## CITY OF NEWTON Department of Public Works ENGINEERING DIVISION

## MEMORANDUM

To: Council Rick Lipof, Land Use Committee Chairman

From: John Daghlian, Associate City Engineer

Re: Special Permit – 17 Wallace Street

Date: January 5, 2021

CC: Barney Heath, Director of Planning Jennifer Caira, Deputy Director Lou Taverna, PE City Engineer Nadia Khan, Committee Clerk Neil Cronin, Chief Planner Michael Gleba, Sr. Planner

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

17 Wallace Street Prepared by: Peter Nolan & Associates & Robert Therrien, Architect Dated: 6-10-2020

## Executive Summary:

This application entails a proposed retaining wall to be constructed along the northern property line to allow the homeowner to create a "flat" back yard. The site is surrounded by residential homes on the west-north-and east property lines; the existing back yard is sloped from the rear property line at elevation +/-150 feet towards the dwelling (finish floor) at elevation 140.18 - feet.

The 50-foot long by 8-foot high (average height ~ exposed face) retaining wall is to be constructed of cast in place cement concrete set 3-feet off the rear property line; and having two perpendicular walls approximately 14-feet long running parallel to the east & west property lines set one-foot off each property line. As with all retaining walls a structural analysis

will be required by the Inspectional Services Department prior to a building permit; the analysis will have to ensure that the wall does not fail in regard to the following or a combination of:

- 1. Settlement
- 2. Sliding
- 3. Over-turning



Backfilling of the wall is critical, properly well drained soil needs to be selected and placed in a manner as not to cause dynamic stress on the wall when backfilling and compacting the soils. The proposed 6" diameter PVC weep hole need in addition to crushed stone filter fabric to be place surrounding the stone to ensure fines do not clog the stone nor pipes.

The plans do not indicate the exposed finish of the cast in place wall, additionally the proposed "safety fence" along the top of the wall should be a non-climbable material. Based on the site constrains a concrete pump truck will be needed to place the cement concrete into the forms from the street; if this process is the method of construction, the contractor or sub-contractor shall obtain a Sidewalk Crossing & Occupancy Permit with DPW prior to occupying the sidewalk and/or street (this is to ensure when the outriggers are placed to stabilize the truck on either the sidewalk or Street any damaged occurred will be the responsibility of the contractor).

## <u>General</u>:

- 1. 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.*
- 2. All tree removal shall comply with the City's Tree Ordinance.
- 3. The applicant shall apply for a Building Permit with the Inspectional Services Department prior to ANY construction.
- 4. Upon completion of the proposed project an As Built plan shall be submitted to the Engineering Division in both digital and paper format. The plan shall show the wall, fence, property lines and final grades, any easements and improvements and limits of restoration. The plan shall include profiles of the regraded areas. The as built shall be stamped by both a Massachusetts Registered Professional Engineer and Registered Professional Land Surveyor.
- 5. All site work including trench restoration, sidewalk, curb, apron and loam border (where applicable) shall be completed. *This note shall be incorporated onto the final plans.*
- 6. 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.

Note: If the plans are updated it is the responsibility of the applicant to provide all City Departments [ISD, Conservation Commission, Planning and Engineering] involved in the permitting and approval process with complete and consistent plans.

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