City of Portsmouth, New Hampshire

Site Plan Application Checklist

This site plan application checklist is a tool designed to assist the applicant in the planning process and for preparing the application for Planning Board review. A pre-application conference with a member of the planning department is strongly encouraged as additional project information may be required depending on the size and scope. The applicant is cautioned that this checklist is only a guide and is not intended to be a complete list of all site plan review requirements. Please refer to the Site Plan review regulations for full details.

Applicant Responsibilities (Section 2.5.2): Applicable fees are due upon application submittal along with required attachments. The application shall be complete as submitted and provide adequate information for evaluation of the proposed site development. Waiver requests must be submitted in writing with appropriate justification.

Name of Owner/Applicant: Cate Street Development, LLC c/o Jay Bisognano Date Submitted: 06-26-19

Phone Number: 987.490.5278 E-mail: jb@torprops.com

Site Address: 428 US Route 1 BYP Map: see below, pg. 7 Lot: _____

Zoning District: G1 Lot area: 13.3 Ac+/- sq. ft.

Application Requirements			
☑	**Required Items for Submittal**	**Item Location (e.g. Page or Plan Sheet/Note #)**	**Waiver Requested**
☑	Fully executed and signed Application form. **(2.5.2.3)**		N/A
☑	All application documents, plans, supporting documentation and other materials provided in digital Portable Document Format (PDF). **(2.5.2.8)**		N/A

Site Plan Review Application Required Information			
☑	**Required Items for Submittal**	**Item Location (e.g. Page/line or Plan Sheet/Note #)**	**Waiver Requested**
☑	Statement that lists and describes "green" building components and systems. **(2.5.3.1A)**	Submitted with TAC documents 3.18.19	
☑	Gross floor area and dimensions of all buildings and statement of uses and floor area for each floor. **(2.5.3.1B)**	Breakdown MEMORANDUM_rev1.pdf submittes 3.18.19 CS-201 to 203	N/A
☑	Tax map and lot number, and current zoning of all parcels under Site Plan Review. **(2.5.3.1C)**	Application, Narrative CN-001 site notes, CS-001 site notes Plan of Land, Topo Plans	N/A
☑	Owner's name, address, telephone number, and signature. Name, address, and telephone number of applicant if different from owner. **(2.5.3.1D)**	Application, Cover Sheet GI-001, GI-002	N/A

Site Plan Review Application Required Information			
☑	**Required Items for Submittal**	**Item Location (e.g. Page/line or Plan Sheet/Note #)**	**Waiver Requested**
☑	Names and addresses (including Tax Map and Lot number and zoning districts) of all direct abutting property owners (including properties located across abutting streets) and holders of existing conservation, preservation or agricultural preservation restrictions affecting the subject property. **(2.5.3.1E)**	Plan of Land sheet 3 of 3,	N/A
☑	Names, addresses and telephone numbers of all professionals involved in the site plan design. **(2.5.3.1F)**	Cover Sheets, GI-001, GI-002	N/A
☑	List of reference plans. **(2.5.3.1G)**	Plan of Land sheet 3 of 3,	N/A
☐	List of names and contact information of all public or private utilities servicing the site. **(2.5.3.1H)**	List of Utilities to be added to CN-001 and CU sheets prior to next sub-mission	N/A

Site Plan Specifications			
☑	**Required Items for Submittal**	**Item Location (e.g. Page/line or Plan Sheet/Note #)**	**Waiver Requested**
☑	Full size plans shall not be larger than 22 inches by 34 inches with match lines as required, unless approved by the Planning Director. Submittals shall be a minimum of 11 inches by 17 inches as specified by Planning Dept. staff. **(2.5.4.1A)**	Required on all plan sheets	N/A
☑	Scale: Not less than 1 inch = 60 feet and a graphic bar scale shall be included on all plans. **(2.5.4.1B)**	Required on all plan sheets	N/A
☑	GIS data should be referenced to the coordinate system New Hampshire State Plane, NAD83 (1996), with units in feet. **(2.5.4.1C)**	Plan of Land sheet 3 of 3 note 9 Topographic Plans sheet 1 of 5 note 5	N/A
☑	Plans shall be drawn to scale. **(2.5.4.1D)**	Required on all plan sheets	N/A
☑	Plans shall be prepared and stamped by a NH licensed civil engineer. **(2.5.4.1D)**	All C sheets	N/A
☑	Wetlands shall be delineated by a NH certified wetlands scientist and so stamped. **(2.5.4.1E)**	Topographic plans	N/A
☑	Title (name of development project), north point, scale, legend. **(2.5.4.2A)**	Title block all sheets	N/A
☑	Date plans first submitted, date and explanation of revisions. **(2.5.4.2B)**	Revision note #1 all C sheets	N/A
☑	Individual plan sheet title that clearly describes the information that is displayed. **(2.5.4.2C)**	Required on all plan sheets	N/A
☑	Source and date of data displayed on the plan. **(2.5.4.2D)**	Plan of Land sheet 3 of 3 Topographic Plans sheet 1 of 5	N/A

Site Plan Specifications			
☑	**Required Items for Submittal**	**Item Location (e.g. Page/line or Plan Sheet/Note #)**	**Waiver Requested**
☐	A note shall be provided on the Site Plan stating: "All conditions on this Plan shall remain in effect in perpetuity pursuant to the requirements of the Site Plan Review Regulations." **(2.5.4.2E)**	Note to be added to CN-001 prior to next plan submission	N/A
☐	Plan sheets submitted for recording shall include the following notes: a. "This Site Plan shall be recorded in the Rockingham County Registry of Deeds." b. "All improvements shown on this Site Plan shall be constructed and maintained in accordance with the Plan by the property owner and all future property owners. No changes shall be made to this Site Plan without the express approval of the Portsmouth Planning Director." **(2.13.3)**	Upoon decisionof sheets to be recorded, notes a and b will be added	N/A
☑	Plan sheets showing landscaping and screening shall also include the following additional notes: a. "The property owner and all future property owners shall be responsible for the maintenance, repair and replacement of all required screening and landscape materials." b. "All required plant materials shall be tended and maintained in a healthy growing condition, replaced when necessary, and kept free of refuse and debris. All required fences and walls shall be maintained in good repair." c. "The property owner shall 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." **(2.13.4)**	Notes a-c **have been** added to the landscaping plans Refer to sheet L1.06	N/A

Site Plan Specifications – Required Exhibits and Data			
☑	**Required Items for Submittal**	**Item Location (e.g. Page/line or Plan Sheet/Note #)**	**Waiver Requested**
	1. Existing Conditions: (2.5.4.3A)		
☑	a. Surveyed plan of site showing existing natural and built features;	Topographic Plans 1 thru 5 `	
☑	b. Zoning boundaries;	Topographic Plans 1 thru 5	
☑	c. Dimensional Regulations;	Topographic Plans 1 thru 5 CN-001 site notes	
☑	d. Wetland delineation, wetland function and value assessment;	Topographic Plans 1 thru 5	
☑	e. SFHA, 100-year flood elevation line and BFE data.	Plan of Land Sheet 3 of 3 note 7	
	2. Buildings and Structures: (2.5.4.3B)		
☑	a. Plan view: Use, size, dimensions, footings, overhangs, 1st fl. elevation;	CS sheets, CG sheets, CU sheets	
☑	b. Elevations: Height, massing, placement, materials, lighting, façade treatments;	A2.11 to A2.15, A3.11 to A3.12	
☑	c. Total Floor Area;	A1.11 to A1.16, CS-201-203	
☑	d. Number of Usable Floors;	A1.11 to A1.16, CS-201-203	
☑	e. Gross floor area by floor and use.	A1.11 to A1.16, CS-201-203	
	3. Access and Circulation: (2.5.4.3C)		
☑	a. Location/width of access ways within site;	CS-101 to 104, CS-201 to 203	
☑	b. Location of curbing, right of ways, edge of pavement and sidewalks;	CS-101 to 104, CS-201 to 203	
☑	c. Location, type, size and design of traffic signing (pavement markings);	CS-101 to 104, CS-201 to 203	
☑	d. Names/layout of existing abutting streets;	CS-101 to 104, CS-201 to 203	
☑	e. Driveway curb cuts for abutting prop. and public roads;	CS-101 to 104, CS-201 to 203	
☐	f. If subdivision; Names of all roads, right of way lines and easements noted;	Easements will be added to appropriate C sheets prior to next submission	
☑	g. AASHTO truck turning templates, description of minimum vehicle allowed being a WB-50 (unless otherwise approved by TAC).	CT Sheets	
	4. Parking and Loading: (2.5.4.3D)		
☑	a. Location of off street parking/loading areas, landscaped areas/buffers;	CS-201 to CS-203	
☑	b. Parking Calculations (# required and the # provided).	CN-001, CS-001	
	5. Water Infrastructure: (2.5.4.3E)		
☑	a. Size, type and location of water mains, shut-offs, hydrants & Engineering data;	CU Sheets	
☐	b. Location of wells and monitoring wells (include protective radii).	monitoring wells to be added to plans prior to next submission	
	6. Sewer Infrastructure: (2.5.4.3F)		
☑	a. Size, type and location of sanitary sewage facilities & Engineering data.	CU Sheets	
	7. Utilities: (2.5.4.3G)		
☑	a. The size, type and location of all above & below ground utilities;	CG Sheets Drainage CU Sheets	
☑	b. Size type and location of generator pads, transformers and other fixtures.	CU Sheets, CD-540	

Site Plan Specifications – Required Exhibits and Data			
☑	**Required Items for Submittal**	**Item Location (e.g. Page/line or Plan Sheet/Note #)**	**Waiver Requested**
☑	**8. Solid Waste Facilities: (2.5.4.3H)**		
☑	a. The size, type and location of solid waste facilities.	Commercial and Apartments have internal dumpster areas, Townhouses have private curbside pickup Commercial will have a compactor exterior added prior to next submission	
	9. Storm water Management: (2.5.4.3I)		
☑	a. The location, elevation and layout of all storm-water drainage.	CG Sheets	
	10. Outdoor Lighting: (2.5.4.3J)		
☑	a. Type and placement of all lighting (exterior of building, parking lot and any other areas of the site) and; b. photometric plan.	Sheet LS1	
☑	**11.** Indicate where dark sky friendly lighting measures have been implemented. **(10.1)**	Sheet LS1, all cutoff	
	12. Landscaping: (2.5.4.3K)		
☑	a. Identify all undisturbed area, existing vegetation and that which is to be retained;	CS, CG and CU Sheets L1. sheets	
☑	**b.** Location of any irrigation system and water source.	Sheet IRI.01	
	13. Contours and Elevation: (2.5.4.3L)		
☑	a. Existing/Proposed contours (2 foot minimum) and finished grade elevations.	CG sheets	
	14. Open Space: (2.5.4.3M)		
☑	a. Type, extent and location of all existing/proposed open space.	CS-001 (West End Yards set)	
☑	**15. All easements, deed restrictions and non-public rights of ways. (2.5.4.3N)**	Plan of Land Sheet 3 of 3	
☑	**16. Location of snow storage areas and/or off-site snow removal. (2.5.4.3O)**	CS Sheets, CN-001 notes (notes will be expanded prior to next sumbission	
☐	**17. Character/Civic District (All following information shall be included): (2.5.4.3Q)**	N/A	
	a. Applicable Building Height (10.5A21.20 & 10.5A43.30);	N/A	
	b. Applicable Special Requirements (10.5A21.30);	N/A	
	c. Proposed building form/type (10.5A43);	N/A	
	d. Proposed community space (10.5A46).	N/A	

Other Required Information			
☑	**Required Items for Submittal**	**Item Location (e.g. Page/line or Plan Sheet/Note #)**	**Waiver Requested**
☑	Traffic Impact Study or Trip Generation Report, as required. (*Four (4) hardcopies of the full study/report and Six (6) summaries to be submitted with the Site Plan Application*) **(3.2.1-2)**		
☑	Indicate where Low Impact Development Design practices have been incorporated. **(7.1)**	CG-103 bioretention basins CG-201-203 CD-511 to 512	CD-511 to 513
☑	Indicate whether the proposed development is located in a wellhead protection or aquifer protection area. Such determination shall be approved by the Director of the Dept. of Public Works. **(7.3.1)**	it is not	
☑	Indicate where measures to minimize impervious surfaces have been implemented. **(7.4.3)**	CS, CG and CU sheets, the site reduces existing impervious by over 1 Ac.	
☑	Calculation of the maximum effective impervious surface as a percentage of the site. **(7.4.3.2)**	CS-001 (West End Yard site plans)	
☐	Stormwater Management and Erosion Control Plan. (*Four (4) hardcopies of the full plan/report and Six (6) summaries to be submitted with the Site Plan Application*) **(7.4.4.1)**	Written Stormwater Management and Erosion Control Plan to be submitted with next submission	

Final Site Plan Approval Required Information			
☑	**Required Items for Submittal**	**Item Location (e.g. Page/line or Plan Sheet/Note #)**	**Waiver Requested**
☑	All local approvals, permits, easements and licenses required, including but not limited to: a. Waivers; b. Driveway permits; c. Special exceptions; d. Variances granted; e. Easements; f. Licenses. **(2.5.3.2A)**	Easements to be granted to City for utilities will be finalized as part of this process	
☑	Exhibits, data, reports or studies that may have been required as part of the approval process, including but not limited to: a. Calculations relating to stormwater runoff; b. Information on composition and quantity of water demand and wastewater generated; c. Information on air, water or land pollutants to be discharged, including standards, quantity, treatment and/or controls; d. Estimates of traffic generation and counts pre- and post-construction; e. Estimates of noise generation; f. A Stormwater Management and Erosion Control Plan; g. Endangered species and archaeological / historical studies; h. Wetland and water body (coastal and inland) delineations; i. Environmental impact studies. **(2.5.3.2B)**		

Final Site Plan Approval Required Information			
☑	**Required Items for Submittal**	**Item Location (e.g. Page/line or Plan Sheet/Note #)**	**Waiver Requested**
☐	A document from each of the required private utility service providers indicating approval of the proposed site plan and indicating an ability to provide all required private utilities to the site. **(2.5.3.2D)**	Letters from the private utilities will be provided prior to the next submission	
☐	A list of any required state and federal permit applications required for the project and the status of same. **(2.5.3.2E)**	A list of required permits will be added to the plans prior to the next submission. NHDES Wetlands, AOT, Sewer and Water Connection permits, EPANPDES CGP	

Applicant's Signature: _____ **Date:** 06/02/19

Agent for Applicant Richard R. Lundborn, PE, Fuss & O'Neill

Redevelopment of Tax Maps & Lots, 163-33&34, 163-37, 165-2, 172-1 & 173-2

PCA
ARCHITECTURE PLANNING INTERIORS

PRINCIPALS
Eric Brown
Judith Salvi
Mark Eclipse
Laura Homich
David Chilinski
Karen Dubrovsky
Wendy Prellwitz
EMERITUS

W.E.Y. Sustainability Memorandum

PROJECT: West End Yards – Portsmouth, NH
PROJECT NO: 18016.00
DATE: 6.28.19

RE: TAC / Site Plan Review Sustainability narrative

TO: **Portsmouth Planning Board, Attn: Ms. Juliet Walker**
1 Junkins Ave., Third Floor, Portsmouth, NH
T: 603-610-7216 F: 603-427-1593
E: jthwalker@cityofportsmouth.com

CC: John Bosen, Gregg Mikolaities, Rick Lundborn, David Snell

FROM: Jeffrey Gannon **E-mail:** jgannon@prellchil.com

ENCLOSURE: West End Yards Sustainability Narrative

NOTES: Dear Ms. Walker and the Planning Board Staff,

Per the request of the Site Plan Review Technical Advisory Committee and the Site Plan Review Regulations' section 2.5.3 – 1 – (a), the following, along with the previously submitted LEED (Leadership in Energy and Environmental Design) checklists, is intended to serve as our statement on the sustainable design attributes of our project, West End Yards located at the former Frank Jones Center location. Our development of over 12 acres will include 3 new buildings, 2 multi-family residential with 250 units, and 1 commercial building with office and retail uses. This memo will summarize our sustainable approaches to site and building design.

Sustainability is an often used, sometimes misused, term these days. In environmental science, it refers to the quality of not being harmful to the environment or depleting natural resources, thereby supporting ecological balance. In modern development projects, where the challenge of building structures and infrastructure encounters pre-existing natural conditions, the thoughtful use of technology and good design becomes critical. Wherever possible, the objective is to understand the ecology of the site, repairing it where needed, integrating green infrastructure where feasible, and ultimately creating a development project that supports the public good, combining good urban design with land conservation.

The sustainable benefits to the site are almost immeasurable. To summarize, there will be a cleaning of the Hodgson Brook and it's banks, an addition of a bike and walking path from the growing West End towards the downtown area, access to public transit for users, 100% increase in stormwater treatment and thoughtfully design landscaped areas implemented resulting in over a 20% reduction in impervious ground surface area. The density and mixed uses will benefit the long-term success of the site and neighborhood as well as the addition of open and community space.

Several steps will be taken to strategically specify and install eco-friendly and efficient materials and fixtures, or illuminate waste during construction and during operation / use. High efficiency, low-flow water fixtures will be standardized. Any irrigation will be minimized with efficient equipment or through durable and drought-tolerant plant species specifications. Minimization and diversion waste strategies will be implemented during construction and recycling collection alternatives will be provided during and after construction. Material selection will consider environmental product declarations and certifications. The project will also avoid CFC refrigerants, mercury containing lamps and mid-ranged and high VOC emitting materials.

The project's approach to energy use and interior environments will have a sustainable focus through several outlined measures. The benefits of energy modelling and commissioning will be realized, partially through energy metering of consumption. The minimum indoor air quality standards required by code and also ASHRAE 62.1-2007 will be adhered to as well as the protection of air ducts throughout construction. The site will introduce a ban on tobacco smoke in and around the buildings and implement green cleaning and education programs. Lighting efficiencies and natural light and views will be optimized to LEED standards and Green Power or Carbon Offsets to counteract fossil fuel production can be purchased.

We hope the above narrative and accompanying LEED scorecards (attached for reference) will satisfy the Committee's and application's requirement. We believe all outcomes from this project and the considered techniques and technologies will provide benefits to the community and the environment that it calls home. Please do not hesitate to reach out with any questions or comments and PCA along with our sustainability consultant, New Ecology, Inc. will respond promptly to your requests.

Regards,

Jeffrey Gannon, AIA, LEED GA

Associate

Prellwitz Chilinski Associates, Inc. (Architect)

LEED v4 for BD+C: Core and Shell

Project Checklist

Project Name: West End Yards - Commercial

Date: 06.18.19

Y	?	N			
		1	Credit	Integrative Process	1

Y	?	N	Location and Transportation		20
			Credit	LEED for Neighborhood Development Location	20
2			Credit	Sensitive Land Protection	2
		3	Credit	High Priority Site	3
6			Credit	Surrounding Density and Diverse Uses	6
		6	Credit	Access to Quality Transit	6
	1		Credit	Bicycle Facilities	1
		1	Credit	Reduced Parking Footprint	1
	1		Credit	Green Vehicles	1

Y	?	N	Sustainable Sites		11
Y			Prereq	Construction Activity Pollution Prevention	Required
		1	Credit	Site Assessment	1
		2	Credit	Site Development - Protect or Restore Habitat	2
1			Credit	Open Space	1
2	1		Credit	Rainwater Management	3
2			Credit	Heat Island Reduction	2
		1	Credit	Light Pollution Reduction	1
1			Credit	Tenant Design and Construction Guidelines	1

Y	?	N	Water Efficiency		11
Y			Prereq	Outdoor Water Use Reduction	Required
Y			Prereq	Indoor Water Use Reduction	Required
Y			Prereq	Building-Level Water Metering	Required
	2		Credit	Outdoor Water Use Reduction	2
2	2	2	Credit	Indoor Water Use Reduction	6
		2	Credit	Cooling Tower Water Use	2
		1	Credit	Water Metering	1

Y	?	N	Energy and Atmosphere		33
Y			Prereq	Fundamental Commissioning and Verification	Required
Y			Prereq	Minimum Energy Performance	Required
Y			Prereq	Building-Level Energy Metering	Required
Y			Prereq	Fundamental Refrigerant Management	Required
5		1	Credit	Enhanced Commissioning	6
6		12	Credit	Optimize Energy Performance	18
		1	Credit	Advanced Energy Metering	1
		2	Credit	Demand Response	2
		3	Credit	Renewable Energy Production	3
	1		Credit	Enhanced Refrigerant Management	1
		2	Credit	Green Power and Carbon Offsets	2

Y	?	N	Materials and Resources		14
Y			Prereq	Storage and Collection of Recyclables	Required
Y			Prereq	Construction and Demolition Waste Management Planning	Required
		6	Credit	Building Life-Cycle Impact Reduction	6
1		1	Credit	Building Product Disclosure and Optimization - Environmental Product Declarations	2
1		1	Credit	Building Product Disclosure and Optimization - Sourcing of Raw Materials	2
1		1	Credit	Building Product Disclosure and Optimization - Material Ingredients	2
2			Credit	Construction and Demolition Waste Management	2

Y	?	N	Indoor Environmental Quality		10
Y			Prereq	Minimum Indoor Air Quality Performance	Required
Y			Prereq	Environmental Tobacco Smoke Control	Required
		2	Credit	Enhanced Indoor Air Quality Strategies	2
3			Credit	Low-Emitting Materials	3
1			Credit	Construction Indoor Air Quality Management Plan	1
		3	Credit	Daylight	3
1			Credit	Quality Views	1

Y	?	N	Innovation		6
		5	Credit	Innovation	5
1			Credit	LEED Accredited Professional	1

Y	?	N	Regional Priority		4
1			Credit	LT Sensitive Land Protection; threshold = 1 point	1
1			Credit	SS Open Space; threshold = 1 point	1
1			Credit	SS Rainwater Management; threshold = 2 points	1
		1	Credit	EA Optimize Energy Performance; threshold = 8 points	1

Y	?	N	TOTALS	Possible Points:	110
41	8	61			

Certified: 40 to 49 points, **Silver:** 50 to 59 points, **Gold:** 60 to 79 points, **Platinum:** 80 to 110

LEED v4 for BD+C: New Construction and Major Renovation

Project Checklist

Project Name: West End Yards -Residential
Date: 06.18.19

Y	?	N			
		1	Credit	Integrative Process	1

6	2	8	**Location and Transportation**		16
			Credit	LEED for Neighborhood Development Location	16
1			Credit	Sensitive Land Protection	1
		2	Credit	High Priority Site	2
5			Credit	Surrounding Density and Diverse Uses	5
		5	Credit	Access to Quality Transit	5
	1		Credit	Bicycle Facilities	1
		1	Credit	Reduced Parking Footprint	1
	1		Credit	Green Vehicles	1

5	1	4	**Sustainable Sites**		10
Y			Prereq	Construction Activity Pollution Prevention	Required
		1	Credit	Site Assessment	1
		2	Credit	Site Development - Protect or Restore Habitat	2
1			Credit	Open Space	1
2	1		Credit	Rainwater Management	3
2			Credit	Heat Island Reduction	2
		1	Credit	Light Pollution Reduction	1

2	4	5	**Water Efficiency**		11
Y			Prereq	Outdoor Water Use Reduction	Required
Y			Prereq	Indoor Water Use Reduction	Required
Y			Prereq	Building-Level Water Metering	Required
	2		Credit	Outdoor Water Use Reduction	2
2	2	2	Credit	Indoor Water Use Reduction	6
		2	Credit	Cooling Tower Water Use	2
		1	Credit	Water Metering	1

9	1	23	**Energy and Atmosphere**		33
Y			Prereq	Fundamental Commissioning and Verification	Required
Y			Prereq	Minimum Energy Performance	Required
Y			Prereq	Building-Level Energy Metering	Required
Y			Prereq	Fundamental Refrigerant Management	Required
5		1	Credit	Enhanced Commissioning	6
2		16	Credit	Optimize Energy Performance	18
		1	Credit	Advanced Energy Metering	1
		2	Credit	Demand Response	2
		3	Credit	Renewable Energy Production	3
	1		Credit	Enhanced Refrigerant Management	1
2			Credit	Green Power and Carbon Offsets	2

4	1	8	**Materials and Resources**		13
Y			Prereq	Storage and Collection of Recyclables	Required
Y			Prereq	Construction and Demolition Waste Management Planning	Required
		5	Credit	Building Life-Cycle Impact Reduction	5
1		1	Credit	Building Product Disclosure and Optimization - Environmental Product Declarations	2
	1	1	Credit	Building Product Disclosure and Optimization - Sourcing of Raw Materials	2
1		1	Credit	Building Product Disclosure and Optimization - Material Ingredients	2
2			Credit	Construction and Demolition Waste Management	2

8	0	8	**Indoor Environmental Quality**		16
Y			Prereq	Minimum Indoor Air Quality Performance	Required
Y			Prereq	Environmental Tobacco Smoke Control	Required
		2	Credit	Enhanced Indoor Air Quality Strategies	2
3			Credit	Low-Emitting Materials	3
1			Credit	Construction Indoor Air Quality Management Plan	1
		2	Credit	Indoor Air Quality Assessment	2
1			Credit	Thermal Comfort	1
2			Credit	Interior Lighting	2
		3	Credit	Daylight	3
1			Credit	Quality Views	1
		1	Credit	Acoustic Performance	1

3	0	3	**Innovation**		6
2		3	Credit	Innovation *	5
1			Credit	LEED Accredited Professional	1

3	1	0	**Regional Priority**		4
1			Credit	LT Sensitive Land Protection; threshold = 1 point	1
1			Credit	SS Open Space; threshold = 1 point	1
1			Credit	SS Rainwater Management; threshold = 2 points	1
	1		Credit	MR BPD) - Sourcing Raw Materials; threshold = 1 point	1

40	10	60	**TOTALS**	Possible Points:	110

Certified: 40 to 49 points, **Silver:** 50 to 59 points, **Gold:** 60 to 79 points, **Platinum:** 80 to 110

*Innovation Credits:

1. Green Cleaning Protocol
2. Green Education of Building Tenants

WEST END YARDS

CATE STREET · PORTSMOUTH · NEW HAMPSHIRE

SITE PLANS

JULY, 2019

PREPARED FOR

CATE STREET DEVELOPMENT, LLC
11 ELKINS STREET, SUITE 420
BOSTON, MA 02127
987.490.5278

PREPARED BY

FUSS & O'NEILL
UPPER SQUARE BUSINESS CENTER
5 FLETCHER STREET, SUITE 1
KENNEBUNK, MAINE 04043
207.363.0669
www.fando.com

SHEET INDEX

PROJECT TEAM

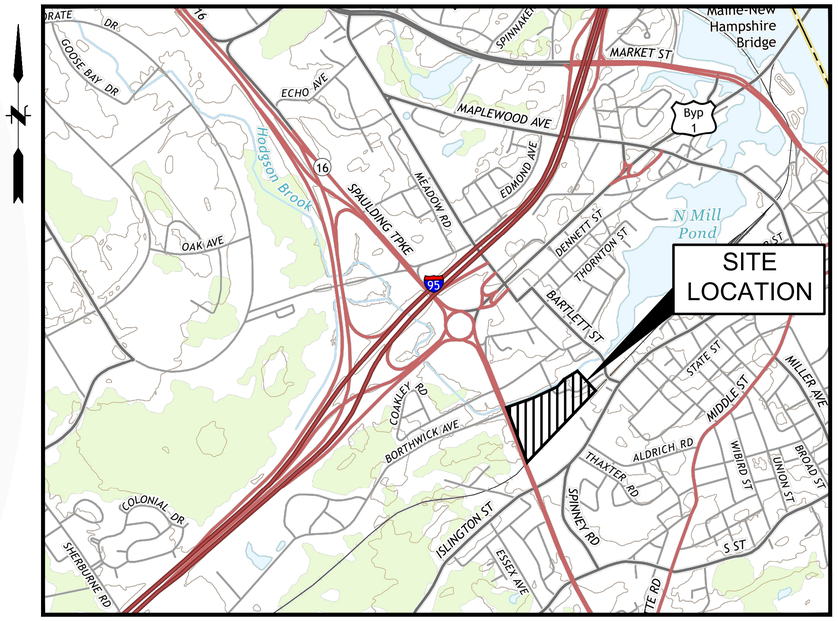
ARCHITECT
PRELLWITZ CHILINSKI ASSOCIATES
221 HAMPSHIRE STREET
CAMBRIDGE, MA. 02139
617.547.8120

LANDSCAPE ARCHITECTS
SITE SOLUTIONS, LLC
3715 NORTHSIDE PARKWAY
300 NORTH CREEK, SUITE 720
ATLANTA, GA. 303227
404.705.9411

NATURAL RESOURCES CONSULTANT
GOVE ENVIRONMENTAL SERVICES, INC
8 CONTINENTAL DRIVE
BUILDING 2, SUITE H
EXETER, NH. 03833-7507
603.778.0644

GEOTECHNICAL ENGINEERS
McPHAIL ASSOCIATES, LLC
2269 MASSACHUSETTS AVENUE
CAMBRIDGE, MA. 02140
617.868.1420

LAND SURVEYOR
DOUCET SURVEY, INC
102 KENT PLACE
NEWMARKET, NH. 03857
603.659.6560



LOCATION MAP
SCALE: 1" = 1200'

STATE AND FEDERAL PERMITS REQUIRED:		
PERMIT	REQUIRED / NOT REQUIRED	STATUS / PERMIT NO.
NHDES WETLANDS BUREAU STANDARD DREDGE AND FILL	REQUIRED	2019-00523
NHDES ALTERATION OF TERRAIN	REQUIRED	PENDING
NHDES WATER MAIN EXTENSION	REQUIRED	PENDING
NHDES SEWER MAIN EXTENSION	REQUIRED	PENDING
NHDOT ENTRANCE PERMIT	REQUIRED	PENDING
EPA, NPDES CONSTRUCTION GENERAL PERMIT (CGP)	REQUIRED	PENDING

811 DigSafe MA·ME·NH·RI·VT

CONTACT DIG SAFE 72 HOURS PRIOR TO CONSTRUCTION

THE LOCATION OF ANY UTILITY INFORMATION SHOWN ON THIS PLAN IS APPROXIMATE. CLD CONSULTING ENG. INC. MAKES NO CLAIM TO THE ACCURACY OR COMPLETENESS OF UTILITIES SHOWN. 72 HOURS PRIOR TO ANY EXCAVATION ON SITE, THE CONTRACTOR SHALL CONTACT DIG-SAFE AT 1-888-DIG-SAFE.

STATE OF NEW HAMPSHIRE · RICHARD R. LUNDBORN No. 19843 LICENSED PROFESSIONAL ENGINEER

PROJ. No.: 20170317.A10
DATE: JULY 2019

GI-002

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617-547-8120

OWNER:
TORRINGTON PROPERTIES + WATERSTONE PROPERTIES GROUP

CONTRACTOR:
CONTRACTOR FIRM
Address
City, State ZIP
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WEST END YARDS - PORTSMOUTH

428 RT. 1 BYPASS - PORTSMOUTH

REVISIONS:

ORIGINAL ISSUE:
05/10/19

SCALE: 1" = 20'-0"

GROUND FLOOR PLAN - AB

A1.11

0' 10' 20' 40'
SCALE: 1" =20'

0' 10' 20' 40'

SCALE: 1" =20'

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WEST END YARDS - PORTSMOUTH

428 RT. 1 BYPASS - PORTSMOUTH

REVISIONS:

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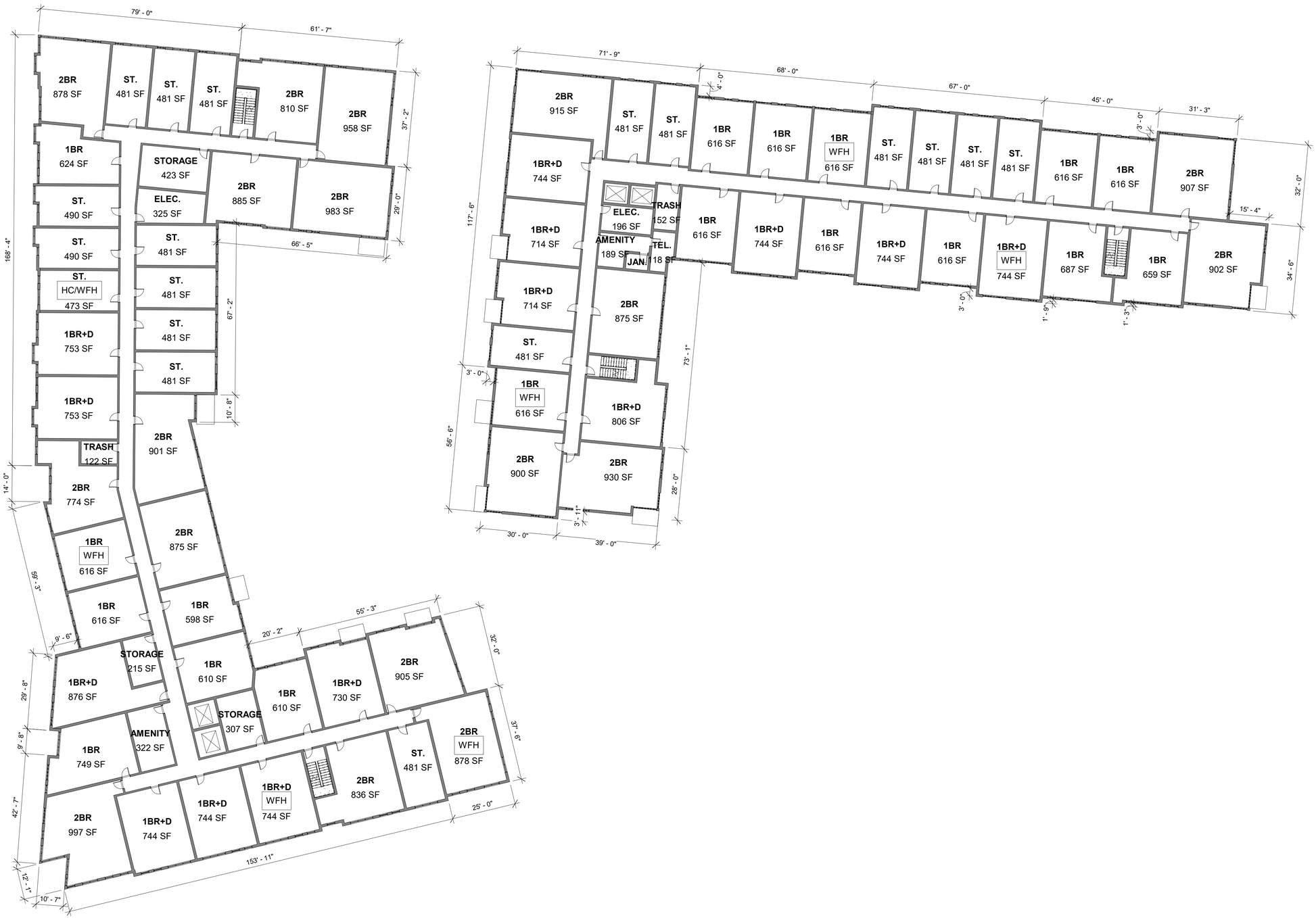
SCALE: 1" = 20'-0"

SECOND FLOOR - AB

A1.12



0' 10' 20' 40'

SCALE: 1" =20'

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WEST END YARDS - PORTSMOUTH

428 RT. 1 BYPASS - PORTSMOUTH

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THIRD FLOOR PLAN - AB

A1.13

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WEST END YARDS - PORTSMOUTH

428 RT. 1 BYPASS - PORTSMOUTH

REVISIONS:

ORIGINAL ISSUE:
05/10/19

SCALE: 1" = 20'-0"

FOURTH FLOOR PLAN - AB

A1.14

0' 10' 20' 40'
SCALE: 1" =20'

0' 10' 20' 40'

SCALE: 1" =20'

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WEST END YARDS - PORTSMOUTH

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REVISIONS:

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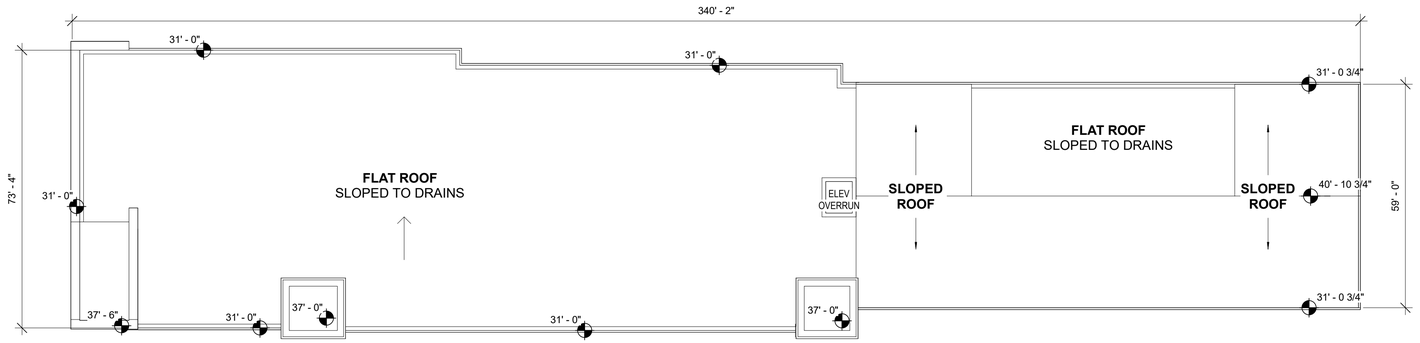
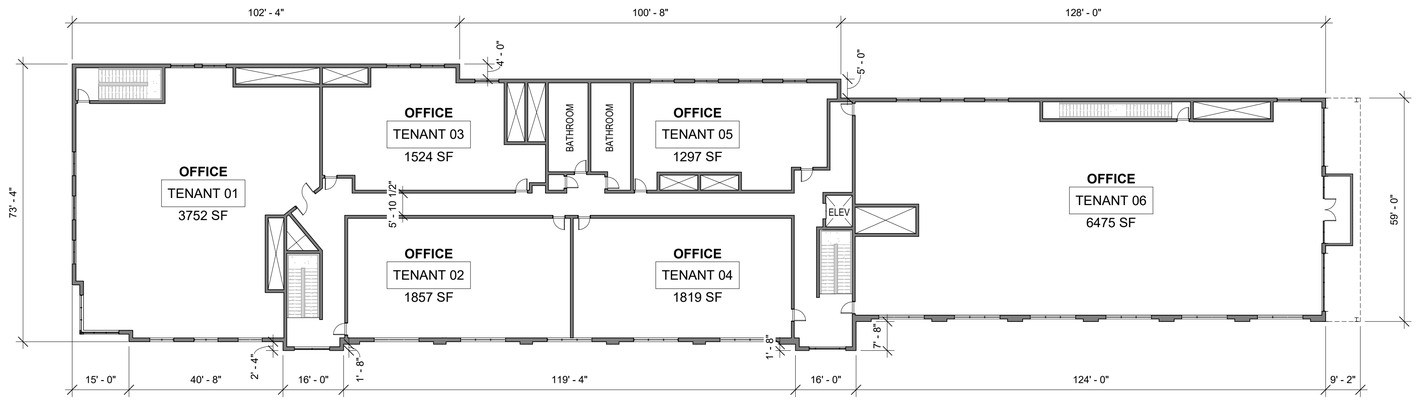
SCALE: 1" = 20'-0"

ROOF PLAN - AB

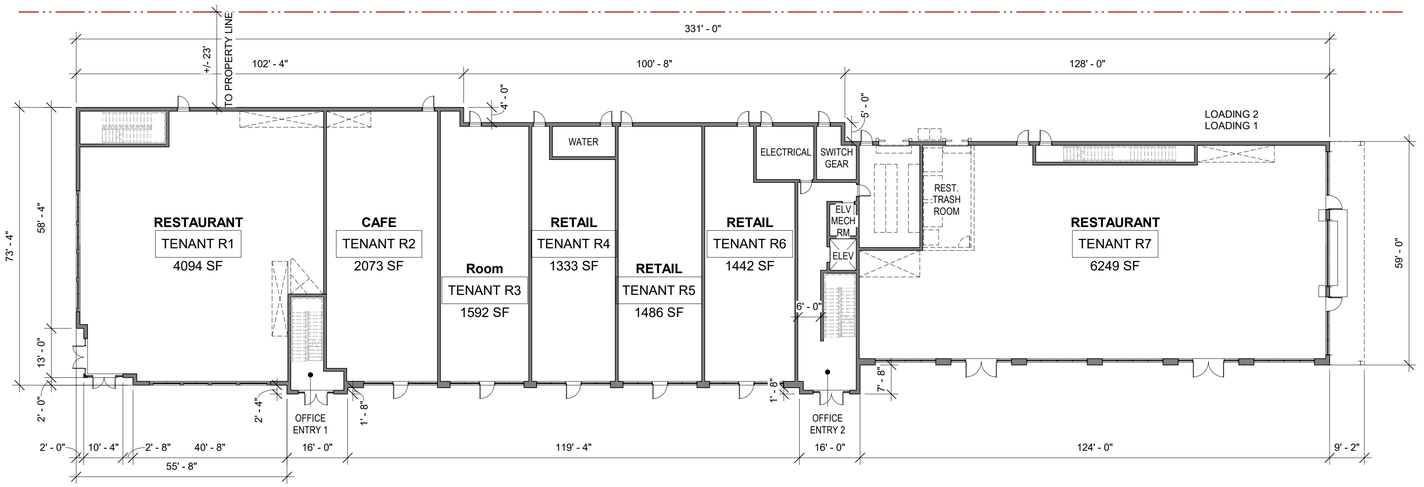
A1.15



3 ROOF
1" = 20'-0"



2 SECOND FLOOR
1" = 20'-0"



1 GROUND FLOOR
1" = 20'-0"

0' 10' 20' 40'
SCALE: 1" =20'

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TORRINGTON PROPERTIES
11 Elkins St. #420
Boston, MA 02127
857-264-1210

CONTRACTOR:
ECKMAN CONSTRUCTION
84 Palomino Lane
Bedford, NH 03110
603-623-1713

WEST END YARDS - COMMERCIAL BLDG.
428 RT. 1 BYPASS - PORTSMOUTH

REVISIONS:

ORIGINAL ISSUE:
05/10/19

SCALE: 1" = 20'-0"

TAC RETAIL BUILDING PLANS

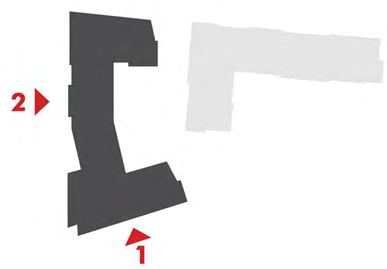
A1.16

PRINTED: 5/14/2019 5:33:36 PM

EXTERIOR MATERIALS LEGEND	
MARK	MATERIAL
1	METAL PANEL
2	SHINGLES
3	RIBBED PANEL
4	CLAPBOARD
5	FAUX WOOD PANEL
6	FIBER CEMENT PANEL

1 SOUTH ELEVATION
1/16" = 1'-0"

2 WEST ELEVATION
1/16" = 1'-0"



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WEST END YARDS - PORTSMOUTH

428 RT. 1 BYPASS - PORTSMOUTH

REVISIONS:

ORIGINAL ISSUE:
05/10/19

SCALE:As indicated

Building A Elevations

A2.11

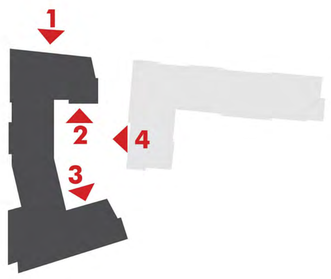
EXTERIOR MATERIALS LEGEND	
MARK	MATERIAL
1	METAL PANEL
2	SHINGLES
3	RIBBED PANEL
4	CLAPBOARD
5	FAUX WOOD PANEL
6	FIBER CEMENT PANEL

1 NORTH ELEVATION
1/16" = 1'-0"

2 NORTH ELEV. COURTYARD
1/16" = 1'-0"

3 SOUTH ELEV. COURTYARD
1/16" = 1'-0"

4 EAST ELEVATION
1/16" = 1'-0"



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WEST END YARDS - PORTSMOUTH

428 RT. 1 BYPASS - PORTSMOUTH

REVISIONS:

ORIGINAL ISSUE:
05/10/19

SCALE:As indicated

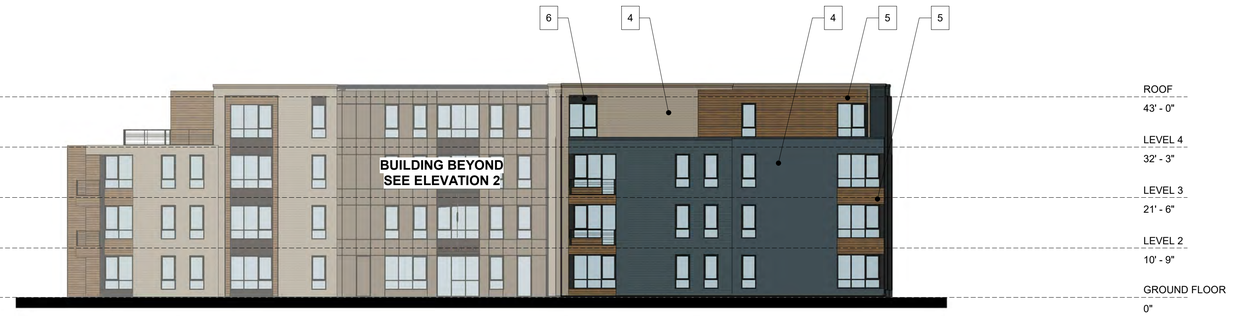
Building A Elevations

A2.12

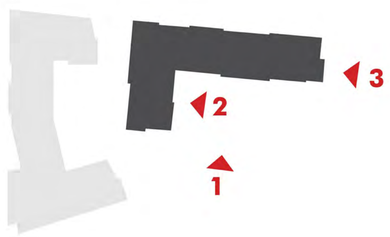
EXTERIOR MATERIALS LEGEND	
MARK	MATERIAL
1	METAL PANEL
2	SHINGLES
3	RIBBED PANEL
4	CLAPBOARD
5	FAUX WOOD PANEL
6	FIBER CEMENT PANEL

1 SOUTH ELEVATION
1/16" = 1'-0"

2 EAST ELEVATION
1/16" = 1'-0"



3 EAST ELEVATION
1/16" = 1'-0"



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WEST END YARDS - PORTSMOUTH

428 RT. 1 BYPASS - PORTSMOUTH

REVISIONS:

ORIGINAL ISSUE:
05/10/19

SCALE:As indicated

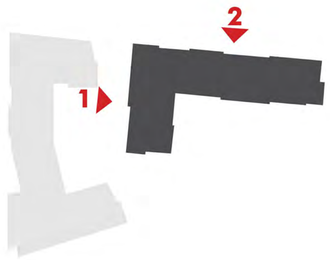
Building B Elevations

A2.13

EXTERIOR MATERIALS LEGEND	
MARK	MATERIAL
1	METAL PANEL
2	SHINGLES
3	RIBBED PANEL
4	CLAPBOARD
5	FAUX WOOD PANEL
6	FIBER CEMENT PANEL

1 WEST ELEVATION
1/16" = 1'-0"

2 NORTH ELEVATION
1/16" = 1'-0"



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WEST END YARDS - PORTSMOUTH

428 RT. 1 BYPASS - PORTSMOUTH

REVISIONS:

ORIGINAL ISSUE:
05/10/19

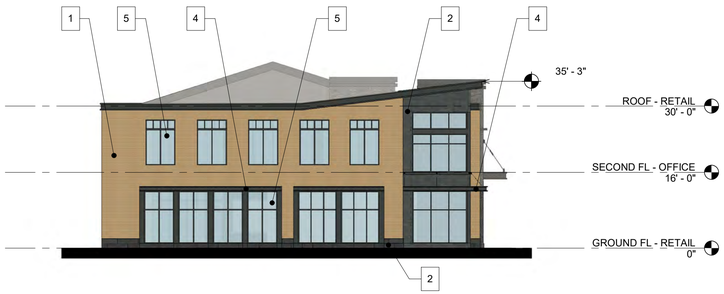
SCALE:As indicated

Building B Elevations

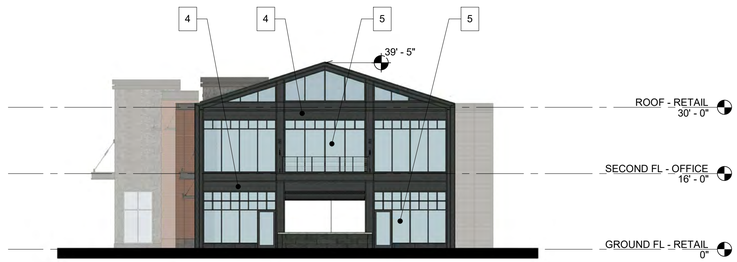
A2.14

EXTERIOR MATERIALS LEGEND	
MARK	MATERIAL
1	RIBBED PANEL
2	CMU
3	BRICK
4	METAL PANEL
5	STOREFRONT

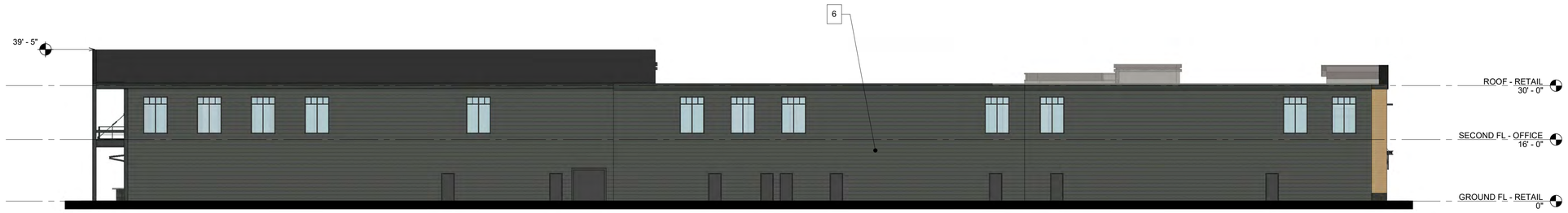
1 SOUTH ELEVATION
1/16" = 1'-0"



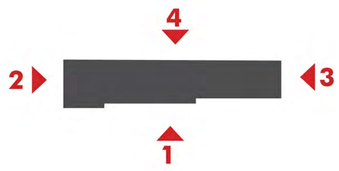
2 WEST ELEVATION
1/16" = 1'-0"



3 EAST ELEVATION
1/16" = 1'-0"



4 NORTH ELEVATION
1/16" = 1'-0"



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WEST END YARDS - PORTSMOUTH

428 RT. 1 BYPASS - PORTSMOUTH

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ORIGINAL ISSUE:
05/10/19

SCALE:As indicated

Retail Building Elevations

A2.15

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WEST END YARDS - PORTSMOUTH

428 RT. 1 BYPASS - PORTSMOUTH

REVISIONS:

ORIGINAL ISSUE:
05/10/19

SCALE:

VIEW OF RETAIL

A3.11

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WEST END YARDS - PORTSMOUTH

428 RT. 1 BYPASS - PORTSMOUTH

REVISIONS:

ORIGINAL ISSUE:
05/10/19

SCALE:

VIEW OF RESI

A3.12

SURVEY NOTES

1. FIELD SURVEY PERFORMED BY P.J.S. & J.C.M. DURING NOVEMBER 2016 USING A TRIMBLE S6 TOTAL STATION, A TRIMBLE R8 SURVEY GRADE GPS UNIT, A TRIMBLE TSC3 DATA COLLECTOR AND A SOKKIA B21 AUTO LEVEL, BY L.P.S. & S.N.F. DURING JULY 2018 AND T.M.M. & J.C.M. IN SEPTEMBER & OCTOBER 2018 USING A TRIMBLE S6 TOTAL STATION WITH A TRIMBLE TSC3 DATA COLLECTOR. TRAVERSE ADJUSTMENT BASED ON LEAST SQUARE ANALYSIS. ADDITONAL FIELD SURVEY PERFORMED BY M.C. DURING NOVEMBER 2016 AND OCTOBER 2018 USING A LEICA HDS SCANNER.

2. THE LIMITS OF JURISDICTIONAL WETLANDS WERE DELINEATED BY MARC JACOBS IN NOVEMBER OF 2016 AND REVIEWED BY GOVE ENVIRONMENTAL SERVICES, INC. DURING APRIL 2018 IN ACCORDANCE WITH THE US ARMY CORPS OF ENGINEERS WETLAND DELINEATION MANUAL, TECHNICAL REPORT Y-87-1, JANUARY 1987 AND REGIONAL SUPPLEMENT TO THE CORPS OF ENGINEERS WETLAND DELINEATION MANUAL; NORTHCENTRAL AND NORTHEAST REGION, VERSION 2.0 JANUARY 2012 AND FIELD INDICATORS FOR IDENTIFYING HYDRIC SOILS IN NEW ENGLAND, VERSION 4, MAY 2017, NEW ENGLAND HYDRIC SOILS TECHNICAL COMMITTEE.

3. FLOOD HAZARD ZONE: "X", PER FIRM MAP #33015C0259E, DATED 5/17/05.

4. VERTICAL DATUM IS BASED ON NGVD29 PER DISK V 28 1942 ELEV. 25.59.

5. HORIZONTAL DATUM BASED ON NEW HAMPSHIRE STATE PLANE(2800) NAD83(2011) DERIVED FROM REDUNDANT GPS OBSERVATIONS UTILIZING THE KEYNET GPS VRS NETWORK.

6. REFERENCE PLANS:
REFER TO THE PLAN OF LAND AT THE END OF THIS PACKAGE FOR ALL REFERENCE PLANS AND EASEMENTS THAT THE PARCELS ARE SUBJECT TO.

GENERAL

1. SYMBOLS AND LEGENDS OF PROJECT FEATURES ARE GRAPHIC REPRESENTATIONS AND ARE NOT NECESSARILY SHOWN ON THE DRAWINGS TO SCALE OR TO THEIR ACTUAL DIMENSION OR LOCATION. COORDINATE DETAIL SHEET DIMENSIONS, MANUFACTURERS' LITERATURE, SHOP DRAWINGS AND FIELD MEASUREMENTS OF SUPPLIED PRODUCTS FOR LAYOUT OF THE PROJECT FEATURES.

2. DO NOT RELY SOLELY ON ELECTRONIC VERSIONS OF DRAWINGS, SPECIFICATIONS, AND DATA FILES THAT ARE PROVIDED BY THE ENGINEER. FIELD VERIFY LOCATION OF PROJECT FEATURES.

3. PERFORM NECESSARY CONSTRUCTION NOTIFICATIONS, APPLY FOR AND OBTAIN NECESSARY PERMITS, PAY FEES, AND POST BONDS ASSOCIATED WITH THE WORK AS REQUIRED BY THE CONTRACT DOCUMENTS.

4. SEE ARCHITECTURAL DRAWINGS FOR DIMENSIONS OF BUILDINGS AND ADJACENT SITE ELEMENTS INCLUDING SIDEWALKS, RAMPS, BUILDING ENTRANCES, STAIRWAYS, UTILITY PENETRATIONS, CONCRETE DOOR PADS, COMPACTOR PAD, LOADING DOCKS, BOLLARDS, ETC.

5. PLEASE READ ALL OTHER NOTES ON THIS PAGE. THEY CONTAIN INFORMATION RELATED TO AND ASSOCIATED WITH THIS PROJECT AND DESIGN.

6. IF, DURING CONSTRUCTION, IT BECOMES APPARENT THAT DEFICIENCIES EXIST IN THE APPROVED DRAWINGS, THE OWNER SHALL BE REQUIRED TO CORRECT THE DEFICIENCIES TO MEET THE REQUIREMENTS OF THE REGULATIONS AT NO EXPENSE TO THE CITY.

7. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO FAMILIARIZE THEMSELVES WITH THE SITE AND EXISTING CONDITIONS SURROUNDING IT AND THEREON. THE CONTRACTOR SHALL ADVISE THE APPROPRIATE AUTHORITY OF HIS INTENTIONS AT LEAST 48 HOURS IN ADVANCE.

8. ALL MATERIALS AND METHODS OF CONSTRUCTION SHALL CONFORM TO THE CITY OF PORTSMOUTH SITE PLAN REGULATIONS, CITY OF PORTSMOUTH DEPARTMENT OF PUBLIC WORKS STANDARD SPECIFICATIONS, AND THE LATEST EDITION OF THE NEW HAMPSHIRE DEPARTMENT OF TRANSPORTATION'S STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION. ALL CONSTRUCTION DETAILS SHALL BE IN ACCORDANCE WITH THE CITY OF PORTSMOUTH.

9. THE CONTRACTOR SHALL BID AND PERFORM THE WORK IN ACCORDANCE WITH ALL LOCAL, STATE AND NATIONAL CODES, SPECIFICATIONS, REGULATIONS, AND STANDARDS.

10. THE CONTRACTOR IS RESPONSIBLE FOR THE MEANS AND METHODS OF CONSTRUCTION AND FOR CONDITIONS AT THE SITE. THESE PLANS, PREPARED BY FUSS & O'NEILL DO NOT EXTEND TO OR INCLUDE SYSTEMS PERTAINING TO THE SAFETY OF THE CONSTRUCTION CONTRACTOR OR THEIR EMPLOYEES, AGENTS OR REPRESENTATIVES IN THE PERFORMANCE OF THE WORK. THE SEAL OF THE SURVEYOR OR ENGINEER HERE ON DOES NOT EXTEND TO ANY SUCH SAFETY SYSTEMS THAT MAY NOW OR HEREAFTER BE INCORPORATED INTO THESE PLANS. THE CONSTRUCTION CONTRACTOR SHALL PREPARE OR OBTAIN THE APPROPRIATE SAFETY SYSTEMS WHICH MAY BE REQUIRED BY THE U.S. OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA) AND/OR LOCAL REGULATIONS.

WORK RESTRICTIONS

16. DO NOT CLOSE OR OBSTRUCT ROADWAYS, SIDEWALKS, FIRE HYDRANTS, AND UTILITIES WITHOUT APPROPRIATE PERMITS.

2. WORK IS RESTRICTED TO THE HOURS OF TO THE HOURS (TIME) TO (TIME) ON (DAY) THROUGH (DAY)

REGULATORY REQUIREMENTS

1. WITHIN LOCAL RIGHTS-OF-WAY, PERFORM THE WORK IN ACCORDANCE WITH LOCAL MUNICIPAL STANDARDS.

2. WITHIN STATE RIGHTS-OF-WAY, PERFORM THE WORK IN ACCORDANCE WITH THE LATEST EDITION OF THE DEPARTMENT OF TRANSPORTATION'S STANDARD SPECIFICATIONS AND ISSUED REVISIONS/SUPPLEMENTS.

3. PROVIDE TRAFFIC SIGNAGE AND PAVEMENT MARKINGS IN CONFORMANCE WITH THE LATEST EDITION OF THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES.

4. BE RESPONSIBLE FOR SITE SECURITY AND JOB SAFETY. PERFORM CONSTRUCTION ACTIVITIES IN ACCORDANCE WITH OSHA STANDARDS AND LOCAL REQUIREMENTS.

5. DISPOSE OF DEMOLITION DEBRIS IN ACCORDANCE WITH APPLICABLE FEDERAL, STATE AND LOCAL REGULATIONS, ORDINANCES AND STATUTES.

6. THIS PROJECT DISTURBS MORE THAN ONE ACRE OF LAND AND FALLS WITHIN THE NEW HAMPSHIRE DEP STORMWATER AND DEWATERING WASTEWATER FROM CONSTRUCTION ACTIVITIES GENERAL PERMIT PROCESS. (NAME OF APPLICANT) HAS SUBMITTED INFORMATION TO THE DEP TO SATISFY THIS GENERAL PERMIT. THE CONTRACTOR MUST HAVE A COPY OF THIS GENERAL PERMIT ON SITE AT ALL TIMES.

EROSION AND SEDIMENT CONTROL

1. INSTALL EROSION CONTROL MEASURES PRIOR TO STARTING ANY WORK ON THE SITE. REFER TO THE EROSION AND SEDIMENT CONTROL DRAWINGS.

2. IMPLEMENT ALL NECESSARY MEASURES REQUIRED TO CONTROL STORMWATER RUNOFF, DUST, SEDIMENT, AND DEBRIS FROM EXITING THE SITE. PERFORM CORRECTIVE ACTION AS NEEDED FOR EROSION CLEANUP AND REPAIRS TO OFF SITE AREAS, IF ANY, AT NO COST TO OWNER.

3. INSPECT AND MAINTAIN EROSION CONTROL MEASURES PER THE SCHEDULE IN THE EROSION AND SEDIMENT CONTROL DRAWINGS. DISPOSE OF SEDIMENT IN AN UPLAND AREA. DO NOT ENCUMBER OTHER DRAINAGE STRUCTURES AND PROTECTED AREAS.

4. PERFORM CONSTRUCTION SEQUENCING IN SUCH A MANNER TO CONTROL EROSION AND TO MINIMIZE THE TIME THAT EARTH MATERIALS ARE EXPOSED BEFORE THEY ARE COVERED, SEEDED, OR OTHERWISE STABILIZED.

5. UPON COMPLETION OF CONSTRUCTION AND ESTABLISHMENT OF PERMANENT GROUND COVER, REMOVE AND DISPOSE OF TEMPORARY EROSION CONTROL MEASURES. CLEAN SEDIMENT AND DEBRIS FROM TEMPORARY MEASURES AND FROM PERMANENT STORM DRAIN AND SANITARY SEWER SYSTEMS.

DEMOLITION

1. REMOVE AND DISPOSE OF EXISTING UTILITIES, FOUNDATIONS AND UNSUITABLE MATERIAL BENEATH AND FOR A DISTANCE OF 10 FEET BEYOND THE PROPOSED BUILDING FOOTPRINT INCLUDING EXTERIOR COLUMNS, UNLESS OTHERWISE NOTED.

CONSTRUCTION LAYOUT

1. PROVIDE PROPER TRANSITIONS BETWEEN EXISTING AND PROPOSED SITE IMPROVEMENTS. FIELD VERIFY EXISTING PAVEMENT AND GROUND ELEVATIONS AT THE INTERFACE WITH PROPOSED PAVEMENTS AND DRAINAGE STRUCTURES BEFORE START OF CONSTRUCTION.

2. PRIOR TO ORDERING MATERIALS AND BEGINNING CONSTRUCTION, FIELD VERIFY PROPOSED UTILITY ROUTES AND IDENTIFY ANY INTERFERENCES OR OBSTRUCTIONS WITH EXISTING UTILITIES OR PUBLIC RIGHTS-OF-WAY.

3. IMMEDIATELY INFORM THE ENGINEER IN WRITING IF EXISTING UTILITY CONDITIONS CONFLICT OR DIFFER FROM THAT INDICATED AND IF THE WORK CANNOT BE COMPLETED AS INDICATED.

4. DIMENSIONS ARE FROM FACE OF CURB, FACE OF BUILDING, FACE OF WALL, AND CENTER LINE OF PAVEMENT MARKINGS, UNLESS NOTED OTHERWISE.

5. BOUNDS OR MONUMENTATION DISTURBED DURING CONSTRUCTION SHALL BE SET OR RESET BY A PROFESSIONAL LICENSED SURVEYOR.

EARTHWORK

1. NOTIFY UTILITY LOCATOR SERVICE AT LEAST 72 HOURS BEFORE STARTING EXCAVATION.

CALL DIGSAFE: 1-888-DIG-SAFE

2. STOP WORK IN THE VICINITY OF SUSPECTED CONTAMINATED SOIL, GROUNDWATER OR OTHER MEDIA. IMMEDIATELY NOTIFY THE OWNER SO THAT APPROPRIATE TESTING AND SUBSEQUENT ACTION CAN BE TAKEN. RESUME WORK IN THE IMMEDIATE VICINITY ONLY UPON DIRECTION BY THE OWNER.

3. WITHIN THE LIMITS OF THE BUILDING FOOTPRINT, PERFORM EARTHWORK OPERATIONS TO SUBGRADE ELEVATIONS. SEE DRAWINGS BY OTHERS FOR WORK ABOVE SUBGRADE.

PAVEMENT

1. AT A MINIMUM, CONSTRUCT ACCESSIBLE ROUTES, PARKING SPACES, RAMPS, SIDEWALKS AND WALKWAYS IN CONFORMANCE WITH THE FEDERAL AMERICANS WITH DISABILITIES ACT AND WITH STATE AND LOCAL LAWS AND REGULATIONS (WHICHEVER ARE MORE STRINGENT).

GENERAL SITE RESTORATION

1. PROVIDE 6 INCHES OF TOPSOIL AND SEED TO AREAS DISTURBED DURING CONSTRUCTION AND NOT DESIGNATED TO BE RESTORED WITH IMPERVIOUS SURFACES (BUILDINGS, PAVEMENTS, WALKS, ETC.) UNLESS OTHERWISE NOTED.

2. REPAIR DAMAGES RESULTING FROM CONSTRUCTION LOADS, AT NO ADDITIONAL COST TO OWNER.

3. RESTORE AREAS DISTURBED BY CONSTRUCTION OPERATIONS TO THEIR ORIGINAL CONDITION OR BETTER, AT NO ADDITIONAL COST TO OWNER.

UTILITIES

1. TERMINATE EXISTING UTILITIES IN CONFORMANCE WITH LOCAL, STATE AND INDIVIDUAL UTILITY COMPANY STANDARD SPECIFICATIONS AND DETAILS. COORDINATE UTILITY SERVICE DISCONNECTS WITH UTILITY REPRESENTATIVES.

2. THE TYPE, SIZE AND LOCATION OF DEPICTED UNDERGROUND UTILITIES ARE APPROXIMATE REPRESENTATIONS OF INFORMATION OBTAINED FROM FIELD LOCATIONS OF VISIBLE FEATURES, EXISTING MAPS AND PLANS OF RECORD, UTILITY MAPPING, AND OTHER SOURCES OF INFORMATION OBTAINED BY THE ENGINEER. ASSUME NO GUARANTEE AS TO THE COMPLETENESS, SERVICEABILITY, EXISTENCE, OR ACCURACY OF UNDERGROUND FACILITIES. FIELD VERIFY THE EXACT LOCATIONS, SIZES, AND ELEVATIONS OF THE POINTS OF CONNECTIONS TO EXISTING UTILITIES.

3. PAY ALL FEES AND COSTS ASSOCIATED WITH UTILITY MODIFICATIONS AND CONNECTIONS, REGARDLESS OF THE ENTITY THAT PERFORMS THE WORK.

4. COORDINATE THE WORK AND WORK SCHEDULE WITH UTILITY COMPANIES. PROVIDE ADEQUATE NOTICE TO UTILITIES TO PREVENT DELAYS IN CONSTRUCTION.

5. INTERIOR DIAMETERS OF STORM DRAIN AND SANITARY SEWER STRUCTURES SHALL BE DETERMINED BY THE PRECAST MANUFACTURER, BASED ON THE INDICATED PIPE SYSTEM LAYOUT AND LOCAL MUNICIPAL STANDARDS.

MINIMUM INTERIOR DIAMETERS:
0 TO 20 FEET DEEP; 4 FEET.
20 FEET OR GREATER; 5 FEET.

5. RIM ELEVATIONS FOR MANHOLES, VALVE COVERS, GATE AND PULL BOXES, AND OTHER STRUCTURES ARE APPROXIMATE. SET OR RESET RIM ELEVATIONS AS FOLLOWS:

IN PAVEMENTS AND CONCRETE SURFACES: FLUSH
IN SURFACES ALONG ACCESSIBLE ROUTES: FLUSH
IN LANDSCAPE, SEEDED, AND OTHER EARTH SURFACE AREAS:
1 INCH ABOVE SURROUNDING AREA; TAPER EARTH TO RIM ELEVATION.

6. INSTALL PROPOSED PRIVATE UTILITY SERVICES ACCORDING TO THE REQUIREMENTS PROVIDED BY, AND APPROVED BY THE AUTHORITY HAVING JURISDICTION (WATER, SEWER, GAS, TELEPHONE, ELECTRIC, FIRE ALARM, ETC.). COORDINATE FINAL DESIGN LOADS AND LOCATIONS WITH OWNER AND ARCHITECT.

PORTSMOUTH UTILITY CONTACT INFORMATION:

WATER/SEWER:
JIM TOW
GENERAL FOREMAN
PORTSMOUTH DEPARTMENT OF PUBLIC WORKS
680 PEVERLY HILL ROAD
PORTSMOUTH, NH 03801
603.766.1426
JVTOW@CITYOFPORTSMOUT.COM

ELECTRIC:
NICKOLAI KOSKO
FIELD SERVICE REPRESENTATIVE
EVERSOURCE ENERGY
74 OLD DOVER ROAD
ROCHESTER, NH 03867
603.332.4227 EXT. 5555334
NICKOLAI.KOSKO@EVERSOURCE.COM

NATURAL GAS:
DAVID BEAULIEU
SR. BUSINESS DEVELOPMENT REPRESENTATIVE
UNITIL SERVICE CORP.
325 WEST ROAD
PORTSMOUTH, NH 03801
603.294.5144
BEAULIEU@UNITIL.COM

TRAFFIC:
ERIC EBY
PARKING AND TRANSPORTATION ENGINEER
DEPARTMENT OF PUBLIC WORKS
680 PEVERLY HILL ROAD
PORTSMOUTH, NH 03801
603.766.1415

CABLE:
MIKE COLLINS
COMCAST
334 CALEF HIGHWAY
EPPING, NH 03042
603.679.5695
MIKECOLLINS@COMCAST.COM

TELEPHONE:
JOSEPH CONSIDINE
ENGINEER
CONSOLIDATED COMMUNICATIONS
1575 GREENLAND ROAD
GREENLAND, NH 03840
603.427.5525
JOSEPH.CONSIDINE@CONSOLIDATED.COM

ROAD, MATERIALS AND SIGNAL:
DAVE DEFOSSES
PROJECT MANAGER
PORTSMOUTH DEPARTMENT OF PUBLIC WORKS
680 PEVERLY HILL ROAD
PORTSMOUTH, NH 03801
603.766.1411
DJDEFOSSES@CITYOFPORTSMOUT.COM

NO.	DATE	DESCRIPTION	DESIGNER	REVIEWER
4.	7/24/2019	TAC SUBMITTAL	JVA/DAD	RRL
3.	6/20/2019	TAC SUBMITTAL	JVA/DAD	RRL
2.	5/20/2019	TAC SUBMITTAL	JVA/DAD	RRL
1.	3/18/2019	TAC SUBMITTAL	JVA/DAD	RRL

STATE OF NEW HAMPSHIRE - RICHARD R. LINDBORN No. 10643 (LICENSED) - PROFESSIONAL ENGINEER

SCALE:
HORZ:
VERT:
DATUM:
HORZ.: NAD83
VERT.: NGVD29
0
GRAPHIC SCALE

FUSS & O'NEILL
UPPER SQUARE BUSINESS CENTER
5 FLETCHER STREET, SUITE 1
KENNEBUNK, MAINE 04043
207.363.0669
www.fando.com

CATE STREET DEVELOPMENT, LLC

GENERAL NOTES

CATE STREET/ WEST END YARDS

PORTSMOUTH NEW HAMPSHIRE

PROJ. No.: 20180317.A10
DATE: 07/24/2019

CN-001

File Path: F:\P2018\0317A10\Civil\3\Dwg\20180317A10_COV01.dwg Layout: CN-001 (S) Plotted: Wed, July 24, 2019 - 1:42 PM User: rlundborn
Plotter: DWG TO PDF.PC3 CTB File: FO.STB
LAYER STATE:
MS VIEW:

BOUNDARIES

EXISTING		PROPOSED
BEARING DISTANCE	PROPERTY LINE	BEARING DISTANCE
	APPROXIMATE LOT LINE	
	INTERIOR LOT LINE	
	APPROXIMATE ABUTTER LOT LINE	
	EASEMENT LINE	
BOW CONCORD	TOWN LINE	
COOS GRAFTON	COUNTY LINE	
MAINE NEW HAMPSHIRE	STATE LINE	
	BOUND FOUND	
R.R.S.F.	RAILROAD SPIKE FOUND	
	IRON PIPE/ROD FOUND	
	4"X4" GRANITE BOUND TO BE SET	
	5/8" REBAR W/ID CAP TO BE SET	
	CONCRETE	
	BOUND FOUND	
	IRON PIPE FOUND	
	CONCRETE	
	DRILL HOLE	

NATURAL RESOURCES

EXISTING		PROPOSED
20	MAJOR CONTOUR LINE	20
22	MINOR CONTOUR LINE	22
+ 201.0	SPOT ELEVATION	+ 201.0
	EDGE OF WETLAND	
	WETLAND AREA	
	CONIFEROUS TREE	
	DECIDUOUS TREE	
	MONITORING WELL	
	TEST PIT	
	TREE LINE	
	SHRUB LINE	
	EDGE OF WATER	

GENERAL

EXISTING		PROPOSED
	STOCKADE FENCE	
	CHAIN LINK FENCE	
X	BARBED WIRE FENCE	X
	STONE WALL	
	RETAINING WALL	
	GUARDRAIL	
	SIGN	
	SIGN (TWO POSTS)	
	FENCE POST	
	POST	
	POST	
	BOLLARD	
	FLAG POLE	
	CONCRETE	
	CRUSHED STONE	
	LEDGE OUTCROP	
LEACH FIELD	LEACH FIELD	
	GAS PUMPS	
	STORAGE TANKS	
	CEMETERY	
	INTERMITTENT WATER COURSE	
RIVER (STREAM)	SHORE LINE	
POND	SHORE LINE	

DRAINAGE

EXISTING		PROPOSED
	DRAINAGE NOTE	D
SD	DRAIN LINE	D
XD	DRAIN LINE (SEE NOTE 20)	
	CATCH BASIN	
D	DRAIN MANHOLE	
RD	ROOF DRAIN	
R	ROOF DRAIN LINE	R
UD	STORM UNDERDRAIN	UD
	DRAINAGE FLOW DIRECTION ARROW	
	PROPOSED REINFORCED CONCRETE CULVERT END	
	PROPOSED TYPE "C-L" CATCH BASIN	
	PROPOSED TYPE "C" CATCH BASIN	
	PROPOSED HEAD WALL	

WATER

EXISTING		PROPOSED
	WATER NOTE	W
W	WATER LINE	W
XW	WATER LINE (SEE NOTE 20)	
	FIRE HYDRANT	
	PROPOSED HYDRANT AND GATE VALVE	
	WATER GATE VALVE	
	SPIGOT	
W	WELL	

SEWER

EXISTING		PROPOSED
	SEWER NOTE	S
SS	SEWER LINE	S
XS	SEWER LINE (SEE NOTE 20)	
FM	SEWER FORCE MAIN	FM
S	SANITARY SEWER MANHOLE	
	CLEANOUT	

GAS

EXISTING		PROPOSED
	GAS NOTE	G
G	GAS MAIN	G
	GAS GATE VALVE	
O.F.C.	OIL FILL CAP	

ELECTRIC

EXISTING		PROPOSED
	ELECTRIC NOTE	E
OHW	OVERHEAD WIRES	OHW
	UTILITY POLE	
	UTILITY POLE & GUY WIRE	
	UTILITY POLE W/ LIGHT	
	LIGHT POLES	SINGLE DOUBLE
E	ELECTRICAL SERVICE	E
	ELECTRIC BOX	
	PROPOSED ELECTRICAL MANHOLE	
M	MANHOLE	M
	HAND HOLE	
	PROPOSED LIGHT	

TELEPHONE

EXISTING		PROPOSED
T	TELEPHONE LINE	T
T	TELEPHONE MANHOLE	T

CATV

EXISTING		PROPOSED
C	CABLE LINE	C

STRIPING

EXISTING		PROPOSED
SWL	SINGLE SOLID LINE (WHITE)	PSSL (W)
	SINGLE BROKEN LINE (WHITE)	PSBL (W)
	DOUBLE SOLID LINE (WHITE)	PDSL (W)
SYL	SINGLE SOLID LINE (YELLOW)	PSSL (Y)
	SINGLE BROKEN LINE (YELLOW)	PSBL (Y)
DYL	DOUBLE SOLID LINE (YELLOW)	PDSL (Y)
	(A)=STOP BAR = 18" SSL (WHITE)(T)	(A)

GENERAL PAVEMENT MARKING NOTE:
PLACEMENT AND COLOR OF PAVMENT MARKING LINES, SYMBOLS AND WORDS SHALL CONFORM TO THE (MUTCD) SECTION 632 OF NHDOT STANDARD SPECIFICATION BOOK, CONTRACT SUPPLEMENTAL SPECIFICATIONS, THE STATE OF NEW HAMPSHIRE PAVEMENT MARKING STANDARD DETAIL SHEETS, AND STANDARD PLAN SHEETS.

RETROREFLECTIVE PAINT PAVMENT MARKING KEY:
THE FOLLOWING PAVEMENT MARKINGS SHALL BE RETROREFLECTIVE THERMOPLASTIC UNLESS OTHERWISE NOTIFIED BY THE STATE STANDARD SYMBOLS AND WORDS

—WORDS ONLY — WORDS
(A) = STOP BARS = 18" SSL (WHITE)(T)

	ACCESSIBLE PARKING SPACE	
	PAINTED ISLAND	
10	PARKING SPACE COUNT	10

CURB

EXISTING		PROPOSED
VGC	VERTICAL GRANITE CURB	VGC
SGC	SLOPED GRANITE CURB	SGC
SBB	SLOPED BITUMINOUS BERM	SBB
CC	CONCRETE CURB	CC
BCC	BITUMINOUS CURB	BCC
	TIPDOWN	TD

TRAFFIC UTILITIES

SIGNAL CONDUIT (EXISTING)		
SIGNAL CONDUIT (PROPOSED)		
MAGNETIC DETECTOR SLEEVE		
LOOP DETECTOR	8'X10' (LABEL SIZE)	8'X10'
PULLBOX	P.B. EXISTING	P.B. PROPOSED
HANDHOLE	H.H.	H.H.
CONTROLLER CABINET	C.C.	C.C.
SPREAD FOOTING	10' 8'(LABEL SIZE)	
CYLINDRICAL FOUNDATION		NOTE ANGLE FROM TO ARM
MAST ARM POLE (WITH SIGNAL HEADS)		
STEEL SPAN WIRE POLES		
PEDESTRIAN SIGNAL POLE		
TRAFFIC SIGNAL (EXISTING)		
STREET LIGHT CONDUIT		

EROSION CONTROL

PROPOSED SILT FENCE	SF
PROPOSED HAY BALES	HB
PROPOSED HAYBALE CHECK DAM	
PROPOSED SILT SOCKS	
PROPOSED EROSION CONTROL MAT	
PROPOSED INLET PROTECTION	
PROPOSED OUTLET PROTECTION	
PROPOSED STONE CHECK DAM	
PROPOSED LIMIT OF DISTURBANCE	LOD

NO.	DATE	DESCRIPTION	DESIGNER	REVIEWER
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1.	3/18/2019	TAC SUBMITTAL	JVA/DAD	RRL

STATE OF NEW HAMPSHIRE – LICENSED PROFESSIONAL ENGINEER – RICHARD R. LINDBORN No. 10643

SCALE: HORZ.: VERT.:
DATUM: HORZ.: NAD83 VERT.: NGVD29
0 GRAPHIC SCALE

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CATE STREET DEVELOPMENT, LLC

LEGEND

CATE STREET/ WEST END YARDS
PORTSMOUTH NEW HAMPSHIRE

PROJ. No.: 20180317.A10
DATE: 07/24/2019

CN-002

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Plotter: DWG TO PDF.PC3 CTB File: FO.STB
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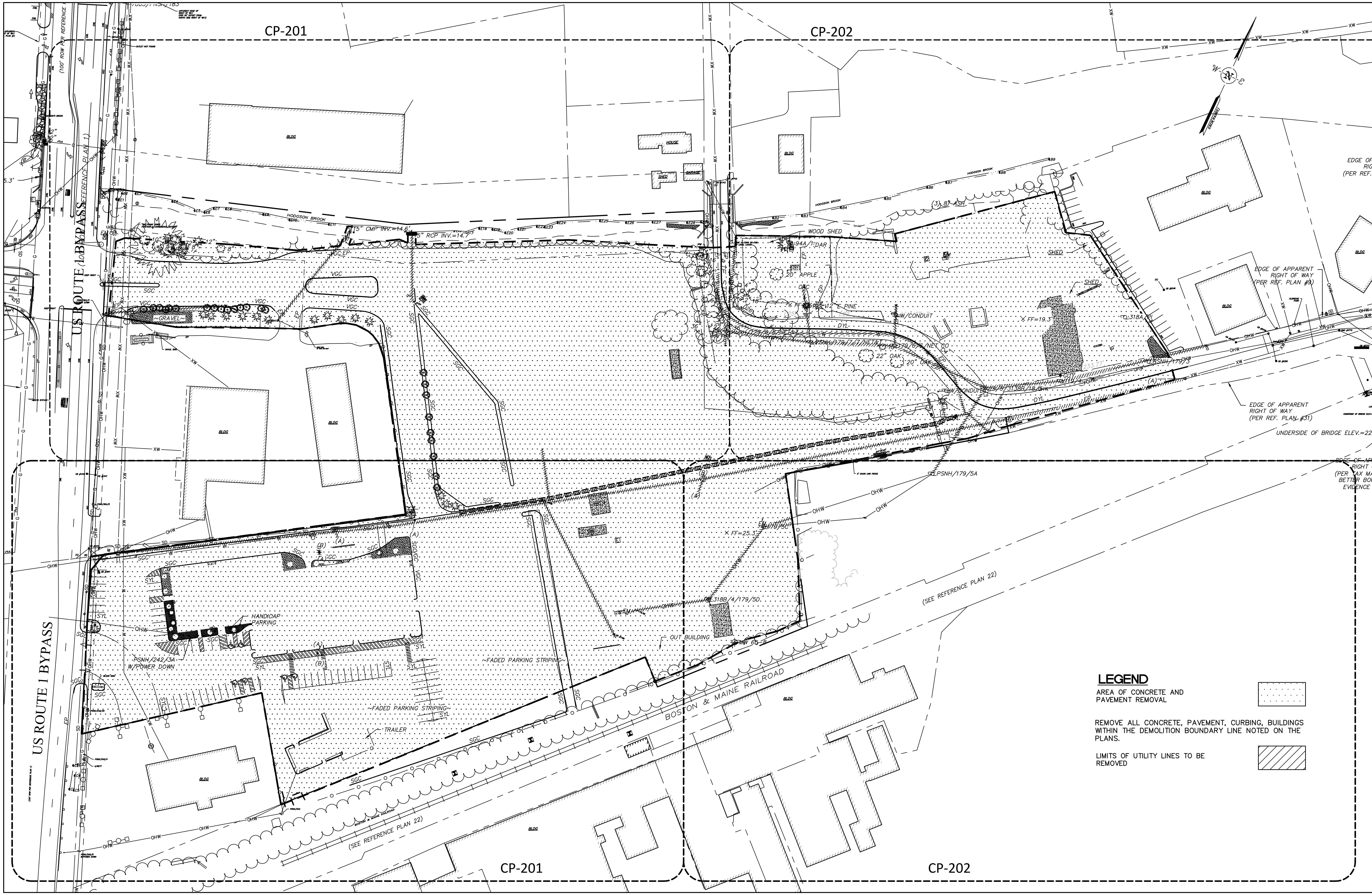

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1.	3/18/2019	TAC SUBMITTAL	JVA/DAD	RRL

STATE OF NEW HAMPSHIRE – RICHARD R. LUNDBORN No. 10943 LICENSED PROFESSIONAL ENGINEER

SCALE: HORZ.: 1"=60' VERT.: 1"=60'

DATUM: HORZ.: NAD83 VERT.: NGVD29

60 30 0 60
GRAPHIC SCALE

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CATE STREET DEVELOPMENT, LLC

OVERALL SITE PREPARATION PLAN

CATE STREET/ WEST END YARDS

PORTSMOUTH NEW HAMPSHIRE

PROJ. No.: 20180317.A10
DATE: 07/24/2019

CP-200

File Path: F:\P2018\0317\A10\Civil3\Dwg\20180317A10_DM001.dwg Layout: CP-200 Plotted: Wed, July 24, 2019 - 2:25 PM User: jandretta
Plotter: DWG TO PDF.PC3 CTB File: FO.STB
MS VIEW:
LAYER STATE:

LEGEND

AREA OF CONCRETE AND PAVEMENT REMOVAL

REMOVE ALL CONCRETE, PAVEMENT, CURBING, BUILDINGS WITHIN THE DEMOLITION BOUNDARY LINE NOTED ON THE PLANS.

LIMITS OF UTILITY LINES TO BE REMOVED

BLDG

HOUSE

SHED

GARAGE

DEMOLITION BOUNDARY

REMOVE GUARDRAIL

REMOVE DRAINAGE PIPE AND STRUCTURE

REMOVE FENCE

REMOVE GUARDRAIL

HODGSON BROOK

15" CMP INV.=14.6

RCP INV.=14.7'

GUARDRAIL TO REMAIN

"THE FRANK JONES JUNCTION & CONFERENCE CENTER"

TREES TO REMAIN

KEEP RIGHT

REMOVE CATCH BASIN AND PIPE

~GRAVEL~

REMOVE ENTIRE ISLAND

CATCH BASIN, PIPE AND OUTLET STRUCTURE TO REMAIN

REMOVE WATER LINE FROM HERE TOWARD BARLETT STREET (SEE NOTE· SHEET CP-102)

REMOVE UTILITY POLE AND ATTACHED OVERHEAD WIRES

CATE STREET

BLDG

BLDG

SEE SHEET CP-202

SEE SHEET CP-203

NO.	DATE	DESCRIPTION	DESIGNER	REVIEWER
4.	7/24/2019	TAC SUBMITTAL	JVA/DAD	RRL
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1.	3/18/2019	TAC SUBMITTAL	JVA/DAD	RRL

STATE OF NEW HAMPSHIRE – PROFESSIONAL ENGINEER – RICHARD R. LUNDBORN No. 10943 LICENSED

SCALE: HORZ.: 1"=30' VERT.: 1"=30'
DATUM: HORZ.: NAD83 VERT.: NGVD29
30 15 0 30
GRAPHIC SCALE

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CATE STREET DEVELOPMENT, LLC

SITE PREPARATION PLAN

CATE STREET

PORTSMOUTH NEW HAMPSHIRE

PROJ. No.: 20180317.A10
DATE: 07/24/2019

CP-201

File Path: F:\P2018\03317\A10\Civil\3Dwg\20180317A10_DMO01.dwg Layout: CP-201 Plotted: Wed, July 24, 2019 - 2:25 PM User: jandretta
Plotter: DWG TO PDF.PC3 CTB File: FO.STB
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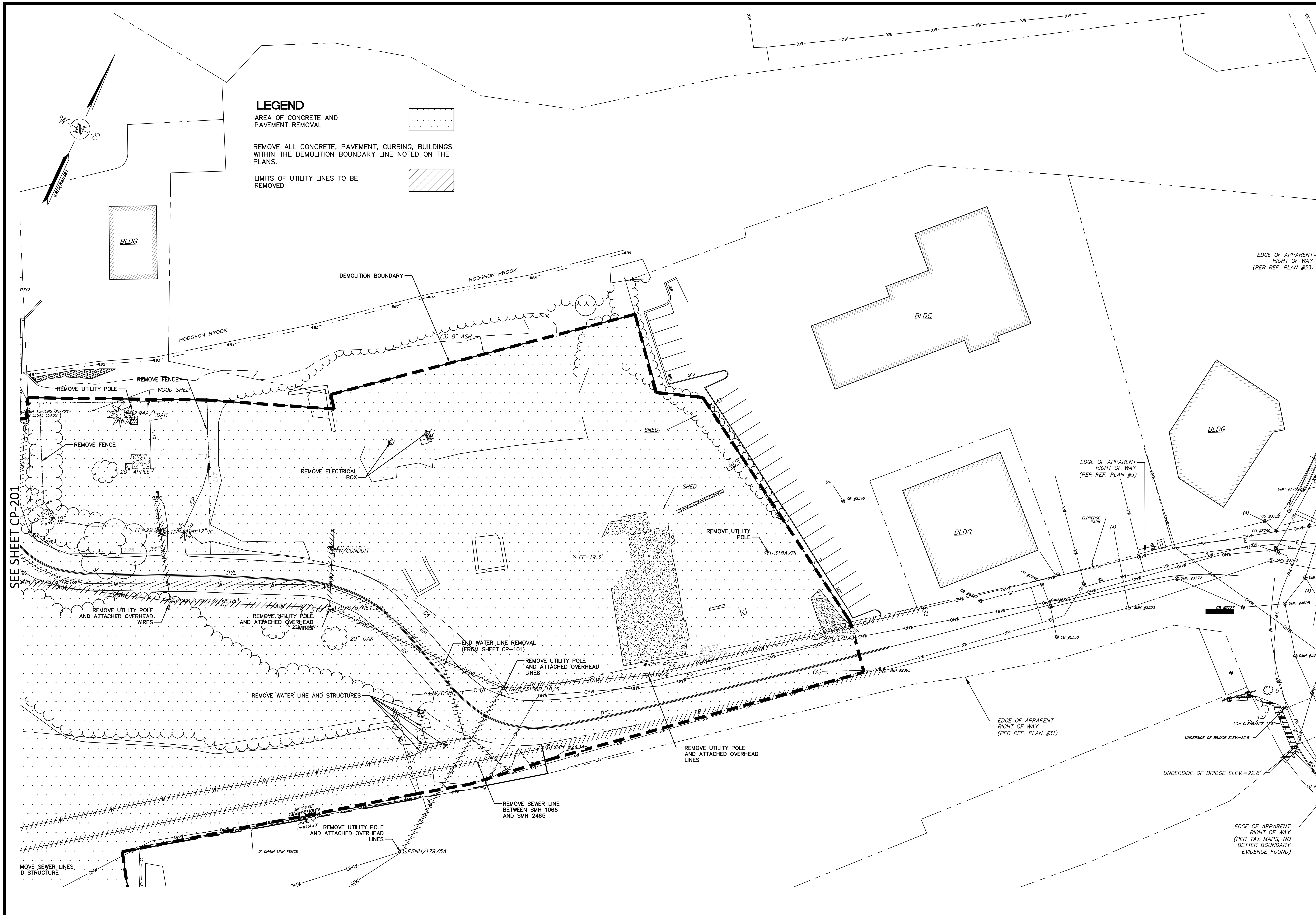

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1.	3/18/2019	TAC SUBMITTAL	JVA/DAD	RRL

STATE OF NEW HAMPSHIRE – RICHARD R. LUNDBORN No. 10943 – LICENSED PROFESSIONAL ENGINEER

SCALE: HORZ.: 1"=30' VERT.: 1"=30'
DATUM: HORZ.: NAD83 VERT.: NGVD29
GRAPHIC SCALE: 30 15 0 30

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CATE STREET DEVELOPMENT, LLC

SITE PREPARATION PLAN

CATE STREET

PORTSMOUTH NEW HAMPSHIRE

PROJ. No.: 20180317.A10
DATE: 07/24/2019

CP-202

File Path: F:\P2018\0317\A10\Civil3\Dwg\20180317A10_DM001.dwg Layout: CP-202 Plotted: Wed, July 24, 2019 - 2:25 PM User: jandretta
Plotter: DWG TO PDF.PC3 CTB File: FO.STB
MS VIEW: LAYER STATE:

SEE SHEET CP-201

SEE SHEET CP-204

US ROUTE 1 BYPASS

(100' ROW PER REFERENCE PLAN 1)

DEMOLITION BOUNDARY

SEWER MANHOLE AND SEWER LINE TO REMAIN

REMOVE STORM DRAIN AND LINES

REMOVE WATER LINE

REMOVE SEWER LINE

EXISTING WATER LINE (XW) TO REMAIN TO HERE

REMOVE UTILITY POLE AND ATTACHED OVERHEAD LINES

REMOVE STORM DRAIN

HANDICAP PARKING

~FADED PARKING STRIPING~

TRAILER

BLANK SIGN

PSNH/242/3A W/POWER DOWN

PSNH/264/5

PSNH/242/3X

PSNH/242/4

4/NETT

PSNH/242

PSNH/242/5 W/POWER DOWN

BLDG

BOSTON & MAINE RAILROAD

(SEE REFERENCE PLAN 22)

CB #1348

CB #1347

CB #1071

CB #1066

CB #1198

LEGEND

AREA OF CONCRETE AND PAVEMENT REMOVAL

REMOVE ALL CONCRETE, PAVEMENT, CURBING, BUILDINGS WITHIN THE DEMOLITION BOUNDARY LINE NOTED ON THE PLANS.

LIMITS OF UTILITY LINES TO BE REMOVED

NO.	DATE	DESCRIPTION	DESIGNER	REVIEWER
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STATE OF NEW HAMPSHIRE – PROFESSIONAL ENGINEER – RICHARD R. LUNDBORN No. 10943 LICENSED

SCALE: HORZ.: 1"=30' VERT.: 1"=30'

DATUM: HORZ.: NAD83 VERT.: NGVD29

GRAPHIC SCALE 30 0 15 30

FUSS & O'NEILL

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CATE STREET DEVELOPMENT, LLC

SITE PREPARATION PLAN

CATE STREET/ WEST END YARDS

PORTSMOUTH NEW HAMPSHIRE

PROJ. No.: 20180317.A10

DATE: 07/24/2019

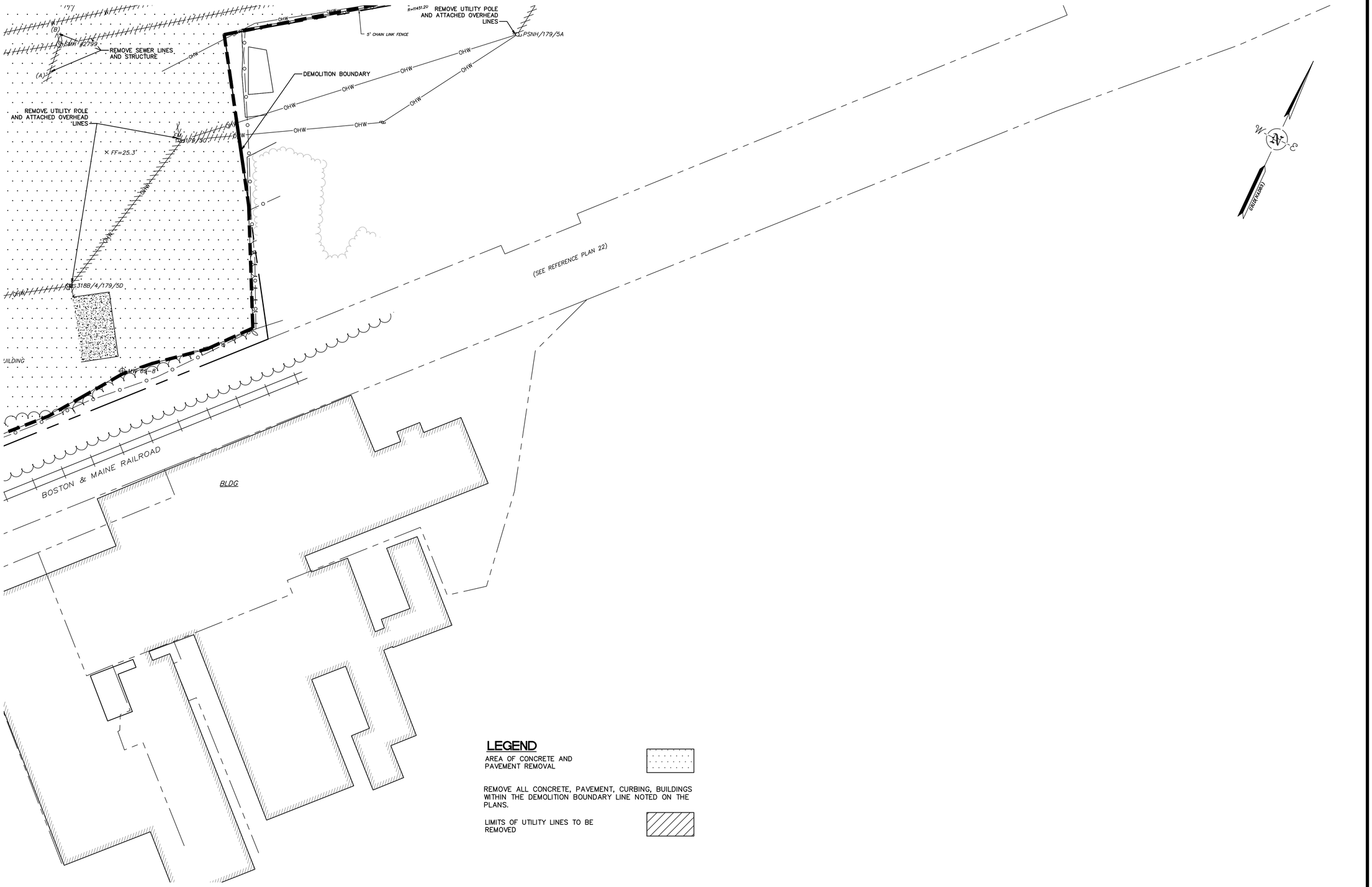
CP-203

File Path: F:\P2018\0317A10\Civil\3Dwg\20180317A10_DMO01.dwg Layout: CP-203 Plotted: Wed, July 24, 2019 - 2:25 PM User: jandretta

MS VIEW: LAYER STATE: Plotter: DWG TO PDF.PC3 CTB File: FO.STB

SEE SHEET CP-202

SEE SHEET CP203



LEGEND

AREA OF CONCRETE AND PAVEMENT REMOVAL

REMOVE ALL CONCRETE, PAVEMENT, CURBING, BUILDINGS WITHIN THE DEMOLITION BOUNDARY LINE NOTED ON THE PLANS.

LIMITS OF UTILITY LINES TO BE REMOVED

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STATE OF NEW HAMPSHIRE – PROFESSIONAL ENGINEER – RICHARD R. LUNDBORN No. 10943 LICENSED

SCALE:
HORZ.: 1"=30'
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DATUM:
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VERT.: NGVD29
30 15 0 30
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CATE STREET DEVELOPMENT, LLC

SITE PREPARATION PLAN

CATE STREET/ WEST END YARDS

PORTSMOUTH NEW HAMPSHIRE

PROJ. No.: 20180317.A10
DATE: 07/24/2019

CP-204

File Path: F:\P20180317\A10\Civil3D\dwg\20180317A10_DMO01.dwg Layout: CP-204 Plotted: Wed, July 24, 2019 - 2:25 PM User: jandretta
MS VIEW: LAYER STATE: Plotter: DWG TO PDF.PC3 CTB File: FO.STB

SITE NOTES:

1. TOTAL PARCEL AREA:
   TAX MAP 163, LOT 33-12,230 SF (0.28 AC.)
   TAX MAP 163, LOT 34-64,109 SF (1.47 AC.)
   COMBINED AREA-451,572 SF (10.37 AC.)
   TAX MAP 165, LOT 2
   TAX MAP 172, LOT 1
   TAX MAP 173, LOT 2

   OWNER OF RECORD:
   CATE STREET DEVELOPMENT, LLC
   60 K STREET
   BOSTON, MA 02127
   RCRD BOOK5929, PAGE 109

2. ZONES: G-1-GATEWAY NEIGHBORHOOD MIXED USE

3. DIMENSIONAL REQUIREMENTS, DEVELOPMENT SITE STANDARDS:

	REQUIRED	PROPOSED
MIN. DEVELOPMENT AREA	20,000 sq.ft.	579,856 SF
MIN. SITE WIDTH	100 ft.	VARIES > 100 ft.
MIN. LOT DEPTH	100 ft.	VARIES > 100 ft.
MIN. PERIMETER BUFFER	75 ft. FROM RES. DIST., MIXED RES., OR CD4-L1 DIST.	N/A
MAX. DEV. BLOCK	800 ft. LENGTH, 2,200 LINEAR ft.	610 ft.
MIN. FRONTAGE	50 ft.	227 ft.
MAX. BUILDING HEIGHT 25-FT STEP BACK	45 ft.	45 ft.
MAX. BUILDING COVERAGE	70 %	18.6 %
MIN. OPEN SPACE	20 %	32.7 %
COMMUNITY SPACE	ALL TYPES	SEE NOTE #6
WETLAND SETBACKS	100 ft.	104 ft.
IMPERVIOUS COVER		390,471 sq. ft. (67.3%)

ZONING INFORMATION LISTED HEREON IS BASED ON THE CITY OF PORTSMOUTH ZONING ORDINANCE DATED MARCH 4, 2019 AS AVAILABLE ON THE CITY WEBSITE. ADDITIONAL REGULATIONS APPLY, AND REFERENCE IS HEREBY MADE TO THE EFFECTIVE ZONING ORDINANCE. THE LAND OWNER IS RESPONSIBLE FOR COMPLYING WITH ALL APPLICABLE MUNICIPAL, STATE AND FEDERAL REGULATIONS.

4. PARKING CALCULATIONS PER 10.1112.30:

COMMERCIAL BUILDING	AREA	REQUIREMENT	REQUIRED	PROVIDED
EATING AND DRINKING	13,600SF	1/100 SF	136	--
RETAIL	5800SF	1/300 SF	20	--
OFFICE	15900SF	1/350 SF	46	--
SUB-TOTAL			202	170

RESIDENTIAL A AND B:	UNITS	REQUIREMENT	REQUIRED	PROVIDED
UNITS <750 SQ. FT.	144	1/UNIT	144	--
UNITS >750 SQ. FT.	106	1.3/UNIT	138	--
VISITOR	250	1/5 UNITS	50	--
SUB-TOTAL			332	294

TOWNHOMES:	UNITS	REQUIREMENT	REQUIRED	PROVIDED
UNITS >750 SQ. FT.	23	1.3/UNIT	30	46
VISITOR	23	1/5 UNITS	5	5
SUB-TOTAL			35	51
(EACH TOWNHOME HAS A 2 CAR GARAGE)				

5. SHARED PARKING CALCULATIONS: COLUMN C WEEKDAY EVENINGS, PER 10.1112.60:

COMMERCIAL BUILDING	REQUIRED	SHARED %	SHARED REQUIRED	PROVIDED
EATING AND DRINKING	136	100%	136	--
RETAIL	20	90%	18	--
OFFICE	46	20%	10	--
SUB-TOTAL			164	170
BICYCLE PARKING	1/10 PARKING		17	17
HANDICAP ACCESSIBLE = 6				

RESIDENTIAL A AND B:	REQUIRED	SHARED %	SHARED REQUIRED	PROVIDED
UNITS <750 SQ. FT.	144	100%	144	--
UNITS >750 SQ. FT.	106	100%	138	--
VISITOR	50	100%	50	--
SUB-TOTAL			332	294
BICYCLE PARKING IS INTERNAL				
HANDICAP ACCESSIBLE = 8				

TOWNHOMES:	REQUIRED	SHARED %	SHARED REQUIRED	PROVIDED
UNITS >750 SQ. FT.	36	100%	30	46
VISITOR	5	100%	5	5
SUB-TOTAL			35	51
BICYCLE PARKING IS INTERNAL				

	REQUIRED	PROVIDED
DEVELOPMENT SITE TOTAL:	531	531 *

* PROVIDED PARKING INCLUDES 16 SPACES PROVIDED UNDER SECTION 10.1112. 40 RESERVE PARKING AND AS DELINEATED ON SHEET CS-003 RESERVE PARKING PLAN.

6. COMMUNITY SPACE CALCULATION:

	REQUIRED	PROVIDED
TOTAL DEVELOPMENT SITE	--	579,818 SF
GREENWAY	--	85,226 SF (15%)
PARK/COMMON	--	10,480 SF (2%)
WIDE PEDESTRIAN SIDEWALK	--	24,507 SF (4%)
PLAZA	--	4,666 SF (1%)
OUTDOOR DINING	--	11,330 SF (2%)
TOTAL	115,964 SF (20%)	136,209 SF (24%)

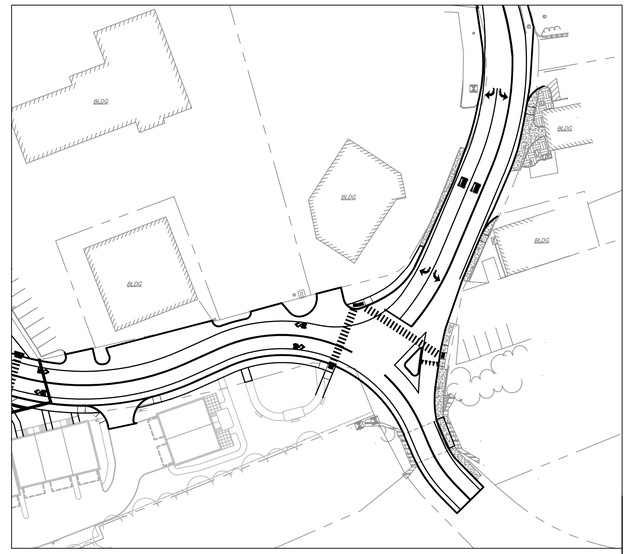
7. IF, DURING CONSTRUCTION, IT BECOMES APPARENT THAT ADDITIONAL EROSION CONTROL MEASURES ARE REQUIRED TO STOP ANY EROSION ON THE CONSTRUCTION SITE, THE PROPERTY OWNER SHALL BE REQUIRED TO INSTALL THE NECESSARY EROSION PROTECTION AT NO EXPENSE TO THE CITY.

8. ALL CONDITIONS ON THIS PLAN SHALL REMAIN IN EFFECT IN PERPETUITY PURSUANT TO THE REQUIREMENTS OF THE SITE PLAN REGULATIONS.

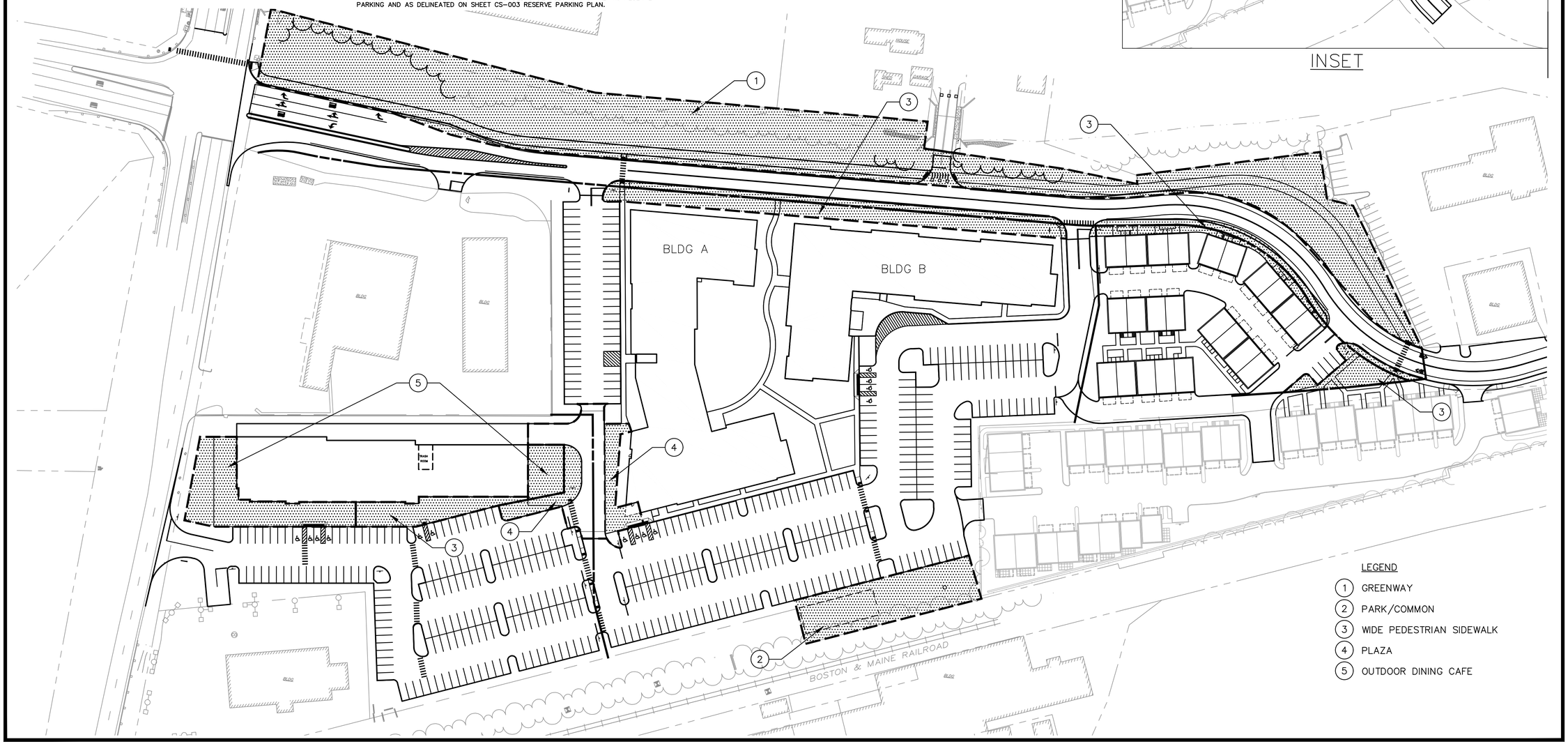
9. THIS SITE PLAN SHALL BE RECORDED IN THE ROCKINGHAM COUNTY REGISTRY OF DEEDS.

10. ALL IMPROVEMENTS SHOWN ON THE SITE PLAN SHALL BE CONSTRUCTED AND MAINTAINED IN ACCORDANCE WITH THE PLAN BY THE PROPERTY OWNER AND ALL FUTURE OWNERS. NO CHANGES SHALL BE MADE TO THIS SITE PLAN WITHOUT EXPRESS APPROVAL OF THE PORTSMOUTH PLANNING DIRECTOR.

11. SNOW SHALL BE STORED ON SITE IN DESIGNATED AREAS AS SHOWN ON CS-201 THRU CS-202. WHEN ON SITE STORAGE AREAS ARE EXCEEDED, SNOW SHALL BE DISPOSED OF OFF SITE IN ACCORDANCE WITH LOCAL, STATE AND FEDERAL REGULATIONS.



INSET



LEGEND

1. GREENWAY
2. PARK/COMMON
3. WIDE PEDESTRIAN SIDEWALK
4. PLAZA
5. OUTDOOR DINING CAFE

NO.	DATE	DESCRIPTION	DESIGNER	REVIEWER
4.	7/24/2019	TAC SUBMITTAL	JVA/DAD	RRL
3.	6/20/2019	TAC SUBMITTAL	JVA/DAD	RRL
2.	5/20/2019	TAC SUBMITTAL	JVA/DAD	RRL
1.	3/18/2019	TAC SUBMITTAL	JVA/DAD	RRL

STATE OF NEW HAMPSHIRE - PROFESSIONAL ENGINEER - RICHARD B. LIMBOCKER No. 10943 LICENSED

SCALE: HORZ.: 1"=60'
VERT.: 1"=60'
DATUM: HORZ.: NAD83
VERT.: NAVD88
GRAPHIC SCALE 60 30 0 60

FUSS & O'NEILL
UPPER SQUARE BUSINESS CENTER
5 FLETCHER STREET, SUITE 1
KENNEBUNK, MAINE 04043
207.363.0669
www.fando.com

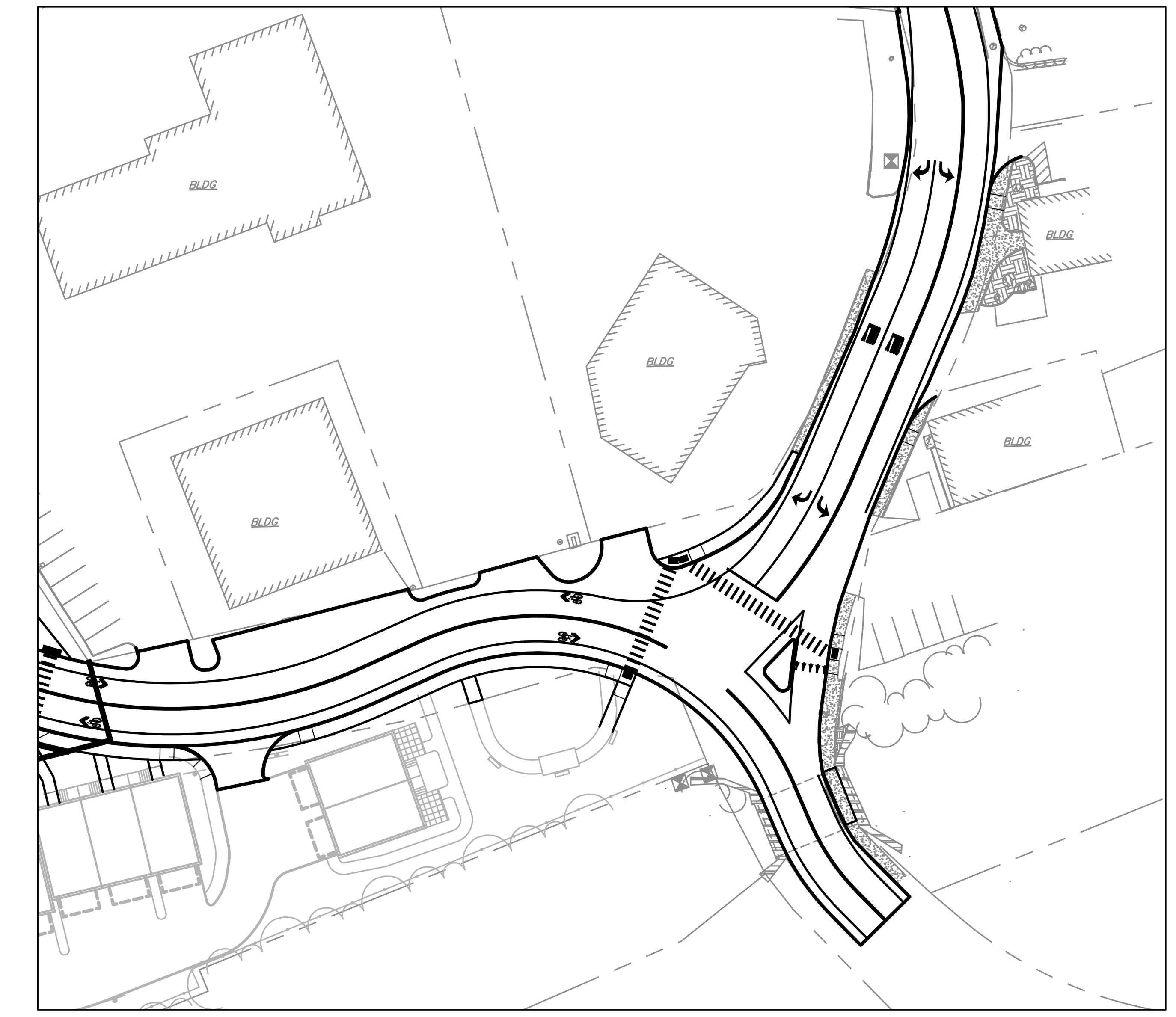
CATE STREET DEVELOPMENT, LLC
DEVELOPMENT STANDARDS
SITE PLAN
CATE STREET/ WEST END YARDS
PORTSMOUTH NEW HAMPSHIRE

PROJ. No.: 20180317.A10
DATE: 07/24/2019

CS-002

RESERVE PARKING NOTES:

1. THE PURPOSE OF THIS PALN IS TO DEPICT AREAS OF RESERVE PARKING FOR THE WEST END YARDS DEVELOPMENT SITE.
2. IN THE EVENT THAT THE NEED ARISES, THE 16 PARKING SPACES DEPICTED CAN BE CONSTRUCTED WITHIN THE PARKING AREA.
3. EACH RESERVE PARKING SPACE IS 8.5–FT X 19–FT.
4. INTERNAL PARKING ISLANDS WILL NEED TO BE MODIFIED IN ORDER TO PROVIDE THESE SPACES SHOULD THE NEED ARISE. THE REVISED CONFIGURATION IS DEPICTED BELOW.



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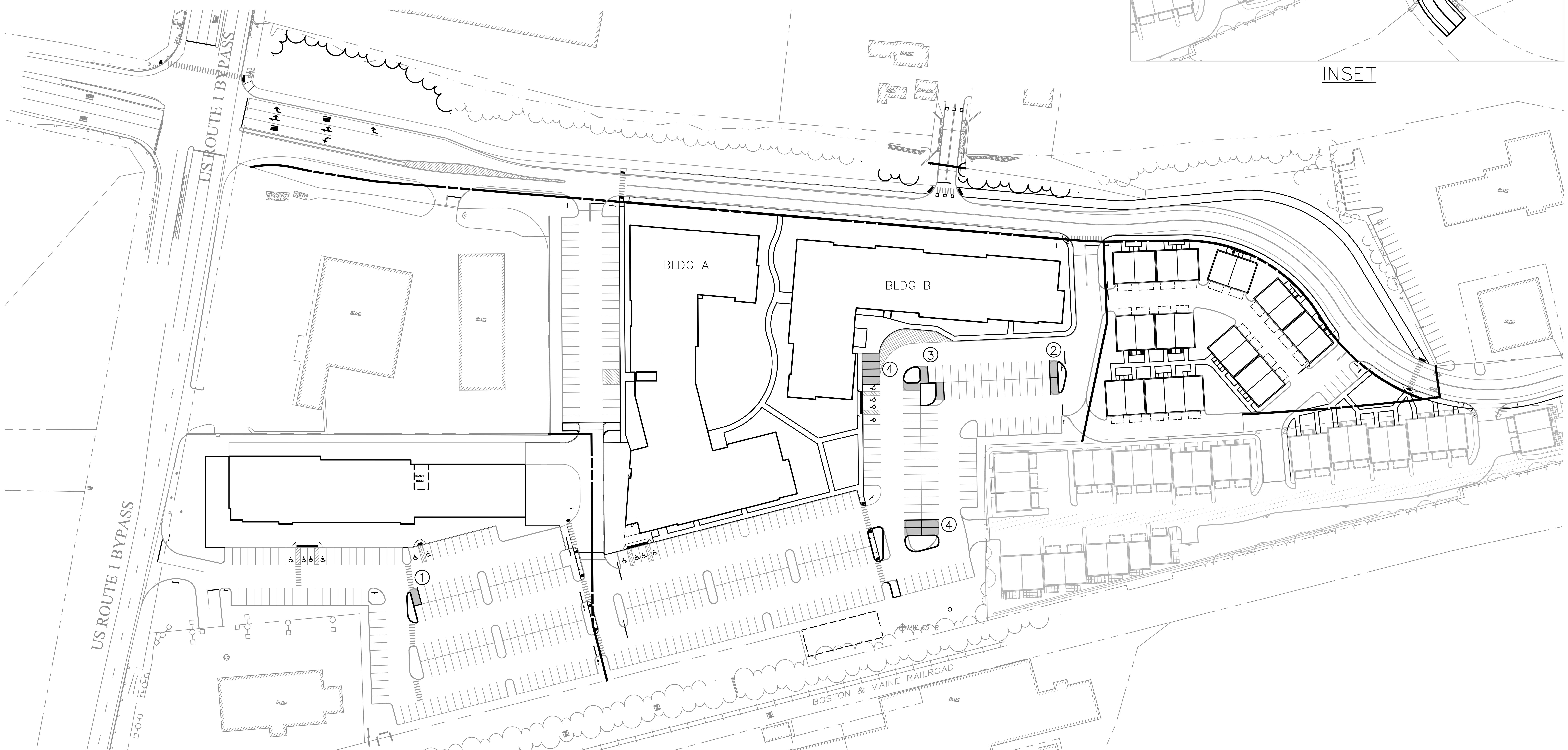

No.	DATE	DESCRIPTION	DESIGNER	REVIEWER
4.	7/24/2019	TAC SUBMITTAL	JVA/DAD	RRL
3.	6/20/2019	TAC SUBMITTAL	JVA/DAD	RRL
2.	5/20/2019	TAC SUBMITTAL	JVA/DAD	RRL
1.	3/18/2019	TAC SUBMITTAL	JVA/DAD	RRL

STATE OF NEW HAMPSHIRE – RICHARD R. LUNDBORN No. 10943 LICENSED PROFESSIONAL ENGINEER

SCALE:
HORZ.: 1"=60'
VERT.: 1"=60'

DATUM:
HORZ.: NAD83
VERT.: NAVD88

60 30 0 60
GRAPHIC SCALE

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CATE STREET DEVELOPMENT, LLC

RESERVE PARKING SITE PLAN

CATE STREET/ WEST END YARDS

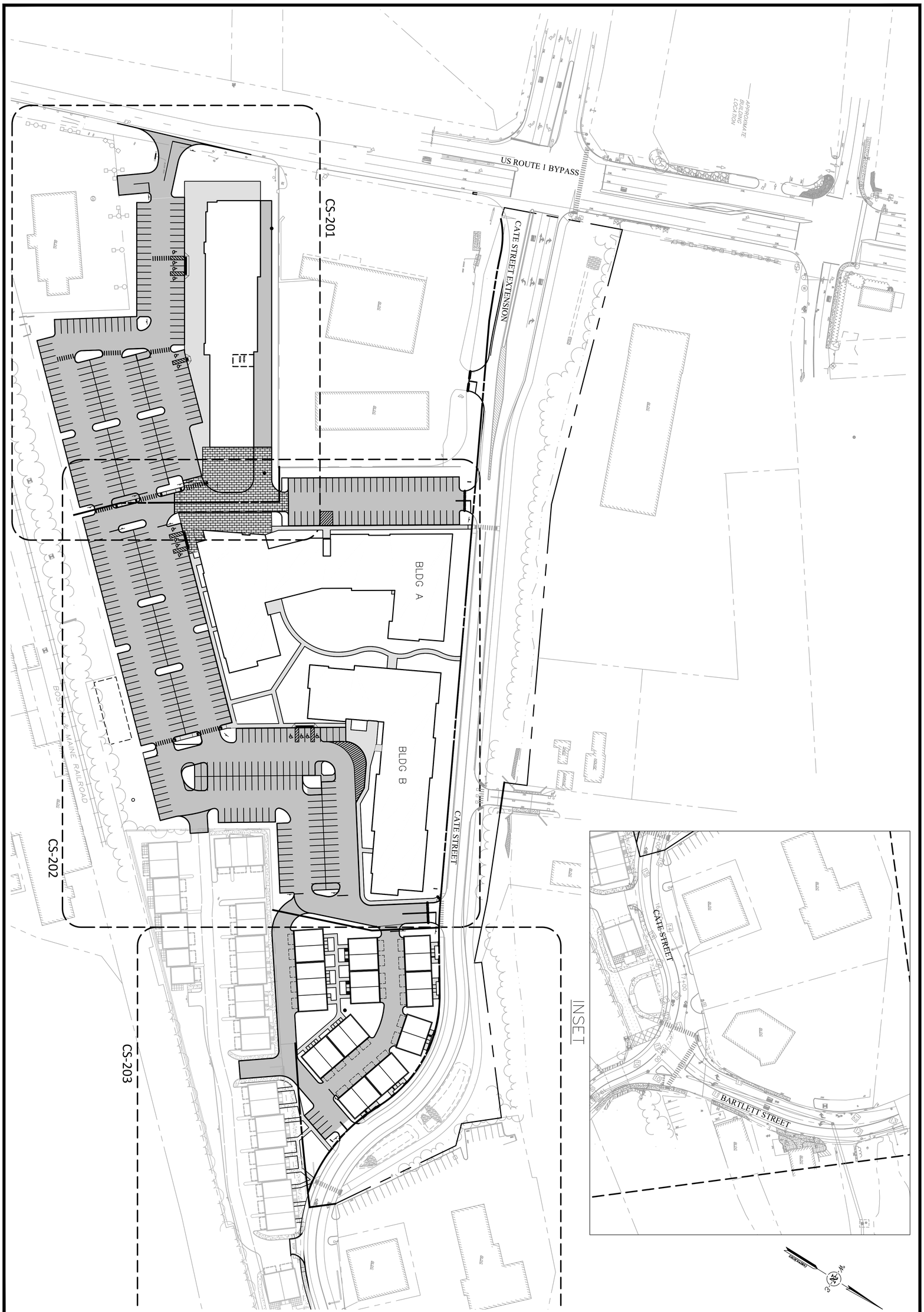
PORTSMOUTH NEW HAMPSHIRE

PROJ. No.: 20180317.A10
DATE: 07/24/2019

CS-003

File Path: F:\P2018\0317\A10\Civil3\Dwg\20180317A10_STP01.DWG Layout: CS-003 RESERVE PARKING Plotted: Wed, July 24, 2019 - 3:25 PM User: ddugal
Plotter: DWG TO PDF.PC3 CTB File: FO.STB
MS VIEW:
LAYER STATE:

File Path: F:\P2018\0317\A10\Civil3\Dwg\20180317A10_STP01.DWG Layout: CS-200(S) Plotted: Wed, July 24, 2019 - 3:23 PM User: ddugal
MS VIEW: | LAYER STATE: | Plotter: DWG TO PDF.PC3 CTB File: FO.STB



CS-200

PROJ. No.: 20180317A10
DATE: 07/24/2019

CATE STREET DEVELOPMENT, LLC

OVERALL SITE PLAN

CATE STREET/ WEST END YARDS

PORTSMOUTH NEW HAMPSHIRE

FUSS & O'NEILL
UPPER SQUARE BUSINESS CENTER
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207.363.0669
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SCALE:
HORZ.: 1"=60'
VERT.: 1"=60'
DATUM:
HORZ.: NAD83
VERT.: NAVD88
60 30 0 60
GRAPHIC SCALE

STATE OF NEW HAMPSHIRE – RICHARD R. LUNDBORN No. 10943 – LICENSED PROFESSIONAL ENGINEER

No.	DATE	DESCRIPTION	DESIGNER	REVIEWER
4.	7/24/2019	TAC SUBMITTAL	JVA/DAD	RRL
3.	6/20/2019	TAC SUBMITTAL	JVA/DAD	RRL
2.	5/20/2019	TAC SUBMITTAL	JVA/DAD	RRL
1.	3/18/2019	TAC SUBMITTAL	JVA/DAD	RRL

TD PROPOSED TIPDOWN RAMP W/DETECTABLE WARNING PANEL

VGC PROPOSED VERTICAL GRANITE CURB
SGC PROPOSED SLOPED GRANITE CURB
CC PROPOSED CONCRETE CURB
MGC MOUNTABLE GRANITE CURB
SSL SINGLE SOLID LINE (WHITE)
DSL DOUBLE SOLID LINE (YELLOW)
■■■ ROADWAY LIMIT

US ROUTE 1 BYPASS

TRASH ENCLOSURE
COMPOSTER ENCLOSURE
TRASH COMPACTOR
END SGC
SGC
ROOM
23.8'
27.7'
27.7'
32.6'
26'
PROPOSED/COMMERCIAL BUILDING
1ST FLOOR: 21,980 GSF, 4 RETAIL SPACES, 3 RESTAURANTS
2ND FLOOR: 21,980 GSF, 60 OFFICE SPACES
F.F.EL. 26.00
TRASH ROOM
INTERNAL DIRECTIONAL SIGN
BLDG A
BIKE RACK
START/CONTINUE SGC
NEW STOP SIGN R1-1
PROPOSED CONCRETE SIDEWALK (TYP.)
BEGIN SGC
END SGC BEGIN CC
BEGIN FLUSH CONCRETE
SEE SHEET CS-202
CC
END SGC BEGIN CC
END CCC BEGIN SGC
START SGC
SNOW STORAGE
INTERNAL DIRECTIONAL SIGN
END SGC
NEW STOP SIGN R1-1
BEGIN SGC
EXISTING PAVEMENT TO BE CUT BACK TO PROPERTY LINE
EX. SIGN (TO REMAIN OR NEW FREESTANDING)
BLDG
BOSTON & MAINE RAILROAD

4.	7/24/2019	TAC SUBMITTAL	JVA/DAD	RRL
3.	6/20/2019	TAC SUBMITTAL	JVA/DAD	RRL
2.	5/20/2019	TAC SUBMITTAL	JVA/DAD	RRL
1.	3/18/2019	TAC SUBMITTAL	JVA/DAD	RRL
No.	DATE	DESCRIPTION	DESIGNER	REVIEWER

STATE OF NEW HAMPSHIRE – PROFESSIONAL ENGINEER
RICHARD B. LITTLEBOY No. 10943 LICENSED

SCALE:
HORZ.: 1"=30'
VERT.: 1"=30'
DATUM:
HORZ.: NAD83
VERT.: NGVD29
GRAPHIC SCALE 30 0 15 30

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CATE STREET DEVELOPMENT, LLC

SITE PLAN

CATE STREET/ WEST END YARDS

PORTSMOUTH NEW HAMPSHIRE

PROJ. No.: 20180317.A10
DATE: 07/24/2019

CS-201

File Path: F:\P2018\0317A10\Civil3Dwg\20180317A10_STP01.DWG Layout: CS-201(S) Plotted: Wed, July 24, 2019 - 3:24 PM User: ddugal
MS VIEW: LAYER STATE: Plotter: DWG TO PDF.PC3 CTB File: FO.STB

CATE STREET EXTENSION

CATE STREET

SEE SHEET CS-201

SEE SHEET CS-203

NEW FREESTANDING SIGN (PERMIT REQUIRED)

LIMIT OF SITE CONSTRUCTION

BLDG A

FIRE PUMP ROOM

5'x4' CONCRETE PAD

TRASH ROOM

LOADING AREA

RESIDENTIAL BUILDING B
110,170 GSF, 118 UNITS, 4 STORIES, 305'X70'
1ST FLOOR: 28,200 SF
2ND FLOOR: 28,200 SF
3RD FLOOR: 28,200 SF
4TH FLOOR: 25,570 SF
F.F.EL. = 27.75

BLDG B

TRASH ROOM

LOADING AREA

BIKE RACK

END VGC BEGIN CC

END CC BEGIN VGC

INSTALL VG BACKCURB

NEW STOP R1-1

NEW STOP SIGN R1-1

12"SL (TYP.)

RESIDENTIAL BUILDING A
141,885 GSF, 132 UNITS, 4 STORIES, 355'X70'
1ST FLOOR: 37,330 SF
2ND FLOOR: 37,270 SF
3RD FLOOR: 37,270 SF
4TH FLOOR: 30,015 SF
F.F.EL. = 26.75

BLDG A

INTERNAL DIRECTIONAL SIGN

END SGC BEGIN CC

END CC BEGIN SGC

BIKE RACK

BEGIN SGC

END SGC IN FLUSH CONCRETE

NEW STOP SIGN R1-1

SNOW STORAGE

END SGC

PET ZONE

DRY WELL

BOSTON & MAINE RAILROAD

BLDG

TD PROPOSED TIPDOWN RAMP W/DETECTABLE WARNING PANEL

VGC PROPOSED VERTICAL GRANITE CURB

SGC PROPOSED SLOPED GRANITE CURB

CC PROPOSED CONCRETE CURB

MGC MOUNTABLE GRANITE CURB

SSL SINGLE SOLID LINE (WHITE)

DSL DOUBLE SOLID LINE (YELLOW)

ROADWAY LIMIT

No.	DATE	DESCRIPTION	DESIGNER	REVIEWER
4.	7/24/2019	TAC SUBMITTAL	JVA/DAD	RRL
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STATE OF NEW HAMPSHIRE – PROFESSIONAL ENGINEER
RICHARD B. LIMBOCKER No. 10943 LICENSED

SCALE: HORZ.: 1"=30' VERT.: 1"=30'
DATUM: HORZ.: NAD83 VERT.: NGVD29
30 15 0 30
GRAPHIC SCALE

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UPPER SQUARE BUSINESS CENTER
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KENNEBUNK, MAINE 04043
207.363.0669
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CATE STREET DEVELOPMENT, LLC

SITE PLAN

CATE STREET/ WEST END YARDS

PORTSMOUTH NEW HAMPSHIRE

PROJ. No.: 20180317.A10
DATE: 07/24/2019

CS-202

File Path: F:\P2018\03317A10\Civil3\Dwg\20180317A10_STP01.DWG Layout: CS-202(S) Plotted: Wed, July 24, 2019 - 3:24 PM User: ddugal
MS VIEW: LAYER STATE: Plotter: DWG TO PDF.PC3 CTB File: FO.STB

HODGSON BROOK

ZONE-GATEWAY

BLDG

CATE STREET

BARTLETT STREET

SEE SHEET CS-202

12"SL (W)

PAY LIMITS

26'

NEW STOP SIGN R1-1

12"SL (TYP.)

LIMIT OF SITE CONSTRUCTION

NEW STOP SIGN R1-1

NEW FREESTANDING SIGN (PERMIT REQUIRED)

NEW STOP SIGN R1-1

LOW CLEARANCE 12'6"

TD PROPOSED TIPDOWN RAMP W/DETECTABLE WARNING PANEL
VGC PROPOSED VERTICAL GRANITE CURB
SGC PROPOSED SLOPED GRANITE CURB
CC PROPOSED CONCRETE CURB
MGC MOUNTABLE GRANITE CURB
SSL SINGLE SOLID LINE (WHITE)
DSL DOUBLE SOLID LINE (YELLOW)
ROADWAY LIMIT

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STATE OF NEW HAMPSHIRE – PROFESSIONAL ENGINEER
RICHARD R. LIMBOCKER No. 10943 LICENSED

SCALE:
HORZ.: 1"=30'
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30 15 0 30
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SITE PLAN

CATE STREET/ WEST END YARDS

PORTSMOUTH NEW HAMPSHIRE

PROJ. No.: 20180317.A10
DATE: 07/24/2019

CS-203

File Path: F:\P2018\0317\A10\Civil\3Dwg\20180317A10_STP01.DWG Layout: CS-203(S) Plotted: Wed, July 24, 2019 - 3:24 PM User: ddugal
MS VIEW: LAYER STATE:
Plotter: DWG TO PDF.PC3 CTB File: FO.STB

DRAINAGE STRUCTURES 14–20	
STRUCTURE	STRUCTURE DETAILS
14	PROPOSED 4' DIA. DMH CATE STREET STA. 7+06.64, 0.00' RIM = 25.12 (15) 18" HDPE INV IN = 19.77 (11) 18" HDPE INV OUT = 19.27 CONSTRUCT 160 LF x 18" HDPE S = 0.50%
15	PROPOSED 4' DIA. DMH CATE STREET STA. 7+19.11, R 153.40' RIM = 27.20 (17) 12" HDPE INV IN = 20.64 (16) 12" HDPE INV IN = 20.64 (14) 18" HDPE INV OUT = 20.54 CONSTRUCT 150 LF x 18" HDPE S = 0.51%
16	PROPOSED 4' DIA. CB CATE STREET STA. 6+56.24, R 158.50' RIM = 25.50 (15) 12" HDPE INV OUT = 20.94 CONSTRUCT 60 LF x 12" HDPE S = 0.50%
17	PROPOSED 4' DIA. DMH CATE STREET STA. 7+24.26, R 216.88' RIM = 26.87 (18) 12" HDPE INV IN = 21.04 (15) 12" HDPE INV OUT = 20.94 CONSTRUCT 60 LF x 12" HDPE S = 0.50%
18	INFILTRATION BASIN #1 CATE STREET STA. 7+20.48, R 218.18' RIM = 26.83 (17) 12" HDPE INV OUT = 21.10 CONSTRUCT 3 LF x 12" HDPE S = 3.00%
19	PROPOSED 4' DIA. DMH CATE STREET STA. 6+77.32, R 263.18' RIM = 26.45 (20) 6" HDPE INV IN = 22.70 (18) 6" HDPE INV OUT = 22.60 CONSTRUCT 3 LF x 6" HDPE S = 3.00%
20	BUILDING A ROOF DRAIN CATE STREET STA. 6+61.12, R 268.76' RIM = 26.75 (19) 6" HDPE INV OUT = 22.78 CONSTRUCT 14 LF x 6" HDPE S = 0.50%

DRAINAGE STRUCTURES 21–60	
STRUCTURE	STRUCTURE DETAILS
21	PROPOSED 4' DIA. DMH CATE STREET STA. 15+33.70, R 3.16' RIM = 15.22 (22) 24" HDPE INV IN = 9.89 (E2349) 24" HDPE INV OUT = 9.79 CONSTRUCT 117 LF x 24" HDPE S = 4.94%
22	PROPOSED 4' DIA. DMH CATE STREET STA. 14+62.85, 0.00' RIM = 16.85 (23) 12" HDPE INV IN = 12.22 (25) 24" HDPE INV IN = 10.83 (24) 12" HDPE INV IN = 12.22 (21) 24" HDPE INV OUT = 10.73 CONSTRUCT 68 LF x 24" HDPE S = 1.25%
23	PROPOSED 4' DIA. CB CATE STREET STA. 14+72.18, R 15.00' RIM = 16.16 (22) 12" HDPE INV OUT = 12.36 CONSTRUCT 14 LF x 12" HDPE S = 1.00%
24	PROPOSED 4' DIA. CB CATE STREET STA. 14+45.15, R 38.08' RIM = 18.42 (22) 12" HDPE INV OUT = 13.00 CONSTRUCT 39 LF x 12" HDPE S = 2.00%
25	PROPOSED 4' DIA. DMH CATE STREET STA. 14+05.84, 0.00' RIM = 18.56 (26) 12" HDPE INV IN = 13.29 (40) 24" HDPE INV IN = 11.19 (27) 12" HDPE INV IN = 12.09 (28) 18" HDPE INV IN = 12.33 (22) 24" HDPE INV OUT = 11.09 CONSTRUCT 53 LF x 24" HDPE S = 0.50%
26	PROPOSED 4' DIA. CB CATE STREET STA. 13+95.87, R 15.00' RIM = 18.43 (25) 12" HDPE INV OUT = 14.00 CONSTRUCT 15 LF x 12" HDPE S = 5.00%
27	RG #1 OVERFLOW CATE STREET STA. 13+82.53, L 25.26' RIM = 0.00 (25) 12" HDPE INV OUT = 12.43 CONSTRUCT 30 LF x 12" HDPE S = 1.16%
28	PROPOSED 4' DIA. DMH CATE STREET STA. 14+20.46, R 49.41' RIM = 18.58 (29) 12" HDPE INV IN = 12.67 (35) 12" HDPE INV IN = 15.94 (25) 18" HDPE INV OUT = 12.57 CONSTRUCT 49 LF x 18" HDPE S = 0.50%
29	PROPOSED 4' DIA. DMH CATE STREET STA. 14+25.44, R 56.84' RIM = 18.58 (30) 12" HDPE INV IN = 14.30 (28) 12" HDPE INV OUT = 12.70 CONSTRUCT 6 LF x 12" HDPE S = 0.50%
30	DETENSION BASIN #1 CATE STREET STA. 14+25.15, R 60.82' RIM = 18.66 (29) 12" HDPE INV OUT = 14.34 CONSTRUCT 3 LF x 12" HDPE S = 2.00%
31	PROPOSED 4' DIA. DMH CATE STREET STA. 14+16.17, R 108.40' RIM = 19.02 (32) 12" HDPE INV IN = 14.50 (30) 12" HDPE INV OUT = 14.40 CONSTRUCT 3 LF x 12" HDPE S = 3.00%
32	PROPOSED 4' DIA. DMH CATE STREET STA. 14+10.35, R 108.11' RIM = 19.44 (34) 12" HDPE INV IN = 15.15 (33) 12" HDPE INV IN = 14.65 (31) 12" HDPE INV OUT = 14.55 CONSTRUCT 6 LF x 12" HDPE S = 1.00%

DRAINAGE STRUCTURES 21–60	
STRUCTURE	STRUCTURE DETAILS
33	PROPOSED 4' DIA. CB CATE STREET STA. 14+09.74, R 175.18' RIM = 18.56 (32) 12" HDPE INV OUT = 15.00 CONSTRUCT 64 LF x 12" HDPE S = 0.55%
34	PROPOSED 4' DIA. CB CATE STREET STA. 14+06.65, R 80.71' RIM = 20.03 (32) 12" HDPE INV OUT = 15.50 CONSTRUCT 24 LF x 12" HDPE S = 1.46%
35	PROPOSED 4' DIA. DMH CATE STREET STA. 13+98.74, R 85.71' RIM = 20.50 (36) 12" HDPE INV IN = 17.75 (28) 12" HDPE INV OUT = 16.15 CONSTRUCT 43 LF x 12" HDPE S = 0.50%
36	DETENTION BASIN #2 CATE STREET STA. 13+95.96, R 85.90' RIM = 20.55 (35) 12" HDPE INV OUT = 17.79 CONSTRUCT 3 LF x 12" HDPE S = 2.00%
37	PROPOSED 4' DIA. DMH CATE STREET STA. 12+91.07, R 86.88' RIM = 21.91 (39) 12" HDPE INV IN = 18.74 (38) 12" HDPE INV IN = 17.95 (36) 12" HDPE INV OUT = 17.85 CONSTRUCT 3 LF x 12" HDPE S = 3.00%
38	PROPOSED 4' DIA. CB CATE STREET STA. 12+76.81, R 83.04' RIM = 22.06 (37) 12" HDPE INV OUT = 18.00 CONSTRUCT 6 LF x 12" HDPE S = 1.00%
39	PROPOSED 4' DIA. CB CATE STREET STA. 11+90.18, R 84.80' RIM = 23.06 (37) 12" HDPE INV OUT = 19.00 CONSTRUCT 53 LF x 12" HDPE S = 0.50%
40	PROPOSED 4' DIA. DMH CATE STREET STA. 12+83.70, 0.00' RIM = 21.69 (41) 12" HDPE INV IN = 13.35 (42) 24" HDPE INV IN = 11.88 (25) 24" HDPE INV OUT = 11.78 CONSTRUCT 118 LF x 24" HDPE S = 0.50%
41	RG #2 OVERFLOW CATE STREET STA. 12+83.42, L 25.41' RIM = 17.89 (40) 12" HDPE INV OUT = 14.43 CONSTRUCT 22 LF x 12" HDPE S = 5.00%
42	PROPOSED 4' DIA. DMH CATE STREET STA. 11+85.44, 0.00' RIM = 22.86 (44) 24" HDPE INV IN = 12.45 (43) 12" HDPE INV IN = 13.35 (41) 24" HDPE INV OUT = 12.35 CONSTRUCT 94 LF x 24" HDPE S = 0.50%
43	PROPOSED 4' DIA. CB CATE STREET STA. 11+86.51, R 15.00' RIM = 22.42 (42) 12" HDPE INV OUT = 13.46 CONSTRUCT 12 LF x 12" HDPE S = 1.00%
44	PROPOSED 4' DIA. DMH CATE STREET STA. 10+48.39, 0.00' RIM = 24.89 (45) 12" HDPE INV IN = 18.50 (46) 12" HDPE INV IN = 18.50 (47) 18" HDPE INV IN = 13.61 (42) 24" HDPE INV OUT = 13.11 CONSTRUCT 133 LF x 24" HDPE S = 0.50%

DRAINAGE STRUCTURES 21–60	
STRUCTURE	STRUCTURE DETAILS
45	PROPOSED 4' DIA. CB CATE STREET STA. 10+33.32, R 11.00' RIM = 24.90 (44) 12" HDPE INV OUT = 19.50 CONSTRUCT 15 LF x 12" HDPE S = 6.82%
46	PROPOSED 4' DIA. CB CATE STREET STA. 10+33.32, L 11.00' RIM = 24.90 (44) 12" HDPE INV OUT = 19.50 CONSTRUCT 15 LF x 12" HDPE S = 6.82%
47	PROPOSED 4' DIA. DMH CATE STREET STA. 10+61.58, R 122.45' RIM = 25.93 (48) 18" HDPE INV IN = 14.31 (44) 18" HDPE INV OUT = 14.21 CONSTRUCT 120 LF x 18" HDPE S = 0.50%
48	PROPOSED 4' DIA. DMH CATE STREET STA. 10+25.80, R 127.22' RIM = 27.00 (57) 12" HDPE INV IN = 15.00 (49) 12" HDPE INV IN = 15.00 (47) 18" HDPE INV OUT = 14.48 CONSTRUCT 35 LF x 18" HDPE S = 0.50%
49	PROPOSED 4' DIA. DMH CATE STREET STA. 10+27.11, R 137.45' RIM = 26.25 (50) 12" HDPE INV IN = 18.55 (48) 12" HDPE INV OUT = 15.10 CONSTRUCT 7 LF x 12" HDPE S = 1.58%
50	INFILLTRATION BASIN #2 CATE STREET STA. 10+27.61, R 141.41' RIM = 26.15 (49) 12" HDPE INV OUT = 18.60 CONSTRUCT 3 LF x 12" HDPE S = 2.50%
51	PROPOSED 4' DIA. DMH CATE STREET STA. 9+62.84, R 234.29' RIM = 25.42 (52) 18" HDPE INV IN = 18.92 (50) 18" HDPE INV OUT = 18.92 CONSTRUCT 3 LF x 18" HDPE S = 0.00%
52	PROPOSED 4' DIA. DMH CATE STREET STA. 9+63.98, R 243.22' RIM = 25.49 (54) 18" HDPE INV IN = 19.07 (53) 12" HDPE INV IN = 19.95 (51) 18" HDPE INV OUT = 18.97 CONSTRUCT 6 LF x 18" HDPE S = 1.00%
53	PROPOSED 4' DIA. CB CATE STREET STA. 10+53.01, R 233.88' RIM = 23.88 (52) 12" HDPE INV OUT = 20.38 CONSTRUCT 86 LF x 12" HDPE S = 0.50%
54	PROPOSED 4' DIA. DMH CATE STREET STA. 9+36.44, R 333.81' RIM = 24.55 (55) 12" HDPE INV IN = 20.02 (56) 12" HDPE INV IN = 20.02 (52) 18" HDPE INV OUT = 19.52 CONSTRUCT 91 LF x 18" HDPE S = 0.50%
55	PROPOSED 4' DIA. CB CATE STREET STA. 9+38.27, R 381.51' RIM = 23.74 (54) 12" HDPE INV OUT = 20.24 CONSTRUCT 44 LF x 12" HDPE S = 0.50%
56	PROPOSED 4' DIA. CB CATE STREET STA. 8+64.09, R 340.65' RIM = 25.36 (54) 12" HDPE INV OUT = 20.86 CONSTRUCT 69 LF x 12" HDPE S = 1.22%

DRAINAGE STRUCTURES 21–60	
STRUCTURE	STRUCTURE DETAILS
57	PROPOSED 4' DIA. DMH CATE STREET STA. 8+63.04, R 147.97' RIM = 26.47 (58) 12" HDPE INV IN = 18.55 (48) 12" HDPE INV OUT = 15.80 CONSTRUCT 161 LF x 12" HDPE S = 0.50%
58	INFILLTRATION BASIN #3 CATE STREET STA. 8+63.54, R 151.94' RIM = 26.46 (57) 12" HDPE INV OUT = 18.60 CONSTRUCT 3 LF x 12" HDPE S = 2.50%
59	PROPOSED 4' DIA. DMH CATE STREET STA. 8+63.63, R 265.26' RIM = 25.90 (60) 6" HDPE INV IN = 20.20 (58) 6" HDPE INV OUT = 20.10 CONSTRUCT 3 LF x 6" HDPE S = 3.00%
60	BUILDING B ROOF DRAIN CATE STREET STA. 7+56.79, R 220.50' RIM = 27.25 (59) 6" HDPE INV OUT = 20.78 CONSTRUCT 112 LF x 6" HDPE S = 0.51%

DRAINAGE STRUCTURES 64–73	
STRUCTURE	STRUCTURE DETAILS
E1071	EXISTING CB RIM = 22.29 (62) 12" HDPE INV IN = 17.60 (E1072) 12" HDPE INV OUT = 17.50 EXISTING 28 LF x 12" HDPE S=0.72%
E1072	EXISTING DMH RIM = 23.71 (E1071) 12" HDPE INV IN = 17.30 (64) 12" HDPE INV IN = 17.60
64	COMMERCIAL BULDING ROOF DRAIN RIM = 19.05 (E1072) 12" HDPE INV OUT = 17.94 CONSTRUCT 69 LF x 12" HDPE S=0.50%
65	WATER QUALITY STRUCTURE RIM = 19.26 (66) 12" HDPE INV IN = 18.15 (E1071) 12" HDPE INV OUT = 18.05 CONSTRUCT 90 LF x 12" HDPE S=0.49%
66	PROPOSED 4' DIA. DMH RIM = 25.40 (67) 12" HDPE INV IN = 18.28 (65) 12" HDPE INV OUT = 18.18 CONSTRUCT 3 LF x 12" HDPE S=0.60%
67	PROPOSED 4' DIA. DMH RIM = 24.59 (69) 12" HDPE INV IN = 19.12 (65) 12" HDPE INV IN = 19.12 (66) 12" HDPE INV OUT = 19.02 CONSTRUCT 148 LF x 12" HDPE S=0.49%
68	PROPOSED 4' DIA. CB RIM = 23.22 (67) 12" HDPE INV OUT = 19.37 CONSTRUCT 49 LF x 12" HDPE S=0.50%
69	PROPOSED 4' DIA. DMH RIM = 24.32 (68) 12" HDPE INV IN = 20.57 (70) 12" HDPE INV IN = 20.57 (67) 12" HDPE INV OUT = 20.47 CONSTRUCT 270 LF x 12" HDPE S=0.50%
70	PROPOSED 4' DIA. CB RIM = 24.24 (69) 12" HDPE INV OUT = 20.60 CONSTRUCT 4 LF x 12" HDPE S=1.02%
71	PROPOSED 4' DIA. DMH RIM = 25.15 (72) 12" HDPE INV IN = 20.89 (73) 12" HDPE INV IN = 20.89 (69) 12" HDPE INV OUT = 20.79 CONSTRUCT 45 LF x 12" HDPE S=0.50%
72	PROPOSED 4' DIA. CB RIM = 25.12 (71) 12" HDPE INV OUT = 20.93 CONSTRUCT 8 LF x 12" HDPE S=0.50%
73	PROPOSED 4' DIA. CB RIM = 25.17 (71) 12" HDPE INV OUT = 21.15 CONSTRUCT 52 LF x 12" HDPE S=0.50%

LIGHT TABLE ENTRIES FROM ROADWAY PLAN PROVIDED FOR REFERENCE ONLY

No.	DATE	DESCRIPTION	DESIGNER	REVIEWER
4.	7/24/2019	TAC SUBMITTAL	JVA/DAD	RRL
3.	6/20/2019	TAC SUBMITTAL	JVA/DAD	RRL
2.	5/20/2019	TAC SUBMITTAL	JVA/DAD	RRL
1.	3/18/2019	TAC SUBMITTAL	JVA/DAD	RRL

STATE OF NEW HAMPSHIRE – LICENSED PROFESSIONAL ENGINEER – RICHARD R. LINDBORN No. 10043

SCALE: HORZ.: VERT.: DATUM: HORZ.: VERT.: 0 GRAPHIC SCALE

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SITE DRAINAGE STRUCTURE TABLE

CATE STREET/ WEST END YARDS

PORTSMOUTH NEW HAMPSHIRE

PROJ. No.: 20180317.A10
DATE: 07/24/2019

CG-001

File Path: F:\P2018\0317\A10\Civil\3Dwg\Structure Tables.dwg Layout: CG-001 (DRAINAGE TABLE) (S) Plotted: Wed, July 31, 2019 - 4:09 PM User: jandretta
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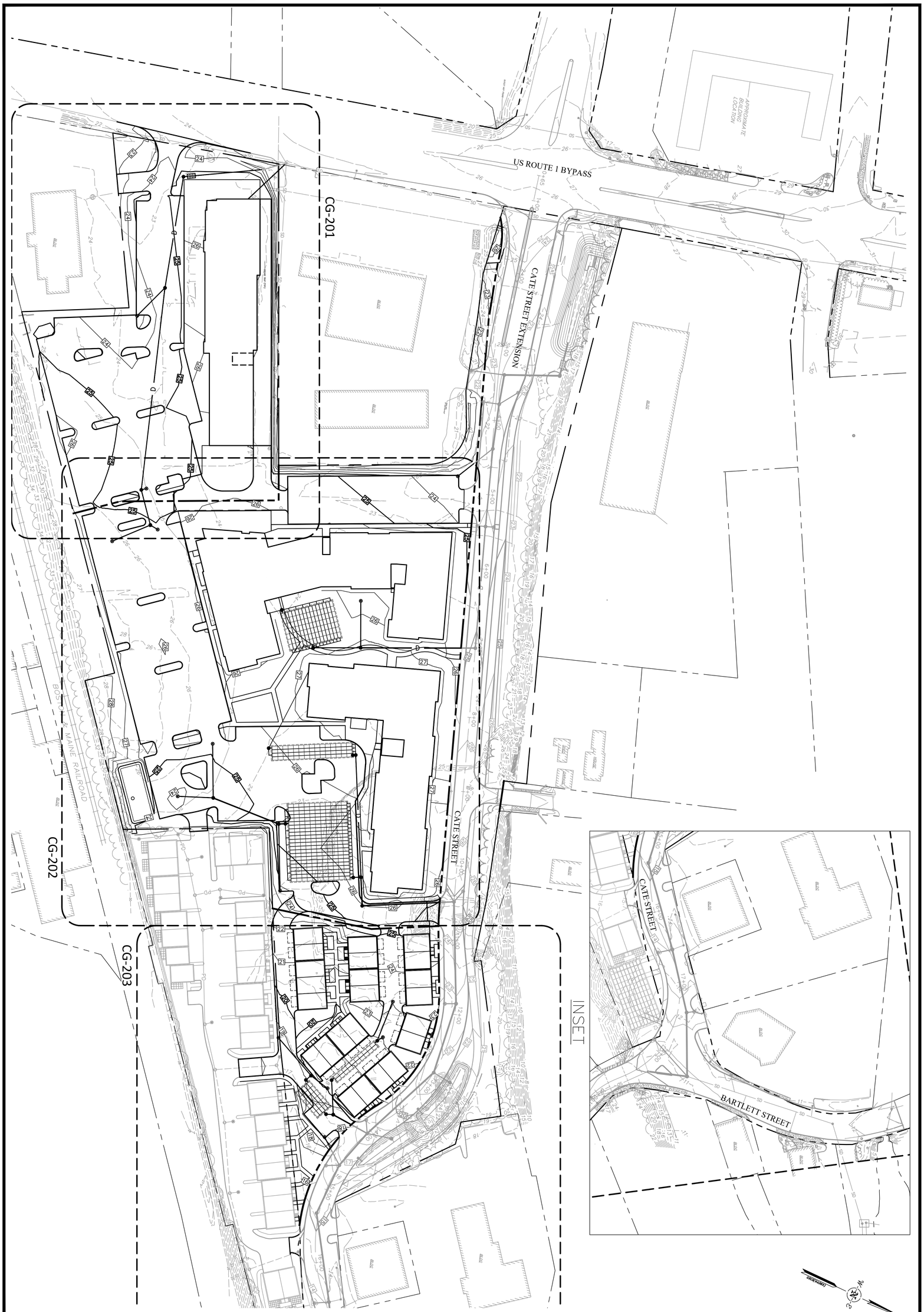

CG-200

DATE: 07/24/2019

PROJ. No.: 20180317A10

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SCALE:
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VERT.: 1"=60'
DATUM:
HORZ.: NAD83
VERT.: NGVD29
60 30 0 60
GRAPHIC SCALE

STATE OF NEW HAMPSHIRE – RICHARD R. LUNDBORN No. 10943 – LICENSED PROFESSIONAL ENGINEER

No.	DATE	DESCRIPTION	DESIGNER	REVIEWER
4.	7/24/2019	TAC SUBMITTAL	JVA/DAD	RRL
3.	6/20/2019	TAC SUBMITTAL	JVA/DAD	RRL
2.	5/20/2019	TAC SUBMITTAL	JVA/DAD	RRL
1.	3/18/2019	TAC SUBMITTAL	JVA/DAD	RRL

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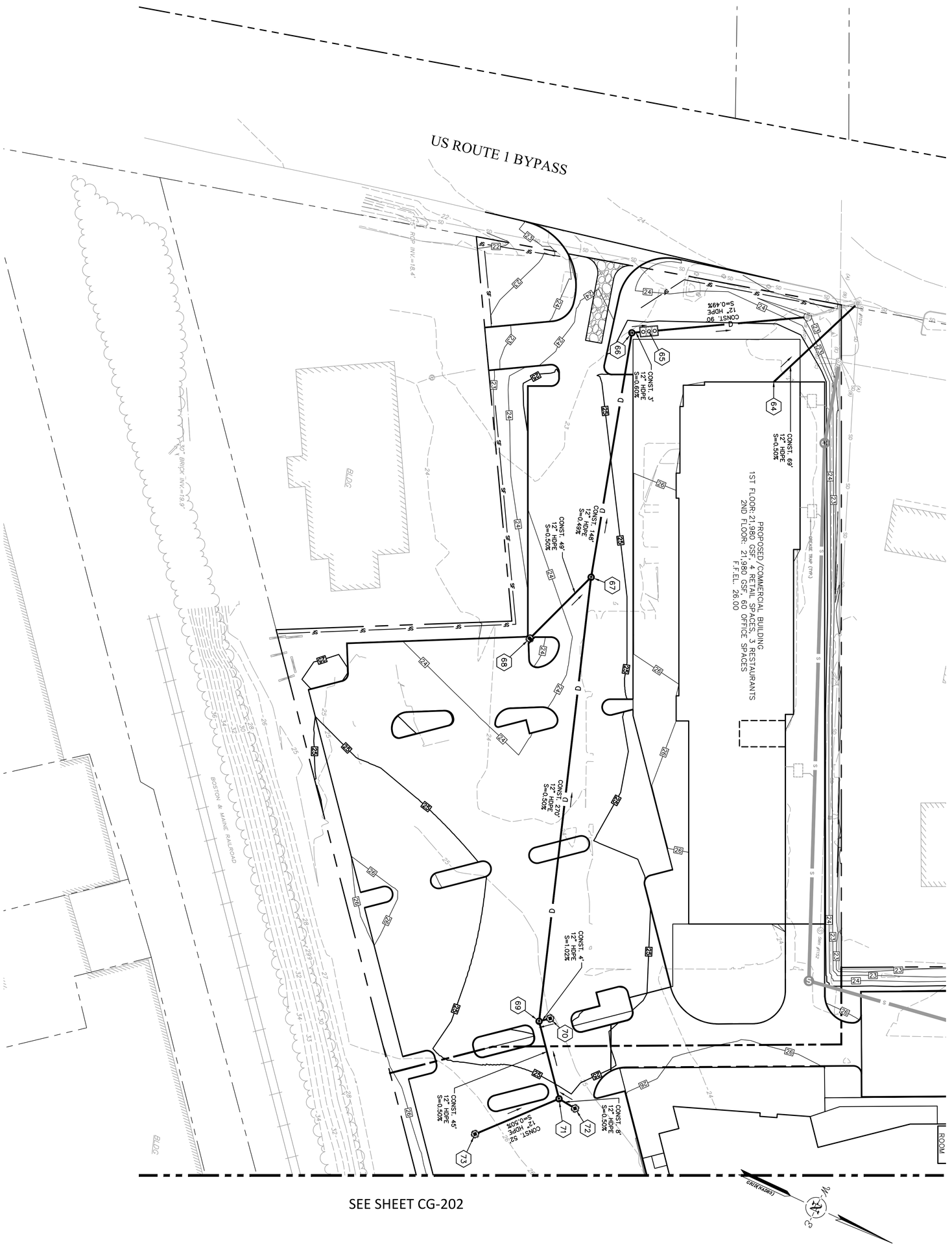

SEE SHEET CG-202

CG-201

PROJ. No: 20180317A10
DATE: 07/24/2019

CATE STREET DEVELOPMENT, LLC

GRADING, DRAINAGE & EROSION CONTROL PLAN
CATE STREET/ WEST END YARDS

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SCALE:
HORZ.: 1"=30'
VERT.: 1"=30'
DATUM:
HORZ.: NAD83
VERT.: NGVD29
30 15 0 30
GRAPHIC SCALE

STATE OF NEW HAMPSHIRE – RICHARD R. LUNDBORN No. 10943 – LICENSED PROFESSIONAL ENGINEER

No.	DATE	DESCRIPTION	DESIGNER	REVIEWER
4.	7/24/2019	TAC SUBMITTAL	JVA/DAD	RRL
3.	6/20/2019	TAC SUBMITTAL	JVA/DAD	RRL
2.	5/20/2019	TAC SUBMITTAL	JVA/DAD	RRL
1.	3/18/2019	TAC SUBMITTAL	JVA/DAD	RRL

No.	DATE	DESCRIPTION	DESIGNER	REVIEWER
4.	7/24/2019	TAC SUBMITTAL	JVA/DAD	RRL
3.	6/20/2019	TAC SUBMITTAL	JVA/DAD	RRL
2.	5/20/2019	TAC SUBMITTAL	JVA/DAD	RRL
1.	3/18/2019	TAC SUBMITTAL	JVA/DAD	RRL

STATE OF NEW HAMPSHIRE
RICHARD R. LUNDBORN
No. 10943
LICENSED PROFESSIONAL ENGINEER

SCALE: HORZ.: 1"=30' VERT.: 1"=30'
DATUM: HORZ.: NAD83 VERT.: NGVD29
30 15 0 30
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CATE STREET/ WEST END YARDS

PORTSMOUTH NEW HAMPSHIRE

PROJ. No.: 20180317.A10
DATE: 07/24/2019

CG-202

File Path: F:\P2018\0317\A10\Civil3\Dwg\20180317A10_GRA01.dwg Layout: CG-202 (S) Plotted: Thu, August 01, 2019 - 11:07 AM User: jandretta
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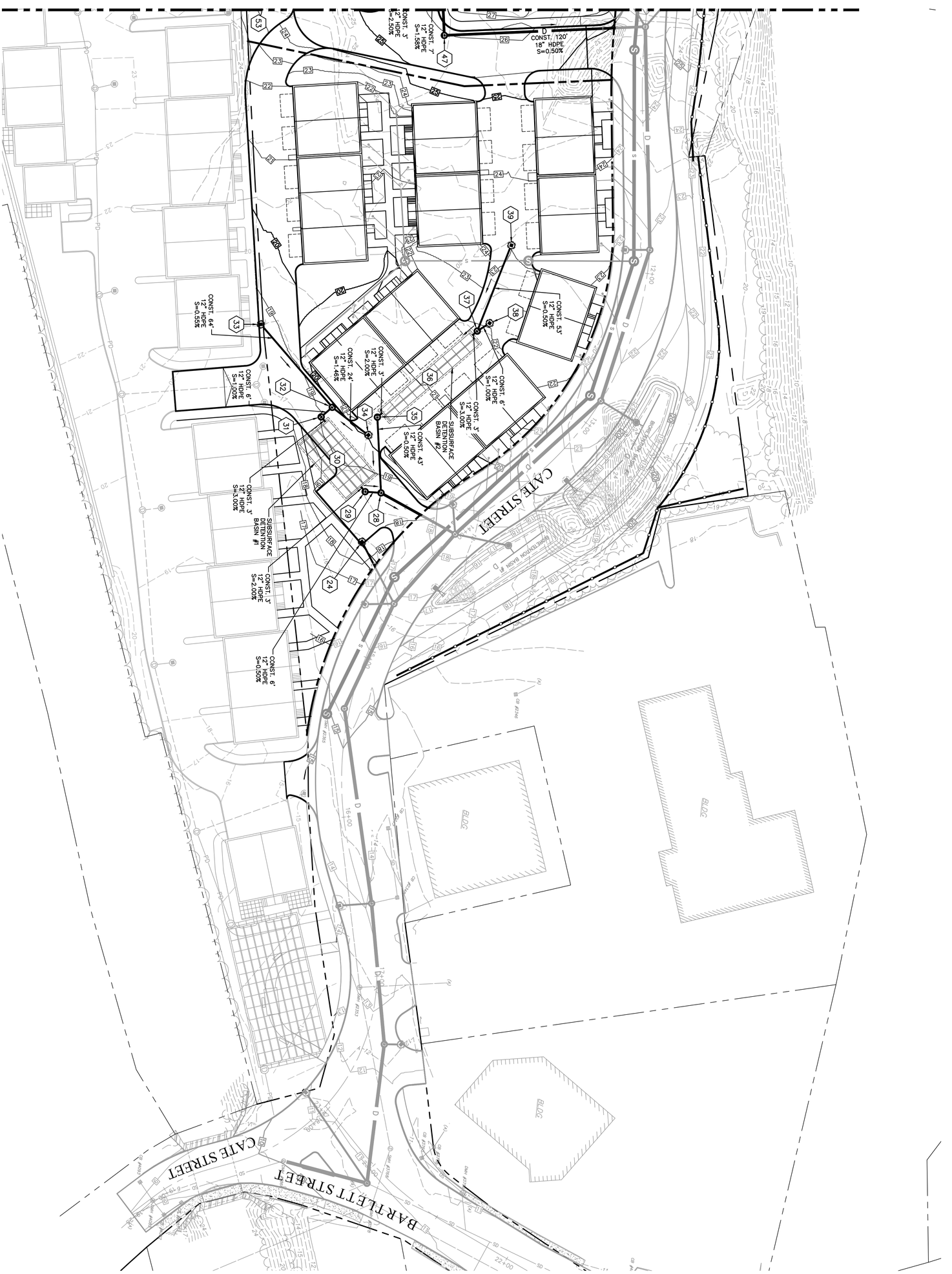
SEE SHEET CG-202



CG-203

DATE: 07/24/2019
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SCALE:
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VERT.: 1"=30'
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HORZ.: NAD83
VERT.: NGVD29
30 15 0 30
GRAPHIC SCALE

STATE OF NEW HAMPSHIRE – RICHARD R. LUNDBORN No. 10943 – LICENSED PROFESSIONAL ENGINEER

No.	DATE	DESCRIPTION	DESIGNER	REVIEWER
4.	7/24/2019	TAC SUBMITTAL	JVA/DAD	RRL
3.	6/20/2019	TAC SUBMITTAL	JVA/DAD	RRL
2.	5/20/2019	TAC SUBMITTAL	JVA/DAD	RRL
1.	3/18/2019	TAC SUBMITTAL	JVA/DAD	RRL

SEWER SYSTEM	
STRUCTURE	STRUCTURE DETAILS
4	PROPOSED 4' DIA. SEWER MANHOLE CATE STREET STA. 11+93.37, R 9.16' RIM = 22.57 (5) 24" PVC INV IN = 9.87 (12) 8" PVC INV IN = 11.10 (3) 24" PVC INV OUT = 9.77 CONSTRUCT 83 LF x 24" PVC S=0.0008
12	PROPOSED 4' DIA. SEWER MANHOLE CATE STREET STA. 12+03.73, R 73.29' RIM = 23.20 (13) 8" PVC INV IN = 11.50 (4) 8" PVC INV OUT = 11.40 CONSTRUCT 61 LF x 8" PVC S=0.0050
13	PROPOSED 4' DIA. SEWER MANHOLE CATE STREET STA. 12+50.11, R 146.52' RIM = 20.94 (12) 8" PVC INV OUT = 11.86 CONSTRUCT 72 LF x 8" PVC S=0.0050

LIGHT TABLE ENTRIES FROM ROADWAY
PLAN PROVIDED FOR REFERENCE ONLY

No.	DATE	DESCRIPTION	DESIGNER	REVIEWER
4.	7/24/2019	TAC SUBMITTAL	JVA/DAD	RRL
3.	6/20/2019	TAC SUBMITTAL	JVA/DAD	RRL
2.	5/20/2019	TAC SUBMITTAL	JVA/DAD	RRL
1.	3/18/2019	TAC SUBMITTAL	JVA/DAD	RRL

STATE OF NEW HAMPSHIRE – PROFESSIONAL ENGINEER – RICHARD R. LIMBURN No. 10053 LICENSED

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DATUM: HORZ.: VERT.:
0
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SITE SEWER
STRUCTURE TABLE
CATE STREET/ WEST END YARDS
PORTSMOUTH NEW HAMPSHIRE

PROJ. No.: 20180317.A10
DATE: 07/24/2019

CU-001

File Path: F:\P2018\0317A10\Civil\3Dwg\Structure Tables.dwg Layout: CU-001 (SEWER TABLE) (S) Plotted: Wed, July 31, 2019 - 4:13 PM User: jandretta
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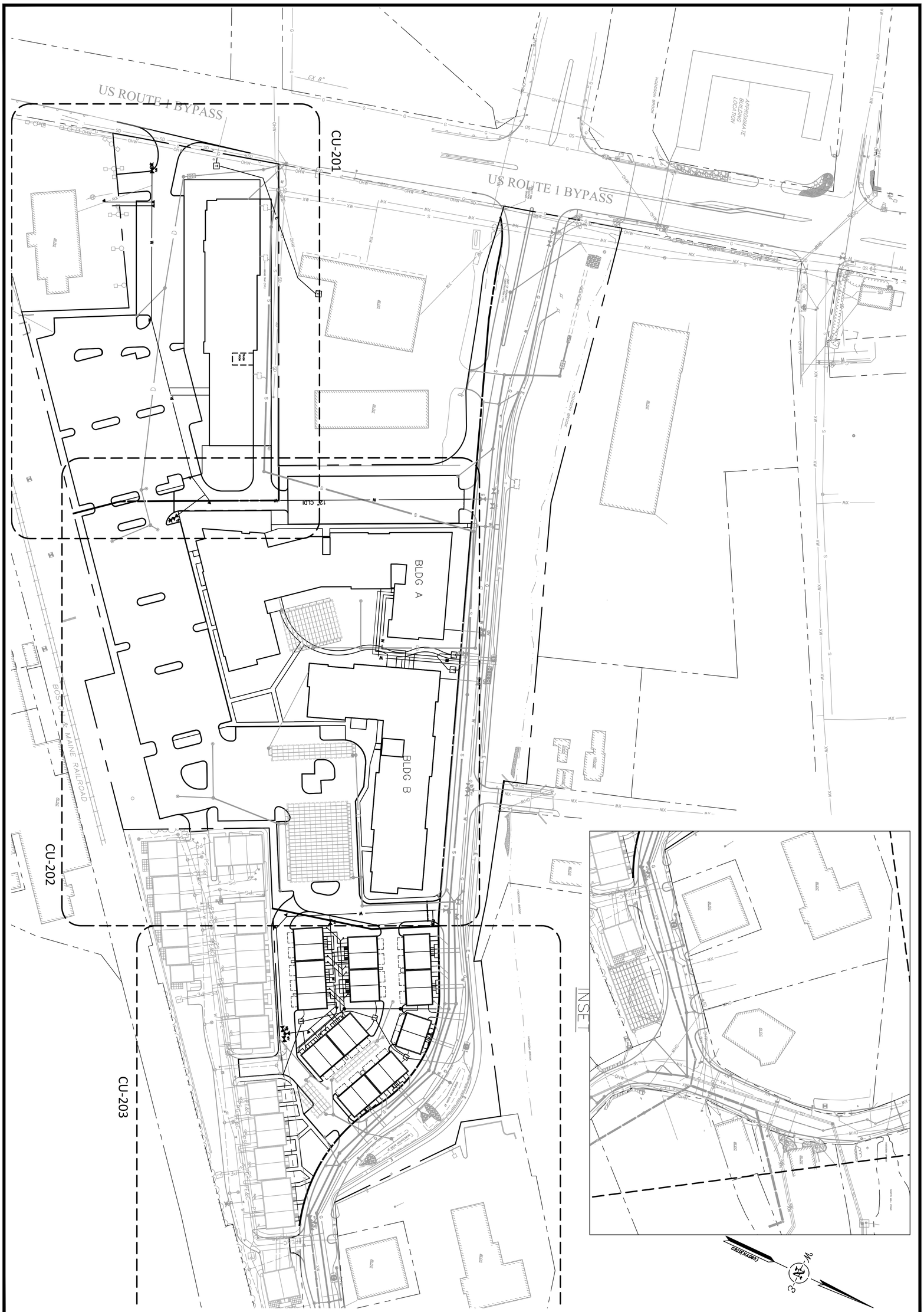

CU-200

CATE STREET DEVELOPMENT, LLC

OVERALL UTILITY PLAN

CATE STREET/ WEST END YARDS

PORTSMOUTH NEW HAMPSHIRE

PROJ. No: 20180317A10

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HORZ.: NAD83
VERT.: NGVD29
60 30 0 60
GRAPHIC SCALE

STATE OF NEW HAMPSHIRE – RICHARD R. LUNDBORN No. 10943 – LICENSED PROFESSIONAL ENGINEER

No.	DATE	DESCRIPTION	DESIGNER	REVIEWER
4.	7/24/2019	TAC SUBMITTAL	JVA/DAD	RRL
3.	6/20/2019	TAC SUBMITTAL	JVA/DAD	RRL
2.	5/20/2019	TAC SUBMITTAL	JVA/DAD	RRL
1.	3/18/2019	TAC SUBMITTAL	JVA/DAD	RRL

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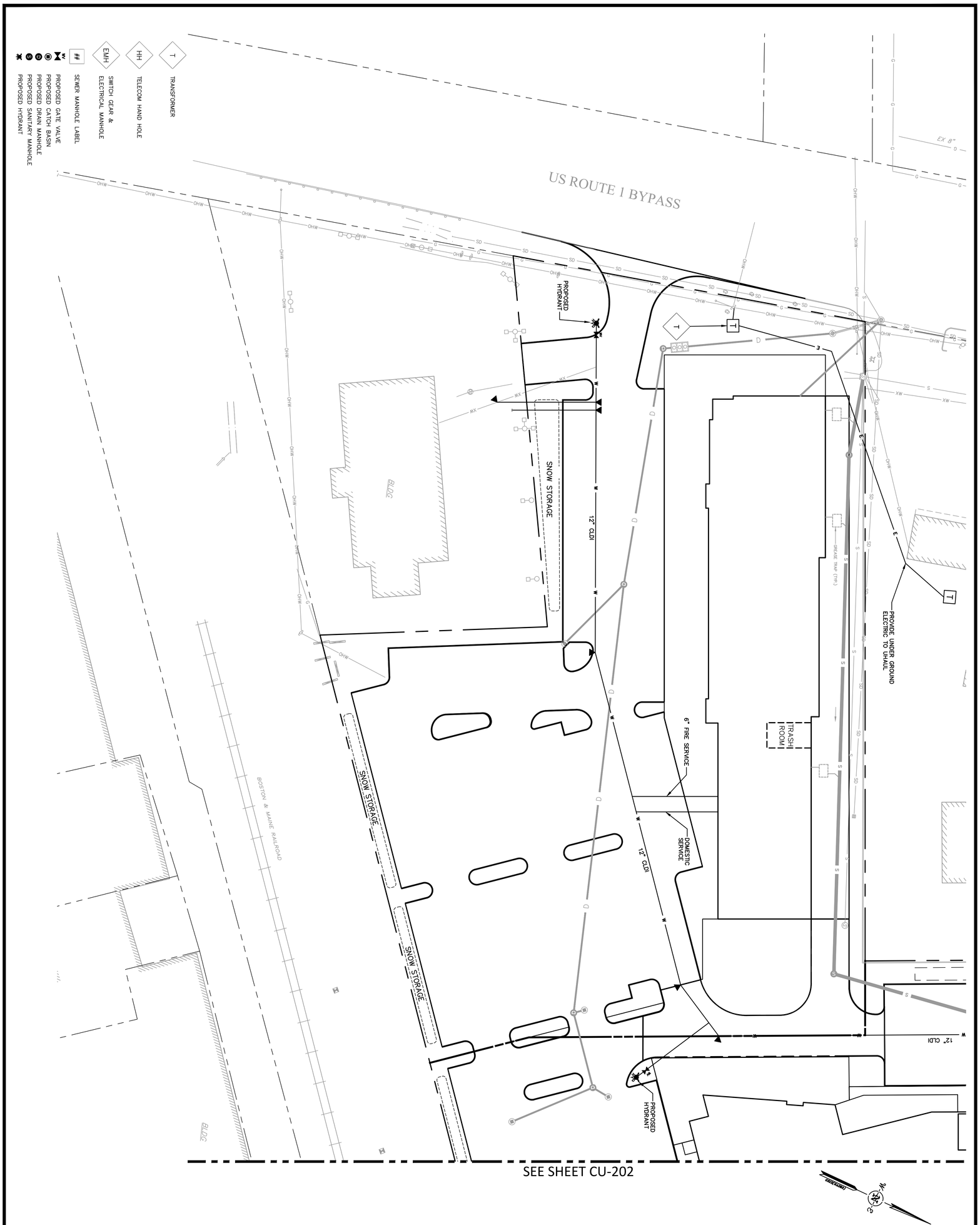

CU-201

PROJ. No: 20180317A10
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CATE STREET DEVELOPMENT, LLC

UTILITY PLAN

CATE STREET/ WEST END YARDS

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GRAPHIC SCALE

STATE OF NEW HAMPSHIRE – RICHARD R. LUNDBORN No. 10943 – LICENSED PROFESSIONAL ENGINEER

No.	DATE	DESCRIPTION	DESIGNER	REVIEWER
4.	7/24/2019	TAC SUBMITTAL	JVA/DAD	RRL
3.	6/20/2019	TAC SUBMITTAL	JVA/DAD	RRL
2.	5/20/2019	TAC SUBMITTAL	JVA/DAD	RRL
1.	3/18/2019	TAC SUBMITTAL	JVA/DAD	RRL

PLAN

SCALE: 1 INCH = 30 FT.

INSET SHEET CU-202

SCALE: 1 INCH = 20 FT.

No.	DATE	DESCRIPTION	DESIGNER	REVIEWER
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3.	6/20/2019	TAC SUBMITTAL	JVA/DAD	RRL
2.	5/20/2019	TAC SUBMITTAL	JVA/DAD	RRL
1.	3/18/2019	TAC SUBMITTAL	JVA/DAD	RRL

STATE OF NEW HAMPSHIRE – PROFESSIONAL ENGINEER – RICHARD R. LIMBORN No. 10043 LICENSED

SCALE:
HORZ.: AS NOTED
VERT.: AS NOTED

DATUM:
HORZ.: NAD83
VERT.: NGVD29

30 15 0 30
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CATE STREET DEVELOPMENT, LLC

UTILITY PLAN

CATE STREET/ WEST END YARDS

PORTSMOUTH NEW HAMPSHIRE

PROJ. No.: 20180317.A10
DATE: 07/24/2019

CU-202

File Path: F:\P20180317A10\Civil\3Dwg\20180317A10_UTL01.dwg Layout: CU-202 (S) Plotted: Wed, July 31, 2019 - 3:50 PM User: jandretta
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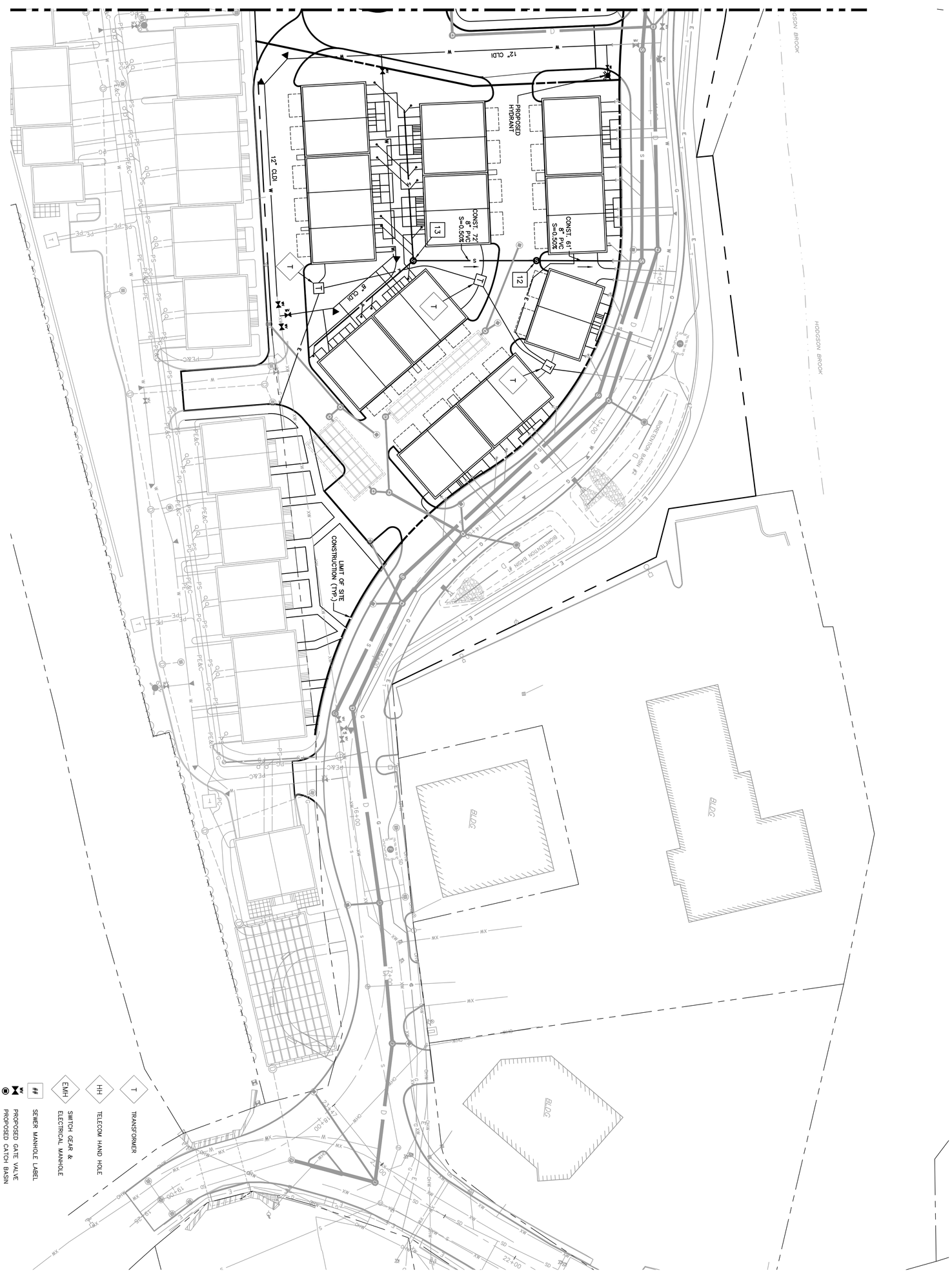
MS VIEW: | LAYER STATE: | Plotter: DWG TO PDF.PC3 CTB File: FO.STB

SEE SHEET CU-202



CU-203

PROJ. No.: 20180317A10
DATE: 07/24/2019

CATE STREET DEVELOPMENT, LLC

UTILITY PLAN

CATE STREET/ WEST END YARDS

PORTSMOUTH NEW HAMPSHIRE

FUSS & O'NEILL
UPPER SQUARE BUSINESS CENTER
5 FLETCHER STREET, SUITE 1
KENNEBUNK, MAINE 04043
207.363.0669
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SCALE:
HORZ.: 1"=30'
VERT.: 1"=30'
DATUM:
HORZ.: NAD83
VERT.: NGVD29
30 15 0 30
GRAPHIC SCALE

STATE OF NEW HAMPSHIRE – RICHARD R. LUNDBORN No. 10943 – LICENSED PROFESSIONAL ENGINEER

No.	DATE	DESCRIPTION	DESIGNER	REVIEWER
4.	7/24/2019	TAC SUBMITTAL	JVA/DAD	RRL
3.	6/20/2019	TAC SUBMITTAL	JVA/DAD	RRL
2.	5/20/2019	TAC SUBMITTAL	JVA/DAD	RRL
1.	3/18/2019	TAC SUBMITTAL	JVA/DAD	RRL

1. ALL SECTIONS SHALL BE CONCRETE, CLASS AA (4,000 PSI)
2. CIRCUMFERENTIAL REINFORCEMENT SHALL BE 0.12 SQ. IN. PER L.F. IN ALL SECTIONS AND SHALL BE PLACED IN THE CENTER THIRD OF THE WALL.
3. THE TONGUE AND GROOVE OF THE JOINT SHALL CONTAIN ONE LINE OF CIRCUMFERENTIAL REINFORCEMENT EQUAL TO 0.12 SQ. IN. PER L.F.
4. RISERS OF 1'-4" MAY BE USED TO REACH THE DESIRED ELEVATION.
5. THE STRUCTURES SHALL BE DESIGNED FOR H-20 LOADING.
6. ADJUSTING THE FRAME TO GRADE MAY BE DONE WITH PRECAST CONCRETE GRADE RINGS OR CLAY BRICKS (2 COURSES MAX.) FRAME TO BE SET IN A FULL BED OF MORTAR.
8. SLAB TOPS MAY BE USED WHERE PIPE WOULD OTHERWISE ENTER INTO THE CONE SECTION OF THE STRUCTURE AND WHERE PERMITTED.
9. PIPE ELEVATIONS SHOWN ON THE PLAN SHALL BE FIELD VERIFIED PRIOR TO PRECASTING.
10. PIPE ENDS SHALL PROJECT NO MORE THAN 3-INCHES BEYOND THE INSIDE WALL OF THE STRUCTURE.
11. PRECAST SECTIONS SHALL HAVE A TONGUE AND GROOVE JOINT 4-INCHES HIGH AT AN 11° ANGLE CENTERED IN THE WIDTH OF THE WALL AND SHALL BE ASSEMBLED USING ONE STRIP OF BUTYL RUBBER SEALANT OR APPROVED FLEXIBLE SEALANT.
12. STEPS ARE NOT ALLOWED.

CATCH BASIN SPECIFIC NOTES:

13. CONE SECTIONS MAY BE CONCENTRIC OR ECCENTRIC FOR CATCH BASINS.
14. "ELIMINATOR" OIL/WATER SEPARATORS SHALL BE INSTALLED TIGHT TO THE INSIDE OF THE CATCH BASINS ON THE OUTLET PIPE.

DRAIN MANHOLE SPECIFIC NOTES:

15. ALL STRUCTURES WITH MULTIPLE PIPES SHALL HAVE A MINIMUM OF 12-INCHES OF INSIDE SURFACE BETWEEN THE HOLES, NO MORE THAN 75% OF A HORIZONTAL CROSS SECTION SHALL BE HOLES, AND THERE SHALL BE NO HOLES CLOSER THAN 3-INCHES TO ANY JOINT.

PRECAST DRAINAGE STRUCTURE NOTES

NOT TO SCALE

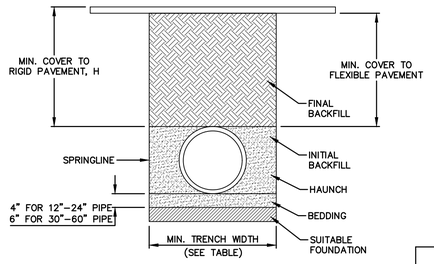


TABLE 1, RECOMMENDED MINIMUM TRENCH WIDTHS

PIPE DIAM.	MIN. TRENCH WIDTH
12" (300mm)	30" (762mm)
15" (375mm)	34" (864mm)
18" (450mm)	39" (991mm)
24" (600mm)	48" (1219mm)
30" (750mm)	56" (1422mm)
36" (900mm)	64" (1626mm)
42" (1050mm)	72" (1829mm)
48" (1200mm)	80" (2032mm)
60" (1500mm)	96" (2438mm)

TABLE 2, MINIMUM RECOMMENDED COVER BASED ON VEHICLE LOADING CONDITIONS

PIPE DIAM.	SURFACE LIVE LOAD CONDITION	
	H-25	HEAVY CONSTRUCTION (75T AXLE LOAD)*
12"-48" (300mm-1200mm)	12" (305mm)	12" (305mm)
60" (1500mm)	24" (610mm)	60" (1524mm)

*VEHICLE IN EXCESS OF 75T MAY REQUIRE ADDITIONAL COVER

TABLE 3, MAXIMUM COVER FOR ADS HP STORM PIPE, FT.

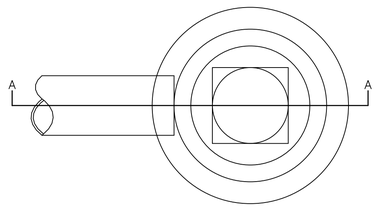
	CLASS I	CLASS II			CLASS III		CLASS IV
PIPE DIA.	COMPACTED	95%	90%	85%	95%	90%	95%
12" (305mm)	41" (12.5m)	28" (8.5m)	21" (6.4m)	16" (4.9m)	20" (6.4m)	16" (4.9m)	16" (4.9m)
15" (375mm)	42" (12.8m)	29" (8.8m)	24" (6.4m)	16" (4.9m)	21" (6.4m)	16" (4.9m)	16" (4.9m)
18" (450mm)	44" (13.4m)	30" (9.1m)	24" (6.4m)	16" (4.9m)	22" (6.7m)	17" (5.2m)	16" (4.9m)
24" (600mm)	37" (11.3m)	26" (7.9m)	18" (5.5m)	14" (4.3m)	19" (5.8m)	14" (4.3m)	14" (4.3m)
30" (750mm)	39" (11.9m)	27" (8.2m)	19" (5.8m)	14" (4.3m)	19" (5.8m)	15" (4.6m)	14" (4.3m)
36" (900mm)	28" (8.5m)	20" (6.1m)	14" (4.3m)	10" (3.0m)	28" (8.5m)	11" (3.4m)	10" (3.0m)
42" (1050mm)	30" (9.1m)	21" (6.4m)	14" (4.3m)	10" (3.0m)	15" (4.6m)	11" (3.4m)	10" (3.0m)
48" (1200mm)	29" (8.8m)	20" (6.1m)	14" (4.3m)	9" (2.7m)	14" (4.3m)	10 (3.0m)	10" (3.0m)
60" (1500mm)	29" (8.8m)	20" (6.1m)	14" (4.3m)	9" (2.7m)	14" (4.3m)	10" (3.0m)	9" (2.7m)

FILL HEIGHT TABLE GENERATED USING AASHTO SECTION 12, LOAD RESISTANCE FACTOR DESIGN (LRFD) PROCEDURE WITH THE FOLLOWING ASSUMPTIONS:
NO HYDROSTATIC PRESSURE
UNIT WEIGHT OF SOIL (γs) = PCF

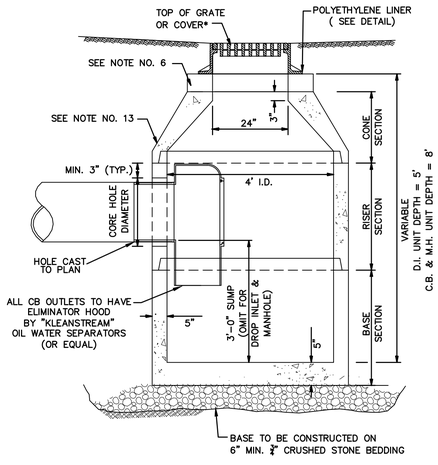
1. ALL PIPE SYSTEMS SHALL BE INSTALLED IN ACCORDANCE WITH ASTM D3221, "STANDARD PRACTICE FOR UNDERGROUND INSTALLATION OF THERMOPLASTIC PIPE FOR SEWERS AND OTHER GRAVITY FLOW APPLICATIONS", LATEST ADDITION WITH THE EXCEPTION THAT THE INITIAL BACKFILL MAY EXTEND TO THE CROWN OF THE PIPE. SOIL CLASSIFICATIONS ARE PER THE LATEST VERSION OF ASTM D2321. CLASS IVB MATERIALS (MH, CH) AS DEFINED IN PREVOUS VERSIONS OF ASTM D2321 ARE NOT APPROPRIATE BACKFILL MATERIALS.
2. MEASURES SHOULD BE TAKEN TO PREVENT MIGRATION OF NATIVE FINES INTO BACKFILL MATERIAL, WHEN REQUIRED.
3. FOUNDATION: WHERE THE TRENCH BOTTOM IS UNSTABLE, THE CONTRACTOR SHALL EXCAVATE TO A DEPTH REQUIRED BY THE ENGINEER AND PLACE WITH SUITABLE MATERIAL AS SPECIFIED BY THE ENGINEER. AS AN ALTERNATIVE AND AT THE DISCRETION OF THE DESIGN ENGINEER, THE TRENCH BOTTOM MAY BE STABILIZED USING A GEOTEXTILE MATERIAL.
4. BEDDING: SUITABLE MATERIAL SHALL BE CLASS I, II, III OR IV. THE CONTRACTOR SHALL PROVIDE DOCUMENTATION FOR MATERIAL SPECIFICATION TO ENGINEER. COMPACTION SHALL BE SPECIFIED BY THE ENGINEER IN ACCORDANCE WITH TABLE 3 FOR THE APPLICABLE FILL HEIGHTS LISTED, UNLESS OTHERWISE NOTED BY THE ENGINEER, MINIMUM BEDDING THICKNESS SHALL BE 4" (100mm) FOR 12"-24" (300mm-600mm) DIAMETER PIPE; 6" (150mm) FOR 30"-60" (750mm-1500mm) DIAMETER PIPE. THE MIDDLE 1/3 BENEATH THE PIPE INVERT SHALL BE LOOSELY PLACED.
5. INITIAL BACKFILL: SUITABLE MATERIAL SHALL BE CLASS I, II, III OR IV IN THE PIPE ZONE EXTENDING TO THE CROWN OF THE PIPE. THE CONTRACTOR SHALL PROVIDE DOCUMENTATION FOR MATERIAL SPECIFICATION TO ENGINEER. MATERIAL SHALL BE INSTALLED AS REQUIRED IN ASTM D2321, LATEST EDITION. COMPACTION SHALL BE SPECIFIED BY THE ENGINEER IN ACCORDANCE WITH TABLE 3 FOR THE APPLICATION FILL HEIGHTS LISTED. PLEASE NOTE, CLASS IV MATERIAL HAS LIMITED APPLICATION AND CAN BE DIFFICULT TO PLACE AND COMPACT; USE ONLY WITH THE APPROVAL OF A SOIL EXPERT.
6. MINIMUM COVER: MINIMUM COVER, H, IN NON-TRAFFIC APPLICATIONS (GRASS OR LANDSCAPE AREAS) IS 12" (300mm) FROM THE TOP OF PIPE TO GROUND SURFACE. ADDITIONAL COVER MAY BE REQUIRED TO PREVENT FLOTATION. FOR TRAFFIC APPLICATIONS; CLASS I OR II MATERIAL COMPACTED TO 90% SPD AND CLASS III COMPACTED TO 95% SPD IS REQUIRED. FOR TRAFFIC APPLICATIONS, MINIMUM COVER, H, IS 12" (300mm) UP TO 48" (1200mm) DIAMETER PIPE AND 24" (600mm) OF COVER FOR 60" (1500mm) DIAMETER PIPE, MEASURED FROM TOP OF PIPE TO BOTTOM OF FLEXIBLE PAVEMENT OR TO TOP OF RIGID PAVEMENT.
7. FOR ADDITIONAL INFORMATION SEE TECHNICAL NOTE 2.04.

HP STORM TRENCH INSTALLATION DETAIL

NOT TO SCALE



PLAN

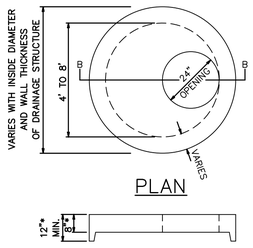


* MANHOLE FRAME & COVER SHALL BE JORDAN IRONWORKS HINGE COVER PER CITY OF PORTSMOUTH STANDARD.

SECTION A-A

PRECAST CATCH BASIN/DRAINAGE MANHOLE

SCALE: N.T.S.

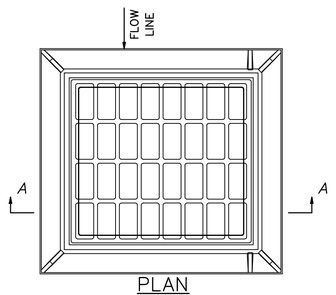


PLAN

* FOR >6' DIA. STRUCTURES USE 16" & 12" DIMENSIONS

SECTION B-B

FLAT SLAB TOP



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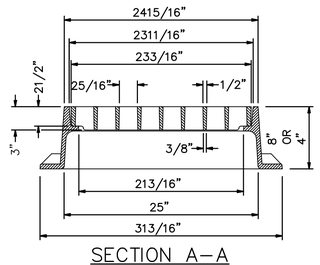


SECTION A-A

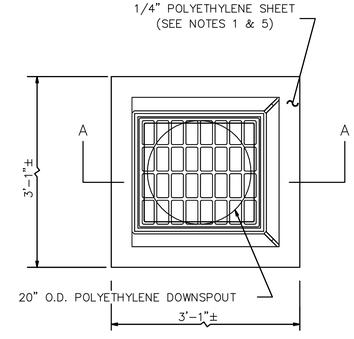
CATCH BASIN FRAME & GRATE (TYPE B)

SCALE: N.T.S.

1. POLYETHYLENE LINER (ITEM 604.0007) SHALL BE FABRICATED AT THE SHOP. DOWNSPOUT SHALL BE EXTRUSION FILLET WELDED TO THE POLYETHYLENE SHEET.
2. PLACE A CONTINUOUS BEAD OF AN APPROVED SILICONE SEALANT (SUBSIDIARY TO ITEM 604.0007) BETWEEN FRAME AND POLYETHYLENE SHEET.
3. PLACE CLASS AA CONCRETE TO 2" BELOW THE TOP OF THE GRATE ELEVATION (SUBSIDIARY TO DRAINAGE STRUCTURES)
4. USE ON DRAINAGE STRUCTURES 4' MIN. DIAMETER ONLY.
5. TRIM POLYETHYLENE SHEET A MAXIMUM OF 4" OUTSIDE THE FLANGE ON THE FRAME FOR THE CATCH BASIN BEFORE PLACING CONCRETE (EXCEPT AS SHOWN WHEN USED WITH 3-FLANGE FRAME AND CURB).
6. THE CENTER OF THE GRATE & FRAME MAY BE SHIFTED A MAXIMUM OF 6" FROM THE CENTER OF THE DOWNSPOUT IN ANY DIRECTION.
7. PLACED ONLY IN DRAINAGE STRUCTURES IN PAVEMENT.
8. SEE NHDOT DR-04, "DI-DB, UNDERDRAIN FLUSHING BASIN AND POLYETHYLENE LINER DETAILS", FOR ADDITIONAL INFORMATION.

POLYETHYLENE LINER NOTES

NOT TO SCALE



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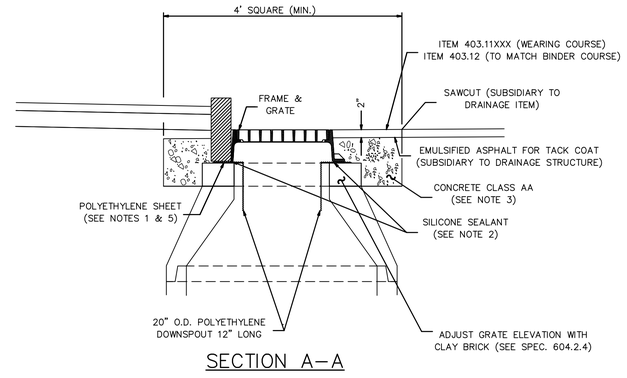

SECTION A-A

POLYETHYLENE LINER

SCALE: N.T.S.

No.	DATE	DESCRIPTION	DESIGNER	REVIEWER
3.	6/20/2019	TAC SUBMITTAL	JVA/DAD	RRL
2.	5/20/2019	TAC SUBMITTAL	JVA/DAD	RRL
1.	3/18/2019	TAC SUBMITTAL	JVA/DAD	RRL

STATE OF NEW HAMPSHIRE - PROFESSIONAL ENGINEER - RICHARD LUNDBORN No. 10943 LICENSED

SCALE: HORZ.: NTS VERT.:
DATUM: HORZ.: VERT.:
0
GRAPHIC SCALE

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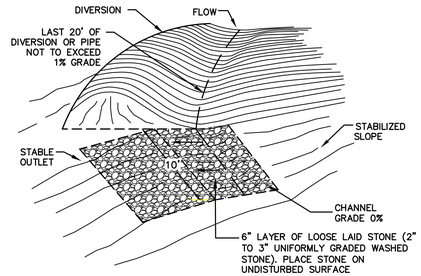
CATE STREET DEVELOPMENT, LLC

DRAINAGE DETAILS

CATE STREET/ WEST END YARDS
PORTSMOUTH NEW HAMPSHIRE

PROJ. No.: 20180317.A10
DATE: 06/20/2019

CD-510



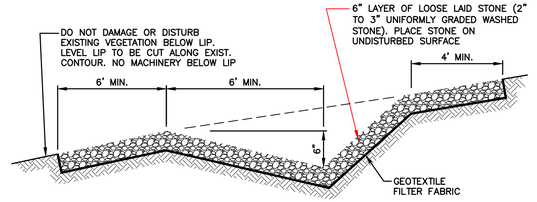
PLAN VIEW

CONSTRUCTION SPECIFICATIONS

1. SPREADERS SHALL BE INSTALLED WITH LEVEL INSTRUMENT, CONSTRUCT LEVEL LIP TO 0% GRADE TO ENSURE UNIFORM SHEET FLOW. LEVEL SPREADER SHALL BE CONSTRUCTED ON UNDISTURBED SOIL (NOT FILL).
2. SELECT GEOTEXTILE FABRIC BASED ON UNDISTURBED SOILS (SAND, SILTS, CLAY, ETC.)
3. PLACE 6" LAYER OF UNIFORMLY GRADED STONE 2" TO 3" IN DIAMETER. TAKE TO FORM SMOOTH UNIFORM SURFACE. DO NOT FILL VOIDS IN STONE.
4. THE INLET DITCH SHALL NOT EXCEED A 1% GRADE FOR AT LEAST 20 FEET BEFORE ENTERING THE SPREADER.
5. STORM RUN-OFF CONVERTED TO SHEET FLOW ACROSS OUTLET APRON SHALL FLOW ONTO STABILIZED AREA. RUN-OFF SHALL NOT BE RECONCENTRATED IMMEDIATELY BELOW THE POINT OF DISCHARGE.
6. CONSTRUCTION OF LEVEL LIP SPREADER SHALL BE UPHILL SIDE ONLY. LEVEL LIP AND AREA BELOW SPREADER SHALL BE AT EXISTING GRADE AND UNDISTURBED BY EARTHWORK OR EQUIPMENT.
7. CONSTRUCT SPREADER WITH LIP AT EXISTING ELEVATION AS SPECIFIED.
8. DOWN GRADIENT RECEIVING AREA MUST BE NATURALLY WELL VEGETATED.

MAINTENANCE NOTES:

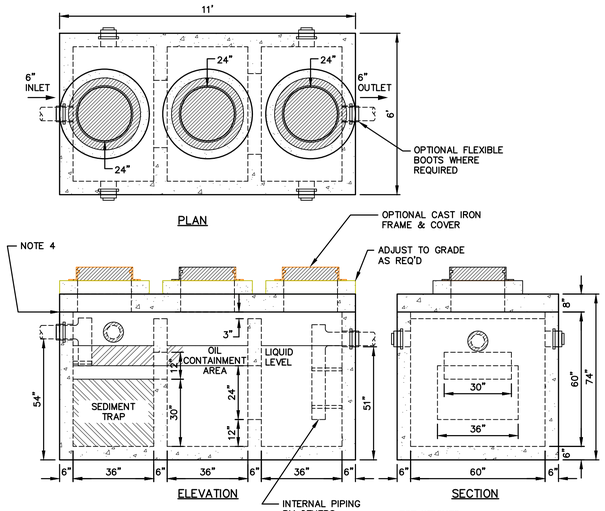
1. THE LEVEL SPREADER SHOULD BE CHECKED PERIODICALLY AND AFTER EVERY MAJOR STORM TO DETERMINE IF THE LIP HAS BEEN DAMAGED AND TO DETERMINE THAT THE DESIGN CONDITIONS HAVE NOT CHANGED.
2. ANY DETRIMENTAL ACCUMULATION OF SEDIMENTS SHOULD BE REMOVED.
3. IF RILLING HAS TAKEN PLACE ON THE LIP, THEN THE DAMAGE SHOULD BE REPAIRED AND RE-VEGETATED.
4. THE VEGETATION SHOULD BE MOWED OCCASIONALLY TO CONTROL WEEDS AND THE ENCROACHMENT OF WOODY VEGETATION. CLIPPINGS SHOULD BE REMOVED AND DISPOSED OF OUTSIDE THE SPREADER AND AWAY FROM THE OUTLET AREA.



CROSS SECTION

STONE LINED LEVEL SPREADER

NOT TO SCALE



GENERAL NOTES

1. CONCRETE: FC = 5,000 PSI @ 28 DAYS MINIMUM TYPE III CEMENT
2. STEEL REINFORCEMENT CONFORMS TO LATEST ASTM SPECIFICATIONS: ASTM-A615 GRADE 60 BLACK DEFORMED BARS
3. DESIGN LOADING: AASHTO-HS20-44 DESIGN SPECIFIED AS ACI 318-08, AASHTO-1992
4. BUTYL RUBBER JOINT SEALANT PROVIDED
5. FLEXIBLE SLEEVES PROVIDED ALL PIPE CONNECTIONS
6. PIPE SIZES AND COMPARTMENT CONFIGURATIONS PER JOB SPECIFICATIONS

EST WEIGHTS:

TOP SLAB -	6,500 LBS
BASE -	20,500 LBS
TOTAL:	27,000 LBS

1,500 GALLON 3-COMPARTMENT HS-20 OIL & SEDIMENT SEPARATOR (PHOENIX PRECAST PRODUCTS)

NOT TO SCALE

No.	DATE	DESCRIPTION	DESIGNER	REVIEWER
3.	6/20/2019	TAC SUBMITTAL	JVA/DAD	RRL
2.	5/20/2019	TAC SUBMITTAL	JVA/DAD	RRL
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STATE OF NEW HAMPSHIRE - PROFESSIONAL ENGINEER - RICHARD LUNDBORN No. 10943 LICENSED

SCALE: HORZ.: NTS VERT.:
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CATE STREET DEVELOPMENT, LLC

DRAINAGE DETAILS

CATE STREET/ WEST END YARDS
PORTSMOUTH NEW HAMPSHIRE

PROJ. No.: 20180317.A10
DATE: 06/20/2019

CD-511

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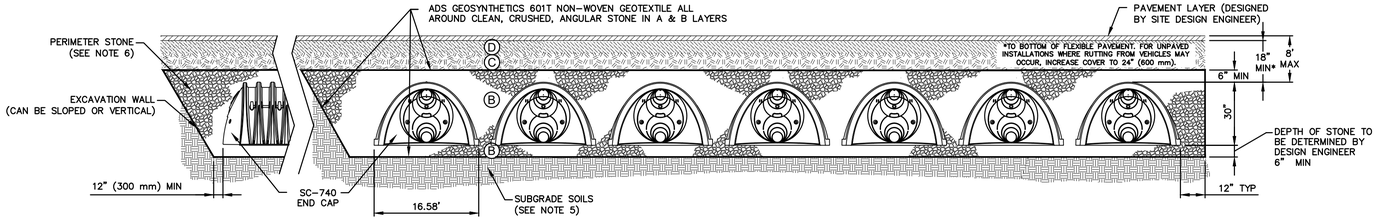
MS VIEW: LAYER STATE: Plotter: DWG TO PDF.PC3 CTB File: FO.STB

	MATERIAL LOCATION	DESCRIPTION	AASHTO MATERIAL CLASSIFICATIONS	COMPACTION / DENSITY REQUIREMENT
D	**FINAL FILL:** FILL MATERIAL FOR LAYER 'D' STARTS FROM THE TOP OF THE 'C' LAYER TO THE BOTTOM OF FLEXIBLE PAVEMENT OR UNPAVED FINISHED GRADE ABOVE. NOTE THAT PAVEMENT SUBBASE MAY BE PART OF THE 'D' LAYER	ANY SOIL/ROCK MATERIALS, NATIVE SOILS, OR PER ENGINEER'S PLANS. CHECK PLANS FOR PAVEMENT SUBGRADE REQUIREMENTS.	N/A	PREPARE PER SITE DESIGN ENGINEER'S PLANS. PAVED INSTALLATIONS MAY HAVE STRINGENT MATERIAL AND PREPARATION REQUIREMENTS.
C	**INITIAL FILL:** FILL MATERIAL FOR LAYER 'C' STARTS FROM THE TOP OF THE EMBEDMENT STONE ('B' LAYER) TO 18" (450 mm) ABOVE THE TOP OF THE CHAMBER. NOTE THAT PAVEMENT SUBBASE MAY BE A PART OF THE 'C' LAYER.	GRANULAR WELL-GRADED SOIL/AGGREGATE MIXTURES, <35% FINES OR PROCESSED AGGREGATE. MOST PAVEMENT SUBBASE MATERIALS CAN BE USED IN LIEU OF THIS LAYER.	AASHTO M145[1] A-1, A-2-4, A-3 OR AASHTO M43[1] 3, 357, 4, 467, 5, 56, 57, 6, 67, 68, 7, 78, 8, 89, 9, 10	BEGIN COMPACTIONS AFTER 12" (300 mm) OF MATERIAL OVER THE CHAMBERS IS REACHED. COMPACT ADDITIONAL LAYERS IN 6" (150 mm) MAX LIFTS TO A MIN. 95% PROCTOR DENSITY FOR WELL GRADED MATERIAL AND 95% RELATIVE DENSITY FOR PROCESSED AGGREGATE MATERIALS. ROLLER GROSS VEHICLE WEIGHT NOT TO EXCEED 12,000 lbs (53 kN). DYNAMIC FORCE NOT TO EXCEED 20,000 lbs (89 kN).
B	**EMBEDMENT STONE:** FILL SURROUNDING THE CHAMBERS FROM THE FOUNDATION STONE ('A' LAYER) TO THE 'C' LAYER ABOVE.	CLEAN, CRUSHED, ANGULAR STONE, NOMINAL SIZE DISTRIBUTION BETWEEN 3/4-2 INCH (20-50 mm)	AASHTO M43[1] 3, 357, 4, 467, 5, 56, 57	NO COMPACTION REQUIRED.
A	**FOUNDATION STONE:** FILL BELOW CHAMBERS FROM THE SUBGRADE UP TO THE FOOT (BOTTOM) OF THE CHAMBER.	CLEAN, CRUSHED, ANGULAR STONE, NOMINAL SIZE DISTRIBUTION BETWEEN 3/4-2 INCH (20-50 mm)	AASHTO M43[1] 3, 357, 4, 467, 5, 56, 57	PLATE COMPACT OR ROLL TO ACHIEVE A FLAT SURFACE. [2,3]

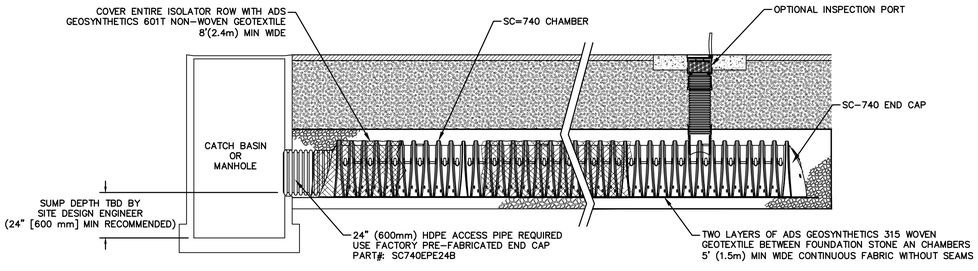
PLEASE NOTE:
1. THE LISTED AASHTO DESIGNATIONS ARE FOR GRADATIONS ONLY. THE STONE MUST ALSO BE CLEAN, CRUSHED, ANGULAR. FOR EXAMPLE, A SPECIFICATION FOR #4 STONE WOULD STATE: "CLEAN, CRUSHED, ANGULAR NO. 4 (AASHTO M43) STONE".
2. STORMTECH COMPACTION REQUIREMENTS ARE MET FOR 'A' LOCATION MATERIALS WHEN PLACED AND COMPACTED IN 6" (150 mm) (MAX) LIFTS USING TWO FULL COVERAGES WITH A VIBRATORY COMPACTOR.
3. WHERE INFILTRATION SURFACES MAY BE COMPROMISED BY COMPACTION, FOR STANDARD DESIGN LOAD CONDITIONS, A FLAT SURFACE MAY BE ACHIEVED BY RAKING OR DRAGGING WITHOUT COMPACTION EQUIPMENT. FOR SPECIAL LOAD DESIGNS, CONTACT STORMTECH FOR COMPACTION REQUIREMENTS.



SC-740 SECTION VIEW

NOTES:

1. SC-740 CHAMBERS SHALL CONFORM TO THE REQUIREMENTS OF ASTM F2418 "STANDARD SPECIFICATION FOR POLYPROPYLENE (PP) CORRUGATED WALL STORMWATER COLLECTION CHAMBERS", OR ASTM F2922 "STANDARD SPECIFICATION FOR POLYETHYLENE (PE) CORRUGATED WALL STORMWATER COLLECTION CHAMBERS".
2. SC-740 CHAMBERS SHALL BE DESIGNED IN ACCORDANCE WITH ASTM F2787 "STANDARD PRACTICE FOR STRUCTURAL DESIGN OF THERMOPLASTIC CORRUGATED WALL STORMWATER COLLECTION CHAMBERS".
3. "ACCEPTABLE FILL MATERIALS" TABLE ABOVE PROVIDES MATERIAL LOCATIONS, DESCRIPTIONS, GRADATIONS, AND COMPACTION REQUIREMENTS FOR FOUNDATION, EMBEDMENT, AND FILL MATERIALS.
4. THE "SITE DESIGN ENGINEER" REFERS TO THE ENGINEER RESPONSIBLE FOR THE DESIGN AND LAYOUT OF THE STORMTECH CHAMBERS FOR THIS PROJECT.
5. THE SITE DESIGN ENGINEER IS RESPONSIBLE FOR ASSESSING THE BEARING RESISTANCE (ALLOWABLE BEARING CAPACITY) OF THE SUBGRADE SOILS AND THE DEPTH OF FOUNDATION STONE WITH CONSIDERATION FOR THE RANGE OF EXPECTED SOIL MOISTURE CONDITIONS.
6. PERIMETER STONE MUST BE EXTENDED HORIZONTALLY TO THE EXCAVATION WALL FOR BOTH VERTICAL AND SLOPED EXCAVATION WALLS.
7. ONCE LAYER 'C' IS PLACED, ANY SOIL/MATERIAL CAN BE PLACED IN LAYER 'D' UP TO THE FINISHED GRADE. MOST PAVEMENT SUBBASE SOILS CAN BE USED TO REPLACE THE MATERIAL REQUIREMENTS OF LAYER 'C' OR 'D' AT THE SITE DESIGN ENGINEER'S DISCRETION.



SC-740 ISOLATOR ROW DETAIL

INSPECTION & MAINTENANCE

STEP 1) INSPECT ISOLATOR ROW FOR SEDIMENT
- A. INSPECTION PORTS (IF PRESENT)
  - A.1. REMOVE/OPEN LID ON NYLOPLAST INLINE DRAIN
  - A.2. REMOVE AND CLEAN FLEXSTORM FILTER IF INSTALLED
  - A.3. USING A FLASHLIGHT AND STADIA ROD, MEASURE DEPTH OF SEDIMENT AND RECORD ON MAINTENANCE LOG
  - A.4. LOWER A CAMERA INTO ISOLATOR ROW FOR VISUAL INSPECTION OF SEDIMENT LEVELS (OPTIONAL)
  - A.5. IF SEDIMENT IS AT, OR ABOVE, 3" (80 mm) PROCEED TO STEP 2. IF NOT, PROCEED TO STEP 3.
- B. ALL ISOLATOR ROWS
  - B.1. REMOVE COVER FROM STRUCTURE AT UPSTREAM END OF ISOLATOR ROW
  - B.2. USING A FLASHLIGHT, INSPECT DOWN THE ISOLATOR ROW THROUGH OUTLET PIPE
    - i) MIRRORS ON POLES OR CAMERAS MAY BE USED TO AVOID A CONFINED SPACE ENTRY
    - II) FOLLOW OSHA REGULATIONS FOR CONFINED SPACE ENTRY IF ENTERING MANHOLE
  - B.3. IF SEDIMENT IS AT, OR ABOVE, 3" (80 mm) PROCEED TO STEP 2. IF NOT, PROCEED TO STEP 3.

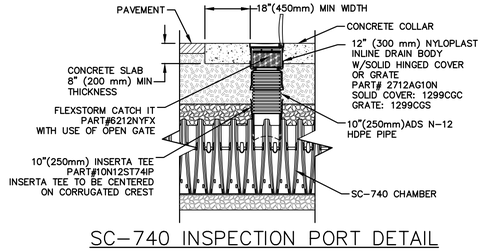
STEP 2) CLEAN OUT ISOLATOR ROW USING THE JETVAC PROCESS
- A. A FIXED CULVERT CLEANING NOZZLE WITH REAR FACING SPREAD OF 45" (1.1 m) OR MORE IS PREFERRED
- B. APPLY MULTIPLE PASSES OF JETVAC UNTIL BACKFLUSH WATER IS CLEAN
- C. VACUUM STRUCTURE SUMP AS REQUIRED

STEP 3) REPLACE ALL COVERS, GRATES, FILTERS, AND LIDS; RECORD OBSERVATIONS AND ACTIONS.

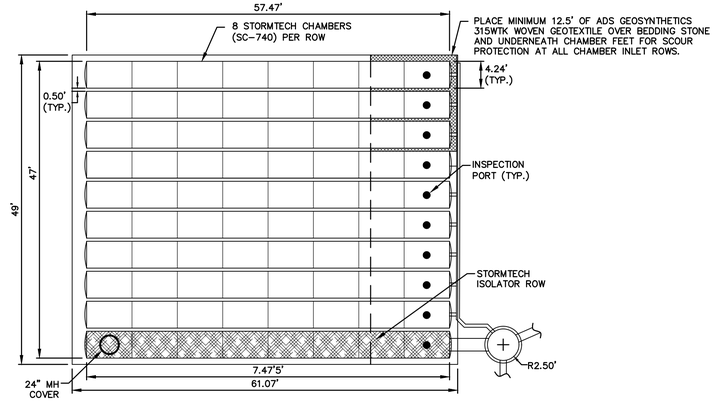
STEP 4) INSPECT AND CLEAN BASINS AND MANHOLES UPSTREAM OF THE STORMTECH SYSTEM.

NOTES

1. INSPECT EVERY 6 MONTHS DURING THE FIRST YEAR OF OPERATION. ADJUST THE INSPECTION INTERVAL BASED ON PREVIOUS OBSERVATIONS OF SEDIMENT ACCUMULATION AND HIGH WATER ELEVATIONS.
2. CONDUCT JETTING AND VACTORING ANNUALLY OR WHEN INSPECTION SHOWS THAT MAINTENANCE IS NECESSARY.

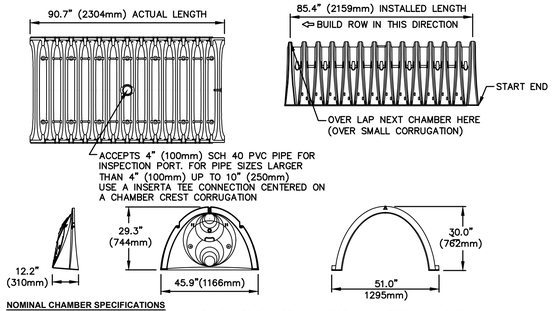


SC-740 INSPECTION PORT DETAIL



SC-740 PLAN VIEW

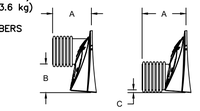
SC-740 TECHNICAL SPECIFICATON



NOMINAL CHAMBER SPECIFICATIONS

SIZE (W X H X INSTALLED LENGTH)	51.0" X 30.0" X 85.4"	(1295 mm X 762 mm X 2169 mm)
CHAMBER STORAGE	45.9 CUBIC FEET	(1.30 m³)
MINIMUM INSTALLED STORAGE*	74.9 CUBIC FEET	(2.12 m³)
WEIGHT	75.0 lbs.	(33.6 kg)

*ASSUMES 6" (152 mm) STONE ABOVE, BELOW, AND BETWEEN CHAMBERS



STUBS AT BOTTOM OF END CAP FOR PART NUMBERS ENDING WITH "B"
STUBS AT TOP OF END CAP FOR PART NUMBERS ENDING WITH "T"

PART #	STUB	A	B	C
SC740EPE06T / SC740EPE06TPC	6" (150 mm)	10.9" (277 mm)	18.5" (470 mm)	---
SC740EPE06B / SC740EPE06BPC			---	0.5" (13 mm)
SC740EPE08T / SC740EPE08TPC	8" (200 mm)	12.2" (310 mm)	16.5" (419 mm)	---
SC740EPE08B / SC740EPE08BPC			---	0.6" (15 mm)
SC740EPE10T / SC740EPE10TPC	10" (250 mm)	13.4" (340 mm)	14.5" (368 mm)	---
SC740EPE10B / SC740EPE10BPC			---	0.7" (18 mm)
SC740EPE12T / SC740EPE12TPC	12" (300 mm)	14.7" (373 mm)	12.5" (318 mm)	---
SC740EPE12B / SC740EPE12BPC			---	1.2" (30 mm)
SC740EPE15T / SC740EPE15TPC	15" (375 mm)	18.4" (467 mm)	9.0" (229 mm)	---
SC740EPE15B / SC740EPE15BPC			---	1.3" (33 mm)
SC740EPE18T / SC740EPE18TPC	18" (450 mm)	19.7" (500 mm)	5.0" (127 mm)	---
SC740EPE18B / SC740EPE18BPC			---	1.6" (41 mm)
SC740EPE24B*	24" (600 mm)	18.5" (470 mm)	---	0.1" (3 mm)

ALL STUBS, EXCEPT FOR THE SC74OEPE24B ARE PLACED AT BOTTOM OF END CAP SUCH THAT THE OUTSIDE DIAMETER OF THE STUB IS FLUSH WITH THE BOTTOM OF THE END CAP. FOR ADDITIONAL INFORMATION CONTACT STORMTECH AT 1-888-892-2694.

* FOR THE SC740EPE24B THE 24" (600 mm) STUB LIES BELOW THE BOTTOM OF THE END CAP APPROXIMATELY 1.75" (44 mm). BACKFILL MATERIAL SHOULD BE REMOVED FROM BELOW THE N-12 STUB SO THAT THE FITTING SITS LEVEL.

NOTE: ALL DIMENSIONS ARE NOMINAL

No.	DATE	DESCRIPTION	DESIGNER	REVIEWER
3.	6/20/2019	TAC SUBMITTAL	JVA/DAD	RRL
2.	5/20/2019	TAC SUBMITTAL	JVA/DAD	RRL
1.	3/18/2019	TAC SUBMITTAL	JVA/DAD	RRL

STATE OF NEW HAMPSHIRE – PROFESSIONAL ENGINEER – RICHARD LUNDBORN No. 10943 LICENSED

SCALE: HORZ.: NTS VERT.: | DATUM: HORZ.: VERT.: | 0 GRAPHIC SCALE

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CATE STREET DEVELOPMENT, LLC

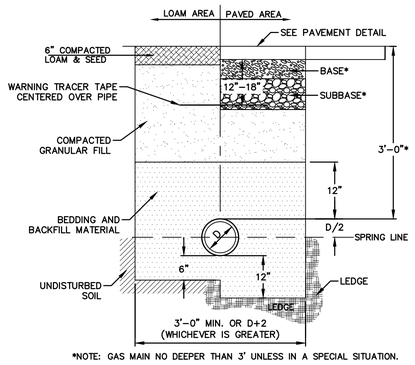
DRAINAGE DETAILS

CATE STREET/ WEST END YARDS

PORTSMOUTH NEW HAMPSHIRE

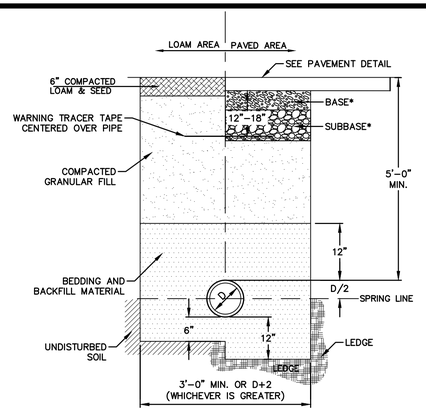
PROJ. No.: 20180317.A10
DATE: 06/20/2019

CD-512



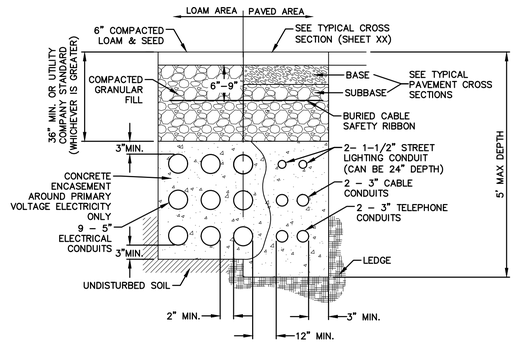
*NOTE: GAS MAIN NO DEEPER THAN 3' UNLESS IN A SPECIAL SITUATION.

GAS TRENCH
NOT TO SCALE



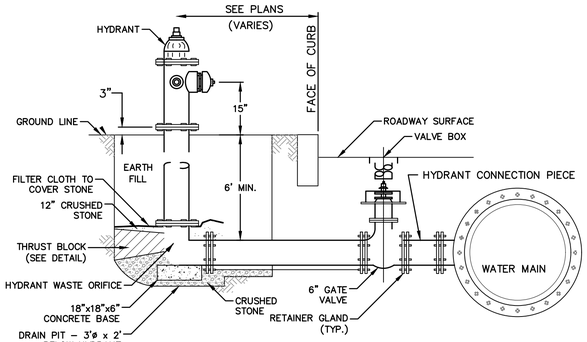
WATER TRENCH SECTION
NOT TO SCALE

NOTES:
1. WATER MAINS SHALL BE CONSTRUCTED USING CITY OF PORTSMOUTH STANDARDS.
2. ANY WATER LINES INSTALLED UNDER GUARD RAIL SHALL BE 3' DEEPER THAN POST DEPTH.



ELECTRICAL AND COMMUNICATION CONDUIT
NOT TO SCALE

1. NUMBER, MATERIAL, AND SIZE OF UTILITY CONDUITS TO BE DETERMINED BY LOCAL OR AS SHOWN ON CONDUIT PLAN.
2. DIMENSIONS SHOWN REPRESENTS OWNER'S MINIMUM REQUIREMENTS. ACTUAL DIMENSIONS MAY BE GREATER BASED ON UTILITY COMPANY STANDARDS, BUT MAY NOT BE LESS THAN SHOWN.
3. NO CONDUIT SHALL EXCEED 360 DEGREES IN TOTAL BENDS.
4. A SUITABLE PULLING STRING, CAPABLE OF 200 POUNDS OF PULL MUST BE INSTALLED IN THE CONDUIT BEFORE UTILITY COMPANY IS NOTIFIED TO INSTALL CABLE. THE STRING SHOULD BE BLOWN INTO THE CONDUIT AFTER THE RUN IS ASSEMBLED TO AVOID BONDING THE STRING TO THE CONDUIT.
5. UTILITY COMPANY MUST BE GIVEN THE OPPORTUNITY TO INSPECT THE CONDUIT PRIOR TO BACKFILL. THE CONTRACTOR IS RESPONSIBLE FOR ALL REPAIRS SHOULD THE UTILITY COMPANY BE UNABLE TO INSTALL ITS CABLE IN A SUITABLE MANNER.
6. ALL CONDUIT INSTALLATIONS MUST CONFORM TO THE CURRENT EDITION OF THE NATIONAL ELECTRIC SAFETY CODE, STATE AND LOCAL CODES AND ORDINANCES, AND, WHERE APPLICABLE, THE NATIONAL ELECTRIC CODE.
7. ALL 90° SWEEPS WILL BE MADE USING RIGID GALVANIZED STEEL. SWEEPS WITH A 35" TO 48" RADIUS.?????



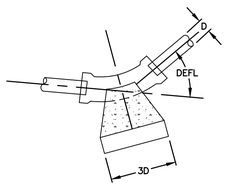
NOTE: HYDRANT AND VALVES TO BE 'OPEN RIGHT (CLOCKWISE)'.

FIRE HYDRANT
NOT TO SCALE

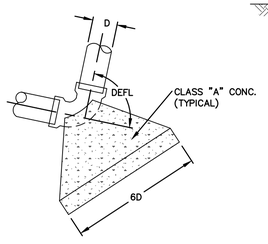
NOTE: HYDRANT INSTALLATION AND OPERATION, MANUFACTURE AND MODEL, AND STANDARD DIMENSIONAL REQUIREMENTS SHALL BE IN ACCORDANCE WITH THE CITY OF PORTSMOUTH WATER DEPARTMENT AND FIRE DEPARTMENT.

PPE DIA. (INCHES)	MINIMUM THRUST BLOCK VOLUME (CUBIC YARDS)
4	0.2
6	0.25
8	0.3
10	0.35
12	0.4
16	0.7

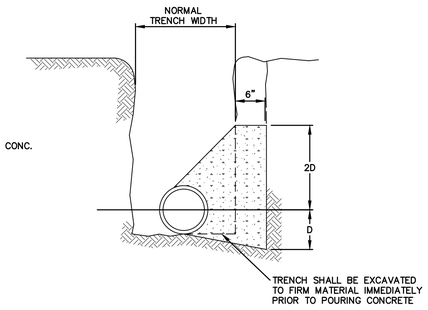
PPE DIA. (INCHES)	MINIMUM THRUST BLOCK VOLUME (CUBIC YARDS)
4	0.25
6	0.3
8	0.5
10	0.7
12	1.0
16	1.6



PLAN ELBOW - DEFL. LESS THAN 50



PLAN ELBOW - DEFL. MORE THAN 50



SECTION

CONCRETE THRUST BLOCKS
NOT TO SCALE

No.	DATE	DESCRIPTION	DESIGNER	REVIEWER
3.	6/20/2019	TAC SUBMITTAL	JVA/DAD	RRL
2.	5/20/2019	TAC SUBMITTAL	JVA/DAD	RRL
1.	3/18/2019	TAC SUBMITTAL	JVA/DAD	RRL

STATE OF NEW HAMPSHIRE - PROFESSIONAL ENGINEER - RICHARD LUNDBORN No. 10943 LICENSED

SCALE: HORZ.: NTS VERT.: DATUM: HORZ.: VERT.: 0 GRAPHIC SCALE

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207.363.0669
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CATE STREET DEVELOPMENT, LLC

WATER & UTILITY DETAILS

CATE STREET/ WEST END YARDS
PORTSMOUTH NEW HAMPSHIRE

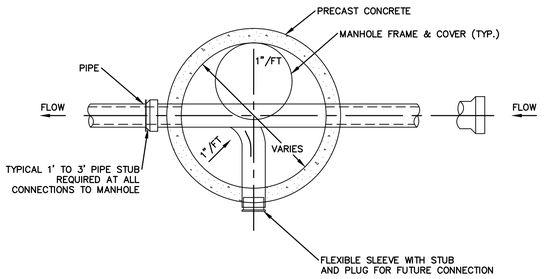
PROJ. No.: 20180317.A10
DATE: 06/20/2019

CD-520

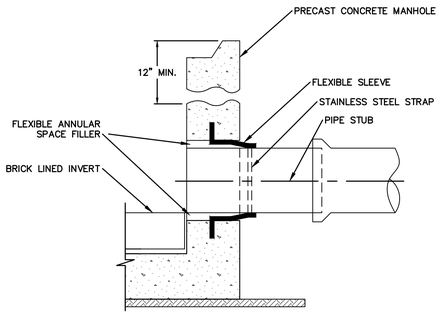
MANHOLE NOTES:

1. INVERT AND SHELF TO BE PLACED AFTER LEAKAGE TEST.
2. CARE SHALL BE TAKEN TO ENSURE THAT THE BRICK INVERT IS A SMOOTH CONTINUATION OF THE SEWER INVERT.
3. INVERT BRICK SHALL BE LAID ON EDGE
4. BITUMINOUS WATERPROOF COATING TO BE APPLIED TO ENTIRE EXTERIOR OF MANHOLE.
5. MANHOLE FRAME AND COVER SHALL BE JORDAN IRONWORKS HINGE COVER PER CITY OF PORTSMOUTH STANDARD.
6. HORIZONTAL JOINTS SHALL BE SEALED FOR WATER TIGHTNESS USING A DOUBLE ROW OF ELASTOMERIC PR MASTIC-LIKE SEALANT.
7. BARREL AND CONE SECTIONS SHALL BE PRECAST REINFORCED CONCRETE DESIGNED FOR H20 LOADING, AND CONFORMING TO ASTM C478-06.
8. INTERIOR OF SEWER MANHOLES SHALL BE LINED IN ACCORDANCE WITH SECTION 33 01 30.63.

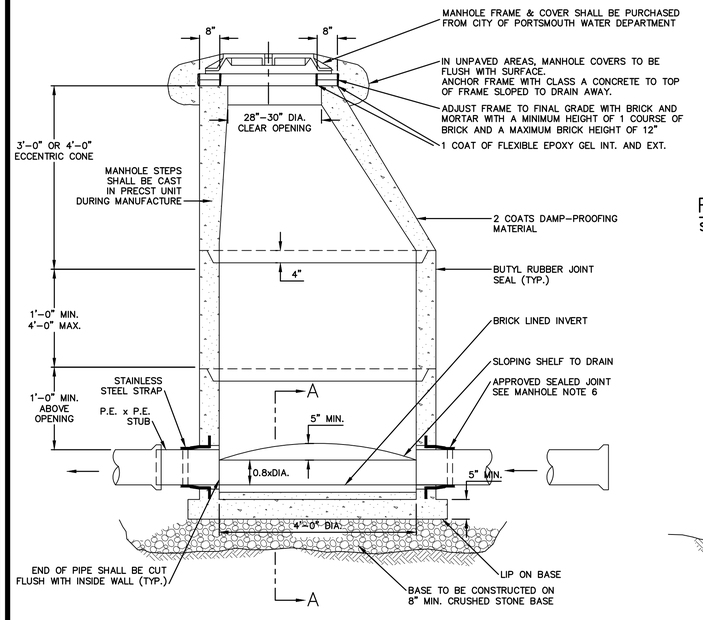
MANHOLE NOTES
SCALE: N.T.S.

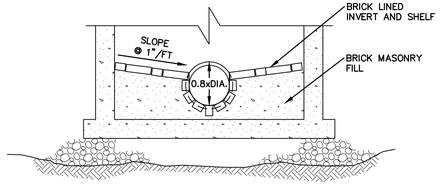


MANHOLE PLAN VIEW
SCALE: N.T.S.



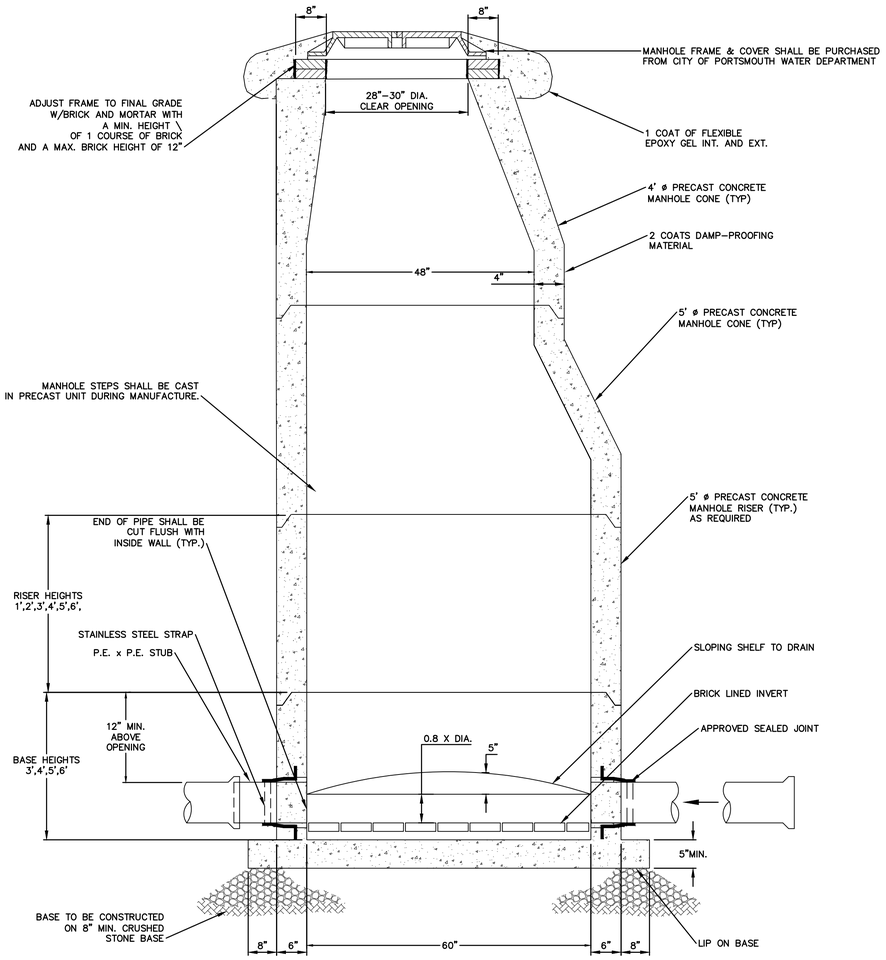
FLEXIBLE SLEEVE
SCALE: N.T.S.





SECTION A-A

4' PRECAST MANHOLE
SCALE: N.T.S.



5' PRECAST MANHOLE
SCALE: N.T.S.

No.	DATE	DESCRIPTION	DESIGNER	REVIEWER
3.	6/20/2019	TAC SUBMITTAL	JVA/DAD	RRL
2.	5/20/2019	TAC SUBMITTAL	JVA/DAD	RRL
1.	3/18/2019	TAC SUBMITTAL	JVA/DAD	RRL

STATE OF NEW HAMPSHIRE – PROFESSIONAL ENGINEER – RICHARD LUNDBORN No. 10943 LICENSED

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SEWER DETAILS
CATE STREET/ WEST END YARDS
PORTSMOUTH NEW HAMPSHIRE

PROJ. No.: 20180317.A10
DATE: 06/20/2019

CD-530

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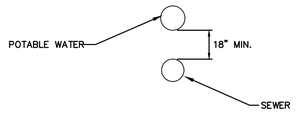
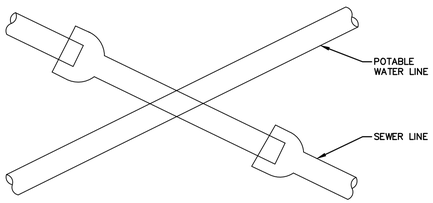


SECTION VIEW

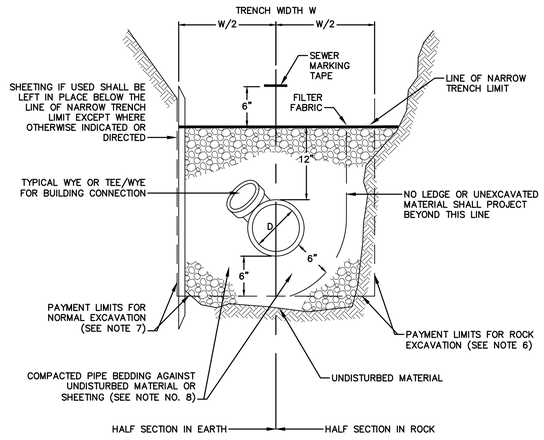


PLAN VIEW

SEWER AND WATER CROSSING NOTES

1. SEWER JOINTS SHALL BE EQUIDISTANT FROM AND LOCATED AS FAR AS POSSIBLE AWAY FROM THE WATER LINE
2. IF THE VERTICAL SEPARATION BETWEEN THE BOTTOM OF THE WATER MAIN AND THE TOP OF THE SEWER IS LESS THAN 18 INCHES (WATER MAIN IS ABOVE SEWER), USE ONE OF THE FOLLOWING PROCEDURES: A) THE WATER MAIN SHALL BE RECONSTRUCTED FOR A DISTANCE OF 10 FEET ON EACH SIDE OF SEWER WITH RUBBER-GASKETED MECHANICAL JOINT PIPE ONE FULL LENGTH WATER MAIN SHOULD BE CENTERED OVER SEWER, B) CONSTRUCT BOTH THE WATER & SEWER PIPE OF RUBBER-GASKETED, CEMENT-LINED DUCTILE IRON PIPE OR EQUIVALENT AND PRESSURE TEST BOTH PIPES, OR C) ENCASE BOTH PIPES IN CONCRETE.

CROSSING OF SEWER & POTABLE WATER LINES
NOT TO SCALE



TYPICAL SEWER TRENCH
NOT TO SCALE

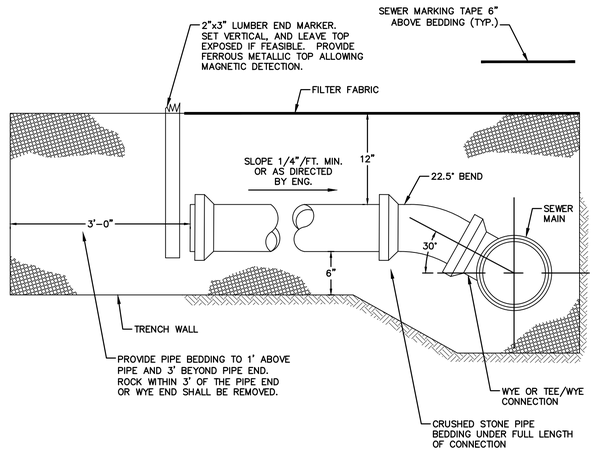
SANITARY SEWER PIPE TRENCH NOTES

1. DEPTH OF SEWER SHALL BE AS SHOWN ON DRAWINGS.
2. SEWER TRENCHES MAY BE EXCAVATED WIDER THAN TRENCH WIDTH W ABOVE THE "LINE OF NARROW TRENCH LIMIT." AT THE CONTRACTORS EXPENSE.
3. BELOW THE "LINE OF NARROW TRENCH LIMIT" THE TRENCH SHALL NOT BE EXCAVATED BEYOND THE TRENCH WIDTH W.
4. IF EXCAVATION AND BACKFILL BELOW NORMAL DEPTH IS REQUIRED, SHEETING MAY BE ORDERED.
5. SHEETING, IF USED, IN ALL CASES SHALL BE LEFT IN PLACE BELOW A LINE 1'-0" ABOVE THE TOP OF THE SEWER PIPE, UNLESS OTHERWISE INDICATED OR DIRECTED BY THE ENGINEER.
6. ALL ROCK WITHIN 3'-0" HORIZONTALLY OF THE ENDS OF BUILDING CONNECTIONS, BRANCHES AND STUBS, AND DOWN TO A HORIZONTAL PLANE 6" BELOW THE BOTTOMS OF SUCH ITEMS SHALL BE REMOVED.
7. TRENCH WIDTHS AND PAYMENT LIMIT SHALL BE AS FOLLOWS:

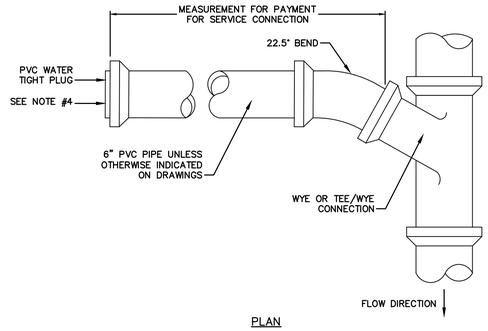
NUMBER OF PIPE IN TRENCH	DIAMETER PIPE "D"	TRENCH WIDTH "W"	PAYMENT LIMIT
ONE	12" AND SMALLER	4'-0"	4'-0"
TWO	12" AND SMALLER	7'-0"	7'-0"

8. WHERE CONCRETE ENCASEMENT IS CALLED FOR BY THE PLANS, OR WHEN DIRECTED BY THE ENGINEER, REPLACE BEDDING AND BACKFILL BELOW THE "LINE OF NARROW TRENCH LIMIT" WITH CLASS "A" CONCRETE.
9. SEWER MARKING TAPE SHALL BE INSTALLED A MINIMUM OF 18" ABOVE THE SANITARY SEWER, FORCE MAIN AND SERVICE CONNECTION PIPE.
10. SANITARY SEWER PIPE AND SERVICE CONNECTION PIPE SHALL HAVE FILTER FABRIC INSTALLED ON TOP OF THE PIPE BEDDING AS SHOWN ON THE DETAILS.

SANITARY SEWER PIPE TRENCH NOTES
SCALE: N.T.S.



ELEVATION

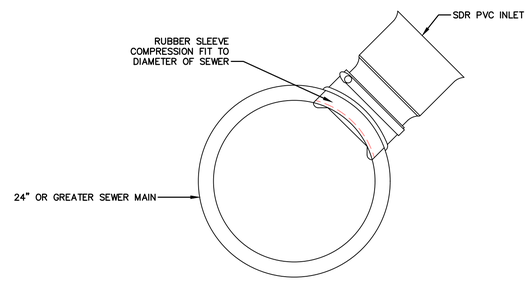


PLAN

SERVICE CONNECTION NOTES

1. NO LEDGE OR UNEXCAVATED MATERIAL SHALL PROJECT WITHIN 6" OF THE PIPE IN ANY DIRECTION
2. EXACT LOCATION AND ELEVATION OF SERVICE CONNECTIONS TO BE DETERMINED AND SET IN THE FIELD DURING CONSTRUCTION
3. EXACT LOCATION OF WYES/TEES, WHERE DIRECTED TO BE INSTALLED, SHALL BE SET IN THE FIELD DURING CONSTRUCTION
4. PROVIDE DI TO PVC TRANSITION COUPLING AT END OF DI SERVICE CONNECTION

SERVICE CONNECTIONS
NOT TO SCALE



INSERTA TEE – SERVICE CONNECTION 24" MAIN & LARGER
N.T.S.

No.	DATE	DESCRIPTION	DESIGNER	REVIEWER
3.	6/20/2019	TAC SUBMITTAL	JVA/DAD	RRL
2.	5/20/2019	TAC SUBMITTAL	JVA/DAD	RRL
1.	3/18/2019	TAC SUBMITTAL	JVA/DAD	RRL

STATE OF NEW HAMPSHIRE – PROFESSIONAL ENGINEER – RICHARD LUNDBORN No. 10943 LICENSED

SCALE: HORZ.: NTS VERT.: DATUM: HORZ.: VERT.: 0 GRAPHIC SCALE

FUSS & O'NEILL
UPPER SQUARE BUSINESS CENTER
5 FLETCHER STREET, SUITE 1
KENNEBUNK, MAINE 04043
207.363.0669
www.fando.com

CATE STREET DEVELOPMENT, LLC
SEWER DETAILS
CATE STREET/ WEST END YARDS
PORTSMOUTH NEW HAMPSHIRE

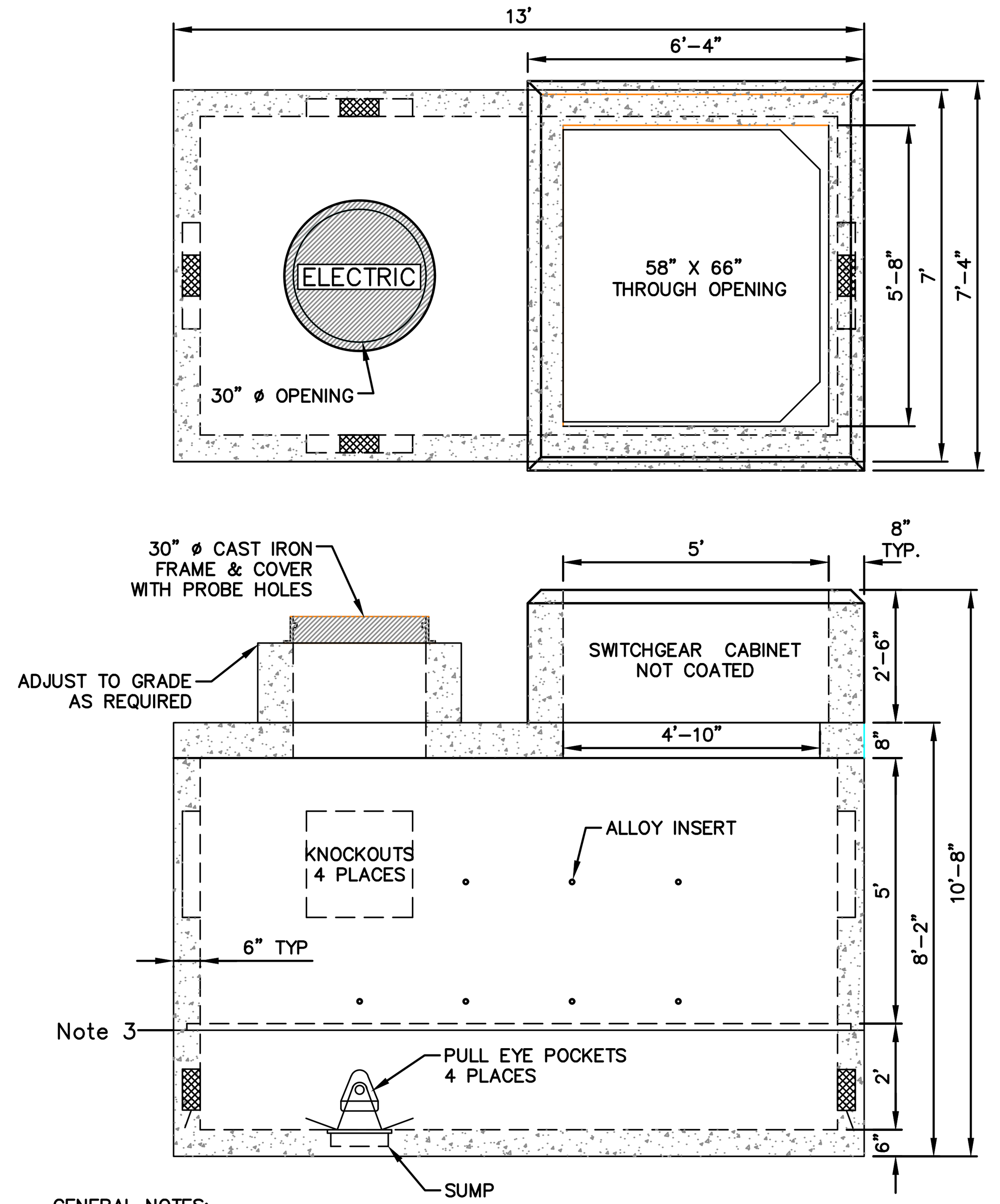
PROJ. No.: 20180317.A10
DATE: 06/20/2019

CD-531

NOTES:

1. ALL PRECAST CONCRETE STRUCTURES TO BE PHOENIX PRECAST PRODUCTS OR EQUAL.

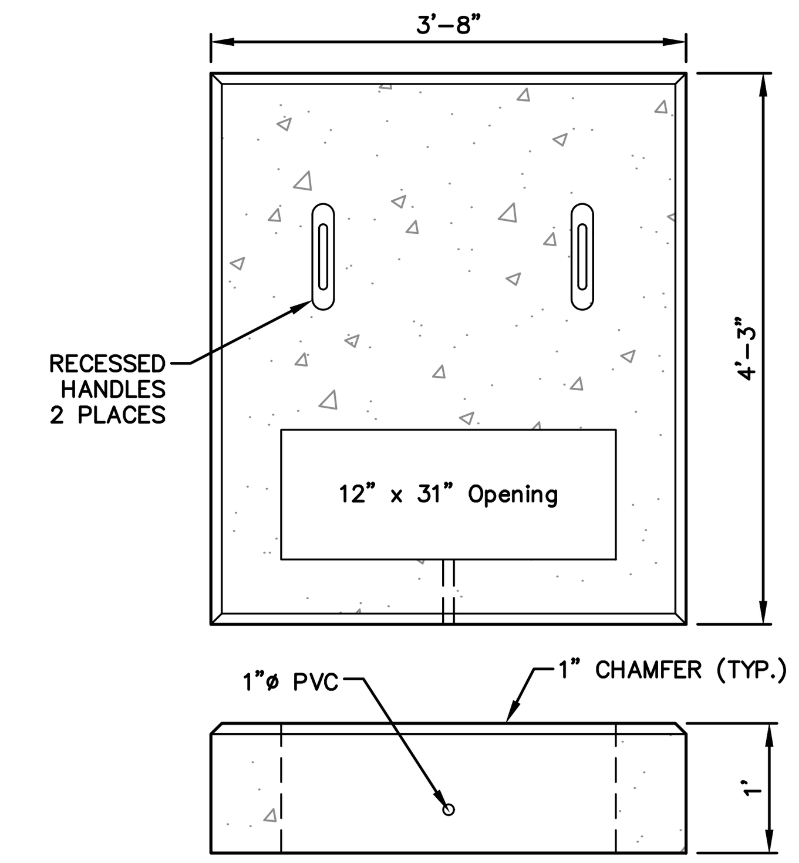
PHOENIX PRECAST PRODUCTS
77 REGIONAL DRIVE
CONCORD, NH 03301
1.800.639.2199
info@phoenixprecast.com



GENERAL NOTES:
1. STEEL REINFORCEMENT CONFORMS TO LATEST ASTM SPECIFICATIONS: ASTM-A615 GRADE 60 REBAR
2. CONCRETE: FC = 5,000 PSI @ 28 DAYS MINIMUM
3. BUTYL RUBBER JOINT SEALANT PROVIDED
4. DESIGN LOADING: AASHTO-HS20-44, ASTM C-890-06
5. DESIGN SPECIFIED AS: ASTM C-1227-08, ASTM C-913-08
6. EXTERIOR COATING PROVIDED EXCEPT SWITCHGEAR CABINET
7. MEETS OR EXCEEDS PSNH DWG # R-10001-2 REV 1

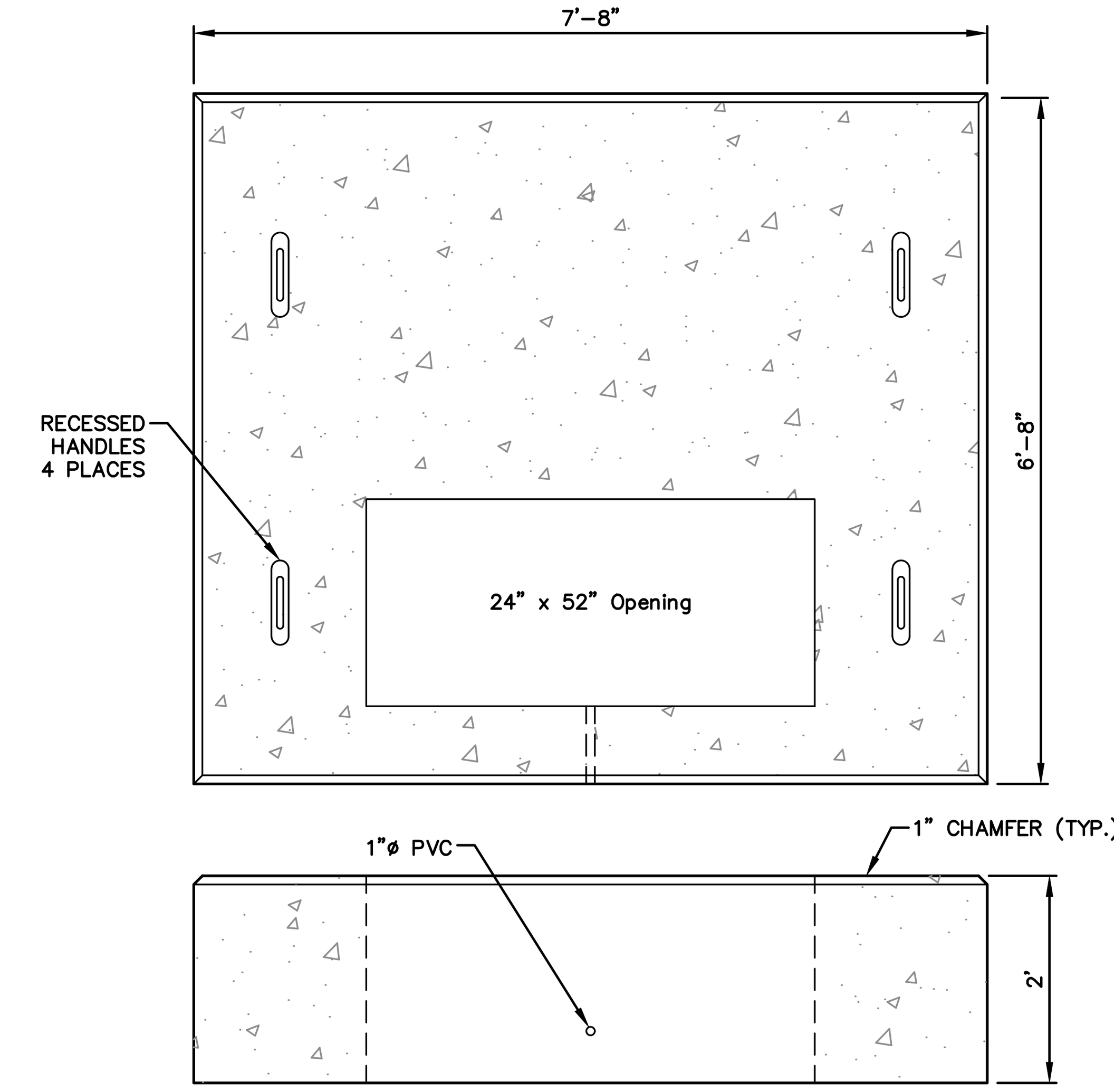
Est. Weights:	
Top Slab:	5,600 Lbs
Riser:	14,080 Lbs
Switchgear Cabinet:	6,750 Lbs
Base:	12,450 Lbs
Total:	32,130 Lbs

EVERSOURCE SWITCHGEAR CABINET ASSEMBLY
NOT TO SCALE



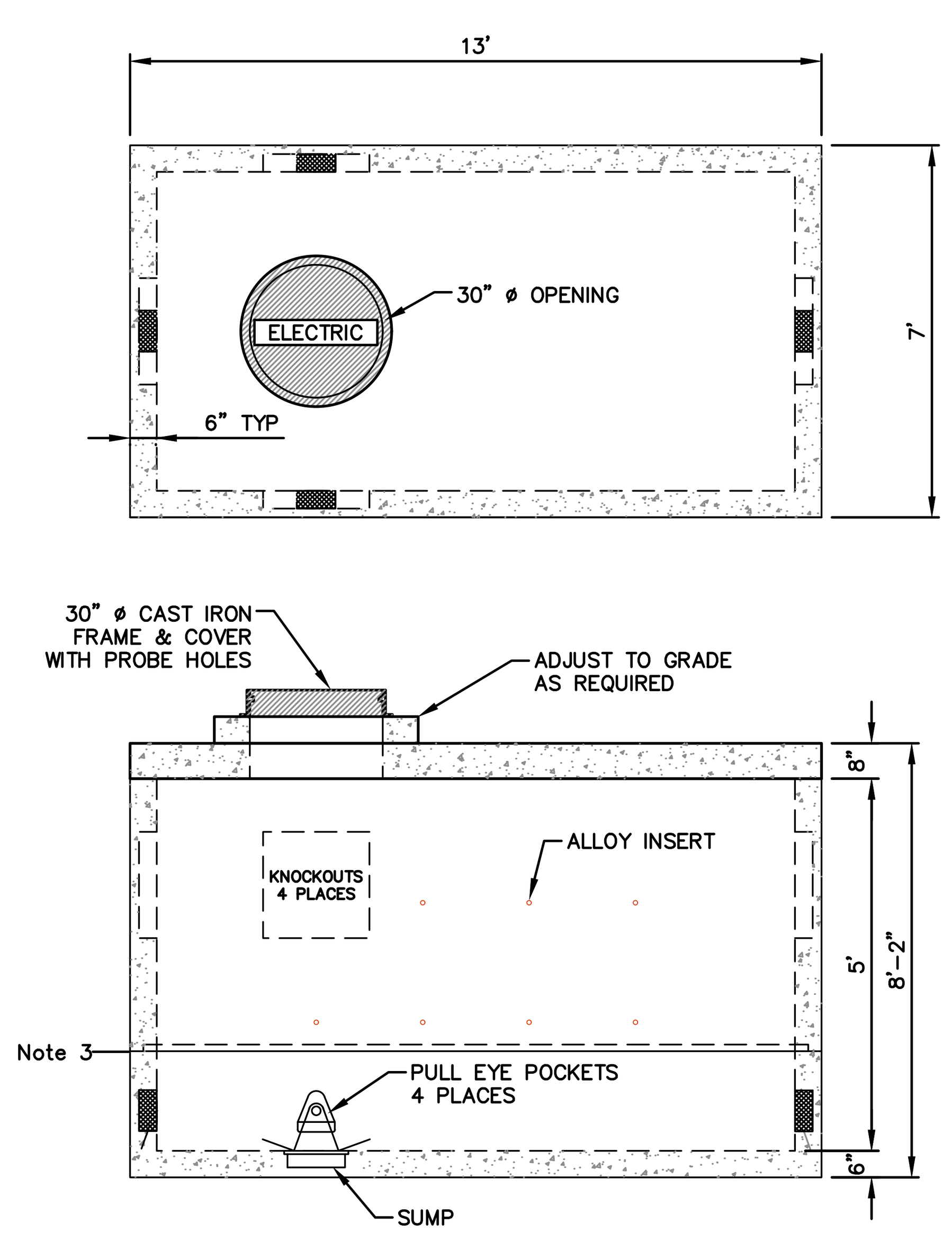
General Notes
1.) Reinforcement Steel Conforms To ASTM A615 Grade 60 #6 Rebar
2.) Concrete: fc = 4,000 psi @ 28 Days Minimum
3.) Meets or Exceeds PSNH Specifications
4.) Est. Weight: 1,950 Lbs

SINGLE-PHASE TRANSFORMER PAD
NOT TO SCALE 25-75 KVA



General Notes
1.) Reinforcement Steel Conforms To ASTM A615 Grade 60 #6 Rebar
2.) Concrete: fc = 4,500 psi @ 28 Days Minimum
3.) Meets or Exceeds PSNH Specifications
4.) Est. Weight: 12,600 Lbs

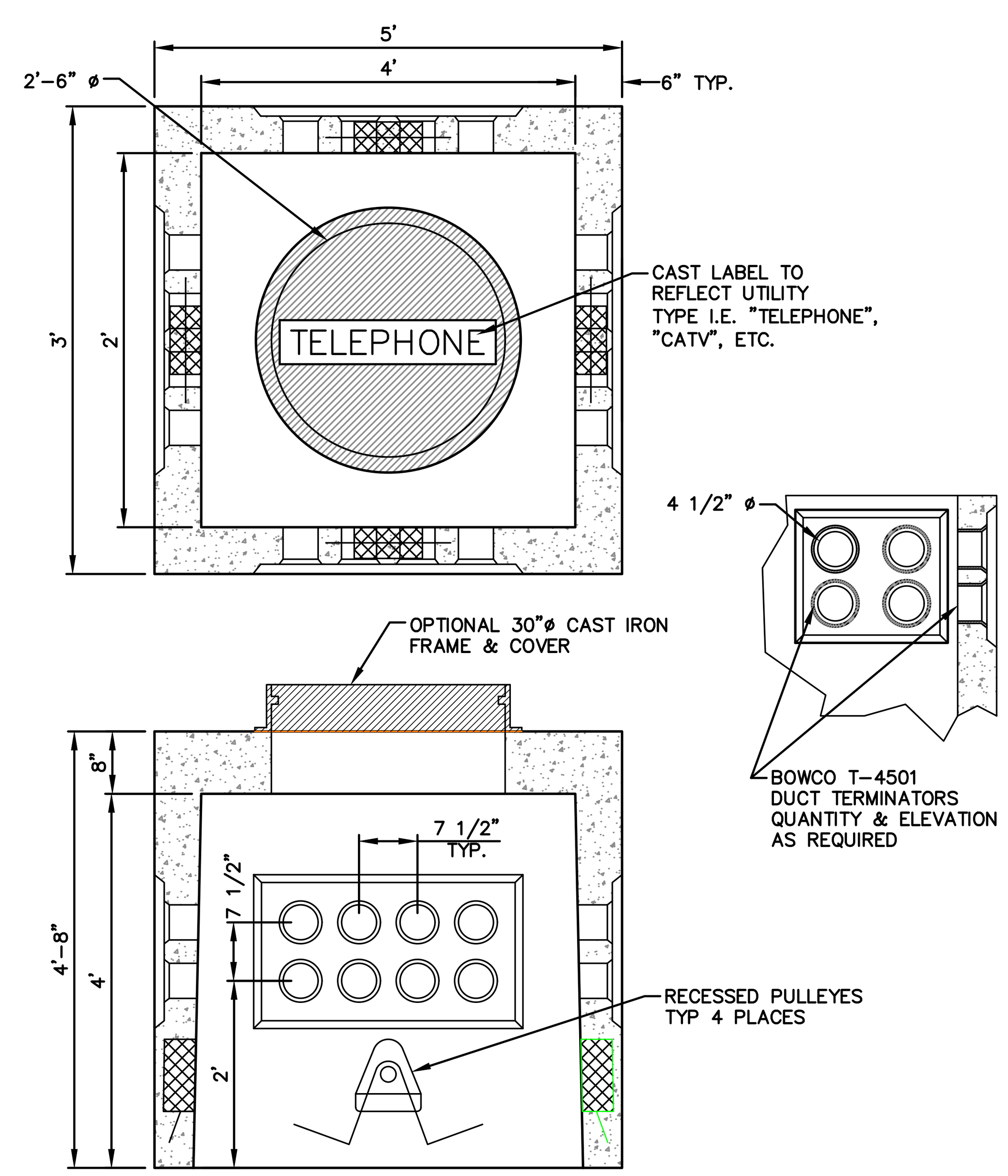
3 PHASE TRANSFORMER PAD
NOT TO SCALE 75-500 KVA



GENERAL NOTES:
1. STEEL REINFORCEMENT CONFORMS TO LATEST ASTM SPECIFICATIONS: ASTM-A615 GRADE 60 REBAR
2. CONCRETE: FC = 5,000 PSI @ 28 DAYS MINIMUM
3. BUTYL RUBBER JOINT SEALANT PROVIDED
4. DESIGN LOADING: AASHTO-HS20-44, ASTM C-890-06
5. DESIGN SPECIFIED AS: ASTM C-1227-08, ASTM C-913-08
6. EXTERIOR COATING PROVIDED
7. MEETS OR EXCEEDS PSNH DWG # R-10001-1

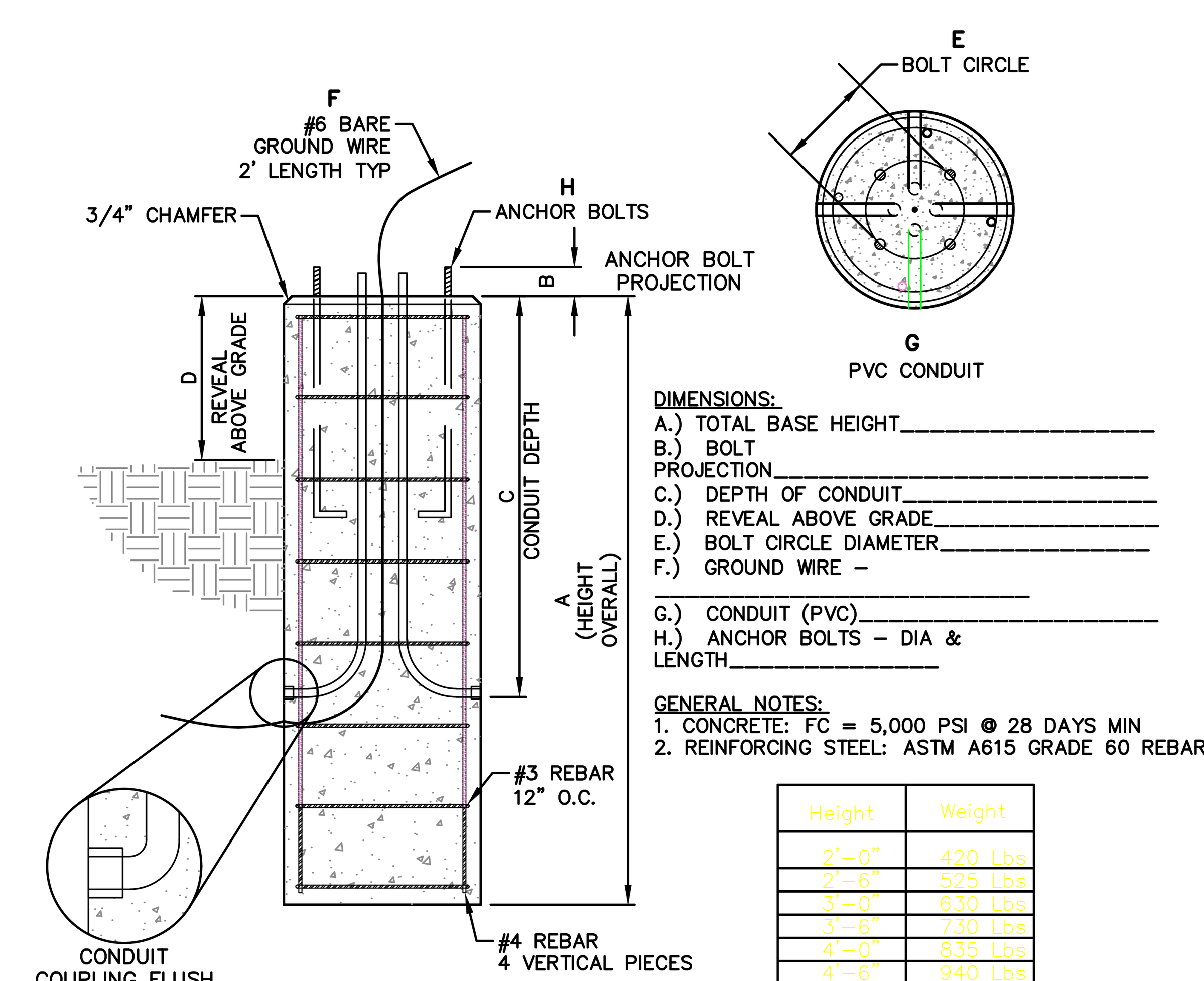
EST. WEIGHTS:	
Top Slab:	8,500 Lbs
Riser:	13,300 Lbs
Base:	12,100 Lbs
Total:	33,900 Lbs

EVERSOURCE MANHOLE ASSEMBLY
NOT TO SCALE



General Notes
1. Concrete: fc = 5,000 psi @ 28 Days Minimum
2. Reinforcing Steel: ASTM-A615 Grade #60
3. Design Loading: AASHTO-HS20-44

4'x4'x4' HANDHOLE
NOT TO SCALE



DIMENSIONS:
A.) TOTAL BASE HEIGHT____________
B.) BOLT PROJECTION____________
C.) DEPTH OF CONDUIT____________
D.) REVEAL ABOVE GRADE____________
E.) BOLT CIRCLE DIAMETER____________
F.) GROUND WIRE -____________
G.) CONDUIT (PVC)____________
H.) ANCHOR BOLTS - DIA & LENGTH____________

GENERAL NOTES:
1. CONCRETE: FC = 5,000 PSI @ 28 DAYS MIN
2. REINFORCING STEEL: ASTM A615 GRADE 60 REBAR

16" ø LIGHT POLE BASE
NOT TO SCALE

No.	DATE	DESCRIPTION	DESIGNER	REVIEWER
3.	6/20/2019	TAC SUBMITTAL	JVA/DAD	RRL
2.	5/20/2019	TAC SUBMITTAL	JVA/DAD	RRL
1.	3/18/2019	TAC SUBMITTAL	JVA/DAD	RRL

STATE OF NEW HAMPSHIRE — RICHARD R. LUNDBORN No. 10943 LICENSED PROFESSIONAL ENGINEER

SCALE: HORZ.: NTS VERT.:
DATUM: HORZ.: VERT.:
GRAPHIC SCALE 0

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UTILITY DETAILS
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PORTSMOUTH NEW HAMPSHIRE

PROJ. No.: 20180317.A10
DATE: 06/20/2019

CD-540

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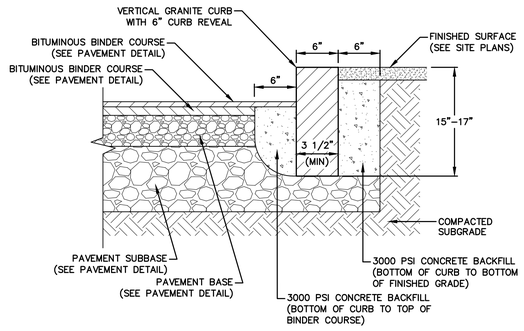
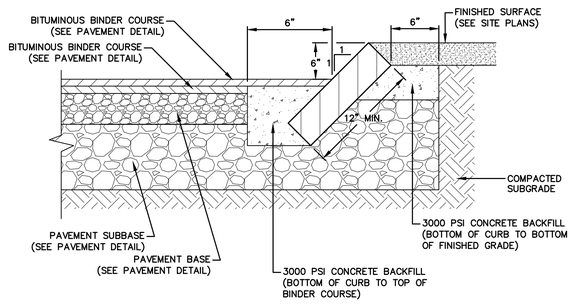


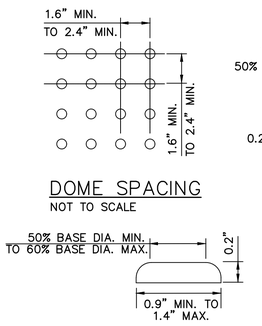
VERTICAL GRANITE CURB INSTALLED

SCALE: NOT TO SCALE



SLOPED GRANITE CURB INSTALLED

SCALE: NOT TO SCALE

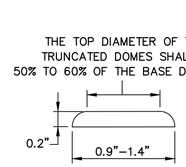


DOME SPACING

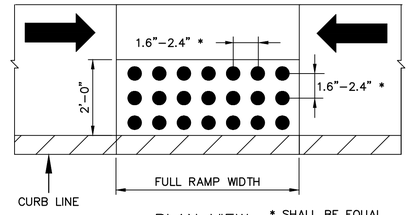
NOT TO SCALE

DOME SECTION

NOT TO SCALE



ELEVATION VIEW



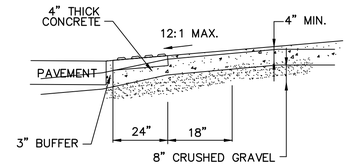
PLAN VIEW

* SHALL BE EQUAL IN BOTH DIRECTIONS

NOTE:
TRUNCATED DOMES SHALL BE CAST IRON. CONFIGURATION SHALL BE APPROVED BY DEPARTMENT OF PUBLIC WORKS.

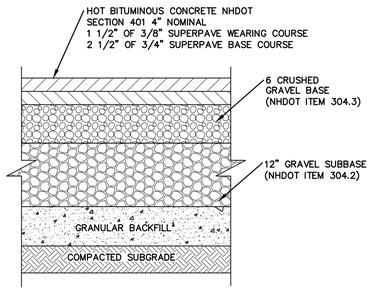
DOME AND DETECTABLE WARNING DETAILS

NOT TO SCALE — TO BE INSTALLED AT ADA WALKWAY TIPDOWNS.



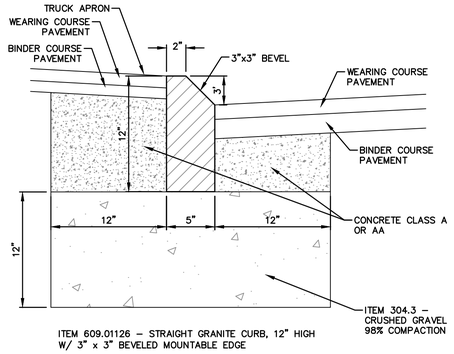
SECTION A–A

NOT TO SCALE



TYPICAL SITE PAVEMENT SECTION

SCALE: NOT TO SCALE

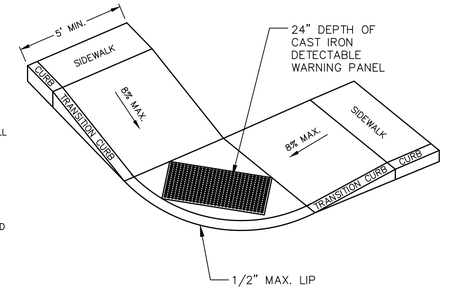


ITEM 609.01126 – STRAIGHT GRANITE CURB, 12" HIGH W/ 3" x 3" BEVELED MOUNTABLE EDGE

MOUNTABLE GRANITE CURB INSTALLED

NOT TO SCALE

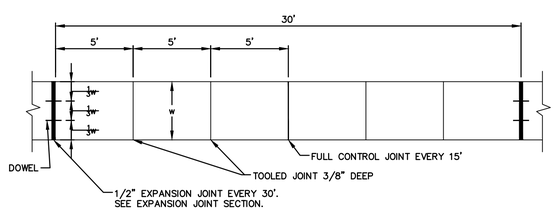
NOTES:
1. MAXIMUM ALLOWABLE ROUTE (SIDEWALK) AND CURB RAMP CROSS SLOPE SHALL BE 1.5%.
2. MAXIMUM ALLOWABLE SLOPE OF ACCESSIBLE ROUTE EXCLUDING CURB RAMPS SHALL BE 5%.
3. MAXIMUM ALLOWABLE SLOPE OF ACCESSIBLE ROUTE CURB RAMPS SHALL BE 8%.
4. MINIMUM OF 4' CLEAR SHALL BE MAINTAINED AT ANY PERMANENT OBSTACLE IN ACCESSIBLE ROUTE (I.E. HYDRANTS, UTILITY POLES, TREE WELL, SIGNS, ETC.)
5. CURB TREATMENT VARIES, SEE PLANS FOR CURB TYPE.
6. BASE OF RAMP SHALL BE GRADED TO PREVENT POUNDING.
7. SEE CONCRETE SIDEWALK DETAIL FOR RAMP CONSTRUCTION.



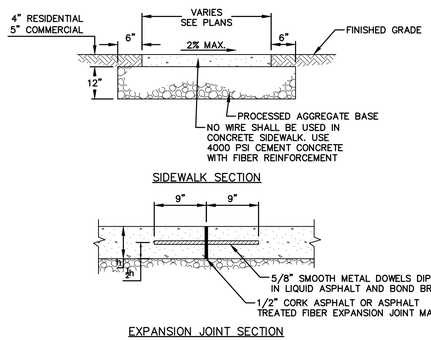
NOTE:
INSTALL DETECTABLE WARNING PANEL ON ALL ACCESSIBLE CURB RAMPS.

ACCESSIBLE CURB RAMP–TYPE C

NOT TO SCALE

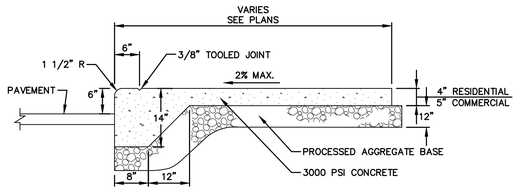


PLAN



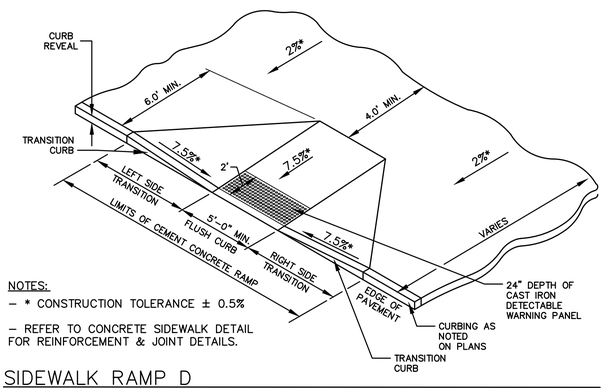
CONCRETE SIDEWALK

SCALE: NOT TO SCALE



MONOLITHIC CONCRETE CURB AND WALK

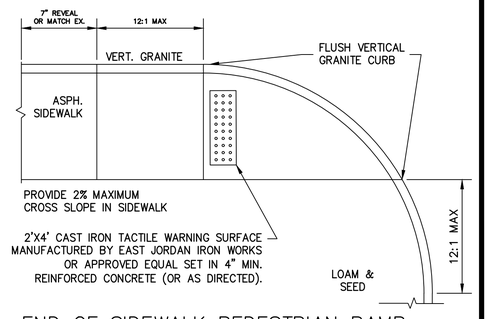
SCALE: NOT TO SCALE



NOTES:
– * CONSTRUCTION TOLERANCE ± 0.5%
– REFER TO CONCRETE SIDEWALK DETAIL FOR REINFORCEMENT & JOINT DETAILS.

SIDEWALK RAMP D

NOT TO SCALE



END OF SIDEWALK PEDESTRIAN RAMP

NOT TO SCALE

No.	DATE	DESCRIPTION	DESIGNER	REVIEWER
3.	6/20/2019	TAC SUBMITTAL	JVA/DAD	RRL
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STATE OF NEW HAMPSHIRE – PROFESSIONAL ENGINEER – RICHARD LUNDBORN No. 10943 LICENSED

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CATE STREET DEVELOPMENT, LLC

SITE DETAILS

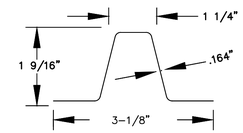
CATE STREET/ WEST END YARDS
PORTSMOUTH NEW HAMPSHIRE

PROJ. No.: 20180317.A10
DATE: 06/20/2019

CD-550

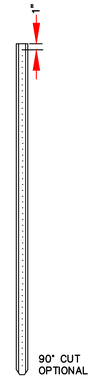
ITEM #	IDENT #	SIZE OF SIGN		TEXT	TEXT DIMENSIONS			SHIELD SIZE (INCH)	ARROW (INCH)	NUMERAL (INCH)	# SIGNS REQ'D	SIGN AREA (SQ. FT.)		POSTS PER SIGN					REMARKS
		WIDTH (INCH)	HEIGHT (INCH)		LETTER HEIGHT (INCH)							NOM AREA	TOTAL AREA	BREAKAWAY	STEEL I-BEAM	CONCRETE BASE	4" OD ALUMINUM	U-CHANNEL GALV	
					UC	LC	CAPS												
	R1-1	30	30	STOP			10C				12	6.25	75.00				1		RED/WHITE

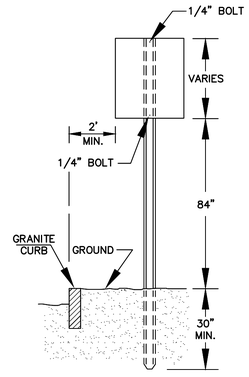
LENGTH: P–12, 12'–0"; P–14, 14'–0"; P–16, 16'–0".
WEIGHT PER LINEAR FOOT: 2.50 LBS. (MIN.)
HOLES: 3/8" DIA. 1" C–C FULL LENGTH
STEEL: SHALL CONFORM TO ASTM A–499 (GRADE 60) OR ASTM A–576 (GRADE 1070–1080).
FINISH: SHALL BE PAINTED WITH TWO COATS OF AN APPROVED MEDIUM GREEN, BAKED ON OR AIR DRIED, PAINT OF WEATHER RESISTANT QUALITY. ALL FABRICATION SHALL BE COMPLETE BEFORE PAINTING.



DIMENSIONS SHOWN ARE NOMINAL

ALTERNATE SECTIONS MUST BE APPROVED PRIOR
ALTERNATE SECTIONS MUST BE APPROVED PRIOR TO USE.





NOTES
1. POSTS SHALL BE PLUMB; ANY POST BENT OR OTHERWISE DAMAGED SHALL BE REMOVED AND PROPERLY REPLACED.
2. POSTS MAY BE SET OF DRIVEN. WHEN POSTS ARE SET, HOLES SHALL BE DUG TO THE PROPER DEPTH; AFTER INSERTING POSTS, THE HOLES SHALL BE BACK FILLED WITH SUITABLE MATERIAL IN LAYERS NOT TO EXCEED A 6" DEPTH, THOROUGHLY COMPACTED.
3. CARE SHALL BE TAKEN TO PRESERVE THE ALIGNMENT OF THE POST. WHEN POSTS ARE DRIVEN, A SUITABLE DRIVING CAP SHALL BE USED AND AFTER DRIVING THE TOP OF THE POST SHALL HAVE SUBSTANTIALLY THE SAME CROSS–SECTIONAL DIMENSION AS THE BODY OF THE POST; BATTERED HEADS WILL NOT BE ACCEPTED.
4. POSTS SHALL NOT BE DRIVEN WITH THE SIGN ATTACHED TO THE POST.
5. SIGNS SHALL BE ERECTED IN CONFORMANCE WITH THE REQUIREMENTS OF THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES".
6. WHEN SIGN IS IN PLACE NO PART OF POST SHALL EXTEND ABOVE THE SIGN.

SIGN POST
NOT TO SCALE

No.	DATE	DESCRIPTION	DESIGNER	REVIEWER
3.	6/20/2019	TAC SUBMITTAL	JVA/DAD	RRL
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STATE OF NEW HAMPSHIRE – PROFESSIONAL ENGINEER – RICHARD LUNDBORN No. 10943 LICENSED

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PROJ. No.: 20180317.A10
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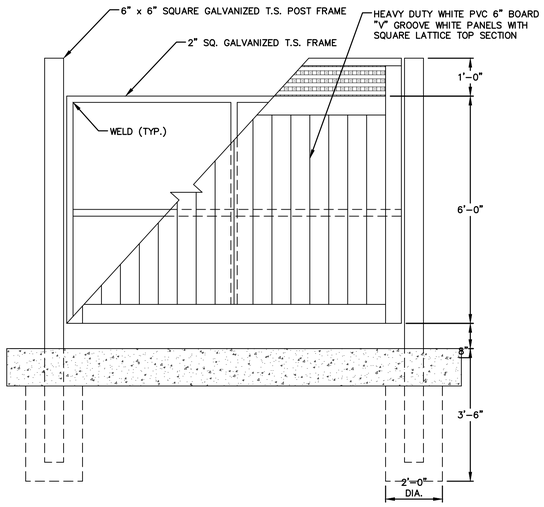
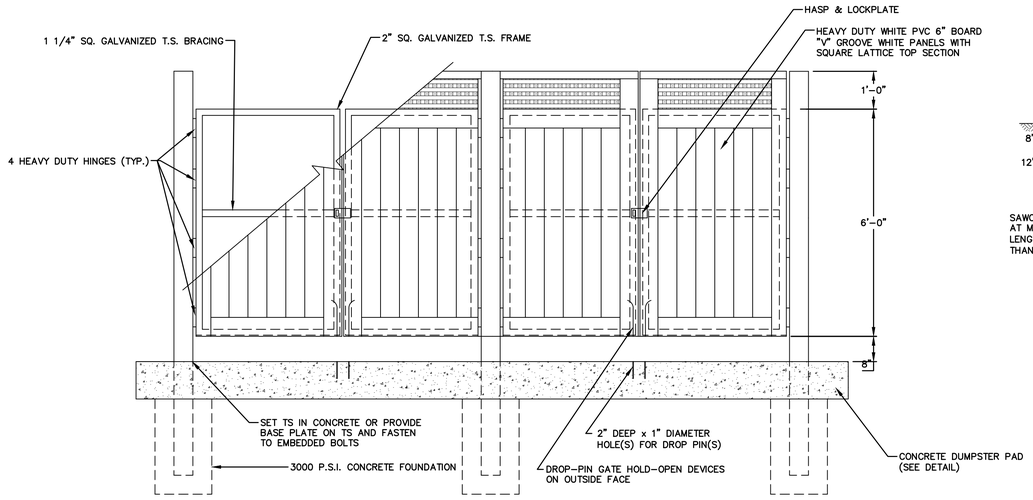
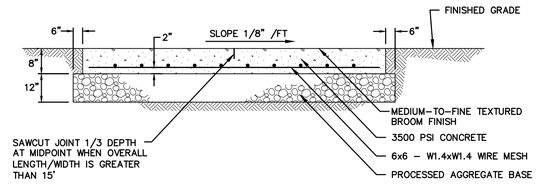
CD-551



SIDE ELEVATION

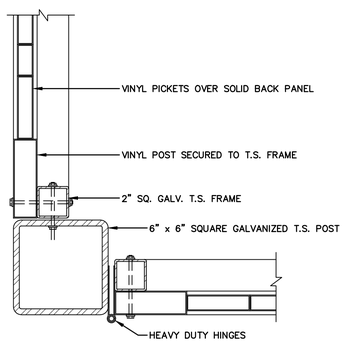


FRONT ELEVATION

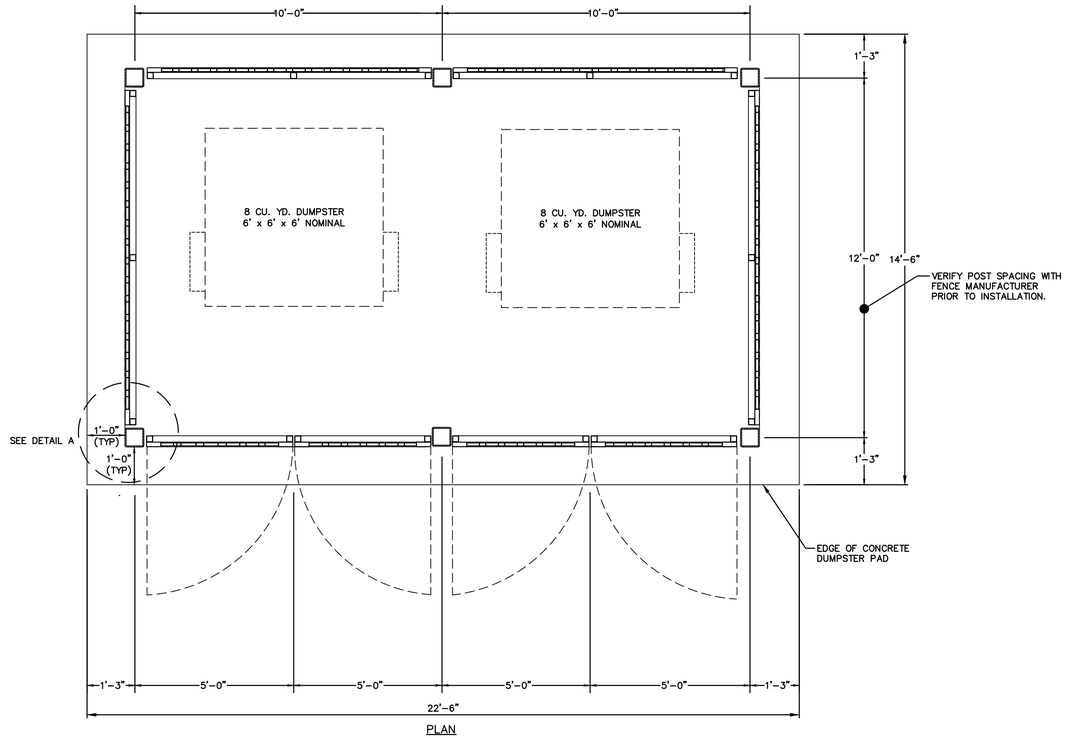


CONCRETE DUMPSTER PAD

NOT TO SCALE



DETAIL A



PLAN

DOUBLE DUMPSTER ENCLOSURE

SCALE: N.T.S.

No.	DATE	DESCRIPTION	DESIGNER	REVIEWER
3.	6/20/2019	TAC SUBMITTAL	JVA/DAD	RRL
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SITE DETAILS

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PORTSMOUTH NEW HAMPSHIRE

PROJ. No.: 20180317.A10
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CD-552

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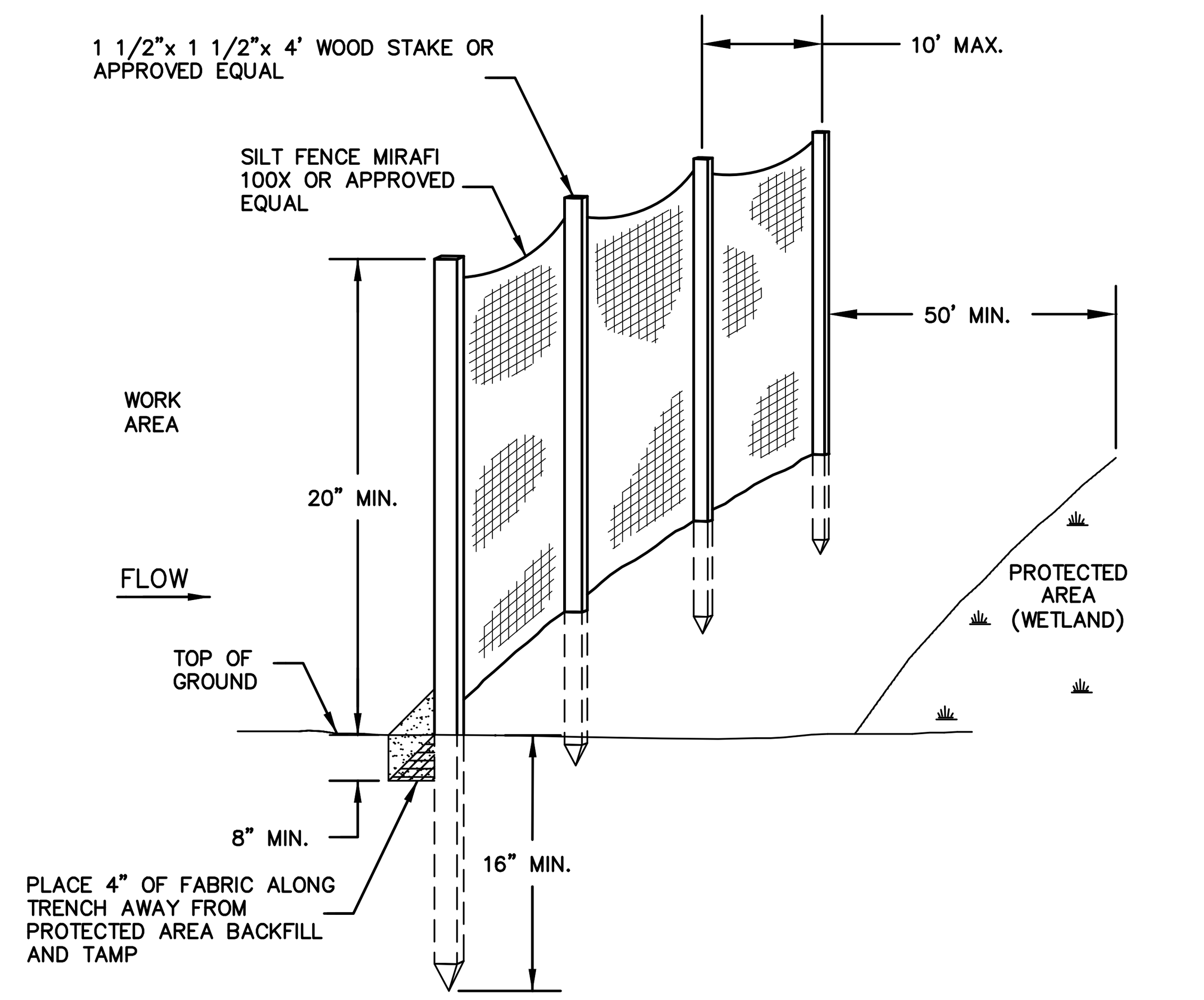


MAINTENANCE REQUIREMENTS:

1. FENCES SHOULD BE INSPECTED AND MAINTAINED IMMEDIATELY AFTER EACH RAINFALL AND AT LEAST DAILY DURING PROLONGED RAINFALLS;

2. SEDIMENT DEPOSITION SHOULD BE REMOVED, AT A MINIMUM, WHEN DEPOSITION ACCUMULATES TO ONE-HALF THE HEIGHT OF THE FENCE, AND MOVED TO AN APPROPRIATE LOCATION SO THE SEDIMENT IS NOT READILY TRANSPORTED BACK TOWARD THE SILT FENCE.

3. SILT FENCES SHOULD BE REPAIRED IMMEDIATELY IF THERE ARE ANY SIGNS OF EROSION OR SEDIMENTATION BELOW THEM. IF THERE ARE SIGNS OF UNDERCUTTING AT THE CENTER OR THE EDGES OF THE BARRIER, OR IMPOUNDING OF LARGE VOLUMES OF WATER BEHIND THEM, SEDIMENT BARRIERS SHOULD BE REPLACED WITH A TEMPORARY CHECK DAM.

4. SHOULD THE FABRIC ON A SILT FENCE DECOMPOSE OR BECOME INEFFECTIVE PRIOR TO THE END OF THE EXPECTED USABLE LIFE AND THE BARRIER STILL IS NECESSARY; THE FABRIC SHOULD BE REPLACED PROMPTLY.

5. ANY SEDIMENT DEPOSITS REMAINING IN PLACE AFTER THE SILT FENCE IS NO LONGER REQUIRED SHOULD BE DRESSED TO CONFORM TO THE EXISTING GRADE PREPARED AND SEEDED.

6. IF THERE IS EVIDENCE OF END FLOW ON PROPERLY INSTALLED BARRIERS, EXTEND BARRIERS UPHILL OR CONSIDER REPLACING THEM WITH OTHER MEASURES, SUCH AS TEMPORARY DIVERSIONS AND SEDIMENT TRAPS.

7. SILT FENCES HAVE A USEFUL LIFE OF ONE SEASON. ON LONGER CONSTRUCTION PROJECTS, SILT FENCE SHOULD BE REPAIRED PERIODICALLY AS REQUIRED TO MAINTAIN EFFECTIVENESS.

CONSTRUCTION SPECIFICATIONS:

1. FENCES SHOULD BE USED IN AREAS WHERE EROSION WILL OCCUR ONLY IN THE FORM OF SHEET EROSION AND THERE IS NO CONCENTRATION OF WATER IN A CHANNEL OR DRAINAGE WAY ABOVE THE FENCE. SEDIMENT BARRIERS SHOULD BE INSTALLED PRIOR TO ANY SOIL DISTURBANCE OF THE CONTRIBUTING DRAINAGE AREA ABOVE THEM.

2. THE MAXIMUM CONTRIBUTING DRAINAGE AREA ABOVE THE FENCE SHOULD BE LESS THAN 1A ACRE PER 100 LINEAR FEET OF FENCE;

3. THE MAXIMUM LENGTH OF SLOPE ABOVE THE FENCE SHOULD BE 100 FEET;

4. THE MAXIMUM SLOPE ABOVE THE FENCE SHOULD BE 2:1;

5. FENCES SHOULD BE INSTALLED FOLLOWING THE CONTOUR OF THE LAND AS CLOSELY AS POSSIBLE, AND
   A. THE ENDS OF THE FENCE SHOULD BE FLARED UPSLOPE;
   B. THE FABRIC SHOULD BE EMBEDDED A MINIMUM OF 8 INCHES IN DEPTH AND 4 INCHES IN WIDTH IN A TRENCH EXCAVATED INTO THE GROUND, OR IF SITE CONDITIONS INCLUDE FROZEN GROUND, LEDGE, OR THE PRESENCE OF HEAVY ROOTS, THE BASE OF THE FABRIC SHOULD BE EMBEDDED WITH A MINIMUM THICKNESS OF 8 INCHES OF 3/4-INCH STONE;
   C. THE SOIL SHOULD BE COMPACTED OVER THE EMBEDDED FABRIC;
   D. SUPPORT POSTS SHOULD BE SIZED AND ANCHORED ACCORDING TO THE MANUFACTURER'S INSTRUCTIONS WITH MAXIMUM POST SPACING OF 6 FEET;
   E. ADJOINING SECTIONS OF THE FENCE SHOULD BE OVERLAPPED BY A MINIMUM OF 6 INCHES (24 INCHES IS PREFERRED), FOLDED AND STAPLED TO A SUPPORT POST. IF METAL POSTS ARE USED, FABRIC SHOULD BE WIRE-TIED DIRECTLY TO THE POSTS WITH THREE DIAGONAL TIES.

6. SILT FENCING SHOULD NOT BE STAPLED OR NAILED TO TREES.

7. THE FILTER FABRIC SHOULD BE A PERVIOUS SHEET OF PROPYLENE, NYLON, POLYESTER OR ETHYLENE YARN AND SHOULD BE CERTIFIED BY THE MANUFACTURER OR SUPPLIER.

8. THE FILTER FABRIC SHOULD CONTAIN ULTRAVIOLET RAY INHIBITORS AND STABILIZERS TO PROVIDE A MINIMUM OF 6 MONTHS OF EXPECTED USABLE CONSTRUCTION LIFE AT A TEMPERATURE RANGE OF 0 DEGREES FAHRENHEIT TO 120 DEGREES FAHRENHEIT.

9. POSTS FOR SILT FENCES SHOULD BE EITHER 4-INCH DIAMETER WOOD OR 1.33 POUNDS PER LINEAR FOOT STEEL WITH A MINIMUM LENGTH OF 5 FEET. STEEL POSTS SHOULD HAVE, PROJECTIONS FOR FASTENING WIRE TO THEM. POSTS SHOULD BE PLACED ON THE DOWN SLOPE SIDE OF THE FABRIC.

10. THE HEIGHT OF A SILT FENCE SHOULD NOT EXCEED 36 INCHES AS HIGHER FENCES MAY IMPOUND VOLUMES OF WATER SUFFICIENT TO CAUSE FAILURE OF THE STRUCTURE.

11. THE FILTER FABRIC SHOULD BE PURCHASED IN A CONTINUOUS ROLL CUT TO THE LENGTH OF THE BARRIER TO AVOID THE USE OF JOINTS. WHEN JOINTS ARE NECESSARY; FILTER CLOTH SHOULD BE SPLICED TOGETHER ONLY AT SUPPORT POST, WITH A MINIMUM 6-INCH OVERLAP, AND SECURELY SEALED.

12. A MANUFACTURED SILT FENCE SYSTEM WITH INTEGRAL POSTS MAY BE USED.

13. POST SPACING SHOULD NOT EXCEED 6 FEET.

14. A TRENCH SHOULD BE EXCAVATED APPROXIMATELY 4 INCHES WIDE AND 4 INCHES DEEP ALONG THE LINE OF POSTS AND UP GRADIENT FROM THE BARRIER.

15. THE STANDARD STRENGTH OF FILTER FABRIC SHOULD BE STAPLED OR WIRED TO THE POST, AND 8 INCHES OF THE FABRIC SHOULD BE EXTENDED INTO THE TRENCH. THE FABRIC SHOULD NOT EXTEND MORE THAN 36 INCHES ABOVE THE ORIGINAL GROUND SURFACE.

16. THE TRENCH SHOULD BE BACKFILLED AND THE SOIL COMPACTED OVER THE FILTER FABRIC.

17. SILT FENCE MAY BE INSTALLED BY "SLICING" USING MECHANICAL EQUIPMENT SPECIFICALLY DESIGNED FOR THIS PROCEDURE. THE SLICING METHOD USES AN IMPLEMENT TOWED BEHIND A TRACTOR TO "PLOW" OR SLICE THE SILT FENCE MATERIAL INTO THE SOIL. THE SLICING METHOD MINIMALLY DISRUPTS THE SOIL UPWARD AND SLIGHTLY DISPLACES THE SOIL, MAINTAINING THE SOIL'S PROFILE AND CREATING AN OPTIMAL CONDITION FOR SUBSEQUENT MECHANICAL COMPACTION.

18. SILT FENCES SHOULD BE INSTALLED WITH "SMILES" OR "J-HOOKS" TO REDUCE THE DRAINAGE AREA THAT ANY SEGMENT WILL IMPOUND.

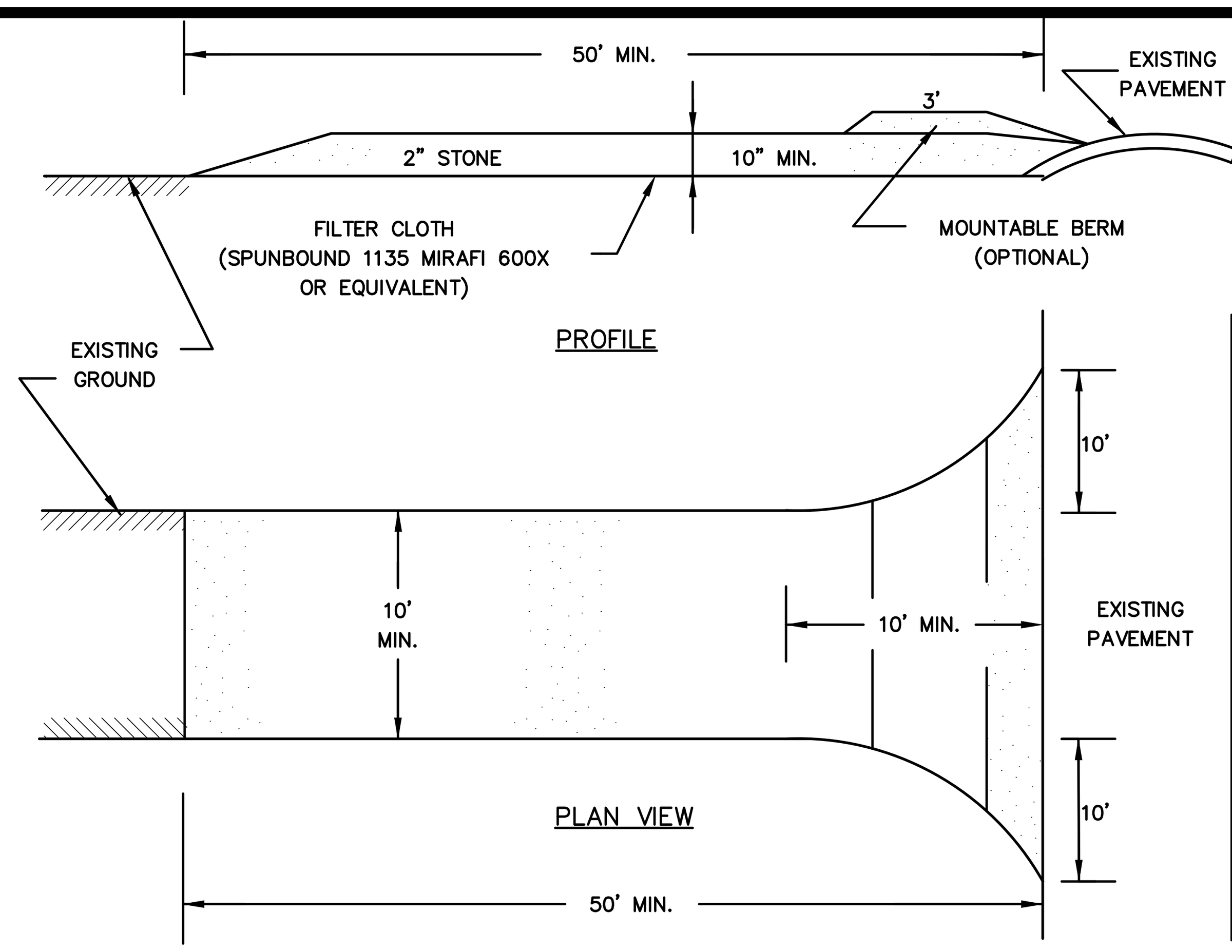
19. THE ENDS OF THE FENCE SHOULD BE TURNED UPHILL.

20. SILT FENCES PLACED AT THE TOE OF A SLOPE SHOULD BE SET AT LEAST 6 FEET FROM THE TOE M ALLOW SPACE FOR SHALLOW PONDING AND TO ALLOW FOR MAINTENANCE ACCESS WITHOUT DISTURBING THE SLOPE.

21. SILT FENCES SHOULD BE REMOVED WHEN THEY HAVE SERVED THEIR USEFUL PURPOSE, BUT NOT BEFORE THE UPSLOPE AREAS HAVE BEEN PERMANENTLY STABILIZED.

SILT FENCE BARRIER

NOT TO SCALE



MAINTENANCE REQUIREMENTS:

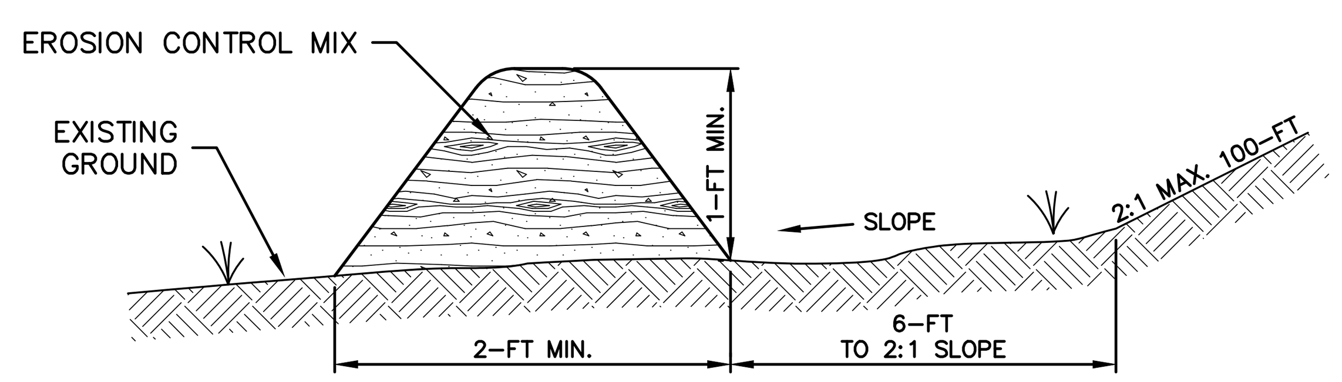
1. WHEN THE CONTROL PAD BECOMES INEFFECTIVE, THE STONE SHOULD BE REMOVED ALONG WITH THE COLLECTED SOIL MATERIAL, REGRADED ON SITE, AND STABILIZED. THE ENTRANCE SHOULD TEN BE RECONSTRUCTED.
2. THE CONTRACTOR SHOULD SWEEP THE PAVEMENT AT EXITS WHENEVER SOIL MATERIALS ARE TRACKED ONTO THE ADJACENT PAVEMENT OR TRAVELED WAY.
3. WHEN WHEEL WASHING IS REQUIRED, IT SHOULD BE CONDUCTED ON AN AREA STABILIZED WITH AGGREGATE, WHICH DRAINS INTO AN APPROVED SEDIMENT-TRAPPING DEVICE. ALL SEDIMENT SHOULD BE PREVENTED FROM ENTERING STORM DRAINS, DITCHES, OR WATERWAYS.

CONSTRUCTION SPECIFICATIONS:

1. THE MINIMUM STONE USED SHOULD BE 3-INCH CRUSHED STONE.
2. THE MINIMUM LENGTH OF THE PAD SHOULD BE 75 FEET, EXCEPT THAT THE MINIMUM LENGTH MAY BE REDUCED TO 50 FEET IF A 3-INCH TO 6-INCH BERM IS INSTALLED AT THE ENTRANCE OF THE PROJECT SITE.
3. THE PAD SHOULD BE THE FULL WIDTH OF CONSTRUCTION ACCESS ROAD OR 10 FEET, WHICHEVER IS GREATER.
4. THE PAD SHOULD SLOPE AWAY FROM THE EXISTING ROADWAY.
5. THE PAD SHOULD BE AT LEAST 6 INCHES THICK.
6. THE GEOTEXTILE FILTER FABRIC SHOULD BE PLACED BETWEEN THE STONE PAD AND THE EARTH SURFACE BELOW THE PAD.
7. THE PAD SHOULD BE MAINTAINED OR REPLACED WHEN MUD AND SOIL PARTICLES CLOG THE VOIDS IN THE STONE SUCH THAT MUD AND SOIL PARTICLES ARE TRACKED OFF-SITE.
8. NATURAL DRAINAGE THAT CROSSES THE LOCATION OF THE STONE PAD SHOULD BE INTERCEPTED AND PIPED BENEATH THE PAD, AS NECESSARY, WITH SUITABLE OUTLET PROTECTION.

USDA-SCS STABILIZED CONSTRUCTION ENTRANCE

NOT TO SCALE



EROSION CONTROL MIX BERM CROSS SECTION

NOT TO SCALE

MAINTENANCE REQUIREMENTS:

1. EROSION CONTROL MIX BERMS SHOULD BE INSPECTED IMMEDIATELY AFTER EACH RAINFALL AND AT LEAST DAILY DURING PROLONGED RAINFALL.
2. EROSION CONTROL MIX BERMS SHOULD BE REPAIRED IMMEDIATELY IF THERE ARE ANY SIGNS OF EROSION OR SEDIMENTATION BELOW THEM.
3. IF THERE ARE SIGNS OF BREACHING OF THE BARRIER, OR IMPOUNDING OF LARGE VOLUMES OF WATER BEHIND THEM, THE EROSION CONTROL MIX BERMS SHOULD BE REPLACED WITH OTHER MEASURES TO INTERCEPT AND TRAP SEDIMENT (SUCH AS A DIVERSION BERM DIRECTING RUNOFF TO A SEDIMENT TRAP OR BASIN).
4. SEDIMENT DEPOSITS SHOULD BE REMOVED AFTER EACH STORM EVENT.
5. SEDIMENT DEPOSITS MUST BE REMOVED WHEN DEPOSITS REACH APPROXIMATELY ONE THIRD (1/3) OF THE HEIGHT OF THE BARRIER.
6. EROSION CONTROL MIX BERMS SHOULD BE RESHAPED OR REAPPLIED AS NEEDED.
7. ANY SEDIMENT DEPOSITS REMAINING IN PLACE AFTER THE BARRIER IS NO LONGER REQUIRED SHOULD BE DRESSED TO CONFORM TO THE EXISTING GRADE, PREPARED AND SEEDED.

CONSTRUCTION SPECIFICATIONS:

1. EROSION CONTROL MIX CAN BE MANUFACTURED ON OR OFF OF THE PROJECT SITE.
2. EROSION CONTROL MIX MUST CONSIST PRIMARILY OF ORGANIC MATERIAL, SEPARATED AT THE POINT OF GENERATION, AND MAY INCLUDE SHREDDED BARK, STUMP GRINDINGS, COMPOSTED BARK, OR ACCEPTABLE MANUFACTURED PRODUCTS.
3. WOOD AND BARK CHIPS, GROUND CONSTRUCTION DEBRIS OR REPROCESSED WOOD PRODUCTS WILL NOT BE ACCEPTABLE AS THE ORGANIC COMPONENT OF THE MIX.
4. COMPOSITION OF THE EROSION CONTROL MIX SHOULD BE AS FOLLOWS:
   A. EROSION CONTROL MIX SHALL BE A WELL GRADED MIXTURE OF PARTICLE SIZES FREE OF REFUSE, PHYSICAL CONTAMINANTS, MATERIAL TOXIC TO PLANT GROWTH AND MAY NOT CONTAIN ROCKS LESS THAN 4-INCHES IN DIAMETER;
   B. ORGANIC MATTER = 25-65% DRY WEIGHT BASIS
   C. PARTICLES PASSING BY WEIGHT:

SCREEN:	PASSING BY WEIGHT:
3-INCH	100%
1-INCH	90-100%
3/4-INCH	70-100%
1/4-INCH	30-75%

   D. THE ORGANIC PORTION NEEDS TO BE FIBROUS AND ELONGATED.
   E. THE MIX SHOULD CONTAIN NO SILTS, CLAYS OR FINE SANDS.
   F. SOLUBLE SALTS CONTENT < 4.0 mmhos/cm
   G. pH OF THE MIX SHOULD BE BETWEEN 5.0 AND 8.0
5. THE BARRIER MUST BE PLACED ALONG A RELATIVELY LEVEL CONTOUR.
6. IT MAY BE NECESSARY TO CUT TALL GRASSES AND WOODY VEGETATION TO AVOID CREATING VOIDS AND BRIDGES IN THE BARRIER THAT WOULD ENABLE FINES TO WASH UNDER THE BARRIER THROUGH THE GRASS BLADES OR PLANT STEMS.
7. THE BARRIER MUST BE A MINIMUM OF 12-INCHES TALL AS MEASURED ON THE UPHILL SIDE OF THE BARRIER.
8. THE BARRIER MUST BE A MINIMUM OF 2-FT WIDE.

CONTINUOUS CONTAINED BERM (ALTERNATIVE):

1. AN ALTERNATIVE PRODUCT, THE CONTINUOUS CONTAINED BERM (OR "FILTER SOCK") CAN BE AN EFFECTIVE SEDIMENT BARRIER AS IT ADDS CONTAINMENT AND STABILITY TO A BERM OF EROSION CONTROL MIX.
2. IN THE EVENT THAT USE OF CONTINUOUS CONTAINED BERM IS DESIRED, THE PRODUCT SELECTED SHOULD BE REVIEWED AND APPROVED BY THE DESIGN ENGINEER.
3. INSTALLATION OF CONTINUOUS CONTAINED BERMS SHALL BE PERFORMED IN ACCORDANCE WITH THE SPECIFICATIONS OF THE MANUFACTURER.

EROSION CONTROL MIX BERM DETAIL

WINTER STABILIZATION & CONSTRUCTION PRACTICES:

MAINTENANCE REQUIREMENTS:

1. MAINTENANCE MEASURES SHOULD BE PERFORMED THROUGHOUT CONSTRUCTION, INCLUDING OVER THE WINTER PERIOD. AFTER EACH RAINFALL, SNOWSTORM, OR PERIOD OF THAWING AND RUNOFF, THE SITE CONTRACTOR SHOULD CONDUCT INSPECTION OF ALL INSTALLED EROSION CONTROL PRACTICES AND PERFORM REPAIRS AS NEEDED TO INSURE THEIR CONTINUED FUNCTION.

2. FOR ANY AREA STABILIZED BY TEMPORARY OR PERMANENT SEEDING PRIOR TO THE ONSET OF THE WINTER SEASON, THE CONTRACTOR SHOULD CONDUCT AN INSPECTION IN THE SPRING TO ASCERTAIN THE CONDITION OF THE VEGETATION AND REPAIR ANY DAMAGED AREAS OR BARE SPOTS AND RESEED AS REQUIRED TO ACHIEVE AN ESTABLISHED VEGETATIVE COVER (AT LEAST 85% OF AREA VEGETATED WITH HEALTHY, VIGOROUS GROWTH.)

SPECIFICATIONS:

THE FOLLOWING STABILIZATION TECHNIQUES SHOULD BE EMPLOYED DURING THE PERIOD FROM OCTOBER 15 THROUGH MAY 15.

1. THE AREA OF EXPOSED, UNSTABILIZED SOIL SHOULD BE LIMITED TO 1-ACRE AND SHOULD BE PROTECTED AGAINST EROSION BY THE METHODS DISCUSSED IN NHSMM, VOL. 3 AND ELSEWHERE IN THIS PLAN SET, PRIOR TO ANY THAW OR SPRING MELT EVENT. STABILIZATION AS FOLLOWS SHOULD BE COMPLETED WITHIN A DAY OF ESTABLISHING THE GRADE THAT IS FINAL OR THAT OTHERWISE WILL EXIST FOR MORE THAN 5 DAYS:
2. ALL PROPOSED VEGETATED AREAS HAVING A SLOPE OF LESS THAN 15% WHICH DO NOT EXHIBIT A MINIMUM 85% VEGETATIVE GROWTH BY OR ARE DISTURBED AFTER OCTOBER 15, SHOULD BE SEEDED AND COVERED WITH 3 TO 4 TONS OF HAY OR STRAW MULCH PER ACRE SECURED WITH ANCHORED NETTING, OR 2 INCHES OF EROSION CONTROL MIX (REFER TO NHSMM, VOL. 3 FOR SPECIFICATION).

3. ALL PROPOSED VEGETATED AREAS HAVING A SLOPE OF GREATER THAN 15% WHICH DO NOT EXHIBIT A MINIMUM OF 85% VEGETATIVE GROWTH BY OR ARE DISTURBED AFTER OCTOBER 15 SHOULD BE SEEDED AND COVERED WITH A PROPERLY INSTALLED EROSION CONTROL BLANKET OR WITH A MINIMUM OF 4 INCHES OF EROSION CONTROL MIX, UNLESS OTHERWISE SPECIFIED BY THE MANUFACTURER. NOTE THAT COMPOST BLANKETS SHOULD NOT EXCEED 2 INCHES IN THICKNESS OR THEY MAY OVERHEAT.
4. ALL STONE COVERED SLOPES MUST BE CONSTRUCTED AND STABILIZED BY OCTOBER 15.

5. INSTALLATION OF ANCHORED HAY MULCH OR EROSION CONTROL MIX SHOULD NOT OCCUR OVER SNOW OF GREATER THAN 1 INCH IN DEPTH.

6. ALL MULCH APPLIED DURING WINTER SHOULD BE ANCHORED (I.E. BY NETTING, TRACKING, WOOD CELLULOSE FIBER).

7. WITHIN 24 HOURS OF STOCKPILING SOIL MATERIALS SHOULD BE MULCHED FOR OVER WINTER PROTECTION WITH HAY OR STRAW AT TWICE THE NORMAL RATE OR WITH A 4 INCH LAYER OF EROSION CONTROL MIX. MULCH SHOULD BE RE-ESTABLISHED PRIOR TO ANY RAIN OR SNOWFALL. NO SOIL STOCKPILE SHOULD BE PLACED (EVEN COVERED WITH MULCH) WITHIN 100-FT OF ANY WETLAND OR OTHER WATER RESOURCE AREA.

8. FROZEN MATERIAL (I.E. FROST LAYER REMOVED DURING WINTER CONSTRUCTION) SHOULD BE STOCKPILED SEPARATELY AND IN A LOCATION AWAY FROM ANY AREA NEEDING PROTECTION. FROZEN MATERIAL STOCKPILES CAN MELT IN SPRING AND BECOME UNWORKABLE AND DIFFICULT TO TRANSPORT DUE TO HIGH SOIL MOISTURE CONTENT.

9. INSTALLATION OF EROSION CONTROL BLANKETS SHOULD NOT OCCUR OVER SNOW OF GREATER THAN 1 INCH IN DEPTH OR ON FROZEN GROUND.

10. ALL GRASS-LINED DITCHES AND CHANNELS SHOULD BE CONSTRUCTED BY SEPTEMBER 1. ALL DITCHES AND SWALES WHICH DO NOT EXHIBIT 85% VEGETATIVE GROWTH BY OR ARE DISTURBED AFTER OCTOBER 15, SHOULD BE STABILIZED TEMPORARILY WITH STONE OR EROSION CONTROL BLANKETS APPROPRIATE FOR THE DESIGN FLOW CONDITIONS AS DETERMINED BY A PROFESSIONAL ENGINEER. IF STONE LINING IS NECESSARY, THE CONTRACTOR MAY NEED TO RE-GRADE THE DITCH AS REQUIRED TO PROVIDE ADEQUATE CROSS-SECTION AFTER ALLOWING FOR PLACEMENT OF THE STONE.

11. ALL STONE LINED DITCHES AND CHANNELS MUST BE CONSTRUCTED AND STABILIZED BY OCTOBER 15.

12. AFTER NOVEMBER 15, INCOMPLETE ROAD OR PARKING AREAS WHERE ACTIVE CONSTRUCTION HAS STOPPED FOR THE WINTER SHOULD BE PROTECTED WITH A MINIMUM 3 INCH LAYER OF SAND AND GRAVEL WITH A GRADATION THAT IS LESS THAN 12% OF THE SAND PORTION, OR MATERIAL PASSING THE NUMBER 4 SIEVE, BY WEIGHT, PASSES THE NUMBER 200 SIEVE.

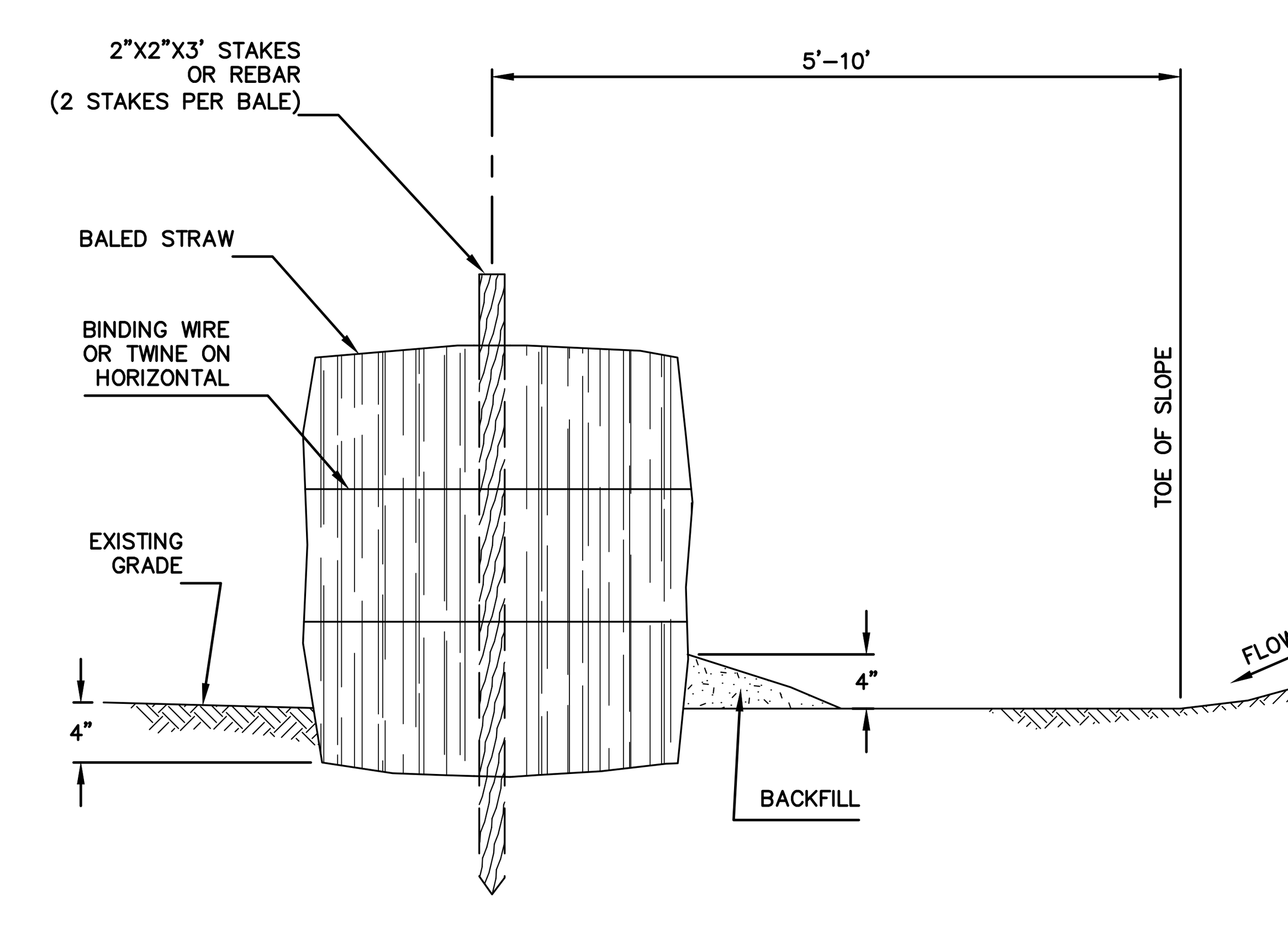
13. SEDIMENT BARRIERS THAT ARE INSTALLED DURING FROZEN CONDITIONS SHOULD CONSIST OF EROSION CONTROL MIX BERMS, OR CONTINUOUS CONTAINED BERMS. SILT FENCES AND HAY BALES SHOULD NOT BE INSTALLED WHEN FROZEN CONDITIONS PREVENT PROPER EMBEDMENT OF THESE BARRIERS.

DUST CONTROL PRACTICES:

1. APPLY DUST CONTROL MEASURES AS NECESSARY TO MAINTAIN CONTROL OF DUST ON SITE.
2. WATER APPLICATION:
   A) MOISTEN EXPOSED SOIL SURFACES PERIODICALLY WITH ADEQUATE WATER TO CONTROL DUST.
   B) AVOID EXCESSIVE APPLICATION OF WATER THAT WOULD RESULT IN MOBILIZING SEDIMENT AND SUBSEQUENT DEPOSITION IN NATURAL WATERBODIES.
3. STONE APPLICATION:
   A) COVER SURFACE WITH CRUSHED OR COARSE GRAVEL.
   B) IN AREAS NEAR WATERWAYS USE ONLY CHEMICALLY STABILIZED OR WASHED AGGREGATE.
4. REFER TO "NEW HAMPSHIRE STORMWATER MANAGEMENT MANUAL, VOLUME 3 CONSTRUCTION PHASE EROSION AND SEDIMENT CONTROLS, DECEMBER 2008" FOR OTHER ALLOWABLE DUST CONTROL PRACTICES (I.E. COMMERCIAL TACKIFIERS OR CHEMICAL TREATMENTS SUCH AS CALCIUM CHLORIDE, ETC.)

INVASIVE SPECIES NOTE:

THE CONTRACTOR SHALL TAKE STEPS TO PREVENT THE SPREAD OF INVASIVE PLANT, INSECT, AND FUNGAL SPECIES BY MEETING THE REQUIREMENTS AND INTENT OF RSA 430:53 AND AGR 3800 RELATIVE TO INVASIVE SPECIES. http://gencourt.state.nh.us/rules/state_agencies/agr3800.html



TOE OF SLOPE STRAW BALE BARRIER

NOT TO SCALE

GENERAL CONSTRUCTION PHASING:

1. STABILIZATION:
   A SITE IS DEEMED STABILIZED WHEN IT IS IN A CONDITION IN WHICH THE SOIL ON SITE WILL NOT EXPERIENCE ACCELERATED OR UNNATURAL EROSION UNDER THE CONDITIONS OF A 10-YEAR STORM EVENT, SUCH AS BUT NOT LIMITED TO:

A) IN AREAS THAT WILL NOT BE PAVED:
   i) A MINIMUM OF 85% VEGETATIVE COVER HAS BEEN ESTABLISHED;
   ii) A MINIMUM OF 3-INCHES OF NON-EROSIVE MATERIAL SUCH AS STONE OR A CERTIFIED COMPOST BLANKET HAS BEEN INSTALLED, OR;
   iii) EROSION CONTROL BLANKETS HAVE BEEN INSTALLED.

B) IN AREAS TO BE PAVED:
   i) BASE COURSE GRAVELS HAVE BEEN INSTALLED.

2. TEMPORARY STABILIZATION:
   ALL AREAS OF EXPOSED OR DISTURBED SOIL SHOULD BE TEMPORARILY STABILIZED AS SOON AS PRACTICABLE BUT NO LATER THAN 45 DAYS FROM THE TIME OF INITIAL DISTURBANCE, UNLESS A SHORTER TIME IS SPECIFIED BY LOCAL AUTHORITIES, THE CONSTRUCTION SEQUENCE APPROVED AS PART OF THE ISSUED PERMIT OR AN INDEPENDENT MONITOR.

3. PERMANENT STABILIZATION:
   ALL AREAS OF EXPOSED OR DISTURBED SOIL SHOULD BE PERMANENTLY STABILIZED AS SOON AS PRACTICABLE BUT NO LATER THAN 3 DAYS FOLLOWING FINAL GRADING.

4. MAXIMUM AREA OF DISTURBANCE:
   THE AREA OF UNSTABILIZED SOIL SHOULD NOT EXCEED 5 ACRES AT ANY TIME.

5. ONLY DISTURB, CLEAR, OR GRADE AREAS NECESSARY FOR CONSTRUCTION.
   A) FLAG OR OTHERWISE DELINEATE AREAS NOT TO BE DISTURBED.
   B) EXCLUDE VEHICLES AND CONSTRUCTION EQUIPMENT FROM THESE AREAS TO PRESERVE NATURAL VEGETATION.

6. ALL GRADED OR DISTURBED AREAS INCLUDING SLOPES SHOULD BE PROTECTED DURING CLEARING AND CONSTRUCTION IN ACCORDANCE WITH THE APPROVED EROSION AND SEDIMENT CONTROL PLAN DEPICTED ON SHEET CE-101.

7. ALL EROSION AND SEDIMENT CONTROL PRACTICES AND MEASURES SHOULD BE CONSTRUCTED, APPLIED AND MAINTAINED IN ACCORDANCE WITH THE APPROVED EROSION AND SEDIMENT CONTROL PLAN DEPICTED ON SHEET CE-101.

8. TOPSOIL REQUIRED FOR THE ESTABLISHMENT OF VEGETATION SHOULD BE STOCKPILED IN THE AMOUNT NECESSARY TO COMPLETE FINISHED GRADING AND BE PROTECTED FROM EROSION.

9. STOCKPILES, BORROW AREAS AND SPOILS SHALL BE STABILIZED AS DESCRIBED UNDER "SOIL STOCKPILE PRACTICES".

10. SLOPES SHOULD NOT BE CREATED SO CLOSE TO PROPERTY LINES AS TO ENDANGER ADJOINING PROPERTIES WITHOUT ADEQUATE PROTECTION AGAINST SEDIMENTATION, EROSION, SLIPPAGE, SETTLEMENT, SUBSIDENCE OR OTHER RELATED DAMAGE.

11. AREAS TO BE FILLED SHOULD BE CLEARED, GRUBBED AND STRIPPED OF TOPSOIL TO REMOVE TREES, VEGETATION, ROOTS AND/OR OTHER OBJECTIONABLE MATERIALS.

12. AREAS SHOULD BE SCARIFIED TO A MINIMUM DEPTH OF 3-INCHES PRIOR TO PLACEMENT OF TOPSOIL. TOPSOIL SHOULD BE PLACED WITHOUT SIGNIFICANT COMPACTION TO PROVIDE A LOOSE BEDDING FOR PLACEMENT OF SEED.

13. ALL FILLS SHOULD BE COMPACTED IN ACCORDANCE WITH PROJECT SPECIFICATIONS TO REDUCE EROSION, SLIPPAGE, SETTLEMENT, SUBSIDENCE OR OTHER RELATED PROBLEMS. FILL INTENDED TO SUPPORT BUILDINGS, STRUCTURES, SITE UTILITIES, CONDUITS AND OTHER FACILITIES, SHOULD BE COMPACTED IN ACCORDANCE WITH LOCAL REQUIREMENTS OR CODES.

14. IN GENERAL, FILLS SHOULD BE COMPACTED IN LAYERS RANGING FROM 6 TO 24 INCHES IN THICKNESS. THE CONTRACTOR SHOULD REVIEW THE PROJECT GEOTECHNICAL REPORT AND/OR THE "PROJECT SPECIFIC PHASING NOTES" FOR SPECIFIC GUIDANCE.

15. ANY AND ALL FILL MATERIAL SHOULD BE FREE OF BRUSH, RUBBISH, ROCKS (LARGER THAN 3/4 THE DEPTH OF THE LIFT BEING INSTALLED), LOGS, STUMPS, BUILDING DEBRIS, FROZEN MATERIAL AND OTHER OBJECTIONABLE MATERIALS THAT WOULD INTERFERE WITH OR PREVENT CONSTRUCTION OF SATISFACTORY LIFTS.

16. FROZEN MATERIAL OR SOFT, MUCKY OR HIGHLY COMPRESSIBLE (I.E. CLAY, SILT) MATERIALS ARE SUSCEPTIBLE TO ACCELERATED SETTLEMENT AND POTENTIAL ACCELERATED EROSION. WORK IN AREAS OF THESE MATERIALS SHOULD BE PERFORMED UNDER THE DIRECTION OF A PROFESSIONAL ENGINEER.

17. THE OUTER FACE OF THE FILL SLOPE SHOULD BE ALLOWED TO STAY LOOSE, NOT ROLLED OR COMPACTED, OR BLADE SMOOTHED. A BULLDOZER MAY RUN UP AND DOWN THE FILL SLOPE SO THE DOZER TREADS (CLEAT TRACKS) CREATE GROOVES PERPENDICULAR TO THE SLOPE. IF THE SOIL IS NOT TOO MOIST, EXCESSIVE COMPACTION WILL NOT OCCUR. SEE "SURFACE ROUGHENING" IN THE NHSMM, VOL.3.

18. ROUGHEN THE SURFACE OF ALL SLOPES DURING THE CONSTRUCTION OPERATION TO RETAIN WATER, INCREASE INFILTRATION AND FACILITATE VEGETATION ESTABLISHMENT.

19. USE SLOPE BREAKS, SUCH AS DIVERSIONS, BENCHES, OR CONTOUR FURROWS AS APPROPRIATE TO REDUCE THE LENGTH OF CUT-FILL SLOPES TO LIMIT SHEET AND RILL EROSION AND PREVENT GULLY EROSION. ALL BENCHES SHOULD BE KEPT FREE OF SEDIMENT DURING ALL PHASES OF CONSTRUCTION.

20. SEEPS OR SPRINGS ENCOUNTERED DURING CONSTRUCTION SHOULD BE EVALUATED BY A PROFESSIONAL ENGINEER (PREFERABLY THE DESIGN ENGINEER) TO DETERMINE IF THE PROPOSED DESIGN SHOULD BE REVISED TO PROPERLY MANAGE THE CONDITION.

21. STABILIZE ALL GRADED AREAS (AS ABOVE) WITH VEGETATION, CRUSHED STONE, COMPOST BLANKET, OR OTHER GROUND COVER AS SOON AS GRADING IS COMPLETE OR IF WORK IS INTERRUPTED FOR 21 WORKING DAYS OR MORE. USE MULCH OR OTHER APPROVED METHODS TO STABILIZE AREAS TEMPORARILY WHERE FINAL GRADING MUST BE DELAYED.

22. ALL GRADED AREAS SHOULD BE PERMANENTLY STABILIZED IMMEDIATELY FOLLOWING FINISHED GRADING.

ABOVE NOTES EXCERPTED, ADAPTED AND REFERENCED FROM "NEW HAMPSHIRE STORMWATER MANAGEMENT MANUAL, VOLUME 3 CONSTRUCTION PHASE EROSION AND SEDIMENT CONTROLS, DECEMBER 2008" (NHSMM, VOL. 3)

SOIL STOCKPILE PRACTICES:

1. LOCATE STOCKPILES A MINIMUM OF 50-FT. AWAY FROM CONCENTRATED FLOWS OF STORMWATER, DRAINAGE COURSES OR INLETS.
2. PROTECT ALL STOCKPILES FROM STORMWATER RUN-ON USING TEMPORARY PERIMETER MEASURES SUCH AS DIVERSIONS, BERMS, SANDBAGS OR OTHER APPROVED PRACTICES.
3. STOCKPILES SHOULD BE SURROUNDED BY SEDIMENT BARRIERS AS DESCRIBED ON THE PLANS AND IN NHSMM VOL. 3. TO PREVENT MIGRATION OF MATERIAL BEYOND THE IMMEDIATE CONFINES OF THE STOCKPILE.
4. IMPLEMENT WIND EROSION CONTROL PRACTICES AS APPROPRIATE ON ALL STOCKPILED MATERIAL.
5. PLACE BAGGED MATERIALS ON PALLETS OR UNDERCOVER.

PROTECTION OF INACTIVE STOCKPILES:

6. INACTIVE SOIL STOCKPILES SHOULD BE COVERED WITH ANCHORED TARPS OR PROTECTED WITH SOIL STABILIZATION MEASURES (TEMPORARY SEED AND MULCH OR OTHER TEMPORARY STABILIZATION PRACTICE) AND TEMPORARY PERIMETER SEDIMENT BARRIERS (I.E. SILT FENCE, ETC.) AT ALL TIMES.
7. INACTIVE STOCKPILES OF CONCRETE RUBBLE, ASPHALT CONCRETE RUBBLE, AGGREGATE MATERIALS, AND SIMILAR MATERIALS SHOULD BE PROTECTED WITH TEMPORARY SEDIMENT PERIMETER BARRIERS (I.E. SILT FENCE, ETC.) AT ALL TIMES. IF THE MATERIALS ARE A SOURCE OF DUST, THEY SHOULD ALSO BE COVERED.

PROTECTION OF ACTIVE STOCKPILES:

8. ALL STOCKPILES SHOULD BE SURROUNDED WITH TEMPORARY LINEAR SEDIMENT BARRIERS (I.E. SILT FENCE, ETC.) PRIOR TO THE ONSET OF PRECIPITATION. PERIMETER BARRIERS SHOULD BE MAINTAINED AT ALL TIMES, AND ADJUSTED AS NEEDED TO ACCOMMODATE THE DELIVERY AND REMOVAL OF MATERIAL FROM THE STOCKPILE. THE INTEGRITY OF THE BARRIER SHOULD BE INSPECTED AT THE END OF EACH WORKING DAY.
9. WHEN A STORM IS PREDICTED, STOCKPILES SHOULD BE PROTECTED WITH AN ANCHORED PROTECTIVE COVERING.

No.	DATE	DESCRIPTION	DESIGNER	REVIEWER
3.	6/20/2019	TAC SUBMITTAL	JVA/DAD	RRL
2.	5/20/2019	TAC SUBMITTAL	JVA/DAD	RRL
1.	3/18/2019	TAC SUBMITTAL	JVA/DAD	RRL

STATE OF NEW HAMPSHIRE – RICHARD R. LUNDBORN No. 10943 – LICENSED – PROFESSIONAL ENGINEER

SCALE: HORZ.: NTS VERT.:
DATUM: HORZ.: VERT.:
0 GRAPHIC SCALE

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207.363.0669
www.fando.com

CATE STREET DEVELOPMENT, LLC

EROSION CONTROL DETAILS

CATE STREET/ WEST END YARDS

PORTSMOUTH NEW HAMPSHIRE

PROJ. No.: 20180317.A10

DATE: 06/20/2019

CD-560

File Path: F:\P2018\0317\A10\Civil3\Dwg\20180317A10_DET01-SITE.dwg Layout: CD-560-ECP Plotted: Wed, July 24, 2019 - 12:13 PM User: ddugal

Plotter: DWG TO PDF.PC3 CTB File: FO.STB

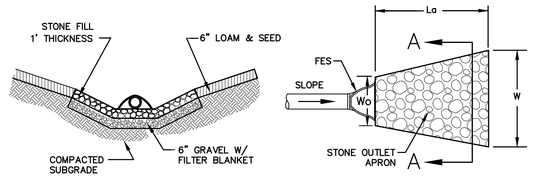
MS VIEW: LAYER STATE:

D10=10"
RIP-RAP GRADATION

% OF WEIGHT SMALLER THAN THE GIVEN SIZE	SIZE OF STONE (INCHES)		
100	15	TO	20
85	13	TO	18
50	10	TO	15
15	3	TO	5

APRON DIMENSION TABLE

PIPE OUTLET	Wo	W	La	T	d50
24" HDPE OUTLET	6.0'	11'	8'	12"	3"



SECTION A–A PLAN VIEW

STONE: D50 = 6"
WELL GRADED WITH SUFFICIENT SAND AND GRAVEL TO FILL THE VOIDS

THE HEIGHT OF THE STRUCTURAL LINING ALONG THE CHANNEL SIDES SHALL BEGIN AT THE ELEVATION EQUAL TO THE TOP OF THE CONDUIT AND TAPER DOWN TO THE CHANNEL BOTTOM THROUGH THE LENGTH OF THE APRON.

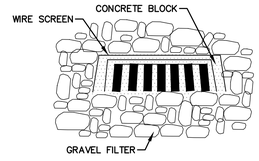
NOTES:
1. ALL PIPE CULVERTS SHALL HAVE END SECTIONS OR HEADWALLS. END SECTION MATERIAL AND MANUFACTURER SHALL MATCH THAT OF THE PIPE CULVERT.
2. THE LARGEST RIP-RAP SIZE DETERMINED DURING HYDROLOGIC ANALYSIS HAS BEEN USED FOR ALL OUTLETS FOR ECONOMY AND SIMPLICITY.
3. APRON LENGTHS, WIDTHS AND THICKNESSES HAVE BEEN ROUNDED UP TO WHOLE NUMBERS FOR EASE OF CONSTRUCTION.

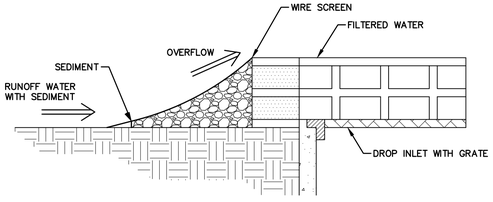
CONSTRUCTION SPECIFICATIONS:
1. PREPARE THE SUB-GRADE FOR THE FILTER MATERIAL, GEOTEXTILE FABRIC, AND RIP-RAP TO THE GRADES SHOWN ON THE PLANS.
2. MINIMUM 6" SAND/GRAVEL BEDDING OR GEOTEXTILE FABRIC REQUIRED UNDER ALL ROCK RIP-RAP.
3. THE ROCK OR GRAVEL USED FOR FILTER OR RIP-RAP SHALL CONFORM TO THE SPECIFIED GRADATION.
4. GEOTEXTILE FABRICS SHALL BE PROTECTED FROM PUNCTURE OR TEARING DURING THE PLACEMENT OF ROCK RIP-RAP. 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 (2) PIECES OF FABRIC SHALL BE A MINIMUM OF 12 INCHES.
5. 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.
6. RIP-RAP SIZE CHOSEN FOR THE WORST CASE OF ALL OUTLETS. ALL RIP-RAP USED FOR PIPE OUTLET PROTECTION WILL HAVE THE SAME GRADATION AND THICKNESS.

MAINTENANCE NOTES:
1. OUTLETS SHALL BE INSPECTED AND CLEANED ANNUALLY AND AFTER ANY MAJOR STORM EVENT. ANY EROSION OR DAMAGE TO THE RIP-RAP SHALL BE REPAIRED IMMEDIATELY.
2. THE CHANNEL IMMEDIATELY DOWNSTREAM FROM THE OUTLET SHOULD BE CHECKED TO SEE THAT NO EROSION IS OCCURRING.
3. 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 THE OUTLET PROTECTION APRON.

RIP RAP APRON OUTLET PROTECTION

NOT TO SCALE





BLOCK AND GRAVEL INLET SEDIMENT FILTER

NOT TO SCALE

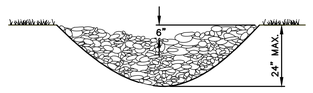
CONSTRUCTION SPECIFICATIONS:
1. PLACE CONCRETE BLOCKS LENGTHWISE ON THEIR SIDE IN A SINGLE ROW AROUND THE PERIMETER OF THE INLET, WITH THE ENDS OF ADJACENT BLOCKS ABUTTING. THE HEIGHT OF THE BARRIER CAN BE VARIED, DEPENDING ON DESIGN NEEDS, BY STACKING COMBINATIONS OF 4-INCH, 8-INCH AND 12-INCH WIDE BLOCKS. THE BARRIER OF BLOCKS SHALL BE AT LEAST 12 INCHES HIGH AND NO GREATER THAN 24 INCHES HIGH
2. WIRE MESH SHALL BE PLACED OVER THE OUTSIDE VERTICAL FACE (WEBBING) OF THE CONCRETE BLOCKS TO PREVENT STONE FROM BEING WASHED THROUGH THE HOLES IN THE BLOCKS. HARDWARE CLOTH OR COMPARABLE WIRE MESH WITH 1/2-INCH OPENINGS SHALL BE USED.
3. STONE SHALL BE PILED AGAINST THE WIRE TO THE TOP OF THE BLOCK BARRIER, AS SHOWN ABOVE. STONE GRADATION SHALL BE WELL GRADED WITH THE MAXIMUM STONE SIZE OF 6 INCHES AND MINIMUM STONE SIZE OF 1 INCH.
4. IF THE STONE FILTER BECOMES CLOGGED WITH SEDIMENT SO THAT IT NO LONGER ADEQUATELY PERFORMS ITS FUNCTION, THE STONE MUST BE PULLED AWAY FROM THE BLOCKS, CLEANED AND REPLACED.

MAINTENANCE NOTES:
1. THE STRUCTURE SHALL BE INSPECTED AFTER EACH RAIN AND REPAIRS MADE AS NEEDED.
2. SEDIMENT SHALL BE REMOVED AND THE TRAP RESTORED TO ITS ORIGINAL DIMENSIONS WHEN THE SEDIMENT HAS ACCUMULATED TO 1/2 THE DESIGN DEPTH OF THE TRAP. REMOVED SEDIMENT SHALL BE DEPOSITED IN A SUITABLE AREA AND IN SUCH A MANNER THAT IT WILL NOT ERODE.
3. STRUCTURES SHALL BE REMOVED AND THE AREA STABILIZED WHEN THE REMAINING DRAINAGE AREA HAS BEEN PROPERLY STABILIZED.

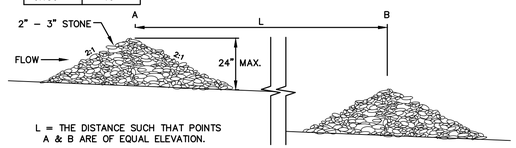
SEDIMENTATION CONTROL AT CATCH BASINS

NOT TO SCALE

SPACING BETWEEN CHECK DAMS	
SLOPE (FT/FT)	LENGTH (FT)
0.020	75
0.030	50
0.040	37
0.050	30
0.080	19
0.100	15
0.120	13
0.150	10



DRAINAGEWAY CROSS-SECTION



L = THE DISTANCE SUCH THAT POINTS A & B ARE OF EQUAL ELEVATION.

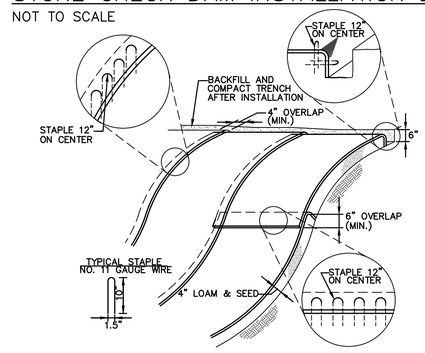
SPACING BETWEEN STONE CHECK DAMS

CONSTRUCTION SPECIFICATIONS:
1. STRUCTURES SHALL BE INSTALLED ACCORDING TO THE DIMENSIONS SHOWN ON THE PLANS AT THE APPROPRIATE SPACING.
2. CONSTRUCTION OPERATIONS SHALL BE CARRIED OUT IN SUCH A MANNER SO THAT EROSION, AIR AND WATER POLLUTION WILL BE MINIMIZED.
3. STRUCTURES SHALL BE REMOVED FROM THE CHANNEL WHEN THEIR USEFUL LIFE HAS BEEN COMPLETED.

MAINTENANCE NOTES:
1. TEMPORARY GRADE STABILIZATION STRUCTURES SHOULD BE INSPECTED AFTER EACH STORM AND DAILY DURING PROLONGED STORM EVENTS. ANY DAMAGE TO THE STRUCTURES SHALL BE REPAIRED IMMEDIATELY.
2. PARTICULAR ATTENTION SHOULD BE GIVEN TO END RUN AND EROSION AT THE DOWNSTREAM TOE OF THE STRUCTURE.
3. WHEN REMOVING THE STRUCTURES, THE DISTURBED AREAS SHALL BE BROUGHT UP TO EXISTING CHANNEL GRADE AND THE AREAS PREPARED, SEEDED AND MULCHED
4. SEDIMENT SHALL BE REMOVED FROM BEHIND THE STRUCTURES WHEN IT REACHES 1/2 THE ORIGINAL HEIGHT OF THE STRUCTURE.

STONE CHECK DAM INSTALLATION DETAIL

NOT TO SCALE



SLOPE INSTALLATION

MAINTENANCE REQUIREMENTS:
1. ALL BLANKET AND MATS SHOULD BE INSPECTED WEEKLY DURING THE CONSTRUCTION PERIOD, AND AFTER ANY RAINFALL EVENT EXCEEDING 1/2 INCH IN A 24-HOUR PERIOD.
2. ANY FAILURE SHOULD BE REPAIRED IMMEDIATELY. IF WASHOUT OF THE SLOPE, DISPLACEMENT OF THE MAT, OR DAMAGE TO THE MAT OCCURS, THE AFFECTED SLOPE SHALL BE REPAIRED AND RESEEDED, AND THE AFFECTED AREA OF MAT SHALL BE RE-INSTALLED.

CONSTRUCTION SPECIFICATIONS:
1. MANUFACTURE'S INSTALLATION INSTRUCTIONS:
   A. PREPARE SOIL BEFORE INSTALLING ROLLED EROSION CONTROL PRODUCTS (RECP's), 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.
   B. BEGIN AT THE TOP OF THE SLOPE BY ANCHORING THE RECP's IN A 6" (15 CM) DEEP X 6" (15 CM) WIDE TRENCH WITH APPROXIMATELY 12" (30cm) OF RECP's EXTENDED BEYOND THE UP-SLOPE PORTION OF THE TRENCH. ANCHOR THE RECP's WITH A ROW OF STAPLES/STAKES APPROXIMATELY 12" (30 CM) APART IN THE BOTTOM OF THE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING. APPLY SEED TO COMPACTED SOIL AND FOLD REMAINING 12" (30 CM)PORTION OF RECP's BACK OVER SEED AND COMPACTED SOIL. SECURE RECP's OVER COMPACTED SOIL WITH A ROW OF STAPLES/STAKES SPACED APPROXIMATELY 12" (30 CM) APART ACROSS THE WIDTH OF THE RECP's.
   C. ROLL THE RECP's (A.) DOWN OR (B.) HORIZONTALLY ACROSS THE SLOPE. RECP's WILL UNROLL WITH APPROPRIATE SIDE AGAINST THE SOIL SURFACE. ALL RECP's MUST BE SECURELY FASTENED TO SOIL SURFACE BY PLACING STAPLES/STAKES IN APPROPRIATE LOCATIONS AS SHOWN IN THE STAPLE PATTERN GUIDE. WHEN USING THE DOT SYSTEM , STAPLES/STAKES SHOULD BE PLACED THROUGH EACH OF THE COLORED DOTS CORRESPONDING TO THE APPROPRIATE STAPLE PATTERN.
   D. THE EDGES OF PARALLEL RECP's MUST BE STAPLED WITH APPROXIMATELY 2" – 5" (5 CM – 12.5 CM) OVERLAP DEPENDING ON RECP's TYPE.
   E. CONSECUTIVE RECP's SPLICED DOWN THE SLOPE MUST BE PLACED END OVER END (SHINGLE STYLE) WITH AN APPROXIMATE 3" (7.5 CM) OVERLAP. STAPLE THROUGH OVERLAPPED AREA, APPROXIMATELY 12" (30 CM) APART ACROSS ENTIRE RECP's WIDTH. NOTE: IN LOOSE SOIL CONDITIONS, THE USE OF STAPLE OR STAKE LENGTHS GREATER THAN 6" (15 CM) MAY BE NECESSARY TO PROPERLY SECURE THE RECP's.
2. SITE PREPARATION:
   A. PROPER SITE PREPARATION IS ESSENTIAL TO ENSURE COMPLETE CONTACT OF THE PROTECTION MATTING WITH THE SOIL.
   B. GRADE AND SHAPE AREA IF INSTALLATION.
   C. REMOVE ALL ROCKS, CLODS, TRASH, VEGETATIVE OR OTHER OBSTRUCTIONS SO THAT THE INSTALLED BLANKETS WILL HAVE DIRECT CONTACT WITH THE SOIL.
   D. PREPARE SEEDBED BY LOOSENING 2-3 INCHES OF TOPSOIL ABOVE FINAL GRADE.
   E. INCORPORATE AMENDMENTS, SUCH AS LIME AND FERTILIZER, INTO SOIL ACCORDING TO SOIL TEST AND THE SEEDING PLAN.
3. SEEDING:
   A. SEED AREA BEFORE BLANKET INSTALLATION FOR EROSION CONTROL AND REVEGETATION. SEEDING AFTER MAT INSTALLATION IS OFTEN SPECIFIED FOR TURF REINFORCEMENT APPLICATIONS. WHEN SEEDING PRIOR TO BLANKET INSTALLATION, ALL CHECK SLOTS AND OTHER AREAS DISTURBED DURING INSTALLATION MUST BE RESEEDED.
   B. WHEN SOIL FILLING IS SPECIFIED, SEED THE MATTING AND THE ENTIRE DISTURBED AREA AFTER INSTALLATION AND PRIOR TO FILLING THE MAT WITH SOIL.

EROSION CONTROL – BLANKET SLOPE PROTECTION

NOT TO SCALE

PERMANENT VEGETATION:

SPECIFICATIONS:

SITE PREPARATION:
1. INSTALL NEEDED EROSION AND SEDIMENT CONTROL MEASURES SUCH AS SILTATION BARRIERS, DIVERSIONS, AND SEDIMENT TRAPS.
2. GRADE AS NEEDED FOR THE ACCESS OF EQUIPMENT FOR SEEDBED PREPARATION, SEEDING, MULCH APPLICATION, AND MULCH ANCHORING.
3. RUNOFF SHOULD BE DIVERTED FROM THE SEEDBED AREA.
4. ON SLOPES 4:1 OR STEEPER, THE FINAL PREPARATION SHOULD INCLUDE CREATING HORIZONTAL GROOVES PERPENDICULAR O THE DIRECTION OF THE SLOPE TO CATCH SEED AND REDUCE RUNOFF.

SEEDBED PREPARATION:
1. WORK LIME AND FERTILIZER INTO THE SOIL AS NEARLY AS PRACTICAL TO A DEPTH OF 4 INCHES WITH A DISC, SPRING TOOTH HARROW OR OTHER SUITABLE EQUIPMENT. THE FINAL HARROWING OPERATION SHOULD BE ON THE GENERAL CONTOUR. CONTINUE TILLAGE UNTIL A REASONABLY UNIFORM, FINE SEEDBED IS PREPARED. ALL BUT CLAY AND SILT SOILS SHOULD BE ROLLED TO FIRM THE SEEDBED WHEREVER FEASIBLE.
2. REMOVE FROM THE SURFACE ALL STONES 2INCHES OR LARGER IN ANY DIMENSION. REMOVE ALL OTHER DEBRIS, SUCH AS WIRE, CABLE, TREE ROOTS, CONCRETE CLODS, LUMPS, TRASH OR OTHER UNSUITABLE MATERIAL.
3. INSPECT SEEDBED JUST BEFORE SEEDING. IF TRAFFIC HAS LEFT THE SOIL COMPACTED; THE AREA MUST BE TILLED AND FIRMED AS ABOVE.
4. WHERE THE SOIL HAS BEEN COMPACTED BY CONSTRUCTION OPERATIONS, LOOSEN SOIL TO A DEPTH OF 2 INCHES BEFORE APPLYING FERTILIZER, LIME AND SEED.
5. IF APPLICABLE, FERTILIZER AND ORGANIC SOIL AMENDMENTS SHOULD BE APPLIED DURING THE GROWING SEASON.
6. APPLY LIMESTONE AND FERTILIZER ACCORDING TO SOIL TEST RECOMMENDATIONS. IF SOIL TESTING IS NOT FEASIBLE ON SMALL OR VARIABLE SITES, OR WHERE TIMING IS CRITICAL FERTILIZER AND LIMESTONE MAY BE APPLIED AT THE FOLLOWING RATES:

   LIMESTONE APPLICATION RATE = 3 TONS/ACRE (138 LB./1,000–SF)*

   *EQUIVALENT TO 50% CALCIUM PLUS MAGNESIUM OXIDE

   FERTILIZER APPLICATION RATE = 600 LB./ACRE (13.8 LB./1,000–SF)*

   *LOW PHOSPHATE FERTILIZER (N–P205–K20) OR EQUIVALENT
7. FERTILIZER SHOULD BE RESTRICTED TO LOW PHOSPHATE, SLOW RELEASE NITROGEN FERTILIZER WHEN APPLIED TO AREAS BETWEEN 25 AND 250–FT FROM A SURFACE WATER BODY. NO FERTILIZER EXCEPT LIMESTONE SHOULD BE APPLIED WITHIN 25–FT OF A SURFACE WATER BODY. THESE ARE THE REQUIREMENTS FOR ANY WATER BODY PROTECTED BY THE COMPREHENSIVE SHORELAND PROTECTION ACT.

SEEDING:
1. INOCULATE ALL LEGUME SEED WITH THE CORRECT TYPE OF INOCULANT.
2. APPLY SEED UNIFORMLY BY HAND, CYCLONE SEEDER, DRILL CULTIPACKER TYPE SEEDER OR HYDROSEEDER (SLURRY INCLUDING SEED AND FERTILIZER). NORMAL SEEDING DEPTH IS FROM 1/4 TO 1/2 INCH. HYDROSEEDING THAT INCLUDES MULCH MAY BE LEFT ON SOIL SURFACE.
3. WHERE FEASIBLE EXCEPT WHERE EITHER CULTIPACKER TYPE SEEDER OR HYDROSEEDER IS USED, THE SEEDBED SHOULD BE FIRMED FOLLOWING SEEDING OPERATIONS WITH A ROLLER, OR LIGHT DRAG.
4. SPRING SEEDING USUALLY GIVES THE BEST RESULTS FOR ALL SEED MIXES OR WITH LEGUMES. PERMANENT SEEDING SHOULD BE COMPLETED 45 DAYS PRIOR TO FIRST KILLING FROST. WHEN CROWN VETCH IS SEEDED IN LATE SUMMER AT LEAST 35% OF THE SEED SHOULD BE HARD SEED (UNSCARIFIED). IF SEEDING CANNOT BE DONE WITHIN THE SPECIFIED SEEDING DATES, MULCH ACCORDING TO THE "TEMPORARY AND PERMANENT MULCHING" PRACTICE DESCRIBED IN THE NHSSM, VOL 3. AND DELAY SEEDING UNTIL THE NEXT RECOMMENDED SEEDING PERIOD.
5. AREAS SEEDED BETWEEN MAY 15 AND AUGUST 15 SHOULD BE COVERED WITH HAY OR STRAW MULCH, ACCORDING TO THE "TEMPORARY AND PERMANENT MULCHING" PRACTICE DESCRIBED IN THE NHSSM, VOL 3.
6. VEGETATED GROWTH COVERING AT LEAST 85% OF THE DISTURBED AREA SHOULD BE ACHIEVED PRIOR TO OCTOBER 15. IF THIS CONDITION IS NOT ACHIEVED, IMPLEMENT OTHER TEMPORARY STABILIZATION MEASURES FOR OVERWINTER PROTECTION.

HYDROSEEDING:
1. WHEN HYDROSEEDING (HYDRAULIC APPLICATION), PREPARE THE SEEDBED AS SPECIFIED ABOVE OR BY HAND RAKING TO LOOSEN AND SMOOTH THE SOIL AND REMOVE SURFACE STONES LARGER THAN 2 INCHES IN DIAMETER.
2. SLOPES BUST BE NO STEEPER THAN 2:1 (2 FEET HORIZONTALLY BY 1 FOOT VERTICALLY.
3. LIME AND FERTILIZER MAY BE APPLIED SIMULTANEOUSLY WITH THE SEED. THE USE OF FIBER MULCH ON CRITICAL AREAS IS NOT RECOMMENDED (UNLESS IT IS USED TO HOLD STRAW OR HAY). BETTER PROTECTION IS GAINED BY USING STRAW MULCH AND HOLDING IT WITH ADHESIVE MATERIALS OR 500 POUNDS PER ACRE OF WOOD FIBER MULCH.
4. SEEDING RATES MUST BE INCREASED BY 10% WHEN HYDROSEEDING.

MAINTENANCE REQUIREMENTS:
1. PERMANENT SEEDED AREAS SHOULD BE INSPECTED AT LEAST MONTHLY DURING THE COURSE OF CONSTRUCTION. INSPECTION, MAINTENANCE AND CORRECTIVE ACTIONS SHOULD CONTINUE UNTIL THE OWNER ASSUMES PERMANENT OPERATION OF THE SITE.
2. SEEDED AREAS SHOULD BE MOWED AS REQUIRED TO MAINTAIN A HEALTHY STAND OF VEGETATION. MOWING HEIGHT AND FREQUENCY DEPEND OF TYPE OF GRASS COVER.
3. BASED ON INSPECTION, AREAS SHOULD BE RESEEDED TO ACHIEVE FULL STABILIZATION OF EXPOSED SOILS.
4. AT A MINIMUM 85% OF THE SOIL SURFACE SHOULD BE COVERED BY VEGETATION.
5. IF ANY EVIDENCE OF EROSION OR SEDIMENTATION IS APPARENT, REPAIRS SHOULD BE MADE AND AREAS SHOULD BE RESEEDED, WITH OTHER TEMPORARY MEASURES (I.E. MULCH, ETC.) USED TO PROVIDE EROSION PROTECTION DURING THE PERIOD OF VEGETATION ESTABLISHMENT.

PERMANENT VEGETATION SEEDING RECOMMENDATIONS

USE	MIXTURE	SPECIES	LBS./ACRE	LBS./ 1,000–SF
STEEP CUTS AND FILLS, BORROW AND DISPOSAL AREAS	A	TALL FESCUE CREEPING RED FESCUE REDTOP TOTAL	20 20 2 42	0.45 0.45 0.05 0.95
WATERWAYS, EMERGENCY SPILLWAYS, AND OTHER CHANNELS WITH FLOWING WATER	A	TALL FESCUE CREEPING RED FESCUE REDTOP TOTAL	20 20 2 42	0.45 0.45 0.05 0.95
LIGHTLY USED PARKING LOTS, ODD AREAS, UNUSED LANDS, AND LOW INTENSITY RECREATION SITES	A	TALL FESCUE CREEPING RED FESCUE REDTOP TOTAL	20 20 2 42	0.45 0.45 0.05 0.95
PLAY AREAS AND ATHLETIC FIELDS (TOPSOIL ESSENTIAL FOR GOOD TURF)	F	CREEPING RED FESCUE KENTUCKY BLUEGRASS TOTAL	50 50 100	1.15 1.15 2.30

SOURCES:
1. NEW HAMPSHIRE STORMWATER MANAGEMENT MANUAL, VOLUME 3, TABLES 4–2 AND 4–3
2. MINNICK, E.L. AND H.T. MARSHALL, (AUGUST 1992)

TEMPORARY VEGETATION:

SPECIFICATIONS:

SITE PREPARATION:
1. INSTALL NEEDED EROSION AND SEDIMENT CONTROL MEASURES SUCH AS SILTATION BARRIERS, DIVERSIONS, AND SEDIMENT TRAPS.
2. GRADE AS NEEDED FOR THE ACCESS OF EQUIPMENT FOR SEEDBED PREPARATION, SEEDING, MULCH APPLICATION, AND MULCH ANCHORING.
3. RUNOFF SHOULD BE DIVERTED FROM THE SEEDBED AREA.
4. ON SLOPES 4:1 OR STEEPER, THE FINAL PREPARATION SHOULD INCLUDE CREATING HORIZONTAL GROOVES PERPENDICULAR O THE DIRECTION OF THE SLOPE TO CATCH SEED AND REDUCE RUNOFF.

SEEDBED PREPARATION:
1. STONES AND TRASH SHOULD BE REMOVED SO AS NOT TO INTERFERE WITH THE SEEDING AREA.
2. WHERE THE SOIL HAS BEEN COMPACTED BY CONSTRUCTION OPERATIONS, LOOSEN SOIL TO A DEPTH OF 2 INCHES BEFORE APPLYING FERTILIZER, LIME AND SEED.
3. IF APPLICABLE, FERTILIZER AND ORGANIC SOIL AMENDMENTS SHOULD BE APPLIED DURING THE GROWING SEASON.
4. APPLY LIMESTONE AND FERTILIZER ACCORDING TO SOIL TEST RECOMMENDATIONS. IF SOIL TESTING IS NOT FEASIBLE ON SMALL OR VARIABLE SITES, OR WHERE TIMING IS CRITICAL FERTILIZER AND LIMESTONE MAY BE APPLIED AT THE FOLLOWING RATES:

   LIMESTONE APPLICATION RATE = 3 TONS/ACRE (138 LB./1,000–SF)*

   *EQUIVALENT TO 50% CALCIUM PLUS MAGNESIUM OXIDE

   FERTILIZER APPLICATION RATE = 600 LB./ACRE (13.8 LB./1,000–SF)*

   *LOW PHOSPHATE FERTILIZER (N–P205–K20) OR EQUIVALENT
5. FERTILIZER SHOULD BE RESTRICTED TO LOW PHOSPHATE, SLOW RELEASE NITROGEN FERTILIZER WHEN APPLIED TO AREAS BETWEEN 25 AND 250–FT FROM A SURFACE WATER BODY. NO FERTILIZER EXCEPT LIMESTONE SHOULD BE APPLIED WITHIN 25–FT OF A SURFACE WATER BODY. THESE ARE THE REQUIREMENTS FOR ANY WATER BODY PROTECTED BY THE COMPREHENSIVE SHORELAND PROTECTION ACT.

SEEDING:
1. APPLY SEED UNIFORMLY BY HAND, CYCLONE SEEDER, DRILL CULTIPACKER TYPE SEEDER OR HYDRO SEEDER (SLURRY INCLUDING SEED AND FERTILIZER). NORMAL SEEDING DEPTH IS FROM 1/4 TO 1/2 INCH. HYDROSEEDING THAT INCLUDES MULCH MAY BE LEFT ON SOIL SURFACE. SEEDING RATES MUST BE INCREASED BY 10% WHEN HYDROSEEDING.
2. TEMPORARY SEED SHOULD TYPICALLY OCCUR PRIOR TO SEPTEMBER 15.
3. AREAS SEEDED BETWEEN MAY 15 AND AUGUST 15 SHOULD BE COVERED WITH HAY OR STRAW MULCH, ACCORDING TO THE "TEMPORARY AND PERMANENT MULCHING" PRACTICE DESCRIBED IN THE NHSSM, VOL 3.
4. VEGETATED GROWTH COVERING AT LEAST 85% OF THE DISTURBED AREA SHOULD BE ACHIEVED PRIOR TO OCTOBER 15. IF THIS CONDITION IS NOT ACHIEVED, IMPLEMENT OTHER TEMPORARY STABILIZATION MEASURES FOR OVERWINTER PROTECTION.

MAINTENANCE REQUIREMENTS:
1. TEMPORARY SEEDING SHOULD BE INSPECTED WEEKLY AFTER ANY RAINFALL EXCEEDING 1/2 INCH IN 24 HOURS ON ACTIVE CONSTRUCTION SITES. TEMPORARY SEEDING SHOULD BE INSPECTED JUST PRIOR TO SEPTEMBER 15, TO ASCERTAIN WHETHER ADDITIONAL SEEDING IS REQUIRED TO PROVIDE STABILIZATION OVER THE WINTER PERIOD.
2. BASED ON INSPECTION, AREAS SHOULD BE RESEEDED TO ACHIEVE FULL STABILIZATION OF EXPOSED SOILS. IF IT IS TOO LATE IN THE PLANTING SEASON TO APPLY ADDITIONAL SEED, THEN OTHER TEMPORARY STABILIZATION MEASURES SHOULD BE IMPLEMENTED.
3. IF ANY EVIDENCE OF EROSION OR SEDIMENTATION IS APPARENT, REPAIRS SHOULD BE MADE AND AREAS SHOULD BE RESEEDED, WITH OTHER TEMPORARY MEASURES (I.E. MULCH, ETC.) USED TO PROVIDE EROSION PROTECTION DURING THE PERIOD OF VEGETATION ESTABLISHMENT.

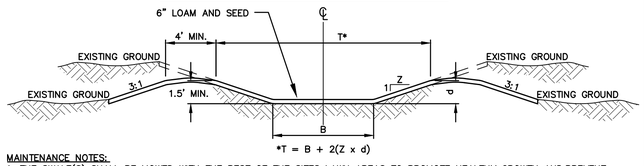
TEMPORARY VEGETATION SEEDING RECOMMENDATIONS

SPECIES	PER ACRE BUSHELS (BU) POUNDS (LBS.)	PER 1,000–SF	REMARKS
WINTER RYE	2.5 BU OR 112 LBS.	2.5 LBS.	BEST FOR FALL SEEDING. SEED FROM AUGUST 15 TO SEPTEMBER 15 FOR BEST COVER. SEED TO A DEPTH OF 1 INCH.
OATS	2.5 BU OR 80 LBS.	2.0 LBS.	BEST FOR SPRING SEEDING. SEED NO LATER THAN MAY 15 FOR SUMMER PROTECTION. SEED TO A DEPTH OF 1 INCH.
ANNUAL RYEGRASS	40 LBS.	1.0 LB.	GROWS QUICKLY, BUT IS OF SHORT DURATION. USE WHERE APPEARANCES ARE IMPORTANT. SEED EARLY SPRING AND/OR BETWEEN AUGUST 15 AND SEPTEMBER 15. COVER THE SEED WITH NO MORE THAN 0.25 INCH OF SOIL.
PERENNIAL RYEGRASS	30 LBS.	0.7 LBS.	BEST FOR FALL SEEDING. SEED FROM AUGUST 15 TO SEPTEMBER 15 FOR BEST COVER. SEED TO A DEPTH OF 1 INCH.

SOURCES:
1. NEW HAMPSHIRE STORMWATER MANAGEMENT MANUAL, VOLUME 3, TABLE 4–1
2. MINNICK, E.L. AND H.T. MARSHALL, (AUGUST 1992)

SWALE DIMENSION TABLE

LOCATION	B	d	Z	T	LENGTH
WHERE SHOWN	4–FT	2–FT	3–FT	20–FT	AS SHOWN



MAINTENANCE NOTES:
1. THE SWALE(S) SHALL BE MOWED WITH THE REST OF THE SITES LAWN AREAS TO PROMOTE HEALTHY GROWTH AND PREVENT THE ENCROACHMENT OF WEEDS AND WOODY VEGETATION. DO NOT MOW GRASS IN SWALE(S) TOO SHORT. THIS WILL REDUCE THE SWALES FILTERING ABILITY.
2. THE SWALE(S) SHOULD BE FERTILIZED ON AN AS NECESSARY BASIS, TO KEEP THE GRASS HEALTHY. OVER FERTILIZATION COULD RESULT IN THE SWALE(S) BECOMING A SOURCE OF POLLUTION TO THE SURROUNDING WETLAND AREAS.
3. THE SWALE(S) SHOULD BE INSPECTED PERIODICALLY AND AFTER EVERY MAJOR STORM. RILLS AND DAMAGED AREAS SHOULD BE PROMPTLY REPAIRED AND RE-VEGETATED AS NECESSARY TO PREVENT FURTHER DETERIORATION.

VEGETATED SWALE DETAIL

NOT TO SCALE

No.	DATE	DESCRIPTION	DESIGNER	REVIEWER
3.	6/20/2019	TAC SUBMITTAL	JVA/DAD	RRL
2.	5/20/2019	TAC SUBMITTAL	JVA/DAD	RRL
1.	3/18/2019	TAC SUBMITTAL	JVA/DAD	RRL

STATE OF NEW HAMPSHIRE – PROFESSIONAL ENGINEER – RICHARD LUNDBORN No. 10943 LICENSED

SCALE: HORZ.: NTS VERT.:
DATUM: HORZ.: VERT.:
0
GRAPHIC SCALE

FUSS & O'NEILL
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KENNEBUNK, MAINE 04043
207.363.0669
www.fando.com

CATE STREET DEVELOPMENT, LLC

DETAILS

CATE STREET/ WEST END YARDS
PORTSMOUTH NEW HAMPSHIRE

PROJ. No.: 20180317.A10
DATE: 06/20/2019

CD-561

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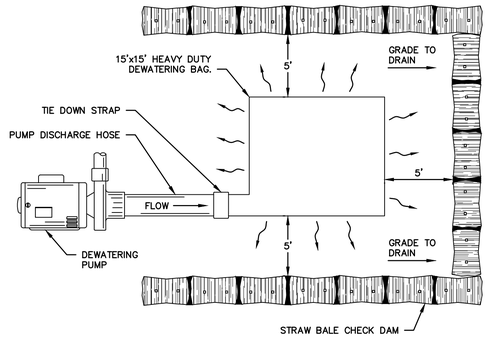
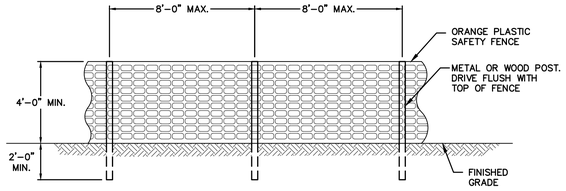
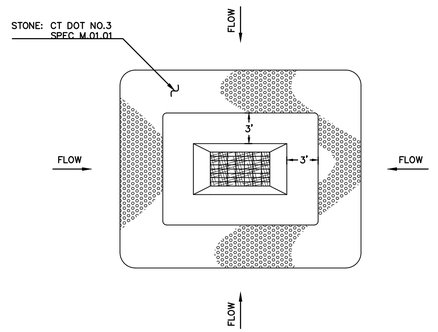


DEWATERING BAG
NOT TO SCALE

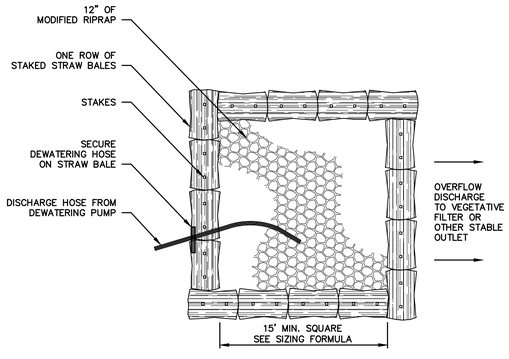


FOR TREE PROTECTION FENCE SHALL BE PLACED AT DRIPLINE OF TREES.

PROTECTIVE SAFETY FENCE
SCALE: N.T.S.



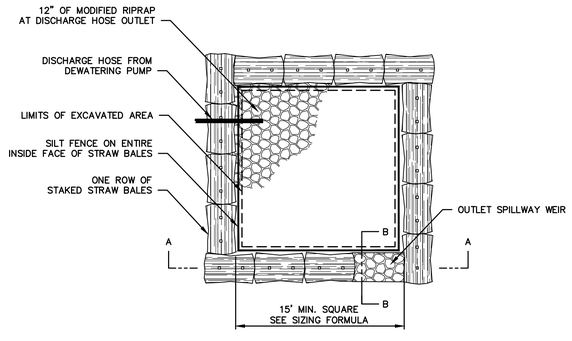
LOW POINT STONE CHECK DAM
NOT TO SCALE



SIZING FORMULA:
CUBIC FT. OF REQUIRED STORAGE = PUMP DISCHARGE RATE (GPM) x 16

PLAN

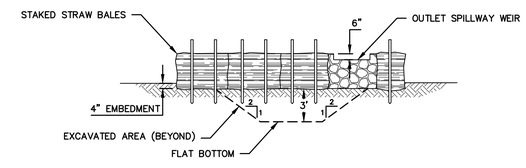
PUMP SETTLING BASIN TYPE I
NOT TO SCALE

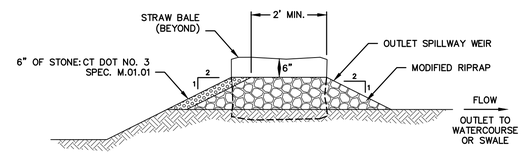


SIZING FORMULA:
CUBIC FT. OF REQUIRED STORAGE = PUMP DISCHARGE RATE (GPM) x 16

PLAN

PUMP SETTLING BASIN TYPE II
NOT TO SCALE





No.	DATE	DESCRIPTION	DESIGNER	REVIEWER
3.	6/20/2019	TAC SUBMITTAL	JVA/DAD	RRL
2.	5/20/2019	TAC SUBMITTAL	JVA/DAD	RRL
1.	3/18/2019	TAC SUBMITTAL	JVA/DAD	RRL

STATE OF NEW HAMPSHIRE – PROFESSIONAL ENGINEER – RICHARD R. LUNDBORN No. 10943 LICENSED

SCALE: HORZ.: NTS VERT.: DATUM: HORZ.: VERT.: GRAPHIC SCALE 0

FUSS & O'NEILL
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KENNEBUNK, MAINE 04043
207.363.0669
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CATE STREET DEVELOPMENT, LLC
EROSION CONTROL DETAILS
CATE STREET/ WEST END YARDS
PORTSMOUTH NEW HAMPSHIRE

PROJ. No.: 20180317.A10
DATE: 06/20/2019

CD-562

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CT-201

PROJ. No.: 20180317.A10
DATE: 07/24/2019

CATE STREET DEVELOPMENT, LLC

SU-40 BOX TRUCK
TURNING MOVEMENTS
CATE STREET/ WEST END YARDS

PORTSMOUTH NEW HAMPSHIRE

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KENNEBUNK, MAINE 04043
207.363.0669
www.fando.com

SCALE:
HORZ.: 1"=30'
VERT.: 1"=30'
DATUM:
HORZ.: NAD83
VERT.: NGVD29
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GRAPHIC SCALE

No.	DATE	DESCRIPTION	DESIGNER	REVIEWER
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2.	5/20/2019	TAC SUBMITTAL	JVA/DAD	RRL
1.	3/18/2019	TAC SUBMITTAL	JVA/DAD	RRL

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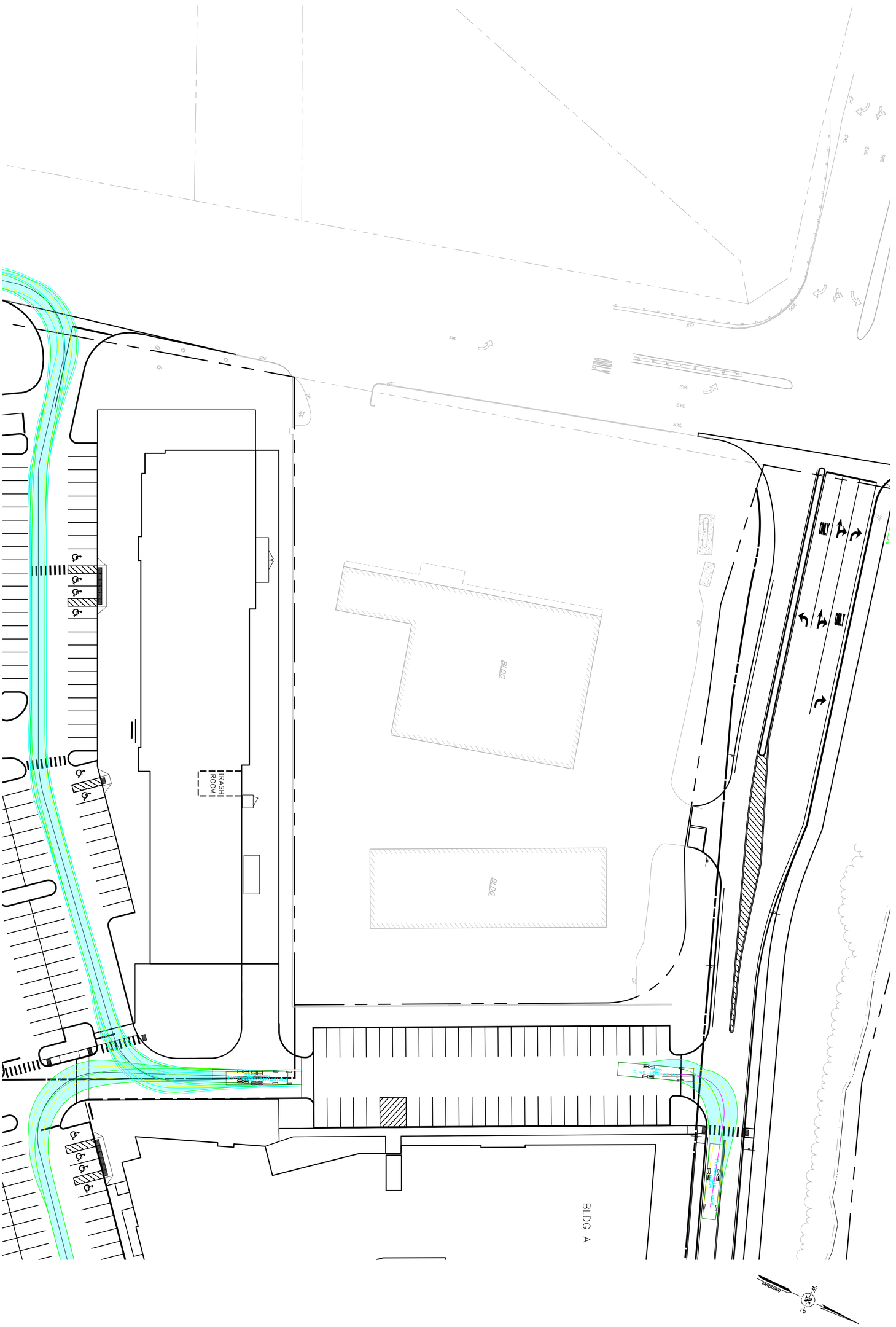

CT-202

PROJ. No: 20180317.A10
DATE: 07/24/2019

CATE STREET DEVELOPMENT, LLC

TOWER 5
TURNING MOVEMENTS
CATE STREET/ WEST END YARDS

PORTSMOUTH NEW HAMPSHIRE

FUSS & O'NEILL
UPPER SQUARE BUSINESS CENTER
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KENNEBUNK, MAINE 04043
207.363.0669
www.fando.com

SCALE:
HORZ.: 1"=30'
VERT.: 1"=30'
DATUM:
HORZ.: NAD83
VERT.: NGVD29
30 15 0 30
GRAPHIC SCALE

No.	DATE	DESCRIPTION	DESIGNER	REVIEWER
4.	7/24/2019	TAC SUBMITTAL	JVA/DAD	RRL
3.	6/20/2019	TAC SUBMITTAL	JVA/DAD	RRL
2.	5/20/2019	TAC SUBMITTAL	JVA/DAD	RRL
1.	3/18/2019	TAC SUBMITTAL	JVA/DAD	RRL

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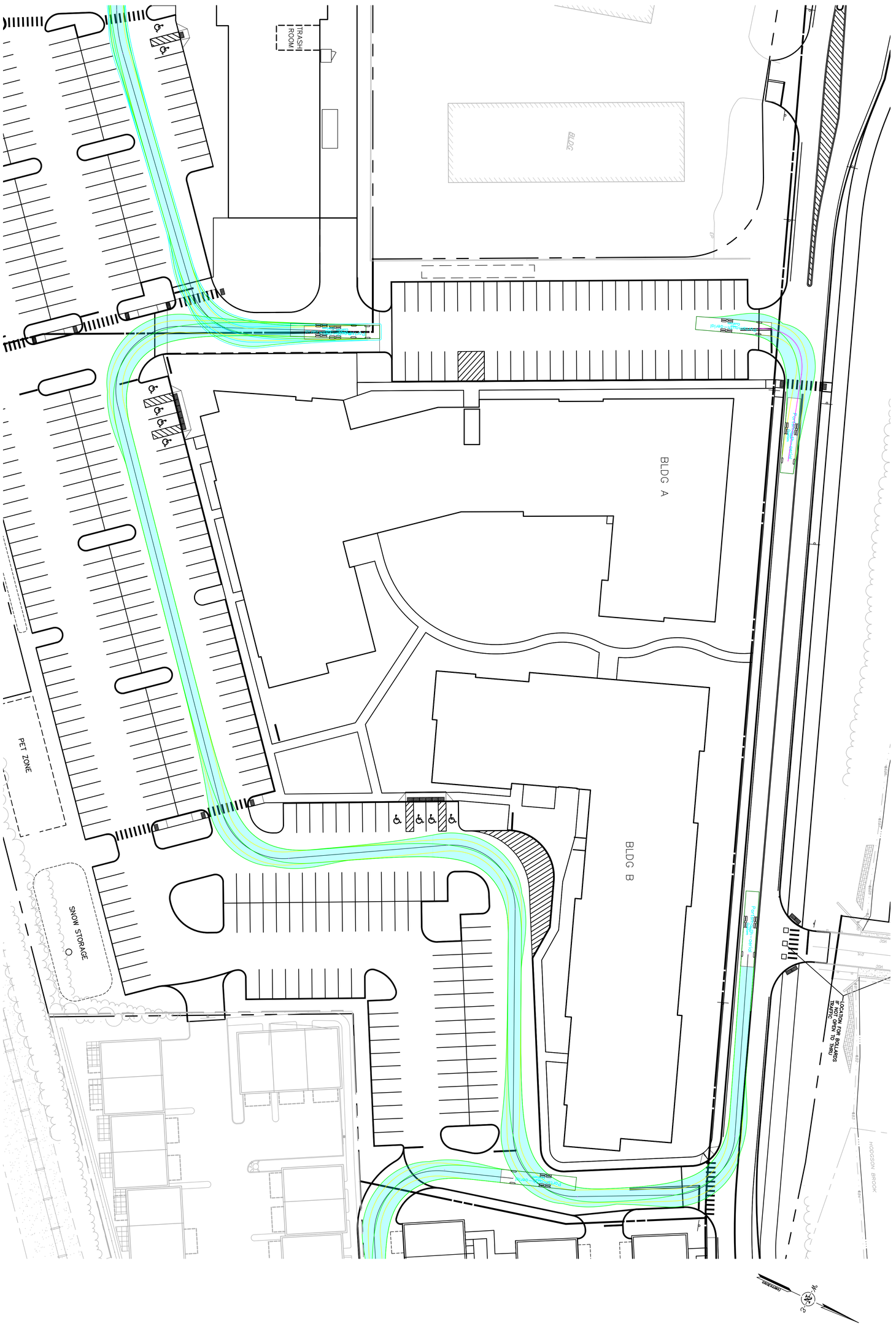

CT-203

PROJ. No: 20180317.A10
DATE: 07/24/2019

CATE STREET DEVELOPMENT, LLC

TOWER 5
TURNING MOVEMENTS
CATE STREET/ WEST END YARDS

PORTSMOUTH NEW HAMPSHIRE

FUSS & O'NEILL
UPPER SQUARE BUSINESS CENTER
5 FLETCHER STREET, SUITE 1
KENNEBUNK, MAINE 04043
207.363.0669
www.fando.com

SCALE:
HORZ.: 1"=30'
VERT.: 1"=30'
DATUM:
HORZ.: NAD83
VERT.: NGVD29
30 15 0 30
GRAPHIC SCALE

No.	DATE	DESCRIPTION	DESIGNER	REVIEWER
4.	7/24/2019	TAC SUBMITTAL	JVA/DAD	RRL
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2.	5/20/2019	TAC SUBMITTAL	JVA/DAD	RRL
1.	3/18/2019	TAC SUBMITTAL	JVA/DAD	RRL

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MS VIEW: | LAYER STATE: | Plotter: DWG TO PDF.PC3 CTB File: FO.STB

CATE STREET DEVELOPMENT, LLC

TOWER 5
TURNING MOVEMENTS
CATE STREET/ WEST END YARDS

PORTSMOUTH NEW HAMPSHIRE

FUSS & O'NEILL
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5 FLETCHER STREET, SUITE 1
KENNEBUNK, MAINE 04043
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SCALE:
HORZ.: 1"=20'
VERT.: 1"=20'

DATUM:
HORZ.: NAD83
VERT.: NGVD29

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GRAPHIC SCALE

No.	DATE	DESCRIPTION	DESIGNER	REVIEWER
4.	7/24/2019	TAC SUBMITTAL	JVA/DAD	RRL
3.	6/20/2019	TAC SUBMITTAL	JVA/DAD	RRL
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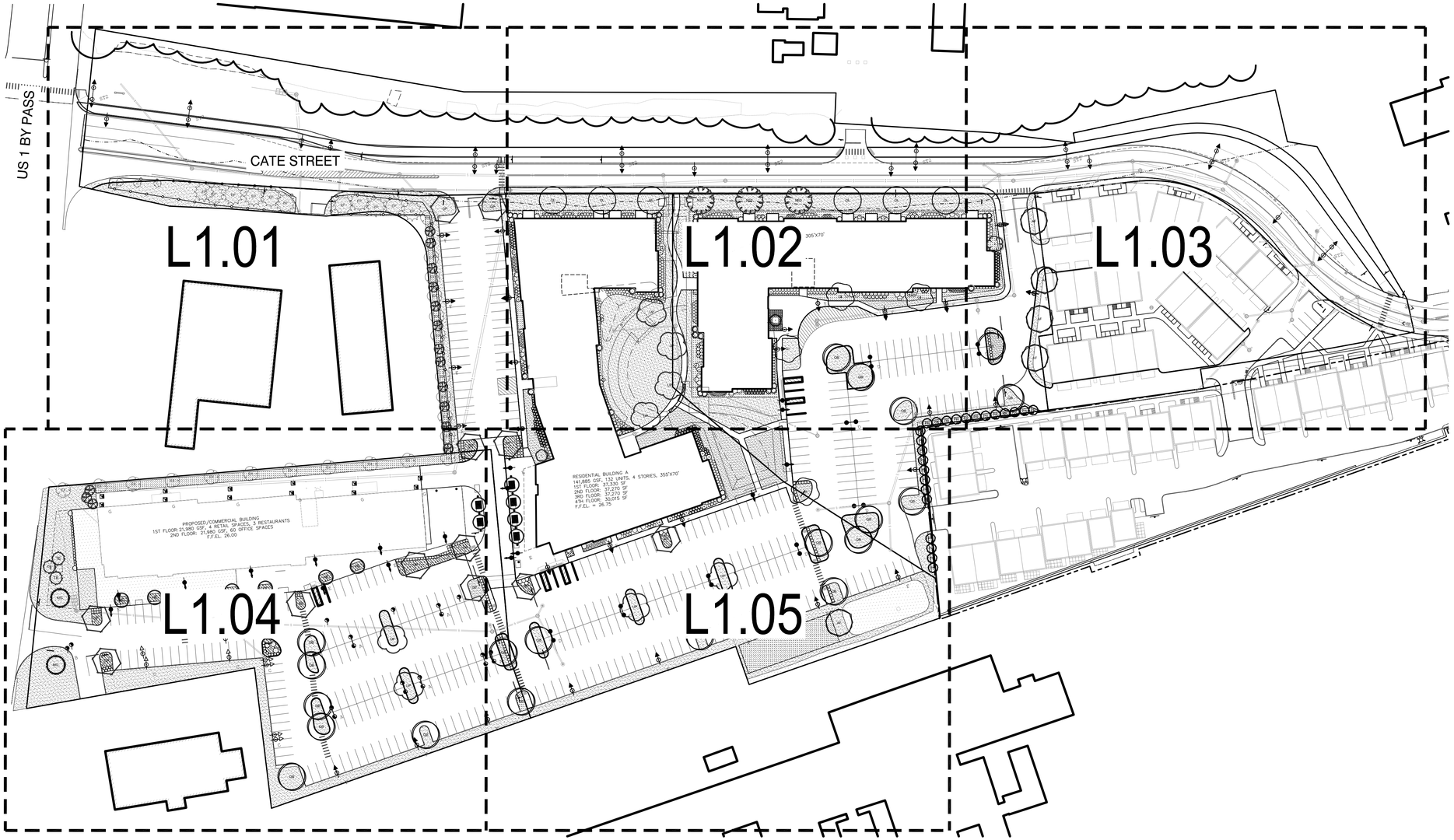
1.	3/18/2019	TAC SUBMITTAL	JVA/DAD	RRL

PROJ. No.: 20180317.A10
DATE: 07/24/2019

CT-204



NOTE:

REFER TO PLANT SCHEDULE ON SHEET L1.06 FOR THE DETAILED PLANT SCHEDULE PER SECTION 6.2-2A OF THE CITY OF PORTSMOUTH SITE PLAN REVIEW REGULATIONS.

SITE PLAN NOTE:

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

2. ALL SHRUBS WILL BE MAINTAINED TO A HEIGHT OF NO MORE THAN 36" TO ENSURE SIGHT LINES AT INTERSECTIONS.

60 0 60 120 180

Scale 1" = 60'

SITE solutions
LANDSCAPE ARCHITECTURE+ LAND PLANNING
3715 Northside Parkway T: 404.705.9411
300 Northcreek, Bldg. 300 F: 404.705.9491
Atlanta, Georgia 30327 www.sitesolutionsla.com

PROFESSIONAL STAMP:

WEST END YARDS

PREPARED FOR

CATE STREET DEVELOPMENT LLC

SHEET STATUS

MARK	DATE	BY	RELEASE
A	03/18/2019	SS	TAC SUBMITTAL
B	05/20/2019	SS	TAC RE-SUBMITTAL
C	06/20/2019	SS	TAC RE-SUBMITTAL
D	07/24/2019	JM	TAC RE-SUBMITTAL

SHEET TITLE:

LANDSCAPE PLAN

PROJECT NUMBER:

18041.00

L1.00

DATE: 03.18.2019

PERMIT ISSUE

EXISTING TREE LINE

100 FT. WETLAND BUFFER

US 1 BY PASS

CATE STREET

ST2

EP

EX

GP

FA 367

PA

FA 9,779

MM 4,548

PROPOSED TREE PROTECTION FENCE

EXISTING PINE TREES TO REMAIN

EXISTING SHRUBS TO REMAIN

EXISTING SIGN TO REMAIN

EXISTING UHAUL TO REMAIN

EXISTING MAPLE TREES TO REMAIN

EXISTING SCREEN FENCE & WALL TO REMAIN

REPAIR FENCE WHERE REQUIRED

MAINTAIN ALL PROPOSED PLANT MATERIAL TO MEET SIGHT LINE VISIBILITY REQUIREMENTS

PROPOSED TREE PROTECTION FENCE

SHEET L1.02

SHEET L1.04

PLANT SCHEDULE PLANT SCHEDULE

TREES	BOTANICAL / COMMON NAME
AF	Acer rubrum `Franksred` TM / Red Sunset Maple
GI	Gleditsia triacanthos inermis `Skycole` TM / Skyline Thornless Honey Locust
GP	Ginkgo biloba `Princeton Sentry` / Princeton Sentry Ginkgo
ME	Magnolia x `Elizabeth` / Magnolia
MG	Metasequoia glyptostroboides / Dawn Redwood
NS2	Nyssa sylvatica / Sour Gum
PA	Picea abies / Norway Spruce
PE	Platanus x acerifolia `Exclamation` TM / Exclamation London Plane Tree
PR	Pinus rigida / Pitch Pine
QB	Quercus bicolor / Swamp White Oak
QL	Quercus robur x bicolor `Long` / Regal Prince Oak
SP	Stewartia pseudocamellia / Japanese Stewartia
TE	Thuja occidentalis `Emerald` / Emerald Arborvitae
TH	Thuja occidentalis `Holmstrup` / Holmstrup Cedar
TS	Thuja occidentalis `Smaragd` / Emerald Green Arborvitae
UP	Ulmus americana `Princeton` / American Elm
SHRUBS	BOTANICAL / COMMON NAME
B2	Buxus sempervirens / American Boxwood
BW	Buxus microphylla `Wintergreen` / Wintergreen Boxwood
CH	Clethra alnifolia `Hummingbird` / Summersweet Clethra
HB	Hibiscus syriacus `Blue Satin` / Rose-of-Sharon
HL	Hydrangea paniculata `Limelight` TM / Limelight Hydrangea
IP	Ilex x meserveae `Blue Prince` TM / Blue Prince Holly
MP	Myrica pensylvanica / Northern Bayberry
PM	Pinus mugo / Mugo Pine
RG	Rhus aromatica `Gro-Low` / Gro-Low Fragrant Sumac
RP	Rhododendron x `P.J.M.` / Rhododendron P.J.M.
SB	Schizachyrium scoparium `Blue Heaven` / Blue Heaven Little Bluestem
SG	Spiraea japonica `Goldmound` / Spirea
SM	Syringa meyeri `Palibin` / Dwarf Korean Lilac
TD	Taxus x media `Densiformis` / Dense Yew
GROUND COVERS	BOTANICAL / COMMON NAME
AB	Amsonia tabernaemontana `Blue Ice` / Blue Ice Star Flower
FA	Festuca arundinacea / Tall Fescue Seed Mix
HO	Hemerocallis x `Stella de Oro` / Stella de Oro Daylily
LC	Liriope spicata / Creeping Lily Turf
MM	Mulch / Hardwood Mulch
PA2	Perovskia atriplicifolia / Russian Sage

SITE PLAN NOTE:

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

2. ALL SHRUBS WILL BE MAINTAINED TO A HEIGHT OF NO MORE THAN 36" TO ENSURE SIGHT LINES AT INTERSECTIONS.

20 0 20 40 60

Scale 1" = 20'

SITE solutions

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Atlanta, Georgia 30327 www.sitesolutionsla.com

PROFESSIONAL STAMP:

WEST END YARDS

PREPARED FOR

CATE STREET DEVELOPMENT LLC

SHEET STATUS

MARK	DATE	BY	RELEASE
A	03/18/2019	SS	TAC SUBMITTAL
B	05/20/2019	SS	TAC RE-SUBMITTAL
C	06/20/2019	SS	TAC RE-SUBMITTAL
D	07/24/2019	JM	TAC RE-SUBMITTAL

SHEET TITLE:

LANDSCAPE PLAN

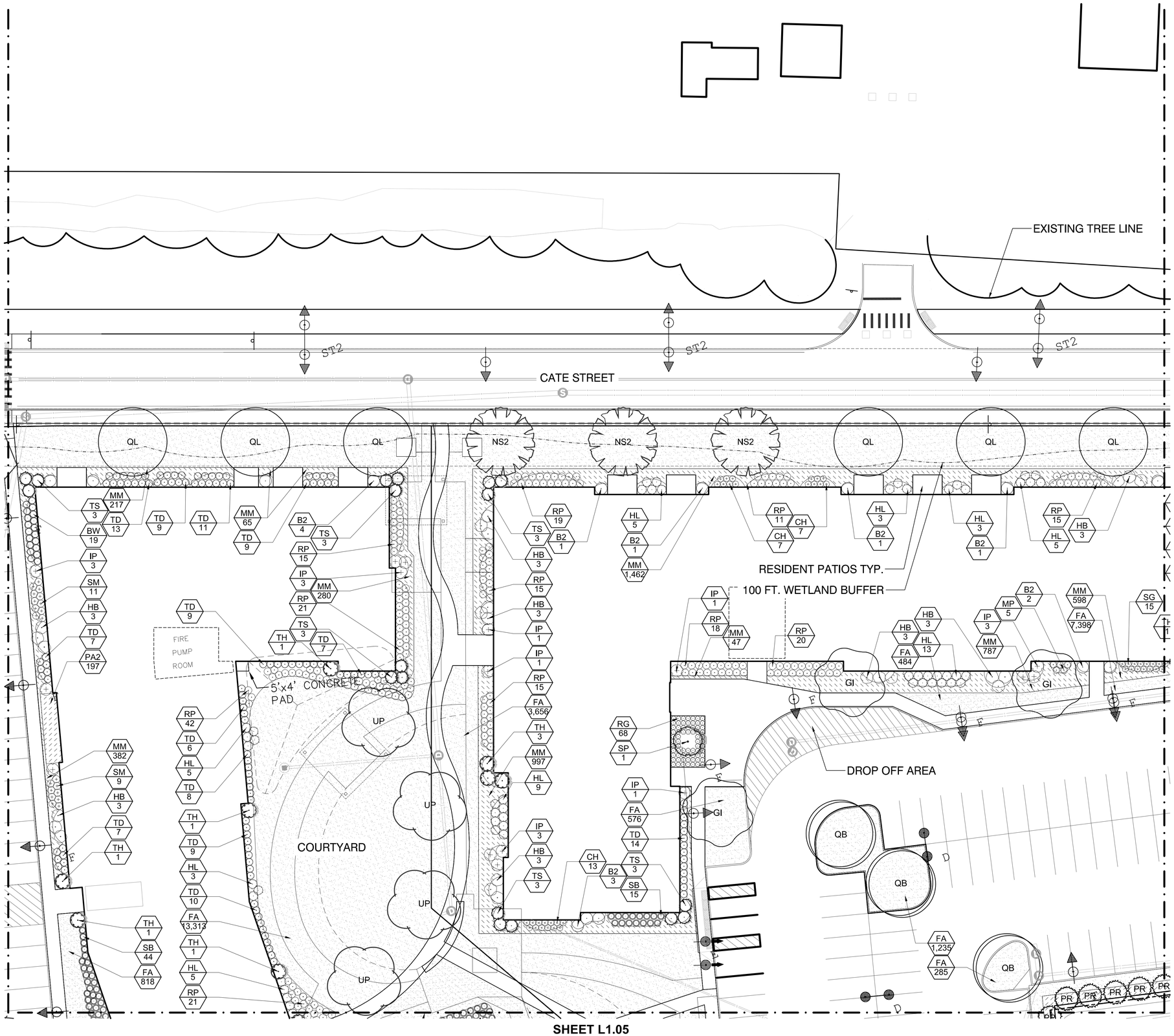
PROJECT NUMBER:

18041.00

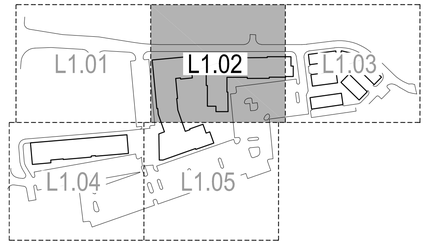
L1.01

DATE: 03.18.2019

PERMIT ISSUE



SHEET L1.05



PLANT SCHEDULE PLANT SCHEDULE

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IP	Ilex x meserveae `Blue Prince` TM / Blue Prince Holly
MP	Myrica pensylvanica / Northern Bayberry
PM	Pinus mugo / Mugo Pine
RG	Rhus aromatica `Gro-Low` / Gro-Low Fragrant Sumac
RP	Rhododendron x `P.J.M.` / Rhododendron P.J.M.
SB	Schizachyrium scoparium `Blue Heaven` / Blue Heaven Little Bluestem
SG	Spiraea japonica `Goldmound` / Spirea
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HO	Hemerocallis x `Stella de Oro` / Stella de Oro Daylily
LC	Liriope spicata / Creeping Lily Turf
MM	Mulch / Hardwood Mulch
PA2	Perovskia atriplicifolia / Russian Sage

SITE PLAN NOTE:

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20 0 20 40 60
Scale 1" = 20'

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Atlanta, Georgia 30327 www.sitesolutionsla.com

PROFESSIONAL STAMP:

WEST END YARDS

PREPARED FOR

CATE STREET DEVELOPMENT LLC

SHEET STATUS

MARK	DATE	BY	RELEASE
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B	05/20/2019	SS	TAC RE-SUBMITTAL
C	06/20/2019	SS	TAC RE-SUBMITTAL
D	07/24/2019	JM	TAC RE-SUBMITTAL

SHEET TITLE:

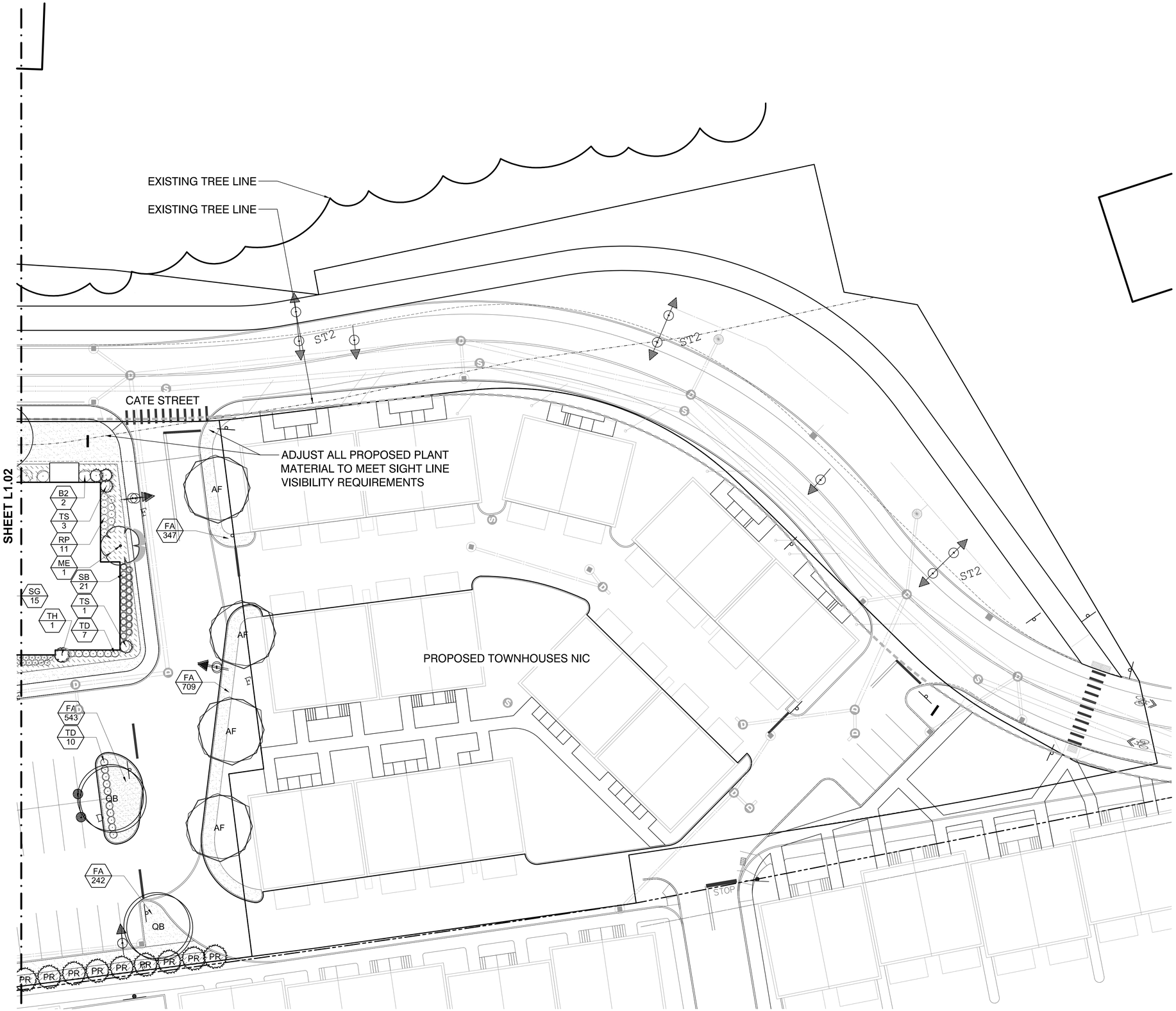
LANDSCAPE PLAN

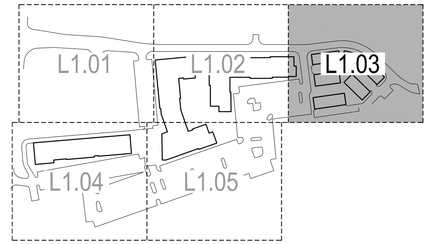
PROJECT NUMBER:
18041.00

L1.02

DATE: 03.18.2019

PERMIT ISSUE





PLANT SCHEDULE PLANT SCHEDULE	
TREES	BOTANICAL / COMMON NAME
AF	Acer rubrum `Franksred` TM / Red Sunset Maple
GI	Gleditsia triacanthos inermis `Skycole` TM / Skyline Thornless Honey Locust
GP	Ginkgo biloba `Princeton Sentry` / Princeton Sentry Ginkgo
ME	Magnolia x `Elizabeth` / Magnolia
MG	Metasequoia glyptostroboides / Dawn Redwood
NS2	Nyssa sylvatica / Sour Gum
PA	Picea ables / Norway Spruce
PE	Platanus x acerifolia `Exclamation` TM / Exclamation London Plane Tree
PR	Pinus riglda / Pitch Pine
QB	Quercus bicolor / Swamp White Oak
QL	Quercus robur x bicolor `Long` / Regal Prince Oak
SP	Stewartia pseudocamellia / Japanese Stewartia
TE	Thuja occidentalis `Emerald` / Emerald Arborvitae
TH	Thuja occidentalis `Holmstrup` / Holmstrup Cedar
TS	Thuja occidentalis `Smaragd` / Emerald Green Arborvitae
UP	Ulmus americana `Princeton` / American Elm
SHRUBS	BOTANICAL / COMMON NAME
B2	Buxus sempervirens / American Boxwood
BW	Buxus microphylla `Wintergreen` / Wintergreen Boxwood
CH	Clethra alnifolia `Hummingbird` / Summersweet Clethra
HB	Hibiscus syriacus `Blue Satin` / Rose-of-Sharon
HL	Hydrangea paniculata `Limelight` TM / Limelight Hydrangea
IP	Ilex x meserveae `Blue Prince` TM / Blue Prince Holly
MP	Myrica pensylvanica / Northern Bayberry
PM	Pinus mugo / Mugo Pine
RG	Rhus aromatica `Gro-Low` / Gro-Low Fragrant Sumac
RP	Rhododendron x `P.J.M.` / Rhododendron P.J.M.
SB	Schizachyrium scoparium `Blue Heaven` / Blue Heaven Little Bluestem
SG	Spiraea japonica `Goldmound` / Spirea
SM	Syringa meyeri `Palibin` / Dwarf Korean Lilac
TD	Taxus x media `Densiformis` / Dense Yew
GROUND COVERS	BOTANICAL / COMMON NAME
AB	Amsonia tabernaemontana `Blue Ice` / Blue Ice Star Flower
FA	Festuca arundinacea / Tall Fescue Seed Mix
HO	Hemerocallis x `Stella de Oro` / Stella de Oro Daylily
LC	Liriope spicata / Creeping Lily Turf
MM	Mulch / Hardwood Mulch
PA2	Perovskia atriplicifolia / Russian Sage

SITE PLAN NOTE:

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

2. ALL SHRUBS WILL BE MAINTAINED TO A HEIGHT OF NO MORE THAN 36" TO ENSURE SIGHT LINES AT INTERSECTIONS.

20 0 20 40 60
Scale 1" = 20'

SITE solutions
LANDSCAPE ARCHITECTURE+ LAND PLANNING
3715 Northside Parkway T: 404.705.9411
300 Northcreek, Bldg. 300 F: 404.705.9491
Atlanta, Georgia 30327 www.sitesolutionsla.com

PROFESSIONAL STAMP:

WEST END YARDS

PREPARED FOR

CATE STREET DEVELOPMENT LLC

SHEET STATUS			
MARK	DATE	BY	RELEASE
A	03/18/2019	SS	TAC SUBMITTAL
B	05/20/2019	SS	TAC RE-SUBMITTAL
C	06/20/2019	SS	TAC RE-SUBMITTAL
D	07/24/2019	JM	TAC RE-SUBMITTAL

SHEET TITLE:

LANDSCAPE PLAN

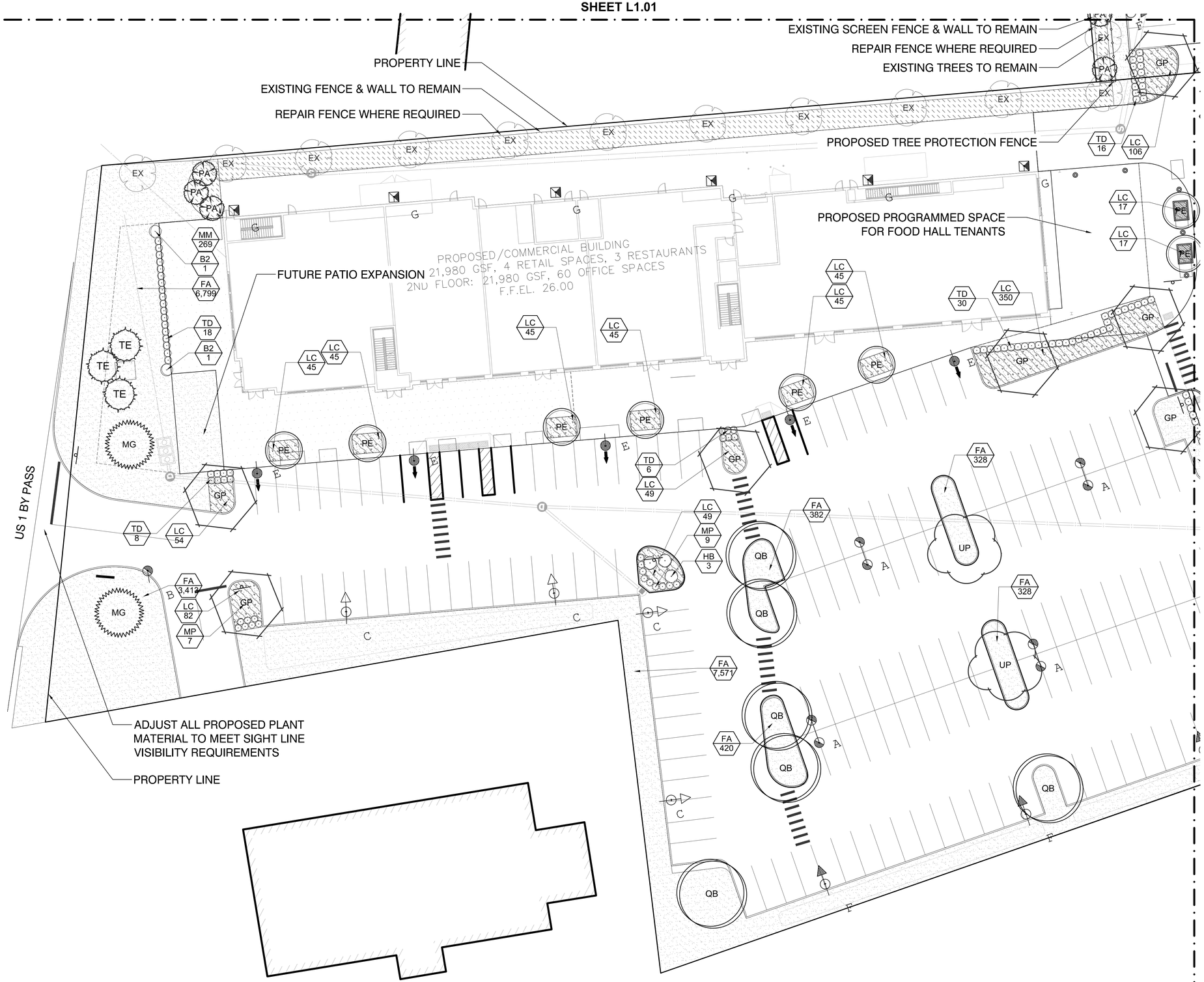
PROJECT NUMBER:
18041.00

L1.03

DATE: 03.18.2019

PERMIT ISSUE

SHEET L1.01



SHEET L1.05

PLANT SCHEDULE PLANT SCHEDULE

TREES	BOTANICAL / COMMON NAME
AF	Acer rubrum `Franksred` TM / Red Sunset Maple
GI	Gleditsia triacanthos inermis `Skycole` TM / Skyline Thornless Honey Locust
GP	Ginkgo biloba `Princeton Sentry` / Princeton Sentry Ginkgo
ME	Magnolia x `Elizabeth` / Magnolia
MG	Metasequoia glyptostroboides / Dawn Redwood
NS2	Nyssa sylvatica / Sour Gum
PA	Picea abies / Norway Spruce
PE	Platanus x acerifolia `Exclamation` TM / Exclamation London Plane Tree
PR	Pinus rigida / Pitch Pine
QB	Quercus bicolor / Swamp White Oak
QL	Quercus robur x bicolor `Long` / Regal Prince Oak
SP	Stewartia pseudocamellia / Japanese Stewartia
TE	Thuja occidentalis `Emerald` / Emerald Arborvitae
TH	Thuja occidentalis `Holmstrup` / Holmstrup Cedar
TS	Thuja occidentalis `Smaragd` / Emerald Green Arborvitae
UP	Ulmus americana `Princeton` / American Elm
SHRUBS	BOTANICAL / COMMON NAME
B2	Buxus sempervirens / American Boxwood
BW	Buxus microphylla `Wintergreen` / Wintergreen Boxwood
CH	Clethra alnifolia `Hummingbird` / Summersweet Clethra
HB	Hibiscus syriacus `Blue Satin` / Rose-of-Sharon
HL	Hydrangea paniculata `Limelight` TM / Limelight Hydrangea
IP	Ilex x meserveae `Blue Prince` TM / Blue Prince Holly
MP	Myrica pensylvanica / Northern Bayberry
PM	Pinus mugo / Mugo Pine
RG	Rhus aromatica `Gro-Low` / Gro-Low Fragrant Sumac
RP	Rhododendron x `P.J.M.` / Rhododendron P.J.M.
SB	Schizachyrium scoparium `Blue Heaven` / Blue Heaven Little Bluestem
SG	Spiraea japonica `Goldmound` / Spirea
SM	Syringa meyeri `Palibin` / Dwarf Korean Lilac
TD	Taxus x media `Densiformis` / Dense Yew
GROUND COVERS	BOTANICAL / COMMON NAME
AB	Amsonia tabernaemontana `Blue Ice` / Blue Ice Star Flower
FA	Festuca arundinacea / Tall Fescue Seed Mix
HO	Hemerocallis x `Stella de Oro` / Stella de Oro Daylily
LC	Liriope spicata / Creeping Lily Turf
MM	Mulch / Hardwood Mulch
PA2	Perovskia atriplicifolia / Russian Sage

SITE PLAN NOTE:

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

2. ALL SHRUBS WILL BE MAINTAINED TO A HEIGHT OF NO MORE THAN 36" TO ENSURE SIGHT LINES AT INTERSECTIONS.

20 0 20 40 60
Scale 1" = 20'

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Atlanta, Georgia 30327 www.sitesolutionsla.com

PROFESSIONAL STAMP:

WEST END YARDS

PREPARED FOR

CATE STREET DEVELOPMENT LLC

SHEET STATUS

MARK	DATE	BY	RELEASE
A	03/18/2019	SS	TAC SUBMITTAL
B	05/20/2019	SS	TAC RE-SUBMITTAL
C	06/20/2019	SS	TAC RE-SUBMITTAL
D	07/24/2019	JM	TAC RE-SUBMITTAL

SHEET TITLE:

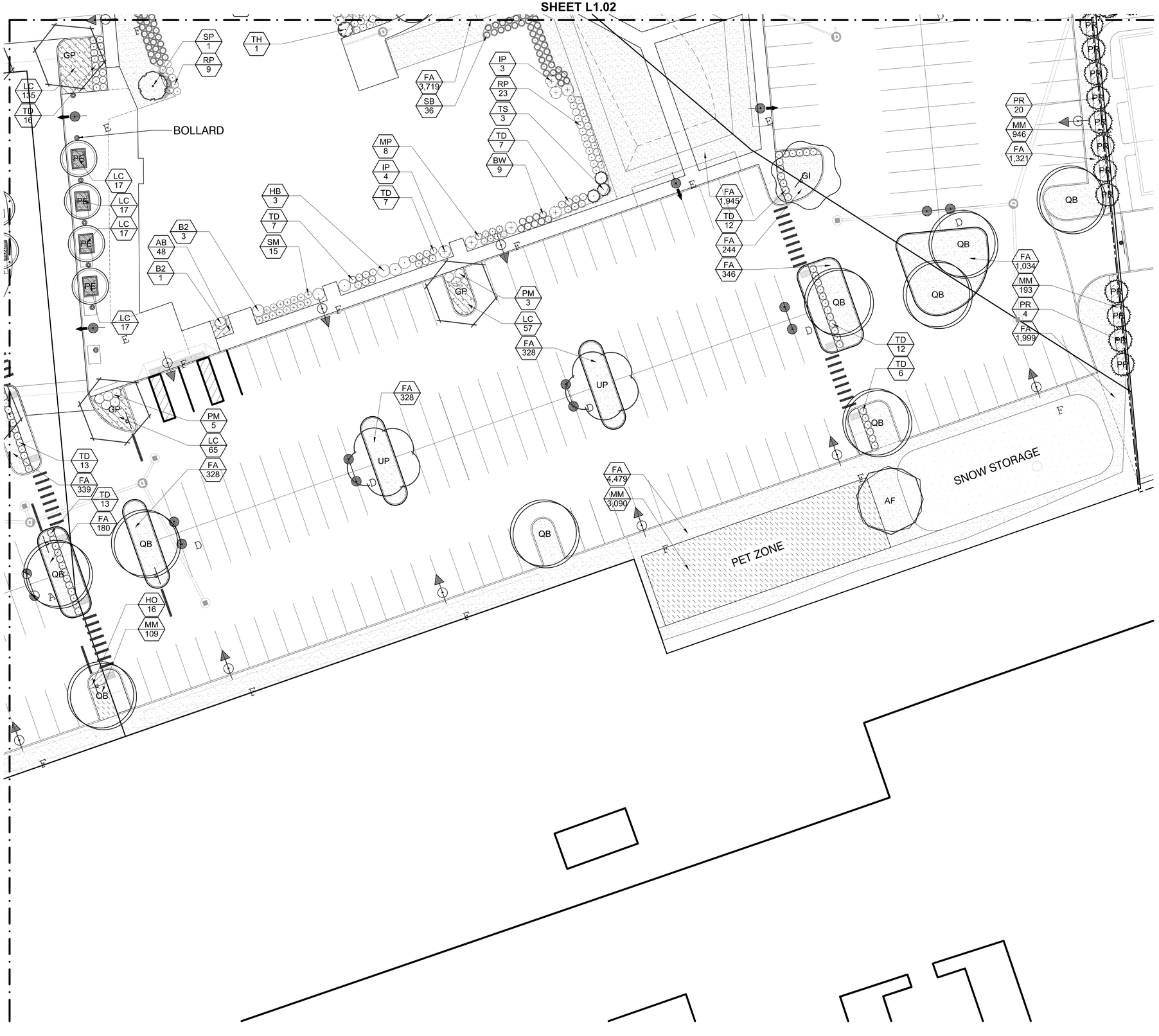
LANDSCAPE PLAN

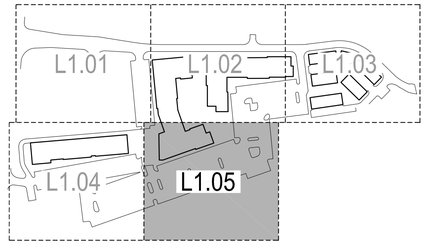
PROJECT NUMBER:
18041.00

L1.04

DATE: 03.18.2019

PERMIT ISSUE





PLANT SCHEDULE PLANT SCHEDULE

TREES	BOTANICAL / COMMON NAME
AF	Acer rubrum `Franksred` TM / Red Sunset Maple
GI	Gleditsia triacanthos inermis `Skycole` TM / Skyline Thornless Honey Locust
GP	Ginkgo biloba `Princeton Sentry` / Princeton Sentry Ginkgo
ME	Magnolia x `Elizabeth` / Magnolia
MG	Metasequoia glyptostroboides / Dawn Redwood
NS2	Nyssa sylvatica / Sour Gum
PA	Picea abies / Norway Spruce
PE	Platanus x acerifolia `Exclamation` TM / Exclamation London Plane Tree
PR	Pinus rigida / Pitch Pine
QB	Quercus bicolor / Swamp White Oak
QL	Quercus robur x bicolor `Long` / Regal Prince Oak
SP	Stewartia pseudocamellia / Japanese Stewartia
TE	Thuja occidentalis `Emerald` / Emerald Arborvitae
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TS	Thuja occidentalis `Smaragd` / Emerald Green Arborvitae
UP	Ulmus americana `Princeton` / American Elm
SHRUBS	BOTANICAL / COMMON NAME
B2	Buxus sempervirens / American Boxwood
BW	Buxus microphylla `Wintergreen` / Wintergreen Boxwood
CH	Clethra alnifolia `Hummingbird` / Summersweet Clethra
HB	Hibiscus syriacus `Blue Satin` / Rose-of-Sharon
HL	Hydrangea paniculata `Limelight` TM / Limelight Hydrangea
IP	Ilex x meserveae `Blue Prince` TM / Blue Prince Holly
MP	Myrica pensylvanica / Northern Bayberry
PM	Pinus mugo / Mugo Pine
RG	Rhus aromatica `Gro-Low` / Gro-Low Fragrant Sumac
RP	Rhododendron x `P.J.M.` / Rhododendron P.J.M.
SB	Schizachyrium scoparium `Blue Heaven` / Blue Heaven Little Bluestem
SG	Spiraea japonica `Goldmound` / Spirea
SM	Syringa meyeri `Palibin` / Dwarf Korean Lilac
TD	Taxus x media `Densiformis` / Dense Yew
GROUND COVERS	BOTANICAL / COMMON NAME
AB	Amsonia tabernaemontana `Blue Ice` / Blue Ice Star Flower
FA	Festuca arundinacea / Tall Fescue Seed Mix
HO	Hemerocallis x `Stella de Oro` / Stella de Oro Daylily
LC	Liriope spicata / Creeping Lily Turf
MM	Mulch / Hardwood Mulch
PA2	Perovskia atriplicifolia / Russian Sage

SITE PLAN NOTE:

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

2. ALL SHRUBS WILL BE MAINTAINED TO A HEIGHT OF NO MORE THAN 36" TO ENSURE SIGHT LINES AT INTERSECTIONS.

20 0 20 40 60
Scale 1" = 20'

SITE solutions
LANDSCAPE ARCHITECTURE+ LAND PLANNING
3715 Northside Parkway T: 404.705.9411
300 Northcreek, Bldg. 300 F: 404.705.9491
Atlanta, Georgia 30327 www.sitesolutionsla.com

PROFESSIONAL STAMP:

WEST END YARDS

PREPARED FOR

CATE STREET DEVELOPMENT LLC

SHEET STATUS

MARK	DATE	BY	RELEASE
A	03/18/2019	SS	TAC SUBMITTAL
B	05/20/2019	SS	TAC RE-SUBMITTAL
C	06/20/2019	SS	TAC RE-SUBMITTAL
D	07/24/2019	JM	TAC RE-SUBMITTAL

SHEET TITLE:

LANDSCAPE PLAN

PROJECT NUMBER:
18041.00

L1.05

DATE: 03.18.2019

PERMIT ISSUE

LANDSCAPE & SCREENING NOTES:

A) “THE PROPERTY OWNER AND ALL FUTURE PROPERTY OWNERS SHALL BE RESPONSIBLE FOR THE MAINTENANCE, REPAIR AND REPLACEMENT OF ALL REQUIRED SCREENING AND LANDSCAPE MATERIALS.”

B) “ALL REQUIRED PLANT MATERIALS SHALL BE TENDED AND MAINTAINED IN A HEALTHY GROWING CONDITION, REPLACED WHEN NECESSARY, AND KEPT FREE OF REFUSE AND DEBRIS. ALL REQUIRED FENCES AND WALLS SHALL BE MAINTAINED IN GOOD REPAIR.”

C) “THE PROPERTY OWNER SHALL 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.”

CITY OF PORTSMOUTH PLANTING SPECIFICATIONS:

1. ALL PLANTING HOLES SHALL BE HAND DUG- NO MACHINES-NO EXCEPTIONS.
2. ALL WIRE CAGE AND BURLAP SHALL BE REMOVED FROM TREE AND PLANTING HOLE.
3. THE ROOT COLLAR OF THE TREE SHALL BE 2”-3” ABOVE GRADE.
4. ALL PLANTINGS SHALL BE BACKFILLED WITH SOIL FROM THE SITE AND AMENDED NO MORE THAN 20% WITH **ORGANIC** COMPOST.
5. ALL PLANTINGS SHALL BE BACKFILLED IN LIFTS AND ALL LIFTS SHALL BE WATERED SO THAT THE PLANTING WILL BE SET AND FREE FROM AIR POCKETS.
6. A RING OF SOIL SHALL BE CREATED AROUND THE PERIMETER OF THE HOLE TO CREATE A WELL FOR WATERING.
7. AT THE TIME THE PLANTING IS COMPLETE THE PLANTING SHALL RECEIVE ADDITIONAL WATER TO ENSURE THOROUGH HYDRATION OF THE ROOTS AND BACKFILL MATERIAL.
8. 2”-3” OF **COMPOSTED** WOODCHIPS SHALL BE PLACED OVER THE PLANTING AREA.
9. STAKES AND GUYS SHALL BE USED WHERE APPROPRIATE AND/OR NECESSARY. GUY MATERIAL SHALL BE NON-DAMAGING TO THE TREE.

SITE PLAN NOTE:

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

LANDSCAPE NOTES:

1) ALL SHRUBS ON PARKING LOT ISLANDS SHOULD BE MAINTAINED AT A HEIGHT OF NO MORE THAN 3 FEET, TO ENSURE SIGHT LINES AT INTERSECTIONS.

WEST END YARDS DETAILED PLANT SCHEDULE

Trees	Botanical Name / Common Name	Plant Size at Installation	Plant Size at maturity	Growth Habit	Salt Tolerance (soil)	Notes
5	Acer rubrum `Franksred` TM / Red Sunset Maple	2.5" cal.	45' ht.	Broadly Pyramidal	Low	Native
4	Gleditsia triacanthos inermis `Skycole` TM / Skyline Thornless Honey Locust	3" cal.	40' ht.	Broadly Pyramidal	High	
12	Ginkgo biloba `Princeton Sentry` / Princeton Sentry Ginkgo	2.5" cal.	60' ht.	Narrow Upright	High	Male Species Only
1	Magnolia X `Elizabeth` (M. acuminata X M. denudata) / Elizabeth Magnolia	2" cal	50' ht.	Pyramidal	Low	Very Cold Hardy
2	Metasequoia glyptostroboides / Dawn Redwood	12` ht.	70' ht.	Conically Pyramidal	Low	Hardy to Zone 5-B
3	Nyssa Sylvatica / Sour Gum	3" cal.	40-70' ht.	Pyramidal	Medium	Native
15	Picea abies / Norway Spruce	8` ht.	40' ht.	Pyramidal	Medium	
12	Platanus x acerifolia `Exclamation` TM / Exclamation London Plane Tree	2.5" cal.	75' ht.	Upright spreading	Medium	Hardy to Zone 5-B
24	Pinus rigida / Pitch Pine	5` ht.	30' ht.	Pyramidal	High	Native
20	Quercus bicolor / Swamp White Oak	3" cal.	60' ht.	Spreading	High	Native
6	Quercus robur x bicolor `Long` / Regal Prince Oak	3" cal.	60' ht.	Columnar	Medium	
2	Stewartia pseudocamellia / Japanese Stewartia	2" cal	30' ht.	Pyramidal/Oval	Low	Hardy to Zone 5-B
3	Thujua occidentalis 'Emerald' / Emerald Arborvitae	6' ht.	6' ht.	Narrow Compact	High	Native
10	Thuja occidentalis `Holmstrup` / Holmstrup Cedar	7` ht.	5' ht.	Narrow Compact	High	Native
25	Thuja occidentalis `Smaragd` / Emerald Green Arborvitae	10` ht.	40' ht.	Conically Pyramidal	High	Native
8	Ulmus americana `Princeton` / American Elm	2.5" cal.	60' ht.	Ascending vase shape	High	Native
Shrubs						
21	Buxus sempervirens / American Boxwood	36" ht. x 36" spd.	4' ht. x 4' spd.	Globe shape	Low	
28	Buxus microphylla `Wintergreen` / Wintergreen Boxwood	5 gal.	4' ht. x 4' spd.	Globe shape	High	
27	Clethra alnifolia `Hummingbird` / Summersweet	3 gal	6' ht.	Spreading open	High	Tolerates salt spray
30	Hibiscus syriacus `Blue Satin` / Rose-of-Sharon	4` ht.	8' ht.	Upright Spreading	Low	Tolerates alkaline soil
51	Hydrangea paniculata `Limelight` TM / Limelight Hydrangea	3 gal.	4'-8' ht.	Spreading	High	Long Lived
26	Ilex x meserveae `Blue Prince` TM / Blue Prince Holly	4` ht.	12' ht.	Dense compact	Low	Very Cold Hardy
29	Myrica pensylvanica / Northern Bayberry	3 gal	6'-8' ht.	Rounded	High	Tolerates salt spray
8	Pinus mugo / Mugo Pine	7 gal.	4-10' ht.	Spreading	High	
68	Rhus aromatica `Gro-Low` / Gro-Low Fragrant Sumac	3 gal.	2' ht.	Low Spreading	High	
262	Rhododendron x `P.J.M.` / Rhododendron P.J.M.	3 gal	4-8' ht.	Dense compact	Low	
116	Schizachyrium scoparium `Blue Heaven` / Blue Heaven Little Bluestem	3 gal	3-4' ht.	Upright	Medium	
15	Spiraea japonica `Goldmound` / Spirea	3 gal	4' ht. x 4' spd.	Rounded Bushy	Low	
35	Syringa meyeri `Palibin` / Dwarf Korean Lilac	5 gal.	4-8' ht.	Spreading	Medium	
307	Taxus x media `Densiformis` / Dense Yew	3 gal	4' ht.	Upright	High	
Ground Cover and Lawn						
123	Amsonia tabernaemontana `Blue Ice` / Blue Ice Star Flower	1 gal.	12" ht.	Spreading	Low	
197	Perovskia atriplicifolia / Russian Sage	1 gal.	3-4' ht.	Upright	High	
1319	Liriope spicata / Creeping Lily Turf	1 gal.	12" ht.	Spreading	Low	
16	Hemerocallis x `Stella de Oro` / Stella de Oro Daylily	1 gal.	12" ht.	Upright spreading	Medium	
76478	Festuca arundinacea / Tall Fescue Grass	SF				
13990	Mulch / Hardwood Mulch	SF				

SITE solutions
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Atlanta, Georgia 30327 www.sitesolutionsla.com

PROFESSIONAL STAMP:

WEST END YARDS

PREPARED FOR

CATE STREET DEVELOPMENT LLC

SHEET STATUS

MARK	DATE	BY	RELEASE
A	03/18/2019	SS	TAC SUBMITTAL
B	05/20/2019	SS	TAC RE-SUBMITTAL
C	06/20/2019	SS	TAC RE-SUBMITTAL
D	07/24/2019	JM	TAC RE-SUBMITTAL

SHEET TITLE:

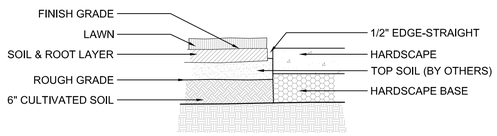
LANDSCAPE NOTES & PLANT SCHDULES

PROJECT NUMBER:
18041.00

L1.06

DATE: 03.18.2019

PERMIT ISSUE

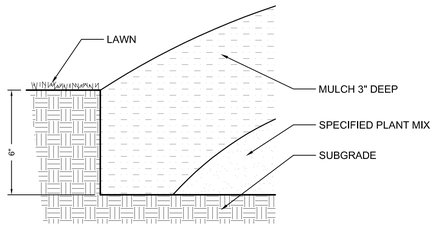


INSTALLATION NOTES:

1. GENERAL CONTRACTOR TO PROVIDE GRADES TO WITHIN TWO TENTH OF A FOOT FOR PROPOSED GRADES.
2. CULTIVATE TO A DEPTH OF 6".
3. FINE GRADE AS REQUIRED TO REACH FINISH GRADE PER CIVIL DRAWINGS.
4. APPLY LIME AND FERTILIZER, AS SPECIFIED.
5. APPLY PRE-EMERGENT HERBICIDE PER MANUFACTURE'S RECOMMENDATION.
6. LAY SOD & ROLL LEVEL.
7. WATER ENTIRE AREA THOROUGHLY.
8. 1. INSTALL SOD SO THAT THE TOP OF SOIL & ROOT LAYER IS LEVEL WITH TOP OF PAVEMENT

1 SECTION: TYP. SOD INSTALLATION

SCALE: N.T.S.

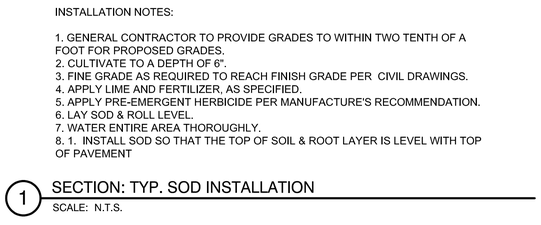


NOTES:

1. TRENCH EDGE IS TO BE LOCATED BETWEEN ALL PLANTING BEDS & LAWN AREAS.

2 SECTION: TRENCH EDGE

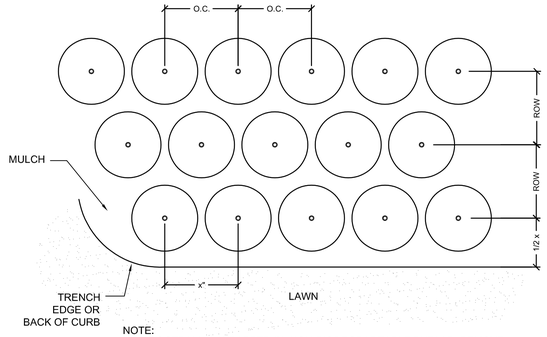
SCALE: NTS



NOTES:
1. IF ROOTBALL IS WRAPPED IN NON-BIODEGRADEABLE BURLAP, REMOVE ENTIRE WRAP AFTER PLACED IN PIT.

3 SECTION: TYP. CONTAINERIZED SHRUB PLANTING

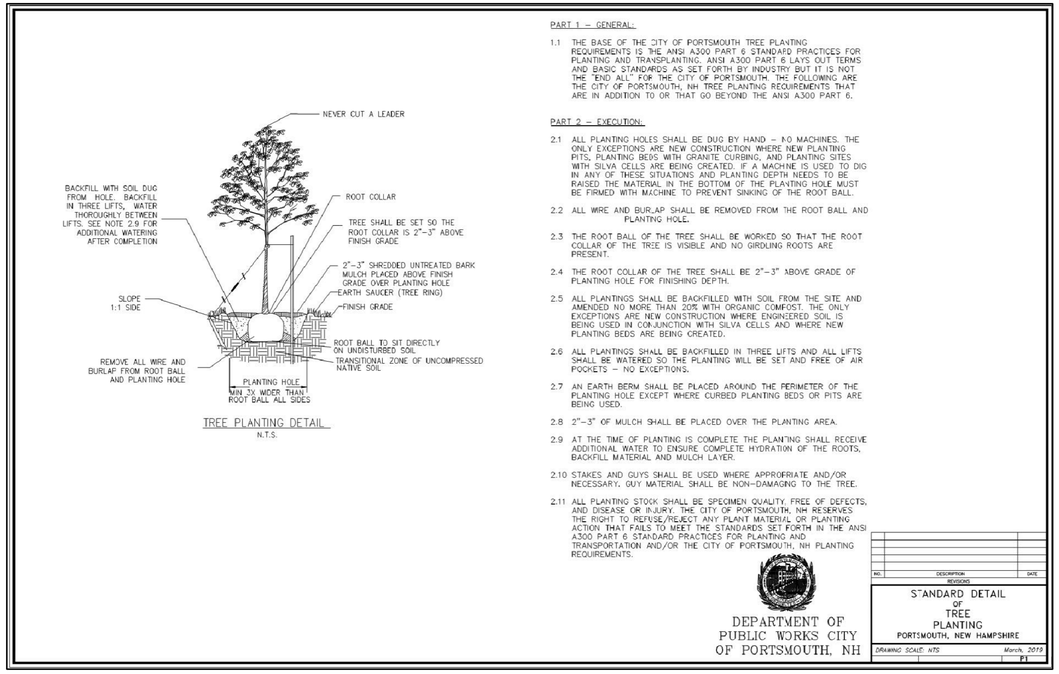
SCALE: NTS



NOTE:
1. IF ROOTBALL IS WRAPPED IN NON-BIODEGRADEABLE BURLAP, REMOVE ENTIRE WRAP AFTER PLACED IN PIT.
2. 'X'= TYP. ON CENTER SPACING AS SHOWN ON PLANT SCHEDULE
3. ALL ROWS TO BE STRAIGHT AND PARALLEL

4 PLAN: TYP. PLAN MASS SPACING

SCALE: NTS



TREE PLANTING DETAIL
N.T.S.

PART 1 – GENERAL:

1.1 THE BASE OF THE CITY OF PORTSMOUTH TREE PLANTING REQUIREMENTS IS THE ANSI A300 PART 6 STANDARD PRACTICES FOR PLANTING AND TRANSPLANTING. ANSI A300 PART 6 LAYS OUT TERMS AND BASIC STANDARDS AS SET FORTH BY INDUSTRY BUT IT IS NOT THE "END ALL" FOR THE CITY OF PORTSMOUTH. THE FOLLOWING ARE THE CITY OF PORTSMOUTH, NH TREE PLANTING REQUIREMENTS THAT ARE IN ADDITION TO OR THAT GO BEYOND THE ANSI A300 PART 6.

PART 2 – EXECUTION:

2.1 ALL PLANTING HOLES SHALL BE DUG BY HAND – NO MACHINES. THE ONLY EXCEPTIONS ARE NEW CONSTRUCTION WHERE NEW PLANTING PITS, PLANTING BEDS WITH GRANITE CURBING, AND PLANTING SITES WITH SILVA CELLS ARE BEING CREATED. IF A MACHINE IS USED TO DIG IN ANY OF THESE SITUATIONS AND PLANTING DEPTH NEEDS TO BE RAISED THE MATERIAL IN THE BOTTOM OF THE PLANTING HOLE MUST BE FIRMED WITH MACHINE TO PREVENT SINKING OF THE ROOT BALL.

2.2 ALL WIRE AND BUR-AP SHALL BE REMOVED FROM THE ROOT BALL AND PLANTING HOLE.

2.3 THE ROOT BALL OF THE TREE SHALL BE WORKED SO THAT THE ROOT COLLAR OF THE TREE IS VISIBLE AND NO GIRDLING ROOTS ARE PRESENT.

2.4 THE ROOT COLLAR OF THE TREE SHALL BE 2"–3" ABOVE GRADE OF PLANTING HOLE FOR FINISHING DEPTH.

2.5 ALL PLANTINGS SHALL BE BACKFILLED WITH SOIL FROM THE SITE AND AMENDED NO MORE THAN 20% WITH ORGANIC COMPOST. THE ONLY EXCEPTIONS ARE NEW CONSTRUCTION WHERE ENGINEERED SOIL IS BEING USED IN CONJUNCTION WITH SILVA CELLS AND WHERE NEW PLANTING BEDS ARE BEING CREATED.

2.6 ALL PLANTINGS SHALL BE BACKFILLED IN THREE LIFTS AND ALL LIFTS SHALL BE WATERED SO THE PLANTING WILL BE SET AND FREE OF AIR POCKETS – NO EXCEPTIONS.

2.7 AN EARTH BERM SHALL BE PLACED AROUND THE PERIMETER OF THE PLANTING HOLE EXCEPT WHERE CURBED PLANTING BEDS OR PITS ARE BEING USED.

2.8 2"–3" OF MULCH SHALL BE PLACED OVER THE PLANTING AREA.

2.9 AT THE TIME OF PLANTING IS COMPLETE THE PLANTING SHALL RECEIVE ADDITIONAL WATER TO ENSURE COMPLETE HYDRATION OF THE ROOTS, BACKFILL MATERIAL AND MULCH LAYER.

2.10 STAKES AND GUYS SHALL BE USED WHERE APPROPRIATE AND/OR NECESSARY. GUY MATERIAL SHALL BE NON-DAMAGING TO THE TREE.

2.11 ALL PLANTING STOCK SHALL BE SPECIMEN QUALITY, FREE OF DEFECTS, AND DISEASE OR INJURY. THE CITY OF PORTSMOUTH, NH RESERVES THE RIGHT TO REFUSE/REJECT ANY PLANT MATERIAL OR PLANTING ACTION THAT FAILS TO MEET THE STANDARDS SET FORTH IN THE ANSI A300 PART 6 STANDARD PRACTICES FOR PLANTING AND TRANSPORTATION AND/OR THE CITY OF PORTSMOUTH, NH PLANTING REQUIREMENTS.

DEPARTMENT OF PUBLIC WORKS CITY OF PORTSMOUTH, NH

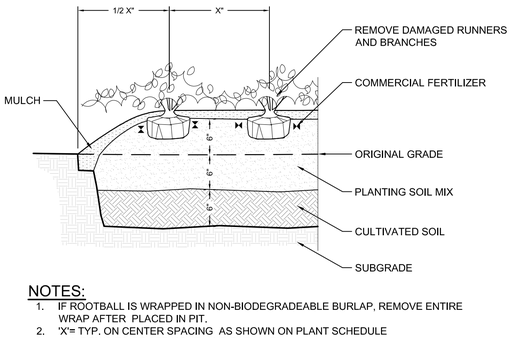
NO.	DESCRIPTION	DATE
	REVISIONS	

STANDARD DETAIL OF TREE PLANTING
PORTSMOUTH, NEW HAMPSHIRE

DRAWING SCALE: NTS — March, 2019 — P-1

5 DETAIL: TREE PLANTING

SCALE: NTS

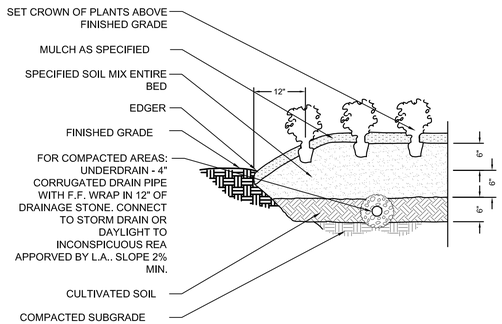


NOTES:

1. IF ROOTBALL IS WRAPPED IN NON-BIODEGRADEABLE BURLAP, REMOVE ENTIRE WRAP AFTER PLACED IN PIT.
2. 'X'= TYP. ON CENTER SPACING AS SHOWN ON PLANT SCHEDULE
3. ALL ROWS TO BE STRAIGHT AND PARALLEL
4. TYP. BED INSTALLATION DETAIL FOR ERICACEOUS PLANT MATERIAL (RHODODENDRON, AZALEAS, PIERIS, ECT.)

6 SECTION: TYP. ERICACEOUS PLANT MATERIAL INSTALL.

SCALE: NTS



NOTES:

1. REFER TO SPECIFICATIONS FOR FERTILIZATION REQUIREMENTS.

7 SECTION: SEASONAL COLOR & PERENNIAL BED PREP.

SCALE: NTS

1. Contractor to carefully examine the contract documents and existing conditions before submitting bid proposal or commencing work.
2. Damage to existing utilities or site improvements caused by the contractor are the full responsibility of contractor.
3. Contractor's base bid to include all materials, labor, permits, equipment, tools, insurance, ETC. to perform the work as described in the contract documents.
4. Contractor to complete work within schedule established by owner.
5. Contractor to provide one year warranty for all material from date of substantial completion.
6. Provide unit price for all materials (installed cost) listed on the plant schedule.
7. Contractor to provide interim maintenance (watering, pruning, fertilizing, guying, mowing, trimming, adequate drainage of ponding areas, edging, weeding, mulching, application of insecticides/herbicides, and general landscape clean-up) until substantial completion notice is provided by the owner or landscape architect.
8. Perform work in compliance with all applicable laws, codes, and regulations required by authorities having jurisdiction over such work and provide for permits required by local authorities.
9. Topsoil shall be natural, fertile, friable, sandy clay loam capable of sustaining plant growth, free of stones, stumps, ETC.
10. For all turf lawn areas spread 2-3" of topsoil into existing soil to a depth of 6" below finish grade. Hand rake finished grades to provide even contours.
11. All planted material shall be equivalent in quality to specimen grade or better, as noted by the American Association of Nurserymen, latest edition. All trees of lesser quality shall be rejected by the city arborist.
12. Plant material to be free of disease, insect pests, eggs, or larvae. Damaged plant material shall be rejected.
13. Mulch to be clean, fresh, new, double shredded bark, 3 inches deep.
14. Test plant beds and plant pits for adequate drainage. Work shall be made by the contractor at no additional cost to owner. Hardpan or moisture barriers shall be broken, or drain pipes to be installed to provide proper drainage of plant areas. Plant pits shall be excavated to the bottom of the pit. Fill each plant pit with water and observe the pit for 2 hours. If the water has not dissipated by 50% within 2 hours, notify the landscape architect of such in writing before installing plants in the questionable area(s), otherwise contractor shall be held liable for the livability of the plant. In hardpan conditions where water does not drain within 2 hours, install drain pipes as per tree planting in compacted soil area detail.
15. Trees shall be Installed 2-3" above finish grade in hardpan areas unless otherwise directed to provide drainage.
16. Plant beds shall be neatly edged using a 3" wide by 6" wide deep trench. Provide 2/1 side slope behind trench edge.
17. Ground cover, shrub mass beds shall be cultivated to a depth of 12 inches below grade to break through compacted or hardpan soil. Remove all stones, roots, and Inferlor material. Add specified soil amendments and fertilizer. Elevate entire bed 6 inches above original grade. Rake to a consistent smooth surface. Install plants, edge bed area, mulch and water thoroughly.
18. Set all plants plumb and turned so that the most attractive side is viewed.
19. Plants shall be measured to their main structure, not tip to tip of branches.
20. Remove top one-third burlap of B & B wrapping. Remove all binding. If rootball is wrapped in non-biodegradeable burlap, remove entire wrap after placed in pit.
21. Tree pit and shrub pit to be twice the size of the root mass. Fill with plant mix. See details.
22. Broken root balls for trees shall be rejected.
23. Any plant materials shipped to site in uncovered vehicles/ traller shall be rejected regardless of season.
24. Space shrubs, ground cover, and seasonal color evenly and in straight rows.
25. All tree scars over 1 -1/2" shall be rejected and tree to be replaced.
26. All shrubs to be dense and full. All trees to have a symmetrical growth habit (360 degrees) unless uncharacteristic to plant type.
27. Scarify root mass of shrubs and ground cover before installing.
28. Remove all excess growth of trees and shrubs as directed by landscape architect. Do not cut central leader.
29. Layout all plant material according to landscape drawings. Receive approval of all layouts before installation. Adjustments to the layout shall be made by the landscape architect. Landscape contractor to make adjustments to layout at no additional cost to the owner. Landscape contractor responsible for adjustment of layout in order to avoid utilities. Notify landscape architect of contemplated adjustments to the layout and receive approval before commencing.
30. General contractor to provide grades to two-tenths (.20+) of a foot of proposed finish grades.
31. All shrubs shall be dense and well-branched from bottom to top and all sides. "Leggy" shrubs will be rejected by L.A.
32. Owner or landscape architecture shall review project at completion of installation for substantial completion. Final completion shall be given at the end of the warranty period If all items are completed to the owner's satisfaction. Contractor shall be notified in writing of substantial and final completion dates.
33. See civil drawings for further information regarding: erosion sediment control information, locations of existing and proposed structures, paving, driveways, cut and fill areas, and retention areas, limits of construction, locations of existing and proposed utilities or easements.
34. Contractor shall collect three (3) soil samples of existing soil from areas on site to receive planting for testing. Each soil sample shall be approximately 1 kg. (1 gal. zlp lock bag) in volume and will receive the following tests by A&L Agricultural Labs:
- s1-a
- s3
- texture analysis
- infiltration

34. Sight lines may not be obstructed between a height of 30-inches and 84-inches above the crown of the roadway surface. The property owner must maintain all landscaping according to this requirement at all times.

SITE solutions
LANDSCAPE ARCHITECTURE+ LAND PLANNING
3715 Northside Parkway T: 404.705.9411
300 Northcreek, Bldg. 300 F: 404.705.9491
Atlanta, Georgia 30327 www.sitesolutionsla.com

PROFESSIONAL STAMP:

WEST END YARDS

PREPARED FOR

CATE STREET DEVELOPMENT LLC

SHEET STATUS

MARK	DATE	BY	RELEASE
A	03/18/2019	SS	TAC SUBMITTAL
B	05/20/2019	SS	TAC RE-SUBMITTAL
C	06/20/2019	SS	TAC RE-SUBMITTAL
D	07/24/2019	JM	TAC RE-SUBMITTAL

SHEET TITLE:

LANDSCAPE DETAILS

PROJECT NUMBER:
18041.00

L2.01

DATE: 03.18.2019

PERMIT ISSUE

AREA TO RECEIVE HIGH EFFICIENCY IRRIGATION SYSTEM

50 0 50 100 150

Scale 1" = 50'

SITE *solutions*

LANDSCAPE ARCHITECTURE+ LAND PLANNING

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C	06/20/2019	SS	TAC RE-SUBMITTAL
D	07/24/2019	JM	TAC RE-SUBMITTAL

SHEET TITLE:

IRRIGATION LAYOUT PLAN

PROJECT NUMBER:
18041.00

IR1.01

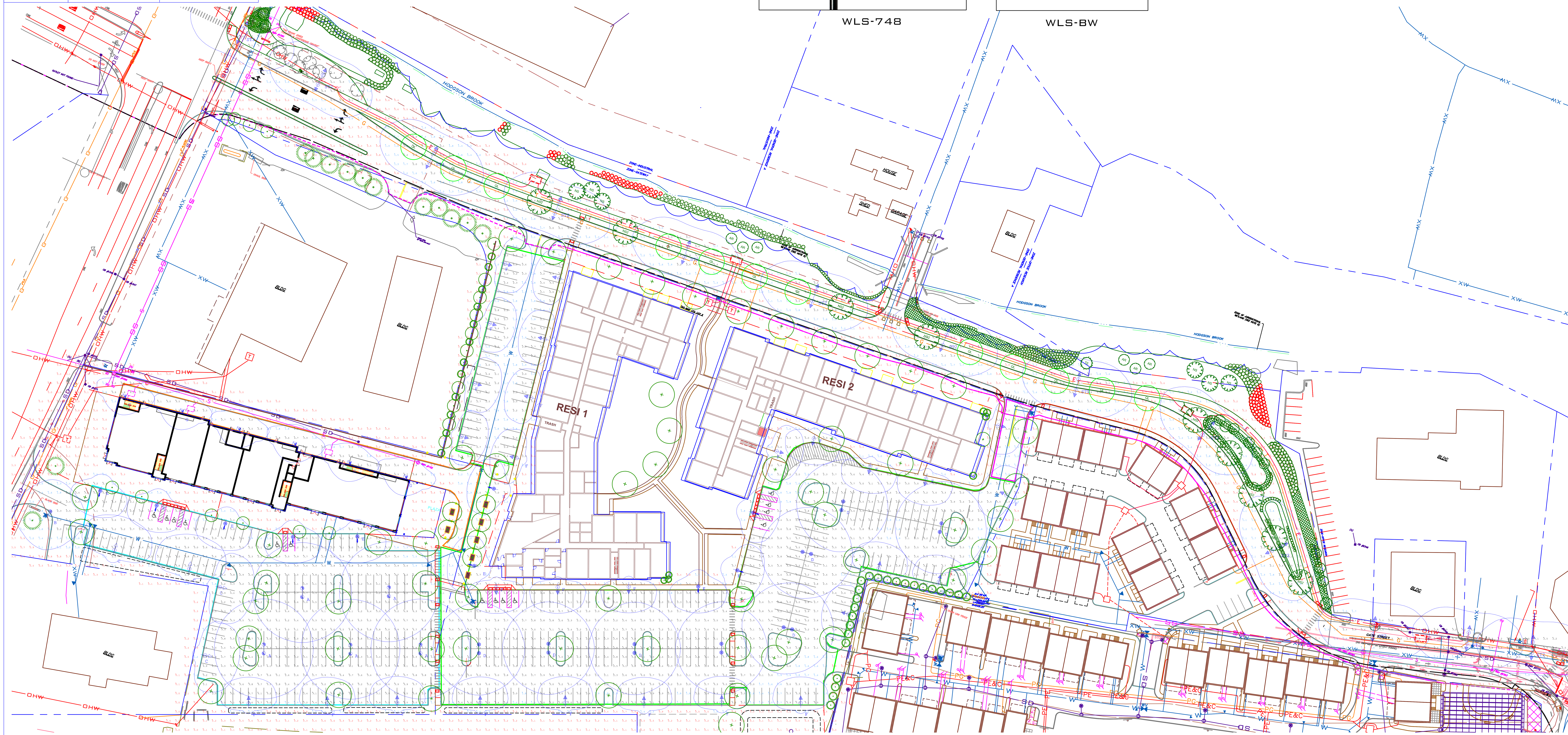
DATE: 03.18.2019

PERMIT ISSUE

REVISIONS			5	6/20/19	TO
Rev #	Date	BY:	6	6/23/19	TO
1	12/10/18	TO	7	7/10/19	TO
2	3/17/19	TO			
3	5/16/19	TO			
4	5/19/19	TO			

WLS-748

WLS-BW



ENERGY SERVICES GROUP OF WLS

1-800-633-8711 - WWW.WLSLIGHTING.COM

Based on the information provided, all dimensions and luminaire locations shown represent recommended positions. The engineer and/or architect must determine applicability of the layout to existing or future field conditions.

This lighting pattern represents illumination levels calculated from laboratory data taken under controlled conditions utilizing current industry standard lamp ratings in accordance with Illuminating Engineering Society approved methods. Actual performance of any manufacturer's luminaire may vary due to variation in electrical voltage, tolerance in lamps and other variable field conditions.

Calculation Summary

Label	Avg	Max	Min	Avg/Min	Max/Min	PtSpcLr	PtSpcTb
CATE ST ENTRANCE	1.8	4.4	0.9	2.0	4.9	10	10
RESIDENTIAL PARKING	2.8	6.4	0.8	3.5	8.0	10	10
RETAIL PARKING	3.6	7.1	1.1	3.3	6.5	10	10
RETAIL REAR AND SIDE	2.3	4.7	0.3	7.8	15.7	10	10

Luminaire Schedule

WLS14527 WEST END YARDS PORTSMOUTH, NH PM: ROBBY PLEASE EMAIL ROBBY AT RRUDASILL@WLSLIGHTING.COM FOR PRICING.

Symbol	Qty	Label	Lumens	LLF	Description	Lum. Watts
	5	A	N.A.	0.950	WLS-748-135W-5F-4K 20' MOUNTING HEIGHT	135
	1	B	N.A.	0.950	WLS-748-135W-5F-4K 20' MOUNTING HEIGHT	135
	4	C	N.A.	0.950	WLS-748-135W-4F-4K-HS 20' MOUNTING HEIGHT	135
	8	D	N.A.	0.950	WLS-748-110W-5F-4K 20' MOUNTING HEIGHT	110
	10	E	N.A.	0.950	WLS-748-80W-4F-4K 16' MOUNTING HEIGHT	80
	28	F	N.A.	0.950	WLS-748-80W-4F-4K-HS 16' MOUNTING HEIGHT	80
	6	G	N.A.	0.980	WLS-BW-70-2M-4K ASST MOUNTING HEIGHT	70
	13	ST2	9316	0.900	AFFIN-S801-80W-30K-T2-10-M 25' MOUNTING HEIGHT	80

1919 WINDSOR PLACE
FORT WORTH, TX 76110
WWW.WLSLIGHTING.COM

WLS LIGHTING SYSTEMS
Consider the Impact!

800-633-8711

SHEET 1 OF 1

BY: TO

PM: ROBBY

WEST END YARDS PORTSMOUTH, NH

SCALE: 1"=60'

DATE - 11/16/18

WLS-14527A

ABUTTERS

TAX MAP 158, LOT 13
SLATTERY & DUMONT, LLC
66 OLD CONCORD TURNPIKE #10
BARRINGTON, NH 03825
R.C.R.D. BOOK 3471, PAGE 196

TAX MAP 163, LOT 1
M & B PROPERTIES, LLC
54 BARTLETT STREET
PORTSMOUTH, NH 03801
R.C.R.D. BOOK 5794, PAGE 996

TAX MAP 163, LOT 2
INDUSTRIAL RENTS-NH, LLC
6 WAYNE ROAD
WESTFORD, MA 01886
R.C.R.D. BOOK 5806, PAGE 2334

TAX MAP 163, LOT 32
SHARAN R. GROSS REV. TRUST
180 BIRCH HILL RD
YORK, ME 03909
R.C.R.D BOOK 5261 PAGE 2208
R.C.R.D. BOOK 3406 PAGE 1383

TAX MAP 163, LOT 35
ELDREDGE BREWERY REALTY PARTNERSHIP
1 CATE ST
PORTSMOUTH, NH 03801
R.C.R.D. BOOK 2572 PAGE 2635

TAX MAP 163, LOT 36
CST HOLDINGS, LLC
3 CATE ST
PORTSMOUTH, NH 03801
R.C.R.D. BOOK 3923 PAGE 202

TAX MAP 163, LOT 37
CITY OF PORTSMOUTH
PO BOX 628
PORTSMOUTH, NH 03802
R.C.R.D. BOOK 2284 PAGE 812

TAX MAP 164, LOT 1
PORTSMOUTH LUMBER & HARDWARE, LLC
105 BARTLETT STREET
PORTSMOUTH, NH 03801
R.C.R.D. BOOK 5372, PAGE 2606

TAX MAP 164, LOT 2
PORTSMOUTH LUMBER & HARDWARE, LLC
105 BARTLETT STREET
PORTSMOUTH, NH 03801
R.C.R.D. BOOK 5808, PAGE 1379

TAX MAP 164, LOT 4
BOSTON & MAINE CORP.
IRON HORSE PARK, HIGH STREET
NO. BILLERICA, MA 01862

TAX MAP 164, LOT 5
HOUSTON HOLDINGS, LLC
653 ISLINGTON STREET
PORTSMOUTH, NH 03801
R.C.R.D. BOOK 3558, PAGE 464

TAX MAP 164, LOT 12
JOSEPH GOBBI SUPPLY CORP.
PO BOX 125
PORTSMOUTH, NH 03802
R.C.R.D. BOOK 3233, PAGE 1949

TAX MAP 165, LOT 1
CATE STREET LLC
105 BARTLETT STREET
PORTSMOUTH, NH 03801
R.C.R.D. BOOK 5903 PAGE 1436

TAX MAP 165, LOT 14
BOSTON AND MAINE CORP
IRON HORSE PK HIGH ST
NO BILLERICA, MA 01862
R.C.R.D. BOOK PAGE

TAX MAP 172, LOT 2
406 HIGHWAY 1 PYPASS, LLC
549 US HIGHWAY 1 BYPASS
PORTSMOUTH, NH 03801
R.C.R.D. BOOK 5671 PAGE 2150

TAX MAP 173, LOT 3
EDGAR W. & JANICE E. ANDERSON
224 CATE ST
PORTSMOUTH, NH 03801
R.C.R.D. BOOK 2956 PAGE 1071

TAX MAP 173, LOT 9
PAUL J. HOLLOWAY
C/O COAST PONTIAC
500 US HYWY 1 BYPASS
PORTSMOUTH, NH 03801
R.C.R.D. BOOK 2821 PAGE 2396

TAX MAP 173, LOT 10
AREC 13, LLC C/O U-HAUL INTERNATIONAL
PO BOX 29046
PHOENIX, AZ 85038
R.C.R.D. BOOK 4575 PAGE 950

TAX MAP 174, LOT 14
AER RE LLC
185 COTTAGE STREET
PORTSMOUTH, NH 03801
R.C.R.D. BOOK 5965, PAGE 2216

TAX MAP 233, LOT 145
CITY OF PORTSMOUTH
1 JUNKINS AVENUE
PORTSMOUTH, NH 03801
R.C.R.D. BOOK 5127, PAGE 2074

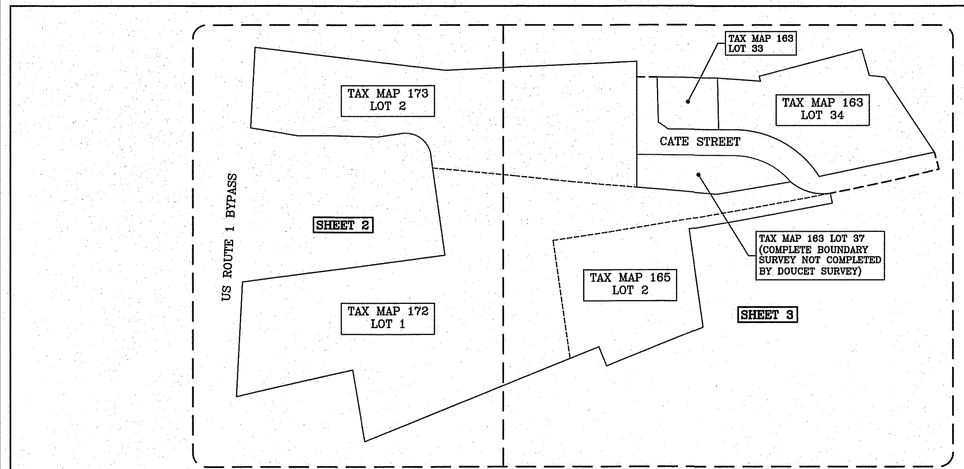
TAX MAP 234, LOT 2A
PUBLIC SERVICE CO. OF NH
PO BOX 270
HARTFORD, CT 06141
R.C.R.D. BOOK 1257, PAGE 324

TAX MAP 234, LOT 3
PUBLIC SERVICE CO. OF NH
PO BOX 270
HARTFORD, CT 06141
R.C.R.D. BOOK 5548, PAGE 738

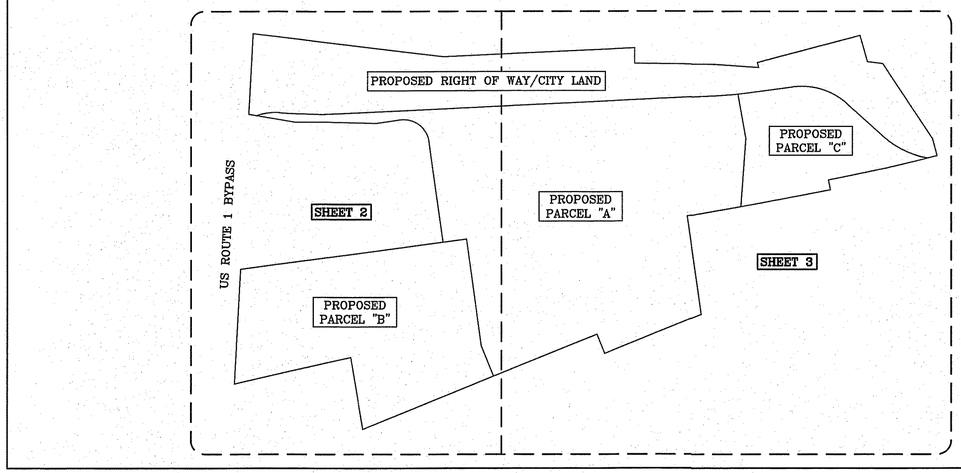
TAX MAP 234, LOT 5
SEACOAST DEVELOPMENT GROUP, LLC
505 US ROUTE 1 BYPASS
PORTSMOUTH, NH 03801
R.C.R.D. BOOK 3107, PAGE 950

TAX MAP 234, LOT 7-6
CREFIII WARAMAUG PORTSMOUTH, LLC
C/O CTMI, LLC
PO BOX 741328
DALLAS, TX 75374
R.C.R.D. BOOK 5620, PAGE 1675

TAX MAP 234, LOT 51
MEADOWBROOK INN CORP.
C/O PORTSMOUTH CHEVROLET
549 ROUTE 1 BYPASS
PORTSMOUTH, NH 03801
R.C.R.D. BOOK 2382, PAGE 1968



EXISTING PARCEL LAYOUT



PROPOSED PARCEL LAYOUT

I CERTIFY THAT THIS SURVEY AND PLAN WERE PREPARED BY ME OR BY THOSE UNDER MY DIRECT SUPERVISION AND FALLS UNDER THE URBAN SURVEY CLASSIFICATION OF THE NH CODE OF ADMINISTRATIVE RULES OF THE BOARD OF LICENSURE FOR LAND SURVEYORS. I CERTIFY THAT THIS SURVEY WAS MADE ON THE GROUND AND IS CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF. RANDOM TRAVERSE SURVEY BY TOTAL STATION, WITH A PRECISION GREATER THAN 1:15,000.

L.L.S. #989

7/15/19
DATE

THE CERTIFICATIONS SHOWN HEREON ARE INTENDED TO MEET REGISTRY OF DEED REQUIREMENTS AND ARE NOT A CERTIFICATION TO TITLE OR OWNERSHIP OF PROPERTY SHOWN. OWNERS OF ADJOINING PROPERTIES ARE ACCORDING TO CURRENT TOWN ASSESSORS RECORDS.

STATE OF NEW HAMPSHIRE — No. 989 MATTHEW A. FAGGINGER-AUER — LICENSED LAND SURVEYOR

SIGNATURE

NOTES:

1. REFERENCE: TAX MAP 163, LOT 33 – 12,230 SF OR 0.28 AC.
TAX MAP 163, LOT 34 – 64,109 SF OR 1.47 AC.

TAX MAP 165, LOT 2
TAX MAP 172, LOT 1
TAX MAP 173, LOT 2
COMBINED AREA – 451,572 SF OR 10.37 AC.

2. OWNER OF RECORD: CATE STREET DEVELOPMENT LLC
11 ELKINS STREET, SUITE 420
BOSTON, MA 02127
R.C.R.D. BOOK 5959, PAGE 109

3. ZONES: GW1-GATEWAY NEIGHBORHOOD MIXED USE CORRIDOR (SEE CITY OF PORTSMOUTH ZONING ORDINANCE FOR DIMENSIONAL REQUIREMENTS. SUBJECT LOTS WERE REZONED TO GW1 ON DECEMBER 4, 2017 PER SAID ORDINANCE.)

–SEE SITE PLANS FOR DIMENSIONAL REQUIREMENTS AND DEVELOPMENT SITE STANDARDS.

4. FIELD SURVEY PERFORMED BY P.J.S. & J.C.M. DURING NOVEMBER 2016 USING A TRIMBLE S6 TOTAL STATION, A TRIMBLE R8 SURVEY GRADE GPS UNIT, A TRIMBLE TSC3 DATA COLLECTOR AND A SOKKIA B21 AUTO LEVEL, BY L.P.S. & S.N.F. DURING JULY 2018 AND T.M.M. & J.C.M. IN SEPTEMBER & OCTOBER 2018 USING A TRIMBLE S6 TOTAL STATION WITH A TRIMBLE TSC3 DATA COLLECTOR. TRAVERSE ADJUSTMENT BASED ON LEAST SQUARE ANALYSIS. ADDITONAL FIELD SURVEY PERFORMED BY M.C. DURING NOVEMBER 2016 AND OCTOBER 2018 USING A LEICA HDS SCANNER.

5. THE LIMITS OF JURISDICTIONAL WETLANDS WERE DELINEATED BY MARC JACOBS IN NOVEMBER 2016 AND REVIEWED BY GOVE ENVIRONMENTAL SERVICES, INC. DURING APRIL 2018 IN ACCORDING TO THE US ARMY CORPS OF ENGINEERS WETLAND DELINEATION MANUAL, TECHNICAL REPORT Y-87-1, JANUARY 1987 AND REGIONAL SUPPLEMENT TO THE CORPS OF ENGINEERS WETLAND DELINEATION MANUAL: NORTHCENTRAL AND NORTHEAST REGION, VERSION 2.0, JANUARY 2102 AND FIELD INDICATORS FOR IDENTIFYING HYDRIC SOILS IN NEW ENGLAND, VERSION 4, MAY 2017, NEW ENGLAND HYDRIC SOILS TECHNICAL COMMITTEE.

6. FLOOD HAZARD ZONE: "X", PER FIRM MAP #33015C0259E, DATED 5/17/05.

7. VERTICAL DATUM IS BASED ON NGVD29 PER DISK V 28 1942 ELEV. 25.59.

8. HORIZONTAL DATUM BASED ON NEW HAMPSHIRE STATE PLANE(2800) NAD83(2011) DERIVED FROM REDUNDANT GPS OBSERVATIONS UTILIZING THE KEYNET GPS VRS NETWORK.

9. THE INTENT OF THIS PLAN IS TO SHOW THE LOCATION OF BOUNDARIES IN ACCORDANCE WITH AND IN RELATION TO THE CURRENT LEGAL DESCRIPTION, AND IS NOT AN ATTEMPT TO DEFINE UNWRITTEN RIGHTS, DETERMINE THE EXTENT OF OWNERSHIP, OR DEFINE THE LIMITS OF TITLE.

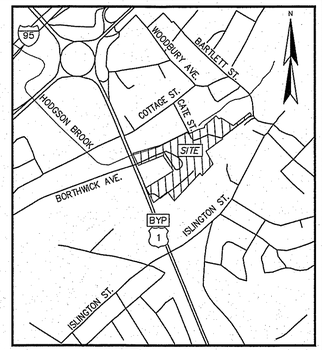
10. DUE TO THE COMPLEXITY OF RESEARCHING ROAD RECORDS AS A RESULT OF INCOMPLETE, UNORGANIZED, INCONCLUSIVE, OBLITERATED, OR LOST DOCUMENTS, THERE IS AN INHERENT UNCERTAINTY INVOLVED WHEN ATTEMPTING TO DETERMINE THE LOCATION AND WIDTH OF A ROADWAY RIGHT OF WAY. THE EXTENT OF (THE ROAD(S)) AS DEPICTED HEREON IS/ARE BASED ON RESEARCH CONDUCTED AT THE PORTSMOUTH CITY HALL, PORTSMOUTH DEPARTMENT OF ENGINEERING, THE ROCKINGHAM COUNTY REGISTRY OF DEEDS, AND THE NEW HAMPSHIRE DEPARTMENT OF TRANSPORTATION.

11. FINAL MONUMENTATION MAY BE DIFFERENT THAN THE PROPOSED MONUMENTATION SHOWN HEREON, DUE TO THE FACT THAT SITE CONDITIONS WILL DICTATE THE ACTUAL LOCATION AND TYPE OF MONUMENTS INSTALLED IN THE FIELD. PLEASE REFER TO EITHER THE "MONUMENTATION LOCATION PLAN" TO BE RECORDED OR CONTACT DOUCET SURVEY, INC. FOR CLARIFICATION OF MONUMENTS SET. (A RECORDED PLAN WILL BE PRODUCED AT THE DISCRETION OF DOUCET SURVEY, INC.).

–SEE SHEET 4 FOR NOTES 12 & 13 SPECIFIC TO EXISTING AND PROPOSED EASEMENT.
–SEE SHEET 6 FOR NOTES SPECIFIC TO EXISTING CONDITIONS.

REFERENCE PLANS

1. "MAINE–NEW HAMPSHIRE INTERSTATE BRIDGE AUTHORITY, PISCATAQUA RIVER BRIDGE, KITTERY, MAINE–PORTSMOUTH, NEW HAMPSHIRE, RIGHT OF WAY MAPS, N.H. APPROACH,BY ALBERT MOULTON, CE, DATED 1954, ON FILE A THE NEW HAMPSHIRE DEPARTMENT OF TRANSPORTATION.
2. "PLAT OF LAND U.S. ROUTE 1 BY–PASS PORTSMOUTH, NEW HAMPSHIRE FOR GRIFFIN FAMILY CORP.", BY DURGIN, VERRA AND ASSOCIATES, INC., DATED JANUARY 20, 1992, RECEIVED FROM THE OFFICE OF JAMES VERRA.
3. "LOT LINE REVISION U.S. ROUTE ONE BY–PASS, PORTSMOUTH, N.H. FOR WIGGIN, PARSONS, & O'BRIEN, BY JOHN W. DURGIN ASSOCIATES, INC., DATED JANUARY 22, 1982, R.C.R.D. PLAN D–10722.
4. "PLAN OF LAND FOR JOSEPH J. O'BRIEN JR.& SR., CATE STREET/ROUTE 1 BY–PASS, PORTSMOUTH, N.H., BY MILLETTE AND ASSOCIATES, DATED NOVEMBER 17, 1988, R.C.R.D. PLAN D–19110.
5. "LAND IN PORTSMOUTH, N.H., BOSTON AND MAINE RAILROAD TO ALL STATE REALTY CORPORATION", BY BRENTON V. SCHOFIELD, DATED FEBRUARY 1964, R.C.R.D. PLAN 160.
6. "LOT LINE RELOCATION PLAN FOR U–HAUL REAL ESTATE COMPANY AND FRANCIS J. COSTELLO CATE STREET/ROUTE 1 BY–PASS, PORTSMOUTH, N.H.", BY RICHARD P. MILLETTE AND ASSOCIATES, DATED MAY 25, 1995, R.C.R.D. PLAN D–24912.
7. "SUBDIVISION OF LAND HEIRS OF CORNELUS COAKLEY", BY MCKENNA ASSOCIATES, DATED JULY 26, 1972, R.C.R.D. PLAN D–3790.
8. "LOT LINE REVISION PORTSMOUTH, N.H. FOR MICHAEL A. PAGANO", BY JOHN W. DURGIN ASSOCIATES, DATED JUNE 26, 1981, R.C.R.D. PLAN D–10278.
9. "SITE PLAN OF ELDREDGE PARK WEST PREPARED FOR ELDREDGE BREWERY REALTY PARTNERSHIP", BY KIMBALL CHASE COMPANY, INC., DATED JULY 23, 1987, R.C.R.D. PLAN D–16894.
10. "PLAN OF LAND OF FRANK JONES BREWING CORP. & PAUL C. BADGER & NORMAN E. RAND PORTSMOUTH, N.H.", BY JOHN W. DURGIN, CIVIL ENGINEERS, DATED SEPTEMBER 1950, R.C.R.D. PLAN 01635.
11. "LOT LINE ADJUSTMENT PLAN FOR LAND OWNED BY SHARON R. GROSS REVOCABLE TRUST, KNOWN AS TAX MAP 163, LOT 31 & 32 LOCATED ALONG #201 & 235 CATE STREET", BY KNIGHT HILL LAND SURVEYING SERVICES, INC., DATED JULY 28, 2011, R.C.R.D. PLAN D–37021.
12. "SITE REVIEW PLAN FOR LAND OWNED BY SHARON R. GROSS REVOCABLE TRUST, KNOWN AS TAX MAP 163, LOT 32 LOCATED ALONG #201 & CATE STREET", BY KNIGHT HILL LAND SURVEYING SERVICES, INC., DATED DECEMBER 2002, R.C.R.D. PLAN D–30850.
13. "PLAN SHOWING DIVISION OF ELDREDGE BREWING CO. LOT IN PORTSMOUTH, N.H. OWNED BY ALBERT HISLOP", BY WM A. GROVER, DATED DECEMBER 11, 1918, R.C.R.D. PLAN 18.
14. "PLAN OF LAND PORTSMOUTH, N.H. ATLANTIC REALTY CORP. TO KITTERY LAUNDRY, INC.", BY JOHN W. DURGIN, DATED AUGUST 1964, R.C.R.D. PLAN 300.
15. "CITY OF PORTSMOUTH, N.H. DEFENSE HOMES SEWER LOCATION PLAN", BY JOHN W. DURGIN DATED MAY 1961, R.C.R.D. PLAN 1106.
16. "LAND IN PORTSMOUTH, N.H. BOSTON AND MAINE RAILROAD TO M.H. PARSONS & SONS LUMBER COMPANY, INC.", R.C.R.D. BOOK 1267, PAGE 16.
17. "PLAN OF LAND PORTSMOUTH, N.H. FOR M.H. PARSONS REALTY CORP.", BY JOHN W. DURGIN, DATED DECEMBER 1956, R.C.R.D. BOOK 1431, PAGE 275.
18. "SITE PLAN PORTSMOUTH, N.H. PREPARED FOR U–HAUL OF N.H. AND VT., INC.", BY JOHN W. DURGIN, DATED JUNE 4, 1980, R.C.R.D. PLAN D–9642.
19. "STANDARD PROPERTY SURVEY & PROPOSED SIDEWALK EASEMENT FOR THE CITY OF PORTSMOUTH FOR PROPERTY AT 185 COTTAGE STREET OWNED BY COLMAN C. GARLAND", BY EASTERLY SURVEYING, INC., SATED NOVEMBER 30, 2012, R.C.R.D. PLAN D–38047.
20. "PLOT PLAN FOR MARIAN M. BADGER, PORTSMOUTH, N.H.", BY JOHN W. DURGIN, DATED JULY 1973, RECIEVED FROM THE OFFICE OF JAMES VERRA.
21. "LAND ON CATE STREET, PORTSMOUTH, N.H., BADGER & RAND TO PORTSMOUTH POWER CO.", BY JOHN W. DURGIN, DATED JANUARY 8, 1926, RECEIVED FROM THE OFFICE OF JAMES VERRA.
22. "RIGHT–OF–WAY AND TRACK MAP BOSTON AND MAINE R.R. OPERATED BY THE BOSTON & MAINE R.R., STATION 2928+05 TO 2966+20", DATED JUNE 30, 1914, ON FILE AT THE NH DEPARTMENT OF TRANSPORTATION.
23. "ALTA/ACSM LAND TITLE SURVEY, TAX MAP 234, LOT 51 PROPERTY OF THE MEADOWBROOK INN CORPORATION", BY MSC CIVIL ENGINEERS & LAND SURVEYORS, DATED DECEMBER 2, 2018, R.C.R.D. PLAN D–36980.
24. "LOT LINE REVISION PLAN TAX MAP R–34 LOTS 6 & 7–6, LOCATED ON BORTHWICK AVE., COAKLEY ROAD AND U.S. ROUTE 1 BYPASS IN PORTSMOUTH, NH", BY KIMBALL CHASE, DATED OCTOBER 20, 1993, R.C.R.D. PLAN #D–22686.
25. "PLAN OF LAND FOR SEACOAST DEVELOPMENT GROUP, LLC, US ROUTE 1 BYPASS & COAKLEY ROAD, PORTSMOUTH, NH", BY MILLETTE, SPRAGUE & COLWELL, INC., DATED JUNE 7, 2002, R.C.R.D. PLAN #D–30041.
26. "LOT LINE REVISION PLAN LAND OF SEARAY REALTY, LLC", BY DOUCET SURVEY, INC., DATED MARCH 12, 2014, R.C.R.D. PLAN D–38435.
27. "STANDARD PROPERTY SURVEY & PROPOSED SIDEWALK EASEMENT FOR THE CITY OF PROTSMOUTH FOR PROPERTY AT 185 COTTAGE STREET PORTSMOUTH, NH OWNED BY COLMAN C. GARLAND", BY NORTH EASTERLY SURVEYING, INC., DATED NOVEMBER 30, 2012, R.C.R.D. PLAN #D–38017.
28. "PLAN OF A LOT OF LAND BELONGING TO FRANK JONES", DATED JULY 1901, R.C.R.D. PLAN #223.
29. "MEADOWBROOK INN CONDOMINIUM SITE PLAN, MAP 234, LOT 51 IN PORTSMOUTH, NH, PREPARED FOR THE MEADOWBROOK INN CORPORATION", BY VANASSE HANGEN BRUSTLIN, INC., DATED SEPTEMBER 25, 2009, R.C.R.D. PLAN #D–36162.
30. "PROPOSED EASEMENTS – BARTLETT STREET, BARTLETT SEWER SEPARATION PROJECT OVER LAND OF PAN AM RAILWAYS, PORTSMOUTH, NH FOR CITY OF PORTSMOUTH", BY JAMES VERRA AND ASSOCIATES, INC., DATED OCTOBER 1, 2007, R.C.R.D. PLAN #D–35477.
31. "EASEMENT PLAN – 653 ISLINGTON STREET, BARTLETT SEWER SEPARATION PROJECT OVER LAND OF HOUSTON HOLDINGS, LLC", BY JAMES VERRA AND ASSOCIATES, INC., DATED JUNE 22, 2009, R.C.R.D. PLAN #D–35957.
32. "LAND TRANSFER AND EASEMENT PLAN, 30 CATE STREET PORTSMOUTH, NH OWNED BY MERTON ALAN INVESTMENTS, LLC.", BY TF MORAN/MSC, DATED OCTOBER 31, 2017, R.C.R.D. PLAN #D–40742.
33. "LAND IN PORTSMOUTH, N.H. BARTLETT & CATE STREET", BY JOHN W. DURGIN CIVIL ENGINEER, DATED JULY 1924, R.C.R.D. PLAN #0133.



LOCATION MAP (n.t.s.)

SUBDIVISION PLAN

FOR

CATE STREET DEVELOPMENT LLC

OF

TAX MAP 163, LOTS 33 & 34
TAX MAP 165, LOT 2
TAX MAP 172, LOT 1
TAX MAP 173, LOT 2
CATE STREET & US ROUTE 1 BYPASS
PORTSMOUTH, NEW HAMPSHIRE

NO.	DATE	DESCRIPTION	BY

DRAWN BY:	M.W.F.	DATE:	JULY 3, 2019
CHECKED BY:	W.J.D.	DRAWING NO.:	5517D
JOB NO.:	5517	SHEET	1 OF 10

APPROVED FOR THE RECORD

CHAIRMAN PORTSMOUTH PLANNING BOARD DATE

DOUCET SURVEY INC

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10 Storer Street (Riverview Suite) Kennebunk, ME (207) 502-7005
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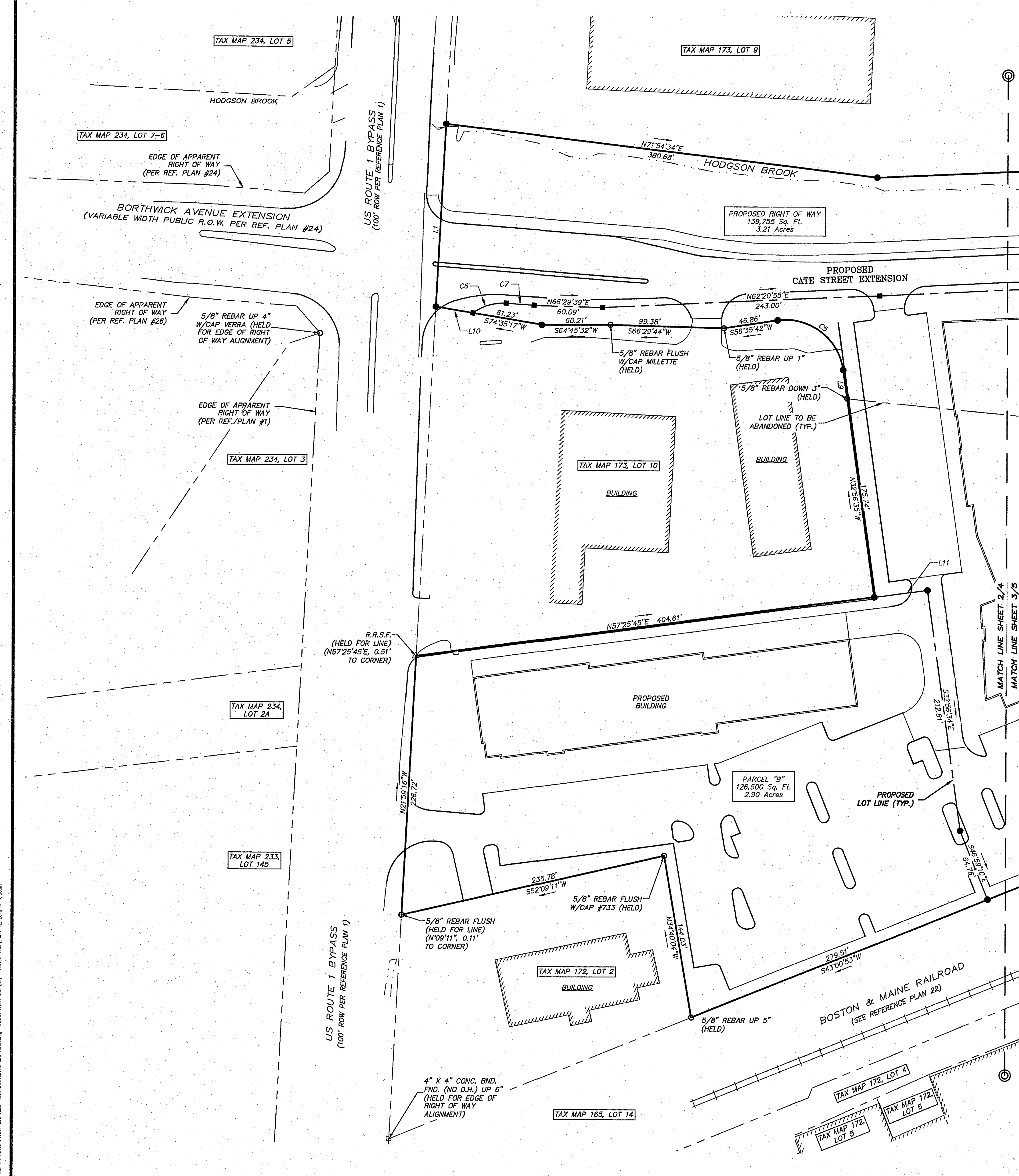

CURVE TABLE					
CURVE	ARC LENGTH	RADIUS	DELTA ANGLE	CHORD BEARING	CHORD LENGTH
C1	19.41'	2836.93'	0°23'31"	S50°31'13"W	19.41'
C2	134.92'	2836.93'	2°43'29"	N52°04'44"E	134.90'
C3	180.71'	11451.20'	0°54'15"	N54°18'39"E	180.71'
C4	108.14'	11451.20'	0°32'28"	N55°02'01"E	108.14'
C5	80.85'	51.00'	90°49'33"	S78°21'38"E	72.64'
C6	30.94'	45.00'	39°23'52"	N48°30'09"E	30.34'
C7	24.56'	1008.50'	1°23'42"	N68°53'56"E	24.56'
C8	38.52'	635.87'	3°28'15"	N60°29'39"E	38.51'
C9	15.14'	635.87'	1°21'52"	N58°04'35"E	15.14'
C10	115.78'	133.00'	49°52'37"	N82°19'58"E	112.16'
C11	99.86'	178.00'	32°08'32"	N88°47'59"W	98.55'
C12	181.57'	200.00'	52°00'57"	S83°14'19"E	175.40'
C13	84.14'	100.00'	48°12'27"	N81°13'11"E	81.68'

LINE TABLE		
LINE	BEARING	DISTANCE
L1	N21°59'16"W	161.10'
L2	S25°06'26"E	30.74'
L3	N65°44'42"E	40.75'
L4	N38°11'17"W	10.00'
L5	N71°55'42"E	30.64'
L6	S40°12'57"E	34.79'
L7	S36°26'29"E	20.00'
L8	N46°59'07"W	41.00'
L9	N32°56'35"W	25.61'
L10	S74°35'17"W	32.98'
L11	N57°25'45"E	47.00'
L12	S26°33'24"E	20.39'
L13	S79°44'51"E	24.00'
L14	N65°28'25"E	31.49'
L15	S55°22'43"W	92.06'
L16	S55°22'43"W	56.61'
L17	N20°49'54"W	60.72'
L18	N20°49'54"W	74.81'
L19	N35°02'16"W	44.30'
L20	N35°02'16"W	46.03'

SCALE: 1 INCH = 50 FT.

SUBDIVISION PLAN
FOR
CATE STREET DEVELOPMENT LLC
OF
TAX MAP 163, LOTS 33 & 34
TAX MAP 165, LOT 2
TAX MAP 172, LOT 1
TAX MAP 173, LOT 2
CATE STREET & US ROUTE 1 BYPASS
PORTSMOUTH, NEW HAMPSHIRE

LEGEND
- LOT LINE
- PROPOSED LOT LINE
- APPARENT RIGHT OF WAY LINE
- LOT LINE TO BE ABANDONED
- APPROXIMATE ABUTTER LOT LINE
- EDGE OF WETLAND
- BOUND FOUND
- R.R.S.F. RAILROAD SPIKE FOUND
- IRON PIPE/ROD FOUND
- 4"X4" GRANITE BOUND TO BE SET
- 5/8" REBAR W/ID CAP TO BE SET
- BND. FND. BOUND FOUND
- I.P.F. IRON PIPE FOUND
- CONC. CONCRETE
- D.H. DRILL HOLE

STATE OF NEW HAMPSHIRE LICENSED LAND SURVEYOR No. 989 MATTHEW A. FAGGINGER-AUER SIGNATURE

I CERTIFY THAT THIS SURVEY AND PLAN WERE PREPARED BY ME OR BY THOSE UNDER MY DIRECT SUPERVISION AND FALLS UNDER THE URBAN SURVEY CLASSIFICATION OF THE NH CODE OF ADMINISTRATIVE RULES OF THE BOARD OF LICENSURE FOR LAND SURVEYORS. I CERTIFY THAT THIS SURVEY WAS MADE ON THE GROUND AND IS CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF. RANDOM TRAVERSE SURVEY BY TOTAL STATION, WITH A PRECISION GREATER THAN 1:15,000.

L.L.S. #989

7/15/19 DATE

THE CERTIFICATIONS SHOWN HEREON ARE INTENDED TO MEET REGISTRY OF DEED REQUIREMENTS AND ARE NOT A CERTIFICATION TO TITLE OR OWNERSHIP OF PROPERTY SHOWN. OWNERS OF ADJOINING PROPERTIES ARE ACCORDING TO CURRENT TOWN ASSESSORS RECORDS.

APPROVED FOR THE RECORD

CHAIRMAN PORTSMOUTH PLANNING BOARD DATE

NO.	DATE	DESCRIPTION	BY

DRAWN BY: M.W.F.	DATE: JULY 3, 2019
CHECKED BY: W.J.D.	DRAWING NO.: 5517D
JOB NO.: 5517	SHEET 2 OF 10

DOUCET SURVEY INC
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10 Storer Street (Riverview Suite) Kennebunk, ME (207) 502-7005
http://www.doucetsurvey.com

50 0 50 100
SCALE: 1 INCH = 50 FT.

LEGEND

- LOT LINE
- PROPOSED LOT LINE
- APPARENT RIGHT OF WAY LINE
- LOT LINE TO BE ABANDONED
- APPROXIMATE ABUTTER LOT LINE
- EDGE OF WETLAND
- BOUND FOUND
- R.R.S.F. RAILROAD SPIKE FOUND
- IRON PIPE/ROD FOUND
- 4"X4" GRANITE BOUND TO BE SET
- 5/8" REBAR W/ID CAP TO BE SET
- BND. FND. BOUND FOUND
- I.P.F. IRON PIPE FOUND
- CONC. CONCRETE
- D.H. DRILL HOLE
- AREA TO BE CONVEYED FROM THE CITY OF PORTSMOUTH TO CATE STREET DEVELOPMENT LLC 47,194 SQ. FT. OR 1.08 AC.

APPROVED FOR THE RECORD

CHAIRMAN PORTSMOUTH PLANNING BOARD DATE

STATE OF NEW HAMPSHIRE No. 989 MATTHEW A. FAGGINGER–AUER LICENSED LAND SURVEYOR SIGNATURE

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L.L.S. #989

7/13/19 DATE

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SUBDIVISION PLAN

FOR
CATE STREET DEVELOPMENT LLC
OF
TAX MAP 163, LOTS 33 & 34
TAX MAP 165, LOT 2
TAX MAP 172, LOT 1
TAX MAP 173, LOT 2
CATE STREET & US ROUTE 1 BYPASS
PORTSMOUTH, NEW HAMPSHIRE

NO.	DATE	DESCRIPTION	BY

DRAWN BY:	M.W.F.	DATE:	JULY 3, 2019
CHECKED BY:	W.J.D.	DRAWING NO.:	5517D
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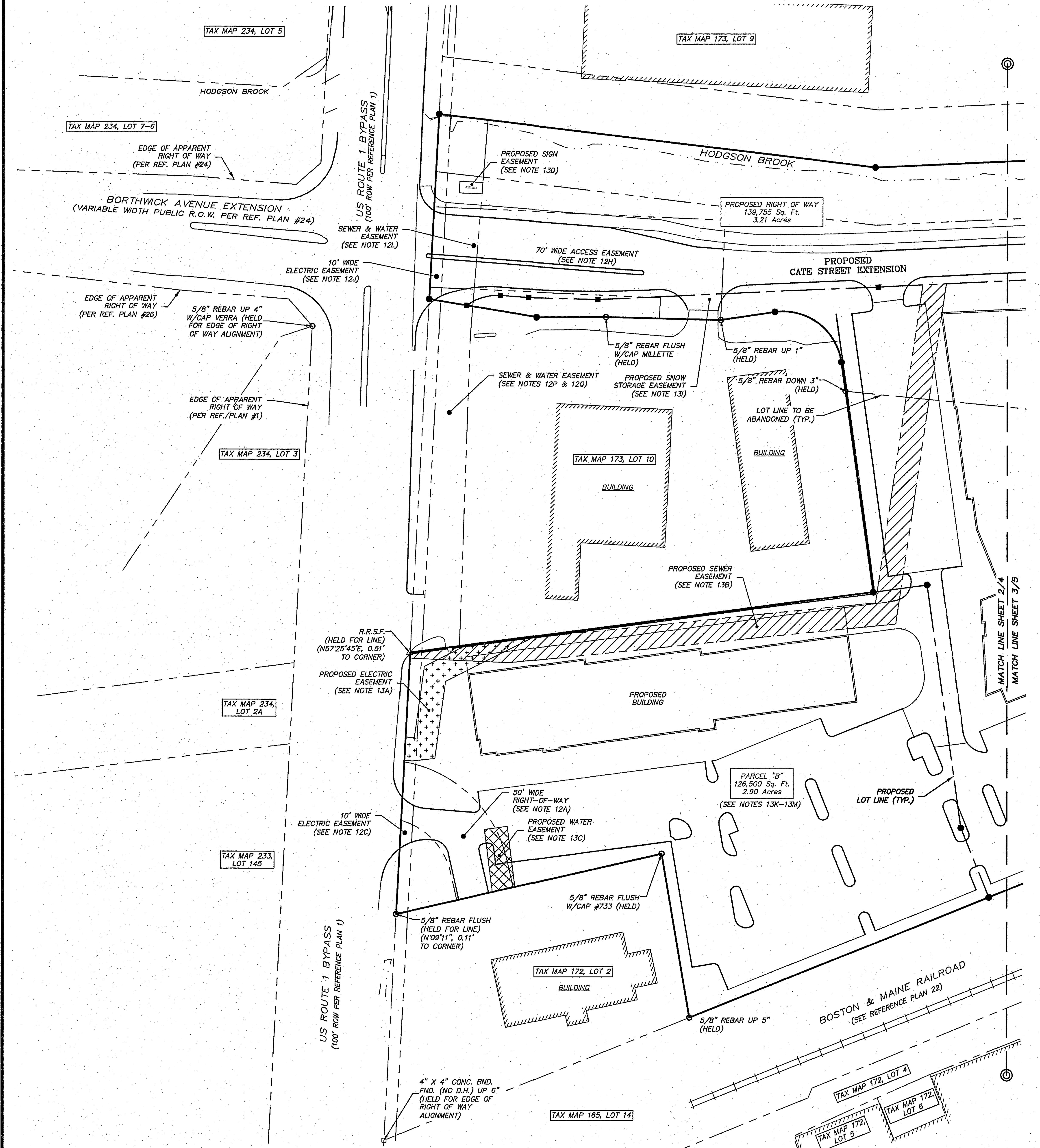

SEE SHEET 1 FOR NOTES 1–11.

12. THE FOLLOWING LOTS ARE EITHER SUBJECT TO OR IN BENEFIT OF, BUT NOT LIMITED TO, THE FOLLOWING EASEMENTS/RIGHTS OF RECORD:

<u>TAX MAP 172, LOT 1</u>

A. SUBJECT TO A 50' WIDE RIGHT OF WAY FOR THE BENEFIT OF TAX MAP 172, LOT 2 SEE R.C.R.D. BOOK 2411, PAGE 1484 AND R.C.R.D. PLAN D–10722 (TO BE ABANDONED).
B. EXCEPTING AN 8" WATER PIPE LOCATED UNDER SUBJECT PARCEL, SEE R.C.R.D. BOOK 2783, PAGE 560, LOCATION OF SUBJECT WATER PIPE UNKNOWN.
C. SUBJECT TO A 10' WIDE ELECTRIC EASEMENT, SEE R.C.R.D. BOOK 1257, PAGE 324 AND R.C.R.D. PLAN D–19110.
D. SUBJECT TO A WATER LINE EASEMENT, SEE R.C.R.D. BOOK 950, PAGE 174, LOCATION OF SUBJECT WATERLINE UNKNOWN.
E. SUBJECT TO AN ELECTRIC EASEMENT, SEE R.C.R.D. BOOK 1374, PAGE 97, LOCATION OF SUBJECT EASEMENT UNKNOWN.
F. SUBJECT TO AN ELECTRIC EASEMENT, SEE R.C.R.D. BOOK 2364, PAGE 397, LOCATION OF SUBJECT EASEMENT UNKNOWN.
G. SUBJECT TO A 15' DRIVEWAY EASEMENT, SEE R.C.R.D. BOOK 2216, PAGE 18, LOCATION OF SUBJECT EASEMENT UNKNOWN.

<u>TAX MAP 173, LOT 2</u>

H. SUBJECT TO A 70' WIDE ACCESS EASEMENT IN FAVOR OF TAX MAP 173, LOT 10, SEE R.C.R.D. BOOK 3204, PAGE 87 AND R.C.R.D. PLAN D–24912 (TO BE ABANDONED).
I. SUBJECT TO A DRAINAGE EASEMENT TO THE UNITED STATES OF AMERICA, SEE R.C.R.D. BOOK 1423, PAGE 240 AND PLAN D–19110.
J. SUBJECT TO A 10' WIDE ELECTRIC EASEMENT, SEE R.C.R.D. BOOK 1257, PAGE 324. SEE ALSO R.C.R.D. PLAN D–19110.
K. SUBJECT TO EASEMENTS FOR PASSAGE AND PIPE LINES, SEE R.C.R.D. BOOK 2205, PAGE 646 AND PLAN D–24912. LOCATION OF SUBJECT EASEMENTS UNKNOWN.
L. SUBJECT TO A SEWER AND WATER EASEMENT IN FAVOR OF THE CITY OF PORTSMOUTH, SEE R.C.R.D. BOOK 1476, PAGE 252 (TO BE ABANDONED).

<u>TAX MAP 165, LOT 2</u>

M. SUBJECT TO A SEWER EASEMENT, SEE R.C.R.D. BOOK 1659, PAGE 273 (TO BE ABANDONED).
N. DRIVEWAY RIGHTS, SEE R.C.R.D. BOOK 1659, PAGE 273, LOCATION AND STATUS UNKNOWN.
O. ADDITIONAL COVENANTS AND EXCEPTIONS, SEE R.C.R.D. BOOK 1659, PAGE 273..

<u>TAX MAP 173, LOT 10 (NOT SUBJECT PARCEL)</u>

P. SUBJECT TO A SEWER EASEMENT, SEE R.C.R.D. BOOK 1270, PAGE 418.
Q. SUBJECT TO A WATER EASEMENT, SEE R.C.R.D. BOOK 1448, PAGE 465.

13. PROPOSED EASEMENTS **(LOCATION SHOWN ON PLAN, METES AND BOUNDS DESCRIPTION TO BE ADDED ONCE EASEMENT LOCATIONS ARE APPROVED):**

A. PROPOSED 20' WIDE ELECTRIC EASEMENT IN FAVOR OF EVERSOURCE AND TAX MAP 173, LOT 10.
B. PROPOSED 20' WIDE SEWER EASEMENT IN FAVOR OF THE CITY OF PORTSMOUTH.
C. PROPOSED 20' WIDE WATER SERVICE EASEMENT IN FAVOR OF TAX MAP 172, LOT 2.
D. PROPOSED SIGN EASEMENT IN FAVOR OF CATE STREET DEVELOPMENT LLC..

ADDITIONAL PROPOSED EASEMENTS:

<u>PARCEL "A" (RESIDENTIAL LOT)</u>

E. BLANKET UTILITY EASEMENT IN FAVOR OF EVERSOURCE.
F. BLANKET WATER SERVICE EASEMENT IN FAVOR OF TAX MAP 172, LOT 2.
G. BLANKET ACCESS EASEMENT IN FAVOR OF TAX MAP 172, LOT 2 AND PROPOSED PARCELS "B" & "C".
H. BLANKET WATER EASEMENT IN FAVOR OF THE CITY OF PORTSMOUTH TO MAINTAIN VALVES AND HYDRANTS.
I. 5' WIDE SNOW STORAGE EASEMENT IN FAVOR OF THE CITY OF PORTSMOUTH ALONG THE SOUTHERN LINE OF THE PROPOSED RIGHT OF WAY.
J. BLANKET ACCESS EASEMENT FOR EMERGENCY SERVICES.

<u>PARCEL "B" (COMMERCIAL LOT)</u>

K. BLANKET ACCESS EASEMENT IN FAVOR OF TAX MAP 172, LOT 2 AND PROPOSED PARCELS "A" & "C".
L. BLANKET WATER EASEMENT IN FAVOR OF THE CITY OF PORTSMOUTH TO MAINTAIN VALVES AND HYDRANTS.
M. BLANKET ACCESS EASEMENT FOR EMERGENCY SERVICES.

<u>PARCEL "C" (TOWN HOUSE LOT)</u>

N. BLANKET UTILITY EASEMENT IN FAVOR OF EVERSOURCE.
O. BLANKET ACCESS EASEMENT IN FAVOR OF TAX MAP 172, LOT 2 AND PROPOSED PARCELS "A" & "B".
P. BLANKET WATER EASEMENT IN FAVOR OF THE CITY OF PORTSMOUTH TO MAINTAIN VALVES AND HYDRANTS.
Q. 5' WIDE SNOW STORAGE EASEMENT IN FAVOR OF THE CITY OF PORTSMOUTH ALONG THE SOUTHERN LINE OF THE PROPOSED RIGHT OF WAY.
R. BLANKET ACCESS EASEMENT FOR EMERGENCY SERVICES.
S. SIGHT TRIANGLE EASEMENT IN FAVOR OF THE CITY OF PORTSMOUTH AT DRIVEWAY LOCATIONS AND ALONG FRONTAGE OF LOT, INTENDING TO LIMIT LANDSCAPING AND STRUCTURAL FEATURES TO LOW HEIGHT SHRUBS AND GROUND COVER. (EASEMENT AREA LINE WORK TO BE ADDED AS ALIGNMENT OF ROAD IS FINALIZED.

50 0 50 100

SCALE: 1 INCH = 50 FT.

EASEMENT PLAN
FOR
CATE STREET DEVELOPMENT LLC
OF
TAX MAP 163, LOTS 33 & 34
TAX MAP 165, LOT 2
TAX MAP 172, LOT 1
TAX MAP 173, LOT 2
CATE STREET & US ROUTE 1 BYPASS
PORTSMOUTH, NEW HAMPSHIRE

LEGEND

- LOT LINE
- PROPOSED LOT LINE
- APPARENT RIGHT OF WAY LINE
- LOT LINE TO BE ABANDONED
- APPROXIMATE ABUTTER LOT LINE
- EXISTING EASEMENT LINE (SEE NOTE #12)
- PROPOSED EASEMENT LINE (SEE NOTE #13)
- EDGE OF WETLAND
- BOUND FOUND
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- IRON PIPE/ROD FOUND
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- I.P.F. IRON PIPE FOUND
- CONC. CONCRETE
- D.H. DRILL HOLE

APPROVED FOR THE RECORD	
CHAIRMAN PORTSMOUTH PLANNING BOARD	DATE

STATE OF NEW HAMPSHIRE LICENSED LAND SURVEYOR No. 989 MATTHEW A. FAGGINGER–AUER SIGNATURE

I CERTIFY THAT THIS SURVEY AND PLAN WERE PREPARED BY ME OR BY THOSE UNDER MY DIRECT SUPERVISION AND FALLS UNDER THE URBAN SURVEY CLASSIFICATION OF THE NH CODE OF ADMINISTRATIVE RULES OF THE BOARD OF LICENSURE FOR LAND SURVEYORS. I CERTIFY THAT THIS SURVEY WAS MADE ON THE GROUND AND IS CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF. RANDOM TRAVERSE SURVEY BY TOTAL STATION, WITH A PRECISION GREATER THAN 1:15,000.

_________ L.L.S. #989

7/15/19 DATE

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NO.	DATE	DESCRIPTION	BY

DRAWN BY: M.W.F.	DATE: JULY 3, 2019
CHECKED BY: W.J.D.	DRAWING NO.: 5517D
JOB NO.: 5517	SHEET 4 OF 10

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EASEMENT PLAN
FOR
CATE STREET DEVELOPMENT LLC
OF
TAX MAP 163, LOTS 33 & 34
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DRAWN BY:	M.W.F.	DATE:	JULY 3, 2019
CHECKED BY:	W.J.D.	DRAWING NO.:	5517D
JOB NO.:	5517	SHEET	5 OF 10

LEGEND

(line symbol)	LOT LINE
(line symbol)	PROPOSED LOT LINE
(line symbol)	APPARENT RIGHT OF WAY LINE
(line symbol)	LOT LINE TO BE ABANDONED
(line symbol)	APPROXIMATE ABUTTER LOT LINE
(line symbol)	EXISTING EASEMENT LINE (SEE NOTE #12)
(line symbol)	PROPOSED EASEMENT LINE (SEE NOTE #13)
(line symbol)	EDGE OF WETLAND
⊡	BOUND FOUND
△ R.R.S.F.	RAILROAD SPIKE FOUND
○	IRON PIPE/ROD FOUND
■	4"X4" GRANITE BOUND TO BE SET
●	5/8" REBAR W/ID CAP TO BE SET
BND. FND.	BOUND FOUND
I.P.F.	IRON PIPE FOUND
CONC.	CONCRETE
D.H.	DRILL HOLE

STATE OF NEW HAMPSHIRE LICENSED LAND SURVEYOR No. 989 MATTHEW A. FAGGINGER-AUER
SIGNATURE

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__________ L.L.S. #989

7/13/19 DATE

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APPROVED FOR THE RECORD

CHAIRMAN PORTSMOUTH PLANNING BOARD DATE

DOUCET SURVEY INC

Serving Your Professional Surveying & Mapping Needs
102 Kent Place, Newmarket, NH 03857 (603) 659-6560
2 Commerce Drive (Suite 202) Bedford, NH 03110 (603) 614-4060
10 Storer Street (Riverview Suite) Kennebunk, ME (207) 502-7005
http://www.doucetsurvey.com

NOTES:

1. REFERENCE: TAX MAP 163, LOT 33
TAX MAP 163, LOT 34
TAX MAP 165, LOT 2
TAX MAP 172, LOT 1
TAX MAP 173, LOT 2

OWNER OF RECORD
CATE STREET DEVELOPMENT, LLC
11 ELKINS STREET, SUITE 420
BOSTON, MA 02127
R.C.R.D. BOOK 5959, PAGE 109

2. FIELD SURVEY PERFORMED BY P.J.S. & J.C.M. DURING NOVEMBER 2016 USING A TRIMBLE S6 TOTAL STATION, A TRIMBLE R8 SURVEY GRADE GPS UNIT, A TRIMBLE TSC3 DATA COLLECTOR AND A SOKKIA B21 AUTO LEVEL, BY L.P.S. & S.N.F. DURING JULY 2018 AND T.M.M. & J.C.M. IN SEPTEMBER & OCTOBER 2018 USING A TRIMBLE S6 TOTAL STATION WITH A TRIMBLE TSC3 DATA COLLECTOR. TRAVERSE ADJUSTMENT BASED ON LEAST SQUARE ANALYSIS. ADDITONAL FIELD SURVEY PERFORMED BY M.C. DURING NOVEMBER 2016 AND OCTOBER 2018 USING A LEICA HDS SCANNER.

3. THE LIMITS OF JURISDICTIONAL WETLANDS WERE DELINEATED BY MARC JACOBS IN NOVEMBER 2016 AND REVIEWED BY GOVE ENVIRONMENTAL SERVICES, INC. DURING APRIL 2018 IN ACCORDING TO THE US ARMY CORPS OF ENGINEERS WETLAND DELINEATION MANUAL, TECHNICAL REPORT Y-87-1, JANUARY 1987 AND REGIONAL SUPPLEMENT TO THE CORPS OF ENGINEERS WETLAND DELINEATION MANUAL: NORTHCENTRAL AND NORTHEAST REGION, VERSION 2.0, JANUARY 2102 AND FIELD INDICATORS FOR IDENTIFYING HYDRIC SOILS IN NEW ENGLAND, VERSION 4, MAY 2017, NEW ENGLAND HYDRIC SOILS TECHNICAL COMMITTEE.

4. VERTICAL DATUM IS BASED ON NGVD29 PER DISK V 28 1942 ELEV. 25.59..

5. HORIZONTAL DATUM BASED ON NEW HAMPSHIRE STATE PLANE(2800) NAD83(2011) DERIVED FROM REDUNDANT GPS OBSERVATIONS UTILIZING THE KEYNET GPS VRS NETWORK.

6. PROPER FIELD PROCEDURES WERE FOLLOWED IN ORDER TO GENERATE CONTOURS AT 1' INTERVALS. ANY MODIFICATION OF THIS INTERVAL WILL DIMINISH THE INTEGRITY OF THE DATA, AND DOUCET SURVEY, INC. WILL NOT BE RESPONSIBLE FOR ANY SUCH ALTERATION PERFORMED BY THE USER.

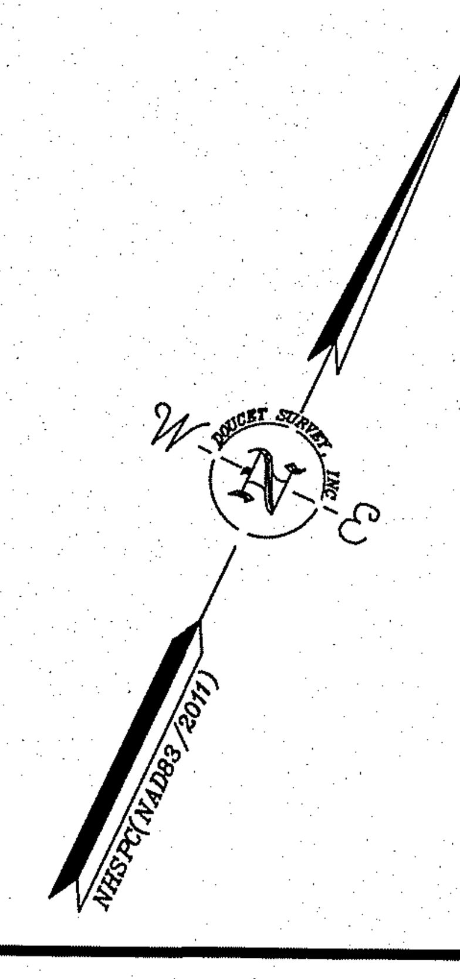
7. UNDERGROUND UTILITIES SHOWN HEREON ARE BASED ON OBSERVABLE PHYSICAL EVIDENCE AND PAINT MARKS FOUND ON-SITE.

8. THE ACCURACY OF MEASURED UTILITY INVERTS AND PIPE SIZES/TYPES IS SUBJECT TO NUMEROUS FIELD CONDITIONS, INCLUDING; THE ABILITY TO MAKE VISUAL OBSERVATIONS, DIRECT ACCESS TO THE VARIOUS ELEMENTS, MANHOLE CONFIGURATION, ETC.

9. ALL ELECTRIC, GAS, TEL. WATER, SEWER AND DRAIN SERVICES ARE SHOWN IN SCHEMATIC FASHION, THEIR LOCATIONS ARE NOT PRECISE OR NECESSARILY ACCURATE. NO WORK WHATSOEVER SHALL BE UNDERTAKEN ON THIS SITE USING THIS PLAN TO LOCATE THE ABOVE SERVICES. CONSULT WITH THE PROPER AUTHORITIES CONCERNED WITH THE SUBJECT SERVICE LOCATIONS FOR INFORMATION REGARDING SUCH. CALL DIG-SAFE AT 1-888-DIG-SAFE.

10. UNDERGROUND UTILITY DATA WAS PROVIDED TO DOUCET SURVEY, INC. BY THE CITY OF PORTSMOUTH GIS DEPARTMENT ON NOVEMBER 15, 2016. THIS DATA IS FOR PLANNING PURPOSES ONLY AND DOUCET SURVEY DOES NOT GUARANTEE THE ACCURACY OR EXISTENCE OF THE DATA PROVIDED. ON-SITE INSPECTION SHOULD BE CONDUCTED PRIOR FINAL DESIGN AND/OR CONSTRUCTION.

STATE OF NEW HAMPSHIRE
No. 989
MATTHEW A. FAGGINGER-AUER
LICENSED LAND SURVEYOR
SIGNATURE



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SCALE: 1 INCH = 30 FT.

TOPOGRAPHIC PLAN
FOR
CATE STREET DEVELOPMENT LLC
OF
TAX MAP 163, LOTS 33 & 34
TAX MAP 165, LOT 2
TAX MAP 172, LOT 1
TAX MAP 173, LOT 2
CATE STREET & US ROUTE 1 BYPASS
PORTSMOUTH, NEW HAMPSHIRE

SHEETS 6-10 NOT FOR RECORDING

NO.	DATE	DESCRIPTION	BY

DRAWN BY: M.W.F.	DATE: JULY 3, 2019
CHECKED BY: W.J.D.	DRAWING NO.: 5517D
JOB NO.: 5517	SHEET 6 OF 10

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MATCH LINE SHEET 6
MATCH LINE SHEET 7
MATCH LINE SHEET 6
MATCH LINE SHEET 8
CB #1348
CB #1347
PSNH/264/5
8" DIA PIPE POSSIBLE CLEAN OUT, NO COVER
TBM C "X" CUT IN BOLT OVER MAIN OUTLET ELEV.=24.93'
SMH #1066
CB #1072
CB #1071
TBM 4139B MAG NAIL FOUND UP 12" IN POLE PSNH/264/6 ELEV.=25.56'
TBM 4139A MAG NAIL FOUND UP 6" IN POLE PSNH/242/3 ELEV.=24.86'
CONCRETE WALL W/CHAINLINK FENCE
NO PARKING
CB #1148
NO PARKING
STOP
SMH #1152
CB #1128
CB #1186
OVERHANG
CB #1147
GRASS AREA
2" DIA. PIPE
TAX MAP 172, LOT 1
BUILDING
FIRE PULL BOX
HANDICAP PARKING
FF=24.1'
FF=24.0'
FF=24.2'
GRASS AREA
CB #1056
PSNH/242/3A W/POWER DOWN
~FADED PARKING STRIPING~
~ROW OF PINE TREES~
FUEL PUMP ISLAND
COVER
STEEL STEPS
179/5E
CONCRETE RETAINING WALL
CB #1188
RAMP
STACKED STORAGE CONTAINERS
BLANK SIGN
PSNH/242/3X
PSNH/242/4
4/NETT
15" RCP INV.=18.4'
BUILDING
TRAILER
4"x8" CONCRETE WHISTLE POST
CHAIN LINK FENCE ENCLOSURE
PSNH/242
BOSTON & MAINE RAILROAD
4"x8" CONCRETE WHISTLE POST, MARKED "W"
PSNH/242/5 W/POWER DOWN
30" BRICK INV.=19.9'
US ROUTE 1 BYPASS
MATCH LINE SHEET 7
MATCH LINE SHEET 8
PATH
NHSPC(NAD83/2011)
STATE OF NEW HAMPSHIRE No. 989 MATTHEW A. FAGGINGER-AUER LICENSED LAND SURVEYOR
SIGNATURE
30 0 30 60
SCALE: 1 INCH = 30 FT.

TOPOGRAPHIC PLAN

FOR
CATE STREET DEVELOPMENT LLC
OF
TAX MAP 163, LOTS 33 & 34
TAX MAP 165, LOT 2
TAX MAP 172, LOT 1
TAX MAP 173, LOT 2
CATE STREET & US ROUTE 1 BYPASS
PORTSMOUTH, NEW HAMPSHIRE

NO.	DATE	DESCRIPTION	BY

DRAWN BY:	M.W.F.	DATE:	JULY 3, 2019
CHECKED BY:	W.J.D.	DRAWING NO.:	5517D
JOB NO.:	5517	SHEET	7 OF 10

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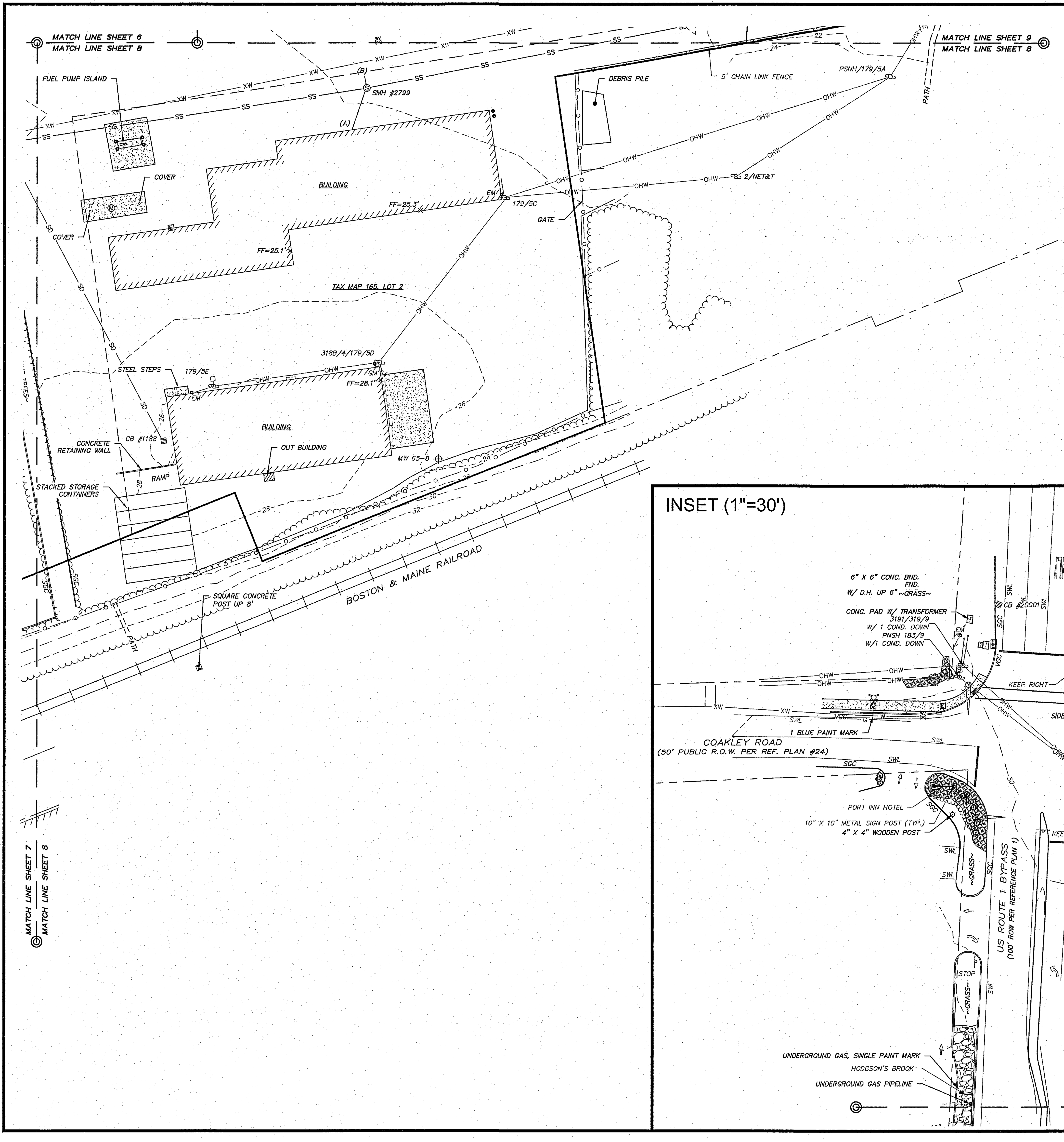
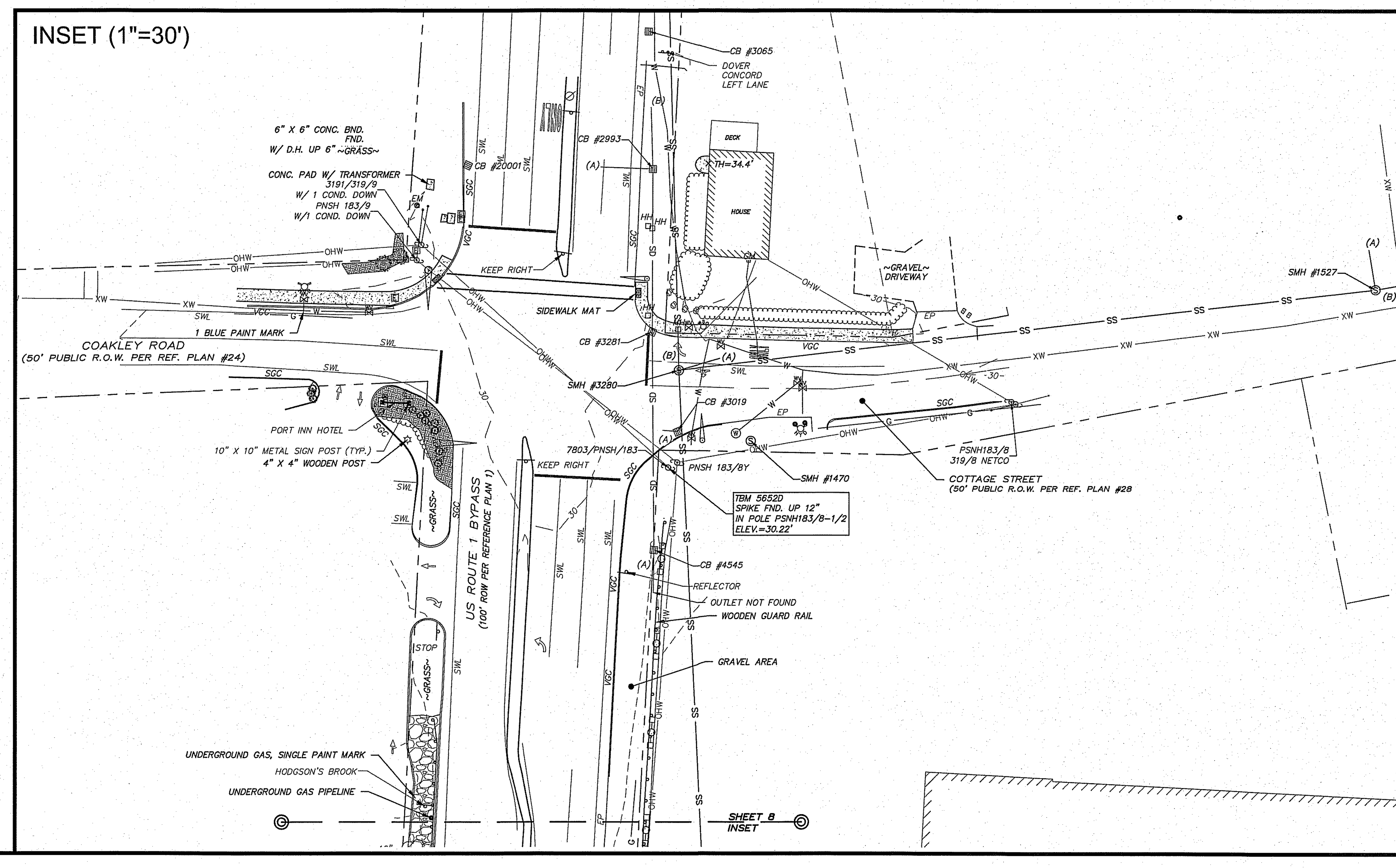
SHEETS 6-10 NOT FOR RECORDING





TOPOGRAPHIC PLAN
FOR
CATE STREET DEVELOPMENT LLC
OF
TAX MAP 163, LOTS 33 & 34
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CATE STREET & US ROUTE 1 BYPASS
PORTSMOUTH, NEW HAMPSHIRE

30 0 30 60
SCALE: 1 INCH = 30 FT.

NEW HAMPSHIRE LICENSED LAND SURVEYOR No. 989 MATTHEW A. FAGGINGER-AUER SIGNATURE

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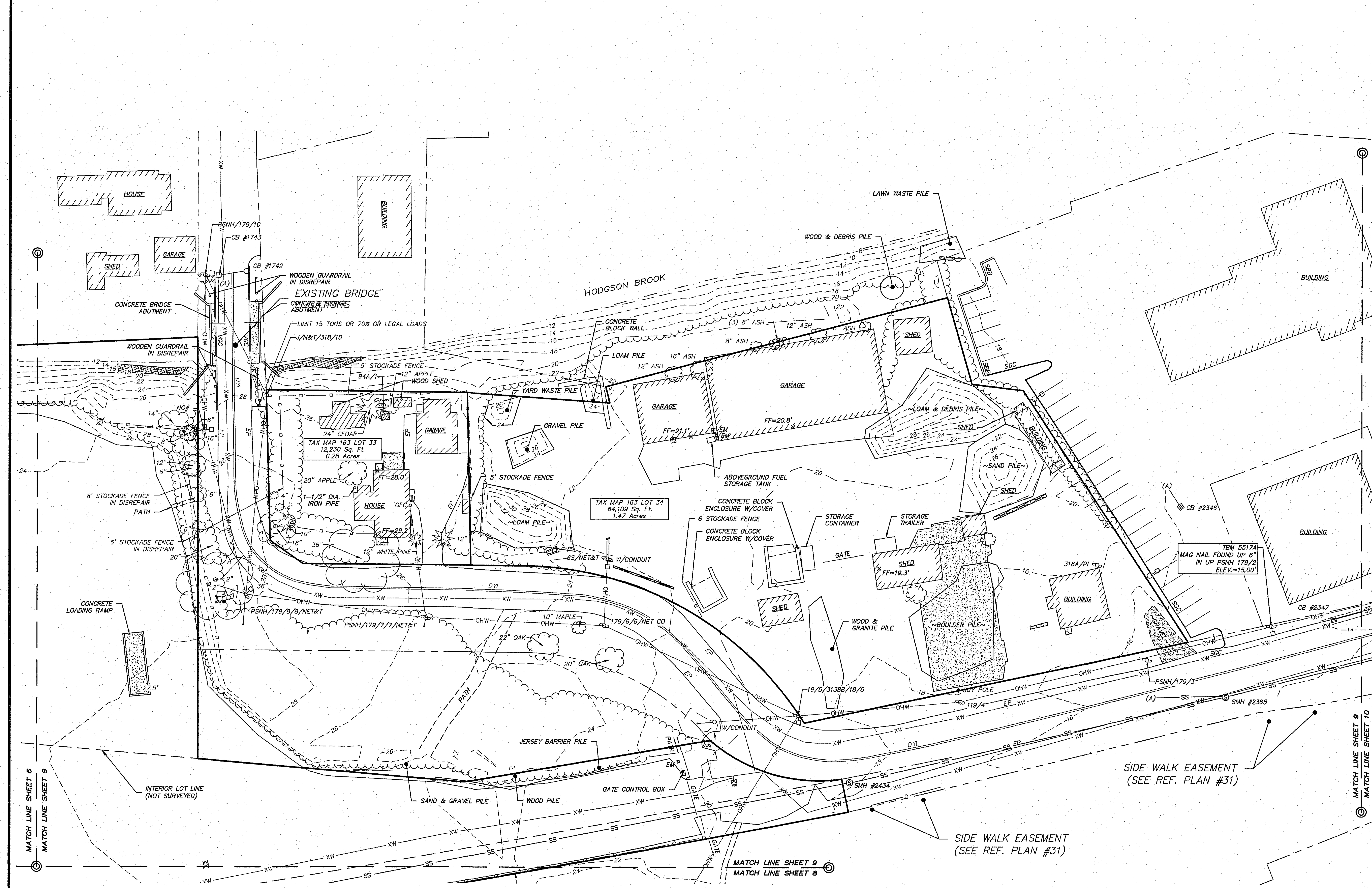
NO.	DATE	DESCRIPTION	BY

DRAWN BY: M.W.F.	DATE: JULY 3, 2019
CHECKED BY: W.J.D.	DRAWING NO.: 5517D
JOB NO.: 5517	SHEET 8 OF 10

SHEETS 6-10 NOT FOR RECORDING



STATE OF NEW HAMPSHIRE
No. 989
MATTHEW A. FAGGINGER–AUER
LICENSED LAND SURVEYOR
SIGNATURE

30 0 30 60

SCALE: 1 INCH = 30 FT.

TOPOGRAPHIC PLAN
FOR
CATE STREET DEVELOPMENT LLC
OF
TAX MAP 163, LOTS 33 & 34
TAX MAP 165, LOT 2
TAX MAP 172, LOT 1
TAX MAP 173, LOT 2
CATE STREET & US ROUTE 1 BYPASS
PORTSMOUTH, NEW HAMPSHIRE

NO.	DATE	DESCRIPTION	BY

DRAWN BY: M.W.F.	DATE: JULY 3, 2019
CHECKED BY: W.J.D.	DRAWING NO.: 5517D
JOB NO.: 5517	SHEET 9 OF 10

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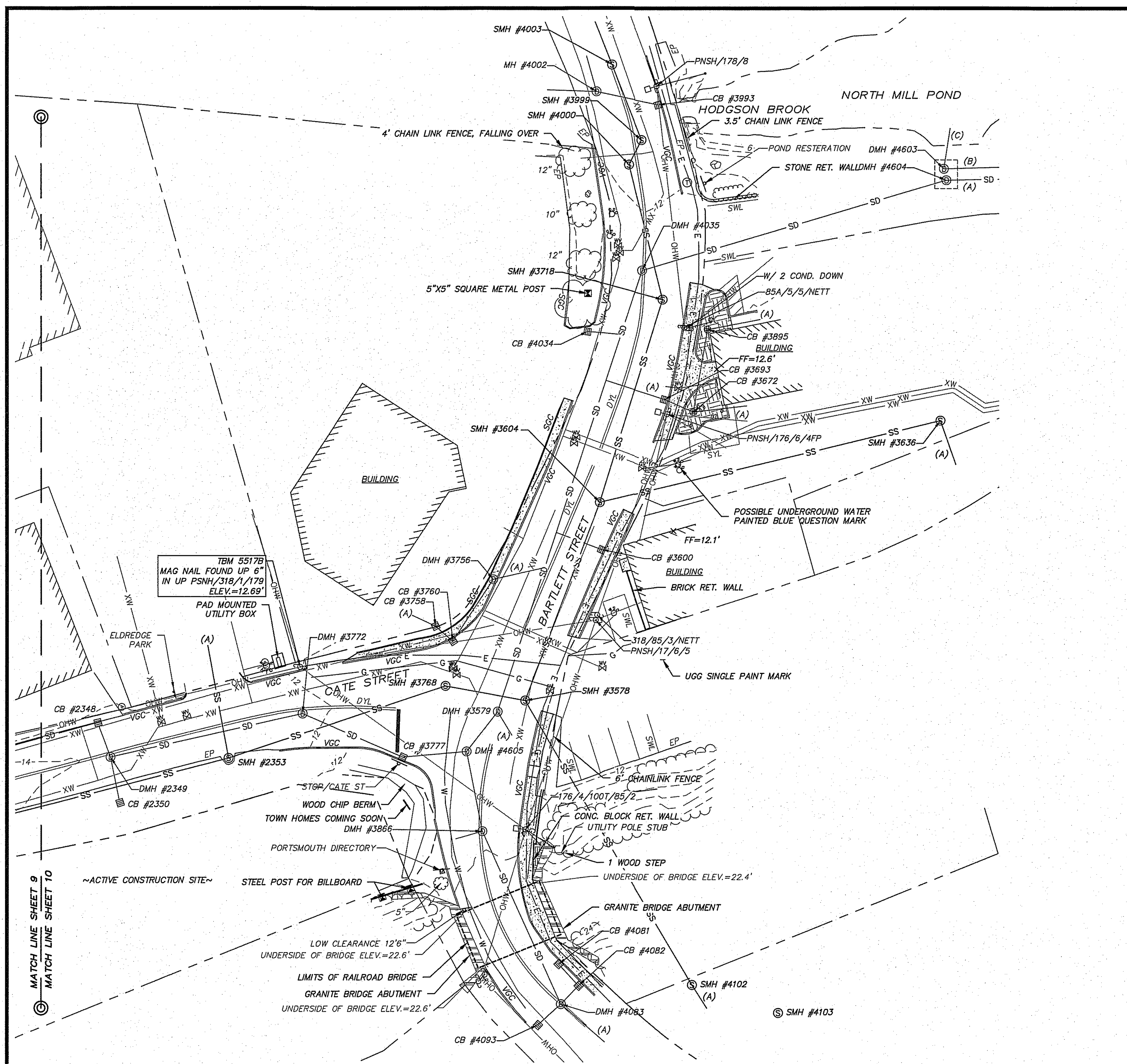
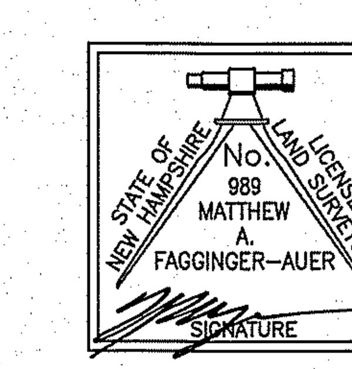
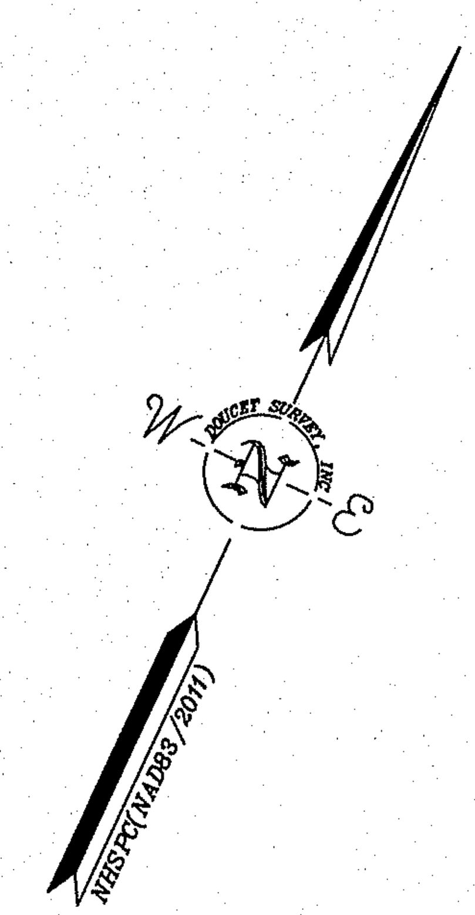


DRAINAGE STRUCTURES			
CB #1056	CB #1348	CB #3600	CB #4034
RIM ELEV.=23.3'	RIM ELEV.=24.6'	RIM ELEV.=11.1'	RIM ELEV.=10.8'
(A) 4" UNKN. INV.=17.6'	(1347) 12" RCP INV.=19.2'	12" PVC INV.=7.5'	12" PVC INV.=7.5'
(B) 4" UNKN. INV.=17.7'			
	CB #1742	CB #3672	DMH #4035
CB #1071	RIM ELEV.=24.7'	RIM ELEV.=11.9'	RIM ELEV.=11.7'
RIM ELEV.=22.7'	(1743) 12" RCP INV.=19.7'	(3693) 4" PVC INV.=8.2'	(NO VISIBLE PIPES)
(1072) 12" RCP INV.=17.3'		(3895) 4" PVC INV.=8.7'	SUMP=1.3'
	CB #1743	(A) 4" PVC INV.=8.3'	WATER LEVEL=1.8'
CB #1072	RIM ELEV.=24.7'		
RIM ELEV.=23.7'	(1742) 12" RCP INV.=19.5'	CB #3693	CB #4081
(A) 6" CMP INV.=17.6'	(A) 12" RCP INV.=19.5'	RIM ELEV.=11.0'	RIM ELEV.=8.7'
(1071) 12" RCP INV.=17.5'		(3672) 4" PVC INV.=8.2'	(4082) 12" HDPE INV.=5.8'
(1148) 12" CMP INV.=17.5'	CB #1926	(A) 12" PVC INV.=7.9'	
(1347) 15" RCP INV.=17.1'	RIM ELEV.=29.7'		CB #4082
(B) 15" RCP INV.=17.0'	8" PVC INV.=27.9' (OUTFALL)	DMH #3756	RIM ELEV.=8.7'
		RIM ELEV.=11.6'	(4081) 12" HDPE INV.=5.7'
CB #1128	CB #2346	(2360) 12" PVC INV.=7.8'	(4083) 12" HDPE INV.=5.9'
RIM ELEV.=22.7'	RIM ELEV.=15.6'	(A) 12" PVC INV.=7.8'	
(A) 6" PVC INV.=19.4'	(A) 12" RCP INV.=11.3'		DMH #4083
(1186) 12" CMP INV.=18.9'		DMH #3756	RIM ELEV.=8.9'
(1148) 12" CMP INV.=18.8'	CB #2347	RIM ELEV.=11.6'	(3866) 42"WX24H CMP INV.=5.0'
	RIM ELEV.=13.8'	(3760) 12" PVC INV.=7.7'	(4083) 12" HDPE INV.=5.7'
CB #1147	(2348) 15" HDPE INV.=9.7'	(A) 12" PVC INV.=7.8'	(4093) 12" HDPE INV.=5.6'
RIM ELEV.=22.2'			(A) 42"WX24H CMP INV.=5.0'
(A) 6" PVC INV.=18.7'	CB #2348	CB #3758	
(B) 12" CMP INV.=18.3'	RIM ELEV.=13.6'	RIM ELEV.=10.9'	CB #4093
	(2347) 15" HDPE INV.=9.8'	(3760) 12" PVC INV.=8.0'	RIM ELEV.=9.0'
CB #1148	(2349) 15" HDPE INV.=9.8'	(A) 8" PVC INV.=7.9'	(4083) 12" HDPE INV.=5.9'
RIM ELEV.=22.4'			
(A) 6" PVC INV.=18.7'	CB #2349	CB #3760	CB #4181
(1128) 12" CMP INV.=18.1'	RIM ELEV.=13.8'	RIM ELEV.=10.7'	RIM ELEV.=24.7'
(1148) 12" CMP INV.=18.2'	(2348) 15" HDPE INV.=9.1'	(3756) 12" PVC INV.=8.0'	12" CMP INV.=19.7'
	(2350) 15" HDPE INV.=10.3'	(3758) 12" PVC INV.=8.0'	
CB #1186	(3772) 15" HDPE INV.=9.1'		CB #4239
RIM ELEV.=23.5'		DMH #3772	RIM ELEV.=25.0'
(1188) 12" CMP (NOT VISIBLE)	CB #2350	RIM ELEV.=12.2'	12" CMP INV.=20.3'
(1128) 12" CMP INV.=20.0'	RIM ELEV.=12.6'	(2349) 15" HDPE INV.=8.7'	
	(FULL OF SILT & DEBRIS)	(3777) 15" HDPE INV.=8.6'	CB #4545
CB #1188			RIM ELEV.=27.8'
RIM ELEV.=25.7'	CB #2993	CB #3777	(3281) 15" RCP INV.=22.0'
(1186) 8" PVC INV.=22.3'	RIM ELEV.=30.2	RIM ELEV.=10.7'	(A) 18" RCP INV.=21.3'
	(A) 15" RCP INV.=26.2'	(3772) 15" HDPE INV.=7.7'	
CB #1213	(B) 12" UNKN. INV.=26.1'	(4605) 15" HDPE INV.=7.6'	DMH #4603 & 4604
RIM ELEV.=20.3'	(3281) 15" RCP INV.=26.0'		RIM ELEV.=10.3'
(HDWL) 12" HDPE INV.=17.6'		DMH #3866	(4035) 42" RCP INV.=1.0'
	CB #3019	RIM ELEV.=10.2'	(A) 36" RCP INV. (RECESSED)
CB #1251	RIM ELEV.=28.8'	(4083) 42"WX24H CMP INV.=5.3'	(B) UNKN. (RECESSED)
RIM ELEV.=20.9'	(A) 6" PVC INV.=25.4'	(4605) 24" RCP INV.=5.4'	(C) 42" RCP INV.=1.2'
(A) 18" CMP INV.=16.5'		(A) 8" CI INV.=8.0'	
	CB #3065		DMH #4605
CB #1345	RIM ELEV.=31.5'	CB #3895	RIM ELEV.=11.0'
RIM ELEV.=23.3'	WATER ELEV.=27.4'	RIM ELEV.=11.9'	(3579) 24" RCP INV.=4.4'
(1346) 12" RCP INV.=19.1'	(NO PIPES VISIBLE)	(3672) 4" PVC INV.=9.7'	(3777) 15" CMP INV.=7.5'
		(A) 4" PVC INV.=9.9'	(3866) 24" RCP INV.=4.6'
CB #1346	CB #3281		
RIM ELEV.=25'	RIM ELEV.=29.8'	CB #3993	
(1345) 12" RCP INV.=17.4'	(2993) 15" RCP INV.=24.3'	RIM ELEV.=12.6'	
(1347) 15" RCP INV.=15.9'	(4545) 15" RCP INV.=24.2'	(NO VISIBLE PIPES)	
(A) 15" RCP INV.=15.7'		APPEARS TO OPEN TO BROOK	
	DMH #3579	SUMP=1.5'	
CB #1347	RIM ELEV.=11.2'	WATER LEVEL=1.8'	
RIM ELEV.=23.9'	(4035) 36" BRICK TROUGH INV.=2.0'		
(1348) 12" RCP INV.=18.8'	(4605) 24" RCP INV.=4.2'	CB #4002	
(1072) 15" RCP INV.=15.9'	(A) UNKN. INV.=2.0'	RIM ELEV.=12.9'	
(1346) 15" RCP INV.=15.8'		(BOLTED SHUT)	

SEWER STRUCTURES		
SMH #1066	SMH #2434	SMH #3768
RIM ELEV.=23.2'	RIM ELEV.=18.2'	RIM ELEV.=11.4'
(A) 4" PVC INV.=18.5'	(2799) 10" UNKN. INV.=9.7'	(2353) 24" PVC INV.=6.0'
(D) UNKN. INV.=12.3'	(2365) 12" UNKN. INV.=9.7'	(3578) 24" PVC INV.=5.9'
(1152) 10" UNKN. INV.=11.8'		
(C) 4" PVC INV.=16.0'	SMH #2789	SMH #3999
(D) 4" PVC INV.=16.0'	RIM ELEV.=20.1'	RIM ELEV.=12.6'
(1350) UNKN. INV.=11.9'	(SUMP) INV.=9.9'	(4000) 10" PVC INV.=5.9'
(E) UNKN. INV.=11.6'	NO PIPES VISIBLE	(4003) 12" PVC INV.=5.8'
SMH #1152	SMH #2799	SMH #4000
RIM ELEV.=22.6'	RIM ELEV.=23.8'	RIM ELEV.=12.3'
(1066) 10" UNKN. INV.=11.3'	(A) 4" DI INV.=21.1'	(3718) 10" PVC INV.=5.8'
(2799) 10" UNKN. INV.=11.2'	(B) 8" UNKN. INV.=12.1'	(3999) 10" PVC INV.=5.8'
	(1152) 10" UNKN. INV.=10.7'	
SMH #1350	(2434) 10" UNKN. INV.=10.6'	SMH #4003
RIM ELEV.=25.5'		RIM ELEV.=13.3'
(A) 8" CLAY INV.=14.9'	SMH #3280	(3999) 12" PVC INV.=6.5'
(4565) UNKN. INV.=14.7'	RIM ELEV.=29.8'	(A) 10" CI INV.=6.6
(1066) UNKN. INV.=14.4'	(1527) 8" CLAY DROP INLET INV.=21.1'	
	(4565) UNKN. INV.=16.4'	SMH #4102
SMH #1470	(A) 4" CI INV.=23.3'	RIM ELEV.=11.3'
RIM ELEV.=29.4'	(B) UNKN. INV.=16.5'	(3578) 30" PVC INV.=3.7'
FULL OF DEBRIS		(A) 30" PVC INV.=3.6'
	SMH #3578	
SMH #1527	RIM ELEV.=10.9'	SMH #4103
RIM ELEV.=31.6'	(3604) 36" PVC INV.=3.0'	RIM ELEV.=10.5'
(3280) 8" CLAY INV.=24.8'	(3768) 24" PVC INV.=5.8'	(NO VISIBLE PIPES, POSSIBLE
(A) 8" CLAY INV.=25.3'	(4102) 30" PVC INV=3.1'	ELECTRIC MANHOLE)
(B) 8" CLAY INV.=24.7'		
	SMH #3604	SMH #4565
SMH #2353	RIM ELEV.=11.3'	RIM ELEV.=26.4'
RIM ELEV.=12.7'	(3578) 36" PVC INV.=2.5'	PIPES SUBMERGED
(2365) 24" PVC INV.=6.5'	(3636) 36" PVC INV.=2.5'	WATER LEVEL=16.5'
(3768) 24" PVC INV.=6.5'	(3718) 10" PVC INV.=4.7'	SUMP=15.4'
(A) 6" PVC INV.=7.2'		
	SMH #3636	SMH #4607
SMH #2365	RIM ELEV.=10.3'	RIM ELEV.=33.2'
RIM ELEV.=14.4'	(3604) 36" PVC INV.=2.3'	(A) 8" PVC INV.=17.9'
(A) 10" CI INV.=9.3'	(A) 36" PVC INV.=2.2'	(B) 8" PVC INV.=17.7'
(2434) 10" METAL INV.=9.2'		
(2353) 24" METAL INV.=9.2'	SMH #3718	
	RIM ELEV.=11.5'	
	(3604) 10" PVC INV.=5.3'	
	(4000) 10" PVC INV.=5.5'	





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SCALE: 1 INCH = 30 FT.

TOPOGRAPHIC PLAN
FOR
CATE STREET DEVELOPMENT LLC
OF
TAX MAP 163, LOTS 33 & 34
TAX MAP 165, LOT 2
TAX MAP 172, LOT 1
TAX MAP 173, LOT 2
CATE STREET & US ROUTE 1 BYPASS
PORTSMOUTH, NEW HAMPSHIRE

NO.	DATE	DESCRIPTION	BY

DRAWN BY: M.W.F.	DATE: JULY 3, 2019
CHECKED BY: W.J.D.	DRAWING NO.: 5517D
JOB NO.: 5517	SHEET 10 OF 10

LEGEND

- APPROXIMATE LOT LINE
- INTERIOR LOT LINE
- APPROXIMATE ABUTTER LOT LINE
- EASEMENT LINE
- STOCKADE FENCE
- CHAIN LINK FENCE
- GUARDRAIL
- OHW — OVERHEAD WIRES
- SS — SEWER LINE
- SD — DRAIN LINE
- G — GAS LINE
- W — WATER LINE
- 20 — MAJOR CONTOUR LINE
- 22 — MINOR CONTOUR LINE
- TREE LINE
- SHRUB LINE
- EDGE OF WETLAND
- XS — SEWER LINE (SEE NOTE 20)
- XD — DRAIN LINE (SEE NOTE 20)
- XW — WATER LINE (SEE NOTE 20)
- UTILITY POLE
- UTILITY POLE & GUY WIRE
- UTILITY POLE W/ LIGHT
- LIGHT POLE
- SIGN
- SIGN (TWO POSTS)
- FENCE POST
- POST
- POST
- BOLLARD
- FIRE HYDRANT
- WV — WATER GATE VALVE
- SPIGOT
- GV — GAS GATE VALVE
- O.F.C. — OIL FILL CAP
- ELECTRIC BOX
- CATCH BASIN
- DRAIN MANHOLE
- RD — ROOF DRAIN
- MANHOLE
- SEWER MANHOLE
- CO — CLEANOUT
- HH — HAND HOLE
- WETLAND AREA
- FLAG POLE
- CONIFEROUS TREE
- DECIDUOUS TREE
- MONITORING WELL
- DRAINAGE FLOW DIRECTION ARROW
- CONCRETE
- CRUSHED STONE
- LEDGE OUTCROP
- ACCESSIBLE PARKING SPACE
- MAST ARM
- JERSEY BARRIER
- TYP. — TYPICAL
- FF — FINISHED FLOOR
- EM — ELECTRIC METER
- EP — EDGE OF PAVEMENT
- VGC — VERTICAL GRANITE CURB
- SGC — SLOPED GRANITE CURB
- SBB — SLOPED BITUMINOUS BERM
- SWL — SINGLE WHITE LINE
- SYL — SINGLE YELLOW LINE
- DYL — DOUBLE YELLOW LINE

SHEETS 6–10 NOT FOR RECORDING

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