

CITY OF NEWTON
Department of Public Works
ENGINEERING DIVISION

MEMORANDUM

To: Council Mark Laredo, Land Use Committee Chairman

From: John Daghlian, Associate City Engineer

Re: Special Permit – 143 Rumford Avenue

Date: December 15, 2016

CC: Barney Heath, Director of Planning
James McGonagall, Commissioner DPW
Lou Taverna, PE City Engineer
Ted Jerdee, Director of Utilities
Shawna Sullivan, Associate City Clerk
Nadia Khan, Committee Clerk
Alexandria Ananth, Chief Planner
Neil Cronin, Sr. Planner

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

*143 Rumford Avenue
Newton, MA
Prepared by: BL Companies
Dated: 10/10/16
Revised: Nov. 22, 2016
&
Response Letter dated: November 22, 2016*

Executive Summary:

This application entails the subdivision of a 110,186 sf (2.5 acre) site into two lots: one parcel of 79,746 sf for a proposed self-storage facility & associated parking and a second parcel of 20,442 sf for *by right* office building. It will require the demolition of an existing one-story building that currently has an AM broadcast station & antenna.

The site is relatively flat and is bound by Rumford Avenue to the north, commercial property to the east, the former City landfill & current recycling center to the south & west. The site plan shows a stormwater collection and detention system design in accordance to do the DPW & Department of Environmental Protection (DEP) for re-developed sites. However, some clarification is needed. First, site has a relatively high groundwater table; the detention system installed relies on an overflow connection to the City's drain pipe a (36" x 60" corrugated metal pipe CMP) within Rumford Avenue; according to the Utilities Division, this culvert is usually in a surcharged state. The applicants need to demonstrate that there is sufficient capacity in this culvert for the additional flows being introduced. Additionally the system that is designed does not take credit for infiltration; the system must completely drain within 72 hours as required by DEP. Furthermore, regarding the Cultec recharger system, depth to groundwater elevation is needed on the detailed cross section. Finally the City requires two layers of filter fabric and a 3" layer of peastone covering the entire drainage system.

Dewater during construction is also a concern, specifically when utilities and foundation installation occurs. How will dewatering be addressed, and where will it be discharged?

The plan set submitted has not been stamped by a Massachusetts Professional Engineer.

The land survey plan indicates an encroachment of a chain lined fence onto City property.

If the special permit is approved an Approval Not Required (ANR) plan will be needed in accordance to Massachusetts General Laws Chapter 41 Section 81P providing the creation of two separate lots being established from the single lot.

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.
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. When a connection to the City's drainage system is proposed, prior to approval of the Building Permit a Closed Circuit Television (CCTV) inspection shall be performed and witnessed by the Engineering Division, the applicant shall retain a contractor that specializes in CCTV inspection. The applicant shall contact the Engineering Division 48 hours in advance to schedule an appointment. At the end of the inspection the video or CD shall be given to the inspector. Furthermore, upon completion of the connection to the drainage system a Post – Construction video inspection shall also take place and witnessed as described above.
2. The Operations and Maintenance (O&M) plan for Stormwater Management Facilities is acceptable for the proposed design intent. The O&M must be adopted by applicant, incorporated into the deeds; and recorded at the Middlesex Registry of Deeds with the Board Order. 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 appurtenances including but not limited to the drywells, catch basins, and pipes are the sole responsibility of the property owner(s).
4. The detail for catch basins on sheet DN-7 does not have gas trap outlets, the City standard is Neenah R-3705 cast iron hoods.
5. Cultec recharger states "heavy duty"; a unit specifically having an H-20 load rating capacity is required since the system is located within the driveway and heavy trucks will traverse directly over the system.

Environmental:

1. As the total site disturbance is over an acre, a Phase II General Construction (NPDES) Permit will need to be filed with DEP & EPA. A Stormwater Pollution Prevention Plan (SWPPP) will need to be developed.

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 design of the forced main is needed. The system must have a duplex pump and backup generator in case of prolonged power outages. Pump design, pump selection, pump performance curves, force main pipe material and insulation maybe needed depending upon the amount of cover over the pipe.
 3. The existing water & sewer services to the building shall be cut and capped at the main and be completely removed from the main and the site then 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.
 4. 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.
 5. 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.***
 6. 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:

1. Fire flow testing is required for the proposed fire suppression system. The applicant must coordinate this test with both the Newton Fire Department and the Utilities Division; representatives of each department shall witness the testing,

- test results shall be submitted in a write report. Hydraulic calculation shall be submitted to the Newton Fire Department for approval.
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

General:

1. 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. Due to the total square footage of the building, a scale massing model will be needed.
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 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*
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, improvements and limits of restoration work. The plan shall also include profiles of the various new utilities, indicating rim & invert elevations, slopes of pipes, pipe material,

and swing ties from permanent building corners. *This note must be incorporated onto the final contract plans.*

8. All site work including trench restoration 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.