NEEDHAM PLANNING BOARD
Tuesday, November 1, 2022
7:00 p.m.

Powers Hall
Needham Town Hall, 1471 Highland Avenue
AND
Virtual Meeting using Zoom
Meeting ID: **880 4672 5264**
(Instructions for accessing below)

To view and participate in this virtual meeting on your phone, download the "Zoom Cloud Meetings" app in any app store or at www.zoom.us. At the above date and time, click on "Join a Meeting" and enter the following Meeting ID: 880 4672 5264

To view and participate in this virtual meeting on your computer, at the above date and time, go to www.zoom.us click "Join a Meeting" and enter the following ID: 880 4672 5264

Or to Listen by Telephone: Dial (for higher quality, dial a number based on your current location): US: +1 312 626 6799 or +1 646 558 8656 or +1 301 715 8592 or +1 346 248 7799 or +1 669 900 9128 or +1 253 215 8782 Then enter ID: 880 4672 5264

Direct Link to meeting: https://us02web.zoom.us/j/88046725264

1. Public Hearings:

   7:05 p.m. Amendment to Major Project Site Plan Special Permit No. 94-5: Coca Cola Beverages Northeast, Inc., 1 Executive Park Drive, Bedford, NH, 03110, Petitioner. (Property located at 9 B Street, Needham, Massachusetts). Regarding proposal to renovate the existing building by removing the existing 14,500 sf office wing, removal of 44,985 sf of the existing Fleet Services wing, associated storage and former railroad bay to be replaced by 14,610 sf attached new single-story Fleet Services wing and addition of 14 loading docks (see legal notice and application for more details). *Please note: this hearing has been continued from the October 3, 2022 meeting of the Planning Board.*

   7:20 p.m. Amendment to Major Project Site Plan Special Permit No. 99-2: BP 140 Kendrick Street LLC c/o Boston Properties Limited Partnership, 800 Boylston Street, Suite 1900, Boston, MA, Petitioner. (Property located at 140 Kendrick Street, Needham, Massachusetts). Regarding proposal for solar array canopy.

2. ANR Plan – Needham Enterprises, Inc., Petitioner, (Property located at Lot 251 on Lawton Road abutting 93 South Street, Needham, MA).

3. Deliberation: Major Project Site Plan Special Permit No. 2022-02: 557 Highland, LLC, an affiliate of The Bulfinch Companies, Inc., 116 Huntington Avenue, Suite 600, Boston, MA, Petitioner. (Property located at 557 Highland Avenue, Needham, Massachusetts). Regarding proposal to redevelop the Property with approximately 496,694 square feet of office, laboratory and research and development uses. The proposal also includes construction of one-level of below grade parking under each building and a separate stand-alone parking garage,

as well as approximately 10,000 square feet of retail and restaurant uses. See legal notice and application for more details).

4. Board of Appeals – November 17, 2022.

5. Minutes.

6. Report from Planning Director and Board members.

7. Correspondence.

(Items for which a specific time has not been assigned may be taken out of order.)

TOWN OF NEEDHAM
TOWN HALL
1471 Highland Avenue
Needham, MA 02492-2669

Design Review Board

Memo: Site Plan Review, 9 B Street, Coca Cola

October 17, 2022

The Board reviewed the design drawings for the building renovations and site development proposed for this site. While there was some discussion of the changes to the building the focus was on the site planning, landscaping, and lighting. The applicant was asked to return for review of the building design as part of the typical façade review that the DRB does. The general design approach for the building was acceptable to the Board. The west side (facing 128) will be renovated with two shades of corrugated paneling and dark metal panels and glazed aluminum storefront at entrances. The more service (trucking) portions of the existing building will be painted to match the lighter colored corrugated siding. The Board suggested some additional information that would be useful in the façade review. The existing building has a large amount of roof top mechanical equipment. The applicant stated the old equipment will be removed, and that there is no plan for adding screening. The Board accepted this approach to the building's roof as the amount of equipment will be much less than currently seen.

There is additional parking developed at the B Street side of the site near 1st Avenue. This new parking area for employees and visitors will be well landscaped. There is a bio-retention area in this new parking lot. The area is well landscaped, and the Board approved of the design and plant mix used in this area, especially the use of native plantings. The existing parking lot adjacent (south) to the new parking area is proposed to receive some additional landscaping in the first row of parking, but no additional landscaping added to the rest of the existing parking lot, except for the farthest end at Kendrick Street. There are some trees proposed at the tips of the triangular area, with the rest of the area being grass. The applicant stated the area may be a second bio-retention area, but the analysis was not complete at this time. The Board suggested a more developed landscape for this area would be better than a simple grass lawn.

Street trees will be added along the B Street side of the property, with an accent landscaping area at the corner of B Street and 3rd Avenue. Three (3) trees are proposed from that corner south towards Kendrick. There is minimal planting along 3rd Avenue, only an upgrade to the fencing while leaving the grass berm as is. This berm has not been well maintained. The Board discussed the concept of more extensive tree planting along the full extent of 3rd Avenue which could provide a visual foreground to the back end of parked tractor trailers. The applicant stated that no changes are planned for the parking lot along that side of the site so there is not an option to enlarge the planting bed. The size of the planting bed is unknown and the Board recognizes that the existing paving of parking lot and street may not be large enough along parts of the area to support tree planting. The Board

suggests at least an upgrade to a more durable planting scheme beyond just grass, which has not done well in the past.

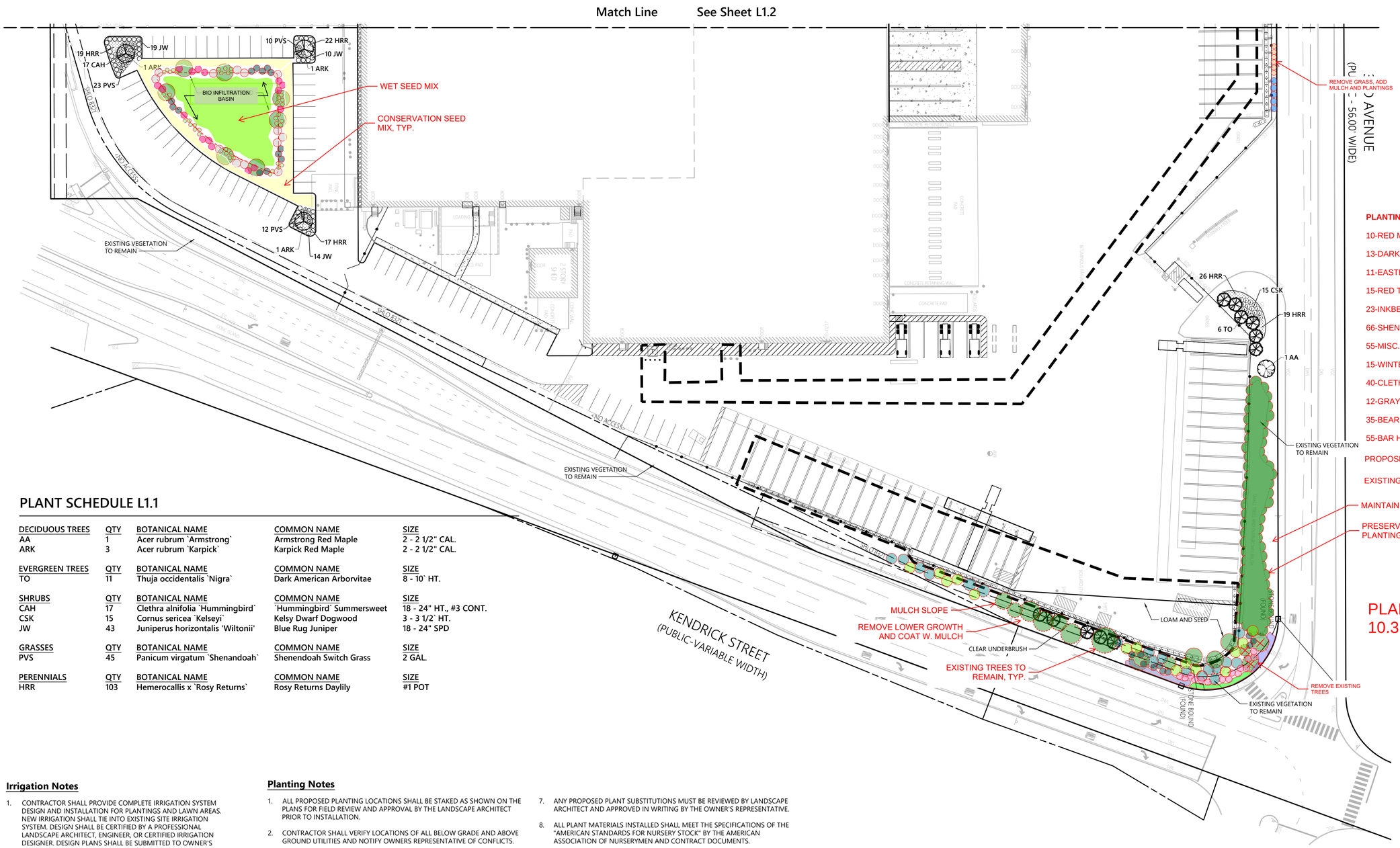
An 8’ high metal picket fence will replace the current chain link fencing around the site. The current fencing is in poor condition in many areas and this change will be an improvement.

Additional landscaping is proposed for the truck entrance off of 3rd Avenue. The Board sees this as an improvement. At the corner of Kendrick and 3rd Avenue the applicant proposes a small amount of trees added to the existing vegetation as well as a grassy area where there is currently large concrete block elements. The existing vegetation at the corner of Kendrick and 3rd is in poor condition and has not been maintained well. The Board stated that extensive pruning and clearing of the existing vegetation was needed, and that additional planting would be an improvement, as well as extending the planting further around the corner on 3rd Avenue. This is a highly visible and busy corner, an upgrade to its quality would be a benefit.

The parking lot lighting for the west side of the site will be changed to a lower scaled lighting fixture. The Board approves the lighting design for this area. The Board asked if the lighting in the trucking area on 3rd Avenue would also be changed. The existing lighting for the 3rd Avenue side is to remain. Those are taller fixtures, street lighting type fixtures.

End of Notes

\\vhb\gbl\proj\Wat-LD\15571.02 CocaCola-SiteCivil\cad\ld\Planset\1557102-LA.dwg



PLANT SCHEDULE L1.1

DECIDUOUS TREES	QTY	BOTANICAL NAME	COMMON NAME	SIZE
AA	1	Acer rubrum `Armstrong`	Armstrong Red Maple	2 - 2 1/2" CAL.
ARK	3	Acer rubrum `Karpick`	Karpick Red Maple	2 - 2 1/2" CAL.

EVERGREEN TREES	QTY	BOTANICAL NAME	COMMON NAME	SIZE
TO	11	Thuja occidentalis `Nigra`	Dark American Arborvitae	8 - 10` HT.

SHRUBS	QTY	BOTANICAL NAME	COMMON NAME	SIZE
CAH	17	Clethra alnifolia `Hummingbird`	`Hummingbird` Summersweet	18 - 24" HT., #3 CONT.
CSK	15	Cornus sericea `Kelseyi`	Kelsy Dwarf Dogwood	3 - 3 1/2` HT.
JW	43	Juniperus horizontalis 'Wiltonii'	Blue Rug Juniper	18 - 24" SPD

GRASSES	QTY	BOTANICAL NAME	COMMON NAME	SIZE
PVS	45	Panicum virgatum `Shenandoah`	Shenendoah Switch Grass	2 GAL.

PERENNIALS	QTY	BOTANICAL NAME	COMMON NAME	SIZE
HRR	103	Hemerocallis x `Rosy Returns`	Rosy Returns Daylily	#1 POT

Irrigation Notes

1. CONTRACTOR SHALL PROVIDE COMPLETE IRRIGATION SYSTEM DESIGN AND INSTALLATION FOR PLANTINGS AND LAWN AREAS. NEW IRRIGATION SHALL TIE INTO EXISTING SITE IRRIGATION SYSTEM. DESIGN SHALL BE CERTIFIED BY A PROFESSIONAL LANDSCAPE ARCHITECT, ENGINEER, OR CERTIFIED IRRIGATION DESIGNER. DESIGN PLANS SHALL BE SUBMITTED TO OWNER'S REPRESENTATIVE FOR APPROVAL.
2. CONTRACTOR AND IRRIGATION DESIGNER SHALL MEET WITH OWNER TO REVIEW EXISTING IRRIGATION HEAD MODELS, EXISTING CONTROLLER AND WATER SUPPLY, AND SHALL INCLUDE CONTROLLER EXPANSION MODULES OR OTHER ADJUSTMENTS TO EXISTING SYSTEM, IF REQUIRED, IN HIS BID.
3. CONTRACTOR SHALL PROVIDE ALL MATERIALS, LABOR, AND EQUIPMENT FOR THE COMPLETE INSTALLATION OF THE IRRIGATION SYSTEM.
4. CONTRACTOR SHALL PROVIDE DRAWINGS, MATERIAL SPECIFICATIONS, SCHEMATICS, AND OTHER LITERATURE AS MAY BE REQUIRED, FOR ALL CONDUIT, CONTROLS,TIMERS, VALVES, SPRINKLER HEADS, CONNECTORS, WIRING, RAIN GAUGE, ETC. TO THE OWNER'S CONSTRUCTION MANAGER FOR APPROVAL PRIOR TO INSTALLATION.
5. CONTRACTOR SHALL COORDINATE HIS WORK WITH THE GENERAL CONTRACTOR AND SUB CONTRACTORS.
6. SITE CONTRACTOR SHALL PROVIDE 4" SCHEDULE 40 PVC SLEEVES UNDER PAVEMENT TO PROVIDE ACCESS FOR IRRIGATION LINES TO ALL IRRIGATED AREAS.

Planting Notes

1. ALL PROPOSED PLANTING LOCATIONS SHALL BE STAKED AS SHOWN ON THE PLANS FOR FIELD REVIEW AND APPROVAL BY THE LANDSCAPE ARCHITECT PRIOR TO INSTALLATION.
2. CONTRACTOR SHALL VERIFY LOCATIONS OF ALL BELOW GRADE AND ABOVE GROUND UTILITIES AND NOTIFY OWNERS REPRESENTATIVE OF CONFLICTS.
3. NO PLANT MATERIALS SHALL BE INSTALLED UNTIL ALL GRADING AND CONSTRUCTION HAS BEEN COMPLETED IN THE IMMEDIATE AREA. CONTRACTOR SHALL NOTIFY OWNER'S REPRESENTATIVE OF ANY CONFLICT.
4. A 3-INCH DEEP MULCH PER SPECIFICATION SHALL BE INSTALLED UNDER ALL TREES AND SHRUBS, AND IN ALL PLANTING BEDS, UNLESS OTHERWISE INDICATED ON THE PLANS, OR AS DIRECTED BY OWNER'S REPRESENTATIVE.
5. ALL TREES SHALL BE BALLED AND BURLAPPED, UNLESS OTHERWISE NOTED IN THE DRAWINGS OR SPECIFICATION, OR APPROVED BY THE OWNER'S REPRESENTATIVE.
6. FINAL QUANTITY FOR EACH PLANT TYPE SHALL BE AS GRAPHICALLY SHOWN ON THE PLAN. THIS NUMBER SHALL TAKE PRECEDENCE IN CASE OF ANY DISCREPANCY BETWEEN QUANTITIES SHOWN ON THE PLANT LIST AND ON THE PLAN. THE CONTRACTOR SHALL REPORT ANY DISCREPANCIES BETWEEN THE NUMBER OF PLANTS SHOWN ON THE PLANT LIST AND PLANT LABELS PRIOR TO BIDDING.
7. ANY PROPOSED PLANT SUBSTITUTIONS MUST BE REVIEWED BY LANDSCAPE ARCHITECT AND APPROVED IN WRITING BY THE OWNER'S REPRESENTATIVE.
8. ALL PLANT MATERIALS INSTALLED SHALL MEET THE SPECIFICATIONS OF THE "AMERICAN STANDARDS FOR NURSERY STOCK" BY THE AMERICAN ASSOCIATION OF NURSERYMEN AND CONTRACT DOCUMENTS.
9. ALL PLANT MATERIALS SHALL BE GUARANTEED FOR ONE YEAR FOLLOWING DATE OF FINAL ACCEPTANCE.
10. AREAS DESIGNATED "LOAM & SEED" SHALL RECEIVE MINIMUM 6" OF LOAM AND SPECIFIED SEED MIX. LAWNS OVER 2:1 SLOPE SHALL BE PROTECTED WITH EROSION CONTROL FABRIC.
11. ALL DISTURBED AREAS NOT OTHERWISE NOTED ON CONTRACT DOCUMENTS SHALL BE LOAM AND SEEDED OR MULCHED AS DIRECTED BY OWNER'S REPRESENTATIVE.
12. THIS PLAN IS INTENDED FOR PLANTING PURPOSES. REFER TO SITE / CIVIL DRAWINGS FOR ALL OTHER SITE CONSTRUCTION INFORMATION.
13. AREAS DESIGNATED "WETMIX" SHALL RECEIVE A LIGHT MULCH OF CLEAN, WEED FREE STRAW

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101 Walnut Street
PO Box 9151
Watertown, MA 02471
617.924.1770

PLANTING ENHANCEMENTS KEY:

- 10-RED MAPLE 'ARMSTRONG' - 2-2 1/2" CAL.
- 13-DARK AMERICA ARBORVITAE - 7-8' HT.
- 11-EASTERN RED CEDAR - 6-7' HT.
- 15-RED TWIG DOGWOOD - 3 GAL.
- 23-INKBERRY - 5 GAL.
- 66-SHENENDOAH SWITCH GRASS - 2 GAL.
- 55-MISC. SIN. FLAME GRASS - 2 GAL.
- 15-WINTERBERRY - 3 GAL.
- 40-CLETHERA, SWEET PEPPERBUSH - 3 GAL.
- 12-GRAY DOGWOOD - 5 GAL.
- 35-BEARBERRY- 1 GAL.
- 55-BAR HARBOR JUNIPER-2 GAL.
- PROPOSED PLANT
- EXISTING TREE/EVERGREEN

PLANTING ENHANCEMENTS
10.31.22

0 20 40 80 Feet

Coca-Cola Site

9 B Street
Needham, Massachusetts 02494

No.	Revision	Date	Appvd.

Designed by
Checked by EB

Issued for
Site Plan Review
Date August 29, 2022

Not Approved for Construction

Drawing Title
Planting Plan

Drawing Number
L1.1

Sheet 13 of 15

Project Number
15571.00

COMMONWEALTH OF MASSACHUSETTS
ERIK BEDNAREK
REGISTERED LANDSCAPE ARCHITECT
NO. 1508
2022.08.29

Saved Tuesday, August 16, 2022 1:26:01 PM JOSHUALEMIEUX Plotted Monday, August 29, 2022 11:05:41 AM Joshua Lemieux

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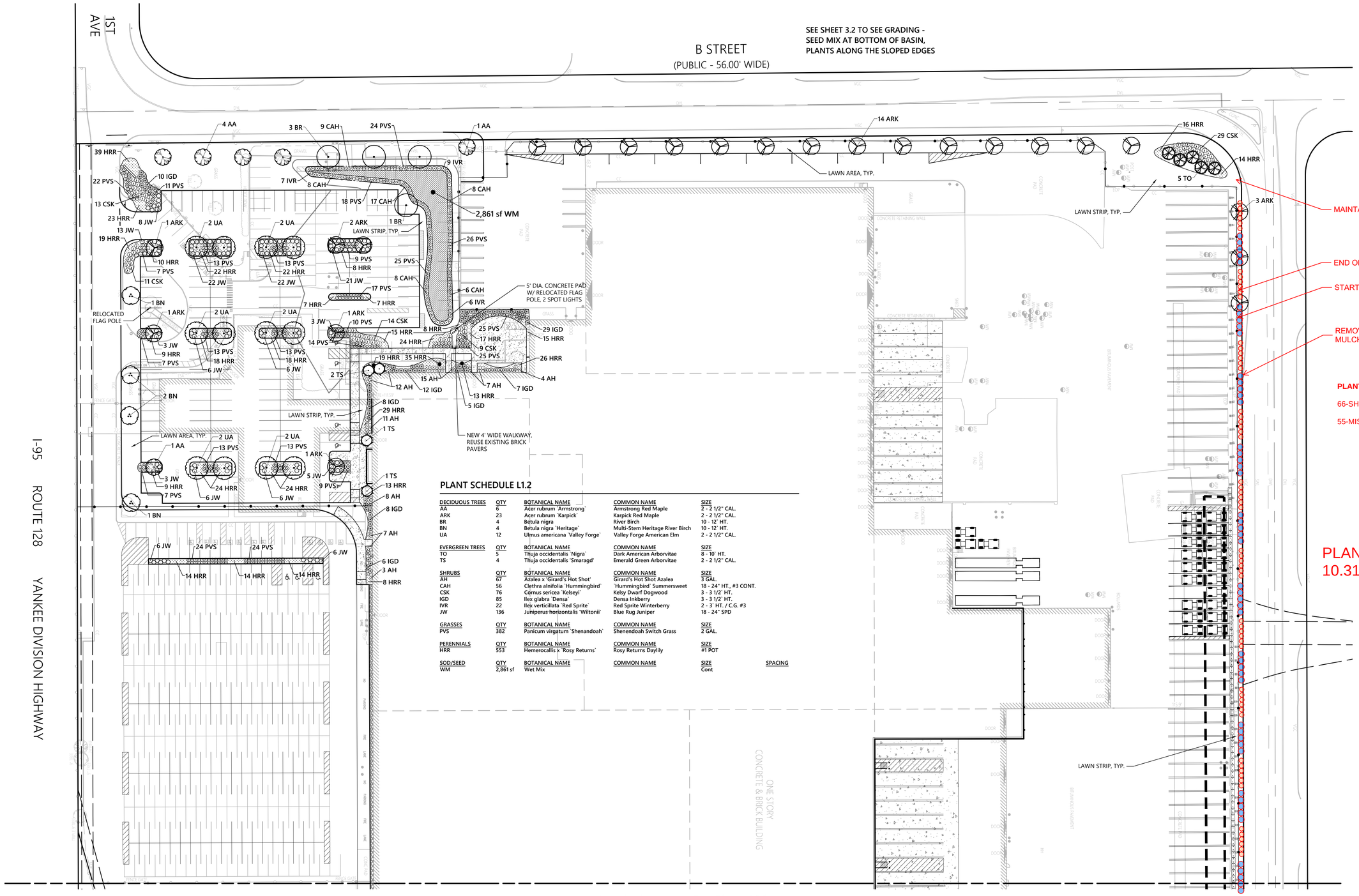

PLANT SCHEDULE L1.2

DECIDUOUS TREES	QTY	BOTANICAL NAME	COMMON NAME	SIZE
AA	6	Acer rubrum `Armstrong`	Armstrong Red Maple	2 - 2 1/2" CAL.
ARK	23	Acer rubrum `Karpick`	Karpick Red Maple	2 - 2 1/2" CAL.
BR	4	Betula nigra	River Birch	10 - 12` HT.
BN	4	Betula nigra `Heritage`	Multi-Stem Heritage River Birch	10 - 12` HT.
UA	12	Ulmus americana `Valley Forge`	Valley Forge American Elm	2 - 2 1/2" CAL.

EVERGREEN TREES	QTY	BOTANICAL NAME	COMMON NAME	SIZE
TO	5	Thuja occidentalis `Nigra`	Dark American Arborvitae	8 - 10` HT.
TS	4	Thuja occidentalis `Smaragd`	Emerald Green Arborvitae	2 - 2 1/2" CAL.

SHRUBS	QTY	BOTANICAL NAME	COMMON NAME	SIZE
AH	67	Azalea x `Girard's Hot Shot`	Girard's Hot Shot Azalea	3 GAL.
CAH	56	Clethra alnifolia `Hummingbird`	`Hummingbird` Summersweet	18 - 24" HT., #3 CONT.
CSK	76	Cornus sericea `Kelseyi`	Kelsy Dwarf Dogwood	3 - 3 1/2' HT.
IGD	85	Ilex glabra `Densa`	Densa Inkberry	3 - 3 1/2' HT.
IVR	22	Ilex verticillata `Red Sprite`	Red Sprite Winterberry	2 - 3` HT. / C.G. #3
JW	136	Juniperus horizontalis `Wiltonii`	Blue Rug Juniper	18 - 24" SPD

GRASSES	QTY	BOTANICAL NAME	COMMON NAME	SIZE
PVS	382	Panicum virgatum `Shenandoah`	Shenendoah Switch Grass	2 GAL.

PERENNIALS	QTY	BOTANICAL NAME	COMMON NAME	SIZE
HRR	553	Hemerocallis x `Rosy Returns`	Rosy Returns Daylily	#1 POT

SOD/SEED	QTY	BOTANICAL NAME	COMMON NAME	SIZE	SPACING
WM	2,861 sf	Wet Mix		Cont	

PLANTING ENHANCEMENTS
10.31.22

0 20 40 80 Feet

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PO Box 9151
Watertown, MA 02471
617.924.1770

Coca-Cola Site

9 B Street
Needham, Massachusetts 02494

No.	Revision	Date	Appvd.

Designed by
Checked by EB
Issued for
Site Plan Review
Date August 29, 2022

Not Approved for Construction

Drawing Title
Planting Plan

Drawing Number
L1.2

Sheet 14 of 15

Project Number
15571.02

2022.08.29

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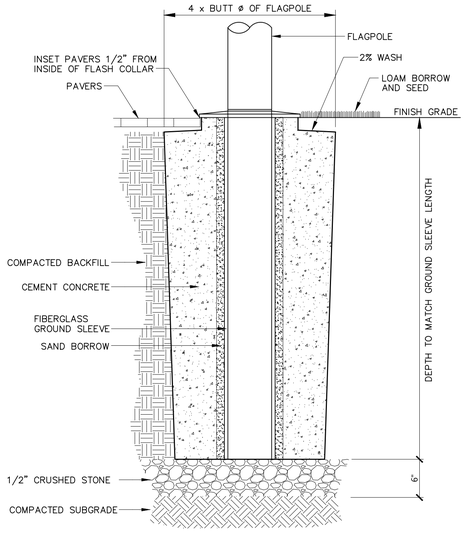
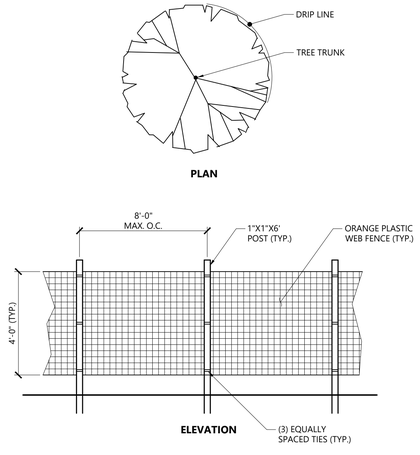


Flagpole Footing

9/21

N.T.S. Source: VHB LD_



NOTES

1. INSTALL TREE PROTECTION FENCE AT THE DRIP LINE OF EXISTING TREES TO REMAIN.

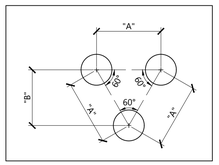
Tree Protection Fence

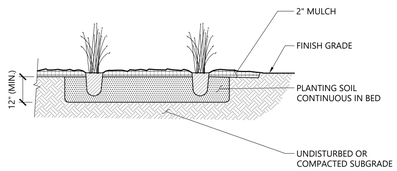
1/16

N.T.S. Source: VHB LD_610

PLANT SPACING

PLANT SPACING("A")	ROW SPACING ("B")
6 IN. O.C.	5 IN. O.C.
8 IN. O.C.	7 IN. O.C.
10 IN. O.C.	8 ½ IN. O.C.
12 IN. O.C.	10 ½ IN. O.C.
15 IN. O.C.	13 IN. O.C.
18 IN. O.C.	16 IN. O.C.
24 IN. O.C.	21 IN. O.C.
30 IN. O.C.	26 IN. O.C.
36 IN. O.C.	30 IN. O.C.
48 IN. O.C.	42 IN. O.C.
54 IN. O.C.	48 IN. O.C.
60 IN. O.C.	54 IN. O.C.

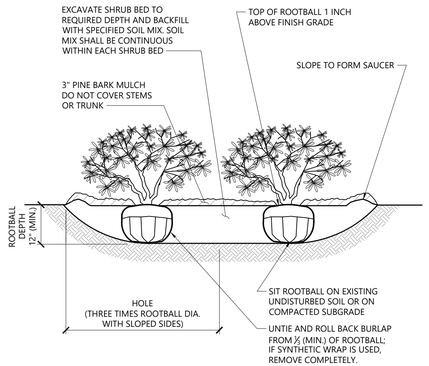




Perennial and Ornamental Grass Planting

1/16

N.T.S. Source: VHB LD_618



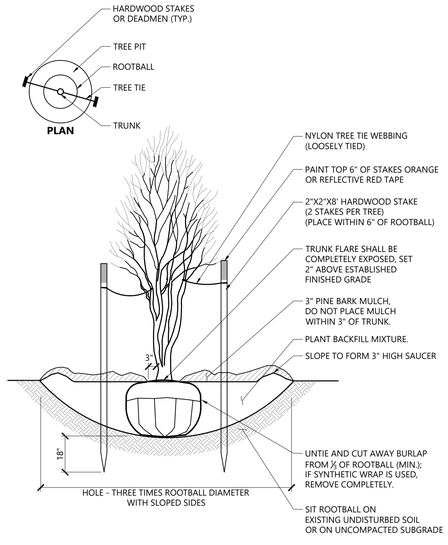
NOTES

1. LOOSEN ROOTS AT THE OUTER EDGE OF ROOTBALL OF CONTAINER GROWN SHRUBS.

Shrub Bed Planting

1/16

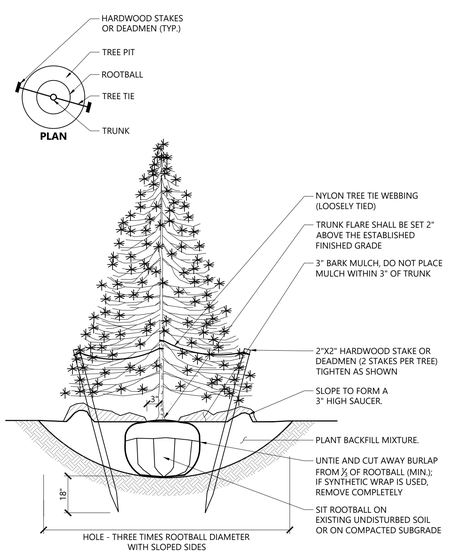
N.T.S. Source: VHB LD_601



Multistem Tree Planting

9/21

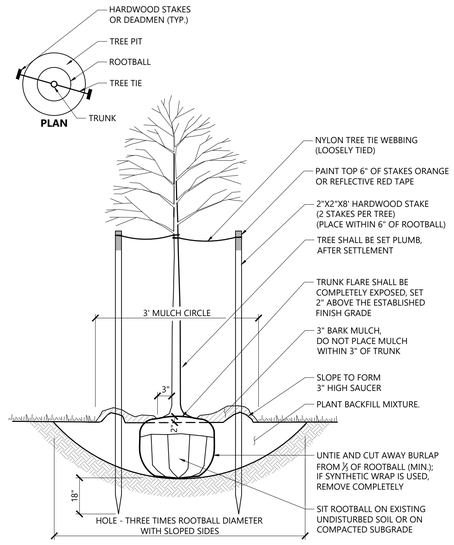
N.T.S. Source: VHB LD_606



Evergreen Tree Planting

9/21

N.T.S. Source: VHB LD_604



Tree Planting (For Trees Under 4" Caliper)

9/21

N.T.S. Source: VHB LD_602

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PO Box 9151
Watertown, MA 02471
617.924.1770

Coca-Cola Site

9 B Street
Needham, Massachusetts 02494

No.	Revision	Date	Appvd.

Designed by | Checked by: FD

Issued for | Date

Site Plan Review — August 29, 2022

Not Approved for Construction

Drawing Title

Planting Details

Drawing Number

L-2.1

Sheet 15 of 15

Project Number

15571.02

2022.08.29

Saved Tuesday, August 16, 2022 10:39:20 AM JOSHUALEMIEUX Plotted Monday, August 29, 2022 11:07:07 AM Joshua Lemieux

TOWN OF NEEDHAM
MASSACHUSETTS

500 Dedham Avenue
Needham, MA 02492
781-455-7550

PLANNING BOARD

APPLICATION FOR SITE PLAN REVIEW

Project Determination: (circle one) (Major Project) Minor Project

This application must be completed, signed, and submitted with the filing fee by the applicant or his representative in accordance with the Planning Board's Rules as adopted under its jurisdiction as a Special Permit Granting Authority. Section 7.4 of the By-Laws.

Location of Property 9B Street, Needham
Name of Applicant Coca Cola Beverages Northeast, Inc.
Applicant's Address 1 Executive Park Drive, Bedford, NH 03110
Phone Number 603-413-7623

Applicant is: Owner X Tenant _____
Agent/Attorney _____ Purchaser _____

Property Owner's Name See above
Property Owner's Address See above
Telephone Number see above

Characteristics of Property: Lot Area 1,031,086sf Present Use warehouse/office
Map # 300 Parcel # 14 Zoning District NEBC

Description of Project for Site Plan Review under Section 7.4 of the Zoning By-Law:
Demolition of a portion of the existing structures, some new construction, and site improvements as more fully described in Exhibit A attached hereto.

Signature of Applicant (or representative) _____ 9/1/22
Address if not applicant _____
Telephone #
Owner's permission if other than applicant _____

SUMMARY OF PLANNING BOARD ACTION

Received by Planning Board _____ Date _____
Hearing Date _____ Parties of Interest Notified of Public Hearing _____
Decision Required by _____ Decision/Notices of Decision sent _____
Granted _____
Denied _____ Fee Paid _____ Fee Waived _____
Withdrawn _____
NOTE: Reports on Minor Projects must be issues within 35 days of filing date.

EXHIBIT A

The applicant is proposing to renovate the existing building by removing the existing 14,500 s.f. office wing and incorporating those functions with the building, removal of 44,985 s.f. of the existing Fleet Services wing, associated storage and former railroad bay to be replaced by 14,610 s.f attached new single story Fleet Services wing and addition of 14 loading docks. Interior renovations will include incorporation of a new automated product retrieval system and interior office fit up. Exterior façade improvement will incorporate a combination of reskinning of the building with an architectural metal panel system, painting and new signage.

Site improvements will provide for new parking lots at the west end of the site with new site lighting, landscaping, decorative fencing and hardscaping. Existing paved areas will be repaired, overlayed and improved as required. Existing outbuildings previously used for production wastewater processing will be removed.

FRIEZE CRAMER ROSEN & HUBER LLP
COUNSELLORS AT LAW

60 WALNUT STREET, WELLESLEY, MASSACHUSETTS 02481
781-943-4000 • FAX 781-943-4040

EVANS HUBER
781-943-4043
EH@128LAW.COM

September 1, 2022

Members of the
Needham Planning Board

And

Lee Newman
Director of Planning and Community Development
Public Services Administration Building
500 Dedham Ave
Needham, MA 02492

Re: 9 B Street, Needham

Dear Planning Board Members and Ms. Newman:

Pursuant to Chapter 40A of the Massachusetts General Laws, the Needham Zoning By-Law, the Needham Planning Board Rules, and Section 4.2 of Site Plan Special Permit No. 94-5 dated August 9, 1994 (as amended by Site Plan Special Permit Amendment No. 1 dated May 1, 1996), I hereby submit an application for further Amendment to Site Plan Special Permit 94-5, on behalf of Coca Cola Beverages Northeast, Inc. ("Coca Cola NE"), of which this letter is a part. The applicant is also the owner of the property.

The property is a 23.67 acre parcel (1,031,086 square feet) with an address of 9 B Street and having frontage on B Street, Kendrick Street, and Third Avenue. The property is located in the New England Business Center (NEBC) zoning district, and is currently improved by a warehouse/office building of 398,374 s.f., and several small ancillary buildings bringing the total square footage of buildings on site to approximately 403,000 s.f.

The applicant is proposing to renovate the existing building by removing the existing 14,500 s.f. office wing and incorporating those functions with the building, removal of 44,985 s.f. of the existing Fleet Services wing, associated storage and former railroad bay to be replaced by 14,610 s.f attached new single-story Fleet Services wing and addition of 14 loading docks. Interior renovations will include incorporation of a new automated product retrieval system and interior office fit up. Exterior façade improvement will incorporate a combination of reskinning of the building with an architectural metal panel system, painting and new signage.

Site improvements will provide for new parking lots at the west end of the site with new site lighting, landscaping, decorative fencing and hardscaping. Existing paved areas will be repaired, overlayed and improved as required. Existing outbuildings previously used for production wastewater processing will be removed.

The site has lawful pre-existing non-conformities with respect to certain requirements imposed by Section 4.8.1 of the Bylaw, including surface parking lot setbacks (Bylaw Section 4.8.1 (1)); landscaping in the 20-foot buffer area (Bylaw section 4.8.1 (2)); open space (Bylaw section 4.8.1(4)); and building façade length (Bylaw Section 4.8.1 (6)). Even though no special permit or waiver is required with respect to these provisions of the bylaw (because the non-conformities pre-date the bylaw), the Board should be aware that the project will significantly increase the amount of landscaped and pervious space in the parking areas, and the amount of "open space" on the site (which under section 4.8.1 (4) of the bylaw *excludes* parking areas) will be increased from the current 9.5% to 12.7%. The extent of the other non-conformities will also be reduced by the proposed project.

The site is also non-conforming with respect to the number of parking spaces. Site Plan Special Permit No. 94-5 dated August 9, 1994, and Site Plan Special Permit Amendment No. 1 dated May 1, 1996, granted waivers from strict adherence with the number of parking spaces required by the Bylaw. Moreover, this proposal will both decrease the square footage of the building, and increase the number of parking spaces on site, both of which will have the effect of reducing the extent of the non-conformity with respect to parking spaces. Pursuant to Section 5.1.1.1 of the Bylaw, for this reason the proposed changes do not trigger the thresholds set forth in that section for requiring compliance with, or waivers of, the requirements of Sections 5.1.2 and 5.1.3 of the Bylaw, and, therefore, no special permit or waiver is needed or requested with respect to those sections of the Bylaw.

The only exception to the foregoing is that the site does not comply with the requirements of section 5.1.3 (n) of the Bylaw regarding bicycle racks. Compliance with or a waiver of this requirement is required even if the proposed project does not result in an increase in parking demand. As indicated below, a waiver from this requirement is requested.

The Applicant certifies pursuant to the Zoning By-Law, Section 7.4 that the project can be constructed and/or that the proposed uses thereof can be commenced without need for the issuance of any variance from any provisions of the Zoning By-Law by the Zoning Board of Appeals.

The zoning relief required for the Project is the following:

1. A Special Permit for Site Plan Review of a Major Project, pursuant to Zoning By-Law Section 7.4, Article 2 of the Planning Board Rules;

2. Pursuant to Section 4.2 thereof, further amendment to Site Plan Special Permit No. 94-5 dated August 9, 1994, as amended by Site Plan Special Permit Amendment No. 1 dated May 1, 1996; and

3. Special Permit pursuant to Sections 5.1.1.5 and 5.1.1.7 of the Zoning By-Law to waive strict adherence to the off-street parking requirements of Section 5.1.3 of the Zoning By-Law, with respect to subsection (n) (bicycle racks).

This Application for Site Plan Review and Special Permits is being filed with the following documents:

1. Application form signed by counsel for the applicant and owner on September 1, 2022.

2. Traffic Evaluation, prepared by VHB, 101 Walnut Street, Watertown, MA 02471, dated August 30, 2022.

3. Stormwater Management Narrative prepared by VHB, 101 Walnut Street, Watertown, MA 02471, dated August 24, 2022.

4. Site Plans, including layout and materials plans, zoning and parking tables, grading and drainage plans, utility plans, erosion and settlement control plans, site details, and planting plans, prepared by VHB, 101 Walnut Street, Watertown, MA 02471, dated August 29, 2022.

5. Separately bound reference drawings, including existing conditions plan prepared by VHB dated August 26, 2022; and phasing plan, elevations, renderings, and photometric plan, prepared by Design Group Facility Solutions, Inc., 5 Chenell Drive, Concord, NH, 03301, dated August 24 and 29, 2022.

6. Color Site Plan prepared by VHB, 101 Walnut Street, Watertown, MA 02471, dated August 29, 2022.

7. Filing fee to the Town of Needham in the amount of $ 35,316.40.

Pursuant to the Board's Covid-19 procedures, these documents are being submitted electronically; additionally two (2) hard copies of the application (1 with original signatures) and two (2) hard copies of all supporting materials listed above, including full-sized wet-stamped plans, are being delivered to the Planning Department along with the application fee; and, lastly, one hard copy of this letter and the materials listed in items 1 through 6, above (with all the plans no smaller than 11 x 17), is being mailed to each Board member, and to Lee Newman.

The Applicant hereby requests, pursuant to Zoning By-Law Section 7.4.4, that the Planning Board waive the submission by Applicant of any of the required information not submitted herewith.

The Applicant will be submitting a copy of the architectural plans and renderings, and the landscaping plan, to the Design Review Board ("DRB"). The Applicant anticipates meeting with the Design Review Board prior to meeting with the Planning Board.

It is our understanding that this matter can be scheduled for hearing at the Board's October 3, 2022 meeting. Please confirm.

Thank you for your cooperation.

Sincerely,

Evans Huber

Site Plans

Issued for	**Site Plan Review**
Date Issued	**August 29, 2022**
Latest Issue	**August 29, 2022**

Coca-Cola Site

9 B Street
Needham, Massachusetts
02494

Owner/Applicant

Coca-Cola Beverages Northeast, Inc.
1 Executive Park Drive
Suite 330
Bedford, NH 03110

Needham Parcel ID: 1993000001400000

Sheet Index

No.	Drawing Title	Latest Issue
C1.0	Legend and General Notes	August 29, 2022
C2.0	Overall Layout and Materials Plan	August 29, 2022
C2.1	Layout and Materials Plan	August 29, 2022
C2.2	Layout and Materials Plan	August 29, 2022
C3.1	Grading and Drainage Plan	August 29, 2022
C3.2	Grading and Drainage Plan	August 29, 2022
C4.1	Utility Plan	August 29, 2022
C4.2	Utility Plan	August 29, 2022
C5.1	Erosion and Sediment Control Plan	August 29, 2022
C5.2	Erosion and Sediment Control Plan	August 29, 2022
C6.1	Site Details	August 29, 2022
C6.2	Site Details	August 29, 2022
L1.1	Planting Plan	August 29, 2022
L1.2	Planting Plan	August 29, 2022
L2.1	Planting Details	August 29, 2022

Reference Drawings (Bound Separately)

No.	Drawing Title	Latest Issue
Sv-1	Existing Conditions Plan of Land	August 26, 2022
GA0.1	Overall Phasing Plan	August 24, 2022
GA3.1	Proposed Exterior Elevations	August 24, 2022
GA4.1	Proposed Rendering from Rt 128	August 24, 2022
E1.02	Front Parking Photometric Plan	August 26, 2022

vhb.com

101 Walnut Street
PO Box 9151
Watertown, MA 02471
617.924.1770

Survey
VHB, Inc.
101 Walnut Street
PO Box 9151
Watertown, MA 02471
617.924.1770

Architect
Design Group Facility Solutions, Inc.
5 Chenell Drive
Box 3
Concord, NH 03301
603.225.0010

COMMONWEALTH OF MASSACHUSETTS
CHRISTOPHER NOWAK
CIVIL
No. 41843
REGISTERED PROFESSIONAL ENGINEER

VHB Project : 15571.02 Coca-Cola Site
Issued for :

\\VHBGBL\PROJ\WAT-LDV\15571.02 COCACOLA-SITECIVIL\CAD\LD\PLANSET\15571O2-COV 30 August 2022

Legend

Exist.	Prop.	
		PROPERTY LINE
		PROJECT LIMIT LINE
		RIGHT-OF-WAY/PROPERTY LINE
		EASEMENT
		BUILDING SETBACK
		PARKING SETBACK
10+00	10+00	BASELINE
		CONSTRUCTION LAYOUT
		ZONING LINE
		TOWN LINE
		LIMIT OF DISTURBANCE
		WETLAND LINE WITH FLAG
		FLOODPLAIN
BLSF		BORDERING LAND SUBJECT TO FLOODING
BZ		WETLAND BUFFER ZONE
NDZ		NO DISTURB ZONE
200'RA		200' RIVERFRONT AREA
		GRAVEL ROAD
EOP	EOP	EDGE OF PAVEMENT
BB	BB	BITUMINOUS BERM
BC	BC	BITUMINOUS CURB
CC	CC	CONCRETE CURB
CG	CG	CURB AND GUTTER
CC	ECC	EXTRUDED CONCRETE CURB
CC	MCC	MONOLITHIC CONCRETE CURB
CC	PCC	PRECAST CONC. CURB
SGE	SGE	SLOPED GRAN. EDGING
VGC	VGC	VERT. GRAN. CURB
		LIMIT OF CURB TYPE
		SAWCUT
		BUILDING
	EN	BUILDING ENTRANCE
	LD	LOADING DOCK
		BOLLARD
D	D	DUMPSTER PAD
		SIGN
		DOUBLE SIGN
		STEEL GUARDRAIL
		WOOD GUARDRAIL
		PATH
		TREE LINE
		WIRE FENCE
		FENCE
		STOCKADE FENCE
		STONE WALL
		RETAINING WALL
		STREAM / POND / WATER COURSE
		DETENTION BASIN
		HAY BALES
		SILT FENCE
		SILT SOCK / STRAW WATTLE
4	4	MINOR CONTOUR
20	20	MAJOR CONTOUR
10	10	PARKING COUNT
	C10	COMPACT PARKING STALLS
DYL	DYL	DOUBLE YELLOW LINE
SL	SL	STOP LINE
		CROSSWALK
		ACCESSIBLE CURB RAMP
		ACCESSIBLE PARKING
VAN	VAN	VAN-ACCESSIBLE PARKING

Exist.	Prop.	
		CONCRETE
		HEAVY DUTY PAVEMENT
		BUILDINGS
		RIPRAP
		CONSTRUCTION EXIT
27.35 TC×	27.35 TC×	TOP OF CURB ELEVATION
26.85 BC×	26.85 BC×	BOTTOM OF CURB ELEVATION
132.75 ×	132.75 ×	SPOT ELEVATION
45.0 TW× 38.5 BW	45.0 TW× 38.5 BW	TOP & BOTTOM OF WALL ELEVATION
		BORING LOCATION
		TEST PIT LOCATION
MW	MW	MONITORING WELL
UD	UD	UNDERDRAIN
12"D	12"D	DRAIN
6"RD	6"RD	ROOF DRAIN
12"S	12"S	SEWER
FM	FM	FORCE MAIN
OHW	OHW	OVERHEAD WIRE
6"W	6"W	WATER
4"FP	4"FP	FIRE PROTECTION
	2"DW	DOMESTIC WATER
3"G	G	GAS
E	E	ELECTRIC
STM	STM	STEAM
T	T	TELEPHONE
FA	FA	FIRE ALARM
CATV	CATV	CABLE TV
		CATCH BASIN CONCENTRIC
		CATCH BASIN ECCENTRIC
		DOUBLE CATCH BASIN CONCENTRIC
		DOUBLE CATCH BASIN ECCENTRIC
		GUTTER INLET
		DRAIN MANHOLE CONCENTRIC
		DRAIN MANHOLE ECCENTRIC
TD		TRENCH DRAIN
E	E	PLUG OR CAP
CO	CO	CLEANOUT
		FLARED END SECTION
		HEADWALL
S	S	SEWER MANHOLE CONCENTRIC
S	S	SEWER MANHOLE ECCENTRIC
CS	CS	CURB STOP & BOX
WV	WV	WATER VALVE & BOX
TSV	TSV	TAPPING SLEEVE, VALVE & BOX
		FIRE DEPARTMENT CONNECTION
HYD	HYD	FIRE HYDRANT
WM	WM	WATER METER
PIV	PIV	POST INDICATOR VALVE
W	W	WATER WELL
GC	GC	GAS GATE
GM	GM	GAS METER
E	EMH	ELECTRIC MANHOLE
EM	EM	ELECTRIC METER
		LIGHT POLE
T	TMH	TELEPHONE MANHOLE
T	T	TRANSFORMER PAD
		UTILITY POLE
		GUY POLE
		GUY WIRE & ANCHOR
HH	HH	HAND HOLE
PB	PB	PULL BOX
		MATCHLINE

Abbreviations

General

ABAN	ABANDON
ACR	ACCESSIBLE CURB RAMP
ADJ	ADJUST
APPROX	APPROXIMATE
BIT	BITUMINOUS
BS	BOTTOM OF SLOPE
BWLL	BROKEN WHITE LANE LINE
CONC	CONCRETE
DYCL	DOUBLE YELLOW CENTER LINE
EL	ELEVATION
ELEV	ELEVATION
EX	EXISTING
FDN	FOUNDATION
FFE	FIRST FLOOR ELEVATION
GRAN	GRANITE
GTD	GRADE TO DRAIN
LA	LANDSCAPE AREA
LOD	LIMIT OF DISTURBANCE
MAX	MAXIMUM
MIN	MINIMUM
NIC	NOT IN CONTRACT
NTS	NOT TO SCALE
PERF	PERFORATED
PROP	PROPOSED
REM	REMOVE
RET	RETAIN
R&D	REMOVE AND DISPOSE
R&R	REMOVE AND RESET
SWEL	SOLID WHITE EDGE LINE
SWLL	SOLID WHITE LANE LINE
TS	TOP OF SLOPE
TYP	TYPICAL

Utility

CB	CATCH BASIN
CMP	CORRUGATED METAL PIPE
CO	CLEANOUT
DCB	DOUBLE CATCH BASIN
DMH	DRAIN MANHOLE
CIP	CAST IRON PIPE
COND	CONDUIT
DIP	DUCTILE IRON PIPE
FES	FLARED END SECTION
FM	FORCE MAIN
F&G	FRAME AND GRATE
F&C	FRAME AND COVER
GI	GUTTER INLET
GT	GREASE TRAP
HDPE	HIGH DENSITY POLYETHYLENE PIPE
HH	HANDHOLE
HW	HEADWALL
HYD	HYDRANT
INV	INVERT ELEVATION
I=	INVERT ELEVATION
LP	LIGHT POLE
MES	METAL END SECTION
PIV	POST INDICATOR VALVE
PWW	PAVED WATER WAY
PVC	POLYVINYLCHLORIDE PIPE
RCP	REINFORCED CONCRETE PIPE
R=	RIM ELEVATION
RIM=	RIM ELEVATION
SMH	SEWER MANHOLE
TSV	TAPPING SLEEVE, VALVE AND BOX
UG	UNDERGROUND
UP	UTILITY POLE

Notes

General

1. CONTRACTOR SHALL NOTIFY "DIG-SAFE" (1-888-344-7233) AT LEAST 72 HOURS BEFORE EXCAVATING.
2. CONTRACTOR SHALL BE RESPONSIBLE FOR SITE SECURITY AND JOB SAFETY. CONSTRUCTION ACTIVITIES SHALL BE IN ACCORDANCE WITH OSHA STANDARDS AND LOCAL REQUIREMENTS.
3. ACCESSIBLE ROUTES, PARKING SPACES, RAMPS, SIDEWALKS AND WALKWAYS SHALL BE CONSTRUCTED IN CONFORMANCE WITH THE FEDERAL AMERICANS WITH DISABILITIES ACT AND WITH STATE AND LOCAL LAWS AND REGULATIONS (WHICHEVER ARE MORE STRINGENT).
4. AREAS DISTURBED DURING CONSTRUCTION AND NOT RESTORED WITH IMPERVIOUS SURFACES (BUILDINGS, PAVEMENTS, WALKS, ETC.) SHALL RECEIVE 6 INCHES LOAM AND SEED.
5. WITHIN THE LIMITS OF THE BUILDING FOOTPRINT, THE SITE CONTRACTOR SHALL PERFORM EARTHWORK OPERATIONS REQUIRED UP TO SUBGRADE ELEVATIONS.
6. WORK WITHIN THE LOCAL RIGHTS-OF-WAY SHALL CONFORM TO LOCAL MUNICIPAL STANDARDS. WORK WITHIN STATE RIGHTS-OF-WAY SHALL CONFORM TO THE LATEST EDITION OF THE STATE HIGHWAY DEPARTMENTS STANDARD SPECIFICATIONS FOR HIGHWAYS AND BRIDGES.
7. UPON AWARD OF CONTRACT, CONTRACTOR SHALL MAKE NECESSARY CONSTRUCTION NOTIFICATIONS AND APPLY FOR AND OBTAIN NECESSARY PERMITS, PAY FEES, AND POST BONDS ASSOCIATED WITH THE WORK INDICATED ON THE DRAWINGS, IN THE SPECIFICATIONS, AND IN THE CONTRACT DOCUMENTS. DO NOT CLOSE OR OBSTRUCT ROADWAYS, SIDEWALKS, AND FIRE HYDRANTS, WITHOUT APPROPRIATE PERMITS.
8. TRAFFIC SIGNAGE AND PAVEMENT MARKINGS SHALL CONFORM TO THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.
9. AREAS OUTSIDE THE LIMITS OF PROPOSED WORK DISTURBED BY THE CONTRACTOR'S OPERATIONS SHALL BE RESTORED BY THE CONTRACTOR TO THEIR ORIGINAL CONDITION AT THE CONTRACTOR'S EXPENSE.
10. IN THE EVENT THAT SUSPECTED CONTAMINATED SOIL, GROUNDWATER, AND OTHER MEDIA ARE ENCOUNTERED DURING EXCAVATION AND CONSTRUCTION ACTIVITIES BASED ON VISUAL, OLFACTORY, OR OTHER EVIDENCE, THE CONTRACTOR SHALL STOP WORK IN THE VICINITY OF THE SUSPECT MATERIAL TO AVOID FURTHER SPREADING OF THE MATERIAL, AND SHALL NOTIFY THE OWNER IMMEDIATELY SO THAT THE APPROPRIATE TESTING AND SUBSEQUENT ACTION CAN BE TAKEN.
11. CONTRACTOR SHALL PREVENT DUST, SEDIMENT, AND DEBRIS FROM EXITING THE SITE AND SHALL BE RESPONSIBLE FOR CLEANUP, REPAIRS AND CORRECTIVE ACTION IF SUCH OCCURS.
12. DAMAGE RESULTING FROM CONSTRUCTION LOADS SHALL BE REPAIRED BY THE CONTRACTOR AT NO ADDITIONAL COST TO OWNER.
13. CONTRACTOR SHALL CONTROL STORMWATER RUNOFF DURING CONSTRUCTION TO PREVENT ADVERSE IMPACTS TO OFF SITE AREAS, AND SHALL BE RESPONSIBLE TO REPAIR RESULTING DAMAGES, IF ANY, AT NO COST TO OWNER.
14. THIS PROJECT DISTURBS MORE THAN ONE ACRE OF LAND AND FALLS WITHIN THE NPDES CONSTRUCTION GENERAL PERMIT (CGP) PROGRAM AND EPA JURISDICTION. PRIOR TO THE START OF CONSTRUCTION CONTRACTOR IS TO FILE A CGP NOTICE OF INTENT WITH THE EPA AND PREPARE A STORMWATER POLLUTION PREVENTION PLAN IN ACCORDANCE WITH THE NPDES REGULATIONS. CONTRACTOR SHALL CONFIRM THE OWNER HAS ALSO FILED A NOTICE OF INTENT WITH THE EPA.

Utilities

1. THE LOCATIONS, SIZES, AND TYPES OF EXISTING UTILITIES ARE SHOWN AS AN APPROXIMATE REPRESENTATION ONLY. THE OWNER OR ITS REPRESENTATIVE(S) HAVE NOT INDEPENDENTLY VERIFIED THIS INFORMATION AS SHOWN ON THE PLANS. THE UTILITY INFORMATION SHOWN DOES NOT GUARANTEE THE ACTUAL EXISTENCE, SERVICEABILITY, OR OTHER DATA CONCERNING THE UTILITIES, NOR DOES IT GUARANTEE AGAINST THE POSSIBILITY THAT ADDITIONAL UTILITIES MAY BE PRESENT THAT ARE NOT SHOWN ON THE PLANS. PRIOR TO ORDERING MATERIALS AND BEGINNING CONSTRUCTION, THE CONTRACTOR SHALL VERIFY AND DETERMINE THE EXACT LOCATIONS, SIZES, AND ELEVATIONS OF THE POINTS OF CONNECTIONS TO EXISTING UTILITIES AND, SHALL CONFIRM THAT THERE ARE NO INTERFERENCES WITH EXISTING UTILITIES AND THE PROPOSED UTILITY ROUTES, INCLUDING ROUTES WITHIN THE PUBLIC RIGHTS OF WAY.
2. WHERE AN EXISTING UTILITY IS FOUND TO CONFLICT WITH THE PROPOSED WORK, OR EXISTING CONDITIONS DIFFER FROM THOSE SHOWN SUCH THAT THE WORK CANNOT BE COMPLETED AS INTENDED, THE LOCATION, ELEVATION, AND SIZE OF THE UTILITY SHALL BE ACCURATELY DETERMINED WITHOUT DELAY BY THE CONTRACTOR, AND THE INFORMATION FURNISHED IN WRITING TO THE OWNER'S REPRESENTATIVE FOR THE RESOLUTION OF THE CONFLICT AND CONTRACTOR'S FAILURE TO NOTIFY PRIOR TO PERFORMING ADDITIONAL WORK RELEASES OWNER FROM OBLIGATIONS FOR ADDITIONAL PAYMENTS WHICH OTHERWISE MAY BE WARRANTED TO RESOLVE THE CONFLICT.
3. SET CATCH BASIN RIMS, AND INVERTS OF SEWERS, DRAINS, AND DITCHES IN ACCORDANCE WITH ELEVATIONS ON THE GRADING AND UTILITY PLANS.
4. RIM ELEVATIONS FOR DRAIN AND SEWER MANHOLES, WATER VALVE COVERS, GAS GATES, ELECTRIC AND TELEPHONE PULL BOXES, AND MANHOLES, AND OTHER SUCH ITEMS, ARE APPROXIMATE AND SHALL BE SET/RESET AS FOLLOWS:
   A. PAVEMENTS AND CONCRETE SURFACES: FLUSH
   B. ALL SURFACES ALONG ACCESSIBLE ROUTES: FLUSH
   C. LANDSCAPE, LOAM AND SEED, AND OTHER EARTH SURFACE AREAS: ONE INCH ABOVE SURROUNDING AREA AND TAPER EARTH TO THE RIM ELEVATION.
5. THE LOCATION, SIZE, DEPTH, AND SPECIFICATIONS FOR CONSTRUCTION OF PROPOSED PRIVATE UTILITY SERVICES SHALL BE INSTALLED ACCORDING TO THE REQUIREMENTS PROVIDED BY, AND APPROVED BY, THE RESPECTIVE UTILITY COMPANY (GAS, TELEPHONE, ELECTRIC, FIRE ALARM, ETC.). FINAL DESIGN LOADS AND LOCATIONS TO BE COORDINATED WITH OWNER AND ARCHITECT.
6. CONTRACTOR SHALL MAKE ARRANGEMENTS FOR AND SHALL BE RESPONSIBLE FOR PAYING FEES FOR POLE RELOCATION AND FOR THE ALTERATION AND ADJUSTMENT OF GAS, ELECTRIC, TELEPHONE, FIRE ALARM, AND ANY OTHER PRIVATE UTILITIES, WHETHER WORK IS PERFORMED BY CONTRACTOR OR BY THE UTILITIES COMPANY.
7. UTILITY PIPE MATERIALS SHALL BE AS FOLLOWS, UNLESS OTHERWISE NOTED ON THE PLAN:
   A. WATER PIPES SHALL BE DUCTILE IRON (DI) THICKNESS CLASS 52
   B. SANITARY SEWER PIPES SHALL BE POLYVINYL CHLORIDE (PVC) SEWER PIPE
   C. STORM DRAINAGE PIPES SHALL BE HIGH DENSITY POLYETHYLENE (HDPE)
   D. PIPE INSTALLATION AND MATERIALS SHALL COMPLY WITH THE STATE PLUMBING CODE WHERE APPLICABLE. CONTRACTOR SHALL COORDINATE WITH LOCAL PLUMBING INSPECTOR PRIOR TO BEGINNING WORK.
8. CONTRACTOR SHALL COORDINATE WITH ELECTRICAL CONTRACTOR AND SHALL FURNISH EXCAVATION, INSTALLATION, AND BACKFILL OF ELECTRICAL FURNISHED SITEWORK RELATED ITEMS SUCH AS PULL BOXES, CONDUITS, DUCT BANKS, LIGHT POLE BASES, AND CONCRETE PADS. SITE CONTRACTOR SHALL FURNISH CONCRETE ENCASEMENT OF DUCT BANKS IF REQUIRED BY THE UTILITY COMPANY AND AS INDICATED ON THE DRAWINGS.
9. CONTRACTOR SHALL EXCAVATE AND BACKFILL TRENCHES FOR GAS IN ACCORDANCE WITH GAS COMPANY'S REQUIREMENTS.
10. ALL DRAINAGE AND SANITARY STRUCTURE INTERIOR DIAMETERS (4' MIN.) SHALL BE DETERMINED BY THE MANUFACTURER BASED ON THE PIPE CONFIGURATIONS SHOWN ON THESE PLANS AND LOCAL MUNICIPAL STANDARDS. FOR MANHOLES THAT ARE 20 FEET IN DEPTH AND GREATER, THE MINIMUM DIAMETER SHALL BE 5 FEET.

Layout and Materials

1. DIMENSIONS ARE FROM THE FACE OF CURB, FACE OF BUILDING, FACE OF WALL, AND CENTER LINE OF PAVEMENT MARKINGS, UNLESS OTHERWISE NOTED.
2. CURB RADII ARE 3 FEET UNLESS OTHERWISE NOTED.
3. CURBING SHALL BE VERTICAL GRANITE CURB (VGC) WITHIN THE SITE UNLESS OTHERWISE INDICATED ON THE PLANS.
4. SEE ARCHITECTURAL DRAWINGS FOR EXACT BUILDING DIMENSIONS AND DETAILS CONTIGUOUS TO THE BUILDING, INCLUDING SIDEWALKS, RAMPS, BUILDING ENTRANCES, STAIRWAYS, UTILITY PENETRATIONS, CONCRETE DOOR PADS, COMPACTOR PAD, LOADING DOCKS, BOLLARDS, ETC.
5. PROPOSED BOUNDS AND ANY EXISTING PROPERTY LINE MONUMENTATION DISTURBED DURING CONSTRUCTION SHALL BE SET OR RESET BY A PROFESSIONAL LAND SURVEYOR.
6. PRIOR TO START OF CONSTRUCTION, CONTRACTOR SHALL VERIFY EXISTING PAVEMENT ELEVATIONS AT INTERFACE WITH PROPOSED PAVEMENTS, AND EXISTING GROUND ELEVATIONS ADJACENT TO DRAINAGE OUTLETS TO ASSURE PROPER TRANSITIONS BETWEEN EXISTING AND PROPOSED FACILITIES.

Demolition

1. CONTRACTOR SHALL REMOVE AND DISPOSE OF EXISTING MANMADE SURFACE FEATURES WITHIN THE LIMIT OF WORK INCLUDING BUILDINGS, STRUCTURES, PAVEMENTS, SLABS, CURBING, FENCES, UTILITY POLES, SIGNS, ETC. UNLESS INDICATED OTHERWISE ON THE DRAWINGS. REMOVE AND DISPOSE OF EXISTING UTILITIES. FOUNDATIONS AND UNSUITABLE MATERIAL BENEATH AND FOR A DISTANCE OF 10 FEET BEYOND THE PROPOSED BUILDING FOOTPRINT INCLUDING EXTERIOR COLUMNS.
2. EXISTING UTILITIES SHALL BE TERMINATED, UNLESS OTHERWISE NOTED, IN CONFORMANCE WITH LOCAL, STATE AND INDIVIDUAL UTILITY COMPANY STANDARD SPECIFICATIONS AND DETAILS. THE CONTRACTOR SHALL COORDINATE UTILITY SERVICE DISCONNECTS WITH THE UTILITY REPRESENTATIVES.
3. CONTRACTOR SHALL DISPOSE OF DEMOLITION DEBRIS IN ACCORDANCE WITH APPLICABLE FEDERAL, STATE AND LOCAL REGULATIONS, ORDINANCES AND STATUTES.
4 THE DEMOLITION LIMITS DEPICTED IN THE PLANS IS INTENDED TO AID THE CONTRACTOR DURING THE BIDDING AND CONSTRUCTION PROCESS AND IS NOT INTENDED TO DEPICT EACH AND EVERY ELEMENT OF DEMOLITION. THE CONTRACTOR IS RESPONSIBLE FOR IDENTIFYING THE DETAILED SCOPE OF DEMOLITION BEFORE SUBMITTING ITS BID/PROPOSAL TO PERFORM THE WORK AND SHALL MAKE NO CLAIMS AND SEEK NO ADDITIONAL COMPENSATION FOR CHANGED CONDITIONS OR UNFORESEEN OR LATENT SITE CONDITIONS RELATED TO ANY CONDITIONS DISCOVERED DURING EXECUTION OF THE WORK.
5. UNLESS OTHERWISE SPECIFICALLY PROVIDED ON THE PLANS OR IN THE SPECIFICATIONS, THE ENGINEER HAS NOT PREPARED DESIGNS FOR AND SHALL HAVE NO RESPONSIBILITY FOR THE PRESENCE, DISCOVERY, REMOVAL, ABATEMENT OR DISPOSAL OF HAZARDOUS MATERIALS, TOXIC WASTES OR POLLUTANTS AT THE PROJECT SITE. THE ENGINEER SHALL NOT BE RESPONSIBLE FOR ANY CLAIMS OF LOSS, DAMAGE, EXPENSE, DELAY, INJURY OR DEATH ARISING FROM THE PRESENCE OF HAZARDOUS MATERIAL AND CONTRACTOR SHALL INDEMNIFY AND HOLD HARMLESS THE ENGINEER FROM ANY CLAIMS MADE IN CONNECTION THEREWITH. MOREOVER, THE ENGINEER SHALL HAVE NO ADMINISTRATIVE OBLIGATIONS OF ANY TYPE WITH REGARD TO ANY CONTRACTOR AMENDMENT INVOLVING THE ISSUES OF PRESENCE, DISCOVERY, REMOVAL, ABATEMENT OR DISPOSAL OF ASBESTOS OR OTHER HAZARDOUS MATERIALS.

Erosion Control

1. PRIOR TO STARTING ANY OTHER WORK ON THE SITE, THE CONTRACTOR SHALL NOTIFY APPROPRIATE AGENCIES AND SHALL INSTALL EROSION CONTROL MEASURES AS SHOWN ON THE PLANS AND AS IDENTIFIED IN FEDERAL, STATE, AND LOCAL APPROVAL DOCUMENTS PERTAINING TO THIS PROJECT.
2. CONTRACTOR SHALL INSPECT AND MAINTAIN EROSION CONTROL MEASURES ON A WEEKLY BASIS (MINIMUM) OR AS REQUIRED PER THE STORMWATER POLLUTION PREVENTION PLAN (SWPPP). THE CONTRACTOR SHALL ADDRESS DEFICIENCIES AND MAINTENANCE ITEMS WITHIN TWENTY-FOUR HOURS OF INSPECTION. CONTRACTOR SHALL PROPERLY DISPOSE OF SEDIMENT SUCH THAT IT DOES NOT ENCUMBER OTHER DRAINAGE STRUCTURES AND PROTECTED AREAS.
3. CONTRACTOR SHALL BE FULLY RESPONSIBLE TO CONTROL CONSTRUCTION SUCH THAT SEDIMENTATION SHALL NOT AFFECT REGULATORY PROTECTED AREAS, WHETHER SUCH SEDIMENTATION IS CAUSED BY WATER, WIND, OR DIRECT DEPOSIT.
4. CONTRACTOR SHALL PERFORM CONSTRUCTION SEQUENCING SUCH THAT EARTH MATERIALS ARE EXPOSED FOR A MINIMUM OF TIME BEFORE THEY ARE COVERED, SEEDED, OR OTHERWISE STABILIZED TO PREVENT EROSION.
5. UPON COMPLETION OF CONSTRUCTION AND ESTABLISHMENT OF PERMANENT GROUND COVER, CONTRACTOR SHALL REMOVE AND DISPOSE OF EROSION CONTROL MEASURES AND CLEAN SEDIMENT AND DEBRIS FROM ENTIRE DRAINAGE AND SEWER SYSTEMS.

Existing Conditions Information

1. BASE PLAN: THE PROPERTY LINES SHOWN WERE DETERMINED BY AN ACTUAL FIELD SURVEY CONDUCTED BY VHB, INC. BETWEEN JANUARY & FEBRUARY 2022 AND FROM DEEDS AND PLANS OF RECORD. THE TOPOGRAPHY AND PHYSICAL FEATURES ARE BASED ON AN ACTUAL ON-THE-GROUND INSTRUMENT SURVEY PERFORMED BY VHB, INC. BETWEEN JANUARY AND MAY 2022.
2. TOPOGRAPHY: ELEVATIONS ARE BASED ON NAVD OF 1988.
3. GEOTECHNICAL DATA INCLUDING TEST PIT AND BORING LOCATIONS AND ELEVATIONS WERE OBTAINED FROM GZA.
4. PAVEMENT, BASE, SUBBASE, AND SUBGRADE MATERIAL SAMPLING DATA INCLUDING TEST PIT LOCATIONS WERE DETERMINED BY VHB, INC.

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2. CONTRACTOR SHALL NOT RELY SOLELY ON ELECTRONIC VERSIONS OF PLANS, SPECIFICATIONS, AND DATA FILES THAT ARE OBTAINED FROM THE DESIGNERS, BUT SHALL VERIFY LOCATION OF PROJECT FEATURES IN ACCORDANCE WITH THE PAPER COPIES OF THE PLANS AND SPECIFICATIONS THAT ARE SUPPLIED AS PART OF THE CONTRACT DOCUMENTS.
3. SYMBOLS AND LEGENDS OF PROJECT FEATURES ARE GRAPHIC REPRESENTATIONS AND ARE NOT NECESSARILY SCALED TO THEIR ACTUAL DIMENSIONS OR LOCATIONS ON THE DRAWINGS. THE CONTRACTOR SHALL REFER TO THE DETAIL SHEET DIMENSIONS, MANUFACTURERS' LITERATURE, SHOP DRAWINGS AND FIELD MEASUREMENTS OF SUPPLIED PRODUCTS FOR LAYOUT OF THE PROJECT FEATURES.

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Coca-Cola Site

9 B Street
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No.	Revision	Date	Appvd.

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Issued for: **Site Plan Review** | Date: **August 29, 2022**

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Drawing Title

Legend and General Notes

Drawing Number

C1.0

Sheet 1 of 15

Project Number
15571.02

COMMONWEALTH OF MASSACHUSETTS
CHRISTOPHER NOWAK
CIVIL
No. 41843
REGISTERED PROFESSIONAL ENGINEER

Saved Friday, August 26, 2022 4:01:12 PM SMICHNIEWICZ Plotted Monday, August 29, 2022 5:36:56 PM Shane Michniewicz

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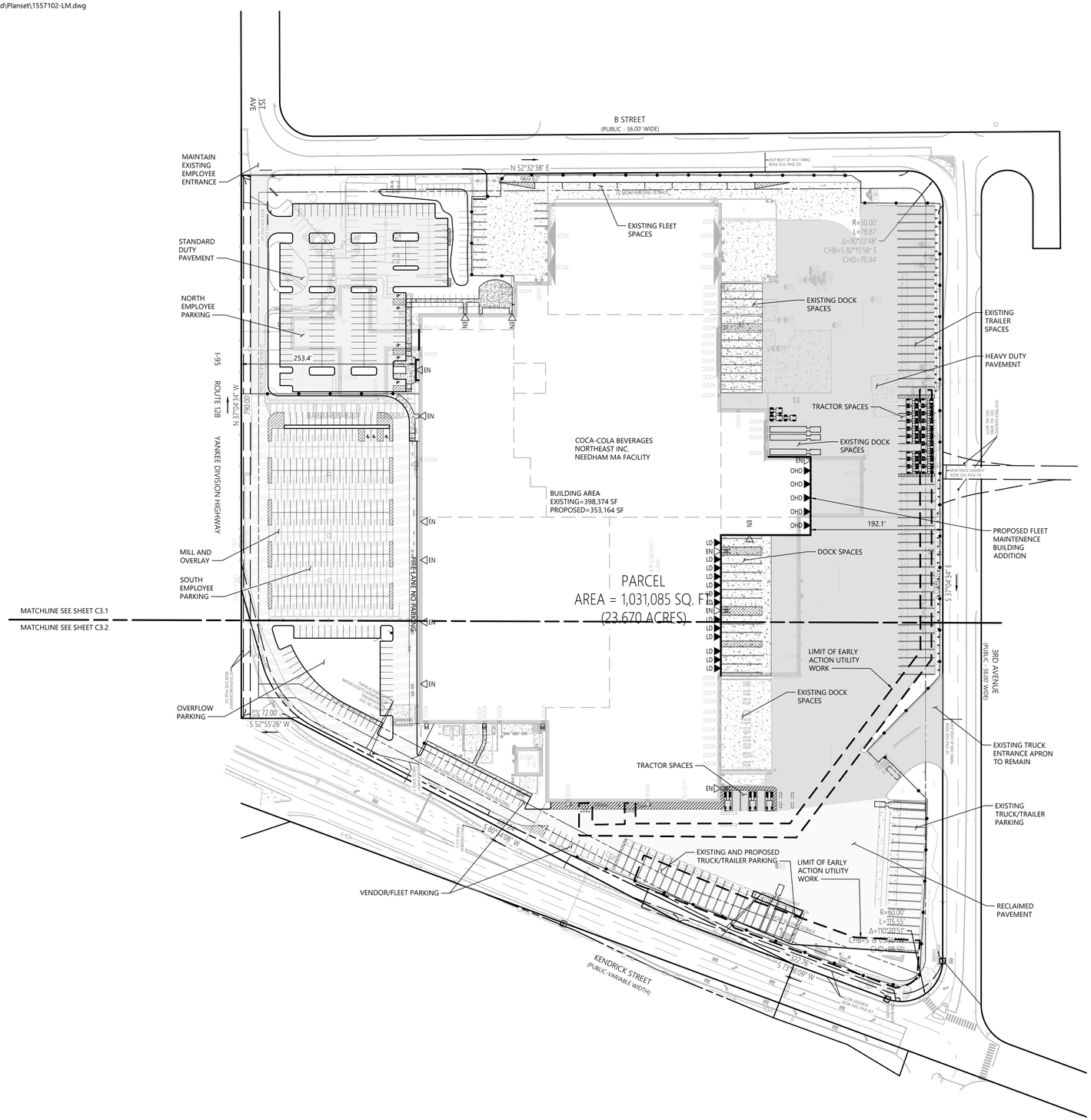

Zoning Summary Chart

Zoning District(s):	New England Business Center		
Overlay District(s):	Wireless Communications Facilities Towers		
Zoning Regulation Requirements	**Existing**	**Required***	**Provided**
MINIMUM LOT AREA	23.7 Acres	0.92 Acres	23.7 Acres
FRONTAGE	3,294± Feet	100 Feet	3,294± Feet
FRONT YARD SETBACK (B ST)	43 Feet	15 Feet	43 Feet
FRONT YARD SETBACK (3RD AVE)	116 Feet	15 Feet	192 Feet
FRONT YARD SETBACK (KENDRICK ST)	64 Feet	15 Feet	64 Feet
REAR YARD SETBACK	72 Feet	20 Feet	253 Feet (5)
MINIMUM LOT WIDTH	790 Feet	100 Feet	790 Feet
MAXIMUM BUILDING HEIGHT	33 Feet	72 Feet	33 Feet
MAXIMUM FLOOR AREA RATIO	0.4	1.0 (1)	0.3
MAXIMUM BUILDING COVERAGE	38.6 %	65.0 %	34.3 %
MINIMUM OPEN SPACE (3)	9.5 %	25.0 %	12.7 % (2)

* Zoning regulation requirements as specified in ZONING BY-LAW OF THE TOWN OF NEEDHAM, MASSACHUSETTS, AMENDED JUNE 2020
1. A floor area ratio of up to 1.75 may be allowed by special permit. A floor area ratio of up ot 2.0 may be allowed by special permit if the Applicant demonstrates that the proposed use will not generate peak hour trips in excess of 0.6 trips per 1,000 square feet of total development area.
2. The site is existing non-conforming and will be improved in the proposed condition.
3. The open space area shall be landscaped and may not be covered with buildings or structures of any kind, access streets, ways, parking areas, driveways, aisles, walkways, or other constructed approaches or service areas. Notwithstanding the preceding sentence, open space shall include pervious surfaces used for ways, access streets, parking areas, driveways, aisles, walkways, or other constructed approaches or service areas.
4. Maximum uninterrupted facade length shall be 300 feet.
5. Existing building setback to remain.

Parking Summary Chart

	EXISTING		PROPOSED	
Description	**Required (1)**	**Provided**	**Required (1)**	**Provided**
CAR SPACES (INCLUDES ADA SPACES)	1,033	285	898	380
TRUCK SPACES (2)	---	186	---	206
TOTAL SPACES	1,033	471	898	586 (3)
STANDARD ACCESSIBLE SPACES	7	15	8	8
VAN ACCESSIBLE SPACES	1	2	1	2
BICYCLE RACKS	52	0	45	0

1. See parking requirements table below.
2. Includes fleet/vendor spaces, loading dock spaces, tractor spaces, and trailer spaces.
3. The site is existing non-conforming and will be improved in the proposed condition.

Parking Requirements:

EXISTING							
OFFICE	30,000 SF	x	1 SPACES	/	300 SF	=	100 SPACES
WAREHOUSE	373,026 SF	x	1 SPACES	/	400 SF	=	933 SPACES
TOTAL						=	1033 SPACES
PROPOSED							
OFFICE	20,000 SF	x	1 SPACES	/	300 SF	=	67 SPACES
WAREHOUSE	332,304 SF	x	1 SPACES	/	400 SF	=	831 SPACES
TOTAL						=	898 SPACES

Bicycle Rack Requirements

EXISTING						
1,033 REQUIRED SPACES	x	1 BIKE RACK	/	20 SPACES	=	52 SPACES
PROPOSED						
898 REQUIRED SPACES	x	1 BIKE RACK	/	20 SPACES	=	45 SPACES

Legend

- STANDARD DUTY PAVEMENT
- HEAVY DUTY PAVEMENT
- MILL AND OVERLAY
- RECLAIMED PAVEMENT

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0 40 80 160Feet

Coca-Cola Site

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Drawing Title: Overall Layout and Materials

Drawing Number: C2.0

Sheet 2 of 15

Project Number: 15571.02

COMMONWEALTH OF MASSACHUSETTS
CHRISTOPHER NOWAK
CIVIL
No. 41843
REGISTERED PROFESSIONAL ENGINEER

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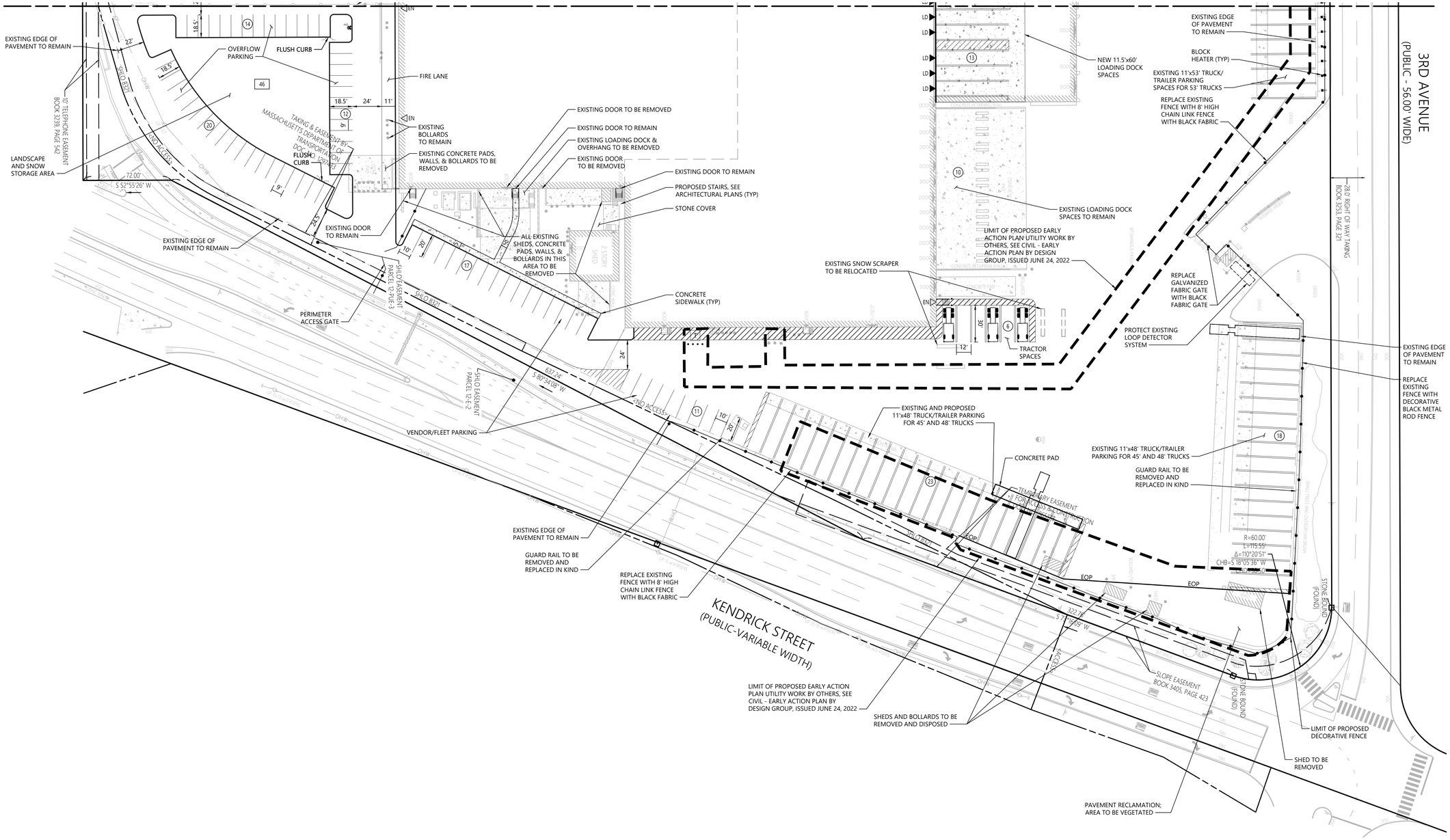
Match Line See Sheet C2.2



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0 20 40 80 Feet

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Drawing Title

Layout and Materials Plan

Drawing Number

C2.1

Sheet 3 of 15

Project Number **15571.00**

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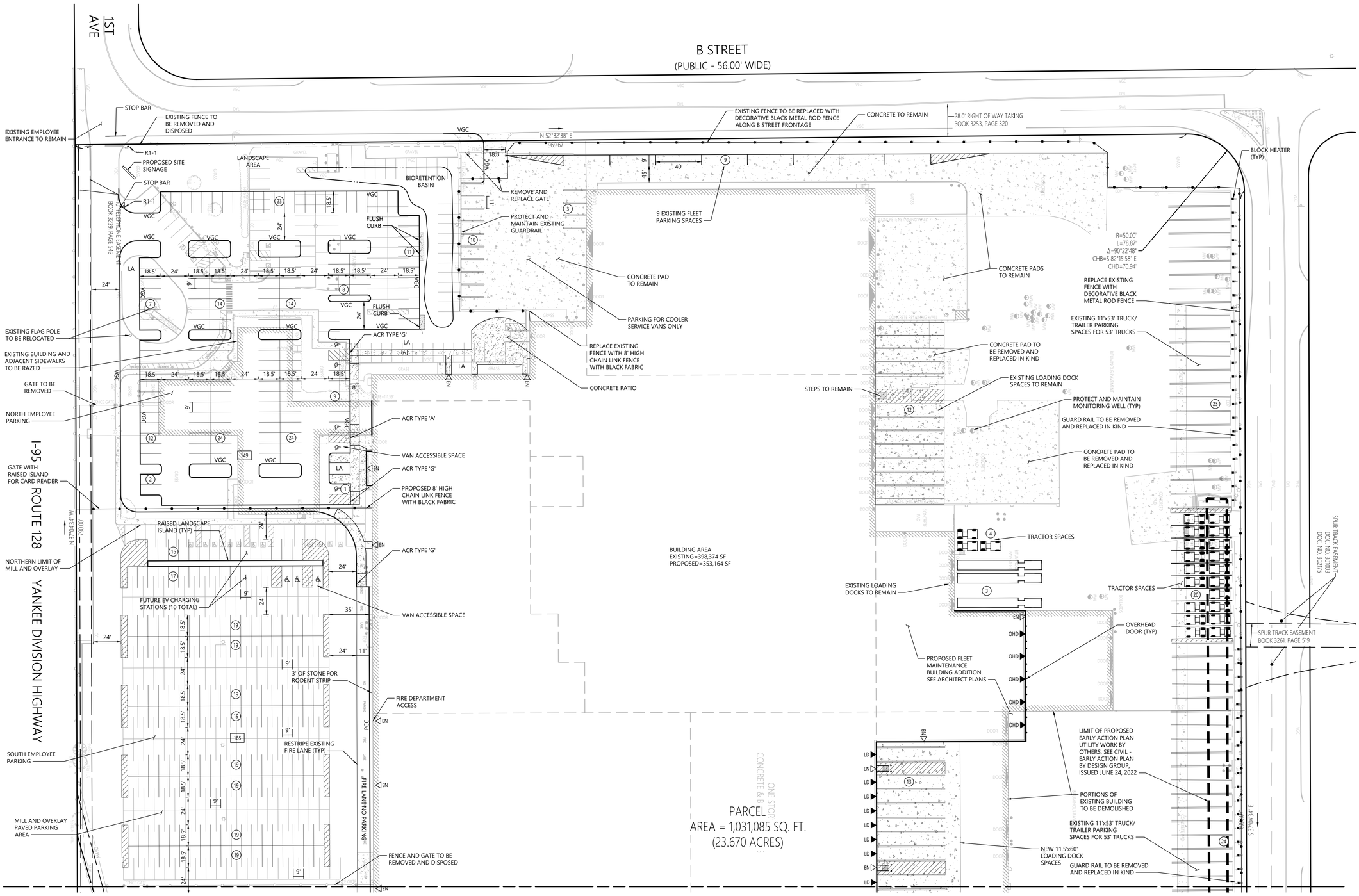

Match Line See Sheet C2.1

0 20 40 80 Feet

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Drawing Title
Layout and Materials Plan

Drawing Number
C2.2

Sheet 4 of 15

Project Number
15571.02

COMMONWEALTH OF MASSACHUSETTS
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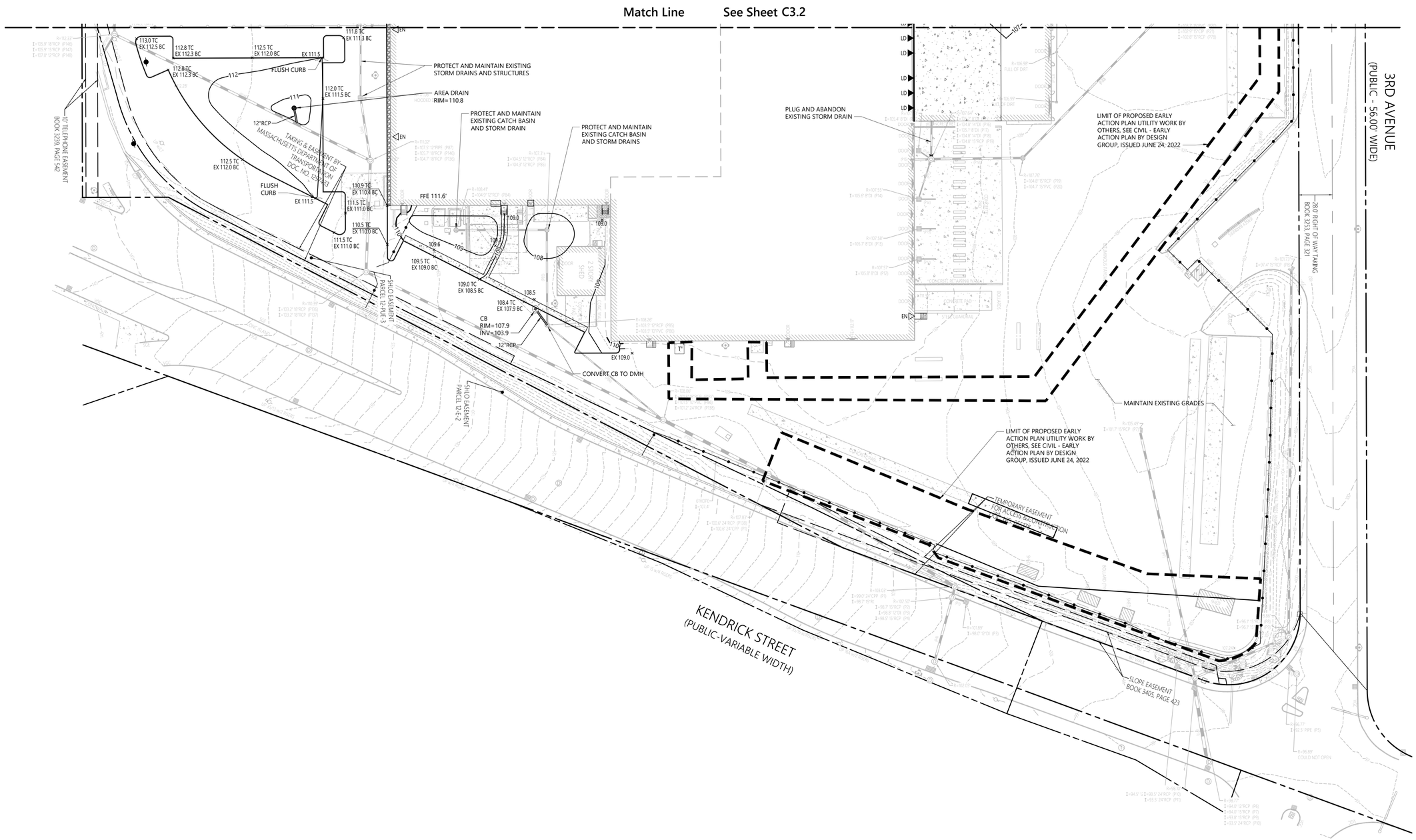

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Drawing Title
Grading and Drainage Plan

Drawing Number
C3.1

Sheet 5 of 15

Project Number
15571.02

COMMONWEALTH OF MASSACHUSETTS
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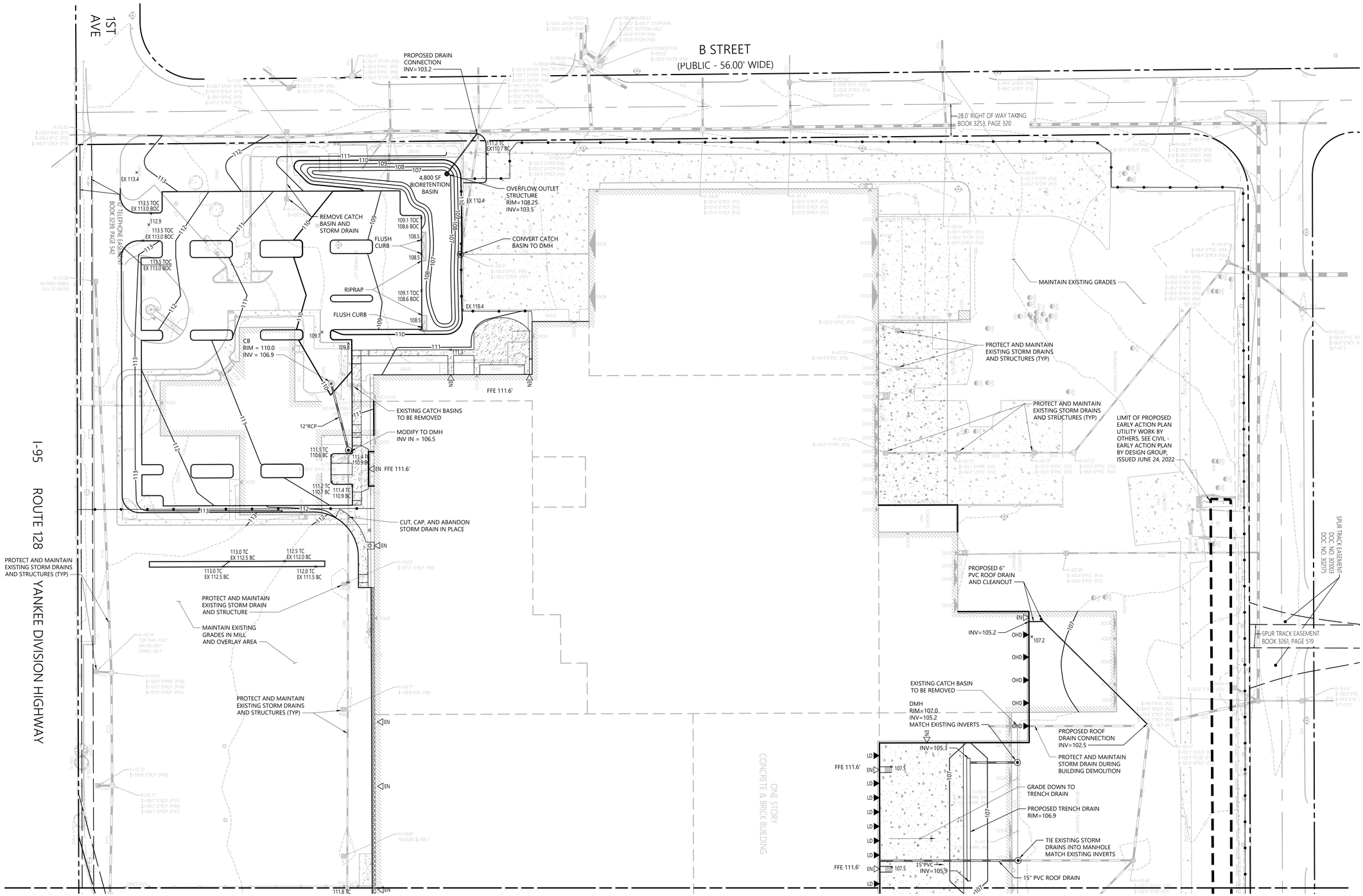

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Drawing Title: Grading and Drainage Plan

Drawing Number: C3.2

Sheet 6 of 15

Project Number: 15571.02

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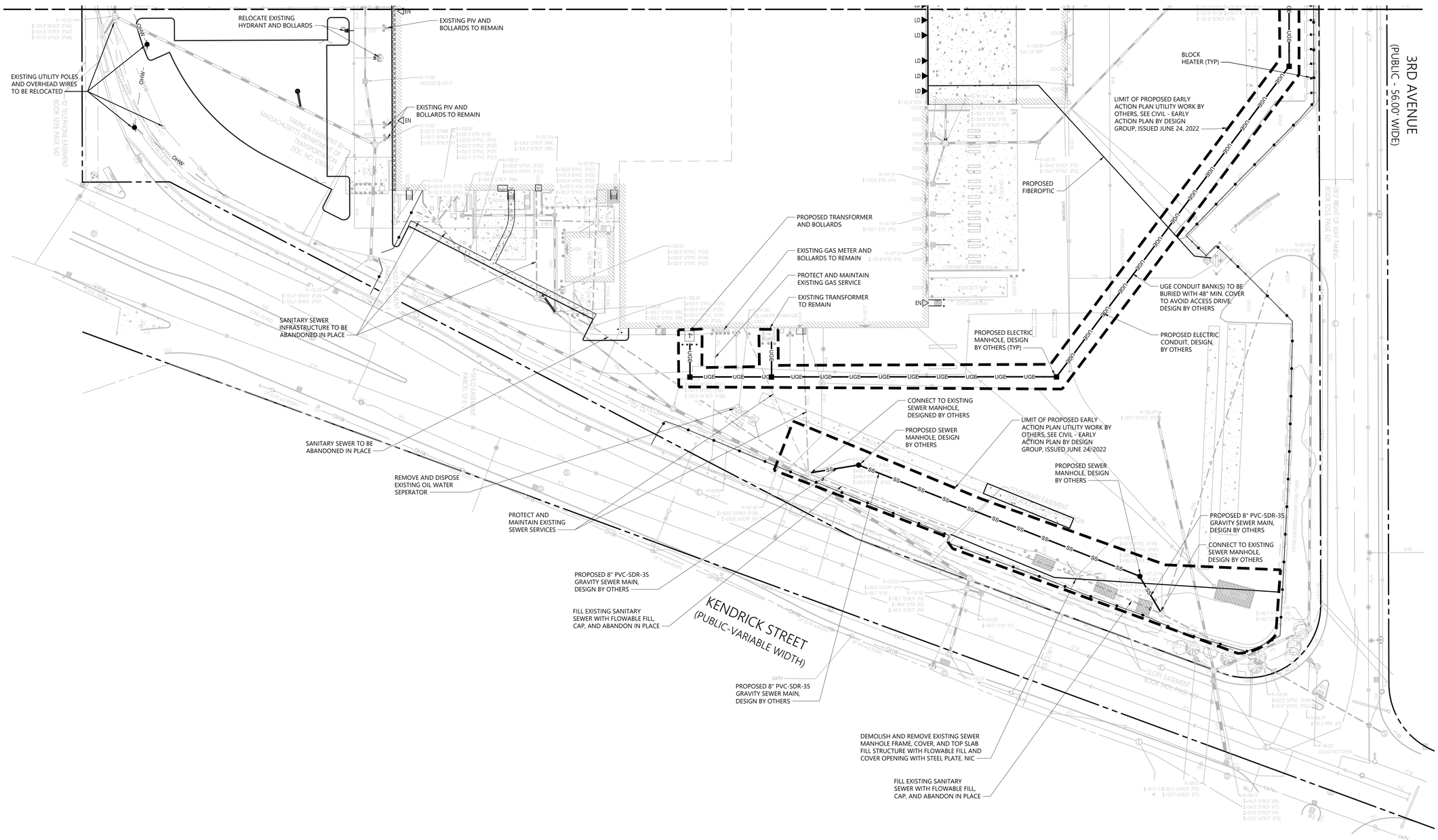

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Drawing Title
Utility Plan

Drawing Number
C4.1

Sheet 7 of 15

Project Number
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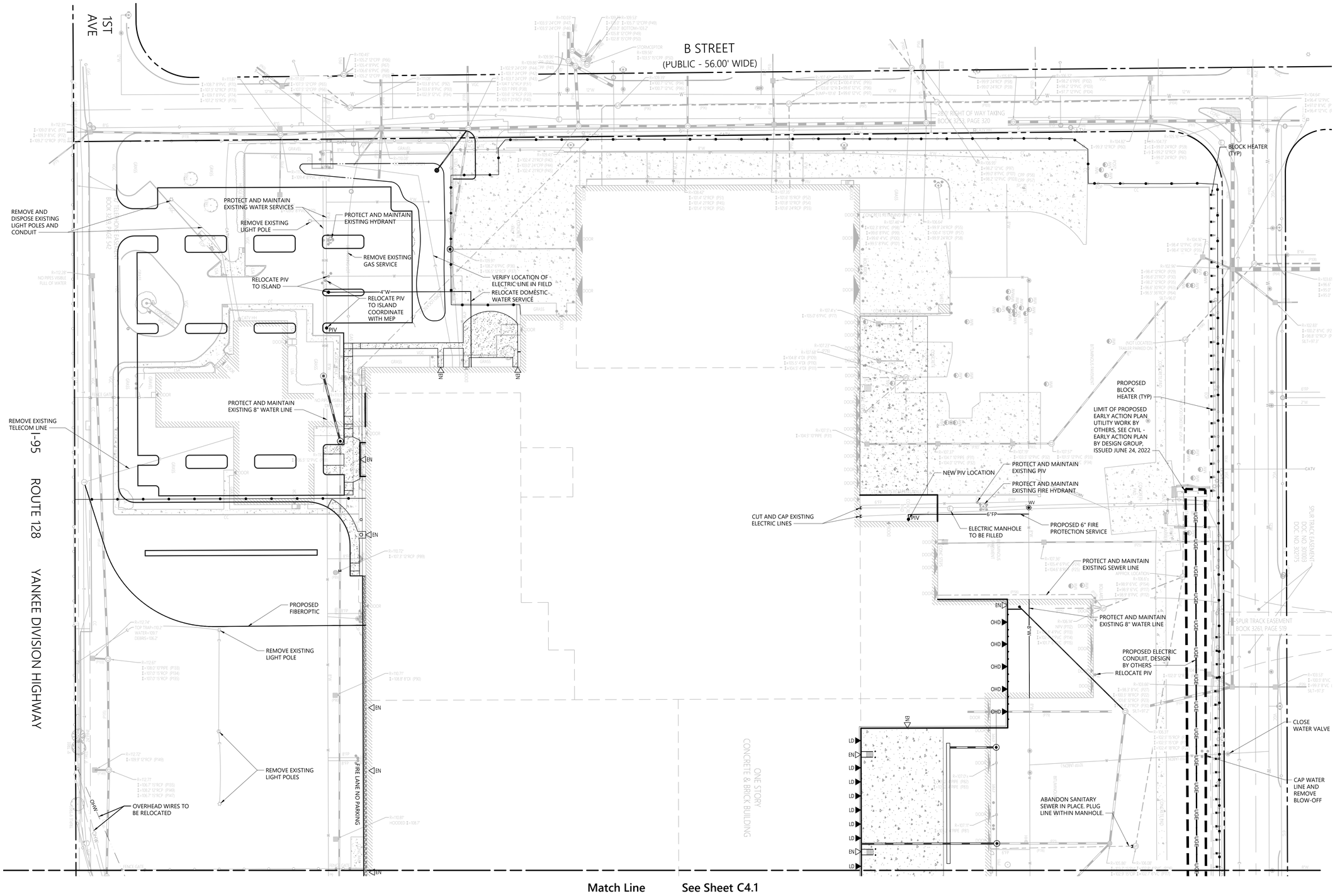

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Utility Plan

Drawing Number

C4.2

Sheet 8 of 15

Project Number 15571.02

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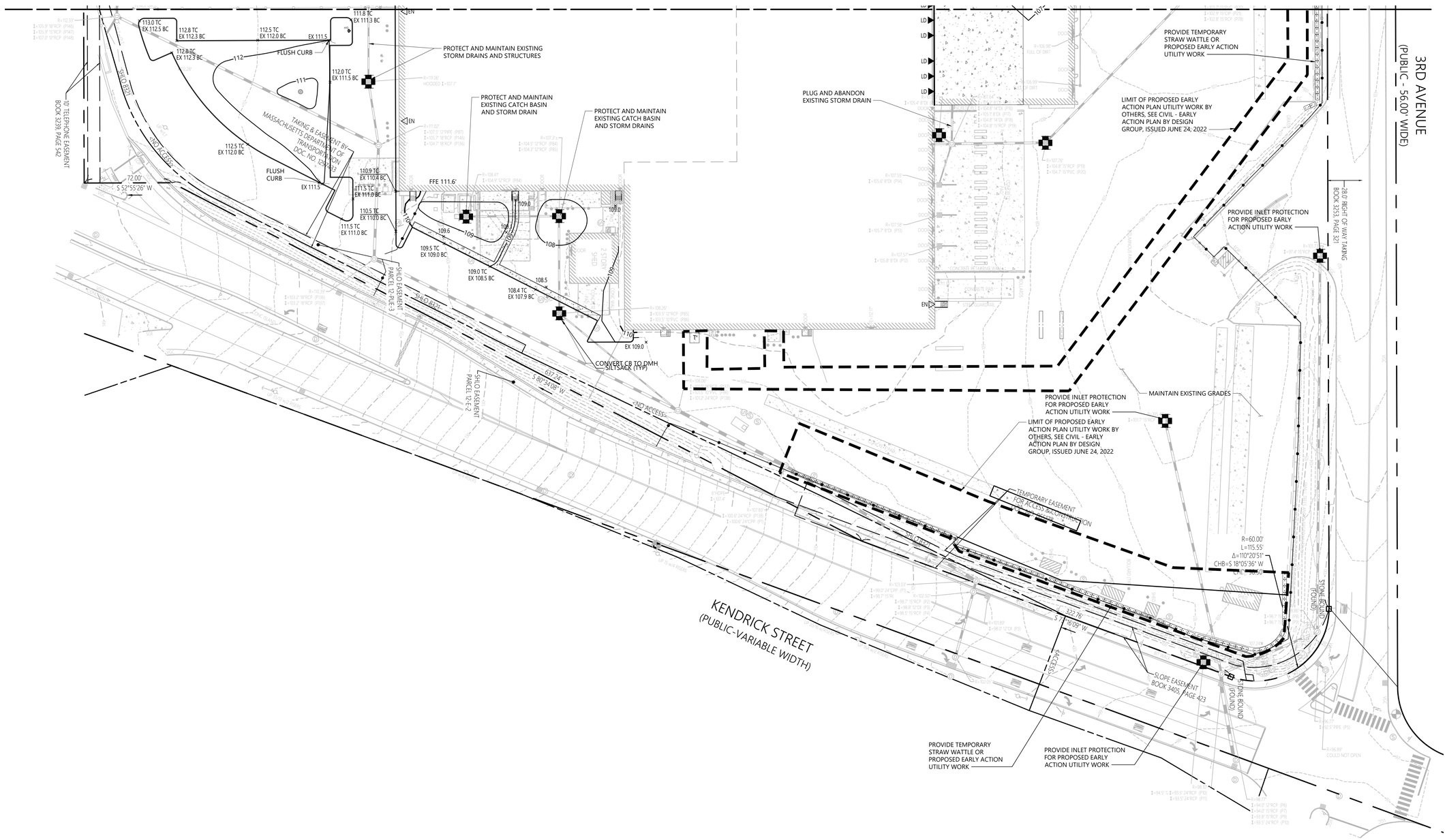

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Drawing Title
Erosion and Sediment Control Plan

Drawing Number
C5.1

Sheet 9 of 15

Project Number
15571.02

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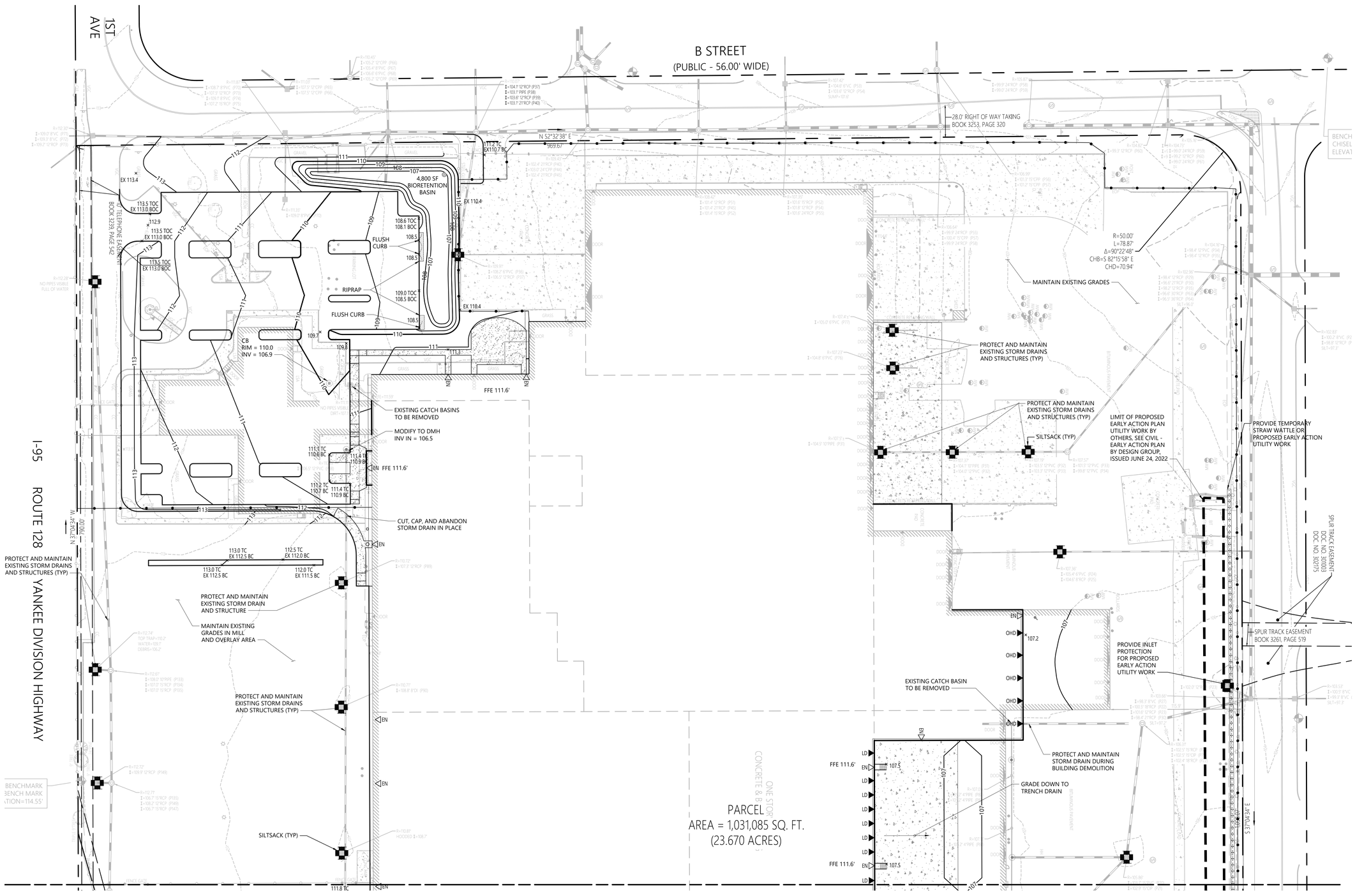

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Erosion and Sediment Control Plan

Drawing Number
C5.2

Sheet 10 of 15

Project Number
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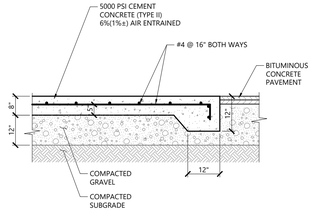


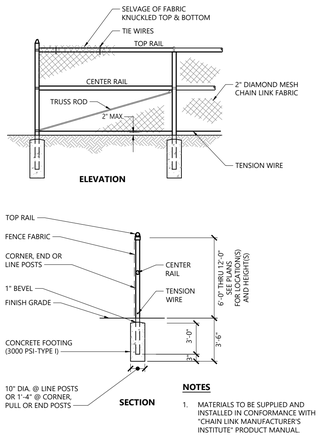
NOTES

1. SIZE OF PAD TO BE AS INDICATED ON PLANS.
2. CONSTRUCTION JOINTS SHALL BE SPACED NO MORE THAN 30 FEET ON CENTER AND SHALL BE EQUALLY SPACED OVER THE LENGTH AND WIDTH OF THE PAD.

Loading Dock Pad / Compactor Pad

1/20

N.T.S. Source: VHB LD_711



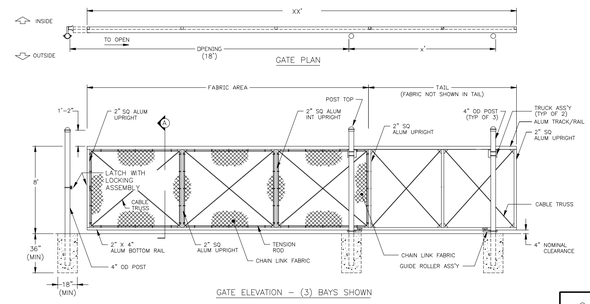
NOTES

1. MATERIALS TO BE SUPPLIED AND INSTALLED IN CONFORMANCE WITH "CHAIN LINK MANUFACTURER'S INSTITUTE" PRODUCT MANUAL.

6' to 12' Chain Link Fence

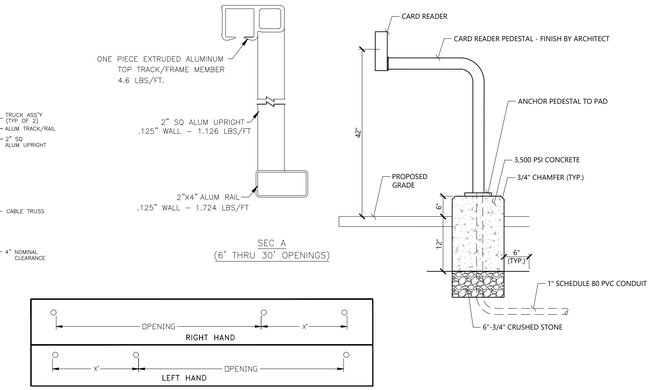
10/20

N.T.S. Source: VHB LD_480



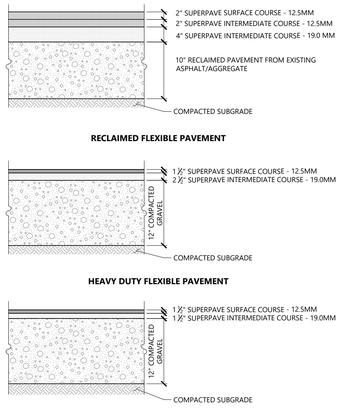
Notes:

1. GATE MOTOR AND CARD ACCESS CONTROL SYSTEM TO BE COMPATIBLE WITH COCA-COLA ACCESS CONTROL SYSTEM.
2. CONTRACTOR TO PROVIDE ALL MATERIALS AND HARDWARE NECESSARY FOR A COMPLETE AND OPERABLE SYSTEM.
3. GATE SHALL BE 16' SURTRAC ALUMINUM SLIDE GATE AS MANUFACTURED BY MASTER-HALCO, OR APPROVED EQUAL.



16' Motorized Slide Gate with Card Reader

N.T.S. Source: Master Haldo Inc.



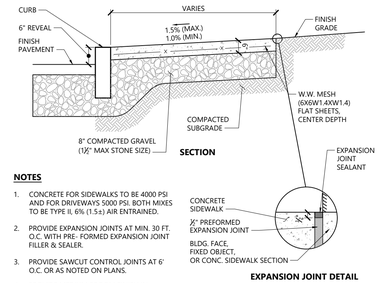
NOTES

PAVEMENT SECTIONS ARE SUBJECT TO CHANGE AND WILL BE BASED ON THE RESULTS OF FURTHER GEOTECHNICAL INVESTIGATIONS.

Bituminous Concrete Pavement Sections

11/19

N.T.S. Source: VHB LD_430



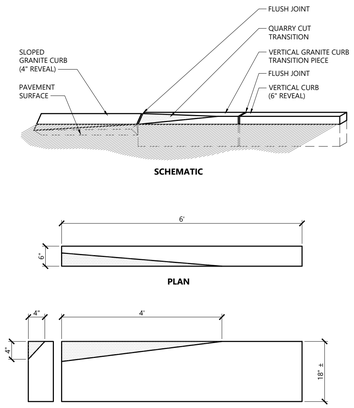
NOTES

1. CONCRETE FOR SIDEWALKS TO BE 4000 PSI AND FOR DRIVEWAYS 5000 PSI. BOTH MIXES TO BE TYPE II, 6% (1.5±) AIR ENTRAINED.
2. PROVIDE EXPANSION JOINTS AT MIN. 30 FT. O.C. WITH PRE- FORMED EXPANSION JOINT FILLER & SEALER.
3. PROVIDE SAWCUT CONTROL JOINTS AT 6' O.C. OR AS NOTED ON PLANS.
4. PROVIDE MEDIUM BROOM FINISH IN DIRECTION PERPENDICULAR TO CURB.
5. ALL EXPOSED CONCRETE SURFACES SHALL BE SEALED WITH A SILANE-SILOXANE PRODUCT.

Concrete Sidewalk

3/20

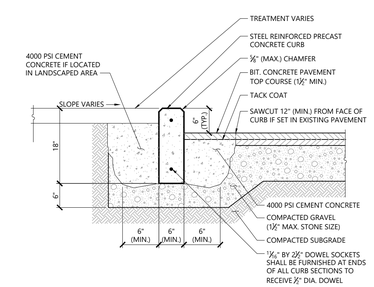
N.T.S. Source: VHB LD_420



Vertical Granite Curb (VGC) Transition

1/16

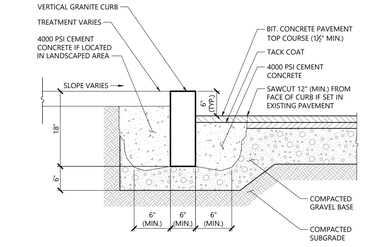
N.T.S. Source: VHB LD_415



Precast Concrete Curb (PCC)

3/20

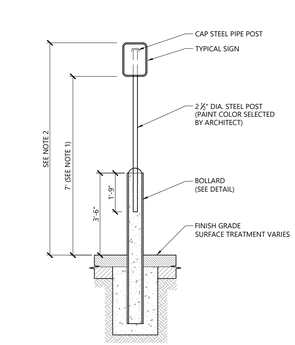
N.T.S. Source: VHB LD_404



Vertical Granite Curb (VGC)

3/20

N.T.S. Source: VHB LD_402

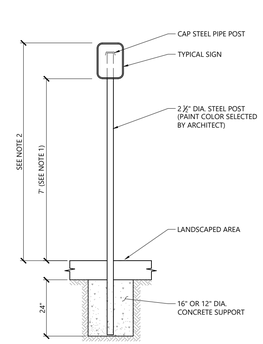


1. THIS DIMENSION SHALL BE A MINIMUM OF 5' FOR ACCESSIBLE SIGNAGE.
2. THIS DIMENSION SHALL BE A MAXIMUM OF 8' FOR ACCESSIBLE SIGNAGE

Bollard Mounted Sign

2/20

N.T.S. Source: VHB LD_703

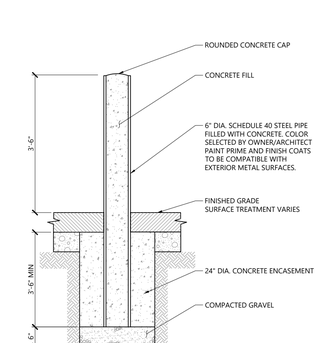


1. THIS DIMENSION SHALL BE A MINIMUM OF 5' FOR ACCESSIBLE SIGNAGE.
2. THIS DIMENSION SHALL BE A MAXIMUM OF 8' FOR ACCESSIBLE SIGNAGE

Sign Post - Type 'A'

3/19

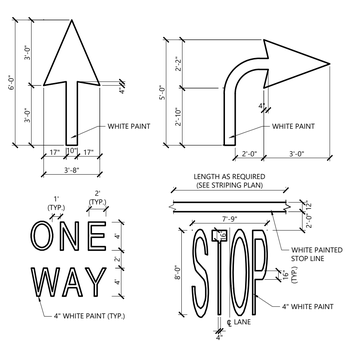
N.T.S. Source: VHB LD_701



Bollard

12/19

N.T.S. Source: VHB LD_700



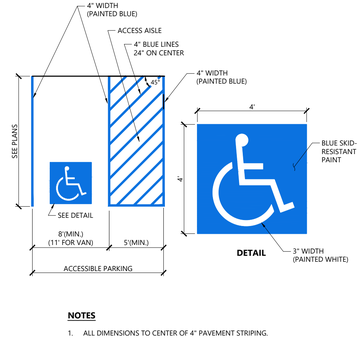
NOTES

1. PAVEMENT MARKINGS TO BE INSTALLED FOR ON SITE WORK IN LOCATIONS SHOWN.

Painted Pavement Markings - On Site

1/16

N.T.S. Source: VHB LD_554



NOTES

1. ALL DIMENSIONS TO CENTER OF 4" PAVEMENT STRIPING.
2. ALL SLOPES THROUGHOUT THE ACCESSIBLE PARKING AND AISLE AREAS SHALL NOT EXCEED 1.5%.

Accessible Parking Space

12/19

N.T.S. Source: VHB LD_552A

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Drawing Number

C6.1

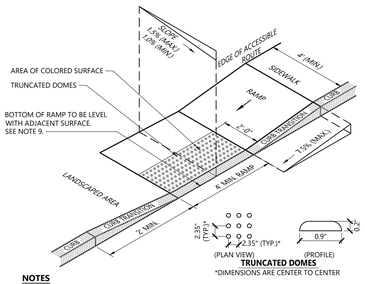
Sheet 11 of 15

Project Number

15571.02

COMMONWEALTH OF MASSACHUSETTS
CHRISTOPHER NOWAK
CIVIL
No. 41843
REGISTERED PROFESSIONAL ENGINEER

Saved Monday, August 29, 2022 11:45:24 AM CMERRIKIN Plotted Monday, August 29, 2022 5:39:32 PM Shane Michniewicz

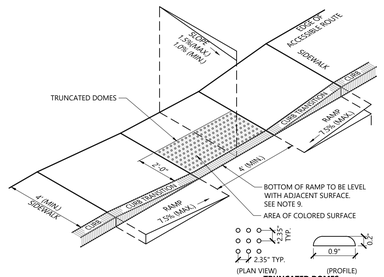


NOTES

1. THE MAXIMUM ALLOWABLE SIDEWALK AND CURB RAMP CROSS SLOPES SHALL BE 1.5 (1% MIN.).
2. THE MAXIMUM ALLOWABLE SLOPE OF ACCESSIBLE ROUTE EXCLUDING CURB RAMPS SHALL BE 5%.
3. THE MAXIMUM ALLOWABLE SLOPE OF ACCESSIBLE ROUTE AT CURB RAMPS SHALL BE 7.5%.
4. A MINIMUM OF 3 FEET CLEAR SHALL BE MAINTAINED AT ANY PERMANENT OBSTACLE IN ACCESSIBLE ROUTE (I.E., HYDRANTS, UTILITY POLES, TREE WELLS, SIGNS, ETC.).
5. CURB TREATMENT VARIES, SEE PLANS FOR CURB TYPE.
6. RAMP, CURB AND ADJACENT PAVEMENTS SHALL BE GRADED TO PREVENT PONDING.
7. SEE TYPICAL SIDEWALK SECTION FOR RAMP CONSTRUCTION.
8. WHERE ACCESSIBLE ROUTES ARE LESS THAN 5' IN WIDTH (EXCLUDING CURBING) A 5' x 5' PASSING AREA SHALL BE PROVIDED AT INTERVALS NOT TO EXCEED 200 FEET.
9. ELIMINATE CURBING AT RAMP WHERE IT ABUTS ROADWAY, EXCEPT WHERE VERTICAL CURBING IS INDICATED ON THE DRAWINGS TO BE INSTALLED AND SET FLUSH.
10. DETECTABLE WARNINGS SHALL CONTRAST VISUALLY WITH ADJOINING SURFACES.
11. DETECTABLE WARNINGS SHALL BE INSTALLED PERPENDICULAR TO THE ACCESSIBLE ROUTE.
12. CONTRACTOR TO SUBMIT R.F.I. FOR THIS TYPE OF ACCESSIBLE CURB RAMP FOR APEX ROADWAY CROSSINGS.

Accessible Curb Ramp (ACR) Type 'G-D' 12/20

N.T.S. Source: VHB LD_506

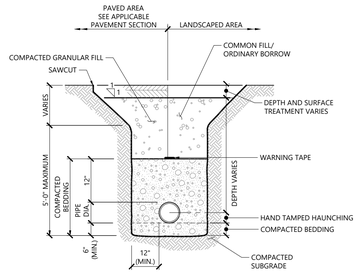


NOTES

1. THE MAXIMUM ALLOWABLE SIDEWALK AND CURB RAMP CROSS SLOPES SHALL BE 1.5 (1% MIN.).
2. THE MAXIMUM ALLOWABLE SLOPE OF ACCESSIBLE ROUTE EXCLUDING CURB RAMPS SHALL BE 5%.
3. THE MAXIMUM ALLOWABLE SLOPE OF ACCESSIBLE ROUTE AT CURB RAMPS SHALL BE 7.5%.
4. A MINIMUM OF 3 FEET CLEAR SHALL BE MAINTAINED AT ANY PERMANENT OBSTACLE IN ACCESSIBLE ROUTE (I.E., HYDRANTS, UTILITY POLES, TREE WELLS, SIGNS, ETC.).
5. CURB TREATMENT VARIES, SEE PLANS FOR CURB TYPE.
6. RAMP, CURB, AND ADJACENT PAVEMENTS SHALL BE GRADED TO PREVENT PONDING.
7. SEE TYPICAL SIDEWALK SECTION FOR RAMP CONSTRUCTION.
8. WHERE ACCESSIBLE ROUTES ARE LESS THAN 5' IN WIDTH (EXCLUDING CURBING) A 5' x 5' PASSING AREA SHALL BE PROVIDED AT INTERVALS NOT TO EXCEED 200 FEET.
9. ELIMINATE CURBING AT RAMP (OTHER THAN VERTICAL CURBING, WHICH SHALL BE SET FLUSH) WHERE IT ABUTS ROADWAY
10. DETECTABLE WARNINGS SHALL CONTRAST VISUALLY WITH ADJOINING SURFACES.
11. DETECTABLE WARNINGS SHALL BE INSTALLED PERPENDICULAR TO ACCESSIBLE ROUTE.

Accessible Curb Ramp (ACR) Type 'A-D' 12/20

N.T.S. Source: VHB LD_500

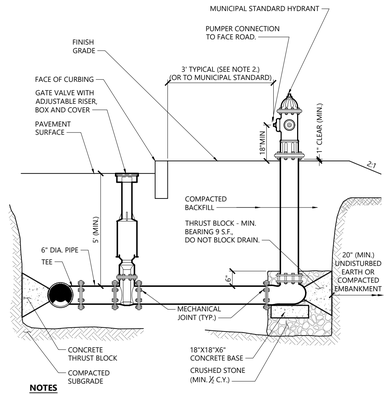


NOTES

1. WHERE UTILITY TRENCHES ARE CONSTRUCTED THROUGH DETENTION BASIN BERMS OR OTHER SUCH SPECIAL SECTIONS, PLACE TRENCH BACKFILL WITH MATERIALS SIMILAR TO THE SPECIAL SECTION REQUIREMENTS.
2. USE METALLIC TRACING/WARNING TAPE OVER ALL PIPES.
3. COMPACTED GRANULAR FILL MAY CONSIST OF GRAVEL, CRUSHED STONE, SAND, OR OTHER MATERIAL AS APPROVED BY ENGINEER.

Utility Trench 11/19

N.T.S. Source: VHB LD_300

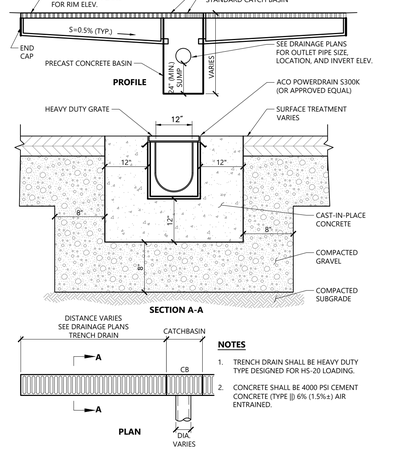


NOTES

1. CONCRETE THRUST BLOCKS TO BE USED ONLY WHERE THEY CAN BEAR ON UNDISTURBED EARTH AS SHOWN. USE CLAMPS AND TIE RODS OR OTHER ACCEPTABLE METHOD OF JOINT RESTRAINT WHERE SOIL CONDITIONS PROHIBIT THE USE OF THRUST BLOCKS.
2. HYDRANT IN SIDEWALK AREAS TO BE LOCATED TO PROVIDE MINIMUM CLEAR SIDEWALK PASSAGE WIDTH OF 3 FEET AT HYDRANT.
3. A 36-INCH CLEAR SPACE SHALL BE MAINTAINED AROUND THE CIRCUMFERENCE OF THE HYDRANT UNLESS OTHERWISE APPROVED BY AUTHORITY HAVING JURISDICTION.

Hydrant Construction 12/19

N.T.S. Source: VHB LD_250

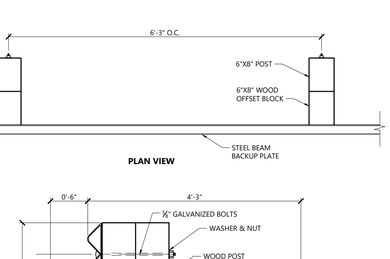


NOTES

1. TRENCH DRAIN SHALL BE HEAVY DUTY TYPE DESIGNED FOR HS-20 LOADING.
2. CONCRETE SHALL BE 4000 PSI CEMENT CONCRETE (TYPE ||) 6% (1.5%±) AIR ENTRAINED.

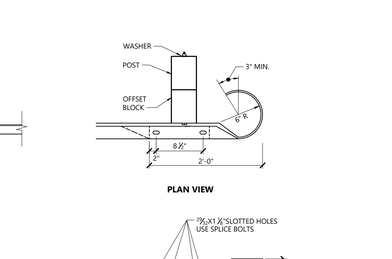
Trench Drain (Heavy Duty) 12/19

N.T.S. Source: VHB LD_190-B



Cleanout (CO) 12/19

N.T.S. Source: VHB LD_303

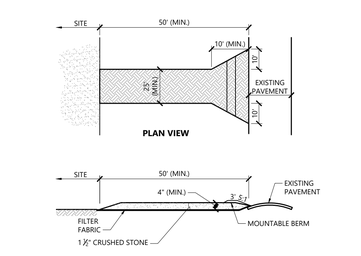


NOTES

1. INSTALL UNDERDRAINS AT 10 FEET ON CENTER. CONNECT TO DRAINS PER PLAN.
2. SIDE SLOPES SHALL BE 3:1 MAX. 2% MIN.

Bioretention Basin 3/20

N.T.S. Source: VHB LD_199

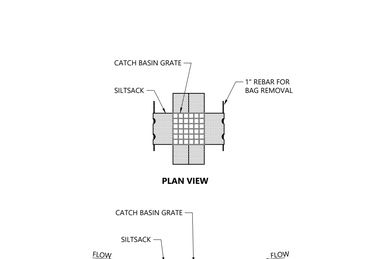


NOTES:

1. AREA DRAINS SHALL BE NYLOPLAST 12" DIAMETER DRAIN BASIN, OR APPROVED EQUAL.
2. GRATES SHALL BE NYLOPLAST 12" PEDESTRIAN MODEL 1299CGP OR 12" DOME GRATE MODEL 1299CGD (OR APPROVED EQUAL).

Area Drain (AD) Type 1 12/19

N.T.S. Source: VHB LD_193

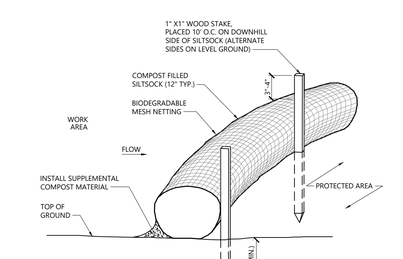


NOTES

1. ALL SECTIONS SHALL BE DESIGNED FOR HS-20 LOADING. DIAMETER OF STRUCTURES SHALL BE COORDINATED WITH PIPE CONFIGURATIONS.
2. COPOLYMER MANHOLE STEPS SHALL BE INSTALLED AT 12" O.C. FOR THE FULL DEPTH OF THE STRUCTURE.
3. FOR HDPE, PVC, AND DI PIPE, PROVIDE FLEXIBLE BOOT CONNECTION INSTALLED PER MANUFACTURER'S RECOMMENDATIONS. FOR RCP, PROVIDE OPENINGS FOR PIPES WITH 2" MAX. CLEARANCE TO OUTSIDE OF PIPE AND MORTAR CONNECTIONS.
4. JOINT SEALANT BETWEEN PRECAST SECTIONS SHALL BE PREFORMED BUTYL RUBBER.
5. DRAIN MANHOLE FRAME AND COVER SHALL BE SET IN FULL MORTAR BED. ADJUST TO GRADE WITH CLAY BRICK AND MORTAR (2 BRICK COURSES TYPICALLY, 5 BRICK COURSES MAXIMUM)

Drain Manhole (DMH) 11/19

N.T.S. Source: VHB LD_115

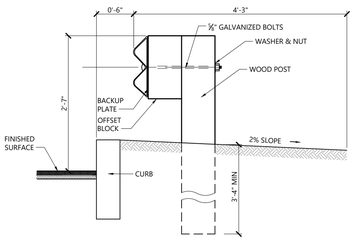


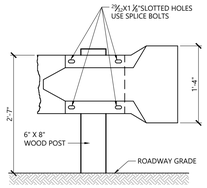
NOTES

1. ALL SECTIONS SHALL BE DESIGNED FOR HS-20 LOADING.
2. FOR HDPE, PVC, AND DI PIPE, PROVIDE FLEXIBLE BOOT CONNECTION INSTALLED PER MANUFACTURER'S RECOMMENDATIONS. FOR RCP, PROVIDE OPENINGS FOR PIPES WITH 2" MAX. CLEARANCE TO OUTSIDE OF PIPE AND MORTAR CONNECTIONS.
3. JOINT SEALANT BETWEEN PRECAST SECTIONS SHALL BE PREFORMED BUTYL RUBBER.
4. CATCH BASIN FRAME AND GRATE SHALL BE SET IN FULL MORTAR BED. ADJUST TO GRADE WITH CLAY BRICK AND MORTAR (2 BRICK COURSES TYPICALLY, 5 BRICK COURSES MAXIMUM).

Catch Basin (CB) With Oil/Debris Trap 3/21

N.T.S. Source: VHB LD_101





Steel Beam Guardrail with Wood Post 10/20

N.T.S. Source: VHB LD_455

NOTES

1. EXIT WIDTH SHALL BE A TWENTY-FIVE (25) FOOT MINIMUM. BUT NOT LESS THAN THE FULL WIDTH AT POINTS WHERE INGRESS OR EGRESS OCCURS.
2. THE EXIT SHALL BE MAINTAINED IN A CONDITION WHICH SHALL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND AND REPAIR OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT. ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC RIGHTS-OF-WAY MUST BE REMOVED IMMEDIATELY. BERM SHALL BE PERMITTED. PERIODIC INSPECTION AND MAINTENANCE SHALL BE PROVIDED AS NEEDED.
3. STABILIZED CONSTRUCTION EXIT SHALL BE REMOVED PRIOR TO FINAL FINISH MATERIALS BEING INSTALLED.

Stabilized Construction Exit 1/16

N.T.S. Source: VHB LD_682

NOTES

1. INSTALL SILTSACK IN ALL CATCH BASINS WHERE INDICATED ON THE PLAN BEFORE COMMENCING WORK OR IN PAVED AREAS AFTER BINDER COURSE IS PLACED AND HAY BALES HAVE BEEN REMOVED.
2. GRATE TO BE PLACED OVER SILTSACK.
3. SILTSACK SHALL BE INSPECTED PERIODICALLY AND AFTER ALL STORM EVENTS AND CLEANING OR REPLACEMENT SHALL BE PERFORMED PROMPTLY AS NEEDED. MAINTAIN UNTIL UPSTREAM AREAS HAVE BEEN PERMANENTLY STABILIZED

Siltsack Sediment Trap 1/20

N.T.S. Source: VHB LD_674

NOTES

1. SILTSOCK SHALL BE FILTREXX SILTSOXX, OR APPROVED EQUAL.
2. SILTSOCKS SHALL OVERLAP A MINIMUM OF 12 INCHES.
3. SILTSOCK SHALL BE INSPECTED PERIODICALLY AND AFTER ALL STORM EVENTS, AND REPAIR OR REPLACEMENT SHALL BE PERFORMED PROMPTLY AS NEEDED.
4. UPON SITE STABILIZATION, COMPOST MATERIAL SHALL BE DISPERSED ON SITE, AS DETERMINED BY THE ENGINEER.
5. IF NON BIODEGRADABLE NETTING IS USED THE NETTING SHALL BE COLLECTED AND DISPOSED OF OFFSITE.

Siltsock - Erosion Control Barrier 10/20

N.T.S. Source: VHB LD_658

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Site Plan Review August 29, 2022

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Drawing Title

Details

Drawing Number

C6.2

Sheet 12 of 15

Project Number 15571.02

COMMONWEALTH OF MASSACHUSETTS
CHRISTOPHER NOWAK
CIVIL
No. 41843
REGISTERED PROFESSIONAL ENGINEER

Saved Monday, August 29, 2022 11:45:24 AM CMERRIKIN Plotted Monday, August 29, 2022 5:39:35 PM Shane Michniewicz

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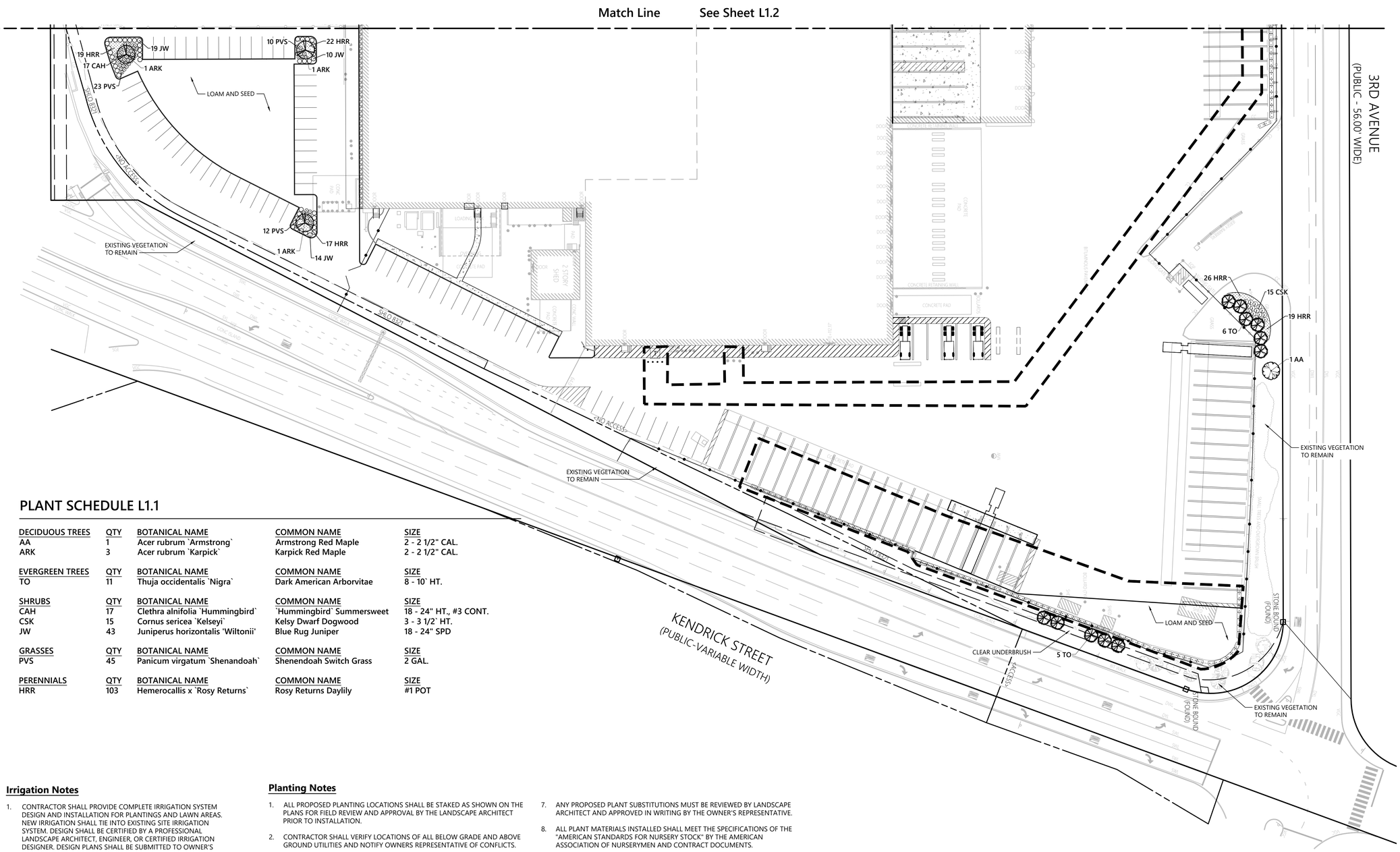

PLANT SCHEDULE L1.1

DECIDUOUS TREES	QTY	BOTANICAL NAME	COMMON NAME	SIZE
AA	1	Acer rubrum `Armstrong`	Armstrong Red Maple	2 - 2 1/2" CAL.
ARK	3	Acer rubrum `Karpick`	Karpick Red Maple	2 - 2 1/2" CAL.

EVERGREEN TREES	QTY	BOTANICAL NAME	COMMON NAME	SIZE
TO	11	Thuja occidentalis `Nigra`	Dark American Arborvitae	8 - 10` HT.

SHRUBS	QTY	BOTANICAL NAME	COMMON NAME	SIZE
CAH	17	Clethra alnifolia `Hummingbird`	`Hummingbird` Summersweet	18 - 24" HT., #3 CONT.
CSK	15	Cornus sericea `Kelseyi`	Kelsy Dwarf Dogwood	3 - 3 1/2` HT.
JW	43	Juniperus horizontalis 'Wiltonii'	Blue Rug Juniper	18 - 24" SPD

GRASSES	QTY	BOTANICAL NAME	COMMON NAME	SIZE
PVS	45	Panicum virgatum `Shenandoah`	Shenendoah Switch Grass	2 GAL.

PERENNIALS	QTY	BOTANICAL NAME	COMMON NAME	SIZE
HRR	103	Hemerocallis x `Rosy Returns`	Rosy Returns Daylily	#1 POT

Irrigation Notes

1. CONTRACTOR SHALL PROVIDE COMPLETE IRRIGATION SYSTEM DESIGN AND INSTALLATION FOR PLANTINGS AND LAWN AREAS. NEW IRRIGATION SHALL TIE INTO EXISTING SITE IRRIGATION SYSTEM. DESIGN SHALL BE CERTIFIED BY A PROFESSIONAL LANDSCAPE ARCHITECT, ENGINEER, OR CERTIFIED IRRIGATION DESIGNER. DESIGN PLANS SHALL BE SUBMITTED TO OWNER'S REPRESENTATIVE FOR APPROVAL.
2. CONTRACTOR AND IRRIGATION DESIGNER SHALL MEET WITH OWNER TO REVIEW EXISTING IRRIGATION HEAD MODELS, EXISTING CONTROLLER AND WATER SUPPLY, AND SHALL INCLUDE CONTROLLER EXPANSION MODULES OR OTHER ADJUSTMENTS TO EXISTING SYSTEM, IF REQUIRED, IN HIS BID.
3. CONTRACTOR SHALL PROVIDE ALL MATERIALS, LABOR, AND EQUIPMENT FOR THE COMPLETE INSTALLATION OF THE IRRIGATION SYSTEM.
4. CONTRACTOR SHALL PROVIDE DRAWINGS, MATERIAL SPECIFICATIONS, SCHEMATICS, AND OTHER LITERATURE AS MAY BE REQUIRED, FOR ALL CONDUIT, CONTROLS,TIMERS, VALVES, SPRINKLER HEADS, CONNECTORS, WIRING, RAIN GAUGE, ETC. TO THE OWNER'S CONSTRUCTION MANAGER FOR APPROVAL PRIOR TO INSTALLATION.
5. CONTRACTOR SHALL COORDINATE HIS WORK WITH THE GENERAL CONTRACTOR AND SUB CONTRACTORS.
6. SITE CONTRACTOR SHALL PROVIDE 4" SCHEDULE 40 PVC SLEEVES UNDER PAVEMENT TO PROVIDE ACCESS FOR IRRIGATION LINES TO ALL IRRIGATED AREAS.

Planting Notes

1. ALL PROPOSED PLANTING LOCATIONS SHALL BE STAKED AS SHOWN ON THE PLANS FOR FIELD REVIEW AND APPROVAL BY THE LANDSCAPE ARCHITECT PRIOR TO INSTALLATION.
2. CONTRACTOR SHALL VERIFY LOCATIONS OF ALL BELOW GRADE AND ABOVE GROUND UTILITIES AND NOTIFY OWNERS REPRESENTATIVE OF CONFLICTS.
3. NO PLANT MATERIALS SHALL BE INSTALLED UNTIL ALL GRADING AND CONSTRUCTION HAS BEEN COMPLETED IN THE IMMEDIATE AREA. CONTRACTOR SHALL NOTIFY OWNER'S REPRESENTATIVE OF ANY CONFLICT.
4. A 3-INCH DEEP MULCH PER SPECIFICATION SHALL BE INSTALLED UNDER ALL TREES AND SHRUBS, AND IN ALL PLANTING BEDS, UNLESS OTHERWISE INDICATED ON THE PLANS, OR AS DIRECTED BY OWNER'S REPRESENTATIVE.
5. ALL TREES SHALL BE BALLED AND BURLAPPED, UNLESS OTHERWISE NOTED IN THE DRAWINGS OR SPECIFICATION, OR APPROVED BY THE OWNER'S REPRESENTATIVE.
6. FINAL QUANTITY FOR EACH PLANT TYPE SHALL BE AS GRAPHICALLY SHOWN ON THE PLAN. THIS NUMBER SHALL TAKE PRECEDENCE IN CASE OF ANY DISCREPANCY BETWEEN QUANTITIES SHOWN ON THE PLANT LIST AND ON THE PLAN. THE CONTRACTOR SHALL REPORT ANY DISCREPANCIES BETWEEN THE NUMBER OF PLANTS SHOWN ON THE PLANT LIST AND PLANT LABELS PRIOR TO BIDDING.
7. ANY PROPOSED PLANT SUBSTITUTIONS MUST BE REVIEWED BY LANDSCAPE ARCHITECT AND APPROVED IN WRITING BY THE OWNER'S REPRESENTATIVE.
8. ALL PLANT MATERIALS INSTALLED SHALL MEET THE SPECIFICATIONS OF THE "AMERICAN STANDARDS FOR NURSERY STOCK" BY THE AMERICAN ASSOCIATION OF NURSERYMEN AND CONTRACT DOCUMENTS.
9. ALL PLANT MATERIALS SHALL BE GUARANTEED FOR ONE YEAR FOLLOWING DATE OF FINAL ACCEPTANCE.
10. AREAS DESIGNATED "LOAM & SEED" SHALL RECEIVE MINIMUM 6" OF LOAM AND SPECIFIED SEED MIX. LAWNS OVER 2:1 SLOPE SHALL BE PROTECTED WITH EROSION CONTROL FABRIC.
11. ALL DISTURBED AREAS NOT OTHERWISE NOTED ON CONTRACT DOCUMENTS SHALL BE LOAM AND SEEDED OR MULCHED AS DIRECTED BY OWNER'S REPRESENTATIVE.
12. THIS PLAN IS INTENDED FOR PLANTING PURPOSES. REFER TO SITE / CIVIL DRAWINGS FOR ALL OTHER SITE CONSTRUCTION INFORMATION.
13. AREAS DESIGNATED "WETMIX" SHALL RECEIVE A LIGHT MULCH OF CLEAN, WEED FREE STRAW

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No.	Revision	Date	Appvd.

Designed by
Checked by EB
Issued for
Date

Site Plan Review August 29, 2022

Not Approved for Construction

Drawing Title
Planting Plan

Drawing Number
L1.1

Sheet 13 of 15

Project Number
15571.00

COMMONWEALTH OF MASSACHUSETTS
ERIK BEDNARCZYK
REGISTERED LANDSCAPE ARCHITECT
NO. 1508
2022.08.29

Saved Tuesday, August 16, 2022 1:26:01 PM JOSHUALEMIEUX Plotted Monday, August 29, 2022 11:05:41 AM Joshua Lemieux

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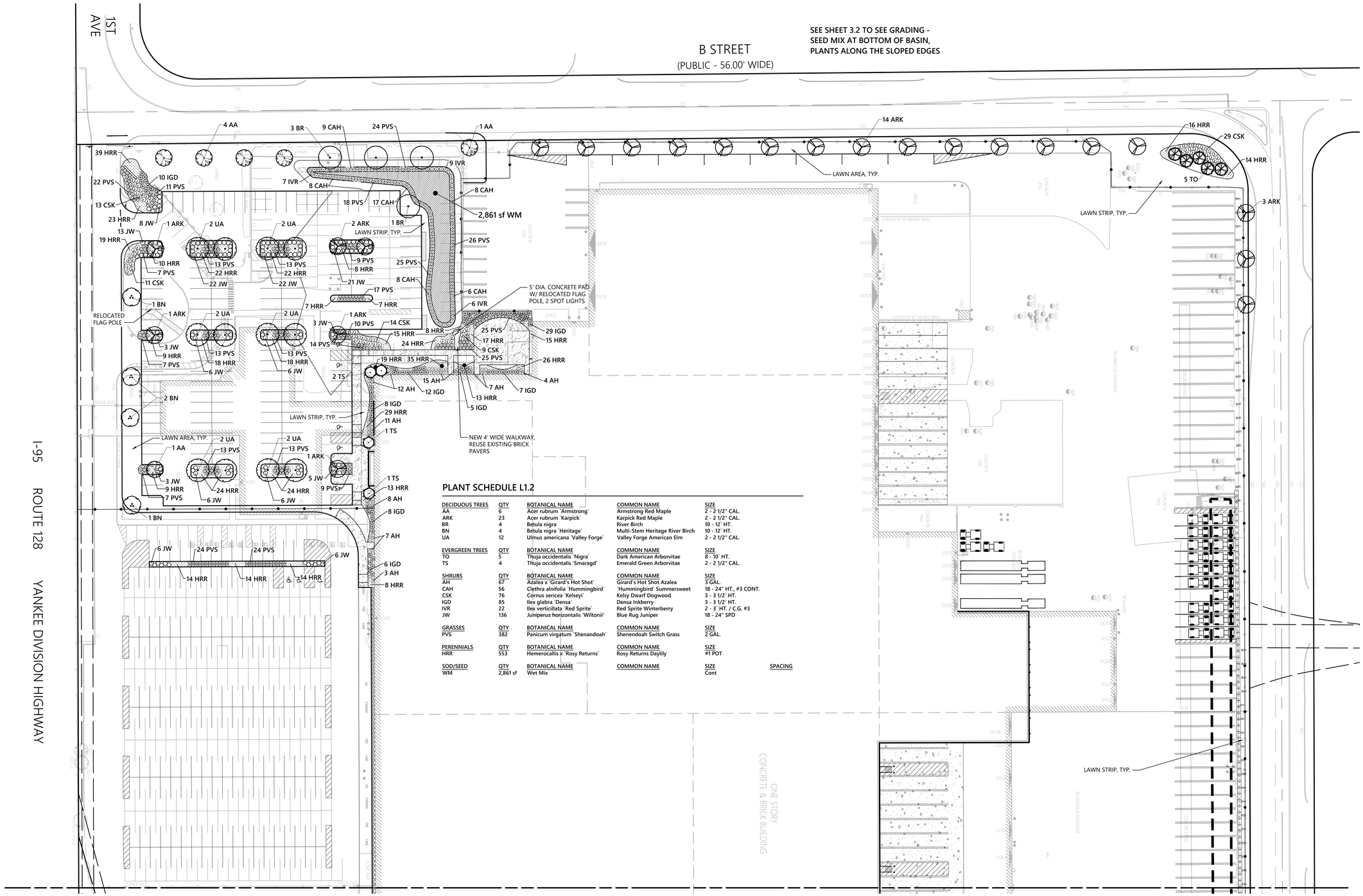

PLANT SCHEDULE L1.2

DECIDUOUS TREES	QTY	BOTANICAL NAME	COMMON NAME	SIZE
AA	6	Acer rubrum `Armstrong`	Armstrong Red Maple	2 - 2 1/2" CAL.
ARK	23	Acer rubrum `Karpick`	Karpick Red Maple	2 - 2 1/2" CAL.
BR	4	Betula nigra	River Birch	10 - 12` HT.
BN	4	Betula nigra `Heritage`	Multi-Stem Heritage River Birch	10 - 12` HT.
UA	12	Ulmus americana `Valley Forge`	Valley Forge American Elm	2 - 2 1/2" CAL.
EVERGREEN TREES	**QTY**	**BOTANICAL NAME**	**COMMON NAME**	**SIZE**
TO	5	Thuja occidentalis `Nigra`	Dark American Arborvitae	8 - 10` HT.
TS	4	Thuja occidentalis `Smaragd`	Emerald Green Arborvitae	2 - 2 1/2" CAL.
SHRUBS	**QTY**	**BOTANICAL NAME**	**COMMON NAME**	**SIZE**
AH	67	Azalea x `Girard's Hot Shot`	Girard's Hot Shot Azalea	3 GAL.
CAH	56	Clethra alnifolia `Hummingbird`	`Hummingbird` Summersweet	18 - 24" HT., #3 CONT.
CSK	76	Cornus sericea `Kelseyi`	Kelsy Dwarf Dogwood	3 - 3 1/2' HT.
IGD	85	Ilex glabra `Densa`	Densa Inkberry	3 - 3 1/2' HT.
IVR	22	Ilex verticillata `Red Sprite`	Red Sprite Winterberry	2 - 3` HT. / C.G. #3
JW	136	Juniperus horizontalis `Wiltonii`	Blue Rug Juniper	18 - 24" SPD
GRASSES	**QTY**	**BOTANICAL NAME**	**COMMON NAME**	**SIZE**
PVS	382	Panicum virgatum `Shenandoah`	Shenendoah Switch Grass	2 GAL.
PERENNIALS	**QTY**	**BOTANICAL NAME**	**COMMON NAME**	**SIZE**
HRR	553	Hemerocallis x `Rosy Returns`	Rosy Returns Daylily	#1 POT
SOD/SEED	**QTY**	**BOTANICAL NAME**	**COMMON NAME**	**SIZE** **SPACING**
WM	2,861 sf	Wet Mix		Cont

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0 20 40 80 Feet

Coca-Cola Site

9 B Street
Needham, Massachusetts 02494

No.	Revision	Date	Appvd.

Designed by
Checked by EB

Issued for
Site Plan Review
Date August 29, 2022

Not Approved for Construction

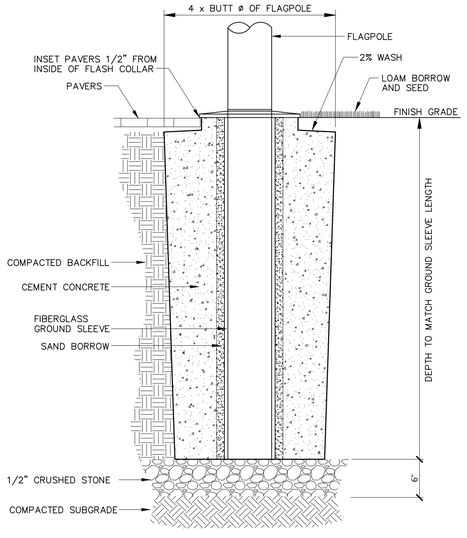
Drawing Title
Planting Plan

Drawing Number
L1.2

Sheet 14 of 15

Project Number
15571.02

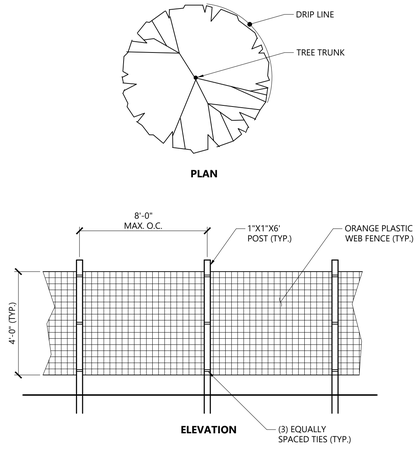
Saved Tuesday, August 16, 2022 1:26:01 PM JOSHUALEMIEUX Plotted Monday, August 29, 2022 11:05:56 AM Joshua Lemieux



Flagpole Footing

9/21

N.T.S. Source: VHB LD_



NOTES

1. INSTALL TREE PROTECTION FENCE AT THE DRIP LINE OF EXISTING TREES TO REMAIN.

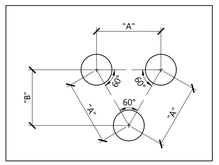
Tree Protection Fence

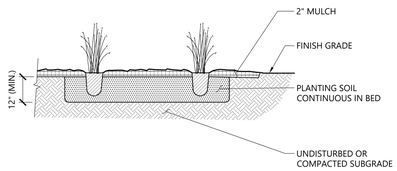
1/16

N.T.S. Source: VHB LD_610

PLANT SPACING

PLANT SPACING("A")	ROW SPACING ("B")
6 IN. O.C.	5 IN. O.C.
8 IN. O.C.	7 IN. O.C.
10 IN. O.C.	8 ½ IN. O.C.
12 IN. O.C.	10 ½ IN. O.C.
15 IN. O.C.	13 IN. O.C.
18 IN. O.C.	16 IN. O.C.
24 IN. O.C.	21 IN. O.C.
30 IN. O.C.	26 IN. O.C.
36 IN. O.C.	30 IN. O.C.
48 IN. O.C.	42 IN. O.C.
54 IN. O.C.	48 IN. O.C.
60 IN. O.C.	54 IN. O.C.

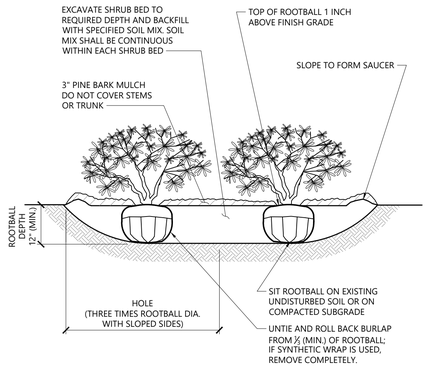




Perennial and Ornamental Grass Planting

1/16

N.T.S. Source: VHB LD_618



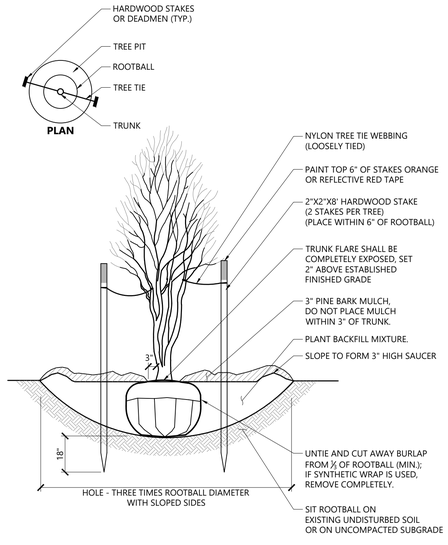
NOTES

1. LOOSEN ROOTS AT THE OUTER EDGE OF ROOTBALL OF CONTAINER GROWN SHRUBS.

Shrub Bed Planting

1/16

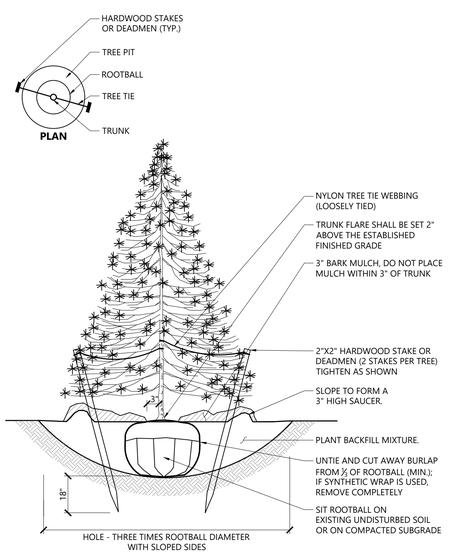
N.T.S. Source: VHB LD_601



Multistem Tree Planting

9/21

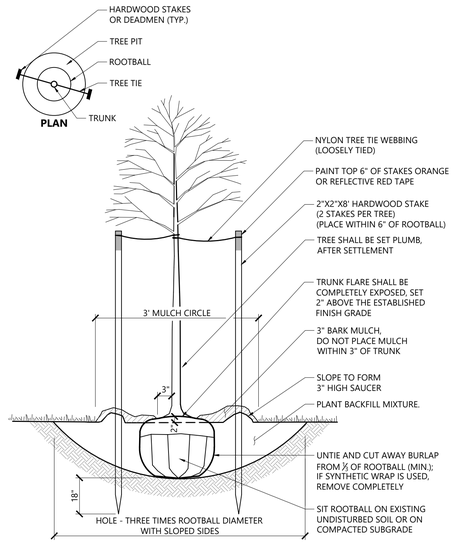
N.T.S. Source: VHB LD_606



Evergreen Tree Planting

9/21

N.T.S. Source: VHB LD_604



Tree Planting (For Trees Under 4" Caliper)

9/21

N.T.S. Source: VHB LD_602

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Coca-Cola Site

9 B Street
Needham, Massachusetts 02494

No.	Revision	Date	Appvd.

Designed by | Checked by: FD

Issued for | Date

Site Plan Review — August 29, 2022

Not Approved for Construction

Drawing Title

Planting Details

Drawing Number

L-2.1

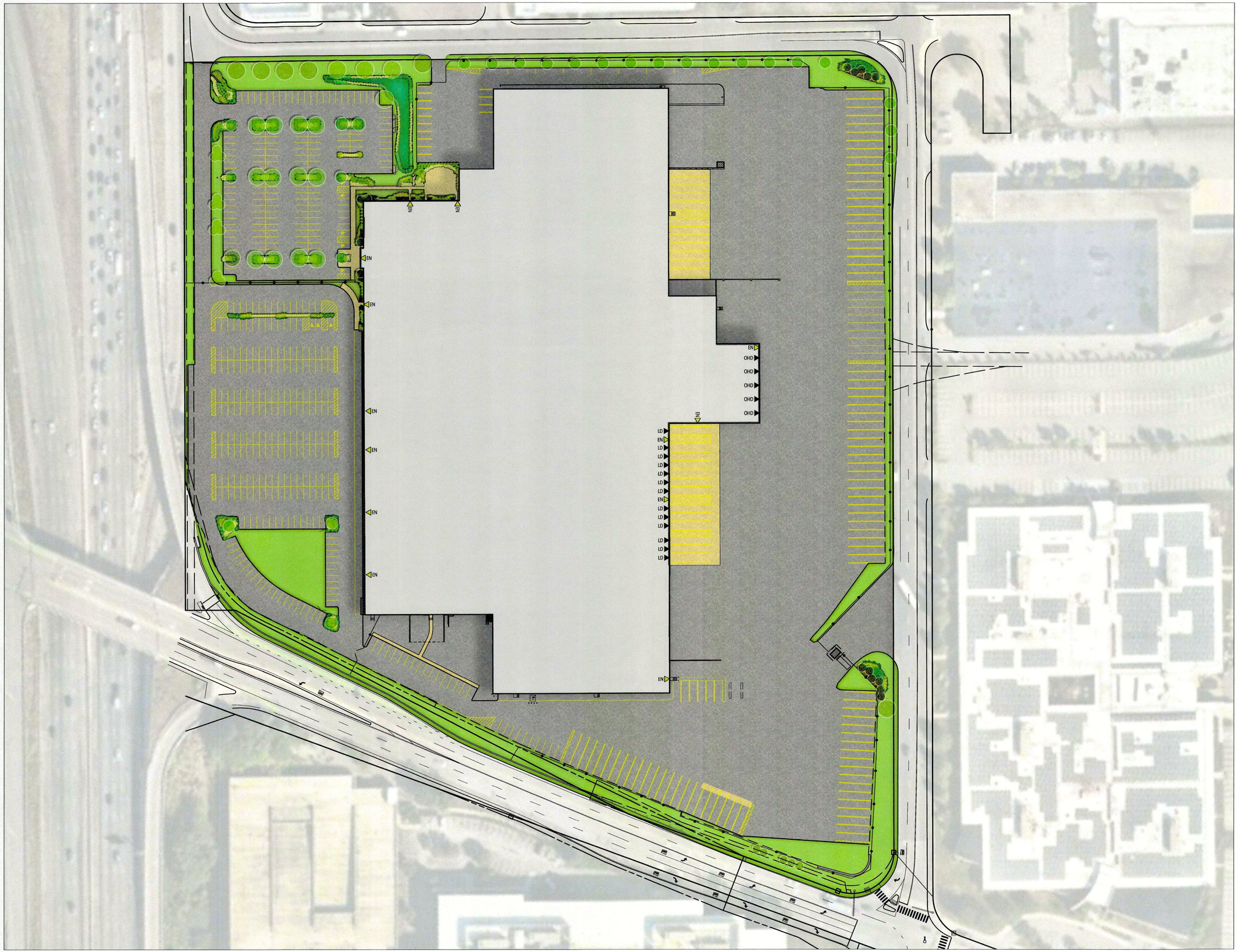
Sheet 15 of 15

Project Number

15571.02

2022.08.29

Saved Tuesday, August 16, 2022 10:39:20 AM JOSHUALEMIEUX Plotted Monday, August 29, 2022 11:07:07 AM Joshua Lemieux



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617.924.1770

Drawing Title

Color Site Plan

Drawing Number

COMMONWEALTH OF MASSACHUSETTS
ERIK BEDNARZ
NO. 1508
REGISTERED LANDSCAPE ARCHITECT

2022.08.29

Memorandum

To: Thomas Ryder
Public Services Administration Building
500 Dedham Avenue, Suite 118
Needham, MA 02492

Date: August 24, 2022

Project #: 15571.02

From: VHB

Re: Coca Cola Site
Needham, MA

COMMONWEALTH OF MASSACHUSETTS
CHRISTOPHER
NOWAK
CIVIL
No. 41843
REGISTERED
PROFESSIONAL ENGINEER

Stormwater Management Narrative

Project Description

The Applicant, Coca-Cola Beverages Northeast, is proposing to construct site improvements and renovations (the Project) for a bottling facility located at 9 B Street in Needham, MA (the Site). As proposed, the Project consists of loading dock modifications, partial demolition of building structures, site vehicular and pedestrian circulation and parking area modifications associated with the building changes, landscape improvements, stormwater treatment upgrades and utility improvements.

The Project will largely maintain existing drainage patterns and will result in a significant decrease of impervious area. There are no Wetland Resource Areas or associated buffer zones located on the Site and as such, the Project is not subject to strict compliance with the Massachusetts Stormwater Management Standards as required by the Massachusetts Wetlands Protection Act Regulations (310 CMR 10.00). For the purpose of this design, the Project is considered a redevelopment and has been designed to comply with Stormwater Management Standards 2 through 6 to the maximum extent practicable.

The Project does not propose new building construction and will not add an addition greater than 25%. The Project will undergo Site Plan Approval and therefore is subject to applicable sections of the Town of Needham Stormwater By-law.

Existing Drainage Conditions

The Project Site is a 24-acre parcel of land located at 9 B Street in Needham, MA (see Figure 1). The Site lies within the surface watershed of the Charles River and is bounded by B Street to the northwest, 3rd Avenue to the northeast, Kendrick Street to the southeast, and Yankee Division Highway (Interstate 95) to the southwest.

According to the National Resources Conservation Service (NRCS), surface soils on the Site consist of Urban Land.

Under existing conditions, the Site is developed with approximately 932,800 square feet of impervious area consisting of surface parking lots, buildings, loading docks, and walkways. The topography gently slopes across the Site, pitching down from the westerly lot line to the easterly lot line. Existing onsite drainage infrastructure is limited to a closed catch basin and pipe system. Runoff is collected and discharged into the municipal drainage network at four design points (see the attached Existing Drainage Area Plan).

Existing connections to the municipal drainage system within the adjacent rights-of-way include the following (note: pipe labels are as shown on the Existing Conditions Plan of Land drawing Sv-1 prepared by VHB):

- Design Point 1 – B Street
    - 8″ PVC (P70) connection to existing drain manhole (removed in proposed condition)
    - Two pipes (P152, P150) of unknown size connecting to existing catch basin (no change in proposed condition)
    - 12″ RCP (P37) connection to existing drain manhole (no change in proposed condition)
- Design Point 2 – 3rd Avenue
    - 18″ RCP (P22) connection to existing catch basin (no change in proposed condition)
    - 12″ RCP (P23) connection to existing catch basin (no change in proposed condition)
    - 8″ RCP (P25) connection to existing 21″ RCP (no change in proposed condition)
    - 12″ RCP (P35) connection to existing catch basin (no change in proposed condition)
- Design Point 3 – Kendrick Street
    - 15″ RCP (P7) connection to existing drain manhole (no change in proposed condition)
    - 12″ RCP (P6) connection to existing drain manhole (no change in proposed condition)
    - 15″ RCP (P9) connection to existing drain manhole (no change in proposed condition)
- Design Point 4 – Kendrick Street
    - 15″ RCP (P2) connection to existing drain manhole (no change in proposed condition)

Proposed Drainage Conditions

The Project will largely maintain existing drainage patterns. Existing connections to the municipal infrastructure will be maintained, except for one connection on B Street that is being removed, and one connection on B Street that is being proposed. Under proposed conditions, the Site will realize an approximate 33,000 square foot decrease in impervious area as well as enhanced water quality treatment due to the implementation of Low Impact Development (LID) stormwater management practices (BMPs).

Existing and proposed impervious and pervious areas at each design point are summarized in Table 1. As shown in the table, the weighted CN value at all design points is improved in the proposed condition as a result of the increased pervious area.

Table 1 Existing and Proposed Drainage Areas

Design Point	Pervious Area (SF)	Pervious Area CN Value	Impervious Area (SF)	Impervious Area CN Value	Weighted CN Value
Existing					
DP1	26,652	74	158,382	98	94.5
DP2	15,595	74	363,020	98	97.0
DP3	19,886	74	112,448	98	94.4
DP4	36,190	74	298,912	98	95.4
Proposed					
DP1	39,655	74	145,463	98	92.9
DP2	15,595	74	363,020	98	97.0
DP3	25,438	74	106,896	98	93.4
DP4	50,782	74	284,236	98	94.4

The redevelopment of site access and parking areas at the northwest corner of the site (the proposed North Employee Parking area) will include proposed grading and drainage improvements. Stormwater runoff from the North Employee Parking area and existing adjacent concrete pad to the east will be directed to a bioretention basin that has been designed to treat the one-inch Water Quality Volume (WQV) for this contributary area (approximately 61,200 SF). Stormwater runoff from the concrete pad is currently collected by a catch basin and discharged to the municipal system. The basin will include an overflow structure that will hydraulically connect to the municipal drainage system. A large landscape island is proposed within the southwest corner of the site which will function as a vegetated filter strip to provide TSS removal and provide peak flow attenuation for the proposed overflow parking area. Water quality computations are provided as an attachment to this memo.

Storm drainage structures remaining from the existing development which are part of the redevelopment area will be removed or will be incorporated into the updated stormwater system. The updated stormwater system has been designed so that proposed stormwater system components are in full compliance with current Massachusetts Stormwater Handbook standards. As shown on the design plans, modifications to the existing storm drain system are limited to the redevelopment project area. The existing onsite stormwater system components to remain will be cleaned and maintained as part of the Project.

List of Attachments

- Figure 1 – Locus Figure
- Figure 2 – Existing Drainage Area Plan
- Figure 3 – Proposed Drainage Area Plan
- Water Quality Volume Calculations
- HydroCAD Analysis
- Site Plans

\\vhb\gbl\proj\Wat-LD\15571.02 CocaCola-SiteCivil\cad\ld\Planmisc\Locus Map\Locus Figure.dwg

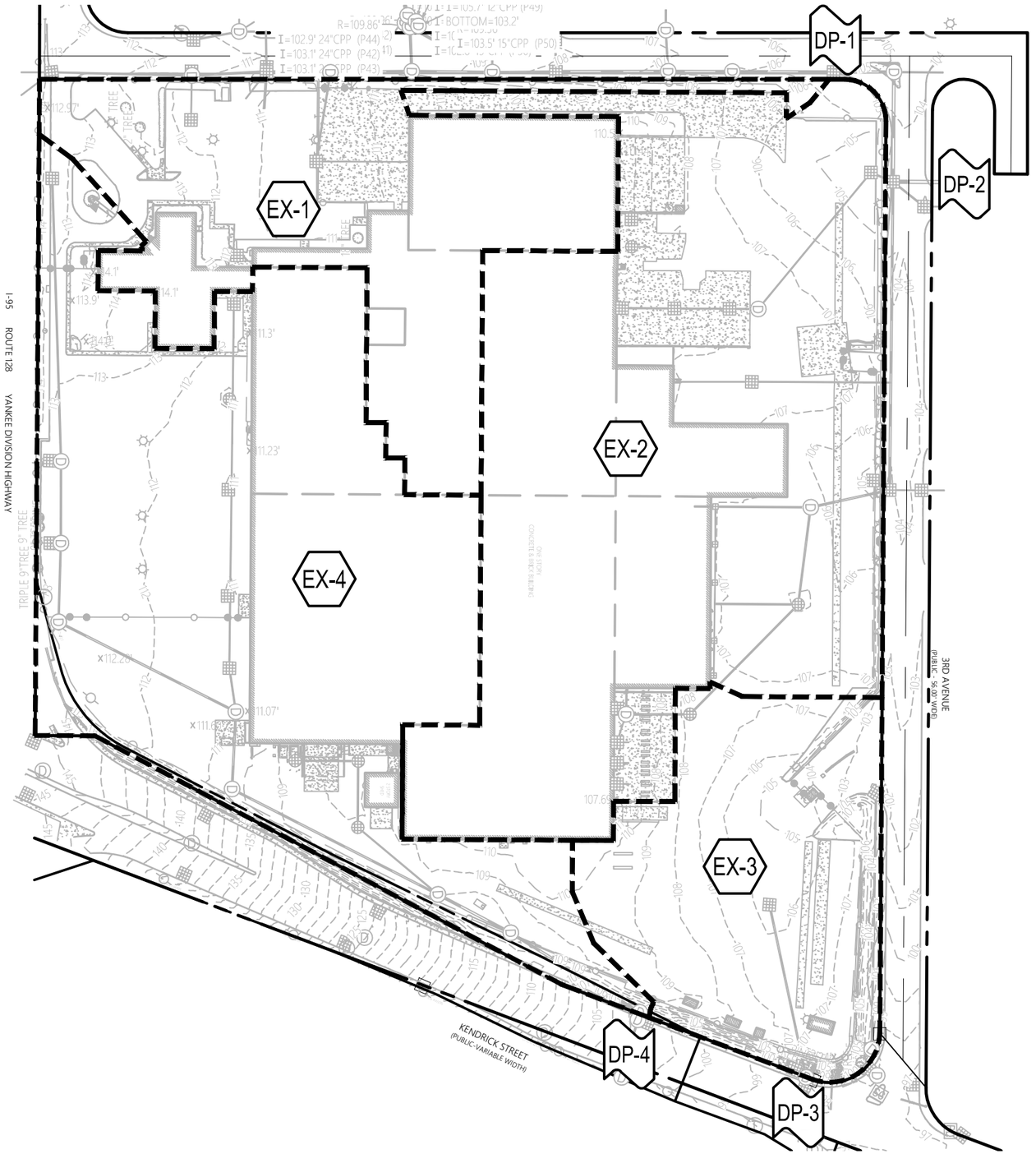
0 500 1000Feet

Locus Figure

9 B Street
Needham, Massachusetts

Figure 1

August 2022



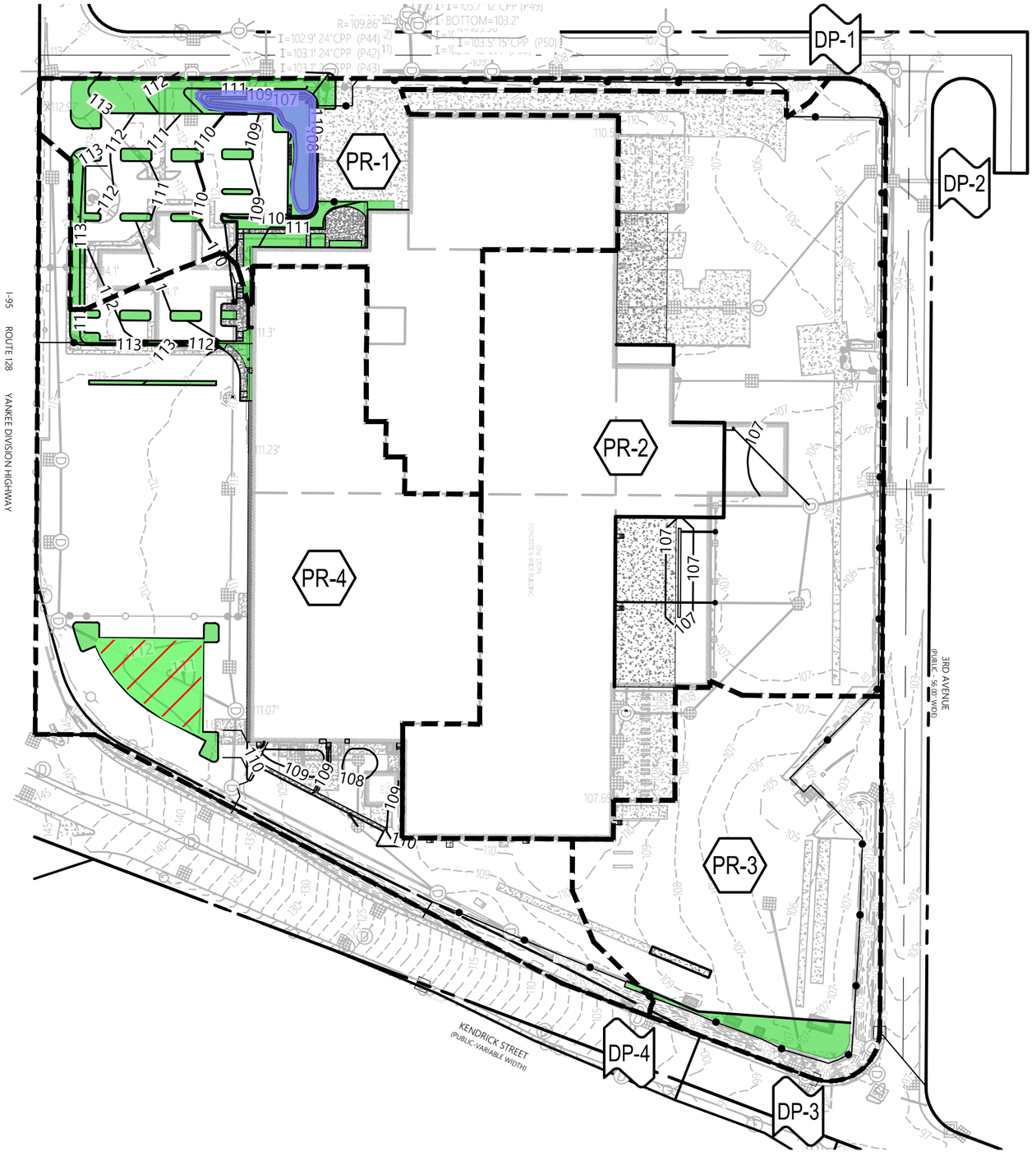
Legend

- X — **DESIGN POINT**
- X — **DRAINAGE AREA DESIGNATION**
- **DRAINAGE AREA BOUNDARY**

0 75 150 Feet

Figure 2
Existing Drainage Area Plan

9 B Street
Needham, MA



Legend

- DESIGN POINT
- DRAINAGE AREA DESIGNATION
- DRAINAGE AREA BOUNDARY
- PROPOSED LANDSCAPE AREA
- PROPOSED BIORETENTION BASIN
- PROPOSED VEGETATED FILTER STRIP

0 75 150 Feet

Figure 3
Proposed Drainage Area Plan

9 B Street
Needham, MA

Water Quality Volume Calculations

Project	Coca Cola Needham	**Project #**	15571.02
Calculated by	SM	**Date**	8/11/2022
Checked by	FDD	**Date**	8/17/2022

BASIN #1

Runoff from redeveloped area

Water Quality Storm Runoff Depth	(in)	1.0
Total Impervious Area	(ft^2)	61,156

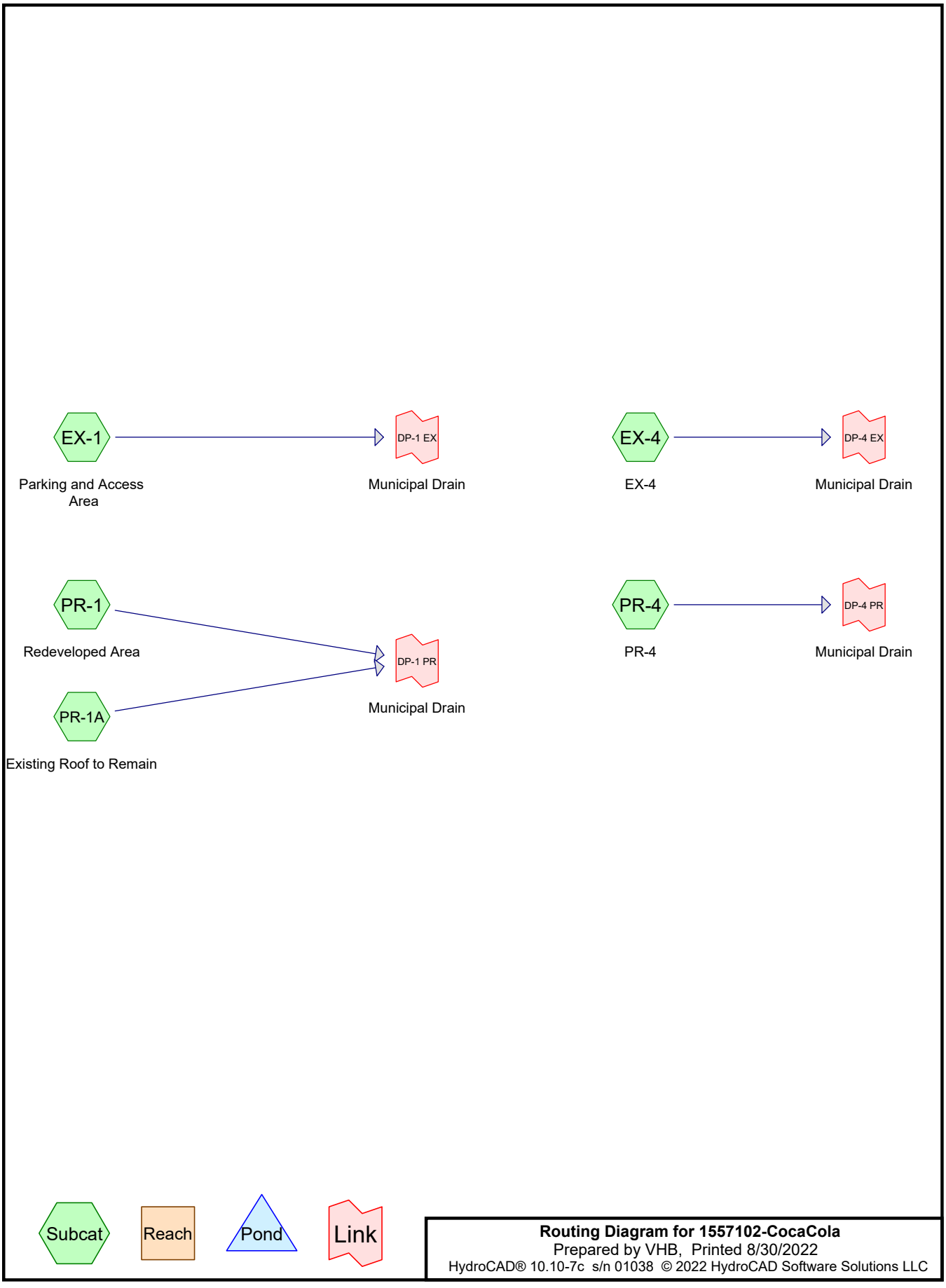
BASIN WQV:

Required Volume:

Runoff Depth to be Treated (in)	Required Volume (ft^3)
1.0	**5,096**

Provided Volume:

Elevation	Area (ft^2)	Cumulative Volume (ft^3)
107.0	3,335	0
108.0	4,802	4,069
108.5	5,776	**6,713**



Routing Diagram for 1557102-CocaCola
Prepared by VHB, Printed 8/30/2022
HydroCAD® 10.10-7c s/n 01038 © 2022 HydroCAD Software Solutions LLC

Summary for Subcatchment EX-1: Parking and Access Area

Runoff = 11.2 cfs @ 12.14 hrs, Volume= 42,294 cf, Depth= 2.74"
Routed to Link DP-1 EX : Municipal Drain

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-Year Rainfall=3.30"

	Area (sf)	CN	Description
*	158,382	98	Impervious
	26,652	74	>75% Grass cover, Good, HSG C
	185,034	95	Weighted Average
	26,652		14.40% Pervious Area
	158,382		85.60% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.3	50	0.0100	0.11		**Sheet Flow, Grass** Grass: Short n= 0.150 P2= 3.31"
1.0	45	0.0110	0.73		**Shallow Concentrated Flow, Grass2** Short Grass Pasture Kv= 7.0 fps
1.8	225	0.0100	2.03		**Shallow Concentrated Flow, Pave** Paved Kv= 20.3 fps
0.2	108	0.0220	7.29	5.72	**Pipe Channel,** 12.0" Round Area= 0.8 sf Perim= 3.1' r= 0.25' n= 0.012 Concrete pipe, finished
10.3	428	Total			

Summary for Subcatchment EX-4: EX-4

Runoff = 18.6 cfs @ 12.17 hrs, Volume= 76,595 cf, Depth= 2.74"
Routed to Link DP-4 EX : Municipal Drain

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-Year Rainfall=3.30"

	Area (sf)	CN	Description
*	298,912	98	Impervious
	36,190	74	>75% Grass cover, Good, HSG C
	335,102	95	Weighted Average
	36,190		10.80% Pervious Area
	298,912		89.20% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.3	50	0.0100	0.11		**Sheet Flow,** Grass: Short n= 0.150 P2= 3.31"
0.1	10	0.0100	1.50		**Shallow Concentrated Flow,** Grassed Waterway Kv= 15.0 fps
0.1	24	0.0300	3.52		**Shallow Concentrated Flow,** Paved Kv= 20.3 fps
1.0	339	0.0100	5.70	7.00	**Pipe Channel,** 15.0" Round Area= 1.2 sf Perim= 3.9' r= 0.31' n= 0.012 Concrete pipe, finished
0.5	99	0.0033	3.28	4.02	**Pipe Channel,** 15.0" Round Area= 1.2 sf Perim= 3.9' r= 0.31' n= 0.012 Concrete pipe, finished
0.3	95	0.0077	5.00	6.14	**Pipe Channel,** 15.0" Round Area= 1.2 sf Perim= 3.9' r= 0.31' n= 0.012 Concrete pipe, finished
2.1	240	0.0009	1.93	3.41	**Pipe Channel,** 18.0" Round Area= 1.8 sf Perim= 4.7' r= 0.38' n= 0.012 Concrete pipe, finished
0.2	93	0.0153	7.97	14.08	**Pipe Channel,** 18.0" Round Area= 1.8 sf Perim= 4.7' r= 0.38' n= 0.012 Concrete pipe, finished
0.9	279	0.0064	5.15	9.10	**Pipe Channel,** 18.0" Round Area= 1.8 sf Perim= 4.7' r= 0.38' n= 0.012 Concrete pipe, finished
0.3	99	0.0053	5.68	17.84	**Pipe Channel,** 24.0" Round Area= 3.1 sf Perim= 6.3' r= 0.50' n= 0.012 Concrete pipe, finished
0.4	183	0.0088	7.32	22.99	**Pipe Channel,** 24.0" Round Area= 3.1 sf Perim= 6.3' r= 0.50' n= 0.012 Concrete pipe, finished
13.2	1,511	Total			

Summary for Subcatchment PR-1: Redeveloped Area

Runoff = 4.9 cfs @ 12.15 hrs, Volume= 18,256 cf, Depth= 2.17"
Routed to Link DP-1 PR : Municipal Drain

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-Year Rainfall=3.30"

	Area (sf)	CN	Description
*	61,156	98	Impervious
	39,655	74	>75% Grass cover, Good, HSG C
	100,811	89	Weighted Average
	39,655		39.34% Pervious Area
	61,156		60.66% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0	50	0.0160	0.14		**Sheet Flow, Grass** Grass: Short n= 0.150 P2= 3.31"
1.3	77	0.0200	0.99		**Shallow Concentrated Flow, Grass2** Short Grass Pasture Kv= 7.0 fps
0.1	32	0.3300	4.02		**Shallow Concentrated Flow, Bio1** Short Grass Pasture Kv= 7.0 fps
3.9	117	0.0050	0.49		**Shallow Concentrated Flow, Bio2** Short Grass Pasture Kv= 7.0 fps
0.1	45	0.0070	6.53	20.50	**Pipe Channel,** 24.0" Round Area= 3.1 sf Perim= 6.3' r= 0.50' n= 0.012 Concrete pipe, finished
11.4	321	Total			

Summary for Subcatchment PR-1A: Existing Roof to Remain

Runoff = 6.4 cfs @ 12.07 hrs, Volume= 21,548 cf, Depth= 3.07"
Routed to Link DP-1 PR : Municipal Drain

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-Year Rainfall=3.30"

	Area (sf)	CN	Description
*	84,307	98	Impervious
	84,307		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**

Summary for Subcatchment PR-4: PR-4

Runoff = 17.3 cfs @ 12.20 hrs, Volume= 73,731 cf, Depth= 2.64"
Routed to Link DP-4 PR : Municipal Drain

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-Year Rainfall=3.30"

	Area (sf)	CN	Description
*	284,236	98	Impervious
	50,782	74	>75% Grass cover, Good, HSG C
	335,018	94	Weighted Average
	50,782		15.16% Pervious Area
	284,236		84.84% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
3.5	35	0.0310	0.17		**Sheet Flow,** Grass: Short n= 0.150 P2= 3.31"
0.2	21	0.0100	2.03		**Shallow Concentrated Flow,** Paved Kv= 20.3 fps
0.4	62	0.0160	2.57		**Shallow Concentrated Flow,** Paved Kv= 20.3 fps
0.7	90	0.0110	2.13		**Shallow Concentrated Flow,** Paved Kv= 20.3 fps
0.3	61	0.0065	3.96	3.11	**Pipe Channel,** 12.0" Round Area= 0.8 sf Perim= 3.1' r= 0.25' n= 0.012 Concrete pipe, finished
6.4	225	0.0001	0.59	0.46	**Pipe Channel,** 12.0" Round Area= 0.8 sf Perim= 3.1' r= 0.25' n= 0.010 PVC, smooth interior
1.3	127	0.0008	1.67	1.31	**Pipe Channel,** 12.0" Round Area= 0.8 sf Perim= 3.1' r= 0.25' n= 0.010 PVC, smooth interior
0.3	87	0.0115	5.27	4.14	**Pipe Channel,** 12.0" Round Area= 0.8 sf Perim= 3.1' r= 0.25' n= 0.012 Concrete pipe, finished
0.3	53	0.0038	3.03	2.38	**Pipe Channel,** 12.0" Round Area= 0.8 sf Perim= 3.1' r= 0.25' n= 0.012 Concrete pipe, finished
0.2	93	0.0153	7.97	14.08	**Pipe Channel,** 18.0" Round Area= 1.8 sf Perim= 4.7' r= 0.38' n= 0.012 Concrete pipe, finished
0.9	279	0.0064	5.15	9.10	**Pipe Channel,** 18.0" Round Area= 1.8 sf Perim= 4.7' r= 0.38' n= 0.012 Concrete pipe, finished
0.3	99	0.0053	5.68	17.84	**Pipe Channel,** 24.0" Round Area= 3.1 sf Perim= 6.3' r= 0.50' n= 0.012 Concrete pipe, finished
0.4	183	0.0088	7.32	22.99	**Pipe Channel,** 24.0" Round Area= 3.1 sf Perim= 6.3' r= 0.50'

n= 0.012 Concrete pipe, finished

15.2	1,415	Total

Summary for Link DP-1 EX: Municipal Drain

Inflow Area = 185,034 sf, 85.60% Impervious, Inflow Depth = 2.74" for 2-Year event
Inflow = 11.2 cfs @ 12.14 hrs, Volume= 42,294 cf
Primary = 11.2 cfs @ 12.14 hrs, Volume= 42,294 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs

Summary for Link DP-1 PR: Municipal Drain

Inflow Area = 185,118 sf, 78.58% Impervious, Inflow Depth = 2.58" for 2-Year event
Inflow = 10.3 cfs @ 12.09 hrs, Volume= 39,804 cf
Primary = 10.3 cfs @ 12.09 hrs, Volume= 39,804 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs

Summary for Link DP-4 EX: Municipal Drain

Inflow Area = 335,102 sf, 89.20% Impervious, Inflow Depth = 2.74" for 2-Year event
Inflow = 18.6 cfs @ 12.17 hrs, Volume= 76,595 cf
Primary = 18.6 cfs @ 12.17 hrs, Volume= 76,595 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs

Summary for Link DP-4 PR: Municipal Drain

Inflow Area = 335,018 sf, 84.84% Impervious, Inflow Depth = 2.64" for 2-Year event
Inflow = 17.3 cfs @ 12.20 hrs, Volume= 73,731 cf
Primary = 17.3 cfs @ 12.20 hrs, Volume= 73,731 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs

Summary for Subcatchment EX-1: Parking and Access Area

Runoff = 18.3 cfs @ 12.14 hrs, Volume= 71,050 cf, Depth= 4.61"
Routed to Link DP-1 EX : Municipal Drain

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-Year Rainfall=5.19"

	Area (sf)	CN	Description
*	158,382	98	Impervious
	26,652	74	>75% Grass cover, Good, HSG C
	185,034	95	Weighted Average
	26,652		14.40% Pervious Area
	158,382		85.60% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.3	50	0.0100	0.11		**Sheet Flow, Grass** Grass: Short n= 0.150 P2= 3.31"
1.0	45	0.0110	0.73		**Shallow Concentrated Flow, Grass2** Short Grass Pasture Kv= 7.0 fps
1.8	225	0.0100	2.03		**Shallow Concentrated Flow, Pave** Paved Kv= 20.3 fps
0.2	108	0.0220	7.29	5.72	**Pipe Channel,** 12.0" Round Area= 0.8 sf Perim= 3.1' r= 0.25' n= 0.012 Concrete pipe, finished
10.3	428	Total			

Summary for Subcatchment EX-4: EX-4

Runoff = 30.4 cfs @ 12.17 hrs, Volume= 128,673 cf, Depth= 4.61"
Routed to Link DP-4 EX : Municipal Drain

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-Year Rainfall=5.19"

	Area (sf)	CN	Description
*	298,912	98	Impervious
	36,190	74	>75% Grass cover, Good, HSG C
	335,102	95	Weighted Average
	36,190		10.80% Pervious Area
	298,912		89.20% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.3	50	0.0100	0.11		**Sheet Flow,** Grass: Short n= 0.150 P2= 3.31"
0.1	10	0.0100	1.50		**Shallow Concentrated Flow,** Grassed Waterway Kv= 15.0 fps
0.1	24	0.0300	3.52		**Shallow Concentrated Flow,** Paved Kv= 20.3 fps
1.0	339	0.0100	5.70	7.00	**Pipe Channel,** 15.0" Round Area= 1.2 sf Perim= 3.9' r= 0.31' n= 0.012 Concrete pipe, finished
0.5	99	0.0033	3.28	4.02	**Pipe Channel,** 15.0" Round Area= 1.2 sf Perim= 3.9' r= 0.31' n= 0.012 Concrete pipe, finished
0.3	95	0.0077	5.00	6.14	**Pipe Channel,** 15.0" Round Area= 1.2 sf Perim= 3.9' r= 0.31' n= 0.012 Concrete pipe, finished
2.1	240	0.0009	1.93	3.41	**Pipe Channel,** 18.0" Round Area= 1.8 sf Perim= 4.7' r= 0.38' n= 0.012 Concrete pipe, finished
0.2	93	0.0153	7.97	14.08	**Pipe Channel,** 18.0" Round Area= 1.8 sf Perim= 4.7' r= 0.38' n= 0.012 Concrete pipe, finished
0.9	279	0.0064	5.15	9.10	**Pipe Channel,** 18.0" Round Area= 1.8 sf Perim= 4.7' r= 0.38' n= 0.012 Concrete pipe, finished
0.3	99	0.0053	5.68	17.84	**Pipe Channel,** 24.0" Round Area= 3.1 sf Perim= 6.3' r= 0.50' n= 0.012 Concrete pipe, finished
0.4	183	0.0088	7.32	22.99	**Pipe Channel,** 24.0" Round Area= 3.1 sf Perim= 6.3' r= 0.50' n= 0.012 Concrete pipe, finished
13.2	1,511	Total			

Summary for Subcatchment PR-1: Redeveloped Area

Runoff = 8.7 cfs @ 12.15 hrs, Volume= 33,218 cf, Depth= 3.95"
Routed to Link DP-1 PR : Municipal Drain

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-Year Rainfall=5.19"

	Area (sf)	CN	Description
*	61,156	98	Impervious
	39,655	74	>75% Grass cover, Good, HSG C
	100,811	89	Weighted Average
	39,655		39.34% Pervious Area
	61,156		60.66% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0	50	0.0160	0.14		**Sheet Flow, Grass** Grass: Short n= 0.150 P2= 3.31"
1.3	77	0.0200	0.99		**Shallow Concentrated Flow, Grass2** Short Grass Pasture Kv= 7.0 fps
0.1	32	0.3300	4.02		**Shallow Concentrated Flow, Bio1** Short Grass Pasture Kv= 7.0 fps
3.9	117	0.0050	0.49		**Shallow Concentrated Flow, Bio2** Short Grass Pasture Kv= 7.0 fps
0.1	45	0.0070	6.53	20.50	**Pipe Channel,** 24.0" Round Area= 3.1 sf Perim= 6.3' r= 0.50' n= 0.012 Concrete pipe, finished
11.4	321	Total			

Summary for Subcatchment PR-1A: Existing Roof to Remain

Runoff = 10.2 cfs @ 12.07 hrs, Volume= 34,797 cf, Depth= 4.95"
Routed to Link DP-1 PR : Municipal Drain

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-Year Rainfall=5.19"

	Area (sf)	CN	Description
*	84,307	98	Impervious
	84,307		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**

Summary for Subcatchment PR-4: PR-4

Runoff = 28.5 cfs @ 12.20 hrs, Volume= 125,506 cf, Depth= 4.50"
Routed to Link DP-4 PR : Municipal Drain

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-Year Rainfall=5.19"

	Area (sf)	CN	Description
*	284,236	98	Impervious
	50,782	74	>75% Grass cover, Good, HSG C
	335,018	94	Weighted Average
	50,782		15.16% Pervious Area
	284,236		84.84% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
3.5	35	0.0310	0.17		**Sheet Flow,** Grass: Short n= 0.150 P2= 3.31"
0.2	21	0.0100	2.03		**Shallow Concentrated Flow,** Paved Kv= 20.3 fps
0.4	62	0.0160	2.57		**Shallow Concentrated Flow,** Paved Kv= 20.3 fps
0.7	90	0.0110	2.13		**Shallow Concentrated Flow,** Paved Kv= 20.3 fps
0.3	61	0.0065	3.96	3.11	**Pipe Channel,** 12.0" Round Area= 0.8 sf Perim= 3.1' r= 0.25' n= 0.012 Concrete pipe, finished
6.4	225	0.0001	0.59	0.46	**Pipe Channel,** 12.0" Round Area= 0.8 sf Perim= 3.1' r= 0.25' n= 0.010 PVC, smooth interior
1.3	127	0.0008	1.67	1.31	**Pipe Channel,** 12.0" Round Area= 0.8 sf Perim= 3.1' r= 0.25' n= 0.010 PVC, smooth interior
0.3	87	0.0115	5.27	4.14	**Pipe Channel,** 12.0" Round Area= 0.8 sf Perim= 3.1' r= 0.25' n= 0.012 Concrete pipe, finished
0.3	53	0.0038	3.03	2.38	**Pipe Channel,** 12.0" Round Area= 0.8 sf Perim= 3.1' r= 0.25' n= 0.012 Concrete pipe, finished
0.2	93	0.0153	7.97	14.08	**Pipe Channel,** 18.0" Round Area= 1.8 sf Perim= 4.7' r= 0.38' n= 0.012 Concrete pipe, finished
0.9	279	0.0064	5.15	9.10	**Pipe Channel,** 18.0" Round Area= 1.8 sf Perim= 4.7' r= 0.38' n= 0.012 Concrete pipe, finished
0.3	99	0.0053	5.68	17.84	**Pipe Channel,** 24.0" Round Area= 3.1 sf Perim= 6.3' r= 0.50' n= 0.012 Concrete pipe, finished
0.4	183	0.0088	7.32	22.99	**Pipe Channel,** 24.0" Round Area= 3.1 sf Perim= 6.3' r= 0.50'

n= 0.012 Concrete pipe, finished

15.2	1,415	Total

Summary for Link DP-1 EX: Municipal Drain

Inflow Area = 185,034 sf, 85.60% Impervious, Inflow Depth = 4.61" for 10-Year event
Inflow = 18.3 cfs @ 12.14 hrs, Volume= 71,050 cf
Primary = 18.3 cfs @ 12.14 hrs, Volume= 71,050 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs

Summary for Link DP-1 PR: Municipal Drain

Inflow Area = 185,118 sf, 78.58% Impervious, Inflow Depth = 4.41" for 10-Year event
Inflow = 17.2 cfs @ 12.09 hrs, Volume= 68,015 cf
Primary = 17.2 cfs @ 12.09 hrs, Volume= 68,015 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs

Summary for Link DP-4 EX: Municipal Drain

Inflow Area = 335,102 sf, 89.20% Impervious, Inflow Depth = 4.61" for 10-Year event
Inflow = 30.4 cfs @ 12.17 hrs, Volume= 128,673 cf
Primary = 30.4 cfs @ 12.17 hrs, Volume= 128,673 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs

Summary for Link DP-4 PR: Municipal Drain

Inflow Area = 335,018 sf, 84.84% Impervious, Inflow Depth = 4.50" for 10-Year event
Inflow = 28.5 cfs @ 12.20 hrs, Volume= 125,506 cf
Primary = 28.5 cfs @ 12.20 hrs, Volume= 125,506 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs

Summary for Subcatchment EX-1: Parking and Access Area

Runoff = 22.6 cfs @ 12.14 hrs, Volume= 88,959 cf, Depth= 5.77"
Routed to Link DP-1 EX : Municipal Drain

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-Year Rainfall=6.36"

	Area (sf)	CN	Description
*	158,382	98	Impervious
	26,652	74	>75% Grass cover, Good, HSG C
	185,034	95	Weighted Average
	26,652		14.40% Pervious Area
	158,382		85.60% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.3	50	0.0100	0.11		**Sheet Flow, Grass** Grass: Short n= 0.150 P2= 3.31"
1.0	45	0.0110	0.73		**Shallow Concentrated Flow, Grass2** Short Grass Pasture Kv= 7.0 fps
1.8	225	0.0100	2.03		**Shallow Concentrated Flow, Pave** Paved Kv= 20.3 fps
0.2	108	0.0220	7.29	5.72	**Pipe Channel,** 12.0" Round Area= 0.8 sf Perim= 3.1' r= 0.25' n= 0.012 Concrete pipe, finished
10.3	428	Total			

Summary for Subcatchment EX-4: EX-4

Runoff = 37.7 cfs @ 12.17 hrs, Volume= 161,108 cf, Depth= 5.77"
Routed to Link DP-4 EX : Municipal Drain

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-Year Rainfall=6.36"

	Area (sf)	CN	Description
*	298,912	98	Impervious
	36,190	74	>75% Grass cover, Good, HSG C
	335,102	95	Weighted Average
	36,190		10.80% Pervious Area
	298,912		89.20% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.3	50	0.0100	0.11		**Sheet Flow,** Grass: Short n= 0.150 P2= 3.31"
0.1	10	0.0100	1.50		**Shallow Concentrated Flow,** Grassed Waterway Kv= 15.0 fps
0.1	24	0.0300	3.52		**Shallow Concentrated Flow,** Paved Kv= 20.3 fps
1.0	339	0.0100	5.70	7.00	**Pipe Channel,** 15.0" Round Area= 1.2 sf Perim= 3.9' r= 0.31' n= 0.012 Concrete pipe, finished
0.5	99	0.0033	3.28	4.02	**Pipe Channel,** 15.0" Round Area= 1.2 sf Perim= 3.9' r= 0.31' n= 0.012 Concrete pipe, finished
0.3	95	0.0077	5.00	6.14	**Pipe Channel,** 15.0" Round Area= 1.2 sf Perim= 3.9' r= 0.31' n= 0.012 Concrete pipe, finished
2.1	240	0.0009	1.93	3.41	**Pipe Channel,** 18.0" Round Area= 1.8 sf Perim= 4.7' r= 0.38' n= 0.012 Concrete pipe, finished
0.2	93	0.0153	7.97	14.08	**Pipe Channel,** 18.0" Round Area= 1.8 sf Perim= 4.7' r= 0.38' n= 0.012 Concrete pipe, finished
0.9	279	0.0064	5.15	9.10	**Pipe Channel,** 18.0" Round Area= 1.8 sf Perim= 4.7' r= 0.38' n= 0.012 Concrete pipe, finished
0.3	99	0.0053	5.68	17.84	**Pipe Channel,** 24.0" Round Area= 3.1 sf Perim= 6.3' r= 0.50' n= 0.012 Concrete pipe, finished
0.4	183	0.0088	7.32	22.99	**Pipe Channel,** 24.0" Round Area= 3.1 sf Perim= 6.3' r= 0.50' n= 0.012 Concrete pipe, finished
13.2	1,511	Total			

Summary for Subcatchment PR-1: Redeveloped Area

Runoff = 11.1 cfs @ 12.15 hrs, Volume= 42,716 cf, Depth= 5.08"
Routed to Link DP-1 PR : Municipal Drain

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-Year Rainfall=6.36"

	Area (sf)	CN	Description
*	61,156	98	Impervious
	39,655	74	>75% Grass cover, Good, HSG C
	100,811	89	Weighted Average
	39,655		39.34% Pervious Area
	61,156		60.66% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0	50	0.0160	0.14		**Sheet Flow, Grass** Grass: Short n= 0.150 P2= 3.31"
1.3	77	0.0200	0.99		**Shallow Concentrated Flow, Grass2** Short Grass Pasture Kv= 7.0 fps
0.1	32	0.3300	4.02		**Shallow Concentrated Flow, Bio1** Short Grass Pasture Kv= 7.0 fps
3.9	117	0.0050	0.49		**Shallow Concentrated Flow, Bio2** Short Grass Pasture Kv= 7.0 fps
0.1	45	0.0070	6.53	20.50	**Pipe Channel,** 24.0" Round Area= 3.1 sf Perim= 6.3' r= 0.50' n= 0.012 Concrete pipe, finished
11.4	321	Total			

Summary for Subcatchment PR-1A: Existing Roof to Remain

Runoff = 12.5 cfs @ 12.07 hrs, Volume= 43,007 cf, Depth= 6.12"
Routed to Link DP-1 PR : Municipal Drain

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-Year Rainfall=6.36"

	Area (sf)	CN	Description
*	84,307	98	Impervious
	84,307		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**

Summary for Subcatchment PR-4: PR-4

Runoff = 35.4 cfs @ 12.20 hrs, Volume= 157,831 cf, Depth= 5.65"
Routed to Link DP-4 PR : Municipal Drain

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-Year Rainfall=6.36"

	Area (sf)	CN	Description
*	284,236	98	Impervious
	50,782	74	>75% Grass cover, Good, HSG C
	335,018	94	Weighted Average
	50,782		15.16% Pervious Area
	284,236		84.84% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
3.5	35	0.0310	0.17		**Sheet Flow,** Grass: Short n= 0.150 P2= 3.31"
0.2	21	0.0100	2.03		**Shallow Concentrated Flow,** Paved Kv= 20.3 fps
0.4	62	0.0160	2.57		**Shallow Concentrated Flow,** Paved Kv= 20.3 fps
0.7	90	0.0110	2.13		**Shallow Concentrated Flow,** Paved Kv= 20.3 fps
0.3	61	0.0065	3.96	3.11	**Pipe Channel,** 12.0" Round Area= 0.8 sf Perim= 3.1' r= 0.25' n= 0.012 Concrete pipe, finished
6.4	225	0.0001	0.59	0.46	**Pipe Channel,** 12.0" Round Area= 0.8 sf Perim= 3.1' r= 0.25' n= 0.010 PVC, smooth interior
1.3	127	0.0008	1.67	1.31	**Pipe Channel,** 12.0" Round Area= 0.8 sf Perim= 3.1' r= 0.25' n= 0.010 PVC, smooth interior
0.3	87	0.0115	5.27	4.14	**Pipe Channel,** 12.0" Round Area= 0.8 sf Perim= 3.1' r= 0.25' n= 0.012 Concrete pipe, finished
0.3	53	0.0038	3.03	2.38	**Pipe Channel,** 12.0" Round Area= 0.8 sf Perim= 3.1' r= 0.25' n= 0.012 Concrete pipe, finished
0.2	93	0.0153	7.97	14.08	**Pipe Channel,** 18.0" Round Area= 1.8 sf Perim= 4.7' r= 0.38' n= 0.012 Concrete pipe, finished
0.9	279	0.0064	5.15	9.10	**Pipe Channel,** 18.0" Round Area= 1.8 sf Perim= 4.7' r= 0.38' n= 0.012 Concrete pipe, finished
0.3	99	0.0053	5.68	17.84	**Pipe Channel,** 24.0" Round Area= 3.1 sf Perim= 6.3' r= 0.50' n= 0.012 Concrete pipe, finished
0.4	183	0.0088	7.32	22.99	**Pipe Channel,** 24.0" Round Area= 3.1 sf Perim= 6.3' r= 0.50'

n= 0.012 Concrete pipe, finished

15.2 1,415 Total

Summary for Link DP-1 EX: Municipal Drain

Inflow Area = 185,034 sf, 85.60% Impervious, Inflow Depth = 5.77" for 25-Year event
Inflow = 22.6 cfs @ 12.14 hrs, Volume= 88,959 cf
Primary = 22.6 cfs @ 12.14 hrs, Volume= 88,959 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs

Summary for Link DP-1 PR: Municipal Drain

Inflow Area = 185,118 sf, 78.58% Impervious, Inflow Depth = 5.56" for 25-Year event
Inflow = 21.5 cfs @ 12.09 hrs, Volume= 85,723 cf
Primary = 21.5 cfs @ 12.09 hrs, Volume= 85,723 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs

Summary for Link DP-4 EX: Municipal Drain

Inflow Area = 335,102 sf, 89.20% Impervious, Inflow Depth = 5.77" for 25-Year event
Inflow = 37.7 cfs @ 12.17 hrs, Volume= 161,108 cf
Primary = 37.7 cfs @ 12.17 hrs, Volume= 161,108 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs

Summary for Link DP-4 PR: Municipal Drain

Inflow Area = 335,018 sf, 84.84% Impervious, Inflow Depth = 5.65" for 25-Year event
Inflow = 35.4 cfs @ 12.20 hrs, Volume= 157,831 cf
Primary = 35.4 cfs @ 12.20 hrs, Volume= 157,831 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs

Summary for Subcatchment EX-1: Parking and Access Area

Runoff = 29.3 cfs @ 12.14 hrs, Volume= 116,736 cf, Depth= 7.57"
Routed to Link DP-1 EX : Municipal Drain

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-Year Rainfall=8.17"

	Area (sf)	CN	Description
*	158,382	98	Impervious
	26,652	74	>75% Grass cover, Good, HSG C
	185,034	95	Weighted Average
	26,652		14.40% Pervious Area
	158,382		85.60% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.3	50	0.0100	0.11		**Sheet Flow, Grass** Grass: Short n= 0.150 P2= 3.31"
1.0	45	0.0110	0.73		**Shallow Concentrated Flow, Grass2** Short Grass Pasture Kv= 7.0 fps
1.8	225	0.0100	2.03		**Shallow Concentrated Flow, Pave** Paved Kv= 20.3 fps
0.2	108	0.0220	7.29	5.72	**Pipe Channel,** 12.0" Round Area= 0.8 sf Perim= 3.1' r= 0.25' n= 0.012 Concrete pipe, finished
10.3	428	Total			

Summary for Subcatchment EX-4: EX-4

Runoff = 48.8 cfs @ 12.17 hrs, Volume= 211,412 cf, Depth= 7.57"
Routed to Link DP-4 EX : Municipal Drain

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-Year Rainfall=8.17"

	Area (sf)	CN	Description
*	298,912	98	Impervious
	36,190	74	>75% Grass cover, Good, HSG C
	335,102	95	Weighted Average
	36,190		10.80% Pervious Area
	298,912		89.20% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.3	50	0.0100	0.11		**Sheet Flow,** Grass: Short n= 0.150 P2= 3.31"
0.1	10	0.0100	1.50		**Shallow Concentrated Flow,** Grassed Waterway Kv= 15.0 fps
0.1	24	0.0300	3.52		**Shallow Concentrated Flow,** Paved Kv= 20.3 fps
1.0	339	0.0100	5.70	7.00	**Pipe Channel,** 15.0" Round Area= 1.2 sf Perim= 3.9' r= 0.31' n= 0.012 Concrete pipe, finished
0.5	99	0.0033	3.28	4.02	**Pipe Channel,** 15.0" Round Area= 1.2 sf Perim= 3.9' r= 0.31' n= 0.012 Concrete pipe, finished
0.3	95	0.0077	5.00	6.14	**Pipe Channel,** 15.0" Round Area= 1.2 sf Perim= 3.9' r= 0.31' n= 0.012 Concrete pipe, finished
2.1	240	0.0009	1.93	3.41	**Pipe Channel,** 18.0" Round Area= 1.8 sf Perim= 4.7' r= 0.38' n= 0.012 Concrete pipe, finished
0.2	93	0.0153	7.97	14.08	**Pipe Channel,** 18.0" Round Area= 1.8 sf Perim= 4.7' r= 0.38' n= 0.012 Concrete pipe, finished
0.9	279	0.0064	5.15	9.10	**Pipe Channel,** 18.0" Round Area= 1.8 sf Perim= 4.7' r= 0.38' n= 0.012 Concrete pipe, finished
0.3	99	0.0053	5.68	17.84	**Pipe Channel,** 24.0" Round Area= 3.1 sf Perim= 6.3' r= 0.50' n= 0.012 Concrete pipe, finished
0.4	183	0.0088	7.32	22.99	**Pipe Channel,** 24.0" Round Area= 3.1 sf Perim= 6.3' r= 0.50' n= 0.012 Concrete pipe, finished
13.2	1,511	Total			

Summary for Subcatchment PR-1: Redeveloped Area

Runoff = 14.7 cfs @ 12.15 hrs, Volume= 57,577 cf, Depth= 6.85"
Routed to Link DP-1 PR : Municipal Drain

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-Year Rainfall=8.17"

	Area (sf)	CN	Description
*	61,156	98	Impervious
	39,655	74	>75% Grass cover, Good, HSG C
	100,811	89	Weighted Average
	39,655		39.34% Pervious Area
	61,156		60.66% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0	50	0.0160	0.14		**Sheet Flow, Grass** Grass: Short n= 0.150 P2= 3.31"
1.3	77	0.0200	0.99		**Shallow Concentrated Flow, Grass2** Short Grass Pasture Kv= 7.0 fps
0.1	32	0.3300	4.02		**Shallow Concentrated Flow, Bio1** Short Grass Pasture Kv= 7.0 fps
3.9	117	0.0050	0.49		**Shallow Concentrated Flow, Bio2** Short Grass Pasture Kv= 7.0 fps
0.1	45	0.0070	6.53	20.50	**Pipe Channel,** 24.0" Round Area= 3.1 sf Perim= 6.3' r= 0.50' n= 0.012 Concrete pipe, finished
11.4	321	Total			

Summary for Subcatchment PR-1A: Existing Roof to Remain

Runoff = 16.1 cfs @ 12.07 hrs, Volume= 55,714 cf, Depth= 7.93"
Routed to Link DP-1 PR : Municipal Drain

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-Year Rainfall=8.17"

	Area (sf)	CN	Description
*	84,307	98	Impervious
	84,307		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**

Summary for Subcatchment PR-4: PR-4

Runoff = 46.1 cfs @ 12.20 hrs, Volume= 208,018 cf, Depth= 7.45"
Routed to Link DP-4 PR : Municipal Drain

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-Year Rainfall=8.17"

	Area (sf)	CN	Description
*	284,236	98	Impervious
	50,782	74	>75% Grass cover, Good, HSG C
	335,018	94	Weighted Average
	50,782		15.16% Pervious Area
	284,236		84.84% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
3.5	35	0.0310	0.17		**Sheet Flow,** Grass: Short n= 0.150 P2= 3.31"
0.2	21	0.0100	2.03		**Shallow Concentrated Flow,** Paved Kv= 20.3 fps
0.4	62	0.0160	2.57		**Shallow Concentrated Flow,** Paved Kv= 20.3 fps
0.7	90	0.0110	2.13		**Shallow Concentrated Flow,** Paved Kv= 20.3 fps
0.3	61	0.0065	3.96	3.11	**Pipe Channel,** 12.0" Round Area= 0.8 sf Perim= 3.1' r= 0.25' n= 0.012 Concrete pipe, finished
6.4	225	0.0001	0.59	0.46	**Pipe Channel,** 12.0" Round Area= 0.8 sf Perim= 3.1' r= 0.25' n= 0.010 PVC, smooth interior
1.3	127	0.0008	1.67	1.31	**Pipe Channel,** 12.0" Round Area= 0.8 sf Perim= 3.1' r= 0.25' n= 0.010 PVC, smooth interior
0.3	87	0.0115	5.27	4.14	**Pipe Channel,** 12.0" Round Area= 0.8 sf Perim= 3.1' r= 0.25' n= 0.012 Concrete pipe, finished
0.3	53	0.0038	3.03	2.38	**Pipe Channel,** 12.0" Round Area= 0.8 sf Perim= 3.1' r= 0.25' n= 0.012 Concrete pipe, finished
0.2	93	0.0153	7.97	14.08	**Pipe Channel,** 18.0" Round Area= 1.8 sf Perim= 4.7' r= 0.38' n= 0.012 Concrete pipe, finished
0.9	279	0.0064	5.15	9.10	**Pipe Channel,** 18.0" Round Area= 1.8 sf Perim= 4.7' r= 0.38' n= 0.012 Concrete pipe, finished
0.3	99	0.0053	5.68	17.84	**Pipe Channel,** 24.0" Round Area= 3.1 sf Perim= 6.3' r= 0.50' n= 0.012 Concrete pipe, finished
0.4	183	0.0088	7.32	22.99	**Pipe Channel,** 24.0" Round Area= 3.1 sf Perim= 6.3' r= 0.50'

n= 0.012 Concrete pipe, finished

15.2	1,415	Total

Summary for Link DP-1 EX: Municipal Drain

Inflow Area = 185,034 sf, 85.60% Impervious, Inflow Depth = 7.57" for 100-Year event
Inflow = 29.3 cfs @ 12.14 hrs, Volume= 116,736 cf
Primary = 29.3 cfs @ 12.14 hrs, Volume= 116,736 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs

Summary for Link DP-1 PR: Municipal Drain

Inflow Area = 185,118 sf, 78.58% Impervious, Inflow Depth = 7.34" for 100-Year event
Inflow = 28.1 cfs @ 12.09 hrs, Volume= 113,290 cf
Primary = 28.1 cfs @ 12.09 hrs, Volume= 113,290 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs

Summary for Link DP-4 EX: Municipal Drain

Inflow Area = 335,102 sf, 89.20% Impervious, Inflow Depth = 7.57" for 100-Year event
Inflow = 48.8 cfs @ 12.17 hrs, Volume= 211,412 cf
Primary = 48.8 cfs @ 12.17 hrs, Volume= 211,412 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs

Summary for Link DP-4 PR: Municipal Drain

Inflow Area = 335,018 sf, 84.84% Impervious, Inflow Depth = 7.45" for 100-Year event
Inflow = 46.1 cfs @ 12.20 hrs, Volume= 208,018 cf
Primary = 46.1 cfs @ 12.20 hrs, Volume= 208,018 cf, Atten= 0%, Lag= 0.0 min

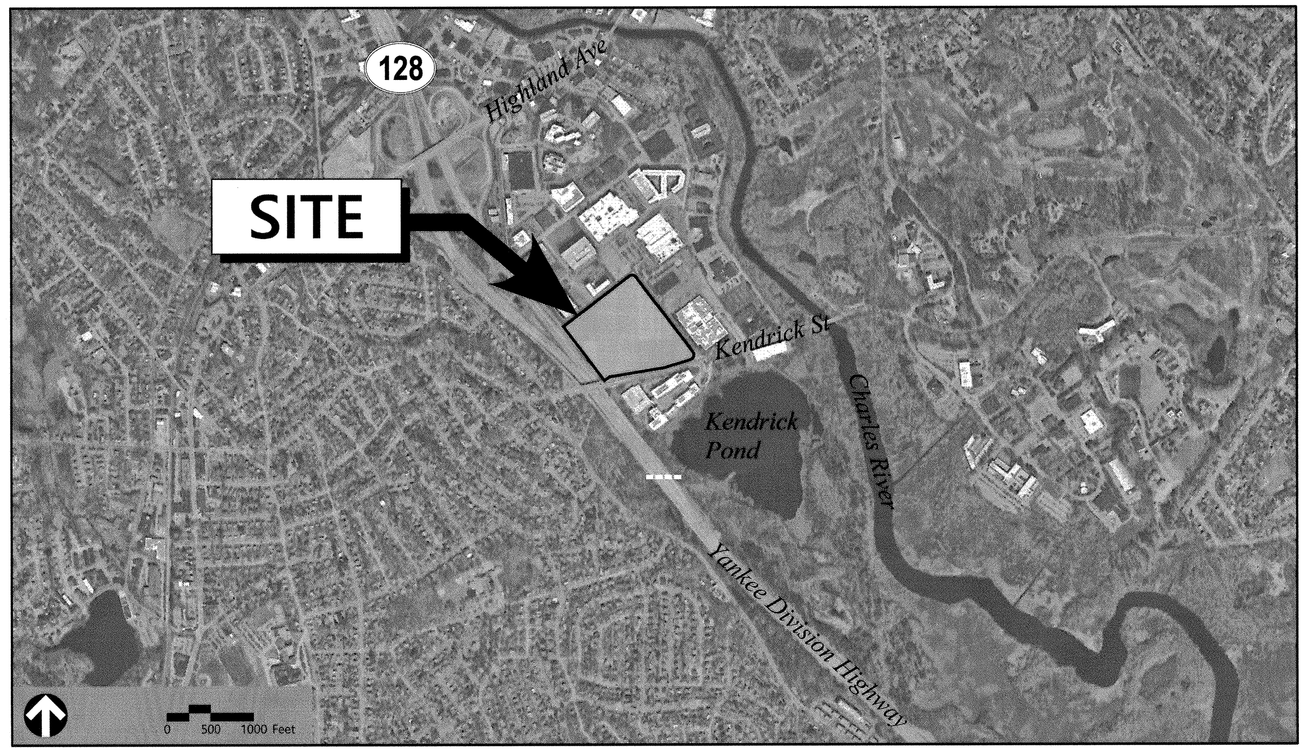
Primary outflow = Inflow, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs

Site Plans

Issued for	Site Plan Review
Date Issued	August 29, 2022
Latest Issue	August 29, 2022

Coca-Cola Site

9 B Street
Needham, Massachusetts
02494



Reference Drawings

No.	Drawing Title	Latest Issue
Sv-1	Existing Conditions Plan of Land	August 26, 2022
GA0.1	Overall Phasing Plan	August 24, 2022
GA3.1	Proposed Exterior Elevations	August 24, 2022
GA4.1	Proposed Rendering from Rt 128	August 24, 2022
E1.02	Front Parking Photometric Plan	August 26, 2022

Owner/Applicant
Coca-Cola Beverages Northeast, Inc.
1 Executive Park Drive
Suite 330
Bedford, NH 03110

Needham Parcel ID: 1993000001400000

vhb.com

101 Walnut Street
PO Box 9151
Watertown, MA 02471
617.924.1770

Survey
VHB, Inc.
101 Walnut Street
PO Box 9151
Watertown, MA 02471
617.924.1770

Architect
Design Group Facility Solutions, Inc.
5 Chenell Drive
Box 3
Concord, NH 03301
603.225.0010

V:\RIGBL\PRO\WAT-LD\15571.02 COCACOLA-SITECIVIL\CAD\LD\PLANSET\15571102-COV 30 August 2022

\\vhb.com\gbi\proj\Wat-LD\15571.00 Coca Cola Site Needham\cad\sr\planset\15571.00-EX.dwg

BENCHMARK
CHISELED SQUARE CONC LP BASE
ELEVATION=106.02'

BENCHMARK
X-CUT HYDRANT BOLT
ELEVATION=105.86'

BENCHMARK
CHISELED SQUARE CONC MAST ARM BASE
ELEVATION=97.36'

3RD AVENUE
(PUBLIC - 56.00' WIDE)

SPUR TRACK EASEMENT
DOC. NO. 301003
DOC. NO. 302175

SPUR TRACK EASEMENT
BOOK 3261, PAGE 379

28.0' RIGHT OF WAY TAKING
BOOK 3253, PAGE 321

S 37°04'34" E
1,098.07'

25' FRONT BUILDING SETBACK

R=50.00'
L=115.55'
Δ=110°20'51"
CHB=S 18°05'36" W
CHD=98.50'

R=50.00'
L=78.87'
Δ=90°22'48"
CHB=S 82°15'58" E
CHD=70.94'

B STREET
(PUBLIC - 56.00' WIDE)

25' FRONT BUILDING SETBACK

25' RIGHT OF WAY TAKING
BOOK 3253, PAGE 321

KENDRICK STREET
(PUBLIC-VARIABLE WIDTH)

50' FRONT BUILDING SETBACK

TEMPORARY EASEMENT
FOR ACCESS & CONSTRUCTION
DOC. NO. 385178

SLOPE EASEMENT
BOOK 3261, PAGE 383

ONE STORY
CONCRETE & BRICK BUILDING

PARCEL
AREA = 1,031,085 SQ. FT.
(23.670 ACRES)

Drain/Sewer Invert Detail
1"=40'

SEE
INVERT
DETAIL

BENCHMARK
X-CUT ON BOLT
ELEVATION=111.48'

BENCHMARK
NW CORNER SBDH
ELEVATION=118.18'

1ST
AVE

10' TELEPHONE EASEMENT
BOOK 3239, PAGE 542

25' FRONT BUILDING SETBACK

10' TELEPHONE EASEMENT
BOOK 3239, PAGE 542

N 37°04'34" W
790.00'

BENCHMARK
BMBENCH MARK
ELEVATION=114.55'

I-95 ROUTE 128 YANKEE DIVISION HIGHWAY

30' FRONT BUILDING SETBACK FOR TRUCK WASH BUILDING

TAKING & EASEMENT BY
MASSACHUSETTS DEPARTMENT OF
TRANSPORTATION
DOC. NO. 429168

SHLO EASEMENT
PARCEL 12-PLE-3

SHLO EASEMENT
PARCEL 12-E-2

Legend

- DRAIN MANHOLE
- CATCH BASIN
- SEWER MANHOLE
- ELECTRIC MANHOLE
- TELEPHONE MANHOLE
- MANHOLE
- HH□ HANDHOLE
- WATER GATE
- FIRE HYDRANT
- GAS GATE
- BOLLARD w/LIGHT
- TRAFFIC SIGNAL BOX
- TRAFFIC SIGNAL LIGHT
- PEDESTRIAN SIGNAL LIGHT
- STREET SIGN
- LIGHT POLE
- UTILITY POLE
- GUY POLE
- GUY WIRE
- MONITORING WELL
- FLOOD LIGHT
- WELL
- MARSH
- DOOR/ENTRANCE
- FFE FINISHED FLOOR ELEVATION
- CNO COULD NOT OPEN
- NPV NO PIPES VISIBLE
- DYL DOUBLE YELLOW LINE
- DWL DASHED WHITE LINE
- SYL SINGLE WHITE LINE
- LSA LANDSCAPED AREA
- EOP EDGE OF PAVEMENT
- CC CONCRETE CURB
- VGC VERTICAL GRANITE CURB
- SGE SLOPED GRANITE EDGE
- BB BITUMINOUS BERM
- BC BITUMINOUS CURB
- METAL GUARDRAIL
- WOOD GUARDRAIL
- WOOD FENCE
- CHAIN LINK FENCE
- DRAINAGE LINE
- SEWER LINE
- OHW OVERHEAD WIRE
- E UNDERGROUND ELECTRIC
- T TELEPHONE LINE
- G GAS LINE
- W WATER LINE
- STONE WALL
- TREE LINE

40 0 40 80
SCALE IN FEET

Record Owner

COCA-COLA REFRESHMENTS USA, INC.
9 B STREET
NEEDHAM, MASS.
ASSESSORS PARCEL1993000001400000
CERT#196708

Plan References

REGISTRY
168 OF 1954

LAND COURT
24606A
25152A
29185A
29360A

SHLO
4062
8321

COUNTY
KENDRICK STREET 1955

General Notes

1) THE PROPERTY LINES SHOWN ON THIS PLAN ARE BASED UPON AN ACTUAL FIELD SURVEY CONDUCTED BY VHB, INC. BETWEEN JANUARY & FEBRUARY, 2022 AND FROM DEEDS AND PLANS OF RECORD.

2) THE EXISTING CONDITIONS SHOWN ON THIS PLAN ARE BASED UPON AN ACTUAL ON-THE-GROUND INSTRUMENT SURVEY PERFORMED BY VHB, INC. BETWEEN JANUARY & MAY, 2022.

3) THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES SHOWN ON THIS PLAN ARE BASED ON FIELD OBSERVATIONS AND INFORMATION OF RECORD. THEY ARE NOT WARRANTED TO BE EXACTLY LOCATED NOR IS IT WARRANTED THAT ALL UNDERGROUND UTILITIES OR OTHER STRUCTURES ARE SHOWN ON THIS PLAN.

4) HORIZONTAL DATUM IS BASED ON MASS. GRID SYSTEM, NAD 1983. ELEVATIONS SHOWN ON THIS PLAN REFER TO NAVD OF 1988.

5) THE LOT LIES ENTIRELY WITHIN ZONE X (UNSHADED) (AREAS TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN) AS SHOWN ON THE FLOOD INSURANCE RATE MAP FOR NORFOLK COUNTY, MASSACHUSETTS, MAP NUMBER 25021C0037E , EFFECTIVE DATE JULY 17, 2012.

6) THE LOT LIES ENTIRELY WITHIN THE NEW ENGLAND BUSINESS CENTER DISTRICT (NEBC), WITH A WIRELESS COMMUNICATIONS FACILITIES TOWERS OVERLAY DISTRICT AS SHOWN ON THE "TOWN OF NEEDHAM, MASSACHUSETTS, ZONING MAP", DATED MARCH 1, 2020. SEE ZONING COMPLIANCE REPORT PREPARED BY MILLMAN NATIONAL LAND SERVICES, LAST REVISED JULY 10, 2017.

7) THE TREE SYMBOL OUTLINE SHOWN ON THIS PLAN DOES NOT REPRESENT THE ACTUAL TREE CANOPY.

vhb.com
vhb
101 Walnut Street
PO Box 9151
Watertown, MA 02471
617.924.1770

MASSACHUSETTS STATE PLANE
NAD 1983

Coca-Cola Site

9 B Street
Needham, Massachusetts 02494

No.	Revision	Date	Appvd.
1	PLAN SET SUBMISSION	8/26/22	CDKR

Designed by | Checked by

Issued for
March 1, 2022

Drawing Title
Existing Conditions Plan of Land

Drawing Number
Sv-1

Sheet 1 of 1

Project Number
15571.00

RUSSELL J. BOUSQUET NO. 35389 REGISTERED LAND SURVEYOR COMMONWEALTH OF MASSACHUSETTS
8/12/2022

Saved Friday, August 12, 2022 3:11:04 PM CDROBERTSON Plotted Friday, August 26, 2022 8:10:47 AM Craig Robertson

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PHASE 1 - VERTIQUE AREA - INTERIOR RENOVATIONS

PHASE 3 - PROPOSED EXISTING OFFICE WING TO BE DEMOLISHED - 14,500 SF

PHASE 3 - PROPOSED EXISTING OFFICE RENOVATION

AREA NOT IN SCOPE

PHASE 2 - PROPOSED FLEET SERVICES ADDITION - 14,610 SF

PHASE 2 - PROPOSED AREA TO BE DEMOLISHED - 44,985 SF

OVERALL PHASING FLOOR PLAN

1/32"=1'-0"

0 10 20 40

KEY PLAN

AREA OF WORK

PROJECT NORTH

Design Group
DESIGN GROUP FACILITY SOLUTIONS, INC.
5 CHENELL DRIVE, BOX 3, CONCORD, NEW HAMPSHIRE 03301
PHONE: (603) 225-0010 FAX: (603) 225-0761

#	DATE	BY	REVISION
A	04/14/2022	CN	BASIS OF DESIGN – GENERAL ARRANGEMENT
B	08/24/2022	CN	ISSUED TO PLANNING BOARD

Coca-Cola BEVERAGES NORTHEAST

CLIENT: COCA-COLA BEVERAGES NORTHEAST, INC.
ONE EXECUTIVE PARK DR., SUITE 330 BEDFORD, NH

PROJECT: SALES CENTER RENOVATIONS
NEEDHAM HEIGHTS, MA

DRAWING TITLE: OVERALL PHASING PLAN

REGISTERED ARCHITECT
LESLIE J. THOME
NO. 052735
CONCORD, NH
COMMONWEALTH OF MASSACHUSETTS
8/24/22

PROJECT NO.	2103141
ISSUED	00/00/00
SCALE	AS NOTED
DRAWN BY	CN

DRAWING NO.

GA0.1

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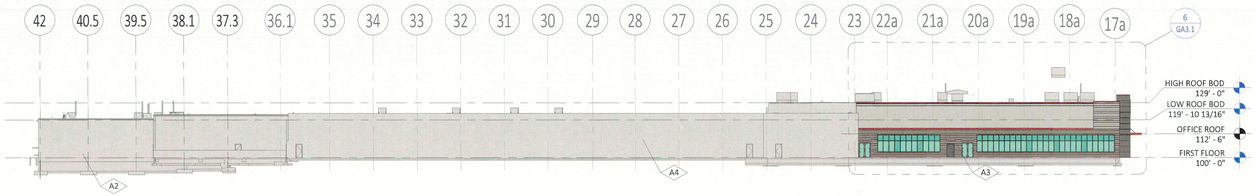
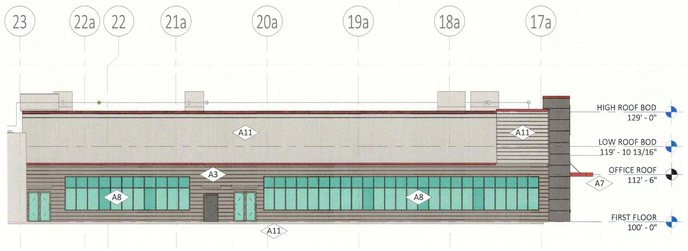
DATE PLOTTED:8/24/2022 11:39:09 AM



NORTH ELEVATION

1/32"=1'-0"

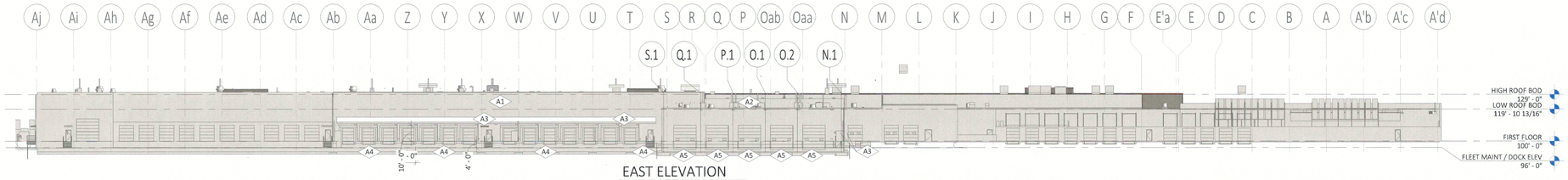
0 10 20 40



NORTH ELEVATION - ENLARGED OFFICE AREA

1/16"=1'-0"

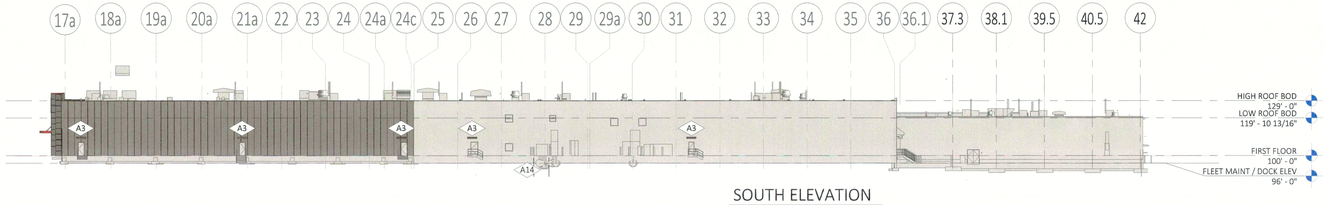
0 10 20



EAST ELEVATION

1/32"=1'-0"

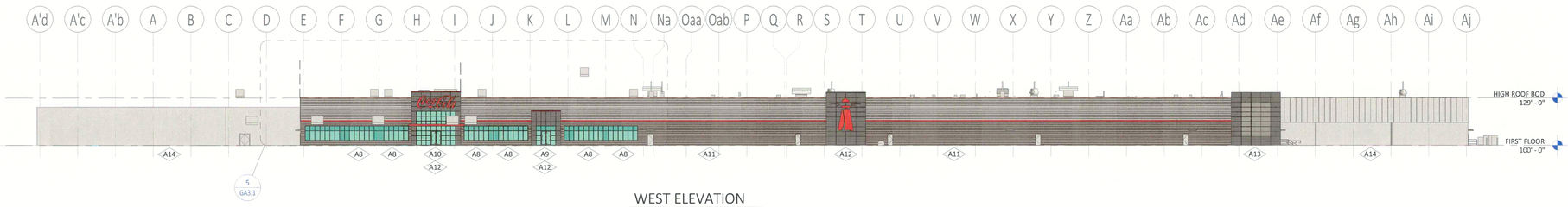
0 10 20 40



SOUTH ELEVATION

1/32"=1'-0"

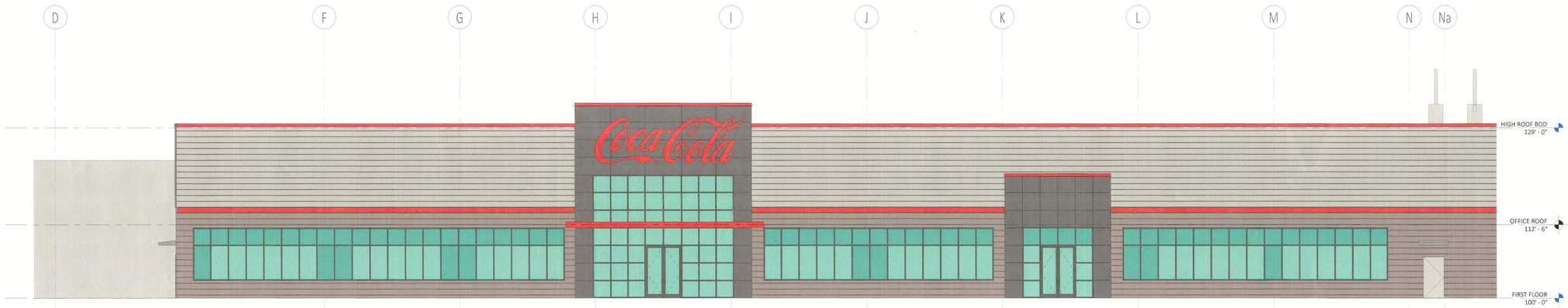
0 10 20 40



WEST ELEVATION

1/32"=1'-0"

0 10 20 40



WEST ELEVATION - ENLARGED OFFICE AREA

1/8"=1'-0"

0 2 4 6 8 10

KEYNOTES - ARCHITECTURAL A#

1. 3" INSULATED METAL PANEL WALL SYSTEM
2. 4" INSULATED METAL PANEL WALL SYSTEM
3. 5' WIDE BY 3 FOOT DEEP DOOR CANOPY MOUNTED AT 9FT AFF
4. 9'x10' VERTICAL LIFT DOOR WITH VISION PANELS, 3" TRACK, 100,000 CYCLE SPRINGS, DOCK SIGNAL / CONTROL LIGHTS, 7'x8' HYDRAULIC LEVELER, 50,000 LB CAPACITY, 30" DEEP SHELTER, LED DOCK ARM LIGHT, TIRE CHOCKS ON 18' CHAINS, EXTERIOR 110V BLOCK HEATER PLUG AND (2) INTERIOR 110V PALLET JACK PLUGS (TYPICAL AT EACH DOCK POSITION)
5. 14' X 14' VERTICAL LIFT POWERED WAYNE DALTON THERMOSAN DOOR WITH VISION PANELS
6. STRIP WINDOW TO MATCH ADJACENT WINDOWS
7. ENTRY CANOPY
8. 9' TALL STOREFRONT GLAZING SYSTEM
9. 12' TALL STOREFRONT GLAZING SYSTEM
10. 21' TALL CURTAINWALL GLAZING SYSTEM
11. MORIN SINGLE SKIN WALL PANEL ON 2" Z FURRNIG AND 2" RIGID INSULATION
12. 4" KINGSPAN DESIGNWALL INSULATED PANEL
13. 4" KINGSPAN DESIGNWALL INSULATED PANEL WITH ACCENT COLOR INFILL
14. PAINT EXTERIOR BRICK FACADE

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Design Group
DESIGN GROUP FACILITY SOLUTIONS, INC.
5 CHENELL DRIVE, BOX 3, CONCORD, NEW HAMPSHIRE 03301
PHONE: (603) 225-0010 FAX: (603) 225-0761

#	DATE	BY	REVISION
A	04/14/2022	CN	BASIS OF DESIGN – GENERAL ARRANGEMENT
B	08/24/2022	CN	ISSUED TO PLANNING BOARD

Coca-Cola BEVERAGES NORTHEAST

CLIENT: COCA-COLA BEVERAGES NORTHEAST, INC.
ONE EXECUTIVE PARK DR., SUITE 330 BEDFORD, NH

PROJECT: SALES CENTER RENOVATIONS
NEEDHAM HEIGHTS, MA

DRAWING TITLE: PROPOSED EXTERIOR ELEVATIONS

8/24/22
REGISTERED ARCHITECT
LESLIE A. THOMAS
NO. 052738
CONCORD, NH
COMMONWEALTH OF MASSACHUSETTS

PROJECT NO.	2103141
ISSUED	00/00/00
SCALE	AS NOTED
DRAWN BY	CN

DRAWING NO.

GA3.1

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Design Group
DESIGN GROUP FACILITY SOLUTIONS, INC.
5 CHENELL DRIVE, BOX 3, CONCORD, NEW HAMPSHIRE 03301
PHONE: (603) 225-0010 FAX: (603) 225-0761

#	DATE	BY	REVISION
A	08/24/2022	CN	ISSUED TO PLANNING BOARD

Coca-Cola BEVERAGES NORTHEAST

CLIENT: COCA-COLA BEVERAGES NORTHEAST, INC.
ONE EXECUTIVE PARK DR., SUITE 330 BEDFORD, NH

PROJECT: SALES CENTER RENOVATIONS
NEEDHAM HEIGHTS, MA

DRAWING TITLE: PROPOSED RENDERING FROM RT 128

8/24/22

REGISTERED ARCHITECT
LESLIE J. THOMAS
NO. 952738
CONCORD, NH
COMMONWEALTH OF MASSACHUSETTS

Leslie J. Thomas

PROJECT NO.	2103141
ISSUED	00/00/00
SCALE	AS NOTED
DRAWN BY	CN
DRAWING NO.	GA4.1

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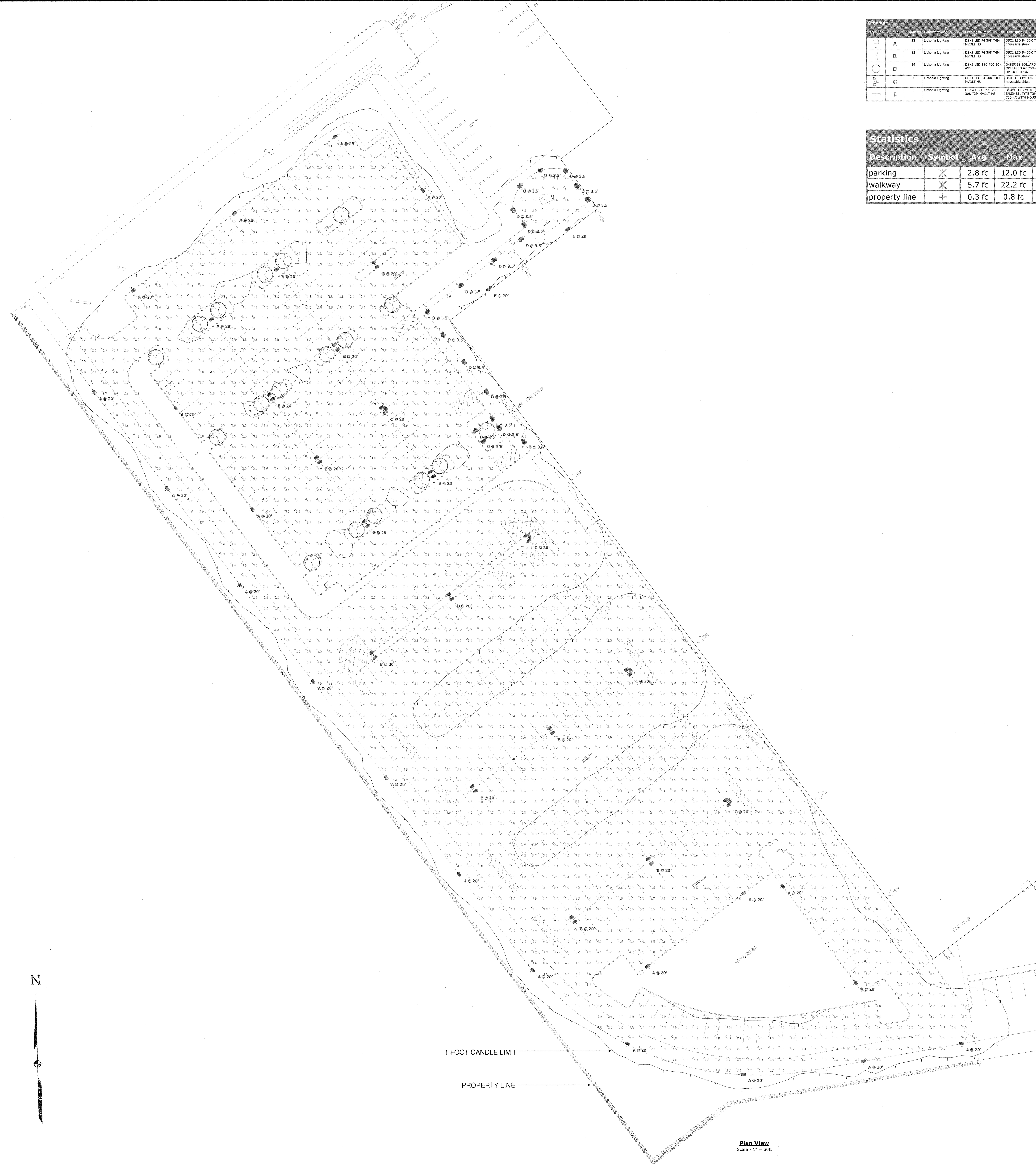
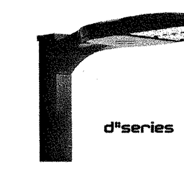


Plan View
Scale - 1" = 30ft

Schedule									
Symbol	Label	Quantity	Manufacturer	Catalog Number	Description	Number Lamps	Lumens Per Lamp	Light Loss Factor	Wattage
	A	23	Lithonia Lighting	DSX1 LED P4 30K T4M MVOLT HS	DSX1 LED P4 30K T4M MVOLT with houseside shield	1	10217	0.9	125
	B	12	Lithonia Lighting	DSX1 LED P4 30K T4M MVOLT HS	DSX1 LED P4 30K T4M MVOLT with houseside shield	1	10217	0.9	250
	D	19	Lithonia Lighting	DSXB LED 12C 700 30K ASY	D-SERIES BOLLARD WITH 12 3000K LEDS OPERATED AT 700mA AND ASYMMETRIC DISTRIBUTION	1	2173	0.9	31
	C	4	Lithonia Lighting	DSX1 LED P4 30K T4M MVOLT HS	DSX1 LED P4 30K T4M MVOLT with houseside shield	1	10217	0.9	375
	E	2	Lithonia Lighting	DSXW1 LED 20C 700 30K T3M MVOLT HS	DSXW1 LED WITH (2) 10 LED LIGHT ENGINES, TYPE T3M OPTIC, 3000K, @ 700mA WITH HOUSE-SIDE SHIELDS.	1	4071	0.9	45.7

Statistics

Description	Symbol	Avg	Max	Min	Max/Min	Avg/Min
parking	✳	2.8 fc	12.0 fc	0.3 fc	40.0:1	9.3:1
walkway	✳	5.7 fc	22.2 fc	0.8 fc	27.8:1	7.1:1
property line	+	0.3 fc	0.8 fc	0.0 fc	N/A	N/A



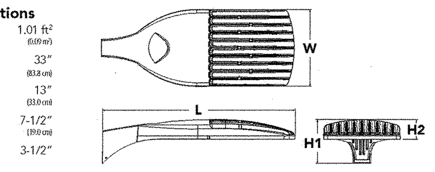
D-Series Size 1
LED Area Luminaire

d"series

Buy American

Catalog Number
Notes
Type A,B,C

Specifications
EPA: 1.01 ft² (0.09 m²)
Length: 33" (83.8 cm)
Width: 13" (33.0 cm)
Height H1: 7-1/2" (19.0 cm)
Height H2: 3-1/2"
Weight (max): 27 lbs (12.2 kg)



Introduction
The modern styling of the D-Series is striking yet unobtrusive - making a bold, progressive statement even as it blends seamlessly with its environment. The D-Series distills the benefits of the latest in LED technology into a high performance, high efficacy, long-life luminaire.

The outstanding photometric performance results in sites with excellent uniformity, greater pole spacing and lower power density. It is ideal for replacing up to 750W metal halide in pedestrian and area lighting applications with typical energy savings of 65% and expected service life of over 100,000 hours.

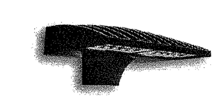
Ordering Information EXAMPLE: DSX1 LED P7 40K T3M MVOLT SPA NLTAIR2 PIRHN DDBXD

DSX1 LED

Series	LEDs	Color temperature	Distribution		Voltage	Mounting
DSX1 LED	Forward optics: P1, P2, P3, P4[1], P5[1], P6[1], P7[1], P8, P9[1]; Rotated optics: P10[2], P11[2], P12[2], P13[12]	30K 3000 K; 40K 4000 K; 50K 5000 K	T1S Type I short (Automotive); T2S Type II short; T2M Type II medium; T3S Type III short; T3M Type III medium; T4M Type IV medium; TFTM Forward throw medium	T5VS Type V very short[3]; T5S Type V short[3]; T5M Type V medium[3]; T5W Type V wide[3]; BLC Backlight control[4]; LCCO Left corner cutoff[4]; RCCO Right corner cutoff[4]	MVOLT[5]; XVOLT (277V-480V)[6,7,8]; 120[9]; 208[9]; 240[9]; 277[9]; 347[9]; 480[9]	Shipped included: SPA Square pole mounting; RPA Round pole mounting[10]; WBA Wall bracket[3]; SPUMBA Square pole universal mounting adaptor[11]; RPUMBA Round pole universal mounting adaptor[9]; Shipped separately: KMA8 DDBXD U Mast arm mounting bracket adaptor (specify finish)[12]

Control options		Other options	Finish
Shipped installed: NLTAIR2 nLight AIR generation 2 enabled[13]; PIRHN Network, high/low motion/ambient sensor[14]; PER NEMA twist-lock receptacle only (controls ordered separate)[15]; PER5 Five-pin receptacle only (controls ordered separate)[15,16]; PER7 Seven-pin receptacle only (controls ordered separate)[15,16]; DMG 0-10v dimming wires pulled outside fixture (for use with an external control, ordered separately)[17]; DS Dual switching[18,19,20]	PIR High/low, motion/ambient sensor, 8-15' mounting height, ambient sensor enabled at 5fc[20,21]; PIRH High/low, motion/ambient sensor, 15-30' mounting height, ambient sensor enabled at 5fc[20,21]; PIR1FC3V High/low, motion/ambient sensor, 8-15' mounting height, ambient sensor enabled at 1fc[20,21]; PIRH1FC3V Bi-level, motion/ambient sensor, 15-30' mounting height, ambient sensor enabled at 1fc[20,21]; FAO Field adjustable output[20,21]	Shipped installed: HS House-side shield[23]; SF Single fuse (120, 277, 347V)[9]; DF Double fuse (208, 240, 480V)[9]; L90 Left rotated optics[2]; R90 Right rotated optics[2]; HA 50°C ambient operations[1]; BAA Buy America(n) Act Compliant; Shipped separately: BS Bird spikes[24]; EGS External glare shield	DDBXD Dark bronze; DBLXD Black; DNAXD Natural aluminum; DWHXD White; DDBTXD Textured dark bronze; DBLBXD Textured black; DNATXD Textured natural aluminum; DWHGXD Textured white

LITHONIA LIGHTING. COMMERCIAL OUTDOOR



D-Series Size 1
LED Wall Luminaire

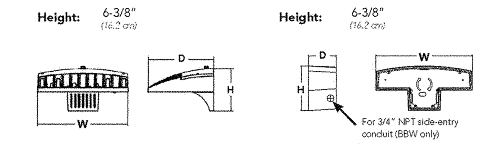
Buy American

d"series

Catalog Number
Notes
Type E

Specifications
Luminaire
Width: 13-3/4" (34.9 cm) Weight: 12 lbs (5.4 kg)
Depth: 10" (25.4 cm)
Height: 6-3/8" (16.2 cm)

Back Box (BBW, E20WC)
Width: 13-3/4" (34.9 cm) BBW Weight: 5 lbs (2.3 kg)
Depth: 4" (10.2 cm) E20WC Weight: 10 lbs (4.5 kg)
Height: 6-3/8" (16.2 cm)



For 3/4" NPT side-entry conduit (BBW only)

Introduction
The D-Series Wall luminaire is a stylish, fully integrated LED solution for building-mount applications. It features a sleek, modern design and is carefully engineered to provide long-lasting, energy-efficient lighting with a variety of optical and control options for customized performance.

With an expected service life of over 20 years of nighttime use and up to 74% in energy savings over comparable 250W metal halide luminaires, the D-Series Wall is a reliable, low-maintenance lighting solution that produces sites that are exceptionally illuminated.

Ordering Information EXAMPLE: DSXW1 LED 20C 1000 40K T3M MVOLT DDBTXD

DSXW1 LED

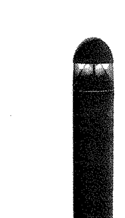
Series	LEDs	Drive current	Color temperature	Distribution	Voltage	Mounting	Control Options
DSXW1 LED	10C 10 LEDs (one engine); 20C 20 LEDs (two engines)[1]	350 350 mA; 530 530 mA; 700 700 mA; 1000 1000 mA (1 A)[1]	30K 3000 K; 40K 4000 K; 50K 5000 K; AMBPC Amber phosphor converted	T2S Type II Short; T2M Type II Medium; T3S Type III Short; T3M Type III Medium; T4M Type IV Medium; TFTM Forward Throw Medium	MVOLT[2]; 120[3]; 208[3]; 240[3]; 277[3]; 347[3,4]; 480[3,4]	Shipped included: (blank) Surface mounting bracket; BBW Surface-mounted back box (for conduit entry)[5]	Shipped installed: PE Photoelectric cell, button type[6]; DMG 0-10v dimming wires pulled outside fixture (for use with an external control, ordered separately); PIR 180° motion/ambient light sensor, <15' mtg ht[1,7]; PIRH 180° motion/ambient light sensor, 15-30' mtg ht[1,7]; PIR1FC3V Motion/ambient sensor, 8-15' mounting height, ambient sensor enabled at 1fc[1,7]; PIRH1FC3V Motion/ambient sensor, 15-30' mounting height, ambient sensor enabled at 1fc[1,7]; E20WC Emergency battery backup (includes external component enclosure), CA Title 20 compliant[8,9]

Other Options		Finish		
Shipped installed: SF Single fuse (120, 277 or 347V)[3,10]; DF Double fuse (208, 240 or 480V)[3,10]; HS House-side shield[11]; SPD Separate surge protection[12]	Shipped separately[11]: BSW Bird-deterrent spikes; VG Vandal guard; DDL Diffused drop lens	DDBXD Dark bronze; DBLXD Black; DNAXD Natural aluminum; DWHXD White	DSSXD Sandstone; DDBTXD Textured dark bronze; DBLBXD Textured black; DNATXD Textured natural aluminum	DWHGXD Textured white; DSSTXD Textured sandstone

Accessories
Ordered and shipped separately.
DSXWHS U House-side shield (one per light engine)
DSXWBSW U Bird-deterrent spikes
DSXW1VG U Vandal guard accessory

NOTES
1 20C 1000 is not available with PIR, PIRH, PIR1FC3V or PIRH1FC3V.
2 MVOLT driver operates on any line voltage from 120-277V (50/60 Hz).
3 Single fuse (SF) requires 120, 277 or 347 voltage option. Double fuse (DF) requires 208, 240 or 480 voltage option.
4 Only available with 20C, 700mA or 1000mA. Not available with PIR or PIRH.
5 Back box ships installed on fixture. Cannot be field installed. Cannot be ordered as an accessory.
6 Photocontrol (PE) requires 120, 208, 240, 277 or 347 voltage option. Not available with motion/ambient light sensors (PIR or PIRH).
7 Reference Motion Sensor table on page 3.
8 Same as old ELCW. Cold weather (-20C) rated. Not compatible with conduit entry applications. Not available with BBW mounting option. Not available with fusing. Not available with 347 or 480 voltage options. Emergency components located in back box housing. Emergency mode IES files located on product page at www.lithonia.com
9 Not available with SPD.
10 Not available with E20WC.
11 Also available as a separate accessory; see Accessories information.
12 Not available with E20WC.

LITHONIA LIGHTING. COMMERCIAL OUTDOOR



D-Series
LED Bollard

lighting facts

Buy American

d"series

Catalog Number
Notes
Type D

Specifications
Diameter: 8" Round (20.3 cm)
Height: 42" (106.7 cm)
Weight (max): 27 lbs (12.25 kg)

Introduction
The D-Series LED Bollard is a stylish, energy-saving, long-life solution designed to perform the way a bollard should—with zero uplight. An optical leap forward, this full cut-off luminaire will meet the most stringent of lighting codes. The D-Series LED Bollard's rugged construction, durable finish and long-lasting LEDs will provide years of maintenance-free service.

Ordering Information EXAMPLE: DSXB LED 16C 700 40K SYM MVOLT DDBXD

DSXB LED

Series	LEDs	Drive current	Color temperature	Distribution	Voltage	Control options	Other options	Finish
DSXB LED	Asymmetric: 12C 12 LEDs[1]; Symmetric: 16C 16 LEDs[2]	350 350 mA; 450 450 mA[3,4]; 530 530 mA; 700 700 mA	30K 3000 K; 40K 4000 K; 50K 5000 K; AMBPC Amber phosphor converted; AMBLW Amber limited wavelength[3,4]	ASY Asymmetric[1]; SYM Symmetric[2]	MVOLT[5]; 120[5]; 208[5]; 240[5]; 277[5]; 347[6]	Shipped installed: PE Photoelectric cell, button type; DMG 0-10v dimming wires pulled outside fixture (for use with an external control, ordered separately); ELCW Emergency battery backup[6]	Shipped installed: SF Single fuse (120, 277, 347V)[4,7]; DF Double fuse (208, 240V)[4,7]; H24 24" overall height; H30 30" overall height; H36 36" overall height; FG Ground-fault festoon outlet; L/AB Without anchor bolts; L/AB4 4-bolt retrofit base without anchor bolts[8]	DWHXD White; DNAXD Natural aluminum; DDBXD Dark bronze; DBLXD Black; DDBTXD Textured dark bronze; DBLBXD Textured black; DNATXD Textured natural aluminum; DWHGXD Textured white

Accessories
Ordered and shipped separately.
MRAB U Anchor bolts for DSXB[8]

NOTES
1 Only available in the 12C, ASY version.
2 Only available in the 16C, SYM version.
3 Only available with 450 AMBLW version.
4 Not available with ELCW.
5 MVOLT driver operates on any line voltage from 120-277V (50/60 Hz). Specify 120, 208, 240 or 277 options only when ordering with fusing (SF, DF options), or photocontrol (PE option).
6 Not available with 347V. Not available with fusing. Not available with 450 AMBLW.
7 Single fuse (SF) requires 120, 277, or 347 voltage option. Double fuse (DF) requires 208 or 240 voltage option.
8 MRAB U not available with L/AB4 option.

LITHONIA LIGHTING.

Design Group
DESIGN GROUP FACILITY SOLUTIONS, INC.
5 CHENELL DRIVE, BOX 3, CONCORD, NEW HAMPSHIRE 03301
PHONE: (603) 225-0010 FAX: (603) 225-0761

#	DATE	BY	REVISION
0	08/29/22		ISSUED TO PLANNING BOARD

Coca-Cola BEVERAGES NORTHEAST

CLIENT: COCA-COLA BEVERAGES NORTHEAST, INC.
ONE EXECUTIVE PARK DR., SUITE 330 BEDFORD, NH

PROJECT: SALES CENTER RENOVATIONS
NEEDHAM HEIGHTS, MA

DRAWING TITLE: FRONT PARKING PHOTOMETRIC PLAN

COMMONWEALTH OF MASSACHUSETTS RODNEY R. TUCKER ELECTRICAL No. 49374 REGISTERED PROFESSIONAL ENGINEER
08/29/22

PROJECT NO.	2103141
ISSUED	08/29/22
SCALE	AS NOTED
DRAWN BY	REM
DRAWING NO.	E1.02

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DATE PLOTTED:8/29/2022 3:15:30 PM

Memorandum

To: Thomas Ryder
Public Services Administration Building
500 Dedham Avenue, Suite 118
Needham, MA 02492

Date: August 30, 2022

Project #: 15571.00

From: Matt Kealey, PE, PTOE
Ashley Domogala, EIT

Re: Traffic Evaluation - Coca-Cola Building Renovation
9 B Street, Needham, MA

Introduction

VHB has conducted a traffic evaluation on behalf of Coca-Cola Beverages Northeast, Inc. (Coke Northeast) for proposed site improvements and renovations (the Project) at the existing facility located at 9 B Street in Needham, MA (the Site). The facility was operated as a Coca-Cola bottling and distribution facility from the 1970's to 2018. In 2018, Coke Northeast ceased all beverage production at the facility and now operates the facility as a sales and distribution warehouse. As proposed, the Project consists of loading dock modifications, partial demolition of building structures, site vehicular and pedestrian circulation and parking area modifications associated with the building changes, landscape improvements, stormwater treatment upgrades and utility improvements. The Project results in an overall reduction in building area on the Site. This memorandum has been prepared to summarize trip generation and transportation project research.

Transportation Projects

To get an understanding of potential future transportation conditions in the vicinity of the site, VHB researched recent projects and planned projects in the area. Two notable projects that resulted from this research are the Route 128 Add-A-Lane project, which was recently completed near the Site, and the nearby development of Founders Park, which is proposing additional improvements at the intersection of Kendrick Street at Third Avenue, just south of the Site driveway on Third Avenue.

Route 128 Add-A-Lane

As part of the Route 128 Add-A-Lane project completed by MassDOT, a new interchange was added at Kendrick Street. It included a Route 128 northbound off-ramp and Route 128 southbound on-ramp that opened in August 2016, as well as a Route 128 northbound on-ramp and Route 128 southbound off-ramp that opened in December 2017. In addition, traffic signal timing adjustments were implemented at the intersection of Kendrick Street at Third Avenue. The full Add-A-Lane project was completed in late 2018.

Based on a post-construction traffic study[1] completed by McMahon Associates, the traffic volumes on Kendrick Street east of Route 128 increased by approximately 15 percent eastbound and 42 percent westbound in the weekday morning peak hour and by approximately 44 percent eastbound and 17 percent westbound in the weekday evening peak hour.

[1] Route 128 Add-a-Lane Post Construction Study; McMahon Associates (Boston, MA); November 25, 2019.

Engineers | Scientists | Planners | Designers
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Boston Children's Hospital at Founders Park: Kendrick Street at Third Avenue Improvements

A Notice of Project Change (NPC) for Boston Children's Hospital at Founders Park[2] was submitted in January 2021. It found that the intersection of Kendrick Street at Third Avenue currently operates at an acceptable LOS C under 2019 baseline conditions, but would be anticipated to degrade to LOS E/F under 2026 Build conditions without mitigation.

As described in the NPC and confirmed in the SEIR Certificate for Founders Park[3], the following improvements were proposed by Children's Hospital Corporation at the intersection of Kendrick Street at Third Avenue:

- Adjust signal timing and phasing to improve peak operations (requiring approval from MassDOT)
- Adjust signal heads to improve visibility and safety
- Increase the storage capacity of the southbound right-turn lane

With the proposed mitigation, the intersection would operate at LOS C and E in the weekday morning and evening peak hours, respectively.

Trip Generation

Existing Trip Generation

To quantify existing trip generation at the Site, twenty-four hour automatic traffic record (ATR) counts were conducted at the Site driveways on Thursday, April 7, 2022. The ATR data is included in the Attachments.

The existing daily and peak hour trip generation are summarized in Table 1. The Site currently generates approximately 731 vehicle trips on a typical weekday, 23 of which occur in the weekday morning peak hour and 36 of which occur in the weekday evening peak hour.

[2] Notice of Project Change: Boston Children's Hospital at Founders Park; Epsilon Associates, Inc. (Maynard, MA); January 15, 2021.
[3] Certificate of the Secretary of Energy and Environmental Affairs on the Single Environmental Impact Report: Founders Park (Previously Reviewed as Center 128); Executive Office of Energy and Environmental Affairs (Boston, MA); April 30, 2021.

Memorandum

Table 1 Existing Trip Generation

Time Period	Cars	Single-Unit Heavy Vehicles	Multi-Unit Heavy Vehicles	Total
Daily				
Enter	252	18	89	359
Exit	265	17	90	372
Total	**517**	**35**	**179**	**731**
Morning Peak Hour (7:15-8:15 AM)				
Enter	11	1	2	14
Exit	3	3	3	9
Total	**14**	**4**	**5**	**23**
Evening Peak Hour (4:00-5:00 PM)				
Enter	7	0	3	10
Exit	24	0	2	26
Total	**31**	**0**	**5**	**36**

Source: ATR counts conducted on Thursday, April 7, 2022.

Figures 1 and 2 show the entering and exiting volumes by 15-minute time period.

Figure 1: Site Entering Volumes by 15-Minute Time Period

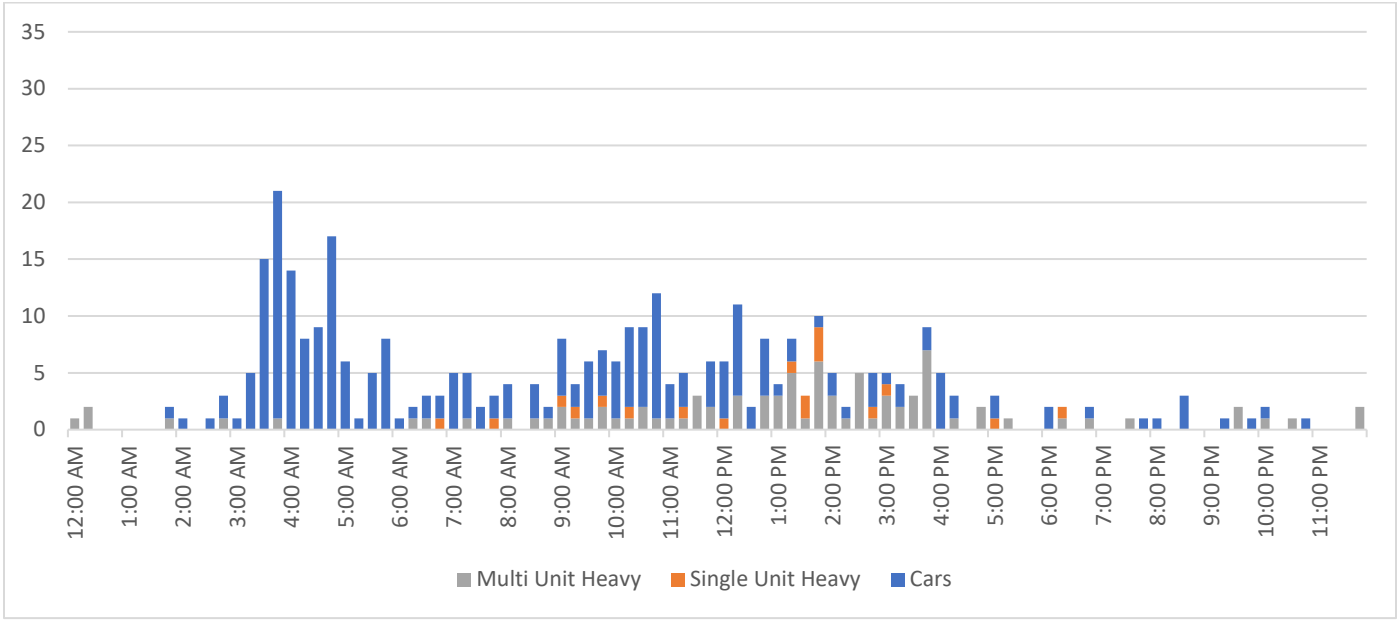
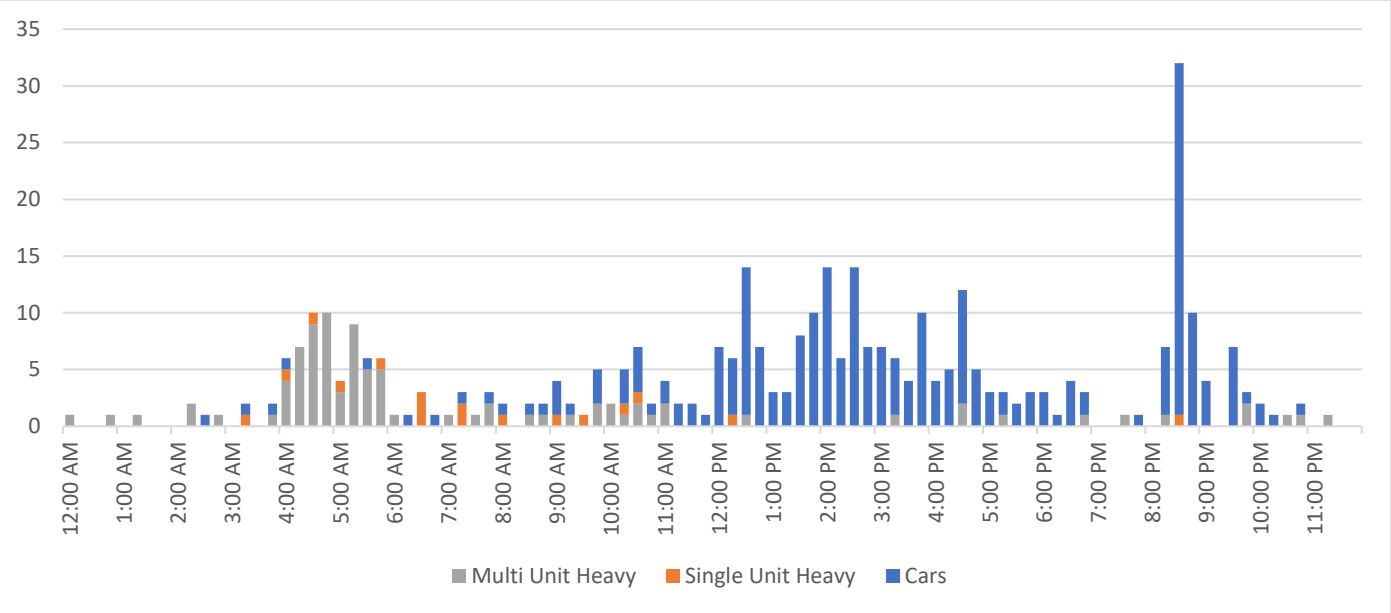


Figure 2: Site Exiting Volumes by 15-Minute Time Period



The data summarized in Figures 1 and 2 indicates the following:

- Peak truck activity occurs between 4:00-6:00 AM and 1:00-4:00 PM, outside of peak commuting periods
- Vehicular activity at the site is low during the typical weekday peak commuting periods of 7:00-9:00 AM and 4:00-6:00 PM

Future Trip Generation

As mentioned previously, the proposed renovations include loading dock modifications, partial demolition of building structures, site vehicular and pedestrian circulation and parking area modifications associated with the building changes, landscape improvements, stormwater treatment upgrades and utility improvements. The Project reduces the overall building area. Based on discussions with the Applicant, the employee count will remain the same or will slightly decrease for typical day to day operations. In addition, the level of truck activity is not expected to increase at the facility. As such, the future Site trip generation is expected to be similar to or lower than the existing Site trip generation.

Conclusion

As discussed in this memorandum, the proposed Coca-Cola building renovation is expected to result in trip generation that is similar to, or lower than the existing facility. Therefore, no significant traffic impact is expected as a result of the Project. In addition, the nearby Founders Park development is proposing further modifications at the intersection of Kendrick Street at Third Avenue, which should improve operations in the vicinity of the site.

Attachments

Coca-Cola Driveway
west of 3rd Avenue
City, State: Needham, MA
Client: VHB/A. Domogala
Site Code: 15571

Count Date: **Thursday, April 7, 2022**
Direction: **EB**

PRECISION DATA INDUSTRIES, LLC
157 Washington Street, Suite 2
Hudson, MA 01749
Office: 508-875-0100 Fax: 508-875-0118

PDI File # **228541 ATR A**

AM	Cars	Single Unit Heavy	Multi Unit Heavy	Total
12:00 AM	0	0	1	1
12:15 AM	0	0	0	0
12:30 AM	0	0	0	0
12:45 AM	0	0	1	1
1:00 AM	0	0	0	0
1:15 AM	0	0	1	1
1:30 AM	0	0	0	0
1:45 AM	0	0	0	0
2:00 AM	0	0	0	0
2:15 AM	0	0	2	2
2:30 AM	0	0	0	0
2:45 AM	0	0	1	1
3:00 AM	0	0	0	0
3:15 AM	0	1	0	1
3:30 AM	0	0	0	0
3:45 AM	1	0	1	2
4:00 AM	0	1	4	5
4:15 AM	0	0	7	7
4:30 AM	0	1	9	10
4:45 AM	0	0	10	10
5:00 AM	0	1	3	4
5:15 AM	0	0	9	9
5:30 AM	0	0	5	5
5:45 AM	0	1	5	6
6:00 AM	0	0	1	1
6:15 AM	1	0	0	1
6:30 AM	0	3	0	3
6:45 AM	0	0	0	0
7:00 AM	0	0	1	1
7:15 AM	1	2	0	3
7:30 AM	0	0	1	1
7:45 AM	0	0	2	2
8:00 AM	0	1	0	1
8:15 AM	0	0	0	0
8:30 AM	0	0	1	1
8:45 AM	0	0	1	1
9:00 AM	2	1	0	3
9:15 AM	1	0	1	2
9:30 AM	0	1	0	1
9:45 AM	2	0	2	4
10:00 AM	0	0	2	2
10:15 AM	0	1	1	2
10:30 AM	1	1	2	4
10:45 AM	0	0	1	1
11:00 AM	0	0	2	2
11:15 AM	0	0	0	0
11:30 AM	1	0	0	1
11:45 AM	1	0	0	1
AM Total	**11**	**15**	**77**	**103**
Percentage	**10.68%**	**14.56%**	**74.76%**	
AM Peak	**9:00 AM**	**6:30 AM**	**4:30 AM**	**4:30 AM**
Volume	**5**	**5**	**31**	**33**

PM	Cars	Single Unit Heavy	Multi Unit Heavy	Total
12:00 PM	1	0	0	1
12:15 PM	0	1	0	1
12:30 PM	0	0	1	1
12:45 PM	0	0	0	0
1:00 PM	2	0	0	2
1:15 PM	1	0	0	1
1:30 PM	0	0	0	0
1:45 PM	0	0	0	0
2:00 PM	1	0	0	1
2:15 PM	2	0	0	2
2:30 PM	1	0	0	1
2:45 PM	0	0	0	0
3:00 PM	0	0	0	0
3:15 PM	1	0	1	2
3:30 PM	0	0	0	0
3:45 PM	0	0	0	0
4:00 PM	0	0	0	0
4:15 PM	0	0	0	0
4:30 PM	0	0	2	2
4:45 PM	0	0	0	0
5:00 PM	0	0	0	0
5:15 PM	0	0	1	1
5:30 PM	1	0	0	1
5:45 PM	0	0	0	0
6:00 PM	1	0	0	1
6:15 PM	0	0	0	0
6:30 PM	0	0	0	0
6:45 PM	1	0	1	2
7:00 PM	0	0	0	0
7:15 PM	0	0	0	0
7:30 PM	0	0	1	1
7:45 PM	0	0	0	0
8:00 PM	0	0	0	0
8:15 PM	0	0	1	1
8:30 PM	0	1	0	1
8:45 PM	0	0	0	0
9:00 PM	0	0	0	0
9:15 PM	0	0	0	0
9:30 PM	0	0	0	0
9:45 PM	0	0	2	2
10:00 PM	0	0	0	0
10:15 PM	0	0	0	0
10:30 PM	0	0	1	1
10:45 PM	0	0	1	1
11:00 PM	0	0	0	0
11:15 PM	0	0	1	1
11:30 PM	0	0	0	0
11:45 PM	0	0	0	0
PM Total	**12**	**2**	**13**	**27**
Percentage	**44.44%**	**7.41%**	**48.15%**	
PM Peak	**1:45 PM**	**12:00 PM**	**4:30 PM**	**12:15 PM**
Volume	**4**	**1**	**3**	**4**
Day Total	**23**	**17**	**90**	**130**
Percentage	**17.69%**	**13.08%**	**69.23%**	

Coca-Cola Driveway
west of 3rd Avenue
City, State: Needham, MA
Client: VHB/A. Domogala
Site Code: 15571

Count Date: **Thursday, April 7, 2022**
Direction: **WB**

PRECISION DATA INDUSTRIES, LLC
157 Washington Street, Suite 2
Hudson, MA 01749
Office: 508-875-0100 Fax: 508-875-0118

PDI File # **228541 ATR A**

AM	Cars	Single Unit Heavy	Multi Unit Heavy	Total
12:00 AM	0	0	1	1
12:15 AM	0	0	2	2
12:30 AM	0	0	0	0
12:45 AM	0	0	0	0
1:00 AM	0	0	0	0
1:15 AM	0	0	0	0
1:30 AM	0	0	0	0
1:45 AM	0	0	1	1
2:00 AM	0	0	0	0
2:15 AM	0	0	0	0
2:30 AM	0	0	0	0
2:45 AM	0	0	1	1
3:00 AM	0	0	0	0
3:15 AM	0	0	0	0
3:30 AM	0	0	0	0
3:45 AM	0	0	1	1
4:00 AM	1	0	0	1
4:15 AM	0	0	0	0
4:30 AM	0	0	0	0
4:45 AM	0	0	0	0
5:00 AM	0	0	0	0
5:15 AM	0	0	0	0
5:30 AM	0	0	0	0
5:45 AM	1	0	0	1
6:00 AM	0	0	0	0
6:15 AM	0	0	1	1
6:30 AM	1	0	1	2
6:45 AM	0	1	0	1
7:00 AM	1	0	0	1
7:15 AM	0	0	1	1
7:30 AM	0	0	0	0
7:45 AM	0	1	0	1
8:00 AM	1	0	1	2
8:15 AM	0	0	0	0
8:30 AM	3	0	1	4
8:45 AM	0	0	1	1
9:00 AM	0	1	2	3
9:15 AM	0	1	1	2
9:30 AM	0	0	1	1
9:45 AM	1	1	2	4
10:00 AM	0	0	1	1
10:15 AM	0	1	1	2
10:30 AM	0	0	2	2
10:45 AM	0	0	1	1
11:00 AM	0	0	1	1
11:15 AM	1	1	1	3
11:30 AM	0	0	3	3
11:45 AM	1	0	2	3
AM Total	**11**	**7**	**30**	**48**
Percentage	**22.92%**	**14.58%**	**62.50%**	
AM Peak	**7:45 AM**	**9:00 AM**	**11:00 AM**	**8:30 AM**
Volume	**4**	**3**	**7**	**10**

PM	Cars	Single Unit Heavy	Multi Unit Heavy	Total
12:00 PM	1	1	0	2
12:15 PM	1	0	3	4
12:30 PM	0	0	0	0
12:45 PM	2	0	3	5
1:00 PM	0	0	3	3
1:15 PM	2	1	5	8
1:30 PM	0	2	1	3
1:45 PM	0	3	6	9
2:00 PM	0	0	3	3
2:15 PM	0	0	1	1
2:30 PM	0	0	5	5
2:45 PM	0	1	1	2
3:00 PM	1	1	3	5
3:15 PM	0	0	2	2
3:30 PM	0	0	3	3
3:45 PM	0	0	7	7
4:00 PM	0	0	0	0
4:15 PM	1	0	1	2
4:30 PM	0	0	0	0
4:45 PM	0	0	2	2
5:00 PM	1	1	0	2
5:15 PM	0	0	1	1
5:30 PM	0	0	0	0
5:45 PM	0	0	0	0
6:00 PM	1	0	0	1
6:15 PM	0	1	1	2
6:30 PM	0	0	0	0
6:45 PM	0	0	1	1
7:00 PM	0	0	0	0
7:15 PM	0	0	0	0
7:30 PM	0	0	1	1
7:45 PM	0	0	0	0
8:00 PM	0	0	0	0
8:15 PM	0	0	0	0
8:30 PM	0	0	0	0
8:45 PM	0	0	0	0
9:00 PM	0	0	0	0
9:15 PM	1	0	0	1
9:30 PM	0	0	2	2
9:45 PM	0	0	0	0
10:00 PM	0	0	1	1
10:15 PM	0	0	0	0
10:30 PM	0	0	1	1
10:45 PM	0	0	0	0
11:00 PM	0	0	0	0
11:15 PM	0	0	0	0
11:30 PM	0	0	0	0
11:45 PM	0	0	2	2
PM Total	**11**	**11**	**59**	**81**
Percentage	**13.58%**	**13.58%**	**72.84%**	
PM Peak	**12:00 PM**	**1:00 PM**	**1:00 PM**	**1:00 PM**
Volume	**4**	**6**	**15**	**23**
Day Total	**22**	**18**	**89**	**129**
Percentage	**17.05%**	**13.95%**	**68.99%**	

Coca-Cola Driveway
south of 1st Avenue
City, State: Needham, MA
Client: VHB/A. Domogala
Site Code: 15571

PRECISION D A T A INDUSTRIES, LLC
157 Washington Street, Suite 2
Hudson, MA 01749
Office: 508-875-0100 Fax: 508-875-0118

PDI File # **228541 ATR B**

Count Date: **Thursday, April 7, 2022**
Direction: **NB**

AM	Cars	Single Unit Heavy	Multi Unit Heavy	Total
12:00 AM	0	0	0	0
12:15 AM	0	0	0	0
12:30 AM	0	0	0	0
12:45 AM	0	0	0	0
1:00 AM	0	0	0	0
1:15 AM	0	0	0	0
1:30 AM	0	0	0	0
1:45 AM	0	0	0	0
2:00 AM	0	0	0	0
2:15 AM	0	0	0	0
2:30 AM	1	0	0	1
2:45 AM	0	0	0	0
3:00 AM	0	0	0	0
3:15 AM	1	0	0	1
3:30 AM	0	0	0	0
3:45 AM	0	0	0	0
4:00 AM	1	0	0	1
4:15 AM	0	0	0	0
4:30 AM	0	0	0	0
4:45 AM	0	0	0	0
5:00 AM	0	0	0	0
5:15 AM	0	0	0	0
5:30 AM	1	0	0	1
5:45 AM	0	0	0	0
6:00 AM	0	0	0	0
6:15 AM	0	0	0	0
6:30 AM	0	0	0	0
6:45 AM	1	0	0	1
7:00 AM	0	0	0	0
7:15 AM	0	0	0	0
7:30 AM	0	0	0	0
7:45 AM	1	0	0	1
8:00 AM	1	0	0	1
8:15 AM	0	0	0	0
8:30 AM	1	0	0	1
8:45 AM	1	0	0	1
9:00 AM	1	0	0	1
9:15 AM	0	0	0	0
9:30 AM	0	0	0	0
9:45 AM	1	0	0	1
10:00 AM	0	0	0	0
10:15 AM	3	0	0	3
10:30 AM	3	0	0	3
10:45 AM	1	0	0	1
11:00 AM	2	0	0	2
11:15 AM	2	0	0	2
11:30 AM	1	0	0	1
11:45 AM	0	0	0	0
AM Total	**23**	**0**	**0**	**23**
Percentage	**100.00%**	**0.00%**	**0.00%**	
AM Peak	**10:15 AM**	**12:00 AM**	**12:00 AM**	**10:15 AM**
Volume	**9**	**0**	**0**	**9**

PM	Cars	Single Unit Heavy	Multi Unit Heavy	Total
12:00 PM	6	0	0	6
12:15 PM	5	0	0	5
12:30 PM	13	0	0	13
12:45 PM	7	0	0	7
1:00 PM	1	0	0	1
1:15 PM	2	0	0	2
1:30 PM	8	0	0	8
1:45 PM	10	0	0	10
2:00 PM	13	0	0	13
2:15 PM	4	0	0	4
2:30 PM	13	0	0	13
2:45 PM	7	0	0	7
3:00 PM	7	0	0	7
3:15 PM	4	0	0	4
3:30 PM	4	0	0	4
3:45 PM	10	0	0	10
4:00 PM	4	0	0	4
4:15 PM	5	0	0	5
4:30 PM	10	0	0	10
4:45 PM	5	0	0	5
5:00 PM	3	0	0	3
5:15 PM	2	0	0	2
5:30 PM	1	0	0	1
5:45 PM	3	0	0	3
6:00 PM	2	0	0	2
6:15 PM	1	0	0	1
6:30 PM	4	0	0	4
6:45 PM	1	0	0	1
7:00 PM	0	0	0	0
7:15 PM	0	0	0	0
7:30 PM	0	0	0	0
7:45 PM	1	0	0	1
8:00 PM	0	0	0	0
8:15 PM	6	0	0	6
8:30 PM	31	0	0	31
8:45 PM	10	0	0	10
9:00 PM	4	0	0	4
9:15 PM	0	0	0	0
9:30 PM	7	0	0	7
9:45 PM	1	0	0	1
10:00 PM	2	0	0	2
10:15 PM	1	0	0	1
10:30 PM	0	0	0	0
10:45 PM	1	0	0	1
11:00 PM	0	0	0	0
11:15 PM	0	0	0	0
11:30 PM	0	0	0	0
11:45 PM	0	0	0	0
PM Total	**219**	**0**	**0**	**219**
Percentage	**100.00%**	**0.00%**	**0.00%**	
PM Peak	**8:15 PM**	**12:00 PM**	**12:00 PM**	**8:15 PM**
Volume	**51**	**0**	**0**	**51**
Day Total	**242**	**0**	**0**	**242**
Percentage	**100.00%**	**0.00%**	**0.00%**	

Coca-Cola Driveway
south of 1st Avenue
City, State: Needham, MA
Client: VHB/A. Domogala
Site Code: 15571

PRECISION
D A T A
INDUSTRIES, LLC
157 Washington Street, Suite 2
Hudson, MA 01749
Office: 508-875-0100 Fax: 508-875-0118

PDI File # **228541 ATR B**

Count Date: **Thursday, April 7, 2022**
Direction: **SB**

AM	Cars	Single Unit Heavy	Multi Unit Heavy	Total
12:00 AM	0	0	0	0
12:15 AM	0	0	0	0
12:30 AM	0	0	0	0
12:45 AM	0	0	0	0
1:00 AM	0	0	0	0
1:15 AM	0	0	0	0
1:30 AM	0	0	0	0
1:45 AM	1	0	0	1
2:00 AM	1	0	0	1
2:15 AM	0	0	0	0
2:30 AM	1	0	0	1
2:45 AM	2	0	0	2
3:00 AM	1	0	0	1
3:15 AM	5	0	0	5
3:30 AM	15	0	0	15
3:45 AM	20	0	0	20
4:00 AM	13	0	0	13
4:15 AM	8	0	0	8
4:30 AM	9	0	0	9
4:45 AM	17	0	0	17
5:00 AM	6	0	0	6
5:15 AM	1	0	0	1
5:30 AM	5	0	0	5
5:45 AM	7	0	0	7
6:00 AM	1	0	0	1
6:15 AM	1	0	0	1
6:30 AM	1	0	0	1
6:45 AM	2	0	0	2
7:00 AM	4	0	0	4
7:15 AM	4	0	0	4
7:30 AM	2	0	0	2
7:45 AM	2	0	0	2
8:00 AM	2	0	0	2
8:15 AM	0	0	0	0
8:30 AM	0	0	0	0
8:45 AM	1	0	0	1
9:00 AM	5	0	0	5
9:15 AM	2	0	0	2
9:30 AM	5	0	0	5
9:45 AM	3	0	0	3
10:00 AM	5	0	0	5
10:15 AM	7	0	0	7
10:30 AM	7	0	0	7
10:45 AM	11	0	0	11
11:00 AM	3	0	0	3
11:15 AM	2	0	0	2
11:30 AM	0	0	0	0
11:45 AM	3	0	0	3
AM Total	**185**	**0**	**0**	**185**
Percentage	**100.00%**	**0.00%**	**0.00%**	
AM Peak	**3:30 AM**	**12:00 AM**	**12:00 AM**	**3:30 AM**
Volume	**56**	**0**	**0**	**56**

PM	Cars	Single Unit Heavy	Multi Unit Heavy	Total
12:00 PM	4	0	0	4
12:15 PM	7	0	0	7
12:30 PM	2	0	0	2
12:45 PM	3	0	0	3
1:00 PM	1	0	0	1
1:15 PM	0	0	0	0
1:30 PM	0	0	0	0
1:45 PM	1	0	0	1
2:00 PM	2	0	0	2
2:15 PM	1	0	0	1
2:30 PM	0	0	0	0
2:45 PM	3	0	0	3
3:00 PM	0	0	0	0
3:15 PM	2	0	0	2
3:30 PM	0	0	0	0
3:45 PM	2	0	0	2
4:00 PM	5	0	0	5
4:15 PM	1	0	0	1
4:30 PM	0	0	0	0
4:45 PM	0	0	0	0
5:00 PM	1	0	0	1
5:15 PM	0	0	0	0
5:30 PM	0	0	0	0
5:45 PM	0	0	0	0
6:00 PM	1	0	0	1
6:15 PM	0	0	0	0
6:30 PM	0	0	0	0
6:45 PM	1	0	0	1
7:00 PM	0	0	0	0
7:15 PM	0	0	0	0
7:30 PM	0	0	0	0
7:45 PM	1	0	0	1
8:00 PM	1	0	0	1
8:15 PM	0	0	0	0
8:30 PM	3	0	0	3
8:45 PM	0	0	0	0
9:00 PM	0	0	0	0
9:15 PM	0	0	0	0
9:30 PM	0	0	0	0
9:45 PM	1	0	0	1
10:00 PM	1	0	0	1
10:15 PM	0	0	0	0
10:30 PM	0	0	0	0
10:45 PM	1	0	0	1
11:00 PM	0	0	0	0
11:15 PM	0	0	0	0
11:30 PM	0	0	0	0
11:45 PM	0	0	0	0
PM Total	**45**	**0**	**0**	**45**
Percentage	**100.00%**	**0.00%**	**0.00%**	
PM Peak	**12:00 PM**	**12:00 PM**	**12:00 PM**	**12:00 PM**
Volume	**16**	**0**	**0**	**16**
Day Total	**230**	**0**	**0**	**230**
Percentage	**100.00%**	**0.00%**	**0.00%**	

FRIEZE CRAMER ROSEN & HUBER LLP
COUNSELLORS AT LAW

60 WALNUT STREET, WELLESLEY, MASSACHUSETTS 02481
781-943-4000 • FAX 781-943-4040

EVANS HUBER
781-943-4043
EH@128LAW.COM

September 21, 2022

Members of the
Needham Planning Board

And

Lee Newman
Director of Planning and Community Development
Public Services Administration Building
500 Dedham Ave
Needham, MA 02492

Re: 9 B Street, Needham

Dear Planning Board Members and Ms. Newman:

I am writing on behalf of Coca Cola Beverages Northeast, Inc, with respect to the Application for Site Plan Review and Special Permits for the Project at 9B Street. The purpose of this letter is to provide the Planning Board with additional information in connection with this Project and, in particular, to discuss how the project will conform to the Review Criteria for Site Plan Review, as set forth in Section 7.4.6 of the Zoning By-Law.

The following are the criteria for the Planning Board to consider during the site plan review process pursuant to Section 7.4.6 of the Zoning By-Law, and the description of how the Project meets those criteria.

(a) Protection of adjoining premises against seriously detrimental uses by provision for surface water drainage, sound and sight buffers and preservation of views, light, and air;

The proposed project has been designed to protect adjoining premises from detrimental impacts by provision for surface water drainage, sound and sight buffers, and preservation of views, light and air, as follows:

Existing drainage patterns have been maintained to the extent practicable. The project will reduce impervious area on site as well as enhance water quality treatment due to the implementation of Low Impact Development (LID) stormwater management practices. The total building area will be reduced as a result of the project, helping to preserve and improve existing fencing along 3rd Ave will be replaced with decorative black metal fence for

improved views. Landscaping and ornamental fencing will be installed along B Street, and screening.

(b) Convenience and safety of vehicular and pedestrian movement within the site and on adjacent streets, the location of driveway openings in relation to traffic or to adjacent streets and, when necessary, compliance with other regulations for the handicapped, minors and the elderly;

Convenience and safety of vehicular and pedestrian movement within the site and on adjacent streets, and the proper location of driveway openings in relation to traffic and to adjacent streets, has been assured, as follows:

Existing curb cuts and site access have been maintained; one curb cut on B Street has been reduced in width to allow for installation of an access gate for improved security and site access. Based on the traffic evaluation performed for the site, the proposed building renovation is expected to result in trip generation that is similar to, or lower than the trip generation from the existing facility. Therefore, no significant traffic impact is expected as a result of this project. Sidewalks, ADA ramps, and ADA parking spaces are provided within the employee parking lot areas to provide for pedestrian movement.

(c) Adequacy of the arrangement of parking and loading spaces in relation to the proposed uses of the premises;

Adequacy of the arrangement of parking and loading spaces in relation to the proposed uses of the premises has been achieved, as follows:

The project site currently has less than half of the parking required by zoning (existing nonconforming condition allowed by special permit). The proposed project will reduce the square footage of the existing building thereby reducing the number of required spaces per zoning and add 115 new spaces, significantly reducing this non-conformity. Loading and parking spaces are provided in the same general area as currently exist on site. Vehicle turning movements have been performed to verify adequate layout.

(d) Adequacy of the methods of disposal of refuse and other wastes resulting from the uses permitted on the site;

The site has been designed such that adequate methods of disposal of refuse resulting from the uses permitted on the site have been assured, in that the project will maintain current methods of disposal, which are entirely adequate for the site and use.

(e) Relationship of structures and open spaces to the natural landscape, existing buildings and other community assets in the area and compliance with other requirements of this By-Law;

The matters to be considered by this Board in connection with relationship of structures and open spaces to the natural landscape, existing buildings, and other community assets in the area, have been addressed, and with the exception of the special permit requested regarding bicycle racks, the project complies with (or, due to lawful pre-existing non-conformities, is exempt from) all other requirements of the Town Bylaw. In general, the project will result in a decreased building footprint area; increased landscaping and open space area; and significant reduction in the existing non-compliance with respect to parking spaces.

More specifically, the site has lawful pre-existing non-conformities with respect to certain requirements imposed by Section 4.8.1 of the Bylaw, including surface parking lot setbacks (Bylaw Section 4.8.1 (1)); landscaping in the 20-foot buffer area (Bylaw section 4.8.1 (2)); open space (Bylaw section 4.8.1(4)); and building façade length (Bylaw Section 4.8.1 (6)). Even though no special permit or waiver is required with respect to these provisions of the bylaw (because the non-conformities pre-date the bylaw), the Board should be aware that the project will significantly increase the amount of landscaped and pervious space in the parking areas, and the amount of "open space" on the site (which under section 4.8.1 (4) of the bylaw *excludes* parking areas) will be increased from the current 9.5% to 12.7%. The extent of the other non-conformities will also be reduced by the proposed project.

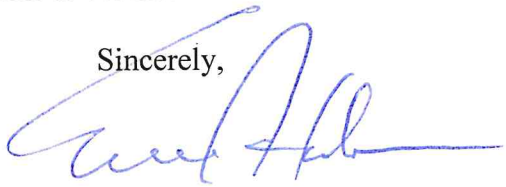
The site is also non-conforming with respect to the number of parking spaces. Site Plan Special Permit No. 94-5 dated August 9, 1994, and Site Plan Special Permit Amendment No. 1 dated May 1, 1996, granted waivers from strict adherence with the number of parking spaces required by the Bylaw. Moreover, this proposal will both decrease the square footage of the building, and increase the number of parking spaces on site, both of which will have the effect of reducing the extent of the non-conformity with respect to parking spaces. The proposed change does not trigger a requirement for a special permit or waiver with respect to parking.

> *(f) Mitigation of adverse impacts on the Town's resources including the effect on the Town's water supply and distribution system, sewer collection and treatment, fire protection, and streets; and may require when acting as the Special Permit Granting Authority or recommend in the case of minor projects, when the Board of Appeals is acting as the Special Permit Granting Authority, such appropriate conditions, limitations, and safeguards necessary to assure the project meets the criteria of a through f.*

Mitigation of adverse impacts on the Town's resources including the effect on the Town's water supply and distribution system, sewer collection and treatment, fire protection, and streets has been assured, as follows: There are no new sanitary or water connections proposed as part of the project. Existing fire protection systems will remain unchanged as part of the project.

If you have any questions, please do not hesitate to contact me.

Sincerely,



Evans Huber

From: John Schlittler
To: Alexandra Clee
Subject: RE: Request for comment - Coca Cola Amendment, 9 B Street
Date: Tuesday, September 13, 2022 3:21:42 PM

Police has no issue with this project.

From: Alexandra Clee <aclee@needhamma.gov>
Sent: Monday, September 12, 2022 4:45 PM
To: David Roche <droche@needhamma.gov>; Thomas Ryder <tryder@needhamma.gov>; John Schlittler <JSchlittler@needhamma.gov>; Tom Conroy <TConroy@needhamma.gov>; Tara Gurge <TGurge@needhamma.gov>; Timothy McDonald <tmcdonald@needhamma.gov>; Justin Savignano <jsavignano@needhamma.gov>; Carys Lustig <clustig@needhamma.gov>
Cc: Lee Newman <LNewman@needhamma.gov>; Elisa Litchman <elitchman@needhamma.gov>
Subject: Request for comment - Coca Cola Amendment, 9 B Street

Dear all,

We have received an application materials for a proposed amendment to Coca Cola, 9 B Street. The proposal is a request to renovate the existing building by removing the existing 14,500 square foot office wing and incorporating those functions with the building, removal of 44,985 square feet of the existing Fleet Services wing, associated storage and former railroad bay to be replaced by 14,610 square foot attached new single-story Fleet Services wing and addition of 14 loading docks. Interior renovations will include incorporation of a new automated product retrieval system and interior office fit up. Exterior façade improvement will incorporate a combination of reskinning of the building with an architectural metal panel system, painting and new signage.

More information can be found in the application: https://www.needhamma.gov/Archive.aspx?AMID=&Type=&ADID=9887.

The Planning Board has scheduled this matter for October 3, 2022. Please send your comments by Wednesday September 28, 2022 at the latest.

The documents attached for your review are as follows:

1. Application for an Amendment to Major Project Special Permit No. 94, with Exhibit A.

2. Letter from Evans Huber, date September 1, 2022.

3. Plans entitled “Site Plans,” prepared by VHB, 101 Walnut Street, Watertown MA, consisting of 16 sheets: Sheet 1, Cover Sheet, dated August 29, 2022; Sheet 2, Sheet C1.0, entitled “Legend and General Notes” dated August 29, 2022; Sheet 3, Sheet C2.0, entitled “Overall Layout and Materials,” dated August 29, 2022; Sheet 4, Sheet C2.1, entitled “Layout and Materials Plan,” dated August 29, 2022; Sheet 5, Sheet C2.2, entitled “Layout and Materials Plan,” dated August 29, 2022; Sheet 6, Sheet C3.1, entitled “Grading and Drainage Plan,” dated August 29, 2022; Sheet 7, Sheet C3.2, entitled “Grading and Drainage Plan,” dated August 29, 2022;

Sheet 8, Sheet C4.1, entitled “Utility Plan,” dated August 29, 2022; Sheet 9, Sheet C4.2, entitled “Utility Plan,” dated August 29, 2022; Sheet 10, Sheet C5.1, entitled “Erosion and Sediment Control Plan,” dated August 29, 2022; Sheet 11, Sheet C5.2, entitled “Erosion and Sediment Control Plan,” dated August 29, 2022; Sheet 12, Sheet C6.1, entitled “Details,” dated August 29, 2022; Sheet 13, Sheet C6.2, entitled “Details,” dated August 29, 2022; Sheet 14, Sheet L1.1, entitled “Planting Plans,” dated August 29, 2022; Sheet 15, Sheet L1.2, entitled “Planting Plan,” dated August 29, 2022; Sheet 16, Sheet L-2.1, entitled “Planting Detail,” dated August 29, 2022.

4. Plan entitled “Color Site Plan,” dated August 29, 2022.

5. Stormwater Management Plan, prepared by VHB, 101 Walnut Street, Watertown MA, dated August 24, 2022.

6. Traffic Evaluation, prepared by VHB, 101 Walnut Street, Watertown MA, dated August 30, 2022.

Thank you, alex.

Alexandra Clee
Assistant Town Planner
Needham, MA
781-455-7550 ext. 271
www.needhamma.gov

From:	Tara Gurge
To:	Alexandra Clee
Cc:	Lee Newman
Subject:	RE: Request for comment - Coca Cola Amendment, 9 B Street
Date:	Friday, September 23, 2022 12:23:25 PM
Attachments:	image002.png image003.png

Alex –

The Public Health Division conducted the review for the Amendment to Major Project Special Permit No. 94 request for the proposal at **9 B Street,** specifically for the Coca-Cola site, and have the following comments noted below:

- Prior to the start of extensive renovations/demolition and removal of the Office and Fleet Wings, and associated storage, the owner must apply for this Demolition review online, via our online permit application system. See direct link to this form: https://needhamma.viewpointcloud.com/categories/1073/record-types/1006508 . This form will need to be completed along with the submittal of the required supplemental report documents for our review and approval (as noted on the form.) **PLEASE NOTE**: Pest control reports, along with the asbestos sampling reports, etc., must be uploaded to our online system for review, prior to the issuance of an extensive renovation/Demolition permit by the Building Department.

- On-going pest control must be conducted during extensive renovations/demolition AND on-going pest control must be conducted throughout construction.

Please let us know if you have any follow-up questions or if you need any additional information from us on those requirements.

Thanks,

TARA E. GURGE, R.S., C.E.H.T., M.S. (she/her/hers)
ASSISTANT PUBLIC HEALTH DIRECTOR
Needham Public Health Division
Health and Human Services Department
178 Rosemary Street
Needham, MA 02494
Ph- (781) 455-7940; Ext. 211/Fax- (781) 455-7922
Mobile- (781) 883-0127
Email - tgurge@needhamma.gov
Web- www.needhamma.gov/health

please consider the environment before printing this email

STATEMENT OF CONFIDENTIALITY

This e-mail, including any attached files, may contain confidential and privileged information for the sole use of the intended recipient(s). Any review, use, distribution or disclosure by others is strictly prohibited. If you are not the intended recipient (or authorized to receive information for the recipient), please contact the sender by reply e-mail and delete all copies of this

message. Thank you.

Follow Needham Public Health on Twitter!

From: Alexandra Clee <aclee@needhamma.gov>
Sent: Monday, September 12, 2022 4:45 PM
To: David Roche <droche@needhamma.gov>; Thomas Ryder <tryder@needhamma.gov>; John Schlittler <JSchlittler@needhamma.gov>; Tom Conroy <TConroy@needhamma.gov>; Tara Gurge <TGurge@needhamma.gov>; Timothy McDonald <tmcdonald@needhamma.gov>; Justin Savignano <jsavignano@needhamma.gov>; Carys Lustig <clustig@needhamma.gov>
Cc: Lee Newman <LNewman@needhamma.gov>; Elisa Litchman <elitchman@needhamma.gov>
Subject: Request for comment - Coca Cola Amendment, 9 B Street

Dear all,

We have received an application materials for a proposed amendment to Coca Cola, 9 B Street. The proposal is a request to renovate the existing building by removing the existing 14,500 square foot office wing and incorporating those functions with the building, removal of 44,985 square feet of the existing Fleet Services wing, associated storage and former railroad bay to be replaced by 14,610 square foot attached new single-story Fleet Services wing and addition of 14 loading docks. Interior renovations will include incorporation of a new automated product retrieval system and interior office fit up. Exterior façade improvement will incorporate a combination of reskinning of the building with an architectural metal panel system, painting and new signage.

More information can be found in the application: https://www.needhamma.gov/Archive.aspx?AMID=&Type=&ADID=9887.

The Planning Board has scheduled this matter for October 3, 2022. Please send your comments by Wednesday September 28, 2022 at the latest.

The documents attached for your review are as follows:

1. Application for an Amendment to Major Project Special Permit No. 94, with Exhibit A.

2. Letter from Evans Huber, date September 1, 2022.

3. Plans entitled “Site Plans,” prepared by VHB, 101 Walnut Street, Watertown MA, consisting of 16 sheets: Sheet 1, Cover Sheet, dated August 29, 2022; Sheet 2, Sheet C1.0, entitled “Legend and General Notes” dated August 29, 2022; Sheet 3, Sheet C2.0, entitled “Overall Layout and Materials,” dated August 29, 2022; Sheet 4, Sheet C2.1, entitled “Layout and Materials Plan,” dated August 29, 2022; Sheet 5, Sheet C2.2, entitled “Layout and Materials Plan,” dated

August 29, 2022; Sheet 6, Sheet C3.1, entitled “Grading and Drainage Plan,” dated August 29, 2022; Sheet 7, Sheet C3.2, entitled “Grading and Drainage Plan,” dated August 29, 2022; Sheet 8, Sheet C4.1, entitled “Utility Plan,” dated August 29, 2022; Sheet 9, Sheet C4.2, entitled “Utility Plan,” dated August 29, 2022; Sheet 10, Sheet C5.1, entitled “Erosion and Sediment Control Plan,” dated August 29, 2022; Sheet 11, Sheet C5.2, entitled “Erosion and Sediment Control Plan,” dated August 29, 2022; Sheet 12, Sheet C6.1, entitled “Details,” dated August 29, 2022; Sheet 13, Sheet C6.2, entitled “Details,” dated August 29, 2022; Sheet 14, Sheet L1.1, entitled “Planting Plans,” dated August 29, 2022; Sheet 15, Sheet L1.2, entitled “Planting Plan,” dated August 29, 2022; Sheet 16, Sheet L-2.1, entitled “Planting Detail,” dated August 29, 2022.

4. Plan entitled “Color Site Plan,” dated August 29, 2022.

5. Stormwater Management Plan, prepared by VHB, 101 Walnut Street, Watertown MA, dated August 24, 2022.

6. Traffic Evaluation, prepared by VHB, 101 Walnut Street, Watertown MA, dated August 30, 2022.

Thank you, alex.

Alexandra Clee
Assistant Town Planner
Needham, MA
781-455-7550 ext. 271
www.needhamma.gov

From: Tom Conroy
To: Alexandra Clee
Subject: RE: Request for comment - Coca Cola Amendment, 9 B Street
Date: Wednesday, September 28, 2022 1:28:04 PM

Hi Alexandra

Looks good on our end.

Thanks,

Tom

From: Alexandra Clee <aclee@needhamma.gov>
Sent: Tuesday, September 27, 2022 2:59 PM
To: Tom Conroy <TConroy@needhamma.gov>
Cc: Lee Newman <LNewman@needhamma.gov>
Subject: FW: Request for comment - Coca Cola Amendment, 9 B Street

Hi Chief,

Just a reminder to get me comments when you can, ideally by day end tomorrow.

Thanks!

Alexandra Clee
Assistant Town Planner
Needham, MA
www.needhamma.gov

From: Alexandra Clee
Sent: Monday, September 12, 2022 4:45 PM
To: David Roche <droche@needhamma.gov>; Thomas Ryder <tryder@needhamma.gov>; John Schlittler <JSchlittler@needhamma.gov>; Tom Conroy <TConroy@needhamma.gov>; Tara Gurge <TGurge@needhamma.gov>; Timothy McDonald <tmcdonald@needhamma.gov>; Justin Savignano <jsavignano@needhamma.gov>; Carys Lustig <clustig@needhamma.gov>
Cc: Lee Newman <LNewman@needhamma.gov>; Elisa Litchman <elitchman@needhamma.gov>
Subject: Request for comment - Coca Cola Amendment, 9 B Street

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square foot attached new single-story Fleet Services wing and addition of 14 loading docks. Interior renovations will include incorporation of a new automated product retrieval system and interior office fit up. Exterior façade improvement will incorporate a combination of reskinning of the building with an architectural metal panel system, painting and new signage.

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6. Traffic Evaluation, prepared by VHB, 101 Walnut Street, Watertown MA, dated August 30, 2022.

Thank you, alex.

Alexandra Clee
Assistant Town Planner
Needham, MA
781-455-7550 ext. 271
www.needhamma.gov

TOWN OF NEEDHAM, MASSACHUSETTS
PUBLIC WORKS DEPARTMENT
500 Dedham Avenue, Needham, MA 02492
Telephone (781) 455-7550 FAX (781) 449-9023

September 30, 2022

Needham Planning Board
Public Service Administration Building
Needham, MA 02492

RE: Amendment Major Project Site Plan Special Permit 94-5
9 B Street -Coca Cola

Dear Members of the Board:

The Department of Public Works has completed its review of the above referenced request to amend the Major Project Special Permit. The applicant is proposing to renovate the existing building, replace the existing Fleet Service wing and the addition of 14-loading docks. The site improvements will consist of reshaping the parking lots and creating landscape and hardscape features.

The review was conducted in accordance with the Planning Board's regulations and standard engineering practice. The documents submitted for review are as follows:

1. Application for an Amendment to Major Project Special Permit No. 94, with Exhibit A.

2. Letter from Evans Huber, date September 1, 2022.

3. Plans entitled "Site Plans," prepared by VHB, 101 Walnut Street, Watertown MA, consisting of 16 sheets: Sheet 1, Cover Sheet, dated August 29, 2022; Sheet 2, Sheet C1.0, entitled "Legend and General Notes" dated August 29, 2022; Sheet 3, Sheet C2.0, entitled "Overall Layout and Materials," dated August 29, 2022; Sheet 4, Sheet C2.1, entitled "Layout and Materials Plan," dated August 29, 2022; Sheet 5, Sheet C2.2, entitled "Layout and Materials Plan," dated August 29, 2022; Sheet 6, Sheet C3.1, entitled "Grading and Drainage Plan," dated August 29, 2022; Sheet 7, Sheet C3.2, entitled "Grading and Drainage Plan," dated August 29, 2022; Sheet 8, Sheet C4.1, entitled "Utility Plan," dated August 29, 2022; Sheet 9, Sheet C4.2, entitled "Utility Plan," dated August 29, 2022; Sheet 10, Sheet C5.1, entitled "Erosion and Sediment Control Plan," dated August 29, 2022; Sheet 11, Sheet C5.2, entitled "Erosion and Sediment Control Plan," dated August 29, 2022; Sheet 12, Sheet C6.1, entitled "Details," dated August 29, 2022; Sheet 13, Sheet C6.2, entitled "Details," dated August 29, 2022; Sheet 14, Sheet L1.1, entitled "Planting Plans," dated August 29, 2022; Sheet 15, Sheet L1.2, entitled "Planting Plan," dated August 29, 2022; Sheet 16, Sheet L-2.1, entitled "Planting Detail," dated August 29, 2022.

4. Plan entitled "Color Site Plan," dated August 29, 2022.

5. Stormwater Management Plan, prepared by VHB, 101 Walnut Street, Watertown MA, dated August 24, 2022.

6. Traffic Evaluation, prepared by VHB, 101 Walnut Street, Watertown MA, dated August 30, 2022.

Our comments and recommendations are as follows:

- As part of the NPDES requirements, the applicant has submitted a letter proposing Public Out Reach & Education and Public Participation & Involvement control measures to be incorporated into the Planning Board's Decision to be completed prior to Certificate of Occupancy.
- The Engineering Division suggests that the applicant provide some additional stormwater recharge onsite in order to minimize future disruptions if EPA subjects properties greater 1-acre in size of this requirement. The additional stormwater recharge proposal is not a requirement at this time as the project meets Town's standards. However, it may be advantageous to add some offline infiltration areas while the site is under construction.
- Prior to modifications to the sewer services, the DPW's Sewer Division will need to be contacted to review the proposed changes.

If you have any questions regarding the above, please contact our office at 781-455-7538.

Truly yours,

Sincerely,

Thomas A Ryder
Town Engineer

LEGAL NOTICE
Planning Board
TOWN OF NEEDHAM
NOTICE OF HEARING

In accordance with the provisions of M.G.L., Chapter 40A, S.11; the Needham Zoning By-Laws, Sections 7.4, and Section 3.2 of Major Site Plan Special Permit No. 99-2 dated June 15, 1999, the Needham Planning Board will hold a public hearing on Tuesday, November 1, 2022 at 7:20 p.m. in the Powers Hall, Needham Town Hall, 1471 Highland Avenue, Needham, MA, as well as by Zoom Web ID Number **880 4672 5264** (further instructions for accessing by zoom are below), regarding the application of BP 140 Kendrick Street LLC c/o Boston Properties Limited Partnership, 800 Boylston Street, Suite 1900, Boston, MA, for a Major Project Special Permit Amendment under Site Plan Review, Section 7.4 of the Needham Zoning By-Law.

The subject property is located at 140 Kendrick Street, Needham, MA, shown on Assessor's Map No. 300 as Parcels 1 and 3, and containing 621,402 square feet in the New England Business Center Zoning District. The requested Major Project Site Plan Special Permit Amendment, would, if granted, permit the Petitioner to construct and operate a solar garage roof on and above the existing parking garage. There are currently 1,334 parking spaces on site. The proposal shows that the battery storage equipment would be located such that 3 parking spaces would need to be relocated.

In accordance with the Zoning By-Law, Section 7.4, a Major Project Site Plan Review is required. In accordance with Major Project Site Plan Special Permit No. 99-2, Section 3.2, as amended, further site plan review is required.

To view and participate in this virtual meeting on your phone, download the "Zoom Cloud Meetings" app in any app store or at www.zoom.us. At the above date and time, click on "Join a Meeting" and enter the following Meeting ID: 880 4672 5264

To view and participate in this virtual meeting on your computer, at the above date and time, go to www.zoom.us click "Join a Meeting" and enter the following ID: 880 4672 5264

Or to Listen by Telephone: Dial (for higher quality, dial a number based on your current location):
US: +1 312 626 6799 or +1 646 558 8656 or +1 301 715 8592 or +1 346 248 7799 or +1 669 900 9128 or +1 253 215 8782 Then enter ID: 880 4672 5264

Direct Link to meeting: https://us02web.zoom.us/j/88046725264

The application may be viewed at this link: https://www.needhamma.gov/Archive.aspx?AMID=146&Type=&ADID= . Interested persons are encouraged to attend the public hearing and make their views known to the Planning Board. This legal notice is also posted on the Massachusetts Newspaper Publishers Association's (MNPA) website at (http://masspublicnotices.org/).

NEEDHAM PLANNING BOARD

TOWN OF NEEDHAM
MASSACHUSETTS

500 Dedham Avenue
Needham, MA 02492
781-455-7550

PLANNING BOARD

APPLICATION FOR SITE PLAN REVIEW

Project Determination: (circle one) **Major Project** Minor Project

This application must be completed, signed, and submitted with the filing fee by the applicant or his representative in accordance with the Planning Board's Rules as adopted under its jurisdiction as a Special Permit Granting Authority. Section 7.4 of the By-Laws.

Location of Property	140 Kendrick Street
Name of Applicant	BP 140 Kendrick Street LLC c/o Boston Properties Limited Partnership
Applicant's Address	800 Boylston Street, Suite 1900, Boston, MA 02199
Phone Number	617-236-3333 and 617-512-0319 (cell)

Applicant is: Owner X Tenant _____
Agent/Attorney _____ Purchaser _____

Property Owner's Name	BP 140 Kendrick Street LLC c/o Boston Properties Limited Partnership
Property Owner's Address	800 Boylston Street, Suite 1900, Boston, MA 02199
Telephone Number	617-236-3333 and 617-512-0319 (cell)

Characteristics of Property: Lot Area 621,402 sf Present Use Office
Map # 30 Parcel # 1,3 Zoning District New England Business Center

Description of Project for Site Plan Review under Section 7.4 of the Zoning By-Law:

The 140 Kendrick Street Project was originally approved and constructed pursuant to Special Permit/Site Plan Review issued by the Planning Board on June 15th, 1999. The Special Permit/Site Plan Review was amended by Amendment dated December 1, 2020 on Application No. 99-2. That Amendment approved the Owner's request to renovate the existing single tenant office space to allow multiple tenants to lease the buildings, including exterior improvements as shown on the Plans referred to in the Amendment consisting of adding entrance locations to the buildings, patio improvements, and accessible parking and landscape improvements at the new entrance locations. The Special Permit/Site Plan Review was further amended by Amendment to Decision dated July 12, 2022 for the construction and operation of a rooftop deck on the roof of the low rise building.

The current Application seeks an amendment to the Special Permit/Site Plan Review for the construction and operation of a solar garage roof on and above the existing parking garage, all as shown on the plans submitted herewith. The garage and roof meet all of the dimensional requirements of the Needham Zoning By-Law including, but not limited to, all height requirements and limitations. Concurrently herewith, the Applicant is filing an Application with the Needham Design Review Board for the Design Review Board's review and approval of this component of the Kendrick Street renovation.

Condition 2.5 of the existing Special Permit requires that 1,334 parking spaces shall be provided on the site. There are currently 1,334 existing parking spaces on the site. The operation of the solar roof system necessitates that three (3) existing parking spaces be utilized for solar battery equipment as shown on the Updated Parking Plan prepared

by VHB and filed with this Application (the "Updated Parking Plan"). The Updated Parking Plan also shows that these three (3) parking spaces will be relocated so that there shall continue to be 1,334 parking spaces on the site. Applicant also seeks an Amendment to the Special Permit/Site Plan Review for both (i) the use of three (3) spaces for battery storage equipment and (ii) the relocation of said three (3) parking spaces so that there shall continue to be 1,334 parking spaces on the site, all as shown on the Updated Parking Plan.

Boston Properties and its affiliated property owning entities including the Applicant named herein, BP 140 Kendrick Street LLC (collectively called "BXP") have been leaders in developing onsite renewable energy systems at our properties. To date we have completed 13 projects totaling 8 megawatts (MW) of onsite solar photovoltaic capacity on rooftops, garages and surface parking in Massachusetts and New Jersey. We are a pioneer in developing solar roofs over garages, and delivered our first solar roof over a parking garage in Waltham at Bay Colony. Since then, we've completed a second phase at Bay Colony and a third garage project at CityPoint in Waltham.

We are proposing to install a similar solar garage roof on/over the existing garage at 140 Kendrick Street. The purpose of the solar roof is to:

- Provide onsite generation of renewable energy that will result in net zero carbon operation of 140 Kendrick Street Building A. This is our first fully net zero project and will serve as a model project for net zero carbon office building design and redevelopment.

- Generate approximately 1,300 megawatt-hours (MWh) of renewable energy onsite from 2,900 405 watt (W) modules.

- Advance the transition to a low carbon economy by building a high quality distributed energy generation system with storage (336 kW). This project is emblematic of projects BXP is pursuing to achieve carbon neutral operations by 2025 and to meet our climate action goals, which include a science-based emissions reduction target for the company.

BXP has extensive experience with these projects and has assembled a team of expert designers to design, permit and execute an exemplary garage solar roof system. We look forward to working with the Town of Needham to complete this important project at 140 Kendrick Street.

BP 140 KENDRICK STREET LLC

Signature of Applicant (or representative) By: _____
Frederick J. DeAngelis, SVP & Senior Counsel

Address if not applicant _____

Telephone # 617-236-3333 and 617-512-0319 (cell)

Owner's permission if other than applicant _____

SUMMARY OF PLANNING BOARD ACTION

Received by Planning Board _____ Date _____
Hearing Date _____ Parties of Interest Notified of Public Hearing _____
Decision Required by _____ Decision/Notices of Decision sent _____
Granted _____
Denied _____ Fee Paid _____ Fee Waived _____
Withdrawn _____

NOTE: Reports on Minor Projects must be issues within 35 days of filing date.

bxp Boston Properties

Prudential Center
800 Boylston Street
Suite 1900
Boston, MA 02199-8103

www.bxp.com

Boston Properties, Inc.
(NYSE: BXP)

FREDERICK J. DEANGELIS, ESQUIRE
Senior Vice President & Senior Counsel

September 20, 2022

VIA FEDERAL EXPRESS (Tracking No. 7779 8727 6338)
and
VIA EMAIL (aclee@needhamma.gov)
Needham Planning Board
Needham Town Hall
500 Dedham Avenue
Needham, MA 02492
Attn: Alexandra Clee
Assistant Town Planner

Boston

Los Angeles

New York

San Francisco

Washington, DC

RE: 140 Kendrick Street, Needham, Massachusetts
Application to Planning Board for Site Plan Review/Approval

Dear Members of the Board:

Boston Properties and its affiliated property owning entities including the Applicant named herein, BP 140 Kendrick Street LLC (collectively called "BXP") have been leaders in developing onsite renewable energy systems at our properties. To date we have completed 13 projects totaling 8 megawatts (MW) of onsite solar photovoltaic capacity on rooftops, garages and surface parking in Massachusetts and New Jersey. We are a pioneer in developing solar roofs over garages, and delivered our first solar roof over a parking garage in Waltham at Bay Colony. Since then, we've completed a second phase at Bay Colony and a third garage project at CityPoint in Waltham.

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BXP has extensive experience with these projects and has assembled a team of expert designers to design, permit and execute an exemplary garage solar roof system. We look forward to working with the Town of Needham to complete this important project at 140 Kendrick Street.

bxp Boston Properties

I am submitting the following to the Planning Board, Planning Board Members, Planning Director and Assistant Planning Director:

1. (A) Two (2) hard copies of the originally signed Application from BP 140 Kendrick Street LLC, the Owner of the 140 Kendrick Street property and project. The Application requests site plan approval/special permit (i) for the construction and operation of a solar roof on/above the existing garage on the Property, all as shown on and in accordance with the Plans submitted herewith prepared by Parasol Structures and Sunwealth Power, Inc., and (ii) for the construction and operation of solar battery equipment in the area of three (3) parking spaces and the relocation of those three (3) parking spaces, as shown on the Updated Parking Plan prepared by VHB submitted herewith. Two (2) hard copies of all of the Plans are submitted herewith. The Applications and Plans are being sent by Federal Express.

   (B) A $1,000.00 check payable to the Town of Needham for the filing fee.

2. In addition to Item 1 above, I am sending by email a link to our folder containing all of the documents being sent regarding the Application and the Plans as requested by Alexandra Clee.

3. A set of the Plans (and the Application) are being sent to each Planning Board Member and to Lee Newman at the addresses previously provided by Alexandra Clee. I am sending these by Federal Express.

Please file and docket the enclosed and let me know when you can schedule the requested hearing. We will make ourselves available at your earliest convenience.

Also, we are sending by email and FedEx to the Design Review Board Attention: Elisa Litchman, an Application for Design Review, the Plans for the solar garage roof, the VHB Updated Parking Plan and a copy of the Application to the Planning Board for site plan review/approval. We anticipate that the Design Review Board will take up this matter at its October 3, 2022 meeting.

Lastly, please feel free to call me or email me with any questions or comments you may have.

Thank you for your cooperation.

Sincerely,

BP 140 KENDRICK STREET LLC

By: Frederick J. DeAngelis
Frederick J. DeAngelis
SVP & Senior Counsel

bxp Boston Properties

cc by Federal Express:
Paul Alpert *(Tracking No. 7779 8733 1254)*
116 Pine Street
Needham, MA 02492

Adam Block *(Tracking No. 7779 8736 4495)*
103 High Rock Street
Needham, MA 02492

Artie Crocker *(Tracking No. 7779 8740 3831)*
17 Fairlawn Street
Needham, MA 02492

Natasha Espada *(Tracking No. 7779 8743 5609)*
1681 Central Avenue
Needham, MA 02492

Jeanne McKnight *(Tracking No. 7779 8750 9020)*
100 Rosemary Way, Unit 336
Needham, MA 02492

cc by email and FedEx (Tracking No. 7779 8746 2885):
Lee Newman, Planning Director (lnewman@needhamma.gov)
123 Buttricks Hill Road
Concord, MA 01742

cc by email w/no encl.:
Elisa Litchman (elitchman@needham.ma.gov)
Christopher Hiserman (chiserman@bxp.com)
Ellesse Lunde (elunde@bxp.com)

vhb.com

vhb

101 Walnut Street
PO Box 9151
Watertown, MA 02471
617.924.1770

Parking Summary Chart

Description	Spaces Existing	Spaces Provided
STANDARD SURFACE SPACES	182	151
COMPACT SURFACE SPACES	27	58
STANDARD STRUCTURE SPACES	516	516
COMPACT STRUCTURE SPACES	609	609
TOTAL SPACES	1334	1334

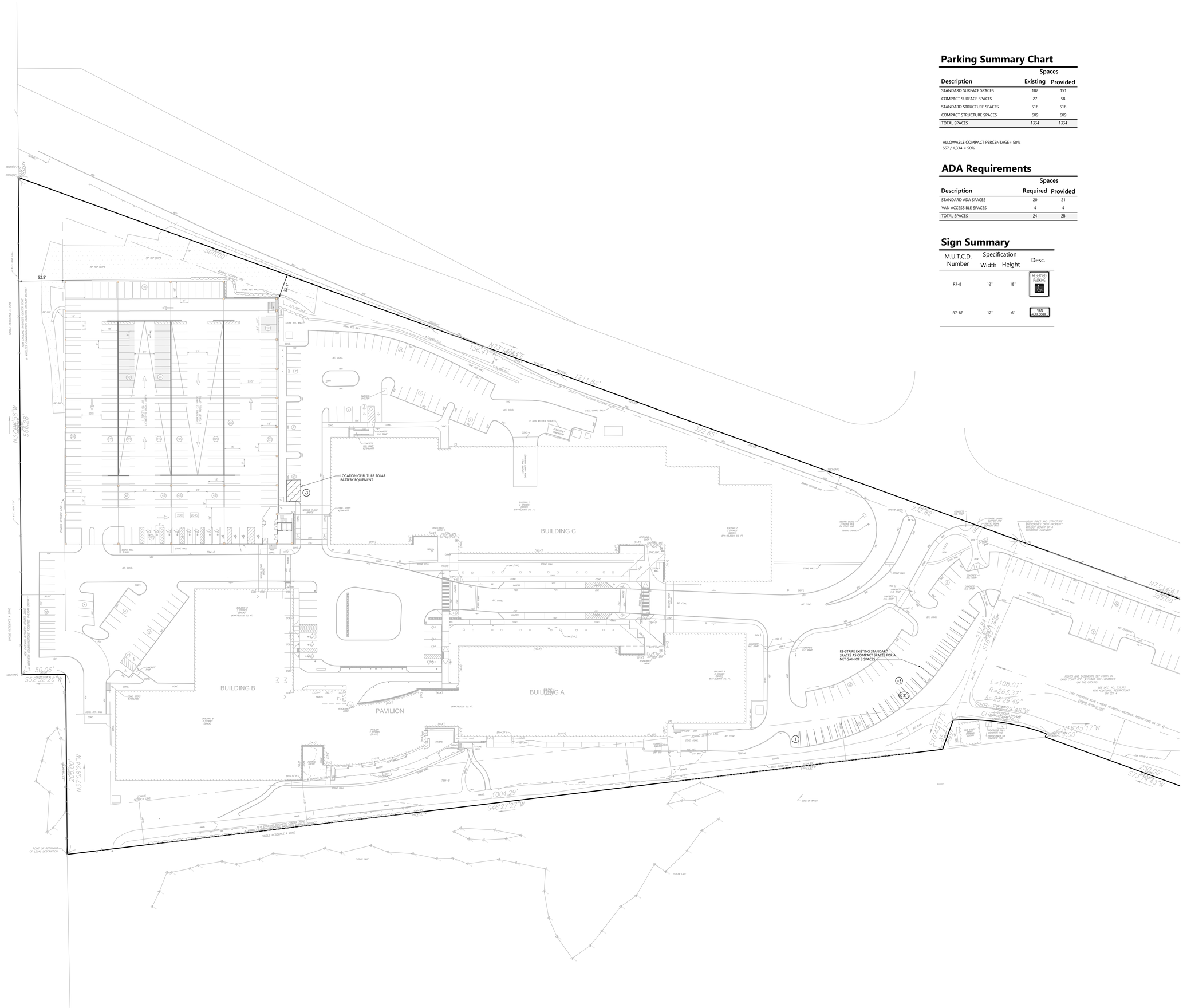
ALLOWABLE COMPACT PERCENTAGE= 50%
667 / 1,334 = 50%

ADA Requirements

Description	Spaces Required	Spaces Provided
STANDARD ADA SPACES	20	21
VAN ACCESSIBLE SPACES	4	4
TOTAL SPACES	24	25

Sign Summary

M.U.T.C.D. Number	Specification Width	Specification Height	Desc.
R7-8	12"	18"	RESERVED PARKING
R7-8P	12"	6"	VAN ACCESSIBLE



0 20 40 80 Feet

140 Kendrick St

No.	Revision	Date	Appvd.

Designed by AP
Checked by NS
Issued for
Date 9/12/22

Drawing Title
Parking Plan

Drawing Number
C 1.00

Sheet 1 of 1

Project Number
15060.00

COMMONWEALTH OF MASSACHUSETTS
NICHOLAS J. SKOLY
CIVIL
No. 52877
REGISTERED PROFESSIONAL ENGINEER

GENERAL SITE CONSTRUCTION NOTES

1. PRIOR TO THE START OF CONSTRUCTION, THE SITE CONTRACTOR SHALL VERIFY THE EXACT LOCATION, SIZE AND DIMENSION OF ALL UTILITIES IN AREA WHERE WORK IS TO BE PERFORMED. SUBCONTRACTOR AND/OR PARASOL ASUMES NEITHER THE RESPONSIBILITY FOR THE LOCATION OF ENCASED AND/OR HIDDEN UTILITIES SHOWN NOR THE LACK THEREOF.
2. ANY DISCREPANCIES IN REFERENCE, COORDINATES, ELEVATIONS, EXISTING DIMENSIONS, AND DETAILS SHALL BE BROUGHT TO THE ATTENTION OF PARASOL AND/OR OWNER'S REPRESENTATIVES BEFORE PROCEEDING WITH WORK.
3. ALL WORK SHALL BE CONSTRUCTED AND INSTALLED IN ACCORDANCE WITH THE MOST RECENT LOCAL AND NATIONAL CONSTRUCTION STANDARDS AND BUILDING CODES.
4. IN INSTANCES WHERE THE AHJ PROVIDES NO DETAILED SPECIFICATIONS, THE MATERIALS AND METHODS OF CONSTRUCTION SHALL MEET AND CONFORM TO THE REQUIREMENTS OF LOCAL CODES AND UFC REQUIREMENTS.
5. THE CONTRACTOR SHALL VERIFY ALL INFORMATION PERTAINING TO EXISTING CONDITIONS BY ACTUAL MEASUREMENT AND OBSERVATION AT THE SITE. ALL DISCREPANCIES BETWEEN ACTUAL CONDITIONS AND THOSE SHOWN IN THE CONTRACT DOCUMENTS SHALL BE REPORTED TO THE ENGINEER OF RECORD AND PARASOL PRIOR TO FABRICATION.

COORDINATION NOTES

1. PARASOL ANTICIPATES THAT THE TOPS OF ALL EXISTING CONCRETE PIERS AND WALLS SHALL BE AT ELEVATIONS SPECIFIED HEREIN.
2. INSTALLATION ERRORS IN PRECAST CONSTRUCTION ARE TO BE CORRECTED BY THE GENERAL CONTRACTOR PRIOR TO THE ARRIVAL OF THE ERECTION CREW AND PRIOR TO THE ERECTION OF THE STRUCTURE.
3. ANY EXISTING UTILITY FINDINGS THAT CONFLICT WITH THE RECORD OF KNOWN CONDITIONS SHALL BE REPORTED TO PARASOL AND/OR THE OWNER'S REPRESENTATIVE.

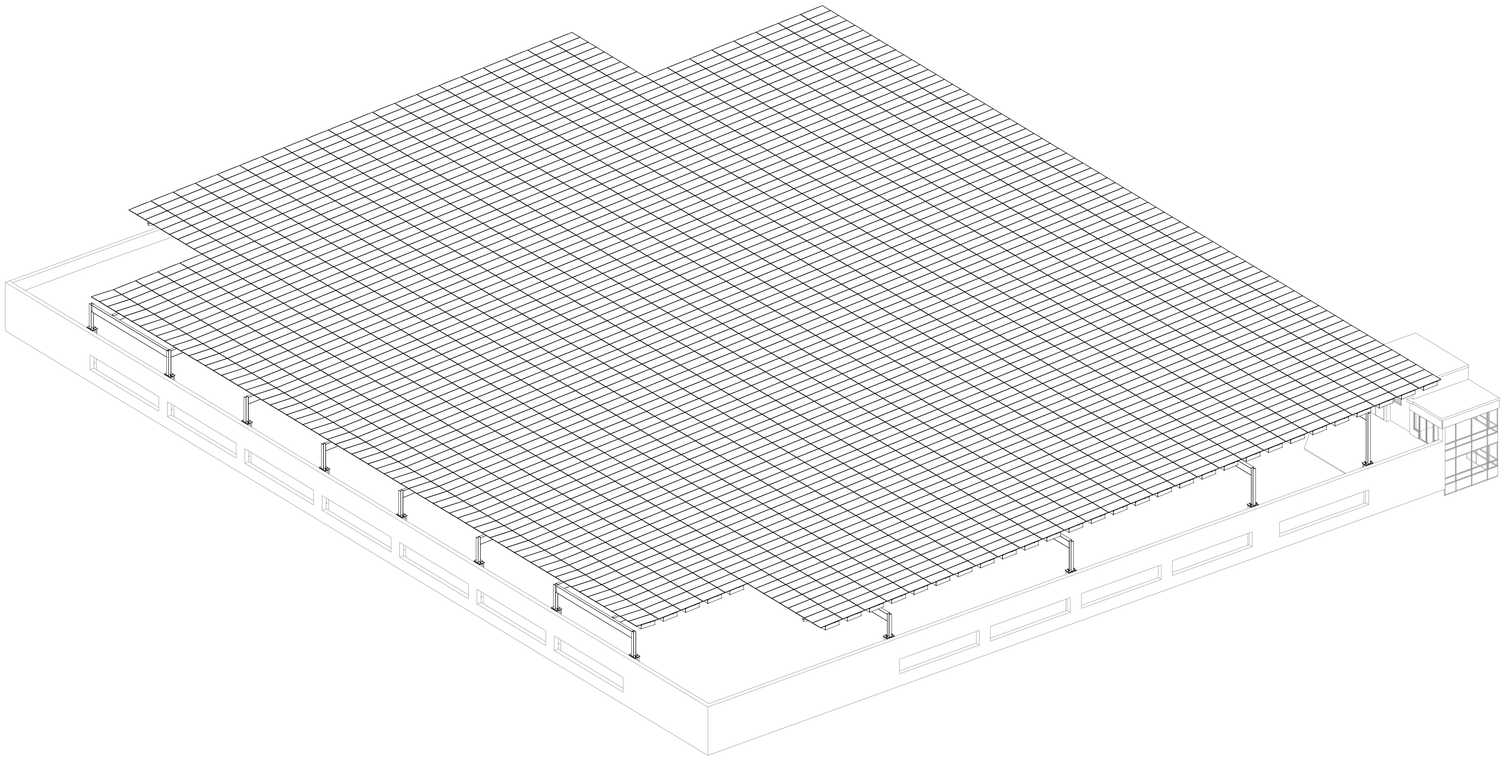
STEEL FABRICATION NOTES

1. ALL STEEL FABRICATED FOR THIS PROJECT IS ARCHITECTURALLY EXPOSED STRUCTURAL STEEL (A.E.S.S.)
2. PURLINS ARE TO BE FINISHED AS FOLLOWS:
   A. HOT DIP GALVANIZING G90 PER ASTM 653
3. COLUMNS AND CROSSBEAMS ARE TO BE FINISHED AS FOLLOWS:
   A. HOT DIP GALVANIZING PER ASTM 123
4. NUTS, BOLTS & WASHERS
   A. HOT DIP GALVANIZING PER ASTM 153
5. FOR TOUCH UP AND CLEANING
   A. USE SOLVENTS OR MECHANICAL CLEANING METHODS THAT COMPLY WITH THE STEEL STRUCTURES PAINTING COUCILS (SSPC)
   B. WIRE BRUSH CLEAN WITH SOLVENTS RECOMMENEDED BY FINISH MANUFACTURER AND TOUCH-UP WITH SAME FINISH SYSTEMS DESCRIBED ABOVE

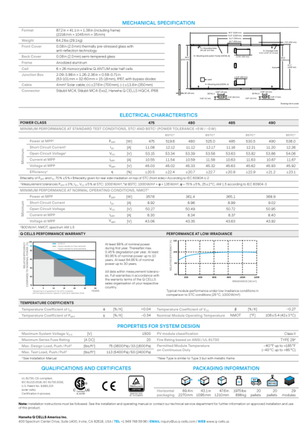
COLD WEATHER NOTES

1. IN COLD WEATHER CONDITIONS PLEASE NOTE THAT COMPLETION OF SOME TEMPERATURE DEPENDENT WORK MAY BE DELAYED UNTIL TEMPERATURES REACH 45 DEGREES F AND RISING. THIS WORK MAY INCLUDE:
   A. BASE PLATE GROUTING
   B. PARGING
   C. LINE STRIPING
   D. TOUCH-UP PAINTING

SHEET NUMBER	SHEET NAME	08/08/2022 30% DESIGN SUBMISSION	09/09/2022 60% DESIGN SUBMISSION
PV-000	PROJECT LOCATION & DRAWING LIST	●	●
PV-001	GENERAL STRUCTURAL NOTES	●	●
PV-005	MATERIAL SCHEDULE		●
PV-010	ISOMETRICS	●	●
PV-100	COLUMN LAYOUT PLAN	●	●
PV-101	HRS FRAMING LAYOUT PLAN (GIRDERS & BEAMS)	●	●
PV-102	CFS FRAMING LAYOUT PLAN (RAILS)	●	●
PV-103	PV UNIT LAYOUT PLAN	●	●
PV-104	WATER MANAGEMENT PLAN		●
PV-300	CANOPY SECTIONS	●	●
PV-400	BASE CONNECTION - TYPE A		●
PV-401	BASE CONNECTION - TYPE B		●
PV-402	BASE CONNECTION - TYPE C		●
TOTAL: 13			



3 OVERAL CANOPY ISOMETRIC
N.T.S.



2 PV PANEL SPECIFICATION
N.T.S.

1 PROJECT LOCATION MAP
N.T.S.

sunwealth

PARASOL
STRUCTURES
NEW YORK BOSTON
WWW.PARASOLSTRUCTURES.COM

PROJECT # : 22004

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KPFF Job # : 2000519

ENGINEER'S STAMP

PROJECT TITLE
140 KENDRICK

PROJECT ADDRESS
140 KENDRICK STREET
NEEDHAM, MA 02494

SHEET TITLE
PROJECT LOCATION & DRAWING LIST

ISSUED SET / REVISIONS

SYM	DESCRIPTION	DATE
	30% DESIGN SUBMISSION	08/08/2022
	60% DESIGN SUBMISSION	09/09/2022

DESIGNED BY : PARASOL
DRAWN BY: NB
CHECKED BY : KPFF
APPROVED BY : KPFF
ORIGINAL SHEET SIZE : 42" x 30"
SCALE
0 1/2" 1"
IF NOT 1" LONG, DRAWING IS NOT TO SCALE

DWG NO.
PV-000

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DESIGN CRITERIA

CODE: 9th EDITION OF THE MA STATE BUILDING CODE (780 CMR) BASED ON THE 2015 IBC

GOVERNING JURISDICTION: NEEDHAM ,MA

LIVE LOADS:

....

WIND ANALYSIS: METHOD 2 - ANALYTICAL PROCEDURE
BASIC WIND SPEED.............................V = 128 mph
IMPORTANCE FACTOR..........................I_w = 1.0
WIND EXPOSURE.................................= C
OCCUPANCY CATEGORY.......................= II
GUST EFFECT FACTOR..........................G = 0.85

SNOW DESIGN CRITERIA:
..............................P_g = 40 psf
..............................I_S = 1.0
....
..............................C_e = 1
..............................C_t = 1.2
..............................P_f = 35 psf

SEISMIC ANALYSIS: EQUIVALENT LATERAL FORCE PROCEDURE HAS BEEN USED:
SITE CLASSIFICATION...........................= D
OCCUPANCY CATEGORY.........................= II
SEISMIC DESIGN CATEGORY...................= B
IMPORTANCE FACTOR..........................I_E = 1.0

S_S = 0.252 g S_{DS} = 0.269 g
S_1 = 0.063 g S_{D1} = 0.101 g

SEISMIC LOAD RESISTING SYSTEM........= OTHER MECHANICAL OR ELECTRIC COMPONENTS
RESPONSE MODIFICATION COEFFICIENT R_p = 1.5
COMPONENT AMPLIFICATION FACTOR....a_p = 1.0
IMPORTANCE FACTOR..........................I_p = 1.0
SEISMIC DESIGN FORCE.......................F_p =0.21*W

SCOPE OF WORK

1. SCOPE OF WORK INCLUDES THE DESIGN OF CANTILEVER STEEL SUPPORT STRUCTURES FOR PV PANELS AT AN EXISTING PARKING GARAGE.

GENERAL

1. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS PRIOR TO STARTING CONSTRUCTION. DO NOT SCALE THE DRAWINGS. THE ENGINEER SHALL BE NOTIFIED OF ANY DISCREPANCIES OR INCONSISTENCIES. IN CASE OF CONFLICT, MORE COSTLY REQUIREMENTS GOVERN FOR BIDDING. SUBMIT CLARIFICATION REQUEST PRIOR TO PROCEEDING WITH WORK.
2. ALL DRAWINGS ARE CONSIDERED TO BE A PART OF THE CONTRACT DOCUMENTS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REVIEW AND COORDINATION OF ALL DRAWINGS AND SPECIFICATIONS PRIOR TO THE START OF CONSTRUCTION. ANY DISCREPANCIES THAT OCCUR SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER PRIOR TO START OF CONSTRUCTION SO THAT A CLARIFICATION CAN BE ISSUED. ANY DEVIATION FROM THE APPROVED SET OF CONTRACT DOCUMENTS SHALL ONLY BE MADE AFTER WRITTEN APPROVAL BY THE ENGINEER OF RECORD. ANY WORK PERFORMED IN CONFLICT WITH THE CONTRACT DOCUMENTS OR ANY CODE REQUIREMENTS SHALL BE CORRECTED BY THE CONTRACTOR AT THEIR OWN EXPENSE.
3. NOTES AND DETAILS ON DRAWINGS SHALL TAKE PRECEDENCE OVER GENERAL NOTES AND TYPICAL DETAILS. WHERE NO DETAILS ARE GIVEN, CONSTRUCTION SHALL BE AS SHOWN FOR SIMILAR WORK. UNLESS NOTED OTHERWISE, DETAILS IN STRUCTURAL DRAWINGS ARE TYPICAL AS INDICATED BY CUTS, REFERENCES OR TITLES.
4. ALL WORK SHALL CONFORM TO THE MINIMUM STANDARDS OF THE FOLLOWING: LOCAL BUILDING CODE, ANY OTHER REGULATING AGENCIES WHICH HAVE AUTHORITY OVER ANY PORTION OF THE WORK, AND THOSE CODES AND STANDARDS LISTED IN THESE NOTES AND SPECIFICATIONS.
5. THE CONTRACT STRUCTURAL DRAWINGS AND SPECIFICATIONS REPRESENT THE FINISHED STRUCTURE. THEY DO NOT INDICATE THE METHOD OF CONSTRUCTION THE CONTRACTOR SHALL PROVIDE ALL MEASURES NECESSARY TO PROTECT THE STRUCTURE DURING CONSTRUCTION. SUCH MEASURES SHALL INCLUDE, BUT NOT BE LIMITED TO, BRACING, SHORING FOR LOADS DUE TO CONSTRUCTION EQUIPMENT, ETC. OBSERVATION VISITS TO THE SITE BY THE STRUCTURAL ENGINEER SHALL NOT INCLUDE INSPECTION OF THE ABOVE ITEMS.
6. ASTM SPECIFICATIONS ON THE DRAWINGS SHALL BE OF THE LATEST REVISION.
7. CONTRACTOR SHALL INVESTIGATE SITE DURING CLEARING AND EARTHWORK OPERATIONS FOR FILLED EXCAVATIONS OR BURIED STRUCTURES, SUCH AS CESSPOOLS, CISTERNS, FOUNDATIONS, ETC. IF ANY SUCH STRUCTURES ARE FOUND, STRUCTURAL ENGINEER SHALL BE NOTIFIED IMMEDIATELY.
8. CONTRACTOR TO PROVIDE A LIST OF ALL PROPOSED SUBSTITUTIONS, WITH APPLICABLE MANUFACTURER'S ICC REPORTS TO ARCHITECT, ENGINEER OF RECORD AND GOVERNING JURISDICTION FOR REVIEW AND APPROVAL BEFORE FABRICATION.
9. NOTICE TO THE APPLICANT / OWNER / OWNER'S AGENT / ARCHITECT: BY USING THIS PERMITTED CONSTRUCTION DRAWINGS FOR CONSTRUCTION / INSTALLATION OF THE WORK SPECIFIED HEREIN, YOU AGREE TO COMPLY WITH THE REQUIREMENTS OF THE GOVERNING JURISDICTION FOR SPECIAL INSPECTIONS, STRUCTURAL OBSERVATIONS, CONSTRUCTION MATERIAL TESTING, AND OFF-SITE FABRICATION OF BUILDING COMPONENTS CONTAINED IN THE STATEMENT OF SPECIAL INSPECTIONS AND AS REQUIRED BY THE GOVERNING BUILDING CODES.
10. NOTICE TO THE CONTRACTOR / BUILDER / INSTALLER / SUBCONTRACTOR / OWNER-BUILDER: BY USING THIS PERMITTED CONSTRUCTION DRAWINGS FOR CONSTRUCTION / INSTALLATION OF THE WORK SPECIFIED HEREIN, YOU ACKNOWLEDGE AND ARE AWARE OF THE REQUIREMENTS CONTAINED IN THE STATEMENT OF SPECIAL INSPECTIONS. YOU AGREE TO COMPLY WITH THE REQUIREMENTS OF THE GOVERNING JURISDICTION FOR SPECIAL INSPECTIONS, STRUCTURAL OBSERVATIONS, CONSTRUCTION MATERIAL TESTING, AND OFF-SITE FABRICATION OF BUILDING COMPONENTS CONTAINED IN THE STATEMENT OF SPECIAL INSPECTIONS AND AS REQUIRED BY THE GOVERNING BUILDING CODES.

SPECIAL INSPECTION

THE FOLLOWING ELEMENTS OF CONSTRUCTION SHALL REQUIRE SPECIAL INSPECTION PER CHAPTER 17 OF THE CODE.

STEEL: SPECIAL INSPECTION TASK	CONTINOUS	PERIODIC
1. MATERIAL VERIFICATION OF HIGH-STRENGTH BOLTS, NUTS AND WASHERS:		
A. IDENTIFICATION MARKINGS TO CONFORM TO ASTM STANDARDS.	-	X
B. MANUFACTURER'S CERTIFICATE OF COMPLIANCE.	-	X
2. INSPECTION OF HIGH-STRENGTH BOLTING (SEE NOTES F & G):		
A. SNUG-TIGHT JOINTS	-	X
B. PRETENSIONED AND SLIP-CRITICAL JOINTS CONFORMING TO 1704.3.3.2	-	X
C. PRETENSIONED AND SLIP-CRITICAL JOINTS NOT CONFORMING TO 1704.3.3.2	X	-
3. MATERIAL VERIFICATION OF STRUCTURAL STEEL AND COLD-FORMED STEEL DECK:		
A. FOR STRUCTURAL STEEL, INDENTIFICATION MARKINGS CONFORMING TO AISC 360, LATEST EDITION	-	X
B. FOR OTHER STEEL, IDENTIFICATION MARKINGS TO CONFORM TO ASTM STANDARDS SPECIFIED IN THE APPROVED CONSTRUCTION DOCUMENTS.	-	X
C. MANUFACTURERS' CERTIFIED TEST REPORTS.	-	X
4. MATERIAL VERIFICATION OF WELD FILLER MATERIALS:		
A. IDENTIFICATION MARKINGS TO CONFORM TO AWS SPECIFICATION IN THE APPROVED CONSTRUCTION	-	X
B. MANUFACTURER'S CERTIFICATE OF COMPLIANCE.	-	X
5. INSPECTION OF WELDING:		
A. STRUCTURAL STEEL AND COLD-FORMED STEEL DECK:		
1). COMPLETE AND PARTIAL PENETRATION GROOVE WELDS.	X	-
2). MULTIPASS FILLET WELDS	X	-
3). SINGLE-PASS FILLET WELDS > 5/16"	X	-
4). PLUG AND SLOT WELDS	X	-
5). SINGLE-PASS FILLET WELDS ≤ 5/16"	-	X
6). VISUAL INSPECTION OF HSS SEAM WELDS. NON-DESTRUCTIVE TESTING OF SEAM WELDS MAY BE REQUIRED BY THE ENGINEER OF RECORD IF ANY OF THE SEAM WELDS APPEAR TO BE DEFECTIVE.	-	X
7). SHOP WELDING: SPECIAL INSPECTION IS NOT REQUIRED WHERE THE WORK IS DONE ON THE PREMISES OF A FABRICATOR REGISTERED AND APPROVED BY THE GOVERNING JURISDICTION.	X	-

STEEL: SPECIAL INSPECTION TASK	CONTINOUS	PERIODIC
1. POST-INSTALLED ANCHORS IN HARDENED CONCRETE (SEE NOTE H).	-	X
2. HIGH STRENGTH GROUT UNDER COLUMN BASE PLATES.	-	X

1. THE SPECIAL INSPECTIONS IDENTIFIED ON PLANS ARE, IN ADDITION TO, AND NOT A SUBSTITUTE FOR, THOSE INSPECTIONS REQUIRED TO BE PERFORMED BY THE GOVERNING JURISDICTION. SPECIALLY INSPECTED WORK WHICH IS INSTALLED OR COVERED WITHOUT THE APPROVAL OF AN INSPECTOR FROM THE GOVERNING JURISDICTION IS SUBJECT TO REMOVAL OR EXPOSURE.
2. FOR CONTINUOUS INSPECTION, WHEN WORK IN MORE THAN ONE CATEGORY OF WORK REQUIRING SPECIAL INSPECTION IS TO BE PERFORMED SIMULTANEOUSLY, OR THE GEOGRAPHIC LOCATION OF THE WORK IS SUCH THAT IT CANNOT BE CONTINUOUSLY OBSERVED IN ACCORDANCE WITH THE PROVISIONS OF THE CODE, IT IS THE AGENT'S RESPONSIBILITY TO EMPLOY A SUFFICIENT NUMBER OF INSPECTORS TO ASSURE THAT ALL WORK IS INSPECTED IN ACCORDANCE WITH THOSE PROVISIONS.
3. THE SPECIAL INSPECTORS MUST BE CERTIFIED BY THE GOVERNING JURISDICTION IN THE CATEGORY OF WORK REQUIRED TO HAVE SPECIAL INSPECTION.
   EXCEPTIONS:
   a. WHEN WAIVED BY THE GOVERNING JURISDICTION
4. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO INFORM THE SPECIAL INSPECTOR OR INSPECTION AGENCY AT LEAST ONE WORKING DAY PRIOR TO PERFORMING ANY WORK THAT REQUIRES SPECIAL INSPECTION. ALL WORK PERFORMED WITHOUT REQUIRED SPECIAL INSPECTION IS SUBJECT TO REMOVAL.
5. A CERTIFICATE OF SATISFACTORY COMPLETION OF WORK REQUIRING SPECIAL INSPECTION MUST BE COMPLETED AND SUBMITTED TO THE GOVERNING JURISDICTION AND ENGINEER OF RECORD.
6. PROVIDE SPECIAL INSPECTION FOR CONNECTIONS BOLTED WITH A325 AND A490 BOLTS. INSPECTIONS SHALL BE DONE PER APPROVED NATIONALLY RECOGNIZED STANDARDS AND THE REQUIREMENTS OF THE CODE AND THE GOVERNING JURISDICTION. WHILE THE WORK IS IN PROGRESS, THE SPECIAL INSPECTOR SHALL DETERMINE THE BOLTS, NUTS, WASHERS AND PAINT; BOLTED PARTS; AND INSTALLATION AND TIGHTENING MEET THE STANDARDS REQUIREMENTS.
7. THE SPECIAL INSPECTOR FOR HIGH STRENGTH BOLTED CONNECTIONS SHALL:
   a. OBSERVE THE CALIBRATION PROCEDURES WHEN SUCH PROCEDURES ARE REQUIRED BY THE PLANS OR SPECIFICATIONS.
   b. MONITOR THE INSTALLATION OF BOLTS TO DETERMINE THAT ALL PLIES OF CONNECTED MATERIALS HAVE BEEN DRAWN TOGETHER.
   c. MONITOR THAT THE SELECTED PROCEDURE IS PROPERLY USED TO TIGHTEN ALL BOLTS.
8. THE SPECIAL INSPECTOR FOR EPOXY ANCHORS SHALL VERIFY THE DRILLING OF ANY HOLES, THE CLEANLINESS OF THE HOLE, THE MOISTURE IN THE HOLE, MIXING THE EPOXY, THE BRAND OF EPOXY, AND THE PROPER MATERIAL FOR ASSEMBLY.
9. THE SPECIAL INSPECTOR SHALL PROVIDE PERIODIC REPORTS AND A FINAL REPORT TO THE STRUCTURAL ENGINEER.
10. THE SPECIAL INSPECTOR SHALL ENSURE THAT ALL DEFICIENCIES NOTED BY THE STRUCTURAL ENGINEER IN STRUCTURAL OBSERVATION REPORTS ARE CORRECTED. SUCH COMPLIANCE SHALL BE REFERENCED IN SPECIAL INSPECTOR REPORT.
11. THE CONSTRUCTION MATERIALS TESTING LABORATORY MUST BE APPROVED BY THE GOVERNING JURISDICTION FOR TESTING OF MATERIALS, SYSTEMS, COMPONENTS AND, EQUIPMENTS.
12. A PROPERTY OWNER'S FINAL REPORT FORM FOR WORK REQUIRED TO HAVE SPECIAL INSPECTIONS, TESTING AND STRUCTURAL OBSERVATIONS MUST BE COMPLETED BY THE PROPERTY OWNER'S AGENT OF RECORD, ARCHITECT OF RECORD OR, ENGINEER OF RECORD AND SUBMITTED TO THE GOVERNING JURISDICTION.
13. PERIODIC INSPECTION SHALL OCCUR FREQUENTLY ENOUGH TO INSPECT ALL OF THE INSTALLED ITEMS AND TO PERIODICALLY WITNESS THE INSTALLATION OF THE ITEMS

STRUCTURAL OBSERVATION

STRUCTURAL OBSERVATION PER THE REQUIRMENTS OF THE CODE IS REQUIRED.
THE STRUCTURAL ENGINEER WILL VISIT THE PROJECT AT THE FOLLOWING STAGES OF CONSTRUCTION.

ITEM	STAGE
STRUCTURAL STEEL	AFTER ERECTION

a. STRUCTURAL OBSERVATION DOES NOT INCLUDE OR WAIVE THE INSPECTIONS REQUIRED BY THE CODE
b. ALL OBSERVED DEFICIENCIES SHALL BE REPORTED IN WRITING TO THE OWNER'S REPRESENTATIVE, SPECIAL INSPECTOR, AND CONTRACTOR. THE STRUCTURAL OBSERVER SHALL SUBMIT A FINAL WRITTEN STATEMENT TO THE GOVERNING JURISDICTION THAT SITE VISITS HAVE BEEN MADE AND IDENTIFYING ANY REPORTED DEFICIENCIES THAT HAVE NOT BEEN RESOLVED. THE STRUCTURE WILL NOT BE IN COMPLIANCE UNTIL THE DESIGNER HAS NOTIFIED THE GOVERNING JURISDICTION THAT ALL DEFICIENCIES ARE RESOLVED.

SHOP DRAWINGS/SUBMITTALS

1. THE STRUCTURAL SHOP DRAWING REVIEW IS INTENDED TO HELP THE ENGINEER VERIFY THE DESIGN CONCEPT. IT IS THE CONTRACTOR'S RESPONSIBILTY TO CHECK THEIR OWN SHOP DRAWINGS.
2. THE STRUCTURAL SHOP DRAWINGS WILL BE RETURNED FOR RESUBMITTAL IF A CURSORY REVIEW SHOWS MAJOR ERRORS WHICH SHOULD HAVE BEEN FOUND BY THE CONTRACTOR'S CHECKING.
3. THE FOLLOWING SHOP DRAWINGS ARE NOT REQUIRED FOR SUBMITTAL FOR STRUCTURAL REVIEW.
   a. SHORING AND BRACING
   b. STRUCTURAL STEEL MILL REPORTS
4. THE FOLLOWING SHOP DRAWINGS (AND CALCULATIONS WHEN APPICABLE) ARE REQUIRED FOR SUBMITTAL FOR STRUCTURAL REVIEW.
   a. GROUT MIX DESIGNS, INCLUDING STRENGTH AND SHRINKAGE TEST RESULTS
   b. STRUCTURAL STEEL
   c. WELDING PROCEDURE SPECIFICATIONS (SEE NOTE 9 BELOW)
   d. PV PANEL CUTSHEET
5. ANY SUBMITTAL OF A DETAIL SHEET WITH ADDED INFORMATION NOT SHOWN ON PLANS SHALL BE ACCOMPANIED BY LOCATION PLAN IDENTIFYING THE MEMBERS INVOLVED AND CLOUDING AROUND ADDED INFORMATION.
6. ANY ENGINEERING SUBMITTED FOR REVIEW SHALL BE APPROPRIATELY SEALED. FULL RESPONSIBILITY OF SUCH ENGINEERING RESTS WITH THE PERSON SEALING THE DESIGN.
7. THE SHOP DRAWINGS SHALL REFERENCE THE DATE OF THE DESIGN USED TO PRODUCE THE SUBMITTAL.
8. CONTRACTOR/SUBCONTRACTOR TO PROVIDE A DIGITAL COPY (PDF) OF SHOP DRAWINGS FOR REVIEW BY THE ENGINEER OF RECORD. REDLINED DIGITAL SET WILL BE RETURNED TO THE CONTRACTOR WITH REDLINES FOR REPRODUCTION AND DISTRIBUTION.
9. WPS CHECK LIST

   GENERAL
   a. SUPPORTING PQR NO.
   b. PROCESS (SMAW, FCAW, ETC)

   JOINT DESIGN & BASE MATERIAL
   a. JOINT TYPE (CORNER, BUTT, LAP, T)
   b. MAX ROOT OPENING
   c. BACKING (THICKNESS, MATERIAL TYPE)
   d. GROOVE ANGLE
   e. TOTAL # OF PASSES
   f. BASE MATERIAL SPEC, GRADE & THICKNESS
   g. WPS SHOULD INCLUDE FIGURE
   h. MAX ROOT & FILL PASS THICKNESS

   FILLER MATERIAL & SHIELDING
   a. ELECTRODE SPECIFICATION (AWS A5.1, A5.20, ETC)
   b. ELECTRODE CLASSIFICATION (E701B, E71T-1, ETC)
   c. ELECTRODE DIAMETER (5/32", 1/8", ETC.) AND STICK-OUT (IF APPLICABLE)
   d. SHIELDING GA, IF APPLICABLE (GAS COMPOSITION, FLOW RATE)
   e. FLUX, IF APPLICABLE
   f. AS WELDED TOUGHNESS (SUCH AS 20 FT-LBS @ -20 DEGREES) PER FILLER SPECS

   PREHEAT
   a. MIN & MAX PREHEAT TEMPERATURE
   b. MIN & MAX INTERPASS TEMPERATURE

   ELECTRICAL PARAMETERS
   a. POLARITY (AC, DC+, DC-)
   b. WELDING CURRENT (AMPERAGE)/WIRE FEED SPEED (IPM)
   c. ARC VOLTAGE (VOLTS)
   d. TRAVEL SPEED (IPM) (FCAW/GMAW)

   TECHNIQUE/MISC
   a. WEAVE/STRINGER, MULTIPASS/SINGLE PASS
   b. PEENING
   c. POSITION (F, H, V, O)
   d. VERTICAL PROGRESSION (IF APPLICABLE)

NOTES:
1. THE ABOVE LIST SHOWS THE MINIMUM VARIABLES, OTHER VARIABLES MAY BE INCLUDED.
2. OTHER VARIABLES MAY BE REQUIRED PER STRUCTURAL PLANS OR SPECS. SEE D1.1 ANNEX IV, ANNEX E, AND TABLE 4.5 FOR QUALIFIED WPS; ANNEX H AND TABLE 3.67 FOR PREQUALIFIED WPS.

STRUCTURAL STEEL

1. STRUCTURAL STEEL SHALL BE DETAILED, FABRICATED, AND ERECTED BY AN APPROVED AND LICENSED FABRICATOR IN ACCORDANCE WITH THE LATEST EDITION OF AISC 360 (EXCLUDING SECTION A4).
2. ALL STRUCTURAL STEEL SHALL CONFORM TO THE ASTM DESIGNATION AS INDICATED BELOW (U.N.O.):

DESCRIPTION	DESIGNATION
ALL BASE PLATES, CAP PLATES	A572, GRADE 50
ALL ANGLES AND CHANNELS	A36, U.N.O.
ALL WF SECTIONS	A992, GRADE 50
HSS SECTIONS	A500, GRADE B
HIGH STRENGTH BOLTS	A325
MACHINE BOLTS AND THREADED RODS	A307
MISC. PLATES	A572, GRADE 50
ANCHOR BOLTS	F1554, GRADE 105

3. THE STRUCTURAL STEEL FABRICATOR SHALL FURNISH SHOP DRAWINGS OF ALL STEEL FOR ARCHITECT'S AND STRUCTURAL ENGINEER'S REVIEW BEFORE FABRICATION.
4. HOLES IN STEEL SHALL BE AS FOLLOWS, UNO:
   a. FOR NOMINAL BOLT SIZE LESS THAN 1", HOLE DIAMETER SHALL BE 1/16" LARGER.
   b. FOR NOMINAL BOLT SIZE EQUAL TO OR LARGER THAN 1", HOLE DIAMETER SHALL BE 1/8" LARGER.
   c. COLUMN BASE PLATE HOLES MAY BE OVERSIZED PER AISC MANUAL TB 14-2.
5. ALL STRUCTURAL STEEL SURFACES THAT ARE ENCASED IN CONCRETE, MASONRY, OR SPRAY ON FIREPROOFING, OR ARE ENCASED BY BUILDING FINISH, SHALL BE LEFT UNPAINTED.
6. ALL STRUCTURAL STEEL AND MISCELLANEOUS METAL EXPOSED TO THE WEATHER SHALL BE HOT DIP GALVANIZED AFTER FABRICATION. GALVANIZING AT FIELD WELDS SHALL BE REPAIRED WITH A GALVANIZING REPAIR PAINT ACCORDING TO ASTM A780.
7. PROVIDE BEVELED WASHERS PER ANSI B18.23.1 AS REQUIRED ON SLOPED SURFACES.
8. STRUCTURAL MEMBERS AND CONNECTIONS EXPOSED TO VIEW IN THE COMPLETED STRUCTURE SHALL BE DESIGNATED ARCHITECTURALLY EXPOSED STRUCTURAL STEEL (AESS) WHERE NOTED ON PLAN.
9. WELDING:
   a. ALL WELDING IS TO BE DONE BY CERTIFIED WELDERS USING E70XX ELECTRODES (U.N.O.). ALL WELDS SHALL BE IN CONFORMITY WITH THE PROJECT SPECIFICATIONS AND THE CODE FOR WELDING IN BUILDING CONSTRUCTION (AWS D1.1 LATEST REVISION) OF THE AMERICAN WELDING SOCIETY. SEE SPECIAL INSPECTION SECTION FOR WELDING INSPECTION REQUIREMENTS.
   b. WELD LENGTHS CALLED FOR ON PLANS ARE THE NET EFFECTIVE LENGTH REQUIRED. WHERE FILLET WELD SYMBOL IS GIVEN WITHOUT INDICATION OF SIZE, USE MINIMUM SIZE WELDS AS SPECIFIED IN AISC MANUAL OF STEEL CONSTRUCTION, LATEST EDITION.
   c. WELDS TERMINATING AT ENDS OR SIDES, WHERE PRACTICAL, SHALL BE RETURNED CONTINUOUSLY AROUND CORNERS A DISTANCE 2 TIMES THE NOMINAL SIZE OF THE WELD PER AISC 360 SECTION J2.2B, U.N.O.
   d. ALL FULL-PENETRATION FIELD WELDS SHALL BE ULTRASONICALLY TESTED.
   e. ALL TWO-SIDED FILLET WELDS SHOWN SHALL BE WELDED WITH THE SAME (GIVEN) WELD SIZE ON BOTH SIDES.
   f. ALL UNSIZED GROOVE OR BUTT WELDS SHOWN SHALL BE COMPLETE PENETRATION. ALL PROVISIONS OF AWS SHALL BE OBSERVED INCLUDING REQUIREMENTS FOR BACK-UP PLATES AND WELD TRANSITIONS WHETHER OR NOT THEY ARE SPECIFICALLY SHOWN.
   g. A WRITTEN WELDING PROCEDURE SPECIFICATION SHALL BE SUBMITTED TO THE TESTING LABORATORY. IT SHALL INCLUDE ALL WELDING PROCEDURES TO BE USED AS DESCRIBED IN AWS, CHAPTER 4.
   h. SPECIAL CONSIDERATION SHALL BE GIVEN TO WELDING TECHNIQUE AND SEQUENCE, PARTICULARLY WHERE THERE IS A POTENTIAL FOR LAMELLAR (THROUGH-THICKNESS) TEARING.
   i. WHERE FIELD WELDING IS INDICATED, THE FIELD DESIGNATION IS GIVEN AS A RECOMMENDATION ONLY.
11. ALL ANCHOR BOLTS SHALL BE HEADED STUD BOLTS OR THREADED RODS WITH NUTS. J BOLTS ARE NOT ACCEPTABLE IN ANY APPLICATION.
12. GROUT OTHER THAN FOR MASONRY CELLS SHALL BE NON-SHRINK, NON-METALLIC GROUT, MEETING ASTM C-1107, MIXED AND INSTALLED PER MANUFACTURER'S SPECIFICATIONS. MINIMUM COMPRESSIVE STRENGTH SHALL BE 8,000 PSI IN 28 DAYS, UNLESS APPROVED BY THE STRUCTURAL ENGINEER.

COLD-FORMED STEEL

1. GENERAL
   A. ALL COLD-FORMED METAL FRAMING CONSTRUCTION SHALL BE IN ACCORDANCE WITH AISI "SPECIFICATIONS FOR DESIGN OF COLD-FORMED STEEL STRUCTURAL MEMBERS, " CURRENT EDITION.
   B. ALL COLD-FORMED STRUCTURAL MEMBERS SHALL BE PER ICC ER-3064P.
   C. ALL COLD-FORMED STEEL SHALL CONFORM TO THE FOLLOWING:

43 MIL AND LIGHTER	ASTM A653 GR 33
54 MIL AND HEAVIER	ASTM A653 GR 55

   D. ALL COLD-FORMED STEEL SHALL HAVE A MINIMUM COATING CONFORMING TO THE FOLLOWING:

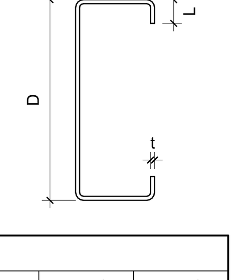
LOAD-BEARING AND EXTERIOR STRUCTURAL MEMBERS	COATING PROTECTION G90 PLUS AN APPROVED COATING PER CURRENT ASTM C955

   E. WELDING IS NOT PERMITTED UNLESS SPECIFICALLY APPROVED BY ENGINEER OF RECORD.
   F. ALL APPROVED WELDING SHALL BE PERFORMED BY WELDERS CERTIFIED FOR ALL APPROPRIATE DIRECTIONS COMPLYING WITH AWS D1.3. WELDING RODS SHALL CONFORM TO THE FOLLOWING:

43 MIL AND LIGHTER	E60XX
54 MIL AND HEAVIER	E70XX OR E6013
COLD-FORMED TO STRUCTURAL STEEL	E70XX LOW HYDROGEN

   G. WIRE TYING OF FRAMING COMPONENTS SHALL NOT BE PERMITTED.
   H. TEMPORARY BRACING REQUIREMENTS ARE THE RESPONSIBILITY OF THE CONTRACTOR.
   I. ALL SCREWS SHALL BE FULLY DRIVEN AND PROTRUDE THE LARGER OF 3 THREADS OR 1/4" THROUGH THE LAST MATERIAL JOINED. THERE SHALL BE NO SPACE BETWEEN JOINING MEMBERS AT THE SCREW LOCATION.
2. LOAD-BEARING AND EXTERIOR STRUCTURAL MEMBERS
   A. FIELD CUTS THROUGH FLANGES OF STUD OR TRACK SHALL NOT BE PERMITTED UNLESS SPECIFICALLY APPROVED BY THE ENGINEER OF RECORD.
   B. ALL FIELD CUTTING OF MEMBERS SHALL BE BY SAWING OR SHEARING. TORCH OR PLASMA CUTTING OF MEMBERS SHALL NOT BE PERMITTED.
   C. ALL FRAMING COMPONENTS SHALL BE CUT SQUARELY FOR ATTACHMENT TO PERPENDICULAR MEMBERS OR AS REQUIRED ON AN ANGULAR FIT AGAINST ABUTTING MEMBERS. MEMBERS SHALL BE HELD POSITIVELY IN PLACE UNTIL PROPERLY FASTENED.
   D. SPLICING OF STUDS, JOISTS, OR OTHER LOAD CARRYING MEMBERS SHALL NOT BE PERMITTED UNLESS SPECIFICALLY APPROVED BY THE ENGINEER OF RECORD.
   E. IF ADDITIONAL HOLES ARE REQUIRED IN LOAD CARRYING MEMBERS, CONTACT THE ENGINEER OF RECORD FOR GUIDANCE BEFORE CUTTING HOLES.
   F. WHEN CLIP ANGLES ARE USED TO ATTACH A COMPONENT TO THE PRIMARY STRUCTURE, THE CLIP ANGLE SHALL BE FASTENED TO THE PRIMARY STRUCTURE FIRST; THEN THE COMPONENT SHALL BE BROUGHT TO BEAR ON THE STRUCTURE AND FASTENED TO THE CLIP ANGLE.
   G. EACH FRAMING MEMBER AND BUNDLES OF LIKE MEMBERS SHALL BE IDENTIFIED WITH THE MANUFACTURER'S NAME, YIELD STRENGTH, MINIMUM UNCOATED BASE METAL THICKNESS, PROTECTIVE COATING WEIGHT AND STUD SIZE EMBOSSED OR STAMPED ON THE WEB OF EACH SECTION AT A MAXIMUM OF 48" O.C. STUD MUST BE DESIGNED TO MEET THE REQUIREMENTS OF CODE SECTION 2209.
3. ALL CALCULATED MEMBER PROPERTIES PER AISI SPECIFICATIONS ARE BASED ON THE FOLLOWING THICKNESSES:

MINIMUM THICKNESS	REFERENCE GAUGE	DESIGN THICKNESS
33 MIL	20 GA	0.0346"
43 MIL	18 GA	0.0451"
54 MIL	16 GA	0.0566"
68 MIL	14 GA	0.0713"
97 MIL	12 GA	0.1017"
118 MIL	10 GA	0.1242"



MINIMUM SECTION PROPERTIES FOR CEE SHAPES

SHAPE	D (in)	B (in)	L (in)	t (in)	A (in^2)	Wt (plf)	I_X (in^4)	I_Y (in^4)
12" x 4" x 10 GA	12	4	1.0	0.1242	2.61	8.88	56.38	5.32

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PROJECT # :22004

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KPFF Job # : 2000519

ENGINEER'S STAMP

PROJECT TITLE
140 KENDRICK

PROJECT ADDRESS
140 KENDRICK STREET
NEEDHAM, MA 02494

SHEET TITLE
GENERAL STRUCTURAL NOTES

ISSUED SET / REVISIONS

SYM	DESCRIPTION	DATE
	30% DESIGN SUBMISSION	08/08/2022
	60% DESIGN SUBMISSION	09/08/2022

DESIGNED BY : PARASOL
DRAWN BY: NB
CHECKED BY : KPFF
APPROVED BY : KPFF
ORIGINAL SHEET SIZE : 42" x 30"
SCALE
0 1/2" 1"
IF BAR IS NOT ONE INCH, DRAWING IS NOT TO SCALE

DWG NO.
PV-001

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MATERIAL SCHEDULE

PIECE MARK	NAME	MATERIAL	UNIT DIMENSIONS	QUANTITY	FINISH	COLOR
PV PANEL						
PV-1	PV PANEL	Q.PEAK - DUO XL-G10.3/BFG (480W)	87.2" W. x 39.4" L.	2643	N/A	N/A
FOUNDATIONS						
G-16	GROUT	2" TH. (MAX.) HIGH STRENGTH GROUT	SEE PV-400 SERIES DRAWINGS	47	N/A	N/A
ANCHOR RODS & ASSOCIATED PARTS						
AR-12.12.055	ANCHOR ROD	F1554 GR. 55	1-1/2" DIA. x 12" L.	88	HOT DIP GALVANIZED	N/A
AR-12.18.055	ANCHOR ROD	F1554 GR. 55	1-1/2" DIA. x 18" L.	84	HOT DIP GALVANIZED	N/A
AR-12.32.105	ANCHOR ROD	F1554 GR. 105	1-1/2" DIA. x 32" L.	60	HOT DIP GALVANIZED	N/A
SW-12	WASHER (STRUCTURAL)	F436	1-1/2" DIA.	120	HOT DIP GALVANIZED	N/A
HHN-12	HEAVY HEX NUT	A563	1-1/2" DIA.	120	HOT DIP GALVANIZED	N/A
JN-12	JAM NUT	A563	1-1/2" DIA.	60	HOT DIP GALVANIZED	N/A
STRUCTURAL STEEL (EARLY RELEASE)						
BBRP-08	BASE BRACKET REAR PLATE	1" PL. A572 GR.50	SEE PV-400 SERIES DRAWINGS	64	SEE PV-000 STRUCTURAL STEEL FABRICATION NOTES	SEE PV-000 STRUCTURAL STEEL FABRICATION NOTES
BBTP-08	BASE BRACKET TOP PLATE	1" PL. A572 GR.50	SEE PV-400 SERIES DRAWINGS	64	SEE PV-000 STRUCTURAL STEEL FABRICATION NOTES	SEE PV-000 STRUCTURAL STEEL FABRICATION NOTES
BBSP-04	BASE BRACKET STIFFENER PLATE	1/2" PL. A572 GR.50	SEE PV-400 SERIES DRAWINGS	192	SEE PV-000 STRUCTURAL STEEL FABRICATION NOTES	SEE PV-000 STRUCTURAL STEEL FABRICATION NOTES
STRUCTURAL STEEL						
BP-12	BASE PLATE	1-1/2" PL. A572 GR.50	SEE PV-400 SERIES DRAWINGS	47	SEE PV-000 STRUCTURAL STEEL FABRICATION NOTES	SEE PV-000 STRUCTURAL STEEL FABRICATION NOTES
C-08.048	COLUMN	W8x48 A992 GR. 50	SEE PV-100, PV-300 & PV-400 SERIES	30	SEE PV-000 STRUCTURAL STEEL FABRICATION NOTES	SEE PV-000 STRUCTURAL STEEL FABRICATION NOTES
C-10.049	COLUMN	W10x49 A992 GR. 50	SEE PV-100, PV-300 & PV-400 SERIES	47	SEE PV-000 STRUCTURAL STEEL FABRICATION NOTES	SEE PV-000 STRUCTURAL STEEL FABRICATION NOTES
CCP-06	COLUMN CAP PLATE	3/4" PL. A572 GR.50	SEE PV-400 SERIES DRAWINGS	8	SEE PV-000 STRUCTURAL STEEL FABRICATION NOTES	SEE PV-000 STRUCTURAL STEEL FABRICATION NOTES
CCP-08	COLUMN CAP PLATE	1" PL. A572 GR.50	SEE PV-400 SERIES DRAWINGS	1	SEE PV-000 STRUCTURAL STEEL FABRICATION NOTES	SEE PV-000 STRUCTURAL STEEL FABRICATION NOTES
CCP-12	COLUMN CAP PLATE	1-1/2" PL. A572 GR.50	SEE PV-400 SERIES DRAWINGS	54	SEE PV-000 STRUCTURAL STEEL FABRICATION NOTES	SEE PV-000 STRUCTURAL STEEL FABRICATION NOTES
G-24.068	GIRDER	W24x68 A992 GR. 50	SEE PV-100, PV-300 & PV-400 SERIES	13	SEE PV-000 STRUCTURAL STEEL FABRICATION NOTES	SEE PV-000 STRUCTURAL STEEL FABRICATION NOTES
G-24.084	GIRDER	W24x84 A992 GR. 50	SEE PV-100, PV-300 & PV-400 SERIES	6	SEE PV-000 STRUCTURAL STEEL FABRICATION NOTES	SEE PV-000 STRUCTURAL STEEL FABRICATION NOTES
G-24.104	GIRDER	W24x104 A992 GR. 50	SEE PV-100, PV-300 & PV-400 SERIES	11	SEE PV-000 STRUCTURAL STEEL FABRICATION NOTES	SEE PV-000 STRUCTURAL STEEL FABRICATION NOTES
G-24.117	GIRDER	W24x117 A992 GR. 50	SEE PV-100, PV-300 & PV-400 SERIES	4	SEE PV-000 STRUCTURAL STEEL FABRICATION NOTES	SEE PV-000 STRUCTURAL STEEL FABRICATION NOTES
GSBP-08	GIRDER SPLICE BOTTOM PLATE	1" PL. A572 GR.50	SEE PV-400 SERIES DRAWINGS	28	SEE PV-000 STRUCTURAL STEEL FABRICATION NOTES	SEE PV-000 STRUCTURAL STEEL FABRICATION NOTES
GSSP-00	GIRDER SPLICE SHIM PLATE	PL. A572 GR.50 (THICKNESS AS NEEDED)	SEE PV-400 SERIES DRAWINGS	14	SEE PV-000 STRUCTURAL STEEL FABRICATION NOTES	SEE PV-000 STRUCTURAL STEEL FABRICATION NOTES
GSVP-04	GIRDER SPLICE VERTICAL PLATE	1/2" PL. A572 GR. 50	SEE PV-400 SERIES DRAWINGS	56	SEE PV-000 STRUCTURAL STEEL FABRICATION NOTES	SEE PV-000 STRUCTURAL STEEL FABRICATION NOTES
GSP-04	GIRDER STIFFENER PLATE	1/2" PL. A572 GR. 50	SEE PV-400 SERIES DRAWINGS	100	SEE PV-000 STRUCTURAL STEEL FABRICATION NOTES	SEE PV-000 STRUCTURAL STEEL FABRICATION NOTES
GSTP-08	GIRDER SPLICE TOP PLATE	1" PL. A572 GR.50	SEE PV-400 SERIES DRAWINGS	28	SEE PV-000 STRUCTURAL STEEL FABRICATION NOTES	SEE PV-000 STRUCTURAL STEEL FABRICATION NOTES
B-24.068	BEAM	W24x68 A992 GR. 50	SEE PV-100, PV-300 & PV-400 SERIES	51	SEE PV-000 STRUCTURAL STEEL FABRICATION NOTES	SEE PV-000 STRUCTURAL STEEL FABRICATION NOTES
B-24.084	BEAM	W24x84 A992 GR. 50	SEE PV-100, PV-300 & PV-400 SERIES	13	SEE PV-000 STRUCTURAL STEEL FABRICATION NOTES	SEE PV-000 STRUCTURAL STEEL FABRICATION NOTES
B-24.094	BEAM	W24x94 A992 GR. 50	SEE PV-100, PV-300 & PV-400 SERIES	7	SEE PV-000 STRUCTURAL STEEL FABRICATION NOTES	SEE PV-000 STRUCTURAL STEEL FABRICATION NOTES
B-24.104	BEAM	W24x104 A992 GR. 50	SEE PV-100, PV-300 & PV-400 SERIES	5	SEE PV-000 STRUCTURAL STEEL FABRICATION NOTES	SEE PV-000 STRUCTURAL STEEL FABRICATION NOTES
B-24.117	BEAM	W24x117 A992 GR. 50	SEE PV-100, PV-300 & PV-400 SERIES	8	SEE PV-000 STRUCTURAL STEEL FABRICATION NOTES	SEE PV-000 STRUCTURAL STEEL FABRICATION NOTES
BSP-04	BEAM STIFFENER PLATE	1/2" PL. A572 GR. 50	SEE PV-400 SERIES DRAWINGS	356	SEE PV-000 STRUCTURAL STEEL FABRICATION NOTES	SEE PV-000 STRUCTURAL STEEL FABRICATION NOTES
BSBP-08	BEAM SPLICE BOTTOM PLATE	1" PL. A572 GR.50	SEE PV-400 SERIES DRAWINGS	73	SEE PV-000 STRUCTURAL STEEL FABRICATION NOTES	SEE PV-000 STRUCTURAL STEEL FABRICATION NOTES
BSSP-00	BEAM SPLICE SHIM PLATE	PL. A572 GR.50 (THICKNESS AS NEEDED)	SEE PV-400 SERIES DRAWINGS	55	SEE PV-000 STRUCTURAL STEEL FABRICATION NOTES	SEE PV-000 STRUCTURAL STEEL FABRICATION NOTES
BSVP-04	BEAM SPLICE VERTICAL PLATE	1/2" PL. A572 GR. 50	SEE PV-400 SERIES DRAWINGS	146	SEE PV-000 STRUCTURAL STEEL FABRICATION NOTES	SEE PV-000 STRUCTURAL STEEL FABRICATION NOTES
BSTP-08	BEAM SPLICE TOP PLATE	1" PL. A572 GR.50	SEE PV-400 SERIES DRAWINGS	73	SEE PV-000 STRUCTURAL STEEL FABRICATION NOTES	SEE PV-000 STRUCTURAL STEEL FABRICATION NOTES
BR-02	BRACE ANGLE	L3x3x1/4 A36	SEE PV-400 SERIES DRAWINGS	72	SEE PV-000 STRUCTURAL STEEL FABRICATION NOTES	SEE PV-000 STRUCTURAL STEEL FABRICATION NOTES
GBA-02	GIRDER BRACE ANGLE	L3x3x1/4 A36	SEE PV-400 SERIES DRAWINGS	60	SEE PV-000 STRUCTURAL STEEL FABRICATION NOTES	SEE PV-000 STRUCTURAL STEEL FABRICATION NOTES
RCBP-03.12.05	RAIL CONNECTION BENT PLATE	3/8" PL. A572 GR. 50	SEE PV-400 SERIES DRAWINGS	608	SEE PV-000 STRUCTURAL STEEL FABRICATION NOTES	SEE PV-000 STRUCTURAL STEEL FABRICATION NOTES
RSPS-03.12	RAIL SPLICE PLATE (SINGLE TILT)	3/8" PL. A572 GR. 50	SEE PV-400 SERIES DRAWINGS	492	SEE PV-000 STRUCTURAL STEEL FABRICATION NOTES	SEE PV-000 STRUCTURAL STEEL FABRICATION NOTES
COLD-FORMED STEEL						
R-07A	RAIL	12 GA. A653 55 KSI	12" H. x 3.15" W. x 1" R. x 24'-3" L.	40	SEE PV-000 STRUCTURAL STEEL FABRICATION NOTES	SEE PV-000 STRUCTURAL STEEL FABRICATION NOTES
R-07B	RAIL	12 GA. A653 55 KSI	12" H. x 3.15" W. x 1" R. x 24'-3" L.	56	SEE PV-000 STRUCTURAL STEEL FABRICATION NOTES	SEE PV-000 STRUCTURAL STEEL FABRICATION NOTES
R-08	RAIL	12 GA. A653 55 KSI	12" H. x 3.15" W. x 1" R. x 27'-10 5/8" L.	10	SEE PV-000 STRUCTURAL STEEL FABRICATION NOTES	SEE PV-000 STRUCTURAL STEEL FABRICATION NOTES
R-09A	RAIL	12 GA. A653 55 KSI	12" H. x 3.15" W. x 1" R. x 31'-2 9/32" L.	66	SEE PV-000 STRUCTURAL STEEL FABRICATION NOTES	SEE PV-000 STRUCTURAL STEEL FABRICATION NOTES
R-09B	RAIL	12 GA. A653 55 KSI	12" H. x 3.15" W. x 1" R. x 31'-2 9/32" L.	66	SEE PV-000 STRUCTURAL STEEL FABRICATION NOTES	SEE PV-000 STRUCTURAL STEEL FABRICATION NOTES
R-10A	RAIL	12 GA. A653 55 KSI	12" H. x 3.15" W. x 1" R. x 34'-7 29/32" L.	66	SEE PV-000 STRUCTURAL STEEL FABRICATION NOTES	SEE PV-000 STRUCTURAL STEEL FABRICATION NOTES
R-10B	RAIL	12 GA. A653 55 KSI	12" H. x 3.15" W. x 1" R. x 34'-7 29/32" L.	66	SEE PV-000 STRUCTURAL STEEL FABRICATION NOTES	SEE PV-000 STRUCTURAL STEEL FABRICATION NOTES
R-10C	RAIL	12 GA. A653 55 KSI	12" H. x 3.15" W. x 1" R. x 34'-7 29/32" L.	66	SEE PV-000 STRUCTURAL STEEL FABRICATION NOTES	SEE PV-000 STRUCTURAL STEEL FABRICATION NOTES
R-10D	RAIL	12 GA. A653 55 KSI	12" H. x 3.15" W. x 1" R. x 34'-9 29/32" L.	56	SEE PV-000 STRUCTURAL STEEL FABRICATION NOTES	SEE PV-000 STRUCTURAL STEEL FABRICATION NOTES
R-11	RAIL	12 GA. A653 55 KSI	12" H. x 3.15" W. x 1" R. x 38'-3 9/16" L.	26	SEE PV-000 STRUCTURAL STEEL FABRICATION NOTES	SEE PV-000 STRUCTURAL STEEL FABRICATION NOTES
R-13	RAIL	12 GA. A653 55 KSI	12" H. x 3.15" W. x 1" R. x 45'-2 27/32" L.	40	SEE PV-000 STRUCTURAL STEEL FABRICATION NOTES	SEE PV-000 STRUCTURAL STEEL FABRICATION NOTES
RB-12	RAIL BLOCKING	18 GA. A653 GR. 33	9" H. x 2" W.	492	SEE PV-000 STRUCTURAL STEEL FABRICATION NOTES	SEE PV-000 STRUCTURAL STEEL FABRICATION NOTES
RF-12	RAIL FASCIA	18 GA. A653 GR. 33	12 1/4" H. x 2" W.	66	SEE PV-000 STRUCTURAL STEEL FABRICATION NOTES	SEE PV-000 STRUCTURAL STEEL FABRICATION NOTES
BOLTS & FASTENERS						
SW-05	WASHER (STRUCTURAL)	F436	5/8" DIA.	6368	HOT DIP GALVANIZED	N/A
SW-06	WASHER (STRUCTURAL)	F436	3/4" DIA.	1070	HOT DIP GALVANIZED	N/A
SW-07	WASHER (STRUCTURAL)	F436	7/8" DIA.	216	HOT DIP GALVANIZED	N/A
SW-08	WASHER (STRUCTURAL)	F436	1" DIA.	2676	HOT DIP GALVANIZED	N/A
SW-10	WASHER (STRUCTURAL)	F436	1-1/4" DIA.	128	HOT DIP GALVANIZED	N/A
SW-12	WASHER (STRUCTURAL)	F436	1-1/2" DIA.	256	HOT DIP GALVANIZED	N/A
HHN-05	HEAVY HEX NUT	A563	5/8" DIA.	6368	HOT DIP GALVANIZED	N/A
HHN-06	HEAVY HEX NUT	A563	3/4" DIA.	1070	HOT DIP GALVANIZED	N/A
HHN-07	HEAVY HEX NUT	A563	7/8" DIA.	216	HOT DIP GALVANIZED	N/A
HHN-08	HEAVY HEX NUT	A563	1" DIA.	2676	HOT DIP GALVANIZED	N/A
HHN-10	HEAVY HEX NUT	A563	1-1/4" DIA.	128	HOT DIP GALVANIZED	N/A
HHN-12	HEAVY HEX NUT	A563	1-1/2" DIA.	256	HOT DIP GALVANIZED	N/A
FB-05.10	FIELD BOLT	A325	5/8" DIA. x 1-1/4" L.	1968	HOT DIP GALVANIZED	N/A
FB-05.12	FIELD BOLT	A325	5/8" DIA. x 1-1/2" L.	3184	HOT DIP GALVANIZED	N/A
FB-05.16	FIELD BOLT	A325	5/8" DIA. x 2" L.	1216	HOT DIP GALVANIZED	N/A
FB-06.18	FIELD BOLT	A325	3/4" DIA. x 2-1/4" L.	60	HOT DIP GALVANIZED	N/A
FB-06.22	FIELD BOLT	A325	3/4" DIA. x 2-3/4" L.	1010	HOT DIP GALVANIZED	N/A
FB-07.16	FIELD BOLT	A325	7/8" DIA. x 2" L.	216	HOT DIP GALVANIZED	N/A
FB-08.24	FIELD BOLT	A325	1" DIA. x 3" L.	512	HOT DIP GALVANIZED	N/A
FB-08.26	FIELD BOLT	A325	1" DIA. x 3-1/4" L.	96	HOT DIP GALVANIZED	N/A
FB-08.28	FIELD BOLT	A325	1" DIA. x 3-1/2" L.	1852	HOT DIP GALVANIZED	N/A
FB-08.32	FIELD BOLT	A325	1" DIA. x 4" L.	216	HOT DIP GALVANIZED	N/A
FB-10.36	FIELD BOLT	A325	1-1/4" DIA. x 4-1/2" L.	128	HOT DIP GALVANIZED	N/A
MB-2.5x06	MOUNTING BOLT (PV PANEL)	GR. 304 STAINLESS	5/16" DIA. (M8) x 3/4" L.	10836	PASSIVATE	N/A
MN-2.5	MOUNTING NUT (PV PANEL)	GR. 304 STAINLESS	5/16" DIA. (M8)	10836	PASSIVATE	N/A

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PROJECT # : 22004

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KPFF Job # : 2000519

ENGINEER'S STAMP

PROJECT TITLE
140 KENDRICK

PROJECT ADDRESS
140 KENDRICK STREET
NEEDHAM, MA 02494

SHEET TITLE
MATERIAL SCHEDULE

ISSUED SET / REVISIONS

SYM	DESCRIPTION	DATE
	30% DESIGN SUBMISSION	08/08/2022
	60% DESIGN SUBMISSION	09/08/2022

DESIGNED BY : PARASOL
DRAWN BY: NB
CHECKED BY : KPFF
APPROVED BY : KPFF
ORIGINAL SHEET SIZE : 42" x 30"

SCALE
0 1/2" 1"
IF BAR IS NOT ONE INCH, DRAWING IS NOT TO SCALE

DWG NO.
PV-005

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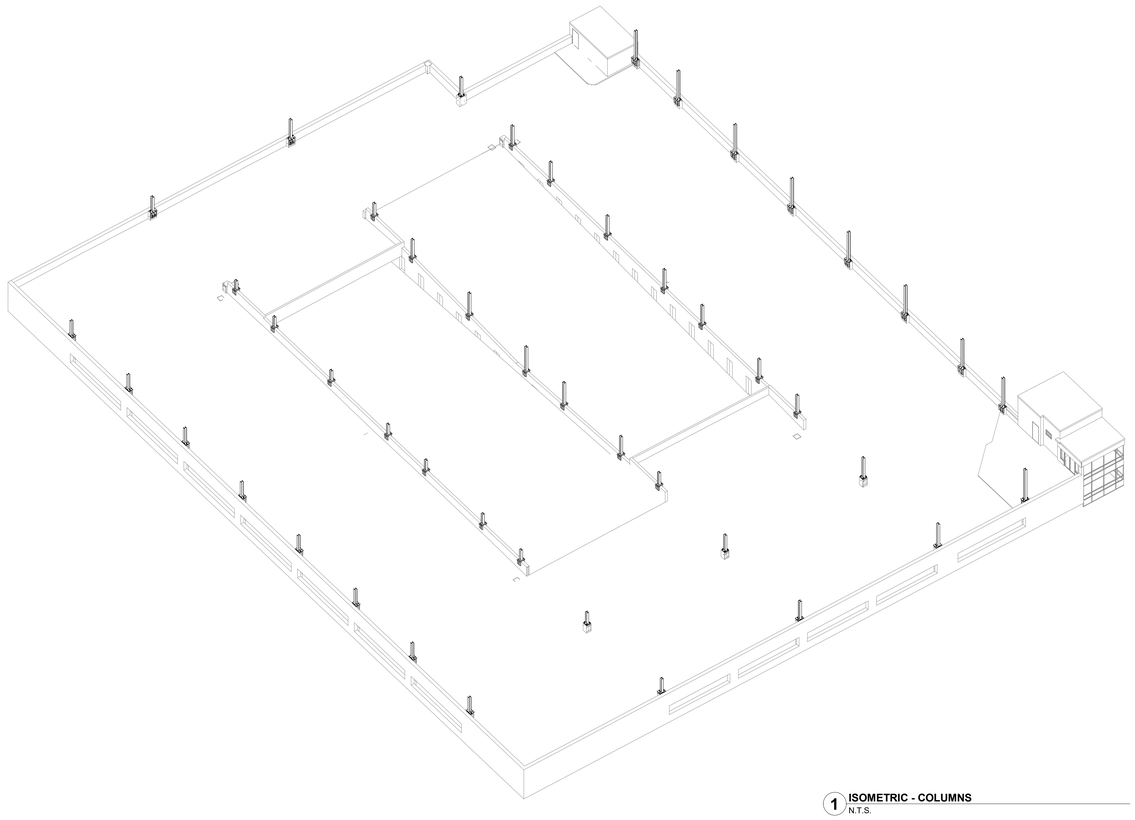
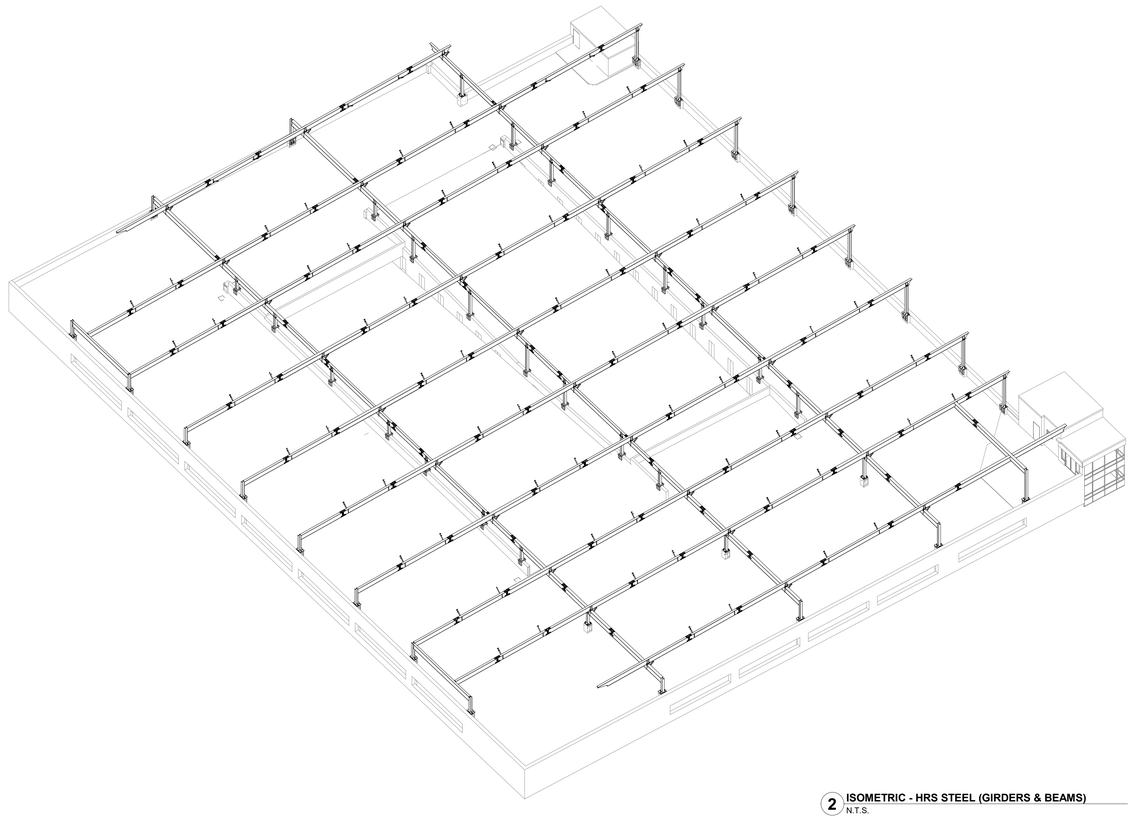
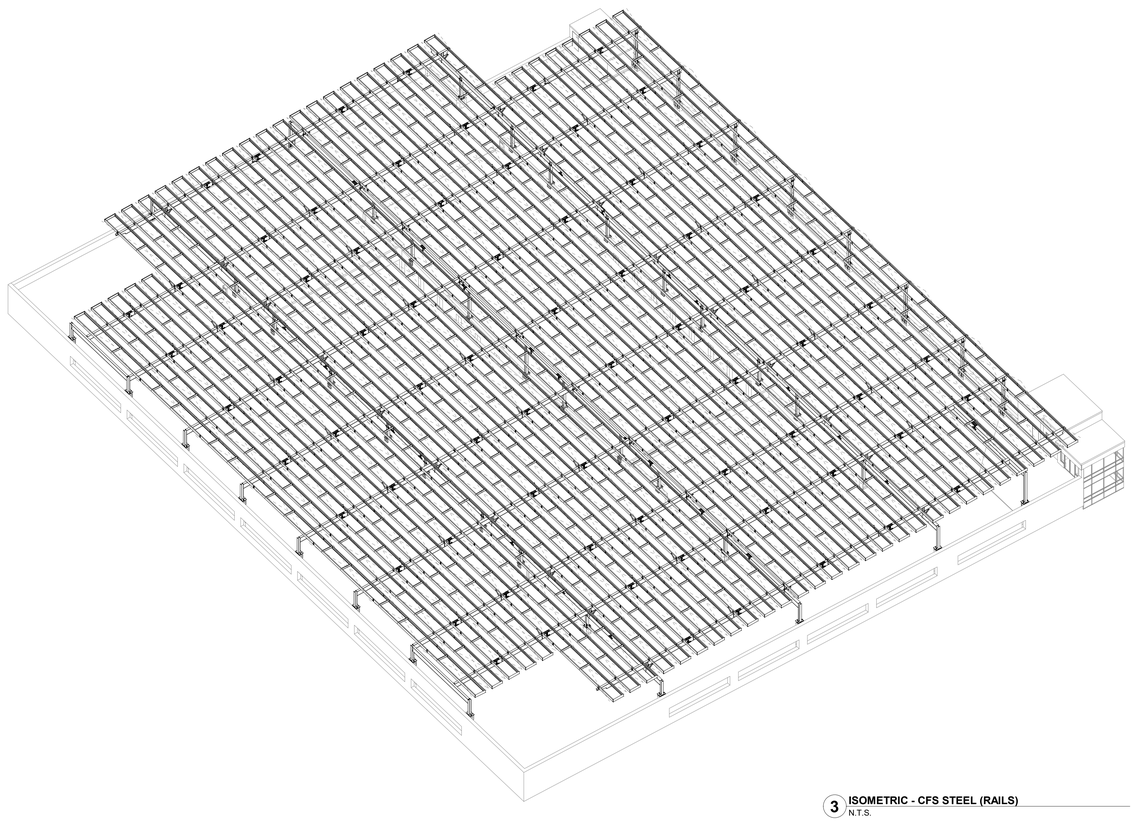


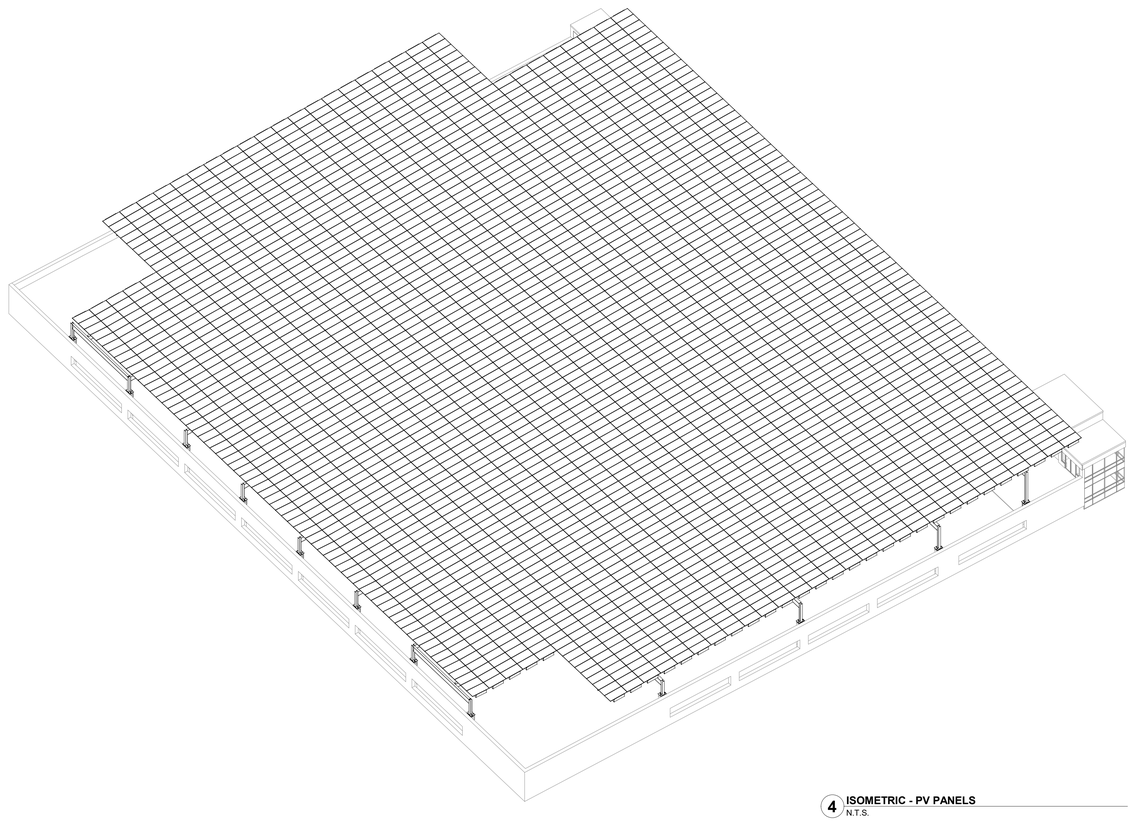
1 ISOMETRIC - COLUMNS
N.T.S.



2 ISOMETRIC - HRS STEEL (GIRDERS & BEAMS)
N.T.S.



3 ISOMETRIC - CFS STEEL (RAILS)
N.T.S.



4 ISOMETRIC - PV PANELS
N.T.S.

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Consulting Engineers
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KPFF Job # : 2000519

ENGINEER'S STAMP

PROJECT TITLE
140 KENDRICK

PROJECT ADDRESS
140 KENDRICK STREET
NEEDHAM, MA 02494

SHEET TITLE
ISOMETRICS

ISSUED SET / REVISIONS

SYM	DESCRIPTION	DATE
	30% DESIGN SUBMISSION	08/08/2022
	60% DESIGN SUBMISSION	08/08/2022

DESIGNED BY : PARASOL
DRAWN BY : NB
CHECKED BY : KPFF
APPROVED BY : KPFF
ORIGINAL SHEET SIZE : 42" x 30"
SCALE
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PV-010

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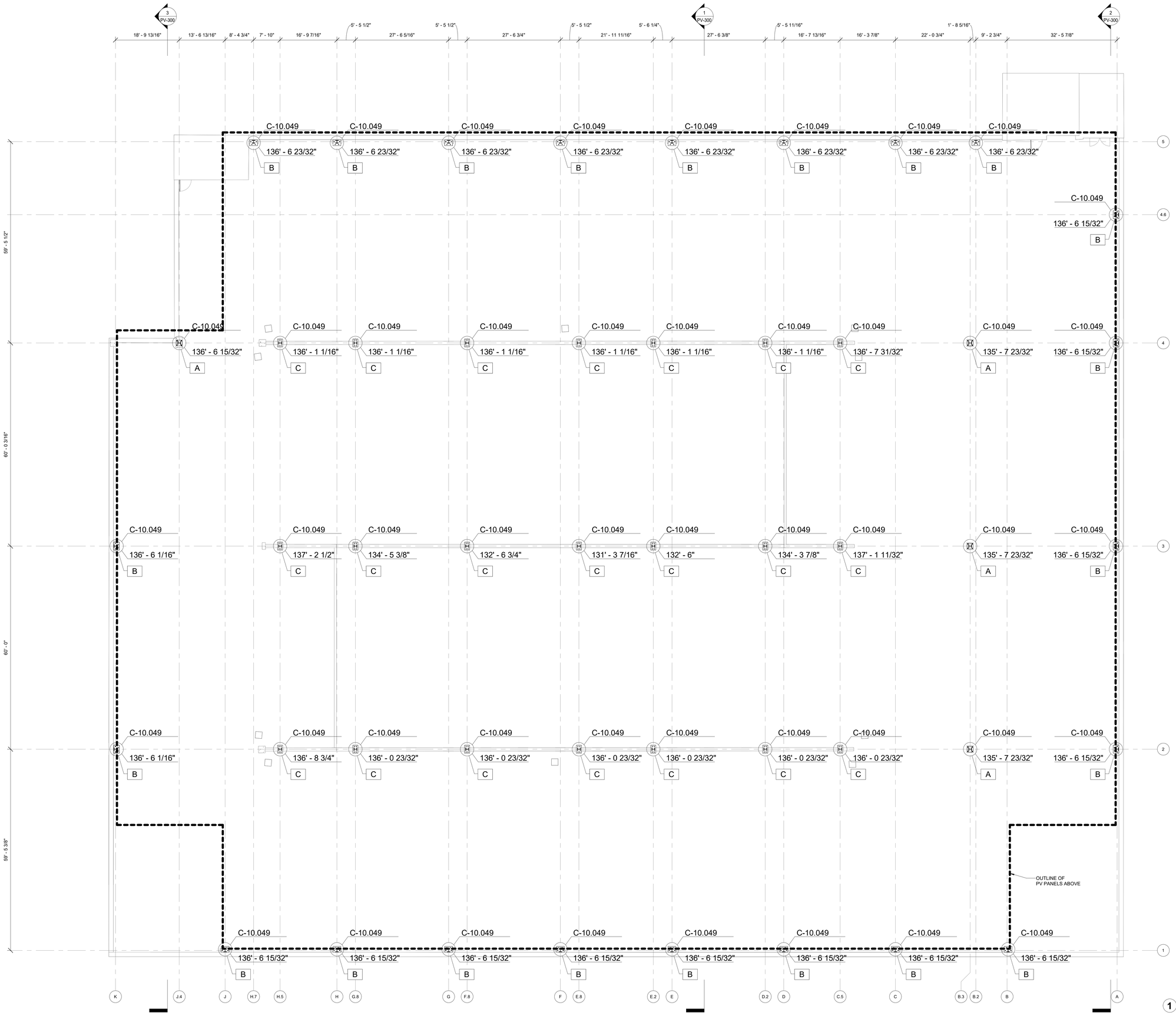

1 COLUMN LAYOUT PLAN
3/32" = 1'-0"

sunwealth

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ENGINEER'S STAMP

PROJECT TITLE
140 KENDRICK

PROJECT ADDRESS
140 KENDRICK STREET
NEEDHAM, MA 02494

SHEET TITLE
COLUMN LAYOUT PLAN

ISSUED SET / REVISIONS

SYM	DESCRIPTION	DATE
	30% DESIGN SUBMISSION	09/06/2022
	50% DESIGN SUBMISSION	09/06/2022

DESIGNED BY : PARASOL
DRAWN BY: NB
CHECKED BY : KPFF
APPROVED BY : KPFF
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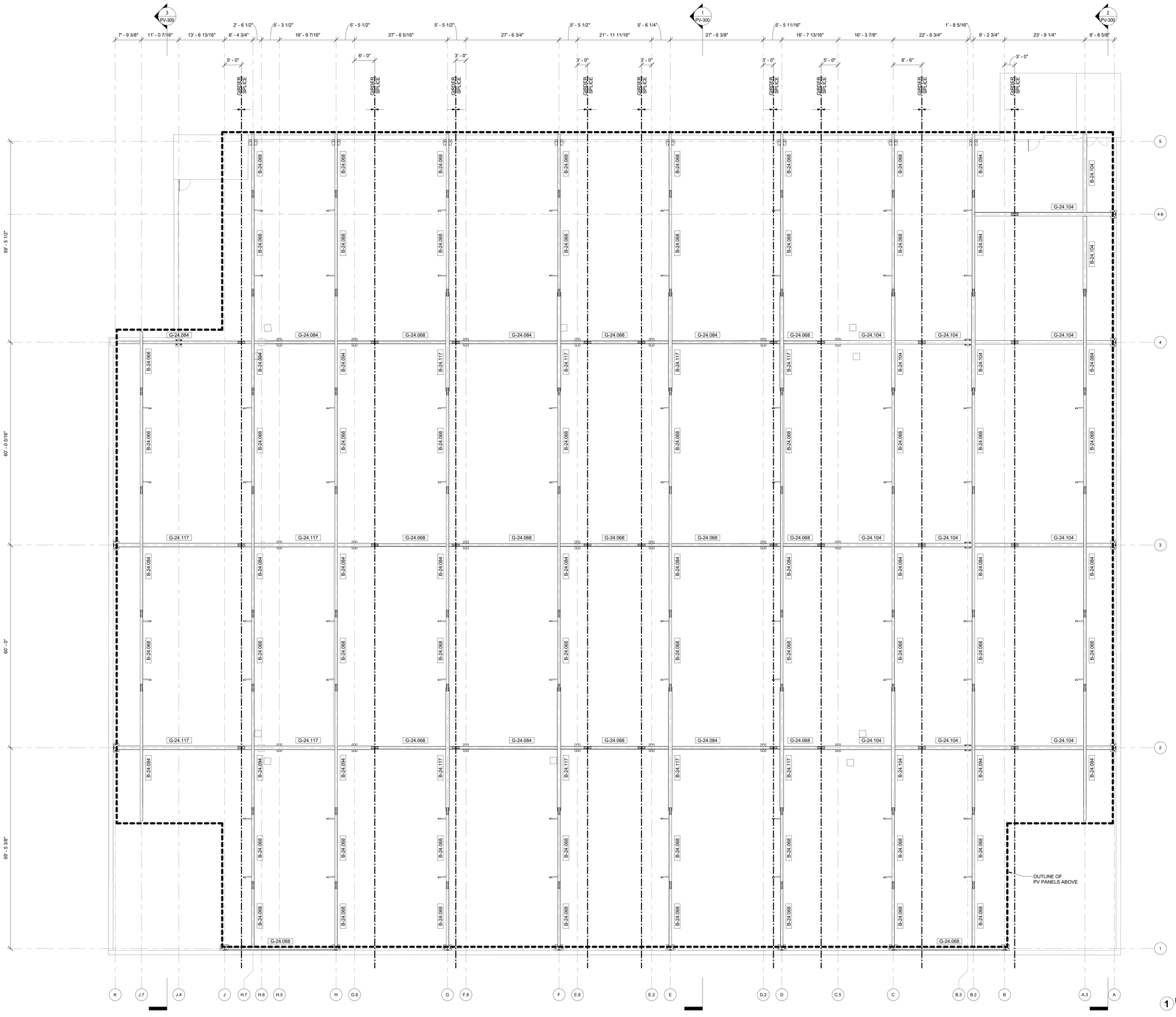

1 HRS FRAMING LAYOUT PLAN (GIRDERS & BEAMS)
3/32" = 1'-0"

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ENGINEER'S STAMP

PROJECT TITLE
140 KENDRICK

PROJECT ADDRESS
140 KENDRICK STREET
NEEDHAM, MA 02494

SHEET TITLE
HRS FRAMING LAYOUT PLAN (GIRDERS & BEAMS)

ISSUED SET / REVISIONS

SYM	DESCRIPTION	DATE
	30% DESIGN SUBMISSION	06/09/2022
	50% DESIGN SUBMISSION	09/09/2022

DESIGNED BY : PARASOL
DRAWN BY: NB
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ORIGINAL SHEET SIZE : 42" x 30"
SCALE
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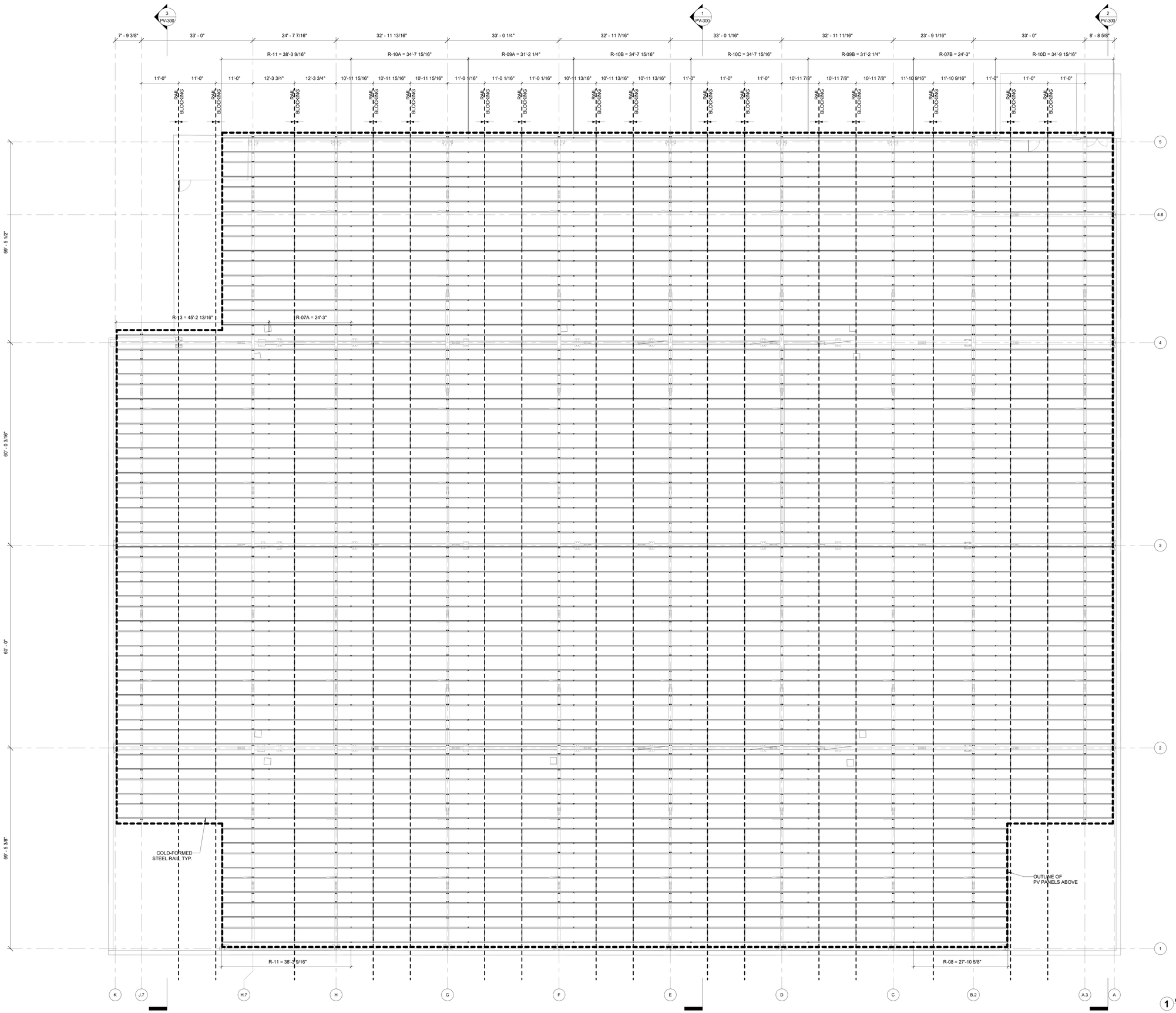

1 **CFS FRAMING LAYOUT PLAN (RAILS)**
3/32" = 1'-0"

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ENGINEER'S STAMP

PROJECT TITLE
140 KENDRICK

PROJECT ADDRESS
140 KENDRICK STREET
NEEDHAM, MA 02494

SHEET TITLE
CFS FRAMING LAYOUT PLAN (RAILS)

ISSUED SET / REVISIONS

SYM	DESCRIPTION	DATE
	30% DESIGN SUBMISSION	09/06/2022
	50% DESIGN SUBMISSION	09/06/2022

DESIGNED BY : PARASOL
DRAWN BY: NB
CHECKED BY : KPFF
APPROVED BY : KPFF
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SCALE
0 1/2" 1"
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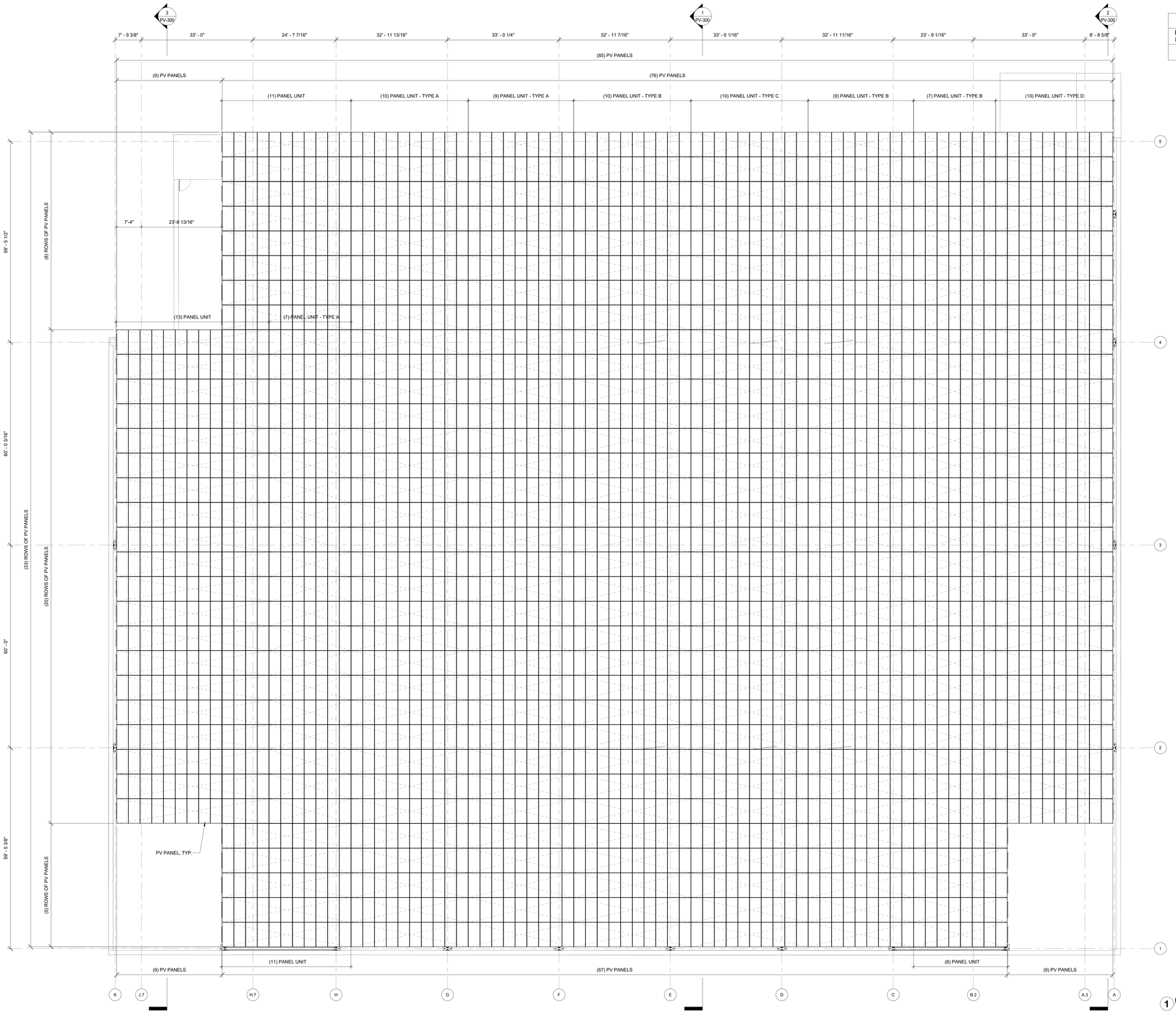

PV PANEL SCHEDULE			
PIECE MARK	MATERIAL	QUANTITY	SYSTEM SIZE
PV-1	Q.PEAK - DUO XL-G10.3/BFG (480W)	2643	1268.64

1 PV UNIT LAYOUT PLAN
3/32" = 1'-0"

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KPFF Job # : 2000519

ENGINEER'S STAMP

PROJECT TITLE
140 KENDRICK

PROJECT ADDRESS
140 KENDRICK STREET
NEEDHAM, MA 02494

SHEET TITLE
PV UNIT LAYOUT PLAN

ISSUED SET / REVISIONS

SYM	DESCRIPTION	DATE
	30% DESIGN SUBMISSION	09/06/2022
	60% DESIGN SUBMISSION	09/06/2022

DESIGNED BY : PARASOL
DRAWN BY: NB
CHECKED BY : KPFF
APPROVED BY : KPFF
ORIGINAL SHEET SIZE : 42" x 30"
SCALE
0 1/2" 1"
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PV-103

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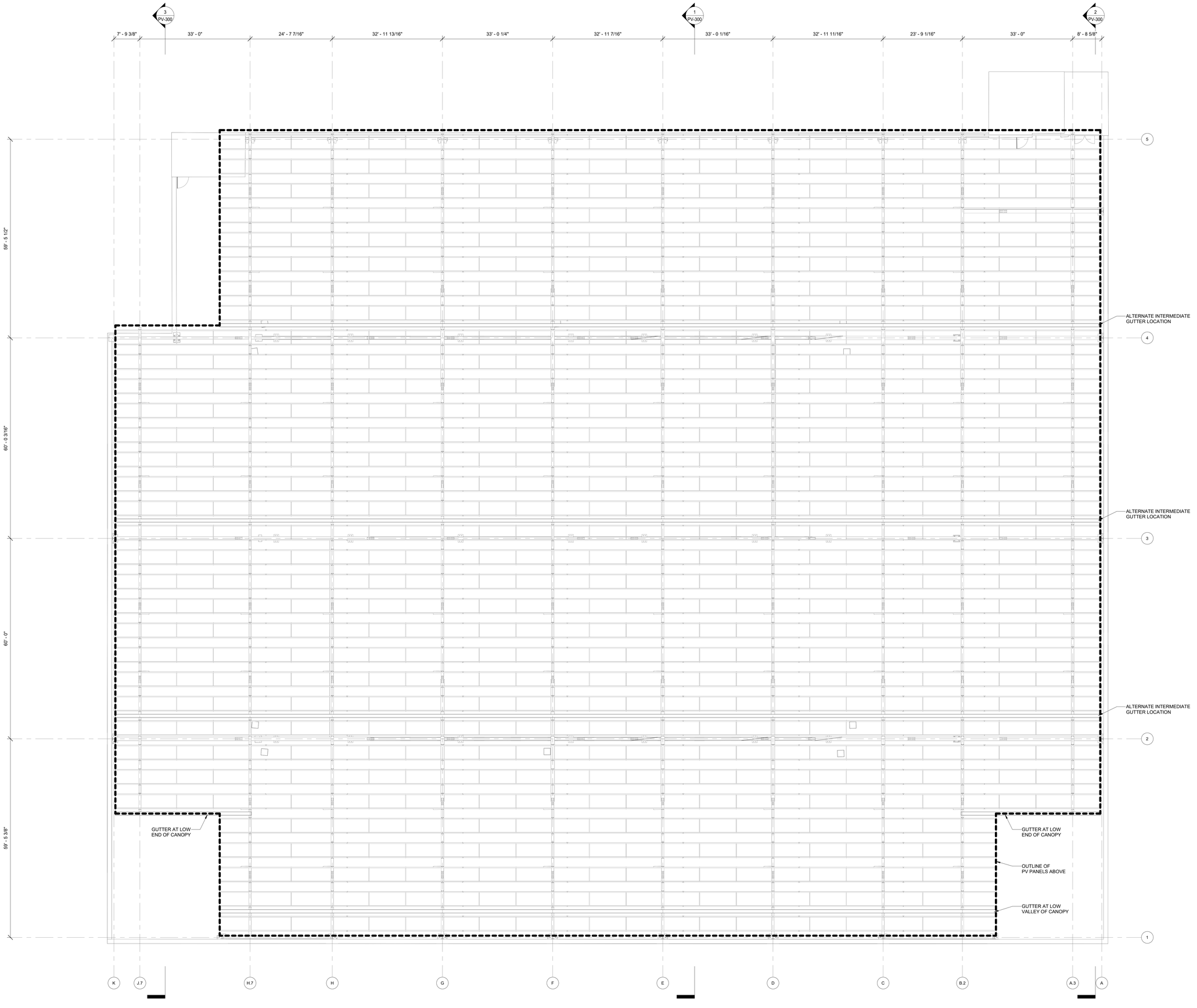

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PROJECT ADDRESS
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SHEET TITLE
WATER MANAGEMENT PLAN

ISSUED SET / REVISIONS

SYM	DESCRIPTION	DATE
	60% DESIGN SUBMISSION	09/06/2022

DESIGNED BY : PARASOL
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ORIGINAL SHEET SIZE : 42" x 30"
SCALE
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PV-104

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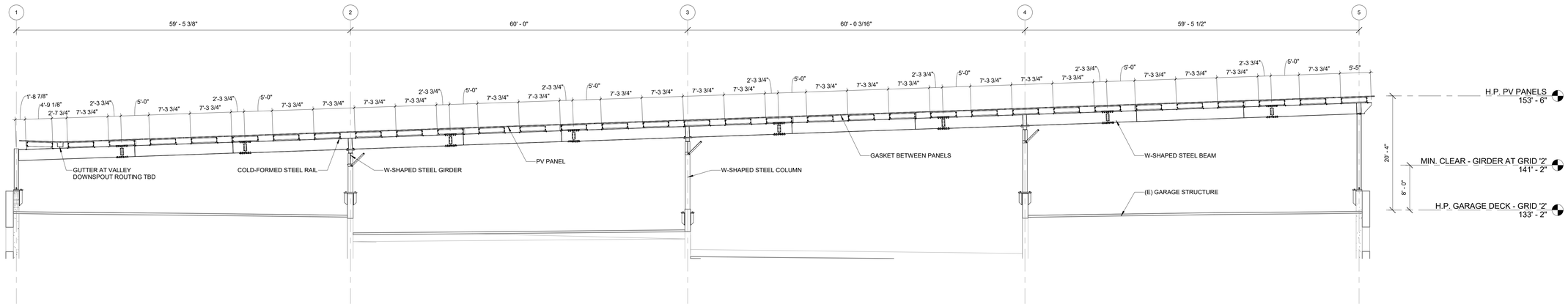
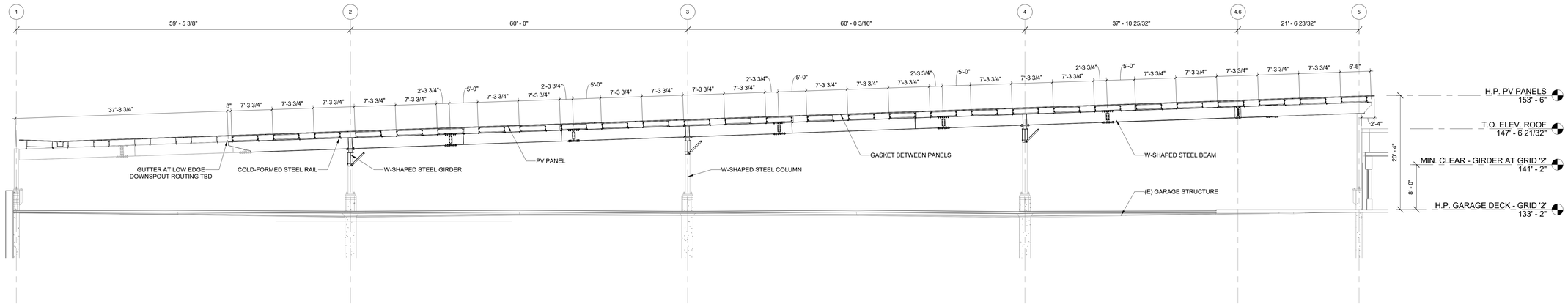
CANOPY SLOPE = -2 DEG. / 2 DEG.



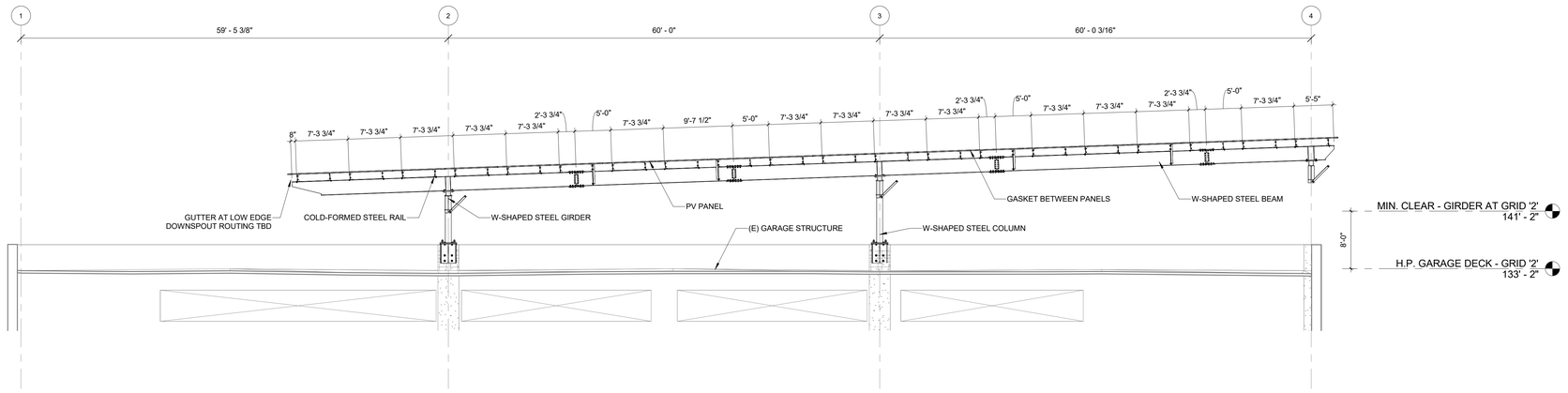
1 CANOPY SECTION AT GRID 'E'
1/8" = 1'-0"

CANOPY SLOPE = -2 DEG. / 2 DEG.



2 CANOPY SECTION AT GRID 'A.3'
1/8" = 1'-0"

CANOPY SLOPE = -2 DEG. / 2 DEG.



3 CANOPY SECTION AT GRID 'K'
1/8" = 1'-0"

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KPFF Job # : 2000519

ENGINEER'S STAMP

PROJECT TITLE
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PROJECT ADDRESS
140 KENDRICK STREET
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SHEET TITLE
CANOPY SECTIONS

ISSUED SET / REVISIONS

SYM	DESCRIPTION	DATE
	30% DESIGN SUBMISSION	06/06/2022
	60% DESIGN SUBMISSION	06/06/2022

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APPROVED BY : KPFF
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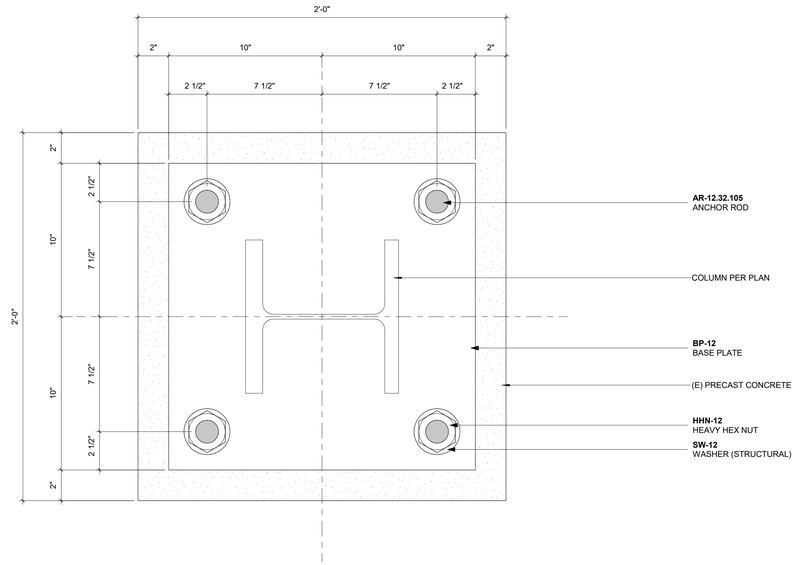
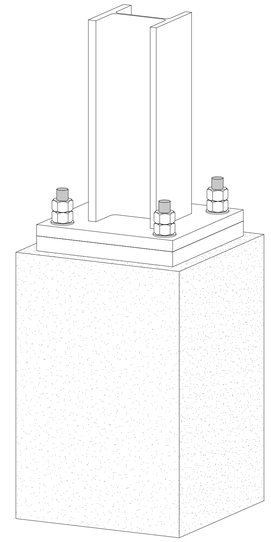
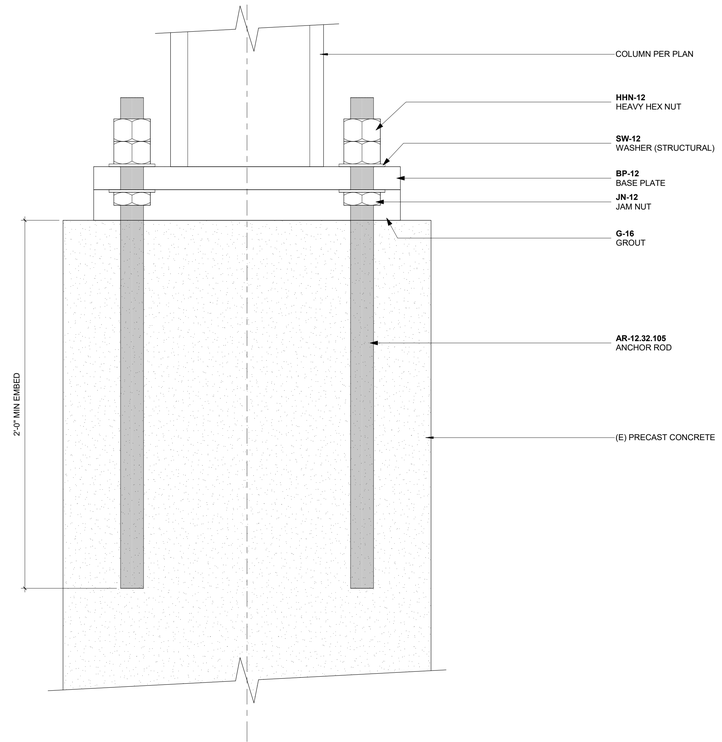


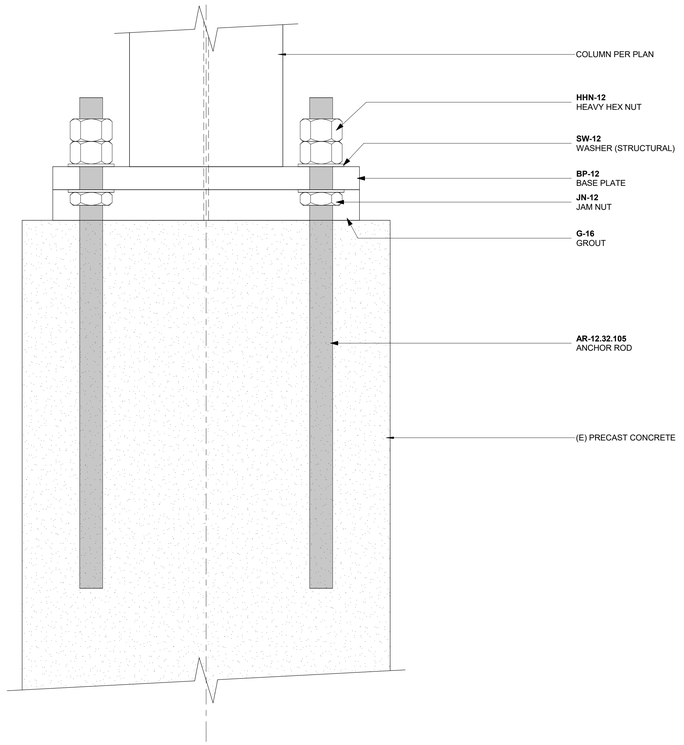
2 **BASE CONNECTION TYPE A - PLAN**
3" = 1'-0"



1 **BASE CONNECTION TYPE A - ISOMETRIC**
N.T.S.



4 **BASE CONNECTION TYPE A - FRONT**
3" = 1'-0"



3 **BASE CONNECTION TYPE A - SIDE**
3" = 1'-0"

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PROJECT TITLE
140 KENDRICK

PROJECT ADDRESS
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NEEDHAM, MA 02494

SHEET TITLE
BASE CONNECTION - TYPE A

ISSUED SET / REVISIONS

SYM	DESCRIPTION	DATE
	60% DESIGN SUBMISSION	09/09/2022

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ORIGINAL SHEET SIZE : 42" x 30"
SCALE
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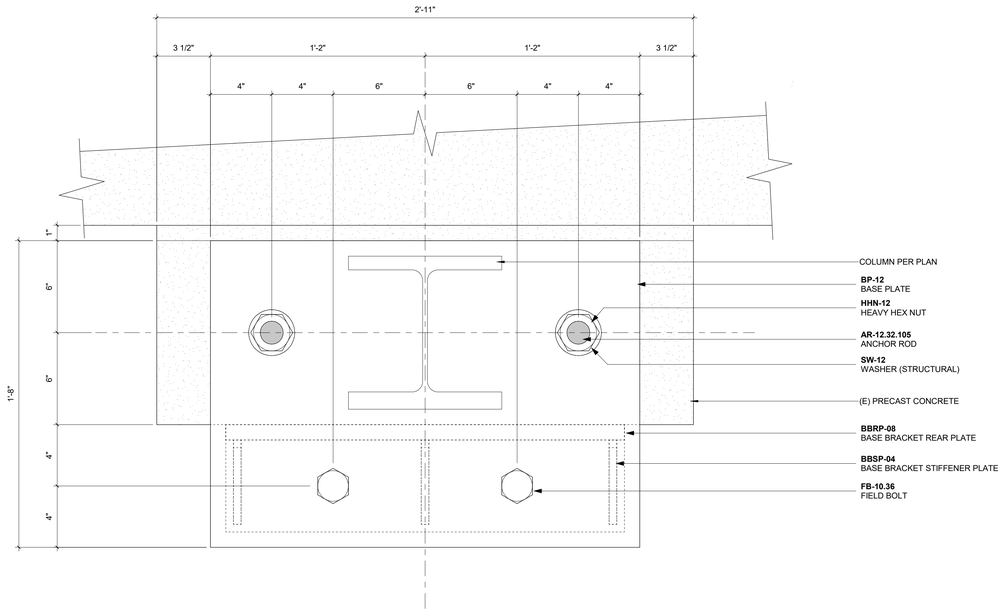
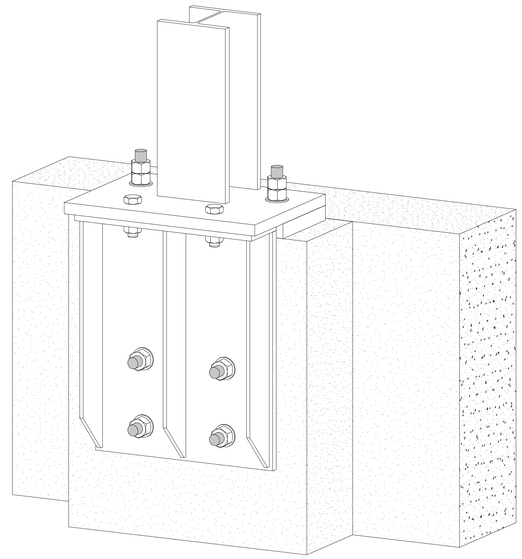
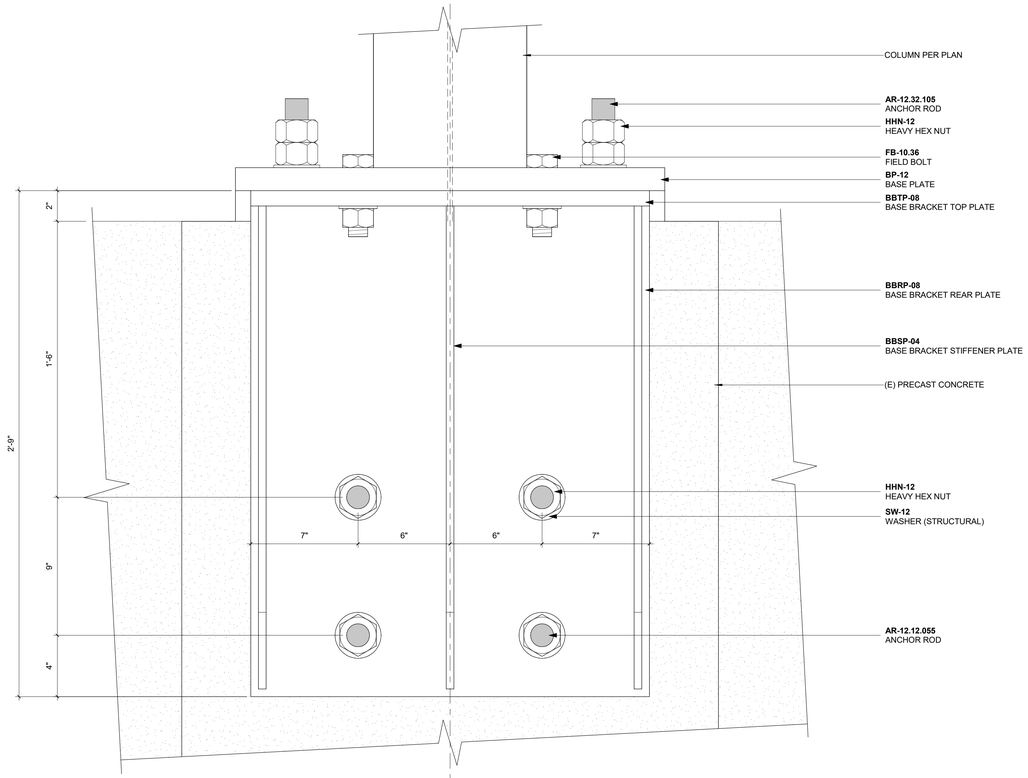


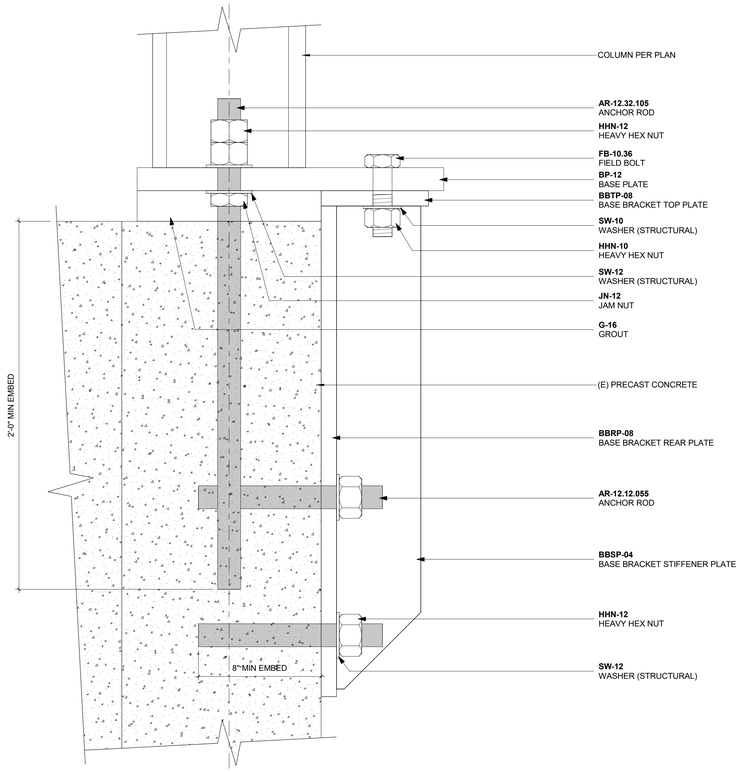
2 **BASE CONNECTION TYPE B - PLAN**
3" = 1'-0"



1 **BASE CONNECTION TYPE B - ISOMETRIC**
N.T.S.



4 **BASE CONNECTION TYPE B - FRONT**
3" = 1'-0"



3 **BASE CONNECTION TYPE B - SIDE**
3" = 1'-0"

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ENGINEER'S STAMP

PROJECT TITLE
140 KENDRICK

PROJECT ADDRESS
140 KENDRICK STREET
NEEDHAM, MA 02494

SHEET TITLE
BASE CONNECTION - TYPE B

ISSUED SET / REVISIONS

SYM	DESCRIPTION	DATE
	60% DESIGN SUBMISSION	09/06/2022

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ORIGINAL SHEET SIZE : 42" x 30"
SCALE
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1" = 1'-0" ON 30" SHEET, PRINTED IN 1/2" SCALE

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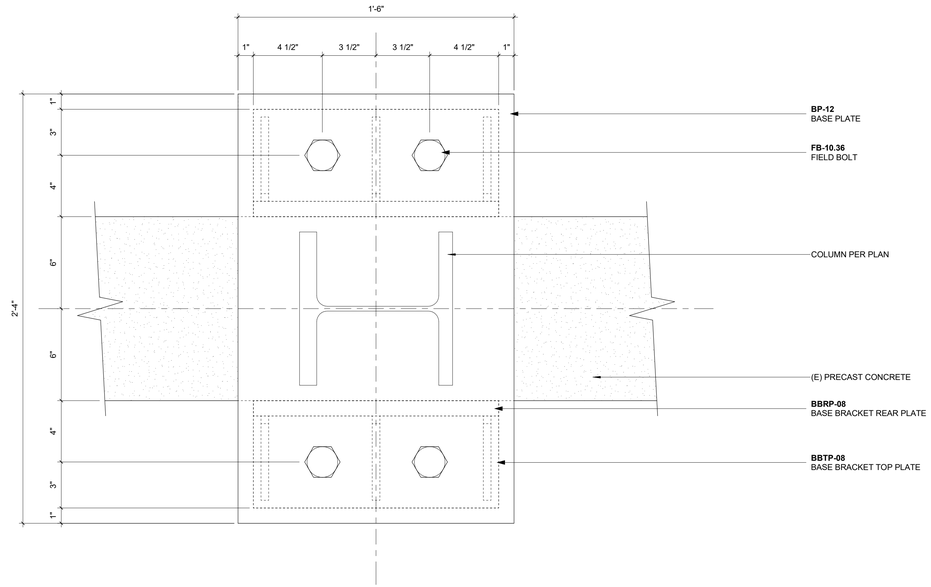
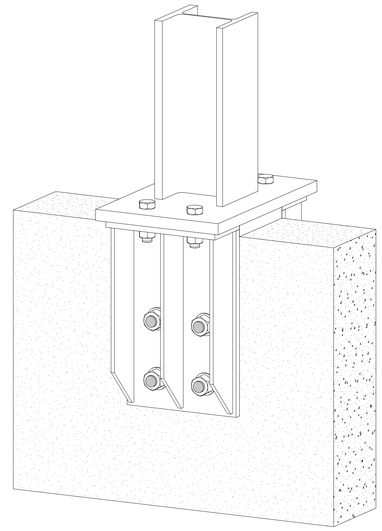
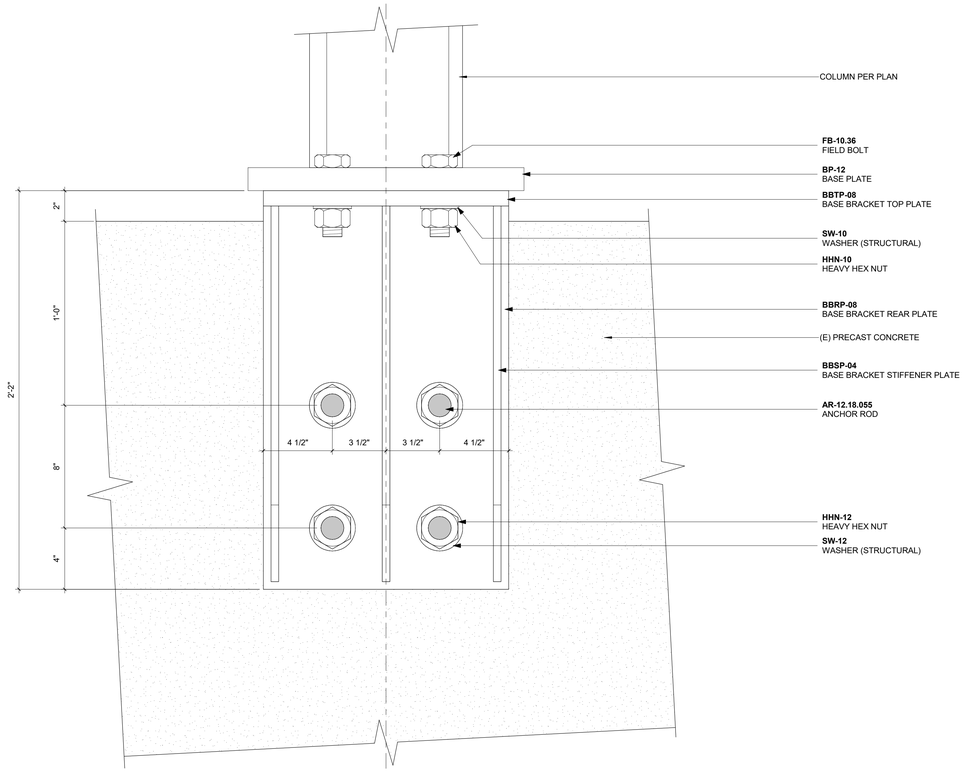


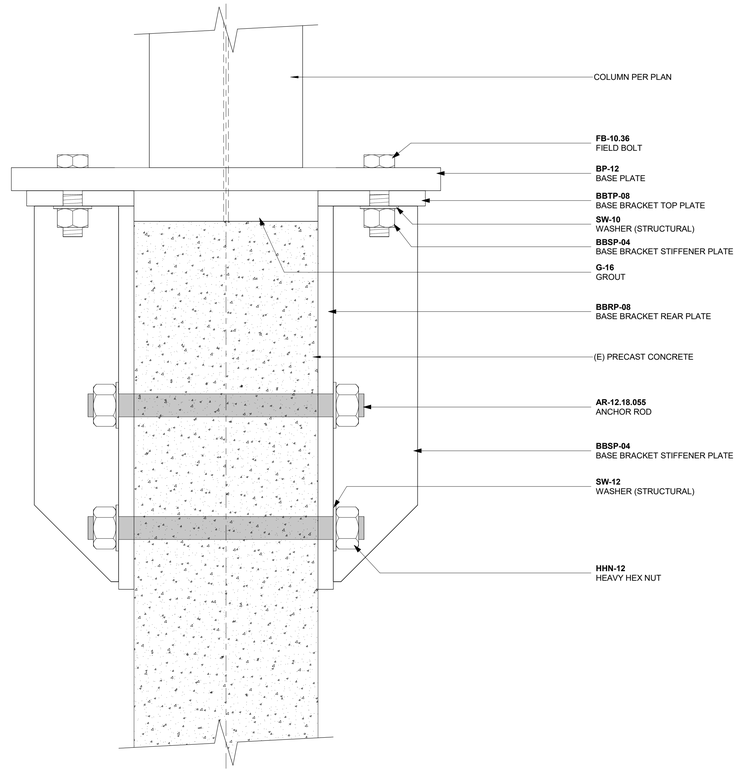
2 **BASE CONNECTION TYPE C - PLAN**
3" = 1'-0"



1 **BASE CONNECTION TYPE C - ISOMETRIC**
N.T.S.



4 **BASE CONNECTION TYPE C - FRONT**
3" = 1'-0"



3 **BASE CONNECTION TYPE C - SIDE**
3" = 1'-0"

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KPFF Job # : 2000519

ENGINEER'S STAMP

PROJECT TITLE
140 KENDRICK

PROJECT ADDRESS
140 KENDRICK STREET
NEEDHAM, MA 02494

SHEET TITLE
BASE CONNECTION - TYPE C

ISSUED SET / REVISIONS

SYM	DESCRIPTION	DATE
	60% DESIGN SUBMISSION	09/06/2022

DESIGNED BY : PARASOL
DRAWN BY: NB
CHECKED BY : KPFF
APPROVED BY : KPFF
ORIGINAL SHEET SIZE : 42" x 30"
SCALE
0 1/2" 1"
1" = 1'-0" ON FULL SIZE, PRINTED IS NOT TO SCALE

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PV-402

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Boston Properties

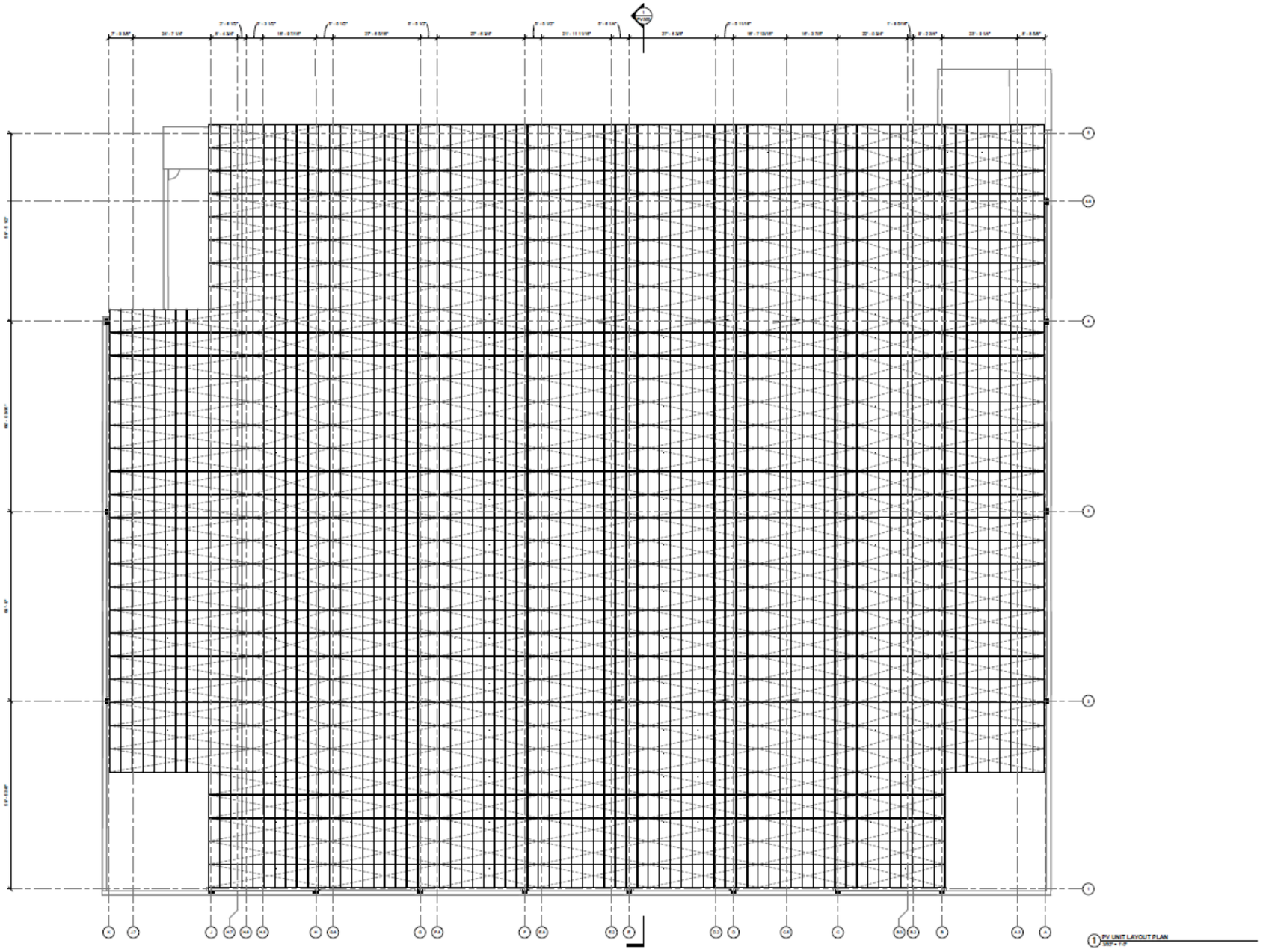
140 Kendrick St

Needham Heights, MA 02494

Francois Attal

August 16, 2022

Single Tilt 2°
System Size – 1,263.84 kWp DC



PARASOL
STRUCTURES

sunwealth

CLIENT: SUNWEALTH
CARPORT: PARASOL SOLFLEX

LOCATION: BOSTON PROPERTIES
140 KENDRICK ST
NEEDHAM HEIGHTS, MA 02494

PANELS: HANWHA G11.3 480WW
DATE: AUGUST 16, 2022

Parasol Structures

GENERAL NOTES:

1. Result of easement reports and underground utilities may affect final placement of solar arrays.
2. Conflicting trees and other obstructions will have to be removed, trimmed, or relocated
3. Detailed analysis of the effect of shade on arrays has not been performed.
4. Soil analysis has not been performed
5. It is assumed that the site is not in a flood plain.
6. Structural Analysis of the Garage has not been performed

Parasol Structures

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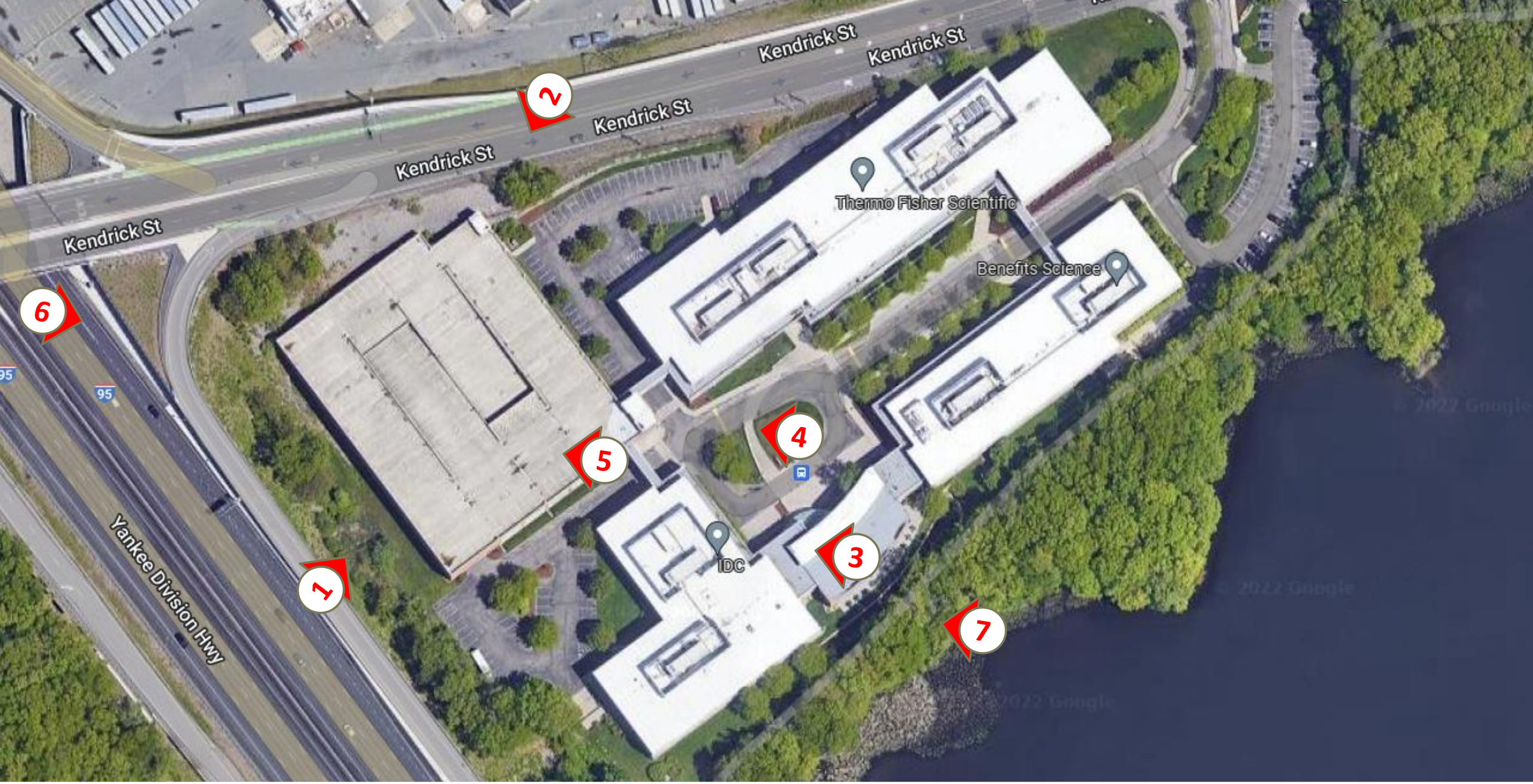

PARASOL STRUCTURES

Rendered Views

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PARASOL STRUCTURES

1 Off Ramp View

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PARASOL STRUCTURES

2 Kendrick Street View

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3 Roof / Future Deck View

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4 View from interior landscaped roundabout

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5 Under Canopy View

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6

North West View

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7

South East View

sunwealth

From:	Rick DeAngelis
To:	Alexandra Clee; Lee Newman; Elisa Litchman; David Roche
Cc:	nskoly@vhb.com; Marcel Rodgers; Ellesse Lunde; Christopher Hiserman; Madeleine Timin; Roxane Argueta
Subject:	140 Kendrick Street- Solar Roof Drainage
Date:	Monday, September 26, 2022 8:55:48 AM
Attachments:	image001.png image002.png image003.png image004.png image005.png C2.0_DRAIN.pdf

---

All

Attached is a plan prepared by VHB detailing the new HDPE drainage pipe and downspout connections which will replace the existing concrete drainage pipe .

This replacement pipe will have the roof tied into it and the pipe will collect the same volume of water as previously collected from the top deck/ story of the garage which in the past fell to the pavement and went into ground level drains.

The new pipe and system will collect the water from the solar canopy and avoid water falling onto the garage surface. This in turn will prevent grit/sand/oils from entering the drainage system by avoiding contact with that surface.

This plan is submitted in response to David Roche's questions as to how we are handling storm water drainage from the new roof.

Please add this plan to both our Design Review Board submission and to our Planning Board submission.

Please do not hesitate to call or email with any questions you may have.

Rick DeAngelis

627-512-0319

Nicholas Skoly, P.E.

Project Manager

Land Development

P 617.607.2769
www.vhb.com

Disclaimer

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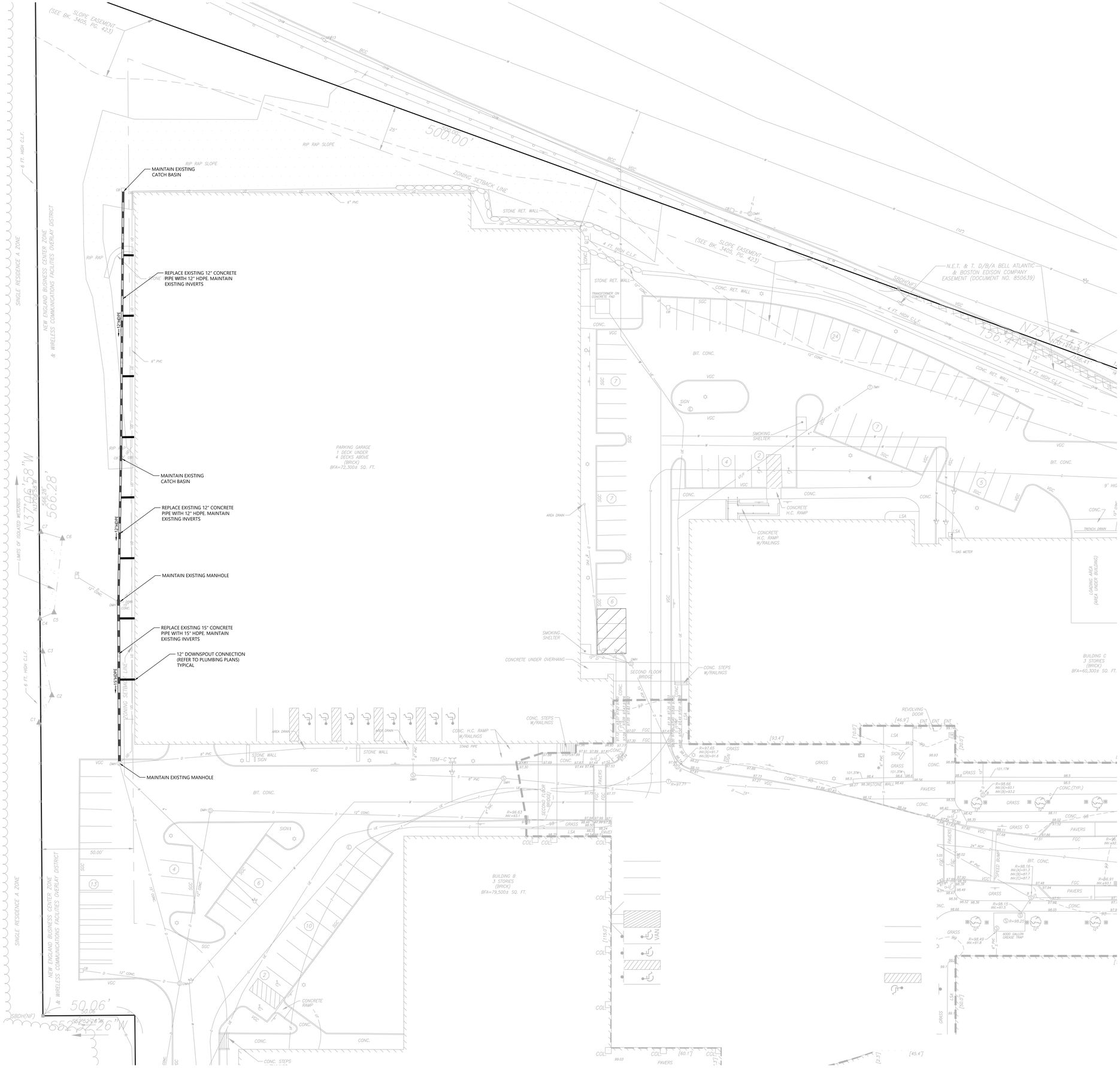
\\vhb\gbl\proj\Wat-LD\15060.00\cad\ld\Planset\Garage Solar\Drainage Plan.dwg

vhb.com

vhb

101 Walnut Street
PO Box 9151
Watertown, MA 02471
617.924.1770



0 10 20 40 Feet

140 Kendrick St

No.	Revision	Date	Appvd.

Designed by AP | Checked by NS

Issued for | Date

9/22/22

Drawing Title

Drainage Plan

Drawing Number

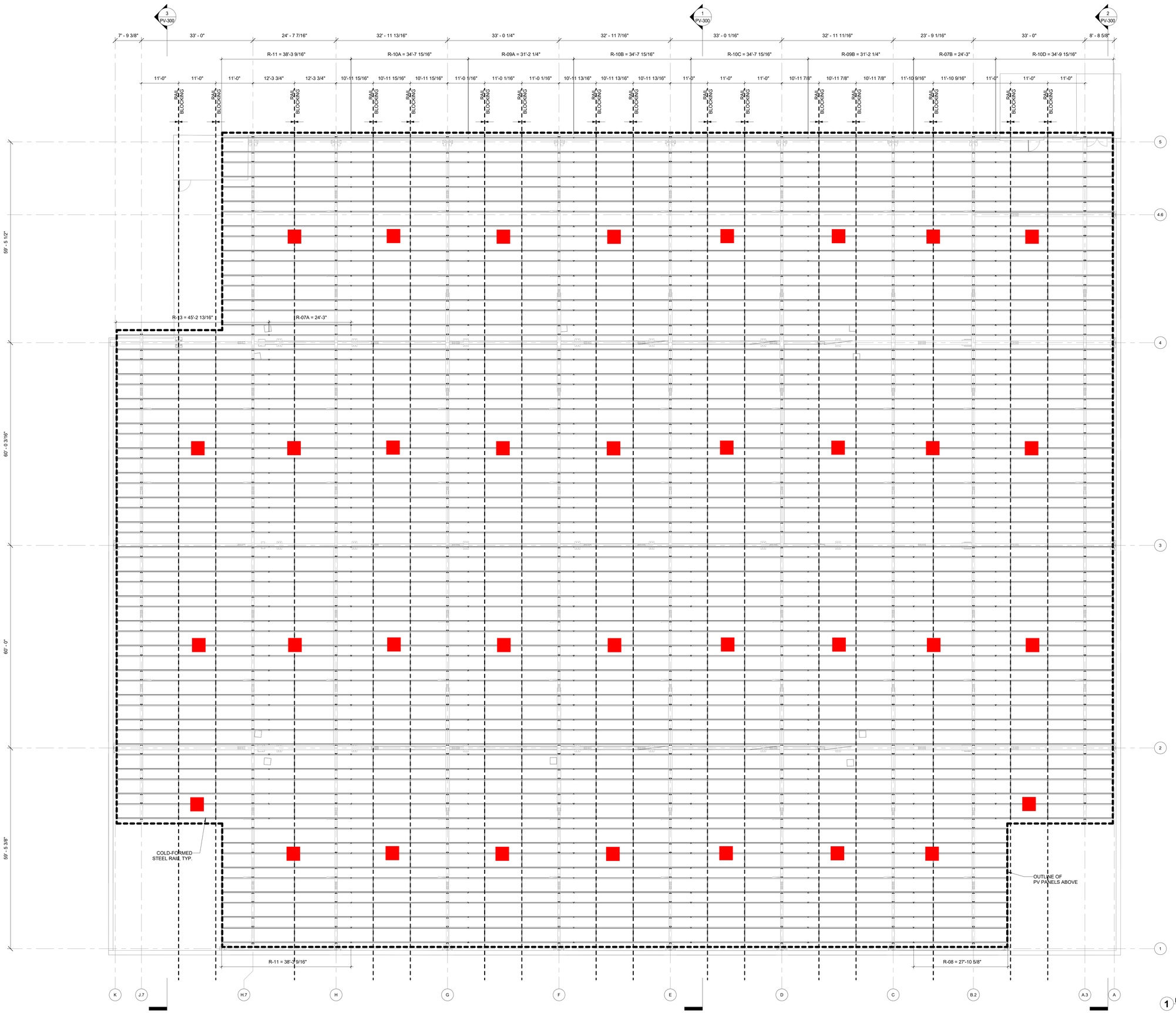
C 2.00

Sheet 2 of 2

Project Number

15060.00

Saved Wednesday, September 21, 2022 11:15:35 AM NSKOLY Plotted Thursday, September 22, 2022 3:23:39 PM Nicholas Skoly



1 **LIGHTING LAYOUT PLAN**
3/32" = 1'-0"

sunwealth

PARASOL STRUCTURES
NEW YORK BOSTON
WWW.PARASOLSTRUCTURES.COM

PROJECT # : 22004

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kpff
Consulting Engineers
3737 Camino Del Rio North, Suite 1000
San Diego, California 92108
(619) 521-9500 Fax (619) 521-9501

KPFF Job # : 2000519

ENGINEER'S STAMP

PROJECT TITLE
140 KENDRICK

PROJECT ADDRESS
140 KENDRICK STREET
NEEDHAM, MA 02494

SHEET TITLE
LIGHTING LAYOUT PLAN

ISSUED SET / REVISIONS

SYM	DESCRIPTION	DATE
	30% DESIGN SUBMISSION	09/06/2022
	90% DESIGN SUBMISSION	09/06/2022
	LIGHTING LAYOUT PLAN SUBMISSION	10/12/2022

DESIGNED BY : PARASOL
DRAWN BY: NB
CHECKED BY : KPFF
APPROVED BY : KPFF
ORIGINAL SHEET SIZE : 42" x 30"
SCALE
0 1/2" 1"
IF THIS SHEET DOES NOT MEASURE 1" THEN SCALE IS NOT TO SCALE

DWG.NO.
PV-105

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2022
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Everything an LED garage light should be. And more.

PORTO™ now available in 3 high-output versions.

RAB LIGHTING

RABLIGHTING.COM 888 722-1000

PORTO

- Integrated photo/motion sensor control available
- Replaces up to 400W MH
- Ultra-high efficiency up to 118 lm/W
- Available in 2 sizes and 5 wattages: 30, 42, 55, 70, 80 and 105W
- Pendant and surface mount
- Low glare, vandal-resistant polycarbonate lens
- 20% uplight eliminates “cave effect”

NO COMPROMISE 5 YEAR WARRANTY

IP66 RATING

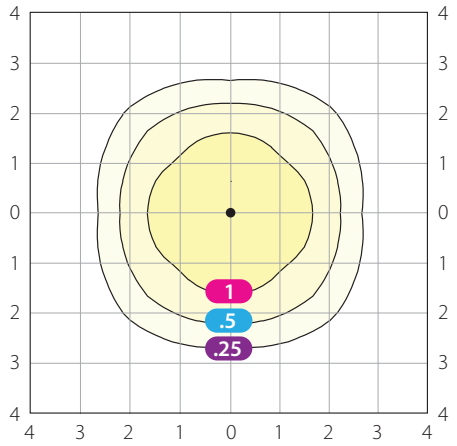
30, 42, 55 and 105W models are DLC listed. 70 and 80W models are DLC Premium listed.

18” PORTOs with higher wattages can be used where higher ceilings exist (over ramps) while 14” PORTOs are suitable for standard 8-10’ ceilings.

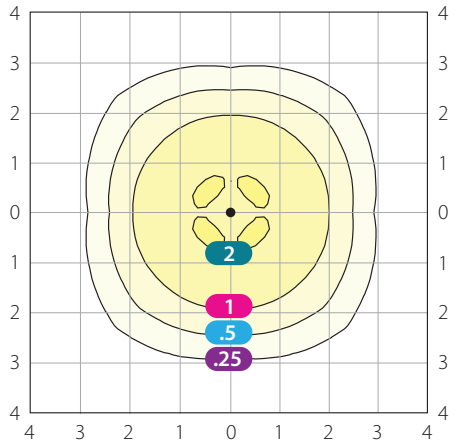
Photometrics

14" PORTO

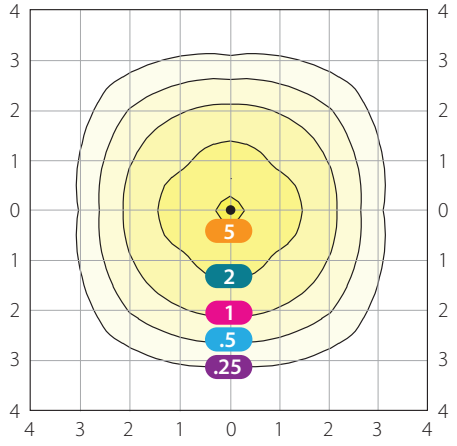
PORTO 30W
10' Mounting Height
5000K
Photometric Report #RAB00790



PORTO 42W
10' Mounting Height
5000K
Photometric Report #RAB00773



PORTO 55W
10' Mounting Height
5000K
Photometric Report #RAB00765

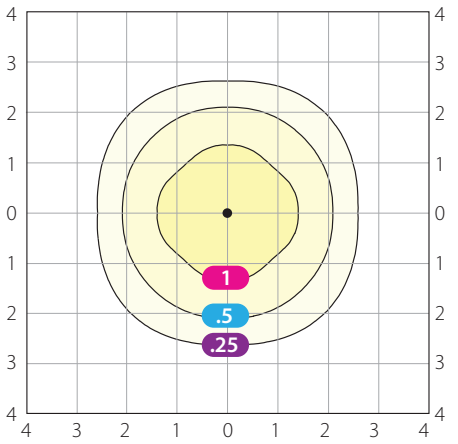


Mounting Height	8	9	10	11	12
Multiplier	1.6	1.2	1.0	0.8	0.7

Grid scales: Multiples of mounting height
Values shown in footcandles

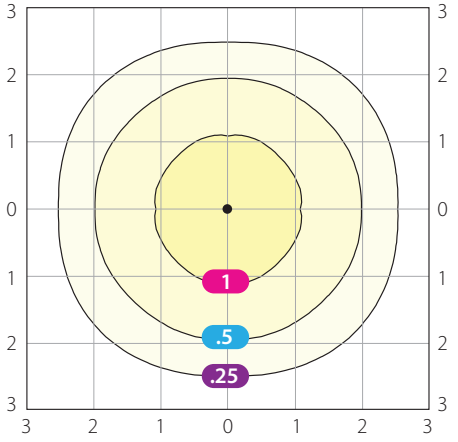
18" PORTO

PORTO 70W
16' Mounting Height
5000K
Photometric Report #RAB00992



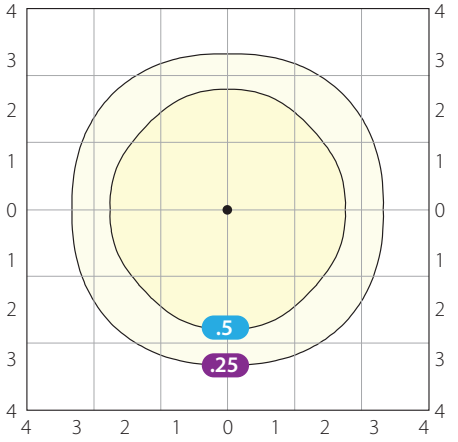
Mounting Height	14	16	18	20	22
Multiplier	1.3	1.0	0.8	0.6	0.5

PORTO 80W
18' Mounting Height
5000K
Photometric Report #RAB00998



Mounting Height	14	16	18	20	22
Multiplier	1.7	1.3	1.0	0.8	0.7

PORTO 105W
22' Mounting Height
5000K
Photometric Report #RAB00991



Mounting Height	14	16	18	20	22
Multiplier	2.5	1.9	1.5	1.2	1.0

Grid scales: Multiples of mounting height
Values shown in footcandles

PORTO™ Specifications

UL Listing: Suitable for wet locations

LEDs: Long-life, high-efficiency surface mount LEDs

Lifespan: 100,000-hour LED lifespan based on IES LM-80 results and TM-21 calculations

IP Rating: IP66, protected against dust and water ingress

Drivers:
30W: Constant current, Class 2, 100 - 277V and 480V, 50/60 Hz, 120V: 0.25A, 208V: 0.13A, 240V: 0.12A, 277V: 0.11A, 480V: 0.12A, surge protection 4kV, THD ≤20%, pF 99%

42W: Constant current, Class 2, 100 - 277V and 480V, 50/60 Hz, 120V: 0.36A, 208V: 0.19A, 240V: 0.18A, 277V: 0.17A, 480V: 0.13A, surge protection 4kV, THD ≤20%, pF 99%

55W: Constant current, Class 2, 100 - 277V and 480V, 50/60 Hz, 120V: 0.50A, 208V: 0.33A, 240V: 0.32A, 277V: 0.31A, 480V: 0.13A, surge protection 4kV, THD ≤20%, pF 99%

70W: Constant current, Class 2, 100 - 277V and 480V, 50/60 Hz, 120V: 0.59A, 208V: 0.37A, 240V: 0.32A, 277V: 0.27A, 480V: 0.15A, surge protection 4kV, THD ≤20%, pF 90%

80W: Constant current, Class 2, 100 - 277V and 480V, 50/60 Hz, 120V: 0.68A, 208V: 0.42A, 240V: 0.36A, 277V: 0.31A, 480V: 0.23A, surge protection 4kV, THD ≤20%, pF 90%

105W: Constant current, Class 2, 100 - 277V and 480V, 50/60 Hz, 120V: 0.87A, 208V: 0.52A, 240V: 0.45A, 277V: 0.38A, 480V: 0.23A, surge protection 4kV, THD ≤20%, pF 90%

14" PORTO 30W			
Color Temperature	**5000K**	**4000K**	**3000K**
Input Watts	29	29	29
Output Lumens	3,455	3,151	3,136
Lumens Per Watt	118	108	107
Color Accuracy (CRI)	74	73	72

14" PORTO 42W			
Color Temperature	**5000K**	**4000K**	**3000K**
Input Watts	43	43	43
Output Lumens	4,833	4,382	4,316
Lumens Per Watt	112	103	101
Color Accuracy (CRI)	74	73	72

14" PORTO 55W			
Color Temperature	**5000K**	**4000K**	**3000K**
Input Watts	59	57	58
Output Lumens	6,085	5,303	5,234
Lumens Per Watt	103	93	91
Color Accuracy (CRI)	75	73	72

18" PORTO 70W			
Color Temperature	**5000K**	**4000K**	**3000K**
Input Watts	71	70	71
Output Lumens	7,835	7,715	7,642
Lumens Per Watt	111	110	108
Color Accuracy (CRI)	74	73	71

18" PORTO 80W			
Color Temperature	**5000K**	**4000K**	**3000K**
Input Watts	82	80	81
Output Lumens	8,754	8,479	8,384
Lumens Per Watt	107	106	104
Color Accuracy (CRI)	74	73	71

18" PORTO 105W			
Color Temperature	**5000K**	**4000K**	**3000K**
Input Watts	104	104	103
Output Lumens	10,208	10,162	9,950
Lumens Per Watt	98	98	96
Color Accuracy (CRI)	74	73	71

Ambient Temperature: Suitable for use in 40°C ambient temperatures.

Cold Weather Starting: The minimum starting temperature is -40°C.

Thermal Management: Superior thermal management with external Air-Flow fins

Housing: Die-cast aluminum and sheetmetal housing

Mounting: Die-cast aluminum backbox with (4) 1/2" conduit openings with plugs. Hinged tether for easy installation and wiring. Also accomodates 1/2" or 3/4" NPS pendants *(provided by others)*.

Lens: High-transmission and vandal-resistant polycarbonate frosted lens

Reflector: Specular polycarbonate

Gaskets: High-temperature silicone gaskets

Color Stability: LED color temperature is warrantied to shift no more than 200K in CCT over a 5 year period.

Color Uniformity: RAB's range of CCT (Correlated Color Temperature) follows the guidelines of the American National Standard for Specifications for the Chromaticity of Solid State Lighting (SSL) Products, ANSI C78.377-2015.

Finish: Our environmentally friendly polyester powder coatings are formulated for high-durability and long-lasting color, and contain no VOC or toxic heavy metals.

Green Technology: Mercury and UV free, and RoHS compliant. Polyester powder coat finish formulated without the use of VOC or toxic heavy metals.

IESNA LM-79 & LM-80 Testing: RAB LED luminaires have been tested in accordance with IESNA LM-79 and LM-80, and have received the Department of Energy "Lighting Facts" label.

California Title 24: PORTO models with integrated multi-level motion sensor comply with 2013 California Title 24 building and electrical codes as commercial indoor fixtures for corridors, stairwells, warehouses and covered parking garages.

Multi-level sensor specifications

UL: Suitable for wet locations as factory installed

IP Rating: IP66, protected against dust and water ingress

Power consumption: 1W

0-10V sinking current: 50mA

Adjustable high and low modes: High: 0-10V; Low: off, 0-9.8V

Adjustable time delay: Amount of time in high mode with no motion before switching to low mode: 1 - 30 min.

Adjustable cut off delay: Time in which the fixture will remain on low mode with no motion before turning off and waiting for new motion to turn on: None, 1 - 60 min., 1 - 5 hrs.

Adjustable sensitivity: None, low, medium, maximum

Adjustable setpoint: None, 1 to 250 fc, auto

Adjustable ramp up and fade down times: 1 - 60 sec.

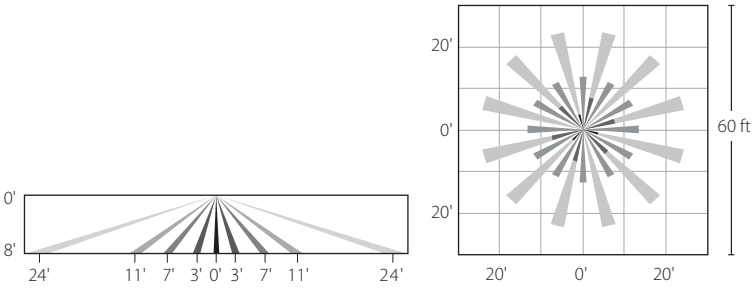
Operating temperature: -40°F to 167°F (-40°C to 75°C)

Operating Humidity: 20% to 90% noncondensing

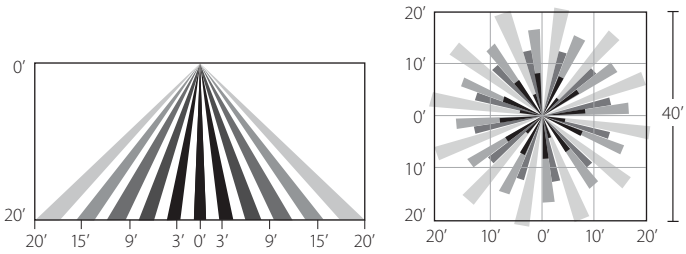
Relay life rating: 200,000 cycles (120/277VAC), 50,000 cycles (230VAC)

Photo/motion sensor detection coverage

SENSOR FOR 14" PORTO

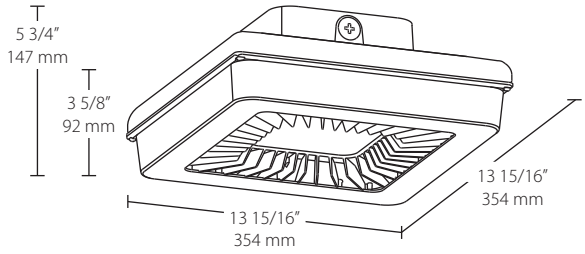


SENSOR FOR 18" PORTO

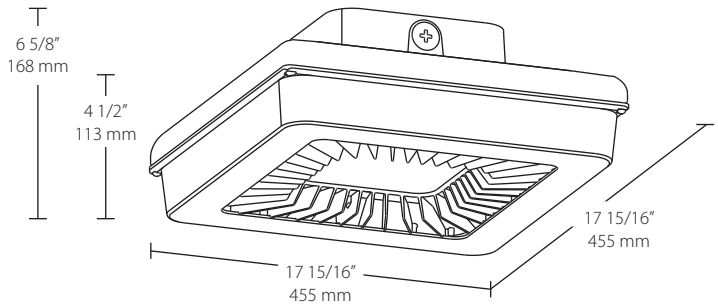


Dimensions & weight

Weight: 10.6 lbs.



Weight: 19.6 lbs.



Ordering information

Product Family	Wattage	Color Temperature	Finish	Driver Options	Sensor Options
PRT					

Wattage		Color Temperature		Finish		Driver Options		Sensor Options	
30	30W (14" x 14")	**Blank**	5000K	**Blank**	Bronze	**Blank**	120-277V, 0-10V Dimming	**/WS**	Multi-Level Motion Sensor for 14" *
42	42W (14" x 14")	**N**	4000K	**W**	White	**/480**	480V, 0-10V Dimming	**/WS2**	Multi-Level Motion Sensor for 18" *
55	55W (14" x 14")	**Y**	3000K			**/E2**	120-277V Battery Backup	**/PCS**	120V Swivel Photocell
70	70W (18" x 18")							**/PCS2**	277V Swivel Photocell
80	80W (18" x 18")							**/PCS4**	480V Swivel Photocell
105	105W (18" x 18")							**/LC**	Lightcloud Controller
								/LCS	Lightcloud Sensor

**Only available for 120-277V*

Hinged tether frees hands for easy wiring & quick installation.

One model accomodates 1/2" or 3/4" NPS pendant, or surface mount *(pendant by others)*.

Delivers 20% uplight, eliminating the 'cave effect' that results when ceilings remain darkened.

Integrated photo/motion sensor control

- High/low modes: 10V / 1V
- Time delay dims light 5 minutes after detecting motion
- Cutoff turns fixture off after 1 hour of vacancy
- Detection pattern:
  For 14" PORTO - 360° and 48' diameter at 8' mounting height
  For 18" PORTO - 360° and 40' diameter at 20' mounting height

Adjust settings using handheld wireless configuration tool (Order using catalog #WSREM)

- High/low modes fully adjustable from 0 to 10V
- Time delay can be set to dim lights 30 seconds to 30 minutes after motion is no longer detected
- Optional cutoff delay turns fixture off after a preset period of vacancy
- Configure control settings to react to ambient light levels
- Ramp up and fade down times can be customized

PRT30

This ultra high efficiency LED garage light delivers up to 118 lumens per Watt. Available in 30, 42 and 55 Watt versions that replace 70 to 175 Watt metal halide fixtures. Fixture measures 14" L x 14" W.

Color: Bronze

Weight: 10.4 lbs

Project:	**Type:**
Prepared By:	**Date:**

Driver Info

Type	Constant Current
120V	0.25A
208V	0.13A
240V	0.12A
277V	0.11A
Input Watts	29.4W

LED Info

Watts	30W
Color Temp	5000K (Cool)
Color Accuracy	78 CRI
L70 Lifespan	100,000 Hours
Lumens	3,832
Efficacy	130.3 lm/W

Technical Specifications

Compliance

UL Listed:

Suitable for wet locations

Construction

Lens:

Frosted polycarbonate

Gaskets:

High-temperature silicone

IP Rating:

Ingress protection rating of IP66 for dust and water

Ambient Temperature:

Suitable for use in up to 40°C (104°F)

LED Characteristics

LEDs:

Long-life, high-efficacy, surface-mount LEDs

Other

Equivalency:

Equivalent to 100W Metal Halide

Warranty:

RAB warrants that our LED products will be free from defects in materials and workmanship for a period of five (5) years from the date of delivery to the end user, including coverage of light output, color stability, driver performance and fixture finish. RAB's warranty is subject to all terms and conditions found at rablighting.com/warranty.

Buy American Act Compliance:

RAB values USA manufacturing! Upon request, RAB may be able to manufacture this product to be compliant with the Buy American Act (BAA). Please contact customer service to request a quote for the product to be made BAA compliant.

Electrical

Drivers:

Constant Current, Class 2 100V - 277V, 50/60 Hz. THD <20%.

THD:

7.4% at 120V, 17.1% at 277V

Power Factor:

99.2% at 120V, 90.9% at 277V

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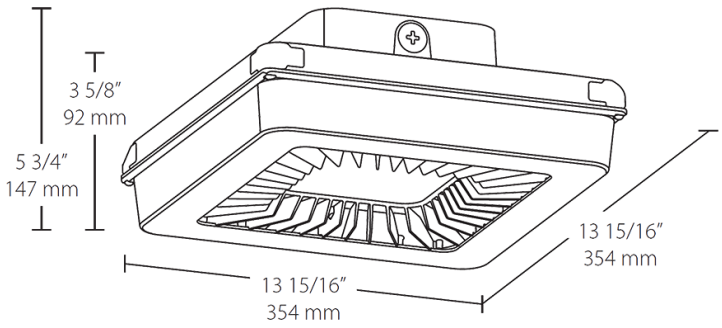
PRT30

Dimensions



Features

- Ultra-high efficiency
- Pendant or surface mount
- Low glare, vandal-resistant polycarbonate lens
- 20% uplight eliminates "cave effect"
- 100,000-Hour LED lifespan
- 5-Year, No-Compromise Warranty

Ordering Matrix

Family	Wattage	Color Temp	Finish	Driver Options	Sensor Options	Other Options
PRT	30					
	55 = 55W (14" x 14") **70 =** 70W (18" x 18") **80 =** 80W (18" x 18") **105 =** 105W (18" x 18") **30 =** 30W (14" x 14") **42 =** 42W (14" x 14")	**Blank =** 5000K (Cool) **N =** 4000K (Neutral) **Y =** 3000K (Warm)	**Blank =** Bronze **W =** White	**Blank =** 120-277V On/Off **/480 =** 480V On/Off **/D10 =** 120-277V w/ 0-10V Dimming **/480/D10 =** 480V w/ 0-10V Dimming **/E2 =** Battery Backup **/D10/E2 =** 0-10V Dimming w/ Battery Backup	**Blank =** No Option **/WS =** Multi-Level Motion Sensor for 14" [1] **/WS2 =** Multi-Level Motion Sensor for 18" [1] **/PCS =** 120V Swivel Photocell **/PCS2 =** 277V Swivel Photocell **/PCS4 =** 480V Swivel Photocell **/LC =** Lightcloud® Controller **/LCS =** Lightcloud® Sensor	**USA =** BAA Compliant **Blank =** Standard

[1] *Only available for 120-277V with 0-10V dimming driver.*

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October 12, 2022

Request for rendering at the top of Kendrick Street

At the top of Kendrick Street, views of the garage and therefore the proposed solar canopy structure are largely obstructed by existing trees and vegetation. The following are Google Street images of the views when traveling east along Kendrick Street from the I-95 overpass. Compared to the third image, the fourth image shows a rendering of the solar canopy structure.

2067 Massachusetts Avenue, Suite 540
Cambridge, MA 02140

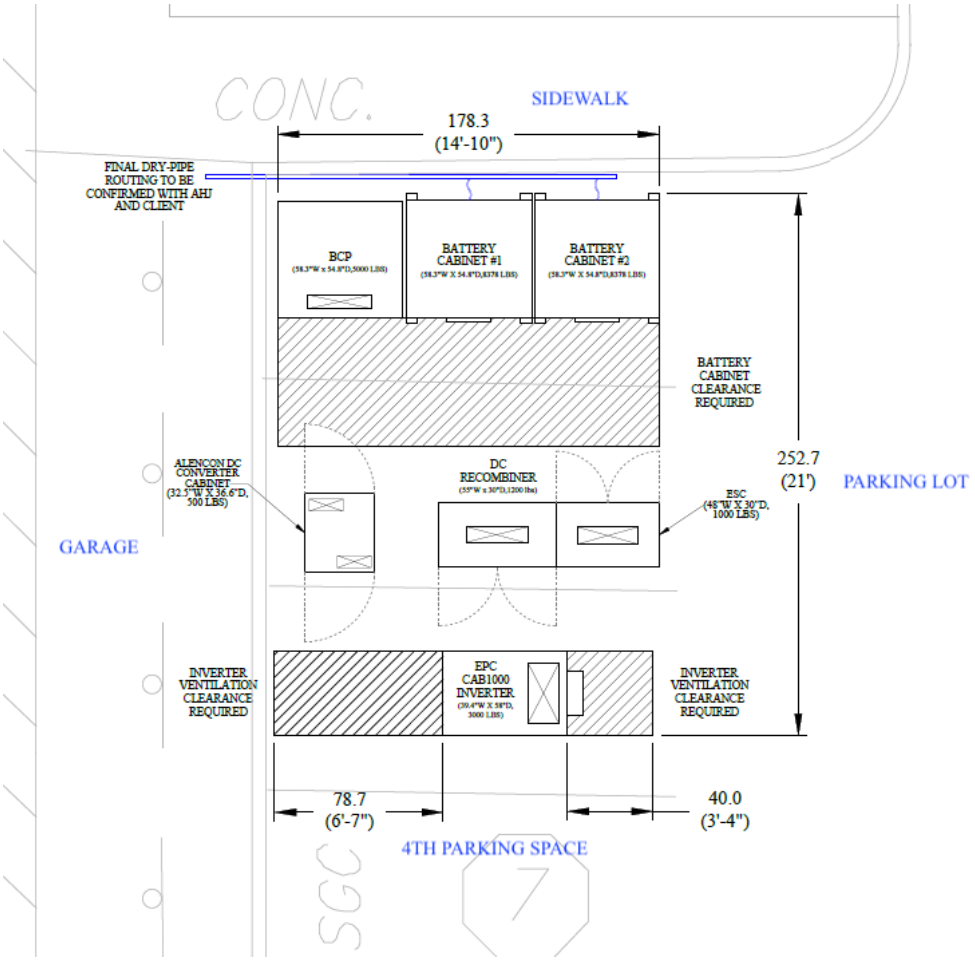
hello@sunwealth.com
617.752.7322

sunwealth.com

Request Rendering of Electrical Equipment

The electrical equipment supporting the solar canopy project and the accompanying battery storage system will occupy three parking spaces adjacent to Eversource's existing electrical transformer. Included below are:

1. Photos of the existing parking lot containing Eversource's existing electrical transformer and the three parking spaces to which the solar and battery storage system will be confined
2. A plan containing the proposed layout of the electrical equipment supporting the solar project and battery storage system
3. A rendering of the electrical equipment and bollards in the context of the solar canopy project.


CONC.
SIDEWALK
178.3
(14'-10")
FINAL DRY-PIPE ROUTING TO BE CONFIRMED WITH AHJ AND CLIENT
BCP
BATTERY CABINET #1
BATTERY CABINET #2
BATTERY CABINET CLEARANCE REQUIRED
252.7
(21')
PARKING LOT
ALENCON DC CONVERTER CABINET (32.5"W X 26.6"D, 500 LBS)
DC RECOMBINER
ESC (48"W X 30"D, 1000 LBS)
GARAGE
INVERTER VENTILATION CLEARANCE REQUIRED
EPC CAB1000 INVERTER
INVERTER VENTILATION CLEARANCE REQUIRED
78.7
(6'-7")
40.0
(3'-4")
4TH PARKING SPACE
SGC

From:	John Schlittler
To:	Alexandra Clee
Subject:	RE: Request for comment - 140 Kendrick Street, solar canopy
Date:	Wednesday, October 26, 2022 10:51:51 AM

The police department has no issues

From: Alexandra Clee <aclee@needhamma.gov>
Sent: Wednesday, October 26, 2022 10:20 AM
To: David Roche <droche@needhamma.gov>; Thomas Ryder <tryder@needhamma.gov>; John Schlittler <JSchlittler@needhamma.gov>; Tom Conroy <TConroy@needhamma.gov>; Tara Gurge <TGurge@needhamma.gov>; Timothy McDonald <tmcdonald@needhamma.gov>; Justin Savignano <jsavignano@needhamma.gov>; Carys Lustig <clustig@needhamma.gov>
Cc: Lee Newman <LNewman@needhamma.gov>; Elisa Litchman <elitchman@needhamma.gov>
Subject: RE: Request for comment - 140 Kendrick Street, solar canopy

This is a reminder to please send me your comments on this project by end of day today for inclusion in the Planning Board packets for the hearing November 1.

Thanks!

Alexandra Clee
Assistant Town Planner
Needham, MA
781-455-7550 ext. 271
www.needhamma.gov

From: Alexandra Clee
Sent: Tuesday, September 27, 2022 4:32 PM
To: David Roche <droche@needhamma.gov>; Thomas Ryder <tryder@needhamma.gov>; John Schlittler <JSchlittler@needhamma.gov>; Tom Conroy <TConroy@needhamma.gov>; Tara Gurge <TGurge@needhamma.gov>; Timothy McDonald <tmcdonald@needhamma.gov>; Justin Savignano <jsavignano@needhamma.gov>; Carys Lustig <clustig@needhamma.gov>
Cc: Lee Newman <LNewman@needhamma.gov>; Elisa Litchman <elitchman@needhamma.gov>
Subject: Request for comment - 140 Kendrick Street, solar canopy

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More information can be found in the application, which is attached.

The Planning Board has scheduled this matter for November 1, 2022. Please send your comments by Wednesday October 26, 2022 at the latest.

The documents attached for your review are as follows:

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Thank you, alex.

Alexandra Clee
Assistant Town Planner
Needham, MA
781-455-7550 ext. 271
www.needhamma.gov

From:	Tara Gurge
To:	Alexandra Clee
Subject:	Re: Request for comment - 140 Kendrick Street, solar canopy
Date:	Wednesday, October 26, 2022 11:41:39 AM
Attachments:	Image.png Image.png

Alex –

The Public Health Division conducted the review for the proposed project amendment for the solar canopy for 140 Kendrick St. and we have no comments to share at this time.

Please let me know if you need any additional information from us on that.

Thanks,

TARA E. GURGE, R.S., C.E.H.T., M.S. (she/her/hers)
ASSISTANT PUBLIC HEALTH DIRECTOR
Needham Public Health Division
Health and Human Services Department
178 Rosemary Street
Needham, MA 02494
Ph- (781) 455-7940; Ext. 211/Fax- (781) 455-7922
Mobile- (781) 883-0127
Email - tgurge@needhamma.gov
Web- www.needhamma.gov/health

please consider the environment before printing this email

STATEMENT OF CONFIDENTIALITY

This e-mail, including any attached files, may contain confidential and privileged information for the sole use of the intended recipient(s). Any review, use, distribution or disclosure by others is strictly prohibited. If you are not the intended recipient (or authorized to receive information for the recipient), please contact the sender by reply e-mail and delete all copies of this message. Thank you.

Follow Needham Public Health on Twitter!

Get Outlook for iOS

From: Alexandra Clee <aclee@needhamma.gov>
Sent: Wednesday, October 26, 2022 10:19:51 AM
To: David Roche <droche@needhamma.gov>; Thomas Ryder <tryder@needhamma.gov>; John Schlittler <JSchlittler@needhamma.gov>; Tom Conroy <TConroy@needhamma.gov>; Tara Gurge

<TGurge@needhamma.gov>; Timothy McDonald <tmcdonald@needhamma.gov>; Justin Savignano <jsavignano@needhamma.gov>; Carys Lustig <clustig@needhamma.gov>
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Subject: RE: Request for comment - 140 Kendrick Street, solar canopy

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To: David Roche <droche@needhamma.gov>; Thomas Ryder <tryder@needhamma.gov>; John Schlittler <JSchlittler@needhamma.gov>; Tom Conroy <TConroy@needhamma.gov>; Tara Gurge <TGurge@needhamma.gov>; Timothy McDonald <tmcdonald@needhamma.gov>; Justin Savignano <jsavignano@needhamma.gov>; Carys Lustig <clustig@needhamma.gov>
Cc: Lee Newman <LNewman@needhamma.gov>; Elisa Litchman <elitchman@needhamma.gov>
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Thank you, alex.

Alexandra Clee
Assistant Town Planner
Needham, MA
781-455-7550 ext. 271
www.needhamma.gov

From: Tom Conroy
To: Alexandra Clee
Subject: RE: Request for comment - 140 Kendrick Street, solar canopy
Date: Wednesday, October 26, 2022 12:33:16 PM

No issues with Fire dept.

Thanks,

Tom

From: Alexandra Clee <aclee@needhamma.gov>
Sent: Wednesday, October 26, 2022 10:20 AM
To: David Roche <droche@needhamma.gov>; Thomas Ryder <tryder@needhamma.gov>; John Schlittler <JSchlittler@needhamma.gov>; Tom Conroy <TConroy@needhamma.gov>; Tara Gurge <TGurge@needhamma.gov>; Timothy McDonald <tmcdonald@needhamma.gov>; Justin Savignano <jsavignano@needhamma.gov>; Carys Lustig <clustig@needhamma.gov>
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Thank you, alex.

Alexandra Clee
Assistant Town Planner
Needham, MA
781-455-7550 ext. 271
www.needhamma.gov

Town of Needham
Building Department
500 Dedham Ave.
Needham, MA 02492

Tel.781-455-7550 x 308

October 26, 2022

Town of Needham Planning Board
Lee Newman / Town Planner
500 Dedham Ave.
Needham, MA. 024902

Re: 140 Kendrick Street / Solar Garage Roof

Dear Planning Board Members,

I have reviewed the plans and have the following comments, the applicant was asked to manage the roof runoff in the form of recharge. It appears that the project may fall under the requirements of the Town Storm Water By-Law because it does require a Building Permit and the new construction or addition is greater than 25% or the building footprint. The By-Law does not exempt Solar installations or structures; therefore, I believe that the project shall comply. It is unclear from the plan if all the roof water is being recharged as per the By-Law, I believe that the Town Engineer will also be commenting on this issue.

Any questions please contact my office.

David A Roche
Building Commissioner
Town of Needham

Town of Needham
Building Department
500 Dedham Ave.
Needham, MA 02492

Tel.781-455-7550 x 308

November 1, 2022

Town of Needham Planning Board
Lee Newman / Town Planner
500 Dedham Ave.
Needham, MA. 024902

Re: 140 Kendrick Street / Solar Garage Roof / **Revised**

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The applicant has responded to question of storm water recharge for the proposed roof canopy. Building and Engineering Departments have reviewed the recharge plan submitted and agree that the plan will comply with the intent of the Storm Water By-Law. Future Zoning changes that may involve solar canopies over parking garages and parking lots need to specifically require full compliance of the Storm Water By-Law in the language.

Any questions please contact my office.

David A Roche
Building Commissioner
Town of Needham

TOWN OF NEEDHAM, MASSACHUSETTS
PUBLIC WORKS DEPARTMENT
500 Dedham Avenue, Needham, MA 02492
Telephone (781) 455-7550 FAX (781) 449-9023

October 27, 2022

Needham Planning Board
Needham Public Service Administration Building
Needham, MA 02492

RE: Amendment to Major Project Special Permit No. 99-2
140 Kendrick Street- Boston Properties

Dear Members of the Board,

The Department of Public Works has completed its review of the above referenced request for an Amendment to a Special Permit. The applicant proposes to renovate the existing garage and install a solar panel canopy roof. Site plans provided include a new storm drain connection for roof water to the existing drainage system.

The review was conducted in accordance with the Planning Board's regulations and standard engineering practice. The documents submitted for review are as follows:

1. Application for an Amendment to Major Project Special Permit No. 99-2.
2. Letter from Frederick J. DeAngelis, Attorney, dated September 20, 2022.
3. Plan prepared by VHB, 101 Walnut Street, PO Box 9151, Watertown, MA, Sheet C1.00, entitled "Parking Plan," dated September 12, 2022.
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Our comments and recommendations are as follows:

- In accordance with the Town of Needham Stormwater Bylaw, the proposed new structure requires a minimum combined volumetric capacity of 1 inch over the impervious area to be recharged. The plans should be revised, prior to receiving a building permit, showing the calculations that the infiltration system is sized to contain a minimum of 1-inch of the total impervious area of the site for infiltration.

If you have any questions regarding the above, please contact our office at 781-455-7538.

Truly yours,

Thomas Ryder
Town Engineer

TOWN OF NEEDHAM
TOWN HALL
1471 Highland Avenue
Needham, MA 02492-2669

Memo: Project Review for Boston Properties
140 Kendrick Street site plan review of solar roof on existing parking garage

October 3, 2022
The Board reviewed the design drawings for the proposed solar array on the existing parking garage at 140 Kendrick Street.

The applicant's team presented the design for a new solar array proposed to cover most of the top floor of the existing garage. It will slope upwards from west to east.

Items discussed:

1. Potential for glare from panels – none expected based on other completed projects.
2. Slope and height of structure supporting panels – controlled by location of structural supports.
3. Noise Wind/vibration of structure supporting panels - none expected based on other completed projects.
4. Noise generated by electrical components - none expected based on other completed projects.
5. Lifespan of solar array – 30 years
6. Life span of structure = longer than the panels, and able to be reused and or recycled
7. Views from surrounding areas – requested additional images from other viewpoints
8. Electric storage/transfer unit to be installed on ground and eliminating three parking spaces – space to be made up by restriping space near entrance to be narrower 'compact" spaces. No new spaces will need to be created.
9. Lighting of top floor of garage
10. Drainage of solar array – new
11. EV charging station…will not be located in garage…may be installed at ground level parking spaces for better access views.

The Board requested the following additional documentation regarding the proposed project.

1. Lighting plan
2. Drawings including renderings of the ground mounted utility
3. Image(s) of the solar array from further up (west) on Kendrick Street…near Greendale St. and the overpass over the highway.

(continued on next page)

October 17, 2022

Boston Properties returned to the DRB on October 17 to discuss the items requested at October 3 DRB meeting.

Lighting Plan

- Lighting plan for top level of garage under solar array was shared and appeared to work for the conditions expected.
- Mounting locations for the light fixtures were discussed. Board expressed concern about visibility of light(s) from Kendrick street or adjacent neighbors/properties. Proponent indicated the light fixtures would be mounted "up high" between steel structural beams that support the solar panels, and not on the bottom of the beams.
- Proponent was asked if existing lights mounted in parapet wall on top level of garage would remain…they will be removed. New lights will be sufficient.

Renderings of ground mounted utility boxes

- The board asked questions about potential screening or partial screening of the ground mounted utility boxes.
- Proponent suggested they might be reluctant to hide them, as they wish to promote clean energy, and also expressed concerns about losing additional parking spaces.

Additional images of array

- Several additional renderings of the solar array from other vantage points further up Kendrick Street were provided and discussed.
- The new solar array will be visible from Kendrick Street, but will be partially blocked by some existing vegetation at the northwest corner of the garage by the northbound off-ramp from 128.

End of Notes.

TOWN OF NEEDHAM
MASSACHUSETTS

RECEIVED TOWN CLERK
NEEDHAM, MA 02492
2022 OCT 25 PM 1:02

PLANNING BOARD

500 Dedham Avenue
Needham, MA 02492
781-455-7550

APPLICATION FOR ENDORSEMENT OF PLAN
BELIEVED NOT TO REQUIRE APPROVAL

Submit three (3) copies. One copy to be filed with the Planning Board and one with the Town Clerk as required by Section 81-P, Chapter 41 of the General Laws. This application must be accompanied by the **Original Tracing** and **three (3) copies of the plan**.

To the Planning Board:

The undersigned, believing that the accompanying plan of land in the Town of Needham does not constitute a subdivision within the meaning of the Subdivision Control Law, for the reasons outlined below, herewith submits said plan for a determination and endorsement that Planning Board approval under the Subdivision Control Law is not required.

1. Name of Applicant Needham Enterprises, Inc.

   Address 105 Chestnut Street, Suite 28 Needham, MA 02492

2. Name of Engineer or Surveyor Field Resources, Inc.

   Address 281 Chestnut Street, Needham, MA

3. Deed of property recorded in Norfolk County Registry,
   Book 39833 , Page 267

4. Location and description of property: Lot 251 on Lawton Road abutting 93 South Street

5. Reasons approval is not required (check as applicable):

   ✓ a) **Every lot shown has the area and frontage required by the Zoning By-Law on a way, as defined by Section 81-L, Chapter 41 of the General Laws.**

   b) Land designated _____ shall not be used as separate building lot(s) but only together with adjacent lots having the required area and frontage.

   c) Lot(s) having less than required frontage or area resulted from a taking for public purpose or have been recorded prior to 3/26/1925, no land is available to make up the deficiency and the frontage and land area of such lots are not being reduced by the plan.

   d) _____

(If the applicant is not the owner, written authorization to act as agent must be attached)

Signature of Applicant _____

Address 62 Walnut Street, Suite 6, Wellesley, MA

By Evans Huber, Esq. (agent)

Application accepted this 25 *day of* October 20 22
as duly submitted under the rules and regulations of the Planning Board.

By _____

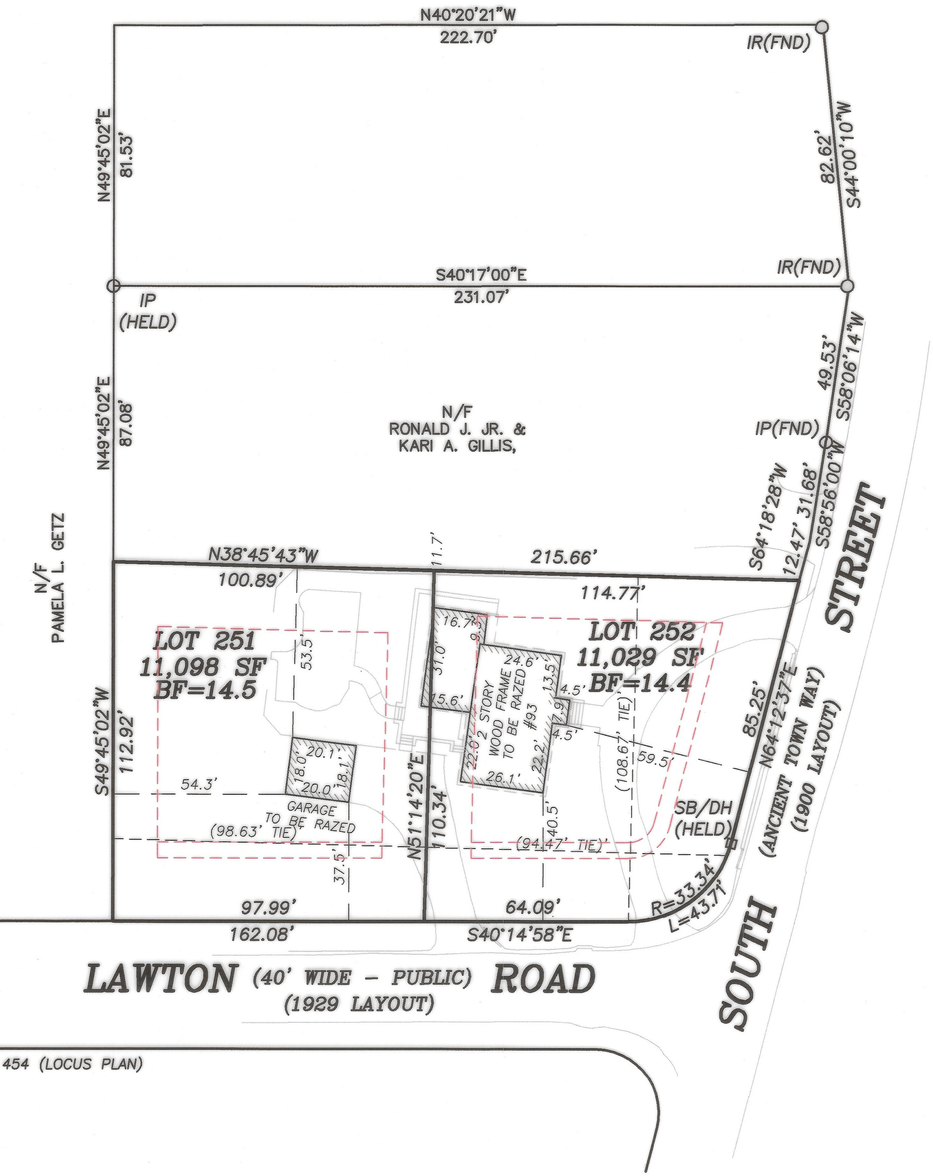
FOR REGISTRY USE ONLY

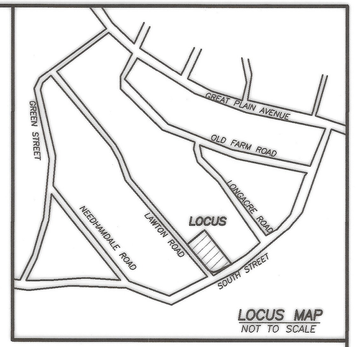
LEGEND:

- IRON PIPE
- IRON ROD
- STONE BOUND WITH DRILL HOLE
- IP · · · · · IRON PIPE
- SB/DH · · · STONE BOUND WITH DRILL HOLE
- IR · · · · · IRON ROD
- FND. · · · · FOUND

IT IS HEREBY NOTED AND DISCLOSED THAT IN THE EVENT THE EXISTING GARAGE ON LOT 251 IS NOT RAZED, AS SHOWN, AND EITHER LOT 251 OR LOT 252 ARE TRANSFERRED OR CONVEYED AS A SINGLE LOT, THEN ZONING VIOLATIONS WILL ARISE CONCERNING SUCH GARAGE AS A PERMITTED PRIMARY USE ON LOT 251

ADDITIONALLY, IT IS HEREBY NOTED AND DISCLOSED THAT IN THE EVENT THE EXISTING STRUCTURE ON LOT 252 IS NOT RAZED, AS SHOWN, AND EITHER LOT 251 OR LOT 252 ARE TRANSFERRED OR CONVEYED AS A SINGLE LOT, THEN ZONING VIOLATIONS WILL ARISE CONCERNING STRUCTURE BEING OVER THE LOT LINE INTO LOT 251.





LOCUS MAP
NOT TO SCALE

APPROVAL UNDER THE SUBDIVISION CONTROL LAW NOT REQUIRED
NEEDHAM PLANNING BOARD

_____

_____

_____

_____

_____

DATE: _____

NO DETERMINATION AS TO COMPLIANCE WITH ZONING REQUIREMENTS IS MADE OR INTENDED.

THE PURPOSE OF THIS PLAN IS TO DIVIDE 93 SOUTH STREET LOT 25A INTO LOTS 251 AND 252.

REFERENCES:

DEEDS:
BOOK 27191 PAGE 251 (LOCUS)

PLANS:
PLAN 868 OF 1958 DEED BOOK 3664 PAGE 454 (LOCUS PLAN)

I CERTIFY THAT THIS PLAN CONFORMS WITH THE RULES AND REGULATIONS OF THE REGISTERS OF DEEDS.

I CERTIFY THAT THIS PLAN IS BASED UPON AN ACTUAL FIELD SURVEY, AND THE LATEST PLANS AND DEEDS OF RECORD.

COMMONWEALTH OF MASSACHUSETTS
BRADLEY J. SIMONELLI #47581
PROFESSIONAL LAND SURVEYOR

10/6/22

APPROVAL NOT REQUIRED
PLAN OF LAND
93 SOUTH STREET
NEEDHAM, MASS.

GRAPHIC SCALE
30 0 15 30 60

OWNER/APPLICANT:
NEEDHAM ENTERPRISES, LLC
105 CHESTNUT STREET
SUITE 28
NEEDHAM, MA

JOB NO. 101-21

REVISED: SEPTEMBER 30, 2022

Field Resources, Inc.
LAND SURVEYORS

JUNE 6, 2022 SCALE 1"=30'

P.O. BOX 324
AUBURN, MA
508 832 4332

281 CHESTNUT ST.
NEEDHAM, MA.
781 444 5936

office@fieldresources.net

101-21

ZONING INFORMATION: SINGLE RESIDENCE B (SRB)

goulston&storrs
counsellors at law

September 30, 2022

BY HAND DELIVERY, OVERNIGHT DELIVERY & ELECTRONIC MAIL

Town of Needham Planning Board Members
Public Service Administration Building
500 Dedham Avenue
Needham, MA 02492
Attn: Lee Newman, Planning Director

Re: Highland Innovation Center – 557 Highland Avenue, Needham Heights, Massachusetts (the "Property")

Dear Planning Board Members:

As you know, this office is counsel to 557 Highland, LLC, an affiliate of The Bulfinch Companies, Inc. (the "Applicant"), in connection with the redevelopment of the Property with a new, mixed-use development of office, laboratory, research and development, and retail/restaurant uses (the "Project"). On April 5, 2022, the Applicant submitted an application for Major Project Site Plan Review and issuance of Special Permits for the Project, all as described in our letter of that date, as supplemented by letters dated June 30, 2022 and August 15, 2022 (collectively, the "Application"). Under separate cover you should have received materials from the Project architect, Stantec, for review at the upcoming public hearing on October 3, 2022. The Application is under review by the Board and, in connection therewith, the Board has held three (3) public hearings, on June 7, 2022, July 7, 2022, and September 7, 2022 to discuss and evaluate the Project and receive public comment. The Applicant has also held seven (7) community meetings with the general public as part of a robust community engagement process. At the public hearing on September 7, 2022, the Board heard comments from a few community members. The Applicant seeks to clarify responses to a few of those comments and reaffirm the Project's merits and the Town's thoughtful rezoning of the Property that allows for the Project.

* * *

The Planning Board and the Town Have Considered Concerns Regarding Density, Landscaped Buffers, Traffic Impacts, and Environmental Issues During the Re-Zoning of the Property

The HC-1 District was established by an amendment to the Town of Needham Zoning By-Law (as amended, the "By-Law") adopted by a 168-37 super-majority vote of Town Meeting pursuant to Article 5 of the Annual Town Meeting held on May 3, 2021. The creation of the HC-1 District was the result of an extensive, multi-year planning effort by the Town and was based on the results of several studies, including studies related to traffic and fiscal impacts. Details on this process were provided in our April 5, 2022 letter. At the October 2019 Town Meeting, the public expressed concerns about density, traffic impacts, certain uses, and environmental issues related to the creation of the HC-1 District.

In response to those concerns, a Town-wide community meeting was held with stakeholders in January 2020 to discuss overall land use goals for the to-be-established HC-1 District. A working group was formed. That group obtained an updated traffic study of the area, to analyze the ability of the Town's traffic infrastructure to accommodate development at various densities and use profiles, and an updated fiscal impact analysis. Building on these analyses, the Planning Board drafted a revised zoning article to

establish the HC-1 District that was responsive to the discussions held and specific concerns expressed during this planning period.

The Planning Board's revised proposal (a) established a maximum FAR of 1.35, (b) reduced the maximum number of stories by 1 story, (c) increased the building setbacks along Gould Street and Highland Avenue from 20 to 50 feet, (d) increased the required open space from 20% to 25%, and (e) added green building standards to the special permit criteria.

The HC-1 District setbacks, height, and FAR are more restrictive of development than the New England Business Center and Highland Commercial-128 Districts, which also abut Route 128 and residential districts: (a) front setbacks in HC-1 are 50 feet, but in the other two districts are waivable down to 20 feet; (b) maximum height in HC-1 by special permit is 70 feet, but in the NEBC is 84 feet; (c) maximum special permit FAR in HC-1 is 1.35, but in NEBC it is 2.0, and in HC-128 it is 1.5.

Persuaded that the concerns of the public had been properly addressed, Town Meeting approved the revised HC-1 District zoning by a vote of 168-37 on May 3, 2021.

The Project complies with HC-1 District Requirements

The Project meets or otherwise complies with each of the following HC-1 District requirements:

- **Floor Area Ratio ("FAR")** – The HC-1 District allows an FAR of 0.7 as of right and of up to 1.35 by Special Permit. ***The Project's proposed FAR of 1.21 is less than the maximum allowed in the HC-1 District.***
- **Review Process –** The HC-1 District was designed to ensure that projects seeking an FAR in excess of 0.7 undergo a thorough review. ***With more than three nights of public hearings and seven community meetings held to review the Project, and two Design Review Board meetings and eleven Town Department meetings, the zoning is working as intended.***
- **Dimensional Controls** – The HC-1 District was designed to require very specific setbacks to mitigate bulk and density impacts from a redevelopment of the Property. These setbacks determine the location of structures, provide significant vegetative and landscaped areas, limit maximum lot coverage, and ensure specified minimum open space. ***The Project adheres to all of these specific requirements.***
- **Transportation** – A key piece of the adoption of the HC-1 District was the potential traffic and roadway improvements that could result as public benefits from redevelopment, including the widening of Gould Street and associated intersection improvements. ***The Project will provide substantial traffic and roadway improvements as confirmed by the Town's independent traffic consultant, Greenman-Pedersen, Inc ("GPI")***.
- **Fiscal** – The fiscal impact analysis commissioned by the Town in connection with the rezoning found that a full-build out of the Property at 1.35 FAR would yield an annual net financial benefit to the Town of approximately $5,000,000. This is independent of the WCVB Channel 5 site, which is not part of the Project, and which could provide additional financial benefits if and when that site is developed. The Project is proposing less density than was contemplated at the time the HC-1 District was approved by Town Meeting, but still is expected to create an annual net financial benefit of approximately $5,300,000 ***The Project is expected to generate income in excess of the revenue projected for the Project as stated in the Town's fiscal impact analysis. In***

addition, over $1,000,000 in impact fees as well as over $2,000,000 in building permit fees will be generated from the Project.

The nature and scale of the Project is entirely consistent with that which was studied and contemplated at the time the Town Meeting resoundingly adopted the HC-1 District.

Refinements to Project in Response to Community Feedback

The rigorous public review of the Project has encompassed four (4) public hearings (including the upcoming October 3, 2022 hearing) with the Planning Board, two (2) meetings with (and subsequent approval by) the Design Review Board, and a voluntary community engagement process, including seven (7) community meetings and other independent outreach to stakeholders. The Applicant has met with various other Town boards and officials, including the Fire Chief, the Police Chief, and the representatives of the Department of Public Works. The Applicant has also investigated the sewer line issue referenced at the September 7, 2022 hearing and concluded this was due to a maintenance problem rather than an inherent defect in the system.

The Applicant, as an affiliate of The Bulfinch Companies, is a well-recognized local developer that owns and operates a significant number of commercial properties in the Town of Needham and City of Newton, representing the Applicant's commitment to the community.

The Applicant has implemented responsive improvements and refinements that have enhanced the design and made the Project better for the Town and nearby neighborhoods, including:

1. **Reduction in Size**
   (i) On April 8, 2022 the Applicant submitted an Environmental Notification Form ("ENF") to the MEPA Office for a Project of 531,000 square feet (sq. ft.)
   (ii) Upon receiving input from members of the public and prior to submitting the Application, the Project was reduced by approximately 24,306 sq. ft.
   (iii) Following comments from the Board and its traffic peer review consultant, GPI, the North and South Buildings were further reduced by approximately 16,694 sq. ft. and the Garage was reduced by approximately 5,412 sq. ft.
   (iv) Following comments from the Board, the South Building's massing was reduced by 15,000 sq. ft. The Project's reduced size is now 475,000 sq. ft. (FAR 1.21).
   (v) Since April 2022, the Project has been reduced by more than 55,000 sq. ft.
2. **Building Design Improvements**
   (i) In response to public comments, the Applicant redesigned the North Building to include stepped façade to break up the building's scale, and introduced a bend in the footprint of the South Building, creating room for a plaza. The Applicant also redesigned the South Building to bend away from the Gould Street and Highland Avenue intersection and further stepped the massing down to a 1-story "retail pavilion" and south-facing plaza, to support the retail/restaurant uses.
   (ii) In response to comments from the Planning Board, the loading dock areas for the North and South Buildings were relocated to minimize visibility from public ways.
   (iii) In response to comments from the Planning Board, the Applicant pushed back the third-floor massing of the South Building along Highland Avenue, and created a "reveal" to emphasize the two-story massing and create a stronger relationship to the residential scale across

Highland Avenue. In addition, the mechanical penthouse screening was broken down in scale with the use of profiled and perforated metal panels.

3. **Site Design Improvements**
   (i) The community engagement process resulted in the Applicant adding pickleball courts, a winter ice skating area, and public lawn/turf areas.
   (ii) The Applicant reimagined the planting design in order to provide (i) a greater number of street trees to provide more screening and shade along the public walkways; (ii) a greater number of plantings throughout the Property (more than double) with greater diversity to provide more interest for the public and attract more wildlife; and (iii) a reduction in the amount of maintained lawn areas and introduction of low maintenance lawn areas and wildflower areas.
   (iii) The Applicant redesigned the multi-use walkway and landscape buffer along Highland Avenue to provide a wider landscape buffer to enhance screening of the buildings as well as improve the sense of separation from the vehicular traffic along Highland Avenue.
   (iv) The Applicant provided additional crosswalks across the internal drives and redesigned them all to be raised with paver surfacing to improve pedestrian safety.
   (v) The Applicant redesigned the multi-use walkway along Highland Avenue to further remove any potential obstructions to emergency service vehicle access and to locate an access point near the Gould Street intersection with removable bollards and curb cuts to provide improved emergency access.

The Applicant has carefully considered all comments it has received from the Town, Planning Board, and members of the public. This has resulted in a number of refinements to the Project design as described above.

Project's Public Benefits

The Project will provide substantial public benefits, many of which were contemplated at the time Town Meeting adopted the HC-1 District zoning, including:

(i) $5.3MM estimated annual net financial benefit to the Town, which exceeds the $5 MM revenue projection for this Property that was presented to Town Meeting (the financial benefit from the Project is a prorated amount because the Property is only a portion of the total HC-1 District). This revenue will allow the Town to advance important capital projects, fund desirable programs, and reduce the tax burden which would otherwise fall on residential taxpayers;
(ii) $3MM in impact and building permit fees;
(iii) Substantial roadway and transportation improvements to nearby roadways and intersections, which have all been approved by the same peer review consultant (GPI) that the Town engaged to review transportation matters at the time the HC-1 District was adopted, including roadway improvements that will not be needed unless and until the WCVB land is substantially redeveloped;
(iv) A multi-use fitness/access walkway around the Property, with various exercise areas at intervals on the loop, all open to the public;
(v) A new approximately 7,127 sq. ft. park with an interactive exhibit to serve as a connection point to the potential future rail trail (the "North Parcel Park");
(vi) New pickleball courts, open space, and a winter ice skating area for public enjoyment;

(vii) Significant environmental cleanup of the Property from its prior use, and construction of new LEED-certifiable buildings, including state of the art solar and low carbon emissions;
(viii) Over 1,000 new, permanent jobs; and
(ix) New restaurant and retail spaces for the general public.

The Project will provide tremendous financial and other public benefits to the Town as evidenced by the foregoing.

Response to Most Recent Comments

The Applicant has further revised the Project in response to the helpful comments and constructive feedback received during and after the last Planning Board hearing. These updates are shown in the materials received under separate cover from Stantec and will be reviewed review at the October 3, 2022 hearing and are described below:

(i) The screening material for the rooftop mechanical equipment and the garage has been updated to incorporate additional detail.
(ii) The Applicant has revised the design of the multi-use walkway, including widening such walkway from 8 ft. to 20 ft., raising it above the street level, separating it by a vegetative barrier, increasing vegetation along Highland Avenue, and incorporating permeable pavement and pavers, in response to comments from the Fire Department and Department of Public Works.
(iii) The Applicant's traffic engineers have studied the potential for queuing of vehicles at the entry to the Wingate residences and the Project's entrances and have determined that queuing will not pose an issue to traffic flow.
(iv) The Applicant has agreed to add the North Parcel Park, which contains an interactive exhibit for public use, to the Project.
(v) The Applicant has revised the façade design and materials of the South Building, including a new "notch", to break up the massing of the Project's façade along Highland Avenue to address concerns of residents.

The foregoing points and other information in the record demonstrate the public benefits the Project will provide to the Town and the substantial degree to which the Applicant has incorporated public feedback into the Project design during the review process. We look forward to finalizing discussion of the Project at the next public hearing on October 3, 2022.

Very truly yours,

Timothy W. Sullivan
Attorney for Applicant

Enclosures

goulston&storrs
counsellors at law

August 15, 2022

BY HAND DELIVERY, OVERNIGHT DELIVERY
& ELECTRONIC MAIL

Town of Needham Planning Board Members
Public Service Administration Building
500 Dedham Avenue
Needham, MA 02492
Attn: Lee Newman, Planning Director

Re: Highland Innovation Center – 557 Highland Avenue, Needham Heights, Massachusetts (the "Property") – Application for Major Project Site Plan Review and Special Permits – Revisions dated as of September 7, 2022 Planning Board Public Hearing Letter #3

Dear Planning Board Members:

As you know, we are counsel to 557 Highland, LLC, an affiliate of The Bulfinch Companies, Inc. (the "Applicant"), in connection with the redevelopment of the Property with a new, mixed-use development of office, laboratory, research and development, and retail/restaurant uses (the "Project"), all as described in our letter dated April 5, 2022 and supplemental letter dated June 30, 2022 (collectively, the "Prior Letters") transmitting the Application for Site Plan Review and issuance of Special Permits in connection with development of the Project (the "Application").

Since submission of our April 5, 2022 letter, the Applicant has undertaken an extensive community engagement process including seven (7) community meetings and two (2) public hearings with the Planning Board. At the first Planning Board public hearing, on June 7, 2022, the Applicant presented an overview of the Project and heard feedback and discussion from the Planning Board and general public. At the second Planning Board public hearing, on July 7, 2022, the Applicant and the Applicant's traffic engineers presented the Project's transportation aspects and heard additional feedback from the Planning Board and the general public.

Responding to feedback from the Planning Board, several Town departments, neighbors, and the community at large, the Applicant has further refined the Project design. This letter describes those refinements. The description of the Project in this letter is meant to restate the characteristics of the Project in their entirety from our letter of April 5, 2022 and to identify the refinements. ***Significant revisions from our submission of April 5, 2022 are indicated by italic/bold text***.

In support of the Application, the Applicant is submitting the following additional materials and information as requested for the next Planning Board public hearing on September 7, 2022:

1. ***Revised Plan Set entitled "Special Permit Package R1, August 15, 2022 for September 7, 2022 Planning Board Special Permit Public Hearing" (the "Plan Set");***

2. ***Memorandum from Stantec Architecture and Engineering P.C., Re: Special Permit Package R1 (08/16/2022 for 09/07/2022 Planning Board public hearing), dated August 16, 2022;***

3. ***Letter from VHB, Inc., Re: Transportation Updates to Special Permit Submission, dated August 15, 2022;***

4. ***Letter from VHB, Inc., Re: 557 Highland Ave – Highland Innovation Center – Plan Revisions for Permitting, dated August 15, 2022;***

5. ***Memorandum from Paul Finger Associates, Re: 557 Highland Ave – Special Permit Summary of Plan Revisions -01, dated August 15, 2022;***

6. ***Preliminary Exterior/Community Noise Evaluation/Narrative – Revision 2, prepared by Acentech Incorporated, dated August 15, 2022;***

7. ***Fiscal Impact Analysis, prepared by Fougere Planning & Development, Inc., dated May 16, 2022;***

8. ***Plan entitled "Conveyance Plan" prepared by Feldman Geospatial dated August 15, 2022, prepared for September 7, 2022 Planning Board public hearing (the "Conveyance Plan").***

* * *

ZONING ANALYSIS DISCUSSION:

Background and Overview:

The Property is the former site of the Muzi Ford and Chevrolet automotive dealership and service centers and the Muzi car wash. ***The former Muzi property consists of 403,933 square feet (sq. ft.) of land area totaling approximately 9.273 acres***. The Property is bordered by Highland Avenue to the south, Interstate 95/Route 128 to the east, Gould Street to the west, and TV Place (formerly known as Permil Road), a private way, to the north. ***As part of the Applicant's redevelopment revised plans, the Applicant proposes to widen Gould Street***

between the intersection with Highland Avenue and TV Place. To that end, the Applicant proposes to convey to the Town of Needham a portion of the Property along Gould Street containing approximately 12,080 sq. ft. of land (the "Conveyance Area"). This widening of Gould Street will shift the street line toward Interstate 95/Route 128, with corresponding shifts in the 50 and 200 foot setbacks from Gould Street required by the HC-1 zoning. Shifting these setbacks requires a reduction of the Buildings' total gross floor area by 16,694 sq. ft., and will reduce the Garage's gross floor area by 5,412 sq. ft., eliminating 18 parking spaces. The Plan Set includes a view of the reduced Garage from the westerly side of Gould Street.

The Applicant is proposing to redevelop the Property with approximately ***479,948*** sq. ft. of office, laboratory, and research and development uses, approximately ***10,052*** sq. ft. of retail and restaurant uses (yielding a total project program of ***490,000*** sq. ft.), construction of one level of below-grade parking under each building, and a separate stand-alone parking garage (the "Project"). The Project will include two buildings, one on the northerly portion of the Property (the "North Building") and one on the southerly portion of the Property (the "South Building"), together with a shared connector atrium (the "Atrium").

Based on input from the community, the neighborhood, and representatives of the Town, including the Town's traffic consultant, the Applicant has relocated the Multi-Use Walkway (defined below) constructed for the benefit of the Town and maintained by the Applicant, all as further shown in the Plan Set. In addition, the Applicant's transfer of the Conveyance Area will improve the street alignment of Hunting Road and Gould Street to make for more efficient traffic flow. The transfer of valuable land in the Conveyance Area to the Town for nominal consideration will improve the Town's roadway network, providing significant benefit to the Town.

As described below, the HC-1 District zoning allows a maximum Floor Area Ratio ("FAR") of 1.35 for the Property, generating a maximum build out of ***545,310*** sq. ft.[1] The Project, ***following conveyance to the Town of a portion of the Property for public benefit***, proposes an FAR of 1.25, based on a buildout of ***490,000*** sq. ft., which is ***39,002*** sq. ft. less than the maximum buildout.

As mentioned in our Prior Letters, the materials and studies submitted with this Application previously and in the Project's MEPA Environmental Notification Form have conservatively studied and presented an analysis based on a significantly higher build out for the Property of approximately 531,000 sq. ft. As a result of the reduced buildout, the traffic generation numbers in these materials and studies should be reduced by approximately *8*%, yielding lesser impacts than what was studied.

Pursuant to the Town of Needham Zoning Map, as amended by Article 6 of the Annual Town Meeting held on May 3, 2021 (as amended, the "Zoning Map"), the Property is located

[1] After transfer of the Conveyance Area to the Town, the remaining Property would support a maximum build out of 529,002 sq. ft. at an FAR of 1.35.

within the Highway Commercial 1 District (the "HC-1 District"). The HC-1 District was established by an amendment to the Town of Needham Zoning By-Law (as amended, the "By-Law") adopted by a 168-37 vote of Town Meeting pursuant to Article 5 of the Annual Town Meeting held on May 3, 2021. According to the Zoning Map, the Property is not located within any overlay districts.

The creation of the HC-1 District was the result of an extensive planning effort by the Town of Needham (the "Town"). The Town's Council of Economic Advisors ("CEA") began an evaluation of the Town's Industrial Zoning Districts in 2013. The CEA held public meetings with residents, neighbors, public officials, businesses, and landowners (collectively, the stakeholders) in 2014 and obtained a build-out analysis and a traffic impact report. The CEA made preliminary recommendations to the public and Select Board to upgrade the zoning adjacent to I-95/Route 128 to make these areas more economically competitive.

The Planning Board and Select Board decided to move forward with rezoning of the former Industrial-1 Zoning District circumscribed by I-95/Route 128, Highland Avenue, Gould Street, and the MBTA right of way, and occupied by the Muzi Ford and Chevrolet dealership, a car wash, and WCVB Channel 5. A Warrant Article proposing to rezone this Industrial-1 Zoning District was developed and presented to the October 2019 Special Town Meeting, where it received a majority vote but less than the required two-thirds.

In response to public concerns about density, traffic impacts, permitted and special permit uses, and environmental issues, a Town-wide community meeting was held with stakeholders in January 2020 to discuss overall land use goals for the HC-1 District. A working group, including representatives from the Planning Board, Select Board, Finance Committee, and CEA was formed. The working group then commissioned an updated traffic study of the area, to analyze the ability of the Town's traffic infrastructure to accommodate development at various densities and use profiles, as well as an updated fiscal impact analysis. From these efforts, the Planning Board drafted a revised Zoning Article to establish the HC-1 District. The revised Zoning Article reduced maximum floor area ratios and building height, increased building setback distances, required additional landscape buffering along Gould Street and Highland Avenue, increased open space requirements and established green building standards for issuance of a special permit.

In connection with the above process, the Town commissioned the Fiscal Analysis to study the potential financial benefit of such rezoning. Based on the Fiscal Analysis, a full-build out of the Property and the adjacent land owned by Channel 5 and related entities in the HC-1 District at 1.35 FAR would yield an annual net financial benefit to the Town of approximately $8,342,400. Without the adjacent land[2], the Project, as proposed, will result in a prorated annual net financial benefit of approximately $5,000,000 to the Town. ***The Fougere Report confirmed this approximate benefit to the Town***.

[2] The Applicant is unaware of any current plans by the Channel 5 entities to redevelop the approximately 260,000 sq. ft. of its land in the HC-1 District.

The Applicant proposes the Project to realize the goals of this re-zoning.

Proposed Project:

Use

As described above, the Property was most recently used as an automotive dealership and car wash making up a nearly entirely impervious surface which included parking for approximately 532 vehicles. The Project will remove environmentally hazardous materials and redevelop the existing underutilized site to include approximately ***479,948*** sq. ft. of office, laboratory, and research and development uses. The Project will also feature approximately ***10,052*** sq. ft. of retail and/or restaurant uses and accessory parking use in the form of underground parking beneath the North and South Buildings and separate stand-alone Garage. A breakdown of proposed uses and the approximate square footage of such uses is as follows:

USES	PROPOSED
Office	***239,974*** sq. ft.
Lab/Research and Development	***239,974*** sq. ft.
Retail/Restaurant	***10,052*** sq. ft.
Accessory Parking	***1,390 total parking spaces of which 362 will be located beneath the buildings, 998 will be located in a stand-alone parking garage, and 30 will be surface parking. This represents a reduction in 18 spaces from our prior submission.***

Because the specific square footage breakdown is subject to final tenant demands, the Applicant requests that the Board allow the allocation among the uses (and floor plans) to change from time to time without further Board review or approval as long as the Project maintains the number of parking spaces required by the approvals. The Applicant requests the ability to construct the Project in phases, including the right to obtain a final certificate of occupancy for the parking garage and/or either building prior to completion of construction of both buildings.[3]

Pursuant to By-Law Section 3.2.7, professional, business, or administrative offices and laboratory uses are allowed by-right in the HC-1 District. Retail uses are also allowed by-right so

[3] If a bond is required in connection with the issuance of a Certificate of Occupancy for the North or South Building or the Garage before completion of the other buildings, the Applicant requests that the amount of the bond be limited to the costs of completing internal roadways and landscaping, excluding the costs of any unfinished (or unstarted)) other buildings.

long as no single retail establishment contains more than 5,750 square feet of gross floor area. Light-manufacturing uses— including manufacture of pharmaceutical, bio-pharmaceutical, medical, robotic, and micro-biotic products, which may be part of the Project tenants' laboratory uses—are allowed by right and also as an accessory use to any lab/research development use. The Applicant anticipates that light-manufacturing uses accessory to research and development uses, including the production of prototypes, may be part of the Project depending upon the ultimate tenanting of the Project.

By-Law Section 3.2.7.1(m) allows all by right customary and proper uses accessory to lawful principal uses. Given that the accessory parking on the Property is intended to provide parking incidental to operation of the main uses described above, such accessory use is allowed by-right. Formerly, the Property showed 532 lined spaces, a portion of which were used for parking for customers and employees, and the balance of which were used for parking of new and used car inventory and auto repair activities in connection with the dealership on the Property. These spaces do not include any employees or visitors for the car wash.

The Applicant anticipates that the retail space may contain a tenant in excess of approximately *6,052* sq. ft., and a restaurant of approximately 4,000 sq. ft. Accordingly, the Project will require a Special Permit for the potential occupancy of a single retail tenant in excess of 5,750 sq. ft. and a Special Permit for restaurant use.

Parking

The Applicant plans to construct a total of ***1,390*** parking spaces (***an 18 space reduction from our prior submission***) to be provided between a one-level underground parking structure beneath the buildings and a separate above-ground parking garage.[4] The following chart describes the number of parking spaces required pursuant to By-Law Section 5.1.2.

Use	Space Required by Zoning	Proposed Parking Spaces
Research facilities/laboratories	***800*** spaces (1 space per 300 sq. ft.)*	
Office	***800*** spaces (1 space per 300 sq. ft.)	
Retail	***up to 34*** **s**paces (1 space per 300 sq. ft.)	
Restaurant	***up to 44*** spaces, for a 100 seat restaurant with one take-out service station (1 space per 3 seats plus 10 spaces per take-out service station)	

[4] The stand-alone garage will contain two levels of underground parking as shown in the Plan Set.

Total	***up to 1,678, assuming 6,052 sf of retail use and 4,000 sf restaurant with 100 seats and one take-out service station***	***1,390 total parking spaces of which 362 will be located beneath the buildings, 998 will be located in a stand-alone parking garage, and 30 will be surface parking. This represents a reduction in 18 spaces from our prior submission.***
*Provided that occupancy by a single tenant of more than 50,000 sq. ft. shall require one space per 300 sq. ft. for the first 50,000 sq. ft. and 1 space per 400 sq. ft. in excess of 50,000 sq. ft. Thus, the number of required parking spaces will be reduced if a single tenant occupies all of the North Building or the South Building, or both.		

As shown above, the Applicant proposes ***1,390*** parking spaces. However, the By-Law's parking requirements assume a higher employee density than is typical for lab/research & development uses. The By-Law also assumes that each employee will commute alone and does not take into account the Applicant's proposed use of carpool, walking, biking, and public transit alternatives that will reduce the number of vehicles required to be parked on-site. Furthermore, the By-Law does not consider the potentially permanent changes in commuting patterns resulting from the COVID-19 pandemic, including hybrid/remote work programs. For these reasons, the Applicant's proposed number of parking spaces is more reflective of expected demand than the parking requirement under the By-Law. Therefore, the Project will require a Special Permit from the Planning Board, waiving strict adherence to the minimum number of required parking spaces for the ***288*** space difference between the proposed ***1,390*** spaces and the ***1678*** required spaces under zoning owing to these special circumstances, or for less than ***1,390*** total spaces, as the Planning Board may deem sufficient based on a review of the Application.[5]

The parking spaces provided will comply with all design guidelines prescribed by By-Law Section 5.1.3 as shown on the Plan Set included with the Application.

Dimensional Requirements

The following chart sets forth dimensional requirements applicable to the Project:

Item	Required	Project	Compliance with Zoning?
Minimum Lot Area	20,000 sq. ft.	***391,846*** sq. ft**	YES
Minimum Lot Frontage	100 ft.	At least 100 ft.	YES

[5] As described below, the Planning Board is the special permit granting authority for all special permit relief for Major Projects under Section 7.4.3 of the By-Law, and accordingly may grant relief under Section 5.1.1.5 from both parking space requirements under Section 5.1.2 and parking plan under Section 5.1.3.

Item	Required	Project	Compliance with Zoning?
Maximum Floor Area Ratio	0.70 as-of-right Up to 1.35 by special permit	1.25	**YES – Special Permit Required**
Front Setback from Highland Avenue and Gould Street	15 ft.	North Building: 200 ft. South Building: 50 ft.	YES
Landscape Buffer	50 ft. along Highland Ave. and Gould Street	50 ft.***	YES
Increased Height Setback	200 ft. from Highland Ave. and Gould Street	North Building: 200ft.	YES
Side/Front Setback on Rt. 95	20 ft.	20 ft.	YES
Rear Setback	20 ft. (along TV Place)	20 ft.	YES
Maximum Lot Coverage	65%	***47.9***%	YES
Maximum South Building Height* (within 200 ft. height limitation zone)	35 ft. as-of-right 42 ft. by special permit	42 ft.	**YES – Special Permit Required**
Maximum Building North Height* (outside 200 ft. height limitation zone)	56 ft. as-of-right 70 ft. by special permit	70 ft.	**YES – Special Permit Required**
Maximum Garage Height*	44 ft. as-of-right 55 ft. by special permit	55 ft.	**YES – Special Permit Required**

Item	Required	Project	Compliance with Zoning?
Maximum Stories* (within 200 ft. height limitation zone)	2.5 stories as-of-right Up to 3 stories by special permit	3 stories (South Building)	**YES – Special Permit Required**
Maximum Stories* (outside 200 ft. height limitation zone)	4 stories as-of-right Up to 5 stories by special permit	5 stories (North Building)	**YES – Special Permit Required**
Maximum Garage Footprint	42,000 sq. ft.	***41,361*** sq. ft.	YES
Minimum Open Space	25%	***>25%***	YES
Maximum Uninterrupted Façade Length	200 ft.	200 ft.****	YES
Building Parapet Height	5 ft.	5 ft.	YES

*Pursuant to Section 4.11.1(e), structures erected on a building and not used for human occupancy, including mechanical equipment, may exceed the maximum building height provided that no part of such structures extends more than 15 ft. above the maximum allowable building height (e.g., 57 ft and 85 ft., respectively for each building) and such structures do not cover more than 25% of the building roof.

** ***This area calculation is based on the reduction of the Property area's after transfer to the Town of Needham of the 12,080 sq. ft. Conveyance Area***. Separately, the Applicant's property on the north side of TV Place (known as 0 Gould Street) containing approximately 7,127 sq. ft. is not included in calculation of lot area and other measurements.

*** ***Pursuant to Section 4.11.1(1)(d) of the By-Law, sidewalks and walkways, including the Multi-Use Walkway (defined below), may be located within the 50 ft. setback buffer along Highland Avenue and Gould Street***.

**** As shown in the Plan Set, the Garage's façade will be broken up through the use of banners which will provide uninterrupted façade lengths of less than 200 ft.

Based on the foregoing, the Project will require Site Plan Review (described below) and Special Permits from the Planning Board as follows: (i) to allow a maximum Floor Area Ratio of 1.25; (ii) to allow a maximum height of 70 feet for the North Building; (iii) to allow a maximum of 5 stories in height for the North Building; (iv) to allow a maximum height of 42 feet for the

South Building; (v) to allow a maximum of 3 stories in height for the South Building; and (vi) to allow a maximum building height of 55 feet for the above-ground parking structure.

With respect to clause (i) above, pursuant to By-Law Section 4.11.1(5) the Planning Board may allow an FAR of up to 1.35 by issuance of a Special Permit. The grant of a Special Permit pursuant to this section must consider the factors detailed further below.

With respect to clauses (ii) through (vi) above, pursuant to By-Law Section 4.11.1(1), buildings within 200 ft. of Highland Avenue and Gould Street are limited to a height of 35 ft. and 2.5 stories. The Planning Board may grant a Special Permit to increase the height of buildings within the 200 ft. height limitation zone to 42 ft. and 3 stories and may further increase the height of buildings beyond the 200 ft. height limitation zone to up to 70 ft. and 5 stories. The 200 ft. height limitation envelopes allowing for such height increases are depicted in Figure 1 and Figure 2 of By-Law Section 4.11.1(f), which provides for such figures to clarify the limits of the required setbacks and allowed envelopes. Additionally, pursuant to Section 4.11.2, the Planning Board may grant a Special Permit to increase the height of a parking structure up to 55 ft.[6]

The Project will also require a Special Permit to allow for retaining wall height greater than 4 ft. and other applicable design requirements for retaining walls pursuant to By-Law Section 6.11.5.

Major Project Site Plan Review and Special Permit:

Site Plan Review and Approval, in the form of a Planning Board Special Permit, is required for any "Major Project". Pursuant to Section 7.4.2 a "Major Project" is any project in the HC-1 District that involves the construction of 10,000 or more square feet, an increase in gross floor area of 5,000 or more square feet, or the creation of 25 or more new off-street parking spaces. The Project will exceed each of the foregoing thresholds and therefore qualifies as a Major Project subject to Site Plan Review.

Pursuant to By-Law Section 7.4.3, "the special permit granting authority for all permits the issuance of which is necessary for the construction or use of a Major Project shall be the Planning Board."

Based on the above, the Project will require Site Plan Review and Approval pursuant to By-Law Section 7.4 from the Planning Board and subject to review by the Design Review Board. Additionally, as a Major Project, the Project will require a Special Permit from the Planning Board in connection with Site Plan Review. As provided by By-Law Section 7.4.3, the Planning Board may also issue any other Special Permits required for the Project given its status as a Major Project.

[6] In lieu of applying the height/story limitation in Section 4.11.1, the By-Law sets parking garage height at 44 ft. and allows an increase up to 55 ft. by Special Permit pursuant to Section 4.11.2(1).

Relief Requested:

Based on the foregoing analysis and in accordance with By-Law Sections 3.2.7.2, 4.11, 5.1.1.5, 6.11.5, 7.2, 7.4, 7.5 and 7.6, and such other By-Law Sections as may apply, the following items of zoning relief are requested:

1. Special Permit in accordance with By-Law Section 4.11.1(5) for an FAR of 1.25 for the Project.

2. Special Permit, in accordance with By-Law Section 4.11.1(1) for a building height of 70 feet for the North Building.

3. Special Permit, in accordance with By-Law Section 4.11.1(1) for 5 stories for the North Building.

4. Special Permit, in accordance with By-Law Section 4.11.1(1) for a building height of 42 feet for the South Building.

5. Special Permit, in accordance with By-Law Section 4.11.1(1) for 3 stories for the South Building.

6. Special Permit, in accordance with By-Law Section 3.2.7.2 (g), for restaurant use.

7. Special Permit, in accordance with By-Law Section 3.2.7.2 (d), for retail use by a single tenant of between 5,750 – 10,000 sq. ft.

8. Special Permit, in accordance with By-Law Section 4.11.2(1) for a parking garage structure height of 55 feet.

9. Site Plan Review and Approval of the Project as a Major Project in accordance with Section 7.4.

10. Special Permit, in accordance with By-Law Section 5.1.1.5, for a waiver of approximately ***288*** parking spaces from the required parking space number under By-Law Section 5.1.2 to be provided as part of the Project.

11. Special Permit, in accordance with By-Law Section 6.11.5, for deviation from the design requirements for retaining walls.

12. Any additional Special Permits required for the permitting of the Project.

Satisfaction of Criteria for Granting Relief Requested:

In connection with granting the above-requested relief, the Planning Board must make certain findings related to the Project as set forth in the applicable Sections of the By-Law. The applicable criteria are set forth in bold below and are followed by the Applicant's description of how the Project complies or will comply with such criteria. Explanatory notes from the By-Law are provided in italics.

I. Pursuant to By-Law Section 7.6.1, the Planning Board must make the following findings and determinations when issuing a Special Permit, as delineated in By-Law Section 7.5.2.1:

*Prior to granting a special permit, the Planning Board, shall make a finding and determination that the proposed use, building structure, off-street parking or loading, modification of dimensional standards, screening or landscaping, or other activity, which is the subject of the application for the special permit***:**

(a) Complies with such criteria or standards as may be set forth in the section of this By-Law which refers to the granting of the requested special permit;

As set forth below, the Project complies with the specific criteria and standards for the special permit relief requested herein.

(b) is consistent with: 1) the general purposes of this By-Law as set forth in subparagraph 1.1, and 2) the more specific objectives and purposes applicable to the requested special permit which may be set forth elsewhere in this By-Law, such as, but not limited to, those at the beginning of the various sections;

The Project is consistent with the general purposes of the By-Law, including the promotion of health, safety, convenience, morals, and welfare for Needham residents because it redevelops an underutilized and environmentally compromised site into an economically viable and eco-friendly development with public amenities.

The Project will promote the welfare of the inhabitants of Needham through a significant increase in property tax revenues, providing approximately $5,000,000[7] ***(based on both the Barret and Fougere Fiscal Analyses)*** in annual additional real estate and personal property taxes which will support the Town's educational and recreational programs, housing initiatives, community and open spaces, and other Town priorities. The Project includes traffic mitigation measures and bicycle lane improvements to lessen congestion on area streets. This is an appropriate use of the land, specifically contemplated by the recent rezoning of the area. With the requested

[7] As described above, this is an approximate proration based on the development scenarios for a full-buildout of the Property and the adjacent parcels described in the Fiscal Analysis and as applied to the Project, which is for approximately 60% of the full-buildout scenario.

special permits, the Project will comply with the applicable use, height, area, and building location requirements of the By-Law.

By-Law Section 1.2 requires that any building or structure erected and any use of premises established must be in conformity with the By-Law. With the requested special permits, the Project will be in conformity with the By-Law.

(c) is designed in a manner that is compatible with the existing natural features of the site and is compatible with the characteristics of the surrounding area.

The site has few natural features, as it is almost entirely covered with the foundations of the former car dealership and car wash buildings and associated impervious areas used for parking and for the display of motor vehicles for sale. The Project is compatible with the characteristics of the surrounding area. The orientation of the buildout with the parking garage located near the "rear" of the Property will result in limited visibility of the parking structures from the major surrounding roads, including Highland Avenue and Gould Street. Extensive landscaping will be provided around the entire Project site, including a ***multi-use fitness/access walkway*** with exercise stations for use by tenants' employees, neighbors, and the general public.

Where the Planning Board determines that one or more of the following objectives are applicable to the particular application for a special permit, the Planning Board shall make a finding and determination that the objective will be met:

(d) the circulation patterns for motor vehicles and pedestrians which would result from the use or structure which is the subject of the special permit will not result in conditions that unnecessarily add to traffic congestion or the potential for traffic accidents on site or in the surrounding area; and

The Transportation Impact and Access Study ("TIAS") prepared by VHB analyzes existing traffic conditions on area roadways and at area intersections, under current conditions and as projected to exist in seven years with and without construction of the Project. The TIAS recommends, and the Applicant has committed to implement, several measures to prevent the Project from increasing traffic congestion or the potential for traffic accidents. These measures include widening and reconfiguring Gould Street at the intersection with Highland Avenue and at the intersection with the Property entrance (opposite the Wingate Residences entrance), and construction of a ***shared multi-use walkway on the Property along Gould Street (the "Multi-Use Walkway")*** for use by neighbors and residents. The internal circulation pattern has been designed to control vehicle speeds and to reduce vehicle-pedestrian interactions by providing wide sidewalks. Therefore, the circulation patterns for motor vehicles and pedestrians which would result from the Project will not result in conditions that

unnecessarily add to traffic congestion or the potential for traffic accidents on the Property or in the surrounding area.

(e) the proposed use, structure or activity will not constitute a demonstrable adverse impact on the surrounding area resulting from:

1) **excessive noise, level of illumination, glare, dust, smoke, or vibration which are higher than levels now experienced from uses permitted in the surrounding area,**
2) **emission or discharge of noxious or hazardous materials or substances, or**
3) **pollution of water ways or ground water.**

The proposed use, structures and activity at the Property resulting from the Project will not have a demonstrable adverse impact on the surrounding area. Any minimal noise, illumination or glare associated with the Project will be mitigated with thoughtful design features, including landscaping and cut-off lighting, as more particularly shown in the Plan Set. No noxious or hazardous substances are anticipated to be emitted as a result of the Project, and no waterways or groundwater will be polluted.

As referenced in the foregoing criteria, certain Sections of the By-Law prescribe additional criteria to be considered for particular Special Permit relief. Such criteria, and how the Project complies or will comply with such criteria, are provided below:

1. <u>Special Permit criteria for relief for FAR of 1.25, pursuant to By-Law Section 4.11.1(5)</u>:

In granting such special permit, the Planning Board shall consider the following factors:

(i) the ability of the existing or proposed infrastructure to adequately service the proposed facility without negatively impacting existing uses or infrastructure, including but not limited to, water supply, drainage, sewage, natural gas, and electric services;

As set forth in the Stormwater Report, the TIAS, and based on the Applicant's engineer's independent review of the infrastructure, the existing or proposed infrastructure can adequately service the Project without negatively impacting existing uses or infrastructure, including but not limited to, water supply, drainage, sewage, natural gas, and electric services.

(ii) impact on traffic conditions at the site, on adjacent streets, and in nearby neighborhoods, including, but not limited to, the adequacy of the roads and intersections to safely and effectively provide access and egress;

As set forth in the TIAS and elsewhere in this letter, the Project will include significant off-site mitigation, including traffic improvements, that will counterbalance the intersection capacity impacts of the additional Project-generated trips added to the roadway network. The Project will also include a robust Traffic Demand Management (TDM) program to incentivize reduced single occupant driving and increase use of alternative forms of transportation.

(iii) the Environmental impacts of the proposal; and

Regarding direct environmental impacts, the Applicant will take feasible steps to reduce carbon emissions and minimize energy usage and has designed the Project accordingly. Energy modeling will evaluate several emissions mitigation measures including hybrid electric/gas heating with electric heating being the first to operate whenever capacity allows, high efficiency glycol heat recovery loop, reduced laboratory exhaust through exhaust monitoring, electric water heating, and more. The Applicant also studied options to include photovoltaic solar panels at the roof of the Garage and roof of the North & South Buildings. In addition to these emission reduction strategies, the Project will utilize the LEED v4 BD+C rating system for the Core and Shell building components to incorporate other sustainability strategies. The Applicant anticipates the Project will be LEED Silver Certified with higher targets possible.

In addition, the Project has utilized the MEPA Environmental Justice tool, which demonstrates that this Project is not within 1-mile of any Environmental Justice community. The Project will not exceed any air quality thresholds or cause impacts outside of the 1-mile radius and therefore will not negatively impact such communities.

Regarding future impacts due to Sea Level Rise/Storm Surge and other climate change considerations, the Project is not exposed to Sea Level Rise/Storm Surge or Extreme Precipitation-Riverine Flooding. Although the Property has a high risk of Extreme Precipitation-Urban Flooding and a high risk of Extreme Heat, the Project will combat these risks by including measures to reduce the threat of urban flooding from extreme precipitation and developing appropriate strategies for a changing climate in the near term, as well as planning for a longer-term adaptation strategy over the course of the Project's life span.

No part of the Property has a historic structure, or a structure within a historic district listed in the State Register of Historic Places or the Inventory of Historic and Archaeological Assets of the Commonwealth.

(iv) the fiscal implications of the proposal to the Town

Based on the Barret Fiscal Analysis, ***and confirmed in the Fougere Fiscal Analysis***, full-build out of the Property and the adjacent parcels at 1.35 FAR would yield a net annual financial benefit to the Town of approximately $8,342,400. As described above, the Project proposes a build-out of approximately 90% of the Property's full-build out potential, which results in a prorated net annual financial benefit of approximately $5,000,000 to the Town from development of the Project, plus personal property taxes which would also generate significant additional revenue.

(v) In granting a special permit, the Planning Board shall also consider any proposed mitigation measures and whether the proposed project's benefits to the Town outweigh the costs and adverse impacts, if any, to the Town.

The Project will include significant mitigation as described above and below. In addition, based on the Barret Fiscal Analysis, ***and confirmed in the Fougere Fiscal Analysis***, the Project is anticipated to provide a net annual financial benefit to the Town of approximately $5,000,000, plus personal property taxes which would also generate significant additional revenue.

2. <u>Pursuant to By-Law Section 4.11.3, in addition to the foregoing criteria, the Planning Board must consider the below design guidelines when issuing a Special Permit for relief under By-Law Section 3.2.7.2 and/or Section 4.11</u>:

(a) The proposed development should provide or contribute to providing pedestrian and neighborhood connections to surrounding properties, e.g., by creating inviting buildings or street edge, by creating shared publicly accessible green spaces, and/or by any other methods deemed appropriate by the Planning Board;

The Project will contain various pedestrian and neighborhood connections and amenities. The south end of the South Building, near the intersection of Gould Street and Highland Avenue will contain the Project's "retail zone" of approximately ***10,052*** sq. ft. of retail and/or restaurant use. This area is being developed with retail plaza and landscapes visible from the public streets, making it a vibrant and cohesive part of the neighborhood. A multi-use fitness/access walkway is planned around the Property, with various exercise areas planned at intervals on the loop, and including a pond and water feature.

(b) Any parking structure should have a scale, finish and architectural design that is compatible with the new buildings and which blunts the impact of such structures on the site and on the neighborhood;

The Garage will be constructed primarily of structural precast concrete columns and spandrel beams with color and finish intended to coordinate with the color and finish of the lab buildings. In addition, the overall scale of the stand-alone Garage will be broken up through the use of fabric banners hung from the upper levels, which will result in visual interruptions and a softening of the façades on the sides most visible to the neighborhood. These design elements will create interruptions in the Garage façade so that uninterrupted façade length is less than 200 ft., in compliance with Section 4.11.2(3) of the By-Law. The Garage will be in the northeast corner of the site, downgradient and well way from Gould Street. Its presence will be masked to the south and southwest by the North Building. The Garage will comply with the specific dimensional criteria developed for this district to integrate with the surrounding area, as shown on the plans.

(c) The proposed development should encourage creative design and mix of uses which create an appropriate aesthetic for this gateway to Needham, including but not limited to, possible use of multiple buildings to enhance the corner of Highland Avenue and Gould Street, possible development of a landscape feature or park on Gould Street or Highland Avenue, varied façade treatments, streetscape design, integrated physical design, and/or other elements deemed appropriate by the Planning Board;

The Project will include two buildings, the North Building on the northerly portion of the Property, and the South Building on the southerly portion of the Property, as well as a shared Atrium to connect them that will help break down the scale of the overall project into smaller pieces. As noted above, the south end of the South Building, near the intersection of Gould Street and Highland Avenue is planned to contain the "retail zone" which will have approximately ***10,052*** sq. ft. of public retail or restaurant use. This area is being developed with retail plaza featuring soft and hardscape landscaping, outdoor seating, and a water feature at the former location of Muzi pond at the Gould Street and Highland Avenue intersection. Together the proposed R&D, Office, and Lab uses mixed with Retail/Restaurant uses at the corner will create an active gateway condition visible from the public streets. As described above a multi-use fitness/access walkway is planned around the Property, with various exercise areas planned at intervals around the buildings, and including a pond and water feature.

(d) The proposed development should promote site features and a layout which is conducive to the uses proposed;

The buildings' massing was designed to take advantage of unique view corridors, interesting topography, solar orientation, and comply with the zoning requirements outlined above. The buildings will provide flexible floorplates that are desirable for today's tenants looking for access to light and views and opportunities for shared

indoor and outdoor amenities, including, among other amenities, the previously described multi-use fitness/access walkway.

(e) The proposed development should incorporate as many green building standards as practical, given the type of building and proposed uses;

The Applicant is committed to taking all feasible steps to reduce carbon emissions and minimize energy usage. Energy modeling will evaluate several emissions mitigation measures including 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; and high-performance lighting and controls.

In addition to emission reduction strategies, the Project will utilize the LEED v4 BD+C rating system for the core and shell building components to incorporate other sustainability strategies such as: green vehicle parking; open space; rainwater management; heat island reduction; construction and demolition waste management; and building product disclosure and optimization. The current goal is to achieve LEED Silver Certified with higher targets being evaluated. In addition, the Project will be Energy Star rated and certified as a WELL Building.

The WELL Building Standard takes a holistic approach to health in the built environment addressing behavior, operations and design. WELL is a performance-based system for measuring, certifying, and monitoring features of the built environment that impact human health and well-being, through air, water, nourishment, light, fitness, comfort and mind. WELL is grounded in a body of medical research that explores the connection between the buildings where we spend more than 90 percent of our time, and the health and wellness impacts on us as occupants. WELL Certified™ spaces can help create a built environment that improves the nutrition, fitness, mood, sleep patterns and performance of its occupants.

(f) The proposed development should be designed and conditioned to reduce or mitigate adverse impacts on adjacent properties or the surrounding area such as those resulting from excessive traffic congestion or excessive demand for parking; and

The Project will include off-site mitigation that will counterbalance the intersection capacity impacts of the additional Project-generated trips added to the roadway network. The prior use of the Property as a car wash previously reported 1,360 peak daily vehicle trips to/from the car wash during the winter months, or roughly 600 vehicles daily during peak periods. The car wash coupled with Muzi employees,

visitors, new and used car sales, parts distribution, etc., yielded an additional 600 single occupancy vehicles such that there will be little, if any, increase in traffic from the Project. Furthermore, the Applicant will implement significant traffic mitigation measures as described herein, including traffic improvements and the Multi-Use Walkway. As set forth above, the Project will also include a robust TDM program to incentivize reduced single occupant driving and increase use of alternative forms of transportation. Based on the TIAS, the roadway network, as improved through the Project's proposed transportation mitigation, can safely and adequately handle the trips associated with the Project.

(g) The proposed development shall include participation in a transportation demand management program to be approved by the Planning Board as a traffic mitigation measure, including but not limited to, membership and participation in an integrated or coordinated shuttle program.

As set forth above, the Project will also include a robust TDM program to incentivize reduced single occupant driving and increase use of alternative forms of transportation. The Applicant will explore and look to implement shuttle connectivity through its future proactive involvement in the Route 128 Business Council to improve public transportation access and accessibility to the Property. The Applicant will incentivize reduced single occupant driving and increased use of alternative forms of transportation

3. <u>Pursuant to By-Law Section 6.11.5, the Planning board must consider the specific criteria given below when issuing a Special Permit for relief from retaining wall requirements in By-Law 6.11:</u>

(a) That the retaining wall will not cause an increase of water flow off the property;

The 4-6 foot high retaining wall proposed along the eastern Property boundary will be located along the side of the proposed multi-use fitness/access walkway and adjacent to the I-95/Route 128 off ramp. The retaining wall will direct stormwater discharge toward the site's proposed drainage system and not to the MassDOT's ROW. This is a significant improvement over existing conditions, under which sheet drainage discharges untreated runoff off to adjacent properties and roadways.

(b) That the requested retaining wall will not adversely impact adjacent property or the public;

The requested retaining walls will face the Exit 35C ramp from I-95/Route 128 to Highland Avenue. As such, they will have little, if any, impact on adjacent

property or the public. Additionally, each retaining wall has a low profile and there is a wide vegetated shoulder from the roadway before the wall.

(c) That the report of the Design Review Board has been received and considered.

The Applicant will continue to consider and integrate any comments from the Design Review Board into the Project.

II. Special Permit in accordance with By-Law Section 5.1.1.5 waiving adherence to the required number of parking spaces and/or parking design requirements:

Such a special permit waiving strict adherence to the minimum number of required parking spaces may be granted only after it is demonstrated by an applicant that either:

(i) special circumstances in a particular use of structure does not warrant the minimum number of spaces required under Section 5.1.2; or

There are special circumstances relating to the proposed uses of the Project that do not warrant the minimum number of parking spaces required under Section 5.1.2. The Applicant plans to construct a total of ***1,390*** parking spaces, which is less than the required amount under the By-Law of ***1,678***. The TIAS reports that actual parking demand for the Project is anticipated to be approximately 1,355 spaces. The By-Law's required parking ratios assume a higher employee density than is typical for lab/research & development uses. The By-Law also assumes that each office employee will commute alone, by motor vehicle. The Applicant is committed to a transportation demand management program to encourage the use of carpool, walking, biking, and public transit alternatives to single occupancy vehicle trips. Also, the By-Law's parking ratio does not consider the potentially permanent changes in commuting patterns resulting from the COVID-19 pandemic, including hybrid/remote work programs. Additionally, the Project will construct significant traffic improvements and implement TDM measures making transportation by multiple methods more feasible. For these reasons, the minimum number of spaces that would be required under the By-Law is not warranted for the Project.

(ii) the extent of existing building coverage on a particular lot is such that in laying out parking spaces in accordance with the design requirements of Subsection 5.1.3, the requirement for minimum number of spaces under Section 5.1.2 cannot be met.

As noted above, the proposed quantity of parking spaces is sufficient to satisfy the anticipated parking demand for the Project.

In reviewing a request for a special permit under this Section 5.1.1.5, the Planning Board shall consider the following:

(a) The issuance of a special permit will not be detrimental to the Town or to the general character and visual appearance of the surrounding neighborhood and abutting uses, and is consistent with the intent of this Zoning By-Law;

The Project redevelops an underutilized site into an economically viable development with public amenities. The addition of the Project will be a source of employment for Needham residents, will generate significant additional tax revenues for the Town, introduces uses, including retail/restaurant uses, which will contribute to making the Project a vibrant and cohesive part of the neighborhood and will be designed to enhance the aesthetic of a prominent entry to Needham.

(b) In the case of waiving strict adherence to the requirements of Section 5.1.2 under subparagraph (i) above, the special permit shall define the conditions of the use of structure so as to preclude changes that would alter the special circumstances contributing to the reduced parking need or demand;

The Applicant anticipates working with the Board to incorporate appropriate conditions regarding such changes.

(c) [Not Applicable]

(d) Provisions to demonstrate the ability to provide for additional parking consistent with Section 5.1.2 and/or parking designed in accordance with the particular requirements of Section 5.1.3; and

As noted above, the proposed quantity of parking spaces is sufficient to satisfy the anticipated parking demand for the Project.

(e) The granting of a special permit under this Section shall not exempt a structure, use or lot from future compliance with the provisions of Section 5.1.2 and/or 5.1.3.

The special permit decision will not so exempt the structure, use, or lot.

III. Site Plan Review and Special Permit for Major Project

In conducting the Site Plan Review, the Planning Board shall consider the following matters:

(a) Protection of adjoining premises against seriously detrimental uses by provision for surface water drainage, sound and sight buffers and preservation of views, light, and air;

The Project has adequately protected adjoining premises against serious detriment. The Project maintains a significant landscape buffer between the proposed structures and Highland Avenue and Gould Street, which streets themselves provide a buffer for the nearby residential neighborhoods and other properties. The Project's landscape buffer includes berms planted with shade trees and conifers. The Project's buildings are far enough from the Property line (in conformance with By-Law setbacks) so there will be no shade cast towards any residential properties beyond the Property boundary. Except for a small surface parking lot next to Gould Street, all parking will be contained below the buildings or within the Garage. Service and loading areas are located within the buildings. As described above, the Project will provide a multi-use fitness/access walkway around the perimeter of the Property, adding another buffer. Adjoining premises will be protected against any seriously detrimental uses on the Property through provision of surface water drainage, a retention pond, sound and sight buffers, and the addition of natural landscaping and green space to the Property. As detailed in the Stormwater Report, stormwater will be contained within the Property and catch basins with sumps and hoods, oil/water separators, rain gardens, and vegetated swales to improve storm water quality discharges, are provided. Stormwater will be infiltrated to mitigate storm water volumes. The retention pond is incorporated along the multi-use fitness/access walkway as an attractive feature.

(b) Convenience and safety of vehicular and pedestrian movement within the site and on adjacent streets, the location of driveway openings in relation to traffic or to adjacent streets and, when necessary, compliance with other regulations for the handicapped, minors and the elderly;

As described in greater detail above, the Project will provide enough parking to accommodate all vehicles on the Property and the parking spaces provided will comply with the design criteria set forth in By-Law Section 5.1.3 (with deviations as necessary and granted pursuant to the requested Special Permit). The Project will provide a primary entrance on Gould Street, across from the existing curb cut for the Wingate senior housing community via a newly signalized intersection. An internal drive loop will mitigate traffic queuing in and out of the Property. There will be a secondary entrance/exit from the Garage to TV Place. The Applicant will construct significant traffic mitigation, including the Traffic Improvements, which will widen Gould Street to better handle traffic movements and volume. Internal sidewalks and the Multi-Use Walkway connected to Gould Street will encourage multimodal transportation opportunities. Bicycle storage for short-term and long-term use is incorporated into the Project design. Handicapped parking will be provided in compliance with applicable requirements. All access walks and paths are designed

with slopes of less than 5%, so no ramps will be needed. Crosswalks are proposed at the Gould Street signalized intersection.

(c) Adequacy of the arrangement of parking and loading spaces in relation to the proposed uses of the premises;

Parking and loading spaces have been adequately arranged in relation to the proposed uses on the Property, and in compliance with parking plan and design requirements under By-Law Section 5.1.3. Structured parking is provided under the buildings, and in a parking garage. A small surface parking area will provide handicapped parking near the primary building entrances, and parking for adjacent retail and/or restaurant space. Loading areas are included in each section of the buildings.

(d) Adequacy of the methods of disposal of refuse and other wastes resulting from the uses permitted on the site;

The Project will provide adequate methods for disposal of refuse and waste. Solid waste and refuse will be disposed of in compliance with all applicable rules and regulations. The wastewater system will be connected to the municipal sewer system. The Applicant will require Tenants to comply with all applicable regulations regarding the handling and disposal of wastes.

(e) Relationship of structures and open spaces to the natural landscape, existing buildings and other community assets in the area and compliance with other requirements of this By-Law; and

The Project will comply with the setback and landscape buffer requirements of the By-Law that were specifically developed to create an appropriate relationship between the Project and the surrounding area. As stated above, a multi-use fitness/access walkway is proposed along the perimeter of the Property, to be available for use by the general public. Fitness stations will be provided along the walkway.

(f) Mitigation of adverse impacts on the Town's resources including the effect on the Town's water supply and distribution system, sewer collection and treatment, fire protection, and streets; and may require when acting as the Special Permit Granting Authority or recommend in the case of minor projects, when the Board of Appeals is acting as the Special Permit Granting Authority, such appropriate conditions, limitations, and safeguards necessary to assure the project meets the criteria of a through f.

The Project will not have any adverse impact on the Town's water supply and distribution system, sewer collection and treatment, fire protection, or streets. The

Project will not have any adverse impact on the Town's water or wastewater infrastructure. Sufficient pump stations provide support for the area. The proposed buildings will be fully accessible for the Town's firefighting apparatus.

As detailed above and in the materials submitted herewith and in our Prior Letters, the Project, as refined, continues to satisfy each of the applicable criteria for the requested relief.

We appreciate your attention to this matter. The Applicant and Project team will be prepared to answer any questions you may have at the next public hearing with the Planning Board for the Project on Wednesday September 7, 2022.

Very truly yours,

Timothy W. Sullivan
Attorney for Applicant

Enclosures

557 HIGHLAND AVENUE - SPECIAL PERMIT R1

BOUNDARY DESCRIPTION PREPARED BY FELDMAN SURVEYORS

BOUNDARY DESCRIPTION (PER SURVEY)

A CERTAIN PARCEL OF LAND SITUATED IN THE TOWN OF NEEDHAM, COUNTY OF NORFOLK AND THE COMMONWEALTH OF MASSACHUSETTS MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCING AT A POINT OF TANGENCY ON THE SOUTHEASTERLY SIDELINE OF TV PLACE. THENCE RUNNING SOUTHEASTERLY ALONG A CURVE TO THE RIGHT FORMING THE INTERSECTION WITH THE NORTHEASTERLY SIDELINE OF GOULD STREET, HAVING A RADIUS OF 119.49 FEET, AN ARC LENGTH OF 32.76 FEET TO THE POINT OF BEGINNING. THENCE;

CONTINUING ALONG A CURVE TO THE RIGHT, HAVING A RADIUS OF 119.49 FEET, A CHORD BEARING OF S 11°25'24" W, A CHORD DISTANCE OF 61.26 FEET, A DELTA ANGLE OF 29°42'24" AND AN ARC LENGTH OF 61.95 FEET TO A POINT OF TANGENCY ON SAID GOULD STREET;

THENCE RUNNING S 03°25'48" E, BY SAID GOULD STREET, A DISTANCE OF 284.30 FEET TO A POINT OF CURVATURE;

THENCE RUNNING ALONG SAID GOULD STREET, BY A CURVE TO THE LEFT, HAVING A RADIUS OF 505.00 FEET, A CHORD BEARING OF S 18°06'58" E, A CHORD DISTANCE OF 256.06 FEET, A DELTA ANGLE OF 29°22'20" AND AN ARC LENGTH OF 258.88 FEET TO A POINT OF COMPOUND CURVATURE;

THENCE RUNNING ALONG SAID GOULD STREET, BY A CURVE TO THE LEFT, HAVING A RADIUS OF 44.00 FEET, A CHORD BEARING OF S 71°42'32" E, A CHORD DISTANCE OF 55.27 FEET, A DELTA ANGLE OF 77°48'49" AND AN ARC LENGTH OF 59.76 FEET TO A POINT OF NON-TANGENCY;

THENCE RUNNING ALONG A CURVE TO THE RIGHT, HAVING A RADIUS OF 39.30 FEET, A CHORD BEARING OF N 62°20'24" W, A CHORD DISTANCE OF 40.83 FEET, A DELTA ANGLE OF 62°35'17" AND AN ARC LENGTH OF 42.93 FEET TO A POINT OF NON-TANGENCY;

THENCE RUNNING ALONG A CURVE TO THE RIGHT, HAVING A RADIUS OF 466.51 FEET, A CHORD BEARING OF N 27°59'42" W, A CHORD DISTANCE OF 69.69 FEET, A DELTA ANGLE OF 08°34'03" AND AN ARC LENGTH OF 69.76 FEET TO A POINT OF COMPOUND CURVATURE;

THENCE RUNNING ALONG A CURVE TO THE RIGHT, HAVING A RADIUS OF 623.02 FEET, A CHORD BEARING OF N 19°51'38" W, A CHORD DISTANCE OF 83.68 FEET, A DELTA ANGLE OF 07°42'05" AND AN ARC LENGTH OF 83.74 FEET TO A POINT OF COMPOUND CURVATURE;

THENCE RUNNING ALONG A CURVE TO THE RIGHT, HAVING A RADIUS OF 91.71 FEET, A CHORD BEARING OF N 09°22'22" W, A CHORD LENGTH OF 21.20, A DELTA ANGLE OF 13°16'27" AND AN ARC LENGTH OF 21.25 FEET TO A POINT OF NON-TANGENCY;

THENCE TURNING AND RUNNING N 03°17'17" W, A DISTANCE OF 141.32 FEET TO A POINT;

THENCE TURNING AND RUNNING N 09°43'54" W, A DISTANCE OF 87.70 FEET TO A POINT OF CURVATURE;

THENCE RUNNING ALONG A CURVE TO THE RIGHT, HAVING A RADIUS 25.00 FEET, A CHORD BEARING OF N 06°30'35" W, A CHORD DISTANCE OF 2.81 FEET, A DELTA ANGLE OF 6°26'37" AND AN ARC LENGTH OF 2.81 FEET TO A POINT OF TANGENCY;

THENCE RUNNING N 03°17'17" W, A DISTANCE OF 165.38 FEET TO A POINT;

THENCE TURNING AND RUNNING N 07°25'09" W, A DISTANCE OF 29.14 FEET TO THE POINT OF BEGINNING.

SAID PARCEL CONTAINING 12,087 SQUARE FEET.

557 HIGHLAND AVENUE - SPECIAL PERMIT R1

REVISION LETTERS

August 15, 2022

Ref: 15306.00

Lee Newman
Director of Planning and Community Development
Town of Needham
500 Dedham Avenue
Needham, MA 02492

Re: 557 Highland Ave – Highland Innovation Center – Plan Revisions for Permitting

The following is a list of changes to the Highland Innovation Center Civil Permitting Plans that have been made since the initial submission (plans dated 2022-03-30):

- North building, South building, and Garage footprints updated (per revised property line and setbacks)
- Underground Telephone and Electrical conduits between the North building and Garage adjusted
- Waterline connection in intersection of Highland Ave and Gould Street updated to address DPW comments
- Hydrant, waterline, and fire protection lines adjusted above the South building to address DPW comments
- Various Drain locations, rims, and inverts adjusted to match revised grading
- Parking requirements and summary tables updated per revised building square footages

Sincerely,

VHB

Nicholas Skoly, P.E.
Project Manager

August 15, 2022

Ref: 15306.00

Lee Newman
Director of Planning and Community Development
Town of Needham
500 Dedham Avenue
Needham, MA 02492

Re: Transportation Updates to Special Permit Submission

Dear Ms. Newman:

This letter serves as an update of the transportation elements for the Special Permit application for the proposed 557 Highland Avenue project in Needham, Massachusetts. Key updates that have been made since our last Planning Board presentation on July 7, 2022, include the following:

- VHB conducted a Traffic Impact and Access Study (TIAS) for the project, which was included as part of the initial Special Permit submission on April 5, 2022. The Town of Needham contracted with Greenman-Pedersen Inc. (GPI) to peer review the TIAS and a Traffic Peer Review letter was submitted by GPI on May 27, 2022. VHB provided a Response to the Traffic Peer Review comments on June 29, 2022, ahead of the Planning Board public hearing on July 7, 2022.

- Based upon ongoing coordination with the Town of Needham and GPI, the roadway mitigation has been modified to accommodate the following features based on direct feedback from GPI, Town of Needham staff, and the community:
    - A two-way multi-use walkway has been included along the east side (Project side) of Gould Street between Highland Avenue and the abandoned railroad right-of-way north of TV Place to accommodate all non-motorized roadway users.
    - A new crosswalk has been placed across Gould Street at the location of the abandoned railroad right-of-way north of TV Place with a supporting rapid rectangular flashing beacon (RRFB) to alert drivers.
    - A four-foot unmarked bicycle-accommodating shoulder on west side of Gould Street is also now included to accommodate southbound bicyclists who wish to travel on-road.
    - A revised cross-section on Gould Street with three southbound lanes approaching Highland Avenue and one northbound lane approaching TV Place to limit the amount of new pavement added while providing a suitable level of vehicle operations

- As noted in the revised Special Permit application dated August 15, 2022, the building program has been reduced in size by approximately 41,000 square feet (from 531,000 square feet to 490,000 square feet), the TIAS has not been updated to reflect this reduction in size. The analyses presented in the TIAS can be considered conservative as it is expected that the actual project will generate fewer trips than what was estimated in the TIAS due to the reduction in square footage. The proposed comprehensive transportation mitigation is still based on the larger building program presented in the TIAS to accommodate all roadway traffic (the proposed roadway mitigation is based on the concept developed by GPI as part of the rezoning of the Site which included potential redevelopment of the Channel 5 site that is not included in this project).

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www.vhb.com

- The proposed parking supply on-site has been reduced by 18 parking spaces, from 1,408 parking spaces to 1,390 parking spaces. The project will require a Special Permit from the Planning Board, as the proposed parking supply is 274 spaces fewer than the up to 1,664 parking spaces that is required based on Town of Needham zoning requirements. The project is not expected to require the full amount of parking required by zoning due to the lower employee density of lab/research & development uses over traditional office uses and the anticipated use of public transit, walking, and bicycling by some employees to access the site. The proposed parking supply of 1,390 parking spaces is expected to accommodate the anticipated parking demand while providing sufficient buffer so that visitors and employees to the site do not park on nearby residential streets.

Please call me at (617) 607-2971 if you have any questions.

Very truly yours,

Sean M. Manning, PE, PTOE
Principal

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LANDSCAPE ARCHITECTS • PLANNERS
CIVIL ENGINEERS • WETLAND SCIENTISTS
PAUL FINGER ASSOCIATES

Memorandum

TO: Eric Weyant, Stantec

FROM: Eric Joseph

DATE: August 15, 2022

RE: 557 Highland Ave – Special Permit
Summary of Plan Revisions -01

The Landscape Plans & Details Sheets (L1.0-L5.1) provided as part of the original Special Permit Plan Set dated 03-30-2022 have been revised and updated through August 15th as part of the project's pending supplemental submission. The revisions are in response to comments and requests noted during the various neighbor and town meetings since the projects original submission and include:

- General:
  - Reduced building and garage footprints, and realignment of the retail portion of the building away from Highland Ave (see plans and elevations by project architect);
  - Relocation of loading area for South Building farther away from Gould Street (see plans and elevations by project architect);
  - Relocation of loading area for North Building to north side of building to eliminate visibility of loading area from Gould Street (see plans and elevations by project architect);
  - Revised roadway and bike lane layout for Gould Street and TV Place in coordination with the neighbors and the Town's traffic consultant (see plans/ exhibits by project traffic engineer);
  - Added Community Open Space areas for the public including pickle ball courts (2) and open lawn/ turf areas (2);
  - Expanded Multi-Use Walkway along Gould Street from 8' wide to 18' wide;
  - Realigned Multi-Use Fitness/ Access Walkway along Highland Avenue in order to provide a greater landscape buffer from traffic along Highland Avenue;
  - Added planting beds and raised planters within Retail Plaza to further soften plaza area, as well as provide locations for potential artwork in conjunction with Needham Council for Arts & Culture;

- L-1.0 Site Plan **(see attached):**
  - Revisions associated with the additional site improvements as described above;
  - Relocated transformers for North Building and Garage further out of view from TV Place;

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info@pfai.net

  - Added several walks from the proposed buildings for egress purposes as required.
  - Relocated surface parking entry farther north to improve truck turning movements for relocated loading area;
  - Increased size of water feature at corner of Highland and Gould for improved visibility and enjoyment by the public;
  - Provided additional descriptions of materials to be used.

- L-2.0 Grading Plan **(see attached):**
  - Revisions associated with the additional site improvements as described above;
  - Raised elevations along building and garage perimeters to reduce visible building heights as much as possible;
  - Minimized slopes within Community Open Space areas along Gould Street in order to help facilitate the possibility of installing portable ice-skating rink.

- L-3.0 Planting Plan **(see attached):**
  - Revisions associated with the additional site improvements as described above;
  - Provided greater detail on proposed plant materials (species, quantities and sizes);
  - Significantly increased density of proposed planting areas with additional trees, shrubs, groundcover and greater diversity of plant material;
  - Significantly limited proposed lawn areas;
  - Increased number of street trees to help soften views of proposed project.

- L-4.0 Lighting Plan **(see attached):**
  - Revisions associated with the additional site improvements as described above;
  - Provided greater photometric details with Isoline Contours and photometric summaries of retail and parking lot areas;
  - Further reduced potential of off-site light spillage by relocating perimeter light fixtures along Highland Avenue and Gould Street farther into the site.

- L-5.0 Site Details #1 **(see attached):**
  - Provided additional lighting details/ specifications for proposed lighting, including shielding to be used;
  - Revised labels to improve identification of fixtures to be used and their locations.

- L-5.1 Site Details #2 **(see attached):**
  - Primarily no changes.

Stantec

Memo

To:	Needham Planning Board (Lee Newman / Alexandra Clee) Planning Department, Suite 118 Town of Needham Public Services Administration Building 500 Dedham Avenue Needham, MA 02492	From:	Thomas Urtz, AIA Stantec Architecture
File:	Special Permit Package R1 (08/16/2022 for 09/07/2022 Planning Board public hearing)	Date:	August 16, 2022

Reference: Special Permit Package R1 (Submitted 8/16/2022) Dated: September 7, 2022

As a result of community input and previous meetings with the Planning Board please find the attached list of updates included as part of our Revision 1 package. We have organized the side-by-side list below outlining the Revision 1 updates compared to the previously submitted package to the Needham Planning Board: Special Permit Package (03/30/2022).

1. **Parking Spaces**: The layout of the free-standing parking garage has been modified to comply with the revised property line and setback. To minimize loss of spaces the layout of parking below the building has been modified.

Special Permit Package 03/30/2022	**Special Permit Package R1 - 08/16/2022 for 09/07/2022 Planning Board public hearing**
Office/Lab Building: 343 Spaces Garage: 1021 Spaces Surface Parking: 44 Spaces* Total Parking: 1408 Spaces	**Office/Lab Building: 362 Spaces** **Garage: 998 Spaces** **Surface Parking: 30 Spaces*** **Total Parking: 1390 Spaces** **(Loss of 18 spaces due to revised setback line)**
*Surface parking: Reference civil and landscape drawings.	

2. **Revised Setbacks & Gross Square Footage**: The layout of the North Building and South Building have been modified to comply with the revised Gould Street property line and setback restrictions. The west end of the North Building shifted east approximately 29'-6" across the upper levels of the building to comply with the modified setback and height restrictions (see item 3 below for additional information). The west end of the South Building shifted east approximately 22'-6", and has been pulled back from the corner of the Highland/Gould intersection to enlarge the retail plaza area.

Special Permit Package 03/30/2022	**Special Permit Package R1 - 08/16/2022 for 09/07/2022 Planning Board public hearing**

Reference: **Special Permit Package R1 (Submitted 8/16/2022)** **Dated: September 7, 2022**

Office/Lab Building: 506,694 GSF Garage: 332,298 GSF	**Office/Lab Building: Revised West Façade at North & South Buildings.** **490,000 GSF** **(Loss of 16,694 GSF due to revised setback line)** **Garage: Revised West Façade.** **326,886 GSF** **(Loss of 5,412 GSF due to revised setback line)**

3. **Stepped Massing on the west facade at North & South Building near Gould Street:** Both the North and South Buildings front Gould Street with new lower massing than presented in the original special permit package. In an effort to transition the massing of the North Building down towards Gould Street, the massing now includes a step down from 70' to 42', in conjunction with the revised building setback line location. In addition, the massing has been carved away from the North Building facing Gould and TV Place which allows for a softer, landscaped corner "pocket park", and better visibility for access to the below building garage and loading dock which have been relocated to the north façade of the building.

Special Permit Package 03/30/2022	**Special Permit Package R1 - 08/16/2022 for 09/07/2022 Planning Board public hearing**
North Building: (Gould Façade): Continuous façade, 70' height	**North Building: Stepped massing at tenant space, with potential for terrace at roof at Level 4. Stepped façade from 70' down to 42'.** **Reference revised GSF numbers in item number 2.**

Stantec Architecture & Engineering P.C.
40 Water Street, 3rd Floor
Boston, MA 02109

Thomas Urtz AIA, LEED AP
Senior Associate

Mobile: 857 210-2615

Stantec Architecture & Engineering P.C.

557 HIGHLAND AVENUE - SPECIAL PERMIT R1

PRELIMINARY EXTERIOR/COMMUNITY NOISE EVALUATION/NARRATIVE

ACENTECH

33 Moulton Street
Cambridge MA 02138
617 499 8000
acentech.com

August 15, 2022

Mr. Robert Schlager, CPM
Bulfinch Companies
116 Huntington Avenue, Suite 600
Boston, MA 02116
Via email: RAS@Bulfinch.com

Subject **Preliminary Exterior/Community Noise Evaluation/Narrative – Revision 2**
557 Highland Avenue (former Muzi Ford Site), Office & Lab Conversion
Needham, MA
Acentech Project J635632.00

Dear Robert:

This letter provides a preliminary discussion of the community (exterior) noise emissions at 557 Highland Avenue, the proposed research and development office at the former Muzi Ford dealership site in Needham, Massachusetts. We understand this project consists of two buildings and a parking garage. The South Building will be 3-stories with 215,000 square feet of office and lab space. The North Building will have 5-stories with 255,000 square feet of office and lab space. There will be a connecting glass atrium of 2-stories between the two buildings. Sound from the proposed campus described above will have to comply applicable noise limits from the Town of Needham and the Commonwealth of Massachusetts as discussed below.

SOUND LIMITS

TOWN OF NEEDHAM

It is our understanding that the Town of Needham does not have numerical noise limits that are part of the town bylaws. We have identified Section 3.8, Noise Regulation of the Town's General bylaws dated July 2021. Section 3.8.1 simply states:

> *Except in an emergency, construction activity conducted pursuant to a building permit, which causes noise that extends beyond the property line, shall be limited to the hours of 7AM to 8PM unless authorized by rules or regulations adopted by the Select Board. The penalty for violation of this regulation shall be a $50 fine.*

COMMONWEALTH OF MASSACHUSETTS

The Commonwealth of Massachusetts has enacted regulations for the control of air pollution (310 CMR 7.10[1]). To enforce these regulations, the Massachusetts Department of Environmental Protection (MassDEP) has issued guidelines that limit noise levels at property lines and the nearest residence. These limitations are: (a) not to increase the residual overall A-weighted background sound level by more than 10 dB and (b) not to produce a pure tone condition; where the sound pressure level (SPL) in one octave band exceeds the levels in the two adjacent octave bands by 3 dB or more.

[1] 310 Massachusetts Regulation 7.10, U Noise:
https://casetext.com/regulation/code-of-massachusetts-regulations/department-310-cmr-department-of-environmental-protection/title-310-cmr-700-air-pollution-control/section-710-u-noise

BACKGROUND SOUND SURVEY

In order to determine compliance with the MassDEP noise limits, a background sound survey was performed from March 2 to 7, 2022. Acentech deployed two sound levels meters at the locations (A and B) shown in Figure 1. We monitored sound continuously for a period over 6 days. During this period, we measured the A-weighted ninetieth percentile sound pressure level (L_{90}) on an hourly basis 24 hours per day along with other metrics that can be reported as needed.

INSTRUMENTATION

We used Type 1 sound level meters (SLMs) in accordance with IEC 61672-1. The SLMs were factory-calibrated to National Institute of Standards and Technology (NIST) traceable sources within the previous 12 months; the laboratory calibration certificates are available upon request. Each SLM was also field-calibrated before and after the start of the survey. Each SLM was set to slow response, and recorded L_{90} sound pressure levels in one hour increments in octave-bands with center frequencies between 31.5 and 8,000 Hz. The equivalent continuous (L_{EQ}) A-weighted sound level (dBA), and unweighted (dBZ) octave-band SPLs were also recorded and will be used as necessary.

RESULTS

Figure 2 is a graph of the A-weighted L_{90} sound levels for the 6-day period. For unknown reasons, the data collection at Location A (Gould Street) abruptly stopped after 19-hours of monitoring. Given the limited amount of data, we retested Location A only from June 28 to July 6, 2022. We have compiled the L_{90} sound level and determined the lowest L_{90} sound level for the daytime (7:00 am to 10:00 pm), and nighttime (10:00 pm to 7:00 am) as given in Table 1.

TABLE 1: Summary of L_{90} Sound Levels and MassDEP Limits

PERIOD	Day (7:00 am-10:00 pm)	Night (10:00 pm-7:00 am)
Location A (Gould Street)	44	40
Location B (I-95 Ramps)	49	42
MassDEP Limit (min + 10 dB)	**54**	**50**

PROJECT NOISE LIMIT

The project noise limit is 10 dB higher than the minimum of the two locations. For daytime the limit would be 54 dBA (44 dBA + 10 dB), and for nighttime the limit is 50 dBA (40 dBA + 10 dB).

NOISE MODELING

The equipment that will generate sound from this Project includes:

- Two Air Handling Units (AHU)
- Two Cooling Towers (CT)
- Loading dock Exhaust Fans
- Multiple Garage Exhaust Fans
- Multiple General Exhaust Fans
- Multiple Exhaust Air Handling Unit (EAHU)
- Multiple Emergency Generators

All of the above equipment will be located on the roof of Building A or Building B. We will conduct a noise evaluation using Cadna/A acoustic modeling software, which complies with the international standard ISO 9613-2, “Attenuation of sound during propagation outdoors -- Part 2: General method of calculation”. All rooftop equipment will be evaluated for sound transmission to abutting properties, especially the Wingate Residences at Needham located at 235 Gould Street. As necessary to achieve noise limits, we will recommend noise control features such as acoustic screens/barriers, silencers, acoustic louvers, enclosures, and other treatments.

SUMMARY

We have been retained by Bulfinch to insure that the Project at 557 Highland Avenue will be compliant with the local and State limits noted above, given the potential use of sound mitigation. Once we have completed our evaluation, a final report will be issued that will document the predicted sound levels at various receptor points.

Please contact me at 617-499-8058 or mBahtiarian@acentech.com with any questions or comments.

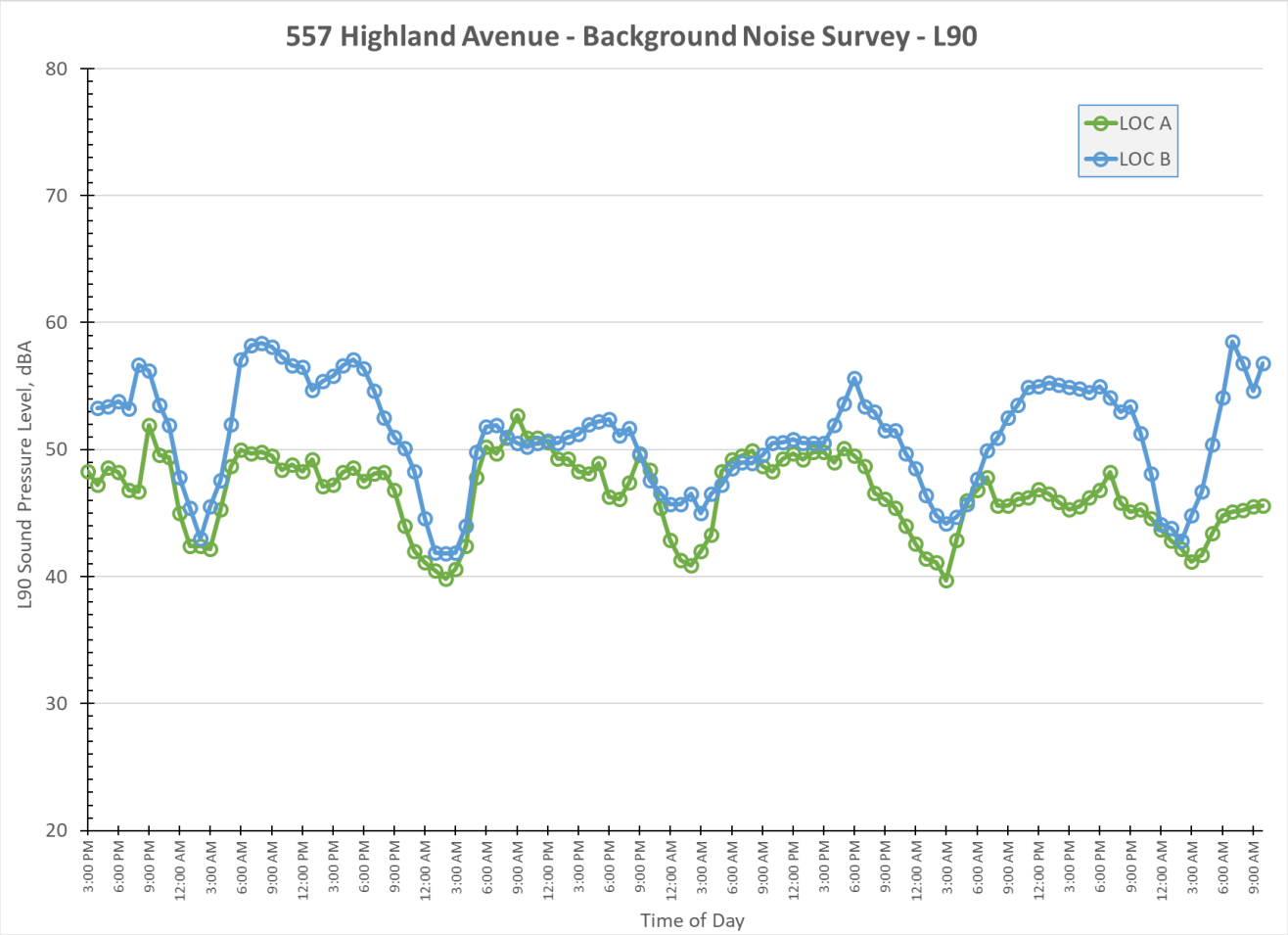
Sincerely,
ACENTECH INCORPORATED

Michael Bahtiarian, INCE Bd. Cert.

Cc: Marc Newmark, Acentech
Ben Stracco, Stantec

FIGURE 1: Background Sound Survey Monitoring Locations, A & B

FIGURE 2: Background Sound Levels, hourly L_{90}, dBA



557 Highland Ave
Needham, MA 02494

Needham Special Permit Package R1

08/15/2022 (FOR 09/07/2022 PLANNING BOARD SPECIAL PERMIT PUBLIC HEARING)

Bulfinch

Stantec

Proposed

Site Plan

Aerial – Looking North

Aerial – Looking West

Aerial – Looking South

Aerial – West Entry Drive

Site Aerial - Proposed

557 Parking – Looking North-East

Gould Street – Looking North-East

Fitness Loop – Looking South

Gould Street – Looking North-East

Street View - Proposed

Bulfinch

HIGHLAND INNOVATION CENTER

557 Highland Ave
Needham, MA 02494

PROJECT TEAM

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DRAWING INDEX

NO.	DRAWING NAME	SPECIAL PERMIT PACKAGE 2022.03.18	SPECIAL PERMIT PACKAGE R1 2022.08.15
GENERAL			
G-000a	COVER SHEET	•	•
G-005	ZONING AREA PLANS	•	•
CIVIL			
C-01	LEGEND AND GENERAL NOTES	•	•
C-02	OVERALL SITE PLAN - REVISION	•	•
C-02B	OVERALL SITE PLAN		•
C-03	DRAINAGE AND EROSION CONTROL PLAN	•	•
C-04	UTILITY PLAN	•	•
C-05	SITE DETAILS	•	•
C-06	SITE DETAILS	•	•
TRANSPORTATION			
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TR-002	OFF-SITE ROADWAY IMPROVEMENTS #2		•
SURVEY/MAPPING			
CONVEYANCE PLAN	CONVEYANCE PLAN		•
LANDSCAPE			
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L-1.0	SITE PLAN	•	•
L-2.0	GRADING PLAN	•	•
L-3.0	SITE PLANTING PLAN	•	•
L-4.0	SITE LIGHTING PLAN	•	•
L-5.0	SITE DETAILS #1	•	•
L-5.1	SITE DETAILS #2	•	•

DRAWING INDEX

NO.	DRAWING NAME	SPECIAL PERMIT PACKAGE 2022.03.18	SPECIAL PERMIT PACKAGE R1 2022.08.15
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A-102	LEVEL 2 - OVERALL PLAN	•	•
A-103	LEVEL 3 - OVERALL PLAN	•	•
A-104	LEVEL 4 / SOUTH BUILDING PENTHOUSE - OVERALL PLAN	•	•
A-105	LEVEL 5 / SOUTH BUILDING UPPER ROOF - OVERALL PLAN	•	•
A-106	NORTH BUILDING PENTHOUSE - OVERALL PLAN	•	•
A-107	FULL ROOF PLAN	•	•
A-201	BUILDING ELEV - LOCATOR ELEVATIONS	•	•
A-202	BUILDING ELEV - NORTH BLDG - NORTH	•	•
A-203	BUILDING ELEV - NORTH BLDG - SOUTH & EAST	•	•
A-204	BUILDING ELEV - SOUTH BLDG - SOUTH EAST		•
A-205	BUILDING ELEV - NORTH BLDG (SOUTHWEST) & SOUTH BLDG (SOUTH)	•	•
A-206	BUILDING ELEV - NORTH BLDG (WEST) & SOUTH BLDG (NORTH & WEST)	•	•
A-207	BUILDING ELEV - SOUTH BLDG - NORTH & EAST	•	•
A-211	BUILDING SECTIONS - OVERALL	•	•
A-212	BUILDING SECTIONS - NORTH BLDG	•	•
A-213	BUILDING SECTIONS - SOUTH BLDG		•
ARCHITECTURAL - GARAGE			
AG-100.B2	GARAGE LEVEL B2	•	•
AG-100.B1	GARAGE LEVEL B1	•	•
AG-101	GARAGE LEVEL 1	•	•
AG-102	GARAGE LEVEL 2	•	•
AG-103	GARAGE LEVEL 3 (LEVEL 4-5 SIM.)	•	•
AG-106	GARAGE LEVEL 6	•	•
AG-201	ELEVATIONS - NORTH & EAST	•	•
AG-202	ELEVATIONS - SOUTH & WEST	•	•
AG-211	GARAGE SECTIONS	•	•
AG-212	GARAGE SECTIONS	•	•
TOTAL: 47			

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218421343

SPECIAL PERMIT PACKAGE R1 - 08/15/2022

(FOR 09/07/2022 PLANNING BOARD SPECIAL PERMIT PUBLIC HEARING)

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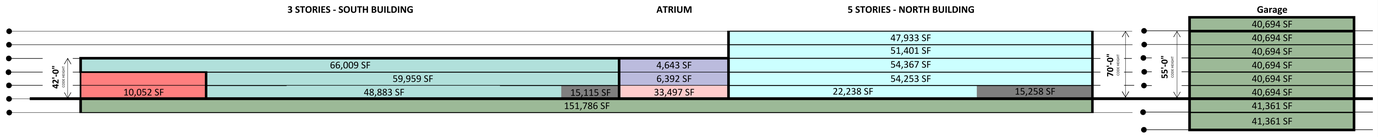
<Pick Location> | Project Information>
<Author Name> | <Author Title>
DESIGNATURE - ARCH 01

Project Stats: Highland Ave
Date: 9/7/2022
Stantec **DRAFT**



Garage
40,694 SF
40,694 SF
40,694 SF
40,694 SF
40,694 SF
40,694 SF
41,361 SF
41,361 SF

GROUND FLOOR	
Program	SF
A1 Retail	10,052 SF
A2 Amenity	33,497 SF
A3 Office/Lab	405,043 SF
A4 Tenant Bridge	11,035 SF
A5 BOH	30,373 SF
A6 PARKING & GARAGE (TOTAL)	478,672 SF
A7 **Total FAR SF (A1 + A2 + A3 + A4 + A5)**	**490,000 SF**

Garage	
Program	SF
Garage	**326,886 SF**

Parking Space Totals

Building Parking Count (Below Grade)

Level	Standard	Parallel	Compact	ADA - VAN	ADA
Level G1	182	3	169	2	6
Total by Type	**182**	**3**	**169**	**2**	6
Total Parking			**362**		

Garage Parking Count

Level	Standard	Compact	ADA - VAN	ADA	TOTAL BY LEVEL
Level B2	61	52	0	3	116
Level B1	60	56	0	3	119
Level 1	55	67	3	1	126
Level 2	52	76	0	3	131
Level 3	51	79	0	2	132
Level 4	51	79	0	2	132
Level 5	51	79	0	2	132
Roof	67	41	0	2	110
Total by Type	**448**	**529**	**3**	**18**	
Total Parking		**998**			

EV SPACES:

AREAS - LAB (GROSS - OFFICE ONLY)

BUILDING	GSF (SF)	Comments
LEVEL G1		
PARKING	151786	EXCLUDED
	151786	
LEVEL 1		
ATRIUM	33497	
BOH (NORTH)	15258	
BOH (SOUTH)	15115	
RETAIL	10052	
TENANT - NORTH	22238	
TENANT - SOUTH	48883	
	145043	
LEVEL 2		
TENANT - BRIDGE	6392	
TENANT - NORTH	54253	
TENANT - SOUTH	59959	
	120604	
LEVEL 3		
TENANT - BRIDGE	4643	
TENANT - NORTH	54367	
TENANT - SOUTH	66009	
	125019	
LEVEL 4		
BOH (SOUTH)	11160	EXCLUDED
TENANT - NORTH	51401	
	62561	
LEVEL 5		
TENANT - NORTH	47933	
	47933	
PENTHOUSE - NORTH		
BOH (NORTH)	9958	EXCLUDED
	9958	

AREAS - GARAGE (GROSS - GARAGE ONLY)

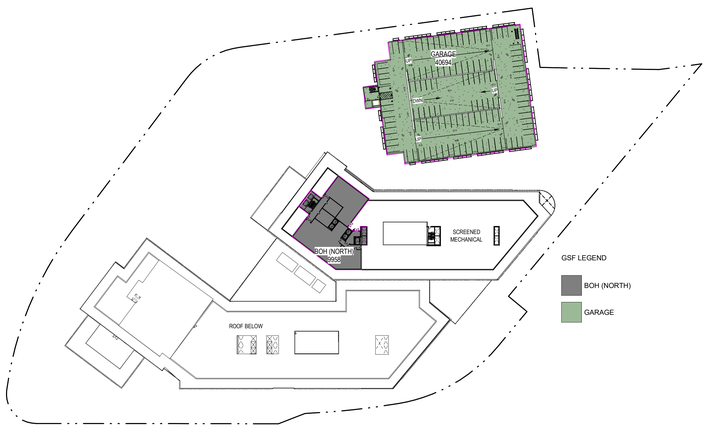
BUILDING	GSF (SF)	Comments
GARAGE - LEVEL B2		
GARAGE	41361	
	41361	
LEVEL G1		
GARAGE	41361	EXCLUDED
	41361	
LEVEL 1		
GARAGE	40694	
	40694	
LEVEL 2		
GARAGE	40694	
	40694	
LEVEL 3		
GARAGE	40694	
	40694	
LEVEL 4		
GARAGE	40694	
	40694	
LEVEL 5		
GARAGE	40694	
	40694	
PENTHOUSE - NORTH		
GARAGE	40694	
	40694	
TOTAL	326884	

Site Totals

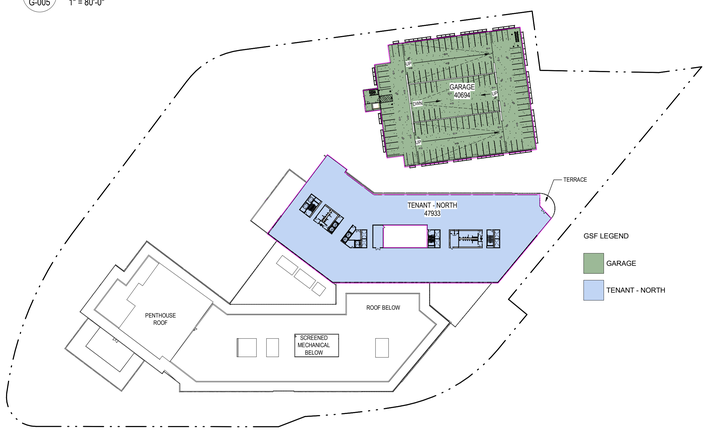
Program		
		Proposed
Total FAR SF (Office + Garage)		**490,000 SF**
TOTAL SITE SF		**391,846 SF**
SITE FAR		**1.25**

Site Parking Totals	
	Proposed
SP1 Surface Parking	30
SP2 Office/Lab Building	362
SP3 Garage	998
SP4 **Total Parking** (SP1 + S	**1390**
Total Compact Spaces (Office/Lab & Garage)	**698**
SP5 **Total % Compact On-Site**	**50%**

GENERAL NOTE: ALL AREAS ARE IN PROGRESS AND SHOULD NOT BE CONSIDERED FINAL.



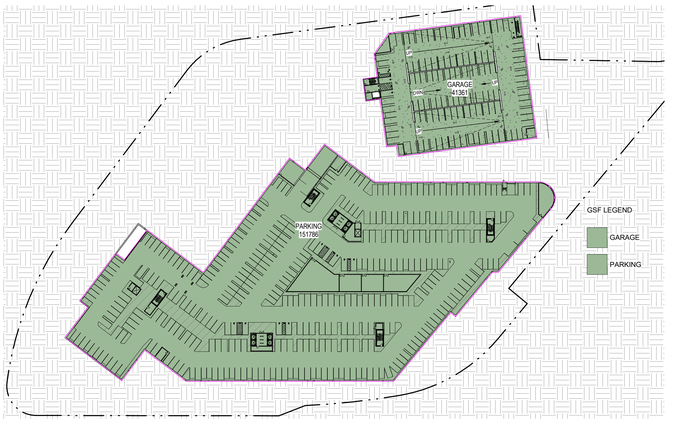
6 G-005 **FLOOR AREA - ROOF**
1" = 80'-0"



5 G-005 **FLOOR AREA - LEVEL 5**
1" = 80'-0"

4 G-005 **FLOOR AREA - LEVEL 4**
1" = 80'-0"

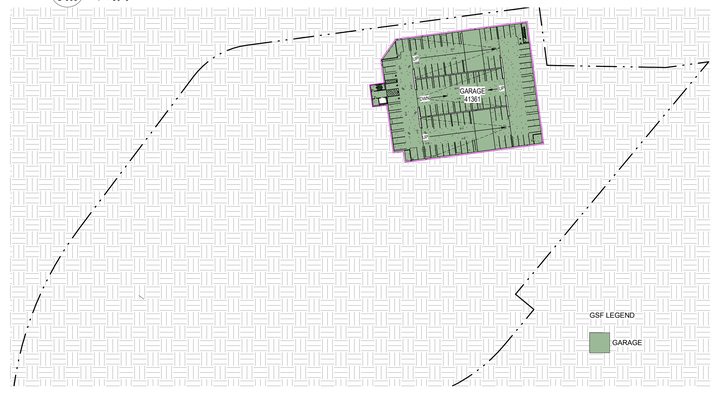
2 G-005 **FLOOR AREA - LEVEL 2**
1" = 80'-0"



G1 G-005 **FLOOR AREA - LEVEL G1**
1" = 80'-0"

3 G-005 **FLOOR AREA - LEVEL 3**
1" = 80'-0"

1 G-005 **FLOOR AREA - LEVEL 1**
1" = 80'-0"



7 G-005 **GARAGE - LEVEL B2**
1" = 80'-0"

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Stantec Architecture and Engineering P.C.
40 Wantor Street - 3rd Floor
Boston, MA 02109
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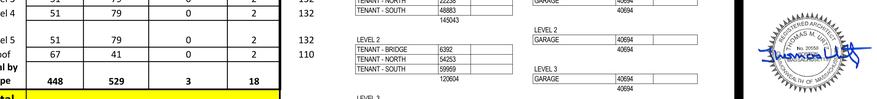
Consultant

Issued/Revision	By	Appd	YYYY.MM.DD
SPECIAL PERMIT PACKAGE R1		2022.08.15	
SPECIAL PERMIT PACKAGE R0		2022.03.22	

Permit/Seal



SPECIAL PERMIT PACKAGE R1
08/15/2022
(FOR 09/07/2022 PLANNING BOARD SPECIAL PERMIT PUBLIC HEARING)

Client/Project
Bulfinch HIGHLAND INNOVATION CENTER
557 Highland Ave
Needham, MA 02494

Project No.:218421343
File Name: N/A
Scale: 1" = 80'-0"

Author	Designer	Checker	2022.05.27
Dwn.	Dsgn.	Chkd.	YYYY.MM.DD

Title
ZONING AREA PLANS

Revision:
Drawing No.
G-005

<Do Not Delete or Move Information>
9/7/2022 10:57:19 AM
ORIGINAL SHEET - ARCH E

Legend

Exist. / Prop.	
	PROPERTY LINE
	PROJECT LIMIT LINE
	RIGHT-OF-WAY/PROPERTY LINE
	EASEMENT
	BUILDING SETBACK
	PARKING SETBACK
10+00	BASELINE
	CONSTRUCTION LAYOUT
	ZONING LINE
	TOWN LINE
	LIMIT OF DISTURBANCE
	WETLAND LINE WITH FLAG
	FLOODPLAIN
BLSF	BORDERING LAND SUBJECT TO FLOODING
BZ	WETLAND BUFFER ZONE
NDZ	NO DISTURB ZONE
200'RA	200' RIVERFRONT AREA
	GRAVEL ROAD
EOP	EDGE OF PAVEMENT
BB	BITUMINOUS BERM
BC	BITUMINOUS CURB
CC	CONCRETE CURB
CG	CURB AND GUTTER
ECC	EXTRUDED CONCRETE CURB
MCC	MONOLITHIC CONCRETE CURB
PCC	PRECAST CONC. CURB
SGE	SLOPED GRAN. EDGING
VGC	VERT. GRAN. CURB
	LIMIT OF CURB TYPE
	SAWCUT
	BUILDING
EN	BUILDING ENTRANCE
LD	LOADING DOCK
	BOLLARD
D	DUMPSTER PAD
	SIGN
	DOUBLE SIGN
	STEEL GUARDRAIL
	WOOD GUARDRAIL
	PATH
	TREE LINE
	WIRE FENCE
	FENCE
	STOCKADE FENCE
	STONE WALL
	RETAINING WALL
	STREAM / POND / WATER COURSE
	DETENTION BASIN
	HAY BALES
	SILT FENCE
	SILT SOCK / STRAW WATTLE
4	MINOR CONTOUR
20	MAJOR CONTOUR
10	PARKING COUNT
C10	COMPACT PARKING STALLS
DYL	DOUBLE YELLOW LINE
SL	STOP LINE
	CROSSWALK
	ACCESSIBLE CURB RAMP
	ACCESSIBLE PARKING
VAN	VAN-ACCESSIBLE PARKING
	CONCRETE
	HEAVY DUTY PAVEMENT
	BUILDINGS
	RIPRAP
	CONSTRUCTION EXIT
27.35 TC×	TOP OF CURB ELEVATION
26.85 BC×	BOTTOM OF CURB ELEVATION
132.75 ×	SPOT ELEVATION
45.0 TW / 38.5 BW ×	TOP & BOTTOM OF WALL ELEVATION
	BORING LOCATION
	TEST PIT LOCATION
MW	MONITORING WELL
UD	UNDERDRAIN
12"D	DRAIN
6"RD	ROOF DRAIN
12"S	SEWER
FM	FORCE MAIN
OHW	OVERHEAD WIRE
6"W	WATER
4"FP	FIRE PROTECTION
2"DW	DOMESTIC WATER
3"G / G	GAS
E	ELECTRIC
STM	STEAM
T	TELEPHONE
FA	FIRE ALARM
CATV	CABLE TV
	CATCH BASIN CONCENTRIC
	CATCH BASIN ECCENTRIC
	DOUBLE CATCH BASIN CONCENTRIC
	DOUBLE CATCH BASIN ECCENTRIC
	GUTTER INLET
D	DRAIN MANHOLE CONCENTRIC
D	DRAIN MANHOLE ECCENTRIC
TD	TRENCH DRAIN
	PLUG OR CAP
CO	CLEANOUT
	FLARED END SECTION
	HEADWALL
S	SEWER MANHOLE CONCENTRIC
S	SEWER MANHOLE ECCENTRIC
CS	CURB STOP & BOX
WV	WATER VALVE & BOX
TSV	TAPPING SLEEVE, VALVE & BOX
	FIRE DEPARTMENT CONNECTION
HYD	FIRE HYDRANT
WM	WATER METER
PIV	POST INDICATOR VALVE
W	WATER WELL
GG	GAS GATE
GM	GAS METER
EMH	ELECTRIC MANHOLE
EM	ELECTRIC METER
	LIGHT POLE
TMH	TELEPHONE MANHOLE
T	TRANSFORMER PAD
	UTILITY POLE
	GUY POLE
	GUY WIRE & ANCHOR
HH	HAND HOLE
PB	PULL BOX
	MATCHLINE

Abbreviations

General

ABAN	ABANDON
ACR	ACCESSIBLE CURB RAMP
ADJ	ADJUST
APPROX	APPROXIMATE
BIT	BITUMINOUS
BS	BOTTOM OF SLOPE
BWLL	BROKEN WHITE LANE LINE
CONC	CONCRETE
DYCL	DOUBLE YELLOW CENTER LINE
EL	ELEVATION
ELEV	ELEVATION
EX	EXISTING
FDN	FOUNDATION
FFE	FIRST FLOOR ELEVATION
GRAN	GRANITE
GTD	GRADE TO DRAIN
LA	LANDSCAPE AREA
LOD	LIMIT OF DISTURBANCE
MAX	MAXIMUM
MIN	MINIMUM
NIC	NOT IN CONTRACT
NTS	NOT TO SCALE
PERF	PERFORATED
PROP	PROPOSED
REM	REMOVE
RET	RETAIN
R&D	REMOVE AND DISPOSE
R&R	REMOVE AND RESET
SWEL	SOLID WHITE EDGE LINE
SWLL	SOLID WHITE LANE LINE
TS	TOP OF SLOPE
TYP	TYPICAL

Utility

CB	CATCH BASIN
CMP	CORRUGATED METAL PIPE
CO	CLEANOUT
DCB	DOUBLE CATCH BASIN
DMH	DRAIN MANHOLE
CIP	CAST IRON PIPE
COND	CONDUIT
DIP	DUCTILE IRON PIPE
FES	FLARED END SECTION
FM	FORCE MAIN
F&G	FRAME AND GRATE
F&C	FRAME AND COVER
GI	GUTTER INLET
GT	GREASE TRAP
HDPE	HIGH DENSITY POLYETHYLENE PIPE
HH	HANDHOLE
HW	HEADWALL
HYD	HYDRANT
INV	INVERT ELEVATION
I=	INVERT ELEVATION
LP	LIGHT POLE
MES	METAL END SECTION
PIV	POST INDICATOR VALVE
PWW	PAVED WATER WAY
PVC	POLYVINYLCHLORIDE PIPE
RCP	REINFORCED CONCRETE PIPE
R=	RIM ELEVATION
RIM=	RIM ELEVATION
SMH	SEWER MANHOLE
TSV	TAPPING SLEEVE, VALVE AND BOX
UG	UNDERGROUND
UP	UTILITY POLE

Notes

General

1. CONTRACTOR SHALL NOTIFY "DIG-SAFE" (1-888-344-7233) AT LEAST 72 HOURS BEFORE EXCAVATING.
2. CONTRACTOR SHALL BE RESPONSIBLE FOR SITE SECURITY AND JOB SAFETY. CONSTRUCTION ACTIVITIES SHALL BE IN ACCORDANCE WITH OSHA STANDARDS AND LOCAL REQUIREMENTS.
3. ACCESSIBLE ROUTES, PARKING SPACES, RAMPS, SIDEWALKS AND WALKWAYS SHALL BE CONSTRUCTED IN CONFORMANCE WITH THE FEDERAL AMERICANS WITH DISABILITIES ACT AND WITH STATE AND LOCAL LAWS AND REGULATIONS (WHICHEVER ARE MORE STRINGENT).
4. AREAS DISTURBED DURING CONSTRUCTION AND NOT RESTORED WITH IMPERVIOUS SURFACES (BUILDINGS, PAVEMENTS, WALKS, ETC.) SHALL RECEIVE 6 INCHES LOAM AND SEED.
5. WITHIN THE LIMITS OF THE BUILDING FOOTPRINT, THE SITE CONTRACTOR SHALL PERFORM EARTHWORK OPERATIONS REQUIRED UP TO SUBGRADE ELEVATIONS.
6. WORK WITHIN THE LOCAL RIGHTS-OF-WAY SHALL CONFORM TO LOCAL MUNICIPAL STANDARDS. WORK WITHIN STATE RIGHTS-OF-WAY SHALL CONFORM TO THE LATEST EDITION OF THE STATE HIGHWAY DEPARTMENTS STANDARD SPECIFICATIONS FOR HIGHWAYS AND BRIDGES.
7. UPON AWARD OF CONTRACT, CONTRACTOR SHALL MAKE NECESSARY CONSTRUCTION NOTIFICATIONS AND APPLY FOR AND OBTAIN NECESSARY PERMITS, PAY FEES, AND POST BONDS ASSOCIATED WITH THE WORK INDICATED ON THE DRAWINGS, IN THE SPECIFICATIONS, AND IN THE CONTRACT DOCUMENTS. DO NOT CLOSE OR OBSTRUCT ROADWAYS, SIDEWALKS, AND FIRE HYDRANTS, WITHOUT APPROPRIATE PERMITS.
8. TRAFFIC SIGNAGE AND PAVEMENT MARKINGS SHALL CONFORM TO THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.
9. AREAS OUTSIDE THE LIMITS OF PROPOSED WORK DISTURBED BY THE CONTRACTOR'S OPERATIONS SHALL BE RESTORED BY THE CONTRACTOR TO THEIR ORIGINAL CONDITION AT THE CONTRACTOR'S EXPENSE.
10. IN THE EVENT THAT SUSPECTED CONTAMINATED SOIL, GROUNDWATER, AND OTHER MEDIA ARE ENCOUNTERED DURING EXCAVATION AND CONSTRUCTION ACTIVITIES BASED ON VISUAL, OLFACTORY, OR OTHER EVIDENCE, THE CONTRACTOR SHALL STOP WORK IN THE VICINITY OF THE SUSPECT MATERIAL TO AVOID FURTHER SPREADING OF THE MATERIAL, AND SHALL NOTIFY THE OWNER IMMEDIATELY SO THAT THE APPROPRIATE TESTING AND SUBSEQUENT ACTION CAN BE TAKEN.
11. CONTRACTOR SHALL PREVENT DUST, SEDIMENT, AND DEBRIS FROM EXITING THE SITE AND SHALL BE RESPONSIBLE FOR CLEANUP, REPAIRS AND CORRECTIVE ACTION IF SUCH OCCURS.
12. DAMAGE RESULTING FROM CONSTRUCTION LOADS SHALL BE REPAIRED BY THE CONTRACTOR AT NO ADDITIONAL COST TO OWNER.
13. CONTRACTOR SHALL CONTROL STORMWATER RUNOFF DURING CONSTRUCTION TO PREVENT ADVERSE IMPACTS TO OFF SITE AREAS, AND SHALL BE RESPONSIBLE TO REPAIR RESULTING DAMAGES, IF ANY, AT NO COST TO OWNER.
14. THIS PROJECT DISTURBS MORE THAN ONE ACRE OF LAND AND FALLS WITHIN THE NPDES CONSTRUCTION GENERAL PERMIT (CGP) PROGRAM AND EPA JURISDICTION. PRIOR TO THE START OF CONSTRUCTION CONTRACTOR IS TO FILE A CGP NOTICE OF INTENT WITH THE EPA AND PREPARE A STORMWATER POLLUTION PREVENTION PLAN IN ACCORDANCE WITH THE NPDES REGULATIONS. CONTRACTOR SHALL CONFIRM THE OWNER HAS ALSO FILED A NOTICE OF INTENT WITH THE EPA.

Utilities

1. THE LOCATIONS, SIZES, AND TYPES OF EXISTING UTILITIES ARE SHOWN AS AN APPROXIMATE REPRESENTATION ONLY. THE OWNER OR ITS REPRESENTATIVE(S) HAVE NOT INDEPENDENTLY VERIFIED THIS INFORMATION AS SHOWN ON THE PLANS. THE UTILITY INFORMATION SHOWN DOES NOT GUARANTEE THE ACTUAL EXISTENCE, SERVICEABILITY, OR OTHER DATA CONCERNING THE UTILITIES, NOR DOES IT GUARANTEE AGAINST THE POSSIBILITY THAT ADDITIONAL UTILITIES MAY BE PRESENT THAT ARE NOT SHOWN ON THE PLANS. PRIOR TO ORDERING MATERIALS AND BEGINNING CONSTRUCTION, THE CONTRACTOR SHALL VERIFY AND DETERMINE THE EXACT LOCATIONS, SIZES, AND ELEVATIONS OF THE POINTS OF CONNECTIONS TO EXISTING UTILITIES AND, SHALL CONFIRM THAT THERE ARE NO INTERFERENCES WITH EXISTING UTILITIES AND THE PROPOSED UTILITY ROUTES, INCLUDING ROUTES WITHIN THE PUBLIC RIGHTS OF WAY.
2. WHERE AN EXISTING UTILITY IS FOUND TO CONFLICT WITH THE PROPOSED WORK, OR EXISTING CONDITIONS DIFFER FROM THOSE SHOWN SUCH THAT THE WORK CANNOT BE COMPLETED AS INTENDED, THE LOCATION, ELEVATION, AND SIZE OF THE UTILITY SHALL BE ACCURATELY DETERMINED WITHOUT DELAY BY THE CONTRACTOR, AND THE INFORMATION FURNISHED IN WRITING TO THE OWNER'S REPRESENTATIVE FOR THE RESOLUTION OF THE CONFLICT AND CONTRACTOR'S FAILURE TO NOTIFY PRIOR TO PERFORMING ADDITIONAL WORK RELEASES OWNER FROM OBLIGATIONS FOR ADDITIONAL PAYMENTS WHICH OTHERWISE MAY BE WARRANTED TO RESOLVE THE CONFLICT.
3. SET CATCH BASIN RIMS, AND INVERTS OF SEWERS, DRAINS, AND DITCHES IN ACCORDANCE WITH ELEVATIONS ON THE GRADING AND UTILITY PLANS.
4. RIM ELEVATIONS FOR DRAIN AND SEWER MANHOLES, WATER VALVE COVERS, GAS GATES, ELECTRIC AND TELEPHONE PULL BOXES, AND MANHOLES, AND OTHER SUCH ITEMS, ARE APPROXIMATE AND SHALL BE SET/RESET AS FOLLOWS:
   - A. PAVEMENTS AND CONCRETE SURFACES: FLUSH
   - B. ALL SURFACES ALONG ACCESSIBLE ROUTES: FLUSH
   - C. LANDSCAPE, LOAM AND SEED, AND OTHER EARTH SURFACE AREAS: ONE INCH ABOVE SURROUNDING AREA AND TAPER EARTH TO THE RIM ELEVATION.
5. THE LOCATION, SIZE, DEPTH, AND SPECIFICATIONS FOR CONSTRUCTION OF PROPOSED PRIVATE UTILITY SERVICES SHALL BE INSTALLED ACCORDING TO THE REQUIREMENTS PROVIDED BY, AND APPROVED BY, THE RESPECTIVE UTILITY COMPANY (GAS, TELEPHONE, ELECTRIC, FIRE ALARM, ETC.). FINAL DESIGN LOADS AND LOCATIONS TO BE COORDINATED WITH OWNER AND ARCHITECT.
6. CONTRACTOR SHALL MAKE ARRANGEMENTS FOR AND SHALL BE RESPONSIBLE FOR PAYING FEES FOR POLE RELOCATION AND FOR THE ALTERATION AND ADJUSTMENT OF GAS, ELECTRIC, TELEPHONE, FIRE ALARM, AND ANY OTHER PRIVATE UTILITIES, WHETHER WORK IS PERFORMED BY CONTRACTOR OR BY THE UTILITIES COMPANY.
7. UTILITY PIPE MATERIALS SHALL BE AS FOLLOWS, UNLESS OTHERWISE NOTED ON THE PLAN:
   - A. WATER PIPES SHALL BE CLASS 52 CEMENT LINED DUCTILE IRON (CLDI).
   - B. SANITARY SEWER PIPES SHALL BE SDR 35 POLYVINYL CHLORIDE (PVC).
   - C. STORM DRAINAGE PIPES SHALL BE HIGH DENSITY POLYETHYLENE (HDPE).
   - D. PIPE INSTALLATION AND MATERIALS SHALL COMPLY WITH THE STATE PLUMBING CODE WHERE APPLICABLE. CONTRACTOR SHALL COORDINATE WITH LOCAL PLUMBING INSPECTOR PRIOR TO BEGINNING WORK.
8. CONTRACTOR SHALL COORDINATE WITH ELECTRICAL CONTRACTOR AND SHALL FURNISH EXCAVATION, INSTALLATION, AND BACKFILL OF ELECTRICAL FURNISHED SITEWORK RELATED ITEMS SUCH AS PULL BOXES, CONDUITS, DUCT BANKS, LIGHT POLE BASES, AND CONCRETE PADS. SITE CONTRACTOR SHALL FURNISH CONCRETE ENCASEMENT OF DUCT BANKS IF REQUIRED BY THE UTILITY COMPANY AND AS INDICATED ON THE DRAWINGS.
9. CONTRACTOR SHALL EXCAVATE AND BACKFILL TRENCHES FOR GAS IN ACCORDANCE WITH GAS COMPANY'S REQUIREMENTS.
10. ALL DRAINAGE AND SANITARY STRUCTURE INTERIOR DIAMETERS (4' MIN.) SHALL BE DETERMINED BY THE MANUFACTURER BASED ON THE PIPE CONFIGURATIONS SHOWN ON THESE PLANS AND LOCAL MUNICIPAL STANDARDS. FOR MANHOLES THAT ARE 20 FEET IN DEPTH AND GREATER, THE MINIMUM DIAMETER SHALL BE 5 FEET.

Layout and Materials

1. DIMENSIONS ARE FROM THE FACE OF CURB, FACE OF BUILDING, FACE OF WALL, AND CENTER LINE OF PAVEMENT MARKINGS, UNLESS OTHERWISE NOTED.
2. CURB RADII ARE 3 FEET UNLESS OTHERWISE NOTED.
3. CURBING SHALL BE VERTICAL GRANITE WITHIN THE SITE UNLESS OTHERWISE INDICATED ON THE PLANS.
4. SEE ARCHITECTURAL DRAWINGS FOR EXACT BUILDING DIMENSIONS AND DETAILS CONTIGUOUS TO THE BUILDING, INCLUDING SIDEWALKS, RAMPS, BUILDING ENTRANCES, STAIRWAYS, UTILITY PENETRATIONS, CONCRETE DOOR PADS, COMPACTOR PAD, LOADING DOCKS, BOLLARDS, ETC.
5. PROPOSED BOUNDS AND ANY EXISTING PROPERTY LINE MONUMENTATION DISTURBED DURING CONSTRUCTION SHALL BE SET OR RESET BY A PROFESSIONAL LAND SURVEYOR.
6. PRIOR TO START OF CONSTRUCTION, CONTRACTOR SHALL VERIFY EXISTING PAVEMENT ELEVATIONS AT INTERFACE WITH PROPOSED PAVEMENTS, AND EXISTING GROUND ELEVATIONS ADJACENT TO DRAINAGE OUTLETS TO ASSURE PROPER TRANSITIONS BETWEEN EXISTING AND PROPOSED FACILITIES.

Demolition

1. PROJECT PRESENTED HEREIN IS THE ADAPTIVE REUSE OF AN EXISTING SITE. TO THE EXTENT REQUIRED TO BUILD THE PROJECT, CONTRACTOR SHALL REMOVE AND DISPOSE OF EXISTING MANMADE SURFACE FEATURES WITHIN THE LIMIT OF WORK INCLUDING BUILDINGS, STRUCTURES, PAVEMENTS, SLABS, CURBING, FENCES, UTILITY POLES, SIGNS, ETC. UNLESS INDICATED OTHERWISE ON THE DRAWINGS. REMOVE AND DISPOSE OF EXISTING UTILITIES, FOUNDATIONS, AND UNSUITABLE MATERIAL BENEATH AND FOR A DISTANCE OF TEN (10) FEET BEYOND THE PROPOSED BUILDING FOOTPRINT INCLUDING EXTERIOR COLUMNS.
2. EXISTING UTILITIES SHALL BE TERMINATED, UNLESS OTHERWISE NOTED, IN CONFORMANCE WITH LOCAL, STATE AND INDIVIDUAL UTILITY COMPANY STANDARD SPECIFICATIONS AND DETAILS. THE CONTRACTOR SHALL COORDINATE UTILITY SERVICE DISCONNECTS WITH THE UTILITY REPRESENTATIVES.
3. CONTRACTOR SHALL DISPOSE OF DEMOLITION DEBRIS IN ACCORDANCE WITH APPLICABLE FEDERAL, STATE AND LOCAL REGULATIONS, ORDINANCES AND STATUTES.
4. THE DEMOLITION LIMITS DEPICTED IN THE PLANS IS INTENDED TO AID THE CONTRACTOR DURING THE BIDDING AND CONSTRUCTION PROCESS AND IS NOT INTENDED TO DEPICT EACH AND EVERY ELEMENT OF DEMOLITION. THE CONTRACTOR IS RESPONSIBLE FOR IDENTIFYING THE DETAILED SCOPE OF DEMOLITION BEFORE SUBMITTING ITS BID/PROPOSAL TO PERFORM THE WORK AND SHALL MAKE NO CLAIMS AND SEEK NO ADDITIONAL COMPENSATION FOR CHANGED CONDITIONS OR UNFORESEEN OR LATENT SITE CONDITIONS RELATED TO ANY CONDITIONS DISCOVERED DURING EXECUTION OF THE WORK.
5. UNLESS OTHERWISE SPECIFICALLY PROVIDED ON THE PLANS OR IN THE SPECIFICATIONS, THE ENGINEER HAS NOT PREPARED DESIGNS FOR AND SHALL HAVE NO RESPONSIBILITY FOR THE PRESENCE, DISCOVERY, REMOVAL, ABATEMENT OR DISPOSAL OF HAZARDOUS MATERIALS, TOXIC WASTES OR POLLUTANTS AT THE PROJECT SITE. THE ENGINEER SHALL NOT BE RESPONSIBLE FOR ANY CLAIMS OF LOSS, DAMAGE, EXPENSE, DELAY, INJURY OR DEATH ARISING FROM THE PRESENCE OF HAZARDOUS MATERIAL AND CONTRACTOR SHALL INDEMNIFY AND HOLD HARMLESS THE ENGINEER FROM ANY CLAIMS MADE IN CONNECTION THEREWITH. MOREOVER, THE ENGINEER SHALL HAVE NO ADMINISTRATIVE OBLIGATIONS OF ANY TYPE WITH REGARD TO ANY CONTRACTOR AMENDMENT INVOLVING THE ISSUES OF PRESENCE, DISCOVERY, REMOVAL, ABATEMENT OR DISPOSAL OF ASBESTOS OR OTHER HAZARDOUS MATERIALS.

Erosion Control

1. PRIOR TO STARTING ANY OTHER WORK ON THE SITE, THE CONTRACTOR SHALL NOTIFY APPROPRIATE AGENCIES AND SHALL INSTALL EROSION CONTROL MEASURES AS SHOWN ON THE PLANS AND AS IDENTIFIED IN FEDERAL, STATE, AND LOCAL APPROVAL DOCUMENTS PERTAINING TO THIS PROJECT.
2. CONTRACTOR SHALL INSPECT AND MAINTAIN EROSION CONTROL MEASURES ON A WEEKLY BASIS (MINIMUM) OR AS REQUIRED PER THE STORMWATER POLLUTION PREVENTION PLAN (SWPPP). THE CONTRACTOR SHALL ADDRESS DEFICIENCIES AND MAINTENANCE ITEMS WITHIN TWENTY-FOUR HOURS OF INSPECTION. CONTRACTOR SHALL PROPERLY DISPOSE OF SEDIMENT SUCH THAT IT DOES NOT ENCUMBER OTHER DRAINAGE STRUCTURES AND PROTECTED AREAS.
3. CONTRACTOR SHALL BE FULLY RESPONSIBLE TO CONTROL CONSTRUCTION SUCH THAT SEDIMENTATION SHALL NOT AFFECT REGULATORY PROTECTED AREAS, WHETHER SUCH SEDIMENTATION IS CAUSED BY WATER, WIND, OR DIRECT DEPOSIT.
4. CONTRACTOR SHALL PERFORM CONSTRUCTION SEQUENCING SUCH THAT EARTH MATERIALS ARE EXPOSED FOR A MINIMUM OF TIME BEFORE THEY ARE COVERED, SEEDED, OR OTHERWISE STABILIZED TO PREVENT EROSION.
5. UPON COMPLETION OF CONSTRUCTION AND ESTABLISHMENT OF PERMANENT GROUND COVER, CONTRACTOR SHALL REMOVE AND DISPOSE OF EROSION CONTROL MEASURES AND CLEAN SEDIMENT AND DEBRIS FROM ENTIRE DRAINAGE AND SEWER SYSTEMS.

Existing Conditions Information

1. BASE PLAN: THE PROPERTY LINES AND EXISTING CONDITIONS ARE SHOWN BASED ON "ALTA/NSPS LAND TITLE SURVEY 557 HIGHLAND AVENUE", PREPARED BY FELDMAN LAND SURVEYORS, DATED 12/09/2021.
2. TOPOGRAPHY: ELEVATIONS ARE BASED ON NAVD88.
3. GEOTECHNICAL DATA INCLUDING TEST PIT AND BORING LOCATIONS AND ELEVATIONS WERE OBTAINED FROM A MEMO ENTITLED "PRELIMINARY EVALUATION OF SOIL HYDRAULIC CONDUCTIVITY", PREPARED BY MCPHAIL ASSOCIATES, DATED MARCH 18, 2022.

Document Use

1. THESE PLANS AND CORRESPONDING CADD DOCUMENTS ARE INSTRUMENTS OF PROFESSIONAL SERVICE, AND SHALL NOT BE USED, IN WHOLE OR IN PART, FOR ANY PURPOSE OTHER THAN FOR WHICH IT WAS CREATED WITHOUT THE EXPRESSED, WRITTEN CONSENT OF VHB. ANY UNAUTHORIZED USE, REUSE, MODIFICATION OR ALTERATION, INCLUDING AUTOMATED CONVERSION OF THIS DOCUMENT SHALL BE AT THE USER'S SOLE RISK WITHOUT LIABILITY OR LEGAL EXPOSURE TO VHB.
2. CONTRACTOR SHALL NOT RELY SOLELY ON ELECTRONIC VERSIONS OF PLANS, SPECIFICATIONS, AND DATA FILES THAT ARE OBTAINED FROM THE DESIGNERS, BUT SHALL VERIFY LOCATION OF PROJECT FEATURES IN ACCORDANCE WITH THE PAPER COPIES OF THE PLANS AND SPECIFICATIONS THAT ARE SUPPLIED AS PART OF THE CONTRACT DOCUMENTS.
3. SYMBOLS AND LEGENDS OF PROJECT FEATURES ARE GRAPHIC REPRESENTATIONS AND ARE NOT NECESSARILY SCALED TO THEIR ACTUAL DIMENSIONS OR LOCATIONS ON THE DRAWINGS. THE CONTRACTOR SHALL REFER TO THE DETAIL SHEET DIMENSIONS, MANUFACTURERS' LITERATURE, SHOP DRAWINGS AND FIELD MEASUREMENTS OF SUPPLIED PRODUCTS FOR LAYOUT OF THE PROJECT FEATURES.

Stantec
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Issued/Revision	By	Appd	YYYY.MM.DD
SPECIAL PERMIT PACKAGE R1			2022.08.15
SPECIAL PERMIT PACKAGE			2022.03.30

Permit/Seal
COMMONWEALTH OF MASSACHUSETTS
NICHOLAS J. SKOLY
CIVIL
No. 52677
REGISTERED PROFESSIONAL ENGINEER

SPECIAL PERMIT PACKAGE R1
08/15/2022
(FOR 09/07/2022 PLANNING BOARD SPECIAL PERMIT PUBLIC HEARING)

Client/Project
Bulfinch
HIGHLAND INNOVATION CENTER
557 Highland Ave
NEEDHAM, MA 02494

Project No.: 15306.00
File Name: N/A
Scale:

Author	Designer	Checker	2022.09.07
Dwn.	Dsgn.	Chkd.	YYYY.MM.DD

Title
LEGEND AND GENERAL NOTES

Revision:
Drawing No.
C-01

Parking Summary Chart

Description	Size Required	Size Provided	Spaces Required	Spaces Provided
STANDARD SPACES	9 x 18.5	9 x 18.5		661[1]
COMPACT SPACES (50% ALLOWED)	8 x 16	8 x 16	-	698[2]
STANDARD ACCESSIBLE SPACES	8 x 18.5	8 x 18.5	20[3]	24[4]
VAN ACCESSIBLE SPACES	8 x 18.5	8 x 18.5	4[3]	7[5]
TOTAL SPACES			1,678	1,390[6]
LOADING BAYS			**	2

1. REQUIRED ACCESSIBLE SPACES BASED ON TOTAL PROVIDED SPACES PER ADA/MAAB REQUIREMENTS.
2. INCLUDES 633 GARAGE/BUILDING SPACES.
3. INCLUDES 698 GARAGE/BUILDING SPACES.
4. INCLUDES 24 GARAGE/BUILDING SPACES.
5. INCLUDES 5 GARAGE/BUILDING SPACES.
6. APPLICANT IS REQUESTING A SPECIAL PERMIT FOR DEVIATION FROM THE REQUIRED NUMBER OF PARKING SPACES.

** ADEQUATE OFF-STREET LOADING FACILITIES SHALL BE PROVIDED.

Parking Requirements:

OFFICE	239,974 SF	x	1 SPACES	/	300	= 800 SPACES
R&D	239,974 SF	x	1 SPACES	/	300	= 800 SPACES
RETAIL	10,052 SF	x	1 SPACES	/	300	= 34 SPACES
RESTAURANT	100 SEATS	x	1 SPACES	/	3 SEAT	= 34 SPACES
	1 TAKEOUT STATION	x	10 SPACES	/	1 TAKEOUT STATION	= 10 SPACES
					TOTAL PARKING REQUIRED	= 1,678 SPACES

Zoning Summary Chart

Zoning District(s): Highway Commercial 1

Overlay District(s):

Zoning Regulation Requirements	Required*	Provided
MINIMUM LOT AREA	0.5 Acres	391,846 SF
FRONTAGE	100 Feet	> 100 Feet
FRONT YARD SETBACK	See Plan	> 50 Feet
SIDE YARD SETBACK	See Plan	> 10 Feet
REAR YARD SETBACK	See Plan	> 20 Feet
MINIMUM LOT WIDTH	100 Feet	> 100 Feet
MAXIMUM FLOOR AREA RATIO	0.70 [1]	1.25
MAXIMUM BUILDING HEIGHT	56 Feet [2,3,4]	42 / 70 Feet
MAXIMUM LOT COVERAGE	65.0 %	47.9 %
MINIMUM OPEN SPACE	25.0 %	> 25.0%
INTERIOR PARKING LANDSCAPING PERCENTAGE	10.0 %	> 10%

* Zoning regulation requirements as specified in Zoning By-Law of the Town of Needham dated June, 2020, and amended through August 21, 2021.

1. Floor area ratio of up to 1.35 may be allowed by a Special Permit from the Planning Board per §4.11.1(5).
2. Buildings within 200 feet of Highland Avenue or the extension of the right-of-way line or within 200 feet of Gould Street shall be limited to a height of 35 feet and 2.5 stories as-of-right. The maximum height may be increased to 42 feet and 3 stories by Special Permit from the Planning Board per §4.11.1(1)(a,b).
3. The maximum building height may be increased to 70 feet and 5 stories by Special Permit from the Planning Board, provided the building is not located within 200 feet of Highland Avenue or the extension of the right-of-way line or within 200 feet of Gould Street per §4.11.1(1)(b).
4. The height of a parking garage may not exceed 44 feet. The maximum height may be increased to 55 feet by Special Permit from the Planning Board per §4.11.2(1).

Notes

1. REFER TO LANDSCAPE PLANS FOR DETAILED SITE LAYOUT AND MATERIALS INFORMATION.
2. REFER TO ARCHITECTURAL PLANS FOR PROPOSED GARAGE PARKING SPACES.

0 15 30 60 Feet

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Issued/Revision	By	Appd	YYYY.MM.DD
100% SPECIAL PERMIT SUBMISSION			2022.08.15

Permit/Seal
COMMONWEALTH OF MASSACHUSETTS
NICHOLAS J. SKOLY
CIVIL
No. 52677
PROFESSIONAL ENGINEER

SPECIAL PERMIT PACKAGE R1
08/15/2022
(FOR 09/07/2022 PLANNING BOARD SPECIAL PERMIT PUBLIC HEARING)

Client/Project
Bulfinch
HIGHLAND INNOVATION CENTER
557 Highland Ave.
NEEDHAM, MA 02494

Project No.: 15306.00
File Name: N/A
Scale: 1" = 30'-0"

Author	Designer	Checker	2022.09.07
Dwn.	Dsgn.	Chkd.	YYYY.MM.DD

Title
OVERALL SITE PLAN-REVISION

Revision:
Drawing No.
C-02

Parking Summary Chart

Description	Size Required	Size Provided	Spaces Required	Spaces Provided
STANDARD SPACES	9 x 18.5	9 x 18.5		661[1]
COMPACT SPACES (50% ALLOWED)	8 x 16	8 x 16	-	698[2]
STANDARD ACCESSIBLE SPACES	8 x 18.5	8 x 18.5	20[3]	24[4]
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TOTAL SPACES			1,678	1,390[6]
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4. The height of a parking garage may not exceed 44 feet. The maximum height may be increased to 55 feet by Special Permit from the Planning Board per §4.11.2(1).

Notes

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2. REFER TO ARCHITECTURAL PLANS FOR PROPOSED GARAGE PARKING SPACES.

0 15 30 60 Feet

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No.	Issued/Revision	By	Appd	YYYY.MM.DD
1	SPECIAL PERMIT PACKAGE R1			2022.08.15

Permit/Seal

COMMONWEALTH OF MASSACHUSETTS
NICHOLAS J. SKOLY
CIVIL
No. 52677
REGISTERED PROFESSIONAL ENGINEER

SPECIAL PERMIT PACKAGE R1
08/15/2022
(FOR 09/07/2022 PLANNING BOARD SPECIAL PERMIT PUBLIC HEARING)

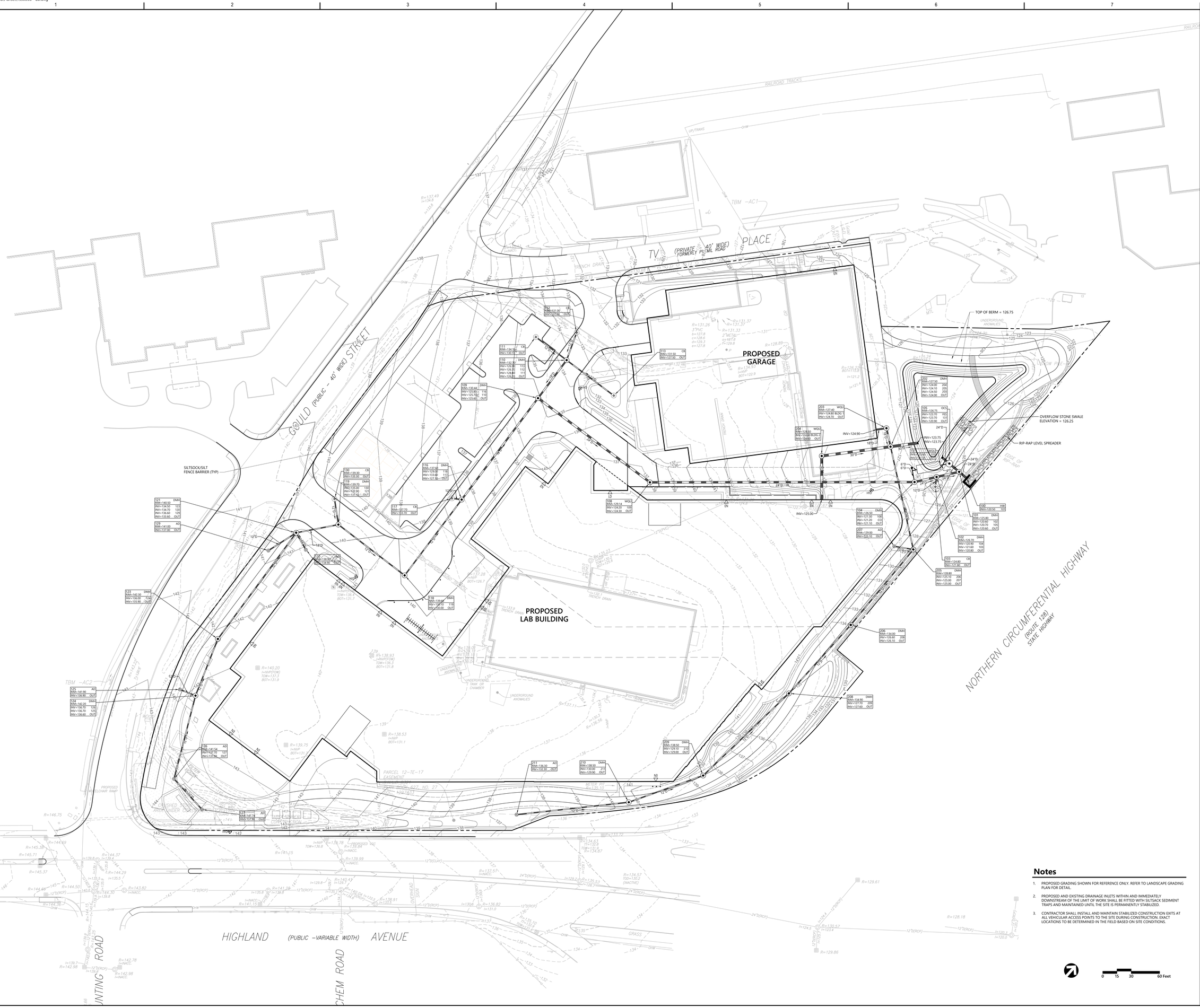
Client/Project
Bulfinch
HIGHLAND INNOVATION CENTER
557 Highland Ave.
NEEDHAM, MA 02494

Project No.: 15306.00
File Name: N/A
Scale: 1" = 30'-0"

Author	Designer	Checker	2022.09.07
Dwn.	Dsgn.	Chkd.	YYYY.MM.DD

Title
OVERALL SITE PLAN

Revision:
Drawing No.
C-02B



Notes

1. PROPOSED GRADING SHOWN FOR REFERENCE ONLY. REFER TO LANDSCAPE GRADING PLAN FOR DETAIL.
2. PROPOSED AND EXISTING DRAINAGE INLETS WITHIN AND IMMEDIATELY DOWNSTREAM OF THE LIMIT OF WORK SHALL BE FITTED WITH SILTSACK SEDIMENT TRAPS AND MAINTAINED UNTIL THE SITE IS PERMANENTLY STABILIZED.
3. CONTRACTOR SHALL INSTALL AND MAINTAIN STABILIZED CONSTRUCTION EXITS AT ALL VEHICULAR ACCESS POINTS TO THE SITE DURING CONSTRUCTION. EXACT LOCATIONS TO BE DETERMINED IN THE FIELD BASED ON SITE CONDITIONS.

0 15 30 60 Feet

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Issued/Revision	By	Appd	YYYY.MM.DD
SPECIAL PERMIT PACKAGE R1			2022.08.15
SPECIAL PERMIT PACKAGE			2022.03.30

Permit/Seal

COMMONWEALTH OF MASSACHUSETTS
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SPECIAL PERMIT PACKAGE R1
08/15/2022
(FOR 09/07/2022 PLANNING BOARD SPECIAL PERMIT PUBLIC HEARING)

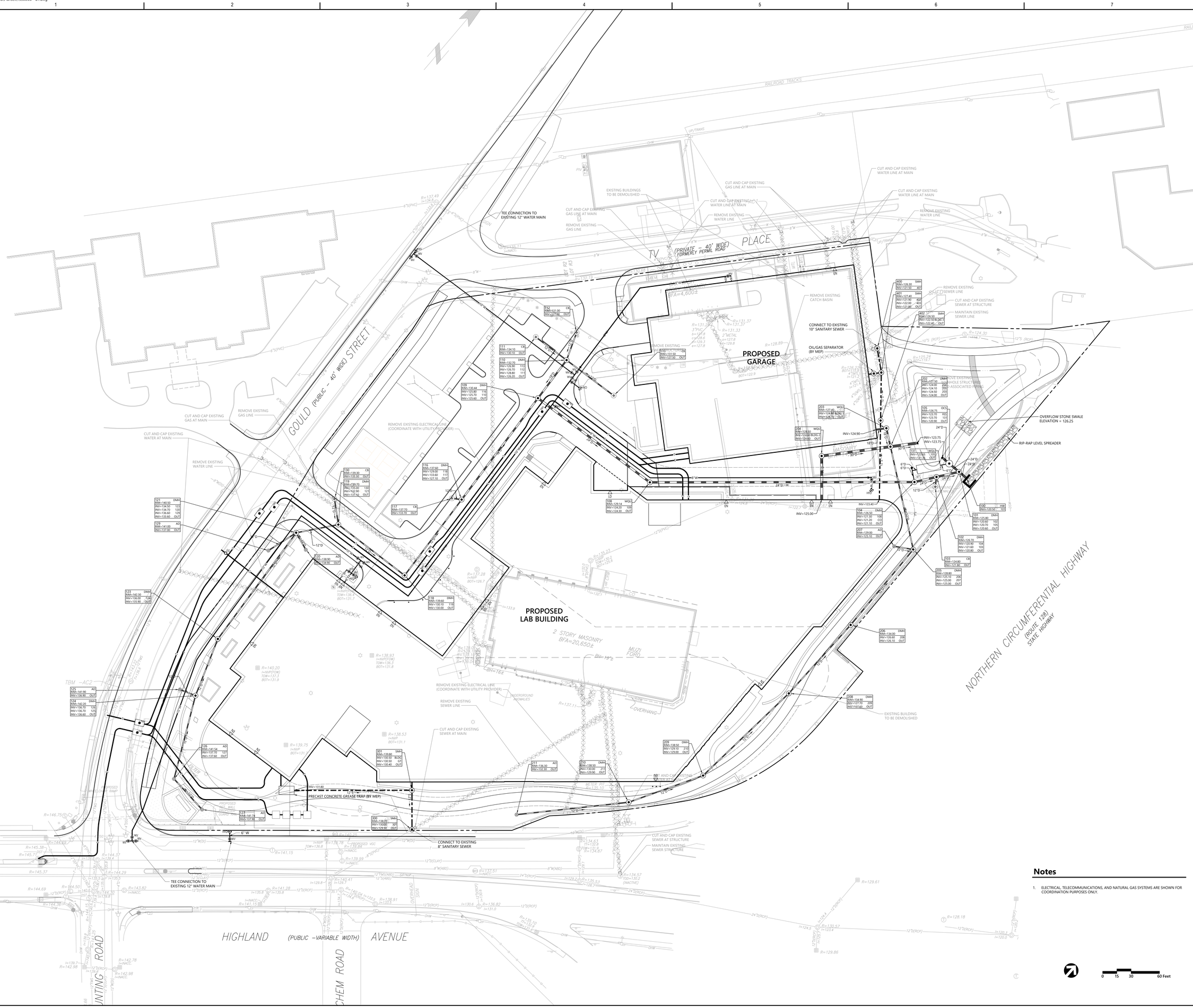
Client/Project
Bulfinch
HIGHLAND INNOVATION CENTER
557 Highland Ave
NEEDHAM, MA 02494

Project No.: 15306.00
File Name: N/A
Scale: 1" = 30'-0"

Author	Designer	Checker	2022.09.07
Dwn.	Dsgn.	Chkd.	YYYY.MM.DD

Title
DRAINAGE AND EROSION CONTROL PLAN

Revision:
Drawing No.
C-03



Notes

1. ELECTRICAL, TELECOMMUNICATIONS, AND NATURAL GAS SYSTEMS ARE SHOWN FOR COORDINATION PURPOSES ONLY.

0 15 30 60 Feet

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Issued/Revision	By	Appd	YYYY.MM.DD
1 ADDRESS PLANNING BOARD COMMENTS			2022.08.15

Permit/Seal

COMMONWEALTH OF MASSACHUSETTS
NICHOLAS J. SKOLY
CIVIL
No. 52677
REGISTERED PROFESSIONAL ENGINEER

SPECIAL PERMIT PACKAGE R1
08/15/2022
(FOR 09/07/2022 PLANNING BOARD SPECIAL PERMIT PUBLIC HEARING)

Client/Project
Bulfinch
HIGHLAND INNOVATION CENTER
557 Highland Ave
NEEDHAM, MA 02494

Project No.: 15306.00
File Name: N/A
Scale: 1" = 30'-0"

Author	Designer	Checker	2022.09.07
Dwn.	Dsgn.	Chkd.	YYYY.MM.DD

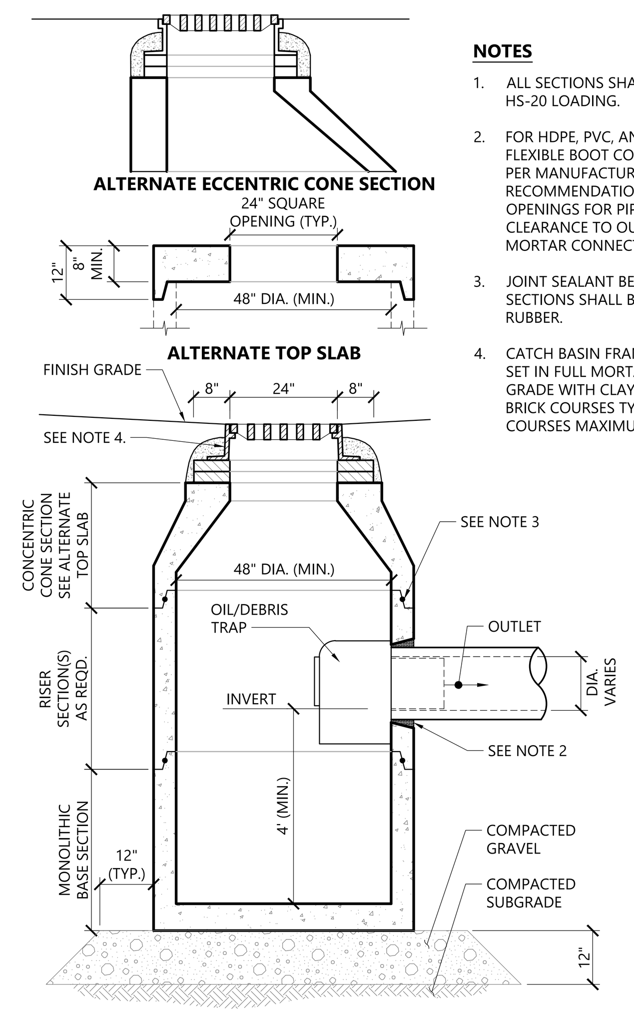
Title
UTILITY PLAN

Revision:
Drawing No.
C-04

Saved Friday, August 12, 2022 10:28:16 AM SSIMMONS Plotted Tuesday, August 16, 2022 9:20:50 AM Sean Diamond

ORIGINAL SHEET - ARCH E

\\vhb\gbl\proj\Boston\15306.00\cad\ld\Planset\15306.00 - DT.dwg



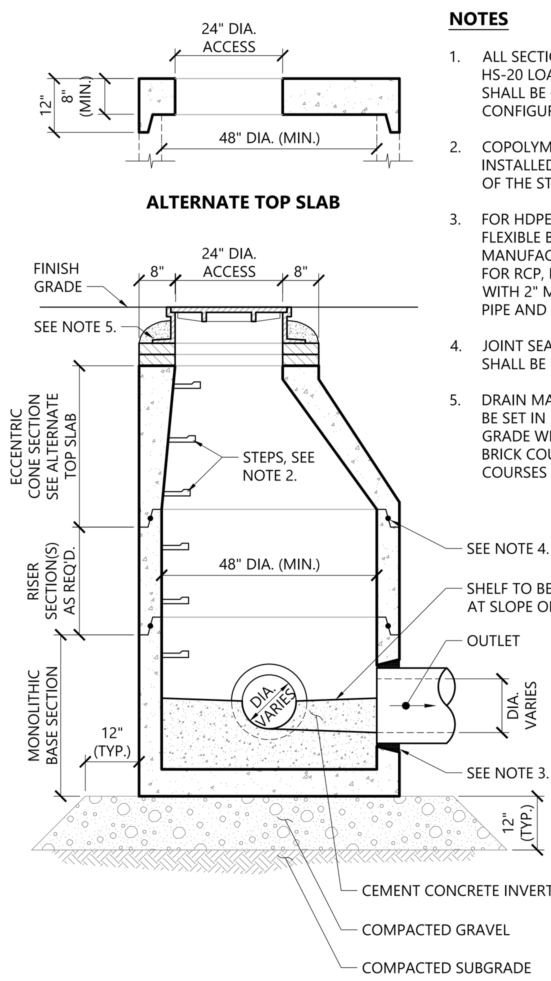
NOTES

1. ALL SECTIONS SHALL BE DESIGNED FOR HS-20 LOADING.
2. FOR HDPE, PVC, AND DI PIPE, PROVIDE FLEXIBLE BOOT CONNECTION INSTALLED PER MANUFACTURER'S RECOMMENDATIONS. FOR RCP, PROVIDE OPENINGS FOR PIPES WITH 2" MAX. CLEARANCE TO OUTSIDE OF PIPE AND MORTAR CONNECTIONS.
3. JOINT SEALANT BETWEEN PRECAST SECTIONS SHALL BE PREFORMED BUTYL RUBBER.
4. CATCH BASIN FRAME AND GRATE SHALL BE SET IN FULL MORTAR BED. ADJUST TO GRADE WITH CLAY BRICK AND MORTAR (2 BRICK COURSES TYPICALLY, 5 BRICK COURSES MAXIMUM).

Catch Basin (CB) With Oil/Debris Trap

3/21

N.T.S. Source: VHB LD_101



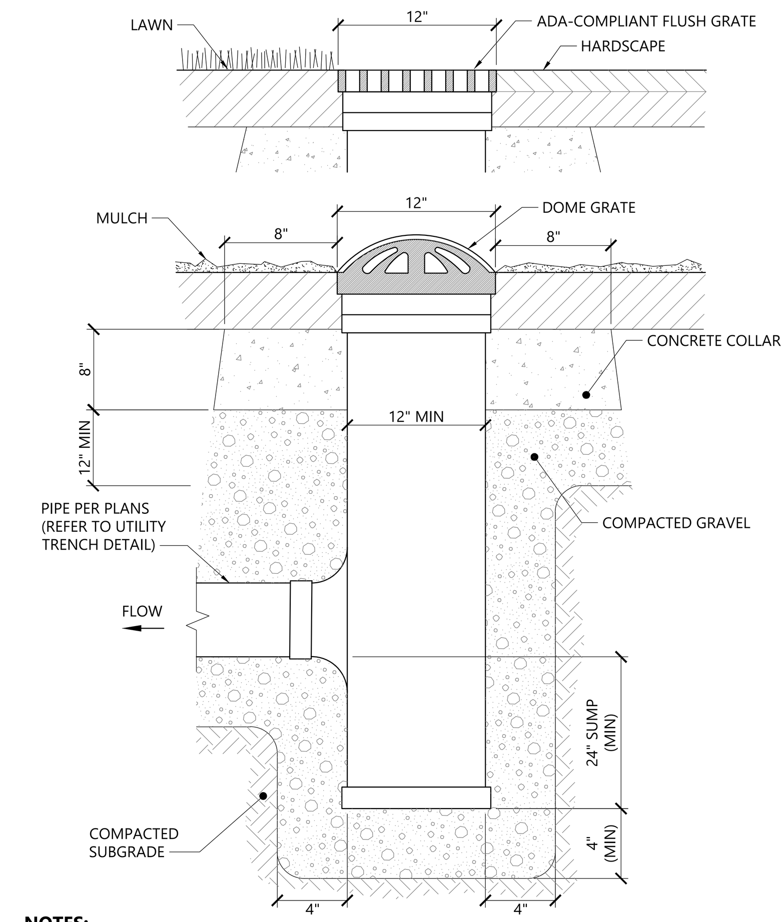
NOTES

1. ALL SECTIONS SHALL BE DESIGNED FOR HS-20 LOADING. DIAMETER OF STRUCTURES SHALL BE COORDINATED WITH PIPE CONFIGURATIONS.
2. COPOLYMER MANHOLE STEPS SHALL BE INSTALLED AT 12" O.C. FOR THE FULL DEPTH OF THE STRUCTURE.
3. FOR HDPE, PVC, AND DI PIPE, PROVIDE FLEXIBLE BOOT CONNECTION INSTALLED PER MANUFACTURER'S RECOMMENDATIONS. FOR RCP, PROVIDE OPENINGS FOR PIPES WITH 2" MAX. CLEARANCE TO OUTSIDE OF PIPE AND MORTAR CONNECTIONS.
4. JOINT SEALANT BETWEEN PRECAST SECTIONS SHALL BE PREFORMED BUTYL RUBBER.
5. DRAIN MANHOLE FRAME AND COVER SHALL BE SET IN FULL MORTAR BED. ADJUST TO GRADE WITH CLAY BRICK AND MORTAR (2 BRICK COURSES TYPICALLY, 5 BRICK COURSES MAXIMUM)

Drain Manhole (DMH)

11/19

N.T.S. Source: VHB LD_115



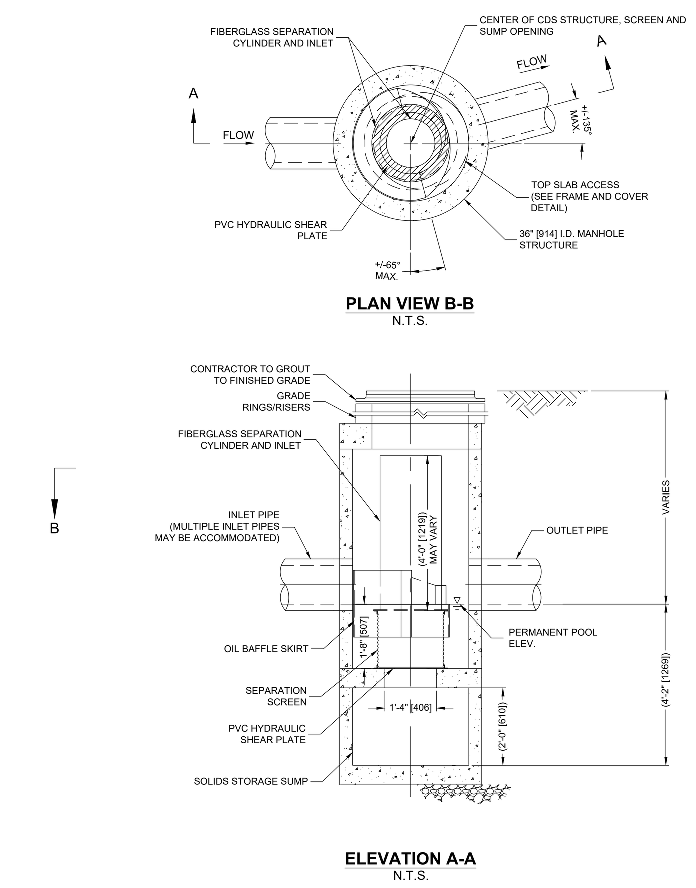
NOTES:

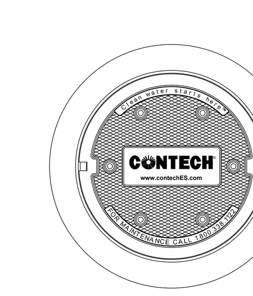
1. AREA DRAINS SHALL BE NYLOPLAST 12" DIAMETER DRAIN BASIN, OR APPROVED EQUAL.
2. GRATES SHALL BE NYLOPLAST 12" PEDESTRIAN MODEL 1299CGP OR 12" DOME GRATE MODEL 1299CGD (OR APPROVED EQUAL).

Area Drain (AD) Type 1

12/19

N.T.S. Source: VHB LD_193





FRAME AND COVER
(DIAMETER VARIES)
N.T.S.

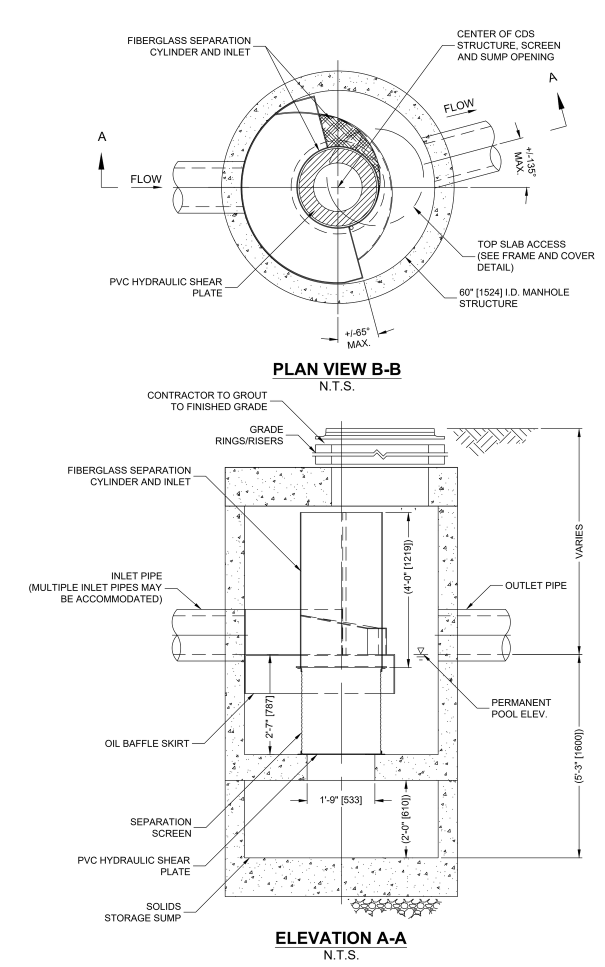
CDS1515-3-C DESIGN NOTES
CDS1515-3-C RATED TREATMENT CAPACITY IS 1.0 CFS, OR PER LOCAL REGULATIONS.
THE STANDARD CDS1515-3-C CONFIGURATION IS SHOWN.

GENERAL NOTES
1. CONTECH TO PROVIDE ALL MATERIALS UNLESS NOTED OTHERWISE.
2. FOR SITE SPECIFIC DRAWINGS WITH DETAILED STRUCTURE DIMENSIONS AND WEIGHT, PLEASE CONTACT YOUR CONTECH ENGINEERED SOLUTIONS LLC REPRESENTATIVE. www.ContechES.com
3. CDS WATER QUALITY STRUCTURE SHALL BE IN ACCORDANCE WITH ALL DESIGN DATA AND INFORMATION CONTAINED IN THIS DRAWING. CONTRACTOR TO CONFIRM STRUCTURE MEETS REQUIREMENTS OF PROJECT.
4. STRUCTURE SHALL MEET AASHTO HS20 LOAD RATING, ASSUMING EARTH COVER OF 0' - 2', AND GROUNDWATER ELEVATION AT, OR BELOW, THE OUTLET PIPE INVERT ELEVATION. ENGINEER OF RECORD TO CONFIRM ACTUAL GROUNDWATER ELEVATION. CASTINGS SHALL MEET AASHTO M306 AND BE CAST WITH THE CONTECH LOGO..
5. IF REQUIRED, PVC HYDRAULIC SHEAR PLATE IS PLACED ON SHELF AT BOTTOM OF SCREEN CYLINDER. REMOVE AND REPLACE AS NECESSARY DURING MAINTENANCE CLEANING.
6. CDS STRUCTURE SHALL BE PRECAST CONCRETE CONFORMING TO ASTM C-478 AND AASHTO LOAD FACTOR DESIGN METHOD.

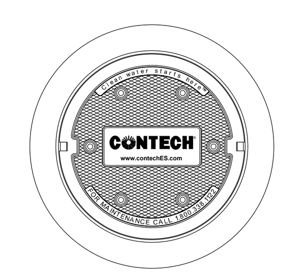
INSTALLATION NOTES
A. ANY SUB-BASE, BACKFILL DEPTH, AND/OR ANTI-FLOTATION PROVISIONS ARE SITE-SPECIFIC DESIGN CONSIDERATIONS AND SHALL BE SPECIFIED BY ENGINEER OF RECORD.
B. CONTRACTOR TO PROVIDE EQUIPMENT WITH SUFFICIENT LIFTING AND REACH CAPACITY TO LIFT AND SET THE CDS MANHOLE STRUCTURE.
C. CONTRACTOR TO INSTALL JOINT SEALANT BETWEEN ALL STRUCTURE SECTIONS AND ASSEMBLE STRUCTURE.
D. CONTRACTOR TO PROVIDE, INSTALL, AND GROUT INLET AND OUTLET PIPE(S). MATCH PIPE INVERTS WITH ELEVATIONS SHOWN. ALL PIPE CENTERLINES TO MATCH PIPE OPENING CENTERLINES.
E. CONTRACTOR TO TAKE APPROPRIATE MEASURES TO ASSURE UNIT IS WATER TIGHT, HOLDING WATER TO FLOWLINE INVERT MINIMUM. IT IS SUGGESTED THAT ALL JOINTS BELOW PIPE INVERTS ARE GROUTED.

WQU-203 (CDS1515-3)

N.T.S. Source: Contech



CDS2020-5-C DESIGN NOTES
CDS2020-5-C RATED TREATMENT CAPACITY IS 2.2 CFS, OR PER LOCAL REGULATIONS.
THE STANDARD CDS2020-5-C CONFIGURATION IS SHOWN. ALTERNATE CONFIGURATIONS ARE AVAILABLE AND ARE LISTED BELOW. SOME CONFIGURATIONS MAY BE COMBINED TO SUIT SITE REQUIREMENTS.
CONFIGURATION DESCRIPTION
GRATED INLET ONLY (NO INLET PIPE)
GRATED INLET WITH INLET PIPE OR PIPES
CURB INLET ONLY (NO INLET PIPE)
CURB INLET WITH INLET PIPE OR PIPES



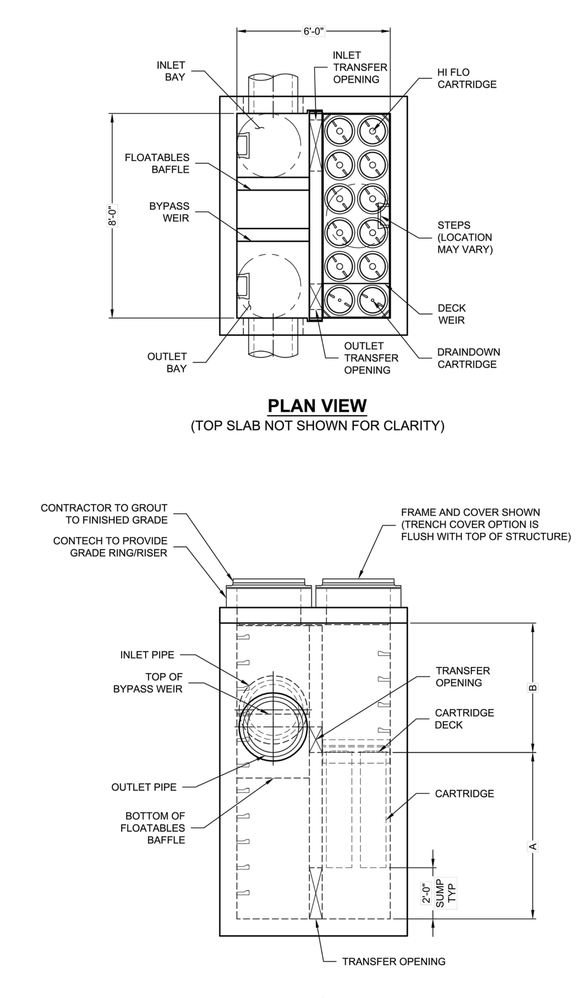
FRAME AND COVER
(DIAMETER VARIES)
N.T.S.

GENERAL NOTES
1. CONTECH TO PROVIDE ALL MATERIALS UNLESS NOTED OTHERWISE.
2. FOR SITE SPECIFIC DRAWINGS WITH DETAILED STRUCTURE DIMENSIONS AND WEIGHT, PLEASE CONTACT YOUR CONTECH ENGINEERED SOLUTIONS LLC REPRESENTATIVE. www.ContechES.com
3. CDS WATER QUALITY STRUCTURE SHALL BE IN ACCORDANCE WITH ALL DESIGN DATA AND INFORMATION CONTAINED IN THIS DRAWING. CONTRACTOR TO CONFIRM STRUCTURE MEETS REQUIREMENTS OF PROJECT.
4. STRUCTURE SHALL MEET AASHTO HS20 LOAD RATING, ASSUMING EARTH COVER OF 0' - 2', AND GROUNDWATER ELEVATION AT, OR BELOW, THE OUTLET PIPE INVERT ELEVATION. ENGINEER OF RECORD TO CONFIRM ACTUAL GROUNDWATER ELEVATION. CASTINGS SHALL MEET AASHTO M306 AND BE CAST WITH THE CONTECH LOGO..
5. IF REQUIRED, PVC HYDRAULIC SHEAR PLATE IS PLACED ON SHELF AT BOTTOM OF SCREEN CYLINDER. REMOVE AND REPLACE AS NECESSARY DURING MAINTENANCE CLEANING.
6. CDS STRUCTURE SHALL BE PRECAST CONCRETE CONFORMING TO ASTM C-478 AND AASHTO LOAD FACTOR DESIGN METHOD.

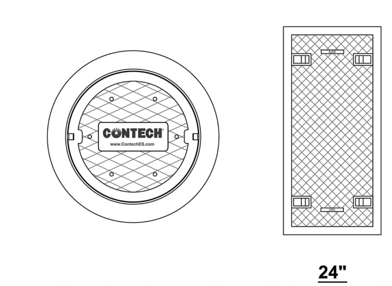
INSTALLATION NOTES
A. ANY SUB-BASE, BACKFILL DEPTH, AND/OR ANTI-FLOTATION PROVISIONS ARE SITE-SPECIFIC DESIGN CONSIDERATIONS AND SHALL BE SPECIFIED BY ENGINEER OF RECORD.
B. CONTRACTOR TO PROVIDE EQUIPMENT WITH SUFFICIENT LIFTING AND REACH CAPACITY TO LIFT AND SET THE CDS MANHOLE STRUCTURE.
C. CONTRACTOR TO INSTALL JOINT SEALANT BETWEEN ALL STRUCTURE SECTIONS AND ASSEMBLE STRUCTURE.
D. CONTRACTOR TO PROVIDE, INSTALL, AND GROUT INLET AND OUTLET PIPE(S). MATCH PIPE INVERTS WITH ELEVATIONS SHOWN. ALL PIPE CENTERLINES TO MATCH PIPE OPENING CENTERLINES.
E. CONTRACTOR TO TAKE APPROPRIATE MEASURES TO ASSURE UNIT IS WATER TIGHT, HOLDING WATER TO FLOWLINE INVERT MINIMUM. IT IS SUGGESTED THAT ALL JOINTS BELOW PIPE INVERTS ARE GROUTED.

WQU-204 (CD2020-5)

N.T.S. Source: Contech



JELLYFISH DESIGN NOTES				
JELLYFISH TREATMENT CAPACITY IS A FUNCTION OF THE CARTRIDGE LENGTH AND THE NUMBER OF CARTRIDGES. THE STANDARD PEAK DIVERSION STYLE WITH PRECAST TOP SLAB IS SHOWN. ALTERNATE OFFLINE VAULT AND/OR SHALLOW ORIENTATIONS ARE AVAILABLE. PEAK CONVEYANCE CAPACITY TO BE DETERMINED BY ENGINEER OF RECORD				
CARTRIDGE SELECTION				
CARTRIDGE LENGTH	54"	40"	27"	15"
OUTLET INVERT TO STRUCTURE INVERT (A)	6'-6"	5'-4"	4'-3"	3'-3"
FLOW RATE HI-FLO / DRAINDOWN (CFS) (PER CART)	0.178 / 0.089	0.133 / 0.067	0.089 / 0.045	0.049 / 0.025
MAX. TREATMENT (CFS)	1.96	1.47	0.98	0.54
DECK TO INSIDE TOP (MIN) (B)	5.00	4.00	4.00	4.00



FRAME AND COVER
(DIAMETER VARIES)
N.T.S.

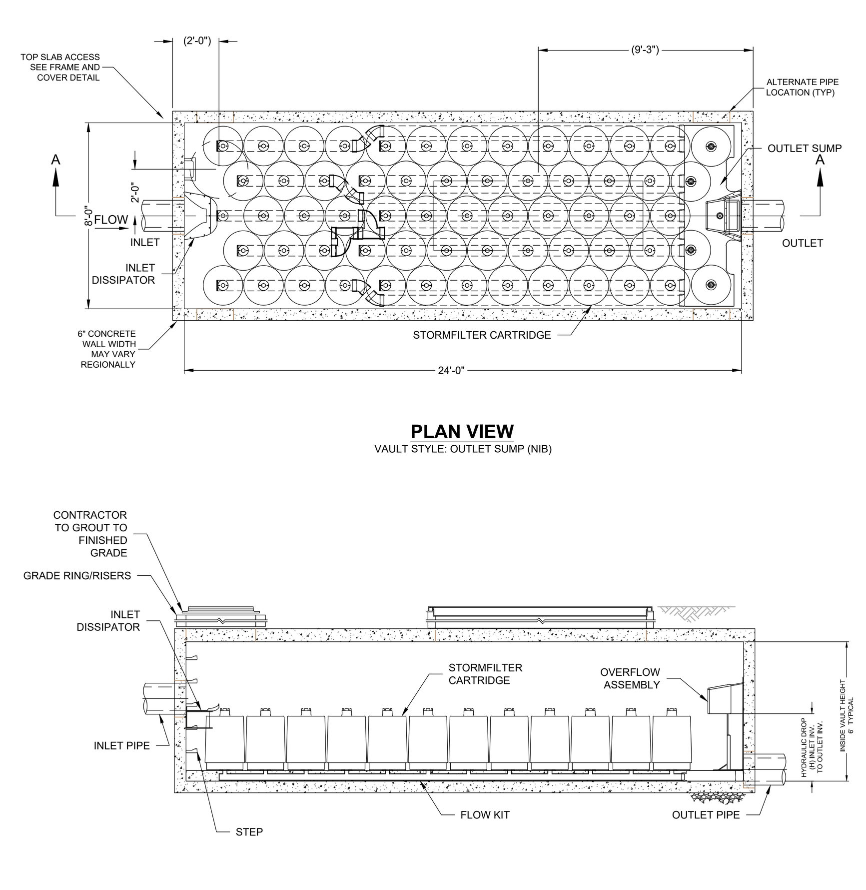
24" TRENCH COVER
(LENGTH VARIES)
N.T.S.

GENERAL NOTES:
1. CONTECH TO PROVIDE ALL MATERIALS UNLESS NOTED OTHERWISE.
2. FOR SITE SPECIFIC DRAWINGS WITH DETAILED STRUCTURE DIMENSIONS AND WEIGHT, PLEASE CONTACT YOUR CONTECH ENGINEERED SOLUTIONS REPRESENTATIVE. www.ContechES.com
3. JELLYFISH WATER QUALITY STRUCTURE SHALL BE IN ACCORDANCE WITH ALL DESIGN DATA AND INFORMATION CONTAINED IN THIS DRAWING. CONTRACTOR TO CONFIRM STRUCTURE MEETS REQUIREMENTS OF PROJECT.
4. STRUCTURE SHALL MEET AASHTO HS-20 OR PER APPROVING JURISDICTION REQUIREMENTS, WHICHEVER IS MORE STRINGENT, ASSUMING EARTH COVER OF 0' - 10', AND GROUNDWATER ELEVATION AT, OR BELOW, THE OUTLET PIPE INVERT ELEVATION. ENGINEER OF RECORD TO CONFIRM ACTUAL GROUNDWATER ELEVATION. CASTINGS SHALL MEET AASHTO M306 LOAD RATING AND BE CAST WITH THE CONTECH LOGO.
5. STRUCTURE SHALL BE PRECAST CONCRETE CONFORMING TO ASTM C-857, ASTM C-918, AND AASHTO LOAD FACTOR DESIGN METHOD.
6. OUTLET PIPE INVERT IS EQUAL TO THE CARTRIDGE DECK ELEVATION.
7. THE OUTLET PIPE DIAMETER FOR NEW INSTALLATIONS IS RECOMMENDED TO BE ONE PIPE SIZE LARGER THAN THE INLET PIPE AT EQUAL OR GREATER SLOPE.
8. NO PRODUCT SUBSTITUTIONS SHALL BE ACCEPTED UNLESS SUBMITTED 10 DAYS PRIOR TO PROJECT BID DATE, OR AS DIRECTED BY THE ENGINEER OF RECORD.

INSTALLATION NOTES
A. ANY SUB-BASE, BACKFILL DEPTH, AND/OR ANTI-FLOTATION PROVISIONS ARE SITE-SPECIFIC DESIGN CONSIDERATIONS AND SHALL BE SPECIFIED BY ENGINEER OF RECORD.
B. CONTRACTOR TO PROVIDE EQUIPMENT WITH SUFFICIENT LIFTING AND REACH CAPACITY TO LIFT AND SET THE STRUCTURE.
C. CONTRACTOR WILL INSTALL AND LEVEL THE STRUCTURE, SEALING THE JOINTS, LINE ENTRY AND EXIT POINTS (NON-SHRINK GROUT WITH APPROVED WATERSTOP OR FLEXIBLE BOOT).
D. CARTRIDGE INSTALLATION, BY CONTECH, SHALL OCCUR ONLY AFTER SITE HAS BEEN STABILIZED AND THE JELLYFISH UNIT IS CLEAN AND FREE OF DEBRIS. CONTACT CONTECH TO COORDINATE CARTRIDGE INSTALLATION WITH SITE STABILIZATION.

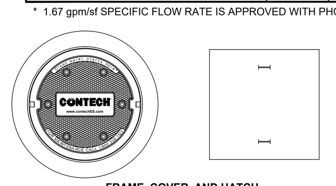
WQU-108 (Jellyfish JFPD0806-8-2)

N.T.S. Source: Contech



STORMFILTER DESIGN NOTES									
STORMFILTER TREATMENT CAPACITY IS A FUNCTION OF THE CARTRIDGE SELECTION AND THE NUMBER OF CARTRIDGES. THE STANDARD VAULT STYLE IS SHOWN WITH THE MAXIMUM NUMBER OF CARTRIDGES (61). VAULT STYLE OPTIONS INCLUDE INLET BAY (56), INLET BAY/OUTLET BAY (51), OUTLET BAY (59), INLET BAY/FULL HEIGHT BAFFLE WALL (45), FULL HEIGHT BAFFLE WALL (54). STORMFILTER 8X24 PEAK HYDRAULIC CAPACITY IS 1.8 CFS. IF THE SITE CONDITIONS EXCEED 1.8 CFS AN UPSTREAM BYPASS STRUCTURE IS REQUIRED.									
CARTRIDGE SELECTION									
CARTRIDGE HEIGHT	27"			18"			LOW DROP		
RECOMMENDED HYDRAULIC DROP (H)	3.05'			2.3'			1.8'		
SPECIFIC FLOW RATE (gpm/sf)	2 gpm/sf	1.67* gpm/sf	1 gpm/sf	2 gpm/sf	1.67* gpm/sf	1 gpm/sf	2 gpm/sf	1.67* gpm/sf	1 gpm/sf
CARTRIDGE FLOW RATE (gpm)	22.5	18.79	11.25	15	12.53	7.5	10	8.35	5

* 1.67 gpm/sf SPECIFIC FLOW RATE IS APPROVED WITH PHOSPHOSORB® (PSORB) MEDIA ONLY



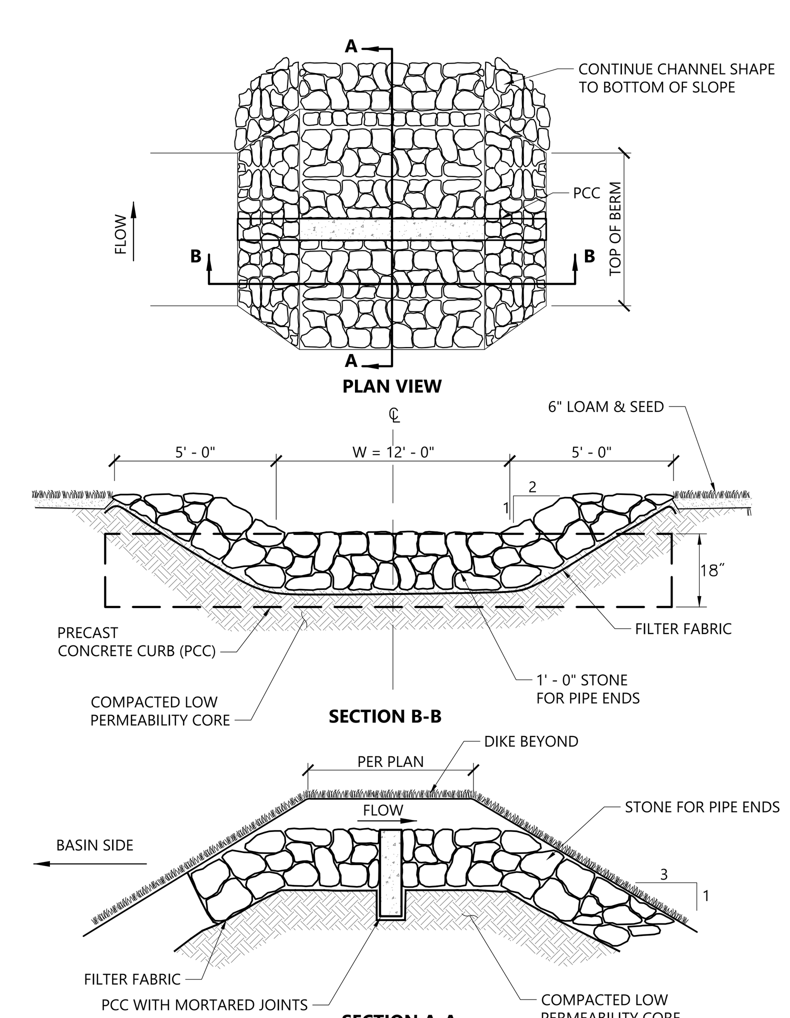
FRAME, COVER, AND HATCH
(SIZE AND CONFIGURATION VARY)
N.T.S.

GENERAL NOTES
1. CONTECH TO PROVIDE ALL MATERIALS UNLESS NOTED OTHERWISE.
2. DIMENSIONS MARKED WITH ( ) ARE REFERENCE DIMENSIONS. ACTUAL DIMENSIONS MAY VARY.
3. FOR SITE SPECIFIC DRAWINGS WITH DETAILED VAULT DIMENSIONS AND WEIGHTS, PLEASE CONTACT YOUR CONTECH ENGINEERED SOLUTIONS LLC REPRESENTATIVE. www.ContechES.com
4. STORMFILTER WATER QUALITY STRUCTURE SHALL BE IN ACCORDANCE WITH ALL DESIGN DATA AND INFORMATION CONTAINED IN THIS DRAWING.
5. STRUCTURE SHALL MEET AASHTO HS20 LOAD RATING, ASSUMING EARTH COVER OF 0' - 5' AND GROUNDWATER ELEVATION AT, OR BELOW, THE OUTLET PIPE INVERT ELEVATION. ENGINEER OF RECORD TO CONFIRM ACTUAL GROUNDWATER ELEVATION. CASTINGS SHALL MEET AASHTO M306 AND BE CAST WITH THE CONTECH LOGO.
6. FILTER CARTRIDGES SHALL BE MEDIA-FILLED, PASSIVE, SIPHON ACTUATED, RADIAL FLOW, AND SELF CLEANING. RADIAL MEDIA DEPTH SHALL BE 7-INCHES. FILTER MEDIA CONTACT TIME SHALL BE AT LEAST 38 SECONDS.
7. SPECIFIC FLOW RATE IS EQUAL TO THE FILTER TREATMENT CAPACITY (gpm) DIVIDED BY THE FILTER CONTACT SURFACE AREA (sq ft).
8. STORMFILTER STRUCTURE SHALL BE PRECAST CONFORMING TO ASTM C-857 AND AASHTO LOAD FACTOR DESIGN METHOD.

INSTALLATION NOTES
A. ANY SUB-BASE, BACKFILL DEPTH, AND/OR ANTI-FLOTATION PROVISIONS ARE SITE-SPECIFIC DESIGN CONSIDERATIONS AND SHALL BE SPECIFIED BY ENGINEER OF RECORD.
B. CONTRACTOR TO PROVIDE EQUIPMENT WITH SUFFICIENT LIFTING AND REACH CAPACITY TO LIFT AND SET THE STORMFILTER VAULT (LIFTING CLUTCHES PROVIDED).
C. CONTRACTOR TO INSTALL JOINT SEALANT BETWEEN ALL VAULT SECTIONS AND ASSEMBLE VAULT.
D. CONTRACTOR TO PROVIDE, INSTALL, AND GROUT PIPES. MATCH OUTLET PIPE INVERT WITH OUTLET BAY FLOOR.
E. CONTRACTOR TO TAKE APPROPRIATE MEASURES TO PROTECT CARTRIDGES FROM CONSTRUCTION-RELATED EROSION RUNOFF.

WQU-131 (StormFilter SF0824 with 57-18" Cartridges)

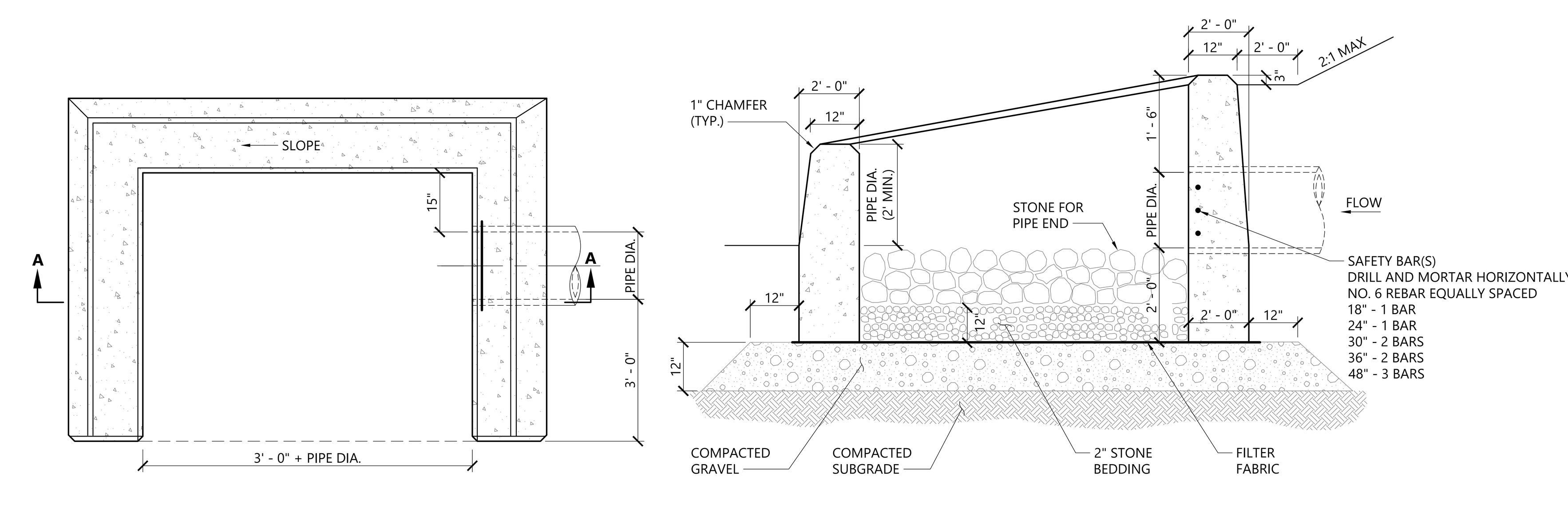
N.T.S. Source: Contech



Overflow Stone Swale

1/16

N.T.S. Source: VHB REV LD_161



NOTES

1. SHOP DRAWINGS FOR PLACEMENT OF REINFORCING SHALL BE SUBMITTED TO THE ENGINEER BY THE CONTRACTOR.
2. CONCRETE SHALL BE 6% ±1.5% AIR ENTRAINED TYPE II CEMENT WITH MINIMUM COMPRESSIVE STRENGTH OF 4,000 PSI.
3. SAFETY BARS TO BE OMITTED WHERE INDICATED ON PLANS.
4. SAFETY BARS SHALL BE SET TO CREATE EQUAL OPENING DIMENSIONS.

Directional Headwall

10/20

N.T.S. Source: VHB LD_135

Saved Friday, August 12, 2022 9:35:26 AM SDIAMOND Plotted Tuesday, August 16, 2022 9:18:50 AM Sean Diamond

ORIGINAL SHEET - ARCH E

Stantec
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Issued/Revision	By	Appd	YYYY.MM.DD
SPECIAL PERMIT PACKAGE R1			2022.08.15
SPECIAL PERMIT PACKAGE			2022.03.30

Permit/Seal

COMMONWEALTH OF MASSACHUSETTS
NICHOLAS J. SKOLY
CIVIL
No. 52677
REGISTERED PROFESSIONAL ENGINEER

SPECIAL PERMIT PACKAGE R1
08/15/2022
(FOR 09/07/2022 PLANNING BOARD SPECIAL PERMIT PUBLIC HEARING)

Client/Project
Bulfinch
HIGHLAND INNOVATION CENTER
557 Highland Ave
NEEDHAM, MA 02494

Project No.: 15306.00
File Name: N/A
Scale:

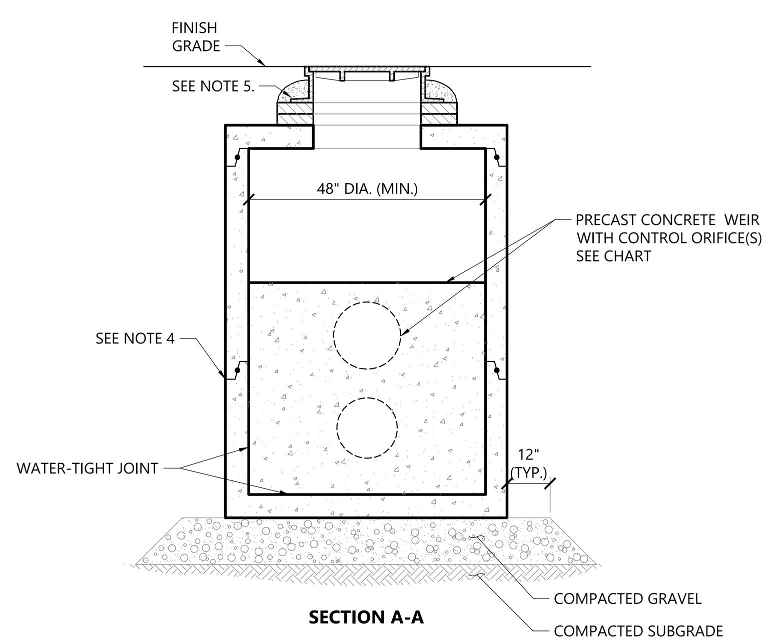
Author	Designer	Checker	2022.09.07
Dwn.	Dsgn.	Chkd.	YYYY.MM.DD

Title
Site Details

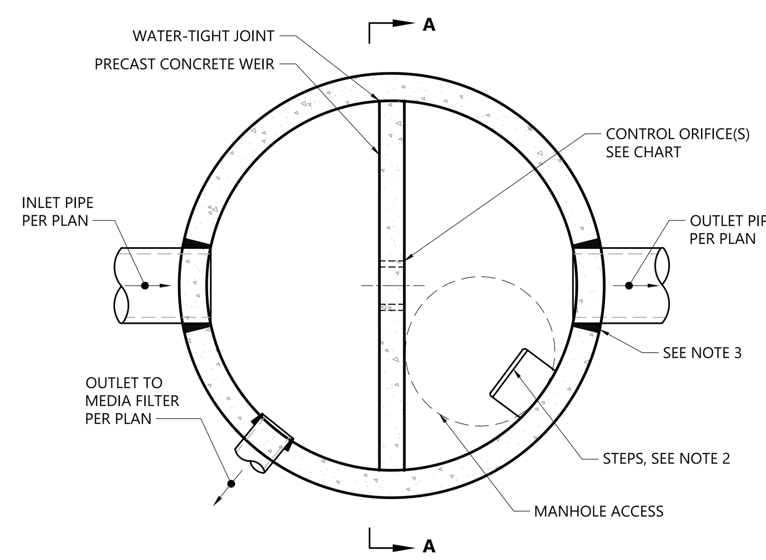
Revision:
Drawing No.
C-05

OUTLET STRUCTURE CHART

DETENTION BASIN	STRUCTURE NUMBER	TOP OF WEIR ELEVATION	DIMENSIONS ORIFICE A	INVERT ORIFICE A	DIMENSIONS ORIFICE B	INVERT ORIFICE B
P1	105	125.0	N/A	N/A	N/A	N/A



SECTION A-A



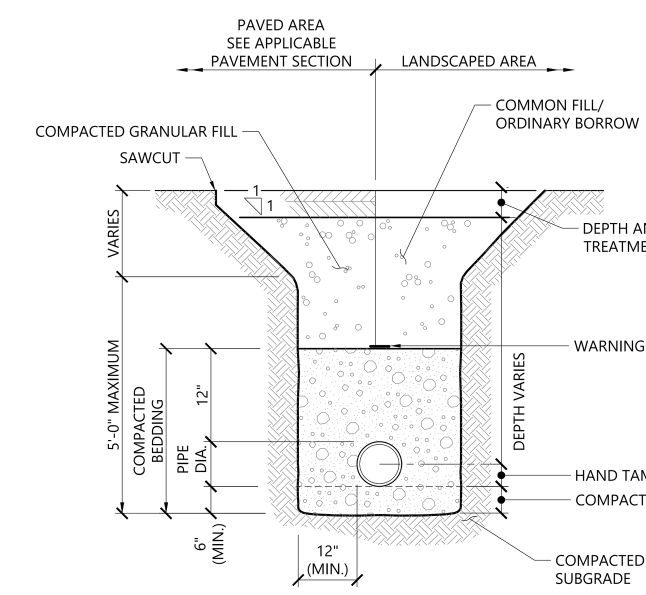
PLAN VIEW

NOTES

1. ALL SECTIONS SHALL BE DESIGNED FOR HS-20 LOADING. DIAMETER OF STRUCTURES SHALL BE COORDINATED WITH PIPE CONFIGURATIONS.
2. COPOLYMER MANHOLE STEPS SHALL BE INSTALLED AT 12" O.C. FOR THE FULL DEPTH OF THE STRUCTURE.
3. FOR HDPE, PVC, AND DI PIPE, PROVIDE FLEXIBLE BOOT CONNECTION INSTALLED PER MANUFACTURER'S RECOMMENDATIONS. FOR RCP, PROVIDE OPENINGS FOR PIPES WITH 2" MAX. CLEARANCE TO OUTSIDE OF PIPE AND MORTAR CONNECTIONS.
4. JOINT SEALANT BETWEEN PRECAST SECTIONS SHALL BE PREFORMED BUTYL RUBBER.
5. DRAIN MANHOLE FRAME AND COVER SHALL BE SET IN FULL MORTAR BED. ADJUST TO GRADE WITH CLAY BRICK AND MORTAR (2 BRICK COURSES TYPICALLY, 5 BRICK COURSES MAXIMUM)

Outlet Control Structure with Weir (OCS)

3/20
N.T.S. Source: VHB REV LD_162A

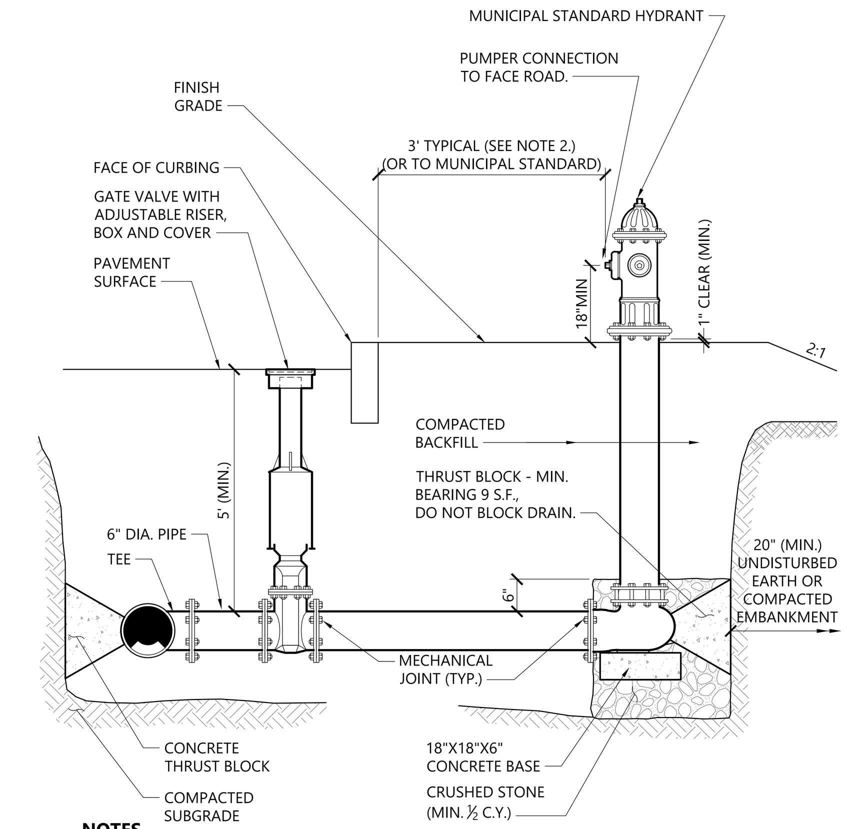


NOTES

1. WHERE UTILITY TRENCHES ARE CONSTRUCTED THROUGH DETENTION BASIN BERMS OR OTHER SUCH SPECIAL SECTIONS, PLACE TRENCH BACKFILL WITH MATERIALS SIMILAR TO THE SPECIAL SECTION REQUIREMENTS.
2. USE METALLIC TRACING/WARNING TAPE OVER ALL PIPES.
3. COMPACTED GRANULAR FILL MAY CONSIST OF GRAVEL, CRUSHED STONE, SAND, OR OTHER MATERIAL AS APPROVED BY ENGINEER.

Utility Trench

11/19
N.T.S. Source: VHB LD_300



NOTES

1. CONCRETE THRUST BLOCKS TO BE USED ONLY WHERE THEY CAN BEAR ON UNDISTURBED EARTH AS SHOWN. USE CLAMPS AND TIE RODS OR OTHER ACCEPTABLE METHOD OF JOINT RESTRAINT WHERE SOIL CONDITIONS PROHIBIT THE USE OF THRUST BLOCKS.
2. HYDRANT IN SIDEWALK AREAS TO BE LOCATED TO PROVIDE MINIMUM CLEAR SIDEWALK PASSAGE WIDTH OF 3 FEET AT HYDRANT.
3. A 36-INCH CLEAR SPACE SHALL BE MAINTAINED AROUND THE CIRCUMFERENCE OF THE HYDRANT UNLESS OTHERWISE APPROVED BY AUTHORITY HAVING JURISDICTION.

Hydrant Construction

12/19
N.T.S. Source: VHB LD_250

RESTRAINED JOINTS

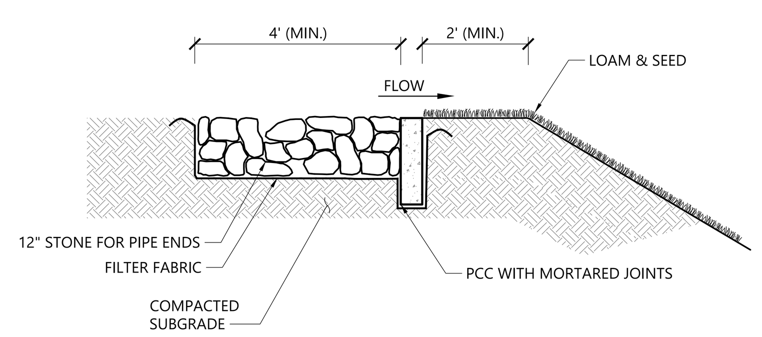
FITTINGS	NUMBER OF JOINTS TO RESTRAIN ON EITHER SIDE OF FITTING (BASED ON 18-FOOT PIPE LENGTH)
90 DEGREE BEND	3
45 DEGREE BEND	2
22-1/2 DEGREE BEND	2
TEE:	
BRANCH	3
RUN	2

NOTES

1. PIPE WITH RESTRAINED JOINTS SHALL BE INSTALLED IN ALL AREAS WHERE THE PIPE IS WITHIN FILL MATERIALS AND ALSO AT LOCATIONS SHOWN ON THE DRAWINGS. RESTRAINED JOINTS SHALL BE INSTALLED AT BENDS, REDUCERS, TEES, VALVES, DEAD ENDS, AND HYDRANTS. THE MINIMUM LENGTH OF PIPE TO BE RESTRAINED ON EITHER SIDE OF THE JOINT SHALL BE AS SHOWN ON THE TABLE ABOVE THE FITTINGS OF THE NEW PIPING SHALL BE FOR RESTRAINED JOINTS, AS MARKED ON THE DRAWINGS.
2. NO RESTRAINING IS REQUIRED IN THE DIRECTION OF THE EXISTING PIPE IF ONLY A SHORT LENGTH OF IT IS EXPOSED IN THE TRENCH FOR MAKING A CONNECTION.
3. RESTRAINED JOINT ASSEMBLIES FOR PUSH-ON PIPE AND FITTINGS SHALL BE MADE IN STRICT ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDED INSTALLATION PROCEDURES.

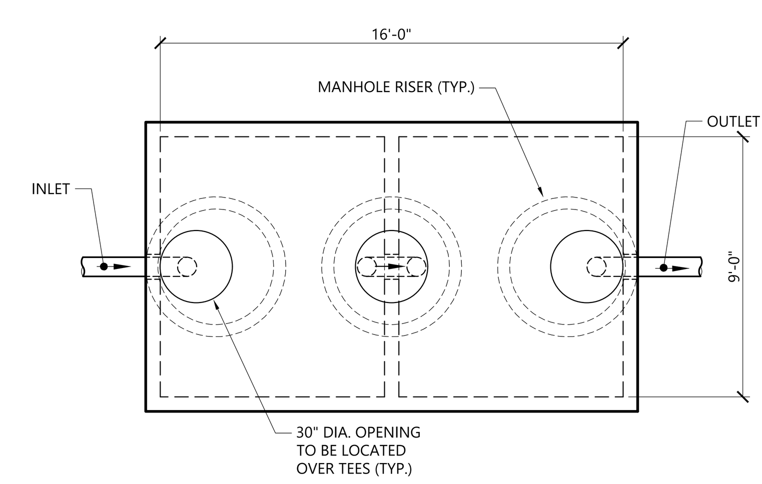
Restrained Joints for Water Pipe

3/20
N.T.S. Source: VHB LD_261

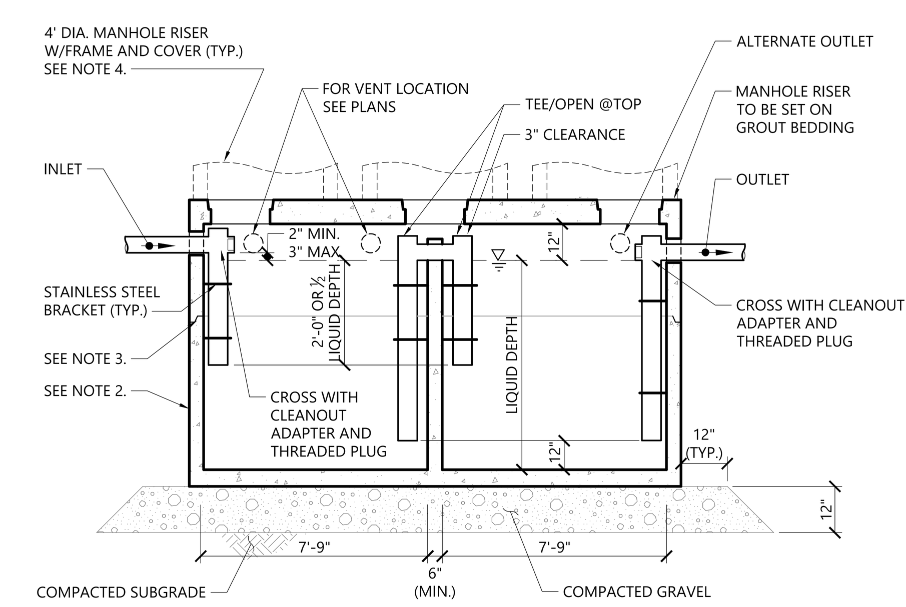


Level Spreader Section

N.T.S. Source: VHB



PLAN VIEW



SECTION

NOTES

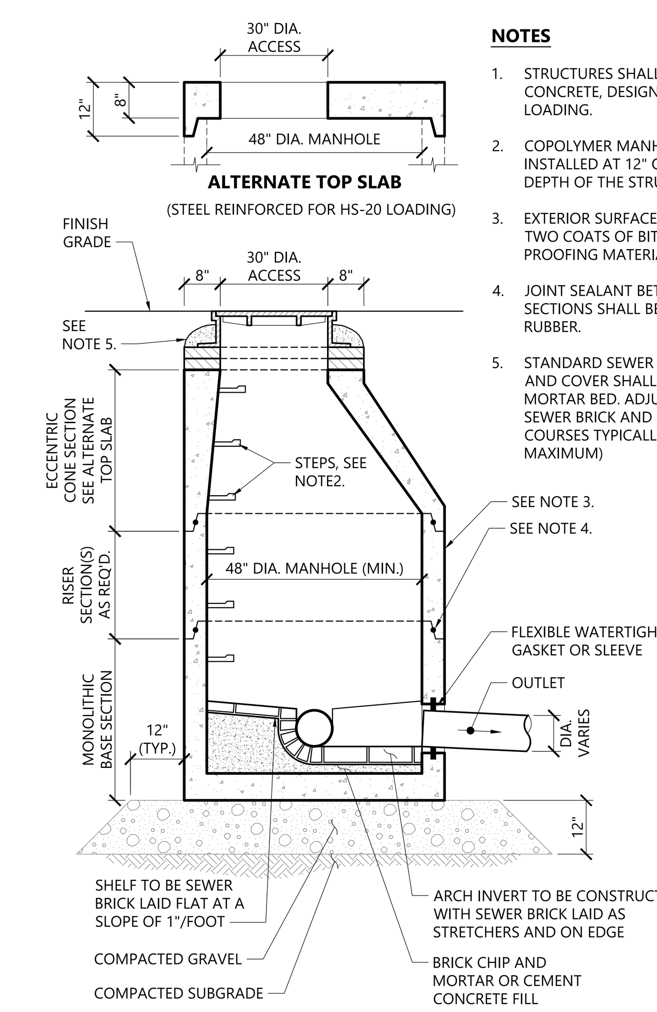
1. STRUCTURE SHALL BE DESIGNED FOR HS-20 LOADING.
2. EXTERIOR SURFACES SHALL BE GIVEN TWO COATS OF BITUMINOUS WATER-PROOFING MATERIAL.
3. JOINT SEALANT BETWEEN PRECAST SECTIONS SHALL BE PREFORMED BUTYL RUBBER.
4. STANDARD 30-INCH SEWER MANHOLE FRAME AND COVER SHALL BE LOCATED OVER CROSSES AND SET IN FULL MORTAR BED. ADJUST TO GRADE WITH SEWER BRICK AND MORTAR (2 BRICK COURSES TYPICALLY, 5 BRICK COURSES MAXIMUM)
5. PIPING SHALL BE SCH 40 PVC WITH SOLVENT WELDED JOINTS. INTERNAL PIPE DIAMETER SHALL BE SAME SIZE AS OUTLET PIPE.
6. FINAL DESIGN OF GREASE TRAP TO BE BY PLUMBING ENGINEER.
7. THE INSTALLATION OF GREASE TRAP, THE PIPING TO AND 10 FEET BEYOND IS BY PLUMBER.

GREASE TRAP

SIZE (GAL.)	LIQUID DEPTH
4,000	4'-0"
5,000	5'-0"
6,000	6'-0"
7,000	7'-0"
8,000	8'-0"
9,000	9'-0"
10,000	10'-0"

Precast Concrete Grease Trap (GT)

12/19
N.T.S. Source: VHB LD_211

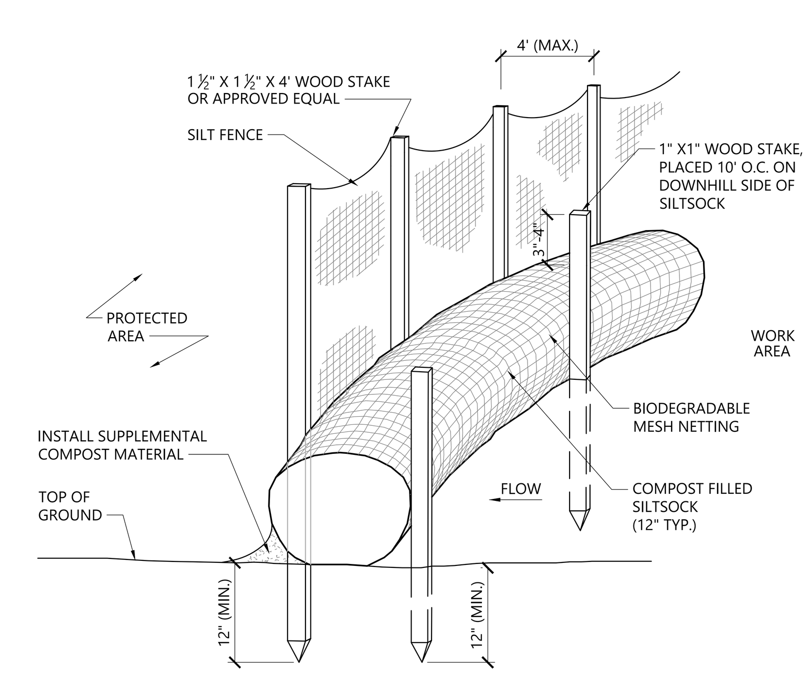


NOTES

1. STRUCTURES SHALL BE PRECAST CONCRETE, DESIGNED FOR HS-20 LOADING.
2. COPOLYMER MANHOLE STEPS SHALL BE INSTALLED AT 12" O.C. FOR THE FULL DEPTH OF THE STRUCTURE.
3. EXTERIOR SURFACES SHALL BE GIVEN TWO COATS OF BITUMINOUS WATER-PROOFING MATERIAL.
4. JOINT SEALANT BETWEEN PRECAST SECTIONS SHALL BE PREFORMED BUTYL RUBBER.
5. STANDARD SEWER MANHOLE FRAME AND COVER SHALL BE SET IN FULL MORTAR BED. ADJUST TO GRADE WITH SEWER BRICK AND MORTAR (2 BRICK COURSES TYPICALLY, 5 BRICK COURSES MAXIMUM)

Sanitary Sewer Manhole (SMH)

1/16
N.T.S. Source: VHB LD_200

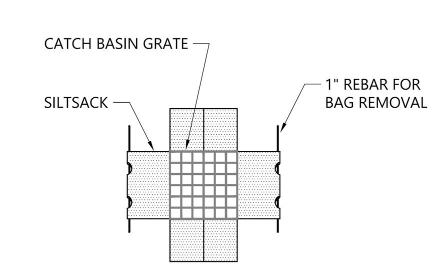


NOTES

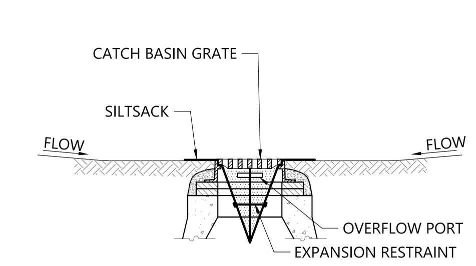
1. SILTSOCK SHALL BE FILTREXX SILTSOXX, OR APPROVED EQUAL.
2. SILTSOCKS SHALL OVERLAP A MINIMUM OF 12 INCHES.
3. SILTSOCK SHALL BE INSPECTED PERIODICALLY AND AFTER ALL STORM EVENTS, AND REPAIR OR REPLACEMENT SHALL BE PERFORMED PROMPTLY AS NEEDED.
4. UPON SITE STABILIZATION, COMPOST MATERIAL SHALL BE DISPERSED ON SITE, AS DETERMINED BY THE ENGINEER.
5. IF NON BIODEGRADABLE NETTING IS USED THE NETTING SHALL BE COLLECTED AND DISPOSED OF OFFSITE.

Siltsock / Silt Fence Barrier

10/20
N.T.S. Source: VHB LD_658-A



PLAN VIEW



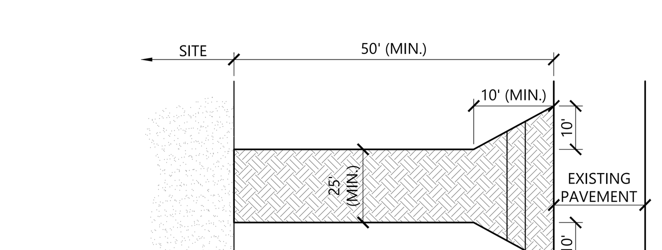
SECTION VIEW

NOTES

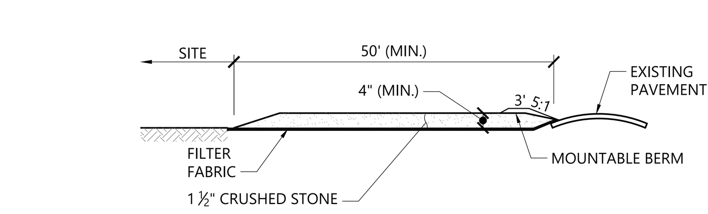
1. INSTALL SILTSACK IN ALL CATCH BASINS WHERE INDICATED ON THE PLAN BEFORE COMMENCING WORK OR IN PAVED AREAS AFTER BINDER COURSE IS PLACED AND HAY BALES HAVE BEEN REMOVED.
2. GRATE TO BE PLACED OVER SILTSACK.
3. SILTSACK SHALL BE INSPECTED PERIODICALLY AND AFTER ALL STORM EVENTS AND CLEANING OR REPLACEMENT SHALL BE PERFORMED PROMPTLY AS NEEDED. MAINTAIN UNTIL UPSTREAM AREAS HAVE BEEN PERMANENTLY STABILIZED

Siltsack Sediment Trap

1/20
N.T.S. Source: VHB LD_674



PLAN VIEW



CROSS-SECTION

NOTES

1. EXIT WIDTH SHALL BE A TWENTY-FIVE (25) FOOT MINIMUM, BUT NOT LESS THAN THE FULL WIDTH AT POINTS WHERE INGRESS OR EGRESS OCCURS.
2. THE EXIT SHALL BE MAINTAINED IN A CONDITION WHICH SHALL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND AND REPAIR OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT. ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC RIGHTS-OF-WAY MUST BE REMOVED IMMEDIATELY. BERM SHALL BE PERMITTED. PERIODIC INSPECTION AND MAINTENANCE SHALL BE PROVIDED AS NEEDED.
3. STABILIZED CONSTRUCTION EXIT SHALL BE REMOVED PRIOR TO FINAL FINISH MATERIALS BEING INSTALLED.

Stabilized Construction Exit

1/16
N.T.S. Source: VHB LD_682

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vhb
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Watertown, MA 02471
617.924.1770

Issued/Revision	By	Appd	YYYY.MM.DD
SPECIAL PERMIT PACKAGE R1			2022.08.15
SPECIAL PERMIT PACKAGE			2022.03.30

Permit/Seal

COMMONWEALTH OF MASSACHUSETTS — NICHOLAS J. SKOLY CIVIL No. 52677 — REGISTERED PROFESSIONAL ENGINEER

SPECIAL PERMIT PACKAGE R1
08/15/2022
(FOR 09/07/2022 PLANNING BOARD SPECIAL PERMIT PUBLIC HEARING)

Client/Project
Bulfinch
HIGHLAND INNOVATION CENTER
557 Highland Ave
NEEDHAM, MA 02494

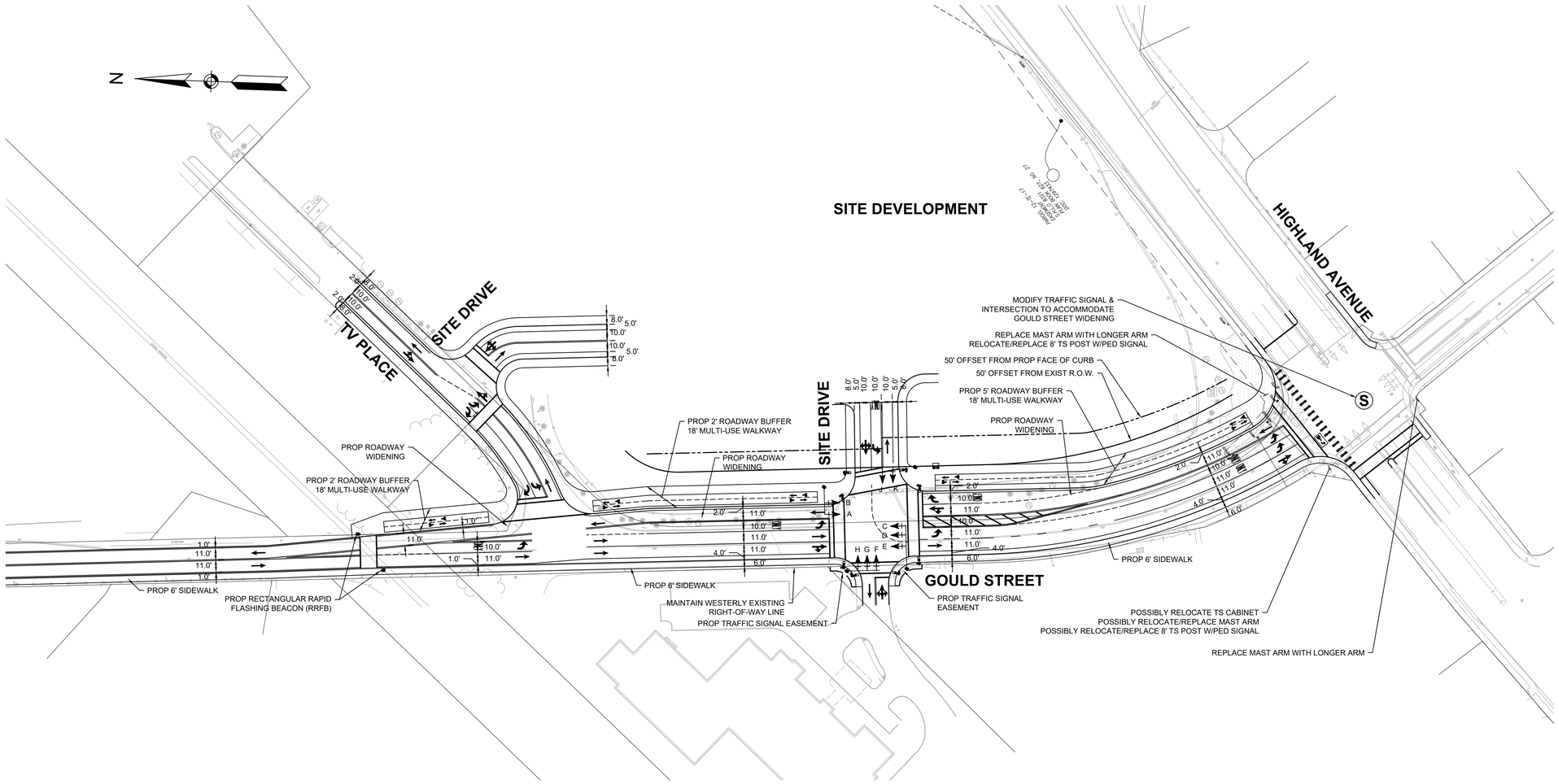
Project No.: 15306.00
File Name: N/A
Scale:

Author	Designer	Checker	2022.09.07
Dwn.	Dsgn.	Chkd.	YYYY.MM.DD

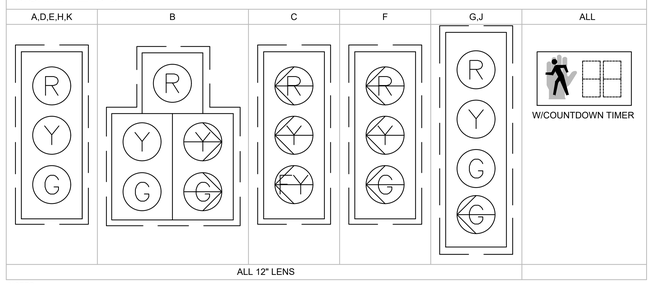
Title
Site Details

Revision:
Drawing No.
C-06

GOULD STREET BETWEEN HIGHLAND AVENUE
AND FORMER RAILROAD ROW
OFFSITE ROADWAY IMPROVEMENT PLAN

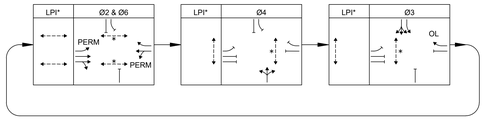


SIGNAL HEAD DATA



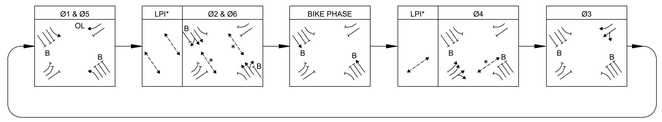
NOTES:
1. ALL SIGNAL HEADS SHALL BE RIGID MOUNTED.
2. ALL SIGNAL HEADS SHALL BE EQUIPPED WITH 5"± NON- LOUVERED BACKPLATES. ALL BACKPLATES SHALL CONTAIN A 3" WIDE YELLOW REFLECTIVE BORDER.
3. ALL SIGNAL HEADS SHALL BE EQUIPPED WITH TUNNEL VISORS.
4. ALL SIGNAL DISPLAYS SHALL BE EQUIPPED WITH L.E.D. MODULES.

SITE DRIVEWAY
PREFERENTIAL PHASE SEQUENCE



* NORMALLY DW, W/FDW UPON PEDESTRIAN PUSH BUTTON ACTUATION
PERM = PERMISSIVE
LPI = LEADING PEDESTRIAN INTERVAL

HIGHLAND AVENUE
PREFERENTIAL PHASE SEQUENCE



* NORMALLY DW, W/FDW UPON PEDESTRIAN PUSH BUTTON ACTUATION
OL = OVERLAP
LPI = LEADING PEDESTRIAN INTERVAL
B = HIGHLAND AVENUE SEPARATED BIKE LANE

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Issued/Revision	By	Appd	YYYY.MM.DD
SPECIAL PERMIT PACKAGE #1			2022.08.15
DEIR SUBMISSION			2022.07.15
SITE DEVELOPMENT SET			2022.05.27
SPECIAL PERMIT PACKAGE			2022.03.30

Permit/Seal

COMMONWEALTH OF MASSACHUSETTS
KYLE J. LANGLOIS
CIVIL
No. 52643
REGISTERED PROFESSIONAL ENGINEER

8/15/2022

KEY PLAN

SPECIAL PERMIT PACKAGE R1
08/15/2022
(FOR 09/07/2022 PLANNING BOARD SPECIAL PERMIT PUBLIC HEARING)

Client/Project
Bulfinch
HIGHLAND INNOVATION CENTER
557 Highland Ave
Needham, MA 02494

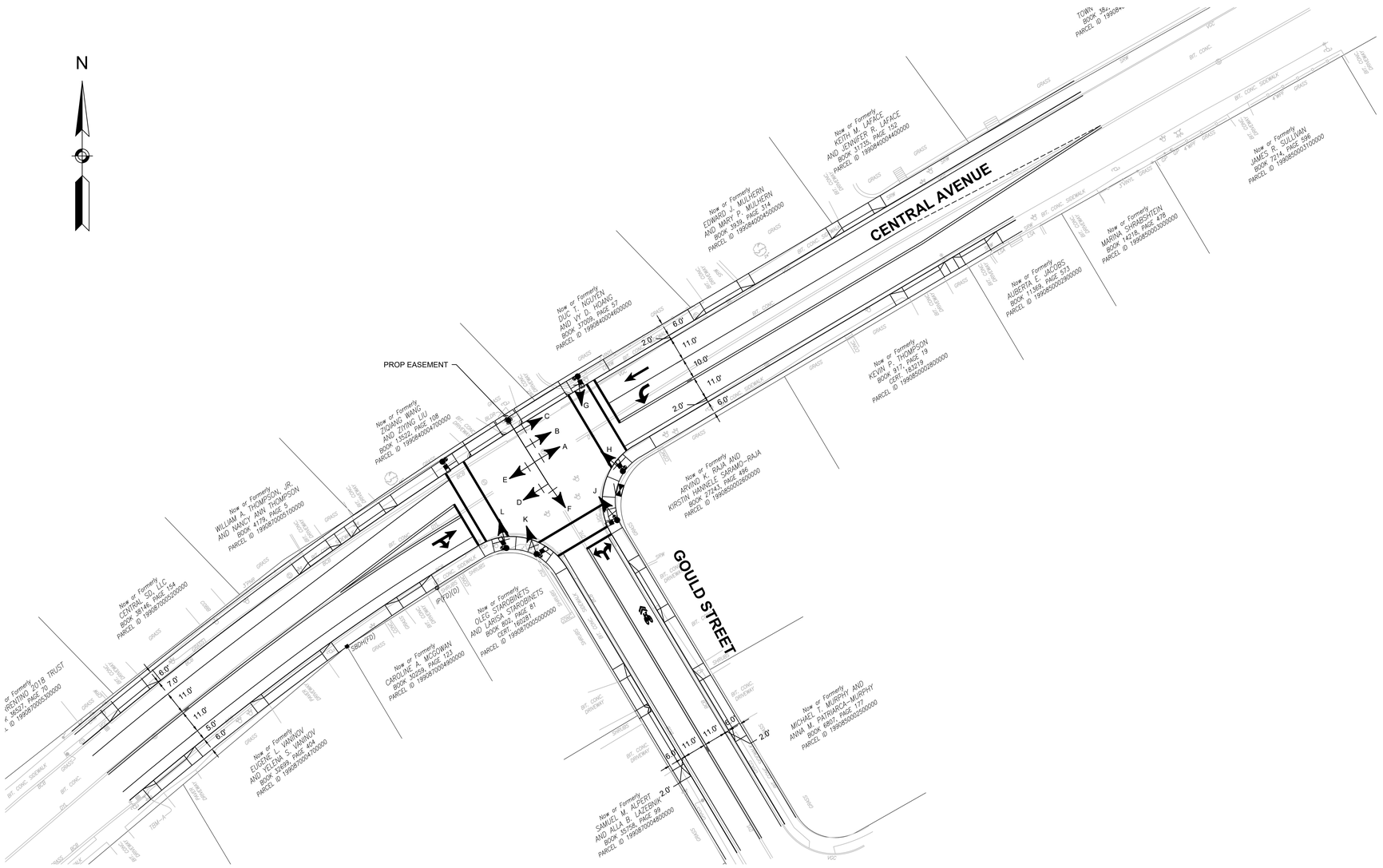
Project No.:218421343
File Name: N/A
Scale: As indicated

KL	KL	TM	2022.09.07
Dwn.	Dsgn.	Chkd.	YYYY.MM.DD

Title
OFF-SITE ROADWAY IMPROVEMENTS #1

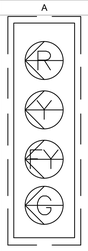
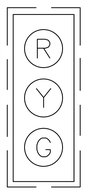
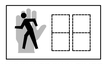
Revision:
Drawing No.
TR-001

GOULD STREET AT CENTRAL AVENUE
OFFSITE ROADWAY IMPROVEMENT PLAN



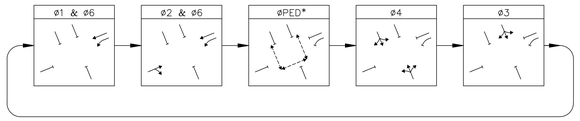
0 20 50 100
SCALE: 1" = 20'

SIGNAL HEAD DATA

A	B,C,D,E,F,G,H,J,K,L	ALL
		 W/COUNTDOWN TIMER
ALL 12" LENS		

NOTES:
1. ALL SIGNAL HEADS SHALL BE RIGID MOUNTED.
2. ALL SIGNAL HEADS SHALL BE EQUIPPED WITH 5"± NON- LOUVERED BACKPLATES. ALL BACKPLATES SHALL CONTAIN A 3" WIDE YELLOW REFLECTIVE BORDER.
3. ALL SIGNAL HEADS SHALL BE EQUIPPED WITH TUNNEL VISORS.
4. ALL SIGNAL DISPLAYS SHALL BE EQUIPPED WITH L.E.D. MODULES.

PREFERENTIAL PHASE SEQUENCE



* UPON PEDESTRIAN PUSH BUTTON ACTUATION

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No.	Issued/Revision	By	Appd	YYYY.MM.DD
1	SPECIAL PERMIT PACKAGE R1			2022.08.15
2	90% SUBMISSION			2022.07.15
3	60% SUBMISSION			2022.06.17

Permit/Seal

COMMONWEALTH OF MASSACHUSETTS
KYLE J. LANGLOIS
CIVIL
No. 52643
REGISTERED PROFESSIONAL ENGINEER

8/2/2022

KEY PLAN

SPECIAL PERMIT PACKAGE R1
08/15/2022
(FOR 09/07/2022 PLANNING BOARD SPECIAL PERMIT PUBLIC HEARING)

Client/Project
Bulfinch
HIGHLAND INNOVATION CENTER
557 Highland Ave.
Needham, MA 02494

Project No.:218421343
File Name: N/A
Scale: As indicated

KL	KL	TM	2022.09.07
Dwn.	Dsgn.	Chkd.	YYYY.MM.DD

Title
OFF-SITE ROADWAY IMPROVEMENTS #2

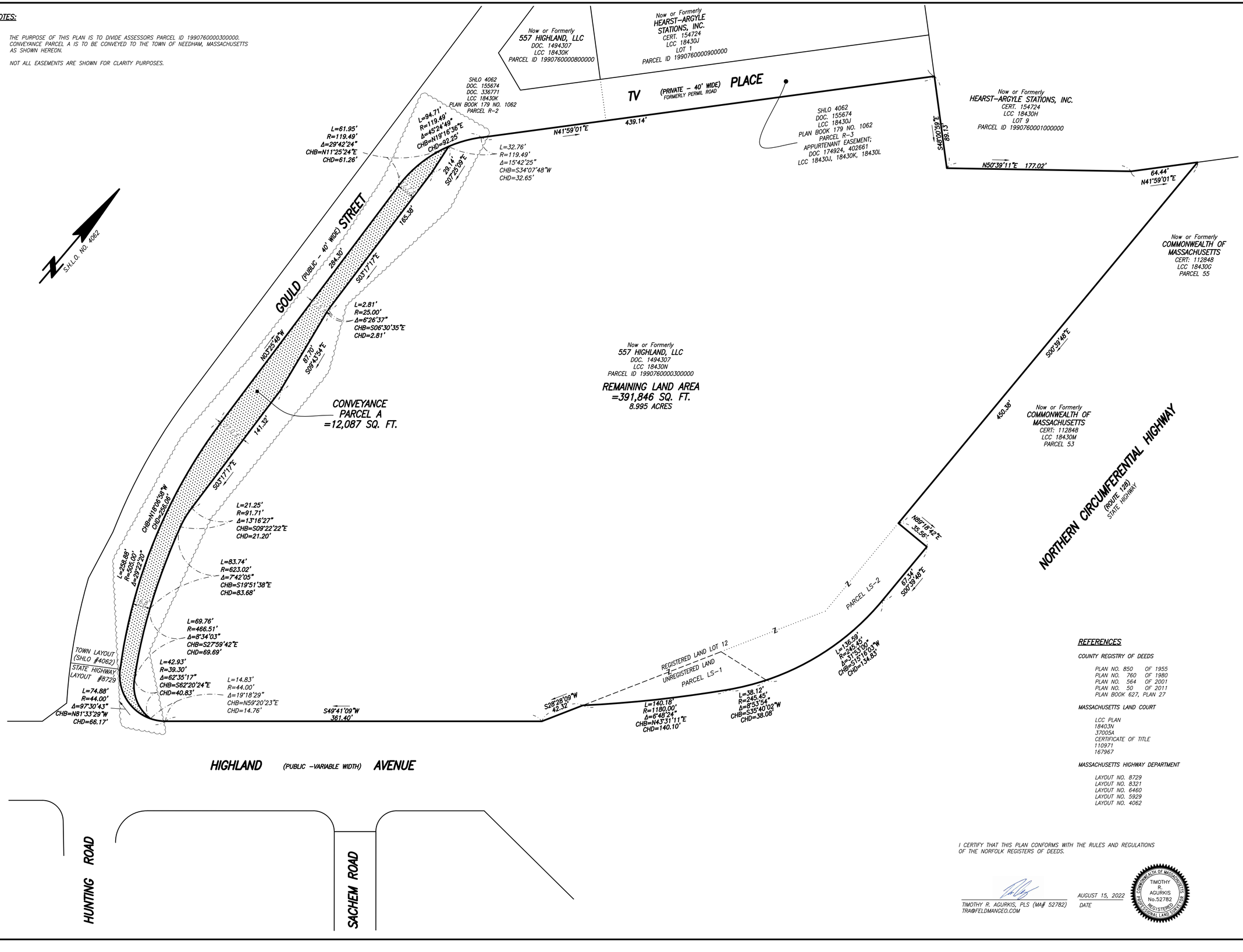
Revision:
Drawing No.
TR-002

File location:\Project Information\
8/5/2022 3:33:13 PM

ORIGINAL SHEET - ARCH E

NOTES:

1. THE PURPOSE OF THIS PLAN IS TO DIVIDE ASSESSORS PARCEL ID 1990760000300000. CONVEYANCE PARCEL A IS TO BE CONVEYED TO THE TOWN OF NEEDHAM, MASSACHUSETTS AS SHOWN HEREON.
2. NOT ALL EASEMENTS ARE SHOWN FOR CLARITY PURPOSES.



REFERENCES

COUNTY REGISTRY OF DEEDS

PLAN NO. 850 OF 1955
PLAN NO. 760 OF 1980
PLAN NO. 564 OF 2001
PLAN NO. 50 OF 2011
PLAN BOOK 627, PLAN 27

MASSACHUSETTS LAND COURT

LCC PLAN
18403N
37005A
CERTIFICATE OF TITLE
110971
167967

MASSACHUSETTS HIGHWAY DEPARTMENT

LAYOUT NO. 8729
LAYOUT NO. 8321
LAYOUT NO. 6460
LAYOUT NO. 5929
LAYOUT NO. 4062

I CERTIFY THAT THIS PLAN CONFORMS WITH THE RULES AND REGULATIONS OF THE NORFOLK REGISTERS OF DEEDS.

TIMOTHY R. AGURKIS, PLS (M#) 52782
TRA@FELDMANGEO.COM

AUGUST 15, 2022
DATE

COMMONWEALTH OF MASSACHUSETTS
TIMOTHY R. AGURKIS
No. 52782
REGISTERED PROFESSIONAL LAND SURVEYOR

FELDMAN GEOSPATIAL

BOSTON HEADQUARTERS
152 HAMPDEN STREET
BOSTON, MA 02119

WORCESTER OFFICE
27 MECHANIC STREET
WORCESTER, MA 01608

(617)357-9740
www.feldmangeo.com

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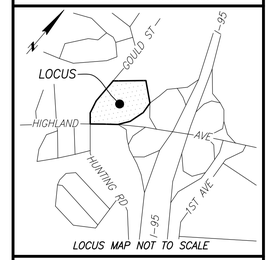


LOCUS MAP NOT TO SCALE

ADDRESS:

557 HIGHLAND AVENUE
NEEDHAM, MASS.

RESEARCH: MDH	FIELD CHIEF:
PROJ MGR: TRA	APPROVED:
CALC: MDH	CADD: MDH
FIELD CHK:	CRD FILE:

REVISIONS:

DRAWING NAME:

CONVEYANCE PLAN

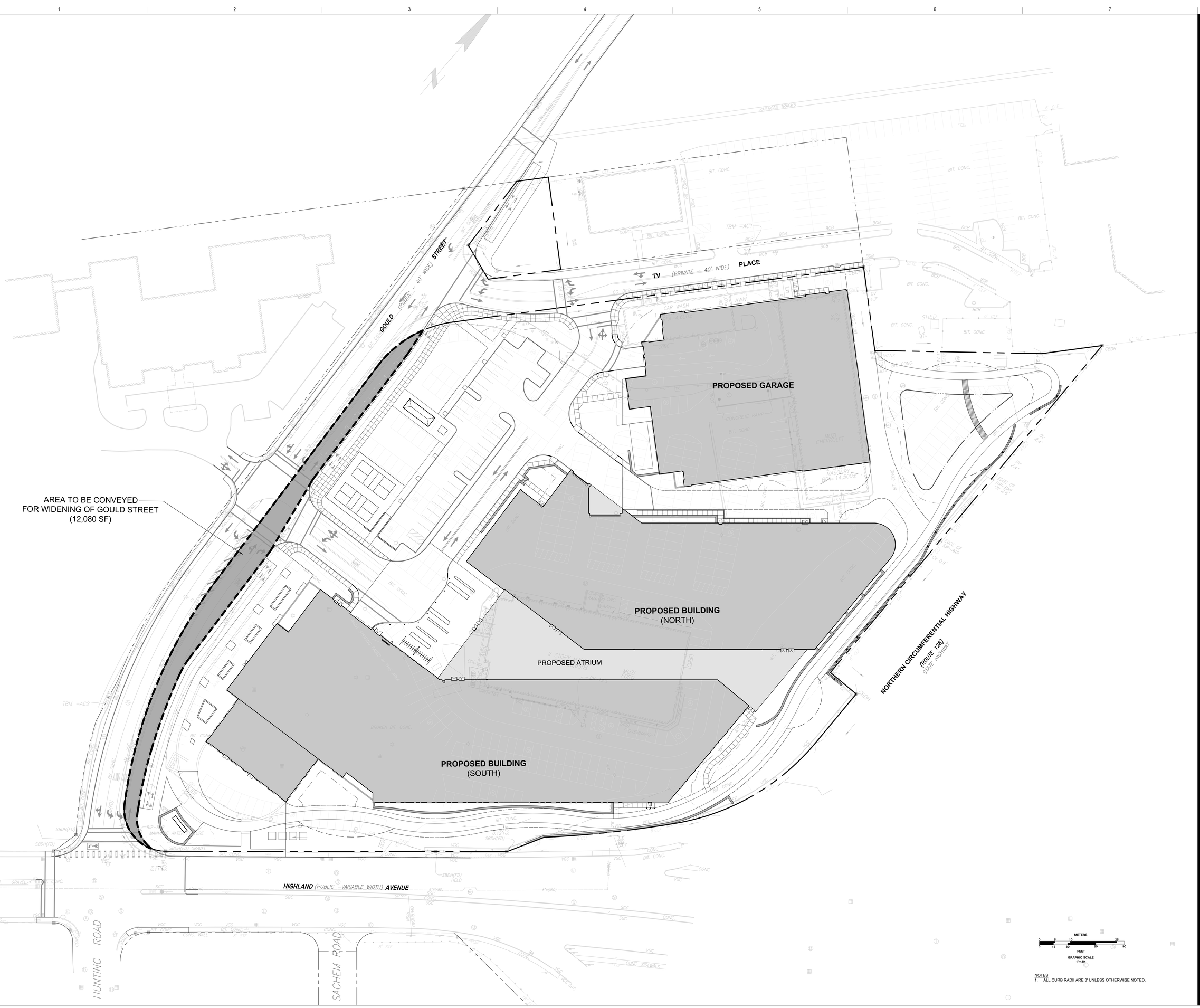
SPECIAL PERMIT PACKAGE R1
8/15/2022
(FOR 09/07/2022 PLANNING BOARD SPECIAL PERMIT PUBLIC HEARING)

DATE: AUGUST 15, 2022

40 0 20 40 80

SCALE: 1"=40'

SHEET NO. 1 OF 1



NOTES:
1. ALL CURB RADII ARE 3' UNLESS OTHERWISE NOTED.

ORIGINAL SHEET - ARCH E

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Civil Engineers – Land Surveyors
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Civil Engineers – Land Surveyors
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14 Mica Lane
Wellesley, Massachusetts 02481-4426
781 237 6030
781 235 8857
Mark P. Finger

By	Appd	YYYY.MM.DD	Issued/Revision
		2022.08.15	SPECIAL PERMIT PACKAGE R1
		2022.07.15	SPECIAL PERMIT PACKAGE
DBF	SMM	2022.06.17	90% SUBMISSION

Permit/Seal

KEY PLAN

SPECIAL PERMIT PACKAGE R1
08/15/2022
(FOR 09/07/2022 PLANNING BOARD SPECIAL PERMIT PUBLIC HEARING)

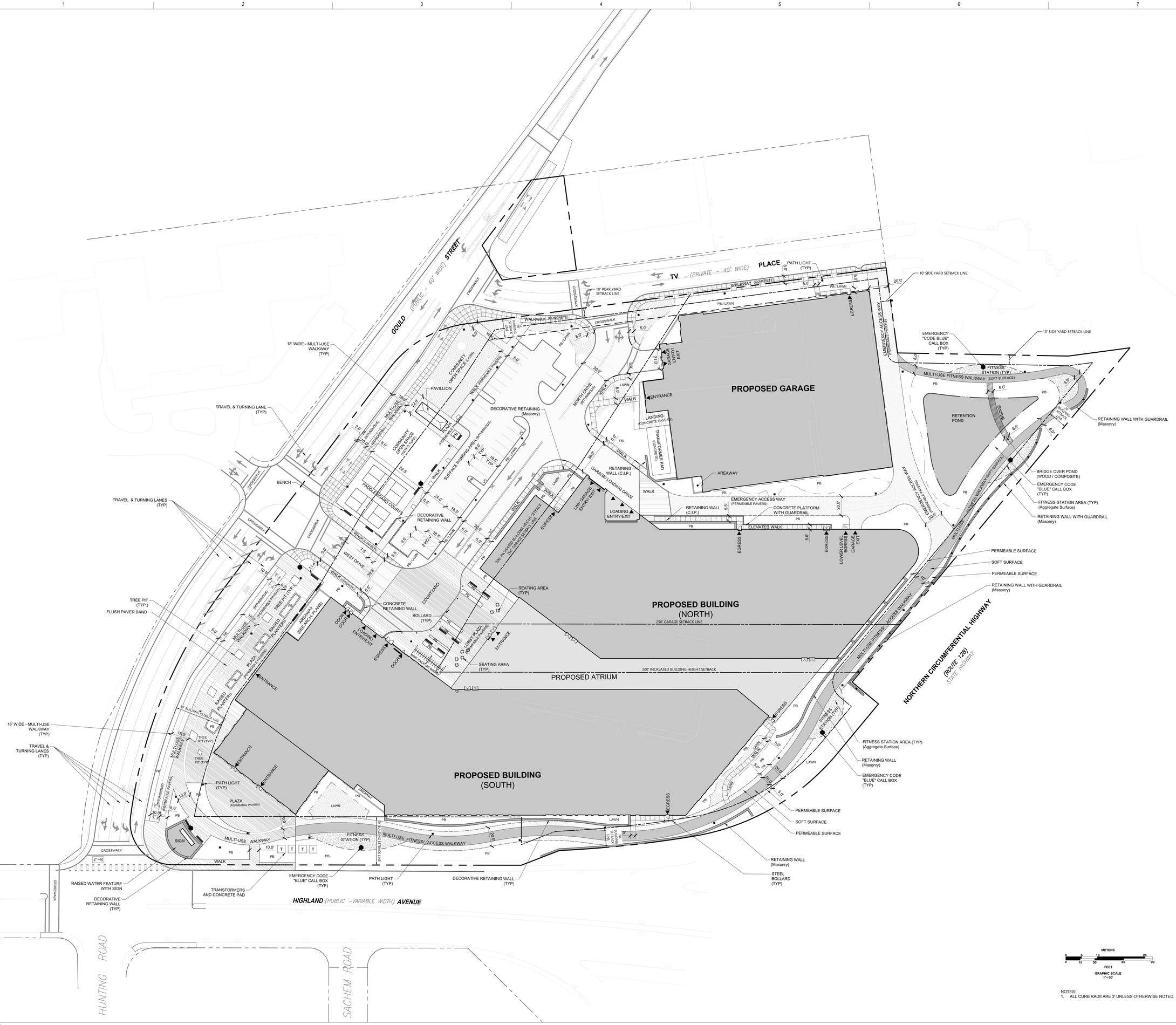
Client/Project
Bulfinch
HIGHLAND INNOVATION CENTER
557 Highland Ave
Needham, MA 02494

Project No.: 218421343
File Name:
Scale: 1" = 30'-0"

Dwn.	Dsgn.	Chkd.	YYYY.MM.DD

Title
CONVEYANCE

Revision:
Drawing No.
EX-1.0



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Boston, MA 02135
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pfa
Landscape Architects + Planners
Urban Designers + Preservationists
PAUL FINGER ASSOCIATES
14 Story Street
Boston, Massachusetts 02241-4429
617 227 4911
www.paulfinger.com

By	Appd	YYYY.MM.DD	Issued/Revision
DEM	SWM	2022.06.15	SPECIAL PERMIT PACKAGE R1
DEM	SWM	2022.07.15	SPECIAL PERMIT PACKAGE R2
DEM	SWM	2022.08.12	SPECIAL PERMIT PACKAGE R3
DEM	SWM	2022.03.30	SPECIAL PERMIT PACKAGE

Permit/Seal

KEY PLAN

SPECIAL PERMIT PACKAGE R1
08/15/2022
(FOR 09/07/2022 PLANNING BOARD SPECIAL PERMIT PUBLIC HEARING)

Client/Project
Bulfinch
HIGHLAND INNOVATION CENTER
557 Highland Ave.
Needham, MA 02494

Project No.: 218421343
File Name:
Scale: 1" = 30'-0"

Dwn.	Dsgn.	Chkd.	YYYY.MM.DD

Title
SITE PLAN

Revision:
Drawing No.
L-1.0

METERS
0 5 10 25
0 15 30 60 90
FEET
GRAPHIC SCALE
1" = 30'

NOTES:
1. ALL CURB RADII ARE 3' UNLESS OTHERWISE NOTED.

ORIGINAL SHEET - ARCH E

KEY PLAN

NOTES:
1. ALL CURB RADII ARE 3' UNLESS OTHERWISE NOTED.

METERS 0 5 10 20 35 / FEET 0 15 30 60 90
GRAPHIC SCALE 1" = 30'

ORIGINAL SHEET - ARCH E

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Issued/Revision	By	Appd	YYYY.MM.DD
SPECIAL PERMIT PACKAGE R1	DSR	SIM/MDR	2022.08.15
DSR SIM/MDR	DSR	SIM/MDR	2022.07.15
SPECIAL PERMIT PACKAGE	DSR	SIM/MDR	2022.07.12
SPECIAL PERMIT PACKAGE	DSR	SIM/MDR	2022.03.30

Permit/Seal

COMMONWEALTH OF MASSACHUSETTS
REGISTERED LANDSCAPE ARCHITECT
MARK D. RICHARDSON
No. 1217

SPECIAL PERMIT PACKAGE R1
08/15/2022
(FOR 09/07/2022 PLANNING BOARD SPECIAL PERMIT PUBLIC HEARING)

Client/Project
Bulfinch
HIGHLAND INNOVATION CENTER
557 Highland Ave
Needham, MA 02494

Project No.: 218421343
File Name:
Scale: 1" = 30'-0"

Dwn.	Dsgn.	Chkd.	YYYY.MM.DD

Title
GRADING PLAN

Revision:
Drawing No.
L-2.0

NO MOW LAWN MIX
HARD FESCUE (Festuca brevipila), SHEEP FESCUE (Festuca ovina), CHEWING FESCUE (Festuca rubra subs. fallax), RED FESCUE (Festuca rubra), CREEPING RED FESCUE(Festuca rubra var. rubra)

NEW ENGLAND CONSERVATION MIX (MEADOW MIX)
Virginia Wild Rye (Elymus virginicus), Little Bluestem (Schizachyrium scoparium), Big Bluestem (Andropogon gerardii). Red Fescue (Festuca rubra), Switch Grass (Panicum virgatum), Partridge Pea (Chamaecrista fasciculata), Panicledleaf Tick Trefoil (Desmodium paniculatum), Indian Grass (Sorghastrum nutans), Blue Vervain (Verbena hastata), Butterfly Milkweed (Asclepias tuberosa), Black Eyed Susan (Rudbeckia hirta), Common Sneezeweed (Helenium autunale), Heath Aster (AsterpiosusSymphyotrichum pilosum). Early Goldenrod (Solidago juncea), Upland Bentgrass (Agrostis perennans).

GROUND COVERS	QTY	BOTANICAL / COMMON NAME	CONT	ITEM		
	360	ASCLEPIAS INCARNATA SWAMP MILKWEED	FLAT 20 MIN.			18" o.c.
	858	ASTER NOVAE-ANGLIAE NEW ENGLAND ASTER	FLAT 20 MIN.			18" o.c.
	444	CAREX X 'SILVER SCEPTRE' SILVER SCEPTRE SEDGE	1 GAL			8" o.c.
	354	EUPATORIUM FISTOLOSUM JOE PYE WEED	1 GAL			18" o.c.
	283	GAULTHERIA PROCUMBENS WINTERGREEN	FLAT 20 MIN.			12" o.c.
	36	LIATRIS PYCNOSTACHYA GAYFEATHER	FLAT 20 MIN.			18" o.c.
	138	OSMUNDA CINNAMOMEA CINNAMON FERN	1 GAL			18" o.c.
	647	RHUS AROMATICA 'GRO-LOW' GRO-LOW FRAGRANT SUMAC	3 GAL			24" o.c.
	397	VERNONIA NOVEBORACENSIS COMON IRONWEED	FLAT 20 MIN.			18" o.c.
	714	WALDSTEINIA FRAGARIOIDES APPALACHIAN BARREN STRAWBERRY	FLAT 20 MIN.			12" o.c.

EVERGREEN	QTY	BOTANICAL / COMMON NAME	SIZE	SIZE	NATIVE	
PG	34	PICEA GLAUCA WHITE SPRUCE	B & B	5-6' HT		
TS	45	THUJA OCCIDENTALIS 'SMARAGD' EMERALD GREEN ARBORVITAE	B & B	6-7' HT		
TM	71	TAXUS X MEDÍA 'HICKSII' HICKS YEW	B & B	4' - 5' HT		
ORNAMENTAL	QTY	BOTANICAL / COMMON NAME	SIZE	SIZE	NATIVE	
CK	8	CORNUS KOUSA KOUSA DOGWOOD	B & B	3"CAL		
MS	16	MALUS X 'SPRING SNOW' SPRING SNOW CRABAPPLE	B & B	3"CAL		
SHADE TOLERANT	QTY	BOTANICAL / COMMON NAME	SIZE	SIZE	NATIVE	
AC	21	AMELANCHIER CANADENSIS CANADIAN SERVICEBERRY	B & B	7-8' HT.	MULTI-STEM	
HV	40	HAMAMELIS VIRGINIANA COMMON WITCH HAZEL	B & B	6-7' HT		
SHADE TREES	QTY	BOTANICAL / COMMON NAME	SIZE	SIZE	NATIVE	
AA2	3	ACER X FREEMANII 'ARMSTRONG' ARMSTRONG FREEMAN MAPLE COLUMNAR	B & B	3-4" CAL.		
BN	13	BETULA NIGRA `HERITAGE` HERITAGE RIVER BIRCH	B & B	3-4" CAL.		
BP	5	BETULA POPULIFOLIA GRAY BIRCH	B & B	3-3.5" CAL		
GI	12	GLEDITSIA TRIACANTHOS INERMIS THORNLESS HONEY LOCUST	B & B	3-4" CAL.		
LS	10	LIQUIDAMBAR STYRACIFLUA SWEET GUM	B & B	3-4" CAL.		
NS	12	NYSSA SYLVATICA TUPELO	B & B	3-4" CAL.		
QB	4	QUERCUS BICOLOR SWAMP WHITE OAK	15 GAL	3-4" CAL.		
QP	11	QUERCUS PALUSTRIS PIN OAK	B & B	3-4" CAL.		
TA	4	TILIA AMERICANA AMERICAN LINDEN	B & B	3-4" CAL.		
SHRUBS	QTY	BOTANICAL / COMMON NAME	SIZE	SIZE	NOTES	
CO	65	CORNUS SERICEA 'VARIEGATA' VARIEGATED RED TWIG DOGWOOD	5 GAL	24"-36"		
HI	86	HYDRANGEA PANICULATA 'LIMELIGHT' LIMELIGHT PANICLE HYDRANGEA	5 GAL	24"-36"		
Iv	185	ILEX VERTICILLATA 'JIM DANDY' JIM DANDY WINTERBERRY	3 GAL	18"-24"		
Ir	17	ILEX VERTICILLATA 'RED SPRITE' RED SPRITE WINTERBERRY	5 GAL	24"-36"		
Jc	112	JUNIPERUS CONFERTA SHORE JUNIPER	3 GAL	12"		
Va	27	VACCINIUM ANGUSTIFOLIUM LOWBUSH BLUEBERRY	2 GAL	12"		
EVERGREEN	QTY	BOTANICAL / COMMON NAME	SIZE	SIZE	NOTES	
Ig	150	ILEX GLABRA INKBERRY HOLLY	5 GAL	24"-36"		
Kl	110	KALMIA LATIFOLIA MOUNTAIN LAUREL	5 GAL	24"-36"		
Pg2	17	PICEA PUNGENS 'GLAUCA GLOBOSA' BLUE GLOBE COLORADO SPRUCE	5 GAL	24"-36"		
Rc	81	RHODODENDRON X 'CUNNINGHAM'S WHITE' CUNNINGHAM'S WHITE RHODODENDRON	5 GAL	24"-36"		
GRASSES	QTY	BOTANICAL / COMMON NAME	SIZE	SIZE	NOTES	
Ce	347	CALAMAGROSTIS X ACUTIFLORA 'EL DORADO' EL DORADO FEATHER REED GRASS	3 GAL			
Pn	177	PANICUM VIRGATUM 'NORTHWIND' NORTHWIND SWITCH GRASS	2 GAL			
Ps	33	PANICUM VIRGATUM 'SHENANDOAH' SHENANDOAH SWITCH GRASS	2 GAL			
PERENNIALS	QTY	BOTANICAL / COMMON NAME	SIZE	SIZE	NOTES	
Rk	106	ROSA SHRUB 'KNOCK OUT' KNOCK OUT ROSE	5 GAL			
Rh	141	RUDBECKIA HIRTA BLACK-EYED SUSAN	2 GAL			

Stantec
Stantec Architecture and Engineering P.C.
40 Wantz Street, 3rd Floor
Danvers, MA 01923
Tel: (617) 234-3100 • www.stantec.com

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Consultant

dfa
Landscape Architects + Planners
Urban Designers + Preservationists
PAUL FINGER ASSOCIATES
14 Story Street
Boston, Massachusetts 02481-4429
781 235 8000

Issued/Revision	By	Appvd
2022.05.13 SPECIAL PERMIT PACKAGE R1	TYT	MJ/LDS
2022.07.13 DRB SUBMISSION		
2022.08.15 PLANNING BOARD SPECIAL PERMIT PUBLIC HEARING		

Permit/Seal

KEY PLAN

SPECIAL PERMIT PACKAGE R1
08/15/2022
(FOR 09/07/2022 PLANNING BOARD SPECIAL PERMIT PUBLIC HEARING)

Client/Project
Bulfinch
HIGHLAND INNOVATION CENTER
557 Highland Ave
Needham, MA 02494

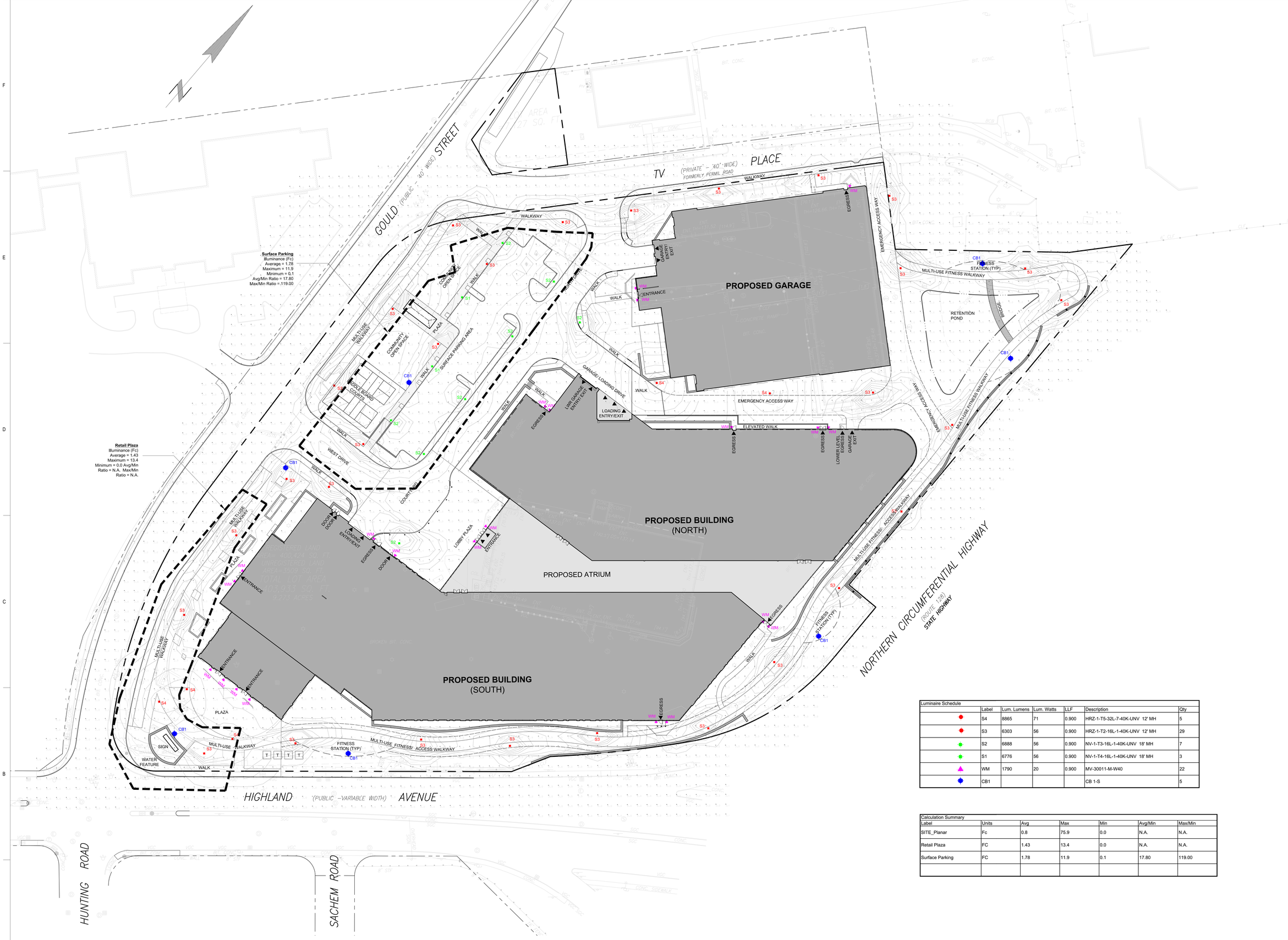
Project No.: 218421343
File Name: SPLANTING PLAN.DWG
Scale: 1" = 30'-0"

Dwn. | Dsgn. | Chkd. | YYYY.MM.DD

Title
SITE PLANTING PLAN

Revision:
Drawing No.
L-3.0

ORIGINAL SHEET - ARCH E



Luminaire Schedule						
	Label	Lum. Lumens	Lum. Watts	LLF	Description	Qty
	S4	8865	71	0.900	HRZ-1-T5-32L-7-40K-UNV 12' MH	5
	S3	6303	56	0.900	HRZ-1-T2-16L-1-40K-UNV 12' MH	29
	S2	6888	56	0.900	NV-1-T3-16L-1-40K-UNV 18' MH	7
	S1	6776	56	0.900	NV-1-T4-16L-1-40K-UNV 18' MH	3
	WM	1790	20	0.900	MV-30011-M-W40	22
	CB1				CB 1-S	5

Calculation Summary						
Label	Units	Avg	Max	Min	Avg/Min	Max/Min
SITE_Planar	Fc	0.8	75.9	0.0	N.A.	N.A.
Retail Plaza	FC	1.43	13.4	0.0	N.A.	N.A.
Surface Parking	FC	1.78	11.9	0.1	17.80	119.00

METERS 0 5 10 20
FEET 0 15 30 60 90
GRAPHIC SCALE 1"=30'

KEY PLAN

Stantec
Stantec Architecture and Engineering P.C.
40 Wantz Street, 3rd Floor
Danvers, MA 01923
Tel: (617) 234-3100 • www.stantec.com

The Contractor shall verify and be responsible for all dimensions. DO NOT scale the drawing. Any discrepancies shall be reported to the Consultant immediately before proceeding with the work. The Consultant shall not be responsible for any deviations in dimensions which may be taken on the construction site without consultation with the Consultant. Copyright reserved.

Consultant

Landscape Architects - Planners
Urban Designers - Environmental Consultants
PAUL FINGER ASSOCIATES
14 Main Street
Bristol, RI
Telephone: (401) 254-1744

Issued/Revision	By	Appvd
SPECIAL PERMIT PACKAGE R1	EFJ	TYP.MM.DD
DRB SUBMISSION	EFJ	2022.07.15
SPECIAL PERMIT PACKAGE	EFJ	2022.08.01
SPECIAL PERMIT PACKAGE	EFJ	2022.03.30

Permit/Seal

COMMONWEALTH OF MASSACHUSETTS
REGISTERED LANDSCAPE ARCHITECT
ERIC FINGER

SPECIAL PERMIT PACKAGE R1
08/15/2022
(FOR 09/07/2022 PLANNING BOARD SPECIAL PERMIT PUBLIC HEARING)

Client/Project

Bulfinch
HIGHLAND INNOVATION CENTER
557 Highland Ave
Needham, MA 02494

Project No.: 218421343
File Name: SLT-LIGHTING PLAN.DWG
Scale: 1" = 30'-0"

Dwn.	Dsgn.	Chkd.
EFJ	LH	EFJ
		2022.03.30
		YYYY.MM.DD

Title
SITE LIGHTING PLAN

Revision:
Drawing No.
L-4.0

ORIGINAL SHEET - ARCH E

CB 1-S SIGNATURE HELP POINT®

Code Blue

Product Description

The CB 1-s is our most-popular pedestal Help Point. Highlighted by a high intensity area light that provides added visibility, this blue light emergency tower provides direct contact with first responders and is an excellent choice for walkways, parking lots, open campus areas and more.

Standard Features

- Durable quarter-inch steel construction
- Trademarked cylindrical design
- 9 feet tall
- 12.75" diameter
- LED faceplate light

Popular Applications

Open Spaces · Entry Points · Infrastructure

Popular Upgrades

Public Address · Overhead Camera Mount · Dual Faceplates · Mounting Rings · AED Housing

Get It Customized

We know your installation is unique. From paint and graphics to height and mountings, if you dream it, we can make it. Contact Customer Service at customerservice@codeblue.com or 800-205-7186 to learn more.

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Code Blue

Technical Features

Specifications
- Height: 9' (274.32 cm)
- Weight: 330 lbs. (149.69 kg)
- Diameter: 12.75" (32.38 cm)
- Material & thickness: 0.25" steel
- Access doors: 15.88" x 9.64" (40.34 x 24.49 cm)

Power
- Standard: 12-24V AC/DC
- Optional: 120, 240, 277V AC
  - Hardwire
  - NightCharge®
  - PoE

Communication
- Speakerphone Options
  - IP5000: Full duplex, SIP compatible VoIP phone.
  - IA4100: Analog full duplex phone.
- Hardwire
- Cellular
- IP wireless

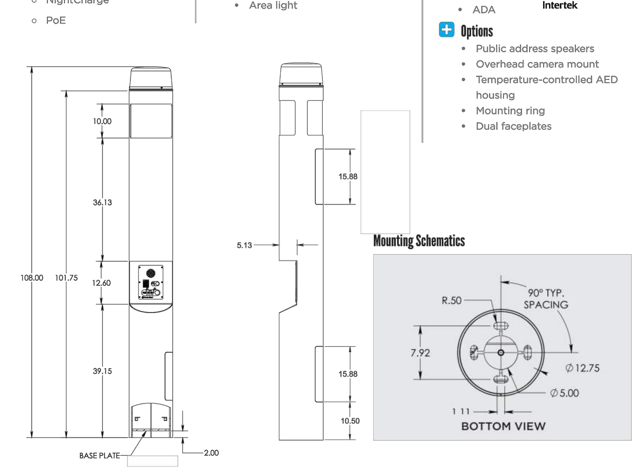
Lighting
- LED faceplate light
- Beacon/strobe
- Area light

Style
- Standard wet coat colors: Dark Bronze, Gloss White, Gloss Black, Safety Blue, Safety Red, Safety Yellow, Bright Silver
- Graphics text: Assistance, Emergency
- Graphics colors: Black, Blue, White

Compliance
- UL 2017
- UL 60950-1
- NEMA 3S
- ADA

Intertek

Options
- Public address speakers
- Overhead camera mount
- Temperature-controlled AED housing
- Mounting ring
- Dual faceplates



Note: Specifications subject to change without notice or obligation on the part of Code Blue Corporation.

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CODE BLUE LIGHTS (CB1)

NOT TO SCALE

NLS LIGHTING — NV-1

AREA LIGHTING

FORM AND FUNCTION
- Sleek, low profile housing
- Spec grade performance
- Engineered for optimum thermal management
- Low depreciation rate
- Reduces energy consumption and costs up to 65%
- Exceeds IES foot candle levels utilizing the least number of poles and fixtures per project
- Optical system designed for:
  - Parking Lots
  - Auto Dealerships
  - General Area Lighting

CONSTRUCTION
- Die Cast Aluminum
- External cooling fins
- Corrosion resistant external hardware
- One-piece silicone gasket ensures IP-65 seal for electronics compartment
- One-piece Optics Plate™ mounting silicone Micro Optics
- Two-piece silicone Micro Optic system ensures IP-67 level seal around each PCB
- Grade 2 Clear Anodized Optics Plate™ standard

FINISH
- 3-5 mils electrostatic powder coat.
- NLS' standard high-quality finishes prevent corrosion protects against and extreme environmental conditions

WARRANTY
Five-year limited warranty for drivers and LEDs.

LISTINGS
- Certified to UL 1598
- UL 8750
- CSA C22.2 No. 250.0
- DesignLights Consortium® (DLC)
- DesignLights Consortium Premium® (DLCP)
- IP65/ IP67 Rated
- 3G Vibration Rated per ANSI C136.31-2010

LED WATTAGE CHART

	16L	32L	48L	64L
350 milliamps	18w	-	-	-
530 milliamps	28w	-	-	-
700 milliamps	36w	71w	104w	136w
1050 milliamps	56w	106w	156w	205w

Project Name: Type:

Cat#	Light Dist.	# of LEDs	Milliamps	Kelvin	Volts	Mounting	Color	Options
NV-1 (NV-1)	Type 2 (T2); Type 3** (T3); Type 4* (T4); Type 5 (T5); Nema 2 24" Narrow Beam (N2); Nema 3 30" Narrow Beam (N3)	16 *,** (16L); 32 (32L); 48 (48L); 64 (64L)	350 (35); 530 (53); 700 (7); 1050 *,** (1)	2700K, 80 CRI (27K8)❶; 3000K, 70 CRI (30K7); 3000K, 80 CRI (30K8)❶; 3500K, 80 CRI (35K8); 4000K, 70 CRI *,** (40K7); 4000K, 80 CRI (40K8)❶; 5000K, 70 CRI (50K7); 5000K, 80 CRI (50K8)❶	120-277 *,** (UNV); 347-480 (HV)	Direct Pole 3" Arm Single, D180 (DPS3)❷; Direct Pole 7" Arm D180, D90, T90, T120, Quad (DPS7)❷; Knuckle Mount (KM); Wall Mount (WM); Trunnion Mount (TM)❸; Tennis Arm (TA); Mast Arm (MA); *,**	Bronze Textured (BRZ); White Textured (WHT); Smooth White Gloss (SWT); Silver (SVR); Black Textured (BLK); Smooth Black Gloss (SBK); Graphite Textured (GPH); Grey Textured (GRY); Custom (CS)	Bird Spikes (BS); Marine Grade Finish (MGF); Optic Plate Painted to Match Fixture (OPP); Nema 7-Pin Receptacle (PE7); Photocell + Receptacle (PCR); Receptacle + Shorting Cap (PER); FSP-211 with Motion Sensor (FSP-20)❹ 9'-20' Heights; (FSP-40)❹ 21'-40' Heights; Quick Mount Bracket (QMB); Retrofit Mount Bracket (RQMB); Round Pole Adaptor 3"- 4" Pole (RPA4); Round Pole Adaptor 5"- 6" Pole (RPA5); Rotated Optic Left (ROL); Rotated Optic Right (ROR); Automotive House Side Shield (AHS); House Side Shield (HSS)❺

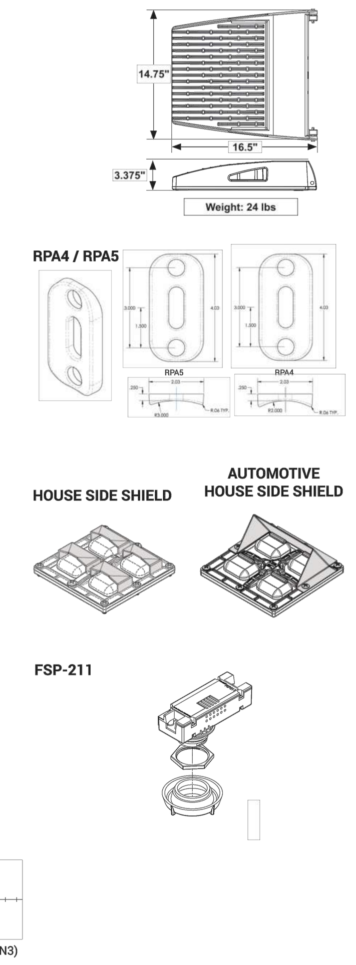
Notes:
❶ Consult Factory for Lead Time. Consult Factory for 90 CRI Requests.
❷ For Round Pole Specify RPA4 or RPA5
❸ Standard finish is stainless steel. Can be painted to match fixture
❹ Universal Voltage 120-277
❺ HSS not applicable with Nema 2 and Nema 3 Optics

ELECTRICAL
- 120-277 Volts (UNV) or 347-480 Volts (HV)
- 0-10V dimming driver by Philips Advance
- Driver power factor at maximum load is ≥ .95, THD maximum load is 15%
- All internal wiring UL certified for 600 VAC and 105°C
- All drivers, controls, and sensors housed in enclosed IP-65 compartment
- Lumileds Luxeon MX LED's
- CRI 70, 80 or 90
- Color temperatures: 2700K, 3000K, 3500K, 4000K, 5000K
- Surge Protection: 20KVA supplies as standard.

OPTIONS
- **BIRD SPIKES (BS)**—Offers effective and humane deterrent for larger bird species and provides cost-effective long-term solution to nuisance bird infestations and protect your property.
- **MARINE GRADE FINISH (MGF)**—A multi-step process creating protective finishing coat against harsh environments.
  - Chemically washed in a 5 stage cleaning system.
  - Pre-baked
  - Powder coated 3-5 mils of Zinc Rich Super Durable Polyester Primer.
  - 1-2 feet inside pole coverage top and bottom.
  - Oven Baked.
  - Finished Powder Coating of Super Durable Polyester Powder Coat 3-5 mil thickness.
- **SHIELDS (HSS, AHS)**—House Side Shield (HSS) is designed for full property line cut-off. Automotive House Side Shield (AHS) is a single-sided shield allowing partial cut-off on either side or front of luminaire.
- **ROUND POLE ADAPTER (RPA)–** When using round poles, specify Round Pole Adapter (RPA). Specify RPA4 when installing on 3"-4" round poles, and RPA5 when installing on 5"-6" round poles.

CONTROLS
- **FSP-211 (FSP-X)**—Passive infrared (PIR) sensor providing multi-level control based on motion/daylight contribution.
  - All control parameters adjustable via wireless configuration remote storing and transmitting sensor profiles.
  - FSP-20 mounting heights 9-20 feet
  - FSP-40 mounting heights 21-40 feet.
  - Includes 5 dimming event cycles, 0-10V dimming with motion sensing, reprogrammable in the field.
- **NEMA 7-PIN RECEPTACLE (PE7)**—An ANSI C136.41-2013 receptacle provides electrical and mechanical interconnection between photo control cell and luminaire. Dimming receptacle available two or four dimming contacts supports 0-10 VDC dimming methods or Digital Addressable Lighting Interface (DALI), providing reliable power interconnect.

OPTICS
Silicone optics high photothermal stability and light output provides higher powered LEDs with minimized lumen depreciation LED life. UV and thermal stability with scratch resistance increases exterior application durability.
- IES Types



NLS LIGHTING 701 Kingshill Place, Carson, CA 90746 Call Us Today (310) 341-2037 nlslighting.com

LUMENS

PART NUMBER	N3	LM/W	T2	LM/W	DLC	T3	LM/W	DLC	T3 HSS	LM/W	T4	LM/W	DLC	T4 AHS	LM/W	T4 HSS	LM/W	T5	LM/W	DLC	W
NV-1-16L-35-30K	2016	112	2106	117	P	2106	117	P	1134	63	2187	116	P	1296	72	1116	62	2231	118	P	18
NV-1-16L-35-40K	2088	116	2268	126	P	2286	127	P	1206	67	2250	125	P	1368	76	1188	66	2304	128	P	18
NV-1-16L-35-50K	2160	120	2376	132	P	2394	133	P	1278	71	2358	131	P	1440	80	1260	70	2412	134	P	18
NV-1-16L-53-30K	3136	112	3192	114	P	3220	115	P	1764	63	3119	113	P	2016	72	1736	62	3248	116	P	28
NV-1-16L-53-40K	3248	116	3472	124	P	3472	124	P	1876	67	3444	123	P	2128	76	1848	66	3500	125	P	28
NV-1-16L-53-50K	3360	120	3612	129	P	3640	130	P	1988	71	3584	128	P	2240	80	1960	70	3668	131	P	28
NV-1-16L-7-30K	4032	112	3960	110	P	3960	110	P	2268	63	3973	109	P	2592	72	2232	62	3996	111	P	36
NV-1-16L-7-40K	4176	116	4428	123	P	4284	119	P	2412	67	4212	117	P	2736	76	2376	66	4320	120	P	36
NV-1-16L-7-50K	4320	120	4644	129	P	4500	125	P	2556	71	4428	123	P	2880	80	2520	70	4500	125	P	36
NV-1-16L-1-30K	6272	112	6160	110	S	6384	114	P	3528	63	6232	112	P	4032	72	3472	62	6440	115	P	56
NV-1-16L-1-40K	6496	116	6832	122	P	6888	123	P	3752	67	6776	121	P	4256	76	3696	66	6944	124	P	56
NV-1-16L-1-50K	6720	120	7168	128	P	7224	129	P	3976	71	7112	127	P	4480	80	3920	70	7280	130	P	56
NV-1-32L-7-30K	7952	112	7810	110	S	7810	110	S	4473	63	7739	109	S	5112	72	4402	62	7881	111	S	71
NV-1-32L-7-40K	8236	116	9017	127	P	8449	119	P	4757	67	8307	117	P	5396	76	4686	66	8520	120	P	71
NV-1-32L-7-50K	8520	120	9159	129	P	8875	125	P	5041	71	8733	123	P	5680	80	4970	70	8946	126	P	71
NV-1-32L-1-30K	11872	112	11660	110	S	12084	114	S	6678	63	11820	112	S	7632	72	6572	62	12190	115	S	106
NV-1-32L-1-40K	12296	116	12932	122	P	13038	123	P	7102	67	12826	121	P	8056	76	6996	66	13144	124	P	106
NV-1-32L-1-50K	12720	120	13568	128	P	13674	129	P	7526	71	13462	127	P	8480	80	7420	70	13780	130	P	106
NV-1-48L-7-30K	11648	112	11440	110	S	11440	110	S	6552	63	11336	109	S	7488	72	6448	62	11544	111	S	104
NV-1-48L-7-40K	12064	116	13208	127	P	12376	119	P	6968	67	12168	117	P	7904	76	6864	66	12480	120	P	104
NV-1-48L-7-50K	12480	120	13520	130	P	13000	125	P	7384	71	12792	123	P	8320	80	7280	70	13104	126	P	104
NV-1-48L-1-30K	17472	112	17160	110	S	17784	114	S	9828	63	17472	112	S	11232	72	9672	62	17940	115	S	156
NV-1-48L-1-40K	18096	116	19032	122	P	19188	123	P	10452	67	18876	121	P	11856	76	10296	66	19344	124	P	156
NV-1-48L-1-50K	18720	120	19968	128	P	20124	129	P	11076	71	19812	127	P	12480	80	10920	70	20280	130	P	156
NV-1-64L-7-30K	15232	112	14960	110	S	14960	110	S	8568	63	14824	109	S	9792	72	8432	62	15096	111	S	136
NV-1-64L-7-40K	15776	116	17272	127	P	16184	119	P	9112	67	15912	117	P	10336	76	8976	66	16320	120	P	136
NV-1-64L-7-50K	16320	120	17680	130	P	17000	125	P	9656	71	16728	123	P	10880	80	9520	70	17136	126	P	136
NV-1-64L-1-30K	22960	112	22550	110	S	23370	114	S	12915	63	22960	112	S	14760	72	12710	62	23575	115	S	205
NV-1-64L-1-40K	23780	116	25010	122	P	25215	123	P	13735	67	24805	121	P	15580	76	13530	66	25420	124	P	205
NV-1-64L-1-50K	24600	120	26240	128	P	26445	129	P	14555	71	26035	127	P	16400	80	14350	70	26650	130	P	205

*DLC S= Standard P= Premium

BUG RATINGS

PART NUMBER	T2	T3	T3 HSS	T4	T4 HSS	T5
NV-1-16L-35-30K	B1-U0-G1	B1-U0-G1	B0-U0-G0	B1-U0-G1	B0-U0-G0	B2-U0-G0
NV-1-16L-35-40K	B1-U0-G1	B1-U0-G1	B0-U0-G0	B1-U0-G1	B0-U0-G0	B2-U0-G0
NV-1-16L-35-50K	B1-U0-G1	B1-U0-G1	B0-U0-G0	B1-U0-G1	B0-U0-G0	B2-U0-G2
NV-1-16L-53-30K	B1-U0-G1	B1-U0-G1	B0-U0-G1	B1-U0-G1	B0-U0-G1	B2-U0-G1
NV-1-16L-53-40K	B1-U0-G1	B1-U0-G1	B0-U0-G1	B1-U0-G1	B0-U0-G1	B2-U0-G1
NV-1-16L-53-50K	B1-U0-G1	B1-U0-G1	B0-U0-G1	B1-U0-G1	B0-U0-G1	B2-U0-G1
NV-1-16L-7-30K	B1-U0-G1	B1-U0-G1	B0-U0-G1	B1-U0-G1	B0-U0-G1	B3-U0-G1
NV-1-16L-7-40K	B1-U0-G1	B1-U0-G1	B0-U0-G1	B1-U0-G1	B0-U0-G1	B3-U0-G1
NV-1-16L-7-50K	B1-U0-G1	B1-U0-G1	B0-U0-G1	B1-U0-G1	B0-U0-G1	B3-U0-G1
NV-1-16L-1-30K	B1-U0-G1	B1-U0-G1	B0-U0-G1	B1-U0-G1	B0-U0-G1	B3-U0-G1
NV-1-16L-1-40K	B1-U0-G1	B2-U0-G2	B0-U0-G1	B2-U0-G2	B0-U0-G1	B3-U0-G2
NV-1-16L-1-50K	B1-U0-G2	B2-U0-G2	B0-U0-G1	B2-U0-G2	B0-U0-G1	B3-U0-G2
NV-1-32L-7-30K	B1-U0-G2	B2-U0-G2	B0-U0-G1	B2-U0-G2	B0-U0-G1	B3-U0-G2
NV-1-32L-7-40K	B1-U0-G2	B2-U0-G2	B0-U0-G1	B2-U0-G2	B0-U0-G1	B3-U0-G2
NV-1-32L-7-50K	B2-U0-G2	B2-U0-G2	B0-U0-G2	B2-U0-G2	B0-U0-G2	B3-U0-G2
NV-1-32L-1-30K	B2-U0-G2	B2-U0-G2	B0-U0-G2	B2-U0-G2	B0-U0-G2	B4-U0-G2
NV-1-32L-1-40K	B2-U0-G2	B2-U0-G2	B0-U0-G2	B3-U0-G2	B0-U0-G2	B4-U0-G2
NV-1-32L-1-50K	B2-U0-G2	B3-U0-G3	B0-U0-G2	B3-U0-G3	B0-U0-G2	B4-U0-G2
NV-1-48L-7-30K	B2-U0-G2	B2-U0-G2	B0-U0-G2	B2-U0-G2	B0-U0-G2	B4-U0-G2
NV-1-48L-7-40K	B2-U0-G2	B2-U0-G2	B0-U0-G2	B2-U0-G2	B0-U0-G2	B4-U0-G2
NV-1-48L-7-50K	B2-U0-G2	B3-U0-G3	B0-U0-G2	B2-U0-G2	B0-U0-G2	B4-U0-G2
NV-1-48L-1-30K	B3-U0-G3	B3-U0-G3	B1-U0-G2	B3-U0-G3	B1-U0-G2	B4-U0-G2
NV-1-48L-1-40K	B3-U0-G3	B3-U0-G3	B1-U0-G2	B3-U0-G3	B1-U0-G2	B5-U0-G3
NV-1-48L-1-50K	B3-U0-G3	B3-U0-G3	B1-U0-G2	B3-U0-G3	B1-U0-G2	B5-U0-G3
NV-1-64L-7-30K	B2-U0-G2	B3-U0-G3	B0-U0-G2	B3-U0-G3	B1-U0-G2	B4-U0-G2
NV-1-64L-7-40K	B3-U0-G3	B3-U0-G3	B0-U0-G2	B3-U0-G3	B1-U0-G2	B4-U0-G2
NV-1-64L-7-50K	B3-U0-G3	B3-U0-G3	B1-U0-G2	B3-U0-G3	B1-U0-G2	B4-U0-G2
NV-1-64L-1-30K	B3-U0-G3	B3-U0-G3	B1-U0-G2	B3-U0-G3	B1-U0-G3	B5-U0-G3
NV-1-64L-1-40K	B3-U0-G3	B3-U0-G3	B1-U0-G3	B3-U0-G4	B1-U0-G3	B5-U0-G3
NV-1-64L-1-50K	B3-U0-G3	B3-U0-G3	B1-U0-G3	B3-U0-G4	B1-U0-G3	B5-U0-G3

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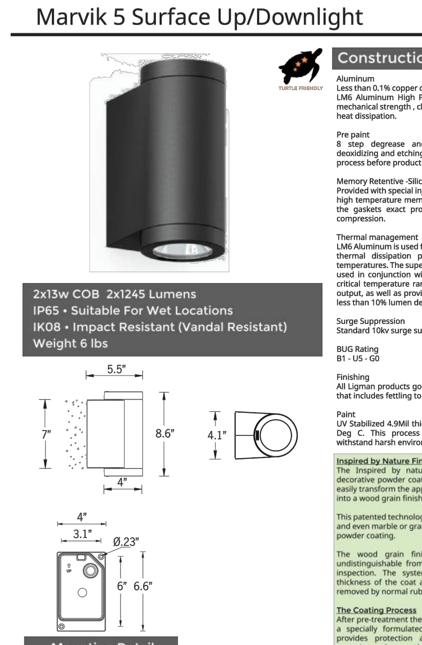
PARKING AREA LIGHTS (S1 - * & S2 - ** : MOUNTING HEIGHT 18' POLE MOUNTED)

NOT TO SCALE

UMV-30041

Marvik 5 Surface Up/Downlight

LIGMAN LIGHTING USA



2x13w COB 2x1245 Lumens
IP65 • Suitable For Wet Locations
IK08 • Impact Resistant (Vandal Resistant)
Weight 6 lbs

Mounting Detail

Construction

Aluminum
Less than 0.1% copper content – Marine Grade 6060 extruded & LM6 Aluminum High Pressure die casting provides excellent mechanical strength, clean detailed product lines and excellent heat dissipation.

Pre paint
8 step degrease and phosphate process that includes deoxidizing and etching as well as a zinc and nickel phosphate process before product painting.

Memory Retentive -Silicon Gasket
Provided with special injection molded "fit for purpose" long life high temperature memory retentive silicon gaskets. Maintains the gaskets exact profile and seal over years of use and compression.

Thermal management
LM6 Aluminum is used for its excellent mechanical strength and thermal dissipation properties in low and high ambient temperatures. The superior thermal heat sink design by Ligman used in conjunction with the driver, controls thermals below critical temperature range to ensure maximum luminous flux output, as well as providing long LED service life and ensuring less than 10% lumen depreciation at 50,000 hours.

Surge Suppression
Standard 10kv surge suppressor provided with all fixtures.

BUG Rating
B1 - U5 - G0

Finishing
All Ligman products go through an extensive finishing process that includes fettling to improve paint adherence.

Paint
UV Stabilized 4.9Mil thick powder coat paint and baked at 200 Deg C. This process ensures that Ligman products can withstand harsh environments. Rated for use in natatoriums.

Inspired by Nature Finishes
The Inspired by nature Finishing is a unique system of decorative powder coating. Our metal decoration process can easily transform the appearance of metal or aluminum product into a wood grain finish.

This patented technology enables the simulation of wood grain, and even marble or granite finish through the use of decorative powder coating.

The wood grain finish is so realistic that it's almost undistinguishable from real wood, even from a close visual inspection. The system of coating permeates the entire thickness of the coat and as a result, the coating cannot be removed by normal rubbing, chipping, or scratching.

The Coating Process
After pre-treatment the prepared parts are powder coated with a specially formulated polyurethane powder. This powder provides protection against wear, abrasion, impact and corrosion and acts as the relief base color for the finalized metal decoration.

The component is then wrapped with a sheet of non-porous film with the selected decoration pattern printed on it using special high temperature inks.

This printed film transfer is vacuum-sealed to the surface for a complete thermo print and then transferred into a customized oven. The oven transforms the ink into different forms within the paint layer before it becomes solid. Finally, the film is removed, and a vivid timber look on aluminum remains.

Wood grain coating can create beautiful wood-looking products of any sort. There are over 300 combinations of designs currently in use. Wood grains can be made with different colors, designs, etc.

Our powder coatings are certified for indoor and outdoor applications and are backed by a comprehensive warranty. These coatings rise to the highest conceivable standard of performance excellence and design innovation.

Added Benefits
- Resistance to salt-acid room, accelerated aging
- Boiling water, lime and condensed water resistant
- Anti-Graffiti, Anti-Slip, Anti-Microbial, Anti-Scratch
- Super durable (UV resistant)
- TGIC free (non-toxic)

Hardware
Provided Hardware is Marine grade 316 Stainless steel.

Anti Seize Screw Holes
Tapped holes are infused with a special anti seize compound designed to prevent seizure of threaded connections, due to electrolysis from heat, corrosive atmospheres and moisture.

Crystal Clear Low Iron Glass Lens
Provided with tempered, impact resistant crystal clear low iron glass ensuring no green glass tinge.

Optics & LED
Precise optic design provides exceptional light control and precise distribution of light.
LED CRI > 80

Lumen - Maintenance Life
L80 /B10 at 50,000 hours (This means that at least 90% of the LED still achieve 80% of their original flux)

Cylindrical, single or double-sided wall family. Compact and decorative appearance belies powerful outputs and technical optics for perfect task illumination

A stunning new waterproof & dust proof wall cylinder range, designed with no visible fasteners, a one-piece body and integrated driver housing.
This smart mechanical modern designed luminaire with cylindrical body provides a stylish solution to wall mounted cylinders.

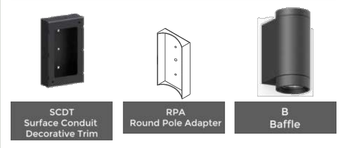
This innovative design houses a variety of COB wattages to suit designer's specific requirements as well as a selction of field interchangeable reflector optics, that include narrow, medium, wide and very wide distributions. This series is available in 3 different diameters, namely 3", 4" & 6" to suit lighting design requirements.

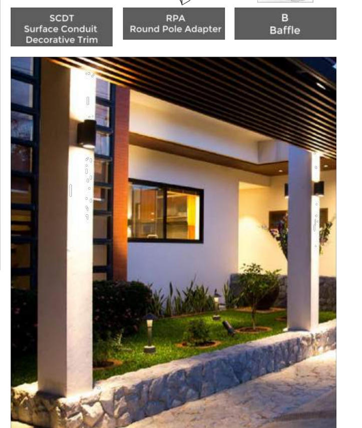
These luminaires are suitable for various facade lighting requirements along with accent lighting, building columns and architectural highlighting etc. The Marvik 1 protrudes 4" from the wall, making this product suitable for ADA applications.

This luminaire range can be provided with a bayonet lock baffle to reduce glare, as well as a frosted lens option. The SCE surface conduit entry box option can be provided as an option for an attractive solution to surface conduit entry.

Ligman can also provide custom made boxes to fit on a round surface like a column, pillar or pole.

Additional Options (Consult Factory For Pricing)





Ligman Lighting USA reserves the right to change specifications without prior notice, please contact factory for latest information. Due to the continual improvements in LED technology data and components may change without notice.

WALL MOUNTED LIGHTS (WM-Downlight Only)

NOT TO SCALE

NLS LIGHTING — HORIZON PT

ARCHITECTURAL LIGHTING

Horizon Post Top luminaire is a blend of beautiful luminaire design which is a compliment to commerical or recreational pathways. It is named the Horizon because the luminaire is intended to be a vehicle of which the horizon can be viewed through the inside and around the luminaire without obstruction.

This Dark Sky Friendly Full Cutoff luminaire utilizes silicone Micro Optics to distribute light uniformly as its LEDs are recessed and hidden. Its performance exceeds IES minimum foot candle levels at lower wattage and extends maintenance cycles throughout its lifetime. Horizon MA is available in (warm) 3000, (neutral) 4000 and (cool) 5000 Kelvin temperatures and a range of 18 to 205 watts.

Built to conform to the strictest Made in America standards. Designed, tooled, fabricated and assembled in the USA.

MICRO OPTIC SYSTEM
Our new cell-inclosed, micro optic silicone modules produce high clarity and outstanding performance.

LED WATTAGE CHART

	16L	32L	48L	64L
350 milliamps	18w	-	-	-
530 milliamps	28w	56w	-	-
700 milliamps	36w	71w	104w	136w
1050 milliamps	56w	106w	156w	205w

Project Name: Type:

Cat #	Light Dist.	No. of LEDs	Milliamps	Kelvin	Volts	Mounting	Color	Options
Horizon 1 (HRZ-1)	Type 2* (T2); Type 3 (T3); Type 4 (T4); Type 5** (T5)	16 (16L)*; 32 (32L)**; 48 (48L); 64 (64L)	350 (35) *16L Only; 530 (53) *16L-32L Only; 700** (7); 1050* (1)	3000 (30K); 4000*,** (40K); 5000 (50K)	120-277*,** (UNV); 347-480 (HV)	Post Top Over 2" OD (PT2); Post Top*,** Over 3" OD (PT3) *Standard; Post Top Over 3-1/2" OD (PT312)	Bronze (BRZ); White (WHT); Silver (SVR); Hunter Green (HGN); Black (BLK); Graphite (GPH); Grey (GRY); Custom (CS)	Dome Top (DT); Marine Grade Finish (MGF); House Side Shield (HSS); Nema 7-Pin Receptacle (PE7); Receptacle + Short.Cap (PER); Photocell (PC) *Universal Voltage 120-277; Surge Protector (10K); FSP-211 with Motion Sensor (Universal Voltage) (FSP-8) *For 8' + Below; (FSP-20) *For 9' to 20'; (FSP-40) *For 21' to 40'

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PRODUCT SPECIFICATIONS

Housing: Low Profile Cast, Spun Aluminum Housing + Frame
LED: Lumileds Luxeon MX. CRI 70
Optics: Micro Optics; T2, T3, T4 and T5
Watts: 18-205
L70 Depreciation: 483,000 Hours (@77°F/ 25°C)
L90: 70,000
Listings: Conforms to UL 1598 Standards

Driver: 0-10V Dimming driver as standard by Philips Advance
THD @ Max Load < 15%
Power Factor @ Max Load < 0.95
Kelvin: 3000, 4000, or 5000
Finish: 3-5 mils Powder Coat
Warranty: Standard Warranty is 5 years for Driver and LEDs

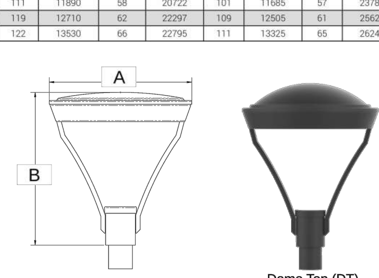
PRODUCT DIMENSIONS

LUMEN DATA CHART

PART NUMBER	T2 LUMENS	T2 LM/W	T3 LUMENS	T3 LM/W	T3-HSS LUMENS	T3-HSS LM/W	T4 LUMENS	T4 LM/W	T4-HSS LUMENS	T4-HSS LM/W	T5 LUMENS	T5 LM/W	Watts
HRZ-1-16L-35-30K	2142	119	2088	116	1044	58	2070	115	1026	57	2160	120	18
HRZ-1-16L-35-40K	2305	128	2247	125	1116	62	2227	124	1098	61	2322	129	18
HRZ-1-16L-35-50K	2356	131	2297	128	1188	66	2277	127	1170	65	2376	132	18
HRZ-1-16L-53-30K	3275	117	3192	114	1624	58	3165	113	1596	57	3304	118	28
HRZ-1-16L-53-40K	3524	126	3435	123	1736	62	3406	122	1708	61	3556	127	28
HRZ-1-16L-53-50K	3603	129	3511	125	1848	66	3482	124	1820	65	3640	130	28
HRZ-1-16L-7-30K	4100	114	4115	111	2088	58	4003	111	2052	57	4176	116	36
HRZ-1-16L-7-40K	4411	123	4300	119	2232	62	4308	120	2196	61	4500	125	36
HRZ-1-16L-7-50K	4510	125	4396	122	2376	66	4404	122	2340	65	4608	128	36
HRZ-1-16L-1-30K	5858	105	5712	102	3248	58	5661	101	3192	57	5880	105	56
HRZ-1-16L-1-40K	6303	113	6146	110	3472	62	6091	109	3416	61	6328	113	56
HRZ-1-16L-1-50K	6443	115	6283	112	3696	66	6227	111	3640	65	6496	116	56
HRZ-1-32L-53-30K	5858	105	5712	102	3248	58	5661	101	3192	57	5880	105	56
HRZ-1-32L-53-40K	6303	113	6146	110	3472	62	6091	109	3416	61	6328	113	56
HRZ-1-32L-53-50K	6443	115	6283	112	3696	66	6227	111	3640	65	6496	116	56
HRZ-1-32L-7-30K	7427	105	7881	111	4118	58	7896	111	4047	57	8236	116	71
HRZ-1-32L-7-40K	7991	113	8480	119	4402	62	8496	120	4331	61	8875	125	71
HRZ-1-32L-7-50K	8169	115	8669	122	4686	66	8685	122	4615	65	9088	128	71
HRZ-1-32L-1-30K	11088	105	10812	102	6148	58	10715	101	6042	57	11130	105	106
HRZ-1-32L-1-40K	11930	113	11634	110	6572	62	11529	109	6466	61	11978	113	106
VSR-1-32L-1-50K	12196	115	11893	112	6996	66	11787	111	6890	65	12296	116	106
HRZ-1-48L-7-30K	11844	114	11544	111	6032	58	11648	112	5928	57	12068	116	104
HRZ-1-48L-7-40K	12744	123	12421	119	6448	62	12444	120	6344	61	12985	125	104
HRZ-1-48L-7-50K	13028	125	12698	122	6864	66	12792	123	6760	65	13275	128	104
HRZ-1-48L-1-30K	16318	105	15912	102	9048	58	15769	101	8892	57	16455	105	156
HRZ-1-48L-1-40K	17558	113	17121	110	9672	62	16968	109	9516	61	17705	113	156
HRZ-1-48L-1-50K	17950	115	17503	112	10296	66	17346	111	10140	65	18100	116	156
HRZ-1-64L-7-30K	15488	114	15096	111	7888	58	15124	111	7752	57	15781	116	136
HRZ-1-64L-7-40K	16665	123	16243	119	8432	62	16273	120	8296	61	16981	125	136
HRZ-1-64L-7-50K	17037	125	16606	122	8976	66	16728	123	8840	65	17359	128	136
HRZ-1-64L-1-30K	23346	114	22755	111	11890	58	20722	101	11685	57	23780	116	205
HRZ-1-64L-1-40K	25120	123	24484	119	12710	62	22297	109	12505	61	25625	125	205
HRZ-1-64L-1-50K	25681	125	25031	122	13530	66	22795	111	13325	65	26240	128	205

DIMENSION	HRZ-1
A	24.00 in
B	25.75 in

EPA	STD TOP	DOME TOP
HRZ-1	1.15	1.40



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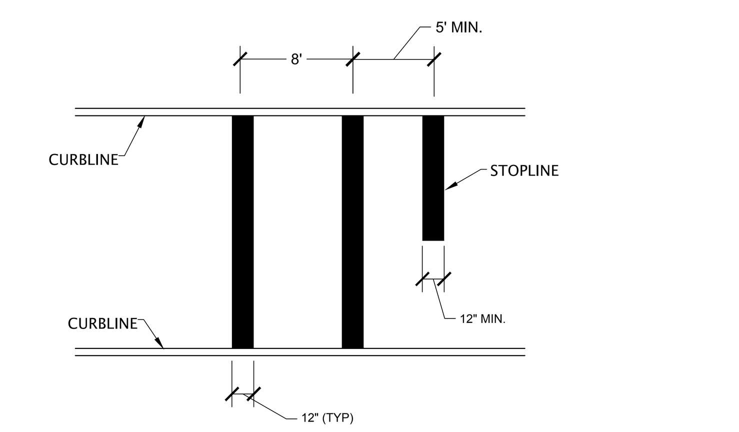
PATHWAY LIGHTS (S3 - * & S4 - ** : MOUNTING HEIGHT 12'-POST TOP MOUNTED)

NOT TO SCALE



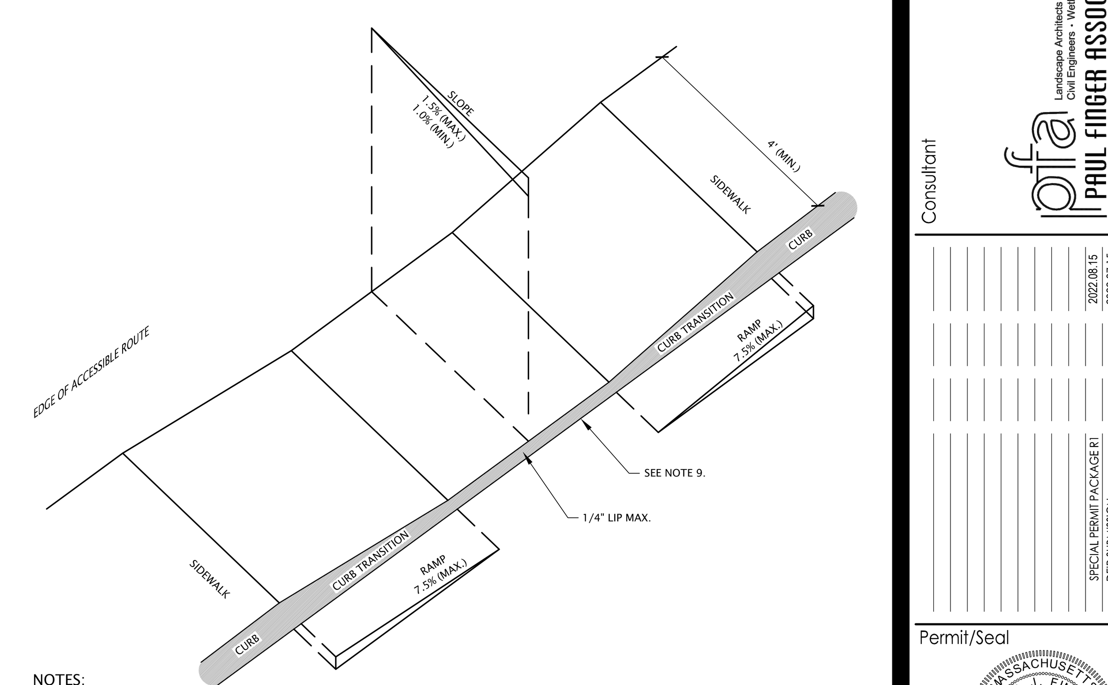
ALL TWELVE INCH (12") THERMO-PLASTIC LINES SHALL BE APPLIED IN ONE (1) APPLICATION, NO COMBINATION OF LINES (I.E. TWO 6" LINES) WILL BE ACCEPTED.

LAYOUT OF CROSSWALKS SHALL BE APPROVED BY A BOSTON TRANSPORTATION DEPARTMENT (BTD) ENGINEER PRIOR TO THERMO-PLASTIC BEING APPLIED.

ALL CROSSWALKS INSTALLED SHALL CONFORM TO THE RELEVANT PROVISIONS OF THE MASSACHUSETTS HIGHWAY DEPARTMENT "STANDARD SPECIFICATION FOR HIGHWAY AND BRIDGES" DATED 1988, SECTION 860 FOR REFLECTORIZED LINE (THERMO-PLASTIC) AND MATERIAL M7.01.20, LATEST REVISIONS.

9 PEDESTRIAN CROSS WALK

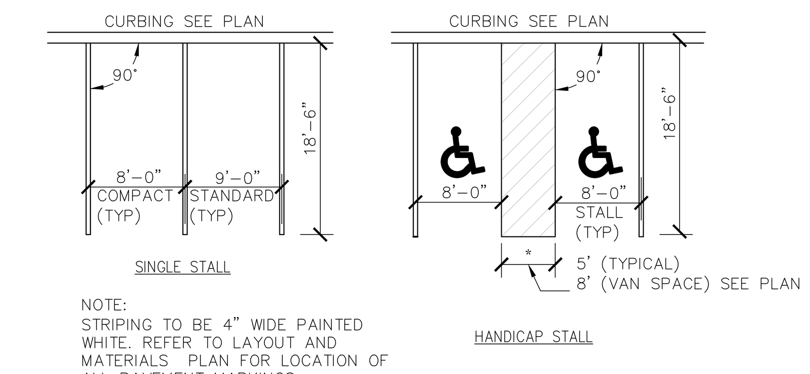
NOT TO SCALE



NOTES:
1. THE MAXIMUM ALLOWABLE SIDEWALK AND CURB RAMP CROSS SLOPES SHALL BE 1.5 (1% MIN.).
2. THE MAXIMUM ALLOWABLE SLOPE OF ACCESSIBLE ROUTE EXCLUDING CURB RAMPS SHALL BE 5%.
3. THE MAXIMUM ALLOWABLE SLOPE OF ACCESSIBLE ROUTE CURB RAMPS SHALL BE 7.5%
4. A MINIMUM OF 3 FEET CLEAR SHALL BE MAINTAINED AT ANY PERMANENT OBSTACLE IN ACCESSIBLE ROUTE (I.E., HYDRANTS, UTILITY POLES, TREE WELLS, SIGNS, ETC.).
5. CURB TREATMENT VARIES, SEE PLANS FOR CURB TYPE.
6. RAMP, CURB AND ADJACENT PAVEMENTS SHALL BE GRADED TO PREVENT PONDING.
7. SEE TYPICAL SIDEWALK SECTION FOR RAMP CONSTRUCTION.
8. WHERE ACCESSIBLE ROUTES ARE LESS THATN 5" IN WIDTH (EXCLUDING CURBING) A 5' X 5' PASSING AREA SHALL BE PROVIDED AT INTERVALS NOT TO EXCEED 200 FEET.
9. ELIMINATE CURBING AT RAMP (OTHER THAN VERTICAL CURBING, WHICH SHALL BE SET FLUSH) WHERE IT ABUTS ROADWAY.

ACCESSIBLE CURB RAMP

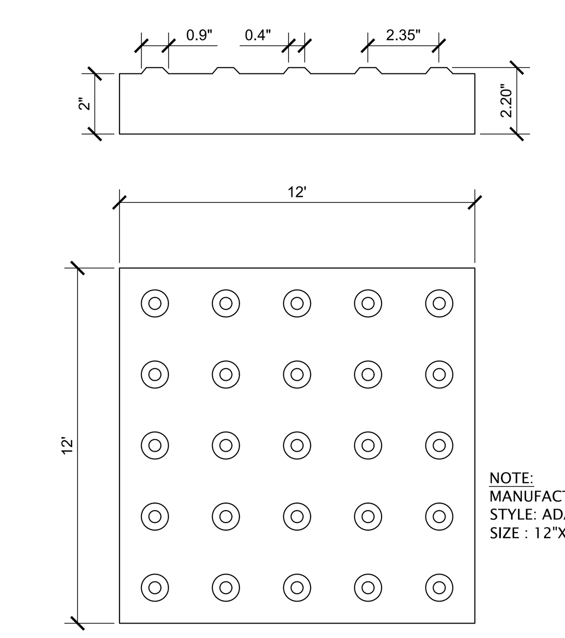
NOT TO SCALE



NOTE:
STRIPING TO BE 4" WIDE PAINTED WHITE. REFER TO LAYOUT AND MATERIALS PLAN FOR LOCATION OF ALL PAVEMENT MARKINGS.

PAVEMENT MARKING

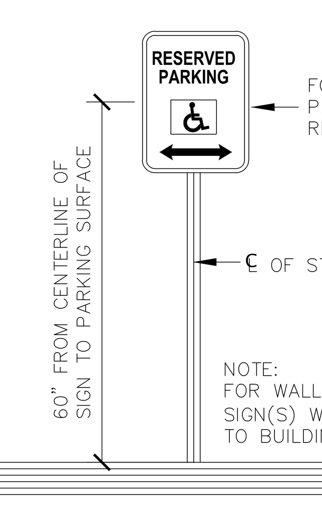
NOT TO SCALE



NOTE:
MANUFACTURER: UNILOCK
STYLE: ADA PAVER.
SIZE : 12"X12"X2-3/4"

DETECTABLE WARNING PAVER TYPE

NOT TO SCALE



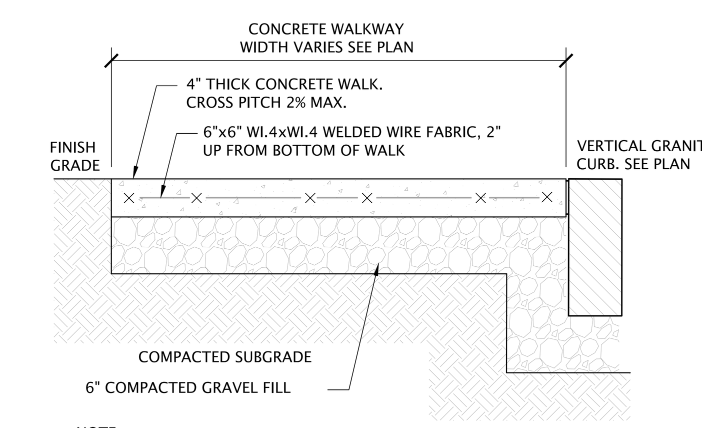
FOR VAN ACCESSIBLE PARKING SIGN REFER TO DETAIL BELOW

NOTE:
FOR WALL MOUNTED SIGNS, FASTEN SIGN(S) WITH LAG BOLTS (2 PER SIGN) TO BUILDING FACE

MHD REF. NO. R7–8

ADA HANDICAP PARKING SIGN

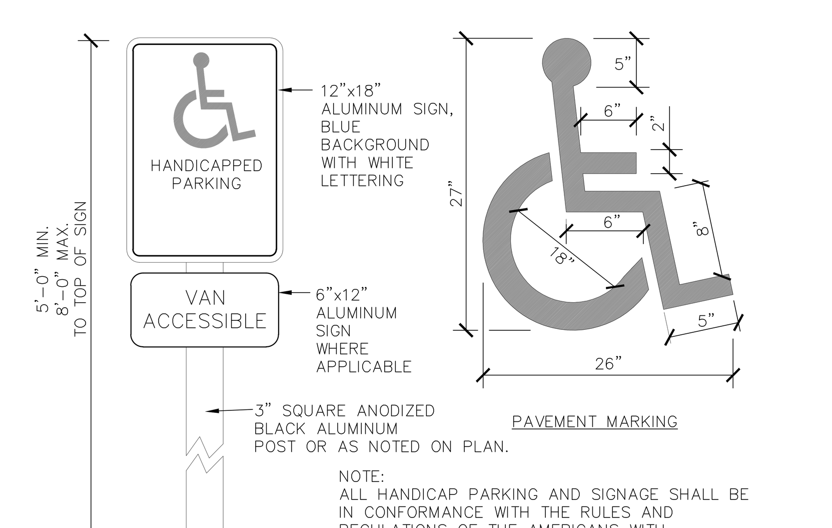
NOT TO SCALE



NOTE:
1. SIDEWALK SURFACE SHALL BE BROOM FINISHED.
2. MUNICIPAL SIDEWALKS SHALL BE CONSTRUCTED WITH FIBERMESH CONCRETE WITH NO WELDED WIRE FABRIC.

CONCRETE WALK WITH VERTICAL GRANITE CURB

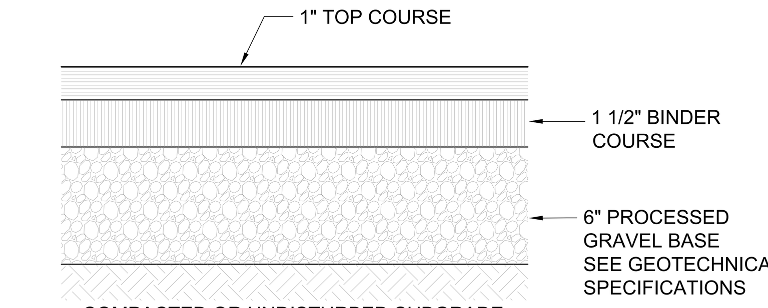
NOT TO SCALE



NOTE:
ALL HANDICAP PARKING AND SIGNAGE SHALL BE IN CONFORMANCE WITH THE RULES AND REGULATIONS OF THE AMERICANS WITH DISABILITIES ACT (ADA) AND THE MA ARCHITECTURAL ACCESS BOARD (AAB). SIGN(S) SHALL BE LOCATED SO THEY CANNOT BE OBSCURED BY A VEHICLE PARKED IN THE SPACE, AND LOCATED NOT MORE THAN 10 FEET FROM THE SPACE.

HANDICAP VAN SIGN AND PAVEMENT MARKING

NOT TO SCALE



BITUMINOUS CONCRETE PAVEMENT

NOT TO SCALE

ORIGINAL SHEET - ARCH E

Stantec
Stantec Architecture and Engineering P.C.
40 Water Street, 3rd Floor
Boston, MA 02109
Tel: (617) 234-3100 • www.stantec.com

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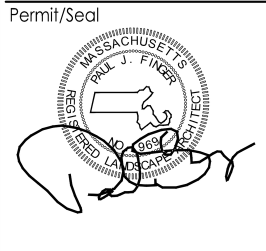
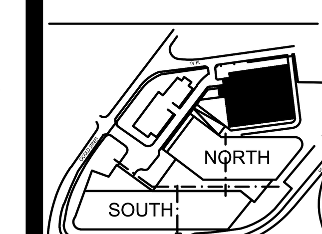
Issued/Revision	By	Appd	YYYY.MM.DD
SPECIAL PERMIT PACKAGE R1			2022.08.15
DEIR SUBMISSION			2022.07.15
50% DESIGN DEVELOPMENT SET			2022.05.27
SPECIAL PERMIT PACKAGE			2022.03.30

Permit/Seal



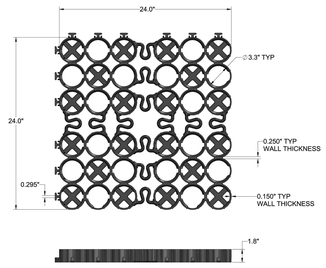


KEY PLAN

SPECIAL PERMIT PACKAGE R1
08/15/2022
(FOR 09/07/2022 PLANNING BOARD SPECIAL PERMIT PUBLIC HEARING)

Client/Project
Bulfinch
HIGHLAND INNOVATION CENTER
557 Highland Ave
Needham, MA 02494

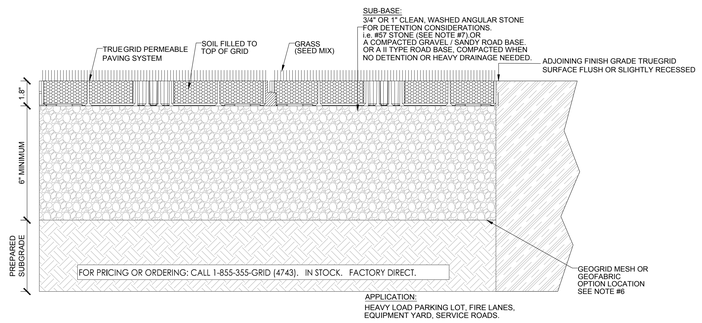
Project No.: 218421343
File Name: SP-L-5.0-SITE DETAILS.dwg
Scale: As Specified
Dwn. Dsgn. Chkd. YYYY.MM.DD
Title
SITE DETAILS #1
Revision:
Drawing No.
L-5.0



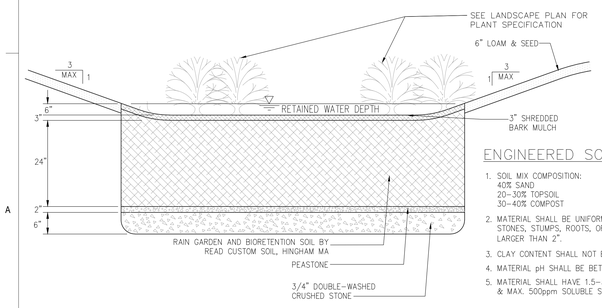
NOTES:

1. SUB-BASE DEPTH AND PREPARATION IS DEPENDENT ON SITE CONDITIONS PLUS LOADING REQUIREMENTS.
2. TRUEGRID PRO PLUS PRODUCTS ARE SUFFICIENTLY RATED FOR H-20 /HS-20 LOADING AND GREATER.
3. TYPICAL SEEDING OR HYDROSEEDING METHODS FOR GRASS GROWTH ARE ACCEPTABLE WITH TRUEGRID.
4. SOD CAN BE LAID ON SOIL FILLED GRID FOR IMMEDIATE GRASS (TYPICAL FOR FIRE LANES)
5. FOR HIGHER TRAFFIC SOD INSTALLATIONS, RECESS SOIL LEVEL WITHIN TRUEGRID AND PRESS IN SOD SO THAT TOP OF GRID IS AT SOIL LEVEL.
6. GEOGRID MESH OR GEOFABRIC MAY BE REQUIRED BETWEEN SUBGRADE & SUBBASE FOR CERTAIN SOILS AND SITE SPECIFIC REQUIREMENTS.
7. FILTER FABRIC MAY BE REQUIRED BETWEEN TRUEGRID AND SUB-BASE MATERIAL IF HIGH VOID RATIO IN SUB-BASE MATERIAL.
8. NO STAKING NECESSARY WITH TRUEGRID PRO PLUS WHEN SLOPE IS BELOW 10 DEGREES. ASSESS PROJECT, AS NEEDED.
9. FINAL ENGINEERED CROSS SECTION AGGREGATES AND DEPTH SHOULD ALLOW FOR EXPECTED INFILTRATION RATES,STORAGE CAPACITIES, OUTLET FLOW RATES, AND OTHER SITE SPECIFIC CONDITIONS AND LOAD REQUIREMENTS.
10. THIS CROSS SECTION IS FOR INFORMATION ONLY.

REINFORCED LAWN - PLAN VIEW



REINFORCED LAWN
NOT TO SCALE



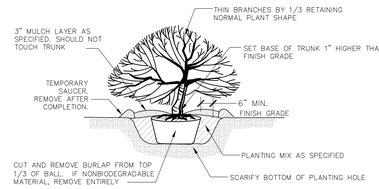
ENGINEERED SOIL MIX SPECIFICATIONS

1. SOIL MIX COMPOSITION:
   40% SAND
   20-30% TOPSOIL
   30-40% COMPOST
2. MATERIAL SHALL BE UNIFORM, FREE FROM STONES, STUMPS, ROOTS, OR OBJECTS LARGER THAN 2".
3. CLAY CONTENT SHALL NOT EXCEED 5%
4. MATERIAL pH SHALL BE BETWEEN 5.5-6.5.
5. MATERIAL SHALL HAVE 1.5-3% ORGANIC CONTENT & MAX. 500ppm SOLUBLE SALT.
6. SAND COMPONENT SHALL MEET ASTM D 422 AND THE FOLLOWING GRADATION:

SIEVE SIZE	% PASSING
2-INCH	100
3/4 INCH	70-100
1/4 INCH	50-80
No. 4	15-40
No. 200	0-3

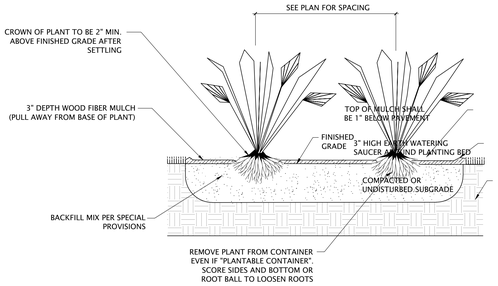
7. TOPSOIL SHALL BE A SANDY LOAM, LOAMY SAND, OR LOAM.
8. COMPOST SHALL BE PROCESSED FROM YARD WASTE IN ACCORDANCE WITH DEP GUIDELINES AND SHALL NOT CONTAIN BIO-SOLIDS.

RAIN GARDEN
NOT TO SCALE

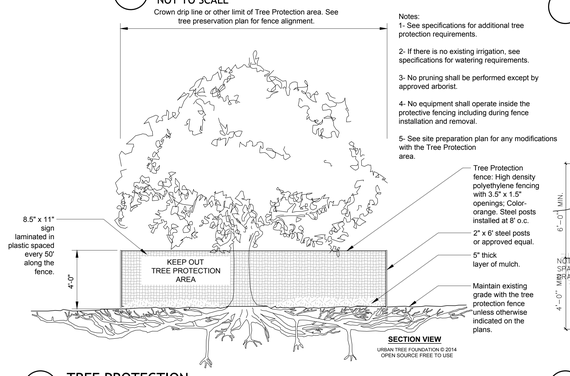


SHRUB PLANTING
NOT TO SCALE

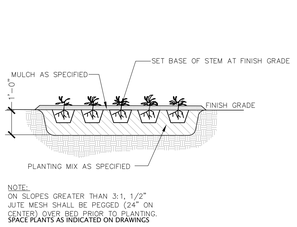
TYPICAL SEEDED NO-MOW LAWN
NOT TO SCALE



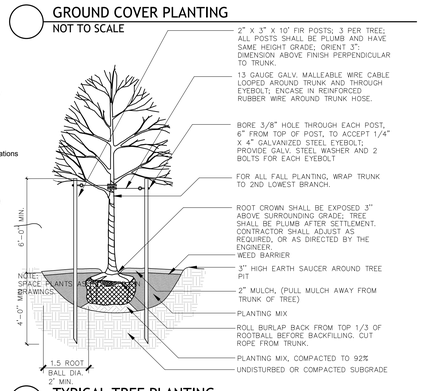
PERENNIAL PLANTING
NOT TO SCALE



TREE PROTECTION
NOT TO SCALE



GROUND COVER PLANTING
NOT TO SCALE



TYPICAL TREE PLANTING
NOT TO SCALE

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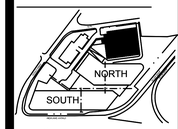
Consultant

pfa
Landscape Architects + Planners
Urban Designers + Land Use Consultants
PAUL FINGER ASSOCIATES
14 Beacon Street
Boston, Massachusetts 02445-4429
(617) 227-4400
(617) 227-8007 F
Paul@pfa.com

Issued/Revision	By	Appd
SPECIAL PERMIT PACKAGE R1		2022.08.15
DRB SUBMISSION		2022.07.13
ZBA SUBMISSION (Amended) R1		2022.07.12
SPECIAL PERMIT PACKAGE		2022.03.30

Permit/Seal



KEY PLAN

SPECIAL PERMIT PACKAGE R1
08/15/2022
(FOR 09/07/2022 PLANNING BOARD SPECIAL PERMIT PUBLIC HEARING)

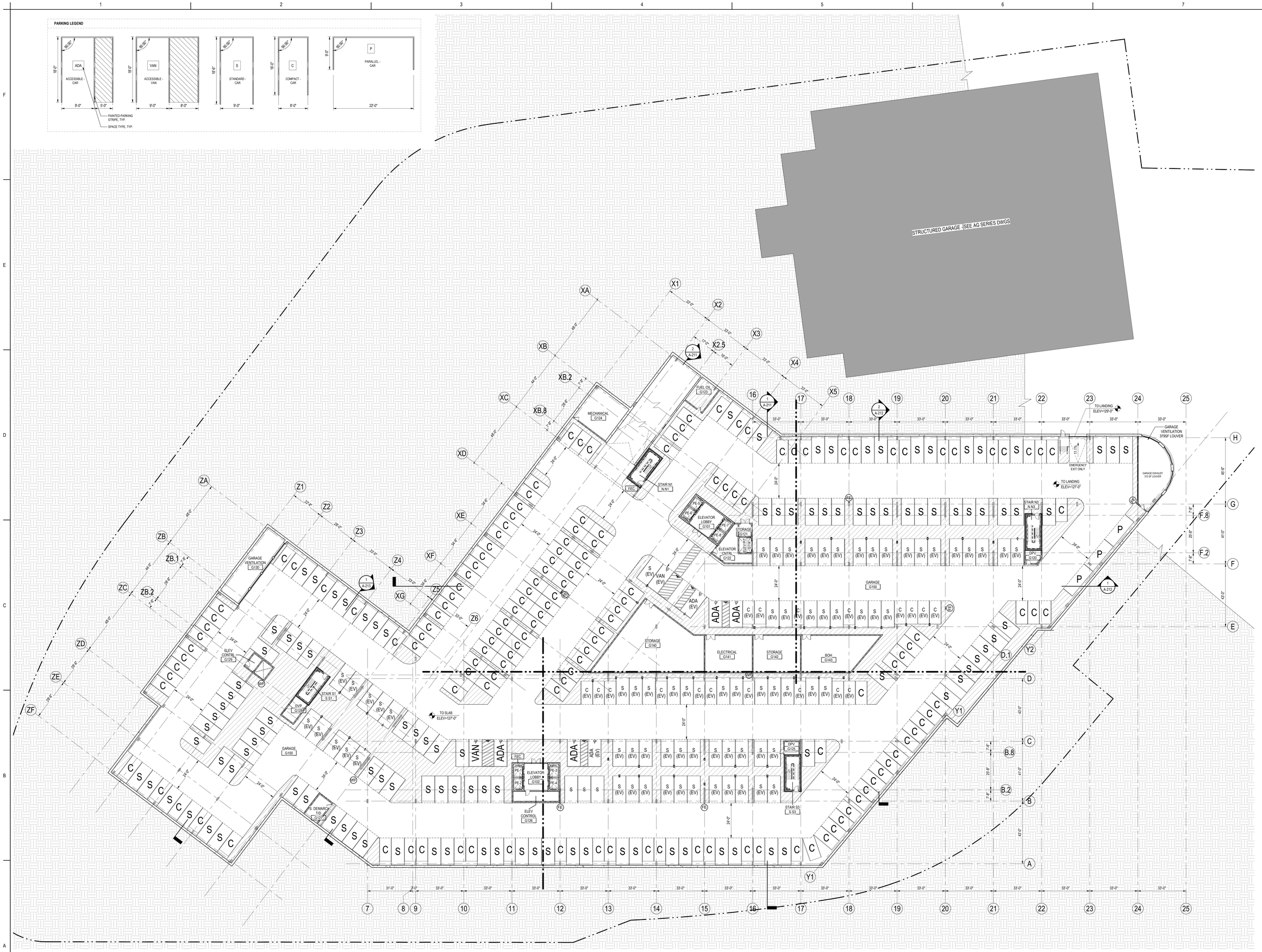
Client/Project
Bulfinch
HIGHLAND INNOVATION CENTER
557 Highland Ave
Needham, MA 02494

Project No.: 218421343
File Name: SP-L-0.0-SITE DETAILS.dwg
Scale: As Specified
Dwn. Dsgn. Chkd. YYYY.MM.DD

Title
SITE DETAILS #2

Revision:
Drawing No.
L-5.1

ORIGINAL SHEET - ARCH E



1 GARAGE LEVEL G1 PLAN
A-100G1 — 1" = 20'-0"

Stantec
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Boston MA 02109
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Issued/Revision	By	Appd	YYYY.MM.DD
3RD PLANNING BOARD SUBMISSION			2022.08.15
DEP SUBMISSION			2022.07.15
30% DESIGN SUBMISSION			2022.03.30
30% CDs PLAN SUBMISSION			2022.03.30

Permit/Seal

KEY PLAN

PARKING COUNT	
Type Comments	Count

LEVEL G1	
ACCESSIBLE	4
ACCESSIBLE - EV SPACE	2
ACCESSIBLE VAN	1
ACCESSIBLE VAN - EV SPACE	1
COMPACT	151
COMPACT - EV SPACE	18
PARALLEL	3
STANDARD	112
STANTARD - EV SPACE	70
LEVEL G1: 362	362
GRAND TOTAL: 362	362

PARKING SYMBOLS

ADA =	ACCESSIBLE
ADA-EV =	ACCESSIBLE ELECTRIC VEHICLE
VAN =	ACCESSIBLE VAN
B =	BOLLARD - EMBEDDED IN SLAB
EV =	ELECTRIC VEHICLE
P=	PARALLEL
S =	STANDARD
WF =	WHEELED FIRE EXTINGUISHER

STALL STRIPING

SPECIAL PERMIT PACKAGE R1
08/15/2022
(FOR 09/07/2022 PLANNING BOARD SPECIAL PERMIT PUBLIC HEARING)

Client/Project
Bulfinch
HIGHLAND INNOVATION CENTER
557 Highland Ave.
Needham, MA 02494

Project No.:218421343
File Name: N/A
Scale: As indicated

Author	Designer	Checker	2022.04.24
Dwn.	Dsgn.	Chkd.	YYYY.MM.DD

Title
GARAGE LEVEL G1 - OVERALL PLAN & PARKING LEGEND

Revision:

Drawing No.
A-100G1

*Pro Bulfinch Project Information
8/5/2022 3:23:14 PM

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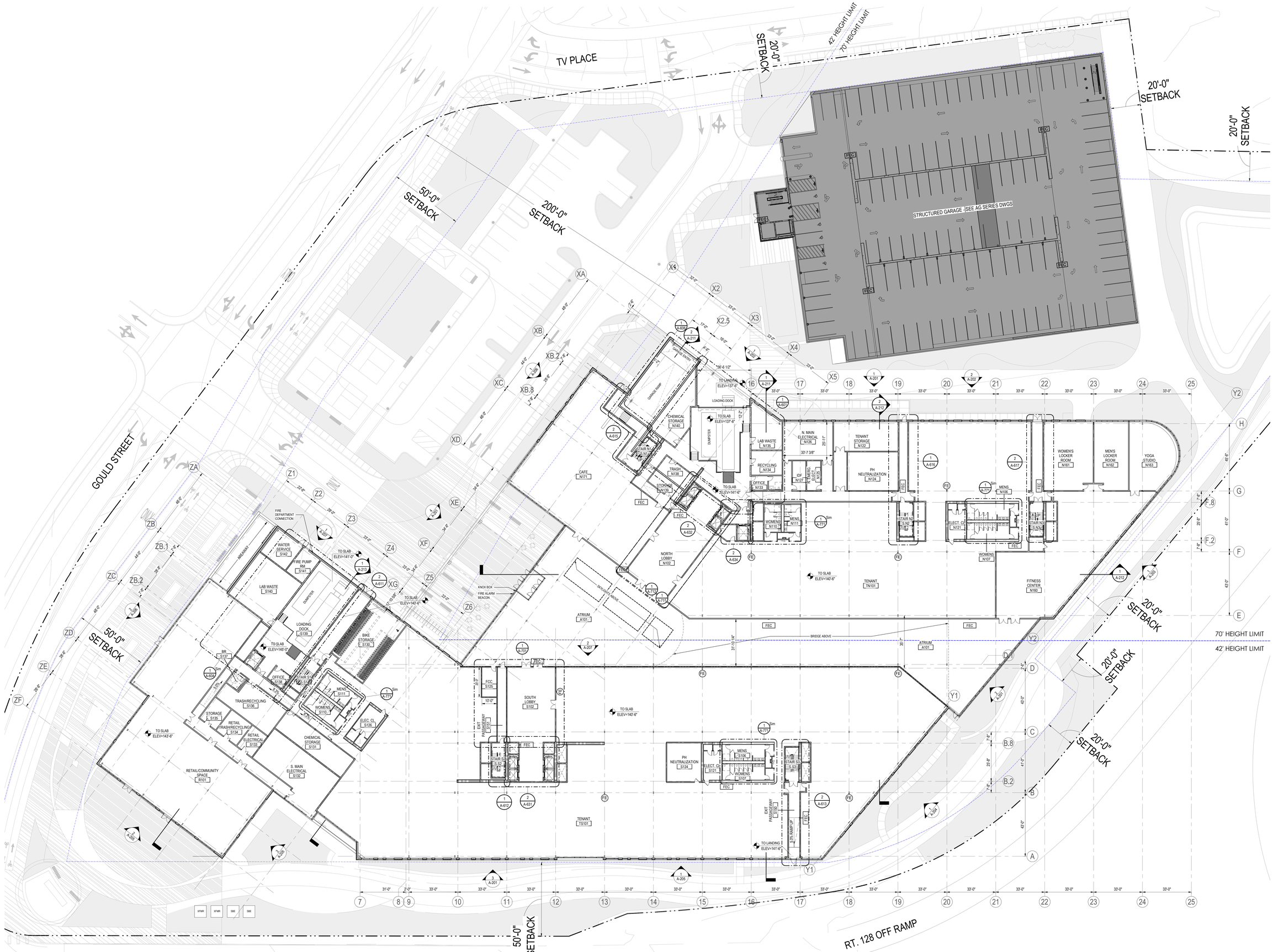

1 A-101 **LEVEL 1 - OVERALL PLAN**
1" = 20'-0"

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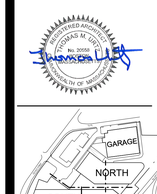
Issued/Revision

By	Appd	YYYY.MM.DD
		2022.06.15
		2022.07.15
		2022.08.01
		2022.08.15

JPCHL RFMHT PACKAGE R1
DSB SUBMISSION
SPECIAL PERMIT PACKAGE R1

Permit/Seal



KEY PLAN

LEGEND
- WF — WHEELED FIRE EXTINGUISHER
- FE — FIRE EXTINGUISHER BRACKET WALL MTD
- FEC — FIRE EXTINGUISHER CABINET WALL MTD

75'-0" MAX. DISTANCE PER CODE, TYP.

SPECIAL PERMIT PACKAGE R1
08/15/2022
(FOR 09/07/2022 PLANNING BOARD SPECIAL PERMIT PUBLIC HEARING)

Client/Project
Bulfinch
HIGHLAND INNOVATION CENTER
557 Highland Ave
Needham, MA 02494

Project No.:218421343
File Name: N/A
Scale: As indicated

Author	Designer	Checker	2022.08.24
Dwn.	Dsgn.	Chkd.	YYYY.MM.DD

Title
LEVEL 1 - OVERALL PLAN

Revision:
Drawing No.
A-101

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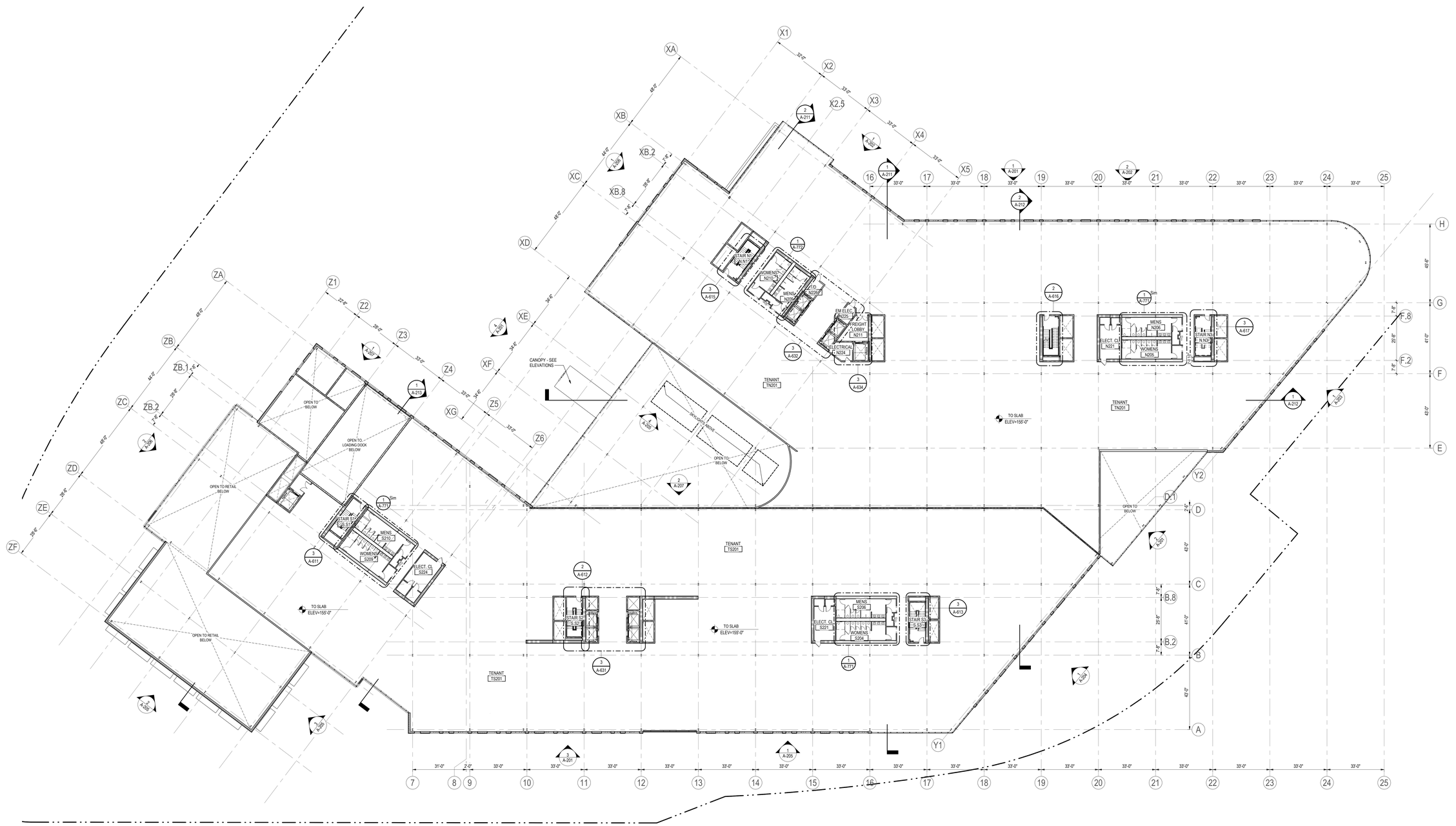

1 LEVEL 2 PLAN - OVERALL PLAN

A-102 · 1" = 20'-0"

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Issued/Revision

No.	By	Appd	YYYY.MM.DD
1			2022.06.15
2			2022.07.15
3			2022.08.22
4			2022.08.30

1ST FULL REMEDIATION PACKAGE R1
DEP SUBMISSION
30% DESIGN DEVELOPMENT SET
SPECIAL PERMIT PACKAGE R1

Permit/Seal

KEY PLAN

LEGEND

WF	WHEELED FIRE EXTINGUISHER
FE	FIRE EXTINGUISHER BRACKET WALL MTD
FEC	FIRE EXTINGUISHER CABINET WALL MTD

75'-0" MAX. DISTANCE PER CODE, TYP.

SPECIAL PERMIT PACKAGE R1
08/15/2022
(FOR 09/07/2022 PLANNING BOARD SPECIAL PERMIT PUBLIC HEARING)

Client/Project
Bulfinch
HIGHLAND INNOVATION CENTER
557 Highland Ave
Needham, MA 02494

Project No.:218421343
File Name: N/A
Scale: As indicated

Author	Designer	Checker	2022.06.24
Dwn.	Dsgn.	Chkd.	YYYY.MM.DD

Title
LEVEL 2 - OVERALL PLAN

Revision:
Drawing No.
A-102

<Pin Number in Project Information>
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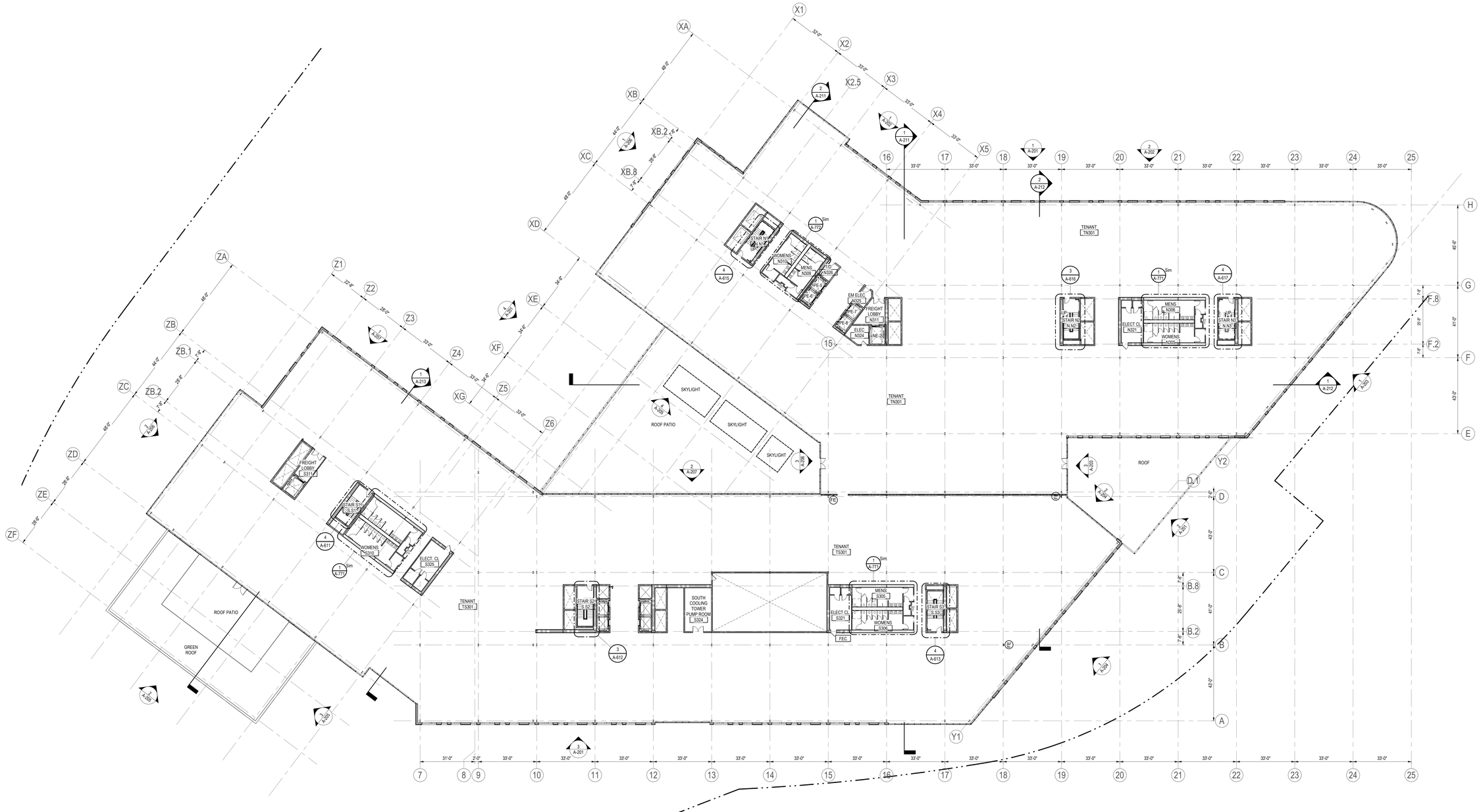

1 LEVEL 3 - OVERALL PLAN

A-103 1" = 20'-0"

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No.	Issued/Revision	By	Appd	YYYY.MM.DD
1	3RD PH. REMEDIATION PLAN			2022.08.15
2	DEP SUBMISSION			2022.07.13
3	30% DESIGN DEVELOPMENT SET			2022.03.30
4	100% DESIGN DEVELOPMENT SET			2022.06.24

Permit/Seal

KEY PLAN

LEGEND

- WHEELED FIRE EXTINGUISHER
- FIRE EXTINGUISHER BRACKET WALL MTD
- FEC FIRE EXTINGUISHER CABINET WALL MTD

75'-0" MAX. DISTANCE PER CODE, TYP.

SPECIAL PERMIT PACKAGE R1
08/15/2022
(FOR 09/07/2022 PLANNING BOARD SPECIAL PERMIT PUBLIC HEARING)

Client/Project
Bulfinch
HIGHLAND INNOVATION CENTER
557 Highland Ave
Needham, MA 02494

Project No.:218421343
File Name: N/A
Scale:As indicated

Author	Designer	Checker	2022.06.24
Dwn.	Dsgn.	Chkd.	YYYY.MM.DD

Title
LEVEL 3 - OVERALL PLAN

Revision:
Drawing No.
A-103

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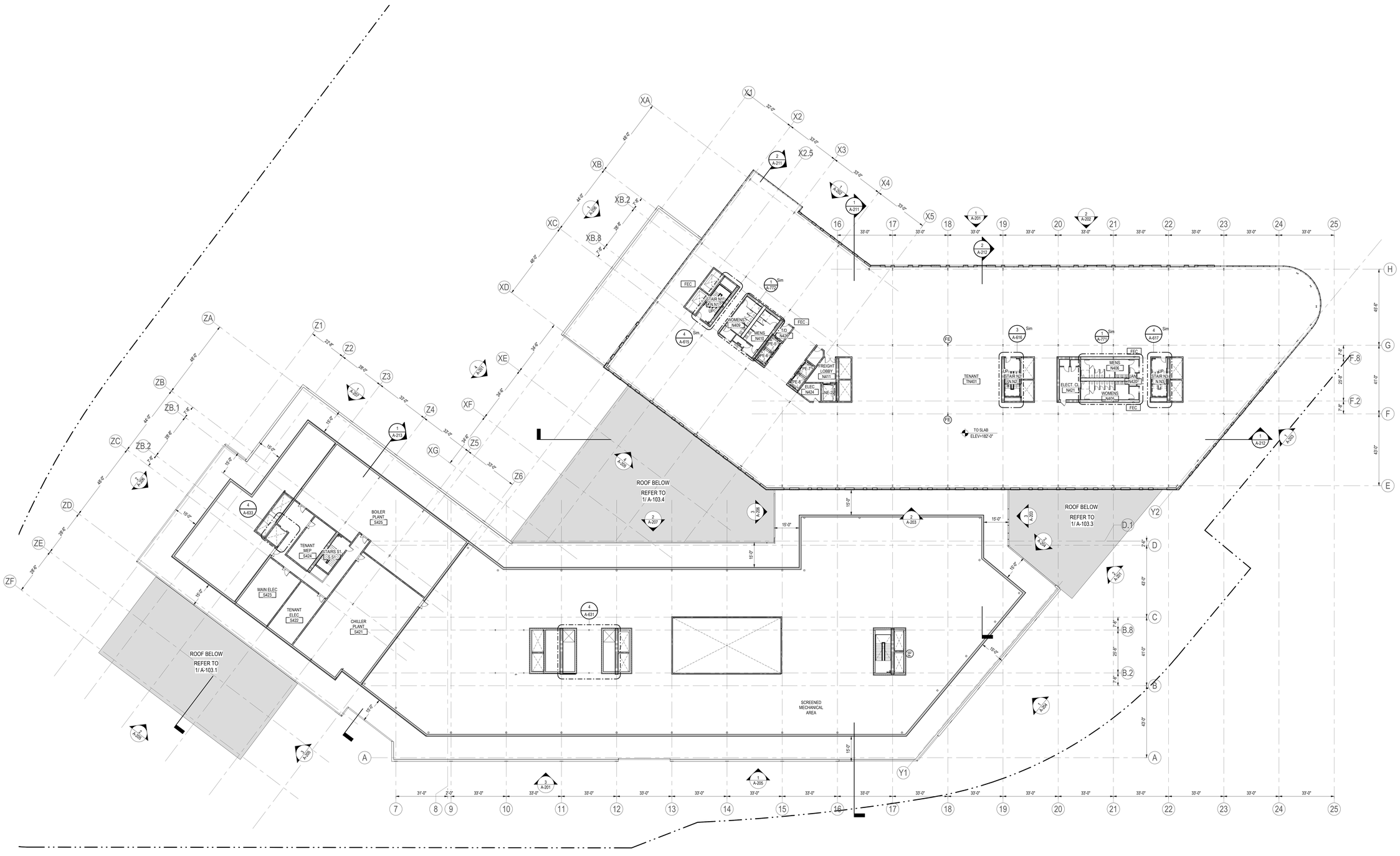

1 LEVEL 4 / SOUTH BUILDING PENTHOUSE - OVERALL PLAN

A-104 — 1" = 20'-0"

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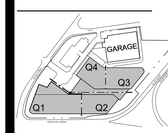
Issued/Revision

No.	Description	By	Appd	YYYY.MM.DD
1	30% DESIGN DEVELOPMENT SET			2022.05.13
2	DEP SUBMISSION			2022.07.15
3	90% DESIGN DEVELOPMENT SET			2022.08.01
4	100% DESIGN DEVELOPMENT SET			2022.08.12

Permit/Seal



KEY PLAN

LEGEND

- WHEELED FIRE EXTINGUISHER
- FIRE EXTINGUISHER BRACKET WALL MTD
- FEC — FIRE EXTINGUISHER CABINET WALL MTD

75'-0" MAX. DISTANCE PER CODE, TYP.

SPECIAL PERMIT PACKAGE R1
08/15/2022
(FOR 09/07/2022 PLANNING BOARD SPECIAL PERMIT PUBLIC HEARING)

Client/Project
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HIGHLAND INNOVATION CENTER
557 Highland Ave.
Needham, MA 02494

Project No.:218421343
File Name: N/A
Scale: As indicated

Author	Designer	Checker	2022.04.24
Dwn.	Dsgn.	Chkd.	YYYY.MM.DD

Title
LEVEL 4 / SOUTH BUILDING PENTHOUSE - OVERALL PLAN

Revision:

Drawing No.
A-104

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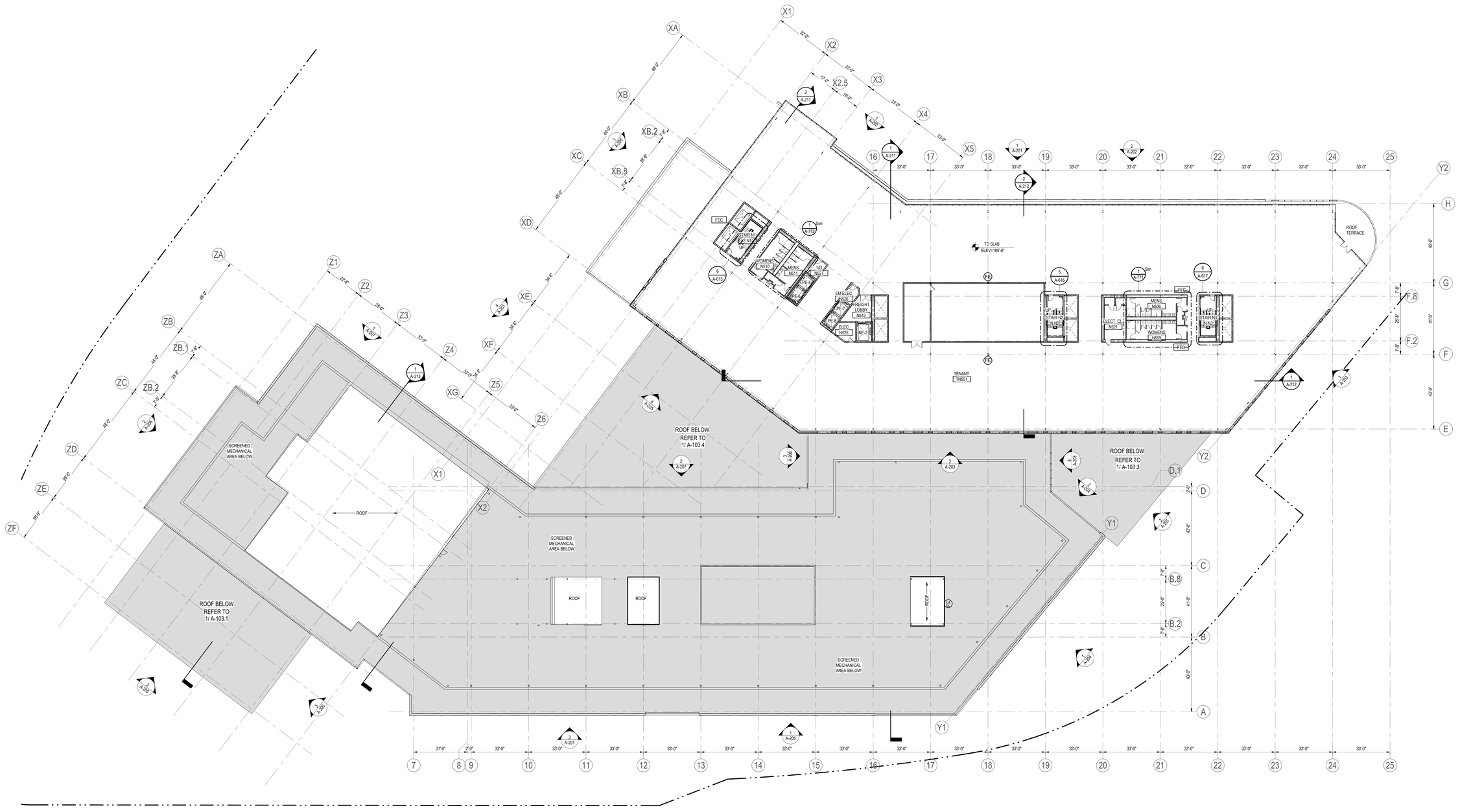

1 A-105 **LEVEL 5 / SOUTH BUILDING UPPER ROOF - OVERALL PLAN**

1" = 20'-0"

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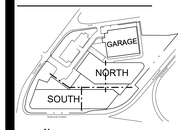
Issued/Revision	By	Appd	YYYY.MM.DD
SPECIAL PERMIT PACKAGE R1			2022.08.15
DRB SUBMISSION			2022.07.15
SITE DESIGN DEVELOPMENT R1			2022.05.27
SPECIAL PERMIT PACKAGE			2022.03.30

Permit/Seal



KEY PLAN

LEGEND

WP	WHEELED FIRE EXTINGUISHER
FE	FIRE EXTINGUISHER BRACKET WALL MTD
FEC	FIRE EXTINGUISHER CABINET WALL MTD

75'-0" MAX. DISTANCE PER CODE, TYP.

SPECIAL PERMIT PACKAGE R1
08/15/2022
(FOR 09/07/2022 PLANNING BOARD SPECIAL PERMIT PUBLIC HEARING)

Client/Project
Bulfinch
HIGHLAND INNOVATION CENTER
557 Highland Ave
Needham, MA 02494

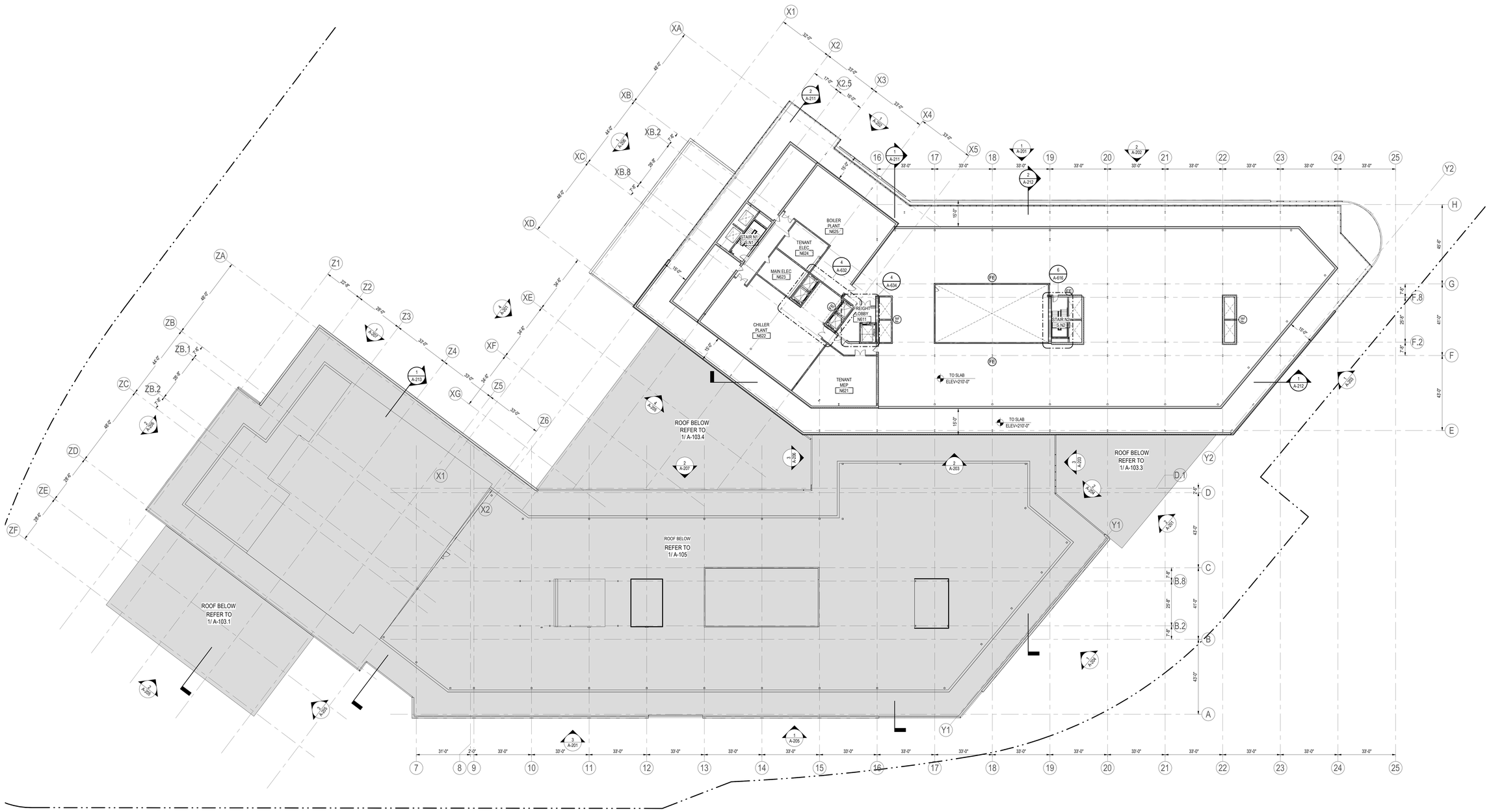
Project No.:218421343
File Name: N/A
Scale: As indicated

Author	Designer	Checker	2022.06.24
Dwn.	Dsgn.	Chkd.	YYYY.MM.DD

Title
LEVEL 5 / SOUTH BUILDING UPPER ROOF - OVERALL PLAN

Revision:

Drawing No.
A-105



1 A-106 **NORTH BUILDING PENTHOUSE - OVERALL PLAN**
1" = 20'-0"

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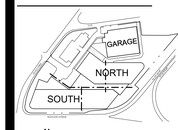
Issued/Revision	By	Appd	YYYY.MM.DD
SPECIAL PERMIT PACKAGE R1			2022.08.15
DEP SUBMISSION			2022.07.15
SITE DESIGN DEVELOPMENT SET			2022.06.27
SPECIAL PERMIT PACKAGE			2022.03.30

Permit/Seal



KEY PLAN

LEGEND

WP	WHEELED FIRE EXTINGUISHER
FE	FIRE EXTINGUISHER BRACKET WALL MTD
FEC	FIRE EXTINGUISHER CABINET WALL MTD

75'-0" MAX. DISTANCE PER CODE, TYP.

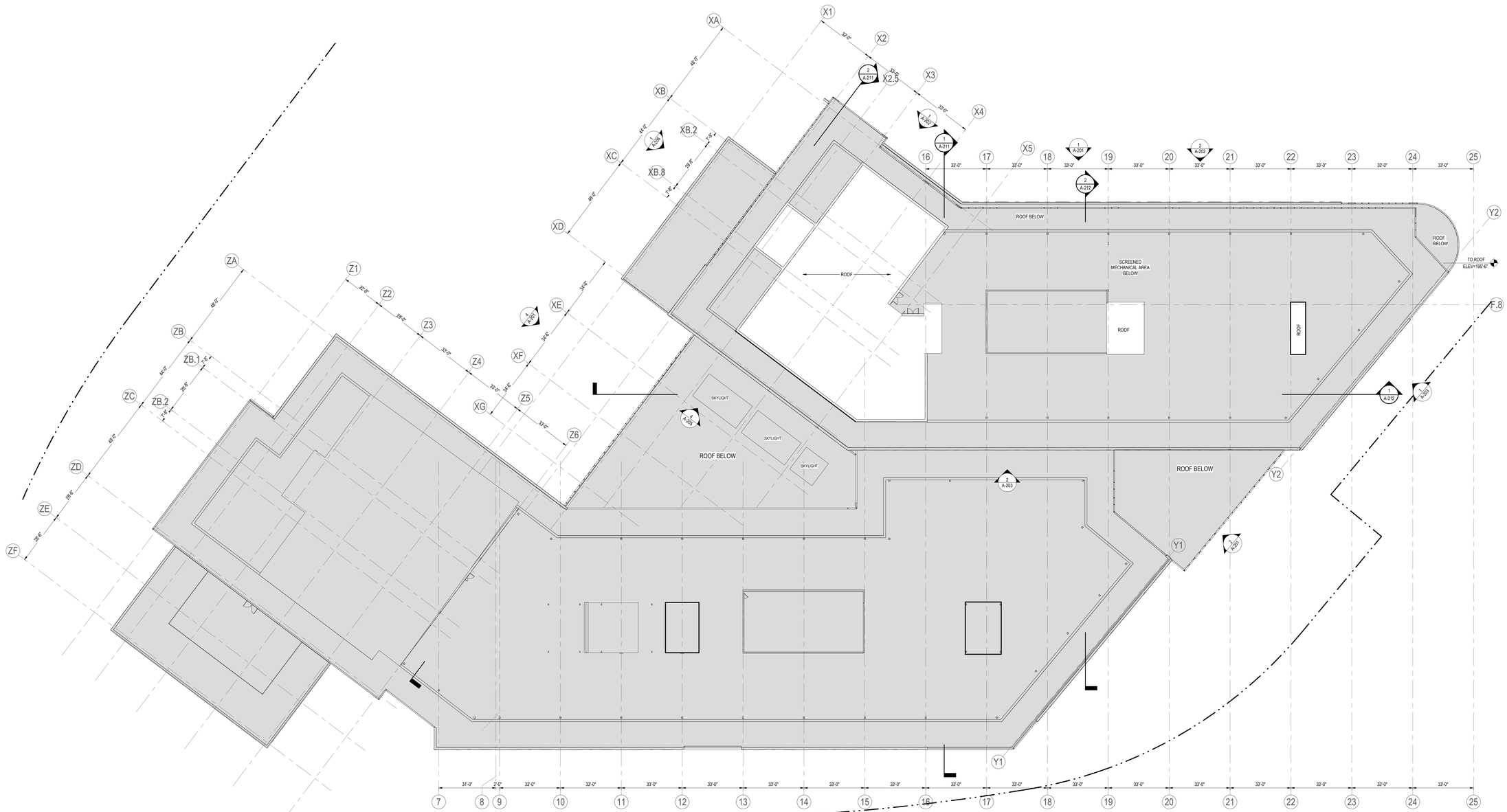
SPECIAL PERMIT PACKAGE R1
08/15/2022
(FOR 09/07/2022 PLANNING BOARD SPECIAL PERMIT PUBLIC HEARING)

Client/Project
Bulfinch
HIGHLAND INNOVATION CENTER
557 Highland Ave
Needham, MA 02494

Project No.:218421343
File Name: N/A
Scale: As indicated

Author	Designer	Checker	2022.06.24
Dwn.	Dsgn.	Chkd.	YYYY.MM.DD

Title
NORTH BUILDING PENTHOUSE - OVERALL PLAN
Revision:
Drawing No.
A-106



1 A-107 **ROOF PLAN**
1" = 20'-0"

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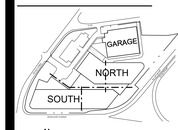
Issued/Revision	By	Appd	YYYY.MM.DD
SPECIAL PERMIT PACKAGE R1			2022.08.15
DEPT. SUBMISSION			2022.07.15
SITE DESIGN DEVELOPMENT SET			2022.06.27
SPECIAL PERMIT PACKAGE			2022.03.30

Permit/Seal



KEY PLAN

LEGEND

WF	WHEELED FIRE EXTINGUISHER
FE	FIRE EXTINGUISHER BRACKET WALL MTD
FEC	FIRE EXTINGUISHER CABINET WALL MTD

75'-0" MAX. DISTANCE PER CODE, TYP.

SPECIAL PERMIT PACKAGE R1
08/15/2022
(FOR 09/07/2022 PLANNING BOARD SPECIAL PERMIT PUBLIC HEARING)

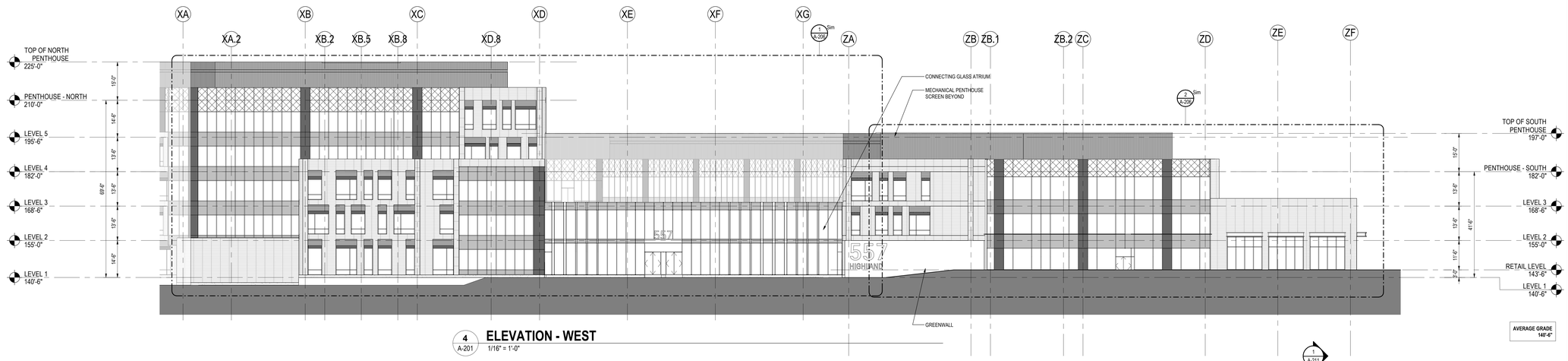
Client/Project
Bulfinch
HIGHLAND INNOVATION CENTER
557 Highland Ave
Needham, MA 02494

Project No.:218421343
File Name: N/A
Scale: As indicated

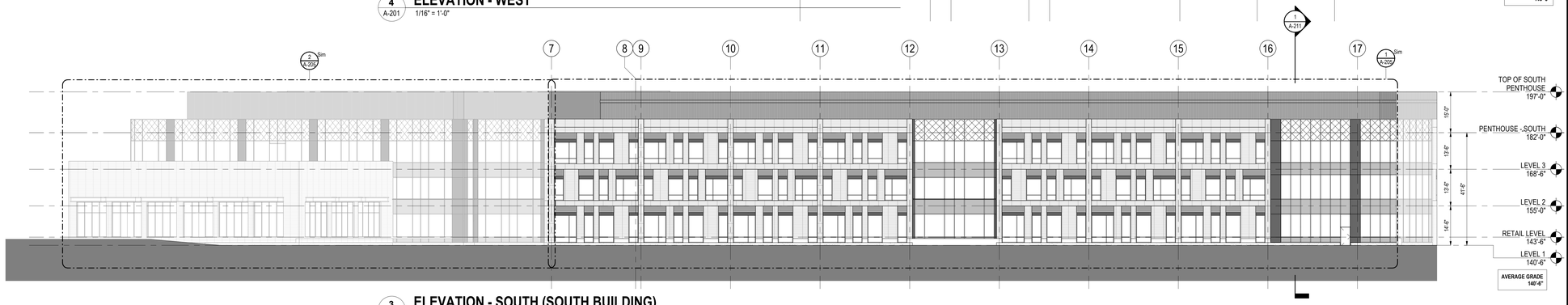
Author	Designer	Checker	2022.06.24
Dwn.	Dsgn.	Chkd.	YYYY.MM.DD

Title
FULL ROOF PLAN

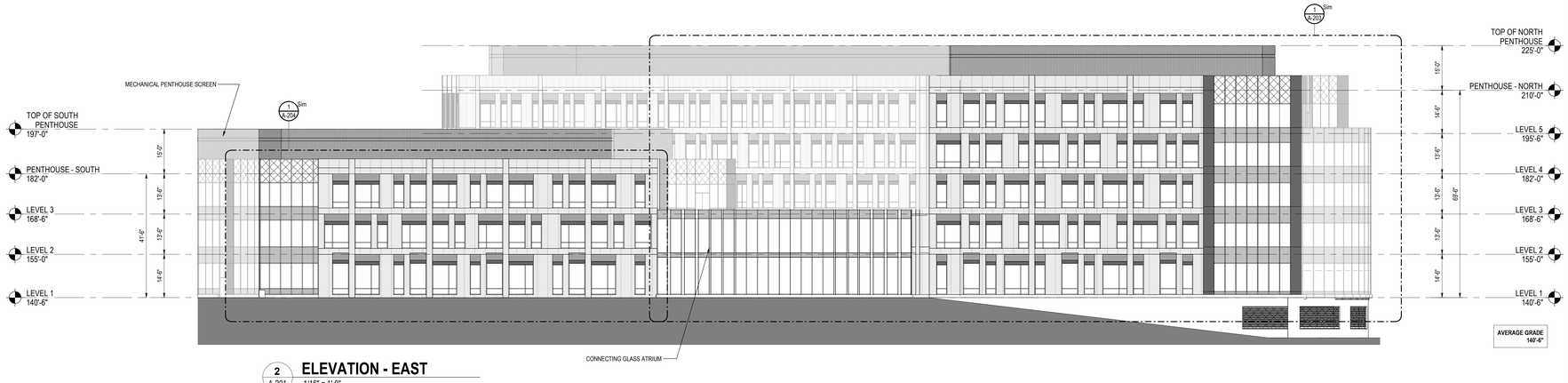
Revision:
Drawing No.
A-107



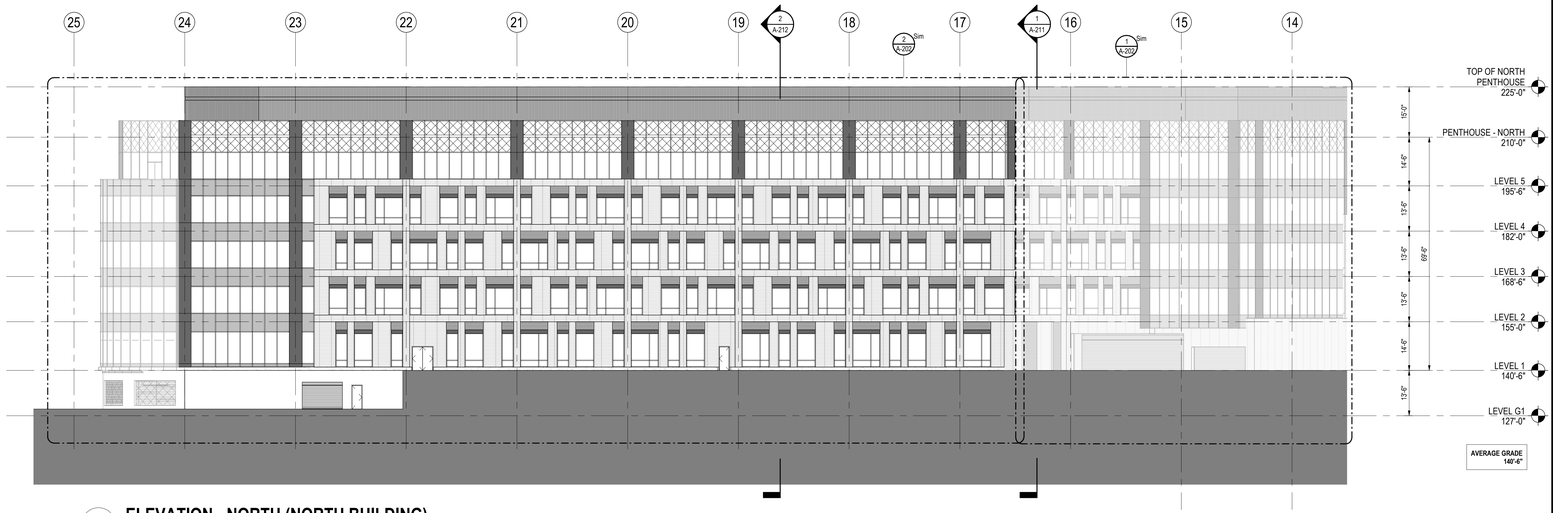
4 A-201 **ELEVATION - WEST**
1/16" = 1'-0"



3 A-201 **ELEVATION - SOUTH (SOUTH BUILDING)**
1/16" = 1'-0"



2 A-201 **ELEVATION - EAST**
1/16" = 1'-0"



1 A-201 **ELEVATION - NORTH (NORTH BUILDING)**
1/16" = 1'-0"

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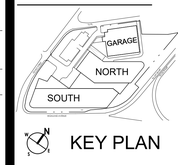
Consultant

Issued/Revision	By	Appd	YYYY.MM.DD
SPECIAL PERMIT PACKAGE R1			2022.08.15
DRB SUBMISSION			2022.07.15
SITE DESIGN DEVELOPMENT SET			2022.05.27
SPECIAL PERMIT PACKAGE			2022.03.30

Permit/Seal



KEY PLAN

SPECIAL PERMIT PACKAGE R1
08/15/2022
(FOR 09/07/2022 PLANNING BOARD SPECIAL PERMIT PUBLIC HEARING)

Client/Project
Bulfinch
HIGHLAND INNOVATION CENTER
557 Highland Ave
Needham, MA 02494

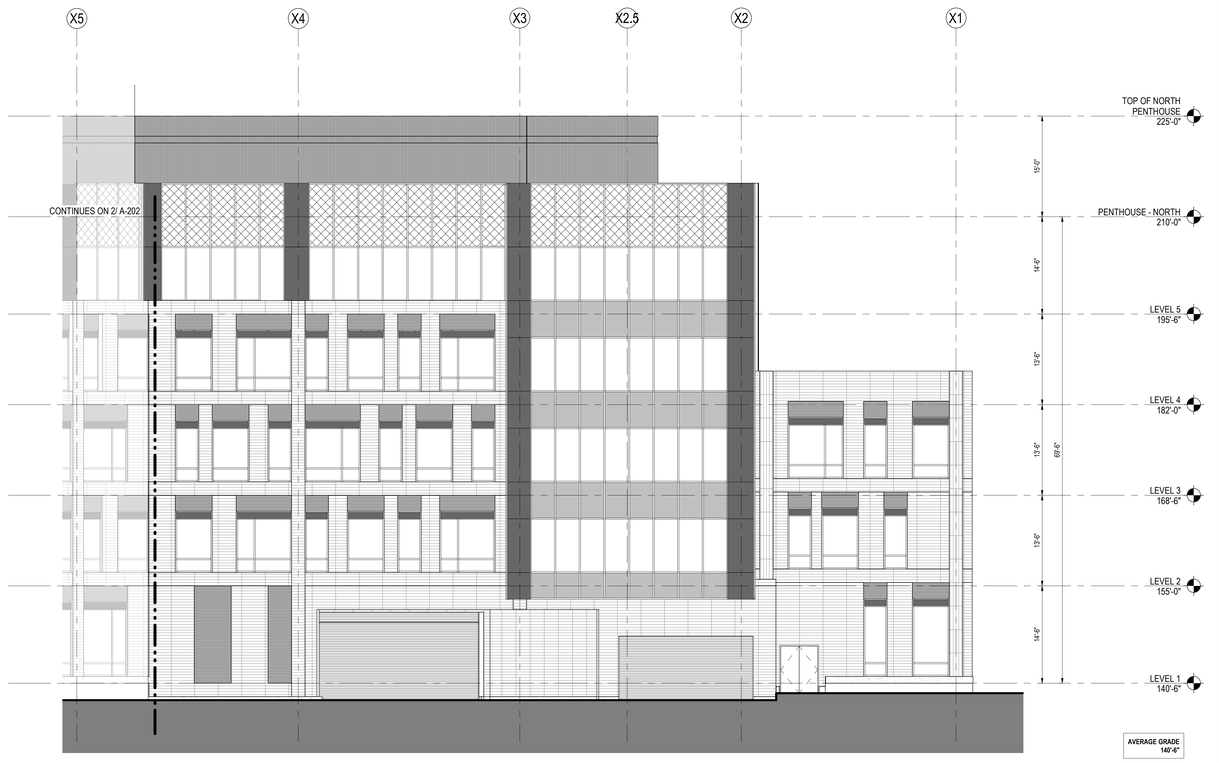
Project No.:218421343
File Name: N/A
Scale: 1/16" = 1'-0"

Author	Designer	Checker	2022.06.24
Dwn.	Dsgn.	Chkd.	YYYY.MM.DD

Title
BUILDING ELEV - LOCATOR ELEVATIONS

Revision:
Drawing No.
A-201

2 A-202 **ENLARGED ELEVATION - NORTH BUILDING - NORTH**
1/8" = 1'-0"



1 A-202 **ENLARGED ELEVATION - NORTH BUILDING - NORTH (ANGLED WALL)**
1/8" = 1'-0"

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Issued/Revision	By	Appd	YYYY.MM.DD
SPECIAL PERMIT PACKAGE R1			2022.06.15
DRP SUBMISSION			2022.07.15
SVE DESIGN DEVELOPMENT R1			2022.06.27
SPECIAL PERMIT PACKAGE			2022.03.15

Permit/Seal

KEY PLAN

SPECIAL PERMIT PACKAGE R1
08/15/2022
(FOR 09/07/2022 PLANNING BOARD SPECIAL PERMIT PUBLIC HEARING)

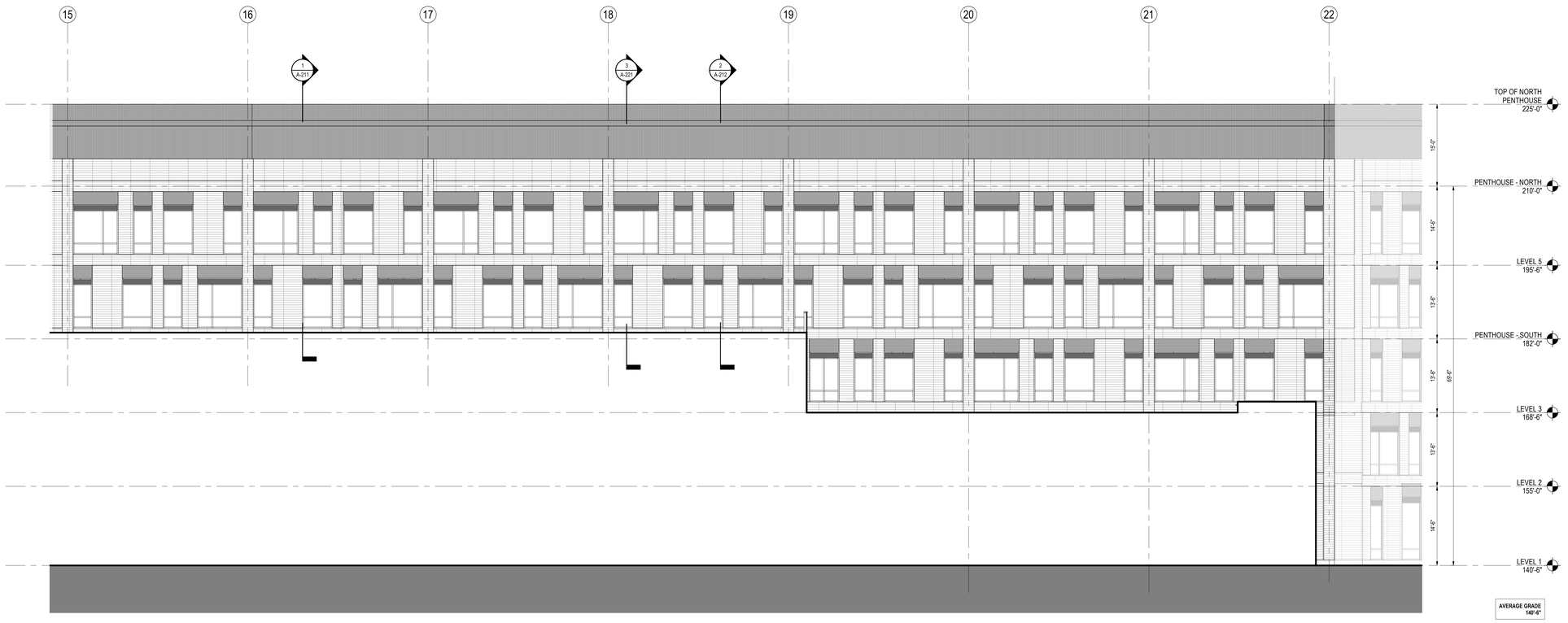
Client/Project
Bulfinch
HIGHLAND INNOVATION CENTER
557 Highland Ave
Needham, MA 02494

Project No.:218421343
File Name: N/A
Scale: 1/8" = 1'-0"

Author	Designer	Checker	2022.06.24
Dwn.	Dsgn.	Chkd.	YYYY.MM.DD

Title
BUILDING ELEV - NORTH
BLDG - NORTH

Revision:
Drawing No.
A-202



2 A-203 **ENLARGED ELEVATION - NORTH BUILDING - SOUTH**
1/8" = 1'-0"

3 A-203 **ENLARGED ELEVATION - ATRIUM - EAST (HIDDEN) AT GRID 19**
1/8" = 1'-0"

1 A-203 **ENLARGED ELEVATION - NORTH BUILDING & ATRIUM - EAST**
1/8" = 1'-0"

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Issued/Revision	By	Appd	YYYY.MM.DD
2ND FL REMOVE FACADE EL	DSR	DSR	2022.08.15
DSR SUBMISSION	DSR	DSR	2022.07.13
30% DESIGN DEVELOPMENT	DSR	DSR	2022.03.30

Permit/Seal

REGISTERED ARCHITECT
THOMAS M. LISTER
No. 30500
COMMONWEALTH OF MASSACHUSETTS

GARAGE
NORTH
SOUTH

KEY PLAN

SPECIAL PERMIT PACKAGE R1
08/15/2022
(FOR 09/07/2022 PLANNING BOARD SPECIAL PERMIT PUBLIC HEARING)

Client/Project
Bulfinch
HIGHLAND INNOVATION CENTER
557 Highland Ave
Needham, MA 02494

Project No.:218421343
File Name: N/A
Scale: 1/8" = 1'-0"

Author	Designer	Checker	2022.04.24
Dwn.	Dsgn.	Chkd.	YYYY.MM.DD

Title
BUILDING ELEV - NORTH BLDG - SOUTH & EAST

Revision:
Drawing No.
A-203

<Plot Scale>
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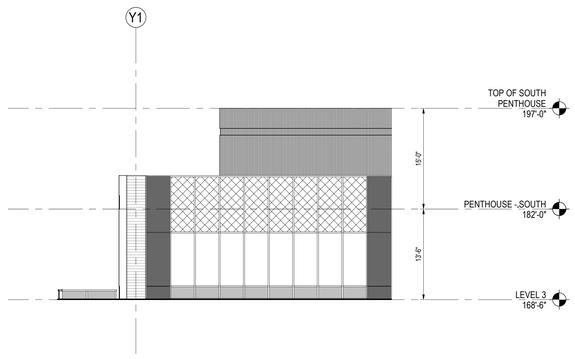
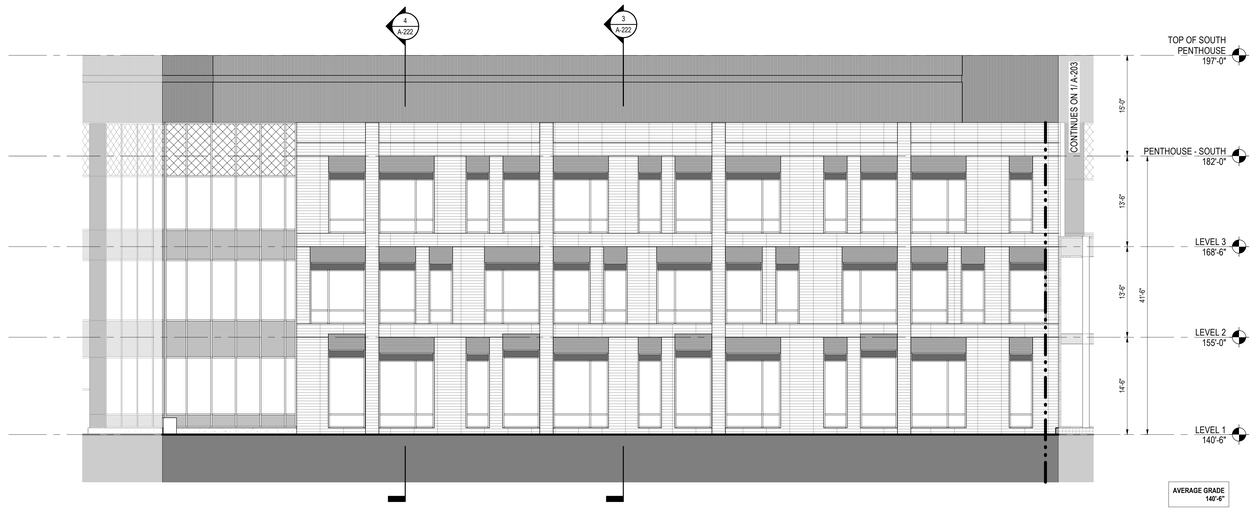
8/15/2022 3:54:52 PM
ORIGINAL SHEET - ARCH E



2 A-204 ENLARGED ELEVATION - SOUTH BUILDING - NORTH CORNER
1/8" = 1'-0"



1 A-204 ENLARGED ELEVATION - SOUTH BUILDING - EAST
1/8" = 1'-0"

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Issued/Revision

No.	Description	By	Appd	YYYY.MM.DD
1	SPECIAL PERMIT PACKAGE R1			2022.08.15
0	SPECIAL PERMIT PACKAGE			2022.07.13

Permit/Seal

KEY PLAN

Client/Project
Bulfinch
HIGHLAND INNOVATION CENTER
557 Highland Ave
Needham, MA 02494

Project No.:218421343
File Name: N/A
Scale: 1/8" = 1'-0"

Author	Designer	Checker	2022.06.24
Dwn.	Dsgn.	Chkd.	YYYY.MM.DD

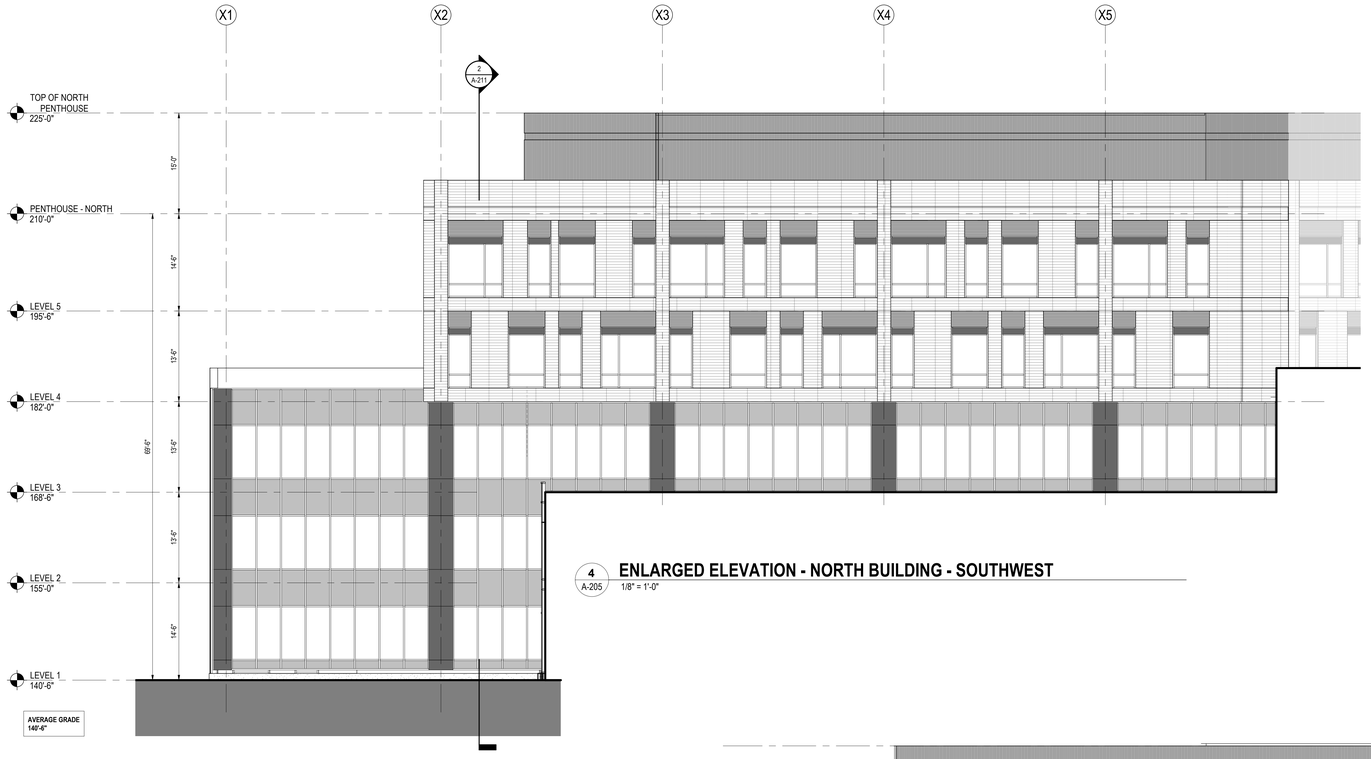
Title
BUILDING ELEV - SOUTH BLDG - SOUTH EAST

Revision:

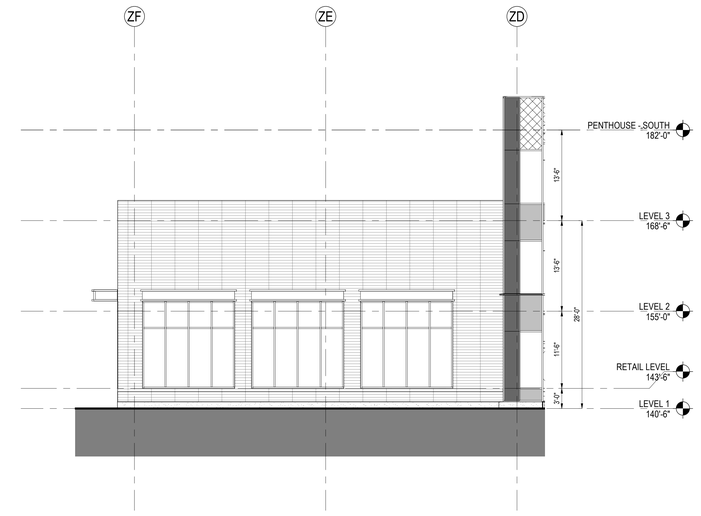
Drawing No.
A-204

<PELSeries v1Plan1 Information>
8/10/2022 3:54:05 PM

ORIGINAL SHEET - ARCH E

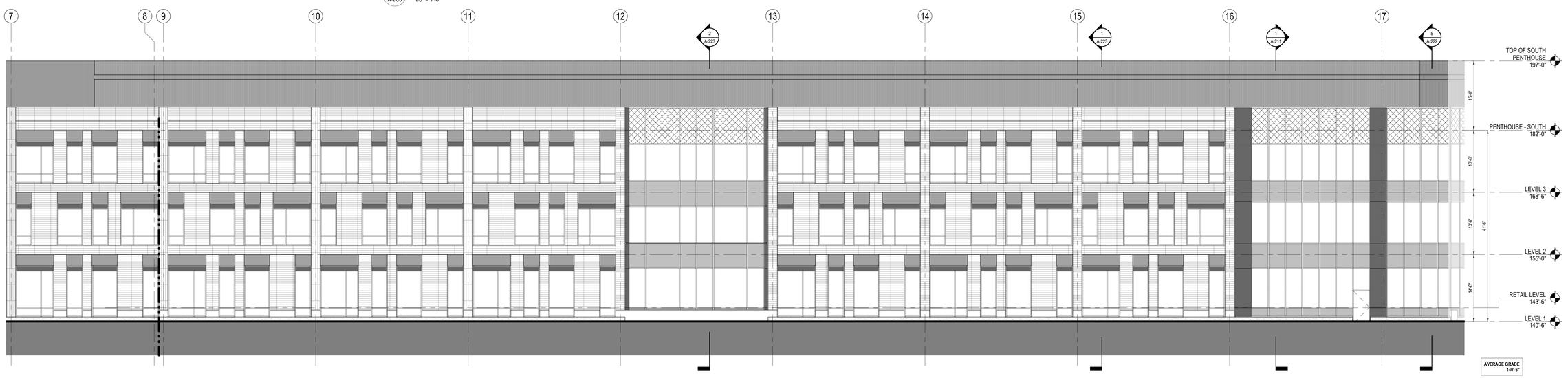


4 A-205 **ENLARGED ELEVATION - NORTH BUILDING - SOUTHWEST**
1/8" = 1'-0"



3 A-205 **ENLARGED ELEVATION - SOUTH BUILDING - RETAIL SOUTHEAST**
1/8" = 1'-0"

2 A-205 **ENLARGED ELEVATION - SOUTH BUILDING - RETAIL SOUTHWEST**
1/8" = 1'-0"



1 A-205 **ENLARGED ELEVATION - SOUTH BUILDING - SOUTHEAST**
1/8" = 1'-0"

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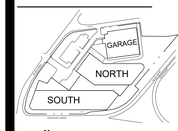
Issued/Revision	By	Appd	YYYY.MM.DD
SPECIAL PERMIT PACKAGE R1			2022.08.15
DEB SUBMISSION			2022.07.15
SITE DESIGN DEVELOPMENT SET			2022.06.27
SPECIAL PERMIT PACKAGE			2022.03.15

Permit/Seal



KEY PLAN

SPECIAL PERMIT PACKAGE R1
08/15/2022
(FOR 09/07/2022 PLANNING BOARD SPECIAL PERMIT PUBLIC HEARING)

Client/Project
Bulfinch
HIGHLAND INNOVATION CENTER
557 Highland Ave
Needham, MA 02494

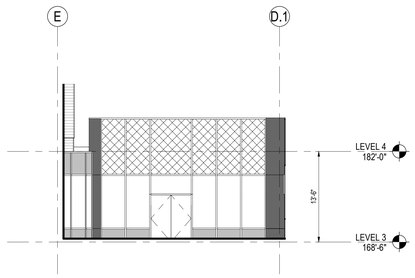
Project No.:218421343
File Name: N/A
Scale: 1/8" = 1'-0"

Author	Designer	Checker	2022.06.24
Dwn.	Dsgn.	Chkd.	YYYY.MM.DD

Title
BUILDING ELEV - NORTH BLDG (SOUTHWEST) & SOUTH BLDG (SOUTH)

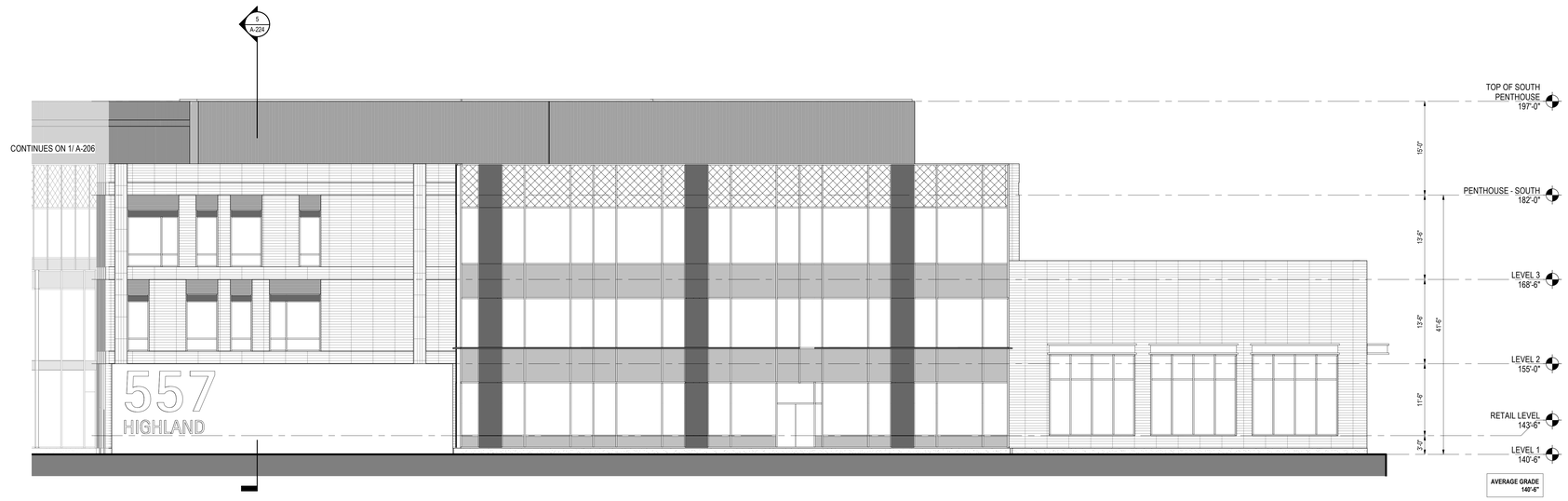
Revision:

Drawing No.
A-205



ENLARGED ELEVATION - ATRIUM - EAST (HIDDEN) AT GRID 15

3 A-206 1/8" = 1'-0"



SOUTH BLGD - ELEVATION - GREENWALL

2 A-206 1/8" = 1'-0"

ENLARGED ELEVATION - NORTH BUILDING - WEST

1 A-206 1/8" = 1'-0"

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No.	Issued/Revision	By	Appd	YYYY.MM.DD
1	SPECIAL PERMIT PACKAGE R1			2022.08.15
2	DESIGN REVIEW			2022.07.15
3	30% DESIGN DEVELOPMENT			2022.03.30

Permit/Seal

KEY PLAN

SPECIAL PERMIT PACKAGE R1
08/15/2022
(FOR 09/07/2022 PLANNING BOARD SPECIAL PERMIT PUBLIC HEARING)

Client/Project
Bulfinch
HIGHLAND INNOVATION CENTER
557 Highland Ave
Needham, MA 02494

Project No.:218421343
File Name: N/A
Scale: 1/8" = 1'-0"

Author	Designer	Checker	2022.06.24
Dwn.	Dsgn.	Chkd.	YYYY.MM.DD

Title
BUILDING ELEV - NORTH BLDG (WEST) & SOUTH BLDG (NORTH & WEST)

Revision:

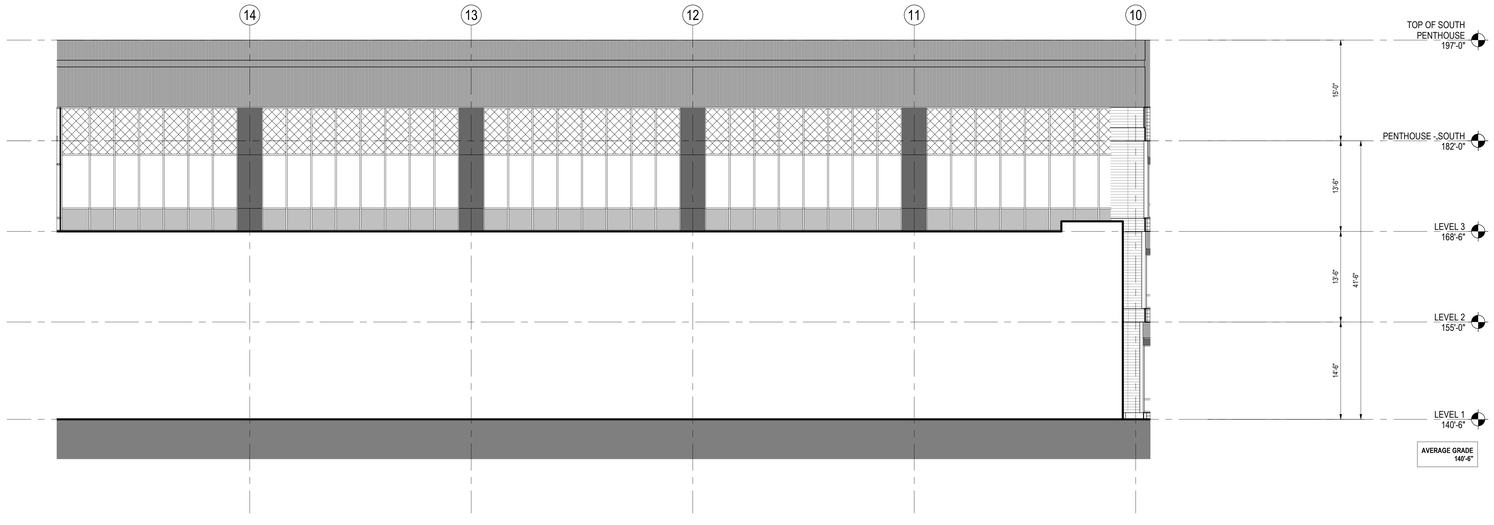
Drawing No.
A-206

<PELSubSet>\<Project Information>
8/10/2022 3:53:24 PM

ORIGINAL SHEET - ARCH E

1 A-207 **SOUTH BLDG - SOUTH ELEVATION LEVEL 1 - LOADING DOCK**

1/8" = 1'-0"



2 A-207 **ENLARGED ELEVATION - SOUTH BUILDING - NORTHWEST**

1/8" = 1'-0"

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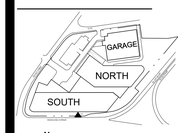
Issued/Revision	By	Appd	YYYY.MM.DD
SPECIAL PERMIT PACKAGE R1			2022.08.15
100% SPECIAL PERMIT PACKAGE			2022.07.13

Permit/Seal

REGISTERED ARCHITECT
No. 30550
THOMAS M. LISS
COMMONWEALTH OF MASSACHUSETTS



KEY PLAN

SPECIAL PERMIT PACKAGE R1
08/15/2022
(FOR 09/07/2022 PLANNING BOARD SPECIAL PERMIT PUBLIC HEARING)

Client/Project
Bulfinch
HIGHLAND INNOVATION CENTER
557 Highland Ave
Needham, MA 02494

Project No.:218421343
File Name: N/A
Scale: 1/8" = 1'-0"

Author	Designer	Checker	2022.04.24
Dwn.	Dsgn.	Chkd.	YYYY.MM.DD

Title
BUILDING ELEV - SOUTH BLDG - NORTH & EAST

Revision:

Drawing No.
A-207

•Plot Scaled to Paper Information•
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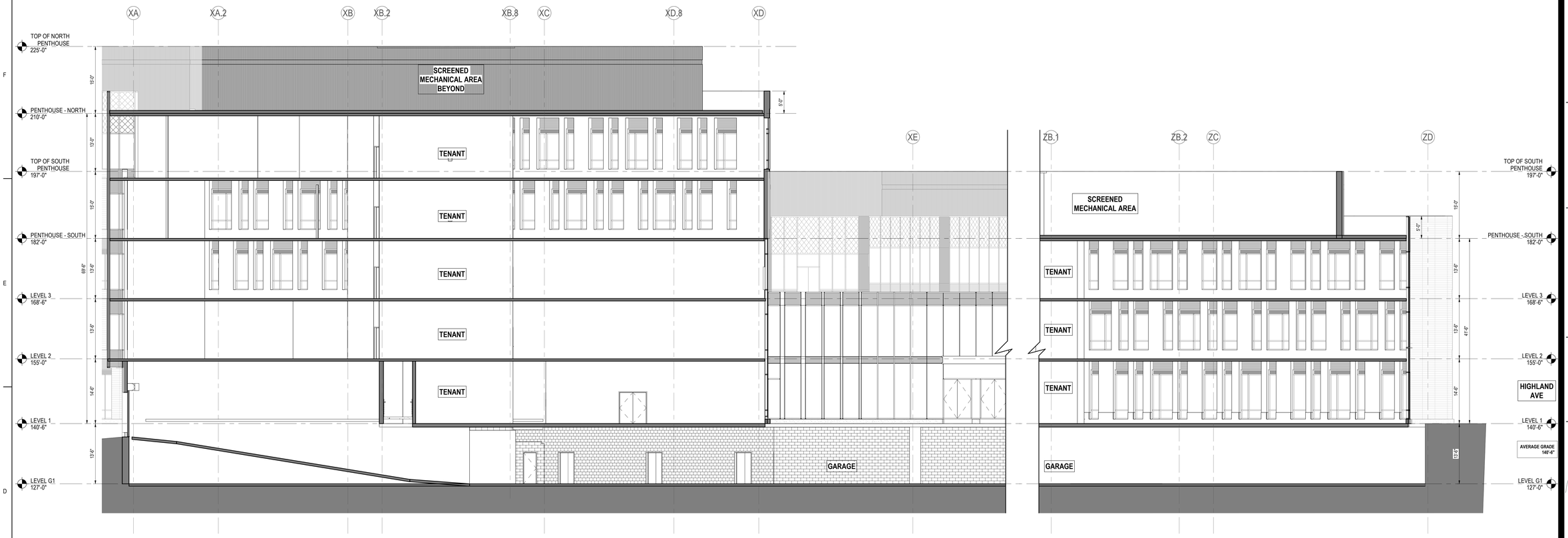
ORIGINAL SHEET - ARCH E



2 A-211 **SECTION - N-S NEAR GRID 12**

1/8" = 1'-0"

1 A-211 **SECTION - N-S NEAR GRID 16**

1/8" = 1'-0"

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No.	Issued/Revision	By	Appd	YYYY.MM.DD
1	100% SPECIAL PERMIT SUBMISSION	DSB	SJM	2022.08.15
2	90% SPECIAL PERMIT SUBMISSION	DSB	SJM	2022.07.15
3	60% SPECIAL PERMIT SUBMISSION	DSB	SJM	2022.05.27
4	30% SPECIAL PERMIT SUBMISSION	DSB	SJM	2022.04.15

Permit/Seal

REGISTERED ARCHITECT JOSHUA M. LIVERTZ No. 30550 COMMONWEALTH OF MASSACHUSETTS

KEY PLAN

SPECIAL PERMIT PACKAGE R1
08/15/2022
(FOR 09/07/2022 PLANNING BOARD SPECIAL PERMIT PUBLIC HEARING)

Client/Project
Bulfinch
HIGHLAND INNOVATION CENTER
557 Highland Ave
Needham, MA 02494

Project No.:218421343
File Name: N/A
Scale: 1/8" = 1'-0"

Author	Designer	Checker	2022.06.24
Dwn.	Dsgn.	Chkd.	YYYY.MM.DD

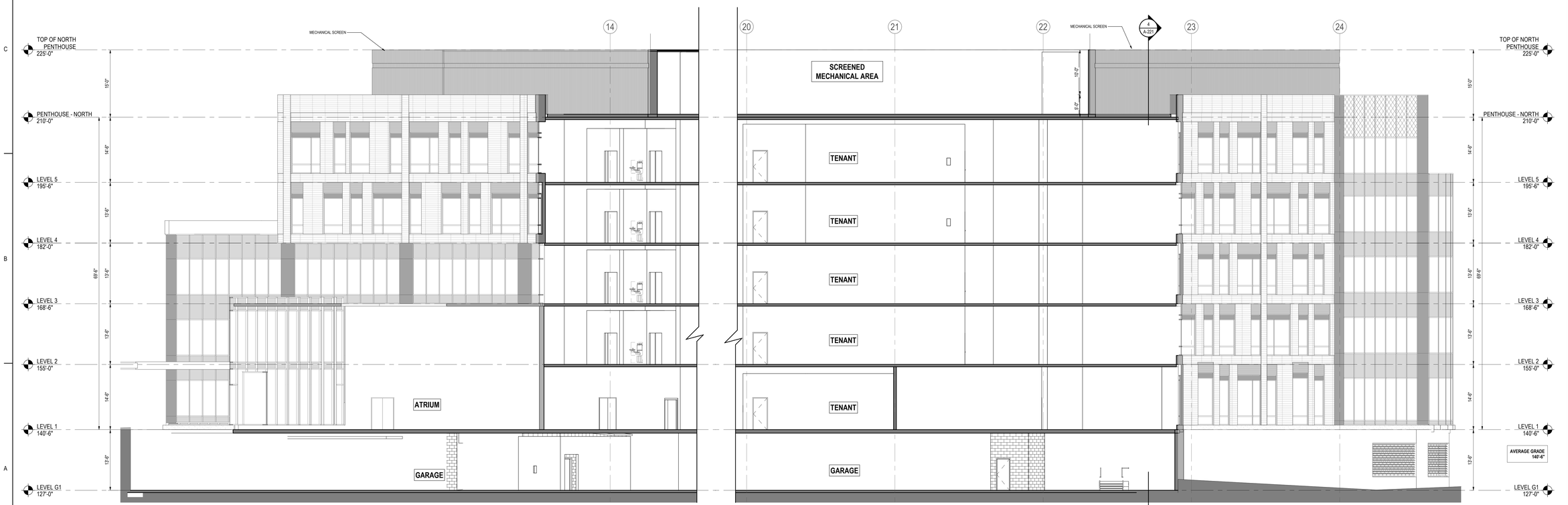
Title
BUILDING SECTIONS - OVERALL

Revision:
Drawing No.
A-211

<Plot Scale>
8/15/2022 3:56:12 PM
ORIGINAL SHEET - ARCH E

2 A-212 **SECTION - NORTH BUILDING - SECTION N-S NEAR GRID 20**

1/8" = 1'-0"



1 A-212 **SECTION - NORTH BUILDING - SECTION E-W NEAR GRID F**

1/8" = 1'-0"

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No.	Issued/Revision	By	Appd.	YYYY.MM.DD
1	SPECIAL PERMIT PACKAGE R1			2022.08.15
2	DEIR SUBMISSION			2022.07.15
3	SITE PLAN SUBMISSION			2022.03.30
4	100% CONSTRUCTION			2022.01.07

Permit/Seal

KEY PLAN

SPECIAL PERMIT PACKAGE R1
08/15/2022
(FOR 09/07/2022 PLANNING BOARD SPECIAL PERMIT PUBLIC HEARING)

Client/Project
Bulfinch
HIGHLAND INNOVATION CENTER
557 Highland Ave
Needham, MA 02494

Project No.:218421343
File Name: N/A
Scale: 1/8" = 1'-0"

Author	Designer	Checker	2022.06.24
Dwn.	Dsgn.	Chkd.	YYYY.MM.DD

Title
BUILDING SECTIONS - NORTH BLDG

Revision:

Drawing No.
A-212

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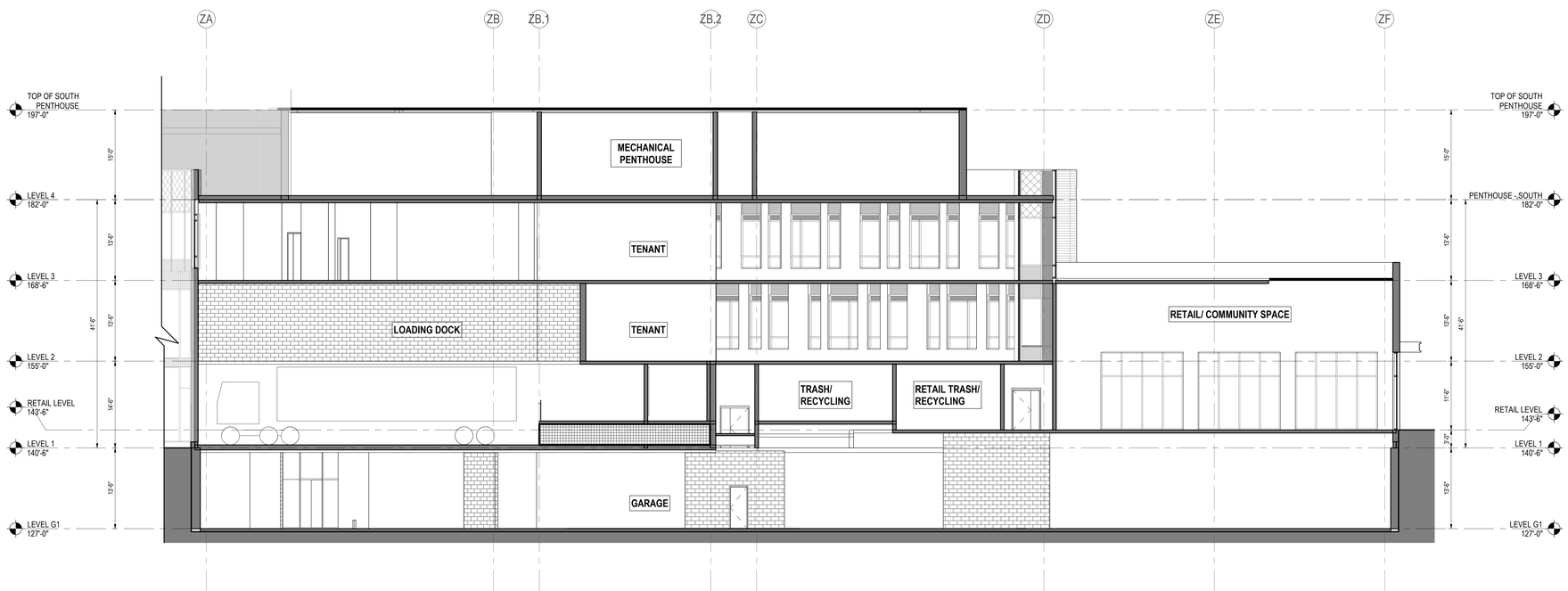
8/10/2022 3:56:18 PM

ORIGINAL SHEET - ARCH E



1 A-213 **SECTION - SOUTH BUILDING - SECTION N-S NEAR GRID 5**

1/8" = 1'-0"

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No.	Issued/Revision	By	Appd.	YYYY.MM.DD
1	SPECIAL PERMIT PACKAGE R1			2022.08.15
2	90% SPECIAL PERMIT SUBMISSION			2022.07.13

Permit/Seal

KEY PLAN

Client/Project

Bulfinch HIGHLAND INNOVATION CENTER

557 Highland Ave
Needham, MA 02494

Project No.:218421343

File Name: N/A

Scale: 1/8" = 1'-0"

Author	Designer	Checker	2022.06.24
Dwn.	Dsgn.	Chkd.	YYYY.MM.DD

Title

BUILDING SECTIONS - SOUTH BLDG

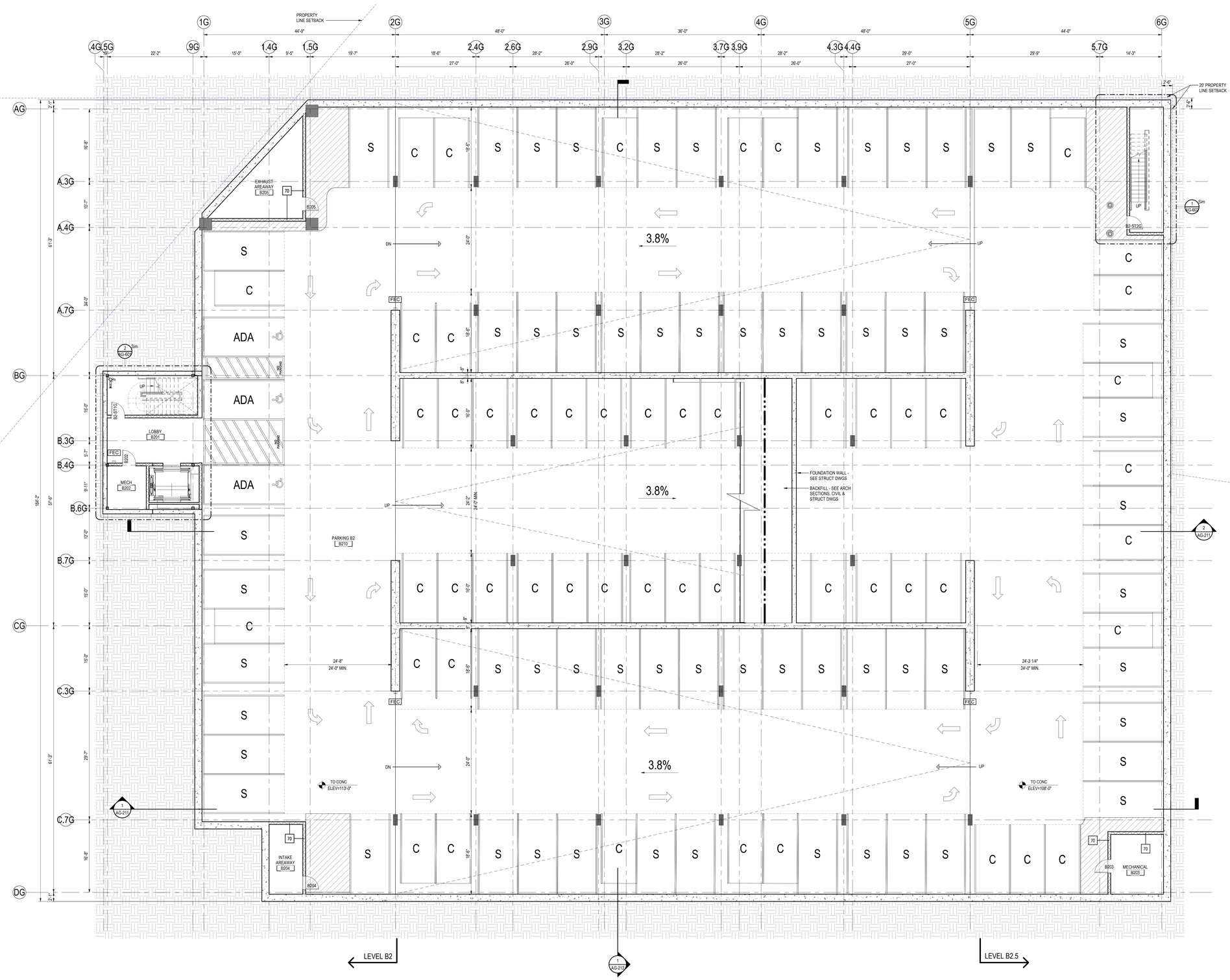
Revision:

Drawing No.

A-213

<PELotter=Project Information>
8/10/2022 3:54:21 PM

ORIGINAL SHEET - ARCH E



1 GARAGE - LEVEL B2
1 AG-100B2 1/8" = 1'-0"

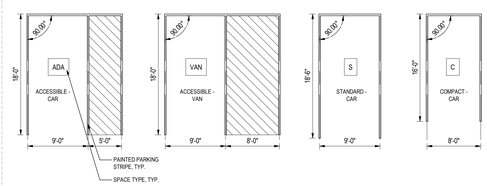
GARAGE PARKING COUNT	
PARKING TYPE	COUNT
GARAGE - LEVEL B2	
ACCESSIBLE	3
COMPACT	52
STANDARD	61
	116
GARAGE - LEVEL B1	
ACCESSIBLE	3
COMPACT	56
STANDARD	60
	119
GARAGE - LEVEL 1	
ACCESSIBLE - EV SPACE	1
ACCESSIBLE VAN	2
ACCESSIBLE VAN - EV SPACE	1
COMPACT	50
COMPACT - EV SPACE	17
STANDARD	37
STANDARD - EV SPACE	18
	126
GARAGE - LEVEL 2	
ACCESSIBLE	2
ACCESSIBLE - EV SPACE	1
COMPACT	56
COMPACT - EV SPACE	20
STANDARD	30
STANDARD - EV SPACE	22
	131
GARAGE - LEVEL 3	
ACCESSIBLE	1
ACCESSIBLE - EV SPACE	1
COMPACT	56
COMPACT - EV SPACE	23
STANDARD	30
STANDARD - EV SPACE	21
	132
GARAGE - LEVEL 4	
ACCESSIBLE	1
ACCESSIBLE - EV SPACE	1
COMPACT	56
COMPACT - EV SPACE	23
STANDARD	30
STANDARD - EV SPACE	21
	132
GARAGE - LEVEL 5	
ACCESSIBLE	1
ACCESSIBLE - EV SPACE	1
COMPACT	56
COMPACT - EV SPACE	23
STANDARD	30
STANDARD - EV SPACE	21
	132
GARAGE - LEVEL 6	
ACCESSIBLE	1
ACCESSIBLE - EV SPACE	1
COMPACT	28
COMPACT - EV SPACE	13
STANDARD	46
STANDARD - EV SPACE	21
	110
TOTAL: 998	998

LEGEND

FEC — SURFACE MOUNTED FIRE EXTINGUISHER CABINET W/ 10lb "ABC" TYPE EXTINGUISHER

75'-0" MAX. DISTANCE PER CODE, TYP.

PARKING LEGEND



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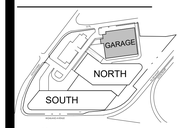
Consultant

Issued/Revision	By	Appvd	YYYY.MM.DD
SPECIAL PERMIT PACKAGE R1			2022.08.15
SITE PLAN APPLICATION			2022.03.31
SPECIAL PERMIT PACKAGE R0			2022.03.07

Permit/Seal



KEY PLAN

SPECIAL PERMIT PACKAGE R1
08/15/2022
(FOR 09/07/2022 PLANNING BOARD SPECIAL PERMIT PUBLIC HEARING)

Client/Project
Bulfinch
HIGHLAND INNOVATION CENTER - GARAGE
557 Highland Ave
Needham, MA 02494

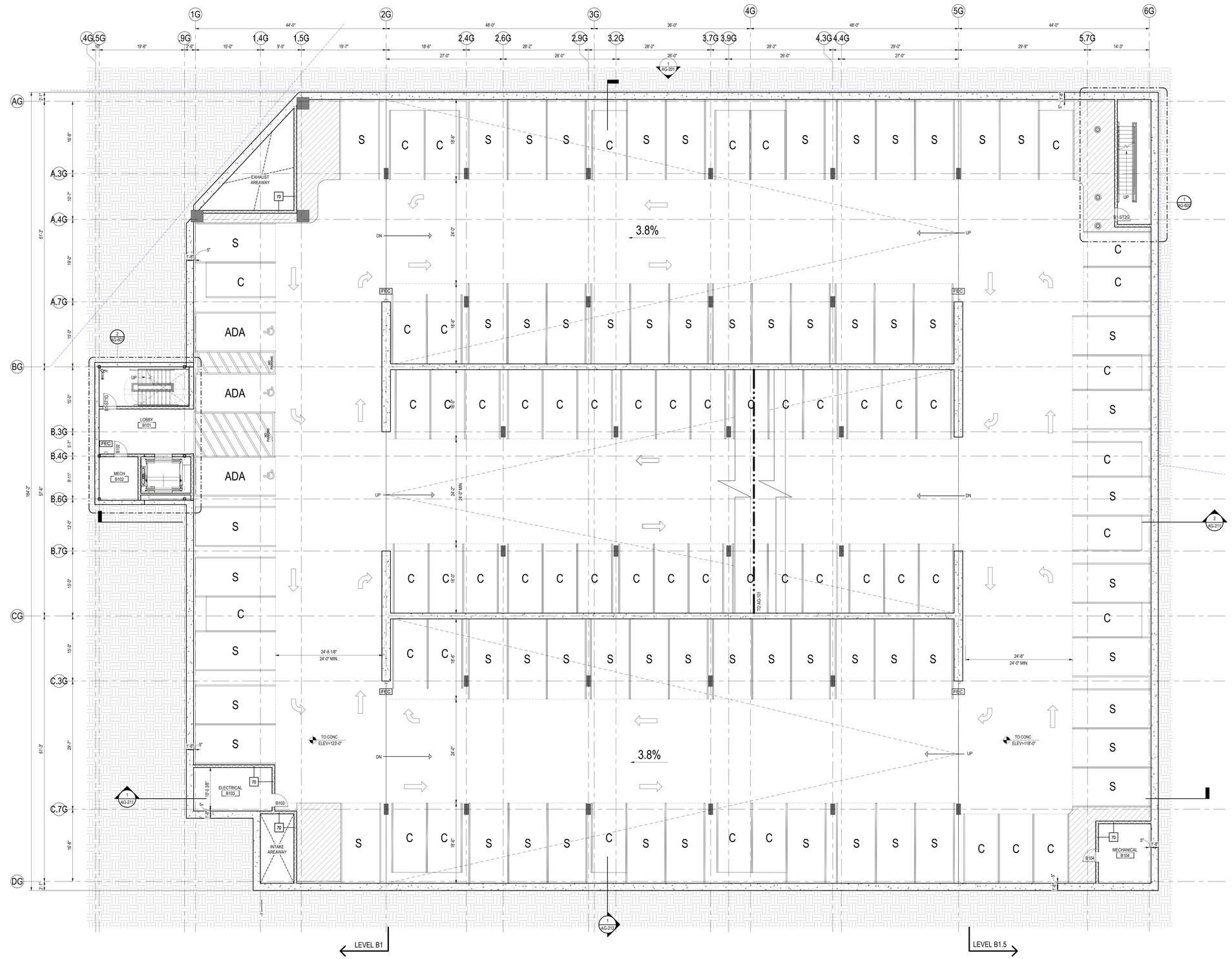
Project No.:218421343
File Name: N/A
Scale: 1/8" = 1'-0"

RS	Designer	TMU	2022.05.27
Dwn.	Dsgn.	Chkd.	YYYY.MM.DD

Title
GARAGE LEVEL B2

Revision:
Drawing No.
AG-100B2
GARAGE

"R:\Active Projects\<Project Information>
5/20/2022 3:53:15 PM
ORIGINAL SHEET - ARCH E



1 GARAGE - LEVEL B1
AG-100B1 1/8" = 1'-0"

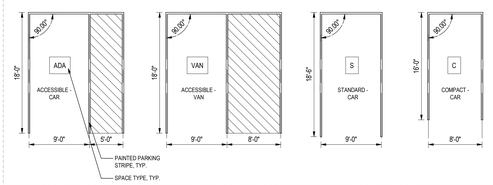
GARAGE PARKING COUNT	
PARKING TYPE	COUNT
GARAGE - LEVEL B2	
ACCESSIBLE	3
COMPACT	52
STANDARD	61
	116
GARAGE - LEVEL B1	
ACCESSIBLE	3
COMPACT	56
STANDARD	60
	119
GARAGE - LEVEL 1	
ACCESSIBLE - EV SPACE	1
ACCESSIBLE VAN	2
ACCESSIBLE VAN - EV SPACE	1
COMPACT	50
COMPACT - EV SPACE	17
STANDARD	37
STANDARD - EV SPACE	18
	126
GARAGE - LEVEL 2	
ACCESSIBLE	2
ACCESSIBLE - EV SPACE	1
COMPACT	56
COMPACT - EV SPACE	20
STANDARD	30
STANDARD - EV SPACE	22
	131
GARAGE - LEVEL 3	
ACCESSIBLE	1
ACCESSIBLE - EV SPACE	1
COMPACT	56
COMPACT - EV SPACE	23
STANDARD	30
STANDARD - EV SPACE	21
	132
GARAGE - LEVEL 4	
ACCESSIBLE	1
ACCESSIBLE - EV SPACE	1
COMPACT	56
COMPACT - EV SPACE	23
STANDARD	30
STANDARD - EV SPACE	21
	132
GARAGE - LEVEL 5	
ACCESSIBLE	1
ACCESSIBLE - EV SPACE	1
COMPACT	56
COMPACT - EV SPACE	23
STANDARD	30
STANDARD - EV SPACE	21
	132
GARAGE - LEVEL 6	
ACCESSIBLE	1
ACCESSIBLE - EV SPACE	1
COMPACT	28
COMPACT - EV SPACE	13
STANDARD	46
STANDARD - EV SPACE	21
	110
TOTAL: 998	998

LEGEND

FEC — SURFACE MOUNTED FIRE EXTINGUISHER CABINET W/ 10lb "ABC" TYPE EXTINGUISHER

75'-0" MAX. DISTANCE PER CODE, TYP.

PARKING LEGEND



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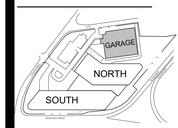
Consultant

Issued/Revision	By	Appd	YYYY.MM.DD
SPECIAL PERMIT PACKAGE R1			2022.08.15
SITE PLAN SUBMITTAL			2022.03.31
SPECIAL PERMIT PACKAGE R1			2022.08.15

Permit/Seal



KEY PLAN

SPECIAL PERMIT PACKAGE R1
08/15/2022
(FOR 09/07/2022 PLANNING BOARD SPECIAL PERMIT PUBLIC HEARING)

Client/Project
Bulfinch
HIGHLAND INNOVATION CENTER - GARAGE
557 Highland Ave
Needham, MA 02494

Project No.:218421343
File Name: N/A
Scale: 1/8" = 1'-0"

RS	Designer	TMU	2022.05.27
Dwn.	Dsgn.	Chkd.	YYYY.MM.DD

Title
GARAGE LEVEL B1

Revision:
Drawing No.
AG-100B1
GARAGE

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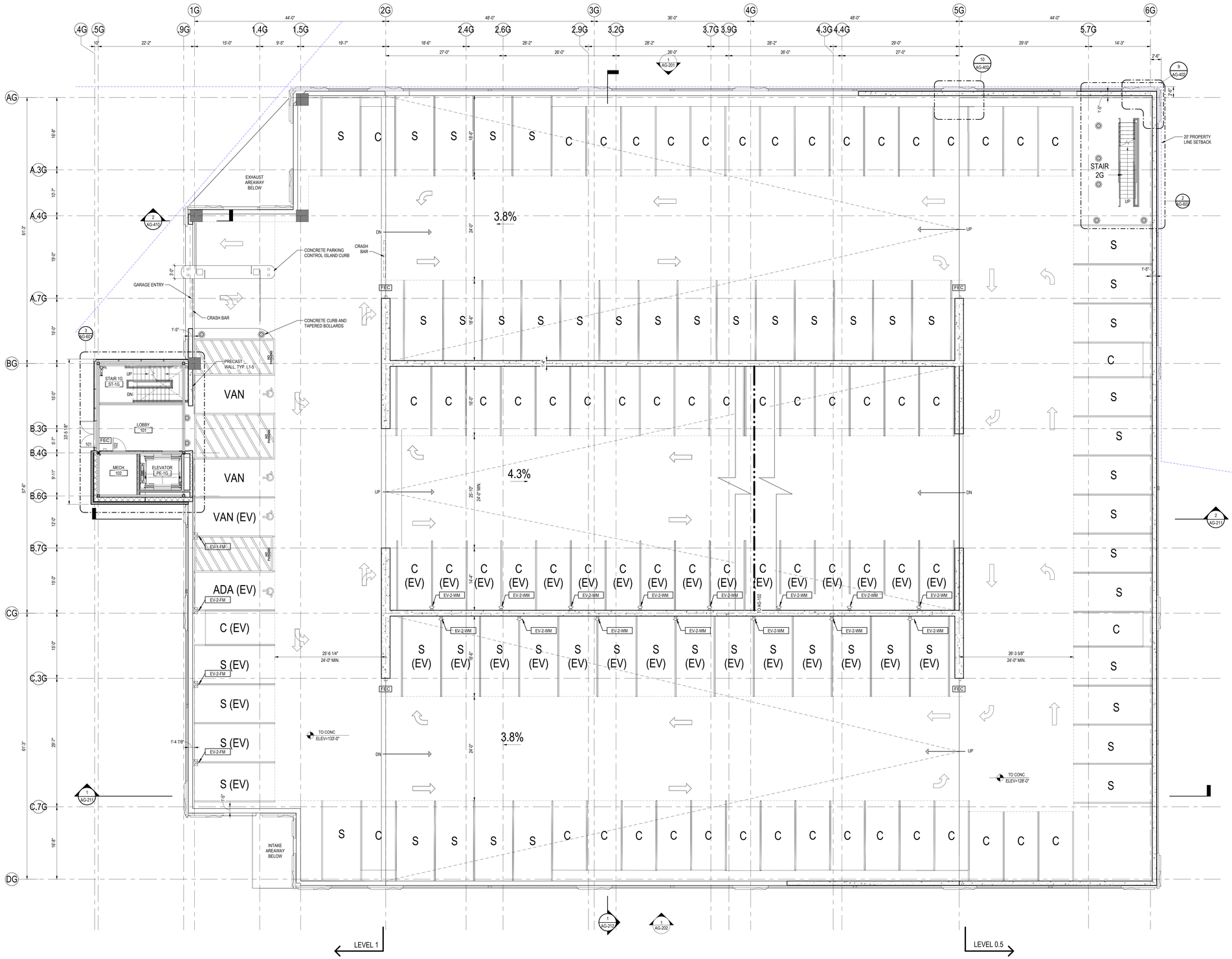
ORIGINAL SHEET - ARCH E



1 AG-101 GARAGE - LEVEL 1-

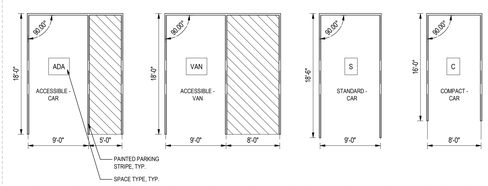
1/8" = 1'-0"

LEGEND

FEC — SURFACE MOUNTED FIRE EXTINGUISHER CABINET W/ 10lb "ABC" TYPE EXTINGUISHER

75'-0" MAX. DISTANCE PER CODE, TYP.

PARKING LEGEND



GARAGE PARKING COUNT	
PARKING TYPE	COUNT
GARAGE - LEVEL B2	
ACCESSIBLE	3
COMPACT	52
STANDARD	61
	116
GARAGE - LEVEL B1	
ACCESSIBLE	3
COMPACT	56
STANDARD	60
	119
GARAGE - LEVEL 1	
ACCESSIBLE - EV SPACE	1
ACCESSIBLE VAN	2
ACCESSIBLE VAN - EV SPACE	1
COMPACT	50
COMPACT - EV SPACE	17
STANDARD	37
STANDARD - EV SPACE	18
	126
GARAGE - LEVEL 2	
ACCESSIBLE	2
ACCESSIBLE - EV SPACE	1
COMPACT	56
COMPACT - EV SPACE	20
STANDARD	30
STANDARD - EV SPACE	22
	131
GARAGE - LEVEL 3	
ACCESSIBLE	1
ACCESSIBLE - EV SPACE	1
COMPACT	56
COMPACT - EV SPACE	23
STANDARD	30
STANDARD - EV SPACE	21
	132
GARAGE - LEVEL 4	
ACCESSIBLE	1
ACCESSIBLE - EV SPACE	1
COMPACT	56
COMPACT - EV SPACE	23
STANDARD	30
STANDARD - EV SPACE	21
	132
GARAGE - LEVEL 5	
ACCESSIBLE	1
ACCESSIBLE - EV SPACE	1
COMPACT	56
COMPACT - EV SPACE	23
STANDARD	30
STANDARD - EV SPACE	21
	132
GARAGE - LEVEL 6	
ACCESSIBLE	1
ACCESSIBLE - EV SPACE	1
COMPACT	28
COMPACT - EV SPACE	13
STANDARD	46
STANDARD - EV SPACE	21
	110
TOTAL: 998	998

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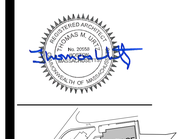
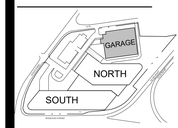
Issued/Revision		
SPECIAL PERMIT PACKAGE R1	2022.08.15	Adpnt
SITE PLAN SUBMITTAL	2022.03.31	Adpnt
SPECIAL PERMIT PACKAGE R1	YYYY.MM.DD	By

Permit/Seal





KEY PLAN

SPECIAL PERMIT PACKAGE R1
08/15/2022
(FOR 09/07/2022 PLANNING BOARD SPECIAL PERMIT PUBLIC HEARING)

Client/Project
Bulfinch
HIGHLAND INNOVATION CENTER - GARAGE
557 Highland Ave
Needham, MA 02494

Project No.:218421343
File Name: N/A
Scale: 1/8" = 1'-0"

RS	Designer	TMU	2022.05.27
Dwn.	Dsgn.	Chkd.	YYYY.MM.DD

Title
GARAGE LEVEL 1

Revision:
Drawing No.
AG-101
GARAGE

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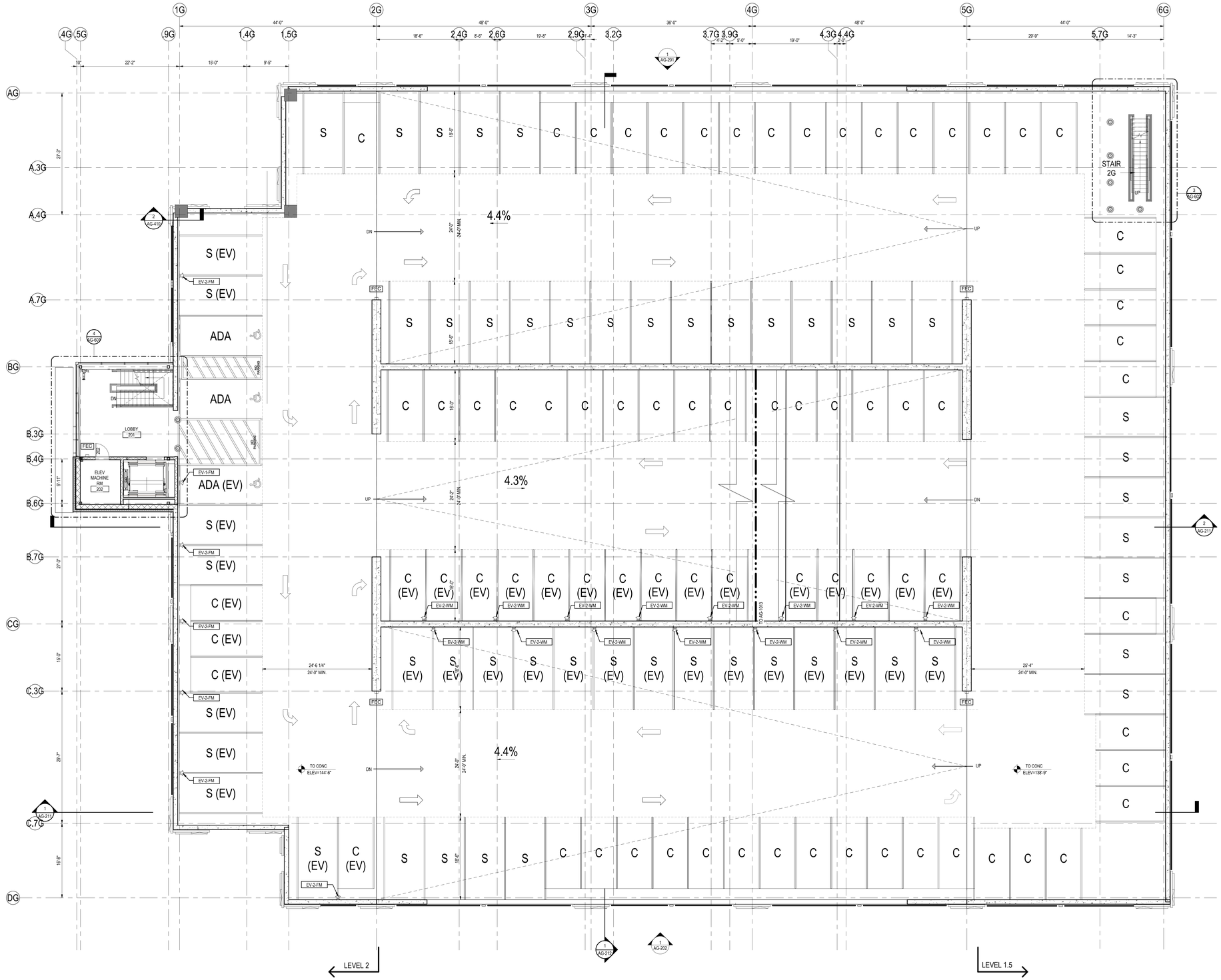
ORIGINAL SHEET - ARCH E



1 AG-102 GARAGE - LEVEL 2

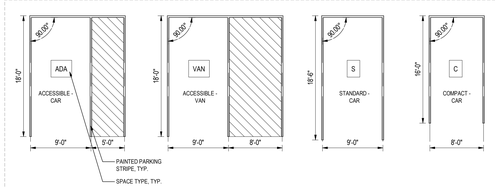
1/8" = 1'-0"

LEGEND

FEC — SURFACE MOUNTED FIRE EXTINGUISHER CABINET W/ 10lb "ABC" TYPE EXTINGUISHER

75'-0" MAX. DISTANCE PER CODE, TYP.

PARKING LEGEND



GARAGE PARKING COUNT	
PARKING TYPE	COUNT
GARAGE - LEVEL B2	
ACCESSIBLE	3
COMPACT	52
STANDARD	61
	116
GARAGE - LEVEL B1	
ACCESSIBLE	3
COMPACT	56
STANDARD	60
	119
GARAGE - LEVEL 1	
ACCESSIBLE - EV SPACE	1
ACCESSIBLE VAN	2
ACCESSIBLE VAN - EV SPACE	1
COMPACT	50
COMPACT - EV SPACE	17
STANDARD	37
STANDARD - EV SPACE	18
	126
GARAGE - LEVEL 2	
ACCESSIBLE	2
ACCESSIBLE - EV SPACE	1
COMPACT	56
COMPACT - EV SPACE	20
STANDARD	30
STANDARD - EV SPACE	22
	131
GARAGE - LEVEL 3	
ACCESSIBLE	1
ACCESSIBLE - EV SPACE	1
COMPACT	56
COMPACT - EV SPACE	23
STANDARD	30
STANDARD - EV SPACE	21
	132
GARAGE - LEVEL 4	
ACCESSIBLE	1
ACCESSIBLE - EV SPACE	1
COMPACT	56
COMPACT - EV SPACE	23
STANDARD	30
STANDARD - EV SPACE	21
	132
GARAGE - LEVEL 5	
ACCESSIBLE	1
ACCESSIBLE - EV SPACE	1
COMPACT	56
COMPACT - EV SPACE	23
STANDARD	30
STANDARD - EV SPACE	21
	132
GARAGE - LEVEL 6	
ACCESSIBLE	1
ACCESSIBLE - EV SPACE	1
COMPACT	28
COMPACT - EV SPACE	13
STANDARD	46
STANDARD - EV SPACE	21
	110
TOTAL: 998	998

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Issued/Revision	By	Appvd	YYYY.MM.DD
SPECIAL PERMIT PACKAGE R1			2022.08.15
30% DESIGN SUBMITTAL			2022.03.30
100% DESIGN SUBMITTAL			2022.05.27

Permit/Seal

KEY PLAN

SPECIAL PERMIT PACKAGE R1
08/15/2022
(FOR 09/07/2022 PLANNING BOARD SPECIAL PERMIT PUBLIC HEARING)

Client/Project
Bulfinch
HIGHLAND INNOVATION CENTER - GARAGE
557 Highland Ave.
Needham, MA 02494

Project No.:218421343
File Name: N/A
Scale: 1/8" = 1'-0"

RS	Designer	TMU	2022.05.27
Dwn.	Dsgn.	Chkd.	YYYY.MM.DD

Title
GARAGE LEVEL 2

Revision:
Drawing No.
AG-102
GARAGE

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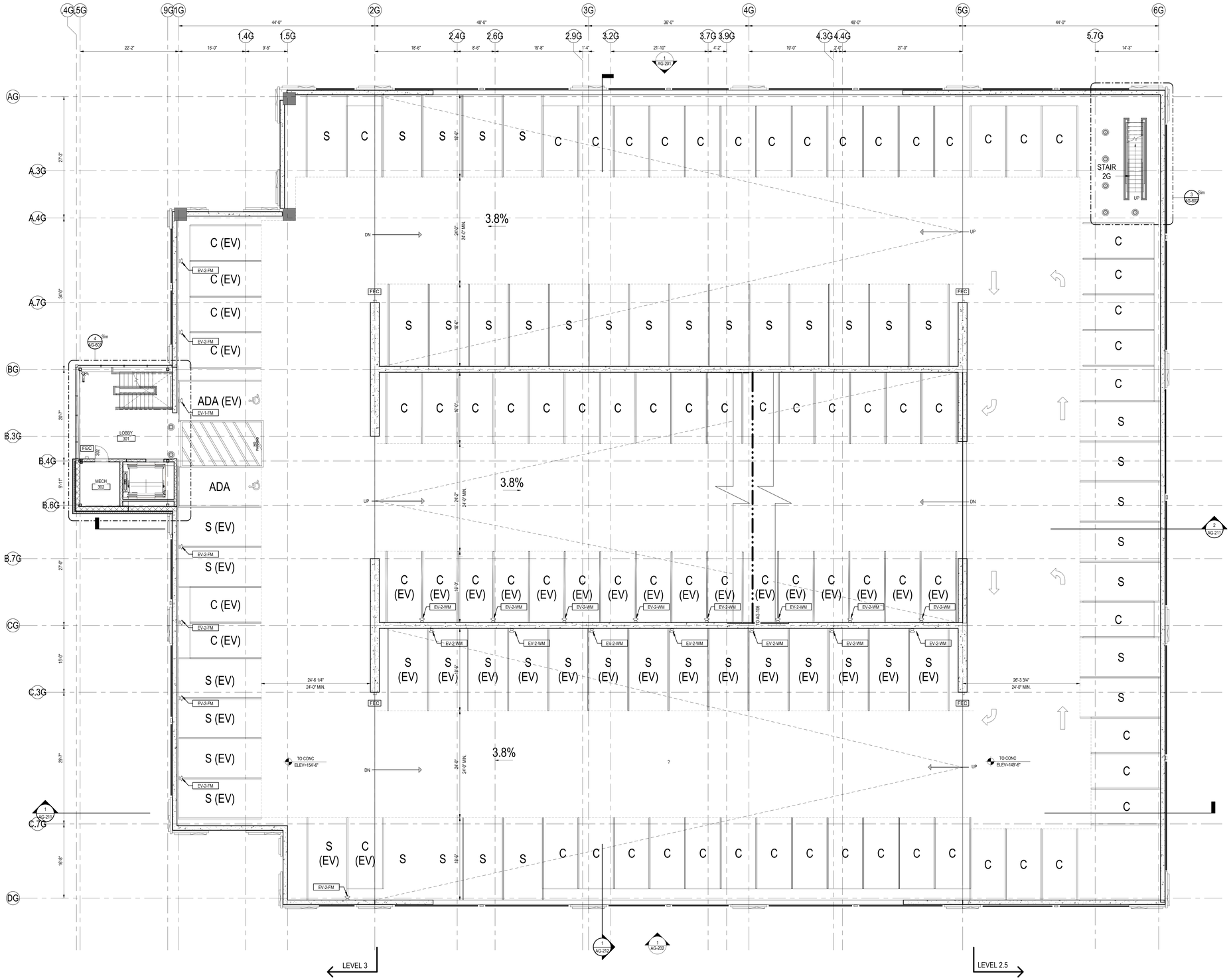
2/10/2022 3:45:33 PM

ORIGINAL SHEET - ARCH E



1 GARAGE - LEVEL 3 (LEVEL 4-5 SIM.)

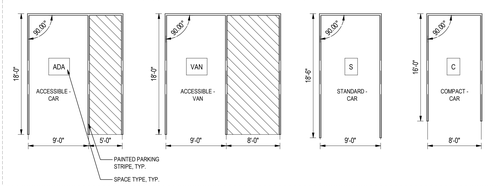
AG-103 1/8" = 1'-0"

LEGEND

FEC SURFACE MOUNTED FIRE EXTINGUISHER CABINET W/ 10lb "ABC" TYPE EXTINGUISHER

75'-0" MAX. DISTANCE PER CODE, TYP.

PARKING LEGEND



GARAGE PARKING COUNT	
PARKING TYPE	COUNT
GARAGE - LEVEL B2	
ACCESSIBLE	3
COMPACT	52
STANDARD	61
	116
GARAGE - LEVEL B1	
ACCESSIBLE	3
COMPACT	56
STANDARD	60
	119
GARAGE - LEVEL 1	
ACCESSIBLE - EV SPACE	1
ACCESSIBLE VAN	2
ACCESSIBLE VAN - EV SPACE	1
COMPACT	50
COMPACT - EV SPACE	17
STANDARD	37
STANDARD - EV SPACE	18
	126
GARAGE - LEVEL 2	
ACCESSIBLE	2
ACCESSIBLE - EV SPACE	1
COMPACT	56
COMPACT - EV SPACE	20
STANDARD	30
STANDARD - EV SPACE	22
	131
GARAGE - LEVEL 3	
ACCESSIBLE	1
ACCESSIBLE - EV SPACE	1
COMPACT	56
COMPACT - EV SPACE	23
STANDARD	30
STANDARD - EV SPACE	21
	132
GARAGE - LEVEL 4	
ACCESSIBLE	1
ACCESSIBLE - EV SPACE	1
COMPACT	56
COMPACT - EV SPACE	23
STANDARD	30
STANDARD - EV SPACE	21
	132
GARAGE - LEVEL 5	
ACCESSIBLE	1
ACCESSIBLE - EV SPACE	1
COMPACT	56
COMPACT - EV SPACE	23
STANDARD	30
STANDARD - EV SPACE	21
	132
GARAGE - LEVEL 6	
ACCESSIBLE	1
ACCESSIBLE - EV SPACE	1
COMPACT	28
COMPACT - EV SPACE	13
STANDARD	46
STANDARD - EV SPACE	21
	110
TOTAL: 998	998

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Issued/Revision	By	Appd	YYYY.MM.DD
SPECIAL PERMIT PACKAGE R1			2022.08.15
30% DESIGN DEVELOPMENT			2022.03.30
100% SCHEMATIC DESIGN			2022.01.27

Permit/Seal

KEY PLAN

SPECIAL PERMIT PACKAGE R1
08/15/2022
(FOR 09/07/2022 PLANNING BOARD SPECIAL PERMIT PUBLIC HEARING)

Client/Project
Bulfinch
HIGHLAND INNOVATION CENTER - GARAGE
557 Highland Ave.
Needham, MA 02494

Project No.:218421343
File Name: N/A
Scale: 1/8" = 1'-0"

RS	Designer	TMU	2022.05.27
Dwn.	Dsgn.	Chkd.	YYYY.MM.DD

Title
GARAGE LEVEL 3 (LEVEL 4-5 SIM.)

Revision:
Drawing No.
AG-103
GARAGE

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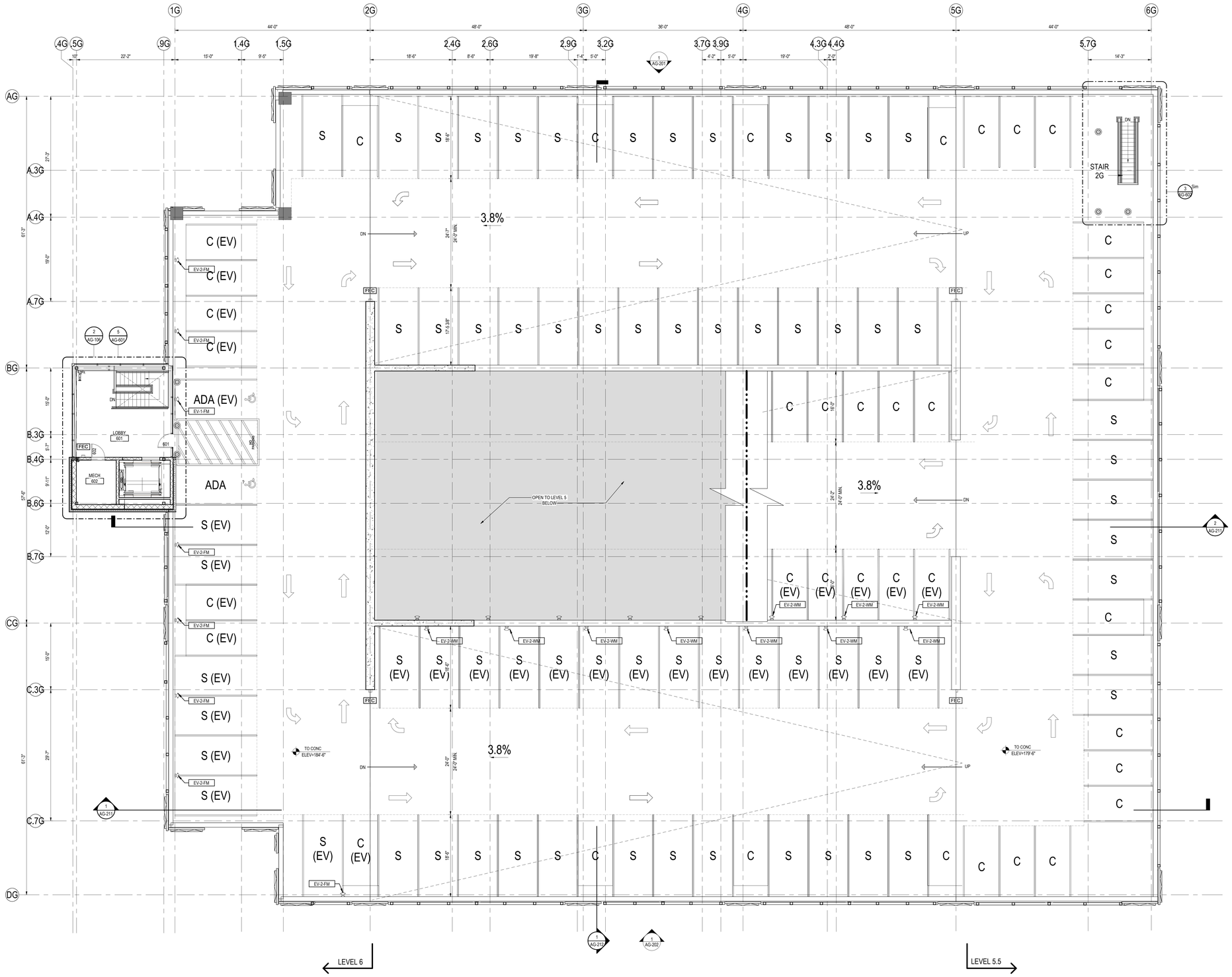
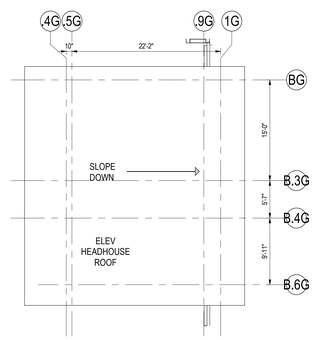
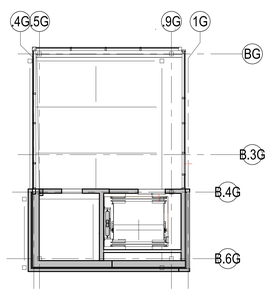
1/7/2022 3:54:56 PM
ORIGINAL SHEET - ARCH E



1 GARAGE - LEVEL 6
AG-106 — 1/8" = 1'-0"



2 GARAGE - MAIN ENTRY ROOF
AG-106 — 1/8" = 1'-0"



3 GARAGE - LEVEL 6 - RCP
AG-106 — 1/8" = 1'-0"

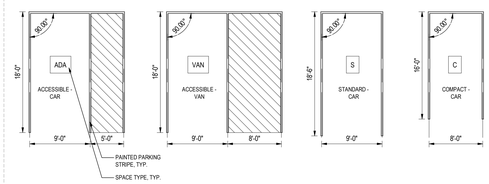
GARAGE PARKING COUNT	
PARKING TYPE	COUNT
GARAGE - LEVEL B2	
ACCESSIBLE	3
COMPACT	52
STANDARD	61
	116
GARAGE - LEVEL B1	
ACCESSIBLE	3
COMPACT	56
STANDARD	60
	119
GARAGE - LEVEL 1	
ACCESSIBLE - EV SPACE	1
ACCESSIBLE VAN	2
ACCESSIBLE VAN - EV SPACE	1
COMPACT	50
COMPACT - EV SPACE	17
STANDARD	37
STANDARD - EV SPACE	18
	126
GARAGE - LEVEL 2	
ACCESSIBLE	2
ACCESSIBLE - EV SPACE	1
COMPACT	56
COMPACT - EV SPACE	20
STANDARD	30
STANDARD - EV SPACE	22
	131
GARAGE - LEVEL 3	
ACCESSIBLE	1
ACCESSIBLE - EV SPACE	1
COMPACT	56
COMPACT - EV SPACE	23
STANDARD	30
STANDARD - EV SPACE	21
	132
GARAGE - LEVEL 4	
ACCESSIBLE	1
ACCESSIBLE - EV SPACE	1
COMPACT	56
COMPACT - EV SPACE	23
STANDARD	30
STANDARD - EV SPACE	21
	132
GARAGE - LEVEL 5	
ACCESSIBLE	1
ACCESSIBLE - EV SPACE	1
COMPACT	56
COMPACT - EV SPACE	23
STANDARD	30
STANDARD - EV SPACE	21
	132
GARAGE - LEVEL 6	
ACCESSIBLE	1
ACCESSIBLE - EV SPACE	1
COMPACT	28
COMPACT - EV SPACE	13
STANDARD	46
STANDARD - EV SPACE	21
	110
TOTAL: 998	998

LEGEND

FEC: SURFACE MOUNTED FIRE EXTINGUISHER CABINET W/ 10lb "ABC" TYPE EXTINGUISHER

75'-0" MAX. DISTANCE PER CODE, TYP.

PARKING LEGEND



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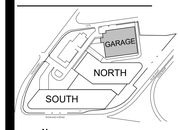
Consultant

Issued/Revision	By	Appd.	YYYY.MM.DD
SPECIAL PERMIT PACKAGE R1			2022.08.15
30% DESIGN DEVELOPMENT SET			2022.03.31
100% SCHEMATIC DESIGN SET			2021.12.17

Permit/Seal



KEY PLAN

SPECIAL PERMIT PACKAGE R1
08/15/2022
(FOR 09/07/2022 PLANNING BOARD SPECIAL PERMIT PUBLIC HEARING)

Client/Project
Bulfinch
HIGHLAND INNOVATION CENTER - GARAGE
557 Highland Ave
Needham, MA 02494

Project No.:218421343
File Name: N/A
Scale: 1/8" = 1'-0"

RS	Designer	TMU	2022.05.27
Dwn.	Dsgn.	Chkd.	YYYY.MM.DD

Title
GARAGE LEVEL 6

Revision:
Drawing No.
AG-106
GARAGE

\\Ne.bostfiles1\Projects\Information\218421343\Arch\218421343_ARCH_Highland Innovation Center - Garage_R21.rvt
8/15/2022 3:24:11 PM
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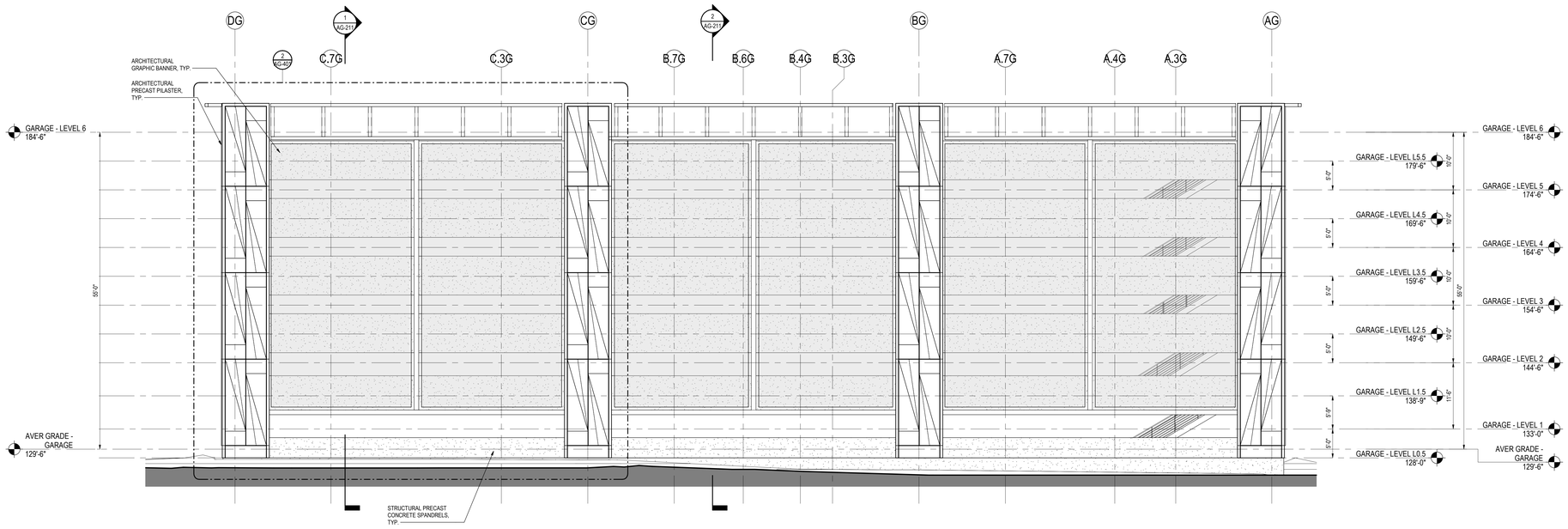
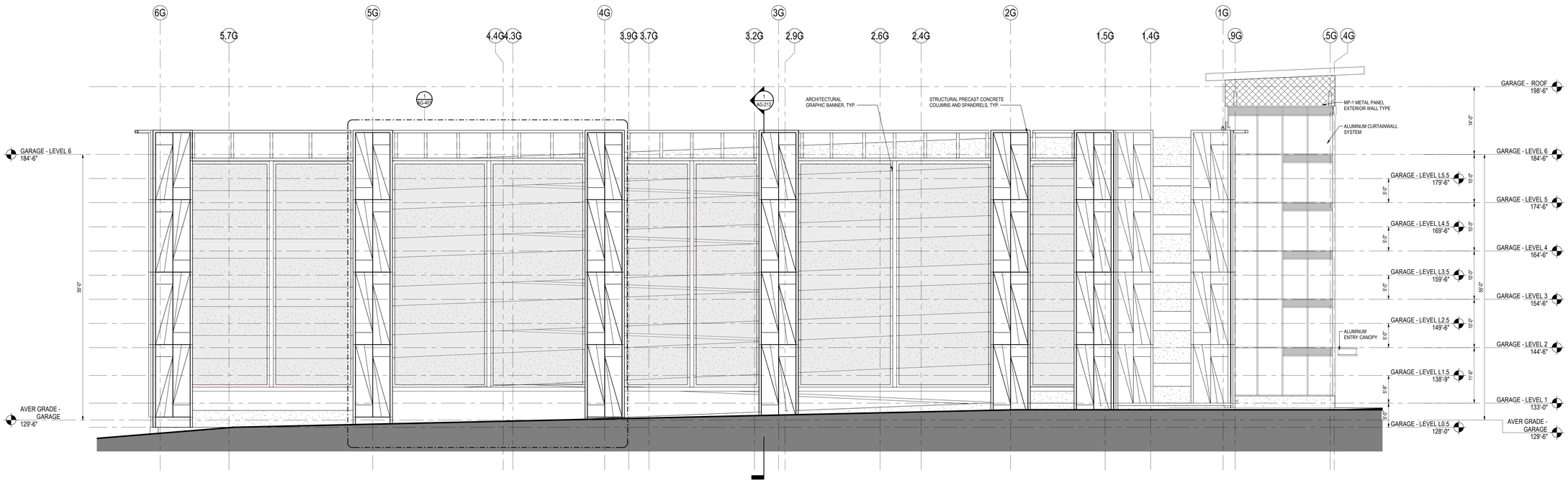


2 AG-201 EAST ELEVATION
1/8" = 1'-0"



1 AG-201 NORTH ELEVATION
1/8" = 1'-0"

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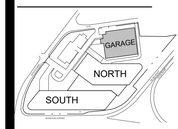
1	SPECIAL PERMIT PACKAGE R1			2022.08.15
2	90% CD PLAN SUBMITTAL			2022.05.27
3	50% CD PLAN SUBMITTAL			2022.03.25

Permit/Seal



KEY PLAN

SPECIAL PERMIT PACKAGE R1
08/15/2022
(FOR 09/07/2022 PLANNING BOARD SPECIAL PERMIT PUBLIC HEARING)

Client/Project
Bulfinch
HIGHLAND INNOVATION CENTER - GARAGE
557 Highland Ave
Needham, MA 02494

Project No.:218421343
File Name: N/A
Scale: 1/8" = 1'-0"

BS	Designer	TMU	2022.05.27
Dwn.	Dsgn.	Chkd.	YYYY.MM.DD

Title
ELEVATIONS - NORTH & EAST

Revision:
Drawing No.
AG-201
GARAGE

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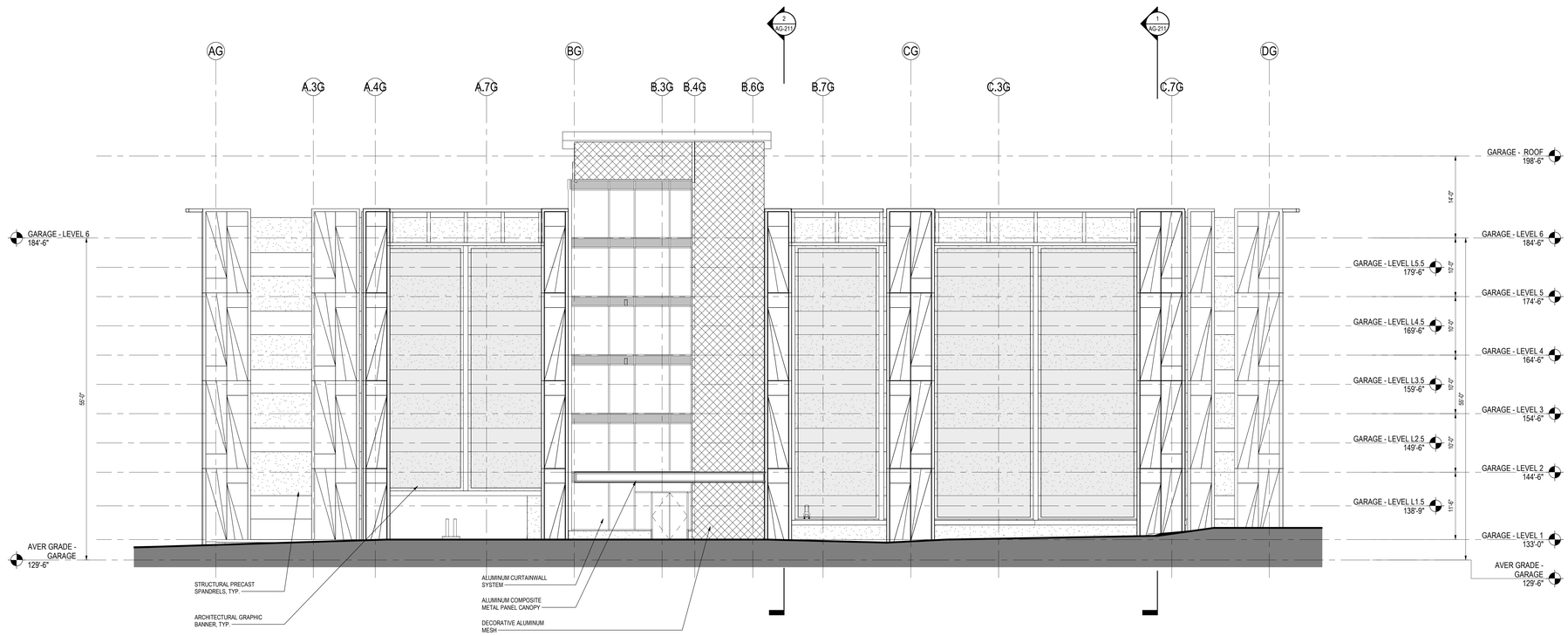
8/10/2022 3:56:13 PM
ORIGINAL SHEET - ARCH E



2 AG-202 WEST ELEVATION
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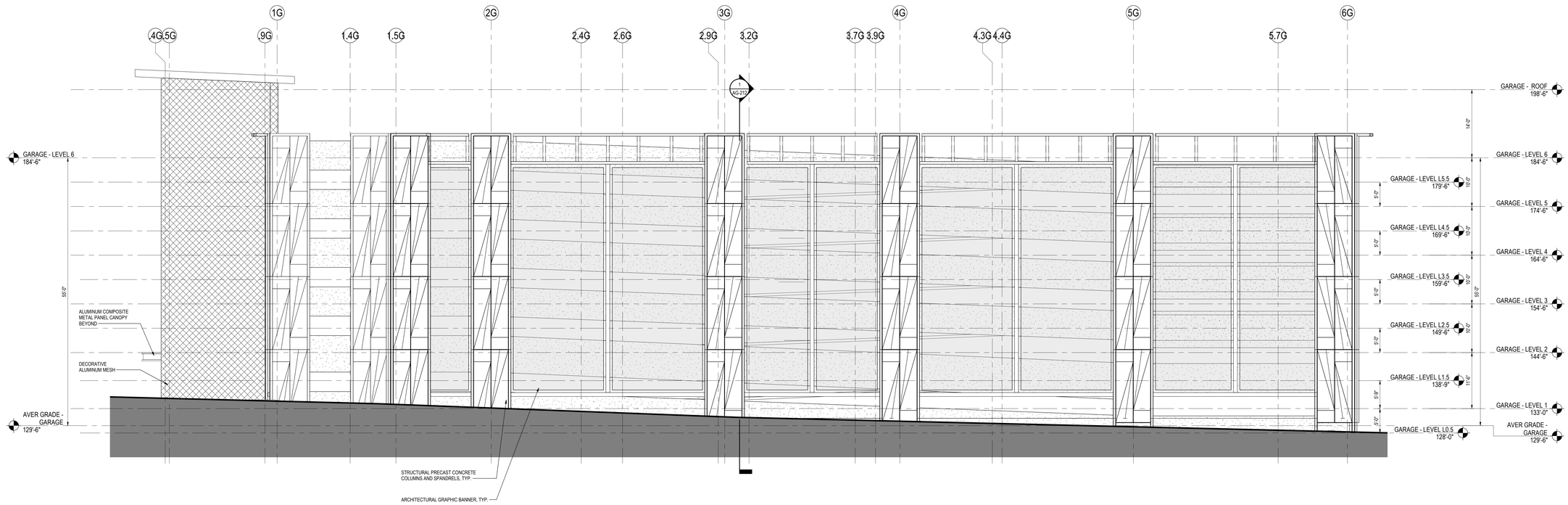

1 AG-202 SOUTH ELEVATION
1/8" = 1'-0"

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No.	Issued/Revision	By	Appd	YYYY.MM.DD
1	SPECIAL PERMIT PACKAGE R1			2022.08.15
2	SPECIAL PERMIT PACKAGE R2			2022.09.27
3	SPECIAL PERMIT PACKAGE R3			2022.10.27

Permit/Seal

KEY PLAN

SPECIAL PERMIT PACKAGE R1
08/15/2022
(FOR 09/07/2022 PLANNING BOARD SPECIAL PERMIT PUBLIC HEARING)

Client/Project
Bulfinch
HIGHLAND INNOVATION CENTER - GARAGE
557 Highland Ave
Needham, MA 02494

Project No.:218421343
File Name: N/A
Scale: 1/8" = 1'-0"

BS	Designer	TMU	2022.05.27
Dwn.	Dsgn.	Chkd.	YYYY.MM.DD

Title
ELEVATIONS - SOUTH & WEST

Revision:
Drawing No.
AG-202
GARAGE

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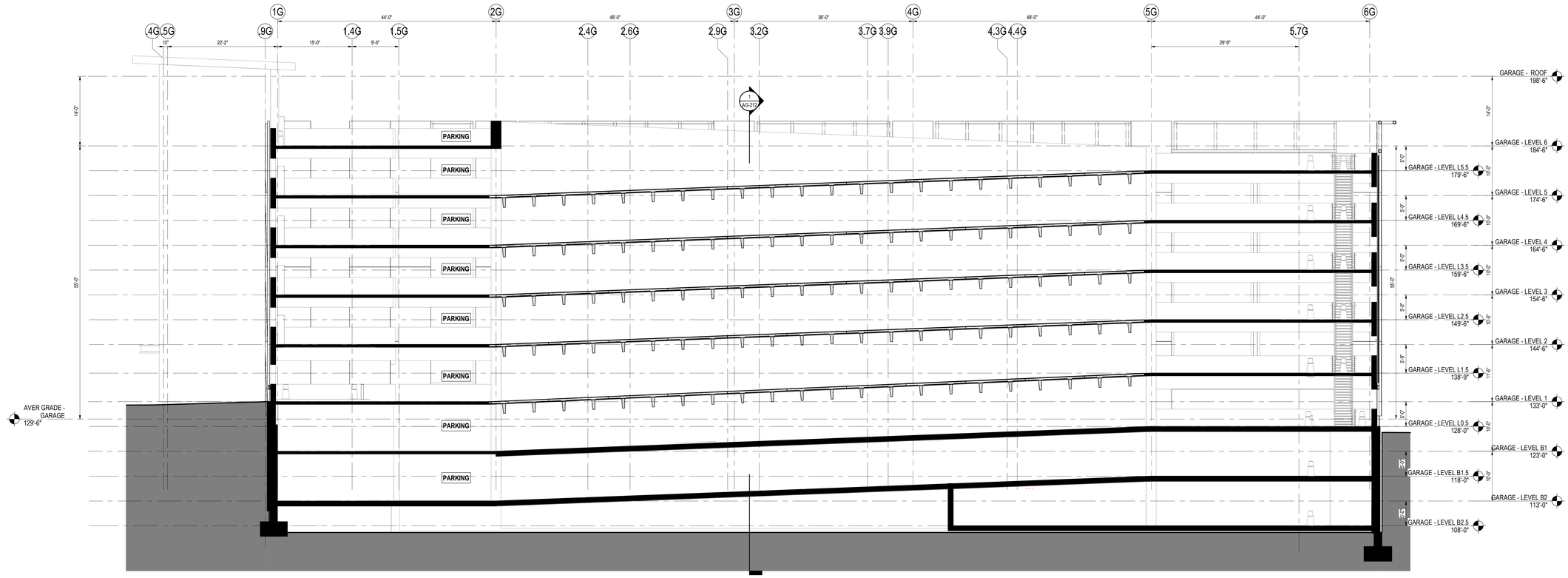
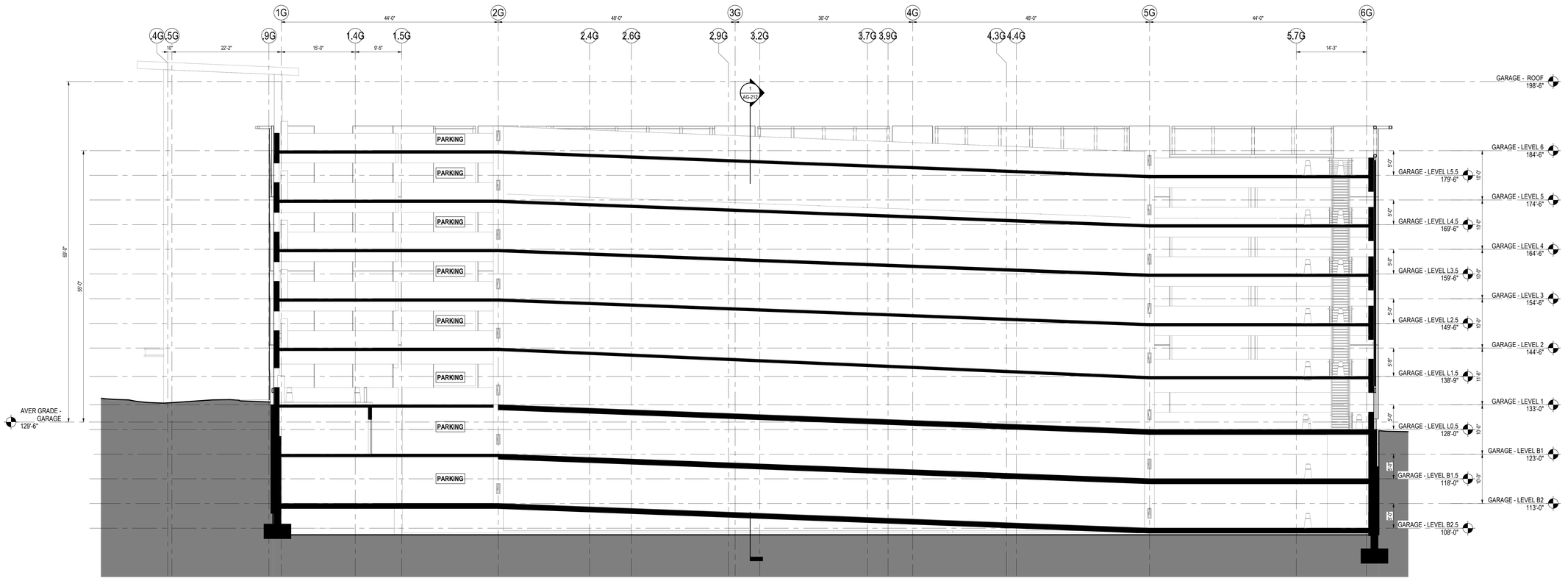


2 AG-211 **GARAGE SECTION BB - CENTRAL RAMP**
1/8" = 1'-0"



1 AG-211 **GARAGE SECTION AA - OUTER RAMP**
1/8" = 1'-0"

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Issued/Revision	By	Appd	YYYY.MM.DD
SPECIAL PERMIT PACKAGE R1			2022.08.15
SITE DESIGN DEVELOPMENT SET			2022.05.27
SPECIAL PERMIT PACKAGE			2022.03.15

Permit/Seal

KEY PLAN

SPECIAL PERMIT PACKAGE R1
08/15/2022
(FOR 09/07/2022 PLANNING BOARD SPECIAL PERMIT PUBLIC HEARING)

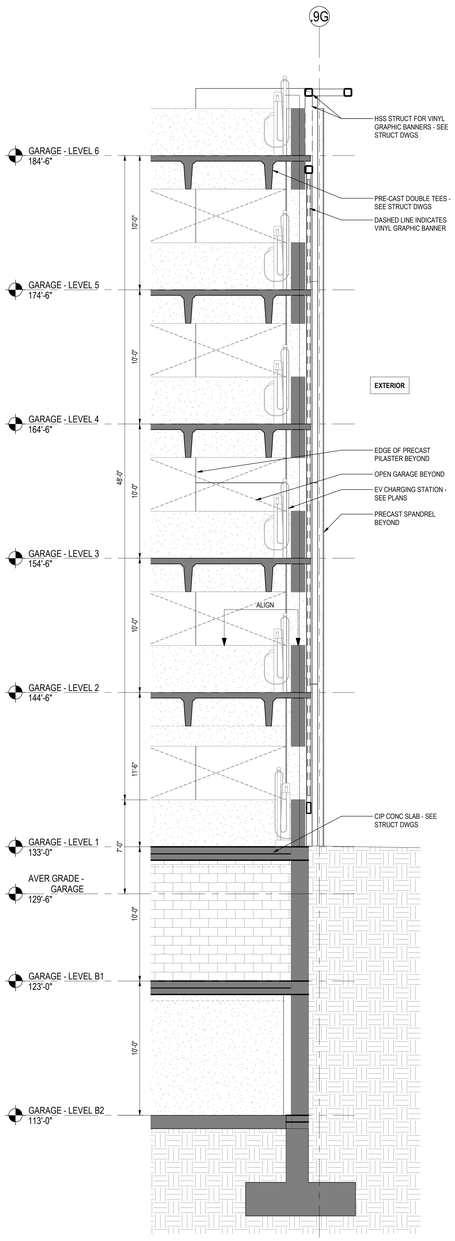
Client/Project
Bulfinch
HIGHLAND INNOVATION CENTER - GARAGE
557 Highland Ave
Needham, MA 02494

Project No.:218421343
File Name: N/A
Scale: 1/8" = 1'-0"

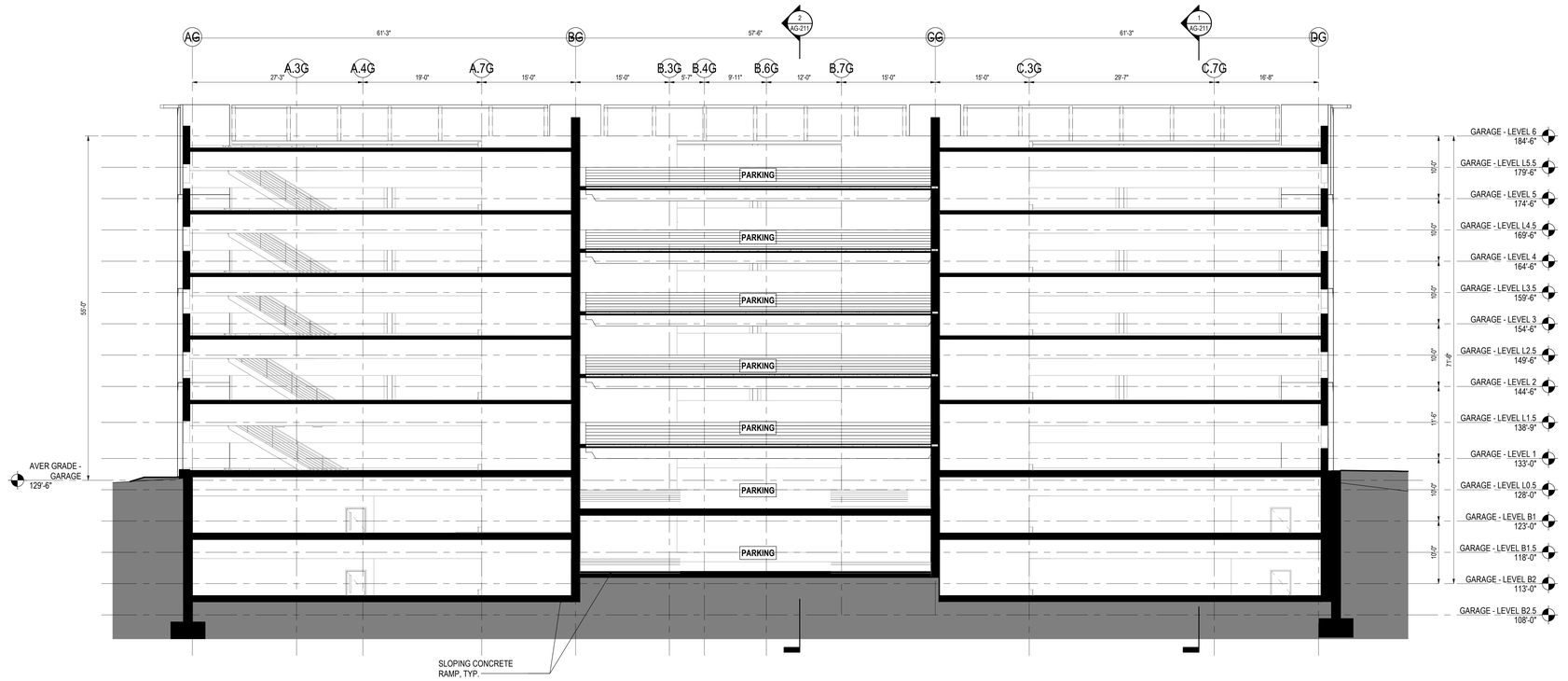
RS	Designer	TMU	2022.05.27
Dwn.	Dsgn.	Chkd.	YYYY.MM.DD

Title
GARAGE SECTIONS

Revision:
Drawing No.
AG-211
GARAGE



2 AG-212 **TYP. BAY SECTION - FOUNDATION OUTBOARD**
1/4" = 1'-0"



1 AG-212 **GARAGE SECTION CC - Transverse**
1/8" = 1'-0"

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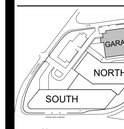
Issued/Revision	By	Appd	YYYY.MM.DD
SPECIAL PERMIT PACKAGE R1			2022.08.15
30% DESIGN SUBMISSION			2022.05.27

Permit/Seal



KEY PLAN

SPECIAL PERMIT PACKAGE R1
08/15/2022
(FOR 09/07/2022 PLANNING BOARD SPECIAL PERMIT PUBLIC HEARING)

Client/Project
Bulfinch
HIGHLAND INNOVATION CENTER - GARAGE
557 Highland Ave.
Needham, MA 02494

Project No.:218421343
File Name: N/A
Scale: As indicated

RS	Designer	TMU	2022.05.27
Dwn.	Dsgn.	Chkd.	YYYY.MM.DD

Title
GARAGE SECTIONS

Revision:
Drawing No.
AG-212
GARAGE

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2/10/2022 3:43:3 PM

ORIGINAL SHEET - ARCH E

REF.: NEX-2200133.00

September 29, 2022

Ms. Lee Newman
Director of Planning and Community Development
Needham Department of Public Works
500 Dedham Avenue
Needham, MA 02492

SUBJECT: Highland Science Center, Gould Street, Needham, MA
Traffic Peer Review – Recommended Conditions of Approval

Dear Ms. Newman:

On behalf of the Town of Needham, ***Greenman-Pedersen Inc.*** (GPI) has conducted a transportation peer review of the proposed Highland Science Center in Needham, Massachusetts, which included an evaluation of the project's traffic impacts, parking provisions, site access and circulation, and safety of the study area intersections. As part of this process, GPI reviewed the following documents provided by the Applicant's consultant team:

- *Transportation Impact and Access Study, Highland Science Center, Needham, Massachusetts*; prepared by Vanasse Hangen Brustlin, Inc. (VHB); March 2022.
- *Environmental Notification Form, Highland Science Center, Needham Heights, Massachusetts;* prepared by VHB; March 2022.
- *Conceptual Design – Offsite Roadway Improvements*; prepared by VHB; June 27, 2022;
- *Response to Transportation Impact and Access Study Traffic Peer Review Comments dated May 27, 2022 by Greenman-Pedersen Inc. (GPI), 557 Highland Avenue, Needham, Massachusetts*; prepared by VHB; June 29, 2022.
- *Revised Site Plan, Highland Science Center, Needham Heights, Massachusetts*; prepared by VHB; July 14, 2022.
- *Draft Environmental Impact Report, Highland Science Center, Needham Heights, Massachusetts;* prepared by VHB; July 2022;
- *Needham Special Permit Package R1, 557 Highland Avenue, Needham, MA;* prepared by Stantec and VHB; August 15, 2022;
- *Highland Innovation Center – 557 Highland Avenue, Needham Heights, Massachusetts – Application for Major Project Site Plan Review and Special Permits – Revisions dated as of September 7, 2022 Planning Board Public Hearing Letter #3;* prepared by Goulston & Storrs; August 15, 2022.
- *Response to MEPA DEIR – Traffic Peer Review by Greenman-Pedersen Inc. (GPI) dated 8/18/2022, 557 Highland Avenue, Needham, Massachusetts;* prepared by VHB; August 29, 2022.

Based on our review of the documents described above, the Applicant has provided a satisfactory assessment of the Project's impacts on the surrounding area roadway network and has identified appropriate measures to mitigate the Project-specific impacts to the study area intersections. Should the Town of Needham Planning Board vote to approve the Special Permit Application for this development, GPI recommends the following conditions of approval be included as part of the decision in order to ensure the Project's impacts are sufficiently mitigated.

A. Pre-Construction Studies

Prior to commencing construction on the site, the Applicant will:

1. Collect existing conditions traffic volume counts along Sachem Road and Noanett Road to establish a baseline condition on these roadways. These will include a minimum of 48-hour automatic traffic recorder (ATR) counts to obtain weekday daily traffic volumes on both roadways. In addition, turning movement counts (TMCs) will be collected during the weekday AM (7:00 AM – 9:00 AM), weekday midday (11:00 AM – 1:00 PM), and weekday PM (3:00 PM – 6:00 PM) peak periods at the following intersections:
    - Central Avenue / Noanett Road
    - Gould Street / Noanett Road
    - Hunting Road / Sachem Road
    - Highland Avenue / Mills Road
    - Highland Avenue / Utica Road

    This traffic count data will be used to create a baseline condition for comparison to post-occupancy traffic counts in order to assess any increase in cut-through traffic generated by the Project on Noanett Road and Sachem Road.

B. Off-Site Roadway Improvements

Prior to the issuance of a Certificate of Occupancy for the site, the Applicant will complete the following off-site improvement measures:

1. Implement signal timing modifications to optimize traffic operations at the following intersections:
    - Highland Avenue / West Street
    - Highland Avenue / Webster Street
    - Highland Avenue / 1st Avenue
    - Hunting Road / Kendrick Street

2. Adjust the yellow and red clearance intervals at the Hunting Road / Kendrick Street intersection consistent with current design standards for the geometry of the intersection to improve safety.

3. Install NO THRU TRAFFIC or LOCAL TRAFFIC ONLY regulatory signage at the following locations:
    - Noanett Road facing Gould Street
    - Noanett Road facing Central Avenue
    - Mills Road facing Highland Avenue
    - Utica Road facing Highland Avenue
    - Sachem Road facing Hunting Road

4. *Central Avenue / Gould Street:*
    a. Install a fully-actuated traffic control signal with video detection and Opticom for emergency vehicle activation;
    b. Restripe Central Avenue to provide a dedicated left-turn lane on Central Avenue westbound and a single through lane in each direction;
    c. Install new crosswalks with ADA-compliant curb ramps and APS pedestrian signals with countdown indications and vibro-tactile push-buttons on all three approaches; and
    d. Provide dedicated signal phases for the two residential driveways within the intersection.

5. *Gould Street / Noanett Road:*
    a. Reconstruct curb ramps on the northwest and southwest corners of the intersection to provide ADA accessibility and stripe a new crosswalk across Noanett Road.

6. *Gould Street Pedestrian and Bicycle Enhancements*
    a. Install a 10-foot two-way bicycle track and 8-foot sidewalk along the easterly side of Gould Street between Highland Avenue and the former railroad track approximately 150 feet north of TV Place;
    b. Provide a 4-foot bicycle accommodating shoulder along the westerly side of Gould Street between TV Place at Highland Avenue;
    c. Install a crosswalk at the northerly end of the bicycle track at the former railroad crossing and install Rectangular Rapid Flash Beacons (RRFBs) with a passive detection system for pedestrians and bicyclists; and
    d. Reconstruct the sidewalk along the westerly side of Gould Street between Highland Avenue and Noanett Road to provide a 6-foot ADA-compliant sidewalk.

7. *Gould Street / TV Place:*
    a. Widen Gould Street to provide a left-turn lane and a through lane on the Gould Street southbound approach and a single lane on the northbound approach; and
    b. Widen TV Place to provide separate left- and right-turn lanes exiting to Gould Street and a single entrance lane with 8-foot sidewalks on either side of TV Place.

8. *Gould Street / Site Driveway / Wingate Driveway*
    a. Widen Gould Street southbound to provide a dedicated left-turn lane, a through lane, and a shared through/right-turn lane;
    b. Widen Gould Street northbound to provide a 50-foot left-turn pocket, a through lane, and a right-turn lane;
    c. Construct the driveway to provide a dedicated left-turn lane and a shared left/through/right-turn lane;
    d. Install a fully-actuated traffic signal with video detection and Opticom for emergency vehicle activation; and
    e. Install cross-ways with ADA-accessible curb ramps and APS pedestrian signals with count-down indications and vibro-tactile push-buttons across all four approaches to the intersection.

9. *Highland Avenue / Gould Street / Hunting Road:*
    a. Widen the Gould Street southbound approach to provide two left-turn lanes and a shared through/right-turn lane with a minimum 4-foot bicycle-accommodating shoulder;
    b. Reconstruct the median island on Highland Avenue eastbound to accommodate the left-turn onto Gould Street;
    c. Reconstruct the median island on Highland Avenue westbound to accommodate the left-turn double left-turn from Gould Street onto Highland Avenue;
    d. Reconstruct crosswalks and curb ramps on the Highland Avenue eastbound and Gould Street southbound approaches consistent with ADA guidelines;
    e. Install new traffic signal equipment as necessary to accommodate the geometric changes to the intersection, including, but not limited to, mast arms, vehicle detection, signal heads, conduit, pull-boxes, signage, etc.;
    f. Replace the existing traffic signal controls with adaptive traffic signal controls to allow for improved optimization of traffic operations; and
    g. Upgrade pedestrian signals to APS signals with countdown indications and vibro-tactile push-buttons.

10. *Hunting Road:*
    a. Fund the installation of two radar-embedded speed limit signs on Hunting Road as locations to be determined in coordination with the Needham Police Department to control speeds.

C. <u>Transportation Demand Management</u>

1. Provide an Employee Transportation Advisor who will coordinate with the local Transportation Management Association;

2. Provide up to 104 secure, covered bicycle parking spaces for Tenant's employees and up to 50 public bicycle spaces for visitors and patrons;

3. Install EV charging stations at a minimum of 25 percent of the parking spaces provided within each parking lot/garage area. Provide free EV charging for all employees for at least the first five years following issuance of a Certificate of Occupancy;

4. Provide a shuttle between the site and nearby public transportation services, including the commuter rail at Needham Heights and the Green Line D Branch at Newton Highlands. The Applicant will allow area residents and employees to utilize the shuttle;

5. Require tenants to provide a 50 percent transit pass subsidy for employees;

6. Implement carpool assistance and incentives for employees;

7. Provide incentives and amenities for bicycling and walking;

8. Provide a guaranteed ride home to all employees using public transit, walking, bicycling, or carpooling to work;

9. Provide on-site locker rooms and showers for employees; and

10. Display transportation-related information and tenant's employees and visitors in the main lobby.

D. <u>Transportation Monitoring Program</u>

Within one year, and at least six months following, initial occupancy of the proposed development, the Applicant will conduct a transportation monitoring program to include the following:

1. Trip Generation:

a. Collect automatic traffic recorder (ATR) or turning movement counts (TMCs) at the site driveway intersections with TV Place and Gould Street to verify the trip generation characteristics of the development during the weekday daily, weekday AM peak hour, and weekday PM peak hour time periods.

b. Should the actual trip generation of the site exceed the trip generation estimates contained in the *Draft Environmental Impact Report*[1] by more than 10 percent, the Applicant will evaluate and implement measures to reduce vehicle trip generation, including implementation of additional Transportation Demand Management (TDM) measures.

c. Should the actual trip generation of the site exceed the trip generation estimates contained in the *Draft Environmental Impact Report*[2] by more than 10 percent, the Applicant will work with MassDOT and the Town of Needham to assess whether the Transportation Monitoring Program should be expanded to assess the Project's impacts on additional intersections.

2. Traffic Operations:

a. Collect turning movement counts (TMCs) during the weekday AM (7:00 AM – 9:00 AM) and weekday PM (3:00 PM – 6:00 PM) peak periods at the following intersections:

[1] *Draft Environmental Impact Report, Highland Science Center, Needham Heights, Massachusetts*; prepared by Vanasse Hangen Brustlin, Inc.; August 2022.
[2] *Draft Environmental Impact Report, Highland Science Center, Needham Heights, Massachusetts*; prepared by Vanasse Hangen Brustlin, Inc.; August 2022.

- Central Avenue / Gould Street
- Gould Street / TV Place
- Gould Street / Site Driveway / Wingate Driveway
- Highland Avenue / Gould Street / Hunting Road

b. Conduct capacity and queue analyses to evaluate the operations of the intersections listed in Item D.2.a during the weekday AM and PM peak hours and compare the results of the traffic operations analysis to the analysis projections contained in the August 29, 2022 *Response to Comments*[3].

c. The Applicant will evaluate and implement additional measures to mitigate project impacts should the results of the capacity and queue analyses indicate any of the following occurs:
   i. Any movement at any of the study area intersections exceeds capacity (volume-to-capacity (V/C) ratio exceeds 1.00);
   ii. Delay increased by more than ten seconds for any movement operating at level-of-service (LOS) E or F;
   iii. Queues in any lane exceed the storage capacity of that lane AND increased over projected queues in the *Response to Comments* by two vehicles (50 feet) or more; or
   iv. Queues in any lane increased over projected queues in the *Response to Comments* by four vehicles (100 feet) or more.

3. Cut-Through Traffic:

a. Collect a minimum of 48-hour automatic traffic recorder (ATR) counts to obtain weekday daily traffic volumes on Noanett Road and Sachem at the same locations as collected as part of the Pre-Construction Study. In addition, turning movement counts (TMCs) will be collected during the weekday AM (7:00 AM – 9:00 AM), weekday midday (11:00 AM – 1:00 PM), and weekday PM (3:00 PM – 6:00 PM) peak periods at the following intersections:
   - Central Avenue / Noanett Road
   - Gould Street / Noanett Road
   - Hunting Road / Sachem Road
   - Highland Avenue / Mills Road
   - Highland Avenue / Utica Road

b. Compare the post-occupancy traffic volumes along Noanett Road and Sachem Road to those collected pre-construction to assess whether any measurable increase in cut-through traffic has resulted from the proposed development. Should traffic volumes on Noanett Road or Sachem Road increase by more than 10 percent over the pre-construction traffic counts, the Applicant will take additional measures to reduce cut-through traffic, including, but not limited to:
   i. Coordination with the Needham Police Department for increase enforcement;
   ii. Installation of radar speed indication signage along the subject roadway;
   iii. Installation of traffic calming devices such as speed tables, chicanes, bump-outs, or other devices; and/or
   iv. Implementing signal timing modifications or other improvements at the Central Avenue / Gould Street and/or Highland Avenue / Gould Street / Hunting Road intersection, as necessary, to reduce the apparent benefit of cut-through behavior in the neighborhoods.

c. Following implementation of any additional cut-through mitigation measures as described in item D.2.b, the Applicant will conduct additional traffic volume counts to ensure that the implemented measure(s) were effective in reducing cut-through traffic.

[3] *Response to MEPA DEIR – Traffic Peer Review by Greenman-Pedersen Inc. (GPI) dated 8/18/2022, 557 Highland Avenue, Needham, Massachusetts;* Prepared by Vanasse Hangen Brustlin, Inc.; August 29, 2022.

3. On-Site Parking Utilization Study

a. Conduct a parking utilization study on weekday between 8:00 AM and 4:00 PM to assess the occupancy of each parking area within the site, including the two garages and the surface lot. This study will include a review of EV charging stations, compact car parking, and any provided carpool or otherwise designated parking spaces to assess the adequacy of these spaces in accommodating the peak parking demand.

b. Should the results of the parking study indicate that more than 90 percent of the EV charging stations are occupied during the peak period, the Applicant will install additional EV charging stations to accommodate additional parking demand.

c. Should the overall parking demand exceed 95 percent of the parking supply, the Applicant will identify and implement measures to reduce parking demand and perform an additional post-implementation assessment to verify the effectiveness of the implemented measures.

The Transportation Monitoring Program will continue on an annual basis for a period of five years following initial occupancy of the development. The findings of the Transportation Monitoring Program will be provided to the Needham Planning Department and Planning Board for review.

With implementation of the mitigation measures described above and completion of the post-occupancy monitoring program, the traffic generated by the proposed Highland Science Center can be safety and efficiently accommodated along the study area roadways and intersections.

Should you have any questions regarding these comments, please contact me directly at 603-766-5223.

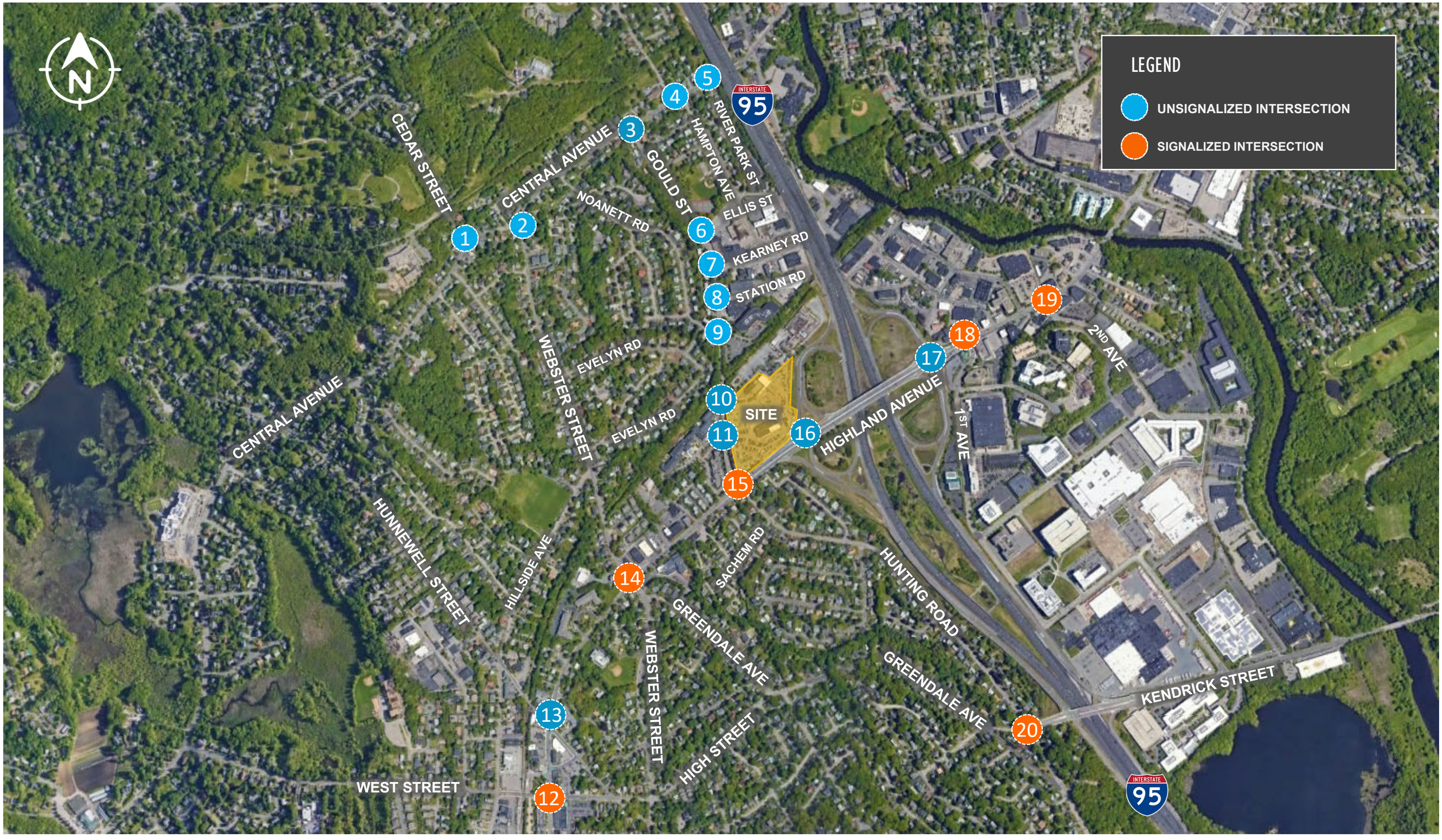
Sincerely,

GREENMAN–PEDERSEN, INC.

Rebecca L. Brown, P.E.
Senior Project Manager

Highland Science Center
Needham, Massachusetts

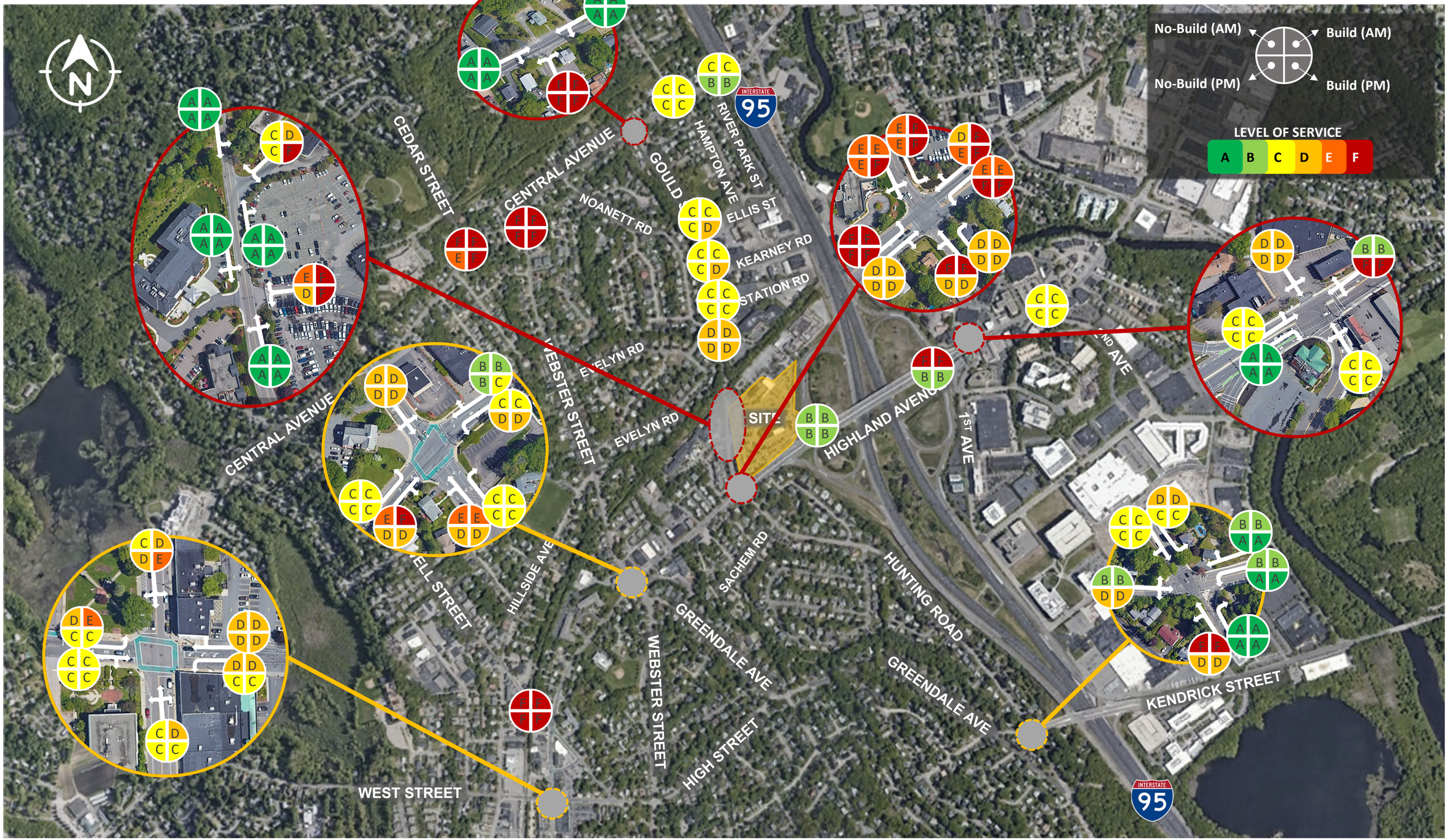
Planning Board Meeting
October 3, 2022



Greenman-Pedersen, Inc. || 181 Ballardvale Street, Suite 202, Wilmington, MA 01887

HIGHLAND SCIENCE CENTER – NEEDHAM, MASSACHUSETTS

STUDY AREA



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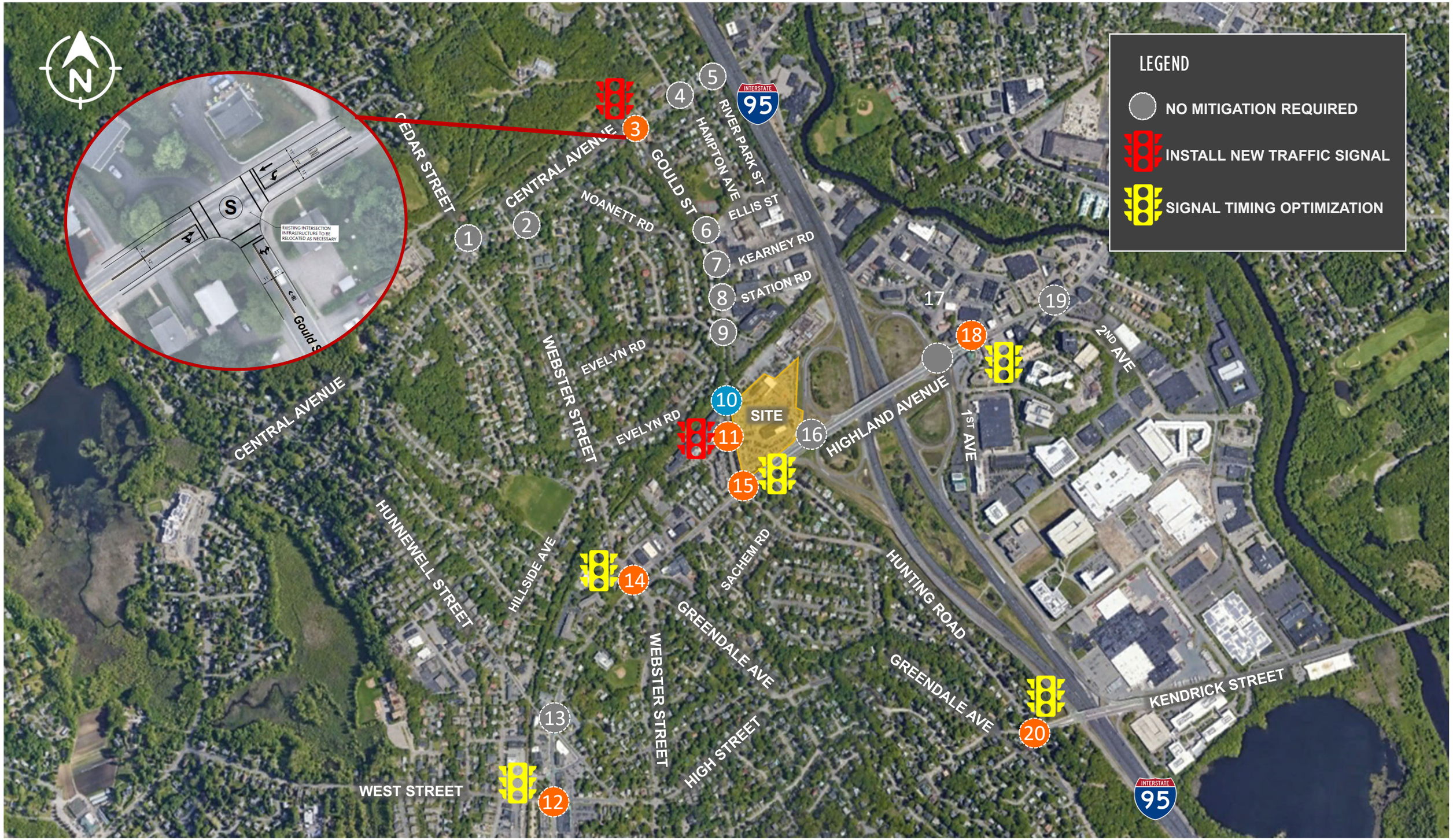
HIGHLAND SCIENCE CENTER – NEEDHAM, MASSACHUSETTS

LEVEL-OF-SERVICE (LOS) – 2029 NO-BUILD VS BUILD



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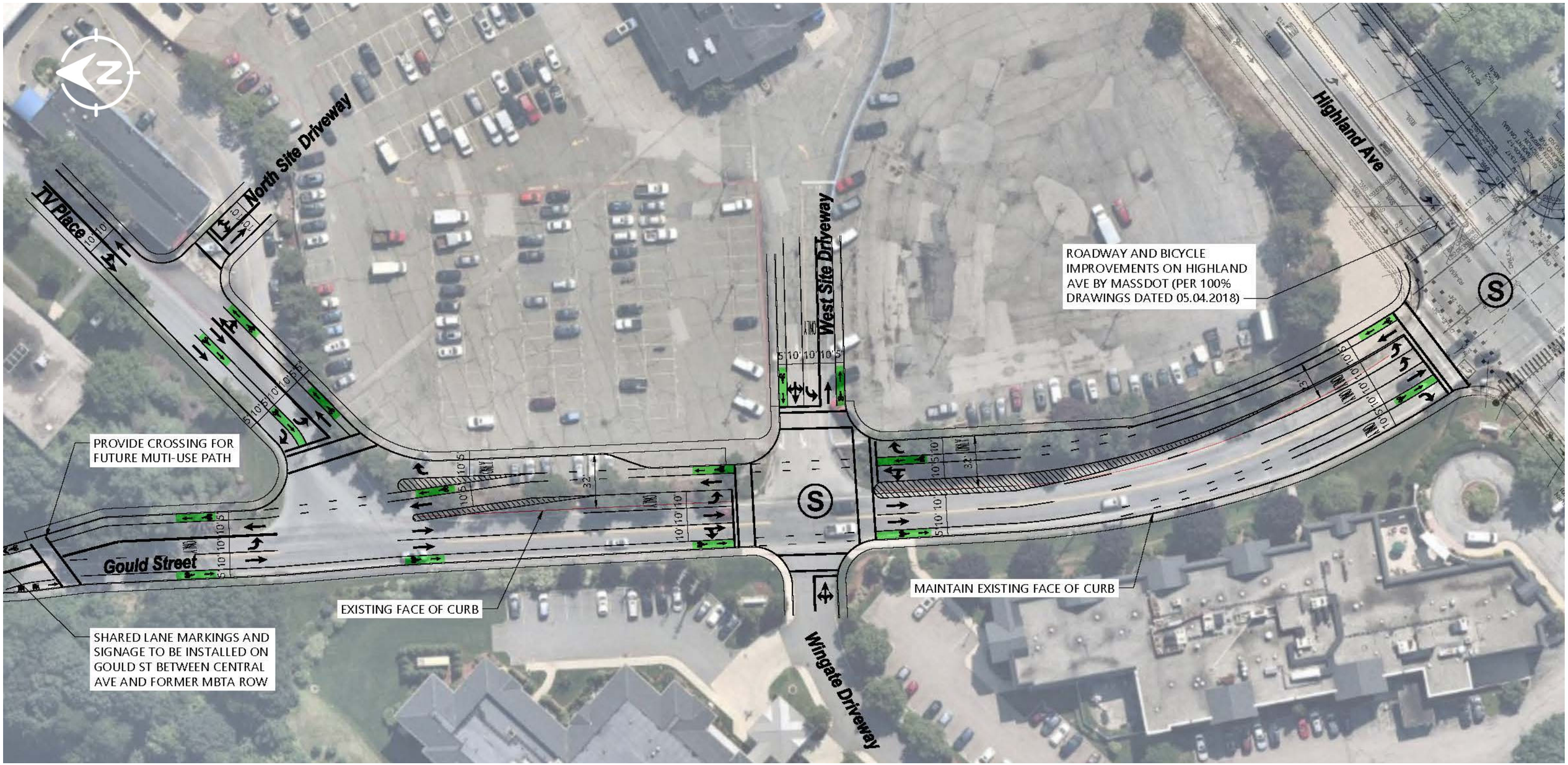
HIGHLAND SCIENCE CENTER – NEEDHAM, MASSACHUSETTS

PROPOSED MITIGATION



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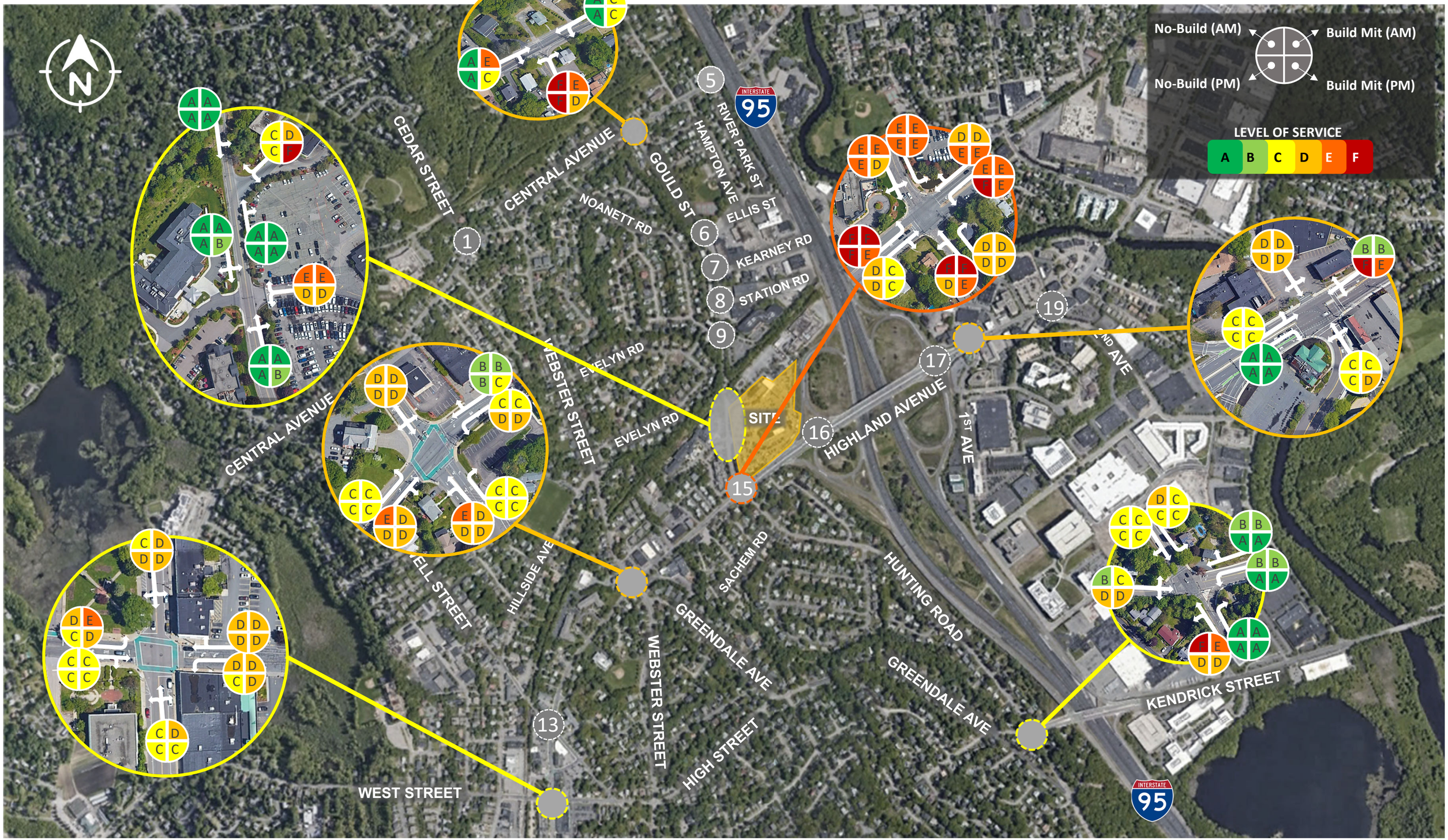
HIGHWAY COMMERCIAL 1 – NEEDHAM, MASSACHUSETTS

PROPOSED IMPROVEMENTS



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HIGHLAND SCIENCE CENTER – NEEDHAM, MASSACHUSETTS

LEVEL-OF-SERVICE (LOS) – 2029 NO-BUILD VS BUILD MITIGATED

From:	Tara Gurge
To:	Alexandra Clee
Cc:	Lee Newman
Subject:	RE: Biotech requirements for Public Health
Date:	Thursday, October 27, 2022 3:21:35 PM
Attachments:	image005.png image007.png image008.png

Alex -

Sorry, just able to reach back out to you with this info. since my permitting staff has been out at a conference in Falmouth. Sure, we currently have one BL2 level processing Biotech facility in town that is registered with the Public Health Division. They are working with mammalian cells and viruses. They fall into the category of a very small quantity generator. We also require them to contract with one of our permitted medical/hazardous waste haulers, as part of our annual registration requirements. We conduct annual inspections of these registered facilities as well.

Here is the contact we have for that facility, below, for your reference –

Candel Therapeutics
117 Kendrick Street, Suite 450
Needham, Massachusetts 02494
candeltx.com

Please let me know if you need any additional info.

Thanks,

TARA E. GURGE, R.S., C.E.H.T., M.S. (she/her/hers)
ASSISTANT PUBLIC HEALTH DIRECTOR
Needham Public Health Division
Health and Human Services Department
178 Rosemary Street
Needham, MA 02494
Ph- (781) 455-7940; Ext. 211/Fax- (781) 455-7922
Mobile- (781) 883-0127
Email - tgurge@needhamma.gov
Web- www.needhamma.gov/health

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From: Alexandra Clee <aclee@needhamma.gov>
Sent: Wednesday, October 26, 2022 5:06 PM
To: Tara Gurge <TGurge@needhamma.gov>
Cc: Lee Newman <LNewman@needhamma.gov>
Subject: Re: Biotech requirements for Public Health

Hi Tara, just wanted to confirm you got this email and check if this is something we might be able to receive by Tuesday evening.

Thanks! Alex.

Alexandra Clee
Assistant Town Planner
Needham, MA
781-455-7550 ext. 271
www.needhamma.gov/planning

From: Alexandra Clee
Sent: Tuesday, October 25, 2022 1:50:01 PM
To: Tara Gurge <TGurge@needhamma.gov>
Cc: Lee Newman <LNewman@needhamma.gov>
Subject: RE: Biotech requirements for Public Health

Hi Tara, thanks for the email. I had also requested a list of the current Level 2 facilities in Needham, per request of our Chair. Is that something you can share?

Thanks, alex.

Alexandra Clee
Assistant Town Planner
Needham, MA
www.needhamma.gov

From: Tara Gurge <TGurge@needhamma.gov>
Sent: Tuesday, October 25, 2022 1:38 PM
To: Alexandra Clee <aclee@needhamma.gov>
Cc: Lee Newman <LNewman@needhamma.gov>

Subject: RE: Biotech requirements for Public Health
Importance: High

Alex -

Sorry for not getting back to you sooner. Here are the Biotech existing requirements, below, for your reference. (See also attached Article 11 BOH ordinance.) We sent you comments re: the Biotch lab requirements, noted in our May 27, 2022 email, which are still relevant. Nothing has changed with these requirements since we are still in the process of updating our existing regulation. (NOTE: As mentioned to you on my recent follow-up email, we have not updated these regulation requirements yet, however, we are in the process of setting up a Biolab regulation committee that Tim recently put together, which is made up of Health Division staff, since these BOH Biotechnology regulation updates will be pretty extensive. Here are the existing requirements noted below, as stated in our previous comments, which we will be expanding in the near future. Feel free to reach back out to me if you have any additional questions!

- Need to fill out an online Biotechnology permit application through the Public Health Division, Easy Permits website. See direct link - - https://needhamma.viewpointcloud.com/categories/1073/record-types/1006513.
- Proper Biohazardous waste containment will need to be provided on site. Need to set up a contract with a permitted medical waste hauler.
- If the company is working with sharps, a Sharps Disposal permit will need to be applied for at the following online permit link - https://needhamma.viewpointcloud.com/categories/1073/record-types/1006511. The Public Health Division will need to issue a permit the company on an annual basis, and conduct annual inspections prior to renewing the Sharps Disposal permit.
- If the company if working with Animals, an Animal Permit application will need to be applied for at the following online permit link - https://needhamma.viewpointcloud.com/categories/1073/record-types/1006509. The Public Health Division will need to issue a permit the company on an annual basis, and conduct annual inspections prior to renewing the Animal permit.
- SEE specific excerpts taken from our BOH Biotech ordinance noted below, for your reference.

So here are the Needham Board of Health Biotech registration requirements as stated in our BOH Article 11 ordinance (See below) – The Health Division will need to verify that all these items are uploaded to the online permit for review.

11.4.2 The institution shall:

(1) Register using a form approved by the Board of Health.
(2) Renew and update the registration annually.
(3) Submit copies of all registration materials to the Building Department, Fire Department, Emergency Management Department and the Planning Board.
(4) Allow inspections, at reasonable times, of both the institution's facilities and records, as related to these regulations.

11.5.1 In order to register, the following information must be submitted, using an application form approved by the board, to the Board of Health:

(1) Name of institution.
(2) Address, telephone, and fax number.
(3) Names and telephone numbers of persons designated to be contacted on a 24-hour a day basis in case of an emergency.
(4) A plot plan showing the proposed location of the facility and a floor plan showing the internal layout of the facility(s).
(5) General statement of the company's intended area of research.
(6) General statement of the types of hazardous, bio hazardous, infectious or radioactive materials expected to be used in the facility.
(7) Evidence of certification, as necessary, from the Massachusetts Department of Environmental Protection and the Massachusetts Department of Public Health.

11.5.2 In order to register, the following information must be submitted to the Board of Health, on a form which is approved by the Board of Health:

(1) The chief executive officer must certify that the company adheres to the NIH Guidelines for recombinant DNA Research.

Let me know if you have any additional questions, and I have time for a call this afternoon if you still want to touch base.

Thanks,

TARA E. GURGE, R.S., C.E.H.T., M.S. (she/her/hers)
ASSISTANT PUBLIC HEALTH DIRECTOR
Needham Public Health Division
Health and Human Services Department
178 Rosemary Street
Needham, MA 02494
Ph- (781) 455-7940; Ext. 211/Fax- (781) 455-7922
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Needham Public Health Division
178 Rosemary St., Needham, MA 02494 781-455-7940 ext. 504
www.needhamma.gov/health 781-455-7922 (fax)

MEMO

To: Lee Newman, Planning Department
Alex Clee, Planning Department

From: Tara Gurge, Public Health Division

Date: 10/31/2022

Re: Public Health Biotechnology registration history

This memo is in reference to the Public Health Division's history of Biotechnology registrations, since 2006. Here is a list with the Biotechnology company history, noted below, for your reference:

1. Avant Immunotherapeutics, Inc.,119 4th Ave., Needham Heights - A Needham-based developer of drug therapies and diagnostics for immune disorders. Level - BSL2 lab. The Public Health Division started registering them back in 2006. In 2010, they changed their name to Celldex Therapeutics. It was still run by the same owner. Celldex Therapeutics is the first antibody-based combination immunotherapy company. They had a Biotech registration, an Animal permit and a Sharps Disposal permit. Inspections were conducted by the Public Health Division each year, prior to the issuance of their annual permit renewals. We had been registering Celldex until 2018 when they decommissioned their lab space and changed to conducting only their Operations Ctr/Offices at their Needham location.

2. Verastem,117 Kendrick Street, Suite 500, Needham – A cancer stem cell biotechnology firm that moved to Needham in mid-Sept. 2014. Level - BSL2 lab. They had a Biotech registration and a Sharps Disposal permit. They decommissioned their lab space on May 4, 2018, and now only have office space in Needham.

3. Candel Therapeutics, 117 Kendrick Street, Suite 450, Needham – Came on board this year and was issued a Biotechnology registration on July 25, 2022. A cancer cell research biotechnology firm. Level - BSL2 lab. No Animal or Disposal of Sharp permits necessary. This is the only Biotechnology registration that is currently active in town.

Please feel free to contact the Public Health Division office if you have any additional questions.

cc: Timothy McDonald, Health and Human Services Director

The following are all staff comments received on this project.

TOWN OF NEEDHAM
TOWN HALL
1471 Highland Avenue
Needham, MA 02492-2669

Design Review Board

Memo: Project review, 557 Highland Avenue

May 16, 2022

The Board reviewed the design drawings for the development at 557 Highland Avenue, the former Muzi Motors site.

The DRB reviewed the project from the perspectives of overall site organization, general landscape concepts and amenities; building massing, materials, fenestration; Parking garage design, and site and building lighting.

The Board approved of the general site organization and building locations. The organization allowed for landscaping amenities at various locations that will be accessible to the public. The Board discussed the main entrance location off of Gould Street. There was some question about the closeness of the site entrance to Highland Ave intersection. The applicant noted the proposed installation of turning lanes, signalization of the entrance intersection and the alignment with the Wingate entrance as key reasons for that entry location. The Board agreed with the decision.

The DRB believed the paved plaza related to the proposed retail area was a good design element. The Board expressed some concern with the required setbacks on Gould and Highland not being utilized well, and the development of the plaza adjacent to the proposed retail area will be a good use of the setback area. The applicant proposes a walking path with fitness stops around the entire site. The path material is not yet determined but is expected to be some sort of pervious surface. Other amenities include using a retention pond in the rear of the site to create a water feature. They also propose a small water feature at the corner of Highland and Gould, a remake of a feature the previous site had at that location. The buffer zone area next to the surface parking area is also planned to have an area for use by the public. The applicant is having discussions with the neighborhood about what exactly it may be. The DRB considers all these elements helpful to integrate the development into the town.

The DRB reviewed the general landscaping concepts illustrated in the presentation. While they did review the plant list with the applicant, there was not a lot of detail shown on the plan. The applicant explained that they are working with the neighborhood on landscaping issues and will have more detail once that work is complete. The development will strive to have plant varieties that will provide seasonal color, not just summer vegetation. The Board asked that they return to the DRB once a more detailed plan is developed. The DRB asked that native species be used as much as possible.

The applicant stated the trees will be 3.5-4” caliper. The Board agrees this will provide more of an impact right from the beginning rather than planting saplings. The exact species and locations are being discussed with the neighborhood at this time.

The plan at this time illustrates large areas of lawn, and the Board recommends more of a mix of different grasses and planting beds rather than simply grass lawn areas.

The Board suggested that plant screening on areas along the walking path would be beneficial. Especially along Highland Avenue where the walk is close to the street. It is a very busy street, and some screening would make pedestrians more comfortable. Screening could also be useful along the plaza space.

Site lighting will be a mix of pedestrian and parking area lighting. Fixtures will be dark sky compliant. The Board asked that information on the final fixture selection be submitted to the DRB. The applicant did not expect much lighting on the building itself. The Board did not review any information on lighting on the building.

The building design and massing was approved by the Board. The design has a mix of precast GFRC finish, which can be colored and textured in a variety of ways, and metal / glass curtain wall. The applicant will supply a sample of the material to the Community Development office and DRB members can see the sample there.

The design does well breaking up long facades with changes in materials and with the insertion of small outdoor spaces on the upper floors. One suggestion was to consider using a lighter colored mechanical screen. A lighter color could help moderate the mass of the building as a transition to the lighter sky.

There was a discussion of the garage doors on the ground level walls each side of the main entrance. They appear to be a large single panel. The Board suggested the applicant could consider something with more detail to break it up.

The Parking Garage is a precast concrete structure. The design proposes a finish look with similar colors to those on the buildings. The columns will not be flush with the panels to break up the horizontal lines. Decorative fabric panels will be added to create visual interest and screen the garage. The elevator/stair tower would be finished in a different color, with a perforated metal panel accent.

The DRB discussed some of the issues they had with a similar structure in the N2 district. They suggested that the screens not simply be rectangles on frames attached to the façade. The frame could be designed as more of an architectural feature, possibly extending beyond the banners, or above the height of the garage. Screening could be more than one layer, of different heights, or of varied shapes. The applicant should pay special attention to the Gould Street side of the building and consider where the banners are placed, not simply the centers of each side of the garage structure.

Garage lighting needs to be carefully considered. The installation should be done in a way that minimizes the lighting being viewed from outside the site. The applicant stated the lights will be installed in the recessed portions of the precast structure, limiting their visibility. The fixtures themselves will have stages of brightness related to the activity level; low for pedestrian, medium for few cars, brightest for the most activity. The Board believes the proposed lighting and installation should help mitigate the amount of visibility the garage lighting will have off the site.

Overall the Board approved of the project design. They asked the applicant to provide an update on the landscape plan at some point during the Planning Board review process, to provide information on site lighting fixtures, and to provide a sample of the exterior finishes.

End of comments

Town of Needham
Building Department
500 Dedham Ave.
Needham, MA 02492

Tel.781-455-7550 x 308

May 25, 2022

Town of Needham
Planning Board
500 Dedham Avenue
Needham, MA. 02492

Re: 557 Highland Ave./ Highland Innovation Center

Dear Board Members,

Please be advised that The Building Department has been part of several meetings between the applicant The Bulfinch Companies and town staff and consultants. Many of the questions that we had during this process have been addressed as far as the site is concerned. The project is still under design and in the early stages for Building, Fire and Mechanical questions currently.

As stated, before site access for pedestrian and vehicle traffic were addressed, fire access around the site was addressed, surface and garage parking were addressed. Water supply and flow for fire protection, and hydrants are under design, locations of hydrants were discussed with the Needham fire consultant.

The site as presented appears to meet the zoning regulations for the site, Special Permits are required for some dimensional requirements based on the design of the structures. The Building Department has no additional questions or comments currently and will continue to work with the applicant on the technical designs of the project.

David A Roche
Building Commissioner
Town of Needham

From: Tara Gurge
To: Alexandra Clee
Cc: Timothy McDonald
Subject: RE: Public Health Division"s comments RE: #577 Highland Ave. proposal
Date: Friday, May 27, 2022 5:45:09 PM
Attachments: image002.png
image003.png

Hello Alex –

Here are the Public Health Division comments for the proposal located at #557 Highland Avenue. See below:

- Any retail/food establishments proposed in the buildings located on this property would need an online Food Permit Plan Review application completed, along with proposed food establishment design plans, which will need to be submitted and reviewed and approved by the Public Health Division prior to start of construction. Here is the direct link to the online Food Establishment Permit Plan Review application - https://needhamma.viewpointcloud.com/categories/1073/record-types/1006516 .
- Please keep in mind, if a food establishment plan review is approved, sufficient space must be made available in the parking lot for both a solid waste (trash) dumpster and a separate recycling dumpster, for each food establishment, along with waste oil/grease containment (if applicable.) These dumpsters must be placed in an easily accessible area outside the facility, close to each food establishment. An exterior grease interceptor may also need to be installed.
- The following info. was previously provided to Robert Schlager, Bulfinch President, back on 4/26/22, re: his inquiry on his wastewater reuse proposal for this project - Here is the Massachusetts Dept. of Environmental Protection's (MassDEP) direct website link to their wastewater reuse program - https://www.mass.gov/service-details/wastewater-reclaimed-water. This proposal would need to meet MassDEP's approval for reclaiming water, specifically for - Cooling tower water, toilet and urinal flushing, boiler feed, industrial process water and irrigation for landscaped areas, etc. All these uses are allowed under 314 CMR 20.00., if approved.
- If a Biotech laboratory is proposed for this site, please ensure that the following online permit application is submitted to the Public Health Division for our review and approval - https://needhamma.viewpointcloud.com/categories/1073/record-types/1006513 . Proper Biohazardous waste containment will need to be provided on site.
- Due to the environmental soil contamination that was discovered on the property during your environmental assessment that was conducted that you informed us about, we advise you to continue working with William Burns, Licensed Site Professional (LSP), LEP with McPHAIL ASSOCIATES, LLC on your ongoing clean-up protocols, and copies of these clean-up reports must continue to be submitted to the Public Health Division for our review for our files. Any updates or changes to your current LSP that is overseeing this clean-up, must be provided for our records.

Please let us know if you need additional information or have any follow-up questions on those requirements.

Thanks,

TARA E. GURGE, R.S., C.E.H.T., M.S. (she/her/hers)
ASSISTANT PUBLIC HEALTH DIRECTOR
Needham Public Health Division
Health and Human Services Department
178 Rosemary Street
Needham, MA 02494
Ph- (781) 455-7940; Ext. 211/Fax- (781) 455-7922
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From: Alexandra Clee <aclee@needhamma.gov>
Sent: Wednesday, May 25, 2022 1:49 PM
To: Carys Lustig <clustig@needhamma.gov>; Thomas Ryder <tryder@needhamma.gov>; John Schlittler <JSchlittler@needhamma.gov>; Dennis Condon <DCondon@needhamma.gov>; Timothy McDonald <tmcdonald@needhamma.gov>; Tara Gurge <TGurge@needhamma.gov>; Deb Anderson <andersond@needhamma.gov>; David Roche <droche@needhamma.gov>
Cc: Lee Newman <LNewman@needhamma.gov>; Elisa Litchman <elitchman@needhamma.gov>
Subject: RE: request for comment - 577 Highland Ave

Dear all,

As a reminder, we would appreciate your comments on this application as soon as you are able.

Thanks, alex.

Alexandra Clee
Assistant Town Planner
Needham, MA
781-455-7550 ext. 271

www.needhamma.gov

From: Alexandra Clee
Sent: Tuesday, April 19, 2022 4:17 PM
To: Carys Lustig <clustig@needhamma.gov>; Thomas Ryder <tryder@needhamma.gov>; John Schlittler <JSchlittler@needhamma.gov>; Dennis Condon <DCondon@needhamma.gov>; Timothy McDonald <tmcdonald@needhamma.gov>; Tara Gurge <TGurge@needhamma.gov>; Deb Anderson <andersond@needhamma.gov>; 'David Roche (droche@needhamma.gov)' <droche@needhamma.gov>
Cc: Lee Newman <LNewman@needhamma.gov>; Elisa Litchman <elitchman@needhamma.gov>
Subject: RE: request for comment - 577 Highland Ave

Apologies, one additional application item:

6. Fiscal Impact Analysis, prepared for rezoning, prepared by Barrett Planning Group, Inc., dated March 20, 2021.

Thanks, alex.

Alexandra Clee
Assistant Town Planner
Needham, MA
www.needhamma.gov

From: Alexandra Clee
Sent: Tuesday, April 19, 2022 4:08 PM
To: Carys Lustig <clustig@needhamma.gov>; Thomas Ryder <tryder@needhamma.gov>; John Schlittler <JSchlittler@needhamma.gov>; Dennis Condon <DCondon@needhamma.gov>; Timothy McDonald <tmcdonald@needhamma.gov>; Tara Gurge <TGurge@needhamma.gov>; Deb Anderson <andersond@needhamma.gov>; David Roche (droche@needhamma.gov) <droche@needhamma.gov>
Cc: Lee Newman <LNewman@needhamma.gov>; Elisa Litchman <elitchman@needhamma.gov>
Subject: request for comment - 577 Highland Ave

Dear all,

We have received the application materials for the proposal to redevelop 557 Highland Avenue. the information can be found on the website: https://www.needhamma.gov/Archive.aspx?ADID=9611

Although we operate electronically much of the time lately, I am sending hard copies for this project.

The Planning Board has scheduled this matter for June 7, 2022. Please send your comments by Wednesday May 25, 2022 at the latest.

Please note: These are the same materials that we distributed (electronically) for the Development Review Team meeting to be held April 26. We are also seeking staff comment, which can arrive after the DRT meeting.

The documents attached for your review are as follows:

1. Application for the Major Project Special Permit No. 2022-02, Applicant 557 Highland, LLC, dated April 7, 2022.

2. Letter directed to Planning Board Members, from Timothy Sullivan, dated April 5, 2022.

3. Plan set consisting of 44 pages, dated March 30, 2022.

4. Transportation Impact and Access Study, prepared by VHB, 101 Walnut Street, PO Box 9151, Watertown, MA, dated March 2022. (Appendices only sent to Engineering)

5. Stormwater Report, prepared by VHB, 101 Walnut Street, PO Box 9151, Watertown, MA, dated March 2022.

Thank you, alex.

Alexandra Clee
Assistant Town Planner
Needham, MA
781-455-7550 ext. 271
www.needhamma.gov

From:	Dennis Condon
To:	Alexandra Clee
Cc:	Lee Newman
Subject:	RE: request for comment - 577 Highland Ave
Date:	Wednesday, June 1, 2022 2:39:14 PM
Attachments:	image001.png image002.png

Hi Alex,

The Fire dept. has met with the development team for this site to express our concerns and made a number of recommendations, which are to be addressed. Of prime concern was circulation for fire apparatus and the ability of fire crews to be able to access various locations of each building from the exterior. This is especially true of the South and North buildings along Highland Avenue and the Rte 128 ramp areas. Initial plans had the fire responding units to stage remotely from the building on Highland Avenue or the off ramp this would create a safety issue for both responding personnel and building occupants and was considered to be inadequate. Since these are State roads MA DOT might have also had objections with this staging plan. A solution was arrived at by incorporating the proposed fitness path to be dual purposed to accommodate fire apparatus. This would include paving wide enough for ladder truck operations. By revising the plan this way will allow responding units sufficient circulation to reach at least three side of each building. While full access around each building is ideal, it is not always practical. We feel the solution arrived at will remedy what might be a significant public safety issue in the event of a major response to this large site. We further requested that this pathway be kept free of snow throughout the winter, so that responding apparatus be able to gain sufficient access regardless of time of year. We will continue to work with the developer throughout the project construction to ensure all code and safety regulations are met.

Thanks,
Dennis

Dennis Condon
Chief of Department
Needham Fire Department
Town of Needham
(W) 781-455-7580
(C) 508-813-5107
Dcondon@needhamma.gov

Follow on Twitter: Chief Condon@NeedhamFire

Watch Needham Fire Related Videos on YouTube @ Chief Condon

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Dear all,

As a reminder, we would appreciate your comments on this application as soon as you are able.

Thanks, alex.

Alexandra Clee
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Cc: Lee Newman <LNewman@needhamma.gov>; Elisa Litchman <elitchman@needhamma.gov>
Subject: RE: request for comment - 577 Highland Ave

Apologies, one additional application item:

6. Fiscal Impact Analysis, prepared for rezoning, prepared by Barrett Planning Group, Inc., dated March 20, 2021.

Thanks, alex.

Alexandra Clee
Assistant Town Planner
Needham, MA
www.needhamma.gov

From: Alexandra Clee
Sent: Tuesday, April 19, 2022 4:08 PM
To: Carys Lustig <clustig@needhamma.gov>; Thomas Ryder <tryder@needhamma.gov>; John Schlittler <JSchlittler@needhamma.gov>; Dennis Condon <DCondon@needhamma.gov>; Timothy McDonald <tmcdonald@needhamma.gov>; Tara Gurge <TGurge@needhamma.gov>; Deb Anderson <andersond@needhamma.gov>; David Roche (droche@needhamma.gov) <droche@needhamma.gov>
Cc: Lee Newman <LNewman@needhamma.gov>; Elisa Litchman <elitchman@needhamma.gov>
Subject: request for comment - 577 Highland Ave

Dear all,

We have received the application materials for the proposal to redevelop 557 Highland Avenue. the information can be found on the website: https://www.needhamma.gov/Archive.aspx?ADID=9611

Although we operate electronically much of the time lately, I am sending hard copies for this project.

The Planning Board has scheduled this matter for June 7, 2022. Please send your comments by Wednesday May 25, 2022 at the latest.

Please note: These are the same materials that we distributed (electronically) for the Development Review Team meeting to be held April 26. We are also seeking staff comment, which can arrive after the DRT meeting.

The documents attached for your review are as follows:

1. Application for the Major Project Special Permit No. 2022-02, Applicant 557 Highland, LLC, dated April 7, 2022.

2. Letter directed to Planning Board Members, from Timothy Sullivan, dated April 5, 2022.

3. Plan set consisting of 44 pages, dated March 30, 2022.

4. Transportation Impact and Access Study, prepared by VHB, 101 Walnut Street, PO Box 9151, Watertown, MA, dated March 2022. (Appendices only sent to Engineering)

5. Stormwater Report, prepared by VHB, 101 Walnut Street, PO Box 9151, Watertown, MA, dated March 2022.

Thank you, alex.

Alexandra Clee
Assistant Town Planner
Needham, MA
781-455-7550 ext. 271
www.needhamma.gov

TOWN OF NEEDHAM, MASSACHUSETTS
PUBLIC WORKS DEPARTMENT
500 Dedham Avenue, Needham, MA 02492
Telephone (781) 455-7550 FAX (781) 449-9023

June 2, 2022

Needham Planning Board
Needham Public Service Administration Building
Needham, MA 02492

RE: Major Project Special Permit No. 2022-02
557 Highland Avenue- Bullfinch Companies

Dear Members of the Board,

The Department of Public Works has completed its review of the above referenced request for a Special Permit. The applicant requests to redevelop the former Muzi Ford and Chevrolet automotive dealerships and service centers and Muzi car wash.

The proposed project will const 2-buildings of a 497,694 sf office, laboratory, research and development, as well as 10,000 sf for retail uses. A proposed one level parking garage for each building as well as a separate stand alone garage to accommodate the parking needs.

The review was conducted in accordance with the Planning Board's regulations and standard engineering practice. The documents submitted for review are as follows:

1. Application for the Major Project Special Permit No. 2022-02, Applicant 557 Highland, LLC, dated April 7, 2022.

2. Letter directed to Planning Board Members, from Timothy Sullivan, dated April 5, 2022.

3. Plan set consisting of 44 pages, dated March 30, 2022.

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5. Stormwater Report, prepared by VHB, 101 Walnut Street, PO Box 9151, Watertown, MA, dated March 2022.

Our comments and recommendations are as follows:

Water Supply:

- We are seeking clarification for the facility's proposed water use of 129,172 GPD while the wastewater design flow generation is 54,554 GPD.

- We expect to work with the developer on determining the optimum water loop design. The current proposal shows a 10-inch water connection to the site off a 12-inch main on Gould Street and a connection to an existing 8-inch water main on TV place. The additional loop connection may be more optimum if connected from Highland Avenue in front of the development instead of, or an addition to the 8-inch on TV Place connection.

Traffic at the Intersection of Highland and Gould

- We concur with traffic comments/recommendations prepared by GPI in their April 25, 2022 letter to the Planning and Community Development Office.

- The proposed development revises the currently under construction traffic pattern from the MassDOT's Highland Avenue Corridor project. The newly proposed layout for this project shows sidewalks on both sides of the road and consists of one bike lane with 4-vehicle traffic lanes exiting Gould Street onto Highland Avenue, and one bike lane with one vehicle lane entering Gould Street from Highland Avenue.

- This new road design increases the traveled width by approximately 32-feet from intersection of Highland Avenue at Gould to just beyond TV Place. A portion of the design shows the travel lanes located on private property owned by the Development. We expect the Developer to work with the town in providing an alteration/taking plan and recordings for a new Road Right of Way layout on Gould Street and to optimize of the traffic signals at Highland at Gould.

Wastewater:

- According to the ENF filed by the applicant, the proposed project will generate a total of design wastewater flow of 54,554 GPD; this is an increase of 31,501 GPD from the existing facility to the town's sewer system. The applicant has been in contact with Town of Needham representatives and understands the requirements to have a rate of four gallons for every one gallon of sewage added to the system removed through an I/I program (attached regulations).

- For the new facility, four times the increased flow equates to a total of 126,004 GPD I/I removal anticipated from the development. This may be satisfied by either undertaking a construction project or paying a fee to the Town's I&I program at a rate of $8.00 per gallon required to be removed. We are in the process of analyzing the target areas for the inflow/infiltration to be removed and expect to work with the developer through the site plan approval process.

Stormwater Report:

- As part of the NPDES requirements, the applicant must comply with the Public Outreach & Education and Public Participation & Involvement control measures. The applicant shall submit a letter to the town identifying the measures selected and dates by which the measures will be completed in order to incorporate it into the Planning Board's decision.

Other:

- If emergency generators are proposed, they should indicate on the plans with proper screening and noise reduction according to a sound study for the proposed generators.

If you have any questions regarding the above, please contact our office at 781-455-7550.

Truly yours,

Thomas Ryder
Town Engineer

From: John Schlittler
To: Alexandra Clee
Cc: Lee Newman
Subject: RE: request for comment - 577 Highland Ave
Date: Friday, June 3, 2022 3:37:20 PM

I have a couple of concerns regarding traffic.
Gould at Central, looks like one lane getting out to Central. I am concerned that traffic will back up and create a scenario where vehicles will use cut through streets that are off Gould.

I am also concerned that vehicles will use Noanett, Ellis, Kearney, Beech, and Arnold St daily to beat the light at Gould and Central. I think the first step would be to place signage at these locations restricting traffic between commuting hours in the morning and afternoon.

I am also concerned about the impact that this project will have on Hunting/Greendale Ave. Although the RT 128 on/off ramps are very close this stretch of RT 128 tends to be stop and go during peak hours. I often see vehicles getting off RT 128 to use surface streets Hunting/Greendale to bypass traffic delays. What can be done to address impact to those neighborhoods?

If there are going to be walking paths, bike access around the building then there should be enough space for emergency vehicle access around the entire project.

From: Alexandra Clee <aclee@needhamma.gov>
Sent: Tuesday, April 19, 2022 4:17 PM
To: Carys Lustig <clustig@needhamma.gov>; Thomas Ryder <tryder@needhamma.gov>; John Schlittler <JSchlittler@needhamma.gov>; Dennis Condon <DCondon@needhamma.gov>; Timothy McDonald <tmcdonald@needhamma.gov>; Tara Gurge <TGurge@needhamma.gov>; Deb Anderson <andersond@needhamma.gov>; David Roche <droche@needhamma.gov>
Cc: Lee Newman <LNewman@needhamma.gov>; Elisa Litchman <elitchman@needhamma.gov>
Subject: RE: request for comment - 577 Highland Ave

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6. Fiscal Impact Analysis, prepared for rezoning, prepared by Barrett Planning Group, Inc., dated March 20, 2021.

Thanks, alex.

Alexandra Clee
Assistant Town Planner
Needham, MA
www.needhamma.gov

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Cc: Lee Newman <LNewman@needhamma.gov>; Elisa Litchman <elitchman@needhamma.gov>
Subject: request for comment - 577 Highland Ave

Dear all,

We have received the application materials for the proposal to redevelop 557 Highland Avenue. the information can be found on the website: https://www.needhamma.gov/Archive.aspx?ADID=9611

Although we operate electronically much of the time lately, I am sending hard copies for this project.

The Planning Board has scheduled this matter for June 7, 2022. Please send your comments by Wednesday May 25, 2022 at the latest.

Please note: These are the same materials that we distributed (electronically) for the Development Review Team meeting to be held April 26. We are also seeking staff comment, which can arrive after the DRT meeting.

The documents attached for your review are as follows:

1. Application for the Major Project Special Permit No. 2022-02, Applicant 557 Highland, LLC, dated April 7, 2022.

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5. Stormwater Report, prepared by VHB, 101 Walnut Street, PO Box 9151, Watertown, MA, dated March 2022.

Thank you, alex.

Alexandra Clee
Assistant Town Planner
Needham, MA

781-455-7550 ext. 271
www.needhamma.gov

Town of Needham
Building Department
500 Dedham Ave.
Needham, MA 02492

Tel.781-455-7550 x 308

August 23, 2022

Town of Needham Planning Board
Lee Newman / Town Planner
500 Dedham Ave.
Needham, MA. 024902

Re: 557 Highland Ave. / Highland Innovation Center

Dear Planning Board Members,

Please be advised that I have reviewed the proposed plan for the former Muzi site the new Highland Innovation Center and I have the following comments.

Fire Department access: The plan shows a Fitness path / Fire access driveway around the buildings, it does not show the curb cuts or access to this roadway from Gould St. or TV. Place. This roadway / walk should probably be gated at the entry of the roadway to prevent vehicles from driving around the building. This should include some sort of barrier preventing vehicle access between the parking garage and Lab building beyond the loading area. These gates should be approved by the Fire Department and have additional signage installed stating “Fire Department Emergency access only.”

Cross walks: The plan shows cross walks in four locations but there is no direct access from the surface parking to the entrance of the lab building. It appears the pedestrian traffic would have to exit the parking lot walk toward Gould Street then cross at the entry of the complex and walk back to the lab building. I believe that a cross walk should be installed between the open parking area and the entrance to the lab building. There should also be a defined crossing between the parking garage and the lab building, the plan shows a large walk next to the loading dock area with no curb cuts for this area. The plan does show two curb cuts at the entry of the loading area between the buildings, I would suggest this location for the crosswalk.

Pond Bridge: The plan shows a pedestrian walkway over the pond, this pond is proposed to be approximately six feet deep, the bridge does not show any guards or railings crossing over the pond.

Retaining walls: The plan indicates retaining walls in many locations on the plans, no details were provided on the type of walls to be used. Some of the walls are along emergency roadways

and walkways no details are provided for vehicle guard rails, or pedestrian guards, railings or fencing along these areas that need fall protection.

Accessible Entries: The plan indicates a stairway in front of the Lab building it is assumed that there is an accessible ramp along the front of the building providing accessible entry into the building.

Public Community open space: The proposal is to provide public spaces for paddle board courts, pavilion plaza, possible seasonal skating rink. The developer has not identified rest room facilities within 300’ of this area.

Front Setback TV Place: The plan on page L-1.0 indicates a rear setback along TV Place this is a way and would be considered frontage therefore it needs to reflect front setback, the plan on page A-101 shows the setback at 20’

Any Questions please contact my office.

David A Roche
Building Commissioner
Town of Needham

Town of Needham
Fire Department Headquarters
88 Chestnut Street
Needham, MA 02492

(781) 455-7580
(781) 444-2174

Chief of Department
Thomas M. Conroy

Deputy Fire Chief of Operations
Donald E. Anastasi

Deputy Fire Chiefs
Matthew P. Dooher
Matthew B. Bagnell
Peter J. Vigliano

TO: Lee Newman

FROM: Thomas Conroy
Chief of Department

DATE: August 31, 2022

RE: August 30, 2022, 557 Highland Ave Project Meeting (Muzi)

Dave Roche has been working with the landscape architect to address the Fire Departments concerns for the project at 557 Highland Ave. Listed below are our concerns:

- Access and egress points for the fitness/access walkway
- What is the finish material for the path
- What is the finish material on either side of the walkway
- Is this material safe for the stability of a fire truck
- Moving the lighting out of the walkway path for accessibility
- Where are the curb cuts going to be and will there be a driveway or a sloped berm

Chief Thomas M. Conroy
Needham Fire Department
88 Chestnut Street
Needham, MA 02492
(781) 455-7580 tconroy@needhamma.gov

From:	Stacey Mulroy
To:	Alexandra Clee
Cc:	Lee Newman; Thomas Ryder; Carys Lustig
Subject:	RE: Request for comment - 577 Highland Ave
Date:	Wednesday, August 31, 2022 2:39:54 PM
Attachments:	image001.png

HI All,

Sorry for my delayed response.

On a quick overview it looks fine, though I would make suggestions to the contractors about the walking path and the orientation of the pickleball courts. There wasn't a lot of detail on the "recreational" parts, but if you get more details in the next wave, I'd be happy to take a closer look.

Thank you!
Stacey

Stacey Mulroy, CPRP
She/Her/Hers (What's this?)

Director, Needham Park & Recreation
O: 781.455.7930
C: 781.589.0960
E: smulroy@needhamma.gov

Rosemary Recreation Complex
178 Rosemary Street
Needham, MA 02494
www.needhamma.gov/495/Park-Recreation

From: Alexandra Clee <aclee@needhamma.gov>
Sent: Thursday, August 18, 2022 12:05 PM
To: Stacey Mulroy <smulroy@needhamma.gov>
Cc: Lee Newman <LNewman@needhamma.gov>; Thomas Ryder <tryder@needhamma.gov>; Carys

Lustig <clustig@needhamma.gov>
Subject: Request for comment - 577 Highland Ave

Hi Stacey,

The Planning Board does not typically ask you or the Commission for comments; however, in this case your input would be helpful.

If you wouldn't mind reviewing the plans, specifically regarding the amenities provided, such as the walking trail and the pickle ball court.

Links to materials:

- Revised Plans, dated August 15, 2022.

- Cover letter from Attorney Tim Sullivan, dated August 15, 2022 as well as the following documents: a) Boundary Description; b) Revision Letter from Civil; c) Revision Letter re: Transportation; d) Revision Letter re: Landscape; e) Revision Letter re: Architecture; f) Preliminary Exterior/Community Noise Evaluation/Narrative.

Any comments you have would be welcomes by August 30.

Thanks!

Alexandra Clee
Assistant Town Planner
Needham, MA
www.needhamma.gov

From: Alexandra Clee
Sent: Wednesday, August 17, 2022 3:27 PM
To: Carys Lustig <clustig@needhamma.gov>; Thomas Ryder <tryder@needhamma.gov>; John Schlittler <JSchlittler@needhamma.gov>; Tom Conroy <TConroy@needhamma.gov>; Timothy McDonald <tmcdonald@needhamma.gov>; Tara Gurge <TGurge@needhamma.gov>; Deb Anderson <andersond@needhamma.gov>; David Roche <droche@needhamma.gov>
Cc: Lee Newman <LNewman@needhamma.gov>; Elisa Litchman <elitchman@needhamma.gov>
Subject: ADDITIONAL request for comment - 577 Highland Ave

Dear all,

We received revised plans on the project at 557 Highland. They can be found at the following links:

- Revised Plans, dated August 15, 2022.

- Cover letter from Attorney Tim Sullivan, dated August 15, 2022 as well as the following

documents: a) Boundary Description; b) Revision Letter from Civil; c) Revision Letter re: Transportation; d) Revision Letter re: Landscape; e) Revision Letter re: Architecture; f) Preliminary Exterior/Community Noise Evaluation/Narrative.

Please provide comments by August 30, 2022.

Thanks, alex.

Alexandra Clee
Assistant Town Planner
Needham, MA
781-455-7550 ext. 271
www.needhamma.gov

From: Alexandra Clee
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Cc: Lee Newman <LNewman@needhamma.gov>; Elisa Litchman <elitchman@needhamma.gov>
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Assistant Town Planner
Needham, MA
www.needhamma.gov

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Building Department
500 Dedham Ave.
Needham, MA 02492

Tel.781-455-7550 x 308

August 31, 2022

Town of Needham Planning Board
Lee Newman / Town Planner
500 Dedham Ave.
Needham, MA. 024902

Re: 557 Highland Ave. / Highland Innovation Center / **Revised Letter**

Dear Planning Board Members,

Please be advised that I have reviewed the proposed plan for the former Muzi site the new Highland Innovation Center and I have the following comments. **The applicant has responded to our comments and town staff concerns, I have added my new comments to my previous letter.**

Fire Department access: The plan shows a Fitness path / Fire access driveway around the buildings, it does not show the curb cuts or access to this roadway from Gould St. or TV. Place. This roadway / walk should probably be gated at the entry of the roadway to prevent vehicles from driving around the building. This should include some sort of barrier preventing vehicle access between the parking garage and Lab building beyond the loading area. These gates should be approved by the Fire Department and have additional signage installed stating "Fire Department Emergency access only." **After an additional meeting with Planning staff, Fire Chief, Town Engineer and Building Commissioner, the applicant has provided three plan modifications. The last modification which we have approved answers the gate, curb cut and access pathway questions. The applicant will provide a cross section detail showing a 10' wide permeable pavement with 5' permeable pavers on both sides meeting the Chiefs request for H 20 Loading for the 20' width. Final detail of this walk will be approved on-site before construction by the Town Engineer and Fire Chief.**

Cross walks: The plan shows cross walks in four locations but there is no direct access from the surface parking to the entrance of the lab building. It appears the pedestrian traffic would have to exit the parking lot walk toward Gould Street then cross at the entry of the complex and walk back to the lab building. I believe that a cross walk should be installed between the open parking area and the entrance to the lab building. There should also be a defined crossing between the parking garage and the lab building, the plan shows a large walk next to the loading dock area with no curb cuts for this area. The plan does show two curb cuts at the entry of the loading area

between the buildings, I would suggest this location for the crosswalk. **These corrections have been answered and corrected.**

Pond Bridge: The plan shows a pedestrian walkway over the pond, this pond is proposed to be approximately six feet deep, the bridge does not show any guards or railings crossing over the pond. **These questions have been answered and will be addressed upon issuance of the Building Permit.**

Retaining walls: The plan indicates retaining walls in many locations on the plans, no details were provided on the type of walls to be used. Some of the walls are along emergency roadways and walkways no details are provided for vehicle guard rails, or pedestrian guards, railings or fencing along these areas that need fall protection. **These questions have been answered and will be addressed upon issuance of the building permits and actual site visit.**

Accessible Entries: The plan indicates a stairway in front of the Lab building it is assumed that there is an accessible ramp along the front of the building providing accessible entry into the building. **These questions have been answered.**

Public Community open space: The proposal is to provide public spaces for paddle board courts, pavilion plaza, possible seasonal skating rink. The developer has not identified rest room facilities within 300' of this area. **This question has been answered and will comply with the State Building and Plumbing Code requirements.**

The plan was also corrected to illustrate the front Set-back from TV Place where the previous plan showed it as side set-back.

Many small technical details will need to need to be clarified throughout the permitting process with multiple departments. The applicant has been very responsive to our concerns, and after working with this developer I am confident that the design team for the project and town staff will work out the fine details on this complex development.

Any Questions please contact my office.
781-455-7550 x 308

David A Roche
Building Commissioner
Town of Needham

TOWN OF NEEDHAM
TOWN HALL
1471 Highland Avenue
Needham, MA 02492-2669

Design Review Board

Memo: Site Plan review, 557 Highland Avenue

12 September 2022

The Board reviewed the revised design drawings for the development proposed for this site.

The Board had commented on the design of the project in an earlier review. At the time of that review the landscaping and site lighting had not yet been developed in detail. The applicant presented more detailed site and landscaping designs, as well as modifications to the buildings and parking garage developed after meetings with the Planning Board and residents.

The overall landscaping plan was very well designed. Modifications to the walking path along Highland Avenue, and the new plantings of trees and some screen elements were seen as an improvement by the Board. The plant selection was also seen as well done. There was discussion of the choice of oak tree species along the walking path. There is concern about acorns in the fall season on a walking/biking path. The applicant stated it had been working with the Superintendent of Parks and Forestry on tree selection and that he had suggested this tree. The applicant stated their preference was a mix of trees, not a single sort of allée along the property edge. The DRB agrees with this approach. The applicant will discuss our concerns with the Town and explore all other tree options.

The design includes less mowed lawn area and more landscaping features along the building. The Board noted this in the first review and the new design is well done. The extensive use of native plants is also a very good design element.

The development includes several public amenities. The Board approved of the design of these elements. The fencing at the pickle ball courts will be black vinyl chain link fencing, and planting such as clematis or similar plantings are planned be grown on the fence. There is also bike parking and community open space. Parking in that area is also provided. While the walk is adjacent to a busy road the layout and landscaping will help to protect the activities. The material for the walk was discussed. The difficulty is that it is also emergency fire access, so the usual pervious surfaces may not be suitable. The design is to be a bordered walkway. One suggestion by the Board was Gravel Lok or a similar gravel binder product for the main path with a complementary edging. No final choice was made at this time, but the Board believes the options discussed were all acceptable.

There were changes to the building design. Some of the garage loading doors previously located to the left of the main entrance were moved to the side of the building facing the parking garage. This is an improvement.

The parking garage exterior design was also modified. Changes were made to add more detail to the columns and panels. The screening and its support framing were modified to be less two dimensional. The Board approved of these changes.

A more major change was made to the building at the corner of Gould and Highland. The previous design followed the site shape and had a rounded corner to the building. The Board had previously approved this design, with the thought that it was a good design. It filled the negative space at that corner in a positive way and was a good overall planning solution. The new design angles the main building the other direction and opens up the space at the corner significantly. A large plaza is planned for this space, which will be adjacent to a one-story portion of the building, The one-story section will have greenspace on the roof for use by the tenants of the building. While the Board approves the design of the building changes, there was some concern about how much use that plaza will actually receive. It seems very dependent on the final uses in the one-story retail/restaurant space adjacent to it. The applicant explained the area is also the beginning of the fire truck access so that impacted the design as well. The Board suggested that the treed area proposed in conjunction with the plaza might be enlarged and some larger elements (trees) will start to fill the view at the corner, visually containing the space in a positive way.

The project was approved in total as presented; the Board presents these comments for the Planning Board's consideration.

End of Notes

From:	Tara Gurge
To:	Alexandra Clee
Cc:	Lee Newman
Subject:	RE: Biotech requirements for Public Health
Date:	Tuesday, October 25, 2022 1:38:08 PM
Attachments:	image002.png image003.png ARTICLE 11 - Biotechnology Registration (002).pdf
Importance:	High

Alex -

Sorry for not getting back to you sooner. Here are the Biotech existing requirements, below, for your reference. (See also attached Article 11 BOH ordinance.) We sent you comments re: the Biotch lab requirements, noted in our May 27, 2022 email, which are still relevant. Nothing has changed with these requirements since we are still in the process of updating our existing regulation. (NOTE: As mentioned to you on my recent follow-up email, we have not updated these regulation requirements yet, however, we are in the process of setting up a Biolab regulation committee that Tim recently put together, which is made up of Health Division staff, since these BOH Biotechnology regulation updates will be pretty extensive. Here are the existing requirements noted below, as stated in our previous comments, which we will be expanding in the near future. Feel free to reach back out to me if you have any additional questions!

- Need to fill out an online Biotechnology permit application through the Public Health Division, Easy Permits website. See direct link - - https://needhamma.viewpointcloud.com/categories/1073/record-types/1006513.
- Proper Biohazardous waste containment will need to be provided on site. Need to set up a contract with a permitted medical waste hauler.
- If the company is working with sharps, a Sharps Disposal permit will need to be applied for at the following online permit link - https://needhamma.viewpointcloud.com/categories/1073/record-types/1006511. The Public Health Division will need to issue a permit the company on an annual basis, and conduct annual inspections prior to renewing the Sharps Disposal permit.
- If the company if working with Animals, an Animal Permit application will need to be applied for at the following online permit link - https://needhamma.viewpointcloud.com/categories/1073/record-types/1006509. The Public Health Division will need to issue a permit the company on an annual basis, and conduct annual inspections prior to renewing the Animal permit.
- SEE specific excerpts taken from our BOH Biotech ordinance noted below, for your reference.

So here are the Needham Board of Health Biotech registration requirements as stated in our BOH Article 11 ordinance (See below) – The Health Division will need to verify that all these items are uploaded to the online permit for review.

11.4.2 The institution shall:

(1) Register using a form approved by the Board of Health.
(2) Renew and update the registration annually.

(3) Submit copies of all registration materials to the Building Department, Fire Department, Emergency Management Department and the Planning Board.
(4) Allow inspections, at reasonable times, of both the institution's facilities and records, as related to these regulations.

11.5.1 In order to register, the following information must be submitted, using an application form approved by the board, to the Board of Health:

(1) Name of institution.
(2) Address, telephone, and fax number.
(3) Names and telephone numbers of persons designated to be contacted on a 24-hour a day basis in case of an emergency.
(4) A plot plan showing the proposed location of the facility and a floor plan showing the internal layout of the facility(s).
(5) General statement of the company's intended area of research.
(6) General statement of the types of hazardous, bio hazardous, infectious or radioactive materials expected to be used in the facility.
(7) Evidence of certification, as necessary, from the Massachusetts Department of Environmental Protection and the Massachusetts Department of Public Health.

11.5.2 In order to register, the following information must be submitted to the Board of Health, on a form which is approved by the Board of Health:

(1) The chief executive officer must certify that the company adheres to the NIH Guidelines for recombinant DNA Research.

Let me know if you have any additional questions, and I have time for a call this afternoon if you still want to touch base.

Thanks,

TARA E. GURGE, R.S., C.E.H.T., M.S. (she/her/hers)
ASSISTANT PUBLIC HEALTH DIRECTOR
Needham Public Health Division
Health and Human Services Department
178 Rosemary Street
Needham, MA 02494
Ph- (781) 455-7940; Ext. 211/Fax- (781) 455-7922
Mobile- (781) 883-0127
Email - tgurge@needhamma.gov
Web- www.needhamma.gov/health

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Board of Health

Edward Cosgrove, PhD
Chair

Stephen Epstein, MD, MPP
Member

Jane Fogg, MD, MPH
Vice Chair

ARTICLE 11 BIOTECHNOLOGY REGISTRATION REGULATION

SECTION 11.1 AUTHORITY

The Needham Board of Health, pursuant to the authority granted under Massachusetts General Laws Chapter 111 section 31 hereby adopts the following regulation to protect the-public health of the communit**y.**

SECTION 11.2 PURPOSE

The Needham Board of Health recognizes that the use of modern biological techniques for industrial purposes do not pose unique risks to public health or the environment when the activities are conducted in accordance with accepted best scientific practice. However, following the recommendations of the Needham Biotechnology Committee, it is the opinion of the Board of Health that the existing regulatory structure in the Town of Needham is not sufficient to ensure that Town officials would be alerted to the presence of biotechnology companies in the Town.

The assessment of potential health risks is one of the primary roles and responsibilities of a public health agency.

Accordingly, the Board of Health declares that the purpose of this regulation is to require registration of biotechnology companies, to enable the Board of Health and other town officials to better assess and monitor potential fire and other hazards posed by flammable chemicals and hazardous materials.

SECTION 11.3 DEFINITIONS

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Guidelines:
(1) National Institutes of Health (NIH) Guidelines for Research involving Recombinant DNA molecules as published in the Federal Register of April 27, 1995.

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Institution: A single individual, group of individuals, association, organization, corporation educational institution, or medical facility conducting rDNA research, rDNA development, rDNA production, or biological material therapies or diagnostics.

Recombinant DNA Molecules (rDNA): As defined in the NIH "Guidelines," as defined above.

Substantive Change: Any change in hazard designation as identified in the NIH Guidelines.

SECTION 11.4 LABORATORY REGISTRATION REQUIRED

11.4.1 All institutions proposing any use of rDNA technology, as defined in and not exempted by the NIH Guidelines, which seeks to operate in the Town of Needham must first register with the Needham Board of Health before engaging in any rDNA activity, including construction or renovation of facilities for rDNA use(s).

11.4.2 The institution shall:

(1) Register using a form approved by the Board of Health.
(2) Renew and update the registration annually.
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The fee for registration shall be as designated in Article 17 of the Board of Health Regulations, Permit, License and other Fees.

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11.7.1 The Board may vary the application of any provision of these regulations, with respect to any particular case when, its opinion, the enforcement thereof would do manifest injustice or conflict with the spirit of any minimum standard established by these regulations. Any variance shall, while it is in effect, be available to the public at all reasonable hours in the office of the Town Clerk, or in the office of the Board of Health.

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11.8.1 Any person who violates the terms of these regulations shall be subject to a fine of five hundred dollars $500 per offense. Each day shall constitute a separate offense.

11.8.2 Violations of this regulation and penalties listed in Section 8.a. may be subject to non-criminal disposition, M.G.L. Chapter 40, Section 21D, and Town of Needham, General By-Laws, July 1996 compilation, Section 9.2.2.6, Board of Health Regulations, and as amended. Each day that the offense continues shall constitute a separate offense.

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In the event any section, subsection or provision of the regulations are held to be invalid, it shall not effect the validity of any other section, subsection or provision thereof.

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This regulation shall take effect after publication of a summary of the regulation in a newspaper published in the Town of Needham. As required by Massachusetts General Laws, Chapter 111, Section 31, an attested copy has been filed with the Department of Environmental Protection. A public hearing regarding this regulation was held on 07/20/93. This regulation was voted by a majority of the board on 07/20/93.

Public Comments on 557 Highland Avenue

Received between June 4, 2022 and October 3, 2022, end of hearing

1. Email from Carlos Agualimpia, Town Meeting Member - Precinct C, dated June 4, 2022.
2. Email from Steven Sussman, 30 Davenport Road, dated June 6, 2022.
3. Email from Henry Ragin, 25 Bennington Street, dated June 6, 2022.
4. Email from Casey Fedde, 16 Mills Rd, dated June 6, 2022.
5. Email from Avery, dated June 6, 2022.
6. Email from Karen Quigley, dated June 6, 2022.
7. Email from Kim Stone, Kim Stone, 45 Greendale Ave, dated June 6, 2022.
8. Email from MaeLynn Patten, 16 Ledge Street, dated June 6, 2022.
9. Email from Valerie Maio, 15 Park Ave., dated June 6, 2022.
10. Email from Maggie Flanagan, dated June 6, 2022.
11. Email from Nicole Nasson, dated June 6, 2022.
12. Email from Brooke Reilly, 41 Pine Grove Street, dated June 6, 2022.
13. Email from Jennie Jonas, 93 Sachem Road, dated June 6, 2022.
14. Email from Shannon Shavor, dated June 6, 2022.
15. Email from Matt Flanagan, 54 Sachem Road, dated June 6, 2022.
16. Email from Holly Charbonnier, 94 Sachem Road, dated June 6, 2022.
17. Email from Joanne Garabedian, dated June 6, 2022.
18. Email from Ali Dabuzhsky, 42 Aletha Road, dated June 6, 2022.
19. Email from Ashly Scheufele, 52 Greendale Avenue, dated June 6, 2022.
20. Letter from the Needham Heights Alliance, dated June 6, 2022.
21. Email from Paul Charbonnier, 94 Sachem Road, dated June 6, 2022.
22. Email from Emily Pick, 12 Mills Road, dated June 6, 2022.
23. Email from Natalie and Eugene Ho, 21 Utica Rd, dated June 26, 2022.

24. Email from Russell Smith, dated June 6, 2022.
25. Email from Julie Tracey, Beech Street, dated June 6, 2022.
26. Email from Ada Lei Chan, dated June 6, 2022.
27. Email from Elizabeth C Rich, 323 West Street, dated June 6, 202.
28. Email from Alanna Burke, dated June 6, 2022.
29. Email from Maureen and Jim DiMeo, 442 Central Avenue, dated June 6, 2022.
30. Email from Larry Tobin, 31 Greendale Ave, dated June 6, 2022.
31. Email from Michael Diener, dated June 7, 2022.
32. Email from Laura Ruch, dated June 7, 2022.
33. Email from Kelly Close, dated June 7, 2022.
34. Email from Robert Deutsch, dated June 7, 2022.
35. Email from Callie Curran Morrell, 2 Central Terrace, dated June 7, 2022.
36. Email from Jackie Boni, 13 Nichols Rd, dated June 7, 2022.
37. Letter from Deb Whitney, dated June 7, 2022.
38. Email from Kate Robey, dated June 7, 2022.
39. Email from Gilad & Rachel Skolnic, 33 Park Avenue, dated June 8, 2022.
40. Email from Kathleen Robey, 150 Warren Street, dated June 7, 2022.
41. Email from Kira Robinson-Kates, dated June 8, 2022.
42. Email from Ryan Ciporkin, 42 Park Avenue, dated June 9, 2022.
43. Email from Alex Boni, 13 Nichols Rd, dated June 9, 2022.
44. Email from Robert Dangel, 28 Hewitt Circle, dated June 11, 2022.
45. Email from Susan B. McGarvey, 66 Upland Road, dated June 11, 2022.
46. Email from Shari Stier, 23 Park Ave, dated June 14, 2022.
47. Email from Christine Dedek, 55 Hunting Road, dated June 28, 2022.
48. Email from Teresa Combs, 7 Utica Road, dated July 5, 2022.

49. Email from Joan E. Feeney, 74 Wayne Road, dated July 6, 2022.
50. Email from David M. Mindlin, 74 Hampton Avenue, dated July 7, 2022.
51. Email from Elizabeth Mercer, dated July 7, 2022.
52. Letter from the Needham Heights Alliance and Community, dated September 12, 2022.
53. Email from Michele Markley, dated September 12, 2022.
54. Email from Peter Schuller, 25 & 27 Mills Rd, dated September 13, 2022.
55. Email from Lauren Schuller, 25 & 27 Mills Rd, dated September 13, 2022.
56. Letter from Eugene Ho, Utica Road, dated September 15, 2022.
57. Email from Carol Richmond, Noanett Road, dated September 17, 2022.
58. Email from Kenneth Phillips, 74 Sachem Rd, dated September 18, 2022.
59. Email from Marjorie Phillips, 74 Sachem Rd, dated September 18, 2022.
60. Email from Verna Gurwitz, dated September 20, 2022.
61. Email from Carol Cohne, dated September 20, 2022.
62. Email from Henry Ragin, 25 Bennington Street, dated September 21, 2022.
63. Email from Lisa Durkin, 15 Avery Street, dated September 23, 2022.
64. Email from Beverly W. Litman, Noanett Road, dated September 25, 2022.
65. Email from Howard Breslau, 199 Evelyn Road, dated September 25, 2022.
66. Email from Fotoula Kopellas, 125 Evelyn Road, dated September 26, 2022.
67. Email from John Kopellas, 125 Evelyn Road, dated September 26, 2022.
68. Email from William Kopellas, 125 Evelyn Road, dated September 26, 2022.
69. Email from Anastasia Kopellas, 125 Evelyn Road, dated September 26, 2022.
70. Email from Judy and Larry Pelletier, 107 Gould Street, dated September 26, 2022.
71. Email from Le Truong, dated September 27, 2022.
72. Two emails from Antoinette Tigges, 122 Webster Street, dated September 27, 2022.
73. Email from Ranen S. Schechner, 50 Spring Road, dated September 29, 2022.

74. Email from : Nancy L. Magier, 112 Woodbine Circle, dated September 29, 2022.

75. Email from Wei Lu, dated September 29, 2022.

76. Email from Yulia Murray, 93 Hillside Avenue, dated September 29, 2022.

77. Email from Brian O'Neill, 149 Charles River Street, dated September 30, 2022.

78. Email from Kathy Zimbone, 10 Woodbury Dr, dated September 30, 2022.

79. Email from Casey Fedde, 16 Mills Rd, dated September 30, 2022.

80. Email from Chrissy Silverman, dated September 30, 2022.

81. Email from Jeffrey D. Drucker, The Atlantic Interests Limited Partnership, 144 Gould Street, Suite 206, Needham, MA 02494, dated September 30, 2022.

82. Email from Matthew S. Ross, 41 Stewart Road, dated September 30, 2022.

83. Email from Jodi Traub, dated September 30, 2022.

84. Email from Bob Rice, dated September 30, 2022.

85. Email from Bob O'Connor, 9 Fuller Road, dated September 30, 2022.

86. Email from Thomas M Totten, 370 Central Avenue, dated September 30, 2022.

87. Email from Steven Sussman, 30 Davenport Road, dated September 30, 2022.

88. Email from Joni and Michael Schockett, 174 Evelyn Road, dated September 30, 2022.

89. Emailed letter form Moe Handel, former Planning Board and Select Board Member and Needham Heights Resident, 3 Rosemary Street, dated October 1, 2022.

90. Email from Cynthia R. Janower, 85 Riverbend Lane, dated October 1, 2022.

91. Email from Larry Tobin, 31 Greendale Ave, dated October 2, 2022.

92. Email from David A. Shaff, MD, 109 Arch Street, dated October 2, 2022.

93. Email from Wujun Qie, 43 Douglas Rd, dated October 2, 2022.

94. Email from Yun Bian, 115 Gould Street, dated October 2, 2022.

95. Email from Marvin Berkowitz, 23 Wayne Road, dated October 2, 2022.

96. Email from Edward & Barbara Shapiro, 276 Bridle Trail Road, dated October 2, 2022.

97. Email from Shari Stier, dated October 2, 2022.

98. Email from Oleg Kerbel, dated October 2, 2022.
99. Email from Dingsong Feng, 45 Plymouth Road, dated October 2, 2022.
100. Email from Jacquelyn Furman, dated October 2, 2022.
101. Email from Ben Daniels, 5 Sachem Rd, dated October 2, 2022.
102. Email from Derek Wade, 41 Riverside St, dated October 2, 2022.
103. Email from Janice Chen, dated October 2, 2022.
104. Email from Tonia Chu, dated October 2, 2022.
105. Email from Donghui Yu, dated October 2, 2022.
106. Email from Brooks Goddard, 59 Otis Street, dated October 2, 2022.
107. Email from Albert Chang, dated October 2, 2022.
108. Email from The Lu family, 90 Norwich Rd, dated October 2, 2022.
109. Email from Hairuo Peng, dated October 2, 2022.
110. Email from Martha Cohen Barrett, 49 Lynn Road, dated October 2, 2022.
111. Email from Dennis Zhang, dated October 2, 2022.
112. Email from Joe Matthews, dated October 3, 2022.
113. Email from Matt Siciliano, dated October 3, 2022.
114. Email from James Segel, 30 Edgewater Drive, dated October 2, 2022.
115. Email from Yi Ding, dated October 3, 2022.
116. Letter from the Charles River Chamber, dated October 3, 2022.
117. Email from Emily Pick, 12 Mills Road, dated October 3, 2022.
118. Email from Natalie T, dated October 3, 2022.
119. Email from Michelle Saipe, 5 Sachem Road, dated October 3, 2022.

From: Emily Pick
To: Planning
Subject: Fwd: Bullfinch Biolab proposal
Date: Monday, October 3, 2022 9:39:40 PM

I want to reiterate that this project is still too big as presented tonight.

The presentation tonight did not adequately reduce the scale. I think it should be closer to 1.0 FAR.

Finally, traffic mitigation has not been adequately addressed. I'd like to see some type of mitigation on an ongoing basis in surrounding area, including Mills Rd, and Sachem.

Thanks
Emily
12 Mills Rd.

Get Outlook for iOS

From: Emily Pick
Sent: Wednesday, June 8, 2022 1:08:07 PM
To: selectboard@needhamma.gov <selectboard@needhamma.gov>
Subject: FW: Bullfinch Biolab proposal

Hello Selectboard,

I sent this email to the planning board earlier in the week, but also want you to be aware of my feedback, including opposition to increases in scope. I also spoke at the meeting last night, 6/7/2022. I live in one on one of the streets that is considered " a cut through street" by many, and there needs to be increased focus and scrutiny on the total impact of this project.

While I've heard varying numbers, but last night the figure was that there will be an additional 5000 car trips per day of cars coming in and out of Needham Heights as a result of this development. Highland Ave was NEVER constructed for such an additional influx, and the current, never ending State Led 'bike lane'
Project is compounded by the re-vamp of the I-95 southbound exit onto Highland Ave, which failing miserably in addressing traffic concerns that have evolved over the past decade. The failure is exacerbated by the many people who need to cross over 3 lanes of traffic in a very tight space and quickly at the corner of Hunting/Gould and Highland so that they can go wherever their going.

This Bullfinch project isn't happening in a vacuum. We know that additional large scale projects are planned along Highland Ave in Needham Heights and the Northland project down the road in Newton will also heavily effect traffic volume The issue is cumulative and compounding with each large development.

Much more attention needs to be paid to short term and long term traffic matters in our community.

Thank you.
Emily Pick

On Jun 7, 2022, at 2:08 PM, Planning <planning@needhamma.gov> wrote:

Hi there,

I have received your email and will share it with the Planning Board.

Thanks, alex.

Alexandra Clee
Assistant Town Planner
Needham, MA
781-455-7550 ext. 271
www.needhamma.gov

From: Emily Pick <emilyrpick@msn.com>
Sent: Monday, June 6, 2022 4:52 PM
To: Planning <planning@needhamma.gov>
Subject: Bullfinch Biolab proposal
Importance: High

Hello Planning Committee.

I live at 12 Mills Road in Needham, which is 2 blocks West of the project.

I'm reaching out to reiterate my opposition to any expansion of the Bullfinch project. I live just off of Highland Avenue, and I'm absolutely opposed to any increases in size, scope, occupancy, or footprint of this facility. I'm opposed to the increase in FAR, and I'm opposed to the board allowing Bullfinch to increase the building height, and I'm opposed to increasing the number of stories on the facility, on any parts of the project. Furthermore, I would suggest that Bullfinch minimize the size of the parking garage, to decrease the impact and scale of this project. Furthermore, I'm opposed to allowing the developer to build a restaurant, bar, pub, brewery or entertainment venue on this site.

My primary concern is traffic volume in the region. Over the years, I do not feel that the Town of Needham or the Planning Board has been listening to local residents on this project, and in fact when I attended a meeting a few weeks back, my feedback was snubbed on the grounds of my concerns. My family and I must live with the consequences of your decisions on a daily basis.

The quality of life in Needham Heights continues to deteriorate, and traffic is now worse than ever before on the Highland Ave-Needham Street corridor, and I measure this based on my experiences as I attempt to make a LEFT OR RIGHT turn from Mills on to Highland everyday, both at rush hour and at mid-day. It is increasingly dangerous just to get onto the street. When the light turns Green at Highland and Hunting, the traffic is unrelenting, in allowing new traffic to merge, especially after southbound drivers come off of I-95. Furthermore, the increases in pollution and litter thrown from cars is noticeable in past few weeks, and with many of the sidewalks in poor condition due to ongoing construction on Highland, its not even comfortable to walk on Highland Ave anymore.

Furthermore, I am strongly opposed to any special permits that would allow a restaurant, bar or brewery in this neighborhood. A "Trillium" type facility was suggested on the call I attended. I'm sharply opposed, on the basis of increased nighttime traffic and noise to the neighborhood. Furthermore, such a facility would cannibalize existing struggling businesses in Needham Heights and Needham Center.

Finally, I don't accept the meager attempts to sell this project to Needham leadership on aesthetic improvements as the 'gateway to Needham" or 'community benefits' of this facility. A commercial lab (with potential bio-hazard risks) next to a highway will never be a destination for local kids to ride their bikes or play ball, and nor would I ever consider it as a destination for outdoor physical fitness or as community center, since the traffic has made it nearly impossible to cross Highland Ave.

In short, I'm most concerned with the day-to-day traffic patterns, and the impact that this additional expansion-oriented proposal has on quality of life in Needham Heights, and the health, safety and welfare of this community. I hope that my feedback is duly noted as the planning board evaluates this request for expansion.

Thank you,
Emily

Emily Pick
617.784.2796

From: Natalie T
To: Planning
Subject: Current BIOlab registration only
Date: Monday, October 3, 2022 9:45:59 PM
Attachments: ARTICLE 11 - Biotechnology Registration_2.pdf

Not safety

Board of Health

Edward Cosgrove, PhD
Chair

Stephen Epstein, MD, MPP
Member

Jane Fogg, MD, MPH
Vice Chair

ARTICLE 11 BIOTECHNOLOGY REGISTRATION REGULATION

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From:	Michelle Saipe
To:	Alexandra Clee; Amy Haelsen; Clayton Hutchinson; Daphne Collins; Deb Anderson; Elisa Litchman; Karen Sunnarborg; Lee Newman
Subject:	Muzi Ford Development
Date:	Monday, October 3, 2022 3:41:54 PM

Dear Planning Board:

I would like to address my concern regarding the size of the proposed Bullfinch development of the Muzi Ford property. As I understand it, by right, Bullfinch can build a development with an FAR of 0.7, and with a special permit can build up to 1.35 FAR. However to be granted a special permit the developers must offer a benefit to the community. As I see it, this is a simple cost benefit analysis. If the cost is greater than the benefit, it should be rejected and only if the benefit is greater than the cost should the project be approved. So we have to loos at the cost and benefit:

The cost of the special permit will result in excessive traffic on already congested streets, the inability of people from Mills and Utica to turn left onto Highland Ave, many more cars cutting through side streets and presenting a danger to the children in the neighborhood, an increased chance of car accidents, increased pollution, increased noise, a large eyesore as people enter Needham, increased commotion and decreased quality of life for the abutters and families all over Needham.

The benefits would include a walking path and pickle ball court, which are nice, but certainly not worthy of the compromise. There are no shortage of lovely places to walk in town and I suspect that very few will take advantage of the path offered by Bullfinch. Similarly, the pickle ball court is not enough to justify such a huge development adjacent to a residential neighborhood. Other benefits include the potential of increased traffic in local businesses, but this is merely a potential increase, weighed against the guarantee of more traffic, which does not provide a good enough tradeoff to justify a special permit. Finally, the other potential benefit of the bigger development is increased tax revenue for the town. But again, at what cost? I doubt the delta between taxes for the 0.7 FAR and 1.21 FAR will justify the diminished quality of life for so many Needham residents. Further, I would imagine with all of the development coming up in town, the town would be able to replace any potential revenue with other projects that don't include a major downside for the residents of Needham.

Thank you very much for representing our interests with Bullfinch. I know you are all town residents and have the well being of our town as your top concern. With his in mind, I would urge the planning board to reject this proposal so Bullfinch has to go back to the drawing board to come up with something that will meet everyone's needs.

Please feel free to share my comments with Bullfinch, if you choose.

Best regards,

Michelle Saipe
5 Sachem Road
Needham, MA 02494
617-512-4177

For Planning Board Usage Only

NEEDHAM
ZONING BOARD OF APPEALS
AGENDA

Thursday, November 17, 2022 - 7:30PM

Zoom Meeting ID Number: 876-1480-7841

To view and participate in this virtual meeting on your computer, at the above date and time, go to www.zoom.us, click "Join a Meeting" and enter the Meeting ID: 869-6475-7241

Or join the meeting at link: https://us02web.zoom.us/j/87614807841

AGENDA

Minutes	Review and approve Minutes from October 20, 2022 meeting.
Case #1 – 7:30PM	**12 Clarke Road–**Nick Landry, applicant, applied to the Board of Appeals for a Special Permit under Sections 6.1.2, and any other applicable Sections of the By-Law to allow one additional garage space on the lot. This request is associated with the new construction of a four-bay garage with parking and fitness on the first floor, and storage on the second floor. The property is located at 12 Clarke Road, Needham, MA in the Single Residence A (SR-A) District.
Case #2 – 7:30 PM	**69 High Street –** Public notice is hereby given that Eric Carr, owner, applied to the Board of Appeals for a Special Permit under Sections 1.4.6, 3.2.1 and 3.15, and any other applicable Sections of the By-Law to allow the addition of an Accessory Dwelling Unit (ADU) to a pre-existing non-conforming structure. The property is located at 69 High Street, Needham, MA in the Single Residence B (SR-B) District.

Next ZBA Meeting – December 15, 2022

ZBA Application For Hearing

Applicants must consult with the Building Inspector prior to filing this Application. *Failure to do so will delay the scheduling of the hearing.*

Applicant Information

Applicant Name	Nick Landry		Date: 10.7.2022
Applicant Address	546 East Broadway, Boston, MA 02127		
Phone	617-529-6955	email	nlandry@drt.boston

Applicant is ☐Owner; ☐Tenant; ☐Purchaser; ☑Other Architect

If not the owner, a letter from the owner certifying authorization to apply must be included

Representative Name	Nick Landry		
Address	546 East Broadway, Boston, MA 02127		
Phone	617.529.6955	email	nlandry@drt.boston

Representative is ☐Attorney; ☐Contractor; ☑Architect; ☐Other_____

Contact ☐Me ☑Representative in connection with this application.

Subject Property Information

Property Address	12 Clarke Rd, Needham, MA 02492		
Map/Parcel Number	Map 113 lot 13	Zone of Property	Single Residence A

Is property within 100 feet of wetlands, 200 feet of stream or in flood Plain?
☐Yes ☑No

Is property ☑Residential or ☐Commercial

If residential renovation, will renovation constitute "new construction"?
☑Yes ☐No

If commercial, does the number of parking spaces meet the By-Law requirement? ☐Yes ☐No
Do the spaces meet design requirements? ☐Yes ☐ No

Application Type (*select one*): ☑Special Permit ☐Variance ☐Comprehensive Permit ☐Amendment ☐Appeal Building Inspector Decision

ZBA Application For Hearing

Existing Conditions:
Existing three bay garage with storage on second floor.

Statement of Relief Sought:
New construction of a four bay garage with parking and fitness area on first floor,
storage on second floor. Relief sought only for 4th bay, structure is within setbacks.

Applicable Section(s) of the Zoning By-Law:
Zoning Section 6.1.2

If application under Zoning Section 1.4 above, list non-conformities:

	Existing Conditions	**Proposed Conditions**
Use	Garage	Garage
# Dwelling Units	0	0
Lot Area *(square feet)*	43,560	43,560
Front Setback *(feet)* (Clarke Rd)	68.5	53.3
Rear Setback *(feet)* (Forest ST)	44.45	30.4
Left Setback *(feet)*	103.8	103.8
Right Setback *(feet)*	126.8	125.8
Frontage *(feet)*	211.4	211.4
Lot Coverage *(%)*	NR	NR
FAR *(Floor area divided by the lot area)*	NR	NR
Numbers must match those on the certified plot plan and supporting materials		

ZBA Application For Hearing

Date Structure Constructed including additions:	Date Lot was created:
2007	1929/1935

Submission Materials	Provided
Certified Signed Plot Plan of Existing and Proposed Conditions *(Required)*	Yes
Application Fee, check made payable to the Town of Needham Check holders name, address, and phone number to appear on check and in the Memo line state: "ZBA Fee – Address of Subject Property" *(Required)*	Yes
If applicant is tenant, letter of authorization from owner *(Required)*	Yes
Electronic submission of the complete application with attachments *(Required)*	Yes
Elevations of Proposed Conditions *(when necessary)*	Yes
Floor Plans of Proposed Conditions *(when necessary)*	Yes

Feel free to attach any additional information relative to the application. Additional information may be requested by the Board at any time during the application or hearing process.

❖❖❖❖

I hereby request a hearing before the Needham Zoning Board of Appeals. I have reviewed the Board Rules and instructions.

I certify that I have consulted with the Building Inspector 10.5.2022
date of consult

Date: 10.6.2022 Applicant Signature _____

An application must be submitted to the Town Clerk's Office at townclerk@needhamma.gov and the ZBA Office at dcollins@needhamma.gov

October 6, 2022

RE: 12 Clarke Road, Needham, MA 02492

Dear Town of Needham,

This letter hereby authorizes Design Resource Team (drt architecture) to apply and represent us for our garage project. DRT is authorized to file applications and represent us in all departments and at the Zoning Board.

If there are any questions or concerns please call us at 617-921-9555.

Thank you,

Kevin T Grimes 10/6/22

Elizabeth & Kevin Grimes

12 Clarke Road

Needham, MA 02492

TOWN OF NEEDHAM, MASSACHUSETTS

Building Inspection Department

Assessor's Map & Parcel Number: Map 113 Lot 13

Building Permit Number: _____

Zoning District: Single Residence A

Lot Area: 38,471 s.f.

Address: 12 Clarke Road

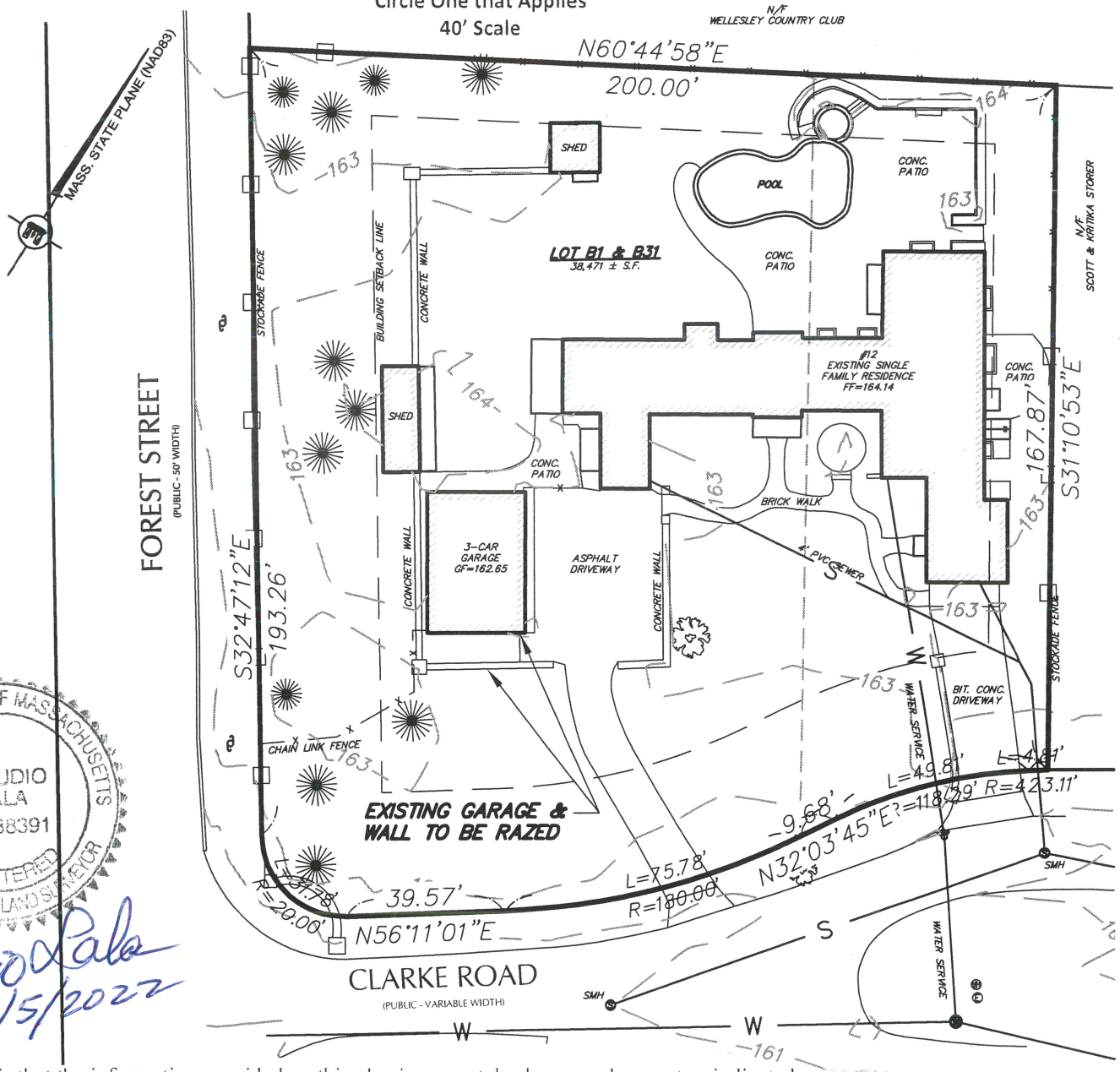
Owner: Kevin & Elizabeth Grimes

Builder: _____

DEMO / PROPOSED PLOT PLAN / FOUNDATION AS-BUILT / FINAL AS-BUILT

Circle One that Applies

40' Scale



COMMONWEALTH OF MASSACHUSETTS
CLAUDIO SALA
No. 38391
REGISTERED PROFESSIONAL LAND SURVEYOR

Claudio Sala
10/5/2022

I hereby certify that the information provided on this plan is accurately shown and correct as indicated.
The above is subscribed to and executed by me this 5TH day of October, 2022.

Name: Claudio Sala, PLS, Registered Land Surveyor Date: October 5, 2022

Address: 1266 Furnace Brook Pkwy. City: Quincy, State: MA Zip: 02169 Phone: 617-405-5100

Approved: _____, Director of Public Works Date: _____

Approved: _____, Building Inspector Date: _____

TOWN OF NEEDHAM, MASSACHUSETTS

Building Inspection Department

Assessor's Map & Parcel Number: Map 113 Lot 13

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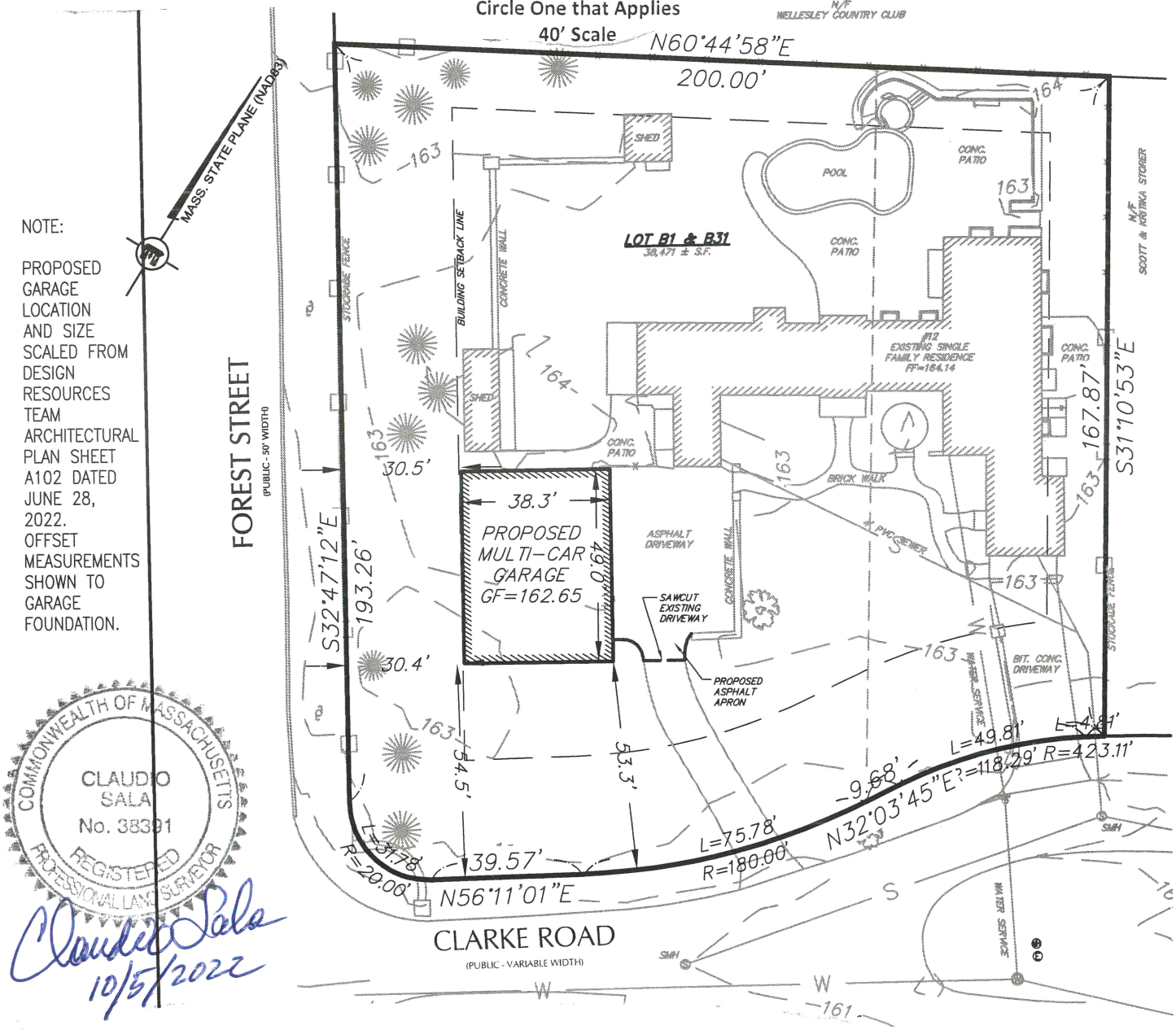

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Approved: _____, Building Inspector Date: _____

12 CLARKE RD

Needham, MA 02492

09.27.2022

Permit Set

PROJECT 3D

ABBREVIATIONS

AFF	ABOVE FINISHED FLOOR
ACT	ACOUSTICAL CEILING TILE
ADA	AMERICANS W/ DISABILITIES ACT
APPROX	APPROXIMATE
ARCH	ARCHITECTURAL
AV.	AUDIO VISUAL
BLDG	BUILDING
BLKG	BLOCKING
BO	BOTTOM OF
CAB	CABINET
CH	CEILING HEIGHT
CLR	CLEAR
CL	CENTERLINE
COL	COLUMN
CONT	CONTINUOUS
CMU	CONCRETE MASONRY UNIT
CJ	CONTROL JOINT
DTL	DETAIL
DIA	DIAMETER
DIM	DIMENSION
DN	DOWN
DWG	DRAWING
EXIST	EXISTING
ELEV	ELEVATION
ELEC	ELECTRICAL
EQ	EQUAL
FD	FLOOR DRAIN
FO	FACE OF
FOC	FACE OF CONCRETE
FOF	FACE OF FINISH
FOS	FACE OF STUD
GFIC	GROUND FAULT INTERCEPTOR CIRCUIT
GSM	GALVANIZED SHEET METAL
GWB	GYPSUM WALL BOARD
HVAC	HEATING, VENTILATING, AND AIR CONDITIONING
HB	HOSE BIB
HM	HOLLOW METAL
MAX	MAXIMUM
MO	MASONRY OPENING
MECH	MECHANICAL
MIN	MINIMUM
MISC	MISCELLANEOUS
MTL	METAL
NIC	NOT IN CONTRACT
NO	NUMBER
NTS	NOT TO SCALE
O/	OVER
OC	ON CENTER
OD	OUTSIDE DIAMETER
OPNG	OPENING
OPP	OPPOSITE
PG	PAINT GRADE
PLYWD	PLYWOOD
PTD	PAINTED
RD	ROOF DRAIN
REQ'D	REQUIRED
RO	ROUGH OPENING
SCHED	SCHEDULE
SG	STAIN GRADE
SIM	SIMILAR
SQ	SQUARE
SSTL	STAINLESS STEEL
STL	STEEL
STOR	STORAGE
STRUCT	STRUCTURAL
T&G	TONGUE AND GROOVE
TO	TOP OF
TYP	TYPICAL
UON	UNLESS OTHERWISE NOTED
VIF	VERIFY IN FIELD
W/	WITH
W/O	WITHOUT
WD	WOOD
WPM	WATERPROOFING MEMBRANE

SHEET LIST

SHEET #	SHEET NAME	REVISION	REVISION DATE
A000	COVER		
C1	CIVIL SITE PLAN - EXISTING CONDITIONS		
C2	CIVIL SITE PLAN - PROPOSED CONDITIONS		
A002	BUILDING INFORMATION		
A003	BUILDING INFORMATION		
A010	ARCH SITE PLAN - PROPOSED		
A101	LEVEL 1 - DEMO		
A102	LEVEL 1 - PROPOSED		
A103	LEVEL 2 - DEMO		
A104	LEVEL 2 - PROPOSED		
A200	ELEVATIONS - DEMO/PROPOSED		
A201	ELEVATIONS - DEMO/PROPOSED		
A300	BUILDING SECTIONS		
A500	AXONS		

SYMBOLS

- REFERENCE NUMBER / BUILDING SECTION / DRAWING SHEET
- REFERENCE NUMBER / DETAIL / DRAWING SHEET
- REFERENCE NUMBER / DRAWING / DRAWING SHEET
- REFERENCE NUMBER / INTERIOR ELEVATION / DRAWING SHEET
- REFERENCE NUMBER / EXTERIOR ELEVATION / DRAWING SHEET
- NORTH ARROW
- WINDOW TAG
- DOOR TAG
- WALL TYPE TAG
- APPLIANCE TAG
- REVISION TAG
- CENTER LINE

DESIGN IS BASED ON THE INTERNATIONAL BUILDING CODE (IBC) 2015, THE INTERNATIONAL RESIDENTIAL CODE (IRC) 2015, THE INTERNATIONAL ENERGY CONSERVATION CODE (IECC) 2018, AND THE MASSACHUSETTS BUILDING CODE 2015 AMENDMENTS. CONSTRUCTION SHALL CONFORM WITH ALL APPLICABLE SECTIONS.

GENERAL REQUIREMENTS

1. ALL WORK SHALL BE IN COMPLIANCE WITH ALL APPLICABLE LOCALS BUILDING CODES AND REGULATIONS. CONTRACTOR SHALL BE RESPONSIBLE FOR PERMITS APPLICABLE TO SPECIFIC TRADES OR SUBCONTRACTORS.
2. CONTRACTOR SHALL EXAMINE THE PREMISES AND SITE SO AS TO COMPARE THEM TO THE CONTRACT DRAWINGS AND WILL BE FAMILIAR WITH THE EXISTING CONDITIONS OF THE BUILDING AND ADJACENT PROPERTY PRIOR TO SUBMISSION OF BID NUMBER. ALLOWANCES ARE TO BE MADE TO INCLUDE ALL ITEMS OF WORK INCLUDING BOTH LABOR OR MATERIALS FOR ALL NOTED, DETAILS, OR IMPLIED ITEMS REQUIRED TO ATTAIN THE COMPLETED CONDITIONS PROPOSED IN THE DRAWINGS AND SPECIFICATIONS.
3. ALL SUBCONTRACTORS SHALL INSPECT THE SITE AND CONVEY ANY QUESTIONS REGARDING DESIGN INTENT AND SCOPE OF WORK TO THE GENERAL CONTRACTOR WHO WILL CONVEY THESE TO THE ARCHITECT PRIOR TO SUBMITTING A BID AND PRIOR TO COMMENCING WORK.
4. CONTRACTOR SHALL COORDINATE THE WORK OF ALL TRADES AND SUBCONTRACTORS AND SHALL BE RESPONSIBLE FOR ANY ACTS, OMISSIONS, OR ERRORS OF THE SUBCONTRACTORS AND OR PERSON DIRECTLY OR INDIRECTLY EMPLOYED BY THEM.
5. CONTRACTOR SHALL ASSUME SOLE RESPONSIBILITY FOR JOB SITE CONDITIONS INCLUDING THE SAFETY OF PERSONS AND PROPERTY FOR THE DURATION OF THE PROJECT.
6. CONTRACTOR SHALL CONFORM TO ALL NEIGHBORHOOD ASSOCIATION RULES AND GUIDELINES.
7. CONTRACTOR SHALL NOTIFY ARCHITECT IMMEDIATELY AND PRIOR TO ORDERING OF ALL LONG LEAD TIME ITEMS AND OF APPROXIMATE DELIVERY DATES.
8. ALL CONSTRUCTION MATERIALS AND SUPPLIES ARE TO BE STORED, HANDLED, AND INSTALLED ACCORDING TO MANUFACTURERS' RECOMMENDATIONS.
9. IF ERRORS OR OMISSIONS ARE FOUND IN THE CONTRACT DOCUMENTS, THEY SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT BEFORE PROCEEDING WITH THE WORK.
10. DRAWINGS SCHEMATICALLY INDICATE NEW CONSTRUCTION. THE CONTRACTOR SHALL ANTICIPATE, BASED ON EXPERIENCE, A REASONABLE NUMBER OF ADJUSTMENTS TO BE NECESSARY TO MEET THE DESIGN OBJECTIVES AND SHOULD CONSIDER SUCH ADJUSTMENTS AS INCLUDED IN THE SCOPE OF WORK.
11. WHEN SPECIFIC FEATURES OF CONSTRUCTION ARE NOT FULLY SHOWN ON THE DRAWINGS OR CALLED FOR IN THE GENERAL NOTES, THEIR CONSTRUCTION SHALL BE OF THE SAME CHARACTER AS SIMILAR CONDITIONS.
12. ALL DIMENSIONS ARE TO BE TAKEN FROM NUMERIC DESIGNATIONS ONLY; DIMENSIONS ARE NOT TO BE SCALED OFF OF THE DRAWINGS.
13. THESE NOTES ARE TO APPLY TO ALL DRAWINGS AND GOVERN UNLESS MORE SPECIFIC REQUIREMENTS ARE INDICATED THAT ARE APPLICABLE TO PARTICULAR DIVISIONS OF THE WORK. SEE SPECIFICATIONS AND GENERAL NOTES IN THE INDIVIDUAL SUBSECTIONS OF CONTRACT DOCUMENTS FOR ADDITIONAL INFORMATION.
14. ALL DIMENSIONS ARE TO FACE OF FINISH UNLESS OTHERWISE NOTED.
15. PROVIDE WEATHERSTRIPPING AT ALL DOORS LEADING FROM HEATED TO UNHEATED AREAS. PROVIDE VINYL BEAD TYPE WEATHERSTRIPPING AT THESE DOORS AND WINDOWS. ALL SIDES OF NEW DOORS ARE TO BE WEATHERSTRIPPED INCLUDING THE THRESHOLD.
16. CAULK AND SEAL OPENINGS IN BUILDING EXTERIOR TO A THICKNESS OF 1/8" OR GREATER TO PREVENT AIR INFILTRATION.
17. ALL WINDOWS ARE TO BE OPERABLE FOR CLEANING UNLESS OTHERWISE NOTED.
18. ALL WALL FRAMING SHALL BE 3 5/8" AT 16" ON CENTER UNLESS OTHERWISE NOTED.
19. ALL GYPSUM BOARD SHALL BE 5/8" THICK UNLESS OTHERWISE NOTED.
20. STRUCTURAL WOOD MEMBERS ADJACENT TO CONCRETE ARE TO BE PRESSURE TREATED DOUGLAS FIR.

VICINITY MAP

LEVEL	AREA
GARAGE	2785

A. PROJECT DESCRIPTION: DEMO OF EXISTING 3 BAY GARAGE. NEW CONSTRUCTION OF 4 BAY GARAGE WITH FITNESS AREA ON FIRST LEVEL AND HALF BATH AND STORAGE ON SECOND LEVEL.

B. USE GROUP: R-RESIDENTIAL/U-UTILITY & MISCELLANEOUS

C. GOVERNING COGE: MA 780 CMR RESIDENTIAL - 9TH EDITION, IRC 2015

D. CONSTRUCTION CLASSIFICATION: 5-B

E. HEIGHT AND AREA: PER NEEDHAM ZONING ORDINANCES

ZONING REVIEW

12 CLARKE RD ZONING SUMMARY PROPOSED SINGLE RESIDENCE A SUBDISTRICT

NEEDHAM NEIGHBORHOOD, ZONING SUBDISTRICT - SINGLE RESIDENCE A	PERMITTED DIMENSION	EXISTING DIMENSION	PROPOSED DIMENSION	RELIEF REQUIRED
LOT AREA (SF) MINIMUM	43,560	38,471	38,471	E/N
LOT WIDTH (FEET) MINIMUM	150	193.26/167.87	193.26/167.87	N
LOT FRONTAGE (FEET) MINIMUM	150	211.43	211.43	N
FLOOR AREA RATIO (FAR) MAXIMUM	NR	-	-	-
BUILDING HEIGHT (STORIES) MAXIMUM	2 1/2	2	2	N
BUILDING HEIGHT (FEET) MAXIMUM	35	23	23	N
FRONT YARD MIN. DEPTH (CLARK ST)	30	68.5	55	N
SIDE YARD DEPTH (FEET - WEST SIDE)	15	103.8	103.8	N
SIDE YARD DEPTH (FEET - EAST SIDE)	15	126.8	125.8	N
REAR YARD DEPTH (FOREST ST)	30	44.45	31.9	N

FOOTNOTES TO TABLE
1.
2.
3. * - E/N - Existing Nonconforming

drt architecture interiors planning

Design Resource Team, LLC
546 East Broadway
Boston, MA 02127
617.804.6117
info@drt.boston
www.drt.boston

Client
Kevin Grimes
12 Clarke Road, Needham MA, 02492

Architect
Design Resource Team, LLC.
546 East Broadway, Boston, MA 02127

Surveyor
DeCelle-Burke-Sala & Associates, Inc
1266 Furnace Brook Parkway #401
Quincy, MA 02169
jburke@decellegroup.com

Structural Engineer
Scott Forest
scott@foreststructural.com

REGISTERED ARCHITECT NICHOLAS LANDRY No. 51043 BOSTON MASSACHUSETTS COMMONWEALTH OF MASSACHUSETTS

No.	Description	Date

KEVIN GRIMES

12 CLARKE RD

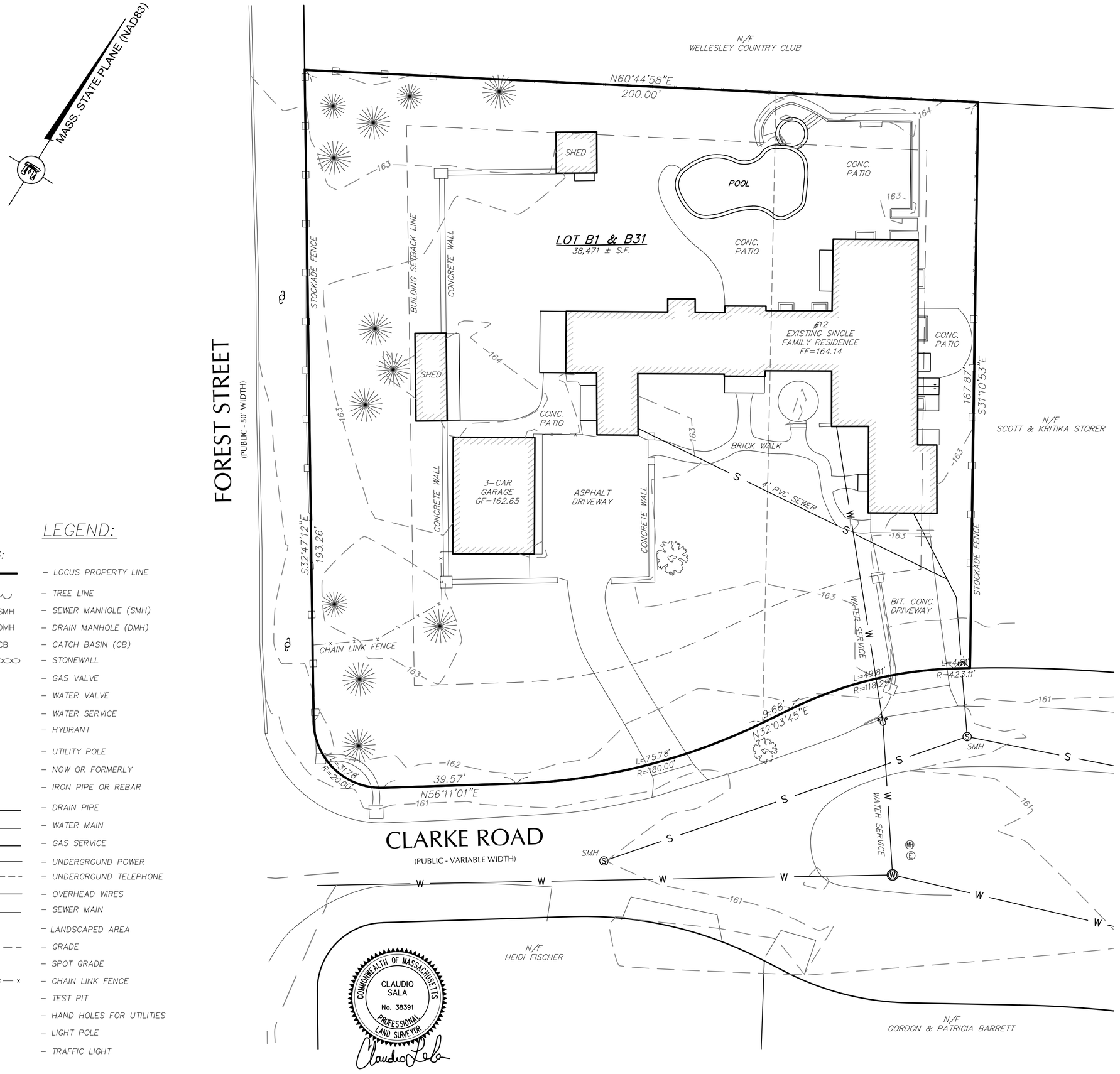
COVER

Project number	222044
Date	09.27.2022
Drawn by	NC
Checked by	NPL

A000

10/3/2022 4:15:39 PM

C:\Users\NickCarvello\Design Resource Team, LLC\Active Projects - Documents\222044-12 Clark Rd\BIM\12 Clark Rd.(OLD).rvt



LEGEND:

EXISTING:

- LOCUS PROPERTY LINE
- TREE LINE
- Ⓢ X–SMH – SEWER MANHOLE (SMH)
- Ⓓ X–DMH – DRAIN MANHOLE (DMH)
- X–CB – CATCH BASIN (CB)
- STONEWALL
- GV – GAS VALVE
- WV – WATER VALVE
- WATER SERVICE
- HYDRANT
- UTILITY POLE
- N/F – NOW OR FORMERLY
- IRON PIPE OR REBAR
- D – DRAIN PIPE
- W – WATER MAIN
- G – GAS SERVICE
- E – UNDERGROUND POWER
- UNDERGROUND TELEPHONE
- OHW – OVERHEAD WIRES
- S – SEWER MAIN
- LSA – LANDSCAPED AREA
- 280 – GRADE
- x6.1 – SPOT GRADE
- CHAIN LINK FENCE
- TEST PIT
- HAND HOLES FOR UTILITIES
- LIGHT POLE
- TRAFFIC LIGHT

DeCelle-Burke-Sala & Associates, Inc.
1266 Furnace Brook Parkway #401
Quincy, MA 02169
617-405-5100 (o) 617-405-5101 (f)
www.decelle-burke-sala.com

GENERAL NOTES:

1. LOCUS:

ASSESSORS ID: MAP 113 BLOCK 0013
RECORD OWNER: KEVIN T. & ELIZABETH J. GRIMES
DEED REFERENCE: CERTIFICATE #182208
PLAN REFERENCE: LAND COURT 9652D & 96500

2. THIS PLAN IS THE RESULT OF AN ON THE GROUND SURVEY PERFORMED BY THIS OFFICE IN AUGUST 2022. ELEVATIONS SHOWN REFER TO NAVD–88

3. EXISTING UTILITIES WHERE SHOWN IN THE DRAWINGS ARE FROM SURFACE OBSERVATION AND RECORD INFORMATION AND SHOULD BE CONSIDERED APPROXIMATE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROPERLY LOCATING AND COORDINATING THE PROPOSED CONSTRUCTION ACTIVITY WITH DIG–SAFE AND THE APPLICABLE UTILITY COMPANIES AND MAINTAINING THE EXISTING UTILITY SYSTEM IN SERVICE.

DIG–SAFE SHALL BE NOTIFIED PER THE STATE OF MASSACHUSETTS STATUTE CHAPTER 82, SECTION 409 AT TEL. 1–888–344–7233. THE ENGINEER DOES NOT GUARANTEE THEIR ACCURACY OR THAT ALL UTILITIES AND SUBSURFACE STRUCTURES ARE SHOWN. LOCATIONS AND ELEVATIONS OF UNDERGROUND UTILITIES WERE TAKEN FROM RECORD PLANS. THE CONTRACTOR SHALL VERIFY SIZE, LOCATION, AND INVERTS OF UTILITIES AND STRUCTURES AS REQUIRED PRIOR TO THE START OF CONSTRUCTION.

4. THE LOT SHOWN DOES NOT LIE WITHIN A SPECIAL FLOOD HAZARD ZONE AS DELINEATED ON FIRM 25021C–0017E, DATED JULY 17, 2012.

5. PARCEL IS ZONED SINGLE RESIDENCE A.

MIN. LOT AREA = 43,560 S.F.
MIN. LOT WIDTH = 150 FT.
MIN. LOT FRONTAGE = 150 FT.
MAX. F.A.R. = NR
MAX. BUILDING HEIGHT = 2.5 STORIES OR 35 FT.
MAX. LOT COVERAGE = NR
MIN. FRONT YARD = 30 FT.
MIN. SIDE YARD = 15 FT.
MIN. REAR YARD = 15 FT.+

PROJECT TITLE & LOCATION:

SITE PLAN
12 CLARKE ROAD
NEEDHAM, MA

PLAN TITLE:

EXISTING CONDITIONS

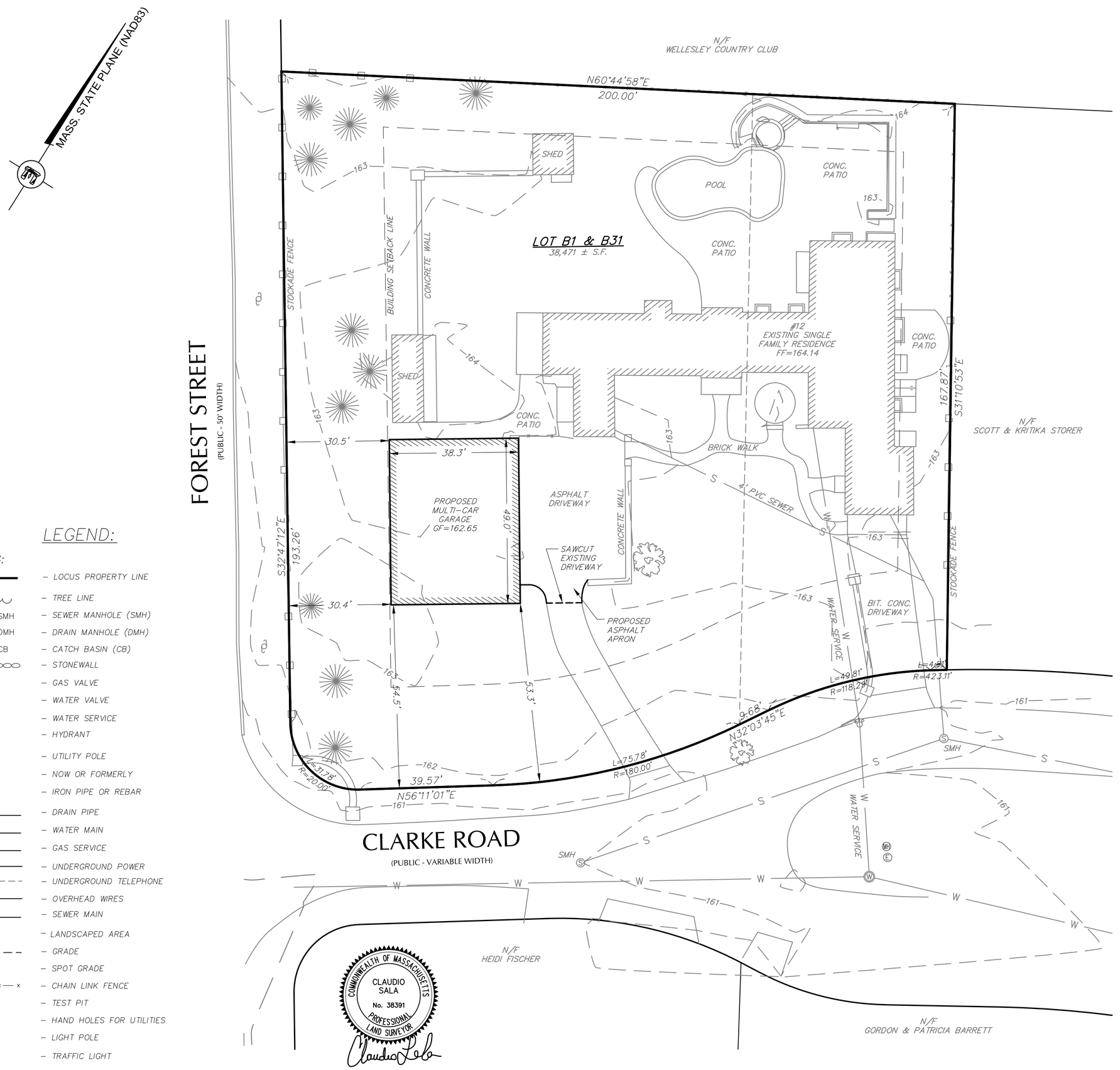
PREPARED FOR:

DESIGN RESOURCE TEAM
NICK CARVELLO
546 E. BROADWAY
BOSTON, MA 02127

DATE: SEPTEMBER 22, 2020
REVISED:
REVISED:
REVISED:
REVISED:

JOB NUMBER: 2022.053 | SHEET 1 OF 1

20 10 0 20 40
SCALE: 1" = 20'



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2. THIS PLAN IS THE RESULT OF AN ON THE GROUND SURVEY PERFORMED BY THIS OFFICE IN AUGUST 2022. ELEVATIONS SHOWN REFER TO NAVD-88

3. EXISTING UTILITIES WHERE SHOWN IN THE DRAWINGS ARE FROM SURFACE OBSERVATION AND RECORD INFORMATION AND SHOULD BE CONSIDERED APPROXIMATE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROPERLY LOCATING AND COORDINATING THE PROPOSED CONSTRUCTION ACTIVITY WITH DIG-SAFE AND THE APPLICABLE UTILITY COMPANIES AND MAINTAINING THE EXISTING UTILITY SYSTEM IN SERVICE.

DIG-SAFE SHALL BE NOTIFIED PER THE STATE OF MASSACHUSETTS STATUTE CHAPTER 82, SECTION 409 AT TEL. 1-888-344-7233. THE ENGINEER DOES NOT GUARANTEE THEIR ACCURACY OR THAT ALL UTILITIES AND SUBSURFACE STRUCTURES ARE SHOWN. LOCATIONS AND ELEVATIONS OF UNDERGROUND UTILITIES WERE TAKEN FROM RECORD PLANS. THE CONTRACTOR SHALL VERIFY SIZE, LOCATION, AND INVERTS OF UTILITIES AND STRUCTURES AS REQUIRED PRIOR TO THE START OF CONSTRUCTION.

4. THE LOT SHOWN DOES NOT LIE WITHIN A SPECIAL FLOOD HAZARD ZONE AS DELINEATED ON FIRM 25021C-0017E, DATED JULY 17, 2012.

5. PARCEL IS ZONED SINGLE RESIDENCE A.

MIN. LOT AREA = 43,560 S.F.
MIN. LOT WIDTH = 150 FT.
MIN. LOT FRONTAGE = 150 FT.
MAX. F.A.R. = NR
MAX. BUILDING HEIGHT = 2.5 STORIES OR 35 FT.
MAX. LOT COVERAGE = NR
MIN. FRONT YARD = 30 FT.
MIN. SIDE YARD = 15 FT.
MIN. REAR YARD = 15 FT.

6. PROPOSED GARAGE LOCATION AND SIZED SCALED FROM DESIGN RESOURCES TEAM ARCHITECTURAL PLAN SHEET A102 DATED JUNE 28, 2022. OFFSET MEASUREMENTS SHOWN TO GARAGE FOUNDATION.

PROJECT TITLE & LOCATION:

SITE PLAN
12 CLARKE ROAD
NEEDHAM, MA

PLAN TITLE:

PROPOSED GARAGE LAYOUT

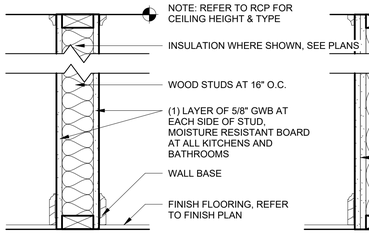
PREPARED FOR:

DESIGN RESOURCE TEAM
NICK CARVELLO
546 E. BROADWAY
BOSTON, MA 02127

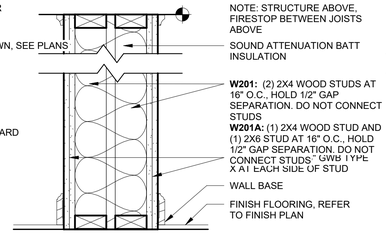
DATE: SEPTEMBER 22, 2020
REVISED:
REVISED:
REVISED:
REVISED:

JOB NUMBER: 2022.053 | SHEET 1 OF 1

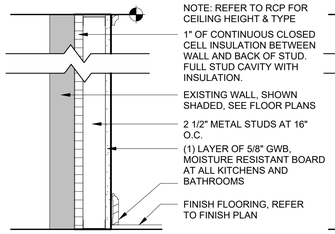
20 10 0 20 40
SCALE: 1" = 20'



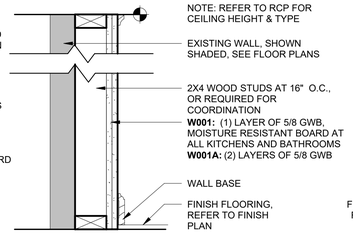
W011: TYPICAL PARTITION - 2X4 STUD
W011A: TYPICAL PARTITION - 2X6 STUD



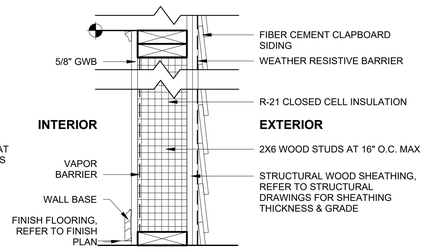
W201: TYPICAL PARTITION - (2)2X4 STUD
W201A: TYPICAL PARTITION - (1)2X4&(1)2X6 STUD



M001: TYPICAL FURRING PARTITION AT EXISTING EXTERIOR WALLS



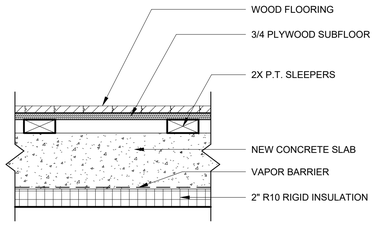
W001: WOOD FURRING PARTITION WITH 2X4 STUDS AT EXISTING PARTY WALLS
W001A: WOOD FURRING PARTITION WITH 2X4 STUDS AT EXISTING PARTY WALLS - (2) LAYERS GWB



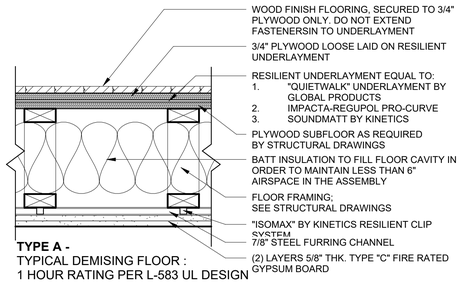
W301: 2X6 WOOD STUD @ 16 O.C.
W/ FIBER CEMENT CLAPBOARD SIDING

1. SEE FLOOR PLANS FOR PARTITION TAGS AND LOCATIONS.
2. SEE FLOOR PLANS FOR LOCATIONS OF SOUND INSULATION.
3. PARTITION TYPE DETAILS SHOW ONLY PRINCIPLE COMPONENTS AND REQUIREMENTS; RATED PARTITIONS WITH U.L. DESIGN NUMBERS MAY HAVE ADDITIONAL COMPONENTS AND REQUIREMENTS; REFER TO U.L. FIRE RESISTANCE DIRECTORY.
4. RATED PARTITIONS SHALL HAVE U.L. HEAD DESIGNS, SEALANT, AND FILL MATERIAL OF THE SAME RATING.
5. ALL THROUGH-WALL PENETRATIONS MUST BE COMPLETED TO PREVENT DIRECT CONTACT WITH FRAMING MEMBERS AND SHALL BE ACOUSTICALLY SEALED WITH A RESILIENT, NON-HARDENING CAULK. IF THE PENETRATION IS THOUGH A FIRE-RATED PARTITION, AN ACOUSTICAL FIRE-RATED CAULK SHALL BE USED.
6. SEE SPECIFICATIONS AND STRUCTURAL DRAWINGS FOR REINFORCING, BRACING AND OTHER SPECIAL REQUIREMENTS.
7. PROVIDE LATERAL BRACING AND CROSS-BRIDGING AS RECOMMENDED BY STUD MANUFACTURER FOR EACH CONDITION
8. COORDINATE FINISHES APPLIED TO PARTITIONS AS INDICATED IN THE FINISH SCHEDULE, INTERIOR ELEVATIONS AND ELSEWHERE IN THE CONTRACT DOCUMENTS.
9. PROVIDE BLOCKING AT LOCATIONS INCLUDING BUT NOT LIMITED TO CASEWORK, SHELVING, COUNTERS, CABINETS, DOOR STOPS, HANDRAIL BRACKETS, TELEVISION LOCATIONS, BATHROOM ACCESSORIES, ETC. WHERE INDICATED, SPECIFIED OR REQUIRED TO PROVIDE A SOLID BASE.
10. SUBSTITUTE MOISTURE-RESISTANT GYPSUM BOARD AT ALL BATHROOMS AND LAUNDRY ROOMS.
11. WHERE TWO OR MORE LAYERS OF GYPSUM BOARD ARE USED, BOTH HORIZONTAL AND VERTICAL JOINTS SHALL BE STAGGERED.
12. FIBER INSULATION SHOULD BE UN-FACED AND SECURED TO STRUCTURE TO PREVENT SAGGING.

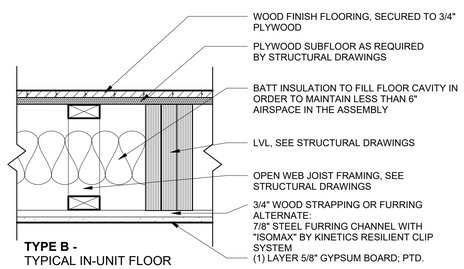
WALL TYPES



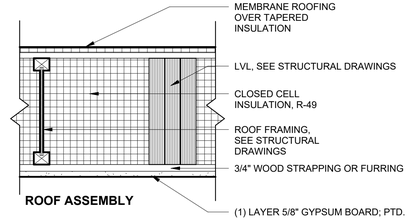
NEW BASEMENT FLOOR



TYPE A -
TYPICAL DEMISING FLOOR :
1 HOUR RATING PER L-583 UL DESIGN

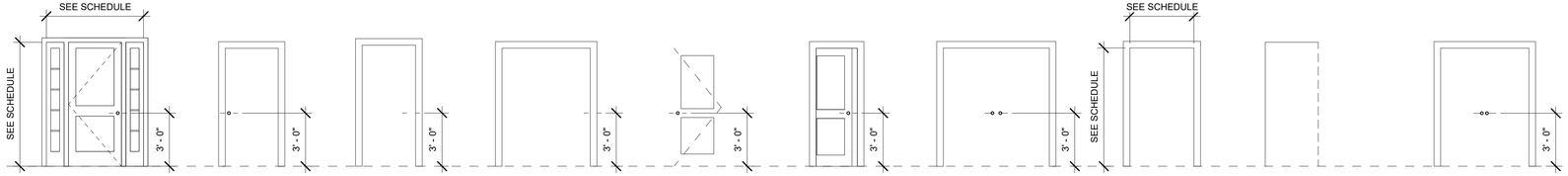


TYPE B -
TYPICAL IN-UNIT FLOOR ASSEMBLY



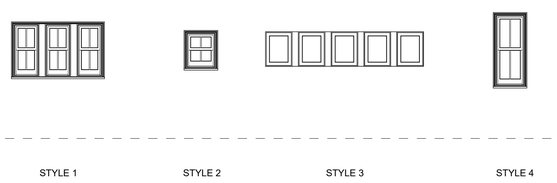
ROOF ASSEMBLY

FLOOR ASSEMBLIES



DOOR NUMBER	LOCATION	DOOR NOMINAL SIZE WIDTH	HEIGHT	THICKNESS
1-A	GARAGE	3' - 0"	7' - 0"	0' - 1 3/4"
1-B	GARAGE	8' - 0"	8' - 0"	
2-A	GYM	9' - 0"	7' - 0"	0' - 8"
3-A	STORAGE	6' - 0 3/4"	6' - 10"	0' - 1 3/4"
4-A	BATHROOM	2' - 6"	6' - 8"	0' - 1 1/2"

DOOR STYLES



WINDOW SCHEDULE

Manufacturer	Type Mark	Width	Height	Sill Height	Count
Marvin Windows and Doors	1	4' - 11 3/4"	2' - 11 1/2"	4' - 0"	2
Marvin Windows and Doors	2	1' - 8"	2' - 0"	4' - 2"	2
Marvin Windows and Doors	3	8' - 10"	1' - 11 1/4"	0' - 4"	3
Marvin Windows and Doors	4	1' - 8"	4' - 0"	2' - 10"	2
Grand total: 9					

WINDOW STYLES

drt architecture interiors planning

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546 East Broadway
Boston, MA 02127
617.804.6117
info@d-r-t.co
www.d-r-t.co

REGISTERED ARCHITECT
NICHOLAS LANDRY
No. 51043
BOSTON
MASSACHUSETTS
COMMONWEALTH OF MASSACHUSETTS

No.	Description	Date

KEVIN GRIMES

12 CLARKE RD

BUILDING INFORMATION

Project number	222044
Date	09.27.2022
Drawn by	
Checked by	NPL

A002

Scale: As indicated

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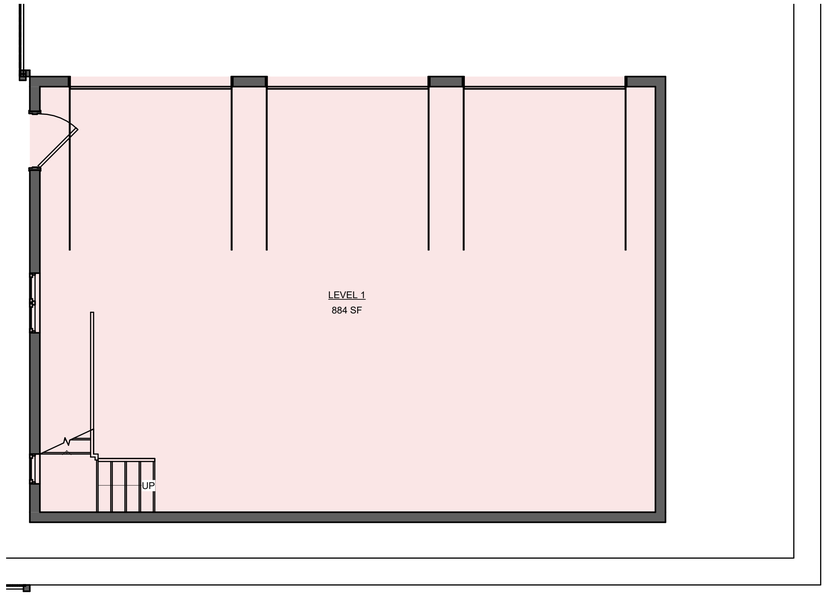
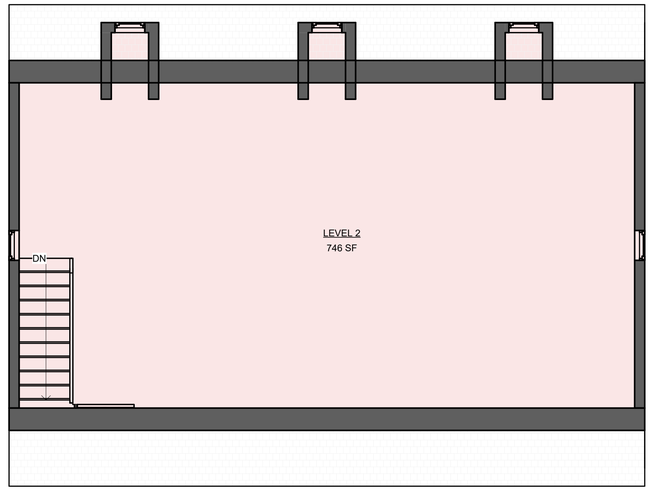


1 Level 1
1/4" = 1'-0"



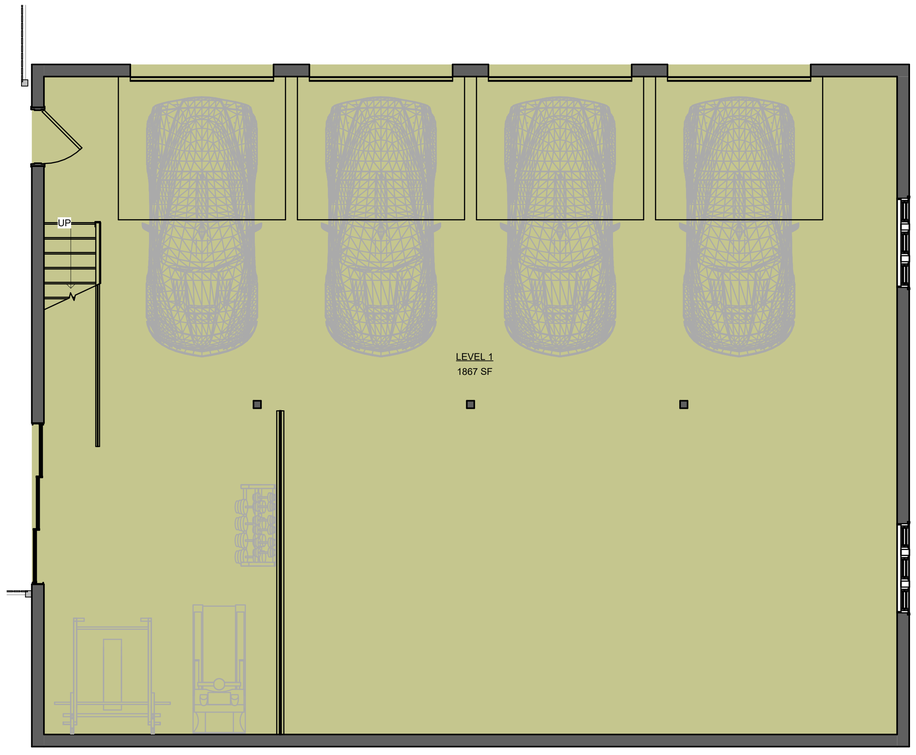
2 Level 2
1/4" = 1'-0"

Existing Gross Building

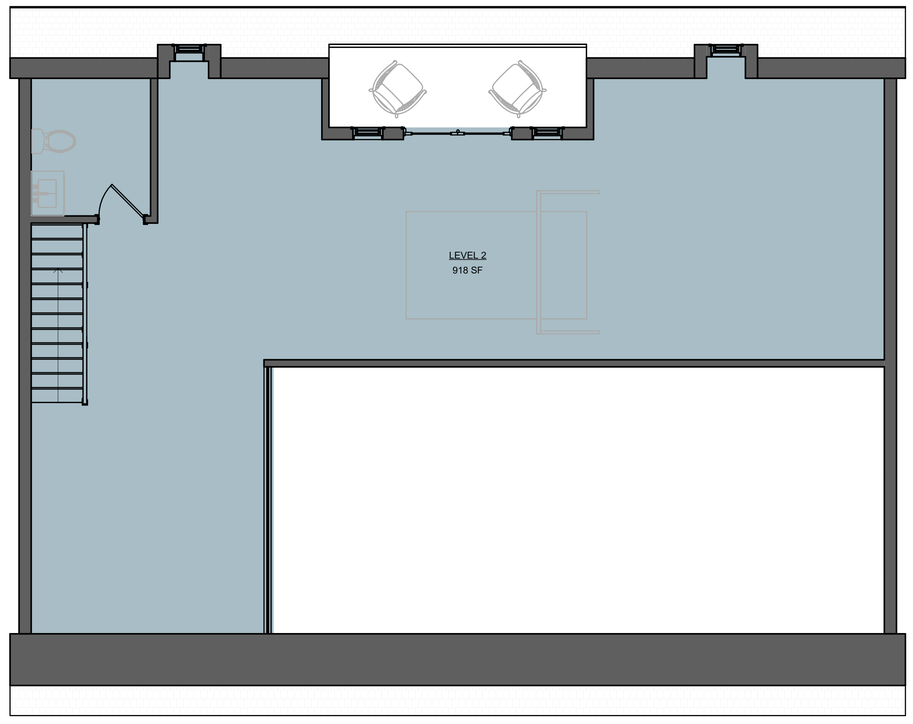
Name	Area
LEVEL 1	884 SF
LEVEL 2	746 SF
	1630 SF

Proposed Gross Building

Name	Area
LEVEL 1	1867 SF
LEVEL 2	918 SF
	2785 SF



3 Level 1
1/4" = 1'-0"



4 Level 2
1/4" = 1'-0"

0' 4' 8' 16' 32'

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NICHOLAS LANORD
No. 51043
BOSTON
MASSACHUSETTS
COMMONWEALTH OF MASSACHUSETTS

No.	Description	Date

KEVIN GRIMES

12 CLARKE RD

BUILDING INFORMATION

Project number	222044
Date	09.27.2022
Drawn by	
Checked by	NPL

A003

Scale 1/4" = 1'-0"

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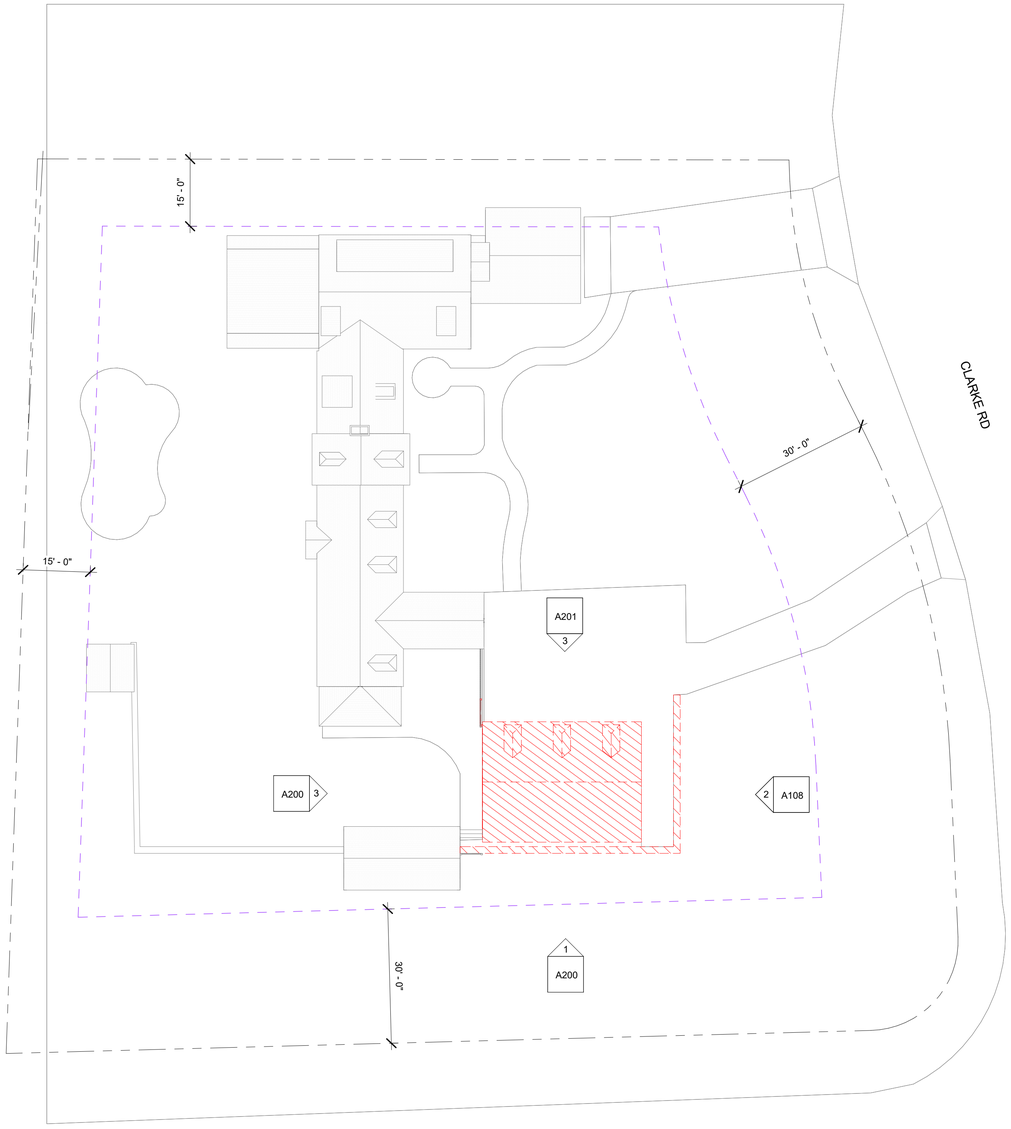
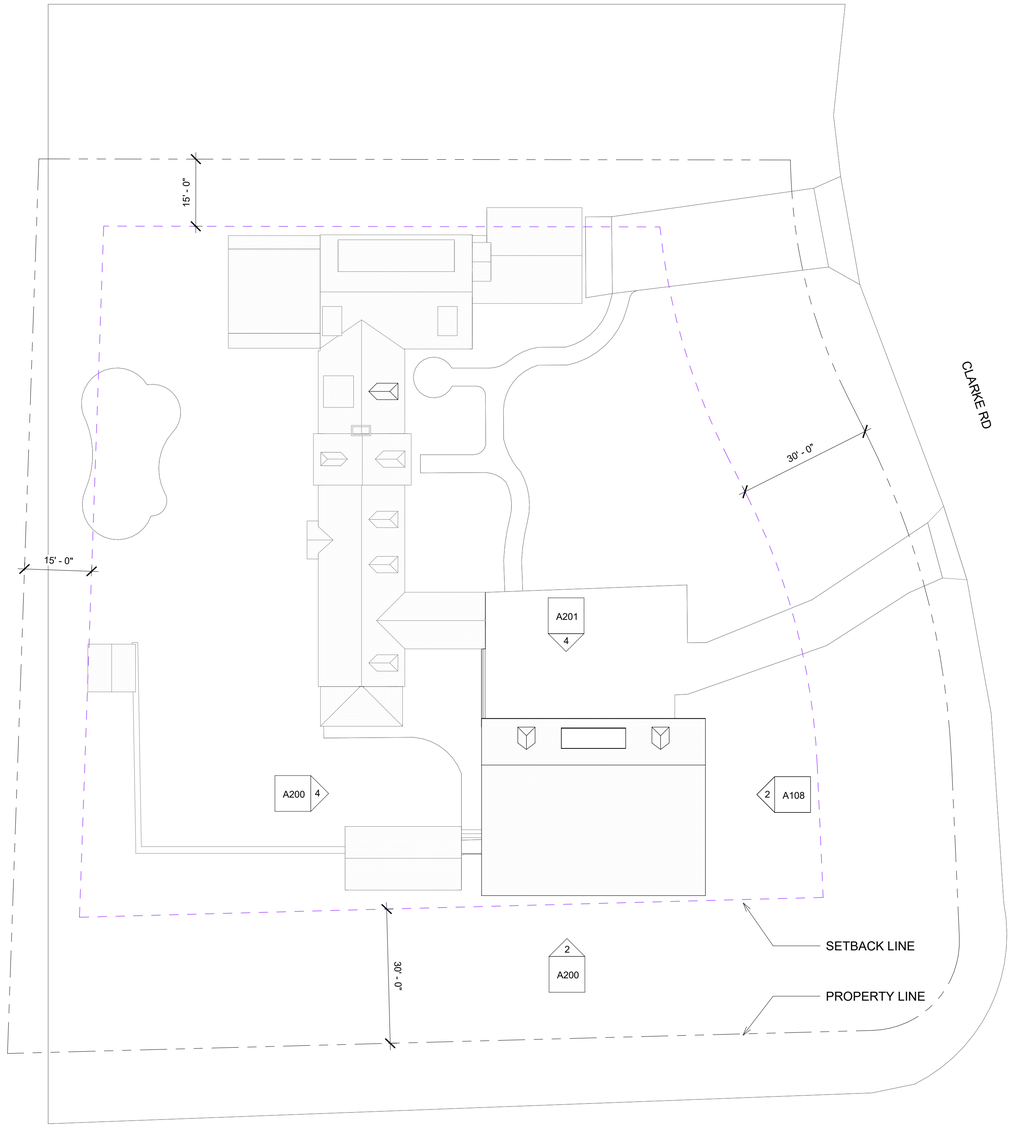


FOREST STREET

1 Site - Existing/Demo
1/16" = 1'-0"



FOREST STREET

2 Site - Proposed
1/16" = 1'-0"

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REGISTERED ARCHITECT
NICHOLAS LANDRY
No. 51043
BOSTON,
MASSACHUSETTS
COMMONWEALTH OF MASSACHUSETTS

No.	Description	Date

KEVIN GRIMES

12 CLARKE RD

ARCH SITE PLAN - PROPOSED

Project number	222044
Date	09.27.2022
Drawn by	
Checked by	NPL

A010

Scale 1/16" = 1'-0"

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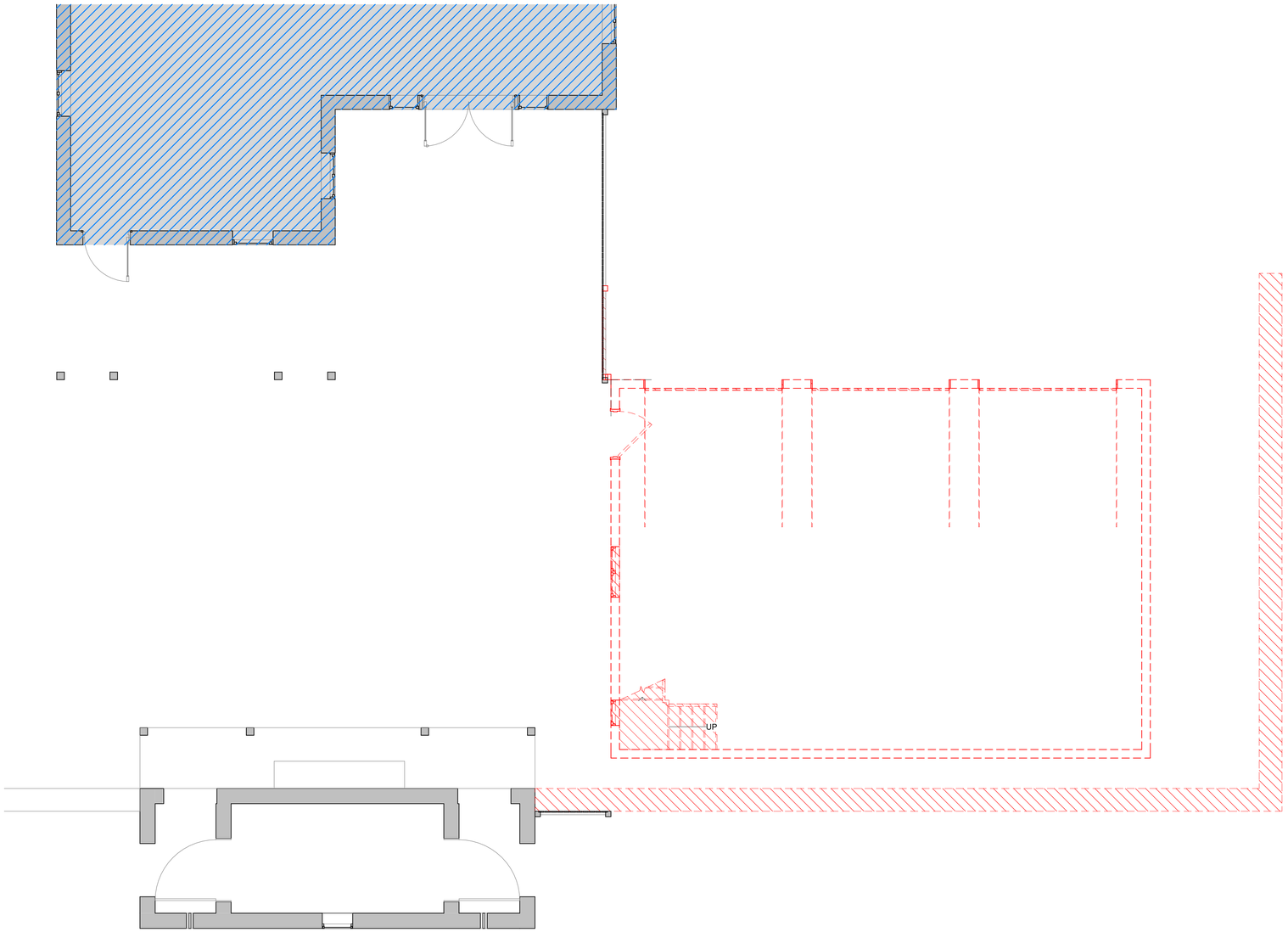

1 Level 1 - Existing/Demo
1/4" = 1'-0"

GENERAL NOTES

1. WHEN SPECIFIC FEATURES OF CONSTRUCTION ARE NOT FULLY SHOWN ON THE DRAWINGS OR CALLED FOR IN THE GENERAL NOTES, THEIR CONSTRUCTION SHALL BE OF THE SAME CHARACTER AS SIMILAR CONDITIONS.
2. ALL DIMENSIONS ARE TO BE TAKEN FROM NUMERIC DESIGNATIONS ONLY; DIMENSIONS ARE NOT TO BE SCALED OFF THE DRAWINGS.
3. ALL GYPSUM BOARD SURFACES ARE TO BE 5/8" THICK UNLESS OTHERWISE NOTED.
4. ALL GYPSUM AND PLASTER FINISHES SHOULD BE SMOOTH, CONTINUOUS, FREE OF IMPERFECTIONS, AND HAVE NO VISIBLE JOINTS.
5. PROVIDE GAS, WATER SPIGOT, OUTLET, AND LIGHTING AT ROOF DECKS.
6. ALL CLOSETS SHALL HAVE SHELF AND POLE OR SHELVES AS REQUIRED, UNLESS OTHERWISE NOTED.
7. ALL REQUIRED LIFE SAFETY DEVICES, INCLUDING SMOKE & CARBON MONOXIDE DETECTORS, SHALL BE INSTALLED BY THE CONTRACTOR IN COMPLIANCE WITH THE 2015 INTERNATIONAL BUILDING CODE

PLAN NOTES

1. WALL DIMENSIONS ARE MEASURED FROM FACE OF EXIST. WALL TO C.L. OF NEW WALL, UNLESS OTHERWISE NOTED.
2. ALL DOORS ARE 80" TALL UNLESS OTHERWISE NOTED.

MECHANICAL | SECURITY NOTES

1. PROVIDE 5.1 AUDIO WIRING FOR LIVING ROOM AND MASTER BEDROOMS; FOR NUMBER AND LOCATION, SEE REFLECTED CEILING PLANS.
2. PROVIDE NEST LEARNING THERMOSTAT AT EACH UNIT. (ZONING PER FLOOR LEVEL IN DUPLEX UNITS)
3. HEATING AND AIR CONDITIONING IS TO BE PROVIDED BY HIGH VELOCITY FORCED AIR SPACE PAK HIGH VELOCITY AIR CONDITIONING SYSTEMS WITH HYDRONIC HEATING.
4. HOT WATER IS TO BE PROVIDED BY A HIGH EFFICIENCY NAVIEN MODULATING CONDENSING COMBINATION HEATING AND HOT WATER SYSTEM OR EQUAL.
5. HARD WIRED SECURITY SYSTEM SHALL BE PROVIDED AT EACH UNIT; CONTACTS SHALL BE PLACED AT EXTERIOR DOORS AND WINDOWS WITH ONE MOTION DETECTOR PER UNIT.

ELECTRICAL NOTES

1. ELECTRICAL SERVICE POWER IS TO BE EVALUATED FOR MEETING LIGHTING DESIGN AND EQUIPMENT REQUIREMENTS. PROPER POWER LEVEL SHALL BE PROVIDED.
2. ALL NEW ELECTRICAL ITEMS ARE TO BE U.L. RATED.
3. ALL ELECTRICAL PANELS ARE TO BE RECESSED INTO A WALL WITH A MINIMUM 6" STUD DIMENSION. REVIEW FINAL LOCATION WITH ARCHITECT AND OWNER.
4. ALL DISTRIBUTION PANELS ARE TO BE NEW.
5. LIVING AREAS, DINING AREAS, AND ALL BEDROOM ARE TO RECEIVE 3-WIRE JUNCTION BOXES.
6. PROVIDE ELECTRIC HEAT MATS BY NUHEAT OR EQUAL AT ALL BATHROOMS.
7. ALL CLOSET LIGHTING IS TO BE HIGH EFFICIENCY LIGHTING.
8. OUTLETS IN BATHROOMS SHALL HAVE GROUND FAULT INTERCEPTORS.
9. ALL SMOKE DETECTORS SHALL RECEIVE THEIR PRIMARY SOURCE OF POWER FROM BUILDING WIRING WITH BATTERY BACK-UP.
10. ALL DIMENSIONS FOR THE FOLLOWING ITEMS ARE TO FINISH SURFACES UNLESS OTHERWISE NOTED:
    - A. MOUNT ALL OUTLETS, PHONE JACKS, AND TELEVISION CABLE JACKS VERTICALLY AT 18" TO CENTERLINE ABOVE THE FINISH FLOOR UNLESS OTHERWISE NOTED. WHERE BASE AND TRIM IS LARGER THAN 9-1/2" TALL PROVIDE 6" CLEARANCE FROM BOTTOM OF PLATE TO TOP OF BASEBOARD TRIM.
    - B. MOUNT ALL SWITCHES AT 42" TO CENTERLINE ABOVE FINISH FLOOR UNLESS OTHERWISE NOTED.
    - C. VERTICALLY ALIGN SWITCHES AND OUTLETS WHERE POSSIBLE.

DEMO/PROPOSED PLAN GRAPHIC KEY

- EXISTING WALL TO REMAIN
- NEW WALL/INFILL
- AREA NOT IN CONTRACT
- DEMOLISHED BUILDING ELEMENT
- DEMOLISHED FLOOR FINISH/CEILING

TRIPLE DASHED RED LINE INDICATES REQUIRED (2) HOUR FIRE RESISTANCE RATED SEPARATION, UL NO. U314 AT WALLS AND UL NO. L501 AT CEILING

FIRST FLOOR LIVING SPACE

Name	Area
LEVEL 1	1867 SF
	1867 SF

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REGISTERED ARCHITECT
NICHOLAS LANDRY
No. 31043
BOSTON
MASSACHUSETTS
COMMONWEALTH OF MASSACHUSETTS

No.	Description	Date

KEVIN GRIMES

12 CLARKE RD

LEVEL 1 - DEMO

Project number	222044
Date	09.27.2022
Drawn by	NC
Checked by	NPL

A101

Scale As indicated

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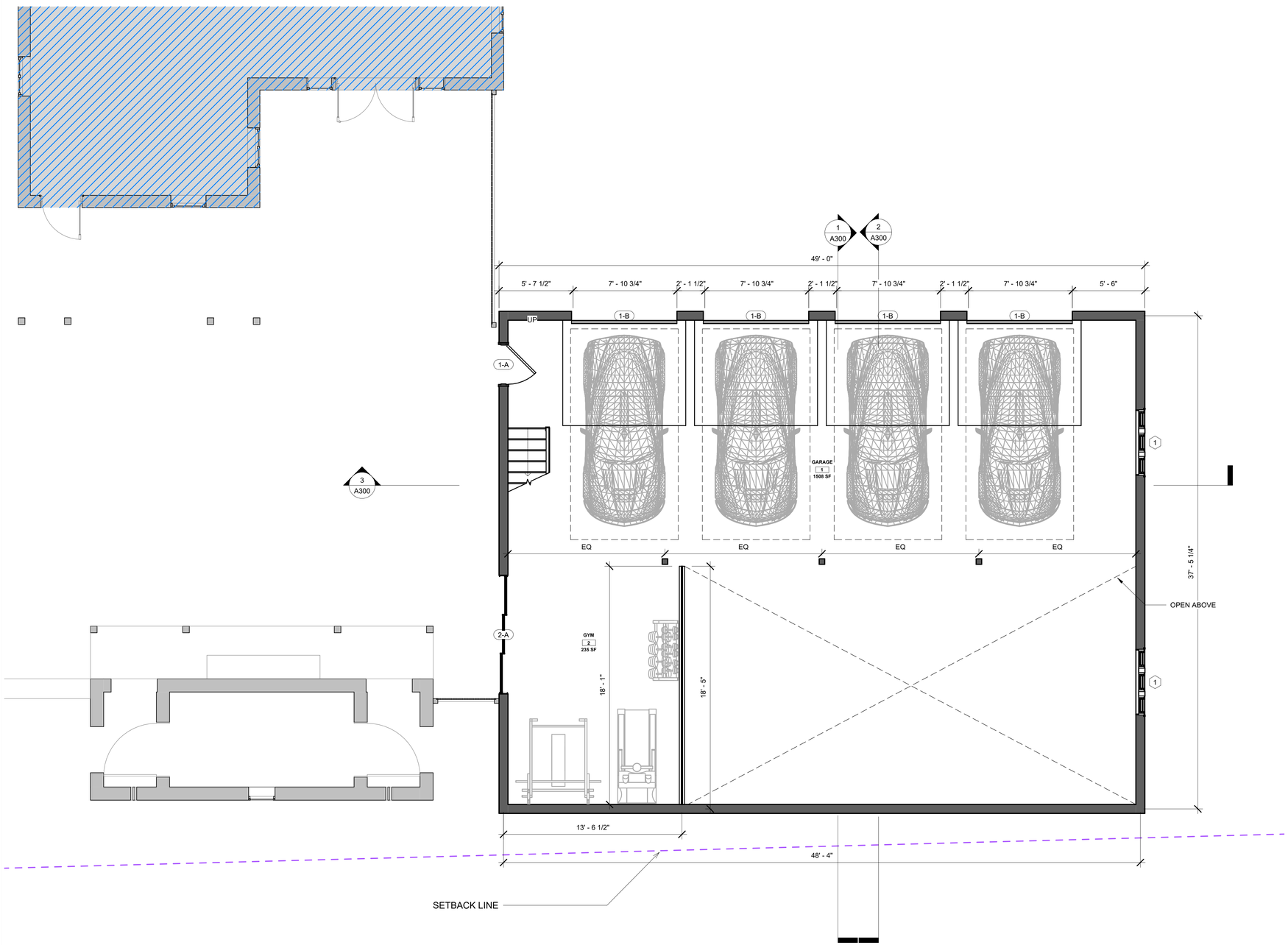

1 Level 1 - Proposed
1/4" = 1'-0"

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    - A. MOUNT ALL OUTLETS, PHONE JACKS, AND TELEVISION CABLE JACKS VERTICALLY AT 18" TO CENTERLINE ABOVE THE FINISH FLOOR UNLESS OTHERWISE NOTED. WHERE BASE AND TRIM IS LARGER THAN 9-1/2" TALL PROVIDE 6" CLEARANCE FROM BOTTOM OF PLATE TO TOP OF BASEBOARD TRIM.
    - B. MOUNT ALL SWITCHES AT 42" TO CENTERLINE ABOVE FINISH FLOOR UNLESS OTHERWISE NOTED.
    - C. VERTICALLY ALIGN SWITCHES AND OUTLETS WHERE POSSIBLE.

DEMO/PROPOSED PLAN GRAPHIC KEY

- EXISTING WALL TO REMAIN
- NEW WALL/INFILL
- AREA NOT IN CONTRACT
- DEMOLISHED BUILDING ELEMENT
- DEMOLISHED FLOOR FINISH/CEILING

TRIPLE DASHED RED LINE INDICATES REQUIRED (2) HOUR FIRE RESISTANCE RATED SEPARATION, UL NO. U314 AT WALLS AND UL NO. L501 AT CEILING

SECOND FLOOR LIVING SPACE

Name	Area
LEVEL 2	918 SF
	918 SF

drt architecture interiors planning

Design Resource Team, LLC
546 East Broadway
Boston, MA 02127
617.804.6117
info@d-r-t.co
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REGISTERED ARCHITECT – NICHOLAS LANDRY – No. 51043 BOSTON, MASSACHUSETTS – COMMONWEALTH OF MASSACHUSETTS

No.	Description	Date

KEVIN GRIMES

12 CLARKE RD

LEVEL 1 - PROPOSED

Project number	222044
Date	09.27.2022
Drawn by	
Checked by	NPL

A102

Scale: As indicated

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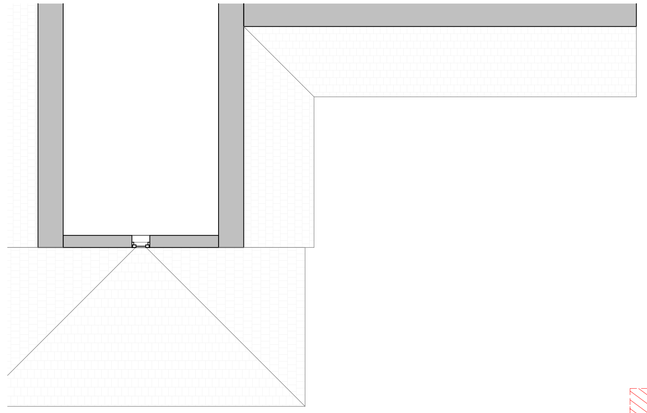

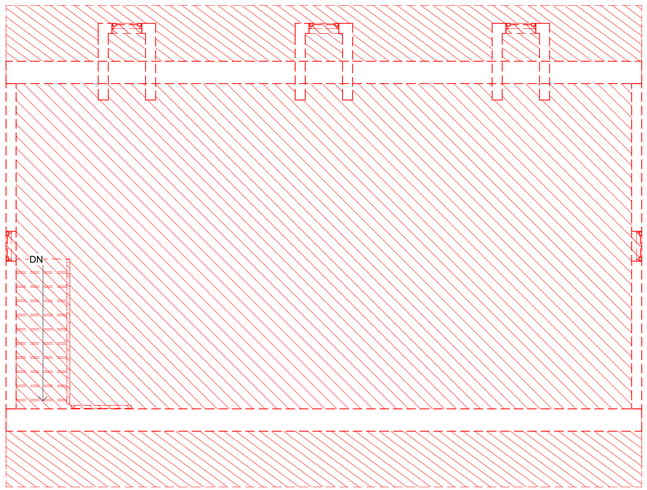

1 Level 2 - Existing/Demo
1/4" = 1'-0"

GENERAL NOTES

1. WHEN SPECIFIC FEATURES OF CONSTRUCTION ARE NOT FULLY SHOWN ON THE DRAWINGS OR CALLED FOR IN THE GENERAL NOTES, THEIR CONSTRUCTION SHALL BE OF THE SAME CHARACTER AS SIMILAR CONDITIONS.
2. ALL DIMENSIONS ARE TO BE TAKEN FROM NUMERIC DESIGNATIONS ONLY; DIMENSIONS ARE NOT TO BE SCALED OFF THE DRAWINGS.
3. ALL GYPSUM BOARD SURFACES ARE TO BE 5/8" THICK UNLESS OTHERWISE NOTED.
4. ALL GYPSUM AND PLASTER FINISHES SHOULD BE SMOOTH, CONTINUOUS, FREE OF IMPERFECTIONS, AND HAVE NO VISIBLE JOINTS.
5. PROVIDE GAS, WATER SPIGOT, OUTLET, AND LIGHTING AT ROOF DECKS.
6. ALL CLOSETS SHALL HAVE SHELF AND POLE OR SHELVES AS REQUIRED, UNLESS OTHERWISE NOTED.
7. ALL REQUIRED LIFE SAFETY DEVICES, INCLUDING SMOKE & CARBON MONOXIDE DETECTORS, SHALL BE INSTALLED BY THE CONTRACTOR IN COMPLIANCE WITH THE 2015 INTERNATIONAL BUILDING CODE

PLAN NOTES

1. WALL DIMENSIONS ARE MEASURED FROM FACE OF EXIST. WALL TO C.L. OF NEW WALL, UNLESS OTHERWISE NOTED.
2. ALL DOORS ARE 80" TALL UNLESS OTHERWISE NOTED.

MECHANICAL | SECURITY NOTES

1. PROVIDE 5.1 AUDIO WIRING FOR LIVING ROOM AND MASTER BEDROOMS; FOR NUMBER AND LOCATION, SEE REFLECTED CEILING PLANS.
2. PROVIDE NEST LEARNING THERMOSTAT AT EACH UNIT. (ZONING PER FLOOR LEVEL IN DUPLEX UNITS)
3. HEATING AND AIR CONDITIONING IS TO BE PROVIDED BY HIGH VELOCITY FORCED AIR SPACE PAK HIGH VELOCITY AIR CONDITIONING SYSTEMS WITH HYDRONIC HEATING.
4. HOT WATER IS TO BE PROVIDED BY A HIGH EFFICIENCY NAVIEN MODULATING CONDENSING COMBINATION HEATING AND HOT WATER SYSTEM OR EQUAL.
5. HARD WIRED SECURITY SYSTEM SHALL BE PROVIDED AT EACH UNIT; CONTACTS SHALL BE PLACED AT EXTERIOR DOORS AND WINDOWS WITH ONE MOTION DETECTOR PER UNIT.

ELECTRICAL NOTES

1. ELECTRICAL SERVICE POWER IS TO BE EVALUATED FOR MEETING LIGHTING DESIGN AND EQUIPMENT REQUIREMENTS. PROPER POWER LEVEL SHALL BE PROVIDED.
2. ALL NEW ELECTRICAL ITEMS ARE TO BE U.L. RATED.
3. ALL ELECTRICAL PANELS ARE TO BE RECESSED INTO A WALL WITH A MINIMUM 6" STUD DIMENSION. REVIEW FINAL LOCATION WITH ARCHITECT AND OWNER.
4. ALL DISTRIBUTION PANELS ARE TO BE NEW.
5. LIVING AREAS, DINING AREAS, AND ALL BEDROOM ARE TO RECEIVE 3-WIRE JUNCTION BOXES.
6. PROVIDE ELECTRIC HEAT MATS BY NUHEAT OR EQUAL AT ALL BATHROOMS.
7. ALL CLOSET LIGHTING IS TO BE HIGH EFFICIENCY LIGHTING.
8. OUTLETS IN BATHROOMS SHALL HAVE GROUND FAULT INTERCEPTORS.
9. ALL SMOKE DETECTORS SHALL RECEIVE THEIR PRIMARY SOURCE OF POWER FROM BUILDING WIRING WITH BATTERY BACK-UP.
10. ALL DIMENSIONS FOR THE FOLLOWING ITEMS ARE TO FINISH SURFACES UNLESS OTHERWISE NOTED:
    - A. MOUNT ALL OUTLETS, PHONE JACKS, AND TELEVISION CABLE JACKS VERTICALLY AT 18" TO CENTERLINE ABOVE THE FINISH FLOOR UNLESS OTHERWISE NOTED. WHERE BASE AND TRIM IS LARGER THAN 9-1/2" TALL PROVIDE 6" CLEARANCE FROM BOTTOM OF PLATE TO TOP OF BASEBOARD TRIM.
    - B. MOUNT ALL SWITCHES AT 42" TO CENTERLINE ABOVE FINISH FLOOR UNLESS OTHERWISE NOTED.
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DEMO/PROPOSED PLAN GRAPHIC KEY

- EXISTING WALL TO REMAIN
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TRIPLE DASHED RED LINE INDICATES REQUIRED (2) HOUR FIRE RESISTANCE RATED SEPARATION, UL NO. U314 AT WALLS AND UL NO. L501 AT CEILING

THIRD FLOOR LIVING SPACE

Name	Area
LEVEL 2	918 SF
LEVEL 1	1867 SF
	2785 SF

drt architecture interiors planning

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REGISTERED ARCHITECT
NICHOLAS LANDIS
No. 51043
BOSTON,
MASSACHUSETTS
COMMONWEALTH OF MASSACHUSETTS

No.	Description	Date

KEVIN GRIMES

12 CLARKE RD

LEVEL 2 - DEMO

Project number	222044
Date	09.27.2022
Drawn by	
Checked by	NPL

A103

Scale: As indicated

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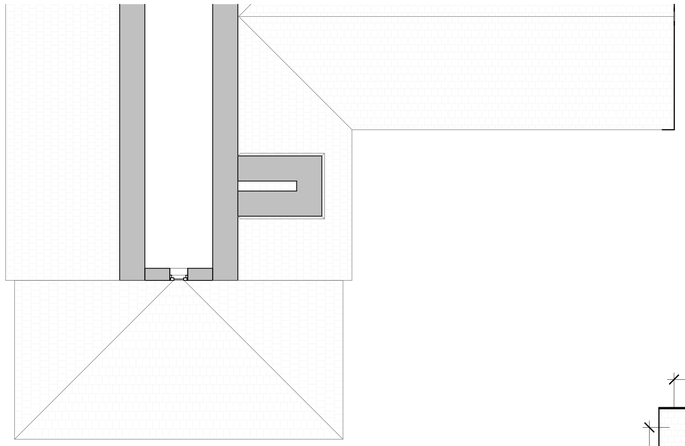

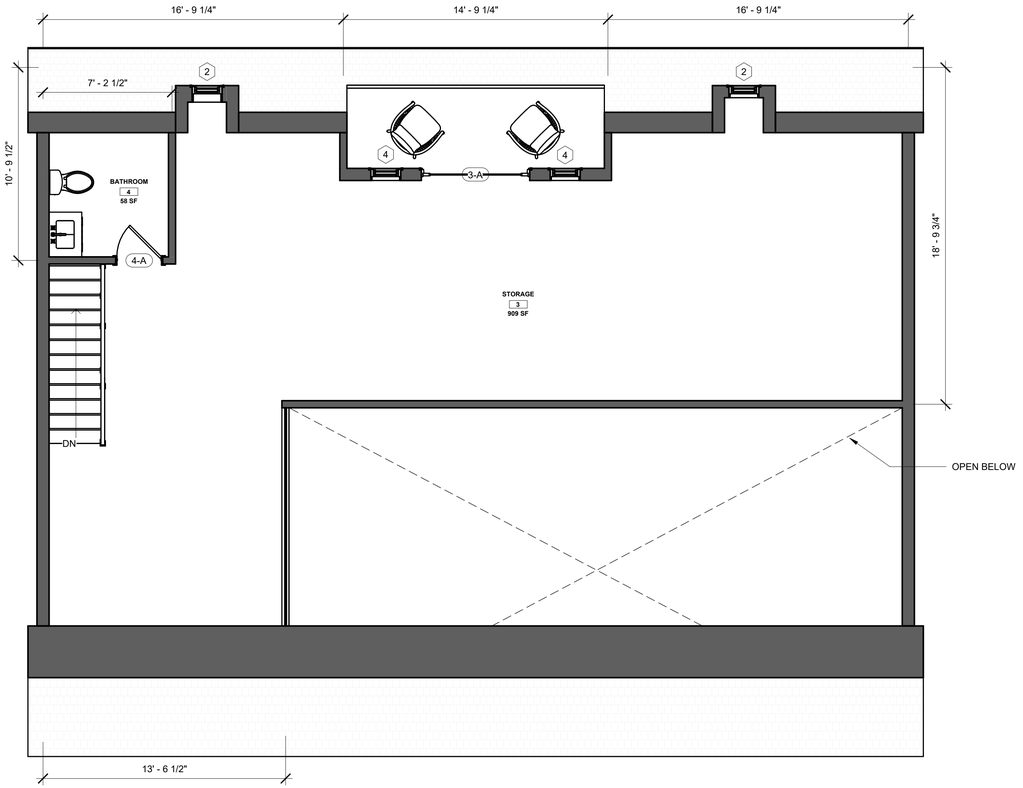

1 Proposed Garage Level 2
1/4" = 1'-0"

GENERAL NOTES

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3. ALL GYPSUM BOARD SURFACES ARE TO BE 5/8" THICK UNLESS OTHERWISE NOTED.
4. ALL GYPSUM AND PLASTER FINISHES SHOULD BE SMOOTH, CONTINUOUS, FREE OF IMPERFECTIONS, AND HAVE NO VISIBLE JOINTS.
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REGISTERED ARCHITECT
NICHOLAS LANDRY
No. 51043
BOSTON,
MASSACHUSETTS
COMMONWEALTH OF MASSACHUSETTS

No.	Description	Date

KEVIN GRIMES

12 CLARKE RD

LEVEL 2 - PROPOSED

Project number	222044
Date	09.27.2022
Drawn by	Author
Checked by	Checker

A104

Scale: As indicated

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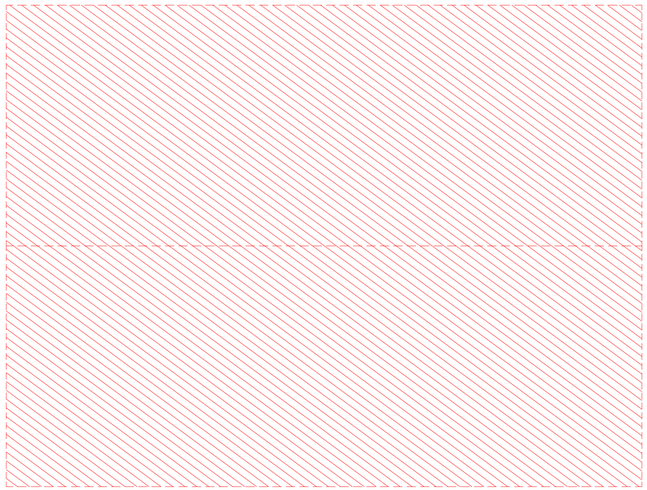
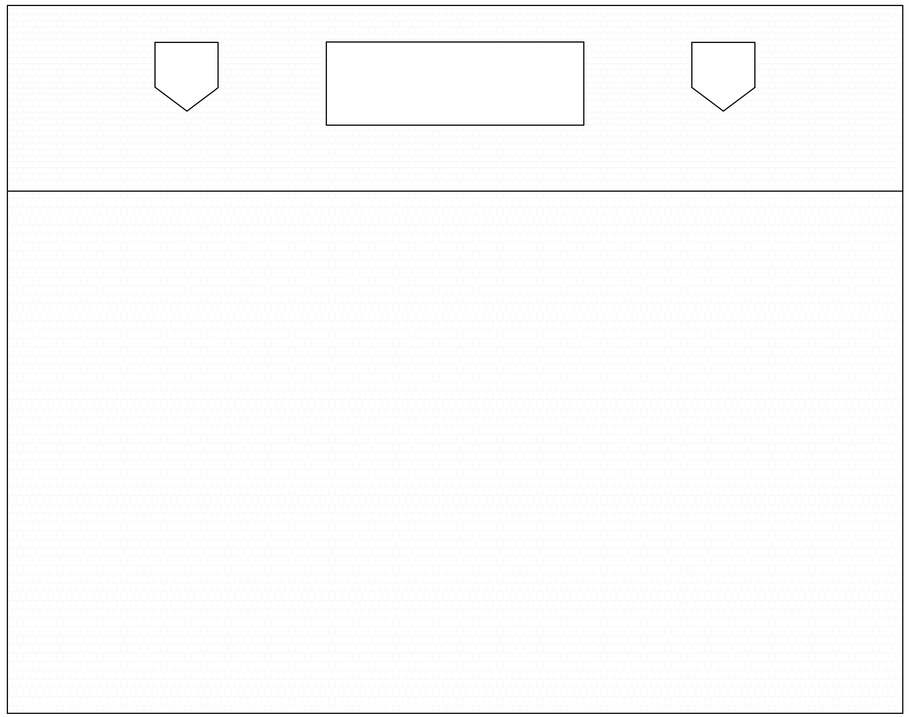


1 Roof - Existing/Demo
1/4" = 1'-0"



2 Roof - Proposed
1/4" = 1'-0"

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drt architecture interiors planning

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REGISTERED ARCHITECT
NICHOLAS LANDRY
No. 51043
BOSTON
MASSACHUSETTS
COMMONWEALTH OF MASSACHUSETTS

No.	Description	Date

KEVIN GRIMES

12 CLARKE RD

ROOF - DEMO/PROPOSED

Project number	222044
Date	09.27.2022
Drawn by	
Checked by	NPL

A105

Scale: As indicated

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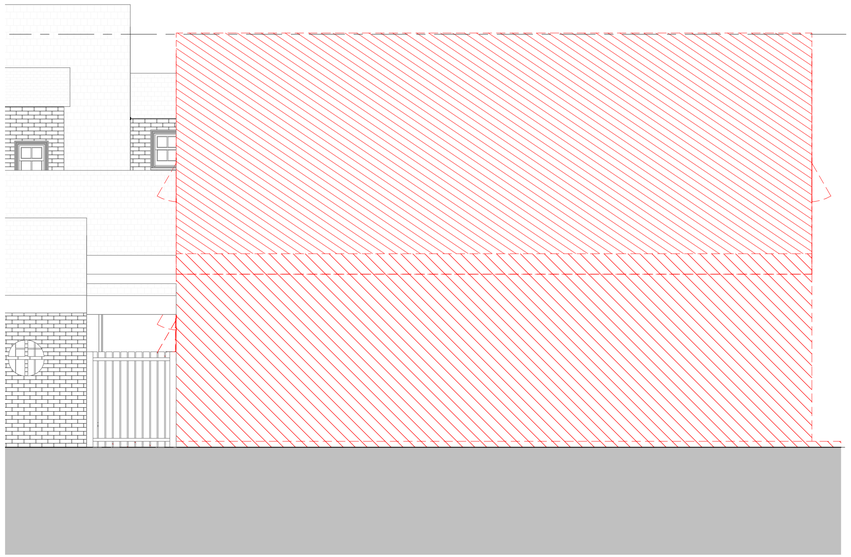
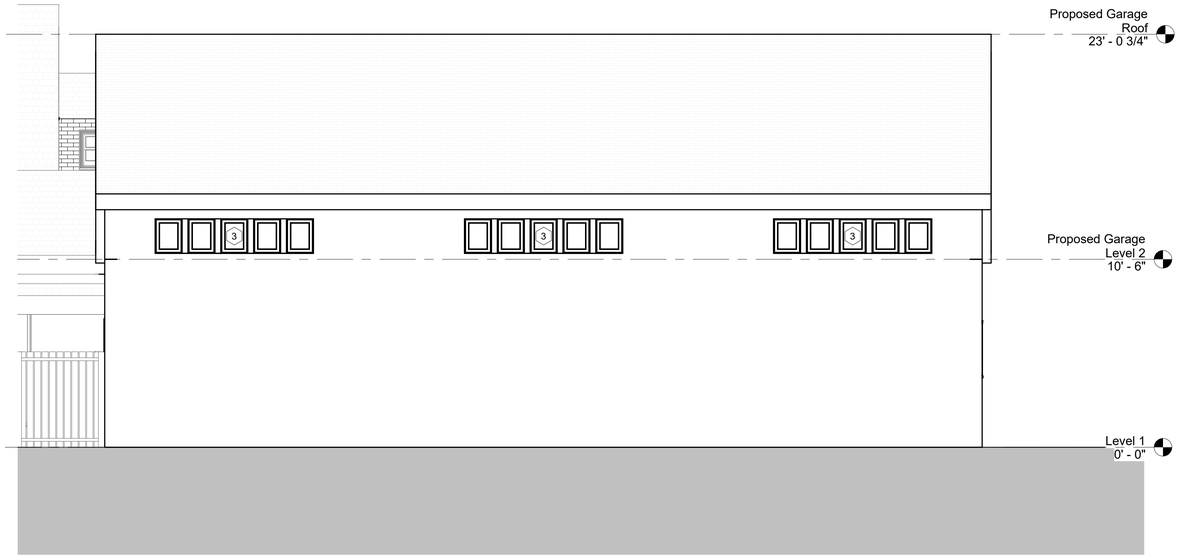
FINISH GRADE NOTE:

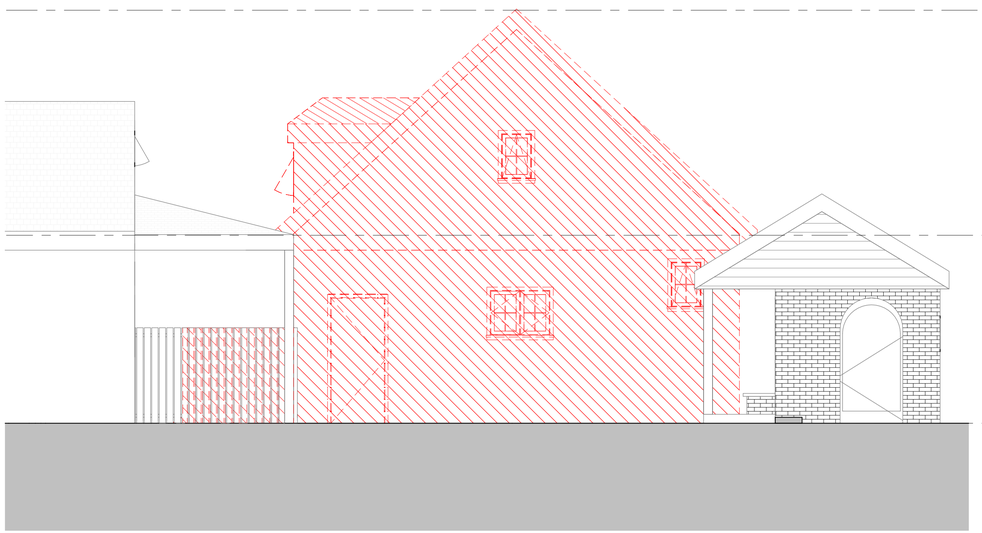
ALL GRADING SHOWN ON THE ELEVATIONS SHALL BY NO MEANS BE ASSUMED AS THE ACTUAL GRADING CONDITIONS AROUND THE BUILDING. REFER TO SITE PLAN PREPARED BY OTHERS FOR FINAL GRADING.



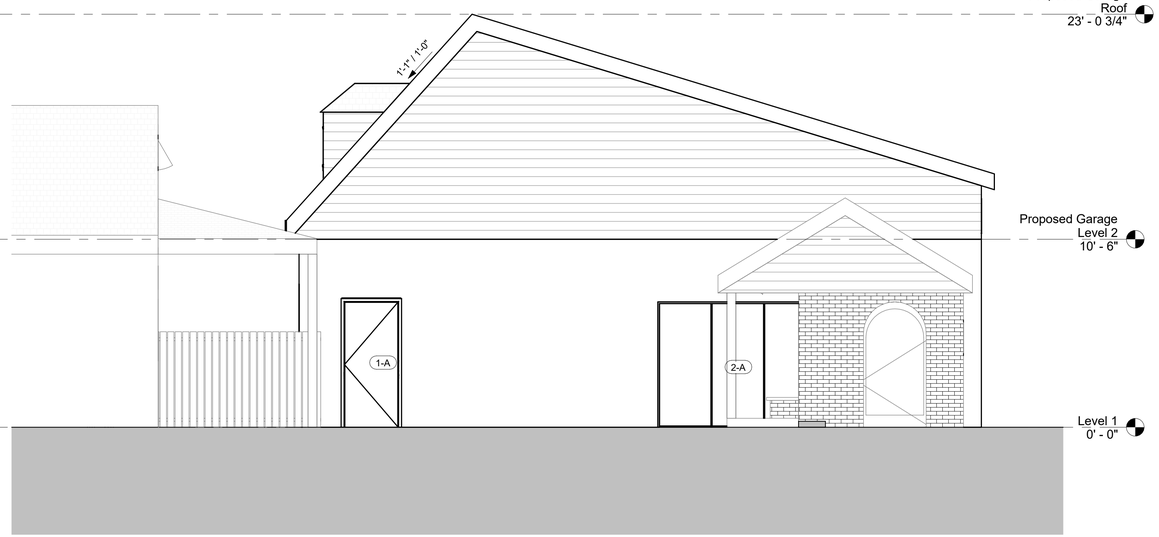
1 South Elevation - Existing/Demo
1/4" = 1'-0"



2 South Elevation - Proposed
1/4" = 1'-0"



3 West Elevation - Existing/Demo
1/4" = 1'-0"



4 West Elevation - Proposed
1/4" = 1'-0"

architecture
interiors
planning

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REGISTERED ARCHITECT
NICHOLAS LANDOLL
No. 51043
BOSTON
MASSACHUSETTS
COMMONWEALTH OF MASSACHUSETTS

No.	Description	Date

KEVIN GRIMES

12 CLARKE RD

ELEVATIONS - DEMO/PROPOSED

Project number	222044
Date	09.27.2022
Drawn by	
Checked by	NPL

A200

Scale	1/4" = 1'-0"

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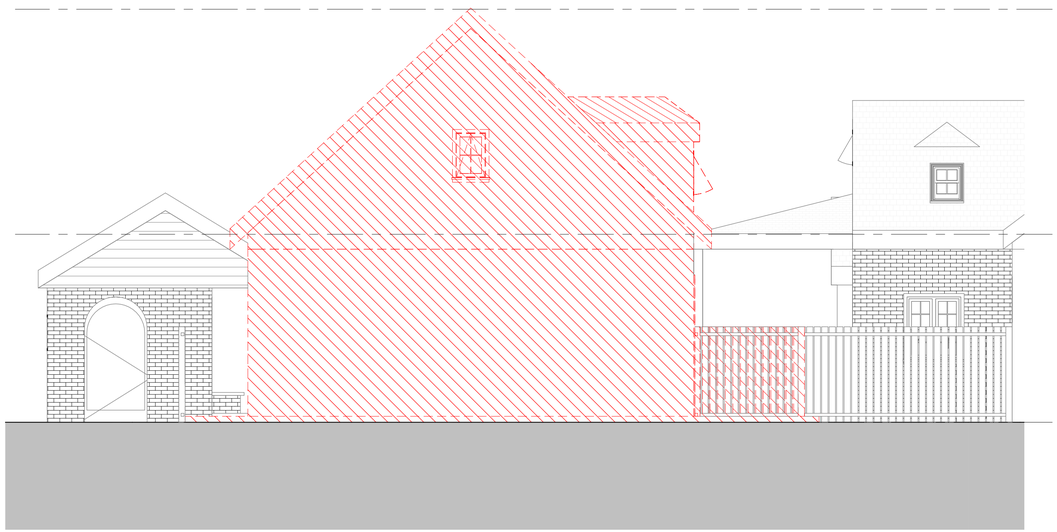
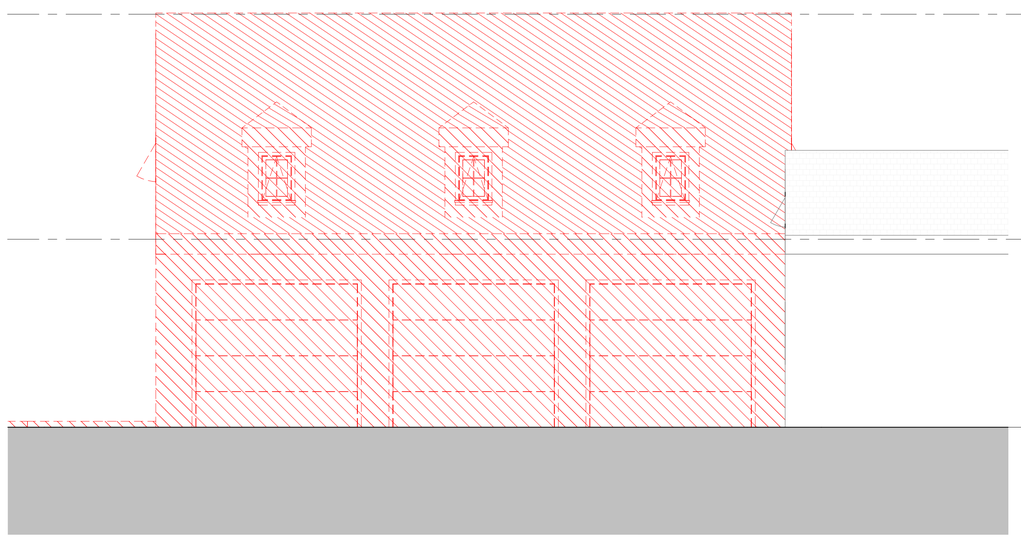
FINISH GRADE NOTE:

ALL GRADING SHOWN ON THE ELEVATIONS SHALL BY NO MEANS BE ASSUMED AS THE ACTUAL GRADING CONDITIONS AROUND THE BUILDING. REFER TO SITE PLAN PREPARED BY OTHERS FOR FINAL GRADING.



1 East Elevation - Existing/Demo
1/4" = 1'-0"

2 East Elevation - Proposed
1/4" = 1'-0"



3 North Elevation - Existing/Demo
1/4" = 1'-0"

4 North Elevation- Proposed
1/4" = 1'-0"

drt architecture interiors planning

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REGISTERED ARCHITECT
NICHOLAS LANDRY
No. 51043
BOSTON
MASSACHUSETTS
COMMONWEALTH OF MASSACHUSETTS

No.	Description	Date

KEVIN GRIMES

12 CLARKE RD

ELEVATIONS - DEMO/PROPOSED

Project number	222044
Date	09.27.2022
Drawn by	
Checked by	NPL

A201

Scale	1/4" = 1'-0"

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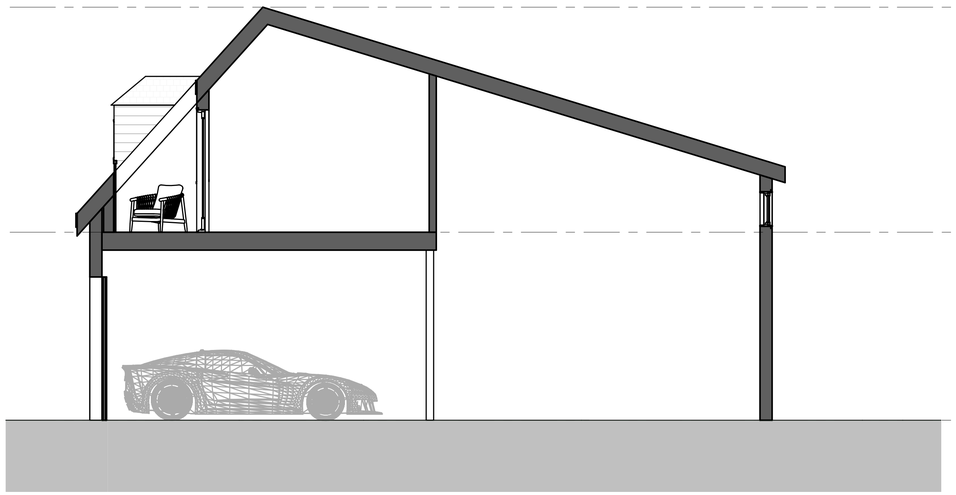
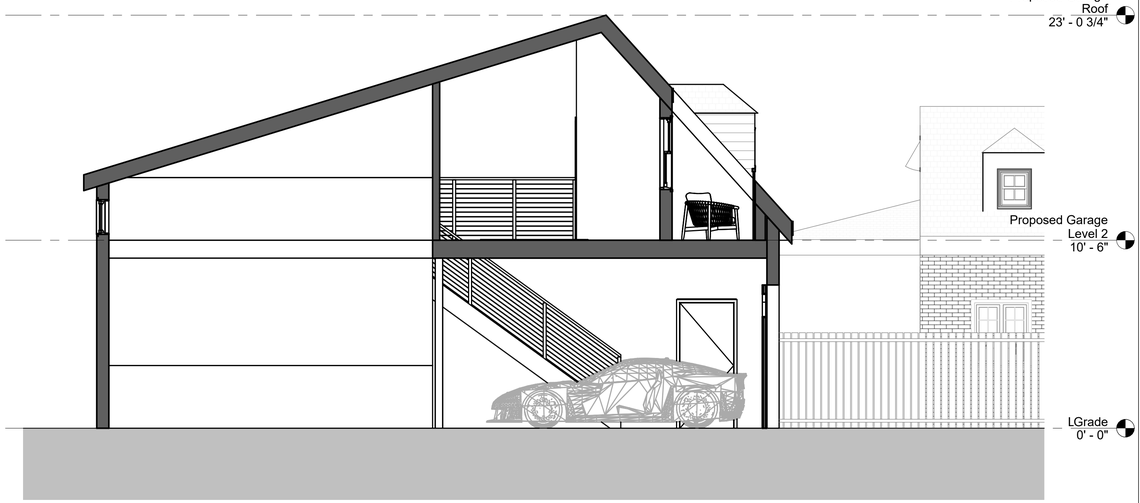
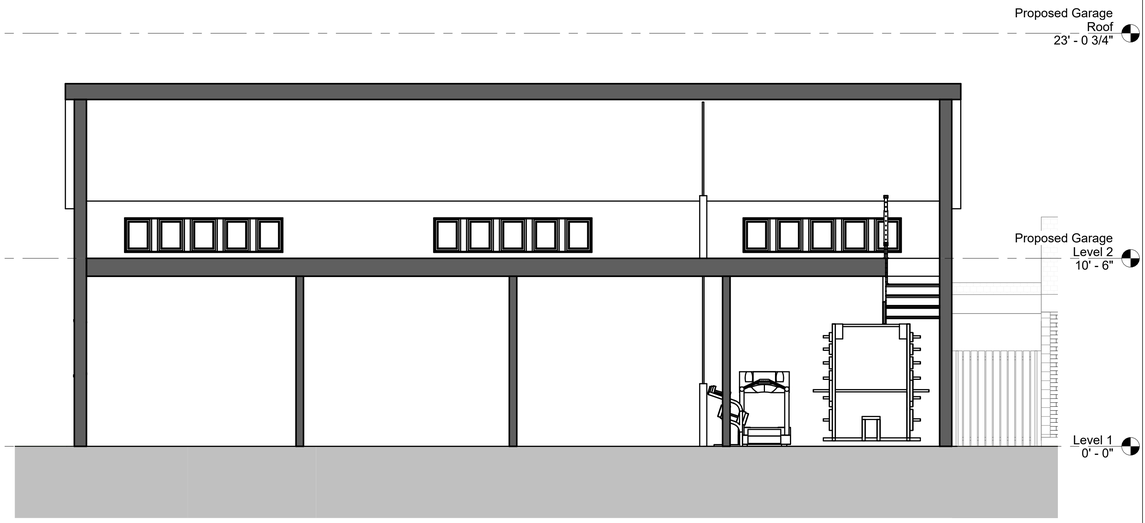


1 Section 6
1/4" = 1'-0"



2 Section 4
1/4" = 1'-0"

3 Section 5
1/4" = 1'-0"



4 Section 7
1/4" = 1'-0"

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REGISTERED ARCHITECT
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No. 51043
BOSTON
MASSACHUSETTS
COMMONWEALTH OF MASSACHUSETTS

No.	Description	Date

KEVIN GRIMES

12 CLARKE RD

BUILDING SECTIONS

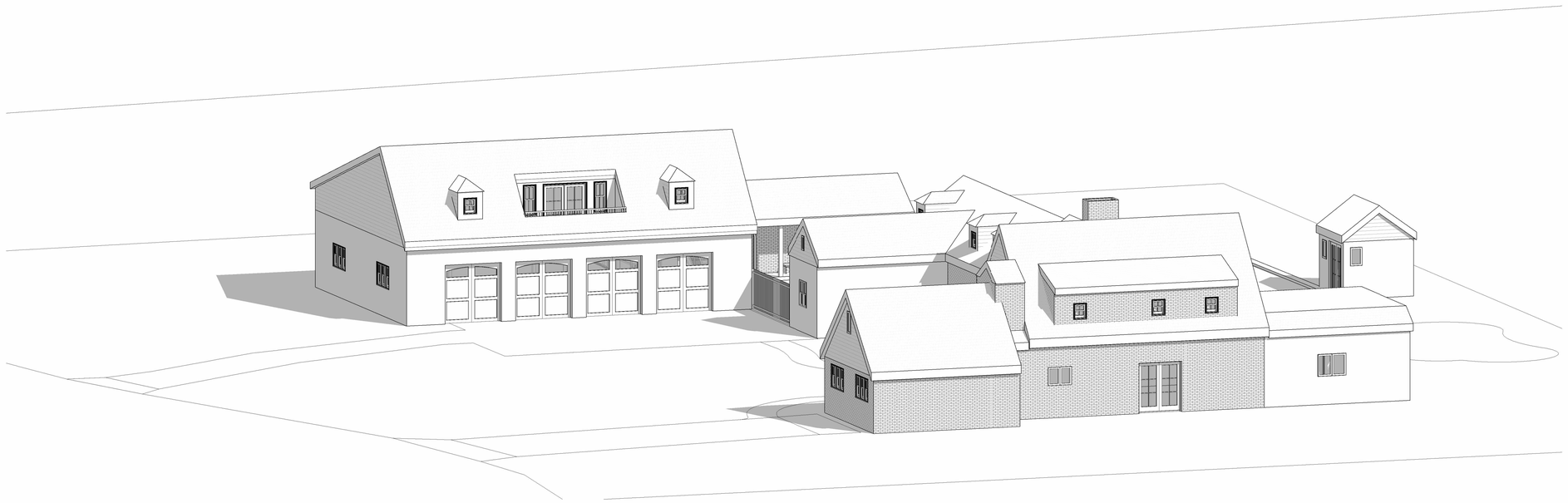
Project number	222044
Date	09.27.2022
Drawn by	
Checked by	NPL

A300

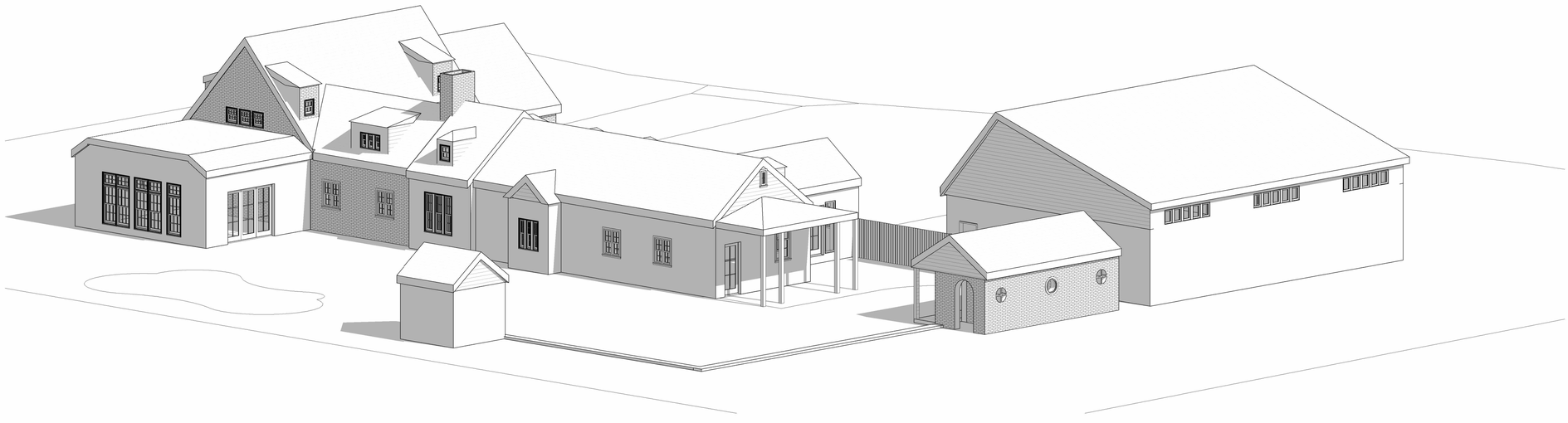
Scale 1/4" = 1'-0"

10/3/2022 4:16:09 PM

C:\Users\NickCarvello\Design Resource Team, LLC\Active Projects - Documents\222044-12 Clark Rd\BIM\12 Clark Rd.(OLD).rvt



1 3D VIEW - Front



2 3D VIEW - Back

drt architecture interiors planning

Design Resource Team, LLC
546 East Broadway
Boston, MA 02127
617.804.6117
info@d-r-t.co
www.d-r-t.co

REGISTERED ARCHITECT
NICHOLAS LANDRY
No. 51043
BOSTON
MASSACHUSETTS
COMMONWEALTH OF MASSACHUSETTS

No.	Description	Date

KEVIN GRIMES

12 CLARKE RD

AXONS

Project number	222044
Date	09.27.2022
Drawn by	
Checked by	NPL

A500

Scale

10/3/2022 4:16:15 PM

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ZBA Application For Hearing

RECEIVED TOWN CLERK
NEEDHAM, MA 02492
2022 OCT 21 AM 11:45

Applicants must consult with the Building Inspector prior to filing this Application. *Failure to do so will delay the scheduling of the hearing.*

Applicant Information

Applicant Name	Eric Carr		Date: 20OCT22
Applicant Address	69 High Street Needham, MA 02494		
Phone	7815409172	email	eric.carr@biogen.com

Applicant is ■Owner; ☐Tenant; ☐Purchaser; ☐Other_____

If not the owner, a letter from the owner certifying authorization to apply must be included

Representative Name	George Giunta Jr.		
Address	281 Chestnut Street Needham, MA 02494		
Phone	6178403570	email	george.giuntajr@needhamlaw.net

Representative is ■Attorney; ☐Contractor; ☐Architect; ☐Other_____

Contact ■Me ■Representative in connection with this application.

Subject Property Information

Property Address	69 High Street Needham, MA 02494		
Map/Parcel Number	64/47	Zone of Property	SRB

Is property within 100 feet of wetlands, 200 feet of stream or in flood Plain?
☐Yes ■No

Is property ■Residential or ☐Commercial

If residential renovation, will renovation constitute "new construction"?
☐Yes ■No

If commercial, does the number of parking spaces meet the By-Law requirement? ☐Yes ☐No
Do the spaces meet design requirements? ☐Yes ☐ No

Application Type (*select one*): ■Special Permit ☐Variance ☐Comprehensive Permit ☐Amendment ☐Appeal Building Inspector Decision

ZBA Application For Hearing

Date Structure Constructed including additions:	Date Lot was created:
c1856, addition in 1984	c1856

Submission Materials	Provided
Certified Signed Plot Plan of Existing and Proposed Conditions *(Required)*	
Application Fee, check made payable to the Town of Needham Check holders name, address, and phone number to appear on check and in the Memo line state: "ZBA Fee – Address of Subject Property" *(Required)*	
If applicant is not the owner, a letter from the owner certifying authorization *(Required)*	
An electronic copy of the application and all submitted materials *(Required)*	
Elevations of Proposed Conditions *(when necessary)*	
Floor Plans of Proposed Conditions *(when necessary)*	

Feel free to attach any additional information relative to the application. Additional information may be requested by the Board at any time during the application or hearing process.

❖❖❖❖

I hereby request a hearing before the Needham Zoning Board of Appeals. I have reviewed the Board Rules and instructions.

I certify that I have consulted with the Building Inspector 13OCT22
date of consult

Date: 20OCT22 Applicant Signature Eric Carr

Digitally signed by Eric Carr
DN: cn=Eric Carr, o=Biogen, ou, email=eric.carr@biogen.com, c=US
Date: 2022.10.20 13:47:33 -04'00'

An application must be submitted to the Town Clerk's Office at townclerk@needhamma.gov and the ZBA Office at dcollins@needhamma.gov

ADU – ZBA Special Permit Application

Owner's Name	Eric Carr					
Address	69 High Street Needham, MA 02494					
Phone	7815409172	E-mail	eric.carr@biogen.com			
ADU Resident's Name	Rick and Barbara Carr					
Phone	7815409172	E-mail	rcc_bbc@yahoo.com			
ADU Resident's Relationship to Owner *(Select one)*	☐spouse ☒parent ☐sibling ☐child ☐grandchild	Spouse of: ☐parent ☐sibling ☐child ☐grandchild	Child of: ☐parent ☐sibling ☐child ☐grandchild	☐Caregiver. If caregiver, select type of caregiver: ☐Elderly ☐Chronically Ill ☐Disable Owner		
Total Occupants in Principal Dwelling Unit and ADU	8	Total Occupants not related to Owner *(not to exceed five*	0	Owner to occupy: ☒Principal Unit ☐ADU		

ADU Information

Map & Page ID	64/47	Zoning District	SRB
Size of ADU *(not to exceed 850 sq. feet)*	849 SF	Location of ADU: ☐basement, ☐attic, ☒1st floor, ☒2nd floor	

Does ADU have separate provisions for *(ADU limited to one bedroom)*:

Living ☒Yes ☐No; Sleeping ☒Yes ☐No; Cooking ☒Yes ☐No; Eating ☒Yes ☐No

Number and location of Means of Egress: 2 - Both via Principal Unit

Describe where the interior door access between ADU and Principal Dwelling Unit is?
First floor hallway, first floor kitchen, and second floor hallway.

Total number of off-street parking for Principal Dwelling Unit and ADU: 6

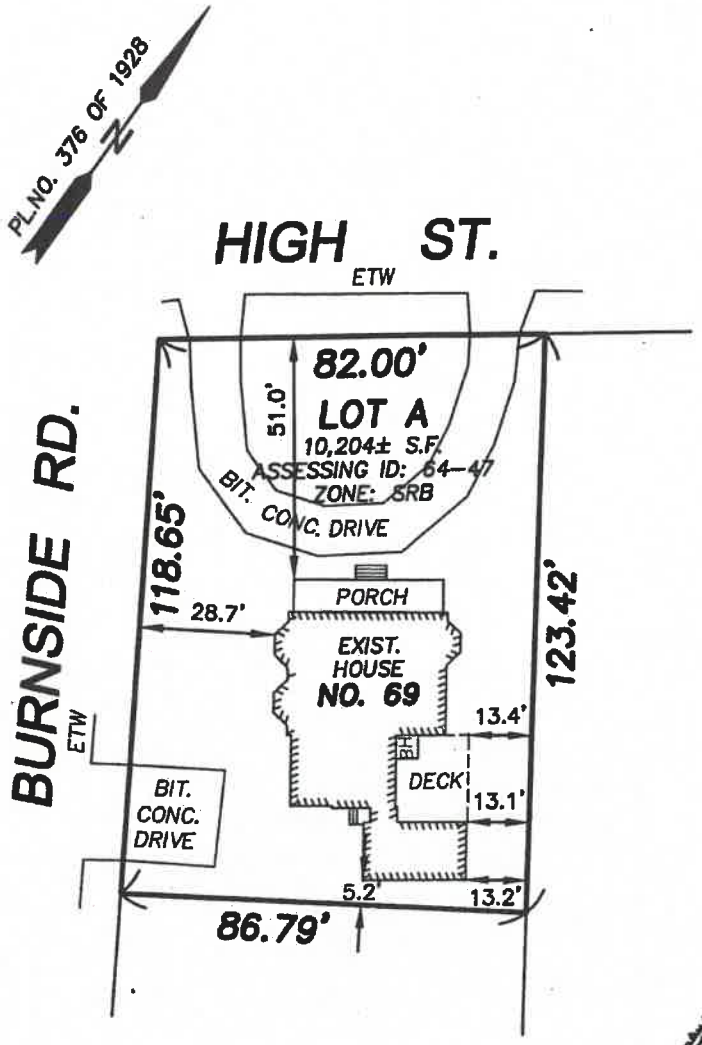
I attest that the information in this application is true and accurate to the best of my knowledge and understanding:

Eric Carr Digitally signed by Eric Carr
DN: cn=Eric Carr, o=Biogen, ou, email=eric.carr@biogen.com, c=US
Date: 2022.10.20 13:48:06 -04'00'

Owner's Signature/Date

(over for Additional Information on ADUs)

)



COMMONWEALTH OF MASSACHUSETTS
STEPHEN E. DAVIS
No. 33993
PROFESSIONAL LAND SURVEYOR

STEPHEN E DAVIS

0 20 40 60 80

GRAPHIC SCALE
1"=40'

I CERTIFY THAT THIS PLAN IS BASED ON AN ACTUAL FIELD SURVEY AND THE LATEST PLANS AND DEEDS OF RECORD.

DATE: 10/6/2021

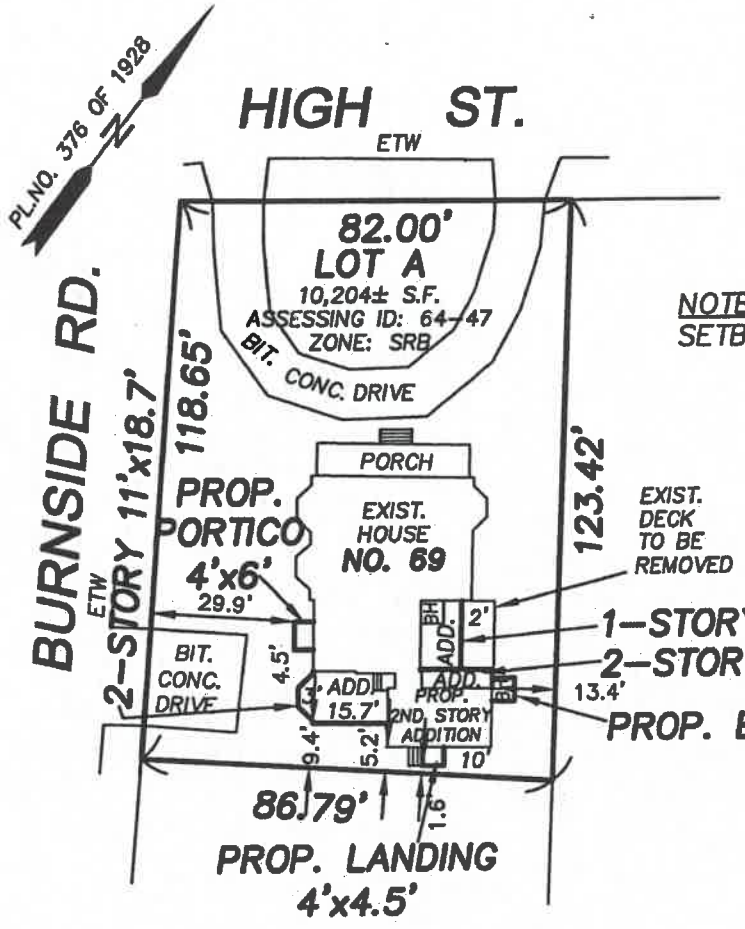
PROJECT # 4631

PLOT PLAN
EXISTING CONDITIONS
69 HIGH ST.
NEEDHAM, MA
AS PREPARED FOR
ERIC CARR

CHENEY ENGINEERING CO., INC.
53 MELLEN STREET
NEEDHAM, MA 02494
TEL. 781-444-2188
admin@cheney-eng.com

ZONE: SRB REQUIREMENTS FOR LOT CREATED PRIOR TO 1/9/1986 NOT NEW CONSTRUCTION

	REQUIRED	EXISTING	PROPOSED
MIN. LOT AREA:	10,000 S.F.	10,204 S.F.	N/A
MIN. FRONTAGE:	80'	200.65'	N/A
MIN. FRONT SETBACK:	20'	28.7'	29.9'
MIN. SIDE SETBACK:	10'	5.2'	5.2'
MAX. F.A.R.:	3,878 S.F.	2,958 S.F.	3,852 S.F. (SEE ARCHITECT PLANS)
MAX. LOT COVERAGE:	2,551 S.F.	1,591 S.F.	1,973 S.F.
MAX. STORIES:	2-1/2	2-1/2	2-1/2
MAX. HEIGHT	35'	30.5'±	26.2'± (SEE ARCHITECT PLANS)



BUILDING FOOTPRINT:
EXIST. = 1835± S.F.
PROP. = 2258± S.F.

NOTE:
SETBACKS SHOWN FROM BUILDING CORNERS.

0 20 40 60 80
GRAPHIC SCALE
1"=40'

COMMONWEALTH OF MASSACHUSETTS
STEPHEN E. DAVIS
No. 33933
PROFESSIONAL LAND SURVEYOR

STEPHEN E. DAVIS

I CERTIFY THAT THIS PLAN IS BASED ON AN ACTUAL FIELD SURVEY AND THE LATEST PLANS AND DEEDS OF RECORD.

DATE: 10/17/2022; REV. 10/20/2022

PROJECT # 4631

PLOT PLAN
PROPOSED ADDITION
69 HIGH ST.
NEEDHAM, MA
AS PREPARED FOR
ERIC CARR

CHENEY ENGINEERING LLC
53 MELLEN STREET
NEEDHAM, MA 02494
TEL. 781-444-2188
admin@cheney-eng.com

LEFT ELEVATION

FRONT ELEVATION

RIGHT ELEVATION

REAR ELEVATION

ADDITION
CARR RESIDENCE

69 HIGH ST.
NEEDHAM, MA

CME
ARCHITECTS, INC.
6 WILKINS DRIVE: SUITE 210
PLAINVILLE, MA 02762 508-809-3509

Scale:	N.T.S.
Date:	10-17-2022
Drawn By:	JS
Checked By:	-
Job Number:	22135

Drawing:
DD1

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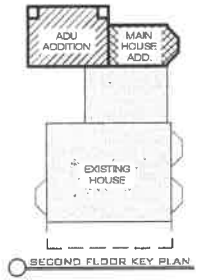
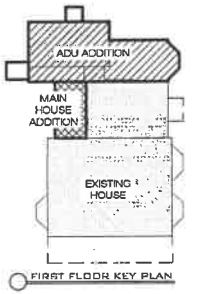
PROPOSED ADDITIONS		
FLOOR LEVEL	ADU	MAIN HOUSE
BASEMENT (UNFINISHED)	N/A	N/A
1st FLOOR	529 SQ. FT.	125 SQ. FT.
2nd FLOOR	320 SQ. FT.	195 SQ. FT.
3rd FLOOR (FINISHED)	N/A	N/A
TOTAL FLOOR AREA	849 SQ. FT.	320 SQ. FT.

FLOOR AREA RATIO		
FLOOR LEVEL	EXISTING	PROPOSED
BASEMENT (UNFINISHED)	N/A	N/A
1st FLOOR	1,543 SQ. FT.	379 SQ. FT.
2nd FLOOR	1,068 SQ. FT.	515 SQ. FT.
3rd FLOOR (FINISHED)	347 SQ. FT.	N/A
TOTAL FLOOR AREA	2,958 SQ. FT.	894 SQ. FT.
TOTAL FLOOR AREA (EXISTING & PROPOSED) : 3,852 SQ. FT.		

REFERENCE SECTION 4.2.1 DIMENSIONAL REGULATIONS OF CHAPTER 4
ZONING DISTRICT: SRB
MAXIMUM FLOOR AREA RATIO FOR SRB (LOTS CONTAINING <12,000 SQ. FT.): 0.38 OR 38%
LOT SIZE: 10,204± SQ. FT.
10,204 SF X .38 = 3,878 SF ALLOWED
FLOOR AREA RATIO (F.A.R.): 3,852/10,204 = 0.377± OR 37.74%

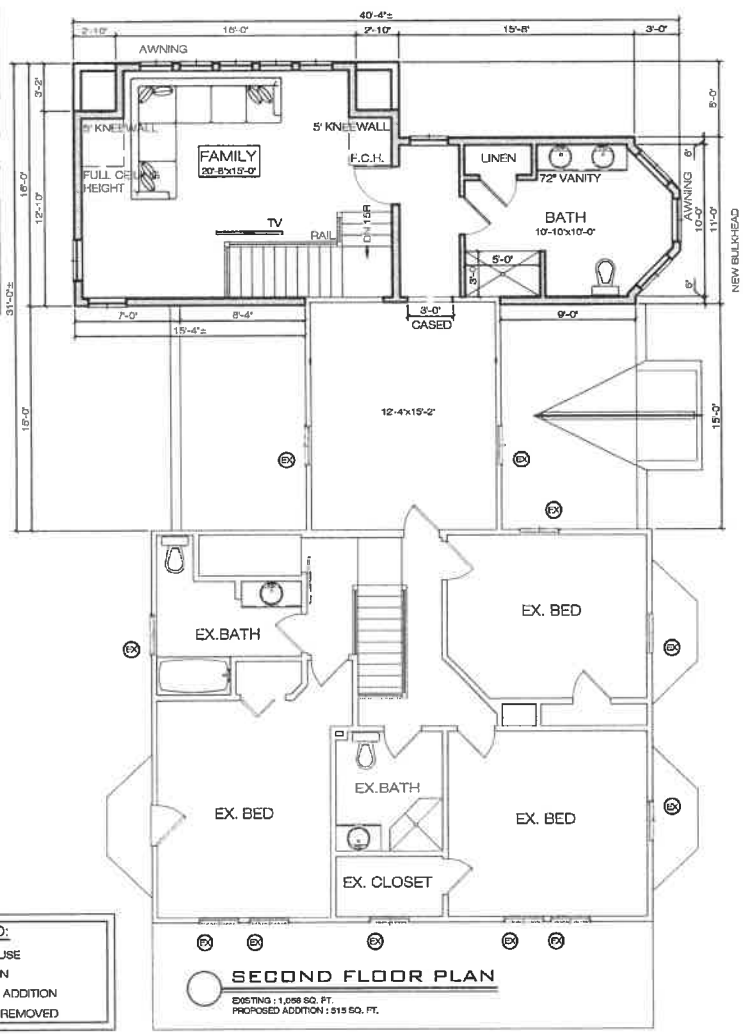


SECOND FLOOR KEY PLAN

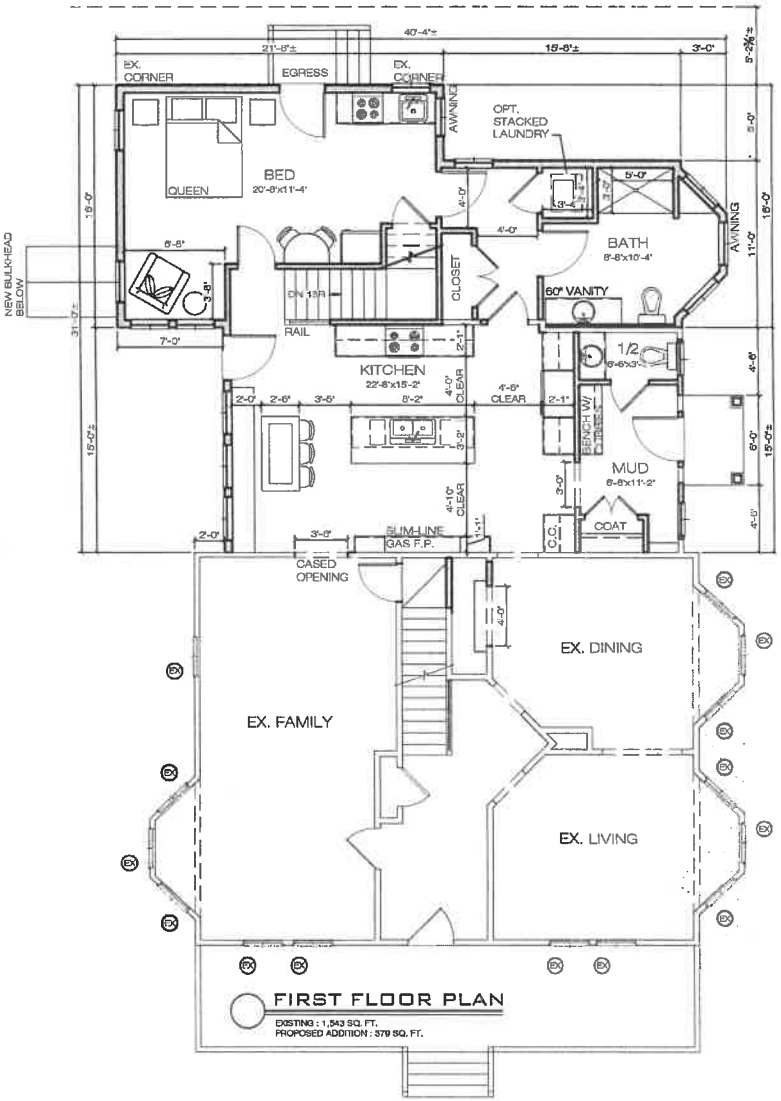


FIRST FLOOR KEY PLAN

SYMBOLS LEGEND:
- EXISTING HOUSE
- ADU ADDITION
- MAIN HOUSE ADDITION
- WALL TO BE REMOVED



SECOND FLOOR PLAN
EXISTING : 1,068 SQ. FT.
PROPOSED ADDITION : 515 SQ. FT.



FIRST FLOOR PLAN
EXISTING : 1,543 SQ. FT.
PROPOSED ADDITION : 379 SQ. FT.

ADDITION
CARR RESIDENCE
69 HIGH ST.
NEEDHAM, MA

CMB ARCHITECTS, INC.
6 WILKINS DRIVE: SUITE 210
PLAINVILLE, MA 02762 508-809-3509

Scale:	N.T.S.
Date:	10-17-2022
Drawn By:	JS
Checked By:	
Job Number:	22135

Drawing: DD2

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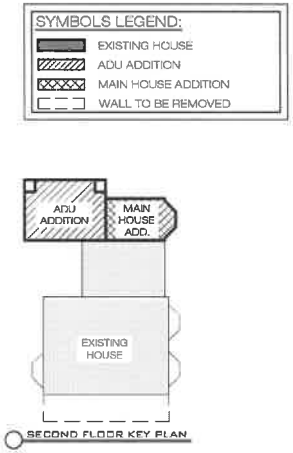
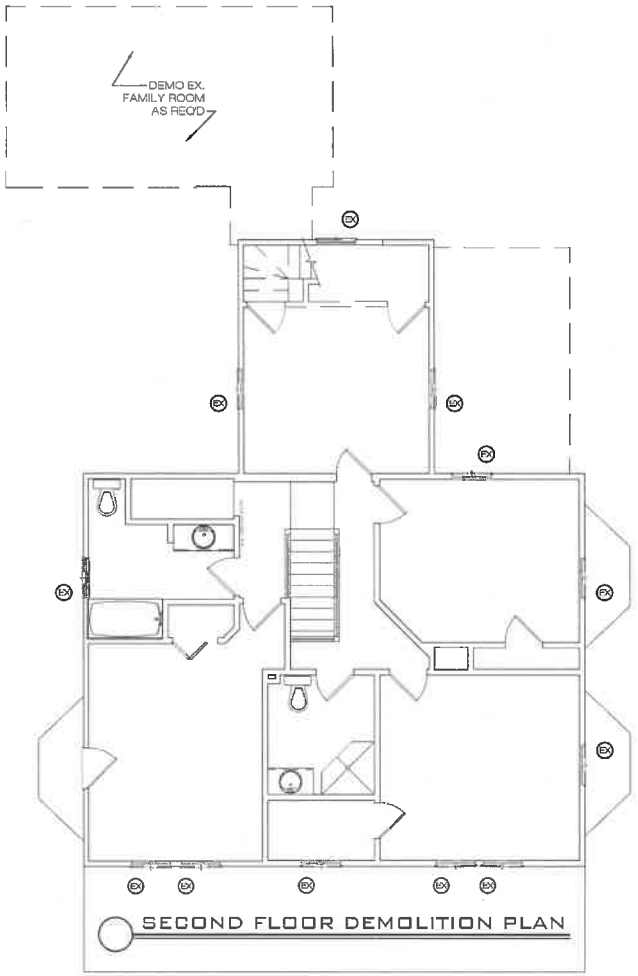
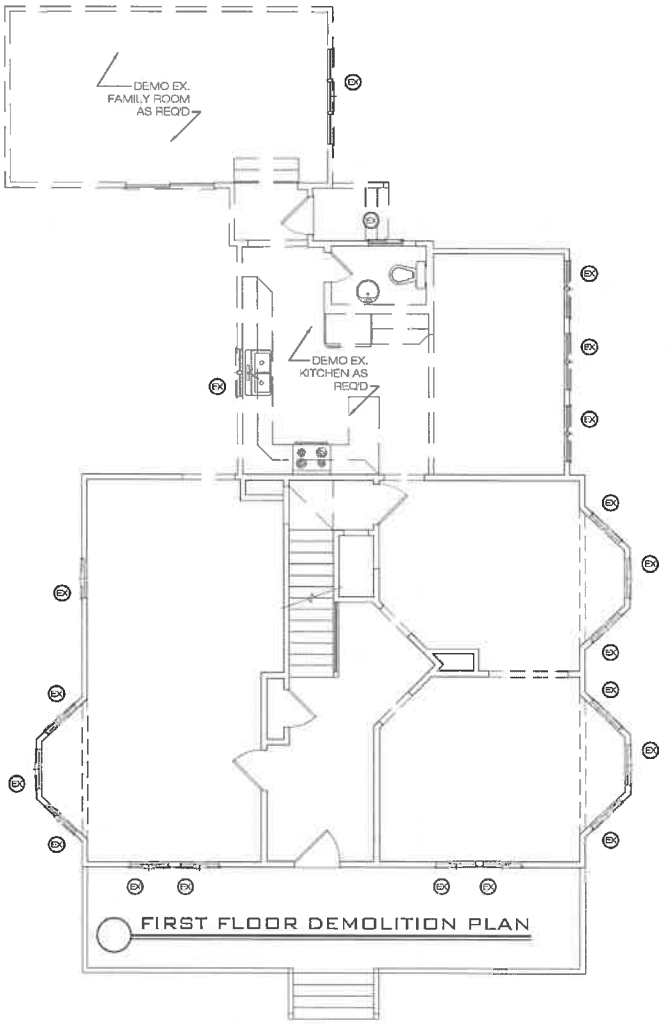


SYMBOLS LEGEND:

- EXISTING HOUSE
- ADU ADDITION
- MAIN HOUSE ADDITION
- WALL TO BE REMOVED





ADDITION
CARR RESIDENCE

69 HIGH ST.
NEEDHAM, MA

CME ARCHITECTS, INC.
6 WILKINS DRIVE: SUITE 210
PLAINVILLE, MA 02762 508-809-3509

Scale:	N.T.S.
Date:	10-17-2022
Drawn By:	JS
Checked By:	
Job Number:	22135

Drawing: DD3

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TOWN OF NEEDHAM, MASS.
Building Inspection Department

Sewer ☐
Water ☐
Drain ☐

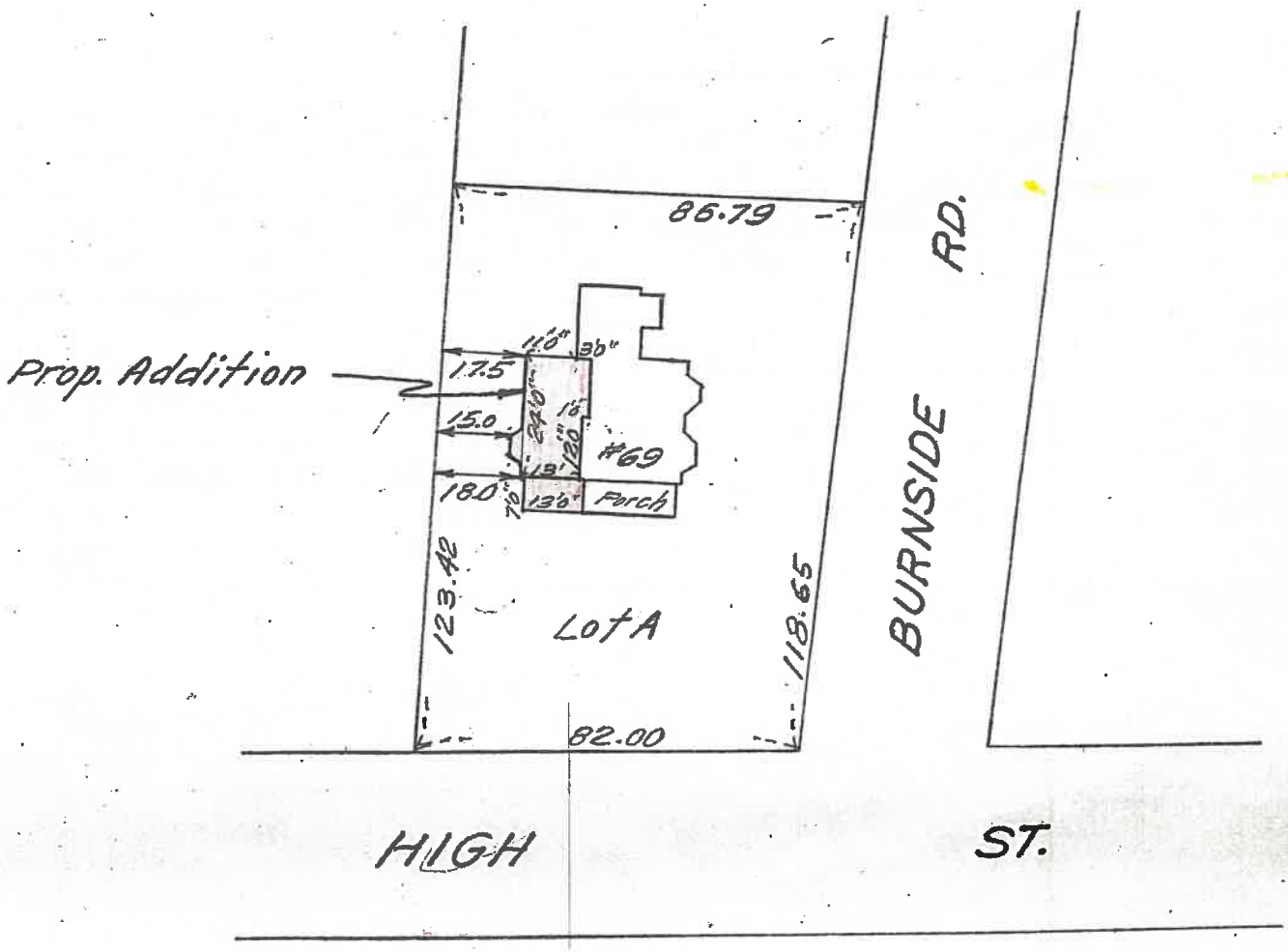
Building Permit No. _____ At No. 69 High St.

Lot Area 10,204 S.F. Zone Setback _____

Owner James Godsill Builder _____

PLOT PLAN
40' Scale

To be drawn according to specifications set forth in Section VII-B, Zoning By-Laws of the Town of Needham.

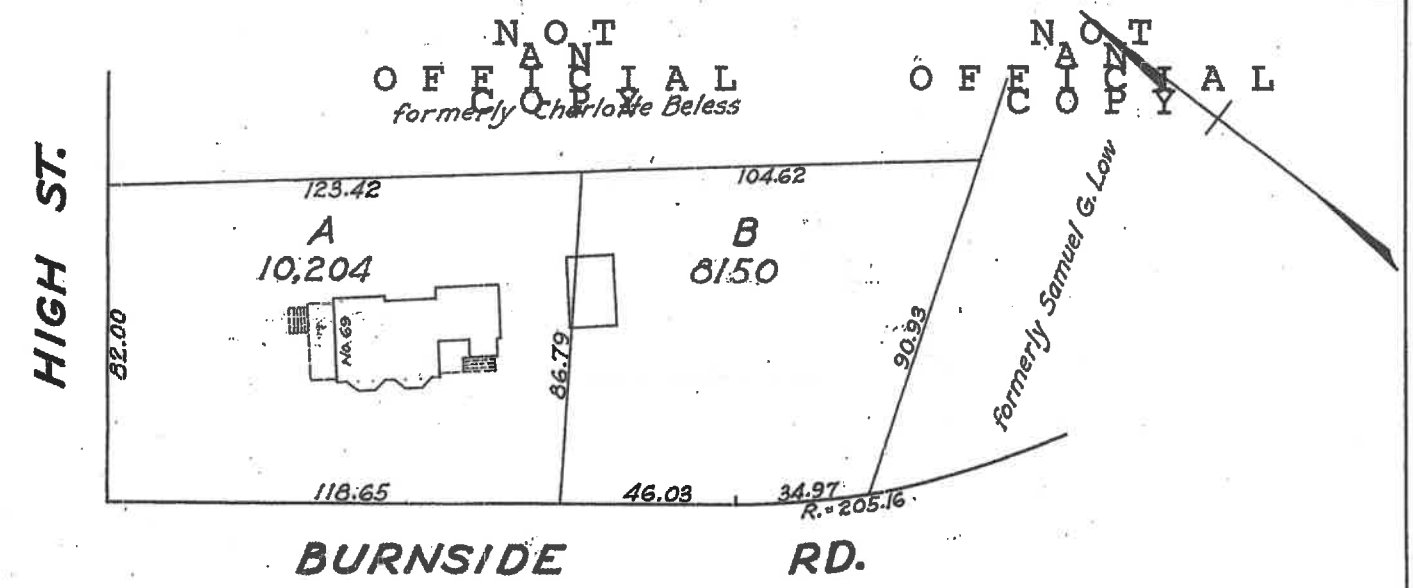


I hereby certify that the existing and approved street grades, existing sewers, drains, gas lines, water mains and other Public Utilities are accurately shown on this plan and that the dimensions, side line offsets and setback distances (allowing for overhangs), elevation of the top of the foundation and garage floor, and elevations at lot corners on street line for grading along lot line bordering the street are correct as indicated on this plan.

The above is subscribed to and executed by me this 2nd day of May 1984

_____ *Civil Engineer or Surveyor*

Approved _____ *Supt. of Public Works* Date 5/5/84



PLAN OF LAND IN

NEEDHAM, MASS.

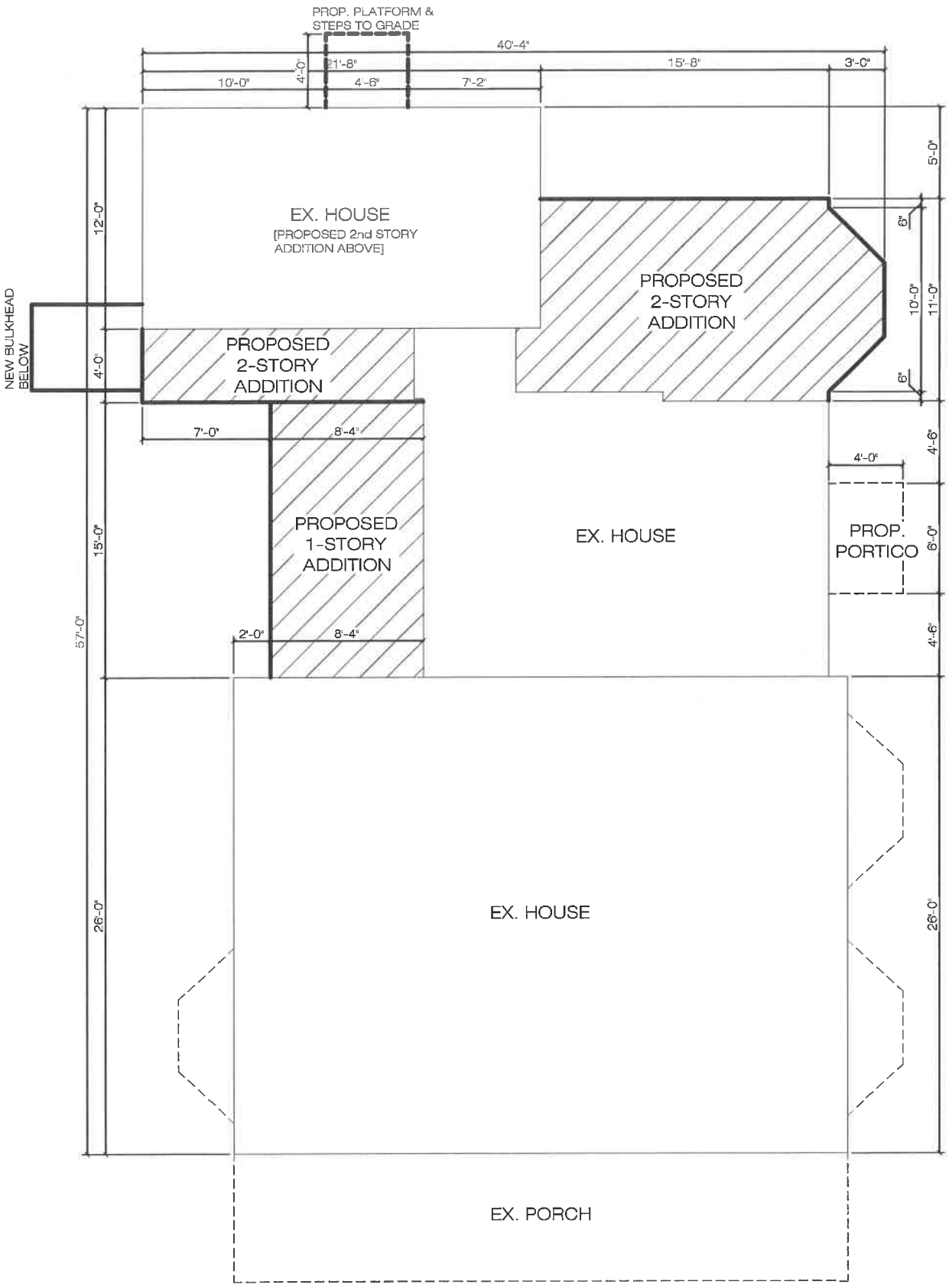
Scale: 30 feet to an inch

SEPT. 10, 1949

Joseph Selwyn, Civil Engineer
14 Linden Ave., Belmont, Mass.

Norfolk Registry of Deeds
DEDHAM, MASS.
Received Oct. 14, 1949 with Deed
Charlotte E. Beless to
Paul F. Alexander et ux.
Filed as No. 1055-1949 Bk. 2863 Pg. 6
Attest: L. Thomas Shute
Register.

Assesor's office photo of 14 Burnside Rd. Photo taken in 1949 (confirmed by Chip Davis). Existing garage is clearly visible and in current location


PROP. PLATFORM & STEPS TO GRADE
40'-4"
21'-8"
15'-8"
3'-0"
10'-0"
4'-0"
4'-6"
7'-2"
5'-0"
12'-0"
EX. HOUSE
[PROPOSED 2nd STORY ADDITION ABOVE]
PROPOSED 2-STORY ADDITION
6"
10'-0"
11'-0"
NEW BULKHEAD BELOW
4'-0"
PROPOSED 2-STORY ADDITION
6"
7'-0"
8'-4"
4'-6"
4'-0"
PROPOSED 1-STORY ADDITION
EX. HOUSE
PROP. PORTICO
6'-0"
15'-0"
57'-0"
2'-0"
8'-4"
4'-6"
EX. HOUSE
26'-0"
26'-0"
EX. PORCH

FOOTPRINT

064-047
69 HIGH ST

No. 69 Street HIGH STREET

Card No.

REAL PROPERTY RECORD

TOWN OF NEEDHAM — BOARD OF ASSESSORS

PLAN	SEC.	BLOCK	LOT
1182			A

ZONING

CLASS
SINGLE
GENERAL
INST.
BUSINESS
MANUF.

AGE
ACT. 1888
EST.

CONDITION
GOOD
MEDIUM
FAIR
POOR

Permit No. Date

DIAGRAM OF STRUCTURES DIVISIONS FEET

CLASS	1	2	3
COTTAGE			
BUNGALOW			
SINGLE D'W'LS	–		
DUPLEX			
MULTIPLE			
APARTMENT			
STORES			
" AND FLATS			
" " OFFICES			
OFFICE			
HOTEL			
BANK			
THEATRE			
WAREHOUSE			
FACTORY			
GARAGE—PUBLIC			
" —PRIVATE	5	–	
GAS STATION			
USE			
RESIDENTIAL	–		
COMMERCIAL			
BUSINESS			
INDUSTRIAL			
UTILITY			
TRANSPORTATION			
BENEVOLENT			
RECREATIONAL			
CONSTRUCTION			
FRAME	–		
BRICK AND FRAME			
BRICK—S.F.P.			
CONCRETE			
BLOCK			
METAL			
FIREPROOF			

FOUNDATIONS	1	2	3
STONE	–		
CONCRETE			
" BLOCKS			
BRICK			
POSTS			
MASONRY PIERS			
PILES			
EXT. WALLS			
FRAME			
BRICK—SOLID			
" —VENEER			
CONCRETE			
" —BLOCK			
STONE			
TERRA COTTA			
METAL			
STUCCO			
CLAPBOARD	–		
SHINGLE			
COMPOSITION			
FACE BRICK			
CAST STONE			
ROOF			
FLAT			
HIP			
GABLE	–		
MANSARD			
MONITOR			
WOOD			
STEEL			
CONCRETE			
SHINGLE	–		
ASBESTOS			
COMPOSITION	–		
SLATE			
TILE			
TAR AND GRAVEL			

BASEMENT	1	2	3
NONE			
PART			
FULL	–		
CONCRETE FLOOR	–		
WOOD "			
FINISHED			
UNFINISHED	–		
FLOORS			
TIMBER			
STEEL			
CONCRETE			
TILE			
MARBLE			
COMPOSITION			
HARD WOOD	–		
SOFT "	–		
EARTH			
INT. WALLS			
FRAME			
BRICK			
CONCRETE			
TILE			
METAL			
UNFINISHED			
PLASTERED	–		
WALL BOARD			
INT. TRIM			
HARD WOOD			
SOFT "	–		
METAL			
CEILINGS			
PLASTER	–		
WALL BOARD			
METAL			
UNFINISHED			

HEATING	1	2	3
STOVE			
PIPELESS			
HOT AIR			
" WATER	–		
STEAM			
VAPOR			
GAS			
OIL BURNER	–		
FIRE PLACE			
PLUMBING			
NONE [illegible]	–		
OLD STYLE			
COMMON			
EXTRA			
TOILETS			
BATH [illegible]	1		
SHOWER			
LAVATORY			
SEWER			
CESS POOL			
LIGHTING			
ELECTRIC	–		
GAS			
OIL [illegible]	–		
MISC. AND EXTRAS			
ELEVATOR			
FIRE ESCAPE			
SPRINKLERS			
AIR CONDITION			
INSULATION			
INCINERATOR			
SPECIAL FRONT			
PORCH OPEN	–		
" CLOSED			
SUN PARLOR			
BSMT. RECREATION			

Rooms

	LIVING			DINING			KITCHEN			TOILET			BED			STORES			OFFICES			APT'S			GARAGE		
	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3
BASEMENT:																											
1ST	1			1			1						3														
2ND																											
3RD																											
ATTIC																											
TOTAL																											

REMARKS: Permit #274-9/11/68-Add approx. 3' to existing garage & new sills 8-14-78 Ac

PROPERTY DATA ON THIS CARD NOT UPDATED SINCE 1993. COMPUTER LISTING IS CORRECT

LAND VALUE FACTORS

FACING ON	High	ST.	
CORNER OF	Burnside	ST.	
EXPOSURE	N E S W		
ALLEY SIDE	REAR		
DISTANCE FROM		USE OF LAND	
CENTER OF CITY		INDUSTRIAL	
CAR LINE		COMMERCIAL	
BUS LINE		RESIDENTIAL	✓
TRUNK HGHY.		FARM	
SCHOOLS		WOOD	
CHURCHES		SHORE FRONT	
WATER	✓	CHARACTER	
SEWER 1948	✓	ABOVE ST.	✓
GAS	✓	BELOW ST.	
ELECTRICITY	✓	LEDGE	
ST. PAVED		GRAVEL	
" IMPROVED	✓	CLAY	
" UNIMPROVED		SWAMP	
" ACCEPTED	✓	CULTIVATED	✓
" UNACCEPTED		SEMI "	
SIDE WALK	✓	PASTURE	
ST. LIGHTING	✓	SCRUB	
S. H. CONN. 8/82		Pd 4/00	

OWNER RECORD

ASSESSORS NUMBER	DATE	RECORDED OWNER	INST.	REGISTER BOOK	REGISTER PAGE	REGISTER STAMP	CONSIDERATION	REMARKS
10768	8/33	Belass, Charlotte E.	QC	1999	252			
27315	6/4/56	Cleland, Milton R. & Edna	QC	3477	219	$13.75	Mtg. $6,000	
42810	11/21/75	Cleland, Edna	QC	5180	347	Cert. L8		
44358	2/1/78	Godsill, James H. & Judith B.	QC	5433	173	$120.84	Mtg. $42,300	($52,900)
58855	1/15/97	Conrad, E. Craig & Susan H.	QC	11666	459	1753.32		(384,500)

LAND COMPUTATIONS

10,204 SQ. FT. @ ' ACRES @ . $

SQ. FT. @ ' . ACRES @ $

FRONTAGE	DEPTH	AREA	DEPTH FACTOR	UNIT	CORNER INFLUENCE	AMOUNT
						5,900

RENTAL INFORMATION

YEAR	FULL RENTAL VALUE	PER CENT VACANCY	ADJUSTED INCOME	5 YEAR AVER. INCOME

GENERAL INFORMATION

ASKING PRICE

PRICE OFFERED

BOOK VALUE

LATEST APPRAISED VALUE

WHEN BY WHOM

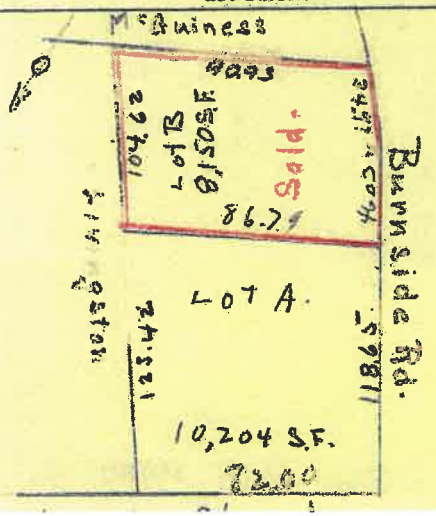
SALES TREND OF DISTRICT

UP DOWN STATIC

BUILDING PERMIT

DATE AMOUNT

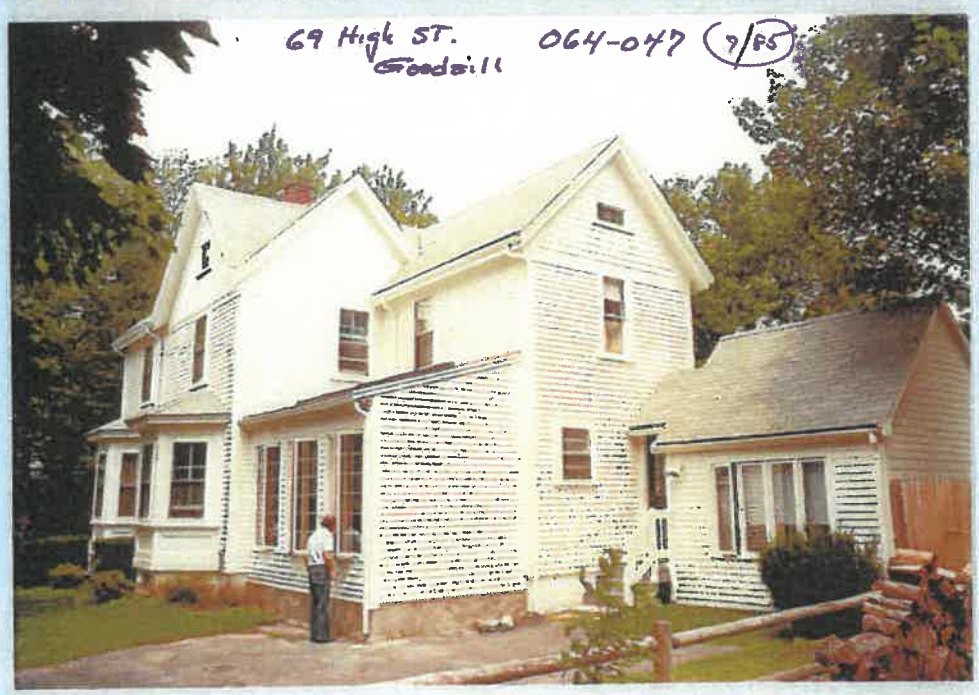
LOT DIAGRAM

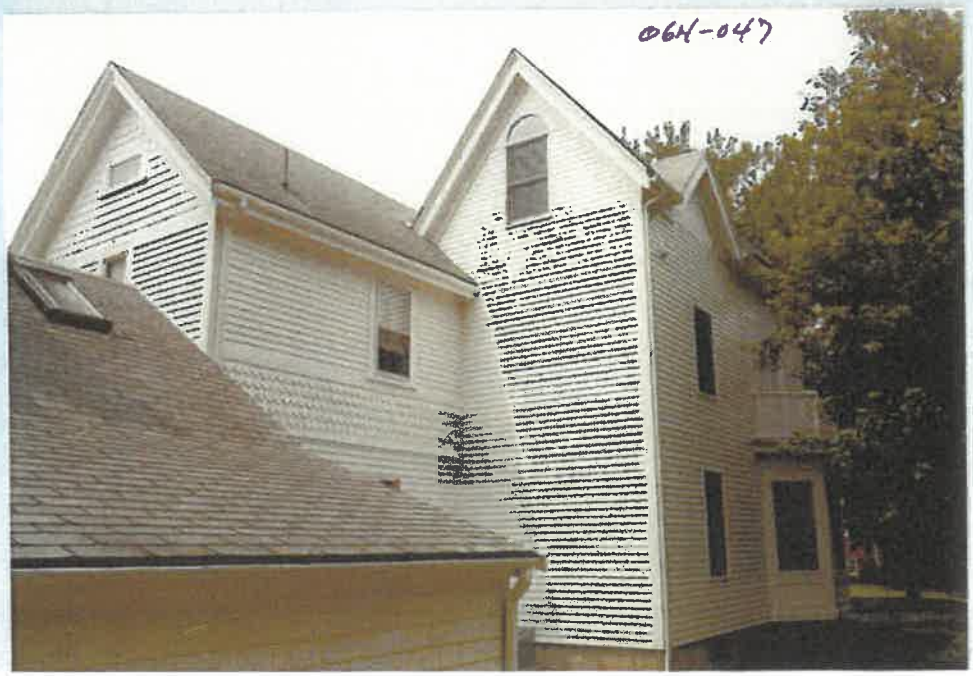


ASSESSMENT RECORD

		19 43	19 47	19 50	19 61	19 67	19 [illegible]	19 81	19	19	19
BASE VALUE	LAND										
	BUILDINGS										
	TOTAL REAL ESTATE										
CHANGES	LAND INCREASE---DECREASE										
	BUILDING " "										
	EXEMPTIONS										
	NET CHANGE										
CURRENT VALUE	LAND	1300	1300	825	1000	5900	5900	26251			
	BUILDINGS	3200	3800	3800	3800	12,200	12,200	42452			
	Barn 1	100	200	200	200	400	400	4256			
	TOTAL REAL ESTATE	4600	5300	4825	5000	18,500	18,500	73162			

REMARKS: [illegible]


69 High ST.
Goodwill
064-047
7/05


064-047

NEEDHAM PLANNING BOARD MINUTES

August 16, 2022

The Needham Planning Board hybrid meeting, held in person at Powers Hall, Needham Town Hall and using Zoom, was called to order by Adam Block, Chairman, on Tuesday, August 16, 2022, at 7:00 p.m. with Messrs. Alpert and Crocker and Ms. McKnight, as well as Planning Director, Ms. Newman and Assistant Planner, Ms. Clee.

Mr. Block took a roll call attendance of the Board members and staff. He noted this is an open meeting that is being held remotely per state guidelines. He reviewed the rules of conduct for zoom meetings. He noted this meeting does include two public hearings and there will be public comment allowed. If any votes are taken at the meeting the vote will be conducted by roll call. All supporting materials, including the agenda, are posted on the town's website.

Public Hearing:

7:00 p.m. – Major Project Site Plan Special Permit No. 2022-03: WELL Balfour Needham Landlord LLC, 4500 Dorr Street, Toledo, Ohio 43615, Petitioner (Property located at 100-110 West Street, Needham, MA). Regarding proposal to redevelop the property to include 155 units of senior housing, consisting of 127 Assisted Living apartments and 29 Alzheimer's/Memory Care units.

Upon a motion made by Mr. Alpert, and seconded by Ms. McKnight, it was by a roll call vote of the four members present unanimously:
VOTED: to waive the reading of the public hearing notice.

Evans Huber, representative for the applicant, noted this proposal is for a 155-unit facility with assisted living and 28 memory care/Alzheimer's units. This is owned by Welltower, Inc, which owns the property through HCRI Massachusetts Properties Trust II ("Welltower") and will be run by WELL Balfour Needham Landlord LLC, a joint venture between Balfour Senior Living, LLC and Welltower ("Balfour"). He noted it is the same team as the previous application, though Welltower and LCB are no longer business partners and will not be going forward with the previous project. Welltower has now partnered with Balfour, who are highly regarded operators. He reviewed the relief being requested: a special permit for a major project; a special permit for a non-conforming building; a special permit waiving strict compliance with the parking requirements and he said that they may or may not need a special permit for this use. He said ~~T~~these are the same permits that were granted last time. He noted the applicant has been in extensive discussion with the Select Board to review the issues the Planning Board had raised. The concern is that what is proposed now ~~it~~ is all assisted living and no independent living. The applicant has met with the abutters to get thoughts and concerns. People are not happy there are no independent living or affordable units. The applicant is prepared to make a substantial donation to the town of $1.9 million. The Select Board is in favor of that and there is an agreement in principle.

Michael Schonbrun, CEO of Balfour Senior Living, LLC, gave a background of the company. He noted they take a lot of pride in being medically competent and having an appropriate setting for seniors. Julie Nash, Chief Operating Officer, gave her background. She noted this will be a life enriching experience. They look at the community in which they operate. There will be art classes, musical concerts and travel. There will be culinary experiences with an executive chef and a sous chef who create fresh menus by season. Transportation is provided. They have a fleet of Teslas and drivers that take people to appointments and visits. A continuum of care is offered. Balfour works with ancillary providers. They are committed to high quality designs to create a home-~~-~~like essence with beautiful interiors. She noted the communities need to be sustainable. This project will be LEED Gold Certified. She showed pictures of other Balfour ~~C~~communities.

Elizabeth Peabody, of the Architectural Team, stated there are some key differences from the previous project. All the amenity space that elimination of the independent leaving creates would be for all residents in the assisted living. They will have double the amenity space. The entry has been upgraded by being enclosed and enlarged a bit, so it is not directly confronted by the elevator. There will be a large entry space with a wide corridor and a view across the hallway. It will have a light and airy atmosphere. There will be a direct connect to a lifestyle courtyard. The memory care is on the bar? portion of the building, and they have consolidated the memory spaces. There is direct indoor and outdoor access to the courtyard. They feel this is a big improvement.

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Ms. Peabody noted the upstairs is open to below with a library and core amenity spaces for the residents. There will be an arts and crafts studio. The average unit size is 830 square feet. The assisted living units all have full kitchens and private washers and dryers. The residents can do their own cooking and laundry if they wish but those amenities are also on site. On the third level there is a commercial kitchen, private dining, family dining spaces and gathering spaces. On the fourth level a penthouse is being added. This is the biggest change with the elimination of the amenity penthouse. There will be 11 units each with their own terraces. The massing impact has been reduced. There are similar elevations as before. The same materials are being used but there are some color changes.

Ms. Peabody noted the windows will be replaced with casement windows that are double hung to get that mill look. They are much higher performing windows and will be high STC rated. The windows will be acoustically sound to help prevent railroad noise. A couple of at grade patios on Highland Avenue have been removed. There is an upgraded entry with the existing overhang removed. The entry will be extended and replaced with a vestibule. Large double height windows will help differentiate different spaces. Some patios have been moved around on the south side due to some units being moved around. She noted there is almost no visual access to the fourth floor from Highland Avenue and West Street.

Ms. McKnight asked if the entrance off Highland Avenue could be shown. She assumes the assisted living residents will enter there. Ms. Peabody does not feel it will be the primary entrance. Ms. McKnight asked what the basic charge would include. She asked if it includes meals and fitness and pool or if that is extra. Mr. Schonbrun stated meals and most amenities are included. After discussion it was noted the regulatory requirement is that one meal per day must be included. Mr. Schonbrun clarified 3 meals per day are prepared and one is included in the basic charge. There will also be meal plans residents can choose. The residents can choose to cook their own meals or can add to the basic charge if they want more than one meal per day prepared for them. Mr. Crocker asked if the difference between assisted living and independent living is the one meal a day. Mr. Schonbrun stated the difference is the care. If a resident in an independent living unit needed ~~care~~care, they would need to bring that care in from outside. If a resident is in a licensed assisted living unit, care is there on site for them. She said Balfour will not be licensed to provide assistance to someone in an independent living unit.

Mr. Crocker asked where the entrance to the memory care unit is. Ms. Peabody noted the main entrance to the property is at the roundabout and there is also an entrance on West Street. Mr. Crocker asked how the windows open in the memory care unit. Ms. Nash believes there is a 3-inch stopper in memory care but she will check the Massachusetts regulations. Mr. Crocker asked if there will be solar panels. Ms. Peabody stated solar is not in the scope at this point. She feels the structure would need to be substantially reinforced.

Ben LaFrance, of Hawk Design, stated the plant palette is consistent with the previous application. There are small adjustments throughout the property. There are minor changes on the Highland Avenue façade and the south parking area. Some plantings have been filled in. There is a lush setting along Highland Avenue with street trees and low ground shrubs and grasses. At the north end of the building, the memory care courtyard is being removed and pushed fa~~r~~rther in. The 8-foot fence has been removed and more landscaping has been put in. The landscape treatment will be continued and there will be a small seating terrace. There are no changes to the plantings on the south side. There is a meandering pathway with a few seating areas. The walkway connects both entrances. The courtyard has an 8-foot-high cedar fence to enclose the memory care space. There will be a landscape buffer with all non-toxic plants. The "jockey club" with a fireplace is flanked by 2 shade structures with several seating areas. The lighting plan shows all new fixtures on the property. The number of fixtures will be reduced from 31 to 26. All are LED fixtures and are dark sky compliant. The fixtures have been reduced from 16 feet to 14 feet in height and the light bollards have been reduced from 28 to 15 due to a reconfiguration of the courtyards.

Erin Fredette, of McMahon Associates, did an updated traffic assessment. A full traffic impact study was done for the LCB project. She wanted to do a comparison. Trip generation was nearly identical with 30 trips in the a.m. and 35 trips in the p.m. The project will provide 145 parking spaces on site. The peak demand is 60 spaces. There is no change to the site access. She feels there is not a significant impact.

Mr. Block noted the following correspondence for the record: an email from Building Commissioner David Roche, dated 7/15/22, noting he is satisfied; an email from Town Engineer Thomas Ryder, dated 8/10/22, regarding storm water recharge

on site, noting it is not required but would be advantageous; an email from Assistant Health Director Tara Gurge, dated 8/10/22, with comments regarding necessary permits and an email from Fire Chief Tom Conroy, dated 8/11/22, noting he is satisfied. Mr. Alpert noted Ms. Gurge's email. She stated the dumpsters mustch be placed near the kitchen areas but that will be difficult with the kitchen on the third floor. Ms. Pearson stated the service elevator has direct access to the kitchen. Mr. Alpert would like to see something from Ms. Gurge that she is ok with this. Mr. Block noted an email from Police Chief John Schlittler, dated 8/12/22, noting no issues and a memo from the Design Review Board (DRB) noting no further issues.

Mr. Block noted there will be 127 assisted living units. He asked if some residentsothers will be admitted who can live entirely independently and was informed they would. Mr. Block asked if there is any idea how many of the 127 units will be held for such independent residents. Mr. Schonbrun stated they do not hold them but there would be somewhere around 30%. Ms. Nash stated, in Connecticut, there are 68 units and 24 are occupied by residents who are independent. Mr. Block asked if there is an ability to accommodate some affordability here. Mr. Schonbrun stated that is not the proposal here. The average time of transitioning from independent living to assisted living is roughly 18 months. He feels there is an advantage to this program as the residents can just stay in their units and not have to move to a different wing. Mr. Huber stated that if "affordable" units were to be required, the day wouldill come when a person needs care and cannot afford it because they are there on an affordability basis and would have to move out. Mr. Block feels until such time as they need the services there should be some affordability basis. Mr. Huber commented the applicant is making a donation to the Affordable Housing Trust of $1.9 million. There is no requirement to have affordable units, but the town can use the funds however they want. If the town wants totto, the Town y can subsidize residents.

Patrick Bennett, of Welltower, stated 30% is fluctuating. It is hard to predict when residents would require care. Mr. Alpert commented he is getting confused about how the structure works. He asked if all assisted living residents pay the same fee. Mr. Schonbrun stated the assisted living care is being paid for by the resident who needs such care, in addition to the basic charge. There are 3 levels of care and the affordability depends on the care the resident needs. Mr. Alpert noted they want to stay below the threshold of a 40B. The Board can regulate or ask the applicant to agree to some sort of subsidy for affordable but technically there are no affordable units. This would not go toward Needham's affordable count. Mr. Block stated there is a period of time that roughly 30% of the units are being licensed as assisted living units but have residents living independently. Mr. Alpert commented he has seen business models where part is to have some sort of subsidy for people who cannot afford it. That is not the business model here. Is Mr. Block asking them to change to a different business model? Mr. Alpert noted that Tthe applicant is making a substantial contribution to the town's affordable housing trust and. Hhe looks forward to seeing the final compensation payment agreement.

Mr. Crocker asked what is being done to shroud the lights entering the building. Mr. LaFrance stated a predominance of lighting is away from the residents. The lights are lower than the second-floor windows and units will have window treatments. Mr. Crocker asked what allowance is there for residents' cars. Mr. Schonbrun noted residents are welcome to have cars but there is a robust transportation system with cars and drivers. One quarter to one half bring cars and half usually never use them or get rid of the car. Mr. Crocker asked if all residents are allowed to have cars and was informed they were. Mr. Crocker asked about rainwater reuse. David Kelly, of Kelly Engineering, stated it has not been discussed. There is no appropriate way to deal with gray water here. He just heard the comment from Town Engineer Ryder tonight on the recharge request. The project complies with storm water regulations. He will look at ways to enhance recharge, but it is not easy on this site.

Ms. McKnight noted the applicant stated assisted living is a use by right, -but she disagrees with that interpretation. "Convalescent facility" is what is in the By-Law. Mr. Huber asserted stated that the definition of assisted living is a subset of convalescent in the By-Law. Ms. McKnight noted the traffic report indicates a high level of accidents at West and Hillside. She knows the tTown will be addressing that with improvements. She wants to know the timeline of that. She noted the fiscal impact report said 35-40% of residents will be people who formerly resided in their own homes in Needham. They may have smaller homes that could be sold to families with young kids, which will have an impact on the schools. She appreciates the cost structure discussion they have had. She would prefer to see 5 affordable units on site rather than the compensation payment. She noted the 5 units is approximately half of the penthouse units. She added the Board does not have to allow the fourth floor and the penthouse units.

Ms. McKnight noted she could not find a legend with colors and sizes of the landscaping. Mr. LaFrance noted that information was on sheet LD-1, the plant schedule with quantities and sizes. Ms. McKnight commented she was pleased the Design Review Board reviewed the landscapting and the DRB is satisfied. Mr. Block noted the following correspondence for the record: an email from Andrea Okerholm Huttlin, dated 8/9/22, with comments regarding a preference for independent units; an email from the Village Club Board of Directors, dated 8/12/22, in support and a noted from Joe Abruzese, dated 8/8/22, opposing the change in the program.

Mr. Block noted it was well over the start time of the next hearing and asked for a motion to continue the hearing. A motion was made to continue the hearing to 9/20/22 at 7:45 p.m. Mr. Crocker disagreed with continuing the hearing at this point. He feels there should be 15 minutes of public comment and then continue it. He does not feel it is fair to the residents who turned out to wait this long only to be put off. He feels they should have their turn to be heard. Ms. McKnight stated it is not a waste of time for the public to hear the presentation and the comments. She feels they must be fair to the other applicant on the agenda. There needs to be a substantial amount of time set aside for public comments. Mr. Alpert noted anyone who is not available on 9/20/22 should send comments in writing. All comments are read into the record and considered.

Upon a motion made by Mr. Alpert, and seconded by Ms. McKnight, it was by a roll call vote of three of the four members present (Mr. Crocker voted in the negative):
VOTED: to continue the hearing to 9/20/22 at 7:45 p.m.

The Board took a 5 minute break.

7:45 p.m. – Amendment to Major Project Site Plan Special Permit No. 2012-04: Needham Bank, 1063 Great Plain Avenue, Needham MA, Petitioner (Property located at 1063 Great Plain Avenue, Needham, MA). Regarding proposal to convert the existing bank building mezzanine space into 1,325 SF for executive offices, as well as demolish the existing drive-thru free-standing automatic teller machine (ATM) and to construct a 321 SF drive-up teller building with an ATM.

Upon a motion made by Mr. Alpert, and seconded by Mr. Crocker, it was by a roll call vote of the four members present unanimously:
VOTED: to waive the reading of the public hearing notice.

Peter Zahka, Attorney for the applicant, noted this is 45,000 square feet of land with a 34,580 square foot building and free-standing drive-up ATM. This project will increase the FAR just under 1,700 square feet. The existing mezzanine will be converted to 1,365 square feet of executive office and the free-standing ATM will be removed. A 320 square foot drive up teller building with a drive-up ATM will be added. He stated Needham Bank has a history of modernizing and updating customer services. Previously in 2012 the bank added 1,200 square feet to the building and a drive-up ATM. They keep improving for the customer experience. He noted more people are banking electronically since eCovid. People are not banking like they used to and there is a decrease in the number of people coming to the bank. Most employees are still working remotely at least part time. He noted they met with the DRB and it went well.

Derek Redgate, Civil Engineer for Highpoint Engineering, noted there have been complaints with the existing drive-up ATM with the curbing. It is not well designed. The ATM there is an old ATM and going out of service. There is new technology, and it is imperative the ATMs be replaced. They are proposing to construct a new structure a little bigger than a parking space. It will be one story and there is no change in grade. The new building is located where the single drive-up ATM is currently. There is a one-way entrance, and 5 parking spaces will be eliminated. The bank wanted to provide landscaping and maintain the walkway. The second curb cut remains with a 2-way in and out. The site circulation is something they take very seriously. There will be additional signage and additional stop conditions.

Ronald Stuko, architect with Studio Q Architecture, noted there will be a first and second floor. This is at the corner of Garden Street and Great Plain Avenue. Today the space is double height. They will take advantage of that space and add an intermediate floor. There will be 2 offices with some support space area for coffee, conference rooms and opening to the floor below. The 2-story entry stays, and this is just to the left of that. Mr. Block noted the following correspondence for the record: an email from Fire Chief Tom Conroy, dated 8/2/22, with no issues; an email from Assistant Health Director

Tara Gurge, dated 8/10/22, with no issues; an email from Town Engineer Thomas Ryder, dated 8/10/22, with no issues and a note from the DRB, dated 8/8/22, with approval. The police chief had no comment.

Mr. Crocker asked if there was an increase in the impervious area. Mr. Redgate noted there is a small increase of maybe 200 square feet in impervious area due to a bit of moving around. Ms. McKnight stated the adjacent Needham Bank building built a few years ago is is a wonderful building and fits in well with the neighborhood. She recalls the neighbors were concerned with trees and shrubs screening the parking lot. She does not see any plantings. The landscape plan has a note that the existing honeylocusts are to be relocated. She asked if there are existing trees that separate this area from Garden Street or will there be. Mr. Stuko stated the landscape plans supercede these drawings. The landscaping is not on these plans, only the building. Mr. Redgate noted Sheet L100 has quite a robust landscape plan with screening between Garden Street and the lot. Some honeylocusts are so big they will remain and will be supplemented. Five parking spaces are being removed but landscaping is being added.

Upon a motion made by Mr. Alpert, and seconded by Mr. Crocker, it was by a roll call vote of the four members present unanimously:
VOTED: to close the hearing.

Ms. Newman noted there will be a draft decision at the 9/7/22 meeting.

Request to release bond: Hutter Ridge Road – 1135 Webster Street Definitive Subdivision.

Mr. Block noted the following correspondence for the record: a letter from Town Engineer Thomas Ryder, dated 4/5/22, noting they anticipate going to Town Meeting for acceptance of the road; a letter from Town Engineer Thomas Ryder, dated 8/10/22, noting the work is complete and the road has been accepted and a letter from John Connolly, dated 7/25/22, requesting release of the bond.

Upon a motion made by Mr. Alpert, and seconded by Mr. Crocker, it was by a roll call vote of the four members present unanimously:
VOTED: to release the $10,000 Performance Bond for the Hutter Ridge Road Subdivision Plan at 1135 Webster Street and retain the Off-Street Drainage Bond.

Minutes

Ms. McKnight noted, on the 6/7/22 minutes, bottom of page 2, she does not know what "the visual length of Highland Avenue has been reduced by 35 feet." means. She would suggest deleting it. Mr. Crocker believes it is a cut out in the building that gives a visual separation but he is ok with deleting it. Ms. McKnight asked if they should add "the visual length of the building on the Highland Avenue frontage…" This was agreed. Ms. McKnight noted the misspelling on page 3 of "linden and locust" trees. On page 6, 3rd paragraph from the bottom, it says "at .7." It should be "0.7 FAR." On page 7, Mr. Crocker stated the commuter bicyclists already bike with cars. Mr. Crocker and Mr. Block are fine with this. Mr. Crocker stated they could add "already bike on roadways with bikes." On page 4, 2nd paragraph, it says "sidewalks would be rebuilt from Gould to Noanett." It should be from "the Gould and Highland intersection."

Upon a motion made by Ms. McKnight, and seconded by Mr. Crocker, it was by a roll call vote of the four members present unanimously:
VOTED: to accept the minutes of 6/7/22 with the changes discussed tonight as redlined.

Ms. McKnight has not yet read the 6/21/22 minutes. These will be deferred to the next meeting.

Discussion of December meeting dates

Ms. Newman noted a conflict with the December dates. The Select Board and School Committee have changed their datesdates, so the Planning Board needs to find alternate dates. After discussion, it was decided 12/5 at 7:00 p.m. and 12/19 at 7:30 p.m.

Report from Planning Director and Board members.

Ms. Newman stated she sent all members the final DHCD Guidelines for the MBTA Communities. They are currently being reviewed for implications for the town. Needham has been classified as a commuter rail community. The total number of units has been reduced from 2,300 to 1,700 and the deadline for compliance has been extended from 12/2023 to 12/2024. This has been shared with the Select Board and the Housing Working Group.

She noted the draft environmental report [related to the Muzi site?] came out. They are reviewing it to make sure the Town comments have been addressed. She is coordinating with the Town Managers' office for a response.

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Ms. Newman noted there will be a continued hearing on 12/7/22 on the Highland Science Center. She received revised plans today and they will be reviewed by GPI and staff. There is also a hearing on breweries on that date. There is a meeting of the Housing Working Group on 9/8/22. Community Housing Specialist Karen Sunnarborg is putting together the draft housing plan. Ms. McKnight asked if the new plans show the new layout of Highland Avenue for the Highland Science Center. Ms. Newman noted the revised plans came in today and she has not looked at them yet.

Correspondence

Mr. Block noted the following correspondence for the record: a letter from Director of Planning and Community Development Lee Newman to Town Manager Kate Fitzpatrick, dated 7/1/22, acknowledging support of some of the Select Board's goals; an email from David Lazarus, dated 8/1/22, regarding 484 Charles River Street and an email from Cindy and Bill Kettyle, dated 8/2/22, regarding 484 Charles River Street. Ms. McKnight noted 484 Charles River Street is a very large parcel that the heirs of the original owners want to sell~~get rid of~~. The Town wants to acquire some of it for conservation land. Mr. Alpert noted it was around 24 or 25 acres. He said ~~T~~the Town is in discussions with the Foster family and~~.~~ ~~H~~he heard the Town is partnering with a developer.

Upon a motion made by Mr. Alpert, and seconded by Ms. McKnight, it was by a roll call vote of the four members present unanimously:
VOTED: to adjourn the meeting at 10:00 p.m.

Respectfully submitted,
Donna J. Kalinowski, Notetaker

_____
Jeanne S. McKnight, Vice-Chairman and Clerk

DRAFT

NEEDHAM PLANNING BOARD MINUTES

August 23, 2022

The Needham Planning Board regular meeting, held remotely using Zoom, was called to order by Adam Block, Chairman, on Tuesday, August 23, 2022, at 3:30 p.m. with Messrs. Alpert and Crocker and Ms. McKnight, as well as Planning Director, Ms. Newman and Assistant Planner, Ms. Clee.

Mr. Block took a roll call attendance of the Board members and staff. He noted this is an open meeting that is being held remotely per state guidelines. He reviewed the rules of conduct for zoom meetings. He noted this meeting does not include any public hearings and there will not be public comment allowed. If any votes are taken at the meeting the vote will be conducted by roll call. All supporting materials, including the agenda, are posted on the town's website.

Open meeting and vote to enter executive session.

Mr. Block noted the agenda includes one item, which is a vote to enter into Executive Session. The Executive Session is being held pursuant to MGL 30A, Subsection 21A3, to discuss strategies with respect to pending litigation relating to the appeal of the decision for 1688 Central Avenue. He would like a motion to enter into Executive Session and to adjourn directly from the Executive Session.

Executive session pursuant to M.G.L. c.30A, §21(a)(3) to discuss strategy with respect to pending litigation – Appeal of Planning Board decision on 1688 Central Avenue.

Upon a motion made by Mr. Alpert, and seconded by Mr. Crocker, it was by a roll call vote of the four members present unanimously:

VOTED: to move into Executive session for that purpose and to adjourn this public meeting automatically at the end of the session.

Respectfully submitted,0
Donna J. Kalinowski, Notetaker

_____
Jeanne S McKnight, Vice-Chairman and Clerk

DRAFT

COUNTY OF NORFOLK
COUNTY OF PRESIDENTS
REGISTRY OF DEEDS

NORFOLK REGISTRY DISTRICT OF THE LAND COURT

WILLIAM P. O'DONNELL
REGISTER OF DEEDS
ASSISTANT RECORDER OF THE
LAND COURT

RECEIVED
OCT 20 2022
PLANNING DEPARTMENT
NEEDHAM, MA

October 12, 2022

Adam Block, Chair
Needham Planning Board
1471 Highland Avenue
Needham, MA 02492

RE: Statement pursuant to G.L. c. 41, § 81L, 81X

Dear Chairman Block:

Please be advised that the Norfolk Registry of Deeds is seeking to update the records in accordance with Massachusetts General Laws, Chapter 41.

Sections 81L and 81X provide that a written statement from the Planning Board signed by a majority of the Board shall be transmitted to the Register of Deeds naming the current members of the Board authorized to sign plans or stating the name of any person so authorized by the Board to sign.

Included herein is the most recent statement we have on record for Needham. If there are no changes, please email me at jthomas@norfolkdeeds.org to inform me that there are none. If there are changes, kindly prepare and have a majority of the Board sign the appropriate statement and forward the original to my attention.

Thank you for your attention to this matter.

Very truly yours,

Jonathan Thomas
Director of Support Services

649 HIGH STREET, DEDHAM, MASSACHUSETTS 02026
TELEPHONE: 781-461-6116 FAX: 781-326-4246
EMAIL: registerodonnell@norfolkdeeds.org
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TOWN OF NEEDHAM, MA

PLANNING AND COMMUNITY
DEVELOPMENT DEPARTMENT

500 Dedham Ave
Needham, MA 02492
781-455-7500

PLANNING

October 25, 2017

William P. O'Donnell, Register of Deeds
Norfolk County Registry of Deeds
649 High Street
Dedham, MA 02026

Dear Mr. O'Donnell,

At the meeting of the Needham Planning Board on October 24, 2017, the following motion was unanimously voted:

> Chairperson Ted Owens is hereby authorized to sign "Approval Not Required" plans on behalf of the Needham Planning Board in the event of an emergency and that said plans shall be ratified at the next regular meeting of the Planning Board. Both the Land Court and Norfolk registry of Deed will be so advised.

Very truly yours,

NEEDHAM PLANNING BOARD
BY A MAJORITY OF THE MEMBERS THEREOF

Ted Owens (Chairperson)

Paul Alpert (Vice Chairperson)

Elizabeth Grimes

Martin Jacobs

Jeanne McKnight

cc: Town Clerk
Recorder of Land Court

November 1, 2022

William P. O'Donnell, Register of Deeds
Norfolk County Registry of Deeds
649 High Street
Dedham, MA 02026

Dear Mr. O'Donnell,

At the meeting of the Needham Planning Board on November 1, 2022, the following motion was unanimously voted:

> Chairperson Adam Block is hereby authorized to sign "Approval Not Required" plans on behalf of the Needham Planning Board in the event of an emergency and that said plans shall be ratified at the next regular meeting of the Planning Board. Both the Land Court and Norfolk registry of Deed will be so advised.

Very truly yours,

NEEDHAM PLANNING BOARD
BY A MAJORITY OF THE MEMBERS THEREOF

_____
Aam Block (Chairperson)

_____
Jeanne S. McKnight (Vice Chairperson)

_____
Paul Alpert

_____
Natasha Espada

_____
Artie Crocker

cc: Theodora Eaton, Needham Town Clerk
Jonathan Thomas, Director of Support Services, Norfolk County Registry of Deeds

From: noreply@civicplus.com
To: Alexandra Clee; Elisa Litchman
Subject: Online Form Submittal: Contact Planning Department
Date: Friday, October 7, 2022 2:17:47 PM

The following form was submitted via your website: Contact Planning Department

Full Name:: Chia Ling Chan

Email Address:: chialing.chan@gmail.com

Address:: 141 Noanett Rd

City/Town:: Needham

State:: MA

Zip Code:: 02494

Telephone Number:: 978 317 7799

Comments / Questions: Dear madam/sir,
I went to your last two meetings about the new project at the former Muzi Ford site. I learned that the building would have 1000 to 1200 people working there per day. That's a sudden increase of Needham population by 5% which will be all concentrated in that area. My house is one street away from Gould street. This will cause lots of traffic and infrastructure stress on the neighbors in that area.
The meetings spent a lot of time talking about the part of the project that's above the ground, but we didn't hear much about what the developer's plan to do what's below the ground.

I understand that the area (the industrial park) does not have its own sewage line. It uses the same residential line running down Noanett road, which is my street. That sewage line had a history of flooding people's houses in the past. I also learned that the project at the former Muzi Ford site will have a cafeteria. When you deal with food that could feed 1000 to 1200 people, there will be a lot of grease going down the drain.

Although the DPW has established an enhanced maintenance program for the Noanett line, some procedures in this maintenance such as jetting the lines still impose a burden on residents. Jetting has the potential to suck water out of the plumbing traps and leave the houses with no barrier between themselves and the sewer gases. Such problems can be mitigated by running water in sinks or flushing toilets once the procedure is complete. However, if this type of unpleasant side effect happens while residents are at work or on vacation, this could steep the house in sewage gases and/or endanger pets. Increasing the frequency of such maintenance will not be a suitable solution.

I would like to know if the current sewage system, especially along the Noanett road and its vicinity is big enough to accommodate the increase in size of the new project and the 5% increase of the total Needham population. I would like to know if 1000 to 1200 people flush the toilets, would their toilet water travel down the Noanett road? What is the age, condition, and capacity of the sewage pipe on the Noanett road? Can the industrial park route their sewage and drainage line down Gould street or another area other than Noanett road? Because when things get neglected, the people who will suffer are the ones on Noanett road.

Sincerely,
Chia Ling Chan

Additional Information:

Form submitted on: 10/7/2022 2:17:42 PM

Submitted from IP Address: 100.19.73.169

Referrer Page: https://linkprotect.cudasvc.com/url?a=https%3a%2f%2fwww.needhamma.gov%2f1149%2fPlanning-Community-Development&c=E,1,o7H-AQjjEdrjxWu6y5qBX0w3VLLC2zA_RLoYKv2cV8kuRCInYApRDwD7v-AA-pNXnWRazoRnQhxq0e5mfbCxmTY51oj2Q9vG6H1d3hWApmC8deD5BPgVosJ78A,,&typo=1

Form Address: https://linkprotect.cudasvc.com/url?a=http%3a%2f%2fwww.needhamma.gov%2fForms.aspx%3fFID%3d176&c=E,1,mJzDzux9o9u-or0FPmAw3a3hNbeeqoPn1x32WReuEYGs084vfm1usQvEatuHeJeS_lTIh054zkBR8b0j60Z2EF2J86yVEWveeMoCKWrS1O7W6w,,&typo=1

From: Emily Pick
To: Planning
Subject: Traffic 10/5- Bullfinch impact
Date: Tuesday, October 4, 2022 8:48:05 AM

Today at 8:30 traffic was backed up at the Gould/ Hunting intersection all the way Past Temple Beth Shalom. This is my intersection at Mills and Highland, a Street that gets completely overlooked in all of the analysis presented, as a cut through street. That Traffic Planner who presented last night, was completely unrealistic in understanding true traffic conditions in the Heights, and that's what I've been saying for YEARS.

This photo was taken at approximately 8:35 AM on Wednesday Oct 5. It took me nearly 3 minutes to get from Mills onto Highland because the traffic cops weren't doing a thing, and I had plenty of time to take pictures.

Get Outlook for iOS

From:	Linyu and Neal
To:	Planning
Cc:	Marcus Nelson
Subject:	557 Highland Ave, Needham
Date:	Tuesday, October 4, 2022 6:45:58 PM

Dear Needham Planning Board,

As you deliberate on the special permit request by Bulfinch for the redevelopment in the Highway Commercial 1 District, I urge you to deny the permit based on the current proposal. **We, as Town of Needham residents, have nothing substantial to gain from granting this special permit, but we do have a lot to lose:**

1) We will suffer from increased traffic near 557 Highland Ave and in adjoining residential streets.

2) We are ill prepared as a town to provide oversight on safety at the lab complex and, as such, will be at increased risk because of improper enforcement of biological safety procedures.

3) We will suffer from infrastructure demands on our water supply and sewer system, and we risk a decline in air quality from the exhaust of autoclaves and incinerators.

The developer has promised the town will have access to pickleball courts, a restaurant, and a walking trail. These amenities are all available elsewhere in town. The incremental tax revenue from granting a 1.25 FAR vs. 0.7-1.0 FAR has not been explicitly disclosed. Even if there is an incremental $2.5 M gain in tax revenue, this sum represents only 1% of our town's annual operating budget.

After denying the current request for a special permit, my fellow residents and I propose you work with Bulfinch on the **design of a smaller complex**. By doing so, **some of the concerns can be mitigated**:

1) Based on their traffic study, Greenman-Pedersen, Inc. (GPI) stated in their November 13, 2020 memo "To mitigate the impacts of the proposed redevelopment, GPI recommends widening of Highland Avenue to **provide a dedicated right-turn lane from Highland Avenue westbound onto Gould Street**, which would be channelized and signalized as part of the intersection. This would require analysis of the weaving condition between the I-95 SB Off-Ramp and the channelized right-turn to ensure proper spacing exists between the intersections to provide an efficient and safe weaving condition."

This recommendation has not been incorporated into the current proposal from Bulfinch. At a minimum, Highland Ave. should be widened to help manage the expected increase in traffic. **Furthermore, we should require widening the road all the way from the I-95 southbound offramp onto Highland Ave. westbound all the way to Gould St. There will be enough land available to widen Highland Ave. if the size of the building is reduced to a 1.0 FAR.**

While it was stated during last night's meeting that the developer would be required to pay for additional traffic mitigation if the traffic turns out to be worse than anticipated, it will be too late to move the building back and widen Highland Ave. after construction is complete. Therefore, this mitigation should be put in place now.

2) Prepare a plan to manage the presence of a major biological lab complex in our town. Town residents have expressed concern that our town officials are not prepared to ensure monitoring of safety protocols at the facility and building a larger complex would increase the risk to the town. **Nearby towns of Lexington, Natick, Waltham, Watertown, Wellesley, and Weston have all been trying to figure out how to deal with proposed biological labs and to ensure the safety of residents.** We need to understand their assessments of the situation.

While labs are required to follow national and state regulations, they are essentially self-regulated. NIH and CDC guidelines are only recommendations. U.S. Occupational Safety and Health Administration (OSHA) has some enforcement capabilities, but they are likely focused on worker

safety. Various federal and state regulations require laboratory inspections to be conducted only on an annual basis for all BL2 laboratories and higher and at least once every two years for BL1 laboratories. Again, these inspections are conducted by an internal team, i.e. self-regulated. We need more explicit rules in place in Needham, with town oversight that inspections are being conducted routinely. One solution may be to require the developer to reimburse the town for technical experts to provide advice on regulations and to manage safety monitoring.

3) By reducing the size of the proposed biological laboratory complex, we will at least decrease the infrastructure and environmental impact. In addition, the Planning Board should require that the developer obtains **LEED certification** for the new buildings to address carbon, energy, water, waste, transportation, materials, health and indoor environmental quality.

As our elected representatives, please act in the best interests of the residents of the Town of Needham and deny the special permit request at this time. We need to work with Bulfinch to arrive at a smaller building which will allow better traffic mitigation measures to be put in place, to reduce safety risks, and to minimize infrastructure and environmental impacts.

Sincerely,

Neal Mitra

23 Grasmere Road, Needham

From: Shari Stier
To: Planning
Cc: Shari Stier
Subject: Hear our voices and represent Needham PLEASE
Date: Wednesday, October 5, 2022 6:57:36 AM

Dear Needham Planning Board,

As you deliberate on the special permit request by Bulfinch for the redevelopment in the Highway Commercial 1 District, I urge you to deny the permit based on the current proposal. We, as Town of Needham residents, have nothing substantial to gain from granting this special permit, but we do have a lot to lose:

1) We will suffer from increased traffic near 557 Highland Ave and in adjoining residential streets.

2) We are ill prepared as a town to provide oversight on safety at the lab complex and, as such, will be at increased risk because of improper enforcement of biological safety procedures.

3) We will suffer from infrastructure demands on our water supply and sewer system, and we risk a decline in air quality from the exhaust of autoclaves and incinerators.

The developer has promised the town will have access to pickleball courts, a restaurant, and a walking trail. These amenities are all available elsewhere in town. The incremental tax revenue from granting a 1.25 FAR vs. 0.7-1.0 FAR has not been explicitly disclosed. Even if there is an incremental $2.5 M gain in tax revenue, this sum represents only 1% of our town's annual operating budget.

After denying the current request for a special permit, my fellow residents and I propose you work with Bulfinch on the design of a smaller complex. By doing so, some of the concerns can be mitigated:

1) Based on their traffic study, Greenman-Pedersen, Inc. (GPI) stated in their November 13, 2020 memo "To mitigate the impacts of the proposed redevelopment, GPI recommends widening of Highland Avenue to provide a dedicated right-turn lane from Highland Avenue westbound onto Gould Street, which would be channelized and signalized as part of the intersection. This would require analysis of the weaving condition between the I-95 SB Off-Ramp and the channelized right-turn to ensure proper spacing exists between the intersections to provide an efficient and safe weaving condition."

This recommendation has not been incorporated into the current proposal from Bulfinch. At a minimum, Highland Ave. should be widened to help manage the expected increase in traffic. Furthermore, we should require widening the road all the way from the I-95 southbound offramp onto Highland Ave. westbound all the way to Gould St. There will be enough land available to widen Highland Ave. if the size of the building is reduced to a 1.0 FAR.

While it was stated during last night's meeting that the developer would be

required to pay for additional traffic mitigation if the traffic turns out to be worse than anticipated, it will be too late to move the building back and widen Highland Ave. after construction is complete. Therefore, this mitigation should be put in place now.

2) Prepare a plan to manage the presence of a major biological lab complex in our town. Town residents have expressed concern that our town officials are not prepared to ensure monitoring of safety protocols at the facility and building a larger complex would increase the risk to the town. Nearby towns of Lexington, Natick, Waltham, Watertown, Wellesley, and Weston have all been trying to figure out how to deal with proposed biological labs and to ensure the safety of residents. We need to understand their assessments of the situation.

While labs are required to follow national and state regulations, they are essentially self-regulated. NIH and CDC guidelines are only recommendations. U.S. Occupational Safety and Health Administration (OSHA) has some enforcement capabilities, but they are likely focused on worker safety. Various federal and state regulations require laboratory inspections to be conducted only on an annual basis for all BL2 laboratories and higher and at least once every two years for BL1 laboratories. Again, these inspections are conducted by an internal team, i.e. self-regulated. We need more explicit rules in place in Needham, with town oversight that inspections are being conducted routinely. One solution may be to require the developer to reimburse the town for technical experts to provide advice on regulations and to manage safety monitoring.

3) By reducing the size of the proposed biological laboratory complex, we will at least decrease the infrastructure and environmental impact. In addition, the Planning Board should require that the developer obtains LEED certification for the new buildings to address carbon, energy, water, waste, transportation, materials, health and indoor environmental quality.

As our elected representatives, please act in the best interests of the residents of the Town of Needham and deny the special permit request at this time. We need to work with Bulfinch to arrive at a smaller building which will allow better traffic mitigation measures to be put in place, to reduce safety risks, and to minimize infrastructure and environmental impacts.

Sincerely,
Shari Stier

Park Avenue

From:	Alexa
To:	Planning
Subject:	Input from voting Needham resident
Date:	Wednesday, October 5, 2022 10:44:23 AM

Dear Needham Planning Board,

As you deliberate on the special permit request by Bulfinch for the redevelopment in the Highway Commercial 1 District, I urge you to deny the permit based on the current proposal. As a resident, I am saddened that the Planning Board seems to think its job is to bring more development and businesses into Needham. I would prefer to see that land as 100% green space. We, as Town of Needham residents, have nothing substantial to gain from granting this special permit, but we do have a lot to lose:

1) We will suffer from increased traffic near 557 Highland Ave and in adjoining residential streets.

2) We are ill prepared as a town to provide oversight on safety at the lab complex and, as such, will be at increased risk because of improper enforcement of biological safety procedures.

3) We will suffer from infrastructure demands on our water supply and sewer system, and we risk a decline in air quality from the exhaust of autoclaves and incinerators.

The developer has promised the town will have access to pickleball courts, a restaurant, and a walking trail. These amenities are all available elsewhere in town. The incremental tax revenue from granting a 1.25 FAR vs. 0.7-1.0 FAR has not been explicitly disclosed. Even if there is an incremental $2.5 M gain in tax revenue, this sum represents only 1% of our town's annual operating budget.

After denying the current request for a special permit, my fellow residents and I propose you work with Bulfinch on the design of a smaller complex. By doing so, some of the concerns can be mitigated:

1) Prepare a plan to manage the presence of a major biological lab complex in our town. Town residents have expressed concern that our town officials are not prepared to ensure monitoring of safety protocols at the facility and building a larger complex would increase the risk to the town. Nearby towns of Lexington, Natick, Waltham, Watertown, Wellesley, and Weston have all been trying to figure out how to deal with proposed biological labs and to ensure the safety of residents. We need to understand their assessments of the situation.

While labs are required to follow national and state regulations, they are essentially self-regulated. NIH and CDC guidelines are only recommendations. U.S. Occupational Safety and Health Administration (OSHA) has some enforcement capabilities, but they are likely

focused on worker safety. Various federal and state regulations require laboratory inspections to be conducted only on an annual basis for all BL2 laboratories and higher and at least once every two years for BL1 laboratories. Again, these inspections are conducted by an internal team, i.e. self-regulated. We need more explicit rules in place in Needham, with town oversight that inspections are being conducted routinely. One solution may be to require the developer to reimburse the town for technical experts to provide advice on regulations and to manage safety monitoring.

2) By reducing the size of the proposed biological laboratory complex, we will at least decrease the infrastructure and environmental impact. In addition, the Planning Board should require that the developer obtains LEED certification for the new buildings to address carbon, energy, water, waste, transportation, materials, health and indoor environmental quality.

As our elected representatives, please act in the best interests of the residents of the Town of Needham and deny the special permit request at this time. We need to work with Bulfinch to arrive at a smaller building which will allow better traffic mitigation measures to be put in place, to reduce safety risks, and to minimize infrastructure and environmental impacts.

Sincerely,

Alexa Mukherjee

From:	Larry Nathanson
To:	Planning; Robert Schlager
Cc:	Sean Manning
Subject:	Re: [External] [External] 557 Highland and Noanett Rd in Needham
Date:	Wednesday, October 5, 2022 5:24:07 PM

To the planning board and Mr. Schlager,

First and foremost I'd like to thank everyone for the open dialogue and the responsiveness to the concerns of the community.

My biggest concern remains the potential for a negative effect on Noanett and its side streets. I fear a large amount of cut through traffic will greatly diminish the neighborhood and represent a safety hazard to the kids outside playing and walking to school daily.

I know some plans for mitigation had previously been mentioned. However Noanett had not been included on any of the prior traffic studies I'd seen, so it it not clear to me how much of that benefit was conjecture vs grounded in data.

During the meeting on 10/3, Mr. Block made brief mention of a plan to more formally study the effect on Noanett and ways to mitigate the impact.

That is extremely encouraging news and I would love to learn more. What is the timing for this? Will the results impact the planning board process? I can't think of a better way to allay the concerns of myself and my neighbors.

It remains my hope that this project can be done in a manner that benefits the community as well as Bulfinch.

Thanks so much.

--Larry Nathanson
52 Noanett Rd, Needham

From: A0l Mail
To: Planning
Subject: MUZI FORD COMPLEX
Date: Thursday, October 6, 2022 3:20:57 PM

Dear planning,
Bruno DiFazio 190 Hunting rd Needham,

I am opposed to this project, We are sticking a large chemical plant next to a residential area. We did have the Needham industrial park for that purpose. We are converting the industrial park into residential, and moving the industrial park into a residential area. That is not what i want to see as the first thing coming into the town, a huge chemical plant. You can't put lipstick on a pig. It is massive!!!
It is not the town of Needham's problem that the Bulfinch company over paid for the property.

They need to build something more reasonable in size.

Thank you Bruno

From:	Chialing Chan
To:	Planning
Subject:	Sewage and drainage issue for new project at former Muzi Ford site
Date:	Friday, October 7, 2022 2:24:54 PM

Dear members of planning board,
I went to your last two meetings about the new project at the former Muzi Ford site. I learned that the building would have 1000 to 1200 people working there per day. That's a sudden increase of Needham population by 5% which will be all concentrated in that area. My house is one street away from Gould street. This will cause lots of traffic and infrastructure stress on the neighbors in that area.
The meetings spent a lot of time talking about the part of the project that's above the ground, but we didn't hear much about what the developer's plan to do what's below the ground.

I understand that the area (the industrial park) does not have its own sewage line. It uses the same residential line running down Noanett road, which is my street. That sewage line had a history of flooding people's houses in the past. I also learned that the project at the former Muzi Ford site will have a cafeteria. When you deal with food that could feed 1000 to 1200 people, you are dealing with a lot of grease going down the drain.

Although the DPW has established a maintenance program for the Noanett line, some procedures in this maintenance such as jetting the lines still impose a burden on residents. Jetting has the potential to suck water out of the plumbing traps and leave the houses with no barrier between themselves and the sewer gases. Such problems can be mitigated by running water in sinks or flushing toilets once the procedure is complete. However, if this type of unpleasant side effect happens while residents are at work or on vacation, this could steep the house in sewage gases and/or endanger pets. Increasing the frequency of such maintenance will not be a suitable solution.

Furthermore, I would like to know if the current sewage system, especially along the Noanett road and its vicinity is big enough to accommodate the increase in size of the new project and the 5% increase of the total Needham population. I would like to know if 1000 to 1200 people flush the toilets, would their toilet water travel down the Noanett road? What is the age, condition, and capacity of the sewage pipe on the Noanett road? Can the industrial park route their sewage and drainage line down Gould street or another area other than Noanett road? Because when things get neglected, the people who will suffer are the ones on Noanett road.

Sincerely,
Chia Ling Chan
978 317 7799
141 Noanett Rd
Needham MA 02494

From:	Gilad Skolnick
To:	Planning
Cc:	Rachel Gurevich; Selectboard
Subject:	Concern over special permit request
Date:	Monday, October 10, 2022 1:49:12 PM

Dear Needham Planning Board,

As you deliberate on the special permit request by Bulfinch for the redevelopment in the Highway Commercial 1 District, I urge you to deny the permit based on the current proposal. We, as Town of Needham residents, have nothing substantial to gain from granting this special permit, but we do have a lot to lose:

1) We will suffer from increased traffic near 557 Highland Ave and in adjoining residential streets.

2) We are ill prepared as a town to provide oversight on safety at the lab complex and, as such, will be at increased risk because of improper enforcement of biological safety procedures.

3) We will suffer from infrastructure demands on our water supply and sewer system, and we risk a decline in air quality from the exhaust of autoclaves and incinerators.

The developer has promised the town will have access to pickleball courts, a restaurant, and a walking trail. These amenities are all available elsewhere in town. The incremental tax revenue from granting a 1.25 FAR vs. 0.7-1.0 FAR has not been explicitly disclosed. Even if there is an incremental $2.5 M gain in tax revenue, this sum represents only 1% of our town's annual operating budget.

After denying the current request for a special permit, my fellow residents and I propose you work with Bulfinch on the design of a smaller complex. By doing so, some of the concerns can be mitigated:

1) Based on their traffic study, Greenman-Pedersen, Inc. (GPI) stated in their November 13, 2020 memo "To mitigate the impacts of the proposed redevelopment, GPI recommends widening of Highland Avenue to provide a dedicated right-turn lane from Highland Avenue westbound onto Gould Street, which would be channelized and signalized as part of the intersection. This would require analysis of the weaving condition between the I-95 SB Off-Ramp and the channelized right-turn to ensure proper spacing exists between the intersections to provide an efficient and safe weaving condition."

This recommendation has not been incorporated into the current proposal from Bulfinch. At a minimum, Highland Ave. should be widened to help manage the expected increase in traffic. Furthermore, we should require widening the road all the way from the I-95 southbound offramp onto Highland Ave. westbound all the way to Gould St. There will be enough land available to widen Highland Ave. if the size of the building is reduced to a 1.0 FAR.

While it was stated during last night's meeting that the developer would be required to pay for additional traffic mitigation if the traffic turns out to be worse than anticipated, it will be too late to move the building back and widen Highland Ave. after construction is complete. Therefore, this mitigation should be put in place now.

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3) By reducing the size of the proposed biological laboratory complex, we will at least decrease the infrastructure and environmental impact. In addition, the Planning Board should require that the developer obtains LEED certification for the new buildings to address carbon, energy, water, waste, transportation, materials, health and indoor environmental quality.

As our elected representatives, please act in the best interests of the residents of the Town of Needham and deny the special permit request at this time. We need to work with Bulfinch to arrive at a smaller building which will allow better traffic mitigation measures to be put in place, to reduce safety risks, and to minimize infrastructure and environmental impacts.

Sincerely,
Gilad & Rachel Skolnick
33 Park Ave

From: Chialing Chan
To: Planning
Cc: Lee Newman
Subject: Re: Sewage and drainage issue for new project at former Muzi Ford site
Date: Tuesday, October 11, 2022 6:12:55 PM

I would like the Planning Board to take into consideration of my concern and the concerns of many others in the last two meetings. Also, it's very important for the Planning Board to consider the age and the capacity of the underground infrastructure, such as the sewage line, when they are deciding to change the rules for the new project. After all, the new project will add 1000 to 1200 people and is asking for a variant.
I also would like the board to know that jetting the sewage line on Noanett Road had caused the water to suck out of toilets, caused the sewage fumes into my house, and somehow caused toilets to hiss and splatter water droplets all over the place. This ended up with us having to open all the windows to air out the house, clean the bathrooms and the sink and its surrounding area in the basement, and wash all the linens and clothes in the house. It was very stressful to me and my family. Not to mention the sewage backup into my house a few years back.

On Tue, Oct 11, 2022 at 2:36 PM Planning <planning@needhamma.gov> wrote:

> Hi there,
>
> I have received your email. I will share your email with the Planning Board as general correspondence, but the hearing closed on 10/3, so we cannot accept any additional testimony in the hearing.
>
> Thanks, alex.
>
> Alexandra Clee
>
> Assistant Town Planner
>
> Needham, MA
>
> 781-455-7550 ext. 271
>
> www.needhamma.gov

From: Chialing Chan <chialing.chan@gmail.com>
Sent: Friday, October 7, 2022 2:25 PM
To: Planning <planning@needhamma.gov>
Subject: Sewage and drainage issue for new project at former Muzi Ford site

Dear members of planning board,
I went to your last two meetings about the new project at the former Muzi Ford site. I learned that the building would have 1000 to 1200 people working there per day. That's a sudden increase of Needham population by 5% which will be all concentrated in that area. My house is one street away from Gould street. This will cause lots of traffic and infrastructure stress on the neighbors in that area.
The meetings spent a lot of time talking about the part of the project that's above the ground, but we didn't hear much about what the developer's plan to do what's below the ground.

I understand that the area (the industrial park) does not have its own sewage line. It uses the same residential line running down Noanett road, which is my street. That sewage line had a history of flooding people's houses in the past. I also learned that the project at the former Muzi Ford site will have a cafeteria. When you deal with food that could feed 1000 to 1200 people, you are dealing with a lot of grease going down the drain.

Although the DPW has established a maintenance program for the Noanett line, some procedures in this maintenance such as jetting the lines still impose a burden on residents. Jetting has the potential to suck water out of the plumbing traps and leave the houses with no barrier between themselves and the sewer gases. Such problems can be mitigated by running water in sinks or flushing toilets once the procedure is complete. However, if this type of unpleasant side effect happens while residents are at work or on vacation, this could steep the house in sewage gases and/or endanger pets. Increasing the frequency of such maintenance will not be a suitable solution.

Furthermore, I would like to know if the current sewage system, especially along the Noanett road and its vicinity is big enough to accommodate the increase in size of the new project and the 5% increase of the total Needham population. I would like to know if 1000 to 1200 people flush the toilets, would their toilet water travel down the Noanett road? What is the age, condition, and capacity of the sewage pipe on the Noanett road? Can the industrial park route their sewage and drainage line down Gould street or another area other than Noanett road? Because when things get neglected, the people who will suffer are the ones on Noanett road.

Sincerely,

Chia Ling Chan

978 317 7799

141 Noanett Rd

Needham MA 02494

From: Chris Ruggeri
To: Planning
Subject: Vote NO!
Date: Friday, October 14, 2022 4:48:58 PM

Dear Needham Planning Board,

As you deliberate on the special permit request by Bulfinch for the redevelopment in the Highway Commercial 1 District, I urge you to deny the permit based on the current proposal. We, as Town of Needham residents, have nothing substantial to gain from granting this special permit, but we do have a lot to lose:

1) We will suffer from increased traffic near 557 Highland Ave and in adjoining residential streets.

2) We are ill prepared as a town to provide oversight on safety at the lab complex and, as such, will be at increased risk because of improper enforcement of biological safety procedures.

3) We will suffer from infrastructure demands on our water supply and sewer system, and we risk a decline in air quality from the exhaust of autoclaves and incinerators.

The developer has promised the town will have access to pickleball courts, a restaurant, and a walking trail. These amenities are all available elsewhere in town. The incremental tax revenue from granting a 1.25 FAR vs. 0.7-1.0 FAR has not been explicitly disclosed. Even if there is an incremental $2.5 M gain in tax revenue, this sum represents only 1% of our town's annual operating budget.

After denying the current request for a special permit, my fellow residents and I propose you work with Bulfinch on the design of a smaller complex. By doing so, some of the concerns can be mitigated:

1) Based on their traffic study, Greenman-Pedersen, Inc. (GPI) stated in their November 13, 2020 memo "To mitigate the impacts of the proposed redevelopment, GPI recommends widening of Highland Avenue to provide a dedicated right-turn lane from Highland Avenue westbound onto Gould Street, which would be channelized and signalized as part of the intersection. This would require analysis of the weaving condition between the I-95 SB Off-Ramp and the channelized right-turn to ensure proper spacing exists between the intersections to provide an efficient and safe weaving condition."

This recommendation has not been incorporated into the current proposal from Bulfinch. At a minimum, Highland Ave. should be widened to help manage the expected increase in traffic.

Furthermore, we should require widening the road all the way from the I-95 southbound offramp onto Highland Ave. westbound all the way to Gould St. There will be enough land available to widen Highland Ave. if the size of the building is reduced to a 1.0 FAR.

While it was stated during last night's meeting that the developer would be required to pay for additional traffic mitigation if the traffic turns out to be worse than anticipated, it will be too late to move the building back and widen Highland Ave. after construction is complete. Therefore, this mitigation should be put in place now.

2) Prepare a plan to manage the presence of a major biological lab complex in our town. Town residents have expressed concern that our town officials are not prepared to ensure monitoring of safety protocols at the facility and building a larger complex would increase the risk to the town. Nearby towns of Lexington, Natick, Waltham, Watertown, Wellesley, and Weston have all been trying to figure out how to deal with proposed biological labs and to ensure the safety of residents. We need to understand their assessments of the situation.

While labs are required to follow national and state regulations, they are essentially self-regulated. NIH and CDC guidelines are only recommendations. U.S. Occupational Safety and Health Administration (OSHA) has some enforcement capabilities, but they are likely focused on worker safety. Various federal and state regulations require laboratory inspections to be conducted only on an annual basis for all BL2 laboratories and higher and at least once every two years for BL1 laboratories. Again, these inspections are conducted by an internal team, i.e. self-regulated. We need more explicit rules in place in Needham, with town oversight that inspections are being conducted routinely. One solution may be to require the developer to reimburse the town for technical experts to provide advice on regulations and to manage safety monitoring.

3) By reducing the size of the proposed biological laboratory complex, we will at least decrease the infrastructure and environmental impact. In addition, the Planning Board should require that the developer obtains LEED certification for the new buildings to address carbon, energy, water, waste, transportation, materials, health and indoor environmental quality.

As our elected representatives, please act in the best interests of the residents of the Town of Needham and deny the special permit request at this time. We need to work with Bulfinch to arrive at a smaller building which will allow better traffic mitigation measures to be put in place, to reduce safety risks, and to minimize infrastructure and environmental impacts.

Sincerely,

Chris Ruggeri

From:	Tamara Small
To:	Planning
Subject:	Support for Highland Innovation Center at 557 Highland Avenue, Needham
Date:	Friday, October 21, 2022 10:27:54 AM

Dear Needham Planning Board Members,

I understand you are considering a project proposed by The Bulfinch Companies to redevelop the former Muzi Site on Highland Avenue. As the CEO of NAIOP Massachusetts, The Commercial Real Estate Development Association – a proud Needham-based trade association and a tenant of Bulfinch Companies at 144 Gould St. for 20 years - I am writing to let you know I strongly support this project.

NAIOP Massachusetts represents the interests of companies involved with the development, ownership, management, and financing of commercial properties. NAIOP has over 1,700 members who are involved with office, lab, industrial, mixed use, multifamily, retail and institutional space.

The Bulfinch Companies are active NAIOP members, and in 2020 they were recognized by our association for Employee Engagement during the pandemic for their excellent and creative implementation of new strategies to keep their workforce team safe, healthy, connected, and engaged. The Bulfinch Companies are a community leader both in Needham and across the market, as seen in their exceptional community outreach and engagement during this process.

The redevelopment of the Muzi site under The Bulfinch Companies' project proposal will have lasting positive impacts on Needham. In addition to significant tax revenue, the project will have a beneficial environmental impact by cleaning up the former Muzi Ford Dealership and car wash. In the redeveloped parcel, Bulfinch will activate the site for public use, with new public amenities including pickleball courts and a walking path – something I know our NAIOP team and the broader community will enjoy. Furthermore, I understand the project will result in a widening of Gould Street which will alleviate the traffic congestion that has long hampered this roadway. As a business leader located on Gould Street who has driven on this road for the past two decades, this is a critical and necessary infrastructure investment for the many workers and residents who use Gould Street daily.

Thank you for your consideration of my comments. I hope you will approve The Bulfinch Companies' proposal for the Muzi site.

Best,
Tamara Small

Tamara Small (she/her/hers)
CEO | **NAIOP Massachusetts**
The Commercial Real Estate Development Association
144 Gould Street, Suite 140 | Needham, MA 02494
(781) 453-6900 x5 | small@naiopma.org

Not yet a NAIOP member? Join today

Connect with NAIOP Massachusetts: Twitter | LinkedIn | YouTube

From: noreply@civicplus.com
To: Alexandra Clee; Lee Newman; Elisa Litchman
Subject: Online Form Submittal: Contact Planning Board
Date: Tuesday, October 25, 2022 2:26:22 PM

The following form was submitted via your website: Contact Planning Board

Full Name:: Jeff Katz

Email Address:: Jeffrey.Katz@ropesgray.com

Address:: 92 Henderson St.

City/Town:: Needham

State:: MA

Zip Code:: 02492

Telephone Number:: 6178925814

Comments / Questions: I would love to see more multi-family / mixed use development around Needham Center and within close walking distance to other commuter rail stations in Needham. The housing would attract young professionals, especially those considering putting roots in Needham, and the increased density would help support our local restaurants and other businesses. I feel like Needham is falling behind on this point. Attractive four story units with retail / office space on the first floor would bring more life to town and, in my opinion, not interfere too much with the "feel" of the town. I see similar development in areas of Coolidge Corner in Brookline and I'd love to see more in Needham. We would also be taking cars off the road due to the proximity of the commuter rail stations.

Additional Information:

Form submitted on: 10/25/2022 2:26:15 PM

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From: noreply@civicplus.com
To: Alexandra Clee; Lee Newman; Elisa Litchman
Subject: Online Form Submittal: Contact Planning Board
Date: Wednesday, October 26, 2022 7:03:51 AM

The following form was submitted via your website: Contact Planning Board

Full Name:: Lisa Stavropoulos

Email Address:: Lisastavropoulos@msn.com

Address:: 338 Charles river st

City/Town:: Needham

State:: MA

Zip Code:: 02492

Telephone Number:: 781-710-6712

Comments / Questions: I want to discuss the townhouse proposal and details about project. I am the neighbor. Sometimes it's not just about making a buck!! We are acre zoned residential.. If they can divide we all should be able too as well…. How can the town pay 2.5 million for wetlands that are not buildable? That is a great for the developer…. He got an extra 2.5 from the town to do whatever they want…. What a joke……
I was at the meeting those members who got to proclaim the great idea!!! live on the other side of Needham…like the woman that wants this for her grandkids.. she was opposed to a project on her street. I would like to have some information. Please
Thank you Lisa

Additional Information:

Form submitted on: 10/26/2022 7:03:46 AM

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