

**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 – The Residences at Kessler Woods

Date: September 19, 2014

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:

*The Residences at Kessler Woods  
Newton, MA  
Prepared by: Stantec  
Dated: August 4, 2014  
Revised: August 29, 2014*

*Executive Summary:*

An 80 unit condominium is planned on a 14.7 acre site that is currently undeveloped; the site is heavily wooded, and has substantial ledge and rock outcrop. The developer proposes to extend municipal water, sewer and gas to provide service for the multilevel building. Taking advantage of the topography the building will have a drive under parking underneath the footprint of the building, and some on grade parking areas.

The major issue for this development is that the project site is within Area A of the City's Sewer Capital Improvement Program. As you are aware this sewer basin has infiltration

& inflow (I & I) issues; as such based on the DPW policy for multi-unit facilities the Department is requiring a removal rate of 8:1 meaning a removal of 8 gallons of I &I for every gallon of sewage generated from the development.

The financial contribution would be based on the treatment & transportation cost to the City which is \$8.40/gallon x 110 gal/bedroom x 136 bedrooms x 8 (reduction ratio) = \$1,005,312. While this issue was discussed with the developer's engineers, attorneys and the Engineering and Utilities Divisions of the DPW, no resolution has been achieved.

The proposed water main extension alignment is unacceptable for the Utilities Division. They are requiring the water main to be installed within Lagrange Street in lieu of a cross country easement.

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, 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. It shall also address any anticipated dewatering during construction, site safety & stability, and impact to abutting properties.

Drainage:

The proposed development project appears to be in compliance with evaluation criteria, including Massachusetts Stormwater Standards, and the City of Newton Stormwater Standards. In general, the project provides water quality infrastructure and reduced peak runoff rates and volume with the implementation of BMPs. However the pre & post water shed maps need to be re-submitted since the topography cannot be read for verification.

1. An Operations and Maintenance (O&M) plan for Stormwater Management Facilities must be adopted by applicant and/or the Condominium Association that needs to be formulated, 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.
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

infiltration system, catch basins, and pipes are the sole responsibility of the property owner(s).

3. The proposed water quality infiltration trench for the pond 2 system should be reconfigured to be in a more natural form to comply with the topography.
4. The subsurface stormwater detention systems 1 & 2 need to be rated H-20 loading since Fire trucks will drive over these units which are partially with the "fire access" road.

Sewer:

1. The proposed sanitary sewer connection needs to be revised, the actual point of connection should be at the existing sewer manhole, the proposed connection was to an 8" clay pipe that does not meet current DPW standards.
2. A revised 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.
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. Once the water main is extended to the property, separate domestic & fire suppression service connection is required.
2. 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.
3. 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

Site Access:

- Based on the grading sheet some areas of the “*Fire Access*” road have steep embankments and guard rails maybe required. Further clarification of the grade change in these areas need to be investigated.

Environmental:

1. Snow storage was described in the stormwater management report, however a plan should be generated so that exact locations can be clearly identified and ultimately proper signage would be required when the development is built.
2. All trash collection and recycling shall be responsibility of the property owner.

General:

1. If the project is approved the applicants will need to apply for Grants of Location and permission to extend municipal & private utilities within Lagrange Street.
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. Due to the total square footage of the building, a scale massing model will be needed.
5. 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*
6. 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.*
7. The applicant will have to apply for a Building Permits with the Department of Inspectional Service prior to any construction.
8. 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.*
9. If a Certificate of Occupancy is requested prior to all site work being completed. *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.