

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 – 28 Orchard Avenue

Date: October 2, 2015

CC: Lou Taverna, PE City Engineer  
Linda Finucane, Associate City Clerk  
Alexandria Ananth, Chief Planner  
Dan Sexton, Sr. Planner

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

*28 Orchard Avenue  
Newton, MA  
Prepared by: Verne T. Porter, Jr., PLS  
Dated: September 1, 2015*

*Executive Summary:*

The proposed permit involves the construction of a new detached accessory structure (i.e. apartment) on a 19,859 square foot (0.45 acre) lot. The site has a grade difference of approximately 8 feet having a high point near the existing garage and sloping downward towards westerly property line. Based on the soil testing on the lot, groundwater is deep at approximately 12.5 feet below the surface; and the soils have a rapid percolation rate of less than 2 minute per inch. The engineer of record has designed a storm water collection system to capture the runoff from all the new impervious surfaces and infiltrate on site. The design is in accordance to the City's drainage policy, however an impervious barrier will be required on the downstream side of the proposed *Cultec*® infiltration system. The proposed Operations and maintenance plan is also acceptable

and if approved the special permit is approved it should be recorded at the Registry of Deeds.

Drainage:

- 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).

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. Invert elevations of the service connection is missing along with the slope of the proposed pipe.
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 videotaped 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.***

Water:

- 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. Finalized utility connection plan reflecting the above changes that meets the minimal design standards of the City of Newton must be submitted for approval by the contractor of record with appropriate Bonds & Insurance. The Engineering Division makes no representations and assumes no responsibility for the design(s) in terms of suitability for the particular site conditions or of the functionality or performance of any items constructed in accordance with the design(s). The City of Newton assumes no liabilities for design assumption, error or omissions by the Engineer of Record.
2. 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*
3. All tree removal shall comply with the City's Tree Ordinance.
4. 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 in 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*
5. 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.*
6. The applicant will have to apply for a Building Permits with the Department of Inspectional Service prior to any construction.
7. 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.*

8. All site work must be completed before a Certificate of Occupancy is issued. *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.