

BLUEWATER

PROPERTY GROUP

Warehouse (Storage) Building Project

23 Cape Road

Mendon, MA

Planning Board Hearing








November 28th, 2022

Presentation Outline

- Introduction
- Project Team
- Project Description
- Colored Site Plan
- Civil Engineering Overview
- Architectural Design Overview
- Sound Study Summary
- Traffic Impact Assessment Summary
- Conclusions / Questions

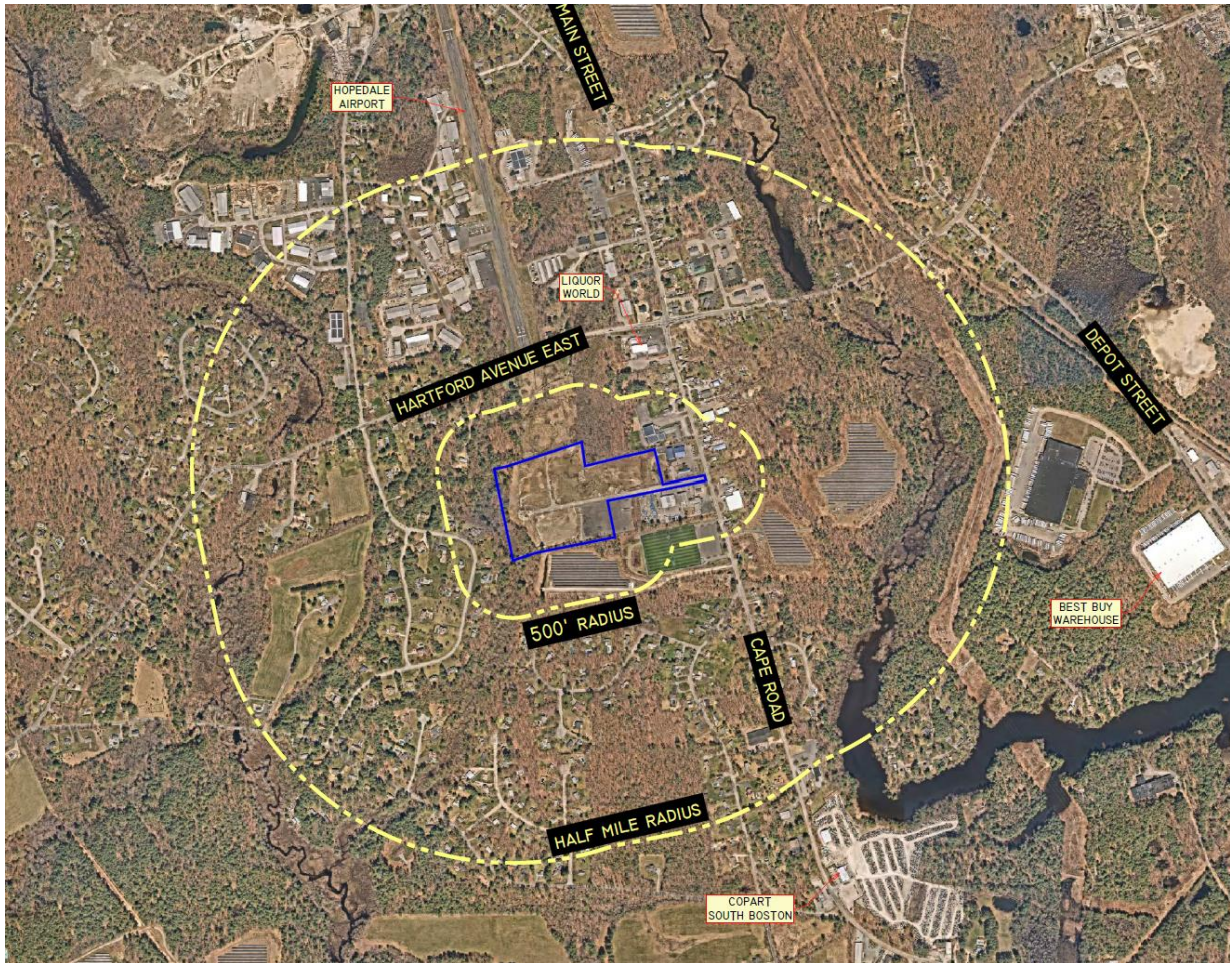
Project Team

Development Team

| Firm Name | Team Function | Team Members |
|---|---------------------|---|
|  | Developer | Connor Downey, VP Investments Josh Garofano, VP Development |
|  | Civil Engineer | Gregg Burnett, Vice President Kevin Demers, Project Engineer |
|  | Architect | Justin Bruce, Architect of Record |
|  | Acoustical Engineer | Ben Mueller, Principal |
|  | Traffic Engineer | Shaun Kelley, Associate |
|  | Land Use Counsel | R.J. Lyman, Partner |
|  | Land Use Counsel | Kelley A. Jordan-Price, Partner |

Project Description

Project Description



Address: 23 Cape Road, Mendon, MA 01756

Mendon Tax Assessor ID: Parcel 14-114-23

Total Acreage: Approximately 21.3 acres

Zoning: Highway Business (HB)

Colored Site Plan

Colored Site Plan



DIMENSIONAL REGULATIONS:

| CURRENT ZONING: | HIGHWAY BUSINESS (H2) |
|---------------------------------------|-----------------------|
| MINIMUM LOT SIZE: | REQUIRE: |
| MINIMUM LOT FRONTAGE: | REQUIRE: |
| MINIMUM FRONT YARD: | REQUIRE: |
| MINIMUM SIDE YARD: | REQUIRE: |
| MINIMUM REAR YARD: | REQUIRE: |
| MINIMUM LOT DEPTH: | REQUIRE: |
| MINIMUM BUILDING COVERAGE: | REQUIRE: |
| MINIMUM STRUCTURE HEIGHT: | REQUIRE: |
| MINIMUM LANDSCAPE BUFFER (ALL SIDES): | REQUIRE: |

PARKING REGULATIONS:

| PARKING USE: | MINIMUM: |
|---|--------------------------------|
| PARKING REQUIREMENT: | 1 SPACE PER 100 SF (SPA) |
| REQUIRED SQUARE FOOTAGE (SFA): | 20,000 SF |
| REQUIRED PARKING CALCULATION: | 20,000 SFA ÷ 1,000 = 20 SPACES |
| TOTAL PARKING SPACES PROVIDED: | 20 SPACES |
| TOTAL REQUIRED PARKING SPACES PROVIDED: | 20 SPACES |
| TOTAL UNDESIRABLE VEHICLES SPACES PROVIDED: | 20 SPACES |
| ADA PARKING REQUIRED: | 1 SPACE (1 VAN ACCESSIBLE) |
| ADA PARKING PROVIDED: | 1 SPACE (1 VAN ACCESSIBLE) |

DIPrete Engineering
 100 South Main Street, Suite 200, North Andover, MA 01855
 Tel: 978-686-0000 Fax: 978-686-0001 www.diprete.com

Boston - Providence - Newport

ILLUSTRATIVE SITE PLAN
 23 CAPE ROAD REDEVELOPMENT
 HENSON, MASSACHUSETTS

PREPARED FOR: **INDUSTRIAL PARTNERS**
 100 SOUTH MAIN STREET, SUITE 200, NORTH ANDOVER, MA 01855
 TEL: 978-686-0000 FAX: 978-686-0001 WWW.DIPRETE.COM

DATE: 08/14/2018
 SCALE: AS SHOWN
 SHEET: 01 OF 01

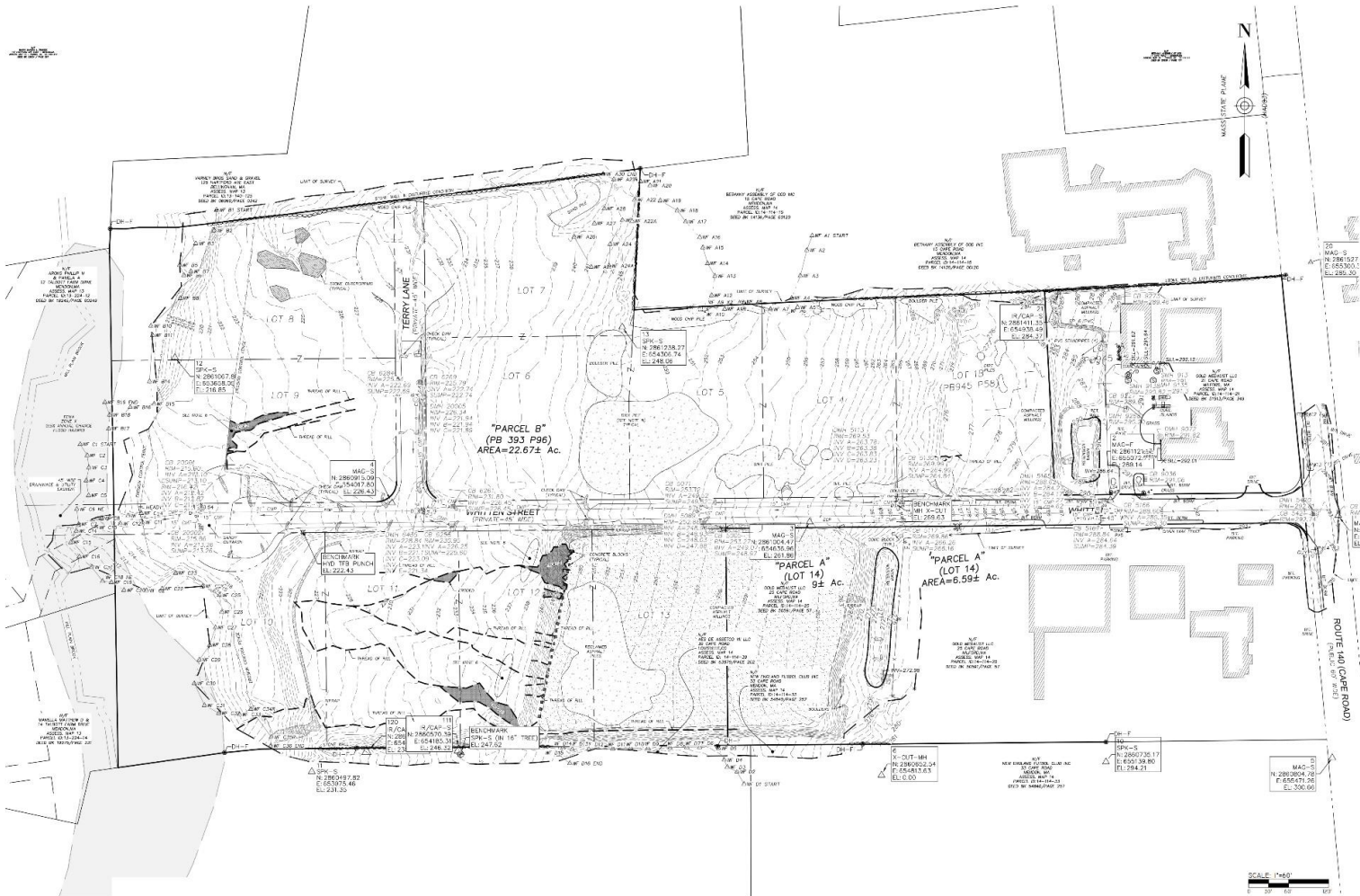
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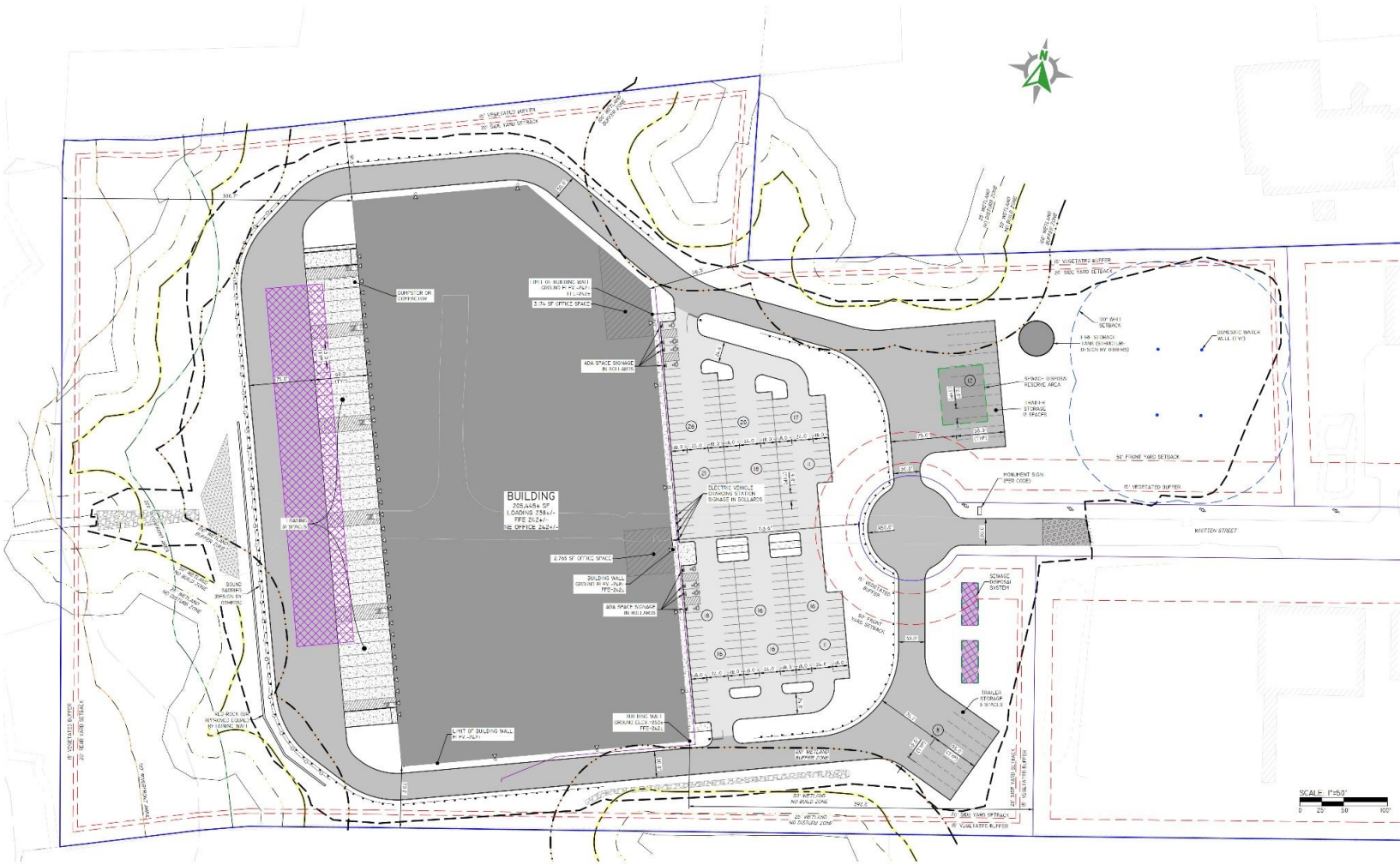
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Civil Engineering Overview

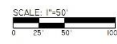
Existing Conditions



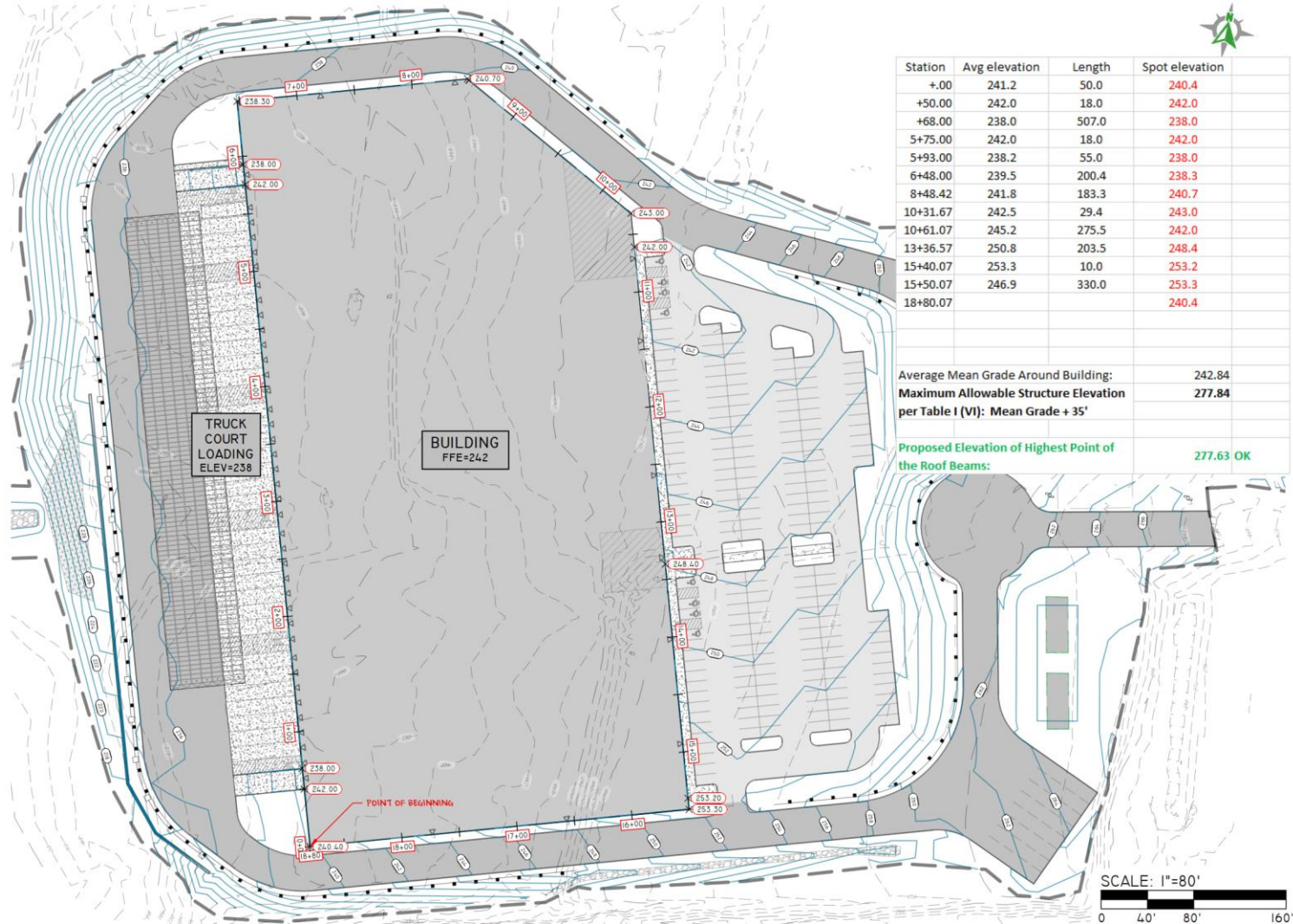
Site Layout



Drainage & Utilities



Building Height

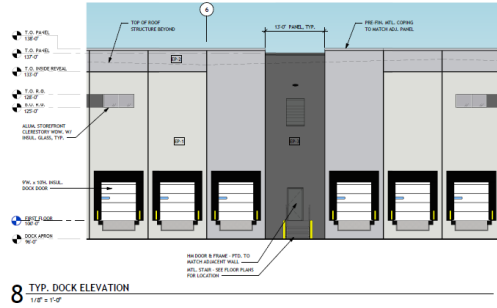


Architectural Design Overview

Building Rendering



Building Elevations



8 TYP. DOCK ELEVATION
1/8" = 1'-0"

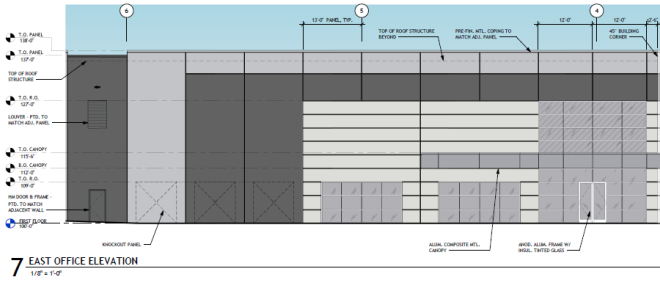
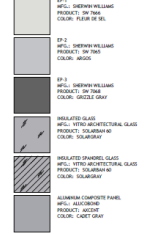
GENERAL ELEVATION NOTES:

1. WALL HEIGHTS SHALL BE TO FINISH GRADE UNLESS OTHERWISE NOTED.
2. FINISH GRADE SHALL BE TO MATCH ADJACENT SURFACES.
3. FINISH GRADE SHALL BE TO MATCH ADJACENT SURFACES.
4. FINISH GRADE SHALL BE TO MATCH ADJACENT SURFACES.
5. FINISH GRADE SHALL BE TO MATCH ADJACENT SURFACES.
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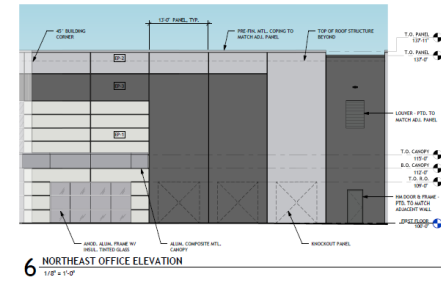
BUILDING HEIGHT CALCULATION

- THE BUILDING HEIGHT SHALL NOT EXCEED 24' UNLESS OTHERWISE NOTED.
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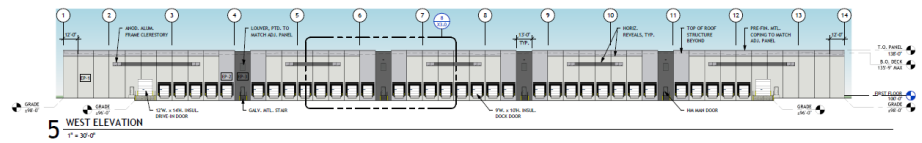
ELEVATION MATERIAL LEGEND



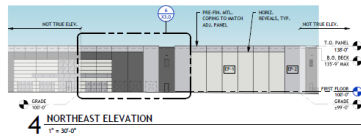
7 EAST OFFICE ELEVATION
1/8" = 1'-0"



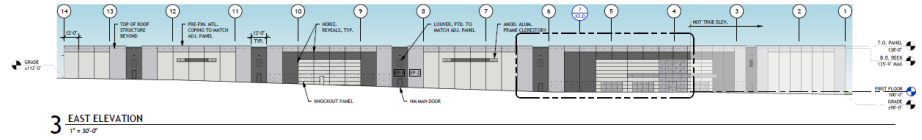
6 NORTHEAST OFFICE ELEVATION
1/8" = 1'-0"



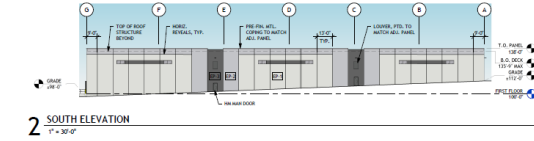
5 WEST ELEVATION
1" = 30'-0"



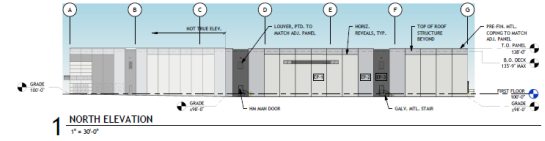
4 NORTHEAST ELEVATION
1" = 30'-0"



3 EAST ELEVATION
1" = 30'-0"



2 SOUTH ELEVATION
1" = 30'-0"



1 NORTH ELEVATION
1" = 30'-0"

Sound Study Summary

Sound Study - Overview

- Ostergaard Acoustical Associates (OAA) was retained by the project team to conduct a thorough sound study of the proposed project
- Sound study comprised:
 - A sound survey of existing ambient conditions
 - Building an acoustical model of the site
 - Assessment if mitigation measures were necessary

Sound Study - Regulations

Site sound emissions are regulated by local and state ordinances

State of Massachusetts – Division of Air Quality Control Policy 90-001

- Site sound emissions shall not exceed background ambient sound levels at the nearest residences by 10 dB(A)
- Background sound level is defined as the sound level present 90% of the time during a measurement period when equipment is in operation

Town of Mendon –

- No noise bylaw; zoning bylaw can require proof that a site will not produce unreasonable noise.

Sound Study - Ambient Survey

Typify area:

Location 1 - NE

Location 2 - SW

Location 3 - E



24-hours of data collected on August 18-to-19, 2021
(Thursday to Friday)

Sound Study – Ambient Survey Results

Summary of average statistical A-weighted sound levels documented across the ambient survey, in dB re 20 μ Pa.

| Location | L _{min} | L ₉₀ | L _{eq} | L ₁₀ | L _{max} |
|----------|------------------|-----------------|-----------------|-----------------|------------------|
| 1 | 44 | 48 | 50 | 52 | 70 |
| 2 | 47 | 50 | 52 | 54 | 71 |
| 3 | 45 | 53 | 58 | 62 | 81 |

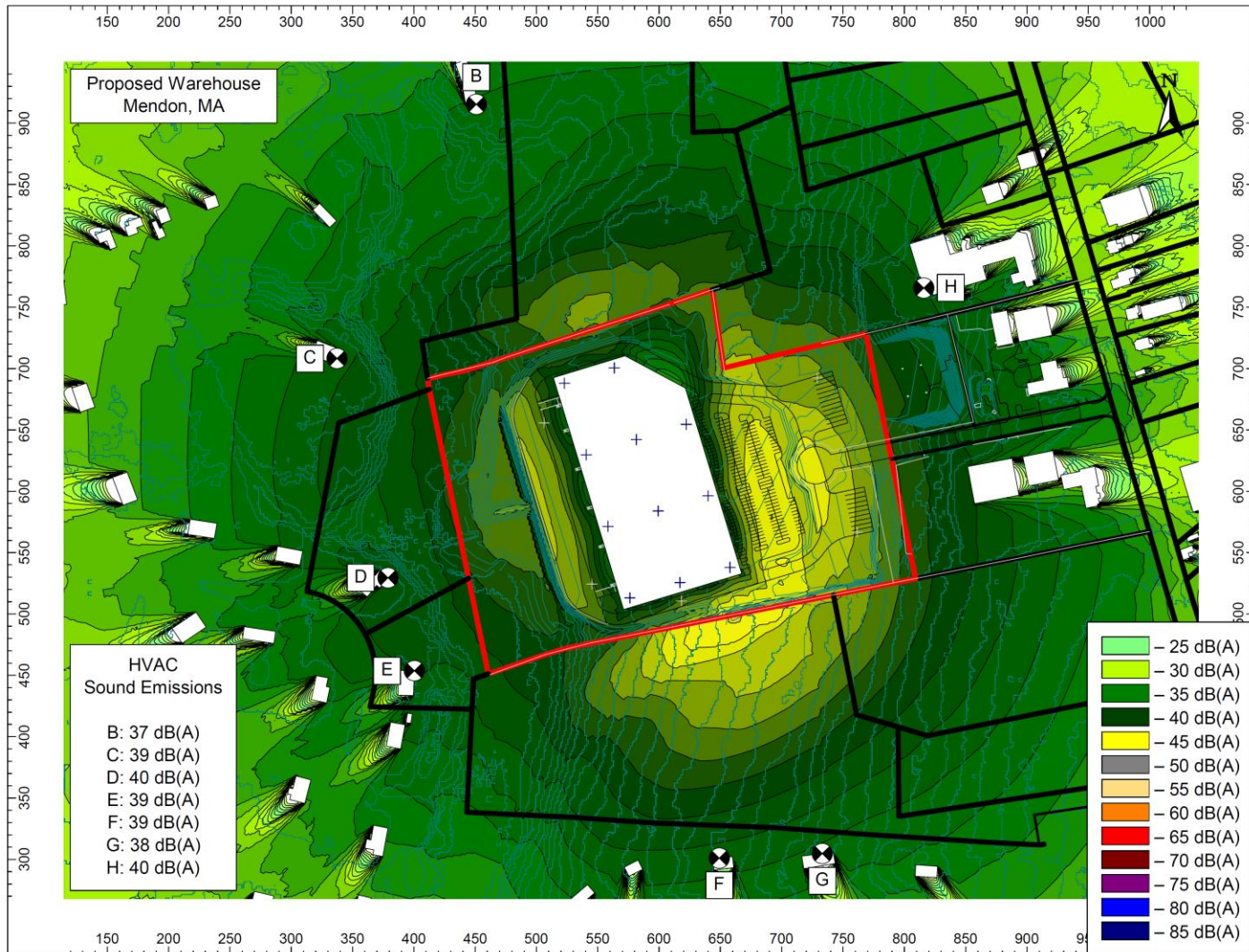
Residential code limit becomes 58 dB(A), based on the lowest average L90

Permissive for steady state equipment such as HVAC sound.

Steady sound should blend in with existing background sound levels.

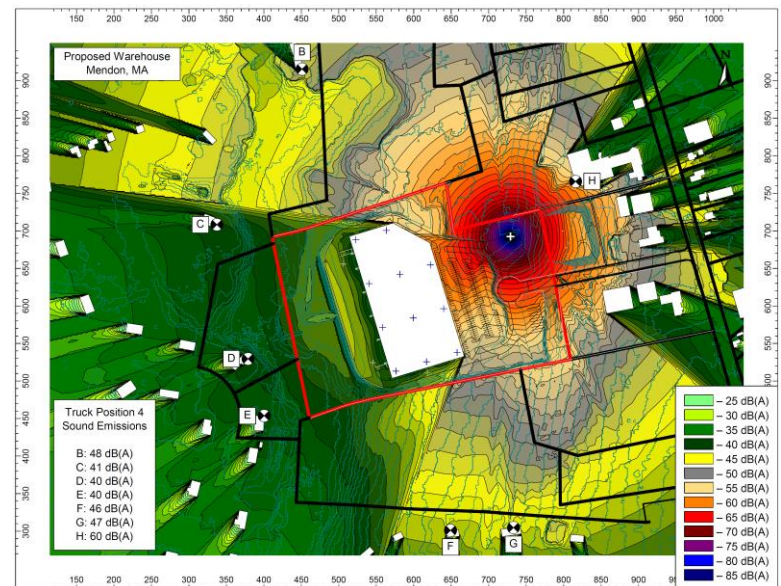
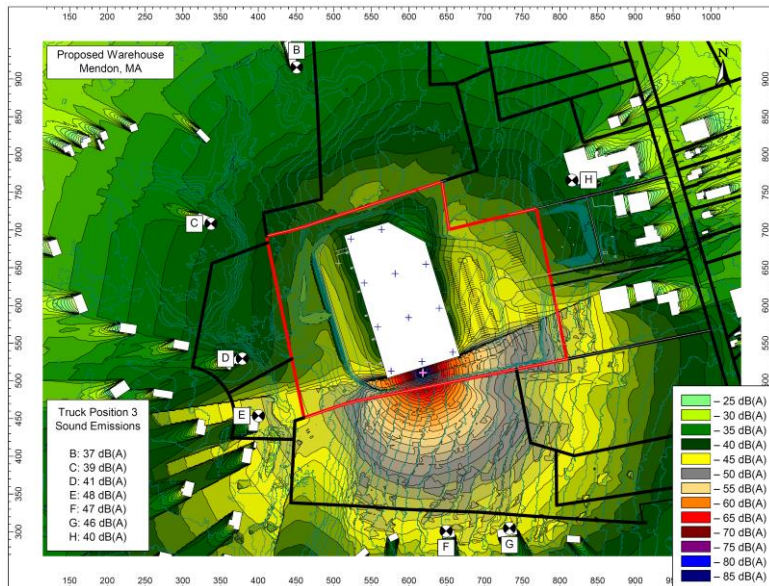
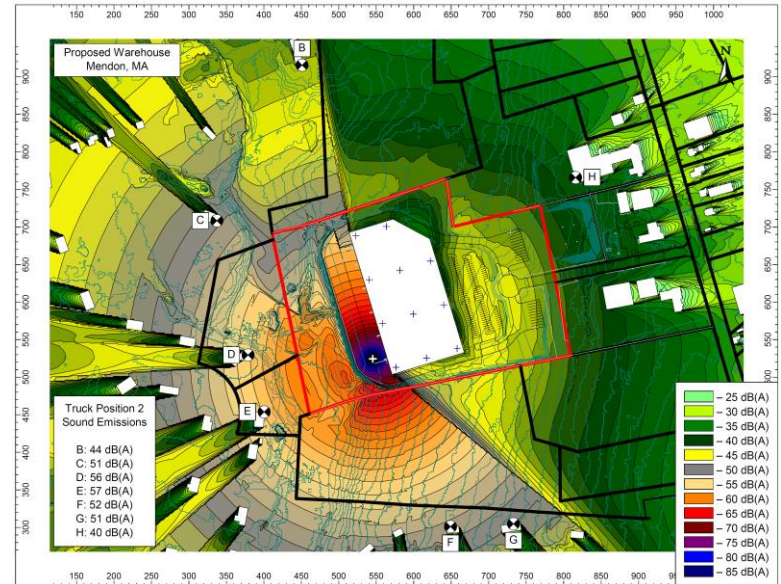
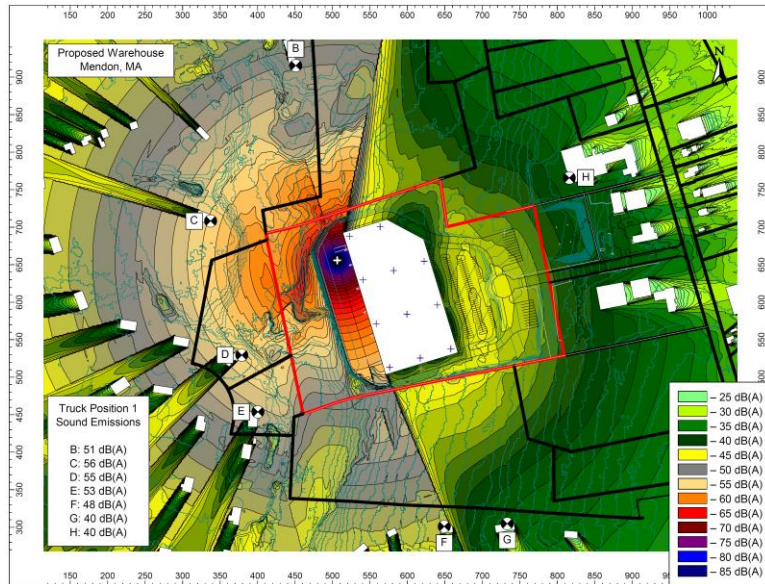
Recommend not exceeding 62 dB(A) at school

Sound Study – Steady Sound Levels

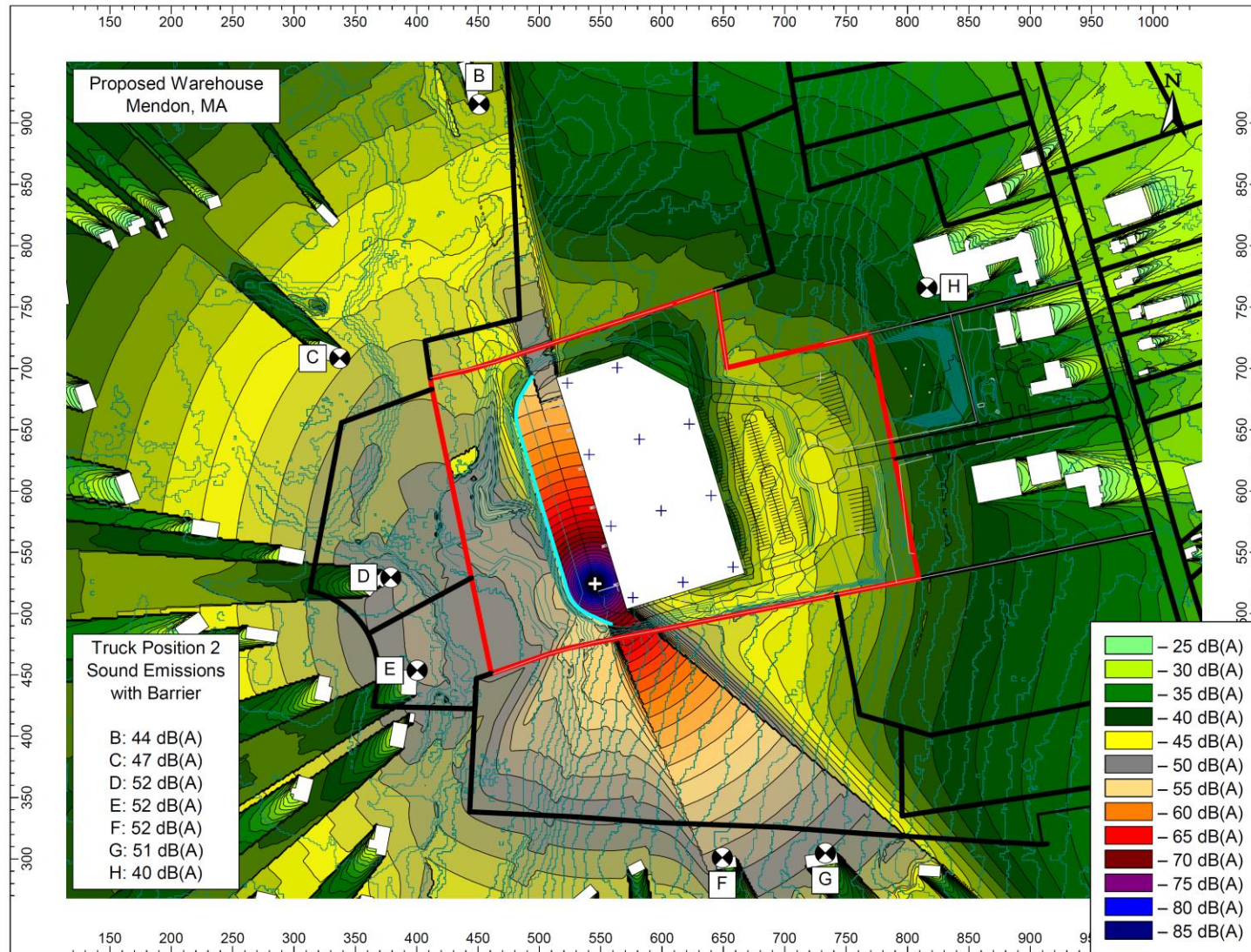


A-weighted sound emission contours, 5 feet above grade, from rooftop HVAC equipment. Each rooftop unit shown with a blue “+” sign. Buildings shown in white; site property line outlined in red. A-weighted sound emissions tabulated at 15 feet above grade for all Locations.

Sound Study – Maximum Sound Levels



Sound Study – Maximum Sound Levels w/ 12ft Barrier



Sound Study - Conclusions

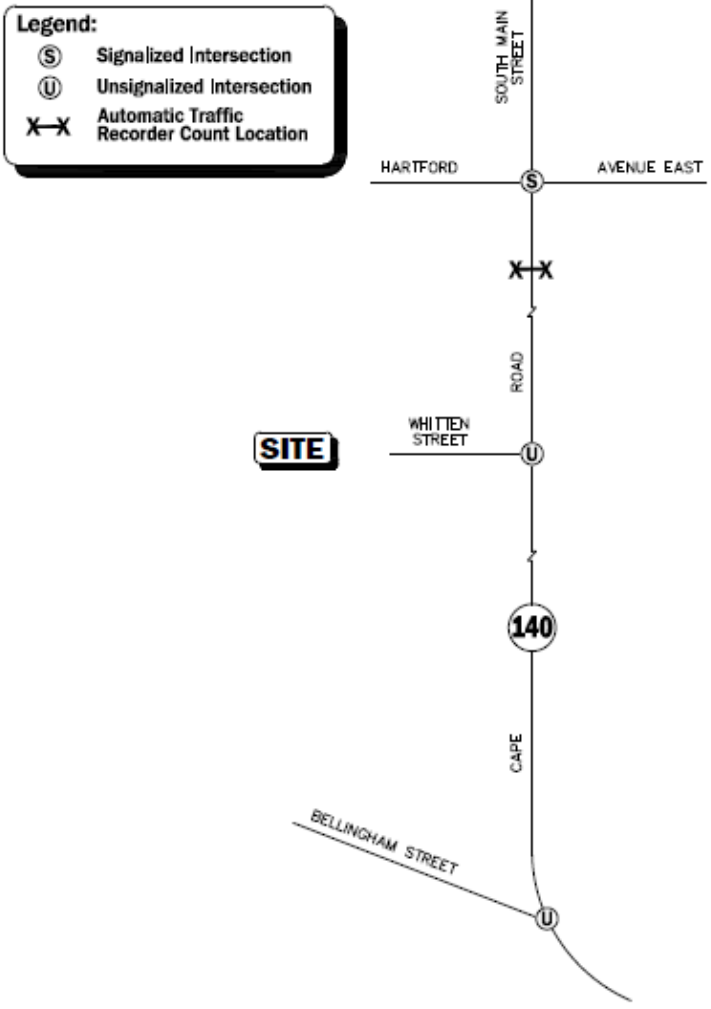
- On-site steady and intermittent sound is below code limit.
- Proposed barrier to reduce sound at residential receptors.
- Emissions will blend in with existing sound in the vicinity.
- No negative acoustical impact from on or off-site operations.

Traffic Impact Assessment Summary

Site Location Map



Study Area Intersections



Transportation Impact Assessment Scope

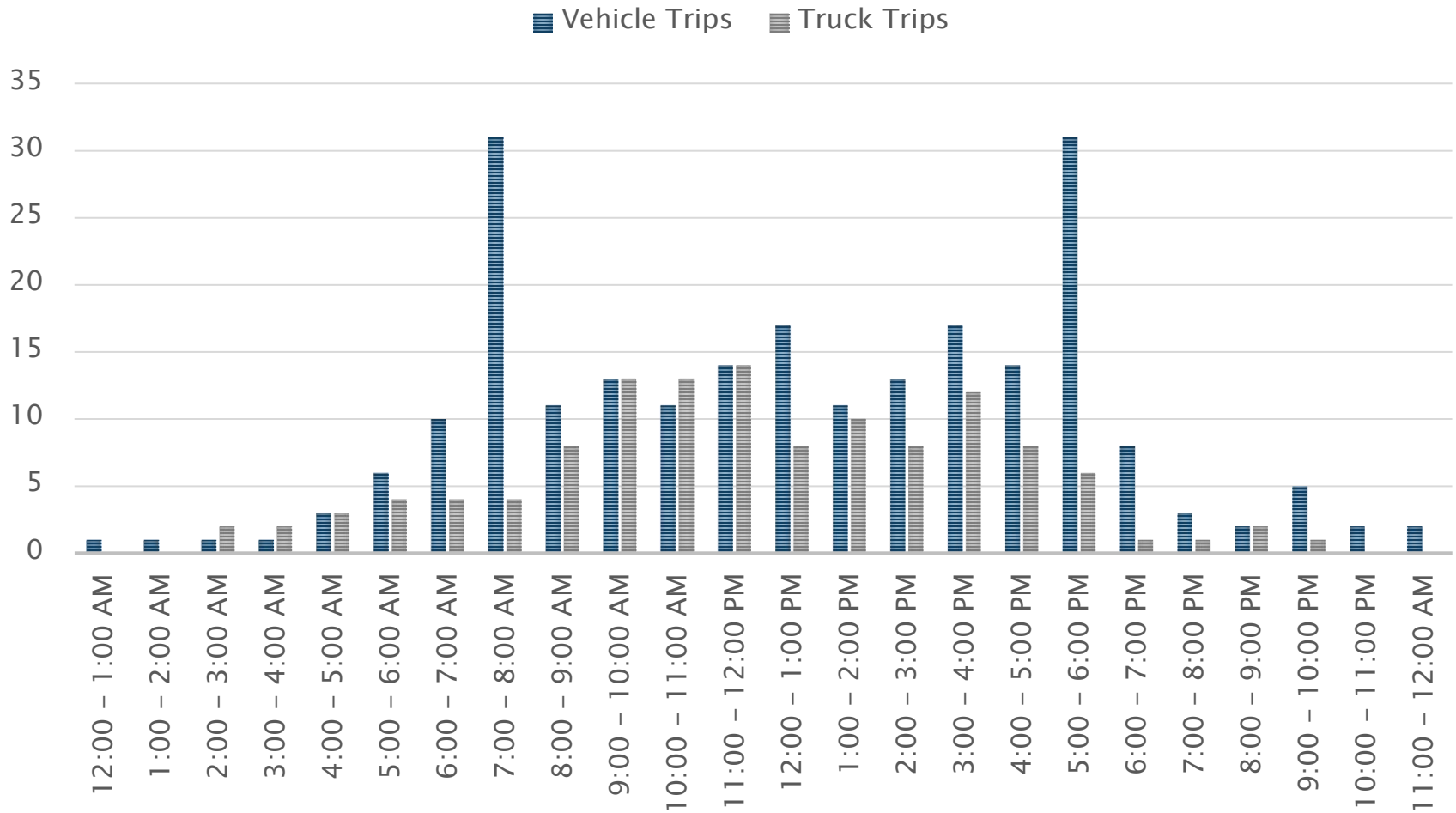
- Reviewed existing and future traffic conditions, both with and without the proposed warehouse
- Reviewed safety characteristics of Cape Road within the study area, including motor vehicle crash analyses and sight distances
- Developed an access plan to provide safe and efficient access to the Project
- Reviewed potential signal timing enhancements to the intersection of Hartford Avenue at Cape Road and South Main Street

Trip Generation Summary

| Time Period/Direction | (A) Passenger Car Trips | (B) Truck Trips | (A + B) Vehicle Trips^a |
|--|--|----------------------------|--|
| <i>Average Weekday:</i> | | | |
| Entering | 114 | 62 | 176 |
| <u>Exiting</u> | <u>114</u> | <u>62</u> | <u>176</u> |
| Total | 228 | 124 | 352 |
| <i>Weekday AM Peak-Hour of Adjacent Roadway:</i> | | | |
| Entering | 25 | 2 | 27 |
| <u>Exiting</u> | <u>6</u> | <u>2</u> | <u>8</u> |
| Total | 31 | 4 | 35 |
| <i>Weekday PM Peak-Hour of Adjacent Roadway:</i> | | | |
| Entering | 7 | 3 | 10 |
| <u>Exiting</u> | <u>24</u> | <u>3</u> | <u>27</u> |
| Total | 31 | 6 | 37 |

^aBased on ITE LUC 150 – Warehousing, applied to 205,445 sf.

Daily Vehicle Trip Distribution (Approximate)



Conclusions and Recommendations

- Project-related traffic increases during peak hours amount to approximately one new vehicle trip every other minute at all study area locations
- Project-related traffic amounts to a 1.2% increase to peak hour traffic at the intersection of Hartford Avenue with Cape Road, including only one to two arriving truck trips from Hartford Avenue westbound
- Available sight lines at the intersection of Whitten Street with Cape Road allow for safe access to and from the Project
- Upgrade intersection of Cape Road with Whitten Street to meet current MassDOT design guidelines
- Optimize signal timing at Hartford Avenue and Cape Road if deemed appropriate by MassDOT

Conclusions / Questions