



Memorandum

To: Planning Board
1625 Massachusetts Avenue
Lexington, MA 02420

Date: September 24, 2019

Project #: 14699.00

From: Nicholas Skoly, PE
Peter Mara, PE

Re: 1050 Waltham Street Sketch Plan
Impact on Public Facilities Memorandum

On behalf of Greatland Realty Partners (the "Applicant"), VHB is submitting the following memorandum as part of the associated Sketch Plan for the 1050 Waltham Street Redevelopment (the "Project"). The Project is located at 1040 and 1050 Waltham Street in Lexington, MA, and is a redevelopment of an existing 5.2-acre site that contains two existing office buildings (the "Site"). The Site partially falls within the limits of the City of Waltham, which is not proposed to be redeveloped. The Applicant is proposing to create a Planned Development District for the Site.

Please refer to the body of this memorandum for utility, environmental, and mitigation associated with the Project.

Existing Conditions

The Site is located within the Commercial – Local Office (CLO) zoning district at 1040 and 1050 Waltham Street in Lexington, MA. The existing site was previously developed in the late 1970s and early 1980s pursuant to Special Permits issued in 1970 and 1979. The existing development includes a three-story office building and a two-story office building with a basement level. The Site falls on the border of Lexington and Waltham, with residential properties to the north and east, Waltham Street bordering the west, and office buildings bordering the south. 0.2-acres of the Site's total 5.2 acres fall within the Waltham city limits. There is a natural tree line screening the Site to the north and the east.

An existing bordering vegetated wetland is located on the northern side of the Site. This wetland was previously a retention basin built to service the stormwater runoff for the Site and surrounding properties in the early 1980s when the two-story office building was built. The other office building was constructed in the mid-1970s. No other recent changes have occurred to the Site. The northern part of the basin is now considered a bordering vegetated wetland and was identified as such in September 2019. A second bordering vegetated wetland was identified in September 2019 on the eastern corner of the Site.

Surface parking is located throughout the Site, concentrated along the Site's eastern edge and in the southeast corner. The Site is generally flat with steeper slopes located on the eastern border as the eastern abutters are located approximately 8-feet to 20-feet above the site grade.

Proposed Conditions

The Project scope includes the following:

- A 170,000± GSF three-story office/life science building including 8,600± SF ground floor retail
- A six level structured parking garage

101 Walnut Street
PO Box 9151
Watertown, MA 02472-4026
P 617.924.1770

- Site improvements to support the Project including vehicular/pedestrian access drives, walkways to connect the proposed office building to Waltham Street, the proposed garage, and site amenities, surface parking for the ground floor retail, loading spaces, landscape and hardscape amenities, and building utility service connections to public and private utilities
- Environmental improvements including a reduction of impervious area, implementing Low Impact Development (LID) techniques, minimizing impact to an existing on-site wetland, and promoting stormwater quality and Best Management Practices (BMPs)

The Applicant is limiting the Project to redevelop the areas previously disturbed by the existing development. The Project proposes an increase in open space, a reduction of impervious area, minimal impacts to public infrastructure, and the Project features a high-quality design on the border of Lexington and Waltham.

Environmental Impact Assessment

Stormwater and Groundwater

The Project contains approximately 5.2-acres of land, which includes approximately 7,240 SF (0.17-acres) of bordering vegetated wetlands within the Site. Based upon USGS – Soil Conservation Service Maps for Lexington, the underlying soils within the Site include the following:

- Freetown Muck
- Narragansett-Hollis-Rock Outcrop Complex
- Charlton Urban Land – Hollis Complex

Groundwater depths are unknown as of the writing of this memorandum. As the Project is further developed, soil testing will be performed to determine the groundwater elevations, infiltration rates, and confirm the soil classifications to be incorporated into the Project's design.

Based on record plans, the northern on-site wetland drains into an existing detention basin built for the existing development that collects stormwater from a Waltham owned 36-inch culvert that runs parallel to Waltham Street through the western edge of the Site.

The 1979 Special Permit included an Order of Conditions for 1050 Waltham Street when developing a new building within the existing parking area and adding 3,000 SF of impervious surface area. This incorporated a stormwater management plan of an extended retention basin to mitigate stormwater. The northern portion of the existing retention basin has become the northern wetland.

Wildlife and Vegetation

The Project is located on a site that has previously been fully developed. Much of the Site is impervious. Trees and shrubs line the northern and eastern borders. The bordering vegetated wetlands, last walked in September 2019, contains a variety of plant life, which will be maintained and protected during the Project's development and

construction. There are mature trees surrounding the buildings and a few along Waltham Street. The Site does not contain any habitats of rare wildlife per the Natural Heritage and Endangered Species Program (NHESP) nor any known or potential vernal pools.

The Project proposes to maintain the trees along the eastern and northern property lines, providing a natural buffer between the Site and the abutting properties. Tree loss will be focused to those adjacent to the existing buildings and parking lots. The Project will use native and non-invasive species at proposed open space locations, complying with the Town of Lexington Plant Materials Guide. The Project will promote a variety of species and minimize the impact to existing vegetation.

Noise

A major source of noise currently is attributed to the vehicular traffic along Waltham Street adjacent to the Site. Potential new sources of noise may be attributed to the Project's rooftop mechanical equipment for heating, cooling, and ventilation for the proposed building. To mitigate these impacts, the building design will include a rooftop penthouse enclosure if needed to dampen increase level of noises. The Applicant will ensure the building design and acoustic dampening equipment is in line with Massachusetts and Lexington noise regulations.

Air Quality

The Project is not anticipated to be subject to MEPA jurisdiction and the procurement of air quality permits for the facility is not anticipated. Air quality will directly benefit from careful selection of building materials and energy-efficient mechanical systems to reduce energy consumption. Additionally, the Applicant will promote the use of public transportation, carpools, and multi-modal transportation options for the proposed office use to reduce single-occupancy commuter trips, thus reducing carbon emissions.

Historical and Archaeological

The Project Site does not have any Historical or Archaeological Assets after a review of the MassGIS Oliver database and the Massachusetts Historical Commission files.

Public Town Services

The Project will affect public utility infrastructure as the Project proposes to connect to existing utilities within Waltham Street. Further description is found later in this memorandum under the Utility Infrastructure section. Public pedestrian access within the Waltham Street right-of-way will be maintained and improved. The Project is not a residential project so there will be no effect on public schools. The Project Site does not fall along either MBTA bus routes that service Lexington (#62 and #76), therefore the Project does not affect those MBTA bus routes. The Site is near the MBTA #70A bus route that travels along Trapelo Road and onto Lexington Street in Waltham, MA. The Project should have no negative impacts on this bus route; the Applicant will work with the MBTA as the Project is further developed if needed. The Site is located across the street from the Avalon at Lexington Ridge apartment

complex. This complex is one of the stops of the Lexpress Neighborhood Bus (Route #3). As the Project is developed, the Applicant will work with Lexington to minimize impacts to the Lexpress bus route.

The Project will be designed to accommodate fire truck access. Hydrants will be proposed where needed and the buildings will be designed following Massachusetts Building Code, Massachusetts Fire Code, and National Fire Protection Association (NFPA) regulations.

Utility Infrastructure

Sanitary Sewer/Wastewater

Under existing conditions, both buildings on the Site are serviced by sanitary sewer connections to a pump station that sends the wastewater into the municipal sewer line in Waltham Street through a manhole connection. The existing pump station is located north to the existing northern curb cut and parking bay, west of both buildings. One gravity line from each building flows to the pump. No other existing sanitary sewer connections exist. The municipal sewer system is connected to the regional Massachusetts Water Resource Authority (MWRA) sewer collection system, and the wastewater ultimately flows to the Deer Island Wastewater Treatment Plant in Boston, MA for treatment and disposal.

Under existing conditions, it is estimated that the Site produces 4,315 GPD of wastewater. As currently proposed, the Project is estimated to produce approximately 10,630 GPD of sewage flow, which is a 146% increase in sewage generation compared to existing conditions. As the Project is developed and the space of the proposed office building is further designed, a sewer capacity analysis will be performed for the Project. Further survey is required to determine the sizes of the existing sewer line in Waltham Street and the existing connection to the sewer pump station.

Water Supply

The existing development has two water connections servicing the two existing buildings that connect into the water main in Waltham Street. Further survey is required to determine the sizes of the existing water main in Waltham Street and the building water line connections. The municipal water system is connected to the MWRA regional water distribution system, which is controlled locally by the Lexington Water Department. The water lines currently provide domestic and fire protection for the existing buildings.

Under existing conditions, it is estimated that the Site produces 4,315 GPD of water. As currently proposed, the Project is estimated to produce approximately 10,630 GPD of water flow, which is a 146% increase in sewage generation compared to existing conditions. Hydrant flow testing will be performed and overseen by the Lexington Department of Public Works to obtain water pressure and flow data for future design of the Project's domestic and fire protection water systems.

Stormwater

Previous developments designed and constructed detention basins on the northern and western sides of the Site. The northern detention basin from the 1970s has since been flagged as a bordering vegetated wetland. Per the 1980 Order of Conditions for the Site, the retention basin was "designed to pass the unrestricted peak 100 year storm flow". A 30-inch drain outfall is located in the wetland's southeast corner. This 30-inch outfall is connected to a 36-inch drain line that runs north-south parallel to Waltham Street on the western edge of the Site.

The 30-inch and 36-inch drain lines are proposed to be maintained through the redevelopment. The Project will also respect the 25-foot no disturb buffer surrounding the existing wetland. The Project will incorporate a variety of BMPs that include structural methods for mitigating peak runoff rates, providing water quality, approximating existing drainage patterns, and promoting infiltration to the maximum extent practicable. Due to the presence of a wetland, the Project will be subject to an Order of Conditions by the Lexington Conservation Commission. Due to its status as a redevelopment, the Project's proposed stormwater management system will meet the Ten Stormwater Standards set forth by the Massachusetts Department of Environmental Protection (MassDEP) to the maximum extent practicable. The Project's stormwater management design will also follow the Lexington Stormwater Management By-law requirements.

Electrical

Eversource provides electrical service to the Town of Lexington. It is assumed that adequate electric grid capacity exists within Waltham Street to service the proposed use. As the Project is developed and the space of the proposed office building is further designed, a preliminary calculation of the projected electrical loads will be performed and shared with Eversource. The Applicant will work with Eversource to ensure the Project has the required power.

Gas

National Grid provides natural gas service to the Town of Lexington. It is assumed that adequate natural gas pressure and capacity exists within Lexington to service the proposed Project. As the Project is developed and the space of the proposed office building is further designed, a preliminary calculation of the projected gas load will be performed and shared with National Grid. The Applicant will work with National Grid as they continue Project development.