

**SITE PLAN REVIEW TECHNICAL ADVISORY COMMITTEE
PORTSMOUTH, NEW HAMPSHIRE**

WORK SESSION

**Conference Room A
City Hall, Municipal Complex, 1 Junkins Avenue**

2:00 PM

April 14, 2026

AGENDA

2:00 PM 20 Central Avenue
Haley Ward Engineering
(LUTW-26-6)

Subdivision/Site Plan Review

2:30 PM 134 Pleasant Street
Haley Ward Engineering
(LU-25-138))

Site Plan Review



HALEY WARD®

APPLICATION FOR TAC WORKSHOP

**TO THE CITY OF PORTSMOUTH
FOR 20 CENTRAL AVENUE**

Map 209, Lot 30 | Portsmouth, NH

APPLICANT:

Copley Properties, LLC

94 Portsmouth Avenue, Stratham, NH 03885

April 7, 2026

JN: 5010658.001

APPLICATION PREPARED BY:

Haley Ward, Inc.

200 Griffin Road, Unit 14 | Portsmouth, NH 03801



April 7, 2026

Peter Stith, TAC Committee Chair
City of Portsmouth
1 Junkins Avenue
Portsmouth, NH 03801

**RE: Request for TAC Workshop
20 Central Avenue
Proposed 3-Lot Subdivision**

Dear Mr. Stith and Technical Advisory Committee (TAC) Members,

On behalf of Copley Properties, we are pleased to submit the attached Conceptual Subdivision Plan and supporting documents for **TAC Workshop Review** for the above-mentioned project and request that we be placed on the agenda for your **April 14, 2026** Meeting. The property is shown on the City of Portsmouth Assessors Map 209 as Lot 30.

PROJECT OVERVIEW

The project consists of a single parcel located at 20 Central Avenue with a total lot area of approximately 28,973 square feet. The site is currently developed with a single-family dwelling, garage, shed, driveway and lawn area. There is an existing drainage and sewer easement across the southern portion of the site.

The proposed project includes subdividing the parcel into three individual lots and the construction of three single-family dwellings with the associated and required site improvements. The development will comply with the applicable design, safety, and operational standards, including zoning and building code compliance. The project will require City of Portsmouth Site Plan Review and Subdivision approval.

SITE ZONING

The project is within the City of Portsmouth General Residence A (GRA) District which allows for residential development. The proposed project is consistent with the surrounding neighborhood which is predominantly single family residential. As proposed, the project meets all zoning requirements.

PARKING

Each residence will have a minimum of two onsite parking spaces.



VEHICULAR CIRCULATION

The proposed lots will each be accessed by their own 20-foot-wide paved driveway with a turnaround.

TRAFFIC

A trip generation letter will be prepared as part of the Site Plan Review application. The project is a low-density development that is anticipated to generate a minimal increase in traffic.

SCREENING AND LANDSCAPING

The site landscaping is still in the preliminary design stages but will generally feature perimeter plantings to provide screening for the proposed dwellings. Supplemental landscaping is proposed around each dwelling and outdoor space. All landscaping will be consistent with traditional local residential design and will match the surrounding neighborhood.

WATER AND SEWAGE SYSTEMS

The development will be served by municipal water and sewer located within the existing streets.

STORMWATER MANAGEMENT

Stormwater management and treatment will be implemented onsite. A detailed Stormwater Management and Erosion Control Plan will be provided for the full Site Plan Review application.

SITE LIGHTING

Site lighting will be wall mounted and designed at minimum levels to provide a welcoming and safe pedestrian experience and not create excess lighting within the neighborhood. No pole mounted lighting is proposed as part of this project.

SITE UTILITIES

New connections from the existing natural gas, electric, and communications services will be installed underground to serve the dwellings.

SOLID WASTE

Solid waste will be collected through Portsmouth curb side pickup.



SUBMISSION

The submission includes the following materials

- Tax Map
- Zoning Map
- Site Photos
- 1970 Survey Plan for the Property

The following plan is included in our submission:

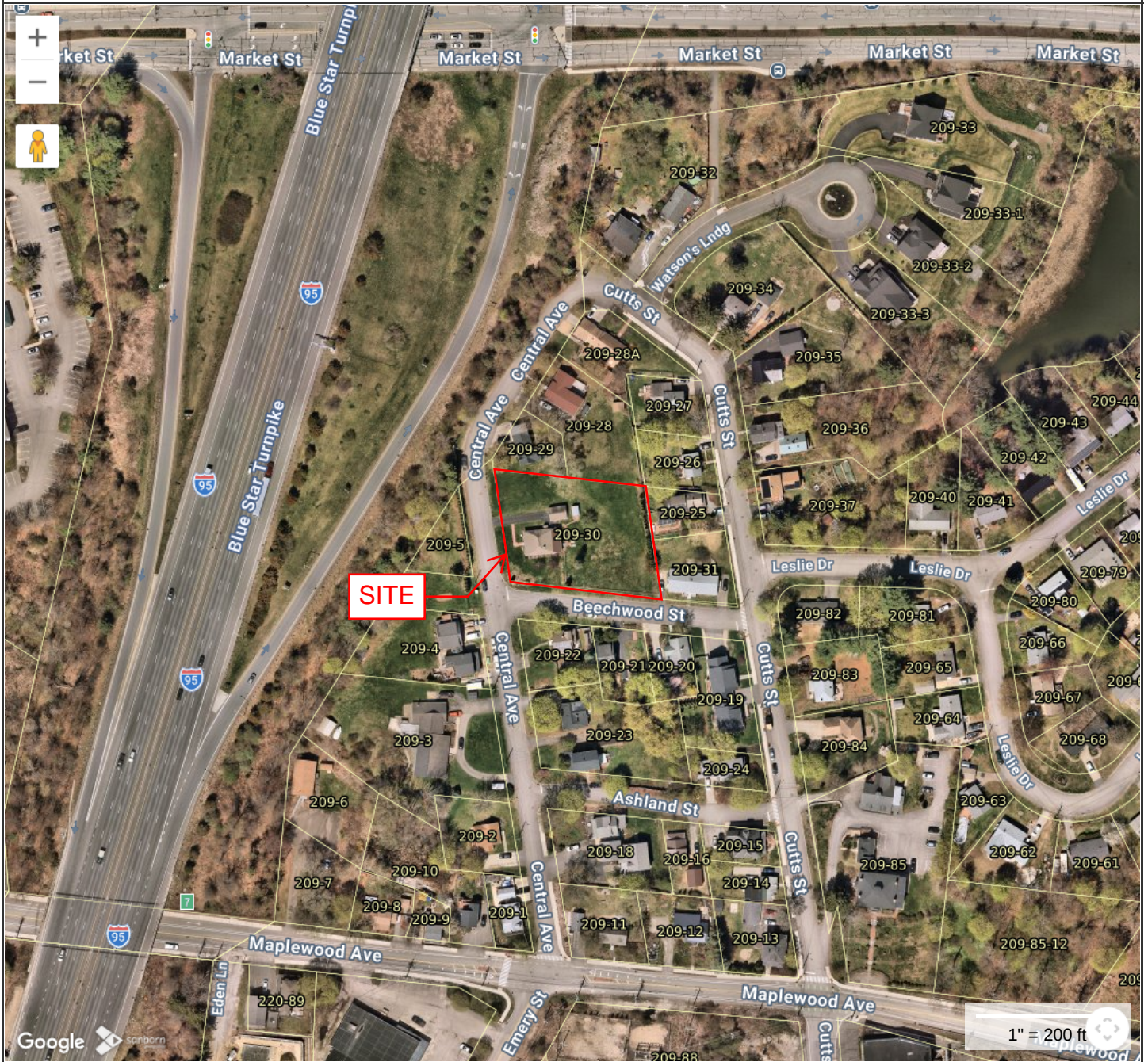
- C101 – Conceptual Subdivision Plan – This plan shows the conceptual subdivision layout with preliminary building footprints and driveway locations.

We look forward to the Technical Advisory Committee's review of this submission and to presenting the project in person at your upcoming meeting.

Sincerely,
Haley Ward, Inc.

Shawn Tobey, PE
Southern Maine & New Hampshire Land Development Manager

Tax Map



**MAP FOR REFERENCE ONLY
NOT A LEGAL DOCUMENT**

City of Portsmouth, NH makes no claims and no warranties, expressed or implied, concerning the validity or accuracy of the GIS data presented on this map.

Geometry updated 03/06/2026

Print map scale is approximate. Critical layout or measurement activities should not be done using this resource.

Zoning Map



**MAP FOR REFERENCE ONLY
NOT A LEGAL DOCUMENT**

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Geometry updated 03/06/2026

Print map scale is approximate. Critical layout or measurement activities should not be done using this resource.

Map Theme Legends

Zoning

Residential Districts

	R	Rural
	SRA	Single Residence A
	SRB	Single Residence B
	GRA	General Residence A
	GRB	General Residence B
	GRC	General Residence C
	GA/MH	Garden Apartment/Mobile Home Park




Mixed Residential Districts

	MRO	Mixed Residential Office
	MRB	Mixed Residential Business
	G1	Gateway Corridor
	G2	Gateway Center





Business Districts

	GB	General Business
	B	Business
	WB	Waterfront Business



Industrial Districts

	OR	Office Research
	I	Industrial
	WI	Waterfront Industrial






Airport Districts

	AIR	Airport
	AI	Airport Industrial
	PI	Pease Industrial
	ABC	Airport Business Commercial


Conservation Districts

	M	Municipal
	NRP	Natural Resource Protection


Character Districts

	CD5	Character District 5
	CD4	Character District 4
	CD4W	Character District 4-W
	CD4-L1	Character District 4-L1
	CD4-L2	Character District 4-L2




Civic District

	Civic District
---	----------------

Municipal District

	Municipal District
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Overlay Districts

	OLOD	Osprey Landing Overlay District
	Downtown Overlay District	
	Historic District	

City of Portsmouth



SITE PHOTOS
20 CENTRAL AVENUE
PORTSMOUTH, NH 03801



Figure 1 – Site view from Central Avenue, looking southeast.



Figure 2 – Site view from the intersection of Central Avenue and Beechwood Street, looking north.



Figure 3 – Site view from the intersection of Central Avenue and Beechwood Street, looking east.



Figure 4 - Site view from Beechwood Street, looking northwest.



CENTRAL AVENUE

RICHARD W. ELDRIDGE JOSEPH G. LAMB DAVID & NANCY BARNABY

55'

165'

Iron Pipe

Iron Pipe

S84°42'E

200.00'

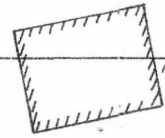
#31

#33

#33

#34

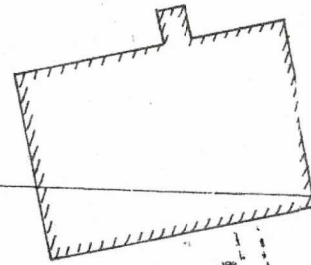
#30



AREA = 28,972 SQ. FT.

#28

#27

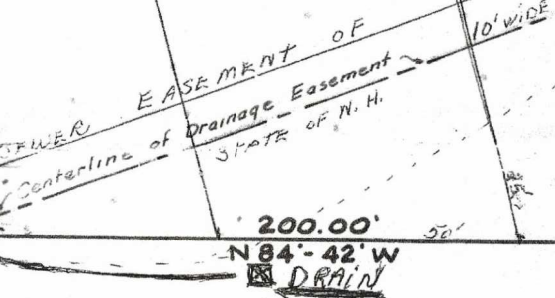


#29

S9°44'E

150.00'

REAL A. & SHIRLEY MORIN



Catch Basin

Iron Pipe

200.00'

N84°42'W

DRAIN

"PK" in Drive

Sewer Manhole

Drain Manhole

BEECHWOOD STREET



PLAN OF LAND
PORTSMOUTH, N.H.

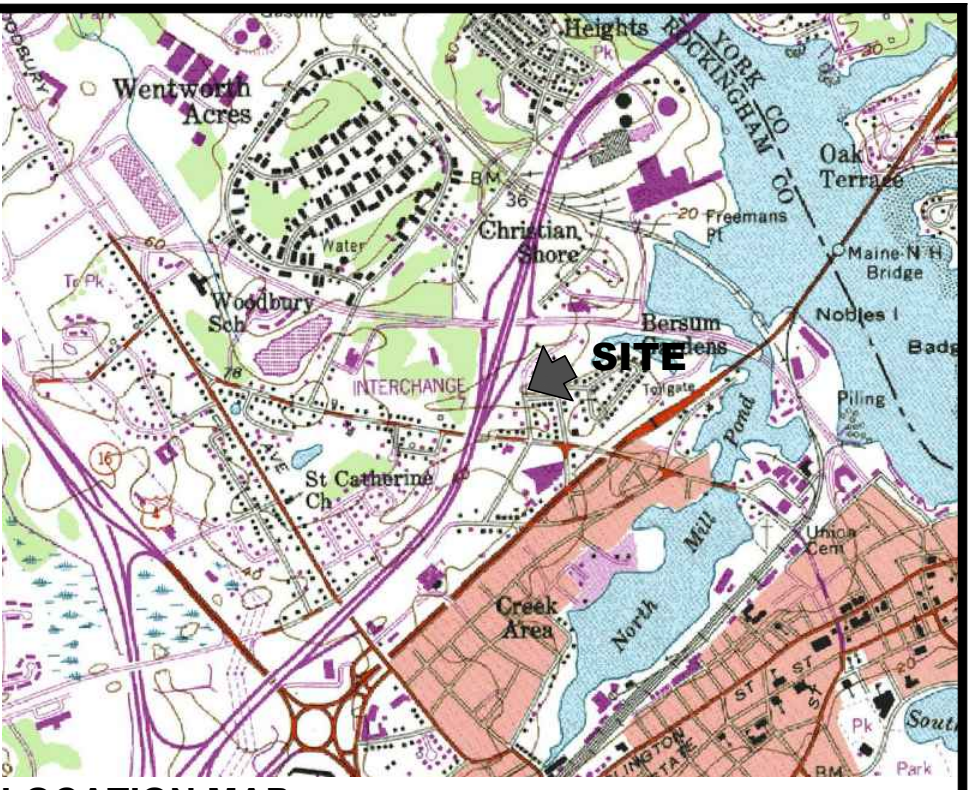
FOR
RAYMOND E. & IDELLE E. ST. LAURENT

SCALE: 1 IN. = 20 FT. AUG 1970

JOHN W. DURGIN
CIVIL ENGINEERS

FILE NO. 501
PLAN NO. 4160

APPROVED FOR RECORD
/ / TO
PORTSMOUTH PLANNING BOARD



LOCATION MAP: USGS QUADRANGLE: PORTSMOUTH
 MAPTECH® USGS TOPOGRAPHIC SERIES™
 ©MAPTECH®, INC. 978-933-3000
 WWW.MAPTECH.COM/TOPO

SITE NOTES:

1. THE PURPOSE OF THIS PLAN IS TO SHOW A CONCEPTUAL 3-LOT SUBDIVISION BASED ON THE GRA GENERAL RESIDENCE A DISTRICT ZONING STANDARDS FOR REVIEW AT THE CITY OF PORTSMOUTH TAC WORKSHOP.
2. THIS PLAN IS BASED ON LIMITED EXISTING INFORMATION AND IS INTENDED TO BE CONCEPTUAL IN NATURE AND FOR PLANNING PURPOSE ONLY. THIS PLAN DOES NOT GUARANTEE APPROVAL OF THE SUBDIVISION LAYOUT AND NUMBER OF LOTS. ALL LAYOUT REQUIRE LOCAL AND STATE APPROVALS.
3. ADDITIONAL SITE FEATURES SUCH AS SOILS, TOPOGRAPHY, AND/OR EASEMENTS MAY REDUCE THE NUMBER OF PROPOSED LOTS.
4. PROPERTY LINES AND EASEMENT LINES SHOWN ARE SOLELY BASED ON A PLAN ENTITLED 'PLAN OF LAND - PORTSMOUTH, N.H. - FOR RAYMOND E. & DELLE E. ST. LAURENT' PREPARED BY JOHN W. DURGIN CIVIL ENGINEERS & DATED AUGUST 1970. A BOUNDARY SURVEY WILL BE REQUIRED FOR THE PREPARATION OF A FINAL YIELD PLAN.
5. EACH DWELLING UNIT WILL BE SERVED BY MUNICIPAL WATER AND SEWER.
6. PARCEL IS SHOWN ON THE CITY OF PORTSMOUTH ASSESSOR'S MAP 209 AS LOT 30.
7. OWNER OF RECORD:
 MARISSA VALVERDE
 20 CENTRAL AVENUE
 PORTSMOUTH, NH 03801
 DEED BOOK 6478, PAGE 1413
8. PARCEL IS NOT IN A SPECIAL FLOOD HAZARD AREA AS SHOWN ON FIRM PANEL 33015C0259F. EFFECTIVE JANUARY 29, 2021.
9. EXISTING LOT AREA:
 28,973 S.F.
 0.67 ACRES
10. PARCEL IS LOCATED IN THE GENERAL RESIDENCE A (GRA) DISTRICT.
11. THE BUILDING FOOTPRINTS SHOWN ARE FOR PRELIMINARY PURPOSES TO DEMONSTRATE COMPLIANCE WITH THE ZONING ORDINANCE. ACTUAL BUILDING FOOTPRINTS WITH FLOOR PLANS AND ELEVATIONS WILL BE PROVIDED FOR THE FORMAL CITY OF PORTSMOUTH TAC REVIEW.
12. TRASH PICKUP TO BE CURBSIDE.

TABLE OF DIMENSIONAL STANDARDS:

REGULATION	REQUIRED	LOT (1)	LOT (2)	LOT (3)
MIN. LOT AREA	7,500 S.F.	9,508 S.F.	7,998 S.F.	11,466 S.F.
STREET FRONTAGE	100 FEET	100 FEET	150 FEET	100 FEET
MIN. FRONT SETBACK	15 FEET	28 FEET	27 FEET	57 FEET
MIN. SIDE SETBACK	10 FEET	14 FEET	15 FEET	16 FEET
MIN. REAR SETBACK	20 FEET	66 FEET	28 FEET	58 FEET
MAX. HEIGHT SLOPED ROOF	35 FEET	< 35 FEET	< 35 FEET	< 35 FEET
MAX. BUILDING COVERAGE ¹	25%	TBD	TBD	TBD
MIN. OPEN SPACE	30%	TBD	TBD	TBD

REV.	DATE	DESCRIPTION	BY	CHK.
1	2026.04.06	ISSUED FOR COMMENT	PJM	SMT

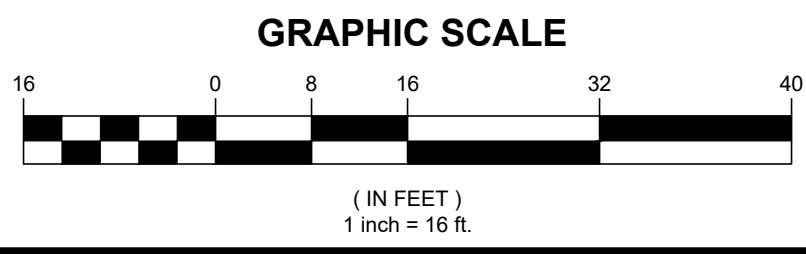
DRAWING ISSUE STATUS
ISSUED FOR REVIEW

HALEY WARD
 200 Griffin Rd., Unit 14
 Portsmouth, New Hampshire 03801
 603.430.9282
 WWW.HALEYWARD.COM

PROPOSED 3 LOT SUBDIVISION
 20 CENTRAL AVENUE, PORTSMOUTH, NH 03801

CONCEPTUAL SUBDIVISION PLAN

DATE	SCALE
2026.04.07	1" = 16'
DRAWN BY PJM	DESIGNED BY PJM
CHECKED BY SMT	
PROJECT No. 5010658.001	
DRAWING No. C101	REV. 1



FILE LOCATION: P:\10658\001\PROPERTIES\5010658\001\20 CENTRAL AVE. PORTSMOUTH\10658\001\CSP.DWG, 2026.04.07, 9:34 AM

7 April 2026

Peter Stith, TAC Committee Chair
City of Portsmouth
1 Junkins Avenue
Portsmouth, NH 03801

RE: Technical Advisory Committee (TAC) Workshop request at 134 Pleasant Street, Proposed Revision to Retail Banking and Banking Offices, Professional Office, and Apartments

Dear Mr. Stith and Technical Advisory Committee Members:

On behalf of Double MC, LLC, we are pleased to submit the attached **Response to the Planning Board Comments** from the Planning Board's March 26, 2026 meeting and ask that we be placed on the agenda for your **April 14, 2026**, Technical Advisory Committee Workshop Meeting. The property is shown on the City of Portsmouth Assessors Map 116 as Lot 30. The project is located at 134 Pleasant Street, adjacent to a Right-of-Way which is a part of the city Parrott Avenue parking lot, which we believe the applicant has rights to use. The Planning Board's Comment for the above-mentioned project, from the Planning Board meeting on March 26, 2026 is repeated below:

The Board voted to request that the City Council consider whether and how, by license or otherwise, the adjacent City property might be used for access and/or drainage purposes, in order to provide the Planning Board with guidance on those topics and to continue the application to the April 16th meeting. At the request of the applicant, and for the information of the City Council, the Board preferred the proposed site plan option for egress over the Parrott Avenue lot over the other option presented for consideration.

The item was on the City Council agenda for the April 6, 2026 Council meeting. The City Council did not engage with a decision, but tabled the issue to a date in the future. Given the complexities of this issue, the applicant has engaged the design team to re-work the project to provide vehicular access from Pleasant Street, and abandon vehicular access over city property. The revised plans reflect a re-design to provide turn-around space at the west end of the parking area, maintaining the garage access.

The Planning Board also received feedback from the public in regard to the application. This feedback is presented below, with a response in **bold** text:

Potential Noise Issues from the Rooftop Utilities: Estimates of noise generation. The submission contains no noise estimates. The project includes rooftop HVAC equipment. **The updated design plans show that the mechanical equipment is set-back approximately 12 feet from the lot line on the West Building; and the East Building is so far from the lot line it does not need to be addressed. Attached is a Specification cut sheet for the equipment being used. This equipment is at the daytime permitted noise level at the**





HALEY WARD

equipment. Being set-back twelve (12) feet from the lot line, the DBA will be under the 45 DBA nighttime requirement. Furthermore, measuring the noise at 4 feet above the ground level as required by the noise ordinance suggests that this equipment will not register anything above 45 DBA.

Geotechnical Evaluation: The submission contains no geotechnical report. **The attached Geotechnical report shows that the applicant has engaged with this issue and understands the need for a study of the ground conditions prior to construction.**

This submission will allow the TAC Committee to review the revised layout and advise the applicant, and the Planning Board, about the proposed change, so that a review of the project can proceed at the next Planning Board meeting on April 16th. We look forward to an in-person presentation to the Technical Advisory Committee and the review of this submission, and request your recommendations to the Planning Board regarding the proposed design.

Sincerely,

John R. Chagnon, PE

P:\NH\5010156-McNabb_Properties\1532-134 Pleasant St., Portsmouth-JRC\03-WIP_Files\Applications\City of Portsmouth Site Plan\TAC Workshop Submission Letter 4-7-26.doc



MXZ-3D24NLHZ

23,600 BTU/H HYPER HEAT PUMP OUTDOOR UNIT



Job Name:

System Reference:

Date:



GENERAL FEATURES

- INVERTER-driven compressor: An inverter-driven compressor generates the precise capacity needed to maintain a temperature set point.
- Thermal Differential 1°F
- Seacoast protection: Seacoast protection on heat exchanger and base panel (rated for 2,000 hrs. in accordance with ASTM B117 testing)
- Quiet operation: Outdoor units are as quiet as a typical conversation, and most indoor units are whisper quiet.
- Hyper-Heating INVERTER®: Hyper-heating performance offers 100% heating capacity at 5°F and 75% heating capacity at -13°F
- Fan motor overheating/voltage protection
- Compressor thermal protection
- Compressor overcurrent detection
- Built-in base pan heater
- High pressure protection

Specifications			System
Unit Type			MXZ-3D24NLHZ
Cooling at 95F ¹ (Non-Ducted // Mixed // Ducted)	Maximum Capacity	Btu/h	23,600 // 23,600 // 23,600
	Rated Capacity	Btu/h	22,000 // 22,800 // 23,600
	Minimum Capacity	Btu/h	11,600 // 11,600 // 11,600
	Maximum Power Input	W	2,760 // 3,080 // 3,400
	Rated Power Input	W	1,693 // 2,027 // 2,360
	Power Factor (208V)	%	0.99 // 0.99 // 0.99
	Power Factor (230V)	%	0.99 // 0.99 // 0.99
Heating at 47F ² (Non-Ducted // Mixed // Ducted)	Maximum Capacity	Btu/h	30,600 // 30,600 // 30,600
	Rated Capacity	Btu/h	25,000 // 24,800 // 24,600
	Minimum Capacity	Btu/h	12,800 // 12,800 // 12,800
	Maximum Power Input	W	2,890 // 3,715 // 4,540
	Rated Power Input	W	2,094 // 2,139 // 2,185
	Power Factor (208V)	%	0.99 // 0.99 // 0.99
Heating at 17F ³ (Non-Ducted // Mixed // Ducted)	Maximum Capacity	Btu/h	25,000 // 24,800 // 24,600
	Rated Capacity	Btu/h	15,400 // 15,400 // 15,400
	Maximum Power Input	W	3,627 // 3,711 // 3,795
	Rated Power Input	W	1,590 // 1,776 // 2,015
	Power Factor (230V)	%	0.99 // 0.99 // 0.99
Heating at 5F ⁴ (Non-Ducted // Mixed // Ducted)	Maximum Capacity	Btu/h	25,000 // 24,800 // 24,600
	Maximum Power Input	W	3,627 // 3,950 // 4,350
Heating at -13F ⁵ (Non-Ducted // Mixed // Ducted)	Maximum Capacity	Btu/h	20,400 // 20,200 // 20,000
	Maximum Power Input	W	2,955 // 3,317 // 3,678
Efficiency (Non-Ducted // Mixed // Ducted)	SEER ²		20 // 17.20 // 14.40
	EER ²		13 // 11.50 // 10
	HSPF ² (IV) ²		10 // 9 // 8
	COP at 47°F ²		3.50 // 3.40 // 3.30
	COP at 17°F at Maximum Capacity ³		2.02 // 1.94 // 1.88
	COP at 5°F at Maximum Capacity ⁴		2.02 // 1.84 // 1.66
	ENERGY STAR® Certified		Yes // Yes // No
Electrical	Electrical Power Requirements	V AC / V AC, ø, Hz	208 / 230, 1, 60
	Guaranteed Voltage Range	V AC	198 - 253
	Voltage: Indoor - Outdoor, S1-S2	V AC	208/230
	Voltage: Indoor - Outdoor, S2-S3	V DC	24
	Recommended Wire Size (Indoor - Outdoor)	AWG	14
	Short-circuit Current Rating (SCCR)	kA	5
	Recommended Fuse/Breaker Size	A	25
	MCA	A	29
	MOCP	A	49

NOTES

¹Cooling at 95°F (Indoor: 80°F DB, 67°F WB // Outdoor: 95°F DB, 75°F WB)

²Heating at 47°F (Indoor: 70°F DB, 60°F WB // Outdoor: 47°F DB, 43°F WB)

³Heating at 17°F (Indoor: 70°F DB, 60°F WB // Outdoor: 17°F DB, 15°F WB)

⁴Heating at 5°F (Indoor: 70°F DB, 60°F WB // Outdoor: 5°F DB, 4°F WB)

⁵Heating at -13°F (Indoor: 70°F DB, 60°F WB // Outdoor: -13°F DB, -14°F WB)

Capacity varies based on the number of indoor units operating and the model of the Multi-zone Outdoor Unit. For reference to connected capacity charts, please refer to Multi-zone Outdoor Unit Operational Performance.

For actual capacity performance based on indoor unit type and number of indoor units connected, please refer to MXZ Operational Performance.

Although the maximum connectable capacity is 130%, the outdoor unit cannot provide more than 100% of the rated capacity.

Please utilize this over capacity capability for load shedding or applications where it is known that all connected units will NOT be operating at the same time.

[†] Indoor/Outdoor Unit Operating Temperature Range (Cooling Air Temp [Maximum / Minimum]):

• Applications should be restricted to comfort cooling only; equipment cooling applications are not recommended for low ambient temperature conditions.

** Outdoor Unit Operating Temperature Range (Cooling Thermal Lock-out / Re-start Temperatures; Heating Thermal Lock-out / Re-start Temperatures):

• System cuts out in heating mode and automatically restarts at these temperatures.

SPECIFICATIONS: MXZ-3D24NLHZ

Specifications		System	
Unit Type		MXZ-3D24NLHZ	
Outdoor Unit	Fan Motor Full Load Amperage	A	1.74
	Fan Motor Output	W	88
	Defrost Method		Reverse Cycle
	Blue Fin Heat Exchanger Coating		Yes
	Airflow Rate Cooling/Heating	CFM	2,239 / 2,378
	Sound Pressure Level, Cooling ¹	dB (A)	56
	Sound Pressure Level, Heating ²	dB (A)	58
	Compressor Type		Twin Rotary
	Compressor Model		SRB280FDRMC
	Compressor Oil Type // Charge	Type // oz	RM68EH // 23.7
	External Finish Color		Munsell 3.0Y 7.8/1.1
	Base Pan Heater		Built-in
	Unit Dimensions (W x D x H)	inch x inch x inch [mm x mm x mm]	37-13/32 x 13 x 31-11/32 [950 x 330 x 796]
	Package Dimensions (W x D x H)	inch x inch x inch [mm x mm x mm]	41-11/32 x 17-5/16 x 38-31/32 [1,050 x 440 x 990]
Unit Weight	lbs [kg]	152 [69]	
Package Weight	lbs [kg]	178 [81]	
ODU Operating Temp. Range	Cooling Intake Air Temp (Maximum / Minimum ³)	°FDB	115 / 14
	Cooling Thermal Lock-out / Re-start Temperatures	°FDB	10 / 14
	Heating Intake Air Temp [Maximum / Minimum]	°FDB, °FWB / °FDB, °FWB	75, 65 / -13, -14
	Heating Thermal Lock-out / Re-start Temperatures**	°FDB	-22.5 / -14
Refrigerant	Type		R454B
	Pre-Charged Refrigerant Amount	lbs, oz	6, 3
	Maximum Pre-Charged Piping Length	ft	230
IDU Connection	Minimum Number of Connected IDU		2
	Maximum Number of Connected IDU		3
	Minimum Connected Capacity	Btu/h	12,000
	Maximum connected capacity	Btu/h	28,000
Piping	Liquid Pipe Size O.D. (Flared)	inch	A: 1/4 B: 1/4 C: 1/4
	Gas Pipe Size O.D. (Flared)	inch	A: 1/2 B: 3/8 C: 3/8
	Total Piping Length	ft [m]	230 [70]
	Farthest Piping Length	ft [m]	82 [25]
	Maximum Height Difference ⁴ , ODU above IDU	ft [m]	49 [15]
	Maximum Height Difference ⁴ , ODU below IDU	ft [m]	49 [15]
	Maximum Number of Bends for IDU		70

NOTES

¹Cooling at 95°F (Indoor: 80°F DB, 67°F WB // Outdoor: 95°F DB, 75°F WB)

²Heating at 47°F (Indoor: 70°F DB, 60°F WB // Outdoor: 47°F DB, 43°F WB)

³Heating at 17°F (Indoor: 70°F DB, 60°F WB // Outdoor: 17°F DB, 15°F WB)

⁴Heating at 5°F (Indoor: 70°F DB, 60°F WB // Outdoor: 5°F DB, 4°F WB)

⁵Heating at -13°F (Indoor: 70°F DB, 60°F WB // Outdoor: -13°F DB, -14°F WB)

Capacity varies based on the number of indoor units operating and the model of the Multi-zone Outdoor Unit. For reference to connected capacity charts, please refer to Multi-zone Outdoor Unit Operational Performance.

For actual capacity performance based on indoor unit type and number of indoor units connected, please refer to MXZ Operational Performance.

Although the maximum connectable capacity is 130%, the outdoor unit cannot provide more than 100% of the rated capacity.

Please utilize this over capacity capability for load shedding or applications where it is known that all connected units will NOT be operating at the same time.

⁶ Indoor/Outdoor Unit Operating Temperature Range (Cooling Air Temp [Maximum / Minimum]):

• Applications should be restricted to comfort cooling only; equipment cooling applications are not recommended for low ambient temperature conditions.

• Outdoor Unit Operating Temperature Range (Cooling Thermal Lock-out / Re-start Temperatures; Heating Thermal Lock-out / Re-start Temperatures):

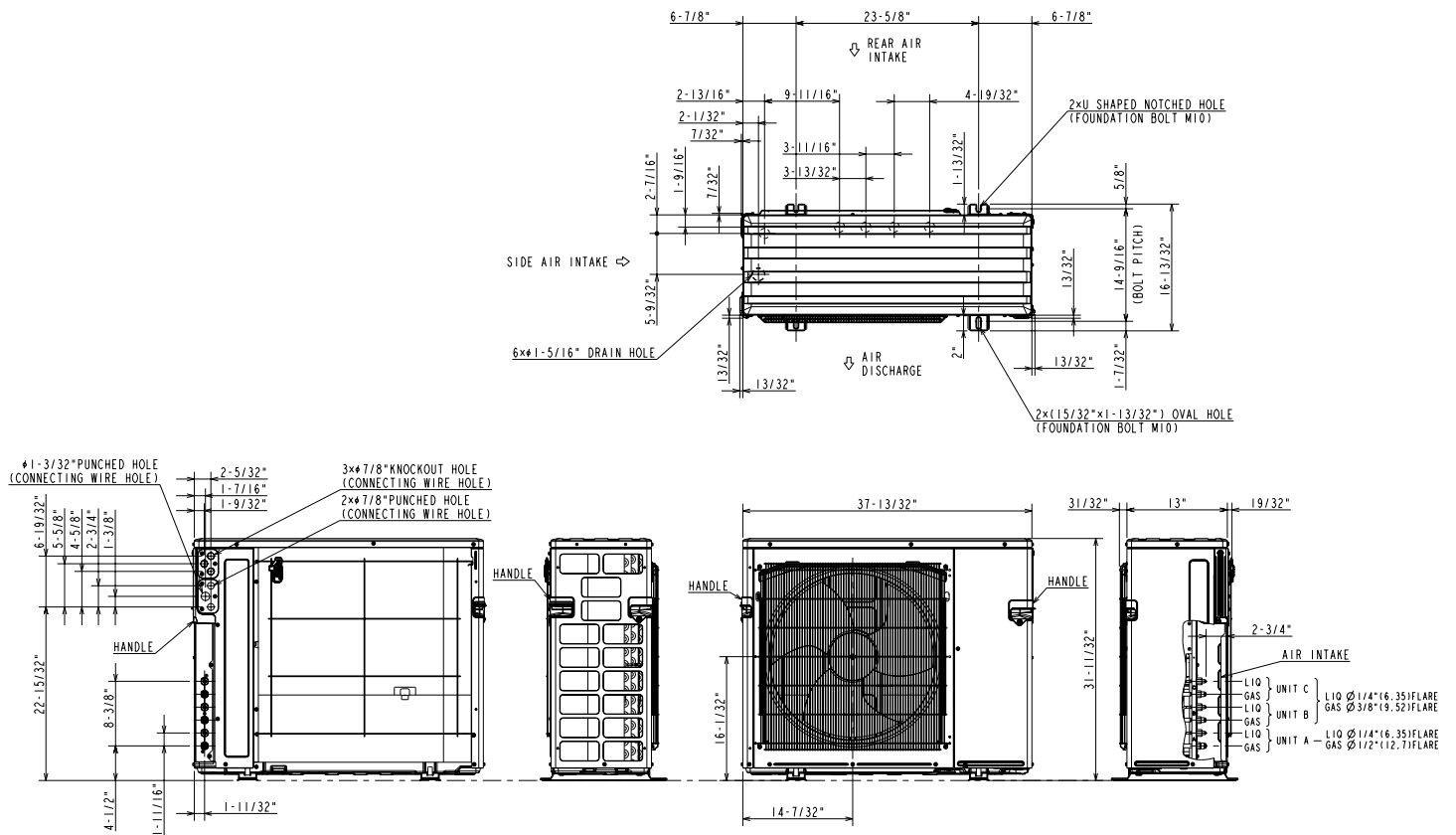
• System cuts out in heating mode and automatically restarts at these temperatures.

OUTDOOR UNIT ACCESSORIES: MXZ-3D24NLHZ

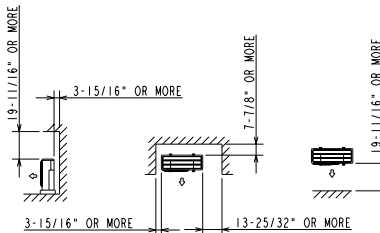
Ball Valve	Refrigeration Ball Valve - 1/2	BV12FFSI2
	Refrigeration Ball Valve - 1/4	BV14FFSI2
	Refrigeration Ball Valve - 3/8	BV38FFSI2
	Refrigeration Ball Valve - 5/8	BV58FFSI2
Port Adaptor	Adaptor 1/2 x 3/8	PAC-SK88RJ-E
	Adaptor 1/2 x 5/8	PAC-SK89RJ-E
	Adaptor 1/4 x 3/8	PAC-493PI
	Adaptor 3/8 x 1/2	ADP3812
	Adaptor 3/8 x 5/8	PAC-SK90RJ-E
Control/Service Tool	Maintenance Tool Interface	PAC-USCMS-MN-1
Mini-Split Wire	14 Gauge 4 wire Armored MiniSplit Cable250 ft roll	SW144-250
	14 Gauge 4 wire Armored MiniSplit Cable50 ft roll	SW144-50
	14 Gauge 4 wire MiniSplit Cable250 ft roll	S144-250
	14 Gauge 4 wire MiniSplit Cable50 ft roll	S144-50
	16 Gauge 4 wire Armored MiniSplit Cable250 ft roll	SW164-250
	16 Gauge 4 wire Armored MiniSplit Cable50 ft roll	SW164-50
	16 Gauge 4 wire MiniSplit Cable250 ft roll	S164-250
	16 Gauge 4 wire MiniSplit Cable50 ft roll	S164-50
Stand	18 Single Fan Stand	QSMS1801M
	24 Single Fan Stand	QSMS2401M
	Condenser Wall Bracket	QSWB2000M-1
	Condenser Wall Bracket - Stainless Steel Finish	QSWBSS
	Outdoor Unit 3-14 inch Mounting Base Pair - Plastic	DSD-400P
	Outdoor Unit Stand 12 High	QSMS1201M
Mounting Pad	Condensing Unit Mounting Pad 16 x 36 x 3	ULTRILITE1
Air Outlet Guide	Air Outlet Guide 1 Piece	PAC-SH96SG-E
Snow/Rain Diverter	SnowRain Diverter	SRD-4
Control Interface	M-NET Interface for MXZ	PAC-IF01MNT-E
Hail Guards	Hail Guard	HG-A9
Drain Socket	Drain Socket	PAC-SG60DS-E
NOTES		

OUTDOOR UNIT DIMENSIONS: MXZ-3D24NLHZ

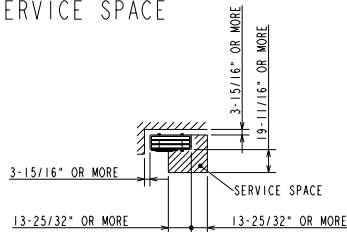
MXZ-3D24NLHZ-U1
MXZ-3D30NLHZ-U1



1. FREE SPACE



2. SERVICE SPACE



1340 Satellite Boulevard Suwanee, GA 30024
Toll Free: 800-433-4822 <https://mitsubishicomfort.com>



METUS_2025-07_PROPIN

GEOTECHNICAL REPORT

**CITIZENS BANK PORTSMOUTH
134 PLEASANT STREET
PORTSMOUTH, NEW HAMPSHIRE**

April 1, 2025

GSI Project No. 225147

Prepared for:

Mark A. McNabb
McNabb Properties, LTD
3 Pleasant Street, Suite 400
Portsmouth, NH 03801

Prepared by:

Geotechnical Services, Inc.
55 North Stark Highway
Weare, NH 03281



April 1, 2025

Mark A. McNabb
McNabb Properties, LTD
3 Pleasant Street, Suite 400
Portsmouth, NH 03801
Email: house@mcnabbgroup.com

**RE: Engineering Services Proposal
Citizens Bank – Portsmouth
134 Pleasant Street
Portsmouth, New Hampshire**

GSI Project No. 225147

Dear Mr. McNabb:

This report presents the results of a geotechnical investigation completed by Geotechnical Services, Inc. (GSI) for the construction of the proposed third floor addition at the Citizens Bank in Portsmouth, New Hampshire. The objective of the geotechnical investigation was to explore subsurface conditions within the proposed development area and formulate geotechnical engineering recommendations for the design and construction of foundations, and floor slabs. Included are the findings of our subsurface exploration program and an engineering evaluation of the subsurface conditions encountered. The contents of this report are subject to the Limitations included in Appendix A.

PURPOSE AND SCOPE

The scope of services performed by GSI to meet the above-stated objectives for geotechnical engineering services included the following:

1. Coordination and observation of two (2) test borings at the locations illustrated on the attached Figure 2;
2. Evaluation of appropriate foundation systems based on subsurface conditions encountered. Formulation of design parameters for spread footing foundation and slab on-grade construction, including allowable bearing pressure and prediction of long-term settlement values;
3. Formulation of earthwork and foundation construction procedures to be followed during the construction phase of this project;
4. Establishment of seismic design parameters and liquefaction potential based on the subsurface profile and the proposed structure;
5. Preparation of this geotechnical engineering report which summarizes our findings and recommendations.

SITE AND PROJECT INFORMATION

The project involves the construction of a third floor at the existing Citizen's Bank building at 134 Pleasant Street in Portsmouth, New Hampshire. Limited project information was provided, and it is assumed that the existing foundation will be retrofit with larger footings to accommodate the additional loading from the third floor. Site information was referenced from the Citizen's Bank ALTA Survey, dated June 9, 1996.

SUBSURFACE INVESTIGATION

GSI observed a series of two (2) test borings located outside the existing building area designated GSI-1 through GSI-2. Due to the building's mixed-use nature, which includes an active bank as well as other tenants, borings could not be performed on the front or sides of the building. As a result, the borings were limited to the rear of the building. The borings were advanced to depths of 14.5 and 27.5 feet below ground surface. The subsurface explorations classified the on-site soils according to their color, grain size, and other material properties. The test boring program was conducted by Miller Engineering and Testing, Inc. of Manchester, New Hampshire.

Soil explorations were performed in accordance with methods prescribed by ASTM D1586. Soil samples were obtained at the surface and at five-foot intervals with a 1 $\frac{3}{8}$ inch diameter split-spoon sampler. Standard Penetration Tests (SPTs) were performed at the sampling intervals in accordance with ASTM D1586. Field descriptions of the soils encountered, observed depth to groundwater while drilling when observed, and other pertinent observations are contained in the attached test boring logs. The test boring locations are illustrated on Figure 2 of this report. GSI test boring logs are presented in Appendix B.

SUBSURFACE CONDITIONS

Bituminous Concrete

The test borings were advanced within paved areas. At ground surface, approximately 7 inches of bituminous asphalt concrete was observed.

Fill

Below the bituminous asphalt concrete, the test borings encountered a fill consisting of tan/brown, fine to coarse Sand, little Silt, little Gravel, with various amounts of concrete and brick as well. The fill was observed below the pavement and extended to depths of approximately 6 feet. It is assumed the fill was used to bring up the parking lot to its current elevation.

Silt

Silt was the predominate soil observed during the drilling operations. The silt was observed below the fill layer at depths around 4 to 6 feet below ground surface. The silt was visually classified as tan/ olive, Silt, little fine to medium sand, trace gravel.

Glacial Till

The silt transitioned into a Glacial Till at depths of approximately 14 feet, which extended to refusal. Glacial till is a non-sorted, non-stratified natural deposit consisting of sand, silt, gravel,



and boulders in varying proportions, deposited directly by glaciers in a non-aqueous depositional environment. The material predominantly contained gravel and fine to medium sand, along with significant amounts of silt. The gravel fraction was typically composed of durable, granitic aggregates

Refusal

Test boring refusal was encountered at depths of 14.5 and 27.5 feet. It is assumed the refusal is due to the presence of bedrock, but may also be caused by nested cobbles, very dense soils, boulders, or other obstructions. Refusal is defined as the inability of the augers to advance despite increasing torque and downward pressure applied by the drill rig. Split spoon refusal is defined as either 100 blows or more required to drive the split spoon sampler 12 inches with a 140-lb. hammer falling 30 inches; 50 blows for less than 6 inches of advancement; or 10 blows with no discernable vertical movement of the split spoon sampler

Groundwater

Groundwater was observed following the completion of the test borings at depths of 10 and 20 feet. Groundwater observations should not be considered long-term, equilibrated groundwater levels, but rather an approximate indication of the likely groundwater elevation during construction. Groundwater levels should be anticipated to fluctuate from those measured during drilling operations in response to differences in equilibrated time, rainfall, snowmelt, and seasonal changes.

FOUNDATION DESIGN RECOMMENDATIONS

GSI recommends that building walls, columns and other structural elements be supported by reinforced concrete spread or strip footings bearing directly upon the native Silt described above. An allowable bearing pressure of 1.5 tons per square foot (3,000psf) may then be assumed for design. With regards to footing geometry, the minimum footing width of column and strip footings should be 4 feet and 2 feet, respectively. The spread footings should be founded at least 4 feet below exterior grade to obviate frost action in the bearing strata. If the construction occurs during the winter months, it will be necessary to provide temporary insulation and/or heat application to the foundations.

At the recommended bearing pressures, we anticipate that the total settlement of individual footings under static loading conditions and constructed as recommended herein, will not exceed 1 in., with differential settlements between adjacent footings not exceeding $\frac{3}{4}$ in. Most of the settlement will likely occur elastically during construction as structure dead loads are placed on the foundations. The live load contribution to foundation settlement is expected to be less than 50% of the dead load thus post construction settlements are not expected to be problematic



ENGINEERING PARAMETER OF ON-SITE SOILS

Based on results of our subsurface exploration program, the following engineering properties of soils that will be supporting foundation elements are estimated as follows:

On-Site Soil Engineering Design Parameters (TABLE 1)				
Soil Type	Friction Angle ϕ (Degrees)	Cohesion c (psf)	Unit Weight γ (pcf)	Coeff. Of Sliding Friction Soil to Concrete ($\tan \delta$)
Silt	32	0	110	0.40

SEISMIC DESIGN PARAMETERS

Seismic design parameters have been reviewed with respect to the 2021 Edition of the International Building Code. Upon review of the subsurface soils data, the site is to be associated with Site Class "D" and the design of structural elements should reflect this distinction. The subsurface conditions are also not deemed susceptible to earthquake induced "liquefaction." A Summary of USGS Design Maps is included as Appendix D.

CONCRETE FLOOR SLAB

We recommend that ground floor slabs be designed as slabs-on-grade designed in accordance with ACI 360R-10. The slab should bear directly upon an 8-inch (minimum) layer of compacted Base Course Soil. The subgrade will consist of compacted structural fill or proof-compacted undisturbed soil. The floor slab may thus be designed following the ACI "elastic support" approach, using a modulus of subgrade reaction value, $k = 200$ pci.

Slabs should be designed to act independent of foundation walls and column footings with isolation joints. Shrinkage cracking may be controlled with welded wire fabric, reinforcing steel, or contraction joints. Contraction joints in plain concrete should not be spaced a distance greater than 30 times the slab thickness. Saw cuts should be made within 12 hours of slab finishing and penetrate at least $\frac{1}{4}$ the slab thickness or a minimum of 1 inch. Welded wire fabric or reinforcing steel may also be used to widen the control joint spacing.

For moisture sensitive environments, ACI indicates that a sub-slab vapor retarder may be used beneath the concrete slab. The vapor retarder should be at a minimum; 10-mil polyethylene with joints lapped a minimum of 12 inches. It is emphasized that these are recommendations and that the final decision on the use and location of the sub-slab vapor retarder whether in direct contact with the slab or beneath the layer of compacted Structural Fill should be made considering specific conditions for the project. Factors which may affect this decision include moisture sensitivity of the planned floor finishes, anticipated moisture conditions, including precipitation and exposure before the slab is constructed, and the potential effects of slab curling and cracking. Design guidance is provided in ACI 360R-10, Design of Slabs on Grade, Figure 3-7.



FOUNDATION DRAINAGE, ROOF DRAINAGE, AND SLAB-ON-GRADE DAMP PROOFING RECOMMENDATIONS

Foundation drains are not required as below grade space is not expected to be incorporated into the existing structure. The ground surface immediately adjacent to the foundation should be sloped away from the building to allow for positive drainage. It is recommended that the surficial materials adjacent to the building be relatively impermeable to reduce the volume of precipitation infiltrating into the subsurface. Such impermeable materials may include Portland cement concrete, bituminous concrete, or vegetated silty topsoil. Roof drainage is recommended for the collection of run off because of stormwater. It is recommended that roof drainage and stormwater feature not discharge into foundation drains as applicable.

CONCRETE SIDEWALKS

Where concrete exterior sidewalks are provided, they shall be formed upon a minimum of 12 inches of slab base course or structural fill, which shall be increased to a minimum of 18 inches in the vicinity of exterior doorways, ramps, or other openings for frost protection at building entry points.

EARTHWORK RECOMMENDATIONS

Foundation Subgrade Preparation

Prior to foundation construction, any topsoil, subsoil, or loose fill soils encountered within the building footprint and foundation zone of influence should be removed. Foundation and floor slab subgrades should be proof compacted using a heavy vibratory plate or drum roller prior to foundation construction or placing additional fill in order to densify disturbed soils resulting from excavation and preload the subgrade.

Recommended proof compaction should include 4 passes with a minimum of a 10-ton vibratory roller. During the proof rolling process, the subgrade should be observed by a qualified Geotechnical Engineer to identify areas exhibiting weaving or excessive reaction. Any soils exhibiting excessive reaction should be locally excavated and replaced with free draining structural fill or crushed stone. The foundation subgrade should be observed by a qualified Geotechnical Engineer to verify competency.

Protection of Foundation Subgrades

The contractor must maintain stable, dewatered subgrades for foundations, pavement areas, and utility trenches. Subgrades may be disturbed by improper excavation methods, moisture, precipitation, groundwater control, and construction activities. The contractor should take precautions to protect the bearing subgrade against disturbance from construction traffic and weathering. If necessary, dewatering can be accomplished via open pumping utilizing submersible pumps and temporary stone lined sump pits.

A lift of compacted crushed stone is recommended to protect the subgrade surface from wear and disturbance should water be present within the excavation. The subgrade must still be verified for competency prior to the placement of concrete or backfill materials within the building footprint. If construction activities are to take place during winter months, the contractor should protect the work area from freezing, which may necessitate the use of soil blankets or tents and heaters to protect the subgrade surface.



Construction Dewatering

The site contractor should be prepared to remove any standing water from foundation excavations. If the sumps are unable to control the development of groundwater within the excavation, supplemental dewatering in the form of deep wells or wellpoints may be required. Stormwater runoff developed from storm events should be diverted away from excavation areas to minimize any impoundment in the excavation or disturbance to the foundation subgrades. It is anticipated that groundwater and stormwater may be controlled by localized dewatering efforts employing sumps and pumps.

The groundwater elevation should be maintained at least 12 inches below the foundation grade until backfilling is complete. A lift of crushed stone or free draining structural fill at foundation grade may be utilized if required to facilitate dewatering and provide a dry and stable subgrade during construction.

Backfilling

Backfill in the building area should be placed and compacted in lifts immediately after final excavation to limit disturbance to the subgrade surface. Except for zones requiring special backfill such as directly beneath pavements or exterior slabs, the exterior of foundation walls and other site areas may be backfilled with Common Fill. Placement of compacted fills should not be conducted when air temperatures are low enough (approximately 30°F, or below) to cause freezing of the moisture in the fill during or before placement. Fill materials should not be placed on snow, ice, or uncompacted frozen soil. Compacted fill should not be placed on frozen soil.

No fill should be allowed to freeze prior to compaction. At the end of each day's operations, the last lift of fill, after compaction, should be rolled by a smooth-wheeled roller to eliminate ridges of uncompacted soil.

Minimum compaction requirements for all fill materials are as follows:

Minimum Compaction Requirements (TABLE 2)			
Location or Area	Standard Proctor Density (ASTM D698)	Modified Proctor Density (ASTM D1557)	Testing Frequency One Test Per Lift Per
Building and Slab Subgrades	100%	95%	1,000 ft ² or 100 lineal feet
Retaining Walls	95%	92%	1,000 ft ²
Pavements (up to 3-ft below finished grade)	95%	92%	2,000 ft ² or 50 lineal feet
Pavements (in the upper 3-ft)	100%	95%	2,000 ft ² or 50 lineal feet
Trenches	95%	92%	150 lineal feet
Structures and Walkways	95%	92%	2,000 ft ²
Lawns and Unimproved Areas	92%	90%	20,000 ft ²



Structural Fill

Structural Fill, if required, should consist of clean sand and gravel free of organic material, snow, ice, or other objectionable materials and should be well-graded within the following limits:

<u>Sieve Size</u>	<u>Percent Finer by Weight</u>
4 in.	100
No. 4	30-70
No. 40	10-50
No. 200	0-12.

Other materials could be acceptable for Structural Fill and should be evaluated by the Geotechnical Engineer on a case-by-case basis if proposed by the Contractor.

Structural Fill should be placed in lift thickness not exceeding 12 in. loose measure. Cobbles and boulders having a size exceeding 2/3 of the loose lift thickness should be removed prior to compaction. Compaction in open areas should consist of self-propelled vibratory rollers such as a BoMag BW-60S or equivalent.

In confined areas, hand guided equipment such as a large vibratory plate compactor, should be used and the loose lift thickness should not exceed 6 in. A minimum of four systematic passes of the compaction equipment should be used to compact each lift. Compaction effort should be verified by field density testing.

Common Fill

Common fill may be used to raise grades in paved and landscaped areas, subject to pavement design criteria and landscape planting or drainage requirements. Common fill should be granular mineral soil free from organic materials, loam, wood, trash, snow, ice, frozen soil, and other compressible materials. Common fill should not contain stones larger than 2/3 of the placement lift thickness, and have a maximum 80 percent passing the No. 40 sieve, and a maximum of 30 percent passing the No. 200 sieve. These soils typically would require moisture control during placement and compaction.

Slab Base Course

Slab Base Course beneath building slabs should consist of bank-run sand and gravel, free of organic material, snow, ice, or other unsuitable materials and should be well-graded within the following limits:

<u>Sieve Size</u>	<u>Percent Finer by Weight</u>
2 in.	100
No. 4	40-70
No. 40	25-45
No. 200	0-10

Other materials could be acceptable for compacted Slab Base Course and should be evaluated by the Geotechnical Engineer on a case-by-case basis if proposed by the Contractor. Slab Base Course should be placed in lift thicknesses not exceeding 8-inches loose measure. In confined areas, hand-guided equipment such as a vibratory plate compactor should be used, and the loose lift thickness should not exceed 6 inches. A minimum of four systematic passes of the compaction equipment should be used to compact each lift.



CONSTRUCTION MONITORING

It is strongly recommended that GSI be retained to provide construction monitoring and testing services in conformance with the requirements of the International Building Code. GSI has the Geotechnical Engineers and Technicians trained and experienced in all facets of monitoring earthwork excavation and construction materials testing, as well as a full-service soils and materials laboratory. As a guide, we have enclosed a Recommended Program for Structural Tests and Inspections for Soils and Foundations, attached as Appendix E of this report.

These services may include:

- Construction Materials Testing of Soils, Aggregates, Concrete, Steel, and Asphalt.
- Design Phase engineering services including preparation of final earthwork specifications, review of contractor submittals, and plan review.
- Construction Phase engineering services on Geotechnical issues and/or differing conditions encountered during construction.

CLOSURE

We trust that you find this report consistent with your needs. Should you have any questions with regard to this report, please do not hesitate to contact our office.

Very truly yours,

GEOTECHNICAL SERVICES, INC.



Charles A. Wetherbee, EIT
Staff Engineer



Harry K. Wetherbee, P.E.
Principal Engineer

Attachments:

Figure 1: Locus Map

Figure 2: Exploration Location Plan

Appendix A: Limitations

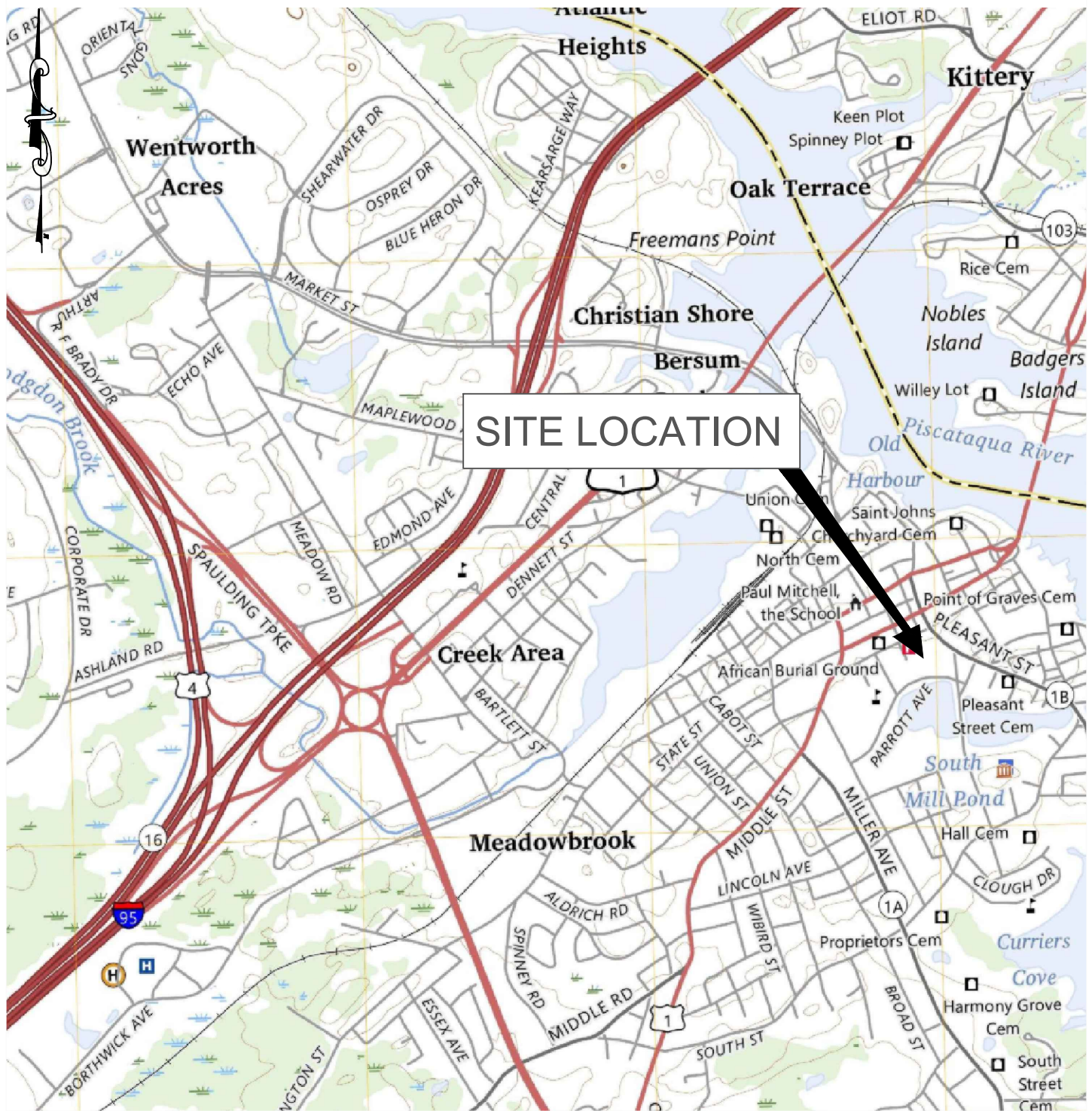
Appendix B: Exploration Logs

Appendix C: Subsurface Exploration Key

Appendix D: USGS Seismic Design Maps

Appendix E: Draft Earthwork Specifications





LOCUS MAP

**Citizens Bank Portsmouth
Portsmouth, New Hampshire**



GEOTECHNICAL SERVICES INC.

55 NORTH STARK HIGHWAY, WEARE, NH 03281
TEL. (603) 529-7766 FAX. (603) 529-7780

DRAWN BY: CAW

DATE: April 2025

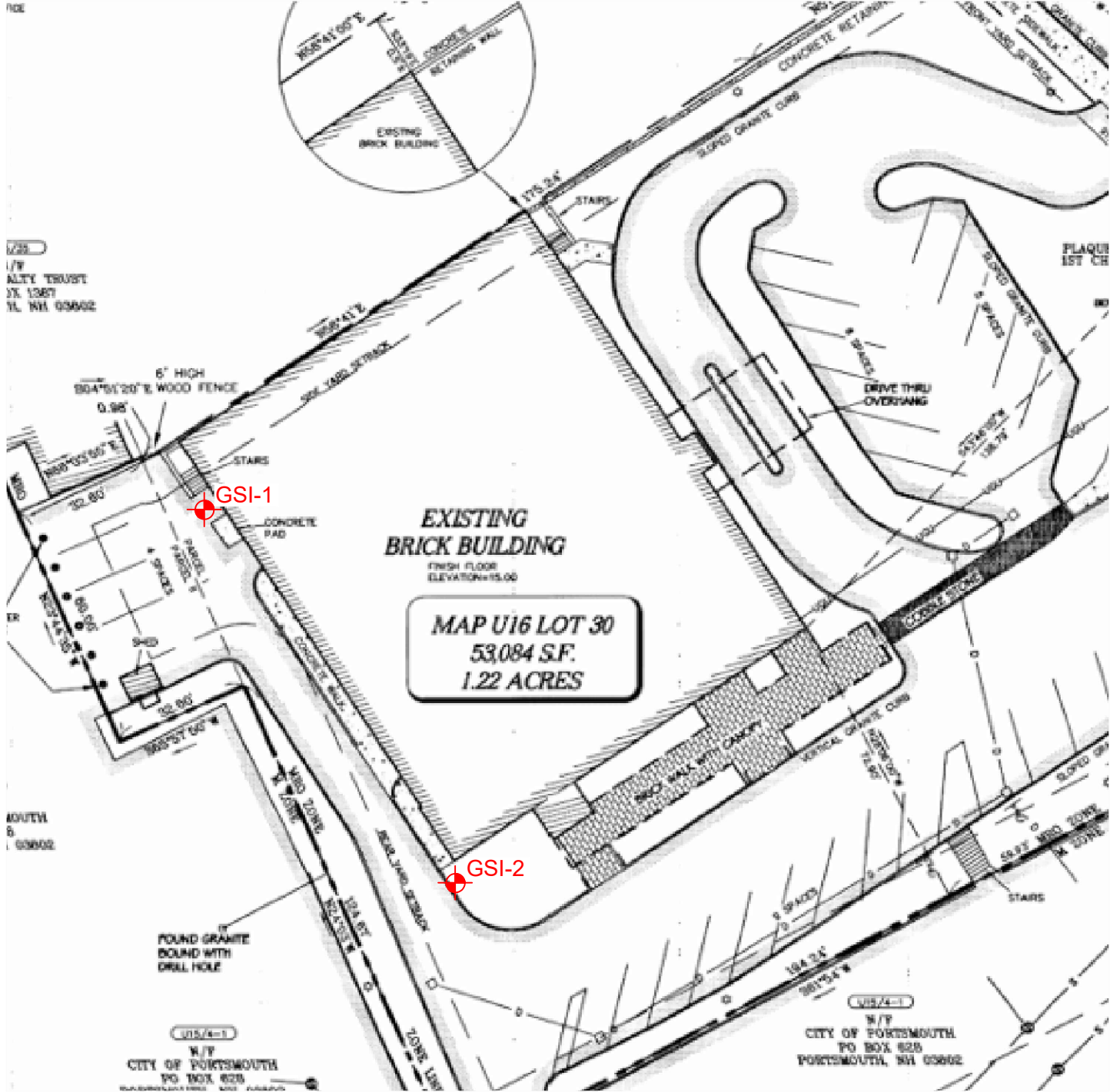
CHECKED BY: HKW

SCALE: NTS

FILE NAME:
Citizens Bank Portsmouth.dwg

PROJECT NO.: 225147

**FIGURE
NO. 1**



+ GSI-1 Test Boring Location (Approximate)
+ GSI-2 Test Pit Location (Approximate)

<p>EXPLORATION LOCATION PLAN</p>	<p>GEOTECHNICAL SERVICES INC. 55 NORTH STARK HIGHWAY, WEARE, NH 03281 TEL. (603) 529-7766 FAX. (603) 529-7780</p>
---	--

<p>Citizens Bank Portsmouth Portsmouth, New Hampshire</p>	DRAWN BY: CAW	DATE: April 2025	<p>FIGURE NO. 2</p>
	CHECKED BY: HKW	SCALE: NTS	
	FILE NAME: Citizens Bank Portsmouth.dwg	PROJECT NO.: 225147	

APPENDIX A

LIMITATIONS



LIMITATIONS

Explorations

1. The analyses, recommendations, and designs submitted in this report are based in part upon the data obtained from preliminary subsurface explorations. The nature and extent of variations between these explorations may not become evident until construction. If variations then appear evident, it will be necessary to re-evaluate the recommendations of this report.
2. The generalized soil profile described in the text is intended to convey trends in subsurface conditions. The boundaries between strata are approximate and idealized and have been developed by interpretation of widely spaced explorations and samples; actual soil transitions are probably more gradual. For specific information, refer to the individual test pit and/or boring logs.
3. Water level readings have been made in the test pits and/or test borings under conditions stated on the logs. These data have been reviewed and interpretations have been made in the text of this report. However, it must be noted that fluctuations in the level of the groundwater may occur due to variations in rainfall, temperature, and other factors differing from the time the measurements were made.

Review

4. It is recommended that this firm be given the opportunity to review final design drawings and specifications to evaluate the appropriate implementation of the recommendations provided herein.
5. In the event that any changes in the nature, design, or location of the proposed areas are planned, the conclusions and recommendations contained in this report shall not be considered valid unless the changes are reviewed and conclusions of the report modified or verified in writing by Geotechnical Services, Inc.

Construction

6. It is recommended that this firm be retained to provide geotechnical engineering services during the earthwork phases of the work. This is to observe compliance with the design concepts, specifications, and recommendations and to allow design changes in the event that subsurface conditions differ from those anticipated prior to the start of construction.

Use of Report

7. This report has been prepared for the exclusive use of the above and their assigns, in accordance with generally accepted soil and foundation engineering practices. No other warranty, expressed or implied, is made.
8. This report has been prepared for this project by Geotechnical Services, Inc. This report was completed for preliminary design purposes and may be limited in its scope to complete an accurate bid. Contractors wishing a copy of the report may secure it with the understanding that its scope is limited to evaluation considerations only.



APPENDIX B

EXPLORATION LOGS





TEST BORING LOG

Boring No.
GSI-1
Page 1 of 2

Geotechnical Services, Inc. 55 North Stark Highway, Weare, NH 03281 Phone 603/529-7766 Fax 603/529-7080 - 30 Newbury St. 3rd Floor, Boston, MA 02116 Phone 617/455-4248 Fax 617/745-4308

Project	Citizens Bank Portsmouth	GSI Project No.	225147	Elevation	Existing Grade
Location	Portsmouth, NH	Project Mgr.	Charles Wetherbee	Datum	-
Client	McNabb Properties, LTD	Inspector	Charles Wetherbee	Date Started	3/21/2025
Contractor	Miller Engineering and Testing	Checked By	Harry Wetherbee	Date Finished	3/21/2025
Driller	Bob Marcoux	Rig Make & Model	Diedrich	Rig Model	D-50

Item:	Auger	Casing	Sampler	Core Barrel	<input checked="" type="checkbox"/> Truck	<input type="checkbox"/> Skid	Hammer Type: <input checked="" type="checkbox"/> Safety Hammer <input type="checkbox"/> Doughnut <input type="checkbox"/> Automatic	
Type	HS Aug		SS		<input type="checkbox"/> Track	<input type="checkbox"/> ATV		
Inside Diameter (in.)	2.25"		1-3/8"		<input type="checkbox"/> Bomb.	<input type="checkbox"/> Geoprobe		
Hammer Weight (lb)			140		<input type="checkbox"/> Tripod	<input type="checkbox"/> Other		
Hammer Fall (in.)			30"		<input type="checkbox"/> Winch	<input checked="" type="checkbox"/> Cat Head		<input type="checkbox"/> Roller Bit

Depth (ft)	Casing (Blows/ft)	Sample Data						Soil-Rock Visual Classification and Description (Soils - Burmister System) (Rock - U.S. Corps of Engineers System)	
		No.	Depth (ft)	Rec (in.)	SPT (Bl./6-in.)	"N" Value	PID Rdg. (ppm)	Stratum Change (ft)	
0		S-1	0-2	14	- 28 20 29	48			7" Asphalt Tan/ Brown, Sand and Gravel, Brick
5		S-2	4-6	20	2 5 9 17	14			Medium Dense, Tan/Olive Silt, trace Sand
10		S-3	9-11	15	7 3 5 14	8			Loose, Tan/ Olive, Silt, little Sand
15		S-4	14-16	12	40 29 31 -	60			Very Dense, Tan/ Olive/ Gray, Silt, Weathered Rock, little to trace Sand
20		S-5	19-21	15	1 7 35 36	42			Dense, Tan, fine to medium Sand, and Silt, little to trace Gravel, Weathered Rock

Water Level Data					Sample Identification		Cohesive Soils N-Value		Granular Soils N- Value	
Date	Time	Depth (ft) to:			O = Open Ended Rod	U = Undisturbed	0 to 2: Very Soft	2 to 4: Soft	0 to 4: Very Loose	4 to 10: Loose
		Bott. of Casing	Bott. of Hole	Water						
3/21	E.O.D.	27.5'	27.5'	20'	C = Rock Core	8 to 15: Stiff	15 to 30 Very Stiff	31 to 50: Dense	Over 50: Very Dense	
										G = Geoprobe

Trace (0 to 5%), Little (10 to 20%), Some (20 to 35%), And (35 to 50%)

Notes:	E.O.D. = End Of Drilling	GSI-1

Geotechnical Services, Inc. 55 North Stark Highway, Weare, NH 03281 Phone 603/529-7766 Fax 603/529-0800 - 30 Newbury St. 3rd Floor, Boston, MA 02116 Phone 617/455-4248 Fax 617/745-4308



TEST BORING LOG

Boring No.
GSI-1
Page 1 of 1

Project	Citizens Bank Portsmouth	GSI Project No.	225147	Elevation	Existing Grade
Location	Portsmouth, NH	Project Mgr.	Charles Wetherbee	Datum	-
Client	McNabb Properties, LTD	Inspector	Charles Wetherbee	Date Started	3/21/2025
Contractor	Miller Engineering and Testing	Checked By	Harry Wetherbee	Date Finished	3/21/2025
Driller	Bob Marcoux	Rig Make & Model	Diedrich	Rig Model	D-50

Item:	Auger	Casing	Sampler	Core Barrel	<input checked="" type="checkbox"/> Truck	<input type="checkbox"/> Skid	Hammer Type:	
Type	HS Aug		SS		<input type="checkbox"/> Track	<input type="checkbox"/> ATV	<input checked="" type="checkbox"/> Safety Hammer	
Inside Diameter (in.)	2.25"		1-3/8"		<input type="checkbox"/> Bomb.	<input type="checkbox"/> Geoprobe	<input type="checkbox"/> Doughnut	
Hammer Weight (lb)			140		<input type="checkbox"/> Tripod	<input type="checkbox"/> Other	<input type="checkbox"/> Automatic	
Hammer Fall (in.)			30"		<input type="checkbox"/> Winch	<input checked="" type="checkbox"/> Cat Head	<input type="checkbox"/> Roller Bit	<input checked="" type="checkbox"/> Cutting Head

Depth (ft)	Casing (Blows/ft)	Sample Data						Soil-Rock Visual Classification and Description (Soils - Burmister System) (Rock - U.S. Corps of Engineers System)	
		No.	Depth (ft)	Rec (in.)	SPT (Bl./6-in.)	"N" Value	PID Rdg. (ppm)		
0		S-1	0-2	10	- 15 21 16	36			7" Asphalt Brown, Sand and Gravel, Brick
		S-2	2-4	12	36 17 13 11	30			Medium Dense, Brown, fine to coarse Sand, little Silt, little Gravel
5		S-3	4-6	4	5 10 10 12	20			Medium Dense, Brown, fine to coarse Sand, little Silt, little Gravel
		S-4	6-8	10	10 8 13 15	21			Medium Dense, Brown, fine to coarse Sand, little Silt, little Gravel
10		S-5	9-11	20	1 3 5 3	8			Loose, Olive, Silt, little Sand, trace Gravel
15		S-6	14-16	6	80 - -	-			Tan/Olive, Silt and Sand Sampler Refusal at 14.5 feet Auger Refusal at 14.5 feet Test Boring Terminated at 14.5 feet
20									

Water Level Data					Sample Identification		Cohesive Soils N-Value		Granular Soils N- Value	
Date	Time	Depth (ft) to:			O = Open Ended Rod	U = Undisturbed	0 to 2: Very Soft	2 to 4: Soft	0 to 4: Very Loose	4 to 10: Loose
		Bott. of Casing	Bott. of Hole	Water						
3/21	E.O.D.	14.5'	14.5'	10'	C = Rock Core	8 to 15: Stiff	15 to 30 Very Stiff	31 to 50: Dense	Over 50: Very Dense	
					G = Geoprobe	Over 30: Hard				

Trace (0 to 5%), Little (10 to 20%), Some (20 to 35%), And (35 to 50%)

Notes:	E.O.D. = End Of Drilling	GSI-1
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APPENDIX C

SUBSURFACE EXPLORATION KEY



3.2 CLASSIFICATION

Granular Soil by Sieve Size – A granular soil sample is classified by visually estimating the particle size as referenced to a Standard Sieve.

<u>Material*</u>	<u>Standard Sieve Limit</u>	
	<u>Upper</u>	<u>Lower</u>
GRAVEL - coarse	3-inch	3/4-inch
- fine	3/4-inch	No. 4
SAND - coarse	No. 4	No. 10
- medium	No. 10	No. 40
- fine	No. 40	No. 200
SILT	No. 200	

Granular Soil by Visual Identification

<u>Material</u>	<u>Visual ID</u>
Silts and Clays	Too small to see.
Fine Sand	Finest visible grain.
Medium Sand	1/64" to 1/16"
Coarse Sand	1/16" to 1/4"
Fine Gravel	1/4" to 3/4"
Coarse Gravel	3/4" to 3"
Cobbles	3" to 6"
Boulders	Greater than 6"

*The Gravel/Sand portions of a granular soil are further divided based on the following proportions:

<u>Gravel/Sand</u>	<u>Proportion</u>
fine to coarse	> 10% all factions
coarse	< 10% fine and medium
medium to coarse	< 10% fine
medium	< 10% fine and coarse
fine to medium	< 10% coarse
fine	< 10% medium and coarse

Composite Clay Soil – A composite clay soil sample is classified by determining the smallest diameter thread that can be rolled manually.

<u>Material</u>	<u>Smallest Thread Diameter</u>	<u>Degree of Plasticity</u>
SILT	None	Nonplastic
Clayey SILT	1/4-inch	Slight
SILT & CLAY	1/8-inch	Low
CLAY & SILT	1/16-inch	Medium
Silty CLAY	1/32-inch	High
CLAY	1/64-inch	Very High

Organic Soil – An organic soil sample is classified by observation of the sample structure.

Material

- Topsoil - surficial soils that support plant life and which contain a high percentage of organic matter.
- Fibrous Peat - deposits of plant remains in which the original plant fibers are still visible.
- Amorphous Peat - deposits of plant remains in which the original plant fibers have been destroyed. Usually found underlying fibrous peat.
- Organic Silt - fine grained marine soils which have been transported due to erosion and deposited in still water below the zone of wave action. May contain shell fragments, organic odor, high sand content, nonplastic.
- Clayey Organic Silt - similar to Organic Silt, low sand content, plastic.

4.0 ADDITIONAL DETAILS AND DESCRIPTIVE TERMS

SOIL STRUCTURE – produced by deposition of sediments.

- Stratified - random soil deposits of varying components or color.
- Varved - alternating soil deposits of varying thickness (i.e. clays or silts).
- Stratum - soil deposit greater than 12 inches thick.
- Layer - soil deposit 3 inches to 12 inches thick.
- Seam - soil deposit 1/8 inch to 3 inches thick.
- Parting/lens - soil deposit less than 1/8 inch thick.

MOISTURE CONTENT

- Dry - moisture not apparent, dusty, dry to the touch.
- Moist - damp, but no visible water.
- Wet - visible free water.

5.0 UNIFIED SOIL CLASSIFICATION SYMBOL AND DESCRIPTION

CL	Lean Clay	GW	Well Graded Gravel
ML	Silt	GP	Poorly Graded Gravel
OL	Organic Silt/ Clay Low Plasticity	GM	Silty Gravel
CH	Fat Clay	GC	Clayey Gravel
MH	Plastic Silt	SW	Well Graded Sand
OH	Organic Silt/Clay High Plasticity	SP	Poorly Graded Sand
PT	Peat	SM	Silty Sand
		SC	Clayey Sand

GUIDELINES TO CLASSIFICATION AND IDENTIFICATION OF ROCK

A. WEATHERING

Fresh	Fresh rock, crystals bright, few joints, may show slight staining. Rock rings under hammer if crystalline.
Slightly Weathered	Rock generally fresh, joints stained and discoloration extends into rock up to 1 inch. Joints may contain clay or gouge. In granitoid rocks some occasional feldspar crystals are dull and discolored. Crystalline rocks ring under hammer.
Moderately Weathered	Significant portions of rock show discoloration and weathering effects. In granitoid rocks, most feldspars are dull and discolored; some look clayey. Rock has dull sound under hammer and shows significant loss of strength as compared with fresh rock.
Highly Weathered	All rock is discolored or stained. In granitoid rocks all feldspars are dull and discolored and majority shows kaolinization. Rock shows severe loss of strength and can be excavated with a geologists pick. A clunking sound when struck with a hammer.
Disintegrate Rock	Rock texture clear and evident, but reduced in strength to strong soil. Some fragments of strong rock usually left.

B. FRACTURING AND BEDDING

<u>Spacing</u>	<u>Fracturing</u>	<u>Bedding and Foliation</u>
More than 3 feet	Massive	Thick
1 foot – 3 feet	Slightly Fractured	Medium
2 inches – 1 foot	Moderately Fractured	Thin
Less than 2 inches	Highly fractured	Very Thin

C. GRAIN SIZE

Fine	Visible to naked eye to 1/16-inch diameter.
Medium	1/16-inch to 1/4-inch diameter.
Coarse	Greater than 1/4-inch diameter.

D. HARDNESS

Very Hard	Cannot be scratched with a knife or sharp pick. Breaking of hand specimens requires several hard blows with a geologists pick.
Hard	Can be scratched with a knife or pick only with difficulty. Hard blow of hammer required to detach hand specimen.
Moderately Hard	Can be scratched with a knife or pick. Gouges or grooves to ¼ inch deep can be excavated with hard blows of a geologists pick. Hand specimens can be detached by a moderate blow.
Medium	Can be grooved to a 1/16-inch deep by firm pressure on a knife or pick point. Can be excavated in small chips to pieces approximately 1-inch maximum size by hard blows of the point of a geologists pick.
Soft	Can be gouged or grooved easily with a knife or pick point. Can be excavated in chips to pieces several inches in size. Small thin pieces can be broken by finger pressure.
Very Soft	Can be carved with a knife. Can be excavated easily with the point of a pick. Pieces 1 inch or more in thickness can be broken with finger pressure.

E. ROCK QUALITY DESIGNATION (RQD)

<u>RQD (Percent)</u>	<u>Diagnostic Description</u>
Exceeding 90	Excellent
75 – 90	Good
50 – 75	Fair
25 – 50	Poor
0 – 25	Very Poor

Comments: RQD is applicable to NX core only. The diameter of an NX core is 2.16 inches. RQD is expressed as a percentage and is determined by dividing the length of the run by the total length of the recovered cores pieces measuring 4-inches or greater. Core recovery is reported as a percentage and is determined by dividing the length of the core recovered (all pieces) by the length of the run.

APPENDIX D

USGS SEISMIC DESIGN MAPS



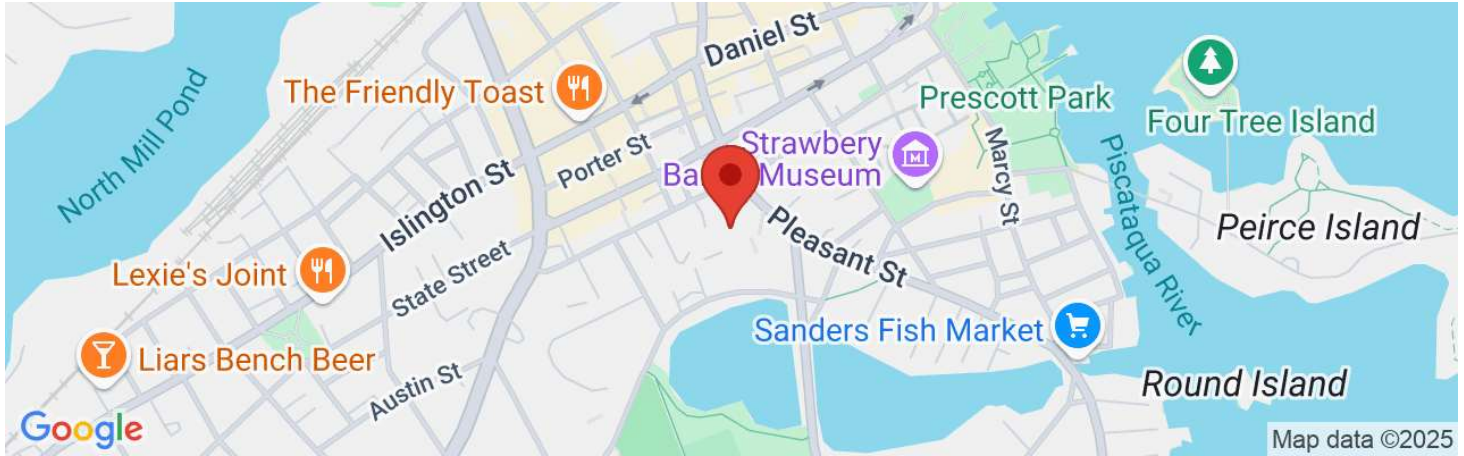
USGS web services were down for some period of time and as a result this tool wasn't operational, resulting in *timeout* error.
 USGS web services are now operational so this tool should work as expected.



Citizens Bank Portsmouth

134 Pleasant St, Portsmouth, NH 03801, USA

Latitude, Longitude: 43.0747514, -70.7569484



Date	4/1/2025, 1:40:55 PM
Design Code Reference Document	ASCE7-16
Risk Category	II
Site Class	D - Default (See Section 11.4.3)

Type	Value	Description
S _S	0.327	MCE _R ground motion. (for 0.2 second period)
S ₁	0.075	MCE _R ground motion. (for 1.0s period)
S _{MS}	0.503	Site-modified spectral acceleration value
S _{M1}	0.179	Site-modified spectral acceleration value
S _{DS}	0.335	Numeric seismic design value at 0.2 second SA
S _{D1}	0.119	Numeric seismic design value at 1.0 second SA

Type	Value	Description
SDC	C	Seismic design category
F _a	1.539	Site amplification factor at 0.2 second
F _v	2.4	Site amplification factor at 1.0 second
PGA	0.201	MCE _G peak ground acceleration
F _{PGA}	1.399	Site amplification factor at PGA
PGA _M	0.281	Site modified peak ground acceleration
T _L	6	Long-period transition period in seconds
SsRT	0.327	Probabilistic risk-targeted ground motion. (0.2 second)
SsUH	0.352	Factored uniform-hazard (2% probability of exceedance in 50 years) spectral acceleration
SsD	1.5	Factored deterministic acceleration value. (0.2 second)
S1RT	0.075	Probabilistic risk-targeted ground motion. (1.0 second)
S1UH	0.08	Factored uniform-hazard (2% probability of exceedance in 50 years) spectral acceleration.
S1D	0.6	Factored deterministic acceleration value. (1.0 second)

Type	Value	Description
PGAd	0.5	Factored deterministic acceleration value. (Peak Ground Acceleration)
PGA _{UH}	0.201	Uniform-hazard (2% probability of exceedance in 50 years) Peak Ground Acceleration
C _{RS}	0.929	Mapped value of the risk coefficient at short periods
C _{R1}	0.932	Mapped value of the risk coefficient at a period of 1 s
C _V	0.918	Vertical coefficient

DISCLAIMER

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APPENDIX E

DRAFT EARTHWORK SPECIFICATIONS



SECTION 02200
EARTHWORK

DRAFT

PART I- GENERAL

1.01 GENERAL REQUIREMENTS

1. Include GENERAL CONDITIONS and SUPPLEMENTARY CONDITIONS as part of this Section.
2. Examine all other Sections of the Specifications for requirements, which affect work of this Section whether or not such work is specifically mentioned in this Section.
3. Coordinate work with trades affecting, or affected by, work of this Section. Cooperate with such trades to assure the steady progress of all work under the Contract.

1.02 WORK INCLUDED

1. Perform all work required to complete the work of the Section, as indicated. Such work includes, but is not limited to, the following:
 1. Excavation, filling, grading and compaction
 2. Supplying of fill materials
 3. Construction Dewatering
 4. Sheet piling, shoring and bracing
 5. Rock excavation/blasting

1.03 RELATED WORK UNDER OTHER SECTIONS

1. Erosion And Sediment Control
2. Site Preparation
3. Bituminous Concrete Paving
4. Site Water Lines
5. Storm Drainage System
6. Sanitary Sewer System
7. Site Furnishings
8. Site Irrigation
9. Lawns
10. Planting

1.04 SUBMITTALS

1. Issue submittals in accordance with Division 1. Submittals under this Section shall include manufacturer's specifications and installation instructions.

1.05 SAMPLES AND TESTING

1. A 50 lb. sample of each off-site material proposed for use, and of any on-site material when so requested by the Architect or Geotechnical Engineer, shall be submitted for

approval.

1. Samples shall be delivered to office of the Geotechnical Engineer, as directed.
2. Samples required in connection with compaction tests will be taken and transported by the Geotechnical Engineer.
3. Product Data: Submit location of pits for all borrow material.

1.06 COORDINATION

1. The work of this Section shall be coordinated with that of other trades affecting, or affected by, this work, as necessary to assure the steady progress of all work of the Contract.
2. Prior to the start of earthwork, the Contractor shall arrange an on-site meeting with the Architect and Geotechnical Engineer for the purpose of establishing Contractor's schedule of operations and scheduling inspection procedures and requirements.
3. As construction proceeds, the Contractor shall be responsible for notifying the Architect prior to start of earthwork operations requiring inspection and/or testing.

1.09 INFORMATION

1. It is hereby understood that the Contractor has carefully examined the site and all conditions affecting work under this Section. No claim for additional costs will be allowed because of lack of full knowledge of existing conditions.
2. Plans, surveys, measurements and dimensions under which the work is to be performed are believed to be correct to the best of the Architect's knowledge, but the Contractor shall have examined them for himself during the bidding period, as no allowance will be made for any errors or inaccuracies that may be found herein.
3. Information on the Drawings, Reference Drawings, and in the Specifications relating to subsurface conditions, natural phenomena, and existing utilities and structures is from the best sources presently available. Such information is furnished only for the information and convenience of the Contractor, and the accuracy or completeness of this information is not guaranteed.

1.10 EXISTING CONDITIONS

1. The Contractor shall become thoroughly familiar with the site, consult records and drawings of adjacent structures and of existing utilities, and note all conditions, which may influence the work of this Section.
2. By submitting a bid, the Contractor affirms that he has carefully examined the site and all conditions affecting work under this Section. No claim for additional costs will be allowed because of lack of full knowledge of existing conditions.
3. The Contractor may, at his own expense, conduct additional subsurface testing as required for his own information after approval by the Owner.

1.11 SUBSURFACE CONDITIONS AND SPECIAL SITE CONSIDERATIONS

1. Soil borings have been made by a qualified Contractor prior to this Contract. This information shall be made available to bidders as specified under other Sections. The final results of these subsurface explorations were prepared by Geotechnical Services, Inc., consulting geotechnical engineers, and are hereby attached to this specification for

information only. Procedures for dewatering, areas to receive special fill and other methods and procedures specified herein shall be supplemented by this information. For purposes of this specification, this information will be referred to as the report. Where procedures within the report vary from procedures as specified herein, this specification shall override. The results and recommendations are available in the geotechnical report prepared by Geotechnical Services. Copies of this report are available from the Architect. Soil samples may be examined at the office of the Geotechnical Engineer.

2. It is the responsibility of the Contractor under this Contract to do the excavation, filling, grading and rough grading to bring the existing grades to subgrade and parallel to finished grades as specified herein and as shown on the Drawings for this Work. The Contractor shall visit the site prior to submitting a bid to become familiar with the extent of the work to be done under this Contract. The Contractor shall be responsible for determining the quantities of earth materials necessary to complete the work under this Section. All earth materials shall be included in the Contractor's base bid.
3. Site Information - data on indicated subsurface conditions are not representations or warrants of continuity of such conditions between subsurface explorations. It is expressly understood that the Owner will not be responsible for interpretations or conclusions drawn there from by the Contractor. Data are made available for the convenience of the Contractor. Neither the Owner nor the Geotechnical Engineer assumes responsibility for accuracy of the data other than at the particular locations and at the time the explorations were made.
4. The subsurface data was gathered and report prepared by Geotechnical Services, Inc. The elevations indicated on the drill holes, borings and test pits refer to existing conditions. A copy of this report may be seen at the office of the Architect during normal working hours.

1.12 QUALITY ASSURANCE

1. The Owner will retain a Geotechnical Engineer to perform on-site observations and testing during the following phases of the construction operations. The services of the Geotechnical Engineer may include, but not be limited to the following:
 1. Observation during excavation and dewatering of building areas, parking areas and controlled fill areas.
 2. Observation and testing during placement and compaction of fills within the building area, parking area, and controlled fill areas.
 3. Laboratory testing and analysis of fill and bedding materials specified, as required.
 4. Observation, construction and performance of water content, gradation, and compaction tests at a frequency and at locations to assure conformance of this Specification. The results of these tests will be submitted to the Architect; copy to the Contractor, on a timely basis so that the Contractor can take such action as is required to remedy indicated deficiencies. During the course of construction, the Geotechnical Engineer will advise the Architect, in writing, with copy to Contractor if, at any time, in his opinion, the work is not in substantial conformity with the Contract Documents.
2. The Geotechnical Engineer's presence does not include supervision or direction of the actual work by the Contractor, his employees or agents. Neither the presence of the Geotechnical Engineer, nor any observations and testing performed by him, nor any notice or failure to give notice shall excuse the Contractor from defects discovered in his work.

3. The Owner reserves the right to modify or waive Geotechnical Engineer services.

1.13 PERMITS, CODES AND SAFETY REQUIREMENTS

1. All work shall conform to the Drawings and Specifications and shall comply with applicable codes and regulations.
2. Comply with the rules, regulations, laws and ordinances of town and state agencies and all other authorities having jurisdiction. Coordinate all work done within town and State rights of way with the appropriate agencies. Provide all required traffic control and safety measures, including uniformed police officers per town and State requirements. All labor, materials, equipment and services necessary to make the work comply with such requirements shall be provided without additional cost to the Owner.
3. Comply with the provisions of the Manual of Accident Prevention in Construction of the Associated General Contractors of America, Inc. and the requirements of the Occupational Safety and Health Administration (OSHA), United States Department of Labor.
4. The Contractor shall procure and pay for all permits and licenses required for the complete work specified herein and shown on the Drawings.
5. The Contractor shall not close or obstruct any street, sidewalk, or passageway unless authorized in writing by the Architect. The Contractor shall so conduct his operations as to interfere as little as possible with the use ordinarily made of roads, driveways, sidewalks or other facilities near enough to the work to be affected hereby. The Contractor shall comply with the time limits established by the terms for trucking onto and off of the site.
6. Any apparent conflict between the Drawings and Specifications and the applicable codes and regulations shall be referred to the Architect in writing, for resolution before the work is started.

1.14 LAYOUTS AND GRADES

1. All line and grade work not presently established at the site shall be laid out by a survey team under the supervision of a Registered Land Surveyor or Professional Engineer employed by the Contractor in accordance with Drawings and Specifications. The Contractor shall establish permanent benchmarks and replace as directed any which are destroyed or disturbed.
2. The words "finished grades" as used herein shall mean final grade elevations indicated on the Drawings. Spot elevations shall govern over proposed contours. Where not otherwise indicated, project site areas outside of the building shall be given uniform slopes between points for which finished grades are indicated or between such points and existing grades.
3. The word "subgrade" as used herein, means the required surface of excavated area, subsoil, borrow fill or compacted fill. This surface is immediately beneath the site improvements; fill materials as dimensioned on the Drawings, or other proposed surface material.

1.15 DISPOSITION OF EXISTING UTILITIES

1. Active utilities existing on the site and work areas shall be carefully protected from damage and relocated or removed as required by the work. When an active utility line is

exposed during construction, its location and elevation shall be plotted on the record drawings as described in this Section and both Architect and Utility Owner notified in writing.

2. Inactive or abandoned utilities encountered during construction shall be removed if within the building area or grouted, plugged or capped. The location of such utilities shall be noted on the record drawings and reported in writing to the Architect.
3. The Contractor shall notify "Dig Safe" and local utility companies prior to the start of construction. The "Dig Safe" number shall be submitted by the Contractor in writing to the Architect prior to construction.

1.16 SHORING, SHEETING, AND BRACING

1. Provide shoring, sheeting, and/or bracing at excavations, as required, to ensure complete safety against collapse of earth at sides of excavations.
2. If, at any place, sufficient or proper supports have not been provided, additional supports shall be placed at the expense of the Contractor. Care shall be taken to prevent voids outside of the sheeting, but if voids are formed, they shall be immediately filled and compacted.
3. All sheeting and bracing not ordered left in place shall be carefully removed in such a manner as not to endanger the construction of other structures, utilities or property whether public or private. All voids left after withdrawal of sheeting shall be immediately refilled with sand and rammed with tools adapted to that purpose or otherwise compacted as directed to achieve the required density.
4. Shoring or sheeting shall not constitute a condition for which an increase may be made in the contract price with the exception that if the Architect directs in writing that certain shoring or sheeting shall be left in place, the contract price will be adjusted in accordance with General Conditions.
5. Excavation support systems shall be designed to support the earth pressures, hydrostatic pressures, surcharge loads and other forces from existing site conditions, stored material and construction equipment.
6. Shoring and bracing of trenches and other excavations shall, at a minimum, be in accordance with the latest requirements of the Department of Labor and Industries Bulletin No. 12, Section 10, and all subsequent amendments.
7. Shoring and sheeting shall be designed by a Registered Professional Engineer and paid for by the Contractor. The contractor shall submit an earth shoring and bracing plan to the Architect for review by the Geotechnical Engineer at least 2 weeks prior to installation. The submittal shall include calculations and plans drawn to scale.

1.17 DRAINAGE

1. The Contractor shall control the grading in areas under construction on the site so that the surface of the ground will properly slope to prevent accumulation of water in excavated areas and adjacent properties.
2. The Contractor shall excavate interceptor swales and ditches where shown on the Drawings and as otherwise necessary prior to the start of major earthmoving operations to insure minimal erosion and to keep areas as free from surface water as possible.

3. Should surface, rain or ground water be encountered during the operations, the Contractor shall furnish and operate pumps or other equipment and provide all necessary piping to keep all excavations clear of water at all times and shall be responsible for any damage to work or adjacent properties for such water. All piping exposed above surface for this use, shall be properly covered to allow foot traffic and vehicles to pass without obstruction.
4. Presence of ground water in soil will not constitute a condition for which an increase in the contract price may be made. Under no circumstances place concrete fill, soil fill, lay piping or install appurtenances in excavation containing free water. Keep utility trenches free of water until pipe joint material has hardened and backfilled to prevent flotation.

1.18 FROST PROTECTION

1. Do not excavate to full-indicated depth when freezing temperatures may be expected, unless work can be completed to subgrade or piping can be installed and backfilled the same day. Protect the excavation from frost if placing of concrete or piping is delayed.
2. The Contractor shall keep the operations under this Contract clear and free of accumulation of snow within the limits of Contract Lines as required to carry out the work.
3. No work shall be installed on frozen ground.
4. Provide heat and/or insulation to slab, footings, foundation walls, and other elements during freezing conditions to prevent damage from frost heaving.

1.19 DISTURBANCE OF EXCAVATED AND FILLED AREAS DURING CONSTRUCTION

1. The Contractor shall take the necessary steps to avoid disturbance of subgrade and underlying natural soils/compacted fill during excavation and filling operations. Methods of excavation and filling operations shall be revised as necessary to avoid disturbance of the subgrade and underlying natural soils/compacted fill, including restricting the use of certain types of construction equipment and their movement over sensitive or unstable materials. The Contractor shall coordinate with the Architect or Geotechnical Engineer to modify his operations as necessary to minimize disturbance and protect bearing soils.
2. All excavated or filled areas disturbed during construction, all loose or saturated soil, and other areas that will not meet compaction requirements as specified herein shall be removed and replaced with compacted structural fill or crushed stone. Fill that cannot be compacted within 48 hours because of excess moisture shall be removed and replaced with compacted structural fill or crushed stone. Costs of removal of disturbed material and replacement with gravel fill or crushed stone shall be borne by the Contractor.
3. If requested by the Geotechnical Engineer, the Contractor shall place a six-inch layer of crushed stone or 4-inch concrete mud mat over natural underlying soil to stabilize the disturbed areas during construction. The placement of crushed stone layer or mud mat as well as material costs shall be borne by the Contractor.

1.20 PROTECTION OF BEARING SUBGRADES

1. The Contractor shall be required to maintain stable, dewatered, and frost free subgrades for foundations, pavement areas, utility trenches, and other areas as directed by the Architect or Geotechnical Engineer.
2. The Contractor shall take precautions to reduce subgrade disturbance. Such precautions may include diverting storm water runoff away from construction areas, reducing traffic in

sensitive areas, thermal protection during cold weather periods, and maintaining an effective dewatering operation.

3. Soils exhibiting weaving/instability or which become frozen, as determined by the Geotechnical Engineer, shall be over-excavated (removed) to competent bearing material and replaced with compacted gravel fill or lean concrete at no additional cost to the Owner.

1.21 DEWATERING

1. Based on subsurface investigations conducted prior to this Contract, it is anticipated that excavation may be carried out below existing groundwater levels. The Contractor shall be required to implement ground water control measures to maintain the ground water level a minimum of one foot below all final excavation levels or to propose alternative methods for placement of fill over existing undisturbed material with ground water at or near the surface in such a manner that the existing materials will not be disturbed. The Contractor will be required to implement ground water control measures adequate to maintain the excavation sufficiently dry to allow efficient use of normal excavation equipment and to provide a borrow material suitable for placement and compaction as specified or as directed by the Geotechnical Engineer. The moisture content shall not exceed 3% above the optimum moisture content as determined by modified Proctor test (ASTM D1557). The Contractor shall furnish all labor, equipment and materials in connection with handling ground water and surface water encountered during construction and placement of compacted granular fill or other material as specified.
2. Not less than 14 days prior to the scheduled start of work, the Contractor shall submit his proposed method of dewatering and maintaining dry conditions to the Geotechnical Engineer for review. The submittal shall include calculations, plans, sketches, pump curves, method of sediment control, and disposal. The dewatering plan shall be prepared by a licensed Civil Engineer. Review by the Architect of the Contractor's proposed method of dewatering shall not relieve the Contractor of responsibility for the satisfactory performance of the dewatering system. The Contractor is responsible for correcting any disturbance of natural bearing soils or damage to structures caused by an inadequate dewatering system or by interruption of the continuous operation of the system as specified.
3. The Contractor shall make the entire excavation for this work in the dry. The water level is to be maintained continuously one foot below bottom of excavation for the length of time to complete the work. The Contractor shall place all fill materials and proposed improvements in the dry.
4. The Contractor shall, at all times during construction, provide and maintain proper equipment and facilities to remove promptly and dispose of properly, all water entering excavations and keep such excavations dry so as to obtain a satisfactory undisturbed bottom of excavation or subgrade condition. Dewatering shall be in operation until the fill, or the proposed surface condition has been completed to such extent that it will not be floated or otherwise damaged by allowing water levels to return to natural elevations.
5. In excavations below the ground water level, it is expected that dewatering trenches or deep sumps will be required for pre-drainage of the soils prior to final excavation, and for maintaining the lowered groundwater level until construction has been completed to such an extent that floating, slumping or damage to excavations or materials placed does not occur. Monitoring of adjacent ground water levels by observation wells or other satisfactory means may be required.
6. The Contractor shall discharge all pumped water away from the work area, and in

accordance with all applicable local codes and laws. Requirements specified herein for Erosion and Siltation Control shall be met during this process.

7. All fill material shall be placed and compacted in the dry. The Contractor shall dewater excavated areas as required to perform the work and in such a manner as to preserve the undisturbed Commonwealth of the natural inorganic or other subgrade soils.
8. The Contractor shall verify that the construction and/or operation of his dewatering system will not adversely affect any well, pond, stream structure, utility, etc., on or adjacent to the area being dewatered.

PART 2 - PRODUCTS

2.01 MATERIALS

1. Fill material shall be obtained from required on-site cut to the extent suitable material is available and off-site to the extent suitable material is not available from on-site cuts.
2. On-site material for use in compacted fill shall be natural inorganic granular soil taken from areas of cut after removal of pavement, topsoil, or other unsuitable materials.
3. Fill materials shall be well-graded within specified gradation limits. Gradation of backfill materials shall be determined in accordance with ASTM D-422.
4. Crushed Stone: Crushed stone processed from a stone quarry, washed, graded, free of organic materials. Gradation is as follows:

1.	<u>1/2" Crushed Stone</u>	
	<u>U. S. SIEVE NO.</u>	<u>% PASSING BY WEIGHT</u>
	2"	100
	1/2"	85-100
	3/8"	15-45
	#4	0-15
	#8	0-5

2.	<u>3/4" Crushed Stone</u>	
	<u>U.S. SIEVE NO.</u>	<u>% PASSING BY WEIGHT</u>
	1"	100
	3/4"	90-100
	1/2"	10-50
	3/8"	0-20
	# 4	0-5

3.	<u>1-1/2" Crushed Stone</u>	
	<u>U.S. SIEVE NO.</u>	<u>% PASSING BY WEIGHT</u>
	2"	100
	1-1/2"	95-100
	1"	35-70
	3/4"	0-25

4. Structural Fill: Well-graded, hard, durable, natural sand and gravel, free from ice and snow, roots, sod, rubbish, and other deleterious or organic matter. Material shall conform to the following gradation requirements:

<u>U.S. SIEVE NO.</u>	<u>% PASSING BY WEIGHT</u>
4"	100
#4	40-70
#40	25-45
#200	0-12

6. Ordinary/Common Fill: Well-graded, natural, inorganic soil approved by the Architect and meeting the following requirements:
1. It shall have less than 3% organic matter, free from weak, compressible, or frozen materials, and of stones larger than eight inches in dimension. It shall not contain granite block, concrete, masonry rubble, roots, stumps or other similar materials.
 2. It shall be of such nature and character that it can be compacted to the specified densities.
 3. Topsoil and the zone directly below the topsoil indicated on the borings as "subsoil" shall not be considered Ordinary Fill nor shall topsoil, or subsoil stockpiled on the site. Where subsoil is encountered, it shall be stripped separately from the topsoil and the granular material directly beneath the subsoil. This excavated material shall only be utilized in lawn areas, playfield areas or other non-structural areas, and shall be placed in these areas at distances away from adjacent site improvements as specified herein or as directed by the Architect.
 4. Material from excavations on the site may be used as Ordinary Fill if it is deemed acceptable by the Geotechnical Engineer.
7. Unsuitable Material which is classified as "unsuitable" shall be material having at least one of the following properties:
1. Material with a maximum unit dry weight per cubic foot less than 90 lbs., as determined by ASTM D1557.
 2. Material containing greater than 3% organic matter by weight, organic silt, peat, construction debris, roots and stumps.
 3. Material deemed unsuitable by the Geotechnical Engineer based on its inherent inability to perform satisfactorily as a bearing stratum.
 4. Soil, which is allowed to become frozen, saturated, or unstable because of the contractor's failure to employ appropriate dewatering, excavation methods, or weather protection is not deemed unsuitable soil but rather represents a condition in which the subgrade was not adequately prepared and/or protected.
8. Blast Rock Fill: Shall be broadly graded blasted rock with a maximum size of 12 inches, 25% smaller than six inches and 10% finer than 3/4 inch. Occasional boulders up to 18 inches will be permitted near the base of the fill.
1. General site rock fill (outside the building area) may be placed up to within 42 inches of finish grade in pavement areas and to within 18 inches of inverts of utility lines. First lift over the top of rock fill shall be a choke stone layer 18 inches thick. Compaction shall be by minimum of four coverages of a self-propelled vibratory drum roller in each direction (i.e. north-south and east-west). The minimum weight of the drum shall be 10,000 lbs. Compaction may also be by four coverages of heavy track equipment such as a CAT D8 Bulldozer or other heavy track equipment approved by the Geotechnical Engineer.
 2. Rock shall not be placed within a five-foot horizontal distance on either side of

any proposed utility line. The intent is to leave a zone of granular fill that can later be excavated for installation of utilities. Also, large rock fragments shall be kept away from utility pipes.

9. Choke Stone: Shall have a maximum rock size of nine inches and shall have 50% finer than 1-1/2 inch and 25% finer than 3/4 inch.
10. Sand Fill: Shall consist of well-graded natural sand, free from organic, other weak or compressible materials, or frozen materials, Conforming to the following gradation:

<u>U.S. SIEVE NO.</u>	<u>% PASSING BY WEIGHT</u>
#4	100
#50	15-40
#100	2-10
#200	0-5

11. Slab Base Course : Shall be hard, durable, natural sand and gravel, free from ice and snow, roots, sod, rubbish, or organic matter. Material shall conform to the following gradation requirements:

<u>U.S. SIEVE NO.</u>	<u>% PASSING BY WEIGHT</u>
2"	100
#4	40-70
#40	25-45
#200	0-10

PART 3 - EXECUTION

3.01 GENERAL EXCAVATION

1. Excavate all materials encountered to allow construction of the proposed building and structures, utilities and site work as shown on the Drawings and as hereinafter specified.
2. Excavate to levels shown for footings and structures, as required to provide working clearance and to allow adequate inspection and to subgrades outside of buildings and structures as specified herein and as shown on Drawings.
3. In planted areas, remove ledge, boulders and other obstructions to a depth of at least two feet below finished grade.
4. Remove from the site and legally dispose of all debris and other excavated material not needed for, or suitable for, fill except as otherwise specified herein. Remove all materials subject to rot or attack by termites.
5. In general, the Contractor will be permitted to use machine excavation to the bottom of fill under concrete slabs on grade. The final three inches under footings and foundations shall be excavated using a straight blade bucket. If the final three inches cannot be satisfactorily excavated using a straight blade bucket without disturbing subgrades, the Contractor shall use alternative methods, including hand excavations. Alternative methods shall be subject to approval by the Architect or Geotechnical Engineer.
6. Unsuitable Soil Conditions:
 - a. If unsuitable bearing materials are encountered at the specified subgrade depths, the Contractor shall notify the Architect. The Contractor shall carry excavation

deeper and replace the excavated material with compacted fill or concrete as directed by the Architect or Geotechnical Engineer. Soil subgrades, which are unstable due to inadequate construction dewatering or excessive subgrade disturbance, are not deemed unsuitable soils.

- b. Removal of such material and its replacement as directed will be paid for as extra compensation in quantity approved by the Architect. Only changes in the work authorized in advance by the Architect in writing shall constitute an adjustment in the Contract Price.
 - c. Material that is not within $\pm 3\%$ optimum moisture for compaction of the particular material in place as determined by the Architect or the Geotechnical Engineer and is disturbed by the Contractor during construction operations so that proper compaction cannot be reached shall not be construed as unsuitable bearing materials. This material shall be removed and replaced with lean concrete or structural fill as directed by the Architect or Geotechnical Engineer at no additional cost to the Owner.
 - d. The Contractor shall follow a construction procedure, which permits visual identification of firm natural ground.
 - e. The volume of unsuitable material shall be measured by profiling the in-place topography and calculation by the average-end-area method or other method deemed acceptable by the Geotechnical Engineer. The contractor's Licensed Surveyor or Professional Engineer shall prepare the calculations. Payment limits shall be for rock excavation.
7. Excessive Excavation: If any part of the general or trench excavation is carried, through error, beyond the depth and the dimensions indicated on the Drawings or called for in the Specifications, the Contractor at his own expense, shall furnish and install compacted gravel fill, concrete, or take other remedial measures as directed by the Architect to bring fill material up to the required level.

3.02 TRENCH EXCAVATION

1. Excavate as necessary for all footings, structures, pipes, storm and sanitary drainage, electrical, gas, water, related structures and appurtenances, and for any other trenching necessary to complete the work. Unless otherwise indicated, provide separate trench for each utility.
2. Definitions:
 1. "Trench excavation" shall be defined as an excavation in which the bottom width does not exceed seven feet, and the top width does not exceed twice the depth or where footings are excavated by backhoe. Refer to Drawings for any special trenching conditions for utilities, structures, etc.
 2. The words "invert" or "invert elevation" as used herein mean the elevation at the inside bottom of pipe or channel.
 3. The words "bottom of the pipe" as used herein means the elevation at the base of the pipe at its outer surface.
3. In general, machine excavation of trenches will be permitted with the exception of preparation of pipe beds, which will be handwork. Excavate by hand or machine methods at least six inches below the bottom of all utilities.
4. Trench excavation shall include the removal of all materials encountered. During excavation, materials determined to be suitable for backfilling shall be piled in an orderly manner a sufficient distance from the banks of the trench to avoid overloading and to prevent slides or cave-ins. All excavated materials not required or unsuitable for backfill

shall be removed and legally disposed of off the site. The banks of trenches shall be cut as near vertical as practicable to the extent allowed by OSHA.

5. The Contractor shall provide, at his own expense, suitable bridges over trenches where required for accommodation and safety of the traveling public and as necessary to satisfy the required permits and codes.
6. Trenches shall be excavated to the necessary width and depth for proper laying of pipe or other utility and shall have vertical sides or slopes as required by codes. Minimum width of trenches shall provide clearance between the sides of the trench and the outside face of the utility. Maximum trench sizes are as shown on the Drawings or as specified herein. The depth of the trench shall be six inches below the bottom of the pipe barrel or respective utility. If the existing soil is not suitable, the Architect or Geotechnical Engineer may approve removal and replacement of material. Costs for removal and replacement materials will be based on Unit Prices.
7. Coordinate all utility and trench backfilling with the trades involved.

3.03 ROCK EXCAVATION

1. Definitions and Classifications: The following classifications of excavation will be made only when rock excavation is required.
 1. "Earth Excavation" consists of removal and disposal of pavement and other obstructions visible on ground surface; underground structures and utilities indicated to be demolished and removed; material of any classification indicated in data on subsurface conditions; and other materials encountered that are not classified as rock excavation.
 2. "Rock Excavation" consists of removal and disposal of materials encountered that cannot be excavated without continuous and systematic drilling and blasting or continuous use of a ripper or other special equipment, except such materials that are classed as earth excavation. Typical of materials classified as rock excavation are as follows:
 1. Consolidated Bedrock.
 2. Boulders on site, outside trench limits, exceeding two cubic yards in volume.
 3. Boulders within trench limits, exceeding one cubic yard in volume.
 3. Should highly fractured or weathered bedrock be encountered during excavation, the following shall apply:
 1. When the material is encountered in trenching operations or under footings, it shall be excavated or ripped with a hydraulic backhoe equal to or larger than a Caterpillar 235 excavator and will be classified as Earth Excavation. When it is demonstrated to the satisfaction of the Architect and the Geotechnical Engineer that this material can no longer be removed with a hydraulic backhoe and requires drilling and blasting, this material shall be classified as Rock Excavation. - For excavation procedures when this material is encountered under footings, refer to paragraph below.
 4. Intermittent drilling and ripping performed to increase production and not necessary to permit excavation of material encountered will be classified as Earth Excavation.

5. Allowance for Rock Excavation: The Contractor shall carry in the Base Bid an allowance for xxx cubic yards of rock encountered in trench excavation removed from the site. The Contractor shall also carry in the Base Bid an allowance of xxx cubic yards of open rock excavation removed from the site. The Base Bid shall cover all costs relating to such rock excavation, including blasting, removal and placement of the excavated material, overhead and profit. The Owner for excavation herein defined will pay no amount other than that herein specified.
 1. If the total quantity of Rock Excavation, open and/or trench, exceeds the amount of Rock Excavation included in the Contract as listed above, the Owner shall pay the excess excavation at the unit prices as indicated in the contract.
 2. If the total quantity of Rock Excavation, open and/or trench, is less than the amount of Rock Excavation included in the Contract as listed above, the Contract sum will be decreased by the difference in Rock Excavation multiplied by the unit prices listed in the contract.
2. Measurements:
 1. When, during the process of excavation, rock is encountered, such material shall be uncovered and exposed in such a manner that the unbroken ledge surface is clearly visible, and the Contractor shall notify the Architect, before proceeding further. The areas in question shall then be cross sectioned as hereinafter specified.
 2. Failure on the part of the Contractor to uncover such material and to notify the Architect and proceeding by the Contractor with the rock excavation before cross-sections are taken, will forfeit the Contractor's right of claim towards the stated allowance or additional payment over and above the stated allowance at the quoted unit price.
 3. The Contractor shall employ and pay for a licensed Registered Civil Engineer or Land Surveyor to take cross-sections of rock before removal and to make computations of volume of rock encountered within the Payment Lines. Cross-sections shall be taken in the presence of the Geotechnical Engineer and the computations approved by the Architect. The volume calculations shall be by the average end area method. The Owner has the option to perform independent cross-sections and computations of rock quantities.
 4. Where removal of boulder or ledge is required outside the established payment lines, the Architect shall determine the extent of this removal and basis of payment.
3. Blasting: Obtain written permission and approval of method from local authorities before proceeding with rock excavation. Explosives shall be stored, handled, and employed in accordance with state and local regulations or, in the absence of such, in accordance with the provisions of the "Manual of Accident Prevention of Construction" of the Associated General Contractors of America, Inc.
 1. Notify the Architect at least 48 hours before any intended blasting and do no blasting without his specific approval of each blasting operation.
 2. Contractor shall present evidence that his insurance includes coverage for blasting operations before doing any blasting work. A pre-blast survey shall be performed for all buildings and utilities within a radius of 150 feet from the blasting zone or conforming to the ordinance governing blasting and the Fire Department regulations.
 3. All rock blasting shall be well covered with heavy mats or timbers chained together and the Contractor shall take great care to do no damage to existing structures, utility lines and trees to remain.

4. Any damage caused by the work of this Contractor shall be repaired to the full satisfaction of the Architect at no additional cost to the Owner.
 5. Any rock fragments or loose material from blasting operations shall be removed. All voids shall be filled with a leveling mat of structural fill or lean concrete as directed by the Geotechnical Engineer.
 6. At least 2 weeks prior to blasting the contractor shall submit a blasting plan indicating blasting agents to be used, drill hole depths and spacing, powder factors, personnel, vibration limits and method of measurement, for review by the Geotechnical Engineer.
4. Complaints:
1. Report all blasting complaints to the Architect within 24 hours of receipt thereof. Include the name, address, date, time received, date and time of blast complained about, and a brief description of the alleged damages or other circumstances upon which the complaint is predicated. Assign each complaint a number, and number all complaints consecutively in order of receipt.
 2. Submit a summary report to the Architect each month which indicates the date, time and name of person investigating the complaint, and the amount of settlement, if any.
 3. When settlement of a claim is made, furnish the Architect with a copy of the release of claim by the claimant.
 4. Immediately notify the Architect, throughout the statutory period of liability, of any formal claim or demands made by attorneys on behalf of claimants, or of serving of any notice, summons, subpoena, or other legal documents incidental to litigation, and of any out-of-court settlement or court verdict resulting from litigation.
 5. Immediately notify the Architect of any investigations, hearings, or orders received from any governmental agency, board or body claiming to have authority to regulate blasting operations.
5. If ledge is encountered within the limits of the Proposed Building Area, the Contractor shall excavate this material 18 inches below subgrade of footings and 12 inches below subgrade of slabs unless otherwise directed by the Architect or Geotechnical Engineer. All loose or shaken rock shall be removed and replaced with compacted gravel fill or lean concrete as specified herein.
6. Rock excavation for foundations outside of the Building Area: Remove rock to foundation or footing subgrade. All rock bottoms for foundations shall be carefully examined. Loose or shaken rock shall be removed to solid bearing, and the rock surface leveled, or shelved to a slope not exceeding one inch per two feet, or as directed.
7. Excavate rock encountered in grading under paved areas, lawns and plant beds to subgrade as specified herein and shown on the Drawings. All boulders or protruding rock outcrops shall remain undisturbed at lawns and plant beds when so directed by the Architect. Rock shall be fractured six inches below subgrade of paved areas, but this six-inch layer shall remain in place.
8. If any part of the rock excavation at footings be carried beyond the depth and the dimensions indicated on the Drawings or called for in the Specifications, the Contractor shall, at his own expense, furnish and install concrete of same strength as footings to the required subgrade level of the footings as shown on the Drawings. Doweling or other corrective structural measures as directed by the Architect may also be required to properly anchor or reinforce the concrete. If rock excavation is carried beyond the depth and dimensions to subgrade in other areas, the Contractor shall, at his own expense, furnish and install compacted gravel fill to subgrade as directed by the Architect.

9. Basis of Payment: The total amount of rock excavation will be based upon the volume of rock excavated within and/or above the lines referred to in the next paragraph as "Payment Lines". The payment lines are only to be used as a basis of payment and are not to be used as limits of excavation. Limits of excavation area as shown on the Drawings and as specified herein.
10. Payment Lines for Rock Excavation:
 1. Payment lines for columns and footings within the building shall be a vertical line one foot from the toe of the footings; the depth shall be measured at 24 inches below the bottom elevations shown on the Drawings. If rock is to remain directly below the bottom of the footings within the Building Area, payment lines shall be six inches below the bottom elevation of the footing as shown on the Drawings. Payment lines for walls to be damp- proofed shall be a vertical line two feet outside the walls. Payment lines for footings outside of the building shall be six inches below the bottom of footings. Vertical payment lines shall be as specified hereinafter.
 2. Payment lines for manholes and catch basins shall be one foot outside of the outer wall and six inches below subgrade beneath the structure.
 3. Payment lines for rock excavation under slabs on grade shall be six inches below the bottom elevation of the specified gravel base course outside of the building and 12 inches below subgrade for slabs within the building.
 4. Payment lines for rock excavation at paved areas and lawns shall be six inches below respective subgrades.
 5. Payment lines for rock excavation under pipes within the building and for utility trenches outside the building lines shall in no case be calculated as greater in width than the outside diameter of the pipe plus two feet for pipes up to 18 inches. For pipes 18 inches and larger payment lines shall in no case be calculated as greater in width than the outside diameter of the pipe plus three feet. Payment lines at bottom of all pipe and utility trenches shall be six inches below subgrade.

3.04 PROOF-ROLLING

1. Contractor shall be required to proof roll foundation and pavement subgrades prior to foundation construction or the placement and compaction of fill materials.
2. Proof rolling of foundation subgrades shall include at least ten passes of a small vibratory plate compactor for trench excavations or six passes of a heavy vibratory roller for open areas.
3. Proof rolling of pavement subgrades shall include four passes of a heavy vibratory roller.
4. If groundwater is located within two feet of foundation or pavement subgrade, proof rolling may be eliminated. However, the Contractor shall demonstrate care during excavation so as to minimize subgrade disturbance.
5. The Geotechnical Engineer shall visually observe Proof rolling. Foundation construction or replacement of fill materials shall not commence until the Geotechnical Engineer has witnessed subgrade conditions and proof rolling operations.
6. Soils which exhibit weaving or instability during the proof rolling operations as determined by the Geotechnical Engineer shall be removed and replaced with compacted Structural Fill or Crushed Stone at no additional cost to the Owner.

3.05 FILLING AND GRADING

1. Samples and Testing:
 1. All fill materials, and their placement shall be subject to quality control testing. The Owner shall pay for all testing except that the Contractor will bear cost of testing materials, which fail to conform to Specifications. Test results and laboratory recommendations will be available to Contractor. All sieve analyses for conformance of on-site and off-site fill materials to be used in the work shall be done by means of a mechanical wet sieve analysis and in accordance with ASTM D-422.
 2. The Owner will retain a Geotechnical Engineer to provide personnel, qualified by training and experience, to be at the site to observe preparation for the placement of compacted fills, to observe excavation and dewatering required for the work, and to observe earthwork operations and report on the conformity of operations with these Specifications. All service and approvals given by the Geotechnical Engineer shall not relieve the Contractor of his responsibility for performing the work in accordance with these Specifications. The Contractor agrees to accept as final the results of field and laboratory tests performed by the above representatives. As stated hereinbefore, the Owner reserves the right to modify or waive Geotechnical Engineer's services.
 3. Excavated material taken directly from on-site cuts that will meet these Specifications may be used as Ordinary Fill or Structural Fill provided the Contractor obtains written approval from the Architect. No such fill material shall be put in place until approved for use by the Architect in writing.
 4. Field density tests will be made by the Geotechnical Engineer in accordance with the Method of Test for ASTM Designation D1556 or D2944, to determine the adequacy of compaction; the location and frequency of such field tests shall be at the Geotechnical Engineer's discretion.
 5. The Contractor shall notify the Architect or the Geotechnical Engineer when an area is ready for compaction testing. This notification shall be 48 hours in advance of placing or final compaction so that the Geotechnical Engineer has adequate time to take compaction tests.
 6. The Architect or his designated representative shall have the right to observe the installation of all controlled compacted fills.
 7. Testing of materials as delivered may be made from time to time. Materials in question may not be used, pending test results. Tests of compacted materials will be made regularly. Remove rejected materials and replace them with new, whether in stockpiles or in place.
 8. Cooperate with the Geotechnical Engineer in obtaining field samples of in-place materials after compaction. Furnish incidental field labor in connection with these tests. The Contractor will be informed by the Geotechnical Engineer of areas of unsatisfactory density which may require improvement by removal and replacement, or by scarifying, aerating, sprinkling (as needed), and re-compaction prior to the placement of the new lift. No additional compensation shall be paid for work required to achieve proper compaction.
 9. The Geotechnical Engineer's presence does not include supervision or direction of the actual work by the Contractor, his employees, or agents. Neither the presence of the Geotechnical Engineer nor any observations and testing performed by him shall excuse the Contractor from defects discovered in his work.
 10. In no case will frozen material be allowed for use in fill, backfill, or rough grading material.
 11. Stones or rock fragments larger than four inches in their greatest dimension shall not be permitted within the top six inches of subgrade of any fills or embankments.

2. Placing, Spreading and Compacting Fill Material:
 1. Fill materials are to be placed as designated herein and as indicated on the Contract Drawings.
 1. Crushed Stone shall be placed as follows and compacted as specified herein:
 - 1.) Under and around utility structures and around foundation drains and underdrains.
 - 2.) Behind retaining walls, and under rip rap.
 - 3.) Where otherwise shown on Drawings or as directed by the Architect.
 2. Structural Fill shall be placed as follows and compacted in lifts to a minimum of 95% maximum dry density per the Modified Proctor Test (ASTM D 1557) as specified herein: (Refer to table specified herein for compaction methods and lift requirements.)
 - 1.) Within building pad areas.
 - 2.) As a subgrade fill for all material to be placed controlled compacted fills under exterior concrete slabs, foundations, on grade stairs, and other soil bearing situations.
 - 3.) Wherever a structural fill is called for or shown on the Drawings.
 3. Ordinary Fill shall be placed as follows and compacted as specified herein:
 - 1.) In general, areas such as lawn or parking islands except where Structural Fill is shown.
 - 2.) Wherever Ordinary Fill is called for and as specified hereinbefore.
 - 3.) Wherever Structural Fill, Crushed Stone, Sand Fill or Topsoil is not required herein or on the Drawings.
 4. Blast Rock Fill may be placed up to within three feet of finish grade in pavement areas and within two feet of finish grade in lawns, and to within 30 inches of inverts of utility lines and proposed utility routes. First lift over the top of rock fill shall be choked stone layer 18 inches thick which shall be a well-graded mixture of sand, gravel, and blasted rock with maximum stone size less than nine inches. Compaction shall be by minimum of six coverages of a self-propelled vibratory drum roller in each direction (i.e. north-south and east-west). The minimum weight of the drum shall be 1 0,000 lbs. Compaction may also be by four coverages of heavy track machinery such as a Caterpillar D8 or other track machinery approved by the Geotechnical Engineer.
 - 1.) Blast Rock Fill shall not be placed within 30 inches vertically of exterior concrete slabs (i.e. sidewalks, loading docks, etc.
 - 2.) Rock shall not be placed within a five-foot horizontal distance on either side of any proposed utility line. The intent is to leave a zone of granular fill that can later be excavated for installation of utilities. Also keep large rock fragments away from any utility lines.
 - 3.) Place woven filter fabric (Mirafi 500X or equivalent) over Blast Rock Fill.

5. Sand Fill shall be placed as follows and compacted as specified for the particular item:
 - 1.) As a bedding material for PVC electrical conduit where concrete is not required, telephone-cable, primary electric service and gas pipe.
 - 2.) Where otherwise specified or shown on the Drawings.
6. Slab Base Fill shall be placed in minimum 6-inch lift under concrete floor slabs.
7. Subsoil shall be used only under lawn areas and athletic fields. This material shall not be placed closer to areas being otherwise prepared than a 1:1 angle of repose x depth of fill for the particular area. For instance, if a fill is four feet deep, subsoil may not be placed closer than four feet to the area being otherwise prepared.
 - 1.) Unsuitable Earth Materials shall be removed from the site.
 - 2.) The fill material shall be placed in uniform horizontal layers and compacted as specified herein.
8. Each layer shall be spread evenly and shall be thoroughly mixed during the spreading to obtain uniformity of material in each layer. So far as practicable, each layer of material shall extend the entire length and width of the area being filled plus two additional feet horizontally along each side for every one foot of fill required.
3. All fill material shall be placed and compacted in the dry. The Contractor shall dewater excavated areas as required to perform the work, and in such a manner as to preserve the undisturbed bearing capacity of the subgrade soils. In freezing weather, a layer of fill shall not be left in an uncompacted state at the close of a day's operation. Prior to terminating operations for the day, the final layer of fill, after compaction, shall be rolled with a smooth-wheeled roller to eliminate ridges of soil left by tractors, trucks and compaction equipment.
4. The Contractor shall not place a layer of compacted fill on soil that was permitted to freeze prior to compaction or on snow or ice. Removal of these unsatisfactory materials will be required as directed by the Owner.
5. When the moisture content of the fill material is below optimal moisture necessary for compaction as specified herein, water shall be added until the moisture content is as specified.
6. When the moisture content of the fill material is above the optimal moisture necessary for compaction as specified herein, the fill material shall be aerated by blending, mixing, or other satisfactory methods until the moisture content is as specified.
7. After each layer has been placed, mixed and spread evenly, it shall be thoroughly compacted to the specified density. Compaction shall be continuous over the entire area and the equipment shall make sufficient passes to ensure that the desired density is obtained. A minimum of four coverages with acceptable compaction equipment described hereinafter is a requirement. These coverages are to be provided as systematic compactive effort; incidental coverages due to construction vehicle traffic through the area will not be included.
3. Structural Fill: All fills within the building area shall be made with Structural Fill as defined herein and shown on the Footing Zone of Influence detail included herein. No excavated

on-site material will be acceptable as Structural Fill unless specifically approved by testing as specified herein.

4. Allowance for Unsuitable Materials and replacement with Structural Fill: The Contractor shall include in his base bid xxx cubic yards for the removal of Unsuitable Materials and Structural Fill in place and graded as specified herein to be used as directed by the Architect or the Geotechnical Engineer. This quantity of Structural Fill is in addition to the requirements for Structural Fill in areas as specified herein and as shown on the Contract Documents and is to be used at the discretion of the Architect or the Geotechnical Engineer.
5. Backfilling of Trenches, Structures and Foundations:
 1. Areas to be backfilled shall be free of construction debris, refuse, compressible or decayable materials and standing water. Do not place fill when temperature is below 30 degrees F and when fill materials or layers below it are frozen unless specifically approved by the Geotechnical Engineer.
 2. Requirement of description, placement, compaction and spreading of fill materials as specified herein shall be applicable to backfilling operations.
 3. Structural Fill shall be used as Backfill around manholes and other structures. Excavated material may be used if approved by the Architect or Geotechnical Engineer.
 4. Backfilling of foundations, structures and retaining walls shall not commence until construction finish grade has been approved, forms removed, and the excavation cleaned of trash and debris. Backfill shall not be placed against walls until they are braced or cured sufficiently to develop the strength necessary to withstand, without damage, the pressure that will result from backfilling and compacting operations. If fill is required on both sides of a wall, it shall be brought up simultaneously and evenly on both sides. Avoid damage to the walls and to damp-proofing and waterproofing and other work in place. Allow seven days from the date of application of waterproofing before backfilling. Stones larger than four inches maximum dimension shall not be permitted in the upper six inches of fill or horizontally within 12 inches of walls.
 5. Do not commence backfilling operations of utility trenches until all piping, conduits, etc. have been installed, tested and approved and the locations of all pipe and appurtenances have been recorded. Backfill carefully by hand around pipe to depth of one foot above top of pipe using material specified herein and tamping firmly in layers not exceeding six-inch layers, compacting by hand rammers or mechanical tampers. When a manufacturer of utility line materials suggests backfill materials and methods other than those specified herein, such requirements shall govern providing the finished work equals or exceeds the result obtained by the materials and methods specified herein. Water mains shall be hand backfilled to a minimum cover of 18 inches before mechanical equipment can be used to backfill trench.
 6. Sand Bedding will be required below all pipe unless otherwise shown on the Drawings or specified herein. Crushed Stone is required under utility structures where shown on the Drawings. Gravel Bedding, Sand Bedding or Crushed Stone shall be placed to the full width of the trench and under utility structure foundations as indicated on the Drawings. After a pipe is bedded, the trench shall be filled to the centerline of the pipe with Gravel Fill or Sand Bedding except at the joint. After the joint is inspected, that portion shall be filled in with Sand Bedding. Material under and around the pipe shall be carefully and thoroughly tamped.
 7. From the centerline of the pipe to a point 12 inches above the top of the pipe the backfill shall be Structural Fill or Sand Fill placed by hand and hand tamped. Above this point, backfill shall be placed in layers six inches deep and each layer

shall be compacted with mechanical tampers to not less than 95% of maximum density at optimum moisture of the material. This backfill shall be carried up to the bottom of materials specified to be placed for surfacing requirements.

8. Utilities shall not be laid directly on ledge, boulders or other hard material. This material shall be removed as specified herein within trench limits, and within vertical planes one foot outside of structure walls. Backfill will be placed in eight-inch lifts and thoroughly compacted. If hand guided compaction equipment is used, fill shall be placed in six-inch lifts. All rock excavation shall be considered unsuitable for backfill around utilities. Ordinary fill may be used as backfill in areas specified herein.
9. Coordinate all utility and trench backfilling with the trades involved.

6. Compaction Equipment:

1. Compaction shall be accomplished by vibratory rollers, multiple wheel pneumatic tired rollers or other types of approved compacting equipment. Loaded trucks, low beds, water wagons and the like shall not be considered as acceptable compaction equipment unless specifically approved by the Architect or Geotechnical Engineer for a particular location. Equipment shall be of any such design that it will be able to compact the fill to the specified density in a reasonable length of time. All compaction equipment shall be subject to the approval of the Geotechnical Engineer.

7. Compaction Requirements:

1. The following table lists minimum compactive efforts and lift weights which are required for all fill materials. Compaction of each lift shall be completed before compaction of the next lift is started. The compaction equipment shall make an equal number of transverse and longitudinal coverages of each lift. Allow the Geotechnical Engineer sufficient time to make necessary observations and tests. The degree of compaction for fill placed in various areas shall be as follows:

Relative Compaction

1. Within buildings and structures:
 - Under footings 95%
 - under slab 95%
 2. Outside building areas:
 - within paved areas 95%
 - within lawn areas 85%
 - and playing fields
- Percent of maximum dry density of the material at optimum moisture content as determined by methods or tests for ASTM designation D 1557.

8. Methods: The compaction alternatives given below are stated to provide minimum compaction standards only and in no way relieves the Contractor of his obligation to achieve the specified degree of compaction by whatever additional effort is necessary.

1. All fill to be placed "in-the-dry" with the exception specified hereinafter. If, in the opinion of the Architect or the Geotechnical Engineer, the Contractor has followed a logical sequence of construction procedures, has employed the proper and necessary equipment, and has otherwise conducted himself in a workmanlike manner, but still cannot effectively dewater the excavation, the Architect or the Geotechnical Engineer may permit the Contractor to place a first

lift of Gravel or Crushed Stone fill "in-the-wet". Fill placed in-the-wet must meet the gradation and placement requirements specified herein. The quantity of fill placed in-the-wet must be no greater than deemed necessary by the Architect and must be limited to the lowermost lift.

9. Moisture Control:

1. Variation of moisture content in fill and backfill materials shall be limited to Optimum Moisture (-1% to +2%). Moisture content shall be as uniformly distributed as practicable within each lift and shall be adjusted as necessary to obtain the specified compaction.
2. Material which does not contain sufficient moisture to be compacted to the specified densities shall be moisture conditioned by sprinkling, discing, windrowing, or other method approved by the Geotechnical Engineer.
1. Material conditioned by sprinkling shall have water added before compaction. Uniformly apply water to surface of subgrade or layer of soil material to obtain sufficient moisture content. The Contractor shall maintain sufficient hoses and/or water distributing equipment at the site for this purpose.
3. Material containing excess moisture shall be dried to required Optimum Moisture before it is placed and compacted. Excessively moist soils shall be removed and replaced and shall be scarified by use of plows, discs, or other approved methods, and air-dried to meet the above requirements.
4. Materials, which are within the moisture requirements specified above, but which display pronounced elasticity or deformation under the action of earthmoving and compaction equipment, shall be reduced to Optimum Moisture Content, or below, to secure stability.
5. In the event of sudden downpours or other inclement weather, exposed subgrades and fills which, in the opinion of the Geotechnical Engineer, become inundated or excessively moistened shall have excess water removed and soil dried as specified above.

3.06 ROUGH GRADING

1. Rough grading shall include the shaping, trimming, rolling and finishing the surface of the sub- base, shoulders, and earth slopes, and the preparation of the sub-base for loam, seeding and paved surfaces. The grading of shoulders and sloped areas may be done by machine methods. Up to two inches in 100" tolerance will be permitted on slopes and one inch in 100" on lawn areas provided the slopes are uniform in appearance and without abrupt changes. All ruts shall be eliminated. Grading of subgrades for paved areas shall be finished at the required depth below and parallel to the proposed surface within 3/8 inch in 100" tolerance.
2. If, during the progress of rough grading work, water pipe, sewer conduit, drain, or other construction is damaged due to operations under this Contract, the Contractor shall repair all such damage at no additional cost to the Owner and restore damaged areas to their original condition.
3. Do all other cutting, filling and rough grading to the lines and grades indicated on the Drawings. Grade evenly to within the dimensions required for finished grades shown on the Drawings. No stone larger than three inches in largest dimension shall be placed in upper 12 inches of fill.
4. Grades shall be brought below finished grades in accordance with the various depths specified below:

1. Under slabs-on-grade, as specified herein and as shown on the Drawings.
 2. Under paved areas, bottom of base course as shown on Drawings.
 3. Under seeded areas, six inches.
 4. Under cattail marsh area and pond bottom, 12 inches.
5. No rubbish of any description shall be allowed to enter fill material. Such material shall be removed from the site.
6. Complete the grading operations after the building has been finished, the utilities installed, site improvements constructed, and all materials, rubbish and debris removed from the site. Leave subgrade for lawns clean at required grades. There must be sufficient grade staking to provide correct lines and grades.

3.07 DEFICIENCY OF FILL MATERIAL

1. Provide required additional fill material from offsite sources to complete the work if a sufficient quantity of suitable material is not available from the required excavation on the project site.

3.08 SURPLUS OF FILL MATERIAL

1. Surplus fill which is not required to fulfill the requirements of the Contract shall be removed from the site and legally disposed of.

3.09 DUST AND EROSION CONTROL

1. The Contractor shall take all necessary measures and provide equipment and/or materials to minimize dust from rising and blowing across the site and also to control surface water throughout the operation so that it does not run onto paved ways without being filtered. In addition, the Contractor shall control all dust created by construction operations and movement of construction vehicles, both on the site and on paved ways. Provide additional crushed stone where necessary to provide traps or pads for construction vehicles carrying sediment. Provide temporary swales and interceptor ditches to control surface runoff water where necessary.
2. If dust control is required off-site due to work under this Contract, in addition to watering, sweeping and other methods, the Contractor shall apply calcium chloride in the required amounts to properly control dust. These amounts shall be approved by the City Engineer prior to application.

3.10 RESTORATION OF SITE ITEMS

1. Wherever streets, lawns or other items within the Contract Limit Lines have been excavated in fulfilling the work required under the Contract, the Contractor shall furnish and install all material at no cost to the Owner to bring finish surface level with the existing adjacent conditions. All work shall be installed to match the existing conditions.

END OF SECTION 02200

PROPOSED MIXED USE DEVELOPMENT

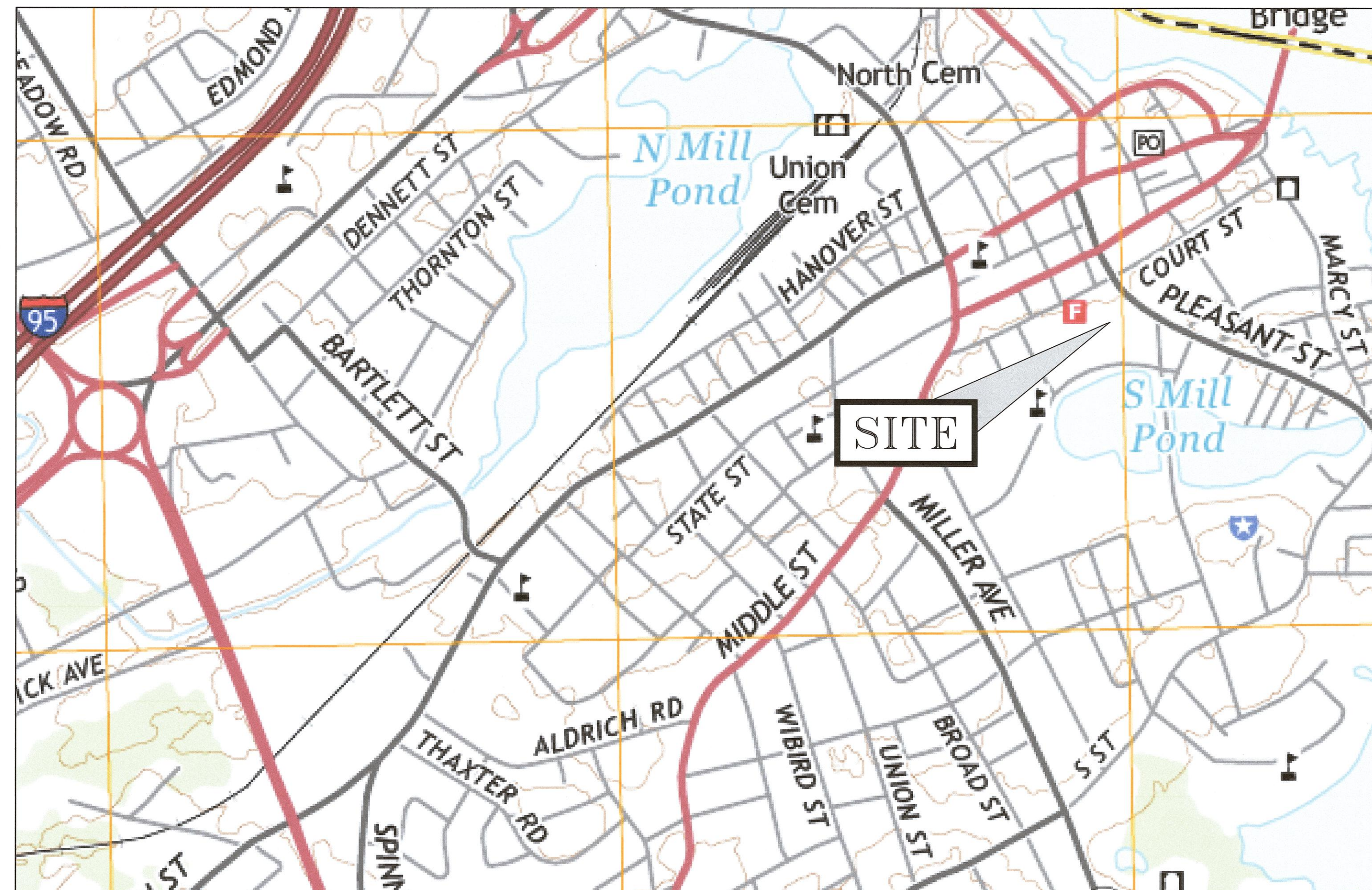
PERMIT LIST:
SITE PLAN: TBD
HISTORIC DISTRICT: TBD

134 PLEASANT STREET, PORTSMOUTH, NEW HAMPSHIRE

PERMIT PLANS

LEGEND:

N/F	NOW OR FORMERLY		
RP	RECORD OF PROBATE		
RCRD	ROCKINGHAM COUNTY		
	REGISTRY OF DEEDS		
	MAP 11/LOT 21		
IR FND	IRON ROD FOUND		
IP FND	IRON PIPE FOUND		
IR SET	IRON ROD SET		
DH FND	DRILL HOLE FOUND		
DH SET	DRILL HOLE SET		
	GRANITE BOUND w/IRON ROD FOUND		
EXISTING		PROPOSED	
FM	FORCE MAIN	FM	FORCE MAIN
S	SEWER PIPE	S	SEWER PIPE
SL	SEWER LATERAL	SL	SEWER LATERAL
G	GAS LINE	PG	GAS LINE
D	STORM DRAIN	D	STORM DRAIN
FD	FOUNDATION DRAIN	FD	FOUNDATION DRAIN
W	WATER LINE	W	WATER LINE
FS	FIRE SERVICE LINE	FS	FIRE SERVICE LINE
UE	UNDERGROUND ELECTRIC SUPPLY	UGE	UNDERGROUND ELECTRIC SERVICE
OHW	OVERHEAD ELECTRIC/WIRES	OHW	OVERHEAD ELECTRIC/WIRES
	RETAINING WALL		RETAINING WALL
	EDGE OF PAVEMENT (EP)		EDGE OF PAVEMENT (EP)
	CONTOUR		CONTOUR
	SPOT ELEVATION		SPOT ELEVATION
	UTILITY POLE		UTILITY POLE
	ELECTRIC METER		ELECTRIC METER
	TRANSFORMER ON CONCRETE PAD		TRANSFORMER ON CONCRETE PAD
	WATER SHUT OFF/CURB STOP		WATER SHUT OFF/CURB STOP
	PIPE CLEANOUT		PIPE CLEANOUT
	GATE VALVE		GATE VALVE
	HYDRANT		HYDRANT
	CATCH BASIN		CATCH BASIN
	SEWER MANHOLE		SEWER MANHOLE
	DRAIN MANHOLE		DRAIN MANHOLE
	WATER METER MANHOLE		WATER METER MANHOLE
	TEST BORING		TEST BORING
	TEST PIT		TEST PIT
LA	LANDSCAPED AREA		LANDSCAPED AREA
CI	CAST IRON PIPE	CI	CAST IRON PIPE
COP	COPPER PIPE	COP	COPPER PIPE
CMP	CORRUGATED METAL PIPE	CMP	CORRUGATED METAL PIPE
DI	DUCTILE IRON PIPE	DI	DUCTILE IRON PIPE
PVC	POLYVINYL CHLORIDE PIPE	PVC	POLYVINYL CHLORIDE PIPE
RCP	REINFORCED CONCRETE PIPE	RCP	REINFORCED CONCRETE PIPE
HYD	HYDRANT	HYD	HYDRANT
CL	CENTERLINE	CL	CENTERLINE
EP	EDGE OF PAVEMENT	EP	EDGE OF PAVEMENT
EL	ELEVATION	EL	ELEVATION
FF	FINISHED FLOOR	FF	FINISHED FLOOR
INV	INVERT	INV	INVERT
TBM	TEMPORARY BENCH MARK	TBM	TEMPORARY BENCH MARK
TYP	TYPICAL	TYP	TYPICAL
TBR	TO BE REMOVED	TBR	TO BE REMOVED



SCALE: NTS

INDEX OF SHEETS

-	PROPOSED LICENSE PLAN
V101	EXISTING CONDITIONS PLAN
V102	EXISTING UTILITY PLAN
V103	ORTHO PHOTO PLAN
V105	PARROT AVENUE PARKING LOT
C101	DEMOLITION PLAN
C102	SITE PLAN
L1-L2	LANDSCAPE PLANS
PB0.1-2.1	ARCHITECTURAL PLANS
C103	UTILITY PLAN
C103A	BASEMENT PLAN
C104	ON SITE GRADING & DRAINAGE PLAN
C104A	OFF SITE GRADING & DRAINAGE PLAN/PROFILE
C104B	OFF SITE GRADING & DRAINAGE PLAN ORTHOPHOTO
C104C	DRAINAGE AREA PLAN
C105	LIGHTING PLAN
C105A	NIGHT TIME LIGHTING PLAN
C106	TRUCK TURNING PLAN
C107	FIRE TRUCK TURNING PLAN
C108	NHDES PERMIT PLAN- CITY PROPERTY
D501-D507	DETAILS

UTILITY CONTACTS

ELECTRIC:
EVERSOURCE
1700 LAFAYETTE ROAD
PORTSMOUTH, N.H. 03801
Tel. (603) 436-7708
ATTN: NICHOLAS KOSKO X3327565

NATURAL GAS:
UNITIL
325 WEST ROAD
PORTSMOUTH, N.H. 03801
Tel. (603) 294-5144
ATTN: DAVE BEAULIEU

CABLE:
XFINITY BY COMCAST
180 GREENLEAF AVE.
PORTSMOUTH, N.H. 03801
Tel. (603) 266-2278
ATTN: MIKE COLLINS

SEWER & WATER:
PORTSMOUTH DEPARTMENT OF PUBLIC WORKS
680 PEVERLY HILL ROAD
PORTSMOUTH, N.H. 03801
TEL. (603) 427-1530
ATTN: DOUG SPARKS

COMMUNICATIONS:
CONSOLIDATED COMMUNICATIONS
1575 GREENLAND ROAD
GREENLAND, N.H. 03840
Tel. (603) 427-5525
ATTN: BENJAMIN WILLS



PORTSMOUTH APPROVAL CONDITIONS NOTE:
ALL CONDITIONS ON THIS PLAN SET SHALL REMAIN IN EFFECT IN PERPETUITY PURSUANT TO THE REQUIREMENTS OF THE CITY OF PORTSMOUTH SITE PLAN REVIEW REGULATIONS.

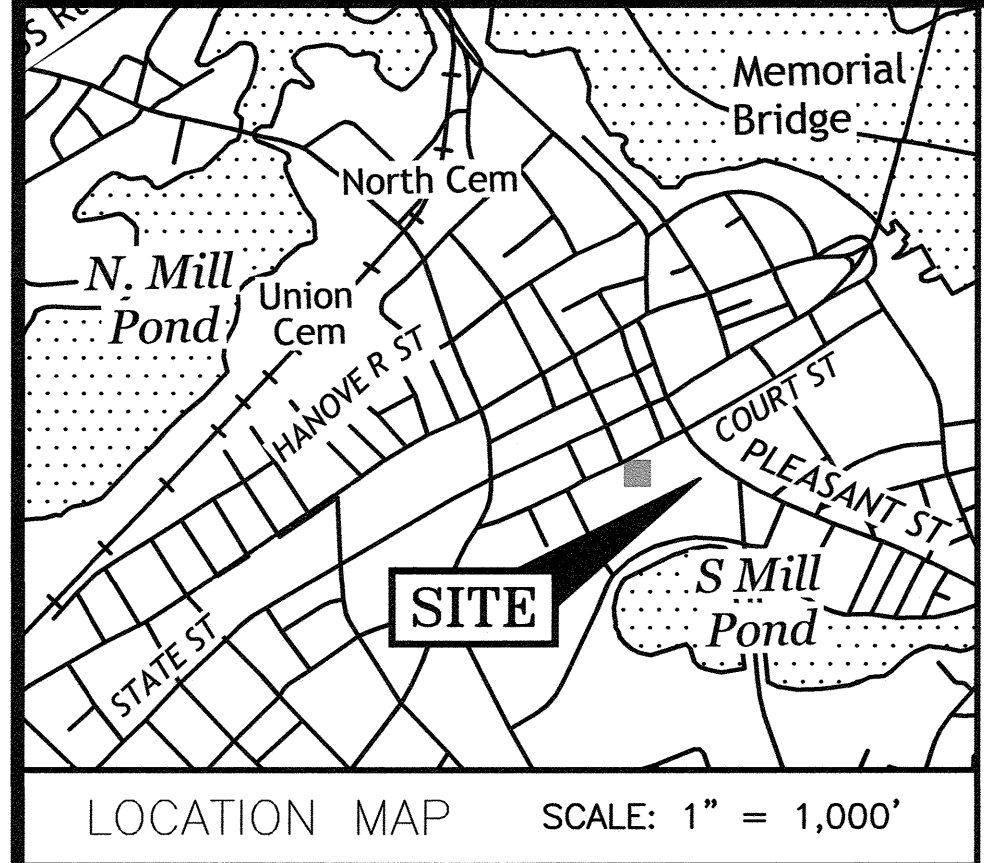
APPROVED BY THE PORTSMOUTH PLANNING BOARD

CHAIRMAN _____ DATE _____

PROPOSED MIXED USE DEVELOPMENT
134 PLEASANT STREET
PORTSMOUTH, N.H.
PERMIT PLANS



PLAN SET SUBMITTAL DATE: 7 APRIL 2026



CURVE TABLE:

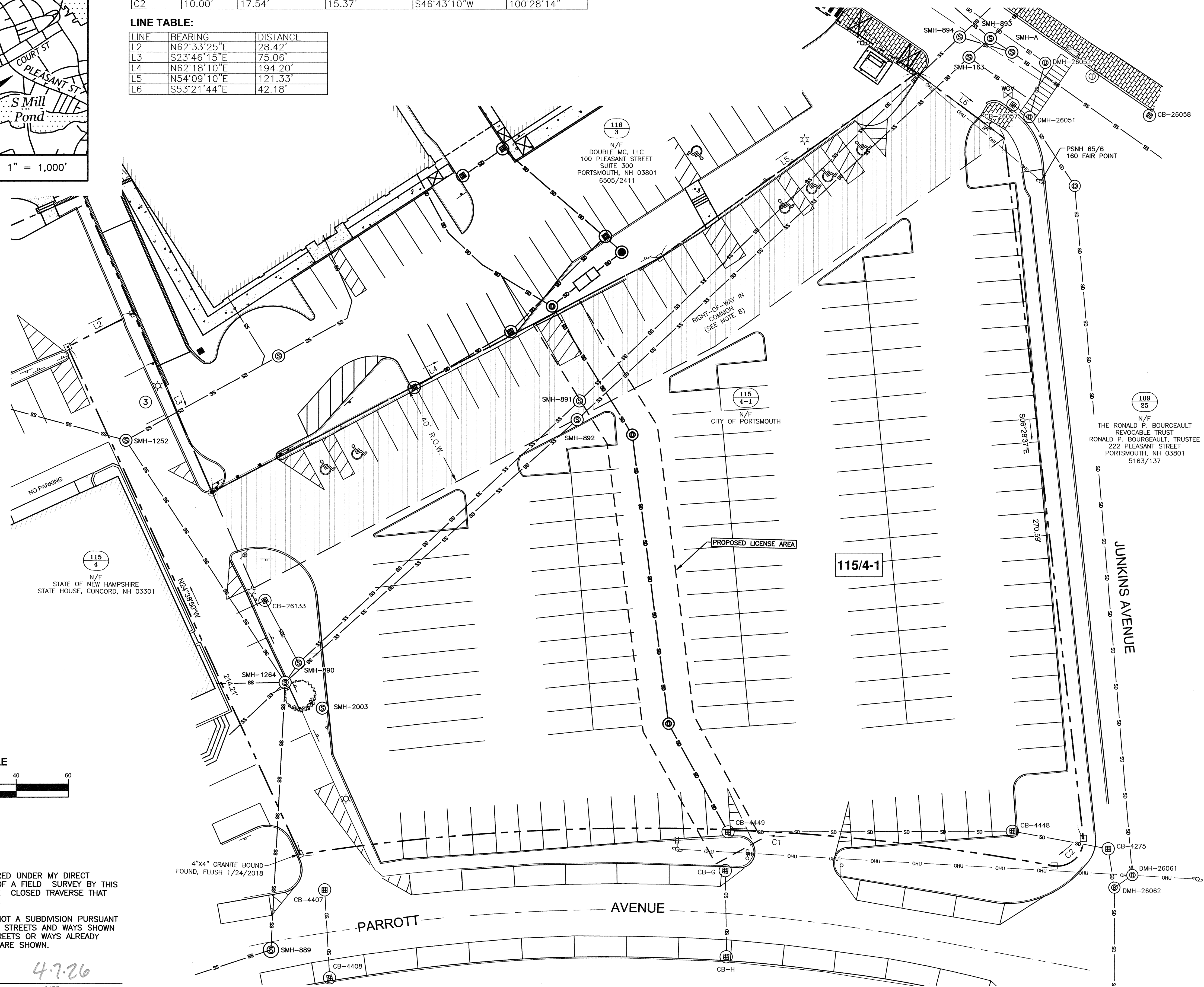
CURVE	RADIUS	ARC LENGTH	CHORD LENGTH	CHORD BEARING	DELTA ANGLE
C1	872.00'	290.98'	289.64'	N89°10'46"W	19°07'10"
C2	10.00'	17.54'	15.37'	S46°43'10"W	100°28'14"

LINE TABLE:

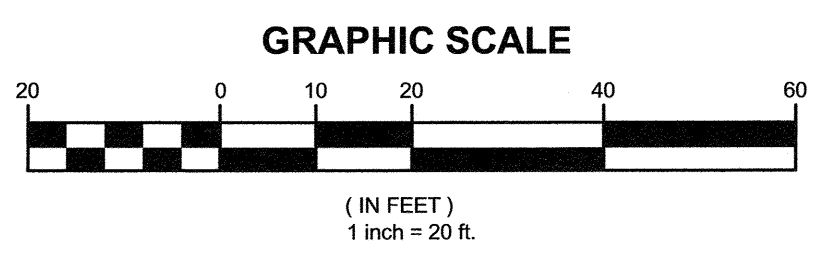
LINE	BEARING	DISTANCE
L2	N62°33'25"E	28.42'
L3	S23°46'15"E	75.06'
L4	N62°18'10"E	194.20'
L5	N54°09'10"E	121.33'
L6	S53°21'44"E	42.18'

NOTES:

- 1) PARCEL IS SHOWN ON THE CITY OF PORTSMOUTH ASSESSOR'S TAX MAP 115 AS LOT 4-1.
- 2) OWNERS OF RECORD:
CITY OF PORTSMOUTH
1 JUNKINS AVENUE
PORTSMOUTH, N.H. 03801
RCRD 1093/64
- 3) EXISTING LOT AREA:
71,682 S.F.
1.65 ACRES
- 4) THE PURPOSE OF THIS PLAN IS TO SHOW A PROPOSED LICENSE AREA ON ASSESSOR'S MAP 115, LOT 4-1 IN THE CITY OF PORTSMOUTH.
- 5) VERTICAL DATUM IS NAVD88. BASIS OF VERTICAL DATUM IS REDUNDANT RTN GNSS OBSERVATIONS.
- 6) PARCEL IS BENEFITED BY A RIGHT OF WAY AS DESCRIBED IN RCRD 2975/349 AND SHOWN ON RCRD D-18880 AND RCRD D-26343.



STATE OF NEW HAMPSHIRE
LAND SURVEYOR
No. 738
JOHN R. CHAGNON
SIGNATURE



I CERTIFY THAT THIS PLAN WAS PREPARED UNDER MY DIRECT SUPERVISION, THAT IT IS THE RESULT OF A FIELD SURVEY BY THIS OFFICE AND HAS AN ACCURACY OF THE CLOSED TRAVERSE THAT EXCEEDS THE PRECISION OF 1:15,000.

I CERTIFY THAT THIS SURVEY PLAT IS NOT A SUBDIVISION PURSUANT TO THIS TITLE AND THAT THE LINES OF STREETS AND WAYS SHOWN ARE THOSE OF PUBLIC OR PRIVATE STREETS OR WAYS ALREADY ESTABLISHED AND THAT NO NEW WAYS ARE SHOWN.

JRC 4.7.26
JOHN R. CHAGNON, LLS 738 DATE

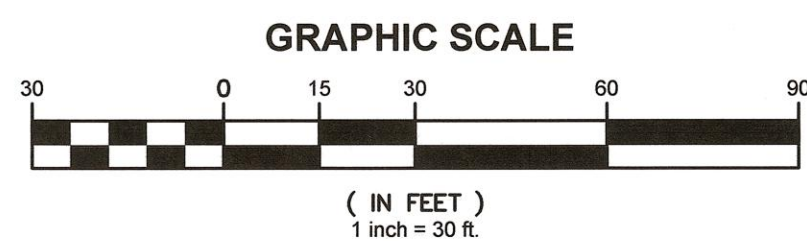
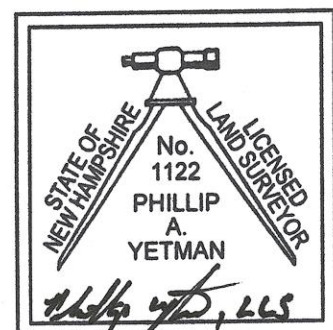
REV.	DATE	DESCRIPTION	BY	CHK.
1	04/07/26	EMERGENCY ACCESS ONLY	SJR	JRC
0	02/25/26	ISSUED FOR COMMENT	SJR	JRC

PERMIT PLANS

PROPOSED LICENSE PLAN
TAX MAP 115 - LOT 4-1
CITY OF PORTSMOUTH
TO:
DOUBLE MC, LLC
134 PLEASANT STREET
CITY OF PORTSMOUTH
COUNTY OF ROCKINGHAM
STATE OF NEW HAMPSHIRE

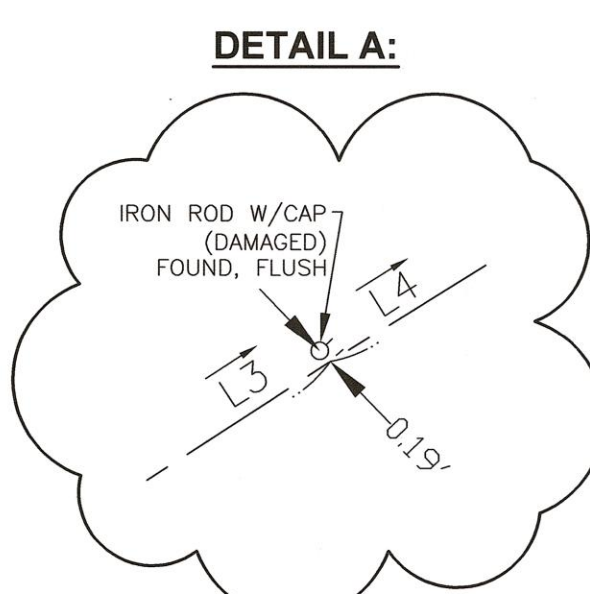
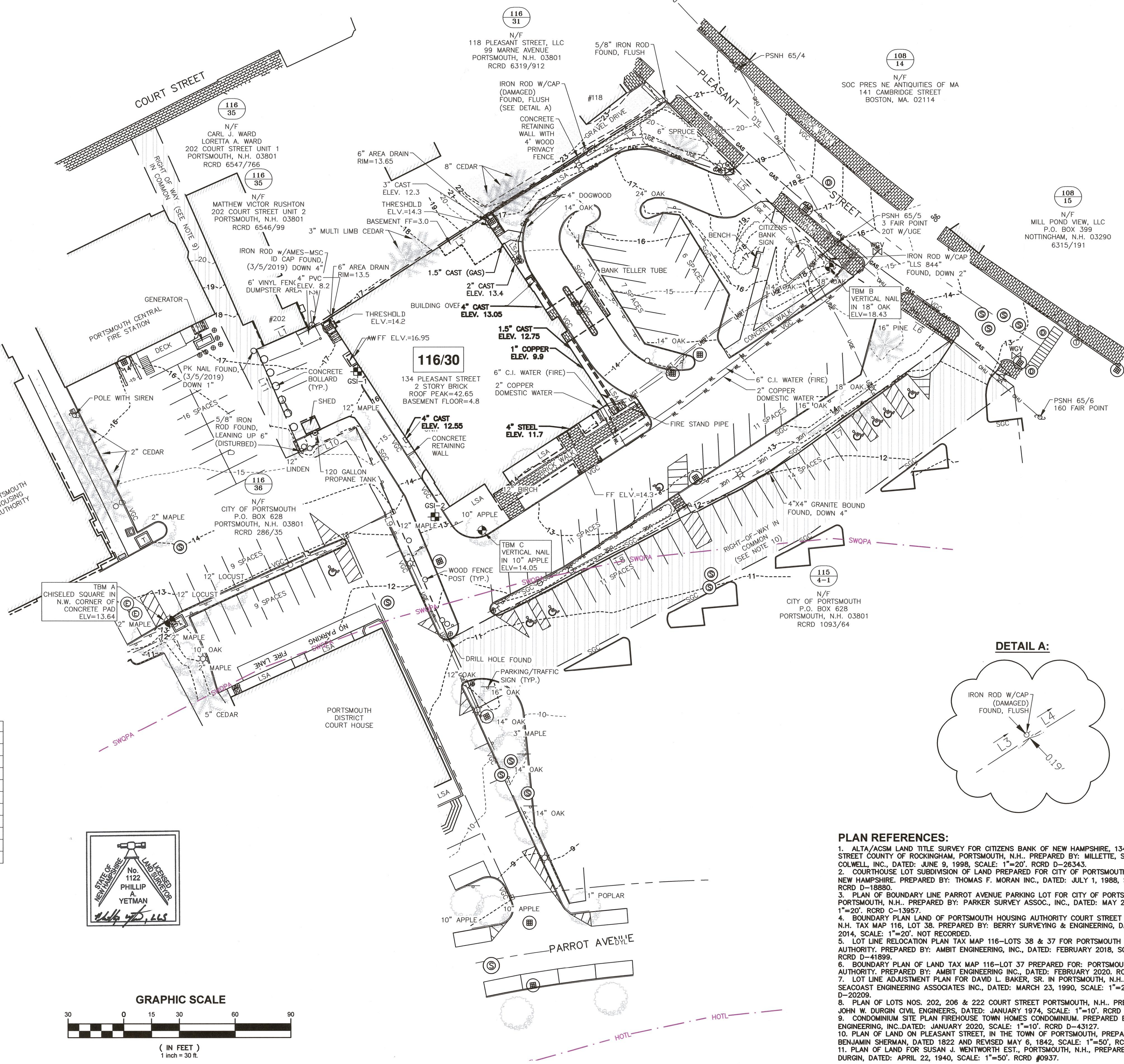
DESCRIPTION	EXISTING
RCDR 1234/123	ROCKINGHAM COUNTY REGISTRY OF DEEDS
N/F	DEED BOOK/PAGE
TYP.	NOW OR FORMALLY
TBS	TO BE SET
LSA	LANDSCAPE AREA
INV.	INVERT
ELV.	ELEVATION
FF	FINISHED FLOOR
DYL	DOUBLE YELLOW LINE
SGC	SLOPED GRANITE CURB
VGC	VERTICAL GRANITE CURB
MAP 21 LOT 8	
BENCHMARK	
RAILROAD SPIKE	
BOUND	
IRON ROD/PIPE FOUND	
SET 5/8" REBAR WITH SURVEYOR'S CAP	
SEWER MANHOLE	
DRAIN MANHOLE	
COMMUNICATIONS MANHOLE	
ELECTRIC MANHOLE	
UTILITY POLE	
CATCH BASIN	
HYDRANT	
GATE VALVE	
GAS/WATER SHUTOFF	
BOLLARD	
BORING	
TREES	
GAS/ELECTRIC METER	
LIGHT POLE	
MAIL BOX	
AIR CONDITIONER	
SIGN	
SPOT GRADE	
ELECTRIC PEDESTAL	
ELECTRIC HANDHOLD	
PROPERTY LINE	
APPROXIMATE EXTERIOR PROPERTY LINE	
EDGE OF PAVEMENT	
EDGE OF GRAVEL	
STONE WALL	
FENCE	
SHRUBLINE	
MINOR FOOT CONTOUR	
MAJOR FOOT CONTOUR	
GAS LINE	
WATER LINE	
STORM DRAIN LINE	
SANITARY SEWER LINE	
OVERHEAD UTILITY LINE	
UNDERGROUND ELECTRICAL LINE	
UNDERGROUND COMMUNICATIONS LINE	
SHORELAND SETBACK LINE	

LINE	BEARING	DISTANCE
L1	N66°28'05"E	32.60'
L2	S04°27'10"E	0.98'
L3	N57°05'10"E	175.24'
L4	N58°07'10"E	50.44'
L5	S45°49'50"E	122.39'
L6	S56°42'50"E	79.29'
L7	S54°09'10"W	121.33'
L8	S62°18'10"W	194.24'
L9	N23°38'50"W	124.67'
L10	S66°22'00"W	32.60'
L11	N23°20'25"W	60.00'

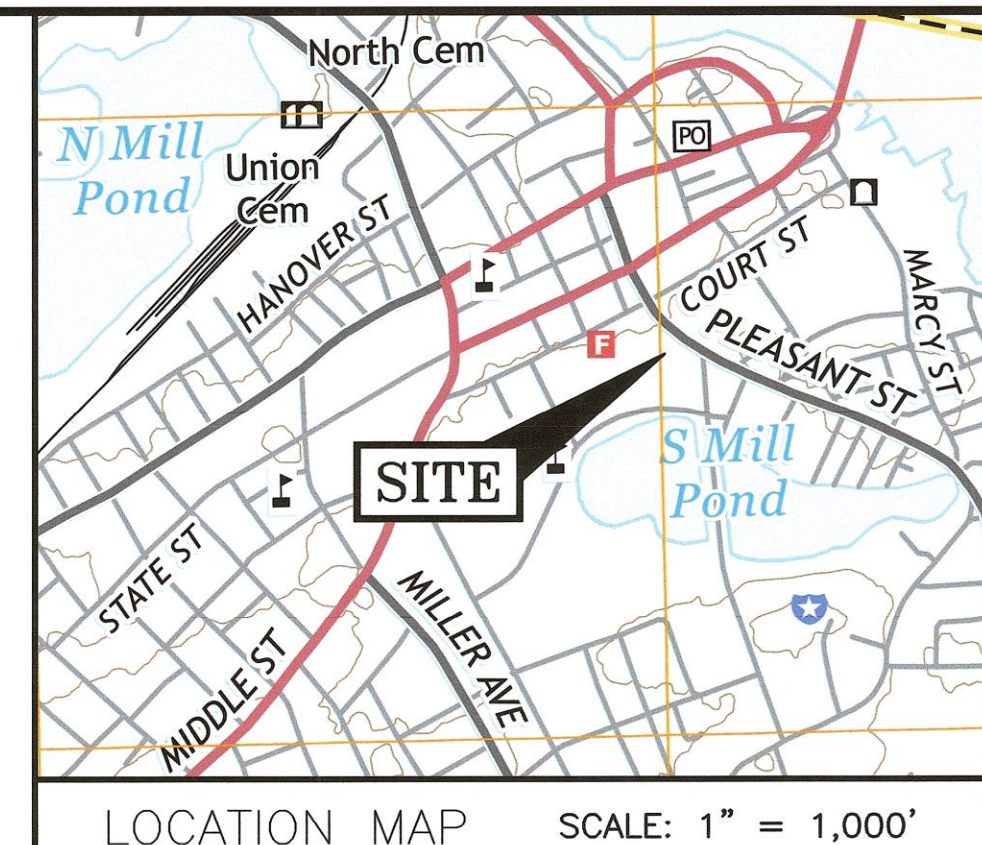


"I CERTIFY THAT THIS PLAN WAS PREPARED UNDER MY DIRECT SUPERVISION, THAT IT IS THE RESULT OF A FIELD SURVEY BY THIS OFFICE AND HAS AN ACCURACY OF THE CLOSED TRAVERSE THAT EXCEEDS THE PRECISION OF 1:15,000."

PHILIP A. YETMAN, LLS 1122 DATE 1/20/2026



- PLAN REFERENCES:**
- ALTA/ACSM LAND TITLE SURVEY FOR CITIZENS BANK OF NEW HAMPSHIRE, 134 PLEASANT STREET COUNTY OF ROCKINGHAM, PORTSMOUTH, N.H., PREPARED BY: MILLETTE, SPRAGUE & COLWELL, INC., DATED: JUNE 9, 1998, SCALE: 1"=20'. RCRD D-26343.
 - COURTHOUSE LOT SUBDIVISION OF LAND PREPARED FOR CITY OF PORTSMOUTH, PORTSMOUTH NEW HAMPSHIRE. PREPARED BY: THOMAS F. MORAN INC., DATED: JULY 1, 1988, SCALE: 1"=40'. RCRD D-18880.
 - PLAN OF BOUNDARY LINE PARROT AVENUE PARKING LOT FOR CITY OF PORTSMOUTH IN PORTSMOUTH, N.H., PREPARED BY: PARKER SURVEY ASSOC., INC., DATED: MAY 22, 1984, SCALE: 1"=20'. RCRD C-13957.
 - BOUNDARY PLAN LAND OF PORTSMOUTH HOUSING AUTHORITY COURT STREET PORTSMOUTH, N.H., TAX MAP 116, LOT 38. PREPARED BY: BERRY SURVEYING & ENGINEERING, DATED: MAY 30, 2014, SCALE: 1"=20'. NOT RECORDED.
 - LOT LINE RELOCATION PLAN TAX MAP 116-LOTS 38 & 37 FOR PORTSMOUTH HOUSING AUTHORITY. PREPARED BY: AMBIT ENGINEERING, INC., DATED: FEBRUARY 2018, SCALE: 1"=30'. RCRD D-41899.
 - BOUNDARY PLAN OF LAND TAX MAP 116-LOT 37 PREPARED FOR: PORTSMOUTH HOUSING AUTHORITY. PREPARED BY: AMBIT ENGINEERING INC., DATED: FEBRUARY 2020, RCRD D-42016.
 - LOT LINE ADJUSTMENT PLAN FOR DAVID L. BAKER, SR. IN PORTSMOUTH, N.H., PREPARED BY: SEACOAST ENGINEERING ASSOCIATES INC., DATED: MARCH 23, 1990, SCALE: 1"=20'. RCRD D-20209.
 - PLAN OF LOTS NOS. 202, 206 & 222 COURT STREET PORTSMOUTH, N.H., PREPARED BY: JOHN W. DURGIN CIVIL ENGINEERS, DATED: JANUARY 1974, SCALE: 1"=10'. RCRD C-4259.
 - CONDOMINIUM SITE PLAN FIREHOUSE TOWN HOMES CONDOMINIUM. PREPARED BY: AMBIT ENGINEERING, INC., DATED: JANUARY 2020, SCALE: 1"=10'. RCRD D-43127.
 - PLAN OF LAND ON PLEASANT STREET, IN THE TOWN OF PORTSMOUTH, PREPARED BY: BENJAMIN SHERMAN, DATED: 1922 AND REVISED MAY 6, 1942, SCALE: 1"=50', RCRD #00537.
 - PLAN OF LAND FOR SUSAN J. WENTWORTH EST., PORTSMOUTH, N.H., PREPARED BY: JOHN W. DURGIN, DATED: APRIL 22, 1940, SCALE: 1"=50'. RCRD #0937.



- NOTES:**
- PARCEL IS SHOWN ON THE CITY OF PORTSMOUTH ASSESSOR'S TAX MAP 116 AS LOT 30.
 - OWNERS OF RECORD: DOUBLE MC, LLC, 10 PLEASANT STREET SUITE 400 PORTSMOUTH, N.H. 03801 RCRD 8505/2411
 - PARCEL IS NOT IN A SPECIAL FLOOD HAZARD AREA AS SHOWN ON FIRM PANEL 33015C0259F, EFFECTIVE JANUARY 29, 2021.
 - EXISTING LOT AREA: 53,084 S.F. 1.22 ACRES
 - PARCEL IS LOCATED IN THE CHARACTER DISTRICT 4 (CD4) DISTRICT.
 - DIMENSIONAL REQUIREMENTS: SEE PORTSMOUTH ORDINANCE FOR REQUIREMENTS.
 - THE PURPOSE OF THIS PLAN IS TO SHOW THE RESULTS OF AN EXISTING CONDITIONS SURVEY OF ASSESSOR'S MAP 116, LOT 30 IN THE CITY OF PORTSMOUTH.
 - VERTICAL DATUM IS NAVD88. BASIS OF VERTICAL DATUM IS REDUNDANT RTM GNSS OBSERVATIONS.
 - PARCEL IS BENEFITED BY A RIGHT OF WAY TO COURT STREET AS DESCRIBED IN RCRD 1257/466.
 - PARCEL IS BENEFITED BY A RIGHT OF WAY AS DESCRIBED IN RCRD 2975/349 AND SHOWN ON RCRD D-18880 AND RCRD D-26343.
 - ABUTTER INFORMATION TAKEN FROM THE CITY OF PORTSMOUTH ASSESSORS GIS WEBSITE.
 - UNDERGROUND UTILITY LOCATIONS ARE BASED UPON BEST AVAILABLE EVIDENCE AND ARE NOT FIELD VERIFIED. LOCATING AND PROTECTING ANY ABOVEGROUND OR UNDERGROUND UTILITIES IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR AND/OR THE OWNER. UTILITY CONFLICTS SHOULD BE REPORTED AT ONCE TO THE DESIGN ENGINEER.

REV.	DATE	DESCRIPTION	BY	CHK
1	01-21-26	UPDATE EXISTING BLDG. UTILITIES	SJR	JRC
0	07-18-2025	ISSUED FOR COMMENT	RJB	PAY

SITE SURVEY

HALEY WARD
ENGINEERING | ENVIRONMENTAL | SURVEYING
200 Griffin Road, Unit 14
Portsmouth, NH 03801
603-430-9282

DOUBLE MC, LLC
134 PLEASANT STREET PORTSMOUTH, N.H.

EXISTING CONDITIONS PLAN

DATE: MARCH 2025 SCALE: 1"=30'

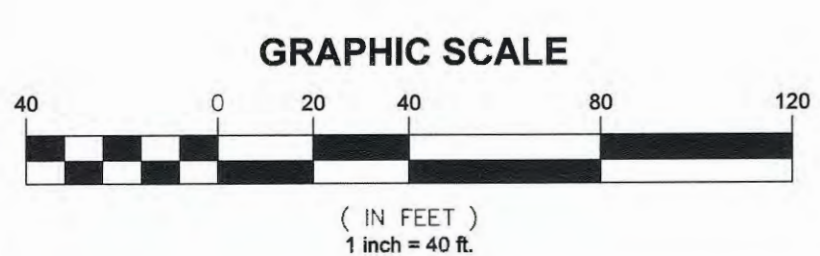
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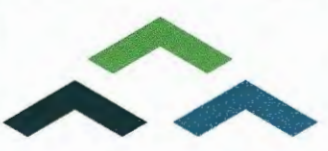
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DRAWING No: **V101** REV: **1**



NORTH
 NAD83(2011)
 GRID
 NHSPC

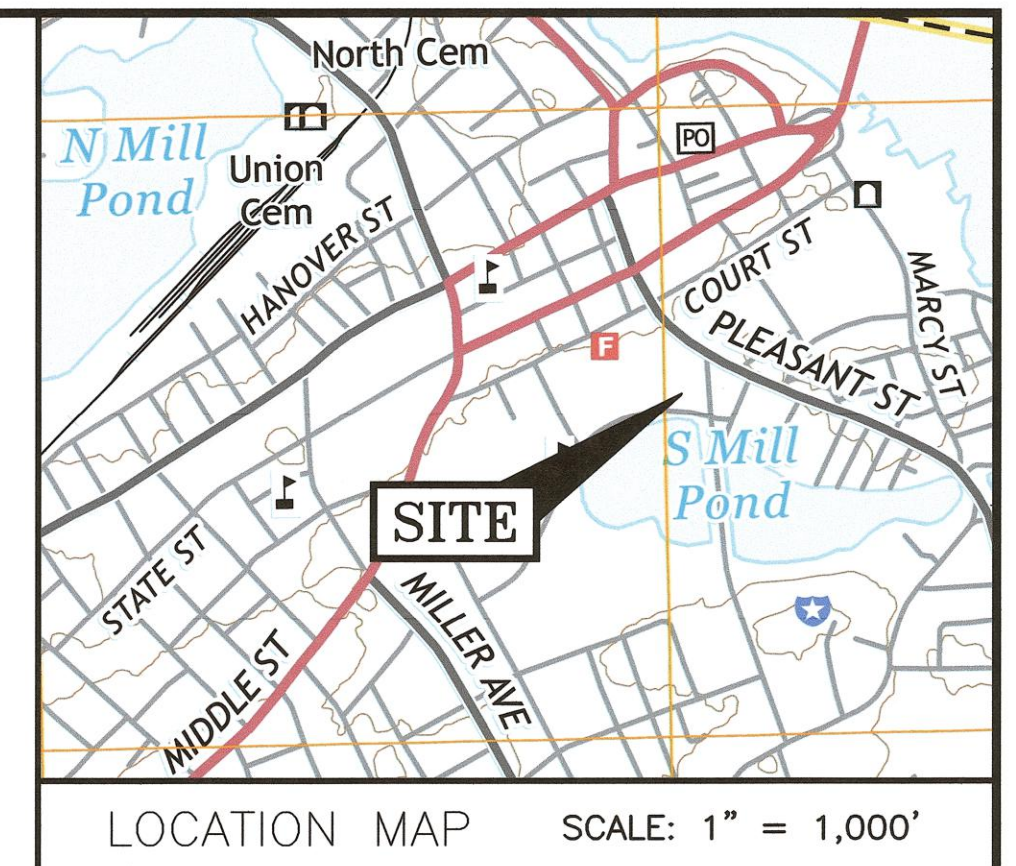


0	7/25/25	ISSUED FOR COMMENT	RJB	JRC
REV.	DATE	DESCRIPTION	BY	CHK.
DRAWING ISSUE STATUS				
SITE SURVEY				
		HALEY WARD ENGINEERING ENVIRONMENTAL SURVEYING 200 Griffin Road, Unit 14 Portsmouth, NH 03801 603-430-9282 WWW.HALEYWARD.COM		
PROJECT				
DOUBLE MC, LLC 134 PLEASANT STREET PORTSMOUTH, N.H.				
TITLE				
ORTHOPHOTO PLAN				
DATE		SCALE		
JULY 2025		1"=40'		
DRAWN BY	DESIGNED BY	CHECKED BY		
RJB	---	PAY		
PROJECT No.		FIELD BOOK / PAGE		
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DRAWING No.				REV.
V103				0

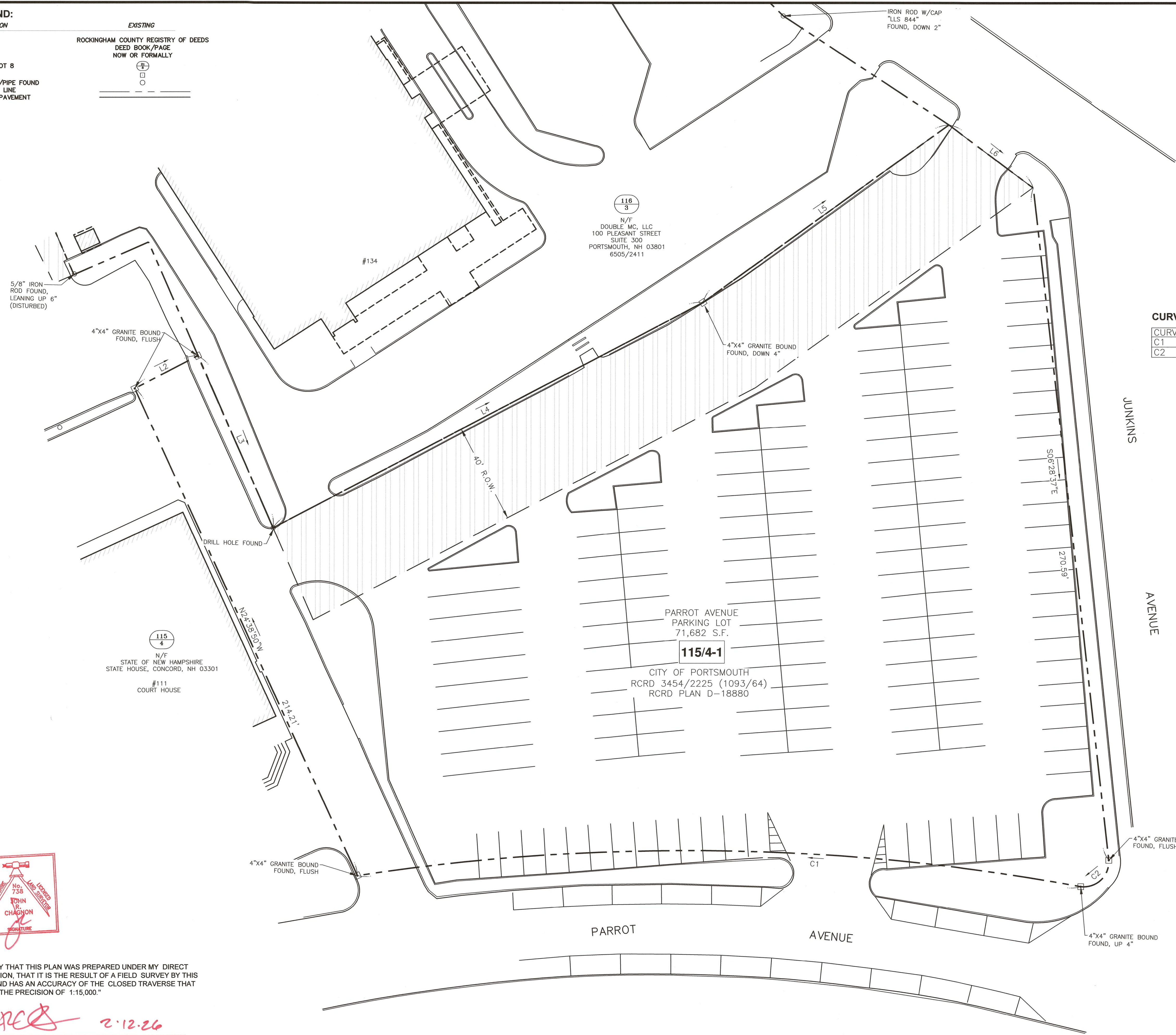
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LEGEND:

DESCRIPTION	EXISTING
RCRD 1234/123 N/F	ROCKINGHAM COUNTY REGISTRY OF DEEDS DEED BOOK/PAGE NOW OR FORMALLY
MAP 21 LOT 8 BOUND	
IRON ROD/PIPE FOUND PROPERTY LINE	
EDGE OF PAVEMENT	



NORTH
NAD83(2011)
GRID
NHSPC



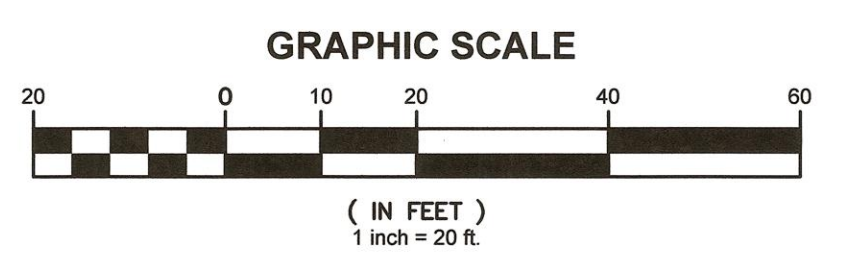
CURVE TABLE:

CURVE	RADIUS	ARC LENGTH	CHORD LENGTH	CHORD BEARING	DELTA ANGLE
C1	872.00'	290.98'	289.64'	N89°10'46"W	19°07'10"
C2	10.00'	17.54'	15.37'	S46°43'10"W	100°28'14"

LINE TABLE:

LINE	BEARING	DISTANCE
L2	N62°33'25"E	28.42'
L3	S23°46'15"E	75.06'
L4	N62°18'10"E	194.20'
L5	N54°09'10"E	121.33'
L6	S53°21'44"E	42.18'

109
25
N/F
THE RONALD P. BOURGEOULT
REVOCABLE TRUST
RONALD P. BOURGEOULT, TRUSTEE
222 PLEASANT STREET
PORTSMOUTH, NH 03801
5163/137



REV.	DATE	ISSUED FOR COMMENT	RJB	JRC
0	2/12/26			

SITE SURVEY



PROJECT
DOUBLE MC, LLC
134 PLEASANT STREET PORTSMOUTH, N.H.

PARROT AVENUE PARKING LOT

DATE	SCALE
FEBRUARY 2026	1"=20'
DRAWN BY RJB	DESIGNED BY ---
CHECKED BY JRC	
PROJECT No. 5010156.1532	FIELD BOOK / PAGE FB 276 PG 60
DRAWING No. V105	REV. 0

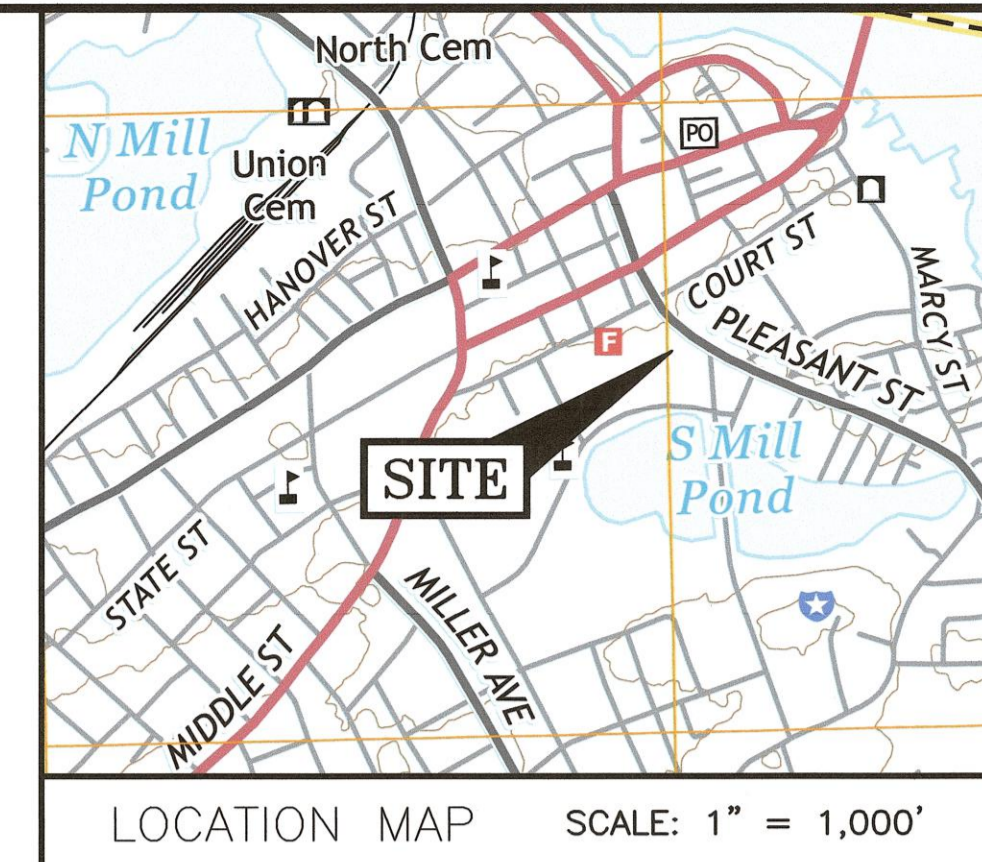
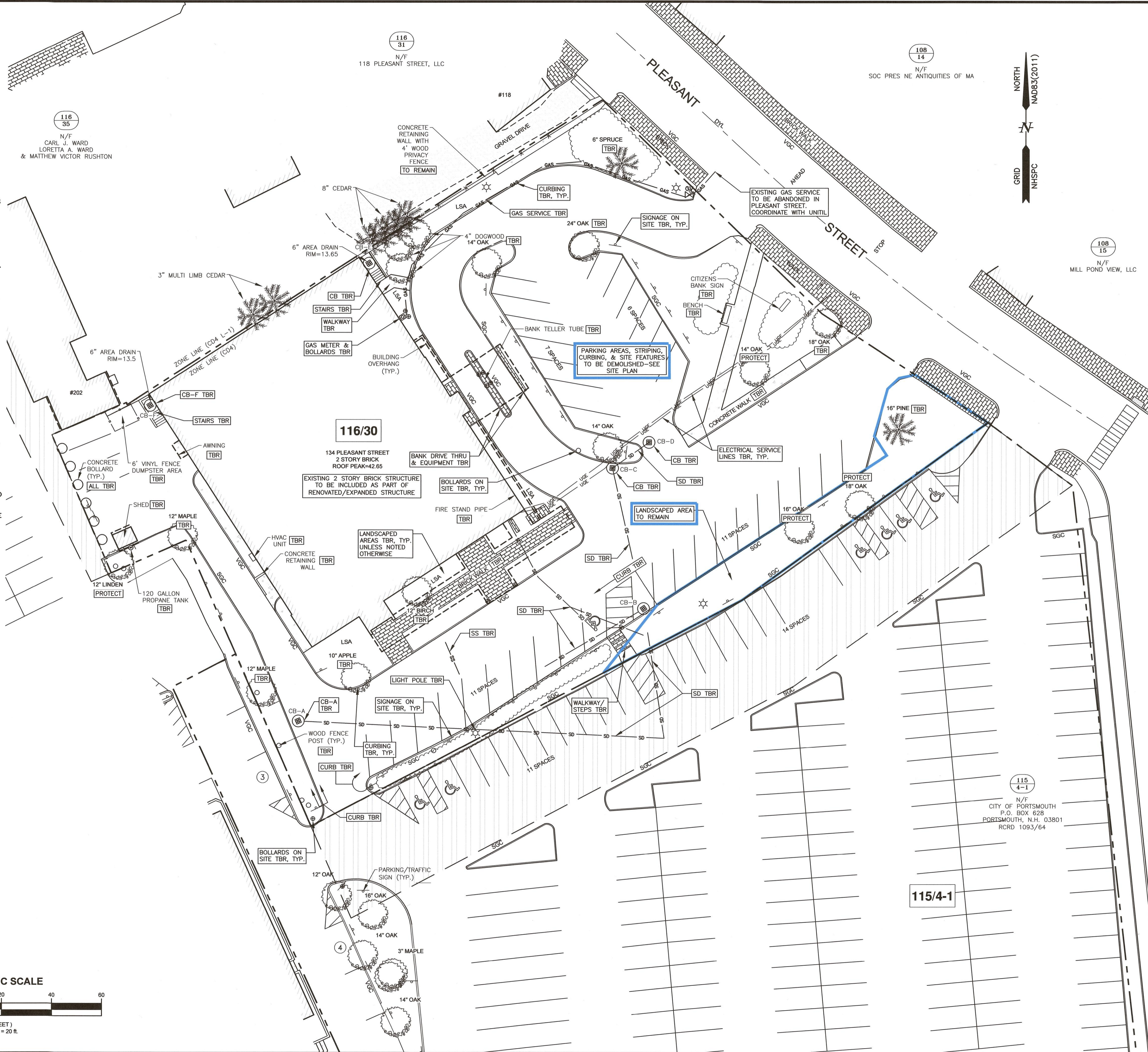
"I CERTIFY THAT THIS PLAN WAS PREPARED UNDER MY DIRECT SUPERVISION, THAT IT IS THE RESULT OF A FIELD SURVEY BY THIS OFFICE AND HAS AN ACCURACY OF THE CLOSED TRAVERSE THAT EXCEEDS THE PRECISION OF 1:15,000."

John R. Chagnon 2-12-26
JOHN R. CHAGNON, LLS 738 DATE

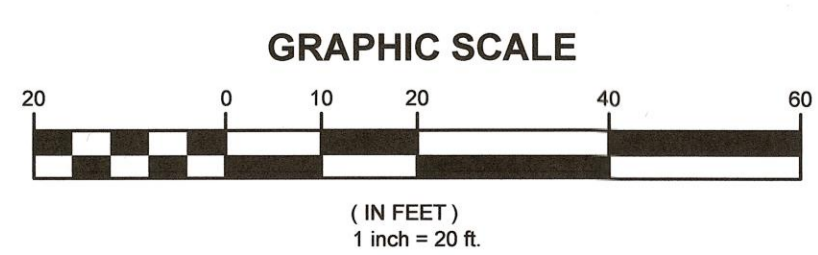
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DEMOLITION NOTES:

- A) THE LOCATIONS OF UNDERGROUND UTILITIES ARE APPROXIMATE AND THE LOCATIONS ARE NOT GUARANTEED BY THE OWNER OR THE DESIGNER. IT IS THE CONTRACTOR'S RESPONSIBILITY TO LOCATE UTILITIES AND ANTICIPATE CONFLICTS. CONTRACTOR SHALL REPAIR EXISTING UTILITIES DAMAGED BY THEIR WORK AND RELOCATE EXISTING UTILITIES THAT ARE REQUIRED TO BE RELOCATED PRIOR TO COMMENCING ANY WORK IN THE IMPACTED AREA OF THE PROJECT.
- B) ALL MATERIALS SCHEDULED TO BE REMOVED SHALL BECOME THE PROPERTY OF THE CONTRACTOR UNLESS OTHERWISE SPECIFIED. THE CONTRACTOR SHALL DISPOSE OF ALL MATERIALS OFF-SITE IN ACCORDANCE WITH ALL FEDERAL, STATE, AND LOCAL REGULATIONS, ORDINANCES AND CODES. THE CONTRACTOR SHALL COORDINATE REMOVAL, RELOCATION, DISPOSAL, OR SALVAGE OF UTILITIES WITH THE OWNER AND APPROPRIATE UTILITY COMPANY.
- C) ANY EXISTING WORK OR PROPERTY DAMAGED OR DISRUPTED BY CONSTRUCTION/ DEMOLITION ACTIVITIES SHALL BE REPLACED OR REPAIRED TO THE ORIGINAL EXISTING CONDITIONS BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER.
- D) THE CONTRACTOR SHALL VERIFY LOCATION OF ALL EXISTING UTILITIES AND CALL DIG SAFE AT LEAST 72 HOURS PRIOR TO THE COMMENCEMENT OF ANY DEMOLITION/CONSTRUCTION ACTIVITIES.
- E) SAWCUT AND REMOVE PAVEMENT ONE FOOT OFF PROPOSED EDGE OF PAVEMENT TRENCH IN AREAS WHERE PAVEMENT IS TO BE REMOVED.
- F) IT IS THE CONTRACTOR'S RESPONSIBILITY TO FAMILIARIZE THEMSELVES WITH THE CONDITIONS OF ALL THE PERMIT APPROVALS.
- G) THE CONTRACTOR SHALL OBTAIN AND PAY FOR ADDITIONAL CONSTRUCTION PERMITS, NOTICES AND FEES NECESSARY TO COMPLETE THE WORK AND ARRANGE FOR AND PAY FOR ANY INSPECTIONS AND APPROVALS FROM THE AUTHORITIES HAVING JURISDICTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY ADDITIONAL AND OFF-SITE DISPOSAL OF MATERIALS REQUIRED TO COMPLETE THE WORK.
- H) THE CONTRACTOR SHALL REMOVE AND DISPOSE OF ALL EXISTING STRUCTURES, CONCRETE, UTILITIES, VEGETATION, PAVEMENT, AND CONTAMINATED SOIL WITHIN THE WORK LIMITS SHOWN UNLESS SPECIFICALLY IDENTIFIED TO REMAIN. ANY EXISTING DOMESTIC / IRRIGATION SERVICE WELLS IN THE PROJECT AREA IDENTIFIED DURING THE CONSTRUCTION AND NOT CALLED OUT ON THE PLANS SHALL BE BROUGHT TO THE ATTENTION OF THE OWNER AND ENGINEER FOR PROPER CAPPING / RE-USE.
- I) PROVIDE INLET PROTECTION BARRIERS AT ALL CATCH BASINS WITHIN CONSTRUCTION LIMITS AND MAINTAIN FOR THE DURATION OF THE PROJECT. INLET PROTECTION BARRIERS SHALL BE HIGH FLOW SILT SACK BY ACF ENVIRONMENTAL OR APPROVED EQUAL. INSPECT BARRIERS WEEKLY AND AFTER EACH RAIN OF 0.25 INCHES OR GREATER. CONTRACTOR SHALL COMPLETE A MAINTENANCE INSPECTION REPORT AFTER EACH INSPECTION. SEDIMENT DEPOSITS SHALL BE REMOVED AFTER EACH STORM EVENT OR MORE OFTEN IF WARRANTED OR FABRIC BECOMES CLOGGED. EROSION CONTROL MEASURES SHALL BE INSTALLED PRIOR TO THE START OF ANY CLEARING OR DEMOLITION ACTIVITIES.
- J) THE CONTRACTOR SHALL PAY ALL COSTS NECESSARY FOR TEMPORARY PARTITIONING, BARRICADING, FENCING, SECURITY AND SAFETY DEVICES REQUIRED FOR THE MAINTENANCE OF A CLEAN AND SAFE CONSTRUCTION SITE.
- K) ANY CONTAMINATED MATERIAL REMOVED DURING THE COURSE OF THE WORK WILL REQUIRE HANDLING IN ACCORDANCE WITH NHDES REGULATIONS. CONTRACTOR SHALL HAVE A HEALTH AND SAFETY PLAN IN PLACE AND COMPLY WITH ALL APPLICABLE PERMITS, APPROVALS, AUTHORIZATIONS, AND REGULATIONS



- NOTES:**
- 1) THE CONTRACTOR SHALL NOTIFY DIG SAFE AT 1-888-DIG-SAFE (1-888-344-7233) AT LEAST 72 HOURS PRIOR TO COMMENCING ANY EXCAVATION ON PUBLIC OR PRIVATE PROPERTY.
 - 2) UNDERGROUND UTILITY LOCATIONS ARE BASED UPON BEST AVAILABLE EVIDENCE AND ARE NOT FIELD VERIFIED. LOCATING AND PROTECTING ANY ABOVEGROUND OR UNDERGROUND UTILITIES IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR AND/OR THE OWNER. UTILITY CONFLICTS SHOULD BE REPORTED AT ONCE TO THE DESIGN ENGINEER.
 - 3) CONTRACTOR SHALL INSTALL AND MAINTAIN EROSION CONTROL MEASURES IN ACCORDANCE WITH THE "NEW HAMPSHIRE STORMWATER MANUAL, VOLUME 3, EROSION AND SEDIMENT CONTROLS DURING CONSTRUCTION. (NHDES DECEMBER 2008).
 - 4) COORDINATE ACCESS IN STREET/ROW AREAS ADJACENT TO DEMOLITION TO INSURE SAFE PASSAGE. UTILIZE DETOURS IF NEEDED.
 - 5) EXISTING UTILITIES TO BE ABANDONED SHALL BE REMOVED TO THE UTILITY MAIN AND CAPPED PER THE UTILITY COMPANY REQUIREMENT.



REV.	DATE	DESCRIPTION	BY	CHK
3	04-07-26	EMERGENCY ACCESS ONLY	SJR	JRC
2	02-25-26	CB-A, SD PIPES	SJR	JRC
1	01-21-2026	UTILITY DEMO	SJR	JRC
0	07-18-2025	ISSUED FOR COMMENT	SJR	JRC

PERMIT PLANS

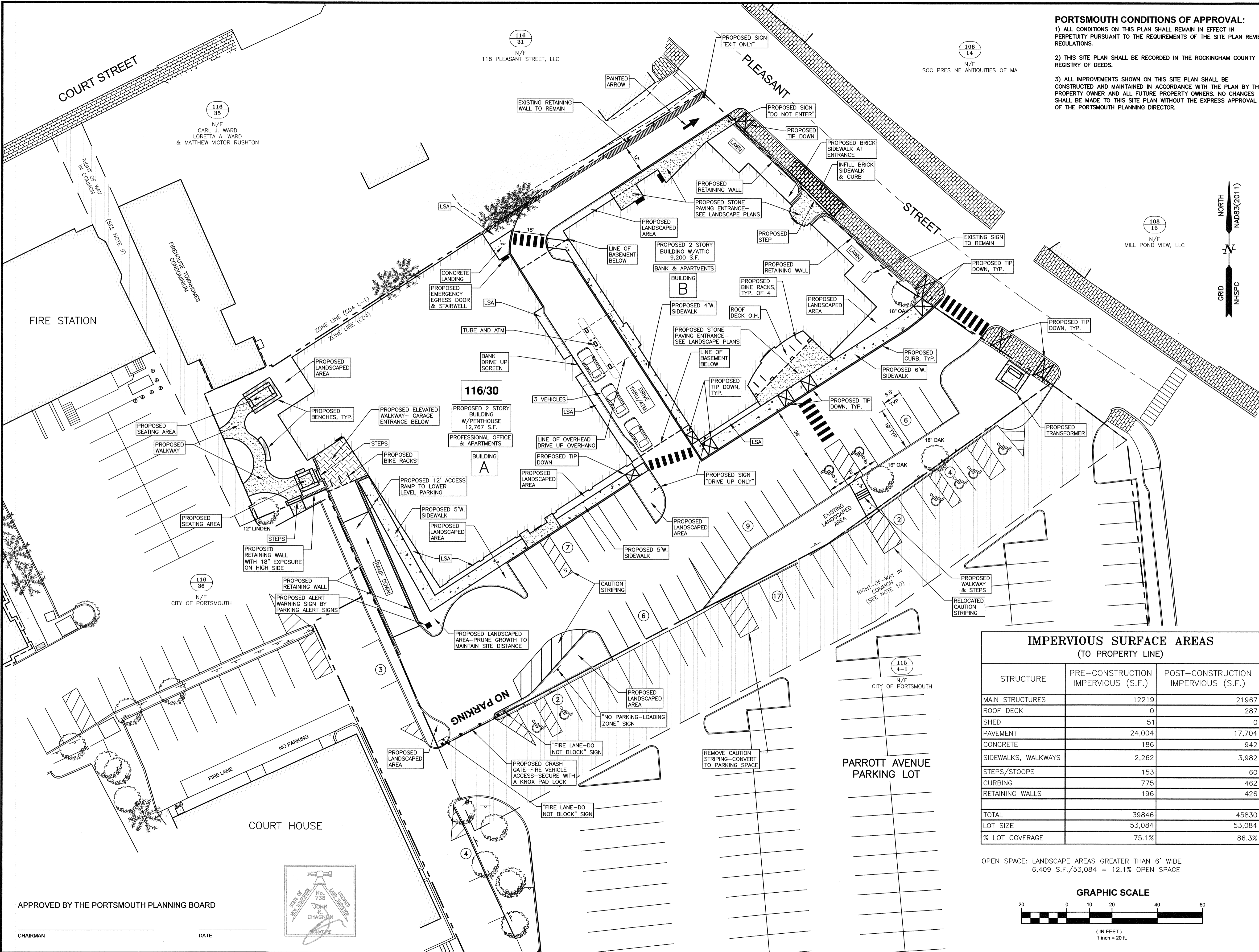
HALEY WARD
ENGINEERING | ENVIRONMENTAL | SURVEYING
200 Griffin Road, Unit 14
Portsmouth, NH 03801
603-430-9282
WWW.HALEYWARD.COM

PROJECT
DOUBLE MC, LLC
134 PLEASANT STREET PORTSMOUTH, N.H.

TITLE
DEMOLITION PLAN

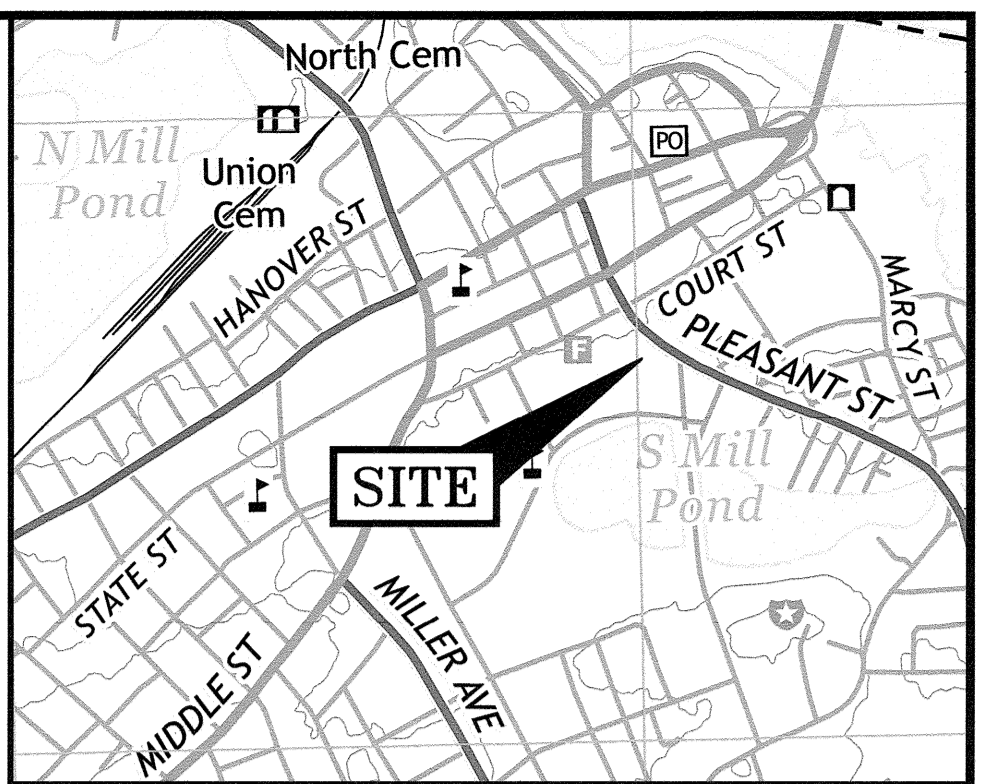
DATE JULY 2025	SCALE 1"=20'
DRAWN BY SJR	DESIGNED BY —
CHECKED BY JRC	
PROJECT No. 5010156.1532	FIELD BOOK / PAGE FB 276 PG 60
DRAWING No. C101	REV. 3

FILE LOCATION: P:\NH\010156\MCNAB\PROJECT\1532-14 PLEASANT ST. PORTSMOUTH-NH\CAD_FILES\CAD_1532_SITE_2026.DWG, 2026.04.08, 1:51 PM



PORTSMOUTH CONDITIONS OF APPROVAL:

- 1) ALL CONDITIONS ON THIS PLAN SHALL REMAIN IN EFFECT IN PERPETUITY PURSUANT TO THE REQUIREMENTS OF THE SITE PLAN REVIEW REGULATIONS.
- 2) THIS SITE PLAN SHALL BE RECORDED IN THE ROCKINGHAM COUNTY REGISTRY OF DEEDS.
- 3) ALL IMPROVEMENTS SHOWN ON THIS SITE PLAN SHALL BE CONSTRUCTED AND MAINTAINED IN ACCORDANCE WITH THE PLAN BY THE PROPERTY OWNER AND ALL FUTURE PROPERTY OWNERS. NO CHANGES SHALL BE MADE TO THIS SITE PLAN WITHOUT THE EXPRESS APPROVAL OF THE PORTSMOUTH PLANNING DIRECTOR.



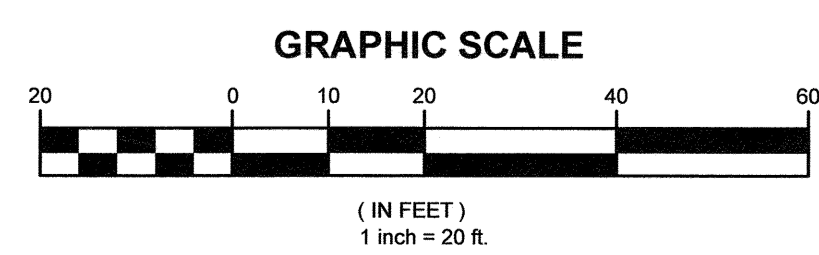
- NOTES:**
- 1) PARCEL IS SHOWN ON THE CITY OF PORTSMOUTH ASSESSOR'S TAX MAP 116 AS LOT 30.
 - 2) OWNERS OF RECORD:
DOUBLE MC, LLC
10 PLEASANT STREET SUITE 400
PORTSMOUTH, N.H. 03801
RCRD 6505/2411
 - 3) PARCEL IS NOT IN A SPECIAL FLOOD HAZARD AREA AS SHOWN ON FIRM PANEL 33015C0259F. EFFECTIVE JANUARY 29, 2021.
 - 4) EXISTING LOT AREA:
53,084 S.F.
1.22 ACRES
 - 5) PARCEL IS LOCATED IN THE CHARACTER DISTRICT 4 (CD4) DISTRICT.
 - 6) DIMENSIONAL REQUIREMENTS: SEE PORTSMOUTH ORDINANCE FOR REQUIREMENTS.
 - 7) THE PURPOSE OF THIS PLAN IS TO SHOW A PROPOSED MIXED USE DEVELOPMENT ON ASSESSOR'S MAP 116, LOT 30 IN THE CITY OF PORTSMOUTH.
 - 8) VERTICAL DATUM IS NAVD88. BASIS OF VERTICAL DATUM IS REDUNDANT RTN GNSS OBSERVATIONS.
 - 9) PARCEL IS BENEFITED BY A RIGHT OF WAY TO COURT STREET AS DESCRIBED IN RCRD 1257/466.
 - 10) PARCEL IS BENEFITED BY A RIGHT OF WAY AS DESCRIBED IN RCRD 2975/349 AND SHOWN ON RCRD D-18880 AND RCRD D-26343.
 - 11) ABUTTER INFORMATION TAKEN FROM THE CITY OF PORTSMOUTH ASSESSORS GIS WEBSITE.
 - 12) PROPOSED USES:
-RETAIL BANKING
-BANK HEADQUARTERS
-APARTMENTS
-PROFESSIONAL OFFICE
 - 13) CITY COUNCIL APPROVAL REQUIRED FOR WORK ON CITY PROPERTY. COORDINATION AND INSPECTIONS OF CONSTRUCTION REQUIRED.

REV.	DATE	DESCRIPTION	BY	CHK
8	04-07-2026	EMERGENCY ACCESS ONLY	SJR	JRC
7	02-03-2026	STOP, ONE-WAY SIGNS, USE	SJR	JRC
6	01-21-2026	TIP DOWNS, EXIT DOOR, PARKING, NOTE 13	SJR	JRC
5	12-30-2025	LANDSCAPE DETAIL	SJR	JRC
4	12-22-2025	BUILDING & SITE LAYOUT	SJR	JRC
3	10-08-2025	PLAN NOTES	SJR	JRC
2	09-22-2025	REVISED DRIVE THROUGH	SJR	JRC
1	09-05-2025	REVISED LAYOUT	SJR	JRC
0	07-18-2025	ISSUED FOR COMMENT	SJR	JRC

IMPERVIOUS SURFACE AREAS (TO PROPERTY LINE)

STRUCTURE	PRE-CONSTRUCTION IMPERVIOUS (S.F.)	POST-CONSTRUCTION IMPERVIOUS (S.F.)
MAIN STRUCTURES	12219	21967
ROOF DECK	0	287
SHED	51	0
PAVEMENT	24,004	17,704
CONCRETE	186	942
SIDEWALKS, WALKWAYS	2,262	3,982
STEPS/STOOPS	153	60
CURBING	775	462
RETAINING WALLS	196	426
TOTAL	39846	45830
LOT SIZE	53,084	53,084
% LOT COVERAGE	75.1%	86.3%

OPEN SPACE: LANDSCAPE AREAS GREATER THAN 6' WIDE
6,409 S.F./53,084 = 12.1% OPEN SPACE



PERMIT PLANS

ENGINEERING | ENVIRONMENTAL | SURVEYING
200 Griffin Road, Unit 14
Portsmouth, NH 03801
603-430-9282

DOUBLE MC, LLC
134 PLEASANT STREET PORTSMOUTH, N.H.

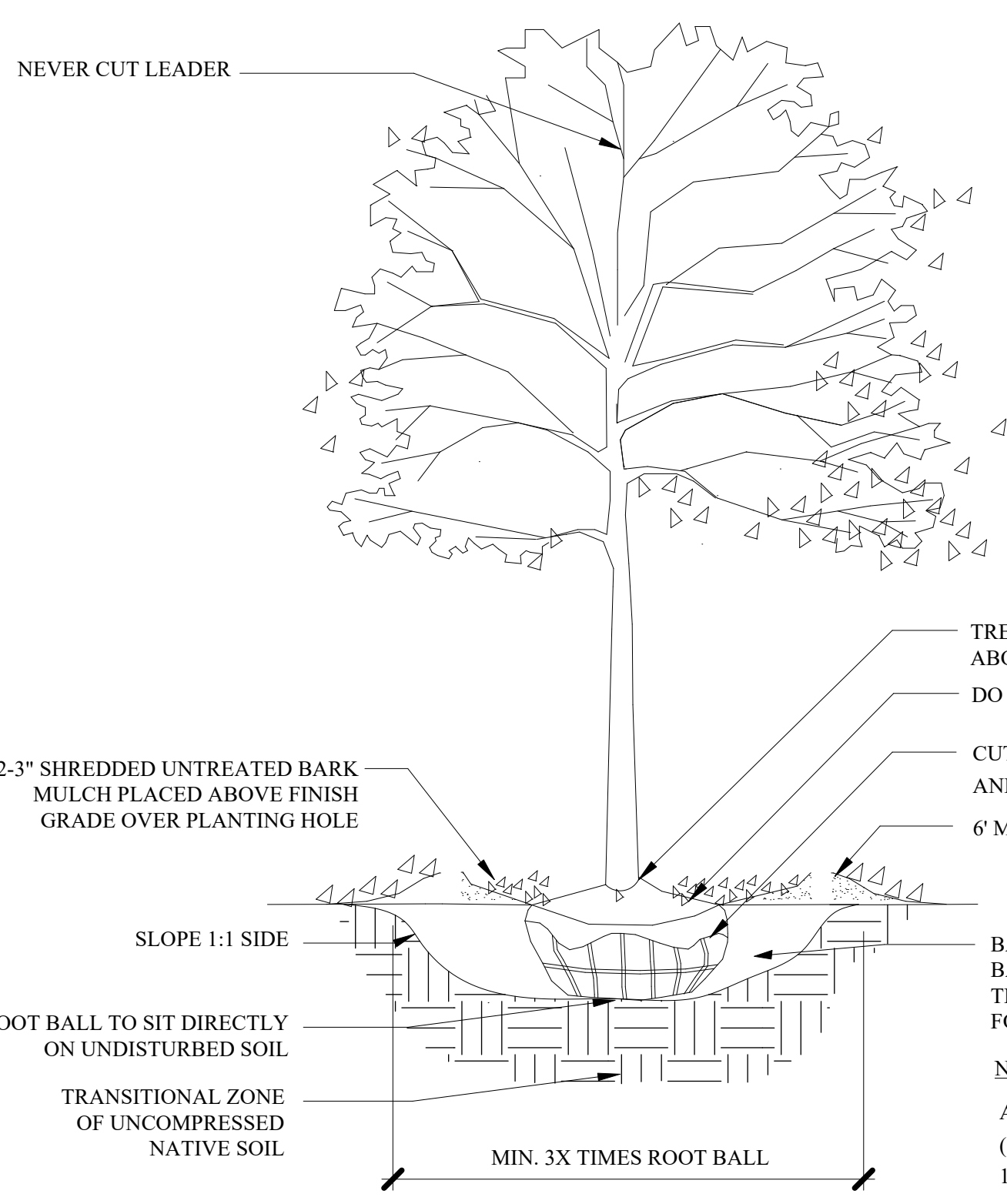
SITE PLAN

DATE	JULY 2025	SCALE	1"=20'
DRAWN BY	SJR	DESIGNED BY	—
CHECKED BY	JRC	PROJECT No.	5010156.1532
FIELD BOOK / PAGE	FB 276	PG 60	
DRAWING No.	C102	REV	8

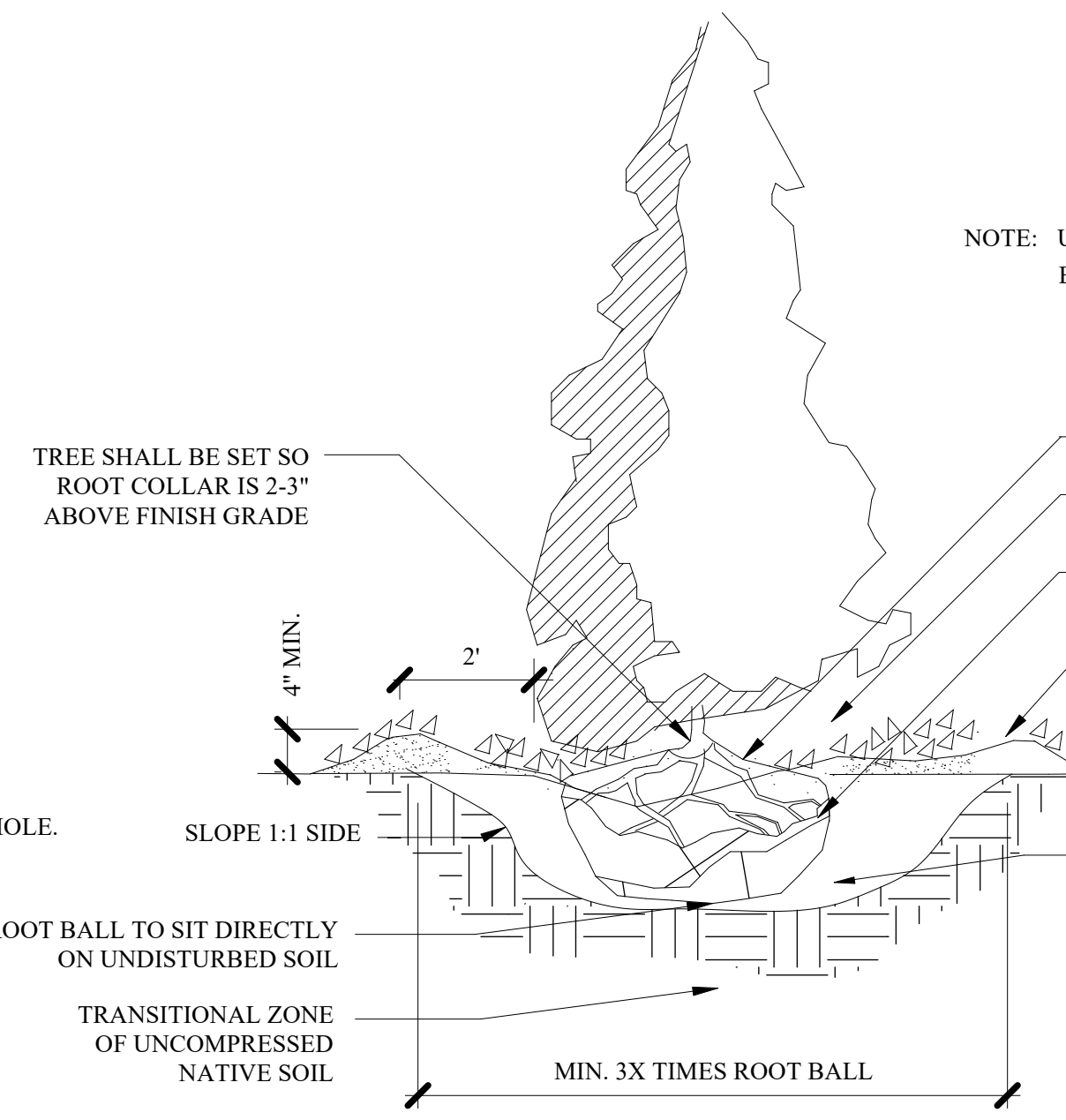
APPROVED BY THE PORTSMOUTH PLANNING BOARD

CHAIRMAN _____ DATE _____

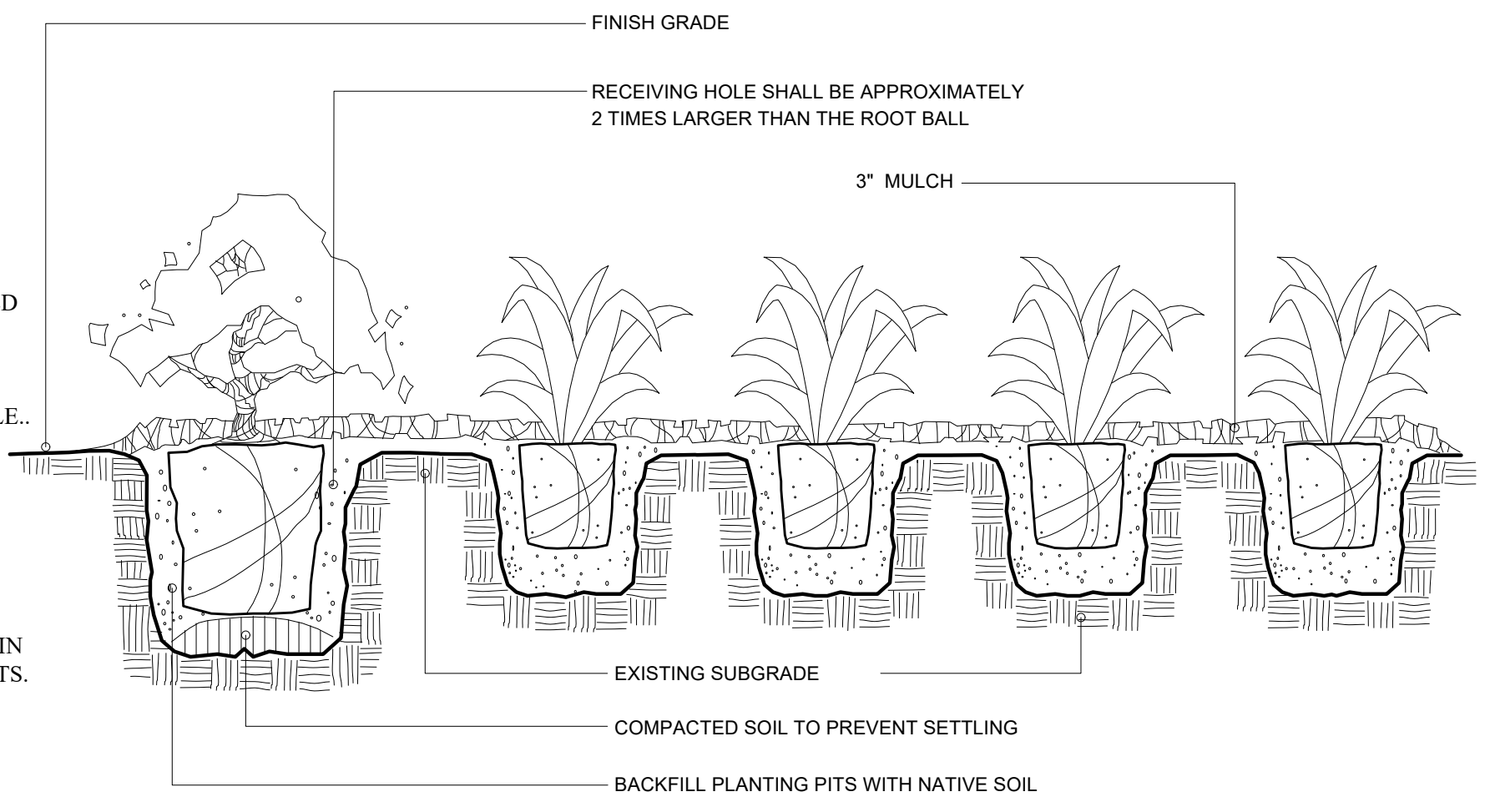
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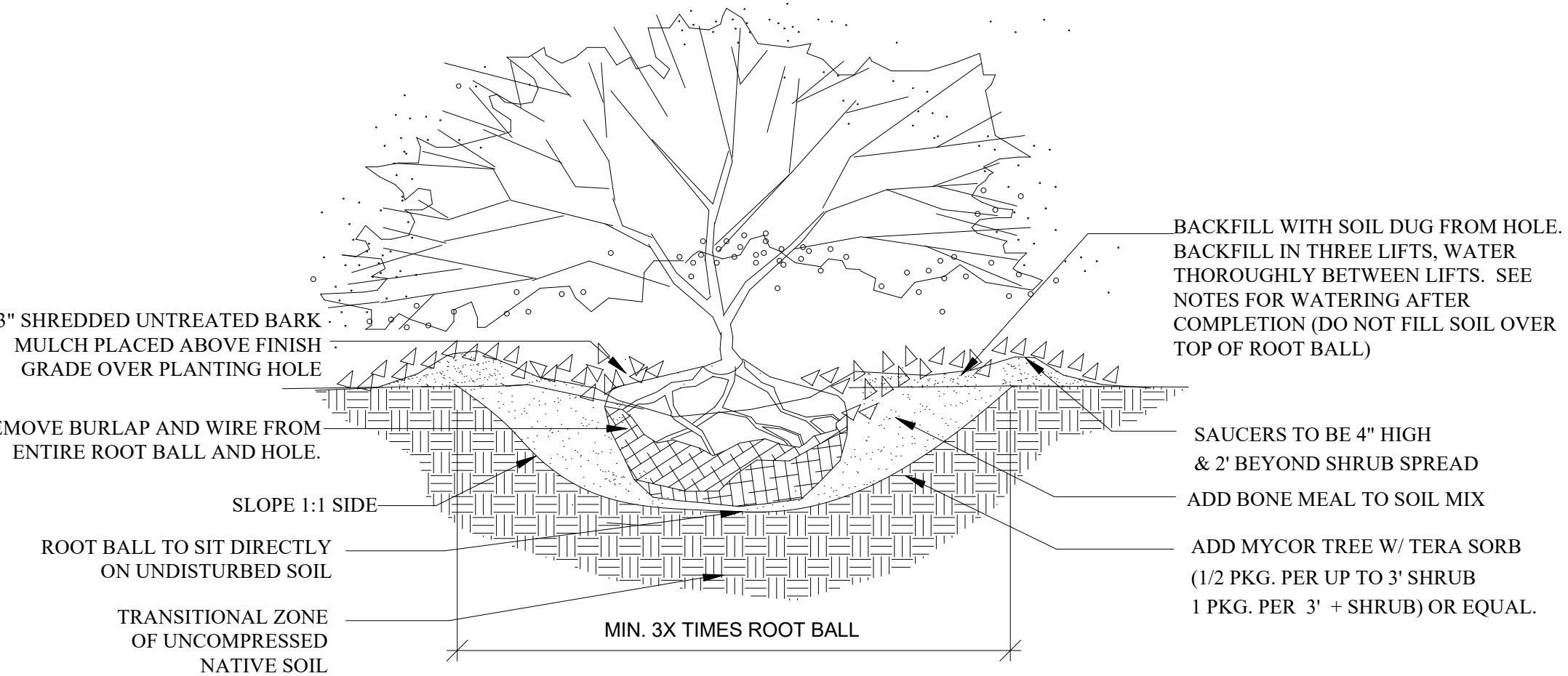
1
L-2
TREE PLANTING - 2'+ CAL.
SCALE: NTS



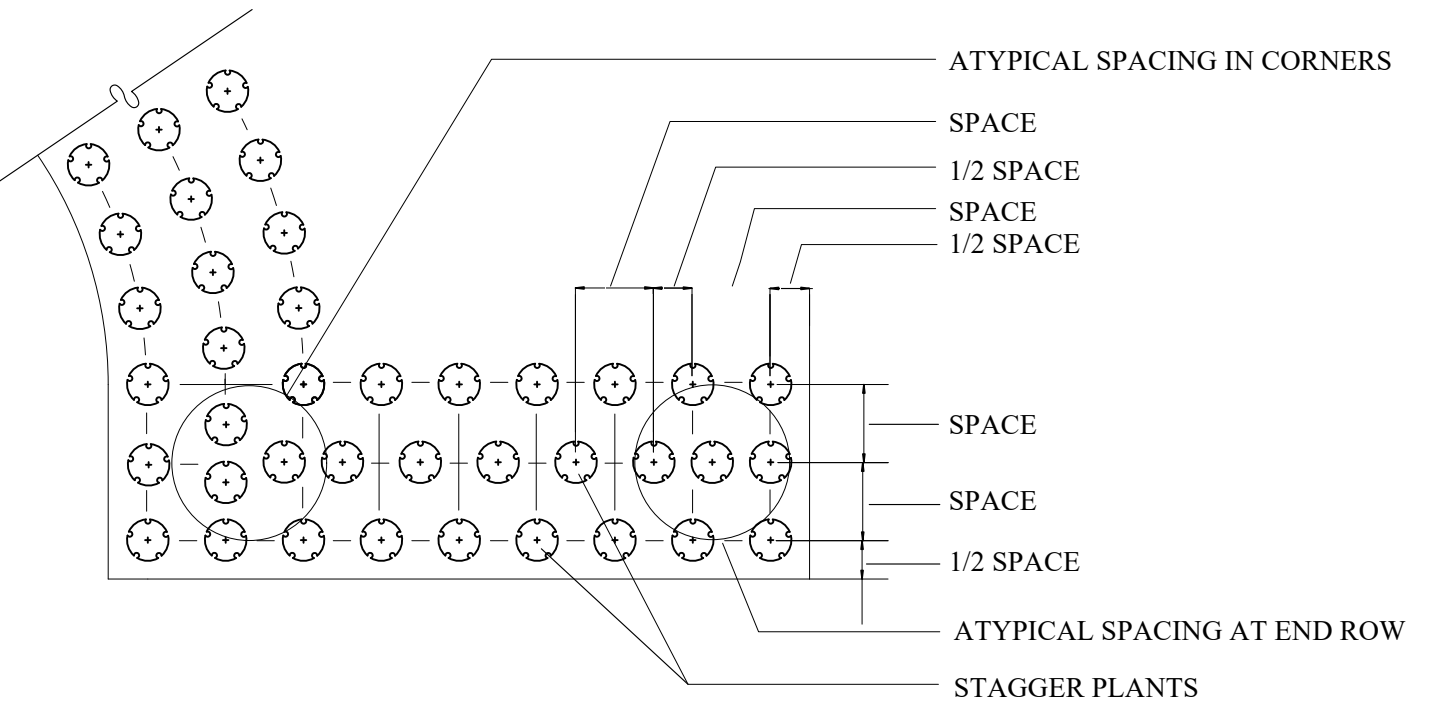
2
L-2
PYRAMIDAL EVERGREEN TREE PLANTING
SCALE: NTS



3
L-2
SHRUB/GROUND COVER PLANTING DETAIL
SCALE: NTS



4
L-2
B&B SHRUB PLANTING
SCALE: NTS



5
L-2
GROUND COVER SPACING DETAIL
SCALE: NTS

CITY OF PORTSMOUTH PLANTING REQUIREMENTS

1. All planting holes shall be dug by hand- NO MACHINES. The only exceptions are new construction where new planting pits, planting beds with granite curbing, and planting sites with Silva Cells are being created. If a machine is used to dig in any of these situations and planting depth needs to be raised the material in the bottom of the planting hole MUST be firmed with machine to prevent sinking of the root ball.
2. ALL Wire and Burlap shall be removed from the root ball AND planting hole.
3. The root ball of the tree shall be worked so that the root collar of the tree is visible and no girdling roots are present.
4. The root collar of the tree shall be 2"-3" above grade of planting hole for finished depth.
5. All plantings shall be backfilled with soil from the site and amended no more than 20% with Organic Compost. The only exceptions are new construction where engineered soil is being used in conjunction with Silva Cells and where new planting beds are being created.
6. All plantings shall be backfilled in three lifts and ALL lifts shall be watered so the planting will be set and free of air pockets- NO EXCEPTIONS.
7. An earth berm shall be placed around the perimeter of the planting hole except where curbed planting beds or pits are being used.
8. 2"-3" of mulch shall be placed over the planting area.
9. At the time the planting is complete the planting shall receive additional water to ensure complete hydration of the roots, backfill material and mulch layer.
10. Stakes and guys shall be used where appropriate and/or necessary. Guy material shall be nondamaging to the tree.
11. All planting stock shall be specimen quality, free of defects, and disease or injury. The City of Portsmouth, NH reserves the right to refuse/reject any plant material or planting action that fails to meet the standards set forth in the ANSI A300 Part 6 Standard Practices for Planting and Transplanting and/or The City of Portsmouth, NH Planting Requirements.

LANDSCAPE NOTES:

1. THE CONTRACTOR SHALL LOCATE AND VERIFY THE EXISTENCE OF ALL UTILITIES PRIOR TO STARTING WORK.
2. THE CONTRACTOR SHALL SUPPLY ALL PLANT MATERIALS IN QUANTITIES SUFFICIENT TO COMPLETE THE PLANTINGS SHOWN ON THE DRAWINGS.
3. ALL MATERIAL SHALL CONFORM TO THE GUIDELINES ESTABLISHED BY THE CURRENT AMERICAN STANDARD FOR NURSERY STOCK PUBLISHED BY THE AMERICAN ASSOCIATION OF NURSERYMEN.
4. ALL PLANT SUBSTITUTIONS MUST BE APPROVED BY THE LANDSCAPE ARCHITECT.
5. ALL PLANT MATERIALS SHALL BE EXACTLY AS SPECIFIED BY THE LANDSCAPE ARCHITECT. IF PLANT SPECIES CULTIVARS ARE FOUND TO VARY FROM THAT SPECIFIED AT ANY TIME DURING THE GUARANTEE PERIOD, THE LANDSCAPE ARCHITECT RESERVES THE RIGHT TO HAVE THE CONTRACTOR REPLACE THAT PLANT MATERIAL. THE LANDSCAPE ARCHITECT RESERVES THE RIGHT TO REJECT ANY PLANT DELIVERED TO THE SITE FOR AESTHETIC REASONS BEFORE PLANTING. THE LANDSCAPE CONTRACTOR IS RESPONSIBLE FOR THE QUALITY FOR ALL THE PLANTS.
6. PLANTS SHALL BE SUBJECT TO INSPECTION AND APPROVAL AT THE PLACE OF GROWTH, UPON DELIVERY OR AT THE JOB SITE WHILE WORK IS ON-GOING TO CONFORMITY TO SPECIFIED QUALITY, SIZE AND VARIETY.
7. PLANTS FURNISHED IN CONTAINERS SHALL HAVE THE ROOTS WELL ESTABLISHED IN THE SOIL MASS AND SHALL HAVE AT LEAST ONE (1) GROWING SEASON. ROOT-BOUND PLANTS OR INADEQUATELY SIZED CONTAINERS TO SUPPORT THE PLANT MAY BE DEEMED UNACCEPTABLE.
8. NO PLANT SHALL BE PUT IN THE GROUND BEFORE GRADING HAS BEEN FINISHED AND APPROVED BY THE LANDSCAPE ARCHITECT.
9. ALL PLANTS SHALL BE INSTALLED AND DETAILED PER PROJECT SPECIFICATIONS.
10. ALL PLANTS SHALL BE WATERED THOROUGHLY TWICE DURING THE FIRST 24-HOUR PERIOD AFTER PLANTING. ALL PLANTS SHALL BE WATERED WEEKLY, OR MORE OFTEN IF NECESSARY, DURING THE FIRST GROWING SEASON.
11. ALL PLANTS SHALL BE GUARANTEED BY THE CONTRACTOR FOR NOT LESS THAN ONE FULL YEAR FROM THE TIME OF PROVISIONAL ACCEPTANCE. DURING THIS TIME, THE OWNER SHALL MAINTAIN ALL PLANT MATERIALS IN THE ABOVE MANNER. IT IS THE CONTRACTOR'S RESPONSIBILITY TO INSPECT THE PLANTS TO ENSURE PROPER CARE. IF THE CONTRACTOR IS DISSATISFIED WITH THE CARE GIVEN, HE SHALL IMMEDIATELY, AND IN SUFFICIENT TIME TO PERMIT THE CONDITION TO BE RECTIFIED, NOTIFY THE LANDSCAPE ARCHITECT IN WRITING OR OTHERWISE FORFEIT HIS CLAIM. LANDSCAPE CONTRACTOR SHALL PRUNE PLANTINGS OF DEAD LIMBS OR TWIGS DURING THE FIRST YEAR OF GROWTH.
12. FINAL ACCEPTANCE BY THE LANDSCAPE ARCHITECT WILL BE MADE UPON THE CONTRACTOR'S REQUEST AFTER ALL CORRECTIVE WORK HAS BEEN COMPLETED.
13. LANDSCAPE CONTRACTOR SHOULD REPLACE DEAD PLANTINGS IMMEDIATELY UPON OWNER DIRECTION WITHIN THE WARRANTY PERIOD AND AGAIN AT THE END OF THE GUARANTEE PERIOD. THE CONTRACTOR SHALL HAVE REPLACED ANY PLANT MATERIAL THAT IS MISSING, NOT TRUE TO SIZE AS SPECIFIED, THAT HAVE DIED, THAT HAVE LOST THEIR NATURAL SHAPE DUE TO DEAD BRANCHES, EXCESSIVE PRUNING OR INADEQUATE OR IMPROPER CARE, OR THAT ARE, IN THE OPINION OF THE LANDSCAPE ARCHITECT, IN UNHEALTHY OR UNSIGHTLY CONDITION.
14. ALL LANDSCAPE AREAS TO BE GRASS COMMON TO REGION EXCEPT FOR INTERIOR LANDSCAPED ISLANDS OR WHERE OTHER PLANT MATERIAL IS CALLED FOR.
15. ALL TREES AND SHRUBS TO BE PLANTED IN MULCH BEDS WITH DEFINED AND CUT EDGES TO SEPARATE TURF GRASS AREAS.
16. FOR ANY LANDSCAPE AREA SO DESIGNATED TO REMAIN, WHETHER ON OR OFF-SITE, REMOVE WEEDS, ROCKS, CONSTRUCTION ITEMS, ETC., THEN APPLY GRASS SEED OR PINE BARK MULCH AS DEPICTED ON PLANS.
17. LANDSCAPE CONTRACTOR SHALL FEED AND PRUNE EX. TREES, ON OR JUST OFF SITE, THAT HAVE EXPERIENCED ROOT BASE INTRUSION OR DAMAGE DURING CONSTRUCTION IMMEDIATELY AND FOR THE DURATION OF THE WARRANTY PERIOD AT THE DIRECTION OF THE LANDSCAPE ARCHITECT.
18. EXISTING TREES TO REMAIN SHALL BE PROTECTED WITH TEMPORARY SNOW FENCING AT THE EDGE OF THE EX. TREE CANOPY THE CONTRACTOR SHALL NOT STORE VEHICLES OR MATERIALS WITHIN THE LANDSCAPED AREAS. ANY DAMAGE TO EXISTING TREES, SHRUBS OR LAWN SHALL BE REPAIRED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER.
19. ALL MULCH AREAS SHALL RECEIVE A 3" LAYER OF SHREDDED PINE BARK MULCH.
20. ALL WORK SHALL BE DONE IN STRICT ACCORDANCE WITH PROJECT SPECIFICATIONS.

NOTE: 6 INCHES OF TOPSOIL WITH 25% COMPOST TO BE ADDED TO ALL PLANTING AREAS

PLEASE NOTE: SHEET SIZE IS SCALED FOR ASME D . DO NOT REDUCE OR ENLARGE.



165a Court Street Portsmouth, NH 03801
603.551.9109 | terence@terrafirmalandscape.com

134 PLEASANT
134 PLEASANT STREET
PORTSMOUTH, NH

Project Title



Landscape Architect

Scale

SEE DETAILS

REV. DATE DESCRIPTION

C	4/7/2025	Site Layout Update
B	2/25/2025	PB Submission
A	1/21/2025	TAC Submission

Project Manager	Drawn By
Date: 9/18/2025	Reviewed By
Project ID: 134 PLEASANT	

Sheet Title

LANDSCAPE PLAN

Sheet No.

L-2



767 ISLINGTON ST. STE 2A
 PORTSMOUTH NH 03801
 603.988.0042
 www.ARCove.com

134 PLEASANT STREET

PORTSMOUTH, NH 03801

PROJECT NO: 1028

OWNER

Double Mc, LLC
 134 Pleasant Street
 Portsmouth, New Hampshire 03801

CIVIL ENGINEERING

Haley Ward
 200 Griffin Road, Unit
 Portsmouth, NH 03801
 (603) 430-9282

LANDSCAPE ARCHITECT

Terra Firma Landscape Architecture
 163a Court St
 Portsmouth, NH 03801
 (603) 531-9109



BASEMENT FLOOR PLAN

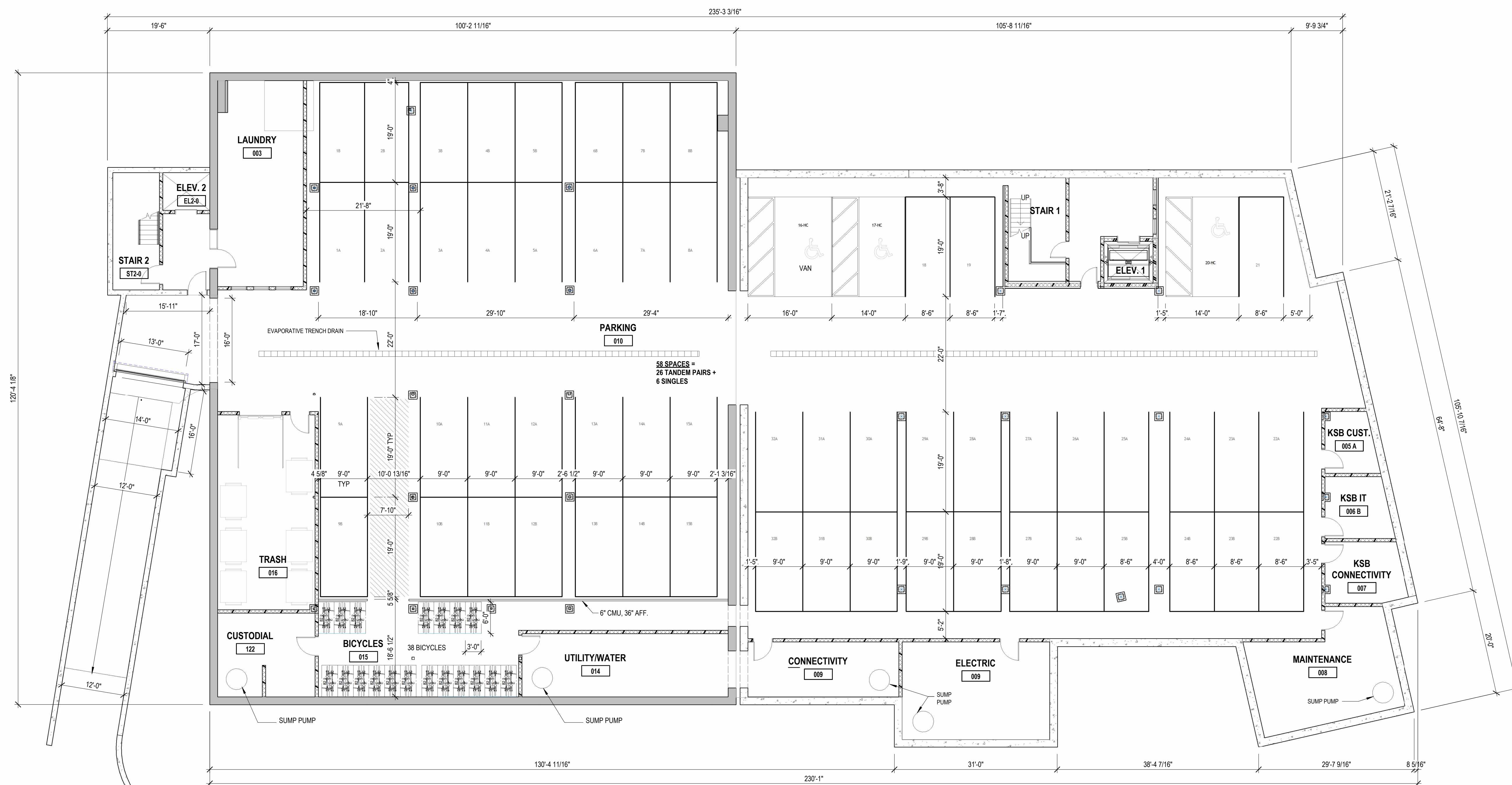
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DATE: 04/06/2026

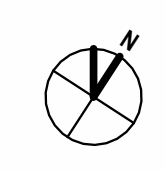
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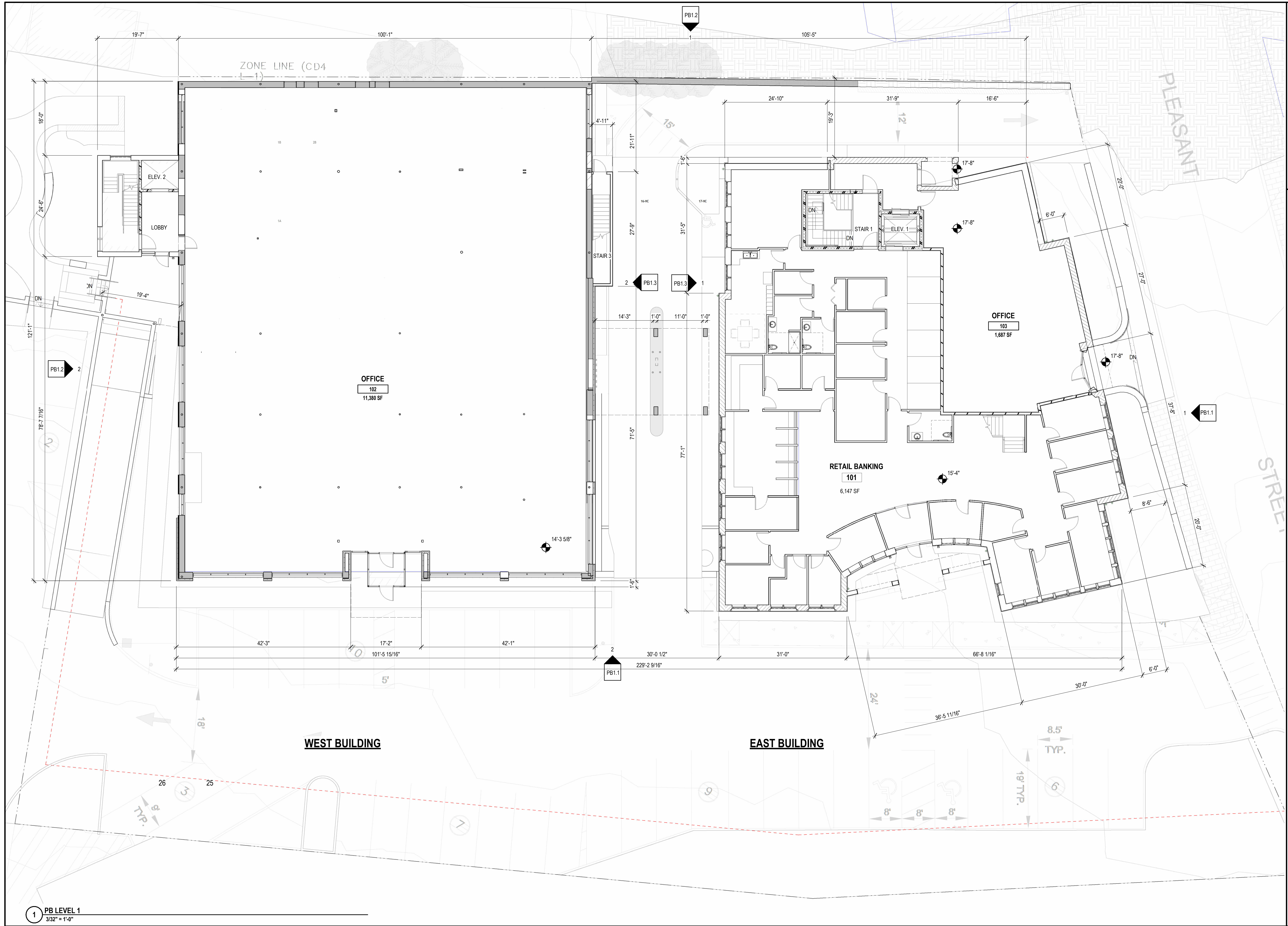
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PB0.1



1 PB BASEMENT
 3/32" = 1'-0"





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 PORTSMOUTH NH 03801
 603.988.0042
 www.ARCove.com

134 PLEASANT STREET
 PORTSMOUTH, NH 03801

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 Portsmouth, New Hampshire 03801

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LANDSCAPE ARCHITECT
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 163a Court St
 Portsmouth, NH 03801
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LEVEL 1 FLOOR PLANS

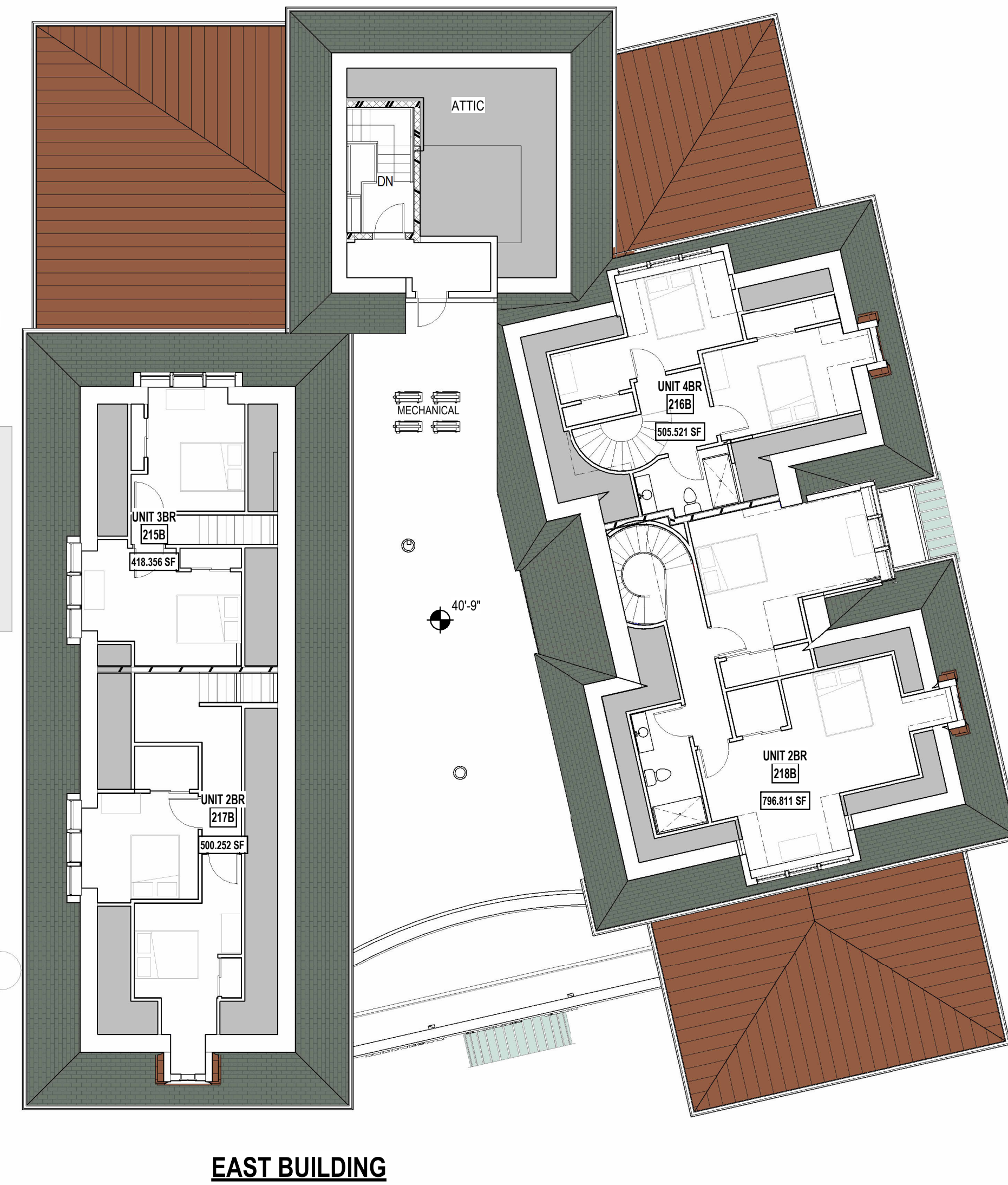
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 DATE: 04/06/2026
 DRAWN: HA
 CHECKED: TK

PB0.2

1 PB LEVEL 1
 3/32" = 1'-0"

AREA OF PENTHOUSE : 5,329 SF
 AREA OF FLOOR BELOW: 12,675 SF

PENTHOUSE TO FLOOR BELOW: 42%



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134 PLEASANT STREET

PORTSMOUTH, NH 03801

PROJECT NO: 1028

OWNER

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 134 Pleasant Street
 Portsmouth, New Hampshire 03801

CIVIL ENGINEERING

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 200 Griffin Road, Unit
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 (603) 430-9282

LANDSCAPE ARCHITECT

Terra Firma Landscape Architecture
 163a Court St
 Portsmouth, NH 03801
 (603) 531-9109

PENTHOUSE / ATTIC FLOOR PLANS

SCALE: 3/32" = 1'-0"
 DATE: 04/06/2026
 DRAWN: HA
 CHECKED: TK

PB0.4





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PORTSMOUTH NH 03801
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134 PLEASANT STREET

PORTSMOUTH, NH 03801

PROJECT NO: 1028

OWNER

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134 Pleasant Street
Portsmouth, New Hampshire 03801

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200 Griffin Road, Unit
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(603) 430-9282

LANDSCAPE ARCHITECT

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163a Court St
Portsmouth, NH 03801
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ROOF PLAN

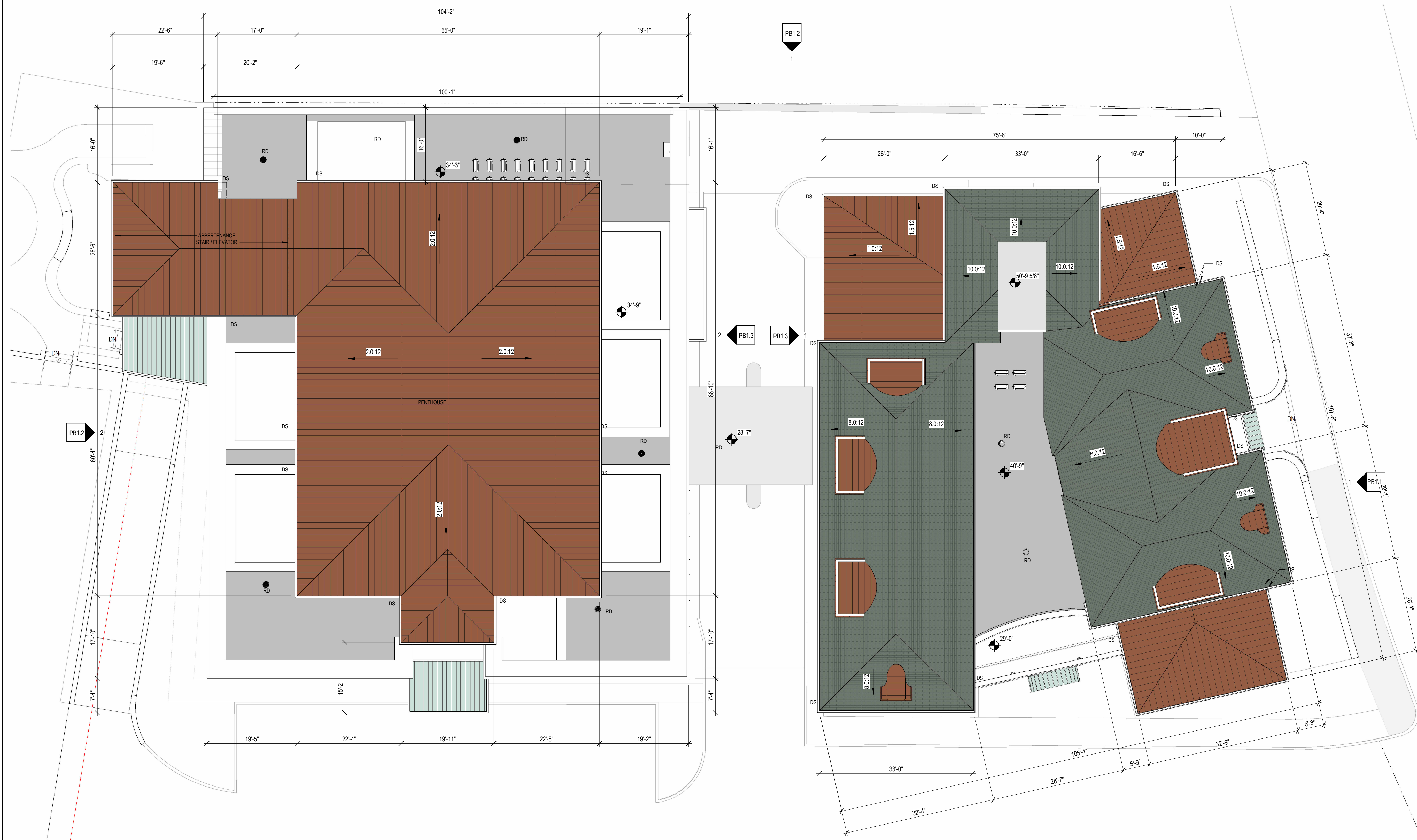
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DATE: 04/06/2026

DRAWN: HA

CHECKED: TSK

PB0.5



134 PLEASANT STREET

PORTSMOUTH, NH 03801

PROJECT NO: 1028

OWNER

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 134 Pleasant Street
 Portsmouth, New Hampshire 03801

CIVIL ENGINEERING

Haley Ward
 200 Griffin Road, Unit
 Portsmouth, NH 03801
 (603) 430-9282

LANDSCAPE ARCHITECT

Terra Firma Landscape Architecture
 163a Court St
 Portsmouth, NH 03801
 (603) 531-9109



SOUTH - EAST ELEVATIONS

SCALE: 3/32" = 1'-0"

DATE: 04/06/2026

DRAWN: HA

CHECKED: TK

PB1.1

134 PLEASANT STREET

PORTSMOUTH, NH 03801

PROJECT NO: 1028

OWNER

Double Mc, LLC
 134 Pleasant Street
 Portsmouth, New Hampshire 03801

CIVIL ENGINEERING

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1 PB NORTH ELEVATION
 3/32" = 1'-0"



2 PB WEST ELEVATION
 3/32" = 1'-0"

NORTH - WEST ELEVATIONS

SCALE: 3/32" = 1'-0"

DATE: 04/06/2026

DRAWN: HA

CHECKED: TK

PB1.2

134 PLEASANT STREET

PORTSMOUTH, NH 03801

PROJECT NO: 1028

OWNER

Double Mc, LLC
 134 Pleasant Street
 Portsmouth, New Hampshire 03801

CIVIL ENGINEERING

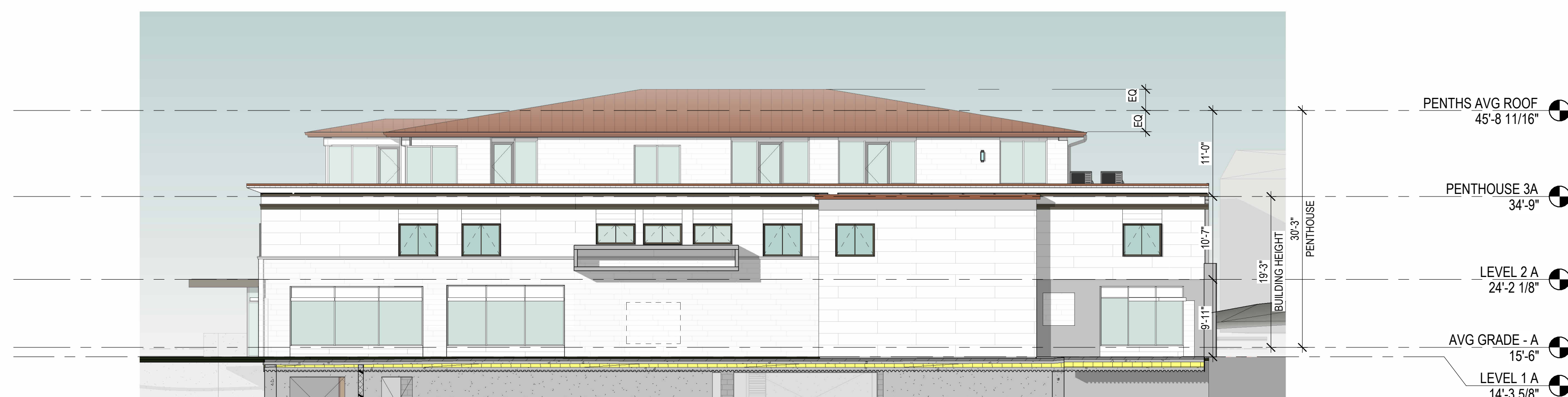
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 Portsmouth, NH 03801
 (603) 430-9282

LANDSCAPE ARCHITECT

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 Portsmouth, NH 03801
 (603) 531-9109



1 DRIVE-THROUGH: EAST ELEVATION OF WEST BUILDING
 3/32" = 1'-0"



2 DRIVE-THROUGH: WEST ELEVATION OF EAST BUILDING
 3/32" = 1'-0"

SIDE ELEVATIONS

SCALE: 3/32" = 1'-0"

DATE: 04/06/2026

DRAWN: HA

CHECKED: TK



VIEW FROM LANGDON HOUSE PB



VIEW FROM PLEASANT STREET AT TREADWELL HOUSE PB



VIEW FROM JUNKINS AVENUE AT CITY HALL PB



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134 PLEASANT STREET

PORTSMOUTH, NH 03801

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VIGNETTES

SCALE:

DATE: 04/06/2026
 DRAWN: HA
 CHECKED: TK

PB2.1



VIEW FROM PLEASANT STREET



3D View SW



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Portsmouth, New Hampshire 03801

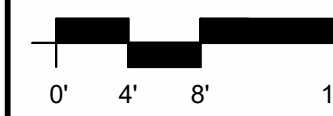
CIVIL ENGINEERING

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(603) 430-9282

LANDSCAPE ARCHITECT

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(603) 531-9109

VIGNETTES



SCALE:

DATE: 04/06/2026

DRAWN: HA

CHECKED: Checker

PB2.2



VIEW FROM JUNKINS AVENUE AT CITY HALL PB



VIEW FROM JUNKINS AVENUE AT CITY HALL PB



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134 PLEASANT STREET

PORTSMOUTH, NH 03801

PROJECT NO: 1028

OWNER

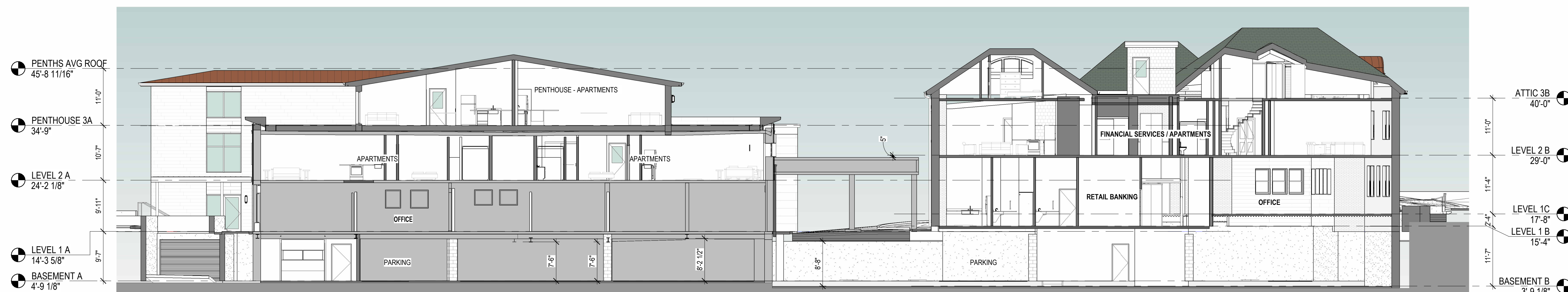
Double Mc, LLC
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Portsmouth, New Hampshire 03801

CIVIL ENGINEERING

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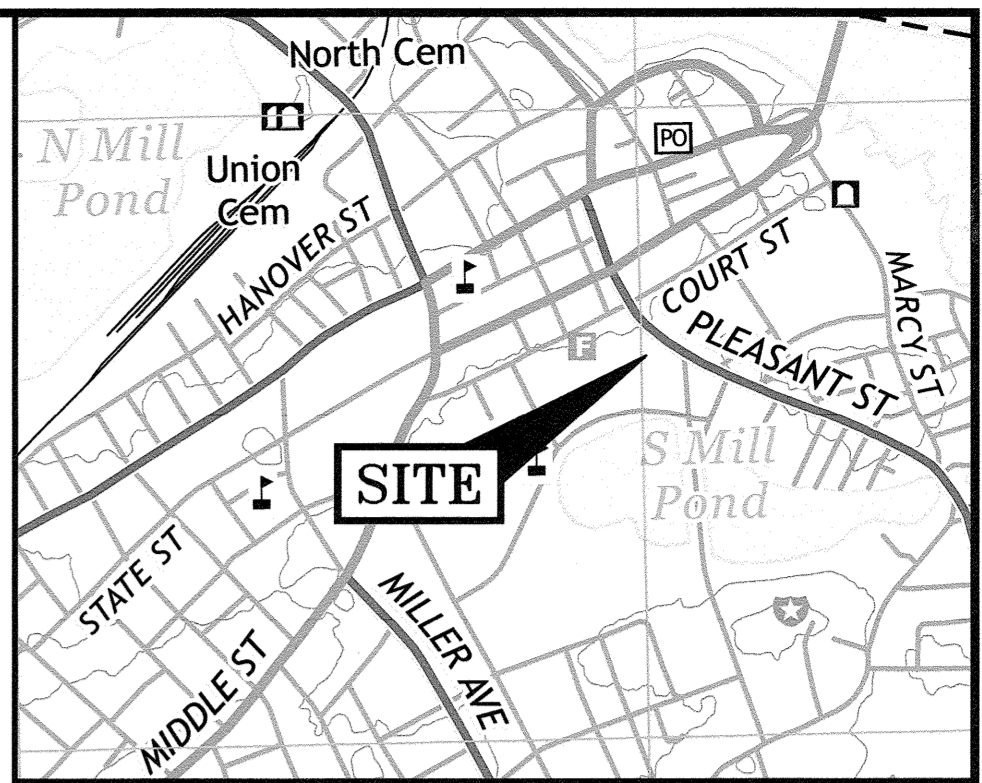
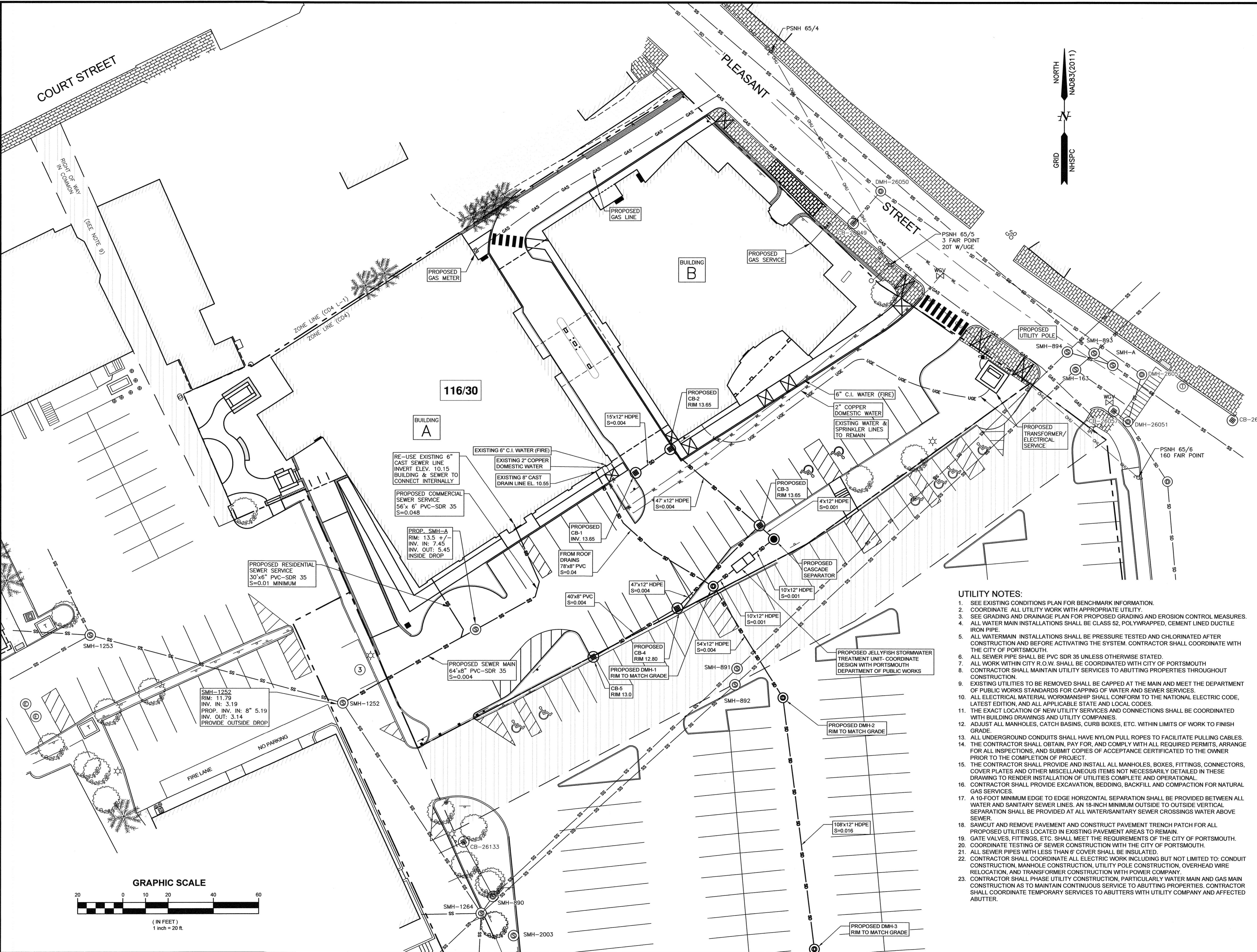
2 LONGITUDINAL SECTION EW
3/32" = 1'-0"

BUILDING SECTION & VIGNETTES

0' 4' 8' 16'
SCALE: 3/32" = 1'-0"

DATE: 04/06/2026
DRAWN: HA
CHECKED: TK

PB3.1



LOCATION MAP SCALE: 1" = 1,000'

- NOTES:**
- 1) THE CONTRACTOR SHALL NOTIFY DIG SAFE AT 1-888-DIG-SAFE (1-888-344-7233) AT LEAST 72 HOURS PRIOR TO COMMENCING ANY EXCAVATION ON PUBLIC OR PRIVATE PROPERTY WITHIN 100 FEET OF UNDERGROUND UTILITIES. THE EXCAVATOR IS RESPONSIBLE TO MAINTAIN MARKS. DIG SAFE TICKETS EXPIRE IN THIRTY DAYS.
 - 2) UNDERGROUND UTILITY LOCATIONS ARE BASED UPON BEST AVAILABLE EVIDENCE AND ARE NOT FIELD VERIFIED. LOCATING AND PROTECTING ANY ABOVEGROUND OR UNDERGROUND UTILITIES IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR AND/OR THE OWNER. UTILITY CONFLICTS SHOULD BE REPORTED AT ONCE TO THE DESIGN ENGINEER.
 - 3) CONTRACTOR SHALL INSTALL AND MAINTAIN EROSION CONTROL MEASURES IN ACCORDANCE WITH THE NEW HAMPSHIRE STORMWATER MANUAL, VOLUME 3, EROSION AND SEDIMENT CONTROLS DURING CONSTRUCTION (NHDES DECEMBER 2008).
 - 4) PROVIDE TEMPORARY WATER AND SEWER SERVICES TO ALL IMPACTED PROPERTIES DURING NEW WATER AND SEWER MAIN INSTALLATION.
 - 5) PROPOSED SEWER FLOW:
 PROFESSIONAL OFFICE: 13,956 S.F. X 2.5 GPD/100 S.F. = 349 GPD
 BANK AND BANK OFFICE: 10,358 S.F. X 2.5 GPD/100 S.F. = 259 GPD
 22 APARTMENTS X 216 GPD/APARTMENT = 4,752 GPD
 TOTAL FLOW 5,380 GPD.
 - 6) APPLICANT, AND AUTHORIZED AGENTS, SHALL WORK WITH THE CITY OF PORTSMOUTH AND UTILITY PROVIDERS TO CONSTRUCT NEW, PERMANENT SERVICE CONNECTIONS TO PROPOSED WATER, SEWER, STORMDRAIN, POWER, AND COMMUNICATIONS.

- UTILITY NOTES:**
1. SEE EXISTING CONDITIONS PLAN FOR BENCHMARK INFORMATION.
 2. COORDINATE ALL UTILITY WORK WITH APPROPRIATE UTILITY.
 3. SEE GRADING AND DRAINAGE PLAN FOR PROPOSED GRADING AND EROSION CONTROL MEASURES.
 4. ALL WATER MAIN INSTALLATIONS SHALL BE CLASS S2, POLYWRAPPED, CEMENT LINED DUCTILE IRON PIPE.
 5. ALL WATERMAIN INSTALLATIONS SHALL BE PRESSURE TESTED AND CHLORINATED AFTER CONSTRUCTION AND BEFORE ACTIVATING THE SYSTEM. CONTRACTOR SHALL COORDINATE WITH THE CITY OF PORTSMOUTH.
 6. ALL SEWER PIPE SHALL BE PVC SDR 35 UNLESS OTHERWISE STATED.
 7. ALL WORK WITHIN CITY R.O.W. SHALL BE COORDINATED WITH CITY OF PORTSMOUTH CONSTRUCTION.
 8. CONTRACTOR SHALL MAINTAIN UTILITY SERVICES TO ABUTTING PROPERTIES THROUGHOUT CONSTRUCTION.
 9. EXISTING UTILITIES TO BE REMOVED SHALL BE CAPPED AT THE MAIN AND MEET THE DEPARTMENT OF PUBLIC WORKS STANDARDS FOR CAPPING OF WATER AND SEWER SERVICES.
 10. ALL ELECTRICAL MATERIAL WORKMANSHIP SHALL CONFORM TO THE NATIONAL ELECTRIC CODE, LATEST EDITION, AND ALL APPLICABLE STATE AND LOCAL CODES.
 11. THE EXACT LOCATION OF NEW UTILITY SERVICES AND CONNECTIONS SHALL BE COORDINATED WITH BUILDING DRAWINGS AND UTILITY COMPANIES.
 12. ADJUST ALL MANHOLES, CATCH BASINS, CURB BOXES, ETC. WITHIN LIMITS OF WORK TO FINISH GRADE.
 13. ALL UNDERGROUND CONDUITS SHALL HAVE NYLON PULL ROPES TO FACILITATE PULLING CABLES.
 14. THE CONTRACTOR SHALL OBTAIN, PAY FOR, AND COMPLY WITH ALL REQUIRED PERMITS, ARRANGE FOR ALL INSPECTIONS, AND SUBMIT COPIES OF ACCEPTANCE CERTIFICATED TO THE OWNER PRIOR TO THE COMPLETION OF PROJECT.
 15. THE CONTRACTOR SHALL PROVIDE AND INSTALL ALL MANHOLES, BOXES, FITTINGS, CONNECTORS, COVER PLATES AND OTHER MISCELLANEOUS ITEMS NOT NECESSARILY DETAILED IN THESE DRAWING TO RENDER INSTALLATION OF UTILITIES COMPLETE AND OPERATIONAL.
 16. CONTRACTOR SHALL PROVIDE EXCAVATION, BEDDING, BACKFILL AND COMPACTION FOR NATURAL GAS SERVICES.
 17. A 10-FOOT MINIMUM EDGE TO EDGE HORIZONTAL SEPARATION SHALL BE PROVIDED BETWEEN ALL WATER AND SANITARY SEWER LINES. AN 18-INCH MINIMUM OUTSIDE TO OUTSIDE VERTICAL SEPARATION SHALL BE PROVIDED AT ALL WATER/SANITARY SEWER CROSSINGS WATER ABOVE SEWER.
 18. SAWCUT AND REMOVE PAVEMENT AND CONSTRUCT PAVEMENT TRENCH PATCH FOR ALL PROPOSED UTILITIES LOCATED IN EXISTING PAVEMENT AREAS TO REMAIN.
 19. GATE VALVES, FITTINGS, ETC. SHALL MEET THE REQUIREMENTS OF THE CITY OF PORTSMOUTH.
 20. COORDINATE TESTING OF SEWER CONSTRUCTION WITH THE CITY OF PORTSMOUTH.
 21. ALL SEWER PIPES WITH LESS THAN 6" COVER SHALL BE INSULATED.
 22. CONTRACTOR SHALL COORDINATE ALL ELECTRIC WORK INCLUDING BUT NOT LIMITED TO: CONDUIT CONSTRUCTION, MANHOLE CONSTRUCTION, UTILITY POLE CONSTRUCTION, OVERHEAD WIRE RELOCATION, AND TRANSFORMER CONSTRUCTION WITH POWER COMPANY.
 23. CONTRACTOR SHALL PHASE UTILITY CONSTRUCTION, PARTICULARLY WATER MAIN AND GAS MAIN CONSTRUCTION AS TO MAINTAIN CONTINUOUS SERVICE TO ABUTTING PROPERTIES. CONTRACTOR SHALL COORDINATE TEMPORARY SERVICES TO ABUTTERS WITH UTILITY COMPANY AND AFFECTED ABUTTER.

REV.	DATE	DESCRIPTION	BY	CHK.
5	04-07-2026	EMERGENCY ACCESS ONLY	SJR	JRC
4	02-25-2026	CATCH BASINS, DRAINAGE	SJR	JRC
3	02-03-2026	JELLYFISH, DRAINAGE	SJR	JRC
2	01-21-2026	UPDATE PROPOSED UTILITIES	SJR	JRC
1	12-22-2025	ISSUED FOR APPROVAL	SJR	JRC
0	09-05-2025	ISSUED FOR COMMENT	SJR	JRC

PERMIT PLANS

HALEY WARD
 ENGINEERING | ENVIRONMENTAL | SURVEYING
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 Portsmouth, NH 03801
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PROJECT: **DOUBLE MC, LLC**
 134 PLEASANT STREET PORTSMOUTH, N.H.

UTILITY PLAN

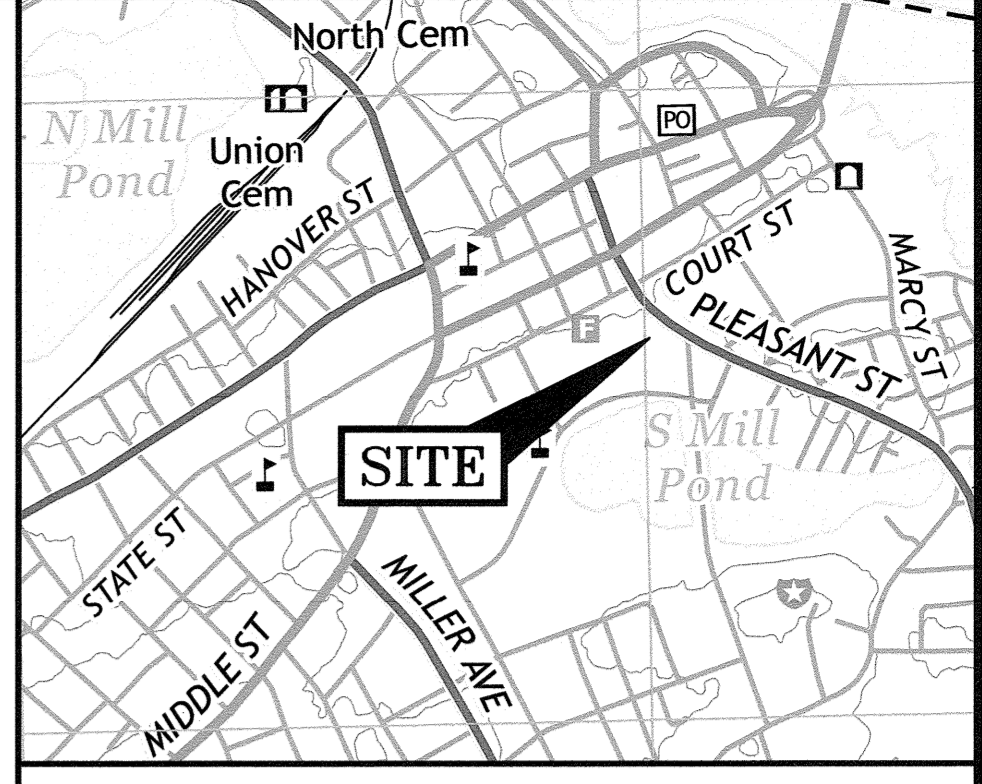
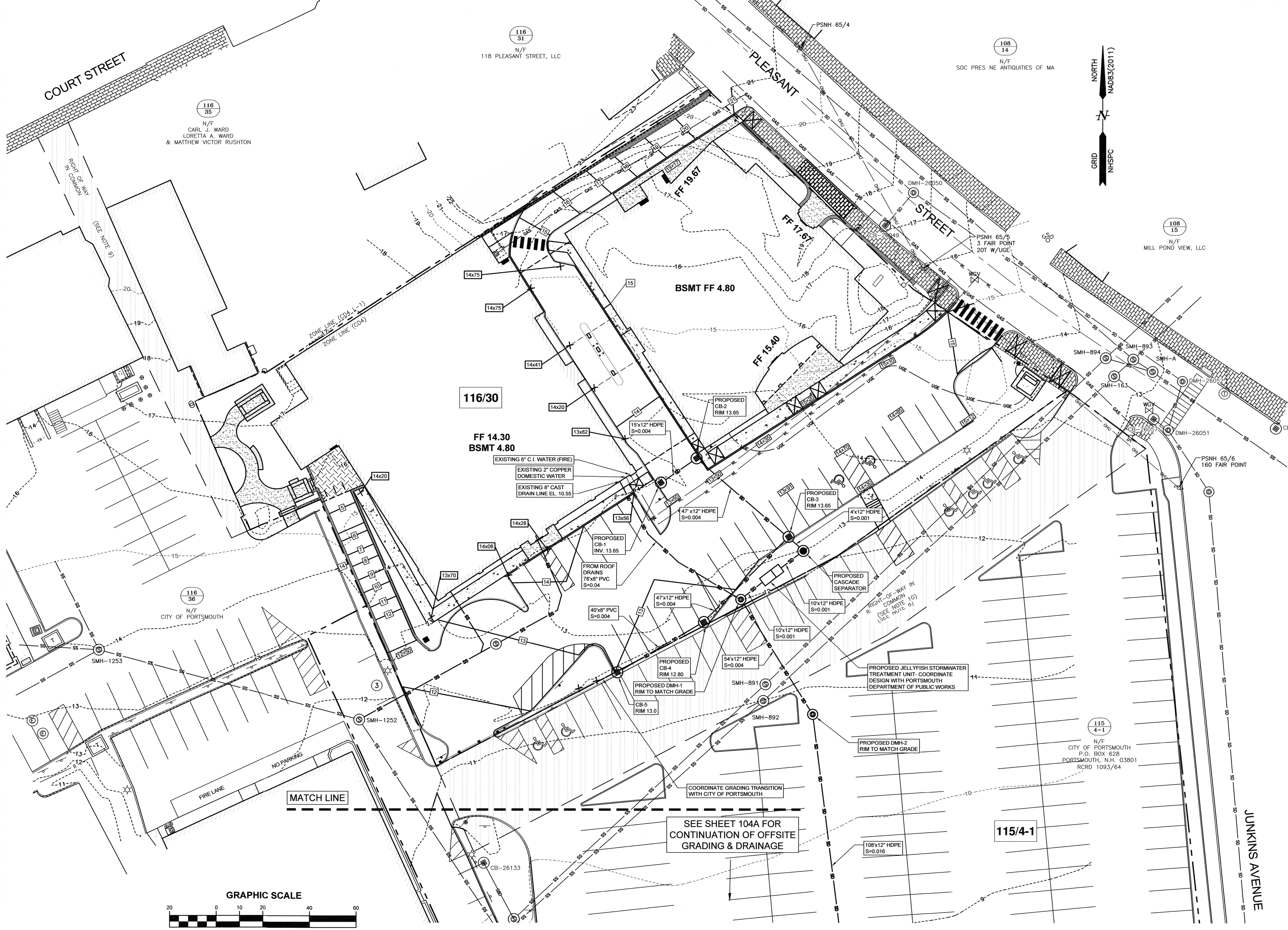
DATE: JULY 2025 SCALE: 1"=20'

DRAWN BY: SJR DESIGNED BY: --- CHECKED BY: JRC

PROJECT No: 5010156-1532 FIELD BOOK / PAGE: FB 276 PG 60

DRAWING No: **C103** REV: **5**

FILE LOCATION: P:\NH\010156-1532-14 PLEASANT ST - PORTSMOUTH - RJC\02-CAD_FILES\CAD\010156-1532 SITE 2026.DWG, 2026.04.06, 1:31 PM



LOCATION MAP SCALE: 1" = 1,000'

- NOTES:**
- 1) THE CONTRACTOR SHALL NOTIFY DIG SAFE AT 1-888-DIG-SAFE (1-888-344-7233) AT LEAST 72 HOURS PRIOR TO COMMENCING ANY EXCAVATION ON PUBLIC OR PRIVATE PROPERTY WITHIN 100 FEET OF UNDERGROUND UTILITIES. THE EXCAVATOR IS RESPONSIBLE TO MAINTAIN MARKS. DIG SAFE TICKETS EXPIRE IN THIRTY DAYS.
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 - 4) VERTICAL DATUM IS NAVD88. BASIS OF VERTICAL DATUM IS REDUNDANT RTN GNSS OBSERVATIONS.
 - 5) CITY OF PORTSMOUTH STORMWATER CONNECTION PERMIT REQUIRED.

REV.	DATE	DESCRIPTION	BY	CHK.
3	04-07-26	EMERGENCY ACCESS ONLY	SJR	JRC
2	02-25-26	DRAINAGE LAYOUT, GRADES	SJR	JRC
1	01-21-26	DRAINAGE & GRADING UPDATES	SJR	JRC
0	12-22-25	ISSUED FOR APPROVAL	SJR	JRC

DRAWING ISSUE STATUS

PERMIT PLANS

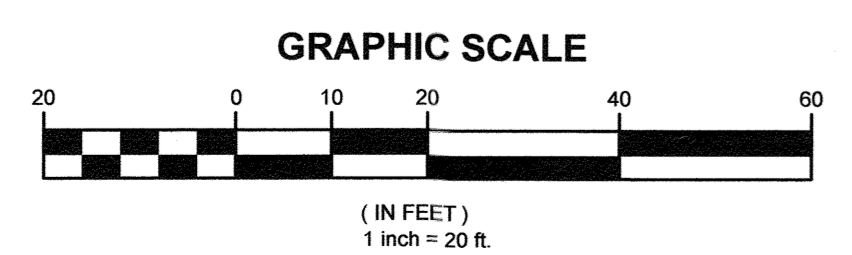


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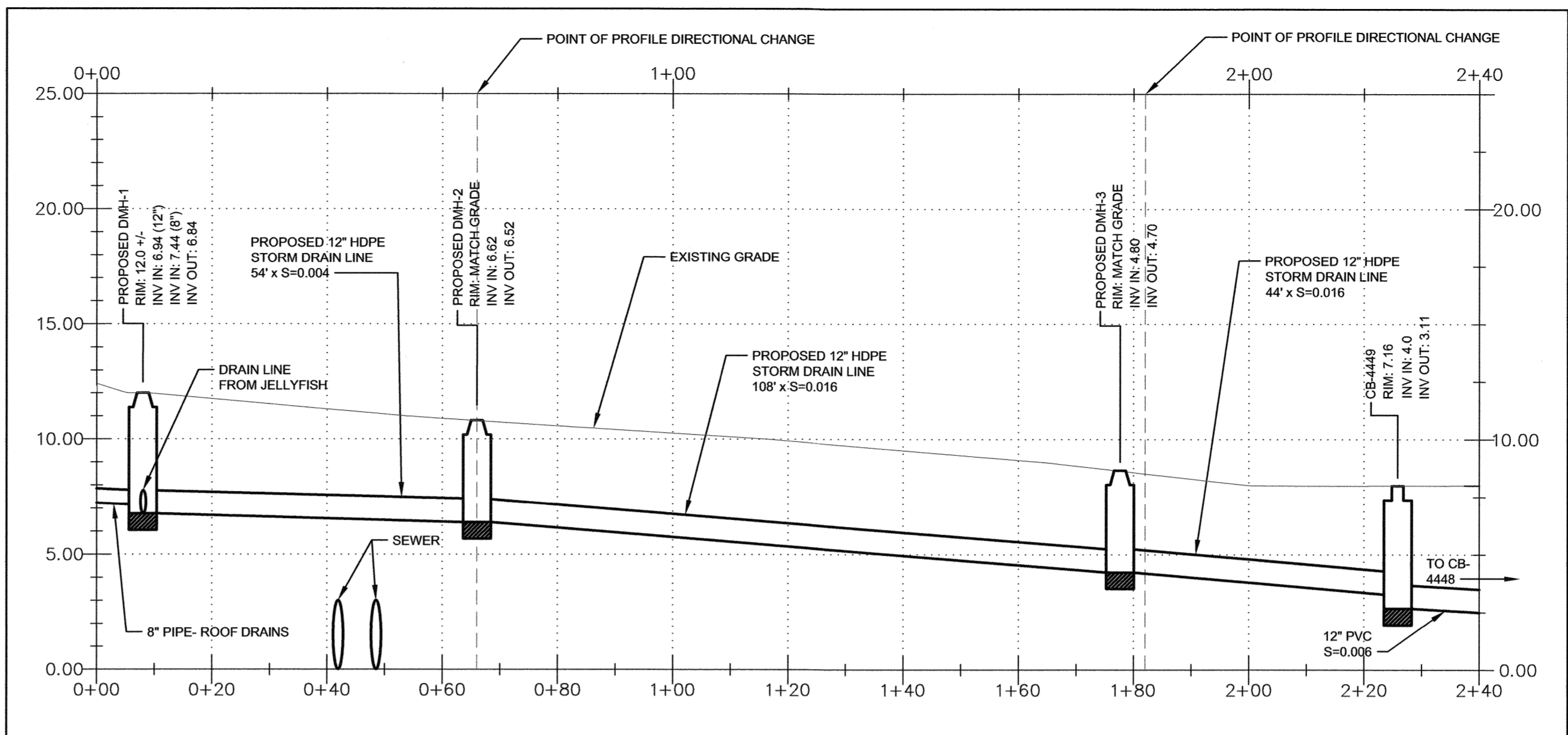
PROJECT
DOUBLE MC, LLC
134 PLEASANT STREET PORTSMOUTH, N.H.

ON SITE GRADING & DRAINAGE PLAN

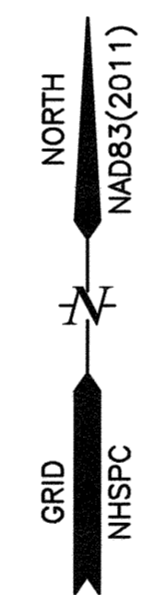
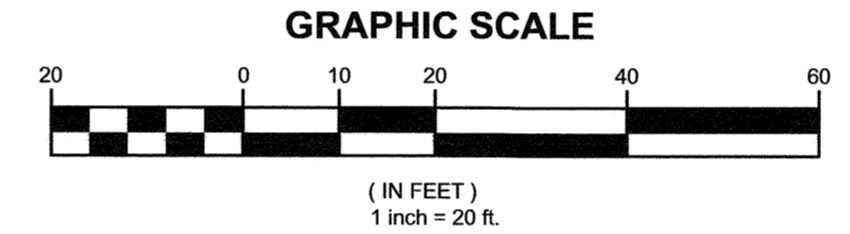
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DRAWN BY	SJR	DESIGNED BY	---
CHECKED BY	JRC	PROJECT NO.	5010156.1532
FIELD BOOK / PAGE	FB 276	PG 60	
DRAWING NO.	C104		
REV.	3		



FILE LOCATION: P:\NH\5010156\MCH\MB_P\PROJECTS\1532-14 PLEASANT ST - PORTSMOUTH - HRC\2025\CAD_FILES\CAD\5010156_1532 SITE 2025.DWG, 2025.04.06, 1:35 PM



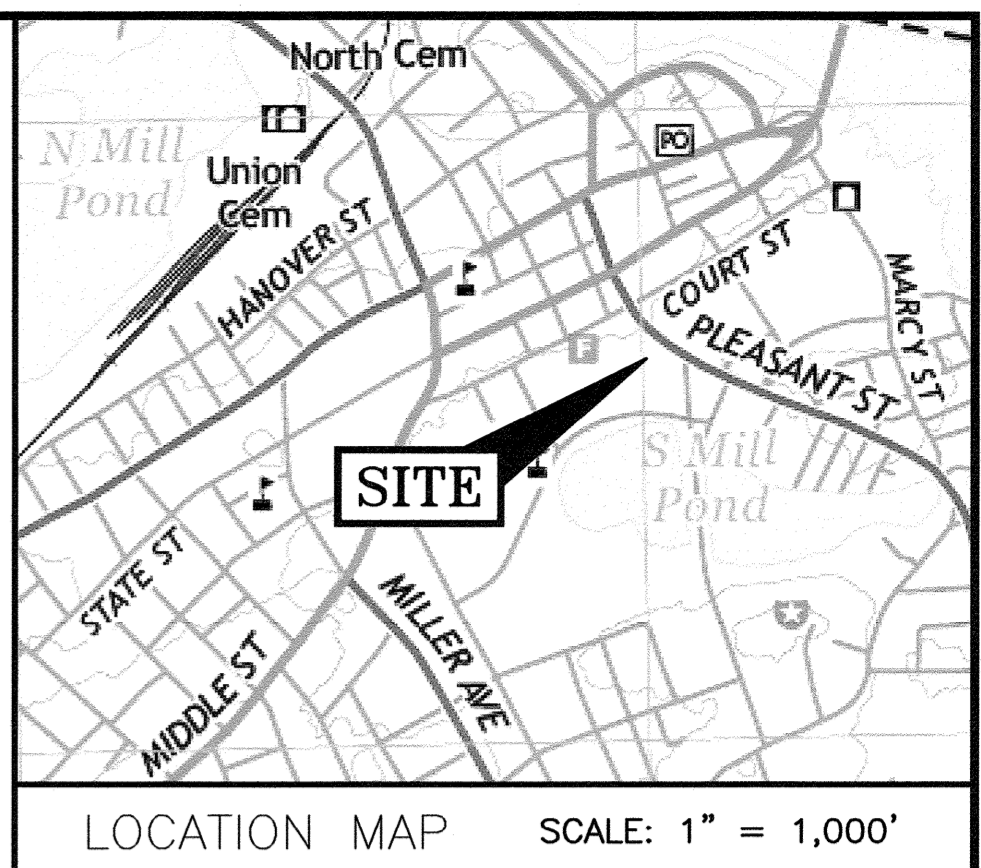
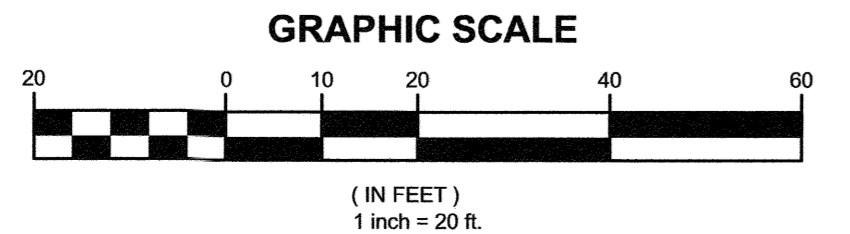
PROFILE VIEW OF PROPOSED SITE DRAINAGE TO PARROTT AVE. - STA 0+00 TO 2+40
SCALE: H: 1"=20' / V: 1"=5'



EXISTING DRAINAGE STRUCTURE TABLE						
STRUCTURE	PROP/EX	RIM	PIPE SIZE/TYPE	INV. IN	INV. OUT	DIRECTION
CB-4407	EX	8.30	NO VISIBLE PIPES			
WATER ELEVATION: 5.30						
SUMP ELEVATION: 4.20						
CB-26133	EX	10.86	12" CLAY	4.31		SW
			12" CLAY		4.31	SE
CB-A	EX	12.22	12" AC		8.42	SE
CB-B	EX	12.80	8" CLAY	7.10		NW
			12" AC	7.10		NE
			12" AC	7.00		SW
			18" AC		7.00	S
CB-C	EX	13.47	12" AC	8.87		NE
			12" AC		8.82	S
CB-D	EX	13.54	4" AC	9.34		NW
			12" AC		9.34	SW
CB-E	EX	13.67	SILTED/LOCKED			
CB-F	EX	13.48	SILTED/LOCKED			
CB-G	EX	7.76	4" CLAY		4.76	
CB-H	EX	7.94	6" CLAY	4.24		
CB 26057	EX	12.53	12" CPP W/OIL SEPERATOR			
CB 26048	EX	22.70				
CB 26047	EX	22.89				
CB-26049	EX	17.08	12" PVC W/OIL SEPERATOR			
CB-4275	EX	7.46		2.56		NW
				2.56		S
CB-4448	EX	6.73	12" PVC	2.53		E
			12" PVC		2.53	SE
CB-4449	EX	7.16	12" PVC		3.11	E
DMH 26046	EX	22.99	12" CPP	18.49		SW
			12" CPP	18.49		NE
			12" CPP	19.79		NW
			12" CPP		18.44	SE
DMH 26050	EX	17.45	12" PVC	12.80		NW
			12" PVC	12.80		SW
			12" PVC		12.80	SE
DMH-26052	EX	12.93	12" CPP	8.18		NW
			12" CPP		8.13	S
DMH-26051	EX	12.61	12" CPP	7.86		N
			12" CPP	8.11		NW
			12" CPP		7.81	S
DMH-26061	EX	8.02				
DMH-26062	EX	7.84				

PROPOSED DRAINAGE STRUCTURE TABLE						
STRUCTURE	PROP/EX	RIM	PIPE SIZE/TYPE	INV. IN	INV. OUT	DIRECTION
CB-1	PROP	13.65			10.90	E
CB-2	PROP	13.65		10.84		W
CB-3	PROP	13.65		10.55		N&W
CB-4	PROP	12.80		10.84		W
				10.74		E
CB-5	PROP	13.00		11.00		E
SEPARATOR	PROP	13.00		10.41		N
				10.41		W
JELLYFISH	PROP	12.50	12" HDPE	10.31		E
			12" HDPE		7.04	W
DMH 1	PROP	XGD	12" HDPE	6.94		E
			12" HDPE		6.84	S
			8" PVC	7.44		N
DMH 2	PROP	XGD	12" HDPE	6.62		N
			12" HDPE		6.52	S
DMH 3	PROP	XGD	12" HDPE	4.70		N
			12" HDPE		4.80	S

XGD = EXISTING GRADE



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 - 4) VERTICAL DATUM IS NAVD83. BASIS OF VERTICAL DATUM IS REDUNDANT RTN GNSS OBSERVATIONS.
 - 5) CITY OF PORTSMOUTH STORMWATER CONNECTION PERMIT REQUIRED.

1	04-07-26	EMERGENCY ACCESS ONLY	SJR	JRC
0	02-25-26	ISSUED FOR COMMENT	SJR	JRC
REV.	DATE	DESCRIPTION	BY	CHK.

PERMIT PLANS

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 603-430-9282

PROJECT
DOUBLE MC, LLC
 134 PLEASANT STREET PORTSMOUTH, N.H.

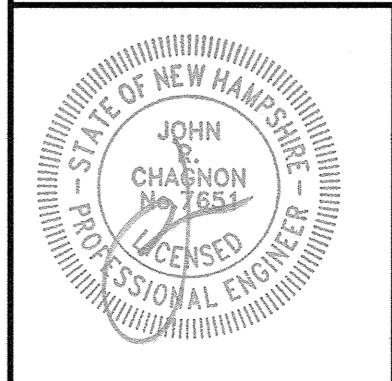
TITLE
OFF SITE GRADING & DRAINAGE/PROFILE



DATE: JULY 2025 SCALE: 1"=20'

DRAWN BY: SJR DESIGNED BY: --- CHECKED BY: JRC

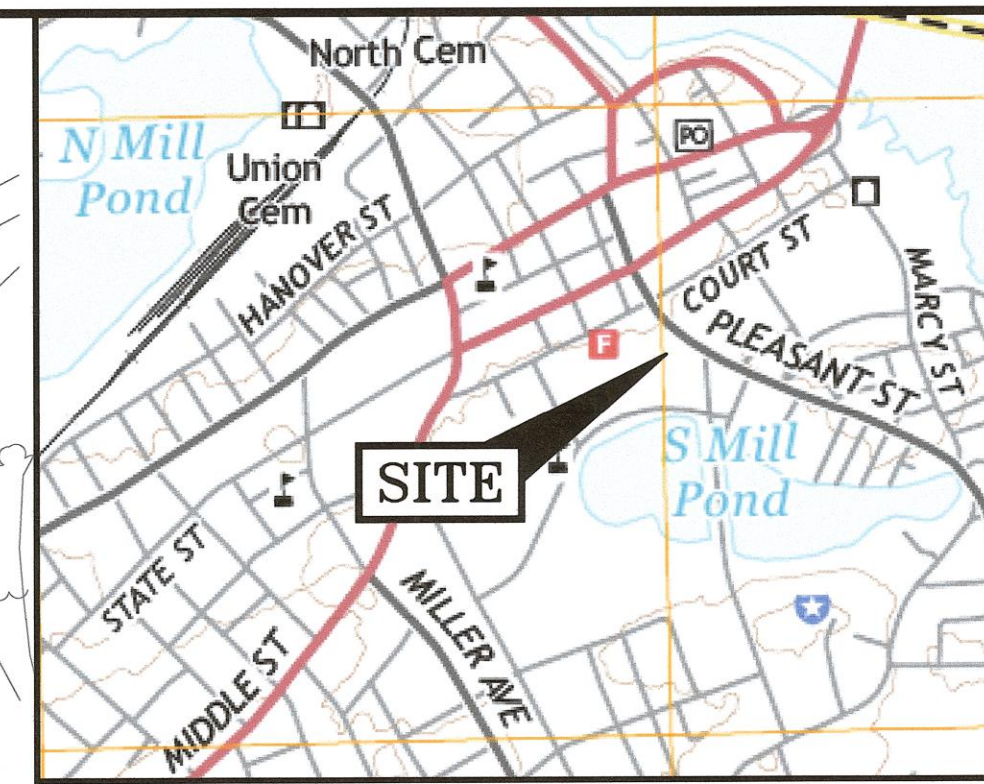
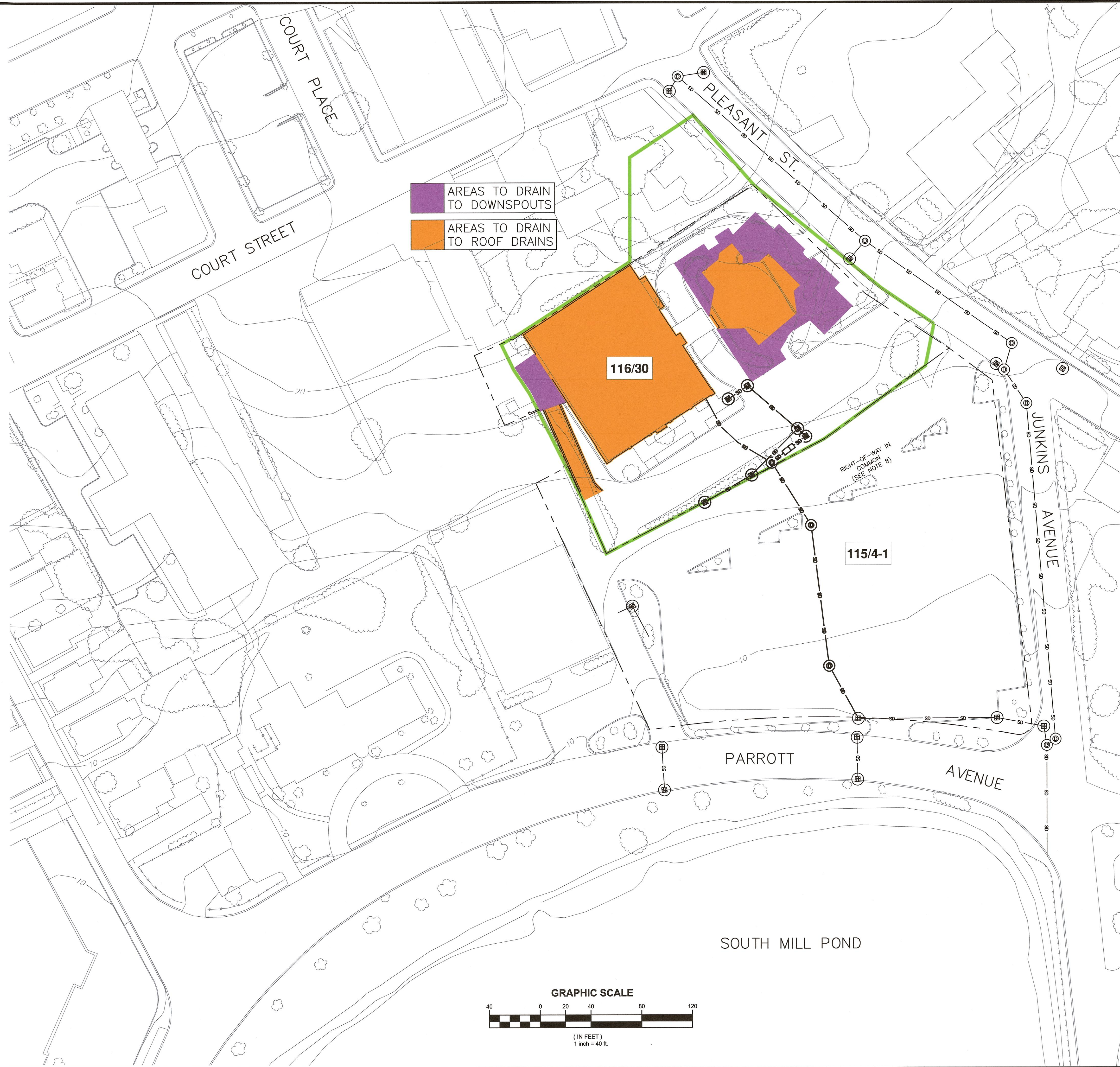
PROJECT No: 5010156-1532 FIELD BOOK / PAGE: FB 276 PG 60

DRAWING No: **C104A** REV: **1**



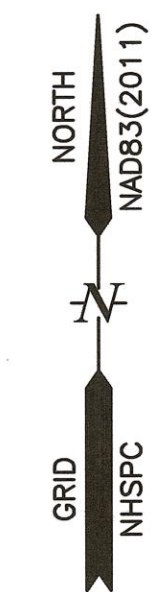
DRAINAGE AREAS		
TOTAL SUBCATCHMENT AREA		59,274 S.F.
BUILDINGS & RAMP EXCLUSION (ROOF DRAINS)		16,963 S.F.
TOTAL DRAINAGE CONTRIBUTING AREA		42,311 S.F.

NOTE: ROOF DRAINS WILL NOT BE CONNECTED TO THE STORMWATER TREATMENT SYSTEM.



LOCATION MAP SCALE: 1" = 1,000'

- NOTES:**
- 1) PARCELS ARE SHOWN ON THE CITY OF PORTSMOUTH ASSESSOR'S MAP 116 AS LOT 30, AND MAP 115 AS LOT 4-1.
 - 2) THE PURPOSE OF THIS PLAN IS TO SHOW THE SITE DEVELOPMENT DRAINAGE AREA FOR THE 134 PLEASANT STREET PROJECT.



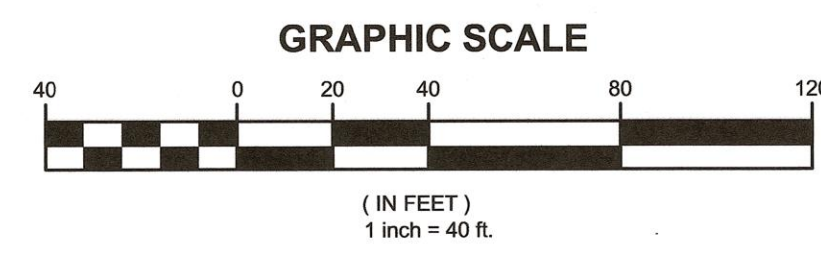
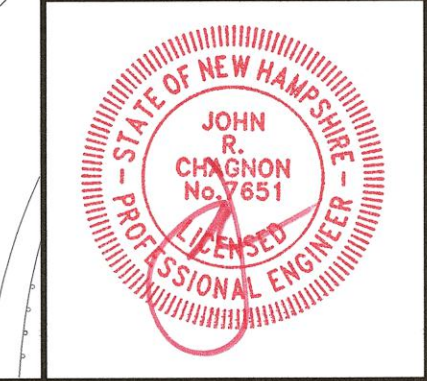
REV.	DATE	DESCRIPTION	BY	CHK.
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1	02-25-26	REVISED DRAINAGE AREAS	SJR	JRC
0	02-10-26	ISSUED FOR COMMENT	SJR	JRC

PERMIT PLANS

PROJECT
DOUBLE MC, LLC
 134 PLEASANT STREET PORTSMOUTH, N.H.

TITLE
DRAINAGE AREA PLAN

DATE	JULY 2025	SCALE	1"=40'
DRAWN BY	SJR	DESIGNED BY	---
CHECKED BY	JRC	PROJECT No.	5010156.1532
		FIELD BOOK / PAGE	FB 276 PG 60
DRAWING No.	C104C		REV.
			2



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134 PLEASANT STREET

PORTSMOUTH, NH 03801

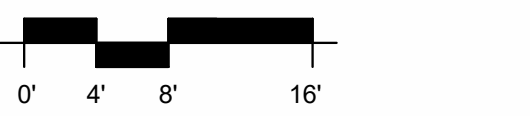
PROJECT NO: 1028

OWNER
 Double Mc, LLC
 134 Pleasant Street
 Portsmouth, New Hampshire 03801

CIVIL ENGINEERING
 Haley Ward
 200 Griffin Road, Unit
 Portsmouth, NH 03801
 (603) 430-9282

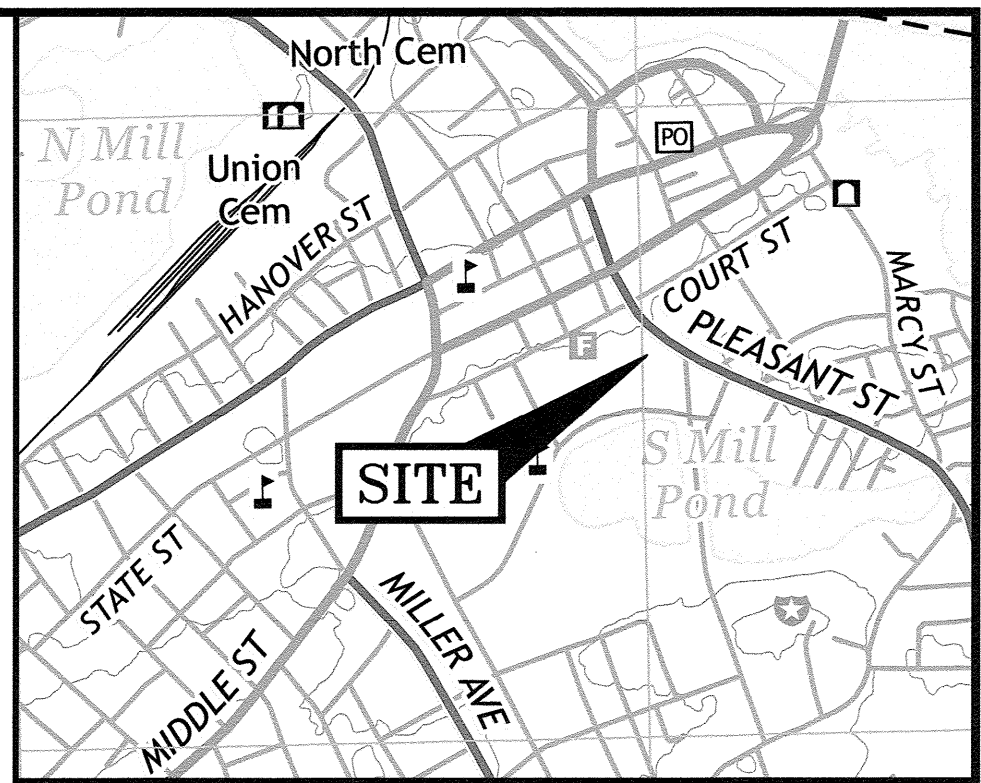
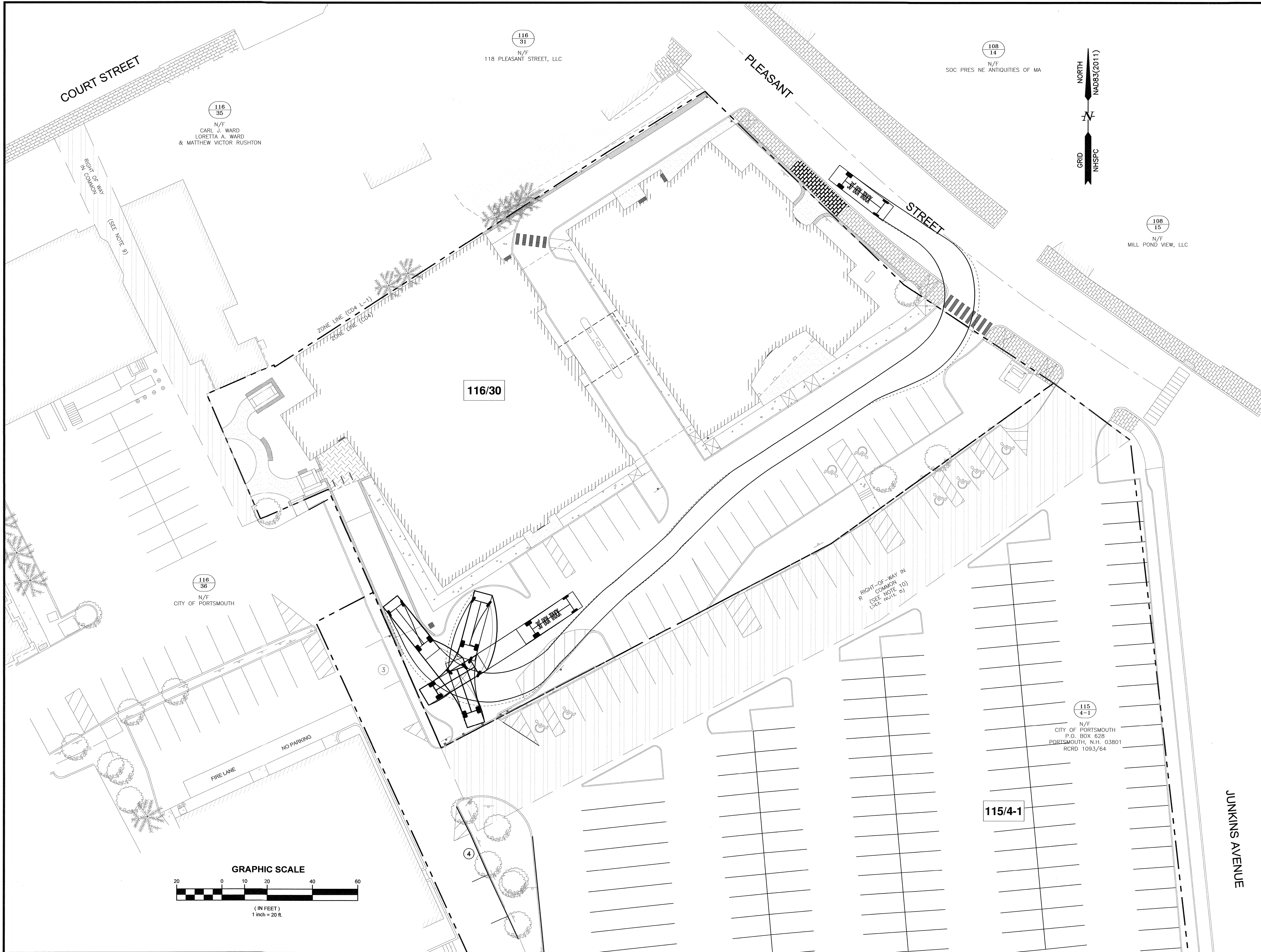
LANDSCAPE ARCHITECT
 Terra Firma Landscape Architecture
 163a Court St
 Portsmouth, NH 03801
 (603) 531-9109

NIGHT TIME LIGHTING VIEWS



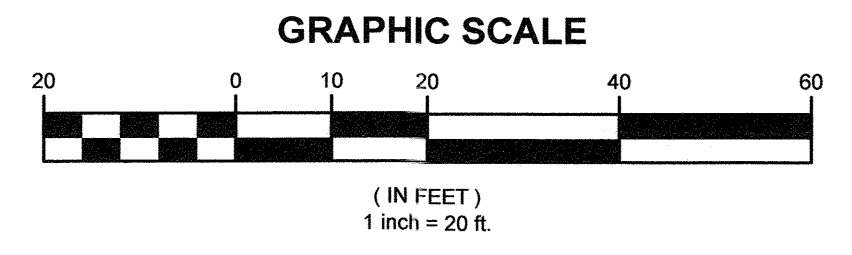
SCALE:
 DATE: 04/06/2026
 DRAWN: HA
 CHECKED: Checker

C105A



LOCATION MAP SCALE: 1" = 1,000'

- NOTES:**
- 1) PARCEL IS SHOWN ON THE CITY OF PORTSMOUTH ASSESSOR'S TAX MAP 116 AS LOT 30.
 - 2) OWNERS OF RECORD:
DOUBLE MC, LLC
10 PLEASANT STREET SUITE 400
PORTSMOUTH, N.H. 03801
RCRD 6505/2411
 - 3) PARCEL IS NOT IN A SPECIAL FLOOD HAZARD AREA AS SHOWN ON FIRM PANEL 33015C0259F. EFFECTIVE JANUARY 29, 2021.
 - 4) EXISTING LOT AREA:
53,084 S.F.
1.22 ACRES
 - 5) PARCEL IS LOCATED IN THE CHARACTER DISTRICT 4 (CD4) DISTRICT.
 - 6) DIMENSIONAL REQUIREMENTS: SEE PORTSMOUTH ORDINANCE FOR REQUIREMENTS.
 - 7) THE PURPOSE OF THIS PLAN IS TO SHOW A 30' BOX TRUCK (WB-30) TURNING AT THE SITE.



1	04-07-2026	EMERGENCY ACCESS ONLY	SJR	JRC
0	02-03-2026	ISSUED FOR COMMENT	SJR	JRC
REV.	DATE	DESCRIPTION	BY	CHK.

DRAWING ISSUE STATUS

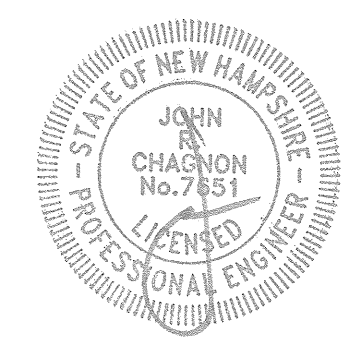
PERMIT PLANS

HALEY WARD
ENGINEERING | ENVIRONMENTAL | SURVEYING
200 Griffin Road, Unit 14
Portsmouth, NH 03801
603-430-9282
WWW.HALEYWARD.COM

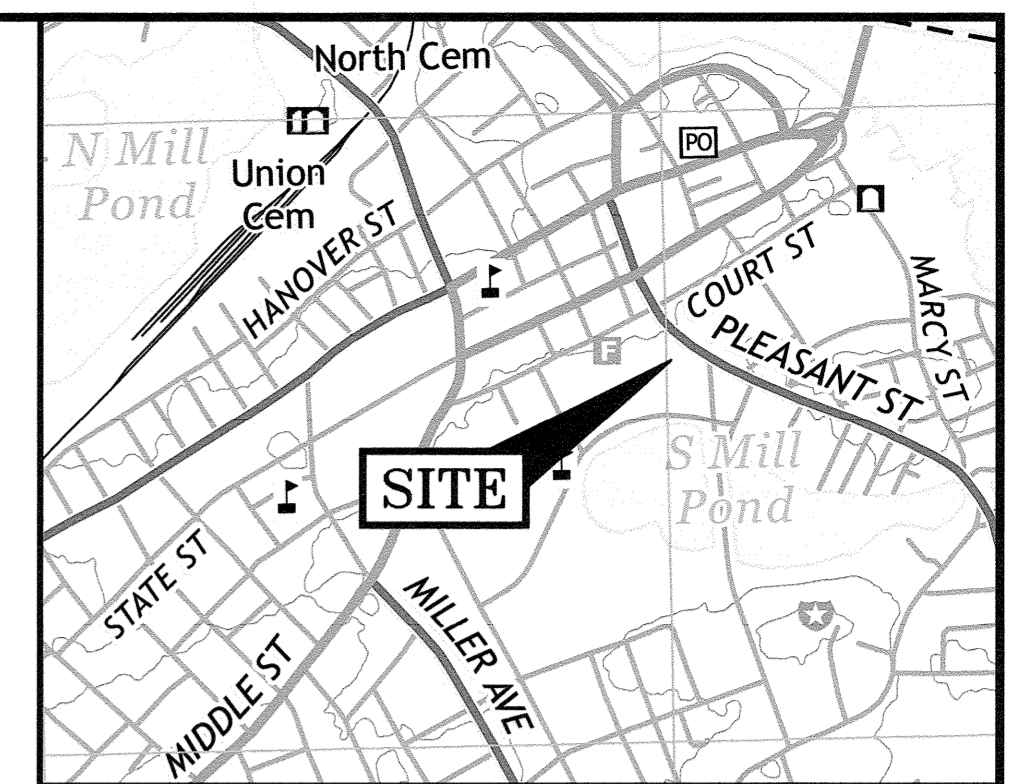
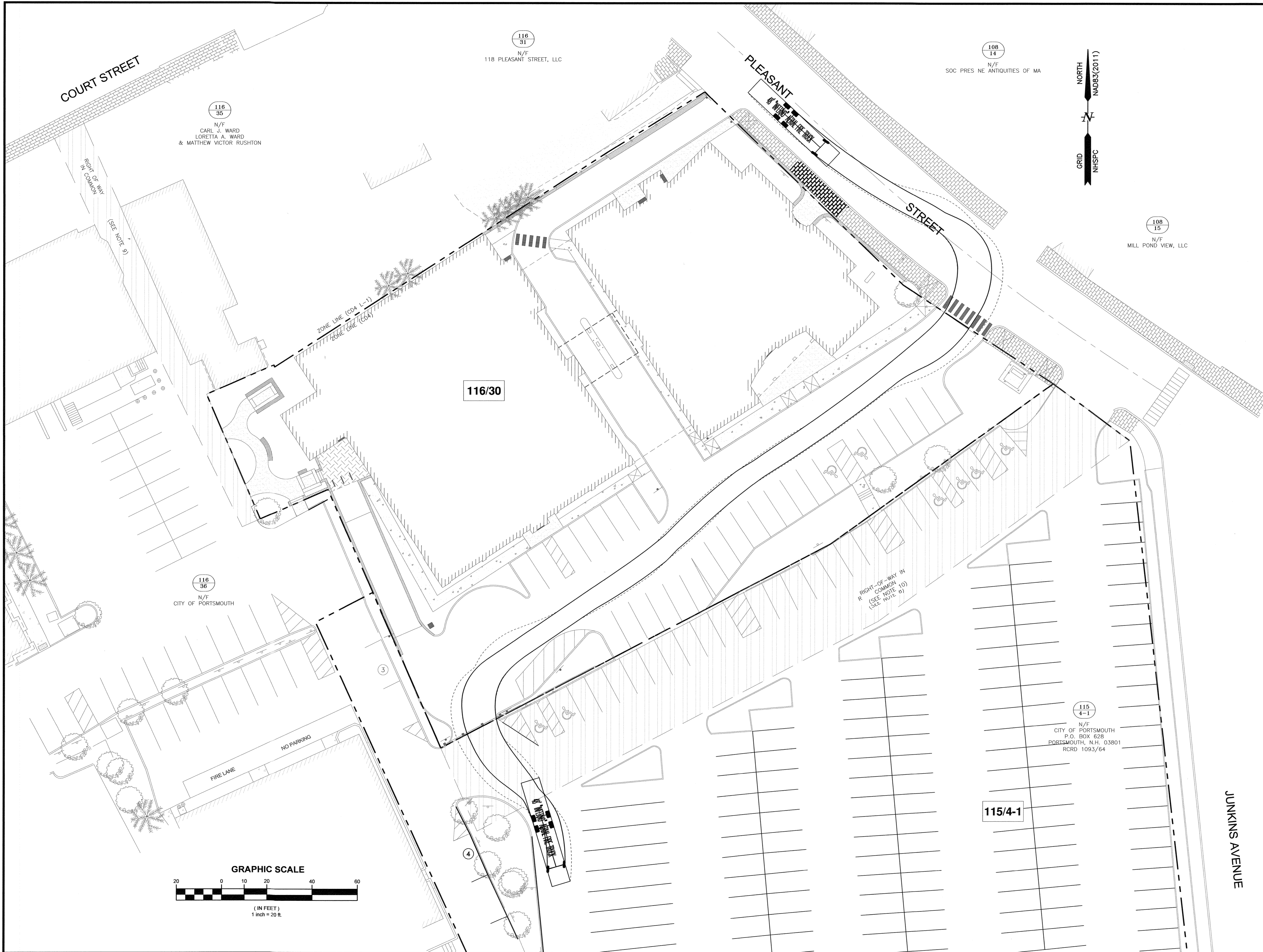
PROJECT
DOUBLE MC, LLC
134 PLEASANT STREET PORTSMOUTH, N.H.

TRUCK TURNING PLAN

DATE	FEBRUARY 2026	SCALE	1"=20'
DRAWN BY	SJR	DESIGNED BY	---
CHECKED BY	JRC		
PROJECT No.	5010156.1532	FIELD BOOK / PAGE	FB 276 PG 60
DRAWING No.	C106		1



FILE LOCATION: P:\NH\010156\NCH\WB\PROJECTS\1532-14 PLEASANT ST. PORTSMOUTH-RCD\2026 CAD FILES\CAD\010156_1532 SITE 2026.DWG, 2026.04.03, 12:58 PM



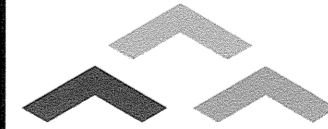
LOCATION MAP SCALE: 1" = 1,000'

- NOTES:**
- 1) PARCEL IS SHOWN ON THE CITY OF PORTSMOUTH ASSESSOR'S TAX MAP 116 AS LOT 30.
 - 2) OWNERS OF RECORD:
DOUBLE MC, LLC
10 PLEASANT STREET SUITE 400
PORTSMOUTH, N.H. 03801
RCRD 6505/2411
 - 3) PARCEL IS NOT IN A SPECIAL FLOOD HAZARD AREA AS SHOWN ON FIRM PANEL 33015C0259F. EFFECTIVE JANUARY 29, 2021.
 - 4) EXISTING LOT AREA:
53,084 S.F.
1.22 ACRES
 - 5) PARCEL IS LOCATED IN THE CHARACTER DISTRICT 4 (CD4) DISTRICT.
 - 6) DIMENSIONAL REQUIREMENTS: SEE PORTSMOUTH ORDINANCE FOR REQUIREMENTS.
 - 7) THE PURPOSE OF THIS PLAN IS TO SHOW A 48' AERIAL FIRE TRUCK (INFERNO) TURNING AT THE SITE.

REV.	DATE	DESCRIPTION	BY	CHK
1	04-07-2026	EMERGENCY ACCESS ONLY	SJR	JRC
0	02-03-2026	ISSUED FOR COMMENT	SJR	JRC

DRAWING ISSUE STATUS

PERMIT PLANS

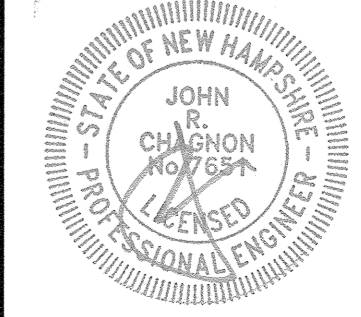


HALEY WARD
ENGINEERING | ENVIRONMENTAL | SURVEYING
200 Griffin Road, Unit 14
Portsmouth, NH 03801
603-430-9282

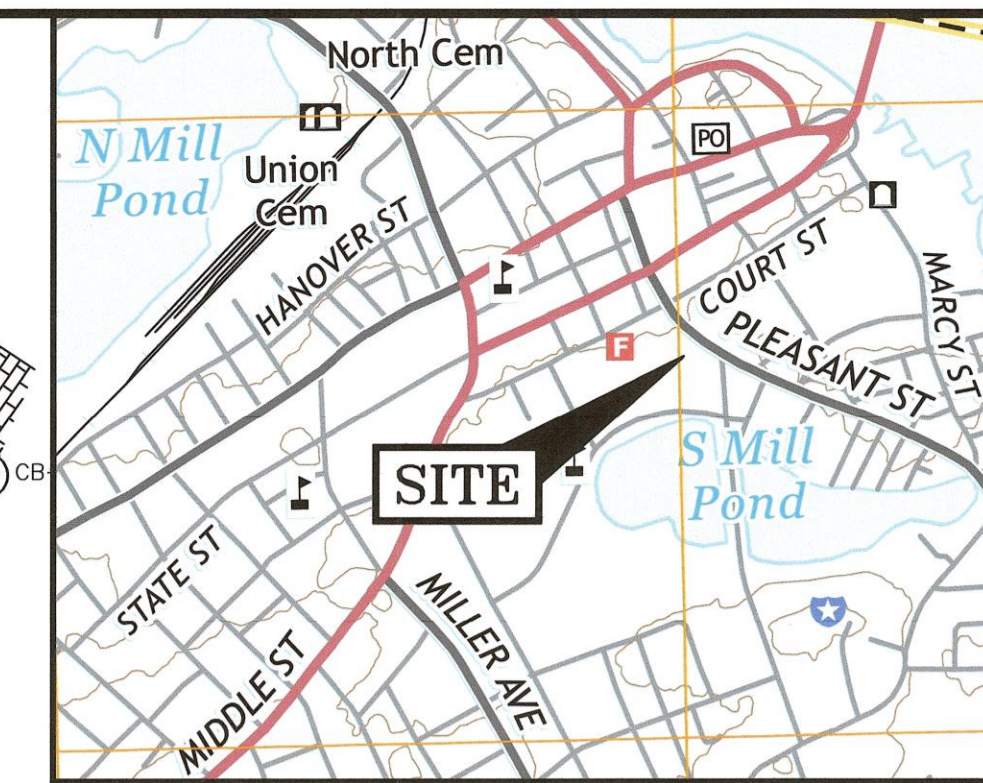
PROJECT
DOUBLE MC, LLC
134 PLEASANT STREET PORTSMOUTH, N.H.

TITLE

FIRE TRUCK TURNING PLAN

	DATE	FEBRUARY 2026	SCALE	1"=20'
	DRAWN BY	SJR	DESIGNED BY	—
	CHECKED BY	JRC	PROJECT No.	5010156.1532
	FIELD BOOK / PAGE	FB 276 PG 60	DRAWING No.	C107
				REV
				1

FILE LOCATION: P:\NH\2019\NH0486 - PROPERTIES\11633-14 PLEASANT ST - PORTSMOUTH - RCD\102-CAO - FLEISCHMAN\101165_1032 SITE 2026.DWG, 2026 04 03, 12:17 PM



LOCATION MAP SCALE: 1" = 1,000'

- NOTES:**
- 1) PARCEL IS SHOWN ON THE CITY OF PORTSMOUTH ASSESSOR'S TAX MAP 115 AS LOT 4-1.
 - 2) OWNERS OF RECORD:
CITY OF PORTSMOUTH
1 JUNKINS AVENUE
PORTSMOUTH, N.H. 03801
RCRD 1093/64
 - 3) PARCEL IS PARTIALLY IN SPECIAL FLOOD HAZARD AREA ZONE AE AS SHOWN ON FIRM PANEL 33015C0259F. EFFECTIVE JANUARY 29, 2021.
 - 4) EXISTING LOT AREA:
71,740 S.F.
1.65 ACRES
 - 5) PARCEL IS LOCATED IN THE MUNICIPAL (M) DISTRICT.
 - 6) DIMENSIONAL REQUIREMENTS: SEE PORTSMOUTH ORDINANCE FOR REQUIREMENTS.
 - 7) THE PURPOSE OF THIS PLAN IS TO SHOW SHORELAND AND TIDAL BUFFER ZONE IMPACTS ON ASSESSOR'S MAP 115, LOT 4-1 IN THE CITY OF PORTSMOUTH.
 - 8) PARCEL IS BENEFITED BY A RIGHT OF WAY AS DESCRIBED IN RCRD 2975/349 AND SHOWN ON RCRD D-18880 AND RCRD D-26343.

NORTH
NAD83(2011)
GRID
NHSFC



IMPACT AREAS
(WITHIN THE 250' SWQPA ZONE)

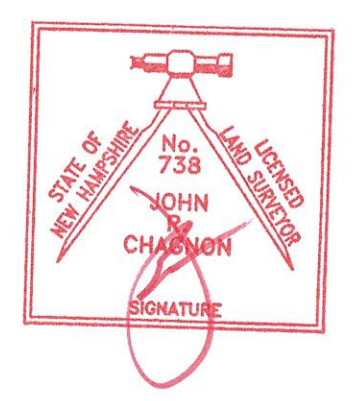
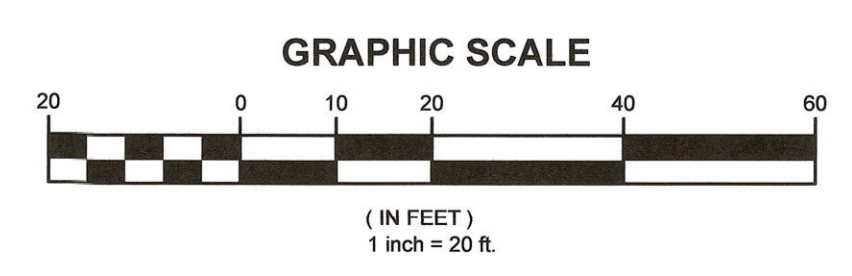
ZONE	TEMPORARY IMPACT (S.F.)	PERMANENT IMPACT (S.F.)
250' PROTECTED SHORELAND	3016	154
100' TIDAL BUFFER	562	39

LOT 115/4-1 IMPACT AREAS
(WITHIN THE 250' SWQPA ZONE)

	EXISTING	PROPOSED
LOT AREA IN 250' (S.F.)	57,087	57,087
TOTAL IMPERVIOUS AREA (S.F.)	53,487	53,487

TEMPORARY IMPACT AREA 3,016 S.F.
PERMANENT IMPACT AREA 154 S.F.

TEMPORARY IMPACT AREA 562 S.F.
PERMANENT IMPACT AREA 39 S.F.



REV	DATE	DESCRIPTION	BY	CHK.
3	04-07-26	EMERGENCY ACCESS ONLY	SJR	JRC
2	03-11-2026	ADDED IMPACT AREA	SJR	JRC
1	02-25-2026	REVISED LAYOUT	SJR	JRC
0	02-09-2026	ISSUED FOR COMMENT	SJR	JRC

PERMIT PLANS

ENGINEERING | ENVIRONMENTAL | SURVEYING
200 Griffin Road, Unit 14
Portsmouth, NH 03801
603-430-9282

CITY OF PORTSMOUTH
P.O. BOX 628 PORTSMOUTH, N.H.

**NHDES PERMIT PLAN-
CITY PROPERTY**

DATE	SCALE
JULY 2025	1"=20'
DRAWN BY SJR	DESIGNED BY ---
PROJECT No. 5010156.1532	CHECKED BY JRC
DRAWING No. C108	FIELD BOOK / PAGE FB 276 PG 60
	REV. 3

FILE LOCATION: P:\WORK\10156\MCH\MB - PROPERTIES\10156-14 PLEASANT ST - PORTSMOUTH - RCRD\10156_1532 SITE 2025.DWG, 2025.04.08, 2:41 PM

EROSION CONTROL NOTES

CONSTRUCTION SEQUENCE
DO NOT BEGIN CONSTRUCTION UNTIL ALL LOCAL, STATE AND FEDERAL PERMITS HAVE BEEN APPLIED FOR AND RECEIVED.

- THE FOLLOWING REPRESENTS THE GENERAL OBSERVATION AND REPORTING PRACTICES THAT SHALL BE FOLLOWED AS PART OF THIS PROJECT:
- OBSERVATIONS OF THE PROJECT FOR COMPLIANCE WITH THE CITY OF PORTSMOUTH CDDP SHALL BE MADE BY THE CONTRACTOR AT LEAST ONCE A WEEK OR WITHIN 24 HOURS OF A STORM 0.25 INCHES OR GREATER.
 - AN OBSERVATION REPORT SHALL BE MADE AFTER EACH OBSERVATION AND DISTRIBUTED TO THE ENGINEER, THE OWNER, AND THE CONTRACTOR.
 - A REPRESENTATIVE OF THE SITE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTENANCE AND REPAIR ACTIVITIES.
 - IF A REPAIR IS NECESSARY, IT SHALL BE INITIATED WITHIN 24 HOURS OF REPORT.

INSTALL PERIMETER CONTROLS, I.E., SILT/SOXX AND CATCH BASIN PROTECTION AROUND THE LIMITS OF DISTURBANCE BEFORE ANY EARTH MOVING OPERATIONS. THE USE OF HAYBALES IS NOT ALLOWED.

THE CONTRACTOR SHALL CONSTRUCT STABILIZED CONSTRUCTION ENTRANCE(S) PRIOR TO ANY EXCAVATION ACTIVITIES. PLACE FODS AS NEEDED.

CUT AND GRUB ALL TREES, SHRUBS, SAPLINGS, BRUSH, VINES AND REMOVE OTHER DEBRIS AND RUBBISH AS REQUIRED. DEMOLISH BUILDINGS AND FENCES AS NEEDED. CONSTRUCT FOUNDATIONS.

ROUGH GRADE SITE.

LAYOUT AND INSTALL ALL BURIED UTILITIES TO THE PROPOSED BUILDING FOUNDATIONS. CAP AND MARK TERMINATIONS OR LOG SWING TIES.

CONSTRUCT BUILDING.

CONNECT UTILITIES.

PLACE BINDER LAYER OF PAVEMENT FOR SIDEWALKS.

AFTER BUILDINGS ARE COMPLETED, FINISH ALL REMAINING SIDEWALK WORK.

REMOVE TRAPPED SEDIMENTS FROM COLLECTION DEVICES AS APPROPRIATE, AND THEN REMOVE TEMPORARY EROSION CONTROL MEASURES UPON COMPLETION OF FINAL STABILIZATION OF THE SITE.

PROJECT DESCRIPTION
THE PROJECT CONSISTS OF A BUILDING REDEVELOPMENT WITH ASSOCIATED UTILITIES AND PARKING.

THE TOTAL AREA TO BE DISTURBED IS APPROXIMATELY 0.94 ACRES.

BASED ON THE USCS WEB SOIL SURVEY THE SOILS ON SITE CONSIST OF URBAN LAND WHICH HAS AN UNSPECIFIED HYDROLOGIC SOIL GROUP RATING, ASSUMED D.

THE STORMWATER RUNOFF FROM THE SITE WILL BE DISCHARGED VIA A CLOSED DRAINAGE SYSTEM TO THE CITY OF PORTSMOUTH CLOSED DRAINAGE SYSTEM WHICH ULTIMATELY FLOWS TO THE PISCATAQUA RIVER.

GENERAL CONSTRUCTION NOTES
THE EROSION CONTROL PROCEDURES SHALL CONFORM TO SECTION 645 OF THE "STANDARD SPECIFICATION FOR ROAD AND BRIDGE CONSTRUCTION" OF THE NHDOT, AND "STORM WATER MANAGEMENT AND EROSION AND SEDIMENT CONTROL HANDBOOK FOR URBAN AND DEVELOPING AREAS IN NEW HAMPSHIRE". THE PROJECT IS TO BE MANAGED IN A MANNER THAT MEETS THE REQUIREMENTS AND INTENT OF RSA 430:53 AND CHAPTER AGR 3800 RELATIVE TO INVASIVE SPECIES.

DURING CONSTRUCTION AND THEREAFTER, EROSION CONTROL MEASURES ARE TO BE IMPLEMENTED AS NOTED. THE SMALLEST PRACTICAL AREA OF LAND SHOULD BE EXPOSED AT ANY ONE TIME DURING DEVELOPMENT. NO DISTURBED AREA SHALL BE LEFT UNSTABILIZED FOR MORE THAN 45 DAYS.

ANY DISTURBED AREAS WHICH ARE TO BE LEFT TEMPORARILY, AND WHICH WILL BE REGRADED LATER DURING CONSTRUCTION SHALL BE MACHINE HAY MULCHED AND SEEDDED WITH RYE GRASS TO PREVENT EROSION.

THE PROJECT IS TO BE MANAGED IN A MANNER THAT MEETS THE REQUIREMENTS AND INTENT OF RSA 430:53 AND CHAPTER AGR 3800 RELATIVE TO INVASIVE SPECIES.

DUST CONTROL: DUST CONTROL MEASURES SHALL INCLUDE BUT ARE NOT LIMITED TO SPRINKLING WATER ON EXPOSED AREAS, COVERING LOADED DUMP TRUCKS LEAVING THE SITE, AND TEMPORARY MULCHING. DUST CONTROL MEASURES SHALL BE UTILIZED SO AS TO PREVENT THE MIGRATION OF DUST FROM THE SITE TO ADJACENT AREAS.

IF TEMPORARY STABILIZATION PRACTICES, SUCH AS TEMPORARY VEGETATION AND MULCHING, DO NOT ADEQUATELY REDUCE DUST GENERATION, APPLICATION OF WATER OR CALCIUM CHLORIDE SHALL BE APPLIED IN ACCORDANCE WITH BEST MANAGEMENT PRACTICES.

SILT/SOXX SHALL BE PERIODICALLY INSPECTED DURING THE LIFE OF THE PROJECT AND AFTER EACH STORM. ALL DAMAGED SILT/SOXX SHALL BE REPAIRED. SEDIMENT DEPOSITS SHALL PERIODICALLY BE REMOVED AND DISPOSED IN A SECURED LOCATION.

ALL FILLS SHALL BE PLACED AND COMPACTED TO REDUCE EROSION, SLIPPAGE, SETTLEMENT, SUBSIDENCE OR OTHER RELATED PROBLEMS.

ALL NON-STRUCTURAL, SITE-FILL SHALL BE PLACED AND COMPACTED TO 90% MODIFIED PROCTOR DENSITY IN LAYERS NOT EXCEEDING 18 INCHES IN THICKNESS UNLESS OTHERWISE NOTED.

FROZEN MATERIAL OR SOFT, MUCKY OR HIGHLY COMPRESSIBLE MATERIAL, TRASH, WOODY DEBRIS, LEAVES, BRUSH OR ANY DELETERIOUS MATTER SHALL NOT BE INCORPORATED INTO FILLS.

FILL MATERIAL SHALL NOT BE PLACED ON FROZEN FOUNDATION SUBGRADE.

DURING CONSTRUCTION AND UNTIL ALL DEVELOPED AREAS ARE FULLY STABILIZED, ALL EROSION CONTROL MEASURES SHALL BE INSPECTED WEEKLY AND AFTER EACH ONE HALF INCH OF RAINFALL.

THE CONTRACTOR SHALL MODIFY OR ADD EROSION CONTROL MEASURES AS NECESSARY TO ACCOMMODATE PROJECT CONSTRUCTION.

AN AREA SHALL BE CONSIDERED STABLE IF ONE OF THE FOLLOWING HAS OCCURRED:
 - BASE COURSE GRAVELS HAVE BEEN INSTALLED ON AREAS TO BE PAVED
 - A MINIMUM OF 85% VEGETATED GROWTH HAS BEEN ESTABLISHED
 - A MINIMUM OF 3 INCHES OF NON-EROSIVE MATERIAL, SUCH AS STONE OR RIPRAP HAS BEEN INSTALLED
 - EROSION CONTROL BLANKETS HAVE BEEN INSTALLED
 - IN AREAS TO BE PAVED, "STABLE" MEANS THAT BASE COURSE GRAVELS MEETING THE REQUIREMENTS OF NHDOT STANDARD FOR ROAD AND BRIDGE CONSTRUCTION, 2016, ITEM 304.2 HAVE BEEN INSTALLED.

STABILIZATION SHALL BE INITIATED ON ALL STOCKPILES, AND DISTURBED AREAS, WHERE CONSTRUCTION ACTIVITY SHALL NOT OCCUR FOR MORE THAN TWENTY-ONE (21) CALENDAR DAYS BY THE FOURTEENTH (14TH) DAY AFTER CONSTRUCTION ACTIVITY HAS PERMANENTLY OR TEMPORARILY CEASED IN THAT AREA.

STABILIZATION MEASURES TO BE USED INCLUDE:
 - TEMPORARY SEEDING;
 - MULCHING.

MAINTENANCE AND PROTECTION
THE SILT/SOXX BARRIER AND CATCH BASIN FILTERS SHALL BE CHECKED AFTER EACH RAINFALL AND AT LEAST DAILY DURING PROLONGED RAINFALL.

THE CATCH BASIN INLET BASKET SHALL BE INSPECTED WITHIN 24 HOURS AFTER EACH RAINFALL OR DAILY DURING EXTENDED PERIODS OF PRECIPITATION. REPAIRS SHALL BE MADE IMMEDIATELY, AS NECESSARY, TO PREVENT PARTICLES FROM REACHING THE DRAINAGE SYSTEM AND/OR CAUSING SURFACE FLOODING. SEDIMENT DEPOSITS SHALL BE REMOVED AFTER EACH STORM EVENT, OR MORE OFTEN IF THE FABRIC BECOMES CLOGGED.

WINTER NOTES
ALL PROPOSED VEGETATED AREAS THAT DO NOT EXHIBIT A MINIMUM OF 85% VEGETATED GROWTH BY OCTOBER 15, OR WHICH ARE DISTURBED AFTER OCTOBER 15, SHALL BE STABILIZED BY SEEDING AND INSTALLING EROSION CONTROL BLANKETS ON SLOPES GREATER THAN 3:1, AND SEEDING AND PLACING 3 TO 4 TONS OF MULCH PER ACRE, SECURED WITH ANCHORED NETTING, ELSEWHERE. THE INSTALLATION OF EROSION CONTROL BLANKETS OR MULCH AND NETTING SHALL NOT OCCUR OVER ACCUMULATED SNOW OR ON FROZEN GROUND AND SHALL BE COMPLETED IN ADVANCE OF THAW OR SPRING MELT EVENTS.

ALL DITCHES OR SWALES WHICH DO NOT EXHIBIT A MINIMUM OF 85 PERCENT VEGETATIVE GROWTH BY OCTOBER 15, OR WHICH ARE DISTURBED AFTER OCTOBER 15, SHALL BE STABILIZED TEMPORARILY WITH STONE OR EROSION CONTROL BLANKETS APPROPRIATE FOR THE DESIGN FLOW CONDITIONS.

AFTER OCTOBER 15, INCOMPLETE ROAD OR PARKING SURFACES, WHERE WORK HAS STOPPED FOR THE WINTER SEASON, SHALL BE PROTECTED WITH A MINIMUM OF 3 INCHES OF CRUSHED GRAVEL PER NHDOT ITEM 304.3, OR IF CONSTRUCTION IS TO CONTINUE THROUGH THE WINTER SEASON BE CLEARED OF ANY ACCUMULATED SNOW AFTER EACH STORM EVENT.

STOCKPILES
1. LOCATE STOCKPILES A MINIMUM OF 50 FEET AWAY FROM CATCH BASINS, SWALES, AND CULVERTS.
2. ALL STOCKPILES SHOULD BE SURROUNDED WITH TEMPORARY EROSION CONTROL MEASURES PRIOR TO THE ONSET OF PRECIPITATION.

- PERIMETER BARRIERS SHOULD BE MAINTAINED AT ALL TIMES, AND ADJUSTED AS NEEDED TO ACCOMMODATE THE DELIVERY AND REMOVAL OF MATERIALS FROM THE STOCKPILE. THE INTEGRITY OF THE BARRIER SHOULD BE INSPECTED AT THE END OF EACH WORKING DAY.
- PROTECT ALL STOCKPILES FROM STORMWATER RUN-OFF USING TEMPORARY EROSION CONTROL MEASURES SUCH AS BERMS, SILT SOCK, OR OTHER APPROVED PRACTICE TO PREVENT MIGRATION OF MATERIAL BEYOND THE IMMEDIATE CONFINES OF THE STOCKPILES.

CONCRETE WASHOUT AREA
THE FOLLOWING ARE THE ONLY NON-STORMWATER DISCHARGES ALLOWED. ALL OTHER NON-STORMWATER DISCHARGES ARE PROHIBITED ON SITE.

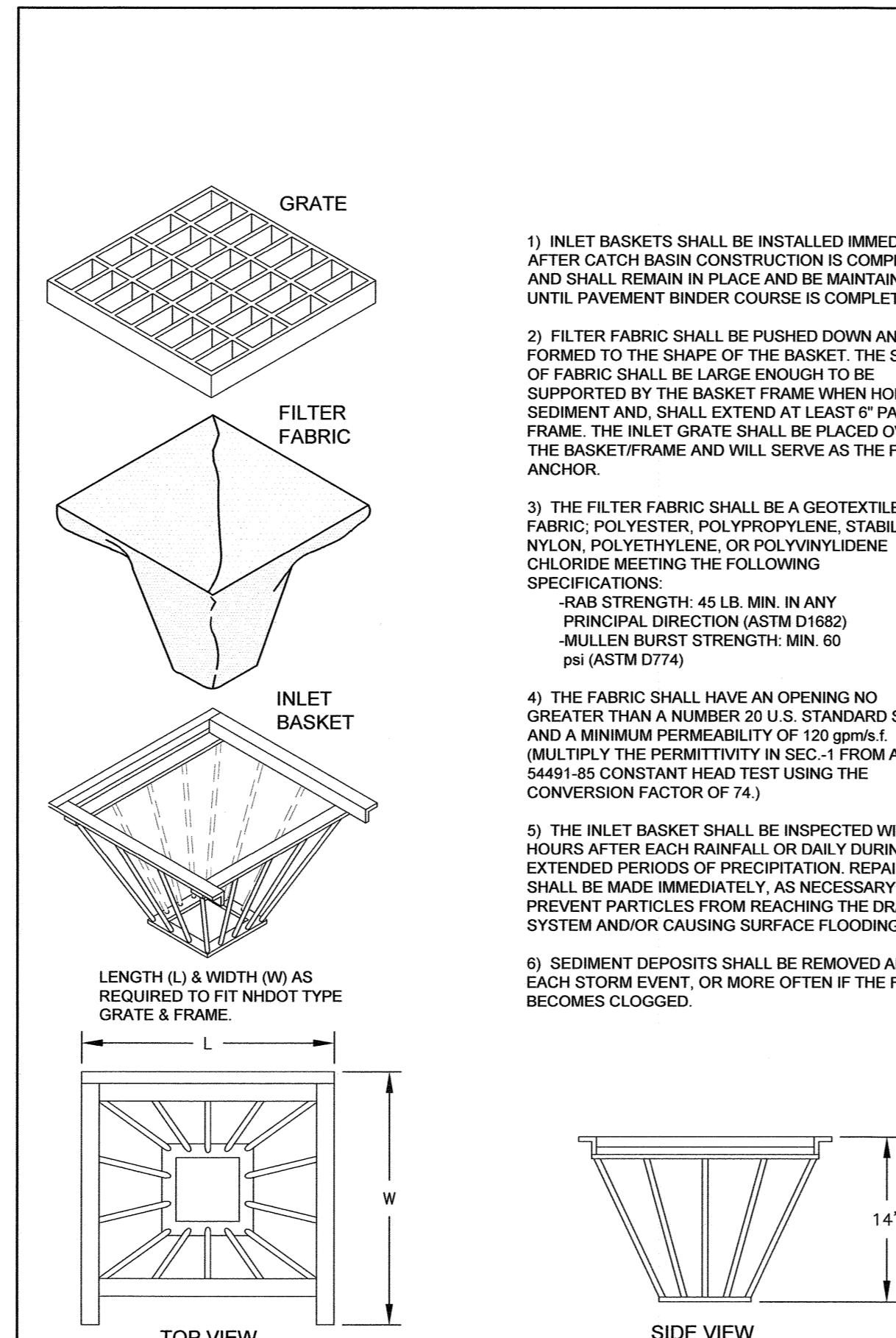
- THE CONCRETE DELIVERY TRUCKS SHALL, WHENEVER POSSIBLE, USE WASHOUT FACILITIES AT THEIR OWN PLANT OR DISPATCH FACILITY.
- IF IT IS NECESSARY, SITE CONTRACTOR SHALL DESIGNATE SPECIFIC WASHOUT AREAS AND DESIGN FACILITIES TO HANDLE ANTICIPATED WASHOUT WATER.
- CONTRACTOR SHALL LOCATE WASHOUT AREAS AT LEAST 150 FEET AWAY FROM STORM DRAINS, SWALES AND SURFACE WATERS OR DELINEATED WETLANDS.
- INSPECT WASHOUT FACILITIES DAILY TO DETECT LEAKS OR TEARS AND TO IDENTIFY WHEN MATERIALS NEED TO BE REMOVED.

- ALLOWABLE NON-STORMWATER DISCHARGES
- FIRE-FIGHTING ACTIVITIES;
 - FIRE HYDRANT FLUSHING;
 - WATERS USED TO WASH VEHICLES WHERE DETERGENTS ARE NOT USED;
 - WATER USED TO CONTROL DUST;
 - POTABLE WATER INCLUDING UNCONTAMINATED WATER LINE FLUSHING;
 - ROUTINE EXTERNAL BUILDING WASH DOWN WHERE DETERGENTS ARE NOT USED;
 - PAVEMENT WASH WATERS WHERE DETERGENTS ARE NOT USED;
 - UNCONTAMINATED AIR CONDITIONING/COMPRESSOR CONDENSATION;
 - UNCONTAMINATED GROUND WATER OR SPRING WATER;
 - FOUNDATION OR FOOTING DRAINS WHICH ARE UNCONTAMINATED;
 - UNCONTAMINATED EXCAVATION DEWATERING;
 - LANDSCAPE IRRIGATION.

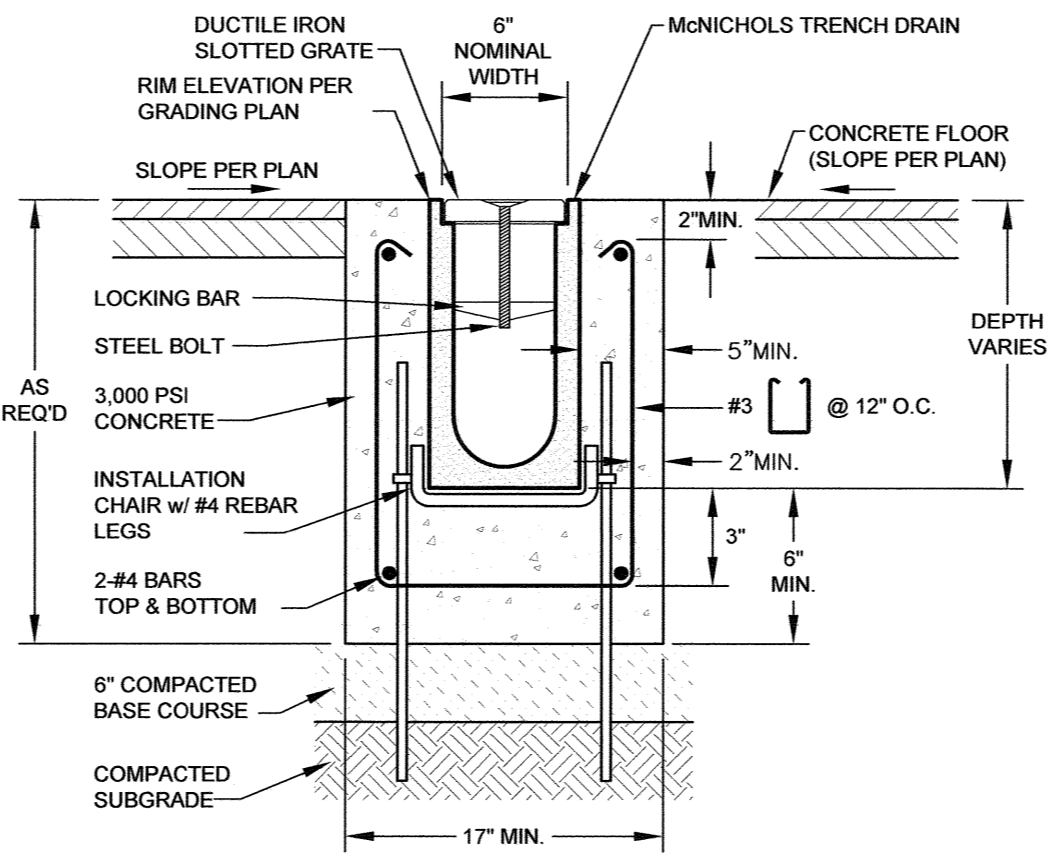
WASTE DISPOSAL
1. WASTE MATERIAL
 - ALL WASTE MATERIALS SHALL BE COLLECTED AND STORED IN SECURELY LIDDED RECEPTACLES. ALL TRASH AND CONSTRUCTION DEBRIS FROM THE SITE SHALL BE DEPOSITED IN A DUMPSTER;
 - NO CONSTRUCTION WASTE MATERIALS SHALL BE BURIED ON SITE;
 - ALL PERSONNEL SHALL BE INSTRUCTED REGARDING THE CORRECT PROCEDURE FOR WASTE DISPOSAL BY THE SUPERINTENDENT.

- HAZARDOUS WASTE
 - ALL HAZARDOUS WASTE MATERIALS SHALL BE DISPOSED OF IN THE MANNER SPECIFIED BY LOCAL OR STATE REGULATION OR BY THE MANUFACTURER;
 - SITE PERSONNEL SHALL BE INSTRUCTED IN THESE PRACTICES BY THE SUPERINTENDENT.
- SANITARY WASTE
 - ALL SANITARY WASTE SHALL BE COLLECTED FROM THE PORTABLE UNITS A MINIMUM OF ONCE PER WEEK BY A LICENSED SANITARY WASTE MANAGEMENT CONTRACTOR.

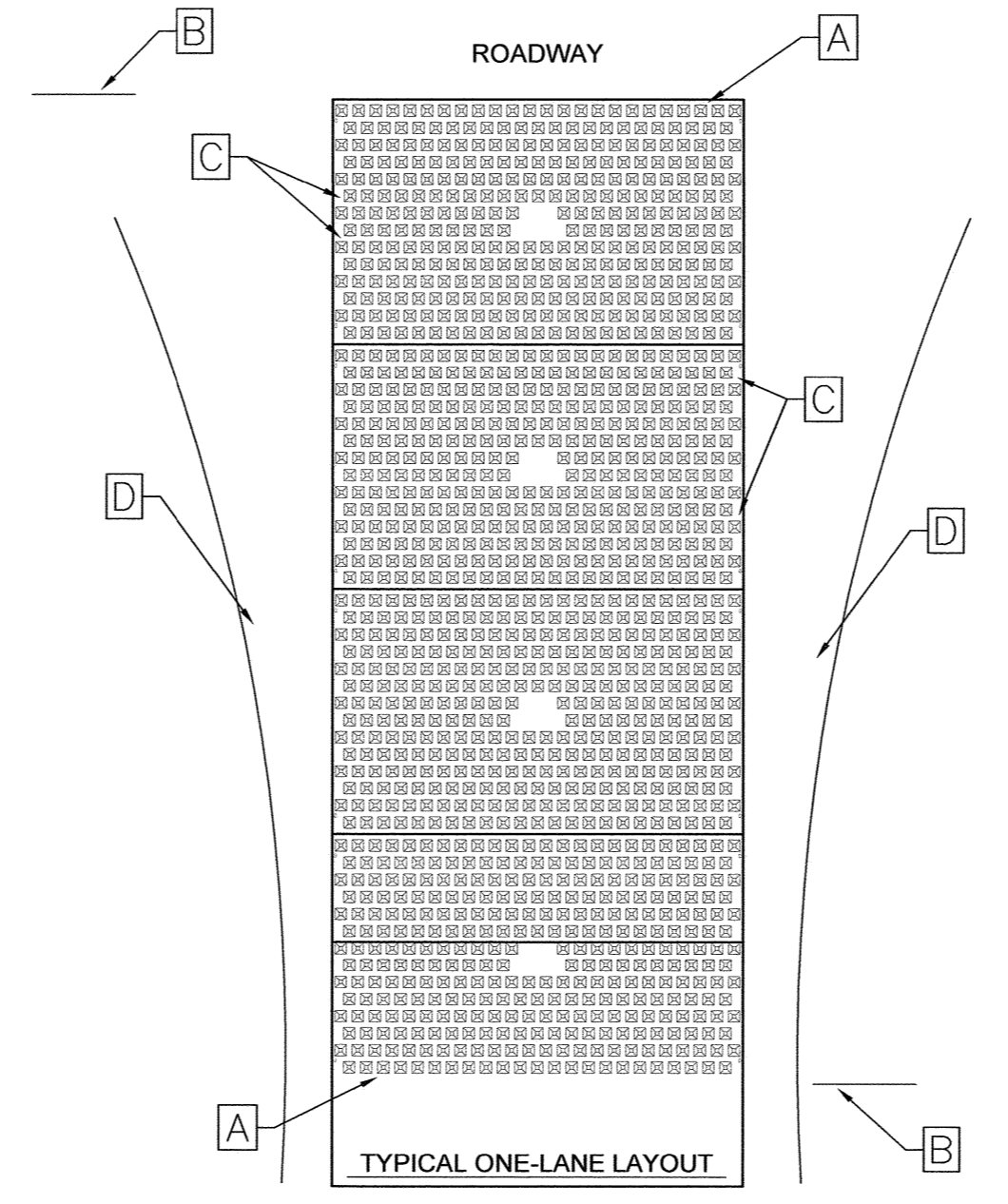
- BLASTING NOTES**
- CONTRACTOR SHALL CONTACT THE NHDES AND/OR LOCAL JURISDICTION PRIOR TO COMMENCING ANY BLASTING ACTIVITIES.
 - FOR ANY PROJECT FOR WHICH BLASTING OF BEDROCK IS ANTICIPATED, THE APPLICANT SHALL SUBMIT A BLASTING PLAN THAT IDENTIFIES:
 - WHERE THE BLASTING ACTIVITIES ARE ANTICIPATED TO OCCUR;
 - THE ESTIMATED QUANTITY OF BLAST ROCK IN CUBIC YARDS; AND
 - SITE-SPECIFIC BLASTING BEST MANAGEMENT PRACTICES.



A CATCH BASIN INLET BASKET
NTS



B EVAPORATOR TRENCH DETAIL
COORDINATE WITH BUILDING PLANS
NTS



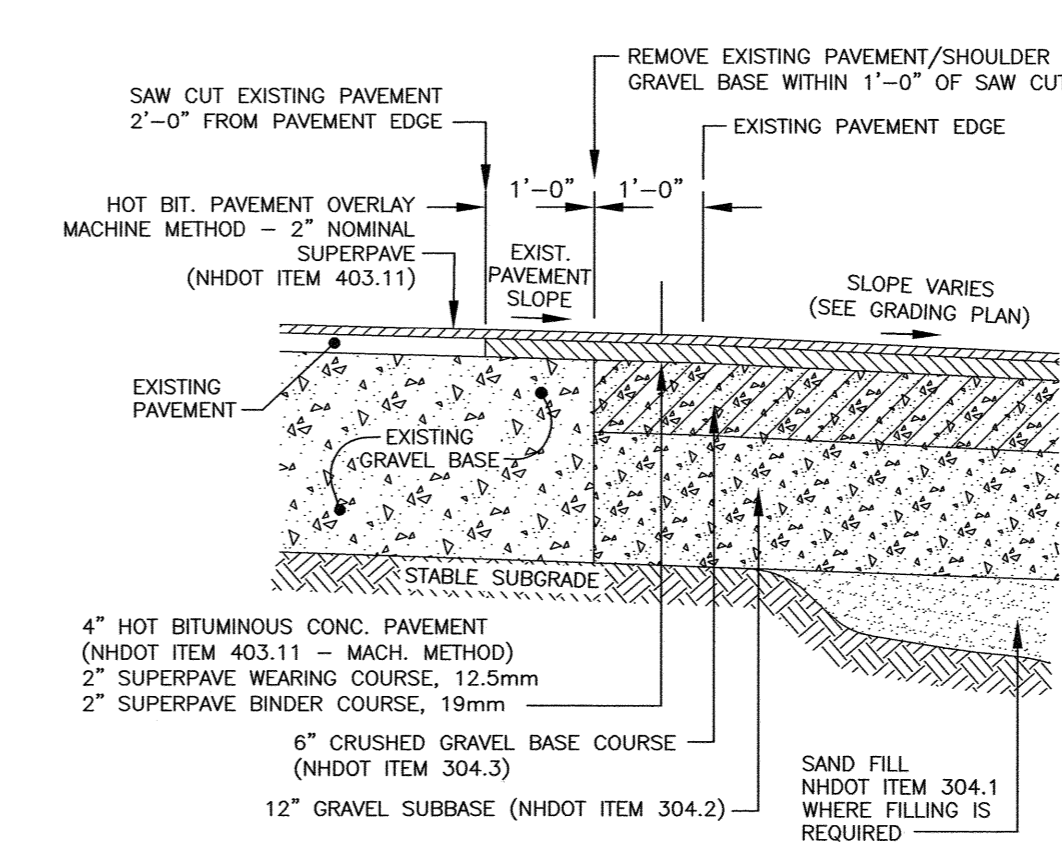
INSTALLATION:
1. THE SITE WHERE THE FODS TRACKOUT CONTROL SYSTEM IS TO BE PLACED SHOULD CORRESPOND TO BEST MANAGEMENT PRACTICES AS MUCH AS POSSIBLE. THE SITE WHERE FODS TRACKOUT CONTROL SYSTEM IS PLACED SHOULD ALSO MEET OR EXCEED THE LOCAL JURISDICTION OR STORM WATER POLLUTION PREVENTION PLAN (SWPPP) REQUIREMENTS.

- CALL FOR UTILITY LOCATES 3 BUSINESS DAYS IN ADVANCE OF THE FODS TRACKOUT CONTROL SYSTEM INSTALLATION FOR THE MARKING OF UNDERGROUND UTILITIES. CALL THE UTILITY NOTIFICATION CENTER AT 811.
- ONCE THE SITE IS ESTABLISHED WHERE FODS TRACKOUT CONTROL SYSTEM IS TO BE PLACED, ANY EXCESSIVE UNEVEN TERRAIN SHOULD BE LEVELED OUT OR REMOVED SUCH AS LARGE ROCKS, LANDSCAPING MATERIALS, OR SUDDEN ABRUPT CHANGES IN ELEVATION.
- THE INDIVIDUAL MATS CAN START TO BE PLACED INTO POSITION. THE FIRST MAT SHOULD BE PLACED NEXT TO THE CLOSEST POINT OF EGRESS. THIS WILL ENSURE THAT THE VEHICLE WILL EXIT STRAIGHT FROM THE SITE ONTO THE PAVED SURFACE.
- AFTER THE FIRST MAT IS PLACED DOWN IN THE PROPER LOCATION, MATS SHOULD BE ANCHORED TO PREVENT THE POTENTIAL MOVEMENT WHILE THE ADJOINING MATS ARE INSTALLED. ANCHORS SHOULD BE PLACED AT EVERY ANCHOR POINT (IF FEASIBLE) TO HELP MAINTAIN THE MAT IN ITS CURRENT POSITION.
- AFTER THE FIRST MAT IS ANCHORED IN ITS PROPER PLACE, AN H BRACKET SHOULD BE PLACED AT THE END OF THE FIRST MAT BEFORE ANOTHER MAT IS PLACED ADJACENT TO THE FIRST MAT.
- ONCE THE SECOND MAT IS PLACED ADJACENT TO THE FIRST MAT, MAKE SURE THE H BRACKET IS CORRECTLY SITUATED BETWEEN THE TWO MATS, AND SLIDE MATS TOGETHER.
- NEXT THE CONNECTOR STRAPS SHOULD BE INSTALLED TO CONNECT THE TWO MATS TOGETHER.
- UPON PLACEMENT OF EACH NEW MAT IN THE SYSTEM, THAT MAT SHOULD BE ANCHORED AT EVERY ANCHOR POINT TO HELP STABILIZE THE SYSTEM. THE SYSTEMS SHOULD BE CONTINUOUS WITH NO GAPS IN BETWEEN THE MATS.
- SUCCESSIVE MATS CAN THEN BE PLACED TO CREATE THE FODS TRACKOUT CONTROL SYSTEM REPEATING THE ABOVE STEPS.

- USE AND MAINTENANCE**
- VEHICLES SHOULD TRAVEL DOWN THE LENGTH OF THE TRACKOUT CONTROL SYSTEM AND NOT CUT ACROSS THE MATS.
 - DRIVERS SHOULD TURN THE WHEEL OF THEIR VEHICLES SUCH THAT THE VEHICLE WILL MAKE A SHALLOW S-TURN ROUTE DOWN THE LENGTH OF THE FODS TRACKOUT CONTROL SYSTEM.
 - MATS SHOULD BE CLEANED ONCE THE VOIDS BETWEEN THE PYRAMIDS BECOME FULL OF SEDIMENT. TYPICALLY THIS WILL NEED TO BE PERFORMED WITHIN TWO WEEKS AFTER A STORM EVENT. BRUSHING IS THE PREFERRED METHOD OF CLEANING, EITHER MANUALLY OR MECHANICALLY.
 - THE USE OF ICE MELT, ROCK SALT, SNOW MELT, DE-ICER, ETC. SHOULD BE UTILIZED AS NECESSARY DURING THE WINTER MONTHS AND AFTER A SNOW EVENT TO PREVENT ICE BUILDUP.

- REMOVAL**
- REMOVAL OF FODS TRACKOUT CONTROL SYSTEM IS REVERSE ORDER OF INSTALLATION.
 - STARTING WITH THE LAST MAT, THE MAT THAT IS PLACED AT THE INNERMOST POINT OF THE SITE OR THE MAT FURTHEST FROM THE EXIT OR PAVED SURFACE SHOULD BE REMOVED FIRST.
 - THE ANCHORS SHOULD BE REMOVED.
 - THE CONNECTOR STRAPS SHOULD BE UNBOLTED AT ALL LOCATIONS IN THE FODS TRACKOUT CONTROL SYSTEM.
 - STARTING WITH THE LAST MAT IN THE SYSTEM, EACH SUCCESSIVE MAT SHOULD THEN BE MOVED AND STACKED FOR LOADING BY FORKLIFT OR EXCAVATOR ONTO A TRUCK FOR REMOVAL FROM THE SITE.

C FODS SEDIMENT TRACKING SYSTEM
NTS



D TYPICAL PAVEMENT CROSS SECTION
OFF SITE REPAIR AS NEEDED
NTS

- NOTES:**
- THE CONTRACTOR SHALL NOTIFY DIG SAFE AT 1-888-DIG-SAFE (1-888-344-7233) AT LEAST 72 HOURS PRIOR TO COMMENCING ANY EXCAVATION ON PUBLIC OR PRIVATE PROPERTY WITHIN 100 FEET OF UNDERGROUND UTILITIES. EXCAVATOR IS RESPONSIBLE TO MAINTAIN MARKS. DIG SAFE TICKETS EXPIRE IN THIRTY DAYS.
 - UNDERGROUND UTILITY LOCATIONS ARE BASED UPON BEST AVAILABLE EVIDENCE AND ARE NOT FIELD VERIFIED. LOCATING AND PROTECTING ANY ABOVEGROUND OR UNDERGROUND UTILITIES IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR AND/OR THE OWNER. UTILITY CONFLICTS SHOULD BE REPORTED AT ONCE TO THE DESIGN ENGINEER.
 - CONTRACTOR SHALL INSTALL AND MAINTAIN EROSION CONTROL MEASURES IN ACCORDANCE WITH THE "NEW HAMPSHIRE STORMWATER MANUAL, VOLUME 3, EROSION AND SEDIMENT CONTROLS DURING CONSTRUCTION." (NHDES DECEMBER 2008).

REV.	DATE	DESCRIPTION	SJR	JRC
0	10/21/25	ISSUED FOR COMMENT		

DRAWING ISSUE STATUS

PERMIT PLANS

HALEY WARD
ENGINEERING | ENVIRONMENTAL | SURVEYING

200 Griffin Road, Unit 14
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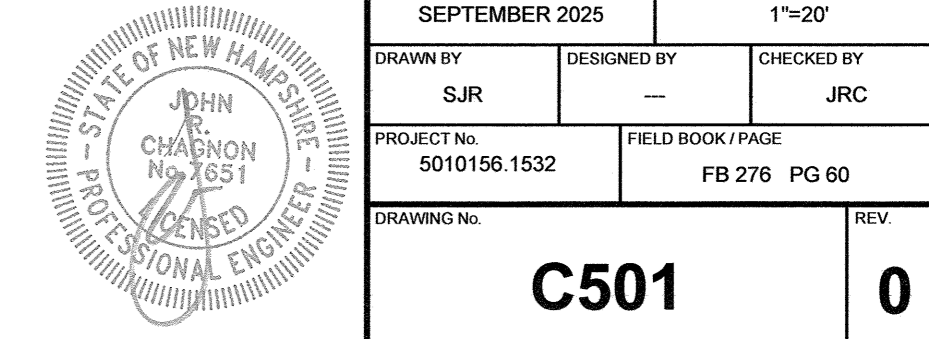
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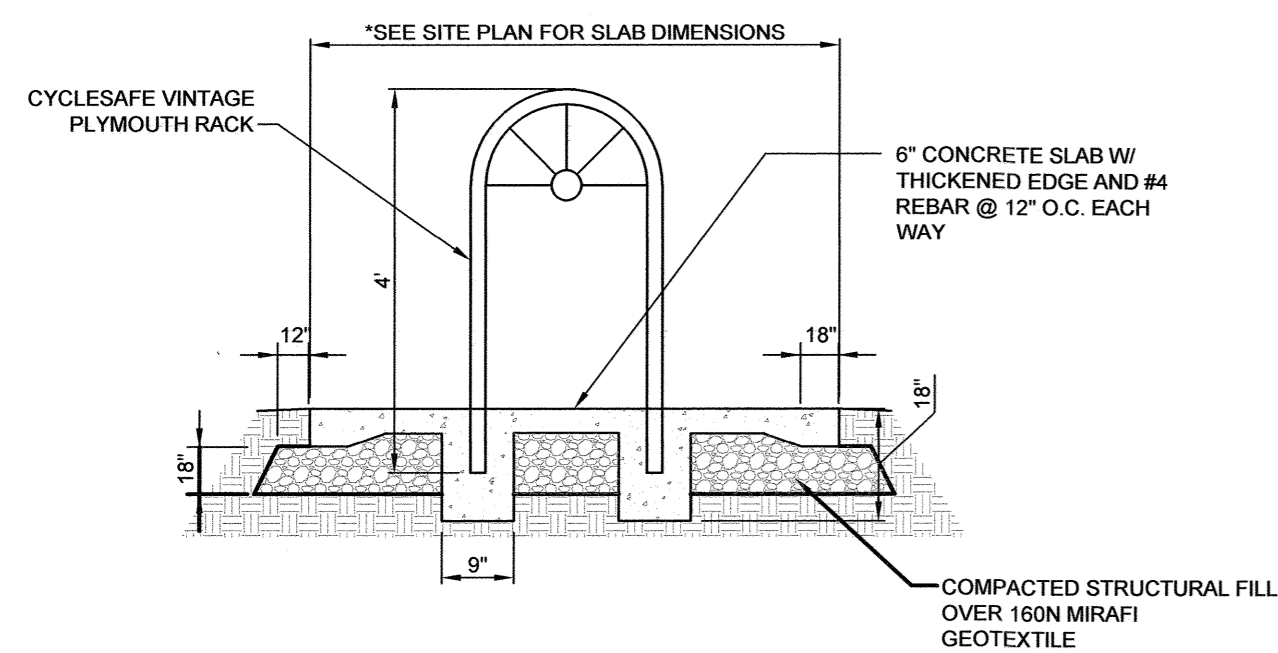
DOUBLE MC, LLC
134 PLEASANT STREET PORTSMOUTH, N.H.

TITLE

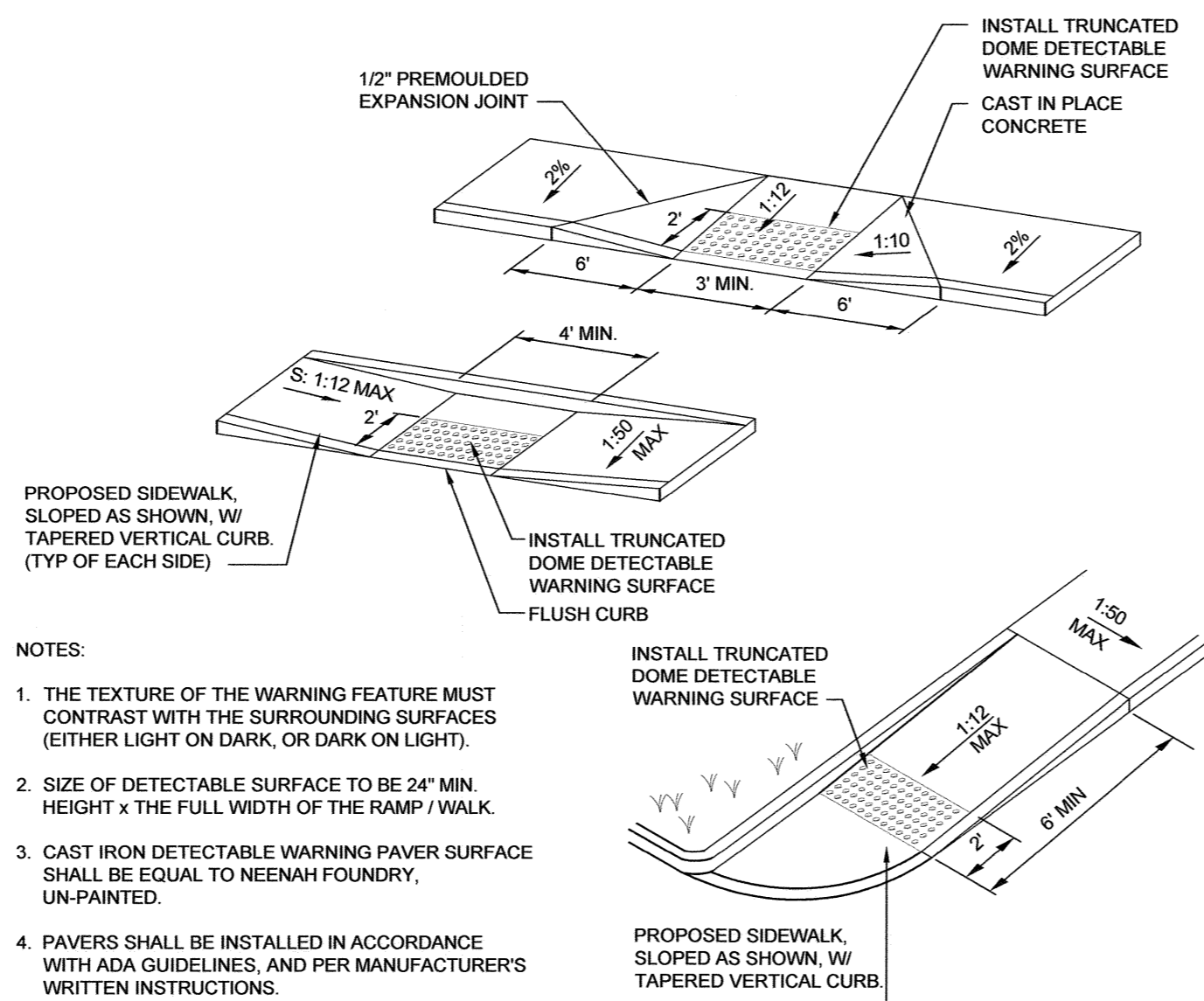
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PROJECT No: 5010156.1532	FIELD BOOK / PAGE: FB 276 PG 60
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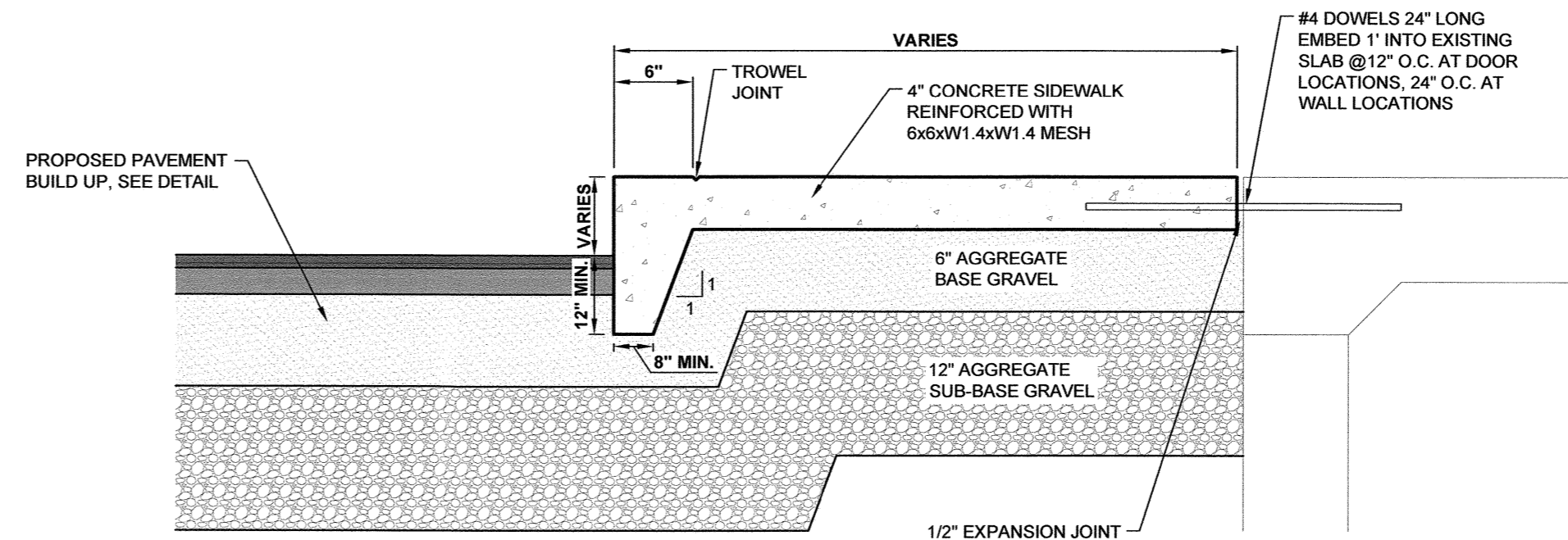


E
C102 BIKE RACK DETAIL
BIKE RACK SUBSTITUTIONS UPON APPROVAL NTS



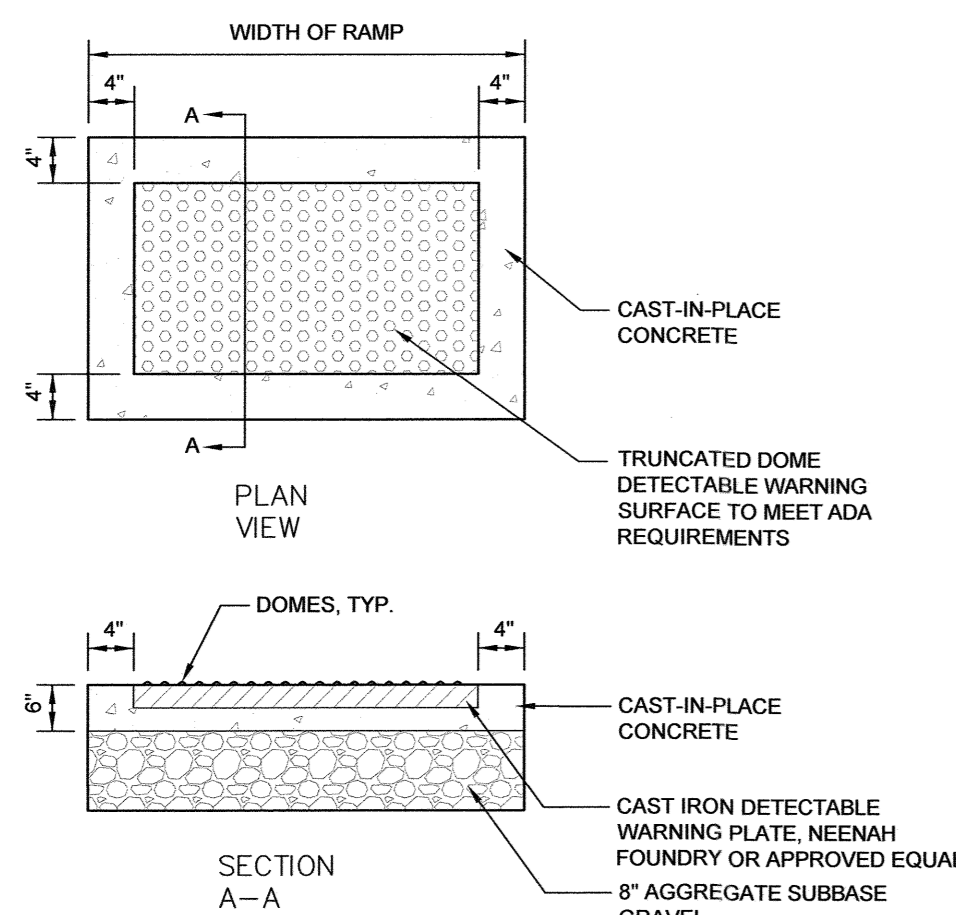
- NOTES:
1. THE TEXTURE OF THE WARNING FEATURE MUST CONTRAST WITH THE SURROUNDING SURFACES (EITHER LIGHT ON DARK, OR DARK ON LIGHT).
 2. SIZE OF DETECTABLE SURFACE TO BE 24" MIN. HEIGHT x THE FULL WIDTH OF THE RAMP / WALK.
 3. CAST IRON DETECTABLE WARNING PAVER SURFACE SHALL BE EQUAL TO NEENAH FOUNDRY, UN-PAINTED.
 4. PAVERS SHALL BE INSTALLED IN ACCORDANCE WITH ADA GUIDELINES, AND PER MANUFACTURER'S WRITTEN INSTRUCTIONS.

H
C102 TYPICAL HANDICAP CURB RAMP DETAILS NTS



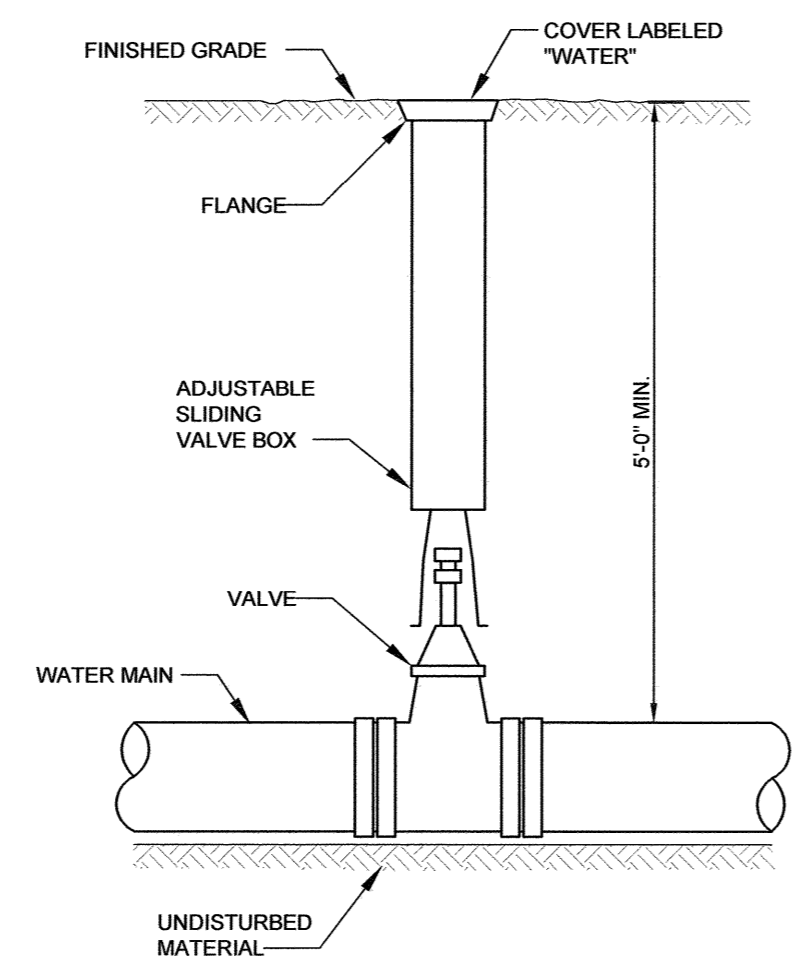
- NOTE:
- EXPANSION JOINTS SHALL BE INSTALLED EVERY 20' WITH SCORE JOINTS EVERY 5'. EXPANSION JOINTS SHALL ALSO BE PLACED WHERE THE SIDEWALK ABUTS THE BUILDING, BETWEEN ADJACENT SLABS, CURBS OR AT PENETRATION STRUCTURES. EXPANSION JOINTS ARE TO BE 1/2" WIDE.

K
C102 CONCRETE SIDEWALK W/ INTEGRAL CURB DETAIL NTS



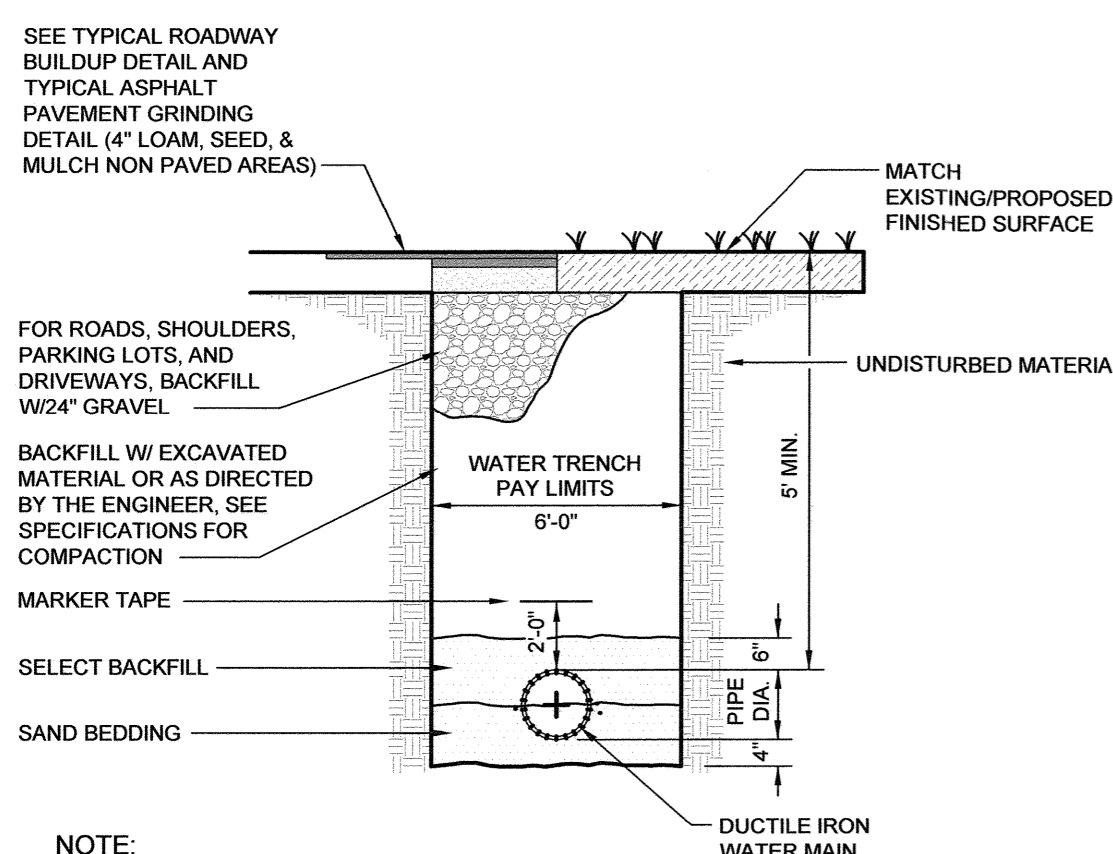
- NOTES:
1. DETECTABLE WARNINGS SHALL BE AN INTEGRAL PART OF THE RAMP AND COMPLY WITH ALL SECTIONS OF THE ADA ACCESSIBILITY GUIDELINES AND ALL SECTIONS OF THE ADA STANDARDS FOR ACCESSIBLE DESIGN.
 2. ALL DETECTABLE WARNING AREAS SHALL START 6-10" FROM THE FLOW LINE OF THE CURB, BE 24" IN DEPTH AND COVER THE COMPLETE WIDTH OF THE RAMP AREA ONLY. MATCH ROADWAY RADIUS, TYP.

F
C102 TYPICAL DETECTABLE WARNING SURFACE DETAIL NTS



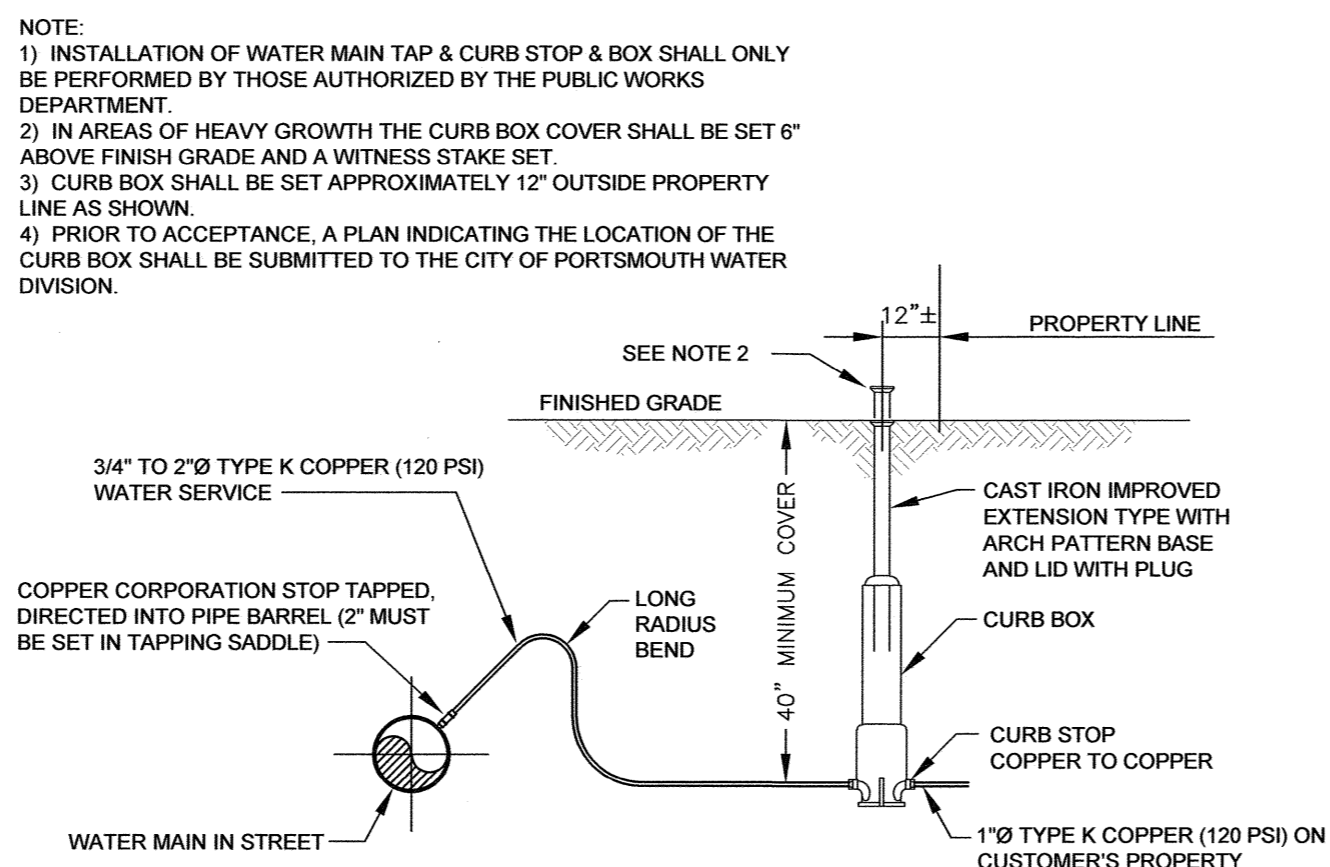
- NOTES:
1. GATE VALVE TO BE LOCATED WITHIN ROADWAY PAVEMENT WHERE POSSIBLE.
 2. PROPER SIZE VALVE BOX SHALL BE INSTALLED WHERE GATE VALVES ARE SHOWN ON PLANS.

I
C103 TYPICAL VALVE AND BOX DETAIL NTS



- NOTE:
1. MATCH EXISTING SURFACE FINISH, EXCEPT WHERE NOTED. IN LAWN AREAS INSTALL 4" OF LOAM AND SEED AND MULCH.

G
C103 TYPICAL TRENCH DETAIL-DUCTILE IRON WATER MAIN NTS



- NOTE:
- 1) INSTALLATION OF WATER MAIN TAP & CURB STOP & BOX SHALL ONLY BE PERFORMED BY THOSE AUTHORIZED BY THE PUBLIC WORKS DEPARTMENT.
 - 2) IN AREAS OF HEAVY GROWTH THE CURB BOX COVER SHALL BE SET 6" ABOVE FINISH GRADE AND A WITNESS STAKE SET.
 - 3) CURB BOX SHALL BE SET APPROXIMATELY 12' OUTSIDE PROPERTY LINE AS SHOWN.
 - 4) PRIOR TO ACCEPTANCE, A PLAN INDICATING THE LOCATION OF THE CURB BOX SHALL BE SUBMITTED TO THE CITY OF PORTSMOUTH WATER DIVISION.

J
C103 TYPICAL WATER SERVICE CONNECTION DETAIL NTS

BRICK PAVEMENT NOTES

SCOPE OF WORK

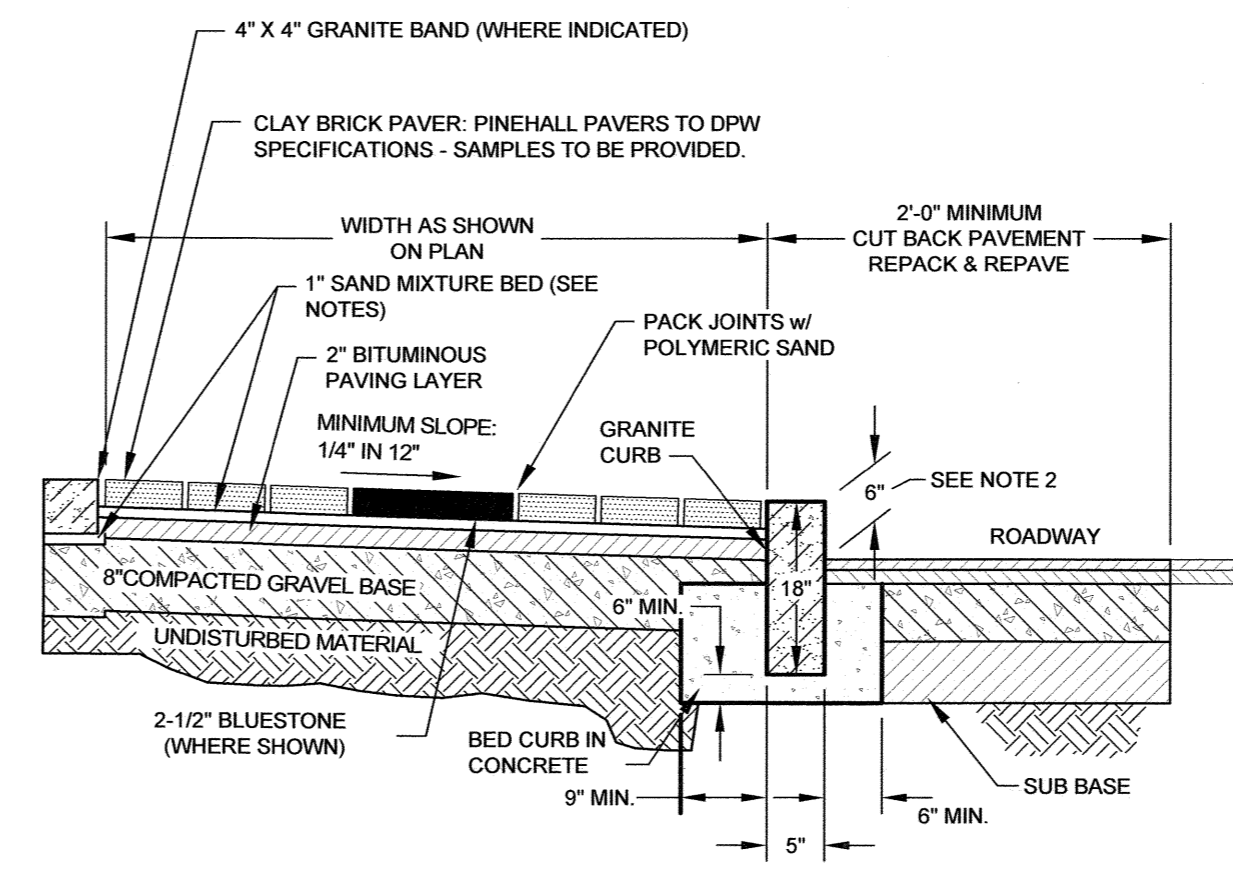
- 1) THE WORK SHALL CONSIST OF CONSTRUCTING/RECONSTRUCTING THE SUB-BASE AND CONSTRUCTING A NEW BRICK SIDEWALK AS DIRECTED IN THE FIELD BY THE ENGINEER AND COORDINATED WITH PORTSMOUTH DPW.
- 2) REVEAL SHALL BE COORDINATED WITH PORTSMOUTH DPW.

METHODS OF CONSTRUCTION:

- A) ALL LABOR AND MATERIALS SHALL CONFORM TO THE STATE OF NEW HAMPSHIRE STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, SECTION 608, AND CITY OF PORTSMOUTH SPECIFICATIONS FOR NEW BRICK SIDEWALK, SECTION 6.
- B) EXCAVATION FOR SIDEWALKS SHALL BE AT A DEPTH OF 10 INCHES BELOW FINISH GRADE. IN AREAS NOT BUTTING CURBING OR BUILDINGS, THE EXCAVATION SHALL BE 6 INCHES WIDER THAN THE FINISHED SIDEWALK WIDTH. AT ALL DRIVE CROSSINGS, THE DEPTH OF EXCAVATION SHALL BE INCREASED ACCORDINGLY. THE CONTRACTOR SHALL PROVIDE NEAT AND SQUARE CUTTING OF EXISTING ASPHALT ROAD SURFACE AS NEEDED. ALL UNSUITABLE MATERIAL SHALL BE REMOVED AND DISPOSED OF OFF-SITE AT THE CONTRACTOR'S OWN EXPENSE.
- C) THE BASE MATERIAL SHALL CONSIST OF A MIXTURE OF STONES OR ROCK FRAGMENTS AND PARTICLES WITH 100% PASSING THE 3 INCH SIEVE, 95% TO 100% PASSING THE 2 INCH SIEVE, 55% TO 85% PASSING THE 1 INCH SIEVE, AND 27% TO 52% PASSING THE NO. 4 SIEVE. AT LEAST 50% OF THE MATERIALS RETAINED ON THE 1 INCH SIEVE SHALL HAVE A FRACTURED FACE. THE BASE MATERIAL SHALL BE THOROUGHLY COMPACTED TO THE DEPTH SPECIFIED OR DIRECTED. IN THE WAY OF ALL DRIVE CROSSINGS THE BASE WILL BE INCREASED TO A COMPACTED DEPTH OF 12 INCHES. GRAVEL REQUIREMENTS FOR RECONSTRUCTION WILL BE AS DIRECTED, BASED ON SITE CONDITIONS. THE WORK INCLUDES BACKING UP ANY AND ALL CURB BEING INSTALLED BY OTHERS ON BOTH SIDES.
- D) THE CLAY BRICK PAVERS SHALL BE LAID IN A 1 INCH BED OF A SAND MIXTURE COMPRISED OF: 3 PARTS SAND MIXED WITH 1 PART PORTLAND CEMENT.
- E) THE CONTRACTOR SHALL LAY THE BRICKS SO THAT APPROXIMATELY 4.5 BRICKS SHALL COVER ONE SQUARE FOOT.
- F) THE SIDEWALK SHALL PITCH TOWARDS THE STREET AS SHOWN ON THE GRADING PLAN.
- G) IN AREAS WHERE THE FRONT OF THE BRICK SIDEWALK IS NOT ADJACENT TO GRANITE CURBING, THE CONTRACTOR SHALL INSTALL EDGING TO HOLD THE BRICKS IN PLACE. SUCH EDGING SHALL BE INSTALLED PER THE MANUFACTURER'S RECOMMENDATIONS.
- H) THE CONTRACTOR SHALL SUBMIT A SAMPLE OF THE BRICKS FOR APPROVAL BY THE CITY BEFORE BRICKS ARE INSTALLED.

CONSTRUCTION NOTE:

EXISTING GRANITE CURB DISTURBED BY CONSTRUCTION SHALL BE REUSED AND ANY MISSING CURB SHALL BE REPLACED WITH NEW CURB MATCHING EXISTING CURB SIZE. NO CURB LESS THAN 3' IN LENGTH WILL BE ALLOWED.



L
C102 BRICK SIDEWALK W/ VERTICAL GRANITE CURB DETAIL NTS

- NOTES:**
- 1) THE CONTRACTOR SHALL NOTIFY DIG SAFE AT 1-888-DIG-SAFE (1-888-344-7233) AT LEAST 72 HOURS PRIOR TO COMMENCING ANY EXCAVATION ON PUBLIC OR PRIVATE PROPERTY WITHIN 100 FEET OF UNDERGROUND UTILITIES. THE EXCAVATOR IS RESPONSIBLE TO MAINTAIN MARKS. DIG SAFE TICKETS EXPIRE IN THIRTY DAYS.
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 - 3) CONTRACTOR SHALL INSTALL AND MAINTAIN EROSION CONTROL MEASURES IN ACCORDANCE WITH THE 'NEW HAMPSHIRE STORMWATER MANUAL, VOLUME 3, EROSION AND SEDIMENT CONTROLS DURING CONSTRUCTION. (NHDES DECEMBER 2008).

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REV.	DATE	DESCRIPTION	BY	CHK

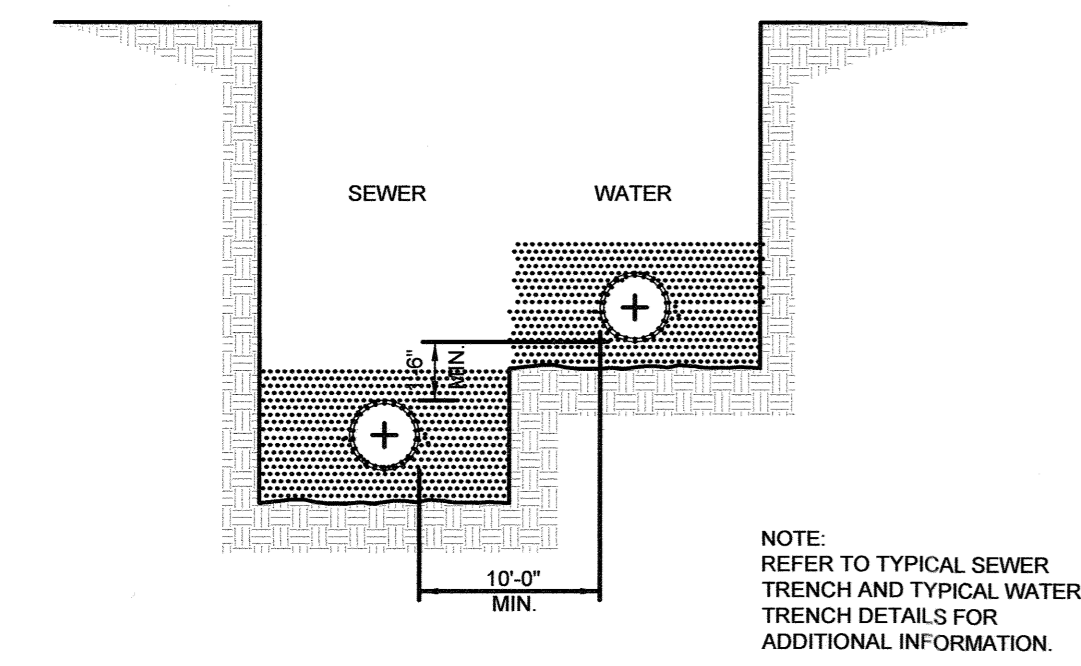
PERMIT PLANS

HALEY WARD
ENGINEERING | ENVIRONMENTAL | SURVEYING
200 Griffin Road, Unit 14
Portsmouth, NH 03801
603-430-9282

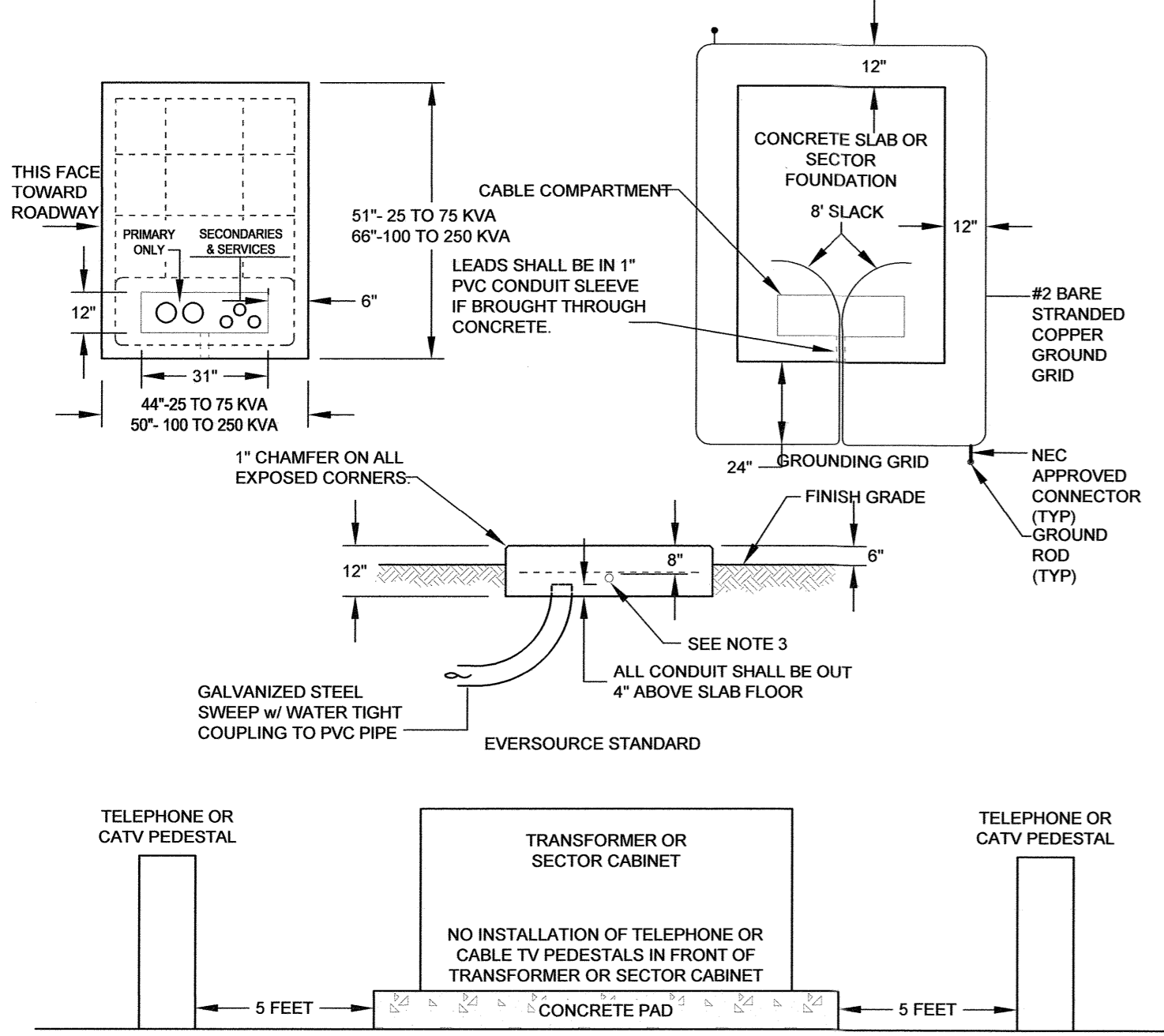
PROJECT
DOUBLE MC, LLC
134 PLEASANT STREET PORTSMOUTH, N.H.

DETAILS

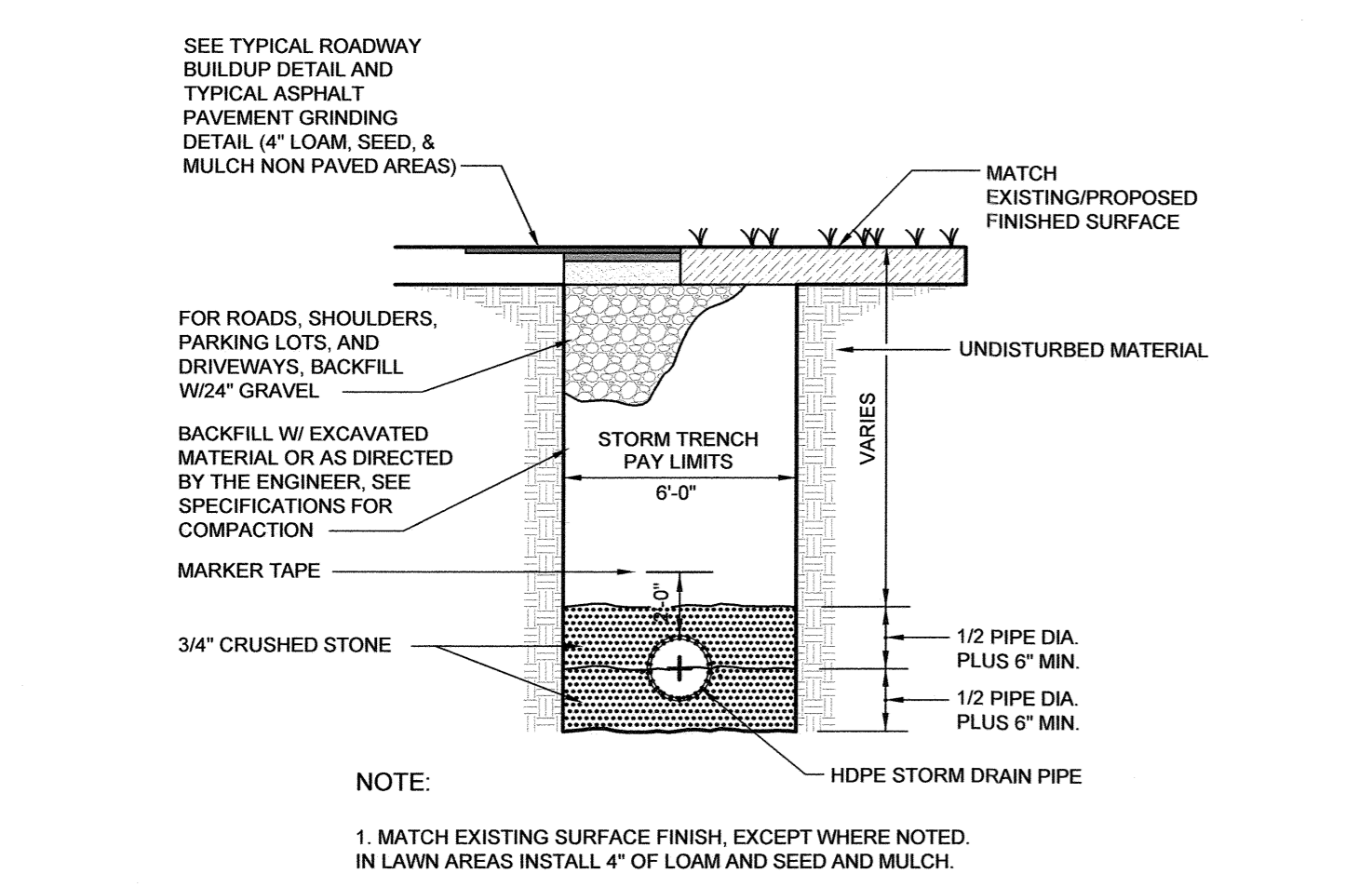
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FIELD BOOK / PAGE	FB 276	PG 60	
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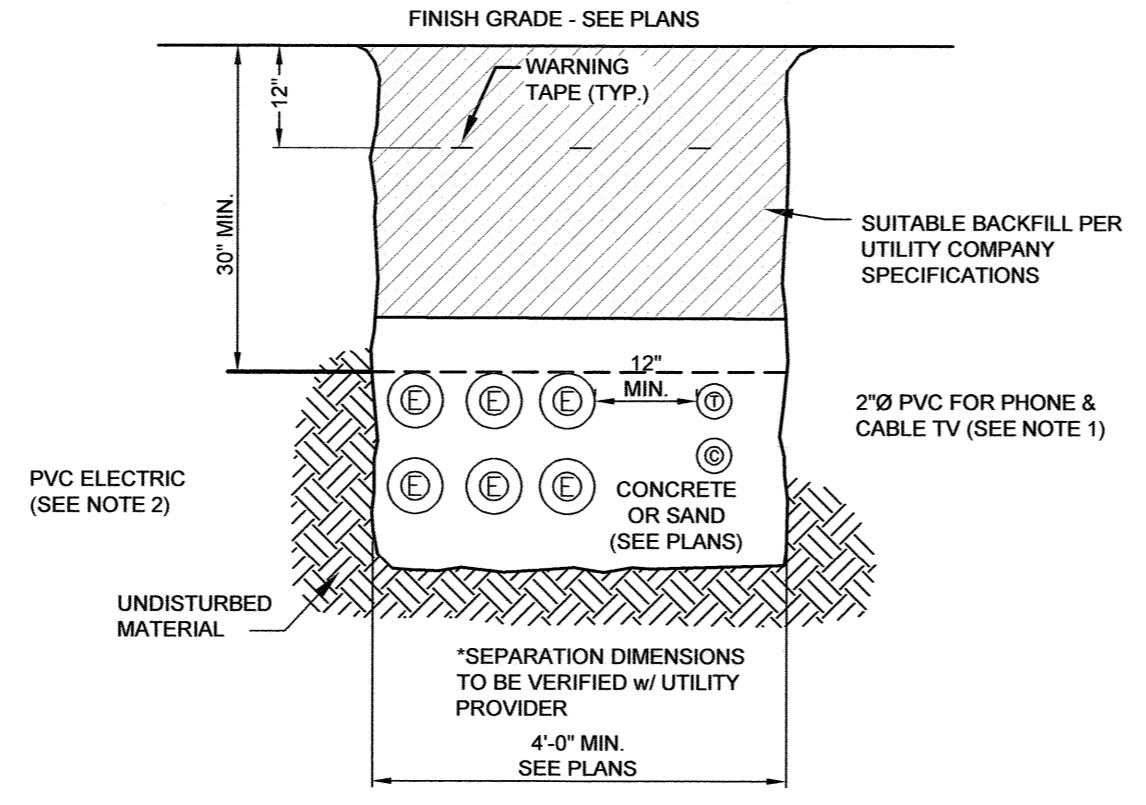
M TYPICAL SEWER/WATER SEPARATION DETAIL
C103 NTS



N TRANSFORMER PAD DETAIL
C103 COORDINATE WITH EVERSOURCE NTS

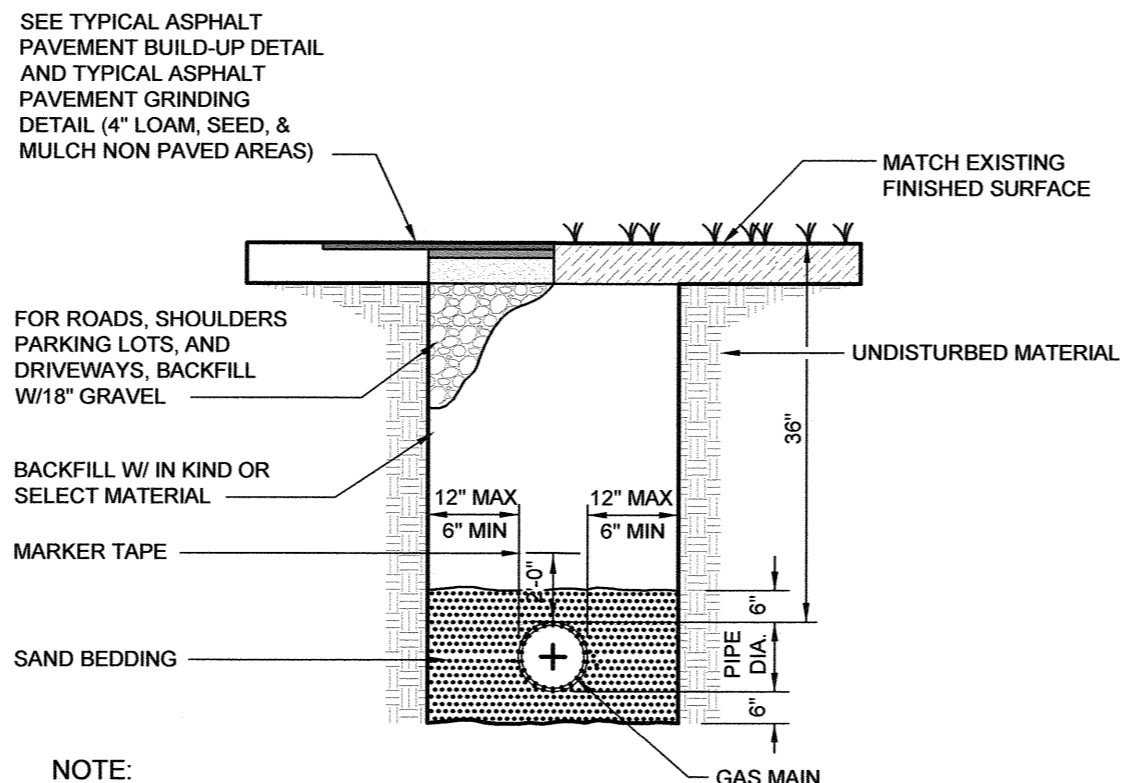


O TYPICAL STORM DRAIN TRENCH DETAIL
C104 NTS



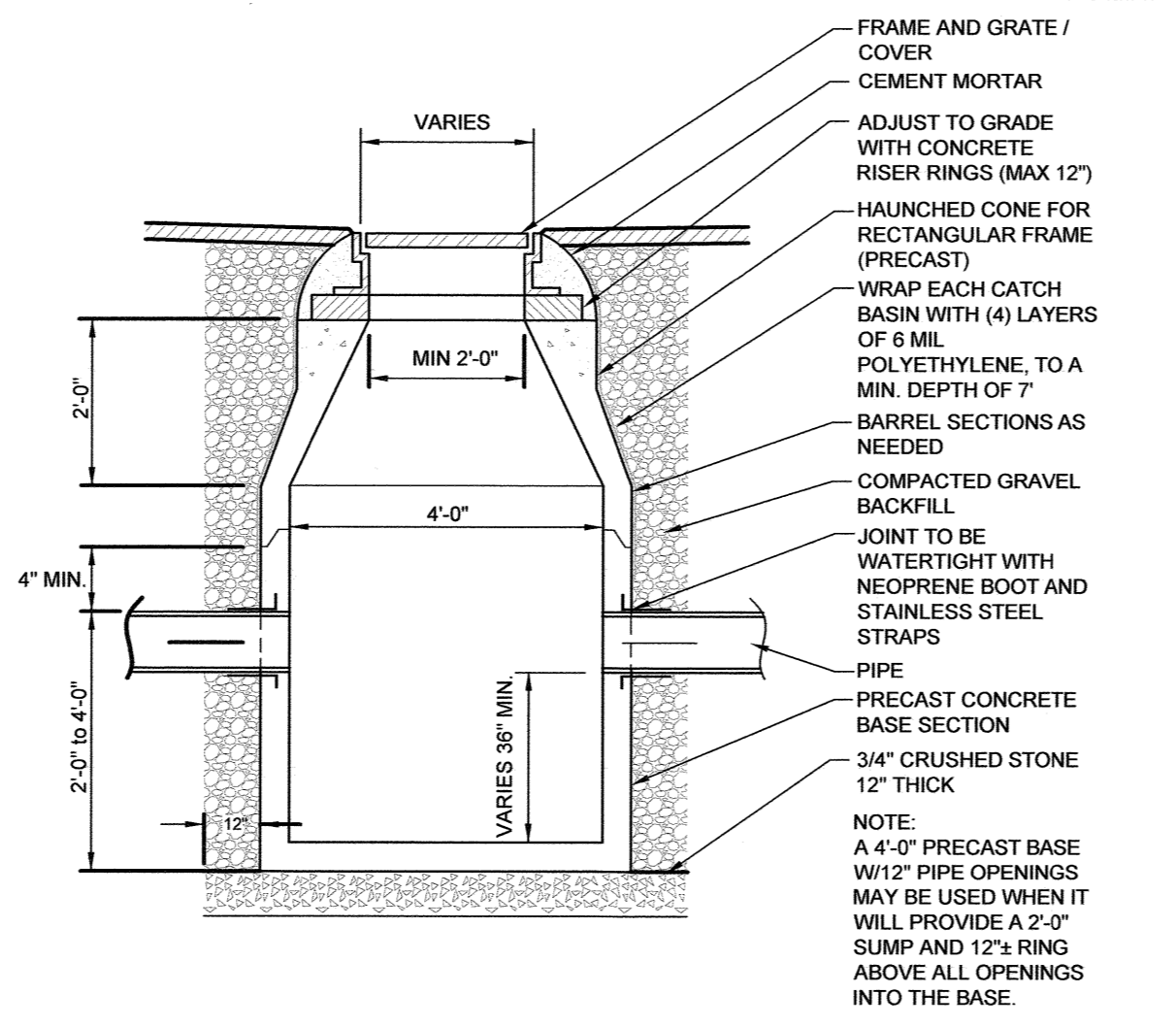
- NOTES:
 1) ALL CONDUIT TO BE U.L. LISTED, SCH. 80 UNDER ALL TRAVEL WAYS, & SCHED. 40 FOR THE REMAINDER.
 2) NORMAL CONDUIT SIZES FOR PSNH ARE 3 INCH FOR SINGLE PHASE PRIMARY AND SECONDARY VOLTAGE CABLES, 4 INCH FOR THREE PHASE SECONDARY, AND 5 INCH FOR THREE PHASE PRIMARY.
 3) ALL WORK TO CONFORM TO THE NATIONAL ELECTRICAL CODE (LATEST REVISION)
 4) INSTALL A 200# PULL ROPE FOR EACH CONDUIT
 5) VERIFY ALL CONDUIT SPECIFICATIONS WITH UTILITY COMPANY'S PRIOR TO ANY CONSTRUCTION.

P TYPICAL UNDERGROUND UTILITY TRENCH DETAIL
C103 NTS

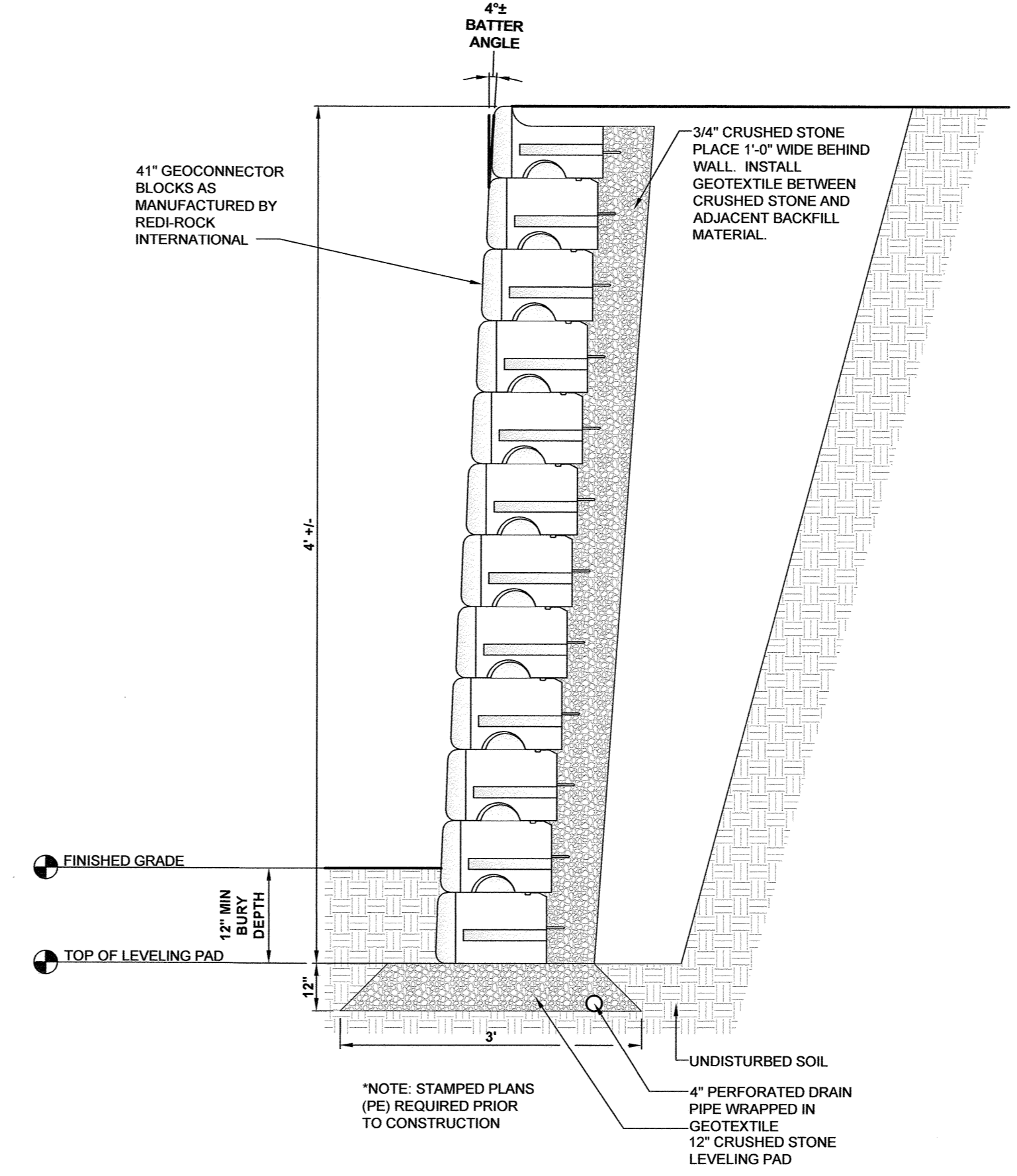


- NOTE:
 1. COMPACT ALL GRANULAR MATERIAL AND BACKFILL TO 95%.
 2. SIDE CLEARANCE APPLICABLE TO BACKHOE OPERATIONS.

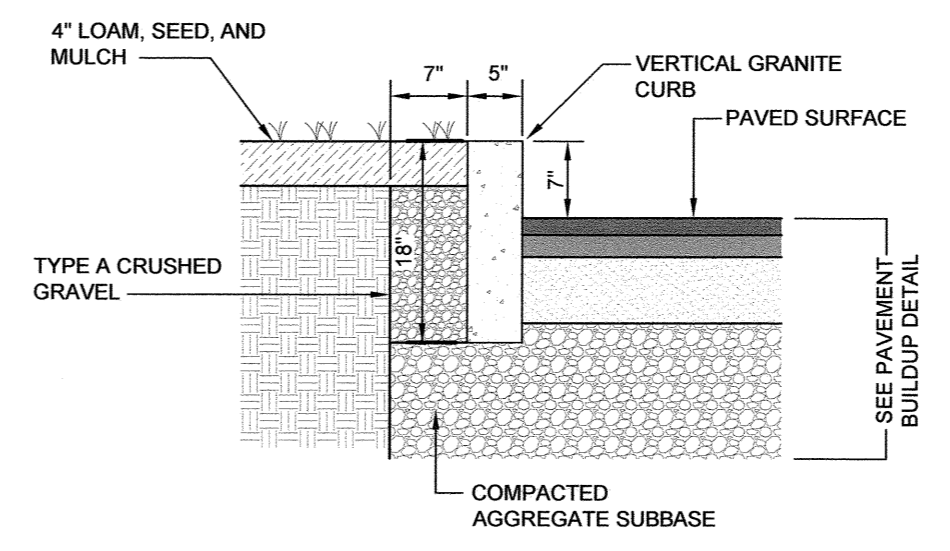
Q TYPICAL GAS TRENCH DETAIL
C103 NTS



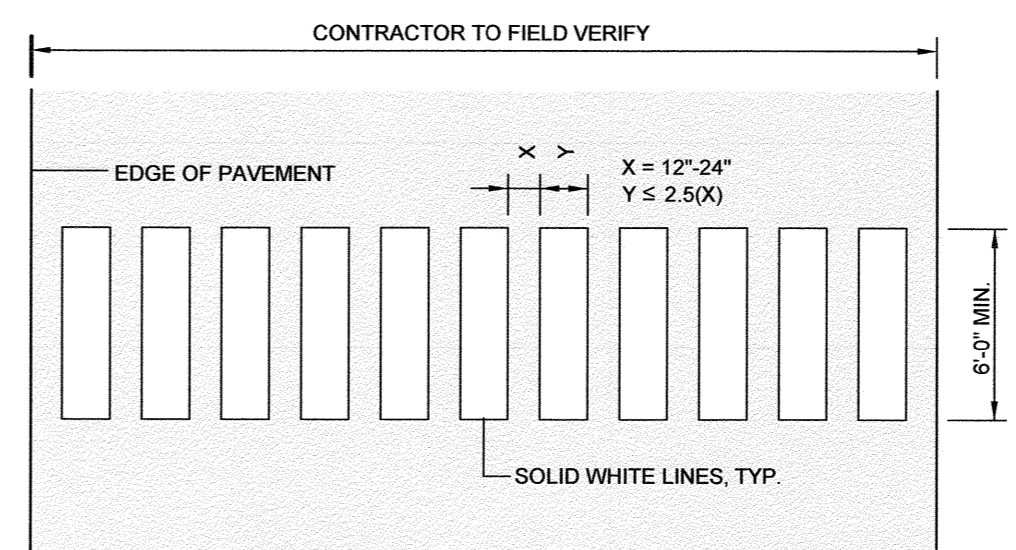
R TYPICAL CATCH BASIN DETAIL
C104 NTS



S RETAINING WALL DETAIL
C102 NTS



T TYPICAL GRANITE CURB DETAIL
C102 NTS



- NOTE:
 1. ALL PAVEMENT MARKINGS SHALL CONFORM TO THE CURRENT EDITION OF THE MUTCD

U TYPICAL CROSSWALK DETAIL
C102 NTS

- NOTES:
 1) THE CONTRACTOR SHALL NOTIFY DIG SAFE AT 1-888-DIG-SAFE (1-888-344-7233) AT LEAST 72 HOURS PRIOR TO COMMENCING ANY EXCAVATION ON PUBLIC OR PRIVATE PROPERTY WITHIN 100 FEET OF UNDERGROUND UTILITIES. THE EXCAVATOR IS RESPONSIBLE TO MAINTAIN MARKS. DIG SAFE TICKETS EXPIRE IN THIRTY DAYS.
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DRAWING ISSUE STATUS

PERMIT PLANS

HALEY WARD
ENGINEERING | ENVIRONMENTAL | SURVEYING
200 Griffin Road, Unit 14
Portsmouth, NH 03801
603-430-9282

PROJECT
DOUBLE MC, LLC
 134 PLEASANT STREET PORTSMOUTH, N.H.

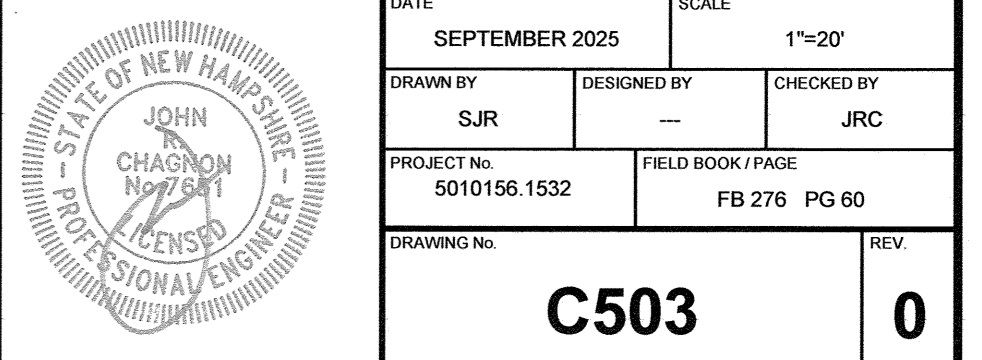
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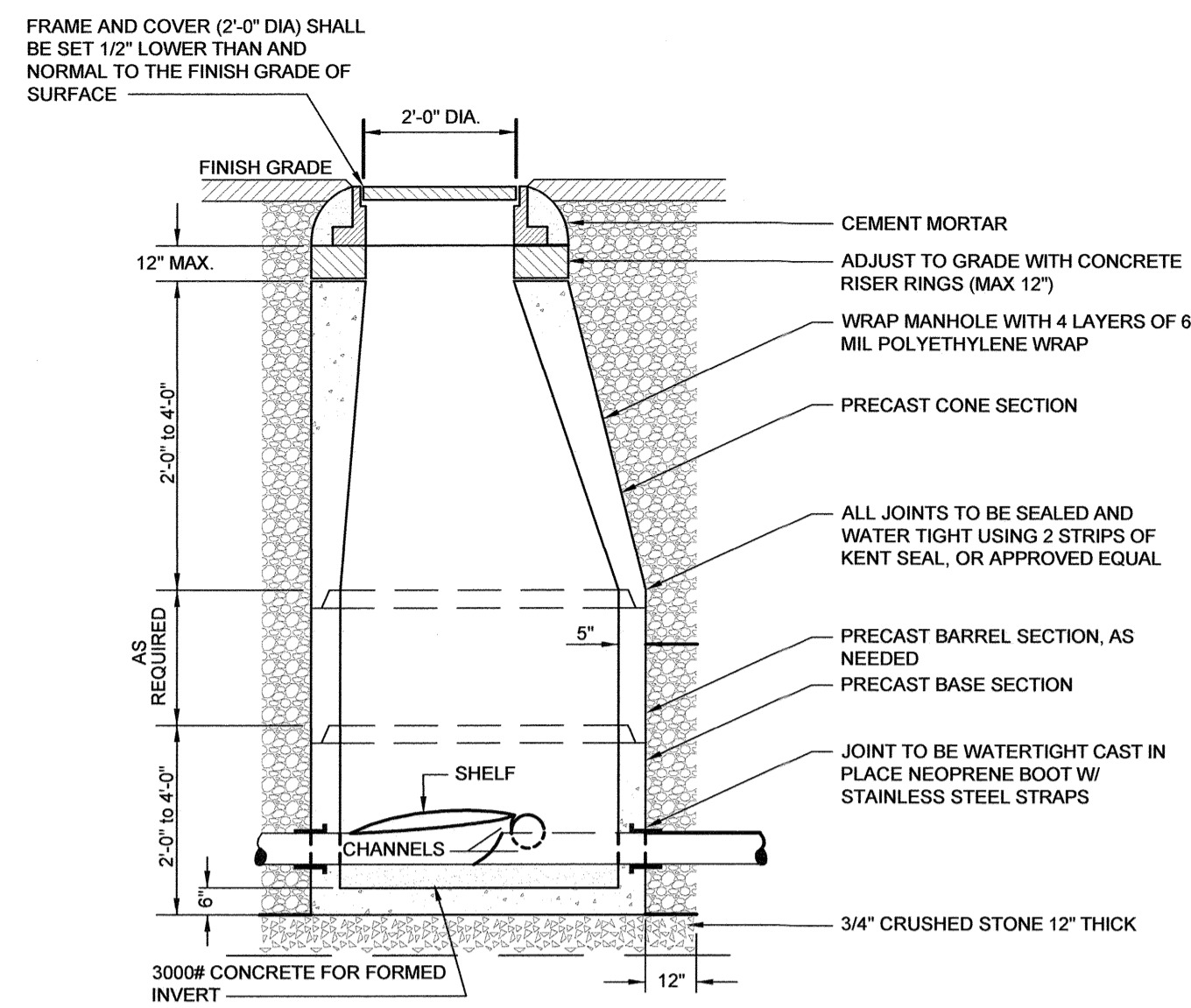
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SJR	---	JRC

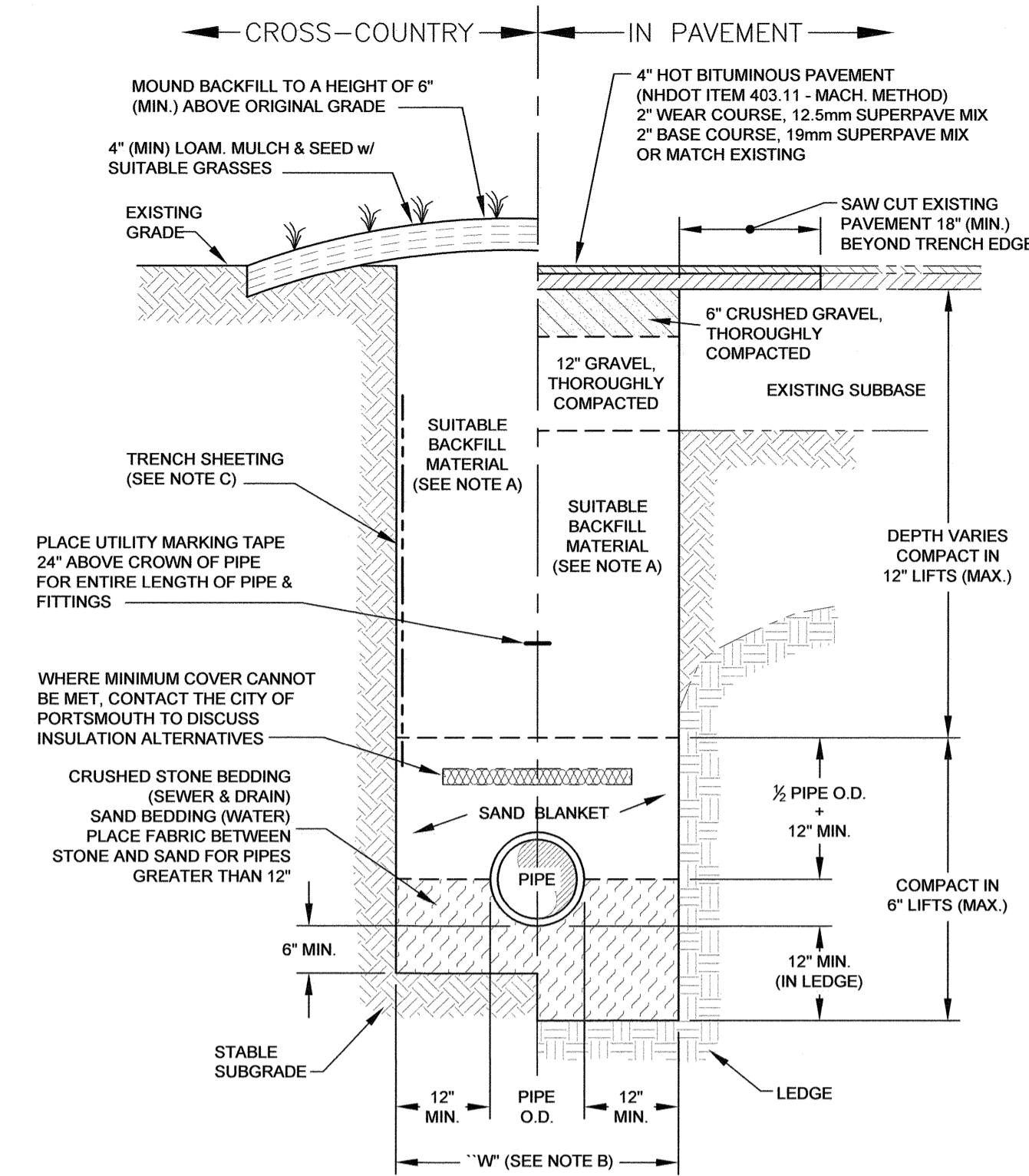
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5010156.1532	FB 276 PG 60

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C503	0





V TYPICAL SEWER MANHOLE DETAIL
C103 NTS



W TYPICAL PIPE TRENCH DETAIL
C103 NTS

TRENCH NOTES:
 A) TRENCH BACKFILL - IN PAVED AREAS, SUITABLE MATERIAL FOR TRENCH BACKFILL SHALL BE THE NATURAL MATERIAL EXCAVATED DURING CONSTRUCTION, BUT SHALL EXCLUDE DEBRIS, PIECES OF PAVEMENT, ORGANIC MATTER, TOP SOIL, ALL WET OR SOFT MUCK, PEAT OR CLAY. ALL EXCAVATED LEDGE MATERIAL, AND ALL ROCKS OVER SIX INCHES IN LARGEST DIMENSION, OR ANY MATERIALS DEEMED TO BE UNACCEPTABLE BY THE ENGINEER.
 - IN CROSS-COUNTRY CONSTRUCTION, SUITABLE MATERIAL SHALL BE AS DESCRIBED ABOVE, EXCEPT THAT THE ENGINEER MAY PERMIT THE USE OF TOP SOIL, LOAM, MUCK OR PEAT, IF HE IS SATISFIED THAT THE COMPLETED CONSTRUCTION WILL BE ENTIRELY STABLE.
 B) "W" = MAXIMUM ALLOWABLE TRENCH WIDTH TO A PLANE 12 INCHES ABOVE THE PIPE. FOR PIPES 15 INCHES NOMINAL DIAMETER OR LESS, W SHALL BE NO MORE THAN 36 INCHES. FOR PIPES GREATER THAN 15 INCHES NOMINAL DIAMETER, W SHALL BE 24 INCHES PLUS PIPE O.D.
 C) TRENCH SHEETING: IF REQUIRED, WHERE SHEETING IS PLACED ALONGSIDE THE PIPE AND EXTENDS BELOW MID-DIAMETER, IT SHALL BE CUT OFF AND LEFT IN PLACE TO AN ELEVATION NOT LESS THAN 1 FOOT ABOVE THE TOP OF THE PIPE. WHERE SHEETING IS ORDERED BY THE ENGINEER TO BE LEFT IN PLACE, IT SHALL BE CUT OFF AT LEAST 3 FEET BELOW FINISHED GRADE, BUT NOT LESS THAN 1 FOOT ABOVE THE TOP OF THE PIPE.
 D) MINIMUM PIPE COVER FOR UTILITY MAINS (UNLESS GOVERNED BY OTHER CODES):
 6' MINIMUM FOR SEWER (IN PAVEMENT)
 4' MINIMUM FOR SEWER (CROSS COUNTRY)
 3' MINIMUM FOR STORMWATER DRAINS
 5' MINIMUM FOR WATER MAINS
 E) ALL PAVEMENT CUTS SHALL BE REPAIRED BY THE INFRA-RED HEAT METHOD.

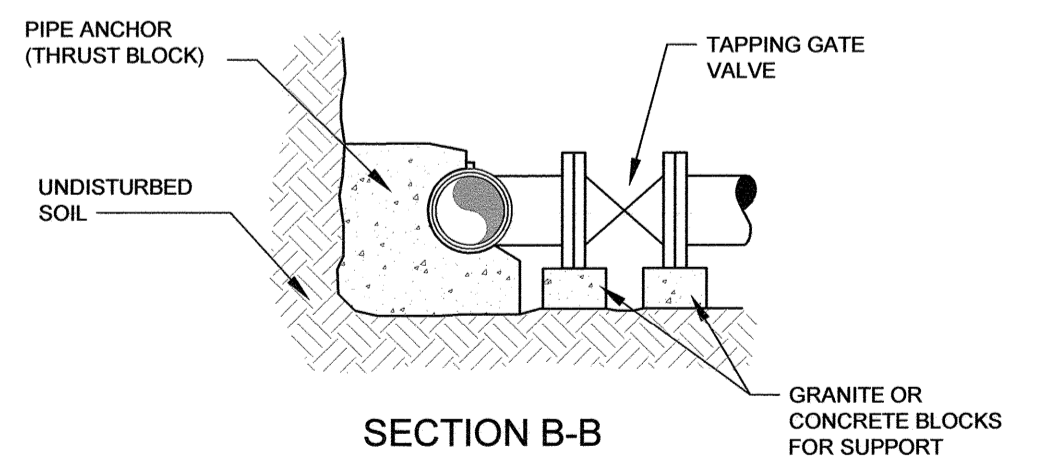
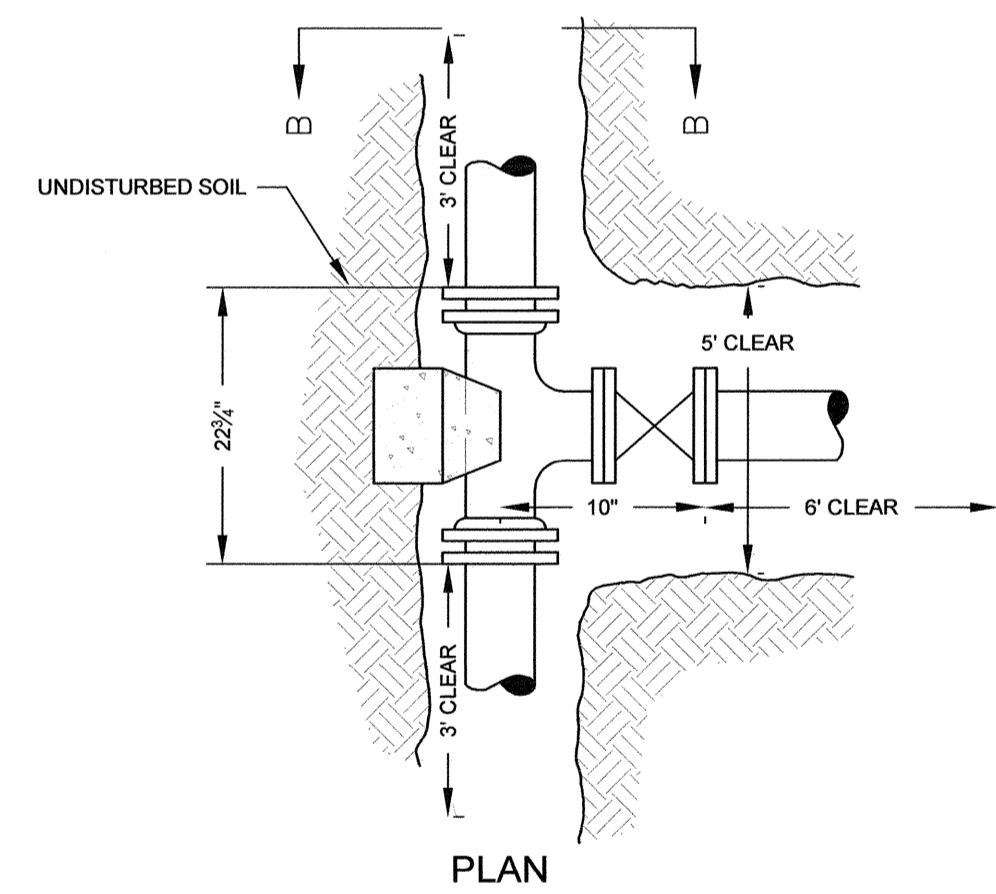
SEWER UTILITY GENERAL NOTES:

- MINIMUM PIPE SIZE FOR COMMERCIAL SERVICE SHALL BE SIX INCHES.
- PIPE AND JOINT MATERIALS:
 - PLASTIC SEWER PIPE
 - PIPE AND FITTINGS SHALL CONFORM TO THE FOLLOWING ASTM STANDARDS:

ASTM STANDARDS	GENERIC PIPE MATERIAL	SIZES APPROVED
D3034	PVC (SOLID WALL)	8" THROUGH 15" (SDR 35)
F679	PVC (SOLID WALL)	18" THROUGH 27" (T-1 & T-2)
F789	PVC (SOLID WALL)	4" THROUGH 18" (T-1 TO T-3)
F794	PVC (RIBBED WALL)	8" THROUGH 36"
AWWA C900	PVC (SOLID WALL)	8" THROUGH 18"
 - JOINT SEALS FOR PVC PIPE SHALL BE OIL RESISTANT COMPRESSION RINGS OF ELASTOMERIC MATERIAL CONFORMING TO ASTM D-3212 AND SHALL BE PUSH-ON BELL AND SPIGOT TYPE.
 - DUCTILE IRON PIPE, FITTINGS AND JOINTS
 - DUCTILE IRON PIPE AND FITTINGS FOR SEWERS SHALL CONFORM TO THE FOLLOWING STANDARDS OF THE UNITED STATES OF AMERICA STANDARDS INSTITUTE:
 - A21.50 THICKNESS DESIGN OF DUCTILE IRON PIPE AND WITH ASTM A-536 DUCTILE IRON CASTINGS.
 - A21.51 DUCTILE IRON PIPE, CENTRIFUGALLY CAST IN METAL MOULDS OR SAND LINED MOULDS FOR SEWER APPLICATIONS.
 - JOINTS SHALL BE OF THE MECHANICAL OR PUSH ON TYPE. JOINTS AND GASKETS SHALL CONFORM TO:
 - A21.11 RUBBER GASKET JOINTS FOR CAST IRON PRESSURE PIPE & FITTINGS.
- DAMAGED PIPE SHALL BE REJECTED AND REMOVED FROM THE JOB SITE.
- JOINTS SHALL BE DEPENDENT UPON A NEOPRENE OR ELASTOMERIC GASKET FOR WATER TIGHTNESS. ALL JOINTS SHALL BE PROPERLY MATCHED WITH THE PIPE MATERIALS USED. WHERE DIFFERING MATERIALS ARE TO BE CONNECTED, AS AT THE STREET SEWER WYE OR AT THE FOUNDATION WALL, APPROPRIATE MANUFACTURED ADAPTERS SHALL BE USED.
- TEES AND WYES: WHERE A TEE OR WYE IS NOT AVAILABLE IN THE EXISTING STREET SEWER, AN APPROPRIATE CONNECTION SHALL BE MADE DEPENDING ON THE PIPE ENCOUNTERED. FOR PVC PIPE, OR CUT IN A SANITARY TEE. FOR CLAY PIPE, USE INSERT-A-TEE OR CUT IN A SANITARY TEE. ALL WORK TO BE APPROVED BY GOVERNING BODY.
- HOUSE SEWER INSTALLATION: THE PIPE SHALL BE HANDLED, PLACED AND JOINTED IN ACCORDANCE WITH INSTALLATION GUIDES OF THE APPROPRIATE MANUFACTURER. IT SHALL BE CAREFULLY BEDDED ON A 4 INCH LAYER OF CRUSHED STONE AND/OR GRAVEL AS SPECIFIED IN NOTE 10. BEDDING AND REFILL FOR DEPTH OF 12 INCHES ABOVE THE TOP OF THE PIPE SHALL BE CAREFULLY AND THOROUGHLY TAMPED BY HAND OR WITH APPROPRIATE MECHANICAL DEVICES.
- THE PIPE SHALL BE LAID AT A CONTINUOUS AND CONSTANT GRADE FROM THE STREET SEWER CONNECTION TO THE FOUNDATION AT A GRADE OF NOT LESS THAN 1/4 INCH PER FOOT. PIPE JOINTS MUST BE MADE UNDER DRY CONDITIONS. IF WATER IS PRESENT, ALL NECESSARY STEPS SHALL BE TAKEN TO DEWATER THE TRENCH.
- TESTING: WHEN REQUIRED BY THE GOVERNING AUTHORITY, TESTING SHALL CONFORM TO ENV-WQ 704.07.
- ILLEGAL CONNECTIONS: NOTHING BUT SANITARY WASTE FLOW FROM DWELLING TOILETS, SINKS, LAUNDRY ETC. SHALL BE PERMITTED. ROOF LEADERS, FOOTING DRAINS, SUMP PUMPS OR OTHER SIMILAR CONNECTIONS CARRYING RAIN WATER, DRAINAGE OR GROUND WATER SHALL NOT BE PERMITTED.
- WATER SERVICE SHALL NOT BE LAID IN SAME TRENCH AS SEWER SERVICE, UNLESS IT IS ON A SHELF 12" HIGHER, AND 18" APART.
- BEDDING: SCREENED GRAVEL AND/OR CRUSHED STONE, FREE FROM CLAY, LOAM, ORGANIC MATTER AND MEETING ASTM C33 STONE SIZE NO. 67.

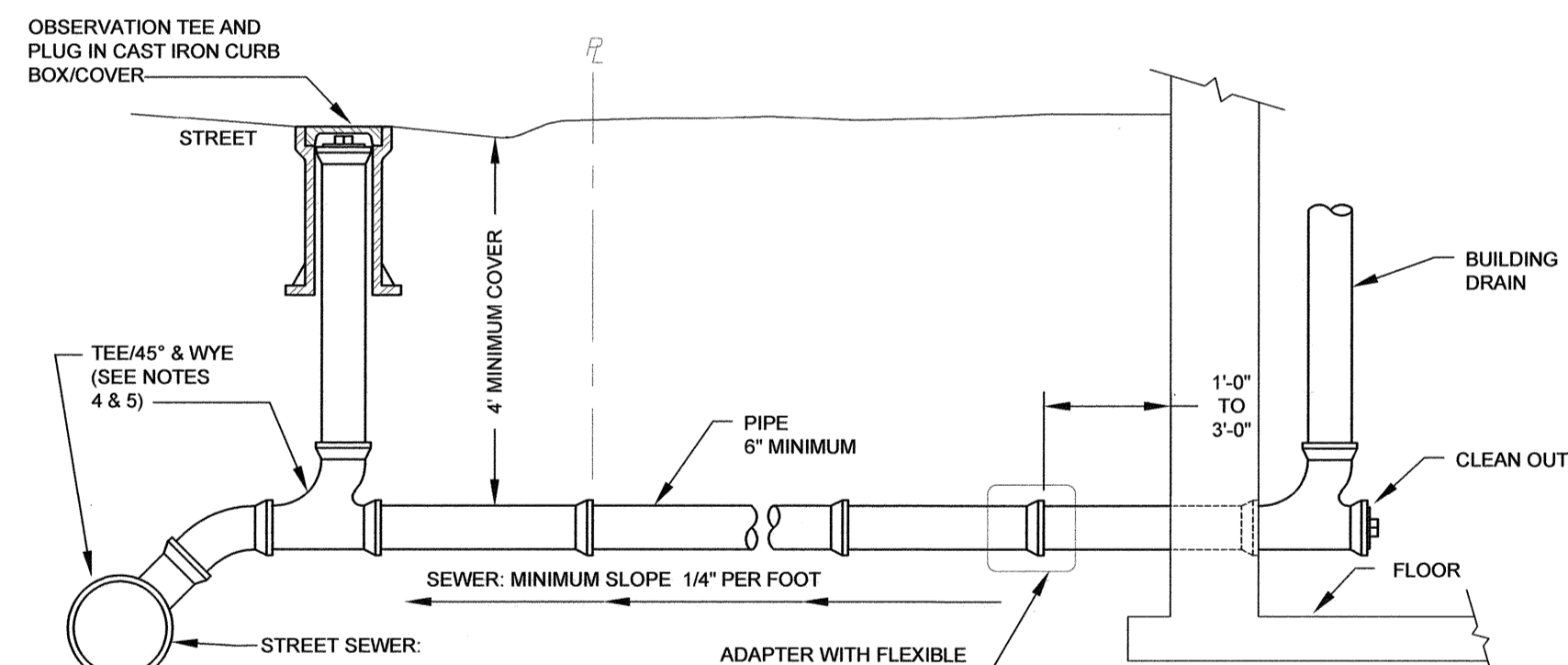
100% PASSING	1 INCH SCREEN
90%-100% PASSING	3/4 INCH SCREEN
20%-55% PASSING	3/8 INCH SCREEN
0%-10% PASSING	#4 SIEVE
0%-5% PASSING	#8 SIEVE
- WHERE ORDERED BY THE ENGINEER TO STABILIZE THE TRENCH BASE, GRADED SCREENED GRAVEL OR CRUSHED STONE 1/2 INCH TO 1-1/2 INCH SHALL BE USED.
- LOCATION: THE LOCATION OF THE TEE OR WYE SHALL BE RECORDED AND FILED IN THE MUNICIPAL RECORDS. IN ADDITION, A FERROUS METAL ROD OR PIPE SHALL BE PLACED OVER THE TEE OR WYE AS DESCRIBED IN THE TYPICAL "CHIMNEY" DETAIL, TO AID IN LOCATING THE BURIED PIPE WITH A DIP NEEDLE OR PIPE FINDER.
- CAST-IN-PLACE CONCRETE: SHALL CONFORM TO THE REQUIREMENTS FOR CLASS A (3000 PSI) CONCRETE OF THE NEW HAMPSHIRE DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS AS FOLLOWS:
 CEMENT: 6.0 BAGS PER CUBIC YARD
 WATER: 5.75 GALLONS PER BAG OF CEMENT
 MAXIMUM AGGREGATE SIZE: 3/4 INCH
- CHIMNEYS: IF VERTICAL DROP INTO SEWER IS GREATER THAN 4 FEET, A CHIMNEY SHALL BE CONSTRUCTED FOR THE HOUSE CONNECTION. CHIMNEY INSTALLATION AS RECOMMENDED BY THE PIPE MANUFACTURER MAY BE USED IF APPROVED BY THE ENGINEER.
- BACKFILL UP TO SUBBASE GRAVEL SHALL BE WITH EXCAVATED SOIL FROM TRENCHING OPERATIONS. COMPACT IN 8" LIFTS WITH VIBRATORY PLATE COMPACTORS TO 90% OF MODIFIED PROCTOR DENSITY, IF FINE-GRAINED, COMPACT WITH POGO STICKS OR SHEEPSFOOT ROLLERS. PLACE NO LARGE ROCKS WITHIN 24" OF PIPE. TRENCHES THAT ARE NOT ADEQUATELY COMPACTED SHALL BE RE-EXCAVATED AND BACKFILLED UNDER THE SUPERVISION OF THE DESIGN ENGINEER OR GOVERNING BODY. UNSUITABLE BACKFILL MATERIAL INCLUDES CHUNKS OF PAVEMENT, TOPSOIL, ROCKS OVER 6" IN SIZE, MUCK, PEAT OR PIECES OF PAVEMENT.
- THE CONTRACTOR IS SOLELY RESPONSIBLE FOR JOB-SITE SAFETY AND COMPLIANCE WITH GOVERNING REGULATIONS.
- ORDERED EXCAVATION OF UNSUITABLE MATERIAL BELOW GRADE. REFILL WITH BEDDING MATERIAL. FOR TRENCH WIDTH SEE TRENCH DETAIL.
- SAND BLANKET: CLEAN SAND, FREE FROM ORGANIC MATTER, SO GRADED THAT 90% - 100% PASSES A 1/2 INCH SIEVE AND NOT MORE THAN 15% WILL PASS A #200 SIEVE. BLANKET MAY BE OMITTED FOR DUCTILE IRON AND REINFORCED CONCRETE PIPE PROVIDED THAT NO STONE LARGER THAN 2 INCHES IS IN CONTACT WITH THE PIPE.
- BASE COURSE GRAVEL, IF ORDERED BY THE ENGINEER, SHALL MEET THE REQUIREMENTS OF DIVISION 300 OF THE LATEST EDITION OF THE "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION OF THE STATE OF NEW HAMPSHIRE, DEPARTMENT OF TRANSPORTATION".
- FOR CROSS COUNTRY CONSTRUCTION, BACKFILL OR FILL SHALL BE MOUNDED TO A HEIGHT OF 6 INCHES ABOVE THE ORIGINAL GROUND SURFACE.
- IF FULL ENCASUREMENT IS UTILIZED, DEPTH OF CONCRETE BELOW PIPE SHALL BE 1/4 I.D. (4" MIN.) BLOCK SUPPORT SHALL BE SOLID CONCRETE BLOCKS.
- CONTRACTOR SHALL INSTALL AND MAINTAIN EROSION CONTROL MEASURES IN ACCORDANCE WITH THE "NEW HAMPSHIRE STORMWATER MANUAL, VOLUME 3, EROSION AND SEDIMENT CONTROLS DURING CONSTRUCTION. (NHDES DECEMBER 2008).
- THE CONTRACTOR SHALL NOTIFY DIG SAFE AT 1-888-DIG-SAFE (1-888-344-7233) AT LEAST 72 HOURS PRIOR TO COMMENCING ANY EXCAVATION.
- THE PURPOSE OF THIS PLAN IS TO SHOW STANDARDS FOR SEWER CONSTRUCTION.
- ALL WORK SHALL BE IN COMPLIANCE WITH NHDES CODE OF ADMINISTRATIVE RULES PART ENV-WQ 704 DESIGN OF SEWERS.

NOTES:
 1) THE CONTRACTOR SHALL NOTIFY DIG SAFE AT 1-888-DIG-SAFE (1-888-344-7233) AT LEAST 72 HOURS PRIOR TO COMMENCING ANY EXCAVATION ON PUBLIC OR PRIVATE PROPERTY WITHIN 100 FEET OF UNDERGROUND UTILITIES. THE EXCAVATOR IS RESPONSIBLE TO MAINTAIN MARKS. DIG SAFE TICKETS EXPIRE IN THIRTY DAYS.
 2) UNDERGROUND UTILITY LOCATIONS ARE BASED UPON BEST AVAILABLE EVIDENCE AND ARE NOT FIELD VERIFIED. LOCATING AND PROTECTING ANY ABOVEGROUND OR UNDERGROUND UTILITIES IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR AND/OR THE OWNER. UTILITY CONFLICTS SHOULD BE REPORTED AT ONCE TO THE DESIGN ENGINEER.
 3) CONTRACTOR SHALL INSTALL AND MAINTAIN EROSION CONTROL MEASURES IN ACCORDANCE WITH THE "NEW HAMPSHIRE STORMWATER MANUAL, VOLUME 3, EROSION AND SEDIMENT CONTROLS DURING CONSTRUCTION. (NHDES DECEMBER 2008).

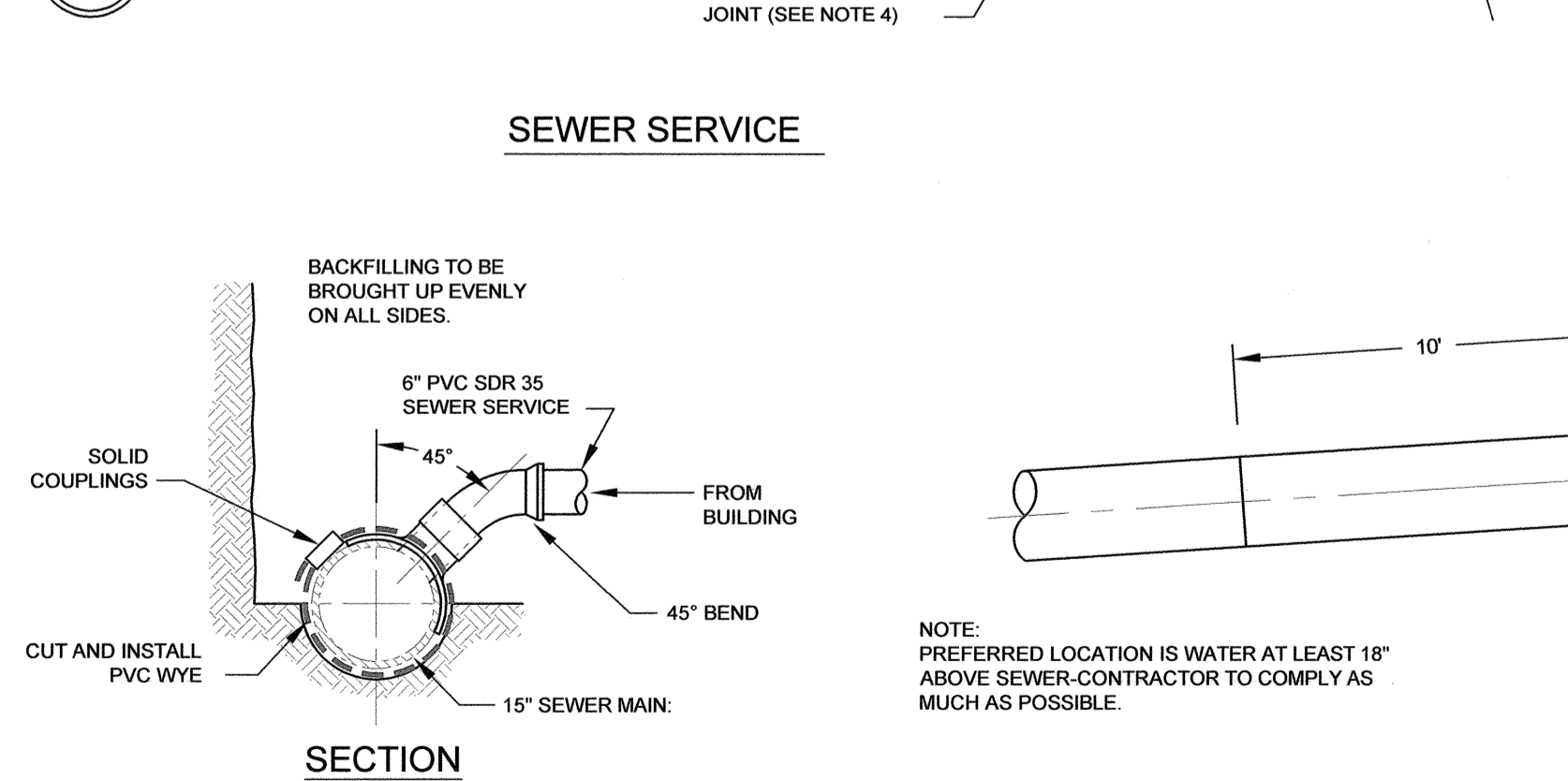


NOTES:
 1) ALL MATERIALS SHALL BE APPROVED BY THE PORTSMOUTH WATER DEPARTMENT PRIOR TO INSTALLATION AND USE.
 2) ALL JOINTS SHALL BE MECHANICAL.
 3) "CLEAR" DIMENSIONS SHOWN ARE REQUIRED FOR WORKSPACE. NO JOINTS ON PIPE BEING TAPPED WITHIN "CLEAR" AREA.
 4) FORD TYPE STAINLESS STEEL TAPPING SADDLES OR APPROVED EQUAL ARE ALSO ACCEPTABLE.

X TAPPING SLEEVE & GATE DETAILS
C103 NTS



SEWER SERVICE



WATER CROSSING

SEWER SERVICE CONNECTION

Y SEWER SERVICE DETAILS
C103 NTS

REV.	DATE	ISSUED FOR COMMENT	SJR	JRC
0	10/21/25	ISSUED FOR COMMENT		

DRAWING ISSUE STATUS

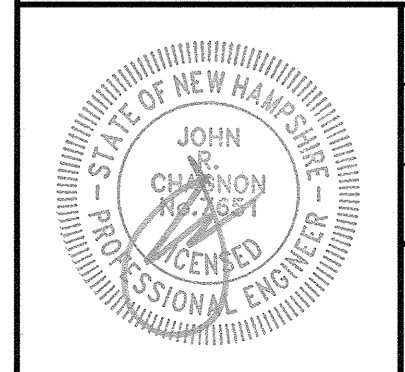
PERMIT PLANS

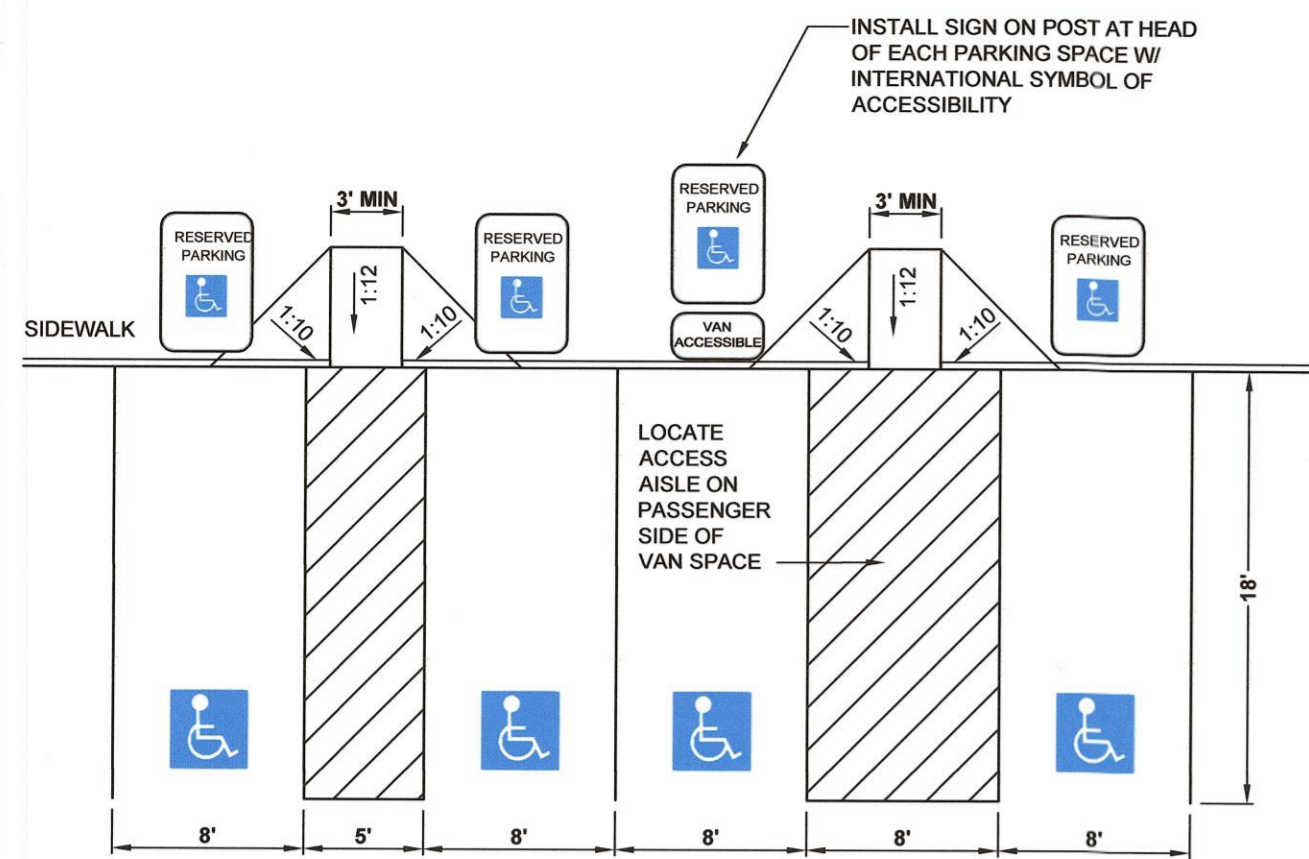
HALEY WARD
 ENGINEERING | ENVIRONMENTAL | SURVEYING
 200 Griffin Road, Unit 14
 Portsmouth, NH 03801
 603-430-9282

DOUBLE MC, LLC
 134 PLEASANT STREET PORTSMOUTH, N.H.

DETAILS

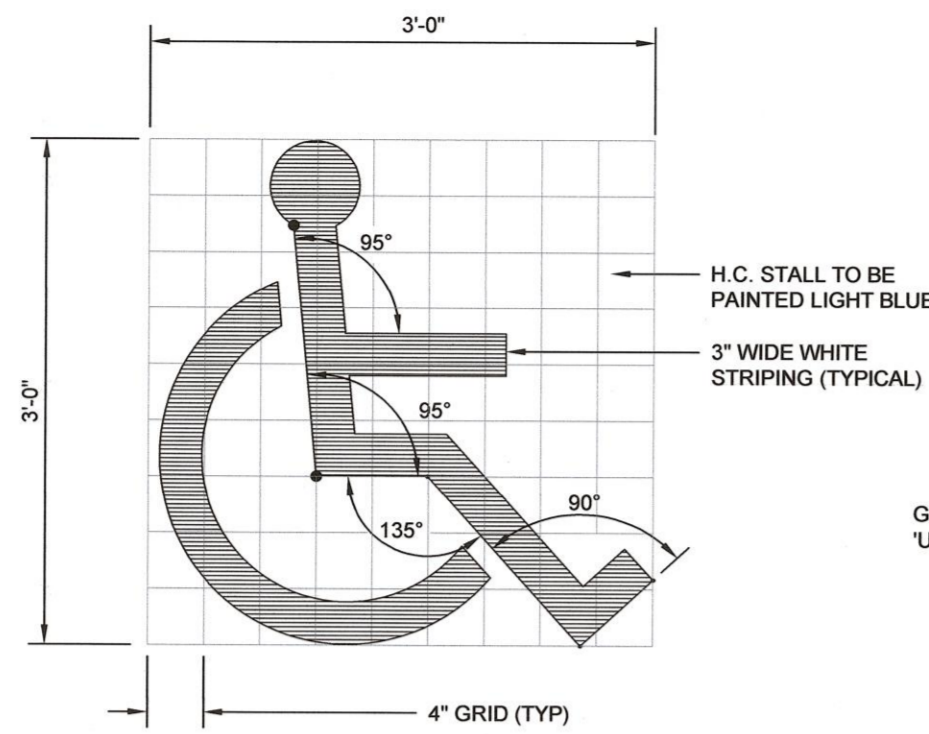
DATE	SCALE
SEPTEMBER 2025	1"=20'
DRAWN BY SJR	DESIGNED BY ---
CHECKED BY JRC	
PROJECT No. 5010156-1532	FIELD BOOK/PAGE FB 276 PG 60
DRAWING No.	REV.
C504	0



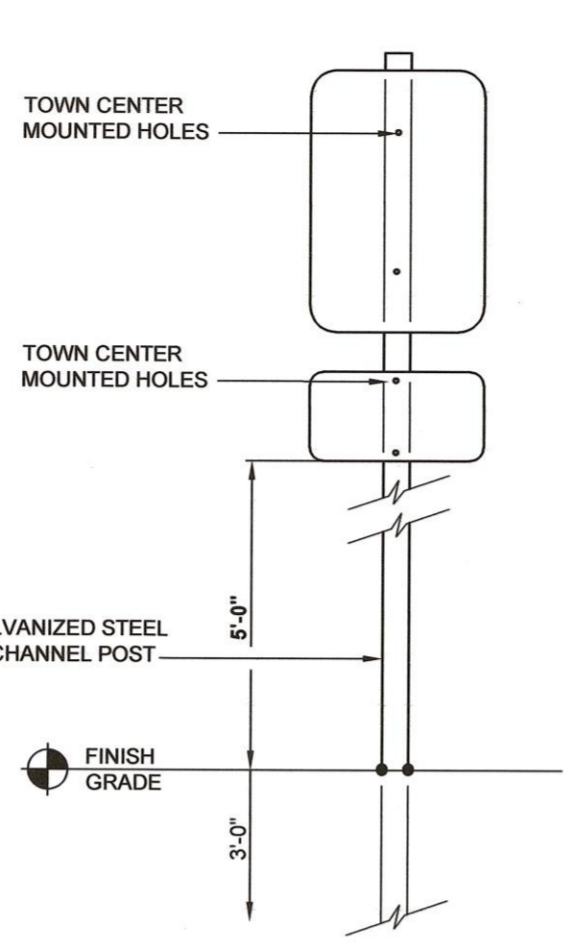


- NOTES:
1. CAR PARKING SPACE: 8' WIDE MINIMUM W/ ACCESS AISLE 5' WIDE MINIMUM.
 2. VAN PARKING SPACE 8' WIDE MINIMUM W/ ACCESS AISLE 8' WIDE MINIMUM.
 3. SLOPES ACROSS PARKING SPACES IN EACH DIRECTION SHALL BE 2% MAX.

TYPICAL HANDICAP PARKING STALL LAYOUT

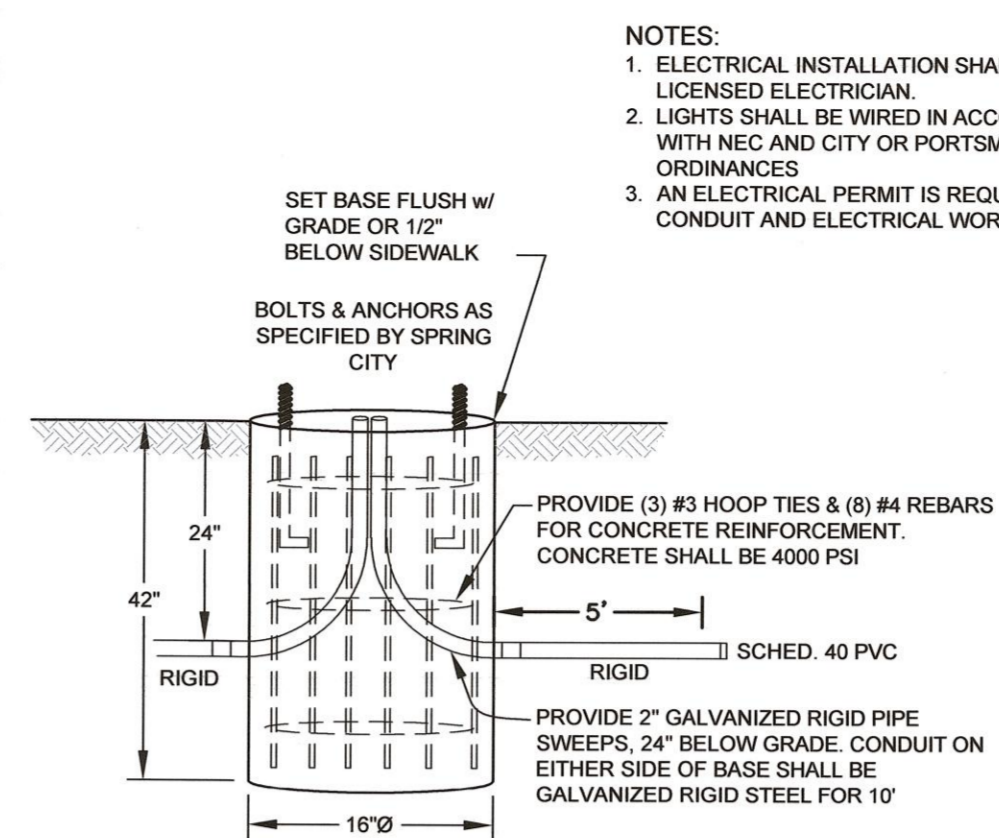


TYPICAL HANDICAP PARKING STALL SYMBOL

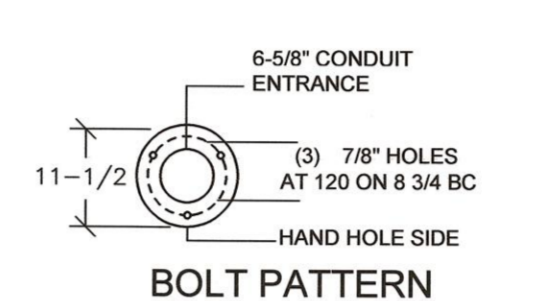


- NOTES:
1. SIGNS AND ASSOCIATED MOUNTING HARDWARE TO BE PROVIDED BY SITE CONTRACTOR.
 2. VAN ACCESSIBLE SIGN ONLY REQUIRED WHERE INDICATED ON PLANS.
 3. EQUIVALENT SIGNAGE OF DIFFERENT STYLES MAY BE SUBSTITUTED IF APPROVED BY ENGINEER.

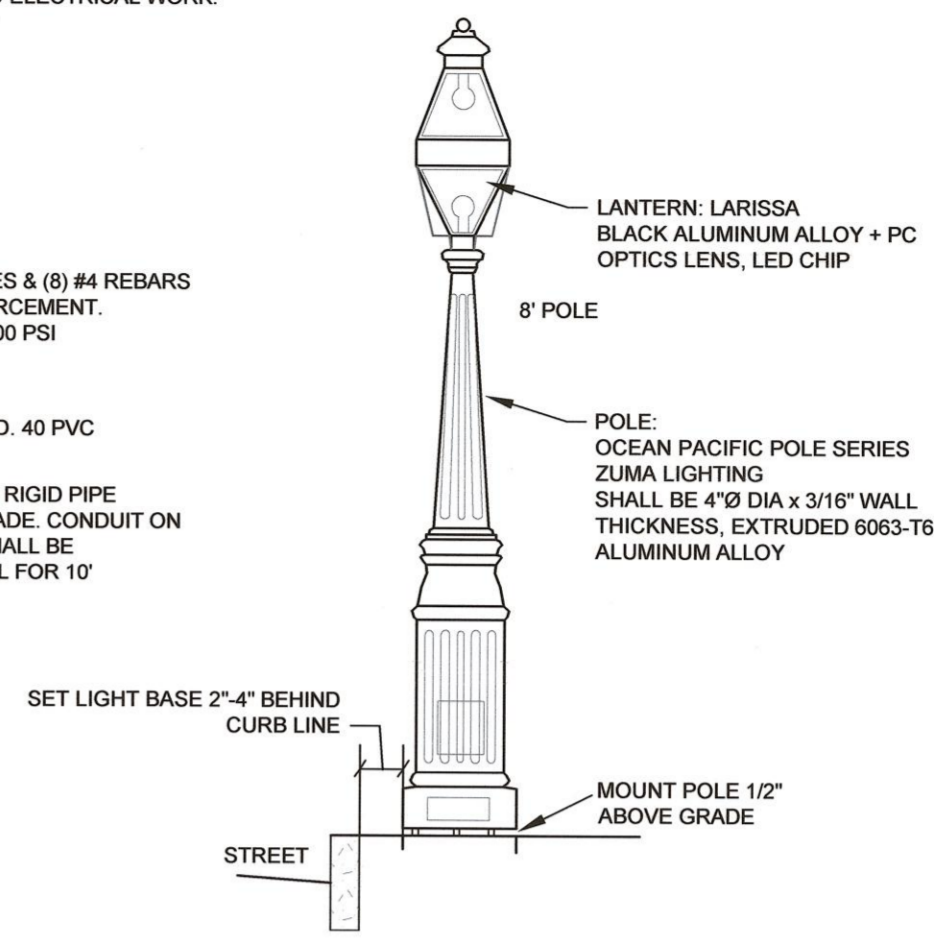
TYPICAL HANDICAP PARKING SIGNS



LIGHT POLE BASE DETAIL



BOLT PATTERN

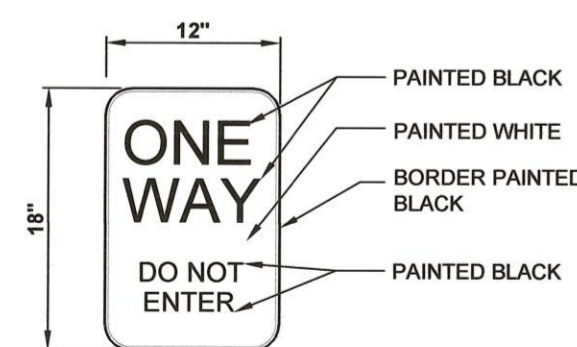
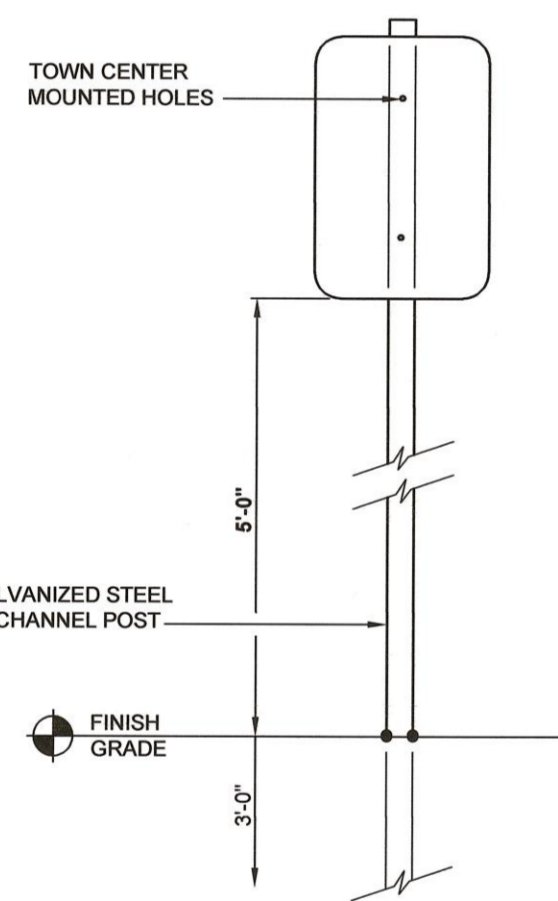


LIGHT POLE DETAIL

AA CITY STREET LIGHT DETAIL IF NEEDED

- NOTES:
- 1) THE CONTRACTOR SHALL NOTIFY DIG SAFE AT 1-888-DIG-SAFE (1-888-344-7233) AT LEAST 72 HOURS PRIOR TO COMMENCING ANY EXCAVATION ON PUBLIC OR PRIVATE PROPERTY WITHIN 100 FEET OF UNDERGROUND UTILITIES. THE EXCAVATOR IS RESPONSIBLE TO MAINTAIN MARKS. DIG SAFE TICKETS EXPIRE IN THIRTY DAYS.
 - 2) UNDERGROUND UTILITY LOCATIONS ARE BASED UPON BEST AVAILABLE EVIDENCE AND ARE NOT FIELD VERIFIED. LOCATING AND PROTECTING ANY ABOVEGROUND OR UNDERGROUND UTILITIES IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR AND/OR THE OWNER. UTILITY CONFLICTS SHOULD BE REPORTED AT ONCE TO THE DESIGN ENGINEER.
 - 3) CONTRACTOR SHALL INSTALL AND MAINTAIN EROSION CONTROL MEASURES IN ACCORDANCE WITH THE "NEW HAMPSHIRE STORMWATER MANUAL, VOLUME 3, EROSION AND SEDIMENT CONTROLS DURING CONSTRUCTION. (NHDES DECEMBER 2008).

Z TYPICAL HANDICAP PARKING DETAILS NTS



- NOTES:
1. ALL SIGNAGE MUST BE MUTCD COMPLIANT.
 2. SIGNS AND ASSOCIATED MOUNTING HARDWARE TO BE PROVIDED BY SITE CONTRACTOR.

BB "EXIT ONLY" & "ONE-WAY" SIGN DETAIL NTS

Saving Lives, Preventing Accidents, Everyday

Minimize Your Liability!

Part name: Car Coming Warning Post
Part number: CCV4807P - CCV4807P-Kit
Mounting: Ground

Purpose: Provides pedestrians a visual and voice alert when vehicles exit a parking facility. 3 Sides flash "CAR COMING". 4th side warns exiting drivers to "GO SLOW"

Includes:
PASS Controller w/ Voice Module
Power supply
Speaker
Dimensions: 48" x 7" x 7"

Solution Warns Pedestrians, of a vehicle exiting a parking facility, with Voice and Flashing CAR COMING

INCLUDES EVERYTHING YOU NEED FOR A WORKING SYSTEM*

PASS Signs
Pedestrian Alert Safety Signs

Have questions? We make it easy for you.
480-689-1993
support@passsigns.com
PassSigns.com

WARNING POST SIGN

Operations

How the System Operates
A TRIGGERING SENSOR detects a vehicle exiting a parking facility. It sends a signal to the PASS Controller (PSC) inside the System. The PASS Controller (PSC) activates the system: Voice Alert—"CAUTION. Vehicles exiting watch for vehicles."
Flashing text (3 sides) - CAR COMING
Flashing text (1 side) - GO SLOW

PASS Controller continues to activate the sign for 10 seconds (adjustable) or if a second vehicle activates the system again.

Triggering Sensors

- Vehicle motion detector (Included in Kit)
- Vehicle loop detector
- Parking gate open circuit
- Rollup door gate open circuit
- Beam detector
- Push button
- Any NORMALLY OPEN output

Options

- Audio out of timer board. Turns off voice alert at designated times for nearby residential.

Detailed specifications

Part name: Car Coming Warning Post
Part#: CCV4807P - CCV4807P
Dimensions: 48" x 7" x 7", Ground mounted
Material: 14AWG Steel
Finish: Hammered copper powder coating
Power In: 120VAC 1A or 12VDC 5A(Low voltage)

PASS Signs Controller (PSC)
12VDC Input Power
12VDC Output Power (for motion or detector)
(2) Trigger Inputs - Normally open only
(2) Input test buttons
Output 1: Steady Output
Output 2: Flashing 1 sec On/Off Output
Activation Timer (5-35 seconds)
Voice Module
Volume control 0-90dB
40 Watt Speaker
Audio Message can be changed easily onsite with laptop and USB to Micro USB cable (android cable)

Motion Detector
10'x10' detection zone
Power In: 12VDC from PASS Controller

Typical Wiring

Motion Detector or other sensor

18AWG 4 Conductor

120VAC ~ 240VAC

*system does not include field wiring or mounting bolts

CC ALERT WARNING SIGNS BY PARKING ALERT SIGNS NTS

Saving Lives, Preventing Accidents, Everyday

Minimize Your Liability!

Part name: Car Wall 18X06
Kit numbers: CARV1806W or CARV1806W-Kit
Mounting: Wall

Purpose: Provides pedestrians a visual and voice alert when vehicles exit a parking facility. 3 Sides flash "CAR".

Includes:
PASS Controller w/ Voice Module
Power supply
Speaker
Dimensions: 18" x 6" x 6"

Solution Warns Pedestrians, of a vehicle exiting an alley, drive-thru, or blind spot with Voice and Flashing CAR

INCLUDES EVERYTHING YOU NEED FOR A WORKING SYSTEM*

PASS Signs
Pedestrian Alert Safety Signs

Have questions? We make it easy for you.
480-689-1993
support@passsigns.com
PassSigns.com

WARNING WALL MOUNTED SIGN

Operations

How the System Operates
A TRIGGERING SENSOR detects a vehicle exiting a parking facility. It sends a signal to the PASS Controller (PSC) inside the System. The PASS Controller (PSC) activates the system: Voice Alert—"CAUTION. Vehicles exiting watch for vehicles."
Flashing text (3 sides) - CAR

PASS Controller continues to activate the sign for 10 seconds (adjustable) or if a second vehicle activates the system again.

Triggering Sensors

- Vehicle motion detector (Included with Kit)
- Vehicle loop detector
- Parking gate open circuit
- Rollup door gate open circuit
- Beam detector
- Push button
- Any NORMALLY OPEN output

Options

- Audio out of timer board. Turns off voice alert at designated times for nearby residential.

Detailed specifications

Part name: Car Warning Sign 18x06
Part#: CCV1806W or CCV1806W-Kit
Dimensions: 18" x 6" x 6", Wall mounted
Material: 14AWG Steel
Finish: Hammered copper powder coating
Power In: 120VAC 1A or 12VDC 5A(Low voltage)

PASS Signs Controller (PSC)
12VDC Input Power
12VDC Output Power (for motion or detector)
(2) Trigger Inputs - Normally open only
(2) Input test buttons
Output 1: Steady Output
Output 2: Flashing 1 sec On/Off Output
Activation Timer (5-35 seconds)
Voice Module
Volume control 0-90dB
40 Watt Speaker
Audio Message can be changed easily onsite with laptop and USB to Micro USB cable (android cable)

Motion Detector
10'x10' detection zone
Power In: 12VDC from PASS Controller

Typical Wiring

Motion Detector or other sensor

18AWG 4 Conductor

120VAC ~ 240VAC

*system does not include field wiring or mounting bolts

1	01/21/26	DETAIL BB, CC	SJR	JRC
0	10/21/25	ISSUED FOR COMMENT	SJR	JRC
REV	DATE	DESCRIPTION	BY	CHK.

PERMIT PLANS

HALEY WARD
ENGINEERING | ENVIRONMENTAL | SURVEYING

200 Griffin Road, Unit 14
Portsmouth, NH 03801
603-430-9282

WWW.HALEYWARD.COM

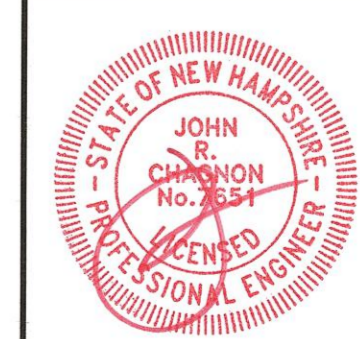
PROJECT

DOUBLE MC, LLC
134 PLEASANT STREET PORTSMOUTH, N.H.

TITLE

DETAILS

DATE	SEPTEMBER 2025	SCALE	1"=20'
DRAWN BY	SJR	DESIGNED BY	---
CHECKED BY	JRC		
PROJECT NO.	5010156.1532	FIELD BOOK / PAGE	FB 276 PG 60
DRAWING No.		REV.	
	C505		1



COMMONWEALTH OF MASSACHUSETTS DEPARTMENT OF ENVIRONMENTAL AFFAIRS DIVISION OF WATER RESOURCES 100 WATER STREET, SUITE 200, BOSTON, MA 02109

PLAN VIEW B-B
NOT TO SCALE

ELEVATION A-A
NOT TO SCALE

CASCADE separator™

CASCADE SEPARATOR DESIGN NOTES

THE STANDARD CS-3 CONFIGURATION IS SHOWN. ALTERNATE CONFIGURATIONS ARE AVAILABLE AND ARE LISTED BELOW. SOME CONFIGURATIONS MAY BE COMBINED TO SUIT SITE REQUIREMENTS.

CONFIGURATION DESCRIPTION

WATER QUALITY FLOW RATE (gpm @ 1.0)

PEAK FLOW RATE (gpm @ 1.0)

RETURN PERIOD OF PEAK FLOW (hrs)

RIM ELEVATION

PIPE DATA	INVERT	MATERIAL	DIAMETER
INLET PIPE 1			
INLET PIPE 2			
OUTLET PIPE			

NOTES/SPECIAL REQUIREMENTS:

SITE SPECIFIC DATA REQUIREMENTS

STRUCTURE ID	WATER QUALITY FLOW RATE (gpm)	PEAK FLOW RATE (gpm)	RETURN PERIOD OF PEAK FLOW (hrs)	RIM ELEVATION

CONTRACTOR TO PROVIDE ALL MATERIALS UNLESS NOTED OTHERWISE.

FOR SITE SPECIFIC DRAWINGS WITH DETAILED STRUCTURE DIMENSIONS AND WEIGHT, PLEASE CONTACT YOUR CONTECH ENGINEERED SOLUTIONS REPRESENTATIVE. www.contechES.com

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.

CONTRACTOR TO CONFIRM STRUCTURE SHALL MEET ASHOTO HS-20 OR PER APPROVING JURISDICTION REQUIREMENTS, WHICHEVER IS MORE STRINGENT. ENGINEER OF RECORD TO CONFIRM ACTUAL GROUNDWATER ELEVATION AND SITE SPECIFIC EARTH COVER REQUIREMENT. TYPICAL CASTINGS SHALL MEET ASHOTO M208 LOAD RATING AND BE CAST WITH THE CONTECH LOGO.

STRUCTURE SHALL BE PRECAST CONCRETE CONFORMING TO ASTM C-87, ASTM C-918, AND ASHOTO LOAD FACTOR DESIGN METHOD.

OUTLET PIPE INVERT IS EQUAL TO THE CARTRIDGE DECK ELEVATION.

THE OUTLET PIPE DIAMETER FOR NEW INSTALLATIONS IS RECOMMENDED TO BE ONE PIPE SIZE LARGER THAN THE INLET PIPE (WHERE APPLICABLE) AT EQUAL OR GREATER SLOPE.

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

ANY SUB-BASE, BACKFILL DEPTH, AND/OR ANTI-FLOTATION PROVISIONS ARE SITE-SPECIFIC DESIGN CONSIDERATIONS AND SHALL BE SPECIFIED BY ENGINEER OF RECORD.

CONTRACTOR TO PROVIDE EQUIPMENT WITH SUFFICIENT LIFTING AND REACH CAPACITY TO LIFT AND SET THE CASCADE SEPARATOR MANHOLE STRUCTURE.

CONTRACTOR TO INSTALL JOINT SEALANT BETWEEN ALL STRUCTURE SECTIONS AND ASSEMBLE STRUCTURE.

CONTRACTOR TO PROVIDE, INSTALL, AND GROUT INLET AND OUTLET PIPES. MATCH PIPE INVERTS WITH ELEVATIONS SHOWN. ALL PIPE CENTERLINES TO MATCH PIPE OPENING CENTERLINES.

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.

CONTECH
ENGINEERED SOLUTIONS LLC
www.contechES.com
8025 Centre Pointe Dr., Suite 400, West Chester, OH 45399
900-338-1122 513-845-7000 513-845-7893 FAX

CS-3
CASCADE SEPARATOR
STANDARD DETAIL

COMMONWEALTH OF MASSACHUSETTS DEPARTMENT OF ENVIRONMENTAL AFFAIRS DIVISION OF WATER RESOURCES 100 WATER STREET, SUITE 200, BOSTON, MA 02109

PLAN VIEW
(TOP SLAB NOT SHOWN FOR CLARITY)

ELEVATION VIEW

Jellyfish Filter™

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, CURB INLET OR SHALLOW PIPE INLET OPTIONS ARE AVAILABLE. PEAK CONVEYANCE CAPACITY TO BE DETERMINED BY ENGINEER OF RECORD.

CARTRIDGE SELECTION

CARTRIDGE LENGTH	OUTLET INVERT TO STRUCTURE INVERT (A)	FLOW RATE HIGH FLO / (DRAINDOWN) (GPM) (PER CART)	MAX. TREATMENT (GPD)
5'-0"	6'-0"	0.178 / 0.089	0.89
4'-0"	5'-0"	0.133 / 0.067	0.67
3'-0"	4'-0"	0.089 / 0.045	0.45
2'-0"	3'-0"	0.049 / 0.025	0.25

CONTRACTOR TO PROVIDE ALL MATERIALS UNLESS NOTED OTHERWISE.

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INSTALLATION NOTES

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CONTRACTOR TO PROVIDE, INSTALL, AND LEVEL THE STRUCTURE, SEALING THE JOINTS, LINE ENTRY AND EXIT POINTS (NON-SHRINK GROUT WITH APPROVED WATERSTOP OR FLEXIBLE BOOT).

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.

SITE SPECIFIC DATA REQUIREMENTS

STRUCTURE ID	WATER QUALITY FLOW RATE (gpm)	PEAK FLOW RATE (gpm)	RETURN PERIOD OF PEAK FLOW (hrs)	RIM ELEVATION

CONTRACTOR TO PROVIDE ALL MATERIALS UNLESS NOTED OTHERWISE.

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CONTECH
ENGINEERED SOLUTIONS LLC
www.contechES.com
8025 Centre Pointe Dr., Suite 400, West Chester, OH 45399
900-338-1122 513-845-7000 513-845-7893 FAX

JELLYFISH JFPD0406
STANDARD DETAIL
PEAK DIVERSION CONFIGURATION

NOTES:

- 1) THE CONTRACTOR SHALL NOTIFY DIG SAFE AT 1-888-DIG-SAFE (1-888-344-7233) AT LEAST 72 HOURS PRIOR TO COMMENCING ANY EXCAVATION ON PUBLIC OR PRIVATE PROPERTY WITHIN 100 FEET OF UNDERGROUND UTILITIES. THE EXCAVATOR IS RESPONSIBLE TO MAINTAIN MARKS. DIG SAFE TICKETS EXPIRE IN THIRTY DAYS.
- 2) UNDERGROUND UTILITY LOCATIONS ARE BASED UPON BEST AVAILABLE EVIDENCE AND ARE NOT FIELD VERIFIED. LOCATING AND PROTECTING ANY ABOVEGROUND OR UNDERGROUND UTILITIES IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR AND/OR THE OWNER. UTILITY CONFLICTS SHOULD BE REPORTED AT ONCE TO THE DESIGN ENGINEER.
- 3) CONTRACTOR SHALL INSTALL AND MAINTAIN EROSION CONTROL MEASURES IN ACCORDANCE WITH THE "NEW HAMPSHIRE STORMWATER MANUAL, VOLUME 3, EROSION AND SEDIMENT CONTROLS DURING CONSTRUCTION. (NHDES DECEMBER 2008).

COMMONWEALTH OF MASSACHUSETTS DEPARTMENT OF ENVIRONMENTAL AFFAIRS DIVISION OF WATER RESOURCES 100 WATER STREET, SUITE 200, BOSTON, MA 02109

PLAN VIEW
(TOP SLAB NOT SHOWN FOR CLARITY)

ELEVATION VIEW

Jellyfish Filter™

JELLYFISH DESIGN NOTES

JELLYFISH TREATMENT CAPACITY IS A FUNCTION OF THE CARTRIDGE LENGTH AND THE NUMBER OF CARTRIDGES. THE STANDARD SURFACE INLET STYLE WITH TRENCH GRATE AND COVER IS SHOWN. ALTERNATE CURB INLET OR PIPE INLET OPTIONS ARE AVAILABLE. MAXIMUM 0.5 GPM PEAK FLOW CAPACITY.

CARTRIDGE SELECTION

CARTRIDGE LENGTH	OUTLET INVERT TO STRUCTURE INVERT (A)	FLOW RATE HIGH FLO / (DRAINDOWN) (GPM) (PER CART)	MAX. TREATMENT (GPD)
5'-0"	6'-0"	0.178 / 0.089	0.89
4'-0"	5'-0"	0.133 / 0.067	0.67
3'-0"	4'-0"	0.089 / 0.045	0.45
2'-0"	3'-0"	0.049 / 0.025	0.25

CONTRACTOR TO PROVIDE ALL MATERIALS UNLESS NOTED OTHERWISE.

FOR SITE SPECIFIC DRAWINGS WITH DETAILED STRUCTURE DIMENSIONS AND WEIGHT, PLEASE CONTACT YOUR CONTECH ENGINEERED SOLUTIONS REPRESENTATIVE. www.contechES.com

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.

STRUCTURE SHALL MEET ASHOTO HS-20 OR PER APPROVING JURISDICTION REQUIREMENTS, WHICHEVER IS MORE STRINGENT. ENGINEER OF RECORD TO CONFIRM ACTUAL GROUNDWATER ELEVATION AND SITE SPECIFIC EARTH COVER REQUIREMENT. TYPICAL CASTINGS SHALL MEET ASHOTO M208 LOAD RATING AND BE CAST WITH THE CONTECH LOGO.

STRUCTURE SHALL BE PRECAST CONCRETE CONFORMING TO ASTM C-87, ASTM C-918, AND ASHOTO LOAD FACTOR DESIGN METHOD.

OUTLET PIPE INVERT IS EQUAL TO THE CARTRIDGE DECK ELEVATION.

THE OUTLET PIPE DIAMETER FOR NEW INSTALLATIONS IS RECOMMENDED TO BE ONE PIPE SIZE LARGER THAN THE INLET PIPE (WHERE APPLICABLE) AT EQUAL OR GREATER SLOPE.

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

ANY SUB-BASE, BACKFILL DEPTH, AND/OR ANTI-FLOTATION PROVISIONS ARE SITE-SPECIFIC DESIGN CONSIDERATIONS AND SHALL BE SPECIFIED BY ENGINEER OF RECORD.

CONTRACTOR TO PROVIDE EQUIPMENT WITH SUFFICIENT LIFTING AND REACH CAPACITY TO LIFT AND SET THE STRUCTURE.

CONTRACTOR TO PROVIDE, INSTALL, AND LEVEL THE STRUCTURE, SEALING THE JOINTS, LINE ENTRY AND EXIT POINTS (NON-SHRINK GROUT WITH APPROVED WATERSTOP OR FLEXIBLE BOOT).

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.

SITE SPECIFIC DATA REQUIREMENTS

STRUCTURE ID	WATER QUALITY FLOW RATE (gpm)	PEAK FLOW RATE (gpm)	RETURN PERIOD OF PEAK FLOW (hrs)	RIM ELEVATION

CONTRACTOR TO PROVIDE ALL MATERIALS UNLESS NOTED OTHERWISE.

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JELLYFISH JFSI0404
STANDARD DETAIL
SURFACE INLET CONFIGURATION

DD
C104A

JELLYFISH FILTRATION SYSTEM
BY CONTECH ENGINEERED SOLUTIONS, LLC NTS

SEE INSPECTION & MAINTENANCE ON SHEET C507

1	02/25/26	JELLYFISH DETAILS	SJR	JRC
0	10/21/25	ISSUED FOR COMMENT	SJR	JRC
REV.	DATE	DESCRIPTION	BY	CHK

PERMIT PLANS

HALEY WARD
ENGINEERING | ENVIRONMENTAL | SURVEYING
200 Griffin Road, Unit 14
Portsmouth, NH 03801
603-430-9282

DOUBLE MC, LLC
134 PLEASANT STREET PORTSMOUTH, N.H.

DETAILS

DATE SEPTEMBER 2025	SCALE 1"=20'	DRAWN BY SJR	DESIGNED BY ---	CHECKED BY JRC
PROJECT No. 5010156.1532	FIELD BOOK / PAGE FB 276 PG 60	DRAWING No. C506		
				REV. 1

FILE LOCATION: P:\NH01016\NOM\NAB_PROPERTIES\51532-14_PLEASANT ST - PORTSMOUTH - RCT02-CAD_FILES\CAD\01016_1532_RTE_2025.DWG, 2025-02-24, 7:39 AM

