

CITY OF NEWTON  
Department of Public Works  
ENGINEERING DIVISION

MEMORANDUM

To: Council Rick Lipof, Land Use Committee Chairman

From: John Daghlian, Associate City Engineer

Re: Special Permit – 0 Rumford Avenue

Date: September 21, 2023

CC: Lou Taverna, PE City Engineer  
Barney Heath, Director of Planning  
Jennifer Caira, Deputy Director  
Katie Whewell, Chief Planner  
Alyssa Sandoval Deputy Chief Planner  
Michael Gleba, Sr. Planner  
Scott Matthews, Committee Clerk

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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  
RUMFORD AVENUE

SCALE: 1 IN. = 10 FT.  
DATE: 5/30/23

Prepared by: Everett M. Brooks Company

Executive Summary:

The proposed permit entails the construction of a one-story industrial garage & office building on a triangular shaped 8,302 square foot lot having 130-feet of frontage on Rumford Avenue towards the south and commercial properties to the north, east and western property line. The

site is essentially flat having a high point at elevation 48-feet at the northern most point of the property and a low elevation at 47 near Rumford Avenue.



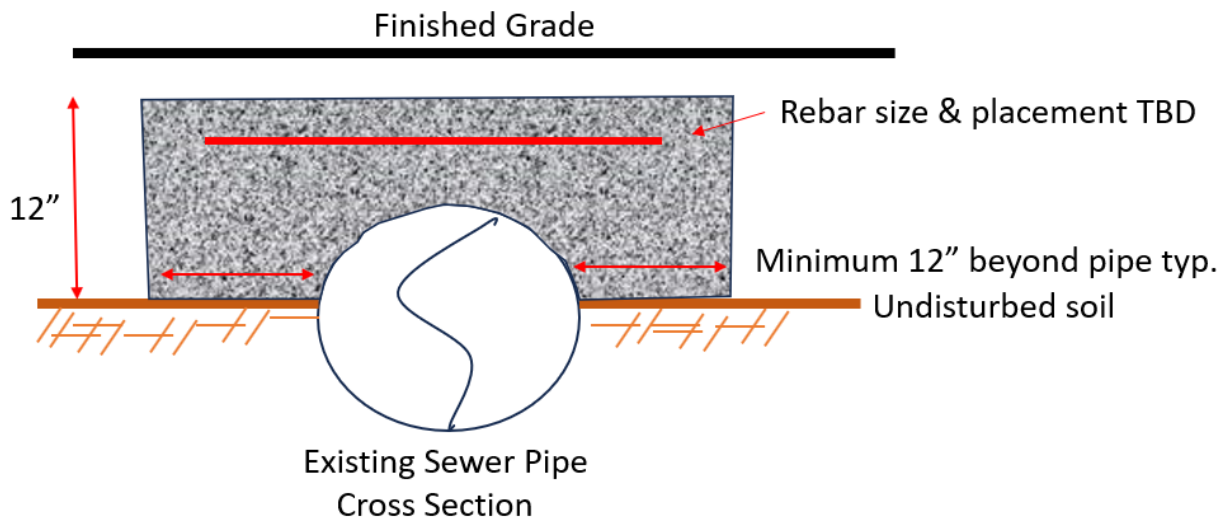
*Looking northly towards the rear of the lot.*

The frontage currently has no sidewalks nor curbing, the applicant is requesting two driveway curb cuts one is 37 feet wide towards the western side of the frontage and one at 39-feet on the east side of the frontage. The maximum driveway opening is 22 -feet per the City Construction Standards, however given the awkward shape of the lot the large construction trucks that will be garaged and accessing the lot, the two oversized aprons are reasonable; however, the DPW will insist that the concrete driveway aprons be 8-inches thick with rebar reinforcement due to the heavy loads imposed.

Additionally, the 15-foot-wide sanitary sewer easement and service pipe that transverses the frontage and proposed placement of the easterly driveway is cause for concern. The existing sewer pipe has just over 2 feet of over its length.

Prior to any construction the sewer service from the existing manhole at the south-east corner of the lot to the manhole in Rumford Avenue shall be inspected via a Closed Circuit Television (CCTV) Inspection to ensure that there is no damage to the pipe, the pipe then shall be fully exposed to the spring line and reinforced cement concrete shall be placed over the pipe for its entire length to ensure no future damage will occur to the pipe. (See sketch below). If the pipe is found to be damaged as determined by the City Inspector, the pipe shall be replaced with ductile iron pipe.

After construction of the site is completed this sewer pipe shall be re-inspected via CCTV to ensure no damage has occurred, if the pipe has been damaged then the applicant shall replace the pipe with ductile iron pipe.



During construction the applicant's contractor shall ensure pedestrian access around the construction site is in concert with the DPW requirements and check list available online.

The site has a shallow water table, and the stormwater system is designed only to handle a portion of the roof runoff, DPW recommends that the space designated as proposed lawn planting also be incorporated to expand the on-site drainage system possibly as a rain garden or utilize the space beneath horseshoe shaped driveway for additional infiltration or storage. An Operation and Maintenance plan is needed for the proposed systems. Total Suspended Solids (TSS) reduction was not provided in the drainage report as required by the City Stormwater Ordinances and Regulations. If the Special permit is approved DPW will require updated drainage report & O&M plan for review.

Fire flow testing & hydraulic calculations shall be submitted to the Utilities Division for verification.

Construction Management:

1. A construction management plan is needed for this project. At a minimum, it must address the following: staging site for construction materials and equipment, parking for construction workers vehicles, phasing of the project with anticipated completion dates and milestones, safety precautions, emergency contact personnel of the general contractor. It shall also address anticipated dewatering during construction, site safety & stability, siltation & dust control and noise impact to abutters.
2. Stabilized driveway construction entrance(s) will be required for the duration of the construction which will provide a truck wash to prevent tracking of mud and silt onto City streets.
3. Catch basins within and downstream of the construction zone will be required to have siltation control installed for the duration of the project and must be identified on the site plan.

Drainage:

1. A Pre & Post Construction drainage analysis is required. All stormwater runoff from the site shall be captured on-site and infiltrated in accordance with the Massachusetts Department of Environmental Protection standards and the City of Newton Department of Public Works policy. This policy states that stormwater runoff shall be retained from the 100-year storm event of 8.78-iches over a 24-hour period and shall be infiltrated to the maximum practicable extent. Pre & Post watershed maps (at a proper scale that is legible) are required that delineate control points and limits of the sub-basins. On-site soil evaluation is required to determine the seasonal high groundwater elevation, soil types and to identify any and all unsuitable soils (such as ledge, clay, peat, fill and others). On site soil testing that will include test pit(s) within 25 -feet of each proposed system and percolation test(s) must be schedule and witnessed by a representative of the Engineering Division. Soil logs shall be submitted on the site plan or drainage report and shall be certified by a Massachusetts Licensed Soil Evaluator and/or Professional Civil Engineer.

2. An Operations and Maintenance (O&M) plan for the long-term maintenance of the proposed stormwater management facilities needs to be drafted and submitted for review. Once approved the O&M must be adopted by the applicant/property owner, 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 appurtenances including but not limited to the drywells, catch basins, trench drains, and pipe(s) are the sole responsibility of the property owner(s).

Environmental:

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

Sanitary Sewer & Domestic Water Service(s):

1. Existing water and sewer services to building(s) shall cut and capped at the respective mains and completely removed from the main(s) and its entire length and properly backfilled. The Engineering Division must inspect and approve this work, failure to having this work inspected will result in delay of issuance of the new Utility Connection or issuance of a Certificate of Occupancy.
2. All new sewer service(s) shall be pressure tested in accordance with the City Construction Specifications & Standards and inspected via Closed Circuit Television CCTV inspection after installation is completed. A copy of the video inspection and written report shall be submitted to the City Engineer or his representative. The sewer service will NOT be accepted until the two methods of inspection are completed AND witnessed by a representative of the Engineering Division. A Certificate of Occupancy will not be recommended until these tests are completed to the satisfaction of the City Engineer.
3. All sanitary sewer manhole(s) shall be vacuum tested in accordance with the City's Construction Standards & Specifications, the sewer service and manhole will NOT be

accepted until the manhole(s) pass the testing requirements. 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 to the satisfaction of the City Engineer and a written report of the test results is submitted to the City Engineer.

4. With the exception of natural gas service(s), all utility trenches within the right of way shall be backfilled with Control Density Fill (CDF) Excavatable Type I-E up to within 18-inches of the asphalt binder level, after which Dense Grade Gravel compacted to 95 % Proctor Testing shall be placed over the CDF. Details of this requirement is the Engineering Division website "Standard Construction Details".
5. Fire Flow testing is required for the proposed fire suppression system. The applicant must coordinate the fire flow test with both the Newton Fire Department and the Utilities Division, representative of each department shall witness the testing. Test results shall be submitted in a written report along with hydraulic calculations that demonstrate the required size of the fire suppression system, these calculations shall be submitted to the Newton Fire Department for approval, and copies give to the Engineering Division.
6. All water services shall be chlorinated, and pressure tested in accordance with the AWWA and the City Construction Standards & Specifications prior to coming online. These tests MUST be witnessed by a representative of the Engineering Division.
7. Approval of the final configurations of the water service(s) shall be determined by the Utilities Division, the engineer of record shall submit a plan to the Director of Utilities for approval.

General:

1. 5 Year Moratorium – if at time of construction the roadway is under a 5-year moratorium, the roadway must be milled and paved gutter-to-gutter for a distance of 25 feet in each direction from the outermost trenches.
2. All trench excavation shall comply with Massachusetts General Law Chapter 82A, Trench Excavation Safety Requirements, and OSHA Standards to protect the general public from unauthorized access to unattended trenches or excavations. Trench Excavation Permit is required prior to any construction. This applies to all trenches on public and private property. *This note shall be incorporated onto the final plans.*
3. All tree removal shall comply with the City's Tree Ordinance.

4. The contractor of record 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 services 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 Engineer's Inspector has given their approval. *This note shall be incorporated onto the final plans.*
5. The applicant shall apply for a Building Permit with the Inspectional Services Department prior to ANY construction.
6. Before requesting a Certificate of Occupancy, an As Built plan shall be submitted to the Engineering Division in both digital and paper format. The plan shall show all utilities and final grades, any easements and improvements and limits of restoration. The plan shall include profiles of the various new utilities including but not limited to rim & invert elevations (City of Newton Datum), slopes of pipes, pipe materials, and swing ties from permanent building corners. The as built shall be stamped by both a Massachusetts Registered Professional Engineer and Registered Professional Land Surveyor. Once the As built plan is received the Engineering Division shall perform a final site inspection and then make a determination to issue a Certificate of Occupancy. *This note shall be incorporated onto the final plans.*
7. All site work including trench restoration, sidewalk, curb, apron, and loam border (where applicable) shall be completed before a Certificate of Occupancy is issued. *This note shall be incorporated onto the final plans.*
8. The contractor of record shall contact the Newton Police Department 48-hours in advanced and arrange for Police Detail to help residents and commuters navigate around the construction zone.
9. If any changes from the final approved design plan that are required due to unforeseen site conditions, the contractor of record shall contact the design engineer of record and submit revised design and stamped full scale plans for review and approval prior to continuing with construction.
10. *The engineer of record shall add the following attestation to the plans when applying for a building permit:*

*I certify that the construction so shown was inspected prior to backfill and that all work conforms with the Approved Plan and meets or exceeds the City of Newton Construction Standards.*

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Signature

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