Known for excellence.
Built on trust.

GEOTECHNICAL
ENVIRONMENTAL
ECOLOGICAL
WATER
CONSTRUCTION MANAGEMENT

5 Commerce Park North
Suite 201
Bedford, NH 03110
T: 603.623.3600
F: 603.624.9463
www.gza.com

VIA EMAIL

February 4, 2021
File No. 04.0191186.00

Mr. John O'Neil
42J Dover Point Road
Dover, New Hampshire 03820

Re: Wetland Delineation Report
Lafayette Road, Tax Map 297, Lot 11
Portsmouth, New Hampshire

Dear Mr. O'Neil:

GZA GeoEnvironmental, Inc. (GZA) is pleased to provide this letter report detailing the completion of wetland delineation field work on a portion of the parcel identified as Tax Map 297, Lot 11, located off Lafayette Road in Portsmouth, New Hampshire (i.e. Site, see Figure 1). The parcel is approximately 45 acres. As requested, wetlands were delineated on approximately 30-acres of the 45-acre parcel, as specified by Mr. Michael Green via email on January 19, 2021. The Site is bordered to the east by Lafayette Road, to the south by Coach Road, to the west by City of Portsmouth owned land and the remaining 15 acres of the parcel which consists of undeveloped forested land, and to the north by Ocean Road and Nathanial Drive. The delineation field work was performed by Mr. James Long, State of New Hampshire Certified Wetland Scientist (#007) and Certified Soil Scientist (#015), on January 20, 2021. This report is subject to **Appendix A** - **Limitations.**

The purpose of the work was to evaluate and locate the boundaries of wetlands on the Site, within the 30 acre portion as described above. GZA understands that the data from the wetland delineation will be used in permit applications for the construction of a proposed condominium association.

The wetland delineation was conducted in accordance with the 1987 Corps of Engineers *Corps of Engineers Wetlands Delineation Manual*[1], using the *Routine Determination Method;* in conjunction with the *Regional Supplement*[2] *to the Corps of Engineers Wetland Delineation Manual,* the National Plant List: 2016 wetlands ratings[3], *Field Indicators of*

[1] U.S. Army Corps of Engineers, Environmental Laboratory. 1987. *Corps of Engineers Wetlands Delineation Manual*, Technical Report Y-87-1, U.S. Army Engineer Waterways Experiment Station, Vicksburg, Mississippi.

[2] U.S. Army Corps of Engineers, 2012. *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Northcentral and Northeast Region* (Version 2.0), ed. J.S. Wakeley, R.W. Lichvar, C.V. Noble and J.F. Berkowitz. ERDC/EL TR-12-1. Vicksburg, Mississippi; U.S. Army Engineer Research and Development Center.

[3] Lichvar, R.W., D.L. Banks, W.N. Kirchner, and N.C. Melvin. 2016. *The National Plant List: 2016 wetland ratings.* Phytoneuron 2016-30: 1-17.

Hydric Soils in the United States Version 8.1,[4] *and Field Indicators for Identifying Hydric Soils in New England.*[5] Observed wetlands were classified in accordance with the *Classification of Wetlands and Deepwater Habitats of the United States.*[6]

The presence of potential vernal pools was evaluated in accordance with *Identification and Documentation of Vernal Pools in New Hampshire*, Third Edition, 2016, New Hampshire Fish and Game Department, Nongame and Endangered Wildlife Program. Vernal pool areas exist as confined basins and exhibit vernal pool criteria as outlined in the New Hampshire Code of Administrative Rules, Env-Wt 103.64, 104.15, and 104.44. No potential vernal pools were identified during the time of Site visit.

Wetland boundaries were witnessed with pink and black flagging on vegetation at approximate 50-foot intervals. A wetland flag sketch was completed on January 20, 2021, for use in field location of wetland flags by Jones & Beach Engineers, Inc. GZA delineated the wetland systems using the following flag series and noted wetland classification descriptions (see Table 1):

- Wetland 1 – Flag Series
  - A1-A16 (connect)
- Wetland 2 – Flag Series
  - B1-B115 (open)
  - C1-12 (open C1 connects to B1)
  - D1-D6 (D1 connects to D6, upland island)
  - D1-D8 (open along existing sewer line)
  - E1-E16 (E1 connects to E16, upland island)
  - F1-F15 (F1 connects to F15, upland island)

The Site contains two palustrine forested and scrub-shrub wetland systems (i.e. Wetlands 1 and 2, see **Table 1**). Wetland 1 is primarily dominated by broad-leaved deciduous vegetation that is seasonally flooded/saturated (PFO1/PSS1E). Wetland 2 is dominated by broad-leaved deciduous vegetation that is semi permanently flooded/saturated (PFO1Fg/PEM1H/PUBH).

Table 1. Summary of wetland delineation.

Flag Series	Wetland Classification	Notes
A-line (Wetland 1)	PFO1/PSS1E	Starts and ends on the southeasterly portion of the Site near Lafayette Road.

[4] United States Department of Agriculture, Natural Resource Conservation Service, 2018. *Field Indicators of Hydric Soils in the United States,* Version 8.2. L.M. Vasilas, G.W. Hurt, and J.F. Berkowitz (eds.). USDA, NRCS, in cooperation with the National Technical Committee for Hydric Soils.

[5] New England Hydric Soils Technical Committee. 2017 Version 4. *Field Indicators for Identifying Hydric Soils in New England,* New England Interstate Water Pollution Control Commission, Lowell, Massachusetts.

[6] Federal Geographic Data Committee. 2013. *Classification of Wetlands and Deepwater Habitats of the United States*. FGDC-STD-004-2013. Federal Geographic Data Committee and U.S. Fish and Wildlife Service.

Flag Series	Wetland Classification	Notes
B-line (Wetland 2)	PFO1E/PFO1Fg/PUBHx/PEM1Hx	Starts on the southeastern portion of the Site and ends approximately on the middle of the northern property line.
C-line (Wetland 2)	PFO1E	Connects to the B-line and ends at Coach Road.
D-line (Wetland 1)	Upland Island	Upland island in the northern portion of the Site south of the B-line.
E-line (Wetland 2)	Upland Island	Upland island in the northern portion of the Site south of the D-line.
F-Line (Wetland 2)	Upland Island	Upland island in the northern portion of the Site south of the E-line.

Refer to Appendix B – Photo Log for photographs of the Site and wetlands.

Wetland 1

Wetland 1 is located in the eastern portion of the Site near Lafayette Road and is demarcated by the A-line wetland flags (see **Figure 1 – Wetland Delineation Sketch**). Wetland 1 is classified as a palustrine forested and scrub-shrub wetland system dominated by broad leaved deciduous vegetation that is seasonally saturated (PFO1/PSS1E). Dominant vegetation in the wetland includes sensitive fern (*Onoclea sensibilis*), golden rod (*Solidago spp*.), soft rush (*Juncus effusus*), meadowsweet (*Spiraea latifolia*), silky dogwood (*Cornus amomum*), red osier dogwood (*Cornus sericea*), glossy buckthorn (*Frangula alnus*), northern arrowwood (*Viburnum dentatum*), red maple (*Acer rubrum*), and American elm (*Ulmus americana*). The soils in Wetland 1 are classified as hydric soil indicator NE-S1. The NE-S1 indicator is characterized by hydric soils with a layer four inches or more in depth with value 3 or less and chroma 1 or less. This layer is directly underlain by a layer that begins at a depth less than or equal to 12 inches from the soil surface that has a matrix value 4 or more, chroma 3 or less with 2% or more redox features.

Wetland 2

Wetland 2 is located in the center of the Site just west of Lafayette Road and Wetland 1 (see **Figure 1 – Wetland Delineation Sketch**). The exterior of the wetland is classified as a palustrine forested wetland system dominated by broad leaved deciduous vegetation that is seasonally saturated (PFO1E). The interior of the wetland is classified as a palustrine forested wetland system dominated by broad leaved deciduous vegetation that is semi permanently flooded/saturated (PFO1Fg).

The B-line series is located in the eastern portion of Wetland 2. The southeastern portion of the Site is classified as a palustrine forested wetland system dominated by broad leaved deciduous vegetation and is seasonally saturated (PFO1E). The eastern and northeastern portion of the Site is classified as a palustrine wetland system with unconsolidated bottom and is semi-permanently flooded and has been excavated (PUBHx), and a palustrine emergent wetland system dominated by broad leaved deciduous vegetation and is semi-permanently flooded and has been excavated (PEM1Hx). Dominant vegetation in the forested wetland includes sensitive fern, cinnamon fern (*Osmundastrum cinnamomeum*), bristly dewberry (*Rubus hispidus*), skunk cabbage (*Symplocarpus foetidus*), sphagnum moss (*Sphagnum spp*.), American hornbeam (*Carpinus caroliniana*), American witch hazel (*Hamamelis virginiana*), highbush blueberry (*Vaccinium corymbosum*), common winterberry (*Ilex verticillata*), gray birch (*Betula populifolia),* red maple, black gum (*Nyssa sylvatica*), American elm, yellow birch (*Betula alleghaniensis*), black cherry (*Prunus serotina*), eastern hemlock (*Tsuga canadensis*), and white pine (*Pinus strobus*). Dominant vegetation in the emergent wetland includes broad-leaf cattail (*Typha latifolia*), narrow-leaf cattail (*T. angustifolia*), tussock sedge (*Carex stricta*),

and multiflora rose (*Rosa multiflora*). The soils in the exterior of Wetland 2 are classified as hydric soil indicator NE-S1. NE-S1 soils are hydric soils with a layer four inches or more in depth with value 3 or less and chroma 1 or less. This layer is directly underlain by a layer that begins at a depth less than or equal to 12 inches from the soil surface that has a matrix value 4 or more, chroma 3 or less with 2% or more redox features. The soils on the interior of the wetland are classified as hydric soils that have organic soil material at or near the soil surface that are greater than 8 inches thick (hydric soil indicator A2).

Located in the northern portion of Wetland 2, the D-line, E-line, and F-line are upland islands. The wetland area to the west of these upland islands is classified as a palustrine forested wetland system dominated by broad leaved deciduous vegetation and is seasonally saturated (PFO1E). The wetland area just east of these upland islands are classified as a palustrine wetland system with unconsolidated bottom and is semi-permanently flooded and has been excavated (PUBHx), and a palustrine emergent wetland system dominated by broad leaved deciduous vegetation and is semi-permanently flooded and has been excavated (PEM1Hx). Vegetation and soils are the same as the B-line as they are the same wetland system.

Please feel free to contact the Lindsey White at 603-232-8753 or lindsey.white@gza.com if you have any questions regarding this Wetland Delineation Report.

Very truly yours,

GZA GEOENVIRONMENTAL, INC.

Lindsey White, Wetland Scientist Apprentice
Assistant Project Manager

Deborah M. Zarta Gier, CNRP
Consultant / Reviewer

Tracy L. Tarr, CWS, CESSWI
Associate Principal

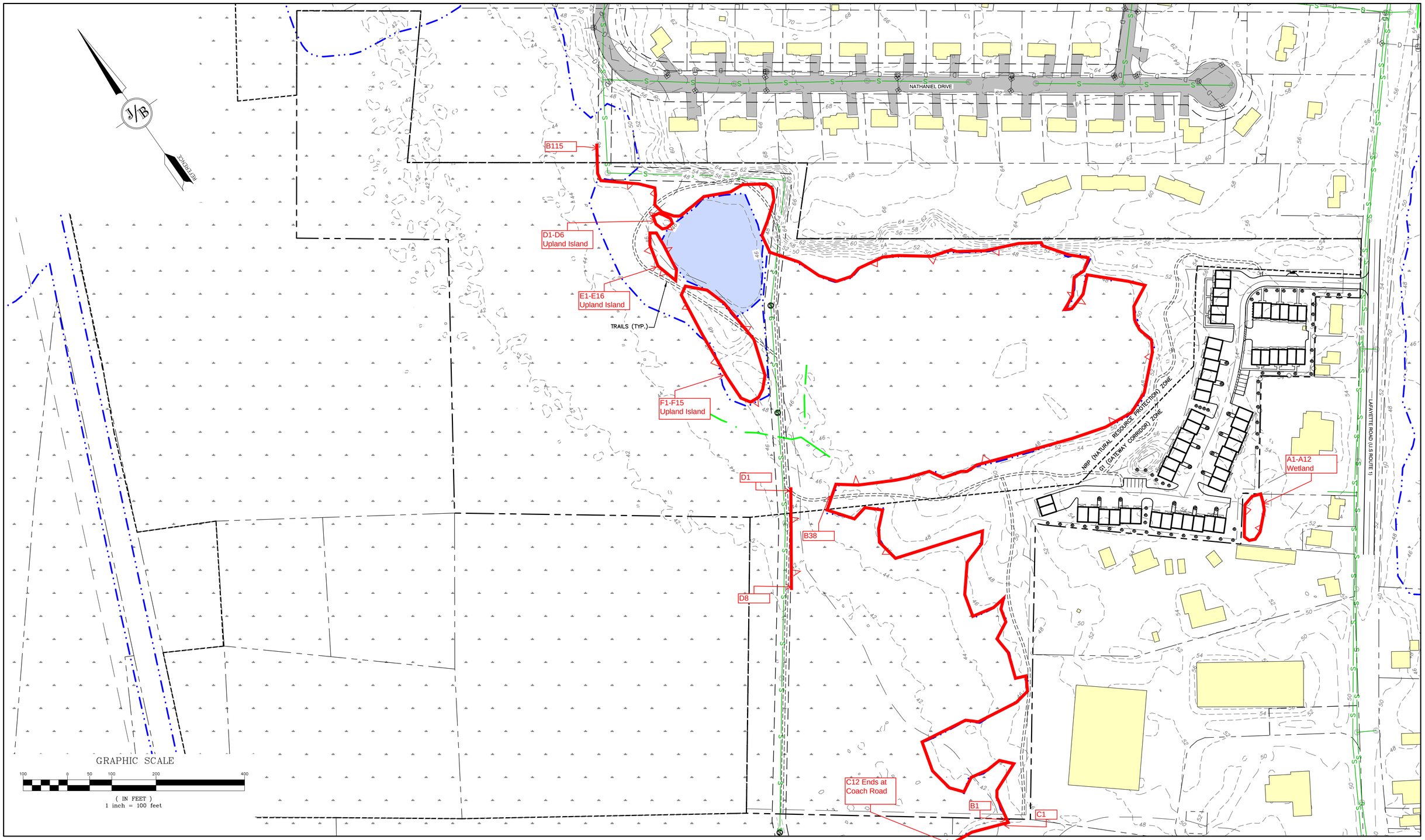
James Long, CWS, CSS
Field Lead

LEW/TLT/DMZ/JHL:

Cc Mr. Rick Green

Attachments: Figure 1 – Wetland Delineation Sketch
Appendix A – Natural Resource Limitations
Appendix B – Photo Log

Figure 1 – Wetland Delineation Sketch



Design: AMJ	Draft: AMJ	Date: 10/23/2020
Checked: JAC	Scale: AS SHOWN	Project No.: 20737
Drawing Name: 20737-CONCEPT.dwg		

REV.	DATE	REVISION	BY
1	11/23/20	REVISED PER CLIENT	DJM
0	11/09/20	ISSUED FOR REVIEW	DJM

Designed and Produced in NH
J/B Jones & Beach Engineers, Inc.
85 Portsmouth Ave.
PO Box 219
Stratham, NH 03885
Civil Engineering Services
603-772-4746
FAX: 603-772-0227
E-MAIL: JBE@JONESANDBEACH.COM

Plan Name:	OVERVIEW CONCEPT SITE PLAN
Project:	3400 LAFAYETTE ROAD PORTSMOUTH, NH
Owner of Record:	RICCI CONSTRUCTION CO., INC. 225 BANFIELD ROAD, PORTSMOUTH, NH 03801 BK 1930 PG 0229

DRAWING No.

CON1

SHEET 1 OF 2
JBE PROJECT NO. 20737

Appendix A – Natural Resource Limitations

USE OF REPORT

1. GZA GeoEnvironmental, Inc. (GZA) has prepared this report on behalf of, and for the exclusive use of John O'Neil ("Client") for the stated purpose(s) and location(s) identified in the report. Use of this report, in whole or in part, at other locations, or for other purposes, may lead to inappropriate conclusions; and we do not accept any responsibility for the consequences of such use(s). Further, reliance by any party not identified in the agreement, for any use, without our prior written permission, shall be at that party's risk, and without any liability to GZA.

STANDARD OF CARE

2. GZA's findings and conclusions are based on the work conducted as part of the Scope of Services set forth in the Report and/or proposal, and reflect our professional judgment. These findings and conclusions must be considered not as scientific or engineering certainties, but rather as our professional opinions concerning the data gathered and observations made during the course of our work. Conditions other than described in this report may be found at the subject location(s).

3. GZA's services were performed using the degree of skill and care ordinarily exercised by qualified professionals performing the same type of services, at the same time, under similar conditions, at the same or a similar property. No warranty, expressed or implied, is made.

LIMITS TO OBSERVATIONS

4. Natural resource characteristics are inherently variable. Biological community composition and diversity can be affected by seasonal, annual or anthropogenic influences. In addition, soil conditions are reflective of subsurface geologic materials, the composition and distribution of which vary spatially.

5. The observations described in this report were made on the dates referenced and under the conditions stated therein. Conditions observed and reported by GZA reflect the conditions that could be reasonably observed based upon the visual observations of surface conditions and/or a limited observation of subsurface conditions at the specific time of observation. Such conditions are subject to environmental and circumstantial alteration and may not reflect conditions observable at another time.

6. The conclusions and recommendations contained in this report are based upon the data obtained from a limited number of surveys performed during the course of our work on the site, as described in the Report. There may be variations between these surveys and other past or future surveys due to inherent environmental and circumstantial variability.

RELIANCE ON INFORMATION FROM OTHERS

7. Preparation of this Report may have relied upon information made available by Federal, state and local authorities; and/or work products prepared by other professionals as specified in the report. Unless specifically stated, GZA did not attempt to independently verify the accuracy or completeness of that information.

COMPLIANCE WITH REGULATIONS AND CODES

8. GZA's services were performed to render an opinion on the presence and/or condition of natural resources as described in the Report. Standards used to identify or assess these resources as well as regulatory jurisdiction, if any, are stated in the Report. Standards for identification of jurisdictional resources and regulatory control over them may vary between governmental agencies at Federal, state and local levels and are subject to change over time which may affect the conclusions and findings of this report.

NEW INFORMATION

9. In the event that the Client or others authorized to use this report obtain information on environmental regulatory compliance issues at the site not contained in this report, such information shall be brought to GZA's attention forthwith. GZA will evaluate such information and, on the basis of this work, may modify the conclusions stated in this report.

ADDITIONAL SERVICES

10. GZA recommends that we be retained to provide further investigation, if necessary, which would allow GZA to (1) observe compliance with the concepts and recommendations contained herein; (2) evaluate whether the manner of implementation creates a potential new finding; and (3) evaluate whether the manner of implementation affects or changes the conditions on which our opinions were made.

Appendix B – Photo Log

PHOTO LOG
Lafayette Road
Portsmouth, New Hampshire

Photos Taken: January 20, 2021

Photograph No. 1: Looking southerly at Wetland 1 from wetland flag A-16.

Photograph No. 2: Looking westerly into the forested portion of Wetland 2 near wetland flag B-16.

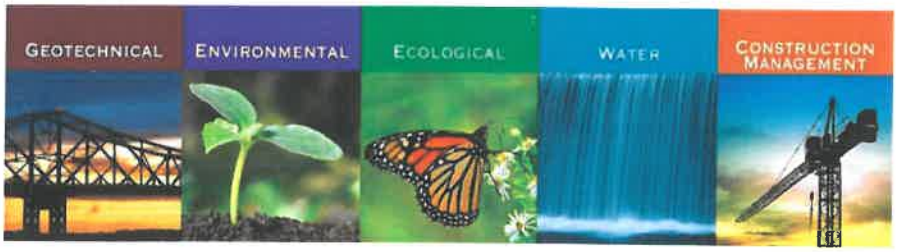
PHOTO LOG
Lafayette Road
Portsmouth, New Hampshire

Photos Taken: January 20, 2021

Photograph No. 3: Looking easterly into the ponded portion of Wetland 2 near wetland flag D-4.

Photograph No. 4: Looking westerly into the emergent portion of Wetland 2 near wetland flag B-79.

Known for excellence. Built on trust.



SITE-SPECIFIC SOIL MAPPING REPORT

3400 Lafayette Road
Tax Map 297, Lot 11
Portsmouth, New Hampshire

April 2021
File No. 04.0191186.00

PREPARED FOR:
John O'Neil
Dover, New Hampshire

GZA GeoEnvironmental, Inc.
5 Commerce Park North, Suite 201 | Bedford, NH 03110-6984
603-623-3600

Offices Nationwide
www.gza.com

GZA
Known for excellence.
Built on trust.

GEOTECHNICAL
ENVIRONMENTAL
ECOLOGICAL
WATER
CONSTRUCTION MANAGEMENT

5 Commerce Park North
Suite 201
Bedford, NH 03110
T: 603.623.3600
F: 603.624.9463
www.gza.com

VIA EMAIL

April 1, 2021
File No. 04.0191186.00

Mr. John O'Neil
42J Dover Point Road
Dover, New Hampshire 03820

Re: Site Specific Soil Map Report
3400 Lafayette Road, Tax Map 297, Lot 11
Portsmouth, New Hampshire

Dear Mr. O'Neil:

This report presents the findings of Site-Specific Soil Mapping conducted at 3400 Lafayette Road Portsmouth, New Hampshire, New Hampshire Tax Map 297, Lot 11 (i.e., the Site). This report summarizes the results of the field work completed in January and March 2021 to identify Site soils and develop mapping.

Should you have any questions, please feel free to contact Lindsey White at 603-232-8753 or lindsey.white@gza.com.

Very truly yours,

GZA GEOENVIRONMENTAL, INC.

Lindsey White
Lindsey White, Soil Scientist Apprentice
Project Manager

Deborah M. Zarta Gier
Deborah M. Zarta Gier, CNRP
Consultant/Reviewer

Tracy L. Tarr, CWS, CESSWI
Associate Principal

James Long
James Long, James Long, CWS, CSS
Field Lead

LEW/DMZ/TLT
p:\04jobs\0191100s\04.0191186.00\work\soil mapping\draft sssm report\draft 04.0191186.00 lafayette rd portsmouth sssm rpt 032521.docx

Attachment: Site-Specific Soil Mapping Report

TABLE OF CONTENTS

FIGURE

APPENDICES

1.0 INTRODUCTION

This report presents the findings of Site-Specific Soil Mapping conducted by GZA GeoEnvironmental, Inc. (GZA) during January and March 2021. GZA completed test pit observations on January 9, 2021 and hand dug test pits on March 12, 2021. GZA understands the parcel is approximately 45 acres and is proposed to be developed as a condominium association. The Site is primarily undeveloped and forested, and a portion of the Site closest to Lafayette Road currently serves as headquarters for Cornerstone Tree Care. The Site is bordered to the east by Lafayette Road, to the south by Coach Road, to the west by City of Portsmouth owned, and to the north by Ocean Road and Nathanial Drive.

GZA understands that the proposed development is planned to be located in the upland area on the eastern side of the Site. GZA further understands a site-specific soil map is required to support the potential development of the Site and Alteration of Terrain permitting through the New Hampshire Department of Environmental Services (NHDES) to be completed by Jones and Beach Engineers. This report is subject to the Limitations in **Appendix A**.

2.0 METHODOLOGY

The soil mapping of the Site was conducted in accordance with the standards set forth in the Society of Soil Scientists of Northern New England (SSSNNE) Publication No. 3 "Site-Specific Soil Mapping Standards for New Hampshire and Vermont, Version 5.0" dated December 2017 by New Hampshire Certified Soil Scientists (CSS) James H. Long (CSS #15). The Site-Specific Standards are based on a universally recognized taxonomic system of soil classification and are supported by national soil mapping standards established by the USDA National Cooperative Soil Survey.

This investigation has been prepared based on a combination of publicly available databases and site-specific data collected by on-site observations. This report provides soil information including soil drainage classification, physical characteristics, and depth to bedrock (if encountered). Soil characteristics on the property were assessed through the evaluation of 13 test pits evaluated on January 9, 2021. On March 12, 2021, additional hand dug test pits were conducted to complete the site-specific soil identification. The hand dug holes were completed with a tile spade and soil auger used to reach depths of 40 inches or more to examine and identify the soils' characteristics. Locations were selected when changes in slope, vegetation or soil surface were observed. Where changes were noted from one hole to the next involving soil drainage or parent material, a soil boundary was placed on the map between the holes to reflect the transition between the soils as it occurs on the landscape. The slopes of the soil map units were measured in the field using a clinometer and augmented by the topography shown on the Existing Conditions Plan dated 3/3/2021 prepared and provided by Jones & Beach Engineers, Inc. (see Figure 1 – Site Specific Soil Map). For purposes of this report, GZA considered the minimum size of a Site-Specific Soil Survey map units as 2,000 square feet, with the exception being poorly or very poorly drained soil areas that are jurisdictional wetlands. Wetland delineations on the Site were previously conducted by GZA in January 2021.

GZA used the following resources during data collection to support on-site observations:

- Natural Resource Conservation Service (NRCS) Web Soil Survey[1];
- New Hampshire Statewide Geographic Information System Clearinghouse (NH GRANIT)[2].

The Web Soil Survey (WSS) provides soil data and information produced by the National Cooperative Soil Survey. It is operated by the USDA Natural Resources Conservation Service (NRCS). Use of the online resource NH GRANIT LiDAR- Based Bare Earth Hillshade of the project area provided imagery to assist in soil unit delineation.

3.0 RESULTS

3.1 SITE DESCRIPTION

The on-site observations were conducted on January 9 and March 12, 2021 using a base plan with a 1:40 scale and 2-foot topography. No snow cover present during soil mapping field work on March 12, 2021.

Results of our observations indicate the Site is underlain by sandy glaciofluvial deposits, organic deposits and human disturbed soils.

According to the WSS, a very large portion of the Site is mapped as sandy glaciofluvial deposits and organic deposits in the low-lying swales and human disturbed soils west of the proposed development. GZA understands that this area area is a reclaimed sand and gravel pit that is now a mix of a man-made pond and scrub–shrub wetlands (pers. comm. John O'Neill, **see Appendix B – Photo Log**). According to the WSS, a significant portion of the Site is underlain by a stratified drift aquifer and glaciofluvial deposits. GZA observed broad sandy glaciofluvial deposits with uniform smooth surfaces adjacent Lafayette Road. Most of the forest land is undisturbed with a large portion classified as wetlands (**see Figure 1 – Site-Specific Soil Map**).

In accordance with the Site-Specific Soil Mapping standards, the identified individual soil map units have been correlated to the New Hampshire State-Wide Numerical Soils Legend maintained by the New Hampshire State office of the NRCS. Soil characteristics for each of these units comply with the Range in Characteristics described in the Official Series Descriptions for each map unit. The human disturbed soil map units are labelled in accordance with the "Site-Specific Soil Mapping Standards for New Hampshire and Vermont, Version 5.0" dated December 2017- *Disturbed Soil Mapping Unit Supplement for New Hampshire DES AoT Site Specific Soil Maps* (**see Appendix C – Disturbed Soil Mapping Unit Supplement for DES AoT**). The disturbed soil map unit Denominators provide additional information on Drainage Class, Parent Material, Restrictive/Impervious Layers, Estimated Ksat, and Hydrologic Soil Group.

[1] www.websoilsurvey.sc.egov.usda.gov/App/HomePage.htm
[2] https://granitview.unh.edu/

3.2 SOIL MAP UNIT DESCRIPTIONS

Individual soil map units are summarized in the table below:

Soil ID	Soil Type
26	Windsor (excessively drained)
199	Dumps, bark chips and organic matter
313	Deerfield (moderately drained)
350	Udipsamments, wet substratum (moderately well drained to somewhat poorly drained
393	Timakwa (muck)
448	Scituate (moderately well drained)
538	Squamscott (poorly drained)
900	Endoaquents, sandy or gravelly

26A - Windsor (excessively drained), loamy sand, 0 to 3 percent slopes

This map unit consists of excessively drained soils that formed in sandy glaciofluvial deposits. It occurs on the knolls in undisturbed uplands.

Typically, the surface layer is very dark brown to dark brown loamy very fine sand about 4 inches thick. The subsoil is dark brown, strong brown, dark yellowish brown to yellowish brown loamy sand, sand and coarse sand about 24 inches thick. The substratum, to a depth of 40 inches or more, is yellowish brown, light yellowish gray, light olive brown sand and coarse sand.

Included with this mapping are small areas of slopes greater than 3 percent; and moderately well drained Deerfield soils. These inclusions make up as much as 15 percent of the map unit.

26B - Windsor (excessively drained), loamy sand, 3 to 8 percent slopes

This map unit consists of excessively drained soils that formed in sandy glaciofluvial deposits. It occurs on the knolls in the undisturbed uplands.

Typically, the surface layer is very dark brown to dark brown loamy very fine sand about 4 inches thick. The subsoil is dark brown, strong brown, dark yellowish brown to yellowish brown loamy sand, sand and coarse sand about 24 inches thick. The substratum, to a depth of 40 inches or more, is yellowish brown, light yellowish gray, light olive brown sand and coarse sand.

Included with this mapping are small areas of slopes less than 3 percent and greater than 8 percent; and moderately well drained Deerfield soils. These inclusions make up as much as 15 percent of the map unit.

26D - Windsor (excessively drained), loamy sand, 15 to 25 percent slopes

This map unit consists of excessively drained soils that formed in sandy glaciofluvial deposits. It occurs on the knolls in the undisturbed uplands.

Typically, the surface layer is very dark brown to dark brown loamy very fine sand about 4 inches thick. The subsoil is dark brown, strong brown, dark yellowish brown to yellowish brown loamy sand, sand and coarse sand about 24 inches thick. The substratum, to a depth of 40 inches or more, is yellowish brown, light yellowish gray, light olive brown sand and coarse sand.

Included with this mapping are small areas of slopes less than 15 percent and greater than 25 percent; and moderately well drained Deerfield soils. These inclusions make up as much as 15 percent of the map unit.

26E - Windsor (excessively drained), loamy sand, 25 to 50 percent slopes

This map unit consists of excessively drained soils that formed in sandy glaciofluvial deposits. It occurs on the knolls in the undisturbed uplands.

Typically, the surface layer is very dark brown to dark brown loamy very fine sand about 4 inches thick. The subsoil is dark brown, strong brown, dark yellowish brown to yellowish brown loamy sand, sand and coarse sand about 24 inches thick. The substratum, to a depth of 40 inches or more, is yellowish brown, light yellowish gray, light olive brown sand and coarse sand.

Included with this mapping are small areas of slopes less than 25 percent and greater than 50 percent; and moderately well drained Deerfield soils. These inclusions make up as much as 15 percent of the map unit.

199E - Dumps, bark chips, and organic matter, 25 to 50 percent slopes

This map unit consists of loamy sand fill materials with stumps and woody debris. Undisturbed material is at a depth of more than 40 inches. There are no identifiable diagnostic horizons at a depth within 40 inches.

313A -Deerfield loamy sand, 0 to 3 percent slopes

This map unit consists of moderately well drained soils that formed in sandy glaciofluvial deposits. It occurs at the swales adjacent to the Windsor soils.

Typically, the surface layer is black, very dark brown to dark brown loamy fine sand about 4 inches thick. The subsoil is brown, strong brown, dark yellowish brown, yellowish brown to light olive brown fine sand and sand about 20 inches thick. The substratum, to a depth of 40 inches or more, is light brownish gray to light olive brown sand, and coarse sand.

Included with this mapping are small areas of slopes greater than 3 percent. These inclusions make up as much as 15 percent of the map unit.

313C -Deerfield loamy sand, 8 to 15 percent slopes

This map unit consists of moderately well drained soils that formed in sandy glaciofluvial deposits. It occurs at the swales adjacent to the Windsor soils.

Typically, the surface layer is black, very dark brown to dark brown loamy fine sand about 4 inches thick. The subsoil is brown, strong brown, dark yellowish brown, yellowish brown to light olive brown fine sand and sand about 20 inches thick. The substratum, to a depth of 40 inches or more, is light brownish gray to light olive brown sand, and coarse sand.

Included with this mapping are small areas of slopes less than 8 percent and greater than 15 percent. These inclusions make up as much as 15 percent of the map unit.

350C – Udipsamments, wet substratum, 8 to 15 percent slopes

This map unit is characterized by soil textures of loamy fine sand to sand and gravel throughout the entire particle-size class control section. Saturated hydraulic conductivity (Ksat) is high or very high. Drainage class is moderately well drained.

Included with this mapping are small areas of slopes less than 8 percent and greater than 15 percent; and moderately well drained Deerfield soils. These inclusions make up as much as 15 percent of the map unit.

350D – Udipsamments, wet substratum, 15 to 25 percent slopes

This map unit is characterized by soil textures of loamy fine sand to sand and gravel throughout the entire particle-size class control section. Saturated hydraulic conductivity (Ksat) is high or very high. Drainage class is moderately well drained.

Included with this mapping are small areas of slopes less than 15 percent and greater than 25 percent; and moderately well drained Deerfield soils. These inclusions make up as much as 15 percent of the map unit.

393A -Timakwa muck, 0 to 3 percent slopes

This map unit consists of very poorly drained soils that formed in muck over sandy glaciofluvial deposits. The very poorly drained Timakwa soils have mucky surfaces that 16 to 51 inches thick over sands. It occurs in low lying areas within the mapping area.

Typically, the surface layer is black muck about 30 inches thick. The subsoil and substratum, to a depth of 40 inches or more, is light brownish gray, light olive gray to gray very fine sand, fine sand and sand.

Included with this mapping are small areas of poorly drained Squamscott soils along the margins, sandy alluvial deposits and very deep organic deposits, Catden soils, greater than 51 inches thick. Included with this mapping are small areas of slopes greater than 3 percent. These inclusions make up as much as 20 percent of the map unit.

448A -Scituate fine sandy loam, 0 to 3 percent slopes

This map unit consists of well drained soils that formed in loamy sand compact glacial till. It occurs on the upland areas within the mapping area.

Typically, the surface layer is black very fine sandy loam about 4 inches thick. The subsoil is brown, strong brown, dark yellowish brown, yellowish brown and light olive brown sandy loam, loamy fine sand and loamy sand about 30 inches thick. The substratum, to a depth of 40 inches or more, is light olive brown, olive and light yellowish brown loamy fine sand, loamy sand, loamy coarse sand, and gravelly loamy sand. Note that refusal was noted between 42-50" in the map unit.

Included with this mapping are small areas of slopes greater than 3 percent, and moderately well drained Deerfield soils. These inclusions make up as much as 15 percent of the map unit.

538A – Squamscott, poorly drained, 0 to 3 percent slopes

This map unit consists of poorly drained soils that formed in sandy material over loamy sediments. These soils are typically located on marine plains or terraces.

Typically, the surface layer is black loamy very fine sand about 4 inches thick. The E horizon is light brownish gray, loamy fine sand, approximately 2 inches thick. The subsoil is dark reddish brown loamy sand to a depth to about 24 inches. The substratum to a depth greater than 40 inches is gray, silt loam.

Included in this map unit are small areas of slopes greater than 3 percent, and very poorly drained Timakwa soils. These inclusions make up as much as 15 percent of the map unit.

900A - Endoaquents, sandy or gravelly, 0 to 3 percent slopes

This map unit consists of poorly drained soils that formed in excavated sandy glaciofluvial deposits. It occurs in the ponded area of the old sand and gravel pit. The soils range from fine sand to sand and their gravelly analogs.

Included with this mapping are small areas of slopes greater than 3 percent. These inclusions make up as much as 10 percent of the map unit.

3.3 HYDROLOGIC SOIL GROUP CORRELATION

In order to correlate the soil map units identified, as part of this soil survey, to the appropriate hydrologic soil group, we referenced the Society of Soil Scientists of Northern New England "Ksat Values for New Hampshire Soils, Special Publication No. 5, September 2009"[3]. Below is the correlation of the identified soil map units to the appropriate hydrologic soil group.

Soil ID	Soil Type	Hydrologic Soil Group
26	Windsor (excessively drained)	A
199	Dumps, bark chips and organic matter	No Group
313	Deerfield(moderately well drained)	B
350	Udipsamments, nearly level (moderately well drained)	D
393	Timakwa (very poorly drained)	D

[3] www.sssnne.org/publications.html

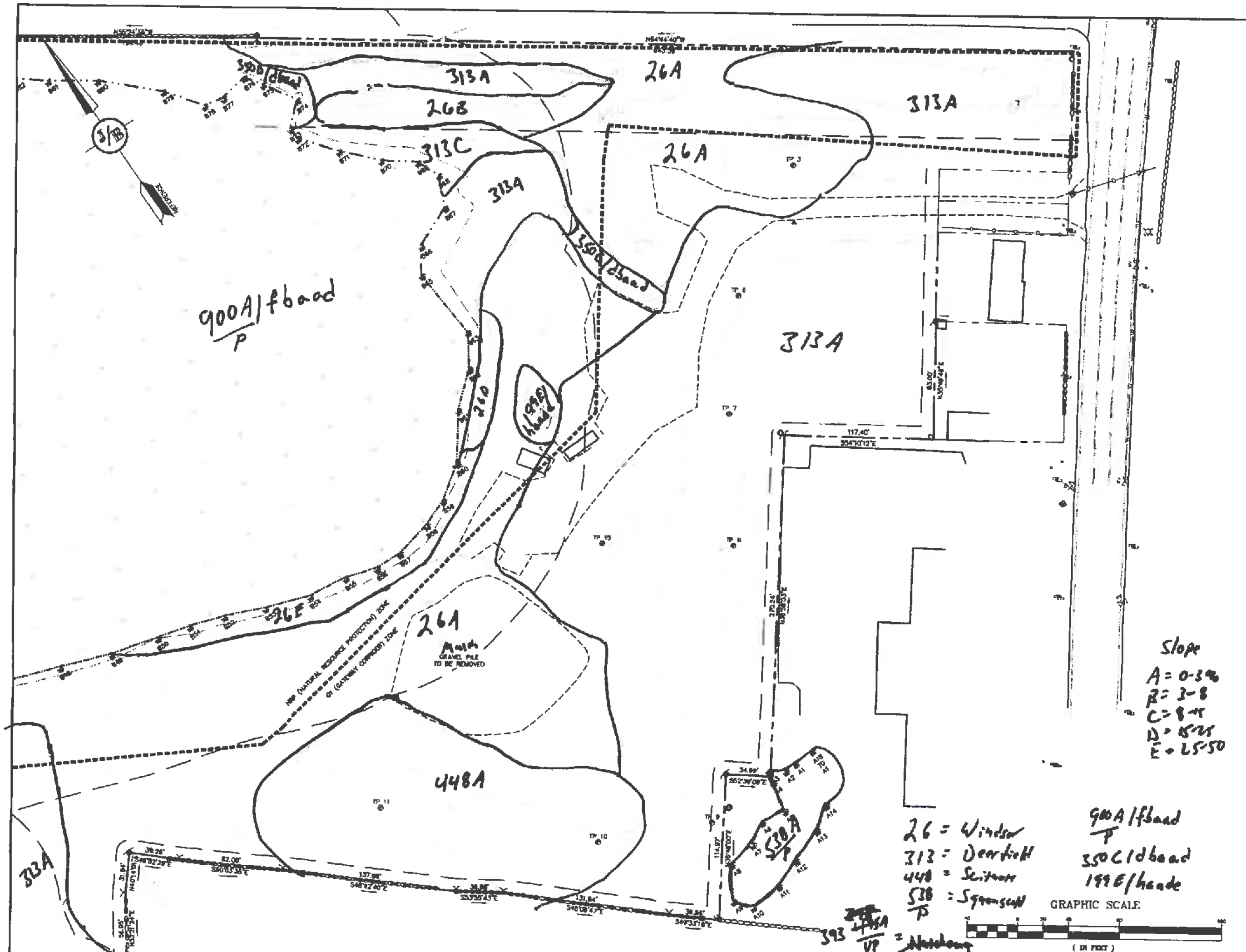
448	Scituate (moderately well drained)	C
538	Squamscott (poorly drained)	D
900	Endoaquents, sandy or gravelly (poorly drained)	D

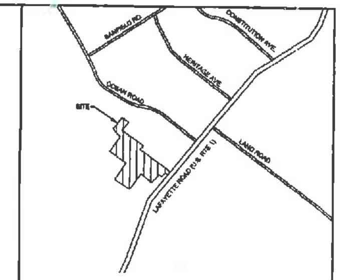
4.0 FINDINGS AND CONCLUSIONS

GZA has completed Site-Specific Soil Mapping on the Site in support of proposed development of the Site. The following is a summary of our findings and conclusions:

- The Site consists of a mix of primarily sandy glaciofluvial deposits and loamy sand compact glacial till, with areas of sandy alluvial deposits, organic deposits, and human disturbed soils.
- The WSS shows a very large portion of the Site is mapped as sandy glaciofluvial deposits and organic deposits in the low-lying swales and human disturbed soils west of the proposed development. This area contains a reclaimed sand and gravel pit that is now a mix of a man-made pond and scrub–shrub wetlands.
- The Site currently is used as the headquarters for Cornerstone Tree Care. Associated with this use, there are some mulch piles and logs stored on Site.

Figure 1 – Site Specific Soil Map





LOCUS SCALE: 1"=2000'

NOTES:

1. THE INTENT OF THIS PLAN IS .
2. CURRENT OWNER OF RECORD:
   OWNER
   ADDRESS
   TOWN
   BK PG
3. ZONING DISTRICT:
   LOT AREA MINIMUM = SF
   LOT FRONTAGE MINIMUM = '
   BUILDING SETBACKS (MINIMUM):
   FRONT SETBACK = '
   SIDE SETBACK = '
   REAR SETBACK = '
   WETLAND SETBACK = '
   MAX. BUILDING HEIGHT = '
   MAX. LOT COVERAGE = %
   SHORE FRONTAGE MINIMUM = '
4. THE UTILITY LOCATIONS SHOWN HEREON WERE DETERMINED BY OBSERVED ABOVE GROUND EVIDENCE AND SHOULD BE CONSIDERED APPROXIMATE IN LOCATION ONLY. LOCATION, DEPTH, SIZE, TYPE, EXISTENCE OR NONEXISTENCE OF UNDERGROUND UTILITIES AND/OR UNDERGROUND STORAGE TANKS WAS NOT VERIFIED BY THIS SURVEY. ALL CONTRACTORS SHOULD NOTIFY IN WRITING ALL UTILITY COMPANIES AND GOVERNMENT AGENCIES PRIOR TO ANY EXCAVATION WORK OR CALL DIG-SAFE AT 1-888-DIG-SAFE.
5. THE SUBJECT PARCEL IS LOCATED WITHIN AN AREA HAVING A ZONE " DESIGNATION BY THE FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA), ON FLOOD INSURANCE RATE MAP NO. XXXXXXXXXXXXXXX, WITH EFFECTIVE DATE OF XXXXXXXX, FOR COMMUNITY PANEL NO. XXX OF XXX, IN XXXXXXXXX COUNTY, STATE OF NEW HAMPSHIRE, WHICH IS THE CURRENT FLOOD INSURANCE RATE MAP FOR COMMUNITY IN WHICH SAID PREMISES IS SITUATED.
6. BASIS OF BEARING: HORIZONTAL - . VERTICAL - .
7. CERTAIN DATA HEREON MAY VARY FROM RECORDED DATA DUE TO DIFFERENCES IN DECLINATION, ORIENTATION, AND METHODS OF MEASUREMENT.
8. ALL BOOK AND PAGE NUMBERS REFER TO THE XXXXXX COUNTY REGISTRY OF DEEDS.
9. THE TAX MAP AND LOT NUMBERS ARE BASED ON THE TOWN OF XXXXXX TAX RECORDS AND ARE SUBJECT TO CHANGE.
10. RESEARCH WAS PERFORMED AT THE TOWN OF XXXXXXX ASSESSOR'S OFFICE AND THE XXXXXXXXX COUNTY REGISTRY OF DEEDS.
11. THIS SURVEY IS NOT A CERTIFICATION TO OWNERSHIP OR TITLE OF LANDS SHOWN. OWNERSHIP AND ENCUMBRANCES ARE MATTERS OF TITLE EXAMINATION NOT OF A BOUNDARY SURVEY. THE INTENT OF THIS PLAN IS TO RETRACE THE BOUNDARY LINES OF DEEDS REFERENCED HEREON. OWNERSHIP OF ADJOINING PROPERTIES IS ACCORDING TO ASSESSOR'S RECORDS. THIS PLAN MAY OR MAY NOT INDICATE ALL ENCUMBRANCES EXPRESSED, IMPLIED OR PRESCRIPTIVE.
12. ANY USE OF THIS PLAN AND OR ACCOMPANYING DESCRIPTIONS SHOULD BE DONE WITH LEGAL COUNSEL, TO BE CERTAIN THAT TITLES ARE CLEAR, THAT INFORMATION IS CURRENT, AND THAT ANY NECESSARY CERTIFICATES ARE IN PLACE FOR A PARTICULAR CONVEYANCE, OR OTHER USES.
13. NO WETLANDS WERE OBSERVED ON THE SUBJECT PREMISES.

    OR

14. THE LIMITS OF JURISDICTIONAL WETLANDS WERE DELINEATED BY XXXXX OF XXXXXXXX IN XXXXXXXXXX IN ACCORDANCE WITH THE FOLLOWING GUIDANCE DOCUMENTS:
    A. THE CORPS OF ENGINEERS FEDERAL MANUAL FOR IDENTIFYING AND DELINEATING JURISDICTIONAL WETLANDS
    B. THE NORTH CENTRAL & NORTHEAST REGIONAL SUPPLEMENT TO THE FEDERAL MANUAL.
    C. THE CURRENT VERSION OF THE FIELD INDICATORS FOR IDENTIFYING HYDRIC SOILS IN NEW ENGLAND, AS PUBLISHED BY THE NEW ENGLAND INTERSTATE WATER POLLUTION CONTROL COMMISSION AND/OR THE CURRENT VERSION OF THE FIELD INDICATORS OF HYDRIC SOILS IN THE UNITED STATES, AS PUBLISHED BY THE USDA, NRCS, AS APPROPRIATE.
    D. THE CURRENT NATIONAL LIST OF PLANT SPECIES THAT OCCUR IN WETLANDS, AS PUBLISHED BY THE US FISH AND WILDLIFE SERVICE
15. THIS PLAN IS THE RESULT OF A CLOSED TRAVERSE WITH A RAW, UNADJUSTED LINEAR ERROR OF CLOSURE GREATER THAN 1 IN XXXXXX.
16. SURVEY TIE LINES SHOWN HEREON ARE NOT BOUNDARY LINES. THEY SHOULD ONLY BE USED TO LOCATE THE PARCEL SURVEYED FROM THE FOUND MONUMENTS SHOWN AND LOCATED BY THIS SURVEY.

Design: JAC	Draft: LAZ	Date: 3/3/21
Checked: JAC	Scale: AS SHOWN	Project No.: 20737
Drawing Name: 20737-PLAN.dwg		

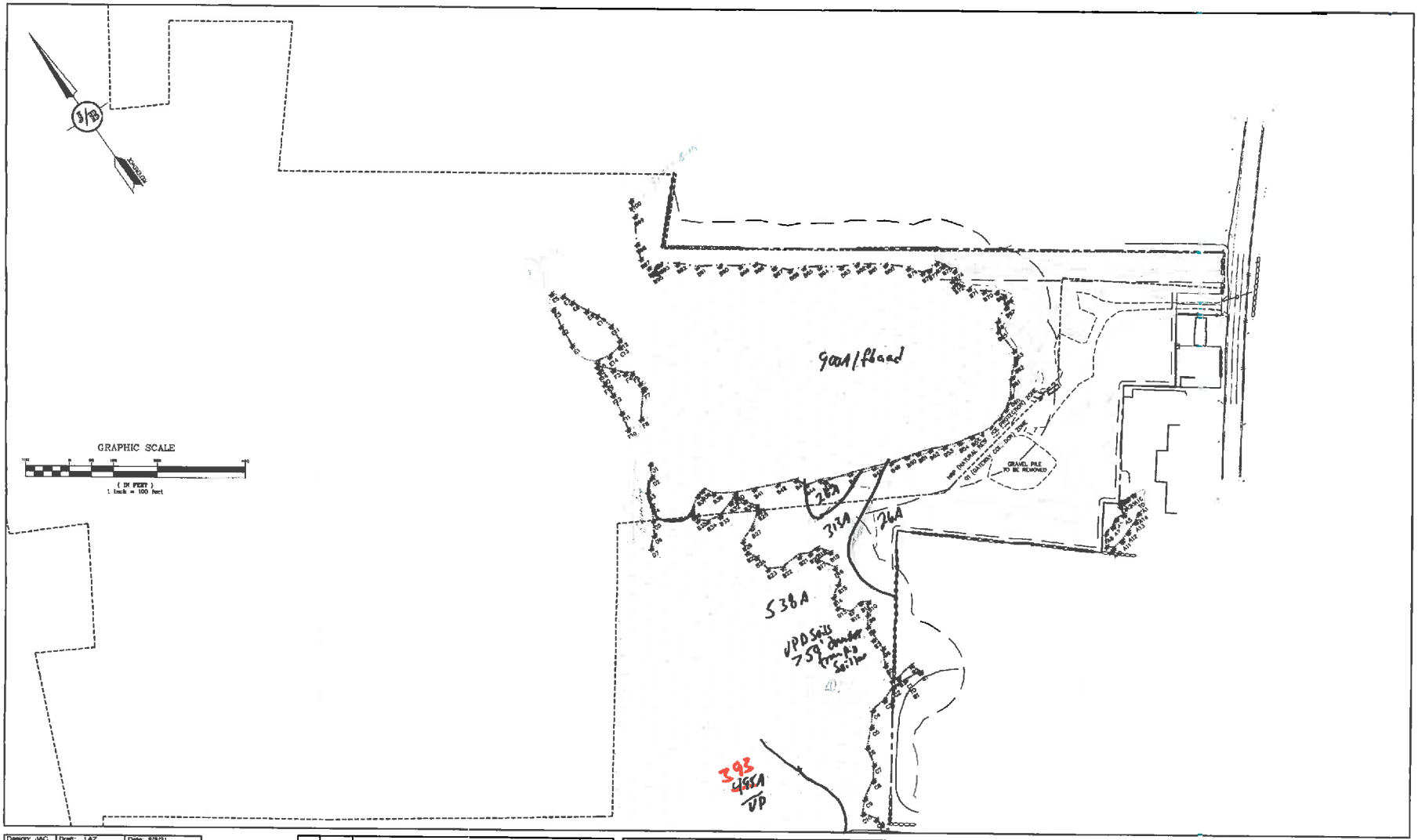
THIS PLAN SHALL NOT BE MODIFIED WITHOUT WRITTEN PERMISSION FROM JONES & BEACH ENGINEERS, INC. (JBE). ANY ALTERATIONS, AUTHORIZED OR OTHERWISE, SHALL BE AT THE USER'S SOLE RISK AND WITHOUT LIABILITY TO JBE.

REV.	DATE	REVISION	BY
3	3/3/21	ADDED SURVEY INFO	LAZ
2	1/8/21	MINOR REVISIONS	DJM
1	11/23/20	REVISED PER CLIENT	DJM
0	11/09/20	ISSUED FOR REVIEW	DJM

Designed and Produced in NH
J/B Jones & Beach Engineers, Inc.
Civil Engineering Services
85 Portsmouth Ave.
PO Box 219
Stratham, NH 03885
603-772-4746
FAX: 603-772-0227
E-MAIL: JBE@JONESANDBEACH.COM

Plan Name:	EXISTING CONDITIONS PLAN
Project:	3400 LAFAYETTE ROAD PORTSMOUTH, NH
Owner of Record:	RICCI CONSTRUCTION CO., INC. 225 BANFIELD ROAD, PORTSMOUTH, NH 03801 BK 1930 PG 0229

DRAWING No.
C1
SHEET 1 OF 2
JBE PROJECT NO. 20737



Design: JAC	Date: 8/3/21
Drawn: LAZ	
Checked: JAC	Scale: AS SHOWN
Project No.: 20737	
Drawing Name: 20737-PLAN.dwg	

REV.	DATE	REVISION	BY
3	3/3/21	ADDED SURVEY INFO	LAZ
2	1/5/21	MINOR REVISIONS	DJM
1	11/25/20	REVISED PER CLIENT	DJM
0	11/09/20	ISSUED FOR REVIEW	DJM

Designed and Produced in NH
Jones & Beach Engineers, Inc.
85 Portsmouth Ave.
PO Box 219
Stratham, NH 03885
Civil Engineering Services
603-772-4746
FAX: 603-772-0227
E-MAIL: JBE@JONESANDBEACH.COM

Plan Name: EXISTING CONDITIONS PLAN
Project: 3400 LAFAYETTE ROAD
PORTSMOUTH, NH
Owner of Record: RICCI CONSTRUCTION CO., INC.
225 BANFIELD ROAD, PORTSMOUTH, NH 03801 BK 1930 PG 0229

DRAWING No.
EX1
SHEET 1 OF 2
JBE PROJECT NO. 20737

Appendix A - Natural Resource Limitations

USE OF REPORT

1. GZA GeoEnvironmental, Inc. (GZA) has prepared this report on behalf of, and for the exclusive use of Mr. John O'Neil ("Client") for the stated purpose(s) and location(s) identified in the report. Use of this report, in whole or in part, at other locations, or for other purposes, may lead to inappropriate conclusions; and we do not accept any responsibility for the consequences of such use(s). Further, reliance by any party not identified in the agreement, for any use, without our prior written permission, shall be at that party's risk, and without any liability to GZA.

STANDARD OF CARE

2. GZA's findings and conclusions are based on the work conducted as part of the Scope of Services set forth in the Report and/or proposal, and reflect our professional judgment. These findings and conclusions must be considered not as scientific or engineering certainties, but rather as our professional opinions concerning the data gathered and observations made during the course of our work. Conditions other than described in this report may be found at the subject location(s).

3. GZA's services were performed using the degree of skill and care ordinarily exercised by qualified professionals performing the same type of services, at the same time, under similar conditions, at the same or a similar property. No warranty, expressed or implied, is made.

LIMITS TO OBSERVATIONS

4. Natural resource characteristics are inherently variable. Biological community composition and diversity can be affected by seasonal, annual or anthropogenic influences. In addition, soil conditions are reflective of subsurface geologic materials, the composition and distribution of which vary spatially.

5. The observations described in this report were made on the dates referenced and under the conditions stated therein. Conditions observed and reported by GZA reflect the conditions that could be reasonably observed based upon the visual observations of surface conditions and/or a limited observation of subsurface conditions at the specific time of observation. Such conditions are subject to environmental and circumstantial alteration and may not reflect conditions observable at another time.

6. The conclusions and recommendations contained in this report are based upon the data obtained from a limited number of surveys performed during the course of our work on the site, as described in the Report. There may be variations between these surveys and other past or future surveys due to inherent environmental and circumstantial variability.

RELIANCE ON INFORMATION FROM OTHERS

7. Preparation of this Report may have relied upon information made available by Federal, state and local authorities; and/or work products prepared by other professionals as specified in the report. Unless specifically stated, GZA did not attempt to independently verify the accuracy or completeness of that information.

COMPLIANCE WITH REGULATIONS AND CODES

8. GZA's services were performed to render an opinion on the presence and/or condition of natural resources as described in the Report. Standards used to identify or assess these resources as well as regulatory jurisdiction, if any, are stated in the Report. Standards for identification of jurisdictional resources and regulatory control

over them may vary between governmental agencies at Federal, state and local levels and are subject to change over time which may affect the conclusions and findings of this report.

NEW INFORMATION

9. In the event that the Client or others authorized to use this report obtain information on environmental regulatory compliance issues at the site not contained in this report, such information shall be brought to GZA's attention forthwith. GZA will evaluate such information and, on the basis of this work, may modify the conclusions stated in this report.

ADDITIONAL SERVICES

10. GZA recommends that we be retained to provide further investigation, if necessary, which would allow GZA to (1) observe compliance with the concepts and recommendations contained herein; (2) evaluate whether the manner of implementation creates a potential new finding; and (3) evaluate whether the manner of implementation affects or changes the conditions on which our opinions were made.

Appendix B – Photo Log

PHOTO LOG
Lafayette Road
Portsmouth, New Hampshire

Photos Taken: January 9 & 20, 2021

Photograph No. 1: Looking at the pond on Site. GZA understands this is a man-made pond.

Photograph No. 2: Looking at portion of the Site proposed to be developed. This portion of the Site consists of Deerfield loamy sand with 0 to 3 percent slopes (Soil Unit 313A).

PHOTO LOG
Lafayette Road
Portsmouth, New Hampshire

Photos Taken: January 9 & 20, 2021

Photograph No. 3: Looking at portion of the Site proposed to be developed. This portion of the Site consists of Scituate fine sandy loam with 0 to 3 percent slopes (Soil Unit 448A).

Photograph No. 4: Looking westerly into an emergent wetland on Site near wetland flag B-45. This area consists of Endoaquents, sandy or gravelly with 0 to 3 percent slopes (Soil Unit 900A)

Appendix C - Disturbed Soil Mapping Unit Supplement for DES AOT

Supplemental Symbols
The five components of the Disturbed Soil Mapping Unit Supplement are as follows:

Symbol 1: Drainage Class
a - Excessively Drained
b - Somewhat Excessively Drained
c - Well Drained
d - Moderately Well Drained
e - Somewhat Poorly Drained
f - Poorly Drained
g - Very Poorly Drained
h - Not Determined

Symbol 2: Parent Material (of naturally formed soil only, if present)
a - No natural soil within 60"
b - Glaciofluvial Deposits (outwash/terraces of sand or sand and gravel)
c - Glacial Till Material (active ice)
d - Glaciolacustrine very fine sand and silt deposits (glacial lakes)
e - Loamy/sandy over Silt/Clay deposits
f - Marine Silt and Clay deposits (ocean waters)
g - Alluvial Deposits (floodplains)
h - Organic Materials-Fresh water Bogs, etc.
j - Organic Materials-Tidal Marsh

Symbol 3: Restrictive/Impervious Layers
a - None
b - Bouldery surface with more than 15% of the surface covered with boulders
c - Mineral restrictive layer(s) are present in the soil profile less than 40 inches below the soil surface such as hard pan, platy structure or clayey texture with consistence of at least firm (i.e. more than 20 newtons). For other examples of soil characteristics that qualify for restrictive layers, see "Soil Manual for Site evaluations in NH" 2nd Ed., (page 3-17, figure 3-14)
d - Bedrock in the soil profile; 0-20 inches
e - Bedrock in the soil profile; 20-60 inches
f - Areas where depth to bedrock is so variable that a single soil type cannot be applied, will be mapped as a complex of soil types
g - Subject to Flooding
h – Man-made impervious surface including pavement, concrete, or built-up surfaces (i.e. buildings) with no morphological restrictive layer within control section

Symbol 4: Estimated Ksat* (most limiting layer excluding symbol 3h above).
a - High.
b - Moderate
c - Low
d - Not determined
*See "Guidelines for Ksat Class Placement" in Chapter 3 of the Soil Survey Manual, USDA

Symbol 5: Hydrologic Soil Group*
a - Group A
b - Group B
c - Group C
d - Group D
e - Not determined
*excluding man-made surface impervious/restrictive layers

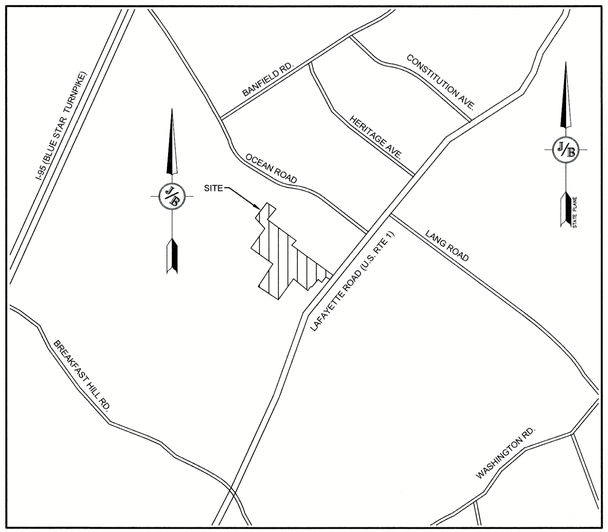
RESIDENTIAL CONDOMINIUMS

TAX MAP 297, LOT 11

3400 LAFAYETTE ROAD, PORTSMOUTH, NH

GENERAL LEGEND

EXISTING	PROPOSED	DESCRIPTION
		PROPERTY LINES
		SETBACK LINES
		CENTERLINE
		FRESHWATER WETLANDS LINE
		TIDAL WETLANDS LINE
		STREAM CHANNEL
		TREE LINE
		STONEWALL
		BARBED WIRE
		FENCE
		STOCKADE FENCE
		SOIL BOUNDARY
		AQUIFER PROTECTION LINE
		FLOOD PLAIN LINE
		ZONELINE
		EASEMENT
100	100	MAJOR CONTOUR
98	99	MINOR CONTOUR
VGC	VGC	EDGE OF PAVEMENT
SGC	SGC	VERTICAL GRANITE CURB
CCB	CCB	SLOPE GRANITE CURB
PCC	PCC	CAPE COD BERM
X	X	POURED CONCRETE CURB
D		SILT FENCE
		DRAINAGE LINE
		SEWER LINE
FM	FM	SEWER FORCE MAIN
G	G	GAS LINE
W	W	WATER LINE
WS	WS	WATER SERVICE
OHE	OHE	OVERHEAD ELECTRIC
UGE	UGE	UNDERGROUND ELECTRIC
		GUARDRAIL
UD	UD	UNDERDRAIN
F	F	FIRE PROTECTION LINE
		THRUST BLOCK
		IRON PIPE/IRON ROD
		DRILL HOLE
		IRON ROD/DRILL HOLE
		STONE/GRANITE BOUND
100x0	100x0	SPOT GRADE
100.00	100.00	PAVEMENT SPOT GRADE
100.00 / 99.50	100.00 / 99.50	CURB SPOT GRADE
		BENCHMARK (TBM)
		DOUBLE POST SIGN
		SINGLE POST SIGN
TP1		WELL
TP1		TEST PIT
		FAILED TEST PIT
		MONITORING WELL
		PERC TEST
		PHOTO LOCATION
		TREES AND BUSHES
		UTILITY POLE
		LIGHT POLES
		DRAIN MANHOLE
		SEWER MANHOLE
		HYDRANT
		WATER GATE
		WATER SHUT OFF
		REDUCER
		SINGLE GRATE CATCH BASIN
		DOUBLE GRATE CATCH BASIN
		TRANSFORMER
		CULVERT W/WINGWALLS
		CULVERT W/FLARED END SECTION
		CULVERT W/STRAIGHT HEADWALL
		STONE CHECK DAM
		DRAINAGE FLOW DIRECTION
		4K SEPTIC AREA
		WETLAND IMPACT
		VEGETATED FILTER STRIP
		RIPRAP
		OPEN WATER
		FRESHWATER WETLANDS
		TIDAL WETLANDS
		STABILIZED CONSTRUCTION ENTRANCE
		CONCRETE
		GRAVEL
		SNOW STORAGE
		RETAINING WALL



LOCUS MAP
SCALE 1" = 2000'

SHEET INDEX

CIVIL ENGINEER / SURVEYOR
JONES & BEACH ENGINEERS, INC.
85 PORTSMOUTH AVENUE
PO BOX 219
STRATHAM, NH 03885
(603) 772-4746
CONTACT: JOSEPH CORONATI
EMAIL: JCORONATI@JONESANDBEACH.COM

WETLAND CONSULTANT
GZA ENVIRONMENTAL
5 COMMERCE PARK NORTH
SUITE 201
BEDFORD, NH 03110
603-623-3600
CONTACT: JAMES LONG

APPLICANT
GREEN & COMPANY
11 LAFAYETTE ROAD
PO BOX 1297
NORTH HAMPTON, NH 03862
603-964-7572
CONTACT: MICHAEL GREEN
MPG114@GMAIL.COM

LANDSCAPE DESIGNER
TF MORAN, INC.
48 CONSTITUTION DRIVE
BEDFORD, NH 03110
603-472-4488
CONTACT: MIKE KRZEMINSKI
MKRZEMINSKI@TFMORAN.COM

ARCHITECT:
STONEARCH DEVELOPMENT
(603) 817-5758
CONTACT: MICHAEL MACNEIL

ELECTRIC
EVERSOURCE ENERGY
74 OLD DOVER ROAD
ROCHESTER, NH 03867
(603) 555-5334
CONTACT: NICHOLAI KOSKO

TELEPHONE
FAIRPOINT COMMUNICATIONS
1575 GREENLAND ROAD
GREENLAND, NH 03840
(603) 427-5525
CONTACT: JOE CONSIDINE

CABLE TV
COMCAST COMMUNICATION CORPORATION
334-B CALEF HIGHWAY
EPPING, NH 03042-2325
(603) 679-5695

PROJECT PARCEL
CITY OF PORTSMOUTH
TAX MAP 297, LOT 11

TOTAL LOT AREA
1,931,721 SQ. FT. ±
44.35 ACRES ±

APPROVED – PORTSMOUTH, NH
PLANNING BOARD

DATE:

Design: JAC	Draft: LAZ	Date: 3/3/21
Checked: JAC	Scale: AS NOTED	Project No.: 20737
Drawing Name: 20737-PLAN.dwg		

STATE OF NEW HAMPSHIRE – MICHAEL K. KERVAN No. 9646 – LICENSED PROFESSIONAL ENGINEER – 5/7/2021

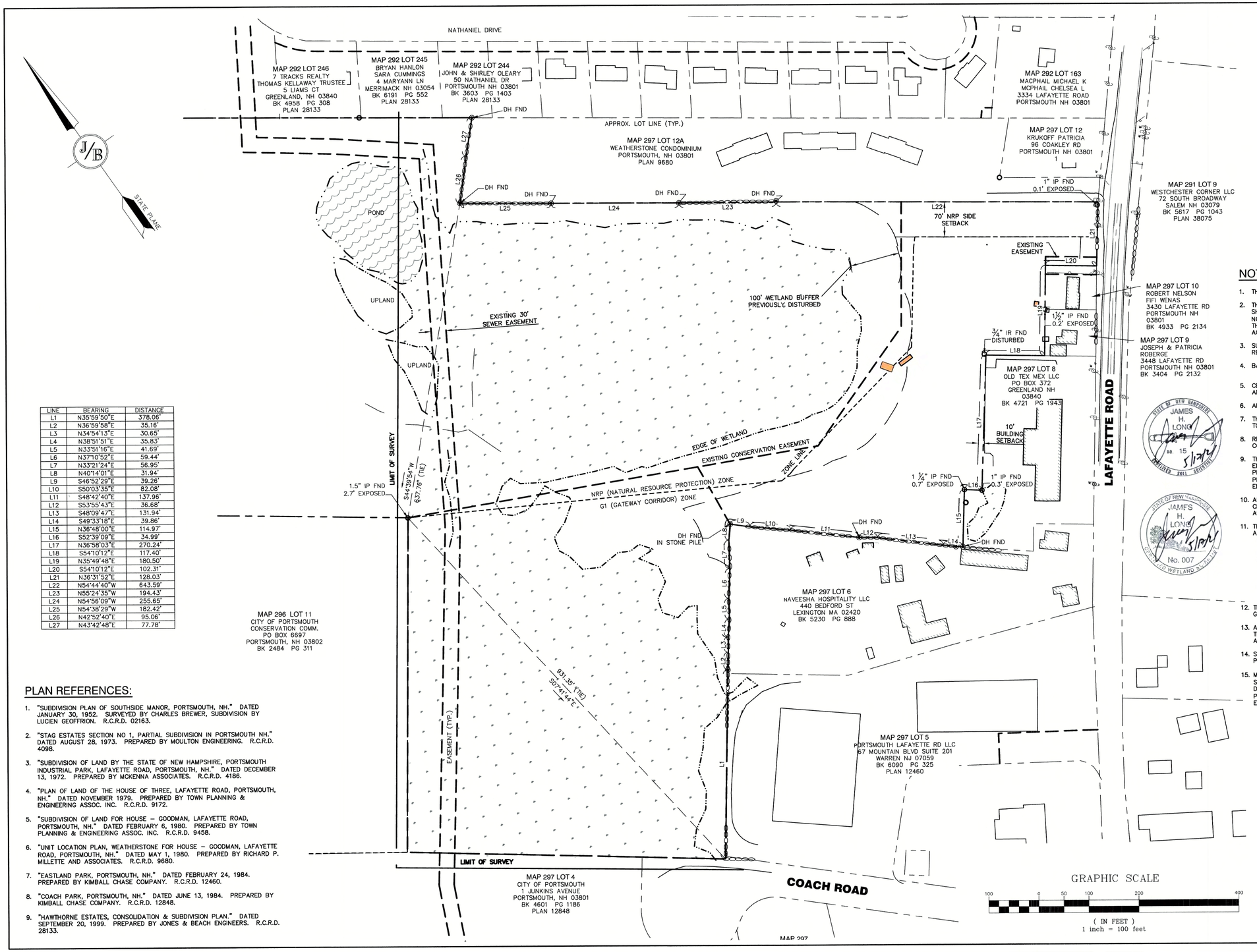
REV.	DATE	REVISION	BY
5	5/5/21	REVISIONS	LAZ
4	3/18/21	ADDED DETAIL	LAZ
3	3/3/21	ADDED SURVEY INFO	LAZ
2	1/6/21	MINOR REVISIONS	DJM
1	11/23/20	REVISED PER CLIENT	DJM

Designed and Produced in NH
J/B Jones & Beach Engineers, Inc.
85 Portsmouth Ave.
PO Box 219
Stratham, NH 03885
Civil Engineering Services
603-772-4746
FAX: 603-772-0227
E-MAIL: JBE@JONESANDBEACH.COM

Plan Name:	COVER SHEET
Project:	3400 LAFAYETTE ROAD PORTSMOUTH, NH
Owner of Record:	RICCI CONSTRUCTION CO., INC. 225 BANFIELD ROAD, PORTSMOUTH, NH 03801 BK 1930 PG 0229

DRAWING No.
CS
SHEET 1 OF 25
JBE PROJECT NO. 20737

PROJECT NAME AND LOCATION
REVISION 5/5/21
JBE # 20737



LINE	BEARING	DISTANCE
L1	N35°59'50"E	378.06'
L2	N36°59'58"E	35.16'
L3	N34°54'13"E	30.65'
L4	N38°51'51"E	35.83'
L5	N33°51'16"E	41.69'
L6	N37°10'52"E	59.44'
L7	N33°21'24"E	56.95'
L8	N40°14'01"E	31.94'
L9	S46°52'29"E	39.26'
L10	S50°03'35"E	82.08'
L11	S48°42'40"E	137.96'
L12	S53°55'43"E	36.68'
L13	S48°09'47"E	131.94'
L14	S49°33'18"E	39.86'
L15	N36°48'00"E	114.97'
L16	S52°39'09"E	34.99'
L17	N36°58'03"E	270.24'
L18	S54°10'12"E	117.40'
L19	N35°49'48"E	180.50'
L20	S54°10'12"E	102.31'
L21	N36°31'52"E	128.03'
L22	N54°44'40"W	643.59'
L23	N55°24'35"W	194.43'
L24	N54°56'09"W	255.65'
L25	N54°38'29"W	182.42'
L26	N42°52'40"E	95.06'
L27	N43°42'48"E	77.78'

PLAN REFERENCES:

1. "SUBDIVISION PLAN OF SOUTHSIDE MANOR, PORTSMOUTH, NH." DATED JANUARY 30, 1952. SURVEYED BY CHARLES BREWER, SUBDIVISION BY LUCIEN GEOFFRION. R.C.R.D. 02163.
2. "STAG ESTATES SECTION NO 1, PARTIAL SUBDIVISION IN PORTSMOUTH NH." DATED AUGUST 28, 1973. PREPARED BY MOULTON ENGINEERING. R.C.R.D. 4098.
3. "SUBDIVISION OF LAND BY THE STATE OF NEW HAMPSHIRE, PORTSMOUTH INDUSTRIAL PARK, LAFAYETTE ROAD, PORTSMOUTH, NH." DATED DECEMBER 13, 1972. PREPARED BY MCKENNA ASSOCIATES. R.C.R.D. 4186.
4. "PLAN OF LAND OF THE HOUSE OF THREE, LAFAYETTE ROAD, PORTSMOUTH, NH." DATED NOVEMBER 1979. PREPARED BY TOWN PLANNING & ENGINEERING ASSOC. INC. R.C.R.D. 9172.
5. "SUBDIVISION OF LAND FOR HOUSE – GOODMAN, LAFAYETTE ROAD, PORTSMOUTH, NH." DATED FEBRUARY 6, 1980. PREPARED BY TOWN PLANNING & ENGINEERING ASSOC. INC. R.C.R.D. 9458.
6. "UNIT LOCATION PLAN, WEATHERSTONE FOR HOUSE – GOODMAN, LAFAYETTE ROAD, PORTSMOUTH, NH." DATED MAY 1, 1980. PREPARED BY RICHARD P. MILLETTE AND ASSOCIATES. R.C.R.D. 9680.
7. "EASTLAND PARK, PORTSMOUTH, NH." DATED FEBRUARY 24, 1984. PREPARED BY KIMBALL CHASE COMPANY. R.C.R.D. 12460.
8. "COACH PARK, PORTSMOUTH, NH." DATED JUNE 13, 1984. PREPARED BY KIMBALL CHASE COMPANY. R.C.R.D. 12848.
9. "HAWTHORNE ESTATES, CONSOLIDATION & SUBDIVISION PLAN." DATED SEPTEMBER 20, 1999. PREPARED BY JONES & BEACH ENGINEERS. R.C.R.D. 28133.

NOTES:

1. THE INTENT OF THIS PLAN IS TO SHOW THE A PORTION OF THE EXISTING BOUNDARY OF TAX MAP 297 LOT 11.
2. THE UTILITY LOCATIONS SHOWN HEREON WERE DETERMINED BY OBSERVED ABOVE GROUND EVIDENCE AND SHOULD BE CONSIDERED APPROXIMATE IN LOCATION ONLY. LOCATION, DEPTH, SIZE, TYPE, EXISTENCE OR NONEXISTENCE OF UNDERGROUND UTILITIES AND/OR UNDERGROUND STORAGE TANKS WAS NOT VERIFIED BY THIS SURVEY. ALL CONTRACTORS SHOULD NOTIFY IN WRITING ALL UTILITY COMPANIES AND GOVERNMENT AGENCIES PRIOR TO ANY EXCAVATION WORK OR CALL DIG–SAFE AT 1–888–DIG–SAFE.
3. SUBJECT PROPERTY IS NOT LOCATED WITHIN FEDERALLY DESIGNATED 100 YEAR FLOOD HAZARD ZONE. REFERENCE FEMA COMMUNITY PANEL NO. 33015C0270F, DATED JANUARY 29, 2021.
4. BASIS OF BEARING: HORIZONTAL – NAD83 NH STATE PLANE
   VERTICAL – NAVD88.
5. CERTAIN DATA HEREON MAY VARY FROM RECORDED DATA DUE TO DIFFERENCES IN DECLINATION, ORIENTATION, AND METHODS OF MEASUREMENT.
6. ALL BOOK AND PAGE NUMBERS REFER TO THE ROCKINGHAM COUNTY REGISTRY OF DEEDS.
7. THE TAX MAP AND LOT NUMBERS ARE BASED ON THE CITY OF PORTSMOUTH TAX RECORDS AND ARE SUBJECT TO CHANGE.
8. RESEARCH WAS PERFORMED THROUGH THE CITY OF PORTSMOUTH GIS DATABASE, AND AT THE ROCKINGHAM COUNTY REGISTRY OF DEEDS.
9. THIS SURVEY IS NOT A CERTIFICATION TO OWNERSHIP OR TITLE OF LANDS SHOWN. OWNERSHIP AND ENCUMBRANCES ARE MATTERS OF TITLE EXAMINATION NOT OF A BOUNDARY SURVEY. THE INTENT OF THIS PLAN IS TO RETRACE THE BOUNDARY LINES OF DEEDS REFERENCED HEREON. OWNERSHIP OF ADJOINING PROPERTIES IS ACCORDING TO ASSESSOR'S RECORDS. THIS PLAN MAY OR MAY NOT INDICATE ALL ENCUMBRANCES EXPRESSED, IMPLIED OR PRESCRIPTIVE.
10. ANY USE OF THIS PLAN AND OR ACCOMPANYING DESCRIPTIONS SHOULD BE DONE WITH LEGAL COUNSEL, TO BE CERTAIN THAT TITLES ARE CLEAR, THAT INFORMATION IS CURRENT, AND THAT ANY NECESSARY CERTIFICATES ARE IN PLACE FOR A PARTICULAR CONVEYANCE, OR OTHER USES.
11. THE LIMITS OF JURISDICTIONAL WETLANDS WERE DELINEATED BY JAMES LONG CWS #007 IN JANUARY, 2021 IN ACCORDANCE WITH THE FOLLOWING GUIDANCE DOCUMENTS:
    A. THE CORPS OF ENGINEERS FEDERAL MANUAL FOR IDENTIFYING AND DELINEATING JURISDICTIONAL WETLANDS.
    B. THE NORTH CENTRAL & NORTHEAST REGIONAL SUPPLEMENT TO THE FEDERAL MANUAL.
    C. THE CURRENT VERSION OF THE FIELD INDICATORS FOR IDENTIFYING HYDRIC SOILS IN NEW ENGLAND, AS PUBLISHED BY THE NEW ENGLAND INTERSTATE WATER POLLUTION CONTROL COMMISSION AND/OR THE CURRENT VERSION OF THE FIELD INDICATORS OF HYDRIC SOILS IN THE UNITED STATES, AS PUBLISHED BY THE USDA, NRCS, AS APPROPRIATE.
    D. THE CURRENT NATIONAL LIST OF PLANT SPECIES THAT OCCUR IN WETLANDS, AS PUBLISHED BY THE US FISH AND WILDLIFE SERVICE.
12. THIS PLAN IS THE RESULT OF A CLOSED TRAVERSE WITH A RAW, UNADJUSTED LINEAR ERROR OF CLOSURE GREATER THAN 1 IN 15,000.
13. ALL BOUNDARY LINES PERTINENT TO THE DEVELOPMENT SHOWN IN THIS PLAN SET HAVE BEEN SURVEYED BY THIS OFFICE. ALL BOUNDARY LINES NOT ANNOTATED WITH BEARING AND DISTANCES ARE PER CITY TAX MAPS, AND SHALL BE CONSIDERED APPROXIMATE.
14. SURVEY TIE LINES SHOWN HEREON ARE NOT BOUNDARY LINES. THEY SHOULD ONLY BE USED TO LOCATE THE PARCEL SURVEYED FROM THE FOUND MONUMENTS SHOWN AND LOCATED BY THIS SURVEY.
15. MAP 297 LOT 10 FIRST CONVEYED IN 1955 (BOOK 1363 PAGE 229) AS LOT 28 ON "SUBDIVISION PLAT OF SOUTHSIDE MANOR." LOT 28 IS BOUNDED NORTHEASTERLY BY EDGEWOOD ROAD, PER DEED DESCRIPTION. THE DESCRIPTION OF THIS LOT DOES NOT CORRESPOND TO THE LOTS SHOWN ON PLAN REFERENCE 1. NO OTHER PLANS OF SOUTHSIDE MANOR HAVE BEEN FOUND RECORDED AT R.C.R.D. A WIDTH OF 35' WAS ASSUMED FOR EDGEWOOD ROAD, TO BE CONSISTENT WITH THE RECORDED PLAN.

CERTIFICATION:

PURSUANT TO RSA 676:18–III AND RSA 672:14

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.

I CERTIFY THAT THIS PLAT WAS PREPARED UNDER MY DIRECT SUPERVISION, THAT IT IS THE RESULT OF A FIELD SURVEY BY THIS OFFICE AND HAS AN UNADJUSTED LINEAR ERROR OF CLOSURE THAT EXCEED BOTH THE MINIMUM OF 1:10,000 AS DEFINED IN SECTION 503.04 OF THE NEW HAMPSHIRE CODE OF ADMINISTRATIVE RULES AND THE MINIMUM OF 1:15,000 AS DEFINED IN SECTION 4.2 OF THE N.H.L.S.A. ETHICS AND STANDARDS.

THIS SURVEY CONFORMS TO A CATEGORY 1 CONDITION 1 SURVEY AS DEFINED IN SECTION 4.1 OF THE N.H.L.S.A. ETHICS AND STANDARDS.

STATE OF NEW HAMPSHIRE LICENSED LAND SURVEYOR No. 1030 MATTHEW J. SALVUCCI

SIGNATURE 5/17/21

MATTHEW J. SALVUCCI, LLS 1030 — DATE:

ON BEHALF OF JONES & BEACH ENGINEERS, INC.

Design: JAC	Draft: LAZ
Checked: JAC	Scale: AS SHOWN
Drawing Name: 20737-PLAN.dwg	Date: 3/3/21
	Project No.: 20737

REV.	DATE	REVISION	BY
5	5/5/21	REVISIONS	LAZ
4	3/18/21	ADDED DETAIL	LAZ
3	3/3/21	ADDED SURVEY INFO	LAZ
2	1/6/21	MINOR REVISIONS	DJM
1	11/23/20	REVISED PER CLIENT	DJM

Designed and Produced in NH
Jones & Beach Engineers, Inc.
85 Portsmouth Ave.
PO Box 219
Stratham, NH 03885
Civil Engineering Services
603-772-4746
FAX: 603-772-0227
E-MAIL: JBE@JONESANDBEACH.COM

Plan Name:	BOUNDARY PLAN
Project:	3400 LAFAYETTE ROAD PORTSMOUTH, NH
Owner of Record:	RICCI CONSTRUCTION CO., INC. 225 BANFIELD ROAD, PORTSMOUTH, NH 03801 BK 1930 PG 0229

DRAWING No.

A1

SHEET 2 OF 25

JBE PROJECT NO. 20737

ADDITIONAL ABUTTERS

TAX MAP 292 LOT 222
FRENCH FAMILY REVOCABLE TRUST OF 1999
FRENCH JAMES H & HEIDI B TRUSTEES
9 NATHANIEL DR
PORTSMOUTH NH 03801

TAX MAP 292 LOT 236
HERNANDEZ EMMANUEL
HERNANDEZ KAREN
130 NATHANIEL DR
PORTSMOUTH NH 03801

TAX MAP 292 LOT 237
GORONSKI RICHARD C
GORONSKI ALICJA K
120 NATHANIEL DR
PORTSMOUTH NH 03801

TAX MAP 292 LOT 223
DIEMER FREDERICK C REVO TRUST
DIEMER FREDERICK C TRUSTEE
31 NATHANIEL DR
PORTSMOUTH NH 03801

TAX MAP 292 LOT 224
BARSTOW ERIK T
BARSTOW JENNAFER J
41 NATHANIEL DR
PORTSMOUTH NH 03801

TAX MAP 292 LOT 225
LE RYAN NGHIEM
NGO HELEN
53 NATHANIEL DR
PORTSMOUTH NH 03801

TAX MAP 292 LOT 234
GARDNER JR C WESLEY REVO TRUST
GARDNER JR C WESLEY TRUSTEE
150 NATHANIEL DR
PORTSMOUTH NH 03801

TAX MAP 292 LOT 235
YAEGER SUSAN
140 NATHANIEL DR
PORTSMTOUH NH 03801

TAX MAP 292 LOT 238
KARUNAKAREN FAM REV TST O 2021
KARUNAKAREN SUBRAMANIAN TRUSTEE
SHANMUHANANTHAN NAGHDEVI TRUSTTE
110 NATHANIEL DR
PORTSMOUTH NH 03801

TAX MAP 292 LOT 239
REDDY LAXMINARAYAN N
REDDY DHANALAXMI L
100 NATHANIEL DR
PORTSMOUTH NH 03801

TAX MAP 292 LOT 240
MCCARTHY KAREN A
BEAUVAIS AUDRA E
90 NATHANIEL DR
PORTSMOUTH NH 03801

TAX MAP 292 LOT 241
GALLAGHER PAUL J
80 NATHANIEL DR
PORTSMOUTH NH 03801

TAX MAP 292 LOT 242
WERRY WILLIAM A
DOWD–WERRY DIANA M
72 NATHANIEL DR
PORTSMOUTH NH 03801

TAX MAP 292 LOT 243
HASSAN KERRI
HASSAN COREY
60 NATHANIEL DR
PORTSMOUTH NH 03801

TAX MAP 293 LOT 1
RICHARDSON SCOTT A
35 MARIETTE DR
PORTSMOUTH NH 03801

TAX MAP 293 LOT 3
CAHILL JEROME J
CAHILL ERIN G
37 MARIETTE DR
PORTSMOUTH NH 03801

TAX MAP 293 LOT5– 1
DANFORTH FAMILY NOMINEE TRUST
DANFORTH RICHARD K TRUSTEE
377 OCEAN BLVD
PORTSMOUTH, NH 03801

TAX MAP 293 LOT 5–2
TRAN THEM T
VU MINH D
379 OCEAN BLVD
PORTSMOUTH, NH 03801

TAX MAP 293 LOT 5–3
COUTURIER FAM REV TST OF 2020
COUTURIER MICHAEL & KELLY TRUSTEES
381 OCEAN BLVD
PORTSMOUTH, NH 03801

TAX MAP 293 LOT 5–5
PHAM CUC
BUI TONY
385 OCEAN BLVD
PORTSMOUTH, NH 03801

TAX MAP 293 LOT 6
GRAVEL TYLER
409 OCEAN RD
PORTSMOUTH NH 03801

TAX MAP 297
LOT 12A–1
SEAWARD DANIEL O III
3370 LAFAYETTE RD #1
PORTSMOUTH NH 03801

TAX MAP 297
LOT 12A–2
LAROCHE NOAH
3370 LAFAYETTE RD UNIT 2
PORTSMOUTH NH 03801

TAX MAP 297 LOT 12A–3
SALMON CAROLYN M REVO TRUST
SALMON CAROLYN M TRUSTEE
3370 LAFAYETTE RD #3
PORTSMOUTH NH 03801

TAX MAP 297 LOT 12A–4
PERCHENSIS FAM REV TST
LEHOUX NEIL M & RAYMOND J ROY TTEES
3370 LAFAYETTE RD UNIT 4
PORTSMOUTH NH 03801

TAX MAP 297 LOT 12A–5
SLATTERY & DUMONT LLC
66 OLD CONCORD TURNPIKE #10
BARRINGTON NH 03825

TAX MAP 297 LOT 12A–6
RAMSAY STEVEN J
RAMSAY SARAH B
2 INDIAN TR
EXETER NH 03833

TAX MAP 297 LOT 12A–7
GUTIERREZ NOEL E
GUTIERREZ MYRNA M
3370 LAFAYETTE RD #7
PORTSMOUTH NH 03801

TAX MAP 297 LOT 12A–8
NEVEU CHRISTOPHER PAUL
3370 LAFAYETTE RD UNIT 9
PORTSMOUTH NH 03801

TAX MAP 297 LOT 12A–9
CERAMI KRISTEN A REV TST OF 2020
CERAMI KRISTEN A TRUSTEE
3370 LAFAYETTE RD #9
PORTSMOUTH NH 03801

TAX MAP 297 LOT 12A–10
BOGARDUS KIRK W
11 WINTER ST APT 6
FRANKLIN MA 02038

TAX MAP 297 LOT 12A–11
BOURQUE ALICIA K
TIPPING KYLE T
83 SANT MATTHEW'S DR
BARRINGTON NH 03825

TAX MAP 297 LOT 12A–12
HUBBARD CHARLOTTE
3370 LAFAYETTE RD UNIT 12
PORTSMOUTH NH 03801

TAX MAP 297 LOT 12A–13
MCCOURT TREVOR
MCCOURT KELSEY A
3370 LAFAYETTE RD
UNIT #13
PORTSMOUTH NH 03801

TAX MAP 297 LOT 12A–14
MORGAN ROBERT E
3370 LAFAYETTE RD #14
PORTSMOUTH NH 03801

TAX MAP 297 LOT 12A–15
SHULTZ KEVIN J
3370 LAFAYETTE RD #15
PORTSMOUTH NH 03801

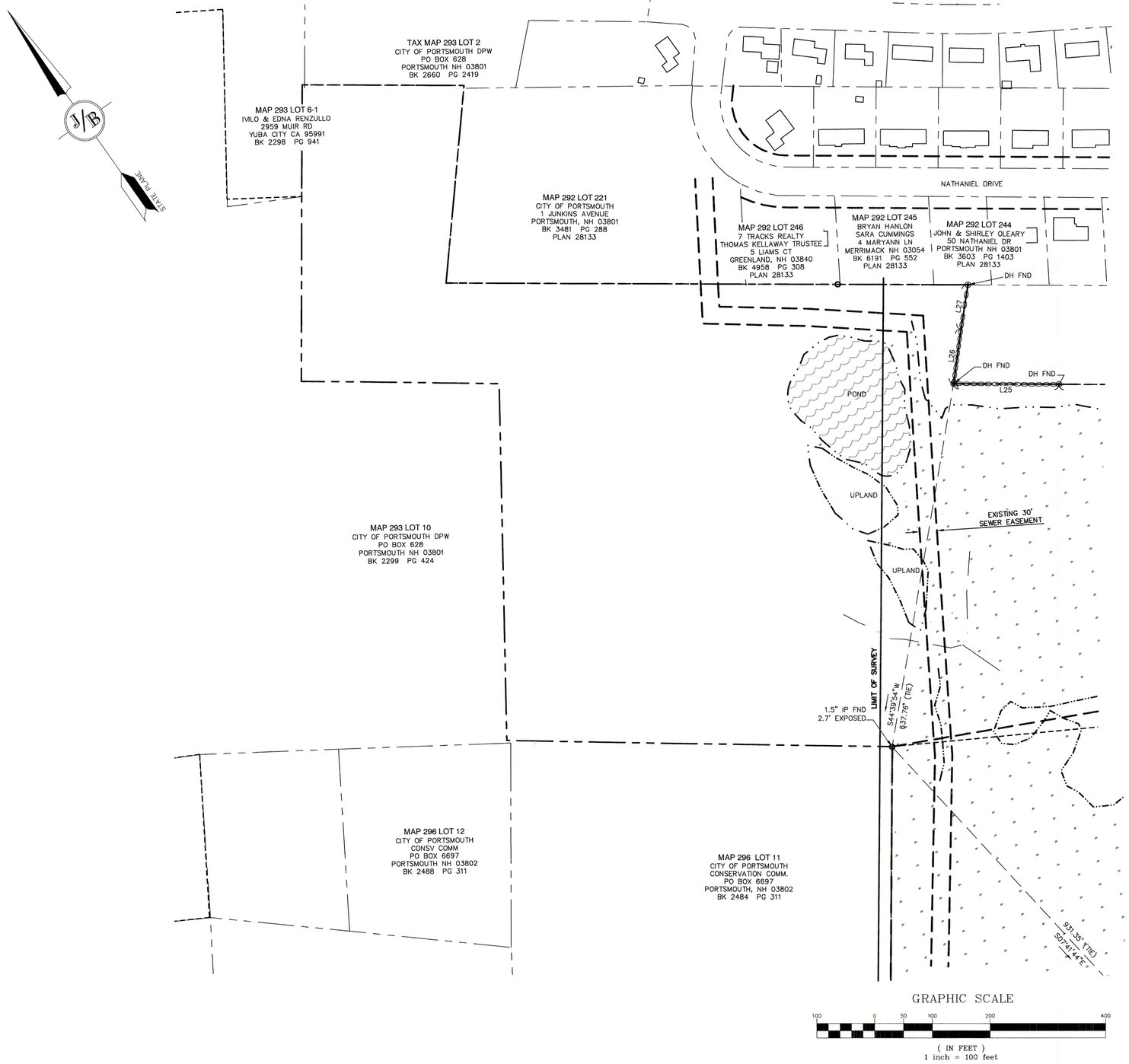
TAX MAP 297 LOT 12A–16
AIKENS PETER J SR
AIKENS JEAN P
3370 LAFAYETTE RD #16
PORTSMOUTH NH 03801

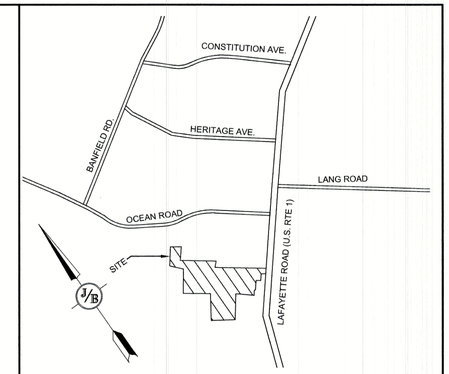
TAX MAP 297 LOT 12A–17
FREIERMUTH CONSTANCE K REVO LIV
FREIERMUTH CONSTANCE K TRUSTEE
3370 LAFAYETTE RD UNIT 17
PORTSMOUTH NH 03801

TAX MAP 297 LOT 12A–18
QUINONES
CARLOS M JR ¼ INT
POMBO LOREN DAVILA
REVO TRST 06 ¼ INT
75 HIGH ST APT E4
EXETER NH 03833–2928

TAX MAP 297 LOT 12A–19
KALIMUTHU MANIKANDAN
3370 LAFAYETTE RD #19
PORTSMOUTH NH 03801

TAX MAP 297 LOT 12A–20
MILLER GEORGE R JR REVO TRUST 09
MILLER PATRICIA I REVO TRUST 09
3370 LAFAYETTE RD #20
PORTSMOUTH NH 03801





LOCUS SCALE: 1"=2000'

CERTIFICATION:

PURSUANT TO RSA 676:18–III AND RSA 672:14

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.

I CERTIFY THAT THIS PLAT WAS PREPARED UNDER MY DIRECT SUPERVISION, THAT IT IS THE RESULT OF A FIELD SURVEY BY THIS OFFICE AND HAS AN UNADJUSTED LINEAR ERROR OF CLOSURE THAT EXCEED BOTH THE MINIMUM OF 1:10,000 AS DEFINED IN SECTION 503.04 OF THE NEW HAMPSHIRE CODE OF ADMINISTRATIVE RULES AND THE MINIMUM OF 1:15,000 AS DEFINED IN SECTION 4.2 OF THE N.H.L.S.A. ETHICS AND STANDARDS.

THIS SURVEY CONFORMS TO A CATEGORY 1 CONDITION 1 SURVEY AS DEFINED IN SECTION 4.1 OF THE N.H.L.S.A. ETHICS AND STANDARDS.

STATE OF NEW HAMPSHIRE No. 1030 MATTHEW J. SALVUCCI LICENSED LAND SURVEYOR
SIGNATURE

5/17/21

MATTHEW J. SALVUCCI, LLS 1030 — DATE:
ON BEHALF OF JONES & BEACH ENGINEERS, INC.

STATE OF NEW HAMPSHIRE JAMES H. LONG No. 15 5/17/21 LICENSED CIVIL ENGINEER

STATE OF NEW HAMPSHIRE JAMES H. LONG No. 007 5/17/21 CERTIFIED WETLAND SCIENTIST

Design: JAC	Draft: LAZ
Checked: JAC	Scale: AS SHOWN
Date: 3/3/21	Project No.: 20737
Drawing Name: 20737-PLAN.dwg	

REV.	DATE	REVISION	BY
5	5/5/21	REVISIONS	LAZ
4	3/18/21	ADDED DETAIL	LAZ
3	3/3/21	ADDED SURVEY INFO	LAZ
2	1/6/21	MINOR REVISIONS	DJM
1	11/23/20	REVISED PER CLIENT	DJM

Designed and Produced in NH
J/B Jones & Beach Engineers, Inc.
85 Portsmouth Ave.
PO Box 219
Stratham, NH 03885
Civil Engineering Services
603-772-4746
FAX: 603-772-0227
E-MAIL: JBE@JONESANDBEACH.COM

Plan Name: BOUNDARY PLAN
Project: 3400 LAFAYETTE ROAD PORTSMOUTH, NH
Owner of Record: RICCI CONSTRUCTION CO., INC. 225 BANFIELD ROAD, PORTSMOUTH, NH 03801 BK 1930 PG 0229

DRAWING No.
A2
SHEET 3 OF 25
JBE PROJECT NO. 20737

ADDITIONAL ABUTTERS

TAX MAP 292 LOT 222
FRENCH FAMILY REVOCABLE TRUST OF 1999
FRENCH JAMES H & HEIDI B TRUSTEES
9 NATHANIEL DR
PORTSMOUTH NH 03801

TAX MAP 292 LOT 236
HERNANDEZ EMMANUEL
HERNANDEZ KAREN
130 NATHANIEL DR
PORTSMOUTH NH 03801

TAX MAP 292 LOT 237
GORONSKI RICHARD C
GORONSKI ALICJA K
120 NATHANIEL DR
PORTSMOUTH NH 03801

TAX MAP 292 LOT 223
DIEMER FREDERICK C REVO TRUST
DIEMER FREDERICK C TRUSTEE
31 NATHANIEL DR
PORTSMOUTH NH 03801

TAX MAP 292 LOT 224
BARSTOW ERIK T
BARSTOW JENNAFER J
41 NATHANIEL DR
PORTSMOUTH NH 03801

TAX MAP 292 LOT 225
LE RYAN NGHIEM
NGO HELEN
53 NATHANIEL DR
PORTSMOUTH NH 03801

TAX MAP 292 LOT 234
GARDNER JR C WESLEY REVO TRUST
GARDNER JR C WESLEY TRUSTEE
150 NATHANIEL DR
PORTSMOUTH NH 03801

TAX MAP 292 LOT 235
YAEGER SUSAN
140 NATHANIEL DR
PORTSMTOUH NH 03801

TAX MAP 292 LOT 238
KARUNAKAREN FAM REV TST O 2021
KARUNAKAREN SUBRAMANIAN TRUSTEE
SHANMUHANANTHAN NAGHDEVI TRUSTTE
110 NATHANIEL DR
PORTSMOUTH NH 03801

TAX MAP 292 LOT 239
REDDY LAXMINARAYAN N
REDDY DHANALAXMI L
100 NATHANIEL DR
PORTSMOUTH NH 03801

TAX MAP 292 LOT 240
MCCARTHY KAREN A
BEAUVAIS AUDRA E
90 NATHANIEL DR
PORTSMOUTH NH 03801

TAX MAP 292 LOT 241
GALLAGHER PAUL J
80 NATHANIEL DR
PORTSMOUTH NH 03801

TAX MAP 292 LOT 242
WERRY WILLIAM A
DOWD-WERRY DIANA M
72 NATHANIEL DR
PORTSMOUTH NH 03801

TAX MAP 292 LOT 243
HASSAN KERRI
HASSAN COREY
60 NATHANIEL DR
PORTSMOUTH NH 03801

TAX MAP 293 LOT 1
RICHARDSON SCOTT A
35 MARIETTE DR
PORTSMOUTH NH 03801

TAX MAP 293 LOT 3
CAHILL JEROME J
CAHILL ERIN G
37 MARIETTE DR
PORTSMOUTH NH 03801

TAX MAP 293 LOT5- 1
DANFORTH FAMILY NOMINEE TRUST
DANFORTH RICHARD K TRUSTEE
377 OCEAN BLVD
PORTSMOUTH, NH 03801

TAX MAP 293 LOT 5-2
TRAN THEM T
VU MINH D
379 OCEAN BLVD
PORTSMOUTH, NH 03801

TAX MAP 293 LOT 5-3
COUTURIER FAM REV TST OF 2020
COUTURIER MICHAEL & KELLY TRUSTEES
381 OCEAN BLVD
PORTSMOUTH, NH 03801

TAX MAP 293 LOT 5-5
PHAM CUC
BUI TONY
385 OCEAN BLVD
PORTSMOUTH, NH 03801

TAX MAP 293 LOT 6
GRAVEL TYLER
409 OCEAN RD
PORTSMOUTH NH 03801

TAX MAP 297
LOT 12A-1
SEAWARD DANIEL O III
3370 LAFAYETTE RD #1
PORTSMOUTH NH 03801

TAX MAP 297
LOT 12A-2
LAROCHE NOAH
3370 LAFAYETTE RD UNIT 2
PORTSMOUTH NH 03801

TAX MAP 297 LOT 12A-3
SALMON CAROLYN M REVO TRUST
SALMON CAROLYN M TRUSTEE
3370 LAFAYETTE RD #3
PORTSMOUTH NH 03801

TAX MAP 297 LOT 12A-4
PERCHENSIS FAM REV TST
LEHOUX NEIL M & RAYMOND J ROY TTEES
3370 LAFAYETTE RD UNIT 4
PORTSMOUTH NH 03801

TAX MAP 297 LOT 12A-5
SLATTERY & DUMONT LLC
66 OLD CONCORD TURNPIKE #10
BARRINGTON NH 03825

TAX MAP 297 LOT 12A-6
RAMSAY STEVEN J
RAMSAY SARAH B
2 INDIAN TR
EXETER NH 03833

TAX MAP 297 LOT 12A-7
GUTIERREZ NOEL E
GUTIERREZ MYRNA M
3370 LAFAYETTE RD #7
PORTSMOUTH NH 03801

TAX MAP 297 LOT 12A-8
NEVEU CHRISTOPHER PAUL
3370 LAFAYETTE RD UNIT 9
PORTSMOUTH NH 03801

TAX MAP 297 LOT 12A-9
CERAMI KRISTEN A REV TST OF 2020
CERAMI KRISTEN A TRUSTEE
3370 LAFAYETTE RD #9
PORTSMOUTH NH 03801

TAX MAP 297 LOT 12A-10
BOGARDUS KIRK W
11 WINTER ST APT 6
FRANKLIN MA 02038

TAX MAP 297 LOT 12A-11
BOURQUE ALICIA K
TIPPING KYLE T
83 SANT MATTHEW'S DR
BARRINGTON NH 03825

TAX MAP 297 LOT 12A-12
HUBBARD CHARLOTTE
3370 LAFAYETTE RD UNIT 12
PORTSMOUTH NH 03801

TAX MAP 297 LOT 12A-13
MCCOURT TREVOR
MCCOURT KELSEY A
3370 LAFAYETTE RD UNIT #13
PORTSMOUTH NH 03801

TAX MAP 297 LOT 12A-14
MORGAN ROBERT E
3370 LAFAYETTE RD #14
PORTSMOUTH NH 03801

TAX MAP 297 LOT 12A-15
SHULTZ KEVIN J
3370 LAFAYETTE RD #15
PORTSMOUTH NH 03801

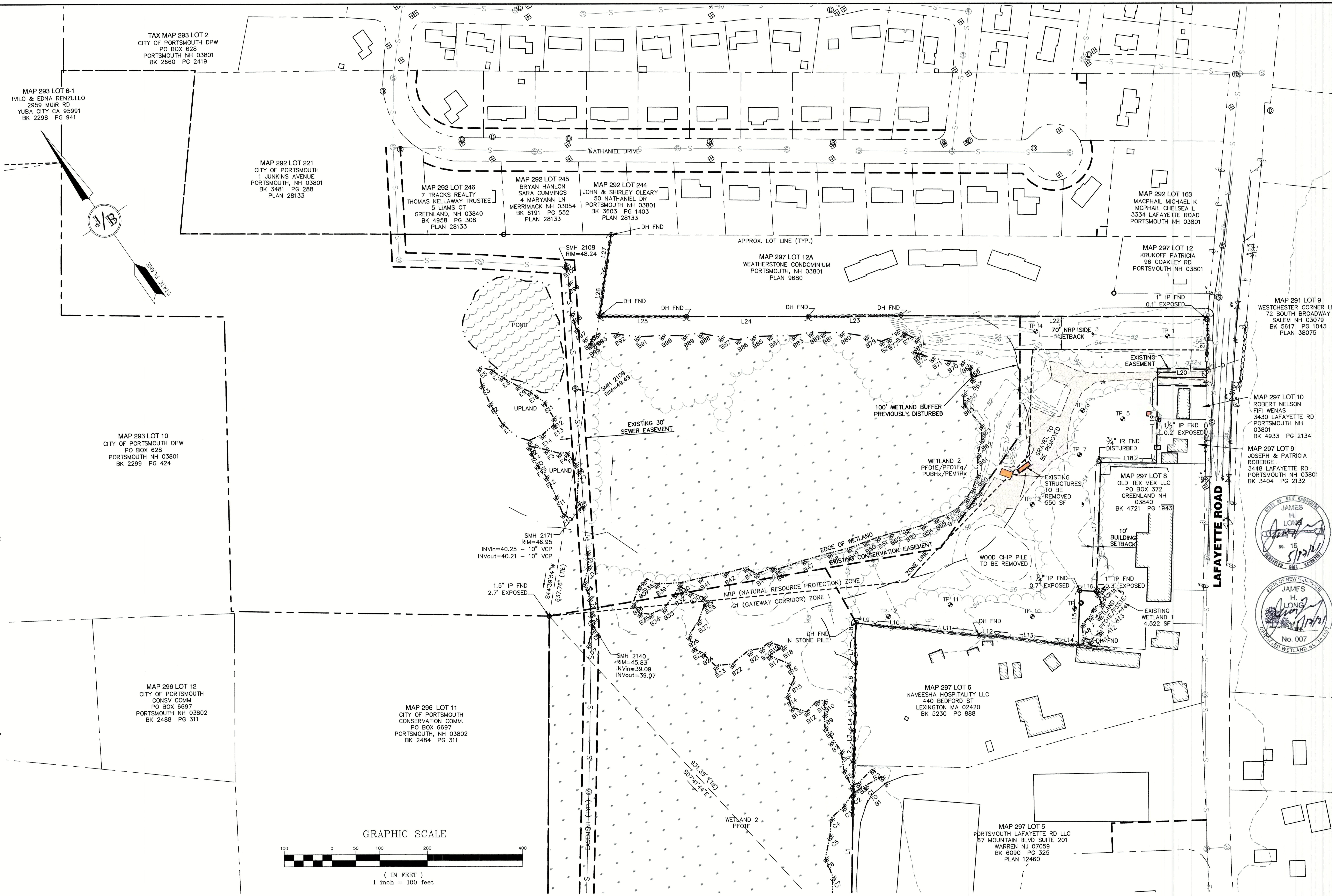
TAX MAP 297 LOT 12A-16
AIKENS PETER J SR
AIKENS JEAN P
3370 LAFAYETTE RD #16
PORTSMOUTH NH 03801

TAX MAP 297 LOT 12A-17
FREIERMUTH CONSTANCE K REVO LIV
FREIERMUTH CONSTANCE K TRUSTEE
3370 LAFAYETTE RD UNIT 17
PORTSMOUTH NH 03801

TAX MAP 297 LOT 12A-18
QUINONES
CARLOS M JR ¾ INT
POMBO LOREN DAVILA
REVO TRST 06 ¼ INT
75 HIGH ST APT E4
EXETER NH 03833-2928

TAX MAP 297 LOT 12A-19
KALIMUTHU MANIKANDAN
3370 LAFAYETTE RD #19
PORTSMOUTH NH 03801

TAX MAP 297 LOT 12A-20
MILLER GEORGE R JR REVO TRUST 09
MILLER PATRICIA I REVO TRUST 09
3370 LAFAYETTE RD #20
PORTSMOUTH NH 03801



Design: JAC	Draft: LAZ	Date: 3/3/21
Checked: JAC	Scale: AS SHOWN	Project No.: 20737
Drawing Name: 20737-PLAN.dwg		

THIS PLAN SHALL NOT BE MODIFIED WITHOUT WRITTEN PERMISSION FROM JONES & BEACH ENGINEERS, INC. (JBE). ANY ALTERATIONS, AUTHORIZED OR OTHERWISE, SHALL BE AT THE USER'S SOLE RISK AND WITHOUT LIABILITY TO JBE.

REV.	DATE	REVISION	BY
5	5/5/21	REVISIONS	LAZ
4	3/18/21	ADDED DETAIL	LAZ
3	3/3/21	ADDED SURVEY INFO	LAZ
2	1/6/21	MINOR REVISIONS	DJM
1	11/23/20	REVISED PER CLIENT	DJM

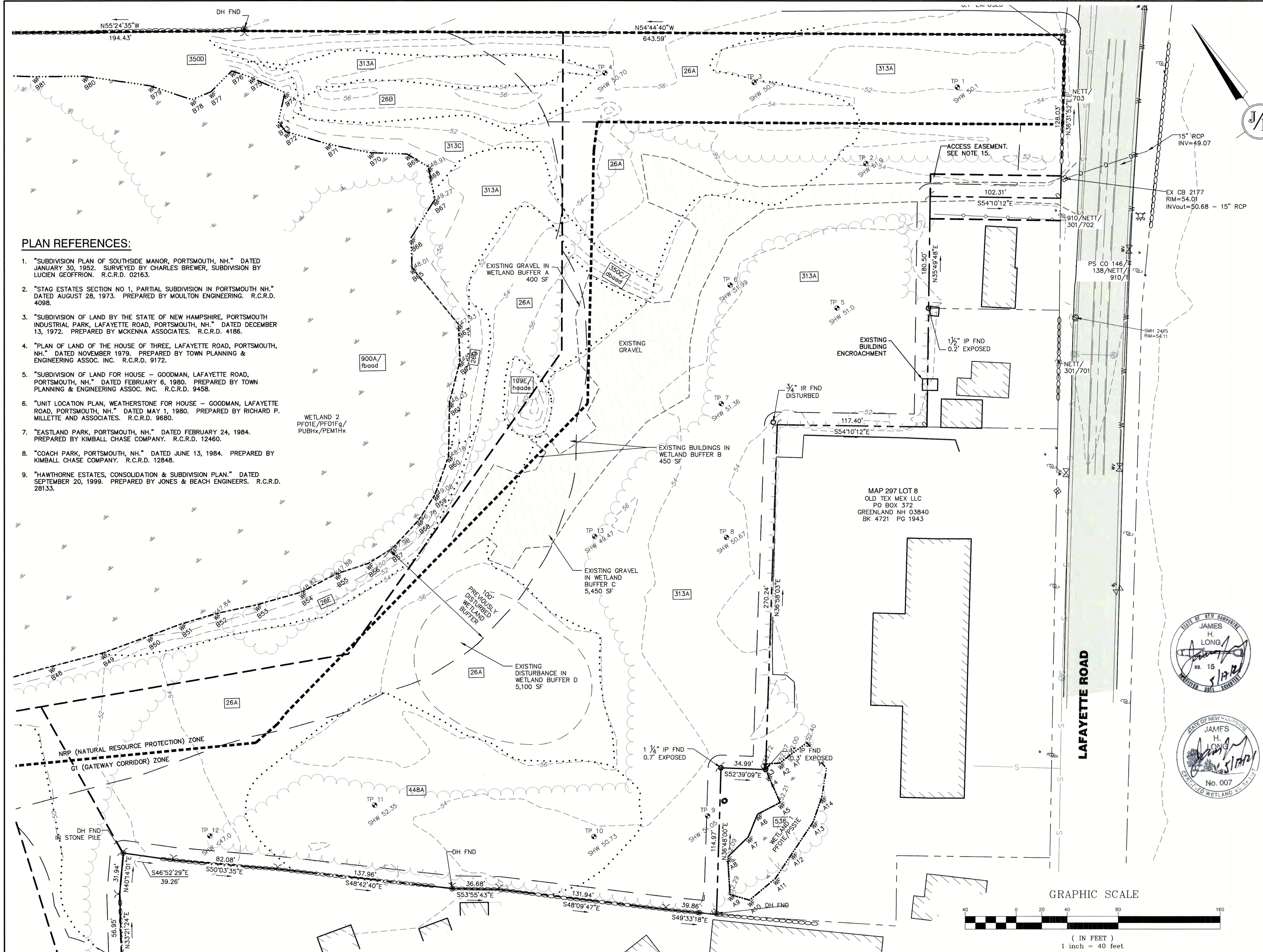
Designed and Produced in NH
Jones & Beach Engineers, Inc.
Civil Engineering Services
85 Portsmouth Ave.
PO Box 219
Stratham, NH 03885
603-772-4746
FAX: 603-772-0227
E-MAIL: JBE@JONESANDBEACH.COM

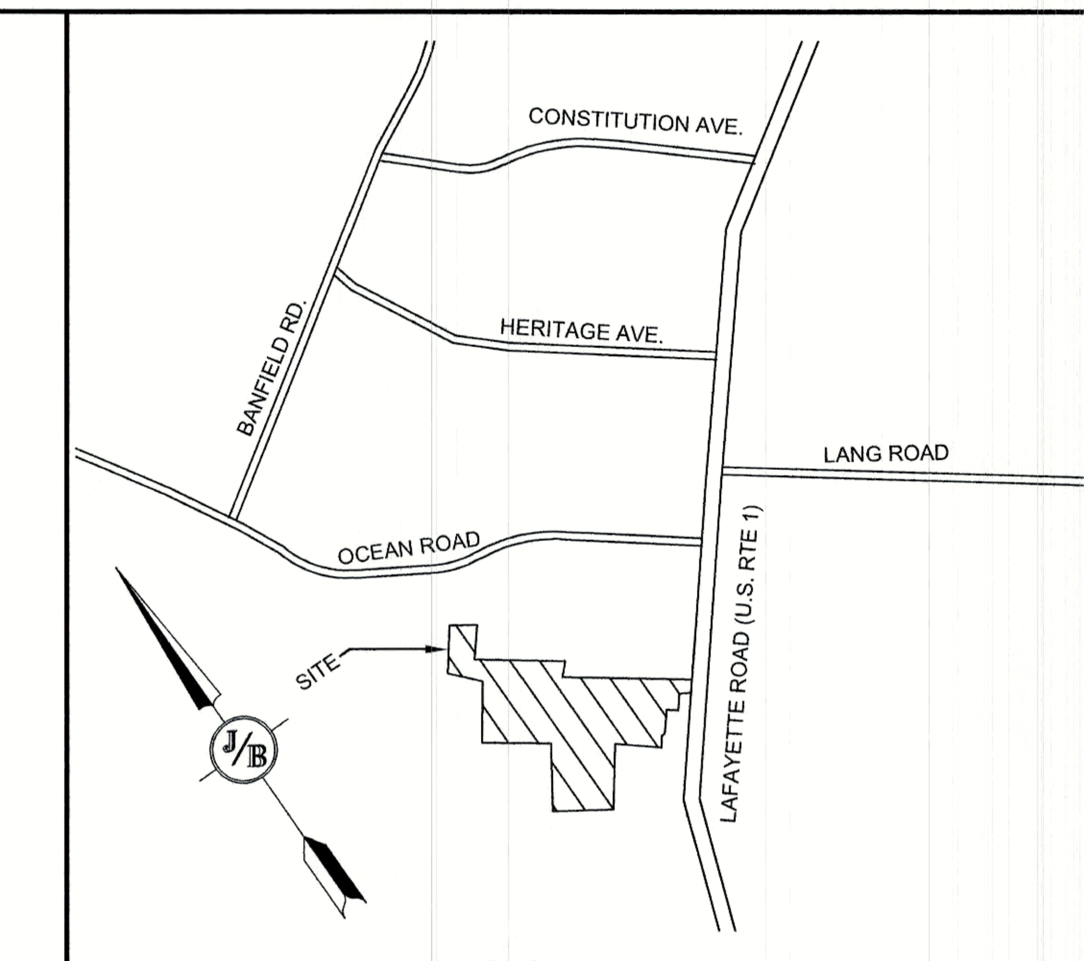
Plan Name: OVERVIEW EXISTING CONDITIONS PLAN

Project: 3400 LAFAYETTE ROAD
PORTSMOUTH, NH

Owner of Record: RICCI CONSTRUCTION CO., INC.
225 BANFIELD ROAD, PORTSMOUTH, NH 03801 BK 1930 PG 0229

DRAWING No.
EXOVR
SHEET 4 OF 25
JBE PROJECT NO. 20737





LOCUS SCALE: 1"=2000'

PLAN REFERENCES:

1. "SUBDIVISION PLAN OF SOUTHSIDE MANOR, PORTSMOUTH, NH." DATED JANUARY 30, 1952. SURVEYED BY CHARLES BREWER, SUBDIVISION BY LUCIEN GEOFFRION. R.C.R.D. 02163.
2. "STAG ESTATES SECTION NO 1, PARTIAL SUBDIVISION IN PORTSMOUTH NH." DATED AUGUST 28, 1973. PREPARED BY MOULTON ENGINEERING. R.C.R.D. 4098.
3. "SUBDIVISION OF LAND BY THE STATE OF NEW HAMPSHIRE, PORTSMOUTH INDUSTRIAL PARK, LAFAYETTE ROAD, PORTSMOUTH, NH." DATED DECEMBER 13, 1972. PREPARED BY MCKENNA ASSOCIATES. R.C.R.D. 4186.
4. "PLAN OF LAND OF THE HOUSE OF THREE, LAFAYETTE ROAD, PORTSMOUTH, NH." DATED NOVEMBER 1979. PREPARED BY TOWN PLANNING & ENGINEERING ASSOC. INC. R.C.R.D. 9172.
5. "SUBDIVISION OF LAND FOR HOUSE – GOODMAN, LAFAYETTE ROAD, PORTSMOUTH, NH." DATED FEBRUARY 6, 1980. PREPARED BY TOWN PLANNING & ENGINEERING ASSOC. INC. R.C.R.D. 9458.
6. "UNIT LOCATION PLAN, WEATHERSTONE FOR HOUSE – GOODMAN, LAFAYETTE ROAD, PORTSMOUTH, NH." DATED MAY 1, 1980. PREPARED BY RICHARD P. MILLETTE AND ASSOCIATES. R.C.R.D. 9680.
7. "EASTLAND PARK, PORTSMOUTH, NH." DATED FEBRUARY 24, 1984. PREPARED BY KIMBALL CHASE COMPANY. R.C.R.D. 12460.
8. "COACH PARK, PORTSMOUTH, NH." DATED JUNE 13, 1984. PREPARED BY KIMBALL CHASE COMPANY. R.C.R.D. 12848.
9. "HAWTHORNE ESTATES, CONSOLIDATION & SUBDIVISION PLAN." DATED SEPTEMBER 20, 1999. PREPARED BY JONES & BEACH ENGINEERS. R.C.R.D. 28133.

NOTES:

1. THE INTENT OF THIS PLAN IS TO SHOW THE EXISTING CONDITIONS OF TAX MAP 297 LOT 11.
2. THE UTILITY LOCATIONS SHOWN HEREON WERE DETERMINED BY OBSERVED ABOVE GROUND EVIDENCE AND SHOULD BE CONSIDERED APPROXIMATE IN LOCATION ONLY. LOCATION, DEPTH, SIZE, TYPE, EXISTENCE OR NONEXISTENCE OF UNDERGROUND UTILITIES AND/OR UNDERGROUND STORAGE TANKS WAS NOT VERIFIED BY THIS SURVEY. ALL CONTRACTORS SHOULD NOTIFY IN WRITING ALL UTILITY COMPANIES AND GOVERNMENT AGENCIES PRIOR TO ANY EXCAVATION WORK OR CALL DIG-SAFE AT 1-888-DIG-SAFE.
3. SUBJECT PROPERTY IS NOT LOCATED WITHIN FEDERALLY DESIGNATED 100 YEAR FLOOD HAZARD ZONE. REFERENCE FEMA COMMUNITY PANEL NO. 33015C0270F, DATED JANUARY 29, 2021.
4. BASIS OF BEARING: HORIZONTAL – NAD83 NH STATE PLANE
   VERTICAL – NAVD88.
5. CERTAIN DATA HEREON MAY VARY FROM RECORDED DATA DUE TO DIFFERENCES IN DECLINATION, ORIENTATION, AND METHODS OF MEASUREMENT.
6. ALL BOOK AND PAGE NUMBERS REFER TO THE ROCKINGHAM COUNTY REGISTRY OF DEEDS.
7. THE TAX MAP AND LOT NUMBERS ARE BASED ON THE CITY OF PORTSMOUTH TAX RECORDS AND ARE SUBJECT TO CHANGE.
8. RESEARCH WAS PERFORMED THROUGH THE CITY OF PORTSMOUTH GIS DATABASE, AND AT THE ROCKINGHAM COUNTY REGISTRY OF DEEDS.
9. THIS SURVEY IS NOT A CERTIFICATION TO OWNERSHIP OR TITLE OF LANDS SHOWN. OWNERSHIP AND ENCUMBRANCES ARE MATTERS OF TITLE EXAMINATION NOT OF A BOUNDARY SURVEY. THE INTENT OF THIS PLAN IS TO RETRACE THE BOUNDARY LINES OF DEEDS REFERENCED HEREON. OWNERSHIP OF ADJOINING PROPERTIES IS ACCORDING TO ASSESSOR'S RECORDS. THIS PLAN MAY OR MAY NOT INDICATE ALL ENCUMBRANCES EXPRESSED, IMPLIED OR PRESCRIPTIVE.
10. ANY USE OF THIS PLAN AND OR ACCOMPANYING DESCRIPTIONS SHOULD BE DONE WITH LEGAL COUNSEL, TO BE CERTAIN THAT TITLES ARE CLEAR, THAT INFORMATION IS CURRENT, AND THAT ANY NECESSARY CERTIFICATES ARE IN PLACE FOR A PARTICULAR CONVEYANCE, OR OTHER USES.
11. THE LIMITS OF JURISDICTIONAL WETLANDS WERE DELINEATED BY JAMES LONG CWS #007 IN JANUARY, 2021 IN ACCORDANCE WITH THE FOLLOWING GUIDANCE DOCUMENTS:
    A. THE CORPS OF ENGINEERS FEDERAL MANUAL FOR IDENTIFYING AND DELINEATING JURISDICTIONAL WETLANDS.
    B. THE NORTH CENTRAL & NORTHEAST REGIONAL SUPPLEMENT TO THE FEDERAL MANUAL.
    C. THE CURRENT VERSION OF THE FIELD INDICATORS FOR IDENTIFYING HYDRIC SOILS IN NEW ENGLAND, AS PUBLISHED BY THE NEW ENGLAND INTERSTATE WATER POLLUTION CONTROL COMMISSION AND/OR THE CURRENT VERSION OF THE FIELD INDICATORS OF HYDRIC SOILS IN THE UNITED STATES, AS PUBLISHED BY THE USDA, NRCS, AS APPROPRIATE.
    D. THE CURRENT NATIONAL LIST OF PLANT SPECIES THAT OCCUR IN WETLANDS, AS PUBLISHED BY THE US FISH AND WILDLIFE SERVICE.
12. THIS PLAN IS THE RESULT OF A CLOSED TRAVERSE WITH A RAW, UNADJUSTED LINEAR ERROR OF CLOSURE GREATER THAN 1 IN 15,000.
13. ALL BOUNDARY LINES PERTINENT TO THE DEVELOPMENT SHOW IN THIS PLAN SET HAVE BEEN SURVEYED BY THIS OFFICE. ALL BOUNDARY LINES NOT ANNOTATED WITH BEARING AND DISTANCES ARE PER CITY TAX MAPS, AND SHALL BE CONSIDERED APPROXIMATE.
14. SURVEY TIE LINES SHOWN HEREON ARE NOT BOUNDARY LINES. THEY SHOULD ONLY BE USED TO LOCATE THE PARCEL SURVEYED FROM THE FOUND MONUMENTS SHOWN AND LOCATED BY THIS SURVEY.
15. MAP 297 LOT 10 FIRST CONVEYED IN 1955 (BOOK 1363 PAGE 229) AS LOT 28 ON "SUBDIVISION PLAT OF SOUTHSIDE MANOR." LOT 28 IS BOUNDED NORTHEASTERLY BY EDGEWOOD ROAD, PER DEED DESCRIPTION. THE DESCRIPTION OF THIS LOT DOES NOT CORRESPOND TO THE LOTS SHOWN ON PLAN REFERENCE 1. NO OTHER PLANS OF SOUTHSIDE MANOR HAVE BEEN FOUND RECORDED AT R.C.R.D. A WIDTH OF 35' WAS ASSUMED FOR EDGEWOOD ROAD, TO BE CONSISTENT WITH THE RECORDED PLAN.

CERTIFICATION:

PURSUANT TO RSA 676:18-III AND RSA 672:14

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.

I CERTIFY THAT THIS PLAT WAS PREPARED UNDER MY DIRECT SUPERVISION, THAT IT IS THE RESULT OF A FIELD SURVEY BY THIS OFFICE AND HAS AN UNADJUSTED LINEAR ERROR OF CLOSURE THAT EXCEED BOTH THE MINIMUM OF 1:10,000 AS DEFINED IN SECTION 503.04 OF THE NEW HAMPSHIRE CODE OF ADMINISTRATIVE RULES AND THE MINIMUM OF 1:15,000 AS DEFINED IN SECTION 4.2 OF THE N.H.L.S.A. ETHICS AND STANDARDS.

THIS SURVEY CONFORMS TO A CATEGORY 1 CONDITION 1 SURVEY AS DEFINED IN SECTION 4.1 OF THE N.H.L.S.A. ETHICS AND STANDARDS.

STATE OF NEW HAMPSHIRE LICENSED LAND SURVEYOR No. 1030 MATTHEW J. SALVUCCI
SIGNATURE

5/17/21

MATTHEW J. SALVUCCI, LLS 1030 DATE:
ON BEHALF OF JONES & BEACH ENGINEERS, INC.

Design: JAC	Draft: LAZ	Date: 3/3/21
Checked: JAC	Scale: AS SHOWN	Project No.: 20737
Drawing Name: 20737-PLAN.dwg		

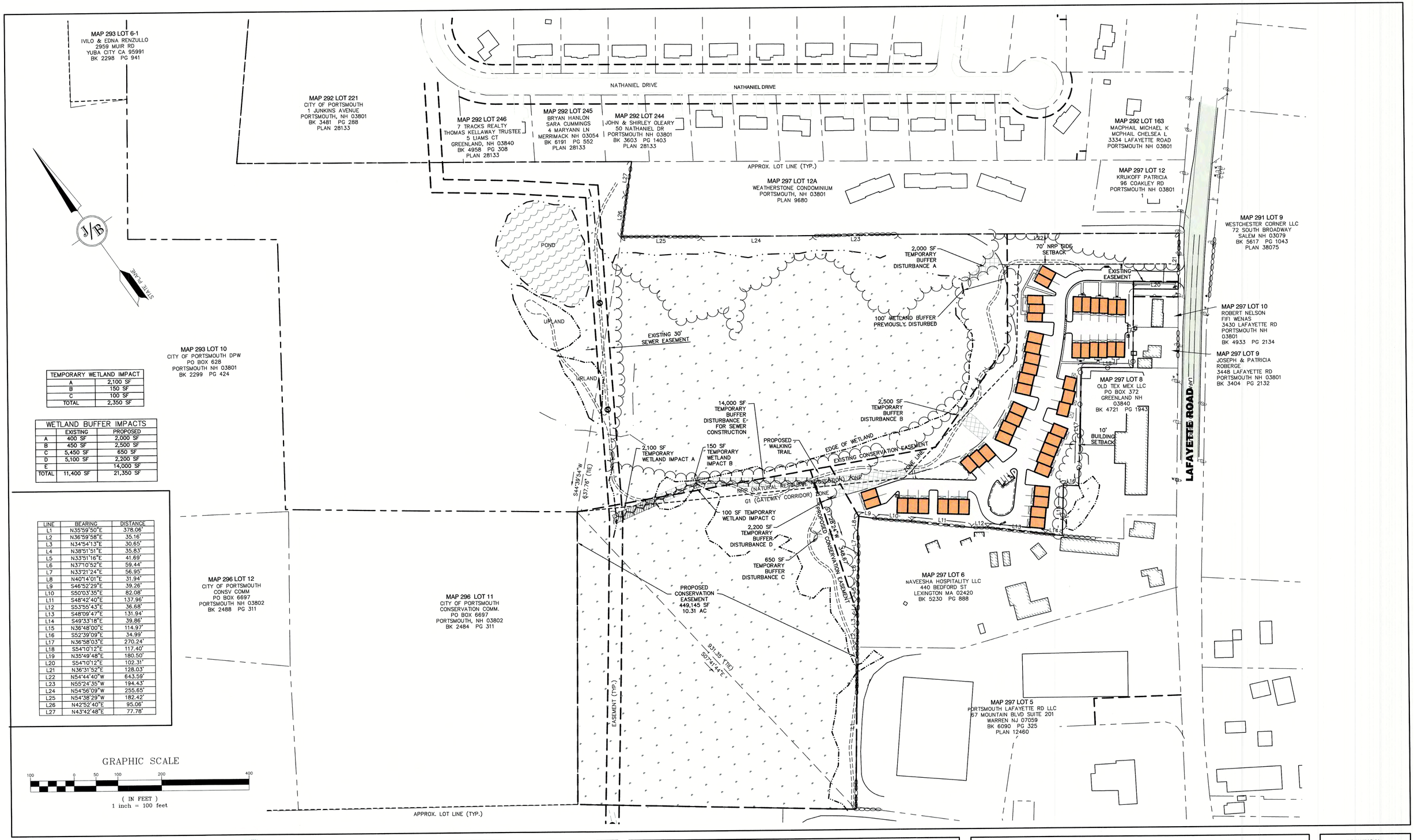
THIS PLAN SHALL NOT BE MODIFIED WITHOUT WRITTEN PERMISSION FROM JONES & BEACH ENGINEERS, INC. (JBE). ANY ALTERATIONS, AUTHORIZED OR OTHERWISE, SHALL BE AT THE USER'S SOLE RISK AND WITHOUT LIABILITY TO JBE.

REV.	DATE	REVISION	BY
5	5/5/21	REVISIONS	LAZ
4	3/18/21	ADDED DETAIL	LAZ
3	3/3/21	ADDED SURVEY INFO	LAZ
2	1/6/21	MINOR REVISIONS	DJM
1	11/23/20	REVISED PER CLIENT	DJM

Designed and Produced in NH
Jones & Beach Engineers, Inc.
Civil Engineering Services
85 Portsmouth Ave.
PO Box 219
Stratham, NH 03885
603-772-4746
FAX: 603-772-0227
E-MAIL: JBE@JONESANDBEACH.COM

Plan Name:	EXISTING CONDITIONS PLAN
Project:	3400 LAFAYETTE ROAD PORTSMOUTH, NH
Owner of Record:	RICCI CONSTRUCTION CO., INC. 225 BANFIELD ROAD, PORTSMOUTH, NH 03801 BK 1930 PG 0229

DRAWING No.
C1
SHEET 5 OF 25
JBE PROJECT NO. 20737



TEMPORARY WETLAND IMPACT	
A	2,100 SF
B	150 SF
C	100 SF
TOTAL	2,350 SF

WETLAND BUFFER IMPACTS		
	EXISTING	PROPOSED
A	400 SF	2,000 SF
B	450 SF	2,500 SF
C	5,450 SF	650 SF
D	5,100 SF	2,200 SF
E		14,000 SF
TOTAL	11,400 SF	21,350 SF

LINE	BEARING	DISTANCE
L1	N35°59'50"E	378.06'
L2	N36°59'58"E	35.16'
L3	N34°54'13"E	30.65'
L4	N38°51'51"E	35.83'
L5	N33°51'16"E	41.69'
L6	N37°10'52"E	59.44'
L7	N33°21'24"E	56.95'
L8	N40°14'01"E	31.94'
L9	S46°52'29"E	39.26'
L10	S50°03'35"E	82.08'
L11	S48°42'40"E	137.96'
L12	S53°55'43"E	36.68'
L13	S48°09'47"E	131.94'
L14	S49°33'18"E	39.86'
L15	N36°48'00"E	114.97'
L16	S52°39'09"E	34.99'
L17	N36°58'03"E	270.24'
L18	S54°10'12"E	117.40'
L19	N35°49'48"E	180.50'
L20	S54°10'12"E	102.31'
L21	N36°31'52"E	128.03'
L22	N54°44'40"W	643.59'
L23	N55°24'35"W	194.43'
L24	N54°56'09"W	255.65'
L25	N54°38'29"W	182.42'
L26	N42°52'40"E	95.06'
L27	N43°42'48"E	77.78'

Design: JAC	Draft: LAZ	Date: 3/3/21
Checked: JAC	Scale: AS SHOWN	Project No.: 20737
Drawing Name: 20737-PLAN.dwg		

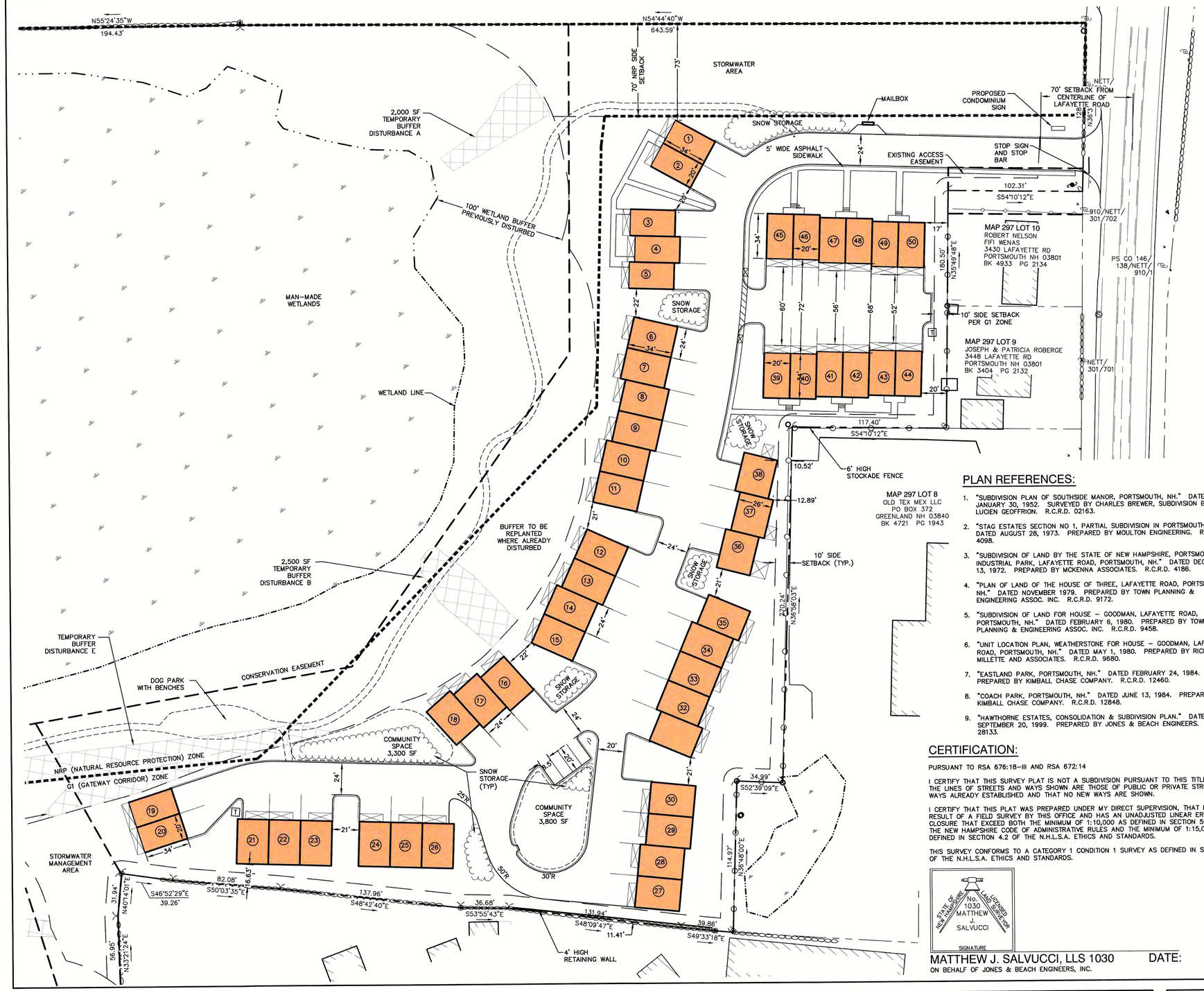
STATE OF NEW HAMPSHIRE
MICHAEL J. KERIVAN No. 9646 LICENSED PROFESSIONAL ENGINEER
5/7/2021

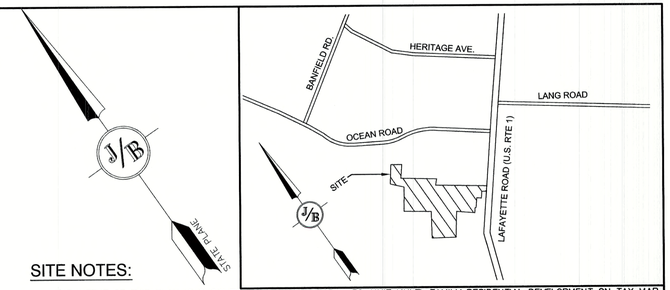
REV.	DATE	REVISION	BY
5	5/5/21	REVISIONS	LAZ
4	3/18/21	ADDED DETAIL	LAZ
3	3/3/21	ADDED SURVEY INFO	LAZ
2	1/6/21	MINOR REVISIONS	DJM
1	11/23/20	REVISED PER CLIENT	DJM

Designed and Produced in NH
J/B Jones & Beach Engineers, Inc.
Civil Engineering Services
85 Portsmouth Ave.
PO Box 219
Stratham, NH 03885
603-772-4746
FAX: 603-772-0227
E-MAIL: JBE@JONESANDBEACH.COM

Plan Name:	OVERVIEW SITE PLAN
Project:	3400 LAFAYETTE ROAD PORTSMOUTH, NH
Owner of Record:	RICCI CONSTRUCTION CO., INC. 225 BANFIELD ROAD, PORTSMOUTH, NH 03801 BK 1930 PG 0229

DRAWING No.
OVR
SHEET 6 OF 25
JBE PROJECT NO. 20737





SITE NOTES:

1. THE INTENT OF THIS PLAN IS SHOW THE SITE LAYOUT FOR A 50-UNIT MULTI-FAMILY RESIDENTIAL DEVELOPMENT ON TAX MAP 297 LOT 11.

2. ZONING DISTRICT: GATEWAY CORRIDOR (G1), USE: GATEWAY TOWNHOUSE
   LOT AREA MINIMUM = NO REQUIREMENT FOUND
   LOT FRONTAGE MINIMUM = 100'
   BUILDING SETBACKS (MINIMUM):
   FRONT SETBACK = 70' FROM CENTERLINE OF LAFAYETTE ROAD
   SIDE SETBACK = 10'
   REAR SETBACK = 15'
   WETLAND SETBACK = 100'
   MAX. BUILDING HEIGHT = 35'
   MIN. OPEN SPACE = 20%
   MAX. BUILDING COVERAGE = 50%
   AREA OF LOT WITHIN G1 DISTRICT = 643,867 S.F. ±
   OPEN SPACE PROPOSED = 540,347 S.F. = 83.9% ± WITHIN G1 DISTRICT
   BUILDING COVERAGE PROPOSED = 43,716 S.F. = 6.8% ± WITHIN G1 DISTRICT

   ZONING DISTRICT: NATURAL RESOURCE PROTECTION (NRP)
   LOT AREA MINIMUM = NO REQUIREMENT
   LOT FRONTAGE MINIMUM = NO REQUIREMENT
   BUILDING SETBACKS (MINIMUM):
   FRONT SETBACK = 70'
   SIDE SETBACK = 70'
   REAR SETBACK = 70'
   MAX BUILDING HEIGHT = 35'
   MIN. OPEN SPACE = 95%
   MAX. BUILDING COVERAGE = NO REQUIREMENT
   AREA OF LOT WITHIN NRP DISTRICT = 1,287,854 S.F. ±
   OPEN SPACE PROPOSED = 1,287,854 S.F. = 100% WITHIN NRP DISTRICT

3. PARKING CALCULATIONS:
   1.3 SPACES PER UNIT > 750 S.F.
   TOTAL NUMBER OF UNITS = 50. EACH UNIT HAS 2 SPACES IN GARAGE.
   4 OUTDOOR PARKING SPACES PROVIDED.
   TOTAL SPACES REQUIRED = 65, TOTAL SPACES PROVIDED = 104

4. PAVEMENT AREA 59,780 SF = 3% OF SITE

5. THIS PLAN SET HAS BEEN PREPARED BY JONES & BEACH ENGINEERS, INC., FOR MUNICIPAL AND STATE APPROVALS AND FOR CONSTRUCTION BASED ON DATA OBTAINED FROM ON-SITE FIELD SURVEY AND EXISTING MUNICIPAL RECORDS. THROUGHOUT THE CONSTRUCTION PROCESS, THE CONTRACTOR SHALL INFORM THE ENGINEER IMMEDIATELY OF ANY FIELD DISCREPANCY FROM DATA AS SHOWN ON THE DESIGN PLANS, INCLUDING ANY UNFORESEEN CONDITIONS, SUBSURFACE OR OTHERWISE, FOR EVALUATION AND RECOMMENDATIONS. ANY CONTRADICTION BETWEEN ITEMS ON THIS PLAN/PLAN SET, OR BETWEEN THE PLANS AND ON-SITE CONDITIONS, MUST BE RESOLVED BEFORE RELATED CONSTRUCTION HAS BEEN INITIATED. CONTRACTOR TO ALWAYS CONTACT DIG SAFE PRIOR TO DIGGING ONSITE OR OFFSITE TO ENSURE SAFETY AND OBEY THE LAW.

6. ALL CONSTRUCTION SHALL CONFORM TO CITY STANDARDS AND REGULATIONS, AND NHDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, WHICHEVER IS MORE STRINGENT.

7. SUBJECT PROPERTY IS NOT LOCATED WITHIN FEDERALLY DESIGNATED 100 YEAR FLOOD HAZARD ZONE. REFERENCE FEMA COMMUNITY PANEL NO. 33015C0270E, DATED MAY 17, 2005.

8. LANDOWNERS ARE RESPONSIBLE FOR COMPLYING WITH ALL APPLICABLE LOCAL, STATE AND FEDERAL WETLAND REGULATIONS, INCLUDING PERMITTING REQUIRED UNDER THESE REGULATIONS.

9. ALL CONSTRUCTION ACTIVITIES SHALL BE PERFORMED IN ACCORDANCE WITH THE STORMWATER POLLUTION PREVENTION PLAN (S.W.P.P.P.). THIS DOCUMENT IS TO BE KEPT ONSITE AT ALL TIMES AND UPDATED AS REQUIRED.

10. PRIOR TO THE START OF CONSTRUCTION, THE CONTRACTOR SHALL COORDINATE WITH THE ENGINEER, ARCHITECT AND/OR OWNER, IN ORDER TO OBTAIN AND/OR PAY ALL THE NECESSARY LOCAL PERMITS, FEES AND BONDS.

11. ALL PROPOSED SIGNAGE SHALL CONFORM WITH THE CITY ZONING REGULATIONS, UNLESS A VARIANCE IS OTHERWISE REQUESTED.

12. ALL SIGNAGE AND PAVEMENT MARKINGS SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (M.U.T.C.D.) AND NHDOT STANDARDS AND SPECIFICATIONS (NON-REFLECTORIZED PAVEMENT MARKINGS), UNLESS OTHERWISE NOTED.

13. ALL PARKING STALLS SHALL BE SEPARATED USING 4" WIDE SOLID STRIPES. STRIPING SHALL HAVE TWO COATS OF PAINT, ALKYD BASIN SYNTHETIC RESIN, FEDERAL SPECIFICATION TTP-115 TYPE 1, IN A COLOR OF WHITE.

14. ALL STOP BARS SHALL BE 18" IN WIDTH IN A COLOR OF WHITE; ALL TRAFFIC ARROWS SHALL BE PAINTED IN A COLOR OF WHITE.

15. ALL BUILDING DIMENSIONS SHALL BE VERIFIED WITH THE ARCHITECTURAL AND STRUCTURAL PLANS PROVIDED BY THE OWNER. ANY DISCREPANCIES SHOULD BE BROUGHT TO THE ATTENTION OF THE ENGINEER AND OWNER PRIOR TO THE START OF CONSTRUCTION. BUILDING DIMENSIONS AND AREAS TO BE TO OUTSIDE OF MASONRY, UNLESS OTHERWISE NOTED.

16. ALL CONSTRUCTION ACTIVITIES SHALL CONFORM TO LABOR OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA) RULES AND REGULATIONS.

17. ALL CONDITIONS ON THIS PLAN SHALL REMAIN IN EFFECT IN PERPETUITY PURSUANT TO THE REQUREMENTS OF THE SITE PLAN REVIEW REGULATIONS.

18. THIS SITE PLAN SHALL BE RECORDED IN THE ROCKINGHAM COUNTY REGISTY OF DEEDS.

19. 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 THE SITE PLAN WITHOUT THE EXPRESS APPROVAL OF THE PORTSMOUTH PLANNING DIRECTOR.

20. EACH UNIT TO HAVE TRASH CANS TO BE PICKED UP BY A PRIVATE TRASH HAULER.

21. SNOW TO BE TRUCKED OFFSITE WHEN DESIGNATED SNOW STORAGE AREA ARE FULL.

22. THE FOLLOWING STATE PERMITS ARE REQUIRED FOR THIS PROJECT:
    NHDES ALTERNATION OF TERRAIN PERMIT
    NHDES WETLAND PERMIT
    NHDES SEWER CONNECTION PERMIT
    NHDOT DRIVEWAY PERMIT

PLAN REFERENCES:

1. "SUBDIVISION PLAN OF SOUTHSIDE MANOR, PORTSMOUTH, NH." DATED JANUARY 30, 1952. SURVEYED BY CHARLES BREWER, SUBDIVISION BY LUCIEN GEOFFRION. R.C.R.D. 02163.
2. "STAG ESTATES SECTION NO 1, PARTIAL SUBDIVISION IN PORTSMOUTH NH." DATED AUGUST 28, 1973. PREPARED BY MOULTON ENGINEERING. R.C.R.D. 4098.
3. "SUBDIVISION OF LAND BY THE STATE OF NEW HAMPSHIRE, PORTSMOUTH INDUSTRIAL PARK, LAFAYETTE ROAD, PORTSMOUTH, NH." DATED DECEMBER 13, 1972. PREPARED BY MCKENNA ASSOCIATES. R.C.R.D. 4186.
4. "PLAN OF LAND OF THE HOUSE OF THREE, LAFAYETTE ROAD, PORTSMOUTH, NH." DATED NOVEMBER 1979. PREPARED BY TOWN PLANNING & ENGINEERING ASSOC. INC. R.C.R.D. 9172.
5. "SUBDIVISION OF LAND FOR HOUSE – GOODMAN, LAFAYETTE ROAD, PORTSMOUTH, NH." DATED FEBRUARY 6, 1980. PREPARED BY TOWN PLANNING & ENGINEERING ASSOC. INC. R.C.R.D. 9458.
6. "UNIT LOCATION PLAN, WEATHERSTONE FOR HOUSE – GOODMAN, LAFAYETTE ROAD, PORTSMOUTH, NH." DATED MAY 1, 1980. PREPARED BY RICHARD P. MILLETTE AND ASSOCIATES. R.C.R.D. 9680.
7. "EASTLAND PARK, PORTSMOUTH, NH." DATED FEBRUARY 24, 1984. PREPARED BY KIMBALL CHASE COMPANY. R.C.R.D. 12460.
8. "COACH PARK, PORTSMOUTH, NH." DATED JUNE 13, 1984. PREPARED BY KIMBALL CHASE COMPANY. R.C.R.D. 12848.
9. "HAWTHORNE ESTATES, CONSOLIDATION & SUBDIVISION PLAN." DATED SEPTEMBER 20, 1999. PREPARED BY JONES & BEACH ENGINEERS. R.C.R.D. 28133.

CERTIFICATION:

PURSUANT TO RSA 676:18-III AND RSA 672:14

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.

I CERTIFY THAT THIS PLAT WAS PREPARED UNDER MY DIRECT SUPERVISION, THAT IT IS THE RESULT OF A FIELD SURVEY BY THIS OFFICE AND HAS AN UNADJUSTED LINEAR ERROR OF CLOSURE THAT EXCEED BOTH THE MINIMUM OF 1:10,000 AS DEFINED IN SECTION 503.04 OF THE NEW HAMPSHIRE CODE OF ADMINISTRATIVE RULES AND THE MINIMUM OF 1:15,000 AS DEFINED IN SECTION 4.2 OF THE N.H.L.S.A. ETHICS AND STANDARDS.

THIS SURVEY CONFORMS TO A CATEGORY 1 CONDITION 1 SURVEY AS DEFINED IN SECTION 4.1 OF THE N.H.L.S.A. ETHICS AND STANDARDS.

STATE OF NEW HAMPSHIRE No. 1030 MATTHEW J. SALVUCCI LICENSED LAND SURVEYOR
SIGNATURE

MATTHEW J. SALVUCCI, LLS 1030 DATE:
ON BEHALF OF JONES & BEACH ENGINEERS, INC.

GRAPHIC SCALE
40 0 20 40 80 160
(IN FEET)
1 inch = 40 feet

PROJECT PARCEL
CITY OF PORTSMOUTH
TAX MAP 297, LOT 11

TOTAL LOT AREA
1,931,721 SQ. FT. ±
44.35 ACRES ±

Design: JAC	Draft: LAZ	Date: 3/3/21
Checked: JAC	Scale: AS SHOWN	Project No.: 20737
Drawing Name: 20737-PLAN.dwg		

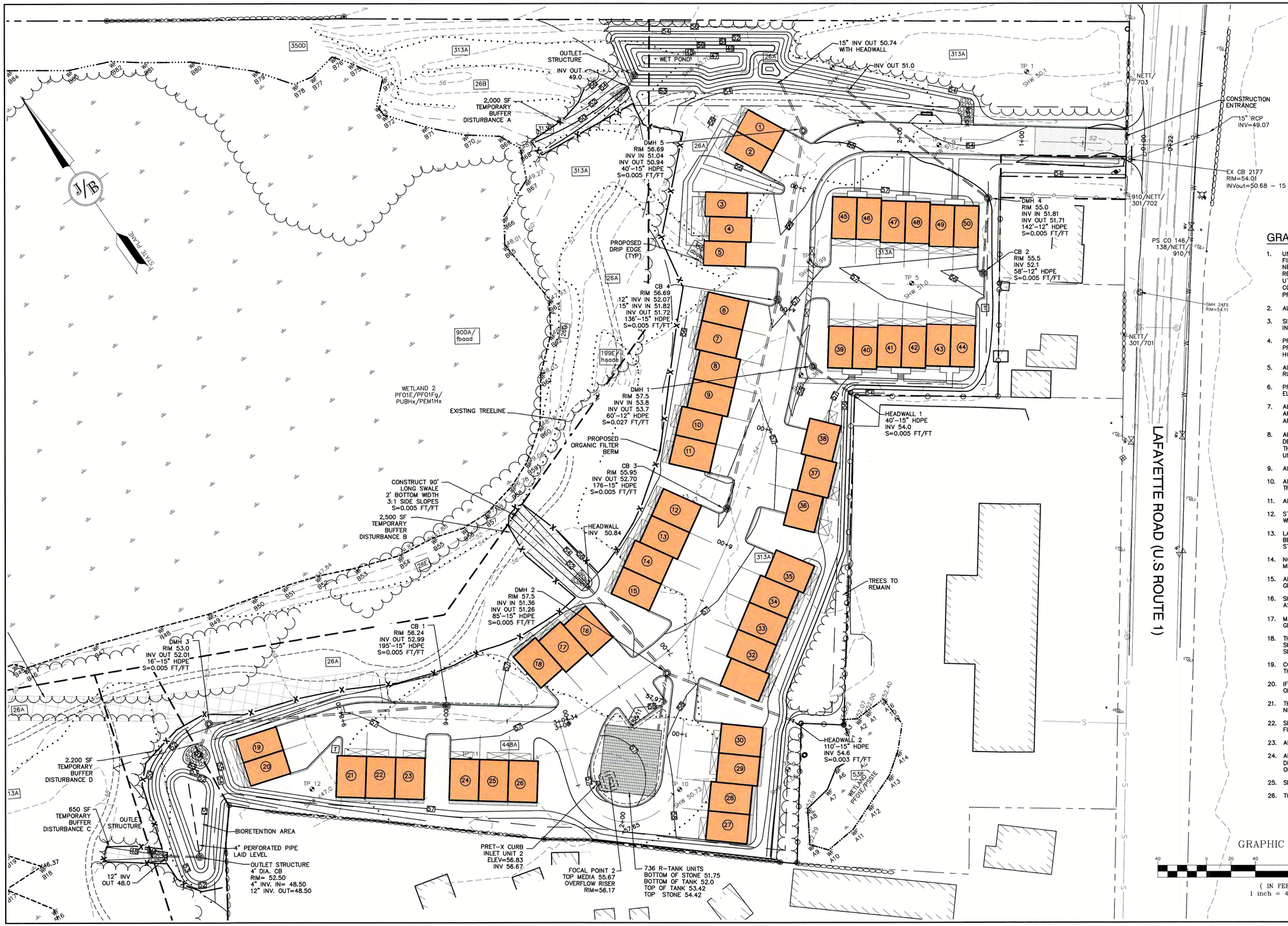
STATE OF NEW HAMPSHIRE MICHAEL J. KERVAN No. 9846 LICENSED PROFESSIONAL ENGINEER 5/17/2021

REV.	DATE	REVISION	BY
5	5/5/21	REVISIONS	LAZ
4	3/18/21	ADDED DETAIL	LAZ
3	3/3/21	ADDED SURVEY INFO	LAZ
2	1/6/21	MINOR REVISIONS	DJM
1	11/23/20	REVISED PER CLIENT	DJM

Designed and Produced in NH
Jones & Beach Engineers, Inc.
85 Portsmouth Ave.
PO Box 219
Stratham, NH 03885
Civil Engineering Services
603-772-4746
FAX: 603-772-0227
E-MAIL: JBE@JONESANDBEACH.COM

Plan Name: SITE PLAN
Project: 3400 LAFAYETTE ROAD PORTSMOUTH, NH
Owner of Record: RICCI CONSTRUCTION CO., INC. 225 BANFIELD ROAD, PORTSMOUTH, NH 03801 BK 1930 PG 0229

DRAWING No.
C2
SHEET 7 OF 25
JBE PROJECT NO. 20737



GRADING AND DRAINAGE NOTES:

1. UNDERGROUND FACILITIES, UTILITIES AND STRUCTURES HAVE BEEN PLOTTED FROM FIELD OBSERVATION AND THEIR LOCATION MUST BE CONSIDERED APPROXIMATE ONLY. NEITHER JONES & BEACH ENGINEERS, INC., NOR ANY OF THEIR EMPLOYEES TAKE RESPONSIBILITY FOR THE LOCATION OF ANY UNDERGROUND STRUCTURES AND/OR UTILITIES NOT SHOWN THAT MAY EXIST. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO HAVE ALL UNDERGROUND STRUCTURES AND/OR UTILITIES LOCATED PRIOR TO EXCAVATION WORK BY CALLING 888-DIG-SAFE (888-344-7233).
2. ALL BENCHMARKS AND TOPOGRAPHY SHOULD BE FIELD VERIFIED BY THE CONTRACTOR.
3. SITE GRADING SHALL NOT PROCEED UNTIL EROSION CONTROL MEASURES HAVE BEEN INSTALLED. SEE CONSTRUCTION SEQUENCE ON SHEET E1.
4. PRIOR TO THE START OF CONSTRUCTION, THE CONTRACTOR IS REQUIRED TO HAVE THE PROJECT'S LAND SURVEYOR STAKE OR FLAG CLEARING LIMITS. A MINIMUM OF 48 HOURS NOTICE IS REQUIRED.
5. ALL SWALES AND DETENTION PONDS ARE TO BE STABILIZED PRIOR TO DIRECTING RUNOFF TO THEM.
6. PROPOSED RIM ELEVATIONS OF DRAINAGE STRUCTURES ARE APPROXIMATE. FINAL ELEVATIONS ARE TO BE SET FLUSH WITH FINISH GRADES.
7. ALL SWALES AND ANY SLOPES GREATER THAN 3:1 SHALL BE STABILIZED WITH NORTH AMERICAN GREEN SC150BN EROSION CONTROL BLANKETS (OR AN EQUIVALENT APPROVED IN WRITING BY THE ENGINEER), UNLESS OTHERWISE SPECIFIED.
8. ALL DRAINAGE AND SANITARY STRUCTURE INTERIOR DIAMETERS (4' MIN) SHALL BE DETERMINED BY THE MANUFACTURER BASED ON THE PIPE CONFIGURATIONS SHOWN ON THESE PLANS. CATCH BASINS SHALL HAVE 3' DEEP SUMPS WITH GREASE HOODS, UNLESS OTHERWISE NOTED.
9. ALL DRAINAGE STRUCTURES SHALL BE PRECAST, UNLESS OTHERWISE SPECIFIED.
10. ALL DRAINAGE STRUCTURES AND STORM SEWER PIPES SHALL MEET HEAVY DUTY TRAFFIC H20 LOADING AND SHALL BE INSTALLED ACCORDINGLY.
11. ALL DRAINAGE PIPE SHALL BE NON-PERFORATED ADS N-12 OR APPROVED EQUAL.
12. STONE INLET PROTECTION SHALL BE PLACED AT ALL CATCH BASINS. SEE DETAIL WITHIN THE DETAIL SHEETS.
13. LAND DISTURBING ACTIVITIES SHALL NOT COMMENCE UNTIL APPROVAL TO DO SO HAS BEEN RECEIVED BY ALL GOVERNING AUTHORITIES. THE GENERAL CONTRACTOR SHALL STRICTLY ADHERE TO THE EPA SWPPP DURING CONSTRUCTION OPERATIONS.
14. NO LAND CLEARING OR GRADING SHALL BEGIN UNTIL ALL EROSION CONTROL MEASURES HAVE BEEN INSTALLED.
15. ALL EXPOSED AREAS SHALL BE SEEDED AS SPECIFIED WITHIN 3 DAYS OF FINAL GRADING.
16. SHOULD CONSTRUCTION STOP FOR LONGER THAN 3 DAYS, THE SITE SHALL BE SEEDED AS SPECIFIED.
17. MAINTAIN EROSION CONTROL MEASURES AFTER EACH RAIN EVENT OF 0.5" OR GREATER IN A 24 HOUR PERIOD AND AT LEAST ONCE A WEEK.
18. THIS PLAN SHALL NOT BE CONSIDERED ALL INCLUSIVE, AS THE GENERAL CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PREVENT SEDIMENT FROM LEAVING THE SITE.
19. CONSTRUCTION VEHICLES SHALL UTILIZE THE STABILIZED CONSTRUCTION ENTRANCE TO THE EXTENT POSSIBLE THROUGHOUT CONSTRUCTION.
20. IF INSTALLATION OF STORM DRAINAGE SYSTEM SHOULD BE INTERRUPTED BY WEATHER OR NIGHTFALL, THE PIPE ENDS SHALL BE COVERED WITH FILTER FABRIC.
21. THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE TO TAKE WHATEVER MEANS NECESSARY TO ESTABLISH PERMANENT SOIL STABILIZATION.
22. SEDIMENT SHALL BE REMOVED FROM ALL SEDIMENT BASINS BEFORE THEY ARE 25% FULL.
23. ALL WORK SHALL BE DONE IN STRICT ACCORDANCE WITH PROJECT SPECIFICATIONS.
24. ADDITIONAL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE INSTALLED, IF DEEMED NECESSARY BY ON-SITE INSPECTION BY ENGINEER AND/OR REGULATORY OFFICIALS.
25. SEE ALSO EROSION AND SEDIMENT CONTROL SPECIFICATIONS ON SHEET E1.
26. TOTAL DISTURBANCE = 210,500 SF = 4.8 AC

GRAPHIC SCALE
40 0 20 40 80 160
(IN FEET)
1 inch = 40 feet

PROJECT PARCEL
CITY OF PORTSMOUTH
TAX MAP 297, LOT 11

TOTAL LOT AREA
1,931,721 SQ. FT. ±
44.35 ACRES ±

Design: JAC	Draft: LAZ	Date: 3/3/21
Checked: JAC	Scale: AS SHOWN	Project No.: 20737
Drawing Name: 20737-PLAN.dwg		

STATE OF NEW HAMPSHIRE
MICHAEL J. KERIVAN
No. 9846
LICENSED PROFESSIONAL ENGINEER
5/17/21

REV.	DATE	REVISION	BY
5	5/5/21	REVISIONS	LAZ
4	3/18/21	ADDED DETAIL	LAZ
3	3/3/21	ADDED SURVEY INFO	LAZ
2	1/6/21	MINOR REVISIONS	DJM
1	11/23/20	REVISED PER CLIENT	DJM

Designed and Produced in NH
J/B Jones & Beach Engineers, Inc.
85 Portsmouth Ave.
PO Box 219
Stratham, NH 03885
Civil Engineering Services
603-772-4746
FAX: 603-772-0227
E-MAIL: JBE@JONESANDBEACH.COM

Plan Name: GRADING AND DRAINAGE PLAN
Project: 3400 LAFAYETTE ROAD
PORTSMOUTH, NH
Owner of Record: RICCI CONSTRUCTION CO., INC.
225 BANFIELD ROAD, PORTSMOUTH, NH 03801 BK 1930 PG 0229

DRAWING No.
C3
SHEET 8 OF 25
JBE PROJECT NO. 20737

UTILITY NOTES:

1. PRIOR TO THE START OF CONSTRUCTION, THE CONTRACTOR SHALL COORDINATE WITH THE ENGINEER, ARCHITECT AND/OR OWNER, IN ORDER TO OBTAIN AND/OR PAY ALL THE NECESSARY LOCAL PERMITS, CONNECTION FEES AND BONDS.
2. THE CONTRACTOR SHALL PROVIDE A MINIMUM NOTICE OF FOURTEEN (14) DAYS TO ALL CORPORATIONS, COMPANIES AND/OR LOCAL AUTHORITIES OWNING OR HAVING A JURISDICTION OVER UTILITIES RUNNING TO, THROUGH OR ACROSS PROJECT AREAS PRIOR TO DEMOLITION AND/OR CONSTRUCTION ACTIVITIES.
3. THE LOCATION, SIZE, DEPTH AND SPECIFICATIONS FOR CONSTRUCTION OF PROPOSED PRIVATE UTILITY SERVICES SHALL BE TO THE STANDARDS AND REQUIREMENTS OF THE RESPECTIVE UTILITY COMPANY (ELECTRIC, TELEPHONE, CABLE TELEVISION, FIRE ALARM, GAS, WATER, AND SEWER).
4. A PRECONSTRUCTION MEETING SHALL BE HELD WITH THE OWNER, ENGINEER, ARCHITECT, CONTRACTOR, LOCAL OFFICIALS, AND ALL PROJECT-RELATED UTILITY COMPANIES (PUBLIC AND PRIVATE) PRIOR TO START OF CONSTRUCTION.
5. ALL CONSTRUCTION SHALL CONFORM TO THE CITY STANDARDS AND REGULATIONS, AND NHDES STANDARDS AND SPECIFICATIONS, WHICHEVER ARE MORE STRINGENT, UNLESS OTHERWISE SPECIFIED.
6. ALL CONSTRUCTION ACTIVITIES SHALL CONFORM TO LABOR OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA) RULES AND REGULATIONS.
7. BUILDING TO BE SERVICED BY UNDERGROUND UTILITIES UNLESS OTHERWISE NOTED.
8. THE CONTRACTOR IS TO VERIFY LOCATION AND DEPTH OF ALL EXISTING UTILITY STUBS PRIOR TO CONSTRUCTION AND DISCONNECT ALL EXISTING SERVICE CONNECTIONS AT THEIR RESPECTIVE MAINS IN ACCORDANCE WITH THE RESPECTIVE UTILITY COMPANY'S STANDARDS AND SPECIFICATIONS. ENGINEER TO BE NOTIFIED.
9. AS-BUILT PLANS SHALL BE SUBMITTED TO DEPARTMENT OF PUBLIC WORKS.
10. INVERTS AND SHELVES: MANHOLES SHALL HAVE A BRICK PAVED SHELF AND INVERT, CONSTRUCTED TO CONFORM TO THE SIZE OF PIPE AND FLOW AT CHANGES IN DIRECTION. THE INVERTS SHALL BE LAID OUT IN CURVES OF THE LONGEST RADIUS POSSIBLE TANGENT TO THE CENTER LINE OF THE SEWER PIPES. SHELVES SHALL BE CONSTRUCTED TO THE ELEVATION OF THE THROUGH CHANNEL UNDERLAYMENT OF INVERT, AND SHELF SHALL CONSIST OF BRICK MASONRY.
11. FRAMES AND COVERS: MANHOLE FRAMES AND COVERS SHALL BE OF HEAVY DUTY DESIGN AND PROVIDE A 30 INCH DIA, CLEAR OPENING. THE WORD "SEWER" OR DRAIN" SHALL BE CAST INTO THE CENTER OF THE UPPER FACE OF EACH COVER WITH RAISED, 3" LETTERS.
12. SHALLOW MANHOLE: IN LIEU OF A CONE SECTION, WHEN MANHOLE DEPTH IS LESS THAN 6 FEET, A REINFORCED CONCRETE SLAB COVER MAY BE USED HAVING AN ECCENTRIC ENTRANCE OPENING AND CAPABLE OF SUPPORTING H20 LOADS.
13. CONTRACTOR SHALL PLACE 2" WIDE METAL WIRE IMPREGNATED RED PLASTIC WARNING TAPE OVER ENTIRE LENGTH OF ALL GRAVITY SEWERS, SERVICES, AND FORCE MAINS.
14. SANITARY SEWER FLOW CALCULATIONS:
    50 – THREE BEDROOM UNITS @ 150 GPD/BEDROOM =
    TOTAL FLOW = 22,500 GPD
15. ALL SANITARY STRUCTURE INTERIOR DIAMETERS (4' MIN) SHALL BE DETERMINED BY THE MANUFACTURER BASED ON THE PIPE CONFIGURATIONS SHOWN ON THESE PLANS.
16. PROPOSED RIM ELEVATIONS OF DRAINAGE AND SANITARY MANHOLES ARE APPROXIMATE. FINAL ELEVATIONS ARE TO BE SET FLUSH WITH FINISH GRADES. ADJUST ALL OTHER RIM ELEVATIONS OF MANHOLES, WATER GATES, GAS GATES AND OTHER UTILITIES TO FINISH GRADE AS SHOWN ON THE GRADING AND DRAINAGE PLAN.
17. ALL WATER MAINS AND SERVICE PIPES SHALL HAVE A MINIMUM 12" VERTICAL AND 24" HORIZONTAL SEPARATION TO MANHOLES, OR CONTRACTOR SHALL INSTALL BOARD INSULATION FOR FREEZING PROTECTION.
18. WATER MAINS SHALL BE HYDROSTATICALLY PRESSURE TESTED FOR LEAKAGE PRIOR TO ACCEPTANCE. WATERMAINS SHALL BE TESTED AT 1.5 TIMES THE WORKING PRESSURE OR 150 PSI, WHICH EVER IS GREATER. TESTING SHALL BE CONDUCTED IN ACCORDANCE WITH SECTION 4 OF AWWA STANDARD C 600. WATERMAINS SHALL BE DISINFECTED AFTER THE ACCEPTANCE OF THE PRESSURE AND LEAKAGE TESTS ACCORDING TO AWWA STANDARD C 651.
19. THRUST BLOCKS SHALL BE PROVIDED AT ALL BENDS, TEES, MECHANICAL JOINTS AND FIRE HYDRANTS.
20. DIMENSIONS ARE SHOWN TO CENTERLINE OF PIPE OR FITTING.
21. THE CONTRACTOR SHALL HAVE THE APPROVAL OF ALL GOVERNING AGENCIES HAVING JURISDICTION OVER FIRE PROTECTION SYSTEM PRIOR TO INSTALLATION.
22. CONTRACTOR TO FURNISH SHOP DRAWINGS FOR UTILITY RELATED ITEMS TO ENSURE CONFORMANCE WITH THE PLANS AND SPECIFICATIONS. SHOP DRAWINGS SHOULD BE SENT IN TRIPLICATE TO THE DESIGN ENGINEER FOR REVIEW AND APPROVAL PRIOR TO INSTALLATION.
23. EXISTING UTILITIES SHALL BE DIGSAFED BEFORE CONSTRUCTION.
24. ALL WATER LINES SHOULD HAVE TESTABLE BACKFLOW PREVENTERS AT THE ENTRANCE TO EACH BUILDING.
25. ALL GRAVITY SEWER PIPE, MANHOLES, AND FORCE MAINS SHALL BE TESTED ACCORDING TO NHDES STANDARDS OF DESIGN AND CONSTRUCTION FOR SEWAGE AND WASTEWATER TREATMENT FACILITIES, CHAPTER ENV-WQ 700. ADOPTED ON 10-15-14.
26. ENV-WQ 704.06 GRAVITY SEWER PIPE TESTING: GRAVITY SEWERS SHALL BE TESTED FOR WATER TIGHTNESS BY USE OF LOW-PRESSURE AIR TESTS CONFORMING WITH ASTM F1417-92(2005) OR UNI-BELL PVC PIPE ASSOCIATION UNI-B-6. LINES SHALL BE CLEANED AND VISUALLY INSPECTED AND TRUE TO LINE AND GRADE. DEFLECTION TESTS SHALL TAKE PLACE AFTER 30 DAYS FOLLOWING INSTALLATION AND THE MAXIMUM ALLOWABLE DEFLECTION OF FLEXIBLE SEWER PIPE SHALL BE 5% OF AVERAGE INSIDE DIAMETER. A RIGID BALL OR MANDREL WITH A DIAMETER OF AT LEAST 95% OF THE AVERAGE INSIDE PIPE DIAMETER SHALL BE USED FOR TESTING PIPE DEFLECTION. THE DEFLECTION TEST SHALL BE CONDUCTED WITHOUT MECHANICAL PULLING DEVICES.
27. ENV-WQ 704.17 SEWER MANHOLE TESTING: SHALL BE TESTED FOR LEAKAGE USING A VACUUM TEST PRIOR TO BACKFILLING AND PLACEMENT OF SHELVES AND INVERTS.
28. SANITARY SEWER LINES SHALL BE LOCATED AT LEAST TEN (10) FEET HORIZONTALLY FROM AN EXISTING OR PROPOSED WATER LINE. WHEN A SEWER LINE CROSSES UNDER A WATER LINE, THE SEWER PIPE JOINTS SHALL BE LOCATED AT LEAST 6 FEET HORIZONTALLY FROM THE WATERMAIN. THE SEWER LINE SHALL ALSO MAINTAIN A VERTICAL SEPARATION OF NOT LESS THAN 18 INCHES.
29. SEWERS SHALL BE BURIED TO A MINIMUM DEPTH OF 6 FEET BELOW GRADE IN ALL ROADWAY LOCATIONS, AND TO A MINIMUM DEPTH OF 4 FEET BELOW GRADE IN ALL CROSS-COUNTRY LOCATIONS. PROVIDE TWO-INCHES OF R-10 FOAM BOARD INSULATION 2-FOOT WIDE TO BE INSTALLED 6-INCHES OVER SEWER PIPE IN AREAS WHERE DEPTH IS NOT ACHIEVED. A WAIVER FROM THE DEPARTMENT OF ENVIRONMENTAL SERVICES WASTEWATER ENGINEERING BUREAU IS REQUIRED PRIOR TO INSTALLING SEWER AT LESS THAN MINIMUM COVER.
30. THE CONTRACTOR SHALL MINIMIZE THE DISRUPTIONS TO THE EXISTING SEWER FLOWS AND THOSE INTERRUPTIONS SHALL BE LIMITED TO FOUR (4) HOURS OR LESS AS DESIGNATED BY THE CITY SEWER DEPARTMENT.
31. LIGHTING CONDUIT SHALL BE SCHEDULE 40 PVC, AND SHALL BE INSTALLED IN CONFORMANCE WITH THE NATIONAL ELECTRIC CODE. CONTRACTOR SHALL PROVIDE EXCAVATION AND BACKFILL.
32. ALL TRENCHING, PIPE LAYING, AND BACKFILLING SHALL BE IN ACCORDANCE WITH FEDERAL OSHA REGULATIONS.

Design: JAC	Draft: LAZ	Date: 3/3/21
Checked: JAC	Scale: AS SHOWN	Project No.: 20737
Drawing Name: 20737-PLAN.dwg		

STATE OF NEW HAMPSHIRE — MICHAEL J. KERIVAN No. 9846 — LICENSED PROFESSIONAL ENGINEER — 5/17/2021

REV.	DATE	REVISION	BY
5	5/5/21	REVISIONS	LAZ
4	3/18/21	ADDED DETAIL	LAZ
3	3/3/21	ADDED SURVEY INFO	LAZ
2	1/6/21	MINOR REVISIONS	DJM
1	11/23/20	REVISED PER CLIENT	DJM

Designed and Produced in NH
J/B Jones & Beach Engineers, Inc.
Civil Engineering Services
85 Portsmouth Ave.
PO Box 219
Stratham, NH 03885
603-772-4746
FAX: 603-772-0227
E-MAIL: JBE@JONESANDBEACH.COM

Plan Name: UTILITY PLAN

Project: 3400 LAFAYETTE ROAD PORTSMOUTH, NH

Owner of Record: RICCI CONSTRUCTION CO., INC. 225 BANFIELD ROAD, PORTSMOUTH, NH 03801 BK 1930 PG 0229

DRAWING No. C4

SHEET 9 OF 25
JBE PROJECT NO. 20737

POND

UPLAND

UPLAND

J/B

STATE PAVE

SMH 2109
RIM=49.49

SMH 2171
RIM=46.95
INVin=40.25 – 10" VCP
INVout=40.21 – 10" VCP

2,000 SF
TEMPORARY
BUFFER
DISTURBANCE A

2,500 SF
TEMPORARY
BUFFER
DISTURBANCE B

14,000 SF
TEMPORARY
BUFFER
DISTURBANCE E
FOR SEWER
CONSTRUCTION

150 SF
TEMPORARY
WETLAND IMPACT

SMH 1

2,100 SF
TEMPORARY
WETLAND IMPACT

100 SF
TEMPORARY
WETLAND IMPACT

SMH 2

DMH 3

SMH 3

CB 1

PROPOSED
PARK AREA

SMH 4

2,200 SF
TEMPORARY
BUFFER
DISTURBANCE D

650 SF
TEMPORARY
BUFFER
DISTURBANCE C

PROPOSED
STORMWATER
POND

EX SMH

SMH 2140
RIM=45.83
INVin=39.09
INVout=39.07

PROPOSED
TRANSFORMER

CURB INLET 3
WITH FOCAL
POINT

SMH 10

SMH 11

R-TANK
SYSTEM

SMH 12

SMH 6

CB 3

DMH 2

SMH 5

GRAPHIC SCALE

40 0 20 40 80 160

(IN FEET)
1 inch = 40 feet

Design: JAC	Draft: LAZ	Date: 3/3/21
Checked: JAC	Scale: AS SHOWN	Project No.: 20737
Drawing Name: 20737-PLAN.dwg		

STATE OF NEW HAMPSHIRE
MICHAEL J. KERIVAN No. 9846 LICENSED PROFESSIONAL ENGINEER
3/17/21

REV.	DATE	REVISION	BY
5	5/5/21	REVISIONS	LAZ
4	3/18/21	ADDED DETAIL	LAZ
3	3/3/21	ADDED SURVEY INFO	LAZ
2	1/6/21	MINOR REVISIONS	DJM
1	11/23/20	REVISED PER CLIENT	DJM

Designed and Produced in NH
J/B Jones & Beach Engineers, Inc.
85 Portsmouth Ave.
PO Box 219
Stratham, NH 03885
Civil Engineering Services
603-772-4746
FAX: 603-772-0227
E-MAIL: JBE@JONESANDBEACH.COM

Plan Name:	UTILITY PLAN
Project:	3400 LAFAYETTE ROAD PORTSMOUTH, NH
Owner of Record:	RICCI CONSTRUCTION CO., INC. 225 BANFIELD ROAD, PORTSMOUTH, NH 03801 BK 1930 PG 0229

DRAWING No.

C5

SHEET 10 OF 25
JBE PROJECT NO. 20737

LIGHTING AND ELECTRICAL NOTES:

1. SITE ELECTRICAL CONTRACTOR SHALL COORDINATE LOCATION OF EASEMENTS, UNDERGROUND UTILITIES AND DRAINAGE BEFORE DRILLING POLE BASES.
2. CONTRACTOR SHALL INSTALL PROPOSED LIGHT POLES ACCORDING TO CITY REGULATIONS.
3. ALL OUTDOOR LIGHTING SYSTEMS SHALL BE EQUIPPED WITH TIMERS TO REDUCE ILLUMINATION LEVELS TO NON-OPERATIONAL VALUES PER CITY REGULATIONS.
4. LIGHTING CONDUIT SHALL BE SCHEDULE 40 PVC, AND SHALL BE INSTALLED IN CONFORMANCE WITH THE NATIONAL ELECTRICAL CODE. CONTRACTOR SHALL PROVIDE EXCAVATION AND BACKFILL.
5. ILLUMINATION READINGS SHOWN ARE BASED ON A TOTAL LLF OF 0.75 AT GRADE. ILLUMINATION READINGS SHOWN ARE IN UNITS OF FOOT-CANDLES.
6. LIGHTING CALCULATIONS SHOWN ARE NOT A SUBSTITUTE FOR INDEPENDENT ENGINEERING ANALYSIS OF LIGHTING SYSTEM AND SAFETY.
7. ALL LIGHTING FIXTURES SHALL BE FULL CUT-OFF DARK-SKY COMPLIANT, UNLESS OTHERWISE NOTED.
8. THE PROPOSED LIGHTING CALCULATIONS AND DESIGN WAS PERFORMED BY CHARRON, INC., P.O. BOX 4550, MANCHESTER, NH 03108, ATTENTION KEN SWEENEY. ALL LIGHTS SHOULD BE PURCHASED FROM THIS COMPANY, OR AN EQUAL LIGHTING DESIGN SHOULD BE SUBMITTED FOR REVIEW IF EQUAL SUBSTITUTIONS ARE PROPOSED BY THE CONTRACTOR OR OWNER.

Streetworks

DESCRIPTION

The Traditionaire LED outdoor luminaire displays the old-fashioned charm of traditional area lighting, enhancing any setting with distinctive styling. As a decorative luminaire, the Traditionaire LED tastefully complements the architectural and environmental design of parks and roadways. The high-lumen downlight configuration uses Cooper Lighting Solutions' patented LightBAR™ technology to deliver uniform and efficient illumination to pedestrian and roadway applications.

Catalog #		Type	
Project			
Comments		Date	
Prepared by			

SPECIFICATION FEATURES

Construction
Hinged (stainless steel hinge pins) die-cast aluminum housing and cover with cupola. 3G vibration tested to ensure strength of construction and longevity in application.

Optics
Choice of six patented, high-efficiency AccuLED Optic™ technology manufactured from injection-molded acrylic. Optics are precisely designed to shape the light output, maximizing efficiency and application spacing. AccuLED Optic technology, creates consistent distributions with the scalability to meet customized application requirements. Offered Standard in 4000K (+/- 275K) CCT and minimum 70 CRI. Optional 3000K CCT, 5000K CCT and 5700K CCT. For the ultimate level of spill light control, an optional house-side shield accessory can be field or factory installed. The house-side shield is designed to seamlessly integrate with the SL2 or SL3 optics.

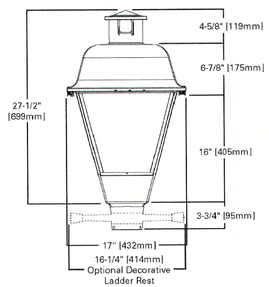
Electrical
LED drivers mount to die-cast aluminum back housing for optimal heat sinking, operation efficacy, and prolonged life. Standard drivers feature electronic universal voltage (120-277V 50/60Hz), 347V 60Hz or 480V 60Hz operation, greater than 0.9 power factor, less than 20% harmonic distortion, and is suitable for operation in -40°C to 40°C ambient environments. All fixtures are shipped standard with 10kV/10kA common – and differential – mode surge protection. LightBARs feature an IP66 enclosure rating and maintain greater than 95% lumen maintenance at 60,000 hours per IESNA TM-21.

Mounting
Self-aligning pole-top fitter for 3" O.D. pole tops or vertical tenons. Square headed 1-1/4" polymer coated mounting bolts with a lock nut.

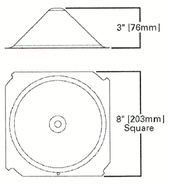
Finish
Cast components finished in a super durable black TGIC polyester powder coat paint, 2.5 mil nominal thickness for superior protection against fade and wear. Optional colors include: bronze, grey and white. RAL and custom color matches available.

Warranty
Five-year warranty.

DIMENSIONS



OPTIONAL BIRD CONE



UTLD
TRADITIONAIRE
LED DOWNLIGHT

1 - 3 LightBARs
Solid State LED

DECORATIVE POST TOP LUMINAIRE

CERTIFICATION DATA
UL/cUL Listed
LM79 / LM80 Compliant
3G Vibration Rated
IP66 LightBARs
ISO 9001

ENERGY DATA
Electronic LED Driver
>0.9 Power Factor
<20% Total Harmonic Distortion
120-277V/50 & 60Hz, 347V/60Hz, 480V/60Hz
-40°C Minimum Temperature
40°C Ambient Temperature Rating

EPA
Effective Projected Area: (Sq. Ft.)
2.3

SHIPPING DATA
Approximate Net Weight:
37 lbs. (17 kgs.)

Luminaire Schedule

Symbol	Qty	Label	Arrangement	Description
	1	P4	SINGLE	UTLD-P02-LED-E-U-SL4/ MTD ON 12' POLE TBD
	8	P3	SINGLE	UTLD-P02-LED-E-U-T3/ MTD ON A 12' POLE TBD

GRAPHIC SCALE

40 0 20 40 80 160

(IN FEET)
1 inch = 40 feet

Design: JAC	Draft: LAZ	Date: 3/3/21
Checked: JAC	Scale: AS SHOWN	Project No.: 20737
Drawing Name: 20737-PLAN.dwg		

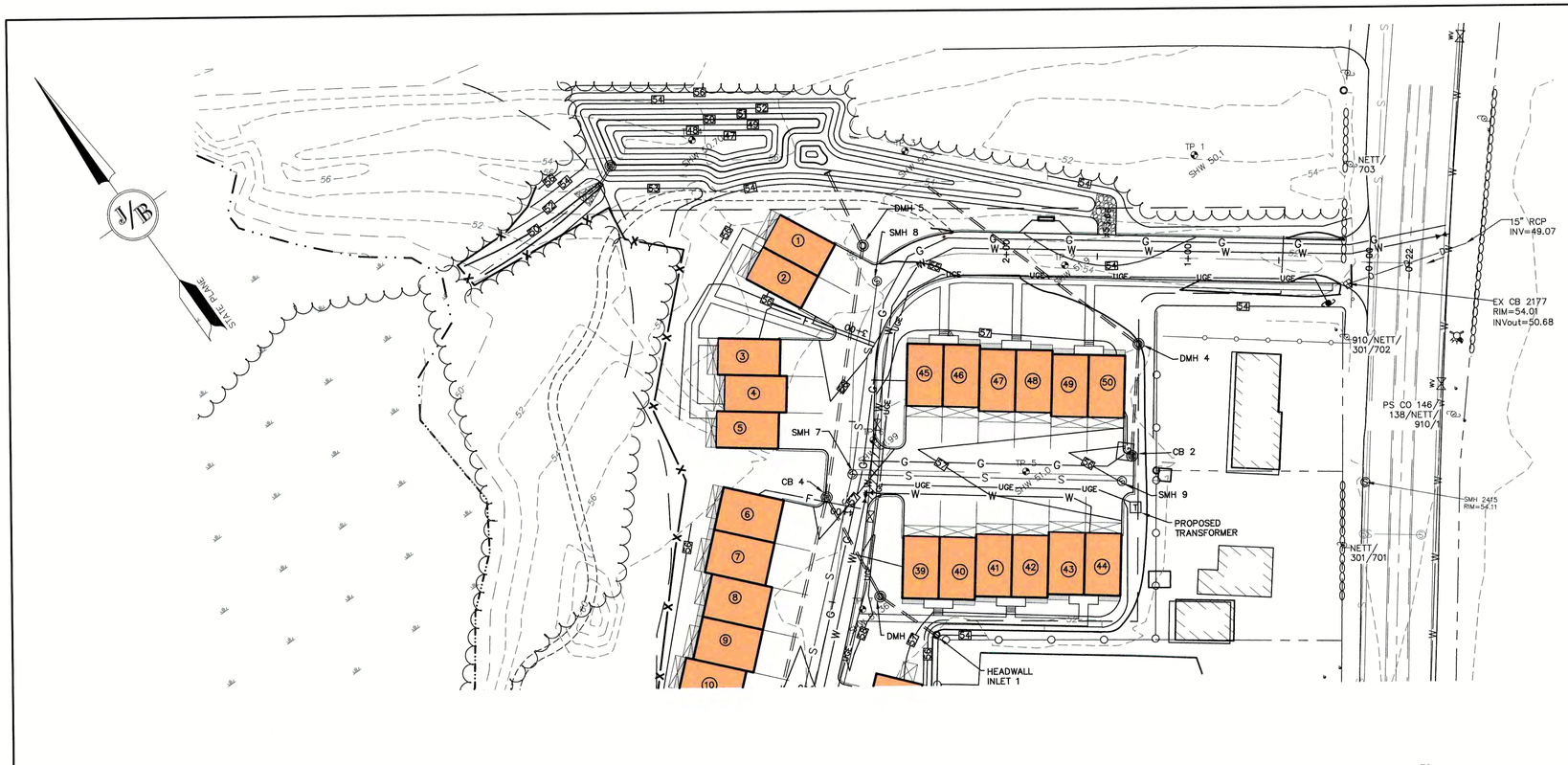
STATE OF NEW HAMPSHIRE – MICHAEL J. KERIVAN No. 9646 – LICENSED PROFESSIONAL ENGINEER – 5/17/2021

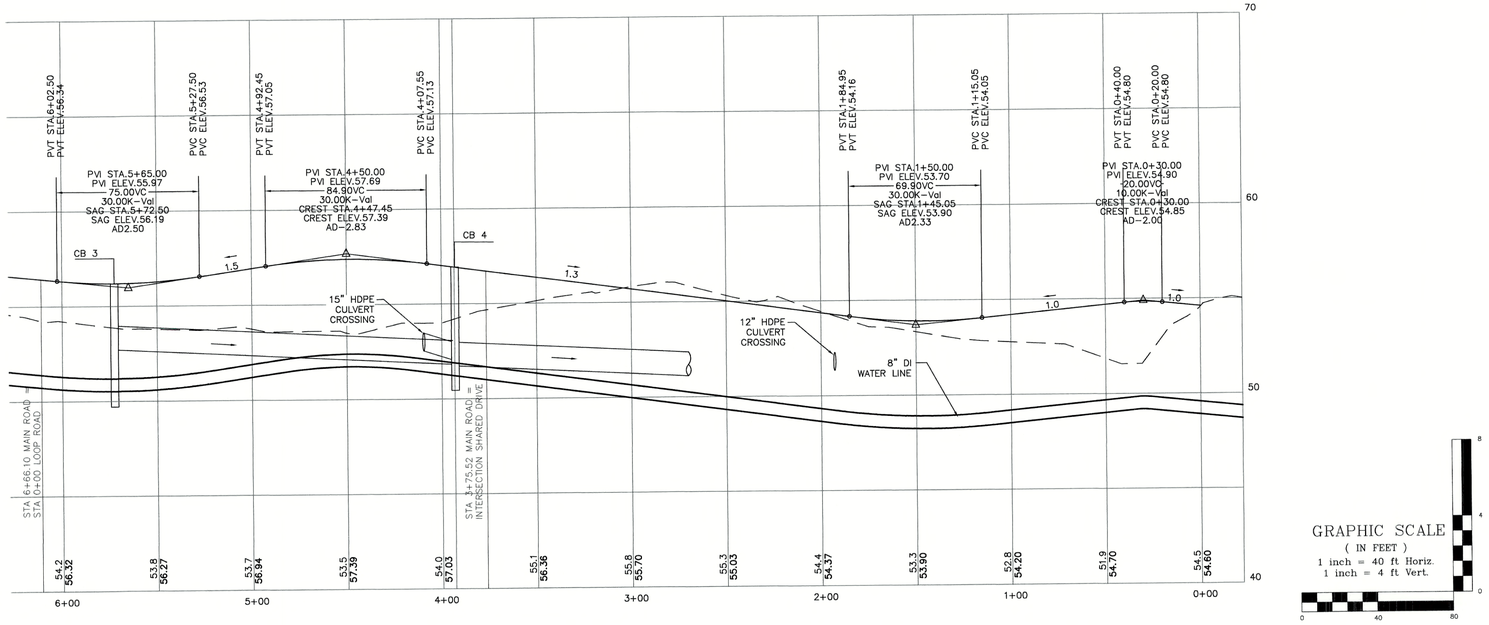
REV.	DATE	REVISION	BY
5	5/5/21	REVISIONS	LAZ
4	3/18/21	ADDED DETAIL	LAZ
3	3/3/21	ADDED SURVEY INFO	LAZ
2	1/6/21	MINOR REVISIONS	DJM
1	11/23/20	REVISED PER CLIENT	DJM

Designed and Produced in NH
J/B Jones & Beach Engineers, Inc.
85 Portsmouth Ave.
PO Box 219
Stratham, NH 03885
Civil Engineering Services
603-772-4746
FAX: 603-772-0227
E-MAIL: JBE@JONESANDBEACH.COM

Plan Name:	LIGHTING PLAN
Project:	3400 LAFAYETTE ROAD PORTSMOUTH, NH
Owner of Record:	RICCI CONSTRUCTION CO., INC. 225 BANFIELD ROAD, PORTSMOUTH, NH 03801 BK 1930 PG 0229

DRAWING No.
L1
SHEET 11 OF 25
JBE PROJECT NO. 20737





NOTES:

1. THIS SITE WILL REQUIRE A USEPA NPDES PERMIT FOR STORMWATER DISCHARGE FOR THE CONSTRUCTION SITE. THE CONSTRUCTION SITE OPERATOR SHALL DEVELOP AND IMPLEMENT A CONSTRUCTION STORM WATER POLLUTION PREVENTION PLAN (SWPPP), WHICH SHALL REMAIN ON SITE AND BE MADE ACCESSIBLE TO THE PUBLIC. THE CONSTRUCTION SITE OPERATOR SHALL SUBMIT A NOTICE OF INTENT (NOI) TO THE EPA REGIONAL OFFICE SEVEN DAYS PRIOR TO COMMENCEMENT OF ANY WORK ON SITE. EPA WILL POST THE NOI AT HTTP://CFPUB1.EPA.GOV/NPDES/STORMWATER/NOI/NOISEARCH.CFM. AUTHORIZATION IS GRANTED UNDER THE PERMIT ONCE THE NOI IS SHOWN IN "ACTIVE" STATUS ON THIS WEBSITE. A COMPLETED NOTICE OF TERMINATION SHALL BE SUBMITTED TO THE NPDES PERMITTING AUTHORITY WITHIN 30 DAYS AFTER EITHER OF THE FOLLOWING CONDITIONS HAVE BEEN MET:
   A. FINAL STABILIZATION HAS BEEN ACHIEVED ON ALL PORTIONS OF THE SITE FOR WHICH THE PERMITTEE IS RESPONSIBLE; OR
   A. ANOTHER OPERATOR/PERMITTEE HAS ASSUMED CONTROL OVER ALL AREAS OF THE SITE THAT HAVE NOT BEEN FINALLY STABILIZED. PROVIDE DPW WITH A COPY OF THE NOTICE OF TERMINATION (NOT).
2. ALL ROAD AND DRAINAGE WORK SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS FOR THE CITY, AND NHDOT SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, WHICHEVER IS MORE STRINGENT.
3. AS-BUILT PLANS TO BE SUBMITTED TO THE CITY PRIOR TO ACCEPTANCE OF THE ROADWAY.
4. DEVELOPER IS RESPONSIBLE FOR COMPLYING WITH ALL APPLICABLE LOCAL, STATE AND FEDERAL WETLAND REGULATIONS, INCLUDING ANY PERMITTING AND SETBACK REQUIREMENTS REQUIRED UNDER THESE REGULATIONS.
5. CONTRACTOR TO COORDINATE AND COMPLETE ALL WORK REQUIRED FOR THE RELOCATION AND/OR INSTALLATION OF ELECTRIC, CATV, TELEPHONE, AND FIRE ALARM PER UTILITY DESIGN AND STANDARDS. LOCATIONS SHOWN ARE APPROXIMATE. LOW PROFILE STRUCTURES SHALL BE USED TO THE GREATEST EXTENT POSSIBLE.
6. THIS PLAN HAS BEEN PREPARED BY JONES & BEACH ENGINEERS, INC. FOR MUNICIPAL AND STATE APPROVALS AND FOR CONSTRUCTION BASED ON DATA OBTAINED FROM ON-SITE FIELD SURVEY AND EXISTING MUNICIPAL RECORDS. THROUGHOUT THE CONSTRUCTION PROCESS, THE CONTRACTOR SHALL INFORM THE ENGINEER IMMEDIATELY OF ANY FIELD DISCREPANCY FROM DATA SHOWN ON THE DESIGN PLANS. THIS INCLUDES ANY UNFORESEEN CONDITIONS, SUBSURFACE OR OTHERWISE, FOR EVALUATION AND RECOMMENDATIONS. ANY CONTRADICTION BETWEEN ITEMS OF THIS PLAN/PLAN SET, OR BETWEEN THE PLANS AND ON-SITE CONDITIONS MUST BE RESOLVED BEFORE RELATED CONSTRUCTION HAS BEEN INITIATED.
7. SILTATION AND EROSION CONTROLS SHALL BE INSTALLED PRIOR TO CONSTRUCTION, SHALL BE MAINTAINED DURING CONSTRUCTION, AND SHALL REMAIN UNTIL SITE HAS BEEN STABILIZED WITH PERMANENT VEGETATION. SEE DETAIL SHEET E1 FOR ADDITIONAL NOTES ON EROSION CONTROL.
8. ALL DISTURBED AREAS NOT STABILIZED BY NOVEMBER 1st SHALL BE COVERED WITH AN EROSION CONTROL BLANKET. PRODUCT TO BE SPECIFIED BY THE ENGINEER.
9. FINAL DRAINAGE, GRADING AND EROSION PROTECTION MEASURES SHALL CONFORM TO REGULATIONS OF THE PUBLIC WORKS DEPARTMENT.
10. CONTRACTOR TO VERIFY EXISTING UTILITIES AND TO NOTIFY ENGINEER OF ANY DISCREPANCY IMMEDIATELY.
11. ROADWAY INTERSECTIONS WITH SLOPE GRANITE CURB SHALL EXTEND AROUND RADIUS WITH 6' STRAIGHT PIECE ALONG TANGENT.
12. 6" PERFORATED ADS UNDER DRAIN PLACEMENT TO BE DETERMINED BY THE ENGINEER DURING TIME OF SUBGRADE INSPECTION. CONTRACTOR TO ADJUST LOCATION IN THE FIELD ONLY WITH PRIOR APPROVAL OF PROJECT ENGINEER OR PUBLIC WORKS DEPARTMENT. CONTRACTOR TO INCLUDE 3000 LF IN BID PRICE.
13. ALL DRIVEWAYS TO BE CONSTRUCTED MAXIMUM 10% SLOPE. SEE DETAIL SHEET.
14. ENGINEER TO INSTALL PERMANENT BENCHMARK (REINFORCED GRANITE MARKER) AT LOCATIONS SHOWN ON PLANS. BENCH MARKS TO BE TIED TO STATE PLANE COORDINATE SYSTEM.
15. DRAINAGE INSPECTION AND MAINTENANCE SCHEDULE: ORGANIC FILTER BERM WILL BE INSPECTED DURING AND AFTER STORM EVENTS TO ENSURE THAT THE BERM STILL HAS INTEGRITY AND IS NOT ALLOWING SEDIMENT TO PASS. SEDIMENT BUILD UP IN SWALES WILL BE REMOVED IF IT IS DEEPER THAN SIX INCHES, AND IS TO BE REMOVED FROM SUMPS BELOW THE INLET OF CULVERTS SEMIANNUALLY, AS WELL AS FROM CATCH BASINS. FOLLOWING MAJOR STORM EVENTS, THE STAGE DISCHARGE OUTLET STRUCTURES ARE TO BE INSPECTED AND ANY DEBRIS REMOVED FROM THE ORIFICE, TRASH TRACK AND EMERGENCY SPILL WAY. INFREQUENTLY, SEDIMENT MAY ALSO HAVE TO BE REMOVED FROM THE SUMP OF THE STRUCTURE.
16. ALL DRAINAGE INFRASTRUCTURE SHALL BE INSTALLED AND STABILIZED PRIOR TO DIRECTING ANY RUNOFF TO IT.
17. DETENTION PONDS REQUIRE TIMELY MAINTENANCE AND SHOULD BE INSPECTED AFTER EVERY MAJOR STORM EVENT, AS WELL AS FREQUENTLY DURING THE FIRST YEAR OF OPERATION, AND ANNUALLY THEREAFTER. EVERY FIVE YEARS, THE SERVICES OF A PROFESSIONAL ENGINEER SHOULD BE RETAINED TO PERFORM A THOROUGH INSPECTION OF THE DETENTION POND AND ITS INFRASTRUCTURE. ANY DEBRIS AND SEDIMENT ACCUMULATIONS SHOULD BE REMOVED FROM THE OUTLET STRUCTURE(S) AND EMERGENCY SPILLWAY(S) AND DISPOSED OF PROPERLY. DETENTION POND BERMS SHOULD BE MOWED AT LEAST ONCE ANNUALLY SO AS TO PREVENT THE ESTABLISHMENT OF WOODY VEGETATION. TREES SHOULD NEVER BE ALLOWED TO GROW ON A DETENTION POND BERM, AS THEY MAY DESTABILIZE THE STRUCTURE AND INCREASE THE POTENTIAL FOR FAILURE. AREAS SHOWING SIGNS OF EROSION OR THIN OR DYING VEGETATION SHOULD BE REPAIRED IMMEDIATELY BY WHATEVER MEANS NECESSARY, WITH THE EXCEPTION OF FERTILIZER. RODENT BORROWS SHOULD BE REPAIRED IMMEDIATELY AND THE ANIMALS SHOULD BE TRAPPED AND RELOCATED IF THE PROBLEM PERSISTS.
18. THE DETENTION PONDS ARE TO BE CONSTRUCTED PRIMARILY THROUGH EXCAVATION. IN THOSE AREAS WHERE THE BERMS MUST BE CONSTRUCTED BY THE PLACEMENT OF FILL, THE ENTIRE EMBANKMENT AREA OF THE DETENTION PONDS SHALL BE EXCAVATED TO PROPOSED GRADE, STRIPPED OF ALL ORGANIC MATERIALS, COMPACTED TO AT LEAST 95% AND SCARIFIED PRIOR TO THE PLACEMENT OF THE EMBANKMENT MATERIAL. IN THE EVENT THE FOUNDATION MATERIAL EXPOSED DOES NOT ALLOW THE SPECIFIED COMPACTION, AN ADDITIONAL ONE FOOT (1') OF EXCAVATION AND THE PLACEMENT OF A ONE FOOT (1') THICK, TWELVE FOOT (12') WIDE PAD OF THE MATERIAL DESCRIBED IN THE NOTE BELOW, COMPACTED TO 95% OF ASTM D-1557 MAY BE NECESSARY. PLACEMENT AND COMPACTION SHOULD OCCUR AT A MOISTURE CONTENT OF OPTIMUM PLUS OR MINUS 3%, AND NO FROZEN OR ORGANIC MATERIAL SHOULD BE PLACED WITHIN FOR ANY REASON.
19. EMBANKMENT MATERIAL FOR THE BERMS SHALL BE CLEAN MINERAL SOIL WITH A CLAY COMPONENT FREE OF ROOTS, ORGANIC MATTER, AND OTHER DELETERIOUS SUBSTANCES, AND SHALL CONTAIN NO ROCKS OR LUMPS OVER FOUR INCHES (4") IN DIAMETER. THIS MATERIAL SHOULD BE INSTALLED IN 6" LIFTS AND COMPACTED TO 95% OS ASTM D-1557, AND SHOULD MEET THE FOLLOWING SPECIFICATIONS: 4" PASSING 100%, #4 SIEVE 25-70%, #200 SIEVE 10-29% (IN TOTAL SAMPLE).
20. EMBANKMENT IS TO HAVE 3:1 SIDE SLOPES (MAX.) AND IS TO BE BROUGHT TO SPECIFIED GRADES PRIOR TO THE ADDITION OF LOAM (4" MINIMUM) SO AS TO ALLOW FOR THE COMPACTION OF THE STRUCTURE OVER TIME WHILE MAINTAINING THE PROPER BERM ELEVATION.
21. COMPACTION TESTING SERVICES (I.E. NUCLEAR DENSITY TESTS) ARE TO BE PERFORMED BY AN INDEPENDENT GEOTECHNICAL ENGINEER RETAINED BY THE CONTRACTOR FOR ROADWAY CONSTRUCTION, AND ON THE FOUNDATION OF THE BERM AND ON EVERY LIFT OF NEWLY PLACED MATERIAL.
22. ORNAMENTAL STREET LIGHTING SHALL BE PRIVATELY OWNED AND MAINTAINED BY THE HOME OWNER'S ASSOCIATION. LIGHTING SHALL NOT TO BE OWNED OR MAINTAINED BY THE CITY.
23. SLOPED GRANITE CURB TO BE TIPPED DOWN AT ALL DRIVEWAY ENTRANCES BY THE CONTRACTOR. ALL DRIVEWAY LOCATIONS SHALL BE REVIEWED AND APPROVED BY PUBLIC WORKS PRIOR TO ISSUANCE OF BUILDING PERMIT.

Design: JAC	Draft: LAZ
Checked: JAC	Scale: AS SHOWN
Drawing Name: 20737-PLAN.dwg	Date: 3/3/21
	Project No.: 20737

STATE OF NEW HAMPSHIRE — MICHAEL J. KERIVAN No. 9846 LICENSED PROFESSIONAL ENGINEER — 5/7/2021

REV.	DATE	REVISION	BY
5	5/5/21	REVISIONS	LAZ
4	3/18/21	ADDED DETAIL	LAZ
3	3/3/21	ADDED SURVEY INFO	LAZ
2	1/6/21	MINOR REVISIONS	DJM
1	11/23/20	REVISED PER CLIENT	DJM

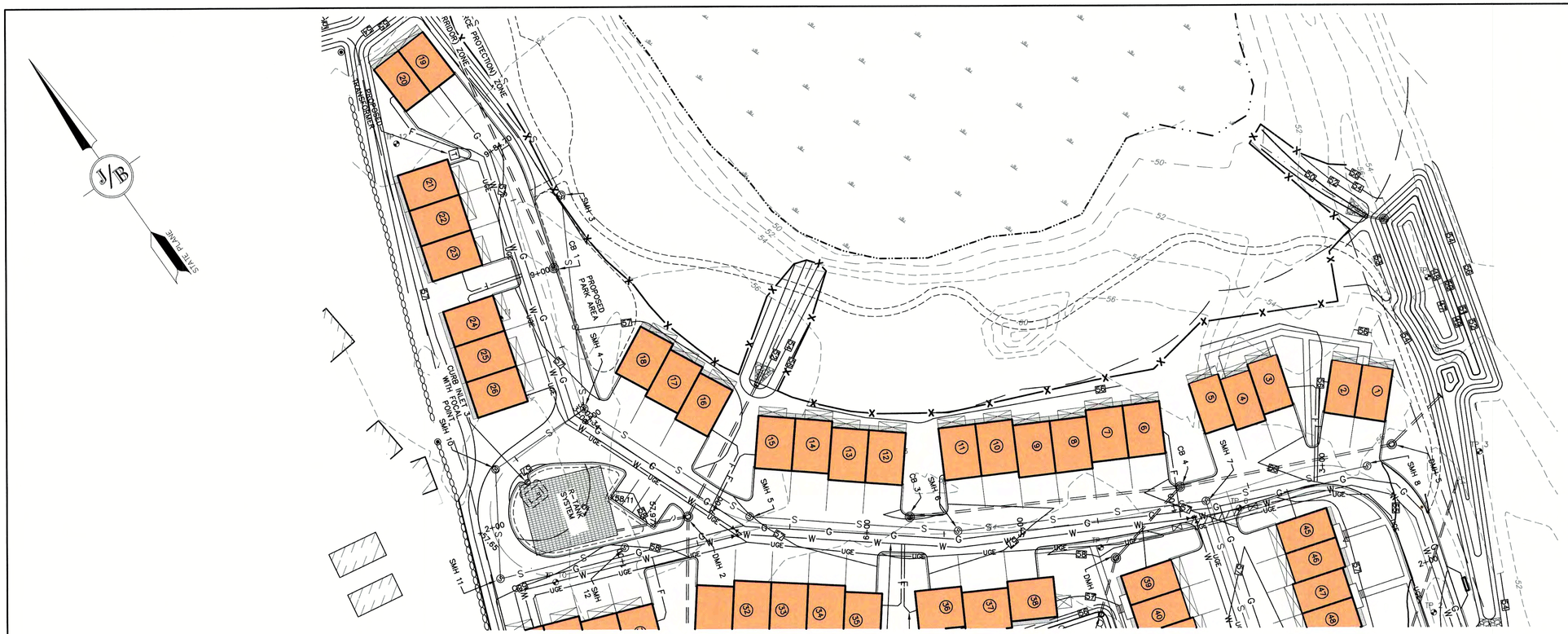
Designed and Produced in NH
J/B Jones & Beach Engineers, Inc.
85 Portsmouth Ave.
PO Box 219
Stratham, NH 03885
Civil Engineering Services
603-772-4746
FAX: 603-772-0227
E-MAIL: JBE@JONESANDBEACH.COM

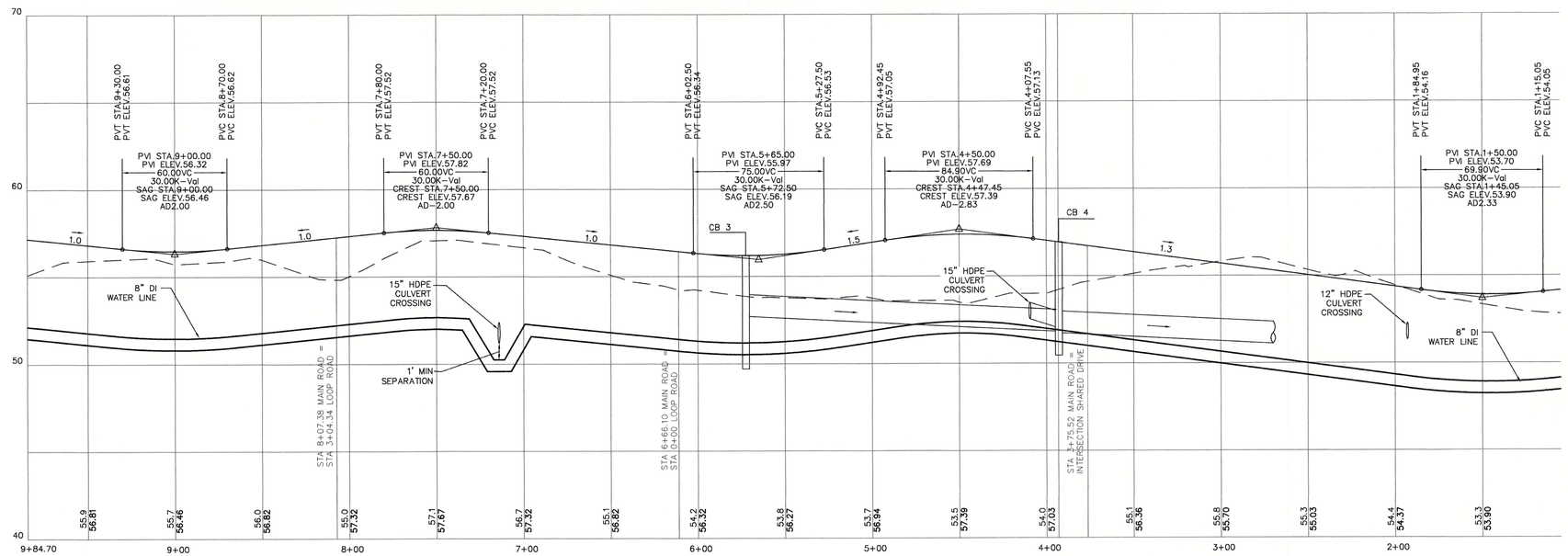
Plan Name:	PLAN AND PROFILE
Project:	3400 LAFAYETTE ROAD PORTSMOUTH, NH
Owner of Record:	RICCI CONSTRUCTION CO., INC. 225 BANFIELD ROAD, PORTSMOUTH, NH 03801 BK 1930 PG 0229

DRAWING No.

P1

SHEET 12 OF 25
JBE PROJECT NO. 20737





GRAPHIC SCALE
(IN FEET)
1 inch = 40 ft Horiz.
1 inch = 4 ft Vert.
0 40 80
0 4 8

Design: JAC	Draft: LAZ	Date: 3/3/21
Checked: JAC	Scale: AS SHOWN	Project No.: 20737
Drawing Name: 20737-PLAN.dwg		

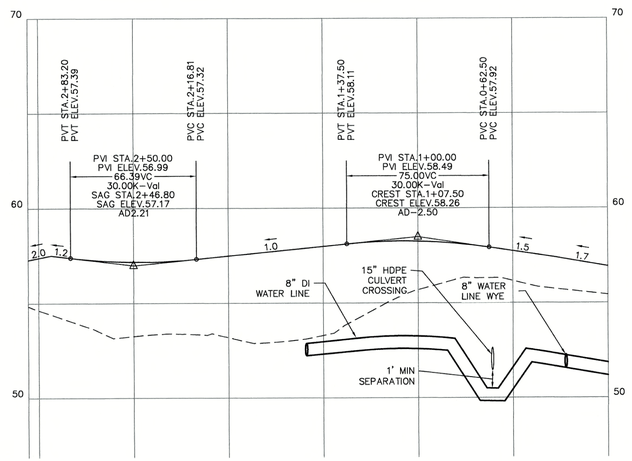
STATE OF NEW HAMPSHIRE – MICHAEL J. KERIVAN No. 9846 – LICENSED PROFESSIONAL ENGINEER – 5/17/21

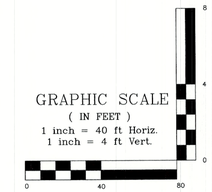
REV.	DATE	REVISION	BY
5	5/5/21	REVISIONS	LAZ
4	3/18/21	ADDED DETAIL	LAZ
3	3/3/21	ADDED SURVEY INFO	LAZ
2	1/6/21	MINOR REVISIONS	DJM
1	11/23/20	REVISED PER CLIENT	DJM

Designed and Produced in NH
J/B Jones & Beach Engineers, Inc.
85 Portsmouth Ave.
PO Box 219
Stratham, NH 03885
Civil Engineering Services
603-772-4746
FAX: 603-772-0227
E-MAIL: JBE@JONESANDBEACH.COM

Plan Name:	PLAN AND PROFILE
Project:	3400 LAFAYETTE ROAD PORTSMOUTH, NH
Owner of Record:	RICCI CONSTRUCTION CO., INC. 225 BANFIELD ROAD, PORTSMOUTH, NH 03801 BK 1930 PG 0229

DRAWING No.
P2
SHEET 13 OF 25
JBE PROJECT NO. 20737





Design: JAC	Draft: LAZ	Date: 3/3/21
Checked: JAC	Scale: AS SHOWN	Project No.: 20737
Drawing Name: 20737-PLAN.dwg		

STATE OF NEW HAMPSHIRE – MICHAEL J. KERIVAN No. 9646 – LICENSED PROFESSIONAL ENGINEER – 5/7/2021

REV.	DATE	REVISION	BY
5	5/5/21	REVISIONS	LAZ
4	3/18/21	ADDED DETAIL	LAZ
3	3/3/21	ADDED SURVEY INFO	LAZ
2	1/6/21	MINOR REVISIONS	DJM
1	11/23/20	REVISED PER CLIENT	DJM

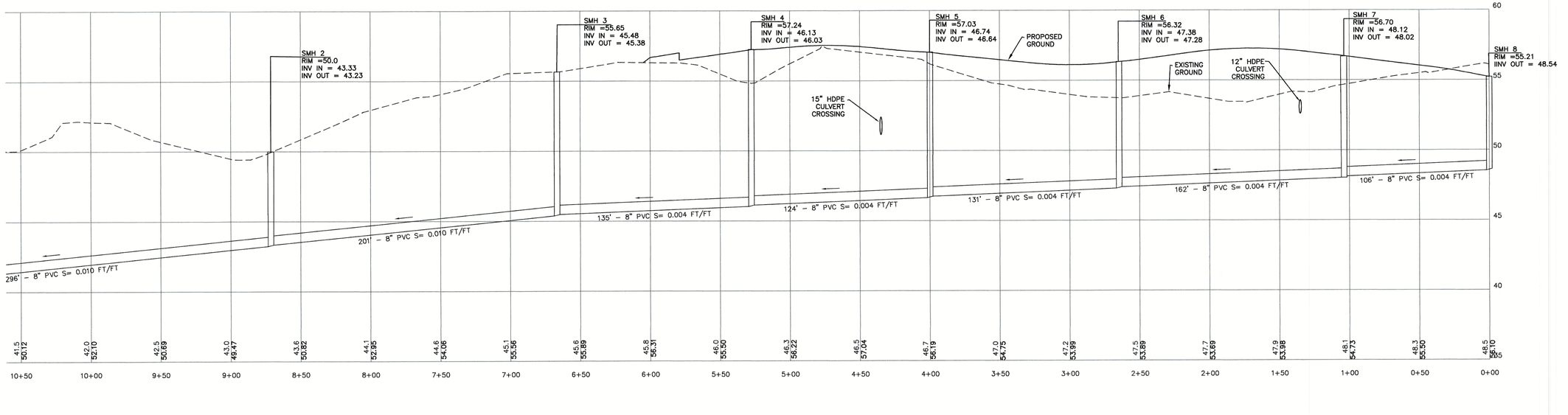
Designed and Produced in NH
J/B Jones & Beach Engineers, Inc.
Civil Engineering Services
85 Portsmouth Ave.
PO Box 219
Stratham, NH 03885
603-772-4746
FAX: 603-772-0227
E-MAIL: JBE@JONESANDBEACH.COM

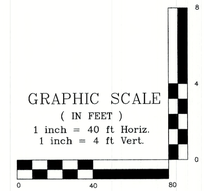
Plan Name:	PLAN AND PROFILE
Project:	3400 LAFAYETTE ROAD PORTSMOUTH, NH
Owner of Record:	RICCI CONSTRUCTION CO., INC. 225 BANFIELD ROAD, PORTSMOUTH, NH 03801 BK 1930 PG 0229

DRAWING No.

P3

SHEET 14 OF 25
JBE PROJECT NO. 20737





Design: JAC	Draft: LAZ
Checked: JAC	Scale: AS SHOWN
Drawing Name: 20737-PLAN.dwg	

Date: 3/3/21
Project No.: 20737

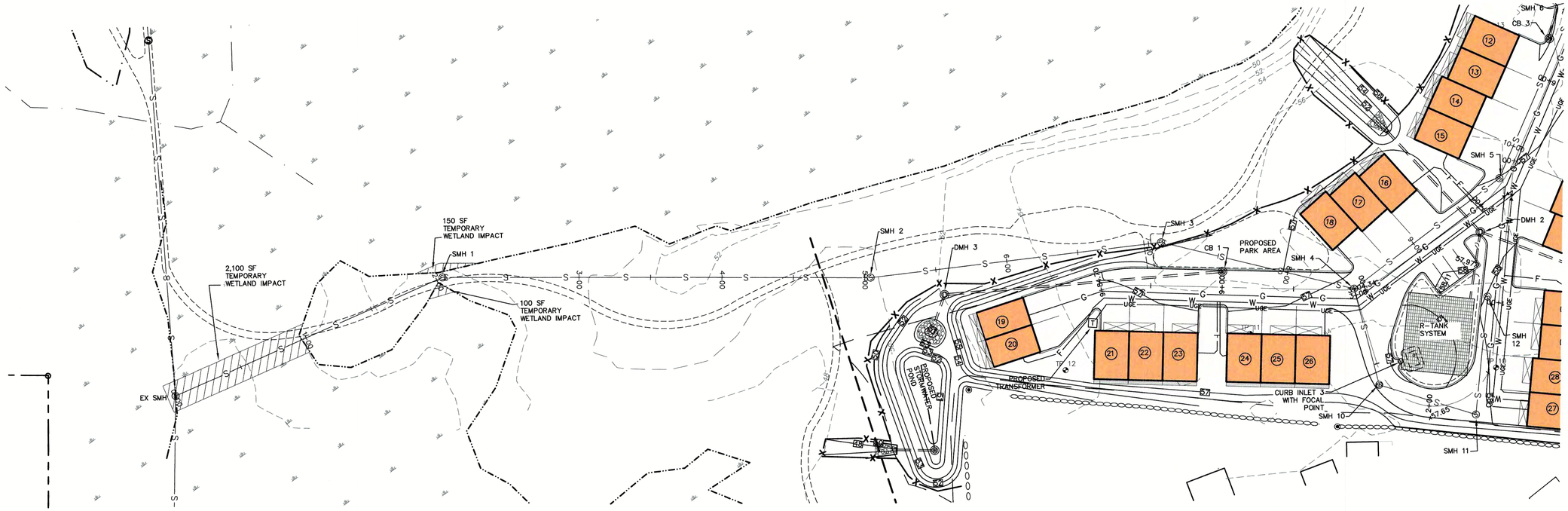
STATE OF NEW HAMPSHIRE – MICHAEL J. KERIVAN No. 9646 – LICENSED PROFESSIONAL ENGINEER – 3/17/21

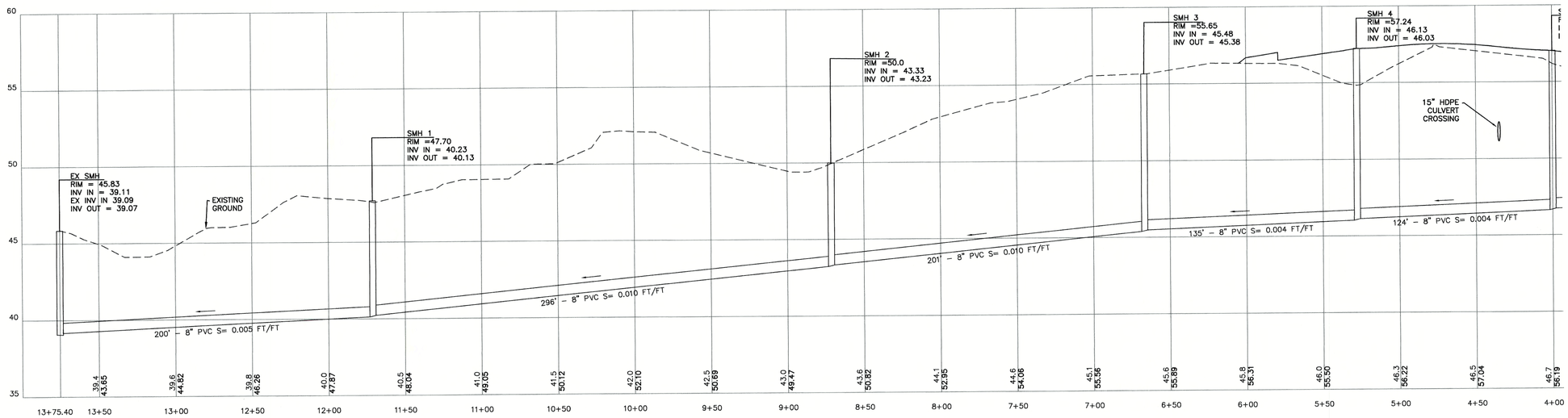
REV.	DATE	REVISION	BY
5	5/5/21	REVISIONS	LAZ
4	3/18/21	ADDED DETAIL	LAZ
3	3/3/21	ADDED SURVEY INFO	LAZ
2	1/6/21	MINOR REVISIONS	DJM
1	11/23/20	REVISED PER CLIENT	DJM

Designed and Produced in NH
Jones & Beach Engineers, Inc.
85 Portsmouth Ave.
PO Box 219
Stratham, NH 03885
Civil Engineering Services
603-772-4746
FAX: 603-772-0227
E-MAIL: JBE@JONESANDBEACH.COM

Plan Name:	SEWER PROFILE
Project:	3400 LAFAYETTE ROAD PORTSMOUTH, NH
Owner of Record:	RICCI CONSTRUCTION CO., INC. 225 BANFIELD ROAD, PORTSMOUTH, NH 03801 BK 1930 PG 0229

DRAWING No.
P4
SHEET 15 OF 25
JBE PROJECT NO. 20737





GRAPHIC SCALE
(IN FEET)
1 inch = 40 ft Horiz.
1 inch = 4 ft Vert.

Design: JAC	Draft: LAZ
Checked: JAC	Scale: AS SHOWN
Drawing Name: 20737-PLAN.dwg	Date: 3/3/21
	Project No.: 20737

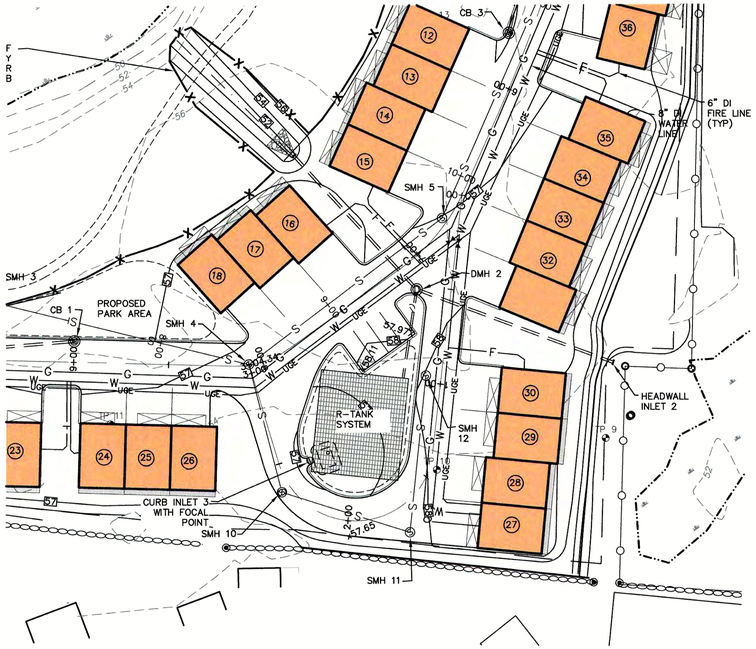
STATE OF NEW HAMPSHIRE – MICHAEL J. KERIVAN No. 9646 LICENSED PROFESSIONAL ENGINEER – 5/7/2021

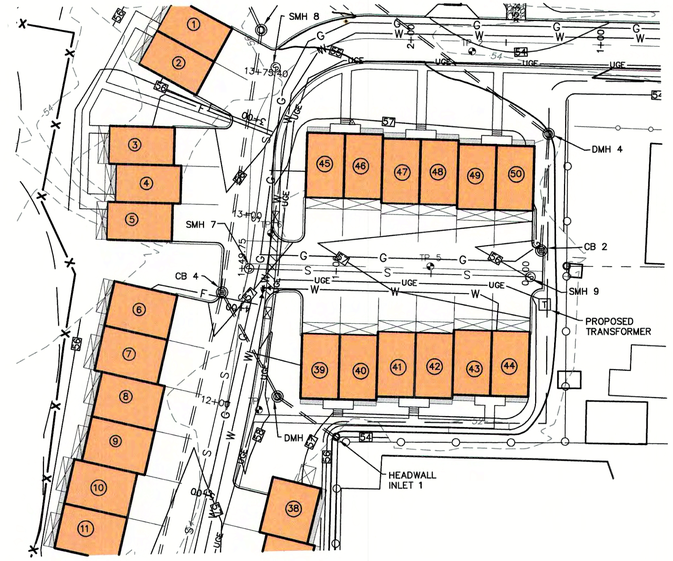
REV.	DATE	REVISION	BY
5	5/5/21	REVISIONS	LAZ
4	3/18/21	ADDED DETAIL	LAZ
3	3/3/21	ADDED SURVEY INFO	LAZ
2	1/6/21	MINOR REVISIONS	DJM
1	11/23/20	REVISED PER CLIENT	DJM

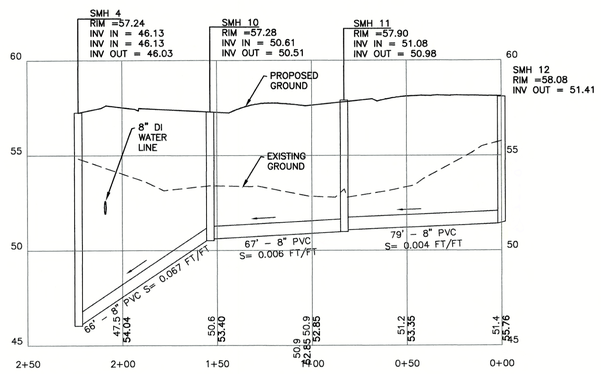
Designed and Produced in NH
Jones & Beach Engineers, Inc.
85 Portsmouth Ave.
PO Box 219
Stratham, NH 03885
Civil Engineering Services
603-772-4746
FAX: 603-772-0227
E-MAIL: JBE@JONESANDBEACH.COM

Plan Name:	SEWER PROFILE
Project:	3400 LAFAYETTE ROAD PORTSMOUTH, NH
Owner of Record:	RICCI CONSTRUCTION CO., INC. 225 BANFIELD ROAD, PORTSMOUTH, NH 03801 BK 1930 PG 0229

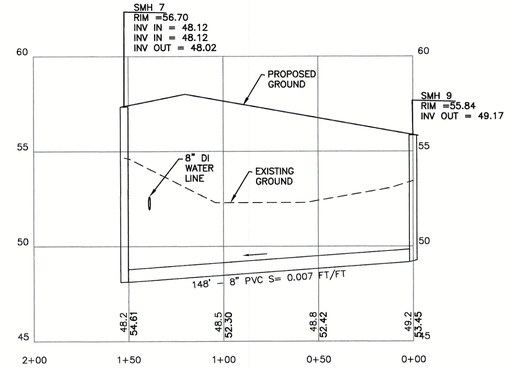
DRAWING No.
P5
SHEET 16 OF 25
JBE PROJECT NO. 20737







LOOP ROAD



SHARED DRIVEWAY

GRAPHIC SCALE
(IN FEET)
1 inch = 40 ft Horiz.
1 inch = 4 ft Vert.

Design: JAC	Draft: LAZ	Date: 3/3/21
Checked: JAC	Scale: AS SHOWN	Project No.: 20737
Drawing Name: 20737-PLAN.dwg		

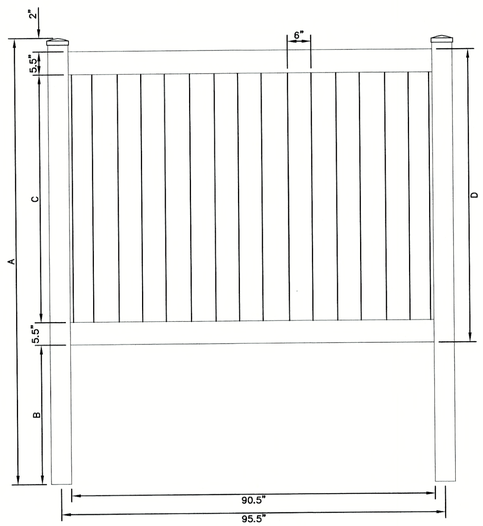
STATE OF NEW HAMPSHIRE — MICHAEL J. KERVAN No. 9846 — LICENSED PROFESSIONAL ENGINEER — 5/7/2021

REV.	DATE	REVISION	BY
5	5/5/21	REVISIONS	LAZ
4	3/18/21	ADDED DETAIL	LAZ
3	3/3/21	ADDED SURVEY INFO	LAZ
2	1/6/21	MINOR REVISIONS	DJM
1	11/23/20	REVISED PER CLIENT	DJM

Designed and Produced in NH
J/B Jones & Beach Engineers, Inc.
85 Portsmouth Ave.
PO Box 219
Stratham, NH 03885
Civil Engineering Services
603-772-4746
FAX: 603-772-0227
E-MAIL: JBE@JONESANDBEACH.COM

Plan Name:	SEWER PROFILE
Project:	3400 LAFAYETTE ROAD PORTSMOUTH, NH
Owner of Record:	RICCI CONSTRUCTION CO., INC. 225 BANFIELD ROAD, PORTSMOUTH, NH 03801 BK 1930 PG 0229

DRAWING No.
P5
SHEET 17 OF 25
JBE PROJECT NO. 20737



FRONT ELEVATION

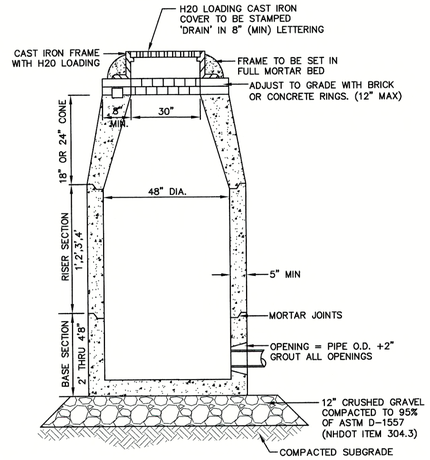
A		B		C		D	
H(FT)	INCHES	H(FT)	INCHES	H(FT)	INCHES	H(FT)	INCHES
3	60	3	22	3	25	3	36
4	84	4	34	4	37	4	48
5	96	5	34	5	49	5	60
6	108	6	34	6	61	6	72

NOTES:

1. CONTRACTOR TO PROVIDE FENCE SPEC TO ENGINEER FOR REVIEW PRIOR TO INSTALLATION.
2. VINYL FENCE SHALL MEET ASTM F964-09 STANDARDS.

6' VINYL STOCKADE FENCE

NOT TO SCALE

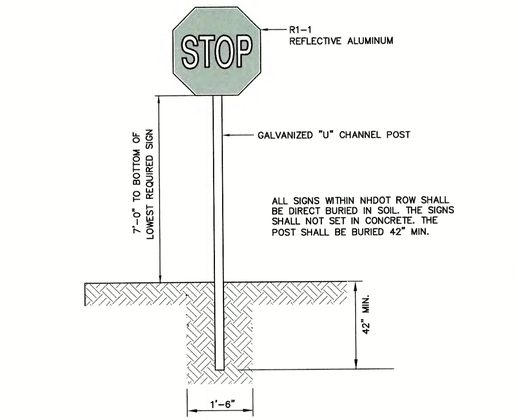


NOTES:

1. BASE SECTION SHALL BE MONOLITHIC WITH 48" INSIDE DIAMETER.
2. ALL SECTIONS SHALL BE DESIGNED FOR H20 LOADING.
3. CONCRETE SHALL BE COMPRESSIVE STRENGTH 4000 PSI, TYPE II CEMENT.
4. FRAMES AND GRATES SHALL BE HEAVY DUTY AND DESIGNED FOR H20 LOADING.
5. PROVIDE "V" KNOCKOUTS FOR PIPES WITH 2" MAX. CLEARANCE TO OUTSIDE OF PIPE. MORTAR ALL PIPE CONNECTIONS SO AS TO BE WATERTIGHT.
6. JOINT SEALANT BETWEEN PRECAST SECTIONS SHALL BE BUTYL RUBBER.
7. ALL DRAIN MANHOLE FRAMES AND GRATES SHALL BE NHDOT TYPE MH-1, OR NEENAH R-1798 OR APPROVED EQUAL (30" DIA. TYPICAL).
8. STANDARD FRAME(S) AND GRATE(S) SHALL BE SET IN FULL MORTAR BED. ADJUST TO GRADE WITH CLAY BRICK AND MORTAR (2 BRICK COURSES TYPICALLY, 5 BRICK COURSES MAXIMUM, BUT NO MORE THAN 12"), OR PRECAST CONCRETE 'DONUTS'.

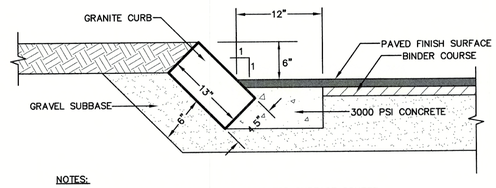
DRAIN MANHOLE

NOT TO SCALE



STOP SIGN (R1-1)

NOT TO SCALE

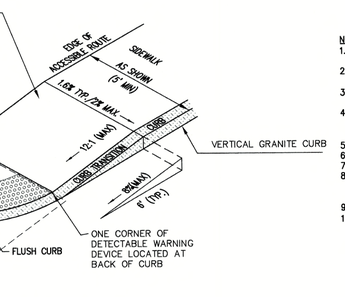


NOTES:

1. CURB TO BE PLACED PRIOR TO PLACING TOP SURFACE COURSE.
2. JOINTS BETWEEN STONES SHALL BE MORTARED.

SLOPED GRANITE CURB

NOT TO SCALE

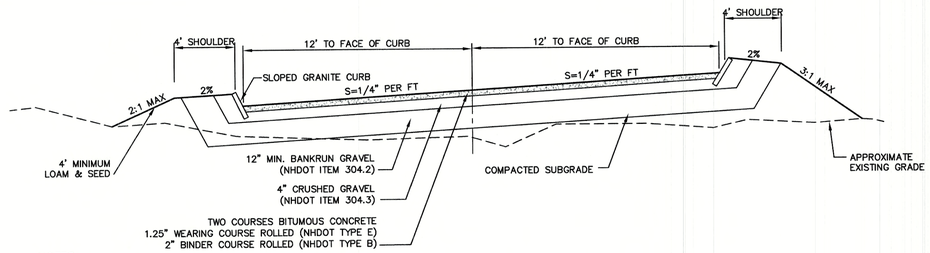


NOTES:

1. THE MAXIMUM ALLOWABLE CROSS SLOPE OF ACCESSIBLE ROUTE (SIDEWALK) AND CURB SHALL BE 1.5%
2. THE MAXIMUM ALLOWABLE SLOPE OF ACCESSIBLE ROUTE EXCLUDING CURB RAMPS SHALL BE 5%
3. THE MAXIMUM ALLOWABLE SLOPE OF ACCESSIBLE ROUTE (SIDEWALK) CURB RAMPS SHALL BE 8.3%
4. A MINIMUM OF 4 FEET CLEAR SHALL BE MAINTAINED AT ANY PERMANENT OBSTACLE IN ACCESSIBLE ROUTE (i.e., HYDRANTS, UTILITY POLES, TREE WELLS, SIGNS, ETC.).
5. CURB TREATMENT VARIES, SEE PLANS FOR CURB TYPE.
6. BASE OF RAMP SHALL BE GRADED TO PREVENT PONDING.
7. SEE TYPICAL SECTION FOR RAMP CONSTRUCTION.
8. WHERE A CHANGE IN DIRECTION IS REQUIRED TO UTILIZE A CURB RAMP, A TURNING SPACE SHALL BE PROVIDED AT THE BASE AND/OR THE TOP OF THE CURB RAMP. TURNING SPACES SHALL BE PERMITTED TO OVERLAP CLEAR SPACES.
9. TURNING SPACE MAXIMUM CROSS SLOPE IS 2% IN ANY DIRECTION.
10. BEYOND THE BOTTOM GRADE BREAK, A CLEAR SPACE OF 4'X4' MINIMUM SHALL BE PROVIDED WITHIN THE WIDTH OF THE PEDESTRIAN CROSSWALK, AND OUTSIDE THE PARALLEL VEHICLE TRAVEL LANE. THE CLEAR SPACE MAY OVERLAP TURNING SPACES, DETECTABLE WARNING SURFACES AND DROP CURBS.

ACCESSIBLE CURB RAMP (NHDOT OPTION 3)

NOT TO SCALE



NOTES:

1. REMOVE ALL ORGANICS, TOPSOIL AND MATERIAL YIELDING TO A 10 TON ROLLER. SUBBASE AREAS THAT CONTAIN UNSUITABLE MATERIALS MUST BE EXCAVATED TO A DEPTH NO LESS THAN 36" BELOW FINISH GRADE AND BE REPLACED WITH GRAVEL COMPACTED TO 95%.
2. ALL MATERIALS TO BE AS SPECIFIED PER TOWN STANDARDS AND NHDOT, WHICHEVER IS MOST STRINGENT. GRADATION AND COMPACTION TEST RESULTS (95% MIN.) SHALL BE SUBMITTED FOR REVIEW AND APPROVAL.
3. TOWN MAY REQUIRE UNDERDRAIN AND/OR ADDITIONAL DRAINAGE IF SOIL CONDITIONS WARRANT.

TYPICAL ROADWAY SECTION W/CURBING

NOT TO SCALE

Design: JAC	Draft: LAZ
Checked: JAC	Scale: AS NOTED
Drawing Name: 20737-PLAN.dwg	Date: 3/3/21
	Project No.: 20737

STATE OF NEW HAMPSHIRE — MICHAEL J. KERWAN No. 9646 — LICENSED PROFESSIONAL ENGINEER — 5/7/2021

REV.	DATE	REVISION	BY
5	5/5/21	REVISIONS	LAZ
4	3/18/21	ADDED DETAIL	LAZ
3	3/3/21	ADDED SURVEY INFO	LAZ
2	1/6/21	MINOR REVISIONS	DJM
1	11/23/20	REVISED PER CLIENT	DJM

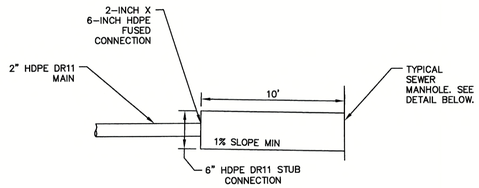
Designed and Produced in NH
J/B Jones & Beach Engineers, Inc.
85 Portsmouth Ave.
PO Box 219
Stratham, NH 03885
Civil Engineering Services
603-772-4746
FAX: 603-772-0227
E-MAIL: JBE@JONESANDBEACH.COM

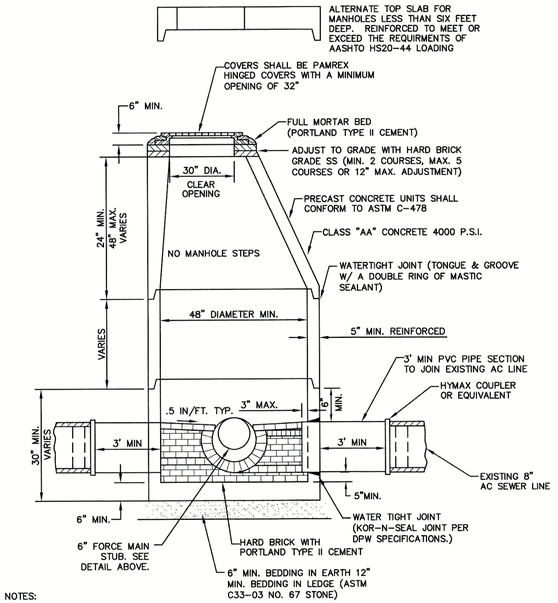
Plan Name:	DETAIL SHEET
Project:	3400 LAFAYETTE ROAD PORTSMOUTH, NH
Owner of Record:	RICCI CONSTRUCTION CO., INC. 225 BANFIELD ROAD, PORTSMOUTH, NH 03801 BK 1930 PG 0229

DRAWING No.

D1

SHEET 18 OF 25
JBE PROJECT NO. 20737



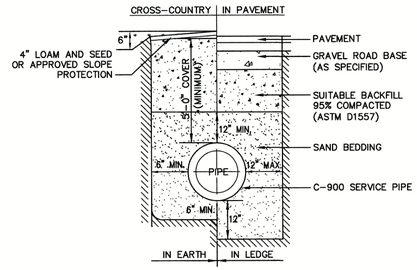


NOTES:

1. PER NHDES ENV–WQ 704.13(C), THE MORTAR SPECIFICATION SHALL BE AS FOLLOWS:
   1. MORTAR SHALL BE COMPOSED OF PORTLAND CEMENT AND SAND WITH OR WITHOUT HYDRATED LIME ADDITION;
   2. PROPORTIONS IN MORTAR OF PARTS BY VOLUMES SHALL BE:
      A. 4.5 PARTS SAND AND 1.5 PARTS CEMENT; OR
      B. 4.5 PARTS SAND, ONE PART CEMENT AND 0.5 PART HYDRATED LIME;
   3. CEMENT SHALL BE TYPE II PORTLAND CEMENT CONFORMING TO ASTM C150–05;
   4. HYDRATED LIME SHALL BE TYPE S CONFORMING TO THE ASTM C207–06 'STANDARD SPECIFICATIONS FOR HYDRATED LIME FOR MASONRY PURPOSES';
   5. SAND SHALL CONSIST OF INERT NATURAL SAND CONFORMING TO THE ASTM C33–03 'STANDARD SPECIFICATIONS FOR CONCRETE, FINE AGGREGATES';
2. SHELVES SHALL BE CONSTRUCTED TO THE ELEVATION OF THE HIGHEST PIPE CROWN AND SLOPED TO DRAIN TOWARD THE FLOWING THROUGH CHANNEL IN ACCORDANCE WITH ENV–WQ 704.12 (K).
3. ALL MANHOLES SHALL BE TESTED FOR LEAKAGE IN ACCORDANCE WITH ENV–WQ 704.17 (a) THROUGH (e).
4. SEWER MANHOLE COVERS SHALL CONFORM TO ASTM A48 WITH A CASTING EQUAL TO CLASS 30 IN ACCORDANCE WITH ENV–WQ 704.13 (a).
5. ALL ASBESTOS CONTAINING WASTE MATERIALS MUST BE PROPERLY IDENTIFIED, PACKAGED AND DELIVERED TO A LANDFILL LICENCED BY THE NHDES SOLID WASTE MANAGEMENT PROGRAM FOR DISPOSAL. CALL (603) 271–2925 FOR MORE INFORMATION.
6. PORTSMOUTH STANDARD SEWER MANHOLE SHALL BE USED.
7. CONTRACTOR TO PURCHASE SEWER MANHOLE COVERS FROM THE CITY OF PORTSMOUTH DIRECTLY.
8. MANHOLE BASE SECTIONS SHALL BE MONOLITHIC TO A POINT AT LEAST 6" ABOVE THE HIGHEST INCOMING SEWER PIPE PER ENV–WQ 704.12 (e).
9. MANHOLE CASTINGS SHALL CONFORM TO ASTM A48 PER ENV–WQ 704.13 (a) (8).

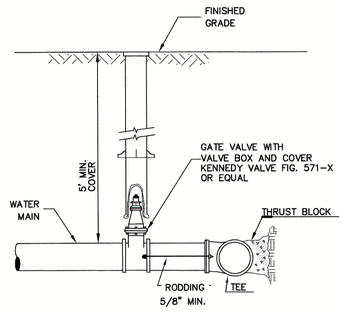
PORTSMOUTH SEWER MANHOLE

NOT TO SCALE



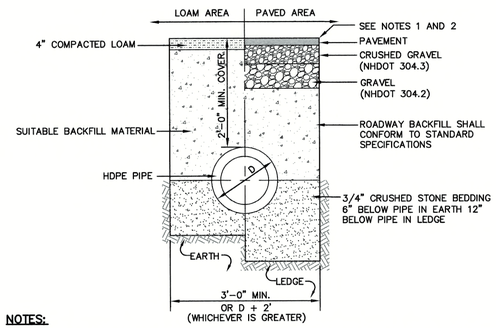
WATER SYSTEM TRENCH

NOT TO SCALE



BURIED GATE VALVE DETAIL

NOT TO SCALE

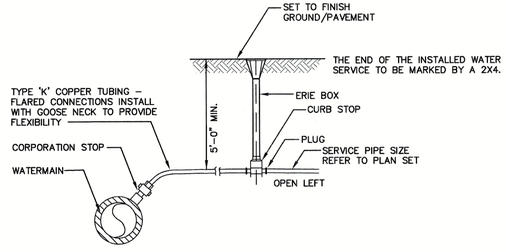


NOTES:

1. PAVEMENT REPAIR IN EXISTING ROADWAYS SHALL CONFORM TO STREET OPENING REGULATIONS.
2. NEW ROADWAY CONSTRUCTION SHALL CONFORM WITH PROJECT AND TOWN SPECIFICATIONS.
3. ALL MATERIALS ARE TO BE COMPACTED TO 95% OF ASTM D–1557.

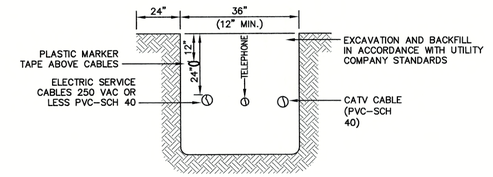
DRAINAGE TRENCH

NOT TO SCALE



WATER SERVICE CONNECTION-COPPER PIPE

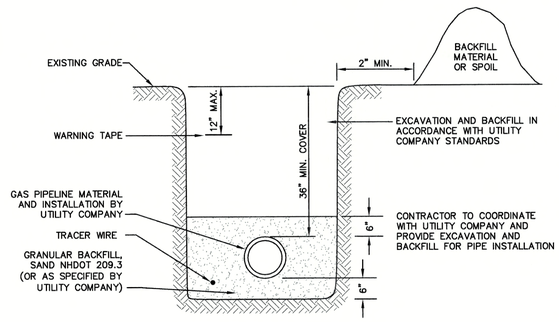
NOT TO SCALE



NOTE: ALL UTILITIES SHALL BE REVIEWED AND APPROVED BY APPROPRIATE UTILITY COMPANY.

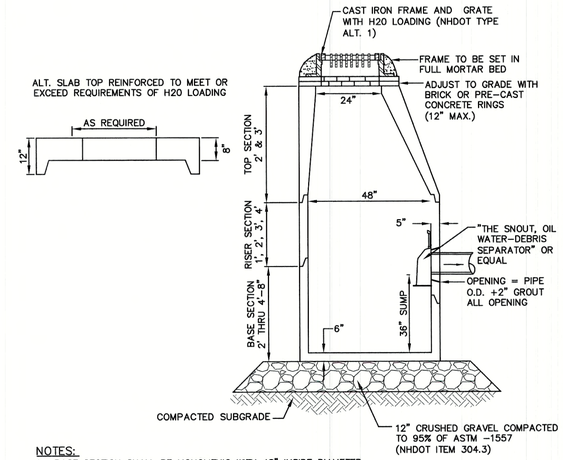
UTILITY TRENCH

NOT TO SCALE



GAS TRENCH

NOT TO SCALE

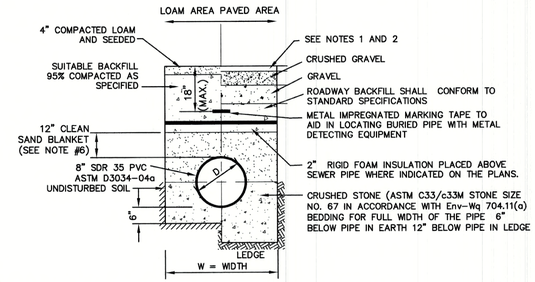


NOTES:

1. BASE SECTION SHALL BE MONOLITHIC WITH 48" INSIDE DIAMETER.
2. ALL SECTIONS SHALL BE DESIGNED FOR H20 LOADING.
3. CONCRETE SHALL BE COMPRESSIVE STRENGTH 4000 PSI, TYPE II CEMENT.
4. FRAMES AND GRATES SHALL BE HEAVY DUTY AND DESIGNED FOR H20 LOADING
5. PROVIDE "V" KNOCKOUTS FOR PIPES WITH 2" MAX. CLEARANCE TO OUTSIDE OF PIPE. MORTAR ALL PIPE CONNECTIONS SO AS TO BE WATERTIGHT.
6. JOINT SEALANT BETWEEN PRECAST SECTIONS SHALL BE BUTYL RUBBER.
7. ALL CATCH BASIN FRAMES AND GRATES SHALL BE NHDOT CATCH BASIN TYPE ALTERNATE 1 OR NEENAH R–3570 OR APPROVED EQUAL (24"x24" TYPICAL).
8. STANDARD CATCH BASIN FRAME AND GRATE(S) SHALL BE SET IN FULL MORTAR BED. ADJUST TO GRADE WITH CLAY BRICK AND MORTAR (2 BRICK COURSES TYPICALLY, 5 BRICK COURSES MAXIMUM, BUT NO MORE THAN 12"), OR PRECAST CONCRETE 'DONUTS'.
9. ALL CATCH BASINS ARE TO BE FITTED WITH GREASE HOODS.

CATCH BASIN WITH GREASE HOOD

NOT TO SCALE



NOTES:

1. PAVEMENT REPAIR IN EXISTING ROADWAYS SHALL CONFORM TO PAVEMENT DETAILS.
2. NEW ROADWAY CONSTRUCTION SHALL CONFORM TO SUBDIVISION SPECIFICATIONS.
3. TRENCH BACKFILL SHALL CONFORM WITH ENV. Wq 704.11(h) AND BE FREE OF DEBRIS, PAVEMENT, ORGANIC MATTER, TOP SOIL, WET OR SOFT MUCK, PEAT OR CLAY, EXCAVATED LEDGE OR ROCKS OVER SIX INCHES.
4. W= MAXIMUM ALLOWABLE TRENCH WIDTH TO A PLANE 12" INCHES ABOVE THE PIPE. FOR PIPES 15 INCHES NOMINAL DIAMETER OR LESS, WIDTH SHALL BE NO MORE THAN 36"; FOR PIPES GREATER THAN 15 INCHES NOMINAL DIAMETER, WIDTH SHALL BE 24 INCHES PLUS PIPE O.D. WIDTH SHALL ALSO BE THE PAYMENT WIDTH FOR LEDGE EXCAVATION AND FOR ORDERED EXCAVATION BELOW GRADE.
5. RIGID FOAM INSULATION TO BE PROVIDED WHERE COVER IN THE ROADWAY IS LESS THAN 6' AND CROSS COUNTRY IS LESS THAN 4' WHERE INDICATED ON THE DES APPROVED PLANS.
6. PIPE SAND BLANKET MATERIAL SHALL BE GRADED SAND, FREE FROM ORGANIC MATERIALS, GRADED SUCH THAT 100% PASSES A 1/2 " SIEVE AND A MAXIMUM OF 15% PASSES A #200 SIEVE IN ACCORDANCE WITH Env–Wq 704.11(b).
7. JOINT SEALS FOR PVC PIPE SHALL BE OIL RESISTANT COMPRESSION RINGS OF ELASTOMERIC MATERIAL AND CERTIFIED BY THE MANUFACTURER AS CONFORMING TO THE ASTM D3212 STANDARD IN EFFECT WHEN THE JOINT SEALS WERE MANUFACTURED, AND SHALL BE PUSH–ON, BELL–AND–SPIGOT TYPE PER Env–Wq 704.05 (e).

SEWER TRENCH

NOT TO SCALE

Design: JAC	Draft: LAZ
Checked: JAC	Scale: AS NOTED
Drawing Name: 20737-PLAN.dwg	Date: 3/3/21
	Project No.: 20737

STATE OF NEW HAMPSHIRE – MICHAEL J. KERVIAN No. 9646 – LICENSED PROFESSIONAL ENGINEER – 5/7/2021

REV.	DATE	REVISION	BY
5	5/5/21	REVISIONS	LAZ
4	3/18/21	ADDED DETAIL	LAZ
3	3/3/21	ADDED SURVEY INFO	LAZ
2	1/6/21	MINOR REVISIONS	DJM
1	11/23/20	REVISED PER CLIENT	DJM

Designed and Produced in NH
J/B Jones & Beach Engineers, Inc.
85 Portsmouth Ave.
PO Box 219
Stratham, NH 03885
Civil Engineering Services
603-772-4746
FAX: 603-772-0227
E-MAIL: JBE@JONESANDBEACH.COM

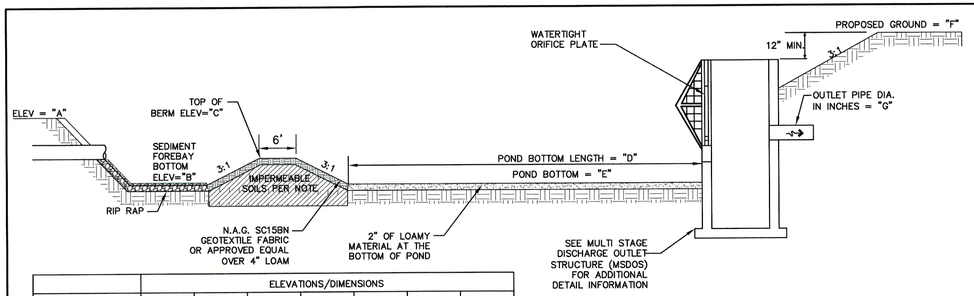
Plan Name:	DETAIL SHEET
Project:	3400 LAFAYETTE ROAD PORTSMOUTH, NH
Owner of Record:	RICCI CONSTRUCTION CO., INC. 225 BANFIELD ROAD, PORTSMOUTH, NH 03801 BK 1930 PG 0229

DRAWING No.

D2

SHEET 19 OF 25

JBE PROJECT NO. 20737



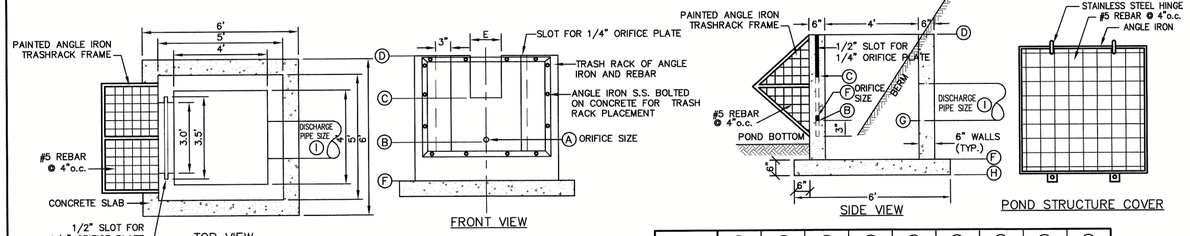
	ELEVATIONS/DIMENSIONS						
	A	B	C	D	E	F	G
WET POND	53.00	49.00	51.00	80.00	47.00	53.00	18"

WET POND SECTION

NOT TO SCALE

WET POND CONSTRUCTION CRITERIA

1. FOUNDATION PREPARATION -- THE FOUNDATION AREA SHALL BE CLEARED OF TREES LOGS, STUMPS, ROOTS, BRUSH, BOULDERS, SOD, AND RUBBISH. IF NEEDED TO ESTABLISH VEGETATION, THE TOPSOIL AND SOD SHALL BE STOCKPILED AND SPREAD ON THE COMPLETED DAM AND SPILLWAYS. FOUNDATION SURFACES SHALL BE SLOPED NO STEEPER THAN 1:1. THE FOUNDATION AREA SHALL BE THOROUGHLY SCARIFIED BEFORE PLACEMENT OF THE MATERIAL. THE SURFACE SHALL HAVE MOISTURE ADDED OR IT SHALL BE COMPACTED, IF NECESSARY, SO THAT THE FIRST LAYER OF FILL MATERIAL CAN BE COMPACTED AND BONDED TO THE FOUNDATIONS. THE CUTOFF TRENCH AND ANY OTHER REQUIRED EXCAVATIONS SHALL BE DUG TO THE LINES AND GRADES SHOWN ON THE PLANS OR AS STAKED IN THE FIELD. IF THEY ARE SUITABLE, EXCAVATED MATERIALS SHALL BE USED IN THE PERMANENT FILL. EXISTING STREAM CHANNELS IN THE FOUNDATION AREA SHALL BE SLOPED NO STEEPER THAN 1:1 AND DEEPENED AND WIDENED AS NECESSARY TO REMOVE ALL STONES, GRAVEL, SAND, STUMPS, ROOTS, AND OTHER OBJECTIONABLE MATERIAL AND TO ACCOMMODATE COMPACTION EQUIPMENT. FILL PLACEMENT -- THE MATERIAL PLACED IN THE FILL SHALL BE FREE OF DETRIMENTAL AMOUNTS OF SOD, ROOTS, FROZEN SOIL, STONES MORE THAN 6 INCHES IN DIAMETER (EXCEPT FOR ROCK FILLS), AND OTHER OBJECTIONABLE MATTER.
2. SELECTED BACK FILL MATERIAL SHALL BE PLACED AROUND STRUCTURES, PIPE CONDUITS AND ANTI SEEP COLLARS AT ABOUT THE SAME RATE ON ALL SIDES, TO PREVENT DAMAGE FROM UNEQUAL LOADING. THE PLACING AND SPREADING OF FILL MATERIAL SHALL BE STARTED AT THE LOWEST POINT OF THE FOUNDATION AND THE FILL BROUGHT UP IN HORIZONTAL LAYERS OF SUCH THICKNESS THAT THE REQUIRED COMPACTION CAN BE OBTAINED. THE FILL SHALL BE CONSTRUCTED IN CONTINUOUS HORIZONTAL LAYERS EXCEPT WHERE OPENINGS OR SECTIONALIZED FILLS ARE REQUIRED. IN THOSE CASES, THE SLOPE OF THE BONDING SURFACES BETWEEN THE EMBANKMENT IN PLACE AND THE EMBANKMENT TO BE PLACED SHALL NOT BE STEEPER THAN 3 HORIZONTAL TO 1 VERTICAL. THE BONDING SURFACE SHALL BE TREATED THE SAME AS THAT SPECIFIED FOR THE FOUNDATION SO AS TO INSURE A GOOD BOND WITH THE NEW FILL. THE DISTRIBUTION AND GRADATION OF MATERIALS SHALL BE SUCH THAT NO LENSES, POCKETS, STREAKS, OR LAYERS OF MATERIAL DIFFER SUBSTANTIALLY IN TEXTURE OF GRADATION FROM THE SURROUNDING MATERIAL. IF IT IS NECESSARY TO USE MATERIALS OF VARYING TEXTURE AND GRADATION, THE MORE IMPERVIOUS MATERIAL SHALL BE PLACED IN THE CENTER AND UPSTREAM PARTS OF THE FILL. IF ZONED FILLS OF SUBSTANTIALLY DIFFERING MATERIALS ARE SPECIFIED, THE ZONES SHALL BE PLACED ACCORDING TO THE LINES AND GRADES SHOWN ON THE DRAWINGS. THE COMPLETE WORK SHALL CONFORM TO THE LINES, GRADES, AND ELEVATIONS SHOWN ON THE DRAWINGS OR AS STAKED IN THE FIELD.
3. MOISTURE CONTROL -- THE MOISTURE CONTENT OF THE FILL MATERIAL SHALL BE ADEQUATE FOR OBTAINING THE REQUIRED COMPACTION. MATERIAL THAT IS TOO WET SHALL BE DRIED TO MEET THIS REQUIREMENT, AND MATERIAL THAT IS TOO DRY SHALL HAVE WATER ADDED AND MIXED UNTIL THE REQUIREMENT IS MET.
4. COMPACTION -- CONSTRUCTION EQUIPMENT SHALL BE OPERATED OVER THE AREAS OR EACH LAYER OF FILL TO INSURE THAT THE REQUIRED COMPACTION IS OBTAINED. SPECIAL EQUIPMENT SHALL BE USED IF NEEDED TO OBTAIN THE REQUIRED COMPACTION. IF A MINIMUM REQUIRED DENSITY IS SPECIFIED, EACH LAYER OF FILL SHALL BE COMPACTED AS NECESSARY TO OBTAIN THAT DENSITY. FILL ADJACENT TO STRUCTURES, PIPE CONDUITS, AND ANTI SEEP COLLARS SHALL BE COMPACTED TO A DENSITY EQUIVALENT TO THAT OF THE SURROUNDING FILL BY MEANS OF HAND TAMPING OR MANUALLY DIRECTED POWER TAMPER OR PLATE VIBRATORS. FILL ADJACENT TO CONCRETE STRUCTURES SHALL NOT BE COMPACTED UNTIL THE CONCRETE IS STRONG ENOUGH TO SUPPORT THE LOAD.
5. PROTECTION -- A PROTECTIVE COVER OF VEGETATION SHALL BE ESTABLISHED ON ALL EXPOSED SURFACES OF THE EMBANKMENT, SPILLWAY, AND BORROW AREA IF SOIL AND CLIMATIC CONDITIONS PERMIT. IF SOIL OR CLIMATIC CONDITIONS PRECLUDE THE USE OF VEGETATION AND PROTECTION IS NEEDED, NON-VEGETATIVE MEANS SUCH AS MULCHES OR GRAVEL MAY BE USED. IN SOME PLACES, TEMPORARY VEGETATION MAY BE USED UNTIL CONDITIONS PERMIT ESTABLISHMENT OF PERMANENT VEGETATION. THE EMBANKMENT AND SPILLWAY SHALL BE FENCED IF NECESSARY TO PROTECT THE VEGETATION.
6. SEEDBED PREPARATION, SEEDING, FERTILIZING, AND MULCHING SHALL COMPLY WITH THE APPROPRIATE VEGETATIVE BMP'S.
7. CONCRETE -- THE MIX DESIGN AND TESTING OF CONCRETE SHALL BE CONSISTENT WITH THE STRENGTH REQUIREMENTS OF THE JOB. MIX REQUIREMENTS OR NECESSARY STRENGTH SHALL BE SPECIFIED. THE TYPE OF CEMENT, AIR ENTRAPMENT, SLUMP, AGGREGATE, OR OTHER PROPERTIES SHALL BE SPECIFIED IF NECESSARY. ALL CONCRETE IS TO CONSIST OF A WORKABLE MIX THAT CAN BE PLACED AND FINISHED IN AN ACCEPTABLE MANNER. NECESSARY CURING SHALL BE SPECIFIED. REINFORCING STEEL SHALL BE PLACED AS INDICATED ON THE PLANS AND SHALL BE HELD SECURELY IN PLACE DURING CONCRETE PLACEMENT. SUB GRADES AND FORMS SHALL BE INSTALLED TO LINE AND GRADE, AND THE FORMS SHALL BE MORTAR TIGHT AND UNYIELDING AS THE CONCRETE IS PLACED.
8. THE CONTRACTOR WILL NOTIFY JONES AND BEACH ENGINEERS AFTER EACH OF THE GRAVEL WETLAND PONDS HAVE BEEN EXCAVATED TO THE BOTTOM OF THE SYSTEM FOR A MANDATORY INSPECTION PRIOR TO BUILDING BERMS, PLACING STONE OR INSTALLING PIPE SYSTEM.
9. BERMS AND WEIRS SEPARATING THE FOREBAY AND TREATMENT CELLS SHOULD BE CONSTRUCTED WITH CLAY, OR NON-CONDUCTIVE SOILS, AND/OR A FINE GEOTEXTILE, OR SOME COMBINATION THEREOF, TO AVOID WATER SEEPAGE AND SOIL PIPING THROUGH THESE EARTHEN DIVIDERS.



	A	B	C	D	E	F	G	H	I
WET POND	6"	51.00	52.25	52.75	36"	48.00	51.00	47.50	18"

APPROXIMATE LIST OF MATERIALS

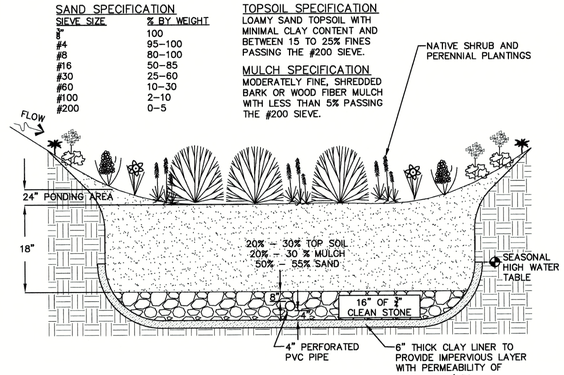
1. 3 C.Y. - 5000 PSI CONCRETE
2. 15 ANGLE IRONS @ 4' LENGTH
3. REQUIRED S.S. BOLTS AND FASTENERS
4. 1/4" STEEL PLATE WITH DRILLED ORIFICES
5. 1 C.Y. - CRUSHED STONE FOR BASE
6. 48 #5 REBARS @ 1', 2' AND 3' LENGTHS
7. 32 #4 REBARS @ 4.5' LENGTH

NOTES:

1. REINFORCING STEEL SHALL CONSIST OF A SINGLE LAYER OF HORIZONTAL AND VERTICAL PLACED #4 REBAR @ 12" O.C.
2. CONCRETE BOX TO BE CONSTRUCTED OR PRECAST OF EQUAL DIMENSIONS AND REINFORCING.
3. CONCRETE SLAB TO BE CONSTRUCTED ALONG WITH BASE. FOR PRECAST BOX, A SLOTTED CONCRETE SLAB TO BE USED.
4. SECTION JOINTS AND PIPE OPENING SHALL BE SEALED WATERTIGHT WITH MORTAR BY CONTRACTOR.
5. ALL EXPOSED REBAR TO BE PAINTED WITH RUST-RESISTANT PAINT, COLOR AT CONTRACTOR'S DISCRETION.
6. TO BE SUPPLIED BY CAPITAL CONCRETE PRODUCTS OF HENNIKER, N.H., (1-603-428-3218) OR EQUAL.
7. STRUCTURE TO HAVE TEMPORARY PLYWOOD INSTALLED IN THE ORIFICE PLATE SLOT UNTIL THE SITE IS STABILIZED.
8. STRUCTURE IS TO BE DESIGNED FOR H20 LOADING.
9. SOIL UNDERLYING THE STRUCTURE IS TO BE COMPACTED TO 95% MODIFIED PROCTOR.

MULTI-STAGE DISCHARGE OUTLET STRUCTURE (MSDOS)

NOT TO SCALE

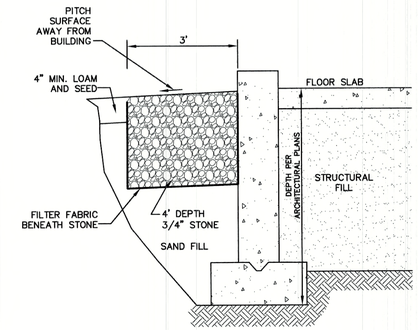


BIORETENTION SYSTEM (with clay bottom and pipe)

NOT TO SCALE

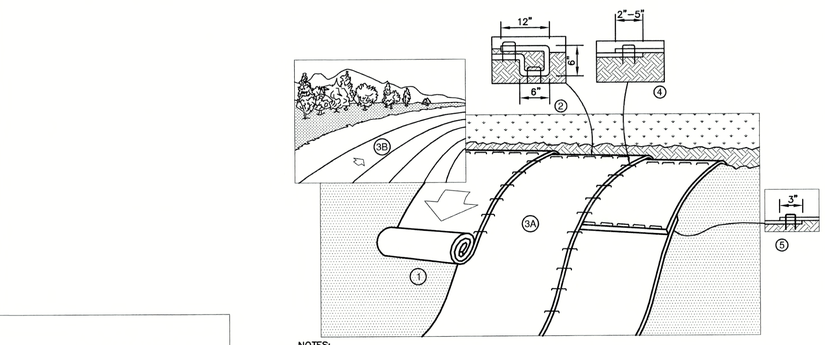
DESIGN CONSIDERATIONS

1. DO NOT PLACE BIORETENTION SYSTEMS INTO SERVICE UNTIL THE BMP HAS BEEN PLANTED AND ITS CONTRIBUTING AREAS HAVE BEEN FULLY STABILIZED.
2. DO NOT DISCHARGE SEDIMENT-LADEN WATERS FROM CONSTRUCTION ACTIVITIES (RUN-OFF, WATER FROM EXCAVATIONS) TO THE BIORETENTION AREA DURING ANY STAGE OF CONSTRUCTION.
3. DO NOT TRAFFIC EXPOSED SOIL SURFACE WITH CONSTRUCTION EQUIPMENT. IF FEASIBLE, PERFORM EXCAVATIONS WITH EQUIPMENT OUTSIDE THE LIMITS OF THE INFILTRATION COMPONENTS OF THE SYSTEM.
4. CLAY LINER MATERIAL SHALL BE CLEAN SILTY-CLAY BORROW FREE OF ROOTS, ORGANIC MATTER, AND OTHER DELETERIOUS SUBSTANCES, AND SHALL CONTAIN NO ROCKS OR LUMPS OVER THREE INCHES (3") IN DIAMETER. THIS MATERIAL SHALL BE INSTALLED IN 6" LIFTS COMPACTED TO 92% OF ASTM D-1557, AND SHALL MEET THE FOLLOWING SPECIFICATIONS: 6" PASSING 100%, #4 SIEVE 95-100%, #40 SIEVE 60-90%, #100 SIEVE 40-60%, #200 SIEVE 25-45% (OF THE FRACTION PASSING THE #4 SIEVE). THE CLAY COMPONENT SHALL HAVE A PLASTICITY INDEX OF AT LEAST 8 AND A HYDRAULIC CONDUCTIVITY OF 10 TO THE -6 CM/SEC.
5. COMPACTION AND MATERIALS TESTING SERVICES SHALL BE PERFORMED BY AN INDEPENDENT GEOTECHNICAL ENGINEER RETAINED BY THE OWNER.



DRIP EDGE DETAIL

NOT TO SCALE



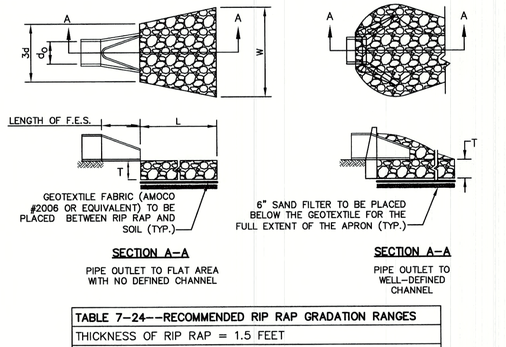
NOTES:

1. PREPARE SOIL BEFORE INSTALLING BLANKETS, INCLUDING ANY NECESSARY APPLICATION OF LIME, FERTILIZER, AND SEED. NOTE: WHEN USING CELL-O-SEED DO NOT SEED PREPARED AREA. CELL-O-SEED MUST BE INSTALLED WITH PAPER SIDE DOWN.
2. BEGIN AT THE TOP OF THE SLOPE BY ANCHORING THE BLANKET IN A 6" DEEP BY 6" WIDE TRENCH WITH APPROXIMATELY 12" OF BLANKET EXTENDED BEYOND THE UP-SLOPE PORTION OF THE TRENCH. ANCHOR THE BLANKET WITH A ROW OF STAPLES/STAKES APPROXIMATELY 12" APART IN THE BOTTOM OF THE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING. APPLY SEED TO COMPACTED SOIL AND FOLD REMAINING 12" PORTION OF BLANKET BACK OVER SEED AND COMPACTED SOIL. SECURE BLANKET OVER COMPACTED SOIL WITH A ROW OF STAPLES/STAKES SPACED APPROXIMATELY 12" APART ACROSS THE WIDTH OF THE BLANKET.
3. ROLL THE BLANKETS (A) DOWN OR (B) HORIZONTALLY ACROSS THE SLOPE. BLANKETS WILL UNROLL WITH APPROPRIATE SIDE AGAINST THE SOIL SURFACE. ALL BLANKETS MUST BE SECURELY FASTENED TO SOIL SURFACE BY PLACING STAPLES/STAKES IN APPROPRIATE LOCATIONS AS SHOWN IN THE STAPLE PATTERN GUIDE. WHEN USING OPTIONAL DOT SYSTEM™, STAPLES/STAKES SHOULD BE PLACED THROUGH EACH OF THE COLORED DOTS CORRESPONDING TO THE APPROPRIATE STAPLE PATTERN.
4. THE EDGES OF PARALLEL BLANKETS MUST BE STAPLED WITH APPROXIMATELY 2"-5" OVERLAP DEPENDING ON BLANKET TYPE. TO ENSURE PROPER SEAM ALIGNMENT, PLACE THE EDGE OF THE OVERLAPPING BLANKET (BLANKET BEING INSTALLED ON TOP) EVEN WITH THE COLORED SEAM STITCH ON THE PREVIOUSLY INSTALLED BLANKET.
5. CONSECUTIVE BLANKETS SPLICED DOWN THE SLOPE MUST BE PLACED END OVER END (SHINGLE STYLE) WITH AN APPROXIMATE 3" OVERLAP. STAPLE THROUGH OVERLAPPED AREA, APPROXIMATELY 12" APART ACROSS ENTIRE BLANKET WIDTH. NOTE: IN LOOSE SOIL CONDITIONS, THE USE OF STAPLE OR STAKE LENGTHS GREATER THAN 6" MAY BE NECESSARY TO PROPERLY SECURE THE BLANKETS.

NORTH AMERICAN GREEN
14649 HIGHWAY 41 NORTH
EVANSVILLE, INDIANA 47725
1-800-772-2040

EROSION CONTROL BLANKET SLOPE INSTALLATION
NORTH AMERICAN GREEN (800) 772-2040

NOT TO SCALE



SECTION A-A

PIPE OUTLET TO FLAT AREA WITH NO DEFINED CHANNEL

SECTION A-A

PIPE OUTLET TO WELL-DEFINED CHANNEL

TABLE 7-24--RECOMMENDED RIP RAP GRADATION RANGES		
THICKNESS OF RIP RAP = 1.5 FEET		
d50 SIZE= 0.50 FEET 6 INCHES		
% OF WEIGHT SMALLER THAN THE GIVEN d50 SIZE	SIZE OF STONE (INCHES) FROM	TO
100%	9	12
85%	8	11
50%	6	9
15%	2	3

NOTES:

1. THE SUBGRADE FOR THE GEOTEXTILE FABRIC AND RIP RAP SHALL BE PREPARED TO THE LINES AND GRADES SHOWN ON THE PLANS.
2. THE RIP RAP SHALL CONFORM TO THE SPECIFIED GRADATION.
3. GEOTEXTILE FABRICS SHALL BE PROTECTED FROM PUNCTURE OR TEARING DURING THE PLACEMENT OF THE ROCK RIP. DAMAGED AREAS IN THE FABRIC SHALL BE REPAIRED BY PLACING A PIECE OF FABRIC OVER THE DAMAGED AREA OR BY COMPLETE REPLACEMENT OF THE FABRIC. ALL OVERLAPS REQUIRED FOR REPAIRS OR JOINING TWO PIECES OF FABRIC SHALL BE A MINIMUM OF 12 INCHES.
4. STONE FOR THE RIP RAP MAY BE PLACED BY EQUIPMENT AND SHALL BE CONSTRUCTED TO THE FULL LAYER THICKNESS IN ONE OPERATION AND IN SUCH A MANNER AS TO PREVENT SEGREGATION OF THE STONE SIZES.
5. OUTLETS TO A DEFINED CHANNEL SHALL HAVE 2:1 OR FLATTER SIDE SLOPES AND SHOULD BEGIN AT THE TOP OF THE CULVERT AND TAPER DOWN TO THE CHANNEL BOTTOM THROUGH THE LENGTH OF THE APRON.
6. MAINTENANCE: THE OUTLET PROTECTION SHOULD BE CHECKED AT LEAST ANNUALLY AND AFTER EVERY MAJOR STORM. IF THE RIP RAP HAS BEEN DISPLACED, UNDERMINED OR DAMAGED, IT SHOULD BE REPAIRED IMMEDIATELY. THE CHANNEL IMMEDIATELY BELOW THE OUTLET SHOULD BE CHECKED TO SEE THAT EROSION IS NOT OCCURRING. THE DOWNSTREAM CHANNEL SHOULD BE KEPT CLEAR OF OBSTRUCTIONS SUCH AS FALLEN TREES, DEBRIS, AND SEDIMENT THAT COULD CHANGE FLOW PATTERNS AND/OR TAILWATER DEPTHS ON THE PIPES. REPAIRS MUST BE CARRIED OUT IMMEDIATELY TO AVOID ADDITIONAL DAMAGE TO OUTLET PROTECTION.

RIP RAP OUTLET PROTECTION APRON

NOT TO SCALE

Design: JAC	Draft: LAZ
Checked: JAC	Scale: AS NOTED
Drawing Name: 20737-PLAN.dwg	Date: 3/3/21
	Project No.: 20737

STATE OF NEW HAMPSHIRE - MICHAEL J. KERIVAN No. 9846 - LICENSED PROFESSIONAL ENGINEER - 5/7/2021

REV.	DATE	REVISION	BY
5	5/5/21	REVISIONS	LAZ
4	3/18/21	ADDED DETAIL	LAZ
3	3/3/21	ADDED SURVEY INFO	LAZ
2	1/6/21	MINOR REVISIONS	DJM
1	11/23/20	REVISED PER CLIENT	DJM

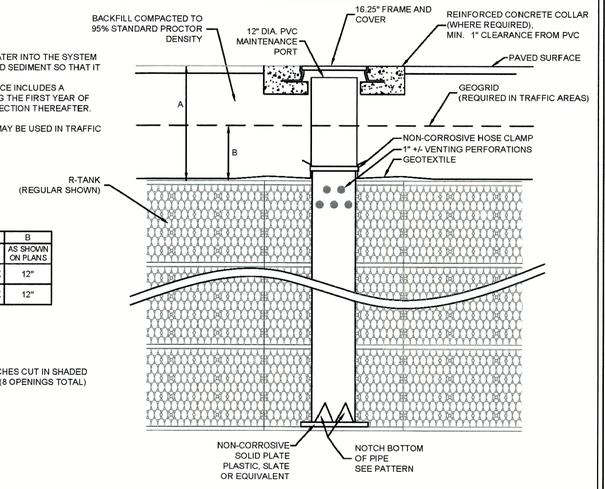
Designed and Produced in NH
Jones & Beach Engineers, Inc.
85 Portsmouth Ave.
PO Box 219
Stratham, NH 03885
Civil Engineering Services
603-772-4746
FAX: 603-772-0227
E-MAIL: JBE@JONESANDBEACH.COM

Plan Name:	DETAIL SHEET
Project:	3400 LAFAYETTE ROAD PORTSMOUTH, NH
Owner of Record:	RICCI CONSTRUCTION CO., INC. 225 BANFIELD ROAD, PORTSMOUTH, NH 03801 BK 1930 PG 0229

DRAWING No.
D3
SHEET 20 OF 25
JBE PROJECT NO. 20737

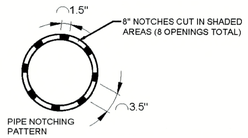
NOTES

- THIS PORT IS USED TO PUMP WATER INTO THE SYSTEM AND RE-SUSPEND ACCUMULATED SEDIMENT SO THAT IT MAY BE PUMPED OUT.
- MINIMUM REQUIRED MAINTENANCE INCLUDES A QUARTERLY INSPECTION DURING THE FIRST YEAR OF OPERATION AND A YEARLY INSPECTION THEREAFTER. FLUSH AS NEEDED.
- ONLY R-TANK^{LD} AND R-TANK^{SD} MAY BE USED IN TRAFFIC APPLICATIONS.



DEPTH SUMMARY

TYPE	A	B
R-TANK^{LD}	12" MIN - 36" MAX	AS SHOWN ON PLANS
R-TANK^{HD}	20" MIN - 6.99' MAX	12"
R-TANK^{SD}	18" MIN - 9.99' MAX	12"

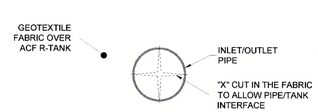


02/06/19

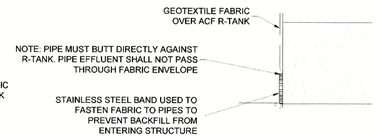
MAINTENANCE PORT
FOR R-TANK^{LD}, R-TANK^{HD}, AND R-TANK^{SD}

FOR ADDITIONAL INFORMATION PLEASE CONTACT: ACF ENVIRONMENTAL, 1-800-448-3636, www.acfenvironmental.com

CUT AN "X" IN THE FABRIC ENVELOPE THAT IS SLIGHTLY LARGER THAN THE PIPE. PULL THE FABRIC FLAPS AROUND THE PIPE, AND SEAL WITH A STAINLESS STEEL BAND.

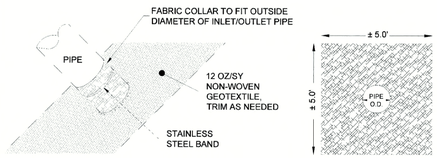


END VIEW OF PIPE/FABRIC CONNECTION



SIDE VIEW OF PIPE/FABRIC CONNECTION

AFTER TANK WRAP IS SECURED TO PIPE, SLIDE BOOT AGAINST R-TANK AND SECURE WITH SECOND STAINLESS STEEL BAND, THEN ATTACH BOOT FLAP TO TANK ENVELOPE FABRIC WITH DUCT TAPE OR OTHER ADHESIVE.



GEOTEXTILE BOOT

FRONT VIEW OF GEOTEXTILE BOOT

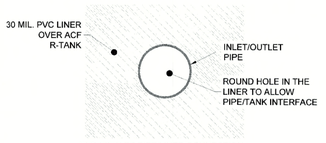
SIDE VIEW OF GEOTEXTILE BOOT

07/26/19

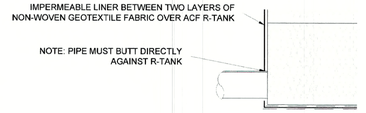
R-TANK TYPICAL INLET/OUTLET W/ GEOTEXTILE BOOT

FOR ADDITIONAL INFORMATION PLEASE CONTACT: ACF ENVIRONMENTAL, 1-800-448-3636, www.acfenvironmental.com

CUT A ROUND HOLE IN THE LINER ENVELOPE AND GEOTEXTILE PROTECTION FABRIC THAT IS SLIGHTLY LARGER THAN THE PIPE.

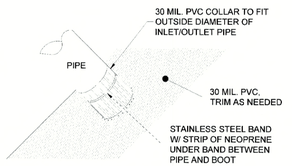


END VIEW OF PIPE/LINER CONNECTION

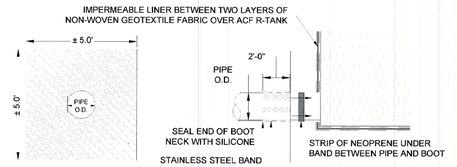


SIDE VIEW OF PIPE/LINER CONNECTION

AFTER LINER IS CUT AND PIPE INSTALED, SLIDE BOOT AGAINST TANK AND SECURE WITH STAINLESS STEEL BAND, THEN BOND BOOT TO TANK LINER AND SEAL END OF BOOT WITH SILICONE. REPLACE ANY GEOTEXTILE PROTECTION FABRIC REMOVED DURING BOOT INSTALLATION PROCESS.



30 MIL. PVC BOOT



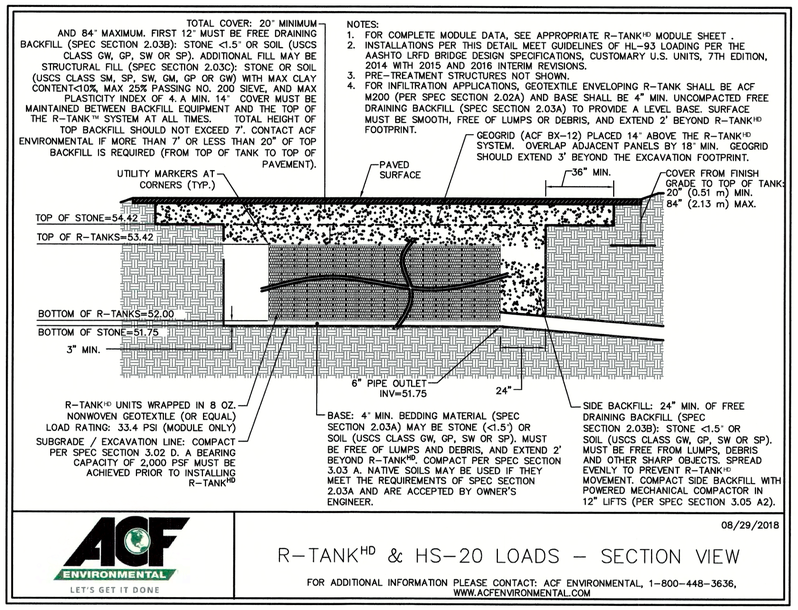
FRONT VIEW OF 30 MIL. PVC BOOT

SIDE VIEW OF 30 MIL PVC BOOT

07/26/19

R-TANK TYPICAL INLET/OUTLET W/ 30 MIL PVC BOOT

FOR ADDITIONAL INFORMATION PLEASE CONTACT: ACF ENVIRONMENTAL, 1-800-448-3636, www.acfenvironmental.com



NOTES:
1. FOR COMPLETE MODULE DATA, SEE APPROPRIATE R-TANK^{HD} MODULE SHEET .
2. INSTALLATIONS PER THIS DETAIL MEET GUIDELINES OF HL-93 LOADING PER THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, CUSTOMARY U.S. UNITS, 7TH EDITION, 2014 WITH 2015 AND 2016 INTERIM REVISIONS.
3. PRE-TREATMENT STRUCTURES NOT SHOWN.
4. FOR INFILTRATION APPLICATIONS, GEOTEXTILE ENVELOPING R-TANK SHALL BE ACF M200 (PER SPEC SECTION 2.02A) AND BASE SHALL BE 4" MIN. UNCOMPACTED FREE DRAINING BACKFILL (SPEC SECTION 2.03A) TO PROVIDE A LEVEL BASE SURFACE. MUST BE SMOOTH, FREE OF LUMPS OR DEBRIS, AND EXTEND 2' BEYOND R-TANK^{HD} FOOTPRINT.

08/29/2018

R-TANK^{HD} & HS-20 LOADS - SECTION VIEW

FOR ADDITIONAL INFORMATION PLEASE CONTACT: ACF ENVIRONMENTAL, 1-800-448-3636, WWW.ACFENVIRONMENTAL.COM

NOTES:

2.02 GEOSYNTHETICS

A. GEOTEXTILE. A GEOTEXTILE ENVELOPE IS REQUIRED TO PREVENT BACKFILL MATERIAL FROM ENTERING THE R-TANK MODULES.
1. STANDARD APPLICATION: THE STANDARD GEOTEXTILE SHALL BE AN 8 OZ PER SQUARE YARD NONWOVEN GEOTEXTILE (ACF N080 OR EQUIVALENT).
2. INFILTRATION APPLICATIONS: WHEN WATER MUST INFILTRATE/EXFILTRATE THROUGH THE GEOTEXTILE AS A FUNCTION OF THE SYSTEM DESIGN, A WOVEN MONOFILAMENT (ACF M200 OR EQUIVALENT) SHALL BE USED.

B. GEOGRID. FOR INSTALLATIONS SUBJECT TO TRAFFIC LOADS AND/OR WHEN REQUIRED BY PROJECT PLANS, INSTALL GEOGRID (ACF BX12 OR EQUIVALENT) TO REINFORCE BACKFILL ABOVE THE R-TANK SYSTEM. GEOGRID IS NOT ALWAYS REQUIRED FOR R-TANKUD INSTALLATIONS, AND IS OFTEN NOT REQUIRED FOR NON-TRAFFIC LOAD APPLICATIONS.

2.03 BACKFILL & COVER MATERIALS

A. BEDDING MATERIALS: STONE (ANGULAR AND SMALLER THAN 1.5" IN DIAMETER) OR SOIL (GW, GP, SW, OR SP AS CLASSIFIED BY THE UNIFIED SOIL CLASSIFICATION SYSTEM) SHALL BE USED BELOW THE R-TANK SYSTEM (3" MINIMUM). MATERIAL MUST BE FREE FROM LUMPS, DEBRIS, AND ANY SHARP OBJECTS THAT COULD CUT THE GEOTEXTILE. MATERIAL SHALL BE WITHIN 3 PERCENT OF THE OPTIMUM MOISTURE CONTENT AS DETERMINED BY ASTM D698 AT THE TIME OF INSTALLATION. FOR INFILTRATION APPLICATIONS BEDDING MATERIAL SHALL BE FREE DRAINING. A 1' TO 2' LAYER OF UNSUITABLE MATERIAL OCCURS 3' TO 6' BELOW EXISTING GRADE WITHIN THE R-TANK SYSTEM FOOTPRINT. THIS MATERIAL IS TO BE REMOVED AND REPLACED WITHIN THE R-TANK SYSTEM FOOTPRINT WITH STONE (ANGULAR AND SMALLER THAN 1.5" IN DIAMETER) OR SOIL (GW, GP, SW, OR SP AS CLASSIFIED BY THE UNIFIED SOIL CLASSIFICATION SYSTEM). A BED BOTTOM INSPECTION SHALL BE PERFORMED BY TRUSLOW RESOURCE CONSULTING PRIOR TO CONSTRUCTION OF THE R-TANK SYSTEM.

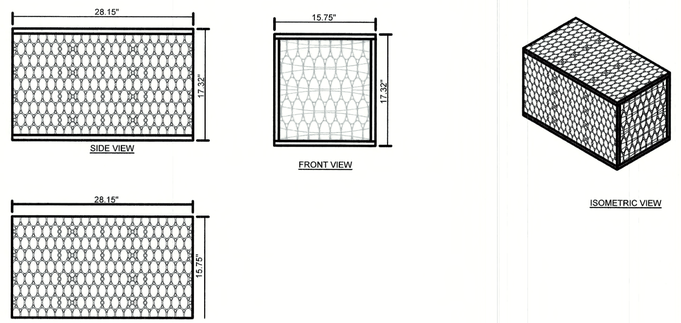
B. SIDE AND TOP BACKFILL: MATERIAL MUST BE FREE FROM LUMPS, DEBRIS AND ANY SHARP OBJECTS THAT COULD CUT THE GEOTEXTILE. MATERIAL SHALL BE WITHIN 3 PERCENT OF THE OPTIMUM MOISTURE CONTENT AS DETERMINED BY ASTM D698 AT THE TIME OF INSTALLATION.

1. TRAFFIC APPLICATIONS – FREE DRAINING MATERIAL SHALL BE USED ADJACENT TO (24" MINIMUM) AND ABOVE (FOR THE FIRST 12') THE R-TANK SYSTEM.
   a. FOR HD, AND SD MODULES, BACKFILL MATERIALS SHALL BE FREE DRAINING STONE (ANGULAR AND SMALLER THAN 1.5" IN DIAMETER) OR SOIL (GW, GP, SW, OR SP AS CLASSIFIED BY THE UNIFIED SOIL CLASSIFICATION SYSTEM).
   b. FOR UD MODULES WITH LESS THAN 14" OF TOP COVER, BACKFILL MATERIALS SHALL BE FREE DRAINING STONE (ANGULAR AND SMALLER THAN 1.5" IN DIAMETER). THE USE OF SOIL BACKFILL ON THE SIDES AND TOP OF THE UD MODULE IS NOT PERMITTED UNLESS THE MODULES ARE INSTALLED OUTSIDE OF TRAFFIC AREAS OR WITH COVER DEPTHS OF 14" OR MORE. TOP BACKFILL MATERIAL (FROM TOP OF MODULE TO BOTTOM OF PAVEMENT BASE OR 12" MAXIMUM) MUST BE CONSISTENT WITH SIDE BACKFILL.
2. NON-TRAFFIC / GREEN SPACE APPLICATIONS – FOR ALL R-TANK MODULES INSTALLED IN GREEN SPACES AND NOT SUBJECTED TO VEHICULAR LOADS, BACKFILL MATERIALS MAY EITHER FOLLOW THE GUIDELINES FOR TRAFFIC APPLICATIONS ABOVE, OR THE TOP BACKFILL LAYER (12" MINIMUM) MAY CONSIST OF AASHTO #57 STONE BLENDED WITH 30-40% (BY VOLUME) TOPSOIL TO AID IN ESTABLISHING VEGETATION.

C. ADDITIONAL COVER MATERIALS: STRUCTURAL FILL SHALL CONSIST OF GRANULAR MATERIALS MEETING THE GRADATIONAL REQUIREMENTS OF SM, SP, SW, GM, GP OR GW AS CLASSIFIED BY THE UNIFIED SOIL CLASSIFICATION SYSTEM. STRUCTURAL FILL SHALL HAVE A MAXIMUM OF 25 PERCENT PASSING THE NO. 200 SIEVE, SHALL HAVE A MAXIMUM CLAY CONTENT OF 10 PERCENT AND A MAXIMUM PLASTICITY INDEX OF 4. MATERIAL SHALL BE WITHIN 3 PERCENT OF THE OPTIMUM MOISTURE CONTENT AS DETERMINED BY ASTM D698 AT THE TIME OF INSTALLATION.

2.04 OTHER MATERIALS

A. UTILITY MARKER: INSTALL METALLIC TAPE AT CORNERS OF R-TANK SYSTEM TO MARK THE AREA FOR FUTURE UTILITY DETECTION.



MODULE DATA

GEOMETRY: LENGTH = 28.15 IN. (715 MM)	LOAD RATING: 33.4 PSI, (MODULE ONLY)
WIDTH = 15.75 IN. (400 MM)	HS25, (WITH ACF COVER SYSTEM)
HEIGHT = 17.32 IN. (440 MM)	MATERIAL: 100% RECYCLED POLYPROPYLENE
TANK VOLUME = 4.44 CF	
STORAGE VOLUME = 4.22 CF	
VOID INTERNAL VOLUME: 95%	SMALL PLATES PER
VOID SURFACE AREA: 90%	SEGMENT/TOTAL: 5/5

R-TANK^{HD} - SINGLE MODULE

FOR ADDITIONAL INFORMATION PLEASE CONTACT: ACF ENVIRONMENTAL, 1-800-448-3636, www.acfenvironmental.com 5/16

Design: JAC	Draft: LAZ	Date: 3/3/21
Checked: JAC	Scale: AS NOTED	Project No.: 20737
Drawing Name: 20737-PLAN.dwg		

STATE OF NEW HAMPSHIRE – MICHAEL J. KERIVAN No. 9646 LICENSED PROFESSIONAL ENGINEER – 5/17/21

REV.	DATE	REVISION	BY
5	5/5/21	REVISIONS	LAZ
4	3/18/21	ADDED DETAIL	LAZ
3	3/3/21	ADDED SURVEY INFO	LAZ
2	1/6/21	MINOR REVISIONS	DJM
1	11/23/20	REVISED PER CLIENT	DJM

Designed and Produced in NH
J/B Jones & Beach Engineers, Inc.
85 Portsmouth Ave. PO Box 219 Stratham, NH 03885
Civil Engineering Services
603-772-4746 FAX: 603-772-0227 E-MAIL: JBE@JONESANDBEACH.COM

Plan Name: DETAIL SHEET

Project: 3400 LAFAYETTE ROAD PORTSMOUTH, NH

Owner of Record: RICCI CONSTRUCTION CO., INC. 225 BANFIELD ROAD, PORTSMOUTH, NH 03801 BK 1930 PG 0229

DRAWING No. D4

SHEET 21 OF 25
JBE PROJECT NO. 20737

PRETX SPECIFICATIONS

A. GENERAL

1. PRETX SYSTEMS ARE A PRE-FILTER AND CRITICAL MAINTENANCE DEVICE THAT EXTENDS THE OPERATING LIFE AND REDUCES THE MAINTENANCE BURDEN OF BIORETENTION SYSTEMS, RAIN GARDENS, BIOSWALES AND OTHER TYPES OF SURFACE BEST MANAGEMENT PRACTICES BY FILTERING OUT SEDIMENT, TRASH AND DEBRIS AT THE INLET.

B. PRODUCTS

1. PRETX IS AVAILABLE IN 3 MODELS THAT MANAGE MOST BIORETENTIOIN INLET CONFIGURATIONS: CURB, DROP, AND INLINE.
2. PRETX-CURB IS FOR EDGE OF PAVEMENT RUNOFF AT A CURB CUT IN LIEU OF A STONE SPREADER.
3. PRETX-DROP IS FOR USE AS A DROP INLET CONFIGURATION ALONG A CURB LINE AND WOULD BE INSTALLED WITH A STANDARD DROP INLET GRATE.
4. PRETX-INLINE IS FOR USE WITH SUBSURFACE INLET AND OUTLET PIPE.
5. PRETX IS SIZED TO PRETREAT WATER QUALITY FLOWS AND BYPASS LARGER FLOWS THAT HAVE MINIMAL TRASH AND DEBRIS. PRETX CAN BE USED BOTH IN RETROFIT OR NEW INSTALLATIONS.
6. ACCEPTABLE SYSTEM SUPPLIER:
   CONVERGENT WATER TECHNOLOGIES, INC. OR ITS AUTHORIZED VALUE-ADDED RESELLER
   (800) 711-5428
   WWW.CONVERGENTWATER.COM

C. SUBMITTALS

1. SUBMIT PROPOSED LAYOUT DRAWINGS. DRAWINGS SHALL INCLUDE TYPICAL SECTION DETAILS ANNOTED WITH SYSTEM ELEVATIONS (E.G., RIM, PIPE INVERTS, OUTSIDE BOTTOM OF STRUCTURE, ETC.).
2. SUBMIT MATERIAL CERTIFICATES FOR FRAMES AND COVERS
3. ANY PROPOSED EQUAL ALTERNATE PRODUCT SUBSTITUION TO THIS SPECIFICATON MUST BE SUBMITTED FOR REVIEW AND APPROVED PRIOR TO BID OPENING.

D. EXECUTION

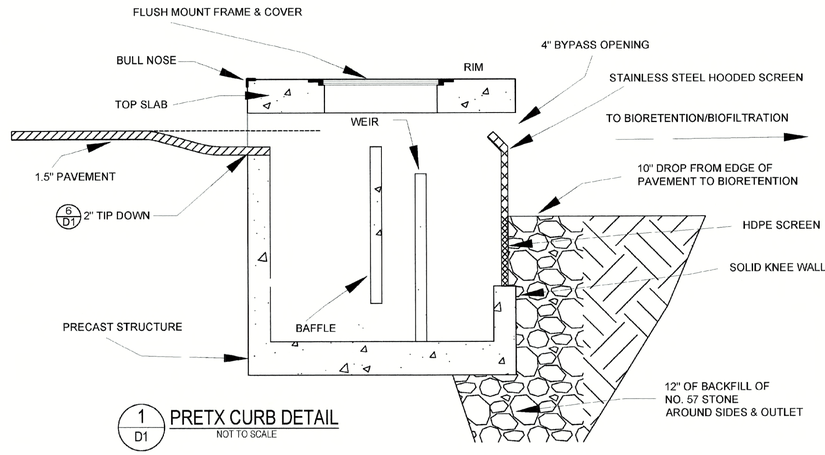
1. All PUBLIC STORM DRAINAGE SYSTEMS SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE LATEST EDITION OF THE STATE DEPARTMENT OF TRANSPORTATION STANDARDS AND SPECIFICATIONS AND ACCORDING TO LOCAL MUNICIPAL REQ UIREME NTS.
2. All STORM DRAINAGE SYSTEM CONSTRUCTION IS SUBJECT TO INSPECTION AND APPROVAL BY THE PROJECT ENGINEER.
3. THE CONTRACTOR SHALL NOTIFYTHE PROJECT ENGINEER A MINIMUM OF TWO FULL BUSINESS DAYS PRIOR TO THE START OF CONSTRUCTIO N.
4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING AND OBTAINING APPROVAL FROM DIG-SAFE AND DETERMINING THE LOCATION OF All UNDERGROUND UTILITIES PRIOR TO THE START OF CONSTRUCTION/ EXCAVATI ON AND SHALL NOTIFY THE PROJECT ENGINEER OF ANY POTENTIAL CONFLICTS.
5. TO PROTECT STORMWATER FLOW CONTROL AND QUALITY TREATMENT FACILITIES FROM SEDIMENTATION, THEY SHALL BE CONNECTED TO THE STORM CONVEYANCE SYSTEM ONLY AFTER ALL SITE WORK, ROAD CONSTRUCTION, UTILITY WORK AND LANDSCAPING ARE IN PLACE IN ALL AREAS ABOVE AND UPSTREAM OF THE FACILITY.
6. THE EXISTING STORM SEWER SYSTEM SHALL STAY ISOLATED FROM THE NEW SYSTEM UNTIL THE NEW SYSTEM IS CLEANED, AND APPROVED FOR USE. THERE SHALL BE NO DEBRIS IN THE LINES OR FURTHER CLEANING Will BE REQUIRED PRIOR TO ACCEPTANCE.
7. PROVIDE A 1.5" MINIMUM GAP BETWEEN THE KNOCKOUT WALL AND THE OUTSIDE OF THE PIPE. AFTER THE PIPE IS INSTALLED, FILL THE GAP WITH JOINT MORTAR
8. THE OPENING SHALL BE MEASURED ATTHE TOP OF THE PRECAST BASE SECTION.
9. All PICKUP HOLES SHALL BE GROUTED FULL AFTER THE BASIN HAS BEEN PLACED.
10. STANDARD CURB INLETS AND TIPDOWNS SHALL BE PRECAST CONCRETE OR ASPHALT.
11. PIPE ENDS SHALL BE FLUSH WITH THE INNER WALL OR 1" MAXIMUM INTRUSION. MASONRY, CINDER BLOCKS, OR SIMILIAR MATERIALS MA Y BE USED TO ADJUST THE RISERS TO GRADE PRIOR TO GROUTING.
12. GROUTING SHALL BE SUFFICIENTTO PREVENT LEAKS BETWEEN THE PRECAST COMPONENTS OF THE COMPLETED STRUCTURE & SHALL BE PERFORMED INSIDE, BETWEEN & CUTSIDE OF All RISERS, JOINTS & PIPE PENETRATIONS.
13. MANHOLES TO BE CONSTRUCTED IN ACCORDANCE WITH AASHTO M-199 UNLESS OTHERWISE SHOWN ON PLANS OR NOTED IN THE STANDARD SPECIFICATIONS.
14. All REINFORCED CAST IN PLACE CONCRETE SHALL BE CLASS 4000. All PRECAST CONCRETE SHALL BE CLASS 4000.
15. RECAST BASES SHALL BE FURNISHED WITH CUTOUTS OR KNOCKOUTS. KNOCKOUTS SHALL HAVE A WALL THICKNESS OF 2" MINIMUM.
16. MATING SURFACES OF MANHOLE RINGS AND COVERSSHALL BE FINISHED TO ASSURE NON-ROCKING FIT WITH ANY COVER POSITIONS.

E. CONSTRUCTION AND SEQUENCING

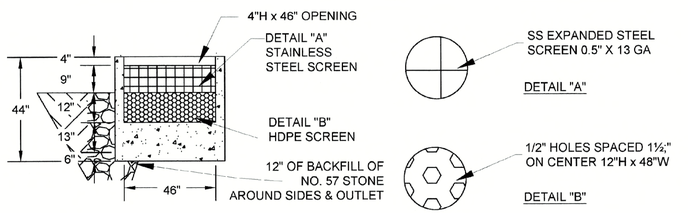
1. EXAMINATION
   A. VERIFY LAYOUT AND ORIENTATION OF PRE-TX SYSTEM AREA INCLUDING EDGE OF PAVEMENT, TIP DOWN, CURBS AND SIDEWALK, BIOFILTRATION SYSTEM, AND CONNECTIONS.
   B. VERIFY EXCAVATION BASE IS READY TO RECEIVE WORK AND EXCAVATIONS, DIMENSIONS, AND ELEVATIONS ARE AS INDICATED ON DRAWINGS.
2. PREPARATION
   A. CALL DIG SAFE AND RECEIVE APPROVAL BEFORE PERFORMING WORK.
   B. REQUEST UNDERGROUND UTILITIES TO BE LOCATED AND MARKED WITHIN AND SURROUNDING CONSTRUCTION AREAS.
   C. IDENTIFY REQUIRED LINES, LEVELS, CONTOURS, AND DATUM.
   D. CLEAR AND GRUB THE PROPOSED PRE-TX SYSTEM AREA.
3. EXCAVATION AND INSTALLATION
   A. THE FOLLOWING CONSTRUCTION SEQUENCE IS TO BE USED AS A GENERAL GUIDELINE. COORDINATE WITH THE OWNER, AND ENGINEERS FOR REVIEW AND APPROVAL PRIOR TO CONSTRUCTION.
   B. INSTALL TEMPORARY EROSION AND SEDIMENT CONTROLS TO DIVERT STORM WATER AWAY FROM THE PRE-TX SYSTEM AREA.
   C. EXCAVATE TO THE BOTTOM INVERT OF THE SYSTEM.
   D. TO MINIMIZE COMPACTION OF ADJACENT BIOFILTRATION SYSTEMS, WORK EXCAVATORS OR BACKHOES FROM THE SIDES TO EXCAVATE THE PRE-TX SYSTEM AREA TO ITS APPROPRIATE DESIGN DEPTH AND DIMENSIONS.
   E. ROUGH GRADE THE PRE-TX SYSTEM AREA DURING GENERAL CONSTRUCTION. EXCAVATE THE PRE-TX SYSTEM FACILITIES TO WITHIN 1 FOOT OF STRUCTURE BOTTOM .
   F. PLACE 1 FOOT BED OF COARSE STONE TO ELEVATION OF BASE OF STRUCTURE.
   G. ESTABLISH ELEVATIONS FOR ADJACENT CURBS, EDGE OF PAVEMENT AND TIP DOWN, SIDEWALK, PIPE INVERTS FOR INLETS AND OUTLETS AS INDICATED ON DRAWINGS.
4. INSTALLATION
   A. PLACE THE PRECAST SYSTEM TO NECESSARY ELEVATION.
   B. VERIFY ELEVATIONS FOR ADJACENT CURBS, EDGE OF PAVEMENT, PAVEMENT GRADING FOR INLET GRATE FOR PRETX-DROP, SIDEWALK, PIPE INVERTS FOR INLETS AND OUTLETS. OUTLET INVERT FOR KNEE WALL.
   C. FOR PRETX-SURFACE:
      a. VERIFY ELEVATIONS FOR ADJACENT CURBS.
      b. VERIFY EDGE OF PAVEMENT TIP DOWN PAVEMENT GRADING FOR INLET GRATE.
      c. VERIFY CURB ELEVATION IN RELATION TO PAVEMENT AND TIP DOWN.
      d. VERIFY OUTLET INVERT FOR KNEE WALL IN RELATION TO FILTER MEDIA.
   D. FOR PRETX-DROP:
      a. VERIFY ALL INLET PIPES ENTER THE STRUCTURE UPSTREAM OF BAFFLE.
      b. VERIFY FRAME AND GRATE OFFSET ON INLET SIDE AND UPSTREAM OF BAFFLE.
      c. VERIFY CURB LOCATION WITH RESPECT TO FRAME AND GRATE ORIENTATION.
   E. INSTALL BAFFLES, WEIR, AND SCREENS AS INDICATED ON DRAWINGS.
   F. VERIFY MAINTENANCE ACCESS THROUGH GRATE OR COVER AND CLEARANCE FOR VACTOR.
   G. INSTALL TOP OF STRUCTURE LEVEL WITH ADJACENT CURB OR SIDEWALK AS PER MANUFACTURERS SPECIFICATIONS. ENGINEER FIELD VISIT REQUIRED PRIOR TO BACKFILLING.
5. BACKFILLING
   A. BACKFILL WITH APPROVED SOIL AND STONE TO THE DESIGN GRADE AS SPECIFIED IN THE DRAWINGS.
   B. BACKFILL WITH 12" OF NO. 57 STONE AROUND REAR, LEFT, AND RIGHT SIDES TO LEVEL WITH TOP OF HDPE SCREEN.
   C. BACKFILL WITH BIORETENTION SOIL MIX BEYOND STONE BACKFILL TO EQUAL ELEVATION OF THE TOP OF HDPE SCREEN.
   D. DO NOT BACKFILL SOIL OR STONE AGAINST STAINLESS SCREEN.
   E. DO NOT COMPACT ADJACENT FILTRATION SYSTEM SOIL WITH MECHANICAL EQUIPMENT.
   F. STABILIZE All REMAINING DISTURBED AREAS AND SIDE SLOPES WITH SEEDING, HYDROSEEDING, AND/ OREROSION CONTROL BLANKETS AS INDICATED ON DRAWINGS.
6. CLEAN UP
   A. AFTER COMPLETION OF THE WORK, REMOVE AND PROPERLY DISPOSE ALL DEBRIS, CONSTRUCTION MATERIA LS, RUBBISH, EXCESS SOIL, ETC., FROM THE PROJECT SITE. REPAIR PROMPTL Y ANY IDENTIFIED DEFICIENCIES AND LEAVE THE PROJECT SITE IN A CLEAN AND SATISFACTORY CONDITION.

PRETX-CURB ELEVATION GUIDE

POINT	DESCRIPTION	HEIGHT IN REFERENCE TO PT. A
A	EDGE OF PAVEMENT	0 INCHES
B	OUTSIDE TOP SLAB	8 INCHES
C	TOP OF BIORETENTION	12 INCHES
D	SUMP INVERT	36 INCHES
E	OUTSIDE BOTTOM	42 INCHES

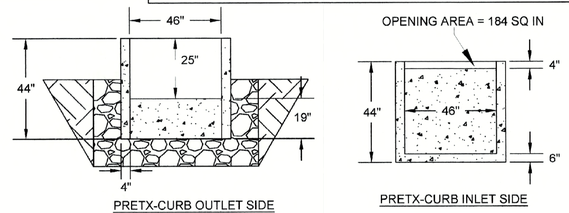


1/D1 PRETX CURB DETAIL
NOT TO SCALE

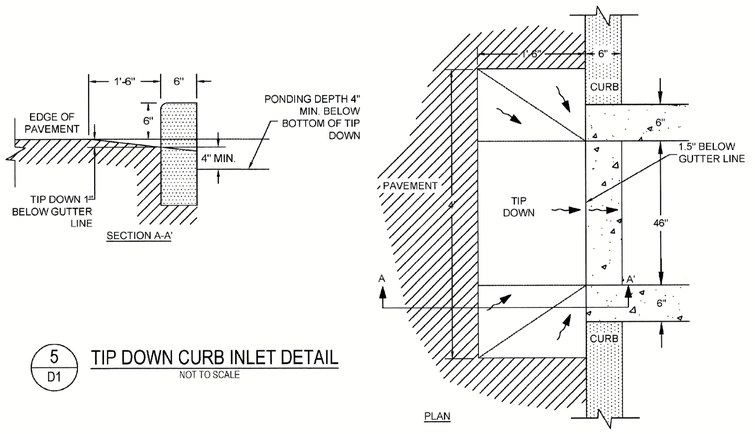


3/D1 PRETX CURB OUTLET SIDE
NOT TO SCALE

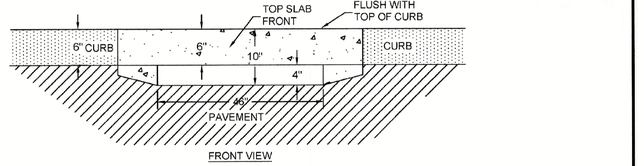
OUTLET SIDE INSTALLED W/ SCREENS



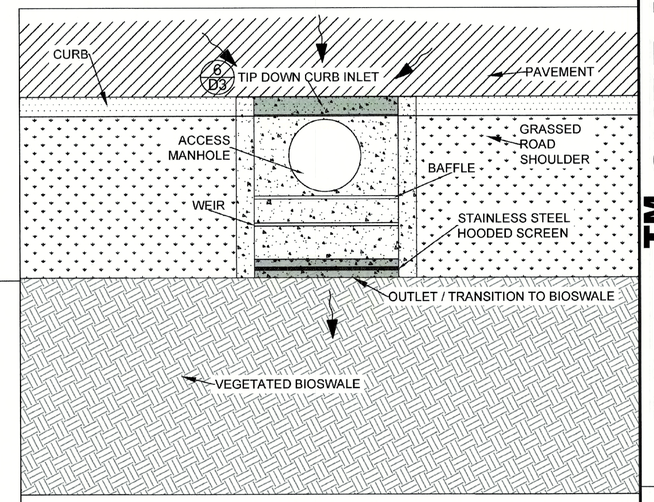
4/D1 PRETX CURB SIDE DETAIL
NOT TO SCALE



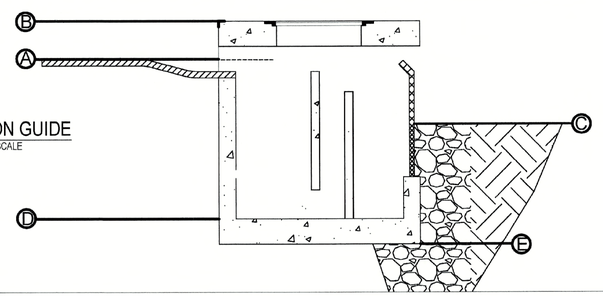
5/D1 TIP DOWN CURB INLET DETAIL
NOT TO SCALE



FRONT VIEW



7/D1 PRETX CURB OUTLET TO BIORETENTION CONFIGURATION
NOT TO SCALE



6/D1 ELEVATION GUIDE
NOT TO SCALE

PRETX™ CURB INLET PRETREATMENT DETAIL

D-1

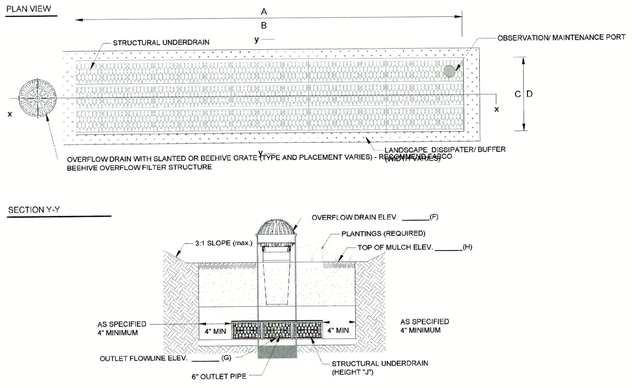
TO FIND A VALUE ADDED RESELLER IN YOUR AREA VISIT
WWW.CONVERGENTWATER.COM/STORMWATER-PRODUCTS
OR CONTACT CONVERGENT WATER TECHNOLOGIES AT
1.800.711.5428

REVISED 11/20/18: ELEVATION DETAILS ADDED; CHECKED BY RR

ACF ENVIRONMENTAL — LET'S GET IT DONE

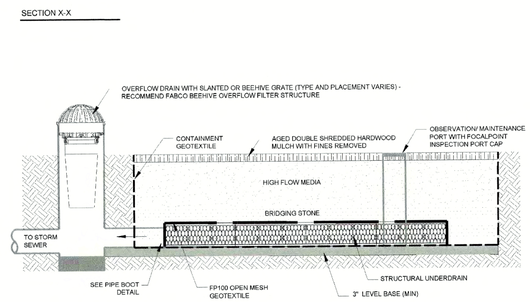
PRETX BIOFILTER ★ PRETREATMENT ★

CONVERGENT WATER TECHNOLOGIES



1

TYPICAL LAYOUT AND SECTION Y-Y



2

SECTION X-X

FOCALPOINT HP PERFORMANCE SPECIFICATION:

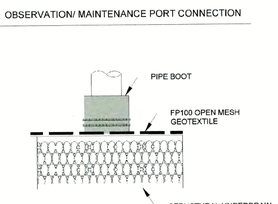
HIGH PERFORMANCE MEDIA
HIGH PERFORMANCE MEDIA MUST MEET A MINIMUM OF 100" PER HOUR INFILTRATION RATE.
FIELD HYDRAULIC CONDUCTIVITY TESTING MUST BE CONDUCTED WITHIN 30 DAYS OF INSTALLATION.
FIELD TEST MUST BE CONDUCTED WITH PROSCRIBED INFILTROMETER AND SOP (SEE SPECIFICATION)
FAILURE TO MEET FIELD TESTING WILL RESULT IN THE REMOVAL OF MEDIA ND REPLACEMNT FROM ALTERNATE BATCH.

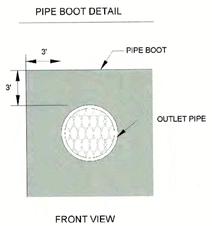
HIGH PERFORMANCE STRUCTURAL UNDERDRAIN

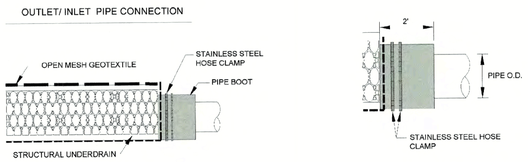
MUST HAVE A MINIMUM OF 19 SQUARE INCHES OF ORIFICE OPENING PER SQUARE FOOT.
MUST MEET H20 LOADING REQUIREMENTS
MUST BE MODULAR IN NATURE AND ASSEMBLED ON SITE.
MUST HAVE MINIMUM 90% INTERIOR VOID SPACE.

PLANT COMPONENT

SUPPLIER SHALL PROVIDE LIST OF ACCEPTABLE PLANTS
IF PLANTS ARE NOT INCLUDED IN THE LANDSCAPE CONTRACT/PLANS. SITE CONTRACTOR SHALL PROVIDE PLANTS.
PLANTS SHALL BE INSTALLED AT THE TIME OF THE SYSTEM IS COMMISSIONED FOR USE. PLANTING OUTSIDE THIS TIME REQUIRES APPROVAL BY THE ENGINEER OF RECORD.
SEE FOCALPOINT INSTALLATION GUIDE FOR PLANT SPACING, PLANTING PROCEDURES, ETC.





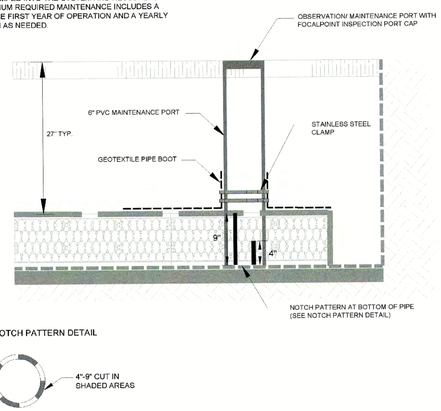


4

PIPE CONNECTION DETAIL

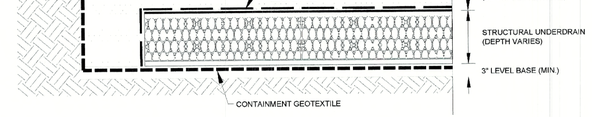
OBSERVATION/ MAINTENANCE PORT

PORT USED FOR INSPECTION PURPOSES AND FOR SYSTEM MAINTENANCE AS REQUIRED. WATER SHALL BE PUMPED INTO THE SYSTEM AND RESUSPEND ACCUMULATED SEDIMENT. MINIMUM REQUIRED MAINTENANCE INCLUDES A QUARTERLY INSPECTION FOR THE FIRST YEAR OF OPERATION AND A YEARLY INSPECTION THEREAFTER FLUSH AS NEEDED.



5

INSPECTION PORT DETAIL



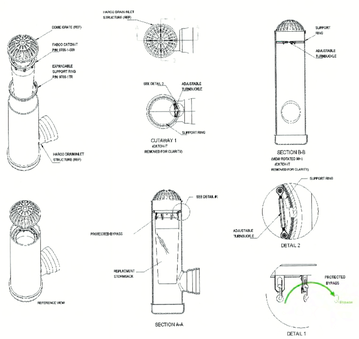
6

DETAILED CROSS SECTION

FOR ADDITIONAL INFORMATION PLEASE CONTACT
ACF ENVIRONMENTAL 1-800-448-3636
www.acfenvironmental.com

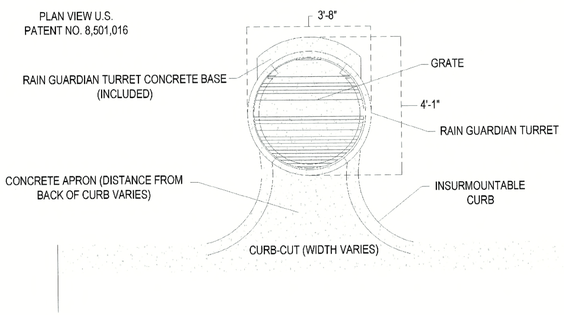
ACF ENVIRONMENTAL
LET'S GET IT DONE

STRUCTURE DIAMETER (INCHES)	DEBRIS CAPACITY (CF)	FILTERED FLOWRATE (CFS)	BYPASS FLOWRATE (CFS)	TOTAL SYSTEM FLOWRATE (CFS)
12	0.77	2.2	1.2	3.4
18	1.65	2.5	1.0	3.5
24	3.60	4.9	2.4	7.3
30	6.20	4.9	2.4	7.3



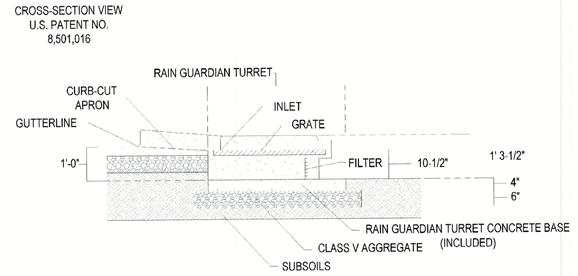
7

R-TANK^{HD} TYPICAL TANK INLET/OUTLET DETAIL



8

RAIN GUARDIAN TURRET (PLAN)



9

RAIN GUARDIAN TURRET (SECTION)

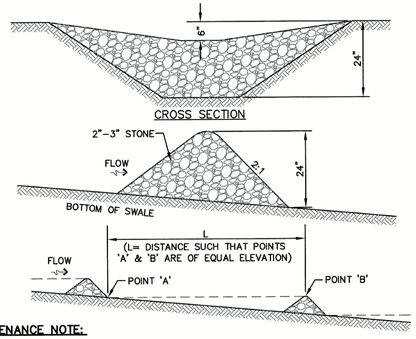
NOTE: ENGINEER OF RECORD TO REVIEW, APPROVE AND ENDORSE FINAL SITE SPECIFIC DESIGN.

FOCALPOINT DETAILS

PROJECT NO.
35.336

DATE
AUG 15, 2019

SHEET NO.
FP-1

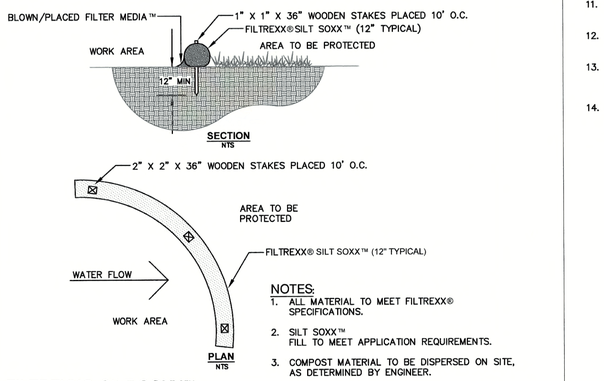


MAINTENANCE NOTE:

1. STONE CHECK DAMS SHOULD BE CHECKED AFTER EACH RAINFALL AND AT LEAST DAILY DURING PROLONGED RAINFALL. ANY NECESSARY REPAIRS SHOULD BE MADE IMMEDIATELY. PARTICULAR ATTENTION SHOULD BE GIVEN TO END RUN AND EROSION AT THE DOWNSTREAM TOE OF THE STRUCTURE. WHEN THE STRUCTURES ARE REMOVED, THE DISTURBED PORTION SHOULD BE BROUGHT TO THE EXISTING CHANNEL GRADE AND THE AREAS PREPARED, SEEDED AND MULCHED. WHILE THIS PRACTICE IS NOT INTENDED TO BE USED PRIMARILY FOR SEDIMENT TRAPPING, SOME SEDIMENT WILL ACCUMULATE BEHIND THE STRUCTURES. SEDIMENT SHALL BE REMOVED FROM BEHIND THE STRUCTURES WHEN IT HAS ACCUMULATED TO ONE HALF OF THE ORIGINAL HEIGHT OF THE STRUCTURE.

STONE CHECK DAM

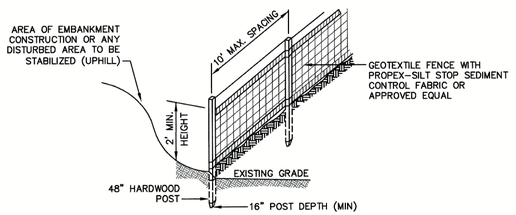
NOT TO SCALE



NOTES:
1. ALL MATERIAL TO MEET FILTREXX® SPECIFICATIONS.
2. SILT SOXX™ FILL TO MEET APPLICATION REQUIREMENTS.
3. COMPOST MATERIAL TO BE DISPERSED ON SITE, AS DETERMINED BY ENGINEER.

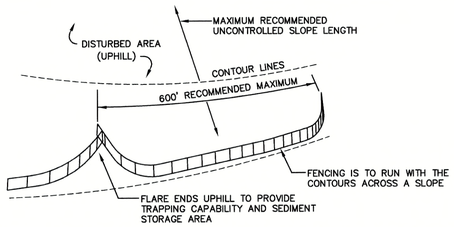
FILTREXX® SILT SOXX™

NOT TO SCALE



CONSTRUCTION SPECIFICATIONS:

1. WOVEN FABRIC FENCE TO BE FASTENED SECURELY TO FENCE POSTS WITH WIRE TIES OR STAPLES. FILTER CLOTH SHALL BE FASTENED TO WOVEN WIRE EVERY 24" AT TOP, MID AND BOTTOM AND EMBEDDED IN THE GROUND A MINIMUM OF 8" AND THEN COVERED WITH SOIL.
2. THE FENCE POSTS SHALL BE A MINIMUM OF 48" LONG, SPACED A MAXIMUM 10' APART, AND DRIVEN A MINIMUM OF 16" INTO THE GROUND.
3. WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER, THE ENDS OF THE FABRIC SHALL BE OVERLAPPED 6", FOLDED AND STAPLED TO PREVENT SEDIMENT FROM BY–PASSING.
4. MAINTENANCE SHALL BE PERFORMED AS NEEDED AND SEDIMENT REMOVED AND PROPERLY DISPOSED OF WHEN IT IS 6" DEEP OR VISIBLE 'BULGES' DEVELOP IN THE SILT FENCE.
5. PLACE THE ENDS OF THE SILT FENCE UP CONTOUR TO PROVIDE FOR SEDIMENT STORAGE.
6. SILT FENCE SHALL REMAIN IN PLACE FOR 24 MONTHS.



7. SILT FENCES SHALL BE REMOVED WHEN NO LONGER NEEDED AND THE SEDIMENT COLLECTED SHALL BE DISPOSED AS DIRECTED BY THE ENGINEER. THE AREA DISTURBED BY THE REMOVAL SHALL BE SMOOTHED AND REVEGETATED.

MAINTENANCE:

1. SILT FENCES SHALL BE INSPECTED IMMEDIATELY AFTER EACH RAINFALL AND AT LEAST DAILY DURING PROLONGED RAINFALL. ANY REPAIRS THAT ARE REQUIRED SHALL BE DONE IMMEDIATELY.
2. IF THE FABRIC ON A SILT FENCE SHOULD DECOMPOSE OR BECOME INEFFECTIVE DURING THE EXPECTED LIFE OF THE FENCE, THE FABRIC SHALL BE REPLACED PROMPTLY.
3. SEDIMENT DEPOSITS SHOULD BE INSPECTED AFTER EVERY STORM EVENT. THE DEPOSITS SHOULD BE REMOVED WHEN THEY REACH APPROXIMATELY ONE HALF THE HEIGHT OF THE BARRIER.
4. SEDIMENT DEPOSITS THAT ARE REMOVED, OR LEFT IN PLACE AFTER THE FABRIC HAS BEEN REMOVED, SHALL BE GRADED TO CONFORM WITH THE EXISTING TOPOGRAPHY AND VEGETATED.

SILT FENCE

NOT TO SCALE

TEMPORARY EROSION CONTROL NOTES

1. THE SMALLEST PRACTICAL AREA OF LAND SHALL BE EXPOSED AT ANY ONE TIME. AT NO TIME SHALL AN AREA IN EXCESS OF 5 ACRES BE EXPOSED AT ANY ONE TIME BEFORE DISTURBED AREAS ARE STABILIZED.
2. EROSION, SEDIMENT AND DETENTION MEASURES SHALL BE INSTALLED AS SHOWN ON THE PLANS AND AT LOCATIONS AS REQUIRED, DIRECTED BY THE ENGINEER.
3. ALL DISTURBED AREAS (INCLUDING POND AREAS BELOW THE PROPOSED WATERLINE) SHALL BE RETURNED TO PROPOSED GRADES AND ELEVATIONS. DISTURBED AREAS SHALL BE LOAMED WITH A MINIMUM OF 6" OF SCREENED ORGANIC LOAM AND SEEDED WITH SEED MIXTURE 'C' AT A RATE NOT LESS THAN 1.10 POUNDS OF SEED PER 1,000 S.F. OF AREA (48 LBS. / ACRE).
4. SILT FENCES AND OTHER BARRIERS SHALL BE INSPECTED EVERY SEVEN CALENDAR DAYS AND WITHIN 24 HOURS OF A RAINFALL OF 0.5" OR GREATER. ALL DAMAGED AREAS SHALL BE REPAIRED, AND SEDIMENT DEPOSITS SHALL PERIODICALLY BE REMOVED AND DISPOSED OF.
5. AFTER ALL DISTURBED AREAS HAVE BEEN STABILIZED, THE TEMPORARY EROSION CONTROL MEASURES SHALL BE REMOVED AND THE AREA DISTURBED BY THE REMOVAL SMOOTHED AND RE–VEGETATED.
6. AREAS MUST BE SEEDED AND MULCHED OR OTHERWISE PERMANENTLY STABILIZED WITHIN 3 DAYS OF FINAL GRADING, OR TEMPORARILY STABILIZED WITHIN 14 DAYS OF THE INITIAL DISTURBANCE OF SOIL. ALL AREAS SHALL BE STABILIZED WITHIN 45 DAYS OF INITIAL DISTURBANCE.
7. ALL PROPOSED VEGETATED AREAS THAT DO NOT EXHIBIT A MINIMUM OF 85 PERCENT VEGETATIVE GROWTH BY OCTOBER 15, OR WHICH ARE DISTURBED AFTER OCTOBER 15, SHALL BE STABILIZED BY SEEDING AND INSTALLING NORTH AMERICAN GREEN S75 EROSION CONTROL BLANKETS (OR AN EQUIVALENT APPROVED IN WRITING BY THE ENGINEER) 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.
8. 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.
9. AFTER OCTOBER 15th, INCOMPLETE ROAD OR PARKING SURFACES, WHERE WORK HAS STOPPED FOR THE WINTER SEASON, SHALL BE PROTECTED WITH A MINIMUM OF 3" OF CRUSHED GRAVEL PER NHDOT ITEM 304.3.
10. AN AREA SHALL BE CONSIDERED STABLE IF ONE OF THE FOLLOWING HAS OCCURRED:
    a. BASE COURSE GRAVELS HAVE BEEN INSTALLED IN AREAS TO BE PAVED;
    b. A MINIMUM OF 85% VEGETATED GROWTH HAS BEEN ESTABLISHED;
    c. A MINIMUM OF 3" OF NON–EROSIVE MATERIAL SUCH STONE OR RIPRAP HAS BEEN INSTALLED; OR
    d. EROSION CONTROL BLANKETS HAVE BEEN PROPERLY INSTALLED.
11. FUGITIVE DUST CONTROL IS REQUIRED TO BE CONTROLLED IN ACCORDANCE WITH ENV–A 1000, AND THE PROJECT IS TO MEET THE REQUIREMENTS AND INTENT OF RSA 430:53 AND AGR 3800 RELATIVE TO INVASIVE SPECIES.
12. PRIOR TO BEGINNING CONSTRUCTION, THE CONTRACTOR'S NAME, ADDRESS, AND PHONE NUMBER SHALL BE SUBMITTED TO DES VIA EMAIL (SEE BELOW).
13. PRIOR TO CONSTRUCTION, A PHASING PLAN THAT DELINEATES EACH PHASE OF THE PROJECT SHALL BE SUBMITTED. ALL TEMPORARY SEDIMENT BASINS THAT WILL BE NEEDED FOR DEWATERING WORK AREAS SHALL BE LOCATED AND IDENTIFIED ON THIS PLAN.
14. IN ORDER TO ENSURE THE STABILITY OF THE SITE AND EFFECTIVE IMPLEMENTATION OF THE SEDIMENT AND EROSION CONTROL MEASURES SPECIFIED IN THE PLANS FOR THE DURATION OF CONSTRUCTION, THE CONTRACTOR SHALL BE IN STRICT COMPLIANCE WITH THE FOLLOWING INSPECTION AND MAINTENANCE REQUIREMENTS IN ADDITION TO THOSE CALLED FOR IN THE SWPPP:
    a. A CERTIFIED PROFESSIONAL IN EROSION AND SEDIMENT CONTROL OR A PROFESSIONAL ENGINEER LICENSED IN THE STATE OF NEW HAMPSHIRE ("MONITOR") SHALL BE EMPLOYED TO INSPECT THE SITE FROM THE START OF ALTERATION OF TERRAIN ACTIVITIES UNTIL THE SITE IS IN FULL COMPLIANCE WITH THE SITE SPECIFIC PERMIT ("PERMIT").
    b. DURING THIS PERIOD, THE MONITOR SHALL INSPECT THE SUBJECT SITE AT LEAST ONCE A WEEK, AND IF POSSIBLE, DURING ANY ½ INCH OR GREATER RAIN EVENT (I.E. ½ INCH OF PRECIPITATION OR MORE WITHIN A 24 HOUR PERIOD). IF UNABLE TO BE PRESENT DURING SUCH A STORM, THE MONITOR SHALL INSPECT THE SITE WITHIN 24 HOURS OF THIS EVENT.
    c. THE MONITOR SHALL PROVIDE TECHNICAL ASSISTANCE AND RECOMMENDATIONS TO THE CONTRACTOR ON THE APPROPRIATE BEST MANAGEMENT PRACTICES FOR EROSION AND SEDIMENT CONTROLS REQUIRED TO MEET THE REQUIREMENTS OF RSA 485 A:17 AND ALL APPLICABLE DES PERMIT CONDITIONS.
    d. WITHIN 24 HOURS OF EACH INSPECTION, THE MONITOR SHALL SUBMIT A REPORT TO DES VIA EMAIL (RIDGELY MAUCK AT: RIDGELY.MAUCK@DES.NH.GOV).
    e. THE MONITOR SHALL MEET WITH DES TO DECIDE UPON A REPORT FORMAT. THE REPORT FORMAT SHALL BE REVIEWED AND APPROVED BY DES PRIOR TO THE START OF CONSTRUCTION.

SEEDING SPECIFICATIONS

1. GRADING AND SHAPING
   A. SLOPES SHALL NOT BE STEEPER THAN 2:1 WITHOUT APPROPRIATE EROSION CONTROL MEASURES AS SPECIFIED ON THE PLANS (3:1 SLOPES OR FLATTER ARE PREFERRED).
   B. WHERE MOWING WILL BE DONE, 3:1 SLOPES OR FLATTER ARE RECOMMENDED.
2. SEEDBED PREPARATION
   A. SURFACE AND SEEPAGE WATER SHOULD BE DRAINED OR DIVERTED FROM THE SITE TO PREVENT DROWNING OR WINTER KILLING OF THE PLANTS.
   B. STONES LARGER THAN 4 INCHES AND TRASH SHOULD BE REMOVED BECAUSE THEY INTERFERE WITH SEEDING AND FUTURE MAINTENANCE OF THE AREA. WHERE FEASIBLE, THE SOIL SHOULD BE TILLED TO A DEPTH OF ABOUT 4 INCHES TO PREPARE A SEEDBED AND FERTILIZER AND LIME MIXED INTO THE SOIL. THE SEEDBED SHOULD BE LEFT IN A REASONABLY FIRM AND SMOOTH CONDITION. THE LAST TILLAGE OPERATION SHOULD BE PERFORMED ACROSS THE SLOPE WHEREVER PRACTICAL.
3. ESTABLISHING A STAND
   A. LIME AND FERTILIZER SHOULD BE APPLIED PRIOR TO OR AT THE TIME OF SEEDING AND INCORPORATED INTO THE SOIL. TYPES AND AMOUNTS OF LIME AND FERTILIZER SHOULD BE BASED ON AN EVALUATION OF SOIL TESTS. WHEN A SOIL TEST IS NOT AVAILABLE, THE FOLLOWING MINIMUM AMOUNTS SHOULD BE APPLIED:
      AGRICULTURAL LIMESTONE, 2 TONS PER ACRE OR 100 LBS. PER 1,000 SQ.FT.
      NITROGEN(N), 50 LBS. PER ACRE OR 1.1 LBS. PER 1,000 SQ.FT.
      PHOSPHATE(P2O5), 100 LBS. PER ACRE OR 2.2 LBS. PER 1,000 SQ.FT.
      POTASH(K2O), 100 LBS. PER ACRE OR 2.2 LBS. PER 1,000 SQ.FT.
      (NOTE: THIS IS THE EQUIVALENT OF 500 LBS. PER ACRE OF 10–20–20 FERTILIZER OR 1,000 LBS. PER ACRE OF 5–10–10.)
   B. SEED SHOULD BE SPREAD UNIFORMLY BY THE METHOD MOST APPROPRIATE FOR THE SITE. METHODS INCLUDE BROADCASTING, DRILLING AND HYDROSEEDING. WHERE BROADCASTING IS USED, COVER SEED WITH .25 INCH OF SOIL OR LESS, BY CULTIPACKING OR RAKING.
   C. REFER TO THE 'SEEDING GUIDE' AND 'SEEDING RATES' TABLES ON THIS SHEET FOR APPROPRIATE SEED MIXTURES AND RATES OF SEEDING. ALL LEGUMES (CROWNVETCH, BIRDSFOOT, TREFOIL AND FLATPEA) MUST BE INOCULATED WITH THEIR SPECIFIC INOCULANT PRIOR TO THEIR INTRODUCTION TO THE SITE.
   D. WHEN SEEDED AREAS ARE MULCHED, PLANTINGS MAY BE MADE FROM EARLY SPRING TO EARLY OCTOBER. WHEN SEEDED AREAS ARE NOT MULCHED, PLANTINGS SHOULD BE MADE FROM EARLY SPRING TO MAY 20th OR FROM AUGUST 10th TO SEPTEMBER 1st.
4. MULCH
   A. HAY, STRAW, OR OTHER MULCH, WHEN NEEDED, SHOULD BE APPLIED IMMEDIATELY AFTER SEEDING.
   B. MULCH WILL BE HELD IN PLACE USING APPROPRIATE TECHNIQUES FROM THE BEST MANAGEMENT PRACTICE FOR MULCHING. HAY OR STRAW MULCH SHALL BE PLACED AT A RATE OF 90 LBS PER 1000 S.F.
5. MAINTENANCE TO ESTABLISH A STAND
   A. PLANTED AREAS SHOULD BE PROTECTED FROM DAMAGE BY FIRE, GRAZING, TRAFFIC, AND DENSE WEED GROWTH.
   B. FERTILIZATION NEEDS SHOULD BE DETERMINED BY ONSITE INSPECTIONS. SUPPLEMENTAL FERTILIZER IS USUALLY THE KEY TO FULLY COMPLETE THE ESTABLISHMENT OF THE STAND BECAUSE MOST PERENNIALS TAKE 2 TO 3 YEARS TO BECOME FULLY ESTABLISHED.
   C. IN WATERWAYS, CHANNELS, OR SWALES WHERE UNIFORM FLOW CONDITIONS ARE ANTICIPATED, ANNUAL MOWING MAY BE NECESSARY TO CONTROL GROWTH OF WOODY VEGETATION.

USE	SEEDING MIXTURE 1/	DROUGHTY	WELL DRAINED	MODERATELY WELL DRAINED	POORLY DRAINED
STEEP CUTS AND FILLS, BORROW AND DISPOSAL AREAS	A	FAIR	GOOD	GOOD	FAIR
	B	POOR	GOOD	FAIR	FAIR
	C	POOR	GOOD	EXCELLENT	GOOD
	D	FAIR	EXCELLENT	EXCELLENT	POOR
WATERWAYS, EMERGENCY SPILLWAYS, AND OTHER CHANNELS WITH FLOWING WATER.	A	GOOD	GOOD	GOOD	FAIR
	C	GOOD	EXCELLENT	EXCELLENT	FAIR
LIGHTLY USED PARKING LOTS, ODD AREAS, UNUSED LANDS, AND LOW INTENSITY USE RECREATION SITES.	A	GOOD	GOOD	GOOD	FAIR
	B	GOOD	GOOD	FAIR	POOR
	C	GOOD	EXCELLENT	EXCELLENT	FAIR
PLAY AREAS AND ATHLETIC FIELDS. (TOPSOIL IS ESSENTIAL FOR GOOD TURF.)	E	FAIR	EXCELLENT	EXCELLENT	2/
	F	FAIR	EXCELLENT	EXCELLENT	2/

GRAVEL PIT, SEE NH–PM–24 IN APPENDIX FOR RECOMMENDATION REGARDING RECLAMATION OF SAND AND GRAVEL PITS.

1/ REFER TO SEEDING MIXTURES AND RATES IN TABLE BELOW.
2/ POORLY DRAINED SOILS ARE NOT DESIRABLE FOR USE AS PLAYING AREA AND ATHLETIC FIELDS.

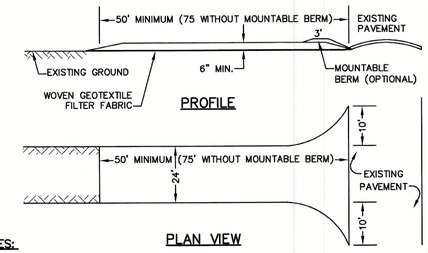
NOTE: TEMPORARY SEED MIX FOR STABILIZATION OF TURF SHALL BE WINTER RYE OR OATS AT A RATE OF 2.5 LBS. PER 1000 S.F. AND SHALL BE PLACED PRIOR TO OCTOBER 15th, IF PERMANENT SEEDING NOT YET COMPLETE.

SEEDING GUIDE

MIXTURE	POUNDS PER ACRE	POUNDS PER 1,000 Sq. Ft.
A. TALL FESCUE	20	0.45
CREEPING RED FESCUE	20	0.45
RED TOP	2	0.05
TOTAL	42	0.95
B. TALL FESCUE	15	0.35
CREEPING RED FESCUE	10	0.25
CROWN VETCH	15	0.35
OR		
FLAT PEA	30	0.75
TOTAL	40 OR 55	0.95 OR 1.35
* C. TALL FESCUE	20	0.45
CREEPING RED FESCUE	20	0.45
BIRDS FOOT TREFOIL	8	0.20
TOTAL	48	1.10
D. TALL FESCUE	20	0.45
FLAT PEA	30	0.75
TOTAL	50	1.20
E. CREEPING RED FESCUE 1/	50	1.15
KENTUCKY BLUEGRASS 1/	50	1.15
TOTAL	100	2.30
F. TALL FESCUE 1	150	3.60

1/ FOR HEAVY USE ATHLETIC FIELDS CONSULT THE UNIVERSITY OF NEW HAMPSHIRE COOPERATIVE EXTENSION TURF SPECIALIST FOR CURRENT VARIETIES AND SEEDING RATES.

SEEDING RATES



NOTES:

1. STONE FOR STABILIZED CONSTRUCTION ENTRANCE SHALL BE 3 INCH STONE, RECLAIMED STONE, OR RECYCLED CONCRETE EQUIVALENT.
2. THE LENGTH OF THE STABILIZED ENTRANCE SHALL NOT BE LESS THAN 50 FEET, 75' WITHOUT A MOUNTABLE BERM, AND EXCEPT FOR A SINGLE RESIDENTIAL LOT WHERE A 30 FOOT MINIMUM LENGTH WOULD APPLY.
3. THICKNESS OF THE STONE FOR THE STABILIZED ENTRANCE SHALL NOT BE LESS THAN 6 INCHES.
4. THE WIDTH OF THE ENTRANCE SHALL NOT BE LESS THAN THE FULL WIDTH OF THE ENTRANCE WHERE INGRESS OR EGRESS OCCURS, OR 10 FEET, WHICHEVER IS GREATER.
5. GEOTEXTILE FILTER FABRIC SHALL BE PLACED OVER THE ENTIRE AREA PRIOR TO PLACING THE STONE. FILTER FABRIC IS NOT REQUIRED FOR A SINGLE FAMILY RESIDENTIAL LOT.
6. ALL SURFACE WATER THAT IS FLOWING TO OR DIVERTED TOWARD THE CONSTRUCTION ENTRANCE SHALL BE PIPED BENEATH THE ENTRANCE. IF PIPING IS IMPRACTICAL, A STONE BERM WITH 5:1 SLOPES THAT CAN BE CROSSED BY VEHICLES MAY BE SUBSTITUTED FOR THE PIPE.
7. THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION THAT WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO THE PUBLIC RIGHT–OF–WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND AND REPAIR AND/OR CLEAN OUT OF ANY MEASURES USED TO TRAP SEDIMENT. ALL SEDIMENT SPILLED, WASHED, OR TRACKED ONTO THE PUBLIC RIGHT–OF–WAY MUST BE REMOVED PROMPTLY.

STABILIZED CONSTRUCTION ENTRANCE

NOT TO SCALE

CONSTRUCTION SEQUENCE

1. PRIOR TO THE START OF ANY ACTIVITY, IT IS THE RESPONSIBILITY OF THE SITE'S SITE DEVELOPER (OR OWNER) TO FILE A NOTICE OF INTENT (NOI) FORM WITH THE ENVIRONMENTAL PROTECTION AGENCY (EPA) IN ORDER TO GAIN COVERAGE UNDER THE NPDES GENERAL PERMIT FOR STORM WATER DISCHARGES FROM CONSTRUCTION ACTIVITIES. A PRE CONSTRUCTION MEETING IS TO BE HELD WITH ALL DEPARTMENT HEADS PRIOR TO THE START OF CONSTRUCTION.
2. WETLAND BOUNDARIES ARE TO BE CLEARLY MARKED PRIOR TO THE START OF CONSTRUCTION.
3. CUT AND REMOVE TREES IN CONSTRUCTION AREA AS REQUIRED OR DIRECTED.
4. INSTALL SILT FENCING, HAY BALES AND CONSTRUCTION ENTRANCES PRIOR TO THE START OF CONSTRUCTION. THESE ARE TO BE MAINTAINED UNTIL THE FINAL PAVEMENT SURFACING AND LANDSCAPING AREAS ARE ESTABLISHED.
5. CLEAR, CUT, GRUB AND DISPOSE OF DEBRIS IN APPROVED FACILITIES. THIS INCLUDES ANY REQUIRED DEMOLITION OF EXISTING STRUCTURES, UTILITIES, ETC.
6. CONSTRUCT AND/OR INSTALL TEMPORARY OR PERMANENT SEDIMENT AND/OR DETENTION BASIN(S) AS REQUIRED. THESE FACILITIES SHALL BE INSTALLED AND STABILIZED PRIOR TO DIRECTING RUN–OFF TO THEM.
7. STRIP LOAM AND PAVEMENT, OR RECLAIM EXISTING PAVEMENT WITHIN LIMITS OF WORK PER THE RECOMMENDATIONS OF THE PROJECT ENGINEER AND STOCKPILE EXCESS MATERIAL. STABILIZE STOCKPILE AS NECESSARY.
8. PERFORM PRELIMINARY SITE GRADING IN ACCORDANCE WITH THE PLANS, INCLUDING THE CONSTRUCTION OF ANY RETAINING WALLS AND SOUND WALLS.
9. INSTALL THE SEWER AND DRAINAGE SYSTEMS FIRST, THEN ANY OTHER UTILITIES IN ACCORDANCE WITH THE PLAN AND DETAILS. ANY CONFLICTS BETWEEN UTILITIES ARE TO BE RESOLVED WITH THE INVOLVEMENT AND APPROVAL OF THE ENGINEER.
10. INSTALL INLET PROTECTION AT ALL CATCH BASINS AS THEY ARE CONSTRUCTED IN ACCORDANCE WITH DETAILS.
11. ALL SWALES AND DRAINAGE STRUCTURES ARE TO BE CONSTRUCTED AND STABILIZED PRIOR TO HAVING RUN–OFF DIRECTED TO THEM.
12. DAILY, OR AS REQUIRED, CONSTRUCT TEMPORARY BERMS, DRAINAGE DITCHES, CHECK DAMS, SEDIMENT TRAPS, ETC., TO PREVENT EROSION ON THE SITE AND PREVENT ANY SILTATION OF ABUTTING WATERS AND/OR PROPERTY.
13. PERFORM FINAL FINE GRADING, INCLUDING PLACEMENT OF 'SELECT' SUBGRADE MATERIALS.
14. PAVE ALL ROADWAYS WITH INITIAL 'BASE COURSE'.
15. PERFORM ALL REMAINING SITE CONSTRUCTION (i.e. BUILDING, CURBING, UTILITY CONNECTIONS, ETC.).
16. LOAM AND SEED ALL DISTURBED AREAS AND INSTALL ANY REQUIRED SEDIMENT AND EROSION CONTROL FACILITIES (i.e. RIP RAP, EROSION CONTROL BLANKETS, ETC.).
17. FINISH PAVING ALL ROADWAYS AND PARKING AREAS WITH 'FINISH' COURSE.
18. ALL ROADWAYS AND PARKING LOTS SHALL BE STABILIZED WITHIN 72 HOURS OF ACHIEVING FINISHED GRADE.
19. ALL CUT AND FILL SLOPES SHALL BE SEEDED/LOAMED WITHIN 72 HOURS OF ACHIEVING FINISHED GRADE.
20. COMPLETE PERMANENT SEEDING AND LANDSCAPING.
21. REMOVE TEMPORARY EROSION CONTROL MEASURES AFTER SEEDING AREAS HAVE BEEN 75%–85% ESTABLISHED AND SITE IMPROVEMENTS ARE COMPLETE. SMOOTH AND RE–VEGETATE ALL DISTURBED AREAS.
22. CLEAN SITE AND ALL DRAINAGE STRUCTURES, PIPES AND SUMPS OF ALL SILT AND DEBRIS.
23. INSTALL ALL PAINTED PAVEMENT MARKINGS AND SIGNAGE PER THE PLANS AND DETAILS.
24. ALL EROSION CONTROLS SHALL BE INSPECTED WEEKLY AND AFTER EVERY HALF–INCH OF RAINFALL.
25. UPON COMPLETION OF CONSTRUCTION, IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO NOTIFY ANY RELEVANT PERMITTING AGENCIES THAT THE CONSTRUCTION HAS BEEN FINISHED IN A SATISFACTORY MANNER.

Design: JAC	Draft: LAZ	Date: 3/3/21
Checked: JAC	Scale: AS NOTED	Project No.: 20737
Drawing Name: 20737-PLAN.dwg		

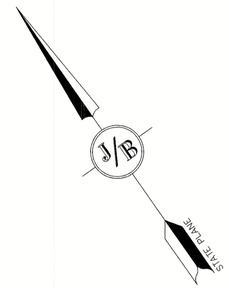
STATE OF NEW HAMPSHIRE — MICHAEL J. KENYAN No. 9846 — LICENSED PROFESSIONAL ENGINEER — 5/7/2021

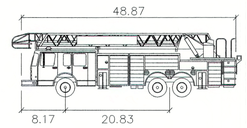
REV.	DATE	REVISION	BY
5	5/5/21	REVISIONS	LAZ
4	3/18/21	ADDED DETAIL	LAZ
3	3/3/21	ADDED SURVEY INFO	LAZ
2	1/6/21	MINOR REVISIONS	DJM
1	11/23/20	REVISED PER CLIENT	DJM

Designed and Produced in NH
Jones & Beach Engineers, Inc.
85 Portsmouth Ave.
PO Box 219
Stratham, NH 03885
Civil Engineering Services
603-772-4746
FAX: 603-772-0227
E-MAIL: JBE@JONESANDBEACH.COM

Plan Name: EROSION AND SEDIMENT CONTROL DETAILS
Project: 3400 LAFAYETTE ROAD PORTSMOUTH, NH
Owner of Record: RICCI CONSTRUCTION CO., INC. 225 BANFIELD ROAD, PORTSMOUTH, NH 03801 BK 1930 PG 0229

DRAWING No.
E1
SHEET 24 OF 25
JBE PROJECT NO. 20737





Portsmouth Fire Truck

	feet
Width	: 8.50
Track	: 6.91
Lock to Lock Time	: 6.0
Steering Angle	: 38.7

GRAPHIC SCALE

40 0 20 40 80 160

(IN FEET)
1 inch = 40 feet

Design: JAC	Draft: LAZ	Date: 3/3/21
Checked: JAC	Scale: AS SHOWN	Project No.: 20737
Drawing Name: 20737-PLAN.dwg		

STATE OF NEW HAMPSHIRE – MICHAEL J. KERIVAN No. 9646 – LICENSED PROFESSIONAL ENGINEER – 5/7/21

REV.	DATE	REVISION	BY
5	5/5/21	REVISIONS	LAZ
4	3/18/21	ADDED DETAIL	LAZ
3	3/3/21	ADDED SURVEY INFO	LAZ
2	1/6/21	MINOR REVISIONS	DJM
1	11/23/20	REVISED PER CLIENT	DJM

Designed and Produced in NH
J/B Jones & Beach Engineers, Inc.
85 Portsmouth Ave.
PO Box 219
Stratham, NH 03885
Civil Engineering Services
603-772-4746
FAX: 603-772-0227
E-MAIL: JBE@JONESANDBEACH.COM

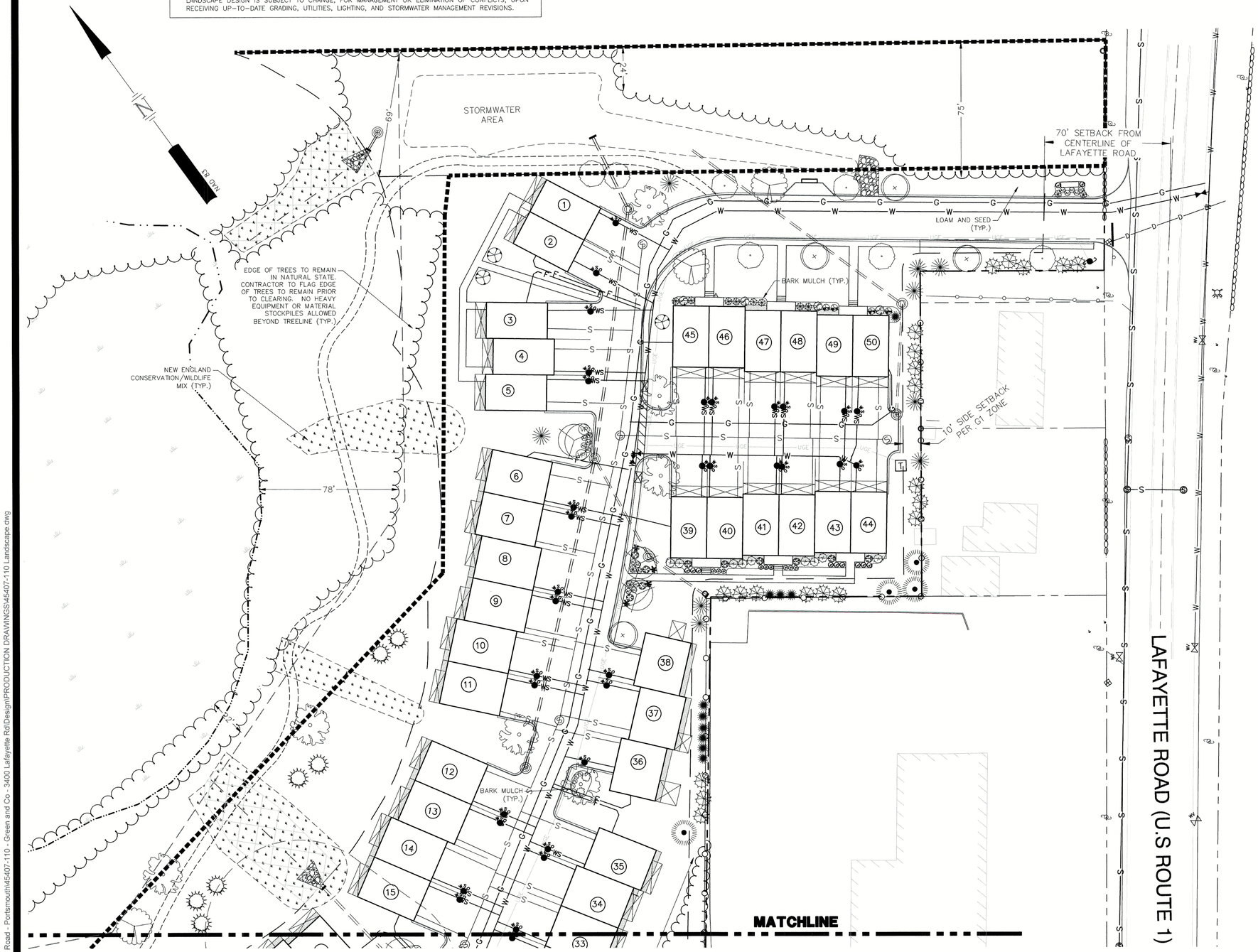
Plan Name:	TRUCK TURNING PLAN
Project:	3400 LAFAYETTE ROAD PORTSMOUTH, NH
Owner of Record:	RICCI CONSTRUCTION CO., INC. 225 BANFIELD ROAD, PORTSMOUTH, NH 03801 BK 1930 PG 0229

DRAWING No.

T1

SHEET 25 OF 25
JBE PROJECT NO. 20737

NOTE:
LANDSCAPE DESIGN IS SUBJECT TO CHANGE, FOR MANAGEMENT OR ELIMINATION OF CONFLICTS, UPON RECEIVING UP-TO-DATE GRADING, UTILITIES, LIGHTING, AND STORMWATER MANAGEMENT REVISIONS.



LANDSCAPE LEGEND

SYMBOL	QTY	BOTANICAL NAME COMMON NAME	SIZE	REMARKS	GROWTH HABIT
SHADE TREES					
	12	ACER RUBRUM 'REDPOINTE' **REDPOINTE RED MAPLE	2 1/2" TO 3" CAL.	B&B	PYRAMIDAL
	8	ACER SACCHARUM 'COMMEMORATION' **COMMEMORATION SUGAR MAPLE	3" TO 3 1/2" CAL.	B&B	ROUNDED
	11	MAACKIA AMURENSIS AMUR MAACKIA	2 1/2" TO 3" CAL.	B&B	ROUNDED
	5	NYSSA SYLVATICA *BLACK GUM	2 1/2 TO 3" CAL.	B&B	PYRAMIDAL
	6	ULMUS AMERICANA 'VALLEY FORGE' **VALLEY FORGE AMERICAN ELM	2 1/2" TO 3" CAL.	B&B	SPREADING-VASE
EVERGREEN TREES					
	20	ABIES BALSAMAE *BALSAM FIR	6' TO 7'	B&B	PYRAMIDAL
	24	JUNIPERUS VIRGINIANA *EASTERN RED CEDAR	6' TO 7'	B&B	UPRIGHT-PYRAMIDAL
	18	PICEA GLAUCA *WHITE SPRUCE	7' TO 8'	B&B	PYRAMIDAL
	13	PINUS STROBUS *WHITE PINE	6' TO 7'	B&B	PYRAMIDAL
DECIDUOUS SHRUB					
	3	AMELANCHEIR CANADENSIS *SHADBLOW SERVICEBERRY	5' TO 6' CLUMP	B&B	ROUNDED
	4	CLETHRA ALNIFOLIA 'COMPACTA' **COMPACT SUMMERSWEET	7 GAL.	CONT.	ROUNDED
	10	CORNUS SERICEA 'ARCTIC FIRE' **ARCTIC FIRE RED-OSIER DOGWOOD	7 GAL.	CONT.	ROUNDED
	9	FORSYTHIA 'GOLD TIDE' GOLD TIDE FORSYTHIA	3 GAL.	CONT.	LOW-SPREADING
	8	HYDRANGEA ARBORESCENS 'INCREDIBALL' INCREDIBALL SMOOTH HYDRANGEA	5 GAL.	CONT.	ROUNDED
	9	PHYSOCARPUS O. 'BURGUNDY CANDY' **BURGUNDY CANDY NINEBARK	2 GAL.	CONT.	ROUNDED
VP	6	VIBURNUM P.T. 'SUMMER SNOWFLAKE' SUMMER SNOWFLAKE VIBURNUM	3' TO 4'	B&B	ROUNDED
EVERGREEN SHRUB					
	28	AZALEA 'GIRARD'S CRIMSON' GIRARD'S CRIMSON AZALEA	3 GAL.	CONT.	ROUNDED
	4	RHODODENDRON 'ROSEUM PINK' **ROSEUM PINK RHODODENDRON	7 GAL.	CONT.	ROUNDED
	9	ILEX GLABRA 'COMPACTA' **COMPACT INKBERRY	3 GAL.	CONT.	ROUNDED
	6	JUNIPERUS CHINENSIS 'SEAGREEN' SEAGREEN JUNIPER	3 GAL.	CONT.	ARCHING
	4	JUNIPERUS H. 'BAR HARBOR' *BAR HARBOR JUNIPER	3 GAL.	CONT.	LOW-SPREADING
	11	PINUS M. 'MOPS' MOPS MUGO PINE	3 GAL.	CONT.	ROUNDED
	28	THUJA O. NIGRA *DARK AMERICAN ARBORVITAE	5' TO 6'	B&B	UPRIGHT-PYRAMIDAL
GRASSES					
	9	PANICUM VIRGATUM 'CLOUD NINE' **CLOUD NINE SWITCH GRASS	3 GAL.	CONT.	UPRIGHT
	25,250 ±SF	NEW ENGLAND CONSERVATION/ WILDLIFE MIX	BAGS	BULK LBS	

*NATIVE, ** IMPROVED NATIVE
NOTE: ALL PLANTS CONTAINED IN LEGEND HAVE BEEN LOCATED ON SITE TO REFLECT A PROPER GROWING ENVIRONMENT AND MEET THE HARDINESS ZONE OF 6a AS DETERMINED BY THE U.S. DEPT. OF AGRICULTURE. PLANT TYPES MAY VARY BASED ON AVAILABILITY AND SUPPLY. THIS LAYOUT REPRESENTS THE INTENT OF THE PLANTINGS AND APPROXIMATE NUMBERS OF PLANTS TO BE PROVIDED.

SITE DEVELOPMENT PLANS

TAX MAP 297 LOT 11

LANDSCAPE PLAN

3400 LAFAYETTE ROAD

PORTSMOUTH, NH

OWNED BY

RICCI CONSTRUCTION CO, INC.

PREPARED FOR

GREEN & COMPANY REAL ESTATE

1"=60' (11"X17")

SCALE: 1"=30' (22"X34")

MARCH 8, 2021

DIG SAFE
CONTACT DIG SAFE 72 BUSINESS HOURS PRIOR TO CONSTRUCTION

PROGRESS PRINT
MAY 17, 2021

HORIZONTAL SCALE 1"=30'
30 15 0 30

REV	DATE	DESCRIPTION	DR	CK
1	5/13/2021	REVISE PER GRADING & UTILITY LAYOUT	MSK	JK

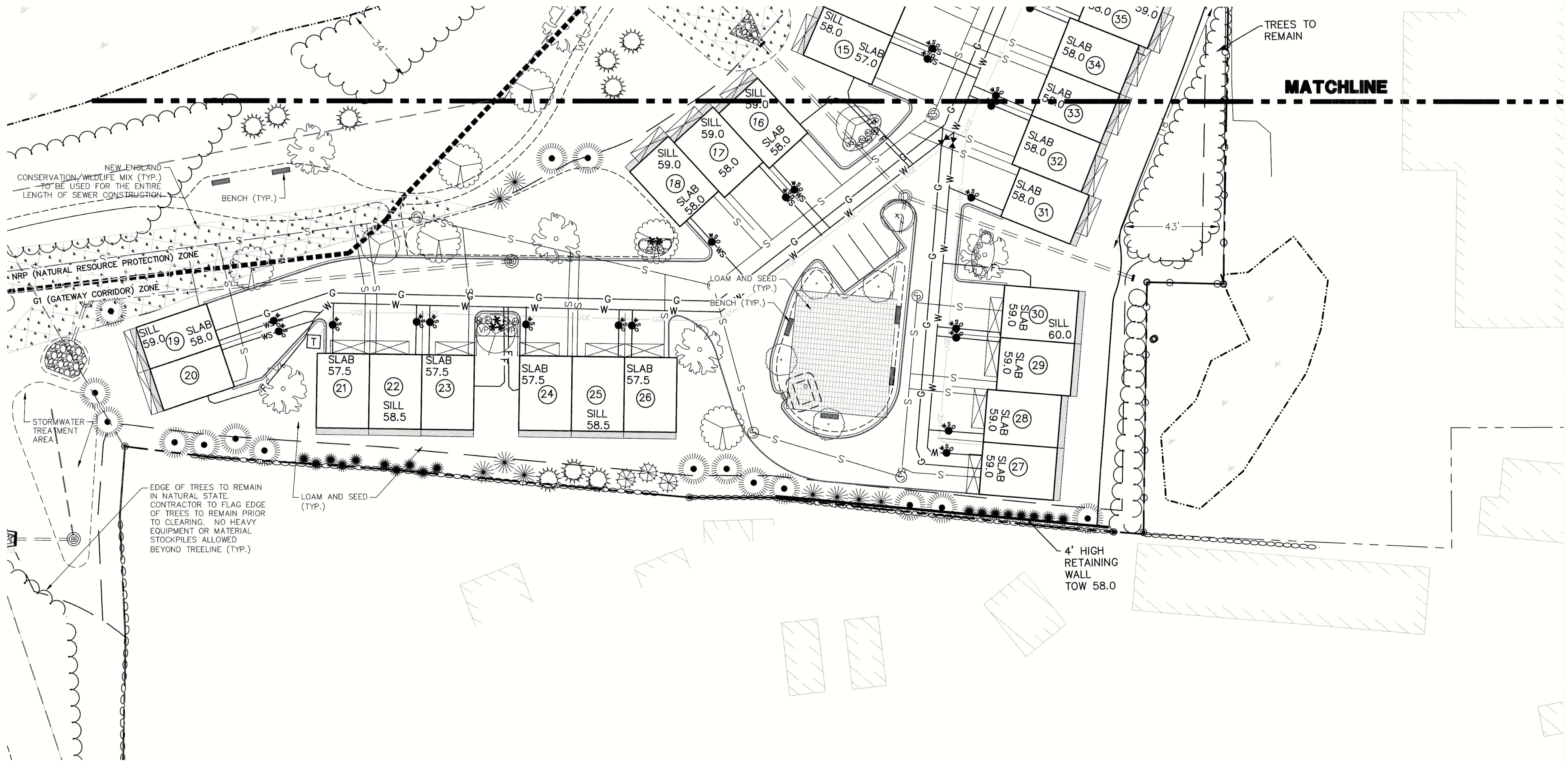
TFM
Civil Engineers
Structural Engineers
Traffic Engineers
Land Surveyors
Landscape Architects
Scientists
48 Constitution Drive
Bedford, NH 03110
Phone (603) 472-4488
Fax (603) 472-9747
www.tfmoran.com

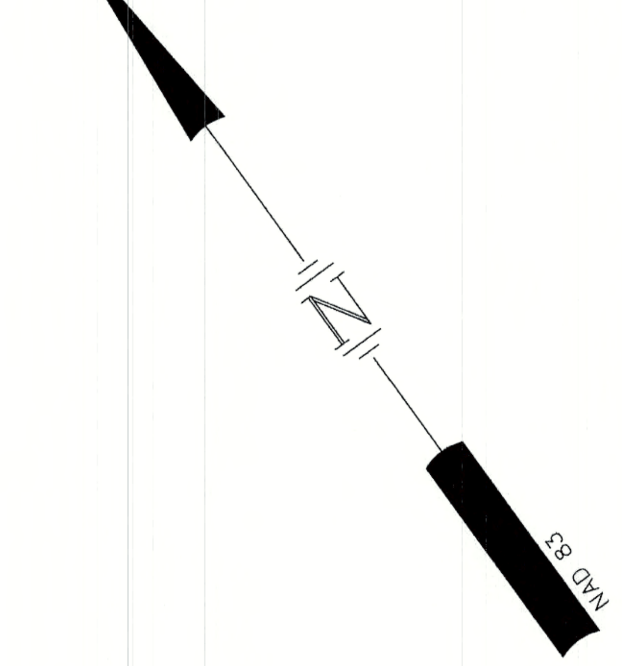
FILE	45407.110	DR	ARJ	FB	–	LS-1
		CK	MSK	CADFILE	45407-110 LANDSCAPE	

May 17, 2021 - 11:29am
F:\MSC Projects\45407 - Lafayette Road - Portsmouth\45407-110 - Green and Co - 3400 Lafayette Rd\Design\PRODUCTION DRAWINGS\45407-110 Landscape.dwg

NOTES

1. SEE DETAIL SHEET FOR LANDSCAPE RELATED NOTES AND DETAILS.





HORIZONTAL SCALE 1"=30'
30 15 0 30

PROGRESS PRINT
MAY 17, 2021

DIG SAFE
CONTACT DIG SAFE 72 BUSINESS HOURS PRIOR TO CONSTRUCTION

REV	DATE	DESCRIPTION	DR	CK
1	5/13/2021	REVISE PER GRADING & UTILITY LAYOUT	MSK	JCC

SITE DEVELOPMENT PLANS

TAX MAP 297 LOT 11

LANDSCAPE PLAN

3400 LAFAYETTE ROAD

PORTSMOUTH, NH

OWNED BY

RICCI CONSTRUCTION CO, INC.

PREPARED FOR

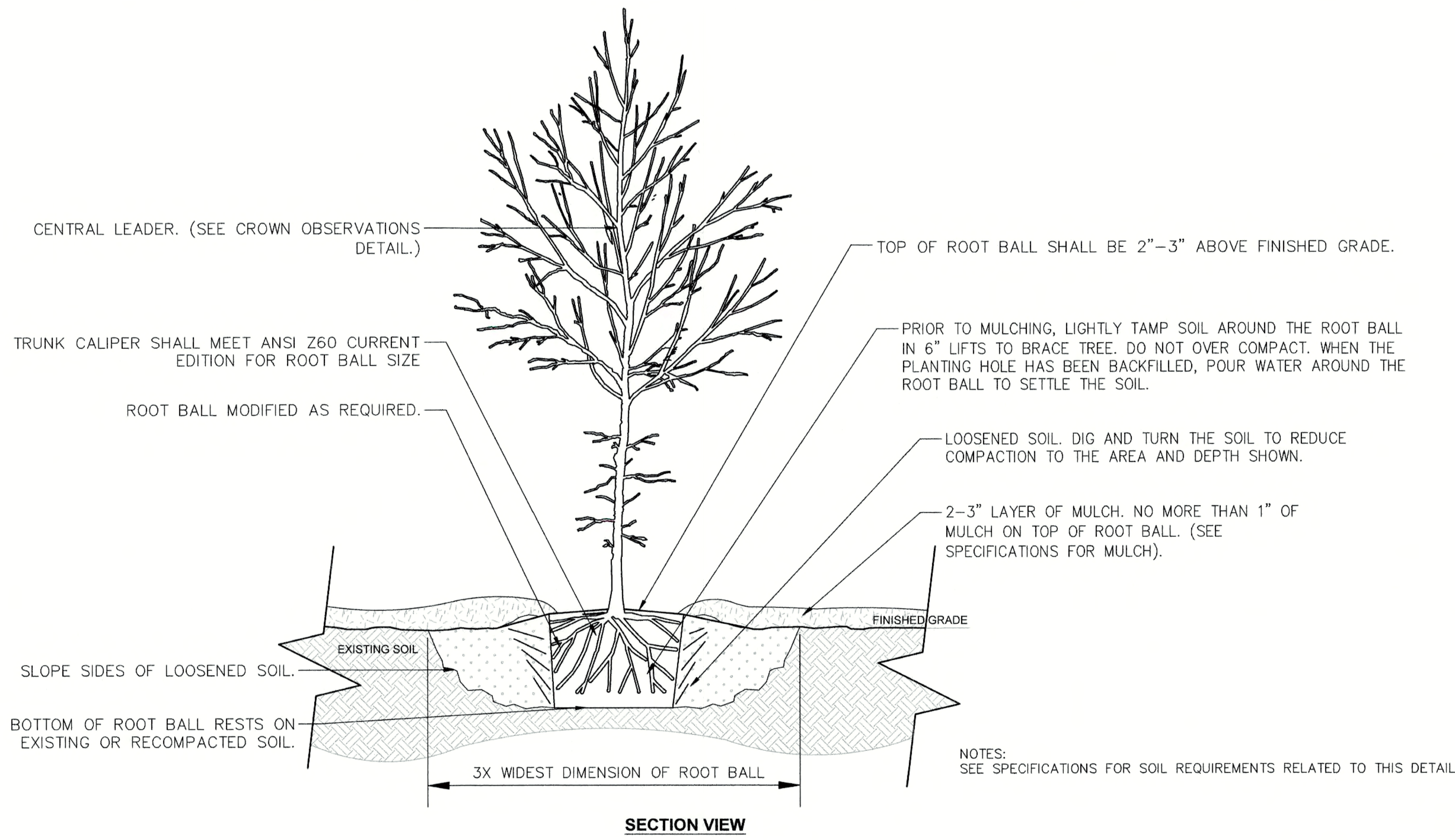
GREEN & COMPANY REAL ESTATE

1"=60' (11"X17")
SCALE: 1"=30' (22"X34") **MARCH 8, 2021**

TFM
Civil Engineers
Structural Engineers
Traffic Engineers
Land Surveyors
Landscape Architects
Scientists

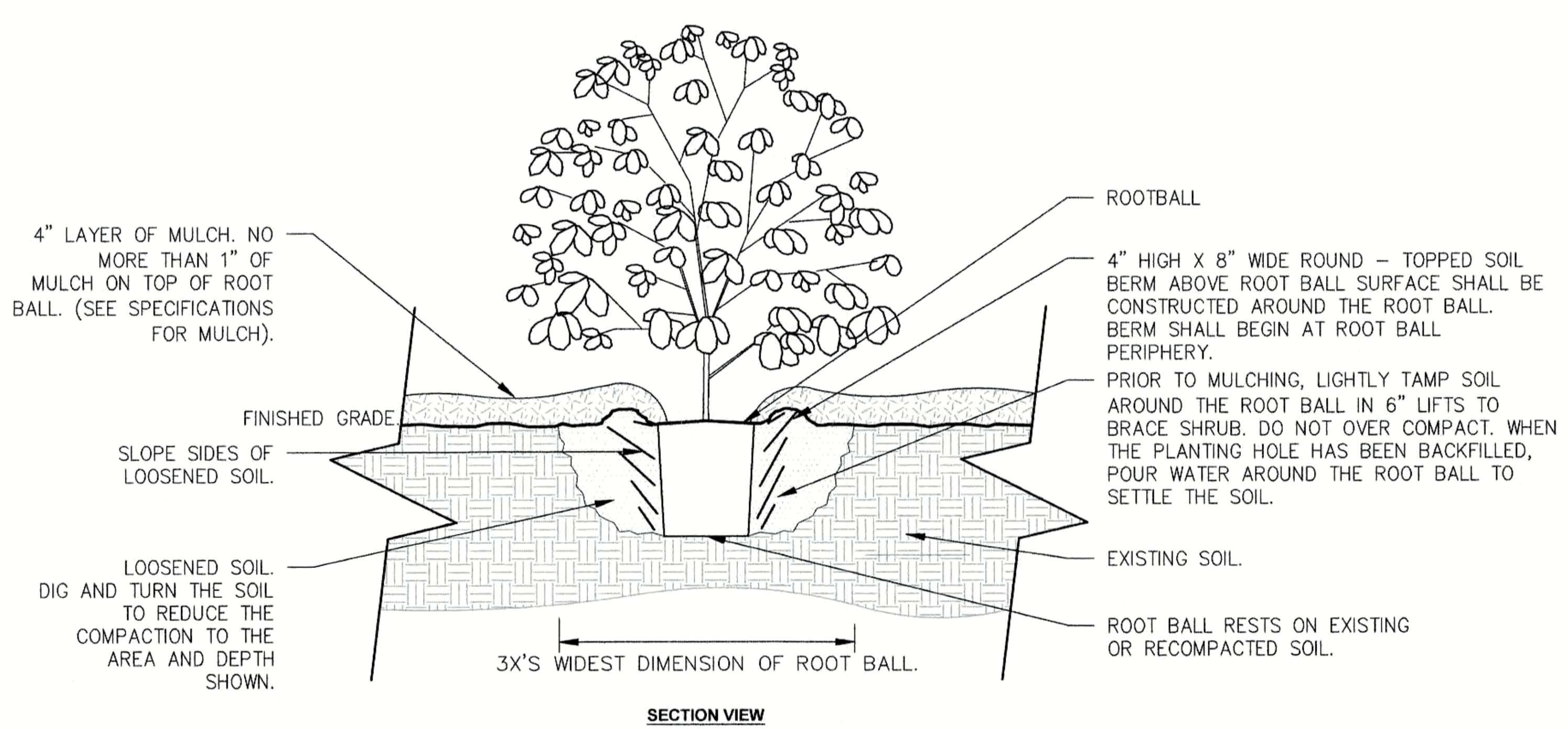
48 Constitution Drive
Bedford, NH 03110
Phone (603) 472-4488
Fax (603) 472-9747
www.tfmoran.com

FILE	DR	ARJ	FB	–	
45407.110	CK	MSK	CADFILE	45407-110 LANDSCAPE	LS-2



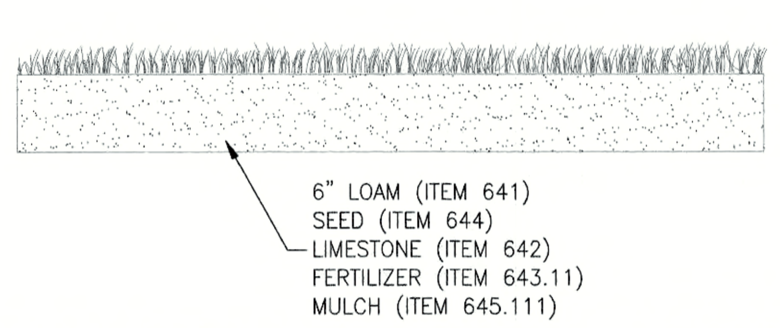
TREE WITH BERM

NOT TO SCALE



SHRUB PLANTING

NOT TO SCALE



LOAM & SEED (WHERE SPECIFIED)

NOT TO SCALE

LANDSCAPE NOTES

1. CONTRACTOR WILL LOCATE, VERIFY AND MARK ALL EXISTING AND NEWLY INSTALLED UNDERGROUND UTILITIES PRIOR TO ANY LAWNWORK OR PLANTING. ANY CONFLICTS WHICH MIGHT OCCUR BETWEEN PLANTING AND UTILITIES WILL IMMEDIATELY BE REPORTED TO THE LANDSCAPE ARCHITECT OR OWNERS' REPRESENTATIVE, SO THAT ALTERNATE PLANTING LOCATIONS CAN BE DETERMINED.
2. CONTRACTOR WILL FURNISH AND PLANT ALL PLANTS IN QUANTITIES AS SHOWN ON THIS PLAN. IN CASES OF DISCREPANCY BETWEEN PLAN AND LIST CLARIFY WITH LANDSCAPE ARCHITECT PRIOR TO PLACING PURCHASE ORDER AND AGAIN PRIOR TO PLANTING.
3. SEE PLANTING DETAILS AND IF INCLUDED, SPECIFICATIONS FOR ADDITIONAL INFORMATION.
4. NO SUBSTITUTION OF PLANT MATERIALS WILL BE ALLOWED WITHOUT PRIOR WRITTEN APPROVAL OF THE LANDSCAPE ARCHITECT OR OWNER'S REPRESENTATIVE.
5. IT IS THE CONTRACTOR'S RESPONSIBILITY TO MAKE THE APPROPRIATE ARRANGEMENTS TO PROVIDE ALL PLANTS AND MATERIALS TO ACCOMMODATE PLANTING WITHIN THE TIME ALLOWED BY THE CONSTRUCTION SCHEDULE.
6. PLANTING SHALL BE COMPLETED FROM APRIL 15TH THROUGH OCTOBER 15TH UNLESS OTHERWISE NOTED IN SPECIFICATIONS. THERE WILL BE NO PLANTING DURING JULY AND AUGUST UNLESS SPECIAL PROVISIONS ARE MADE FOR DROUGHT BY PROVIDING ADDITIONAL WATERING.
7. ALL PLANTS WILL BE NURSERY GROWN.
8. PLANTS WILL BE IN ACCORDANCE, AT A MINIMUM, WITH CURRENT EDITION OF "AMERICAN STANDARDS FOR NURSERY STOCK" AS PUBLISHED BY THE AMERICAN HORTICULTURE INDUSTRY ASSOCIATION.
9. TREES WILL BE PRUNED IN ACCORDANCE WITH THE LATEST EDITION OF ANSI A300 PART 1, "TREE, SHRUB AND OTHER WOODY PLANT MAINTENANCE STANDARD PRACTICES".
10. PLANTS MATERIAL IS SUBJECT TO APPROVAL / REJECTION BY THE LANDSCAPE ARCHITECT AT THE SITE AND AT THE NURSERY.
11. ALL PLANTS WILL BE MOVED WITH ROOT SYSTEMS AS SOLID UNITS AND WITH BALLS OF EARTH FIRMLY WRAPPED WITH BURLAP. NO PLANT WILL BE ACCEPTED WHEN BALL OF EARTH SURROUNDING ITS ROOTS HAS BEEN BADLY CRACKED OR BROKEN BEFORE PLANTING. ALL PLANTS THAT CANNOT BE PLANTED AT ONCE WILL BE HEELED-IN BY SETTING IN THE GROUND AND COVERING THE BALLS WITH SOIL AND THEN WATERING. DURING TRANSPORT, ALL PLANT MATERIALS WILL BE WRAPPED WITH WIND PROOF COVERING.
12. NEWLY PLANTED MATERIAL WILL BEAR THE SAME RELATIONSHIP TO FINISHED GRADE AS TO THE ORIGINAL GRADE OF THE PLANT PRIOR TO DIGGING.
13. MULCH FOR PLANTED AREAS (NOT INCLUDING RAIN GARDENS) WILL BE AGED SHREDDED PINE BARK, PARTIALLY DECOMPOSED, DARK BROWN IN COLOR AND FREE OF WOOD CHIPS UNLESS OTHERWISE SHOWN.
14. PLANT MATERIAL WILL BE LOCATED OUTSIDE BUILDING DRIPLINES AND ROOF VALLEY POINTS OF CONCENTRATION TO PREVENT DAMAGE TO PLANTS. CLARIFY DISCREPANCIES WITH LANDSCAPE ARCHITECT PRIOR TO INSTALLATION.
15. ALL DISTURBED AREAS NOT TO BE PAVED OR OTHERWISE TREATED, WILL RECEIVE SIX (6) INCH LOAM AND SEED AT THE DIRECTION OF THE LANDSCAPE ARCHITECT OR OWNER'S REPRESENTATIVE.
16. ALL PLANT GROUPINGS WILL BE IN MULCH BEDS UNLESS OTHERWISE SPECIFIED OR NOTED ON PLANS. WHERE MULCHED PLANT BED ABUTS LAWN, PROVIDE TURF CUT EDGE.
17. ALL PLANT BEDS WILL INTERSECT WITH PAVEMENT AT 90 DEGREES UNLESS OTHERWISE NOTED ON PLANS.
18. ALL PLANT BED EDGES WILL BE SMOOTH AND CONSISTENT IN LAYOUT OF RADII AND TANGENTS. IRREGULAR, WAVY EDGES WILL NOT BE ACCEPTED.

LANDSCAPE GUARANTEE AND MAINTENANCE NOTES

1. CONTRACTOR WILL BE RESPONSIBLE FOR ALL MEANS, METHODS AND TECHNIQUES OF WATERING.
2. CONTRACTOR WILL BEGIN WATERING IMMEDIATELY AFTER PLANTING. ALL PLANTS WILL BE THOROUGHLY WATERED TWICE DURING THE FIRST 24 HOUR PERIOD AFTER PLANTING. ALL PLANTS WILL BE WATERED WEEKLY, OR MORE OFTEN, IF NECESSARY DURING THE FIRST GROWING SEASON BUT NOT LESS THAN ONE YEAR FROM TIME OF INSTALLATION.
3. WATER ALL LAWNS AS REQUIRED. DO NOT LET NEWLY PLANTED LAWNS DRY OUT DURING THE FIRST FOUR WEEKS MINIMUM.
4. ALL NEW LAWNS WILL BE MAINTAINED AND MOWED A MINIMUM THREE (3) TIMES BEFORE REQUESTING REVIEW BY LANDSCAPE ARCHITECT OR OWNER'S REPRESENTATIVE FOR ACCEPTANCE. MAINTENANCE AND MOWING WILL CONTINUE UNTIL ACCEPTED BY LANDSCAPE ARCHITECT OR OWNERS' REPRESENTATIVE IS ISSUED IN WRITING.
5. THE CONTRACTOR WILL MAINTAIN AND GUARANTEE ALL PLANTINGS TO BE IN GOOD HEALTHY, FLOURISHING AND ACCEPTABLE CONDITION FOR A PERIOD OF ONE (1) YEAR BEGINNING AT THE DATE OF ACCEPTANCE BY THE LANDSCAPE ARCHITECT OR OWNER'S REPRESENTATIVE. ALL GRASSES, TREES AND SHRUBS THAT, IN THE OPINION OF THE LANDSCAPE ARCHITECT OR OWNER'S REPRESENTATIVE SHOWING LESS THAN 80% HEALTHY GROWTH AT THE END OF ONE (1) YEAR PERIOD WILL BE IMMEDIATELY REPLACED BY THE CONTRACTOR.
6. DECIDUOUS PLANT MATERIAL INSTALLED AFTER SEPTEMBER 30 AND BEFORE APRIL 15 WILL NOT BE REVIEWED THAT SEASON FOR ACCEPTANCE DUE TO STAGE OF LEAF PHYSIOLOGY. THIS PLANT MATERIAL WILL NOT BE REVIEWED UNTIL THE FOLLOWING GROWING SEASON. GUARANTEE PERIOD WILL BEGIN ONLY AFTER ACCEPTANCE BY LANDSCAPE ARCHITECT OR OWNERS' REPRESENTATIVE.
7. EVERGREEN PLANT MATERIAL INSTALLED AFTER OCTOBER 30 AND BEFORE APRIL 15 WILL NOT BE REVIEWED THAT SEASON FOR ACCEPTANCE DUE TO END OF GROWTH SEASON. THIS PLANT MATERIAL WILL NOT BE REVIEWED UNTIL THE FOLLOWING GROWING SEASON. GUARANTEE PERIOD WILL BEGIN ONLY AFTER ACCEPTANCE BY LANDSCAPE ARCHITECT OR OWNERS' REPRESENTATIVE.

INVASIVE PLANT NOTES

1. EXISTING NON-NATIVE, INVASIVE PLANT SPECIES WILL BE IDENTIFIED, REMOVED, DESTROYED AND LEGALLY DISPOSED OF OFF-SITE IN ACCORDANCE WITH THE LATEST UNIVERSITY OF NEW HAMPSHIRE COOPERATIVE EXTENSION METHODS OF DISPOSING NON-NATIVE INVASIVE PLANTS. SEE "MANAGE AND CONTROL INVASIVES" AND PROPERLY DISPOSE OF INVASIVE PLANTS".

PORTSMOUTH NOTES

1. THE PROPERTY OWNER AND ALL FUTURE PROPERTY OWNER'S WILL BE RESPONSIBLE FOR THE MAINTENANCE OF ALL REQUIRED SCREENING AND LANDSCAPE MATERIALS INDICATED ON THESE PLAN(S).
2. ALL REQUIRED PLANT MATERIAL WILL BE TENDED TO AND KEPT FREE OF REFUSE AND DEBRIS.
3. ALL REQUIRED FENCES AND WALLS WILL BE MAINTAINED IN GOOD REPAIR.
4. THE PROPERTY OWNER WILL BE RESPONSIBLE TO REMOVE AND REPLACE DEAD OR DISEASED PLANT MATERIALS IMMEDIATELY WITH THE SAME TYPE, SIZE AND QUANTITY OF PLANT MATERIALS AS ORIGINALLY INSTALLED, UNLESS ALTERNATIVE PLANTINGS ARE REQUESTED, JUSTIFIED AND APPROVED BY THE PLANNING BOARD OR PLANNING DIRECTOR.
5. ALL IMPROVEMENTS SHOWN ON THIS PLAN WILL BE CONSTRUCTED AND MAINTAINED IN ACCORDANCE WITH THIS PLAN BY THE PROPERTY OWNER AND ALL FUTURE PROPERTY OWNERS. NO CHANGES WILL BE MADE TO THIS PLAN WITHOUT THE WRITTEN APPROVAL OF THE PORTSMOUTH PLANNING BOARD OR PLANNING DIRECTOR.
6. THE LANDSCAPE PLAN WILL BE RECORDED IN THE ROCKINGHAM COUNTY REGISTRY OF DEEDS.

SEEDING NOTES

1. SLOPES UP TO AND INCLUDING 3:1 GRADE, SEED WILL BE NEW ENGLAND EROSION CONTROL & RESTORATION MIX PER NEW ENGLAND WETLANDS PLANTS INC., AMHERST, MA.
2. SLOPES STEEPER THAN 3:1 GRADE, SEED WILL BE NEW ENGLAND EROSION CONTROL & RESTORATION MIX PER NEW ENGLAND WETLANDS PLANTS INC., AMHERST, MA. SEE CIVIL FOR ADDITIONAL EROSION CONTROL MEASURES.
3. GENERAL SEED WILL BE NHDOT SPECIFICATION SECTION 644, TABLE 644-1-PARK SEED TYPE 15, INCLUDING NOTES TO TABLE 1, 2 & 3.

SITE DEVELOPMENT PLANS

TAX MAP 297 LOT 11

LANDSCAPE DETAIL SHEET

3400 LAFAYETTE ROAD

PORTSMOUTH, NH

OWNED BY

RICCI CONSTRUCTION CO, INC.

PREPARED FOR

GREEN & COMPANY REAL ESTATE

SCALE: NOT TO SCALE **MARCH 8, 2021**

TFM
Civil Engineers
Structural Engineers
Traffic Engineers
Land Surveyors
Landscape Architects
Scientists
48 Constitution Drive
Bedford, NH 03110
Phone (603) 472-4488
Fax (603) 472-9747
www.tfmoran.com

REV	DATE	DESCRIPTION	DR	CK
1	5/13/2021	NO REVISIONS THIS SHEET	MVP	JCC

FILE	DR		FB		SHEET
45407.110	DR ARJ	CK MSK	FB –	CADFILE 45407-110 LANDSCAPE	LS-3

PROGRESS PRINT
MAY 17, 2021