

**CITY OF NEWTON
ENGINEERING DIVISION**

MEMORANDUM

To: Alderman Ted Hess-Mahan, Land Use Committee Chairman

From: John Daghlian, Associate City Engineer

Re: Special Permit – 9 Ripley Street

Date: September 28, 2012

CC: Lou Taverna, PE City Engineer (via email)
Linda Finucane, Associate City Clerk (via email)
Eve Tapper, Chief Planner (via email)
Derek Valentine, Planner (via email)

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

*Topographic Site Plan Showing Proposed Conditions at
#9 Ripley Street
Newton, MA
Prepared by: VTP Associates, Inc.
Dated: August 8, 2012*

Executive Summary:

The project scope is to add three additional dwelling units on a 19,367 square foot lot; one attached to the existing dwelling and a new group of two located between the street and the existing dwelling.

The drainage design methodology is acceptable and in accordance to City standards; however no on-site soil testing information was submitted. Soil testing is required to confirm design assumptions, placement of systems in relation to seasonal high groundwater.

Several mature deciduous & evergreen trees will need to be cut down for the site access, utilities, and construction, an alternative layout of the driveway should be investigated to avoid cutting so many trees.

The proposed dead-end 6" water service connection ideally should be looped through the site and back out to Ripley Street to provide a better water distribution system in regards to water quality within the project.

As Ripley Street has been reconstructed within the last 5-years, the utility trenches and roadway will have to be milled 25' on both sides of the utility trenches from curb line to curb line; then paved with 1-1/2" of Type I-1 Bituminous Concrete.

Grade Change:

1. Information is needed in regards to the proposed retaining walls within the setback of the southern property line, what is the material construction, finished surface?
2. All walls over 4' need to have a safety fence along its entirety.

Construction Management:

1. A construction management plan is needed for this project. At a minimum, it must address the following: staging site for construction equipment, impact to abutting properties, during and after construction, construction materials, parking of construction worker's vehicles, phasing of the project with anticipated completion dates and milestones, safety precautions, emergency contact personnel of contractor. Anticipated dewatering during construction, site safety & stability.
2. Stabilized driveway entrances are needed during construction which will provide a tire wash and mud removal to ensure City streets are kept clean.

Drainage:

1. On site soil testing within 20 feet of each proposed underground system is required for the drainage system before final approval. The design of the proposed on site drainage system needs to comply with the MassDEP Stormwater Regulations and City Ordinances.
2. An Operations and Maintenance (O&M) plan for Stormwater Management Facilities needs to be drafted and submitted for review. 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.

3. It is imperative to note that the ownership, operation, and maintenance of the proposed drainage system and all apparentness including but not limited to the drywells, catch basins, and pipes are the sole responsibility of the Homeowners Association.

Environmental:

1. Has a 21E investigation & report been performed on the site, if so copies of the report should be submitted the Newton Board of Health and the Engineering Division.
2. Are there any existing underground oil or fuel tanks, are they to be removed, if they have been evidence should be submitted to the Newton Fire Department, and Newton Board of Health.

Sewer:

1. A detailed profile is needed which shows the existing water main, proposed water service(s), sewer main and proposed sewer service(s) with the slopes and inverts labeled to ensure that there are no conflicts between the sewer services and the water service. The minimum slope for a service is 2.0%, with a maximum of 10%. Pipe material shall be 6" diameter SDR 35 PVC pipe within 10' of the dwelling then 4" pipe per Massachusetts State Plumbing Code. In order to verify the slopes and inverts of the proposed service connection, two manholes of the existing sanitary sewer system need to be identified on the plan with rim & invert elevations. The crown of the service connection & the sewer man need to match.
2. The existing water & sewer services to the building shall be cut and capped at the main and be completely removed from the site and properly back filled. The Engineering Division must inspect this work; failure to having this work inspected may result in the delay of issuance of the Utility Connection Permit.
3. With the exception of natural gas service(s), all utility trenches with the right of way shall be backfilled with Control Density Fill (CDF) Excavatable Type I-E, detail is available in the city of Newton Construction Standards Detail Book.
4. All new sewer service and/or structures shall be pressure tested or video taped after final installation is complete. Method of final inspection shall be determined solely by the construction inspector from the City Engineering Division. All sewer manholes shall be vacuum tested in accordance to the City's Construction Standards & Specifications. The sewer service will NOT be accepted until one of

the two methods stated above is completed. 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 and a written report is received by the City Engineer. ***This note must be added to the final approved plans.***

5. All sewer manholes shall be vacuum tested in accordance to the City's Construction Standards & Specifications. The sewer service will NOT be accepted until one of the two methods stated above is completed. 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 and a written report is received by the City Engineer.

Water:

1. All water connections shall be chlorinated & pressure tested in accordance to AWWA and the City of Newton Construction Standards and Specifications prior to opening the connection to existing pipes.
2. Approval of the final configuration of the water service(s) shall be determined by the Utilities Division, the engineer of record should submit a plan to the Director of Utilities for approval

General:

1. As of January 1, 2009, all trench excavation contractors shall comply with Massachusetts General Laws Chapter 82A, Trench Excavation Safety Requirements, to protect the general public from unauthorized access to unattended trenches. Trench Excavation Permit required. This applies to all trenches on public and private property. *This note shall be incorporated onto the plans*
2. All tree removal shall comply with the City's Tree Ordinance.
3. The contractor 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 service, and drainage system installation. The utility is question shall be fully exposed for the inspector to view; backfilling shall only take place when the City's Inspector has given their approval. *This note should be incorporated onto the plans*

4. The applicant will have to apply for Street Opening, Sidewalk Crossing, and Utilities Connecting permits with the Department of Public Works prior to any construction. *This note must be incorporated onto the site plan.*
5. The applicant will have to apply for a Building Permits with the Department of Inspectional Service prior to any construction.
6. Prior to Occupancy Permit being issued, 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. *This note must be incorporated onto the site plan.*
7. If a Certificate of Occupancy is requested prior to all site work being completed, the applicant will be required to post a Certified Bank Check in the amount to cover the remaining work. The City Engineer shall determine the value of the uncompleted work. *This note must be incorporated onto the site plan.*

Note: If the plans are updated it is the responsibility of the Applicant to provide all City Departments [Conservation Commission, ISD, 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 @ 617-796-1023.