



LEBANON HERITAGE COMMISSION - SPECIAL MEETING

TUESDAY, JULY 30, 2024 - 2:30 PM
COUNCIL CHAMBERS, CITY HALL OR
REMOTE VIA VIRTUAL PLATFORM
LEBANONNH.GOV/LIVE

1. Call to Order

- A. To participate in this meeting, please [join live via Microsoft Teams](#) or call 929-229-5356 (access code:481 794 798#). If you have trouble accessing this meeting, please [email catheryn.hembree@lebanonnh.gov](mailto:catheryn.hembree@lebanonnh.gov).

2. Approval of Minutes

- A. None

3. Planning Board Application for Review & Comments

- A. **Discussion: Brickyard One Nominee Trust, 174 Hanover Street Ext (Tax Map 48, Lot 4), 0 Hanover Street Ext (Tax Map 48, Lot 2), 0 Hanover Street Ext (Tax Map 48, Lot 1), and 238 Hanover Street (Tax Map 63, Lot 1), zoned R-1, R-O-1 & R-3: Site plan review for a proposed 474-unit multi-family residential development totaling +/- 731,600 sq. ft. in size, consisting of 11 buildings together with parking, utilities, landscaping, access, and other related site improvements.**
PB2024-22-SPR

4. Other Business

- A. Tunnel Art Project

5. Adjournment

The order of agenda items is subject to change.

Meetings are open for in-person and remote attendance. Members of the public that wish to attend remotely may do so by going to [LebanonNH.gov/Live](https://lebanonnh.gov/Live) where you will find instructions on how to enter the meeting. Members of the public will be able to participate and ask questions through the City's virtual platform or by phone. Please note: Should technical difficulties occur during the meeting that disrupts virtual or phone connection(s), the meeting will continue without remote access capabilities.



May 13, 2024

Ref: 52933.00

Mr. Nathan Reichert
Planning and Development Director
51 North Park Street
City Hall, 5th Floor
Lebanon, NH 03766

Re: The Brickyard Multi-family Planned Unit Residential Development (PURD)
174 Hanover Street Ext. & 238 Hanover Street (Map 48 Lots 1, 2, & 4 and Map 63 Lot 1)
Project Description and Impact Statement for Site Plan Review

Mr. Reichert,

In support of the site plan review application, this letter provides a project description and impact statements for the proposed multi-family Planned Unit Residential Development (PURD) project (the Project) located at 174 Hanover Street Extension & 238 Hanover Street (the Site).

Project Description

Summary

The Applicant, Brickyard One Nominee Trust, is proposing a new multi-family Planned Unit Residential Development (PURD) with associated parking, stormwater management, utilities, landscaping, and pedestrian/vehicular access, on Tax Map 48 Lots 1, 2, and 4 and Tax Map 63 Lot 1 located at 174 Hanover Street Extension and 238 Hanover Street. As currently proposed, the Project is comprised of ten four story residential apartment buildings over vehicular parking, totaling 473 units. An additional building is proposed at the northeast corner of the Site, which is anticipated to contain the development's leasing office, maintenance shop, and one residential unit for the on-site property manager.

The Site encompasses approximately 133.5 acres on four parcels of land primarily consisting of woodland, with areas previously developed as the former Densmore Brick Company's mining and manufacturing facility and a series of electric transmission lines. The overall property that the Project is situated within includes four local zoning districts, however all work is proposed within the R-1, R-3, and RO-1 districts. The RL3 district area that covers approximately 105 acres toward the rear of the property will not be developed as part of this application and has not been included in the PURD density or open space calculations (refer to attached PURD calculation figures). The RL3 property area may be developed as part

Engineers | Scientists | Planners | Designers

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Suite 200
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of a separate future application, with access provided through the Project Site utilizing one of the proposed below-building parking area driveways.

The Site topography consists of significant grade change, generally sloping down from west to east. Densmore Pond and associated streams and wetland resource areas are situated at the low point of the Site near Hanover Street.

The site improvements include a looped driveway accessed via Hanover Street at either end, additional surface parking throughout the site, and parking below the ten apartment buildings. The Project was designed to minimize disturbances to the existing wetlands to the maximum extent possible. A trail system is present north and northwest of the Site. The Site is proximate to I-89 access, the Hanover Street School and Lebanon High School, and is within 2 miles of Dartmouth Hitchcock Medical Center. Additionally, Advance Transit's Heater Landing bus stop is currently only 0.2 miles from the Site, however with the additional ridership resulting from this project, there is potential to coordinate future stops.

These components of the development are discussed in greater detail in the following sections. Please also refer to the attached site plans for a graphical depiction of the Project as well as technical details.

Site Layout

The site layout was developed in a way that accommodates the existing site characteristics, including topography, wetlands, Densmore Pond, and surrounding roadways, and respects the nearby existing mountain biking trail system. Proposed buildings are oriented to balance earthwork, minimize the overall disturbed area. Additionally, the Project intends to activate the area along the banks of Densmore Pond and overlooking the brick kilns as resident amenities and a tribute to the Site's legacy.

Vehicular circulation is provided via a looped driveway accessed via two full-service curb cuts along Hanover Street. Two access points provides continuous fire access and disburses daily traffic, and is offset by the removal of two existing driveway curb cuts. Parking is available along both sides of the site driveway and each apartment building will be constructed using podium style construction, offering vehicular access to a covered parking area below the building. Addressing the natural topography and reducing the Project's overall disturbance, below-building parking areas will be built into the hillside, with the exceptions of Buildings 1, 6, and 7. As such the first floors of Buildings 2-5 are at-grade on the driveway side, and the first floors of Buildings 8-10 are at-grade on the side opposite the driveway. The parking levels are at least partially open-air on the remaining three sides. Buildings 1, 6, and 7 are true podium style buildings in that the parking area below the building is open-air on all four sides. It should also be noted that parking spaces below buildings are reduced to 8'x18' to allow more covered parking and reduce site impervious area. Site parking spaces regulated by the Zoning Ordinance meet the required 9'x18' dimensions.

Amenity spaces in the forms of a walking path along Densmore Pond, patios, a dog park, and overlook areas leverage site features and topography to offer tenants welcoming outdoor spaces and viewpoints.



Transportation

Access to the Site will be provided via a looped driveway accessed via two full-service curb cuts along Hanover Street. As described previously, parking spaces exceeding the quantity required by the local zoning ordinance is proposed throughout the Site comprised of a combination of covered and typical surface parking. Due to the target bedroom mix, residents owning multiple vehicles are anticipated and as such the Applicant believes that additional parking above the minimum requirement is an operational improvement. The layout has been designed to accommodate circulation of emergency vehicles. The Applicant is providing bike storage on-site in excess of the quantity required by the local zoning ordinance. A sidewalk exists on the east side of Hanover Street, accessed from the Site via crosswalk at its southern driveway entrance. The Site is proximate to I-89 access and less than one quarter mile from Advance Transit's Heater Landing bus stop. A Traffic Impact Study has been provided as part of this application, and discusses existing and proposed traffic conditions in detail.

Wetlands

Existing wetlands exist on-site and were field delineated by Goddard Consulting. As such the Project falls within the Wetlands Conservation District. Based on the wetland inventory, as depicted on the Lebanon Wetland Overlay District Map, none of the wetlands on the site are listed as High or Very High Value wetland inventory, and therefore there are no associated buffers zones.

Wetlands have been respected in the design of the Project to the maximum extent practicable, with priority given to minimizing wetland impacts. Due to the location of the wetlands on-site, access to the development area requires that both proposed site driveways include one stream and associated bordering wetland crossing. To minimize wetland impacts by locating driveway crossings at the narrowest suitable areas, the Applicant acquired parcel 63-1 and realigned the original driveway layouts. The resultant cumulative proposed wetland impacts are less than 3,000 SF and as such the Project is expected to require a minimal impact permit from the NHDES Wetlands Bureau. Accordingly, the Project is exempt from a special exception requirement at the local level.

Stormwater Management

The Project will provide a stormwater management system pursuant to City of Lebanon and New Hampshire Department of Environmental Services (NHDES) regulations. To provide adequate water quality and water quantity control, improvements to the stormwater management system will include new catch basins and pipe network infrastructure that will direct the stormwater runoff to a series of surface and subsurface treatment/detention systems to achieve water quality and quantity control. A comprehensive Stormwater Management Report has been completed and is included with this site plan review application. Please refer to that document for detailed stormwater management information.



Utilities

Connections to existing municipal and private utilities located in Hanover Street are proposed as follows.

Water

The Project will connect to the existing 10" water main within Hanover Street at both proposed driveway locations to create a looped water main providing domestic and fire protection services throughout the Site. Existing fire hydrants are located along Hanover Street and not intended to be modified by the Project. Additionally, the Project proposes hydrants along the site driveway intended to provide appropriate building coverage and easy access for apparatus. Hydrant locations and apparatus accommodations shall be reviewed by the Lebanon Fire Department. Hydrant flow testing will be conducted to confirm the existing pressures and flow rates near the Site and support the buildings' fire protection design by others.

Sewer

The Project will connect to the existing 12" PVC sewer main in Hanover Street at both proposed driveway locations. Connections are anticipated to consist of new precast concrete manhole structures installed along the existing sewer main with masonry troughs to properly introduce sanitary sewage flow generated by the development to the flow in the existing main.

Other Utilities

Electric, phone, cable/data, and fire alarm service to the Site is anticipated to be provided by new connections to the existing infrastructure in Hanover Street.

Landscape

Landscaping will include a mix of native and acclimated/hardy deciduous and evergreen trees, shrubs, perennial groundcover and spring bulbs. The proposed plant palette will provide year-round interest through seasonal changing of foliage, blooms, bark color and texture, winter berries and a variety of evergreen species. Plant material will be used to frame and enhance views as well as screen at grade different elements of the site like transformer pads, parking areas, and dumpster enclosures.

A detailed Landscape Plan is included in the Site Plans accompanying this letter.

Construction Schedule

Construction is anticipated to begin during the second half of 2024, beginning with tree cutting, building demolition, and debris cleanup. Once the necessary permits are obtained, site grubbing and earthwork operations will commence. Construction of roadways, utilities, and building pads may not begin until 2026. Buildings will then be constructed individually and sequentially from one end of the Site to the other. Occupancy of each building is anticipated upon its individual completion. Refer to the Phasing Plan included in the Site Plans accompanying this letter for more information related to the construction phasing intent.



Project Impact Statement

Pursuant to Section 5.1.G.4. of the Lebanon Site Plan Review Regulations, the following statements of impact are offered as outlined in 6.9.B. of the Site Plan Regulations.

1. Natural resources and environmental quality including, but not limited to, water quality, air quality, wetlands, soil erosion and agricultural soils and a statement of pollution control and environmental impact mitigation measures.

In support of the site plan review application which this letter is part of, as well as the upcoming NHDES wetland permit and Alteration of Terrain Permit applications, a Stormwater Management Report and supporting Erosion Control Plans outline the impacts and mitigation measures for the Project.

2. Capacity of the school system; effect on school bus transportation and distance of the proposed subdivision from the nearest elementary school.

These items are addressed in the report attached hereto prepared by Fougere Planning and Development dated May 8, 2024 entitled "Fiscal Impact Analysis – The Brickyard – Hanover Street". Please refer to that document for detailed analysis and findings.

3. Adequacy of streets and/or sidewalks in the general area of the subdivision including major intersections providing access, and such other areas as requested by the Board.

The Applicant and VHB attended a scoping meeting with the City Staff and NHDOT to identify intersections to be analyzed as part of the Site Plan Application. As such, a comprehensive Traffic Impact Study was prepared which analyzed the traffic generated by the Project at the proposed driveways and nearby intersections relative to existing conditions and various future conditions. The Traffic Impact Study is included with the site plan review application this letter is part of. Please refer to that document for detailed analysis and findings.

4. Sufficiency, availability, and capacity of utility services to provide water, fire protection, and sewer, and further, the impact of the subdivision on the municipal solid waste disposal facilities.

Public and private utilities are available in Hanover Street. The Applicant will be submitting for a Sewer Allocation from the City for sewer capacity. A hydrant flow test will be performed to understand the flow rate and pressure available to the Site for domestic and fire protection services. Lebanon DPW will review the municipal utilities sufficiency and capacity as part of the Site Plan review process and the design refined as required. The Applicant will contract with a solid waste disposal company to remove the residential solid waste collected in dumpsters on-site.



5. (If applicable) The impact of on-site subsurface sewage disposal systems as to adjacent wells, water supply systems, and any known aquifers so designated by the United States Geological Survey.

Not applicable. Sanitary sewage generated by the Project will be collected on-site and discharged to the existing public sewer infrastructure in Hanover Street.

6. Any special fire, police and public safety problems due to location and/or special conditions relative to the type of use.

Portions of these items are addressed in the report attached hereto prepared by Fougere Planning and Development dated May 8, 2024 entitled "Fiscal Impact Analysis – The Brickyard – Hanover Street". Past meetings with City Staff did not identify any specific conditions or problems with the Site, however the Applicant will continue to coordinate with City Staff and the appropriate departments to address concerns that may arise during permitting.

7. Impact of drainage from the subdivision on abutting properties and potential drainage problems both on the site of the subdivision and downstream from the subdivision.

A stormwater management plan has been prepared in accordance with the City of Lebanon regulations and NHDES Alteration of Terrain regulations and is included in this application package. The stormwater management design will be reviewed by the City Engineer or Peer Review Engineer as part of the site plan review process. The report will also be submitted to NHDES as part of the upcoming Alteration of Terrain Permit. A copy of those documents will be shared with the City at the time of the NHDES submission.

8. Fiscal impact statement analyzing the impact of the subdivision on municipal, school and county revenues and expenditures, including estimated potential tax revenue and estimated number of school children.

These items are addressed in the report attached hereto prepared by Fougere Planning and Development dated May 8, 2024 entitled "Fiscal Impact Analysis – The Brickyard – Hanover Street". Please refer to that document for detailed analysis and findings.

On behalf of the Applicant, we hope this information is satisfactory in describing the Project, its approach, and its impacts to the community. Please feel free to contact me with any questions you may have.

Thank you,

A handwritten signature in blue ink, appearing to read "D Fenstermacher".

Dave Fenstermacher, PE
Managing Director

Site Plans

Issued for	Permitting
Date Issued	May 10, 2024
Latest Issue	May 10, 2024

The Brickyard Residential Development

174 Hanover Street Extension
Lebanon, New Hampshire 03766
Grafton County

Owner/Applicant

Brickyard One Nominee Trust
Richard M. Marchese, Trustee
P.O. Box 720, Middleton, MA 01949

Assessor's Map/Lot:

Map 48 Lots 01, 02, & 04
Map 63 Lot 01

Bicycle Parking Summary Chart

Description	Spaces	
	Required	Provided
SHORT TERM SPACES	71	80
LONG TERM SPACES	142	142
TOTAL SPACES	213	222

Bicycle Parking Requirements:

SHORT TERM PARKING 474 UNITS x 0.15 SPACES / 1 UNIT = 71 SPACES

LONG TERM PARKING 474 UNITS x 0.3 SPACES / 1 UNIT = 142 SPACES

TOTAL PARKING REQUIRED = 213 SPACES

Parking Summary Chart

Description	Size		Spaces	
	Required	Provided	Required	Provided
STANDARD SPACES	9 x 18	9 x 18	539	89
GARAGE SPACES*	8 x 18	8 x 18	0	502
EVSE PARKING SPACES**	9 x 18	9 x 18	39	40
EV-READY PARKING SPACES**	9 x 18	9 x 18	117	118
STANDARD ACCESSIBLE SPACES ***	9 x 18	9 x 18	14	20
VAN ACCESSIBLE SPACES***	8 x 18	9 x 18	2	11
LOADING BAYS			0	0
TOTAL SPACES			711	780

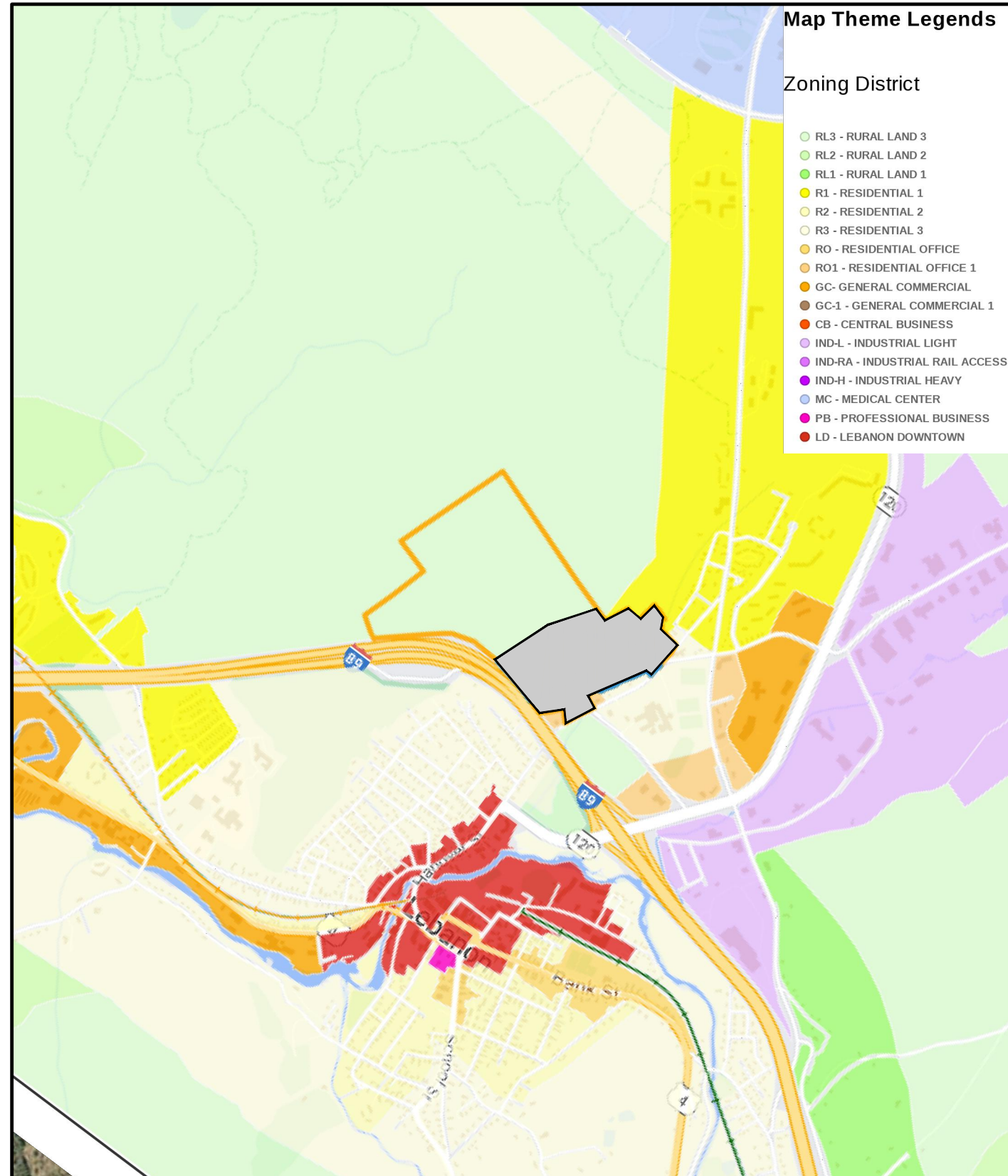
* REQUIRED EVSE PARKING SPACES = 15% OF TOTAL PROVIDED PARKING. REQUIRED EV-READY PARKING SPACES = 5% OF TOTAL PROVIDED PARKING.
** REFER TO PROJECT NARRATIVE REGARDING REDUCED SPACE SIZE FOR GARAGE
*** ADA/STATE/LOCAL REQUIREMENTS
**** INCLUDES 1 ACCESSIBLE STALL BELOW EACH APARTMENT BUILDING

Parking Requirements:

DWELLING, APARTMENT, ONE BEDROOM AND UP 474 UNITS x 1.5 SPACES / 1 = 711 UNITS

TOTAL PARKING REQUIRED = 711 UNITS

MAXIMUM PARKING ALLOWED (120% OF REQUIRED) = 863 SPACES



Sheet Index

No.	Drawing Title	Latest Issue
C1.0	Legend and General Notes	May 10, 2024
C2.0	Overall Layout and Materials Plan	May 10, 2024
C2.1	Layout and Materials Plan 1	May 10, 2024
C2.2	Layout and Materials Plan 2	May 10, 2024
C2.3	Layout and Materials Plan 3	May 10, 2024
C3.0	Overall Grading and Drainage Plan	May 10, 2024
C3.1	Grading and Drainage Plan 1	May 10, 2024
C3.2	Grading and Drainage Plan 2	May 10, 2024
C3.3	Grading and Drainage Plan 3	May 10, 2024
C4.0	Overall Utility Plan	May 10, 2024
C4.1	Utility Plan 1	May 10, 2024
C4.2	Utility Plan 2	May 10, 2024
C4.3	Utility Plan 3	May 10, 2024
C5.0	Overall Erosion Control Plan	May 10, 2024
C5.1	Erosion Control Plan 1	May 10, 2024
C5.2	Erosion Control Plan 2	May 10, 2024
C5.3	Erosion Control Plan 3	May 10, 2024
C6.1	Plan and Profile 1	May 10, 2024
C6.2	Plan and Profile 2	May 10, 2024
C6.3	Plan and Profile 3	May 10, 2024
C7.1 - C7.5	Site Details 1 - 5	May 10, 2024
PP-1	Phasing Plan	May 10, 2024
L1.0	Overall Landscape and Tree Shading Plan	May 10, 2024
L1.1	Landscape Plan 1	May 10, 2024
L1.2	Landscape Plan 2	May 10, 2024
L1.3	Landscape Plan 3	May 10, 2024
L2.1	Landscape Details	May 10, 2024

Reference Drawings

No.	Drawing Title	Latest Issue
SL-1A	Site Lighting Photometric Calculation	May 9, 2024
0089-1201-A	Proposed Plans and Elevations	May 2, 2024
Sv-1 - Sv-3	Existing Conditions Plan of Land	April 1, 2024

PURD Calculations

Zone	Buildable Area (SF)**	/	Permitted Dwelling Units
RESIDENTIAL 1 (R-1)	989,956	3,000	330.0
RESIDENTIAL-OFFICE-1 (R-O-1)	249,920	3,000	83.3
RESIDENTIAL 3 (R-3)	81,820	10,000	8.2
1 PER 10,000*	20,000	10,000	2.0
SUBTOTAL	1,239,676		423
*TOTAL (INCLUDES 12% BONUS)			474

* FIRST 10,000 SQUARE FEET OF ZONE R-1 SUBTRACTED FROM TOTAL SQUARE FOOTAGE. ZONING ALLOWS 474 DWELLING UNITS TOTAL.

** FOR THE PURD CALCULATIONS THE RL-3 ZONE (97.8 ACRES) HAS BEEN EXCLUDED, AREA RESERVED FOR POTENTIAL FUTURE BUILDOUT.

Zoning Summary Chart

Zoning Districts:	Residential 1 (R-1), Residential 3 (R-3), Residential-Office-1 (R-O-1), (RL-3)	
Overlay District:	Flood Zone A, Wetlands Conservation District	
Tax Map & Lot #:	48-01, 48-02, 48-04, & 63-01	
Zoning Regulation Requirements	Required	Provided
MINIMUM LOT AREA	28.5 Acres	126.3 Acres
FRONTAGE	20.0 Feet	932.0 Feet
FRONT YARD SETBACK	20 Feet	21 Feet
SIDE YARD SETBACK	15 Feet	58 Feet
REAR YARD SETBACK	20 Feet	56 Feet
MINIMUM LOT WIDTH	75 Feet	932 Feet
MAXIMUM BUILDING HEIGHT	55 Feet	55 Feet
MAXIMUM BUILDING COVERAGE	25.0 %	13.3 %
BUILDING COVERAGE	N/A	164,950 SF
GROSS FLOOR AREA	N/A	655,000 SF
IMPERVIOUS COVERAGE	N/A	403,365 SF (32.5%)
USE	N/A	Planned Unit Residential Development (PURD)

Open Space Calculations

Zone*	Total Area (SF)	% Required	Open Space Required
RESIDENTIAL 1 (R-1)	1,252,605	30	375,782 SF
RESIDENTIAL-OFFICE-1 (R-O-1)	286,532	30	85,960 SF
RESIDENTIAL 3 (R-3)	123,849	50	61,925 SF
TOTAL OPEN SPACE REQUIRED			523,666 SF

* THE RL-3 ZONE HAS BEEN EXCLUDED FROM THE PURD CALCULATIONS, AREA RESERVED FOR POTENTIAL FUTURE BUILDOUT

vhb.com



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Suite 200
Bedford, NH 03110
603.391.3900

Surveyor (VHB)

Mike Hammer, L.L.S.
2 Bedford Farms Drive
Suite 200
Bedford, NH 03110
603.391.3900

Architect

Studio Integrate
73 Commercial Street,
London E1, England
0203.722.7358

Civil Engineer (VHB)

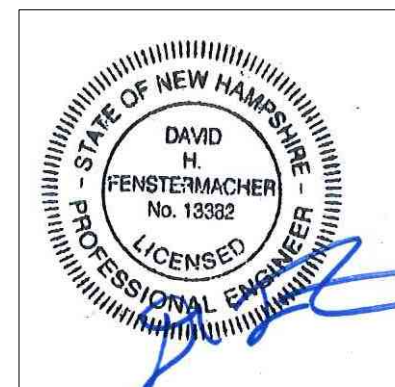
David Fenstermacher, P.E.
2 Bedford Farms Drive
Suite 200
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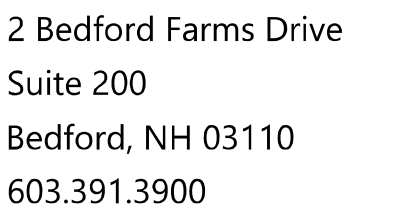
Landscape Architect (VHB)

Erik Bednarek, RLA
101 Walnut Street
PO Box 9151
Watertown, MA 02471
617.924.1770

Wetland Scientist (Goddard)

Scott G. Goddard
291 Main Street
Suite 8
Northborough, MA 01532





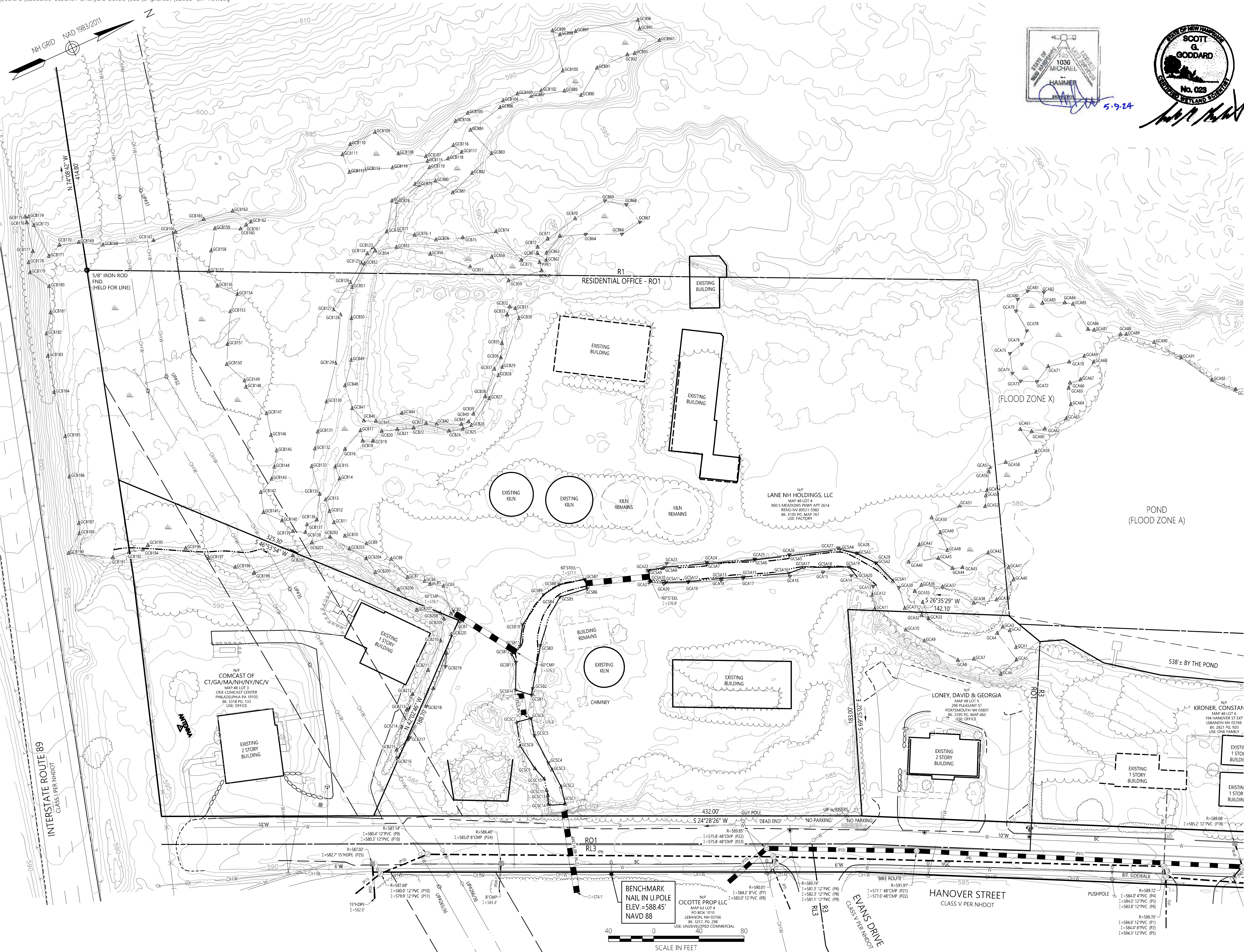
- DRAIN MANHOLE
- CATCH BASIN
- SEWER MANHOLE
- ELECTRIC MANHOLE
- TELEPHONE MANHOLE
- MANHOLE
- HAND HOLE
- WATER GATE
- FIRE HYDRANT
- GAS GATE
- BOLLARD
- STREET SIGN
- LIGHT POLE
- UTILITY POLE
- GUY POLE
- GUY WIRE
- MONITORING WELL
- FLOOD LIGHT
- PEDESTRIAN SIGNAL
- MAST ARM
- FLASHING SIGNAL

TOP	D/W/L	DASHED WHITE LINE
_____	_____	EDGE OF PAVEMENT
_____	_____	VERTICAL GRANITE CURB
_____	_____	SLOPED GRANITE CURB
_____	_____	GUARD RAIL
○ — ○	○ — ○	CHAIN LINK FENCE
_____	_____	DRAINAGE LINE
_____	_____	SEWER LINE
— CH-W	— CH-W	OVERHEAD WIRE
— E	— E	UNDERGROUND ELECTRIC
— T	— T	TELEPHONE LINE
— G	— G	GAS LINE
— W	— W	WATER LINE
○ — ○ — ○	○ — ○ — ○	STONE WALL
~~~~~	~~~~~	TREE LINE
— 1/4" 1/4"	— 1/4" 1/4"	LIMIT OF BANK
△ WFL-30	△ WFL-30	VEGETATED WETLAND BOUNDARY

[illegible]

# Sv-2

Project Number  
**52933.00**







2 Bedford Farms Drive  
Suite 200  
Bedford, NH 03110  
603.391.3900

ABUTTING PROPERTIES ACROSS INTERSTATE 89 INCLUDE THE FOLLOWING:

1. CITY OF LEBANON  
MAP 76, LOT 8  
BOOK 0, PAGE 0  
51 NORTH PARK STREET  
LEBANON, NH 03766
2. RADER III, GERALD LENARD  
MAP 77, LOT 81  
BOOK 0, PAGE 0  
54 WINTER STREET  
LEBANON, NH 03766
3. SEIDMAN, MAX JAMES  
MAP 77, LOT 83  
BOOK 0, PAGE 0  
53 WINTER STREET  
LEBANON, NH 03766
4. CITY OF LEBANON  
MAP 77, LOT 107  
BOOK 0, PAGE 0  
51 NORTH PARK STREET  
LEBANON, NH 03766
5. VALDIVIEZO ZENIA MAE  
MAP 77, LOT 111  
BOOK 0, PAGE 0  
48 JUNIPER CIRCLE  
LEBANON, NH 03766
6. LEE, CUONG V  
MAP 77, LOT 113  
BOOK 0, PAGE 0  
194 PLAIN STREET  
ROCKLAND, MA 02370
7. LEUCA MAGDALENA TTEE  
MAP 77, LOT 115  
BOOK 0, PAGE 0  
9920 SE 40TH STREET  
MERCER ISLAND, WA 98040

### Notes

EXISTING BUS STOP AT CORNER OF HEATER RD AND OLD ETNA ROAD IS APPROXIMATELY 0.20 MILES AWAY FROM PROJECT SITE.



0 30 60 120Feet

## The Brickyard Residential Development

174 Hanover Street Extension  
Lebanon, New Hampshire 03766

No.	Revision	Date	Appr.

Designed by	TMD	Checked by	MJV
Issued for		Date	May 10, 2024

Permitting

Not Approved for Construction

Overall Layout and  
Materials Plan

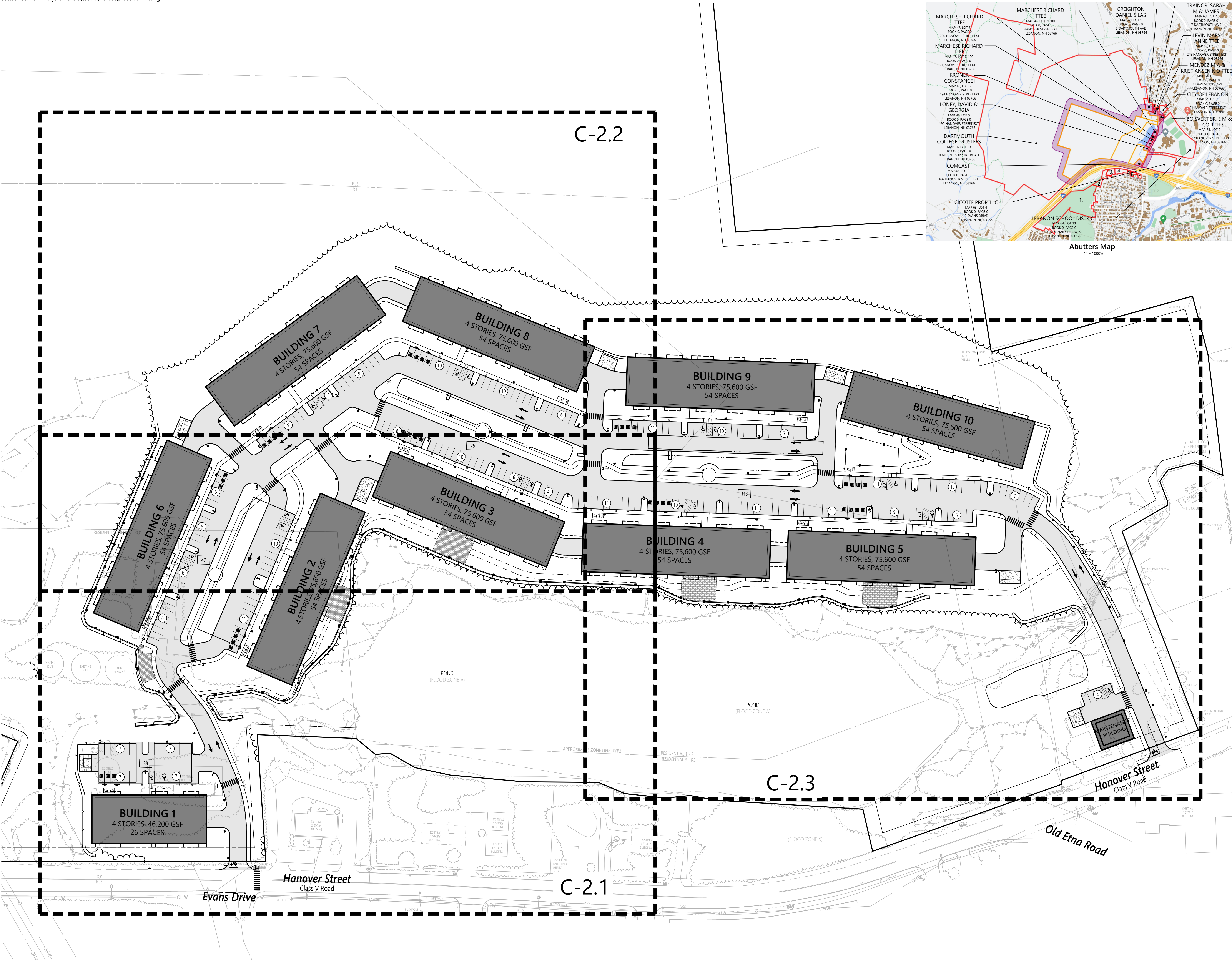
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Project Number  
52933.00





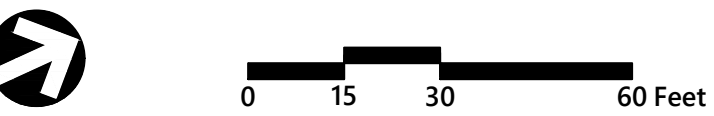


2 Bedford Farms Drive  
Suite 200  
Bedford, NH 03110  
603.391.3900

Sign Summary

M.U.T.C.D. Number	Specification Width	Height	Desc.
R1-1	30"	30"	STOP
R7-8	12"	18"	RESERVED PARKING
R7-8P	12"	6"	VAN RESTRICTION
D9-11B	12"	18"	ELECTRIC VEHICLE CHARGING
D9-11BP	12"	12"	ELECTRIC VEHICLE CHARGING

SNOW STORAGE AREA



The Brickyard  
Residential Development

174 Hanover Street Extension  
Lebanon, New Hampshire 03766

No.	Revision	Date	Appr'd.

Designed by	TMD	Checked by	MJV
Issued for	Permitting	Date	May 10, 2024

Not Approved for Construction  
Layout and Materials  
Plan 1

Drawing Number

C2.1

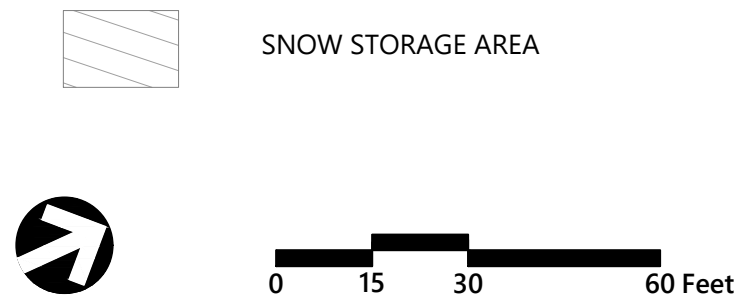
Sheet 3 of 26

Project Number  
52933.00

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174 Hanover Street Extension  
Lebanon, New Hampshire 03766

No.	Revision	Date	Appvd.

Designed by <b>TMD</b>	Checked by <b>MJV</b>
Issued for <b>Permitting</b>	Date <b>May 10, 2024</b>

Not Approved for Construction

Drawing Title

Layout and Materials  
Plan 2

Drawing Number

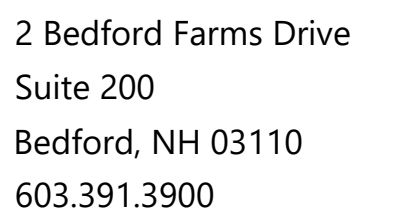
C2.2

STATE OF NEW HAMPSHIRE  
DAVID H.  
FENSTERMACHER  
No. 13382  
LICENSED  
PROFESSIONAL ENGINEER  
MECHANICAL

Sheet 4 of 26

Project Number  
52933.00





174 Hanover Street Extension  
Lebanon, New Hampshire 03766

No.	Revision	Date	Appvd.

Designed by	Checked by
TMD	MJV

Permitting May 10, 2024

Not Approved for Construction

# Layout and Materials

## Plan 3

Drawing Number

## C2.3

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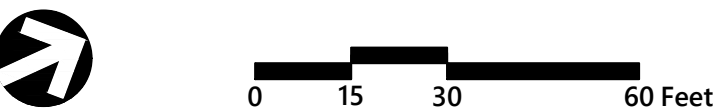
Project Number  
**52933.00**







2 Bedford Farms Drive  
Suite 200  
Bedford, NH 03110  
603.391.3900



## The Brickyard Residential Development

174 Hanover Street Extension  
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Grading and Drainage  
Plan 1

Drawing Number

# C3.1

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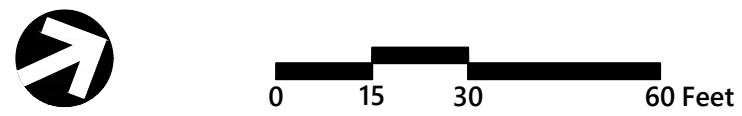
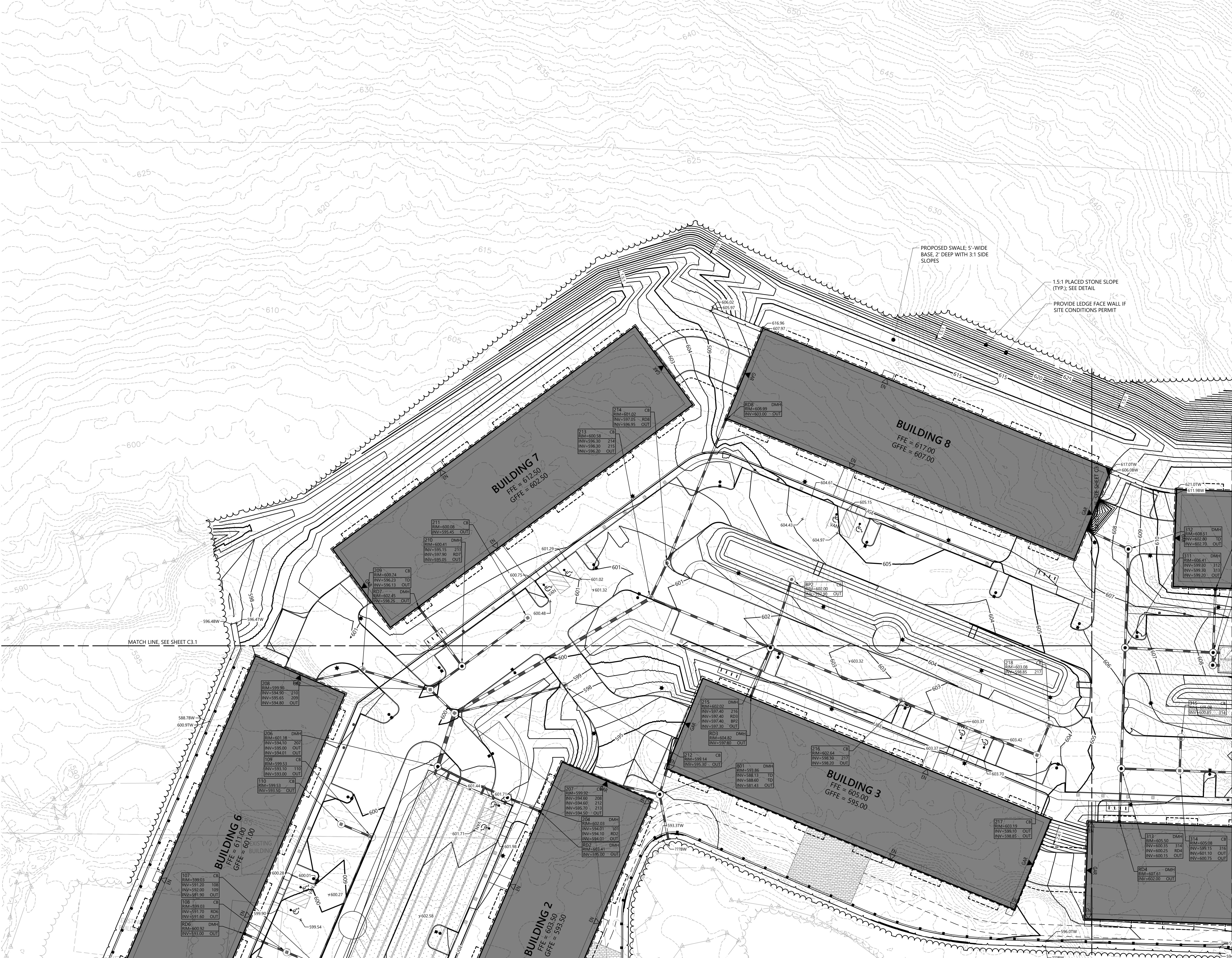
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## Grading and Drainage Plan 2

Drawing Number

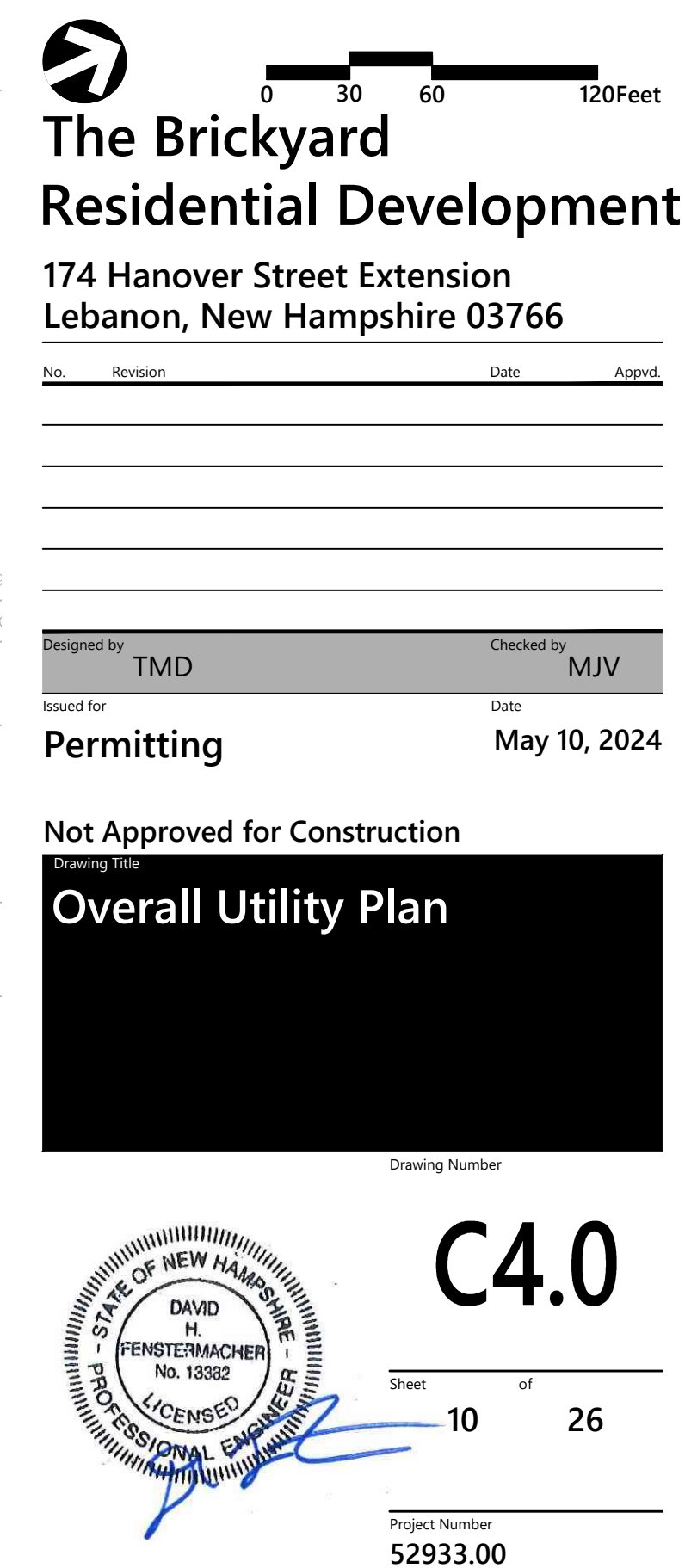
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Project Number  
52933.00

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**174 Hanover Street Extension  
Lebanon, New Hampshire 03766**

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Drawing Title

# Utility Plan 1

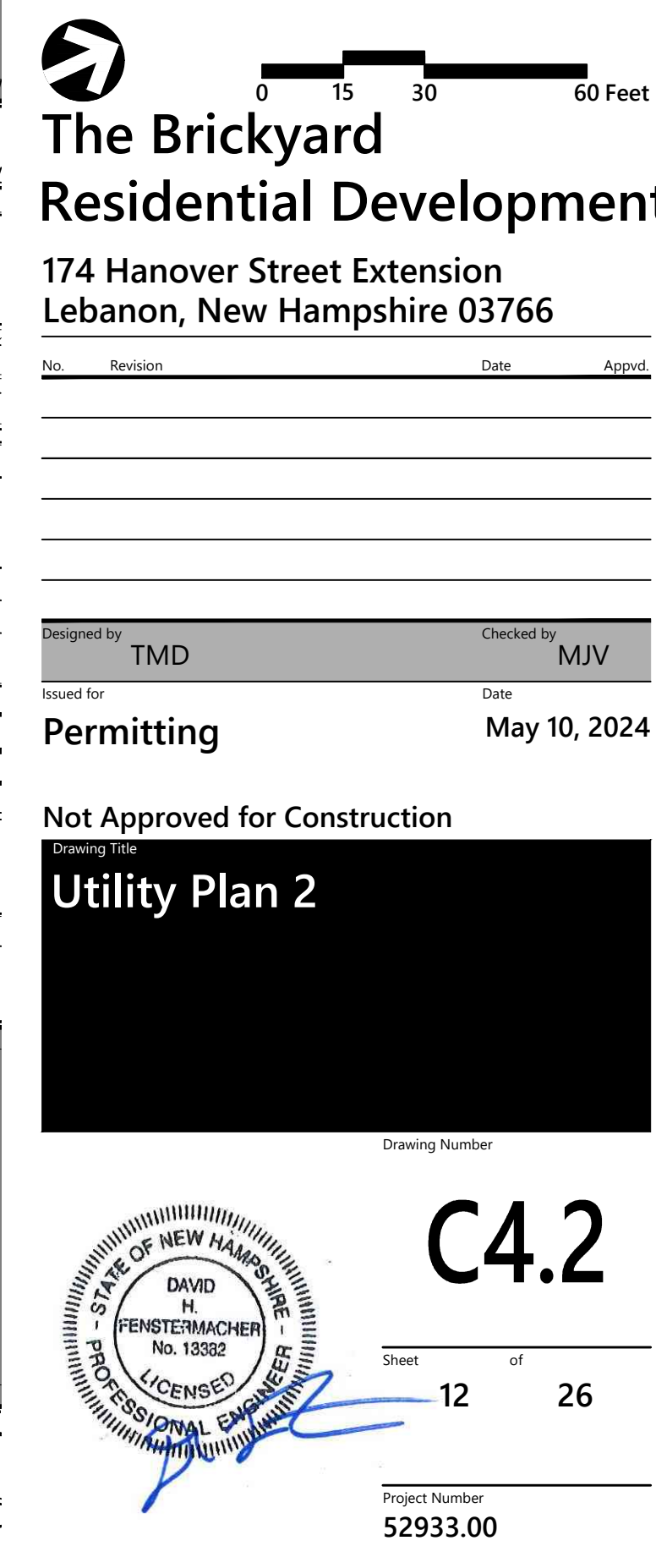
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# C4.1

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Number  
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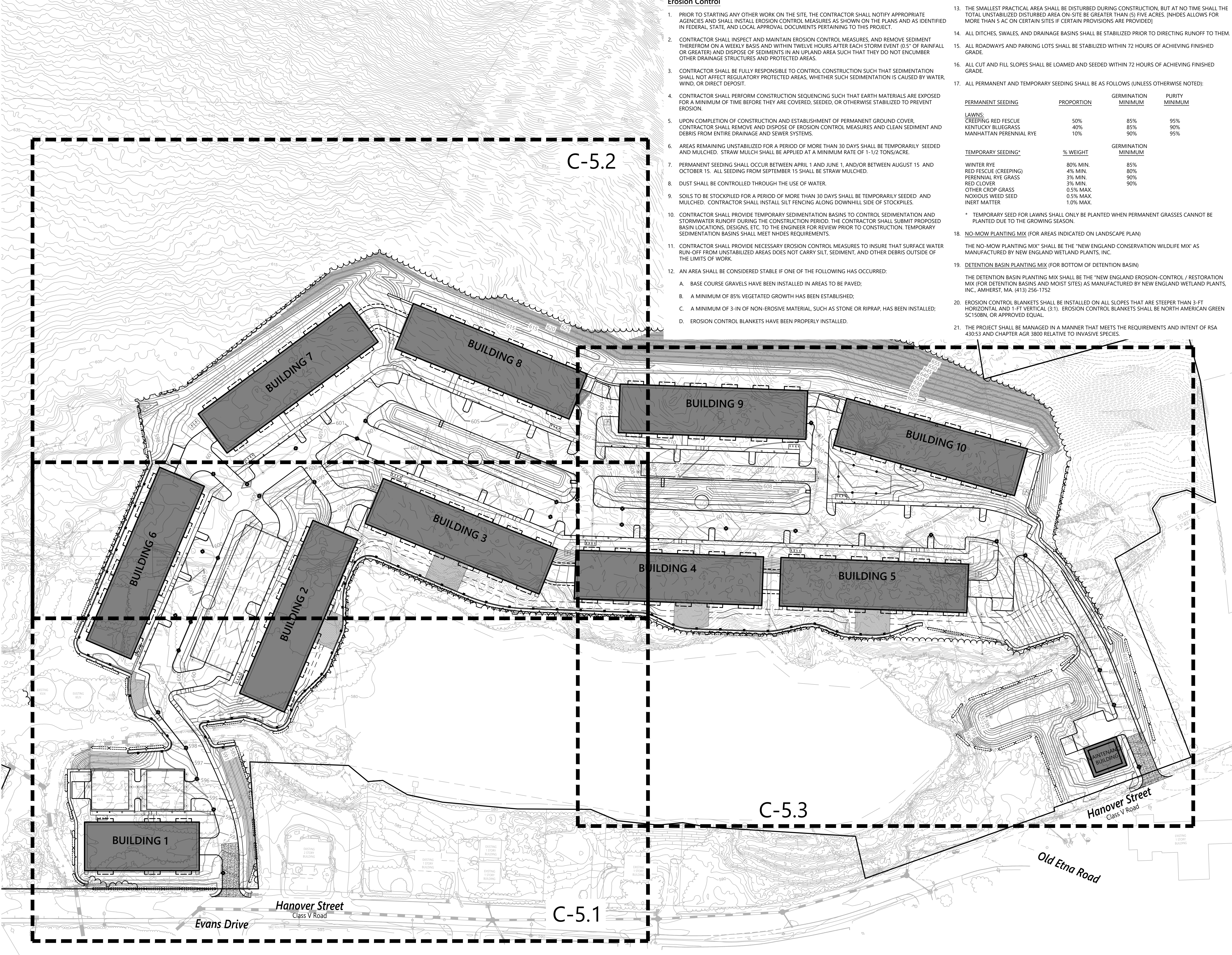








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Erosion Control

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, AND REMOVE SEDIMENT THEREFROM ON A WEEKLY BASIS AND WITHIN TWELVE HOURS AFTER EACH STORM EVENT (0.5" OF RAINFALL OR GREATER) AND DISPOSE OF SEDIMENTS IN AN UPLAND AREA SUCH THAT THEY DO 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.
6. AREAS REMAINING UNSTABILIZED FOR A PERIOD OF MORE THAN 30 DAYS SHALL BE TEMPORARILY SEEDED AND MULCHED. STRAW MULCH SHALL BE APPLIED AT A MINIMUM RATE OF 1-1/2 TONS/ACRE.
7. PERMANENT SEEDING SHALL OCCUR BETWEEN APRIL 1 AND JUNE 1, AND/OR BETWEEN AUGUST 15 AND OCTOBER 15. ALL SEEDING FROM SEPTEMBER 15 SHALL BE STRAW MULCHED.
8. DUST SHALL BE CONTROLLED THROUGH THE USE OF WATER.
9. SOILS TO BE STOCKPILED FOR A PERIOD OF MORE THAN 30 DAYS SHALL BE TEMPORARILY SEEDED AND MULCHED. CONTRACTOR SHALL INSTALL SILT FENCING ALONG DOWNHILL SIDE OF STOCKPILES.
10. CONTRACTOR SHALL PROVIDE TEMPORARY SEDIMENTATION BASINS TO CONTROL SEDIMENTATION AND STORMWATER RUNOFF DURING THE CONSTRUCTION PERIOD. THE CONTRACTOR SHALL SUBMIT PROPOSED BASIN LOCATIONS, DESIGNS, ETC. TO THE ENGINEER FOR REVIEW PRIOR TO CONSTRUCTION. TEMPORARY SEDIMENTATION BASINS SHALL MEET NHDES REQUIREMENTS.
11. CONTRACTOR SHALL PROVIDE NECESSARY EROSION CONTROL MEASURES TO INSURE THAT SURFACE WATER RUN-OFF FROM UNSTABILIZED AREAS DOES NOT CARRY SILT, SEDIMENT, AND OTHER DEBRIS OUTSIDE OF THE LIMITS OF WORK.
12. AN AREA SHALL BE CONSIDERED STABLE IF ONE OF THE FOLLOWING HAS OCCURRED:
  - A. BASE COURSE GRAVELS HAVE BEEN INSTALLED IN AREAS TO BE PAVED;
  - B. A MINIMUM OF 85% VEGETATED GROWTH HAS BEEN ESTABLISHED;
  - C. A MINIMUM OF 3-IN OF NON-EROSIVE MATERIAL, SUCH AS STONE OR RIPRAP, HAS BEEN INSTALLED;
  - D. EROSION CONTROL BLANKETS HAVE BEEN PROPERLY INSTALLED.

13. THE SMALLEST PRACTICAL AREA SHALL BE DISTURBED DURING CONSTRUCTION, BUT AT NO TIME SHALL THE TOTAL UNSTABILIZED DISTURBED AREA ON-SITE BE GREATER THAN (5) FIVE ACRES. [NHDES ALLOWS FOR MORE THAN 5 AC ON CERTAIN SITES IF CERTAIN PROVISIONS ARE PROVIDED]
14. ALL DITCHES, SWALES, AND DRAINAGE BASINS SHALL BE STABILIZED PRIOR TO DIRECTING RUNOFF TO THEM.
15. ALL ROADWAYS AND PARKING LOTS SHALL BE STABILIZED WITHIN 72 HOURS OF ACHIEVING FINISHED GRADE.
16. ALL CUT AND FILL SLOPES SHALL BE LOAMED AND SEEDED WITHIN 72 HOURS OF ACHIEVING FINISHED GRADE.
17. ALL PERMANENT AND TEMPORARY SEEDING SHALL BE AS FOLLOWS (UNLESS OTHERWISE NOTED):

PERMANENT SEEDING	PROPORTION	GERMINATION MINIMUM	PURITY MINIMUM
LAWNS:			
CREeping RED FESCUE	50%	85%	95%
KENTUCKY BLUEGRASS	40%	85%	90%
MANHATTAN PERENNIAL RYE	10%	90%	95%

TEMPORARY SEEDING*	% WEIGHT	GERMINATION MINIMUM
WINTER RYE	80% MIN.	85%
RED FESCUE (CREEPING)	4% MIN.	80%
PERENNIAL RYE GRASS	3% MIN.	90%
RED CLOVER	3% MIN.	90%
OTHER CROP GRASS	0.5% MAX.	
NOXIOUS WEED SEED	0.5% MAX.	
INERT MATTER	1.0% MAX.	

* TEMPORARY SEED FOR LAWNS SHALL ONLY BE PLANTED WHEN PERMANENT GRASSES CANNOT BE PLANTED DUE TO THE GROWING SEASON.

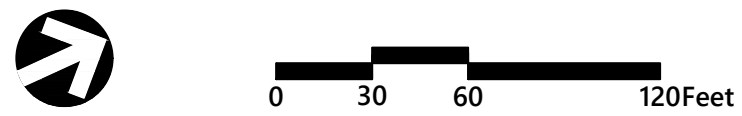
18. NO-MOW PLANTING MIX (FOR AREAS INDICATED ON LANDSCAPE PLAN)

THE NO-MOW PLANTING MIX" SHALL BE THE "NEW ENGLAND CONSERVATION WILDLIFE MIX" AS MANUFACTURED BY NEW ENGLAND WETLAND PLANTS, INC.

19. DETENTION BASIN PLANTING MIX (FOR BOTTOM OF DETENTION BASIN)

THE DETENTION BASIN PLANTING MIX SHALL BE THE "NEW ENGLAND EROSION-CONTROL / RESTORATION MIX (FOR DETENTION BASINS AND MOIST SITES) AS MANUFACTURED BY NEW ENGLAND WETLAND PLANTS, INC., AMHERST, MA. (413) 256-1752

20. EROSION CONTROL BLANKETS SHALL BE INSTALLED ON ALL SLOPES THAT ARE STEEPER THAN 3-FT HORIZONTAL AND 1-FT VERTICAL (3:1). EROSION CONTROL BLANKETS SHALL BE NORTH AMERICAN GREEN SC150BN, OR APPROVED EQUAL.
21. THE PROJECT SHALL BE MANAGED IN A MANNER THAT MEETS THE REQUIREMENTS AND INTENT OF RSA 430:53 AND CHAPTER AGR 3800 RELATIVE TO INVASIVE SPECIES.



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Residential Development

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Drawing Title  
Overall Erosion  
Control Plan

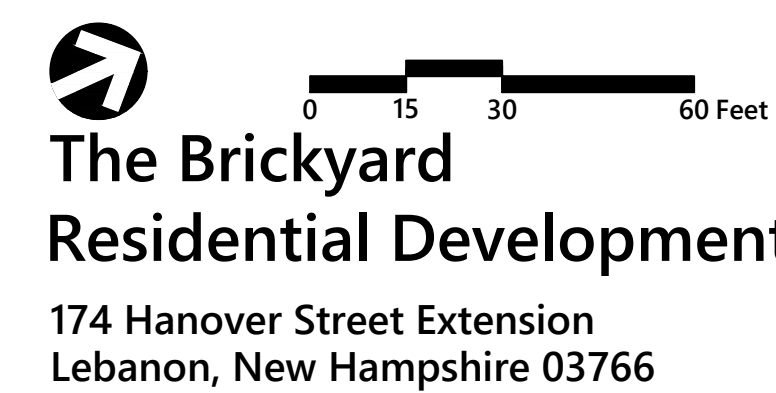


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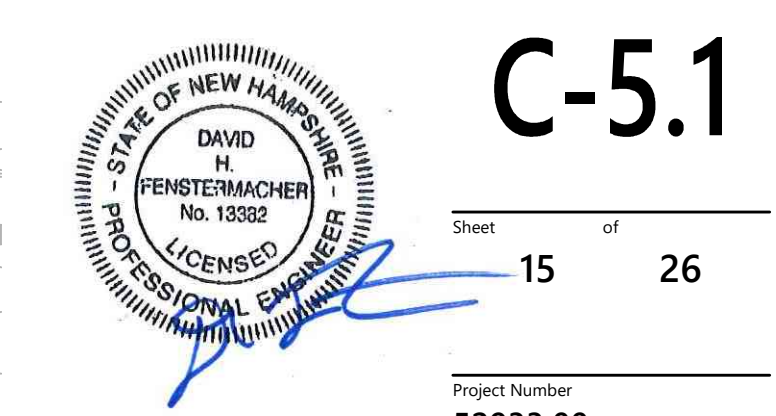


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Not Approved for Construction

Drawing Title

# Erosion Control Plan 1





Planting Notes

- ALL PROPOSED PLANTING LOCATIONS SHALL BE STAKED AS SHOWN ON THE PLANS FOR FIELD REVIEW AND APPROVAL BY THE LANDSCAPE ARCHITECT PRIOR TO INSTALLATION.
- CONTRACTOR SHALL VERIFY LOCATIONS OF ALL BELOW GRADE AND ABOVE GROUND UTILITIES AND NOTIFY OWNERS REPRESENTATIVE OF CONFLICTS.
- 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.
- 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.
- ALL TREES SHALL BE BALLED AND BURLAPPED, UNLESS OTHERWISE NOTED IN THE DRAWINGS OR SPECIFICATION, OR APPROVED BY THE OWNER'S REPRESENTATIVE.
- 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.
- ANY PROPOSED PLANT SUBSTITUTIONS MUST BE REVIEWED BY LANDSCAPE ARCHITECT AND APPROVED IN WRITING BY THE OWNER'S REPRESENTATIVE.
- ALL PLANT MATERIALS INSTALLED SHALL MEET THE SPECIFICATIONS OF THE "AMERICAN STANDARDS FOR NURSERY STOCK" BY THE AMERICAN ASSOCIATION OF NURSERYMEN AND CONTRACT DOCUMENTS.
- ALL PLANT MATERIALS SHALL BE GUARANTEED FOR ONE YEAR FOLLOWING DATE OF FINAL ACCEPTANCE.
- 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.
- ALL DISTURBED AREAS NOT OTHERWISE NOTED ON CONTRACT DOCUMENTS SHALL BE LOAM AND SEEDED OR MULCHED AS DIRECTED BY OWNER'S REPRESENTATIVE.
- THIS PLAN IS INTENDED FOR PLANTING PURPOSES. REFER TO SITE / CIVIL DRAWINGS FOR ALL OTHER SITE CONSTRUCTION INFORMATION.

Plant Maintenance Notes

- CONTRACTOR SHALL PROVIDE COMPLETE MAINTENANCE OF THE LAWNS AND PLANTINGS. NO IRRIGATION IS PROPOSED FOR THIS SITE. THE CONTRACTOR SHALL SUPPLY SUPPLEMENTAL WATERING FOR NEW LAWNS AND PLANTINGS DURING THE ONE YEAR PLANT GUARANTEE PERIOD.
- CONTRACTOR SHALL PROVIDE ALL MATERIALS, LABOR, AND EQUIPMENT FOR THE COMPLETE LANDSCAPE MAINTENANCE WORK. WATER SHALL BE PROVIDED BY THE CONTRACTOR.
- WATERING SHALL BE REQUIRED DURING THE GROWING SEASON, WHEN NATURAL RAINFALL IS BELOW ONE INCH PER WEEK.
- WATER SHALL BE APPLIED IN SUFFICIENT QUANTITY TO THOROUGHLY SATURATE THE SOIL IN THE ROOT ZONE OF EACH PLANT.
- CONTRACTOR SHALL REPLACE DEAD OR DYING PLANTS AT THE END OF THE ONE YEAR GUARANTEE PERIOD. CONTRACTOR SHALL TURN OVER MAINTENANCE TO THE FACILITY MAINTENANCE STAFF AT THAT TIME.

Planting Requirements

- AREAS CONTAINING ONE OR TWO ROWS OF PARKING SHALL BE PLANTED WITH DECIDUOUS TREES ALONG THE PERIMETER, SO PLACED TO SHADE 30% OF THE PARKING AREA.  
PARKING AREA = 116,134 SF x 30% = 34,840 SF  
SHADE AREA = 38,410 SF (33.1%)
- DECIDUOUS TREES TO BE A MINIMUM 2.5 TO 3 INCHES IN CALIPER.
- EVERGREEN TREES TO BE A MINIMUM OF 6 TO 7 FEET HEIGHT.

SHRUBS, GRASSES AND PERENNIALS SHALL BE A SELECTION OF:

CODE	BOTANICAL NAME	COMMON NAME
SHRUBS		
CAH	Clethra alnifolia 'Hummingbird'	'Hummingbird' Summersweet
CAE	Cornus alba 'Elegantissima'	Variegated RedTwig Dogwood
CR	Cornus racemosa	Gray Dogwood
CS	Cornus sericea	Red Twig Dogwood
CS1	Cornus stolonifera	Red Osier Dogwood
FG	Fothergilla gardenii	Dwarf Fothergilla
IG	Ilex glabra	Inkberry
IGS	Ilex glabra 'Shamrock'	Shamrock Inkberry
IVR	Ilex verticillata 'Red Sprite'	Red Sprite Winterberry
JBH	Juniperus horizontalis 'Bar Harbor'	Bar Harbor Creeping Juniper
RC	Rhododendron x 'Cunningham's Blush'	Cunningham's Blush Rhododendron
RA	Rhus aromatica 'Gro-Low'	Gro-Low Fragrant Sumac
VN	Viburnum nudum 'Winterthur'	Smooth Witherod
GRASSES		
PVS	Panicum virgatum 'Shenandoah'	Shenandoah Switch Grass
PERENNIALS		
H-SO	Hemerocallis x 'Stella de Oro'	Stella de Oro Daylily

PLANT SCHEDULE

CODE	QTY	BOTANICAL NAME	COMMON NAME	SIZE
DECIDUOUS TREES				
AR	41	Acer rubrum	Red Maple	2 1/2 - 3" CAL.
BN	32	Betula nigra 'Heritage'	Heritage River Birch	10 - 12' HT./Multi-Stem
NS	22	Nyssa sylvatica	Black Tupelo	2 1/2 - 3" CAL.
TA	21	Tilia americana	American Linden	2 1/2 - 3" CAL.
EVERGREEN TREES				
JVB	9	Juniperus virginiana 'Blue Arrow'	Blue Arrow Juniper	6 - 7' HT.
JVC	18	Juniperus virginiana 'Corcorcor' TM	Emerald Sentinel Juniper	6 - 7' HT.
PG	21	Picea glauca	White Spruce	6 - 7' HT.
TO	28	Thuja occidentalis 'Nigra'	Dark American Arborvitae	6 - 7' HT.
FLOWERING TREES				
ACS	23	Amelanchier canadensis	Shadblow Serviceberry	8 - 10' HT./Multi-Stem
MS	11	Malus hybrid 'Spring Snow'	Spring Snow Crab Apple	2 1/2 - 3" CAL.
SHRUBS				
IG	22	Ilex glabra	Inkberry	2 - 3' HT.
RC	29	Rhododendron x 'Cunningham's Blush'	Cunningham's Blush Rhododendron	24 - 30" HT.

