

CITY OF NEWTON  
Department of Public Works  
ENGINEERING DIVISION

MEMORANDUM

To: Alderman Mark Laredo, Land Use Committee Chairman

From: John Daghlian, Associate City Engineer

Re: Special Permit – 17 Malvern Terrace

Date: April 29, 2016

CC: Lou Taverna, PE City Engineer  
Nadia Khan, Committee Clerk  
Alexandria Ananth, Chief Planner  
Michael Gleba, Sr. Planner

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

*Site Plan of Land in Newton, MA  
17 Melvern Terrace  
Designed by: Everett M. Brooks Company  
Dated: March 21, 2016  
Revised: 3/23/16*

*Executive Summary:*

This project entails the demolition of an existing two-family dwelling and the construction of a new two-family dwelling on a 0.32 acre lot that abuts the Charles River. Site improvements include: new water and sanitary sewer services, driveway, and retaining walls, and a planting area with native species. The proposed retaining wall along the backside of the existing public sidewalk needs clarification (i.e. top & bottom of wall elevations, design, materials and how drainage from the back of the wall will be handled, as discharging water onto a City sidewalk is prohibited and is a concern during freeze/thaw cycles when ice may accumulate.

The narrative does not address how dewatering will be addressed during construction, this is a major concern since the property is directly on the Charles River. The narrative does not explain the methodology of the new construction i.e., the type of foundation (will be it on pilings, helical piers, traditional foundation?).

The proposed driveway is to be constructed of pervious pavers, but the narrative indicates that the drainage calculations regarded this as impervious; which is fine, however; there is no calculation of how much runoff is coming off this driveway. The issue with “pervious” pavers is that for the system to properly drain, long-term maintenance via a vacuum sweeping is required to keep the pavers and gaps between functional as “pervious”; yet homeowners do not conduct this type of maintenance, this is why DPW does not give credit for these pavers.

Since construction activity will take place near the existing City drain easement, outfall #54, prior to any demolition and or construction, a Closed Circuit Television (CCTV) inspection shall be performed by the applicant and witnessed by the Engineering Division, furthermore a post construction CCTV will be required. This is a standard requirement for any construction near City utilities.

Since the entire frontage of the property will be under construction with new utilities, retaining wall construction, etc., upon completion of all utilities and construction of the proposed wall, new sidewalks and curbing will be required along the entire frontage. An existing 16” diameter deciduous tree is to be cut down for the construction of the proposed driveway; this will require a public hearing with the Tree Warden.

The site plan indicates a test pit was performed, however no information was provided for the elevation of the groundwater. Additionally a percolation test is required with 25 feet of any on site drainage facility. The calculation methodology for the design of the dry well is acceptable however there is a slight mathematical error in the calculations; please correct it for the record.

An Operations and Maintenance (O&M) plan for Stormwater Management Facilities needs to be drafted and submitted for review. It is imperative that regular maintenance be performed to ensure proper operation of the drainage improvements as designed by the engineer. Once approved the O&M must be adopted by applicant, incorporated into the deeds; and recorded at the Middlesex Registry of Deeds. A copy of the recording instrument shall be submitted to the Engineering Division.

The proposed sewer service configuration is unacceptable, a new manhole shall be installed on the property with two service connections made to this structure then one 6” PVC SDR 35 pipe shall be connected to the existing sewer manhole with the road.

This concludes my review, when plans are updated it is the responsibility of the applicant to provide all City Departments [Planning, Conservation Commission, ISD, and Engineering] involved in the permitting and approval process complete and consistent plans.

Recommendations:

1. Prior to and demolition & construction, and upon completion of all construction, the applicant shall have the drain pipe in the City easement inspected via a Closed Circuit Television Inspection (CCTV). The Engineering & Utilities Division shall be given 48 hours prior notice to the date of the CCTV inspection to arrange an Inspector to witness the inspection.
2. It is imperative to note that the ownership, operation, and maintenance of the proposed drainage system and all appurtenances including but not limited to the drywells, catch basins, and pipes are the sole responsibility of the property owner(s).
3. Snow storage areas need to be identified on the site plan.
4. The existing driveway apron shall be remodeled as a compliant City sidewalk; the new driveway apron shall conform to the City's Construction standards.
5. The applicant will have to apply for a Building Permit with the Inspectional Services Department.
6. The applicant's contractor shall apply with the DPW for Utilities Connection permits. Note that the winter moratorium will be in effect on December 15<sup>th</sup> no excavations will be allowed with public right of ways until April 15<sup>th</sup>.
7. The contractor needs to notify the Engineering Division 48-hours in advance and schedule an appointment to have the drainage system & all utilities inspected. The system & utility must be fully exposed for the inspector. ***This note must be incorporated onto the final contract plans.***
8. All siltation control systems shall be installed and inspected by the Conservation Commission Agent(s) prior to any construction. ***This note must be incorporated onto the final contract plans.***
9. Prior to a request for a Certificate of Compliance an As-Built Plan shall be submitted to the Engineering Division in both digital format and in hard copy. The plan should show all utilities and final grades, any easements and final grading, improvements and limits of restoration work. ***This note must be incorporated onto the final contract plans.***
10. All site work must be completed before requesting a Certificate of Occupancy.

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