AMBIT ENGINEERING, INC.
A DIVISION OF HALEY WARD, INC.

29 March 2022

Rick Chellman, Chair
City of Portsmouth Planning Board
1 Junkins Avenue
Portsmouth, NH 03801

Re: City of Portsmouth Wetland Conditional Use Permit Request
Tax Map 159, Lot 2
89 Sparhawk Street
Portsmouth, New Hampshire

Dear Mr. Chellman:

This letter transmits a City of Portsmouth Wetland Conditional Use Permit Amendment request for 2,685 square feet of disturbance within the 100' City of Portsmouth Wetland Buffer for the construction of a proposed building addition which consists of two garage bays at existing grade with living space located above. The project also includes other site improvements include the removal of an existing patio, construction of a new pervious patio, construction of a pervious driveway, installation of a stone drip aprons, addition of steps, walkways, retaining walls and associated landscaping (see attached plan set).

The property currently contains a single-family residential structure, a wooden deck, a patio, a gravel driveway, and associated landscaping.

The proposed pervious technologies being used for the construction of the driveway, walkways, and patio combined with the proposed stone drip aprons will allow for collection and infiltration of the stormwater from the proposed building addition, providing a stormwater treatment component that does not exist under existing conditions.

Per the City of Portsmouth Zoning Ordinance, *Article 10.1017.22 (3),* approximately 22% (2,867 sq. ft.) of the wetland buffer area that occurs on the subject lot (12,992 sq. ft.) is vegetated and occurs in a natural state. Approximately 6% or 783 sq. ft. of the wetland buffer area that occurs on the lot consists of structure, patio, deck, walkway and steps (developed area). The remaining wetland buffer area on the lot would be characterized as maintained lawn, which would total approximately 72% or 9,342 sq. ft.

Also, per the City of Portsmouth Zoning Ordinance, *Article 10.1017.24 the application shall include removal of* ***impervious surfaces*** *at least equal in area to the area of* ***impervious surface*** *impact.* The proposed project does propose a minor increase (40 sq. ft.) of impervious surface within the City wetland buffer and therefore this proposal includes a wetland buffer enhancement (see Landscape Plan L1 prepare by Woodburn & Company Landscape Architecture).

200 Griffin Rd., Unit 3, Portsmouth, NH 03801
T: 603.430.9282 | HALEYWARD.COM

Under the City of Portsmouth Zoning Ordinance, *Article 10.1017.25 (1) the **wetland buffer** enhancement plan shall include a combination of new plantings, invasive species removal, habitat creation areas, improved site hydrology, or protected easements provided offsite.* The attached Landscape Plan provides for the installation of 30 shrubs and 101 perennials/groundcovers in the city wetland buffer, in addition to 160 plants being installed on the lot outside of the wetland buffer which will also serve to improve stormwater quality on the subject lot. We believe that the robust Landscape Plan more than exceeds the offset required under the ordinance for the additional 40 sq. ft. of impervious surface proposed in the wetland buffer however the plantings will also serve to enhance the visual quality and aesthetics on the lot, provide micro habitats for urban wildlife species, promote pollinators and other valuable insect life and provide a landscape improvement from what currently exists.

Per the City of Portsmouth Zoning Ordinance, *Article 10.1017.25 (2), where the vegetated buffer strip contains grass or non-native plantings, or is otherwise not intact, the first priority of the **wetland buffer** enhancement plan shall be to include revegetation of the vegetated buffer strip with native, low-maintenance shrubs and other woody vegetation.* A great majority of the existing vegetated buffer strip currently exists in a natural vegetated state (see attached photo log). The attached Planting Plan proposes 10 (ten) highbush blueberry shrubs in an area that is currently maintained lawn, directly adjacent to some previously planted highbush blueberry shrubs as described below. In addition, prior to application for this project, the property owners voluntarily enhanced the wetland buffer (and vegetated buffer strip) with the planting of approximately 34 shrubs consisting of arborvitae (*Thuja spp.*), forsythia (*Forsythia spp.*), boxwood (*buxus spp.)* and highbush blueberry (*Vaccinium corymbosum*). These plantings are well established and will remain after the proposed project is constructed.

According to the City of Portsmouth Zoning Ordinance, *Article 10.1017.50 Criteria for Approval*, the proposal shall comply with the following criteria:

1. **The land is reasonably suited to the use, activity or alteration.**

The proposal is to construct a building addition onto the existing single-family residential structure. Other site improvements include the removal of an existing patio, construction of a new pervious patio, construction of a pervious driveway, installation of a stone drip aprons, addition of steps, walkways, retaining walls and associated landscaping. Only a portion of the proposed structures and landscape components are located within the 100' City of Portsmouth Wetland Buffer. Given that the proposed project includes expansion of an existing footprint on a previously developed lot, removal and re-configuration of driveway and patio surfaces, the proposed disturbance is not located in the Flood Hazard Zone, the land is reasonably suited to the use, activity, or alteration.

2. **There is no alternative location outside of the wetland buffer that is feasible and reasonable for the proposed use, activity or alteration.**

Due to the configuration of the lot, the location of nearby wetlands, there does not exist an area to propose the building addition and achieve a reasonable use while avoiding the 100' City of Portsmouth Wetland Buffer. There is an area located directly to the northwest of the existing home where an addition could be built and provide greater avoidance of the wetland buffer however an addition in this location would eliminate four (4) second story windows appurtenant to the two (2) upstairs bedrooms in which they serve to provide a means of egress in case of an emergency. These windows in the existing structure are also considerably lower than standard (with sill at 12" above the finished floor and a header at 4'3") resulting in a proposed mudroom below would not have sufficient clearance and negatively affect the bedrooms. As a result, an addition in this location would require an entire re-configuration of the second story of the

existing home, specifically re-location of bedrooms to provide required life safety measures. The interior of the existing first floor would be greatly impacted as the existing home is laid out with entry programming on the southeastern side leading to the location of the proposed addition being tied into the existing structure architecturally in regards to entrance into the home via the proposed garage parking.

Additionally, a curb cut for a new driveway location on the northwestern side of the existing home would likely create a blind drive condition and create a danger to vehicles backing into Sparhawk Street.

3. **There will be no adverse impact on the wetland functional values of the site or surrounding properties.**

The proposal will not significantly impact the existing wetland resource located adjacent to the site and its current functions and values. The proposed project relocates a patio further from the wetland resource, provides pervious technologies for patio and driveway surfaces and stone drip aprons which will serve to improve stormwater quality, treatment, and infiltration on the subject parcel. Lastly, the project also provides a robust planting plan which enhances areas inside and outside the wetland buffer on the lot that will provide additional protections that do not currently exist on the site. With the above measures being taken, it is my belief that the above project will improve water quality entering the nearby wetland resource, and therefore have no adverse impact on the wetland functional values and the surrounding properties.

4. **Alteration of the natural vegetative state or managed woodland will occur only to the extent necessary to achieve construction goals.**

The proposed project includes alteration of a very small (~150 sq. ft.) naturally vegetated area to accommodate the relocation/installation of a roof drain as far from the wetland resource as possible while still maintaining gravitational flow. This disturbance is temporary and the area will be restored to original grade and surface configuration after the proposed work is completed.

5. **The proposal is the alternative with the least adverse impact to areas and environments under the jurisdiction of this Section.**

The project represents the alternative with the least adverse impacts to areas and environments while allowing reasonable use of the property. The proposal avoids the wetland buffer to the greatest extent practicable while providing a reasonable use for the property owner. The project also provides the use of pervious technology, stone drip aprons and a robust planting plan which will serve to improve stormwater quality, treatment, and infiltration on the subject parcel.

6. **Any area within the vegetated buffer strip will be returned to a natural state to the extent feasible.**

There are no areas within the vegetated buffer strip that will be impacted or altered by this project.

Please contact me if you have any questions or concerns regarding this application.

Respectfully submitted,

Sincerely,

Steve Riker, CWS
Project Scientist/Project Manager
sriker@haleyward.com

Cc: Jonathan M. & Lisa B. Morse-Owners/Applicant
Jen Ramsey-Somma Studios
Robbi Woodburn-Woodburn & Company Landscape Architecture

23 November, 2022

To Whom It May Concern

RE: City of Portsmouth and New Hampshire Department of Environmental Services applications for Residential Site Improvements for Jonathan & Lisa Morse, 89 Sparhawk Street, Portsmouth, NH.

This letter is to inform the City of Portsmouth and the New Hampshire Department of Environmental Services, in accordance with State Law, that Ambit Engineering, Somma Studios, and Woodburn and Company are all authorized to obtain approvals in regard to the above referenced property, and to sign any applications required on our behalf.

Please feel free to call me if there is any question regarding this authorization.

Sincerely,

Lisa Morse
978-853-3492

NH DES-Wetlands Bureau Application
89 Sparhawk Street
Proposed Building Addition

SITE PHOTOGRAPHS
Portsmouth, NH

Site Photograph #1 March 2023

Site Photograph #2 March 2023

Site Photograph #3 March 2023

Site Photograph #4 March 2023

Site Photograph #5 March 2023

Site Photograph #6 March 2023

Site Photograph #7 March 2023

Site Photograph #8 March 2023

Site Photograph #9 March 2023

Site Photograph #10 March 2023

STORMWATER MANAGEMENT
INSPECTION & MAINTENANCE PLAN
FOR
Jonathan M. & Lisa B. Morse
PROPERTY LOCATED AT
89 Sparhawk Street, Portsmouth, NH
March 29, 2023

Introduction

The intent of this plan is to provide Jonathan M. & Lisa B. Morse, owners of property located at 89 Sparhawk Street, Portsmouth, NH, with a list of procedures that cover the inspection and maintenance requirements of the stormwater management components for the proposed construction at the site.

The following inspection and maintenance program is necessary to keep the stormwater management system functioning properly. These measures will also help minimize potential environmental impacts. By following the enclosed procedures, Jonathan M. & Lisa B. Morse will be able to maintain the functional design of the stormwater management components and maximize their ability to remove sediment and other contaminants from site generated stormwater runoff.

Stormwater Management System Components

The Stormwater Management System design components are Stone Drip Aprons, Pervious Pavement, Pervious Paver Patio/Walkways and Buffer Planting Areas.

The proposed construction includes the construction of a proposed building addition which consists of two garage bays at existing grade with living space located above. The project also includes other site improvements include the removal of an existing patio, construction of a new pervious patio, construction of a pervious driveway, installation of a stone drip aprons, addition of steps, walkways, retaining walls and associated landscaping. Since a portion of the construction is within the City of Portsmouth's 100 foot wetland buffer, the proposed stormwater structures will provide treatment for the proposed improvements under this application.

The Stone Drip Aprons will capture runoff from the proposed building addition as well as a portion

of the existing home. The Pervious Pavement Driveway will capture runoff and provide percolation into the soil, and the Buffer Planting Areas will serve as a natural vegetative filtration component that will improve stormwater quality leaving the site and entering the adjacent wetland resource.

Inspection & Maintenance Checklist/Log

The following pages contain maintenance specifications, a Stormwater Management System Inspection & Maintenance Checklist, and a blank copy of the Stormwater Management System Inspection & Maintenance Log. The forms are provided to Jonathan M. & Lisa B. Morse and should be transferred to future homeowners and will serve as a guideline for performing the inspection and maintenance of the Stormwater Management System. This is a guideline and should be periodically reviewed for conformance with current practice and standards.

Stone Drip Apron Design

The intent of the stone drip edge is to provide for storage and percolation of roof runoff from the proposed garage and breezeway. Stone Drip Aprons are meant to provide a porous medium (stone, 6" depth) that can withstand water velocity from the roof above, eliminating erosion at the point of contact. The base (24"-36" depth) of the drip edge is backfilled with coarse sand or gravel which allows the stormwater to quickly infiltrate into the ground where it is stored and slowly percolated into the surrounding subsoil. Stone Drip Aprons typically extend 2 feet from the edge of the building foundation to effectively capture runoff from the roof edge above.

Stone Drip Apron Maintenance

In order to keep the Stone Drip Aprons functioning properly, it is important to keep the filter surface porous and unplugged by debris.

Remove any debris that may clog the stone surface.

After leaf fall (i.e. in November), remove large accumulations of leaves. It is not necessary to remove every leaf but at the same time it is not desirable to have the stone surface completely covered with leaves to the point of plugging the stone surface.

Replace the stone surface with new stone as needed. Ponding of water on the surface of the drip apron would indicate that the stone needs to be replaced.

Porous Pavement Design

The intent of the porous pavement is to provide for storage and percolation of the stormwater that falls upon the driveway surface. The base (filter course, 15" depth) allows the stormwater to move through the pavement section where it is stored as it percolates into the surrounding subsoil.

Porous Pavement Maintenance

In order to keep the pervious pavers functioning properly, it is important to keep the surface porous and unplugged by debris. After installation of the pervious pavement surface, perform the following inspections on a semi-annual basis:

Monitor for excessive or concentrated accumulations of debris, or excessive erosion. Remove debris as required.

Vacuum the surface twice annually. This will remove organic buildup within the void space and restore/maintain permeability.

Do not use any de-icing chemicals on the pavement surface.

Repair any damages to original condition.

Pervious Paver/Walkway Maintenance

In order to keep the pervious paver surfaces functioning properly, it is important to keep the surface porous and unplugged by debris. After installation of the pervious pavers, perform the following inspections on a semi-annual basis:

Monitor for excessive or concentrated accumulations of debris, or excessive erosion. Remove debris as required.

Remove debris from the paver void space twice annually. This will remove organic buildup within the void space and restore/maintain permeability. Replace void space aggregate as needed.

Buffer Planting Area Design

The intent of the buffer planting area is to provide a vegetative matrix that will aid in the filtering of nutrients, sediments, and toxicants before they enter an adjacent wetland resource. Root structures of the native plants not only provide excellent stabilization for the surrounding soils, but also provide a natural filtration mechanism for stormwater as it passes through the buffer planting area. The buffer planting area will be planted with native shrubs, perennials and groundcovers.

Buffer Planting Area Maintenance

All planting and landscaping shall be monitored bi-monthly during the first year to insure viability and vigorous growth. Replace dead or dying vegetation with new stock and make adjustments to the conditions that caused the dead or dying vegetation. Make the necessary adjustments to ensure long-term health of the vegetated covers, i.e. provide more permanent mulch or compost or other means of protection. Also monitor the planting areas for signs of invasive species growth. If caught early enough, their eradication is much easier. The most likely places where invasions start are in wetter, disturbed soils. Species such as phragmites and purple loose-strife are common invaders in the wetter areas. Young shoots of invasive species can physically be pulled by hand as a method of control. The planting areas should be inspected monthly during the growing season for the presence of invasive species. The planting areas should not be mowed and allowed to grow naturally, increasing their function.

Stormwater Management System
Jonathan M. & Lisa B. Morse

Inspection & Maintenance Checklist

BMP/System Component	Minimum Inspection Frequency	Minimum Inspection Requirements	Maintenance/Cleanout Threshold
Stone Drip Aprons	Twice Yearly	Remove leaves / debris from surface	Clean and/or replace stone as needed
Planting Areas	Bi-Monthly during first growing season (Apr-Oct). Routinely after heavy rain	Inspect for damage and erosion. Inspect for viability and growth. Inspect for invasive species, pull young shoots by hand and dispose in household trash bags.	Replace top soil and mulch as needed. Replace dead or dying plants with new stock. Make adjustments to conditions to promote plant growth.
Porous Pavement	Semi-Annual	Inspect for debris or sediment accumulation and inspect for damage to original condition.	Vacuum twice per year Repair surface as needed.
Pervious Paver Patio/Walkways	Twice annually	Monitor for excessive accumulation of debris and remove as needed.	Replace void space aggregate as needed.

Stormwater Management System
Jonathan M. & Lisa B. Morse

BMP/System Component	**Date Inspected**	**Inspector**	**Cleaning/Repair Needed** ***(List Items/Comments*****)**	**Date of Cleaning/Repair**	**Performed By**

BUILDING ADDITION

MORSE RESIDENCE

89 SPARHAWK STREET, PORTSMOUTH, NEW HAMPSHIRE

PERMIT PLANS

OWNER & APPLICANT:
JOHATHAN M. & LISA B. MORSE
89 SPARHAWK STREET
PORTSMOUTH, NH 03801
(603) 969-6656

CIVIL ENGINEER & LAND SURVEYOR:
AMBIT ENGINEERING, INC.
200 GRIFFIN ROAD, UNIT 3
PORTSMOUTH, N.H. 03801
TEL. (603) 430-9282
FAX (603) 436-2315

LANDSCAPE ARCHITECT:
WOODBURN & COMPANY LANDSCAPE ARCHITECTURE, LLC
103 KENT PLACE
NEWMARKET, N.H. 03857
TEL. (603) 659-5949
FAX (603) 659-5939

ARCHITECT:
SOMMA STUDIOS
30 MAPLEWOOD AVENUE
PORTSMOUTH NH 03801
TEL. (617) 766-3760
FAX (617) 766-3761

PERMIT LIST:
PORTSMOUTH DRIVEWAY PERMIT: PENDING
PORTSMOUTH TREES AND GREENERY: PENDING
PORTSMOUTH CONDITIONAL USE PERMIT (WETLANDS): PENDING
NHDES WETLAND BUREAU: PENDING
NHDES SHORELAND PERMIT: PENDING

LEGEND:

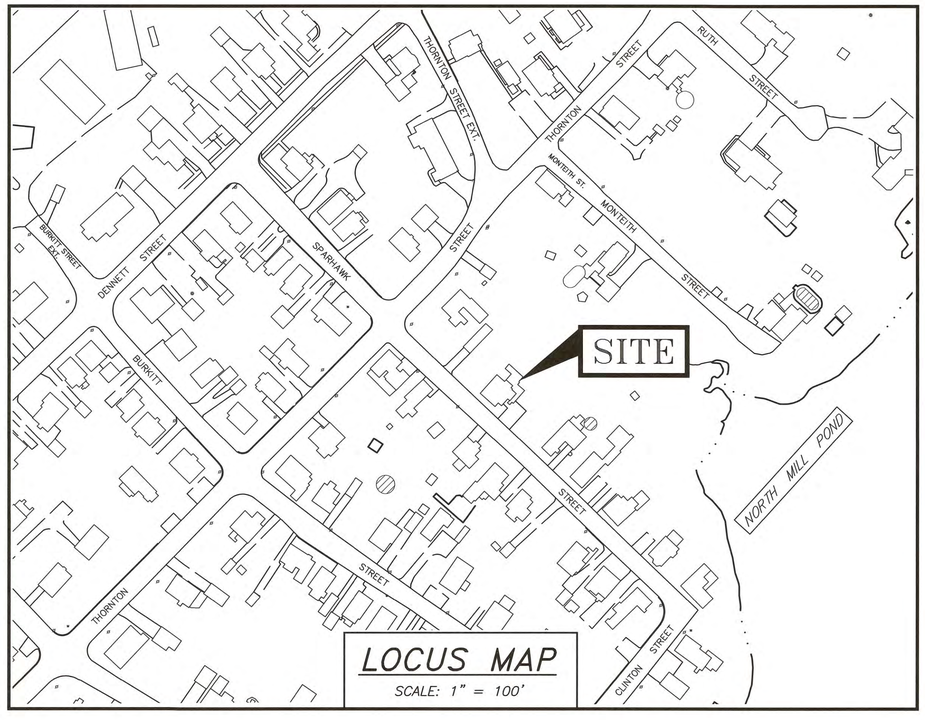
EXISTING	PROPOSED	
		PROPERTY LINE
		SETBACK
S	S	SEWER PIPE
SL	SL	SEWER LATERAL
G	G	GAS LINE
D	D	STORM DRAIN
W	W	WATER LINE
WS	WS	WATER SERVICE
UGE	UGE	UNDERGROUND ELECTRIC
OHW	OHW	OVERHEAD ELECTRIC/WIRES
	UD	FOUNDATION DRAIN
		EDGE OF PAVEMENT (EP)
100	100	CONTOUR
97x3	98x0	SPOT ELEVATION
		UTILITY POLE
		WALL MOUNTED EXTERIOR LIGHTS
		TRANSFORMER ON CONCRETE PAD
		ELECTRIC HANDHOLD
		SHUT OFFS (WATER/GAS)
	GV	GATE VALVE
	HYD	HYDRANT
CB	CB	CATCH BASIN
S	SMH	SEWER MANHOLE
D	DMH	DRAIN MANHOLE
T	TMH	TELEPHONE MANHOLE
14	14	PARKING SPACE COUNT
PM		PARKING METER
LSA		LANDSCAPED AREA
TBD	TBD	TO BE DETERMINED
CI	CI	CAST IRON PIPE
COP	COP	COPPER PIPE
DI	DI	DUCTILE IRON PIPE
PVC	PVC	POLYVINYL CHLORIDE PIPE
RCP	RCP	REINFORCED CONCRETE PIPE
AC	–	ASBESTOS CEMENT PIPE
VC	VC	VITRIFIED CLAY PIPE
EP	EP	EDGE OF PAVEMENT
EL.	EL.	ELEVATION
FF	FF	FINISHED FLOOR
INV	INV	INVERT
S =	S =	SLOPE FT/FT
TBM	TBM	TEMPORARY BENCH MARK
TYP	TYP	TYPICAL

Legend

Character Districts
Character-Based Zoning Area
(Refer to Zoning Map Sheet 2 of 2
Character Districts Regulating Plan)

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



LOCUS MAP
SCALE: 1" = 100'

DIG SAFE
MA – ME – NH – RI – VT
1-888-344-7233
CALL TOLL FREE

INDEX OF SHEETS

UTILITY CONTACTS

ELECTRIC:
EVERSOURCE
1700 LAFAYETTE ROAD
PORTSMOUTH, N.H. 03801
Tel. (603) 436-7708, Ext. 555.5678
ATTN: MICHAEL BUSBY, P.E. (MANAGER)

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

CABLE:
COMCAST
155 COMMERCE WAY
PORTSMOUTH, N.H. 03801
Tel. (603) 679-5695 (X1037)
ATTN: MIKE COLLINS

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

COMMUNICATIONS:
FAIRPOINT COMMUNICATIONS
JOE CONSIDINE
1575 GREENLAND ROAD
GREENLAND, N.H. 03840
Tel. (603) 427-5525

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.

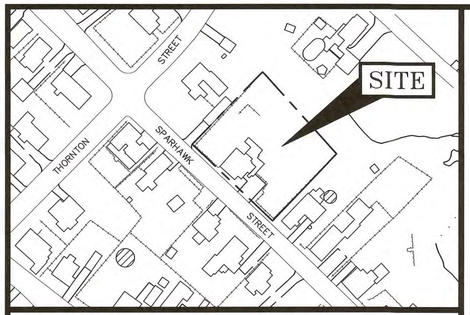
APPROVED BY THE PORTSMOUTH PLANNING BOARD

CHAIRMAN _____ DATE _____

BUILDING ADDITION
MORSE RESIDENCE
89 SPARHAWK STREET
PORTSMOUTH, N.H.

AMBIT ENGINEERING, INC.
Civil Engineers & Land Surveyors
200 Griffin Road – Unit 3
Portsmouth, N.H. 03801-7114
Tel (603) 430-9282
Fax (603) 436-2315

PLAN SET SUBMITTAL DATE: 29 MARCH 2023



LOCATION MAP SCALE: 1" = 100'

LEGEND

N/F	NOW OR FORMERLY
RCRD	ROCKINGHAM COUNTY REGISTRY OF DEEDS
11/21	MAP 11 / LOT 21
	BOUNDARY
	SETBACK
RR SPK FND	RAILROAD SPIKE FOUND
IR/IP FND	IRON ROD/IRON PIPE FOUND
DH FND	DRILL HOLE FOUND
BND w/DH	BOUND w/ DRILL HOLE
S	SEWER LINE
G	GAS LINE
D	STORM DRAIN
W	WATER LINE
	UNDERGROUND ELECTRIC
	OVERHEAD ELECTRIC/WIRES
100	CONTOUR
	EDGE OF PAVEMENT (EP)
	WOODS / TREE LINE
	UTILITY POLE (W/ GUY)
	GAS SHUT OFF
	WATER SHUT OFF/CURB STOP
GV	GATE VALVE
HYD	HYDRANT
G W E	METER (GAS, WATER, ELECTRIC)
	CATCH BASIN
S	SEWER MANHOLE
D	DRAIN MANHOLE
AC	AIR CONDITIONER UNIT
	SIGNS
A–1	EDGE OF WETLAND FLAGGING
	SWAMP / MARSH
EL.	ELEVATION
F.F.	FINISHED FLOOR
INV.	INVERT
TBM	TEMPORARY BENCHMARK
TYP.	TYPICAL
LSA	LANDSCAPED AREA

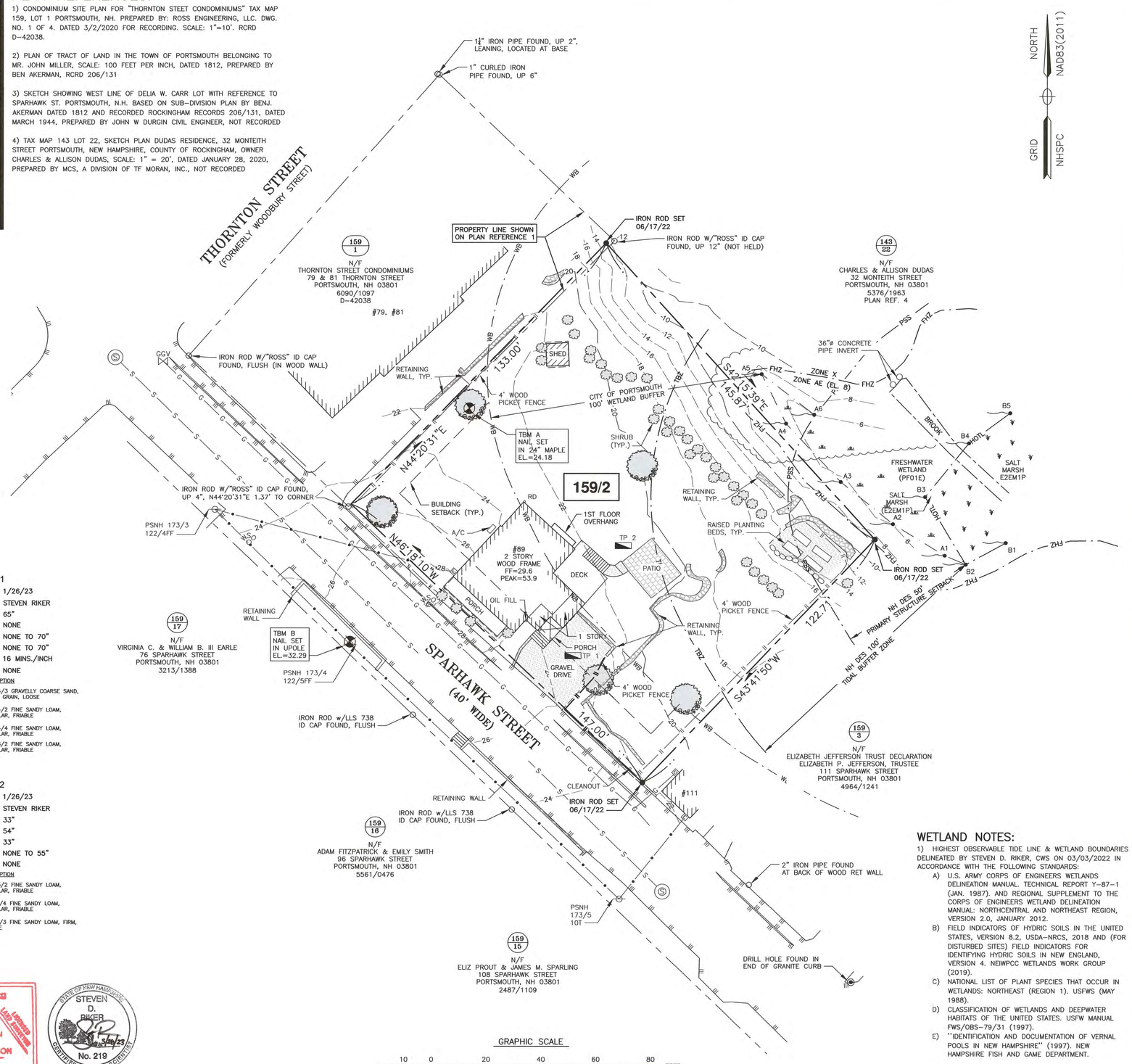
PLAN REFERENCES:

1) CONDOMINIUM SITE PLAN FOR "THORNTON STEET CONDOMINIUMS" TAX MAP 159, LOT 1 PORTSMOUTH, NH. PREPARED BY: ROSS ENGINEERING, LLC. DWG. NO. 1 OF 4. DATED 3/2/2020 FOR RECORDING. SCALE: 1"=10'. RCRD D–42038.

2) PLAN OF TRACT OF LAND IN THE TOWN OF PORTSMOUTH BELONGING TO MR. JOHN MILLER, SCALE: 100 FEET PER INCH, DATED 1812, PREPARED BY BEN AKERMAN, RCRD 206/131

3) SKETCH SHOWING WEST LINE OF DELIA W. CARR LOT WITH REFERENCE TO SPARHAWK ST. PORTSMOUTH, N.H. BASED ON SUB–DIVISION PLAN BY BENJ. AKERMAN DATED 1812 AND RECORDED ROCKINGHAM RECORDS 206/131, DATED MARCH 1944, PREPARED BY JOHN W DURGIN CIVIL ENGINEER, NOT RECORDED

4) TAX MAP 143 LOT 22, SKETCH PLAN DUDAS RESIDENCE, 32 MONTEITH STREET PORTSMOUTH, NEW HAMPSHIRE, COUNTY OF ROCKINGHAM, OWNER CHARLES & ALLISON DUDAS, SCALE: 1" = 20', DATED JANUARY 28, 2020, PREPARED BY MCS, A DIVISION OF TF MORAN, INC., NOT RECORDED



GRAPHIC SCALE

10 0 20 40 60 80 FEET
5 0 5 10 15 20 25 METERS

TEST PIT 1

Date:	1/26/23
Logged by:	STEVEN RIKER
ESHWT:	65"
Observed Water:	NONE
Restrictive layer:	NONE TO 70"
REFUSAL:	NONE TO 70"
Percolation rate:	16 MINS./INCH
Roots:	NONE

DEPTH	DESCRIPTION
0" – 21"	10YR 4/3 GRAVELLY COARSE SAND, SINGLE GRAIN, LOOSE
21" – 37"	10YR 4/2 FINE SANDY LOAM, GRANULAR, FRIABLE
37" – 65"	10YR 4/4 FINE SANDY LOAM, GRANULAR, FRIABLE
65' – 70"	10YR 3/2 FINE SANDY LOAM, GRANULAR, FRIABLE

TEST PIT 2

Date:	1/26/23
Logged by:	STEVEN RIKER
ESHWT:	33"
Observed Water:	54"
Restrictive layer:	33"
REFUSAL:	NONE TO 55"
Roots:	NONE

DEPTH	DESCRIPTION
0" – 13"	10YR 3/2 FINE SANDY LOAM, GRANULAR, FRIABLE
13" – 33"	2.5Y 4/4 FINE SANDY LOAM, GRANULAR, FRIABLE
37" – 65"	2.5Y 4/3 FINE SANDY LOAM, FIRM, MASSIVE

"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, LLS — DATE 3.23.23

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

STATE OF NEW HAMPSHIRE STEVEN D. RIKER 5/24/23 No. 219 CERTIFIED WETLAND SCIENTIST

WETLAND NOTES:

1) HIGHEST OBSERVABLE TIDE LINE & WETLAND BOUNDARIES DELINEATED BY STEVEN D. RIKER, CWS ON 03/03/2022 IN ACCORDANCE WITH THE FOLLOWING STANDARDS:
- A) U.S. ARMY CORPS OF ENGINEERS WETLANDS DELINEATION MANUAL. TECHNICAL REPORT Y–87–1 (JAN. 1987). AND REGIONAL SUPPLEMENT TO THE CORPS OF ENGINEERS WETLAND DELINEATION MANUAL: NORTHCENTRAL AND NORTHEAST REGION, VERSION 2.0, JANUARY 2012.
- B) FIELD INDICATORS OF HYDRIC SOILS IN THE UNITED STATES, VERSION 8.2, USDA–NRCS, 2018 AND (FOR DISTURBED SITES) FIELD INDICATORS FOR IDENTIFYING HYDRIC SOILS IN NEW ENGLAND, VERSION 4. NEIWPCC WETLANDS WORK GROUP (2019).
- C) NATIONAL LIST OF PLANT SPECIES THAT OCCUR IN WETLANDS: NORTHEAST (REGION 1). USFWS (MAY 1988).
- D) CLASSIFICATION OF WETLANDS AND DEEPWATER HABITATS OF THE UNITED STATES. USFW MANUAL FWS/OBS–79/31 (1997).
- E) "IDENTIFICATION AND DOCUMENTATION OF VERNAL POOLS IN NEW HAMPSHIRE" (1997). NEW HAMPSHIRE FISH AND GAME DEPARTMENT.

2) WETLAND FLAGS WERE FIELD LOCATED BY AMBIT ENGINEERING, INC.

AMBIT ENGINEERING, INC.
Civil Engineers & Land Surveyors
200 Griffin Road – Unit 3
Portsmouth, N.H. 03801–7114
Tel (603) 430–9282
Fax (603) 436–2315

NOTES:

1) PARCEL IS SHOWN ON THE CITY OF PORTSMOUTH ASSESSOR'S MAP 159 AS LOT 2.

2) OWNER OF RECORD:
JONATHAN M. & LISA B. MORSE
89 SPARHAWK STREET
PORTSMOUTH, NH 03801
5855/0015

3) A PORTION OF THE PARCEL IS IN A SPECIAL FLOOD HAZARD AREA (ZONE AE EL. 8) AS SHOWN ON FIRM PANEL 33015C0259F. EFFECTIVE DATE JANUARY 29, 2021.

4) EXISTING LOT AREA:
18,702 S.F.
0.4293 ACRES

5) PARCEL IS LOCATED IN THE GENERAL RESIDENCE A (GRA) ZONING DISTRICT.

6) DIMENSIONAL REQUIREMENTS:

LOT AREA:		7,500 S.F.
FRONTAGE:		100 FEET
DEPTH:		70 FEET
SETBACKS:	FRONT	15 FEET
	SIDE	10 FEET
	REAR	20 FEET
MAXIMUM STRUCTURE HEIGHT:		35 FEET
MAXIMUM BUILDING COVERAGE:		25%
MINIMUM OPEN SPACE:		30%

8) VERTICAL DATUM IS NAVD88. BASIS OF VERTICAL DATUM IS REDUNDANT RTN GNSS OBSERVATIONS.

9) THE PURPOSE OF THIS PLAN IS TO SHOW THE EXISTING CONDITIONS ON ASSESSOR'S MAP 159 LOT 2 IN THE CITY OF PORTSMOUTH.

NO.	DESCRIPTION	DATE
1	MONUMENTS SET	6/17/22
0	ISSUED FOR COMMENT	5/27/22

REVISIONS

STANDARD BOUNDARY & TOPOGRAPHIC SURVEY TAX MAP 159 – LOT 2

FOR

JONATHAN M. MORSE & LISA B. MORSE

89 SPARHAWK STREET
CITY OF PORTSMOUTH
COUNTY OF ROCKINGHAM
STATE OF NEW HAMPSHIRE

SCALE: 1"=20' APRIL 2022

FB 288 PG 54 3432

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 CONTRACTORS' 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 CONTRACTORS 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) ALL WORK WITHIN THE CITY OF PORTSMOUTH RIGHT OF WAY SHALL BE COORDINATED WITH THE CITY OF PORTSMOUTH DEPARTMENT OF PUBLIC WORKS (DPW).

J) REMOVE TREES AND BRUSH AS REQUIRED FOR COMPLETION OF WORK. CONTRACTOR SHALL GRUB AND REMOVE ALL STUMPS WITHIN LIMITS OF WORK AND DISPOSE OF OFF-SITE IN ACCORDANCE WITH FEDERAL, STATE, AND LOCAL LAWS AND REGULATIONS.

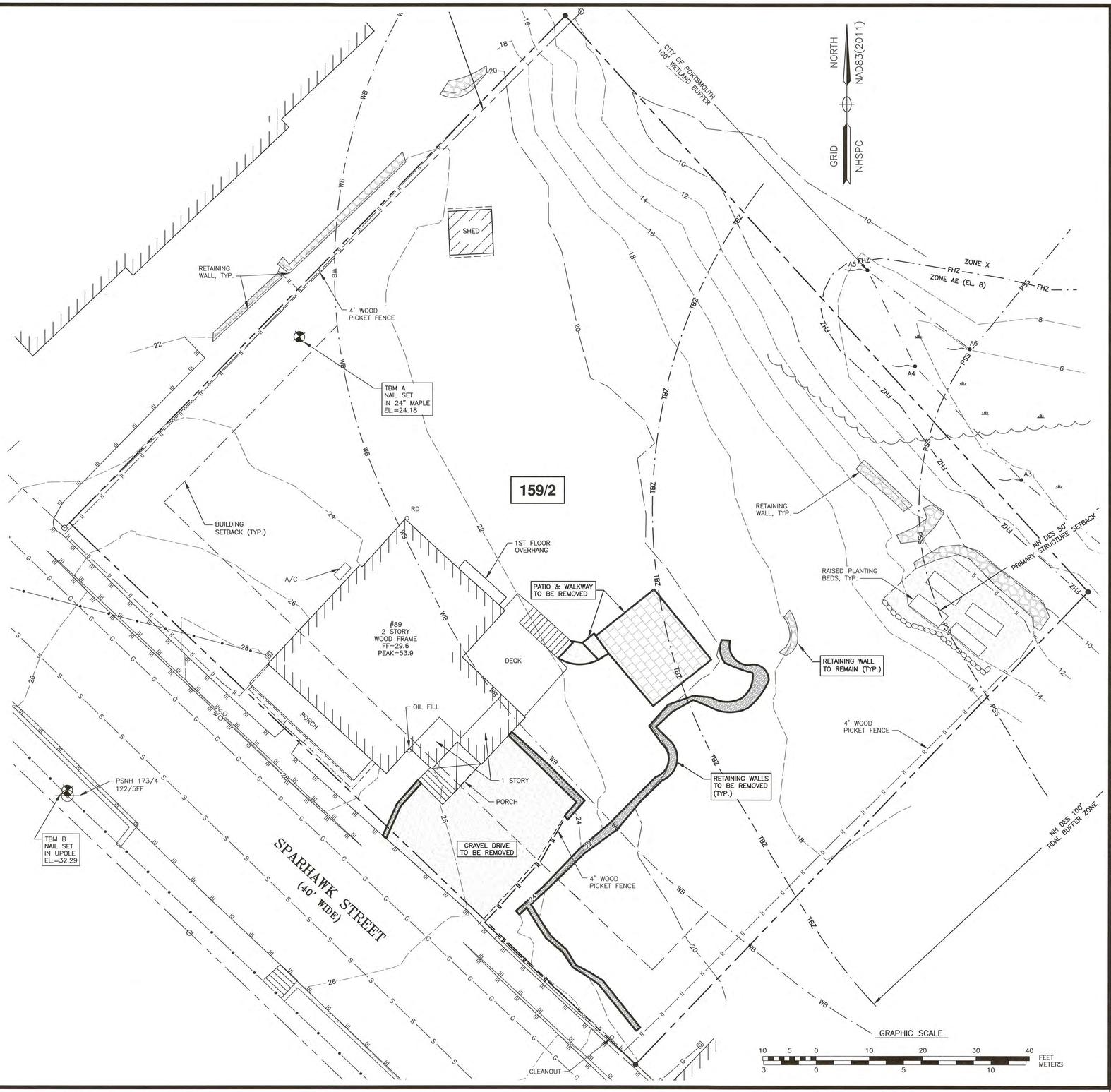
K) CONTRACTOR SHALL PROTECT ALL PROPERTY MONUMENTATION THROUGHOUT DEMOLITION AND CONSTRUCTION OPERATIONS. SHOULD ANY MONUMENTATION BE DISTURBED, THE CONTRACTOR SHALL EMPLOY A NH LICENSED LAND SURVEYOR TO REPLACE THEM.

L) 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.

M) THE CONTRACTOR SHALL PAY ALL COSTS NECESSARY FOR TEMPORARY PARTITIONING, BARRICADING, FENCING, SECURITY AND SAFELY DEVICES REQUIRED FOR THE MAINTENANCE OF A CLEAN AND SAFE CONSTRUCTION SITE.

N) 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.

O) DURING CONSTRUCTION ACCESS WILL BE PROVIDED TO ALL EXISTING PROPERTIES LOCATED ON BIRCH ST.



APPROVED BY THE PORTSMOUTH PLANNING BOARD

CHAIRMAN _____ DATE _____

AMBIT ENGINEERING, INC.
Civil Engineers & Land Surveyors
200 Griffin Road – Unit 3
Portsmouth, N.H. 03801–7114
Tel (603) 430–9282
Fax (603) 436–2315

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).

MORSE RESIDENCE
89 SPARHAWK STREET
PORTSMOUTH, N.H.

NO.	DESCRIPTION	DATE
0	ISSUED FOR COMMENT	11/23/22

REVISIONS

JOHN CHAMPION NO. 7851 LICENSED PROFESSIONAL ENGINEER STATE OF NEW HAMPSHIRE

STEVEN D. RIKER 11/23/22 No. 219 CERTIFIED WETLAND SCIENTIST STATE OF NEW HAMPSHIRE

SCALE: 1" = 10' NOVEMBER 2022

DEMOLITION PLAN C1

FB 288 PG 54

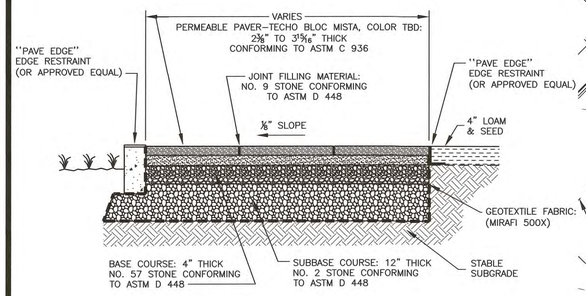
3432

IMPERVIOUS SURFACE AREAS
(TO PROPERTY LINE)

STRUCTURE	PRE-CONSTRUCTION IMPERVIOUS (S.F.)	POST-CONSTRUCTION IMPERVIOUS (S.F.)
MAIN STRUCTURE	1,280	2,154
PORCH/DECK	343	343
STAIRS/LANDINGS	111	250
RETAINING WALLS	328	219
DRIVEWAY	631	0
SHED	67	67
AC PAD	4	4
WALKWAYS	30	0
PATIO	239	101
TOTAL	3,033	3,138
LOT SIZE	18,702	18,702
% LOT COVERAGE	16.2%	16.8%

CITY OF PORTSMOUTH BUFFER IMPACT

TOTAL DISTURBANCE: 2,685 S.F.



NOTES:
1) TECHO-BLOC (OR APPROVED EQUAL).
2) INSTALLED PER MANUFACTURERS INSTRUCTIONS.
3) PEDESTRIAN TRAFFIC ONLY.

MAINTENANCE OF POROUS PAVER SURFACE:
1) MONITOR FOR EXCESSIVE ACCUMULATION OF DEBRIS, PARTICULARY IN VOID SPACE.

2) REMOVE DEBRIS FROM VOID SPACE TWICE ANNUALLY BY MANUAL MEANS OR BY VACUUM.

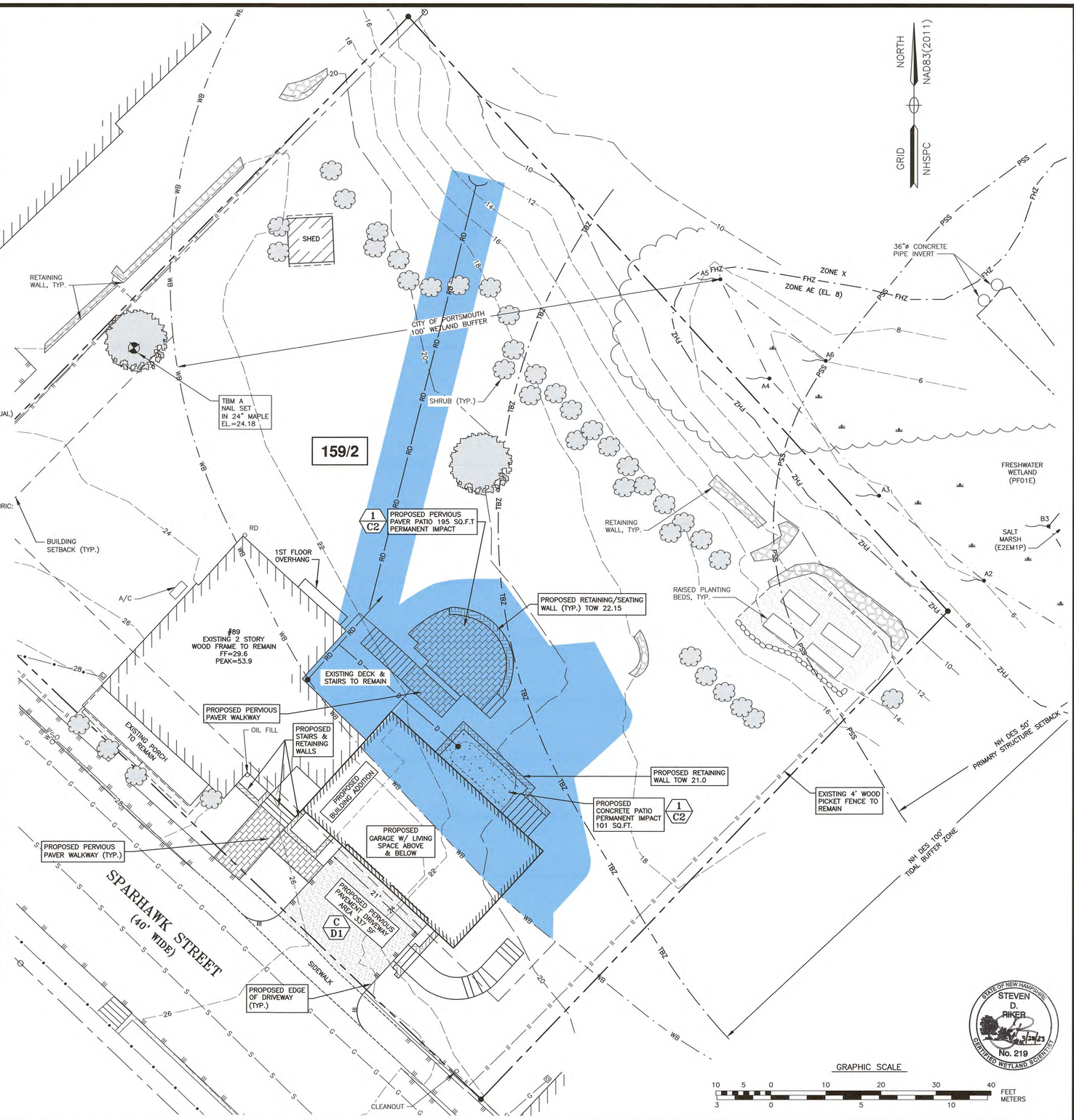
1 / C2 TECHO-BLOC® POROUS PATIO/WALKWAYS
(OR APPROVED EQUAL) NTS

CITY OF PORTSMOUTH WETLAND BUFFER IMPERVIOUS SURFACE AREAS

STRUCTURE	PRE-CONSTRUCTION IMPERVIOUS (S.F.)	POST-CONSTRUCTION IMPERVIOUS (S.F.)
MAIN STRUCTURE	175	369
STEPS	39	88
WALKWAY	29	0
RETAINING WALLS	95	58
PATIO	238	101
DECK	207	207
TOTAL	783	823
AREA OF BUFFER ON LOT	12,992	12,992
% COVERAGE IN BUFFER	6.0%	6.3%

APPROVED BY THE PORTSMOUTH PLANNING BOARD

CHAIRMAN DATE



GRAPHIC SCALE
10 5 0 10 20 30 40 FEET
3 0 5 10 METERS

STATE OF NEW HAMPSHIRE
STEVEN D. RIKER
5/24/23
No. 219
CERTIFIED WETLAND SCIENTIST

AMBIT ENGINEERING, INC.
Civil Engineers & Land Surveyors
200 Griffin Road - Unit 3
Portsmouth, N.H. 03801-7114
Tel (603) 430-9282
Fax (603) 436-2315

NOTES:

1) PARCEL IS SHOWN ON THE CITY OF PORTSMOUTH ASSESSOR'S MAP 159 AS LOT 2.

2) OWNER OF RECORD:
JONATHAN M. & LISA B. MORSE
89 SPARHAWK STREET
PORTSMOUTH, NH 03801
5855/0015

3) A PORTION OF THE PARCEL IS IN A SPECIAL FLOOD HAZARD AREA (ZONE AE EL. 8) AS SHOWN ON FIRM PANEL 33015C0259F. EFFECTIVE DATE JANUARY 29, 2021.

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9) THE PURPOSE OF THIS PLAN IS TO SHOW THE STRUCTURE ADDITION & SITE IMPROVEMENTS ON ASSESSOR'S MAP 159 LOT 2 IN THE CITY OF PORTSMOUTH.

MORSE RESIDENCE
89 SPARHAWK STREET
PORTSMOUTH, N.H.

NO.	DESCRIPTION	DATE
1	ISSUED FOR APPROVAL	3/22/23
0	ISSUED FOR COMMENT	11/23/22

REVISIONS

SCALE: 1" = 10' MARCH 2023

CITY OF PORTSMOUTH PERMIT PLAN

C2

FB 288 PG 54

3432

P:\NHS\2010162-Lisa_Morse\3432-Sparhawk St, Portsmouth-JRC\3432\2023 Survey\Plans & Specs\Site\3432 Survey 2022.dwg, 3/27/2023 4:21:29 PM, Portsmouth Plotter Canon TX3000 (temporary).pc3

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(TO PROPERTY LINE)

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LOT SIZE	18,702	18,702
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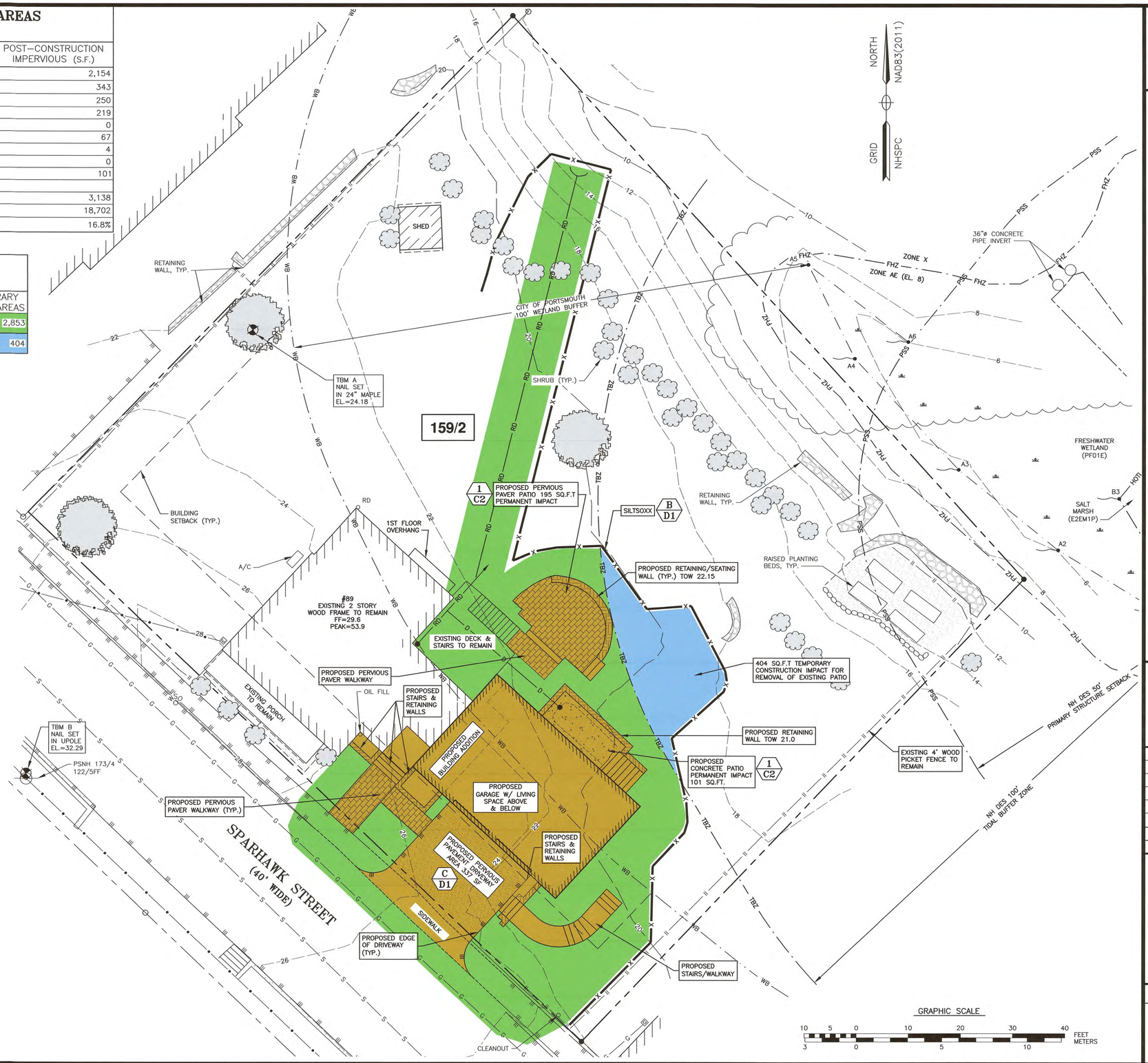
NHDES IMPACT AREAS
IN S.F.

	PERMANENT IMPACT AREAS	TEMPORARY IMPACT AREAS
250' PROTECTED SHORELAND	2,154	2,853
TIDAL BUFFER ZONE	0	404



"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."

3.22.23

JOHN R. CHAGNON, LLS — DATE

AMBIT ENGINEERING, INC.
Civil Engineers & Land Surveyors
200 Griffin Road – Unit 3
Portsmouth, N.H. 03801–7114
Tel (603) 430–9282
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10) PER CITY OF PORTSMOUTH ZONING ORDINANCE, ARTICLE 10.1018.24 FERTILIZERS: THE USE OF ANY FERTILIZER IS PROHIBITED IN A WETLAND, VEGETATED BUFFER STRIP OR LIMITED CUT AREA; AND THE USE OF FERTILIZERS OTHER THAN LOW PHOSPHATE AND SLOW RELEASE NITROGEN FERTILIZERS IS PROHIBITED IN ANY PART OF A WETLAND BUFFER.

11) THE ENTIRE LOT IS LOCATED WITHIN THE 250' PROTECTED SHORELAND.

MORSE RESIDENCE
89 SPARHAWK STREET
PORTSMOUTH, N.H.

NO.	DESCRIPTION	DATE
0	ISSUED FOR APPROVAL	3/22/23

REVISIONS

STATE OF NEW HAMPSHIRE — JOHN R. CHAGNON No. 9581 LICENSED PROFESSIONAL ENGINEER

STATE OF NEW HAMPSHIRE — STEVEN D. RIKER 3/22/23 No. 219 CERTIFIED WETLAND SCIENTIST

SCALE: 1" = 10' — FEBRUARY 2023

NH DES PERMIT PLAN

C3

FB 288 PG 54

3432

Landscape General Notes

1. Design is base on drawings by Ambit Engineering dated 03/20/2023 and Somma Studios dated 2/14/2023. Drawings may require adjustment due to actual field conditions.

2. The contractor shall follow best management practices during construction and shall take all means necessary to stabilize and protect the site from erosion.

3. Erosion Control shall be in place prior to construction.

4. Erosion Control to consist of Hay Bales and Erosion Control Fabric shall be staked in place between the work and Water bodies, Wetlands and/or drainage ways prior to any construction.

5. The Contractor shall verify layout and grades and inform the Landscape Architect or Client's Representative of any discrepancies or changes in layout and/or grade relationships prior to construction.

6. It is the contractor's responsibility to verify drawings provided are to the correct scale prior to any bid, estimate or installation. A graphic scale bar has been provided on each sheet for this purpose. If it is determined that the scale of the drawing is incorrect, the landscape architect will provide a set of drawings at the correct scale, at the request of the contractor.

7. Trees to Remain within the construction zone shall be protected from damage for the duration of the project by snow fence or other suitable means of protection to be approved by Landscape Architect or Client's Representative. Snow fence shall be located at the drip line at a minimum and shall include any and all surface roots. Do not fill or mulch on the trunk flare. Do not disturb roots. In order to protect the integrity of the roots, branches, trunk and bark of the tree(s) no vehicles or construction equipment shall drive or park in or on the area within the drip line(s) of the tree(s). Do not store any refuse or construction materials or portalets within the tree protection area.

8. This plan is for review purposes only, NOT for Construction. Construction Documents will be provided upon request.

9. Location, support, protection, and restoration of all existing utilities and appurtenances shall be the responsibility of the Contractor.

10. The Contractor shall verify exact location and elevation of all utilities with the respective utility owners prior to construction. Call DIGSAFE at 1-888-344-7233.

11. The Contractor shall procure any required permits prior to construction.

12. Prior to any landscape construction activities Contractor shall test all existing loam and loam from off-site intended to be used for lawns and plant beds using a thorough sampling throughout the supply. Soil testing shall indicate levels of pH, nitrates, macro and micro nutrients, texture, soluble salts, and organic matter. Contractor shall provide Landscape Architect with test results and recommendations from the testing facility along with soil amendment plans as necessary for the proposed plantings to thrive. All loam to be used on site shall be amended as approved by the Landscape Architect prior to placement.

13. Contractor shall notify landscape architect or owner's representative immediately if at any point during demolition or construction a site condition is discovered which may negatively impact the completed project. This includes, but is not limited to, unforeseen drainage problems, unknown subsurface conditions, and discrepancies between the plan and the site. If a Contractor is aware of a potential issue and does not bring it to the attention of the Landscape Architect or Owner's Representative immediately, they may be responsible for the labor and materials associated with correcting the problem.

14. The Contractor shall furnish and plant all plants shown on the drawings and listed thereon. All plants shall be nursery-grown under climatic conditions similar to those in the locality of the project. Plants shall conform to the botanical names and standards of size, culture, and quality for the highest grades and standards as adopted by the American Association of Nurserymen, Inc. in the American Standard of Nursery Stock, American Standards Institute, Inc. 230 Southern Building, Washington, D.C. 20005.

15. A complete list of plants, including a schedule of sizes, quantities, and other requirements is shown on the drawings. In the event that quantity discrepancies or material omissions occur in the plant materials list, the planting plans shall govern.

16. All plants shall be legibly tagged with proper botanical name.

17. The Contractor shall guarantee all plants including seeding, for not less than one year from time of acceptance.

18. Owner or Owner's Representative will inspect plants upon delivery for conformity to Specification requirements. Such approval shall not affect the right of inspection and rejection during or after the progress of the work. The Owner reserves the right to inspect and/or select all trees at the place of growth and reserves the right to approve a representative sample of each type of shrub, herbaceous perennial, annual, and ground cover at the place of growth. Such sample will serve as a minimum standard for all plants of the same species used in this work.

19. No substitutions of plants may be made without prior approval of the Owner or the Owner's Representative for any reason.

20. All landscaping shall be provided with the following:

a. Outside hose attachments spaced a maximum of 150 feet apart, and

b. An underground irrigation system, or

c. A temporary irrigation system designed for a two-year period of plant establishment.

21. If an automatic irrigation system is installed, all irrigation valve boxes shall be located within planting bed areas.

22. The contractor is responsible for all plant material from the time their work commences until final acceptance. This includes but is not limited to maintaining all plants in good condition, the security of the plant material once delivered to the site, watering of plants, including seeding and weeding. Plants shall be appropriately watered prior to, during, and after planting. It is the Contractor's responsibility to provide clean water suitable for plant health from off site, should it not be available on site.

23. Contractor shall provide an alternate price for irrigating all newly landscaped areas and resetting of any existing irrigation that will be disturbed during planting. Contractor shall provide irrigation design for review by Landscape Architect or Owner's Representative when awarded the project.

24. All disturbed areas will be dressed with 6" of loam and planted as noted on the plans or seeded except plant beds. Plant beds shall be prepared to a depth of 12" with 75% loam and 25% compost.

25. Trees, ground cover, and shrub beds shall be mulched to a depth of 2" with one-year-old, well-composted, shredded native bark not longer than 4" in length and ½" in width, free of woodchips and sawdust. Mulch for ferns and herbaceous perennials shall be no longer than 1" in length. Trees in lawn areas shall be mulched in a 5' diameter min. saucer. Color of mulch shall be black.

26. Drip strip shall extend to 6" beyond roof overhang and shall be edged with 3/16" thick metal edger.

27. In no case shall mulch touch the stem of a plant nor shall mulch ever be more than 3" thick total (including previously applied mulch) over the root ball of any plant.

28. Secondary lateral branches of deciduous trees overhanging vehicular and pedestrian travel ways shall be pruned up to a height of 6' to allow clear and safe passage of vehicles and pedestrians under tree canopy. Within the sight distance triangles at vehicle intersections the canopies shall be raised to 8' min.

29. Snow shall be stored a minimum of 5' from shrubs and trunks of trees.

30. Landscape Architect is not responsible for the means and methods of the Contractor.

Plant List

TREES

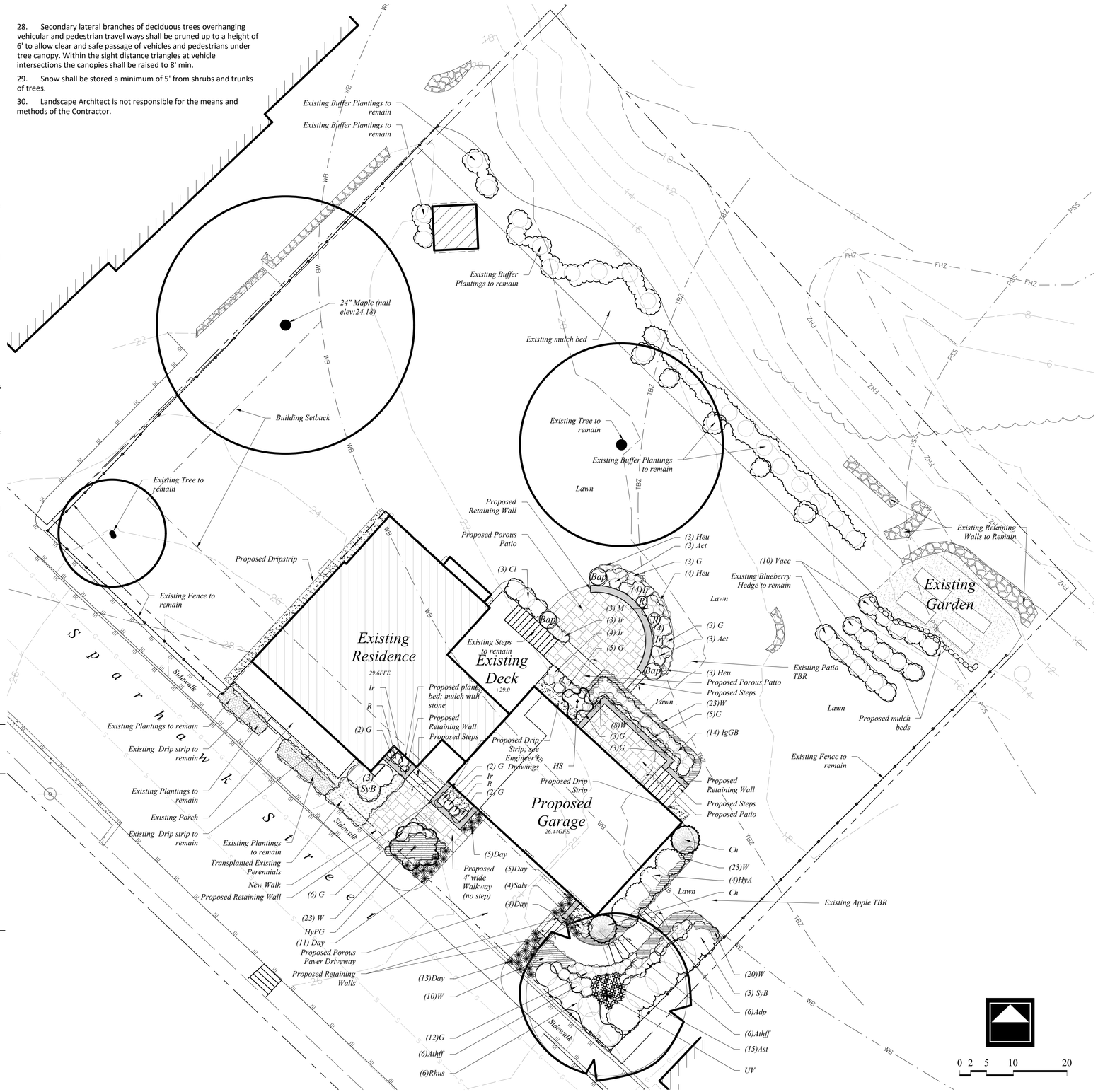
Symbol	Botanical Name	Common Name	Quantity	Size	Comments
UV	*Ulmus americana 'Valley Forge'*	Valley Forge American Elm	1	3-3.5" cal	

SHRUBS

Symbol	Botanical Name	Common Name	Quantity	Size	Comments
Cl	*Clethra alnifolia 'Hummingbird'*	Hummingbird Compact Summersweet	3	2'-2.5' BB	
Ch	*Chamaecyparis obtusa 'Nana Gracilis'*	Dwarf Hinoki Falsecypress	2	3-4' BB	
HS	*Hibiscus syriacus 'Raspberry Smoothie'*	Raspberry Smoothie Rose-of-Sharon	1	5-6'BB	treeform
HyA	*Hydrangea arborescens 'Annabelle'*	Annabelle Hydrangea	4	3 gal	
HyPG	*Hydrangea paniculata 'Fire and Ice'*	Fire and Ice P.G. Hydrangea	1	10 gal	specimen, treeform
IgGB	*Ilex glabra 'Gem Box'*	Gem Box Dwarf Inkberry	14	3 gal	
Rhus	*Rhus aromatica 'Grow-Low'*	Grow Low Sumac	6	2'-2.5' BB	
SyB	*Syringa 'Bloomerang'*	Bloomerang Lilac	8	2'-2.5' BB	
Vacc	*Bluberry Mix:*	Highbush Blueberry			
	Vaccinium corymbosum	Northern Highbush Blueberry 'Patriot'	3	3 gal	
	Vaccinium corymbosum	Northern Highbush Blueberry 'Bluehaven'	3	3 gal	
	Vaccinium corymbosum	Northern Highbush Blueberry 'Jersey'	4	3 gal	

PERENNIALS, GROUNDCOVERS, VINES and ANNUALS

Symbol	Botanical Name	Common Name	Quantity	Size	Comments
Act	*Actaea racemosa*	Bugbane	6	1 gal	
Adp	*Adiantum pedatum*	Maidenhair Fern	6	1 gal	
Ast	*Astilbe Ostrich Plume*	Pink Astilbe	15	1 gal	
Athff	*Athyrium filix-femina*	Lady Fern	12	1 gal	
Bap	*Baptisia australis*	False Blue Indigo	3	1 gal	
Day	*Daylily Mix:*				
	Hemerocallis 'Joan Senior'	Joan Senior Daylily (early-mid)	12	1 gal	
	Hemerocallis 'Catherine Woodbury'	Catherine Woodbury Daylily	13	1 gal	
	Hemerocallis 'Mary Todd'	Mary Todd Daylily	13	1 gal	
G	*Geranium maculatum*	Spotted Cranesbill	46	1 gal	
Heu	*Heuchera villosa 'Autumn Bride'*	Autumn Bride Heuchera	10	1 gal	
IR	*Iris versicolor*	Blue Flag Iris	17	1 gal	
M	*Monarda 'Raspberry Wine'*	Wine Red Beebalm	3	1 gal	
R	*Rudbeckia fulgida 'Goldsturm'*	Black-Eyed Susan	4	1 gal	
Salv	*Salvia nemorosa 'Blue Hill'*	Dark Blue Salvia	4	1 gal	
W	*Waldsteinia fragarioides*	Barren Strawberry	86	1 gal	plant 18" o.c.



woodburn & company
LANDSCAPE ARCHITECTURE
103 Kent Place Newmarket, New Hampshire Phone: 603.659.5949

Morse Residence

LANDSCAPE PLAN

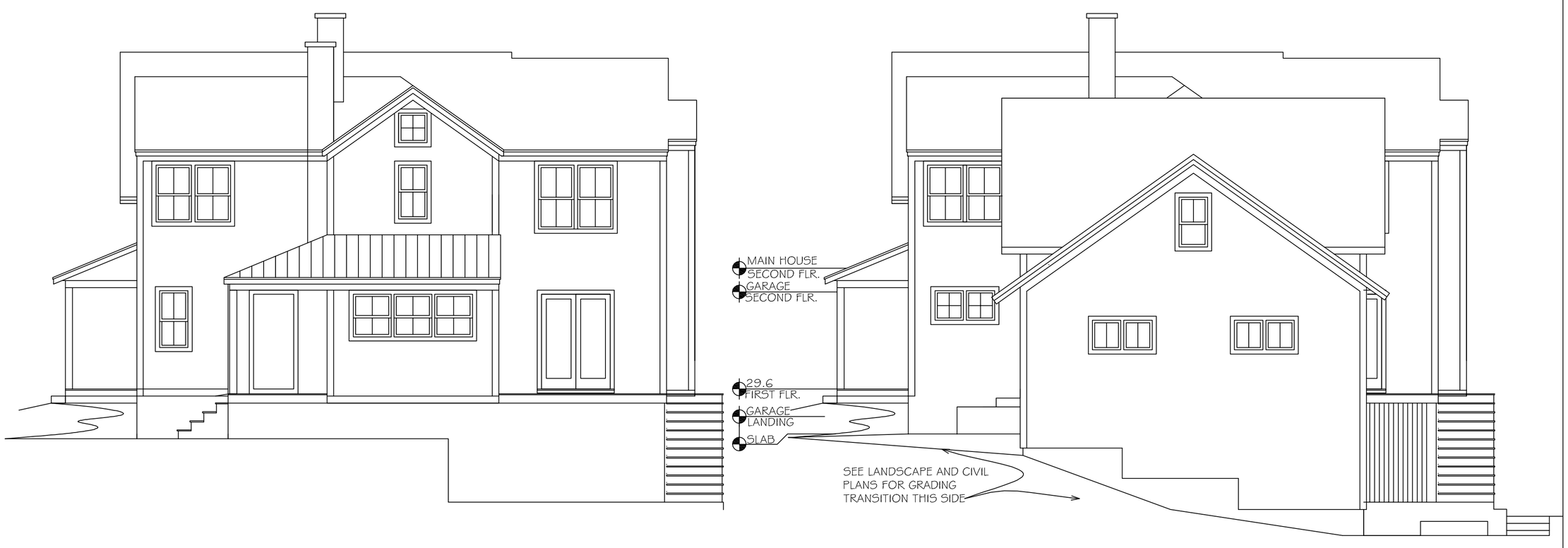
89 Sparhawk Street Portsmouth, New Hampshire

Drawn By:	WSA
Checked By:	RW
Scale:	1"-10'-0"
Date:	2023-03-28 FOR SUBMISSION
Revisions:	

L-1

Sheet x of X

EXISTING/PROPOSED SPARHAWK ELEVATION



EXISTING SIDE ELEVATION

PROPOSED SIDE ELEVATION

EXISTING/PROPOSED BACK ELEVATION

MORSE RESIDENCE

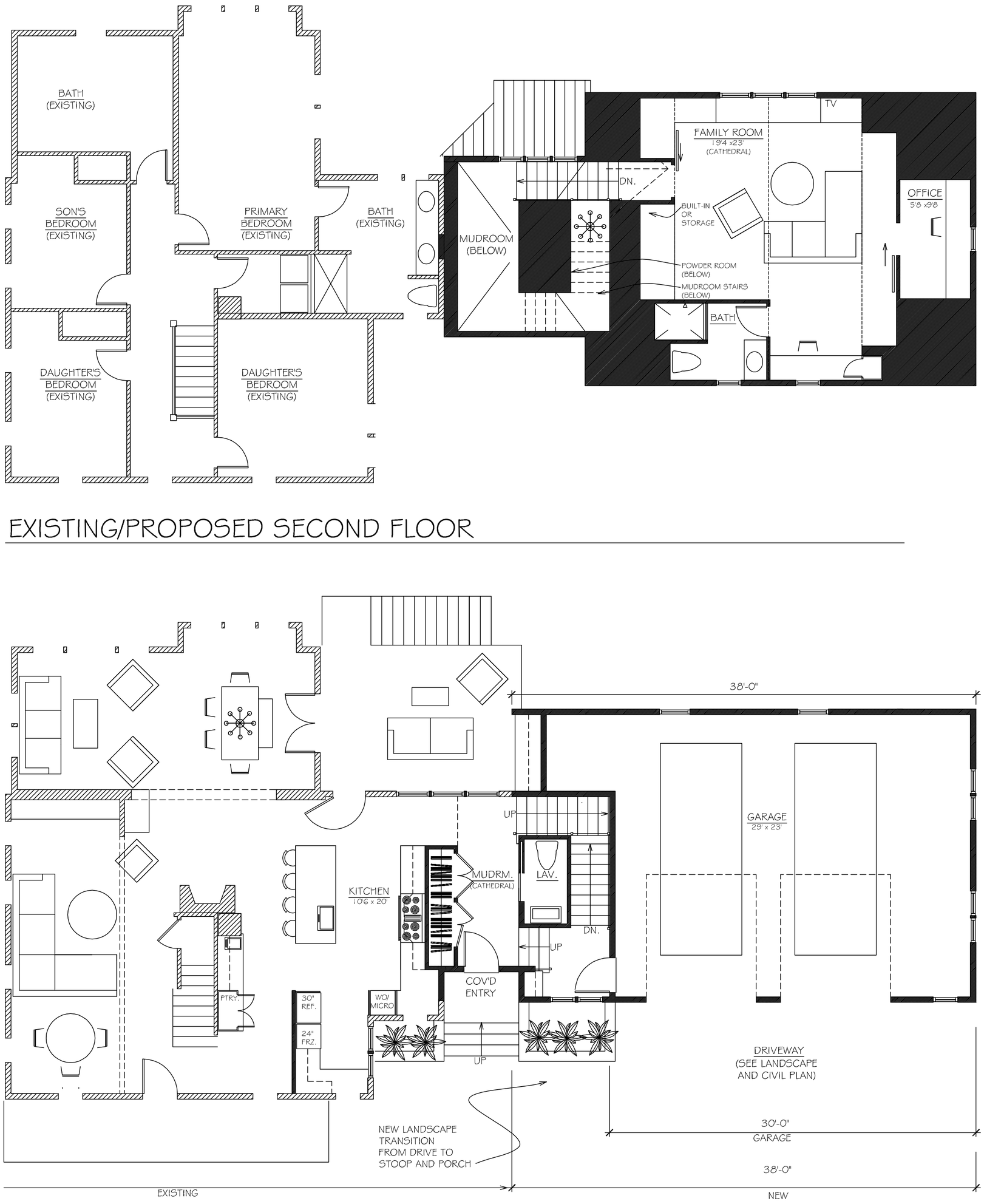
89 SPARHAWK ST., PORTSMOUTH, NH

EXISTING/PROPOSED ELEVATIONS

$\frac{3}{16}" = 1'-0"$

MAR 29, 2023

SOMMA STUDIOS



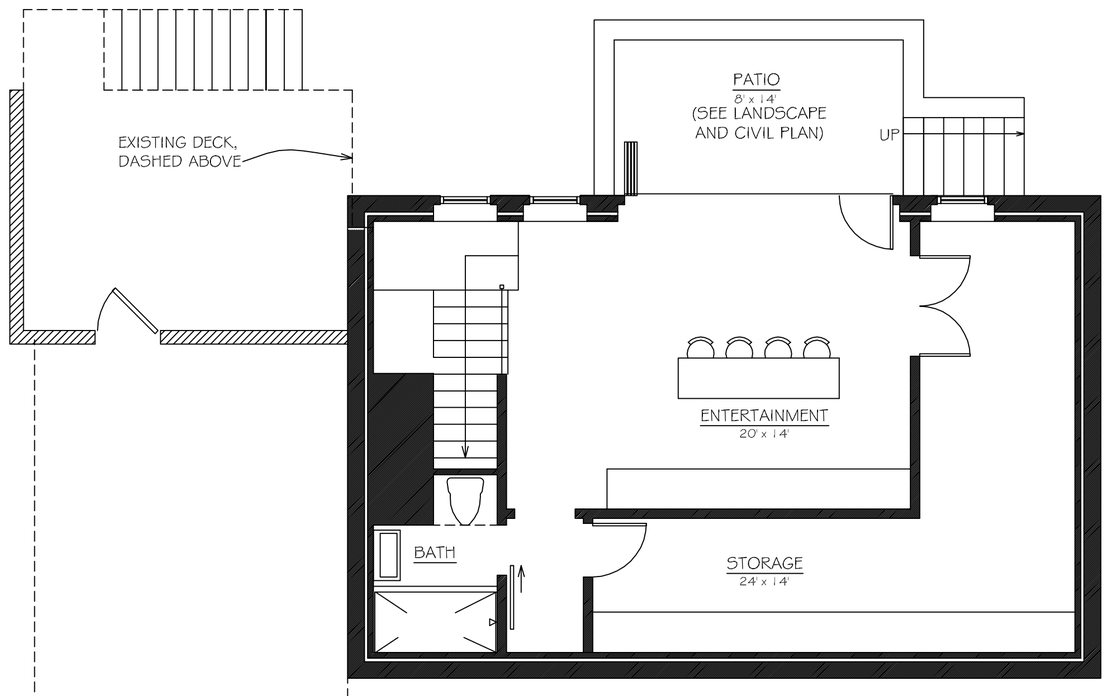
EXISTING/PROPOSED SECOND FLOOR

EXISTING/PROPOSED FIRST FLOOR

KEY

EXISTING WALLS

NEW WALLS



PROPOSED LOWER LEVEL

MORSE RESIDENCE

89 SPARHAWK ST., PORTSMOUTH, NH

EXISTING/PROPOSD PLANS

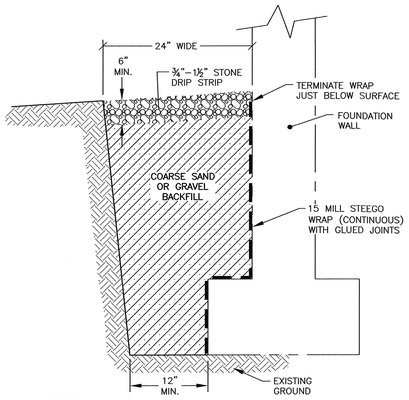
$\frac{3}{16}$" = 1'-0"

MAR 29, 2023

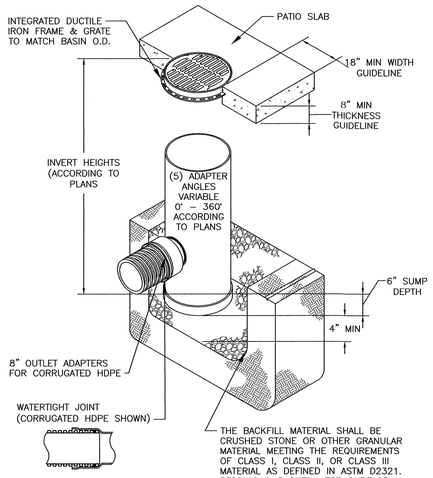
SOMMA STUDIOS

IMPERVIOUS SURFACE AREAS
(TO PROPERTY LINE)

STRUCTURE	PRE-CONSTRUCTION IMPERVIOUS (S.F.)	POST-CONSTRUCTION IMPERVIOUS (S.F.)
MAIN STRUCTURE	1,280	2,154
PORCH/DECK	343	343
STAIRS/LANDINGS	111	250
RETAINING WALLS	328	219
DRIVEWAY	631	0
SHED	67	67
AC PAD	4	4
WALKWAYS	30	0
PATIO	239	101
TOTAL	3,033	3,138
LOT SIZE	18,702	18,702
% LOT COVERAGE	16.2%	16.8%



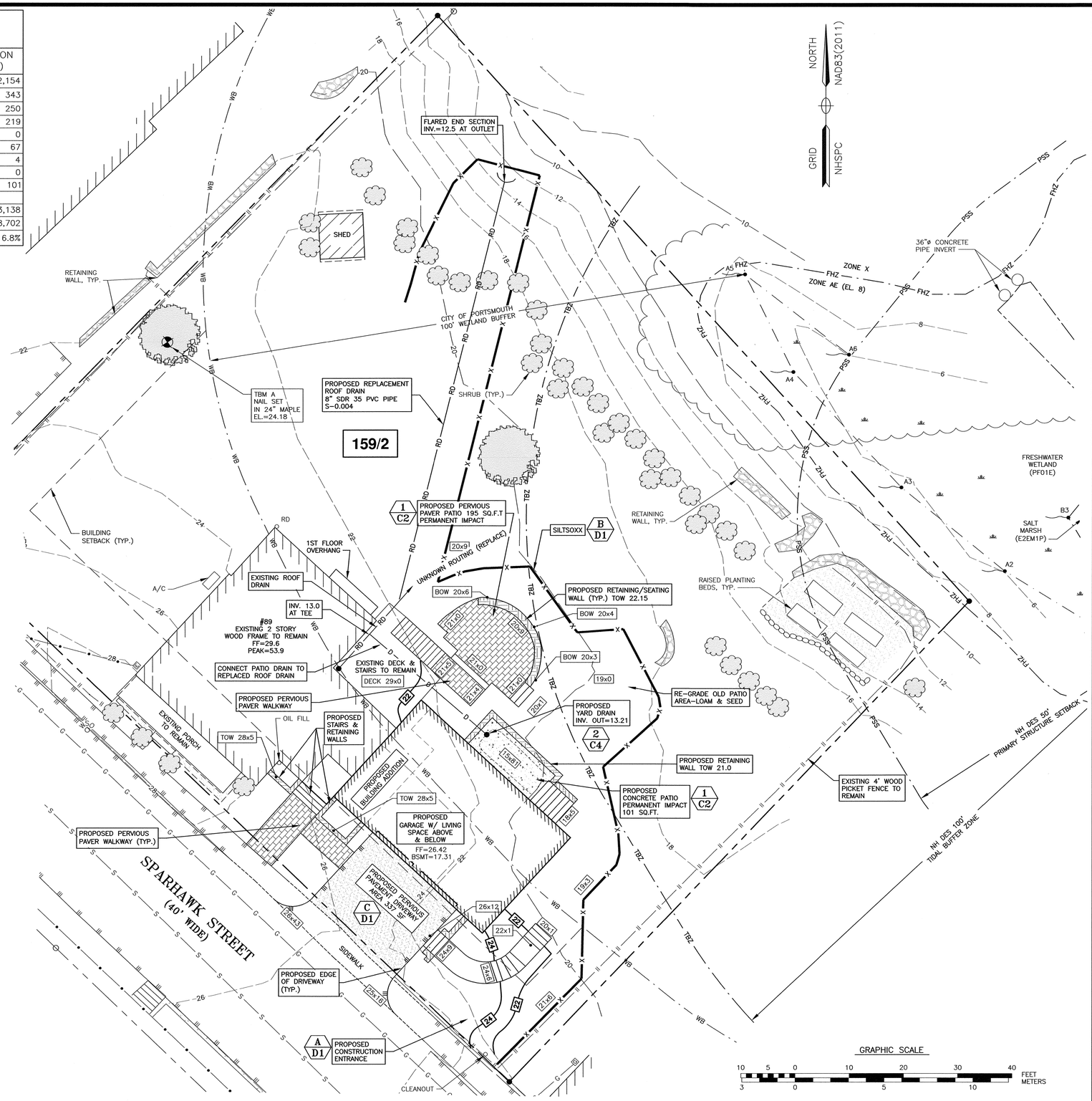
1/C4 STONE DRIP APRON
(UNDER BUILDING DRIP LINE) NTS
SEE LANDSCAPE PLAN FOR LOCATIONS



2/C4 YARD DRAIN
NYLOPLAST 24" DRAIN BASIN NTS

APPROVED BY THE PORTSMOUTH PLANNING BOARD

CHAIRMAN _____ DATE _____



AMBIT ENGINEERING, INC.
Civil Engineers & Land Surveyors
200 Griffin Road – Unit 3
Portsmouth, N.H. 03801-7114
Tel (603) 430-9282
Fax (603) 436-2315

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.

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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).

MORSE RESIDENCE
89 SPARHAWK STREET
PORTSMOUTH, N.H.

NO.	DESCRIPTION	DATE
1	REVISED PROPOSED BUILDING	3/22/23
0	ISSUED FOR COMMENT	11/23/22

REVISIONS

STATE OF NEW HAMPSHIRE STEVEN D. FIKER No. 219 CERTIFIED WETLAND SCIENTIST 3/23/23

STATE OF NEW HAMPSHIRE JOHN R. CHAGNON NO. 7951 LICENSED PROFESSIONAL ENGINEER

SCALE: 1" = 10' NOVEMBER 2022

EROSION CONTROL & GRADING PLAN

C4

FB 288 PG 54

3432

EROSION CONTROL NOTES

CONSTRUCTION SEQUENCE

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

INSTALL INLET PROTECTION AND PERIMETER CONTROLS, i.e., SILT FENCING OR SILTSOXX AROUND THE LIMITS OF DISTURBANCE AND CATCH BASIN FILTER BEFORE ANY EARTH MOVING OPERATIONS.

CUT AND GRUB ALL TREES, SHRUBS, SAPLINGS, BRUSH, VINES AND REMOVE OTHER DEBRIS AND RUBBISH AS REQUIRED.

REMOVE EXISTING RETAINING WALLS & OTHER SITE FEATURES TO BE REMOVED.

CONSTRUCT SITE IMPROVEMENTS.

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 ADDITION WITH ASSOCIATED UTILITIES, GRADING, AND SITE IMPROVEMENTS.

THE TOTAL AREA TO BE DISTURBED IS APPROXIMATELY 4,700 S.F.

BASED ON SITE OBSERVATIONS AND TEST PITS THE SOILS ON SITE CONSIST OF URBAN LAND–CANTON COMPLEX, 3 TO 15% SLOPE WHICH ARE WELL DRAINED SOILS WITH A HYDROLOGIC SOIL GROUP RATING OF A.

THE STORMWATER RUNOFF FROM THE SITE WILL BE DISCHARGED TO PROPERTY WHICH ULTIMATELY FLOWS TO THE NORTH MILL POND THEN 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 SEEDED 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 ABUTTING 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.

SILTSOXX SHALL BE PERIODICALLY INSPECTED DURING THE LIFE OF THE PROJECT AND AFTER EACH STORM. ALL DAMAGED SILTSOXX 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.

ALL ROADWAYS AND PARKING AREAS SHALL BE STABILIZED WITHIN 72 HOURS OF ACHIEVING FINISHED GRADE. ALL CUT AND FILL SLOPES SHALL BE SEEDED/LOAMED WITHIN 72 HOURS OF ACHIEVING FINISHED GRADE.

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 LOAM 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.

1. ALL AREAS SHALL BE STABILIZED WITHIN 45 DAYS OF INITIAL DISTURBANCE.
2. WHEN CONSTRUCTION ACTIVITY PERMANENTLY OR TEMPORARILY CEASES WITHIN 100 FEET OF NEARBY SURFACE WATERS OR DELINEATED WETLANDS, THE AREA SHALL BE STABILIZED WITHIN SEVEN (7) DAYS OR PRIOR TO A RAIN EVENT. ONCE CONSTRUCTION ACTIVITY CEASES PERMANENTLY IN THESE AREAS, SILTSOXX, MULCH BERMS, HAY BALE BARRIERS AND ANY EARTH/DIKES SHALL BE REMOVED ONCE PERMANENT MEASURES ARE ESTABLISHED.
3. DURING CONSTRUCTION, RUNOFF WILL BE DIVERTED AROUND THE SITE WITH EARTH DIKES, PIPING OR STABILIZED CHANNELS WHERE POSSIBLE. SHEET RUNOFF FROM THE SITE WILL BE FILTERED THROUGH SILTSOXX, MULCH BERMS, HAY BALE BARRIERS, OR SILT SOCKS. ALL STORM DRAIN BASIN INLETS SHALL BE PROVIDED WITH FLARED END SECTIONS AND TRASH RACKS. THE SITE SHALL BE STABILIZED FOR THE WINTER BY OCTOBER 15.

MAINTENANCE AND PROTECTION

THE SILTSOXX BARRIER SHALL BE CHECKED AFTER EACH RAINFALL AND AT LEAST DAILY DURING PROLONGED RAINFALL.

SILTSOXX SHALL BE REMOVED ONCE SITE IS STABILIZED, AND DISTURBED AREAS RESULTING FROM SILTSOXX REMOVAL SHALL BE PERMANENTLY SEEDED.

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.
3. 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.
4. 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:

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

ALLOWABLE NON–STORMWATER DISCHARGES

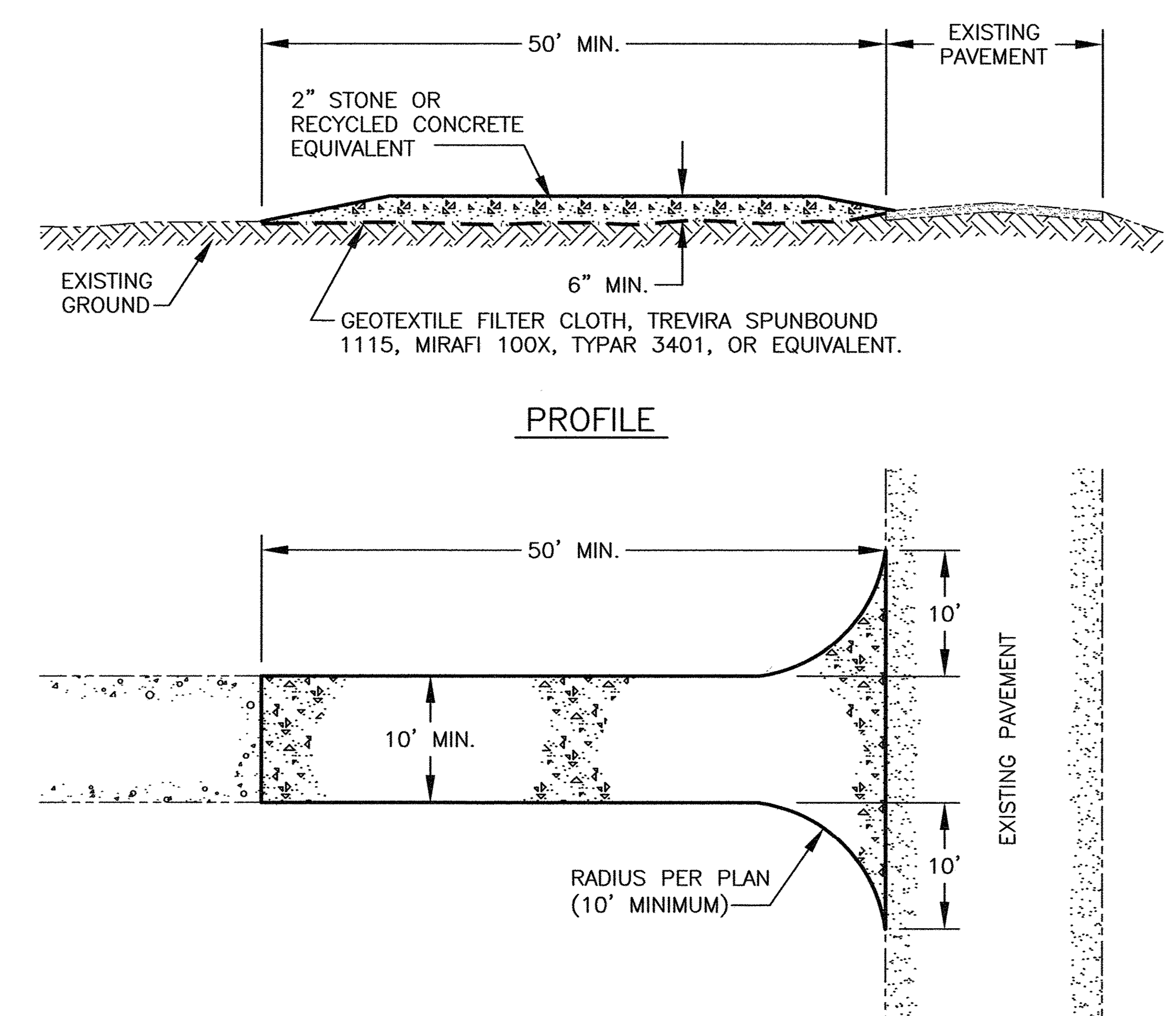
1. FIRE–FIGHTING ACTIVITIES;
2. FIRE HYDRANT FLUSHING;
3. WATERS USED TO WASH VEHICLES WHERE DETERGENTS ARE NOT USED;
4. WATER USED TO CONTROL DUST;
5. POTABLE WATER INCLUDING UNCONTAMINATED WATER LINE FLUSHING;
6. ROUTINE EXTERNAL BUILDING WASH DOWN WHERE DETERGENTS ARE NOT USED;
7. PAVEMENT WASH WATERS WHERE DETERGENTS ARE NOT USED;
8. UNCONTAMINATED AIR CONDITIONING/COMPRESSOR CONDENSATION;
9. UNCONTAMINATED GROUND WATER OR SPRING WATER;
10. FOUNDATION OR FOOTING DRAINS WHICH ARE UNCONTAMINATED;
11. UNCONTAMINATED EXCAVATION DEWATERING;
12. 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.
2. 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.
3. 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.

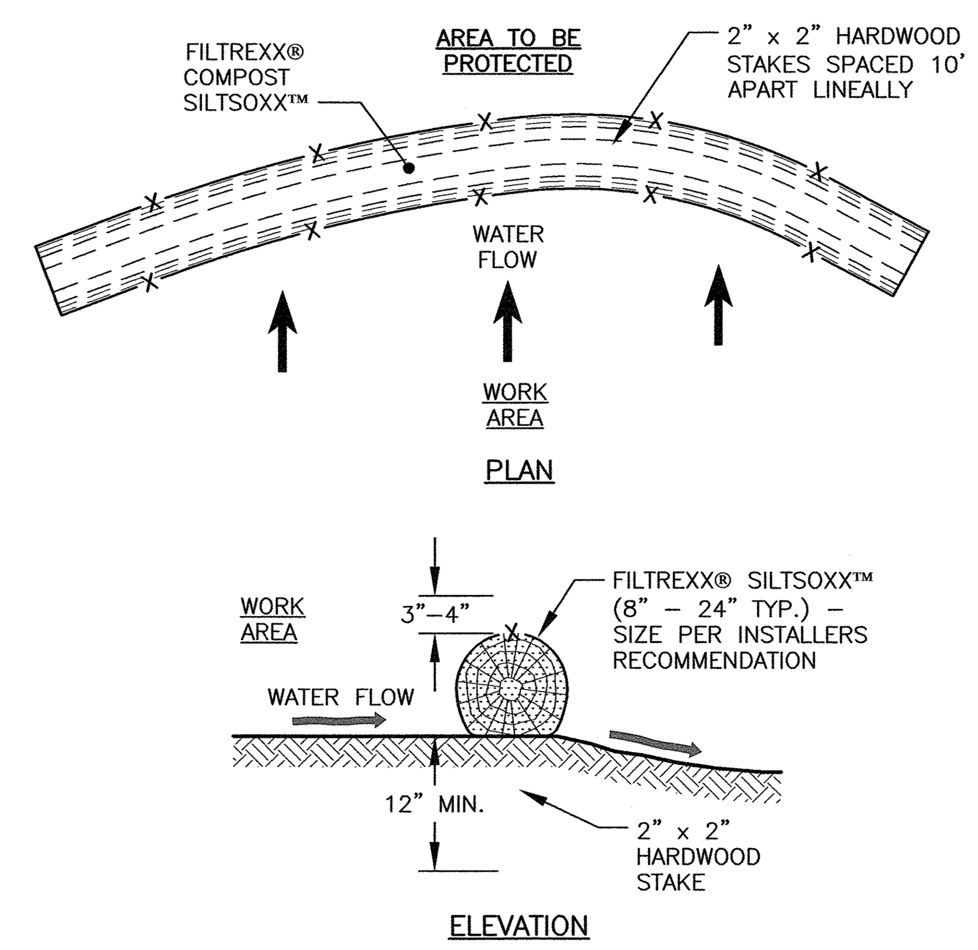
BLASTING NOTES

1. CONTRACTOR SHALL CONTACT THE NHDES AND/OR LOCAL JURISDICTION PRIOR TO COMMENCING ANY BLASTING ACTIVITIES.
2. 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 / C4 — STABILIZED CONSTRUCTION ENTRANCE

SUBSTITUTE FODS IF DESIRED — NTS



NOTES:

1. ALL MATERIAL TO MEET FILTREXX SPECIFICATIONS.
2. FILLTREXX SYSTEM SHALL BE INSTALLED BY A CERTIFIED FILTREXX INSTALLER.
3. THE CONTRACTOR SHALL MAINTAIN THE COMPOST FILTRATION SYSTEM IN A FUNCTIONAL CONDITION AT ALL TIMES. IT WILL BE ROUTINELY INSPECTED AND REPAIRED WHEN REQUIRED.
4. SILTSOXX DEPICTED IS FOR MINIMUM SLOPES, GREATER SLOPES MAY REQUIRE ADDITIONAL PLACEMENTS.
5. THE COMPOST FILTER MATERIAL WILL BE DISPERSED ON SITE WHEN NO LONGER REQUIRED, AS DETERMINED BY THE ENGINEER.

B / C4 — FILTREXX® SILTSOXX™ FILTRATION SYSTEM — NTS

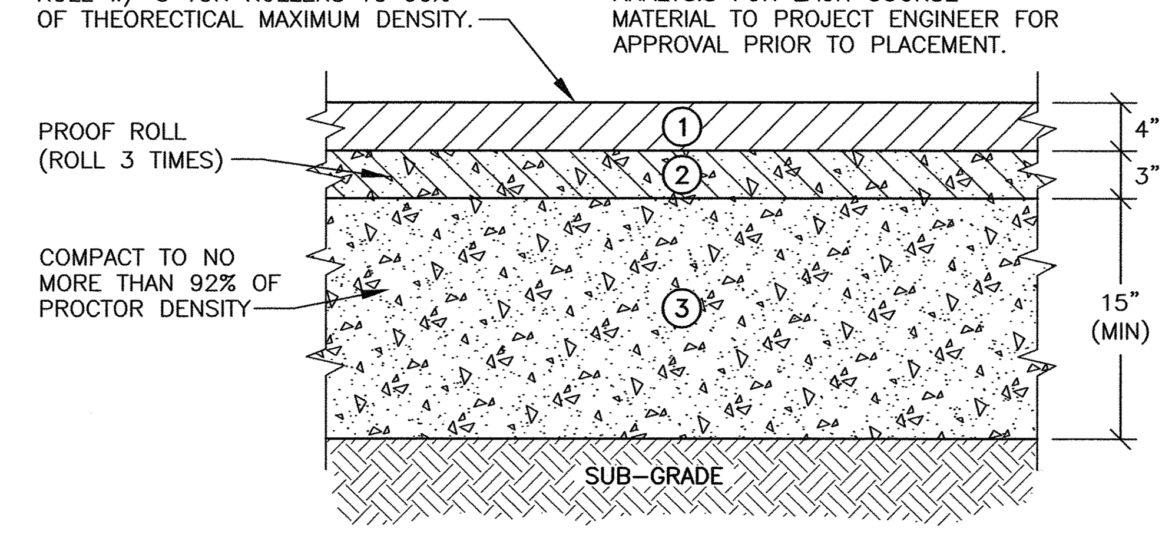
POROUS PAVEMENT SPECIFICAITONS

①		②		③	
POROUS PAVEMENT w/ THE FOLLOWING GRADATIONS*		CHOKER/RESERVOIR COURSE w/ THE FOLLOWING GRADATIONS**		FILTER COURSE (Item 304.3, Processed Gravel)	
SIEVE SIZE	PASSING BY WEIGHT (%)	SIEVE SIZE	PASSING BY WEIGHT (%)	SIEVE SIZE	PASSING BY WEIGHT (%)
3/4" (19mm)	100	1" (25mm)	100	3" (75mm)	100
1/2" (12.5mm)	85–100	3/4" (19mm)	45–55	2.0" (63mm)	95–100
3/8" (9.5mm)	55–75	1/2" (12.5mm)	40–50	1" (25mm)	55–85
No. 4 (4.75mm)	10–25	3/8" (9.5mm)	35–45	No. 4 (4.75mm)	27–52
No. 8 (2.36mm)	5–10	No. 4 (4.75mm)	---	---	---
No. 200 (0.075mm)	2–4	No. 8 (2.36mm)	0–5	No, 200 (0.075 mm)	0–12 (in sand portion)

* WITH 6% PERFORMANCE GRADED ASPHALT BINDER CONTENT BY VOLUME. AIR VOIDS TO BE 20%

** CRUSHED QUARRY STONE SHALL CONTAIN AT LEAST 2 FRACTURED FACES, & SHALL BE WASHED WITH LESS THAN 1% BY WEIGHT PASSING No. 200 SIEVE.

NOTE:
CONTRACTOR SHALL SUBMIT SIEVE ANALYSIS FOR EACH COURSE MATERIAL TO PROJECT ENGINEER FOR APPROVAL PRIOR TO PLACEMENT.



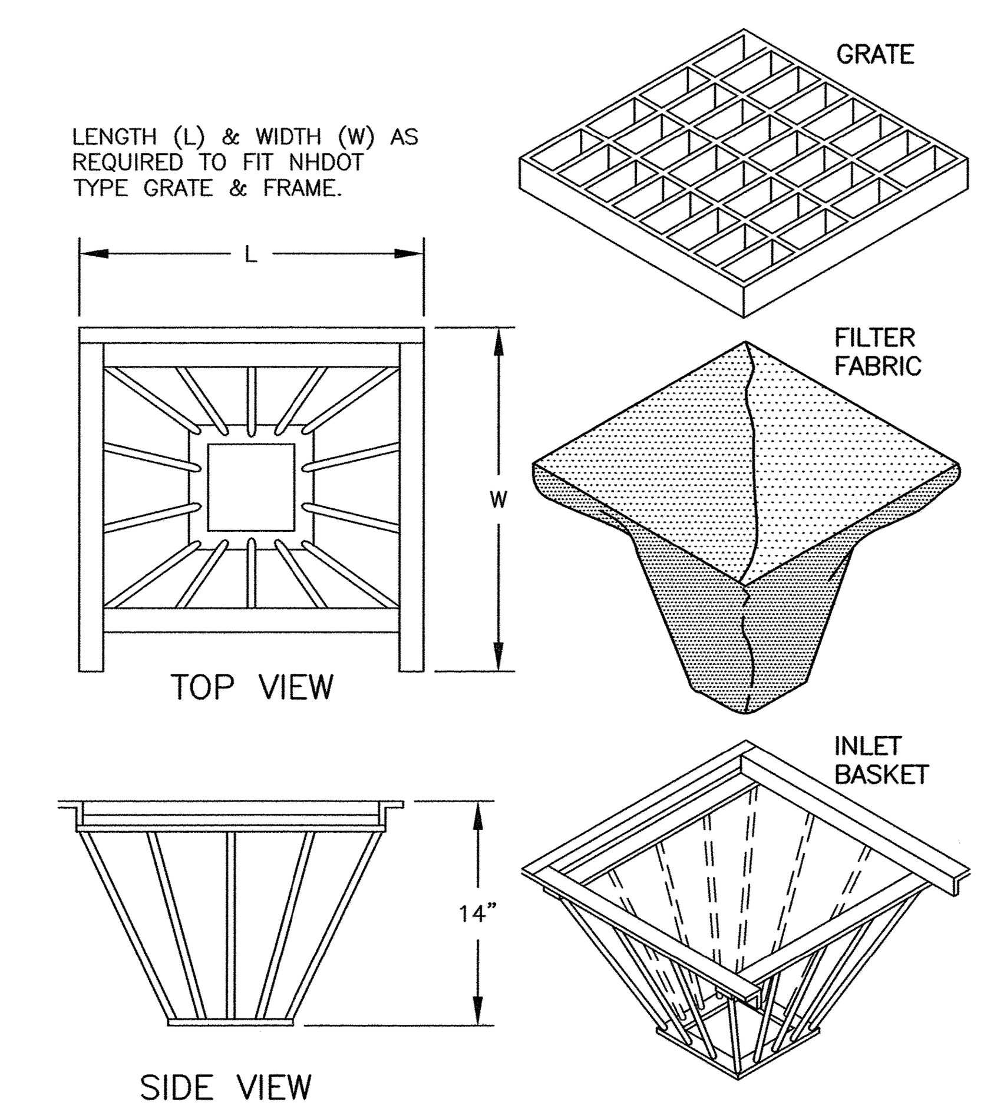
PAVEMENT SECTION
NTS

C / C2 — POROUS PAVING — NTS

POROUS PAVEMENT MAINTENANCE PROCEDURES:

A) NO DE–ICING CHEMICALS SHALL BE APPLIED TO THE POROUS PAVEMENT SURFACE

B) THE POROUS PAVEMENT SURFACE SHALL BE VACUUMED TWICE PER YEAR.



1) INLET BASKETS SHALL BE INSTALLED IMMEDIATELY AFTER CATCH BASIN CONSTRUCTION IS COMPLETE AND SHALL REMAIN IN PLACE AND BE MAINTAINED UNTIL PAVEMENT BINDER COURSE IS COMPLETE.

2) FILTER FABRIC SHALL BE PUSHED DOWN AND FORMED TO THE SHAPE OF THE BASKET. THE SHEET OF FABRIC SHALL BE LARGE ENOUGH TO BE SUPPORTED BY THE BASKET FRAME WHEN HOLDING SEDIMENT AND, SHALL EXTEND AT LEAST 6" PAST THE FRAME. THE INLET GRATE SHALL BE PLACED OVER THE BASKET/FRAME AND WILL SERVE AS THE FABRIC ANCHOR.

3) THE FILTER FABRIC SHALL BE A GEOTEXTILE FABRIC; POLYESTER, POLYPROPYLENE, STABILIZED NYLON, POLYETHYLENE, OR POLYVINYLIDENE CHLORIDE MEETING THE FOLLOWING SPECIFICATIONS:
–RAB STRENGTH: 45 LB. MIN. IN ANY PRINCIPAL DIRECTION (ASTM D1682)
–MULLEN BURST STRENGTH: MIN. 60 psi (ASTM D774)

4) THE FABRIC SHALL HAVE AN OPENING NO GREATER THAN A NUMBER 20 U.S. STANDARD SIEVE AND A MINIMUM PERMEABILITY OF 120 gpm/s.f. (MULTIPLY THE PERMITTIVITY IN SEC.–1 FROM ASTM 54491–85 CONSTANT HEAD TEST USING THE CONVERSION FACTOR OF 74.)

5) THE 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.

6) SEDIMENT DEPOSITS SHALL BE REMOVED AFTER EACH STORM EVENT, OR MORE OFTEN IF THE FABRIC BECOMES CLOGGED.

D / C4 — CATCH BASIN INLET BASKET — AS NEEDED — NTS

AMBIT ENGINEERING, INC.
Civil Engineers & Land Surveyors
200 Griffin Road – Unit 3
Portsmouth, N.H. 03801–7114
Tel (603) 430–9282
Fax (603) 436–2315

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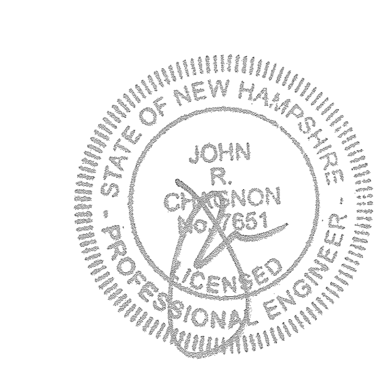
MORSE RESIDENCE
89 SPARHAWK STREET
PORTSMOUTH, N.H.

NO.	DESCRIPTION	DATE
0	ISSUED FOR APPROVAL	3/22/23

REVISIONS



SCALE: AS SHOWN — FEBRUARY 2023

EROSION CONTROL NOTES AND DETAILS

D1

FB 288 PG 54

3432