

Highland Science Center

Needham Heights, MA



EEA No. 16546

MEPA Virtual Site Consultation

Wednesday April 20, 2022

MEPA Jurisdiction

Exceeded Thresholds

301 CMR 11.03(6)(a)(6): Generation of 3,000 or more New average daily trips providing access to a single location

301 CMR 11.03(6)(a)(7): Construction of 1,000 or more New parking spaces at a single location

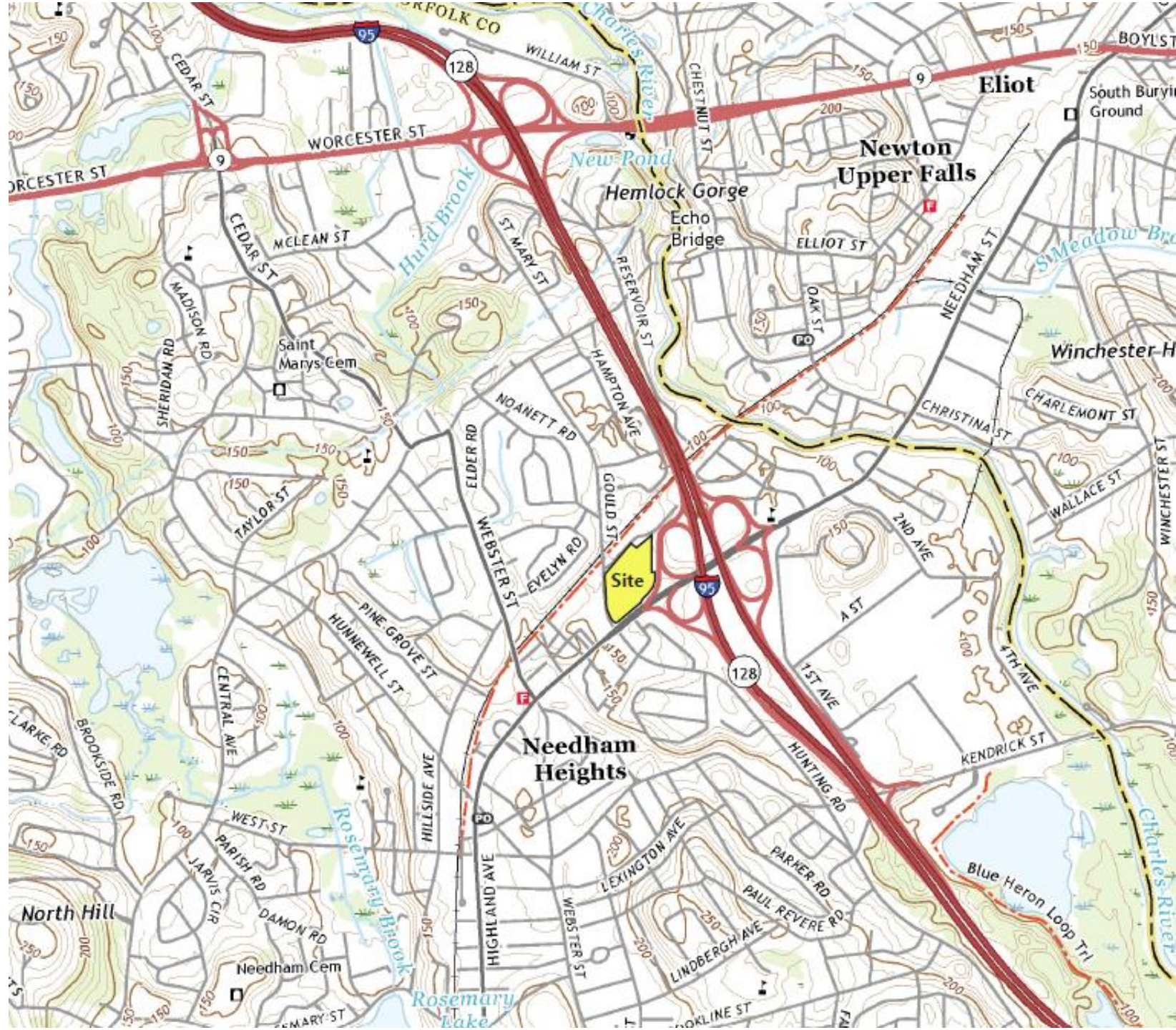
Required State Permits

MassDOT Vehicular Access Permit

Project Details and Environmental Impacts

Summary of Project Size & Environmental Impacts	Existing	Change	Total
LAND			
Total site acreage	9.27		
New acres of land altered		0	
Acres of impervious area	8.53	-1.83	6.7
Square feet of new bordering vegetated wetlands alteration		0	
Square feet of new other wetland alteration		0	
Acres of new non-water dependent use of tidelands or waterways		0	
STRUCTURES			
Gross square footage	39,750 SF	+491,250 SF	531,000 SF
Number of housing units	0	0	0
Maximum height (feet)	25 feet	45 feet	70 feet
TRANSPORTATION			
Vehicle trips per day	887 ^a	+5,005	5,892
Vehicle trips per AM peak hour	61 ^a	+584	645
Vehicle trips per PM peak hour	86 ^a	+565	651
Parking spaces	532 ^b	+up to 1,238	Up to 1,770 ^c
WASTEWATER			
Water Use (Gallons per day)	25,358	+103,814	129,172
Water withdrawal (GPD)	2,305	+72,313	74,618
Wastewater generation/treatment (GPD)	23,053	+31,501	54,554
Length of water mains (miles)			0.2
Length of sewer mains (miles)			0.1

Site Location



Existing Conditions

- **Former site of a car dealership and carwash**
- **39,750 Existing Sq Ft**
- **Entirely impervious surface parking lot with approximately 532 parking spaces**



Project Description

Table 1-1 Proposed Development Program

	Use	Size	Quantity	Height
	Project Site	9.27 acres	NA	NA
	Building Information			
	Office	260,500 SF	NA	70 feet
	Lab/Research and Development	260,500 SF	NA	70 feet
	Retail	10,000 SF	NA	NA
	Total Square Feet	531,000¹ SF	NA	42-70 feet
	Free standing parking garage	297,000 ² SF		55'
	Below grade parking	310,000 ³ SF		NA

NA Not Applicable
 SF Square Feet

1. Per Needham Zoning, the parking garage is not included in total SF.
2. Five stories above-grade, and two stories below-grade.
3. There will be two below-grade parking garages that will be 155,000 SF each.

Project Overview

- Two new office/lab buildings
- Site landscape improvements
- Structured and below grade parking with up to 1,770 spaces
- Recreational path around the Project Site
- Opportunity space for retail/daycare/fitness/cafe
- 2-story atrium that connects the two buildings



Environmental Constraints

Historic Resources



Transportation Impacts and Mitigation

Impacts

- **1,148 Net New Traffic Generation**

Improvements

- **Installation of on-road bicycle lanes in each direction of Gould Street between Highland Avenue and TV Place**
- **89 short term and long-term bicycle parking**
- **50 percent transit pass subsidy to be offered by future tenants to their employees**
- **The Proponent is also committed to a robust transportation monitoring program to evaluate the effectiveness of its TDM program**
- **Potential shuttle connectivity to the Project Site**
- **Geometric improvements at the intersection of Highland Avenue at Gould Street / Hunting Road**

Water/Wastewater Impacts and Mitigation

Impacts

- **No water related permits are required**
- **Water Use – 129,172 GPD**
- **Water Withdrawal – 74,618 GPD**
- **Wastewater Generation/Treatment – 54,554 GPD**

Improvements

- **Electric water heating**
- **High efficiency chilled water plant**
- **Improved water quality**

Climate Change Mitigation and Adaptation

Ecosystem Benefits

Scores

Project Score

■ Moderate

Exposure

Scores

Sea Level Rise/Storm Surge

■ Not Exposed

Extreme Precipitation -

■ High Exposure

Urban Flooding

Extreme Precipitation -

■ Not Exposed

Riverine Flooding

Extreme Heat

■ High Exposure

Primary Impact

- Urban Flooding
- Extreme Heat

Mitigation Strategies

Extreme Precipitation

- Improved stormwater management

Extreme Heat

- High performance building envelope
- Highly reflective roof & high albedo hardscape
- Increased open space and site-wide landscaping and tree planting
- Reducing overall impervious surface

Sustainability Approach

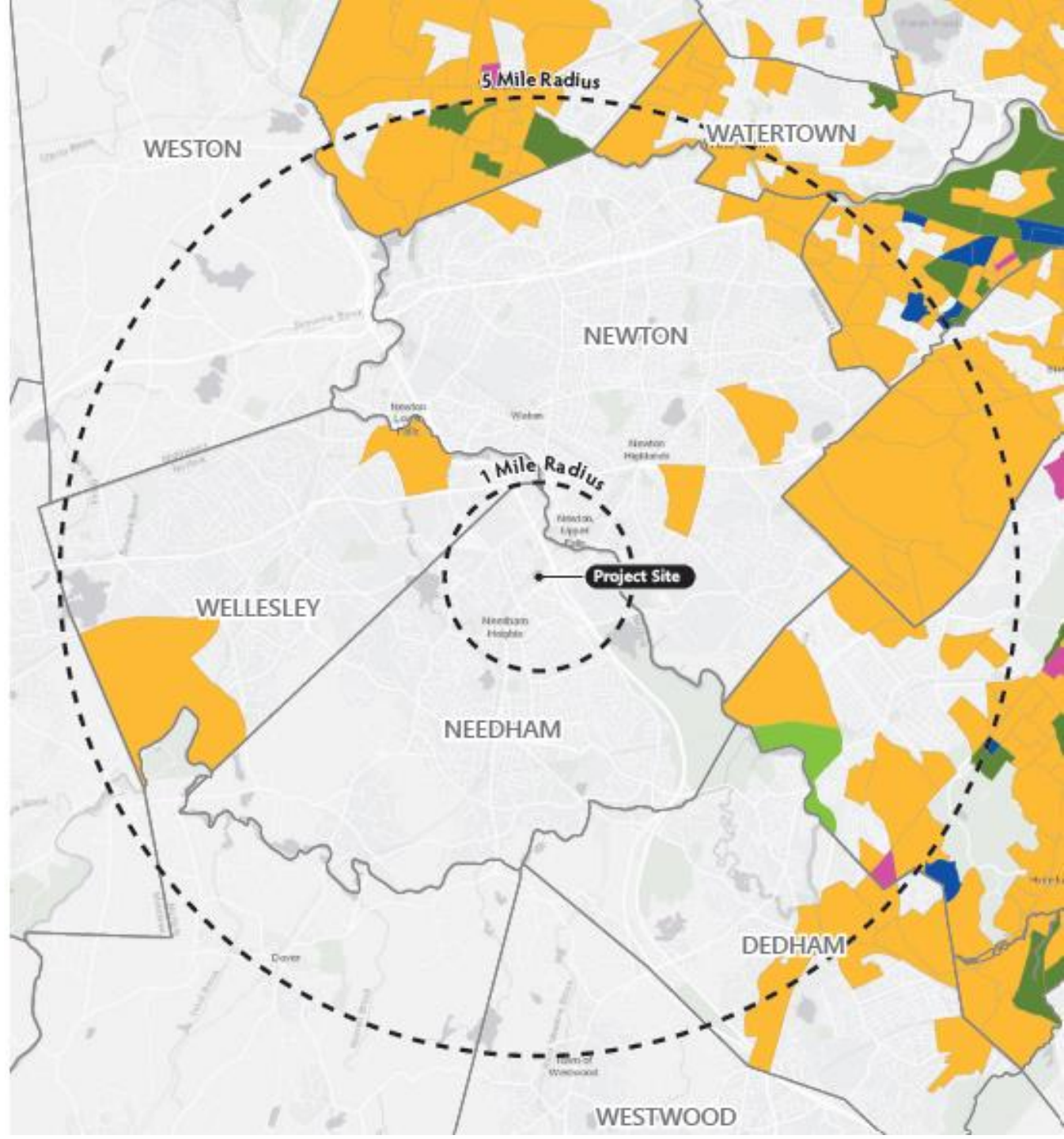
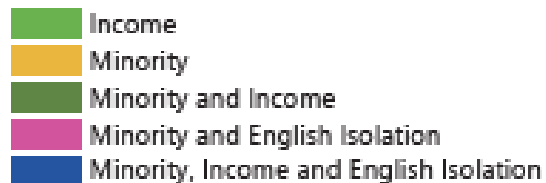
- **Hybrid electric/gas heating with electric heating being the first to operate whenever capacity allows**
- **High efficiency glycol heat recovery loop**
- **High efficiency chilled water plant**
- **Reduced laboratory exhaust through exhaust monitoring**
- **Electric water heating**
- **Improved envelope insulation and infiltration without thermal bridging**
- **High performance lighting and controls**

Environmental Justice

The Project is not located within one mile of any Environmental Population and there are no Project impacts related to air quality.

Within five miles of the Project there are EJ Census Tracts that meet the criteria based on:

- **Minority – 56 Tracts**
 - **Income – 1 Tract**
 - **Minority and Income – 3 Tracts**
 - **Minority and English Isolation – 1 Tract**
 - **Minority, Income, and English Isolation – 1 Tract**
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- **Languages spoken with one mile – Chinese**
 - **Languages spoken with five miles – Spanish, Chinese, French Creole**



Public Benefits

- **Bicycle lanes incorporated into site circulation**
- **Plaza adjacent to public retail amenities**
- **Enhanced pedestrian accessibility**
- **Ground level activation with retail and community space at the corner of Gould Street and Highland Avenue**
- **Provide approximately 1,250 permanent jobs at full occupancy**
- **Tax revenue of approximately \$2.3 million, to support Town of Needham's educational and recreational programs, housing initiatives, community and open spaces, and other Town priorities**
- **Improved water quality and stormwater management**
- **Improved open space along Highland Avenue**

Next Steps

- ✓ Submitted ENF – March 31st
- ✓ Site Consultation – April 20th
- In-Person Site Walk – April 22nd
- Agency and Public Comments due April 28th
- MEPA Certificate to be issued on May 9th

Thank You

Questions & Answers