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: 06-02-19

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 will be added to the landscaping plans prior to the next submission	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

TABLE B

RESOLUTION SUMMARY of JUNE 3, 2019 CATE STREET EXTENSION WEST END YARDS CITY STAFF REVIEW COMMENTS

Color Code:		Addressed/ Corrected
		Change in progress or confirmation needed

Comment #	Comment	Status	Response
1	Existing manhole in front to the proposed commercial building that straddles the U-Haul property line must be replaced as part of the sewer work.	Addressed	The existing Sewer Manhole at the property line between U-Haul and the Commercial building will be replaced. Notation to this effect has been added to the plans.
2	Show sewer and water easements across this lot for benefit of 406 Route 1 Bypass are being provided. Applicant will also need to provide temporary water and maintain sewer for the 406 Route 1 Bypass building if occupied at the time of construction. The water main shown extending to this structure should be downsized immediately after servicing the new #400 building to ensure water quality.		Sewer and Water Easements across the lot benefitting 406 Route 1 Bypass will be added to the plans on the final easement plan that is to be developed
a	Plans should show abandoning water services/mains in Cottage Street that will become defunct after line replacement	Addressed	Sheet CU-107 has been added to depict the Water Main extension and the connection of Cottage Street's Main and Coakley Road's Main lines to be removed are called out.
4	Blanket easement to the City covering the lot must be provided to allow access to valves, meters, and leak detection of public water system		A blanket easement to the city covering the lot for accessing valves, meters and leak detection of the public water system will be provided.
5	U-Haul must be provided a new domestic water service off of the new main	Addressed	A note has been added to he service location and its connection to the new main stating, "A NEW DOMMESTIC SERVICE SHALL BE PROVIDED TO U-HAUL"

TABLE B

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6	For Constructability reasons, a SMH will likely be needed at sta 15+00	Addressed	The revised sewer alignment does not require this manhole	
7	An agreement must be in place for the flushing of private hydrants by City Water Division		A hydrant flushing agreement will be drafted and provided to the City	
8	The fire pump room shown on A1.11 requires direct access from the exterior of the building	Addressed	The Fire Pump room location has been added to the plan set on the Site Plan CS-202	
9	Could not find the turning/movements plan specifically for Portsmouth FD's Tower 5. See attached information that would be required to demonstrate Tower 5's ability to traverse throughout the property	Addressed	See the Turning Movement plans for a Tower 5 turning path	
10	There does not appear to be a street light at the crosswalk at station 15. One should be added	Addressed	A street light has been added at the Cate Street Route 1 Bypass terminus of the multi-use path	
11	The sight lines at each site driveway intersection with the Cate Street connector roadway should be provided, to ensure they meet with AASHTO requirements for a design speed of 30 mph	Addressed	Sight lines have been added at the Driveway locations on the Truck turning Plans	
12	In order to confirm water flow capacity and proposed water main diameter, the developer will be required to cover the cost for updating the City's water modeling system through a third party services agreement with the City's consultant – Weston & Sampson Engineering. This should be completed prior to Planning Board approval			OWNER
13	The City's DPW will be conducting sewer flow metering to verify the necessary sewer main diameter. This should be completed prior to Planning Board approval	No further Action by Applicant Required		
14	Location of any proposed loading and service areas need to be added to the plan set and clearly noted	Addressed	Loading areas have been denoted	

TABLE B

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15	Explain the solid waste management and disposal procedures for the site and add any proposed dumpster locations. The checklist notes that there is a compactor to be added for the commercial building that should be shown on the plans for solid waste management	Addressed	More detailed solid waste management has been added to the plans in the Commercial buildings loading zone The Commercial building, Apartment Building A and apartment building B have internal trash rooms. These have been added to the buildings as dashed lines The Townhouses have curbside pick up by a private waste hauler.
16	Provide table of sign details for any directional and traffic signs noted on the plans, plan set includes references to sign types but no details are included	Addressed	Sign tables have been added to the details
17	Any signs other than directional or traffic should include a note indicating separate City sign permit is required	Addressed	Notation has been made on the CS Sheets that the site signs require sign permits.
18	Confirm that the landscaping plan is not in conflict with the proposed utility plans (see Section 6.2(c) of the Site Review regulations)	Addressed	The Landscape Architect has made sure the planting is not in conflict
19	Numbering of notes on sheet CN-001 needs to be corrected – inconsistent. Information also duplicates notes listed on CS-001	Addressed	The note numbering has been corrected
20	Zoning information listed on Sheet CS-001 is being confirmed by Planning staff, any questions will be raised at the TAC meeting. Remove statement "Zoning information listed hereon is based on the City of Portsmouth Zoning Ordinance dated July 11, 2016…" Various sheets reference 2016 Zoning Ordinance and should be updated to reflect the current Zoning Ordinance as amended through: March 4, 2019	Addressed	The dates have been corrected

TABLE B

RESOLUTION SUMMARY of JUNE 3, 2019 CATE STREET EXTENSION WEST END YARDS CITY STAFF REVIEW COMMENTS

21	Confirm that proposed site lighting is dark sky complaint and provide detail sheets of proposed lights	Addressed	The Lighting is dark skies compliant, and down shielded as appropriate. Lighting cut sheets have been submitted.
22	The plans show 1 area of snow storage for the site. Plans and/or notes should be added to address the entire site	Addressed	Additional Snow storage areas are called out on the Site Plan Set Sheets CS-101 through CS-102 Note 10 on CS-002 has been added as well stating that once snow storage areas are at capacity snow must be removed from site and disposed of in accordance with local, state and federal regulations.
23	Green Building statement shall be provided per Section 2.5.3.1A	Addressed	Submitted June 20, 2019
24	Utility contact info and documentation of approval from utility providers should be added per Section 2.5.3.1H and 2.5.3.2D of the Site Plan Regulations	Addressed	Added to the utility notes on CN-001 Road Plans and Site Plans
25	Note #12, Sheet CN-001 cites the required note per Section 2.5.4.2E contrary to the checklist provided that indicates it will be added. Checklist should be updated	Addressed	Now on CS-002 of the Site Plan
26	Checklist should also be updated to indicate the required landscaping notes per Section 2.13.4 are included on Sheet L1.06	Addressed	The Checklist has been updated
27	A list of required state and federal permits should be noted per Section 2.5.3.2E	Addressed	The list of state and federal permits has been added to the Cover Sheet of the Road Plan Set and the Site Plan Set.
28	An easement plan should be included in the plan set that includes all existing and proposed easements, deed restrictions and non-public rights of ways		An overall easement plan will be created and included once utility locations are finalized and NHDOT has been consulted regarding the Route 1 Bypass work.
29	TEC is completing a peer review of the updated traffic study. Comments to be provided separately	No Action required	

TABLE B

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30	TEC is completing a review of the applicant's response to the preliminary stormwater management peer review comments. Comments to be provided separately	No Action required	
31	TEC is completing a review of the applicant's response to the preliminary roadway design peer review comments. Comments to be provided separately	No Action Required	
June 4, 2019 additional Comments on Cate Street Improvement Plans:			
32	CS-104: Suggest vertical granite curbing be used unless it is intended to be a mountable island. In any event, suggest that granite cobblestones be placed within the raised island	Addressed	The curb is Mountable Granite Curb "MGC" the label has been changed to more clearly call this out.
33	L1.01: What is "EP" on the landscape plan? Perhaps it supposed to be "ET" or "EX" which appear to be used for existing trees? These trees should be identified by species type on the plan. Suggest alternating the Oak and Sour Gum trees in a staggered formation between the Route 1 Bypass and Bartlett Street. Additional trees could be added for a stronger symmetry along Cate Street	Addressed	The EP is calling out existing pines that are to remain this is being added to the appropriate legend.
34	As long as there's no conflict with stormwater management, the curbing on the long median at the intersection with the Route 1 Bypass should be vertical granite so vehicles are not regularly mounting it and damaging the plant material	Addressed	The curb has been called out as "VGC" vertical Granite
June 4, 2019 Additional Comments on West End Yards Plans			
35	A3.12: The sidewalks on the rendering are shown as textured blocks. Is that the proposal?	Addressed	The area of sidewalk in the rendering A3.12 is intended to be some form of enhanced concrete. The treatment of this is still being decided.

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RESOLUTION SUMMARY of JUNE 3, 2019 CATE STREET EXTENSION WEST END YARDS CITY STAFF REVIEW COMMENTS

36	CS-001: What is the purpose of the connector between the "commercial Building" and "BLDG A"? If is for vehicular access (versus emergency access) not sure whether this can be included as a Plaza or count as "Community Space"	Addressed Now CS-002	The purposed of the connector between the commercial building and the residential building A is two fold, vehicular access and to make the area feel pedestrian oriented. The travelled way area has been removed form the Community Space Calculation
37	CS-202: For the proposed at-grade connector between the townhouse development and the larger mixed use development, what does the solid line designate between the curblines at the intersection?	Addressed	The line is mountable granite curb. "MGC" labels have been added to these lines
June 4, 2019 Additional Comments from City Arborist			
38	There are 17 Princeton Elms. Due to the fact that elms are susceptible to Dutch Elm Disease, the arborists are against endorsing this sort of monoculture. The arborists instead recommended that the number of Princeton Elms be reduced to 8 and the remaining 9 trees be changed to either Swamp White Oak or English Oak	Addressed	The Landscape Architect has made the revisions to the plan

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

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

WEST END YARDS

CATE STREET · PORTSMOUTH · NEW HAMPSHIRE

SITE PLANS

JUNE, 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

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300 NORTH CREEK, SUITE 720
ATLANTA, GA. 303227
404.705.9411

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

GEOTECHNICAL ENGINEERS
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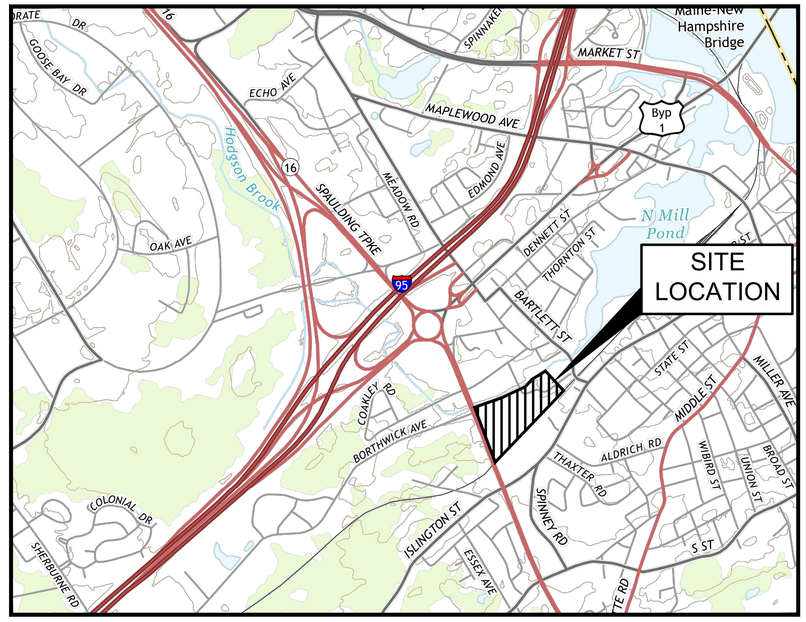
CAMBRIDGE, MA. 02140
617.868.1420

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



LOCATION MAP
SCALE: 1" = 1200'

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 H. LUNDBORN No. 10943 · LICENSED PROFESSIONAL ENGINEER

PROJ. No.: 20170317.A10
DATE: JUNE 2019
GI-002

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CONTRACTOR:
CONTRACTOR FIRM
Address
City, State ZIP
###-###-####

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'

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WEST END YARDS - PORTSMOUTH

428 RT. 1 BYPASS - PORTSMOUTH

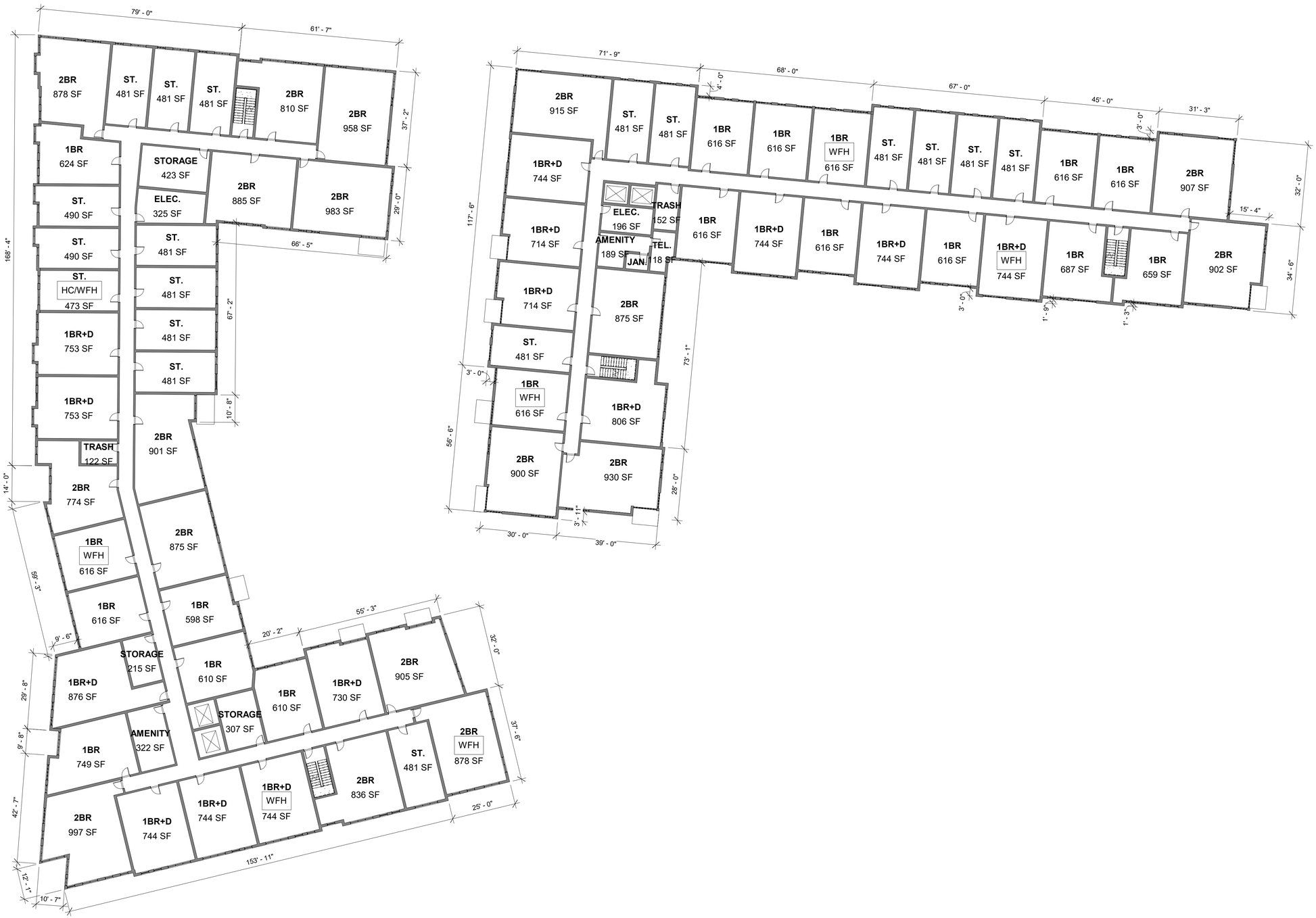
REVISIONS:

ORIGINAL ISSUE:
05/10/19

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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SCALE: 1" = 20'-0"

THIRD FLOOR PLAN - AB

A1.13

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WEST END YARDS - PORTSMOUTH

428 RT. 1 BYPASS - PORTSMOUTH

REVISIONS:

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05/10/19

SCALE: 1" = 20'-0"

FOURTH FLOOR PLAN - AB

A1.14

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

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0' 10' 20' 40'

SCALE: 1" =20'

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WEST END YARDS - PORTSMOUTH

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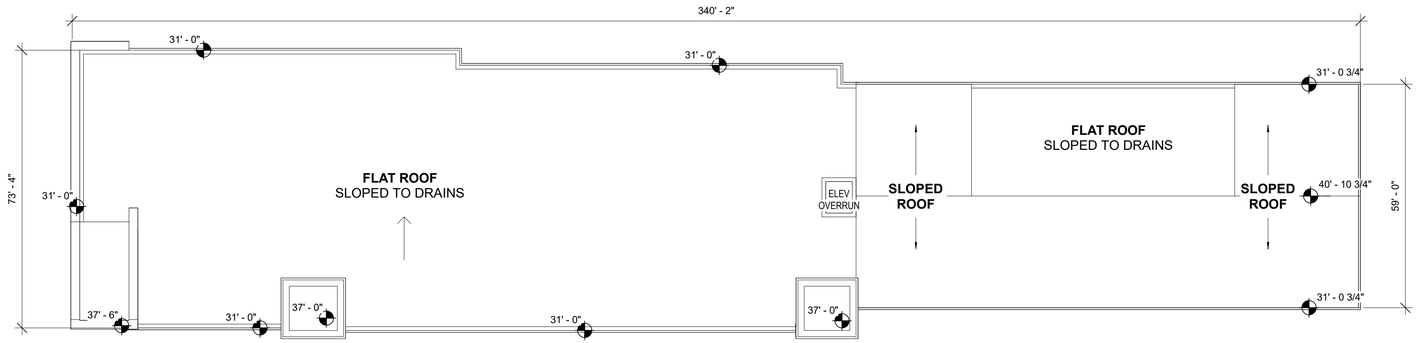
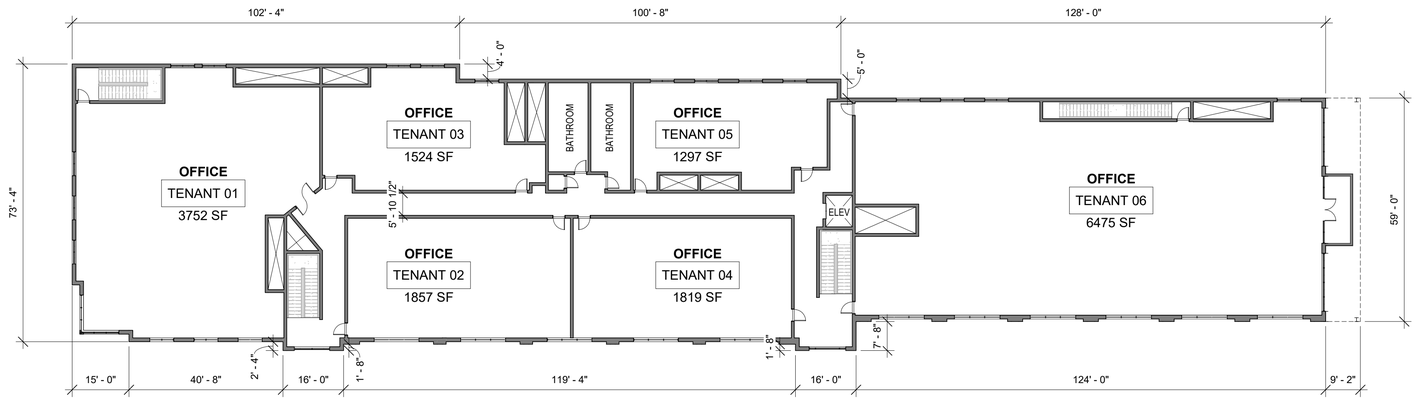
SCALE: 1" = 20'-0"

ROOF PLAN - AB

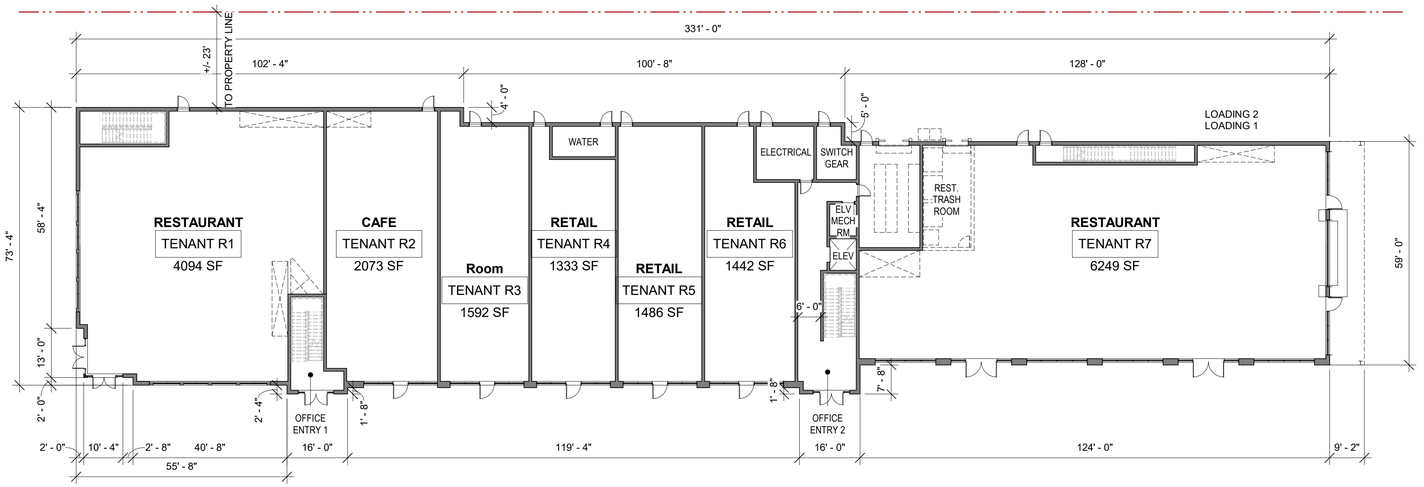
A1.15



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

REVISIONS:

ORIGINAL ISSUE:
05/10/19

SCALE: 1" = 20'-0"

TAC RETAIL BUILDING PLANS

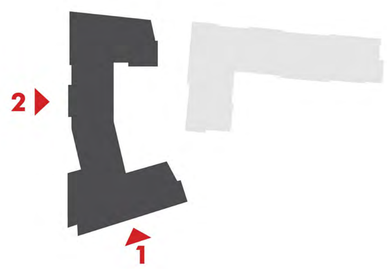
A1.16

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

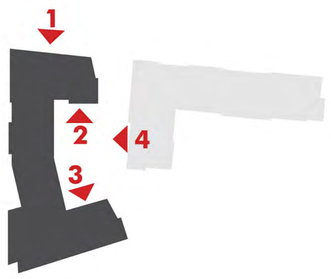
EXTERIOR MATERIALS LEGEND	
MARK	MATERIAL
1	METAL PANEL
2	SHINGLES
3	RIBBED PANEL
4	CLAPBOARD
5	FAUX WOOD PANEL
6	FIBER CEMENT PANEL

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

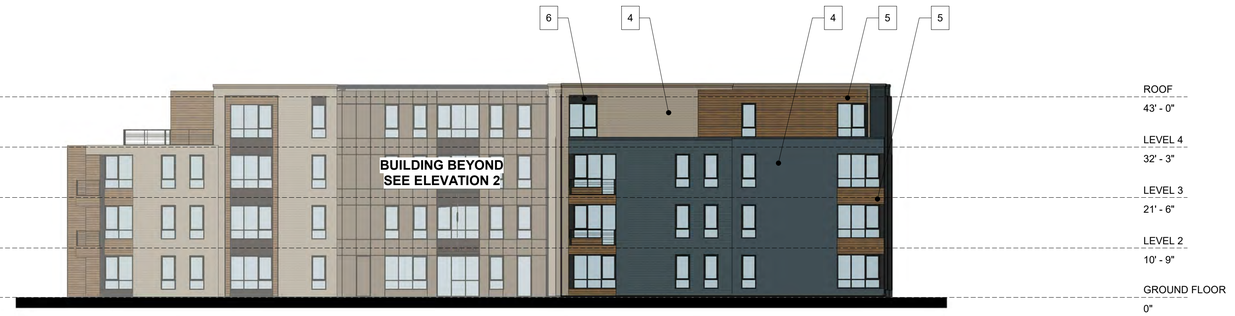
Building A Elevations

A2.12

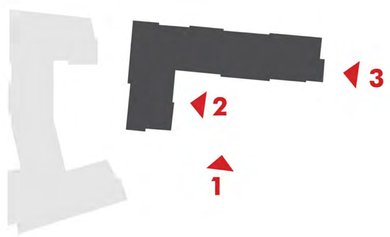
EXTERIOR MATERIALS LEGEND	
MARK	MATERIAL
1	METAL PANEL
2	SHINGLES
3	RIBBED PANEL
4	CLAPBOARD
5	FAUX WOOD PANEL
6	FIBER CEMENT PANEL

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

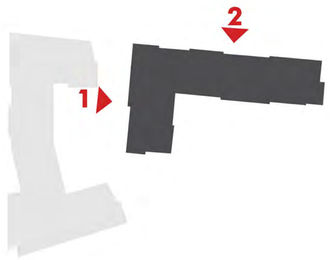
Building B Elevations

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

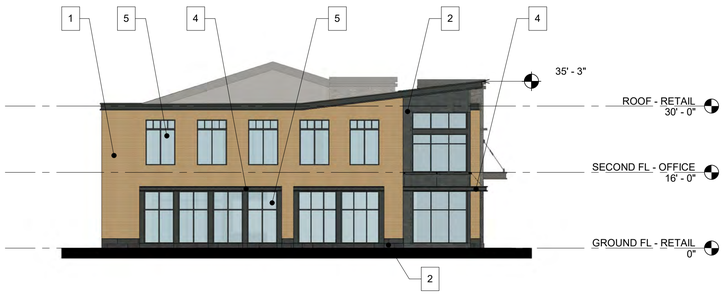
SCALE:As indicated

Building B Elevations

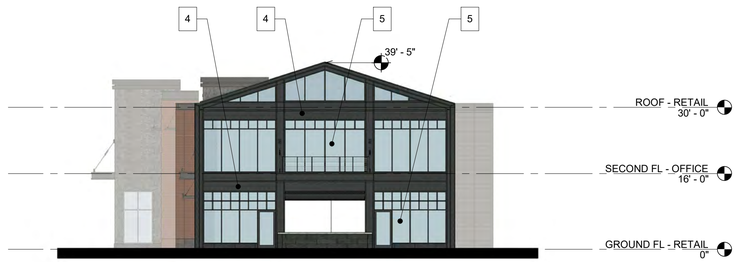
A2.14

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

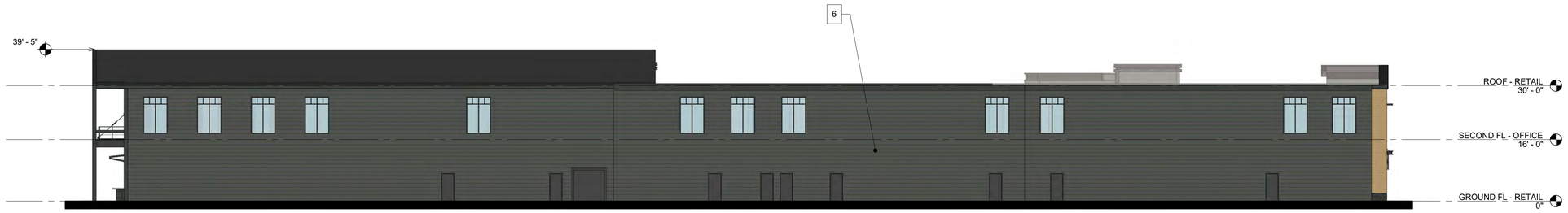
1 SOUTH ELEVATION
1/16" = 1'-0"



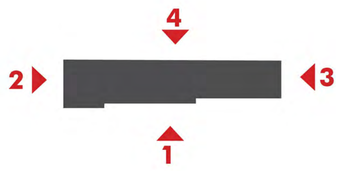
2 WEST ELEVATION
1/16" = 1'-0"



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

REVISIONS:

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:
DAVE DEFOSSES
PROJECT MANAGER
PORTSMOUTH DEPARTMENT OF PUBLIC WORKS
680 PEVERLY HILL ROAD
PORTSMOUTH, NH 03801
603.427.1530
DJDEFOSSES@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

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

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. 10843 LICENSED PROFESSIONAL ENGINEER

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

FUSS & O'NEILL
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CATE STREET DEVELOPMENT, LLC

GENERAL NOTES

CATE STREET/ WEST END YARDS

PORTSMOUTH NEW HAMPSHIRE

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

CN-001

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)	NOTE ANGLE FROM TO ARM
CYLINDRICAL FOUNDATION		
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
3.	6/20/2019	TAC SUBMITTAL	JVA/DAD	RRL
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1.	3/18/2019	TAC SUBMITTAL	JVA/DAD	RRL

STATE OF NEW HAMPSHIRE — RICHARD R. LUNDBORN No. 10843 LICENSED PROFESSIONAL ENGINEER

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

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CATE STREET DEVELOPMENT, LLC

LEGEND

CATE STREET/ WEST END YARDS
PORTSMOUTH NEW HAMPSHIRE

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

CN-002

File Path: F:\P2018\0317A10\Civil3\Dwg\20180317A10_COV01.dwg Layout: CN-002 (S) Plotted: Thu, June 20, 2019 - 5:11 PM User: rlundborn
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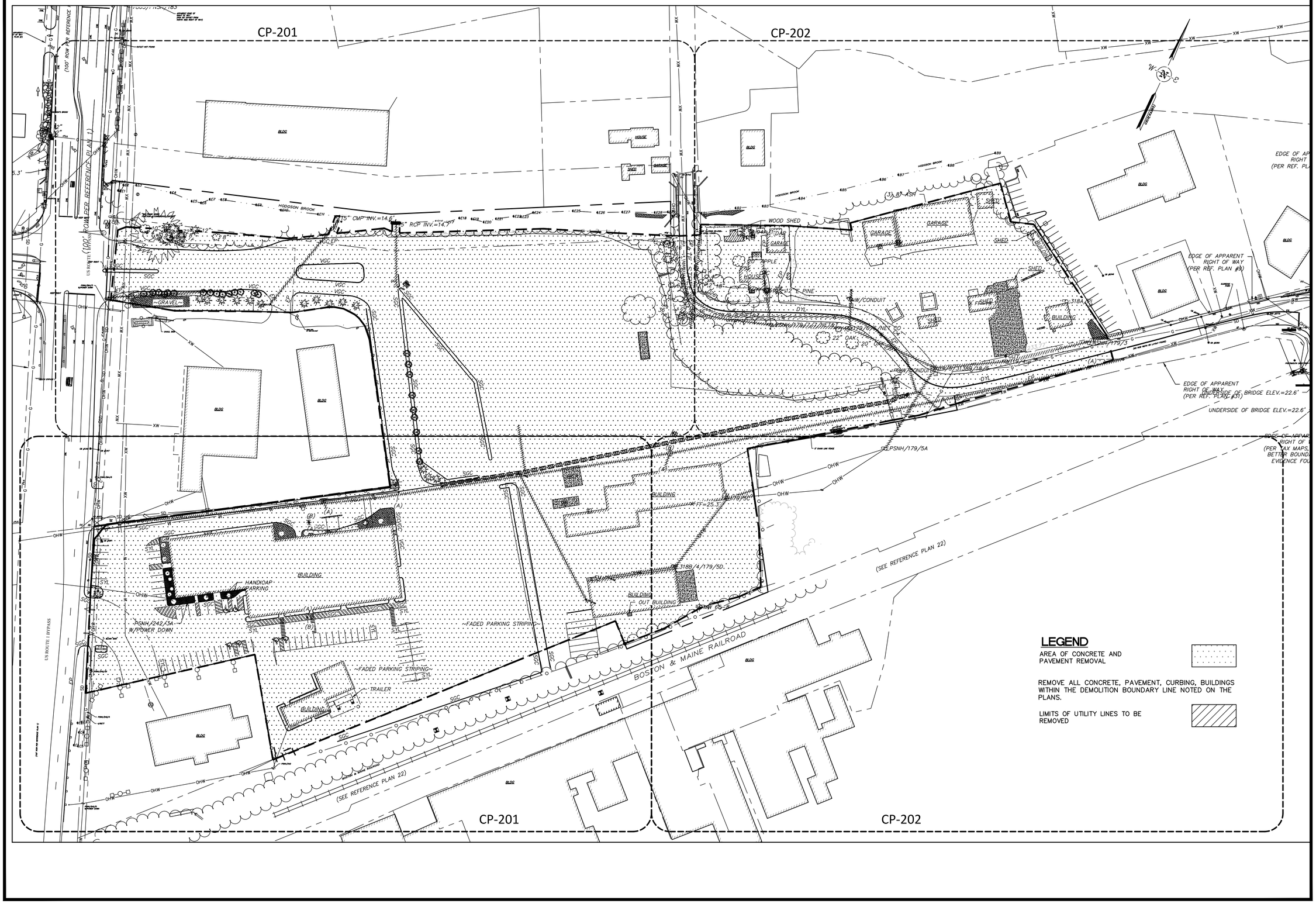
CP-201

CP-202



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
1.	3/18/2019	TAC SUBMITTAL	JVA/DAD	RRL
2.	5/20/2019	TAC SUBMITTAL	JVA/DAD	RRL

STATE OF NEW HAMPSHIRE – PROFESSIONAL ENGINEER – RICHARD R. LUNDBORN No. 10943 (LICENSE)

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

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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: 05/20/2019

CP-200

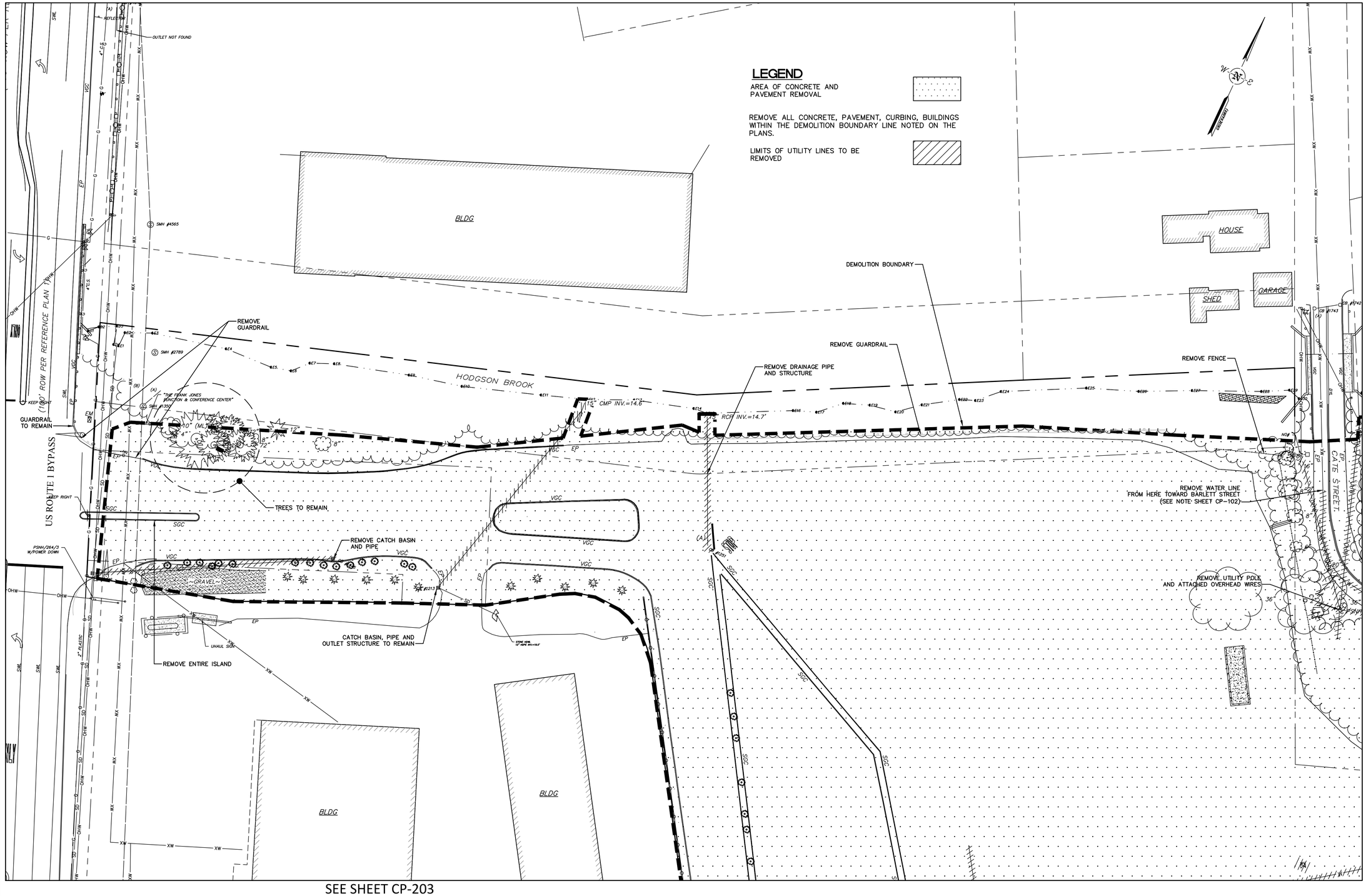
File Path: F:\P20180317\A10\Civil3\Dwg\20180317A10_DMO01.dwg Layout: CP-200 Plotted: Mon, May 20, 2019 - 5:03 PM User: ddugal
Plotter: DWG TO PDF.PC3 CTB File: FO.STB
LAYER STATE:
MS VIEW:

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
1.	3/18/2019	TAC SUBMITTAL	JVA/DAD	RRL
2.	5/20/2019	TAC SUBMITTAL	JVA/DAD	RRL

STATE OF NEW HAMPSHIRE – PROFESSIONAL ENGINEER – RICHARD R LUNDBORN No. 10945 LICENSED

SCALE: HORZ.: 1"=30' VERT.: 1"=30'
DATUM: HORZ.: NAD83 VERT.: NGVD29
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: 05/20/2019

CP-201

File Path: F:\P2018\03317\A10\Civil\3Dwg\20180317A10_DMO01.dwg Layout: CP-201 Plotted: Mon, May 20, 2019 - 5:03 PM User: ddugal
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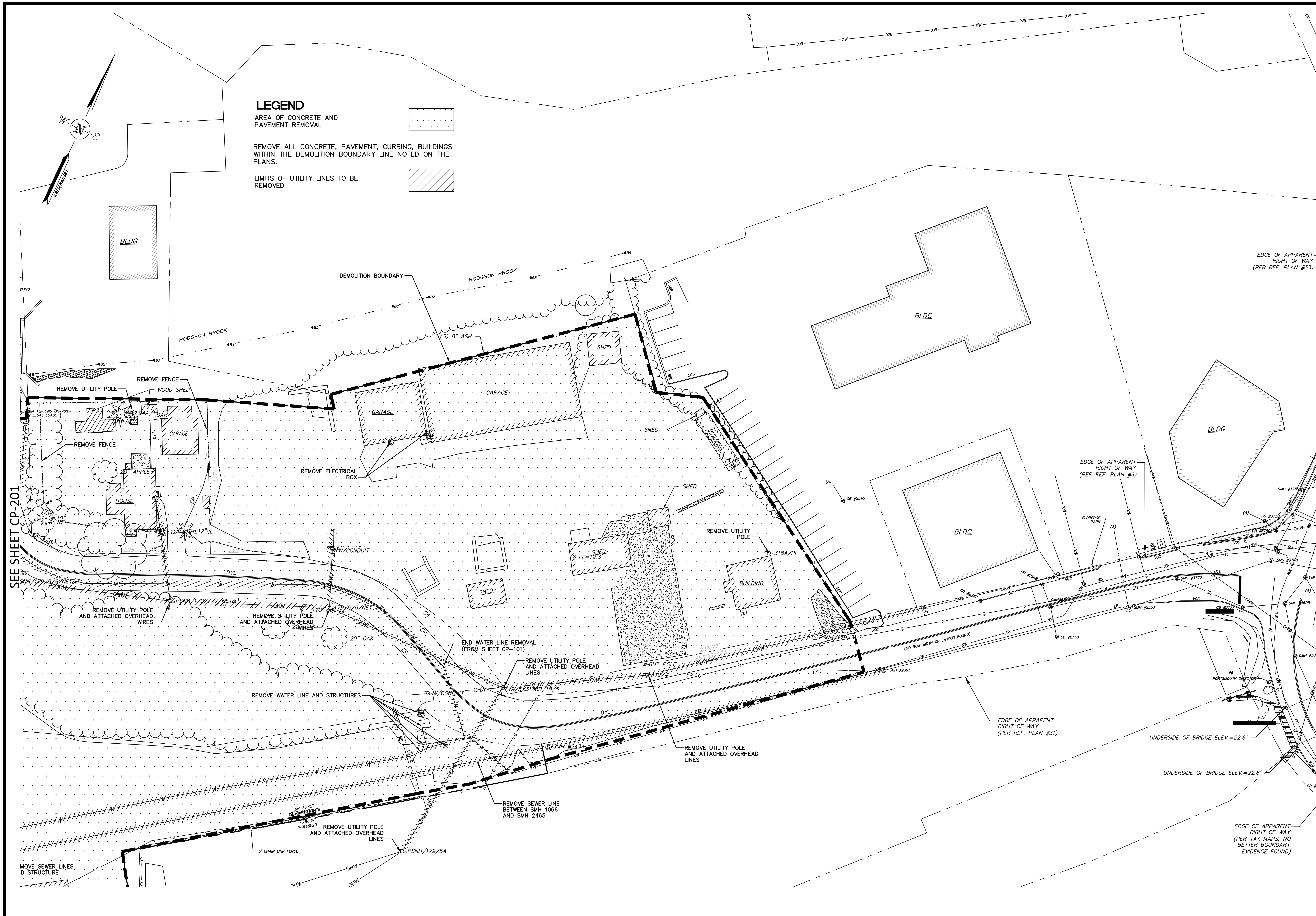

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Plotter: DWG TO PDF.PC3 CTB File: FO.STB

MS VIEW: | LAYER STATE:

No.	DATE	DESCRIPTION	DESIGNER	REVIEWER
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
GRAPHIC SCALE

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CATE STREET DEVELOPMENT, LLC
SITE PREPARATION PLAN
CATE STREET
PORTSMOUTH NEW HAMPSHIRE

PROJ. No.: 20180317.A10
DATE: 05/20/2019

CP-202

SEE SHEET CP-201

SEE SHEET CP-204

US ROUTE 1 BYPASS

(100' ROW PER REFERENCE PLAN 1)

DEMOLITION BOUNDARY

REMOVE STORM DRAIN AND LINES

SEWER MANHOLE AND SEWER LINE TO REMAIN

REMOVE WATER LINE

REMOVE STORM DRAIN AND LINES

REMOVE WATER LINE

REMOVE SEWER LINE

EXISTING WATER LINE (XW) TO REMAIN TO HERE

REMOVE STORM DRAIN AND LINES

REMOVE UTILITY POLE AND ATTACHED OVERHEAD LINES

REMOVE STORM DRAIN

HANDICAP PARKING

REMOVE STORM DRAIN AND LINES

~FADED PARKING STRIPING~

~FADED PARKING STRIPING~

TRAILER

BUILDING

BLDG

BLDG

BUILDING

OUT BUILDING

BOSTON & MAINE RAILROAD

(SEE REFERENCE PLAN 22)

PSNH/242/3A W/POWER DOWN

PSNH/242/3X

PSNH/242/4

4/NETT

PSNH/242/5 W/POWER DOWN

PSNH/242

PSNH/264/5

CB #1348

CB #1347

CB #1072

CB #1071

CB #1066

BLANK SIGN

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
1.	3/18/2019	TAC SUBMITTAL	JVA/DAD	RRL
2.	5/20/2019	TAC SUBMITTAL	JVA/DAD	RRL

STATE OF NEW HAMPSHIRE – PROFESSIONAL ENGINEER – RICHARD R LUNDBORN No. 10945 LICENSED

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

SITE PREPARATION PLAN

CATE STREET/ WEST END YARDS

PORTSMOUTH NEW HAMPSHIRE

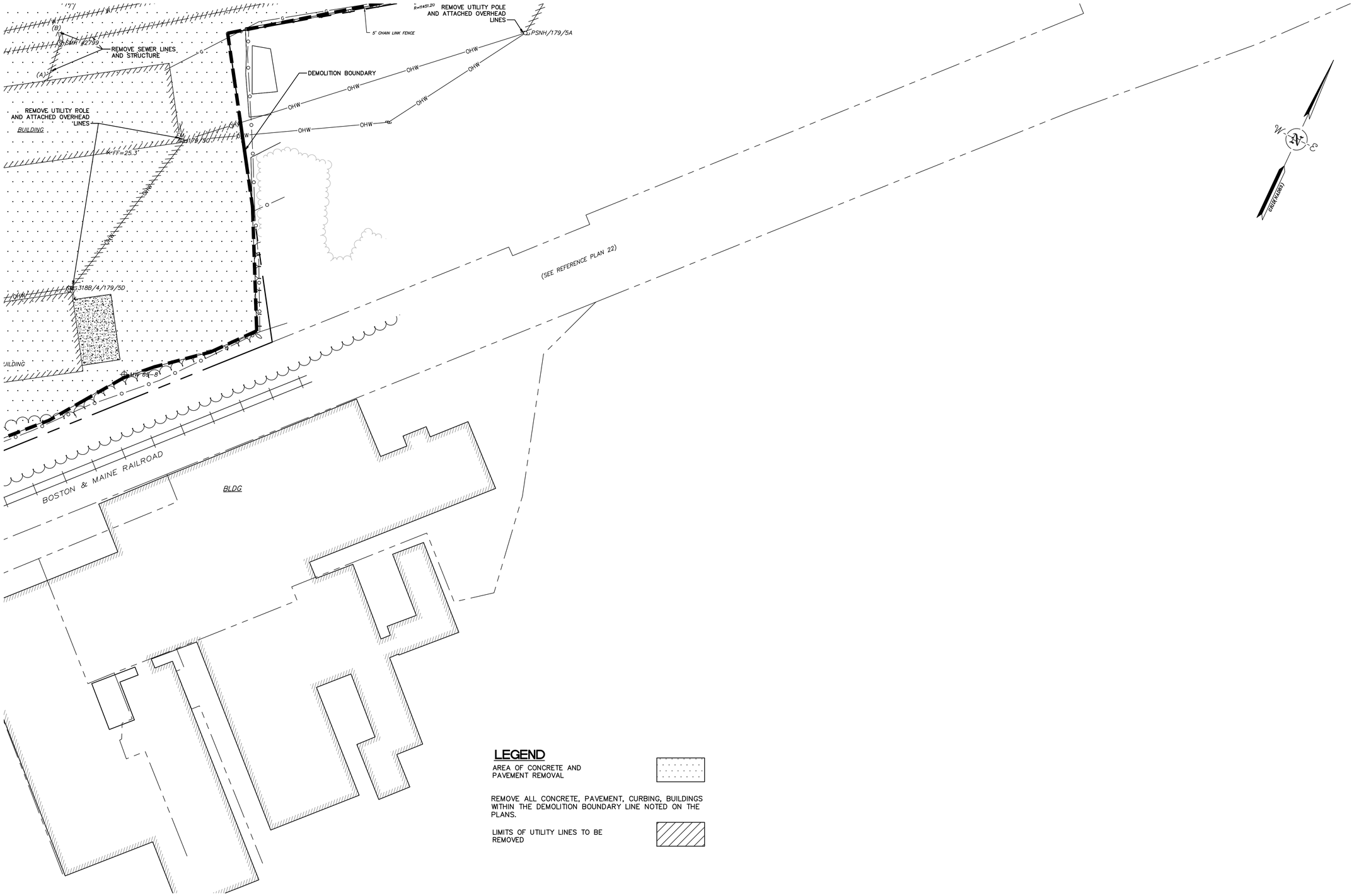
PROJ. No.: 20180317.A10
DATE: 05/20/2019

CP-203

File Path: F:\P2018\0317A10\Civil3\Dwg\20180317A10_DMOD01.dwg Layout: CP-203 Plotted: Mon, May 20, 2019 - 5:03 PM User: ddugal
MS VIEW: LAYER STATE: Plotter: DWG TO PDF.PC3 CTB File: FO.STB

SEE SHEET CP-202

SEE SHEET CP203



No.	DATE	DESCRIPTION	DESIGNER	REVIEWER
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.: 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/ WEST END YARDS

PORTSMOUTH NEW HAMPSHIRE

PROJ. No.: 20180317.A10
DATE: 05/20/2019

CP-204

File Path: F:\P2018\0317\A10\Civil3D\dwg\20180317A10_DMO01.dwg Layout: CP-204 Plotted: Mon, May 20, 2019 - 5:03 PM User: ddugal
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:

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	--
TOTAL			202	--

PER 10.112.60 SHARED PARKING WEEKDAY EVENINGS:

	REQUIRED	SHARED %	SHARED REQUIRED	PROVIDED
EATING AND DRINKING	136	100%	136	--
RETAIL	20	90%	18	--
OFFICE	46	20%	10	--
TOTAL			164	170
BICYCLE PARKING		1/10 PARKING	17	17

HANDICAP ACCESSIBLE = 6

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	--
TOTAL			332	294

BICYCLE PARKING IS INTERNAL
HANDICAP ACCESSIBLE = 8

TOWNHOMES:	UNITS	REQUIREMENT	REQUIRED	PROVIDED
UNITS >750 SQ. FT.	23	1.3/UNIT	30	36
VISITOR	23	1/5 UNITS	5	5
TOTAL			35	41

BICYCLE PARKING IS INTERNAL

	REQUIRED	PROVIDED
DEVELOPMENT SITE TOTAL:	531	505

PER 10.8B82.10 TRANSIT ROUTE ACCESS 20% REDUCTION APPLIES
(BUS STOP LESS THAN 1/4 MILE FROM SITE; COTTAGE ST AND WOODBURY AVE.)
(THERE IS ALSO POTENTIAL FOR BUS STOPS TO BE ADDED ON CATE STREET EXTENSION)

	REQUIRED	PROVIDED
DEVELOPMENT SITE TOTAL(–20%) =	425	505

5. 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%)

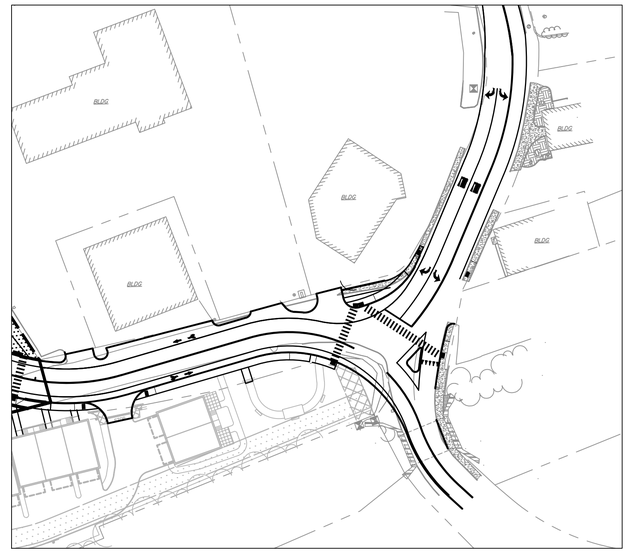
6. IF, DURING CONSTRUCTION, IT BECOMES APPARENT THAT ADDITIONAL EROSION CONTROL MEASURES ARE REQUIRED TO STOP ANY EROSION ON THE CONSTRUCTION SITE, THE PROPERTY OWNER SHALL BE REQUIRED TO INSTALL THE NECESSARY EROSION PROTECTION AT NO EXPENSE TO THE CITY.

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

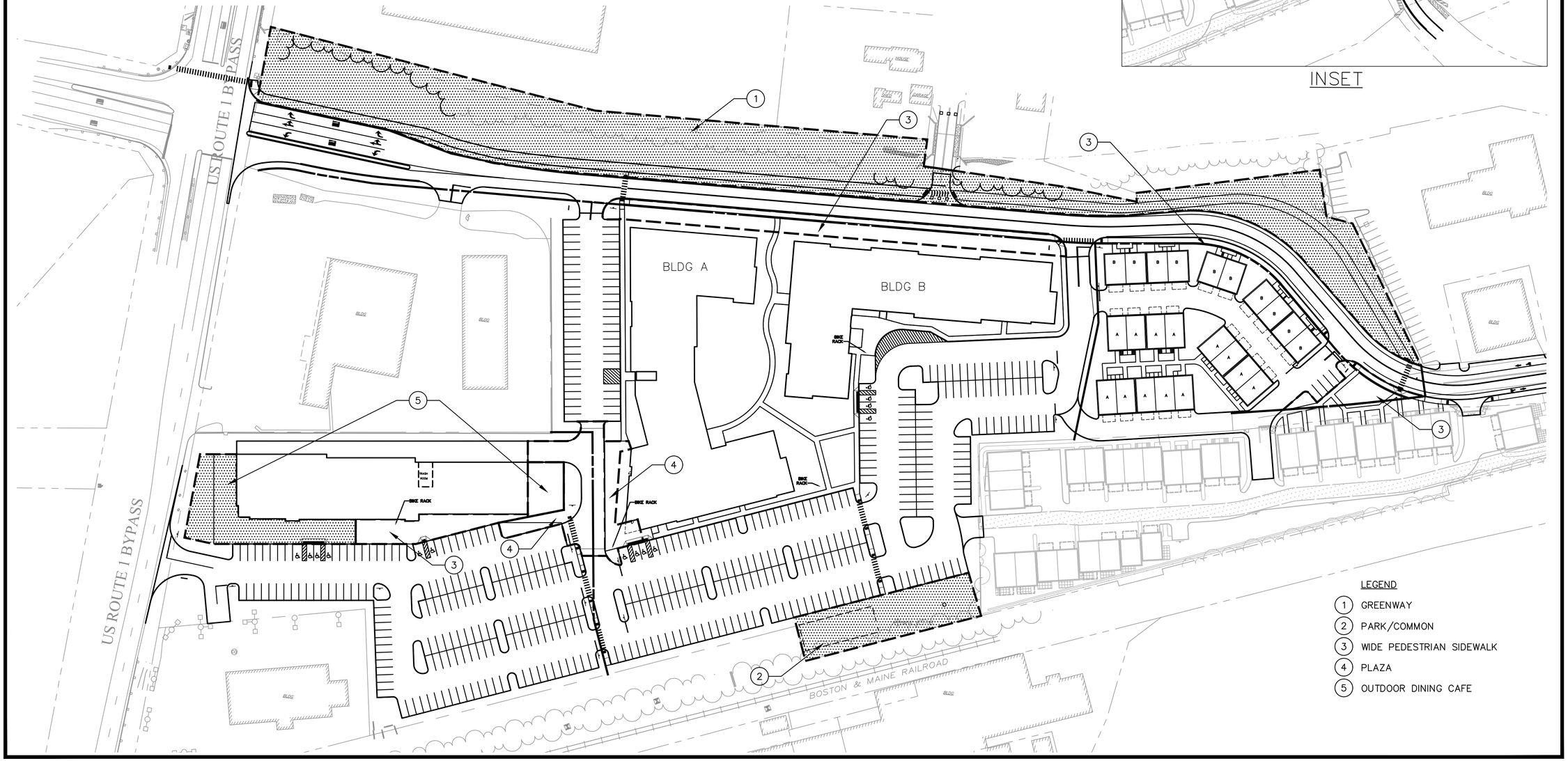
8. THIS SITE PLAN SHALL BE RECORDED IN THE ROCKINGHAM COUNTY REGISTRY OF DEEDS.

9. 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.

10. 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
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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"=60' VERT.: 1"=60'
DATUM: HORZ.: NAD83 VERT.: NAVD88
60 30 0 60
GRAPHIC SCALE

FUSS & O'NEILL
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KENNEBUNK, MAINE 04043
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CATE STREET DEVELOPMENT, LLC
DEVELOPMENT STANDARDS
SITE PLAN
CATE STREET/ WEST END YARDS
PORTSMOUTH NEW HAMPSHIRE

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

CS-002

File Path: F:\P2018\0317\A10\Civil3\Dwg\20180317A10_STP01.DWG Layout: CS-200(S) Plotted: Thu, June 20, 2019 - 8:33 AM User: ddugal
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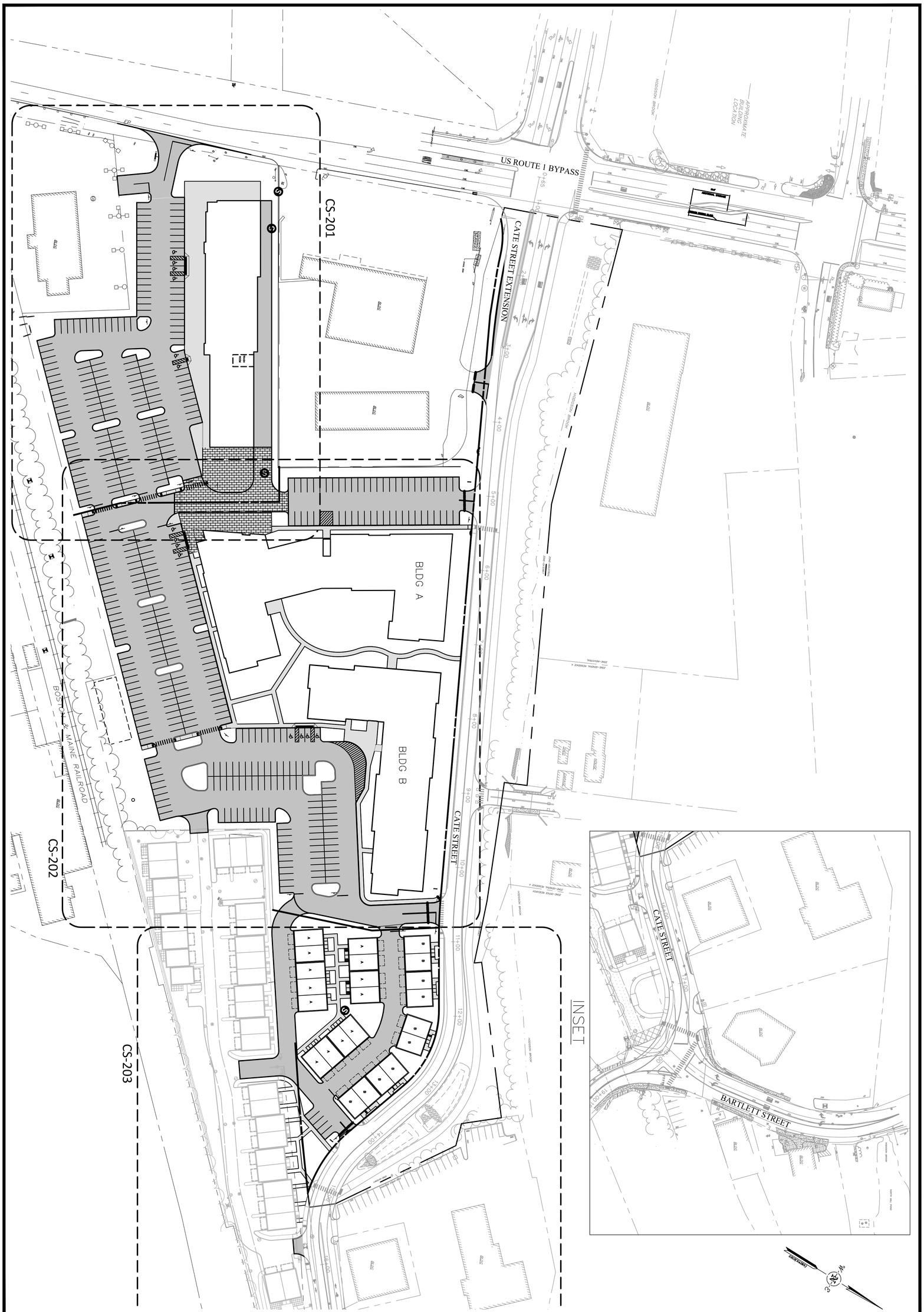

CS-200

CATE STREET DEVELOPMENT, LLC

OVERALL SITE PLAN

CATE STREET/ WEST END YARDS

PORTSMOUTH NEW HAMPSHIRE

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

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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
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

TRASH ENCLOSURE
COMPOSTER ENCLOSURE
TRASH COMPACTOR
END SGC
SGC
ROOM
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
BIKE RACK
START/CONTINUE SGC
NEW STOP SIGN R1-1
PROPOSED CONCRETE SIDEWALK (TYP.)
BEGIN SGC
END SGC BEGIN CC
BEGIN FLUSH CONCRETE
END CCC BEGIN SGC
SNOW STORAGE
EXISTING PAVEMENT TO BE CUT BACK TO PROPERTY LINE
EX. SIGN (TO REMAIN OR NEW FREESTANDING)
US ROUTE 1 BYPASS
BLDG
BOSTON & MAINE RAILROAD
SEE SHEET CS-202

File Path: F:\P2018\0317A10\Civil3Dwg\20180317A10_STP01.DWG Layout: CS-201(S) Plotted: Thu, June 20, 2019 - 8:33 AM User: ddugal
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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.: 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: 06/20/2019

CS-201

CATE STREET EXTENSION

CATE STREET

SEE SHEET CS-201

SEE SHEET CS-203

NEW FREESTANDING SIGN (PERMIT REQUIRED)

NEW STOP SIGN R1-1

LIMIT OF SITE CONSTRUCTION

FIRE PUMP ROOM

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.E.L. = 27.75

TRASH ROOM

LOADING AREA

END VGC BEGIN CC

CC

BIKE RACK

END CC BEGIN VGC

VGC

INSTALL VG BACKCURB

NEW STOP SIGN R1-1

12"SL (TYP.)

NEW STOP SIGN R1-1

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.E.L. = 26.75

END SGC BEGIN CC

INTERNAL DIRECTIONAL SIGN

END CC BEGIN SGC

BIKE RACK

BEGIN SGC

END SGC BEGIN CC

END SGC IN FLUSH CONCRETE

NEW STOP SIGN R1-1

NEW STOP SIGN R1-1

NEW STOP SIGN R1-1

NEW STOP SIGN R1-1

END CC BEGIN SGC

END CC BEGIN SGC

SNOW STORAGE

END SGC

PET ZONE

DRY WELL

SNOW STORAGE

SNOW STORAGE

NEW STOP SIGN R1-1

END SGC

BEGIN SGC

END SGC BEGIN CC

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
3.	6/20/2019	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 A. LUNDBORN No. 10943 LICENSED

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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: 06/20/2019

CS-202

File Path: F:\P2018\0317A10\Civil3\Dwg\20180317A10_STP01.DWG Layout: CS-202(S) Plotted: Thu, June 20, 2019 - 8:33 AM User: ddugal
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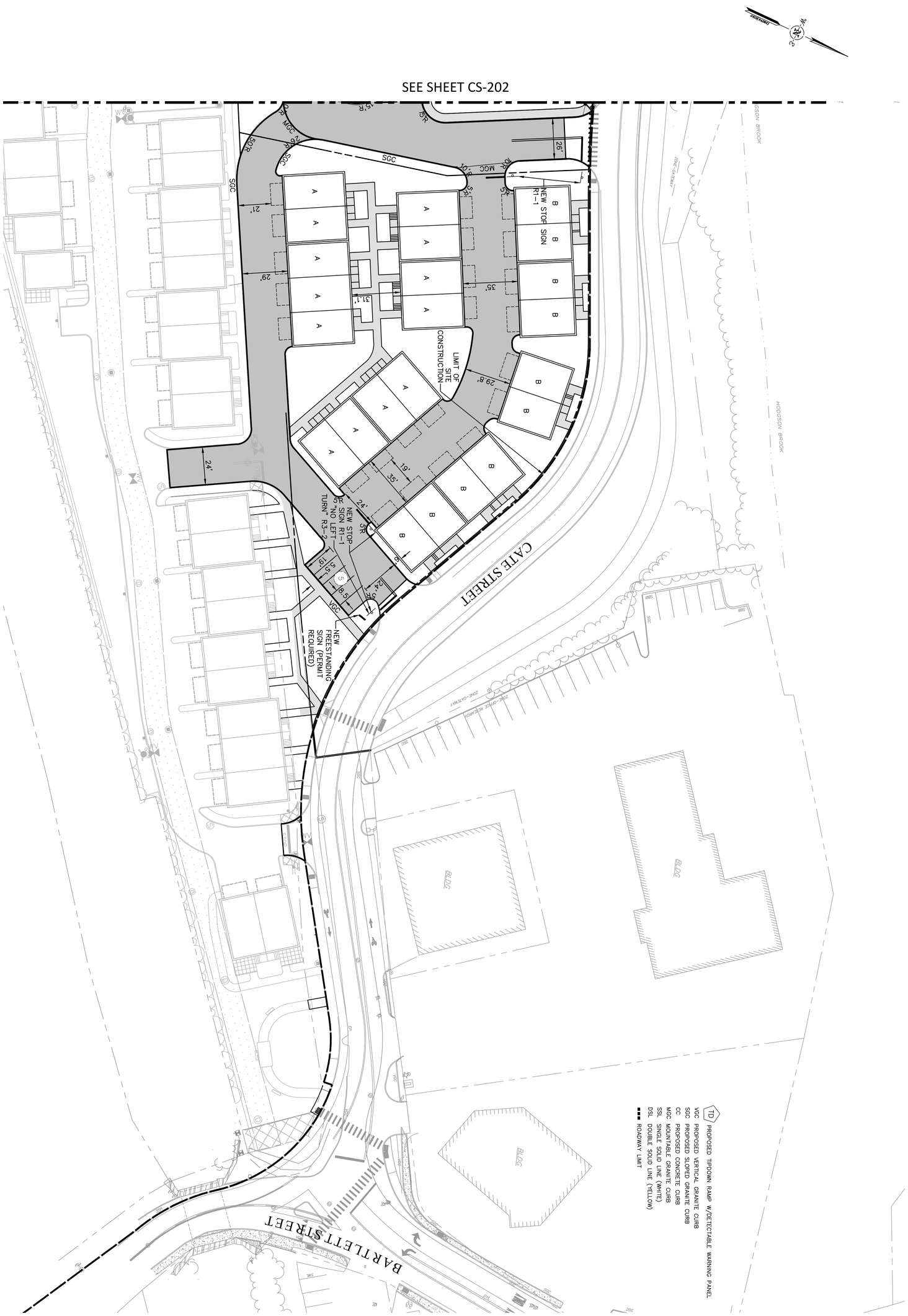

CS-203

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

CATE STREET DEVELOPMENT, LLC

SITE PLAN

CATE STREET/ WEST END YARDS

PORTSMOUTH NEW HAMPSHIRE

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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
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

DRAINAGE STRUCTURES 1–20	
STRUCTURE	STRUCTURE DETAILS
1	WATER QUALITY STRUCTURE STA. 3+10.63, L 83.37' RIM = 18.41 (2) 24" HDPE INV IN = 16.22 (SWALE) 24" HDPE INV OUT = 16.12 CONSTRUCT 25 LF x 24" HDPE S=0.0050
2	PROPOSED 4' DIA. DMH STA. 3+29.12, L 81.89' RIM = 22.66 (3) 24" HDPE INV IN = 16.36 (1) 24" HDPE INV OUT = 16.26 CONSTRUCT 9 LF x 24" HDPE S=0.0050
3	PROPOSED 4' DIA. DMH STA. 3+37.68, L 7.88' RIM = 22.99 (6) 24" HDPE INV IN = 16.81 (5) 12" HDPE INV IN = 17.28 (2) 24" HDPE INV OUT = 16.71 CONSTRUCT 71 LF x 24" HDPE S=0.0050
5	PROPOSED 4' DIA. CB STA. 3+37.48, R 30.11' RIM = 20.95 (3) 12" HDPE INV OUT = 17.45 CONSTRUCT 35 LF x 12" HDPE S=0.0050
6	PROPOSED 4' DIA. DMH STA. 3+77.68, L 4.48' RIM = 22.95 (7) 12" HDPE INV IN = 17.99 (8) 12" HDPE INV IN = 17.99 (9) 24" HDPE INV IN = 17.09 (3) 24" HDPE INV OUT = 16.99 CONSTRUCT 36 LF x 24" HDPE S=0.0050
7	PROPOSED 4' DIA. CB STA. 3+68.18, L 18.96' RIM = 22.67 (6) 12" HDPE INV OUT = 18.66 CONSTRUCT 14 LF x 12" HDPE S=0.0500
8	PROPOSED 4' DIA. CB STA. 3+74.00, R 14.03' RIM = 22.48 (6) 12" HDPE INV OUT = 18.73 CONSTRUCT 15 LF x 12" HDPE S=0.0500
9	PROPOSED 4' DIA. DMH STA. 4+38.03, L 1.03' RIM = 23.26 (11) 18" HDPE INV IN = 17.87 (10) 12" HDPE INV IN = 18.37 (6) 24" HDPE INV OUT = 17.37 CONSTRUCT 57 LF x 24" HDPE S=0.0050
10	PROPOSED 4' DIA. CB STA. 4+78.51, R 42.62' RIM = 23.37 (9) 12" HDPE INV OUT = 18.87 CONSTRUCT 56 LF x 12" HDPE S=0.0090
11	PROPOSED 4' DIA. DMH STA. 5+42.81, 0.00' RIM = 24.04 (13) 12" HDPE INV IN = 18.87 (12) 12" HDPE INV IN = 18.87 (14) 18" HDPE INV IN = 18.47 (9) 18" HDPE INV OUT = 18.37 CONSTRUCT 101 LF x 18" HDPE S=0.0050
12	PROPOSED 4' DIA. CB STA. 5+42.81, L 11.00' RIM = 23.82 (11) 12" HDPE INV OUT = 19.30 CONSTRUCT 8 LF x 12" HDPE S=0.0586
13	PROPOSED 4' DIA. CB STA. 5+42.81, R 11.00' RIM = 23.82 (11) 12" HDPE INV OUT = 19.30 CONSTRUCT 8 LF x 12" HDPE S=0.0593
14	PROPOSED 4' DIA. DMH 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=0.0050
15	PROPOSED 4' DIA. DMH 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=0.0051
16	PROPOSED 4' DIA. CB STA. 6+56.24, R 158.50' RIM = 25.50 (15) 12" HDPE INV OUT = 20.94 CONSTRUCT 60 LF x 12" HDPE S=0.0050

DRAINAGE STRUCTURES 1–20	
STRUCTURE	STRUCTURE DETAILS
17	PROPOSED 4' DIA. DMH 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=0.0050
18	INFILLTRATION BASIN #1 STA. 7+20.48, R 218.18' RIM = 22.21 (17) 12" HDPE INV OUT = 21.10 CONSTRUCT 3 LF x 12" HDPE S=0.0300
19	PROPOSED 4' DIA. DMH 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=0.0300
20	BUILDING A ROOF DRAIN STA. 6+61.12, R 268.76' RIM = 23.35 (HDPE Pipe) 6" HDPE INV OUT = 22.78 CONSTRUCT 16 LF x 6" HDPE S=0.0050

DRAINAGE STRUCTURES 61–71	
STRUCTURE	STRUCTURE DETAILS
61	PROPOSED 4' DIA. CB RIM = 22.29 (62) 12" HDPE INV IN = 17.60
62	WATER QUALITY STRUCTURE RIM = 19.26 (63) 12" HDPE INV IN = 18.15 (61) 12" HDPE INV OUT = 18.05 CONST. 90 LF x 12" HDPE S=0.0049
63	PROPOSED 4' DIA. DMH RIM = 25.40 (64) 12" HDPE INV IN = 18.28 (62) 12" HDPE INV OUT = 18.18 CONST. 3 LF x 12" HDPE S=0.0060
64	PROPOSED 4' DIA. DMH RIM = 24.59 (66) 12" HDPE INV IN = 19.12 (65) 12" HDPE INV IN = 19.12 (63) 12" HDPE INV OUT = 19.02 CONST. 148 LF x 12" HDPE S=0.0049
65	PROPOSED 4' DIA. CB RIM = 23.22 (64) 12" HDPE INV OUT = 19.37 CONST. 49 LF x 12" HDPE S=0.0050
66	PROPOSED 4' DIA. DMH RIM = 24.32 (68) 12" HDPE INV IN = 20.57 (67) 12" HDPE INV IN = 20.57 (64) 12" HDPE INV OUT = 20.47 CONST. 270 LF x 12" HDPE S=0.0050
67	PROPOSED 4' DIA. CB RIM = 24.24 (66) 12" HDPE INV OUT = 20.60 CONST. 4 LF x 12" HDPE S=0.0102
68	PROPOSED 4' DIA. DMH RIM = 25.15 (69) 12" HDPE INV IN = 20.89 (70) 12" HDPE INV IN = 20.89 (66) 12" HDPE INV OUT = 20.79 CONST. 45 LF x 12" HDPE S=0.0050
69	PROPOSED 4' DIA. CB RIM = 25.12 (68) 12" HDPE INV OUT = 20.93 CONST. 8 LF x 12" HDPE S=0.0050
70	PROPOSED 4' DIA. CB RIM = 25.17 (68) 12" HDPE INV OUT = 21.15 CONST. 52 LF x 12" HDPE S=0.0050
71	COMMERCIAL ROOF DRAIN RIM = 19.05 (E1072) 12" HDPE INV OUT = 17.94 CONST. 69 LF x 12" HDPE S=0.0050

DRAINAGE STRUCTURES 21–60	
STRUCTURE	STRUCTURE DETAILS
E2349	EXISTING 4' DIA. DMH STA. 16+53.36, L 1.76' RIM = 13.43 (21) 24" HDPE INV IN = 9.70
21	PROPOSED 4' DIA. DMH STA. 15+33.33, R 4.24' RIM = 15.06 (22) 24" HDPE INV IN = 10.39 (E2349) 24" HDPE INV OUT = 10.29 CONSTRUCT 117 LF x 24" HDPE S=0.0050
22	PROPOSED 4' DIA. DMH STA. 14+62.71, 0.00' RIM = 16.85 (23) 12" HDPE INV IN = 13.13 (25) 24" HDPE INV IN = 10.83 (24) 12" HDPE INV IN = 13.53 (21) 24" HDPE INV OUT = 10.73 CONSTRUCT 68 LF x 24" HDPE S=0.0050
23	PROPOSED 4' DIA. CB STA. 14+72.46, R 15.00' RIM = 16.14 (22) 12" HDPE INV OUT = 13.20 CONSTRUCT 15 LF x 12" HDPE S=0.0050
24	PROPOSED 4' DIA. CB STA. 14+46.89, R 38.92' RIM = 18.42 (22) 12" HDPE INV OUT = 13.92 CONSTRUCT 39 LF x 12" HDPE S=0.0100
25	PROPOSED 4' DIA. DMH STA. 14+04.89, 0.00' RIM = 18.58 (26) 12" HDPE INV IN = 12.20 (40) 24" HDPE INV IN = 11.20 (27) 12" HDPE INV IN = 12.30 (28) 18" HDPE INV IN = 12.31 (22) 24" HDPE INV OUT = 11.10 CONSTRUCT 54 LF x 24" HDPE S=0.0050
26	PROPOSED 4' DIA. CB STA. 13+94.60, R 14.71' RIM = 18.49 (25) 12" HDPE INV OUT = 13.00 CONSTRUCT 15 LF x 12" HDPE S=0.0573
27	RG #1 OVERFLOW STA. 13+85.92, L 23.38' RIM = 16.25 (25) 12" HDPE INV OUT = 12.43 CONSTRUCT 27 LF x 12" HDPE S=0.0050
28	PROPOSED 4' DIA. DMH STA. 14+24.04, R 52.02' 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 52 LF x 18" HDPE S=0.0050
29	PROPOSED 4' DIA. DMH STA. 14+29.14, R 59.01' RIM = 18.58 (30) 12" HDPE INV IN = 14.30 (28) 12" HDPE INV OUT = 12.70 CONSTRUCT 6 LF x 12" HDPE S=0.0050
30	DETENSION BASIN #1 STA. 14+29.05, R 63.01' RIM = 15.45 (29) 12" HDPE INV OUT = 14.34 CONSTRUCT 3 LF x 12" HDPE S=0.0200
31	PROPOSED 4' DIA. DMH STA. 14+21.43, R 111.25' RIM = 19.02 (32) 12" HDPE INV IN = 14.50 (30) 12" HDPE INV OUT = 14.40 CONSTRUCT 3 LF x 12" HDPE S=0.0300
32	PROPOSED 4' DIA. DMH STA. 14+12.43, R 111.25' RIM = 19.54 (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=0.0100
33	PROPOSED 4' DIA. CB STA. 14+12.43, R 178.33' RIM = 18.56 (32) 12" HDPE INV OUT = 15.00 CONSTRUCT 64 LF x 12" HDPE S=0.0055
34	PROPOSED 4' DIA. CB STA. 14+06.75, R 83.90' RIM = 20.03 (32) 12" HDPE INV OUT = 15.50 CONSTRUCT 24 LF x 12" HDPE S=0.0146

DRAINAGE STRUCTURES 21–60	
STRUCTURE	STRUCTURE DETAILS
35	PROPOSED 4' DIA. DMH STA. 13+95.42, R 88.65' RIM = 22.14 (36) 12" HDPE INV IN = 17.75 (28) 12" HDPE INV OUT = 16.15 CONSTRUCT 43 LF x 12" HDPE S=0.0050
36	DETENTION BASIN #2 STA. 13+91.42, R 88.65' RIM = 18.90 (35) 12" HDPE INV OUT = 17.79 CONSTRUCT 3 LF x 12" HDPE S=0.0200
37	PROPOSED 4' DIA. DMH STA. 13+01.65, R 87.93' 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=0.0300
38	PROPOSED 4' DIA. CB STA. 12+82.56, R 84.82' RIM = 22.06 (37) 12" HDPE INV OUT = 18.00 CONSTRUCT 6 LF x 12" HDPE S=0.0100
39	PROPOSED 4' DIA. CB STA. 11+79.32, R 83.03' RIM = 23.06 (37) 12" HDPE INV OUT = 19.00 CONSTRUCT 53 LF x 12" HDPE S=0.0050
40	PROPOSED 4' DIA. DMH STA. 12+84.13, 0.00' RIM = 21.74 (41) 12" HDPE INV IN = 14.33 (42) 24" HDPE INV IN = 11.88 (25) 24" HDPE INV OUT = 11.78 CONSTRUCT 117 LF x 24" HDPE S=0.0050
41	RG #2 OVERFLOW STA. 12+83.08, L 23.76' RIM = 18.25 (40) 12" HDPE INV OUT = 14.43 CONSTRUCT 20 LF x 12" HDPE S=0.0050
42	PROPOSED 4' DIA. DMH STA. 11+85.28, 0.00' RIM = 22.84 (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=0.0050
43	PROPOSED 4' DIA. CB STA. 11+84.76, R 13.88' RIM = 22.48 (42) 12" HDPE INV OUT = 13.84 CONSTRUCT 10 LF x 12" HDPE S=0.0500
44	PROPOSED 4' DIA. DMH STA. 10+48.39, R 0.01' 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=0.0050
45	PROPOSED 4' DIA. CB STA. 10+33.32, R 11.00' RIM = 24.90 (44) 12" HDPE INV OUT = 19.50 CONSTRUCT 15 LF x 12" HDPE S=0.0682
46	PROPOSED 4' DIA. CB STA. 10+33.32, L 11.00' RIM = 24.90 (44) 12" HDPE INV OUT = 19.50 CONSTRUCT 15 LF x 12" HDPE S=0.0682
47	PROPOSED 4' DIA. DMH STA. 10+60.70, R 122.62' RIM = 25.92 (48) 18" HDPE INV IN = 14.31 (44) 18" HDPE INV OUT = 14.21 CONSTRUCT 120 LF x 18" HDPE S=0.0050
48	PROPOSED 4' DIA. DMH 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=0.0050
49	PROPOSED 4' DIA. DMH 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=0.0158

DRAINAGE STRUCTURES 21–60	
STRUCTURE	STRUCTURE DETAILS
50	INFILLTRATION BASIN #2 STA. 10+27.61, R 141.41' RIM = 19.71 (49) 12" HDPE INV OUT = 18.60 CONSTRUCT 3 LF x 12" HDPE S=0.0250
51	PROPOSED 4' DIA. DMH 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=0.0000
52	PROPOSED 4' DIA. DMH 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=0.0100
53	PROPOSED 4' DIA. CB STA. 10+50.56, R 233.93' RIM = 23.88 (52) 12" HDPE INV OUT = 20.38 CONSTRUCT 86 LF x 12" HDPE S=0.0050
54	PROPOSED 4' DIA. DMH 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=0.0050
55	PROPOSED 4' DIA. CB STA. 9+38.27, R 381.51' RIM = 23.74 (54) 12" HDPE INV OUT = 20.24 CONSTRUCT 44 LF x 12" HDPE S=0.0050
56	PROPOSED 4' DIA. CB STA. 8+64.09, R 340.65' RIM = 25.36 (54) 12" HDPE INV OUT = 20.86 CONSTRUCT 69 LF x 12" HDPE S=0.0122
57	PROPOSED 4' DIA. DMH 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=0.0050
58	INFILLTRATION BASIN #3 STA. 8+63.54, R 151.94' RIM = 19.71 (57) 12" HDPE INV OUT = 18.60 CONSTRUCT 3 LF x 12" HDPE S=0.0250
59	PROPOSED 4' DIA. DMH 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=0.0300
60	BUILDING B ROOF DRAIN STA. 7+56.79, R 220.50' RIM = 21.35 (59) 6" HDPE INV OUT = 20.78 CONSTRUCT 114 LF x 6" HDPE S=0.0051

LIGHT TABLE ENTRIES FROM ROADWAY PLAN PROVIDED FOR REFERENCE ONLY

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

I HEREBY CERTIFY THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER IN THE STATE OF NEW HAMPSHIRE — PROFESSIONAL ENGINEER — RICHARD R. LUNDBORN No. 10943 LICENSED

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: 06/20/2019

CG-001

File Path: F:\P2018\0317\A10\Civil\3Dwg\20180317A10_GRA01.dwg Layout: CG-001 (DRAINAGE TABLE) (S) Plotted: Thu, June 20, 2019 - 9:08 AM User: jandretta
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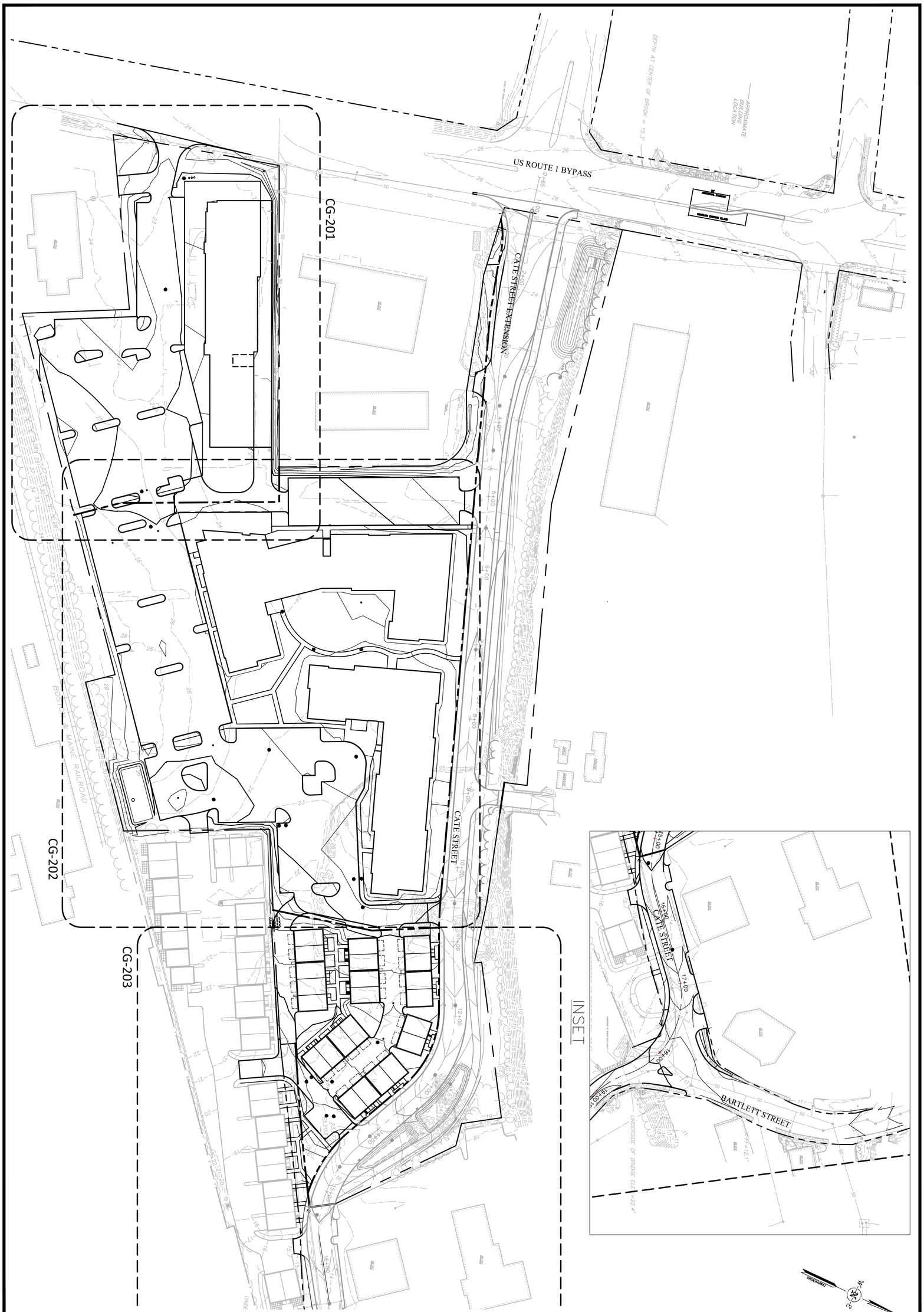

CG-200

CATE STREET DEVELOPMENT, LLC

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

PORTSMOUTH NEW HAMPSHIRE

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

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HORZ.: NAD83
VERT.: NGVD29

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

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

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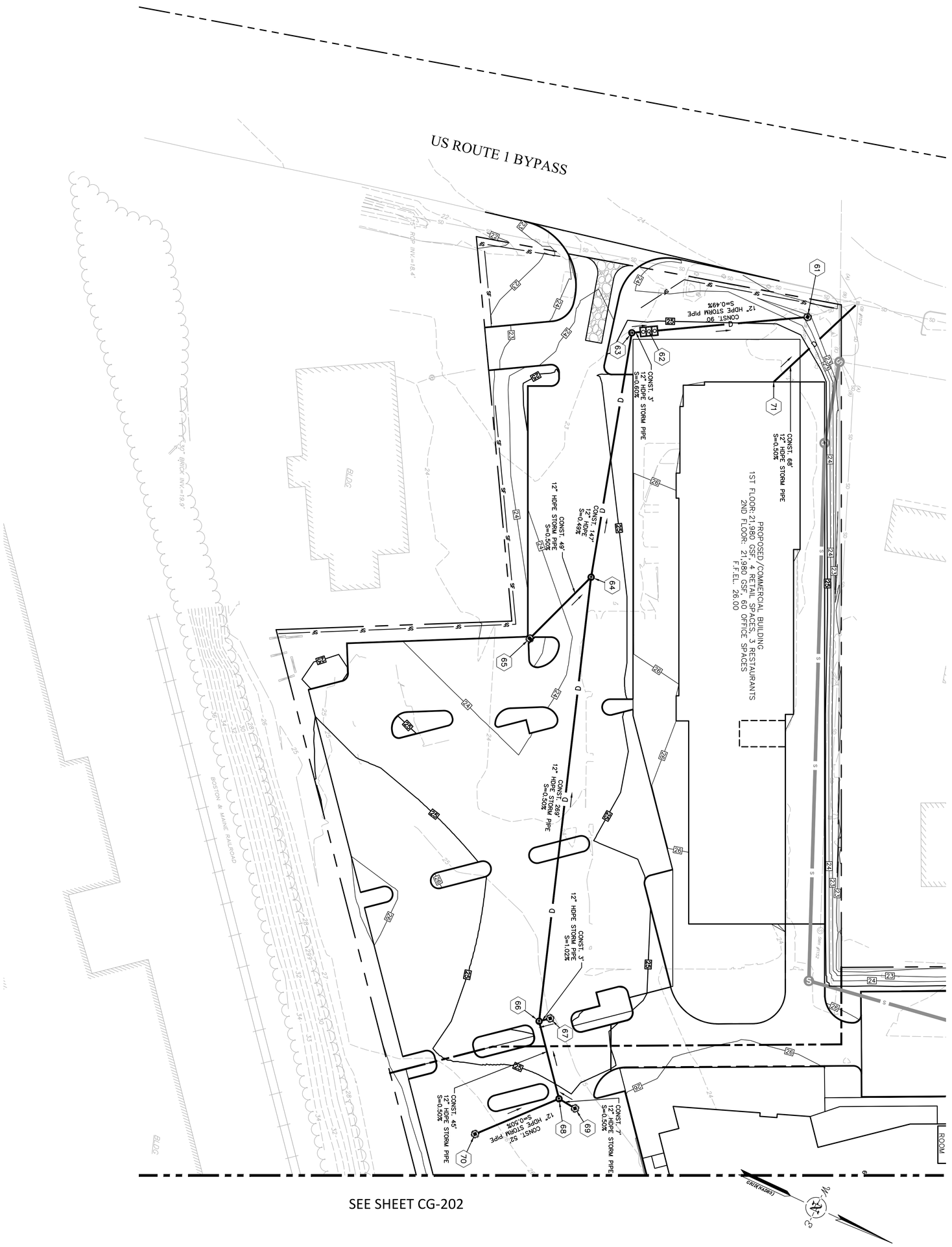

SEE SHEET CG-202

CG-201

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

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GRAPHIC SCALE

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

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

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CG-202

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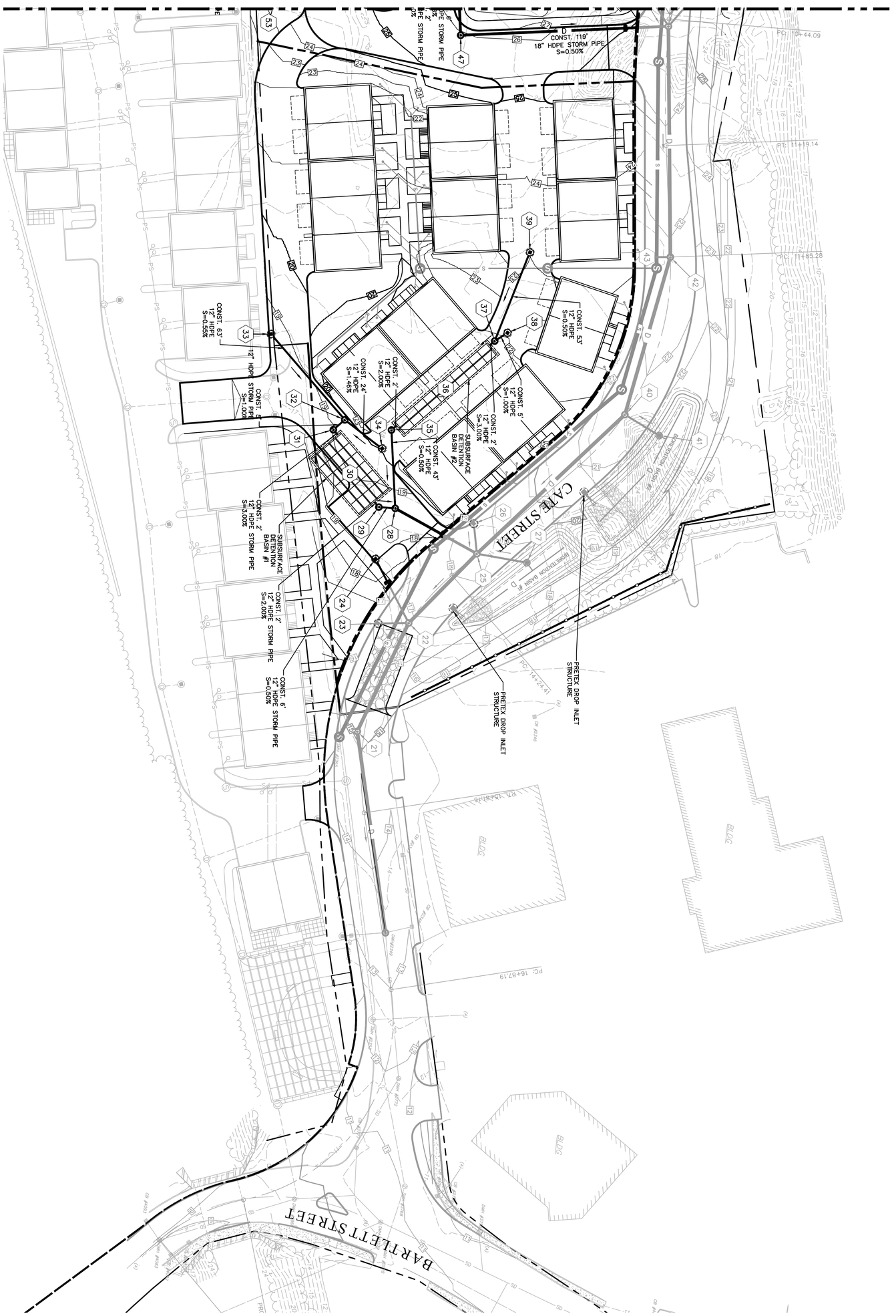

CG-203

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30 15 0 30
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RICHARD R. LUNDBORN No. 10943 LICENSED PROFESSIONAL ENGINEER STATE OF NEW HAMPSHIRE

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

SEWER SYSTEM	
STRUCTURE	STRUCTURE DETAILS
E1066	PROPOSED 4' DIA. SEWER MANHOLE STA. 0+00.00, 0.00' RIM = 23.34 (9) 24" PVC INV OUT = 11.50 CONSTRUCT 47 LF x 24" PVC S=0.0030
E1350	PROPOSED 4' DIA. SEWER MANHOLE STA. 1+42.43, L 72.72' RIM = 25.50 (11) 12" PVC INV OUT = 14.40 CONSTRUCT 111 LF x 12" PVC S=0.0063
1	PROPOSED 4' DIA. SEWER MANHOLE STA. 15+37.86, R 14.36' RIM = 14.69 (2) 24" PVC INV IN = 9.30
2	PROPOSED 4' DIA. SEWER MANHOLE STA. 14+22.43, R 19.24' RIM = 17.70 (3) 24" PVC INV IN = 9.50 (1) 24" PVC INV OUT = 9.40 CONSTRUCT 121 LF x 24" PVC S=0.0008
3	PROPOSED 4' DIA. SEWER MANHOLE STA. 12+72.19, R 9.58' RIM = 21.66 (4) 24" PVC INV IN = 9.71 (2) 24" PVC INV OUT = 9.61 CONSTRUCT 143 LF x 24" PVC S=0.0008
4	PROPOSED 4' DIA. SEWER MANHOLE STA. 11+91.92, R 8.26' RIM = 22.58 (5) 24" PVC INV IN = 9.87 (12) 8" PVC INV IN = 11.20 (3) 24" PVC INV OUT = 9.77 CONSTRUCT 71 LF x 24" PVC S=0.0008
5	PROPOSED 4' DIA. SEWER MANHOLE STA. 10+69.59, R 4.59' RIM = 24.48 (6) 24" PVC INV IN = 10.06 (4) 24" PVC INV OUT = 9.96 CONSTRUCT 119 LF x 24" PVC S=0.0008
6	PROPOSED 4' DIA. SEWER MANHOLE STA. 7+69.78, R 5.51' RIM = 25.33 (7) 24" PVC INV IN = 10.40 (5) 24" PVC INV OUT = 10.30 CONSTRUCT 297 LF x 24" PVC S=0.0008
7	PROPOSED 4' DIA. SEWER MANHOLE STA. 5+50.75, R 15.25' RIM = 24.40 (10) 12" PVC INV IN = 11.57 (8) 24" PVC INV IN = 10.67 (6) 24" PVC INV OUT = 10.57 CONSTRUCT 216 LF x 24" PVC S=0.0008
8	PROPOSED 4' DIA. SEWER MANHOLE STA. 3+78.94, 0.00' RIM = 25.57 (9) 24" PVC INV IN = 11.00 (7) 24" PVC INV OUT = 10.90 CONSTRUCT 289 LF x 24" PVC S=0.0008
9	PROPOSED 4' DIA. SEWER MANHOLE STA. 0+50.41, 0.00' RIM = 25.61 (E1066) 24" PVC INV IN = 11.36 (8) 24" PVC INV OUT = 11.26 CONSTRUCT 325 LF x 24" PVC S=0.0008
10	PROPOSED 4' DIA. SEWER MANHOLE STA. 4+41.06, R 14.75' RIM = 23.28 (11) 12" PVC INV IN = 12.31 (7) 12" PVC INV OUT = 12.21 CONSTRUCT 106 LF x 12" PVC S=0.0061
11	PROPOSED 4' DIA. SEWER MANHOLE STA. 2+26.55, R 5.04' RIM = 24.05 (E1350) 12" PVC INV IN = 13.70 (10) 12" PVC INV OUT = 13.60 CONSTRUCT 212 LF x 12" PVC S=0.0061
12	PROPOSED 4' DIA. SEWER MANHOLE STA. 11+92.68, R 72.89' RIM = 23.20 (13) 8" PVC INV IN = 11.60 (4) 8" PVC INV OUT = 11.50 CONSTRUCT 61 LF x 8" PVC S=0.0050
13	PROPOSED 4' DIA. SEWER MANHOLE STA. 12+12.68, R 148.42' RIM = 20.94 (12) 8" PVC INV OUT = 11.96 CONSTRUCT 72 LF x 8" PVC S=0.0050

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

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SITE SEWER
STRUCTURE TABLE
CATE STREET/ WEST END YARDS
PORTSMOUTH NEW HAMPSHIRE

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

CU-001

File Path: F:\P2018\0317\A10\Civil3\Dwg\20180317A10_UTL01.dwg Layout: CU-200 (S) Plotted: Thu, June 20, 2019 - 2:36 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
DATE: 06/20/2019

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

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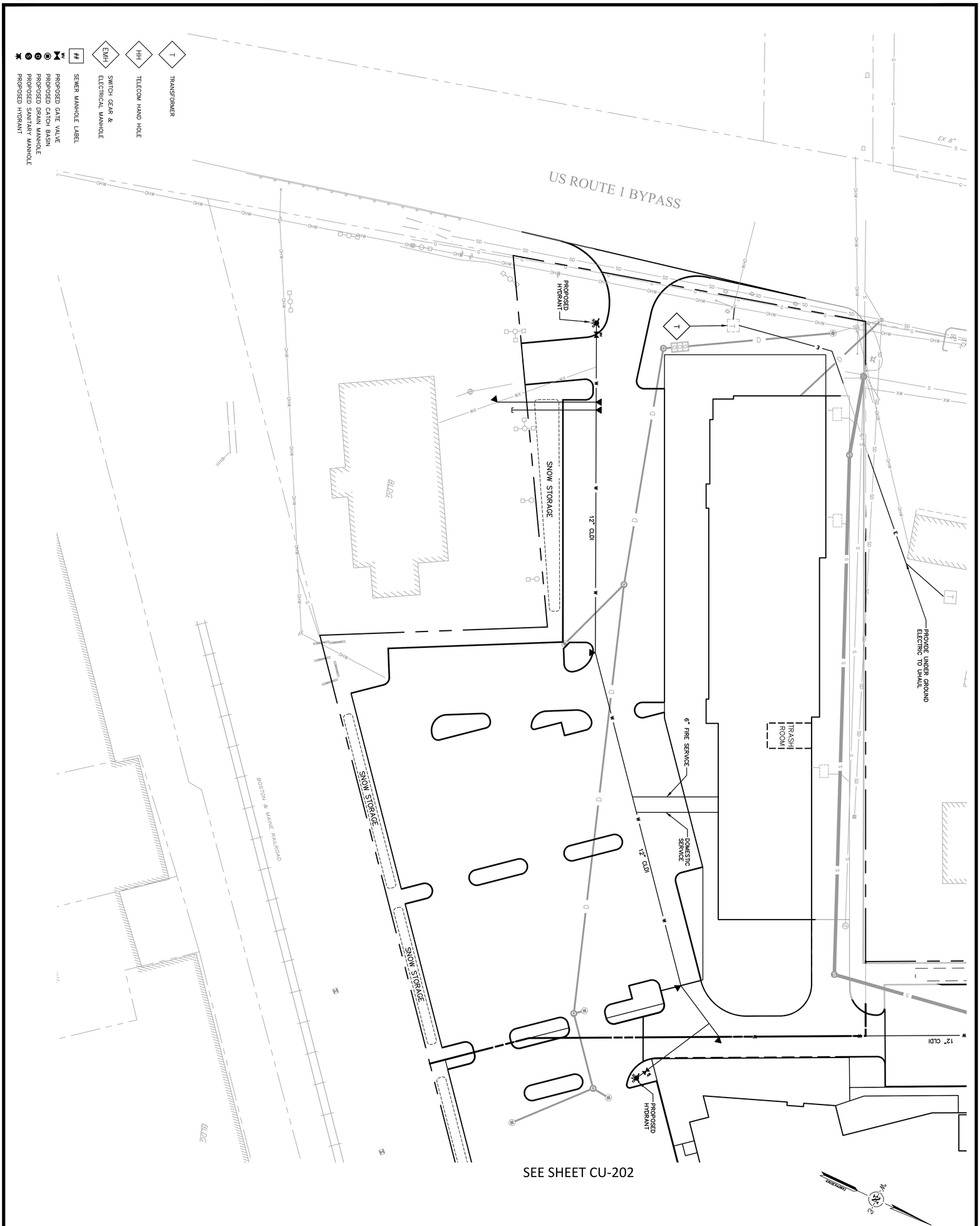

CU-201

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

CATE STREET DEVELOPMENT, LLC

UTILITY PLAN

CATE STREET/ WEST END YARDS

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

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

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

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SEE SHEET CU-201

SEE SHEET CU-203

PROPOSED HYDRANT
PROPOSED SANITARY MANHOLE
PROPOSED DRAIN MANHOLE
PROPOSED CATCH BASIN
PROPOSED GATE VALVE
SEWER MANHOLE LABEL
SWITCH GEAR & ELECTRICAL MANHOLE
TELECOM. HAND HOLE
TRANSFORMER

GRAPHIC SCALE

CU-202

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

CATE STREET DEVELOPMENT, LLC

UTILITY PLAN

CATE STREET/ WEST END YARDS

PORTSMOUTH NEW HAMPSHIRE

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CU-203

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GRAPHIC SCALE

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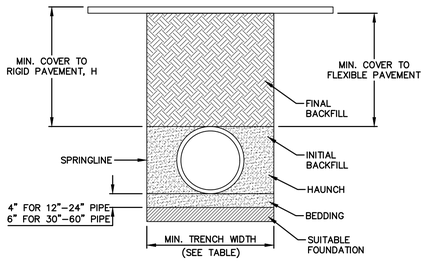


TABLE 1, RECOMMENDED MINIMUM TRENCH WIDTHS

PIPE DIAM.	MIN. TRENCH WIDTH
12" (300mm)	30" (762mm)
15" (375mm)	34" (864mm)
18" (450mm)	39" (991mm)
24" (600mm)	48" (1219mm)
30" (750mm)	58" (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

NOTES:

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 APPLICATOINS", 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 ENGIEER, 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–150mm) 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 OF TO TOP OF RIGID PAVEMENT.
7. FOR ADDITIONAL INFORMATION SEE TECHNICAL NOTE 2.04.

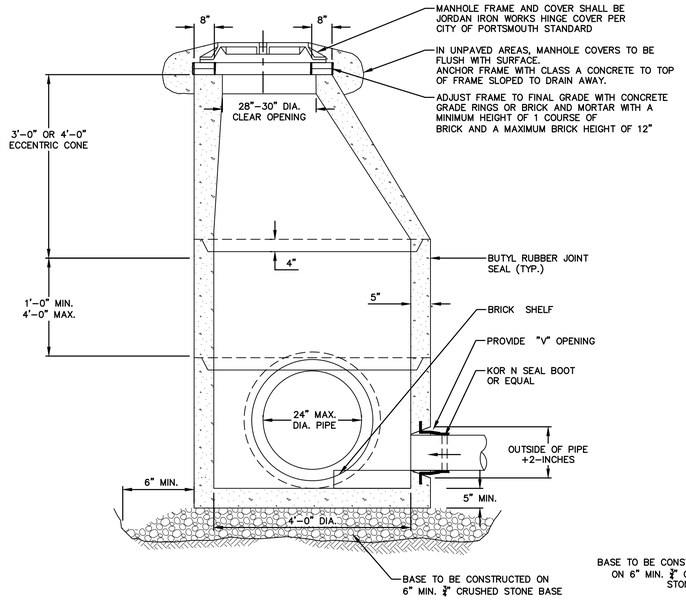
HP STORM TRENCH INSTALLATION DETAIL
NOT TO SCALE

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



4' PRECAST DRAIN MANHOLE
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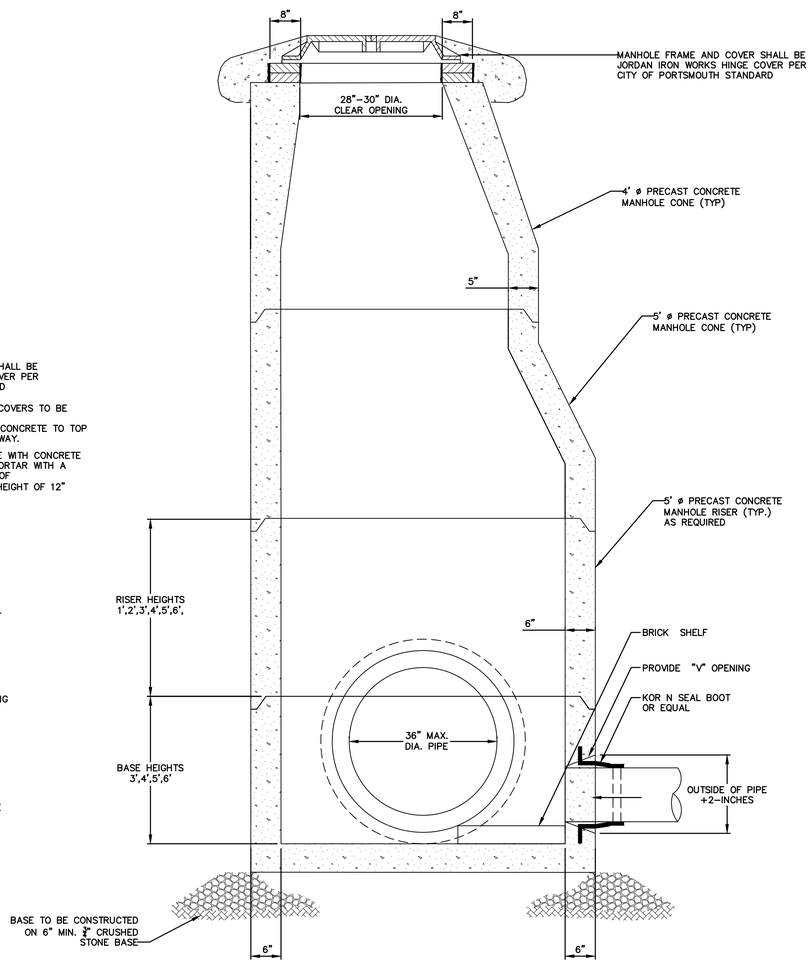

5' PRECAST DRAIN MANHOLE
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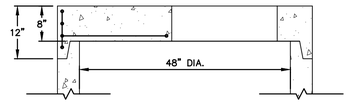
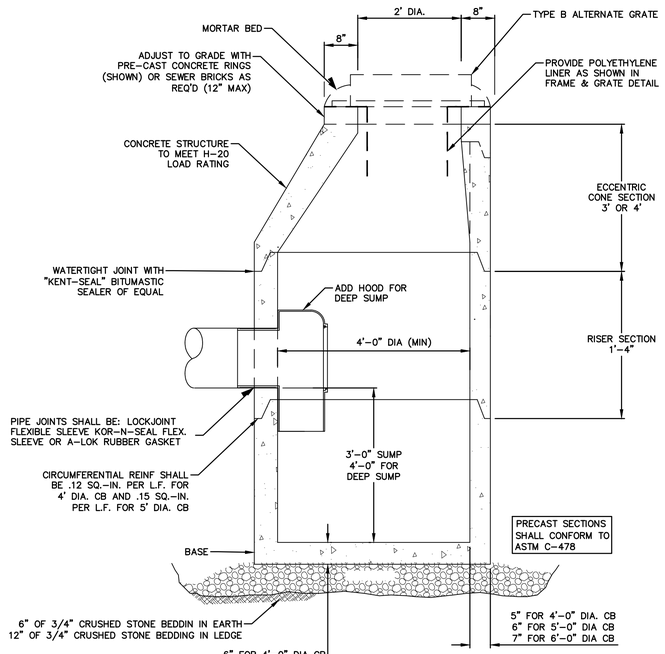


PRECAST CATCH BASIN
NOT TO SCALE



PRECAST CATCH BASIN
NOT TO SCALE

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STATE OF NEW HAMPSHIRE – PROFESSIONAL ENGINEER – RICHARD R. LIMBERGER No. 10843 LICENSED

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CATE STREET DEVELOPMENT, LLC

DRAINAGE DETAILS

CATE STREET/ WEST END YARDS
PORTSMOUTH NEW HAMPSHIRE

PROJ. No.: 20180317.A10
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CD-510

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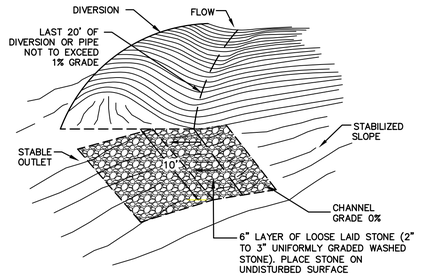


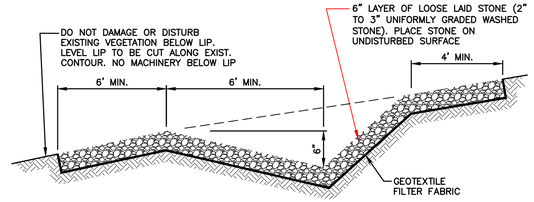
PLAN VIEW

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

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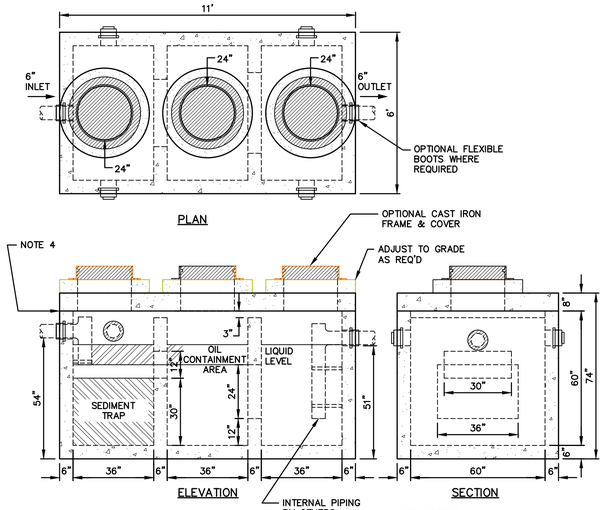

GENERAL NOTES

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)

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

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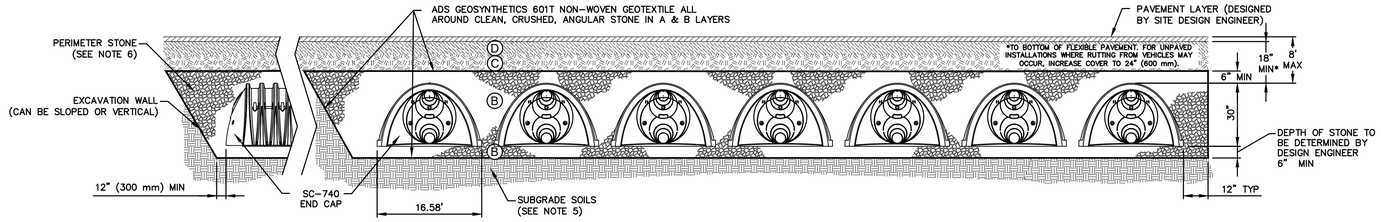
	MATERIAL LOCATION	DESCRIPTION	AASHTO MATERIAL CLASSIFICATIONS	COMPACTION / DENSITY REQUIREMENT
D	**FINAL FILL:** FILL MATERIAL FOR LAYER 'D' STARTS FROM THE TOP OF THE 'C' LAYER TO THE BOTTOM OF FLEXIBLE PAVEMENT OR UNPAVED FINISHED GRADE ABOVE. NOTE THAT PAVEMENT SUBBASE MAY BE PART OF THE 'D' LAYER	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]

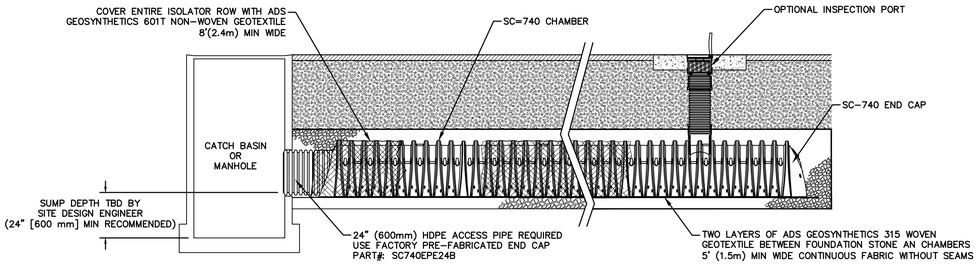
PLEASE NOTE:
1. THE LISTED AASHTO DESIGNATIONS ARE FOR GRADATIONS ONLY. THE STONE MUST ALSO BE CLEAN, CRUSHED, ANGULAR. FOR EXAMPLE, A SPECIFICATION FOR #4 STONE WOULD STATE: "CLEAN, CRUSHED, ANGULAR NO. 4 (AASHTO M43) STONE".
2. STORMTECH COMPACTION REQUIREMENTS ARE MET FOR 'A' LOCATION MATERIALS WHEN 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

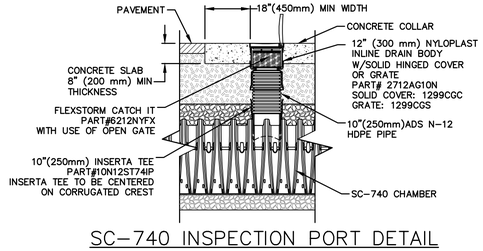
STEP 1) INSPECT ISOLATOR ROW FOR SEDIMENT
- A. INSPECTION PORTS (IF PRESENT)
  - A.1. REMOVE/OPEN LID ON NYLOPLAST INLINE DRAIN
  - A.2. REMOVE AND CLEAN FLEXSTORM FILTER IF INSTALLED
  - A.3. USING A FLASHLIGHT AND STADIA ROD, MEASURE DEPTH OF SEDIMENT AND RECORD ON MAINTENANCE LOG
  - A.4. LOWER A 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

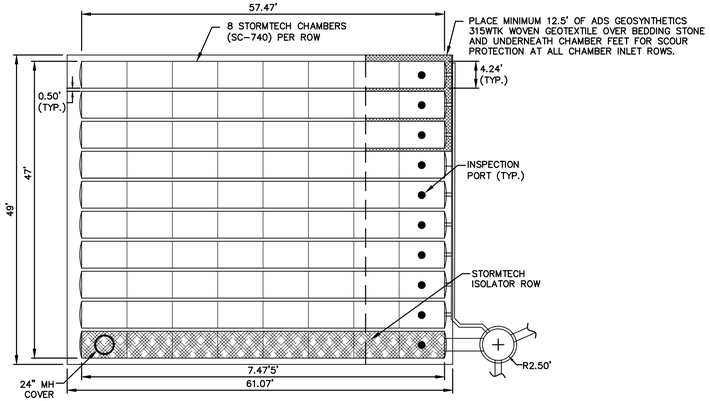
STEP 3) REPLACE ALL COVERS, GRATES, FILTERS, AND LIDS; RECORD OBSERVATIONS AND ACTIONS.

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.

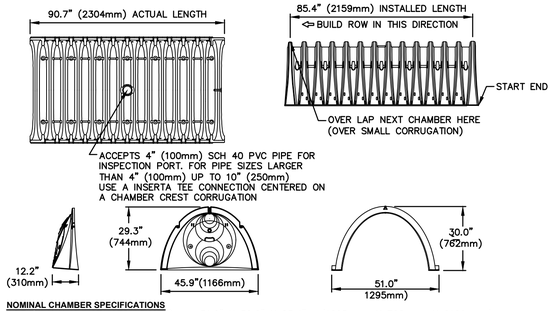


SC-740 INSPECTION PORT DETAIL



SC-740 PLAN VIEW

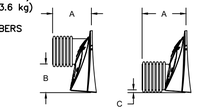
SC-740 TECHNICAL SPECIFICATON



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 R. LIMBERGER No. 10943 LICENSED

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CATE STREET DEVELOPMENT, LLC

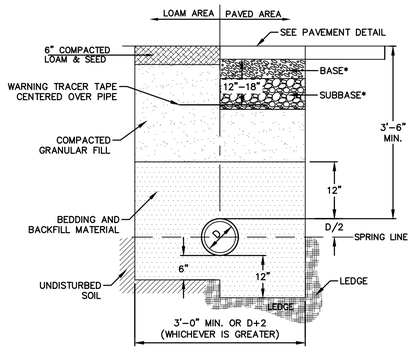
DRAINAGE DETAILS

CATE STREET/ WEST END YARDS

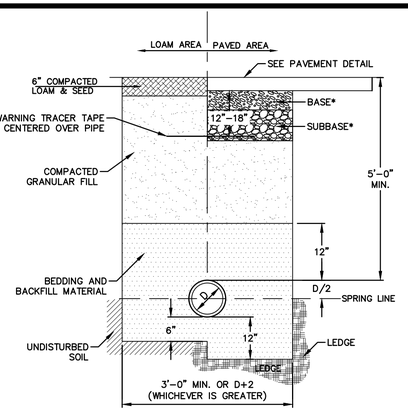
PORTSMOUTH NEW HAMPSHIRE

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

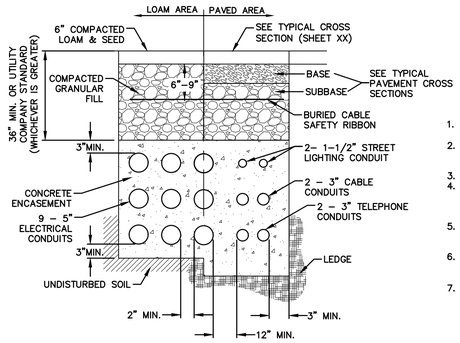
CD-512



GAS TRENCH
NOT TO SCALE

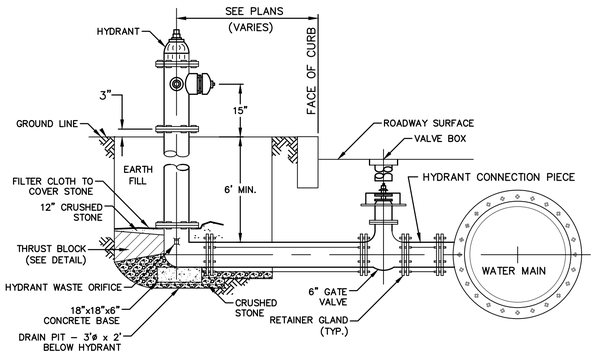


WATER TRENCH SECTION
NOT TO SCALE



ELECTRICAL AND COMMUNICATION CONDUIT
NOT TO SCALE

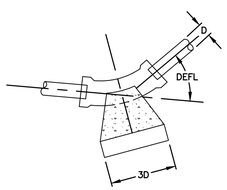
1. NUMBER, MATERIAL, AND SIZE OF UTILITY CONDUITS TO BE DETERMINED BY LOCAL OR AS SHOWN ON CONDUIT PLAN.
2. DIMENSIONS SHOWN REPRESENTS OWNER'S MINIMUM REQUIREMENTS. ACTUAL DIMENSIONS MAY BE GREATER BASED ON UTILITY COMPANY STANDARDS, BUT MAY NOT BE LESS THAN SHOWN.
3. NO CONDUIT SHALL EXCEED 360 DEGREES 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.?????



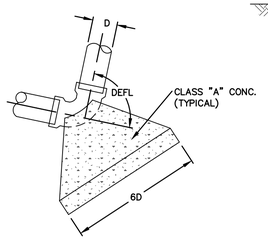
FIRE HYDRANT
NOT TO SCALE

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

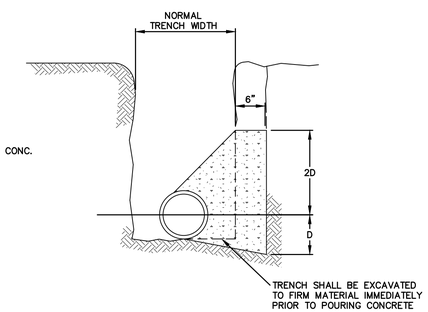
PPE DIA. (INCHES)	MINIMUM THRUST BLOCK VOLUME (CUBIC YARDS)
4	0.25
6	0.3
8	0.5
10	0.7
12	1.0
16	1.6



PLAN ELBOW – DEFL. LESS THAN 50



PLAN ELBOW – DEFL. MORE THAN 50



SECTION

CONCRETE THRUST BLOCKS
NOT TO SCALE

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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

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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

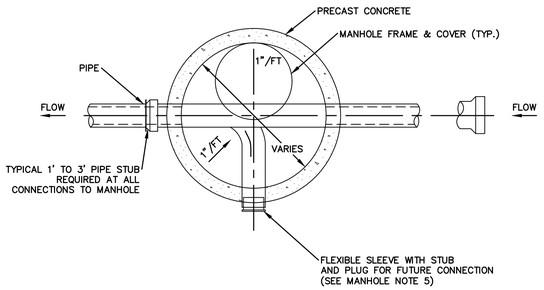
1. ALL PIPES SHALL BE CUT FLUSH WITH INSIDE WALL OF STRUCTURE.
2. MANHOLES SHALL BE PLACED ON 8" MINIMUM CRUSHED STONE BASE.
3. MORTAR IN LIFTING HOLES AFTER INSTALLING RUBBER PLUGS.
4. MANHOLES SHALL RECEIVE A BITUMINOUS DAMP-PROOFING PRIOR TO DELIVERY TO THE SITE.
5. PROVIDE WATERTIGHT STUB AND FLEXIBLE SLEEVE AS NOTED ON THE DRAWING OR AS DIRECTED BY THE ENGINEER.
6. PIPE TO MANHOLE JOINTS SHALL BE SEALED WATERTIGHT BY USE OF PRE-MOLDED ELASTOMERIC SEALED JOINTS CAST INTO CONCRETE MANHOLE BASE AND SHALL CONFORM TO ASTM C 443 AND ASTM C 923M.
7. MANHOLE FRAME AND COVERS SHALL BE OF THE TYPE INDICATED BELOW OR APPROVED EQUAL, UNLESS OTHERWISE SPECIFIED.

LOCATION	TYPE
GUTTERS, LOW LYING, WET UNPAVED AREAS	BOLTED & GASKETED (BOLTS SHALL BE 1/2" STAINLESS STEEL.)
NORMALLY DRY UNPAVED AND PAVED AREAS	STANDARD

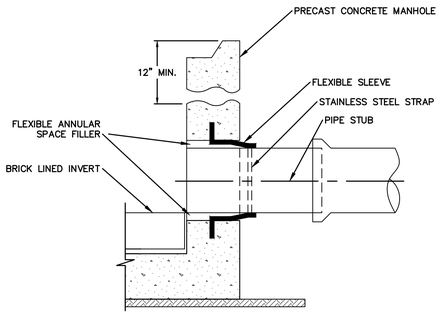
VALVE STRUCTURES WATERTIGHT
THE COVER SHALL HAVE THE WORDS "SANITARY SEWER", "CONFINED SPACE PERMIT REQUIRED" CAST INTO THE COVER IN 2" LETTERS.

8. MANHOLE STEPS SHALL BE STEEL REINFORCED POLYPROPYLENE OR ALUMINUM.
9. WHERE THE DIFFERENCE IN ELEVATION BETWEEN THE INCOMING SEWER AND THE MANHOLE INVERT IS 24" OR LESS, THE INVERT SHALL BE FILLETED.
10. PAYMENT DEPTHS ARE MEASURED FROM TOP OF CONE TO INVERT OF STRUCTURE.

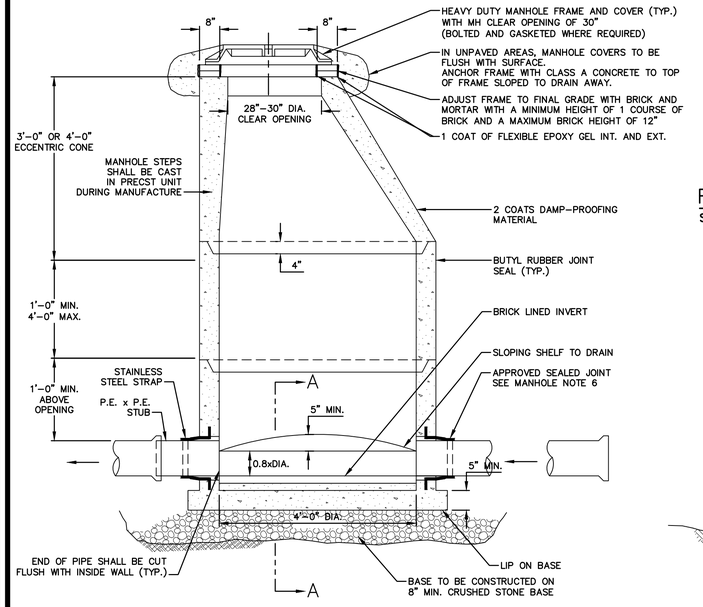
MANHOLE NOTES
SCALE: N.T.S.



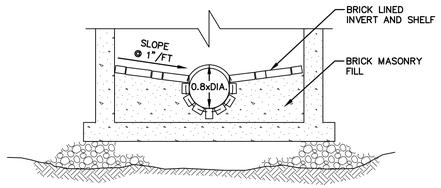
MANHOLE PLAN VIEW
SCALE: N.T.S.



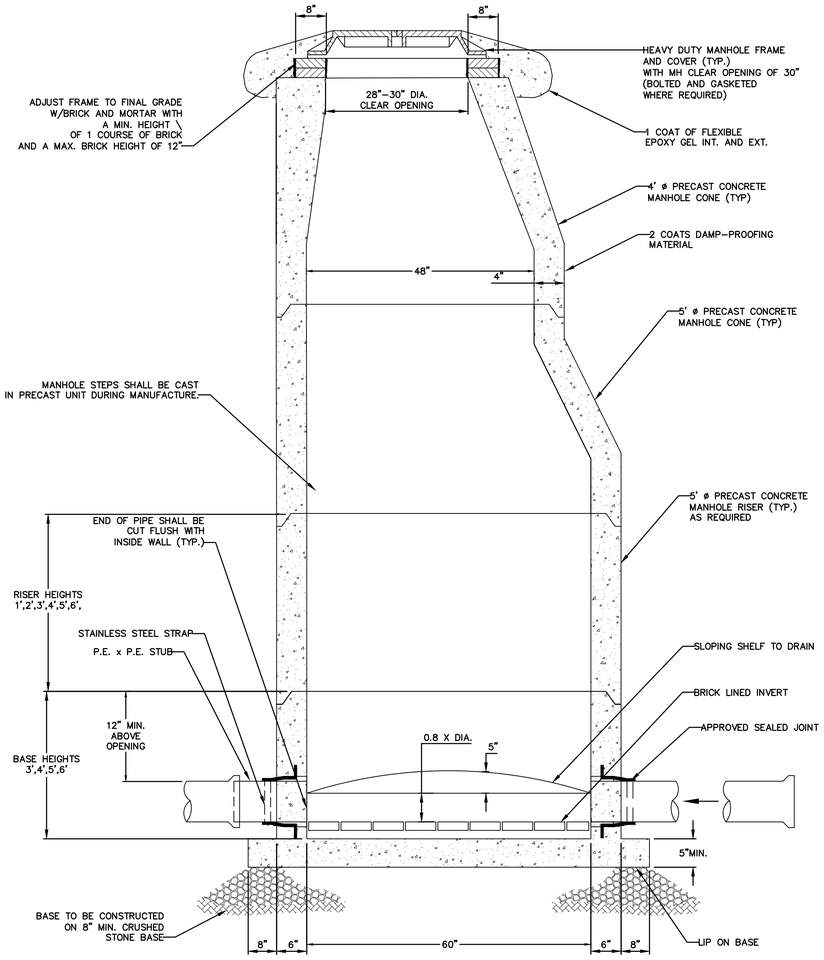
FLEXIBLE SLEEVE
SCALE: N.T.S.



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



SECTION A-A



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

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3.	6/20/2019	TAC SUBMITTAL	JVA/DAD	RRL
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STATE OF NEW HAMPSHIRE – PROFESSIONAL ENGINEER – RICHARD R. LUNBORN No. 10943 LICENSED

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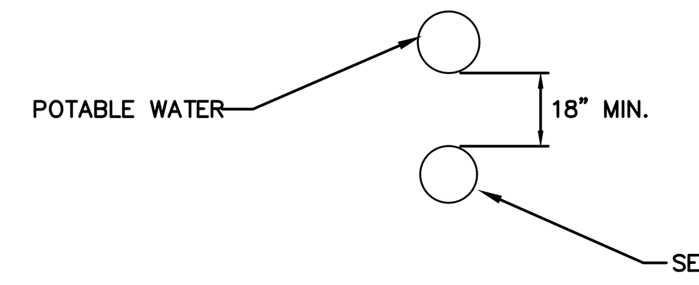
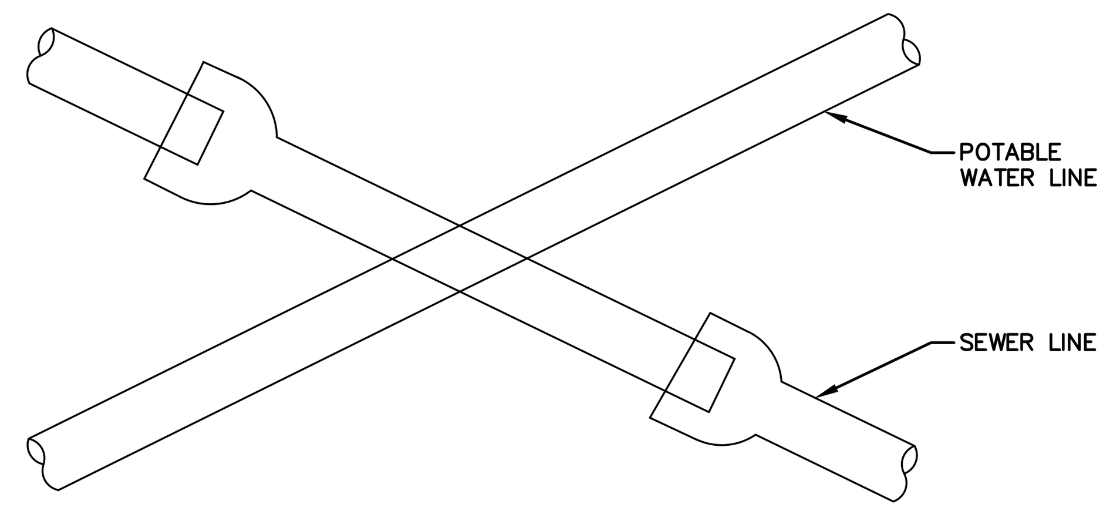
PORTSMOUTH NEW HAMPSHIRE

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

CD-530



SECTION VIEW

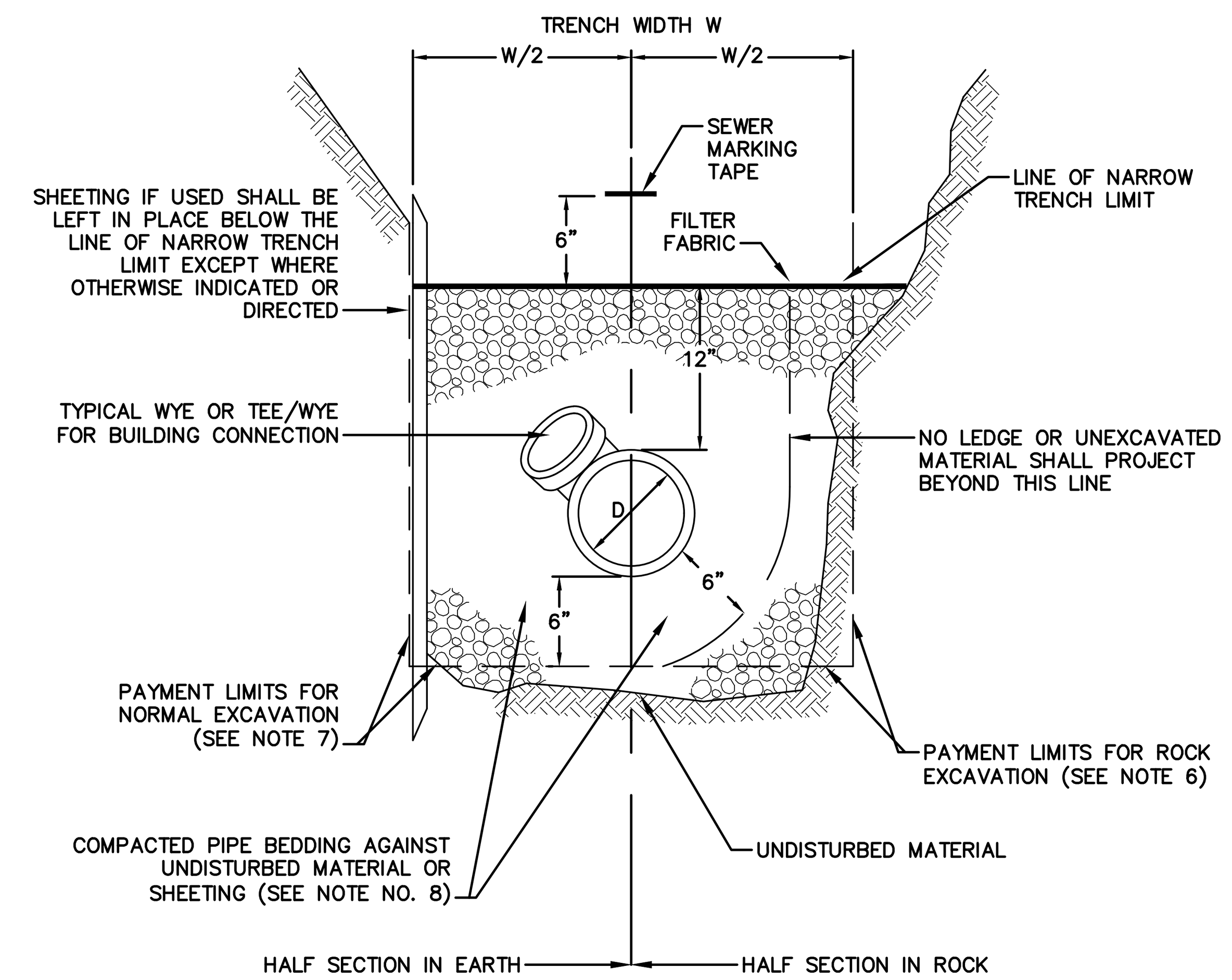


PLAN VIEW

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

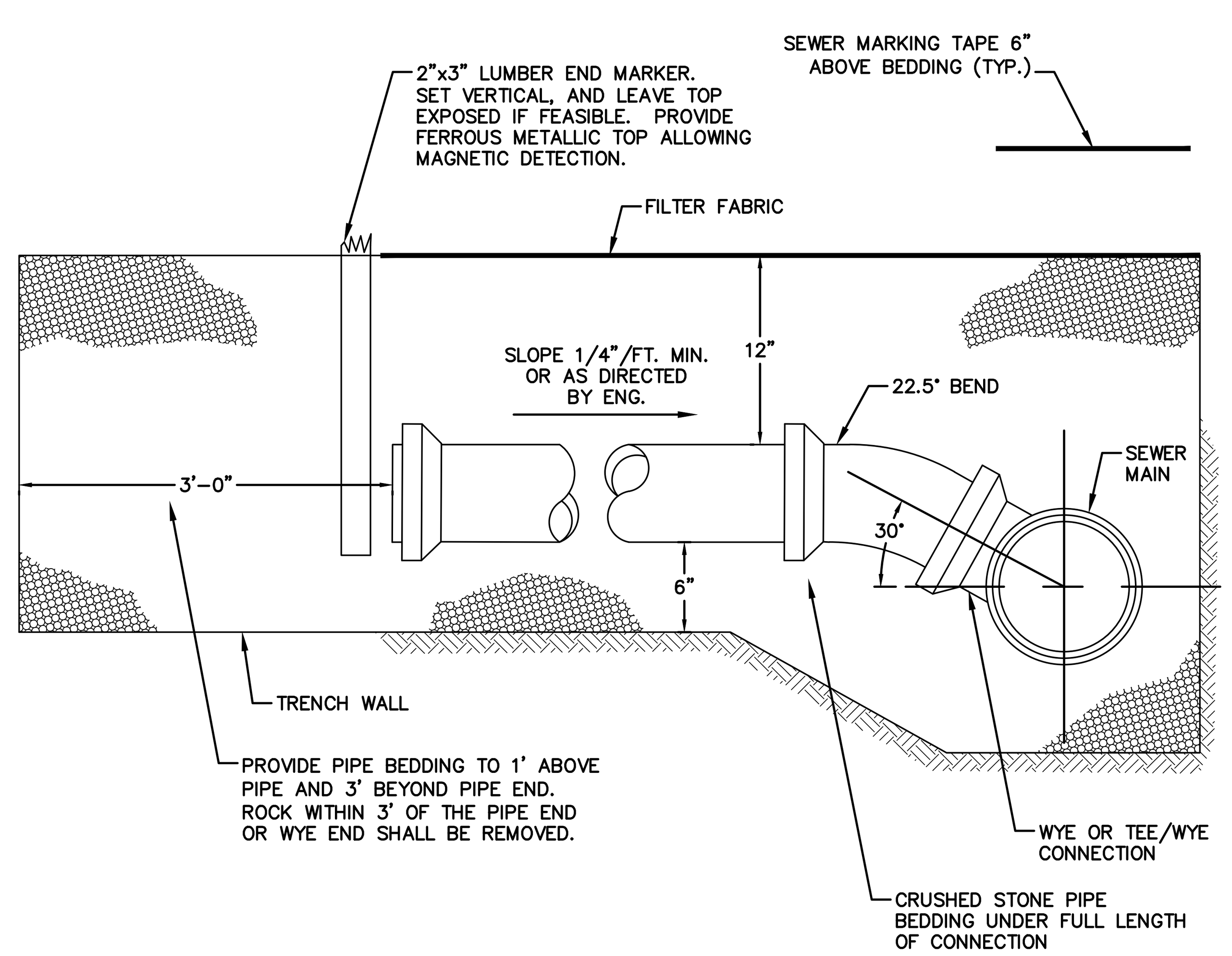
SANITARY SEWER PIPE TRENCH NOTES

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:

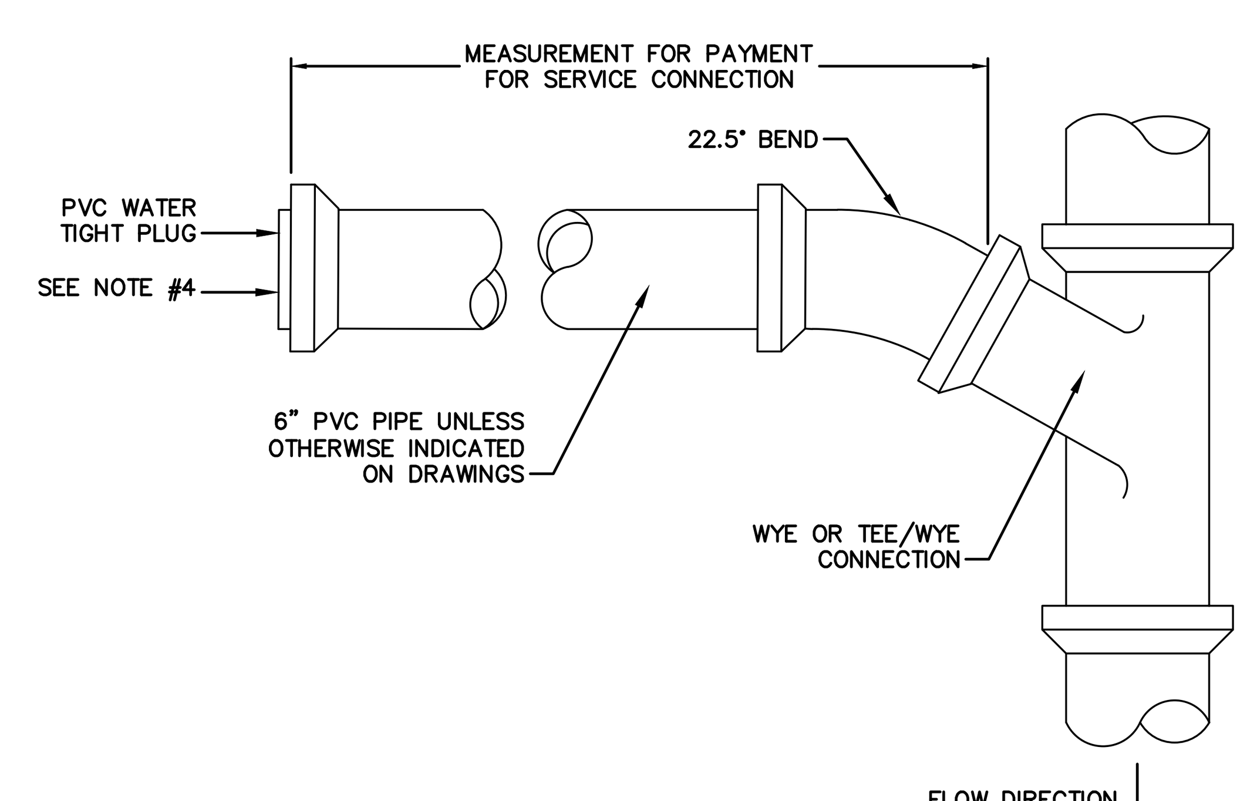
NUMBER OF PIPE IN TRENCH	DIAMETER PIPE "D"	TRENCH WIDTH "W"	PAYMENT LIMIT
ONE	12" AND SMALLER	4'–0"	4'–0"
TWO	12" AND SMALLER	7'–0"	7'–0"

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

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

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CD-531

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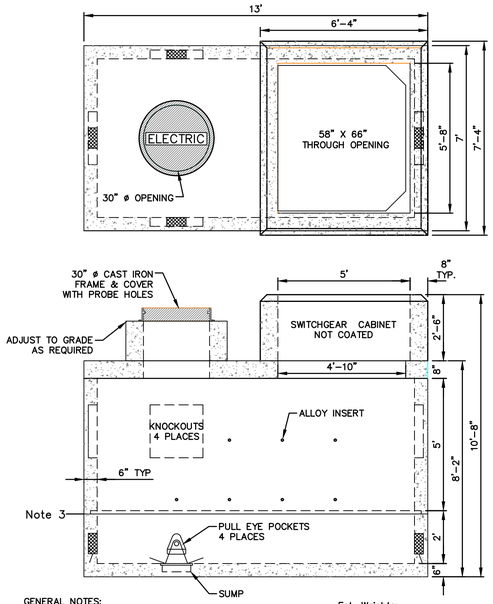
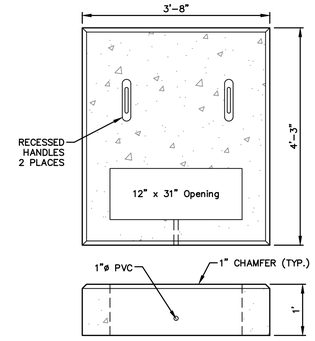


GENERAL NOTES:
1. STEEL REINFORCEMENT CONFORMS TO LATEST ASTM SPECIFICATIONS: ASTM-A615 GRADE 60 REBAR
2. CONCRETE: FC = 5,000 PSI @ 28 DAYS MINIMUM
3. BUTYL RUBBER JOINT SEALANT PROVIDED
4. DESIGN LOADING: AASHTO-HS20-44, ASTM C-890-06
5. DESIGN SPECIFIED AS: ASTM C-1227-08, ASTM C-913-08
6. EXTERIOR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

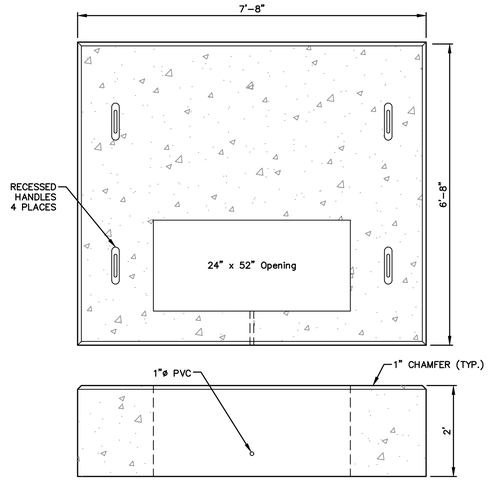
Est. Weights:	
Top Slab:	5,600 Lbs
Riser:	14,080 Lbs
Switchgear Cabinet:	6,750 Lbs
Base:	12,450 Lbs
Total:	32,130 Lbs

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

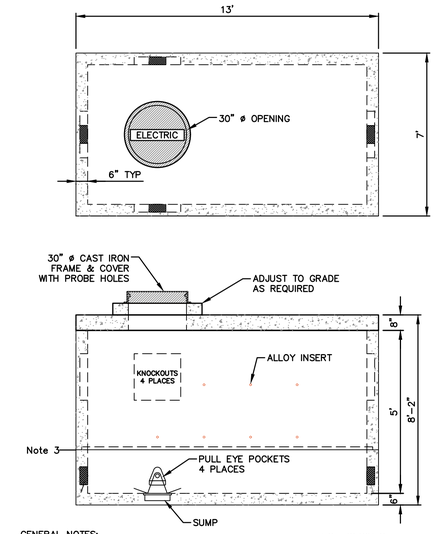


General Notes
1.) Reinforcement Steel Conforms To ASTM A615 Grade 60 #6 Rebar
2.) Concrete: fc = 4,500 psi @ 28 Days Minimum
3.) Meets or Exceeds PSNH Specifications
4.) Est. Weight: 12,600 Lbs

3 PHASE TRANSFORMER PAD
NOT TO SCALE 75-500 KVA

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

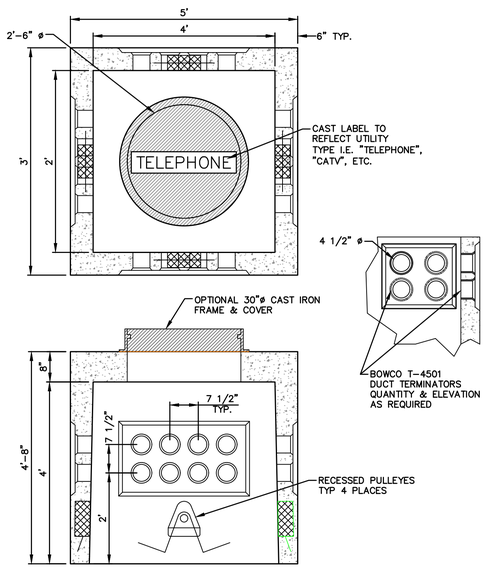
PHOENIX PRECAST PRODUCTS
77 REGIONAL DRIVE
CONCORD, NH 03301
1.800.639.2199
info@phoenixprecast.com



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
7. MEETS OR EXCEEDS PSNH DWG # R-10001-1

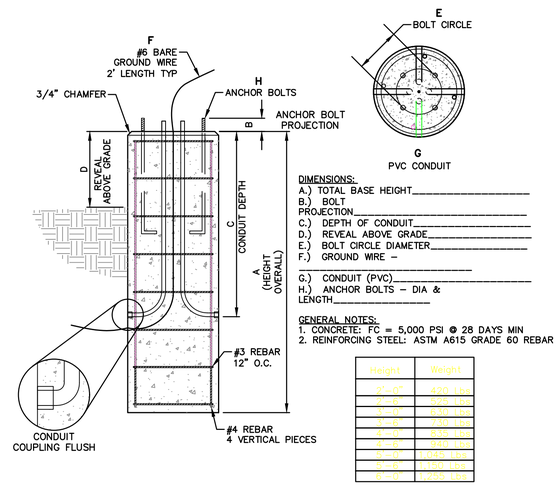
EST. WEIGHTS:	
Top Slab:	8,500 Lbs
Riser:	13,300 Lbs
Base:	12,100 Lbs
Total:	33,900 Lbs

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

Height	Weight
2'-0"	420 Lbs
3'-0"	630 Lbs
4'-0"	840 Lbs
5'-0"	1050 Lbs
6'-0"	1260 Lbs
7'-0"	1470 Lbs
8'-0"	1680 Lbs

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 – PROFESSIONAL ENGINEER – RICHARD R. LUNDBORN No. 10943 LICENSED

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

CATE STREET DEVELOPMENT, LLC
UTILITY DETAILS
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

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

CD-540

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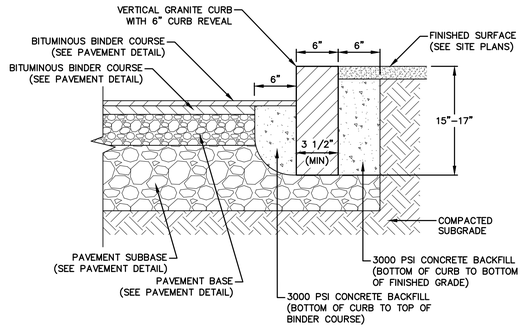
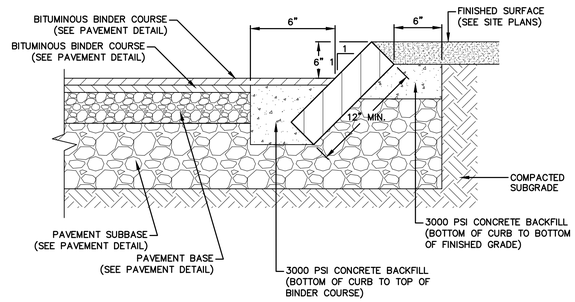


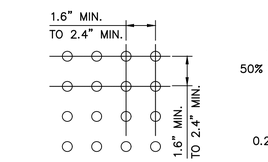
VERTICAL GRANITE CURB INSTALLED

SCALE: NOT TO SCALE



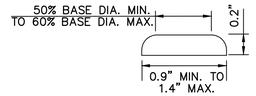
SLOPED GRANITE CURB INSTALLED

SCALE: NOT TO SCALE



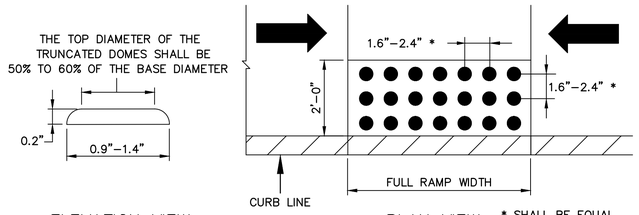
DOME SPACING

NOT TO SCALE



DOME SECTION

NOT TO SCALE



ELEVATION VIEW

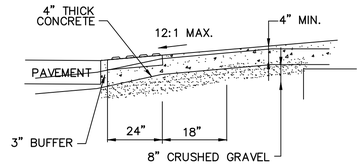
PLAN VIEW

* SHALL BE EQUAL
IN BOTH DIRECTIONS

NOTE: THE ROWS OF DOMES SHALL BE ALIGNED TO BE PERPENDICULAR OR RADIAL TO THE GRADE BREAK BETWEEN THE RAMP LANDING OR CURB RAMP AND THE STREET. DETECTABLE WARNING PANEL LOCATION, LENGTH AND ORIENTATION SHALL BE REVIEWED WITH ENGINEER IN THE FIELD PRIOR TO ORDERING MATERIALS.

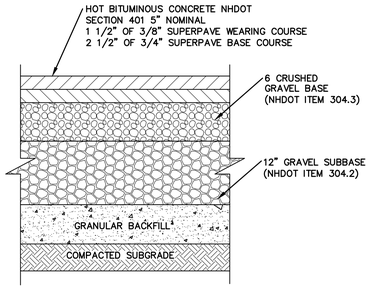
DOME AND DETECTABLE WARNING DETAILS

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



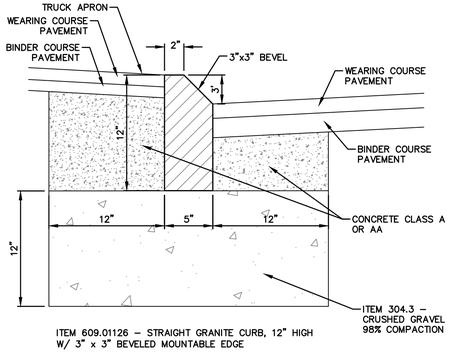
SECTION A–A

NOT TO SCALE



TYPICAL SITE PAVEMENT SECTION

SCALE: NOT TO SCALE

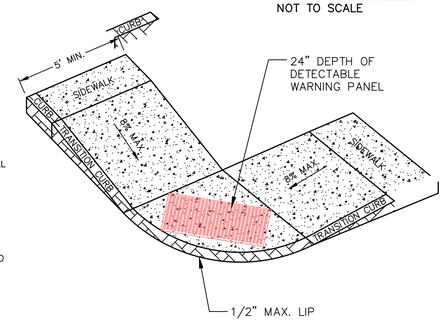


ITEM 609.01126 – STRAIGHT GRANITE CURB, 12" HIGH
W/ 3" x 3" BEVELED MOUNTABLE EDGE

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.

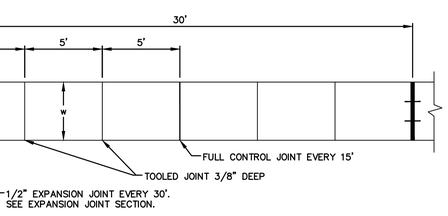


NOTE:

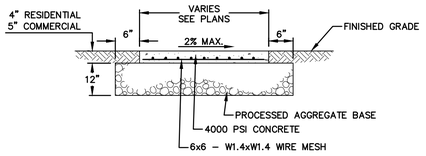
INSTALL DETECTABLE WARNING PANEL ON ALL ACCESSIBLE CURB RAMPS.

ACCESSIBLE CURB RAMP–TYPE C

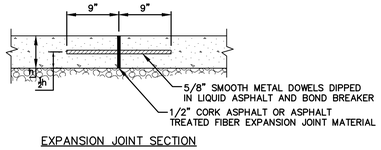
NOT TO SCALE



PLAN



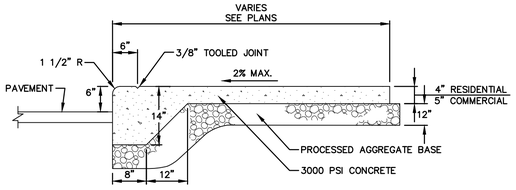
SIDEWALK SECTION



EXPANSION JOINT SECTION

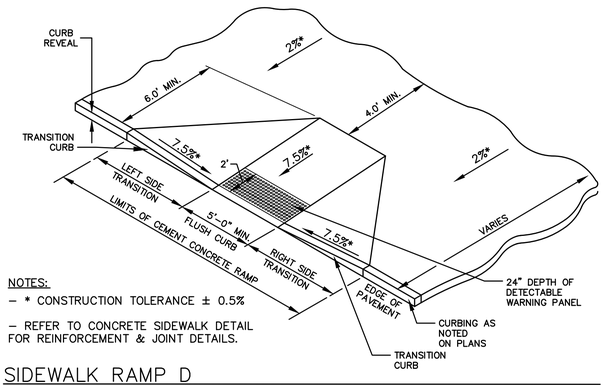
CONCRETE SIDEWALK

SCALE: NOT TO SCALE



MONOLITHIC CONCRETE CURB AND WALK

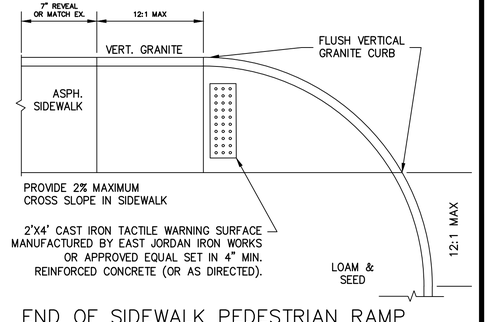
SCALE: NOT TO SCALE



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
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.: 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

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				10C				12	6.25	75.00				1		RED/WHITE
	R3-2	24	24						2.5		1	4.00	4.00						RED/WHITE MOUNT UNDER R1-1

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

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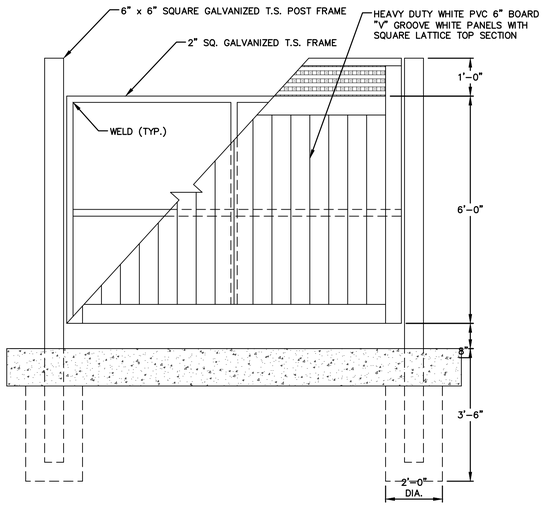
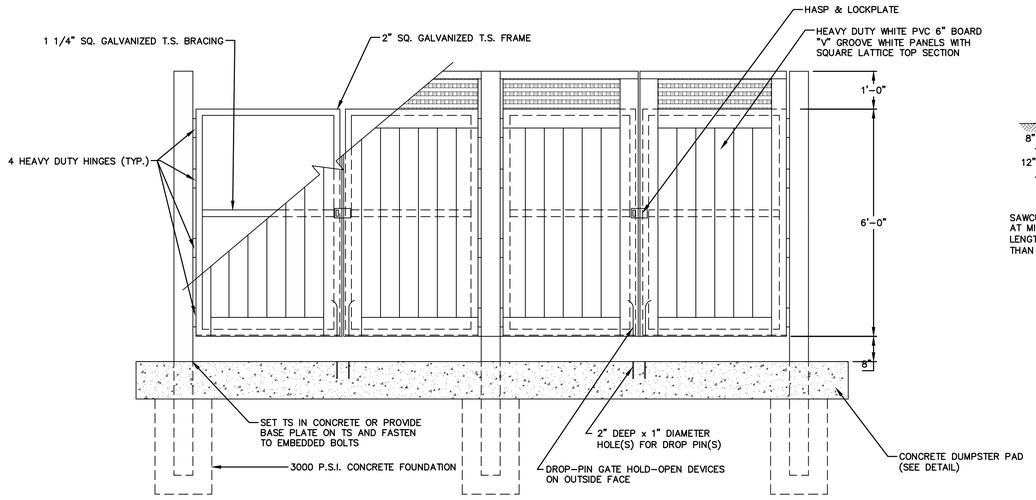
PROJ. No.: 20180317.A10
DATE: 06/20/2019

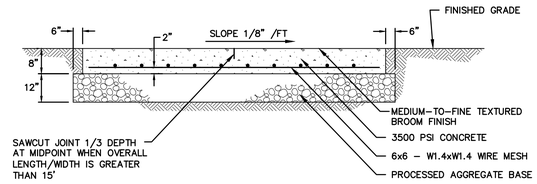
CD-551



SIDE ELEVATION

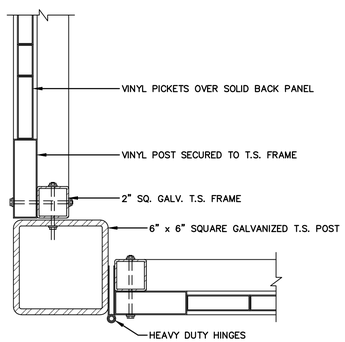


FRONT ELEVATION

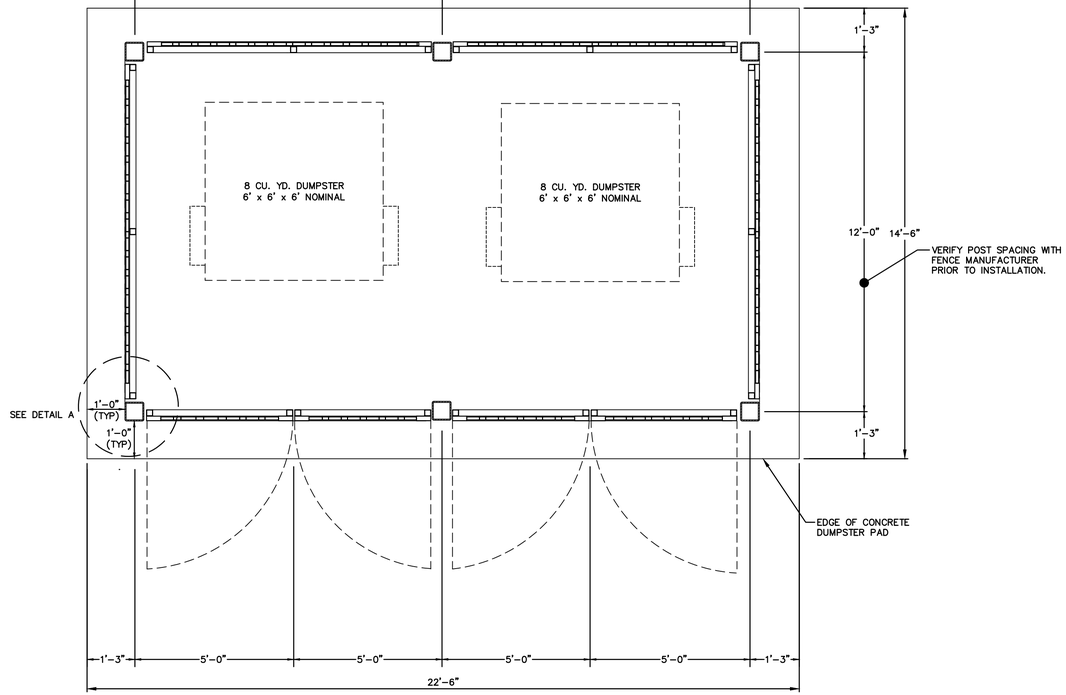


CONCRETE DUMPSTER PAD

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
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 LUNSFORD No. 10943 LICENSED

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SITE DETAILS

CATE STREET/ WEST END YARDS

PORTSMOUTH NEW HAMPSHIRE

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

CD-552

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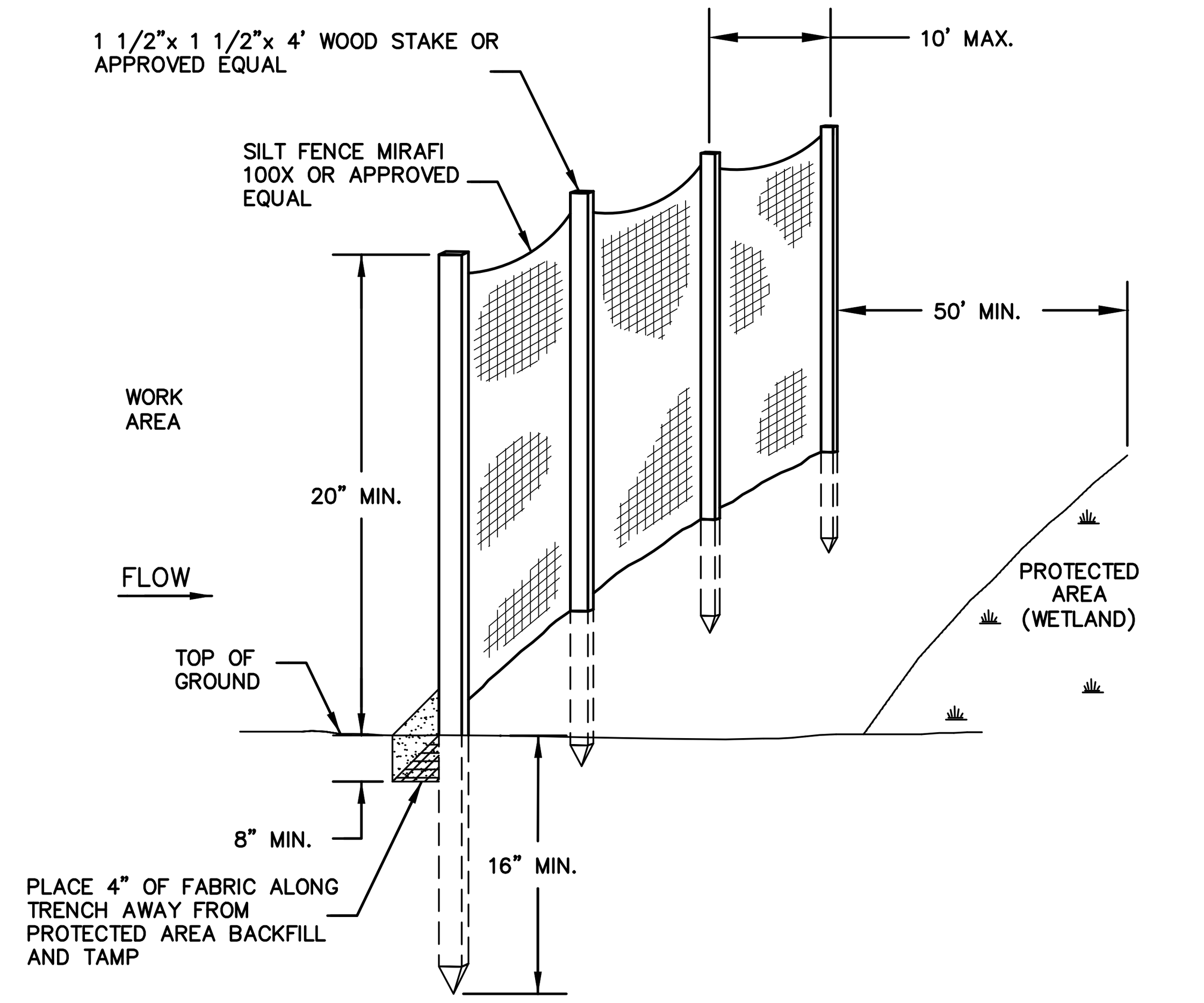


MAINTENANCE REQUIREMENTS:

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.

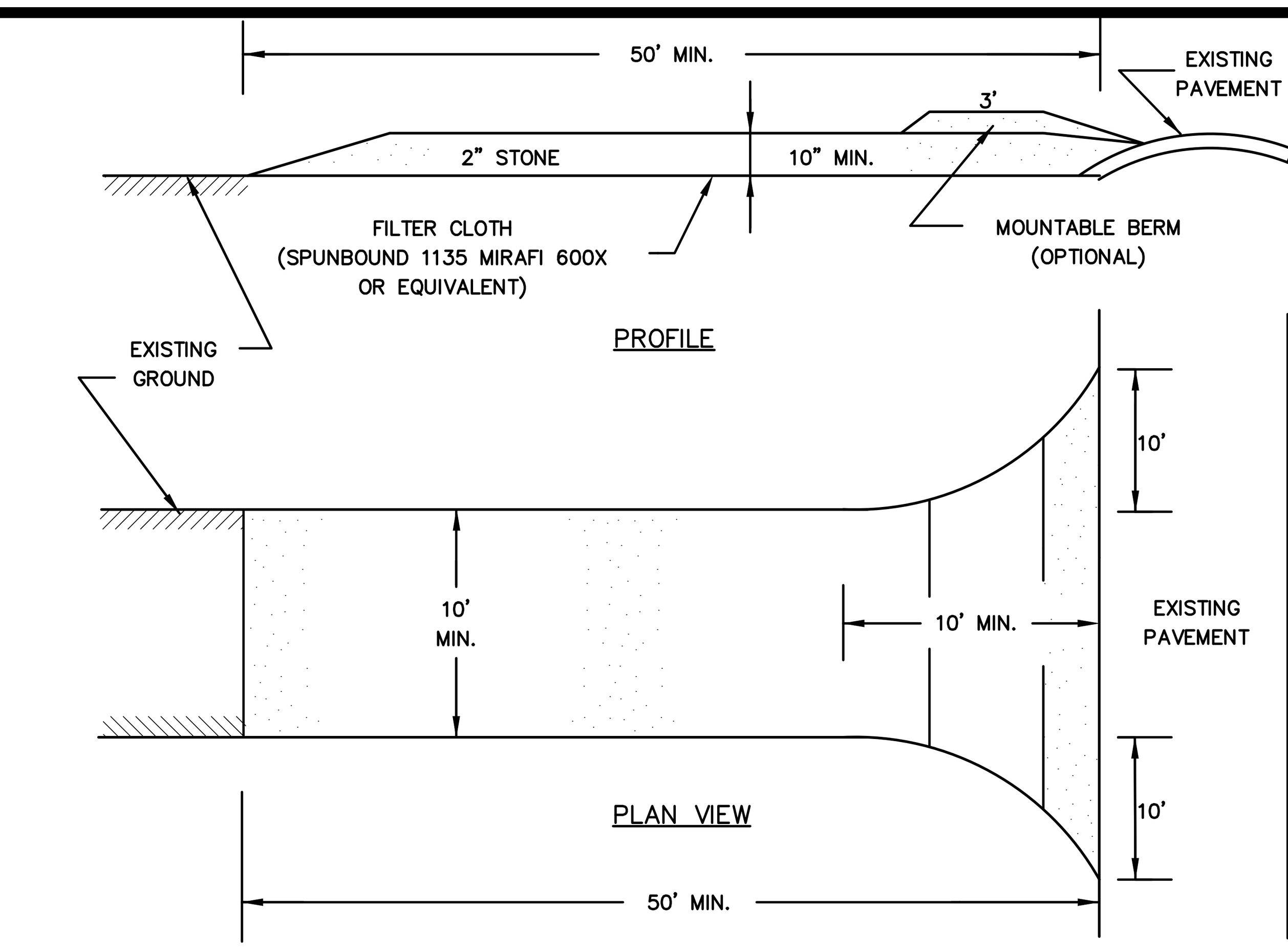
19. THE ENDS OF THE FENCE SHOULD BE TURNED UPHILL.

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:

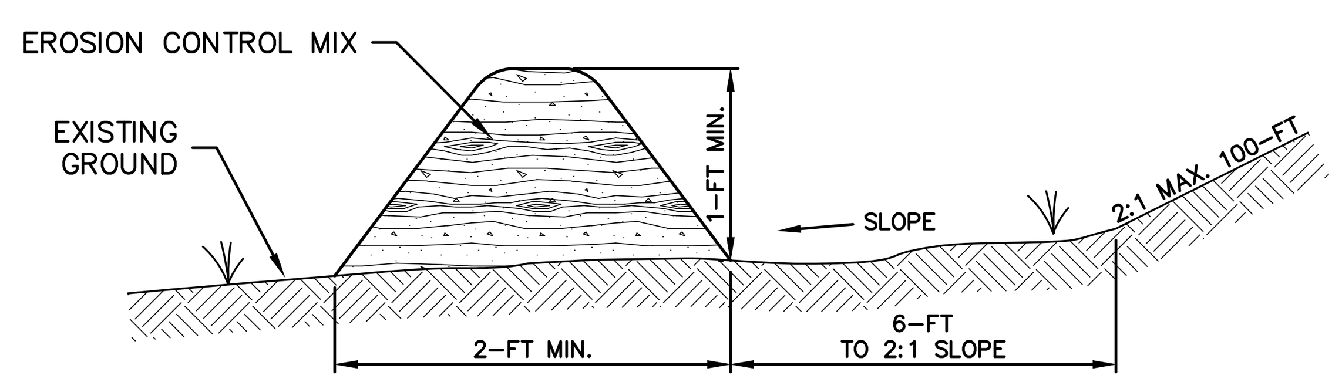
1. WHEN THE CONTROL PAD BECOMES INEFFECTIVE, THE STONE SHOULD BE REMOVED ALONG WITH THE COLLECTED SOIL MATERIAL, REGRADED ON SITE, AND STABILIZED. THE ENTRANCE SHOULD TEN BE RECONSTRUCTED.
2. THE CONTRACTOR SHOULD SWEEP THE PAVEMENT AT EXITS WHENEVER SOIL MATERIALS ARE TRACKED ONTO THE ADJACENT PAVEMENT 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.

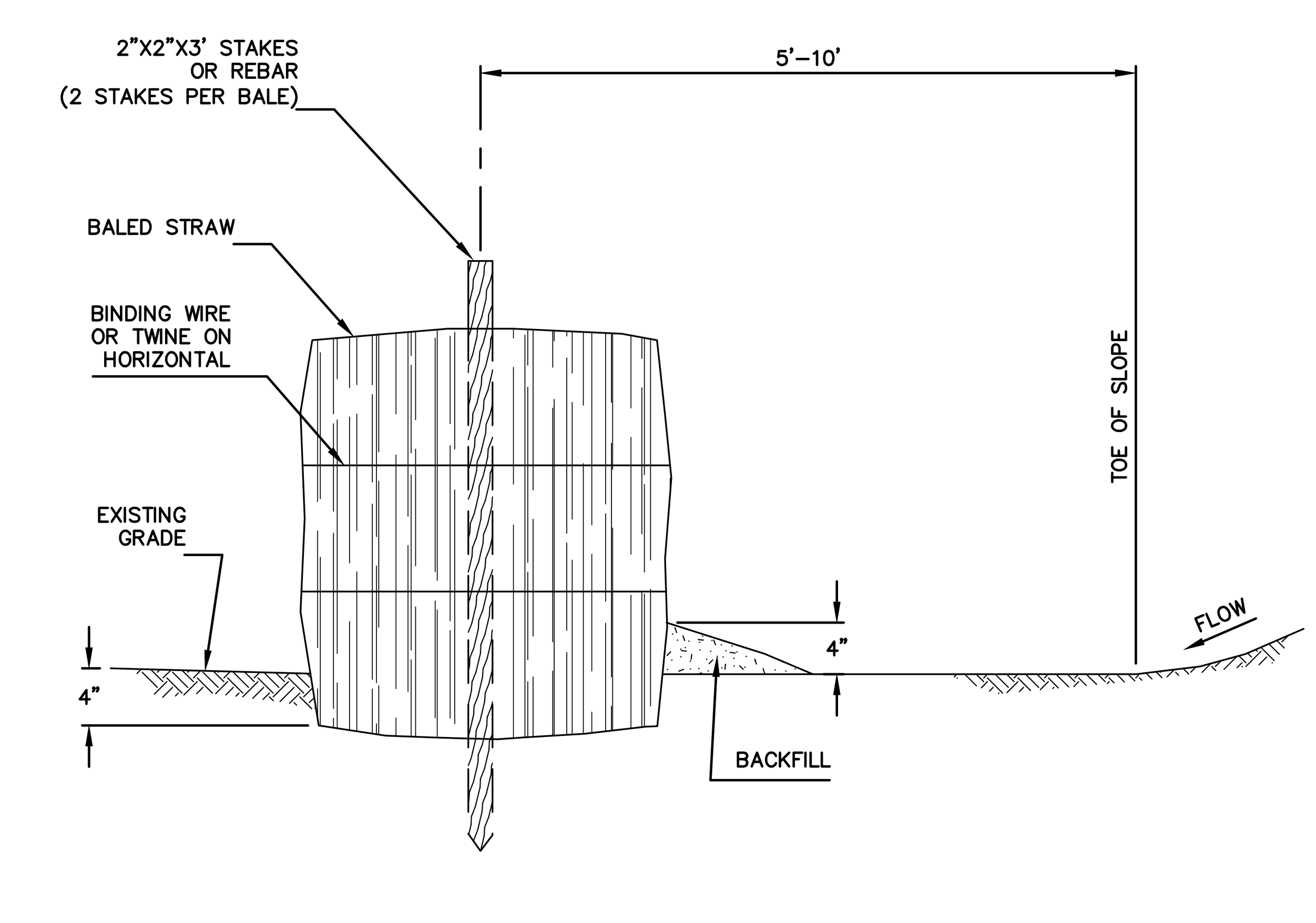
13. SEDIMENT BARRIERS THAT ARE INSTALLED DURING FROZEN CONDITIONS SHOULD CONSIST OF EROSION CONTROL MIX BERMS, OR CONTINUOUS CONTAINED BERMS. SILT FENCES AND HAY BALES SHOULD NOT BE INSTALLED WHEN FROZEN CONDITIONS PREVENT PROPER EMBEDMENT OF THESE BARRIERS.

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.

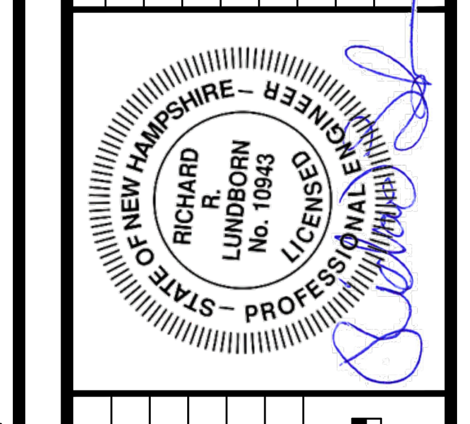
PROTECTION OF INACTIVE STOCKPILES:

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



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DATUM: HORZ.: VERT.:
GRAPHIC SCALE 0

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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-560

File Path: F:\P2018\0317\A10\Civil3\Dwg\20180317A10_DET01-SITE.dwg Layout: CD-560-ECP Plotted: Thu, June 20, 2019 - 3:00 PM User: ddugal
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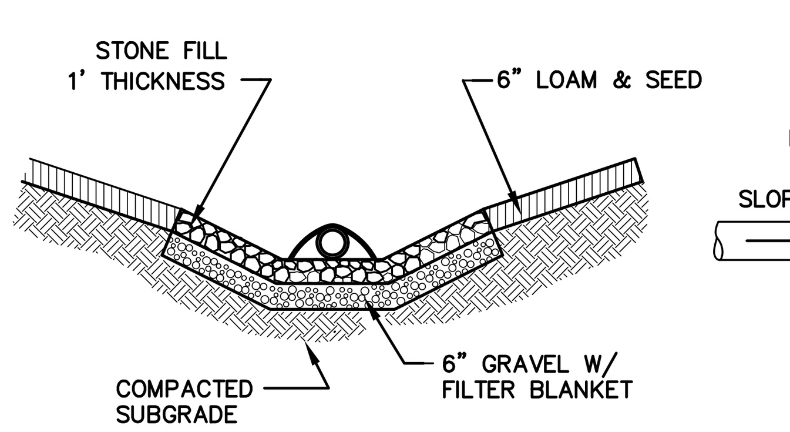
MS VIEW:
LAYER STATE:

D10=10"
RIP-RAP GRADATION

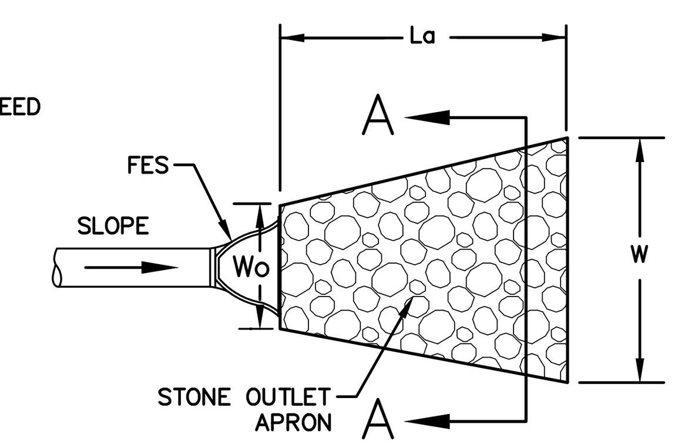
% OF WEIGHT SMALLER THAN THE GIVEN SIZE	SIZE OF STONE (INCHES)		
100	15	TO	20
85	13	TO	18
50	10	TO	15
15	3	TO	5

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.

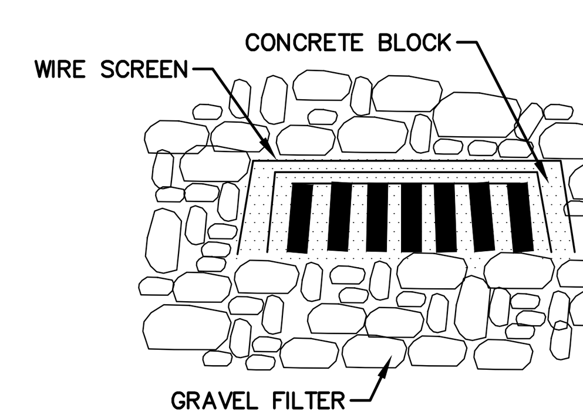
NOTES:
1. ALL PIPE CULVERTS SHALL HAVE END SECTIONS OR HEADWALLS. END SECTION MATERIAL AND MANUFACTURER SHALL MATCH THAT OF THE PIPE CULVERT.
2. THE LARGEST RIP-RAP SIZE DETERMINED DURING HYDROLOGIC ANALYSIS HAS BEEN USED FOR ALL OUTLETS FOR ECONOMY AND SIMPLICITY.
3. APRON LENGTHS, WIDTHS AND THICKNESSES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

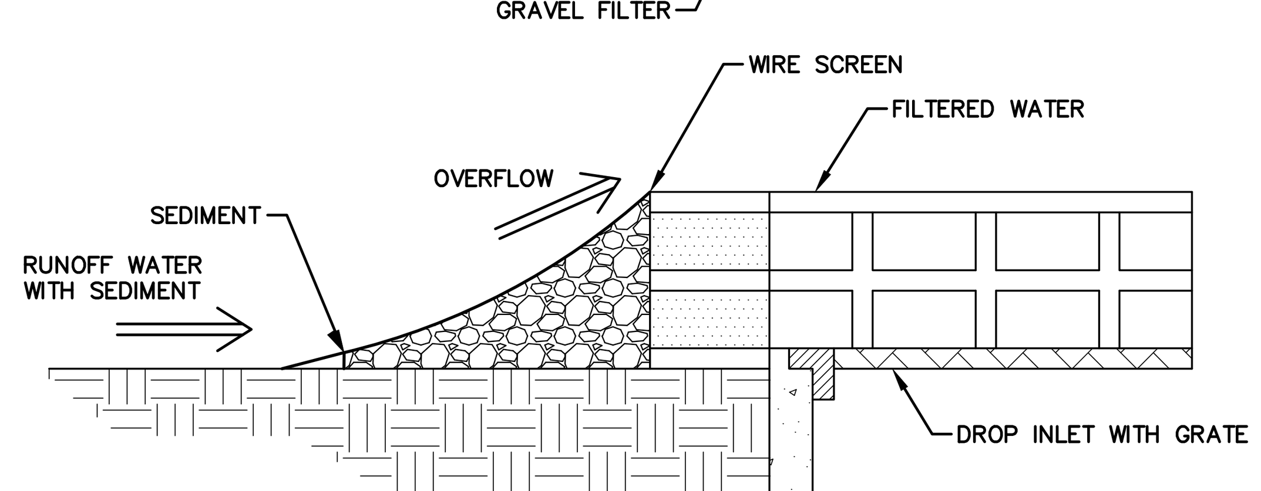
CONSTRUCTION SPECIFICATIONS:
1. PREPARE THE SUB-GRADE FOR THE FILTER MATERIAL, GEOTEXTILE FABRIC, AND RIP-RAP TO THE GRADES SHOWN ON THE PLANS.
2. MINIMUM 6" SAND/GRAVEL BEDDING OR GEOTEXTILE FABRIC REQUIRED UNDER ALL ROCK RIP-RAP.
3. THE ROCK OR GRAVEL USED FOR FILTER OR RIP-RAP SHALL CONFORM TO THE 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

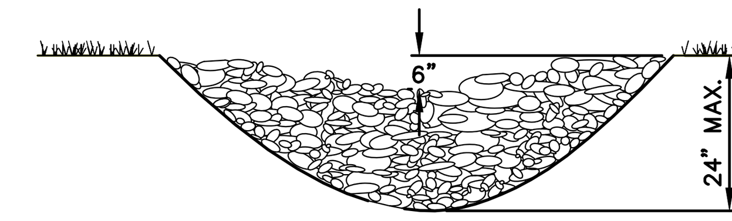
CONSTRUCTION SPECIFICATIONS:
1. PLACE CONCRETE BLOCKS LENGTHWISE ON THEIR SIDE IN A SINGLE ROW AROUND THE PERIMETER OF THE INLET, WITH THE ENDS OF ADJACENT BLOCKS ABUTTING. THE HEIGHT OF THE BARRIER CAN BE VARIED, DEPENDING ON DESIGN NEEDS, BY STACKING COMBINATIONS OF 4-INCH, 8-INCH AND 12-INCH WIDE 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.

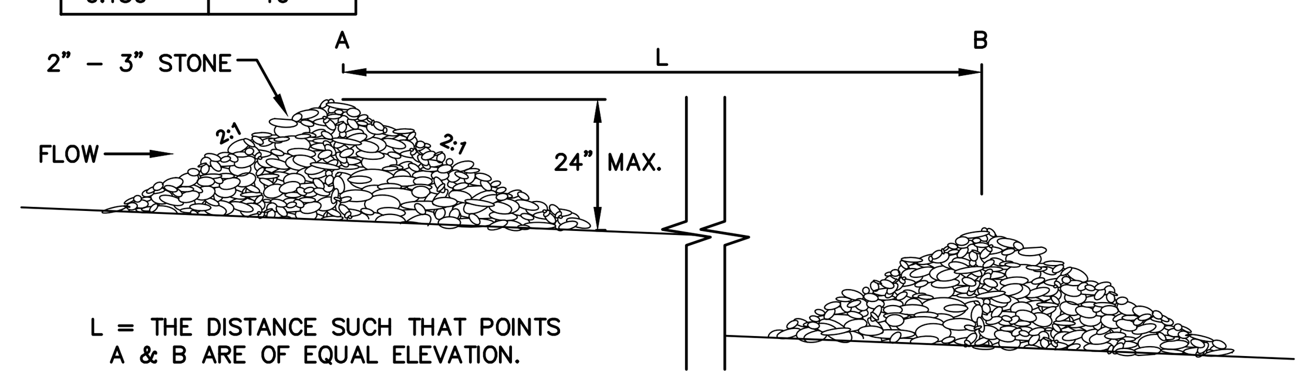
SEDIMENTATION CONTROL AT CATCH BASINS

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.

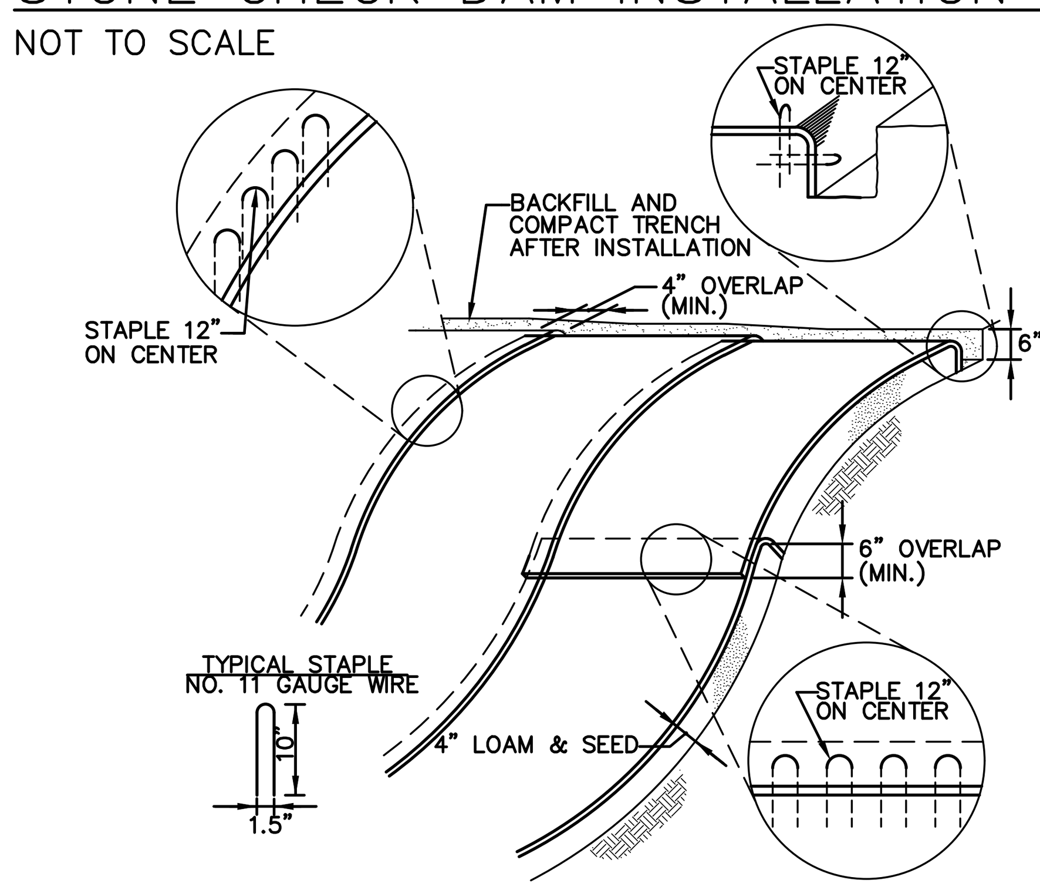
SPACING BETWEEN STONE CHECK DAMS

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.

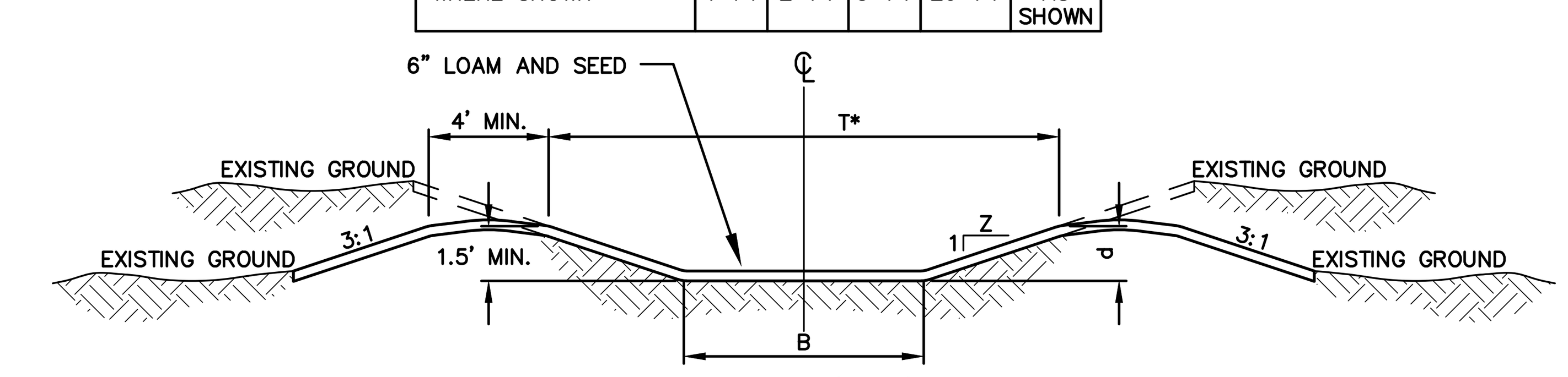
TEMPORARY VEGETATION SEEDING RECOMMENDATIONS

SPECIES	PER ACRE BUSHELS (BU) OR 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 – RICHARD R. LUNDBORN No. 10943 LICENSED PROFESSIONAL ENGINEER

[illegible]

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

DETAILS

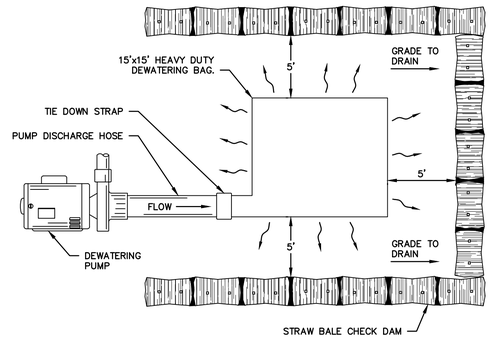
CATE STREET/ WEST END YARDS

PORTSMOUTH NEW HAMPSHIRE

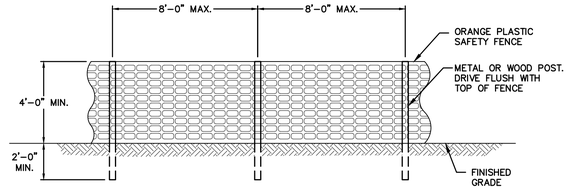
PROJ. No.: 20180317.A10
DATE: 06/20/2019

CD-561

File Path: F:\P2018\0317\A10\Civil3\Dwg\20180317A10_DET01-SITE.dwg Layout: CD-561-ECP Plotted: Thu, June 20, 2019 - 3:00 PM User: ddugal
Plotter: DWG TO PDF.PC3 CTB File: FO.STB
MS VIEW:
LAYER STATE:

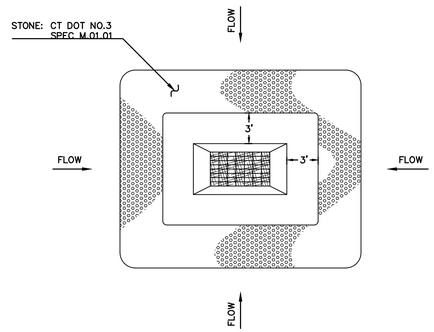


DEWATERING BAG
NOT TO SCALE

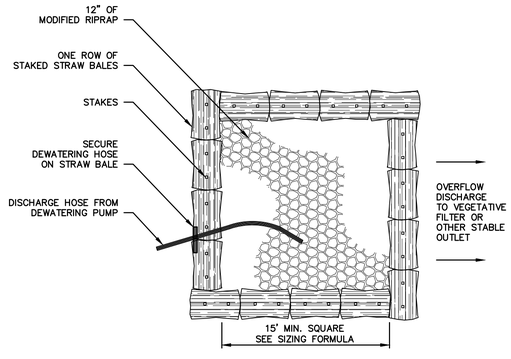


FOR TREE PROTECTION FENCE SHALL BE PLACED AT DRIPLINE OF TREES.

PROTECTIVE SAFETY FENCE
SCALE: N.T.S.



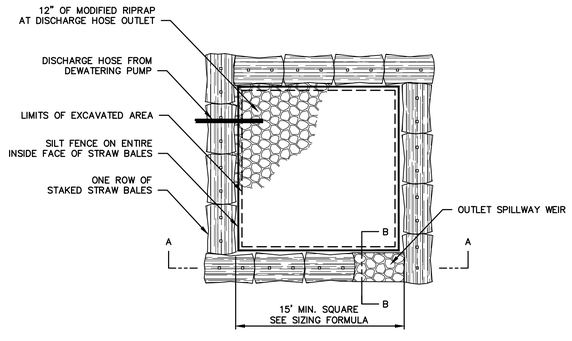
LOW POINT STONE CHECK DAM
NOT TO SCALE



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

PLAN

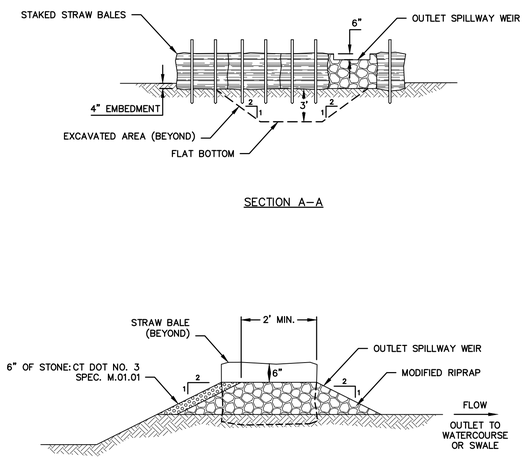
PUMP SETTLING BASIN TYPE I
NOT TO SCALE



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

STATE OF NEW HAMPSHIRE – PROFESSIONAL ENGINEER – RICHARD R. LUNDBORN No. 10843 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
EROSION CONTROL DETAILS
CATE STREET/ WEST END YARDS
PORTSMOUTH NEW HAMPSHIRE

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

CD-562

File Path: F:\P2018\0317A10\Civil\Dwg\20180317A10_DET01-SITE.dwg Layout: CD-562-ECP Plotted: Thu, June 20, 2019 - 3:00 PM User: ddugal
MS VIEW: LAYER STATE: Plotter: DWG TO PDF.PC3 CTB File: FO.STB

File Path: F:\P2018\0317\A10\Civil3\Dwg\20180317.A10_CT01.dwg Layout: CT-201 Plotted: Thu, June 20, 2019 - 2:13 PM User: sleonardo
MS VIEW: | LAYER STATE: | Plotter: DWG TO PDF.PC3 CTB File: FO.STB

CT-201

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

CATE STREET DEVELOPMENT, LLC

SU-40 BOX TRUCK
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
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

File Path: F:\P2018\0317\A10\Civil3\Dwg\20180317.A10_CT01.dwg Layout: CT-202 Plotted: Thu, June 20, 2019 - 2:13 PM User: sleonardo
MS VIEW: | LAYER STATE: | Plotter: DWG TO PDF.PC3 CTB File: FO.STB

CT-202

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

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
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GRAPHIC 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

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

CT-203

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

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

CT-204

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

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"=20'
VERT.: 1"=20'
DATUM:
HORZ.: NAD83
VERT.: NGVD29
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GRAPHIC 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

File Path: F:\P2018\0317\A10\Civil3\Dwg\20180317.A10_CT01.dwg Layout: CT-205 Plotted: Thu, June 20, 2019 - 2:13 PM User: sleonardo
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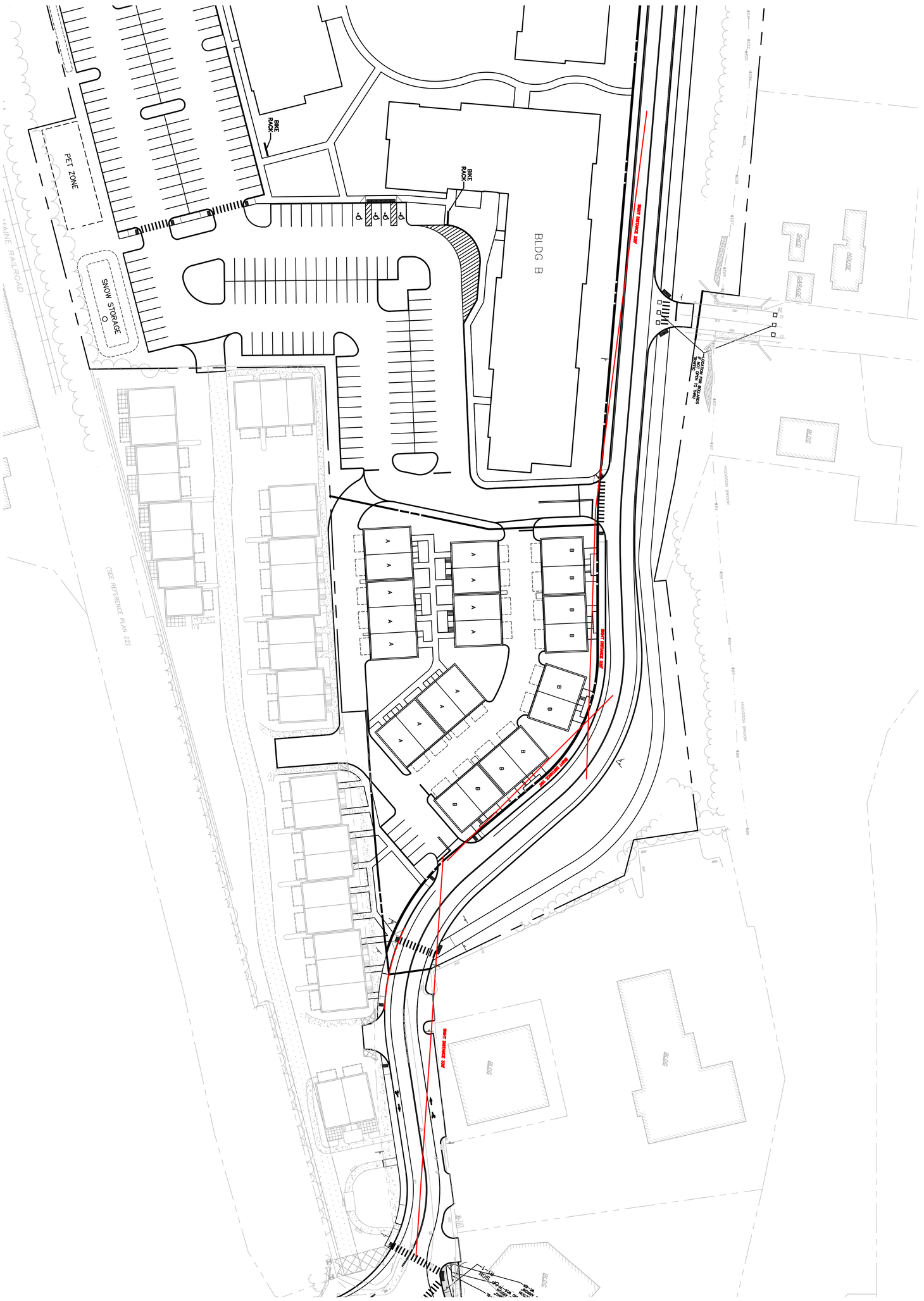


CT-205

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

CATE STREET DEVELOPMENT, LLC

SIGHT DISTANCE

CATE STREET/ WEST END YARDS

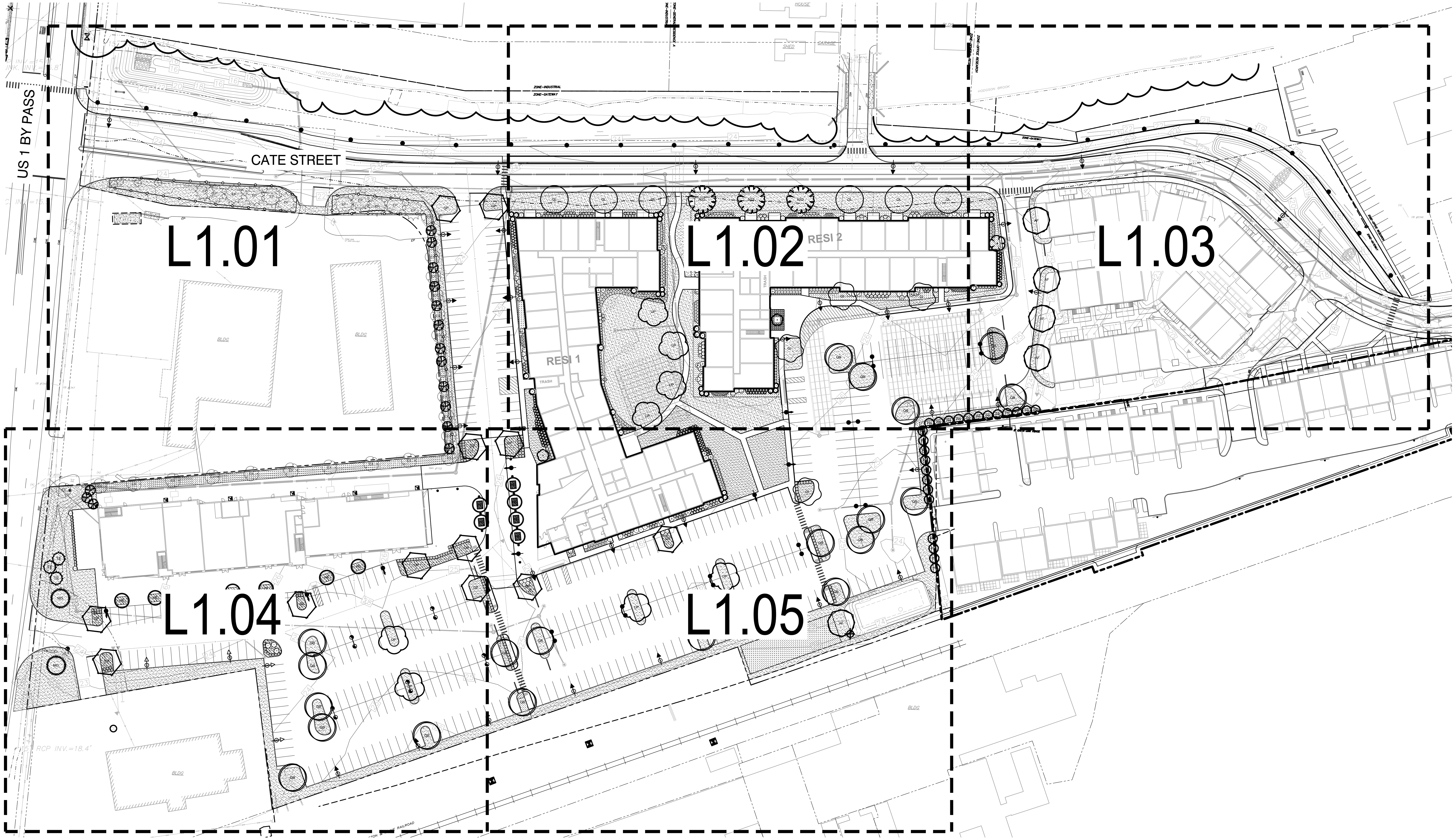
PORTSMOUTH NEW HAMPSHIRE

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

SCALE:	
HORZ.:	1"=20'
VERT.:	1"=20'
DATUM:	
HORZ.:	NAD83
VERT.:	NGVD29

20 10 0 20
GRAPHIC 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



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
300 Northcreek, Bldg. 300
Atlanta, Georgia 30327
T: 404.705.9411
F: 404.705.9491
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

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

HODGSON BROOK

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

BLDG

BLDG

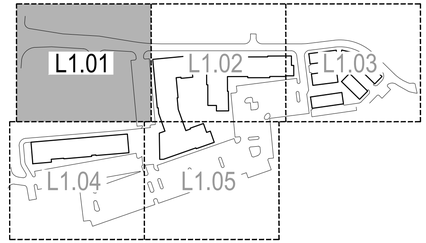
FA 367

FA 10,674

MM 4,548

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
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

SHEET TITLE:

LANDSCAPE PLAN

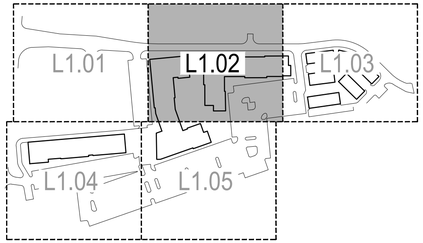
PROJECT NUMBER:
18041.00

L1.01

DATE: 03.18.2019

PERMIT ISSUE

SHED
GARAGE
BLDG
CB #1743
CB #1742
EXISTING TREE LINE
CATE STREET
RESIDENT PATIOS TYP.
100 FT. WETLAND BUFFER
DROP OFF AREA
COURTYARD
SHEET L1.01
SHEET L1.03
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
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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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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

SHEET TITLE:

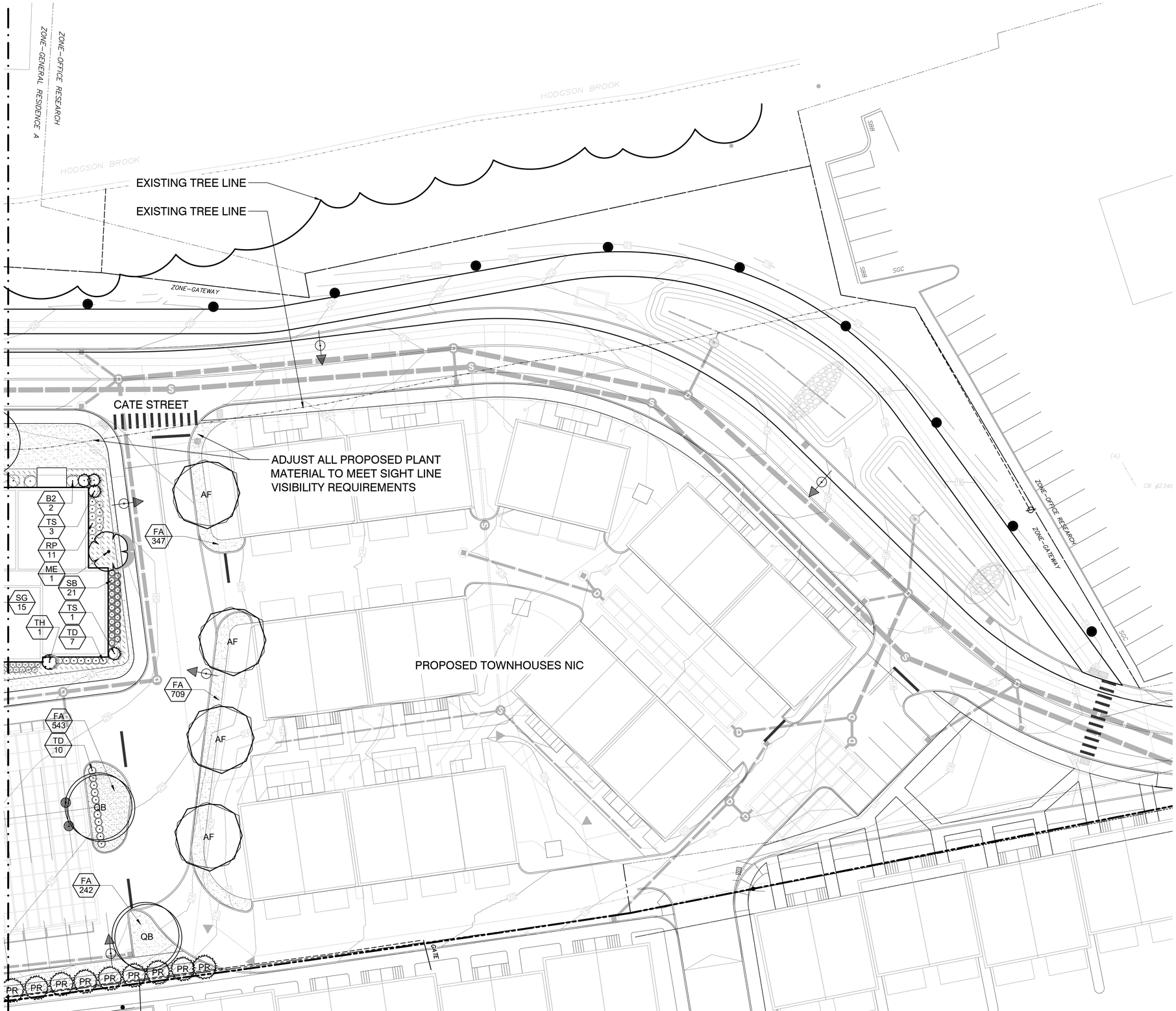
LANDSCAPE PLAN

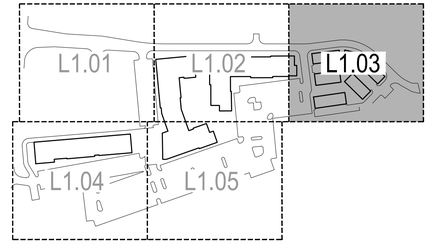
PROJECT NUMBER:
18041.00

L1.02

DATE: 03.18.2019

PERMIT ISSUE





PLANT SCHEDULE PLANT SCHEDULE	
TREES	BOTANICAL / COMMON NAME
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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
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QB	Quercus bicolor / Swamp White Oak
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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

SHEET TITLE:

LANDSCAPE PLAN

PROJECT NUMBER:
18041.00

L1.03

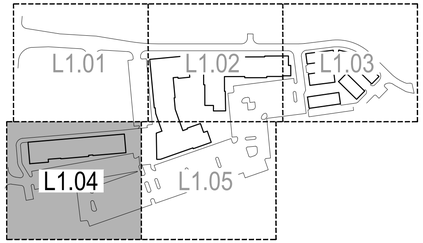
DATE: 03.18.2019

PERMIT ISSUE

SHEET L1.01

EXISTING SCREEN FENCE & WALL TO REMAIN
REPAIR FENCE WHERE REQUIRED
EXISTING TREES TO REMAIN
PROPERTY LINE
EXISTING FENCE & WALL TO REMAIN
REPAIR FENCE WHERE REQUIRED
PROPOSED TREE PROTECTION FENCE
PROPOSED PROGRAMMED SPACE FOR FOOD HALL TENANTS
FUTURE PATIO EXPANSION
ADJUST ALL PROPOSED PLANT MATERIAL TO MEET SIGHT LINE VISIBILITY REQUIREMENTS
PROPERTY LINE
US 1 BY PASS
BLDG
MAINE RAILROAD

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'

SITE solutions
LANDSCAPE ARCHITECTURE+ LAND PLANNING
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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

SHEET TITLE:

LANDSCAPE PLAN

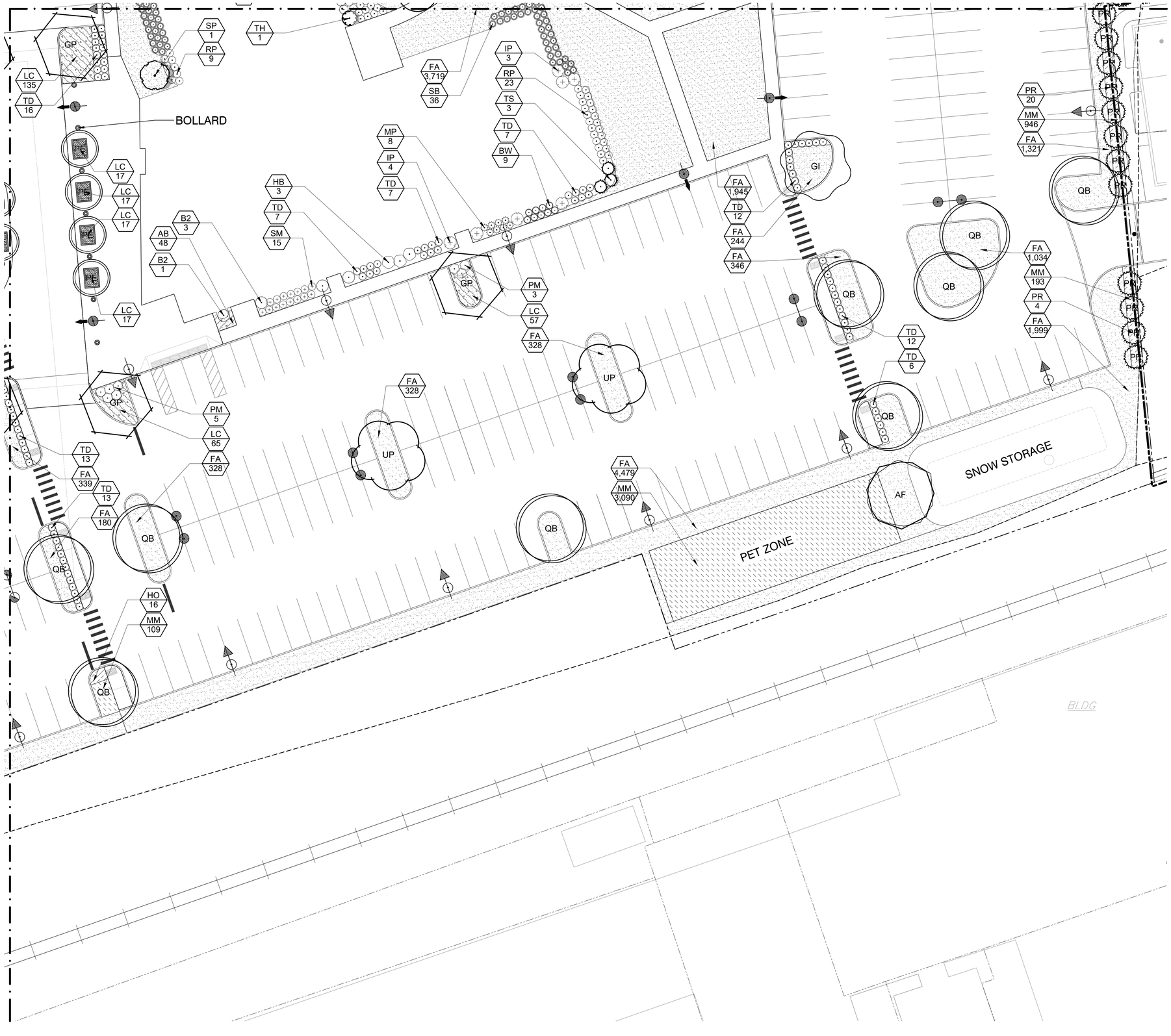
PROJECT NUMBER:
18041.00

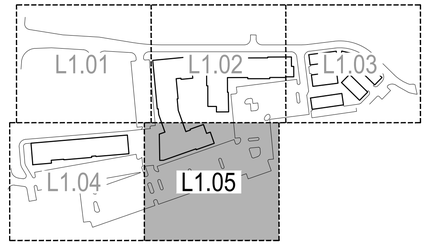
L1.04

DATE: 03.18.2019

PERMIT ISSUE

SHEET L1.04





PLANT SCHEDULE PLANT SCHEDULE

TREES	BOTANICAL / COMMON NAME
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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
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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
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SB	Schizachyrium scoparium `Blue Heaven` / Blue Heaven Little Bluestem
SG	Spiraea japonica `Goldmound` / Spirea
SM	Syringa meyeri `Palibin` / Dwarf Korean Lilac
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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

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
LANDSCAPE ARCHITECTURE+ LAND PLANNING
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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

SHEET TITLE:

LANDSCAPE NOTES & PLANT SCHDULES

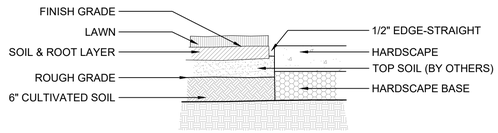
PROJECT NUMBER:

18041.00

L1.06

DATE: 03.18.2019

PERMIT ISSUE

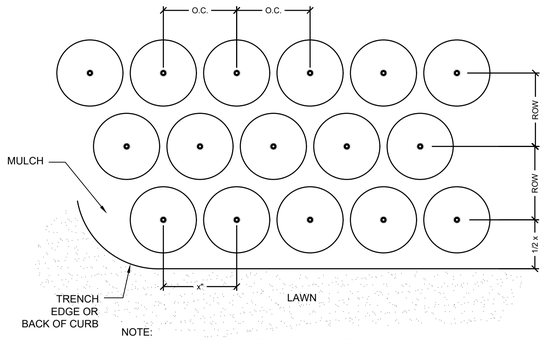


INSTALLATION NOTES:

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

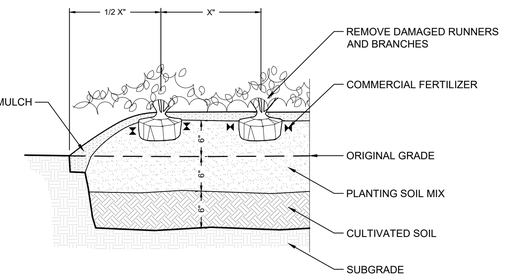
SCALE: N.T.S.



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

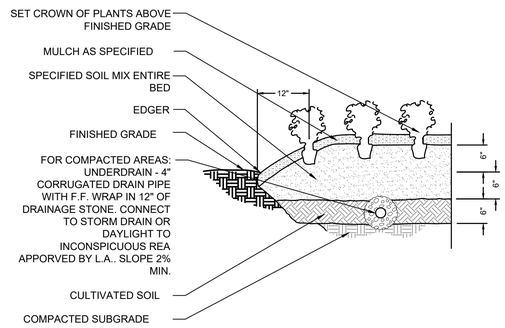
SCALE: NTS



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.

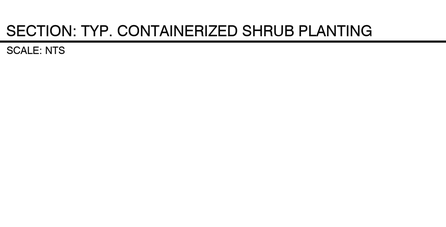
SCALE: NTS



NOTES:
1. REFER TO SPECIFICATIONS FOR FERTILIZATION REQUIREMENTS.

7 SECTION: SEASONAL COLOR & PERENNIAL BED PREP.

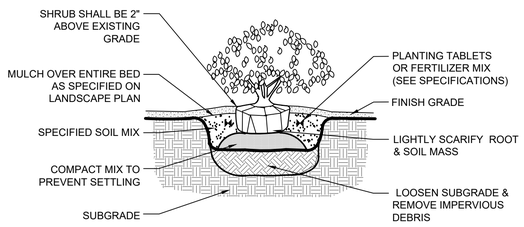
SCALE: NTS



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

2 SECTION: TRENCH EDGE

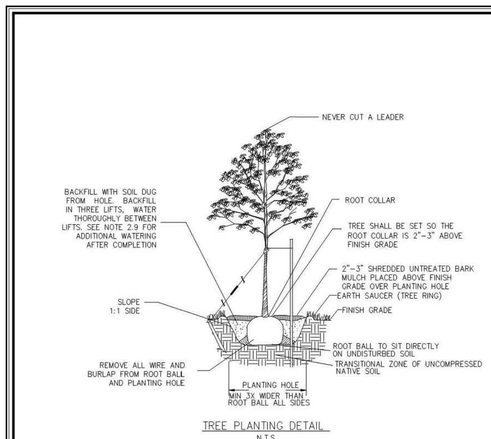
SCALE: NTS



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



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 BURLAP 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 REVISIONS	DATE

STANDARD DETAIL OF TREE PLANTING
PORTSMOUTH, NEW HAMPSHIRE

DRAWING SCALE: NTS — March, 2019

5 DETAIL: TREE PLANTING

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 inferior 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/ trailer 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. zip 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

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

3715 Northside Parkway T: 404.705.9411
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C	06/20/2019	SS	TAC RE-SUBMITTAL

SHEET TITLE:

IRRIGATION LAYOUT PLAN

PROJECT NUMBER:
18041.00

IR1.01

DATE: 03.18.2019

PERMIT ISSUE

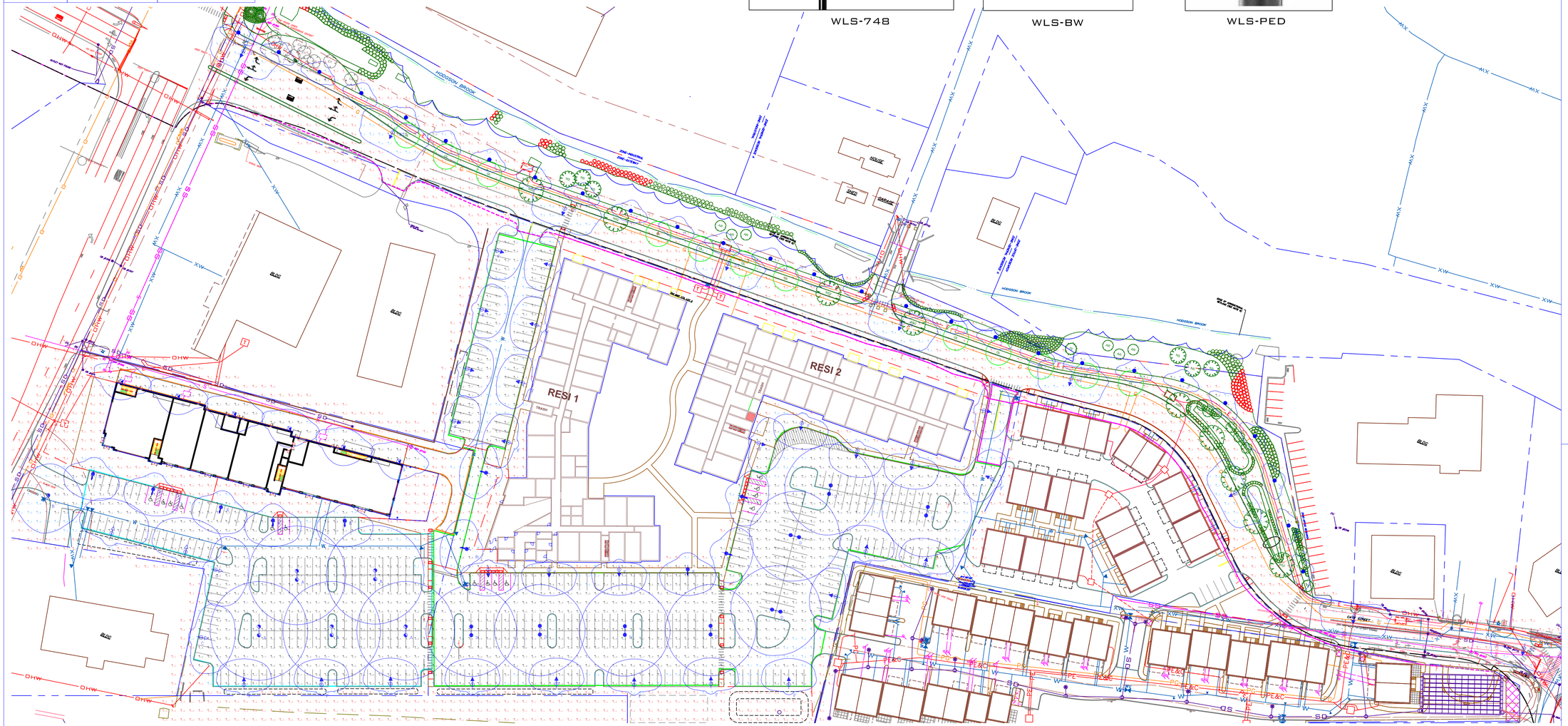
REVISIONS			
5	6/20/19	TO	

Rev #	Date	BY:
1	12/10/18	TO
2	3/17/19	TO
3	5/16/19	TO
4	5/19/19	TO

WLS-748

WLS-BW

WLS-PED



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	3.7	7.2	0.9	4.1	8.0	10	10
RETAIL REAR AND SIDE	2.3	4.7	0.3	7.7	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
	27	J	N.A.	0.980	WLS-PED-2M-P8-02-525-4K 8' MOUNTING HEIGHT	34
	9	ST	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!

PM: ROBBY | BY: TO | SHEET 1 OF 1

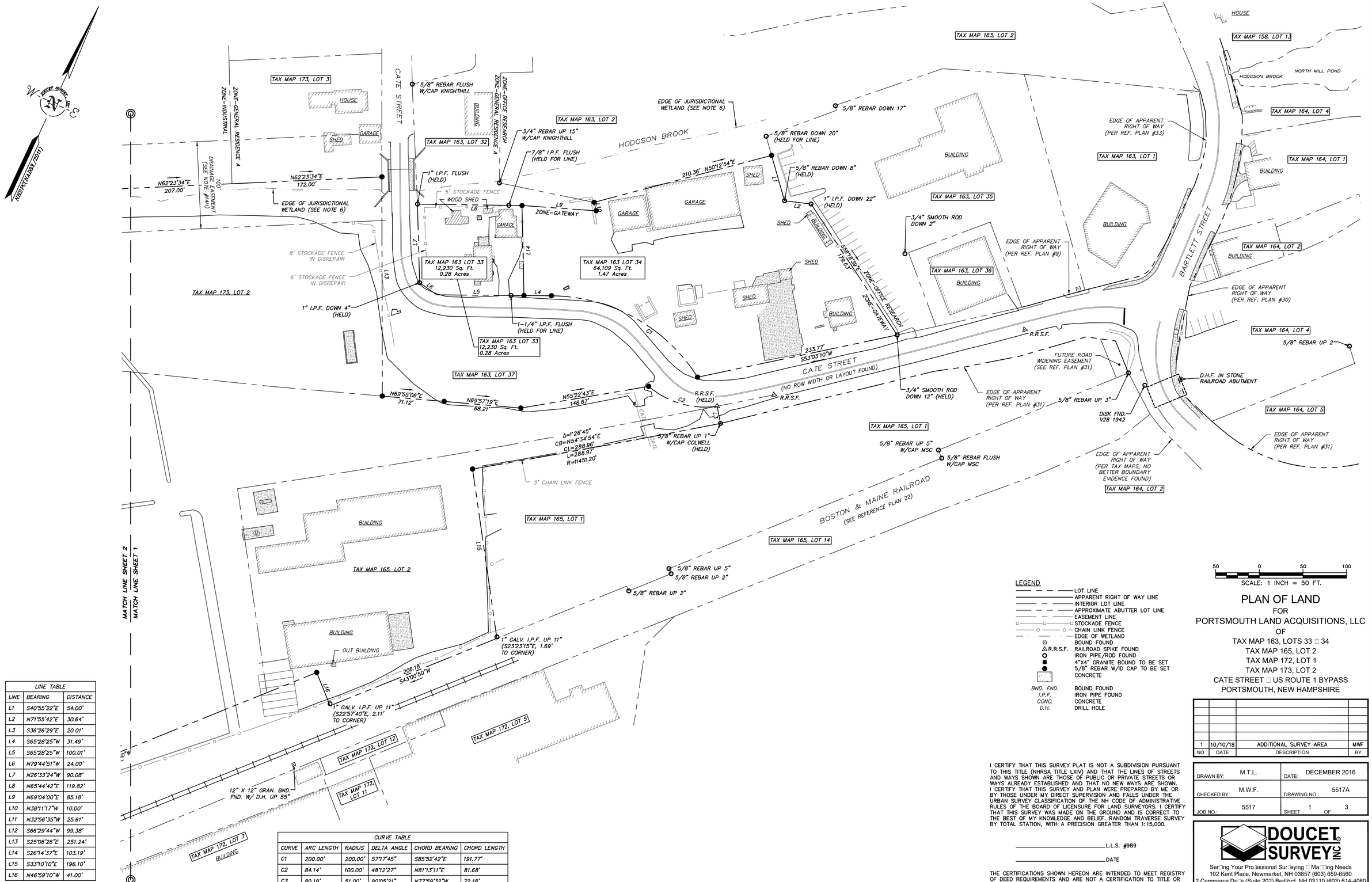
800-633-8711

WEST END YARDS
PORTSMOUTH, NH

SCALE: 1"=60'

DATE - 11/16/18

WLS-14527A



LINE TABLE		
LINE	BEARING	DISTANCE
L1	S40°55'22"E	54.00'
L2	N71°55'42"E	30.64'
L3	S36°26'29"E	20.01'
L4	S65°28'25"W	31.49'
L5	S65°28'25"W	100.01'
L6	N79°44'51"W	24.00'
L7	N26°33'24"W	90.08'
L8	N65°44'42"E	119.82'
L9	N69°04'00"E	85.18'
L10	N38°11'17"W	10.00'
L11	N32°56'35"W	25.61'
L12	S66°29'44"W	99.38'
L13	S25°06'26"E	251.24'
L14	S26°14'37"E	103.19'
L15	S33°10'10"E	196.10'
L16	N46°59'10"W	41.00'

CURVE TABLE					
CURVE	ARC LENGTH	RADIUS	DELTA ANGLE	CHORD BEARING	CHORD LENGTH
C1	200.00'	200.00'	57°17'45"	S85°52'42"E	191.77'
C2	84.14'	100.00'	48°12'27"	N81°13'11"E	81.68'
C3	80.19'	51.00'	90°05'21"	N77°59'32"W	72.18'

LEGEND

	LOT LINE
	APPARENT RIGHT OF WAY LINE
	INTERIOR LOT LINE
	APPROXIMATE ABUTTER LOT LINE
	EASEMENT LINE
	STOCKADE FENCE
	CHAIN LINK FENCE
	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
	CONCRETE
BND. FND.	BOUND FOUND
I.P.F.	IRON PIPE FOUND
CONC.	CONCRETE
D.H.	DRILL HOLE

50 0 50 100

SCALE: 1 INCH = 50 FT.

PLAN OF LAND

FOR

PORTSMOUTH LAND ACQUISITIONS, 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
1	10/10/18	ADDITIONAL SURVEY AREA	MWF

I CERTIFY THAT THIS SURVEY PLAT IS NOT A SUBDIVISION PURSUANT TO THIS TITLE (NHRSA TITLE LXIV) AND THAT THE LINES OF STREETS AND WAYS SHOWN ARE THOSE OF PUBLIC OR PRIVATE STREETS OR WAYS ALREADY ESTABLISHED AND THAT NO NEW WAYS ARE SHOWN. I CERTIFY THAT THIS SURVEY AND PLAN WERE PREPARED BY ME OR BY THOSE UNDER MY DIRECT SUPERVISON 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.

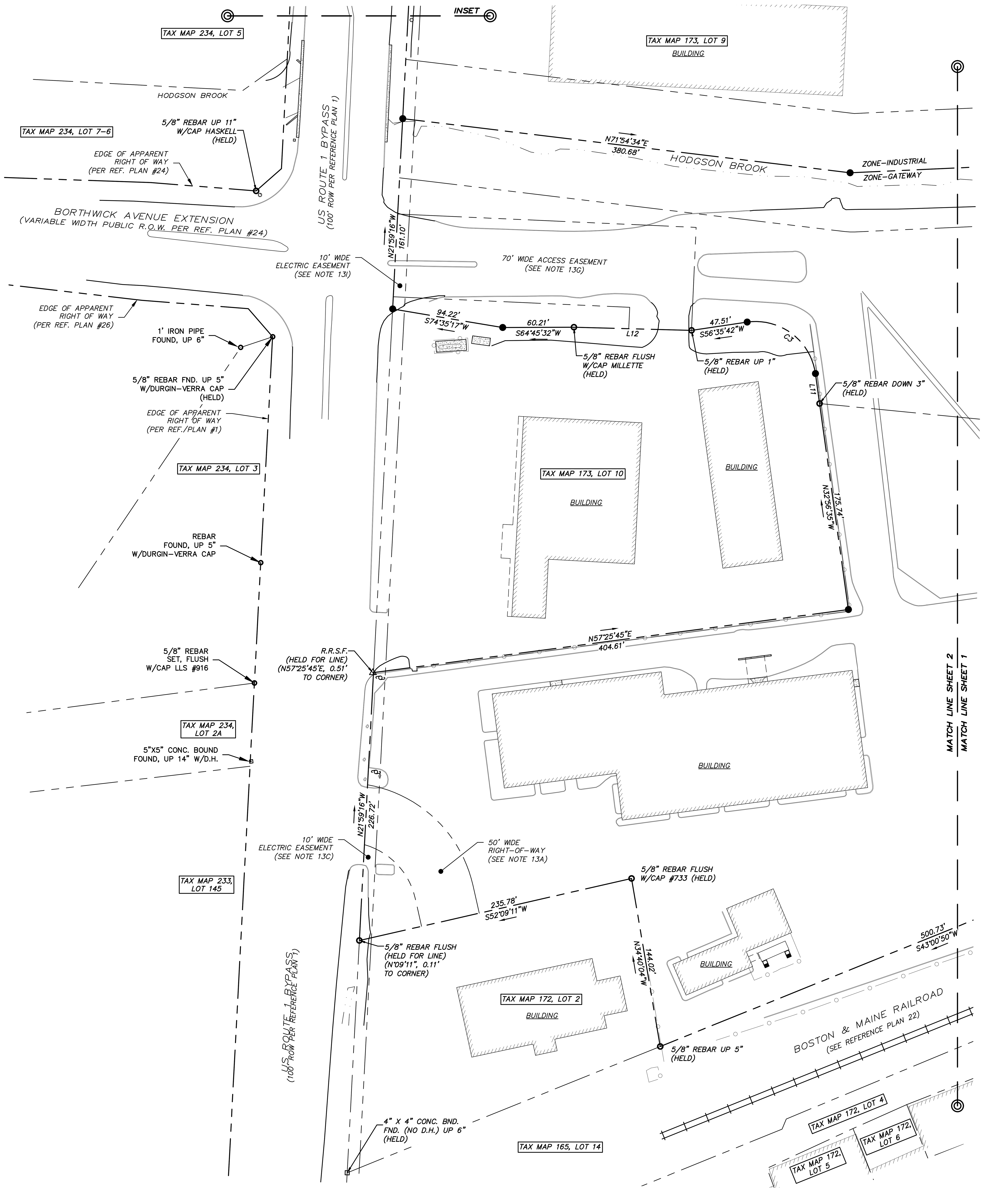
_____ L.L.S. #989

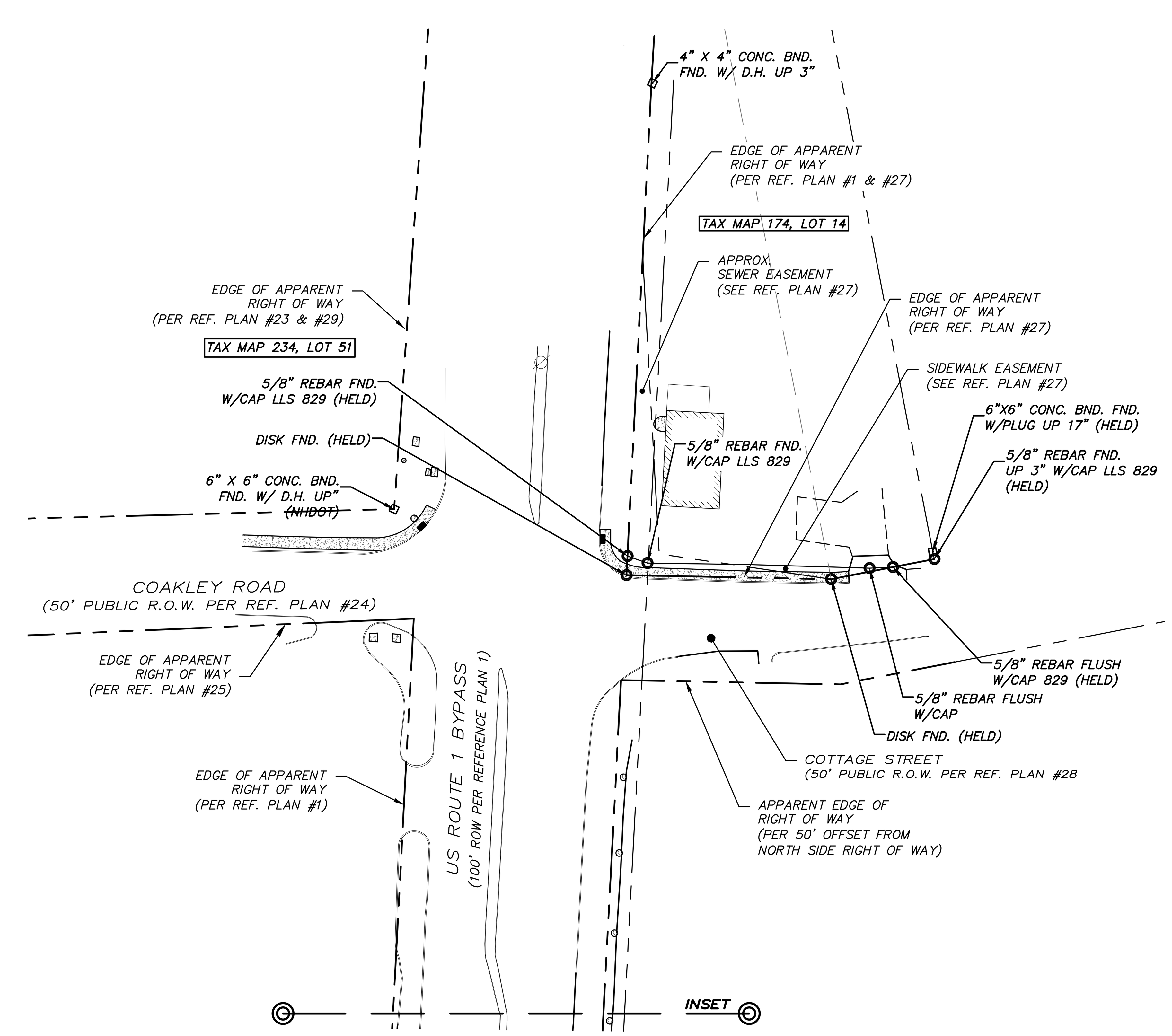
_____ DATE

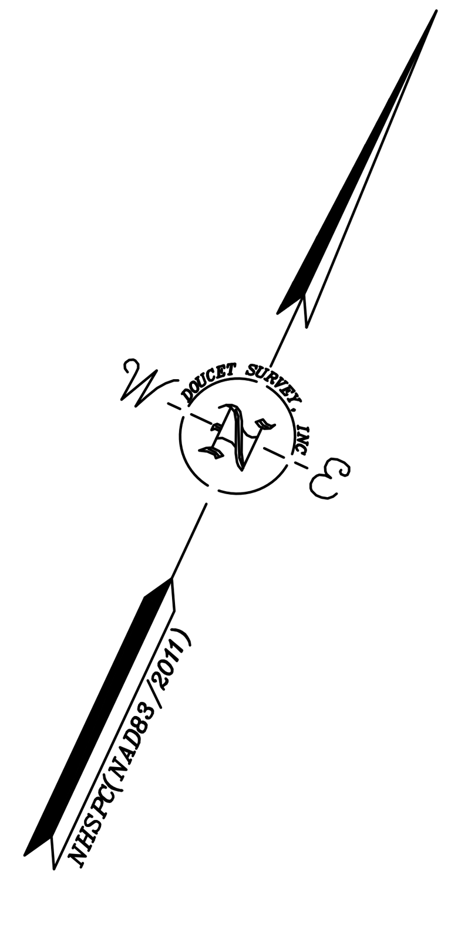
THE CERTIFICATIONS SHOWN HEREON ARE INTENDED TO MEET REGISTRY OF DEED REQUIREMENTS AND ARE NOT A CERTIFICATION TO TITLE OR OWNERSHIP OF PROPERTY SHOWN. OWNERS OF ADJOINING PROPERTIES ARE ACCORDING TO CURRENT TOWN ASSESSORS RECORDS.

DRAWN BY:	M.T.L.	DATE:	DECEMBER 2016
CHECKED BY:	M.W.F.	DRAWING NO.:	5517A
JOB NO.:	5517	SHEET	1 OF 3

DOUCET SURVEY INC
Ser□ing Your Pro□essional Sur□eying □ Ma□□ing Needs
102 Kent Place, Newmarket, NH 03857 (603) 659-6560
2 Commerce Dri□e (Suite 202) Bed□ord, NH 03110 (603) 614-4060
10 Storer Street (Ri□er□iew Suite) Kenne□unk, ME (207) 502-7005
htt□://www.doucetsur□ey.com







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50 0 50 100

SCALE: 1 INCH = 50 FT.

LEGEND

- LOT LINE
- APPARENT RIGHT OF WAY LINE
- INTERIOR LOT LINE
- APPROXIMATE ABUTTER LOT LINE
- EASEMENT LINE
- STOCKADE FENCE
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- BND. FND. BOUND FOUND
- I.P.F. IRON PIPE FOUND
- CONC. CONCRETE
- D.H. DRILL HOLE

PLAN OF LAND

FOR

PORTSMOUTH LAND ACQUISITIONS, 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

1	10/10/18	ADDITIONAL SURVEY AREA	MWF
NO.	DATE	DESCRIPTION	BY

DRAWN BY: M.T.L.	DATE: DECEMBER 2016
CHECKED BY: M.W.F.	DRAWING NO.: 5517A
JOB NO.: 5517	SHEET 2 OF 3

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

______________________ DATE

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DOUCET SURVEY INC

Ser□ing Your Pro□essional Sur□eying □ Ma□□ing Needs
102 Kent Place, Newmarket, NH 03857 (603) 659-6560
2 Commerce Dri□e (Suite 202) Bed□ord, NH 03110 (603) 614-4060
10 Storer Street (Ri□er□iew Suite) Kenne□unk, ME (207) 502-7005
htt□://www.doucetsur□ey.com

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 5606, PAGE 2334

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

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

TAX MAP 163, LOT 2
INDUSTRIAL RENTS–NH, LLC
6 WAYNE RD
WESTFORD, MA 01886
R.C.R.D. BOOK 5606 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 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
MERTON ALAN INVESTMENTS, LLC
C/O JOAN RYAN & CASSASSA
459 LAFAYETTE RD
HAMPTON, NH 03842
R.C.R.D. BOOK 4771 PAGE 1259

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
COLMAN C. GARLAND
416 SADDLEBACK DRIVE
FARIVIEW. TX 75069
R.C.R.D. BOOK 2232, PAGE 1002

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

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______________________ L.L.S. #989

______________________ 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.

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

2. TOTAL PARCEL AREA: TAX MAP 163, LOT 33–12,230 SQ. FT. OR 0.28 AC.
TAX MAP 163, LOT 34–64,109 SQ. FT. OR 1.47 AC.
COMBINED AREA–451,572 SQ. FT. OR 10.37 AC.
TAX MAP 165, LOT 2
TAX MAP 172, LOT 1
TAX MAP 173, LOT 2

3. OWNER OF RECORD: PORTSMOUTH LAND ACQUISITIONS, LLC
300 GAY STREET
MANCHESTER, NH 03103
R.C.R.D. BOOK 5393, PAGE 2976

4. ZONES: GW–GATEWAY
DIMENSIONAL REQUIREMENTS:

MIN. LOT AREA	43,560 sq.ft.
MIN. FRONTAGE	200 ft.
MIN. FRONT SETBACK	30 ft.
MIN. SIDE SETBACK	30 ft.
MIN. REAR SETBACK	50 ft.
MAX. BUILDING HEIGHT	40 ft.
MAX. BUILDING COVERAGE	30 %
WETLAND SETBACKS	100 ft.

ZONING INFORMATION LISTED HEREON IS BASED ON THE CITY OF PORTSMOUTH ZONING ORDINANCE DATED JULY 11, 2016 AS AVAILABLE ON THE CITY WEBSITE ON DECEMBER 15, 2016. 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.

5. 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.

6. MANMADE AND NATURAL JURISDICTIONAL WETLAND BOUNDARIES WERE DELINEATED BY MARC JACOBS, CERTIFIED WETLAND SCIENTIST NUMBER 090, IN NOVEMBER 2016 ACCORDING TO THE STANDARDS OF THE US ARMY CORPS OF ENGINEERS – WETLANDS DELINEATION MANUAL, TECHNICAL REPORT Y–87–1, JANUARY 1987; THE U.S. ARMY CORPS OF ENGINEERS REGIONAL SUPPLEMENT TO THE CORPS OF ENGINEERS WETLAND DELINEATION MANUAL: NORTHCENTRAL AND NORTHEAST REGION 2012; THE CODE OF ADMINISTRATIVE RULES, NH DEPARTMENT OF ENVIRONMENTAL SERVICES –WETLANDS BUREAU – CHAPTER ENV–WT 100–900 AND THE CITY OF PORTSMOUTH ZONING ORDINANCE, ARTICLE 10. PREDOMINANT HYDRIC SOILS WERE IDENTIFIED UTILIZING THE FIELD INDICATORS FOR IDENTIFYING HYDRIC SOILS IN NEW ENGLAND, VERSION 3, APRIL 2004 AND THE FIELD INDICATORS OF HYDRIC SOILS IN THE UNITED STATES, VERSION 7, 2010. THE STATUS OF VEGETATION AS HYDROPHYTIC WAS DETERMINED ACCORDING TO THE NORTHCENTRAL AND NORTHEAST 2016 REGIONAL WETLAND PLANT LIST –U.S. ARMY CORPS OF ENGINEERS. COPIES OF SITE PLANS DEPICTING THE WETLAND DELINEATION WHICH HAVE BEEN REVIEWED BY THE WETLAND SCIENTIST ARE INDIVIDUALLY STAMPED & SIGNED AND DATED. THIS NOTE HAS BEEN CUSTOMIZED FOR THIS SITE/PROJECT.

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

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

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

10. 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.

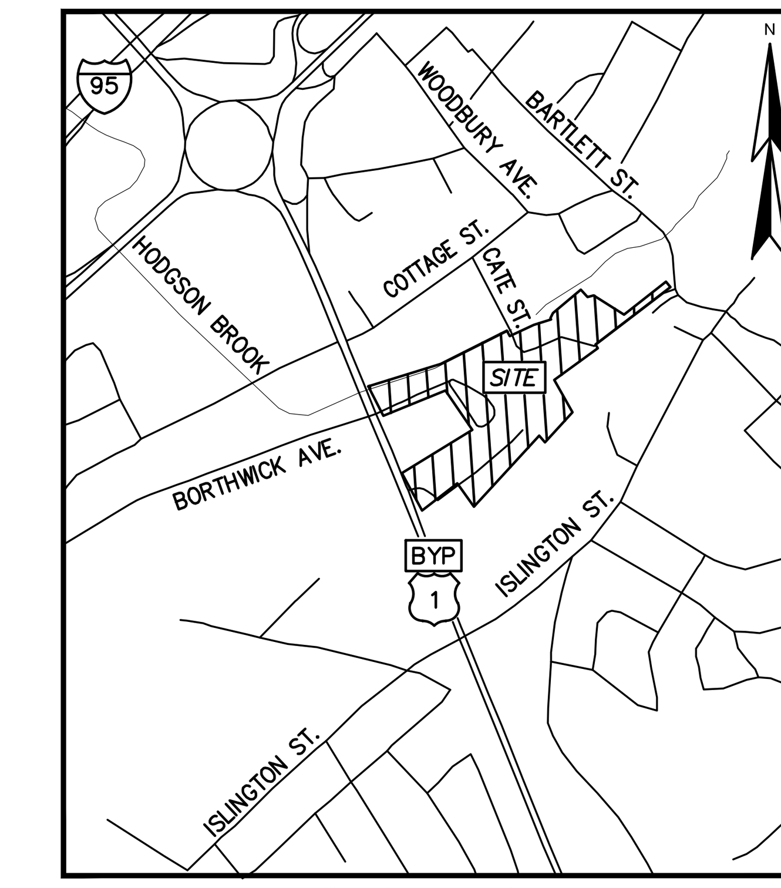
11. DUE TO THE COMPLEXITY OF RESEARCHING ROAD RECORDS AS A RESULT OF INCOMPLETE, UNORGANIZED, INCONCLUSIVE, OBLITERATED, OR LOST DOCUMENTS, THERE IS AN INHERENT UNCERTAINTY INVOLVED WHEN ATTEMPTING TO DETERMINE THE LOCATION AND WIDTH OF A ROADWAY RIGHT OF WAY. THE EXTENT OF (THE ROAD(S)) AS DEPICTED 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.

12. 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.).

13. THE FOLLOWING LOTS ARE EITHER SUBJECT TO OR IN BENEFIT OF, BUT NOT LIMITED TO, THE FOLLOWING EASEMENTS/RIGHTS OF RECORD:
TAX MAP 172, LOT 1
A. SUBJECT TO A 50' WIDE RIGHT OF WAY FOR THE BENEFIT OF TAX MAP 172, LOT 2 SEE R.C.R.D. BOOK 3127, PAGE 176 AND R.C.R.D. PLAN D–10722.
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.
TAX MAP 173, LOT 2
G. 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.
H. SUBJECT TO A DRAINAGE EASEMENT TO THE UNITED STATES OF AMERICA, SEE R.C.R.D. BOOK 1423, PAGE 240.
I. 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.

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 RICHARD P. 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.)

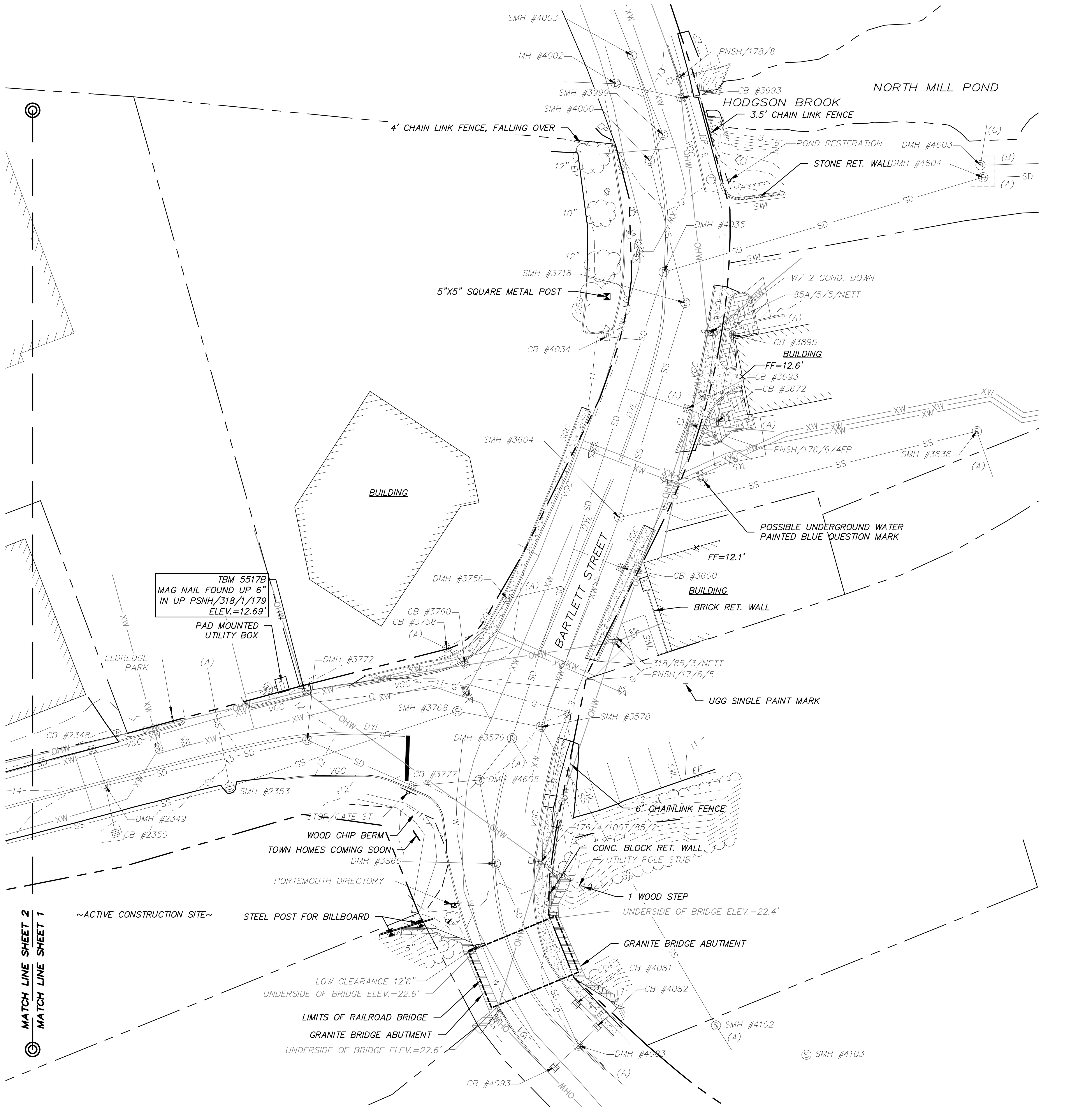
PLAN OF LAND
FOR
PORTSMOUTH LAND ACQUISITIONS, LLC
OF
TAX MAP 163, LOTS 33 □ 34
TAX MAP 165, LOT 2
TAX MAP 172, LOT 1
TAX MAP 173, LOT 2
CATE STREET □ US ROUTE 1 BYPASS
PORTSMOUTH, NEW HAMPSHIRE

NO.	DATE	DESCRIPTION	BY
1	10/10/18	ADDITIONAL SURVEY AREA	MWF

DRAWN BY: M.T.L.	DATE: DECEMBER 2016
CHECKED BY: M.W.F.	DRAWING NO.: 5517A
JOB NO.: 5517	SHEET 3 OF 3

DOUCET® SURVEY INC
Ser□ing Your Pro□essional Sur□eying □ Ma□□ing Needs
102 Kent Place, Newmarket, NH 03857 (603) 659-6560
2 Commerce Dri□e (Suite 202) Bed□ord, NH 03110 (603) 614-4060
10 Storer Street (Ri□er□iew Suite) Kenne□unk, ME (207) 502-7005
htt□://www.doucetsur□ey.com

FILE NAME: Y:\PROJECTS\5517 C3D (SEE 4139)\DWG\5517A C3D.dwg LAYOUT NAME: POL (3) PLOTTED: Wednesday, October 10, 2018 - 2:07pm



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
60 K STREET
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.

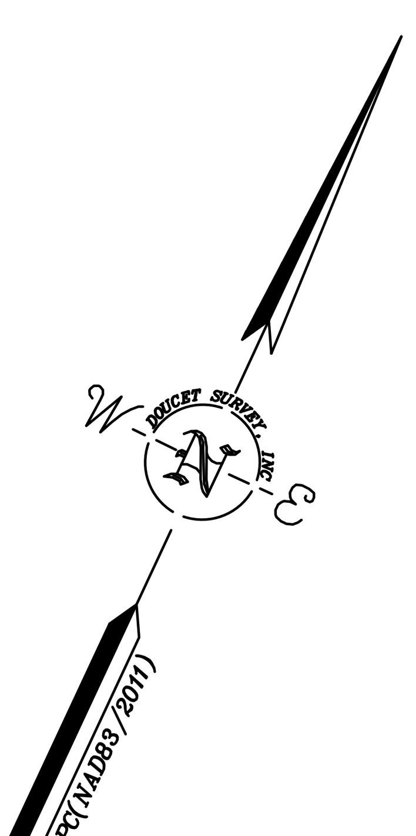
6. PROPER FIELD PROCEDURES WERE FOLLOWED IN ORDER TO GENERATE CONTOURS AT 1' INTERVALS. ANY MODIFICATION OF THIS INTERVAL WILL DIMINISH THE INTEGRITY OF THE DATA, AND DOUCET SURVEY, INC. WILL NOT BE RESPONSIBLE FOR ANY SUCH ALTERATION PERFORMED BY THE USER.

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.

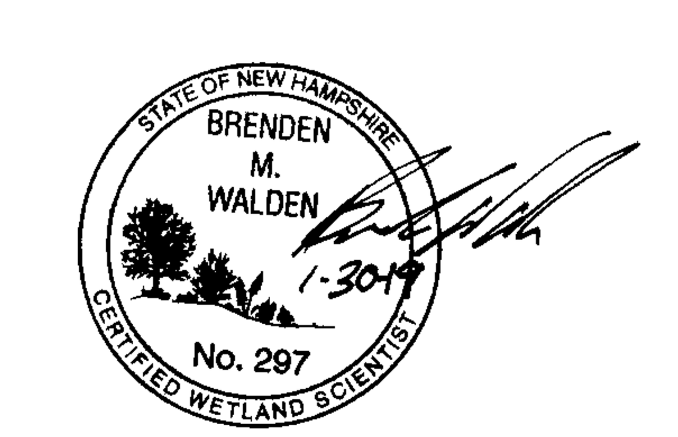
9. ALL ELECTRIC, GAS, TEL. WATER, SEWER AND DRAIN SERVICES ARE SHOWN IN SCHEMATIC FASHION, THEIR LOCATIONS ARE NOT PRECISE OR NECESSARILY ACCURATE. NO WORK WHATSOEVER SHALL BE UNDERTAKEN ON THIS SITE USING THIS PLAN TO LOCATE THE ABOVE SERVICES. CONSULT WITH THE PROPER AUTHORITIES CONCERNED WITH THE 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.



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'	



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

2	1/30/19	REVISE WETLAND NOTE & OWNER INFO.	MWF
1	10/10/18	ADDITIONAL SURVEY AREA	MWF
NO.	DATE	DESCRIPTION	BY

DRAWN BY: M.T.L.	DATE: DECEMBER 2016
CHECKED BY: M.W.F.	DRAWING NO.: 5517A
JOB NO.: 5517	SHEET 1 OF 5

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http://www.doucetsurvey.com

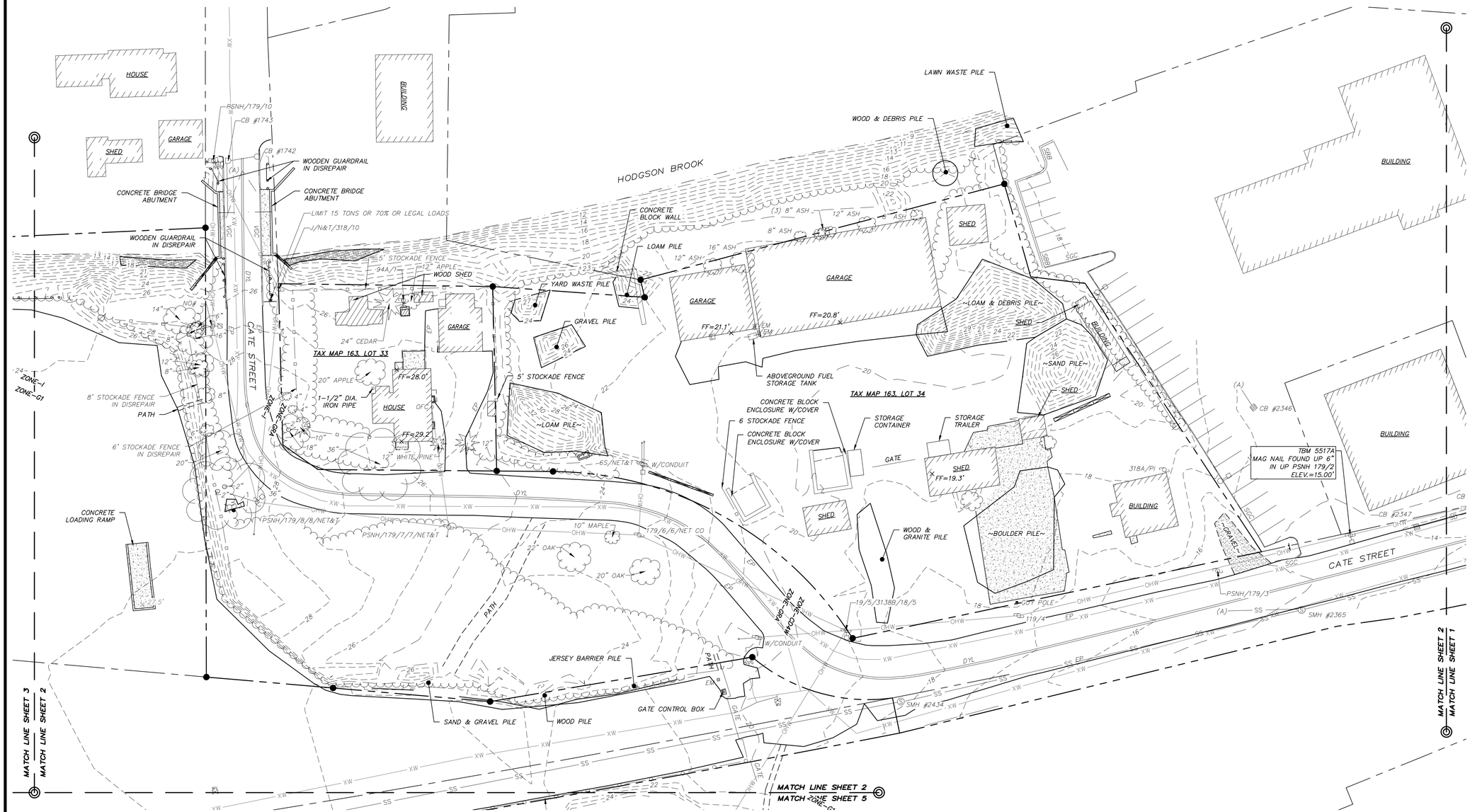
LEGEND

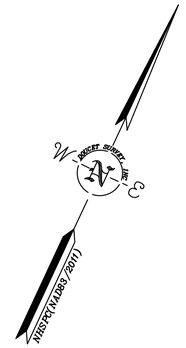
APPROXIMATE LOT LINE
INTERIOR LOT LINE
APPROXIMATE ABUTTER LOT LINE
EASEMENT LINE
STOCKADE FENCE
CHAIN LINK FENCE
GUARDRAIL
OHW OVERHEAD WIRES
SS SEWER LINE
SD DRAIN LINE
G GAS LINE
W WATER LINE
20 MAJOR CONTOUR LINE
22 MINOR CONTOUR LINE
TREE LINE
SHRUB LINE
EDGE OF WETLAND
XS SEWER LINE (SEE NOTE 20)
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
E ELECTRIC BOX
CATCH BASIN
D DRAIN MANHOLE
RD ROOF DRAIN
M MANHOLE
S 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

FILE NAME: Y:\PROJECTS\5517 C3D (SEE 4139)\DWG\5517A C3D.dwg LAYOUT NAME: TOPO (1) PLOTTED: Wednesday, January 30, 2019 - 10:05am





STATE OF NEW HAMPSHIRE
BRENDEN M. WALDEN
1-30-19
No. 297
CERTIFIED WETLAND SCIENTIST

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
2	1/30/19	REVISE WETLAND NOTE & OWNER INFO.	MWF
1	10/10/18	ADDITIONAL SURVEY AREA	MWF

DRAWN BY:	M.T.L.	DATE:	DECEMBER 2016
CHECKED BY:	M.W.F.	DRAWING NO.:	5517A
JOB NO.:	5517	SHEET	2 OF 5

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FILE NAME: T:\PROJECTS\5517 CSE DSE 4 NH\DWG\5517A CSE.dwg LAYOUT NAME: TOPO 02 PLOTTED: Wednesday, January 30, 2019 - 8:35am


SHEET 5
INSET
HODGSON BROOK
DEPTH AT CENTER OF BROOK = 15.3'
CONC. BRIDGE ABUTMENT
PIPE GOES UNDERGROUND
CONC. BRIDGE ABUTMENT
4" PIPE, WRAPPED IN METAL INSULATION
HOSPITAL
GAS PIPELINE
PNSH/26/6A
48" UNK. INV.=15.8'
12" CMP INV.=15.0'
CB #4239
PNSH/264/25
BORTHWICK AVENUE EXTENSION
(VARIABLE WIDTH PUBLIC R.O.W. PER REF. PLAN #24)
KEEP RIGHT
US ROUTE 1 BYPASS
SMH #4565
SHOT ON TOP OF 8" PIPE
WRAPPED IN INSULATION
PIPE GOES UNDER GROUND
15" RCP INV.=14.7'
SMH #2789
SMH #1350
"THE FRANK JONES
FUNCTION & CONFERENCE CENTER"
CONC. PAD W/ TRANSFORMER
PAVED ISLAND
SIGN IS MISSING
~GRAVEL~
CB #1345
CB #1346
CB #1213
1/2" DIA. ROD UP 34"
UHAUL SIGN
PROPANE TANK
PSNH/264/3
W/POWER DOWN
CB #4181
264/PNSH/2/7809/11
NETT/7809/12
DO NOT ENTER
OUTLET NOT FOUND
48" CONC. INV.=15.5'
SOUTH BYPASS 1
HODGSON BROOK
15" CMP INV.=14.6'
15" RCP INV.=14.7'
STOP/DO NOT ENTER
~GRASS AREA~
TURN LEFT
TURN RIGHT
STONE HDW.
12" HDPE INV.=19.0'
STOP/DO NOT ENTER
CB #1251
~PAVED PARKING LOT~
TAX MAP 173, LOT 2
ZONE-I
ZONE-G1
BUILDING
BUILDING
BUILDING
CONCRETE WALL
W/CHAINLINK FENCE
TAX MAP 165, LOT 2
TAX MAP 172, LOT 1
TAX MAP 173, LOT 2
451,599 Sq. Ft.
10.37 Acres
MATCH LINE SHEET 3
MATCH LINE SHEET 4
MATCH LINE SHEET 3
MATCH LINE SHEET 5
MATCH LINE SHEET 3
MATCH LINE SHEET 2
NHSPC(NAD83/2011)

STATE OF NEW HAMPSHIRE
BRENDEN M. WALDEN
No. 297
CERTIFIED WETLAND SCIENTIST
1-30-19

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
2	1/30/19	REVISE WETLAND NOTE & OWNER INFO.	MWF
1	10/10/18	ADDITIONAL SURVEY AREA	MWF

DRAWN BY:	M.T.L.	DATE:	DECEMBER 2016
CHECKED BY:	M.W.F.	DRAWING NO.:	5517A
JOB NO.:	5517	SHEET	3 OF 5

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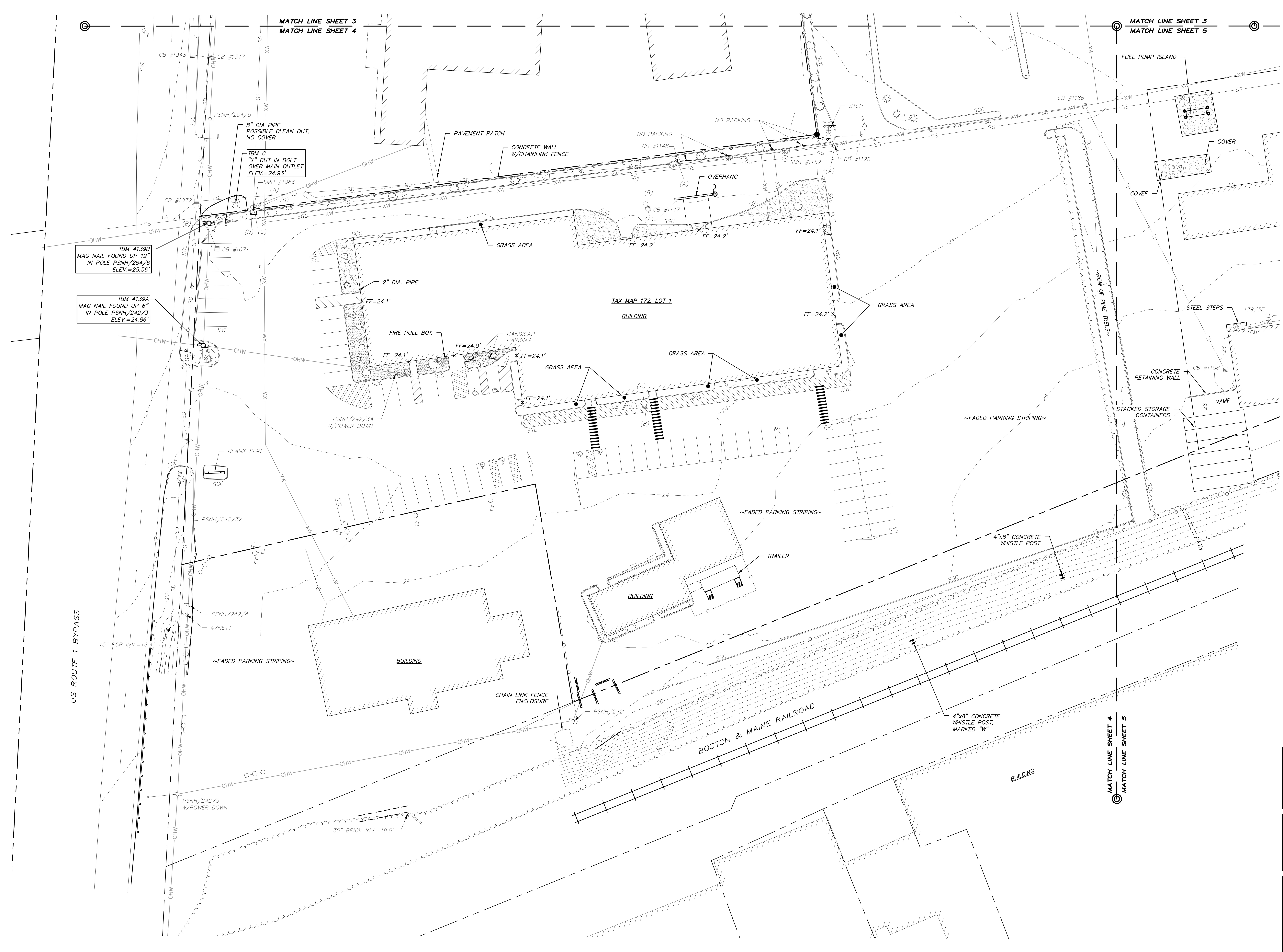

MATCH LINE SHEET 3
MATCH LINE SHEET 4
MATCH LINE SHEET 3
MATCH LINE SHEET 5
US ROUTE 1 BYPASS
TAX MAP 172, LOT 1
BUILDING
BUILDING
BUILDING
BUILDING
BOSTON & MAINE RAILROAD
~FADED PARKING STRIPING~
~ROW OF PINE TREES~
FUEL PUMP ISLAND
COVER
STEEL STEPS
CONCRETE RETAINING WALL
RAMP
STACKED STORAGE CONTAINERS
TRAILER
CHAIN LINK FENCE ENCLOSURE
4"x8" CONCRETE WHISTLE POST
4"x8" CONCRETE WHISTLE POST, MARKED "W"
GRASS AREA
FIRE PULL BOX
HANDICAP PARKING
2" DIA. PIPE
PAVEMENT PATCH
CONCRETE WALL W/CHAINLINK FENCE
8" DIA PIPE POSSIBLE CLEAN OUT, NO COVER
TBM C "X" CUT IN BOLT OVER MAIN OUTLET ELEV.=24.93'
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'
OVERHANG
NO PARKING
STOP
BLANK SIGN
15" RCP INV.=18.4'
30" BRICK INV.=19.9'
PSNH/242/5 W/POWER DOWN
PSNH/242/3A W/POWER DOWN
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
2	1/30/19	REVISE WETLAND NOTE & OWNER INFO.	MWF
1	10/10/18	ADDITIONAL SURVEY AREA	MWF

DRAWN BY:	M.T.L.	DATE:	DECEMBER 2016
CHECKED BY:	M.W.F.	DRAWING NO.:	5517A
JOB NO.:	5517	SHEET	4 OF 5

STATE OF NEW HAMPSHIRE BRENDEN M. WALDEN No. 297 CERTIFIED WETLAND SCIENTIST 1-30-19

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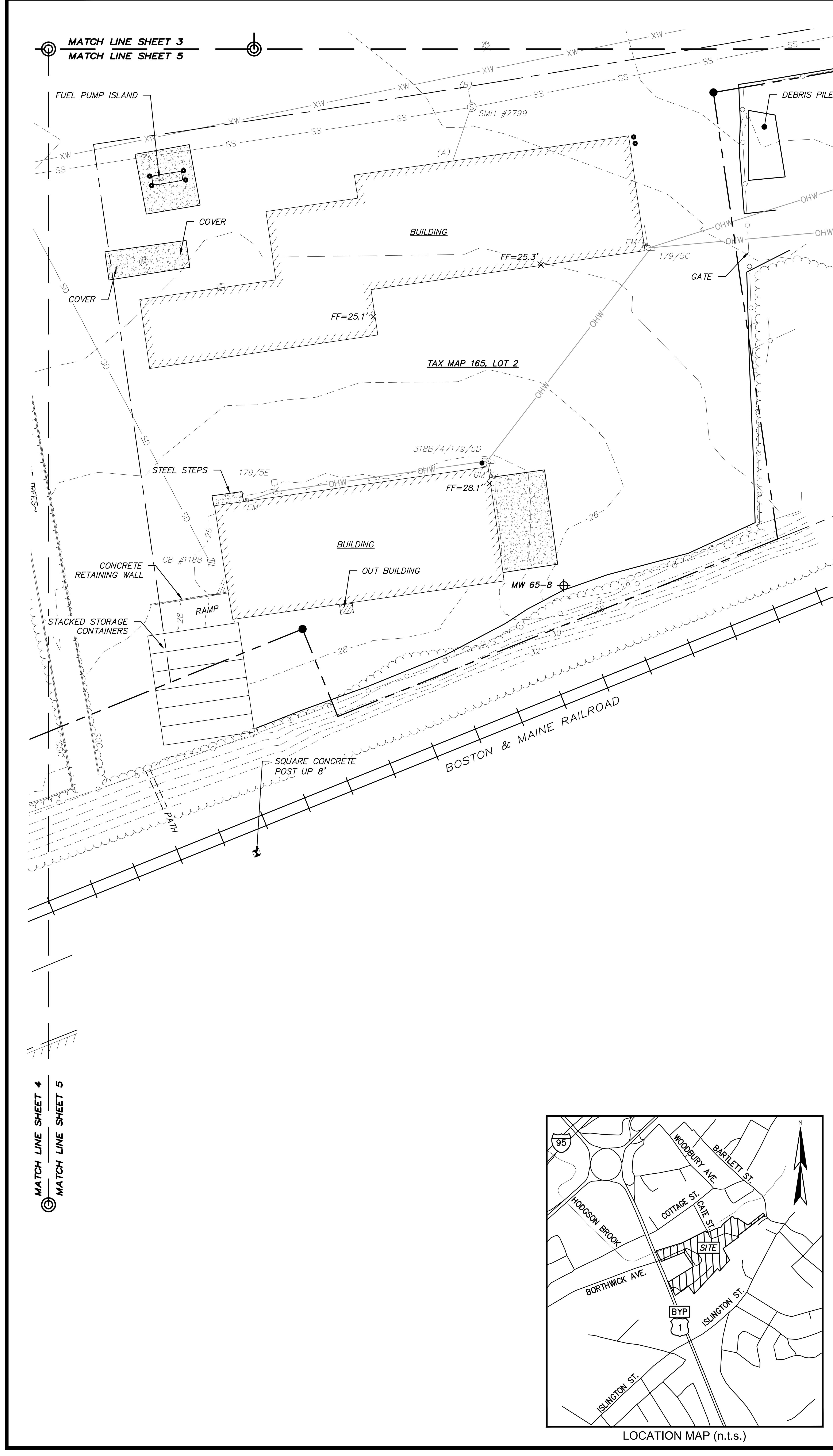
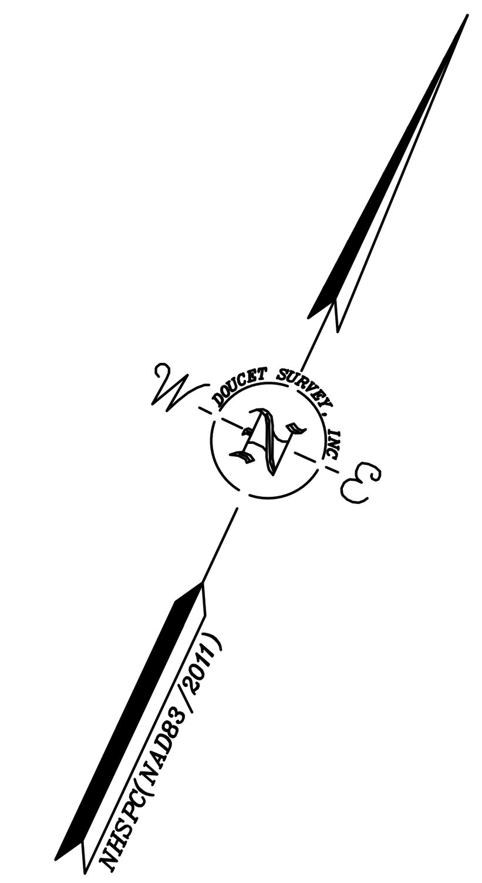

MATCH LINE SHEET 3
MATCH LINE SHEET 5
FUEL PUMP ISLAND
COVER
COVER
DEBRIS PILE
5' CHAIN LINK FENCE
GATE
BUILDING
FF=25.3'
FF=25.1'
TAX MAP 165, LOT 2
STEEL STEPS
FF=28.1'
BUILDING
CONCRETE RETAINING WALL
RAMP
OUT BUILDING
MW 65-8
STACKED STORAGE CONTAINERS
SQUARE CONCRETE POST UP 8'
BOSTON & MAINE RAILROAD
PATH
MATCH LINE SHEET 4
MATCH LINE SHEET 5
LOCATION MAP (n.t.s.)
HODGSON BROOK
COTTAGE ST.
CATE ST.
WOODBURY AVE.
BARTLETT ST.
SITE
BORTHWICK AVE.
ISLINGTON ST.
ISLINGTON ST.



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

SCALE: 1 INCH = 30 FT.

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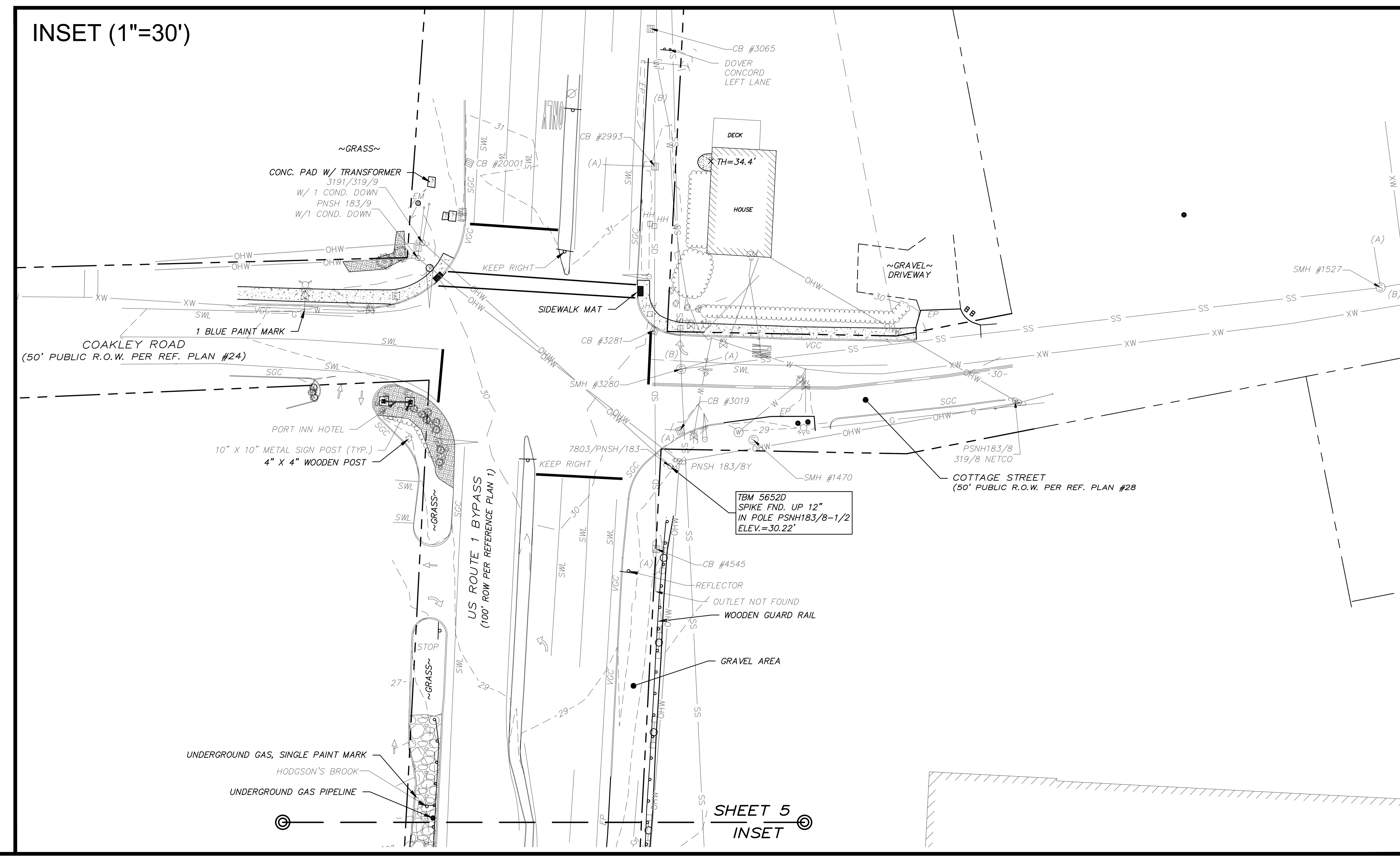
1	10/10/18	ADDITIONAL SURVEY AREA	MWF

DRAWN BY: M.T.L.	DATE: DECEMBER 2016
CHECKED BY: M.W.F.	DRAWING NO.: 5517A
JOB NO.: 5517	SHEET 5 OF 5

STATE OF NEW HAMPSHIRE
BRENDEN M. WALDEN
No. 297
CERTIFIED WETLAND SCIENTIST
1-30-19

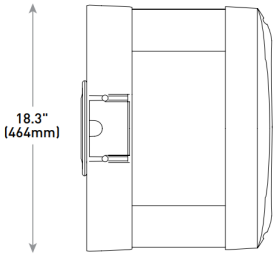

INSET (1"=30')
COAKLEY ROAD
(50' PUBLIC R.O.W. PER REF. PLAN #24)
CONC. PAD W/ TRANSFORMER
1 BLUE PAINT MARK
SIDEWALK MAT
PORT INN HOTEL
10" X 10" METAL SIGN POST (TYP.)
4" X 4" WOODEN POST
US ROUTE 1 BYPASS
(100' ROW PER REFERENCE PLAN 1)
KEEP RIGHT
HOUSE
DECK
~GRAVEL~ DRIVEWAY
COTTAGE STREET
(50' PUBLIC R.O.W. PER REF. PLAN #28)
TBM 5652D
SPIKE FND. UP 12"
IN POLE PSNH183/8-1/2
ELEV.=30.22'
WOODEN GUARD RAIL
GRAVEL AREA
UNDERGROUND GAS, SINGLE PAINT MARK
HODGSON'S BROOK
UNDERGROUND GAS PIPELINE
SHEET 5
INSET

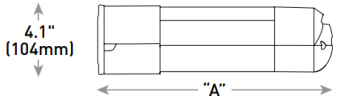
WLS LIGHTING SYSTEMS

Type:

BW SERIES LED SECURITY WALL PACK

DIMENSIONS





Wattage	Dim. "A"	Weight
25	9.9" (251mm)	20 lbs. (9.1kg)
37	9.9" (251mm)	20 lbs. (9.1kg)
50	9.9" (251mm)	20 lbs. (9.1kg)
46	11.9" (303mm)	22 lbs. (10.0kg)
70	11.9" (303mm)	22 lbs. (10.0kg)
93	11.9" (303mm)	22 lbs. (10.0kg)
66	13.9" (353mm)	25 lbs. (11.3kg)
101	13.9" (353mm)	25 lbs. (11.3kg)
134	13.9" (353mm)	25 lbs. (11.3kg)

Made in the U.S.A. of the U.S. and imported parts.
Meets Buy American requirments for ARRA.

WLS LIGHTING SYSTEMS
1919 Windsor Place
Fort Worth, TX 76110
800.622.8711
www.wlslighting.com

SPECIFICATIONS

GENERAL DESCRIPTION - The BW Series wall mount luminaire has a slim, low profile design. The luminaire end caps are made from rugged die cast aluminum with integral, weathertight LED driver compartments and high performance aluminum heat sinks specifically designed for LED applications. Housing is rugged aluminum. Includes a lightweight mounting box for installation over standard and mud ring single gang J-Boxes. Secures to wall with four 3/16" (5mm) screws (by others). Conduit entry from top, bottom, sides and rear. Allows mounting for uplight or downlight. Designed and approved for easy through-wiring. Includes leaf/debris guard.
Applications: General area and security lighting

CONSTRUCTION & MATERIALS
- Slim, low profile design
- Luminaire sides are rugged die cast aluminum with integral, weathertight LED driver compartment and high performance aluminum heat sinks specifically designed for LED applications
- Housing is rugged aluminum
- Furnished with low copper, light weight mounting box designed for installation over standard and mud ring single gang J-Boxes
- Luminaire can also be direct mounted to a wall and surface wired
- Secures to wall with four 3/16" (5mm) screws (by others)
- Conduit entry from top, bottom, sides, and rear
- Allows mounting for uplight or downlight
- Designed and approved for easy through-wiring
- Includes leaf/debris guard
- Exclusive Colorfast DeltaGuard® finish features an E-Coat epoxy primer with an ultradurable powder topcoat, providing excellent resistance to corrosion, ultraviolet degradation and abrasion. Black, bronze, silver and white are available. Custom colors are available. Please contact your sales professional for details.
- Weight: See Dimensions and Weight Chart below.

ELECTRICAL SYSTEM
- Input Voltage: 120–277V or 347–480V, 50/60Hz, Class 1 drivers
- Power Factor: > 0.9 at full load
- Total Harmonic Distortion: < 20% at full load
- Integral weathertight J-Box with leads (wire nuts) for easy power hook up
- Integral 10kV surge suppression protection standard
- When code dictates fusing, a slow blow fuse or type C/D breaker should be used to address in rush current
- Maximum 10V Source Current: 20 LED (350mA): 10mA; 20LED (525 & 700 mA) and 40-120 LED: 0.15mA

REGULATORY & VOLUNTARY QUALIFICATIONS
- cULus Listed
- Suitable for wet locations
- Meets FCC Part 15, Subpart B, Class A standards for conducted and radiated emissions
- Enclosure rated IP66 per IEC 60529 when ordered without P, PML or ML options
- 10kV surge suppression protection tested in accordance with IEEE/ANSI C62.41.2
- Luminaire and finish endurance tested to withstand 5,000 hours of elevated ambient salt fog conditions as defined in ASTM Standard B 117
- DLC qualified with select SKUs. Refer to https://www.designlights.org/search/ for most current information
- Meets Buy American requirements within ARRA

Project Name: _____
Date: _____
Location: _____
Notes: _____

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BW SERIES LED SECURITY WALL PACK

ORDERING INFORMATION SELECT APPROPRIATE CHOICE FROM EACH COLUMN TO FORMULATE ORDER CODE.

Refer to example below.

PRODUCT	WATTAGE	OPTIC	SERIES	VOLTAGE	COLOR OPTIONS	OPTIONS
BW	**25** 25 Watts **37** 37 Watts **50** 50 Watts **46** 46 Watts **70** 70 Watts **93** 93 Watts **66** 66 Watts **101** 101 Watts **134** 134 Watts	**2M** Type II Medium **2MB** Type II Medium w/BLS **2S** Type II Short **2SB** Type II Short w/BLS **3M** Type III Medium **3MB** Type III Medium w/BLS **4M** Type IV Medium **4MB** Type IV Medium w/BLS	**E**	**UL** Universal 120-277V **UH** Universal 347-480V **34** 347V	**BK** Black **BZ** Bronze **SV** Silver **WH** White **CC**[2] Custom Color	**DIMS**[1] 0-10V Dimming (525mA maximum) **F**[3,4] Fuse **PC**[5] Photocell **ML** Multi Level **NO** No Options
ORDER:						
WLS-BW			**E**			

Example: WLS-BW-50-3M-E-UH-WH-NO

FOOTNOTES:

1 Control by others.
2 Contact your sales professional for details
3 When code dictates fusing use time delay fuse.
4 Not available when UH voltage is selected.
5 Must specify voltage other than UL or UH.

ELECTRICAL DATA						
System Watts 120-480V	Total Current (A)					
	120V	208V	240V	277V	347V	480V
25	0.21	0.13	0.11	0.10	0.08	0.07
46	0.36	0.23	0.21	0.20	0.15	0.12
66	0.52	0.31	0.28	0.26	0.20	0.15
37	0.30	0.19	0.17	0.16	0.12	0.10
70	0.58	0.34	0.31	0.28	0.21	0.16
101	0.84	0.49	0.43	0.38	0.30	0.22
50	041	0.25	0.22	0.20	0.15	0.12
93	078	0.46	0.40	0.36	0.27	0.20
134	1.14	0.65	0.57	0.50	0.39	0.29

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www.wlslighting.com

Project Name: _____
Date: _____
Location: _____
Notes: _____

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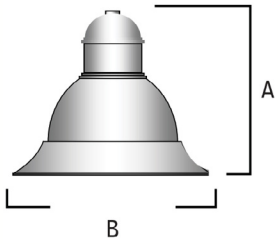
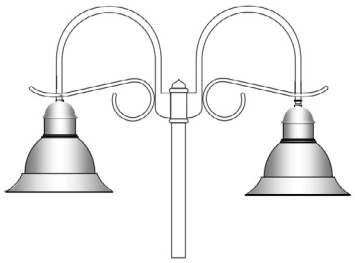
WLS LIGHTING SYSTEMS

Type:

748-DOM SERIES



TWIN MOUNTED OPTIONS



Made in the U.S.A. of the U.S. and imported parts.
Meets Buy American requirments for ARRA.

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Specifications:

Housing

In a round shape, this housing is made of die cast A380 aluminum, c/w a watertight grommet, mechanically assembled to the bracket with four bolts 5/16 18 UNC. This suspension system permits for a full rotation of the luminaire in 90° increments.

Access-mechanism

A die cast A360 aluminum technical ring with latch, hinge and a cast in decorative skirt. The mechanism shall offer tool free access to the inside of the luminaire. An embedded memory retentive gasket shall ensure weatherproofing.

Light engine

LEDgine composed of 5 main components: **Heat Sink / Lens / LED lamp / Driver / Optical System**

Electrical components are RoHS compliant.

LED engine

LED type: Philips Lumileds LUXEON T. Composed of high-performance white LEDs. Color temperature as per ANSI/NEMA bin Neutral White, 4000 Kelvin nominal (3985K +/- 275K or 3710K to 4260K) or Warm white, 3000 Kelvin nominal (3045K +/- 175K or 2870K to 3220K), CRI 70 Min. 75 Typical.

Lens

LExF / LExS: Made of soda lime tempered glass lens, mechanically assembled and sealed onto the lower part of the heat sink.
LExA (Globe): Made of one-piece seamless injection-molded impact-resistant (DR) acrylic having an inner prismatic surface. The globe is mechanically assembled and sealed onto the lower part of the heat sink.

Heat sink

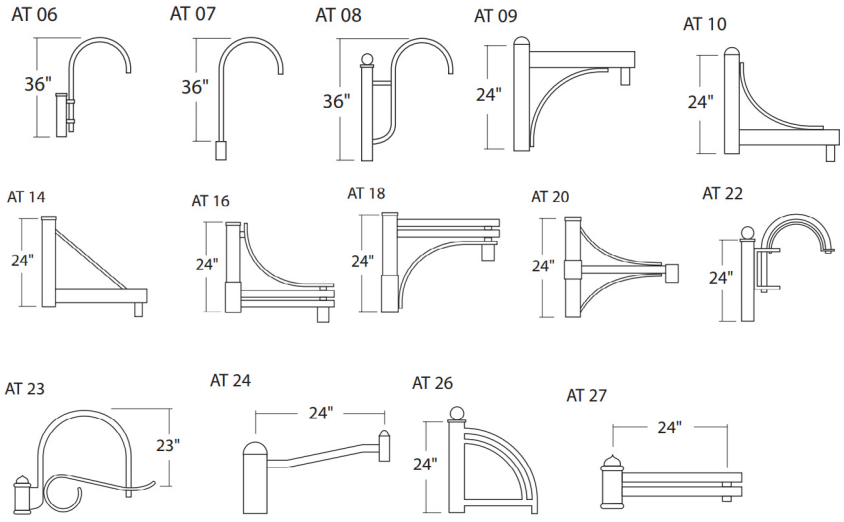
Made of cast aluminum optimizing the LEDs efficiency and life. Product does not use any cooling device with moving parts (only passive cooling device).

Driver

Driver comes standard with dimming compatible 0-10V. High power factor of 95%. Electronic driver, operating range 50/60 Hz. Auto adjusting universal voltage input from 120 to 277 VAC rated for both application line to line or line to neutral, Class I, THD of 20% max. Maximum ambient operating temperature from 40F(40C) to 130F(55C) degrees. Certified in compliance to UL1310 cULus requirement. Dry and damp location. Assembled on a unitized removable tray with Tyco quick disconnect plug resisting to 221F(105C) degrees. The current supplying the LEDs will be reduced by the driver if the driver experiences internal overheating as a protection to the LEDs and the electrical components. Output is protected from short circuits, voltage overload and current overload. Automatic recovery after correction. Standard built in driver surge protection of 2.5kV (min).

Optical system

Composed of high performance optical grade PMMA acrylic refractor lenses to achieve desired distribution optimized to get maximum spacing, target lumens and a superior lighting uniformity. Optical system is rated IP66. Performance shall be tested per LM 63, LM 79 and TM 15 (IESNA) certifying its photometric performance. Street side indicated. Flat lens (F optics) is Dark Sky compliant with 0% uplight and U0 per
IESNA TM 15.



Project Name: _____

Date: _____

Location: _____

Notes: _____

02, 03 REV. 9/17

748-DOM SERIES

ORDERING INFORMATION
SELECT APPROPRIATE CHOICE FROM EACH COLUMN TO FORMULATE ORDER CODE.
Refer to example below.

SERIES	ARM STYLE	DISTRIBUTION	LAMP WATTAGE	COLOR TEMPERATURE	LENS	LINE VOLTAGE[2]	LUMINAIRE FINISH	OPTIONS
748-DOM	**AT06** **AT07** **AT08** **AT09** **AT10** **AT14** **AT16** **AT18** **AT20** **AT22** **AT23** **AT24** **AT26** **AT27**	**2** Type II **3** Type III **5** Type V **FP** Perimeter Forward Throw	**35W** **55W** **70W** **72W** **80W** **90W** **108W** **110W** **135W** **145W** **180W**	**30K** 3000K **40K** 4000K	**FG** Flat Glass Lens **SG** Sag Glass Lens **GL** Globe	**480V** **MT**[3] Multi Tap **TT**[4] Tri-Tap	**BRZ** Bronze **BLK** Black **PLT** Platinum **BUF** Buff **WHT** White **GRN** Green **CC** Custom Color	**BKS** Back Light Shield **BKT-WM** Wall Mount Plate **SF** Single Fusing **DF** Double Fusing **PC** Photocell **NO** No Options
ORDER:								
WLS-748-DOM								

Wiring

Gauge (#14) TEW/AWM 1015 or 1230 wires, 6" (152mm) minimum exceeding from luminaire.

Hardware

All exposed screws shall be complete with Ceramic primer-seal base coat to reduce seizing of the parts and offers a high resistance to corrosion. All seals and sealing devices are made and/or lined with EPDM and/or silicone and/or rubber.

Dimensions

EPA: 1.35 ft² max.
Weight: 42 lbs (19.1kg) max.

Luminaire useful life

Refer to IES files for energy consumption and delivered lumens for each option. Based on ISTMT in situ thermal testing in accordance with UL1598 and UL8750, Philips System Reliability Tool, Philips Advance data and Philips Lumileds LM-80/TM-21 data, expected to reach 100,000+ hours with >L70 lumen maintenance @ 25°C. Luminaire Useful Life accounts for LED lumen maintenance AND all of these additional factors including: LED life, driver life, PCB substrate, solder joints, on/off cycles, burning hours and corrosion. Entire luminaire is rated for operation in ambient temperature of -40°C / -40°F up to +35°C / +95°F.

Quality control

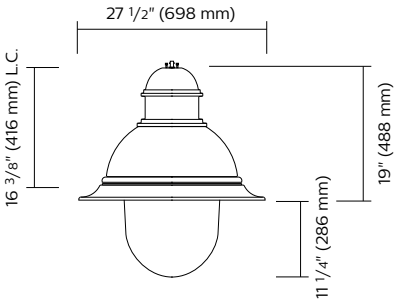
Manufactured to ISO 9001 2008 standards and ISO 14001-2004 International Quality Standards Certification.

Vibration resistance

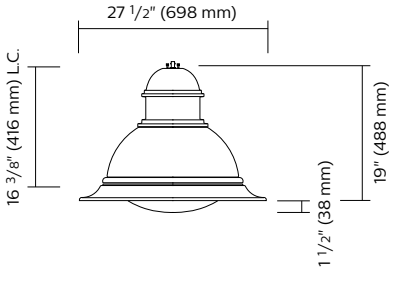
Meets the ANSI C136.31, American National Standard for Roadway Luminaire Vibration specifications for Bridge/overpass applications. (Tested for 3G over 100 000 cycles)

Certifications and Compliance

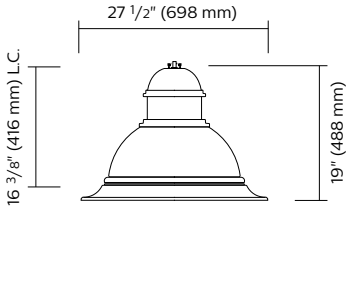
CSA, cULus Listed for Canada and USA. Domus LED luminaires are DesignLights Consortium qualified.



Long drop globe



Sag lens



Flat lens

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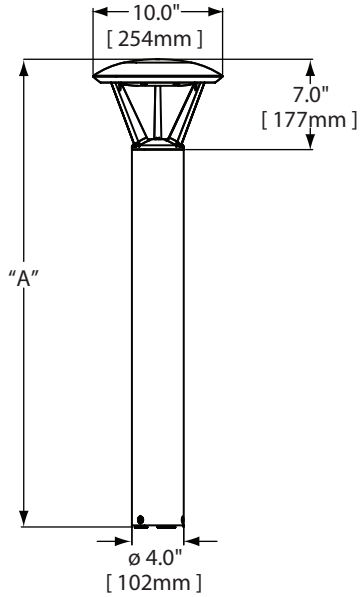
WLS LIGHTING SYSTEMS

PED LED PATHWAY SERIES

DIMENSIONS



SPECIFICATIONS

DESCRIPTION - Durable die-cast aluminum fixture housing mounts directly to 4" (102mm) diameter pole without visible mounting hardware for clean appearance. Pole mounts to rugged die-cast aluminum internal flange secured by (3) 3/8 - 16 x 6" anchor bolts with 1-1/4" hook (provided). Note: T45 Torx 3/8 socket required for head installation. Top mounted LEDs for superior optical performance and light control. Ten year limited warranty on fixture.

ELECTRICAL - PED has an input voltage of 120-277V or 347-480V, 50/60Hz, with class 1 drivers. The power factor is > 0.9 at full load at 120V, with total harmonic distribution of < 20% at full load at 120V. The luminaire is equiped with < 20% at full load at 120V. It is suitable for wet locations and is cULus Listed.

FINISH- Exclusive Colorfast Deltaguard® finish features an E-Coat epoxy primer with an ultra-durable silver powder topcoat, providing excellent resistance to corrosion, ultraviolet degradation and abrasion. Bronze, black, silver and white powder topcoats are also available. Luminaire and finish endurance tested to withstand 5,000 hours of elevated ambient salt fog conditions as defined in ASTM Standard B 117

TESTING & COMPLIANCE - UL listed in the U.S. and Canada for wet locations. Consult factory for CE Certified products. Fixture also available with CE listing. RoHS compliant. ENERGY STAR qualified LED lighting. Dark Sky friendly, IDA approved.

Model	Dim. "A"	Weight*
Landscape (P0)	13" (330mm)	12.7 lbs. (5.8kg)
Landscape (P1)	18" (457mm)	13.3 lbs. (6.0kg)
Pathway (P3)	36" (914mm)	17.9 lbs. (8.1kg)
Pathway (P4)	42" (1068mm)	18.6 lbs. (8.4kg)
Pedestrian (P8)	96" (2438mm)	28.4 lbs (12.9kg)

* Add 4.5 lbs. (2.0kg) for 347-480V

Provided by CREE

Approved By: _____ Project Name: _____

Location: _____ Date: _____

WLS LIGHTING SYSTEMS
Consider the Impact!

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PED LED PATHWAY SERIES

ORDERING INFORMATION SELECT APPROPRIATE CHOICE FROM EACH COLUMN TO FORMULATE ORDER CODE. Refer to example below.

SERIES	OPTIC	MOUNTING	# OF LEDs	SERIES	VOLTAGE	DRIVE CURRENT	LUMINAIRE FINISH	OPTIONS
PED	**2M -** Type II Medium **3M -** Type III Medium **5M -** Type V Medium **5S -** Type V Short	**P0 -** 13" landscape **P1 -** 18" landscape **P3 -** 36" pathway **P4 -** 42" pathway **P8 -** 96" pedestrian	**02 -** LED count (x9)	**E**	**UL -** Universal (120-277) **UH -** Universal (347-480) [1] **12 -** 120 **24 -** 240 **27 -** 277	**350 -** 350mA **525 -** 525mA [2]	**SV -** Silver **BLK -** Black **WHT -** White **BRZ -** Bronze **CC -** Custom Color	**40K -** 4000K Color Temperature min 70 CRI **F -** Fuse **HL -** Hi/Low [3] **TL -** Two Level (175/525) [4] **TL2 -** Two Level (0/350) [4] **TL3 -** Two Level (0/525) [4] **WB -** Welded Base [5] **NO -** No Options
PED	**2M**	**P4**	**02**	**E**	**UE**	**350**	**BRZ**	**40K**

(EXAMPLE ORDER)

ORDER:
WLS-PED _____ _____ _____ _____ _____ _____ _____ _____ _____

FOOTNOTES:

1. 347-480V utilizes magnetic step-down transformer.
2. Available with P3, P4, and P8 mounts only.
3. Available with UL voltage and 525mA driver only.
4. Available with 12 or 27 voltages only.
5. Included with P8. Sold separately for P3 and P4. Includes welded base cover.

Approved By: _____ Project Name: _____

Location: _____ Date: _____

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