

CITY OF NEWTON
ENGINEERING DIVISION

MEMORANDUM

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

From: John Daghlian, Associate City Engineer

Re: Special Permit – The Station at Riverside

Date: October 3, 2012

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

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

The Station at Riverside
Grove Street
Newton, MA
Prepared by: VHB Inc.
Dated: August 27, 2012

Executive Summary:

This project involves construction of 588,000 square feet of building space (exclusive of an *Intermodal Building*) on 9.4 acres site. Clarification is needed in regards to the Intermodal building; it appears that this is not part of the filing of the Special Permit based on the narrative and the subdivision of land shown on Sheet S-2.0. The lot of the intermodal building is labeled as Public Use; will the MBTA file a separate permit for this 1,000-vehicle parking garage and Intermodal Building or will the applicant include this as part of this project? Who will be the owner of this facility, and who will maintain this facility. If the intermodal building has separate ownership, it would appear that access easements would be needed between the owner of this building and the special permit under submission.

The intermodal building is sited directly over an existing 60” diameter stormwater drain main that is within a 30-foot wide City main drain easement. This is not sound engineering practice, with the placement of a 180-foot wide building over this 60” pipe; future access for maintenance is impossible. If the building must be placed as proposed, the 60” drainpipe should be relocated, so that it is completely accessible for future maintenance. In concert with the relocation of the 60” drain pipe the landowners will have to grant the City a new main drain easement and it shall be recorded at the Middlesex Registry of Deeds.

The siting of a proposed *residential- retail* building labeled “*Building B*” is directly over a 48” diameter water transmission line, owned by the Massachusetts Water Resource Authority (MWRA) in which the Authority is requiring the applicant to relocate so that the water main is completely accessible. It appears that extensive blasting may be required for the relocation of the water main, and construction of some components of ‘*Building A*’ along the property line and Route 128.

The sanitary sewer basin – the [*pipe network downstream*] that this project will contribute substantial flows needs improvements in regards to capacity, due to deficiencies caused from *Infiltration & Inflow (I&I: groundwater infiltrating pipes and sewer manholes & inflow from illegal sump pumps and other illicit connections)*. Flow calculations are needed from the proponents to indicate the total amount of additional sewage flow that will be added to the system; the capacity of the existing downstream network, and options for I/I removal. The Director of Utilities will need to review various options for I&I removal, estimated construction costs, and benefits to upgrading the sewer system within this sewer basin/network.

It appears that this site and the *Hotel Indigo* will be swapping some land to provide for access for this petition, if this is the case then an Approved Not Required (ANR) Plan in accordance with Mass. Gen. Laws Chapter 41, Section 81P, to combine the two lots will be needed.

If this project were approved, as a public benefit all the overhead wires along Grove Street should be placed underground along the entire frontage of this petition, as all of the sidewalk and curb line will be modified, this would be the ideal circumstance to provide this improvement.

Grove Street is a *Scenic Road* per City Ordinance, and any tree removal, curb line modification and street modifications need to be approved by the Planning Board.

Since the Riverside MBTA Station is part of an *Emergency Evacuation System*, it is imperative to note that the Station access must never be hindered during construction.

Grade Changes:

1. Details are needed of the proposed retaining walls along the frontage of Grove Street where the retaining walls will be approximately 20-feet high.
2. All walls over 4-feet will need a safety fence along its entire length.
3. As a result of the massive grade change occurring along Grove Street in front of the proposed residential building, a large number of mature deciduous & coniferous trees will be lost this will need to comply with the City's Tree Ordinances.
4. Although architectural elevations were supplied, some site sections would be useful in evaluating these grade changes.

Construction Management:

1. A detailed construction management plan is needed for this project. At a minimum, it must address the following: staging site for construction equipment, lay down areas identified for 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. Address any impact to abutting properties.
2. Stabilized driveway entrances are needed during construction in concert with a tire wash and mud removal to ensure City streets are kept clean.
3. A site safety plan is needed which will show paths of travel for emergency vehicle access during construction. How the site will be secured during construction and after hours.

Blasting:

1. A Blasting Permit will be required by the Newton Fire Department. This will include a pre-blast survey.

2. If an on-site rock crushing operation is planned, the applicants need to address issues in regards to noise control & dust control.

Drainage:

1. The proposed drainage improvements as proposed by the applicants will improve both water quality and quantity exiting the site. A peer review is being performed and will be provided via separate cover. Further detailed profiles of each infiltration system is required, in addition to on-site soil testing for recharge systems, all tests are required within 20-feet of each system.
2. The Operations and Maintenance (O&M) plan for Stormwater Management Facilities is acceptable and if the project is approved the O&M must be 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.
3. 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. Detailed profiles are 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 main need to match.
2. A hydraulic capacity of the downstream sanitary sewerage system needs to be evaluated and submitted to the Engineering Division, and the Director of Utilities. This study needs demonstrate that there will be no impact to the municipal system and should address at a minimum:
 - A plan showing a reduction in infiltration and inflow into the sanitary sewer system of at least eight gallons for every one gallon of sanitary sewage contributed by this development;
 - A calculation of the life-cycle cost of the proposed sanitary system;
3. Use City of Newton Details in lieu of the details submitted.
4. With the exception of natural gas service(s), all utility trenches within the City's 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 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.***

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.

Water:

1. A quantitative analysis that demonstrates that the water demands of the proposed development will not overburden the water supply of existing infrastructure provided by the City, including fire flow testing for the proposed fire suppression system, exterior fire hydrants, as well as domestic demands from the entire development. The applicant must coordinate these tests with both the fire department and utilities division; representatives of each department shall witness the testing and test results shall be submitted in a written report. Hydraulic calculations shall be submitted to the Fire Department for approval. Hydraulic analysis for both domestic and fire suppression will be required via hydraulic modeling in a format acceptable to the utilities director.
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. 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. 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 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. 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.