rehabilitated a substantial amount of sidewalk over the past five years. Below is a breakdown of the work completed as part of the program:

Year	Miles Constructed
2017	2.60
2018	8.34
2019	8.39
2020	6.29
2021	8.33

Capital Planning & Action Planning

Once the inventory and assessment data are finalized, the City will be using GIS analysis to prioritize and identify areas for reconstruction or repair of sidewalks and curb ramps. The highest likely walking destinations in the City (e.g., schools, business districts, parks and playgrounds, community locations such as the library or the senior center) will be taken into consideration.

To start, each priority destination will be located and a spatial buffer representing likely walking distances will be applied. A spatial analysis will then be conducted in GIS to assign a score to all areas of the City to create a mapping layer to identify where pedestrian density is likely to be the highest. This will result in a Pedestrian Usage Map similar to what is shown below.



This Pedestrian Usage Analysis shows where pedestrian activity will most likely occur. This will assist with prioritizing repairs. Other considerations will also be taken into account for prioritization of projects, such as:

- Inventory output
    - Deficiencies in the network
        - ADA & AAB Compliance
        - Safe Routes to School
- Crash Data
- Priority pedestrian routes
    - Schools
    - Businesses and Mixed-Use Developments
    - Transit
- Local points of interest
- Roadway classification
- Connections the roadway provides within the network
- Gaps in the network
- Annual budget allocations

However, in general, sidewalk segments will likely be prioritized using three criteria:

1. Pedestrian usage score
2. General condition of the asset/ADA compliance
3. Functional classification of the roadway

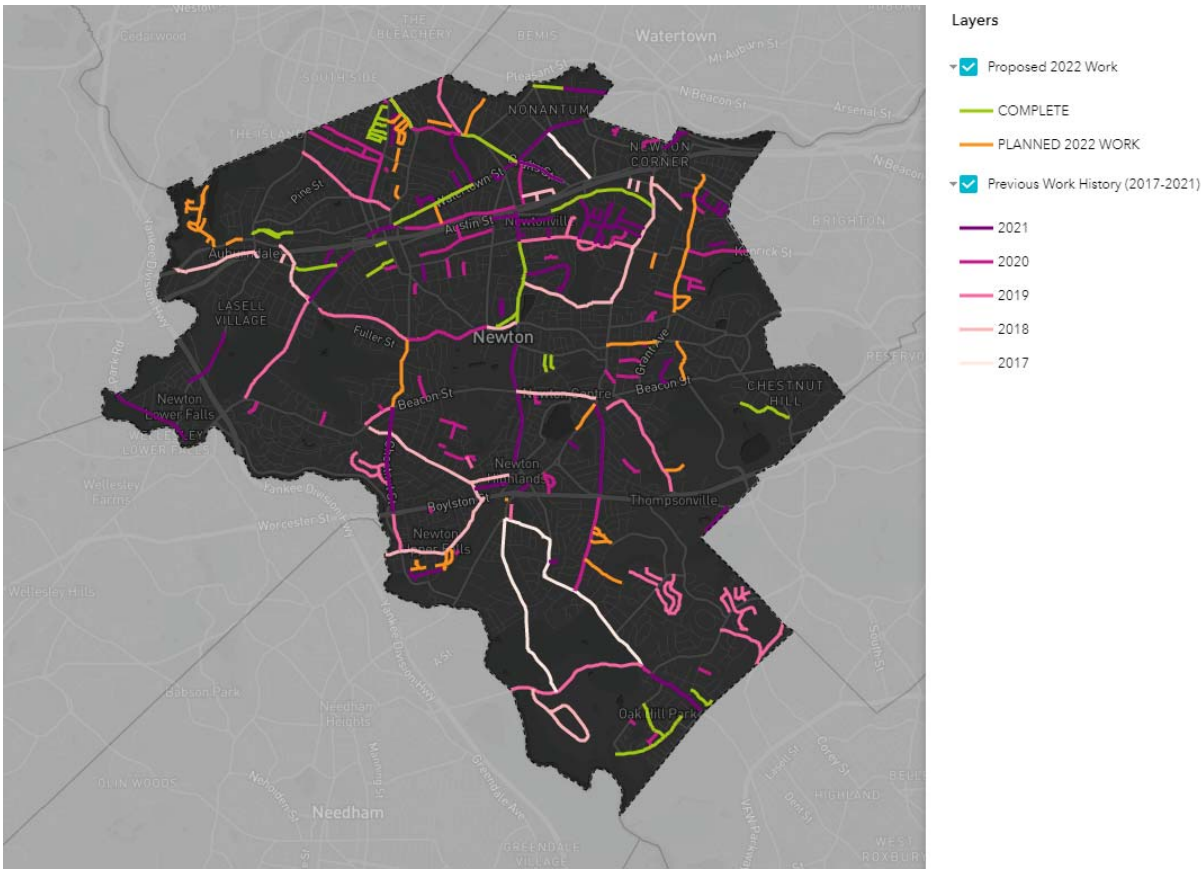
As the Transportation Network improvement Program continues to evolve, Newton's DPW is committed to continually updating the information to maintain useful infrastructure data for decision-making purposes. The Department of Public Works recognizes the importance of protecting and improving one of its most important and valuable collection of assets – its Transportation Network. With the overall goals and objectives identified by the City: a great user experience for all modes of transportation and a commitment to accessibility for all.

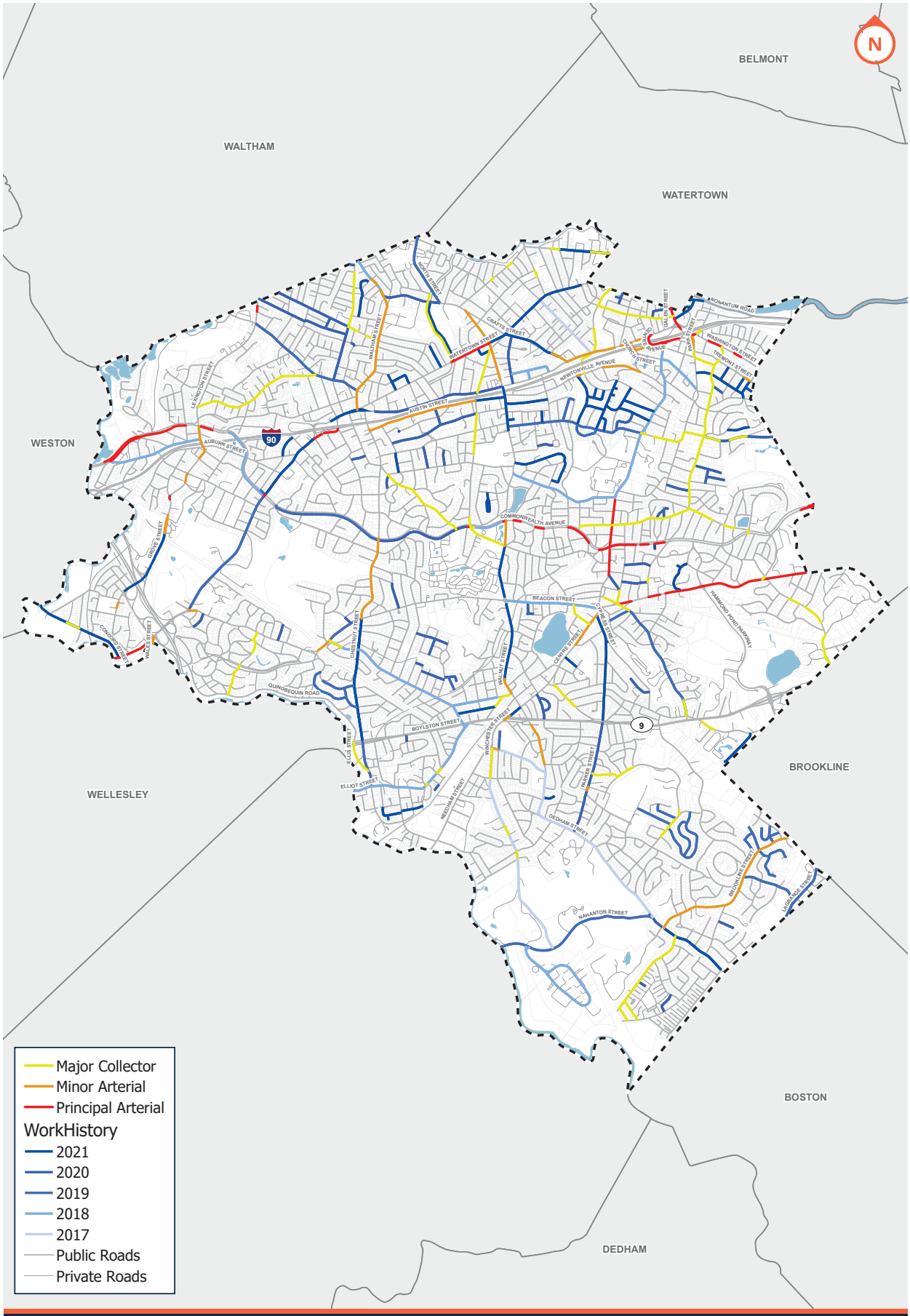
ROAD CONSTRUCTION STATUS MAP

for work completed in 2017-2022

For the up-to-date online map, click here

Below is the updated map, through September 2022





Transportation Network Improvement Program

Mill & Overlay Candidates - Arterials & Collectors

Newton, MA

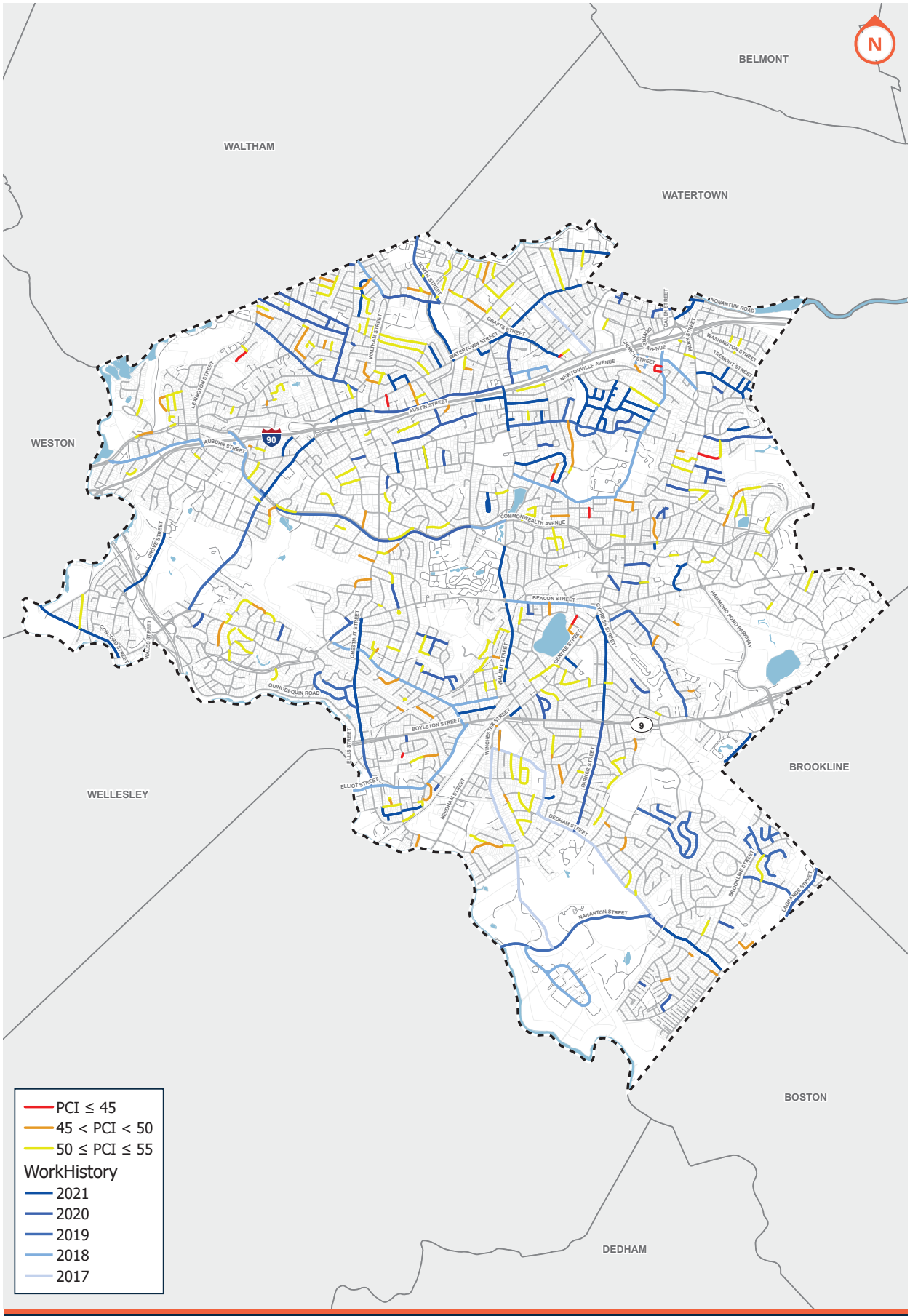
8/25/2022

ENVIRONMENTAL PARTNERS
— An Apex Company —

0 1,600 3,200 6,400
1:3,200 Feet

#326-2004.00 *I:\Newton\Infrastructure Asset Management\Pavement*

Disclaimer: This map is intended for planning purposes



Transportation Network Improvement Program

Local Roadways with PCI ≤ 55

Newton, MA

8/25/2022

ENVIRONMENTAL PARTNERS
— An Apex Company —

0 1,600 3,200 6,400
1:3,200 Feet

#326-2004.00 *I:\Newton\Infrastructure Asset Management\Pavement*

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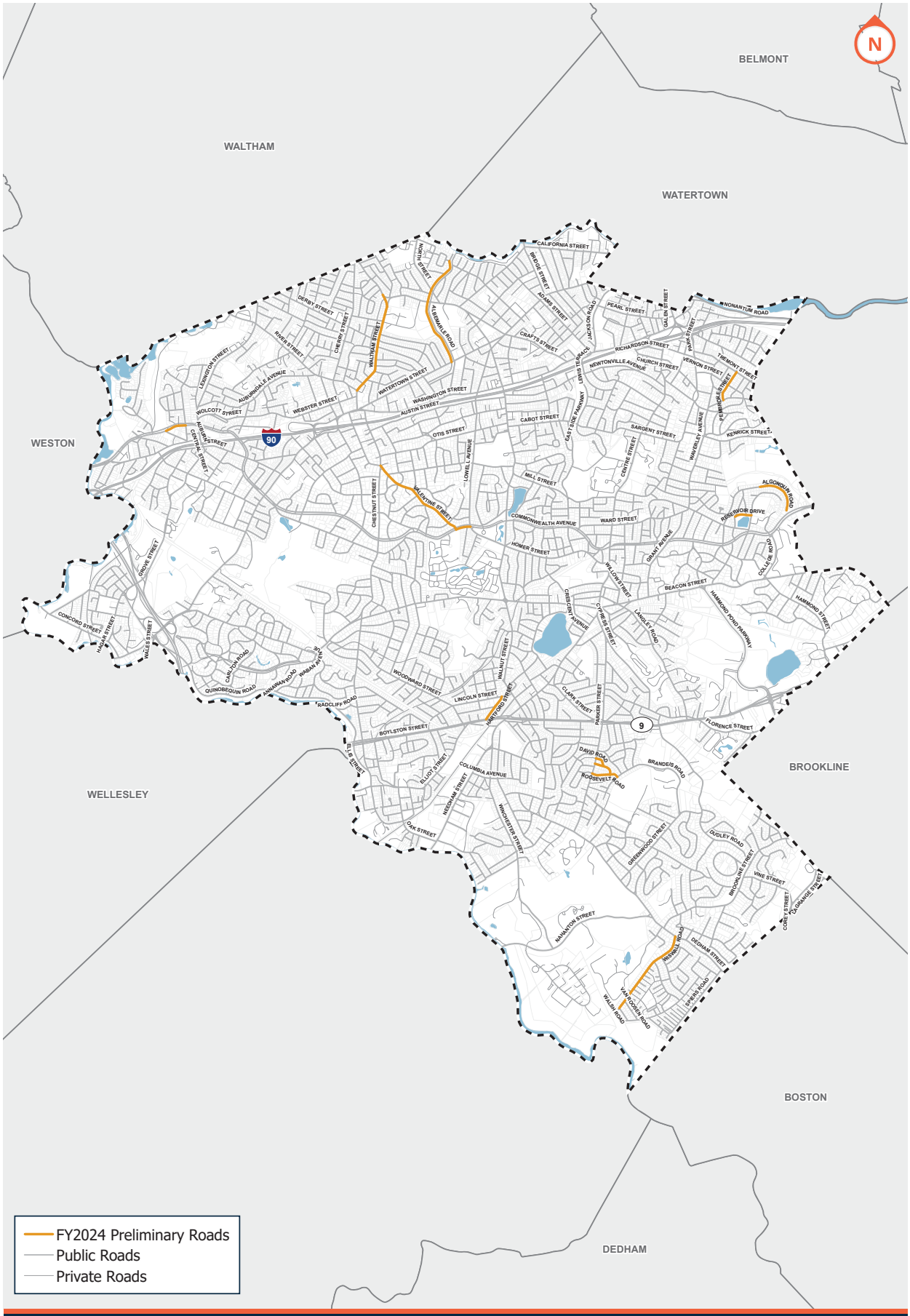


ENVIRONMENTAL PARTNERS
— An Apex Company —

Transportation Network Improvement Program

FY2024 Preliminary Road List

Newton, MA

9/22/2022

0 1,600 3,200 6,400

1:3,200 Feet

#326-2004.00 *I:\Newton\Infrastructure Asset Management\Pavement*

Disclaimer: This map is intended for planning purposes

SIDEWALKS and ADA ACCESS IMPROVEMENTS

Sidewalk improvements include the construction of new concrete sidewalks where none currently exist or filling in missing gaps of sidewalk networks. Public Works is focusing on school zones, as well as village centers, for new sidewalk installations and the repair to existing sidewalks that are cracked, lifted or otherwise not properly accessible. Accessible curb cuts are also reconstructed or added along with sidewalk installation.

Public Works is in consultation with Safe Routes to School, the Complete Streets Working Group, the Council on Aging, the Commission on Disabilities, and Community Development Block Grants, in selecting sidewalks and ADA ramps to be installed.

Utilizing construction contractors dedicated to sidewalk repair, as well as in-house staff, the Department of Public Works will add up to 2 miles of new sidewalk to the City and will repair up to 2 miles of existing sidewalks annually. Public Works does numerous sidewalk repairs across the City both proactively when DPW sees a problem and when a resident should alert us to an issue. In FY 2023, in response to numerous 311 maintenance requests, Public Works started on sidewalk maintenance repairs along walking routes near the Pierce School, Mason Rice School and Cabot School. Sidewalk maintenance is scheduled for City Hall Campus in spring of 2023. In FY2024, Public Works will focus on installing and repairing sidewalks in the walking routes around Williams School, Ward School, and Underwood School.

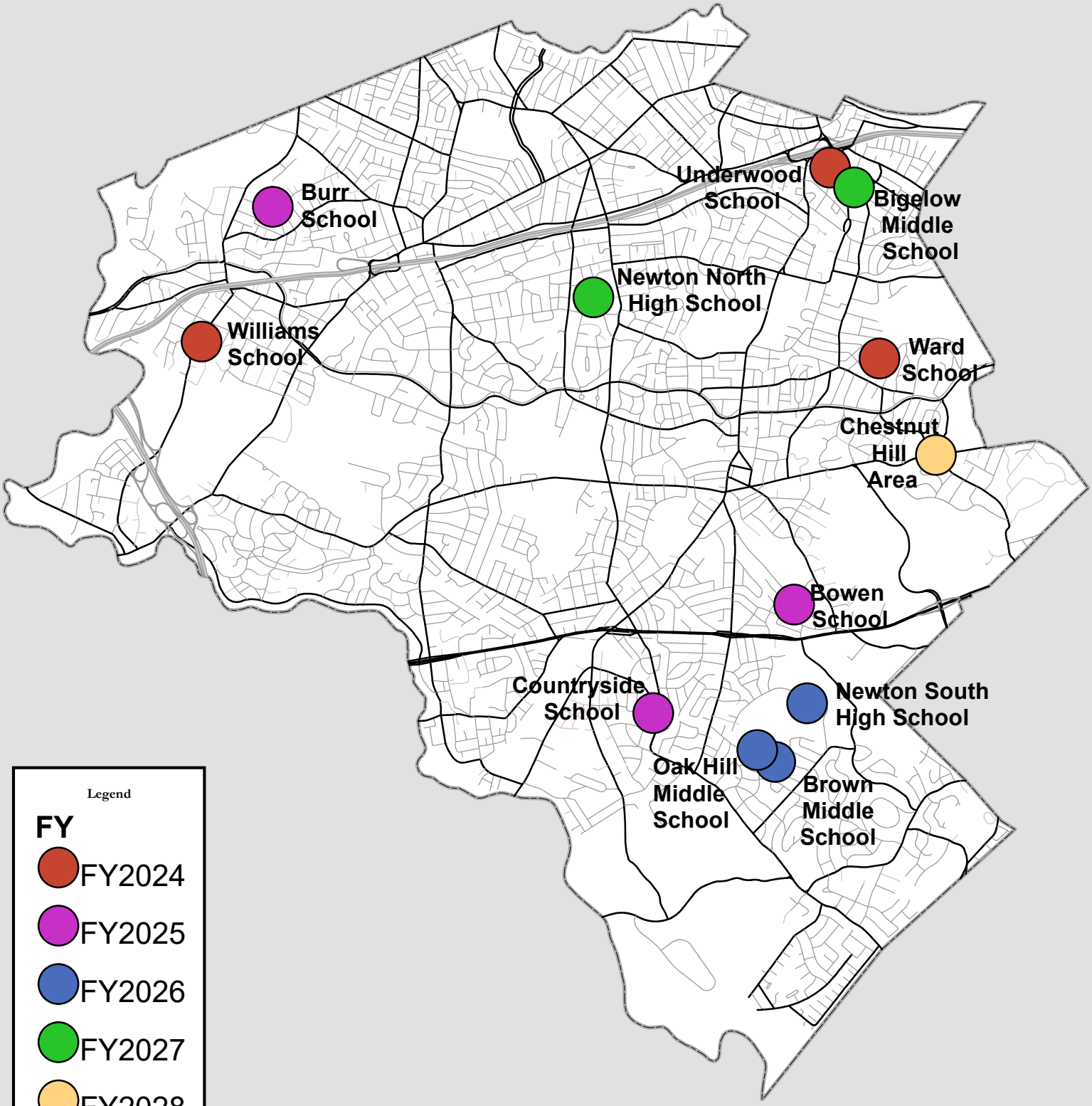
FY2024
Williams School
Ward School
Underwood School

FY2025
Bowen School
Burr School
Countryside School

FY2026
Brown School
Oak Hill School
Newton South High School

FY2027
Bigelow School
Newton North High School

FY2028
Chestnut Hill area



FY24 - FY28 Proposed Sidewalk Locations

City of Newton, Massachusetts

CITY OF NEWTON, MASSACHUSETTS
Mayor - Ruthanne Fuller

0 0.5 1 Miles

Map Date: August 29, 2022

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TRANSPORTATION

The City of Newton's goal is a safe, smart, accessible, livable, and sustainable multimodal transportation system which aspires to eliminate transportation-related fatalities and injuries. In FY2018, the City produced the Newton Street Design Guide to translate this vision into actionable engineering and design guidance based on a Complete Streets approach. The City formally adopted a Complete Streets Policy in 2016 to ensure its street network works for all modes and all people regardless of age, ability or income. The Street Design Guide and Complete Streets Policy continue to guide the City's transportation initiatives.

PRIORITIES

Top transportation priorities for FY2024-FY2028 include:

1. **Needham Street Upgrades**

   Goal: Enhance safety for all users

   »» Project includes complete reconstruction of the roadway, including:
   - Adaptive traffic signal control at all signalized intersections
   - A separated, raised bicycle facility in both directions
   - Expanded sidewalks throughout the corridor

   »» Construction in progress

   »» Estimated completion in Newton, Fall 2024

2. **Transportation Network Improvement Program**

   »» 10-year paving initiative

   »» Repair and pave scheduled streets, sidewalks, traffic calming and pavement markings throughout the City.

3. **Newton Free Library Parking Lot**

   Goal: Increase parking supply and enhance stormwater and drainage systems

   »» Reconfigure parking lot increase available parking at the library

   »» Improve stormwater infrastructure, including areas of permeable pavement

   »» Construction anticipated to be completed in the 2022 construction season

Newton Free Library Parking Lot Concept image.

4. 25% Conceptual Design for Washington Street Corridor
    Goal: Enhance safety for all roadway users
    »» Change Washington Street cross-section to enhance safety
    »» Phase 1 of the project would be to pilot roadway changes without major construction
    »» Reallocate existing roadway space for bicycle accommodations and streetscape beautification
    »» Improve pedestrian connectivity and accessibility

5. Newton Highlands Village Center
    Goal: Enhance safety and visitor experience in business areas and village centers
    »» Undertake safety and streetscape beautification
    »» Improve accessibility, and complement MBTA Station access improvements

6. Municipal Parking Lot Improvement Plan
    Goal: Reconstruct municipal parking lots
    »» Improve accessibility
    »» Enhance stormwater drainage

7. Beacon Street at Walnut Street
    Goal: Improve safety and accessibility
    »» Replace antiquated traffic signal equipment
    »» Conceptual designs may include eliminating right-turn slip lanes or a roundabout
    »» Reduce impervious area and improve stormwater drainage system

8. Commonwealth Ave at Chestnut Street
    Goal: Improve safety and accessibility
    »» Replace antiquated traffic signal equipment.
    »» Enhance pedestrian accessibility throughout intersection
    »» Reduce impervious area and improve stormwater drainage system

9. Cherry Street at Webster Street, and Cherry Street at Derby Street
    Goal: Improve safety and accessibility
    »» Replace antiquated traffic signal equipment
    »» Enhance pedestrian accessibility throughout intersection
    »» Improve safety and traffic signal compliance with overhead traffic signal equipment

10. Washington Street – West Newton to Newton Corner
    Goal: Enhance safety for all roadway users
    »» Refine roadway design based on Phase 1 experience and lessons learned
    »» Reconstruct roadway with revised cross-section to:
        - Enhance safety
        - Improve stormwater drainage systems
        - Improve pedestrian access
        - Beautify the corridor, consistent with Washington Street Vision

11. Beacon Street at Chestnut Street
    Goal: Improve safety and accessibility
    »» Replace antiquated traffic signal equipment.

»» Enhance pedestrian accessibility throughout intersection
»» Reduce impervious area and improve stormwater drainage system

12. Auburn Street at Grove Street and Central Street

Goal: Improve safety and accessibility

»» Replace antiquated traffic signal equipment.
»» Enhance pedestrian accessibility throughout intersection
»» Improve safety and traffic signal compliance with overhead traffic signal equipment
»» Reduce impervious area and improve stormwater drainage system

13. Wells Avenue at Nahanton Street

Goal: Improve safety, accessibility, and traffic operations

»» Enhance pedestrian accessibility throughout intersection
»» Add pedestrian signals and crosswalks
»» Improve traffic operations for Wells Ave Office Park

14. Newton Centre Village Center

Goal: Enhance safety and visitor experience in business areas and village centers

»» Undertake safety and streetscape beautification
»» Improve pedestrian accessibility and safety

15. Walnut Street at Watertown Street and at Lowell Avenue

Goal: Improve safety, accessibility, and traffic operations

»» Enhance pedestrian accessibility and connectivity throughout intersection
»» Add pedestrian signals and crosswalks
»» Improve traffic operations

16. Parker Street at Wheeler Road

Goal: Improve safety, accessibility, and traffic operations

»» Enhance pedestrian accessibility and connectivity throughout intersection
»» Enhance bicycle safety
»» Add pedestrian signals and crosswalks
»» Improve traffic operations

17. Bridge Street at California Street

Goal: Improve safety, accessibility, and traffic operations

»» Enhance pedestrian accessibility and connectivity throughout intersection
»» Enhance bicycle safety
»» Connect both ends of Charles River Greenway with safe pedestrian and bike infrastructure
»» Improve traffic operations

INTERSECTION IMPROVEMENTS

The Public Works Department maintains approximately 100 signalized locations throughout the City that include fully actuated, semi-actuated, and pedestrian activated traffic signals. The oldest set of signals dates to 1958 (Comm. Ave/Ash St & Waltham St/Lodge Rd), with the most recent signals installed in West Newton Square and Newtonville Square. The traffic signal infrastructure is complex and there are many different types of signal equipment. The signal equipment has Americans with Disabilities Act (ADA) compliance features with pushbuttons, hand/person pedestrian signals, audible pushbuttons, and countdown timers.

In 2012, the City completed a Traffic Signal Evaluation to document, evaluate and develop recommendations for specific improvements and prioritize the most problematic intersections throughout the City. Additionally, a signal timing policy was developed outlining various signal strategies to maximize the efficiency and safety of existing and future traffic signal installations. The strategies include minimum/maximum green time, passage time, vehicle and pedestrian clearance time, cycle length, exclusive and/or pedestrian phasing, timing plans, and a number of various signal settings, modes, and upgrades.

The prioritized Traffic Signalization Plan was developed utilizing a combination of factors. These include the traffic signal evaluation study, key traffic data, age of the equipment, average daily traffic (ADT), crash ratings, ADA compliance, and other identified and anticipated traffic improvement needs. The needs range from signalized intersections that have extensive traffic delays and queuing of vehicles, to poorly coordinated traffic signals where there are public safety concerns for vehicles, pedestrians, and bicyclists in heavily used, but non-signalized, intersections. Many traffic signal controllers need to be replaced to allow them to be synchronized with other traffic signals. Others need upgrades to the aging equipment such as signal posts and mast arms for improved visibility; emergency vehicle detection and pre-emption to prioritize emergency vehicles, wire loop and/or camera detection to allow for vehicle detection and efficient traffic operations, communication between signals; and improved geometry of the roads and sidewalks to address pedestrians and bicyclists' safety and ADA compliance.

The original plan has been expanded and now includes entire village centers and main corridors in addition to the original intersections. This CIP focuses on not only completing the remaining original locations, but improving additional intersections which are the most inefficient, frustrating, and unsafe within the City. The goal over the next three to five years is to reduce the number of vehicle/bicycle/pedestrian crashes and develop a signal infrastructure that can be maintained in an efficient and proactive manner. The City intends to accomplish these goals through the implementation of improved roadway geometry, ADA compliant systems, state-of-the-art detection, and coordination/timing communication. The major intersections to be addressed include:

1. Beacon Street at Walnut Street (4 Corners) (Concept Phase)
   This intersection experiences heavy traffic volumes as it provides a direct connection to Newtonville, Newton Centre, Waban, and the Highlands. Although the existing geometry accommodates traffic from each direction using 'slip lanes', it does not provide for safe

pedestrian accommodation. This intersection is also currently a "gap" in the bicycle network, with on-street bicycle lanes on Beacon Street to the east and west of this intersection, and on-street bicycle lanes on Walnut Street to the north and south of the intersection. During the conceptual design phase, several options will be evaluated, including replacement of the signalized intersection with a single-lane modern roundabout. Other alternatives will include changes to the existing intersection geometry to enhance safety while maintaining traffic signal control.

Work includes: Modify geometry, replace existing signal controller/cabinet, install new mast arms, and traffic signal equipment, and improve pedestrian and bike access, new pavement, new pavement markings and signage.

2. Commonwealth Ave. at Chestnut Street (Concept phase)
   This intersection experiences significant intersecting traffic volumes, and many pedestrians and bicyclists along the Commonwealth Ave Carriage Way. The Chestnut Street southbound traffic stops north of the Carriage Way, which results in an atypical intersection configuration with the Carriage Way approach under STOP sign control within an otherwise signalized intersection. The existing equipment is outdated, does not operate efficiently, and is not consistent with current traffic signal design requirements. Furthermore, visibility of the existing traffic signal indications is somewhat limited, the intersection is deficient relative to providing accessible pedestrian accommodations such as sidewalk connections and accessible curb ramps. In 2022, the City also implemented legal two-way bicycling along the length of the Commonwealth Avenue Carriage Way, and a reconstructed intersection and traffic signal would significantly improve bicyclist and pedestrian safety.

   Work includes: Installation of new signal mast arms, installation of new traffic signal control equipment (including bicycle signals) and vehicle detection equipment, new pavement surface, installation of new sidewalk connections and ADA compliant ramps, pavement markings and signage.

3. Cherry Street at Webster Street and Derby Street (Concept Phase)
   This intersection experiences heavy traffic volumes to and from West Newton and Waltham. The existing equipment is outdated, visibility of the existing traffic signal indications is limited, sight distance is poor, and pedestrian accommodation is inadequate.

   Work includes: Installation of new signal mast arms, installation of new vehicle detection equipment, new pavement surface, installation of new ADA compliant ramps, markings, and signage.

4. Newton Corner and Mass Pike Interchange at Exit 127 Off-Ramp (Concept Phase)
   This large interchange area experiences an enormous amount of vehicular traffic exiting and entering the Massachusetts Turnpike from the east and west through Newton Corner via Washington Street westbound and Centre Street southbound. In addition, due to the hotel, numerous businesses and schools located along this corridor, there is a significant amount of pedestrian traffic moving through this village center area. The existing traffic signal equipment is old and damaged from years of wear and tear, the pavement surface has suffered extensive damage from weather and the amount of traffic it carries on a daily basis, pedestrian crossings

are too wide and unsafe, lighting is poor, vehicular speeds are excessive, and the corridor has been modified to accommodate access to the MassPike and no longer looks or functions like a village. MassDOT has initiated a project to conduct traffic counts, complete a topographic survey, conduct a Road Safety Audit to document all existing safety concerns, and develop conceptual alternatives that will seek to make safety improvements, operational improvements, and consider Complete Streets for all users of the roadway network.

Work includes: Close coordination with MassDOT to provide feedback and comments throughout the conceptual design stage to improve safety and traffic operations for all users.

5. Beacon Street at Chestnut Street (Concept Phase)
   This intersection serves as a connection between West Newton and Waban via Commonwealth Avenue and Boylston Street (i.e., Route 9). Sight distance is poor; ADA and pedestrian accommodation is sub-standard and the existing geometry results in reduced vehicle capacity and inefficiencies.

   Work includes: Geometry modifications to improve lane capacity and sight distance, installation of new traffic signal equipment, assessment and reconfiguration of Short Street including access from Chestnut Street to Beacon Street, ADA compliant upgrades, sidewalk replacement, new pavement surface, striping and signage.

6. Intersection at Auburn Street/Grove Street/Central Street (Concept phase)
   This intersection experiences significant intersecting traffic volumes and serves many pedestrians going to and from the Auburndale Commuter Rail Station. The existing equipment is outdated and does not operate efficiently; visibility of the existing traffic signal indications is somewhat limited; sight distance is poor; and pedestrian accommodation is inadequate.

   Work includes: Installation of new signal mast arms, installation of new traffic signal control equipment, including vehicle detection equipment, new pavement surface, installation of new ADA compliant ramps, markings, and signage.

7. Intersection at Walnut Street/Watertown Street and Walnut Street/Lowell Ave (Concept phase)
   This intersection experiences significant intersecting traffic volumes and serves many pedestrians and students going to/from F.A. Day Middle School and Newton North High School. The existing traffic signal equipment is antiquated, the existing apex curb ramps do not meet current standards, the excess pavement and roadway width create longer pedestrian crossings and more conflicts with vehicles, and the slip lane from Walnut Street onto Lowell Ave allows for dangerous high-speed turns and restricts pedestrian access from crossing Lowell Avenue.

   Work includes: Installation of new signal mast arms, installation of new traffic signal control equipment, new pavement surface, installation of new ADA compliant ramps, update intersection geometry to accommodate all users, implementation of traffic calming and other safety improvements, improved pavement markings, and signage.

8. Intersection at Parker Street/Wheeler Road (Concept phase)
   This intersection experiences significant intersecting traffic volumes and serves many pedestrians and students going to/from Oak Hill Middle School, Charles E. Brown Middle School, and Newton South High School. The existing traffic signal equipment is antiquated, the excess pavement and roadway width create longer pedestrian crossings (over 90 ft to cross Wheeler Road, a two lane) and more conflicts with vehicles.

   Work includes: Installation of new signal mast arms, installation of new traffic signal control equipment, new pavement surface, installation of new ADA compliant ramps, update intersection geometry to accommodate all users and reduce unneeded impervious areas, implementation of traffic calming and other safety improvements, improved pavement markings, and signage.

9. Intersection at Bridge Street/California Street (Concept phase)
   This intersection experiences significant intersecting traffic volumes. The existing traffic signal equipment is aging, and the current pedestrian and bicycle infrastructure is inadequate. This intersection also represents a gap in the Charles River Greenway, with the multi-use trail ending roughly 250 ft west of this intersection and beginning again roughly 500 ft east of this intersection. Bicyclists and pedestrians wishing to continue along the Greenway have difficulty navigating the narrow sidewalk and lack of bicycle infrastructure.

   Work includes: Installation of new signal mast arms, installation of new traffic signal control equipment, new pavement surface, installation of new ADA compliant ramps, update intersection geometry to accommodate all users, provide bicycle connections, and improved pavement markings, and signage.

Completed Projects

- Needham Street at Oak and Christina Streets
- Dedham Street at Nahanton Street and Dedham Street at Brookline St / Carlson Ave
- Beacon Street at Collins Street / Waban Avenue
- Nahanton Street at Winchester Street
- Watertown Street at Adams Street
- Watertown Street at Pearl Street
- California Street at Bridge Street
- Washington Street at Auburn St., Perkins St., and Prospect St.
- Auburndale Square
- Washington Street @ Harvard Street

Intersection Improvements
5 YEAR CIP, FY2024-FY2028

Priority	Project Title	Project Description	BUDGET DISTRIBUTION					
			Prior Year Funding	FY2024	FY2025	FY2026	FY2027	FY2028
1	Complete Streets Improvements - Beacon @ Walnut (4 Corners)	Replace traffic signal equipment, improve multimodal safety and operations, install ADA compliant ramps	$ -	$ -	$ -	$ 500,000	$ 2,000,000	$ -
2	Complete Streets Improvements - Commonwealth Ave. at Chestnut Street	Upgrade traffic signal equipment and make ADA improvements	$ -	$ -	$ -	$ 150,000	$ 1,250,000	$ -
3	Complete Streets Improvements - Cherry @ Webster, Cherry @ Derby	Upgrade traffic signal equipment, improve multimodal safety and operations at these two intersections	$ -	$ -	$ -	$ 150,000	$ 1,250,000	$ -
4	Complete Streets Improvements - Newton Corner and Mass Pike Interchange at Exit 127 Off-Ramp	Upgrade traffic signal equipment, improve multimodal safety and operations at this intersection. The city will work closely with MassDot to provide feedback and comments through this project	$ -	$ -	$ -	$ -	$ -	$ -
5	Complete Streets Improvements - Beacon @ Chestnut	Upgrade traffic signal equipment, improve multimodal safety, accessibility and operations	$ -	$ -	$ -	$ 150,000	$ 1,250,000	$ -
6	Complete Streets Improvements - Intersection at Auburn Street/Grove Street/Central Street	Upgrade traffic signal equipment and make ADA improvements	$ -	$ -	$ -		$ 100,000	$ 600,000
7	Complete Streets Improvements - Intersection at Walnut Street/Watertown Street and Walnut Street/Lowell Avenue	Replace traffic signal equipment, improve multimodal safety and operations, install ADA compliant ramps, implement traffic calming, reduce excess pavement area	$ -	$ -	$ -	$ -	$ -	$ 200,000
8	Complete Streets Improvements - Intersection at Parker Street / Wheeler Road	Replace traffic signal equipment, improve multimodal safety and operations, install ADA compliant ramps, reduce excess pavement area	$ -	$ -	$ -	$ -	$ -	$ -
9	Complete Streets Improvements - Intersection at Bridge Street/California Street	Replace traffic signal equipment, improve multimodal safety and operations, install ADA compliant ramps, reduce excess pavement area	$ -	$ -	$ -	$ -	$ -	$ -
			$ -	**$ -**	**$ -**	**$ 950,000**	**$ 5,850,000**	**$ 800,000**

TRAFFIC CALMING EVALUATION AND PRIORITIZATION

The City of Newton DPW has completed its 2021 review of traffic calming requests. The City receives traffic calming requests from constituents and/or Councilors via email or WebQA/311. Requests ask the City to address speed and safety concerns, typically on neighborhood streets. DPW typically evaluate and prioritizes traffic calming requests on an annual basis, however, we note that no traffic data were collected nor were traffic calming evaluations completed in 2020, due to the COVID-19 pandemic and its impact on traffic patterns.

2022 Evaluation

We have begun data collection for traffic calming requests in 2022 and will continue throughout the year. In December 2022 / January 2023, we will be reviewing and evaluating all traffic calming requests, including a comparison with traffic calming requests from previous years.

Prioritization Results

Based on the latest analysis, the current high priority locations for traffic calming are listed below. This priority location list includes roads evaluated in 2021 and compares them with roads included in previous years' traffic calming analyses.

Highest New Priority Locations for Traffic Calming

- Chestnut Street, between Commonwealth Avenue and Beacon Street
- Webster Street, between Cherry Street and Rowe Street
- Brookline Street, between Dudley Road and Oak Hill Street
- Lexington Street, between River Street and Auburndale Avenue
- Waverly Avenue, between Kenrick Street and Church Street
- Cherry Street, between Derby Street and River Street
- Otis Street, between Lowell Avenue and Chestnut Street
- Waltham Street, between the City Line and Crafts Street
- Vine Street, between Brookline Street and LaGrange Street
- Langley Road, between Glen Avenue and Boylston Street

The complete list of roadway evaluations and priority rankings are attached to this memorandum.
In addition to the above list, Traffic Calming measures are currently under design or in process at the following locations, which were previously identified as priority locations:

Ongoing Locations Undergoing Traffic Calming

- Lowell Avenue, between Washington Street and Otis Street
- Lowell Avenue, between Otis Street and Commonwealth Avenue
- Waltham Street, at Derby Street and Fairway Drive
- Elliot Street, between Linden Street and Circuit Avenue
- California Street, between Bridge Street and Dalby Street
- California Street, at Los Angeles Street (private developer funded)
- Grant Avenue, between Commonwealth Avenue and Beacon Street
- Langley Road, between Beacon Street and Glen Avenue (private developer funded)
- Florence Street, between Boylston Street and Louise Road (private developer funded)

VEHICLE REPLACEMENT SCHEDULE

The City of Newton has made a substantial effort to develop and maintain a complete city-wide vehicle inventory utilizing an asset management system. This system has allowed the City to use updated technologies to track and maintain vehicle information such as age, usage, and condition more efficiently and effectively. Implementing this system has created the opportunity to develop a defined vehicle replacement schedule, using a more consolidated, data driven, and updated inventory to track needs for vehicle replacement citywide.

The City's vehicle inventory is managed by the Director of Fleet and the Commissioner of Public Works, who meet with various department heads to discuss needs and then utilize the asset management system to rate various vehicle criteria to determine the optimal timing of a vehicle's replacement in the replacement schedule. As new technologies, efficiencies, or needs arise, new vehicles are integrated into the City's inventory. Criteria used considers the age of the vehicle, the mileage, the usefulness, wear and tear, the life-saving capability of the vehicle and the industry estimate of service life of the vehicle. It also considers the used vehicle price at different age and mileage points.

Under the direction of the Director of Fleet, the Commissioner of Public Works and in coordination with the Chief Procurement Officer, the City has developed updated processes to ensure that vehicle purchases follow uniform and proper purchasing procedures. All vehicles purchased are meet the Green Communities Act standards where applicable. In addition, new vehicles are required to meet the City's replacement standards and must be approved by the Commissioner of Public Works.

The City continues to implement Mayor Fuller's commitment to using electric-powered and hybrid vehicles for all new passenger vehicle acquisitions. Over the past few years, the City has successfully implemented an all-electric fleet of City Hall Pool cars and have developed this replacement plan for all future sedan and SUV leases and purchases (not including public safety) to be all-electric or hybrid. The City has recently installed several new electric charging stations in municipal lots including the Newton Free Library to meet the new demands for the evolving fleet and community needs. As innovative technologies continue to become available in the coming years, the City will keep a close eye on opportunities to improve efficiencies, reduce costs, and reduce carbon emissions.

The following FY2024 – FY2028 Vehicle Schedule is an important tool for the City to ensure that safe and efficient vehicles are available for all City operations. Please note, Police and Fire vehicles, and Forestry equipment, have been excluded from this vehicle replacement schedule. Each follow a separate and fully developed replacement plan.

Vehicle Replacement Schedule, FY2023-2028

Priority #	Year	Make	Model	Replacement Vehicle Type	Current Department	Funding Source	Status	Cost to Replace	FY23	FY24	FY25	FY26	FY27	FY28
1	2004	International	7400	HD 10 Whl Swap+Epoke	Public Works	Bond	Ordered	$ 430,000	$ -	$ -	$ -	$ -	$ -	$ -
2	2006	International	7600	HD 10 Whl Swaploader	Public Works	Bond	Ordered	$ 430,000	$ -	$ -	$ -	$ -	$ -	$ -
3	2005	Ford	F350 -> F550	F550 dump w/ spreader	Public Works	General Funds	Ordered	$ 116,000	$ -	$ -	$ -	$ -	$ -	$ -
4	2013	Ford	F250	F550 dump w/ spreader	Utilities	Water/Sewer	Ordered	$ 116,000	$ -	$ -	$ -	$ -	$ -	$ -
5	2011	Ford	F350	F350 Foreman Utility	Utilities	Water/Sewer	Ordered	$ 75,000	$ -	$ -	$ -	$ -	$ -	$ -
6	2009	Ford	F350	F350 pickup w/ spreader	Parks & Rec	General Funds	Ordered	$ 60,000	$ -	$ -	$ -	$ -	$ -	$ -
7	2009	Ford	E350	Meter van w/side lift	Public Works	General Funds	Ordered	$ 75,000	$ -	$ -	$ -	$ -	$ -	$ -
8	2011	Ford	F150	F250 plow truck	Public Works	General Funds	Ordered	$ 75,000	$ -	$ -	$ -	$ -	$ -	$ -
9	2014	Ford	F150	F350 Utility Truck	Parks & Rec	General Funds	Ordered	$ 70,000	$ -	$ -	$ -	$ -	$ -	$ -
10	2014	Ford	F250	F350 stake body	Utilities	Water/Sewer	Ordered	$ 90,000	$ -	$ -	$ -	$ -	$ -	$ -
11	2010	Ford	E250	Transit 250 Hybrid	Building Dept.	General Funds	Ordered	$ 65,000	$ -	$ -	$ -	$ -	$ -	$ -
12	105	International	7400	HD 6 Whl Swap+Spreader	Public Works	Water/Sewer		$ 365,000	$ 365,000	$ -	$ -	$ -	$ -	$ -
13	2008	Ford	F350 -> F550	F550 dump w/ spreader	Public Works			$ 142,000	$ 142,000	$ -	$ -	$ -	$ -	$ -
14	2012	Ford	F350 -> F550	F550 dump w/ spreader	Public Works			$ 142,000	$ 142,000	$ -	$ -	$ -	$ -	$ -
15	2012	Ford	F150		Parks & Rec			$ 80,000	$ 80,000	$ -	$ -	$ -	$ -	$ -
16	2011	Ford	E250	Transit 250 Hybrid	Building Dept.	General Funds		$ 65,000	$ 65,000	$ -	$ -	$ -	$ -	$ -
17	2005	International	7400	HD 6 Whl Swap+Spreader	Public Works	Sewer		$ 370,000	$ -	$ 370,000	$ -	$ -	$ -	$ -
18	2006	International	7400	HD 6 Whl Dump w/spreader	Public Works	Bond		$ 370,000	$ -	$ 370,000	$ -	$ -	$ -	$ -
19	2007	International	7400	HD 6 Whl Dump w/spreader	Public Works	Bond		$ 370,000	$ -	$ 370,000	$ -	$ -	$ -	$ -
20	2013	Elgin	Pelican	Elgin Pelican	Public Works	Stormwater		$ 260,000	$ -	$ 260,000	$ -	$ -	$ -	$ -
21	2014	Elgin	Pelican	Elgin Pelican	Public Works	Stormwater		$ 260,000	$ -	$ 260,000	$ -	$ -	$ -	$ -
22	1998	Trackless	MT5	Trackless	Public Works	Bond		$ 150,000	$ -	$ 150,000	$ -	$ -	$ -	$ -
23	2004	Trackless	MT5	Trackless	Public Works	Bond		$ 150,000	$ -	$ 150,000	$ -	$ -	$ -	$ -
24	2011	Volvo	BL70	Case Backhoe	Public Works	Bond		$ 150,000	$ -	$ 150,000	$ -	$ -	$ -	$ -
25	2009	Ford	F350 -> F550	F550 Mason body	Utilities			$ 120,000	$ -	$ 120,000	$ -	$ -	$ -	$ -
26	2008	Ford	F350	MD Utility	Public Works	General Funds		$ 90,000	$ -	$ 90,000	$ -	$ -	$ -	$ -
27	2013	Ford	E250	Transit 250 Hybrid	Building Dept.	General Funds		$ 70,000	$ -	$ 70,000	$ -	$ -	$ -	$ -
28	2014	Ford	F150	F150 2WD	Parks & Rec	General Funds		$ 50,000	$ -	$ 50,000	$ -	$ -	$ -	$ -
29	2006	Ford	Econoline	Passenger van	Parks & Rec	General Funds		$ 50,000	$ -	$ 50,000	$ -	$ -	$ -	$ -
30	2016	Ford	Escape	RAV4 Hybrid	Public Works	LEASE		$ 36,000	$ -	LEASE	LEASE	LEASE	LEASE	LEASE
31	2016	Ford	Escape	RAV4 Hybrid	Public Works	LEASE		$ 36,000	$ -	LEASE	LEASE	LEASE	LEASE	LEASE
32	2016	Ford	Escape	RAV4 Hybrid	Public Works	LEASE		$ 36,000	$ -	LEASE	LEASE	LEASE	LEASE	LEASE
33	2016	Ford	Escape	RAV4 Hybrid	Public Works	LEASE		$ 36,000	$ -	LEASE	LEASE	LEASE	LEASE	LEASE
34	2016	Ford	Escape	RAV4 Hybrid	Utilities	LEASE		$ 35,000	$ -	LEASE	LEASE	LEASE	LEASE	LEASE
35	2016	Ford	Escape	RAV4 Hybrid	Utilities	LEASE		$ 35,000	$ -	LEASE	LEASE	LEASE	LEASE	LEASE
36	2014	Ford	Fusion EV	Leaf	Building Dept.	LEASE		$ 30,000	$ -	LEASE	LEASE	LEASE	LEASE	LEASE
37	2016	Nissan	Leaf	Leaf	City Hall Pool	LEASE		$ 30,000	$ -	LEASE	LEASE	LEASE	LEASE	LEASE
38	2018	Nissan	Leaf	Leaf	City Hall Pool	LEASE		$ 30,000	$ -	LEASE	LEASE	LEASE	LEASE	LEASE
39	2018	Nissan	Leaf	Leaf	City Hall Pool	LEASE		$ 30,000	$ -	LEASE	LEASE	LEASE	LEASE	LEASE
40	2018	Nissan	Leaf	Leaf	City Hall Pool	LEASE		$ 30,000	$ -	LEASE	LEASE	LEASE	LEASE	LEASE
41	2018	Nissan	Leaf	Leaf	City Hall Pool	LEASE		$ 30,000	$ -	LEASE	LEASE	LEASE	LEASE	LEASE
42	2007	International	7400	HD 6 Whl Swap+Spreader	Public Works	Water		$ 375,000	$ -	$ -	$ 375,000	$ -	$ -	$ -
43	2007	International	7400	HD 6 Whl Swap+Spreader	Public Works	Water		$ 375,000	$ -	$ -	$ 375,000	$ -	$ -	$ -
44	2007	International	7400	HD 6 Whl Dump w/spreader	Public Works			$ 375,000	$ -	$ -	$ 375,000	$ -	$ -	$ -
45	2008	Volvo	L70F	L120	Public Works			$ 350,000	$ -	$ -	$ 350,000	$ -	$ -	$ -

Priority #	Year	Make	Model	Replacement Vehicle Type	Current Department	Funding Source	Status	Cost to Replace	FY23	FY24	FY25	FY26	FY27	FY28
46	2017	Elgin	Pelican	Elgin Pelican	Public Works	Stormwater		$ 265,000	$ -	$ -	$ 265,000	$ -	$ -	$ -
47	2005	Trackless	MT5	Trackless	Public Works			$ 160,000	$ -	$ -	$ 160,000	$ -	$ -	$ -
48	2009	Ford	F350 -> F550	F550 Mason Body	Utilities			$ 120,000	$ -	$ -	$ 120,000	$ -	$ -	$ -
49	2010	International	Cabover		Parks & Rec			$ 110,000	$ -	$ -	$ 110,000	$ -	$ -	$ -
50	2012	Ford	F350 -> F550	F350 Utility Truck	Public Works			$ 95,000	$ -	$ -	$ 95,000	$ -	$ -	$ -
51	2007	Deere	110		Parks & Rec			$ 90,000	$ -	$ -	$ 90,000	$ -	$ -	$ -
52	2015	Ford	Transit 250	Transit 250 Hybrid	Building Dept.	General Funds		$ 72,500	$ -	$ -	$ 72,500	$ -	$ -	$ -
53	2009	Stone	Small Roller	Small Roller	Public Works	General Funds		$ 30,000	$ -	$ -	$ 30,000	$ -	$ -	$ -
54	2016	Ford	Escape	RAV4	Utilities	Water/Sewer		$ 35,000	$ -	$ -	LEASE	$ -	$ -	$ -
55	2016	Ford	Escape	RAV4	Utilities	Water/Sewer		$ 35,000	$ -	$ -	LEASE	$ -	$ -	$ -
56	2009	Stone	Small Roller	Small Roller	Public Works	General Funds		$ 30,000	$ -	$ -	$ 30,000	$ -	$ -	$ -
57	2013	LeeBoy	250T Tack Tank		Public Works			$ 30,000	$ -	$ -	$ 30,000	$ -	$ -	$ -
58	2009	Sullivan	185CFM		Utilities			$ 15,000	$ -	$ -	$ 15,000	$ -	$ -	$ -
59	1994	TrailKing	TK10U	Deckover -trench trailer	Utilities	Water/Sewer		$ 7,000	$ -	$ -	$ 7,000	$ -	$ -	$ -
60	1997	Towmaster	TP10		Public Works	General Funds		$ 7,000	$ -	$ -	$ 7,000	$ -	$ -	$ -
61	2009	Hudson	6x12 Trailer		Public Works			$ 4,000	$ -	$ -	$ 4,000	$ -	$ -	$ -
62	2009	Hudson	6x12 Trailer		Public Works			$ 4,000	$ -	$ -	$ 4,000	$ -	$ -	$ -
63	2007	International	7400	HD 6 Whl Dump w/spreader	Public Works			$ 380,000	$ -	$ -	$ -	$ 380,000	$ -	$ -
64	2010	Volvo	L120F	L120	Public Works			$ 360,000	$ -	$ -	$ -	$ 380,000	$ -	$ -
65	2007	International	7400	HD 6 Whl Dump w/spreader	Public Works			$ 380,000	$ -	$ -	$ -	$ 380,000	$ -	$ -
66	2017	Elgin	Pelican	Elgin Pelican	Public Works	Stormwater		$ 270,000	$ -	$ -	$ -	$ 270,000	$ -	$ -
67	2007	International	7400	HD 6 Whl Dump w/spreader	Public Works			$ 380,000	$ -	$ -	$ -	$ 380,000	$ -	$ -
68	2005	Trackless	MT5	Trackless	Public Works			$ 165,000	$ -	$ -	$ -	$ 165,000	$ -	$ -
69	2014	JCB	3CX14	Case Backhoe	Public Works			$ 155,000	$ -	$ -	$ -	$ 155,000	$ -	$ -
70	2011	Ford	F350		Parks & Rec			$ 95,000	$ -	$ -	$ -	$ 95,000	$ -	$ -
71	2007	Deere	110		Parks & Rec			$ 90,000	$ -	$ -	$ -	$ 90,000	$ -	$ -
72	2012	Ford	F350 -> F550	F350 Utility Truck	Public Works			$ 95,000	$ -	$ -	$ -	$ 95,000	$ -	$ -
73	2013	Ford	E250	Transit 250 Hybrid	Building Dept.	General Funds		$ 75,000	$ -	$ -	$ -	$ 75,000	$ -	$ -
74	2011	Chevrolet	1500		Public Works			$ 50,000	$ -	$ -	$ -	$ 50,000	$ -	$ -
75	2006	Rogers	20 Ton Tag		Public Works			$ 25,000	$ -	$ -	$ -	$ 30,000	$ -	$ -
76	2010	Ingersoll Rand	Light Plant		Utilities			$ 10,000	$ -	$ -	$ -	$ 10,000	$ -	$ -
77	2019	Nissan	Leaf		Inspectional Services	LEASE		$ 30,000	$ -	$ -	$ -	LEASE	LEASE	LEASE
78	2019	Nissan	Leaf		Inspectional Services	LEASE		$ 30,000	$ -	$ -	$ -	LEASE	LEASE	LEASE
79	2019	Nissan	Leaf		Inspectional Services	LEASE		$ 30,000	$ -	$ -	$ -	LEASE	LEASE	LEASE
80	2019	Nissan	Leaf		Inspectional Services	LEASE		$ 30,000	$ -	$ -	$ -	LEASE	LEASE	LEASE
81	2008	International	7400	HD 6 Whl Dump w/spreader	Public Works			$ 385,000	$ -	$ -	$ -	$ -	$ 385,000	$ -
82	2008	International	7400	HD 6 Whl Dump w/spreader	Public Works			$ 385,000	$ -	$ -	$ -	$ -	$ 385,000	$ -
83	2008	International	7400	HD 6 Whl Dump w/spreader	Public Works			$ 385,000	$ -	$ -	$ -	$ -	$ 385,000	$ -
84	2006	Volvo	EW180B		Utilities			$ 325,000	$ -	$ -	$ -	$ -	$ 325,000	$ -
85	2017	Elgin	Pelican	Elgin Pelican	Public Works	Stormwater		$ 275,000	$ -	$ -	$ -	$ -	$ 275,000	$ -
86	2006	Trackless	MT5	Trackless	Public Works			$ 165,000	$ -	$ -	$ -	$ -	$ 165,000	$ -
87	1990	Screen-All	RD90		Public Works			$ 100,000	$ -	$ -	$ -	$ -	$ 100,000	$ -
88	2014	JCB	3CX14	Case Backhoe	Public Works			$ 155,000	$ -	$ -	$ -	$ -	$ 155,000	$ -
89	2012	Ford	F350 -> F550	F550	Public Works			$ 95,000	$ -	$ -	$ -	$ -	$ 95,000	$ -
90	1990	Dresser	Large Roller	Large Roller	Public Works			$ 90,000	$ -	$ -	$ -	$ -	$ 90,000	$ -
91	2015	Ford	Transit 250	Transit 250 Hybrid	Building Dept.	General Funds		$ 77,750	$ -	$ -	$ -	$ -	$ 77,750	$ -

Priority #	Year	Make	Model	Replacement Vehicle Type	Current Department	Funding Source	Status	Cost to Replace	FY23	FY24	FY25	FY26	FY27	FY28
92	2004	Godwin	75D8		Utilities			$ 25,000	$ -	$ -	$ -	$ -	$ 25,000	$ -
93	2017	Toyota	RAV4	RAV4	Utilities	Water/Sewer		$ 35,000	$ -	$ -	$ -	$ -	$ 35,000	$ -
94	1998	Sullivan	185CFM		Public Works			$ 15,000	$ -	$ -	$ -	$ -	$ 15,000	$ -
95	1993	Sullivan	185CFM		Public Works			$ 15,000	$ -	$ -	$ -	$ -	$ 15,000	$ -
96	2017	Toyota	RAV4	RAV4	Utilities	Water/Sewer		$ 35,000	$ -	$ -	$ -	$ -	LEASE	$ -
97	2017	Toyota	RAV4		Public Works	LEASE		$ 36,000	$ -	$ -	$ -	$ -	LEASE	LEASE
98	2017	Toyota	RAV4		Public Works	LEASE		$ 36,000	$ -	$ -	$ -	$ -	LEASE	LEASE
99	2009	International	7400	HD 6 Whl Dump w/spreader	Public Works			$ 390,000	$ -	$ -	$ -	$ -	$ -	$ 390,000
100	2009	International	7400	HD 6 Whl Dump w/spreader	Public Works			$ 390,000	$ -	$ -	$ -	$ -	$ -	$ 390,000
101	2019	Elgin	Pelican	Elgin Pelican	Public Works	Stormwater		$ 280,000	$ -	$ -	$ -	$ -	$ -	$ 280,000
102	2016	Freightliner	M2-106		Public Works			$ 260,000	$ -	$ -	$ -	$ -	$ -	$ 260,000
103	2015	International	4300		Utilities			$ 250,000	$ -	$ -	$ -	$ -	$ -	$ 250,000
104	2015	Prinoth	SW4S	Trackless	Public Works			$ 170,000	$ -	$ -	$ -	$ -	$ -	$ 165,000
105	2001	Volvo	EC55		Utilities	Water/Sewer		$ 140,000	$ -	$ -	$ -	$ -	$ -	$ 140,000
106	2008	LeeBoy	8515		Public Works			$ 120,000	$ -	$ -	$ -	$ -	$ -	$ 120,000
107	2012	Ford	F350 -> F550	F550	Public Works			$ 95,000	$ -	$ -	$ -	$ -	$ -	$ 95,000
108	2004	Ford	F350	F350 Service/Welding truck	Public Works	General Funds		$ 90,000	$ -	$ -	$ -	$ -	$ -	$ 90,000
109	2015	Ford	Transit 250	Transit 250 Hybrid	Building Dept.	General Funds		$ 80,000	$ -	$ -	$ -	$ -	$ -	$ 80,000
110	2014	Ford	F250		Parks & Rec			$ 70,000	$ -	$ -	$ -	$ -	$ -	$ 70,000
111	2012	Ford	Econoline		Parks & Rec			$ 40,000	$ -	$ -	$ -	$ -	$ -	$ 40,000
112	2014	Ford	Transit Connect		Utilities			$ 40,000	$ -	$ -	$ -	$ -	$ -	$ 40,000
113	2014	Ford	F150		Parks & Rec			$ 40,000	$ -	$ -	$ -	$ -	$ -	$ 40,000
114	2014	Sullivan	185CFM		Utilities			$ 15,000	$ -	$ -	$ -	$ -	$ -	$ 15,000
115	2004	Godwin	Trash Pump		Utilities			$ 10,000	$ -	$ -	$ -	$ -	$ -	$ 10,000
116	2004	DMT	DMT-30C		Utilities			$ 10,000	$ -	$ -	$ -	$ -	$ -	$ 10,000
117	2010	International	7600	HD 6 Whl All Season Body	Public Works			$ 395,000	$ -	$ -	$ -	$ -	$ -	$ -
118	2010	International	7600	HD 6 Whl All Season Body	Public Works			$ 395,000	$ -	$ -	$ -	$ -	$ -	$ -
119	2010	International	7600	HD 6 Whl All Season Body	Public Works			$ 395,000	$ -	$ -	$ -	$ -	$ -	$ -
120	2012	International	7400	HD 6 Whl Dump w/spreader	Public Works			$ 395,000	$ -	$ -	$ -	$ -	$ -	$ -
121	2012	International	7400	HD 6 Whl Dump w/spreader	Public Works			$ 395,000	$ -	$ -	$ -	$ -	$ -	$ -
122	2013	International	7400	HD 6 Whl Dump w/spreader	Utilities			$ 395,000	$ -	$ -	$ -	$ -	$ -	$ -
123	2008	International	7400	HD 6 Whl Dump w/spreader	Public Works			$ 390,000	$ -	$ -	$ -	$ -	$ -	$ -
124	2017	Mack	GU432	6 Whl Vactor	Utilities			$ 500,000	$ -	$ -	$ -	$ -	$ -	$ -
125	2018	Elgin	Whirlwind	Vacuum -> Regen	Public Works	Stormwater		$ 450,000	$ -	$ -	$ -	$ -	$ -	$ -
126	2013	International	7400	HD 6 Whl Dump w/spreader	Utilities			$ 395,000	$ -	$ -	$ -	$ -	$ -	$ -
127	2013	International	7400	HD 6 Whl Dump w/spreader	Public Works			$ 395,000	$ -	$ -	$ -	$ -	$ -	$ -
128	2013	International	7400	HD 6 Whl Dump w/spreader	Public Works			$ 395,000	$ -	$ -	$ -	$ -	$ -	$ -
129	2014	Ford	F350 -> F550	F550	Public Works			$ 95,000	$ -	$ -	$ -	$ -	$ -	$ -
130	2014	Ford	F350 -> F550	F550	Public Works			$ 95,000	$ -	$ -	$ -	$ -	$ -	$ -
131	2016	International	4300		Utilities			$ 250,000	$ -	$ -	$ -	$ -	$ -	$ -
132	2015	Prinoth	SW4S	Trackless	Public Works			$ 175,000	$ -	$ -	$ -	$ -	$ -	$ -
133	2014	Freightliner	108SD	Replace truck w/ body to pull on swaploader	Utilities			$ 160,000	$ -	$ -	$ -	$ -	$ -	$ -
134	2015	Ford	F350 -> F550	F550	Public Works			$ 95,000	$ -	$ -	$ -	$ -	$ -	$ -
135	2016	Ford	Transit 250	Transit 250 Hybrid	Building Dept.	General Funds		$ 82,250	$ -	$ -	$ -	$ -	$ -	$ -
136	2009	Bobcat	S300		Utilities			$ 75,000	$ -	$ -	$ -	$ -	$ -	$ -
137	2017	Ford	Transit 250	Transit 250 Hybrid	Building Dept.	General Funds		$ 90,000	$ -	$ -	$ -	$ -	$ -	$ -

Priority #	Year	Make	Model	Replacement Vehicle Type	Current Department	Funding Source	Status	Cost to Replace	FY23	FY24	FY25	FY26	FY27	FY28
138	2016	Ford	F150		Parks & Rec			$ 40,000	$ -	$ -	$ -	$ -	$ -	$ -
139	2016	Ford	F250		Parks & Rec			$ 40,000	$ -	$ -	$ -	$ -	$ -	$ -
140	2016	Ford	F250		Parks & Rec			$ 40,000	$ -	$ -	$ -	$ -	$ -	$ -
141	2016	Salsco	TP44		Public Works			$ 30,000	$ -	$ -	$ -	$ -	$ -	$ -
142	2014	Sullivan	185CFM		Utilities			$ 15,000	$ -	$ -	$ -	$ -	$ -	$ -
143	20118	Toyota	RAV4	RAV4	Utilities	Water/Sewer		$ 35,000	$ -	$ -	$ -	$ -	$ -	$ -
144	2015	Bobcat	S450		Public Works			$ 35,000	$ -	$ -	$ -	$ -	$ -	$ -
145	2015	Bobcat	S450		Public Works			$ 35,000	$ -	$ -	$ -	$ -	$ -	$ -
146	2015	Bobcat	S450		Public Works			$ 35,000	$ -	$ -	$ -	$ -	$ -	$ -
147	2015	Bobcat	S450		Public Works			$ 35,000	$ -	$ -	$ -	$ -	$ -	$ -
148	2015	Bobcat	S450		Public Works			$ 35,000	$ -	$ -	$ -	$ -	$ -	$ -
149	2015	Bobcat	S450		Public Works			$ 35,000	$ -	$ -	$ -	$ -	$ -	$ -
150	2015	Bobcat	S450		Public Works			$ 35,000	$ -	$ -	$ -	$ -	$ -	$ -
151	2015	Bobcat	S70		Public Works			$ 25,000	$ -	$ -	$ -	$ -	$ -	$ -
152	2015	Bobcat	S70		Public Works			$ 25,000	$ -	$ -	$ -	$ -	$ -	$ -
153	2018	Toyota	RAV4	RAV4	Utilities	Water/Sewer		$ 35,000	$ -	$ -	$ -	$ -	$ -	$ -
154	2016	International	7600	HD 10 Whl Dump	Utilities			$ 510,000	$ -	$ -	$ -	$ -	$ -	$ -
155	2021	Elgin	Pelican	Elgin Pelican	Public Works	Stormwater		$ 290,000	$ -	$ -	$ -	$ -	$ -	$ -
156	2017	Freightliner	M2	XL3100	Public Works			$ 280,000	$ -	$ -	$ -	$ -	$ -	$ -
157	2016	Freightliner	114SD	HD 6 Whl All Season Body	Public Works			$ 400,000	$ -	$ -	$ -	$ -	$ -	$ -
158	2017	International	4300		Utilities			$ 250,000	$ -	$ -	$ -	$ -	$ -	$ -
159	2018	Case	590SN	Case Backhoe	Public Works			$ 165,000	$ -	$ -	$ -	$ -	$ -	$ -
160	2016	Volvo	ECR88D		Utilities			$ 160,000	$ -	$ -	$ -	$ -	$ -	$ -
161	2016	Ford	F250	F250	Building Dept.	General Funds		$ 85,000	$ -	$ -	$ -	$ -	$ -	$ -
162	2016	Ford	F350		Utilities			$ 80,000	$ -	$ -	$ -	$ -	$ -	$ -
163	2016	Ford	F350		Utilities			$ 80,000	$ -	$ -	$ -	$ -	$ -	$ -
164	2018	Ford	F350		Utilities			$ 60,000	$ -	$ -	$ -	$ -	$ -	$ -
165	2018	Ford	F350		Utilities			$ 60,000	$ -	$ -	$ -	$ -	$ -	$ -
166	2018	Ford	F350	F350	Public Works			$ 55,000	$ -	$ -	$ -	$ -	$ -	$ -
167	2018	Ford	F350	F350	Public Works			$ 55,000	$ -	$ -	$ -	$ -	$ -	$ -
168	2018	Ford	F350	F350	Public Works			$ 55,000	$ -	$ -	$ -	$ -	$ -	$ -
169	2017	Ford	Transit 250	Transit 250 Hybrid	Building Dept.	General Funds		$ 92,250	$ -	$ -	$ -	$ -	$ -	$ -
170	2017	Ford	Starcrafts Bus		Parks & Rec			$ 80,000	$ -	$ -	$ -	$ -	$ -	$ -
171	2017	Ford	Transit Connect		IT			$ 40,000	$ -	$ -	$ -	$ -	$ -	$ -
172	2019	Trackless	MT7	Trackless	Public Works			$ 180,000	$ -	$ -	$ -	$ -	$ -	$ -
173	2017	Ford	F150		Parks & Rec			$ 40,000	$ -	$ -	$ -	$ -	$ -	$ -
174	2017	Ford	F150		Parks & Rec			$ 35,000	$ -	$ -	$ -	$ -	$ -	$ -
175	2018	Ford	Transit Connect	Transit 250	Public Works			$ 40,000	$ -	$ -	$ -	$ -	$ -	$ -
176	2015	Sullivan	185CFM		Utilities			$ 15,000	$ -	$ -	$ -	$ -	$ -	$ -
177	2021	Mack	GR42F	6 Whl Vactor	Utilities			$ 500,000	$ -	$ -	$ -	$ -	$ -	$ -
178	2019	Volvo	L110	L120	Public Works			$ 400,000	$ -	$ -	$ -	$ -	$ -	$ -
179	2019	Mack	GR42F	HD 6 Whl Swap+Spreader	Utilities			$ 405,000	$ -	$ -	$ -	$ -	$ -	$ -
180	2019	Mack	GR42F	HD 6 Whl Swap+Spreader	Utilities			$ 405,000	$ -	$ -	$ -	$ -	$ -	$ -
181	2019	Case	590SN	Case Backhoe	Utilities			$ 165,000	$ -	$ -	$ -	$ -	$ -	$ -
182	2018	Brine	Xtrememobile		Public Works			$ 130,000	$ -	$ -	$ -	$ -	$ -	$ -
183	2019	Ford	F550	F550 Packer	Parks & Rec			$ 110,000	$ -	$ -	$ -	$ -	$ -	$ -

Priority #	Year	Make	Model	Replacement Vehicle Type	Current Department	Funding Source	Status	Cost to Replace	FY23	FY24	FY25	FY26	FY27	FY28
184	2019	Ford	F550	F550 Packer	Parks & Rec			$ 110,000	$ -	$ -	$ -	$ -	$ -	$ -
185	2019	Ford	F550	F550	Utilities			$ 100,000	$ -	$ -	$ -	$ -	$ -	$ -
186	2018	Ford	F350		Parks & Rec			$ 45,000	$ -	$ -	$ -	$ -	$ -	$ -
187	2017	Ford	Transit 250	Transit 250 Hybrid	Building Dept.	General Funds		$ 87,750	$ -	$ -	$ -	$ -	$ -	$ -
188	2018	Ford	F350 -> T250	Transit 250 Hybrid	Building Dept.	General Funds		$ 95,000	$ -	$ -	$ -	$ -	$ -	$ -
189	2018	Ford	Transit 250	Transit 250 Hybrid	Building Dept.	General Funds		$ 95,000	$ -	$ -	$ -	$ -	$ -	$ -
190	2018	Toyota	Tacoma	Tacoma Pickup	Health Dept.			$ 33,000	$ -	$ -	$ -	$ -	$ -	$ -
191	2016	Sullivan	185CFM		Public Works			$ 15,000	$ -	$ -	$ -	$ -	$ -	$ -
192	2018	Freightliner	Sprinter		Utilities			$ 300,000	$ -	$ -	$ -	$ -	$ -	$ -
193	2020	Mack	GR42F	HD 6 Whl Dump w/spreader	Public Works			$ 410,000	$ -	$ -	$ -	$ -	$ -	$ -
194	2020	Mack	GR42F	HD 6 Whl Dump w/spreader	Public Works			$ 410,000	$ -	$ -	$ -	$ -	$ -	$ -
195	2020	Mack	GR42F	HD 6 Whl Swap+Spreader	Utilities			$ 410,000	$ -	$ -	$ -	$ -	$ -	$ -
196	2019	International	4300		Utilities			$ 250,000	$ -	$ -	$ -	$ -	$ -	$ -
197	2019	Ford	F350	Light Duty Stake Body	Public Works			$ 60,000	$ -	$ -	$ -	$ -	$ -	$ -
198	2019	Ford	F350		Utilities			$ 100,000	$ -	$ -	$ -	$ -	$ -	$ -
199	2019	Ford	F350	F350 Pickup	Public Works			$ 50,000	$ -	$ -	$ -	$ -	$ -	$ -
200	2019	Ford	Transit 250	Van	Public Works			$ 45,000	$ -	$ -	$ -	$ -	$ -	$ -
201	2019	Ford	Transit 250	Transit 250 Hybrid	Building Dept.	General Funds		$ 95,000	$ -	$ -	$ -	$ -	$ -	$ -
202	2019	Ford	F150	F150 2WD	Parks & Rec			$ 35,000	$ -	$ -	$ -	$ -	$ -	$ -
203	2019	Ford	F150	F150 2WD	Parks & Rec			$ 35,000	$ -	$ -	$ -	$ -	$ -	$ -
204	2019	Ford	F150	F150 2WD	Parks & Rec			$ 35,000	$ -	$ -	$ -	$ -	$ -	$ -
205	2021	Mack	GR64B	HD 10 Whl Dump	Utilities			$ 525,000	$ -	$ -	$ -	$ -	$ -	$ -
206	2021	Mack	GR42F	HD 6 Whl All-season Body	Public Works			$ 415,000	$ -	$ -	$ -	$ -	$ -	$ -
207	2021	Mack	GR42F	HD 6 Whl All-season Body	Public Works			$ 415,000	$ -	$ -	$ -	$ -	$ -	$ -
208	2021	Case	590SN	Case Backhoe	Utilities			$ 170,000	$ -	$ -	$ -	$ -	$ -	$ -
209	2020	Ford	F550	F550 dump w/ spreader	Public Works			$ 100,000	$ -	$ -	$ -	$ -	$ -	$ -
210	2020	Ford	F550	F550 dump w/ spreader	Public Works			$ 100,000	$ -	$ -	$ -	$ -	$ -	$ -
211	2020	Ford	Transit 250	Transit 250 Hybrid	Building Dept.	General Funds		$ 95,000	$ -	$ -	$ -	$ -	$ -	$ -
212	2019	Crafco	Hot Box Trailer	Tagalong hotbox	Public Works			$ 35,000	$ -	$ -	$ -	$ -	$ -	$ -
213	2019	Crafco	Hot Box Trailer	Tagalong hotbox	Public Works			$ 35,000	$ -	$ -	$ -	$ -	$ -	$ -
214	2018	Bravo	SC58SA		Utilities			$ 10,000	$ -	$ -	$ -	$ -	$ -	$ -
215	2020	Ford	F350		Public Works			$ 70,000	$ -	$ -	$ -	$ -	$ -	$ -
216	2020	Ford	F350	F350 Service truck	Public Works			$ 90,000	$ -	$ -	$ -	$ -	$ -	$ -
217	2020	Ford	F350	F350 Service truck	Public Works			$ 90,000	$ -	$ -	$ -	$ -	$ -	$ -
218	2020	CAM	20 Ton Tag		Utilities			$ 25,000	$ -	$ -	$ -	$ -	$ -	$ -
219	2019	CAM	P7CAM18		Public Works			$ 8,000	$ -	$ -	$ -	$ -	$ -	$ -
220	2019	CAM	6x12 Trailer		Public Works			$ 4,000	$ -	$ -	$ -	$ -	$ -	$ -
221	2019	CAM	6x12 Trailer		Public Works			$ 4,000	$ -	$ -	$ -	$ -	$ -	$ -
222	2021	CAM	6x14 Trailer		Public Works			$ 9,000	$ -	$ -	$ -	$ -	$ -	$ -
223	2020	Bravo	6x10 Trailer		Public Works			$ 25,000	$ -	$ -	$ -	$ -	$ -	$ -
224	2022	Ford	F350	F350 Utility Truck	Utilities	Water/Sewer		$ 85,000	$ -	$ -	$ -	$ -	$ -	$ -
225	2022	Ford	F350	F350 Utility Truck	Utilities	Water/Sewer		$ 85,000	$ -	$ -	$ -	$ -	$ -	$ -
226	2021	Mack	GR42F	HD 6 Whl All-season Body	Public Works			$ 415,000	$ -	$ -	$ -	$ -	$ -	$ -
227	2022	Ford	Transit350EL		Parks & Rec			$ 60,000	$ -	$ -	$ -	$ -	$ -	$ -
228	2022	Volvo	L120H	L120	Public Works			$ 400,000	$ -	$ -	$ -	$ -	$ -	$ -
229	2021	Case	590SN		Utilities			$ 170,000	$ -	$ -	$ -	$ -	$ -	$ -

Priority #	Year	Make	Model	Replacement Vehicle Type	Current Department	Funding Source	Status	Cost to Replace	FY23	FY24	FY25	FY26	FY27	FY28
230	2017	Wacker	Small Roller		Public Works			$ 30,000	$ -	$ -	$ -	$ -	$ -	$ -
231	2022	Ford	F350	F350 Service Utility	Utilities	Sewer	Ordered	$ 85,000	$ -	$ -	$ -	$ -	$ -	$ -
232	2017	Wacker	Small Roller		Public Works			$ 30,000	$ -	$ -	$ -	$ -	$ -	$ -
233	2022	Ford	F350	F350 Service Utility	Utilities	Water	Ordered	$ 85,000	$ -	$ -	$ -	$ -	$ -	$ -
234	2022	Ford	F350	F350 Service Utility	Utilities	Water	Ordered	$ 85,000	$ -	$ -	$ -	$ -	$ -	$ -
235	2019	Toyota	RAV4		Parks & Rec	LEASE		$ 36,000	LEASE	LEASE	LEASE	LEASE	LEASE	LEASE
236	2019	Toyota	RAV4		Parks & Rec	LEASE		$ 36,000	LEASE	LEASE	LEASE	LEASE	LEASE	LEASE
237	2019	Toyota	RAV4		Parks & Rec	LEASE		$ 36,000	LEASE	LEASE	LEASE	LEASE	LEASE	LEASE
238	2020	Toyota	RAV4		Parks & Rec	LEASE		$ 36,000	LEASE	LEASE	LEASE	LEASE	LEASE	LEASE
239	2019	Toyota	RAV4		Public Works	LEASE		$ 36,000	LEASE	LEASE	LEASE	LEASE	LEASE	LEASE
240	2019	Nissan	Leaf		Public Works	LEASE		$ 30,000	LEASE	LEASE	LEASE	LEASE	LEASE	LEASE
241	2019	Toyota	RAV4		Public Works	LEASE		$ 36,000	LEASE	LEASE	LEASE	LEASE	LEASE	LEASE
242	2019	Toyota	RAV4		Public Works	LEASE		$ 36,000	LEASE	LEASE	LEASE	LEASE	LEASE	LEASE
243	2019	Toyota	RAV4		Public Works	LEASE		$ 36,000	LEASE	LEASE	LEASE	LEASE	LEASE	LEASE
244	2019	Toyota	RAV4		Public Works	LEASE		$ 36,000	LEASE	LEASE	LEASE	LEASE	LEASE	LEASE
245	2019	Toyota	RAV4		Public Works	LEASE		$ 36,000	LEASE	LEASE	LEASE	LEASE	LEASE	LEASE
246	2020	Toyota	Prius Prime		Public Works	LEASE		$ 30,000	LEASE	LEASE	LEASE	LEASE	LEASE	LEASE
247	2019	Toyota	RAV4		Public Works	LEASE		$ 36,000	LEASE	LEASE	LEASE	LEASE	LEASE	LEASE
248	2020	Toyota	Prius Prime		Public Works	LEASE		$ 30,000	LEASE	LEASE	LEASE	LEASE	LEASE	LEASE
249	2019	Toyota	Leaf		Public Works	LEASE		$ 33,000	LEASE	LEASE	LEASE	LEASE	LEASE	LEASE
250	2019	Nissan	Leaf		Public Works	LEASE		$ 33,000	LEASE	LEASE	LEASE	LEASE	LEASE	LEASE
251	2019	Nissan	Leaf		Public Works	LEASE		$ 33,000	LEASE	LEASE	LEASE	LEASE	LEASE	LEASE
252	2019	Nissan	Leaf		Health Dept.	LEASE		$ 33,000	LEASE	LEASE	LEASE	LEASE	LEASE	LEASE
253	2019	Nissan	Leaf		Health Dept.	LEASE		$ 33,000	LEASE	LEASE	LEASE	LEASE	LEASE	LEASE
254	2019	Nissan	Leaf		Health Dept.	LEASE		$ 33,000	LEASE	LEASE	LEASE	LEASE	LEASE	LEASE
255	2019	Nissan	Leaf		Health Dept.	LEASE		$ 33,000	LEASE	LEASE	LEASE	LEASE	LEASE	LEASE
256	2019	Nissan	Leaf		Assessing	LEASE		$ 33,000	LEASE	LEASE	LEASE	LEASE	LEASE	LEASE
257	2019	Nissan	Leaf		Assessing	LEASE		$ 33,000	LEASE	LEASE	LEASE	LEASE	LEASE	LEASE
258	2019	Nissan	Leaf		Assessing	LEASE		$ 33,000	LEASE	LEASE	LEASE	LEASE	LEASE	LEASE
259	2019	Nissan	Leaf		Assessing	LEASE		$ 33,000	LEASE	LEASE	LEASE	LEASE	LEASE	LEASE
260	2019	Nissan	Leaf		Inspectional Services	LEASE		$ 33,000	LEASE	LEASE	LEASE	LEASE	LEASE	LEASE
261	2019	Nissan	Leaf		Inspectional Services	LEASE		$ 33,000	LEASE	LEASE	LEASE	LEASE	LEASE	LEASE
262	2019	Nissan	Leaf		Inspectional Services	LEASE		$ 33,000	LEASE	LEASE	LEASE	LEASE	LEASE	LEASE
263	2019	Nissan	Leaf		Inspectional Services	LEASE		$ 33,000	LEASE	LEASE	LEASE	LEASE	LEASE	LEASE
264	2019	Nissan	Leaf		Inspectional Services	LEASE		$ 33,000	LEASE	LEASE	LEASE	LEASE	LEASE	LEASE
265	2019	Nissan	Leaf		Inspectional Services	LEASE		$ 33,000	LEASE	LEASE	LEASE	LEASE	LEASE	LEASE
266	2019	Nissan	Leaf		Inspectional Services	LEASE		$ 33,000	LEASE	LEASE	LEASE	LEASE	LEASE	LEASE
267	2019	Nissan	Leaf		Inspectional Services	LEASE		$ 33,000	LEASE	LEASE	LEASE	LEASE	LEASE	LEASE
268	2020	Toyota	RAV4		Public Works	LEASE		$ 36,000	LEASE	LEASE	LEASE	LEASE	LEASE	LEASE
269	2021	Toyota	Prius Prime		Public Works	LEASE		$ 33,000	LEASE	LEASE	LEASE	LEASE	LEASE	LEASE
270	2021	Toyota	RAV4 Prime		Public Works	LEASE		$ 42,000	LEASE	LEASE	LEASE	LEASE	LEASE	LEASE
271	2021	Toyota	RAV4 Prime		Public Works	LEASE		$ 42,000	LEASE	LEASE	LEASE	LEASE	LEASE	LEASE
272	2021	Toyota	RAV4 Prime		Public Works	LEASE		$ 42,000	LEASE	LEASE	LEASE	LEASE	LEASE	LEASE
273	2021	Toyota	RAV4 Hybrid		Public Works	LEASE		$ 36,000	LEASE	LEASE	LEASE	LEASE	LEASE	LEASE
274	2021	Toyota	RAV4 Hybrid		Utilities	LEASE		$ 36,000	LEASE	LEASE	LEASE	LEASE	LEASE	LEASE
275	2021	Toyota	RAV4 Hybrid		Public Works	LEASE		$ 36,000	LEASE	LEASE	LEASE	LEASE	LEASE	LEASE

Priority #	Year	Make	Model	Replacement Vehicle Type	Current Department	Funding Source	Status	Cost to Replace	FY23	FY24	FY25	FY26	FY27	FY28
276	2021	Freightliner	M2-106	25yd packer	Public Works	RENTAL			RENTAL	RENTAL	RENTAL	RENTAL	RENTAL	RENTAL
277	2021	Freightliner	M2-106	25yd packer	Public Works	RENTAL			RENTAL	RENTAL	RENTAL	RENTAL	RENTAL	RENTAL
279	2021	Freightliner	M2-106	25yd packer	Public Works	RENTAL			RENTAL	RENTAL	RENTAL	RENTAL	RENTAL	RENTAL
280	2023	Freightliner	M2-107	25yd packer	Public Works	RENTAL			RENTAL	RENTAL	RENTAL	RENTAL	RENTAL	RENTAL
								$ 35,360,500	**$ 794,000.00**	**$ 2,460,000.00**	**$ 2,514,500.00**	**$ 2,555,000.00**	**$ 2,527,750.00**	**$ 2,485,000.00**

Note: Forestry Program Vehicles are not included on this list, they are managed separately

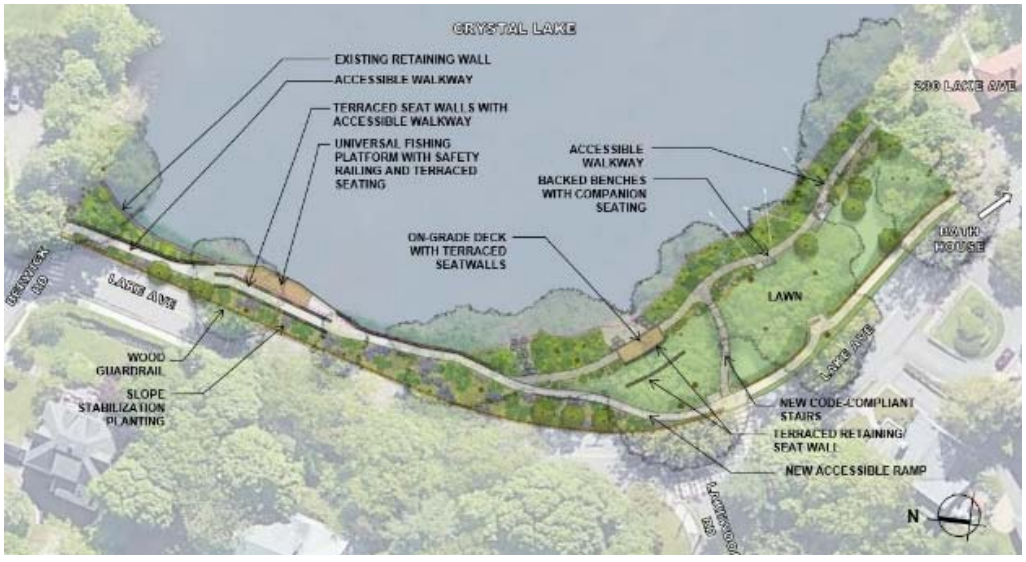
PARKS

The Parks, Recreation & Culture Department continues to improve the infrastructure of parks, playgrounds and athletic fields throughout the city. In addition to improvements to active and passive recreation areas, the Department has made great strides to improve the livability of the city by investing in a robust street tree plan to increase tree diversity and canopy coverage. Beautification work includes our Adopt-a-Space program, working with residents to install commemorative benches to honor loved ones, and cleaning litter in parks and open space areas. Our Grounds Maintenance Division has made significant advances in restoring athletic playing fields using increased budget funds for public property maintenance. The team also manages leaf removal in the spring and fall at 167 locations throughout the city.

Over the past two years the Parks, Recreation & Culture Department has continued to do important infrastructure work often by cultivating and maintaining partnerships with organized special interest groups across the city. Some of these groups are committed to a specific cause such as improving trails while others are organized by geography and focus on enhancing parks within their neighborhood.

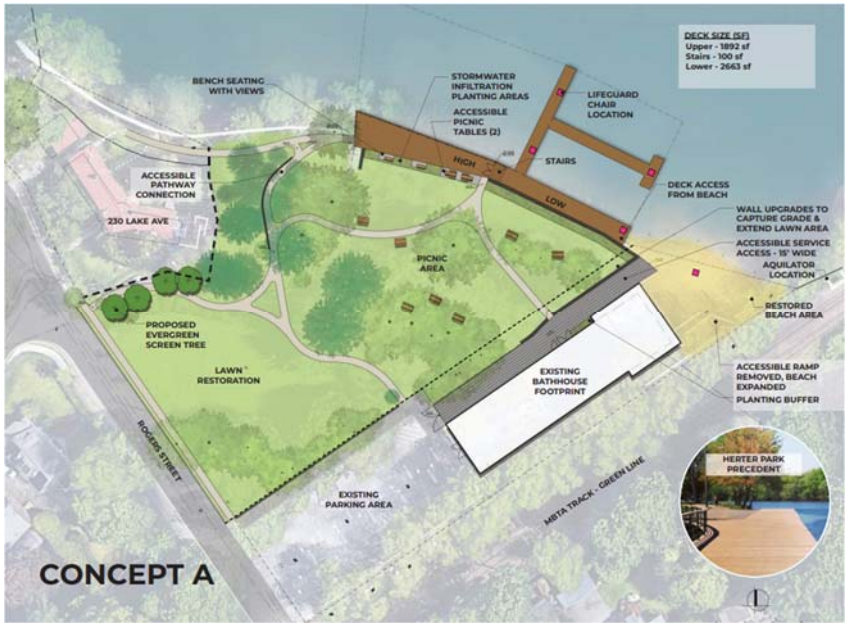
The following are several of the Department's key ongoing projects.

- **Levingston Cove Project**
  Having just attained all state permits, this project will go under construction in 2023. The Department secured construction funding for this project through the Community Preservation Act totaling $1.4M. An additional $25,000 in State grant funds have been allocated to fund construction administration including project oversight. The Levingston Cove redesign will protect the park area and lake from erosion and stormwater runoff and improve accessibility including a universal fishing platform.



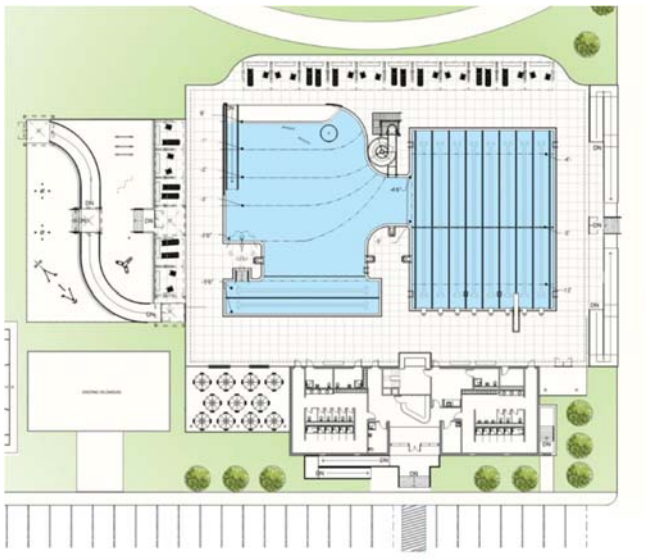
Levingston Cove redesign going under construction FY23

- **Crystal Lake Park and Left Beach Redesign Project**
  PRC is kicking off this new project to improve this park area and the Left Beach swimming zone. The project will improve accessibility, provide increased seating and sunbathing space, and use incorporate measures to protect the shore and water.

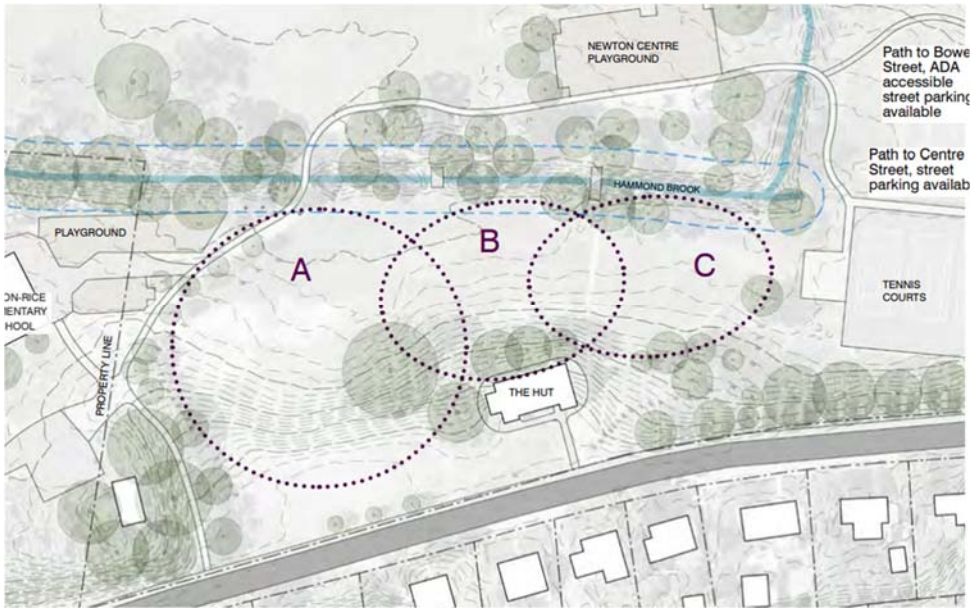


One render of a potential layout for Crystal Lake Park and left Beach

- **Gath Pool Replacement**
  Parks, Recreation & Culture has worked alongside the Public Buildings Department to bring the Gath Pool project to full design. After many public meetings, focus group meetings, and staff meetings, we are excited to have a design that is modern, universally accessible, climate resilient, and fun!


Gath Pool design rendering

- **Performance Stage in Newton Centre Playground**
  The Mayor has authorized $50,000 toward the design feasibility study for an outdoor performance pavilion at "The Bowl" at Newton Centre Playground. Community meetings, focus group sessions, and piloting various stage placement options at our summer concert series are getting closer to a preferred design.

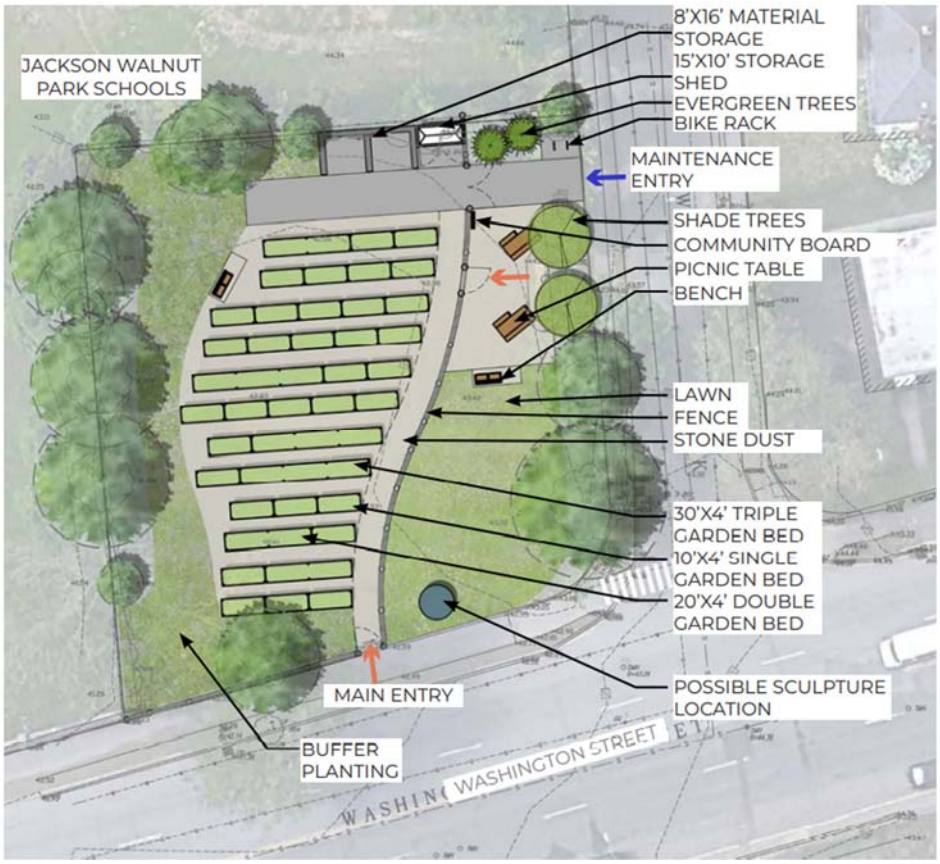


Potential locations under consideration for the performance stage

- **Cabot Park Improvements**
  Several improvements are in the works at Cabot Park including redesigned pathways, new basketball hoops, backboards, and court lighting. Also under construction is a new shade structure for community gatherings.

New pavilion under construction at Cabot Park

- **Spears Park Community Garden**
  PRC is leading community meetings to develop a community garden at Spears Park in Ward 1. The garden will make planting beds available to members of the community to grow food and other plantings. This will be our second garden with the other located at Nahanton Park.



A rendering of a proposed Spears Park gardens layout

- **Marty Sender Greenway**
  Named after the beloved Auburndale resident and television journalist who died in 2000, the Marty Sender Greenway is the section of the Blue Heron Trail that passes through Lyons Park and "The Cove." The first phase of the project improved the first 1,000-feet of existing, degraded path and made four wooded outlooks wheelchair accessible. Phase 1 was completed this summer. In addition to donations from the Solomon Foundation and Newton Conservators, a $340,000 Mass Trails grant was secured from the MA Department of Conservation and Recreation to fund the next section of trail work. Phase 2 will allow the heavily used section of the Blue Heron Trail to better withstand increasingly frequent flooding and provide universal access so all Newtonians can enjoy multi-seasonal recreational opportunities and beautiful views. The Phase 2 work will also enhance the circulation of water between the Charles River and wetlands, expand wildlife habitat, and reestablish the natural ebb and flow within the flood plain behind Lyons field. The design and permitting process for this phase will begin this summer and go out to bid by the Spring of 2023.

The Newton Parks, Recreation & Culture Department (PRC), partnered with the Planning Department, the Commission on Disabilities, the Riverside Greenway Working Group, the Solomon foundation and the Newton Conservators has identified the Marty Sender Greenway with great potential for incorporating an all-person's trail in Newton. The restoration will be multi-phased, implemented over several years.

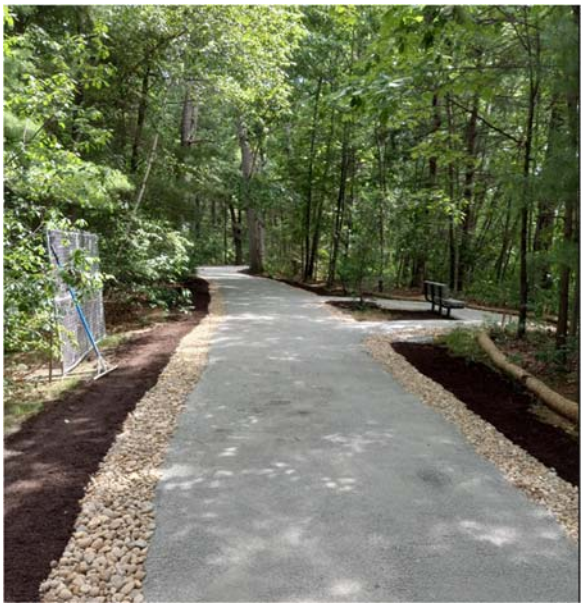
Project Scope:
Overall Scope of trail improvements consistent with Mass Highway shared-use trail criteria extends from the park's Field House through Lyons Park to Commonwealth Avenue, a total distance of approximately ¾ Miles or 3,700 feet.

Phase 1:
From the field house to the intersection aligned with Chaske Avenue, 1320 feet including improved access to 4 outlook areas facing the cove. To be completed Spring 2022.

Phase 2:
From the Chaske Avenue intersection to Commonwealth Avenue, 1200 feet traversing the FEMA 100-yr flood plain at the rear of Lyons Park, requiring the installation requires the installation of 500-feet of boardwalk. 2022 MassTrails Grant, with construction in 2023.

Phase 3:
From the Chaske Avenue intersection to the Waltham line.
- resurfacing 2000 feet thru the playground
- stabilized stone dust bike route (large dots) 530 feet.
- Pedestrian river path (small dots) 632 feet

Marty Sender Greenway Trail



- **Additional Park Improvement Work**
  - PRC continues to make accessibility and infrastructure improvements throughout the city, including an accessible walkway and basketball and bocce court improvements at Cabot Park.
  - The City's Beautification Program continues with its aggressive installation of the popular historic BoxART on utility boxes.
  - The Beautification Division manages our dog waste program with dedicated waste bins.
  - The Beautification Division delivers, plants, and maintains 150 flower planters throughout the city.
  - PRC partners with resident groups to reduce invasive plant species by continuing to support volunteer efforts. We've also been working with residents to incorporate pollinator gardens to support pollinators. The primary focus is to rehabilitate native plant and species habitats across the city. New pollinator gardens are located at City Hall and Kennard Park.

SPORTS FIELD MAINTENANCE AND IMPROVEMENT PLAN

The Parks, Recreation & Culture Department has implemented a multi-pronged plan to improve athletic playing field conditions including pest management, increased grass maintenance work, field scheduling management, and new field development.

Integrated Pest Management

To supplement a successful sports field management program, we will continue to implement a robust Integrated Pest management Program (IPM). This work includes biweekly monitoring of field turf to inspect grass composition, undesirable plants such as crabgrass, and bare spots. If a pre-determined threshold is met, then a treatment plan is implemented. In addition to bare spots and undesirable grasses, the program also monitors for grubs under the turf surface.

The following 14 locations have been identified as preferred sites for our pest management plan, totaling 75 acres of sports fields:

1. Cabot Field
2. Forte Park
3. Burr Park
4. Weeks
5. Lincoln Warren
6. McGrath/Warren House
7. Albemarle Fields
8. Newton South High School
9. Newton Highlands Field
10. Newton North High School
11. Lower Falls
12. Nahanton Park
13. New Cold Spring
14. Oak Hill

Increased Maintenance

The City has continued to increase the budget specific to athletic field maintenance with an additional $50,000 annual appropriation for FY2023. In a two-year period, the City has increased our athletic fields budget by 300%. These funds, coupled with field user fees, will enable the Grounds Maintenance Division to implement significantly more work to improve turf conditions including mechanical aerations, fertilizer applications, and overseeding applications. Annual deep tine aeration and topdressing will also be conducted. Additional maintenance work will include servicing existing irrigation systems and expansion/addition of new water lines and systems.

Newton Highlands Playground Athletic Field

Scheduling Management

Field availability and temporary closure decisions will be made in consultation with the Grounds Maintenance Division. Assessments and closures will be contingent on weather, turf conditions, water saturation, and turf resting best practices. The Department has also hired a new part time employee to fill our newly created Park Ranger position. The Park Ranger will be visiting our fields throughout the city to conduct permit checks to ensure to ensure that groups using the fields have permission to do so.

New Field Development

In addition to the field maintenance practices outlined above, the City aims to install new playing fields to meet the growing needs of the sports community and to prevent the overuse of existing fields.

Over the past two years we have worked to advance field improvement projects. The Community Preservation Committee awarded the Parks, Recreation & Culture Department $420,000 for field project design and engineering work. PRC is prepared to bring the full construction funding request for the following fields to the CPC for support: Albemarle Park, Burr Elementary School Fields, McGrath Park at Warren House.

Current Field Projects

Albemarle Park/ Halloran Sports Complex: FY2024

One of the City's premiere playing sites, the Russ Holloran Sports Complex at Albemarle Park is used by many different sports groups and host a variety of sport play. The project involves sport light replacements and expansion, new field layouts to reduce field overlaps, new tree plantings, and connecting pathways. This project is being carefully coordinated alongside our Gath Pool replacement project.

Burr Elementary Fields: FY2024

The Burr Elementary School grounds currently hosts a sloped single playing field. The new design repositions a pathway to the side of the park and extends it to provide a full perimeter exercise path. Moving this pathway allows an additional field to be constructed. Some trees will be repositioned and new ones are anticipated to be added in this project.

McGrath Park: FY2024

The redesign of grounds at McGrath Park will see the removal of two unused ballfields which allows us to bring additional fields in a layout that eliminates field overlaps. The project also creates accessible pathways with CDBG funds.

Synthetic Turf Field Surfaces

Synthetic field surfaces at NSHS (2) and NNHS (1) are due for replacement. Replacement product selection, engineering and design work are all currently underway, including planned community meetings. The current fields have exceeded the recommended age for replacement which is causing significant performance issues and higher maintenance costs.

Anticipated replacement times:

NSHS 2 fields: FY2024

NNHS 1 field: FY2025

Field Lighting

In response to increasing need for evening field access for athletic play, PRC is installing a light system at each high school campus. These light systems are state of the art systems that contain the light to the playing field, expand evening play time, and allow families to attend and watch games given the later start times.

NNHS Tiger Stadium: FY2023

NSHS Brandeis Rd. field: FY2023 (current)

Tentative Future Projects (FY2025-2030)

Forte Park

Brown/Oak Hill Playing Fields

Bobby Braceland Playground

PLAY STRUCTURES

Annual Inspection Program
The Parks, Recreation & Culture Department's Certified Playground Safety Inspector conducted a city-wide assessment of all 64 play structures within the Department's playground areas. As part of this assessment each playground is reviewed for structural integrity, accessibility, condition of the hardware, and compliance with safety standards pertaining to protrusions and entrapments. Graded criteria are added together to generate a composite score that reflects the overall condition and safety of each structure. The composite score plays a significant role in the sequencing of playground repairs and refurbishment efforts, safety issues are addressed immediately.

Expanded Investment
The Department's recently increased appropriation for playground improvements (now at $225,000) allows for repairs to existing structures, replacement of a play structures, and installation of accessible playground surfacing at a play facility.

Accessible Surfacing Initiative
The Massachusetts Architectural Access Board (MAAB) no longer considers manufactured wood fiber to be an accessible surface in the Commonwealth. Newton's Playgrounds Manager was part of a group who successfully petitioned the MAAB to certify rubber matting over wood fiber as being an accessible playground surface. The Department recently installed this accessible matting system at the following four school playgrounds: Bowen Elementary, Burr Elementary, Memorial Spaulding Elementary, and former Horace Mann/new NECP. Safe and accessible playgrounds are a high priority for the City and the Parks, Recreation & Culture Department will continue to implement improvements annually. Mayor Fuller recently designated ARPA funds to install accessibility matting systems at four additional playground sites this fiscal year including Williams Elementary, Franklin Right, and Auburndale Cove.
The City Council supported Mayor Fuller's request for funding needed to address play surface issues at Newton Centre Playground. This work is scheduled to occur in Fall 2022.

Current Year Outlook

Expansions:
Wellington (West Newton) – Working with the Friends of Wellington Park on a new play component
Horace Mann (Newtonville) – Install a new playground structure- an ARPA funded project
Newton Centre Playground resurfacing under 2 play structures
Forte Park Playground

5-10 Year Outlook

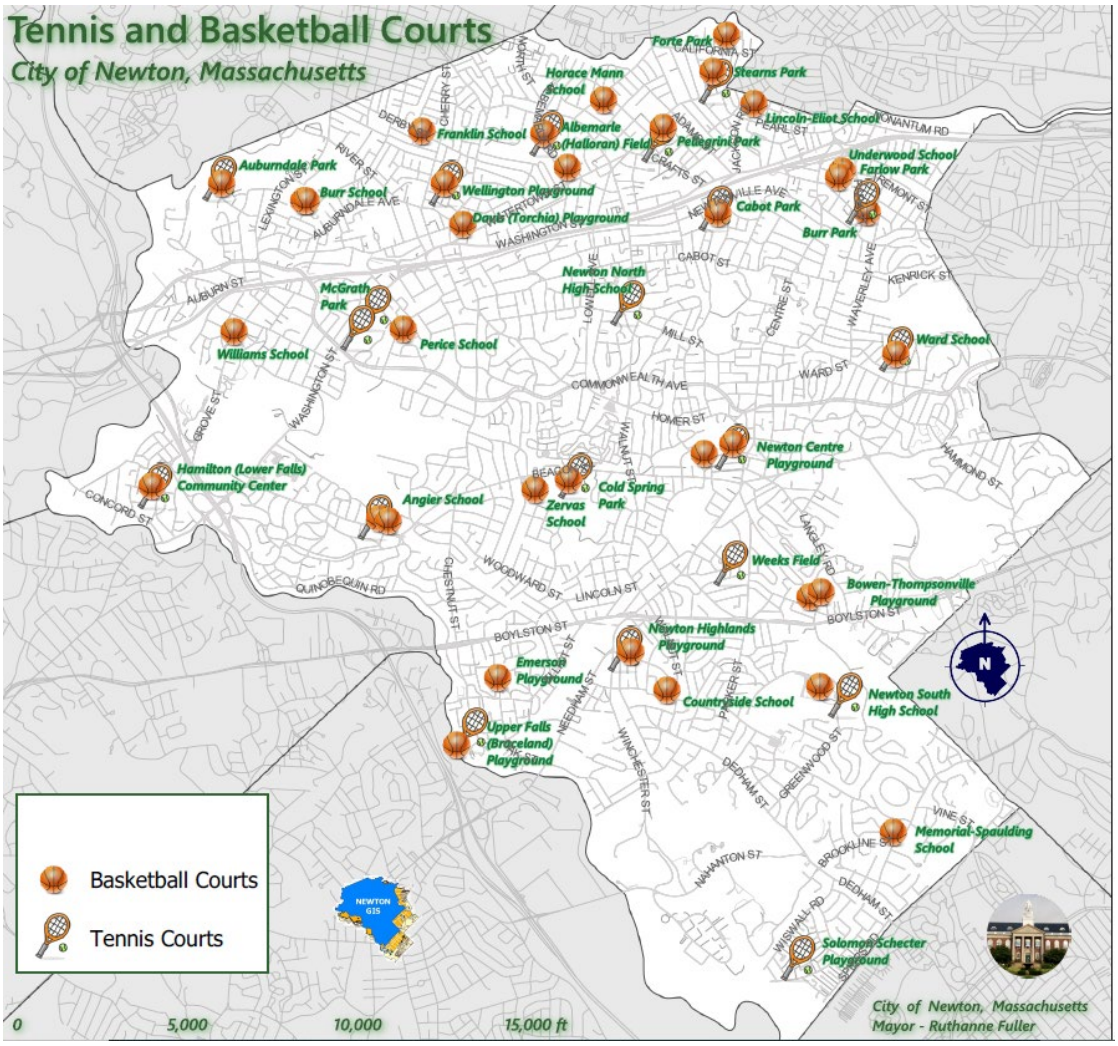
Accessibility improvements
Auburndale the Cove (2 playgrounds)
Williams School
Wellington Playground
Davis Playground
Franklin Right
Farlow Park Playground
Upper Falls Playground

New Builds/additions/renovations
Newton Centre Playground
Richardson Park
Memorial Park
River St. Playground
Weeks Tot Lot
Horace Mann Elem.
Wellington Playground
Upper Falls
Lincoln Eliot Elem.
Crescent St. Playground

TENNIS AND BASKETBALL COURTS

Parks, Recreation & Culture's court maintenance is guided by our Maintenance Division's assessment of Newton's tennis and basketball hard court surfaces. In addition, PRC works collaboratively with the Friends of Newton Tennis (FoNT), a local group dedicated to supporting and promoting racquet sport play in the city. Contractual PRC work on tennis and basketball courts is site specific, with work being determined by facility need. A full tennis court renovation includes reclamation of existing asphalt paving, additional sub-base as required, crack fill and repair, color coating, line striping, and dependent on need may also include new net posts and sleeves. Basketball courts get similar surface treatments along with new backboards and rims. Tennis courts also have perimeter chain-link fencing and gates that are part of our court maintenance program.

Tennis court and basketball courts are located throughout the city. They are an important recreation amenity for residents of all ages, youth through seniors.



Distribution of tennis and basketball courts in the city

This past summer the Department installed new basketball backboards and rims at Cabot Park and Burr Park. We also resurfaced the Newton North High School tennis complex.

Newton North High School Tennis Courts

FY24-28 Outlook

Current and upcoming tennis and basketball court repairs include work from crack sealing to full resurfacing at the following sites: Lower Falls, Stearns Park, Newton Centre Playground, Burr Park, and Cabot park. Other courts may be improved if other work is being done in a park and dependant on what funding may be available.

Lower Falls Tennis Courts: resurfacing in progress

STREET TREE PLAN

To truly be the "Garden City," the City of Newton is committed to our street trees. We know trees provide beauty and make Newton more livable, improve air quality, and help reduce stormwater runoff and heat islands.

The City's tree population was robust, peaking at 42,000 street trees in the late 1970's. The following five decades, the tree population declined as less trees were planted. By 2010 the street tree population had decreased by half to approximately 21,000 trees.

Beginning in FY2011, the City implemented a plan to reverse this trend. Over the past eleven years the Urban Forestry Division has been reconstituted by hiring of new personnel and through increased appropriations. In addition to the City's Tree Warden, the Division employs two dedicated Arborist Inspectors and a fulltime crew of six. Urban Forestry now owns the necessary equipment to perform its work including log loaders, bucket trucks, chippers and other vehicles and equipment. The City has undertaken an aggressive "Street Tree Revitalization Plan" which includes:

- Annual identification and removal of all recognizably dangerous trees
- Stump removal and grinding of all newly removed trees
- Strategic planting and care of young trees

Since 2013 the City has removed over 6,000 dangerous trees, ground nearly 8,000 stumps, pruned 6,000 mature trees, and planted nearly 5,700 new trees as a result of the City's increased attention to tree management. Despite these increased efforts more work is needed, from additional plantings to more pruning and removals.

The proposed 2023 Operating Override includes a $500,000 annual boost to the City's street tree program, representing a dramatic increase in efforts to increase tree planting and improve tree maintenance and survival. Over 6,000 new trees will be planted by 2030 with greatly improved tree pruning and young tree care. The new trees will mitigate large amounts of atmospheric carbon and reduce stormwater runoff. The new pruning efforts will improve mature tree longevity by at least 25% and help lower storm safety hazards. Young and new trees will be stronger and will survive to be long-term environmental and community assets.

The development of the Complete Streets program, in addition to this renewed focus on the street tree population, is a major step forward in combating the net loss of trees in the city. The program has shepherded in a comprehensive, three-pronged approach:

- Complete Streets, Tree Care and Planting
- Urban Forest Restoration and Planting
- Customer Request Tree Planting Program

Complete Streets, Tree Care and Planting

Each year, sidewalks and roads are reconstructed throughout the city. In most cases these locations have City-owned trees. When implementing the Complete Streets approach, the City not only addresses the sidewalk and road needs in an area but also addresses the tree needs. To be proactive, Urban Forestry will work with the Department of Public Works to address the tree removal needs of locations where major reconstruction work is being performed and plant replacement trees.

Urban Forest Restoration, Tree Planting

In 2013 and 2014, the City did a detailed analysis of the streets in the city where the highest percentage of trees had been removed due to storm damage and/or condition. Using this data, a

15-year plan was developed to stabilize the City's street tree population. In 2019 this plan was updated to reflect the most current tree canopy cover and heat island data. As part of this plan, the City's goal to focus planting efforts in areas where tree loss has been high and the canopy is not as full.

High Risk Tree Assessment

As part of a proactive approach to maintaining a healthy tree population, Urban Forestry has instituted an annual survey to evaluate the current condition of the street tree population in Newton. By assessing each tree and ranking them based on industry standards using specific criteria to rate a tree from least to greatest risk, we have been able to determine the highest risk trees in the city that are in need of removal.

In FY2022, 796 trees that posed a risk to person and property were removed. In FY2022, between 750 to 900 trees will be removed that fall within the "high risk" rating based on the assessment.

Stump Removal

In FY2017, the City made a considerable investment in equipment and resources to address a backlog of over 2,500 tree stumps. There is no longer a significant backlog of stumps to be removed. Urban Forestry now removes and grinds all stumps created from tree felling on an annual basis. In FY2022, a total of 545 stumps were addressed.

Tree Planting

With an eye toward creating a sustainable urban forest, the Mayor's Office began funding the planting of trees within the operating budget in FY2015. This was the first budget appropriation for this purpose since the early 1990's. In FY2015, the Urban Forestry Division planted 282 trees. Since FY2015, in cooperation with the Newton Tree Conservancy, the City has worked to steadily increase the number of trees planted annually.

Customer Request Tree Planting Program

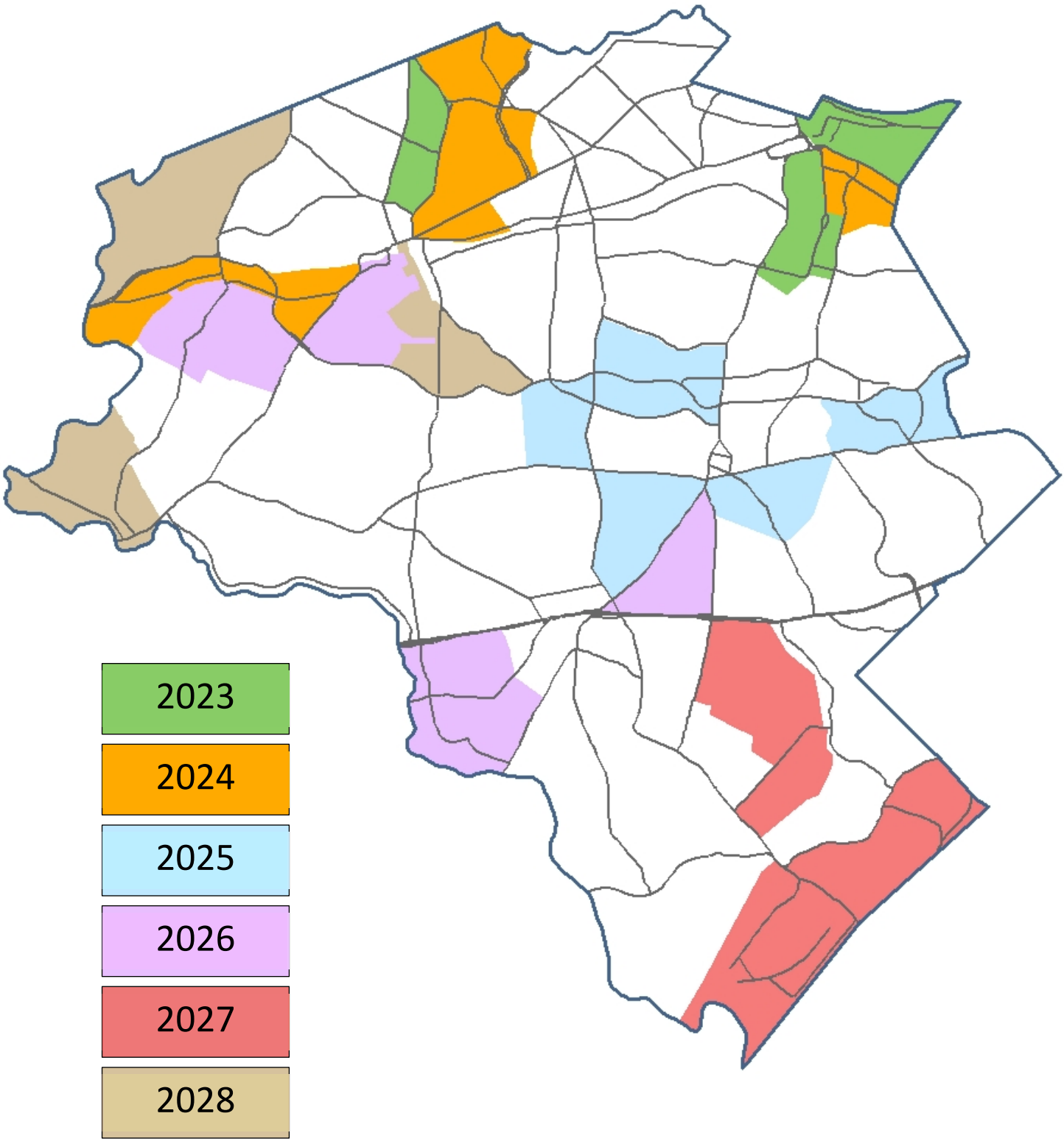
Since 2002, the City has received over 2,300 requests for new trees to be planted. The City intends to annually plant trees that will address requests received. The City will provide these trees in a number of ways. In addition to a portion of the trees being planted and watered directly by the Forestry Division, we also work with volunteers and organizations to encourage residents to "adopt" trees whereby they assume the responsibility of watering the adopted trees weekly.

City Tree Master Plan

Starting FY2022 the City embarked on a new phase in its care of City-owned trees. The Division of Urban Forestry, in collaboration with key stakeholders, started developing a comprehensive document. The document will be a full analysis of the City's street trees and public open space trees, their impacts on our environment, and how the public interacts with them. The plan will create a roadmap for revitalizing the City's tree population.

Newton's Urban Forest Restoration Tree Planting

Over the next five years, the City's goal is to plant 2,500 trees as part of its plan to restore the number of trees growing along the City's streets. In 2013 and 2014, the City did a detailed street by street analysis of the tree canopy in the city to determine where the highest percentage of trees have been removed due to storm damage or condition. The following information depicts the currently intended areas for targeted tree plantings over the next five years based on this analysis.


2023
2024
2025
2026
2027
2028

INFORMATION TECHNOLOGY

When we interview potential candidates for employment with the City of Newton I.T. Department we always tell the applicant that they will never be bored and that no two days are similar. Truly, these are honest statements.

The I.T. Department supports every department in the City; even those departments that have their own internal technical support still occasionally rely on the municipal I.T. department for infrastructure needs, IP addressing assistance, and oversight for concerns varying from security, email, citywide fiber, our financial systems, web-based information, and hybrid Zoom meeting support.

Our network administrators are always busy whether they are offering desktop support, building and repairing PCs, account access administration, even running sound equipment for events. The network admins can frequently be found taking hands on training from our senior level administrators on specific, specialized tasks such as storage area network administration, Active Directory management, switch management, router administration, oversight of our phishing campaigns, remote support and troubleshooting network issues. The majority of our staff have been on site daily since fall of 2021.

Our 2022 projects include oversight and assistance in continuing to polish our current version of Munis for our consolidated financial system while preparing for the October 2022 upgrade to the next version.

With that upgrade we look forward to implementing portals for employee access, new hire applications and vendor management. We expect these opportunities will enhance efficiencies in nearly all departments. We are coordinating with Tyler Technologies and various departments to facilitate and optimize the solutions the Munis software supports as we continue to remove our dependence on paper, ink signatures and paper shuffling.

With the major changes at Newton Police, we have heavily invested our time by working hand in hand with Police staff negotiating the procurement and replacement of 100 PCs and phones as well as rewiring all three Police buildings, replacing all municipal switches, and offering day to day desktop support as needed. We are preparing to assist in the development of the south side substation located on Elliot St.

The replacement of our storage area network has been completed having been financed by previous CIP funds. This system comes nearly 10 years after our original SAN solution that was procured in 2013. While some solutions and their servers have been migrated to the cloud (a web-based secure storage solution) we continue to host tremendous amounts of data for our municipal departments.

We look forward to and are preparing for the Senior Center move to the Brigham House this fall and expect business as usual when it comes to enabling interim solutions. We look forward to participating with the design review team when it comes to the technology presence during the design team meetings for NewCAL.

We continue to work with various private, state and federal security agencies while working with staff to raise awareness of phishing scams to protect ourselves from predators.

We continue to support and assist the Clerk's office evolution into an efficient machine by offering software development, automation opportunities and technical resources.

The new permitting system, NewGov, went live with phase one in the fall of 2021 with the release of Mechanical Permits. In May of 2022, phase two saw Building Permits move from Community Plus into NewGov. Over the course of the summer and fall, a soft, staged release of the many Fire Permits were, and continue to be rolled out in a controlled fashion. In addition to the NewGov software, we have rolled out BlueBeam software to allow PDF markups by staff charged with reviewing these permit submissions.

In 2022 we were approved to partner with CISA to constantly monitor our outward facing network devices. We receive reports anytime a situation arises and are advised as to best steps to take. We receive frequent notices from the DHS as well with up-to-date information regarding hacking and phishing that assist us in adding entries into our firewall filters to protect us. We continue to work with all staff to make them phishing aware, savvy to impersonations via email, and to understand the typical traits of ransomware attempts.

Newton's GIS system touches so many diverse systems; from waste collection to defining districts and tracking fire hydrant status, nearly every department benefits directly from the many layers in our GIS system.

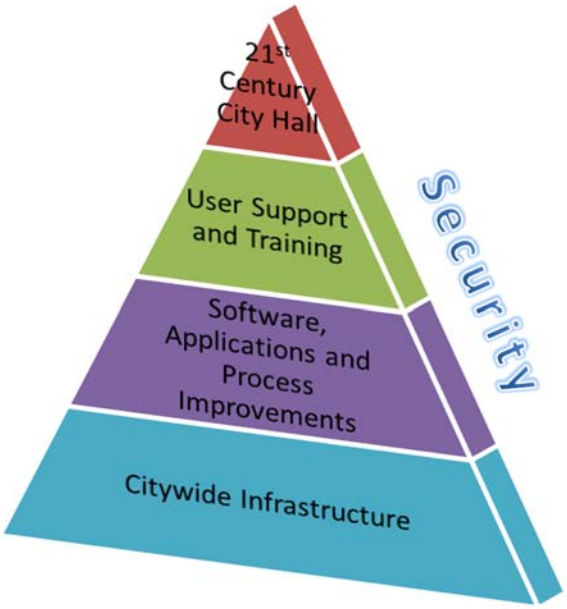
During the past several years, technology has become more local, social and mobile. Transparency and access to data is expected by employees and the public alike. Mobility and working from home are the most requested resource by all departments. The desire for an improved "user experience" will drive the creation of more layered approaches in application design with the emphasis on increasing citizen services and untethering desktop workers by providing wireless devices, thus increasing mobility and improving efficiency for employees and citizens alike.

Positioning the City of Newton for the future requires continuous evaluation of current infrastructure, applications, security, and interfaces, an understanding of the future of technology, and the development of a blueprint for investments in and modernization of the City's technology.

The Information Technology Department conducts regular department needs analysis. These needs are vetted and initiatives, procurements, network enhancements, and modifications to workflow are developed. The IT Department meets monthly with the technology representatives from Police, Fire, Library and the School Department. We all share needs, challenges, and pride in our accomplishments. These interactions are informative and provide great opportunities for the sharing of resources and experience.

Categorizing Citywide Needs - Overview

Five broad categories have been defined to construct a framework for better interpretation and planning. These four categories are Citywide Infrastructure, Software, Applications and Process Improvement, Security, and User Support/Training. These four form the basis of the City's technology.



Citywide Infrastructure

Components: Physical Plant, Fiber, Copper, Redundancy, Data Centers, Wireless, Convergence, and Voice, Data and Video.

Overview: Providing the City with an infrastructure capable of handling current and future technology needs is the foundation upon which all projects, both current and future, relies. It has opened the door to many modern opportunities.

Installation of a modern, redundant fiber network was the primary need. It was paramount to enabling the City to build a mirror-imaged, disaster-prepared system capable of keeping financial systems, public safety, and other critical data available in the event of catastrophe and was also a critical component as the Newton Public Schools move their technology forward. The "loop" design ensures a secondary path to any location and with "spanning tree enabled switches", the expenses for multiple paths can be kept in check. Extra fiber strands allow dedicated connections outside of the data network for special projects, security initiatives, one-time interactive projects as well as live feeds to NewTV.

The municipal VoIP (Voice Over Internet Protocol) replacement program has been a success. Building by building, department by department, the IT Department has removed phones, gateways and other equipment while rewiring several departments and eliminating many Centrex and POTs (Plain Old Telephone Service) lines. By cancelling unused phone lines, the IT Department has reduced the City's monthly Verizon landline phone bill by 25% or $60,000 per year. We have replaced the phone systems in every non-school city building except for the Police

Department while building a failover system with the redundancy to keep all sites up even with a partial failure.

Demand for network bandwidth continues to be a challenge for the Newton Public Schools. Providing a wireless network and internet access with adequate bandwidth to handle this demand is critical; this requires scalability, management, security, and redundancy in front of these wireless endpoints.

While the physical plant is established, all IT entities continue to invest in Storage Area Network (SAN) solutions with virtual servers hosting the applications that access this data. The virtual server framework provides efficiencies such as power conservation (reducing dedicated server footprint), ease of administration, and downtime reduction. SAN technology allows for similar efficiencies managing disk storage devices as a separate network subsystem rather than being physically connected to each server. This architecture allows for quickly assigning additional storage space from the SAN to individual physical or virtual servers and managing SAN disk space efficiently from the central management console. The continued investment in virtual servers and SAN technology will save the city time as well as money.

Consolidating data centers frees up time, environmental and maintenance costs, valuable office space, and centralizes equipment and security. After the initial investment of time and money to consolidate sites, the ongoing savings will easily outweigh the consolidation costs.

Software, Applications, and Process Improvements

Components: *21st Century City Hall, Financial Systems, Email and Calendaring System, Asset Management, Work-Order Processing, Integrated Solutions, Increased Operational Efficiencies, Better Decision Making, Coordinated Resources, Interdepartmental Collaboration, Increased Communication with the Public*

Overview: The City of Newton currently has several software applications that address the needs of many departments:

- NewGov - Permitting, licensing and code enforcement system
- Munis – Our complete financial system: Payroll, personnel, General Ledger, payables & procurement; receivables system
- GIS - Geographic Information Systems
- PeopleGIS - the keystone application including asset, fleet, time and storm management all rolled into one with direct API connections to other applications such as GIS
- QED - Public Safety system
- ViaWorks - Document Indexing
- Laserfiche - Document Scanning and management
- Office 365 / Exchange in the Cloud - The City email and calendar system as well as secondary data storage
- Website – Granicus' Vision solution.
- Avigilon – In-building video system

The Financial System

The 24-month endeavor to combine and update our financial system into Munis is complete. There will always be more opportunities to enhance the experience, improve workflows, automate processes, eliminate forms and enable portals, but we are running a single, consolidated system for the first time in decades. In the fall we will be running a minor update to Munis and we anticipate another update 18 to 24 months later.

We look forward to many new modules and processes to be rolled out in the next year including:

- Employee Portal
- Job Acquisition Portal
- Contract Tracking
- Vendor Portal
- Bid management
- Cashiering module
- Bank Account reconciliation
- Direct interface to Police details system through general billing module

Purchase of a New City-Wide Permitting System

The NewGov permitting system has seen two phases implemented over the past year, and we continue to progress. We have eliminated the Community Plus system. We are now looking at systems that existed outside of the digital environment. We have overhauled the majority of equipment that relies on NewGov. We have implemented more tablets, and rolled out licensing for BlueBeam plan review software

The Website

In December of 2020 the City upgraded from Civica to the Granicus content management system. We saw marked improvements everywhere but admit the migration process presented many challenges.

On-Line Payments

The City partners with “City Hall Systems,” a third-party vendor to handle credit card transactions from the various City systems. This conversion is being accomplished one application at a time and involves a lot of research, meetings and testing to avoid false starts and mistakes. Some projects may take several months to implement while others progress swiftly.

With the advent of the new NewGov permitting system we look forward to another payment tool named Stripe that will allow online payments for permit applications.

Scanning and Indexing

There are many departments looking for a scanning, indexing and document disposal solution. Historically these conversations only involved one or two departments. At this time, we see a significant need for a scanning solution in Law, Treasury, Public Works, Health, ISD, Planning &

Development, and Purchasing. Benefits of a full solution include ease of access to files using a search interface, destruction of documents no longer required, gaining back much needed space in areas such as the basement vaults, the Law Department hallway, the former offices of Consumer Affairs and the Cousens Fund.

Security

Components: *Disaster Recovery, Alarms, Monitoring, Video-Based Security, Policy, Consistent Solutions across Departments.*

Overview: There are many facets to security that must be addressed, including the following:

- Protection from attacks via the Internet – our switches, access points, wired and wireless, firewalls and routers need to be up to date; operating systems must remain current with patches and fixes.
- Protection from users – education and awareness will help prevent employees from bringing and using unsecured devices in the workplace.
- Protection from disgruntled or departing staff – an early warning system is used covering all manner of employee departure, initializing standard protective steps to ensure the safety of data and equipment. We are standardizing onboarding and terminations.
- Protection during remote access – Every department has key employees who remotely access systems. Even during catastrophic weather events that leave the City shutdown to all but essential personnel, there are still many people doing City business as usual.
- Protection from specialized attacks such as phishing and other user-specific or position-specific attacks

The protection of the City's data and networks begins on the inside. The City is continually reviewing and upgrading security systems and practices to address new concerns that were historically non-issues. With the installation of new technology and solutions, the City is remaining vigilant in the fight to eliminate potential exploitations to protect the City, its employees and its residents.

Video monitoring done with sensitivity to privacy of schools, public buildings, public spaces, weather forecasts, and traffic to ensure the safety of students and the community are a high priority. Responsibility varies by location and audience. Solutions that work across departments will provide efficiency, enabling the consolidation of back-end equipment to conserve server needs, licensing, and maintenance and support costs.

Additionally, the City will need to standardize storage of historic video, develop consistent means of retrieval, and ensure compliance with State and Federal laws while protecting the rights of all citizens and employees.

User Support & Training

Components: Training for IT Staff and End Users, Enhanced User Awareness of Technological Opportunities, Opportunities for Remote Access

Overview: In-house training for technical staff is critical in preserving the City's IT investments. Rapid changes in technology and solutions require frequent, in-depth training and education on new or updated systems and solutions.

Keeping the IT staff knowledgeable in current applications is only one piece of the challenge; training users and documentation of processes must be done. Time and again, functions and processes that are performed infrequently are often the source of mistakes. The best training practices include repetition. Frequent training opportunities are also critical to keeping all staff current and prepared.

Ensuring all employees are aware and informed of changes in policy and how it affects them involves a structure and delivery mechanism from IT that ensures everyone remains knowledgeable.

Training delivery methods have evolved as well. New methods of training such as pre-recorded classes available from the internet/intranet, sophisticated FAQ web pages, and user groups can supplement the teacher-pupil system.

FY2024 – FY2028 Information Technology Needs Analysis by Department

Clerk of the Council, City Council, City Clerk, Elections

Clerk of the Council FY2024 – FY2028 Needs: New staff support, docket tracking system, remote and hybrid meeting enhancements, additional chamber enhancements.

Clerk of the Council: IT continues to support the City Council Clerks in many ways and continues to assist in the exploration of new opportunities to help automate tricky systems. Our ongoing in-house development of a docket tracking system continues to progress and impress beta testers. We are assisting in reviewing automated software to facilitate recodification. We are working with the Clerk and Council to enhance the Council Chambers with better sound and lighting without detriment to the rich historical architecture of the room.

City Clerk FY2024 – FY2028 Needs: Business Licensing and End to End Online Application and Payment

City Clerk: The business database continues to run as a stand-alone application that does not interact with any other system. It requires the participation and research of several other departments and thus should be a shared system that is viewable by all required parties. We expect it to move into the NewGov solution. The business database will benefit from a solid administrative interface, an online payment solution, and full interaction with the Economic Development director in the Planning Department.

Elections FY2024 – FY2028 Needs: Continued election night support**,** early voting application, anticipation of a new voting system solution.

Elections: The historic responsibilities of the department include voter registration and election administration. The biggest change in voting is the early voting law which allows registered voters to cast their vote on an absentee ballot, automatically updates the voter records, and synchronizes

with the Commonwealth VRIS database. Assisting in the selection of a poll workers database to track the many people who work at our 32 precincts during the election season.

We in IT continue to assist and support the means for secure elections. Election night automation and online results reporting is as advanced as any other city or town in Massachusetts. Live intermediate results are posted beginning minutes after the polls close and final, unofficial results are consistently posted within hours of poll closings on election night.

Census Records FY2024 – FY2028 Needs: Improved Census Collection

Census Records: The historic responsibilities of the department include managing the census database.

While waiting for a state sponsored online secure solution for census collection, our in-house Web Developer has written and continues to refine an application that allows respondents to the census to accomplish this formerly manual task online. The savings from manual entry to the volume of mail and to the cost of postage are all positive benefits realized through technology.

Executive Office

Executive FY2024 – FY2028 Needs: Continued support for a new administration and furthering the use of technology in new and meaningful ways

Executive: The Information Technology Department assisted Mayor Fuller and her team in an efficient transition not only with physical technology but with access to data, training, modifications to existing systems, and a greater presence through social media. We have begun writing small apps to reduce paperwork and enhance efficient workflow for tasks such as noise ordinance waiver request forms. We enjoy using the website and audio/visual systems in new and meaningful solutions to enhance communication.

Comptroller's Office & Newton Retirement System

Comptroller FY2024 – FY2028 Needs: Continuing to assist in workflow enhancements using Munis to reduce paper and time to complete repetitive tasks.

Comptroller/Financial Reporting: From employee onboarding to contracts, with secure workflows, there are many opportunities available to make city business cost effective and efficient. We are working with the comptroller to acquire DebtBook software.

Newton Retirement System FY2024 – FY2028 Needs: Ongoing support, as needed.

Newton Retirement System: Now using PTG instead of our financial system, the IT department provides PC support, recommendations on new equipment, assistance and access to the City's network.

Purchasing

Purchasing FY2024 – FY2028 Needs: Enhanced office automation using the full power of the new financial system, Munis, including contract tracking and workflow approvals.

Purchasing: The requisition process in Munis is a wonderful example of a paperless approval system that reduces the need for several ink signatures and transporting folders of semi-complete documents from department to department. We expect the same solution to be implemented for bidding, contract tracking and further enhanced with a vendor portal that allows vendors to submit their paperwork, bid submissions as well as download purchase orders as needed.

The Purchasing Department has begun a scanning project for their older bids and contracts. This is being done in house, a little at a time.

Assessing

Assessing FY2024 – FY2028 Needs: Continue to look opportunities to automate and technically enhance the experience in the field.

Assessing: The Assessing Department uses the Vision database to manage the valuation of property. Data is imported from Vision into Community Plus once a year. We are anticipating opportunities for better collaboration between Vision and our new permitting software. The Vision system is now on a virtual server.

The department maintains a robust set of web pages that allow residents, businesses and realtors to query property information online. Internal systems are slated for migration to our storage area network. Several of the Assessing department specific systems have already been virtualized on our storage area network.

Treasury

Treasury FY2024 – FY2028 Needs: Assistance in continued enhancement and automation of Munis services; continue to offer support in rolling out new Munis modules. We look forward to assisting the Treasurer in all technology initiatives and continuing to make sure department equipment is up to date and performing as expected.

Treasury: The Treasury Department is outfitted quite well with equipment and software. The department's increased agility utilizing the new phone system and Active Directory makes it easier for employees to retrieve necessary services from any workstation within the department while maintaining a very high level of security.

After the 2019.1 Munis upgrade, we expect to work with the Treasury Department to roll out Tyler Cashiering in the Treasury office as well as other departments that collect funds at the counter. This direct interface to Munis eliminates manual steps and helps ensure that transactions are exact and correct. We expect that using the cashier module will allow us to upload these check images to the bank for deposit without requiring scanning them a second time.

We will also assist the Treasurer in the implementation of Munis' Bank Account Reconciliation Manager. This would enable us to phase out and eliminate our dependence on QuickBooks. Lastly, we intend to revisit the Police Details system and tie it into the General Billing system in Munis.

Law

Law FY2024 – FY2028 Needs: More digitization and Optical Character Recognition (OCR). Enhance search services. Continued support using Time Matters, a case management software system.

Law: We encourage and support the Law Department's commitment to Time Matters. We recommend further training by the consultant to allow Law to take this software to the next level.

By nature, the Law Department is a paper intensive department. Enhanced digital search capabilities and access to information are perhaps the most important technology needs of this department. The biggest new tool for a resource for the Law Department would be to scan, OCR and index the information on paper in many four drawer file cabinets. The summer of 2017 saw a test case with interns scanning and automatically "OCR-ing" the binders of opinions into searchable data. We learned that, although easy to do, it is extremely labor intensive.

Human Resources

Human Resources FY2024 – FY2028 Needs: The new financial system and new modules have made for many exciting opportunities in efficiency. As with other departments with new oversight, we go out of our way to give them the tools, training and technological resources to hit the ground running and enable their success.

Human Resources Revising and rewriting Standard Operating Procedures, committing to the minimization of paper, and improving applicant and employee portals will create significant opportunities to modernize HR.

Information Technology

Information Technology FY2024 – FY2028 Needs: The department will need to maintain a full complement of staff and sufficient funding to enable the realization of the technology vision.

Information Technology: We are pleased to enter our fourth year with KnowBe4, an organization founded specifically to raise awareness of phishing and scams. We successfully implemented an inventory client by a company named Belmanage that allows our inventory to update itself with everything from make, model, manufacturer to hard drive size, memory, installed applications and revisions. Between project management and assisting departments in wisely choosing replacement software that fits with the city's requirements moving forward, the IT department's goal is to deliver 21st century technology for employees and residents alike.

Planning & Development

Planning FY2024 – FY2028 Needs: Mobility support, NewGov equipment review and training

Planning & Development: This large, mobile department spans three offices and maintains varied working hours that involve two very different audiences; from daytime employees to employee relations and document administration to night meetings and presentations to elected officials and the public, Planning has many disparate needs. We hope that untethering more employees from desktop PCs and raising awareness of all the resources already available will assist the department in efficiently providing the best solutions using the best data.

We also see a need to better understand the needs of the Clerk and the Economic Development director to better manage the Business License database, also known as DBA, a possible interface into current Personal Property information and the ability for the director to maintain extraneous information associated to these businesses while maintaining billable databases.

Public Buildings

Public Buildings FY2024 – FY2028 Needs: Assistance in the quest for mobile support, review badge and access systems and paper reduction. Enable OneDrive for easier file sharing.

Public Buildings: The department is well-outfitted with equipment and communications capacities. With the advent of Munis, it is expected that paper will be replaced effectively and efficiently. OneDrive appears to be the logical solution for many of the mobile and bandwidth challenges presented to us. It is already in house and available.

Financial Services

Financial Services FY2024 – FY2028 Needs: Continue support for the department. As the department name implies, Munis is the center of nearly all functions.

Financial Services: While the IT department oversees user administration, hardware support, and works alongside the various financially centered departments, the interactions for Payroll, Personnel, Benefits, etc. are led by Financial Services and championed and supported by IT.

Newton Police Department

Police Department FY2024 – FY2028 Needs: Support Police network and resources as needed. Replace phones, switches, cabling, wireless access points, and wiring closets. Assist in large scale PC and phone deployment. Create a phone bank for officers without desks.

Police: With the change in personnel at NPD during the spring of 2022 we began to assist in the inventory and evaluation of all hardware, software, and solutions. Working with outside contractors as well as Police staff, consolidations, rebuilds, rewiring and deployment of a new PC and VoIP phone on every desk in the Police Department as our goals for this fiscal year. We have rescued the Police website and continue to review and repair many concerns with industry standard decisions. We anticipate rolling out a Police substation on the south side of the city in the next few months.

Newton Fire Department

Fire Department FY2024 – FY2028 Needs: Support as needed for the Emergency Operations Center (EOC) and applications such as the anticipated shared permitting and inspections system. Support for radio systems on city fiber networks with redundancy and Simple Network Management Protocol (SNMP) notification of issues.

Fire: IT continues to assist and remains on call for EOC operations at Fire Headquarters. With assistance from IT, much equipment has been purchased, networks have been built, and processes have been defined. The Fire Department is now deeply involved while becoming super users of the new permitting system. IT assists as needed. We hope to outfit 10 Captains who currently have no PC over the next 3 months. Fire is a proponent of Microsoft solutions and enjoys

relying on technology to make them self-sufficient. Using Power BI to build a dashboard of critical information in this fiscal year is a very noteworthy goal. Fire also looks forward to branching out it's grasp of GIS technologies. Fire looks forward to taking the Dispatch Center's Alarm application to the next level with new functionality.

Inspectional Services

Inspectional Services FY2024 – FY2028 Needs: Implement NewGov, our all-encompassing permitting application, elimination of the paper glut. Increase digitization and OCR. Enhanced search services.

Inspectional Services: All staff in ISD now have tablets with an enhanced Verizon connection that withstands the weak spots that are experienced in some areas of the city. These tablets give inspectors anywhere access to the NewGov, email and the ability to take pictures.

ISD is the project leader of the new permitting system. IT continues to export data, clean it up and assist on the imports. We additionally are supporting forms and workflow while creating new permit types in NewGov.

Department of Public Works

Public Works FY2024 – FY2028 Needs: IT continues to assist as needed in the enhancement of PeopleGIS, the City's Asset Management program that incorporates all streets, sidewalks, water, sewer, and storm water infrastructure. We also support the DPW expansion of mobile devices to increase efficiency and productivity using cloud-based apps.

Department of Public Works: From GIS support to database maintenance and WebQA/311 administration, IT works very closely with Public Works. Responsibility for phones as well as data and maintaining high speed access regardless of location are our standards for all departments.

The city fuel system has been in dire need of replacement for quite a while. IT expects to assist in evaluating quotes and writing a bid for a replacement system. All gas-powered city vehicles rely on this software.

Through our GIS system, IT will assist the environmental division in solving the challenges of yard and waste management via reliable GPS and software to better develop logical collection routes. Our salt spreaders have issues with the interface which inhibits our best response during a storm.

The Hansen system has been replaced by PeopleGIS however, it continues to be queried for occasional data. It is the opinion of all involved that exporting the data into some significant reports and importable information into either PeopleGIS or GIS is extremely desirable.

Public works and Engineering each have vaults with very large quantities of old documents that would benefit from scanning, indexing and disposal.

IT will review the computer inventory for DPW and make recommendations to keep the department in optimal shape.

As more applications move to the cloud, our bandwidth needs continue to expand. We have been coasting at our current bandwidth solution for a few years and it is apparent that NewGov may be the key new piece of software that compels us to increase our connection.

Health & Human Services

Health & Human Services FY2024 – FY2028 Needs: Migrating applications into the new permitting system, enhancing work from home to accommodate confidentiality expectations.

Health & Human Services: The Health Department continues to expand their use of social media and welcomes new technology. H&HS had been a heavy user of Community Plus for permitting and licensing as well as annual and recurring inspections and liquor-related events. They are now fully on board with NewGov and we are about to convert their WinWam application (specific, incredibly detailed food establishment inspection software) to a virtual server.

We are committed to assisting the Social Workers to be accommodated any time and any place to offer their support to all who need it.

Senior Services

Senior Services FY2024 – FY2028 Needs: Assistance and support leading up to and during the transition

Senior Services: With the NewCAL project moving forward, services will be dispersed to Brigham House, Hyde Community Center and the Newton Free Library. IT will provide phones and internet as well as PCs and assistance at all locations. IT fully expects to participate early in the design phase of the new location to assist in assuring the technical expectations and requirements are built into the project. We have been supporting ServTracker, the Senior Center's core application, for nearly two decades. It is generally agreed that a more user-friendly solution must be available; we will assist in the research and demo of possible alternatives.

Veterans' Services

Veterans' Services FY2024 – FY2028 Needs: Continue to support needs and anticipate future projects.

Veterans' Services: IT supports and contributes to all Veterans' initiatives as requested.

Newton Free Library

Newton Free Library FY2024 – FY2028 Needs: Assist in the support and upgrade of the library wired and wireless networks. Assist with challenges currently experienced with their storage area network.

Newton Free Library: The Newton Free Library has made great strides in recent years solidifying their network infrastructure, improving the wireless network available for public use and reducing the number of servers in use by virtualization. The IT team has accomplished great things working hand in hand with the library technical staff. We pride ourselves in our relationship with other municipal IT entities.

Library staff of two support nearly 200 PCs with a work week that varies between 6 and 7 days depending on the season. Library also loans laptops and mifi units which also need support. They spend the majority of their time performing desktop support and are unable to focus attention on bigger picture items. Evolving needs are going to require additional wiring in the future. The library

wifi network is separate from the city and has some issues supporting Apple devices. Library does not subscribe to any type of copier lease program and struggles with very old equipment. They are also unsure how to address the pay per print devices as there are very few manufacturers that build these units. File servers are at critical levels; we propose creating a share on our SAN to remove this burden and will work with Library IT to find a solution that works for all. Druker auditorium needs an overhaul comparable to what we have done in the Council Chambers and second floor conference rooms.

Parks & Recreation

Parks & Recreation FY2024 – FY2028 Needs: Automation of employee acquisition, implementation of TimeClocks Plus software for part time staff.

Parks & Recreation: The IT Department continues to support the Parks Department's Dudley Road facility, as well as Crystal Lake, and Gath Pool by enabling the department to provide and manage the many programs, camps, and lessons as effectively and efficiently as possible. The department is very excited to enable the Munis Employee Self Service portal as well as the online job applicant module including the ability for candidates to upload multiple forms and certifications in a secure environment. Parks is using a new reservation and inspection program for fields, gyms, etc. and sees no compelling reason to move this to Open Gov. However, they are very interested in moving the online tree database somewhere permanent.

Historic Newton

Historic Newton FY2024 – FY2028 Needs: Ongoing, quality support as needed.

Jackson Homestead: Since the renovation, the History Museum has had numerous tech upgrades and is currently in very good shape for their data and access requirements. We expect to build them a hybrid solution with equipment surplus from the NewTV / City Hall conference room project. We will continue to monitor and discuss potential future projects.

PUBLIC SAFETY EMERGENCY COMMUNICATIONS

Introduction

To keep Newton safe in today's ever-changing environment requires a reliable, robust, redundant emergency communications system. In 2016, the City established an Emergency Communications Team (internally referred to as the "Purple Team") consisting of members of the Police Department, Fire Department, Information Technology Department, Public Buildings Department, and the Executive Department to ensure that the City's Emergency Communication System meets the needs of the residents, visitors, emergency personnel, and first responders in the City of Newton.

The City's Emergency Communication System is comprised of many components:

- Public Safety Radio System Infrastructure
- Emergency Dispatch Communications
- Emergency Operations Center
- In-Building Communication Capabilities
- Fixed Building Radio Systems
- Radios and Mobile Data Equipment

Radio System Infrastructure

The Radio System Infrastructure is the backbone of the City's Public Safety Emergency Communications System. Components include 9 radio sites, 12 Transmitters, 21 receivers, 2 dispatch centers, an emergency operations center, 300 portable radios, and 80 mobile radios in public safety and other critical City vehicles.

The system is currently non-trunked, UHF in the 470 & 480 Mhz range.

Simulcast Radio System Upgrade

In 2017, the need to expand radio coverage for both Police and Fire was identified as a priority for both departments. Working together with the assistance of a consultant, we have completed the specification for a bid. We will move to a simulcast system which will consist of several transmitters where in the old system there was only one. These transmitters are synchronized across the city to appear as one to a listening radio. Having these transmitters geographically separated will allow for significant

Newton Fire Department

Our Mission

"…To maintain a department of fire personnel trained in all aspects of fire suppression, rescue, salvage, fire prevention, hazardous materials and emergency medical response, enabling us to serve and protect, without prejudice or favoritism, the lives and property of the residents of Newton from both natural and man-made disasters."

Newton Police Department

Mission Statement

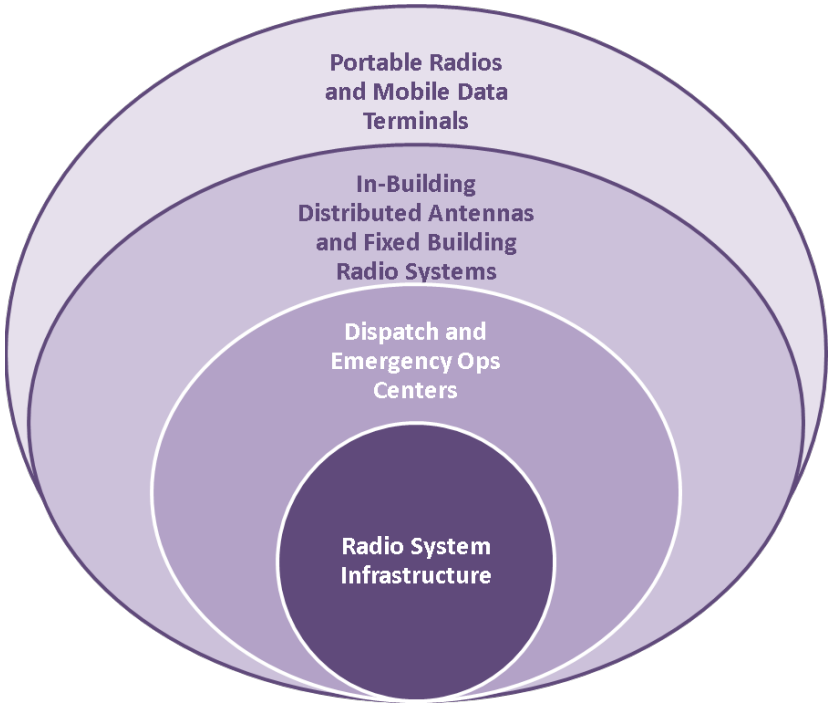
The mission of the Newton Police Department is to work in partnership with our community. We commit to protect and preserve the rights and dignity of every human life, to maintain peace, order, and a secure environment for the community and their property. We will continue to strive for excellence in the delivery of our police services, and to enhance the quality of life of every citizen.

improvements not only to on street coverage but also inside buildings. In 2022, Newton put out to bid the specifications for the system. A vendor was chosen and over the next year the system is expected to be constructed and online. The fiber-based IP system is also complete and online, ready for the simulcast radio system construction to take place.

Combined Emergency Dispatch Center

The City of Newton Combined Emergency Dispatch Center is the City's Public Safety Answering Center (PSAP) taking calls for Police, Fire, and Medical emergencies. The Dispatch Center completed a full system upgrade to a Motorola MCC7500 computer-based radio console system in 2017. The City's Dispatch Center receives 27,000 emergency 911 calls each year and is responsible for dispatching appropriate police, fire, or medical personnel in response to all calls.

The calls range from simple requests to life and death situations. All Dispatchers are certified 911/EMD, utilizing computer based medical protocol, 911 geo-location of incoming calls, and a computerized Dispatch system. In 2018, the 911 system was upgraded to the latest General Dynamics platform.



Emergency Operations Center

The Emergency Operations Center (EOC) serves as a place to coordinate on-scene operations during low-frequency and high-risk incidents. The EOC mobilizes people and equipment to handle incidents that are outside the ability of any single agency to resolve. The purpose of the EOC is to ensure that departmental response capabilities are maintained, and authoritative information is disseminated to the general public. Capturing important incident-related information at an EOC provides officials with the necessary real-time data to set strategic directions; establish priorities; and allocate resources. This in turn allows field commanders to focus on the incident objectives

while the EOC serves as the central hub and an interconnected message center for the city-wide infrastructure (Police, Fire, DPW, Schools and City Hall) as well as the larger State Multi-agency Coordination System (MACS). If a major incident occurs, all components of MACS are activated including MEMA and other State and federal agencies.

In July 2017, the City completed construction of the new Emergency Operations Center which is located at Fire Station 3 and Fire Headquarters in Newton Center. The EOC features a large video wall with the ability to show several real-time data feeds, audio from the radio systems for police and fire, as well as real time video as the city moves to consolidate camera feeds. Since the completion of the EOC, there have been several activations. Between the several winter storms, the Boston Marathon, as well as countless hours of meetings and trainings, the center has met all our expectations and more. Other city departments have also turned to the EOC as a room they can use for teaching their staff.

Along with the EOC, the city has upgraded the backup dispatch center. This center features two dispatch positions. In addition, the fire station alerting system which alerts fire fighters to emergencies is has been upgraded to run over fiber optics. This will increase the reliability of these systems and ensure that the city has reliable communications in the event of an emergency.

In-Building Communication Capabilities

Many buildings are built with construction materials that do not allow radio signals to penetrate very well between walls and through floors. This causes significant problems for police and fire first responders. In-Building Antenna Systems are designed to accommodate the unique building construction and floor plans and provide solutions that effectively distribute the radio signals in, out and within the building through an interconnected system of antennae placed on each floor.

For each public school, the City of Newton Fire Department is completing a needs assessment to determine if the installation of a Bi-Directional Amplifier (BDA), Radio Site, or other equipment is needed to enhance coverage for the buildings. For new construction within the City of Newton a building owner may be required to purchase, install, and maintain a BDA for public safety. This is determined by Newton Fire Prevention with support from the Fire Technical Services & Wires divisions. Regardless of who installs the equipment, it is required to support both Newton Fire & Police Channels (four channels in total). In the case of the schools, an additional school emergency channel is added to the system. All radio channels currently in use by the City are UHF. The systems installed meet FCC, NFPA, and State Building Code specifications and are separate from any systems which enhance cellular telephone or other wireless services within buildings.

Fixed Location Radio Sites

Fixed Location Radio sites contain equipment which can receive or transmit signals to first responders. These sites are usually at high points around the City or at strategic locations to provide the best possible coverage. There are three major challenges that must be addressed as part of this process:

- Obsolescence of equipment and network connections,

- Transition to fiber connections, and
- Adding or expanding the backup power at each fixed location.

The City has completed a fiber network connecting all radio tower locations, replacing the existing copper lines which resulted in annual savings in excess of $20,000/year in leased line costs.

In 2017, the City completed the replacement of the main radio transmission antennas and cable at the Waban Reservoir site. The new facility houses all primary location radio equipment for Police, Fire, and the School Department. This building is climate controlled with backup power to insure the highest level of service while we operate our wide area radio system

In 2018, the City took on major upgrades at three radio sites. This includes replacing antennas, transmission line, and preparing for a new simulcast radio system. At one site, a city water tank, we constructed a small building to house new equipment for Police and Fire. In 2019 the City completed the major antenna, cable, and grounding work at the three designated locations. As part of this effort Verizon Wireless allowed the City to occupy space in one of their facilities, including access to a backup generator. Now, at all critical radio sites Newton has both battery backup and generator backup for each location, and, most have had antenna and cable upgrades completed. Newton Fire also completed the installation of antenna, cable, and grounding at one of our Fire Stations to support an additional receiver site planned to be online with the installation of Simulcast.

Mobile and Portable Radios

In FY19, both the Police and Fire department received money to purchase new portable radios. Between the two departments, we have replaced 265 radios. The old Fire Department portable radios have been setup as a radio cache at one of our Fire Stations. These are setup on a wall with spare batteries, charges, and speaker microphones. They can be distributed by Fire Department personnel in the event of a major emergency requiring additional communications. This cache has been used to support events around the city including Boston Marathon & Boston College Football games.

Mobile Data Equipment

Each Police cruiser is equipped with a computer that provides dispatch information, Criminal History, Registry of Motor Vehicles checks, GPS, and report writing capabilities. The intranet also provides the police officer in the cruiser daily vehicle inspection compliance, missing person's pictures, daily information, floor plans of buildings, and other useful information.

The Fire Department in 2018 completed an upgrade to iPad's. Each fire truck is equipped with an application which receives information directly from dispatch, provides driving directions, and interactive updates as calls progress. In addition, the iPad's have been expanded to allow truck equipment checks to be done, preplan information to be collected, and provide maps of key city buildings to be easily accessed at any time. Fire Department daytime staff, such as fire prevention, also have this application on their City issued phones for better situational awareness.

Police & Fire Dispatch Software – Georedundant Backups

In FY2020, Newton utilized its Emergency Management Preparedness grant to purchase a new backup server for our Computer Aided Dispatch system. This system arrived in March of 2020, and is online and running as a georedundant backup. The backup system is connected at our Fire Station 3 and support the backup dispatch center in the case of a failure at the Police Dispatch center via the city fiber optic network.

School Emergency Radio Project

Funded by the school department in August 2016, Fire took the lead on working with a vendor to install a two-way radio in every school in the city. The purpose of each radio is to provide the school with another means to report emergency's which present an immediate threat to life, consequently allowing for a faster response from Public Safety. In September 2017, Fire, Police, and 911 Dispatch visited each school and commissioned the system as well as provided valuable information and training to the principals and office staff on the use of the system.

Fire Alarm System Upgrades

The construction of Fire Station 3 and the rehabilitation of Fire Headquarters required the move of all fire alarm-signaling equipment. This equipment is used to tie city buildings, commercial buildings, and residential complexes with a direct to dispatch notification of fire alarm activation. The core of this system is in Newton Centre and branches out, not only through Newton but, to surrounding communities through mutual-aid circuits. This system runs separately from street power, this means that in the event of a power or major communications failure, the system can still receive and transmit alarms. The system was upgraded to new monitoring units at both the Police and Fire stations and now runs over fiber optics between the Fire and Police Headquarters buildings. While the technology the system runs on goes back to the mid-1800's, it is still the fastest way to notify first responders of a pending emergency.

Security

As with all Emergency Preparedness Plans, Emergency Communications Plans must by their nature remain secure. Therefore, although this section of the Capital Improvement Plan will identify components of the Emergency Communications System as well as their value and purpose for the City, technical details will not be provided to ensure that the safety of the City's emergency personnel and first responders is not compromised.

WATER SYSTEM

The City of Newton has been identifying, evaluating, and improving 319 miles of Newton's water distribution system for many years. Beginning in 2000, the City took full advantage of the Massachusetts Water Resources Authority's water loan program to focus on cleaning and lining old (mostly pre-1900) water pipelines to improve water quality. The City then developed a strategic investment plan for our water system in 2013. The first few years of the plan focused on replacing water pipelines to improve fire flows.

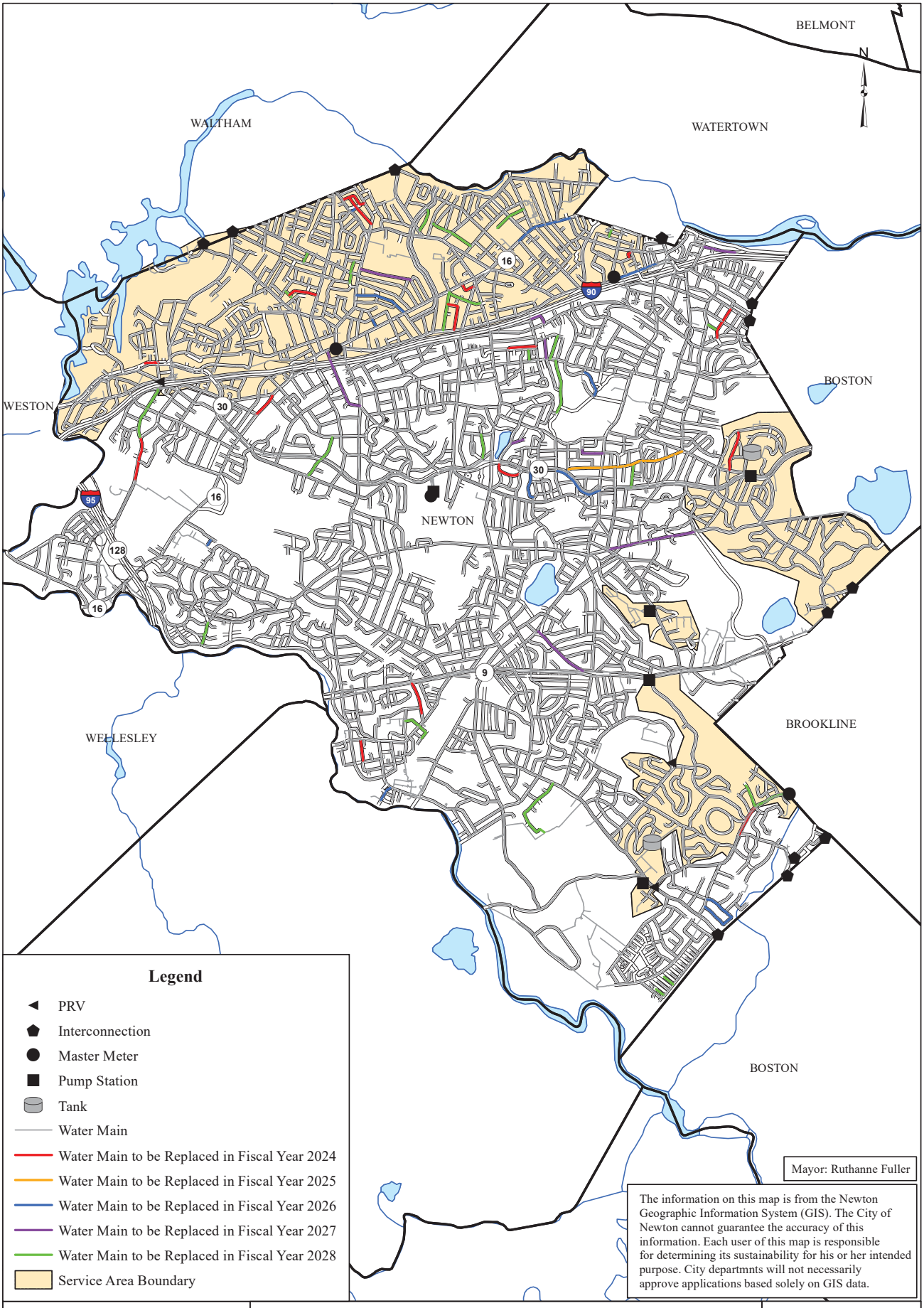
After completing a hydraulic analysis in 2016, the City began aggressively targeting leak-prone pipelines from the World War II Era to reduce the "unaccounted-for water" levels from leakage in the system. The City recognized the need to increase the renewal of the aging water distribution pipe network, much of which dates to the 1870's and developed a comprehensive capital improvement program. The City is currently continuing with its multi-year investment plan, spending in the $4.5 - $5.0 million a year range to replace and/or repair its water distribution system.

In conjunction with the hydraulic analysis performed in 2016, the city is developed a Capital Efficiency Plan in 2021. The plan combined the hydraulic analysis with asset management and critical infrastructure to provide an updated Capital Improvement Plan (CIP). This approach will allow the City to fund the most important capital improvements with the greatest positive impact on the City's water customers.

In FY 2023 the Waban Hill Reservoir Improvements project will replace original valves and piping along with rehabilitation of the central core to extend the service life of this reservoir that was originally put in service in the 1890's.

In FY 2023, Public Works expects to rehabilitate 15,000 LF of watermain at various locations throughout the city. In addition, the City will be starting the process of replacing residential and commercial water meters that were installed in 2010.The replacement project includes a new automated meter reader system for residential and commercial properties that includes a customer portal that will allow customers to monitor their water consumption and be notified when there is abnormal usage, such as a leak.

In FY 2023, Public Works will begin an inventory of all water service line materials to be complete by October 2024. Once the inventory is complete, Public Works will develop plans to ensure the City of Newton is in compliance with the US Environmental Protection Agency's revised Lead and Copper Rule.



TATA & HOWARD

Date: September 2022

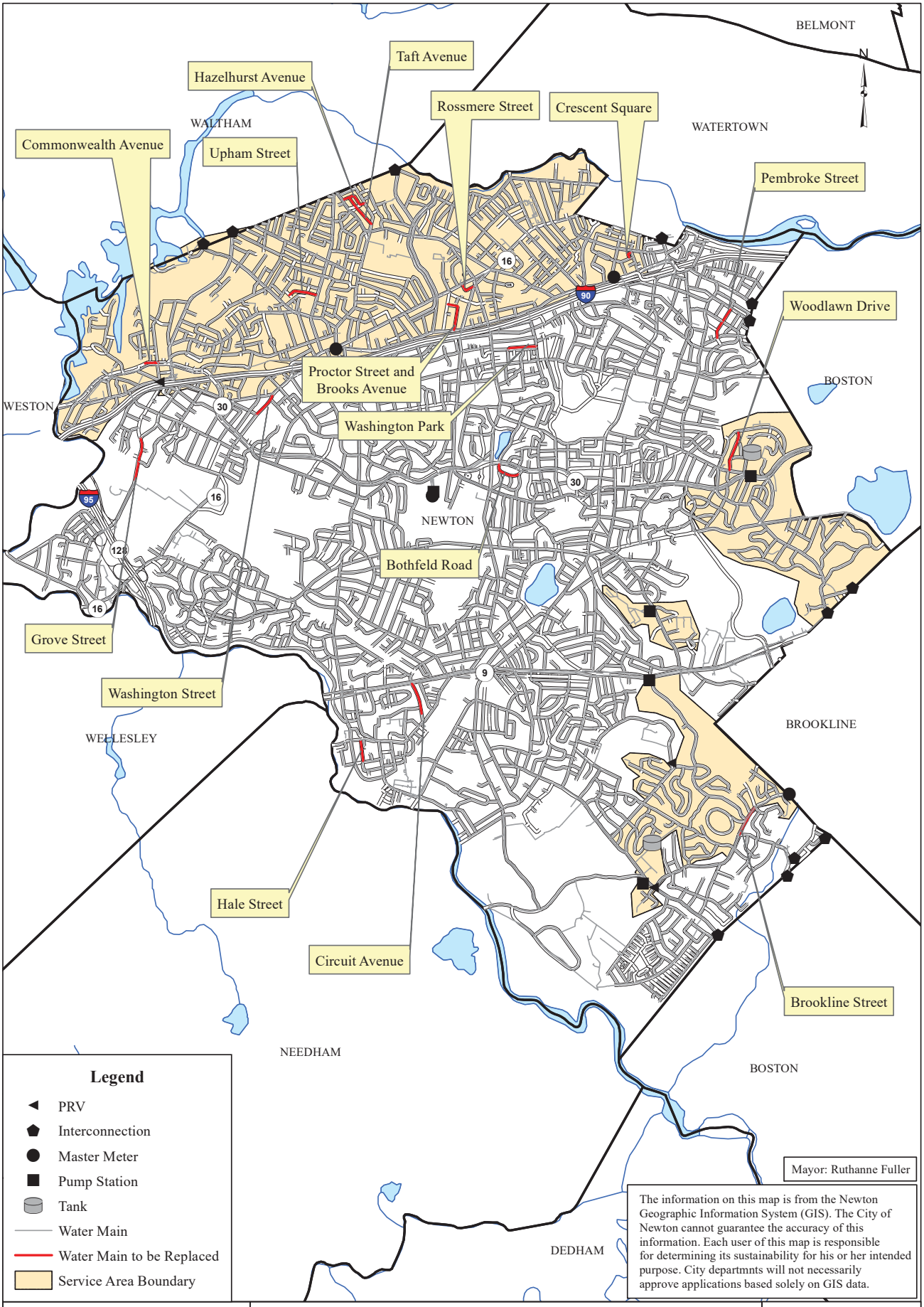
Approximate Scale: 1" = 3,000'

Fiscal Years 2024-2028

Capital Improvement Plan
Newton, Massachusetts

Figure No.

6



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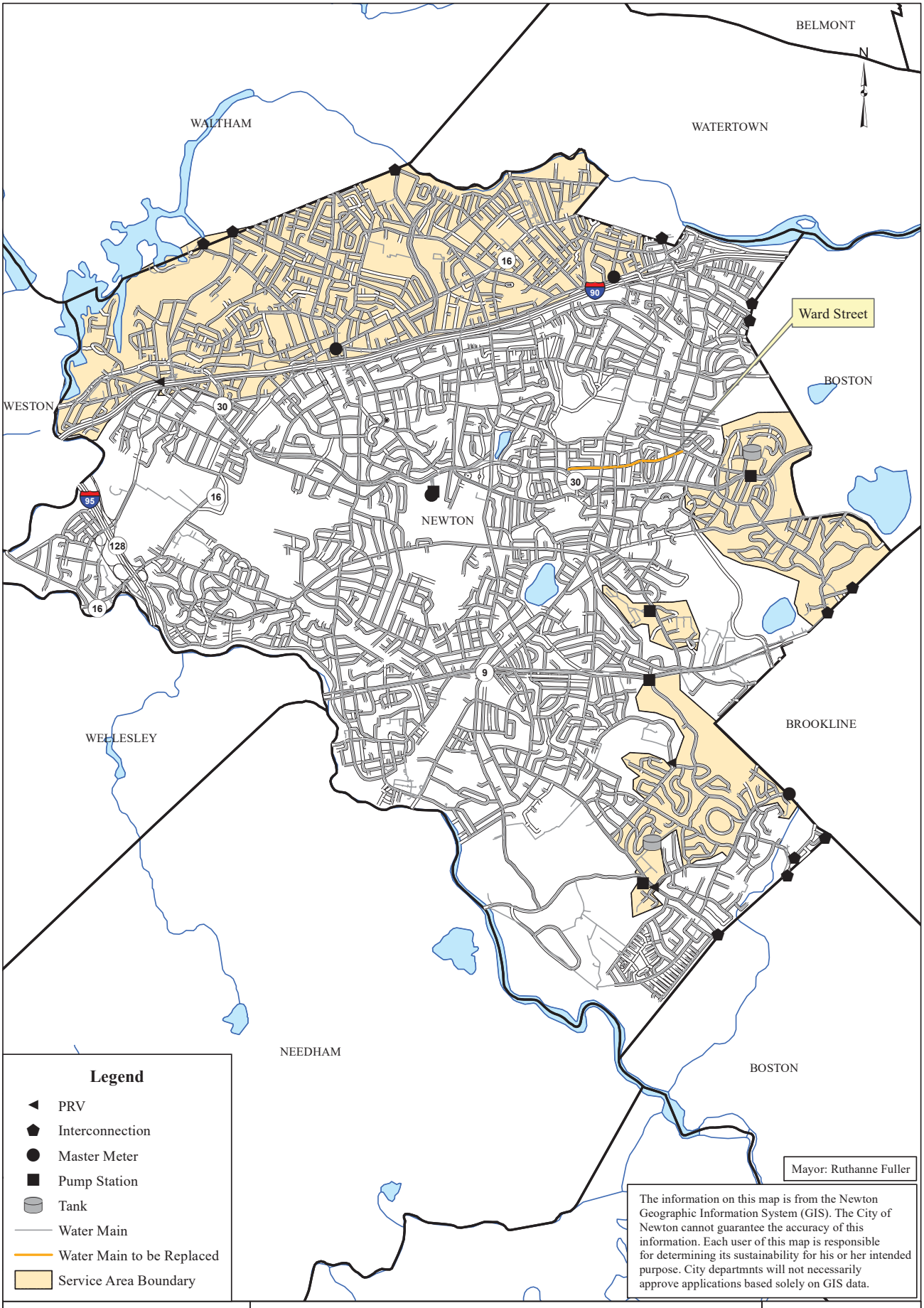
Fiscal Year 2024

Capital Improvement Plan
Newton, Massachusetts

Figure No.

1



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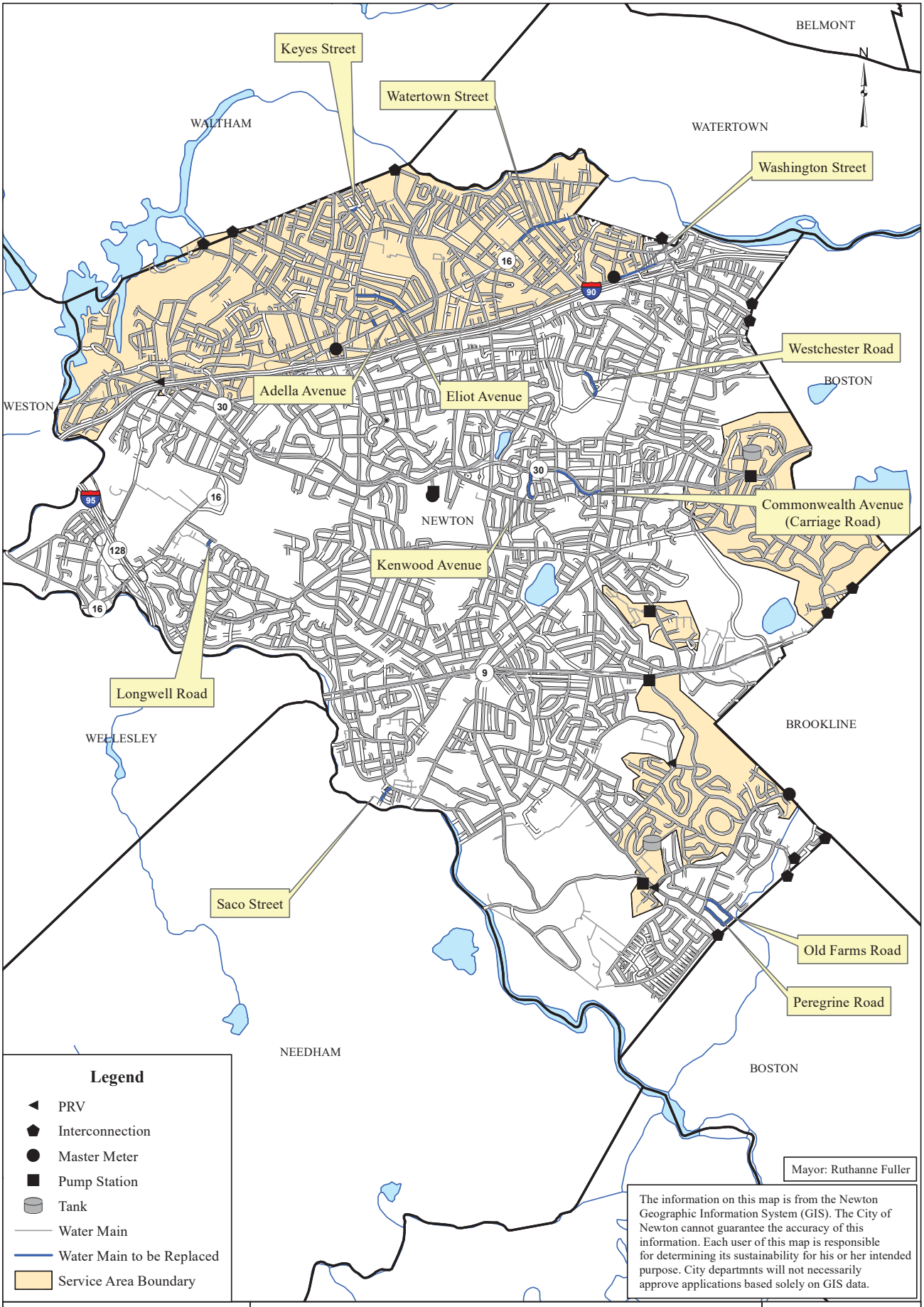
Fiscal Year 2025

Capital Improvement Plan
Newton, Massachusetts

Figure No.

2



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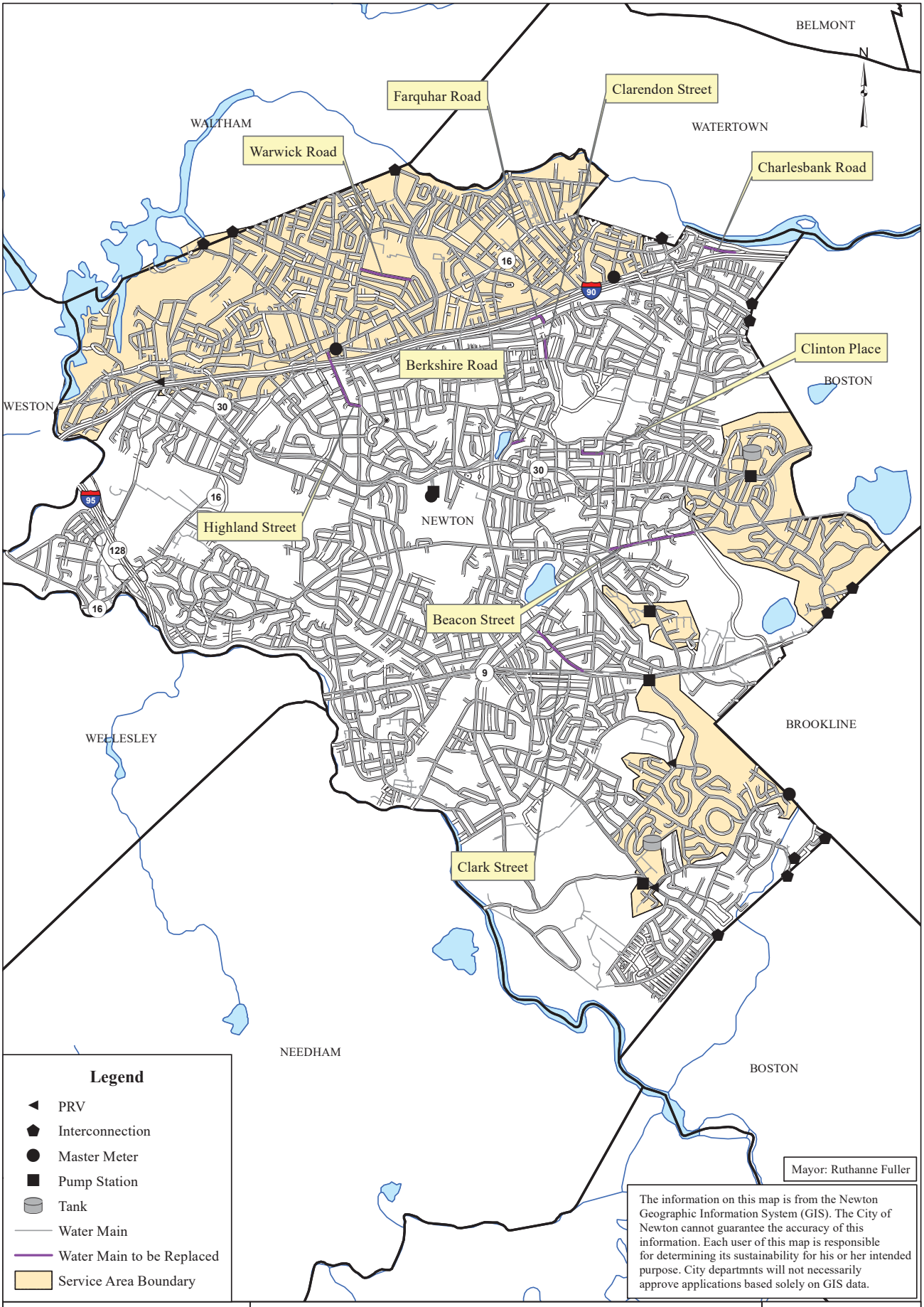
Fiscal Year 2026

Capital Improvement Plan
Newton, Massachusetts

Figure No.

3



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Date: September 2022

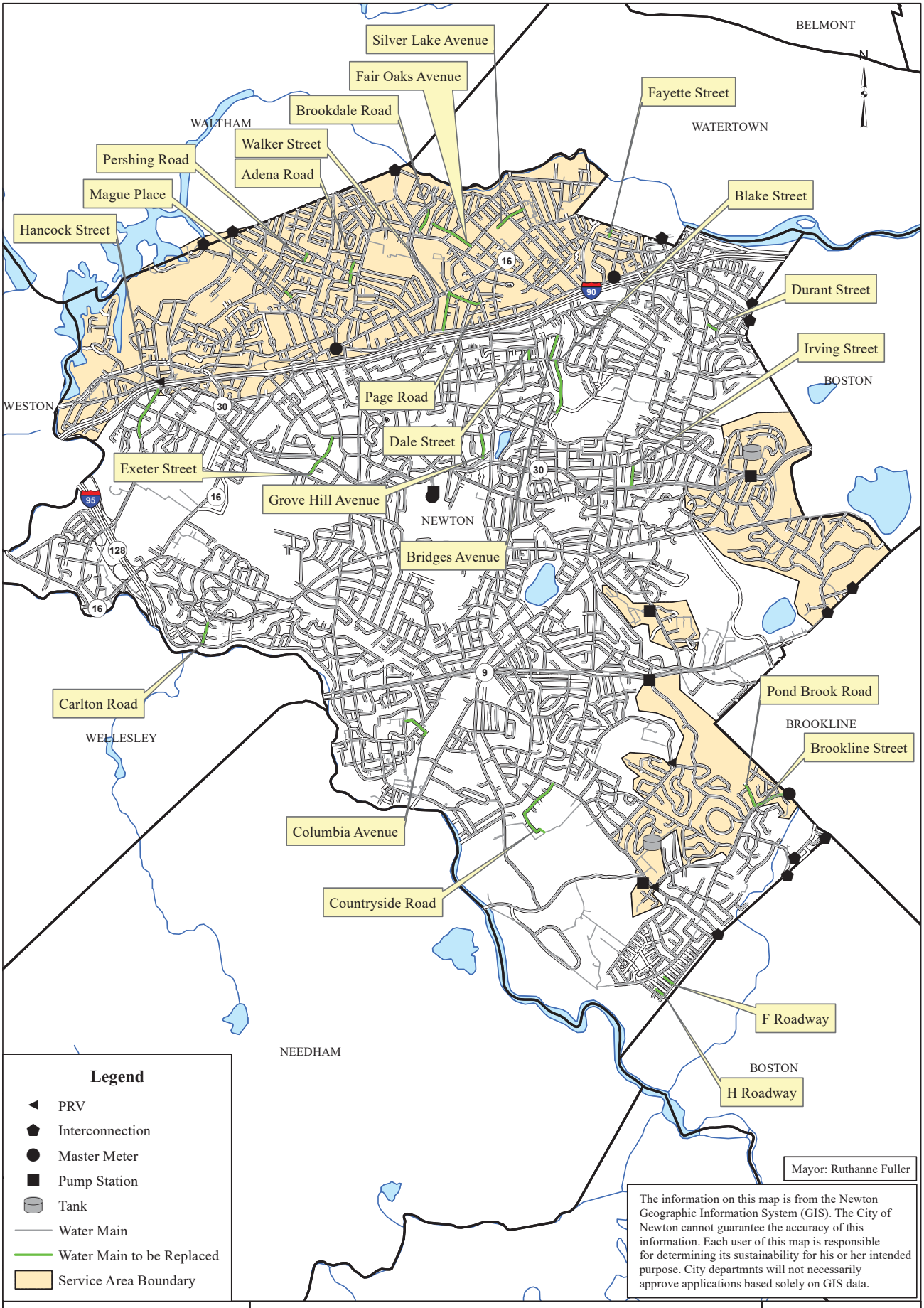
Approximate Scale: 1" = 3,000'

Fiscal Year 2027

Capital Improvement Plan
Newton, Massachusetts

Figure No.

4



TATA & HOWARD

Date: September 2022

Approximate Scale: 1" = 3,000'

Fiscal Year 2028

Capital Improvement Plan
Newton, Massachusetts

Figure No.

5

Water
5 YEAR CIP, FY2024-FY2028

Priority	Street Name	BUDGET DISTRIBUTION				
		FY2024	FY2025	FY2026	FY2027	FY2028
1	Upham Street (Cherry St to Mague Place)	$ 313,000	$ -	$ -	$ -	$ -
2	Hazelhurst (Waltham St to Harding St)	$ 313,000	$ -	$ -	$ -	$ -
3	Hale St (Elliot St to Pennsylvania Ave)	$ 250,000	$ -	$ -	$ -	$ -
4	Bothfeld Rd (Ellison Rd to Manemet Rd)	$ 250,000	$ -	$ -	$ -	$ -
5	Circuit Ave (Boylston St to End of 6")	$ 344,000	$ -	$ -	$ -	$ -
6	Brookline St (Pond Brook Rd to Vine St)	$ 344,000	$ -	$ -	$ -	$ -
7	Grove St (290 Grove St to Hancock St)	$ 438,000	$ -	$ -	$ -	$ -
8	Washington Pk (North side)	$ 469,000	$ -	$ -	$ -	$ -
9	Proctor St/Brooks Ave (Walker st to Washington St)	$ 375,000	$ -	$ -	$ -	$ -
10	Rossmere St (lowel Ave to Watertown St)	$ 188,000	$ -	$ -	$ -	$ -
11	Crescent Square (Thorton St to Waban Ave)	$ 94,000	$ -	$ -	$ -	$ -
12	Taft Ave (Hazelhurst Ave to Waltham St)	$ 375,000	$ -	$ -	$ -	$ -
13	Pembroke St (Tremont St to Nonantum St)	$ 375,000	$ -	$ -	$ -	$ -
14	Comm Ave Carriage Rd (Melrose St to End of 6")	$ 125,000	$ -	$ -	$ -	$ -
15	Washington St (Auburn St to Greenough St)	$ 330,000	$ -	$ -	$ -	$ -
16	Woodlawn Dr (Ward St to Woodchester Dr)	$ 438,000	$ -	$ -	$ -	$ -
17	Ward St (Wavererly St to Comm Ave)	$ -	$ 3,200,000	$ -	$ -	$ -
18	Longwell Road (Longfellow Rd to Dead End)	$ -	$ -	$ 94,000	$ -	$ -
19	Keyes Street (Waltham St to Taft Ave)	$ -	$ -	$ 63,000	$ -	$ -
20	Saco Street (Oak St to Dead End)	$ -	$ -	$ 188,000	$ -	$ -
21	Adella Avenue (Orchard Ave to Watertown St)	$ -	$ -	$ 281,000	$ -	$ -
22	Comm Ave Carriage Road (Centre St to Cedar St)	$ -	$ -	$ 594,000	$ -	$ -

Priority	Street Name	FY2024	FY2025	FY2026	FY2027	FY2028
23	Eliot Avenue (Watertown St to Waltham St)	$ -	$ -	$ 594,000	$ -	$ -
24	Peregrine Road (Oak Hill St to Oak Hill St)	$ -	$ -	$ 719,000	$ -	$ -
25	Watertown Street (Pearl St to Hawthorne St)	$ -	$ -	$ 625,000	$ -	$ -
26	Westchester Road (Langdon St to Colby Rd)	$ -	$ -	$ 313,000	$ -	$ -
27	Kenwood Avenue (Commonwealth Ave to Ashton Ave)	$ -	$ -	$ 313,000	$ -	$ -
28	Washington St (Jewett St to Peabody St)	$ -	$ -	$ 469,000	$ -	$ -
29	Beacon Street (Langley Rd to Hammond Pond Pkwy)	$ -	$ -	$ -	$ 1,238,000	$ -
30	Clark Street (Parker St to Centre St)	$ -	$ -	$ -	$ 625,000	$ -
31	Berkshire Road (Bullough Pk to Dead End)	$ -	$ -	$ -	$ 219,000	$ -
32	Clarendon Street (Norwood Ave to Cabot St)	$ -	$ -	$ -	$ 219,000	$ -
33	Farquhar Rd (Harvard St to Newtonville Ave)	$ -	$ -	$ -	$ 219,000	$ -
34	Clinton Place (Centre St to End of 6")	$ -	$ -	$ -	$ 250,000	$ -
35	Charlesbank Road (Nonantum Rd to St. James St)	$ -	$ -	$ -	$ 375,000	$ -
36	Highland Street (Washington St to Chestnut St)	$ -	$ -	$ -	$ 781,000	$ -
37	Warwick Road (Kensington St to Waltham St)	$ -	$ -	$ -	$ 563,000	$ -
38	Carleton Road (Quinobequin Rd to Ridge Rd)	$ -	$ -	$ -	$ -	$ 250,000
39	Irving Street (Commonwealth Av to Ward St)	$ -	$ -	$ -	$ -	$ 250,000
40	Silver Lake Avenue (Bridge St to Dead End)	$ -	$ -	$ -	$ -	$ 375,000
41	Adena Road (North Gate Park to Llewellyn Rd)	$ -	$ -	$ -	$ -	$ 250,000
42	Mague Place (Mague Av to Upham St)	$ -	$ -	$ -	$ -	$ 125,000
43	Durant Street (Waverly Av to Pembroke St)	$ -	$ -	$ -	$ -	$ 125,000
44	Fayette Street (Gardner St to Boyd St)	$ -	$ -	$ -	$ -	$ 125,000
45	Brookdale St (Albemarle St to North St)	$ -	$ -	$ -	$ -	$ 250,000
46	F Roadway (Spiers Rd to Dead End)	$ -	$ -	$ -	$ -	$ 125,000
47	H Roadway (Spiers Rd to Dead End)	$ -	$ -	$ -	$ -	$ 125,000

Priority	Street Name	FY2024	FY2025	FY2026	FY2027	FY2028
48	Brookline St. (Brookline Town Line to Pond Brook Rd)	$ -	$ -	$ -	$ -	$ 375,000
49	Dale Street (Washington Pk to Cabot St)	$ -	$ -	$ -	$ -	$ 125,000
50	Countryside Road (Dedham St to End of 8")	$ -	$ -	$ -	$ -	$ 375,000
51	Page Road (Walnut St to Watertown St)	$ -	$ -	$ -	$ -	$ 406,000
52	Fair Oaks Avenue (Fesseden St to Linwood Av)	$ -	$ -	$ -	$ -	$ 406,000
53	Bridges Avenue (Norwood Av to Cabot St)	$ -	$ -	$ -	$ -	$ 281,000
54	Pond Brook Road (Brookline St to Dead End)	$ -	$ -	$ -	$ -	$ 281,000
55	Grove Hill Avenue (Prospect Av to Lakeview Av)	$ -	$ -	$ -	$ -	$ 281,000
56	Exeter Street (Fuller St to Berkley St)	$ -	$ -	$ -	$ -	$ 531,000
57	Walker Street (Washington St to Watertown St)	$ -	$ -	$ -	$ -	$ 438,000
58	Columbia Avenue (Cottage St to Dead End)	$ -	$ -	$ -	$ -	$ 438,000
59	Hancock Street (Central St to Grove St)	$ -	$ -	$ -	$ -	$ 594,000
60	Blake Street (Cabot St to End of 8")	$ -	$ -	$ -	$ -	$ 594,000
61	Pershing Road (Derby St to Adams Av)	$ -	$ -	$ -	$ -	$ 156,000
		$ 5,021,000	**$ 3,200,000**	**$ 4,253,000**	**$ 4,489,000**	**$ 7,281,000**

SEWER SYSTEM

In 2013 the City developed a multi-year phased program to systematically address the 300 miles of sewer mains and related manhole structures citywide. This plan began with those areas known to have significant inflow and infiltration problems, as well as those areas that were experiencing flooding or sewer surcharging problems. The work in each project area is divided into 3 phases: Inspection and Assessment, including heavy cleaning; design of repair work; and construction, including post-construction flow assessment. Each project area generally is completed over a two-year period.

Prior to the development of the City's comprehensive strategic plan for the improvement of its sewer infrastructure, it was estimated that more than 60% of the sewerage and wastewater that was sent to the Massachusetts Water Resource Authority (MWRA) for processing by the City of Newton was the result of Inflow (stormwater from direct illegal connections) and Infiltration (groundwater that gets into the sewer pipes through cracks and other imperfections). This infiltration and inflow ("I&I") was costing the City in excess of $5 million per year. Furthermore, back-ups in the sewer lines due to insufficient capacity with the additional groundwater/stormwater resulted in sewer surcharges from some street and park manholes.

To date the city has inspected 278 miles of sewer main, lined 99 miles of sewer main to reduce I&I, inspected 8,852 manholes then rehabilitated 3,947 manholes and performed 228 excavations to replace failed sewer main. This has resulted in the elimination of an estimated 1,960,408 gallons/year of Inflow and Infiltration of groundwater into the city's sewer collection system that would need to be transported and treated before being released into Boston Harbor.

In FY2023, Public Works expects to complete Post Construction Flow Evaluation in Project Area 7 (Newton Upper Falls, Newton Highlands, Newton Centre, and Chestnut Hill), Continue Construction in Project Area 8 (Newton Upper Falls, Newton Highlands, Thompsonville, and Oak Hill), Complete Design in Project Area 9 (Newton Upper Falls, Waban, and Oak Hill).

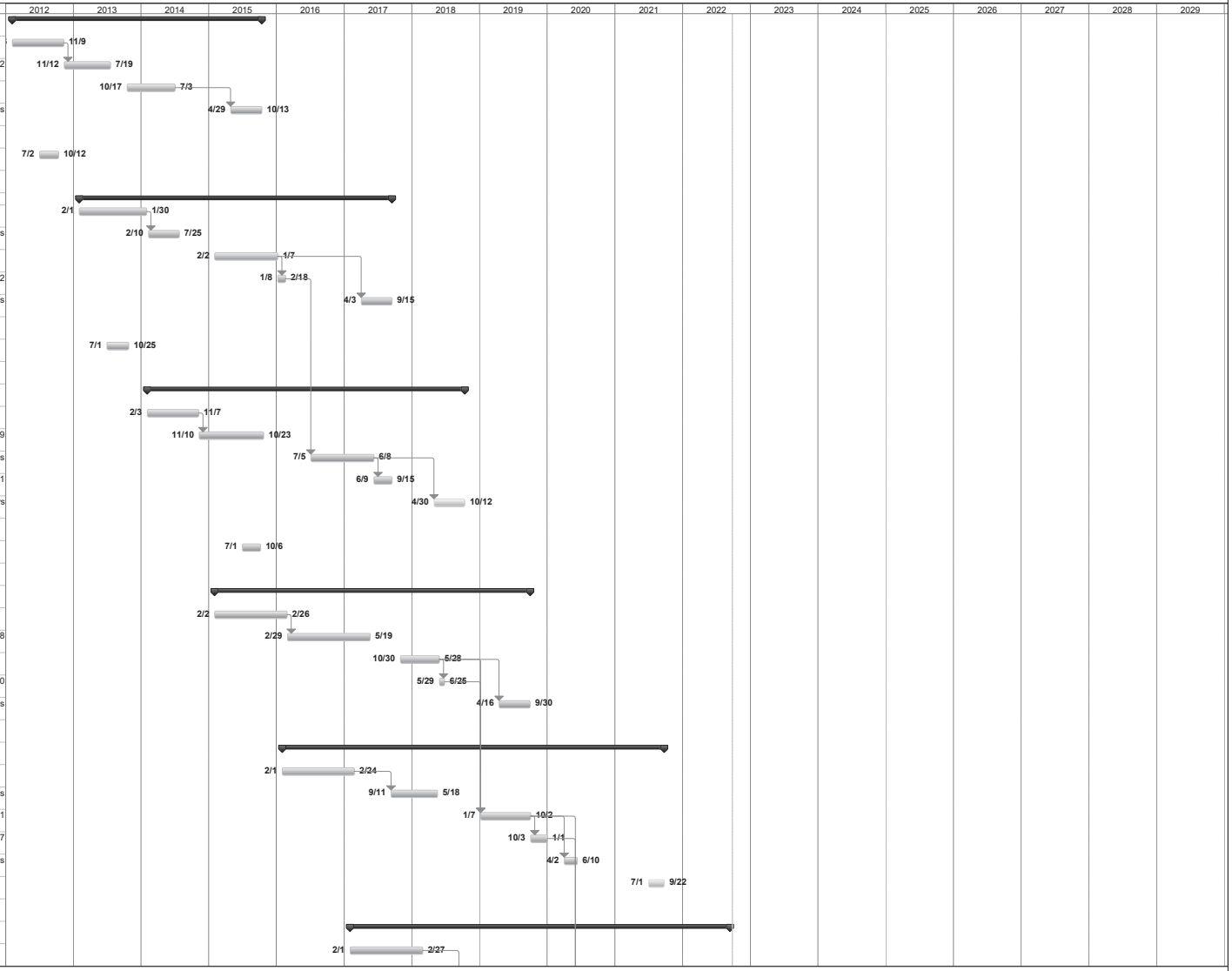
The City has 11 sewer pump stations within its wastewater collection system, in February 2020 the City performed a Pump Station Condition and Performance Assessment Evaluation to determine a Capital Improvement Plan (CIP) over the next 10 years. In FY23 the city is expected to upgrade the Heating and Ventilation in all the pump stations along with replacing the gate valves at the Quinobequin Road and the Elliot Street pump stations, and total replacement of the Oldham Road Pump Station.

Sewer
5 Year CIP, FY2023-FY2027

Priority	Project	Area	BUDGET DISTRIBUTION Prior Year Funding	FY2024	FY2025	FY2026	FY2027	FY2028
1	Sewer Inflow/Infiltration Project - Area 8 - Upper Falls, Highlands, Thomsponville & Oak Hill	Part of 10 year program to remove excess inflow and infiltration into sewer system. Currently in year 5 of City-Wide Sewer Initiative.	$ 2,140,000	$ -	$ -	$ -	$ -	$ -
2	Sewer Inflow/Infiltration Project - Area 9 - Waban, Upper Falls & Oak Hill	Part of 10 year program to remove excess inflow and infiltration into sewer system. Will be in year 6 of City-Wide Sewer Initiative.	$ 1,095,023	$ 3,104,977	$ -	$ -	$ -	$ -
3	Sewer Inflow/Infiltration Project - Area 10 - Waban, Newton Highlands, Newton Centre, & Newton Corner	Part of 10 year program to remove excess inflow and infiltration into sewer system. Will be in Year 7 of City-Wide Sewer Initiative.	$ 813,308	$ 300,000	$ -	$ 3,775,000	$ -	$ -
4	Sewer Inflow/Infiltration Project - Area 11 - Chestnut Hill, Newton Corner, Oak Hill, & Thompsonville	Part of 10 year program to remove excess inflow and infiltration into sewer system. Will be in year 8 of City-Wide Sewer Initiative.	$ 774,000	$ -	$ -	$ -	$ 1,613,000	$ 1,613,000
5	Pump Station Assessment Upgrades	Develop 10 year CIP for three water booster and ten wastewater pump stations throughout the city	$ 3,800,000	$ 1,200,000	$ 1,500,000	$ 1,500,000	$ 2,000,000	$ 1,800,000
6	Sewer Inflow/Infiltration	Investigation, Design & Construction of sewer laterals & manholes along interceptor sewers within Cheesecake and Laundry Brook Drainage Basins	$ -	$ -	$ -	$ -	$ 2,000,000	$ -
			$ 8,622,331	**$ 4,604,977**	**$ 1,500,000**	**$ 5,275,000**	**$ 5,613,000**	**$ 3,413,000**

NEWTON, MA
SEWER SYSTEM CAPITAL IMPROVEMENT PROJECTS SCHEDULE
Updated September 26, 2022

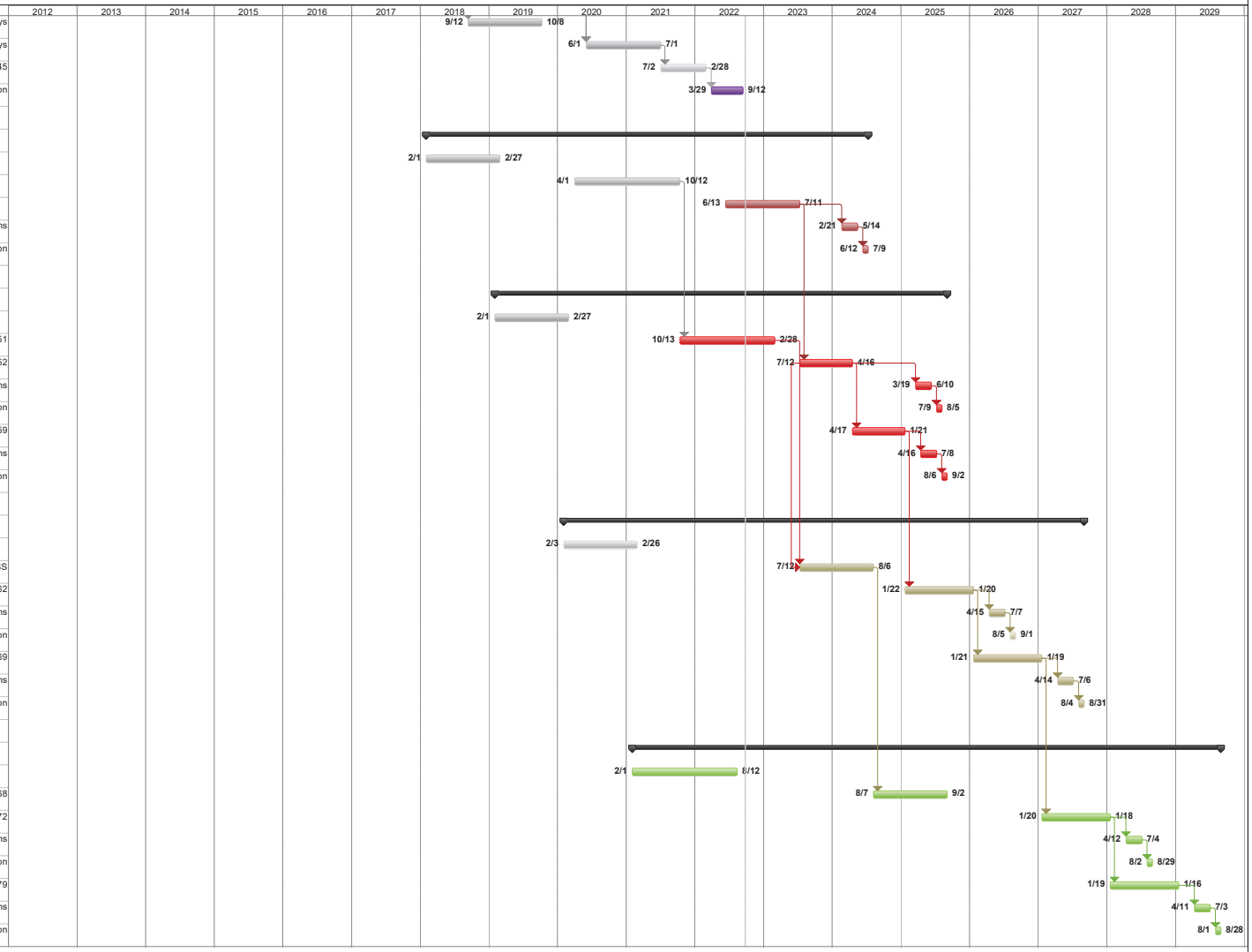
ID	Task Name	Duration	Start	Finish	Predecessors
1	**CIP Project 1**	**962 days**	**Mon 2/6/12**	**Tue 10/13/15**	
2	CIP Project 1 Inspection and Assessment	200 days	Mon 2/6/12	Fri 11/9/12	
3	CIP Project 1 Design	180 days	Mon 11/12/12	Fri 7/19/13	2
4	CIP Project 1 Construction/Construction Services	186 days	Thu 10/17/13	Thu 7/3/14	
5	CIP Project 1 Re-Test and Post Construction Flow Evaluation	120 days	Wed 4/29/15	Tue 10/13/15	4FS+213 days
6					
7	CIP Projects 1, 2, and 3 Smoke Testing	75 days	Mon 7/2/12	Fri 10/12/12	
8					
9	**CIP Project 2**	**1206 days**	**Fri 2/1/13**	**Fri 9/15/17**	
10	CIP Project 2 Inspection and Assessment	260 days	Fri 2/1/13	Thu 1/30/14	
11	CIP Project 2 Design	120 days	Mon 2/10/14	Fri 7/25/14	10FS+6 days
12	CIP Project 2 Construction/Construction Services	244 days	Mon 2/2/15	Thu 1/7/16	
13	CIP Project 2 Construction Contract Extension	30 days	Fri 1/8/16	Thu 2/18/16	12
14	CIP Project 2 Re-Test and Post Construction Flow Evaluation	120 days	Mon 4/3/17	Fri 9/15/17	12FS+321 days
15					
16	CIP Projects 4, 5, 6, and 7 Smoke Testing	85 days	Mon 7/1/13	Fri 10/25/13	
17					
18	**CIP Projects 3 and 4**	**1225 days**	**Mon 2/3/14**	**Fri 10/12/18**	
19	CIP Projects 3 and 4 Inspection and Assessment	200 days	Mon 2/3/14	Fri 11/7/14	
20	CIP Projects 3 and 4 Design	250 days	Mon 11/10/14	Fri 10/23/15	19
21	CIP Projects 3 and 4 Construction/Construction Services	243 days	Tue 7/5/16	Thu 6/8/17	13FS+97 days
22	CIP Project 3 and 4 Construction Contract Extension	71 days	Fri 6/9/17	Fri 9/15/17	21
23	CIP Projects 3 and 4 Re-Test and Post Construction Flow Evaluation	120 days	Mon 4/30/18	Fri 10/12/18	21FS+211 days
24					
25	CIP Projects 10 and 11 Smoke Testing	70 days	Wed 7/1/15	Tue 10/6/15	
26					
27	**CIP Project 5**	**1216 days**	**Mon 2/2/15**	**Mon 9/30/19**	
28	CIP Project 5 Inspection and Assessment	280 days	Mon 2/2/15	Fri 2/26/16	
29	CIP Project 5 Design	320 days	Mon 2/29/16	Fri 5/19/17	28
30	CIP Project 5 Construction/Construction Services	151 days	Mon 10/30/17	Mon 5/28/18	
31	CIP Project 5 Construction Contract Extension	4 wks	Tue 5/29/18	Mon 6/25/18	30
32	CIP Project 5 Re-Test and Post Construction Flow Evaluation	120 days	Tue 4/16/19	Mon 9/30/19	30FS+230 days
33					
34	**CIP Project 6**	**1473 days**	**Mon 2/1/16**	**Wed 9/22/21**	
35	CIP Project 6 Inspection and Assessment	280 days	Mon 2/1/16	Fri 2/24/17	
36	CIP Project 6 Design	180 days	Mon 9/11/17	Fri 5/18/18	35FS+140 days
37	CIP Project 6 Construction/Construction Services	193 days	Mon 1/7/19	Wed 10/2/19	30,31
38	CIP Project 6 Construction Contract Extension	65 days	Thu 10/3/19	Wed 1/1/20	37
39	CIP Project 6 Re-Test	50 days	Thu 4/2/20	Wed 6/10/20	37FS+130 days
40	CIP Project 6 Post Construction Flow Evaluation	3 mons	Thu 7/1/21	Wed 9/22/21	
41					
42	**CIP Project 7**	**1464 days**	**Wed 2/1/17**	**Mon 9/12/22**	
43	CIP Project 7 Inspection and Assessment	280 days	Wed 2/1/17	Tue 2/27/18	



Notes:
1. Years listed at the top of the schedule denote Fiscal Year. 2. Completed projects are shown in grey.

NEWTON, MA
SEWER SYSTEM CAPITAL IMPROVEMENT PROJECTS SCHEDULE
Updated September 26, 2022

ID	Task Name	Duration	Start	Finish	Predecessors
44	CIP Project 7 Design	280 days	Wed 9/12/18	Tue 10/8/19	43FS+140 days
45	CIP Project 7 Construction/Construction Services	284 days	Mon 6/1/20	Thu 7/1/21	37,38FS+64 days
46	CIP Project 7 Construction Contract Extension	172 days	Fri 7/2/21	Mon 2/28/22	45
47	CIP Project 7 Re-Test and Post Construction Flow Evaluation	120 days	Tue 3/29/22	Mon 9/12/22	46FS+1 mon
48					
49	**CIP Project 8**	**1679 days**	**Thu 2/1/18**	**Tue 7/9/24**	
50	CIP Project 8 Inspection and Assessment	280 days	Thu 2/1/18	Wed 2/27/19	
51	CIP Project 8 Design	20 mons	Wed 4/1/20	Tue 10/12/21	
52	CIP Project 8 - Construction/Construction Services	282 days	Mon 6/13/22	Tue 7/11/23	
53	CIP Project 8 - Re-Test	60 days	Wed 2/21/24	Tue 5/14/24	52FS+8 mons
54	CIP Project 8 Post Construction Flow Evaluation	20 days	Wed 6/12/24	Tue 7/9/24	53FS+1 mon
55					
56	**CIP Project 9**	**1718 days**	**Fri 2/1/19**	**Tue 9/2/25**	
57	CIP Project 9 Inspection and Assessment	280 days	Fri 2/1/19	Thu 2/27/20	
58	CIP Project 9 Design	18 mons	Wed 10/13/21	Tue 2/28/23	51
59	CIP Project 9 - Phase 1 Construction/Construction Services	200 days	Wed 7/12/23	Tue 4/16/24	52
60	CIP Project 9 - Phase 1 Re-Test	60 days	Wed 3/19/25	Tue 6/10/25	59FS+12 mons
61	CIP Project 9 - Phase 1 Post Construction Flow Evaluation	20 days	Wed 7/9/25	Tue 8/5/25	60FS+1 mon
62	CIP Project 9 - Phase 2 Construction/Construction Services	200 days	Wed 4/17/24	Tue 1/21/25	59
63	CIP Project 9 - Phase 2 Re-Test	60 days	Wed 4/16/25	Tue 7/8/25	62FS+3 mons
64	CIP Project 9 - Phase 2 Post Construction Flow Evaluation	20 days	Wed 8/6/25	Tue 9/2/25	63FS+1 mon
65					
66	**CIP Project 10**	**1977 days**	**Mon 2/3/20**	**Tue 8/31/27**	
67	CIP Project 10 Inspection and Assessment	280 days	Mon 2/3/20	Fri 2/26/21	
68	CIP Project 10 Design	280 days	Wed 7/12/23	Tue 8/6/24	58,59SS
69	CIP Project 10 - Phase 1 Construction/Construction Services	260 days	Wed 1/22/25	Tue 1/20/26	62
70	CIP Project 10 - Phase 1 Re-Test	60 days	Wed 4/15/26	Tue 7/7/26	69FS+3 mons
71	CIP Project 10 - Phase 1 Post Construction Flow Evaluation	20 days	Wed 8/5/26	Tue 9/1/26	70FS+1 mon
72	CIP Project 10 - Phase 2 Construction/Construction Services	260 days	Wed 1/21/26	Tue 1/19/27	69
73	CIP Project 10 - Phase 2 Re-Test	60 days	Wed 4/14/27	Tue 7/6/27	72FS+3 mons
74	CIP Project 10 - Phase 2 Post Construction Flow Evaluation	20 days	Wed 8/4/27	Tue 8/31/27	73FS+1 mon
75					
76	**CIP Project 11**	**2237 days**	**Mon 2/1/21**	**Tue 8/28/29**	
77	CIP Project 11 Inspection and Assessment	400 days	Mon 2/1/21	Fri 8/12/22	
78	CIP Project 11 Design	280 days	Wed 8/7/24	Tue 9/2/25	68
79	CIP Project 11 - Phase 1 Construction/Construction Services	260 days	Wed 1/20/27	Tue 1/18/28	72
80	CIP Project 11 - Phase 1 Re-Test	60 days	Wed 4/12/28	Tue 7/4/28	79FS+3 mons
81	CIP Project 11 - Phase 1 Post Construction Flow Evaluation	20 days	Wed 8/2/28	Tue 8/29/28	80FS+1 mon
82	CIP Project 11 - Phase 2 Construction/Construction Services	260 days	Wed 1/19/28	Tue 1/16/29	79
83	CIP Project 11 - Phase 2 Re-Test	60 days	Wed 4/11/29	Tue 7/3/29	82FS+3 mons
84	CIP Project 11 - Phase 2 Post Construction Flow Evaluation	20 days	Wed 8/1/29	Tue 8/28/29	83FS+1 mon



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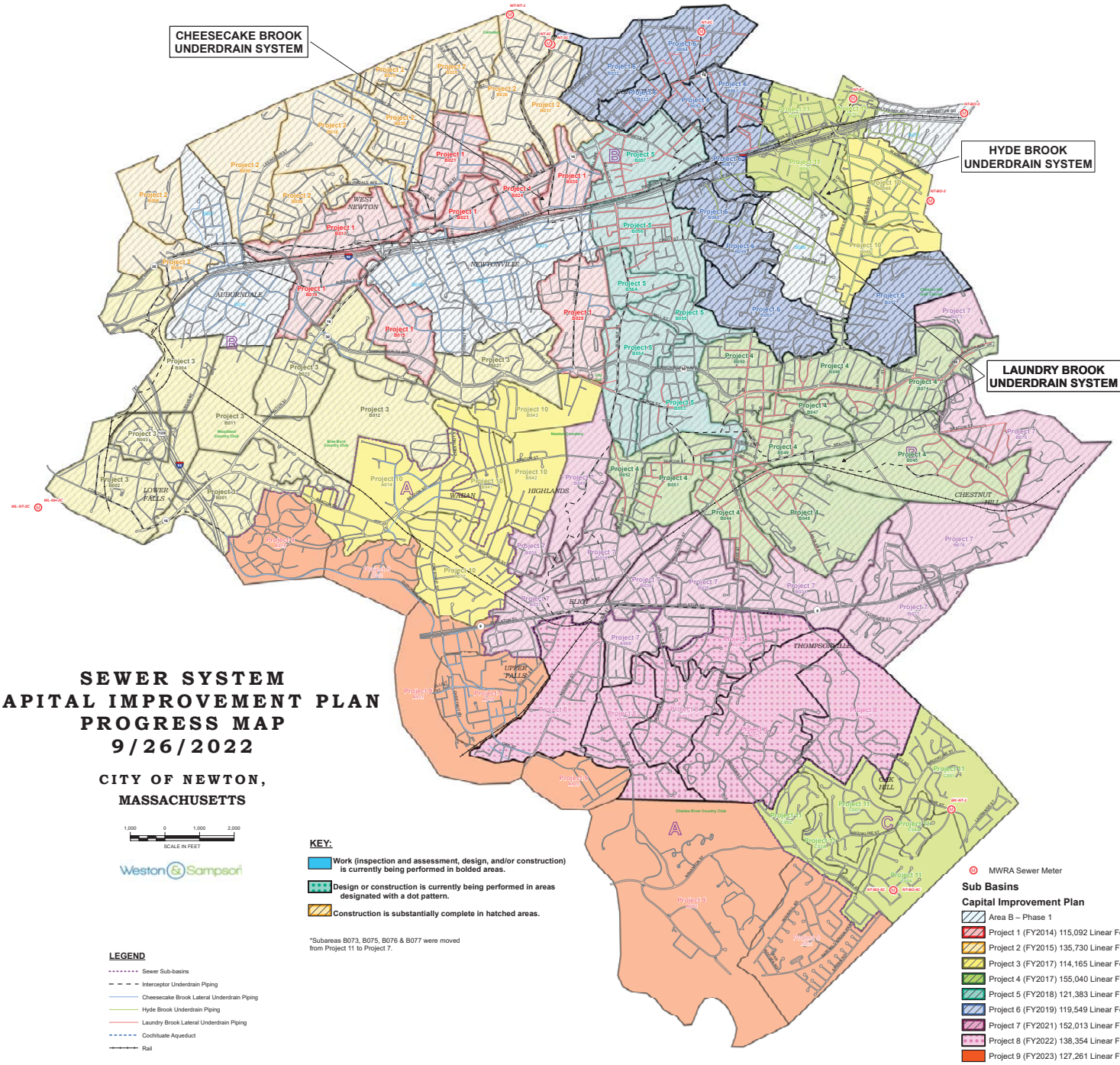


SEWER SYSTEM CAPITAL IMPROVEMENT PLAN PROGRESS MAP 9/26/2022

CITY OF NEWTON, MASSACHUSETTS

1,000 0 1,000 2,000
SCALE IN FEET

Weston & Sampson

KEY:

- Work (inspection and assessment, design, and/or construction) is currently being performed in bolded areas.
- Design or construction is currently being performed in areas designated with a dot pattern.
- Construction is substantially complete in hatched areas.

*Subareas B073, B075, B076 & B077 were moved from Project 11 to Project 7.

LEGEND

- Sewer Sub-basins
- Interceptor Underdrain Piping
- Cheesecake Brook Lateral Underdrain Piping
- Hyde Brook Underdrain Piping
- Laundry Brook Lateral Underdrain Piping
- Cochituate Aqueduct
- Rail

MWRA Sewer Meter

Sub Basins

Capital Improvement Plan

- Area B – Phase 1
- Project 1 (FY2014) 115,092 Linear Feet
- Project 2 (FY2015) 135,730 Linear Feet
- Project 3 (FY2017) 114,165 Linear Feet
- Project 4 (FY2017) 155,040 Linear Feet
- Project 5 (FY2018) 121,383 Linear Feet
- Project 6 (FY2019) 119,549 Linear Feet
- Project 7 (FY2021) 152,013 Linear Feet
- Project 8 (FY2022) 138,354 Linear Feet
- Project 9 (FY2023) 127,261 Linear Feet
- Project 10 (FY2024) 121,682 Linear Feet
- Project 11 (FY2025) 106,380 Linear Feet

Dates denote construction fiscal year

STORMWATER SYSTEM

Like many communities, Newton's storm water system is old and faces challenges related to storm water quantity and quality, system maintenance and upgrades, and localized flooding. In 2006, the City initiated a Storm Water Fee to help fund necessary improvements. These improvements are required as part of the National Pollutant Discharge Elimination System (NPDES) permit. Whenever a municipality, industry, or other entity wishes to discharge pollutants to a surface water of the United States, they must first obtain a NPDES permit. In the Commonwealth of Massachusetts, the Environmental Protection Agency (EPA) is the permitting authority and NPDES permits are typically co-issued by EPA and the Department of Environmental Protection (MassDEP). NPDES permits regulate wastewater discharges by limiting the quantities of pollutants to be discharged and imposing monitoring requirements and other conditions. The limits and/or requirements in the permit ensure compliance with the Massachusetts Surface Water Quality Standards and Federal Regulations, all of which were written to protect public health and the aquatic environment.

While the City has completed a number of localized drainage repairs, the Department of Public Works recognized the need to develop a comprehensive plan to identify and address storm water needs throughout the City and to establish a funding plan to accomplish this work. In addition, the NPDES MS4 Permit increases requirements for maintaining and improving storm water quality. These needs must also be factored into all storm water planning. In order to accomplish several NPDES MS4 permit requirements, the City has developed a stormwater ordinance that requires stormwater mitigation for land disturbing activities on both private and commercial properties.

Therefore, the City has undertaken a system-wide assessment to identify its program needs and develop a 20-year Storm Water Infrastructure Improvement Plan. Four primary areas being evaluated are: Stream Improvements, Localized Flooding, Culvert Maintenance and National Pollutant Discharge Elimination System (NPDES) compliance. Recommended projects include removal of debris within the stream bed and on nearby embankments; removal of sediment in stream beds, culverts and ponds; structural and capacity evaluation; rehabilitation and maintenance of pipes and culverts; repair of failing retaining walls and public education.

A methodology and rating criteria will be used to prioritize the list of projects based on probability of failure and consequence of failure. Probability of failure is based on two factors: the age of the asset and the condition of the asset. Consequence of failure will look at the potential impacts related to the potential failure of the asset, including public health and safety, property damage, cost of deferred maintenance, number of people influenced and City development priorities. Combined with regulatory timelines for implementation of projects associated with the pending NPDES MS4 Permit and the financial impacts for each of the identified projects, the City has prioritized the results for the Storm Water Infrastructure Improvement Plan.

In 2023, Public Works expects to remove 3,200 cubic yards of excessive sedimentation from the three ponds adjacent to City Hall, complete structural improvements to the Bullough's Pond Dam adjacent to Dexter Road, complete stormwater improvements to the Newton Free Library parking lot including the addition of a porous drainage pipe, complete drainage improvements of Union Street to alleviate street flooding, design, bid, complete construction of structural retrofits to

maximize nutrient reduction for the discharge of stormwater into Crystal Lake at the intersection of Crystal Lake and Lake Avenue, and perform a stormwater assessment to the Public Works Elliot Street and Crafts Street Maintenance Facilities.

In 2023 the City will continue work towards the development of a Phosphorus Control Plan (PCP) required by the U.S. Environmental Protection Agency (EPA) under the Municipal Separate Storm System (MS4) General Permit Appendix F. This plan will identify phosphorus reduction means and methods to be incorporated into future stormwater projects.

Stormwater
5 Year CIP, FY2024-FY2028

Priority	Project	Description	BUDGET DISTRIBUTION Prior Year Funding	FY2024	FY2025	FY2026	FY2027
1	Phase 1 Phosphorus Control Plan (PCP)	Development of City's PCP required by US EPA under the MS4 general permit	$ 695,000	$ -	$ 258,000	$ -	$ -
2	City Hall Ponds	Removal of sediment from 3 ponds adjacent to City Hall, 1000 Commonwealth Avenue	$ 1,040,000	$ -	$ -	$ -	$ -
3	Bullough's Pond Dam	Complete State-Required repair work	$ 618,620	$ -	$ 2,381,380	$ -	$ -
4	Elliot & Crafts Street DPW Operations Yard	Modifications to existing storm water infrastructure to meet NPDES MS4 General Permits BMP's	$ 200,000	$ 200,000	$ 200,000	$ 200,000	$ 200,000
5	Edmands Brook Drainage Basin	Design for flood mitigation and the reduction of Phosphorus for the NPDES MS4 Permit	$ 504,000	$ -	$ 900,000	$ -	$ -
6	Union Street Drainage	The extension of storm drains on Union Street to alleviate flooding and icing issues in the area of Herrick Road	$ 100,000	$ 750,000	$ -	$ -	$ -
7	Evaluation, design and construction of Cheesecake Brook-Commonweath Av. to the rear of 1600 Washington Street	Replace culvert headwall, remove remaining fieldstone channel walls to restore natural brook channel and provide buffer for nutrient removal (water quality).	$ -	$ -	$ 200,000	$ 700,000	$ -
8	Cheesecake Brook -1660 Washington St. to Watertown St.	Inspection & Assessment, Design and Rehabilitation of +/-6000 LF of Box Culvert	$ -	$ -	$ -	$ 200,000	$ 700,000
9	Laundry Brook Culvert-Hull Street to Bridges Avenue	Design and construction of culvert rehabilitation from Hull St to Bridges Ave.	$ -	$ -	$ -	$ 750,000	$ -
10	South Meadow Brook Culvert under Needham Street	Phase 1 - Inspection & assessment of Box Culvert. Phase 2 - Design & Rehabilitation of Box Culvert.	$ -	$ -	$ -	$ 500,000	$ 2,425,000
11	Laundry Brook Culvert-Parkview to Mass Pike	Rehabilitation +/-1000 LF Box Culvert based on FY 18 evaluation.	$ -	$ -	$ -	$ -	$ 650,000
12	Cheesecake Brook-Watertown St. to Charles River	Inspection & Assessment, Design and Rehabilitation of Fieldstone Channel walls and floor	$ -	$ -	$ -	$ 150,000	$ -
13	Reduce Impervious Area	Reduce Impervious Area to 5 Municipal Properties per NPDES MS4 Requirements	$ -	$ -	$ -	$ -	$ 325,000
14	Cheesecake Brook Roadway Culvert Crossings	Design & Construction of culvert improvements at Parsons, Cross and Eddy Street	$ -	$ -	$ -	$ -	$ -
15	Pellegrini Park Drain Replacement	Storm drain between Jenison and Hawthorne needs to be replaced due to structural failure, causing flooding at Jenison @ Judkins.	$ -	$ -	$ -	$ -	$ -
16	Hammond Brook-Glen Ave. to Centre St.	Cleaning, Inspection, Structural Evaluation, Design, Rehabilitation and Construction of Hammond Brook Culvert.	$ -	$ -	$ -	$ -	$ -
			$ 2,462,620	**$ 950,000**	**$ 3,681,380**	**$ 2,500,000**	**$ 4,300,000**

CAPITAL IMPROVEMENT PLAN METHODOLOGY

A Mission and Risk-Based Approach to Capital Investments

This comprehensive and integrated capital plan used a mission and risk-based approach to analyze and prioritize capital needs across the city.

Overview

In the context of asset management, *Risk* is defined as the probable magnitude of a future loss, and is expressed mathematically as a probability of failure (PF) multiplied by the magnitude of its consequence of failure or its expected impact on Mission (M). This risk-based approach considers that an asset may "fail" due to its age or condition and assess the inherent consequences of that "failure." Failure here is used to mean that an asset fails to meet its intended purpose or use. Using this methodology, Probability of Failure is multiplied by a weighted Mission score related to consequence (or impact) of asset failure to arrive at an overall Priority score.

Broken into its components, the mathematical formula looks like this:

$$PF = \frac{P_{\%Life\ left} + (2)P_{Overall\ Condition}}{3}$$

Where:

PF: Probability of Failure
$P_{\%Life\ Left}$: Probability of failure for the *percent life left* failure mode
$P_{Overall\ Condition}$: Probability of failure for the *overall condition* failure mode

Next Mission (M):

$$M = \sum_{i=1}^{i=8} M \frac{W_i}{W_T}$$

Where:

i: consequence counter
M_i: i-th consequence rating
W_i: Weight of i-th consequence
W_T: Total weight

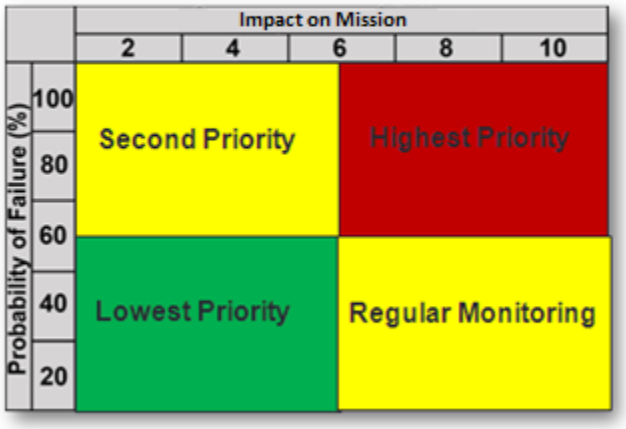
Finally, calculating Priority (P):

Priority = Probably of Failure X Mission

$$P = PF \times M$$

Graphically, the results will fall into categories as shown in Figure 8 below. Assets that have a high probability of failure and a high consequence of failure would therefore have a high risk factor score and would be a high priority for the City.

Mission and Risk-Based Prioritization



Referring to the prioritization grid above, if for example a city building roof is in poor condition, the probability of failure for the roof will be high. In addition, the consequence of that leak could be high as well as it could impact the health and safety of employees and the ability to perform city operations, depending on which roof is being analyzed. This capital investment situation would fall into the "Highest Priority" category in the chart above.

This methodology allows the City to more objectively evaluate potential CIP projects across the spectrum of asset categories and make decisions about the allocation of capital dollars across different types of projects.

Detailing the variables in evaluating Risk and Consequences on Mission
Together, the CIP Steering Committee standardized the weighting of the variables, based on the perceived relative importance to the Newton community and how they reflected the City's mission.

A description of the *"Probability of Failure"* and the *"Impact on Mission"* are defined below.

A. **"Probability of Failure"** is comprised of two ratings which are then weighted.

(1) ***Age or percent life left*** of an asset (measured on a scale of "new" to "beyond useful life")
(2) ***Condition*** of the asset (measured on a scale of "excellent" to "very poor")

Percent life left of an asset is an indicator of how old, or how far along the asset is on the life expectancy curve. This failure mode is important when there is no data about the condition of the asset. Each project has been assigned a percent life left value. For example, a project consisting of replacing the main entrance stairs of a building will have a percent life left value corresponding to the stairs of that building, derived from their installation date and their expected service life.

Each percent life left rating is assigned a probability of failure. A new asset, with 100% life left, is unlikely to fail, or has a probability of failure of 0, and an old asset which is past its useful life, has a probability of failure of 1. The table below shows the percent life left ratings and their assigned probabilities of failure.

% Life Left	
Description	Value
100% (NEW)	0
90%	0.1
80%	0.2
70%	0.3
60%	0.4
50%	0.5
40%	0.6
30%	0.7
20%	0.8
10%	0.9
0% (OLD)	1.0

Overall condition is evaluated similarly. This failure mode is important to consider because assets that have been maintained properly may be near their expected useful life but still be in good condition and functioning. The values considered also range between 0 and 10, 0 being the worst condition, and 10 being the best condition. Each value is assigned a corresponding probability of failure, so that assets in good condition have lower probability of failure than assets in poor condition. The table below shows the overall condition values and assigned probabilities of failure.

Overall Condition	
Description	Value
10 – New / Pristine	0
9 – Excellent	0.1
8 – Very Good	0.2
7- Good / Minor Deferred Maintenance	0.3
6 – Above Average / Satisfactory	0.4
5 – Average / Functional	0.5
4 - Below Average / Sub-Standard	0.6
3 – Poor / Serious Condition	0.7
2 – Bad / Critical Condition	0.8
1 – Very Bad / Imminent Failure	0.9
0 – Not Functioning / Failed	1

A weighted average approach is used to calculate the project's overall probability of failure. More weight is given to the condition of an asset, rather than to its life expectancy. "Percent life left" is assigned a weighting factor of 1 and "Overall condition" a weighting factor of 2.

B. **Impact on Mission** – Impact the asset has on the City of Newton's mission. The greater the impact on Mission, the larger the consequence of the asset's failure. Mission impacts considered for projects and assets are:

- Impact on Public and Employee **Health and Safety**
- Impact on **City Operations**
- Impact on **Programs or Services** to the public
- Impact on Future **Costs and/or Savings or Revenues**
- Impact on **Quality of Life**
- Impact on **Energy Consumption, Conservation, and Environmental Sustainability**
- Impact on a **Department's Mission, and Vision or Multi-Departmental Strategic Alignment**
- Impact on **Economic Health and Vibrancy**
- Impact on **Equity and Accessibility**

There are several other considerations that could impact a project's weighting including funding availability, operational issues that impact project timing, and responses to legal or administrative requirements.

A description of the consequence categories and their weighted factors are provided:

(1) *Impact on Public or Employee Health and Safety* (weight = 10) – Protection of health and safety of residents, city personnel and visitors. This could have direct impacts on other categories such as Quality of Life.

*Who is impacted in what way (adults, children)?
*How severe is that impact?
*How many people are impacted?

(2) *Impact on City Operations* (weight = 9) – The requirement to deploy additional City resources if the capital asset fails, or the subsequent impact on another department's mission. The ability of the government to continue to operate.

*What is the department's Plan B?
*How many people/employees are impacted by not implementing the project?
*How will degraded assets impact city services?

(3) *Impact on Delivery of Programs and Services* (weight = 6) – The programs that would need to be cancelled or moved to alternate locations if the asset is severely degraded or lost. This could have related impact on cost. The impact to department services to the public at large if this is not funded.

*What specific programs are impacted?
*What percent of the department's mission are these cancellations?
*Who and how many are impacted by the reduction?

(4) *Impact on Future Costs/Savings or Revenue* (weight = 8) – Return on investment due to reduced maintenance/operating expenses. New projects may save the City operating expenses, while making a repair may avoid additional costs to maintain or repair more extensive damage later. New projects may also bring new revenue to the City.

*What will be the cost/savings to the City compared to investments if not funded?
*What is the payback period?
*What is the cost of Plan B?

*Are there any potential revenues associated with project?

(5) *Impact to Quality of Life* (weight = 7) – The reasons that people want to live in Newton. If these underlying feelings about the quality of life are compromised, the value to the residents living here would be decreased.

*What aspect of the QOL is diminished?

*Would the project's absence diminish the kinds of things that Newton prides itself in?

(6) *Impact to Energy Consumption, Conservation and Environmental Sustainability* (weight = 6) – The potential to reduce energy consumption and help the City reach its "Green Community" and "Energy Smart Newton" goals. The potential to improve long-term environmental sustainability. This could also impact costs, quality of life and department/City Mission.

*Would this be a missed opportunity to reduce consumption?

*What is the magnitude of the potential energy reduction?

*How quick is the potential payback in operational savings?

*How does the project contribute to the City's long-term sustainability goals?

(7) *Impact on a Department Mission, and Vision or Multi-Departmental Strategic Alignment* (weight = 6) – The impact of accomplishing stated goals of the department. The vision of the Mayor reflecting the will of the residents would not be advanced or would be contrary to those values.

*Would this project greatly advance a department's mission?

*Would the project help multiple departments in a way compatible with the overall City vision?

*Have the residents expressed an expectation of this project directly or indirectly?

(8) Impact on Economic Health and Vibrancy (weight=6) – The impact of a project to support economic health and vibrancy of the city as a whole, a village or a commercial corridor.

*Would this project assist in supporting Newton's economic development plans, or other village and commercial corridor level projects?

*Would this project enhance the vibrancy of a village center or a commercial corridor or district?

(9) Impact on Equity and Accessibility (weight=6) – The ability of a project to respond to equity, socio-economic diversity and accessibility considerations.

*Would the project help address accessibility challenges in existing public facilities or create new facilities that meet accessibility needs?

*Does the project respond to equity considerations such as socio-economic, geographic or age-friendly?

The "intensity or impact" of the asset failure's consequence on mission is expressed by the rating associated with each value. Values for consequences range between 0 - "no impact" and 10 - "very negative impact". Consequence values have corresponding ratings, which range between 0 and 10. The table below shows the consequence values and their corresponding ratings.

Consequence on Mission	
Value	Rating
0 – No Impact	0
1-	1
2- Very Little Impact	2
3-	3
4-	4
5 – Moderate Impact	5
6 –	6
7 -	7
8 – High Impact	8
9 -	9
10 - Very High Impact	10

Relative Impact of Weighting on Priority

To calculate the final Priority score, a weighted average method was used. Weights were assigned to each consequence to represent their relative importance to each other. The weights used are:

Category of Consequence	% of Weight	Weight value
Health and Safety	15.6%	10.0
City Operations	14.1%	9.0
Cost Savings and Revenue	12.5%	8.0
Quality of Life	10.9%	7.0
Department Mission/City Vision	9.4%	6.0
Energy/Env Sustainability	9.4%	6.0
Programs and Services	9.4%	6.0
Economic Health/Vibrancy	9.4%	6.0
Equity/Accessibility	9.4%	6.0
TOTALs:	100.0%	64.0

Obviously, each Administration may view the relative importance of each consequence differently. Changing the weighting factors in any given year does not invalidate the mathematical model; it just will change the prioritized outcome for each project.

As mentioned earlier, Priority (P) is calculated as the product of the Mission factor times the Probability of Failure and converted to a 1-100 scale:

$P = PF \times M$

Graphing the product of *Probability of Failure* and *Consequence of Failure on Mission*, the Priority can be interpreted as an area, illustrating how various projects with different ratings can have the same priority. Figure 2. illustrates the resultant graph. An asset with a high probability of failure but low consequence (on Mission) of failure can have the same risk score as another with lower

probability of failure and a higher consequence of failure. This is a key concept when comparing risk scores between homogenous assets types and even across diverse asset portfolios.

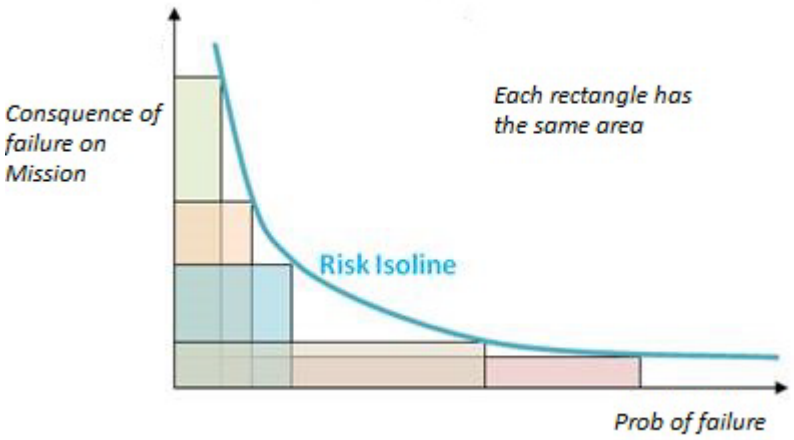


Figure 2. Isoline identifying how different projects can have the same priority (risk above) factor

I. CAPITAL IMPROVEMENT PROGRAM FUNDING SOURCES

In order to be a meaningful and useful management tool, the Capital Improvement Plan must be based upon a realistic financing plan. The financing plan for the Capital Improvement Plan continues the City of Newton's established policy of pay-as-you-go financing from the operating budget, combined with the prudent use of available debt financing capacity, that is managed in conjunction with the Long Term Capital Fund that was established at the beginning of the high school renovation and construction projects. This policy has allowed the City to obtain and maintain a AAA credit rating since 1974. Financing sources included in the Capital Improvement Plan are divided into two categories: Tax-Supported and Non-Tax-Supported.

Tax-Supported Funding Sources

- **General Obligation Bonds** - The City sells tax exempt bonds, usually in March each year. The annual debt service is included in the Operating Budget and is offset by resources in the Long Term Capital Fund. This allows the impact on the operating budget to be managed evenly over time and not be subject to dramatic fluctuations in the debt service.
- **Free Cash** - Unreserved fund balance, certified by the Massachusetts Department of Revenue, as of the end of the previous fiscal year.
- **Operating Budget** (General Fund) - Annual departmental budgets, supported primarily by property taxes, local revenue, and state aid.
- **Community Preservation Act** (CPA) – One percent local property tax surcharge, with partial or full state matching funds, which may be spent for affordable housing, historic resources, open space, or recreation land.
- **Other -** Funds such as Overlay Surplus, Capital Stabilization, and Sale of Municipal Buildings.

Non-Tax-Supported Funding Sources

- State and Federal Grants - Project specific or block grants from federal, state, or other governmental agencies (Massachusetts School Building Authority Funds, Chapter 90 Funds for road construction, preservation and improvement projects).
- Parking Meter Receipts - Parking lot parking meter fees.
- Enterprise Funds – Water and Sewer Revenue - Fees and charges paid by water/sewer customers, which are used to support the Operating Budget (Special Revenue Fund) and generate a Water/Sewer Fund Balance (surplus available for water/sewer purposes).
- Stormwater Fund (Enterprise Fund) – Stormwater fees, used to fund operating costs related to stormwater management and control.
- Community Development Block Grants (CDBG) - Federal aid received to aid low and moderate income families and other targeted persons. Under federal guidelines, spending must be targeted to project types or neighborhoods.
- American Rescue Plan Act (ARPA) - Federal aid received by City with use guidelines and reporting requirements.
- Other - City trust or other funds designated for specific purposes by law, charter or ordinance. Includes donations and gifts.

II. CIP FINANCIAL REQUIREMENTS AND POLICIES

Debt service to support capital investments and goals must be financially sustainable and responsible in order to maintain the City's favorable Aaa Bond Rating which keeps interest rates low.

The City of Newton has long enjoyed a "Aaa" Rating, the highest rating attainable from Moody's Investors Service and not only has earned a AAA from Standard and Poor's twice in the past few years, but received a revised management assessment from S&P who *"revised their assessment of the city's management to "very strong" from "strong" based on the introduction of a debt policy that formalized a historical practice. An assessment of "very strong" indicates that financial practices are strong, well-embedded and likely sustainable."*

The City's position on funding long term liabilities, particularly pensions and OPEB, preserving sound financial policies and developing conservative budgets and forecasts will be key factors in the City's ability to maintain the "Double Triple A Rating" from these two prestigious institutions.

Commitment to fully funding the City's long-term liabilities is critical to maintaining financial sustainability. The Fuller Administration continues to follow a funding schedule designed to eliminate the City's Unfunded Pension Liability by the year 2030, and fully fund the City's OPEB (Other Post-Employment Benefits) Liability by the year 2042. Funding the annual increase to the pension appropriation is the key component of this strategy and will require discipline and commitment.

CITY OF NEWTON
FINANCIAL MANAGEMENT GUIDELINES

Financial Principles

On April 20, 2011 the Honorable City Council adopted a revised set of Financial Management Guidelines. There are several guiding principles that are incorporated into these guidelines which have been included as an integral part of this plan. These guidelines include the following:

Long Range Financial Planning: The City will follow financial planning processes that assess the long-term financial implications of current and proposed operating and capital budgets, budget policies, cash management and investment policies, and programs.

Revenue Budgeting: General Fund revenue budgets are expected to capture 99% of total expected revenue for the year.

Expenditure Budgeting: Expenditure budget estimates will strive to be sufficient to address not less than 100% of projected operating requirements of the various departments of the City for the next fiscal year. It is anticipated that this guideline will continue to take several years to fully implement.

Debt Management Policy: Massachusetts municipal finance law limits the total amount of long-term debt that the City can incur for most purposes to not more than 5% of the City's equalized valuation (taxable value of the real estate tax base). The City's current (October 2018) equalized valuation is approximately $29 billion, which means that the current statutory debt limit is approximately $1.4 billion. In addition to the statutory debt limit, the City of Newton has a self-imposed policy of limiting debt service on long term bonded debt to between 4.0% and 7.5% of the annual General Fund budget.

Free Cash: Free Cash represents the accumulated difference of unrestricted funds between General Fund revenues and expenditures, on a cash basis of accounting. The City expects to generate a limited amount of Free Cash which comes from unanticipated actual revenues in excess of revenue estimates (including overlay surplus), unexpected unspent funds in operating budget line items, and/or unanticipated unexpended free cash from the previous year.

Utilization of Free Cash: It is the intent of the City to use Free Cash in the following manner, understanding that this will take a number of years to implement fully. First, a maximum of $1.5 million will be used as a general revenue source for the ensuing year's operating budget. Second, Free Cash may be used to replenish Reserve Funds depleted in the previous year. Third, a minimum of forty percent (40%) of the remaining certified Free Cash will be put in the Rainy Day Stabilization Fund until the Rainy Day Stabilization Fund reaches its target level. Fourth, any additional Free Cash will be used for one-time, non-recurring expenditures.

Inclement Weather Stabilization Reserve: The Administration has established an Inclement Weather Stabilization Reserve Fund which will be used for unusual (but not extraordinary)

weather related costs in departments such as Public Works, Parks and Recreation, Police and Fire. For example, such costs may stem from floods, an unusual number of winter storms, or an unusual level of snow or ice. The goal of this reserve fund is to make sure monies are set aside for unusual weather conditions.

Rainy Day Stabilization Reserve: The Rainy Day Stabilization Fund will be used when the City faces a multiple year economic recession or a rare, catastrophic expenditure. These funds may be utilized to assist in addressing cyclical declines in operating revenues, generally resulting from economic factors outside the control of the City, or an unusually large expenditure resulting from a rare legal settlement or catastrophic weather event. The primary reason for the segregation of such monies is to prevent these reserves from being used for unrelated City needs, and to demonstrate that resources are in fact being set aside specifically for extraordinary and unforeseen revenue disruption or catastrophic expenditure need.

CAPITAL PROJECT ACCOUNTING
AND
CAPITAL STABILIZATION FUND (BD # 485-92)

1. All capital appropriations are to be made for project purposes, are to be presented in specific line item format (i.e. design, project management, construction, equipment, etc.). An estimated project completion schedule shall also be included with each capital appropriation request.

2. Appropriations for the acquisition, construction, or reconstruction of "major capital facilities" are to be made to a Capital Improvement Fund instead of the General Fund, regardless of the financing source for the capital appropriation. "Major capital facilities" will be defined as any acquisition, construction, or reconstruction project which has an estimated cost of $500,000 or more and is expected to take more than a single fiscal year to complete. Capital appropriations of less than $500,000 and those which are expected to be completed within a single year will continue to be appropriated to the General Fund.

3. As capital projects are completed during the course of a fiscal year, the responsible department head shall notify the Comptroller, who shall close unobligated appropriation balances to the Capital Stabilization Fund. All year-end encumbered capital appropriation balances shall be brought forward from one year to the next, without any action of the responsible department head.

   Not later than July 15 of each fiscal year, each department head having a capital appropriation in either the Capital Improvement or General Fund, for which there is an unexpended and unencumbered balance at June 30, shall provide the Comptroller with a detailed request to carry the balance forward into the new fiscal year. This request shall contain a detailed description of the work to be performed, including any variations from the original plan, and a projected schedule for completion of the project.

   Prior to closing any appropriation for a capital project which has not been completed, the Comptroller shall obtain the concurrence of both the Mayor and Board of Aldermen.

4. A Capital Stabilization Fund shall be established within the Capital Improvement Fund section of the City's books. The Comptroller is hereby authorized to close all completed general revenue and free cash financed capital appropriation balances in both the General and Capital Improvement Funds to this fund.

   No expenditures shall be made from the Capital Stabilization Fund. The fund shall serve solely as a source for financing future capital needs.

   Unobligated balances in bonded capital project accounts shall be transferred to the Capital Stabilization Fund at the completion of each such capital project. These balances shall be reserved for future appropriation in accordance with the municipal finance laws.

To the extent that the Mayor and Board of Aldermen have not voted to designate Capital Stabilization funds for a specific future project, the Unreserved Fund Balance in the Capital Stabilization Fund shall be available for appropriation for additional capital needs.

5. To the extent that undesignated and unreserved funds are available in the Capital Stabilization Fund at the time that the Capital Budget is submitted to the Board of Aldermen, this fund shall be used as the priority source for capital appropriations. Free Cash shall not be used as a financing source for a capital appropriation while equal funding is available in the Capital Stabilization Fund.

6. The Comptroller shall provide the Mayor and Board of Aldermen with a quarterly and annual detailed report on the status of all capital appropriations, including a summary of all activity into and out of the Capital Stabilization Fund.

CIP LEGAL REQUIREMENTS and POLICIES

Definition of Capital Projects

A capital project in general is defined as a physical public betterment or improvement involving facilities, land, or equipment, with a substantial useful life and a cost of $10,000 or more. However, for purposes of using the City's debt service capacity to fund those projects supporting the General Fund operations, only those projects valued at greater than $75,000 were considered. It is anticipated that capital line accounts in the department operational budgets will include consideration of capital needs less than $75,000. Some projects which may be valued at less than $75,000 individually could be more effectively done concurrently and were bundled for purpose of management. Detailed breakouts of the component costs of the projects can be found in the electronic back-up spreadsheets posted on the City's website. Typical items classified as capital projects include:

- new public buildings (including equipment needed to furnish such buildings);
- significant alterations, additions or improvements to existing public buildings;
- land improvements, acquisition, and development;
- large equipment replacement and/or refurbishing;
- street reconstruction and major resurfacing;
- pedestrian walkway construction and major rehabilitation;
- water main construction and rehabilitation;
- sanitary sewer and storm drain construction and rehabilitation; and
- long-range planning studies.

Capital Improvement Plan Policies and Goals

The Capital Improvement Program (CIP) shall be updated annually based upon changes in the City's capital needs and financing availability in order to: identify needed improvements and/or additions to the City's equipment and infrastructure; schedule projects in priority order over the ensuing five-year period; and ensure adherence to City financial policy and City Charter requirements.

Capital projects shall be undertaken in order to satisfy documented needs and demands of the City of Newton. The Capital Improvement Program shall be a realistic multi-year plan of capital spending, based upon revenues and other financial resources that may reasonably be anticipated over the term of the plan. All capital project proposals shall be thoroughly evaluated in terms of their estimated impact upon the annual operating budget of the City of Newton. The City will maintain its existing capital investments to minimize future maintenance and replacement costs. Capital improvements shall meet one of the following criteria:

- Enhance protection of public health and/or safety.
- Ensure compliance with state and/or federal law or administrative regulations.
- Reduce and/or stabilize operating budget costs.

- Prolong the functional life of a capital asset of the City by 10 years or more.
- Encourage further expansion of the City's real estate tax base, employment or housing.
- Improve the ability of the City to deliver services.

CAPITAL IMPROVEMENT CHARTER REQUIREMENTS
ARTICLE 5, SECTION 3

(a) **Submission -** The Mayor shall prepare and submit to the Board of Aldermen a five-year Capital Improvement Program at least six months prior to receipt of the next fiscal year's operating budget.

(b) **Contents** - The Capital Improvement Program shall include: (1) a clear summary of its contents; (2) a list of all capital improvements proposed to be undertaken during the next five fiscal years with supporting data; (3) cost estimates, method of financing, and recommended time schedules; and (4) the estimated annual cost of operating and maintaining the facilities included. The above information shall be revised and extended each year.

(c) **Public Hearing** - The Board of Aldermen shall publish in one or more newspapers of general circulation in the City the general summary of the Capital Improvement Program and a notice stating: (1) the times and places where copies of the Capital Improvement Program are available for inspection by the public, and (2) the date, time, and place, not less than two weeks after such publication, when a public hearing on said program will be held by the Board of Aldermen.

(d) **Adoption** - After the public hearing, concurrently with the passage of the next fiscal year's budget, the Board of Aldermen shall by resolution adopt the Capital Improvement Program with or without amendment (Referendum of 11-4-75).

PROJECT DIRECTORY

Project Name: **Newton Countryside Elementary School**
Project Number: **22-0123**

Owner's Name: **City of Newton**

DESIGN TEAM:			
NAME	**COMPANY**	**ADDRESS**	**EMAIL:**
Donna DiNsico	DiNisco Design	99 Chauncy Street, Suite 901, Boston, MA	d.dinisco@dinisco.com
Jim Shuttleworth	DiNisco Design	99 Chauncy Street, Suite 901, Boston, MA	j.shuttleworth@dinisco.com
Vivian Low	DiNisco Design	99 Chauncy Street, Suite 901, Boston, MA	v.low@dinisco.com
Anne Davis Woodacre	DiNisco Design	99 Chauncy Street, Suite 901, Boston, MA	a.woodacre@dinisco.com

BUILDING COMMITTEE:			
NAME	**COMPANY**	**ADDRESS**	**EMAIL:**
Jonathan Yeo (Voting Member)	Chief Operating Officer, Newton	1000 Commonwealth Ave, Newton, MA, 02459	jyeo@newtonma.gov
Nick Read	Chief Procurement Officer, Newton	1000 Commonwealth Ave, Newton, MA, 02459	nread@newtonma.gov
Ruthanne Fuller	Mayor, Newton	1000 Commonwealth Ave, Newton, MA, 02459	rfuller@newtonma.gov
Emily Prenner (Voting Member)	School Committee Member	100 Walnut Street, Newton, MA, 02460	prennere@newton.k12.ma.us
Kathy Smith	Interim Superintendent of Schools	100 Walnut Street, Newton, MA, 02460	smithkath@newton.k12.ma.us
Josh Morse (Voting Member)	Commissioner of Public Buildings	52 Elliot Street, Newton, MA, 02461	jmorse@newtonma.gov
Beth Herlihy (Voting Member)	Principal Countryside E.S., NPS	191 Dedham Street, Newton Highlands, MA, 02461	herlihye@newton.k12.ma.us
Ayesha Farag (Voting Member)	Asst. Superintendent of Elementary Ed. , NPS	100 Walnut Street, Newton, MA, 02460	ayesha_farag@newton.k12.ma.us
Maureen Lemieux (Voting Member)	Chief Financial Officer, Newton	1000 Commonwealth Ave, Newton, MA, 02459	mlemieux@newtonma.gov
Tom Gloria	Co-Chair, Design Review Committee, Newton	52 Elliot Street, Newton, MA, 02461	t.gloria@industrial-ecology.com
Ellen Light	Co-Chair, Design Review Committee, Newton	52 Elliot Street, Newton, MA, 02461	elslight@rcn.com

PROJECT DIRECTORY

Tamika Olszewski	School Committee (Chair)	100 Walnut Street, Newton, MA, 02460	olszewskit@newton.k12.ma.us
Cove Davis (Voting Member)	School Committee Member	100 Walnut Street, Newton, MA, 02460	davisco@newton.k12.ma.us
Stacy Klickstein (Voting Member)	Local Resident, Community Rep.	31 Wetherell Street, Newton, MA, 02464	stacyklick@hotmail.com
Liam Hurley (Voting Member)	Dept. Superintendent/ Chief Admin officer, School Department SBC Co-Chair	100 Walnut Street, Newton, MA, 02460	liam_hurley@newton.k12.ma.us
Andreae Downs (Voting Member)	City Councilor	1000 Commonwealth Ave, Newton, MA, 02459	adowns@newtonma.gov
David Kalis (Voting Member)	City Councilor	1000 Commonwealth Ave, Newton, MA, 02459	dkalis@newtonma.gov
Lori Zinner (Voting Member)	Local Resident, Community Rep.	41 Marcellus Dr., Newton, MA, 02459	lkzinner@gmail.com
Andrew Lee	Asst. City Solicitor, Newton	1000 Commonwealth Ave, Newton, MA, 02459	alee@newtonma.gov
Stephanie Gilman (Voting Member)	Dir. Planning, Project Mgt, & Sustainability, NPS	100 Walnut Street, Newton, MA, 02460	gilmans@newton.k12.ma.us
David Stickney	Director of Facilities, NPS	100 Walnut Street, Newton, MA, 02460	stickneyd@newton.k12.ma.us
Alex Valcarce	Public Buildings Deputy Commissioner, Newton	52 Elliot Street, Newton, MA, 02461	avalcarce@newtonma.gov
Maura Tynes	Director of Elementary Special Ed., NPS	100 Walnut Street, Newton, MA	tynesm@newton.k12.ma.us

OWNER'S PROJECT MANAGER (OPM)				
NAME	**COMPANY**	**ADDRESS**	**PHONE:**	**EMAIL:**
Mike Burton	Dore & Whittier	260 Merrimac St, Newburyport, MA	mburton@DoreandWhittier.com	
Steve Brown	Dore & Whittier	260 Merrimac St, Newburyport, MA	sbrown@doreandwhittier.com	
Christina Dell Angelo	Dore & Whittier	260 Merrimac St, Newburyport, MA	cdellangelo@DoreandWhittier.com	
Mike Cox	Dore & Whittier	260 Merrimac St, Newburyport, MA	mcox@DoreandWhittier.com	
Rachel Rincon	Dore & Whittier	260 Merrimac St, Newburyport, MA	rrincon@DoreandWhittier.com	
Aidan Place	Dore & Whittier	260 Merrimac St, Newburyport, MA	aplace@doreandwhittier.com	

Ruthanne Fuller
Mayor

City of Newton, Massachusetts
Office of the Mayor

Telephone
(617) 796-1100
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(617) 796-1113
TDD/TTY
(617) 796-1089
Email
rfuller@newtonma.gov

September 2, 2022

Ms. Sarah Przybylowicz, Senior Project Coordinator
Massachusetts School Building Authority
40 Broad Street, Fifth Floor
Boston, Massachusetts 02109

RE: Updated Membership of the School Building Committee for the Countryside Elementary School

Dear Ms. Przybylowicz:

In accordance with 963 CMR 2.00, attached for your review and approval is the updated membership of the School Building Committee for the Countryside Elementary School located in the City of Newton. The Committee was formed in accordance with the provisions of all applicable statutes, local charters, by-laws and agreements of the City of Newton. **The changes to the School Building Committee are highlighted in bold text.**

Designation	Name and Title	Address	Email Address Phone Number	Voting Member
SBC member who is MCPPO Certified	Nick Read Chief Procurement Officer	Newton City Hall 1000 Commonwealth Ave. Newton, MA 02459	nread@newtonma.gov 617.796.1100	
Local Chief Executive Officer	Ruthanne Fuller Mayor	Newton City Hall 1000 Commonwealth Ave. Newton, MA 02459	rfuller@newtonma.gov 617.796.1100	
Administrator or Manager [ii]	Jonathan Yeo [1] COO SBC Co-Chair	Newton City Hall 1000 Commonwealth Ave. Newton, MA 02459	jyeo@newtonma.gov 617.796.1100	X
School Committee Member (Minimum of one)	Emily Prenner School Committee Member	Education Center 100 Walnut Street Newton, MA 02460	prennere@newton.k12.ma.us 617.559.6100	X
Superintendent of Schools	**Kathleen Smith** **Interim Superintendent of Schools**	Education Center 100 Walnut Street Newton, MA 02460	Smithk@newton.k12.ma.us 617.559.6100	
Local Official responsible for Building Maintenance	Joshua Morse Commissioner of Public Buildings	52 Elliot Street Newton, MA 02461	jmorse@newtonma.gov 617.796.1600	
Representative of Office authorized by law to construct school buildings	Joshua Morse Commissioner of Public Building	52 Elliot Street Newton, MA 02461	jmorse@newtonma.gov 617.796.1600	X
School Principal	Elizabeth Herlihy	Countryside Elem. School 191 Dedham Street Newton Highlands, MA 02461	herlihye@newton.k12.ma.us 617.559.9400	X
Member knowledgeable in educational mission and function of facility	Ayesha Farag [2] Assist. Super. for Elementary Ed.	Education Center 100 Walnut Street Newton, MA 02460	Ayesha_Farag@newton.k12.ma.us 617.559.6100	X
Local budget official or member of local finance Committee	Maureen Lemieux Chief of Staff/CFO	Newton City Hall 1000 Commonwealth Ave. Newton, MA 02459	mlemieux@newtonma.gov 617.796.1100	X

Members of community with architecture, engineering and/or construction experience	**Thomas Gloria, Co-Chair** Ellen S. Light, Co-Chair Design Review	52 Elliot Street Newton Highlands, MA 02461	t.gloria@industrial-ecology.com elslight@rcn.com 0	
School Committee Chair	Tamika Olszewski School Committee Chair	Education Center 100 Walnut Street Newton, MA 02460	olszewskit@newton.k12.ma.us 617.559.6100	
School Committee Member	Cove Davis School Committee Member	Education Center 100 Walnut Street Newton, MA 02460	davisco@newton.k12.ma.us 617.559.6100	X
School District Official Finance & Operations Oversight	Liam Hurley Dept. Super. / CAO, School Dep. SBC Co-Chair	Education Center 100 Walnut Street Newton, MA 02460	liam_hurley@newton.k12.ma.us 617.599.9027	X
City Council	Andreae Downs Councilor	Newton City Hall 1000 Commonwealth Ave. Newton, MA 02459	adowns@newtonma.gov 617-796-1210	X
City Council	David Kalis Councilor	Newton City Hall 1000 Commonwealth Ave. Newton, MA 02459	dkalis@newtonma.gov 617-796-1210	X
Countryside School Community Representative	**Stacy Klickstein** **Local Resident** **Appointed by Mayor**	31 Wetherell Street Newton, MA 02464	stacyklick@hotmail.com 781-706-7358	X
Countryside School Parent	Lori Zinner, Local Resident, Appointed by Mayor with Council President support	41 Marcellus Dr. Newton, MA 02459	lkzinner@gmail.com 281-236-6403	X
SBC Staff Legal	Andrew Lee Assistant City Solicitor Legal Services	Newton City Hall 1000 Commonwealth Ave. Newton, MA 02459	alee@newtonma.gov 617.796.1240	
SBC Staff **Architecture, Planning**	**Stephanie Gilman,**[3] **RA, MCPPO .** Dir. Of Planning, Project Man.	Education Center 100 Walnut Street Newton, MA 02460	gilmans@newton.k12.ma.us 617.599.9010	X .[3]
SBC Staff NPS Facilities	David Stickney Director of Facilities School department	Education Center 100 Walnut Street Newton, MA 02460	stickneyd@newton.k12.ma.us 617-559-9000	
SBC Staff Architecture, Project Management	Alex Valcarce, AIA, LEED BD+C Deputy Commissioner of Public Buildings	52 Elliot Street Newton, MA 02461	avalcarce@newtonma.gov 617.796.1600	

Listed below is the past performance of the school building committee, the building committee (temporary or permanent), or any other committee responsible for oversight, management, or administration of the construction of public buildings and its individual members:

The City of Newton has consistently followed the City project review process outlined below. Past state supported school building projects that have followed this process include the Angier and Cabot Elementary Schools, the new Newton North High School, Renovation and Addition to Newton South High School and renovations and additions to three elementary schools.

In the City of Newton all public building projects and funding appropriations must be approved by the City Council and its Public Facilities Committee, Programs and Services Committee (school projects only), and Finance Committee. In addition to the members required by the MSBA, the proposed SBC for the Countryside project includes key individuals from these committees as identified in the table above. These individuals possess the knowledge and experience with the funding and construction of public-school projects.

Public buildings in the City of Newton are constructed in accordance with the City's ordinances, specifically Chapter 5. The Commissioner of Public Buildings is responsible for the construction, alteration, repair and maintenance of all public buildings except as otherwise provided for by the Charter of the City.

The Designer Selection Committee makes recommendations to the Mayor whenever an architect is engaged by the City. The designer selection committee makes at least three recommendations to the Mayor from the responses to the request for proposals advertised by the City. The committee is composed of six residents of the City, three of whom are appointed by the Mayor, and three of whom are selected by the City Council. For school projects three additional members are selected by the School Committee.

A Design Review Committee (DRC) coordinates the design review process for any public building within the City. The DRC is composed of twelve permanent voting members, four appointed by the Mayor, four appointed by the City Council, four selected by the School Committee, and two voting members from within the community of each facility under review. The proposed SBC includes the Co-Chairs of the DRC.

The DRC reviews project programs, scopes, plans, specifications, and other such documentation to ascertain that proposed design solutions comply with facility program requirements. In doing such reviews the committee considers alternate solutions as it deems appropriate, and makes recommendations with respect to site planning, building design or construction that contribute to the efficient use and conservation of natural resources and energy.

The DRC provides site plan approval and files a formal petition with the clerk of the City Council for site plan approval at a public hearing before the Public Facilities Committee in accordance with the City's Ordinances. The DRC also provides certifications to the Public Buildings Commissioner when final plans and specifications meet a project's intended program requirements prior to advertising for public construction bids.

Proposed building and site plans for municipal buildings and facilities are also reviewed by the Department of Planning and Development for consistency and compatibility with the City's Comprehensive Plan and pertinent planning studies.

After approval of this committee by the Authority, the City of Newton will notify the Authority in writing within 20 calendar days of any changes to the membership or the duties of said committee.

Sincerely,

Ruthanne Fuller
Mayor

Approved by MSBA Date

i Please attach the certification from the Office of the Inspector General demonstrating completion of the MCPPO Program.
ii "Administrator or Manager" refers to a Town Administrator, Town Manager, or to an equivalent position.
1 Mayor Fuller has designated Mr. Yeo to be her voting representative.
2 Interim Superintendent Smith has designated Ms. Farag to be his voting representative.
3 Stephanie Gilman is an Alternate Voting Member in Liam Hurley's absence.

The Commonwealth of Massachusetts

Office of the Inspector General

Hereby designates

Nicholas Read

as a

Massachusetts Certified Public Purchasing Official

(**MCPPO**)

December 31, 2021

This designation expires three years from the date of issuance

Glenn A. Cunha

Glenn A. Cunha

Inspector General

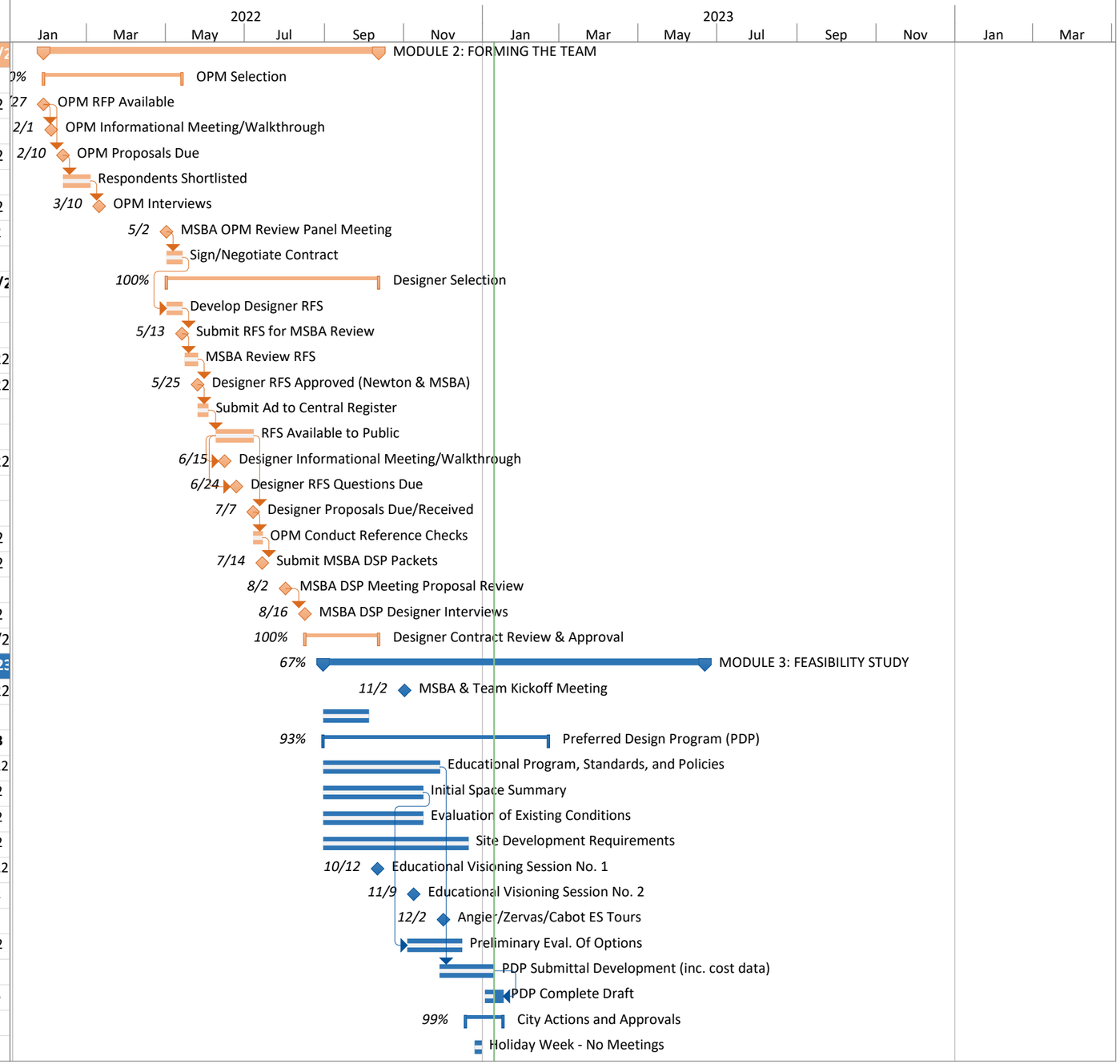
MCPPO 25 Years

MCPPO

Excellence in Public Procurement

CITY OF NEWTON
- COUNTRYSIDE ELEMENTARY SCHOOL PROJECT -
Total Project Schedule

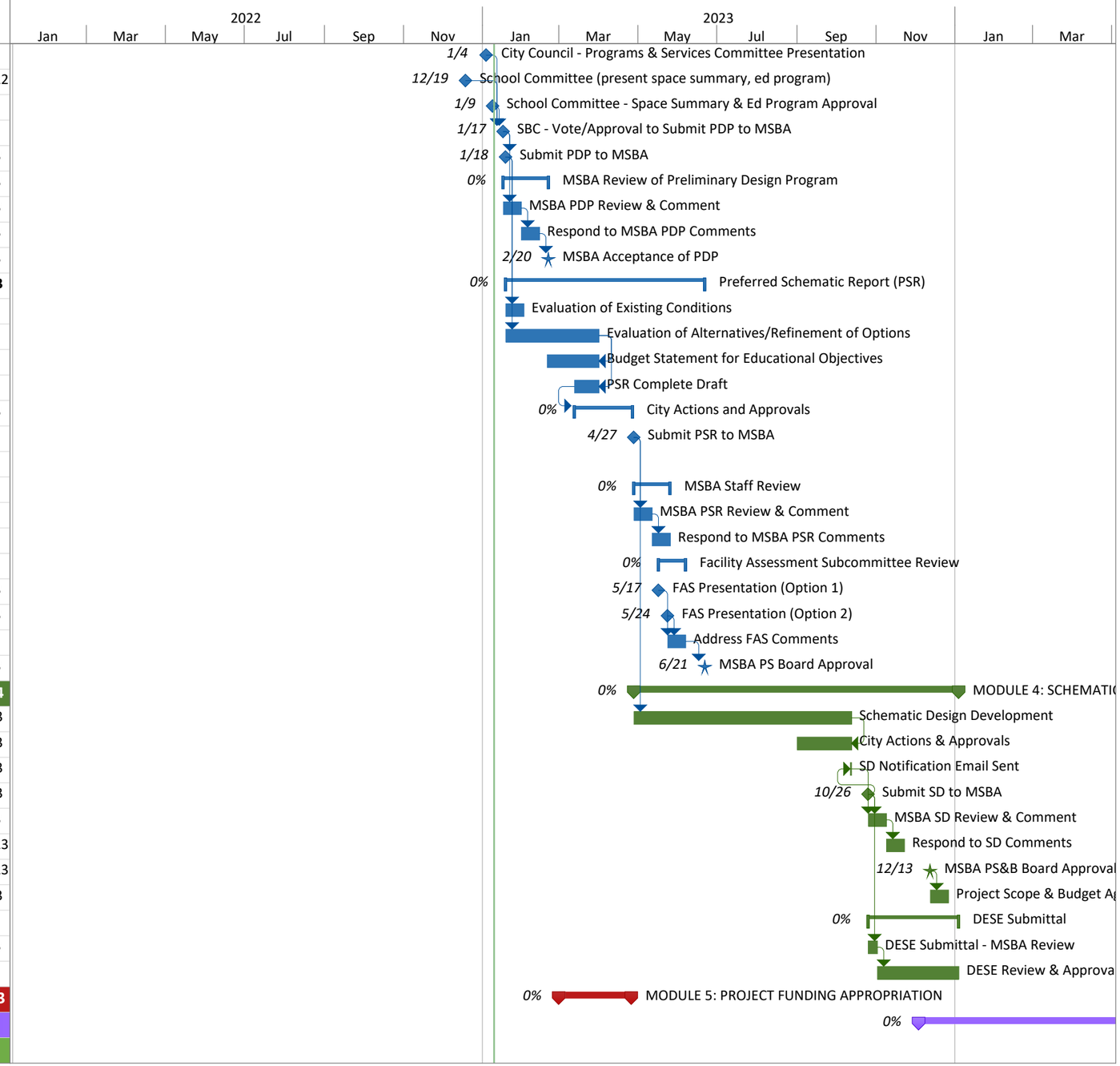
ID	% Comple	WBS	Task Name	Duration	Start	Finish
1	100%	2	MODULE 2: FORMING THE TEAM	185 days	Thu 1/27/22	Wed 10/12/2
2	**100%**	**2.1**	**OPM Selection**	**77 days**	**Thu 1/27/22**	**Fri 5/13/22**
3	100%		OPM RFP Available	0 days	Thu 1/27/22	Thu 1/27/22
4	100%		OPM Informational Meeting/Walkthrough	0 days	Tue 2/1/22	Tue 2/1/22
5	100%		OPM Proposals Due	1 day	Thu 2/10/22	Thu 2/10/22
6	100%		Respondents Shortlisted	15 days	Fri 2/11/22	Thu 3/3/22
7	100%		OPM Interviews	0 days	Thu 3/10/22	Thu 3/10/22
8	100%		MSBA OPM Review Panel Meeting	0 days	Mon 5/2/22	Mon 5/2/22
9	100%		Sign/Negotiate Contract	10 days	Mon 5/2/22	Fri 5/13/22
10	**100%**	**2.2**	**Designer Selection**	**118 days**	**Mon 5/2/22**	**Wed 10/12/2**
11	100%		Develop Designer RFS	10 days	Mon 5/2/22	Fri 5/13/22
12	100%		Submit RFS for MSBA Review	0 days	Fri 5/13/22	Fri 5/13/22
13	100%		MSBA Review RFS	8 days	Mon 5/16/22	Wed 5/25/22
14	100%		Designer RFS Approved (Newton & MSBA)	0 days	Wed 5/25/22	Wed 5/25/22
15	100%		Submit Ad to Central Register	6 days	Thu 5/26/22	Thu 6/2/22
16	100%		RFS Available to Public	21 days	Thu 6/9/22	Thu 7/7/22
17	100%		Designer Informational Meeting/Walkthrough	0 days	Wed 6/15/22	Wed 6/15/22
18	100%		Designer RFS Questions Due	0 days	Fri 6/24/22	Fri 6/24/22
19	100%		Designer Proposals Due/Received	0 days	Thu 7/7/22	Thu 7/7/22
20	100%		OPM Conduct Reference Checks	5 days	Fri 7/8/22	Thu 7/14/22
21	100%		Submit MSBA DSP Packets	0 days	Thu 7/14/22	Thu 7/14/22
22	100%		MSBA DSP Meeting Proposal Review	0 days	Tue 8/2/22	Tue 8/2/22
23	100%		MSBA DSP Designer Interviews	0 days	Tue 8/16/22	Tue 8/16/22
24	100%		Designer Contract Review & Approval	41 days	Wed 8/17/22	Wed 10/12/2
29	67%	3	MODULE 3: FEASIBILITY STUDY	211 days	Wed 8/31/22	Wed 6/21/23
30	100%		MSBA & Team Kickoff Meeting	0 days	Wed 11/2/22	Wed 11/2/22
31	100%		Designer Work Plan (draft rec'd 9/15/22)	25 days	Wed 8/31/22	Tue 10/4/22
32	**93%**	**3.1**	**Preferred Design Program (PDP)**	**124 days**	**Wed 8/31/22**	**Mon 2/20/23**
33	100%		Educational Program, Standards, and Policies	64 days	Wed 8/31/22	Mon 11/28/22
34	100%		Initial Space Summary	55 days	Wed 8/31/22	Tue 11/15/22
35	100%		Evaluation of Existing Conditions	55 days	Wed 8/31/22	Tue 11/15/22
36	100%		Site Development Requirements	80 days	Wed 8/31/22	Tue 12/20/22
37	100%		Educational Visioning Session No. 1	0 days	Wed 10/12/22	Wed 10/12/22
38	100%		Educational Visioning Session No. 2	0 days	Wed 11/9/22	Wed 11/9/22
39	100%		Angier/Zervas/Cabot ES Tours	0 days	Fri 12/2/22	Fri 12/2/22
40	100%		Preliminary Eval. Of Options	30 days	Fri 11/4/22	Thu 12/15/22
41	100%		PDP Submittal Development (inc. cost data)	30 days	Tue 11/29/22	Mon 1/9/23
42	50%		PDP Complete Draft	2 wks	Tue 1/3/23	Mon 1/16/23
43	99%		City Actions and Approvals	21 days	Mon 12/19/22	Tue 1/17/23
44	100%		Holiday Week - No Meetings	5 days	Mon 12/26/22	Fri 12/30/22



Prepared By:
Dore and Whittier Management Partners, LLC

CITY OF NEWTON
- COUNTRYSIDE ELEMENTARY SCHOOL PROJECT -
Total Project Schedule

ID	% Comple	WBS	Task Name	Duration	Start	Finish
45	100%		City Council - Programs & Services Committee Presentation	0 days	Wed 1/4/23	Wed 1/4/23
46	100%		School Committee (present space summary, ed program)	0 days	Mon 12/19/22	Mon 12/19/22
47	100%		School Committee - Space Summary & Ed Program Approval	0 days	Mon 1/9/23	Mon 1/9/23
48	0%		SBC - Vote/Approval to Submit PDP to MSBA	0 days	Tue 1/17/23	Tue 1/17/23
49	0%		Submit PDP to MSBA	1 day	Wed 1/18/23	Wed 1/18/23
50	0%		MSBA Review of Preliminary Design Program	25 days	Tue 1/17/23	Mon 2/20/23
51	0%		MSBA PDP Review & Comment	10 days	Tue 1/17/23	Mon 1/30/23
52	0%		Respond to MSBA PDP Comments	10 days	Tue 1/31/23	Mon 2/13/23
53	0%		MSBA Acceptance of PDP	0 days	Mon 2/20/23	Mon 2/20/23
54	**0%**	**3.2**	**Preferred Schematic Report (PSR)**	**110 days**	**Thu 1/19/23**	**Wed 6/21/23**
55	0%		Evaluation of Existing Conditions	10 days	Thu 1/19/23	Wed 2/1/23
56	0%		Evaluation of Alternatives/Refinement of Options	52 days	Thu 1/19/23	Fri 3/31/23
57	0%		Budget Statement for Educational Objectives	30 days	Mon 2/20/23	Fri 3/31/23
58	0%		PSR Complete Draft	3 wks	Mon 3/13/23	Fri 3/31/23
59	0%		City Actions and Approvals	33 days	Mon 3/13/23	Wed 4/26/23
66	0%		Submit PSR to MSBA	1 day	Thu 4/27/23	Thu 4/27/23
67	0%		Approval to Proceed to Schematic Design	28 days	Fri 4/28/23	Tue 6/6/23
68	0%		MSBA Staff Review	20 days	Fri 4/28/23	Thu 5/25/23
69	0%		MSBA PSR Review & Comment	10 days	Fri 4/28/23	Thu 5/11/23
70	0%		Respond to MSBA PSR Comments	10 days	Fri 5/12/23	Thu 5/25/23
71	0%		Facility Assessment Subcommittee Review	15 days	Wed 5/17/23	Tue 6/6/23
72	0%		FAS Presentation (Option 1)	0 days	Wed 5/17/23	Wed 5/17/23
73	0%		FAS Presentation (Option 2)	0 days	Wed 5/24/23	Wed 5/24/23
74	0%		Address FAS Comments	10 days	Wed 5/24/23	Tue 6/6/23
75	0%		MSBA PS Board Approval	1 day	Wed 6/21/23	Wed 6/21/23
76	**0%**	**4**	**MODULE 4: SCHEMATIC DESIGN**	**179 days**	**Fri 4/28/23**	**Wed 1/3/24**
77	0%		Schematic Design Development	6 mons	Fri 4/28/23	Thu 10/12/23
78	0%		City Actions & Approvals	6 wks	Fri 9/1/23	Thu 10/12/23
79	0%		SD Notification Email Sent	1 day	Thu 10/12/23	Thu 10/12/23
80	0%		Submit SD to MSBA	0 days	Thu 10/26/23	Thu 10/26/23
81	0%		MSBA SD Review & Comment	10 days	Thu 10/26/23	Wed 11/8/23
82	0%		Respond to SD Comments	10 days	Thu 11/9/23	Wed 11/22/23
83	0%		MSBA PS&B Board Approval	0 days	Wed 12/13/23	Wed 12/13/23
84	0%		Project Scope & Budget Agreement Executed	2 wks	Wed 12/13/23	Tue 12/26/23
85	0%		DESE Submittal	50 days	Thu 10/26/23	Wed 1/3/24
86	0%		DESE Submittal - MSBA Review	5 days	Thu 10/26/23	Wed 11/1/23
87	0%		DESE Review & Approval	9 wks	Thu 11/2/23	Wed 1/3/24
88	**0%**	**5**	**MODULE 5: PROJECT FUNDING APPROPRIATION**	**40 days**	**Wed 3/1/23**	**Tue 4/25/23**
90	**0%**	**6**	**MODULE 6: DETAILED DESIGN (TBD)**	**300 days**		
94	**0%**	**7**	**MODULE 7: CONSTRUCTION (TBD)**	**700 days**		



Prepared By:
Dore and Whittier Management Partners, LLC

MEETING AGENDA

Meeting Date:	May 24, 2022
Meeting Time:	6:00 PM
Project Name:	Newton Countryside Elementary School
Project Number:	
Meeting Purpose:	SBC Meeting No. 1

1. Call to Order
2. Approval of Minutes:
    - (TBD) SBC Meeting Minutes. Vote Expected.
3. Introduction of the OPM, Dore & Whittier Management Partners Team
4. Public Comment
5. Next Meetings
6. Adjourn

DORE + WHITTIER

MEETING MINUTES

Project:	Newton Countryside Elementary School	Project No:	
Subject:	School Building Committee Meeting	Meeting Date:	5/24/2022
Location:	Zoom Conference Call	Time:	6:00 PM
Distribution:	Attendees, Project File	Prepared By:	M. Cox

Present	Name	Affiliation	Present	Name	Affiliation
	Jonathan Yeo* WG	Chief Operating Officer	✓	Mike Burton	DWMP
	Ruthann Fuller	Mayor	✓	Christina Dell Angelo	DWMP
✓	Emily Prenner* WG	School Committee	✓	Mike Cox	DWMP
	David Fleishman	Superintendent of Schools		Rachel Rincon	DWMP
✓	Josh Morse* WG	Commissioner of Public Buildings	✓	Steve Brown	DWMP
✓	Beth Herlihy* WG	Principal Countryside E.S.		Jason Boone	DWMP
	Ayesha Farag*	Asst. Superintendent of Elementary			
	Maureen Lemieux*	Chief Financial Officer			
	Peter Barrer				
	Ellen Light				
	Tamika Olszewski	School Committee (Chair)			
	Cove Davis*	School Committee			
	Liam Hurley* WG	Asst. Superintendent/ Chief Fin. &			
	Andreae Downs* WG	City Council			
	David Kalis*	City Council			
✓	Patricia Byrne*	Local Resident			
	Lori Zinner*	Local Resident			
	Andrew Lee	Asst. City Solicitor			
✓	Stephanie Gilman WG	Dir. Planning, Project Mgt, &			
	David Stickney	Director of Facilities			
✓	Alex Valcarce WG	Deputy Commissioner			
	Maura Tynes WG	Director of Elementary Special Ed.			
✓	Christina Oliver	Public			
✓	Lisa Reibstein	Public			
✓	Adam Bernstein	Public/DSC			

* SBC Voting Member | WG Working Group

Item No.	Description	Action
1.1	**Call to Order**: 6:00pm	Record
1.2	**Introduction of the OPM, Dore & Whittier Management Partners Team:** J. Morse introduced Dore & Whittier Management Partners (DWMP) who will be in the role of owner project manager. The core team include Mike Burton, Project Director; Steve Brown, Senior Project Manager; Christina Dell Angelo, Project Manager; Mike Cox, Project Manager; and Rachel Rincon, Assistant Project Manager. DWMP presented their interview PowerPoint that was given to the MSBA during the hiring process. DWMP highlighted that their firm is comprised of two side, the Management Partners side which is the group hired before you as well as the Architecture side, which brings unique benefits of resources that can be brought in throughout the process as needed including educational facilities programming and code review / sustainability, among others. DWMP then highlighted a few projects that they felt have similarities to Countryside and lessons learned from those projects that will benefit Countryside including, wetlands, zero net energy, community engagement, tight sites, passing the vote, neighborhood schools, among others. DWMP continued by discussing the two enrollments that Countryside was approved to move forward with and the process / study requirements by the MSBA. <u>Key next steps include:</u> Designer Request for Submission Available: June 9th Application due to District: July 7th Designer Selection Panel Review: August 2nd Designer Selection Panel Interview: August 16th The full presentation can be seen online at https://us02web.zoom.us/rec/share/-IDwVYL2Ictg1XKc7Y8yK5Pi2yUiXpF77FPMlEJ0SgEemw5bnqJLv-ooHNASn0b0.PY5ScurjlU5rOlme	Record
1.3	**Public Comment:** ➢ Concern of traffic and speeding in the location of Countryside. o The designer (architect) once hired will have a traffic engineer complete a study as part of the process where these issues will be discussed and dissected. ➢ When will the contractor will be hired? o There are two methods before us that we will have to decide on as we gather more information. The two methods are Ch. 149 (Design Bid Build) and 149a (Construction Manager at Risk). Ch. 149 method would bring the contractor on board at the conclusion of the construction contract documents where they would bid on the complete set of project documents. Ch. 149a brings the contractor on board during the schematic design	Record

	phase through a qualifications process and would be involved through the later part of the design process. ➢ When in the process do community suggestion on design have a chance to be brought to attention o Once the designer is brought on board there will be the first of a series of community meeting which will give a chance for those interest to attend and voice suggestions ask questions, etc. Additional question or comments can be emailed to Countryside@domain.gov	
1.4	**Next Meetings:** The next meeting of the Countryside School Building Committee is scheduled for Tuesday June 21st at 6:00pm. You can register in advance for the meeting by clicking the following link: https://us02web.zoom.us/webinar/register/WN_Vwi11HJXSDGgZDY1i0vrOQ	Record
1.5	**Adjourn**: 6:45pm	Record

Sincerely,
DORE + WHITTIER
Mike Cox
Project Manager
Cc: Attendees, File
The above is my summation of our meeting. If you have any additions and/or corrections, please contact me for incorporation into these minutes.

City of Newton

Ruthanne Fuller
Mayor

PUBLIC BUILDINGS DEPARTMENT
Joshua R. Morse, Commissioner
Telephone (617) 796-1600
FAX (617) 796-1601
TTY: (617) 796-1089
52 ELLIOT STREET
NEWTON HIGHLANDS, MA 02461-1605

NOTICE

There will be a remote meeting of the Countryside School Building Committee on Tuesday, June 21, 2022. The meeting will be held via zoom and will start at 6:00 p.m. Please follow the link below to register in advance.

Join Zoom Meeting
Topic: Countryside School Building Committee

https://us02web.zoom.us/webinar/register/WN_Vwi11HJXSDGgZDY1i0vrOQ

AGENDA

See attached Dore and Whittier meeting agenda

The location of this meeting is handicap accessible and reasonable accommodations will be provided to persons requiring assistance. If you need a special accommodation, please contact the City of Newton's ADA Coordinator, Jini Fairley, at least two business days in advance of the meeting: jfairley@newtonma.gov or 617-796-1253. For Telecommunications Relay Service dial 711.

MEETING AGENDA

Meeting Date:	June 21, 2022
Meeting Time:	6:00 PM
Project Name:	Newton Countryside Elementary School
Project Number:	22-0123
Meeting Purpose:	SBC Meeting No. 2

1. Call to Order
2. Approval of Minutes:
    - 5/24/22 SBC Meeting Minutes. Vote Expected.
3. Designer Selection progress update
4. Site Survey and Wetlands mapping
5. Public Comment
6. Next Meetings
7. Adjourn

DORE + WHITTIER

MEETING MINUTES

Project:	Newton Countryside Elementary School	Project No:	22-0123
Subject:	School Building Committee Meeting	Meeting Date:	6/21/2022
Location:	Zoom Conference Call	Time:	6:00 PM
Distribution:	Attendees, Project File	Prepared By:	R. Rincon

Present	Name	Affiliation	Present	Name	Affiliation
✓	Jonathan Yeo* WG	Chief Operating Officer	✓	Mike Burton	DWMP
	Ruthann Fuller	Mayor		Christina Dell Angelo	DWMP
	Emily Prenner* WG	School Committee	✓	Mike Cox	DWMP
	David Fleishman	Superintendent of Schools	✓	Rachel Rincon	DWMP
✓	Josh Morse* WG	Commissioner of Public Buildings	✓	Steve Brown	DWMP
✓	Beth Herlihy* WG	Principal Countryside E.S.		Jason Boone	DWMP
	Ayesha Farag*	Asst. Superintendent of Elementary			
	Maureen Lemieux*	Chief Financial Officer			
	Peter Barrer				
✓	Ellen Light				
	Tamika Olszewski	School Committee (Chair)			
	Cove Davis*	School Committee			
	Liam Hurley* WG	Asst. Superintendent/ Chief Fin. &			
✓	Andreae Downs* WG	City Council			
	David Kalis*	City Council			
✓	Patricia Byrne*	Local Resident			
✓	Lori Zinner*	Local Resident			
	Andrew Lee	Asst. City Solicitor			
✓	Stephanie Gilman WG	Dir. Planning, Project Mgt, &			
	David Stickney	Director of Facilities			
✓	Alex Valcarce WG	Deputy Commissioner			
	Maura Tynes WG	Director of Elementary Special Ed.			
	Christina Oliver	Public			
✓	Lisa Reibstein	Public			
✓	Adam Bernstein	Public/DSC			
✓	Brian Hunter	Public			
✓	Carol Schein	Public			

* SBC Voting Member | WG Working Group

Item No.	Description	Action
2.1	**Call to Order**: 6:03 pm meeting was called to order by Commissioner of Public Buildings J. Morse with 5 of 12 voting members in attendance.	Record
2.2	**Previous Topics & Approval of May 14, 2022 Meeting Minutes:** On Hold.	Record
2.3	**Designer Selection Progress Update:** S. Brown provides the SBC with a designer selection progress update. ➢ The RFS went into central register and was publicly posted on time. ➢ Last week there was a designer walkthrough at the school. Prospective bidders had a chance to walk the site and building itself. A. Valcarce and S. Brown attended on behalf of the city. ➢ All questions from the designer for the RFS are due on Friday. We will respond to those questions formally by next Friday June 24th. ➢ RFS proposals are due to the city on July 7th. ➢ We have to go through the designer selection panel process, and we are scheduled to meet with them on August 2nd to review the proposals. Following that, we will hold interviews on August 16th. <u>Discussion:</u> ➢ A. Valcarce shares there were about 6 or 7 firms who participated in the walkthrough. Also, it is important to note that this is not a mandatory walkthrough, but I think we will have some good interest in the project. ➢ J. Morse mentions we are going to spend the next couple of months walking through the designer selection process and by mid-August we should be able to transition into our contractual phase where we will process a contract with the preferred designer. In September we will get going on our feasibility phase with our selected design team.	Record
2.4	**Site Survey and Wetlands Mapping:** A.Valcarce explains we need to follow the MSBA timeline to get the designer on board and they will probably be on board in September. In the meantime, we are working diligently and gathering information. This information needs to be gathered whether it is done now or with the designer. Newton has a number of on call consultants, so we are currently under contract with DGT to do a survey and wetlands mapping of the site. This will take a bit of time and we want to take advantage of the weather. We will get all of the topography and trees which will create a baseline for site information for the designer. This will also confirm for us where the wetlands are. We are also doing some existing conditions surveys inside the building and some Geo Environmental soil testing. This will all be great information for our designer to get started in September.	Record

	Discussion: ➢ A. Downs asks how do we determine where the wetlands are when eastern Massachusetts has entered a period of a semi-drought? Also, how do we plan ahead for the next 30-50 years? J. Morse responds the determination of the wetlands is more about what is growing on the land itself. They utilize a lot of identification of different types of plants and organics, sediment deposits such as soil conditions. Even in a drought, it is very telling where the edge of the wetlands is to somebody who knows what they are looking for. Also, planning is more about our stormwater plan. We are aggressive on our projects where we have opportunities. The better we can do on our site, the better it will be for the neighborhood. We want to make sure we are allowing for future growth.	
2.5	**Public Comment:** ➢ J. Morse shares we are actively seeking a member for the Countryside School Building Committee as well as a community rep for the Countryside School Project on the design review committee. ➢ L. Reibstein is an abutter to the Countryside School and was raising some questions about the conditions of the wetlands and water quality. J. Morse mentions these questions will be nailed down as the project develops. It is part of our responsibility to leave the site in the best condition we possibly can once the project is wrapped up. ➢ S. Gilman needs to be added to the updated MSBA list. A. Valcarce is working on it. L. Hurley and S. Gilman will be sharing a voting spot.	Record
2.6	**Next Meetings**: ➢ TBD	Record
2.7	**Adjourn**: 6:18 pm A motion was made by J. Morse and seconded by A. Valcarce to adjourn the meeting. Discussion: None.	Record

Sincerely,
DORE + WHITTIER
Rachel Rincon
Assistant Project Manager
Cc: Attendees, File
The above is my summation of our meeting. If you have any additions and/or corrections, please contact me for incorporation into these minutes.

City of Newton

Ruthanne Fuller
Mayor

PUBLIC BUILDINGS DEPARTMENT
Joshua R. Morse, Commissioner
Telephone (617) 796-1600
FAX (617) 796-1601
TTY: (617) 796-1089
52 ELLIOT STREET
NEWTON HIGHLANDS, MA 02461-1605

NOTICE

There will be a remote meeting of the Countryside School Building Committee on Tuesday, August 23, 2022. The meeting will be held via zoom and will start at 6:00 p.m. Please follow the link below to register in advance.

Join Zoom Meeting
Topic: Countryside School Building Committee

https://us02web.zoom.us/webinar/register/WN_Mmlp5gOlSGuiz0UfghHKoQ

AGENDA

See attached Dore and Whittier meeting agenda

The location of this meeting is handicap accessible and reasonable accommodations will be provided to persons requiring assistance. If you need a special accommodation, please contact the City of Newton's ADA Coordinator, Jini Fairley, at least two business days in advance of the meeting: jfairley@newtonma.gov or 617-796-1253. For Telecommunications Relay Service dial 711.

MEETING AGENDA

Meeting Date:	August 23, 2022
Meeting Time:	6:00 PM
Project Name:	Newton Countryside Elementary School
Project Number:	22-0123
Meeting Purpose:	SBC Meeting No. 3

1. Call to Order
2. Approval of Minutes:
    - 5/24/22 SBC Meeting Minutes. Vote Expected.
    - 6/21/22 SBC Meeting Minutes. Vote Expected.
3. Designer Selection Update
4. Introduction of the Designer, DiNisco Design Team
5. Public Comment
6. Next Meetings
7. Adjourn

DORE + WHITTIER

MEETING MINUTES

Project:	Newton Countryside Elementary School	Project No:	22-0123
Subject:	School Building Committee Meeting	Meeting Date:	8/23/2022
Location:	Zoom Conference Call	Time:	6:00 PM
Distribution:	Attendees, Project File	Prepared By:	Aidan Place

Present	Name	Affiliation	Present	Name	Affiliation
	Jonathan Yeo* WG	Chief Operating Officer	✓	Mike Burton	DWMP
	Ruthann Fuller	Mayor	✓	Christina Dell Angelo	DWMP
	Emily Prenner* WG	School Committee	✓	Mike Cox	DWMP
	Kathy Smith	Superintendent of Schools	✓	Rachel Rincon	DWMP
✓	Josh Morse* WG	Commissioner of Public Buildings		Steve Brown	DWMP
✓	Beth Herlihy* WG	Principal Countryside E.S.	✓	Donna DiNsico	DiNisco
	Ayesha Farag*	Asst. Superintendent of Elementary	✓	Jim Shuttleworth	DiNisco
	Maureen Lemieux*	Chief Financial Officer	✓	Vivian Low	DiNisco
	Tom Gloria	DRC			
✓	Ellen Light	Resident			
	Tamika Olszewski	School Committee (Chair)			
✓	Cove Davis*	School Committee			
✓	Stacy Klickstein	Resident			
	Liam Hurley* WG	Asst. Superintendent/ Chief Fin. &			
✓	Andreae Downs* WG	City Council			
✓	David Kalis*	City Council			
	Patricia Byrne*	Resident			
✓	Lori Zinner*	Resident			
	Andrew Lee	Asst. City Solicitor			
	Stephanie Gilman WG	Dir. Planning, Project Mgt, &			
	David Stickney	Director of Facilities			
✓	Alex Valcarce WG	Deputy Commissioner			
✓	Adam Lipson	Resident			
	Maura Tynes WG	Director of Elementary Special Ed.			
✓	Lisa Reibstein	Public			
✓	Brian Hunter	Public			

* SBC Voting Member | WG Working Group

Item No.	Description	Action
3.1	**Call to Order**: 6:03 pm meeting was called to order by Commissioner of Public Buildings J. Morse with 6 of 12 voting members in attendance.	Record
3.2	**Approval of May 24, 2022 Meeting Minutes & June 21, 2022 Meeting Minutes:** ➢ Meeting minutes will be approved next SBC meeting as there were not enough voting members in attendance.	Record
3.3	**Introduction of the Designer, DiNisco Design Team:** ➢ D. DiNisco, V. Low, and J. Shuttleworth all introduce themselves to the committee. D. DiNisco mentions D. Stevens will be working with DiNisco on educational programming. B. Brown will be working with DiNisco as the landscape architect. J. Bernardo will also be consulting on the Countryside site. D. DiNisco says the team wants to understand the Countryside community and what is important to them. They want to look back at previous projects they have done with Newton to see how the educational programs developed over the years so they can validate and confirm the program needs as they move forward with the project. They understand that every student learns differently, and that Newton has an amazing program that fosters culture of equity and excellence by delivering and sustaining high-quality education. They understand that you need multiple ways of learning whether it be supporting differentiated learning and instruction, project-based learning, or if it's a small or large group, they look forward to developing the right balance with Newton. It is also important for students to develop their own clear sense of belonging and ownership in a smaller learning community. This makes the students feel safe and comfortable in their environment. The outdoor learning opportunities at Countryside are important. ➢ J. Shuttleworth says he had the pleasure of being the project manager on the Hastings Elementary School in Lexington. DiNisco worked closely with the town stakeholders and educators to help them make smart decisions on the Hastings Elementary School. They participated in community events and small group gatherings to get an understanding for what the community at large was looking for. With that understanding, they developed the plan for a vibrant elementary school that was simple, and a design that met their educational requirements. All in a very confined site between sizeable wetlands and a new geothermal wellfield and an existing operational elementary school.	Record

- D. DiNisco states how important a low EUI is to achieve a net zero building. DiNisco's goal is to have a EUI of 28 but would be better to achieve a 25. This will depend on the system that is used in the building. D. DiNisco shows recent buildings completed including the Cabot School which was a renovation/addition, and they were really pleased with the EUI on it. The Hastings School was all electric and uses ground source heat. DiNisco mentions they are working with another community now that just made the decision to go with ground source heat pumps and with all this knowledge they feel they can help the community make the right decision for the Countryside School. DiNisco does not want to lose sight of the social and emotional wellbeing of the students. It is going to be a balance and making sure that they have the proper light and daylight to help the students reach their full potential while maintaining a highly efficient building. They look forward to working with Countryside throughout the process.

- J. Shuttleworth says he has high expectation of the team and states communication is key for a successful project. It is also important that quality and cost control are kept in check. He sees a concise set of drawings as the first product in the design process, the second being the building.

- V. Low states they believe that design is a responsive design and responsive design means that they understand goals and priorities that then become their goals and priorities as well. DiNisco wants to maintain the community connections of the blue zone, bus zones, and safety. DiNisco will be looking at the 200-foot riverfront and wetlands carefully as they need to balance that with stormwater mitigation. All these natural elements of the site help frame how they look at the project and decide an optimal building location. After working with the consultants, the past few weeks, it makes sense for the new school to be on the northern portion of the site. This would provide an opportunity for phased construction. They can build a new school while maintaining operations at the existing Countryside building. In order to transform this site, it is best to look at it in three zones that work together. Where the existing school is, it Is a passive recreation zone. This is the area where it is the wettest. It has the wonderful natural resource, and the wetland gives DiNisco an opportunity to start to look at some natural connections to and from the community. This area also provides an opportunity for wetland replication and compensatory flood storage should it be needed between the path of recreation zone and the school or learning zone. There is an opportunity and space to redevelop a field. It could be a softball field, baseball field, or multipurpose field depending on what the city determines the need to be. This can then be designed in conjunction with schools training areas,

that becomes a vibrant and active area being the active zone. The school or learning zone wants to develop transparency between the built environment and working at both interior learning areas and outdoor learning. This is just one approach to looking at the site.

- V. Low shows video clip of how the site could be developed. There are boardwalks where areas are wet and small group learning areas. Then shows an image of what the playing field could look like. V. Low mentions how daylight is very important in learning areas, making sure to incorporate this into the building design.

Discussion:

- D. Kalis states he likes the idea of leveraging the wetlands and it is a great idea. The play space is in a great location. D. Kalis also mentions complications with pick up and drop off, one of the major problems they currently have.

- J. Bornstein asks about the construction noise being a distraction for the kids. D. DiNisco answers saying they have experience with this and that a recent school in Lexington was ten feet away from the existing building and it worked out well.

- L. Reibstien wanted to mention a dangerous intersection that causes backups on the road. It is hard to handle with kids walking to the school. J. Morse responds saying he has already started conversations regarding this topic.

- L. Reibstein also brings up how staff parking is limited and asks is there consideration given the overflow of parking and how that effects the neighborhood. J. Morse responds saying they will put together a plan for this issue.

- A. Lipson mentions the neighborhood connection going from the top northwest corner to the playfield sees a lot of foot traffic from kids. A. Lipson wants DiNisco to be mindful of this when putting together a plan. Also putting parking farther south of Dedham Street is not a great idea as teachers will have to walk farther to get to school. She encourages the design team to think about these issues when in the design process.

- T. Gloria asks what's the expectation of time frame for a school not built in the same footprint. J. Morse responds saying typically 24 months for construction

3.4	**Public Comment:** ➢ None.	Record
3.5	**Next Meetings**: ➢ SBC 04 – Tuesday September 20th 6:00 PM on Zoom.	Record
3.6	**Adjourn**: 6:44 pm A motion was made by J. Morse. Discussion: None.	Record

Sincerely,
DORE + WHITTIER
Aidan Place
Assistant Project Manager
Cc: Attendees, File
The above is my summation of our meeting. If you have any additions and/or corrections, please contact me for incorporation into these minutes.

City of Newton

Ruthanne Fuller
Mayor

PUBLIC BUILDINGS DEPARTMENT
Joshua R. Morse, Commissioner
Telephone (617) 796-1600
FAX (617) 796-1601
TTY: (617) 796-1089
52 ELLIOT STREET
NEWTON HIGHLANDS, MA 02461-1605

NOTICE

There will be a remote meeting of the Countryside School Building Committee on Tuesday, October 18, 2022. The meeting will be held via zoom and will start at 6:00 p.m. Please follow the link below to register in advance.

Join Zoom Meeting
Topic: Countryside School Building Committee

https://us02web.zoom.us/webinar/register/WN_AZlw0fFaSfieuDcx65uBtw

AGENDA

See attached Dore and Whittier meeting agenda

The location of this meeting is handicap accessible and reasonable accommodations will be provided to persons requiring assistance. If you need a special accommodation, please contact the City of Newton's ADA Coordinator, Jini Fairley, at least two business days in advance of the meeting: jfairley@newtonma.gov or 617-796-1253. For Telecommunications Relay Service dial 711.

MEETING AGENDA

Meeting Date:	October 18, 2022
Meeting Time:	6:00 PM
Project Name:	Newton Countryside Elementary School
Project Number:	22-0123
Meeting Purpose:	SBC Meeting No. 4

1. Call to Order
2. Approval of Minutes:
    - 5/24/22 SBC Meeting Minutes. Vote Expected.
    - 6/21/22 SBC Meeting Minutes. Vote Expected.
    - 8/23/22 SBC Meeting Minutes. Vote Expected.
3. Designer Update
4. Public Comment
5. Next Meetings
6. Adjourn

DORE + WHITTIER

MEETING MINUTES

Project:	Newton Countryside Elementary School	Project No:	22-0123
Subject:	School Building Committee Meeting	Meeting Date:	10/18/2022
Location:	Zoom Conference Call	Time:	6:00 PM
Distribution:	Attendees, Project File	Prepared By:	Aidan Place

Present	Name	Affiliation	Present	Name	Affiliation
✓	Jonathan Yeo* WG	Chief Operating Officer	✓	Mike Burton	DWMP
	Ruthanne Fuller	Mayor		Christina Dell Angelo	DWMP
✓	Emily Prenner* WG	School Committee		Mike Cox	DWMP
✓	Bill Humphrey	City Council	✓	Aidan Place	DWMP
	Kathy Smith	Superintendent of Schools		Rachel Rincon	DWMP
✓	Josh Morse* WG	Commissioner of Public Buildings	✓	Steve Brown	DWMP
✓	Beth Herlihy* WG	Principal Countryside E.S.	✓	Donna DiNsico	DiNisco
	Ayesha Farag*	Asst. Superintendent of Elementary		Jim Shuttleworth	DiNisco
	Maureen Lemieux*	Chief Financial Officer	✓	Vivian Low	DiNisco
	Tom Gloria	DRC	✓	Anne Davis Woodacre	
✓	Ellen Light	Resident			
	Tamika Olszewski	School Committee (Chair)	✓	Carl Schein	
✓	Cove Davis*	School Committee	✓	Christina Oliver	
✓	Stacy Klickstein	Resident	✓	Adam Bernstien	
	Liam Hurley* WG	Asst. Superintendent/ Chief Fin. &	✓	Melissa Monokroussos	
✓	Andreae Downs* WG	City Council			
✓	David Kalis*	City Council			
	Patricia Byrne*	Resident			
✓	Lori Zinner*	Resident			
	Andrew Lee	Asst. City Solicitor			
✓	Stephanie Gilman WG	Dir. Planning, Project Mgt, &			
	David Stickney	Director of Facilities			
✓	Alex Valcarce WG	Deputy Commissioner			
✓	Adam Lipson	Resident			
	Maura Tynes WG	Director of Elementary Special Ed.			
✓	Lisa Reibstein	Public			
	Brian Hunter	Public			

* SBC Voting Member | WG Working Group

Item No.	Description	Action
4.1	**Call to Order**: 6:02 pm meeting was called to order by Commissioner of Public Buildings J. Morse with 8 of 12 voting members in attendance.	Record
4.2	**Approval of May 24, 2022 Meeting Minutes, June 21, 2022 Meeting Minutes, & August 23, 2022 Meeting Minutes:** ➢ A motion to approve the 5/24/22, 6/21/22, & 8/23/2022 meeting minutes as submitted made by E. Prenner and seconded by J. Yeo. Discussion: None. Roll Call Vote: E. Prenner. – Yes J. Yeo – Yes J. Morse – Yes B. Herlihy – Yes C. Davis – Yes A. Downs – Yes D. Kalis - Yes L. Zinner - Yes Abstention: None. Motion passes, minutes approved.	Record
4.3	**Designer Update:** ➢ S. Brown starts with the timeline update. Says we are now into the feasibility stage of the project. The first part being the PDP (Preliminary Design Program). Which includes fact finding about the existing building and about the existing educational program. Also, how Newton sees the educational vision for the future. There is also analysis on the existing programs and space. From there can generate some options based on what the findings show and community input. From there the PDP is submitted to the MSBA for review. ➢ S. Brown states from there the next deliverable is the PSR (Preferred Schematic Report). The PSR is for drilling down the scope, budget, and schedule of what the preferred option is. The PSR ends with a vote of confidence from the MSBA with the city and moves into Schematic Design. Then in Schematic Design the consultant team starts to further develop that design. ➢ D. Kalis asks if this process is similar to past projects. J. Morse responds saying yes, the MSBA process evolves overtime, but the majority of the process is very similar. ➢ J. Morse starts talking about the Site Selection. Says they will be sending out an excel document that is the site selection matrix. Says that since they have done this before the draft that is made up is solid and has been tested many times over the years. J. Morse encourages the committee to look at it when it is sent out and provide feedback. ➢ C. Oliver asks about possibility of more housing in Newton Highlands impacting the project. J. Morse responds saying they will work with the planning department, executive office, and Newton schools to factor in those active developments. J. Yeo responds saying they will also be looking at potentially the students who are on the north and west side of Needham St including them in the enrollment in countryside.	Record

- C. Oliver asks there is all this work on zoning changes which might change the number on affordable housing units. J. Yeo responds there is no zoning included in that area and won't affect countryside. J. Morse follows saying Newton and MSBA will not put countryside in a position of not having enough space.
- V. Low goes into detail about the existing conditions. V. Low says they have had their Geotech engineers out on site for exploratory work. They have been out the last two Saturdays performing boring testing which are indicated in the graphic shown in green. They anticipate being out on Saturday 10/22 to complete a set of test pits. A report should be out by mid-November.
- E. Prenner asks about what a boring test is and what is it testing for. V. Low responds saying they take a cylinder of soil and analyze it to determine the bearing capacity and makeup of the soil. The test pits help look at the soil in a broader sense and help evaluate groundwater.
- A. Downs asks about the yellow outline on the graphic. V. Low responds saying when they interviewed, they did their best guess on where the site could optimally be based on the knowledge that they had. J. Morse follows talking about the graphic and its different parts involved in it and how it gives them a complete picture of the site.
- D. DiNisco talks about the traffic study report. How they observed the blue zone, and it can hold 17 cars. In the morning, traffic moves quickly and flows better. Also noticed parents parking on side streets and walked students into the building. They will need to study this and how to improve flow of traffic. D. Kalis mentions an additional drop off area. D. DiNisco responds saying over coming months will study more to get a better idea of traffic flow.
- L. Reibstein says overflow parent parking on Dedham Street does happen and can go all the way down to Andrew Street. D. DiNisco responds saying she understands this, and they will take that into consideration. They will look at how they can improve circulation of traffic as they continue with the project.
- C. Oliver asks about the open field and what happens to it. V. Low responds saying that they are looking for a better spot for the field, may not be in the location they initially though it would be. J. Morse follows by saying the new school will be larger but much more compact and efficient than the existing layout of the school. A. Valcarce agrees with A. Downs about before and after school interactions are a public good. Also states that in previous schools they have designed spaces for that.
- L. Reibstein asks about the baseball field and who is using it now if anyone. J. Morse responds saying they work with parks and rec department to figure out demand and right solution. Also mentions that another traffic study will be done later on down the road and there will be more discussion about this.

	➢ S. Klickstein asks about completing more traffic studies in different times of the year. D. DiNisco responds saying they typically do more than one study, this was just a preliminary study trying to figure out existing patterns. They will get actual traffic counts and how many cars go through intersections. J. Morse follows by saying he talked with public works and the transportation division, and they will be working together to assist this situation. D. DiNisco says that snow and how that limits space will be taken into consideration as well. ➢ D. DiNisco goes into the educational visioning session that was held. Says this session was more of a big picture session of what they see the new school being and what they like about the current school. There will be another session on 11/9. Comments that the whole staff showed up and was very productive. The presentation was posted in the link provided. A survey was sent out to provide input and will be published soon. D. DiNisco mentions they will be having a tour of the Cabot and Angier school. ➢ A. Bernstein asks about making sure to give people enough time to respond to community and educational feedback. J. Morse responds saying that its important that we receive feedback and that they did send certified letters to all abutters. ➢ S. Brown talks about the options criteria matrix. Goes into detail about how the matrix tries to capture all relative points that will be considered when deciding on a building. The options presented are new construction, addition/renovation, or renovation. J. Morse follows saying that they do not typically weight the criteria shown in the matrix. The solution is usually obvious and no need to weight unless it warrants itself to narrow down options. A. Valcarce adds that each option is going to have multiple iterations and can narrow down from there. ➢ L. Reibstein asks about design of building and if it will reflect the homes of neighborhood or be more modern. L. Reibstein would like the building to reflect the homes around it. J. Morse responds saying that the designer will spend time looking at the surrounding neighborhood and take that into account. Also adds that this will have a lot of public input. D. DiNisco follows by saying that they understand this is a community resource and what the building looks like is very important to the community. There will be many meetings with the public regarding this topic. D. DiNisco says that this will come up towards the end of the study.	
4.4	**Public Comment:** ➢ L. Reibstein asks about run off on the borings. J. Morse responds saying no run off and no containment needed. A. Valcarce follows up saying they are following the requirements of conservation commission and working with the planning department.	Record

	➢ B. Herlihy says there is a town hall meeting on November 10th 7PM at Countryside that will include tour of building at 6:30PM.	
4.5	**Next Meetings**: ➢ SBC No. 05 – Tuesday, November 15th 6:00 PM on Zoom.	Record
4.6	**Adjourn**: 7:05 pm A motion was made by J. Morse. Discussion: None.	Record

Sincerely,
DORE + WHITTIER
Aidan Place
Assistant Project Manager
Cc: Attendees, File
The above is my summation of our meeting. If you have any additions and/or corrections, please contact me for incorporation into these minutes.

City of Newton

Ruthanne Fuller
Mayor

PUBLIC BUILDINGS DEPARTMENT
Joshua R. Morse, Commissioner
Telephone (617) 796-1600
FAX (617) 796-1601
TTY: (617) 796-1089
52 ELLIOT STREET
NEWTON HIGHLANDS, MA 02461-1605

NOTICE

There will be a remote meeting of the Countryside School Building Committee on Tuesday, November 15, 2022. The meeting will be held via zoom and will start at 6:00 p.m. Please follow the link below to register in advance.

Join Zoom Meeting
Topic: Countryside School Building Committee

https://us02web.zoom.us/webinar/register/WN_5l_nEa05Ru-xKaTO5Z-gpw

AGENDA

See attached Dore and Whittier meeting agenda

The location of this meeting is handicap accessible and reasonable accommodations will be provided to persons requiring assistance. If you need a special accommodation, please contact the City of Newton's ADA Coordinator, Jini Fairley, at least two business days in advance of the meeting: jfairley@newtonma.gov or 617-796-1253. For Telecommunications Relay Service dial 711.

MEETING AGENDA

Meeting Date:	November 15, 2022
Meeting Time:	6:00 PM
Project Name:	Newton Countryside Elementary School
Project Number:	22-0123
Meeting Purpose:	SBC & DRC Meeting No. 5

1. Call to Order
2. Approval of Minutes:
    - 10/18/22 SBC Meeting Minutes. Vote Expected.
3. Educational Visioning Session #2 Recap
4. Educational Plan & Space Summary Updates
5. Enrollment/Student Population Map Review
6. Options Criteria Matrix
7. Timeline/Schedule Update
8. Public Comment
9. Next Meetings
10. Adjourn

DORE + WHITTIER

MEETING MINUTES

Project:	Newton Countryside Elementary School	Project No:	22-0123
Subject:	School Building Committee Meeting	Meeting Date:	11/15/2022
Location:	Zoom Conference Call	Time:	6:00 PM
Distribution:	Attendees, Project File	Prepared By:	Aidan Place

Present	Name	Affiliation	Present	Name	Affiliation
	Jonathan Yeo* WG	Chief Operating Officer	✓	Mike Burton	DWMP
	Ruthann Fuller	Mayor		Christina Dell Angelo	DWMP
✓	Emily Prenner* WG	School Committee		Mike Cox	DWMP
	Bill Humphrey	City Council	✓	Aidan Place	DWMP
	Kathy Smith	Superintendent of Schools		Rachel Rincon	DWMP
✓	Josh Morse* WG	Commissioner of Public Buildings	✓	Steve Brown	DWMP
✓	Beth Herlihy* WG	Principal Countryside E.S.	✓	Donna DiNsico	DiNisco
	Ayesha Farag*	Asst. Superintendent of Elementary		Jim Shuttleworth	DiNisco
	Maureen Lemieux*	Chief Financial Officer	✓	Vivian Low	DiNisco
✓	Tom Gloria	DRC	✓	Anne Davis Woodacre	
✓	Ellen Light	Resident			
	Tamika Olszewski	School Committee (Chair)		Carl Schein	
✓	Cove Davis*	School Committee		Christina Oliver	
	Stacy Klickstein	Resident	✓	Adam Bernstien	
	Liam Hurley* WG	Asst. Superintendent/ Chief Fin. &	✓	Melissa Monokroussos	
✓	Andreae Downs* WG	City Council			
✓	David Kalis*	City Council			
	Patricia Byrne*	Resident			
✓	Lori Zinner*	Resident			
	Andrew Lee	Asst. City Solicitor			
✓	Stephanie Gilman WG	Dir. Planning, Project Mgt, &			
	David Stickney	Director of Facilities			
	Alex Valcarce WG	Deputy Commissioner			
	Adam Lipson	Resident			
	Maura Tynes WG	Director of Elementary Special Ed.			
✓	Lisa Reibstein	Public			
	Brian Hunter	Public			

* SBC Voting Member | WG Working Group

Item No.	Description	Action
5.1	**Call to Order**: 6:01 pm meeting was called to order by Commissioner of Public Buildings J. Morse with 7 of 12 voting members in attendance.	Record
5.2	**Approval of the October 18th, 2022, Meeting Minutes:** ➢ A quorum could not be met. Will vote on minutes in the next SBC meeting.	Record
5.3	**Educational Visioning Session #2 Recap:** ➢ D. DiNisco goes over the educational visioning session #2. DiNisco asked staff what they wanted in the new school, called them Blue Sky Ideas. Most of the staff's main point was having a school that supported the educational program. Then DiNisco asked the staff to draw out how they saw/wanted the school to be designed such as floor plans of classrooms. DiNisco will be sharing the diagrams that were made with the group. These notes from the session will be summarized and shared with the group on the website when it becomes available.	Record
5.4	**Educational Plan & Space Summary Updates:** ➢ S. Gilman says they are in the middle of updating the educational plan. This is part of the PDP submission. S. Gilman will be working with staff to update the document that will then go to the School Committee for review and discussion for approval. Targeting introducing this to the school committee in December then seeking approval in January. ➢ D. DiNisco goes over the importance of this plan. D. DiNisco says this plan drives the design and square footage of the school. ➢ S. Gilman says the plan talks about every aspect of the educational program. S. Gilman says it will be a public document that is shared with the entire community. ➢ D. DiNisco then goes over the preliminary space summary. Says the two documents go hand in hand. D. DiNisco talks about the different categories that MSBA requires towns to abide by. Provides the different square footage requirements for different programs within the school. D. DiNisco notes that they have never had a program or space summary be denied by the MSBA for the core academic spaces. D. DiNisco notes that the current special education size in countryside is not sufficient and that the new plan allots for 5,700 SF as opposed to the 3,530 SF that is there now. D. DiNisco continues to go over the different categories that are on the space summary such as the Gym size at 6,300 SF, the Media Center at 2,763 SF, and Dining area at 6,350 SF. D. DiNisco says	Record

	that Medical/Admin and Custodial spaces are both under the MSBA guidelines for SF. ➢ A. Lipson asks about the ability to reduce kitchen space and did that work well with the current vendor. A. Lipson notes would like to see a better lunch program than the current one. D. DiNisco responds saying this food service provider is the same as the Angier and Cabot schools. Then says the current kitchen is 470 SF and the new one would be 1,000 more SF at 1,460 SF. This would be a full-service kitchen as well. ➢ L. Zinner asks about the bathrooms and where they are included into the space summary. D. DiNisco responds saying they factor in at the 1.5 grossing factor that is applied to the SF. ➢ L. Reibstein asks about the increase in gym space. D. DiNisco responds saying MSBA allows for a 6,000 SF gym which will provide a full court high school basketball court. This can allow for two gym classes run simultaneously.	
5.5	**Enrollment/Student Population Map Review:** ➢ S. Brown starts talking about the map shown in the presentation. This map shows the enrollment of students at countryside by block J. Morse then speaks to the map shown saying this map will be useful to know where students are coming from. Notes that most students are within walking distance of the school, coming from all different directions as well. Will use this map to evaluate possible different sites if necessary.	Record
5.6	**Options Criteria Matrix:** ➢ S. Brown speaks to the Options Criteria Matrix. Notes nothing has been populated in the matrix. S. Brown says this a great tool to measure up the options against each other. ➢ D. DiNisco follows by saying the renovation only will become apparent that isn't a good option, as well as the addition/renovation will also prove to be not the best option given the challenges of the site. It will be helpful to capture what is important to the community in this Options Criteria Matrix. ➢ J. Morse then says we will look at good and poor options, but they must look and consider them all. This is part of the process that will lead the community to the best option. ➢ L. Reibstein asks about bus loading that causes traffic as on option on the matrix. D. DiNisco responds saying there is an option for this on the matrix already. ➢ J. Morse says this is not set in stone and that the wording may be tweaked in this matrix to make it more specific for countryside.	Record

5.7	**Timeline/Schedule Update:** ➢ S. Brown goes over the schedule. Noting that we are still in the feasibility study. S. Brown says the plan is to submit the PDP to MSBA for approval on 1/18/23. Will hold an SBC meeting on 1/17/23 for the SBC to review and approve the PDP before submitting to the MSBA. ➢ A. Bernstein asks about when on the timeline is the larger or smaller enrollment estimate finalized. S. Brown answers saying the MSBA allows carrying review and analysis of both enrollments until the submittal of the PSR. The submittal of the PSR is scheduled for 4/27/23. A. Bernstein follows by clarify it is possible to carry both enrollment option until the 10/25/23. S. Brown clarifies they can carry both enrollment options until the submittal of the PSR on 4/27/23, where there they can make a preferred a solution to explore during the schematic design phase. ➢ M. Monokroussos asks when it is decided if students stay on site or attend an off-site school during the building process. D. DiNisco responds saying they will be looking at ways to maintaining the existing facilities while building a new school. However, with an addition/renovation it would be more challenging and would not encourage keeping kids on-site during construction. J. Morse follows saying they need to get the options on the table while keeping kids on-site and decide from there. S. Gilman then says it is in the criteria matrix and will be discussed during that as well. ➢ L. Reibstein asks if the evaluation items weighted. J. Morse responds saying they are not to begin with. If a couple options seem to be close, then they would start weighing out the different items. ➢ A. Lipson asks about the parking challenges with construction workers sharing parking with teachers and parents. J. Morse responds saying this will be the most challenging part is the parking management plan. Will have to work on the plan and present to the building committee, neighborhood, and work with Board counselors to achieve an effective plan.	Record
5.8	**Public Comment:** ➢ None.	Record
5.9	**Next Meetings**: ➢ SBC No. 06 – Tuesday, December 6th 6:00 PM on Zoom. ➢ SBC No. 07 – Tuesday, January 17th 6:00 PM on Zoom.	Record
5.10	**Adjourn**: 6:56 pm A motion was made by J. Morse. Discussion: None.	Record

Sincerely,
DORE + WHITTIER
Aidan Place
Assistant Project Manager
Cc: Attendees, File
The above is my summation of our meeting. If you have any additions and/or corrections, please contact me for incorporation into these minutes.

City of Newton

Ruthanne Fuller
Mayor

PUBLIC BUILDINGS DEPARTMENT
Joshua R. Morse, Commissioner
Telephone (617) 796-1600
FAX (617) 796-1601
TTY: (617) 796-1089
52 ELLIOT STREET
NEWTON HIGHLANDS, MA 02461-1605

NOTICE

There will be a remote meeting of the Countryside School Building Committee on Tuesday, December 6, 2022. The meeting will be held via zoom and will start at 6:00 p.m. Please follow the link below to register in advance.

Join Zoom Meeting
Topic: Countryside School Building Committee

https://us02web.zoom.us/j/89398616739?pwd=R1p2b28rRXFGRXRMbEgrQk04TDhTZz09

AGENDA

See attached Dore and Whittier meeting agenda

The location of this meeting is handicap accessible and reasonable accommodations will be provided to persons requiring assistance. If you need a special accommodation, please contact the City of Newton's ADA Coordinator, Jini Fairley, at least two business days in advance of the meeting: jfairley@newtonma.gov or 617-796-1253. For Telecommunications Relay Service dial 711.

MEETING AGENDA

Meeting Date:	December 6, 2022
Meeting Time:	6:00 PM
Project Name:	Newton Countryside Elementary School
Project Number:	22-0123
Meeting Purpose:	SBC & DRC Meeting No. 6

1. Call to Order
2. Approval of Minutes:
    - 10/18/22 SBC Meeting Minutes. Vote Expected.
    - 11/15/22 SBC Meeting Minutes. Vote Expected.
3. Timeline/Schedule Update
4. Educational Plan & Space Summary Updates
5. Site Analysis
6. Preliminary Design Concepts
7. Public Comment
8. Next Meetings
9. Adjourn

DORE + WHITTIER

MEETING MINUTES

Project:	Newton Countryside Elementary School	Project No:	22-0123
Subject:	School Building Committee Meeting	Meeting Date:	12/06/2022
Location:	Zoom Conference Call	Time:	6:00 PM
Distribution:	Attendees, Project File	Prepared By:	Aidan Place

Present	Name	Affiliation	Present	Name	Affiliation
	Jonathan Yeo* WG	Chief Operating Officer	✓	Mike Burton	DWMP
	Ruthann Fuller	Mayor		Christina Dell Angelo	DWMP
	Emily Prenner* WG	School Committee	✓	Mike Cox	DWMP
	Bill Humphrey	City Council	✓	Aidan Place	DWMP
	Kathy Smith	Superintendent of Schools		Rachel Rincon	DWMP
	Josh Morse* WG	Commissioner of Public Buildings	✓	Steve Brown	DWMP
✓	Beth Herlihy* WG	Principal Countryside E.S.	✓	Donna DiNsico	DiNisco
	Ayesha Farag*	Asst. Superintendent of Elementary		Jim Shuttleworth	DiNisco
	Maureen Lemieux*	Chief Financial Officer	✓	Vivian Low	DiNisco
	Nick Read	Chief Procurement Officer			
✓	Tom Gloria	DRC	✓	Anne Davis Woodacre	
	Ellen Light	Resident			
	Tamika Olszewski	School Committee (Chair)		Carl Schein	
	Cove Davis*	School Committee		Christina Oliver	
✓	Stacy Klickstein	Resident		Adam Bernstien	
✓	Liam Hurley* WG	Asst. Superintendent/ Chief Fin. &		Melissa Monokroussos	
	Andreae Downs* WG	City Council			
	David Kalis*	City Council			
✓	Lori Zinner*	Resident			
	Andrew Lee	Asst. City Solicitor			
✓	Stephanie Gilman WG	Dir. Planning, Project Mgt, &			
	David Stickney	Director of Facilities			
✓	Alex Valcarce WG	Deputy Commissioner			
	Adam Lipson	Resident			
	Maura Tynes WG	Director of Elementary Special Ed.			
	Lisa Reibstein	Public			
	Brian Hunter	Public			

* SBC Voting Member | WG Working Group

Item No.	Description	Action
6.1	**Call to Order**: 6:06 pm meeting was called to order by A. Valcarce with 3 of 12 voting members in attendance.	Record
6.2	**Approval of the October 18th, 2022 & November 15th, 2022, Meeting Minutes:** ➢ A quorum could not be met, will vote at next SBC meeting.	Record
6.3	**Timeline/Schedule Update:** ➢ S. Brown goes into the schedule update. Notes the SBC will meet again on 12/20/22 and 1/17/23. Submission of the PDP to the MSBA will be 1/18/23. Then goes into the PSR schedule saying submission of the PSR to the MSBA will be 4/27/23. ➢ A. Valcarce goes into the different board meetings. Says if they want to meet 10/25/23 MSBA board approval, will need to start city process in August. ➢ S. Brown goes into the PDP and what it entails. Which includes the Introduction, Educational Program, Initial Space Summary, Evaluation of Existing Conditions, Site Development Requirements, Preliminary Evaluation of Alternatives, & Local Actions & Approvals. ➢ A. Valcarce says that this document has a variety of information that people can read about. This document will be posted for everyone to read and will have a meeting to present the main points of the document.	Record
6.4	**Educational Plan & Space Summary Updates:** ➢ S. Gilman says there is a group working to put together the educational plan. This will go to the school committee on 12/19 for review, then voted on in January 2023. This document will entail what the elementary educational plan is. The space summary is a list of the different spaces in the school and the sizes of that space needed to support the educational plan. ➢ D. DiNisco says will use these documents to determine the total square footage of the building. The educational building drives the design and overall square footage of the building. ➢ A. Valcarce says this document will be a reference point throughout the project.	Record

6.5	**Site Analysis:** ➢ V. Low goes into the existing conditions of the school area. Notes how Countryside sits in wetlands. Says the entire site falls within the 100-year flood elevation which is 112.4'. DiNisco will meet with the conservation agent this weekend. Says the best location for the school seems to be on the north side.	Record
6.6	**Preliminary Design Concepts:** ➢ V. Low goes over the Criteria Matrix and would like feedback from the SBC on this document. The options are Repair Only for 340 Students, Add/Reno for 340 Students, New Construction for 340 Students, Repair Only for 465 Students, Add/Reno for 465 Students, & New Construction for 465 Students. A. Valcarce says how the district is required to look at all options then make a case for the preferred option. ➢ V. Low goes over Approaches 1 & 4 which includes code upgrade & repairs only for 340/465 students. Does not include portable classrooms. Does not improve the educational quality of spaces. Requires building to be vacant. ➢ V. Low then goes over Approach 5 which is renovation & addition for 465 students. Does not include portable classrooms, maintains existing site relationships, and site improvements to the playground, field, and parking lot. ➢ V. Low then goes into approach 5A which is a 2-story concept for 465 students. Meets the MSBA Space Guidelines for 465 students, requires building to be vacant, does not include portable classrooms. Meets MSBA Space Guidelines for 465 Students. Does not support spatial relationships and adjacencies. Maintains existing building footprint square footage, and second floor footprint larger than first floor at addition. ➢ Then goes into approach 5B which is a renovation & addition 3 story for 465 students. This would not include existing portable classrooms, does not support spatial relationships and adjacencies. Meets MSBA Space guidelines for 465 students. Requires independent structure to support third floor addition. Maintains existing footprint square footage. This also requires the building to be vacant. ➢ V. Low talks about Approach 6A which is a new construction building that is 3-stories for 465 Students. This matches the existing building footprint square footage. Separates drop off for cars, buses, vans, and service. Site improvements include new playground, fields, and parking. Meets MSBA space guidelines and provides opportunity for occupied site during construction. ➢ V. Low talks about Approach 6B which is new construction building that is 3-stories for 465 students. This matches the existing building footprint	Record

	square footage. Separates drop off cars, buses, vans, and service. Accessible and van parking separate from staff parking and located near building entry. Site improvements include new playground, fields, and parking. Meets MSBA space guidelines and provides opportunity for occupied site during construction. ➢ V. Low goes into Approach 6C which is new construction 3 stories for 465 students. Matches existing building footprint square footage. Separates drop off for cars, buses, vans, and service. Site improvements include new playground, fields, and parking. Meets MSBA space guidelines and provides opportunity for occupied site during construction. ➢ V. Low then goes into the spatial relationships & adjacencies slide. Which says the first floor will have the Administration, Cafetorium, Gym, and Receiving. ➢ D. DiNisco then talks about how the educational program will inform some of the decisions for these designs as well. ➢ S. Klickstein asks about spatial relationships and adjacencies. D. DiNisco responds saying this allows to better understand what spaces need to be next to each other and how each space interacts with each other. A. Valcarce says the spatial relationships and adjacencies must work with the educational program. ➢ A. Valcarce asks what the first-floor finish elevation is in the school. V. Low responds saying its 110.5'. The existing building is close to the 100-year flood elevation. ➢ T. Gloria asks about the flood elevation in relationship to the existing building. A. Valcarce responds saying they can set the floor above the flood elevation. Says will be working with J. Steele to know the different requirements for flood storage, storm water, and flood elevation.	
6.7	**Public Comment:** ➢ None.	Record
6.8	**Next Meetings**: ➢ SBC No. 07 – Tuesday, December 20th 6:00 PM on Zoom.	Record
6.9	**Adjourn**: 7:23 pm A motion to adjourn was made by A. Valcarce. Discussion: None.	Record

Sincerely,
DORE + WHITTIER
Aidan Place
Assistant Project Manager
Cc: Attendees, File

The above is my summation of our meeting. If you have any additions and/or corrections, please contact me for incorporation into these minutes.

City of Newton

Ruthanne Fuller
Mayor

PUBLIC BUILDINGS DEPARTMENT
Joshua R. Morse, Commissioner
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NOTICE

There will be a remote meeting of the Countryside School Building Committee on Tuesday, December 20, 2022. The meeting will be held via zoom and will start at 6:00 p.m. Please follow the link below to register in advance.

Join Zoom Meeting
Topic: Countryside School Building Committee

https://us02web.zoom.us/webinar/register/WN_Uypx8FuZSZmsx7D5lDEPPg

AGENDA

See attached Dore and Whittier meeting agenda

The location of this meeting is handicap accessible and reasonable accommodations will be provided to persons requiring assistance. If you need a special accommodation, please contact the City of Newton's ADA Coordinator, Jini Fairley, at least two business days in advance of the meeting: jfairley@newtonma.gov or 617-796-1253. For Telecommunications Relay Service dial 711.

MEETING AGENDA

Meeting Date:	December 20, 2022
Meeting Time:	6:00 PM
Project Name:	Newton Countryside Elementary School
Project Number:	22-0123
Meeting Purpose:	SBC & DRC Meeting No. 7

1. Call to Order
2. Approval of Minutes:
    - 10/18/22 SBC Meeting Minutes. Vote Expected.
    - 11/15/22 SBC Meeting Minutes. Vote Expected.
    - 12/6/22 SBC Meeting Minutes. Vote Expected.
3. Timeline/Schedule Update
4. Educational Plan & Space Summary Update
5. Site Selection Matrix
6. Design Approach Update & Evaluation
7. Public Comment
8. Next Meetings
9. Adjourn

NEWTON PUBLIC SCHOOLS Equity & Excellence

Countryside Elementary

Educational Visioning Workshop One Notes

10.12.22

On October 12, 2022, the Countryside Elementary School faculty participated in a 1.75-hour Educational Visioning Workshop facilitated by New Vista Design and DiNisco Design. The purpose of the workshop was to capture the Countryside Elementary School faculty's thinking about the school's current and future education goals and priorities and connecting them to best practices and possibilities in innovative school facility design and renovation. A second faculty worshop will be held on November 9, 2022.

Project Priorities

The following Educational, Architectural, and Community Priorities for the renovated and/or new Countryside Elementary School facility were brainstormed by Countryside faculty members at the opening of the workshop. Responses have been grouped by like-themes.

Educational Priorities

Student Centered Programming

- Student agency / teacher latitude to allow for this
- Executive functioning skills – self-starting, independence
- Group and independent work/learning
- Individual assessment/conferencing
- Academic choice
- Small variety of student choices
- Center-based learning
- Student choice
- Interactive, creative, and collaborative learning
- Students are given agency over their own learning

Personalized Learning and Support

- Individual class instruction (1:1)
- Individual and small group learning
- Small group instruction/centers
- Small group/partner
- Small social groups

Inclusive and Differentiated Instruction

- Meeting learners where they are
- Differentiated instruction
- More inclusion of diverse learners (ELL, Special Ed, etc.)
- Making high-standard academics an attainable goal for all students via differentiation, academic choice, engaging projects, strong sense of being part of community
- Inclusion

Tiered Approach to Intervention

- De-escalation spaces
- Interventions!
- Tiered intervention
- Space to provide intervention and support

Educational Priorities *Continued*

Special Education Support
- Special Education push-in
- Pull-out/push-in learning

Responsive Classroom Approach
- Whole class instruction
- Responsive classroom/teaching

Multi-Sensory Approach
- Students have focused and quiet learning spaces
- Sensory instruction
- Sensory-friendly

Social-Emotional Learning
- Social-emotional regulation spaces within classroom
- Emotional regulation

Building School Community
- Community meetings and gathering

Project-Based Learning
- Projects to enhance student learning
- Hands on learning / Modeling
- Project-based learning/activities
- Opportunities for movement

Robust Technology for ALL
- Strong WIFI
- ELMO
- Technology for students and teachers

Outdoor Learning and Connections
- Nature and discovery

Movement and Play
- Indoor recess
- Breaks/movement
- Social groups
- Play

Architectural Priorities

Warmth and Welcome
- Warm – welcoming
- Warmth, ability to see other students/teachers often
- Main feel of the school should be warm, traditional, and not all modern
- Transitional design and colors
- Just feel like a school and look like a school and not a hospital
- A cozy school feel can be achieved with warm colors, brown wood, rugs, and no exposed pipes at the ceiling
- I want the new Countryside to be a warm and engaging school for the little ones!!!
- A cozy, pleasant feel (not sterile and clinical like most new schools)
- Inviting
- Cozy/comfortable
- Natural colors
- Warm colors
- Wood
- Not sterile
- Light-filled atrium

Appropriate Aesthetic
- Thoughtfully shaped
- Tall ceilings (not all want them)
- Not too modern – utilitarian
- Traditional looking (non-sterile)

Practicality and Durability
- Convenient
- Functional
- Clean
- Windows, doors, and plumbing that works
- Basement (not flooded)

Architectural Priorities *Continued*

Safety
- Safety – clear entrance
- Safety and security

Comfort and Flexibility
- Flexible furniture
- Ergonomic furniture

Professional Work Areas
- Teacher only spaces
- Break spaces for teachers
- Teachers room and workspace on each floor
- Teachers room on every floor with laminator, copier, etc.
- Designated space for printers/copiers/supplies

Breakout and Quiet Spaces
- Break spaces within classrooms
- Breakout rooms
- Appropriately placed blue rooms with breakout room next to it
- "Safe rooms"/break spaces that feel less institutional
- Break spaces for kids that are separate from calm/blue rooms
- Functional break-out spaces for small groups
- Quiet learning spaces

Thoughtful Grade Level Configuration
- K-5 spaces differentiated from each other
- Separating K/1 rooms from 4th and 5th grades

Agile Classrooms
- Larger classrooms
- Rectangular classrooms
- Child centered and child sized
- Group spaces that are easy to access
- Appropriate size classrooms and storage
- A fully functional classroom without many needs of leaving the classroom
- Coat hooks inside the classrooms

Meeting and Small Group Spaces
- Meeting (adult) space
- Extension small group workspaces
- Small group spaces and offices
- Small group instruction spaces
- Small group instruction in functional spaces

Collaborative and Gathering Spaces
- Heart of school idea
- Spaces for engaging and collaborative learning
- Gathering spaces for school celebrations and for the community
- Spaces for building community

Classroom Neighborhoods
- Classroom neighborhoods for projects
- Classroom neighborhoods with common space and pull-out/pull-over areas
- Grade-level "pods"

Special Educational Spaces
- SPED separate / inclusion rooms are nearby grades that students attend
- Therapeutic Spaces
- Space to provide intervention and support
- Pull-out space in hallway/classroom
- We have a program at Countryside that requires a sensory/break room, safe room, and classroom. It would be important to think about this program and the needs of the students moving forward to ensure their classroom/school experience is conducive to their learning needs.
- Sensory classroom
- Movement spaces

ELL
- Somewhat centrally located ELL classroom, since we work with students from all grades

Science
- Science/Nature exploration

Architectural Priorities *Continued*

Learning Center
- Learning center that has multi-areas for different ages/levels

Sustainability

Library/Media Center
- Welcoming library /media space

Auditorium
- Separate auditorium and cafeteria

Enrichment Spaces
- Designated, well designed spaces for art, music, PE, library – tech
- Spaces for small groups services, music lessons
- Multi-purpose space (cafeteria/theater)
- Specials (Music, Art, PE, Library) centrally located
- Dramatic play
- Arts and crafts

Nurse Office
- A nurse's office that is near the playground so she can get there quickly for emergencies

Robust Technology
- Accessible technology
- Computer lab
- Embedded speaker system in the gym
- Lots of outlets – we have so much technology
- Phone in each room (right now we have 4 phones in the whole school)
- Plenty of phones so teachers can call parents
- Technology to support teaching and learning
- Plenty of outlets

Accessibility to Resources
- Access to necessary materials
- Students have equal access to materials
- Equitable access to resources and programs

Wayfinding and Streetscapes
- Walking pathways in the hallway – marked by colored tiles or something similar
- Mindful of "hiding spots" in hallways – just straightforward hallways so staff can locate and see students

Hallway Learning
- Hallway and classrooms have structure elements in between (at Angier you put lockers in front of classrooms to block out hallway noise – love this!)
- I think it's important to make the hallways useful & flexible but also keep in mind that some kids have a hard time transitioning throughout the school and to make sure there aren't too many things to get into
- Hallway workspaces

Display and Exhibition
- Ample space to display student work in the hallways

Outdoor Learning Spaces
- Outdoor Classroom!!
- Concerns about how to maintain outdoor learning spaces
- Courtyard (for arrival, dismissal, and outdoor play/learning)
- Enclosed outdoor space connected to special ed classrooms
- Plenty of trees for shade while children play (so they stay safe from the sun) and to keep cars cool in the parking lot
- Can we keep natural environment (trees, wetland)

Age-Appropriate Outdoor Play
- Separate K-1 playground from the big kids so it is developmentally appropriate
- Playgrounds that are fun but not dangerous (age appropriate)
- Age-appropriate play space outside
- We currently have a road that passes through the playground. This is dangerous. For example, dump trucks drive backwards on it while children play
- Children like to play wall ball. So, giving them a nice outdoor wall, and an angled roof above it that balls won't get stuck on, would be nice
- Developmentally appropriate playground
- An updated/safe playground/recess area
- Field space

Indoor Recess

Architectural Priorities *Continued*

Library

Water Fountains
- Water without lead
- Water fountains
- Access to water dispensers and bubblers

Bathrooms
- Staff bathrooms
- More staff bathrooms that are not located in people's offices
- Additional bathroom and proximity to young grades and SPED programs (+ Staff)
- Bathrooms close to pull-out space
- Gender-neutral bathrooms
- Bathrooms near special ed classrooms
- Since children tend to flood the bathrooms, we need bathrooms that won't be damaged by water on the floor
- Bathrooms near/in kindergarten classrooms

Varied Dining Spaces
- Quiet dining space for kids (cafeteria gets so loud and some kids really dislike the noise)
- Outdoor eating spaces for children and staff

Kitchen
- Ability to make healthy food in building for students and staff

Single Level
- Few or no stairs since students can be injured on them
- Having no stairs would also save us the expense of an elevator
- An elevator separates a handicapped student or teacher from the class

Good Acoustics
- Wall-to-wall rugs and other sound absorbing materials
- Soundproof doors
- A pleasant-sounding bell
- Noise travels far and wide, especially when students are in the hallways. If there is a way to soundproof the building that would be ideal for student learning and focus

Connectivity
- A design that doesn’t cause "silos" where faculty members still see one another during a given day

Good Lighting
- Lighting -color and control
- Dimmable lightning
- Natural light
- Warm inviting building – not fluorescent lights

Storage
- Storage!! (Classrooms and supply “closets/rooms”)
- Storage space for community use (after school or summer programs, basketball programs, etc.)
- Storage spaces in classrooms
- Lockers in classroom
- It would be nice to have no basement storage for teachers. Stuff probably winds up there for decades from teachers who don't even teach at the school anymore. It gets packed
- Large cubbies/storage for winter stuff
- Functional storage in classrooms

Parking
- Enough parking for ALL staff members
- Lots of parking
- Bigger parking spots
- Off-street parking for teachers
- More parking spaces

Community Priorities

Safety and Welcome

- Welcoming office space
- Private waiting area for visitors
- Safe and secure entry
- Accessibility
- Welcoming feel

Community Use and Access

- Community meeting spaces for non-school related groups
- Makerspace/community space
- Separate entrance/ space for community events like voting

Wayfinding and Streetscapes

- Signs to show locations of classrooms

Cultural Awareness

- Culturally represent our communities. This is one of Countryside's strengths now

Meeting Spaces

- Welcoming space for parent teacher meeting
- Parent meeting spaces
- Virtual and in person meeting options for parents
- Flow of communication between staff and parents
- Multiple conference rooms

Gathering and Collaboration Spaces

- Assembly space
- Spaces to gather and collaborate, breakout rooms
- Separate auditorium and seating, with their own doors to outside for parents, events, concerts, etc.
- Multi-purpose room large enough for auditorium/indoor recess (can be used for voting)
- Gathering places for performances/community events
- Community rooms (cafeteria/auditorium/multipurpose)
- Auditorium space with seats/risers
- Adequate space for PTO events and school celebrations
- A place for parents, students, and teachers to come together -space for an auditorium
- There are places for multiple classes to gather, there are enough spaces for teachers to escape to (staff rooms, pull out rooms, etc.), we can easily communicate with others

Aftercare Space

- Dedicated aftercare space
- Separate spaces for morning/aftercare
- Space for aftercare

Multi-Age Playground

- Multi-age playground with separate playscapes for different ages
- Accessible equipment on playground
- Playground that is better
- No woodchips
- Accessible playground for all students with and without disabilities
- Playgrounds for multiple ages
- Fence around perimeter of playground / blocking exits / paths
- Right now, there is a public path that goes in the middle of our playground/outdoor area. Somehow, making this less inviting to public use? Maybe putting up a fence, making sure the path is on the other side of the grounds, etc.
- Age-appropriate playgrounds
- Updated playground space that is fully accessible
- Safer playground area

Community Garden

- Composting and garden

Outdoor 'NEEDS'

- Outdoor bathroom near playground
- Outdoor water-fountains
- Outdoor space for field
- Outdoor learning spaces

Community Priorities *Continued*

Phones in Classrooms
- Phones (parent phone calls)
- Phones in every classroom

Updated Signage
- Updated sign to get info to town

Athletics
- 2 Fields (separate from recess access for PE)
- Big gym with seating – voting space

Voting Considerations
- Separate entrance for things like voting
- Thoughtful about separate voting space/entry
- A multi-purpose space SEPARATE from where kids eat lunch, that can be used for voting

Assistive Technology
- Community based assistive tech

Parking / Traffic
- Teacher parking off street
- Staff parking lot
- Easy school drop off/pick-up route considering students with special needs
- Safer traffic flow, parking, and bus/van lanes

Separate Storage Space

Kitchen Space

Extra Spaces for Camp/Extra Classes

Better Designed Blue Zone

Library/Media space

Countryside Elementary School Culture

When asked to share their top three descriptors of Countryside Elementary School's culture of teaching, learning, and community, faculty members responded with the following descriptors.

Culture of teaching and learning

- Inclusive (16 mentions)
- Collaborative (9)
- Welcoming (5)
- Warm (5)
- Caring (4)
- Flexible (4)
- Diverse (3)
- Supportive (2)
- Controlled chaos (2)
- Spirited (2)
- Adaptive (2)
- Boisterous/loud
- Open minded
- Child focused
- Comforting
- Reactive
- Respectful
- Cooperative
- Busy
- Spirited
- Creative
- Strong
- Multicultural
- Fun
- Nurturing
- Rambunctious

Countryside Elementary School Facility

When asked to brainstorm the strengths and challenges of the current Countryside Elementary School facility, workshop participants shared the following responses, which have been grouped thematically.

Current Facility Strengths

Traditional Aesthetic
- Looks traditional, brick/old outside
- Looks like a neighborhood school
- Looks like a traditional school (although old)
- Feel of a traditional school

Durability
- Well...it's resilient? Still standing!

Heart of School
- There are certain areas that are the "heart" of the school where people can see colleagues from other grades and socialize

Natural Light
- Sunlight
- Natural light
- Some good natural light in certain areas
- Big classroom windows
- Tons of windows in annex hallways and annex classrooms (which look out into nature)

Location of Main Office
- Office in front of building
- Central location of principal, admin, nurse

Cubby Storage
- Above cubby classroom storage
- Cubbies for kindergarten

Water Station
- Water bottle station

Grade Level Configuration
- Separate entrances for each grade
- Older kids (4-5) are upstairs
- Grades grouped by clusters

Outdoor Access
- Easy access for many classes to outdoor space
- Outdoor courtyard with mural
- Outdoor classroom
- Kindergarten courtyard

Specials
- Anchors of the building are specials, such as Art, PE, Music, and Library

Large Classrooms

Projectors

Current Facility Challenges

Age of Building
- The place is falling apart
- Crumbling ceilings
- Water in the basement- plumbing
- Sewage backups
- It's just old and everything is falling apart
- The layout is challenging

Classrooms
- Small classrooms that don't allow for me to work with students within ELL students within the classroom (I usually must roam from desk to desk)
- Constantly having my teaching space moved
- Classroom size is too small
- Not every classroom has a sink

Limited Space
- Not enough space for kindergarten to have different areas of the classroom for learning and playing
- Limited testing/meeting rooms
- Not enough space for speech providers
- Very small front office

Lack of Small Group Spaces
- Not enough functional space for small group work
- Breakout spaces for self-regulation are too institutional
- No extension of the classroom for small group or 1:1 learning
- Lack of breakout spaces

Technology Infrastructure
- WIFI
- Internet
- No phones
- No phones in classrooms
- Technology is bulky and, in the way, although used every day (Elmo projector / cords / speakers / huge cart)

Climate Control
- Poor climate control
- Heating and cooling problems
- Inadequate heating and no cooling
- Way too hot in the warm weather and way too cold on Mondays and in cold weather

Hallways
- More hallways space
- The hallway is too small in some areas (annex) so it's hard to pass
- The hallway gets too loud

Storage
- Cubbies are a mess
- More space for kid's winter stuff
- Not enough storage for kid's winter stuff
- Lack of storage spaces in classroom for kids and teachers
- Subpar storage for student tech devices (and subpar storage in general)
- Storage is sporadic

Bathrooms
- Not enough bathrooms for teachers or students
- Specials and bathrooms feel so far away for our youngest students

Windows
- Limited windows
- Windows that don't open

Furniture
- Furniture is old and falling apart

Lack of Music Room
- Not a designated music room

Event Spaces
- Multi-use spaces (ex: cafetorium) not set up for event/lunch so teachers must pull down tables, set up chairs, etc.
- Kitchen isn't attached to cafeteria

Acoustics
- Noise level

Playground
- Mulch on playground

Traffic and Parking

Opportunities

- Grade clusters
- Specials clusters
- Bathroom in or next to classroom
- Cubbies K + 1, Lockers 2 – 5
- Kitchen connected to cafeteria
- No alcoves to hide
- Magnetic door stops for hallway doors
- Outdoor space connected to Special Ed classroom
- Picnic benches for outdoor eating
- More than 1 playground, age-appropriate playgrounds
- No mulch

Priority 21st Century Design Patterns

The following "21st Century Design Patterns" for the design of the renovated and/or new Countryside Elementary School facility were prioritized by Countryside faculty during Educational Visioning Workshop One. Participants were introduced to 36 "Design Patterns" that represent varied architectural design features and approaches to 21st century school facility design. After the initial presentation, faculty members divided themselves into 10 small groups of 5-6 participants to discuss the Design Patterns they thought were most important for the design of the renovated and/or new Country Elementary School facility. Each small group created their own set of 8-12 priority Design Patterns. These lists have been combined and grouped thematically and are listed below in order of the number of votes they received, with each Design Pattern given 6 votes for appearing on one of the original team lists.

1. Breakout and Pullover Spaces (60 votes)
   - With views in and out
   - Connected to or close to classrooms
   - Collaborative learning spaces
   - Within classroom neighborhoods
   - Sensory space separate from safe/blue room
   - Safe space at every grade level
   - Small group space at every grade level

2. Outdoor Connections and Learning (48 votes)
   - Outdoor classroom
   - Engaged outdoor learning
   - Multi-season with covered area
   - Overhead awnings
   - Outdoor eating space
   - Outdoor bathroom and water fountain

3. Good Storage/Cubbies (42 votes)
   - Safe storage

4. Professional Work Areas (42 votes)

5. Classroom Neighborhoods (36 votes)
   - With hallway learning options
   - With nearby breakout and pullover spaces
   - With small "on-call" teacher resting space

6. Nooks, Caves, and Quiet Spaces (36 votes)
   - Calming spaces for de-escalation

7. Engaged Outdoor Play (36 votes)
   - Age-appropriate venues
   - Typically, we have 3 staff and 3 classes or more
   - Not too big or elaborate

Priority 21st Century Design Patterns *Continued*

8. Flexible Furniture (30 votes)

9. Flexible Classrooms (30 votes)
- Classroom Zones

10. Cafetorium (30 votes)
- Multi-use space
- Separate and attached quiet space
- Indoor recess
- Community access

11. Wayfinding (30 votes)
- Colored wayfinding

12. Sustainability (24 votes)
- Building as teacher
- Solar panels and charging stations

13. Gathering Hubs and Presentation Areas (24 votes)
- Kids and adults
- Amphitheater gathering space

14. Safe Drop Off and Pick-Up (18 votes)
- Designated lanes for busses and drop off
- Covered bike storage

15. Visible Learning and Transparency (18 votes)

16. Push-In Special Ed (18 votes)

17. Greeting and Gatekeeping (18 votes)

18. Library Learning Commons (18 votes)

19. Branding and Identity (18 votes)

20. Extended Learning Spaces (18 votes)

21. STEM, STEAM, and Makerspaces (12 votes)

Priority 21st Century Design Patterns *Continued*

22. Display and Exhibition (12 votes)

- History and storytelling
- Murals by local students, families, and artists
- Flat screen monitors

23. Welcoming Arrival (12 votes)

- Overhang for rain or snow
- Buffer space for students who have a hard time transitioning

24. Hallway Learning (12 votes)

25. Clusters of Learning (12 votes)

26. Distributed Resources (12votes)

27. Community Access (6 votes)

- Ability to block off from rest of school

28. Heart of School (6 votes)

29. ELL Room (6 votes)

- In center of school (not hidden)

30. Centrally Located Specials (6 votes)

- Art and other specials
- Reduce travel time for students

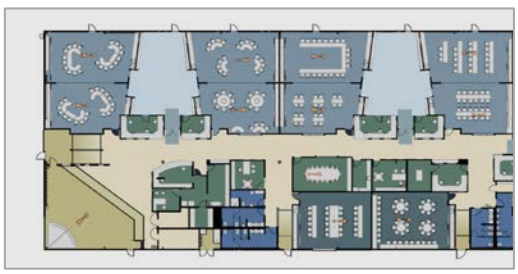
31. Auditorium (6 votes)

- Larger auditorium

32. Flexible and Adaptable Space (6 votes)

33. Collaborative Environments (6 votes)

- Be mindful of noise



Educational Visioning Workshop Two Notes

11.9.22

On November 9, 2022, the Countryside Elementary School faculty participated in a second 1.75-hour Educational Visioning Workshop facilitated by New Vista Design and DiNisco Design. The purpose of the workshop was to capture the Countryside Elementary School faculty's thinking about the school's current and future education goals and priorities and connecting them to best practices and possibilities in innovative school facility design and renovation.

Design Patterns Feedback

At the start of Workshop Two, participants reviewed the Design Patterns that had been prioritized during Workshop Two and shared the following comments about what surprised them about the list, as well as whether anything was missing from the list.

- The list looks great
- Priorities didn't seem surprising based on conversations we've previously had as a staff
- These are similar to my individual priorities
- I agree with the main priorities and can see them working well in this school
- I notice that both community and flexibility are themes. The top few Design Patterns on the list focus on community within teachers, students, grade levels, etc.
- Key theme is that our school needs more space
- I think it looks good, but I might put quiet/calming spaces higher on the list
- Push in special education is lower on the list than I expected
- Surprised that push in education didn't score higher
- Push in Special education is lower than i expected but I understand that with more breakout and small group spaces that may seem like less of a priority, but it shouldn't be

1. Breakout and Pullover Spaces (60 votes)
2. Outdoor Connections and Learning (48 votes)
3. Good Storage/Cubbies (42 votes)
4. Professional Work Areas (42 votes)
5. Classroom Neighborhoods (36 votes)
6. Nooks, Caves, and Quiet Spaces (36 votes)
7. Engaged Outdoor Play (36 votes)
8. Flexible Furniture (30 votes)
9. Flexible Classrooms (30 votes)
10. Cafetorium (30 votes)
11. Wayfinding (30 votes)
12. Sustainability (24 votes)
13. Gathering Hubs and Presentation Areas (24 votes)
14. Safe Drop Off and Pick-Up (18 votes)
15. Visible Learning and Transparency (18 votes)
16. Push-In Special Ed (18 votes)
17. Greeting and Gatekeeping (18 votes)
18. Library Learning Commons (18 votes)
19. Branding and Identity (18 votes)
20. Extended Learning Spaces (18 votes)

Design Patterns Feedback *Continued*

What was Surprising

- Sustainability is important
- I don't think sustainability is as high on the list as it should be
- I'm surprised that gathering hubs and sustainability were so low on the list
- Interesting that "heart of the school" was not more highly scored
- I am surprised that safe drop off and pick up did not have more votes
- I think community spaces should be more of a priority
- Surprised that outdoor learning is a higher priority

What is Missing?

- Two gyms!
- Meeting spaces (sped., e.g.)
- Testing space
- Security isn't on the list: cameras, etc.
- Aftercare space is missing. They service a large portion of the school population
- Multiple access points (doors we can use key fobs on)
- Field space for PE
- Sound absorbing surfaces
- OT/SLP rooms close to each other
- Lighting - natural, please!
- Indoor recess space
- Adequate office/teaching space for all ELL, Special Educators, and related service providers
- I think the outdoor connections to learning are definite priorities
- Classroom on the ground floor for classes with students who cannot use stairs
- Gross motor classroom , allowing for OT and PT activities outside of the gym space and OT room

What Questions do You Have?

- Professional work areas----are these areas for SPED and/or adult meeting spaces for team meetings?
- I like the idea of classroom neighborhoods, but I worry it will isolate students and teachers from the rest of the school

Emerging Themes

Parking

- Parking for all staff (3)
- Parking (4)

Breakout and Small Group Spaces

- Working in small groups is a priority!
- Happy about breakout spaces
- Breakout and pullover spaces are incredibly important
- I am excited about the prospect of having breakout spaces
- Very pleased that the importance of Breakout and Pullover spaces is so high

Flexibility

- Flexible learning, workspace, and furniture
- Flexibility is a common theme- furniture, classroom, pullover spaces, nooks, quiet spaces, etc.
- A key theme seems to be flexibility- we need spaces and furniture that can allow us to try new things and group kids in different ways
- Not as many votes for flexible furniture/classrooms as expected
- I was surprised that flexible furniture and classrooms were not higher on the list, but I don't think anything is missing
- While visibility is also there, I think it should be more prominent especially with the idea of flexibility

Accessibility

- Accessibility is a given, right?
- Accessibility for students with physical disabilities or challenges

Countryside Elementary School Guiding Principles 1.0

The following set of "Guiding Principles 1.0" for design of the renovated and/or new Countryside Elementary School facility was developed by the Educational Visioning Group (EVG) during Workshop Two. Guiding Principles are big picture educational and architectural priorities that provide an invaluable framework for making design decisions and choices as the design process unfolds.

The faculty were introduced to four Case Studies of recent early elementary school projects in which the Guiding Principles for each school were reviewed, as connected to design decisions that were made for the project. Participants then met in 11 small groups of 4-5 participants each to discuss their ideas about Guiding Principles for the Countryside project. These have been grouped thematically and listed below, with each receiving five "votes" for every time it appeared on a participant list.

1. **Flexible & Adaptable Spaces**
   (65 votes)
   - Project Based Learning Spaces
   - Breakout and Small Group Rooms
   - Warm and Inviting Classrooms

2. **Small Learning Communities**
   (55 votes)
   - Grade Level Clusters
   - Integrated SPED
   - Flexible Learning Communities
   - Specials and Distributed Admin
   - Grade level entry and exit spaces

3. **Outdoor & Nature Connections**
   (60 votes)
   - Natural Play & Learning
   - Outdoor Gathering Area
   - Separate field spaces
   - K-2 play areas, 3-5 play areas

4. **Natural Daylight & Optimal Views**
   (50 votes)

5. **Visibility and Connections**
   (20 votes)

6. **High Efficiency & Sustainability**
   (25 votes)
   - Promotes walkability

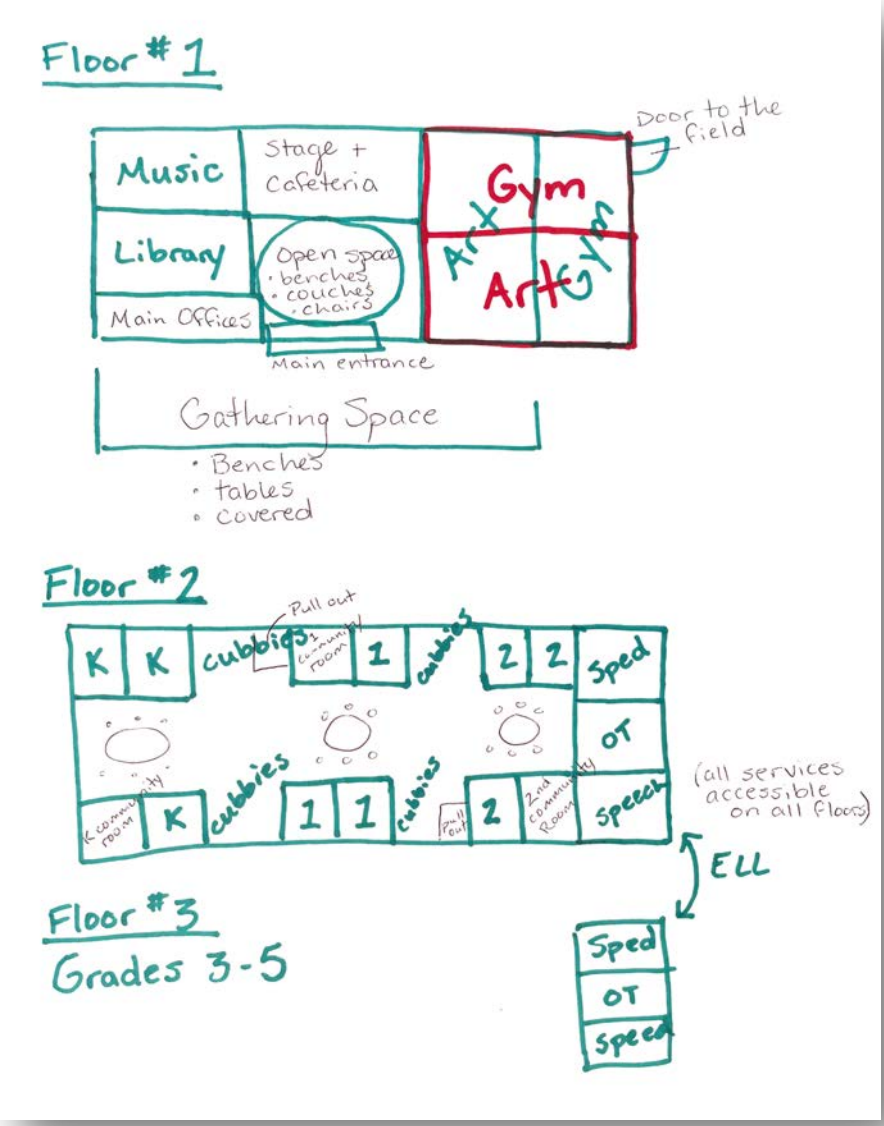
7. **School as Community Resource**
   (25 votes)
   - Accessibility
   - Community Zones
   - Community Feel to Entry

Blue Sky Bubble Diagramming

The following "Blue Sky" diagrams were created by Countryside Elementary School faculty to communicate their aspirational ideas for spaces and spatial relationships within the renovated and/or new Countryside facility. The faculty worked both individually and in small groups to develop their diagrams. Diagrams have been grouped thematically.

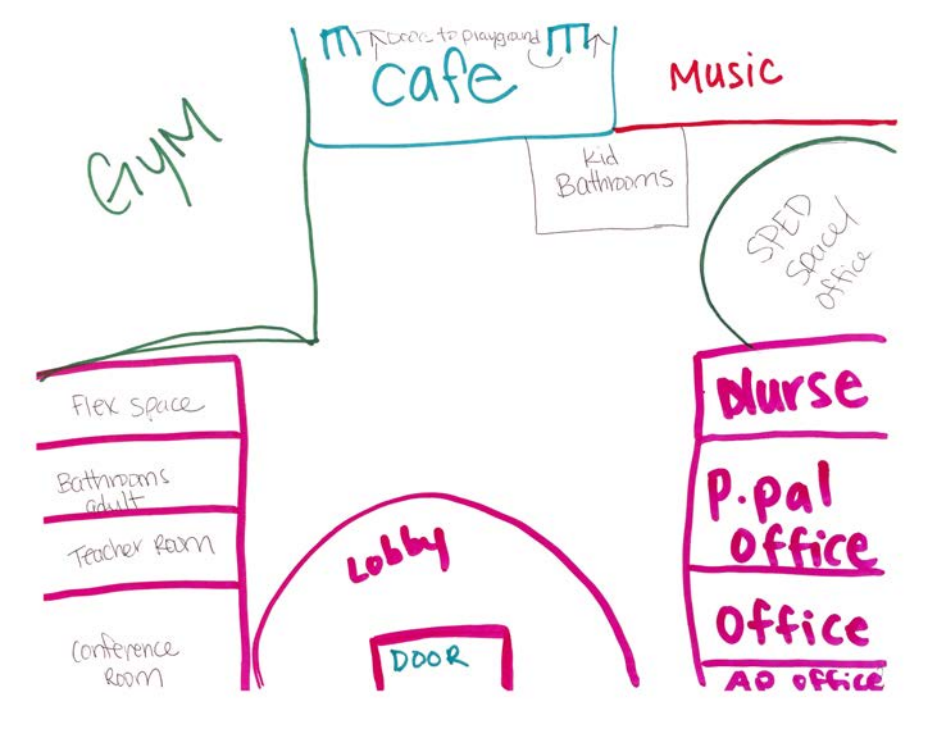
Blue Sky Ideas, though sometimes not feasible due to budget or design constraints, often hold the seeds of aspirational ideas and design approaches that can be implemented on some level within the design.

Whole School Diagram



Blue Sky Bubble Diagramming

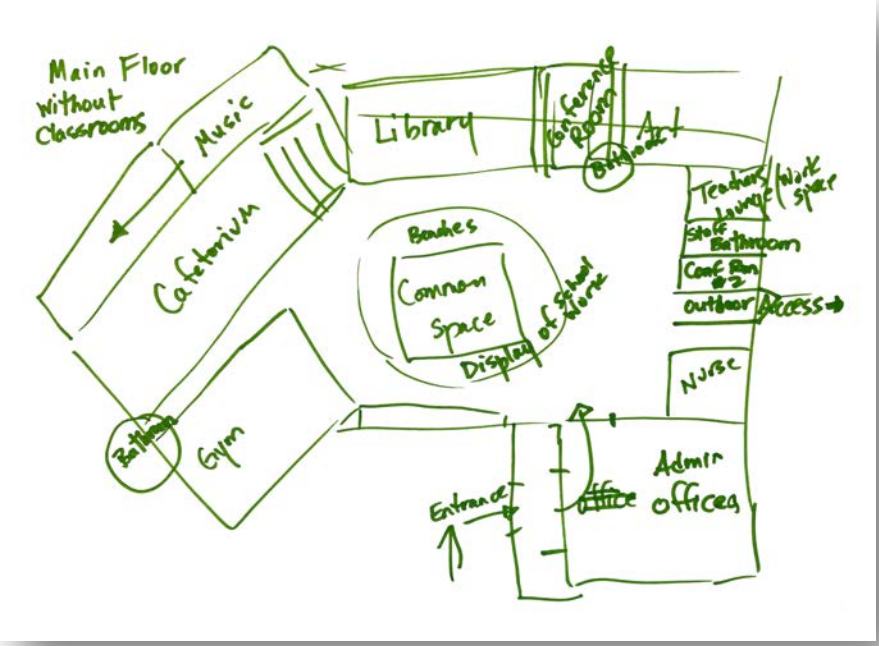
Community Core Diagrams



Blue Sky Bubble Diagramming

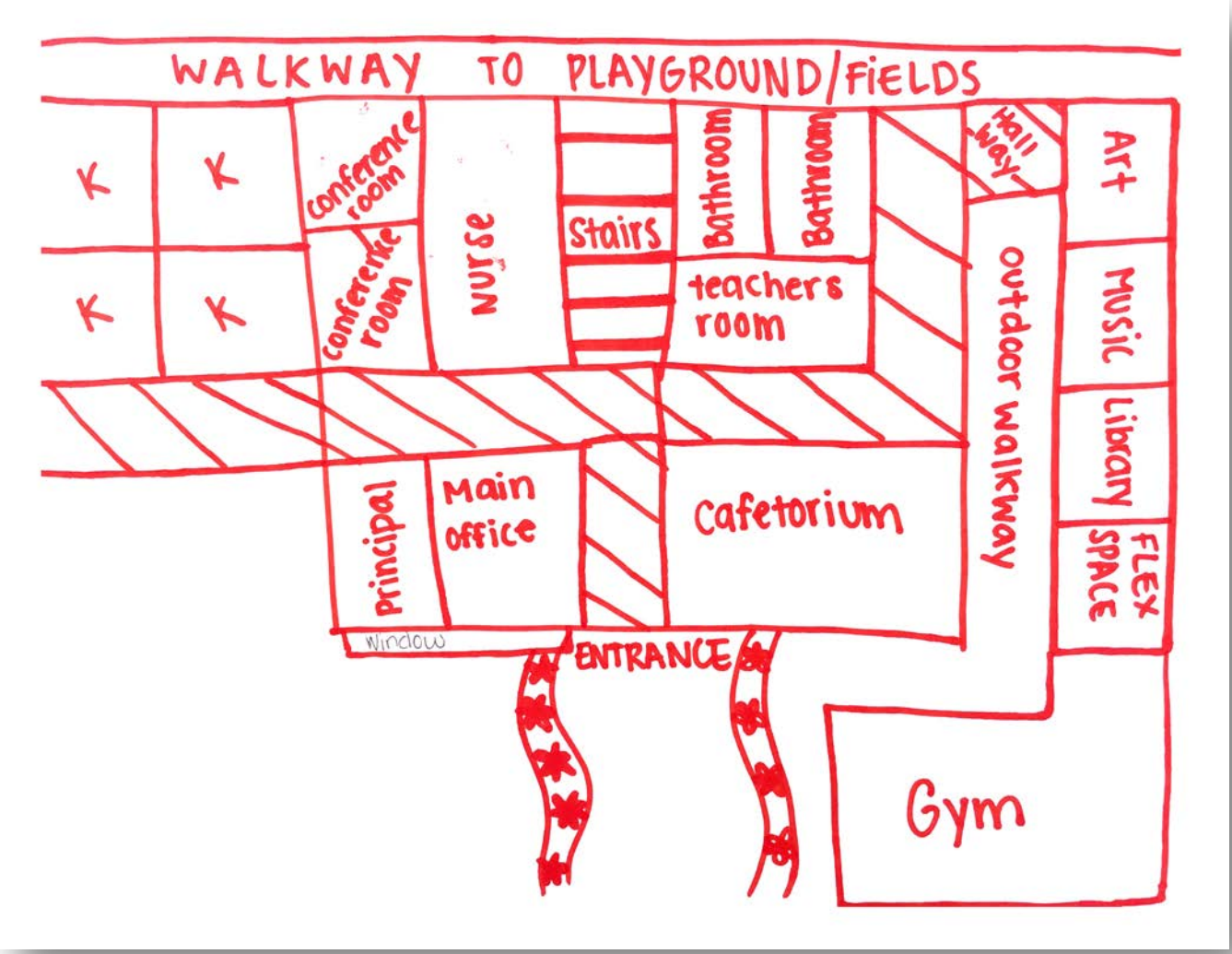
Community Core Diagram

First Floor Diagram



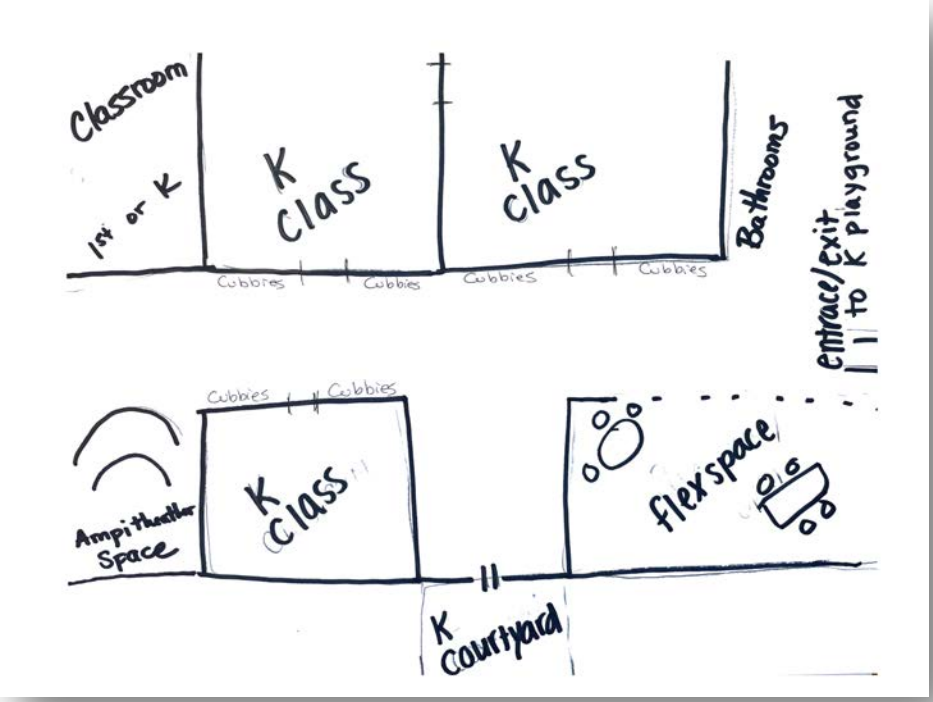
Blue Sky Bubble Diagramming

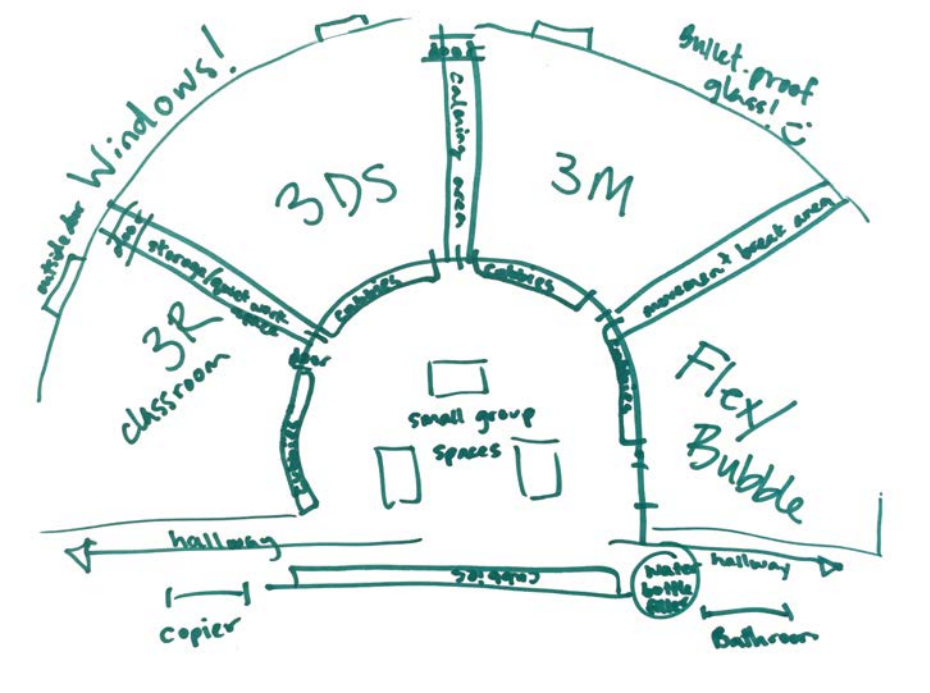
First Floor Diagram



Blue Sky Bubble Diagramming

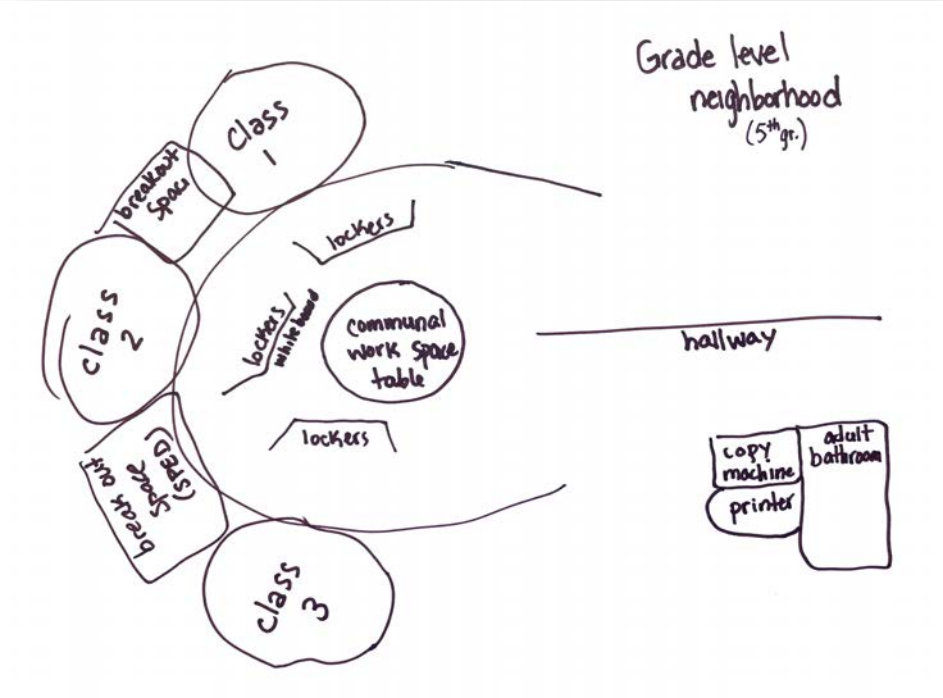
Classroom Neighborhood Diagrams

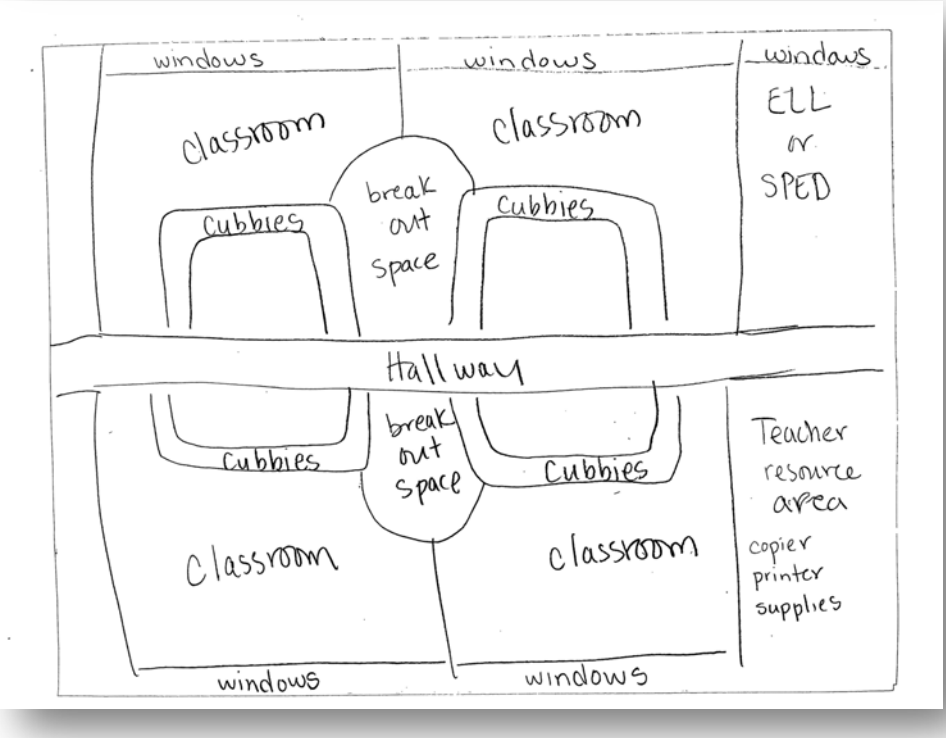




Blue Sky Bubble Diagramming

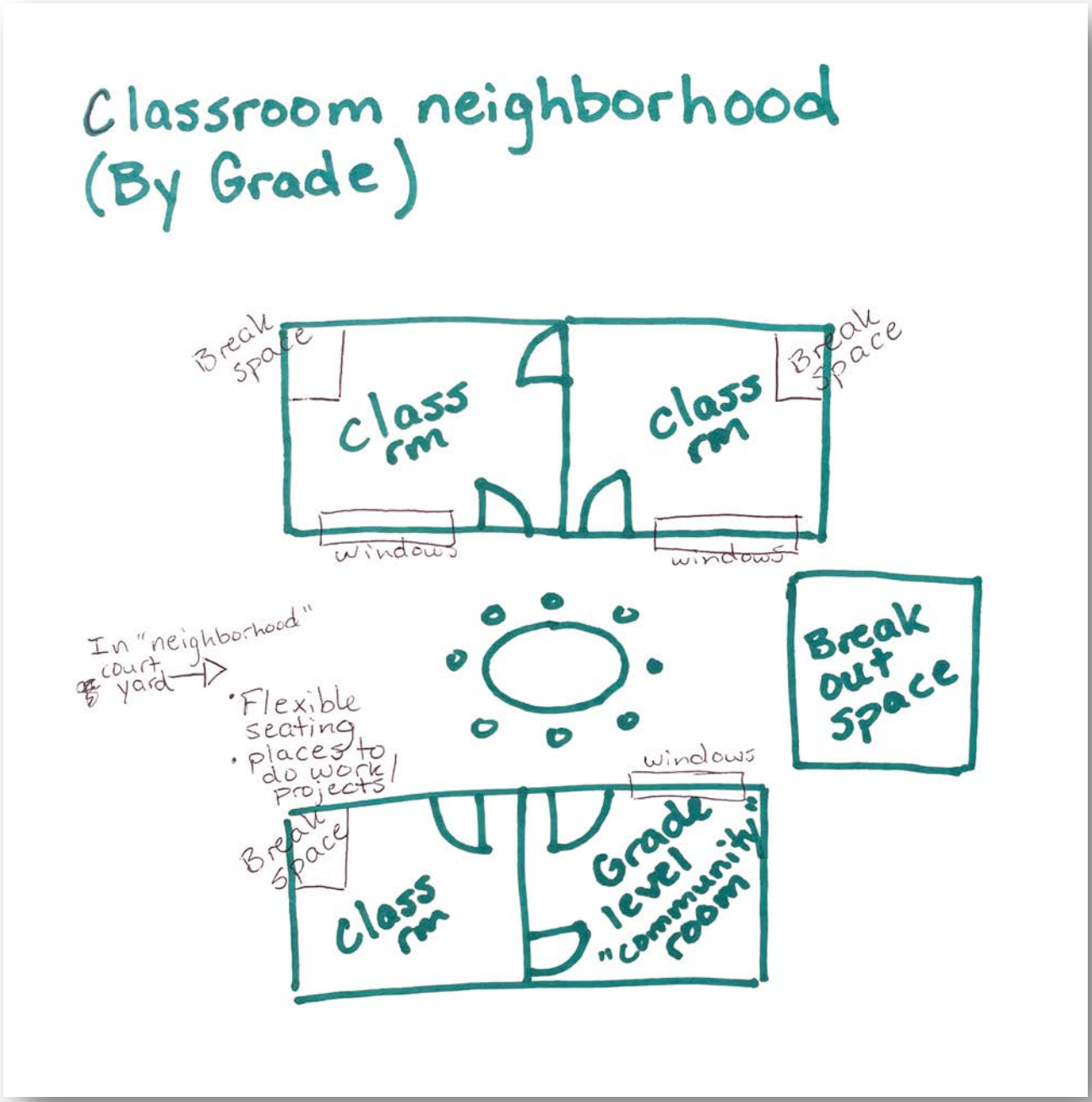
Classroom Neighborhood Diagrams





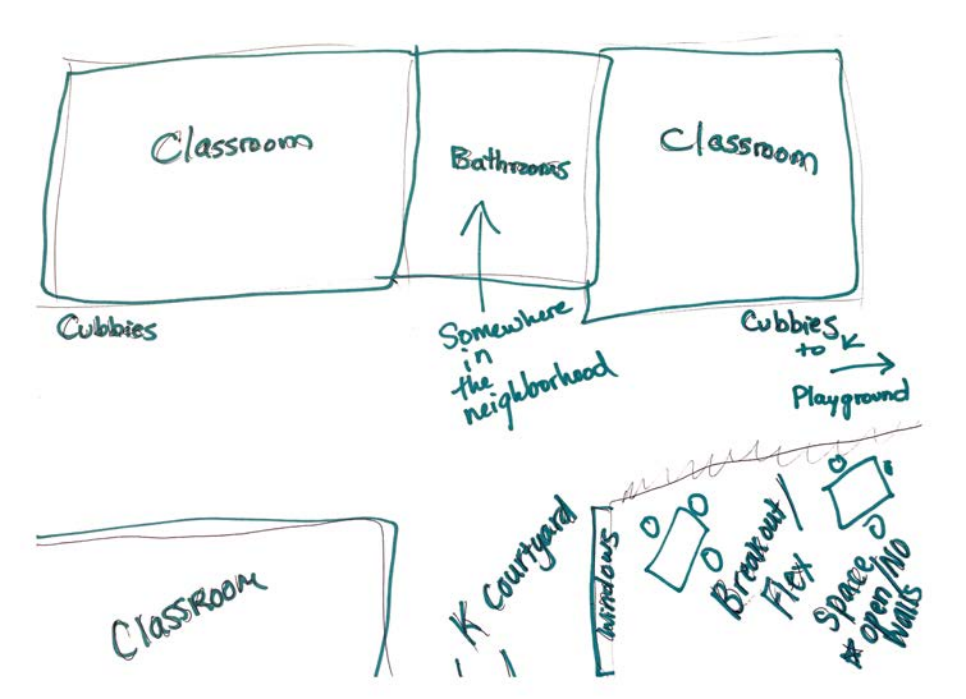
Blue Sky Bubble Diagramming

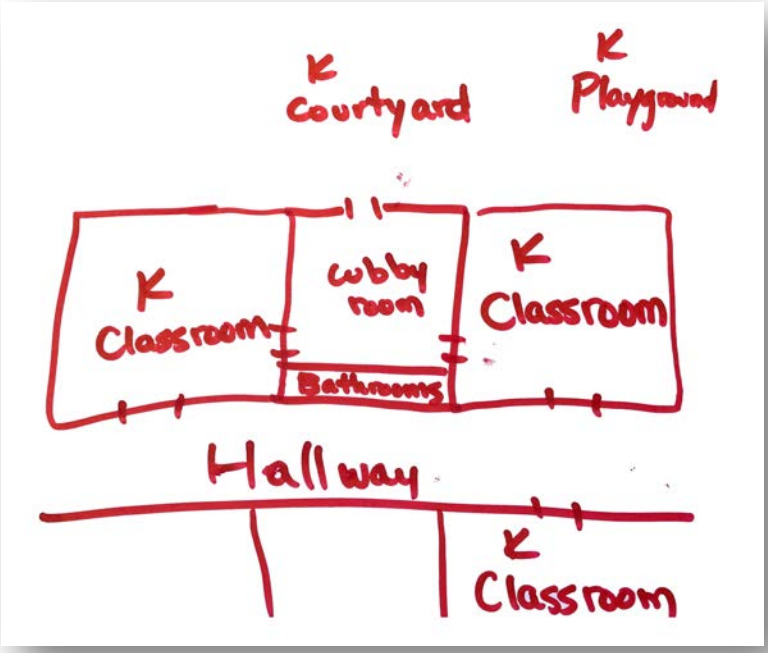
Classroom Neighborhood Diagram

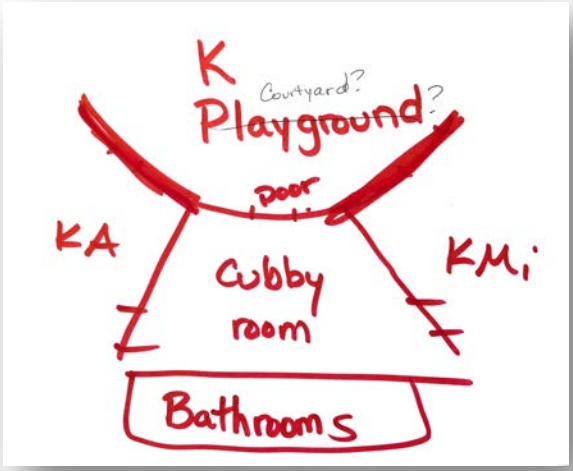


Blue Sky Bubble Diagramming

Kindergarten Neighborhood Diagrams

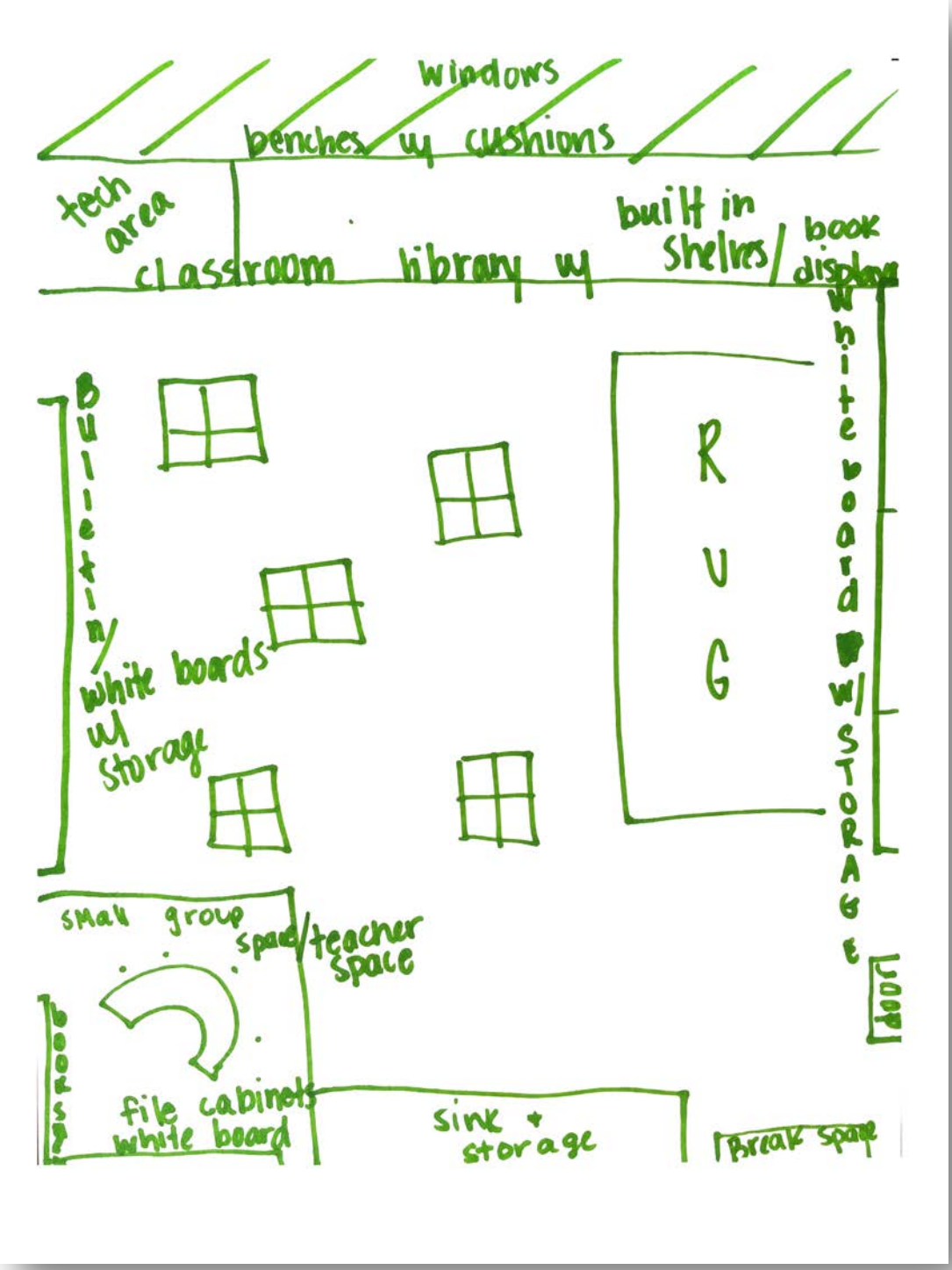






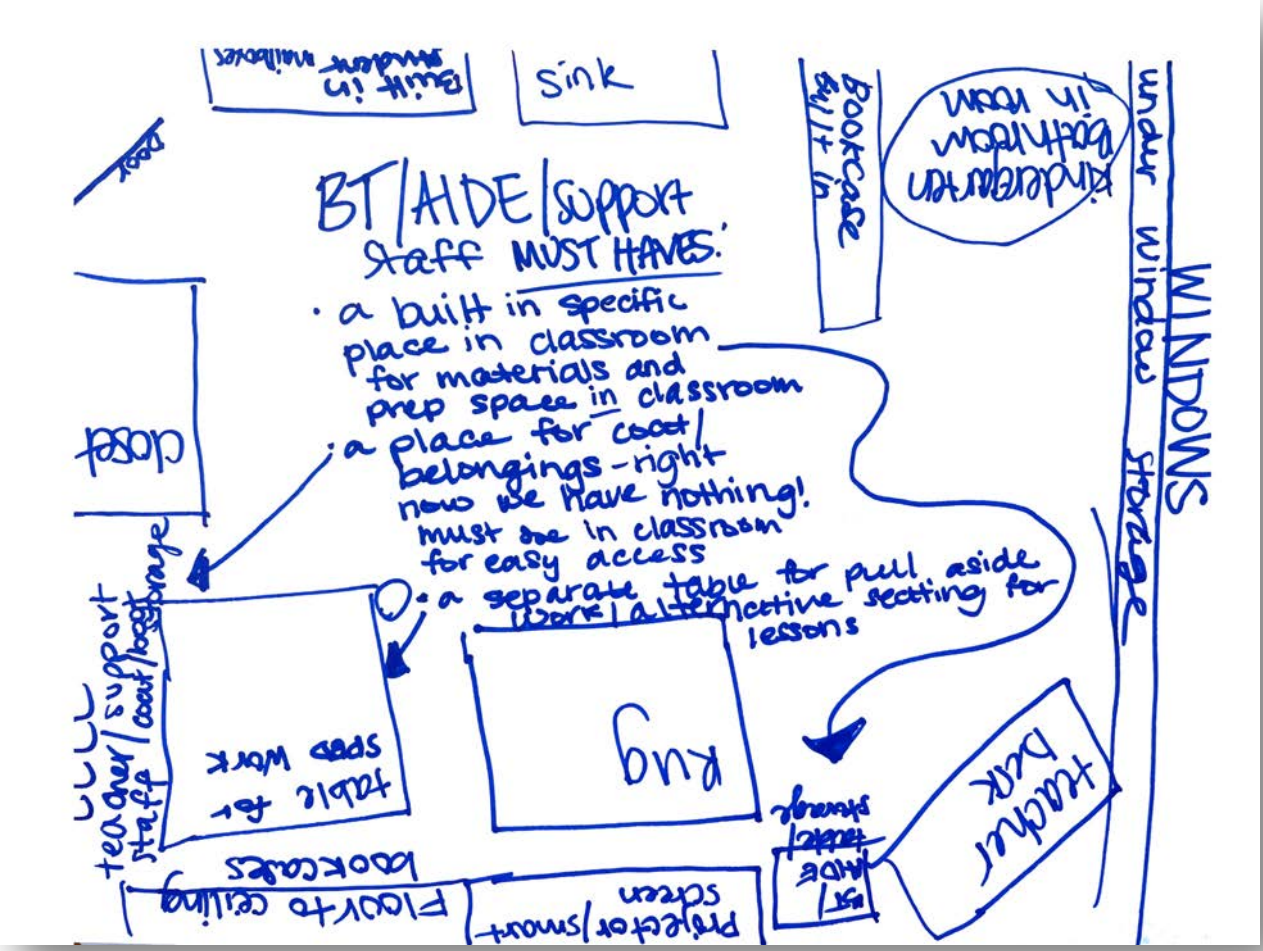
Blue Sky Bubble Diagramming

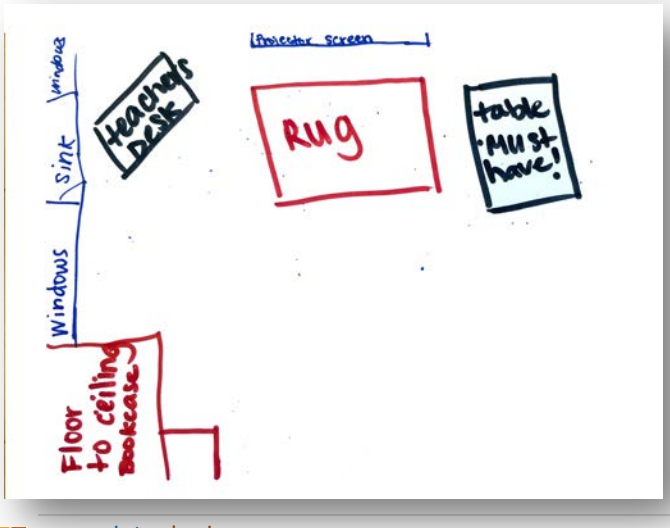
Classroom Diagram



Blue Sky Bubble Diagramming

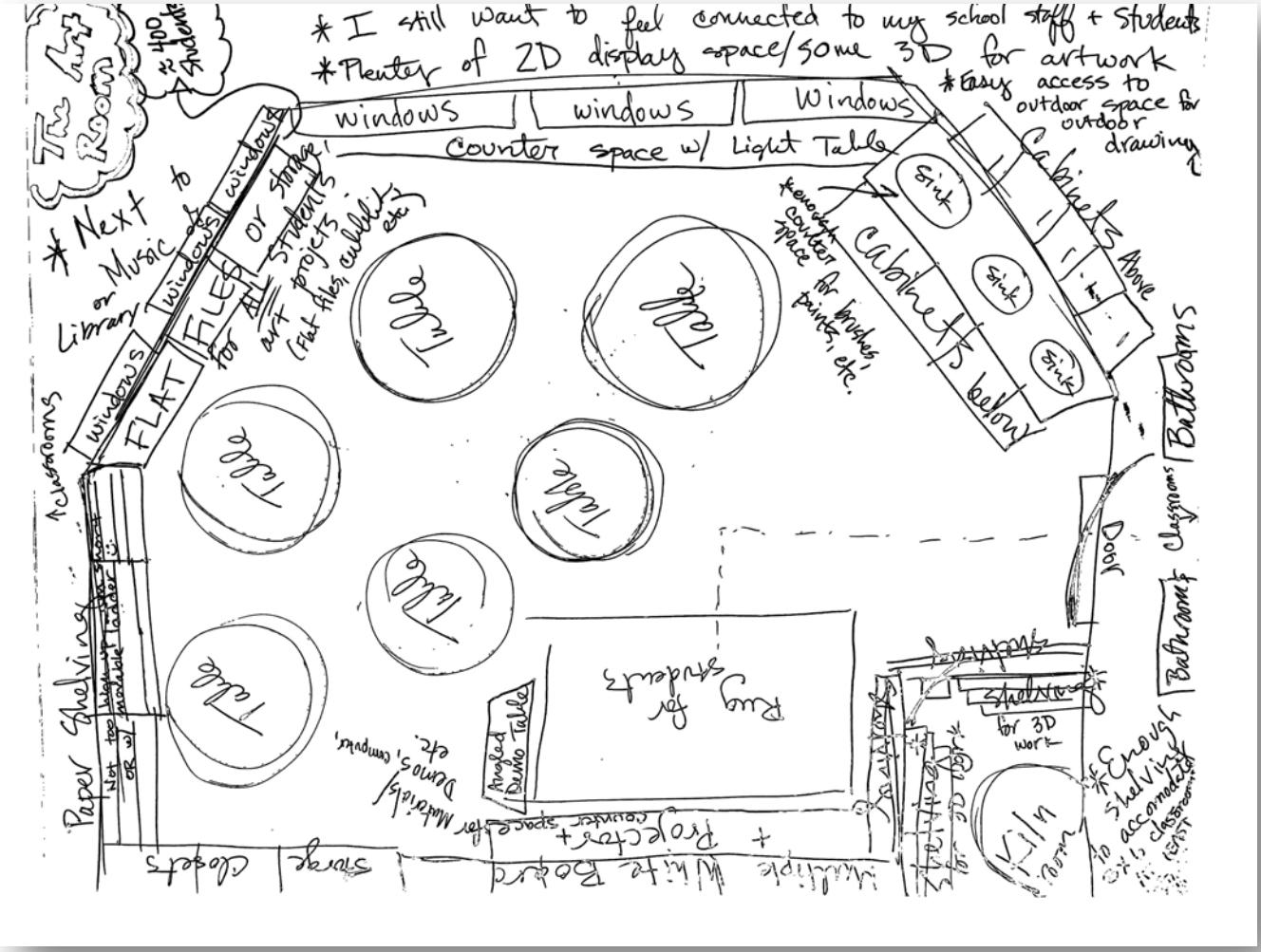
Classroom Diagrams





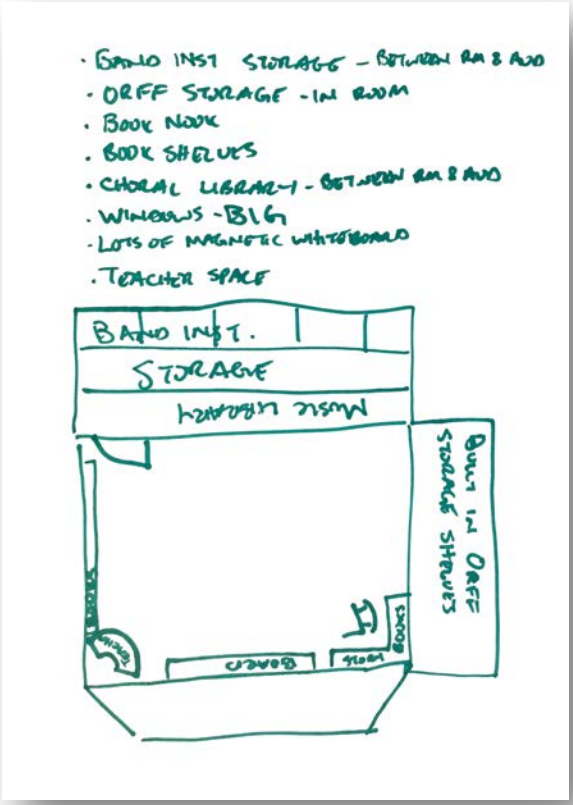
Blue Sky Bubble Diagramming

Art Room Diagram

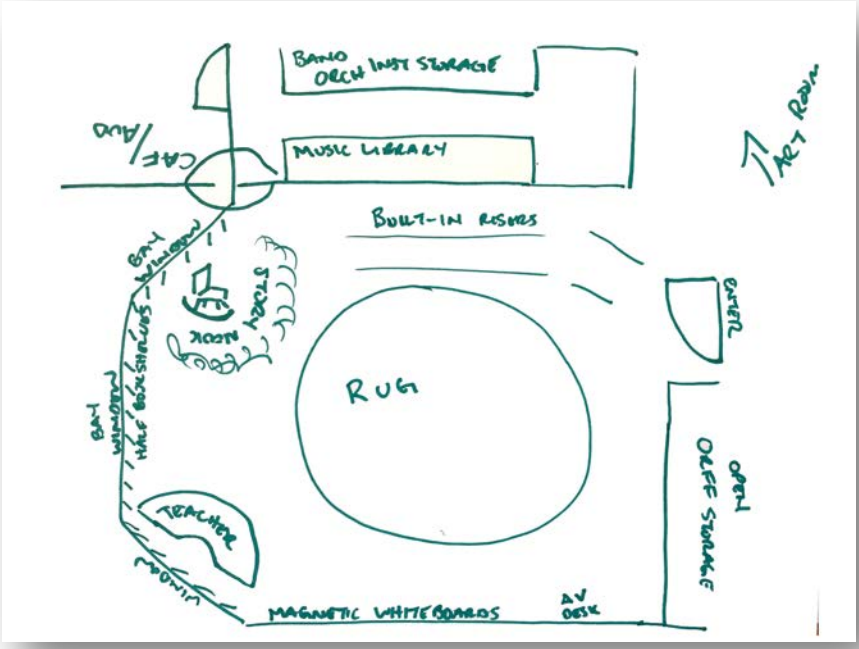


Blue Sky Bubble Diagramming

Band Room Diagram

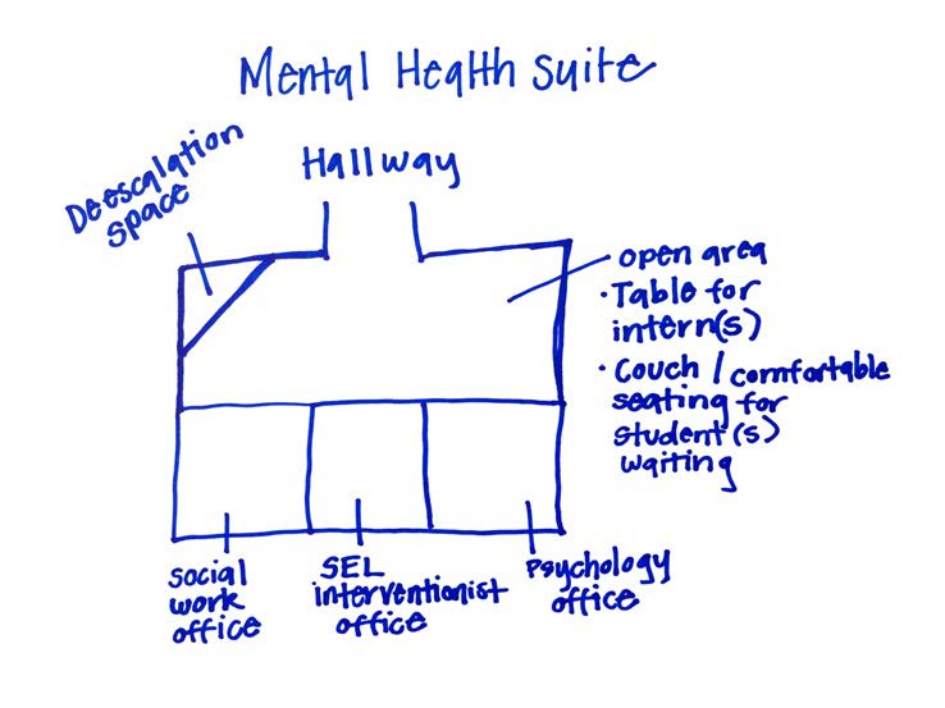


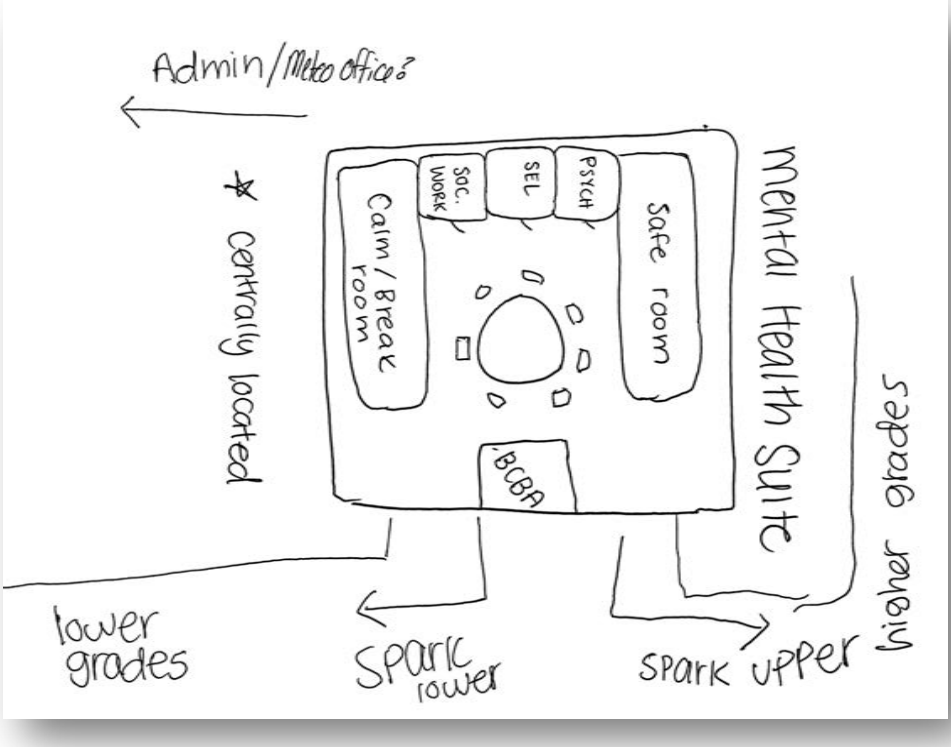
Music Room Diagram



Blue Sky Bubble Diagramming

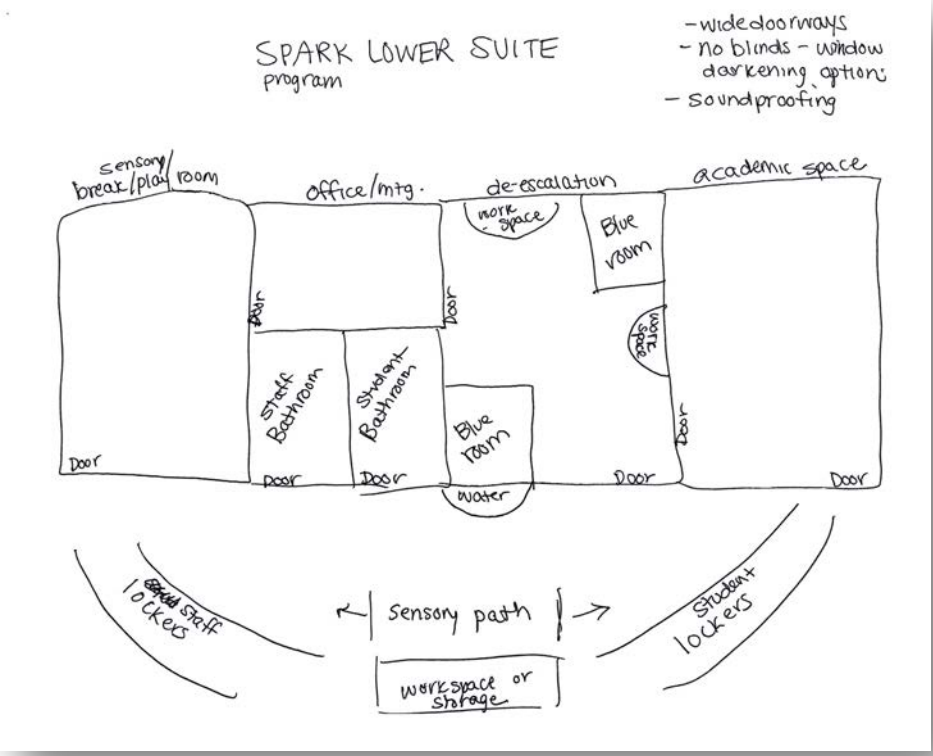
Mental Health Suite Diagrams

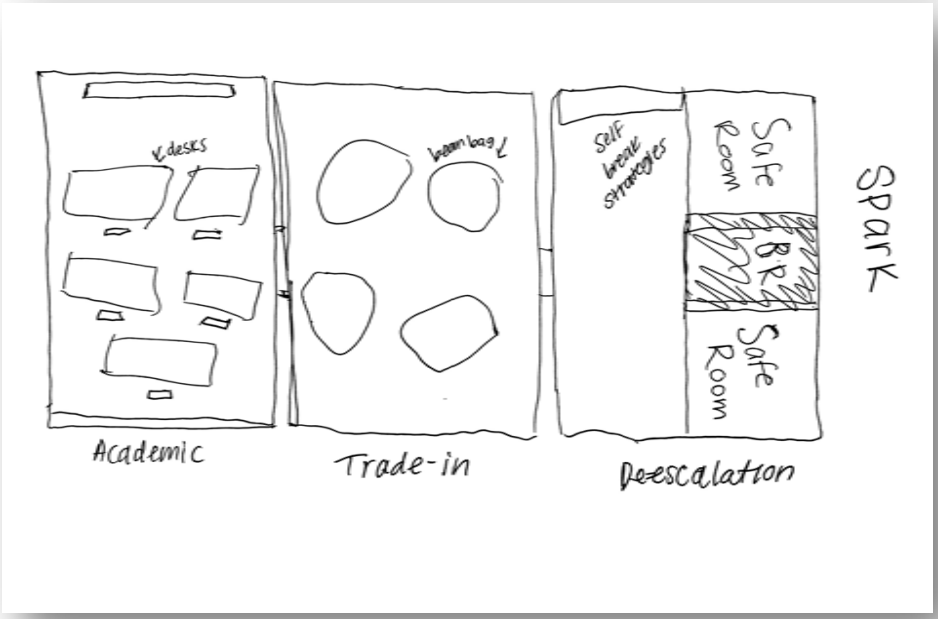




Blue Sky Bubble Diagramming

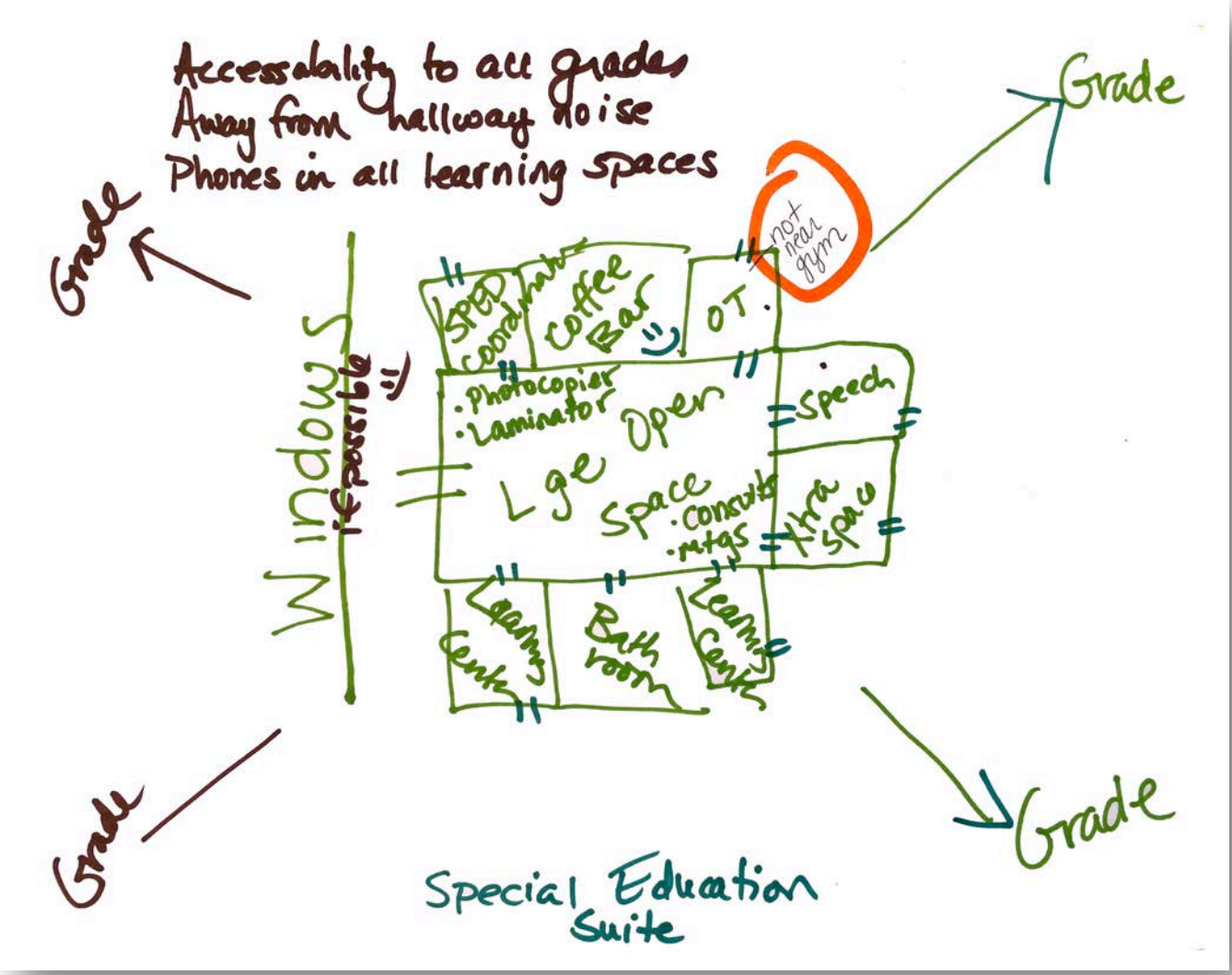
Spark Program Diagrams





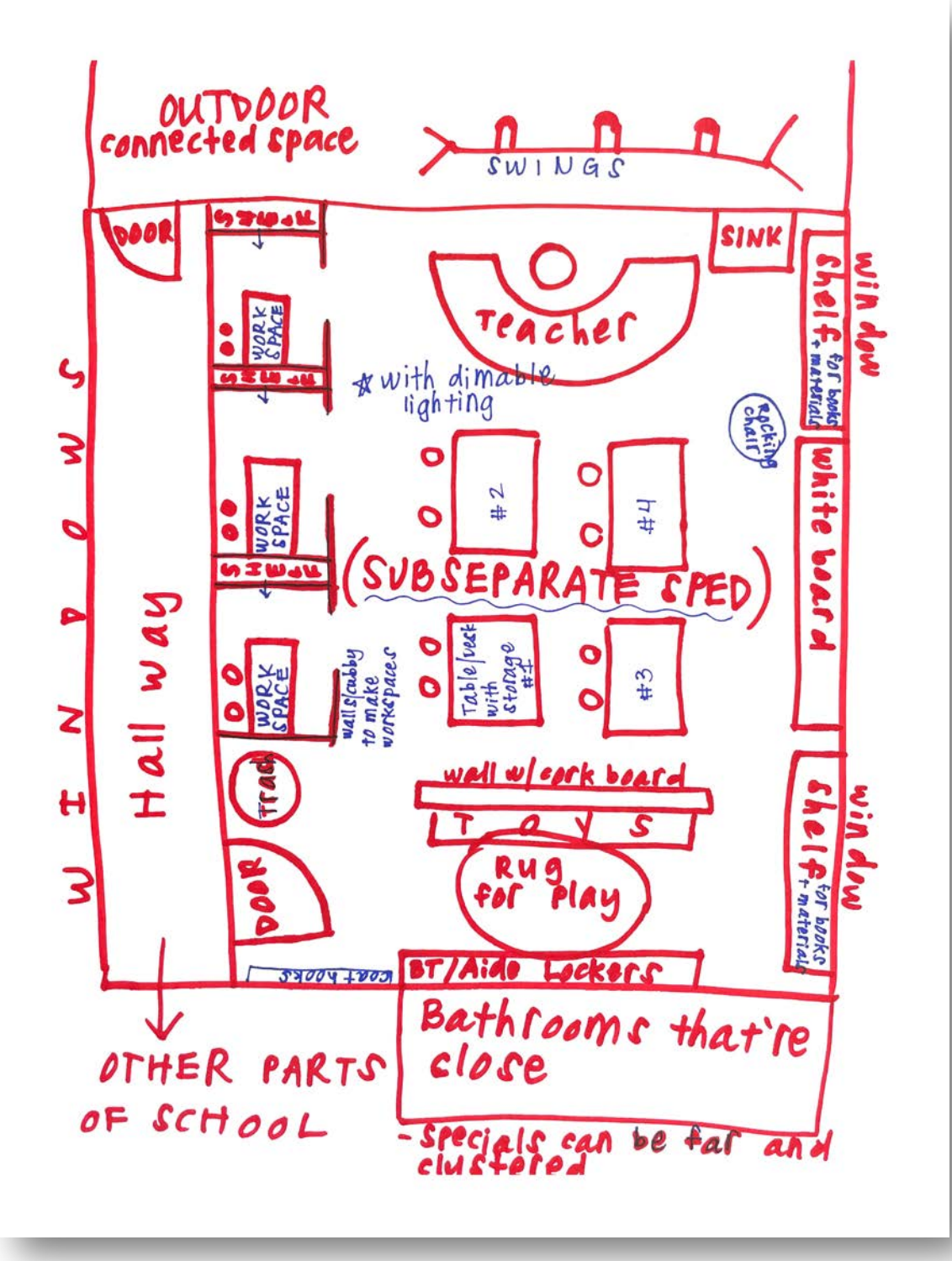
Blue Sky Bubble Diagramming

Special Education Suite Diagram



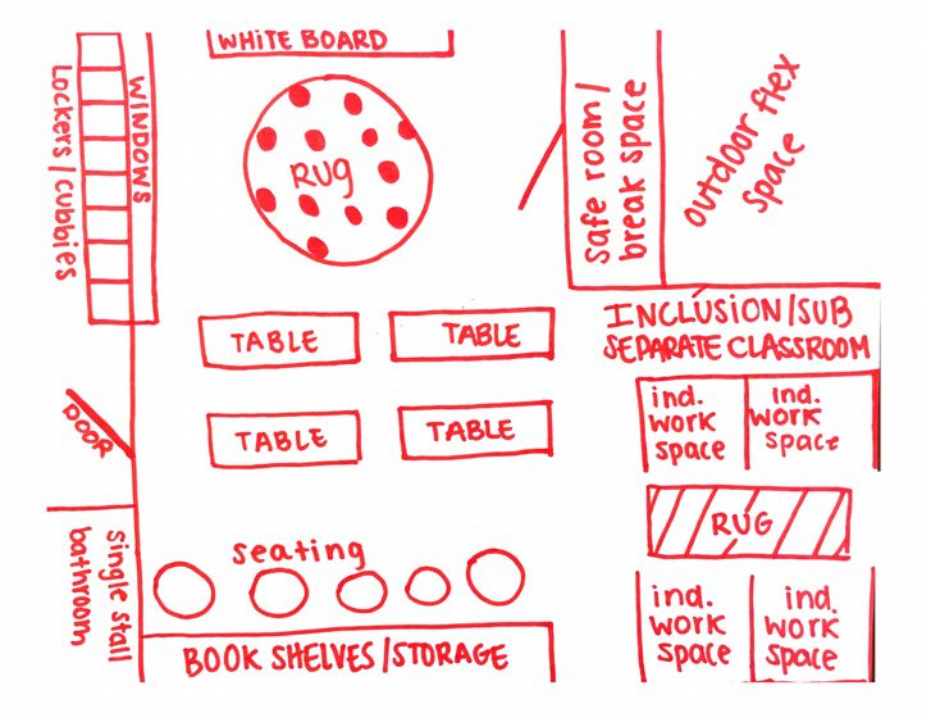
Blue Sky Bubble Diagramming

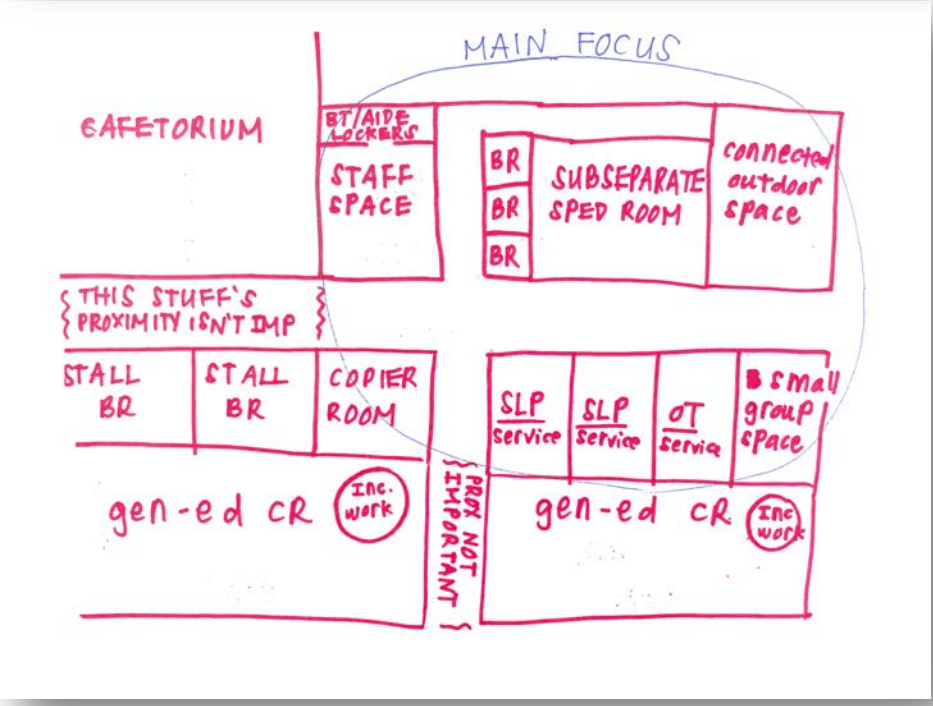
Sub-Separate Classroom Diagrams



Blue Sky Bubble Diagramming

Sub-Separate Classroom Diagrams





Blue Sky Bubble Diagramming

Outdoor Spaces Diagram

Pumping Room Blue Sky Idea

A clean, functional place to pump milk for the many young mothers on staff.