CITY OF NEWTON
Department of Public Works
ENGINEERING DIVISION

MEMORANDUM

To: Barney Heath, Director of Planning

From: John Daghlian, Associate City Engineer

Re: Administrative Site Plan Review – Countryside Elementary School

Date: October 20, 2023

CC: Lou Taverna, P.E., City Engineer
Thomas Fitzgerald, Director of Utilities
Doug Valovcin, Deputy Director of Utilities
Carol Moore, City Clerk
Jennifer Ciara, Deputy Director of Planner
Katie Whewell, Chief Planner
Alyssa Sandoval, Deputy Chief Planner
Joseph Iadonisi, Planning Associate

In reference to the above site, I have the following comments for a plan entitled:

Countryside Elementary
School
Newton, MA
Prepared By: Horsely & Witten Group
Dated: September 13, 2023
&
Stormwater Report

Executive Summary:

The project involves the construction of a new *Countryside Elementary School* building in the northeast portion of the site. The new school will be *3*-stories and approximately 75,500 square feet (sf) with a footprint of 34,746 sf. The existing school will remain operational while the new school is constructed and will be demolished after completion of the new school.

The site will feature a parent drop off area located along Dedham Street, a van drop off lane within the staff parking lot, and a protected bus drop off lane along Dedham Street. The new staff parking lot will be located in the northwest portion of the site with

driveway access from Dedham Street. A loading dock area will be located at the southeast corner of the school with access from Dedham Street.

The site features many recreational and outdoor learning opportunities including a painted asphalt play area, playground structures, full basketball court, wall ball zone, pollinator garden, outdoor classrooms, and raised garden beds. A new softball practice field will occupy the southeast corner of the site to maximize play area.

Stormwater:

Two new drywells will be installed in the existing depression north of the new school. The original grading for the northern portion of the depression will be protected along with the existing trees. Stormwater within the drywell depression area will overflow to the parking lot network.

The parking lot and driveway will be constructed of porous pavement with a stone reservoir beneath. The parking lot system will overflow through a stone filter strip to a vegetated swale on the west side of the parking lot and through a paved inlet flume to the south. The vegetated swale and paved inlet flume convey stormwater to the sediment forebay for treatment before flowing to the stormwater pollinator garden.

A stormwater pollinator garden is proposed that will collects and treats runoff from a portion of the asphalt play area and the outdoor learning area. It overflows to the existing outfall in the intermittent stream to the west. The playground area will be a permeable rubber surface. The basketball court and a portion of the asphalt play area drain into two catch basins and a trench drain which are piped to the existing outfall in the intermittent stream to the west. The existing 10-inch outfall at the bank of South Meadow Brook will be reused to receive runoff from the roof and the garden bed area.

The loading dock area drains to a water quality unit catch basin which is piped to the municipal drainage system in Dedham Street. A rain garden will collect stormwater from the plaza in the northeast corner of the site and will also overflow to the municipal drainage system in Dedham Street.

Prior to applying for a Building Permit on site soil testing must be performed that will include test pit(s) within 25 -feet of each proposed system and percolation test(s) must be scheduled and witnessed by a representative of the Engineering Division. Soil logs shall be submitted on the site plan or drainage report and shall be certified by a Massachusetts Licensed Soil Evaluator and/or Professional Civil Engineer.

Overall, the proposed systems will vastly improve water quality and address phosphorus reduction as required by the MS-4 permit.

The Stormwater report did not have an Operation & Maintenance (O&M) plan (*which is pending*) this is critical for long-term performance of the proposed design stormwater

elements and to ensure compliance with DEP & DPW requirements. Once the O & M plan is approved by the DPW the school department must adhere to the required inspections and maintenance to ensure proper performance, compliance, and annual reporting to the DPW.

Domestic Water Service(s) & Sanitary Sewer:

1. Two water services are shown on the utility plan, however; they orientated on a skewed angle this is unacceptable they need to be perpendicular to the existing water main. Additionally, fire flow testing and hydraulic calculations are needed to confirm the size of the proposed fire suppression service. The testing must be witnessed by the Utilities Division, the results and calculations must be submitted to the Fire Department and Utilities Divisions for approval.

2. The plan did not indicate where the fire connections at the new school are located.

3. Existing water and sewer services to building(s) shall cut and capped at the respective mains and completely removed from the main(s) and its entire length and properly backfilled. The Engineering Division must inspect and approve this work, failure to having this work inspected will result in delay of issuance of the new Utility Connection or issuance of a Certificate of Occupancy. *This note needs to be on the final design plans*.

4. All new sewer service(s) shall be pressure tested in accordance with the City Construction Specifications & Standards and inspected via Closed Circuit Television CCTV inspection after installation is completed. A copy of the video inspection and written report shall be submitted to the City Engineer or his representative. The sewer service will NOT be accepted until the two methods of inspection are completed AND witnessed by a representative of the Engineering Division. A Certificate of Occupancy will not be recommended until these tests are completed to the satisfaction of the City Engineer. *This note needs to be on the final design plans.*

5. All sanitary sewer manhole(s) shall be vacuum tested in accordance with the City's Construction Standards & Specifications, the sewer service and manhole will NOT be accepted until the manhole(s) pass the testing requirements. All testing MUST be witnessed by a representative of the Engineering Division. A Certificate of Occupancy will not be recommended until this test is completed to the satisfaction of the City Engineer and a written report of the test results is submitted to the City Engineer. *This note needs to be on the final design plans.*

6. With the exception of natural gas service(s), all utility trenches within the right of way shall be backfilled with Control Density Fill (CDF) Excavatable Type I-E up to within 18-inches of the asphalt binder level, after which Dense Grade Gravel compacted to 95 % Proctor Testing shall be placed over the CDF. Details of this requirement is the Engineering Division website "Standard Construction Details". *This note needs to be on the final design plans*.

7. Fire Flow testing is required for the proposed fire suppression system. The applicant must coordinate the fire flow test with both the Newton Fire Department and the Utilities Division, representative of each department shall witness the testing. Test results shall be submitted in a written report along with hydraulic calculations that demonstrate the required size of the fire suppression system, these calculations shall be submitted to the Newton Fire Department for approval, and copies give to the Engineering Division.

8. All water services shall be chlorinated, and pressure tested in accordance with the AWWA and the City Construction Standards & Specifications prior to coming online. These tests MUST be witnessed by a representative of the Engineering Division. *This note needs to be on the final design plans.*

9. Approval of the final configurations of the water service(s) shall be determined by the Fire Department & Utilities Division, the engineer of record shall submit a plan to the Director of Utilities for approval.

Construction Management:

1. A construction management plan is needed for this project. At a minimum, it must address the following: staging site for construction materials and equipment, parking for construction workers vehicles, phasing of the project with anticipated completion dates and milestones, safety precautions, emergency contact personnel of the general contractor. It shall also address anticipated dewatering during construction, site safety & stability, siltation & dust control and noise impact to abutters.

2. Stabilized driveway construction entrance(s) will be required for the duration of the construction which will provide a truck wash to prevent tracking of mud and silt onto City streets.

3. Catch basins within and downstream of the construction zone will be required to have siltation control installed for the duration of the project and must be identified on the site plan.

4. As the site disturbance will be greater than 1 -acre a Stormwater Pollution Prevention Plan (SWPPP) will be required prior to any construction, in addition to a NPDES Construction General Permit.

Environmental:

1. Has a 21E Investigation and report been performed on the site, if so, copies of the report should be submitted to the Newton Board of Health and Engineering Division.

2. Are there any existing underground oil or fuel tanks? Have they been removed, if they have been, evidence of the proper removal should be submitted to the Newton Fire Department and the Board of Health.

General:

1. 5 Year Moratorium – if at time of construction the roadway is under a 5-year moratorium, the roadway must be milled and paved gutter-to-gutter for a distance of 25 feet in each direction from the outermost trenches.

2. All trench excavation shall comply with Massachusetts General Law Chapter 82A, Trench Excavation Safety Requirements, and OSHA Standards to protect the general public from unauthorized access to unattended trenches or excavations. Trench Excavation Permit is required prior to any construction. This applies to all trenches on public and private property. *This note shall be incorporated onto the final plans.*

3. All tree removal shall comply with the City's Tree Ordinance.

4. The contractor of record is responsible for contacting the Engineering Division and scheduling an appointment 48-hours prior to the date when the utilities will be made available for an inspection of water services, sewer services and drainage system installation. The utility in question shall be fully exposed for the Inspector to view, backfilling shall only take place when the City Engineer's Inspector has given their approval. *This note shall be incorporated onto the final plans.*

5. The applicant shall apply for a Building Permit with the Inspectional Services Department prior to ANY construction.

6. Before requesting a Certificate of Occupancy, an As Built plan shall be submitted to the Engineering Division in both digital and paper format. The plan shall show all utilities and final grades, any easements and improvements and limits of restoration. The plan shall include profiles of the various new utilities including but not limited to rim & invert elevations (City of Newton Datum), slopes of pipes, pipe materials, and swing ties from permanent building corners. The as built shall be stamped by both a Massachusetts Registered Professional Engineer and Registered Professional Land Surveyor. Once the As built plan is received the Engineering Division shall perform a final site inspection and then make a determination to issue a Certificate of Occupancy. *This note shall be incorporated onto the final plans.*

7. All site work including trench restoration, sidewalk, curb, apron, and loam border (where applicable) shall be completed before a Certificate of Occupancy is issued. *This note shall be incorporated onto the final plans.*

8. The contractor of record shall contact the Newton Police Department 48-hours in advanced and arrange for Police Detail to help residents and commuters navigate around the construction zone.

9. If any changes from the final approved design plan that are required due to unforeseen site conditions, the contractor of record shall contact the design engineer of record and submit revised design and stamped full scale plans for review and approval prior to continuing with construction.

10. *The engineer of record shall add the following attestation to the plans when applying for a building permit:*

    I certify that the construction so shown was inspected prior to backfill and that all work conforms with the Approved Plan and meets or exceeds the City of Newton Construction Standards.

    _____

    Signature

If you have any questions or concerns, please feel free to contact me @ 617-796-1023