

CATE STREET

CATE STREET · PORTSMOUTH · NEW HAMPSHIRE ROADWAY PLANS

AUGUST, 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

PROJECT TEAM

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

LANDSCAPE ARCHITECTS
SITE SOLUTIONS, LLC
3715 NORTHSIDE PARKWAY
300 NORTH CREEK, SUITE 720
ATLANTA, GA. 30327
404.705.9411

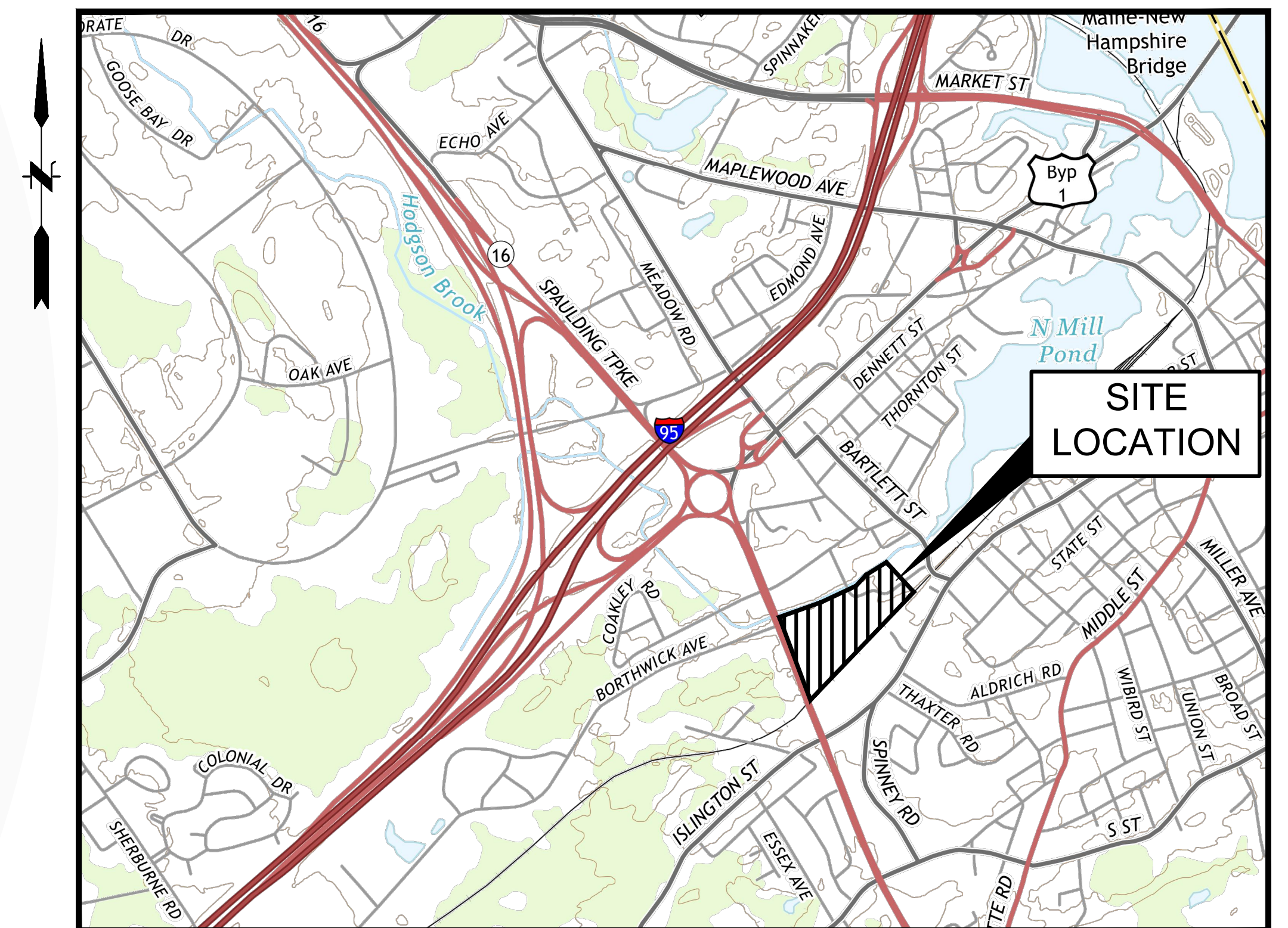
NATURAL RESOURCES CONSULTANT
GOVE ENVIRONMENTAL SERVICES, INC
8 CONTINENTAL DRIVE
BUILDING 2, SUITE H
EXETER, NH. 03833-7507
603.778.0644

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

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

SHEET INDEX

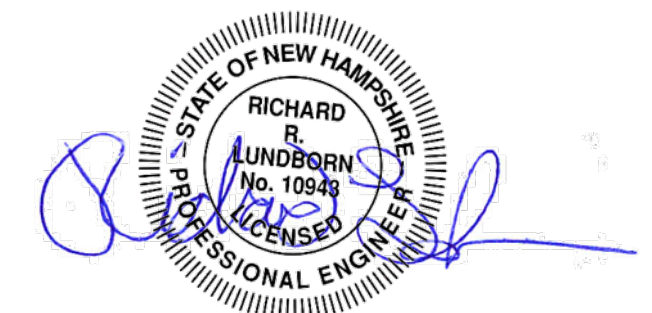
SHEET No.	SHEET TITLE
GI-001	COVER SHEET
CN-001-CN-003	GENERAL NOTES & LEGEND
CP-100-CP-102	SITE PREPARATION PLANS
CS-001	TYPICAL ROADWAY SECTIONS
CS-100-CS-105	ROADWAY PLANS & PROFILES
CS-106	RTE 1 BYPASS OFFSITE IMPROVEMENT PLAN
CS-107	ROADWAY CURBING CHART
CS-120-CS-123	ROADWAY SIGNING & PAVMENT MARKING LAYOUT
CG-001	ROADWAY DRAINAGE STRUCTURE TABLE
CG-100-CG-105	GRADING, DRAINAGE & EROSION CONTROL PLANS
CG-110	SUBSURFACE EXPLORATION PLAN
CU-001	ROADWAY SEWER STRUCTURE TABLE
CU-100-CU-107	UTILITY PLANS & PROFILE
CU-108	RTE 1 BYPASS OFFSITE IMPROVEMENT PLAN
CD-510-CD-513	DRAINAGE DETAILS
CD-520	WATER & MISC. DETAILS
CD-530-CD-531	SEWER DETAILS
CD-540	UTILITY DETAILS
CD-550-CD-552	SITE & SIGN DETAILS
CD-560-CD-562	EROSION CONTROL DETAILS
CT-101-CT-103	TURNING MOVEMENTS
CT-104	SIGHT DISTANCE PLAN
L1.00-L1.04, L2.01-L2.03	LANDSCAPE PLANS
LS1	LIGHTING PLANS
SURVEY PLANS	SUBDIVISION PLANS
SURVEY PLANS	TOPOGRAPHICAL PLANS



LOCATION MAP
SCALE: 1" = 1200'



CONTACT DIG SAFE 72 HOURS
PRIOR TO CONSTRUCTION
THE LOCATION OF ANY UTILITY INFORMATION SHOWN ON
THIS PLAN IS APPROXIMATE. GLD 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.

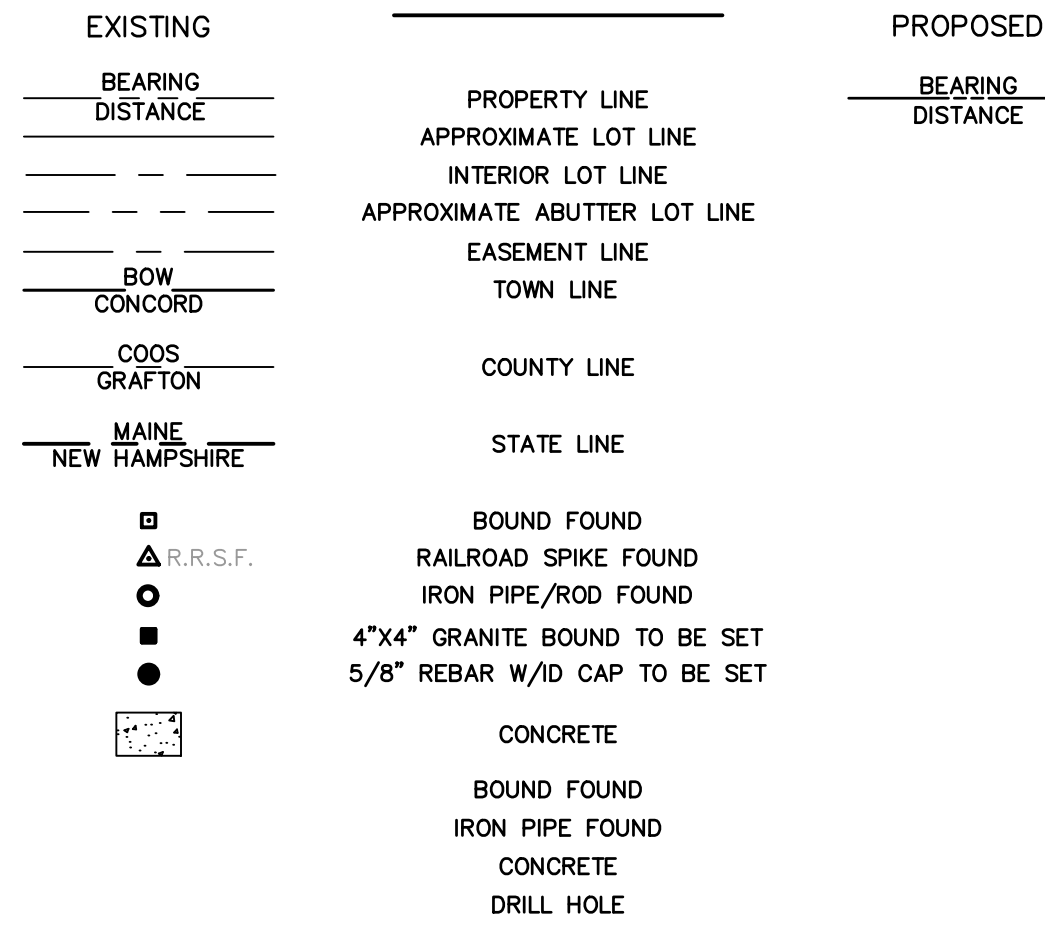


STATE AND FEDERAL PERMITS REQUIRED:		
PERMIT	REQUIRED / NOT REQUIRED	STATUS / PERMIT NO.
NHDES WETLANDS BUREAU STANDARD DREDGE AND FILL	REQUIRED	2019-00523
NHDES ALTERATION OF TERRAIN	REQUIRED	PENDING
NHDES WATER MAIN EXTENSION	REQUIRED	PENDING
NHDES SEWER MAIN EXTENSION	REQUIRED	PENDING
NHDOT EXCAVATION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

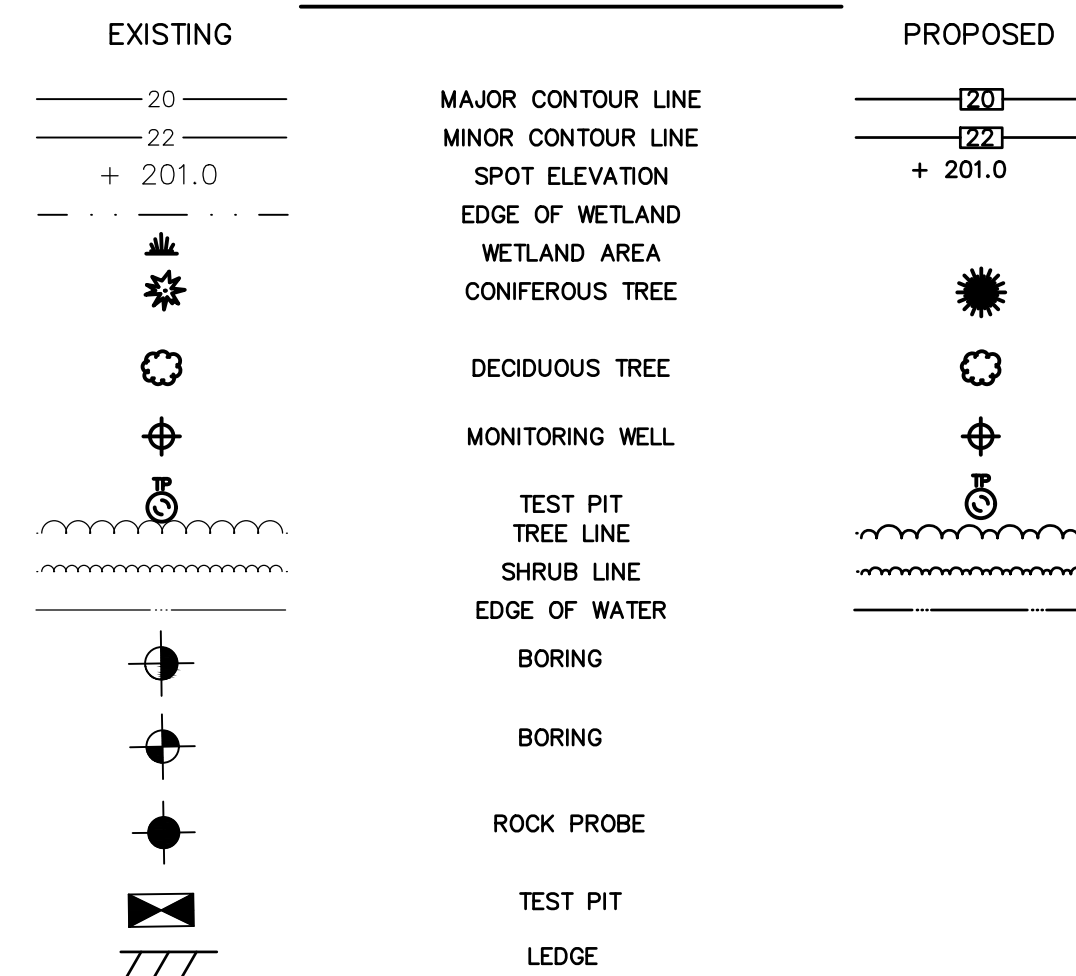
PROJ. No.: 20180317.A10
DATE: AUG 2019

GI-001

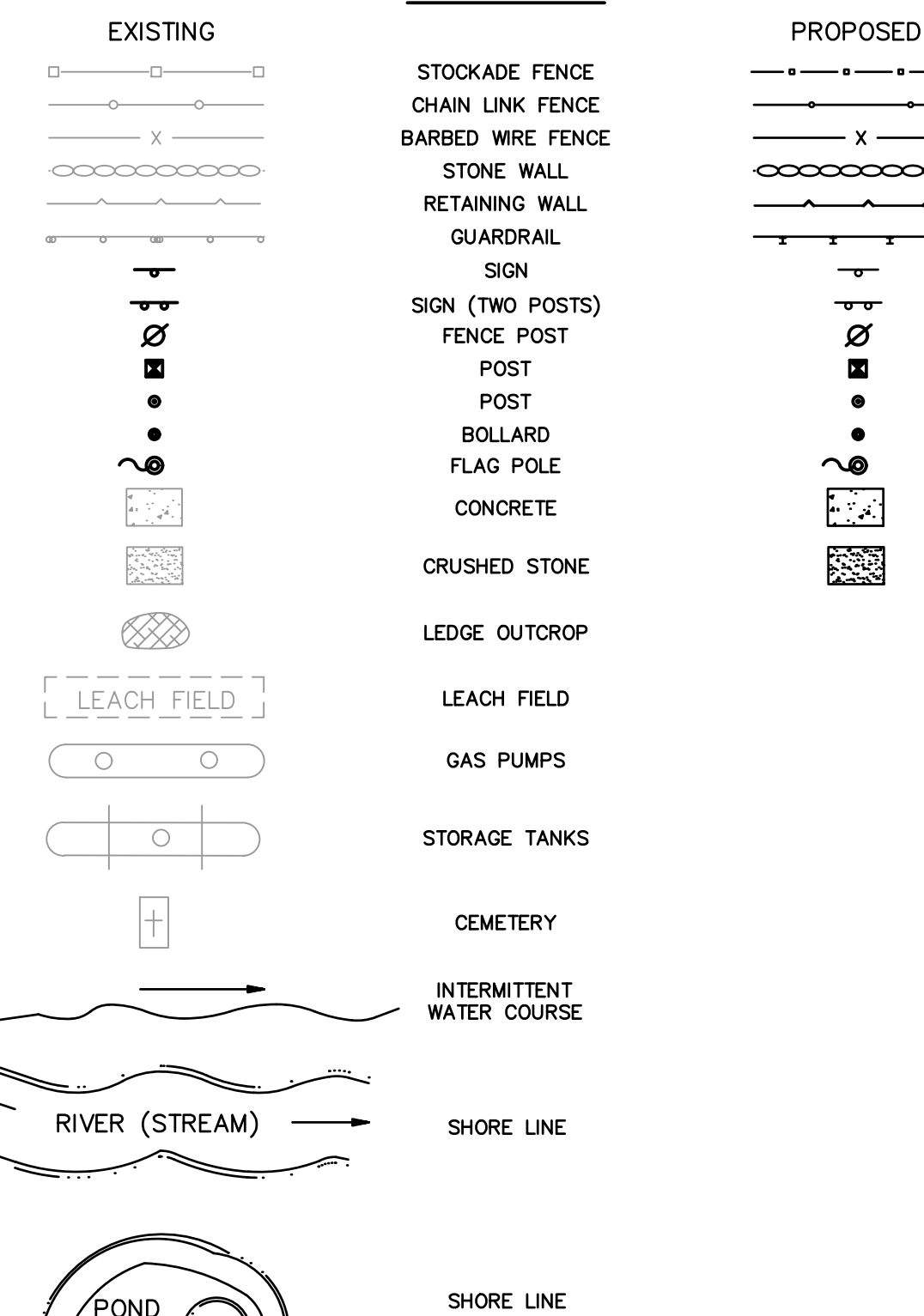
BOUNDARIES



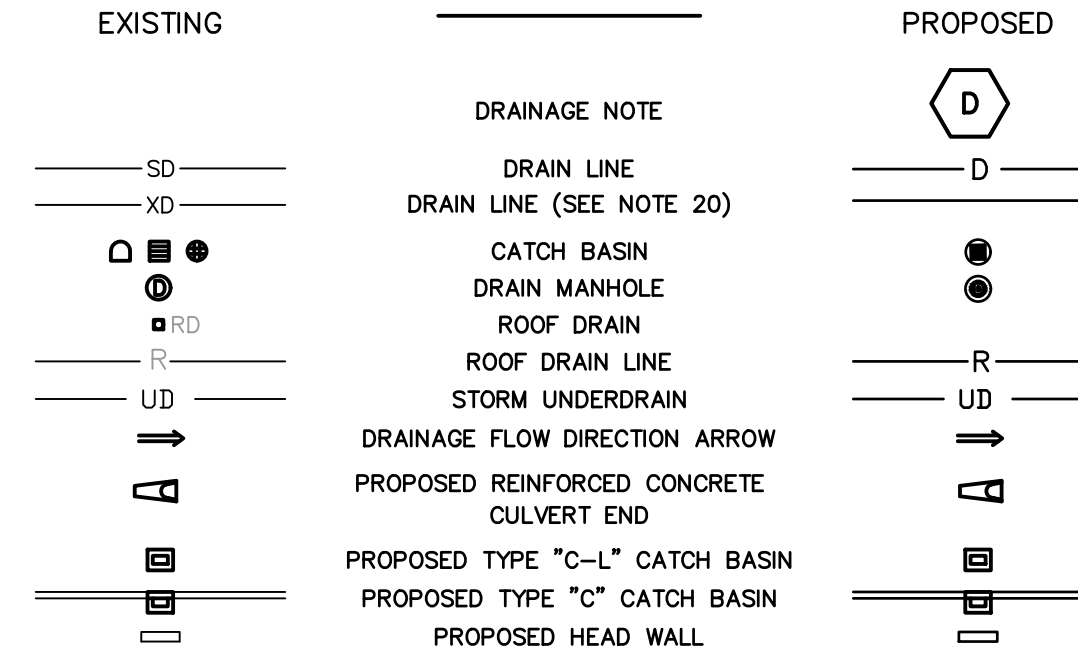
NATURAL RESOURCES



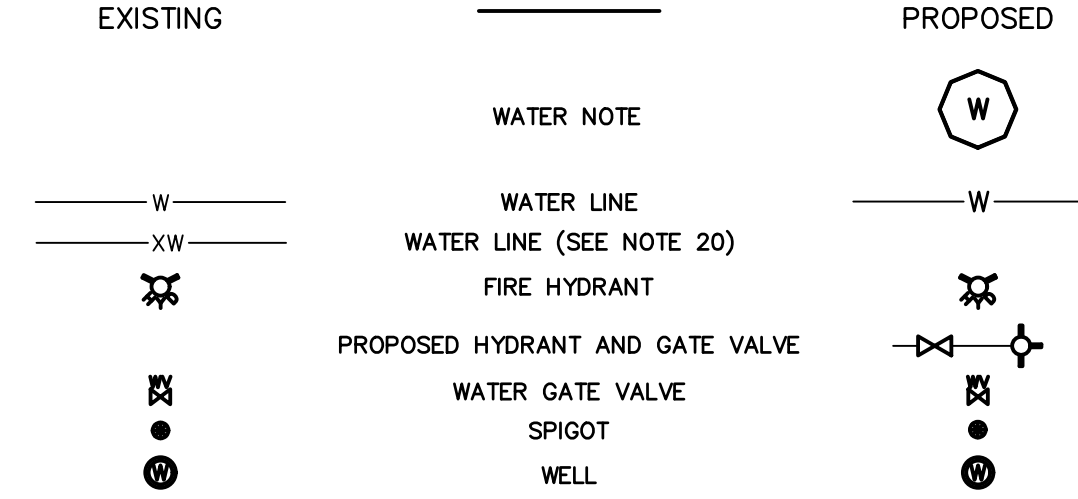
GENERAL



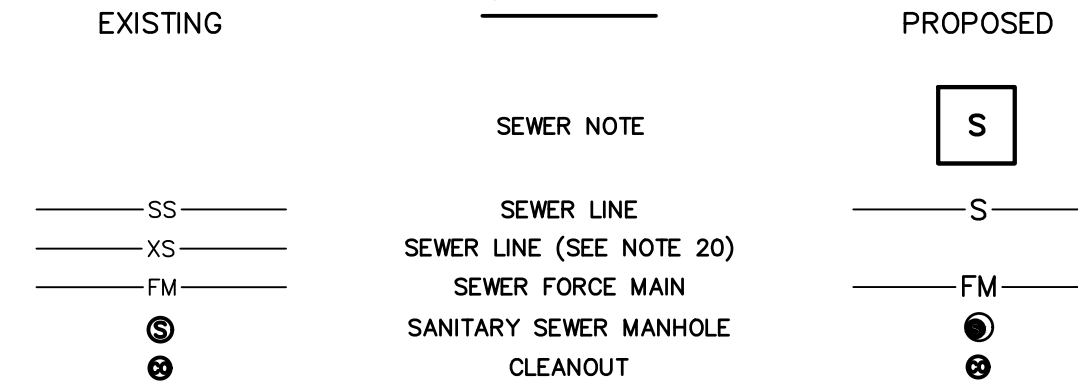
DRAINAGE



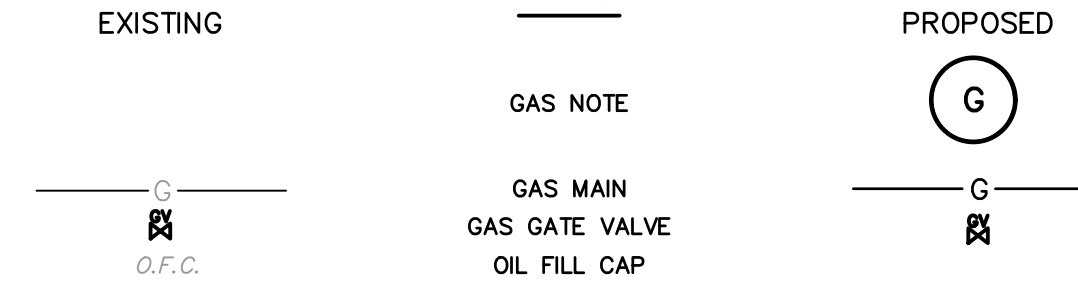
WATER



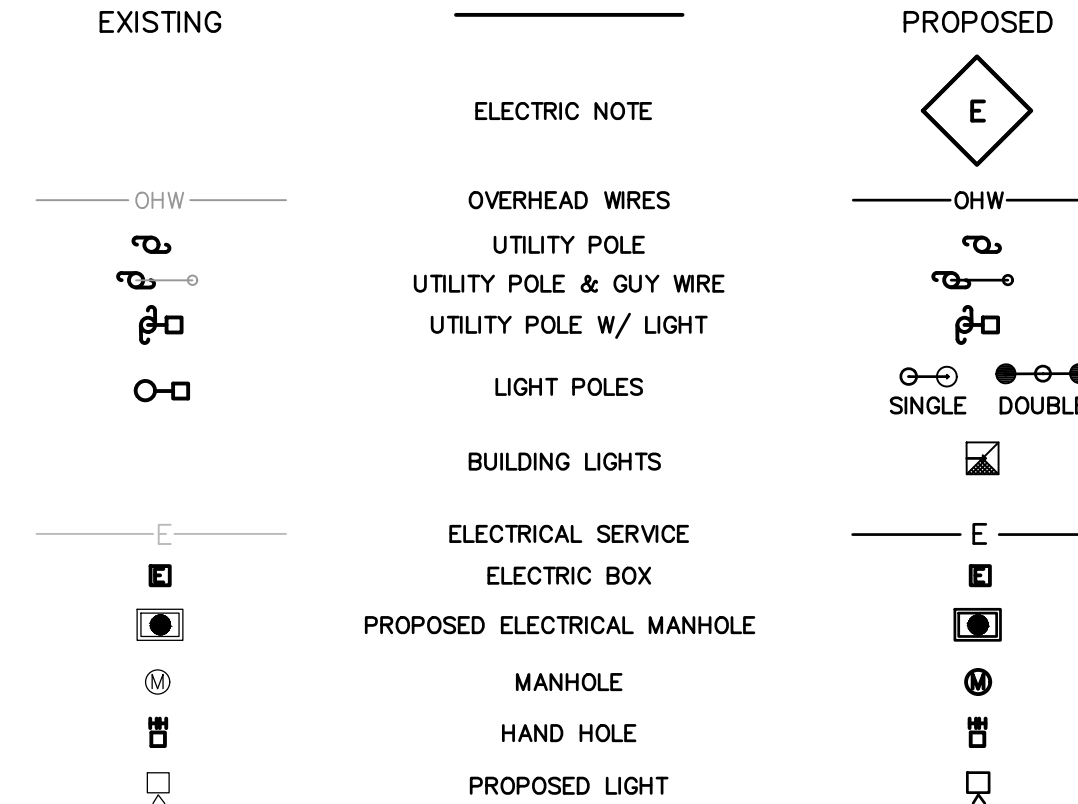
SEWER



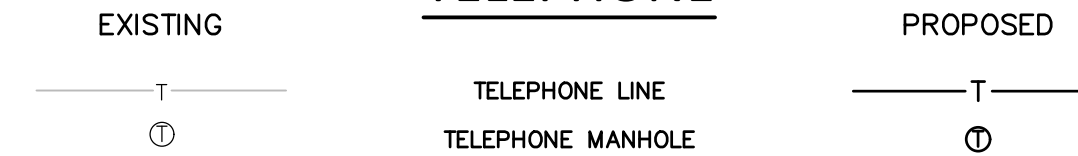
GAS



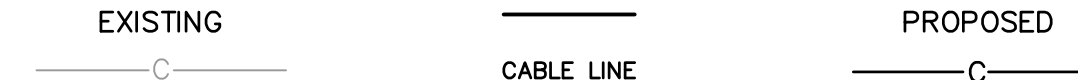
ELECTRIC



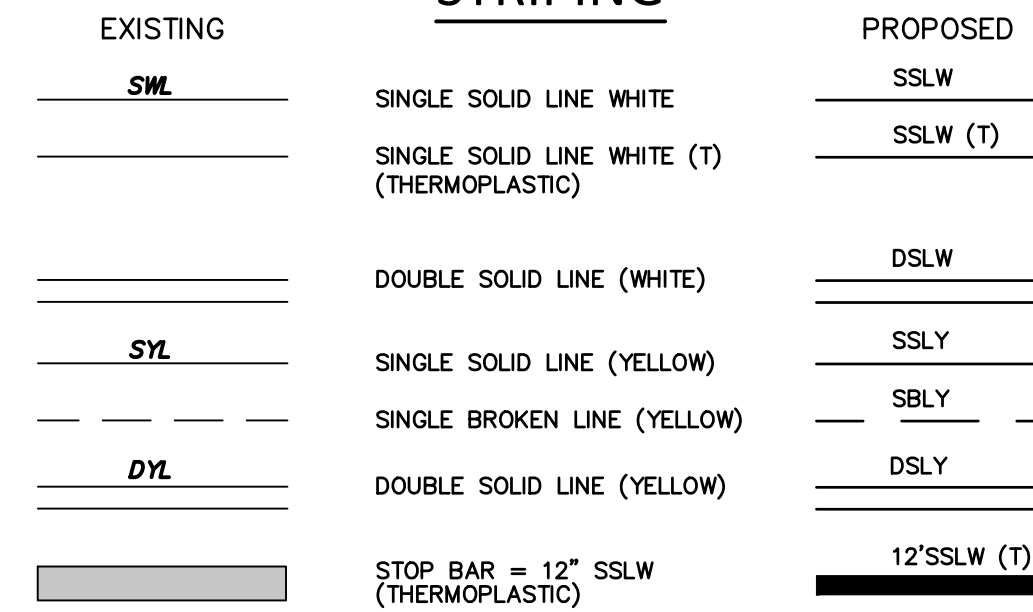
TELEPHONE



CATV



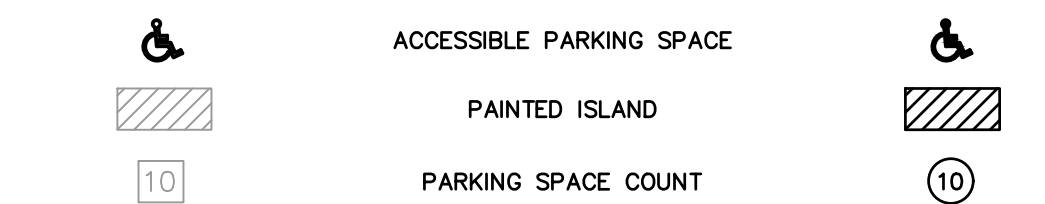
STRIPING



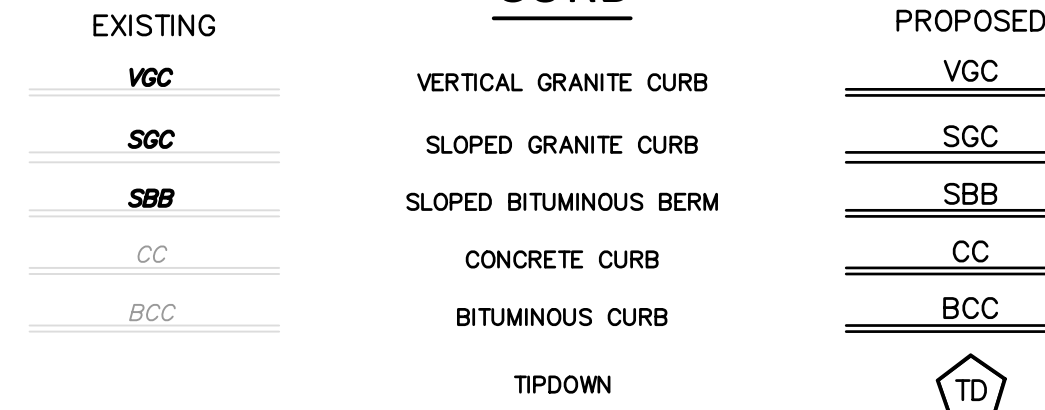
GENERAL PAVEMENT MARKING NOTE:
 PLACEMENT AND COLOR OF PAVEMENT MARKING LINES, SYMBOLS AND WORDS SHALL CONFORM TO THE (MUTCD) SECTION 632 OF NHDOT STANDARD SPECIFICATION BOOK, CONTRACT SUPPLEMENTAL SPECIFICATIONS, THE STATE OF NEW HAMPSHIRE PAVEMENT MARKING STANDARD DETAIL SHEETS, AND STANDARD PLAN SHEETS.

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

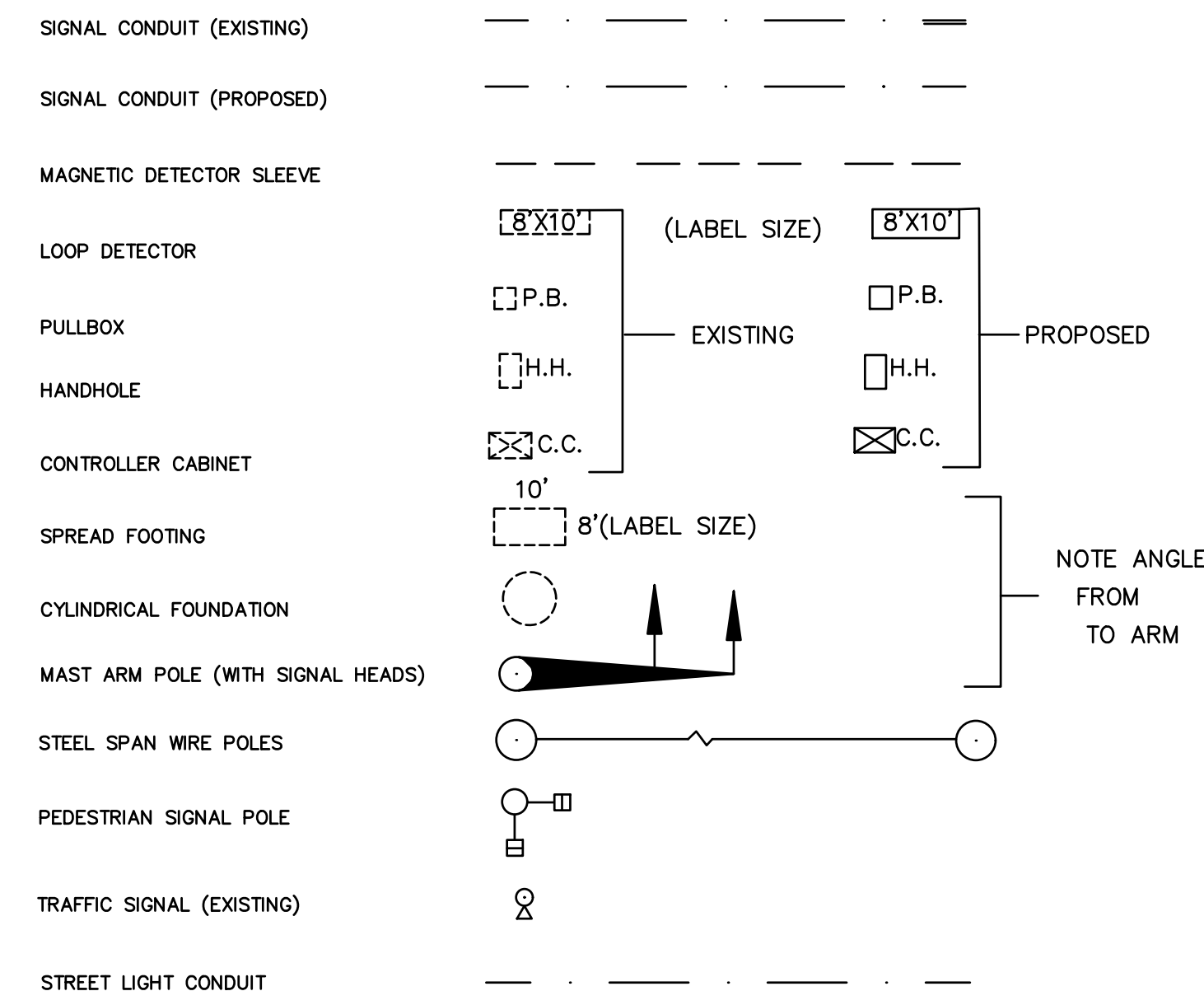
f - WORDS ONLY - WORDS
 (A) = STOP BARS = 12" SSL (WHITE)(T)



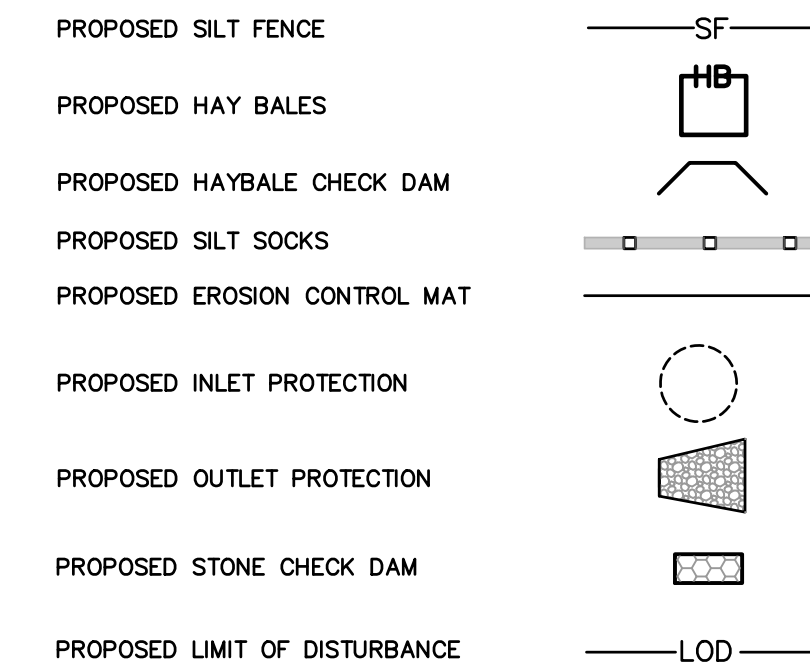
CURB



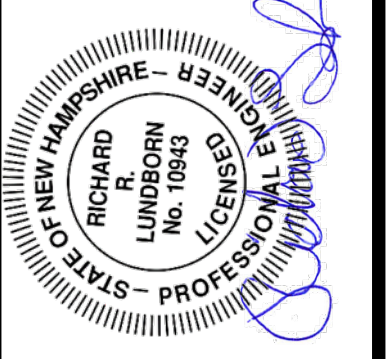
TRAFFIC UTILITIES



EROSION CONTROL



No.	DATE	DESCRIPTION	DESIGNER/REVIEWER
5.	8/19/2019	TAC SUBMITTAL	JVA/DAD
4.	7/24/2019	TAC SUBMITTAL	JVA/DAD
3.	6/20/2019	TAC SUBMITTAL	JVA/DAD
2.	5/20/2019	TAC SUBMITTAL	JVA/DAD
1.	3/18/2019	TAC SUBMITTAL	JVA/DAD



SCALE:	HORIZ.: NTS
	VERT.:
DATUM:	
	HORIZ.:
	VERT.:

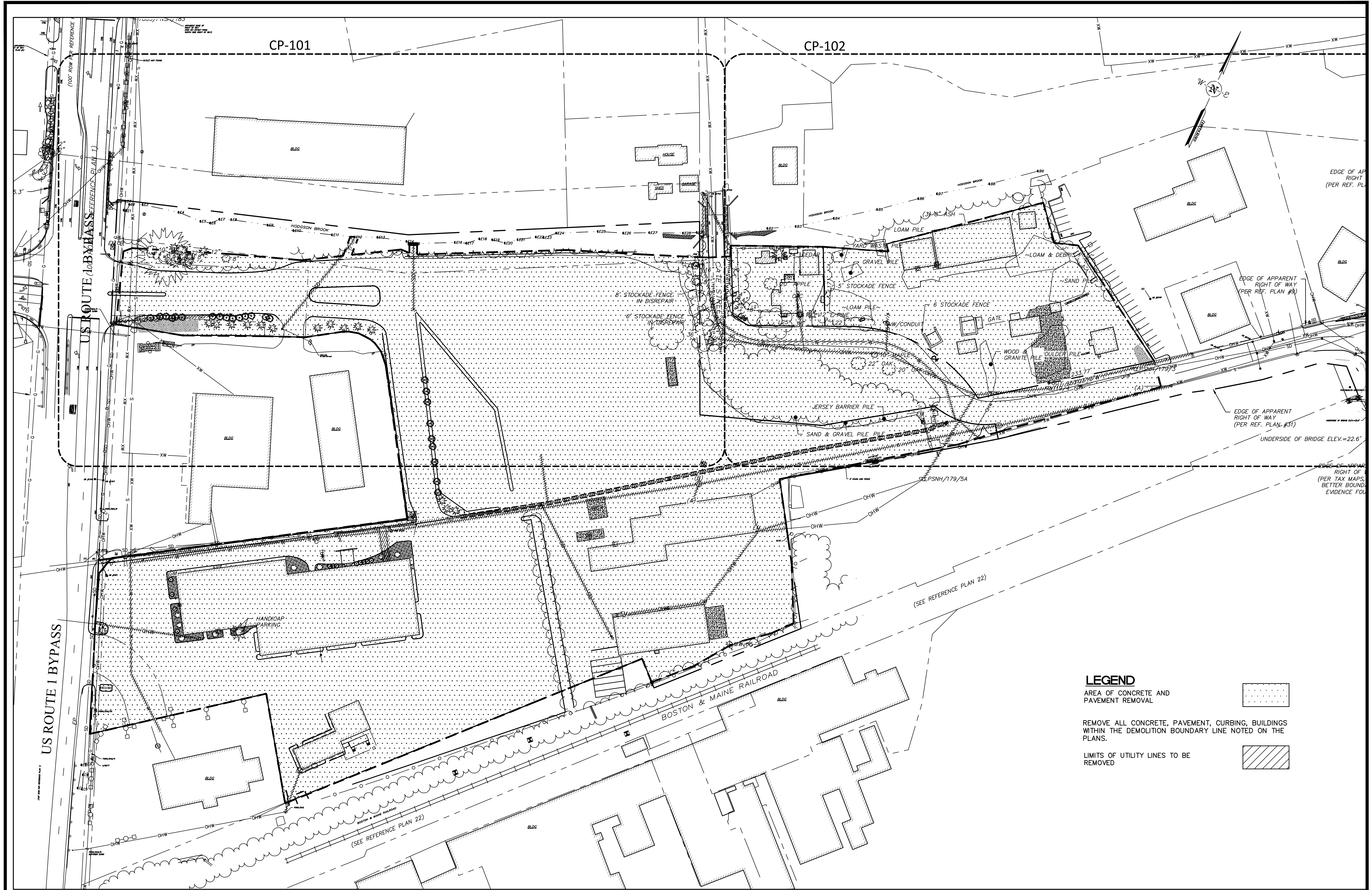
FUSS & O'NEILL
 UPPER SQUARE BUSINESS CENTER
 5 FLETCHER STREET, SUITE 1
 KENNEBUNK, MAINE 04043
 www.fussdo.com

CATE STREET DEVELOPMENT, LLC
 LEGEND
 CATE STREET
 PORTSMOUTH NEW HAMPSHIRE

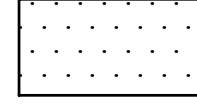
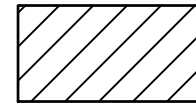

PROJ. No.: 20180317.A10
 DATE: 08/19/2019

CN-003

File Path: F:\P20180317A10\CH3\DWG\20180317A10_DWG01.dwg Layout: CP-100 Plotted: Mon, August 19, 2019 - 10:21 AM User: jandrateta
 MS VIEW: Plotter: DWG TO PDF PC3 CTB File: FO STB

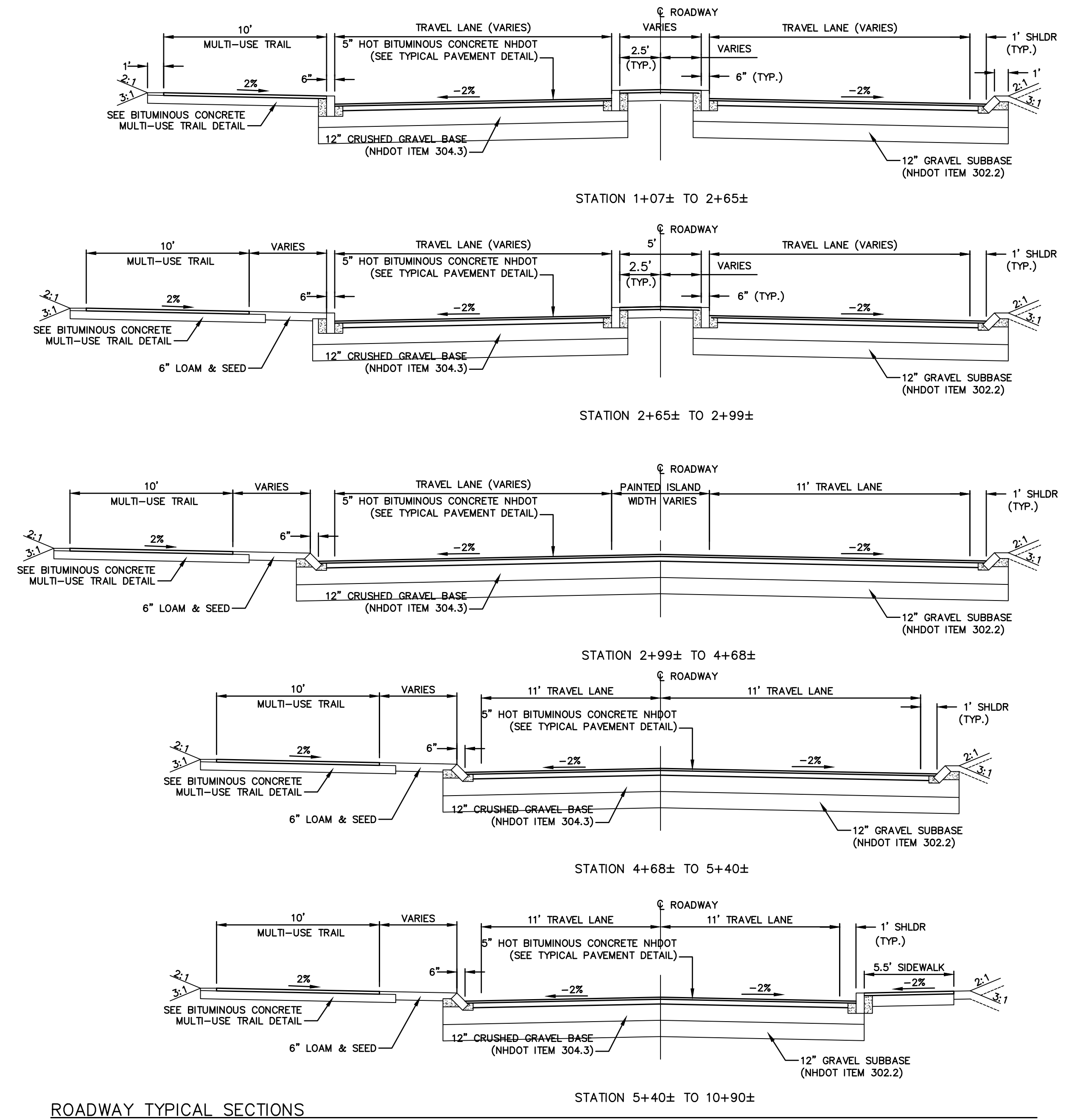


LEGEND

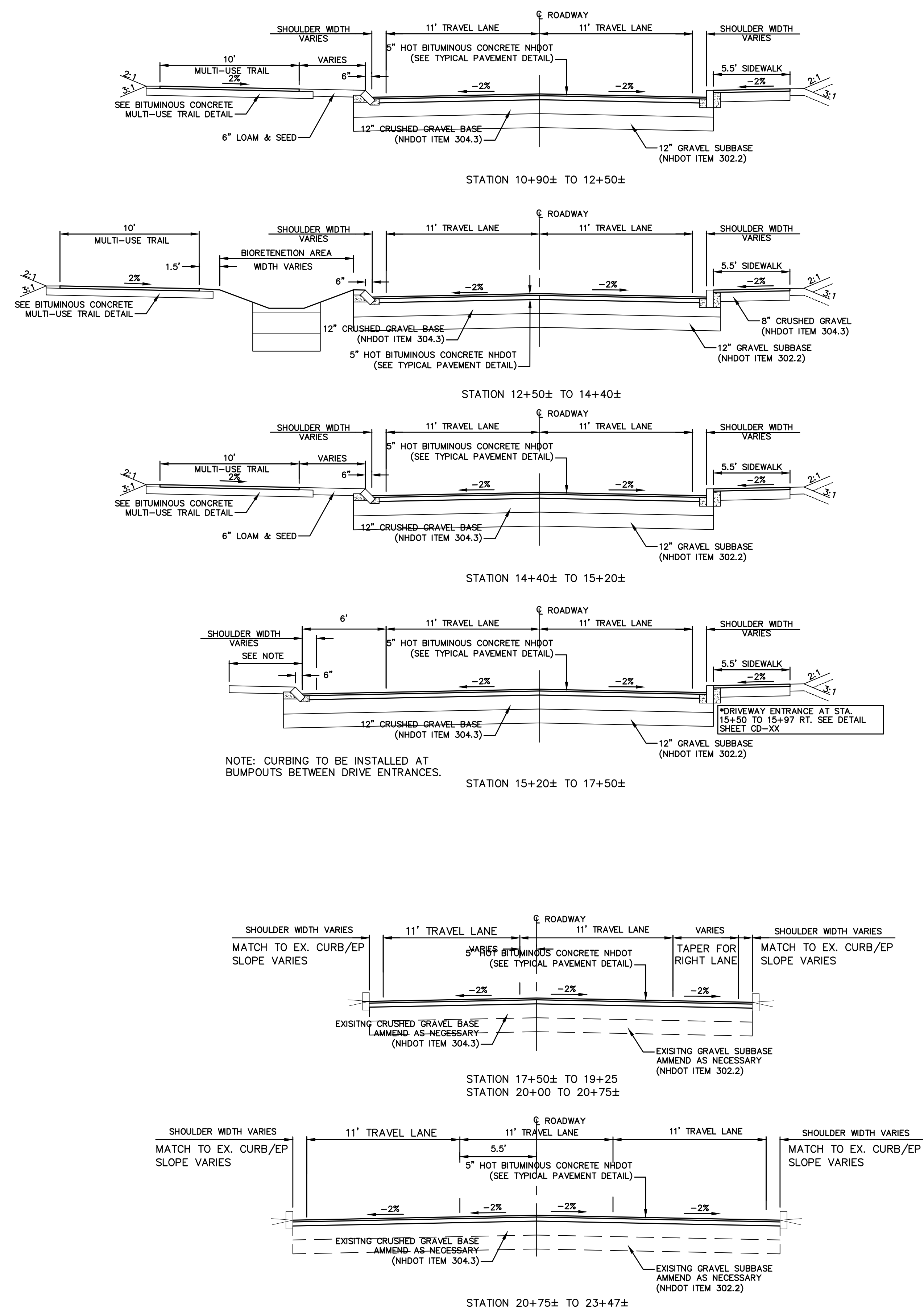
- AREA OF CONCRETE AND PAVEMENT REMOVAL 
- REMOVE ALL CONCRETE, PAVEMENT, CURBING, BUILDINGS WITHIN THE DEMOLITION BOUNDARY LINE NOTED ON THE PLANS. 
- LIMITS OF UTILITY LINES TO BE REMOVED 

<p>SCALE: HORIZ.: 1"=60' VERT.: 1"=60'</p> <p>DATUM: HORIZ.: NAD83 VERT.: NGVD29</p> <p>GRAPHIC SCALE</p>	<p>PROJ. No.: 20180317.A10 DATE: 08/19/2019</p> <p style="text-align: center;">CP-100</p>																		
<p>FUSS & O'NEILL UPPER SQUARE BUSINESS CENTER 5 FLETCHER STREET, SUITE 1 KENNEBUNK, MAINE 04043 207.563.6609 www.fussdo.com</p>																			
<p>CATE STREET DEVELOPMENT, LLC OVERALL ROADWAY PREPARATION PLAN CATE STREET PORTSMOUTH NEW HAMPSHIRE</p>																			
<p>DESIGNER REVIEWER</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th>No.</th> <th>DATE</th> <th>DESCRIPTION</th> </tr> <tr> <td>1.</td> <td></td> <td>JVA/DAD TAC SUBMITTAL</td> </tr> <tr> <td>2.</td> <td></td> <td>JVA/DAD TAC SUBMITTAL</td> </tr> <tr> <td>3.</td> <td></td> <td>JVA/DAD TAC SUBMITTAL</td> </tr> <tr> <td>4.</td> <td></td> <td>JVA/DAD TAC SUBMITTAL</td> </tr> <tr> <td>5.</td> <td></td> <td>JVA/DAD TAC SUBMITTAL</td> </tr> </table>		No.	DATE	DESCRIPTION	1.		JVA/DAD TAC SUBMITTAL	2.		JVA/DAD TAC SUBMITTAL	3.		JVA/DAD TAC SUBMITTAL	4.		JVA/DAD TAC SUBMITTAL	5.		JVA/DAD TAC SUBMITTAL
No.	DATE	DESCRIPTION																	
1.		JVA/DAD TAC SUBMITTAL																	
2.		JVA/DAD TAC SUBMITTAL																	
3.		JVA/DAD TAC SUBMITTAL																	
4.		JVA/DAD TAC SUBMITTAL																	
5.		JVA/DAD TAC SUBMITTAL																	

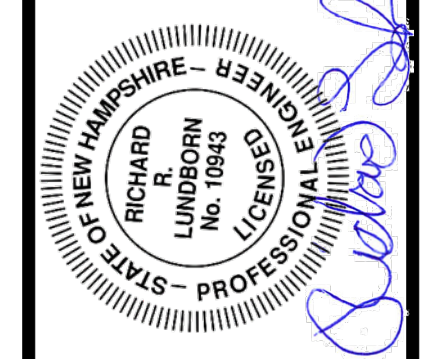
File Path: F:\P20180317A10\CH\3\DWG\20180317A10_STP01.DWG Layout: CS-001(R) Plotter: Mon, August 19, 2019 - 11:22:AM User: ddugal
 MS VIEW: LAYER STATE: Plotter: DWG TO PDF-PC3 CTB File: FO.STB



ROADWAY TYPICAL SECTIONS
 SCALE: 1"=5'



NO.	DATE	DESCRIPTION	DESIGNER	REVIEWER
1	3/18/2019	TAC SUBMITTAL	JVA/DAD	RRL
2	5/20/2019	TAC SUBMITTAL	JVA/DAD	RRL
3	6/20/2019	TAC SUBMITTAL	JVA/DAD	RRL
4	7/24/2019	TAC SUBMITTAL	JVA/DAD	RRL
5	8/19/2019	TAC SUBMITTAL	JVA/DAD	RRL



SCALE:	HORIZ.:	VERT.:	DATUM:

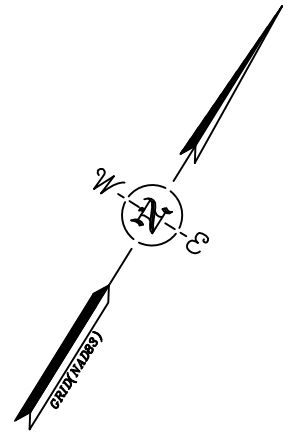
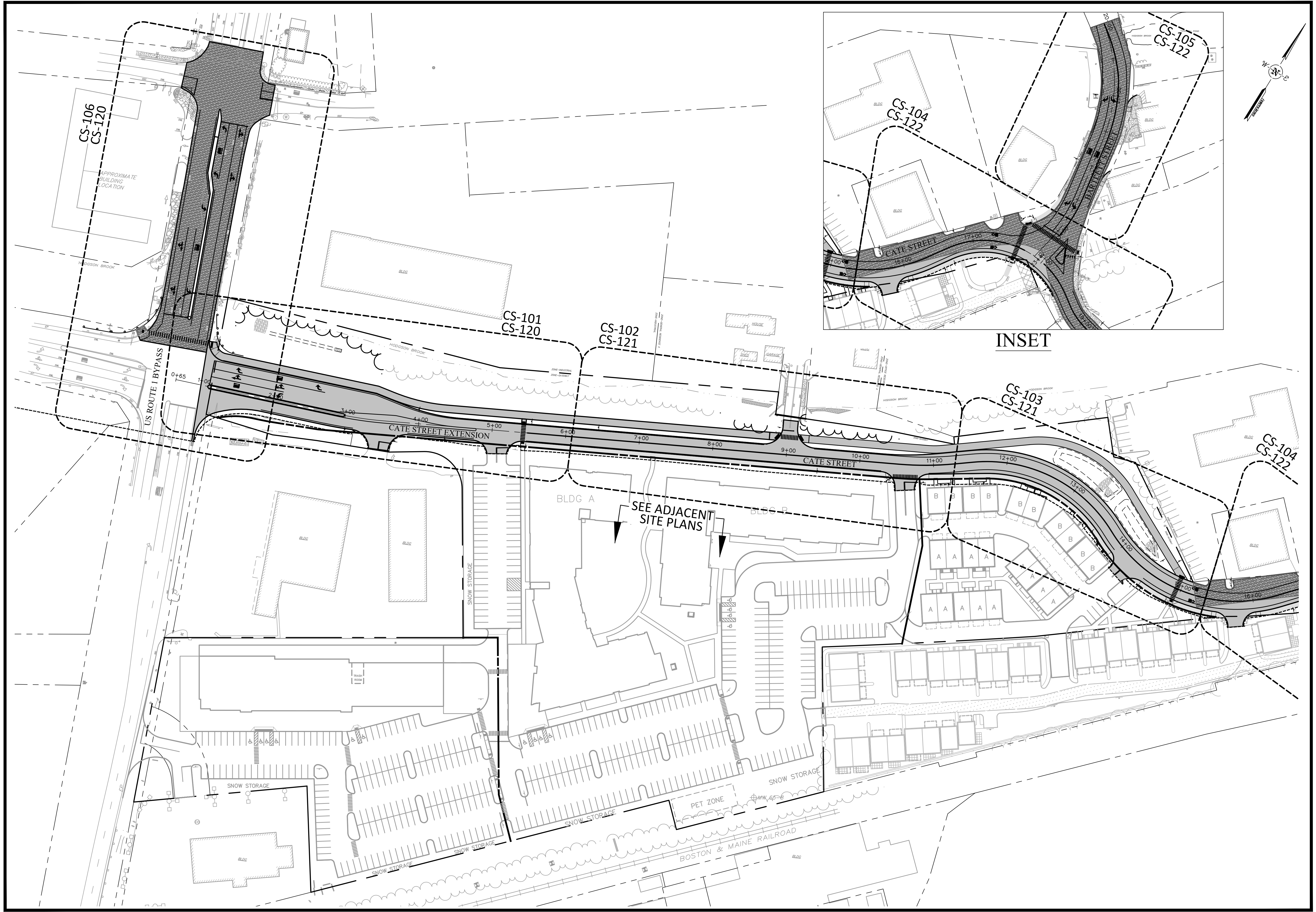
FUSS & O'NEILL
 UPPER SQUARE BUSINESS CENTER
 5 FLETCHER STREET, SUITE 1
 KENNEBUNK, MAINE 04043
 www.fandoc.com

CATE STREET DEVELOPMENT, LLC
 TYPICAL ROADWAY SECTIONS
 CATE STREET
 PORTSMOUTH NEW HAMPSHIRE

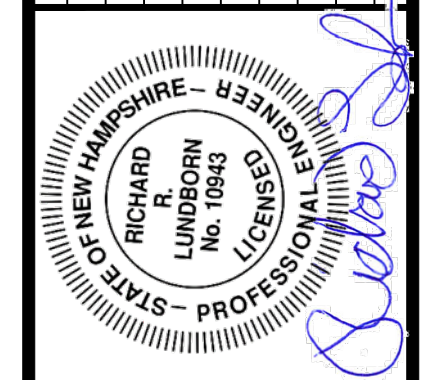
PROJ. No.: 20180317.A10
 DATE: 08/19/2019

CS-001

File Path: F:\P20180317A10\CH3\DWG\20180317A10_STP01.DWG Layout: CS-100(R) Plot: Mon, August 19, 2019 - 11:22:AM User: ddugal
 MS VIEW: LAYER STATE: Plotter: DWG TO PDF-PC3 CTB File: FO-STB



NO.	DATE	DESCRIPTION	DESIGNER/REVIEWER
1.	5/20/2019	TAC SUBMITTAL	RRL
2.	5/20/2019	TAC SUBMITTAL	RRL
3.	6/20/2019	TAC SUBMITTAL	RRL
4.	7/24/2019	TAC SUBMITTAL	RRL
5.	8/19/2019	TAC SUBMITTAL	RRL



SCALE:	HORIZ.: 1"=60'
	VERT.: 1"=60'
DATUM:	HORIZ.: NAD83
	VERT.: NAVD88
	GRAPHIC SCALE

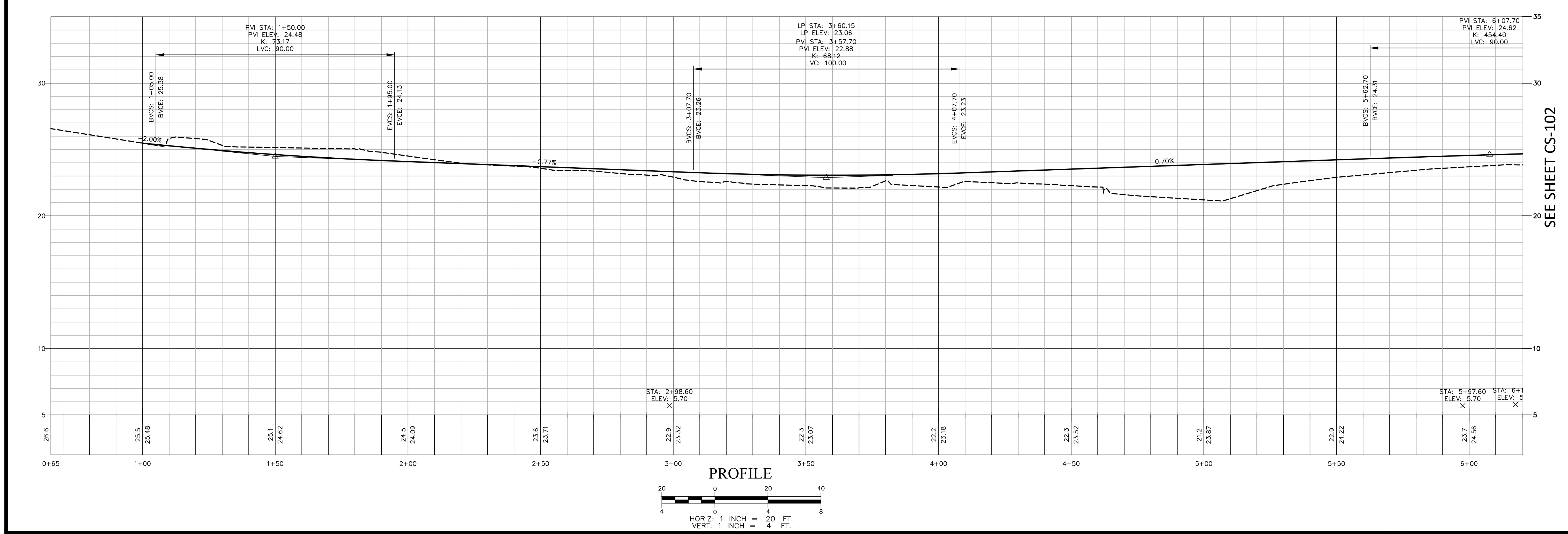
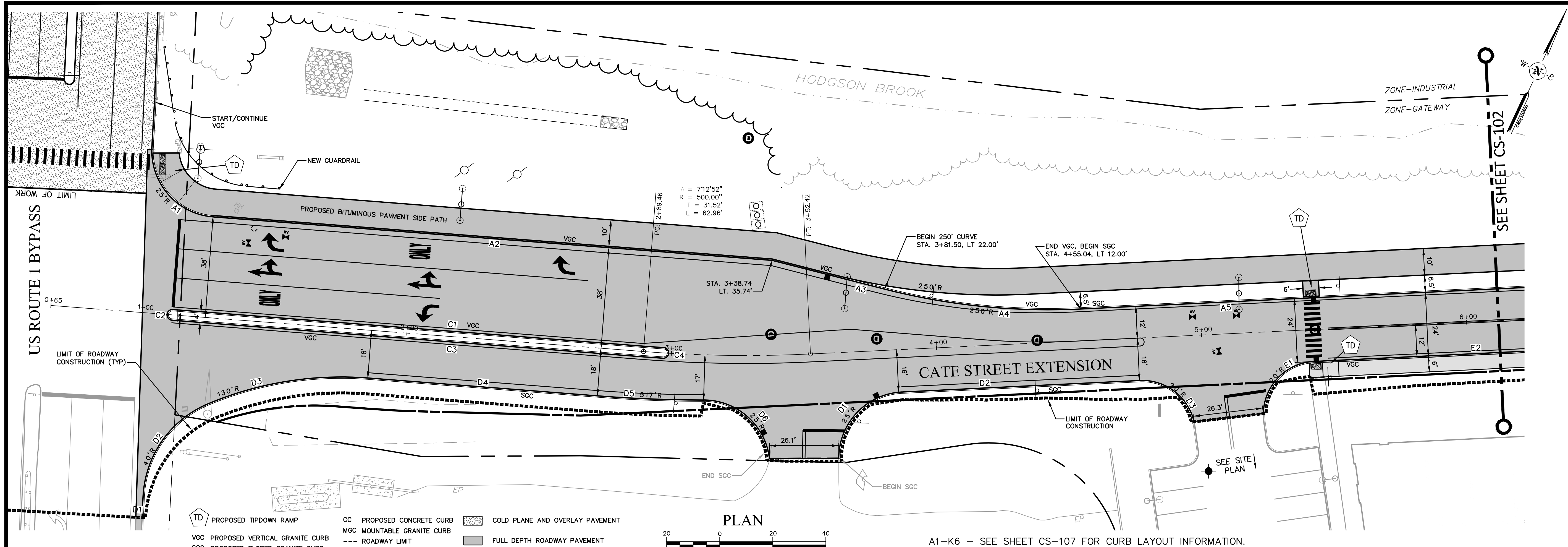
FUSS & O'NEILL
 UPPER SQUARE BUSINESS CENTER
 5 FLETCHER STREET, SUITE 1
 KENNEBUNK, MAINE 04043
 www.fandoo.com

CATE STREET DEVELOPMENT, LLC
 OVERALL ROADWAY PLAN
 CATE STREET
 PORTSMOUTH NEW HAMPSHIRE

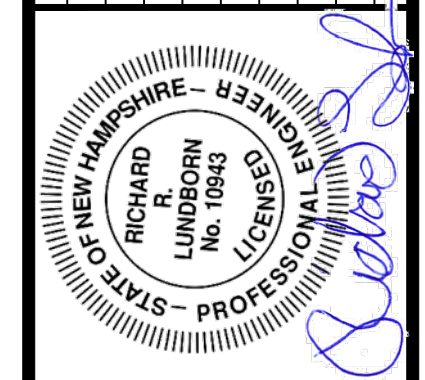
PROJ. No.: 20180317.A10
 DATE: 08/19/2019
CS-100

File Path: F:\P20180317A\10\Ch3\3\DWG\20180317A10_STP01.DWG Layout: CS-101(R) Plotter: DWG TO PDF-PC3 CTB File: FO.STB
 User: ddugal
 Date: 8/19/2019 11:22 AM

LAYER STATE:



NO.	DATE	DESCRIPTION	DESIGNER/REVIEWER
5.	8/19/2019	TAC SUBMITTAL	JVA/DAD
4.	7/24/2019	TAC SUBMITTAL	JVA/DAD
3.	6/20/2019	TAC SUBMITTAL	JVA/DAD
2.	5/20/2019	TAC SUBMITTAL	JVA/DAD
1.	3/18/2019	TAC SUBMITTAL	JVA/DAD



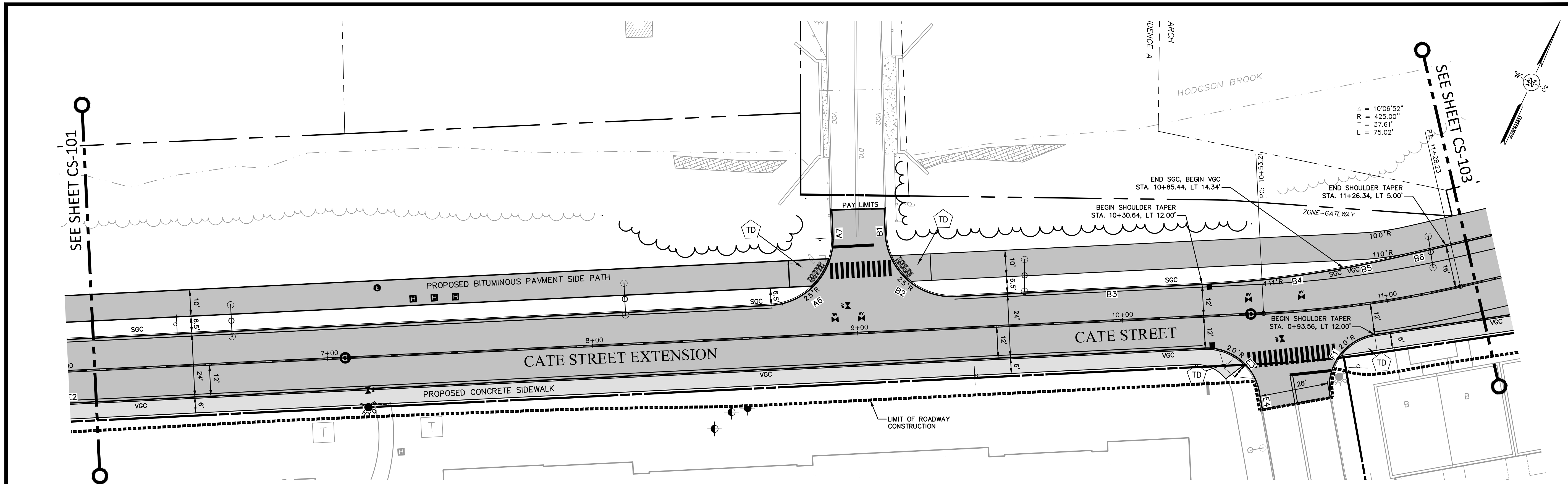
SCALE:	HORIZ: 1" = 20'
	VERT: 1" = 4'
DATUM:	NAD83
	VERT.: NGVD29

FUSS & O'NEILL
 UPPER SQUARE BUSINESS CENTER
 5 FLETCHER STREET, SUITE 1
 KENNEBUNK, MAINE 04043
 207.563.6609
 www.fandoo.com

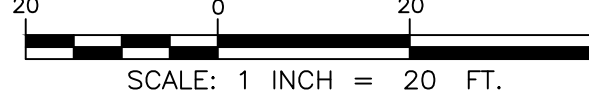
CATE STREET DEVELOPMENT, LLC
 ROADWAY PLAN & PROFILE
 CATE STREET
 PORTSMOUTH NEW HAMPSHIRE

PROJ. No.: 20180317.A10
 DATE: 08/19/2019

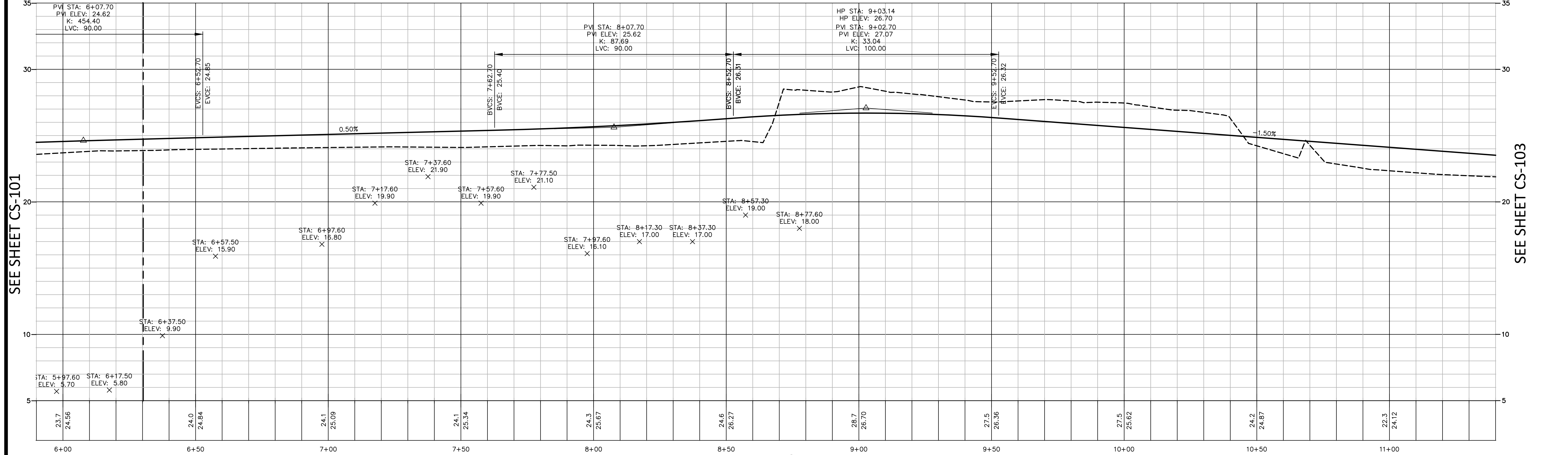
CS-101



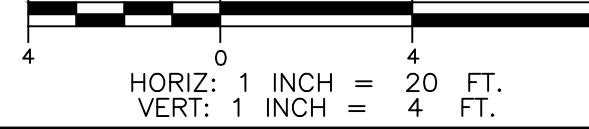
PLAN



- TD PROPOSED TIPDOWN RAMP
- VGC PROPOSED VERTICAL GRANITE CURB
- SGC PROPOSED SLOPED GRANITE CURB
- CC PROPOSED CONCRETE CURB
- MGC MOUNTABLE GRANITE CURB
- ROADWAY LIMIT
- DETECTABLE WARNING PANEL
- COLD PLANE AND OVERLAY PAVEMENT
- FULL DEPTH ROADWAY PAVEMENT



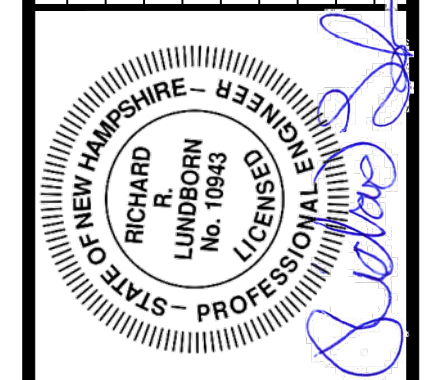
PROFILE



SEE SHEET CS-101

SEE SHEET CS-103

NO.	DATE	DESCRIPTION	DESIGNER/REVIEWER
5.	8/19/2019	TAC SUBMITTAL	JVA/DAD
4.	7/24/2019	TAC SUBMITTAL	JVA/DAD
3.	6/20/2019	TAC SUBMITTAL	JVA/DAD
2.	5/20/2019	TAC SUBMITTAL	JVA/DAD
1.	3/18/2019	TAC SUBMITTAL	JVA/DAD

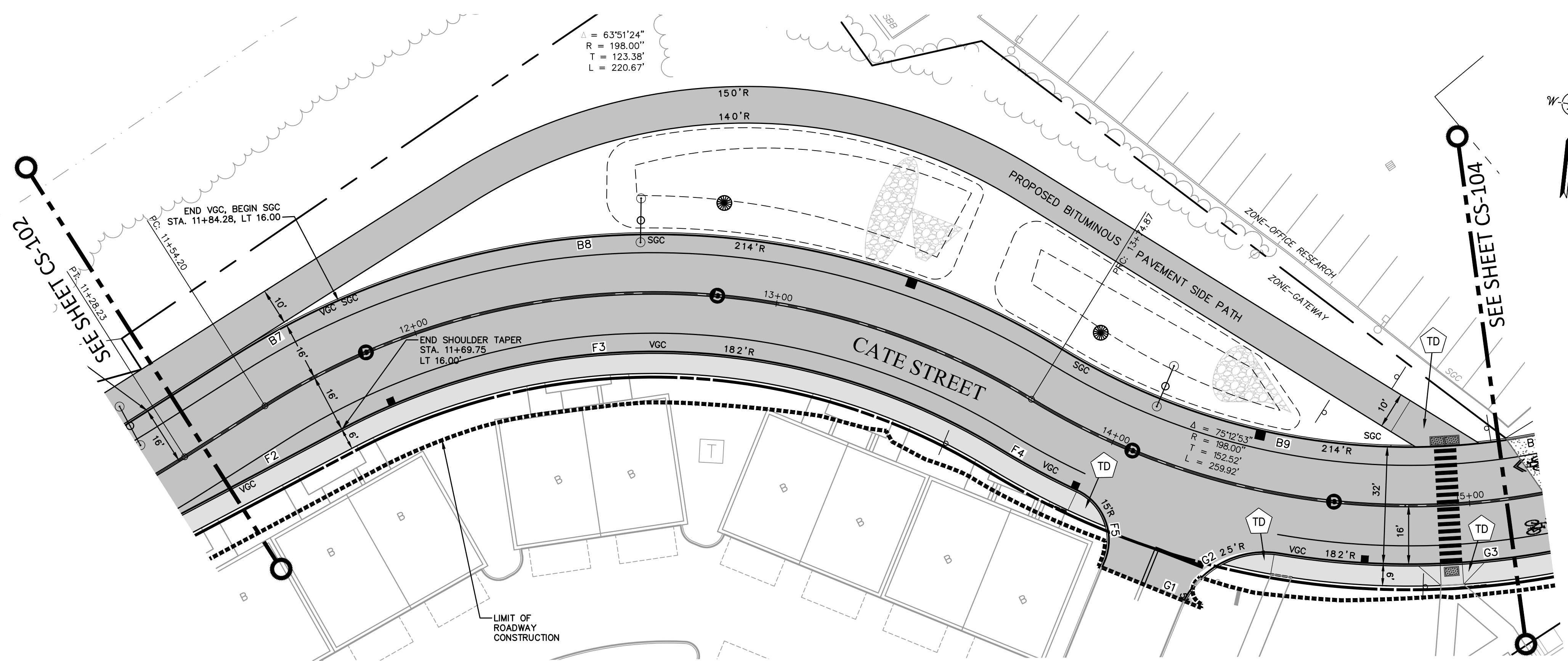


SCALE:	HORIZ: 1"=20'
	VERT: 1"=20'
DATUM:	HORIZ: NAD83
	VERT: NGVD29

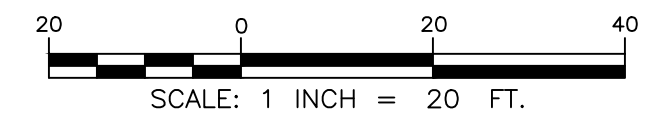
FUSS & O'NEILL
 UPPER SQUARE BUSINESS CENTER
 5 FLETCHER STREET, SUITE 1
 KENNEBUNK, MAINE 04043
 207.563.0609
 www.fandoo.com

CATE STREET DEVELOPMENT, LLC
 ROADWAY PLAN & PROFILE
 CATE STREET
 PORTSMOUTH NEW HAMPSHIRE

PROJ. No.: 20180317.A10
 DATE: 08/19/2019
CS-102

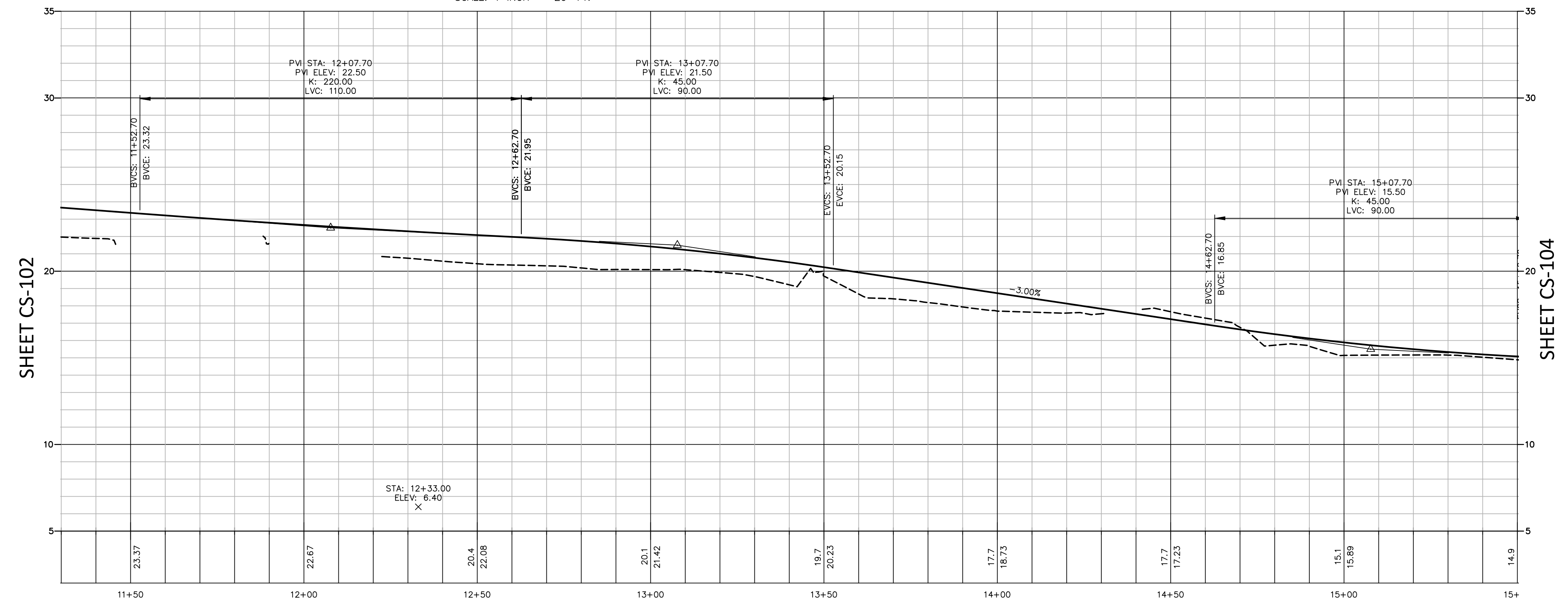


PLAN

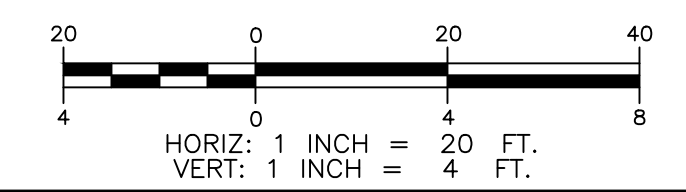


A1-K6 - SEE SHEET CS-107 FOR CURB LAYOUT INFORMATION.

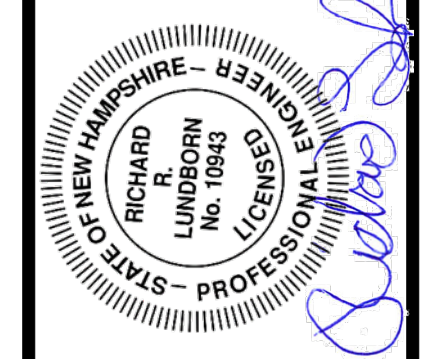
- PROPOSED TIPDOWN RAMP
- PROPOSED VERTICAL GRANITE CURB
- PROPOSED SLOPED GRANITE CURB
- PROPOSED CONCRETE CURB
- MOUNTABLE GRANITE CURB
- ROADWAY LIMIT
- DETECTABLE WARNING PANEL
- COLD PLANE AND OVERLAY PAVEMENT
- FULL DEPTH ROADWAY PAVEMENT



PROFILE



NO.	DATE	DESCRIPTION	DESIGNER/REVIEWER
1.		TAC SUBMITTAL	JVA/DAD
2.		TAC SUBMITTAL	JVA/DAD
3.		TAC SUBMITTAL	JVA/DAD
4.	7/24/2019	TAC SUBMITTAL	JVA/DAD
5.	8/19/2019	TAC SUBMITTAL	JVA/DAD



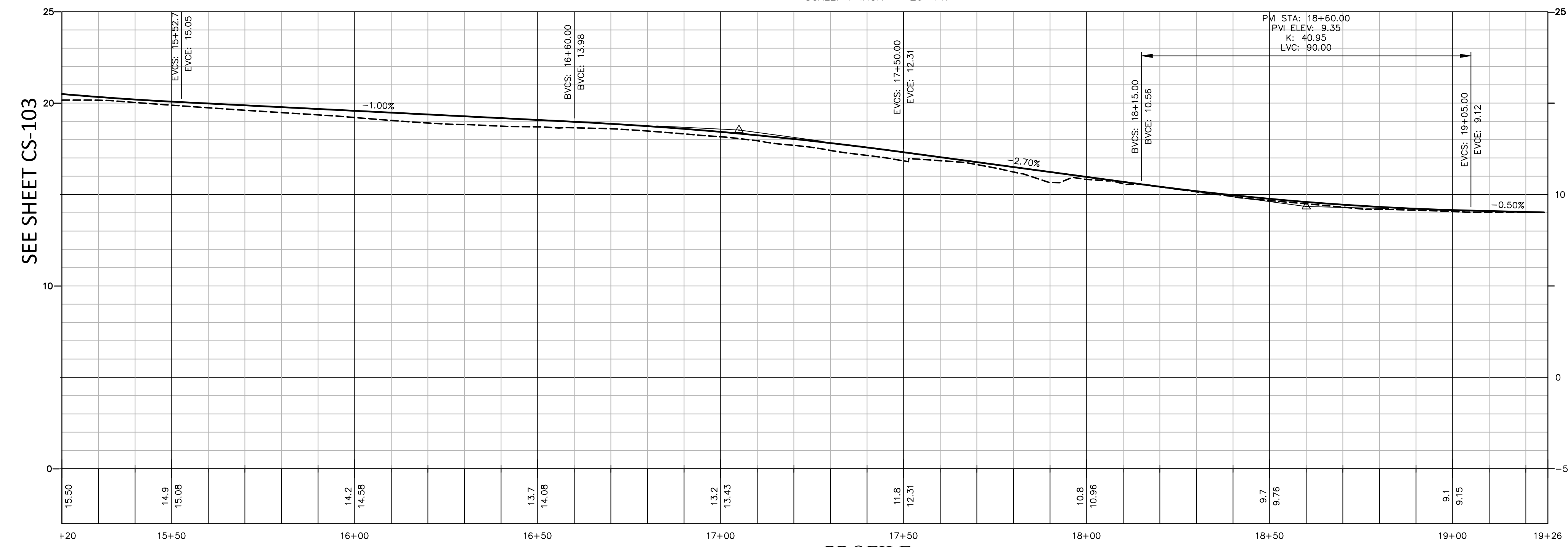
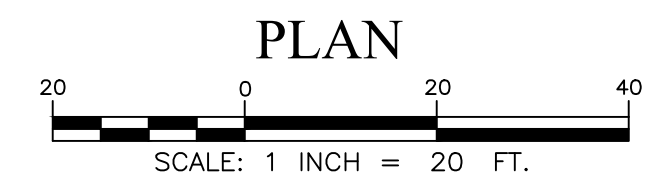
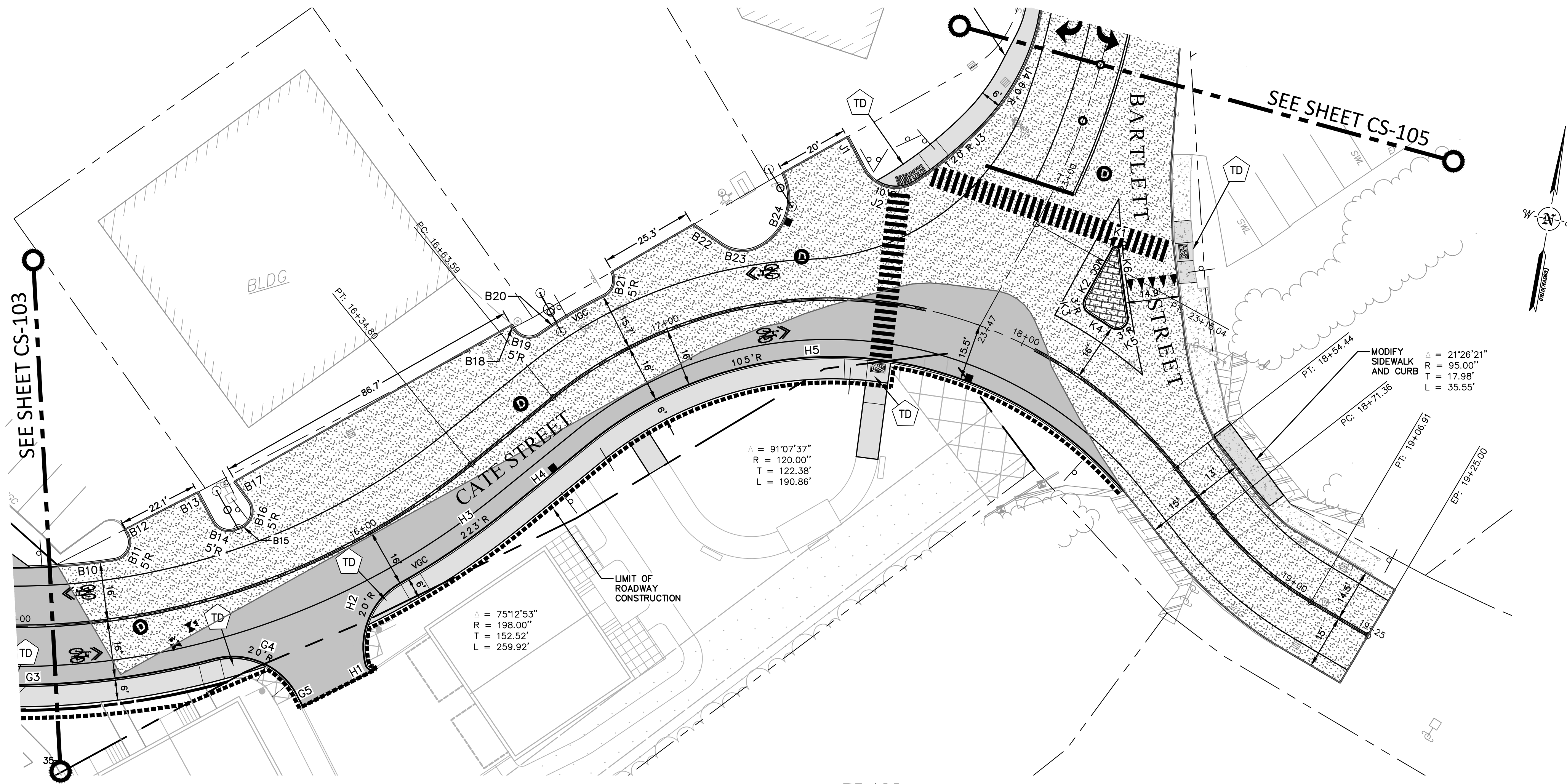
SCALE:	HORIZ: 1"=20'	VERT: 1"=20'
DATUM:	HORIZ: NAD83 VERT: NGVD29	
GRAPHIC SCALE		

FUSS & O'NEILL
 UPPER SQUARE BUSINESS CENTER
 5 FLETCHER STREET, SUITE 1
 KENNEBUNK, MAINE 04043
 207.563.0669
 www.fandoo.com

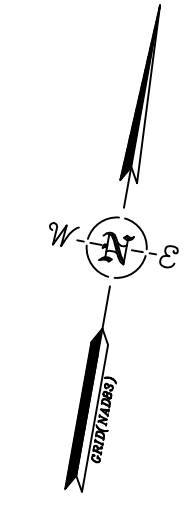
CATE STREET DEVELOPMENT, LLC
 ROADWAY PLAN & PROFILE
 CATE STREET
 PORTSMOUTH NEW HAMPSHIRE

PROJ. No.: 20180317.A10
 DATE: 08/19/2019

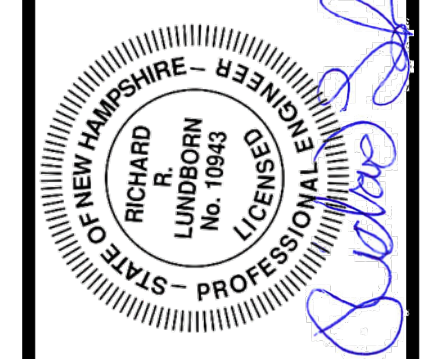
CS-103



- TD PROPOSED TIPDOWN RAMP
- VGC PROPOSED VERTICAL GRANITE CURB
- SGC PROPOSED SLOPED GRANITE CURB
- CC PROPOSED CONCRETE CURB
- MGC MOUNTABLE GRANITE CURB
- ROADWAY LIMIT
- DETECTABLE WARNING PANEL
- COLD PLANE AND OVERLAY PAVEMENT
- FULL DEPTH ROADWAY PAVEMENT



NO.	DATE	DESCRIPTION	DESIGNER/REVIEWER
5.	8/19/2019	TAC SUBMITTAL	JVA/DAD
4.	7/24/2019	TAC SUBMITTAL	JVA/DAD
3.	6/20/2019	TAC SUBMITTAL	JVA/DAD
2.	5/20/2019	TAC SUBMITTAL	JVA/DAD
1.	3/18/2019	TAC SUBMITTAL	JVA/DAD



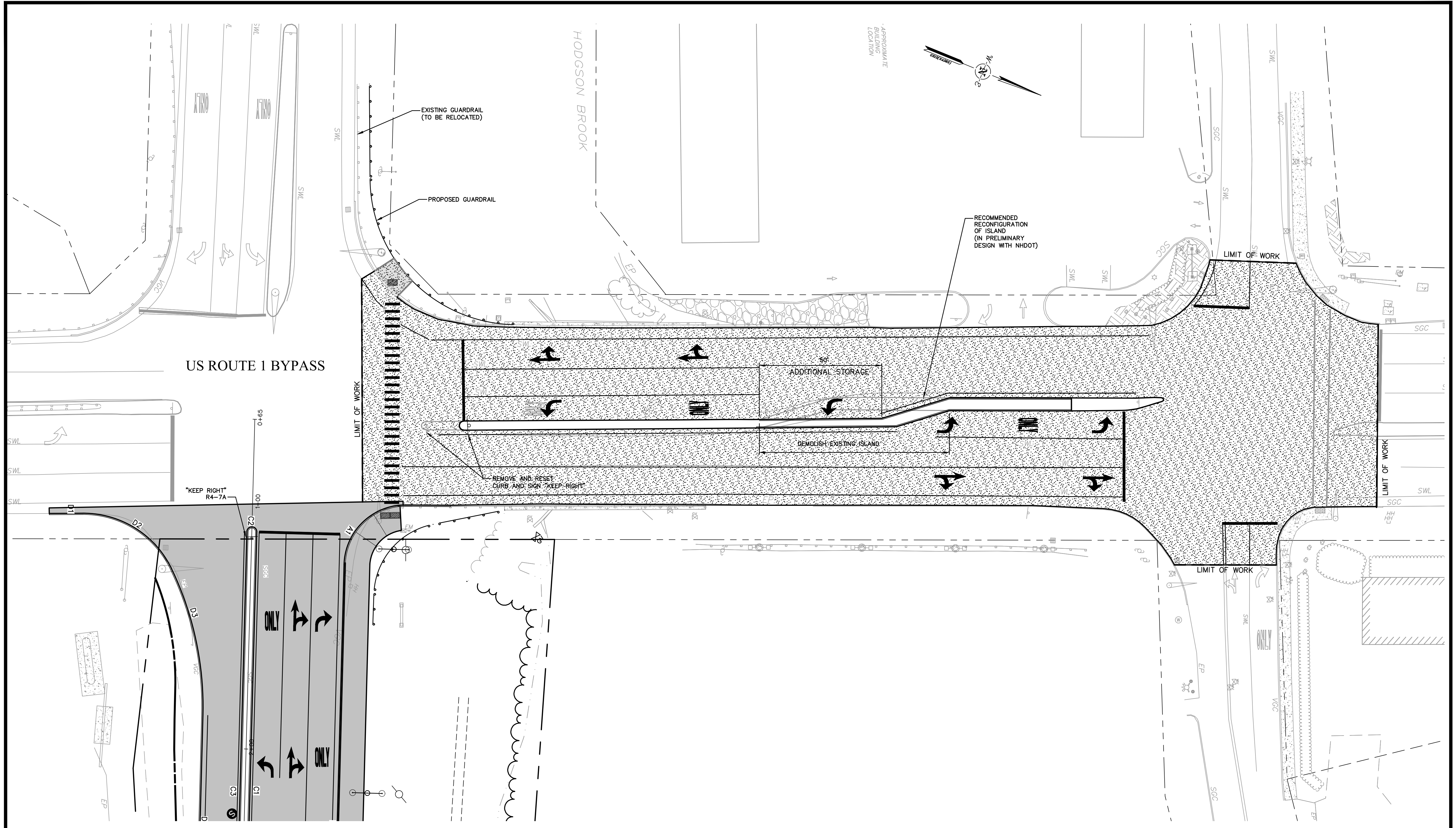
SCALE:	HORIZ: 1"=20'
	VERT: 1"=20'
DATUM:	HORIZ: NAD83
	VERT: NGVD29
	GRAPHIC SCALE

FUSS & O'NEILL
 UPPER SQUARE BUSINESS CENTER
 5 FLETCHER STREET, SUITE 1
 KENNEBUNK, MAINE 04043
 207.563.6669
 www.fandoo.com

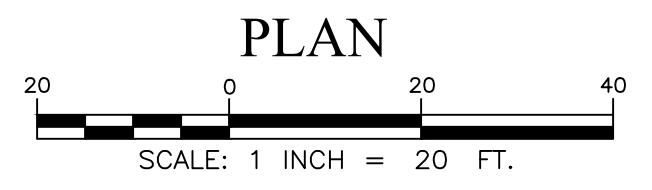
CATE STREET DEVELOPMENT, LLC
 ROADWAY PLAN & PROFILE
 CATE STREET
 PORTSMOUTH NEW HAMPSHIRE

PROJ. No.: 20180317.A10
 DATE: 08/19/2019

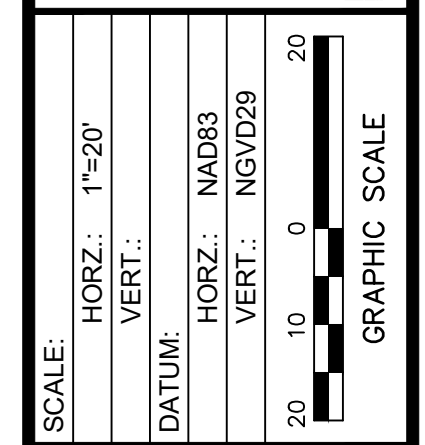
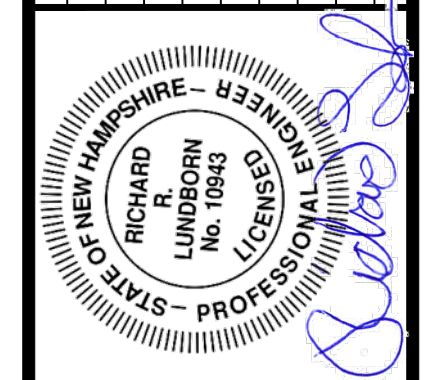
CS-104



COLD PLANE AND OVERLAY PAVEMENT
 FULL DEPTH ROADWAY PAVEMENT



NO.	DATE	DESCRIPTION	DESIGNER/REVIEWER
5.	8/19/2019	TAC SUBMITTAL	RRL
4.	7/24/2019	TAC SUBMITTAL	JVA/DAD
3.	6/20/2019	TAC SUBMITTAL	JVA/DAD
2.	5/20/2019	TAC SUBMITTAL	JVA/DAD
1.	3/18/2019	TAC SUBMITTAL	JVA/DAD



FUSS & O'NEILL
 UPPER SQUARE BUSINESS CENTER
 5 FLETCHER STREET, SUITE 1
 KENNEBUNK, MAINE 04043
 207.563.6669
 www.fandoc.com

CATE STREET DEVELOPMENT, LLC
 RTE 1 BYPASS OFFSITE
 IMPROVEMENT PLAN
 CATE STREET
 PORTSMOUTH NEW HAMPSHIRE

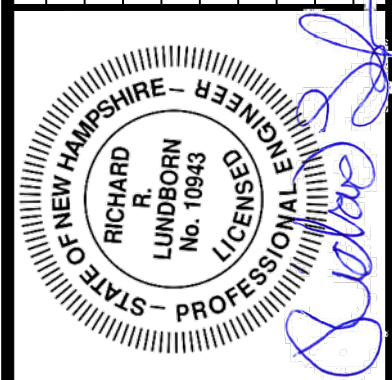
PROJ. No.: 20180317.A10
 DATE: 08/19/2019

CS-106

CURBING						
ITEM NO.	MARK NUMBER	RADIUS	VERTICAL GRANITE CURB	CURVED VERTICAL GRANITE CURB	SLANTED GRANITE CURB	CURVED SLANTED GRANITE CURB
UNIT		LF	LF	LF	LF	LF
LOCATION STATION TO STATION						
0+98.77, LT 61.45 - 1+23.75, LT 38.00	A1	25.00	37.62			
1+23.75, LT 38.00 - 3+38.74, LT 35.74	A2		211.40			
3+38.74, LT 35.74 - 3+81.50, LT 23.06	A3		43.71			
3+81.50, LT 23.06 - 4+55.04, LT 12.00	A4	250.00	74.54			
4+55.04, LT 12.00 - 8+67.47, LT 12.00	A5				412.43	
8+67.47, LT 12.00 - 8+92.50, LT 37.53	A6	25.00			37.93	
8+92.50, LT 37.53 - 8+92.50, LT 46.82	A7		2.40			
9+12.31, LT 46.36 - 9+12.21, LT 37.04	B1		1.45			
9+12.21, LT 37.04 - 9+37.20, LT 12.00	B2	25.00			39.50	
9+37.20, LT 12.00 - 10+30.61, LT 12.00	B3				93.40	
10+30.61, LT 12.00 - 10+85.44, LT 14.34	B4	411.00			53.87	
10+85.44, LT 14.34 - 11+04.82, LT 15.34	B5		18.68			
11+04.82, LT 15.34 - 11+54.20, LT 16.00	B6		48.57			
11+54.20, LT 16.00 - 11+84.20, LT 16.00	B7	214.00	32.52			
11+84.20, LT 16.00 - 13+74.87, LT 16.00	B8	214.00			206.00	
13+74.87, LT 16.00 - 14+85.44, LT 16.00	B9	182.00			126.60	
15+04.39, LT 16.00 - 15+29.58, LT 16.00	B10	182.00			16.00	
15+29.58, LT 16.00 - 15+34.78, LT 22.90	B11	5.00				9.86
15+34.78, LT 22.90 - 15+33.59, LT 25.53	B12				1.00	
15+59.12, LT 29.03 - 15+61.00, LT 20.18	B13		9.00			
15+61.00, LT 20.18 - 15+66.51, LT 15.46	B14	5.00		7.10		
15+66.51, LT 15.46 - 15+68.28, LT 16.00	B15		1.63			
15+68.28, LT 16.00 - 15+73.69, LT 22.19	B16	5.00		9.27		
15+73.69, LT 22.19 - 15+71.78, LT 28.58	B17		6.47			
16+66.63, LT 22.59 - 16+66.49, LT 21.20	B18		1.14			
16+66.49, LT 21.20 - 16+70.69, LT 15.90	B19	5.00		8.26		
16+70.69, LT 15.90 - 16+89.28, LT 15.64	B20	134.50	20.56			
16+89.28, LT 15.64 - 16+93.18, LT 20.52	B21	5.00		7.71		
17+14.17, LT 25.21 - 17+19.61, LT 17.91	B22		9.63			
17+19.64, LT 17.91 - 17+27.98, LT 15.66	B23	10.00		10.34		
17+27.98, LT 15.66 - 17+35.76, LT 35.15	B24	15.00		24.22		
1+11.33, LT 2.00 - 2+96.93, LT 2.00	C1		185.57			
1+11.33, LT 2.00 - 1+11.33, RT 2.00	C2	2.00		6.28		
1+11.33, LT 2.00 - 2+96.93, RT 2.00	C3		185.63			
2+96.93, RT 2.00 - 2+96.93, LT 2.00	C4	2.00		6.28		
PROJECT SUBTOTAL			890.52	79.45	986.73	9.86
ROUNDING						
PROJECT TOTAL			890.52	79.45	986.73	9.86

CURBING						
ITEM NO.	MARK NUMBER	RADIUS	VERTICAL GRANITE CURB	CURVED VERTICAL GRANITE CURB	SLANTED GRANITE CURB	CURVED SLANTED GRANITE CURB
UNIT		LF	LF	LF	LF	LF
LOCATION STATION TO STATION						
1+06.04, RT 82.87 - 1+05.63, RT 69.16	D1				13.71	
1+05.63, RT 69.16 - 1+27.33, RT 32.36	D2	40.00			45.08	
1+27.33, RT 32.36 - 1+81.75, RT 18.12	D3	130.00			61.68	
1+81.75, RT 18.12 - 2+73.60, RT 18.00	D4				86.88	
2+73.60, RT 18.00 - 3+12.66, RT 17.02	D5	517.00			39.87	
3+12.66, RT 17.02 - 3+35.91, RT 36.07	D6	25.00			33.50	
3+61.19, RT 39.82 - 3+86.15, RT 16.00	D7	25.00			38.09	
3+86.15, RT 16.00 - 4+75.90, RT 16.00	D8				89.75	
4+75.90, RT 16.00 - 4+95.60, RT 32.54	D9	20.00			29.61	
5+21.87, RT 31.59 - 5+42.00, RT 12.00	E1	20.00	33.22			
5+42.00, RT 12.00 - 10+30.30, RT 12.00	E2		488.48			
10+30.30, RT 12.00 - 10+50.13, RT 30.32	E3	20.00	28.88			
10+50.13, RT 30.32 - 10+51.00, RT 36.28	E4		6.79			
10+75.05, RT 30.00 - 10+93.65, RT 12.00	F1	20.00	32.57			
10+93.65, RT 12.00 - 11+70.03, RT 16.00	F2		76.35			
11+70.03, RT 16.00 - 13+74.87, RT 16.00	F3	182.00	188.29			
13+74.87, RT 16.00 - 13+96.83, RT 16.00	F4	214.00	23.70			
13+96.83, RT 16.00 - 14+09.77, RT 30.90	F5	15.00		22.79		
14+34.64, RT 35.10 - 14+31.35, RT 27.37	G1	5.00		9.91		
14+31.35, RT 27.37 - 14+49.24, RT 16.00	G2	25.00	24.00			
14+49.24, RT 16.00 - 15+50.64, RT 16.00	G3	214.00	109.60			
15+50.64, RT 16.00 - 15+67.45, RT 32.39	G4	20.00	27.21			
15+67.45, RT 32.39 - 15+67.76, RT 35.59	G5		2.95			
15+86.65, RT 33.94 - 15+85.06, RT 31.52	H1	2.00		3.58		
15+85.06, RT 31.52 - 16+01.72, RT 16.00	H2	20.00	26.06			
16+01.72, RT 16.00 - 16+35.00, RT 16.00	H3	214.00	35.75			
16+35.00, RT 16.00 - 16+63.55, RT 16.00	H4		28.76			
16+63.55, RT 16.00 - 18+50.57, RT. 15.00	H5	105.00	166.94			
23+19.20, RT 56.62 - 23+24.54, RT 48.64	J1		9.68			
23+24.54, RT 48.64 - 23+20.73, RT 34.21	J2	10.00	16.85			
23+20.73, RT 34.21 - 22+96.87, RT 25.04	J3	120.00	22.84			
22+96.87, RT 25.04 - 22+61.03, RT 19.10	J4	60.00	36.42			
22+61.03, RT 19.10 - 22+42.33, RT 19.76	J5		18.97			
23+10.96, LT 23.63 - 23.11.44, LT 21.54	K1	1.00			2.54	
23+11.44, LT 21.54 - 23+26.58, LT 21.50	K2			15.52		
23+26.58, LT 21.50 - 23+29.57, LT 24.37	K3	3.00		4.58		
23+29.57, LT 24.37 - 23+30.08, LT 31.51	K4	136.00		7.165		
23+30.08, LT 31.51 - 23+25.24, LT 34.17	K5	3.00		7.00		
23+25.24, LT 34.17 - 23+10.96, LT 23.63	K6	294.00		18.32		
PROJECT SUBTOTAL			1042.03	36.28	198.45	14.12
ROUNDING						
PROJECT TOTAL			1042.03	36.28	198.45	14.12

JVA/DAD	TAC SUBMITTAL	DATE	DESCRIPTION	DESIGNER REVIEWER
5.	8/19/2019	TAC SUBMITTAL		
4.	7/24/2019	TAC SUBMITTAL		
3.	6/20/2019	TAC SUBMITTAL		
2.	5/20/2019	TAC SUBMITTAL		
1.	3/18/2019	TAC SUBMITTAL		

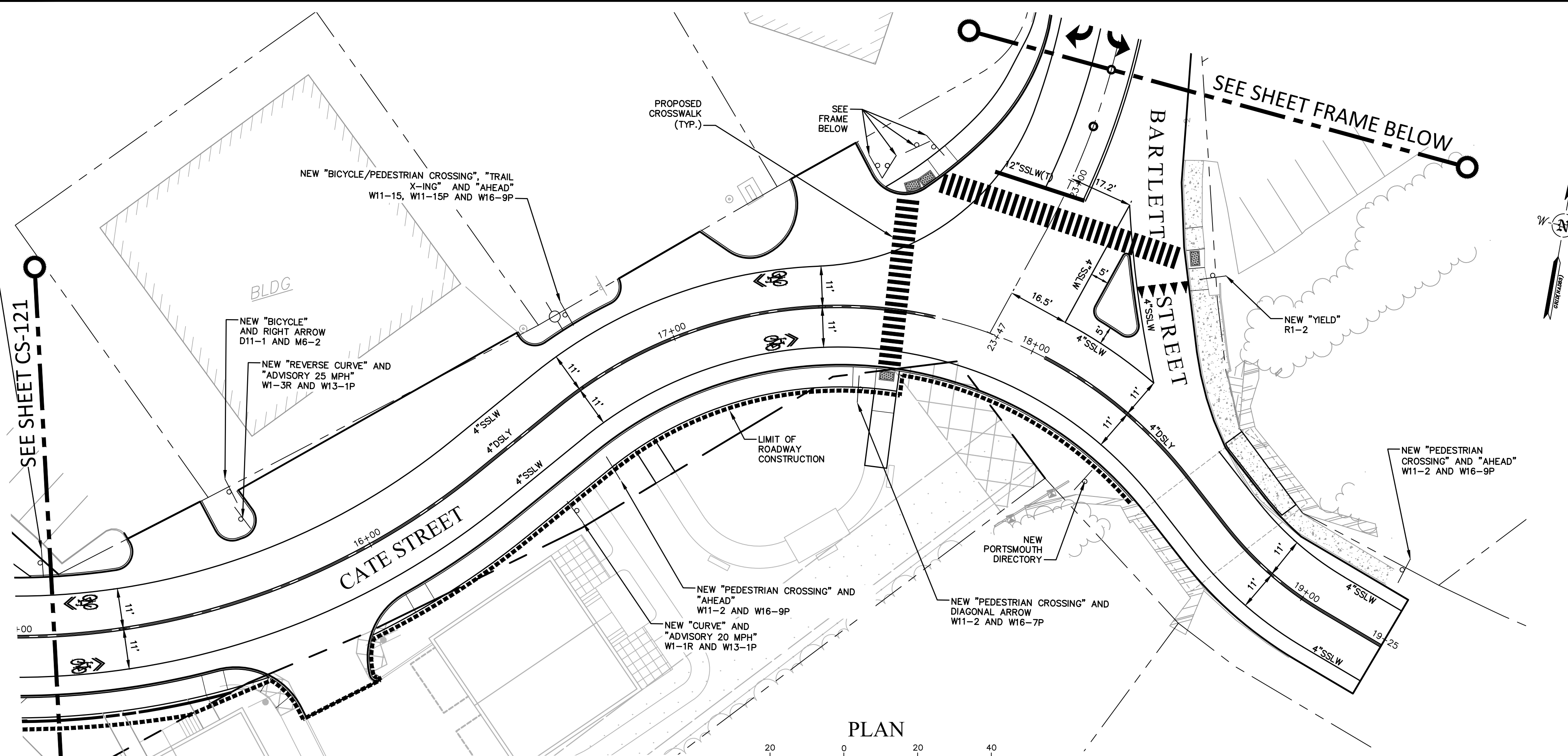


SCALE:	HORIZ.: 1"=20'
	VERT.: 1"=20'
DATUM:	NAD83
	VERT.: NGVD29
GRAPHIC SCALE	

FUSS & O'NEILL
 UPPER SQUARE BUSINESS CENTER
 5 FLETCHER STREET, SUITE 1
 KENNEBUNK, MAINE 04043
 207.563.0609
 www.fandoo.com

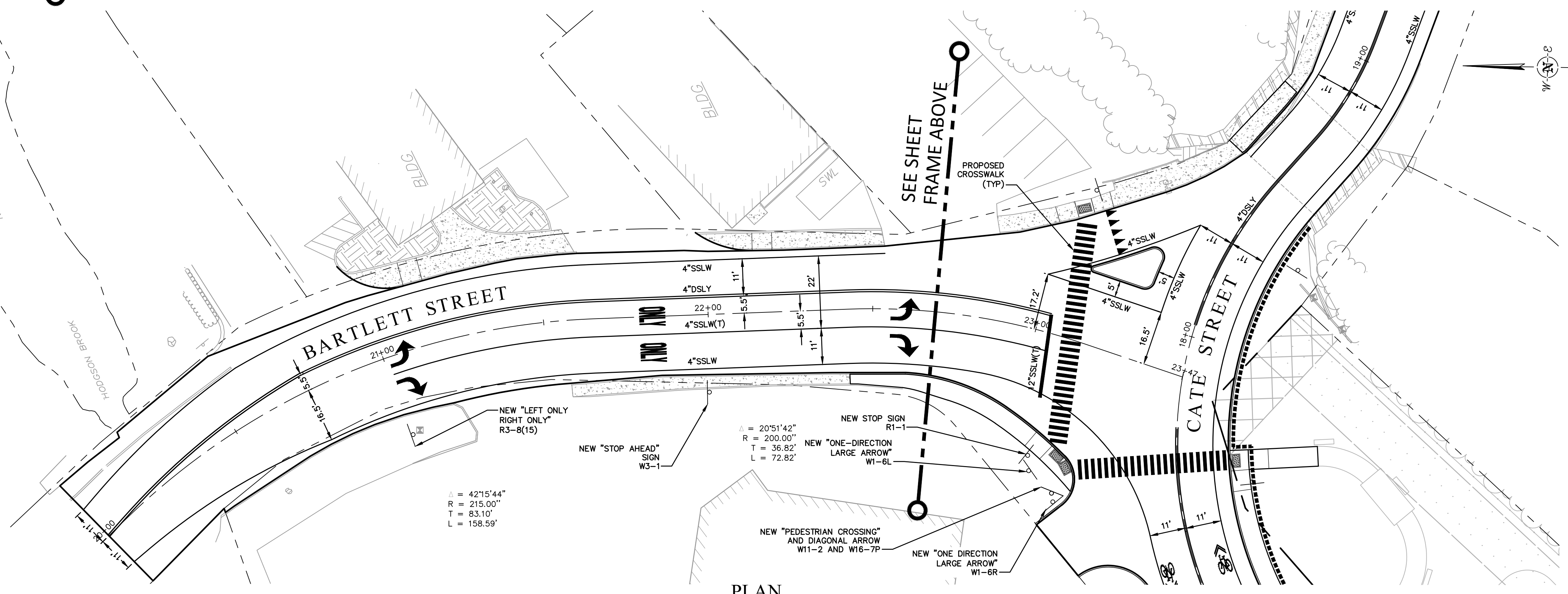
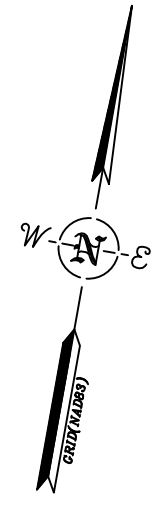
CATE STREET DEVELOPMENT, LLC
 ROADWAY CURBING CHART
 CATE STREET
 PORTSMOUTH NEW HAMPSHIRE

PROJ. No.: 20180317.A10
 DATE: 08/19/2019
CS-107

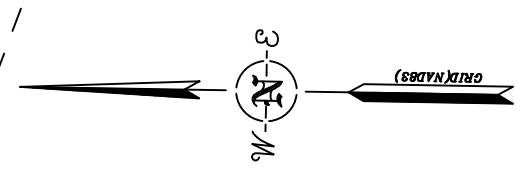


PLAN
 SCALE: 1 INCH = 20 FT.

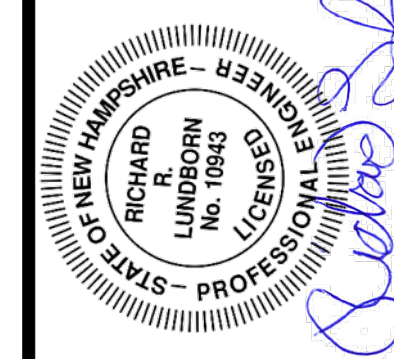
SSLW(T) SINGLE SOLID LINE (THERMOPLASTIC)
 SSLW SINGLE SOLID LINE (WHITE)
 DSLY DOUBLE SOLID LINE (YELLOW)
 ■■■ ROADWAY LIMIT



PLAN
 SCALE: 1 INCH = 20 FT.



REV	DATE	DESCRIPTION	DESIGNER/REVIEWER
1	5/20/2019	TAC SUBMITTAL	JVA/DAD
2	6/20/2019	TAC SUBMITTAL	JVA/DAD
3	7/24/2019	TAC SUBMITTAL	JVA/DAD
4	8/19/2019	TAC SUBMITTAL	JVA/DAD



SCALE:	HORIZ: 1"=20'
	VERT: 1"=20'
DATUM:	HORIZ: NAD83
	VERT: NGVD29

FUSS & O'NEILL
 UPPER SQUARE BUSINESS CENTER
 5 FLETCHER STREET, SUITE 1
 KENNEBUNK, MAINE 04043
 207.563.0669
 www.fandoo.com

CATE STREET DEVELOPMENT, LLC
 ROADWAY SIGNING &
 MARKING LAYOUT
 CATE STREET
 PORTSMOUTH NEW HAMPSHIRE

PROJ. No.: 20180317A10
 DATE: 08/19/2019

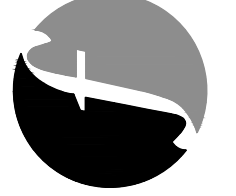
CS-122

PAVEMENT MARKINGS			
ITEM NO.	632.3106	632.3016	632.3112
DESCRIPTION	RETROREFLECTIVE PAINT PAVEMENT MARKING, 4" LINE	RETROREFLECTIVE THERMOPLASTIC PAVEMENT MARKING, 4" LINE	RETROREFLECTIVE THERMOPLASTIC PAVEMENT MARKING, 12" LINE
UNIT	LF		LF
LOCATION			
CATE ST/CATE ST EXTENSION	7813	455	122
PROJECT SUBTOTAL	7813	455	122
ROUNDING	107	15	3
PROJECT TOTAL	7920	470	125

PROJ. No.: 20180317.A10
 DATE: 08/19/2019

CS-123

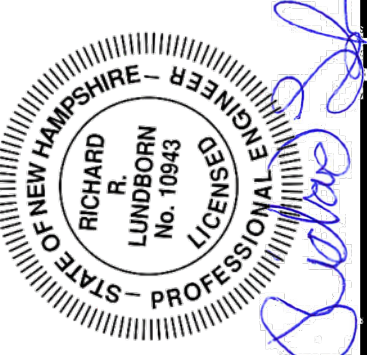
CATE STREET DEVELOPMENT, LLC
 PORTSMOUTH NEW HAMPSHIRE
ROADWAY PAVEMENT MARKING SUMMARY
 CATE STREET



FUSS & O'NEILL
 UPPER SQUARE BUSINESS CENTER
 5 FLETCHER STREET, SUITE 1
 KENNEBUNK, MAINE 04043
 207.563.0609
 www.fandoc.com

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

 GRAPHIC SCALE



NO.	DATE	DESCRIPTION	DESIGNER REVIEWER
5.	8/19/2019	TAC SUBMITTAL	JVA/DAD RRL
4.	7/24/2019	TAC SUBMITTAL	JVA/DAD RRL
3.	6/20/2019	TAC SUBMITTAL	JVA/DAD RRL
2.	5/20/2019	TAC SUBMITTAL	JVA/DAD RRL
1.	3/18/2019	TAC SUBMITTAL	JVA/DAD RRL

DRAINAGE STRUCTURES 1-15	
STRUCTURE	STRUCTURE DETAILS
1	PROPOSED 4' DIA. DMH CATE STREET STA. 3+29.12, L 81.89' RIM = 22.66 (2) 24" HDPE INV IN = 16.31 (SWALE) 24" HDPE INV OUT = 16.21 CONSTRUCT 45 LF x 24" HDPE S = 0.48%
2	WATER QUALITY STRUCTURE CATE STREET STA. 3+32.82, L 52.79' RIM = 23.09 (3) 24" HDPE INV IN = 16.52 (1) 24" HDPE INV OUT = 16.42 CONSTRUCT 22 LF x 24" HDPE S = 0.50%
3	PROPOSED 4' DIA. DMH CATE STREET STA. 3+37.68, L 7.88' RIM = 22.94 (6) 24" HDPE INV IN = 16.81 (5) 12" HDPE INV IN = 17.71 (2) 24" HDPE INV OUT = 16.71 CONSTRUCT 38 LF x 24" HDPE S = 0.50%
5	PROPOSED 4' DIA. CB CATE STREET STA. 3+34.37, R 28.98' RIM = 21.46 (3) 12" HDPE INV OUT = 17.88 CONSTRUCT 34 LF x 12" HDPE S = 0.50%
6	PROPOSED 4' DIA. DMH CATE STREET STA. 3+77.68, L 4.48' RIM = 23.00 (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 = 0.50%
7	PROPOSED 4' DIA. CB CATE STREET STA. 3+60.15, L 28.58' RIM = 22.46 (6) 12" HDPE INV OUT = 18.25 CONSTRUCT 26 LF x 12" HDPE S = 1.00%
8	PROPOSED 4' DIA. CB CATE STREET STA. 3+76.45, R 16.88' RIM = 22.58 (6) 12" HDPE INV OUT = 18.16 CONSTRUCT 18 LF x 12" HDPE S = 1.00%
9	PROPOSED 4' DIA. DMH CATE STREET STA. 4+38.03, L 1.03' RIM = 23.42 (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 = 0.50%
10	PROPOSED 4' DIA. CB CATE STREET STA. 4+79.28, R 51.09' RIM = 23.46 (9) 12" HDPE INV OUT = 18.99 CONSTRUCT 63 LF x 12" HDPE S = 1.00%
11	PROPOSED 4' DIA. DMH CATE STREET STA. 5+42.81, 0.00' RIM = 24.17 (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 = 0.50%
12	PROPOSED 4' DIA. CB CATE STREET STA. 5+42.81, L 11.00' RIM = 23.95 (11) 12" HDPE INV OUT = 19.30 CONSTRUCT 8 LF x 12" HDPE S = 5.86%
13	PROPOSED 4' DIA. CB CATE STREET STA. 5+42.81, R 11.00' RIM = 23.95 (11) 12" HDPE INV OUT = 19.30 CONSTRUCT 8 LF x 12" HDPE S = 5.93%
14	PROPOSED 4' DIA. DMH CATE STREET STA. 7+06.64, 0.00' RIM = 25.12 (15) 18" HDPE INV IN = 19.77 (11) 18" HDPE INV OUT = 19.27 CONSTRUCT 160 LF x 18" HDPE S = 0.50%
15	PROPOSED 4' DIA. DMH CATE STREET STA. 7+19.11, R 153.40' RIM = 27.20 (17) 12" HDPE INV IN = 20.64 (16) 12" HDPE INV IN = 20.64 (14) 18" HDPE INV OUT = 20.54 CONSTRUCT 150 LF x 18" HDPE S = 0.51%

DRAINAGE STRUCTURES 21-63	
STRUCTURE	STRUCTURE DETAILS
E4082	EXISTING CB CATE STREET STA. 19+09.82, L 12.70' RIM = 8.79 (E4081) 12" HDPE INV IN = 5.70 (E4083) 12" HDPE INV OUT = 5.90 EXISTING 8 LF x 12" HDPE S = 1.79%
E4081	EXISTING CB CATE STREET STA. 18+95.20, L 12.56' RIM = 8.88 (E4082) 12" HDPE INV OUT = 5.80 EXISTING 10 LF x 12" HDPE S = 0.77%
E4093	EXISTING CB CATE STREET STA. 19+09.46, R 12.16' RIM = 9.00 (E4083) 12" HDPE INV OUT = 5.90 EXISTING 10 LF x 12" HDPE S = 2.19%
E4083	EXISTING DMH CATE STREET STA. 19+10.08, L 1.51' RIM = 9.06 (E3866A) 24" RCP INV IN = 5.00 (E4093) 12" HDPE INV IN = 5.60 (E4082) 12" HDPE INV IN = 5.70 (E4083 A) 42"x24" RCP INV OUT = 5.00 EXISTING 24 LF x 42"x24" RCP S = 0.98%
E3866	EXISTING DMH CATE STREET STA. 18+26.90, L 10.71' RIM = 10.04 (RE-CORE E3579) 24" HDPE INV OUT = 5.40 CONSTRUCT 50 LF x 24" HDPE S = 4.90% (E4083) 42"x 24" RCP INV OUT = 5.30 EXISTING 80 LF x 24" RCP S = 0.36%
E4604	EXISTING DMH BARTLETT STREET STA. 20+61.81, L 133.59' RIM = 10.30 (E4604A) 36" RCP INV IN = 1.00 (E4035) 42" RCP INV IN = 1.00
E3579	REPLACED 4' DIA. DMH CATE STREET STA. 17+99.84, L 51.57' RIM = 10.77 (61) 12" HDPE INV IN = 6.38 (RE-CORE E3772) 24" HDPE INV IN = 3.00 (RE-CORE E3866) 24" HDPE INV IN = 3.00 (E4035) 36" RCP INV OUT = 2.00 CONSTRUCT 202 LF x 36" RCP S = 0.10%
E4035	EXISTING DMH BARTLETT STREET STA. 20+90.71, R 1.14' RIM = 11.71 (E3579) 36" RCP INV IN = 1.80 (E4604) 42" RCP INV IN = 1.80 EXISTING 136 LF x 42" RCP S = 0.57%
E3772	EXISTING DMH CORED FOR 2' PIPE CATE STREET STA. 17+38.49, L 11.79' RIM = 12.38 (RE-CORE E2349) 24" HDPE INV IN = 3.51 (62) 12" HDPE INV IN = 4.41 (RE-CORE E3579) 24" HDPE INV OUT = 3.41 CONSTRUCT 82 LF x 24" HDPE S = 0.50%
E2348	EXISTING CB CATE STREET STA. 16+56.77, L 20.32' RIM = 13.60 (E2347) 15" HDPE INV IN = 9.70 (E2349) 15" HDPE INV OUT = 9.80 EXISTING 13 LF x 15" HDPE S = 4.34%
E2347	EXISTING CB CATE STREET STA. 16+11.37, L 25.97' RIM = 13.80 (E2348) 15" HDPE INV OUT = 9.80 EXISTING 39 LF x 15" HDPE S = 0.26%
E2349	EXISTING DMH CORED FOR 2' PIPE CATE STREET STA. 16+55.67, L 4.23' RIM = 13.94 (21) 24" HDPE INV IN = 4.02 (63) 12" HDPE INV IN = 4.92 (E2348) 15" HDPE INV IN = 9.10 (RE-CORE E3772) 24" HDPE INV OUT = 3.92 CONSTRUCT 83 LF x 24" HDPE S = 0.50%

DRAINAGE STRUCTURES 21-63	
STRUCTURE	STRUCTURE DETAILS
21	PROPOSED 4' DIA. DMH CATE STREET STA. 15+33.70, R 3.16' RIM = 15.22 (22) 24" HDPE INV IN = 9.89 (E2349) 24" HDPE INV OUT = 9.79 CONSTRUCT 117 LF x 24" HDPE S = 4.94%
22	PROPOSED 4' DIA. DMH CATE STREET STA. 14+62.85, 0.00' RIM = 16.85 (23) 12" HDPE INV IN = 12.23 (25) 24" HDPE INV IN = 10.83 (24) 12" HDPE INV IN = 12.23 (21) 24" HDPE INV OUT = 10.73 CONSTRUCT 68 LF x 24" HDPE S = 1.25%
23	PROPOSED 4' DIA. CB CATE STREET STA. 14+72.18, R 15.00' RIM = 16.16 (22) 12" HDPE INV OUT = 12.37 CONSTRUCT 14 LF x 12" HDPE S = 1.00%
24	PROPOSED 4' DIA. CB CATE STREET STA. 14+41.44, R 63.16' RIM = 18.20 (22) 12" HDPE INV OUT = 13.51 CONSTRUCT 64 LF x 12" HDPE S = 2.00%
25	PROPOSED 4' DIA. DMH CATE STREET STA. 14+05.84, 0.00' RIM = 18.56 (26) 12" HDPE INV IN = 13.29 (40) 24" HDPE INV IN = 11.19 (27) 12" HDPE INV IN = 12.09 (28) 18" HDPE INV IN = 12.33 (22) 24" HDPE INV OUT = 11.09 CONSTRUCT 53 LF x 24" HDPE S = 0.50%
26	PROPOSED 4' DIA. CB CATE STREET STA. 13+95.87, R 15.00' RIM = 18.43 (25) 12" HDPE INV OUT = 14.00 CONSTRUCT 15 LF x 12" HDPE S = 5.00%
27	RG #1 OVERFLOW CATE STREET STA. 13+82.53, L 25.26' RIM = 0.00 (25) 12" HDPE INV OUT = 12.43 CONSTRUCT 30 LF x 12" HDPE S = 1.16%
28	PROPOSED 4' DIA. DMH CATE STREET STA. 14+20.46, R 49.41' RIM = 18.61 (29) 12" HDPE INV IN = 12.67 (35) 12" HDPE INV IN = 15.94 (25) 18" HDPE INV OUT = 12.57 CONSTRUCT 49 LF x 18" HDPE S = 0.50%
29	PROPOSED 4' DIA. DMH CATE STREET STA. 14+25.44, R 56.84' RIM = 18.57 (30) 12" HDPE INV IN = 14.30 (28) 12" HDPE INV OUT = 12.70 CONSTRUCT 6 LF x 12" HDPE S = 0.50%
30	DETENSION BASIN #1 CATE STREET STA. 14+25.15, R 60.82' RIM = 18.63 (29) 12" HDPE INV OUT = 14.34 CONSTRUCT 3 LF x 12" HDPE S = 2.00%
31	PROPOSED 4' DIA. DMH CATE STREET STA. 14+16.17, R 108.40' RIM = 19.61 (32) 12" HDPE INV IN = 14.50 (30) 12" HDPE INV OUT = 14.40 CONSTRUCT 3 LF x 12" HDPE S = 3.00%
32	PROPOSED 4' DIA. DMH CATE STREET STA. 14+10.35, R 108.11' RIM = 19.78 (34) 12" HDPE INV IN = 15.15 (33) 12" HDPE INV IN = 14.65 (31) 12" HDPE INV OUT = 14.55 CONSTRUCT 6 LF x 12" HDPE S = 1.00%

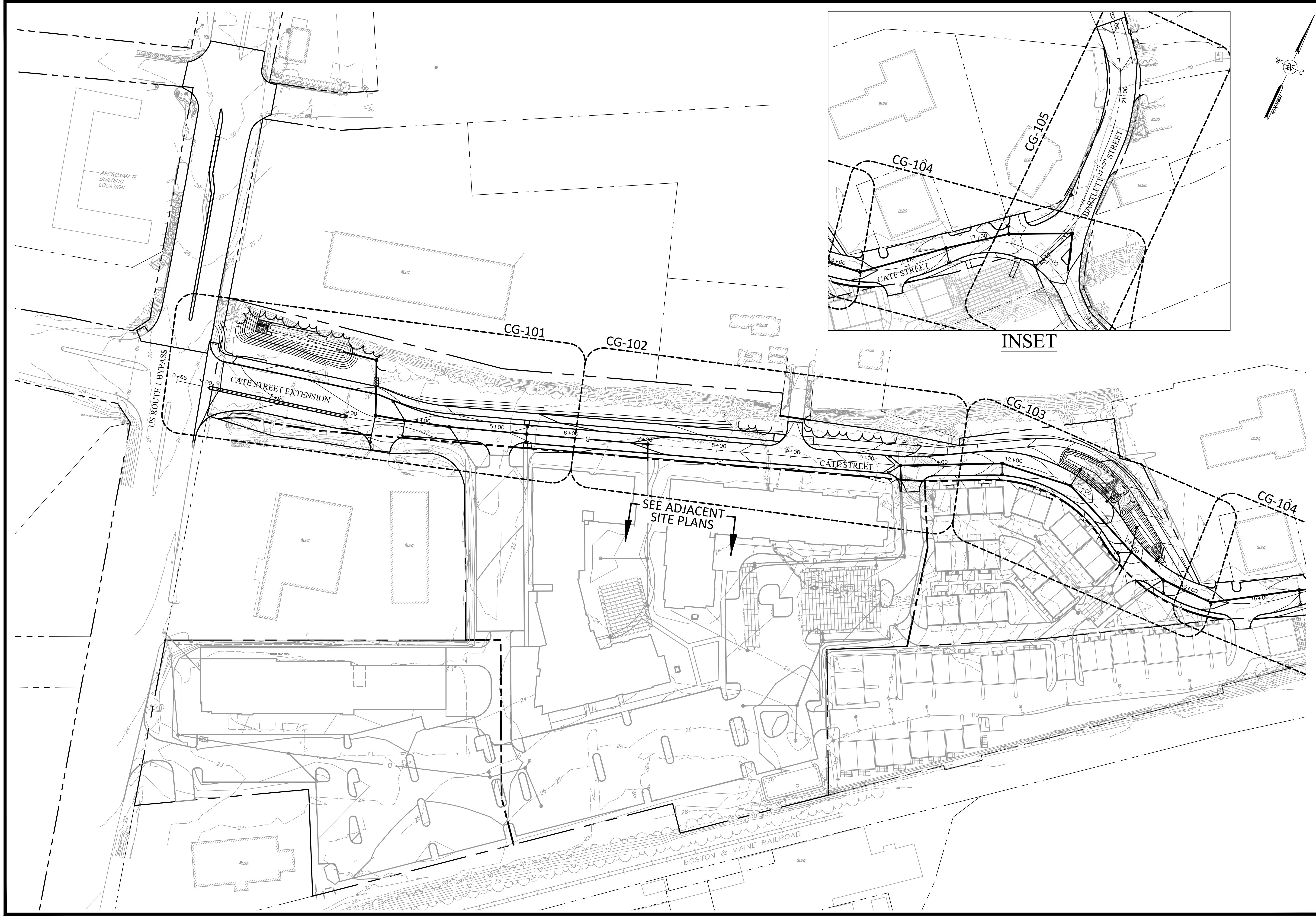
DRAINAGE STRUCTURES 21-63	
STRUCTURE	STRUCTURE DETAILS
33	PROPOSED 4' DIA. CB CATE STREET STA. 14+09.74, R 175.18' RIM = 19.32 (32) 12" HDPE INV OUT = 15.00 CONSTRUCT 64 LF x 12" HDPE S = 0.55%
34	PROPOSED 4' DIA. CB CATE STREET STA. 14+06.65, R 80.71' RIM = 20.03 (32) 12" HDPE INV OUT = 15.50 CONSTRUCT 24 LF x 12" HDPE S = 1.46%
35	PROPOSED 4' DIA. DMH CATE STREET STA. 13+98.74, R 85.71' RIM = 21.14 (36) 12" HDPE INV IN = 17.75 (28) 12" HDPE INV OUT = 16.15 CONSTRUCT 43 LF x 12" HDPE S = 0.50%
36	DETENTION BASIN #2 CATE STREET STA. 13+95.96, R 85.90' RIM = 20.55 (35) 12" HDPE INV OUT = 17.79 CONSTRUCT 3 LF x 12" HDPE S = 2.00%
37	PROPOSED 4' DIA. DMH CATE STREET STA. 12+91.07, R 86.88' RIM = 21.91 (39) 12" HDPE INV IN = 18.74 (38) 12" HDPE INV IN = 17.95 (36) 12" HDPE INV OUT = 17.85 CONSTRUCT 3 LF x 12" HDPE S = 3.00%
38	PROPOSED 4' DIA. CB CATE STREET STA. 12+76.81, R 83.04' RIM = 22.06 (37) 12" HDPE INV OUT = 18.00 CONSTRUCT 6 LF x 12" HDPE S = 1.00%
39	PROPOSED 4' DIA. CB CATE STREET STA. 11+90.18, R 84.80' RIM = 23.06 (37) 12" HDPE INV OUT = 19.00 CONSTRUCT 53 LF x 12" HDPE S = 0.50%
40	PROPOSED 4' DIA. DMH CATE STREET STA. 12+83.70, 0.00' RIM = 21.69 (41) 12" HDPE INV IN = 13.35 (42) 24" HDPE INV IN = 11.88 (25) 24" HDPE INV OUT = 11.78 CONSTRUCT 118 LF x 24" HDPE S = 0.50%
41	RG #2 OVERFLOW CATE STREET STA. 12+83.42, L 25.41' RIM = 17.89 (40) 12" HDPE INV OUT = 14.43 CONSTRUCT 22 LF x 12" HDPE S = 5.00%
42	PROPOSED 4' DIA. DMH CATE STREET STA. 11+85.44, 0.00' RIM = 22.86 (44) 24" HDPE INV IN = 12.45 (43) 12" HDPE INV IN = 13.35 (41) 24" HDPE INV OUT = 12.35 CONSTRUCT 94 LF x 24" HDPE S = 0.50%
43	PROPOSED 4' DIA. DMH CATE STREET STA. 11+86.51, R 15.00' RIM = 22.42 (42) 12" HDPE INV OUT = 13.46 CONSTRUCT 12 LF x 12" HDPE S = 1.00%
44	PROPOSED 4' DIA. DMH CATE STREET STA. 10+48.39, 0.00' RIM = 24.89 (45) 12" HDPE INV IN = 18.50 (46) 12" HDPE INV IN = 18.50 (47) 18" HDPE INV IN = 13.61 (42) 24" HDPE INV OUT = 13.11 CONSTRUCT 133 LF x 24" HDPE S = 0.50%
45	PROPOSED 4' DIA. CB CATE STREET STA. 10+33.32, R 11.00' RIM = 24.90 (44) 12" HDPE INV OUT = 19.50 CONSTRUCT 15 LF x 12" HDPE S = 6.82%
46	PROPOSED 4' DIA. CB CATE STREET STA. 10+33.32, L 11.00' RIM = 24.90 (44) 12" HDPE INV OUT = 19.50 CONSTRUCT 15 LF x 12" HDPE S = 6.82%
47	PROPOSED 4' DIA. DMH CATE STREET STA. 10+61.58, R 122.45' RIM = 25.92 (48) 18" HDPE INV IN = 14.31 (44) 18" HDPE INV OUT = 14.21 CONSTRUCT 120 LF x 18" HDPE S = 0.50%
48	PROPOSED 4' DIA. DMH CATE STREET STA. 10+25.80, R 127.22' RIM = 27.00 (57) 12" HDPE INV IN = 15.00 (49) 12" HDPE INV IN = 15.00 (47) 18" HDPE INV OUT = 14.48 CONSTRUCT 35 LF x 18" HDPE S = 0.50%

DRAINAGE STRUCTURES 21-63	
STRUCTURE	STRUCTURE DETAILS
49	PROPOSED 4' DIA. DMH CATE STREET STA. 10+27.11, R 137.45' RIM = 26.25 (50) 12" HDPE INV IN = 18.55 (48) 12" HDPE INV OUT = 15.10 CONSTRUCT 7 LF x 12" HDPE S = 1.58%
50	INFILTRATION BASIN #2 CATE STREET STA. 10+27.61, R 141.41' RIM = 26.15 (49) 12" HDPE INV OUT = 18.60 CONSTRUCT 3 LF x 12" HDPE S = 2.50%
51	PROPOSED 4' DIA. DMH CATE STREET STA. 9+62.84, R 234.29' RIM = 25.42 (52) 18" HDPE INV IN = 18.92 (50) 18" HDPE INV OUT = 18.92 CONSTRUCT 3 LF x 18" HDPE S = 0.00%
52	PROPOSED 4' DIA. DMH CATE STREET STA. 9+63.98, R 243.22' RIM = 25.49 (54) 18" HDPE INV IN = 19.07 (53) 12" HDPE INV IN = 19.95 (51) 18" HDPE INV OUT = 18.97 CONSTRUCT 6 LF x 18" HDPE S = 1.00%
53	PROPOSED 4' DIA. CB CATE STREET STA. 10+53.01, R 233.88' RIM = 23.88 (52) 12" HDPE INV OUT = 20.38 CONSTRUCT 86 LF x 12" HDPE S = 0.50%
54	PROPOSED 4' DIA. DMH CATE STREET STA. 9+36.44, R 333.81' RIM = 24.55 (55) 12" HDPE INV IN = 20.02 (56) 12" HDPE INV IN = 20.02 (52) 18" HDPE INV OUT = 19.52 CONSTRUCT 91 LF x 18" HDPE S = 0.50%
55	PROPOSED 4' DIA. CB CATE STREET STA. 9+38.27, R 381.51' RIM = 23.74 (54) 12" HDPE INV OUT = 20.24 CONSTRUCT 44 LF x 12" HDPE S = 0.50%
56	PROPOSED 4' DIA. CB CATE STREET STA. 8+64.09, R 340.65' RIM = 25.36 (54) 12" HDPE INV OUT = 20.86 CONSTRUCT 69 LF x 12" HDPE S = 1.22%
57	PROPOSED 4' DIA. DMH CATE STREET STA. 8+63.04, R 147.97' RIM = 26.47 (58) 12" HDPE INV IN = 18.55 (48) 12" HDPE INV OUT = 15.80 CONSTRUCT 161 LF x 12" HDPE S = 0.50%
58	INFILTRATION BASIN #3 CATE STREET STA. 8+63.54, R 151.94' RIM = 26.46 (57) 12" HDPE INV OUT = 18.60 CONSTRUCT 3 LF x 12" HDPE S = 2.50%
59	PROPOSED 4' DIA. DMH CATE STREET STA. 8+63.63, R 265.26' RIM = 25.90 (60) 6" HDPE INV IN = 20.20 (58) 6" HDPE INV OUT = 20.10 CONSTRUCT 3 LF x 6" HDPE S = 3.00%
60	BUILDING B ROOF DRAIN CATE STREET STA. 7+56.79, R 220.50' RIM = 27.25 (59) 6" HDPE INV OUT = 20.78 CONSTRUCT 112 LF x 6" HDPE S = 0.51%
61	PROPOSED 4' DIA. CB CATE STREET STA. 17+89.73, R 14.52' RIM = 10.85 (E3772) 12" HDPE INV OUT = 7.00 CONSTRUCT 64 LF x 12" HDPE S = 0.95%
62	PROPOSED 4' DIA. CB CATE STREET STA. 17+35.79, L 21.55' RIM = 12.22 (E3772) 12" HDPE INV OUT = 4.48 CONSTRUCT 7 LF x 12" HDPE S = 1.00%
63	PROPOSED 4' DIA. CB CATE STREET STA. 16+51.39, R 15.00' RIM = 13.64 (E2349) 12" HDPE INV OUT = 5.08 CONSTRUCT 16 LF x 12" HDPE S = 1.00%
74	PROPOSED 4' DIA. CB BARTLETT STREET STA. 22+50.95, R 18.39' RIM = 10.97 (CORE E3756) 12" HDPE INV OUT = 8.00 CONSTRUCT 3 LF x 12" HDPE S = 4.07%

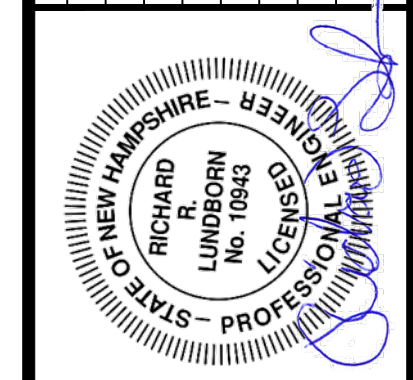
LIGHT TABLE ENTRIES FROM SITE PLAN PROVIDED FOR REFERENCE ONLY

SCALE:	HORIZ.:	VERT.:	DATUM:	HORIZ.:	VERT.:	GRAPHIC SCALE
FUSS & O'NEILL UPPER SQUARE BUSINESS CENTER 5 FLETCHER STREET, SUITE 1 KENNEBUNK, MAINE 04043 207.563.0669 www.fandoo.com						
CATE STREET DEVELOPMENT, LLC ROADWAY DRAINAGE STRUCTURE TABLE			CATE STREET PORTSMOUTH NEW HAMPSHIRE			
PROJ. No.: 20180317.A10 DATE: 08/19/2019						
CG-001						

File Path: F:\P20180317A10\CH3\DWG\20180317A10_GRA01.dwg Layout: CG-100 (R) Plot: Mon, August 19, 2019 - 10:00 AM User: jandretta
 MS VIEW: LAYER STATE: Plotter: DWG TO PDF PC3 CTB File: FO.STB



NO.	DATE	DESCRIPTION	DESIGNER/REVIEWER
1.	3/18/2019	TAC SUBMITTAL	RRL
2.	5/20/2019	TAC SUBMITTAL	RRL
3.	6/20/2019	TAC SUBMITTAL	RRL
4.	7/24/2019	TAC SUBMITTAL	RRL
5.	8/19/2019	TAC SUBMITTAL	RRL



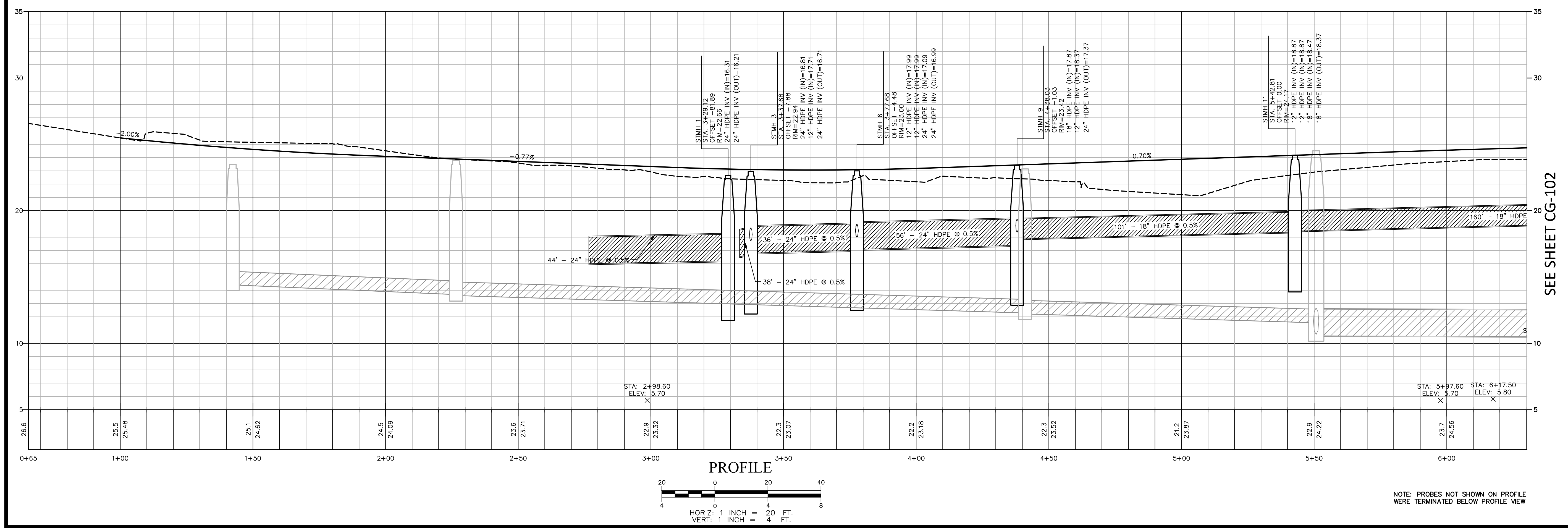
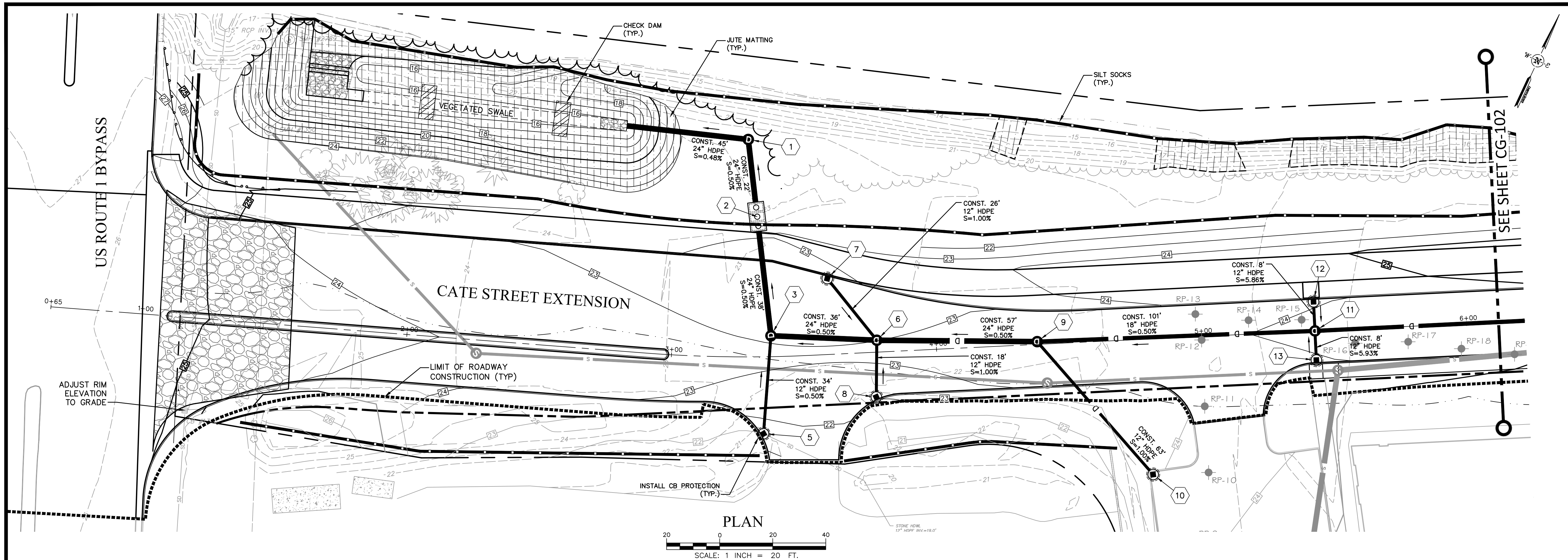
SCALE:	HORIZ.: 1"=60'
	VERT.: 1"=60'
DATUM:	HORIZ.: NAD83
	VERT.: NGVD29

FUSS & O'NEILL
 UPPER SQUARE BUSINESS CENTER
 5 FLETCHER STREET, SUITE 1
 KENNEBUNK, MAINE 04043
 207.563.6609
 www.fandoo.com

CATE STREET DEVELOPMENT, LLC
GRADING, DRAINAGE & EROSION CONTROL PLAN
 CATE STREET
 PORTSMOUTH NEW HAMPSHIRE

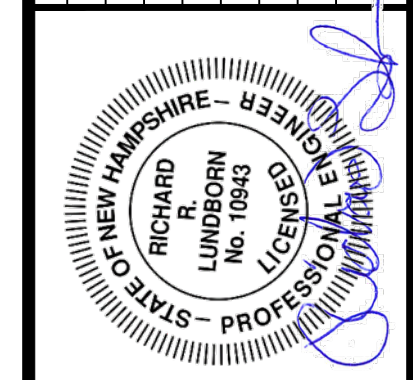
PROJ. No.: 20180317.A10
 DATE: 08/19/2019
CG-100

File Path: F:\P20180317A\10\CH3\DWG\20180317A10_GRA01.dwg Layout: CG-101 (R) Plotter: Mon, August 19, 2019 - 10:01 AM User: jandretta
 MS VIEW: LAYER STATE: PLOTTER: DWG TO PDF-PC3 CTB File: FO.STB



NOTE: PROBES NOT SHOWN ON PROFILE WERE TERMINATED BELOW PROFILE VIEW

NO.	DATE	DESCRIPTION	DESIGNER REVIEWER
5.	8/19/2019	TAC SUBMITTAL	JVA/DAD
4.	7/24/2019	TAC SUBMITTAL	JVA/DAD
3.	6/20/2019	TAC SUBMITTAL	JVA/DAD
2.	5/20/2019	TAC SUBMITTAL	JVA/DAD
1.	3/18/2019	TAC SUBMITTAL	JVA/DAD

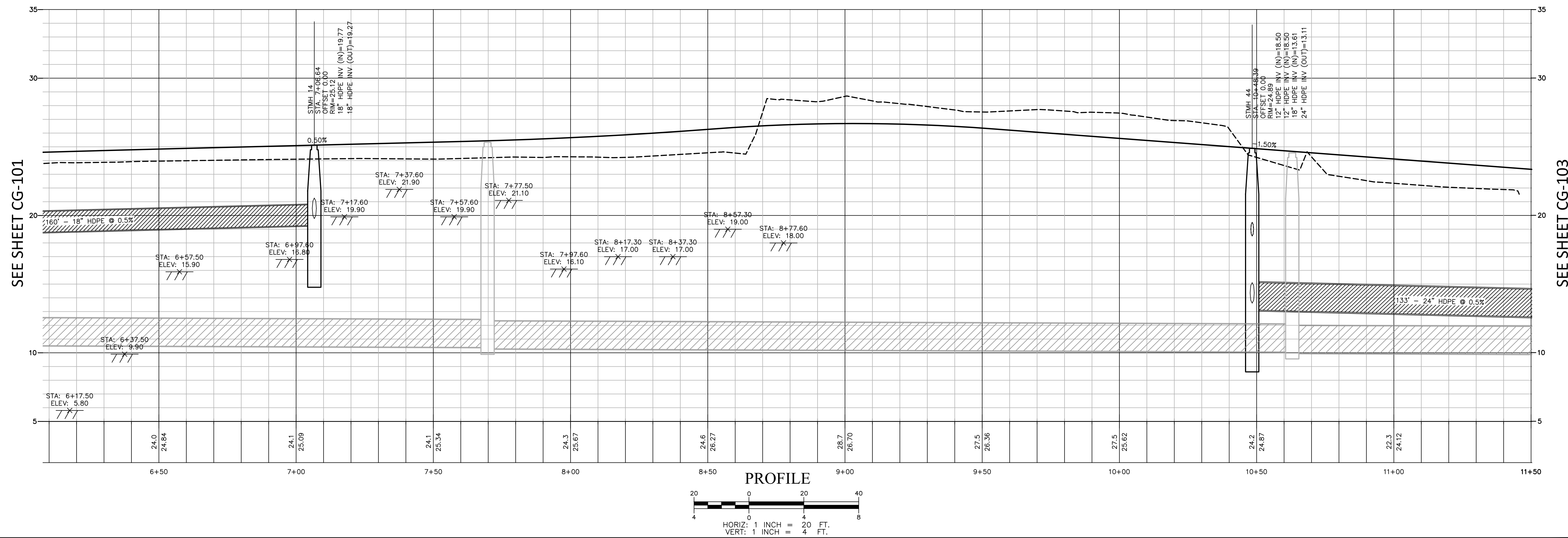
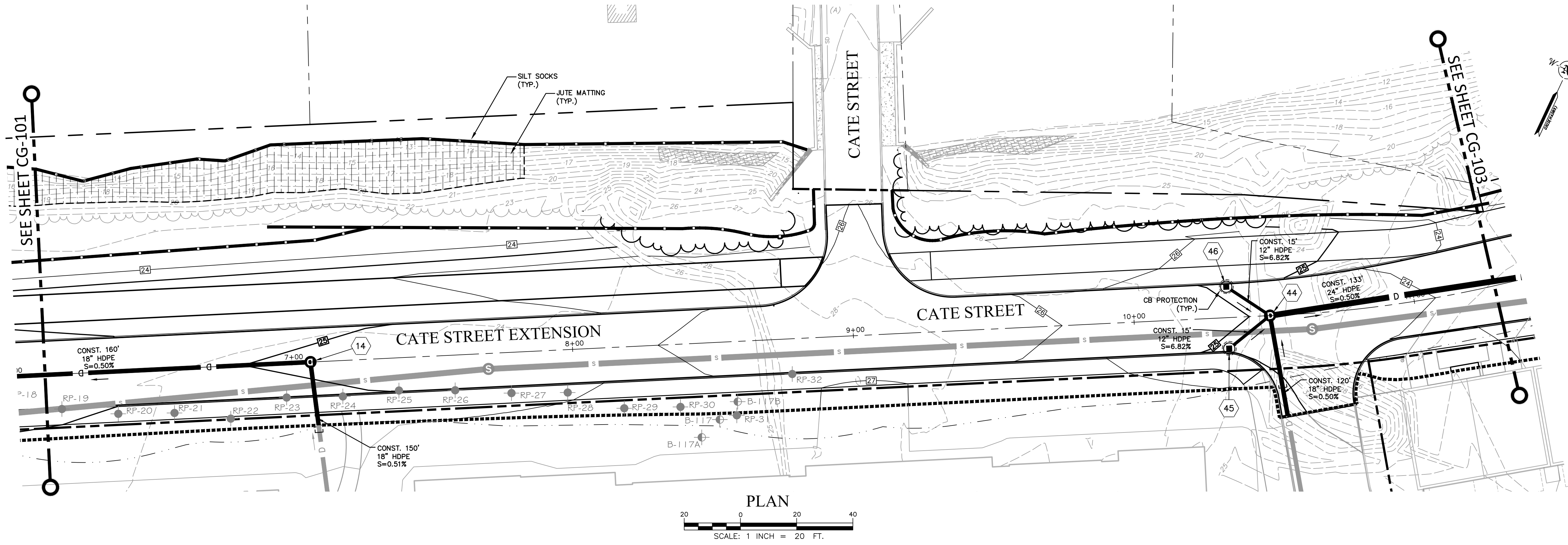


SCALE:	HORIZ: 1"=20'
	VERT: AS NOTED
DATUM:	NAD83
	VERT.: NGVD29
	GRAPHIC SCALE

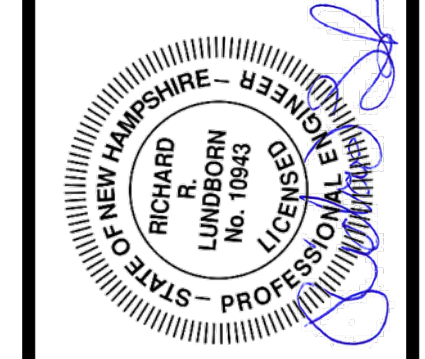
FUSS & O'NEILL
 CATE STREET DEVELOPMENT, LLC
 GRADING, DRAINAGE & EROSION CONTROL PLAN
 CATE STREET
 PORTSMOUTH NEW HAMPSHIRE

PROJ. No.: 20180317.A10
DATE: 08/19/2019

CG-101



NO.	DATE	DESCRIPTION	DESIGNER/REVIEWER
5.	8/19/2019	TAC SUBMITTAL	JVA/DAD
4.	7/24/2019	TAC SUBMITTAL	JVA/DAD
3.	6/20/2019	TAC SUBMITTAL	JVA/DAD
2.	5/20/2019	TAC SUBMITTAL	JVA/DAD
1.	3/18/2019	TAC SUBMITTAL	JVA/DAD



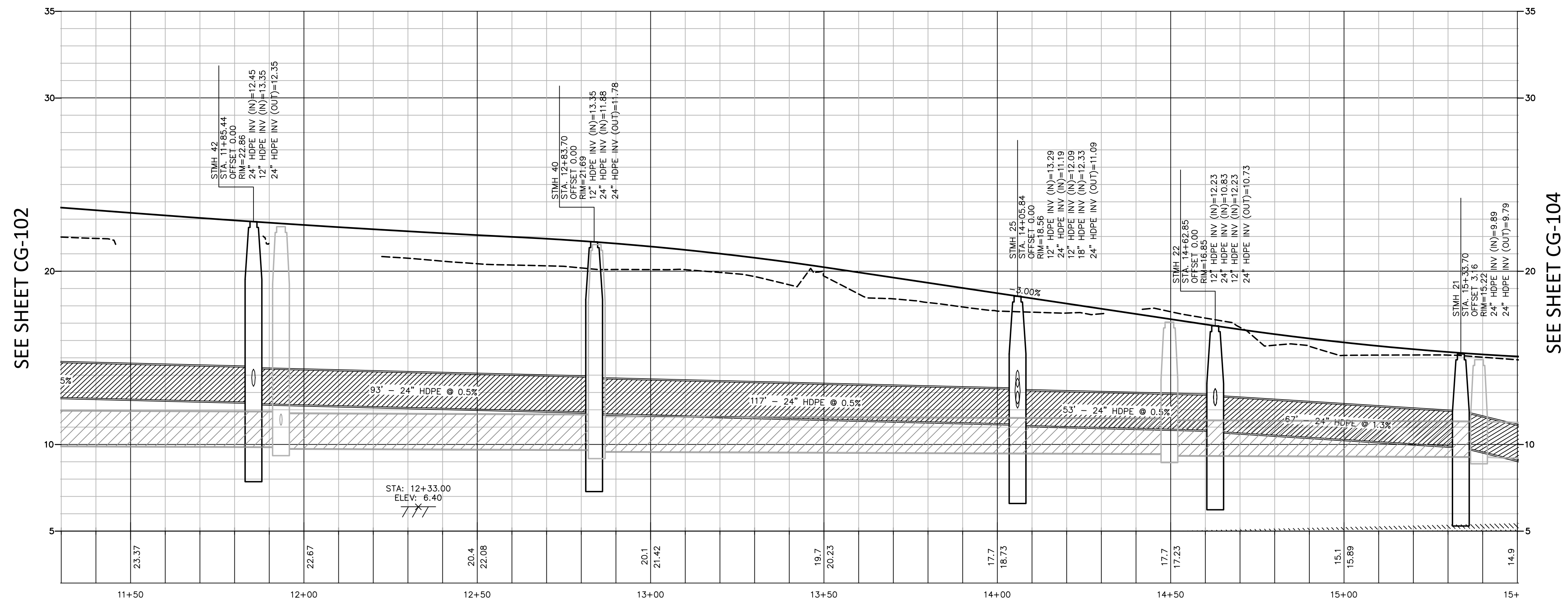
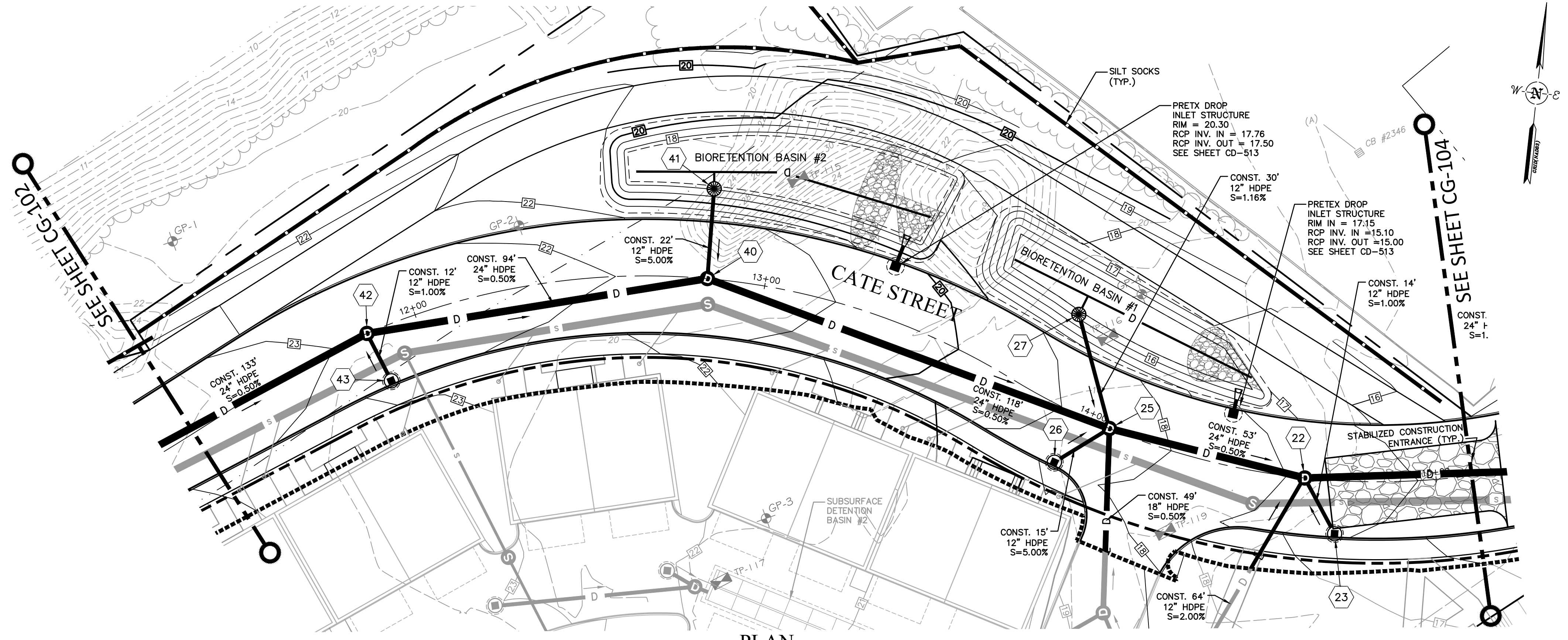
SCALE:	HORIZ: 1"=20'
	VERT: AS NOTED
DATUM:	HORIZ: NAD83
	VERT: NGVD29

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

CATE STREET DEVELOPMENT, LLC
GRADING, DRAINAGE & EROSION CONTROL PLAN
 CATE STREET
 PORTSMOUTH NEW HAMPSHIRE

PROJ. No.: 20180317.A10
 DATE: 08/19/2019

CG-102



CATE STREET DEVELOPMENT, LLC
GRADING, DRAINAGE & EROSION CONTROL PLAN
 CATE STREET
 PORTSMOUTH NEW HAMPSHIRE

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

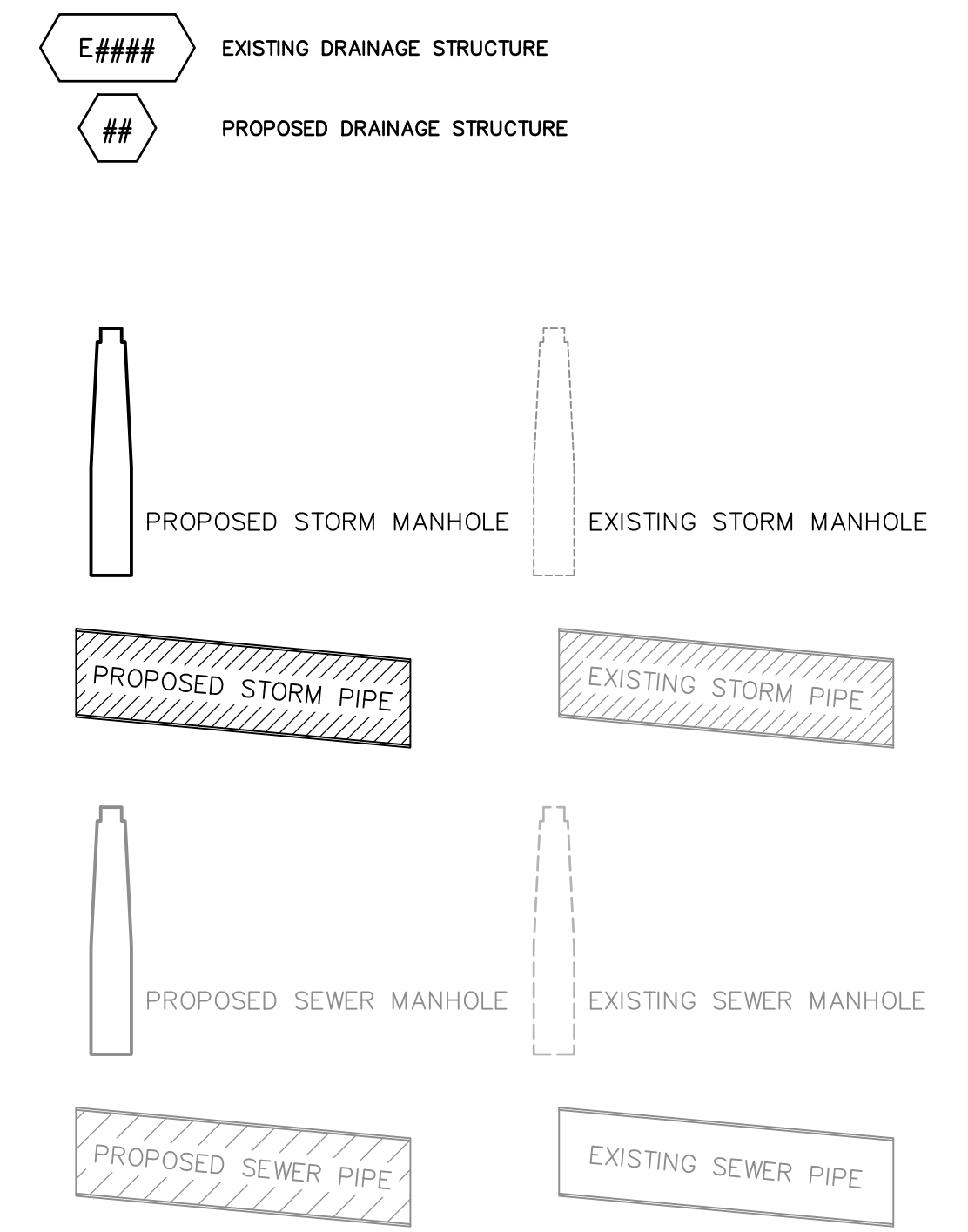
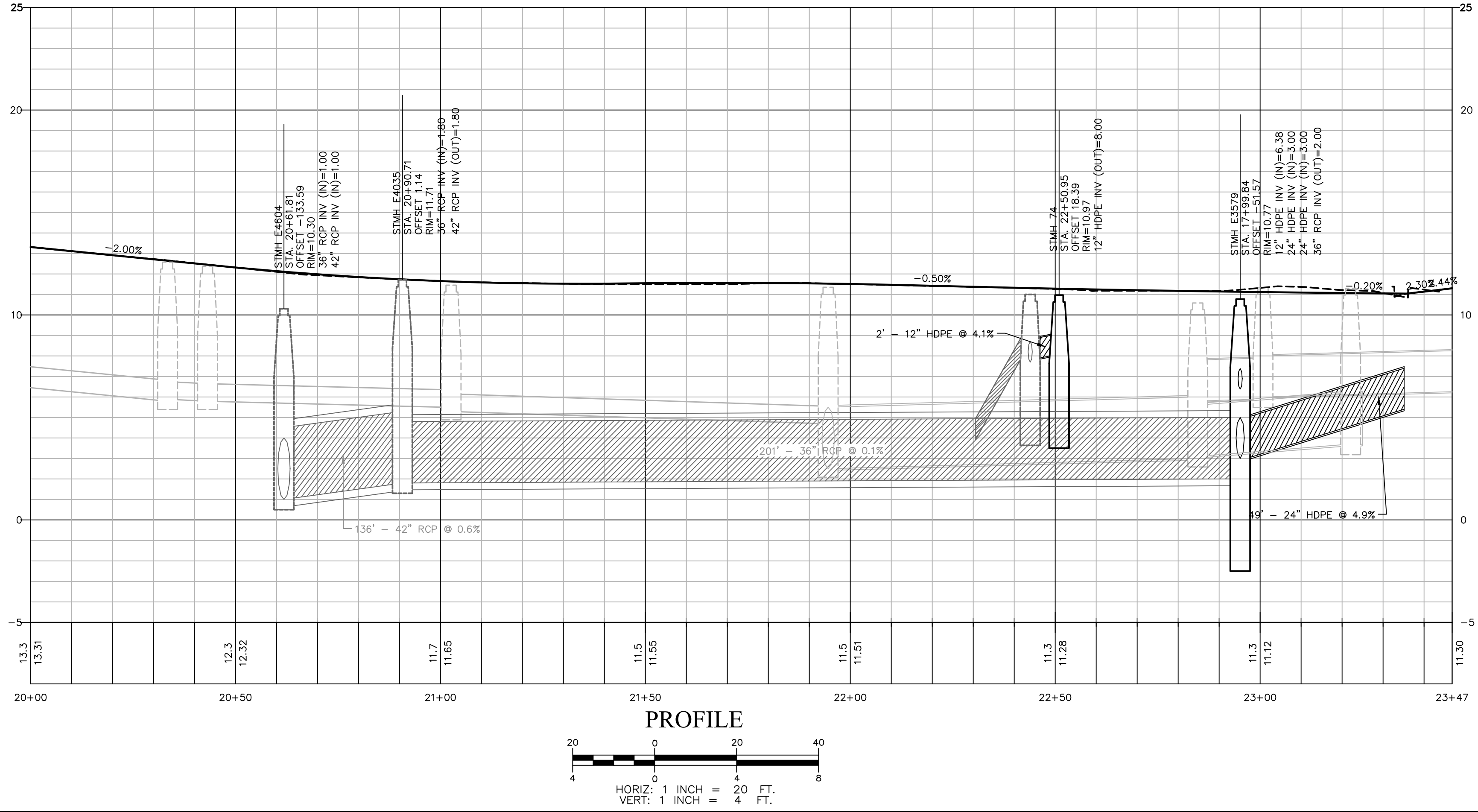
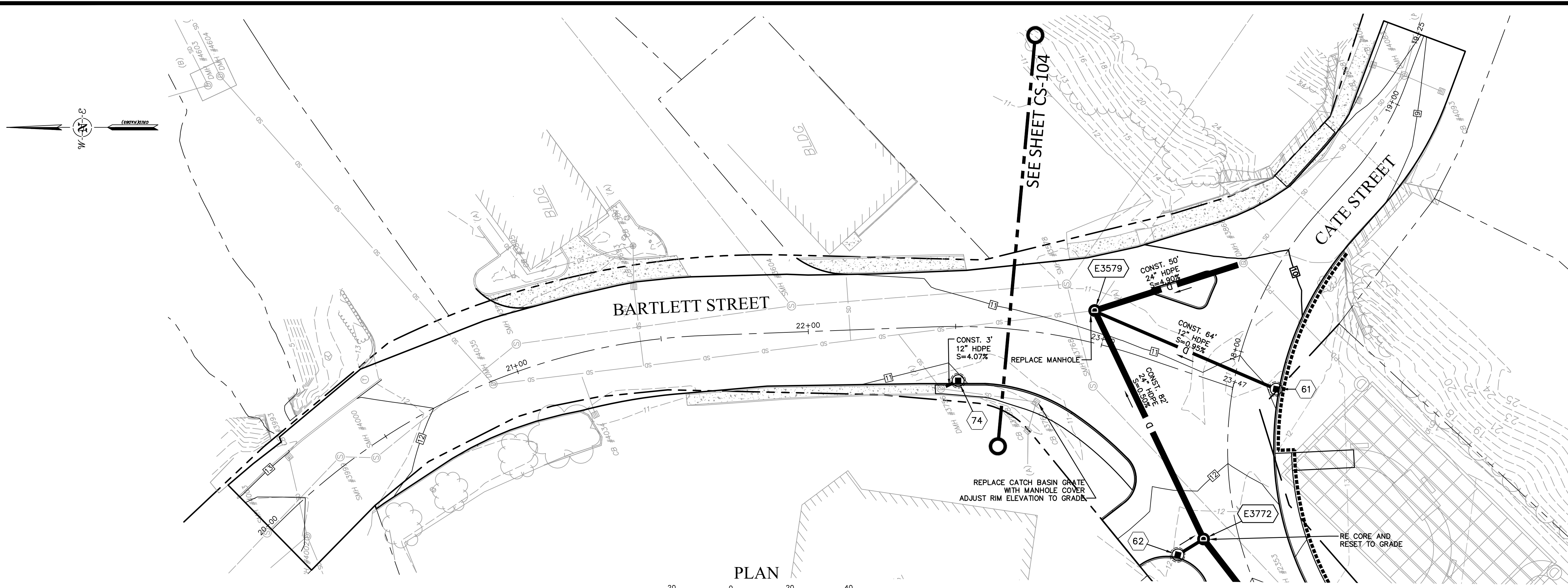
PROJ. No.: 20180317.A10
 DATE: 08/19/2019

CG-103

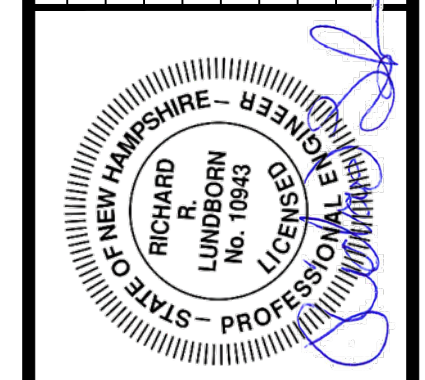
NO.	DATE	DESCRIPTION	DESIGNER/REVIEWER
1.	3/18/2019	TAC SUBMITTAL	JVA/DAD
2.	5/20/2019	TAC SUBMITTAL	JVA/DAD
3.	6/20/2019	TAC SUBMITTAL	JVA/DAD
4.	7/24/2019	TAC SUBMITTAL	JVA/DAD
5.	8/19/2019	TAC SUBMITTAL	JVA/DAD

SCALE: HORIZ.: 1"=20'
 VERT.: AS NOTED
 DATUM: NAD83
 HORIZ.: NGVD29
 VERT.: NGVD29
 GRAPHIC SCALE

REGISTERED PROFESSIONAL ENGINEER
 RICHARD LUNDBORN
 No. 0843
 LICENSED IN THE STATE OF NEW HAMPSHIRE



NO.	DATE	DESCRIPTION	DESIGNER REVIEWER
5.	8/19/2019	TAC SUBMITTAL	JVA/DAD RRL
4.	7/24/2019	TAC SUBMITTAL	JVA/DAD RRL
3.	6/20/2019	TAC SUBMITTAL	JVA/DAD RRL
2.	5/20/2019	TAC SUBMITTAL	JVA/DAD RRL
1.	3/18/2019	TAC SUBMITTAL	JVA/DAD RRL

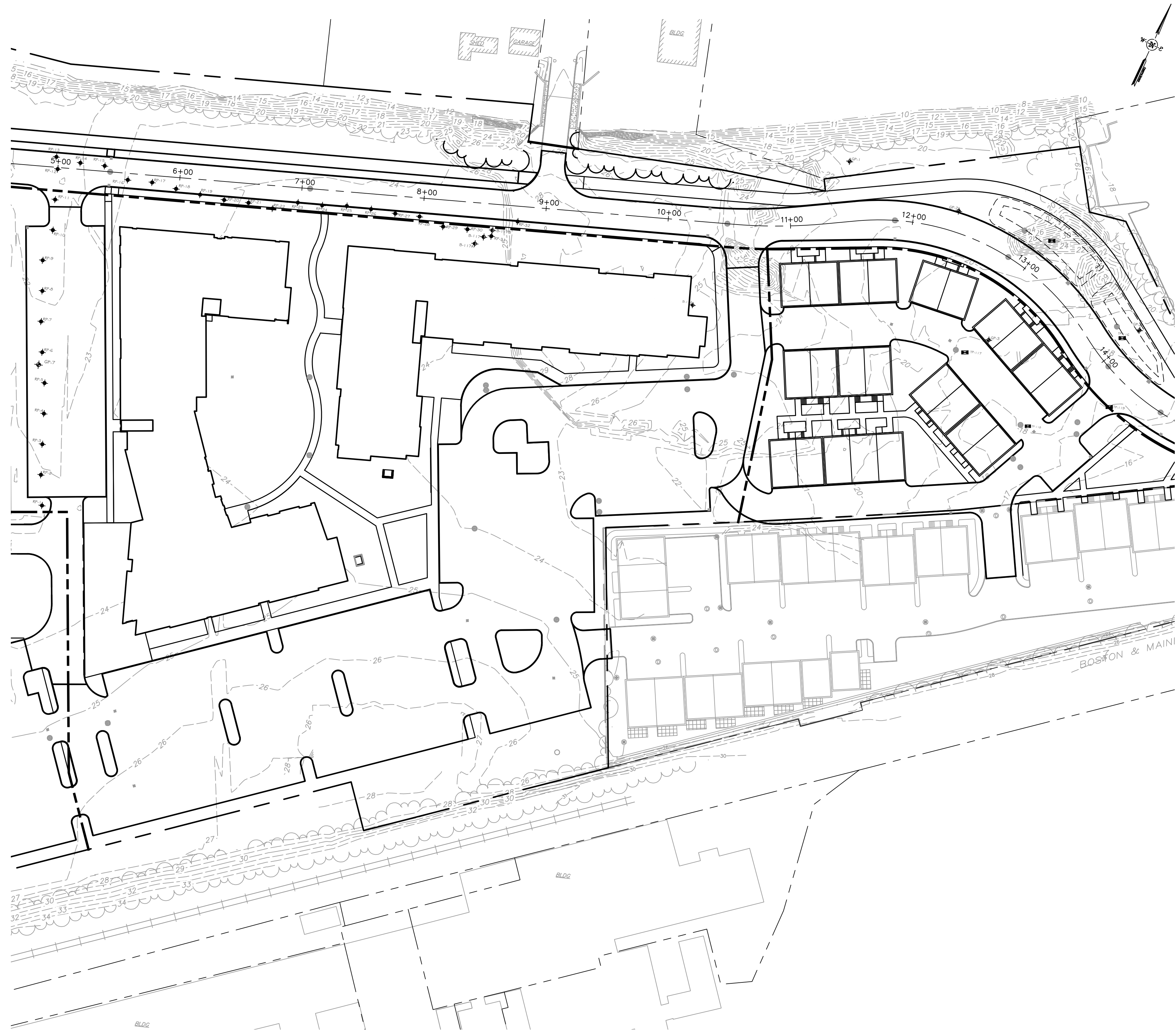


SCALE:	HORIZ: 1"=20'
	VERT: AS NOTED
DATUM:	HORIZ: NAD83
	VERT: NGVD29
	GRAPHIC SCALE

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

CATE STREET DEVELOPMENT, LLC
GRADING, DRAINAGE & EROSION CONTROL PLAN
 CATE STREET
 PORTSMOUTH NEW HAMPSHIRE

PROJ. No.: 20180317.A10
 DATE: 08/19/2019
CG-105



LEGEND

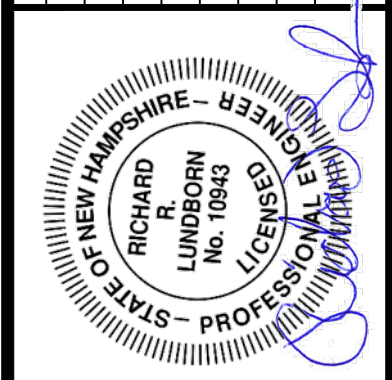
- ☒ — APPROXIMATE LOCATION OF TEST PIT PERFORMED BY P.K. BROWN CONSTRUCTION OF PORTSMOUTH, NH UNDER CONTRACT TO McPHAIL ASSOCIATES, LLC ON MARCH 1 AND MARCH 5, 2019
- — APPROXIMATE LOCATION OF ROCK PROBE PERFORMED BY MAINE DRILLING AND BLASTING, INC. ON JULY 9, 2019 FOR McPHAIL ASSOCIATES, LLC
- ⊙ — APPROXIMATE LOCATION OF BORING PERFORMED BY CARR-DEE CORP. FROM MARCH 11 TO MARCH 18, 2019 FOR McPHAIL ASSOCIATES, LLC
- ⊙ — APPROXIMATE LOCATION OF BOREHOLE PERFORMED BY TECHNICAL DRILLING SERVICES, INC. ON JANUARY 19 & 22, 2018 FOR McPHAIL ASSOCIATES, LLC

REFERENCE: THIS PLAN WAS PREPARED FROM A 50-SCALE DRAWING ENTITLED, "PLAN OF LAND" DATED DECEMBER 2016 PREPARED BY DOUCET SURVEY INC.
 THIS PLAN WAS PREPARED BY MCPHAIL ASSOCIATES, LLC.

Table
 Summary of Explorations
 Cate Street
 Portsmouth, New Hampshire

Exploration No.	Ground Surface Elevation [Feet]	Total Depth of Exploration [Feet]	Depth to Top of Bedrock [Feet]	Elevation of Bottom of Exploration [Feet]	Elevation of Refusal on Bedrock [Feet]
RP -1	+22.8	20.0	NE	+2.8	NE
RP -2	+22.4	20.0	NE	+2.4	NE
RP -3	+22.1	20.0	NE	+2.1	NE
RP -4	+21.9	20.0	NE	+1.9	NE
RP -5	+21.8	20.0	NE	+1.8	NE
RP -6	+21.6	20.0	NE	+1.6	NE
RP -7	+21.5	20.0	NE	+1.5	NE
RP -8	+21.5	20.0	NE	+1.5	NE
RP -9	+21.3	20.0	NE	+1.3	NE
RP -10	+21.3	20.0	NE	+1.3	NE
RP -11	+20.9	20.0	NE	+0.9	NE
RP -12	+21.8	20.0	NE	+1.8	NE
RP -13	+22.7	20.0	NE	+2.7	NE
RP -14	+22.9	20.0	NE	+2.9	NE
RP -15	+23.3	20.0	NE	+3.3	NE
RP -16	+23.6	20.0	NE	+3.6	NE
RP -17	+23.6	20.0	NE	+3.6	NE
RP -18	+23.7	23.0	18.0	+0.7	+5.7
RP -19	+23.8	23.0	18.0	+0.8	+5.8
RP -20	+23.9	19.0	14.0	+4.9	+9.9
RP -21	+24.0	15.0	10.0	+9.0	+14.0
RP -22	+23.9	13.0	8.0	+10.9	+15.9
RP -23	+23.8	12.0	7.0	+11.8	+16.8
RP -24	+23.9	9.0	4.0	+14.9	+19.9
RP -25	+23.9	7.0	2.0	+16.9	+21.9
RP -26	+23.9	9.0	4.0	+14.9	+19.9
RP -27	+24.1	8.0	3.0	+16.1	+21.1
RP -28	+24.1	13.0	8.0	+11.1	+16.1
RP -29	+24.0	12.0	7.0	+12.0	+17.0
RP -30	+24.0	12.0	7.0	+12.0	+17.0
RP -31	+24.0	10.0	5.0	+14.0	+19.0
RP -32	+24.0	11.0	6.0	+13.0	+18.0
B-117	+23.6	5.2	5.1	+18.4	+18.5
B-117A	+23.6	4.2	5.2	+19.4	+18.4
B-117B	+23.6	5.2	4.2	+18.4	+19.4
B-118	+27.9	12.0	12.0	+15.9	+15.9
GP-1	+21.6	10.0	11.6	+11.6	+10.0
GP-2	+20.4	14.0	14.0	+6.4	+6.4
GP-3	+19.5	16.5	16.5	+3.0	+3.0
GP-4	+19.7	14.0	14.0	+5.7	+5.7
TP-115	+22.9	5.0	NE	+17.9	NE
TP-116	+18.4	6.0	NE	+12.4	NE
TP-117	+18.8	6.5	NE	+12.3	NE
TP-118	+18.4	6.0	NE	+12.4	NE
TP-119	+17.2	6.0	NE	+11.2	NE

JVA/DAD	RRL	DESIGNER REVIEWER
5.	8/19/2019	TAC SUBMITTAL
4.	7/24/2019	TAC SUBMITTAL
3.	6/20/2019	TAC SUBMITTAL
2.	5/20/2019	TAC SUBMITTAL
1.	3/18/2019	TAC SUBMITTAL
J No.	DATE	DESCRIPTION



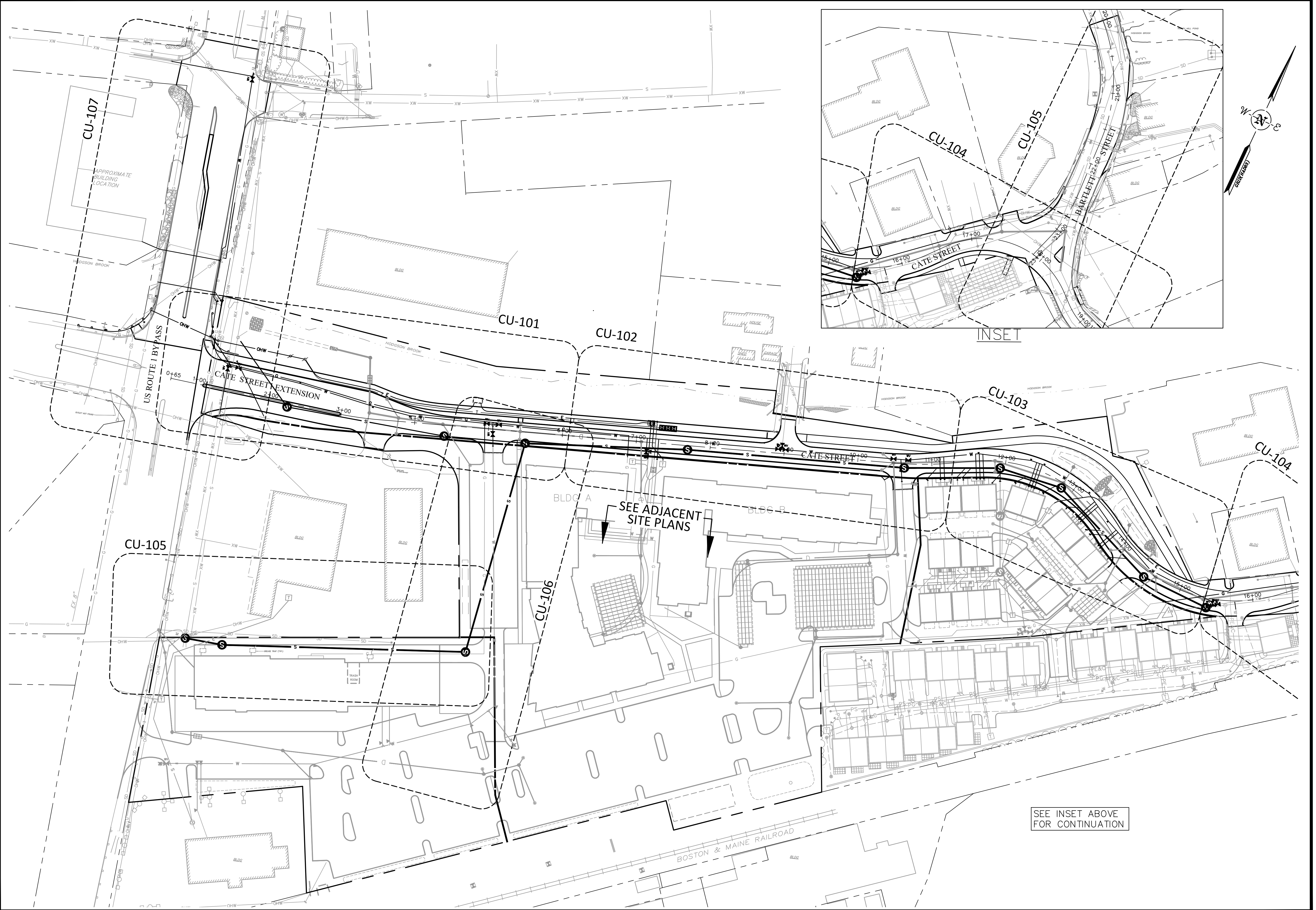
SCALE:	HORIZ.: 1"=50'
	VERT.: 1"=50'
DATUM:	HORIZ.: NAD83
	VERT.: NGVD29
	50 25 0 50
	GRAPHIC SCALE

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

CATE STREET DEVELOPMENT, LLC
**SUBSURFACE
 EXPLORATION PLAN**
 CATE STREET
 PORTSMOUTH NEW HAMPSHIRE

PROJ. No.: 20180317.A10
 DATE: 08/19/2019
CG-110

File Path: F:\P20180317A10\CH3\DWG\20180317A10_UTL01.dwg Layout: CU-100 (R) Plotted: Mon, August 19, 2019 - 12:10 PM User: ddugal
 MS VIEW: LAYER STATE: Plotter: DWG TO PDF-PC3 CTB File: FO-STB

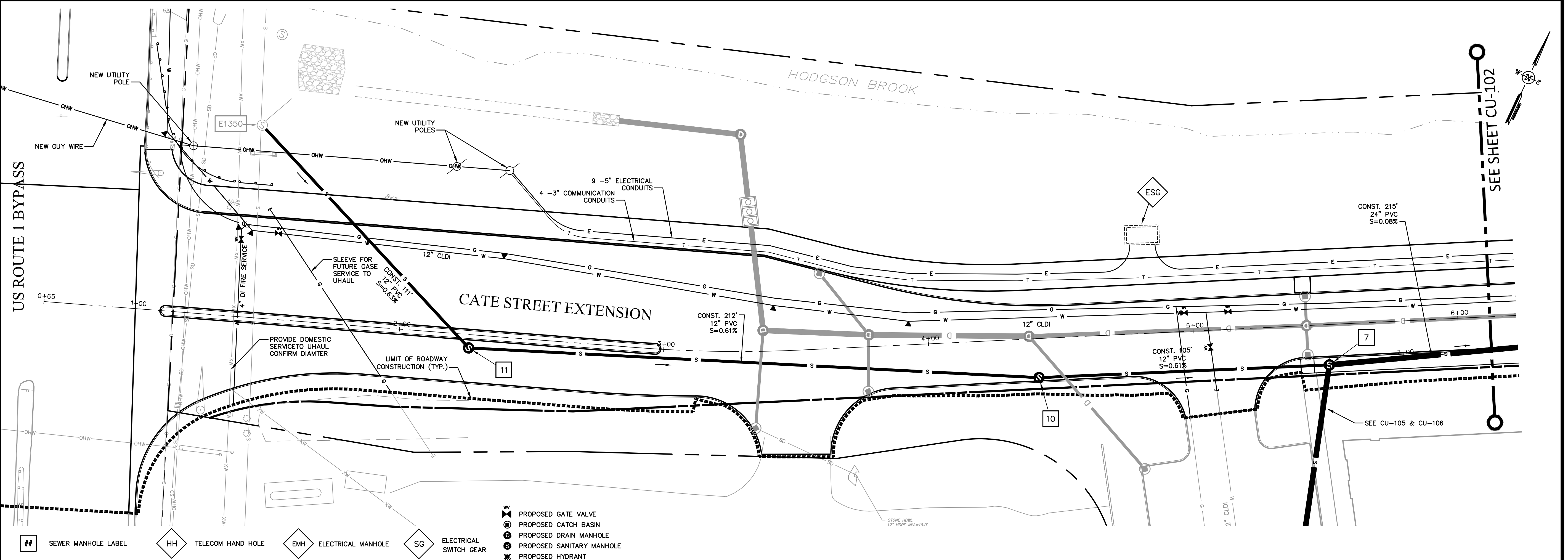


SEE ADJACENT
SITE PLANS

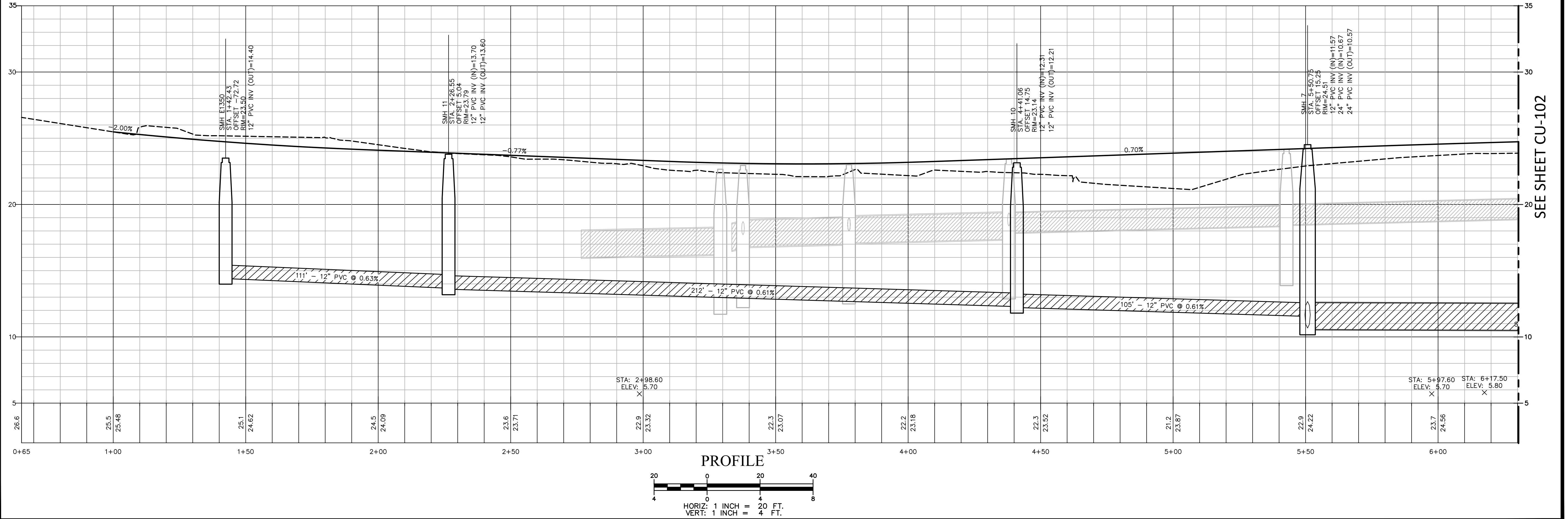
SEE INSET ABOVE
FOR CONTINUATION

FUSS & O'NEILL UPPER SQUARE BUSINESS CENTER 5 FLETCHER STREET, SUITE 1 KENNEBUNK, MAINE 04043 207.563.6609 www.fandoc.com																									
CATE STREET DEVELOPMENT, LLC OVERALL UTILITY PLAN CATE STREET PORTSMOUTH NEW HAMPSHIRE	PROJ. No.: 20180317.A10 DATE: 08/19/2019 <h1>CU-100</h1>																								
SCALE: HORIZ.: 1"=60' VERT.: 1"=60' DATUM: HORIZ.: NAD83 VERT.: NGVD29 60 30 0 60 GRAPHIC SCALE	<table border="1"> <thead> <tr> <th>No.</th> <th>DATE</th> <th>DESCRIPTION</th> <th>DESIGNER/REVIEWER</th> </tr> </thead> <tbody> <tr> <td>5.</td> <td>8/19/2019</td> <td>TAC SUBMITTAL</td> <td>JVA/DAD</td> </tr> <tr> <td>4.</td> <td>7/24/2019</td> <td>TAC SUBMITTAL</td> <td>JVA/DAD</td> </tr> <tr> <td>3.</td> <td>6/20/2019</td> <td>TAC SUBMITTAL</td> <td>JVA/DAD</td> </tr> <tr> <td>2.</td> <td>5/20/2019</td> <td>TAC SUBMITTAL</td> <td>JVA/DAD</td> </tr> <tr> <td>1.</td> <td>3/18/2019</td> <td>TAC SUBMITTAL</td> <td>JVA/DAD</td> </tr> </tbody> </table>	No.	DATE	DESCRIPTION	DESIGNER/REVIEWER	5.	8/19/2019	TAC SUBMITTAL	JVA/DAD	4.	7/24/2019	TAC SUBMITTAL	JVA/DAD	3.	6/20/2019	TAC SUBMITTAL	JVA/DAD	2.	5/20/2019	TAC SUBMITTAL	JVA/DAD	1.	3/18/2019	TAC SUBMITTAL	JVA/DAD
No.	DATE	DESCRIPTION	DESIGNER/REVIEWER																						
5.	8/19/2019	TAC SUBMITTAL	JVA/DAD																						
4.	7/24/2019	TAC SUBMITTAL	JVA/DAD																						
3.	6/20/2019	TAC SUBMITTAL	JVA/DAD																						
2.	5/20/2019	TAC SUBMITTAL	JVA/DAD																						
1.	3/18/2019	TAC SUBMITTAL	JVA/DAD																						

File Path: F:\P20180317A\10\CH3\DWG\20180317A10_UTL01.dwg Layout: CU-101 (R) Plotted: Mon, August 19, 2019 - 12:10 PM User: ddugal
 MS VIEW: LAYER STATE: PLOTTER: DWG TO PDF-PC3 CTB File: FO.STB



- # SEWER MANHOLE LABEL
- HH TELECOM HAND HOLE
- EMH ELECTRICAL MANHOLE
- SG ELECTRICAL SWITCH GEAR
- PROPOSED GATE VALVE
- PROPOSED CATCH BASIN
- PROPOSED DRAIN MANHOLE
- PROPOSED SANITARY MANHOLE
- PROPOSED HYDRANT



NO.	DATE	DESCRIPTION	DESIGNER/REVIEWER
5.	8/19/2019	TAC SUBMITTAL	JVA/DAD
4.	7/24/2019	TAC SUBMITTAL	JVA/DAD
3.	6/20/2019	TAC SUBMITTAL	JVA/DAD
2.	5/20/2019	TAC SUBMITTAL	JVA/DAD
1.	3/18/2019	TAC SUBMITTAL	JVA/DAD

RICHARD R. LINDBORN
 LICENSED PROFESSIONAL ENGINEER
 STATE OF NEW HAMPSHIRE
 No. 1843

SCALE: HORIZ: 1" = 20'
 VERT: AS NOTED
 DATUM: NAD83
 VERT.: NGVD29
 GRAPHIC SCALE

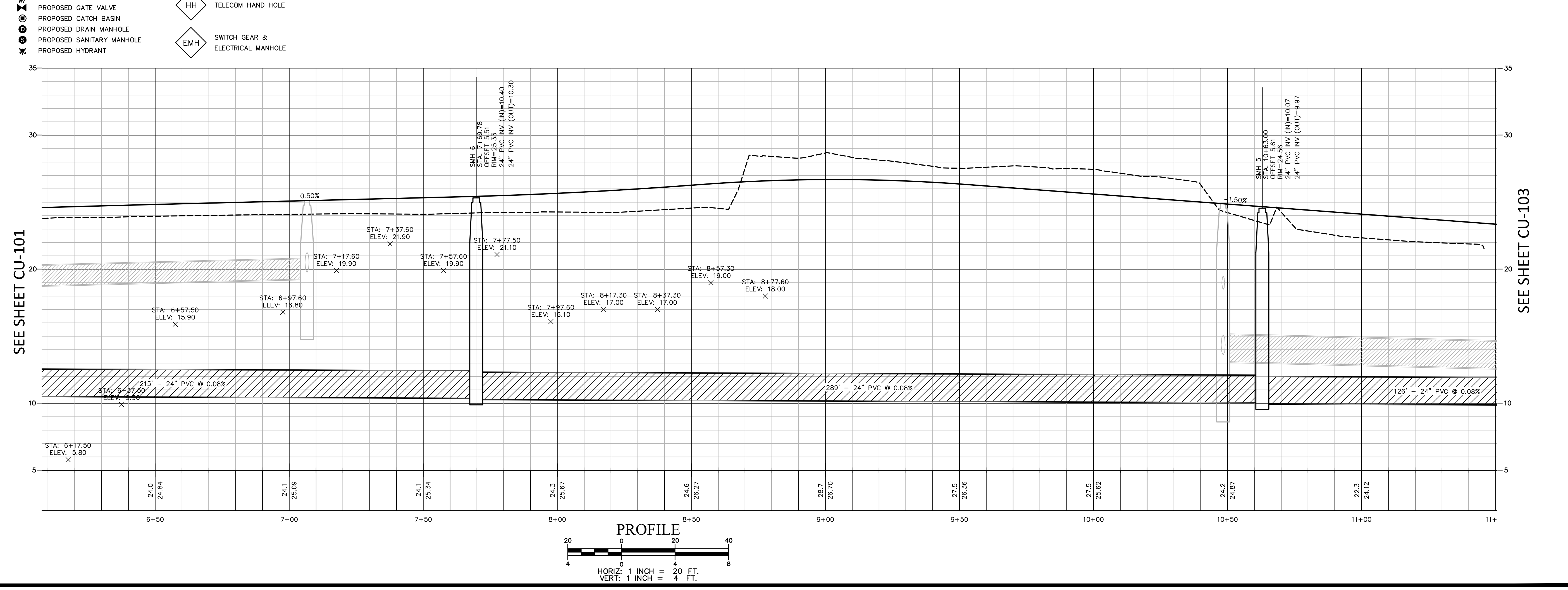
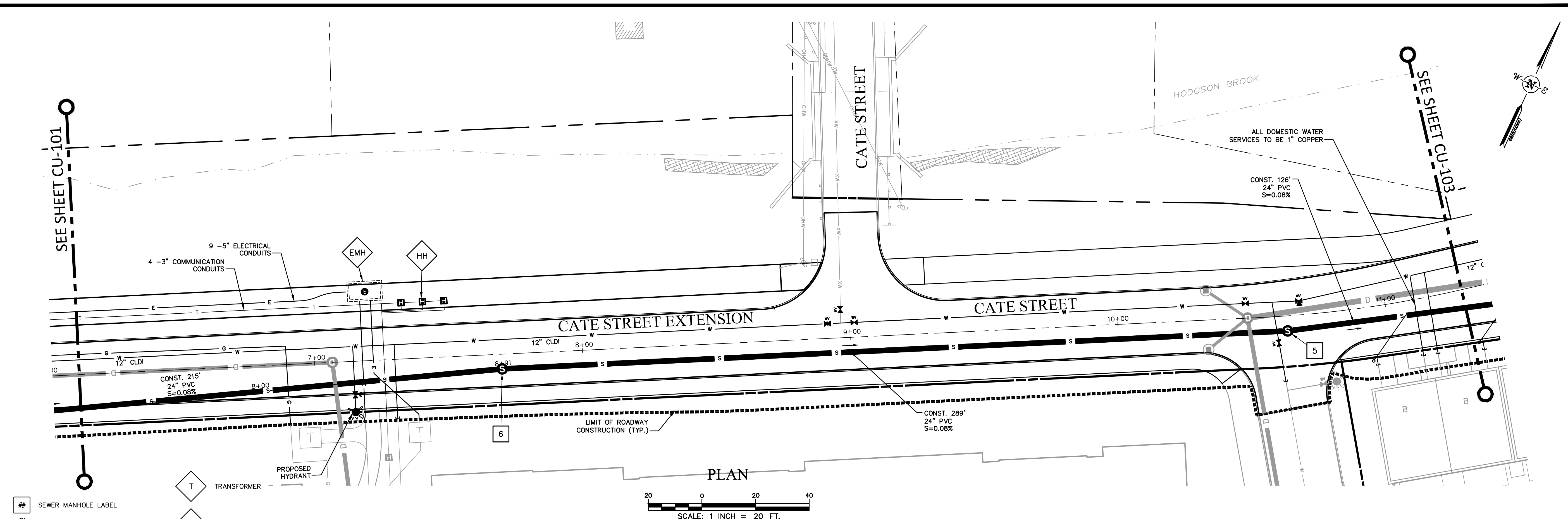
FUSS & O'NEILL
 UPPER SQUARE BUSINESS CENTER
 5 FLETCHER STREET, SUITE 1
 KENNEBUNK, MAINE 04043
 www.fandoo.com

CATE STREET DEVELOPMENT, LLC
 UTILITY PLAN & PROFILE
 CATE STREET
 PORTSMOUTH NEW HAMPSHIRE


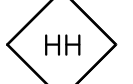

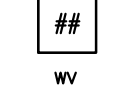





PROJ. No.: 20180317.A10
 DATE: 08/19/2019

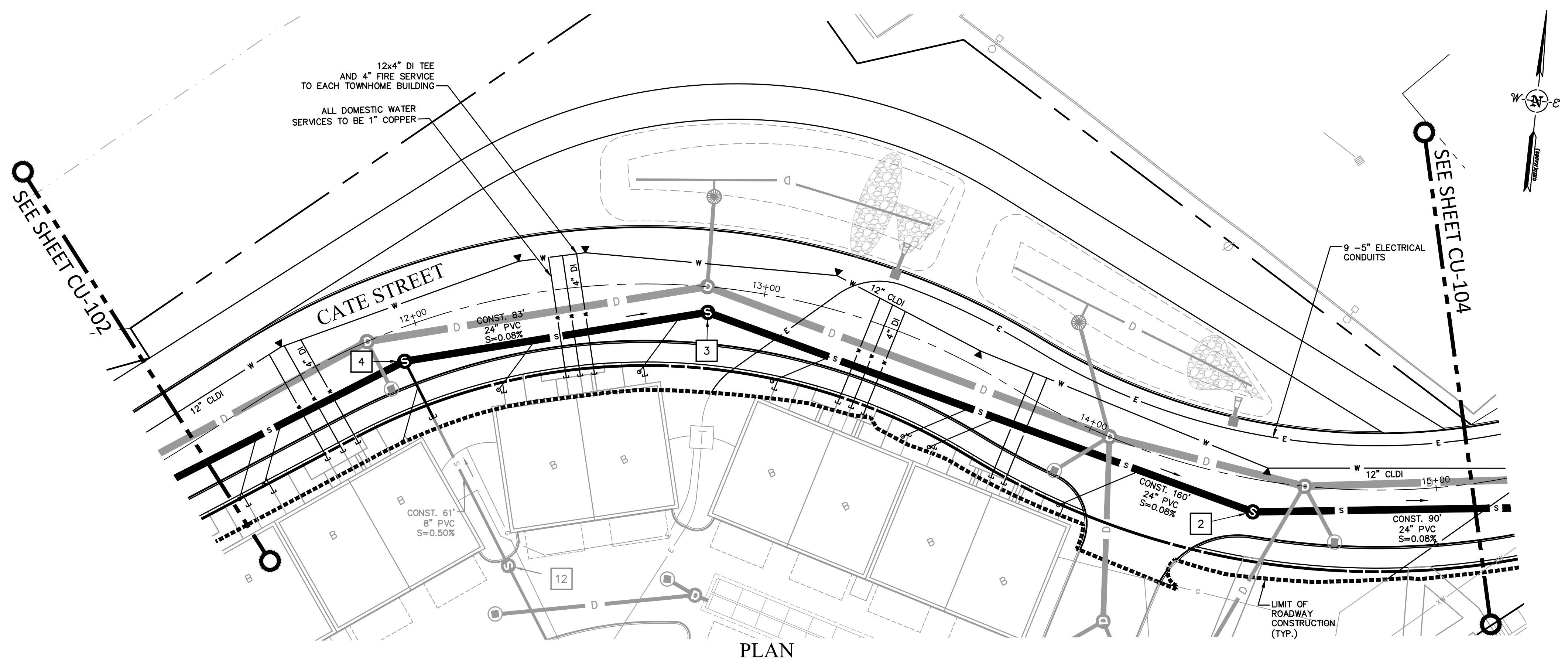
CU-101

File Path: F:\P20180317A10\CU102.dwg Layout: CU-102 (R) Plotted: Mon, August 19, 2019 - 12:11 PM User: ddugal
 MS VIEW: [LAYER STATE:] Plotter: DWG TO PDF-PC3 CTB File: FO.STB

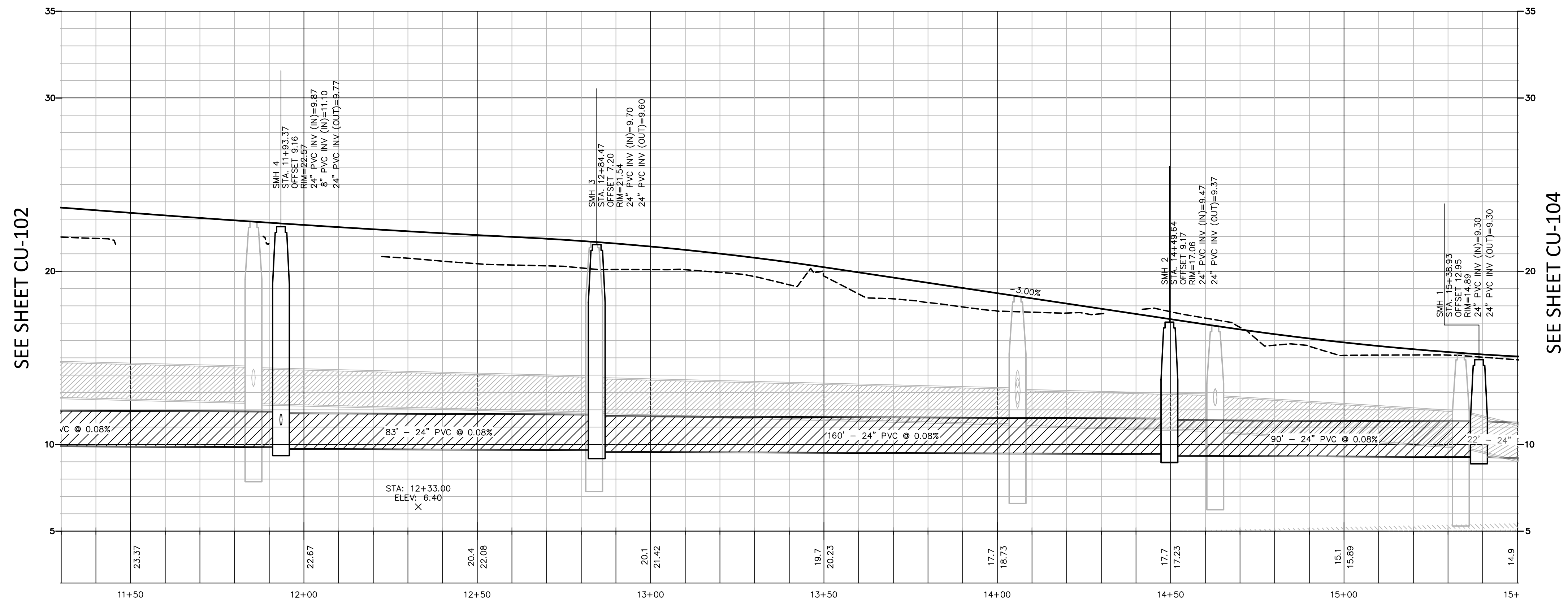


PROJ. No.: 20180317.A10	DATE: 08/19/2019																								
CU-102																									
FUSS & O'NEILL UPPER SQUARE BUSINESS CENTER 5 FLETCHER STREET, SUITE 1 KENNEBUNK, MAINE 04043 www.fandoo.com																									
CATE STREET DEVELOPMENT, LLC UTILITY PLAN & PROFILE CATE STREET PORTSMOUTH NEW HAMPSHIRE																									
SCALE: HORIZ.: 1" = 20' VERT.: AS NOTED	DATUM: NAD83 VERT.: NGVD29																								
GRAPHIC SCALE																									
<table border="1"> <thead> <tr> <th>No.</th> <th>DATE</th> <th>DESCRIPTION</th> <th>DESIGNER/REVIEWER</th> </tr> </thead> <tbody> <tr> <td>5.</td> <td>8/19/2019</td> <td>TAC SUBMITTAL</td> <td>JVA/DAD</td> </tr> <tr> <td>4.</td> <td>7/24/2019</td> <td>TAC SUBMITTAL</td> <td>JVA/DAD</td> </tr> <tr> <td>3.</td> <td>6/20/2019</td> <td>TAC SUBMITTAL</td> <td>JVA/DAD</td> </tr> <tr> <td>2.</td> <td>5/20/2019</td> <td>TAC SUBMITTAL</td> <td>JVA/DAD</td> </tr> <tr> <td>1.</td> <td>3/18/2019</td> <td>TAC SUBMITTAL</td> <td>JVA/DAD</td> </tr> </tbody> </table>		No.	DATE	DESCRIPTION	DESIGNER/REVIEWER	5.	8/19/2019	TAC SUBMITTAL	JVA/DAD	4.	7/24/2019	TAC SUBMITTAL	JVA/DAD	3.	6/20/2019	TAC SUBMITTAL	JVA/DAD	2.	5/20/2019	TAC SUBMITTAL	JVA/DAD	1.	3/18/2019	TAC SUBMITTAL	JVA/DAD
No.	DATE	DESCRIPTION	DESIGNER/REVIEWER																						
5.	8/19/2019	TAC SUBMITTAL	JVA/DAD																						
4.	7/24/2019	TAC SUBMITTAL	JVA/DAD																						
3.	6/20/2019	TAC SUBMITTAL	JVA/DAD																						
2.	5/20/2019	TAC SUBMITTAL	JVA/DAD																						
1.	3/18/2019	TAC SUBMITTAL	JVA/DAD																						

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

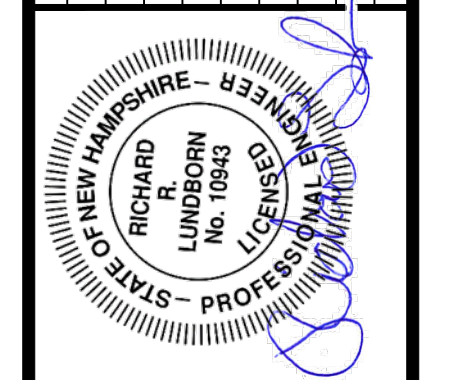


PLAN
 SCALE: 1 INCH = 20 FT.



PROFILE
 HORIZ: 1 INCH = 20 FT.
 VERT: 1 INCH = 4 FT.

No.	DATE	DESCRIPTION	DESIGNER/REVIEWER
5.	8/19/2019	TAC SUBMITTAL	JVA/DAD
4.	7/24/2019	TAC SUBMITTAL	JVA/DAD
3.	6/20/2019	TAC SUBMITTAL	JVA/DAD
2.	5/20/2019	TAC SUBMITTAL	JVA/DAD
1.	3/18/2019	TAC SUBMITTAL	JVA/DAD



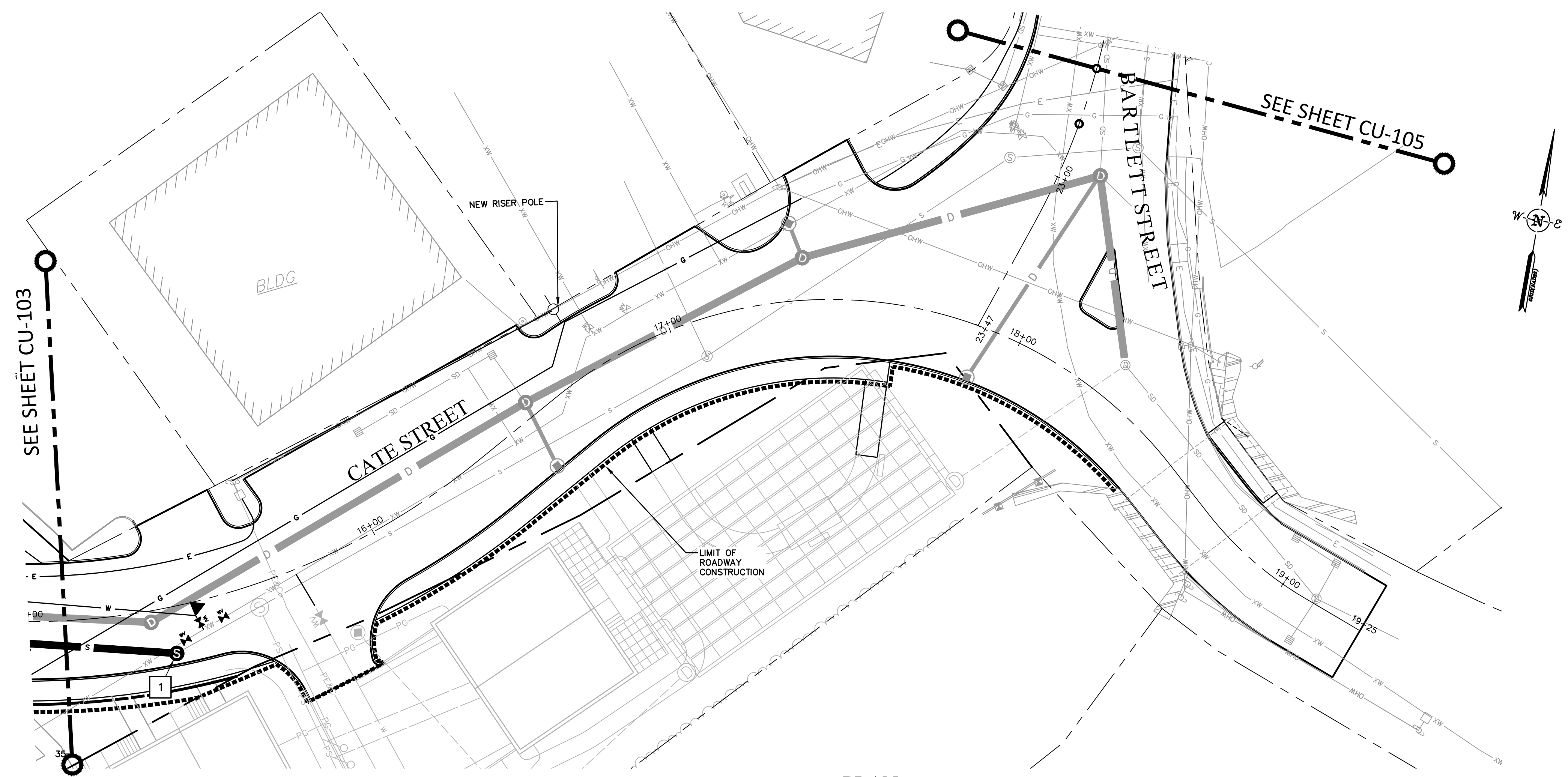
SCALE:	HORIZ: 1" = 20'
	VERT: AS NOTED
DATUM:	HORIZ: NAD83
	VERT: NGVD29

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

CATE STREET DEVELOPMENT, LLC
 UTILITY PLAN & PROFILE
 CATE STREET
 PORTSMOUTH NEW HAMPSHIRE

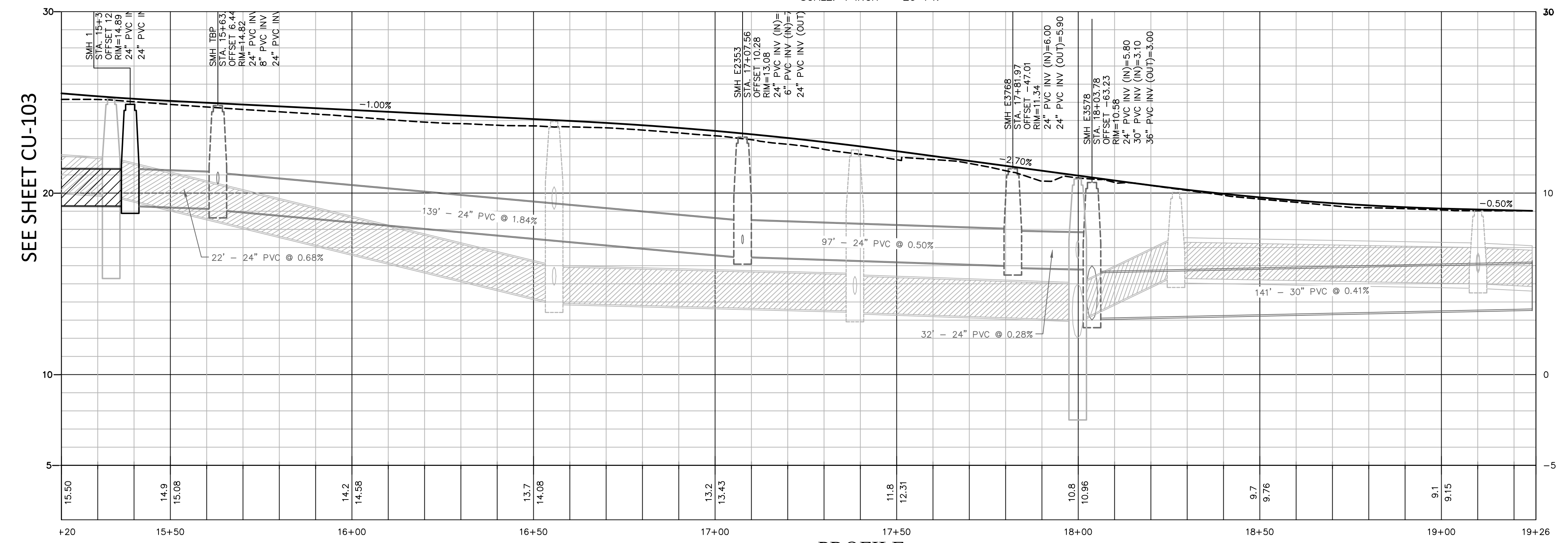
PROJ. No.: 20180317.A10
 DATE: 08/19/2019

CU-103



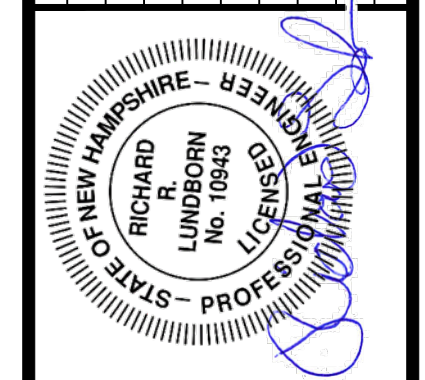
PLAN
 SCALE: 1 INCH = 20 FT.

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



PROFILE
 HORIZ: 1 INCH = 20 FT.
 VERT: 1 INCH = 4 FT.

No.	DATE	DESCRIPTION	DESIGNER/REVIEWER
5.	8/19/2019	TAC SUBMITTAL	JVA/DAD
4.	7/24/2019	TAC SUBMITTAL	JVA/DAD
3.	6/20/2019	TAC SUBMITTAL	JVA/DAD
2.	5/20/2019	TAC SUBMITTAL	JVA/DAD
1.	3/18/2019	TAC SUBMITTAL	JVA/DAD



SCALE:	HORIZ: 1" = 20'
	VERT: AS NOTED
DATUM:	HORIZ: NAD83
	VERT: NGVD29

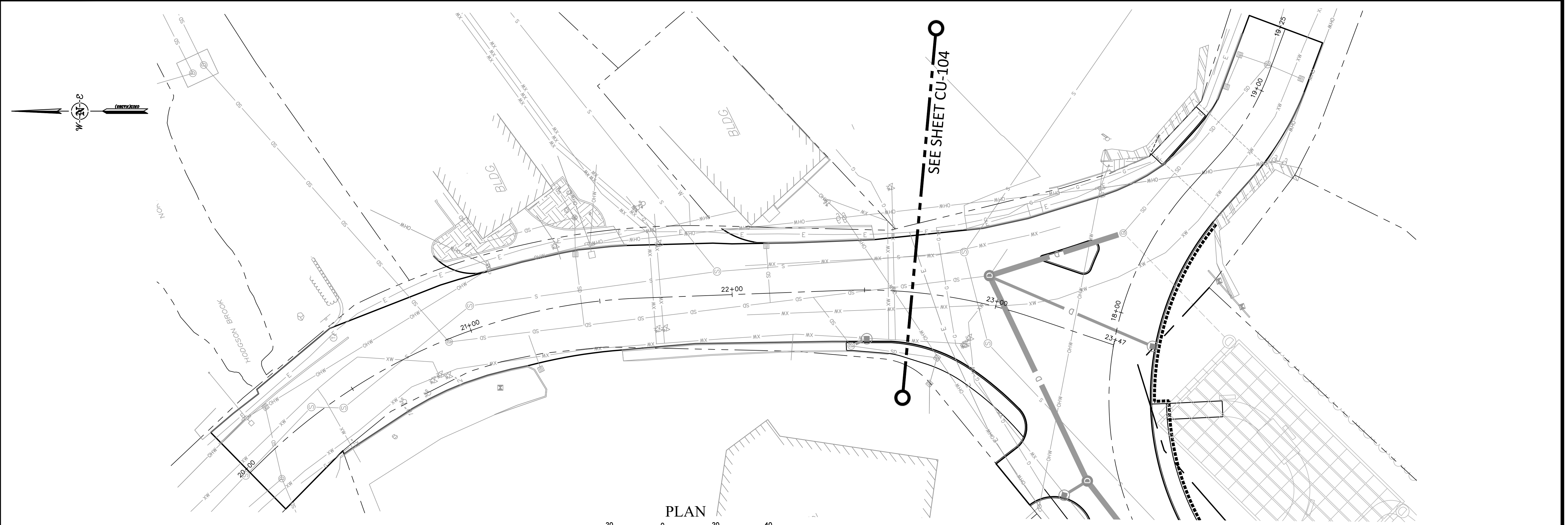
FUSS & O'NEILL
 UTILITY PLAN & PROFILE
 CATE STREET
 PORTSMOUTH NEW HAMPSHIRE

UPPER SQUARE BUSINESS CENTER
 5 FLETCHER STREET, SUITE 1
 KENNEBUNK, MAINE 04043
 www.fandoo.com

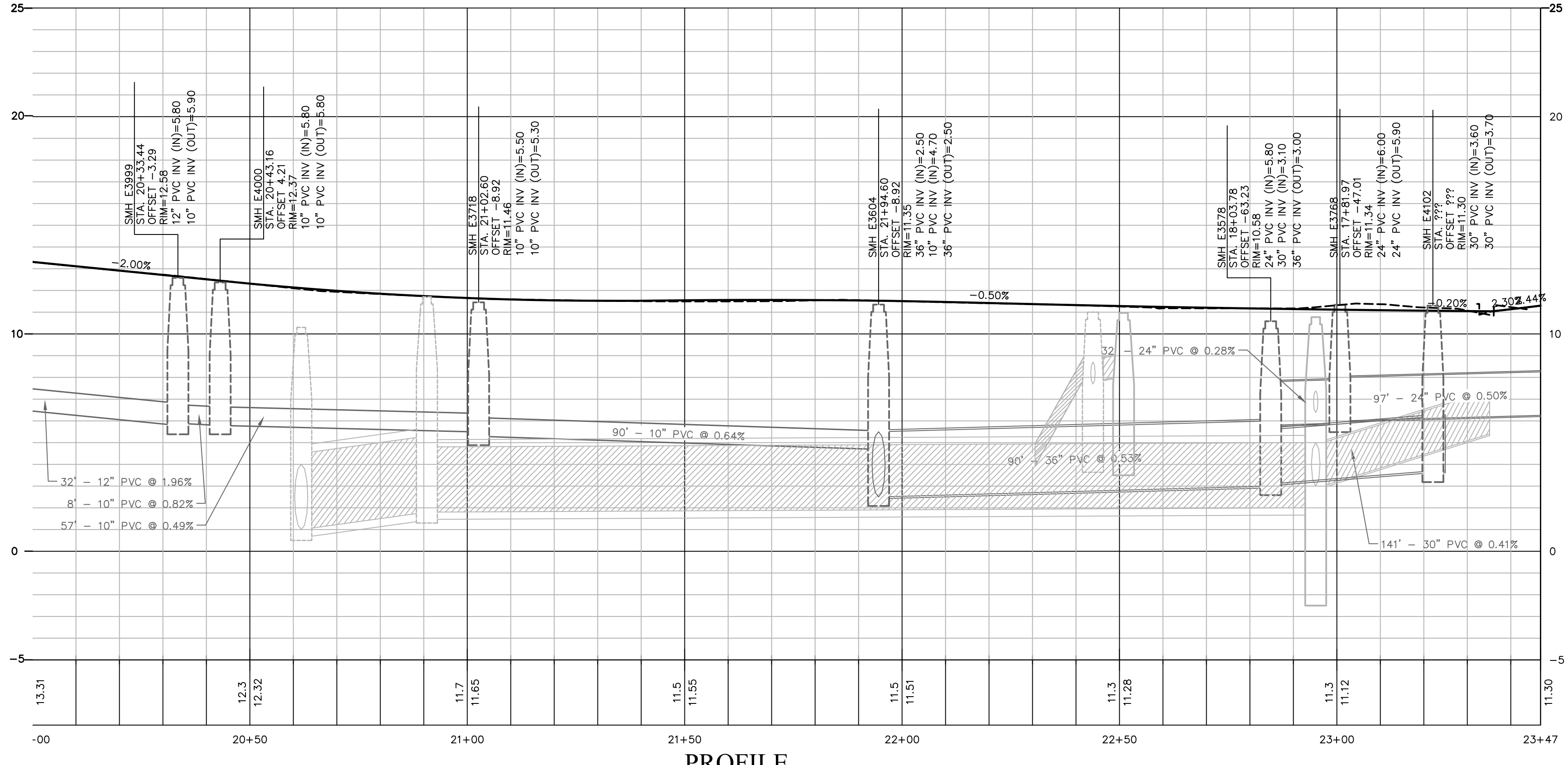
CATE STREET DEVELOPMENT, LLC
 UTILITY PLAN & PROFILE
 CATE STREET
 PORTSMOUTH NEW HAMPSHIRE

PROJ. No.: 20180317.A10
 DATE: 08/19/2019

CU-104



PLAN
 SCALE: 1 INCH = 20 FT.



PROFILE
 HORIZ: 1 INCH = 20 FT.
 VERT: 1 INCH = 4 FT.

- T TRANSFORMER
- HH TELECOM HAND HOLE
- EMH SWITCH GEAR & ELECTRICAL MANHOLE
- ## SEWER MANHOLE LABEL
- X PROPOSED GATE VALVE
- PROPOSED CATCH BASIN
- PROPOSED DRAIN MANHOLE
- PROPOSED SANITARY MANHOLE
- * PROPOSED HYDRANT

SEE SHEET CU-104

CATE STREET DEVELOPMENT, LLC
 UTILITY PLAN & PROFILE
 CATE STREET
 PORTSMOUTH NEW HAMPSHIRE

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

No.	DATE	DESCRIPTION	DESIGNER REVIEWER
5.	8/19/2019	TAC SUBMITTAL	JVA/DAD RRL
4.	7/24/2019	TAC SUBMITTAL	JVA/DAD RRL
3.	6/20/2019	TAC SUBMITTAL	JVA/DAD RRL
2.	5/20/2019	TAC SUBMITTAL	JVA/DAD RRL
1.	3/18/2019	TAC SUBMITTAL	JVA/DAD RRL










SCALE: HORIZ: 1" = 20'
 VERT: AS NOTED

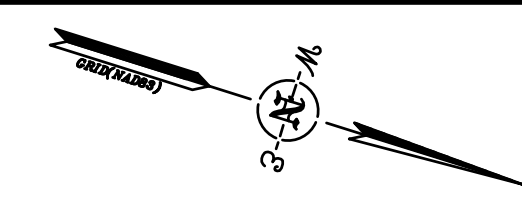
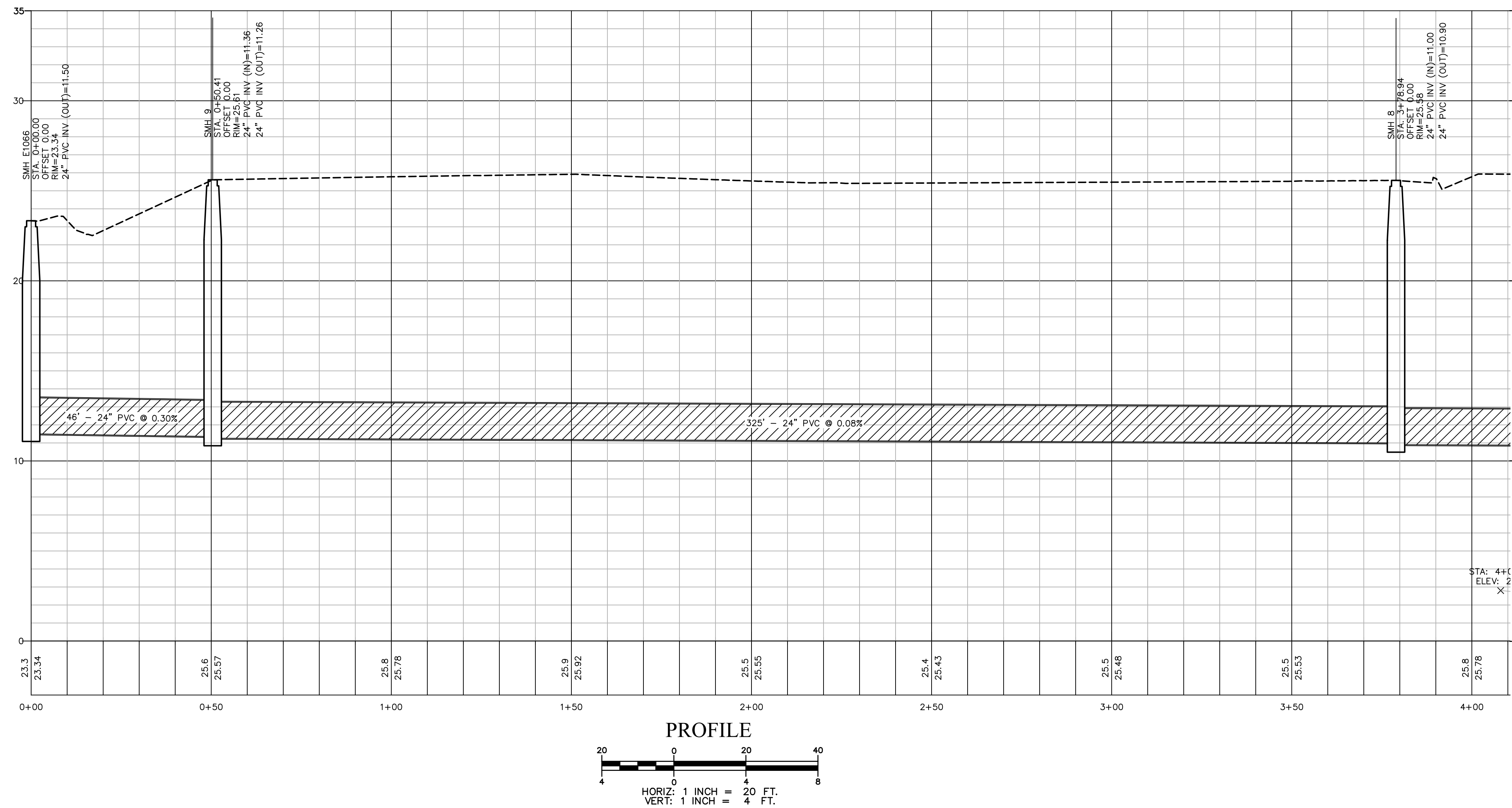
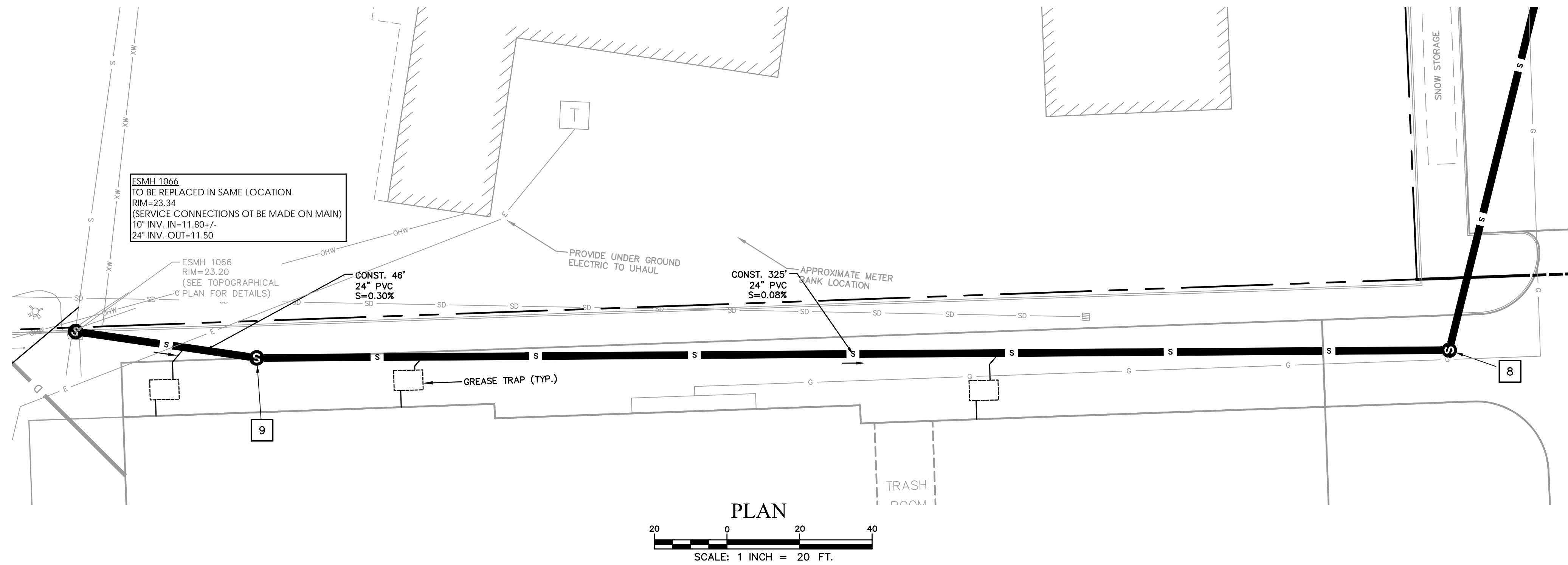
DATUM: HORIZ: NAD83
 VERT: NGVD29

GRAPHIC SCALE

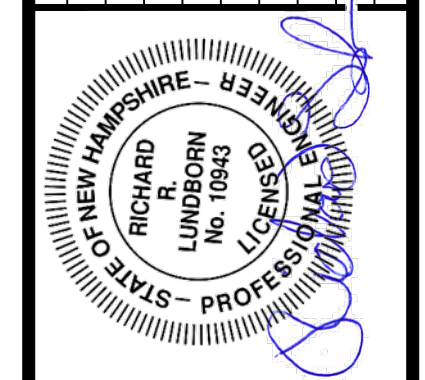
PROJ. No.: 20180317.A10
 DATE: 08/19/2019

CU-105

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



No.	DATE	DESCRIPTION	DESIGNER REVIEWER
5.	8/19/2019	TAC SUBMITTAL	JVA/DAD
4.	7/24/2019	TAC SUBMITTAL	JVA/DAD
3.	6/20/2019	TAC SUBMITTAL	JVA/DAD
2.	5/20/2019	TAC SUBMITTAL	JVA/DAD
1.	3/18/2019	TAC SUBMITTAL	JVA/DAD


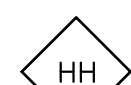
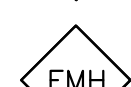








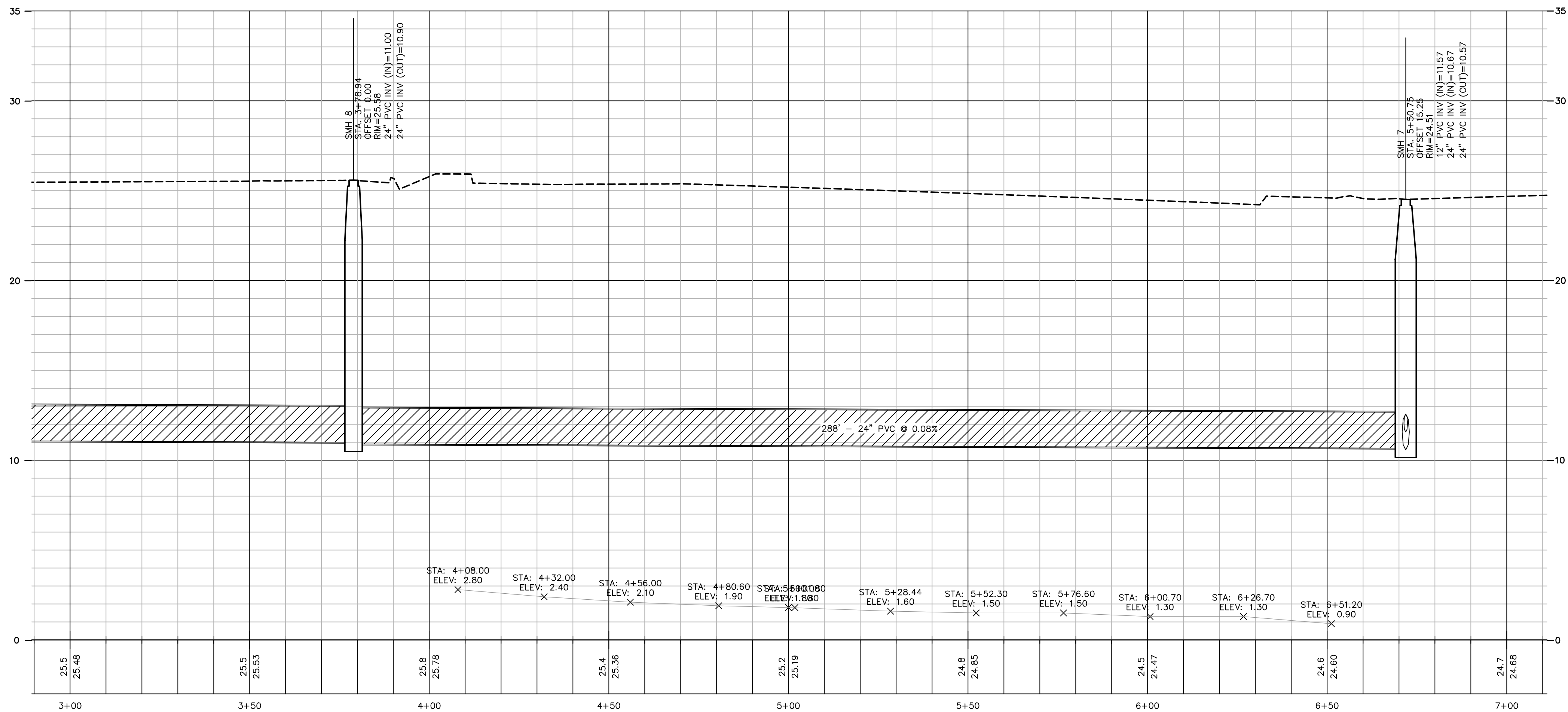
SCALE:	HORIZ: 1" = 20'
	VERT: AS NOTED
DATUM:	HORIZ: NAD83
	VERT: NGVD29

FUSS & O'NEILL
 UPPER SQUARE BUSINESS CENTER
 5 FLETCHER STREET, SUITE 1
 KENNEBUNK, MAINE 04043
 207.563.6609
 www.fandoo.com

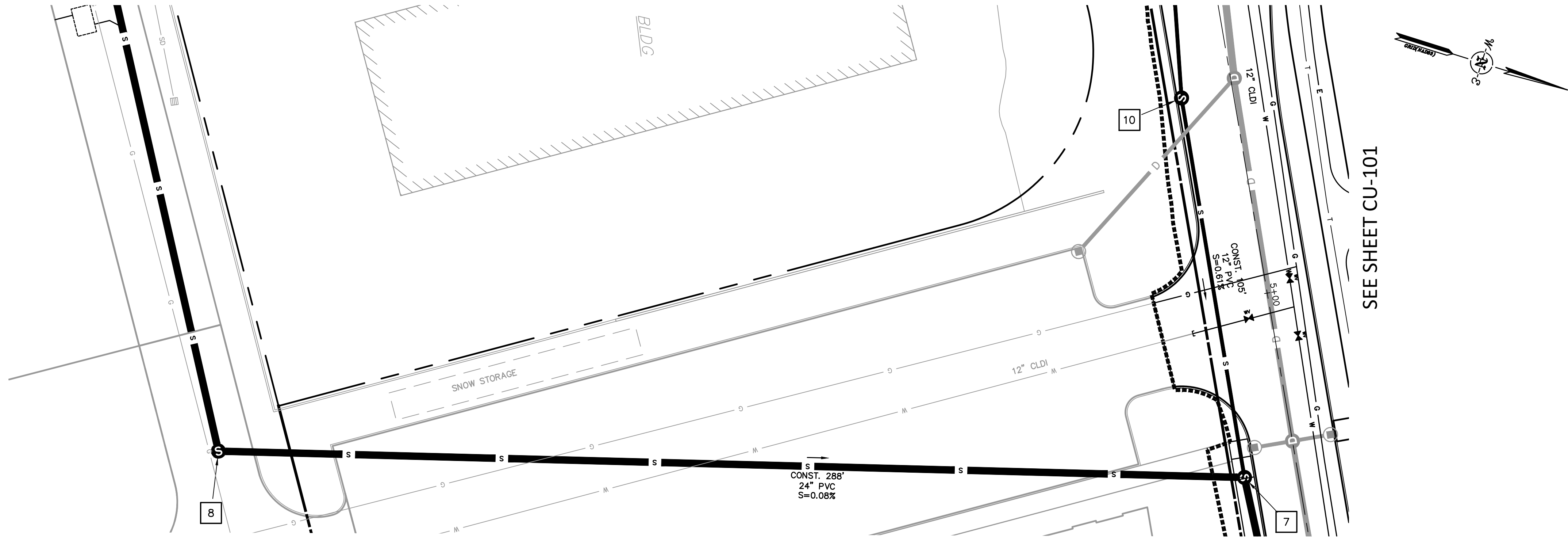
CATE STREET DEVELOPMENT, LLC
 UTILITY PLAN & PROFILE
 CATE STREET
 PORTSMOUTH NEW HAMPSHIRE

PROJ. No.: 20180317.A10
 DATE: 08/19/2019
CU-106

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



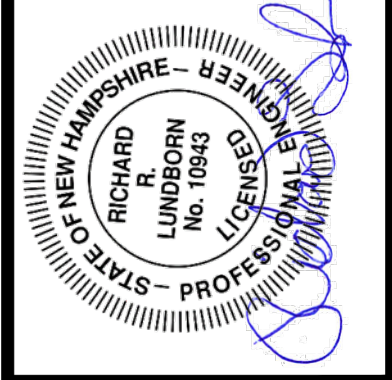
PROFILE
 HORIZ: 1 INCH = 20 FT.
 VERT: 1 INCH = 4 FT.



PLAN
 SCALE: 1 INCH = 20 FT.

SEE SHEET CU-101

No.	DATE	DESCRIPTION	DESIGNER REVIEWER
5.	8/19/2019	TAC SUBMITTAL	JVA/DAD RRL
4.	7/24/2019	TAC SUBMITTAL	JVA/DAD RRL
3.	6/20/2019	TAC SUBMITTAL	JVA/DAD RRL
2.	5/20/2019	TAC SUBMITTAL	JVA/DAD RRL
1.	3/18/2019	TAC SUBMITTAL	JVA/DAD RRL

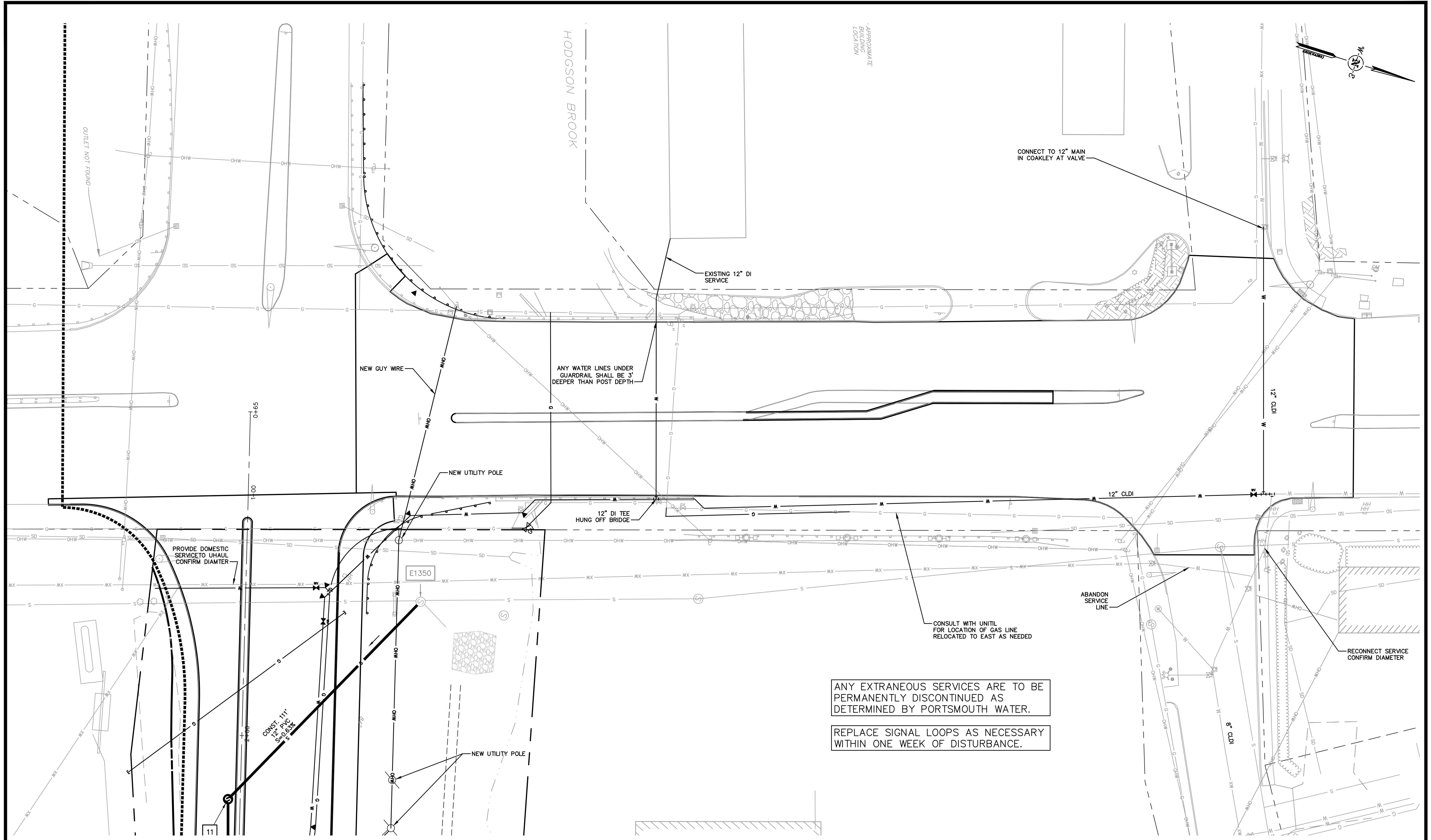


SCALE:	HORIZ: 1" = 20'
	VERT: AS NOTED
DATUM:	
	HORIZ: NAD83
	VERT: NGVD29
	GRAPHIC SCALE

FUSS & O'NEILL
 UPPER SQUARE BUSINESS CENTER
 5 FLETCHER STREET, SUITE 1
 KENNEBUNK, MAINE 04043
 207.563.6609
 www.fandoc.com

CATE STREET DEVELOPMENT, LLC
 UTILITY PLAN & PROFILE
 CATE STREET
 PORTSMOUTH NEW HAMPSHIRE

PROJ. No.: 20180317.A10
 DATE: 08/19/2019
CU-107



PLAN
 SCALE: 1 INCH = 20 FT.

ANY EXTRANEIOUS SERVICES ARE TO BE PERMANENTLY DISCONTINUED AS DETERMINED BY PORTSMOUTH WATER.
 REPLACE SIGNAL LOOPS AS NECESSARY WITHIN ONE WEEK OF DISTURBANCE.

SCALE: HORIZ.: 1"=20' VERT.: 1"=20' DATUM: HORIZ.: NAD83 VERT.: NGVD29	
FUSS & O'NEILL UPPER SQUARE BUSINESS CENTER 5 FLETCHER STREET, SUITE 1 KENNEBUNK, MAINE 04043 www.fandoo.com	
CATE STREET DEVELOPMENT, LLC RTE 1 BYPASS OFFSITE IMPROVEMENT PLANS CATE STREET PORTSMOUTH	NEW HAMPSHIRE
PROJ. No.: 20180317.A10 DATE: 08/19/2019	CU-108

NO.	DATE	DESCRIPTION	DESIGNER/REVIEWER
5.	8/19/2019	TAC SUBMITTAL	JVA/DAD
4.	7/24/2019	TAC SUBMITTAL	JVA/DAD
3.	6/20/2019	TAC SUBMITTAL	JVA/DAD
2.	5/20/2019	TAC SUBMITTAL	JVA/DAD
1.	3/18/2019	TAC SUBMITTAL	JVA/DAD

- ALL SECTIONS SHALL BE CONCRETE, CLASS AA (4,000 PSI)
- 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
- THE TONGUE AND GROOVE OF THE JOINT SHALL CONTAIN ONE LINE OF CIRCUMFERENTIAL REINFORCEMENT EQUAL TO 0.12 SQ. IN. PER L.F.
- RISERS OF 1", 2", 3", & 4" MAY BE USED TO REACH DESIRED DEPTH.
- THE STRUCTURES SHALL BE DESIGNED FOR H-20 LOADING.
- FITTING FRAME TO GRADE MAY BE DONE WITH CLAY BRICKS (2 COURSES MAX.), FRAME TO BE SET IN A FULL BED OF MORTAR.
- SLAB TOPS MAY BE USED WHERE PIPE WOULD OTHERWISE ENTER INTO THE CONE SECTION OF THE STRUCTURE AND WHERE PERMITTED.
- PIPE ELEVATIONS SHOWN ON PLANS SHALL BE FIELD VERIFIED PRIOR TO PRECASTING.
- OUTSIDE EDGES OF PIPES SHALL PROJECT NO MORE THAN 3" BEYOND THE INSIDE WALL OF THE STRUCTURE.
- PRECAST SECTIONS SHALL HAVE A TONGUE AND GROOVE JOINT 4" 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.
- STEPS ARE NOT ALLOWED.

- CATCH BASIN SPECIFIC NOTES:**
- CONCRETE SECTIONS MAY BE CONCENTRIC OR ECCENTRIC, OR FLAT SLAB TOPS MAY BE USED WHERE PIPE WOULD OTHERWISE ENTER INTO THE CONE SECTION OF THE STRUCTURE AND WHERE PERMITTED.
 - "ELIMINATOR" OIL/WATER SEPARATORS SHALL BE INSTALLED TIGHT TO INSIDE OF CATCH BASIN.
- DRAIN MANHOLE SPECIFIC NOTES:**
- ALL STRUCTURES WITH MULTIPLE PIPES SHALL HAVE A MINIMUM OF 12" 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" TO JOINT.
 - MANHOLE FRAME & COVER SHALL BE JORDAN IRONWORKS HINGE COVER PER CITY OF PORTSMOUTH STANDARD.

PRECAST DRAINAGE STRUCTURE NOTES
 NOT TO SCALE

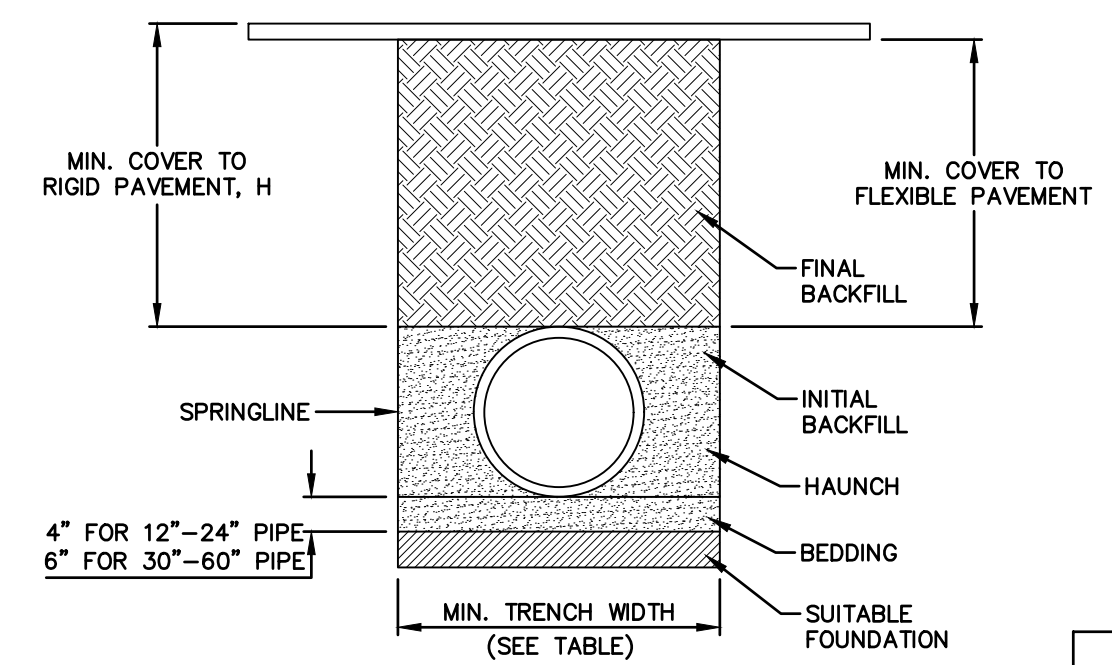


TABLE 1, RECOMMENDED MINIMUM TRENCH WIDTHS

PIPE DIAM.	MIN. TRENCH WIDTH
12"	30"
15"	34"
18"	39"
24"	48"
30"	56"
36"	64"
42"	72"
48"	80"
60"	96"
72"	112"
84"	128"
96"	144"
108"	160"
120"	176"
132"	192"
144"	208"
156"	224"
168"	240"
180"	256"
192"	272"
204"	288"
216"	304"
228"	320"
240"	336"
252"	352"
264"	368"
276"	384"
288"	400"
300"	416"
312"	432"
324"	448"
336"	464"
348"	480"
360"	496"
372"	512"
384"	528"
396"	544"
408"	560"
420"	576"
432"	592"
444"	608"
456"	624"
468"	640"
480"	656"
492"	672"
504"	688"
516"	704"
528"	720"
540"	736"
552"	752"
564"	768"
576"	784"
588"	800"
600"	816"
612"	832"
624"	848"
636"	864"
648"	880"
660"	896"
672"	912"
684"	928"
696"	944"
708"	960"
720"	976"
732"	992"
744"	1008"
756"	1024"
768"	1040"
780"	1056"
792"	1072"
804"	1088"
816"	1104"
828"	1120"
840"	1136"
852"	1152"
864"	1168"
876"	1184"
888"	1200"
900"	1216"
912"	1232"
924"	1248"
936"	1264"
948"	1280"
960"	1296"
972"	1312"
984"	1328"
996"	1344"
1008"	1360"
1020"	1376"
1032"	1392"
1044"	1408"
1056"	1424"
1068"	1440"
1080"	1456"
1092"	1472"
1104"	1488"
1116"	1504"
1128"	1520"
1140"	1536"
1152"	1552"
1164"	1568"
1176"	1584"
1188"	1600"
1200"	1616"
1212"	1632"
1224"	1648"
1236"	1664"
1248"	1680"
1260"	1696"
1272"	1712"
1284"	1728"
1296"	1744"
1308"	1760"
1320"	1776"
1332"	1792"
1344"	1808"
1356"	1824"
1368"	1840"
1380"	1856"
1392"	1872"
1404"	1888"
1416"	1904"
1428"	1920"
1440"	1936"
1452"	1952"
1464"	1968"
1476"	1984"
1488"	2000"
1500"	2016"

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)

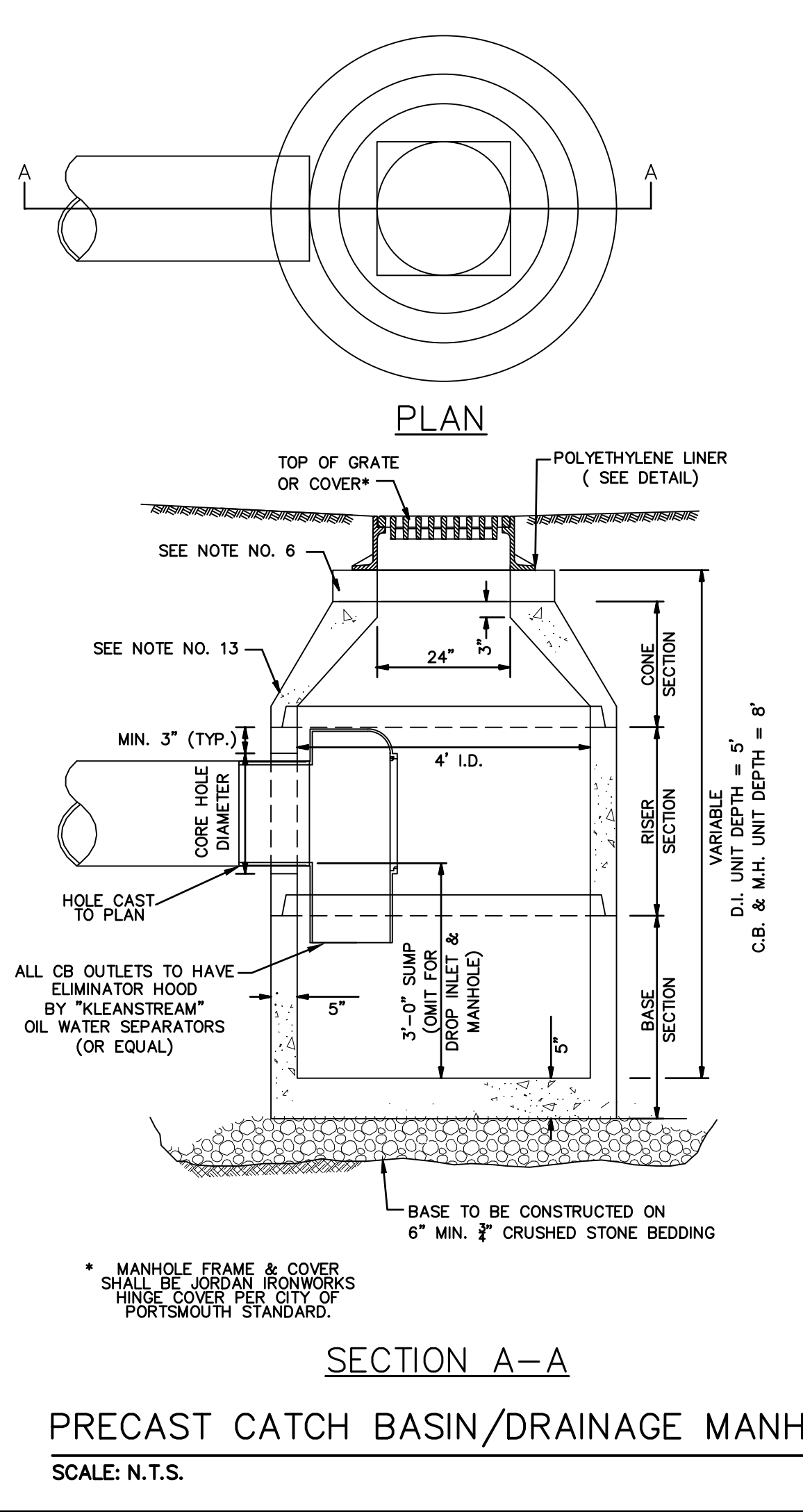
*VEHICLE IN EXCESS OF 75T MAY REQUIRE ADDITIONAL COVER

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

PIPE DIA.	CLASS I		CLASS II		CLASS III		CLASS IV	
	COMPACTED	95%	90%	85%	95%	90%	95%	90%
12" (305mm)	41" (12.5m)	28" (8.5m)	21" (6.4m)	16" (4.9m)	20" (6.1m)	16" (4.9m)	16" (4.9m)	16" (4.9m)
15" (375mm)	42" (12.8m)	29" (8.8m)	21" (6.4m)	16" (4.9m)	20" (6.1m)	16" (4.9m)	16" (4.9m)	16" (4.9m)
18" (450mm)	44" (13.4m)	31" (9.1m)	24" (7.3m)	19" (5.8m)	22" (6.7m)	17" (5.2m)	16" (4.9m)	16" (4.9m)
24" (600mm)	48" (14.6m)	35" (10.7m)	28" (8.5m)	22" (6.7m)	24" (7.3m)	19" (5.8m)	16" (4.9m)	16" (4.9m)
30" (750mm)	52" (15.8m)	39" (11.9m)	32" (9.8m)	26" (7.9m)	28" (8.5m)	22" (6.7m)	17" (5.2m)	16" (4.9m)
36" (900mm)	56" (17.0m)	43" (13.1m)	36" (11.3m)	30" (9.1m)	30" (9.1m)	24" (7.3m)	19" (5.8m)	16" (4.9m)
42" (1050mm)	60" (18.3m)	47" (14.3m)	40" (12.5m)	34" (10.4m)	32" (9.8m)	26" (7.9m)	20" (6.1m)	16" (4.9m)
48" (1200mm)	64" (19.5m)	51" (15.5m)	44" (13.7m)	38" (11.6m)	36" (11.0m)	30" (9.1m)	24" (7.3m)	17" (5.2m)
60" (1500mm)	72" (21.9m)	59" (18.0m)	52" (15.8m)	46" (14.0m)	44" (13.4m)	38" (11.6m)	32" (9.8m)	26" (7.9m)

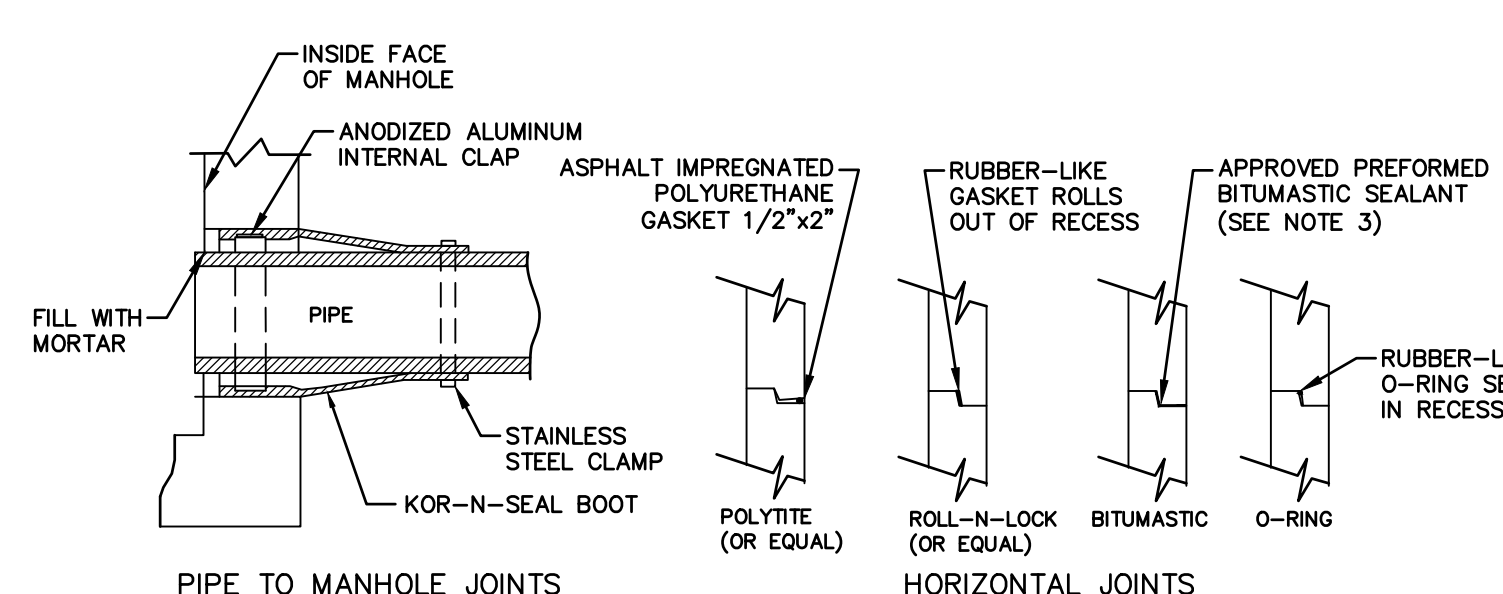
FILL HEIGHT TABLE GENERATED USING AASHTO SECTION 12. LOAD RESISTANCE FACTOR DESIGN (LRFD) PROCEDURE WITH THE FOLLOWING ASSUMPTIONS:
 NO HYDROSTATIC PRESSURE
 UNIT WEIGHT OF SOIL (γ) = PCF

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



PRECAST CATCH BASIN/ DRAINAGE MANHOLE
 SCALE: N.T.S.

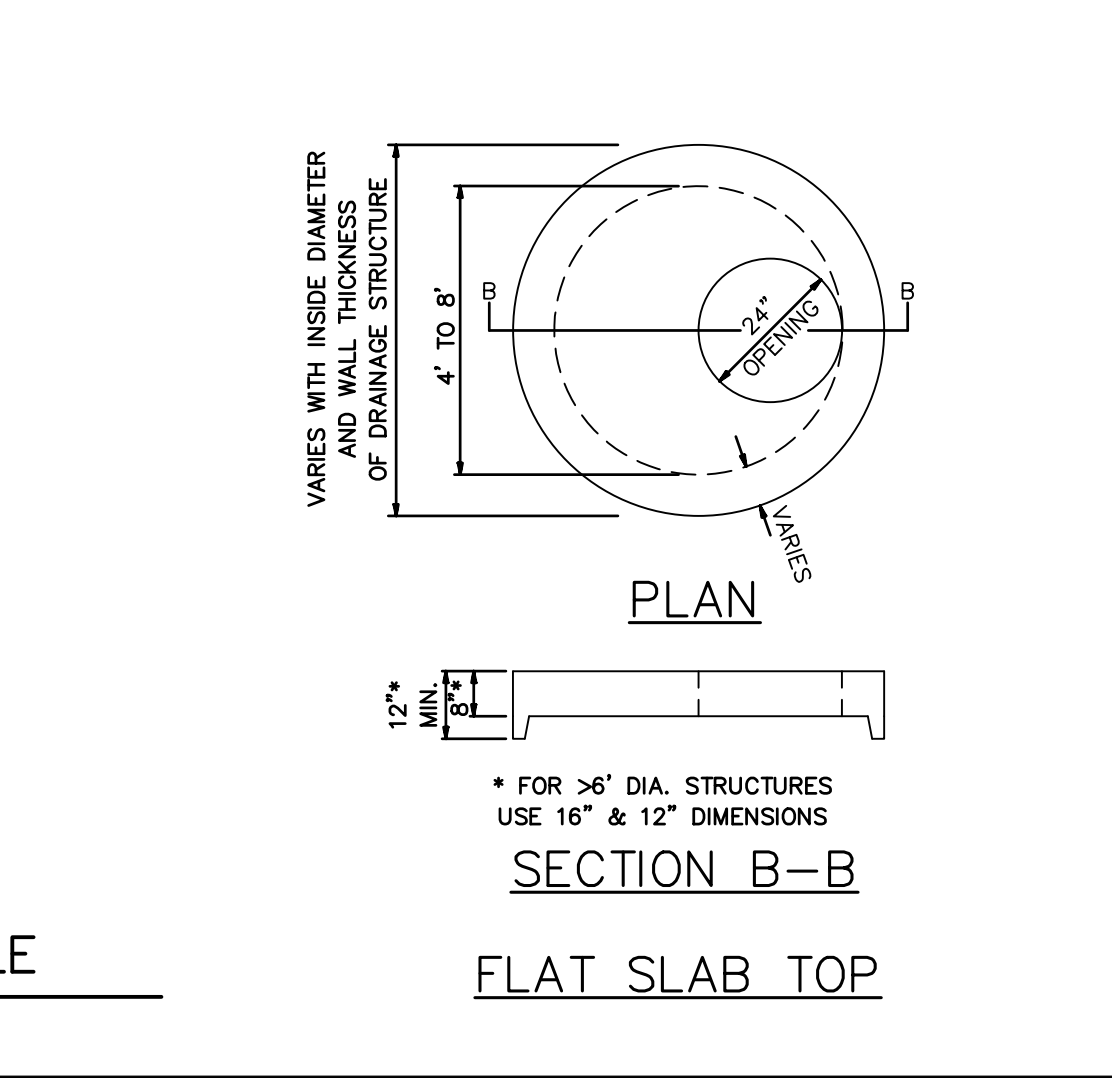
HP STORM TRENCH INSTALLATION DETAIL
 NOT TO SCALE



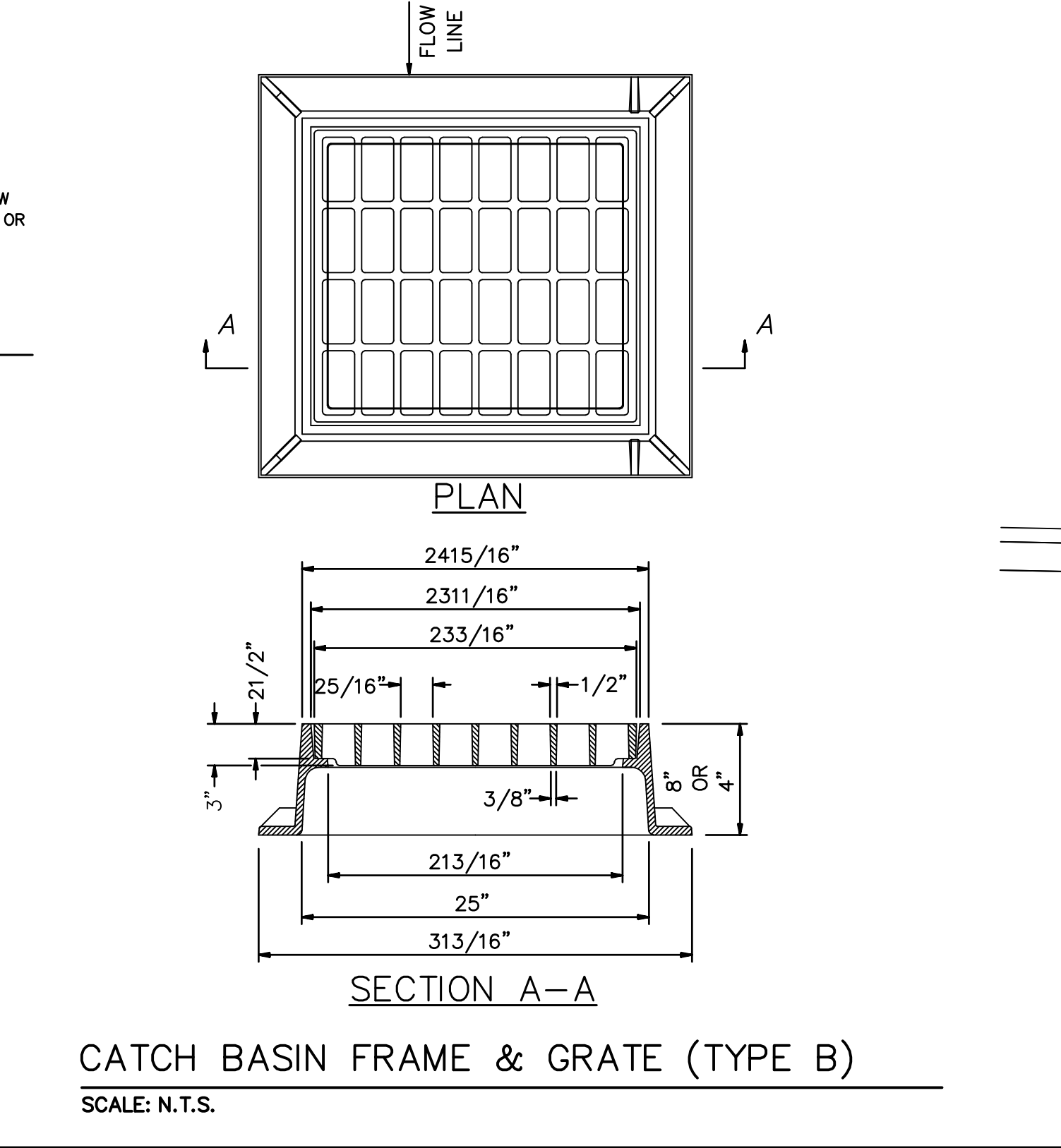
- NOTES:**
- HORIZONTAL JOINTS BETWEEN THE SECTIONS OF PRECAST CONCRETE BARRELS SHALL BE PER CITY OF PORTSMOUTH DPW STANDARD AND SHALL BE SEALED FOR WATER TIGHTNESS USING A DOUBLE ROW OF ELASTOMERIC OR MASTIC-LIKE GASKET.
 - PIPE TO MANHOLE JOINTS SHALL BE PER CITY OF PORTSMOUTH STANDARD.
 - FOR BITUMASTIC TYPE JOINTS THE AMOUNT OF SEALANT SHALL BE SUFFICIENT TO FILL AT LEAST 75% OF THE JOINT CAVITY.
 - ALL GASKETS, SEALANTS, MORTAR, ETC. SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S WRITTEN INSTRUCTIONS.

MANHOLE JOINTS
 NOT TO SCALE

DRAIN MANHOLE FRAME AND COVER
 NOT TO SCALE



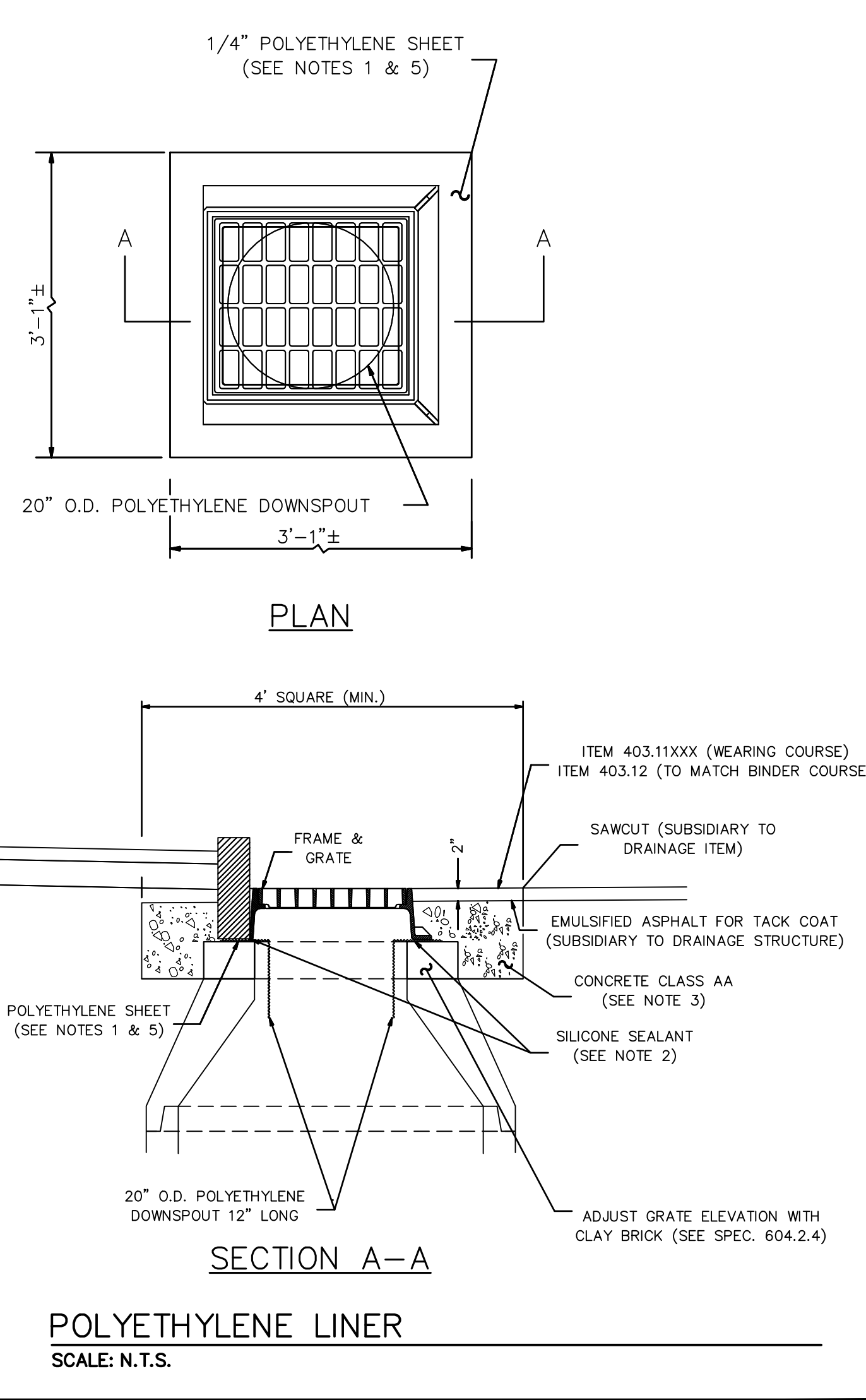
FLAT SLAB TOP
 SCALE: N.T.S.



CATCH BASIN FRAME & GRATE (TYPE B)
 SCALE: N.T.S.

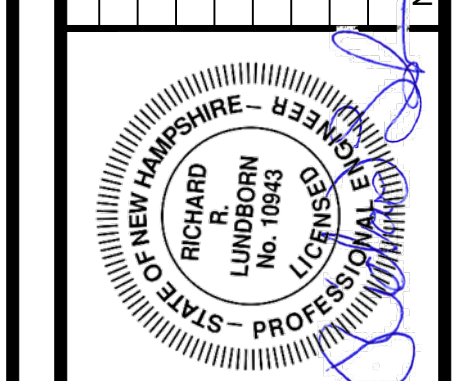
- POLYETHYLENE LINER (ITEM 604.0007) SHALL BE FABRICATED AT THE SHOP. DOWNSPOUT SHALL BE EXTRUSION FILLET WELDED TO THE POLYETHYLENE SHEET.
- PLACE A CONTINUOUS BEAD OF AN APPROVED SILICONE SEALANT (SUBSIDIARY TO ITEM 604.0007) BETWEEN FRAME AND POLYETHYLENE SHEET.
- PLACE CLASS AA CONCRETE TO 2" BELOW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

POLYETHYLENE LINER NOTES
 NOT TO SCALE



POLYETHYLENE LINER
 SCALE: N.T.S.

No.	DATE	DESCRIPTION	DESIGNER/REVIEWER
5.	8/19/2019	TAC SUBMITTAL	JVA/DAD
4.	7/24/2019	TAC SUBMITTAL	JVA/DAD
3.	6/20/2019	TAC SUBMITTAL	JVA/DAD
2.	5/20/2019	TAC SUBMITTAL	JVA/DAD
1.	3/18/2019	TAC SUBMITTAL	JVA/DAD



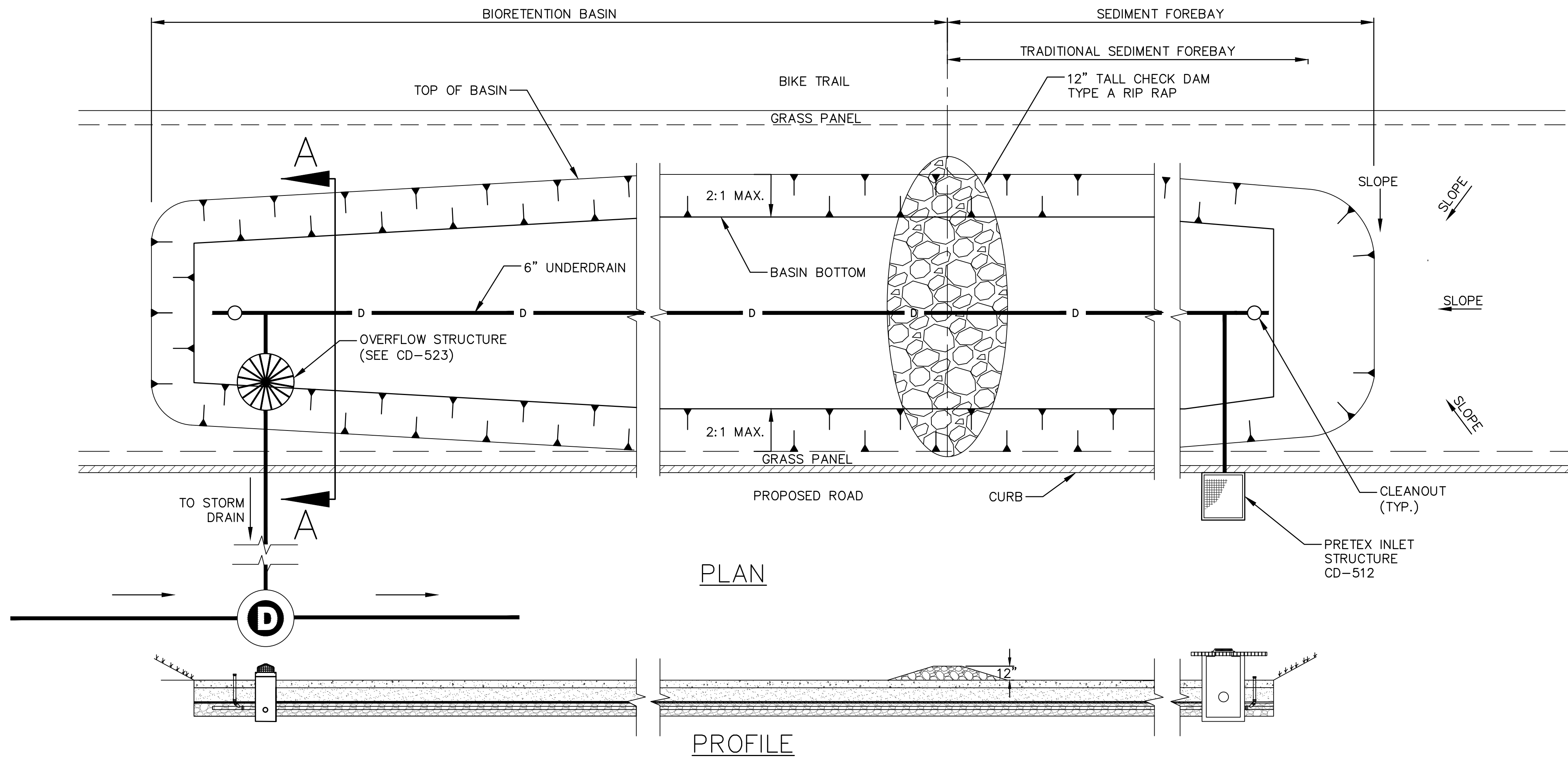
HORIZ.: NTS	VERT.: NTS
DATUM:	DATUM:
HORIZ.: 1" = 10'	VERT.: 1" = 10'
GRAPHIC SCALE	

FUSS & O'NEILL
 UPPER SQUARE BUSINESS CENTER
 5 FLETCHER STREET, SUITE 1
 KENNEBUNK, MAINE 04043
 207.563.6669
 www.fandoc.com

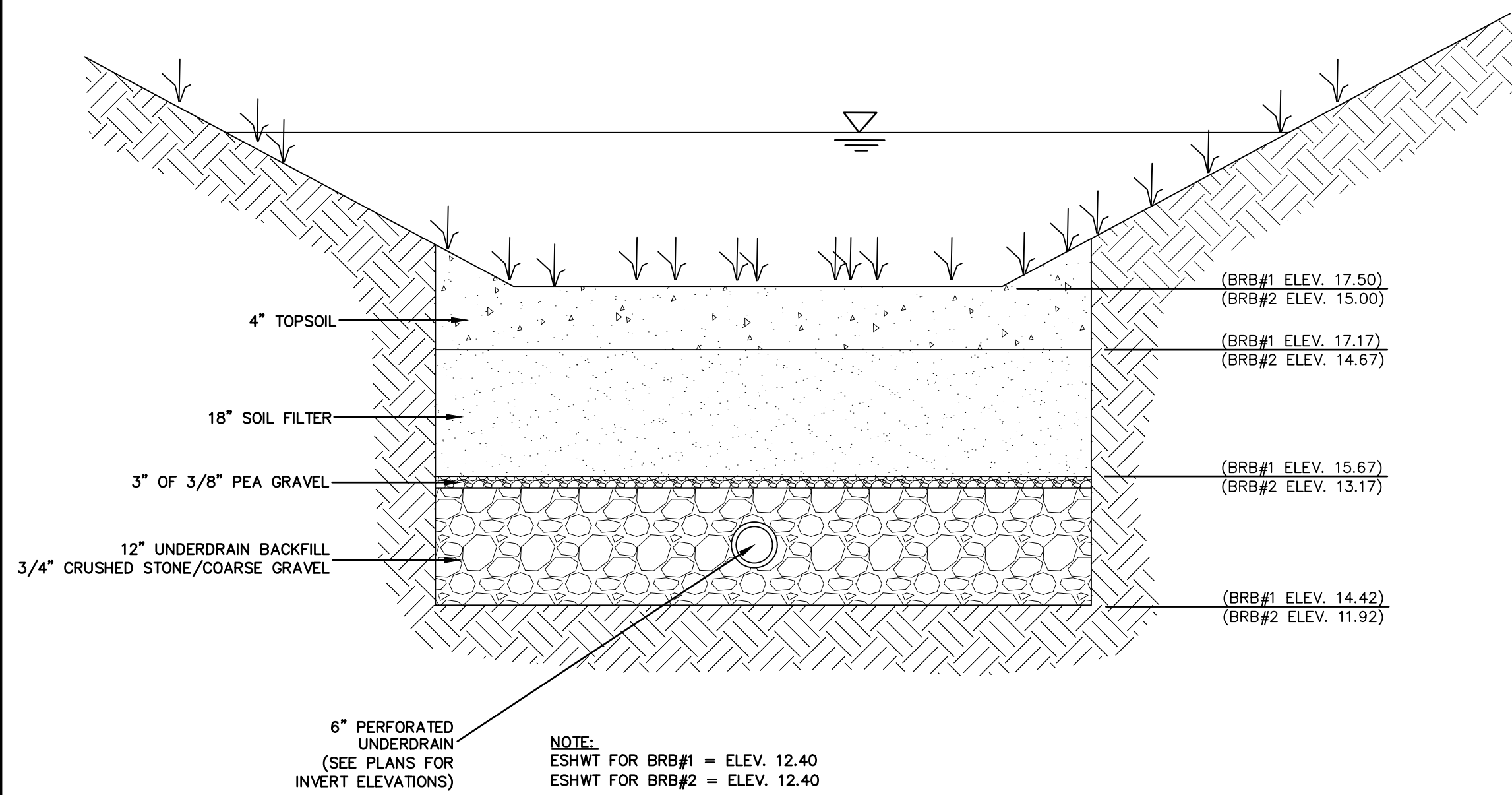
CATE STREET DEVELOPMENT, LLC
DRAINAGE DETAILS
 CATE STREET
 PORTSMOUTH
 NEW HAMPSHIRE

PROJ. No.: 20180317A10
 DATE: 08/19/2019
CD-511

File Path: F:\P20180317A\10\CH\3\DWG\20180317A10_DET01-RDWY.dwg Layout: CD-512-DRAINAGE Plotted: Mon, August 19, 2019 - 11:02 AM User: ddugali
 PLOTTER: DWG TO PDF-PC3 CTB File: FO-STB
 LAYER STATE: [MIS VIEW]



BIORETENTION SYSTEM TYPICAL SECTION
 NOT TO SCALE



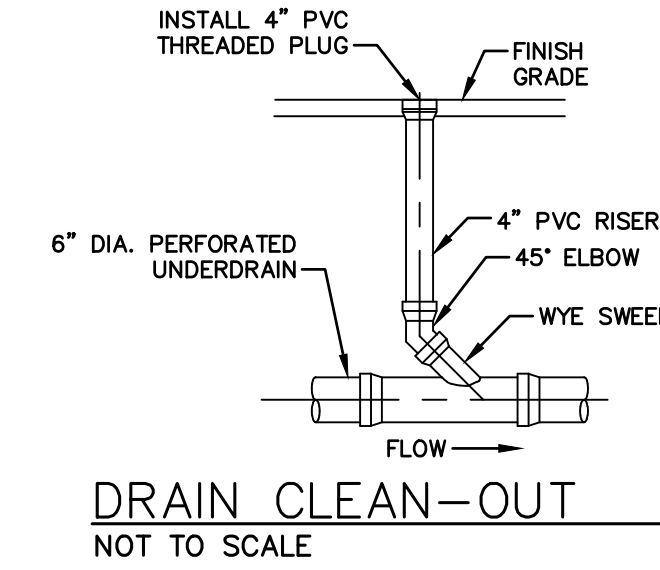
SECTION A-A
 SCALE: N.T.S.

- CONSTRUCTION NOTES:**
- DO NOT PLACE THE BIORETENTION SYSTEM INTO SERVICE UNTIL THE BMP HAS BEEN PLANTED AND ITS CONTRIBUTING AREAS HAVE BEEN FULLY STABILIZED.
 - DO NOT DISCHARGE SEDIMENT-LADEN WATERS FROM CONSTRUCTION ACTIVITIES (RUNOFF AND WATER FROM EXCAVATIONS) TO THE BIORETENTION SYSTEM DURING ANY STAGE OF CONSTRUCTION.
 - DO NOT TRAFFIC EXPOSED SOIL SURFACE WITH CONSTRUCTION EQUIPMENT. IF FEASIBLE, PERFORM EXCAVATIONS WITH EQUIPMENT POSITIONED OUTSIDE THE LIMITS OF THE INFILTRATION COMPONENTS OF THE SYSTEM.
- MAINTENANCE NOTES:**
- SYSTEMS SHOULD BE INSPECTED AT LEAST TWICE ANNUALLY, AND FOLLOWING ANY RAINFALL EVENT EXCEEDING 2.5 INCHES IN A 24 HOUR PERIOD, WITH MAINTENANCE OR REHABILITATION CONDUCTED AS WARRANTED BY SUCH INSPECTION.
 - PRETREATMENT MEASURES SHOULD BE INSPECTED AT LEAST TWICE ANNUALLY, AND CLEANED OF ACCUMULATED SEDIMENT AS WARRANTED BY INSPECTION, BUT NO LESS THAN ONCE ANNUALLY.
 - TRASH AND DEBRIS SHOULD BE REMOVED AT EACH INSPECTION.
 - AT LEAST ONCE ANNUALLY, SYSTEM SHOULD BE INSPECTED FOR DRAWDOWN TIME. IF BIORETENTION SYSTEM DOES NOT DRAIN WITHIN 72-HOURS FOLLOWING A RAINFALL EVENT, THEN A QUALIFIED PROFESSIONAL SHOULD ASSESS THE CONDITION OF THE FACILITY TO DETERMINE MEASURES REQUIRED TO RESTORE FILTRATION FUNCTION OR INFILTRATION FUNCTION (AS APPLICABLE), INCLUDING BUT NOT LIMITED TO REMOVAL OF ACCUMULATED SEDIMENTS OR RECONSTRUCTION OF THE FILTER MEDIA.
 - VEGETATION SHOULD BE INSPECTED AT LEAST ANNUALLY, AND MAINTAINED IN HEALTHY CONDITION, INCLUDING PRUNING, REMOVAL AND REPLACEMENT OF DEAD OR DISEASED VEGETATION, AND REMOVAL OF INVASIVE SPECIES.

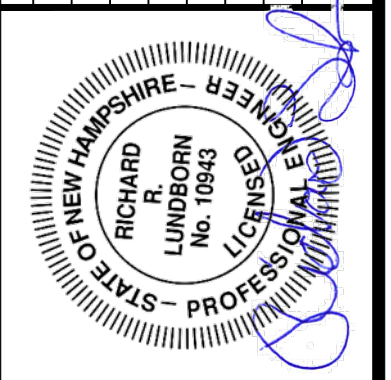
BIORETENTION SYSTEM NOTES
 NOT TO SCALE

COMPONENT MATERIAL	PERCENT OF MIXTURE BY VOLUME	GRADATION OF MATERIAL	
		SEIVE NO.	PERCENT BY WEIGHT STANDARD SIEVE
FILTER MEDIA OPTION A			
ASTM C-33 CONCRETE SAND	50 TO 55		
LOAMY SAND TOPSOIL, WITH FINES AS INDICATED	20 TO 30	200	15 TO 25
MODERATELY FINE SHREDDED BARK OR WOOD FIBER MULCH, WITH FINES AS INDICATED	20 TO 30	200	<5
FILTER MEDIA OPTION B			
MODERATELY FINE SHREDDED BARK OR WOOD FIBER MULCH, WITH FINES AS INDICATED	20 TO 30	200	<5
	70 TO 80	10	85 TO 100
		20	70 TO 100
		50	15 TO 40
LOAMY COARSE SAND		200	8 TO 15

SOIL FILTER MIXTURES
 NOT TO SCALE



No.	DATE	DESCRIPTION	DESIGNER REVIEWER
5.	8/19/2019	TAC SUBMITTAL	RRL
4.	7/24/2019	TAC SUBMITTAL	RRL
3.	6/20/2019	TAC SUBMITTAL	RRL
2.	5/20/2019	TAC SUBMITTAL	RRL
1.	3/18/2019	TAC SUBMITTAL	RRL



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

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

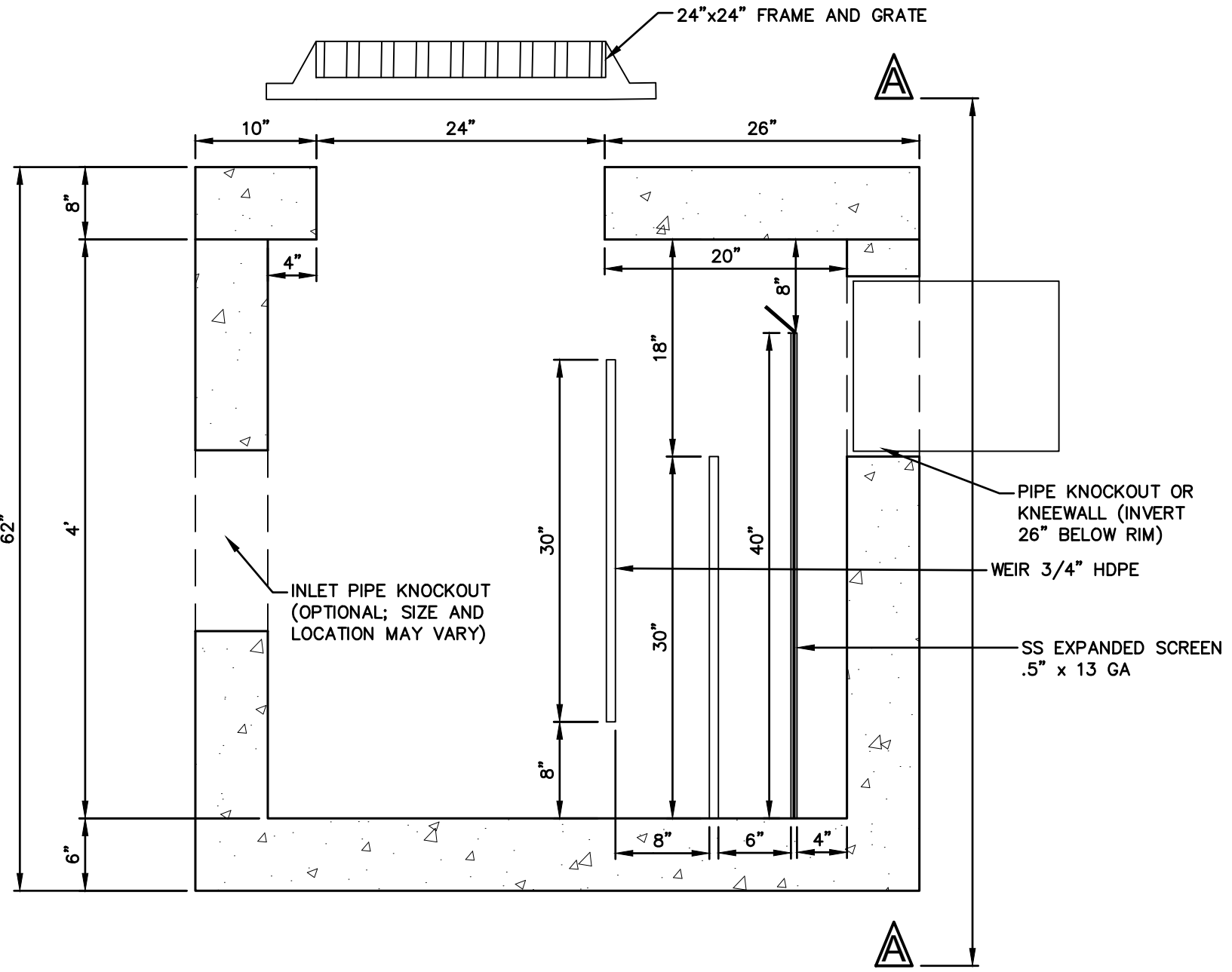
CATE STREET DEVELOPMENT, LLC
DRAINAGE DETAILS
 CATE STREET
 PORTSMOUTH NEW HAMPSHIRE

PROJ. No.: 20180317.A10
 DATE: 08/19/2019
CD-512

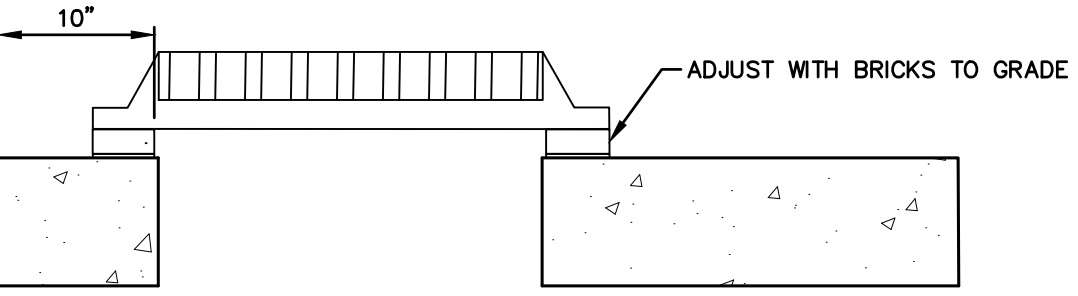
File Path: F:\P20180317A10\CD-513\DRAINAGE Layout: CD-513-DRAINAGE.dwg Plotter: DWG TO PDF-PC3 CTB File: FO-STB
 User: ddgagl
 Date: August 19, 2019 - 11:02 AM

- PRETX SPECIFICATIONS**
- A. GENERAL**
- PRETX SYSTEMS ARE A PRE-FILTER AND CRITICAL MAINTENANCE DEVICE THAT EXTENDS THE OPERATING LIFE AND REDUCES THE MAINTENANCE BURDEN OF BIORETENTION SYSTEMS, RAIN GARDENS, BIOSWALES AND OTHER TYPES OF SURFACE BEST MANAGEMENT PRACTICES BY FILTERING OUT SEDIMENT, TRASH AND DEBRIS AT THE INLET.
- B. PRODUCTS**
- PRETX IS AVAILABLE IN 3 MODELS THAT MANAGE MOST BIORETENTION INLET CONFIGURATIONS: CURB, DROP, AND INLINE.
 - PRETX-CURB IS FOR EDGE OF PAVEMENT RUNOFF AT A CURB CUT IN LIEU OF A STONE SPREADER.
 - PRETX-DROP IS FOR USE AS A DROP INLET CONFIGURATION ALONG A CURB LINE AND WOULD BE INSTALLED WITH A STANDARD DROP INLET GRATE.
 - PRETX-INLINE IS FOR USE WITH SUBSURFACE INLET AND OUTLET PIPE.
 - PRETX IS SIZED TO PRETREAT WATER QUALITY FLOWS AND BYPASS LARGER FLOWS THAT HAVE MINIMAL TRASH AND DEBRIS. PRETX CAN BE USED BOTH IN RETROFIT OR NEW INSTALLATIONS.
 - ACCEPTABLE SYSTEM SUPPLIER:
 CONVERGENT WATER TECHNOLOGIES, INC. OR ITS AUTHORIZED VALUE-ADDED RESELLER
 (800) 711-5428
 WWW.CONVERGENTWATER.COM
- C. SUBMITTALS**
- SUBMIT PROPOSED LAYOUT DRAWINGS. DRAWINGS SHALL INCLUDE TYPICAL SECTION DETAILS ANNOTED WITH SYSTEM ELEVATIONS (E.G., RIM, PIPE INVERTS, OUTSIDE BOTTOM OF STRUCTURE, ETC.).
 - SUBMIT MATERIAL CERTIFICATES FOR FRAMES AND COVERS.
 - ANY PROPOSED EQUAL ALTERNATE PRODUCT SUBSTITUTION TO THIS SPECIFICATION MUST BE SUBMITTED FOR REVIEW AND APPROVED PRIOR TO BID OPENING.
- D. EXECUTION**
- ALL PUBLIC STORM DRAINAGE SYSTEMS SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE LATEST EDITION OF THE STATE DEPARTMENT OF TRANSPORTATION STANDARDS AND SPECIFICATIONS AND ACCORDING TO LOCAL MUNICIPAL REGULATIONS.
 - ALL STORM DRAINAGE SYSTEM CONSTRUCTION IS SUBJECT TO INSPECTION AND APPROVAL BY THE PROJECT ENGINEER.
 - THE CONTRACTOR SHALL NOTIFY THE PROJECT ENGINEER A MINIMUM OF TWO FULL BUSINESS DAYS PRIOR TO THE START OF CONSTRUCTION.
 - THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING AND OBTAINING APPROVAL FROM DIG-SAFE AND DETERMINING THE LOCATION OF ALL UNDERGROUND UTILITIES PRIOR TO THE START OF CONSTRUCTION/EXCAVATION AND SHALL NOTIFY THE PROJECT ENGINEER OF ANY POTENTIAL CONFLICTS.
 - TO PROTECT STORMWATER FLOW CONTROL AND QUALITY TREATMENT FACILITIES FROM SEDIMENTATION, THEY SHALL BE CONNECTED TO THE STORM CONVEYANCE SYSTEM ONLY AFTER ALL SITE WORK, ROAD CONSTRUCTION, UTILITY WORK AND LANDSCAPING ARE IN PLACE IN ALL AREAS ABOVE AND UPSTREAM OF THE FACILITY.
 - THE EXISTING STORM SEWER SYSTEM SHALL STAY ISOLATED FROM THE NEW SYSTEM UNTIL THE NEW SYSTEM IS CLEANED, AND APPROVED FOR USE. THERE SHALL BE NO DEBRIS IN THE LINES OR FURTHER CLEANING WILL BE REQUIRED PRIOR TO ACCEPTANCE.
 - PROVIDE A 1.5" MINIMUM GAP BETWEEN THE KNOCKOUT WALL AND THE OUTSIDE OF THE PIPE. AFTER THE PIPE IS INSTALLED, FILL THE GAP WITH JOINT MORTAR.
 - THE OPENING SHALL BE MEASURED AT THE TOP OF THE PRECAST BASE SECTION.
 - ALL PICKUP HOLES SHALL BE GROUTED FULL AFTER THE BASIN HAS BEEN PLACED.
 - STANDARD CURB INLETS AND TIPDOWNS SHALL BE PRECAST CONCRETE OR ASPHALT.
 - PIPE ENDS SHALL BE FLUSH WITH THE INNER WALL OR 1" MAXIMUM INTRUSION. MASONRY, CINDER BLOCKS, OR SIMILAR MATERIALS MAY BE USED TO ADJUST THE RISERS TO GRADE PRIOR TO GROUTING.
 - GROUTING SHALL BE SUFFICIENT TO PREVENT LEAKS BETWEEN THE PRECAST COMPONENTS OF THE COMPLETED STRUCTURE & SHALL BE PERFORMED INSIDE, BETWEEN & OUTSIDE OF ALL RISERS, JOINTS & PIPE PENETRATIONS.
 - MANHOLES TO BE CONSTRUCTED IN ACCORDANCE WITH AASHTO M-199 UNLESS OTHERWISE SHOWN ON PLANS OR NOTED IN THE STANDARD SPECIFICATIONS.
 - ALL REINFORCED CAST IN PLACE CONCRETE SHALL BE CLASS 4000. ALL PRECAST CONCRETE SHALL BE CLASS 4000.
 - RECAST BASES SHALL BE FURNISHED WITH CUTOUTS OR KNOCKOUTS. KNOCKOUTS SHALL HAVE A WALL THICKNESS OF 2" MINIMUM.
 - MATING SURFACES OF MANHOLE RINGS AND COVERS SHALL BE FINISHED TO ASSURE NON-ROCKING FIT WITH ANY COVER POSITIONS.

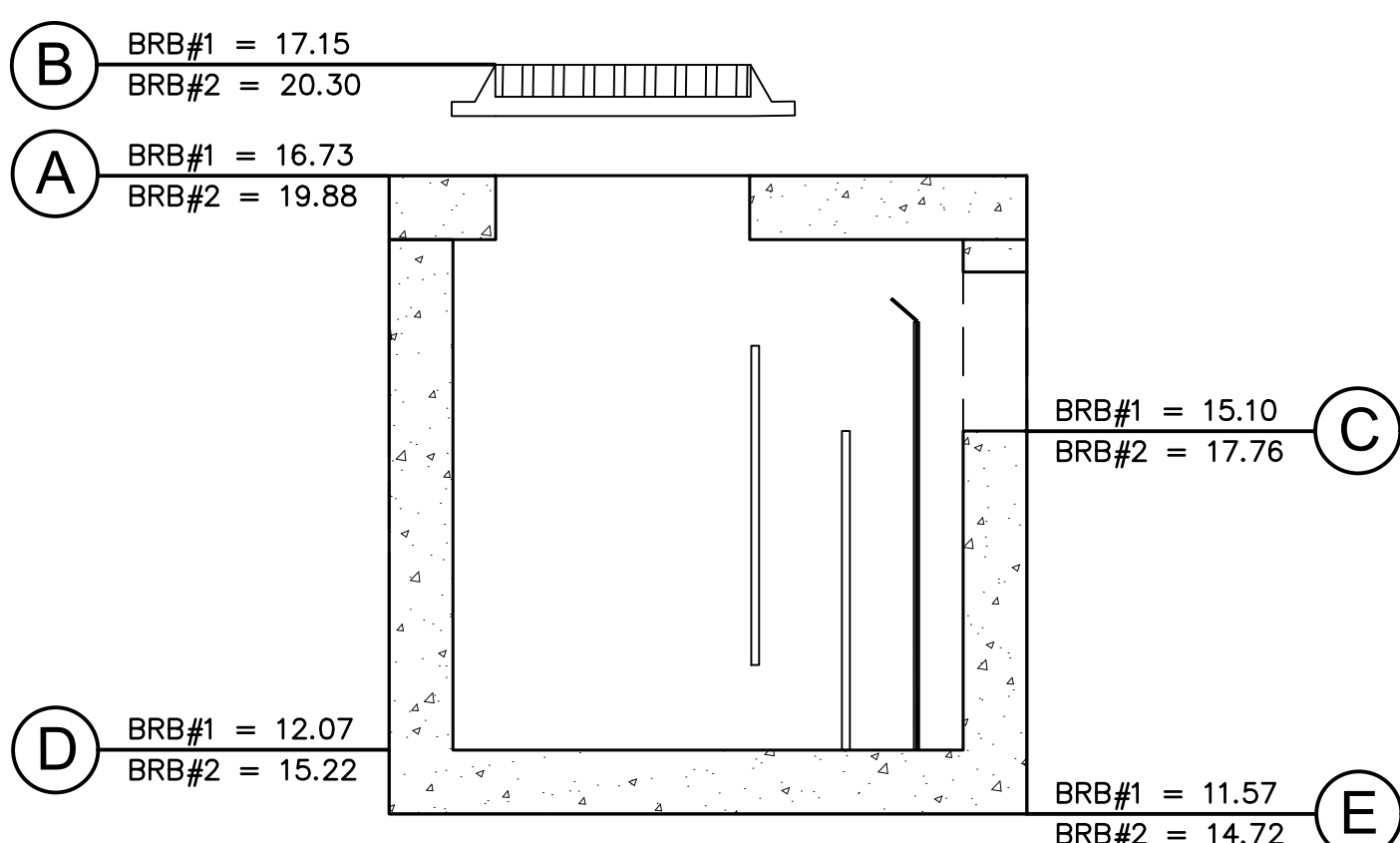
- E. CONSTRUCTION AND SEQUENCING**
- EXAMINATION
 - VERIFY LAYOUT AND ORIENTATION OF PRE-TX SYSTEM AREA INCLUDING EDGE OF PAVEMENT, TIP DOWN, CURBS AND SIDEWALK, BIOFILTRATION SYSTEM, AND CONNECTIONS.
 - VERIFY EXCAVATION BASE IS READY TO RECEIVE WORK AND EXCAVATIONS, DIMENSIONS, AND ELEVATIONS ARE AS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



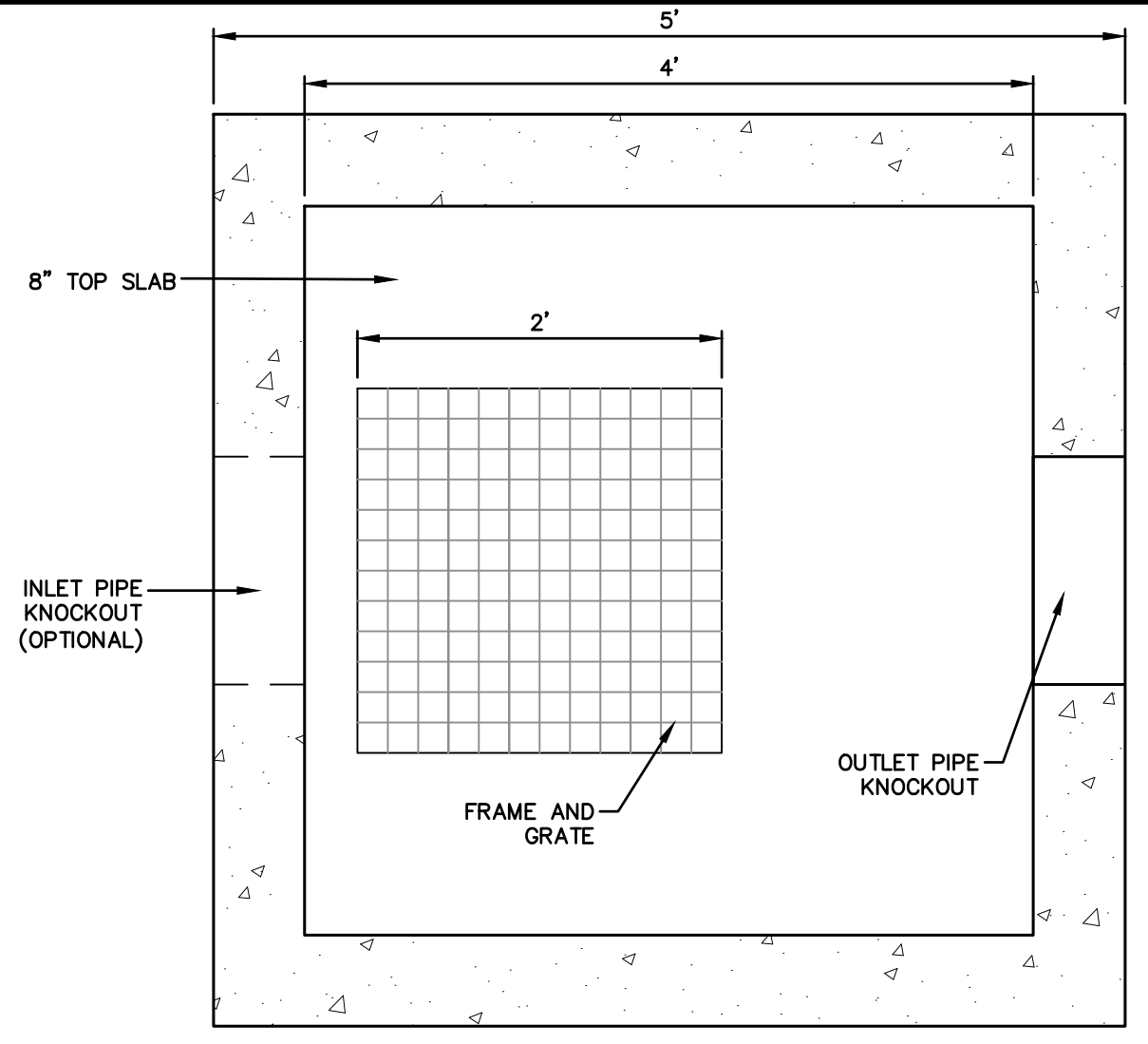
1 PRETREATMENT CATCH BASIN CROSS SECTION VIEW
 D1 NOT TO SCALE



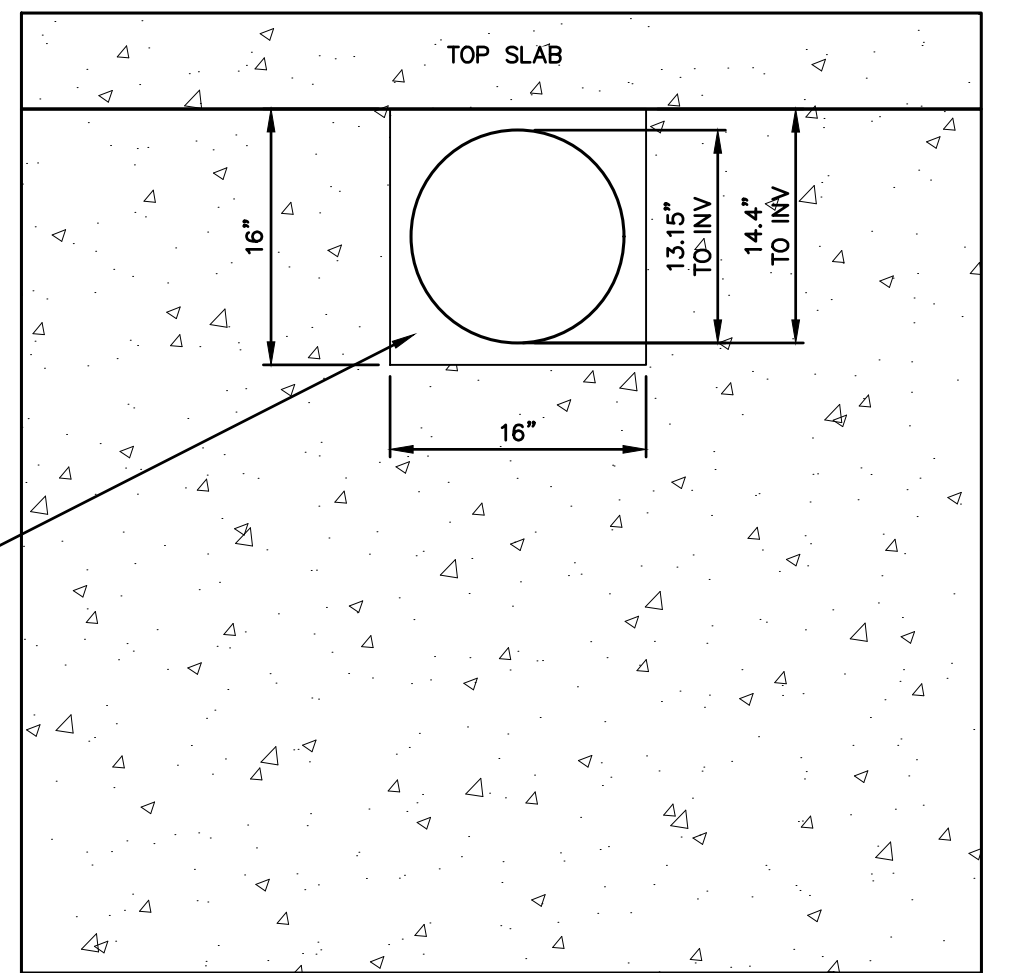
3 PRETX DROP SIDE DETAIL
 D1 NOT TO SCALE



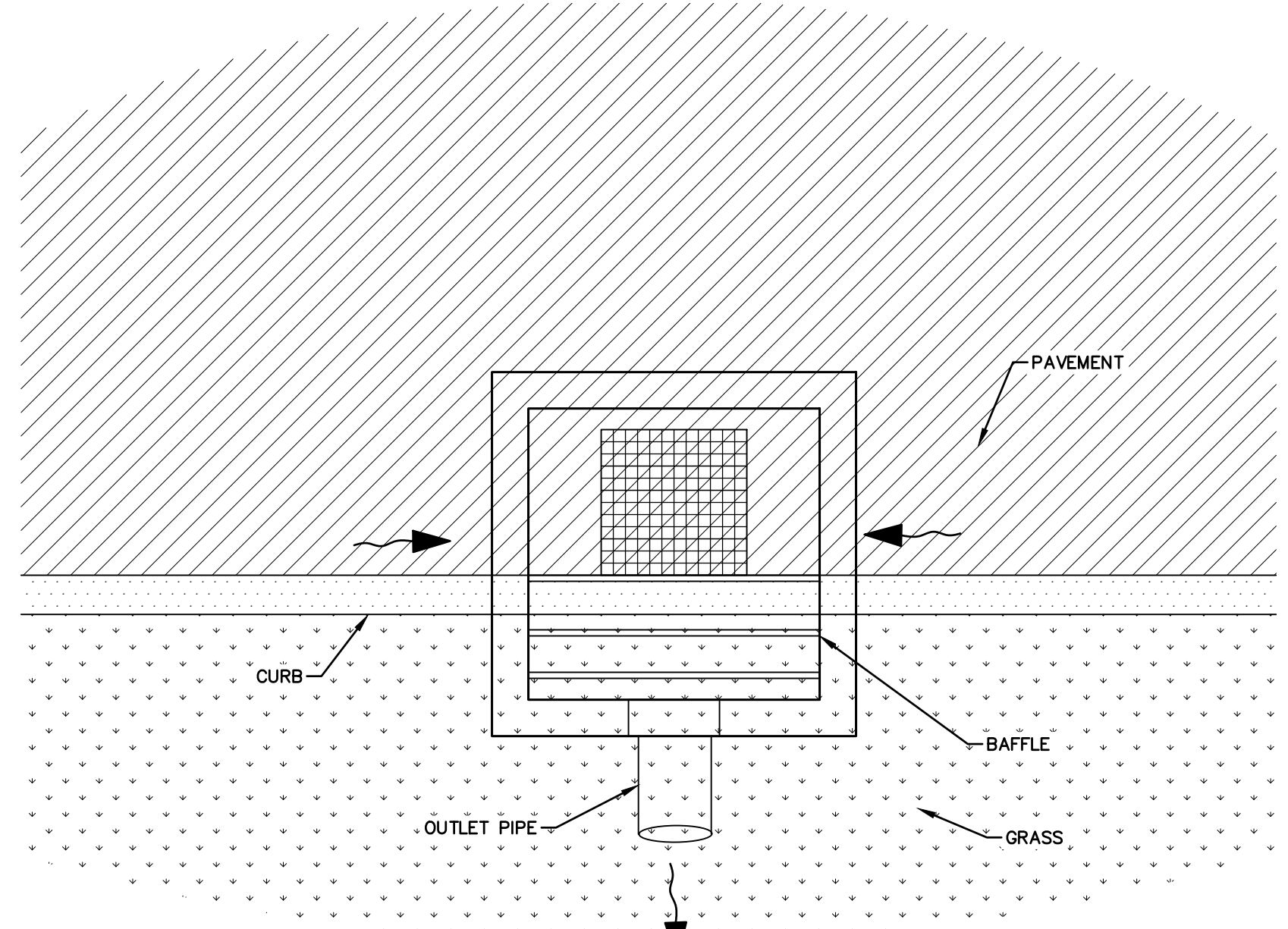
5 KEY TO ELEVATION GUIDE
 D1 NOT TO SCALE



2 PLAN VIEW DETAIL
 D1 NOT TO SCALE



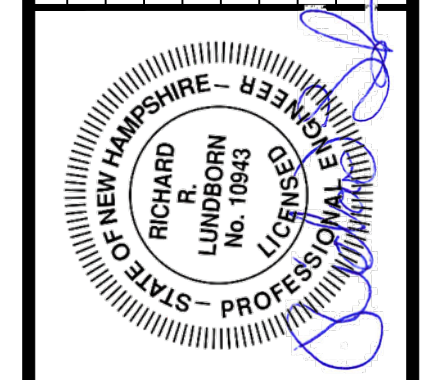
4 SECTION A-A - PIPE BLOCKOUT DETAILS
 D1 NOT TO SCALE



7 PRETX CURB OUTLET TO BIORETENTION CONFIGURATION
 D1 NOT TO SCALE

PRETX-DROP ELEVATION GUIDE		
POINT	DESCRIPTION	HEIGHT IN REFERENCE TO PT. A
A	OUTSIDE OF TOP SLAB	0"
B	EDGE OF PAVEMENT	5", MIN.
C	PIPE INVERT (12" RCP)	25.5" FOR BRB#2 & 19.5" FOR BRB#1
D	SUMP INVERT	56"
E	OUTSIDE BOTTOM	62"

No.	DATE	DESCRIPTION	DESIGNER/REVIEWER
1		TAC SUBMITTAL	JVA/DAD
2		TAC SUBMITTAL	JVA/DAD
3		TAC SUBMITTAL	JVA/DAD
4		TAC SUBMITTAL	JVA/DAD
5		TAC SUBMITTAL	JVA/DAD



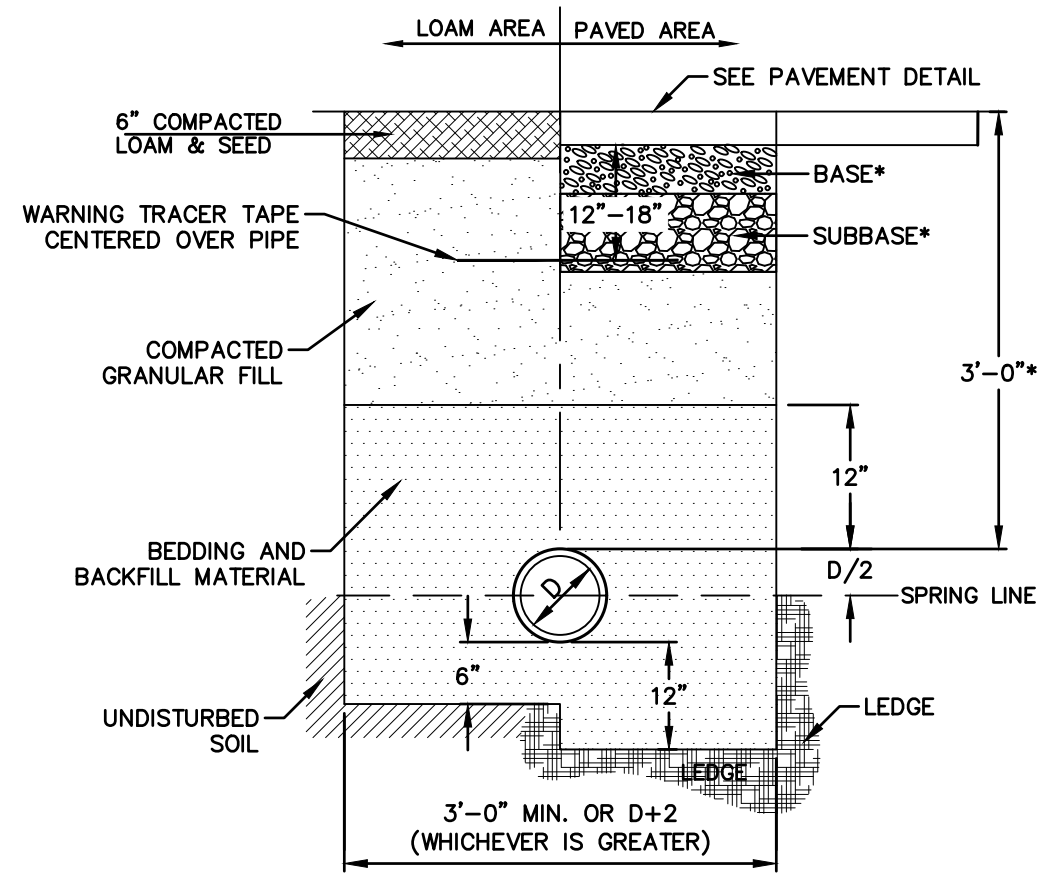
SCALE:	HORIZ.: NTS	VERT.: NTS
DATUM:	HORIZ.: NTS	VERT.: NTS
GRAPHIC SCALE		

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

CATE STREET DEVELOPMENT, LLC
DRAINAGE DETAILS
 CATE STREET
 PORTSMOUTH NEW HAMPSHIRE

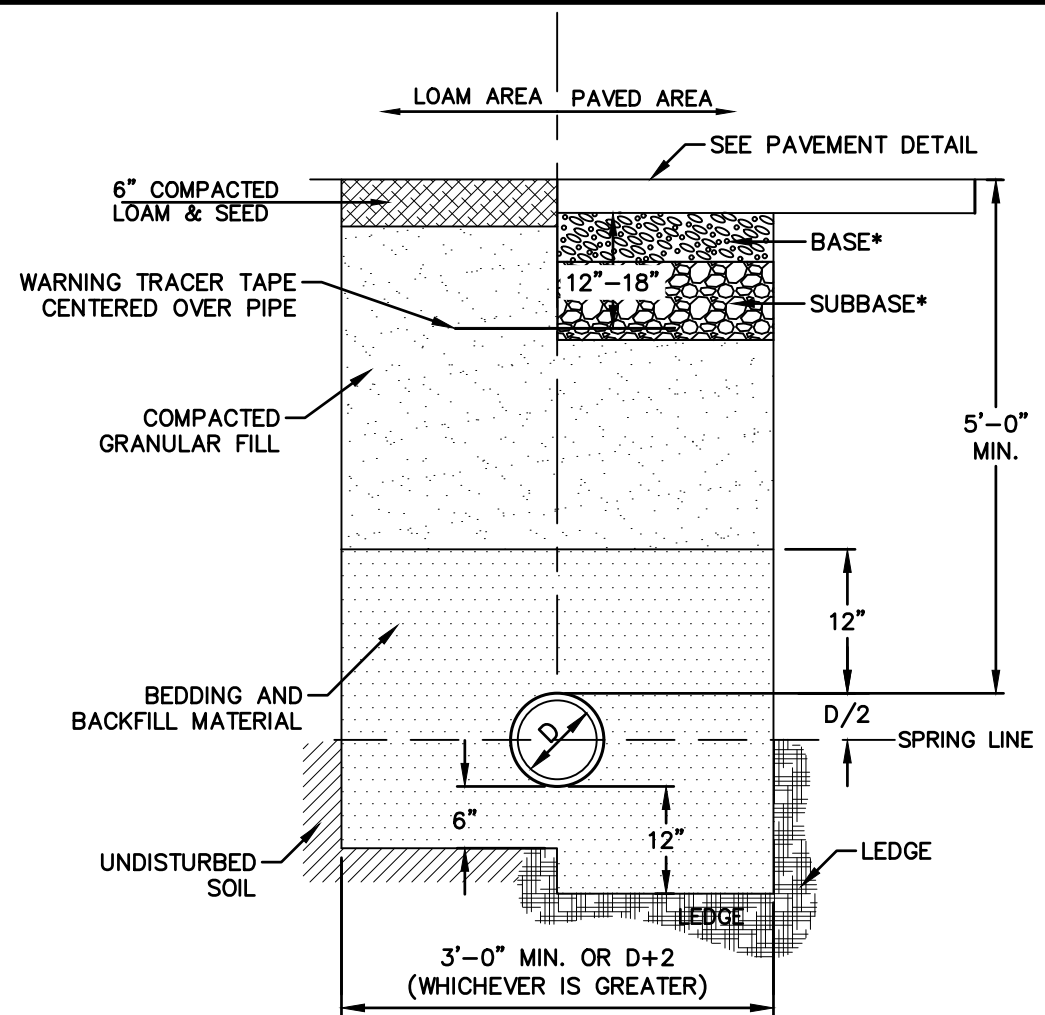
PROJ. No.: 20180317.A10
 DATE: 08/19/2019

CD-513



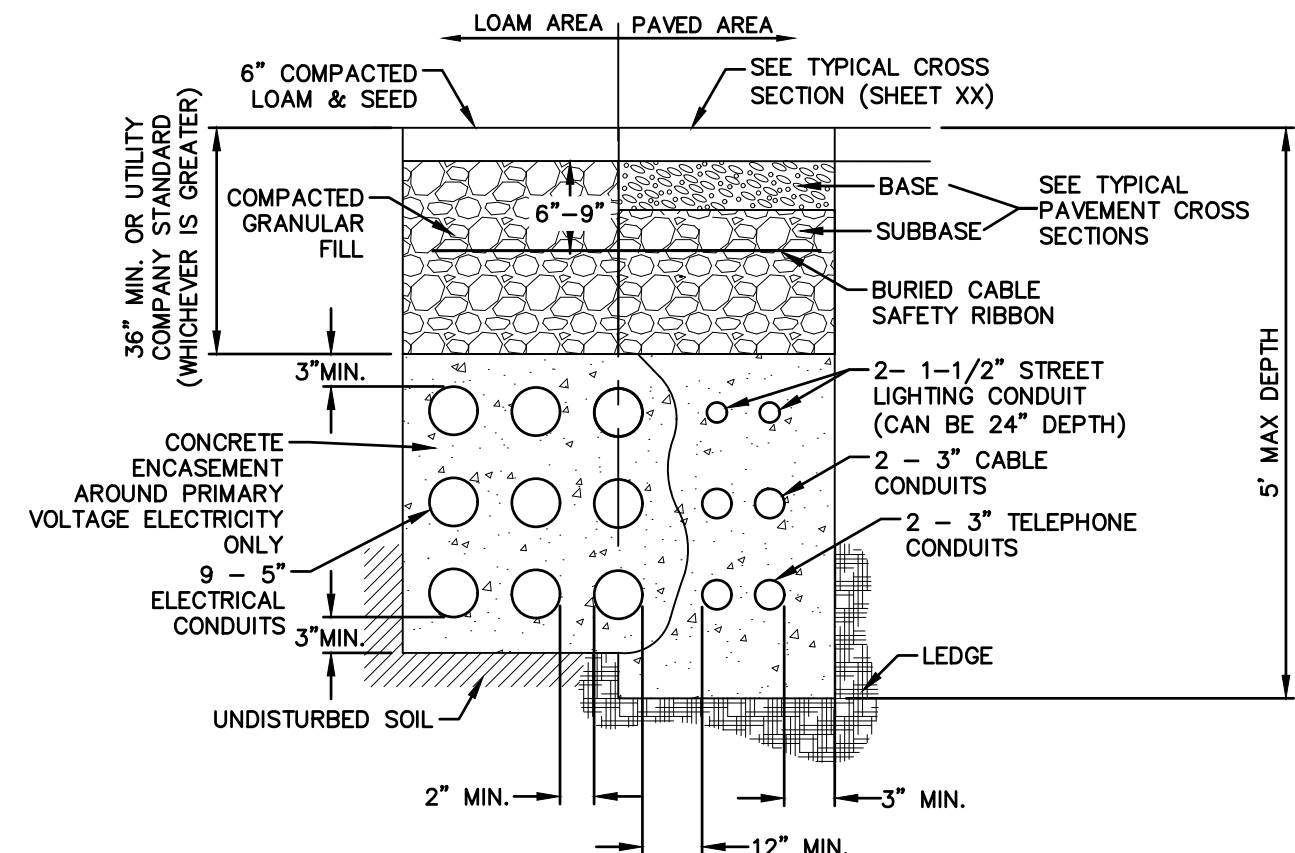
*NOTE: GAS MAIN NO DEEPER THAN 3' UNLESS IN A SPECIAL SITUATION.

GAS TRENCH
NOT TO SCALE



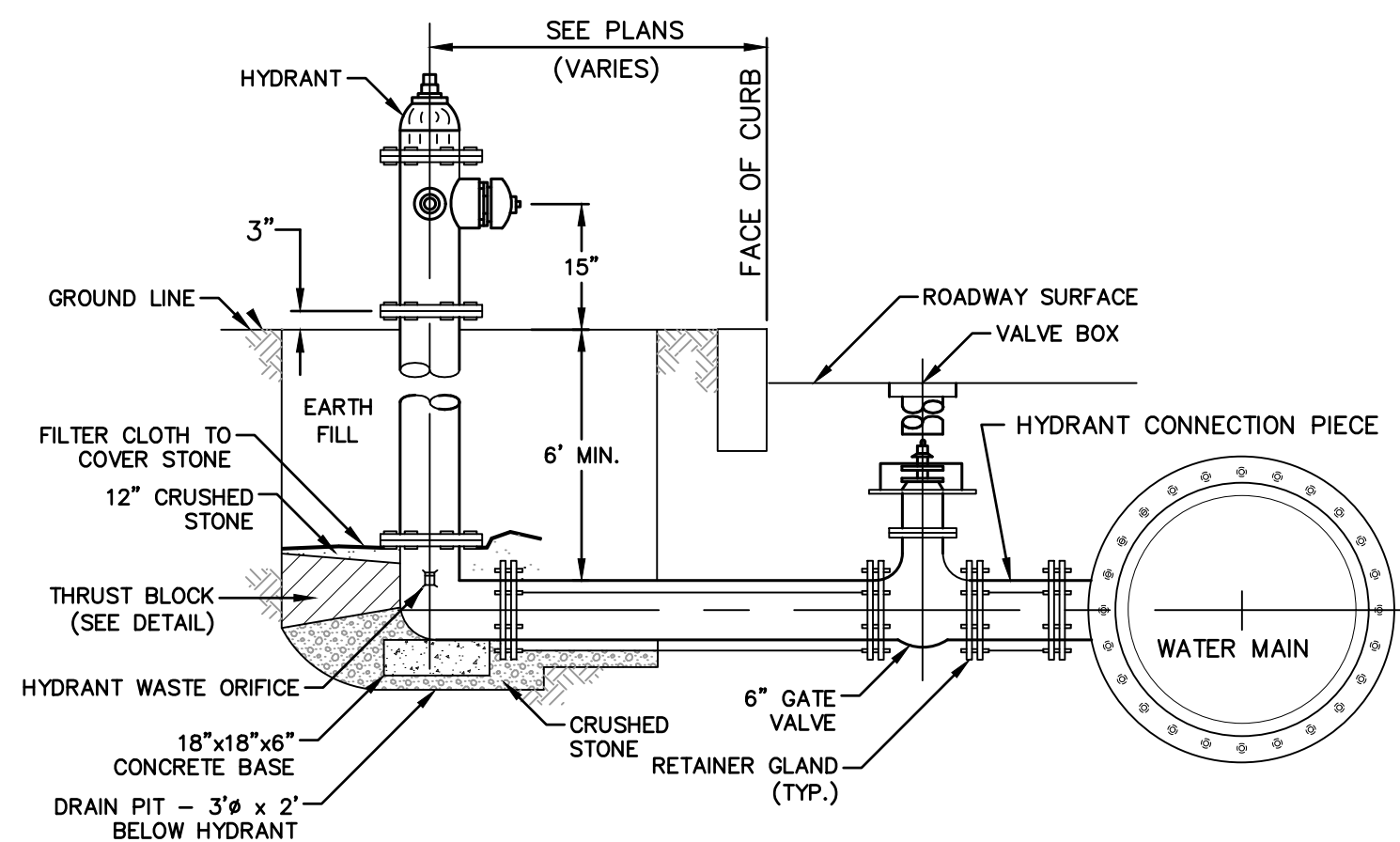
WATER TRENCH SECTION
NOT TO SCALE

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



ELECTRICAL AND COMMUNICATION CONDUIT
NOT TO SCALE

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



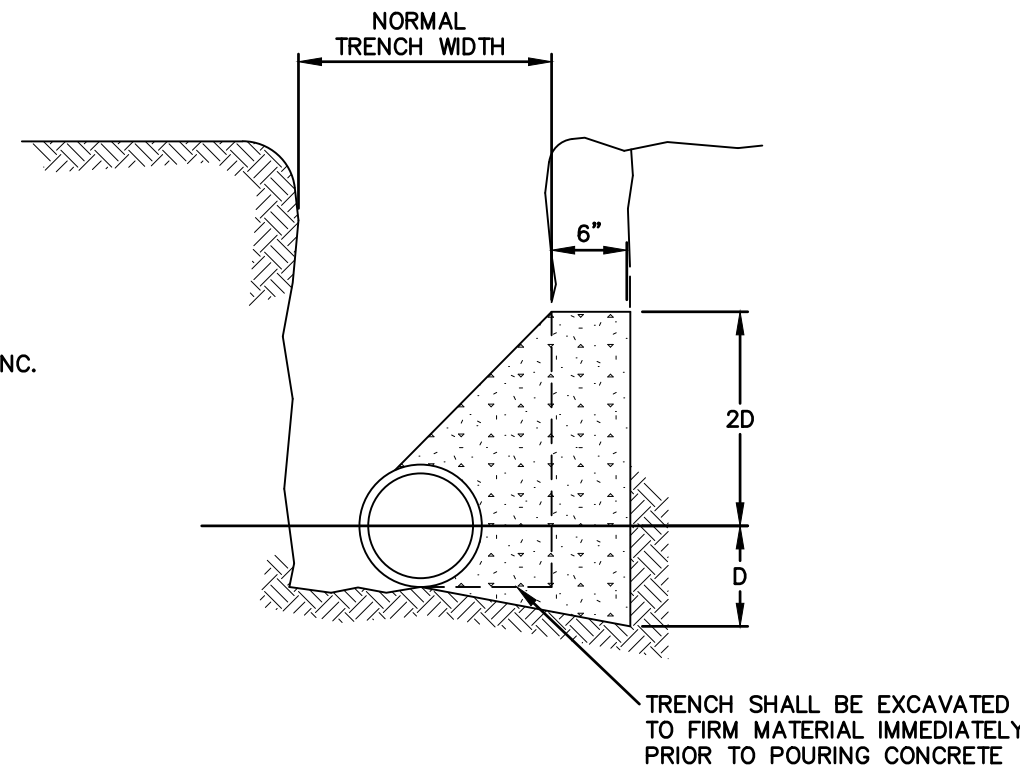
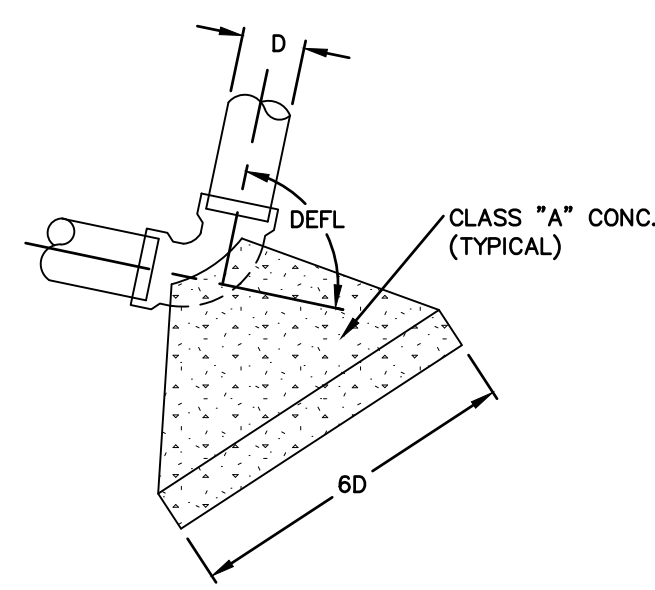
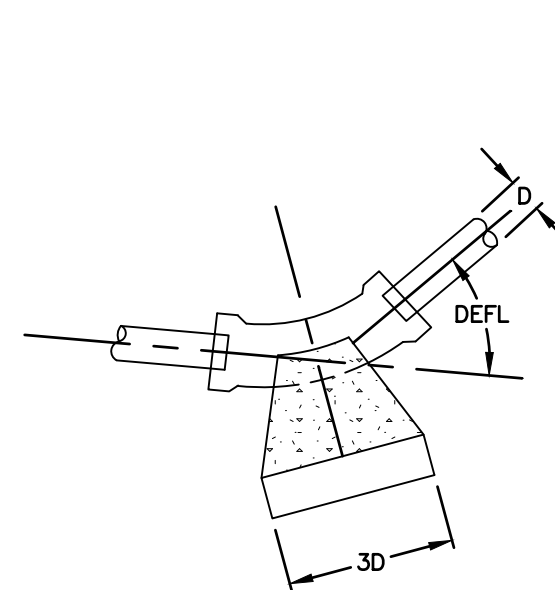
NOTE: HYDRANT AND VALVES TO BE 'OPEN RIGHT (CLOCKWISE)'.

FIRE HYDRANT
NOT TO SCALE

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

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

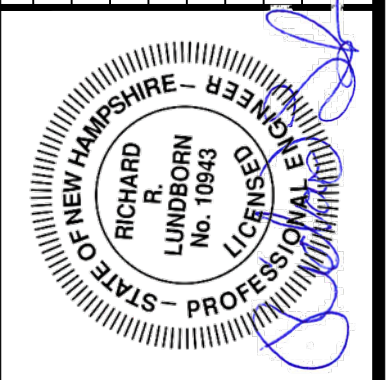
PPE DIA. (INCHES)	MINIMUM THRUST BLOCK VOLUME (CUBIC YARDS)
4	0.25
6	0.3
8	0.5
10	0.7
12	1.0
16	1.6



SECTION

CONCRETE THRUST BLOCKS
NOT TO SCALE

No.	DATE	DESCRIPTION	DESIGNER/REVIEWER
5.	8/19/2019	TAC SUBMITTAL	JVA/DAD
4.	7/24/2019	TAC SUBMITTAL	JVA/DAD
3.	6/20/2019	TAC SUBMITTAL	JVA/DAD
2.	5/20/2019	TAC SUBMITTAL	JVA/DAD
1.	3/18/2019	TAC SUBMITTAL	JVA/DAD



SCALE:

HORIZ.: NTS
VERT.: NTS
DATUM:
HORIZ.: 0
VERT.: 0

GRAPHIC SCALE

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

CATE STREET DEVELOPMENT, LLC
WATER & UTILITY DETAILS
 CATE STREET
 PORTSMOUTH NEW HAMPSHIRE

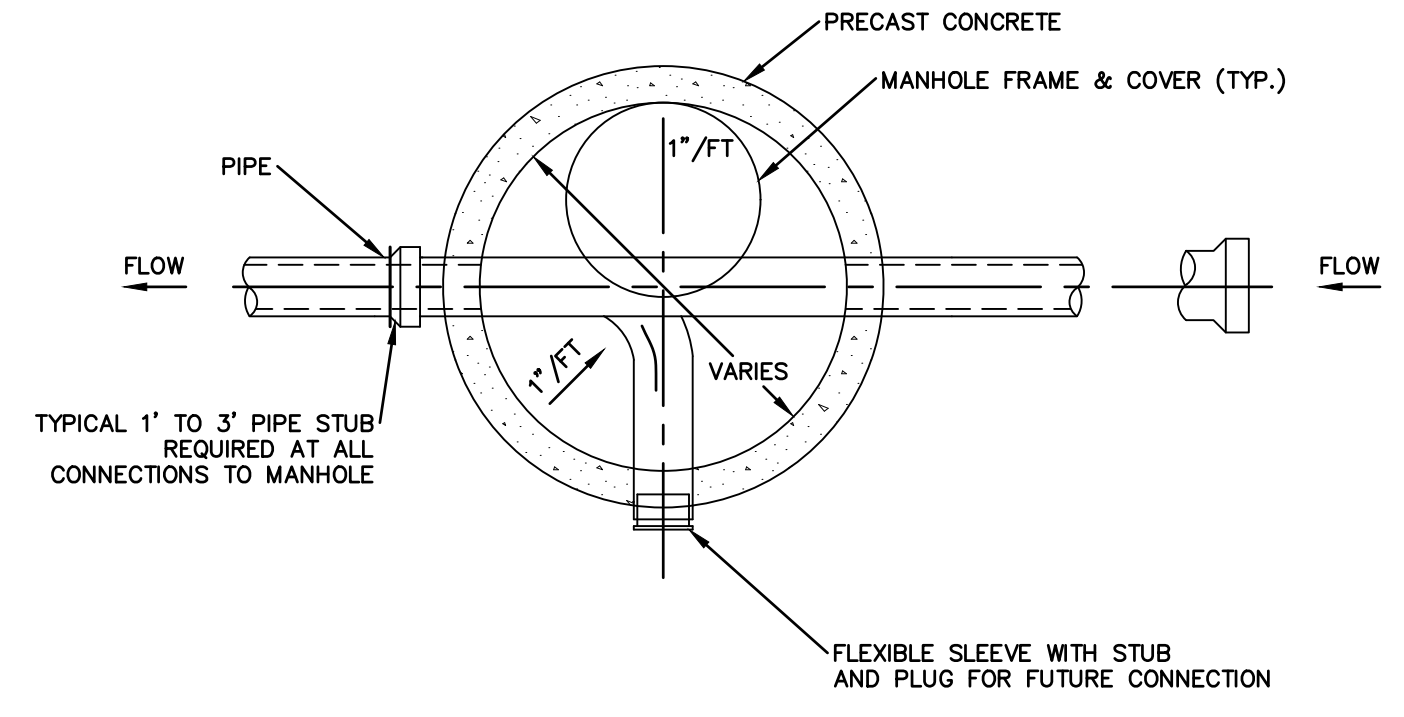
PROJ. No.: 20180317.A10
 DATE: 08/19/2019
CD-520

File Path: F:\P20180317A10\CH31Dwg\20180317A10_DET01-RDWY.dwg Layout: CD-530-SEWER Plotted: Mon, August 19, 2019 - 11:03 AM User: ddugal
 PLOTTER: DWG TO PDF-PC3 CTB File: FO STB
 LAYER STATE:
 MS VIEW:

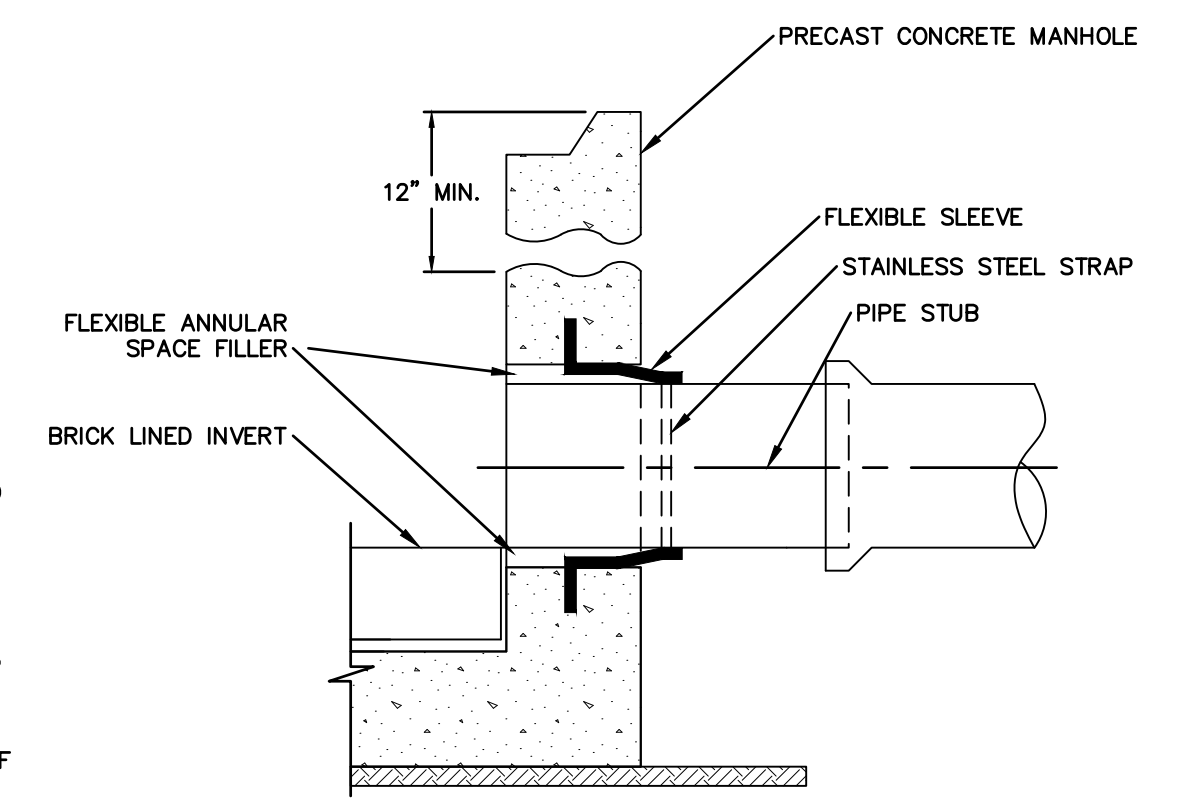
MANHOLE NOTES

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

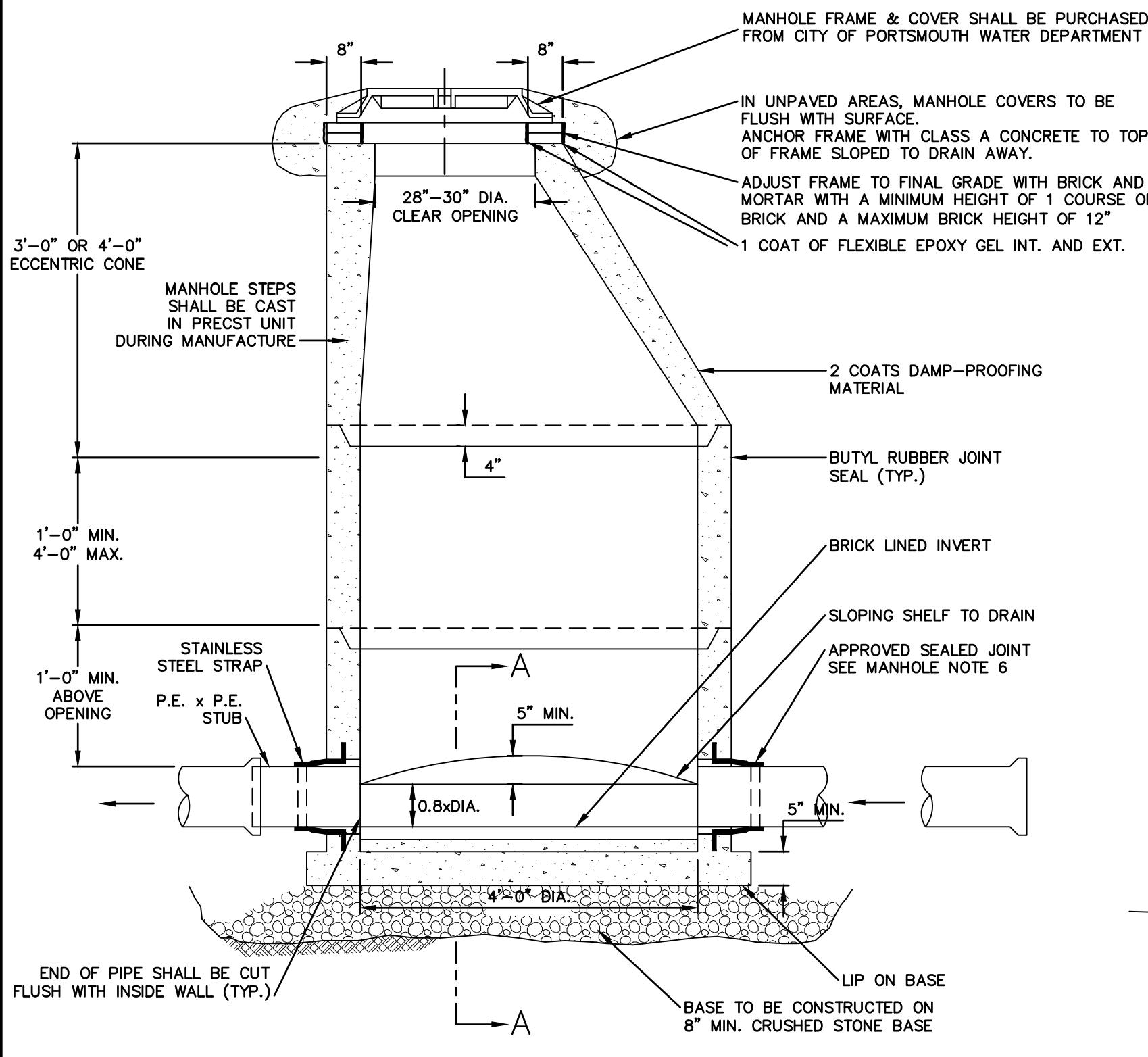
MANHOLE NOTES
 SCALE: N.T.S.



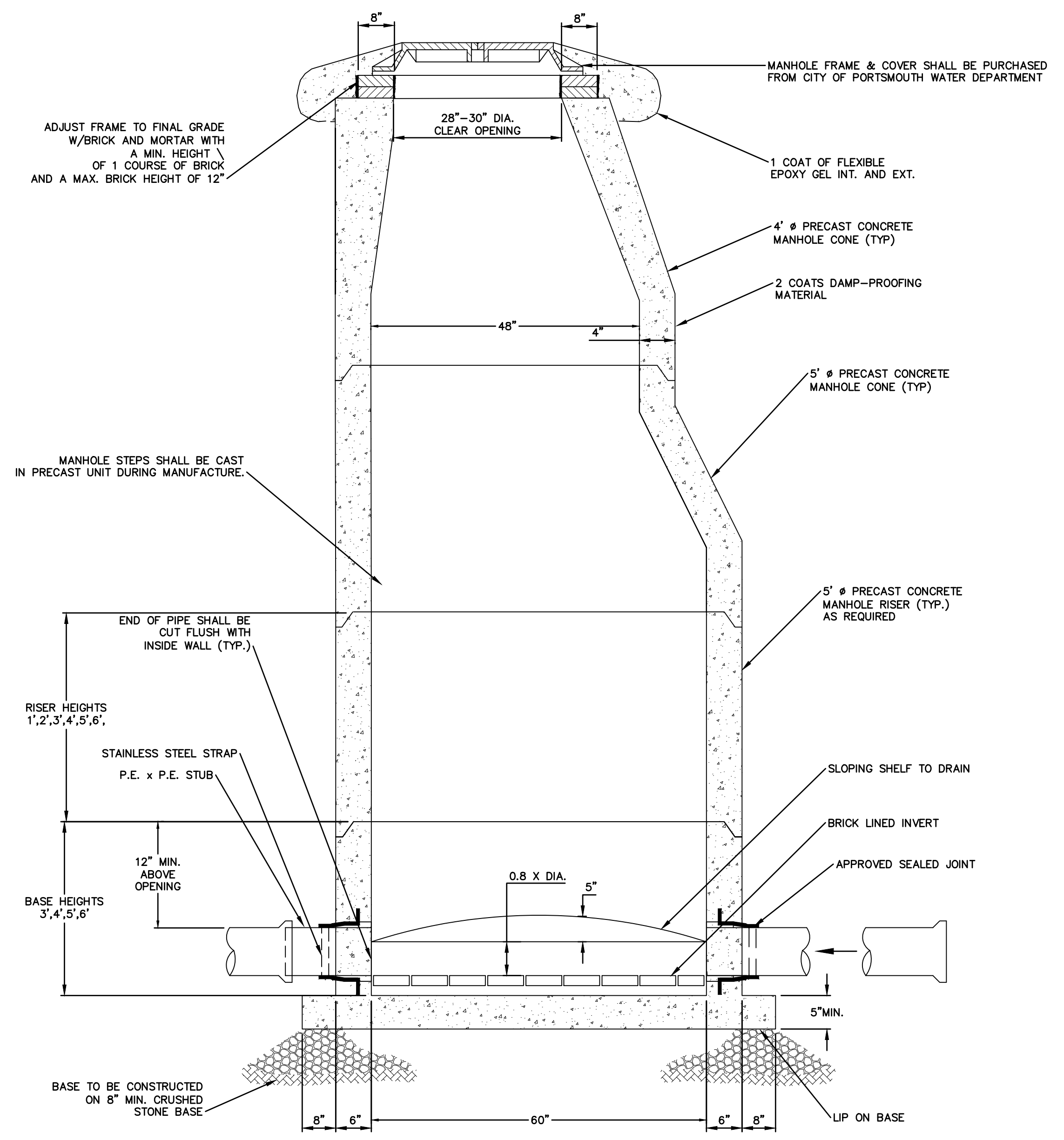
MANHOLE PLAN VIEW
 SCALE: N.T.S.



FLEXIBLE SLEEVE
 SCALE: N.T.S.

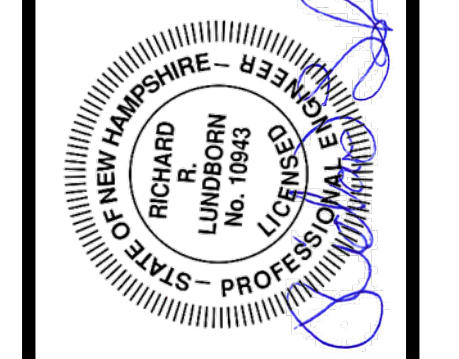


4' PRECAST MANHOLE
 SCALE: N.T.S.



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

No.	DATE	DESCRIPTION	DESIGNER	REVIEWER
5.	8/19/2019	TAC SUBMITTAL	JVA/DAD	RRL
4.	7/24/2019	TAC SUBMITTAL	JVA/DAD	RRL
3.	6/20/2019	TAC SUBMITTAL	JVA/DAD	RRL
2.	5/20/2019	TAC SUBMITTAL	JVA/DAD	RRL
1.	3/18/2019	TAC SUBMITTAL	JVA/DAD	RRL



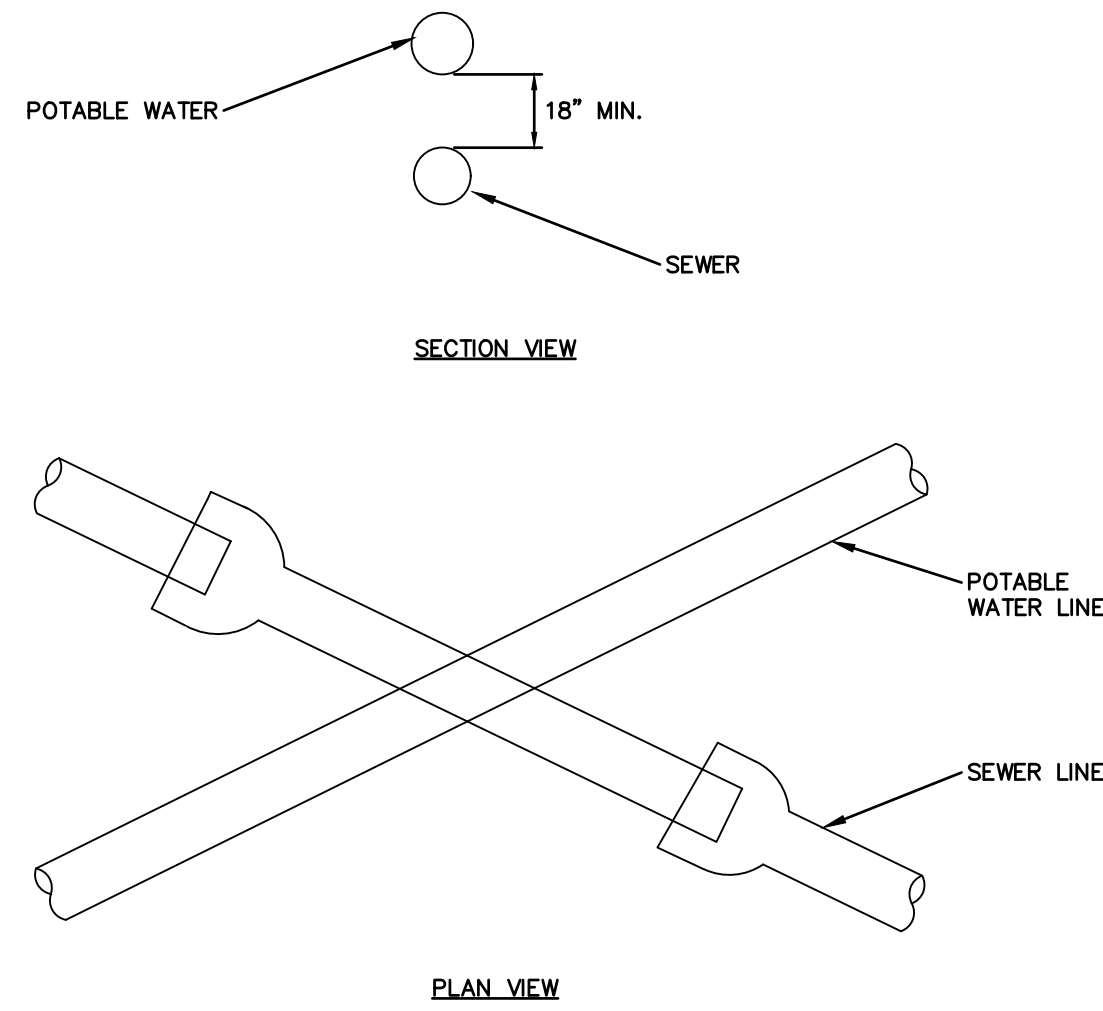
HORIZ.: N.T.S.	VERT.:
DATUM:	HORIZ.:
	VERT.:
	GRAPHIC SCALE

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

CATE STREET DEVELOPMENT, LLC
 SEWER DETAILS
 CATE STREET
 PORTSMOUTH NEW HAMPSHIRE

PROJ. No.: 20180317.A10
 DATE: 08/19/2019

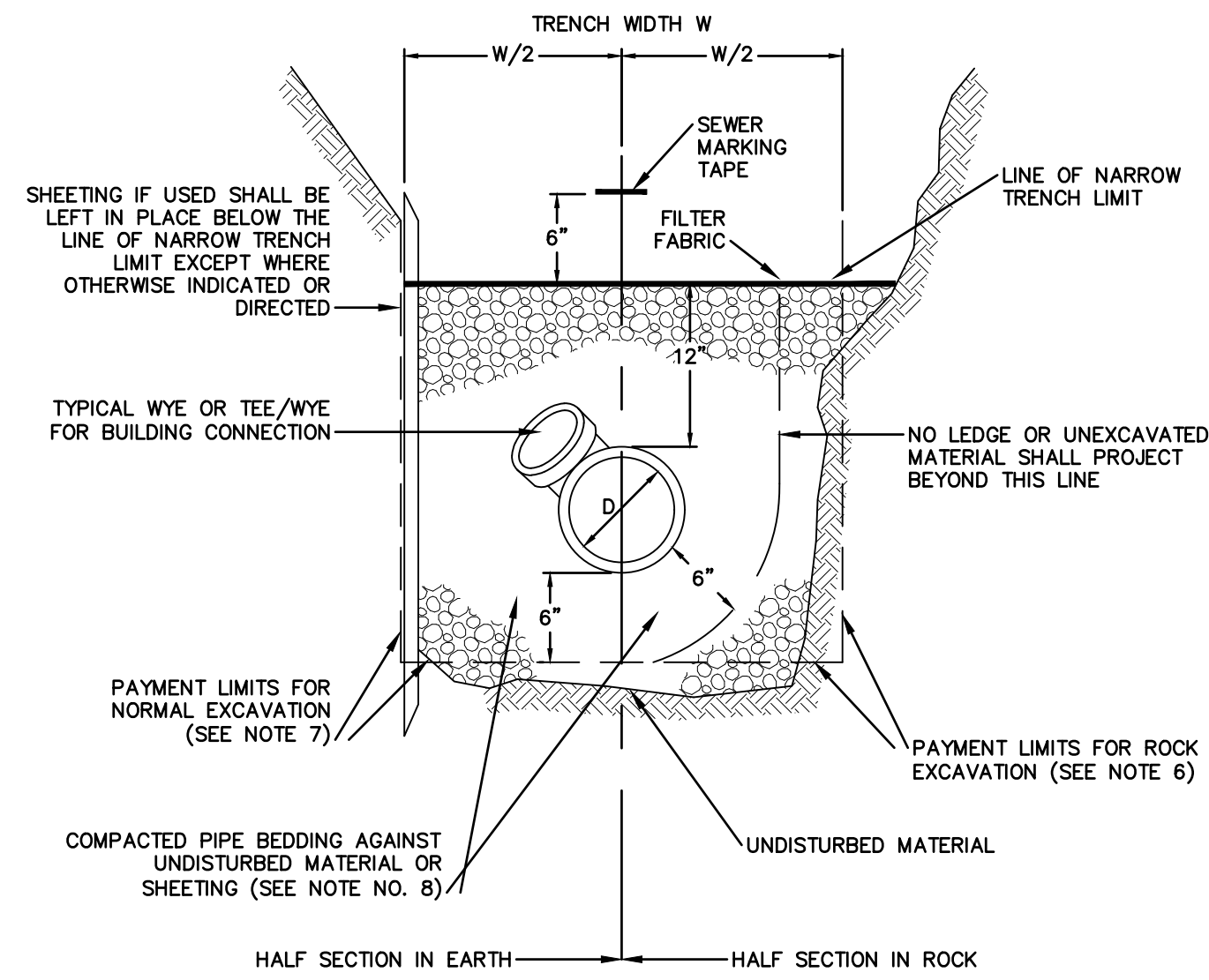
CD-530



SEWER AND WATER CROSSING NOTES

- SEWER JOINTS SHALL BE EQUIDISTANT FROM AND LOCATED AS FAR AS POSSIBLE AWAY FROM THE WATER LINE
- 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

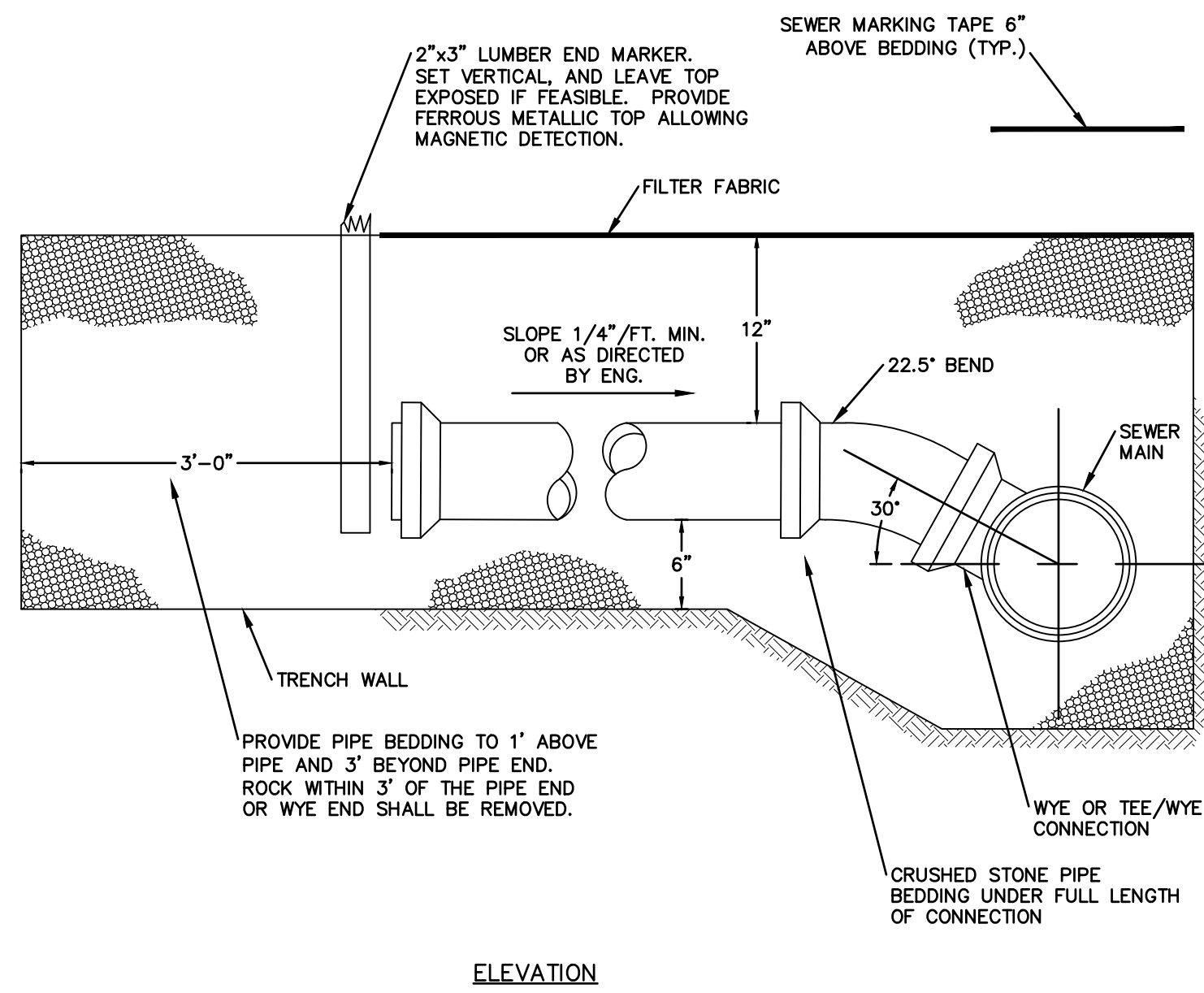


TYPICAL SEWER TRENCH
NOT TO SCALE

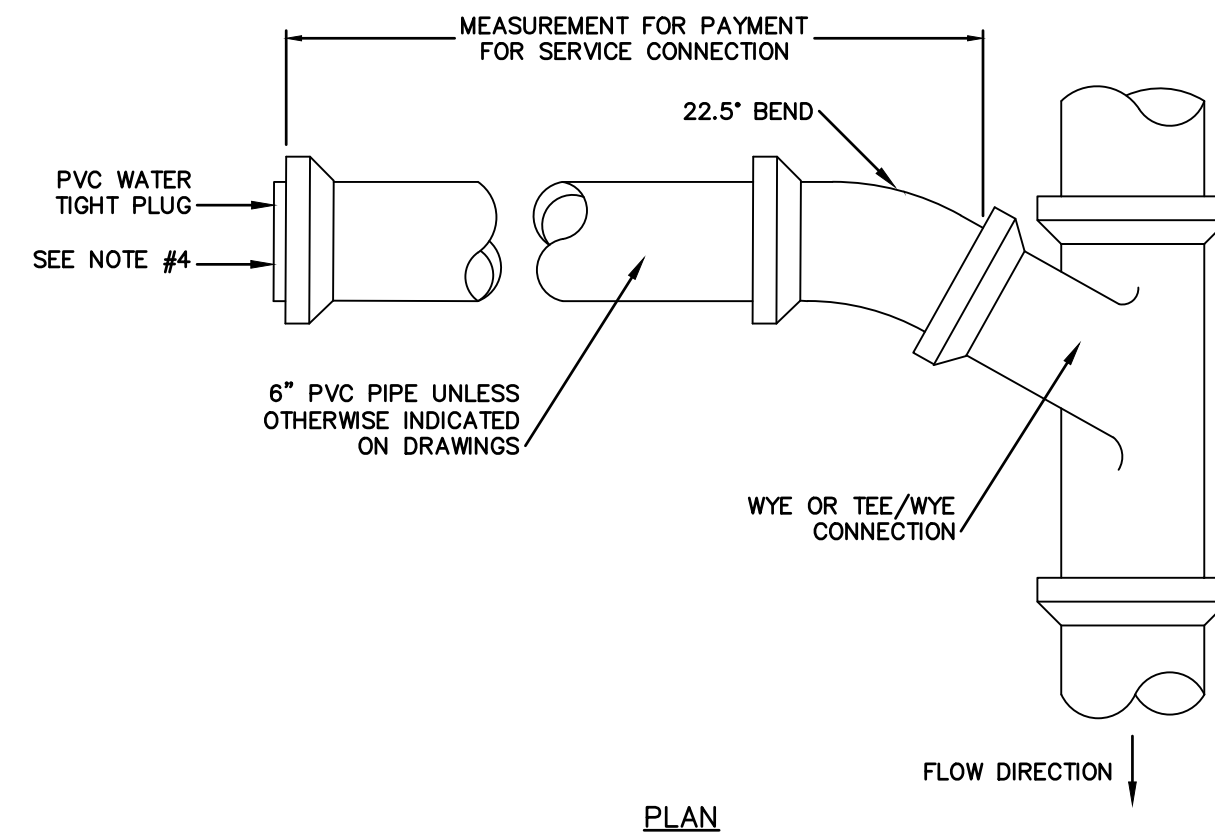
SANITARY SEWER PIPE TRENCH NOTES

- DEPTH OF SEWER SHALL BE AS SHOWN ON DRAWINGS.
 - SEWER TRENCHES MAY BE EXCAVATED WIDER THAN TRENCH WIDTH W ABOVE THE "LINE OF NARROW TRENCH LIMIT." AT THE CONTRACTORS EXPENSE.
 - BELOW THE "LINE OF NARROW TRENCH LIMIT" THE TRENCH SHALL NOT BE EXCAVATED BEYOND THE TRENCH WIDTH W.
 - IF EXCAVATION AND BACKFILL BELOW NORMAL DEPTH IS REQUIRED, SHEETING MAY BE ORDERED.
 - 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.
 - 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.
 - 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" |
- 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.
 - SEWER MARKING TAPE SHALL BE INSTALLED A MINIMUM OF 18" ABOVE THE SANITARY SEWER, FORCE MAIN AND SERVICE CONNECTION PIPE.
 - 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.

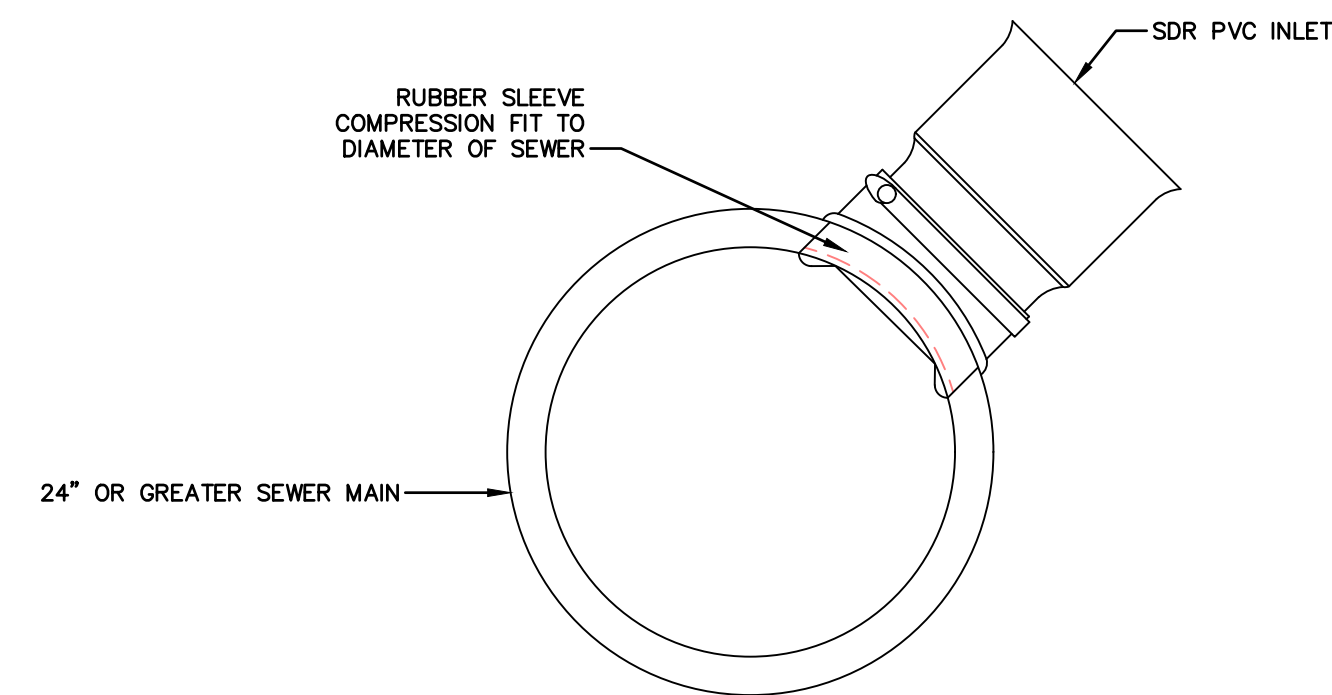


SERVICE CONNECTIONS
NOT TO SCALE



SERVICE CONNECTION NOTES

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



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

SCALE: HORIZ.: N.T.S. VERT.: N.T.S. DATUM: HORIZ.: VERT.: GRAPHIC SCALE

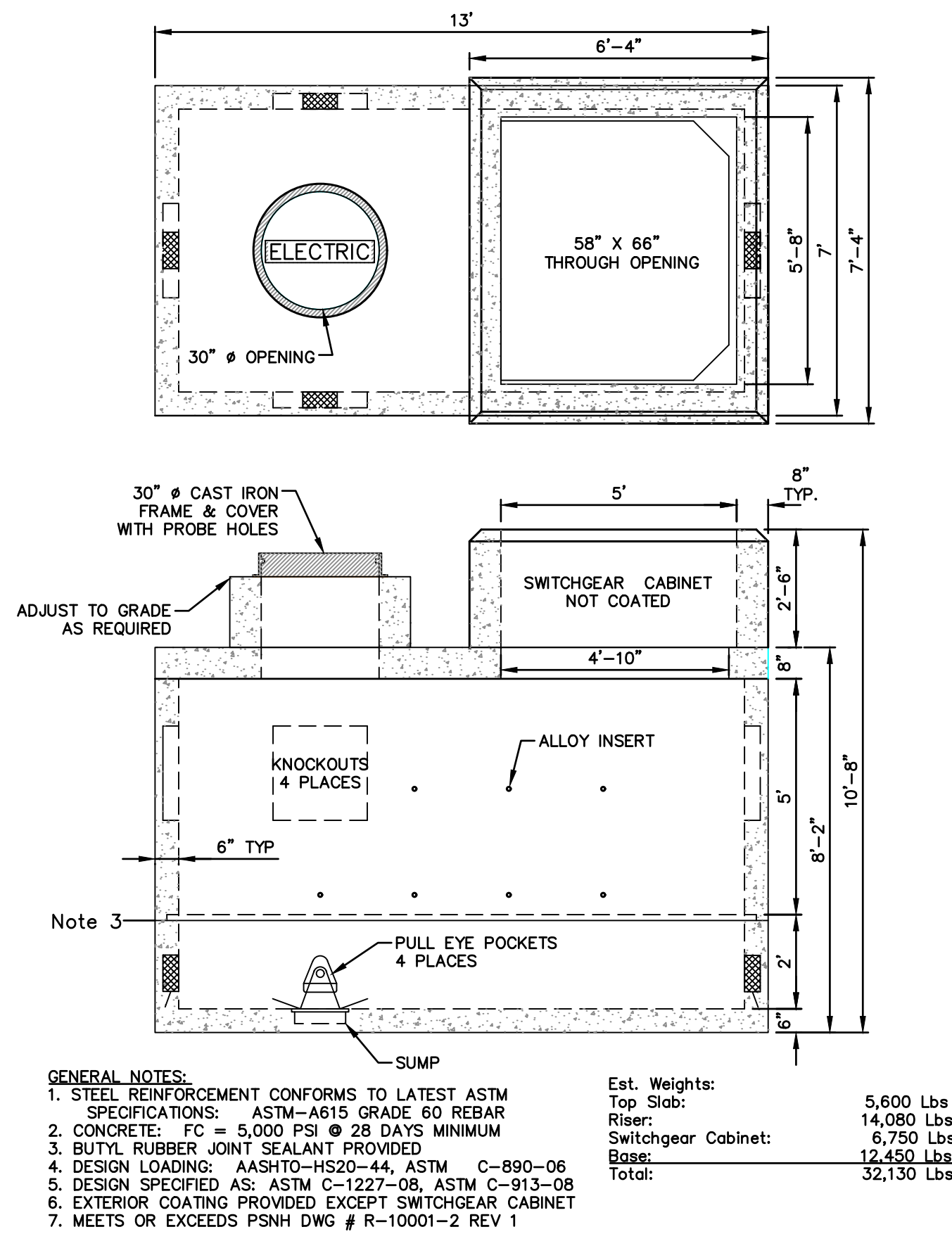
RICHARD LUNDBORN No. 10843 ENGINEER

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

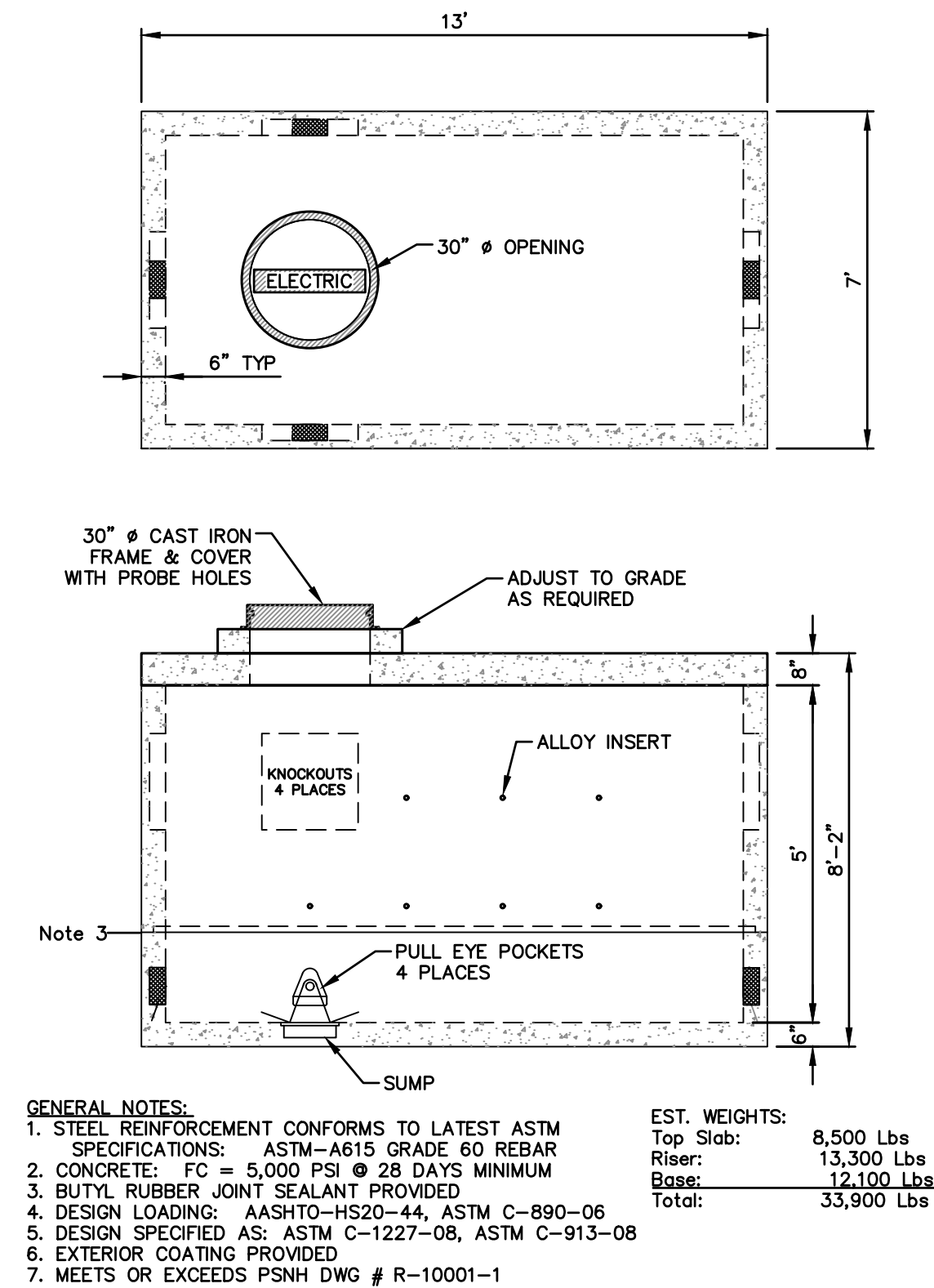
CATE STREET DEVELOPMENT, LLC
SEWER DETAILS
CATE STREET
PORTSMOUTH NEW HAMPSHIRE

PROJ. No.: 20180317.A10
DATE: 08/19/2019
CD-531

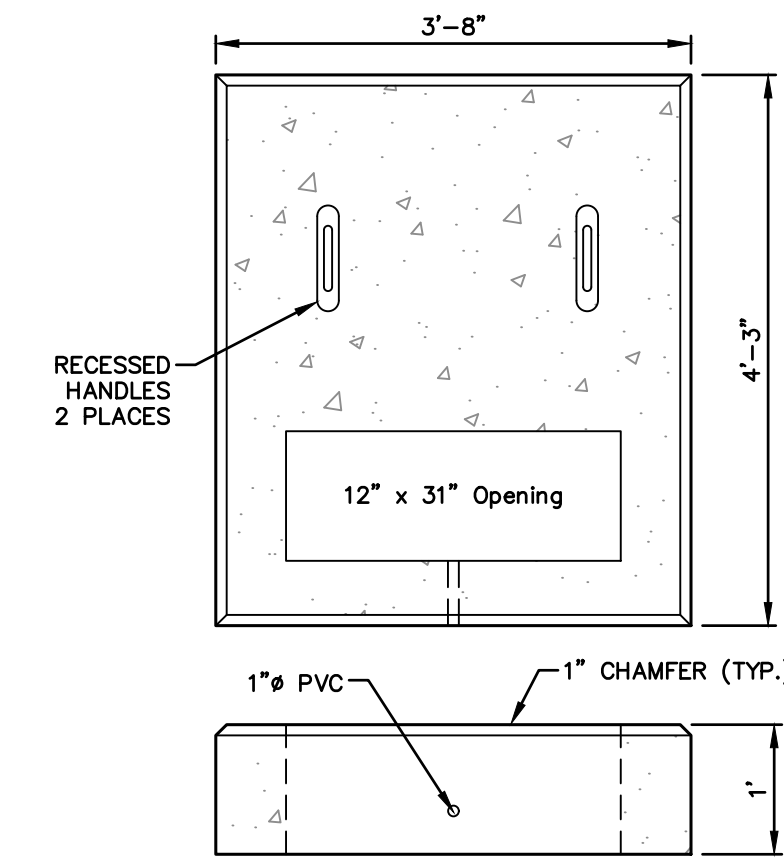
File Path: F:\P20180317A10\CH\3\DWG\20180317A10_DET01-RDWY.dwg Layout: CD-531-SEWER Plotted: Mon, August 19, 2019 - 11:03 AM User: dddgal
MS VIEW: LAYER STATE: PLOTTER: DWG TO PDF-PC3 CTB File: FO.STB



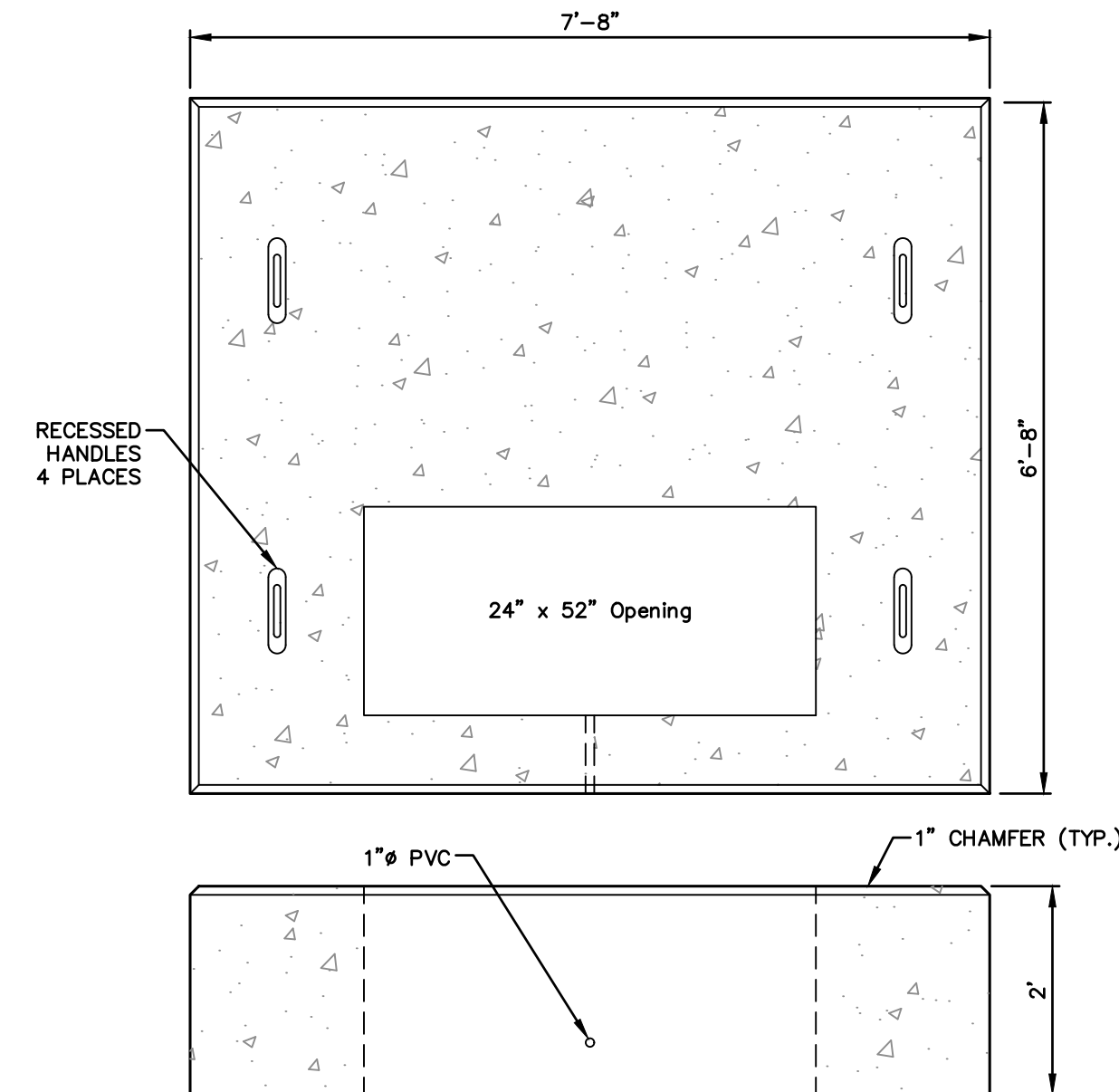
EVERSOURCE SWITCHGEAR CABINET ASSEMBLY
 NOT TO SCALE



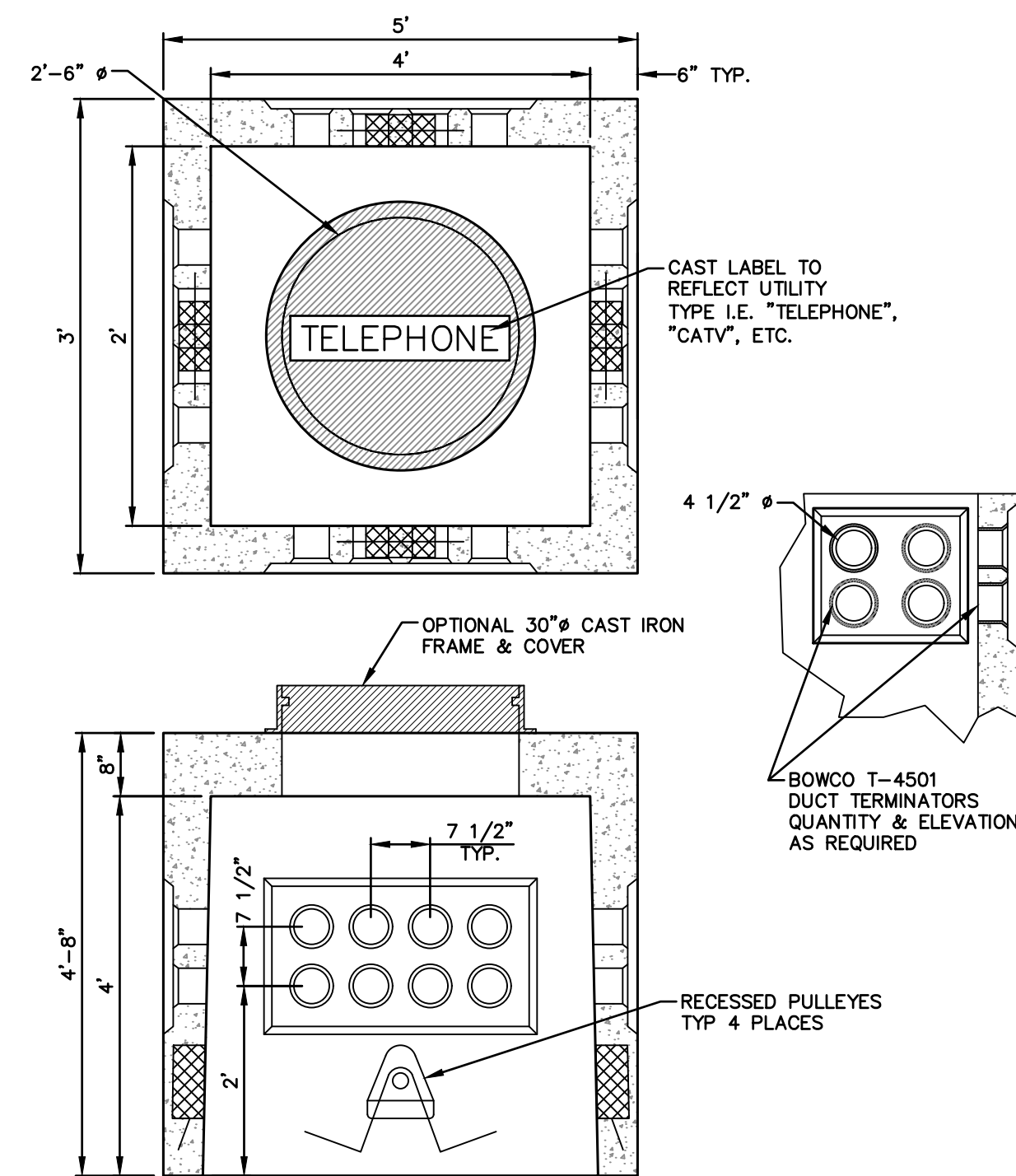
EVERSOURCE MANHOLE ASSEMBLY
 NOT TO SCALE



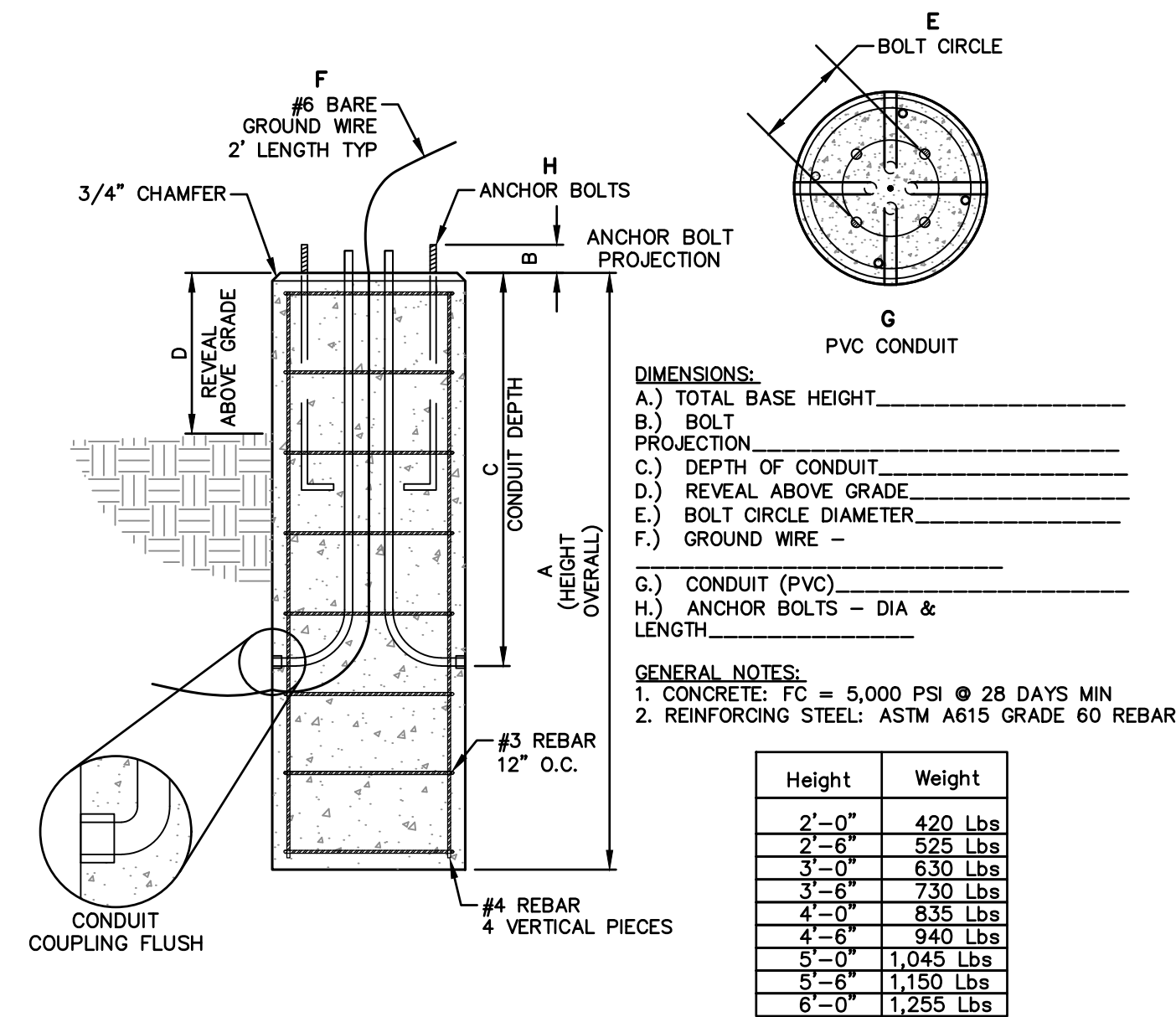
SINGLE-PHASE TRANSFORMER PAD
 NOT TO SCALE 25-75 KVA



3 PHASE TRANSFORMER PAD
 NOT TO SCALE 75-500 KVA



4'x4'x4' HANDHOLE
 NOT TO SCALE

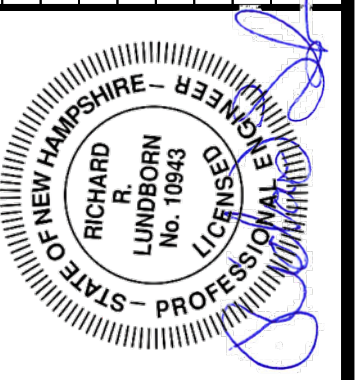


16" Ø LIGHT POLE BASE
 NOT TO SCALE

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

No.	DATE	DESCRIPTION	DESIGNER	REVIEWER
5.	8/19/2019	TAC SUBMITTAL	JVA/DAD	RRL
4.	7/24/2019	TAC SUBMITTAL	JVA/DAD	RRL
3.	6/20/2019	TAC SUBMITTAL	JVA/DAD	RRL
2.	5/20/2019	TAC SUBMITTAL	JVA/DAD	RRL
1.	3/18/2019	TAC SUBMITTAL	JVA/DAD	RRL



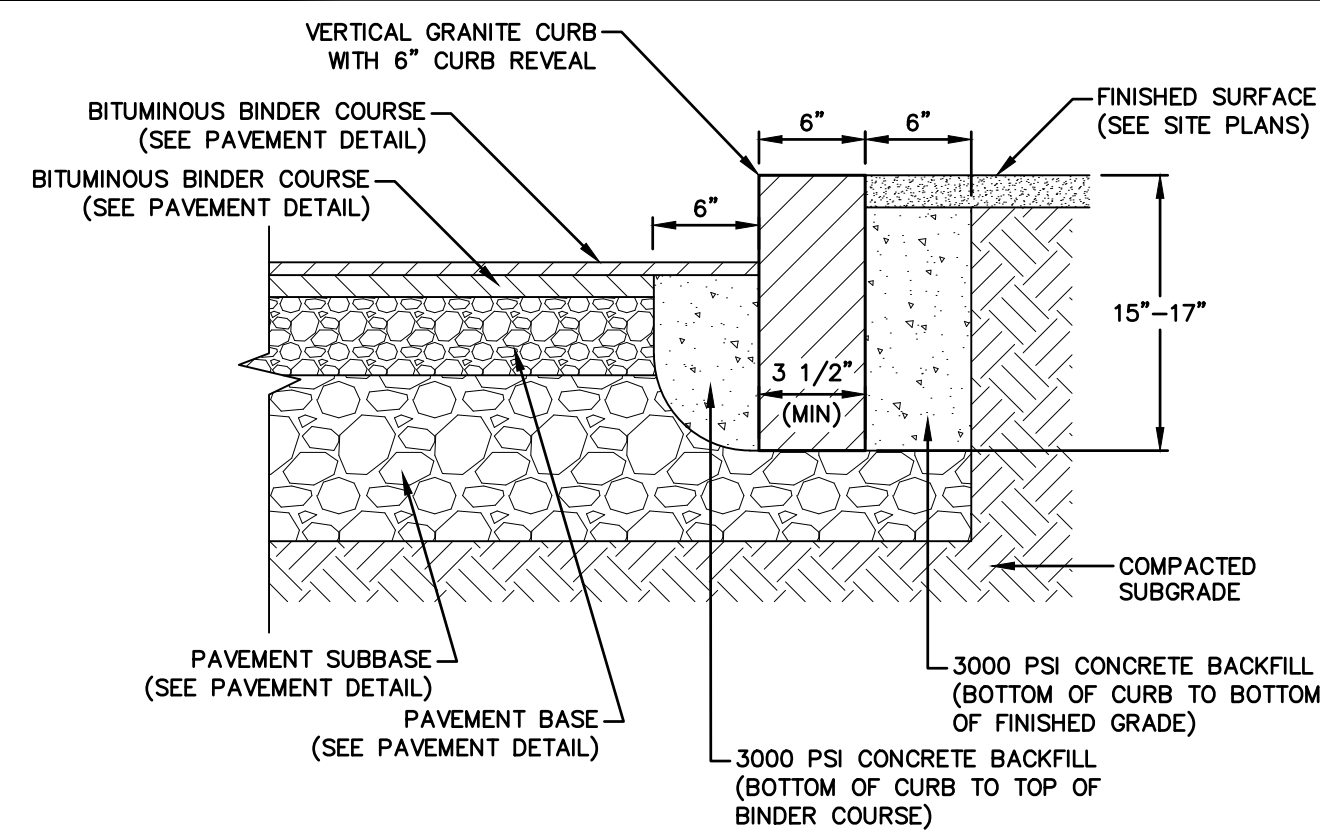
SCALE:	HORIZ: NTS	VERT: NTS
DATUM:	HORIZ:	VERT:
GRAPHIC SCALE		

FUSS & O'NEILL
 UPPER SQUARE BUSINESS CENTER
 5 FLETCHER STREET, SUITE 1
 KENNEBUNK, MAINE 04043
 207.563.0669
 www.fandoo.com

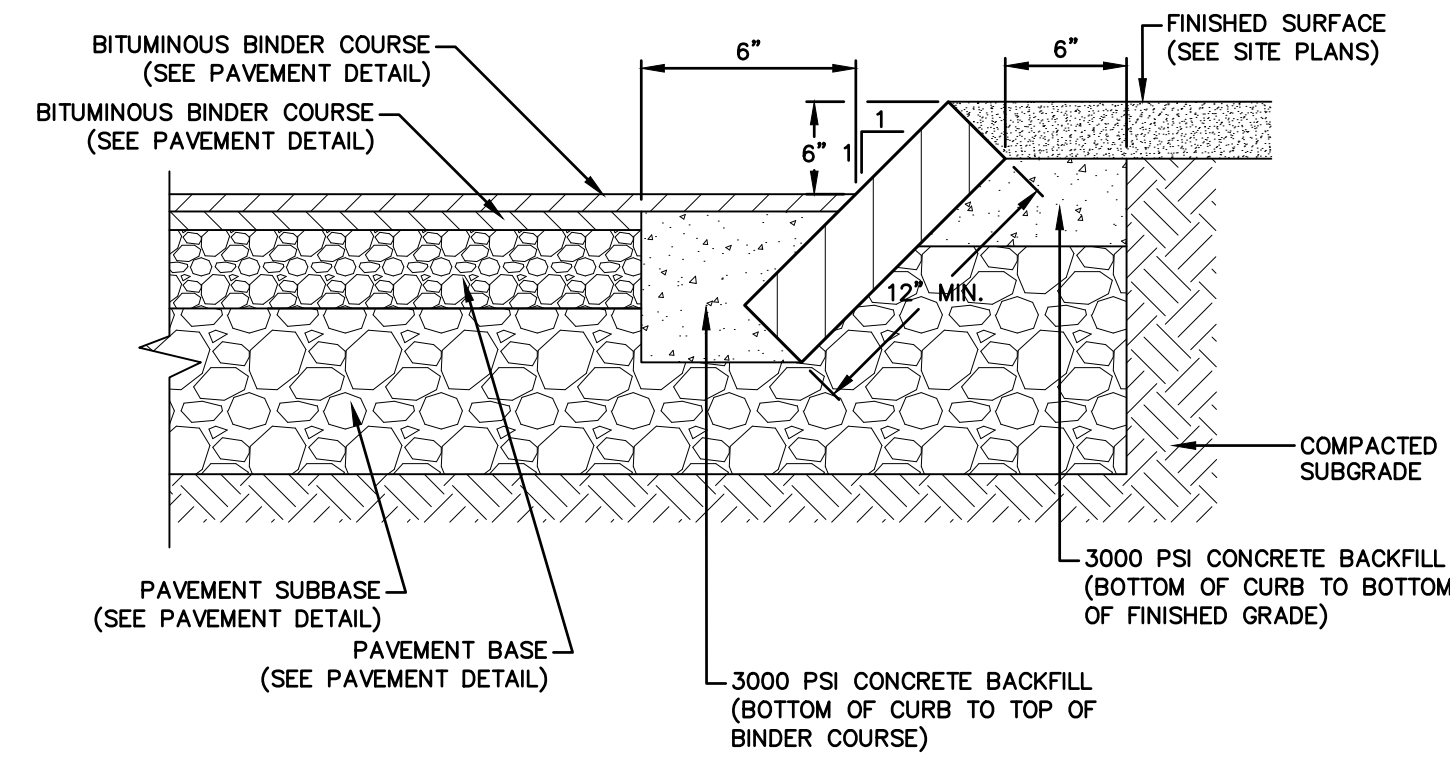
CATE STREET DEVELOPMENT, LLC
 ELECTRICAL DETAILS
 CATE STREET
 PORTSMOUTH NEW HAMPSHIRE

PROJ. No.: 20180317.A10
 DATE: 08/19/2019

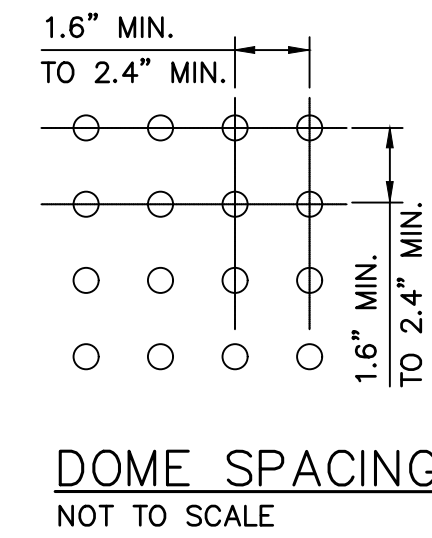
CD-540



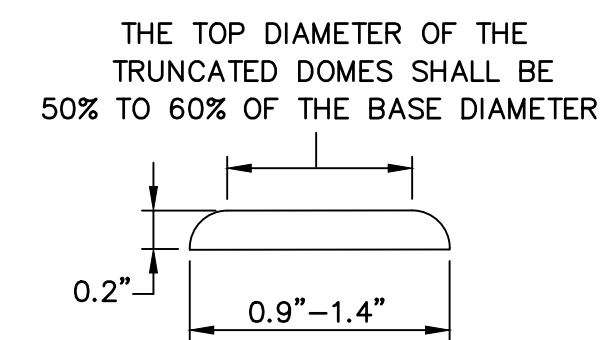
VERTICAL GRANITE CURB INSTALLED
SCALE: NOT TO SCALE



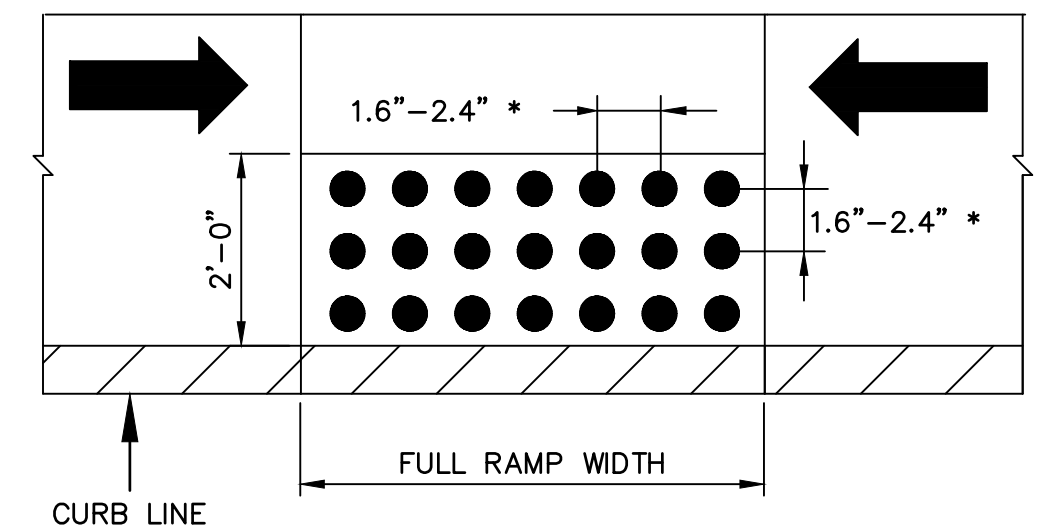
SLOPED GRANITE CURB INSTALLED
SCALE: NOT TO SCALE



DOME SPACING
NOT TO SCALE

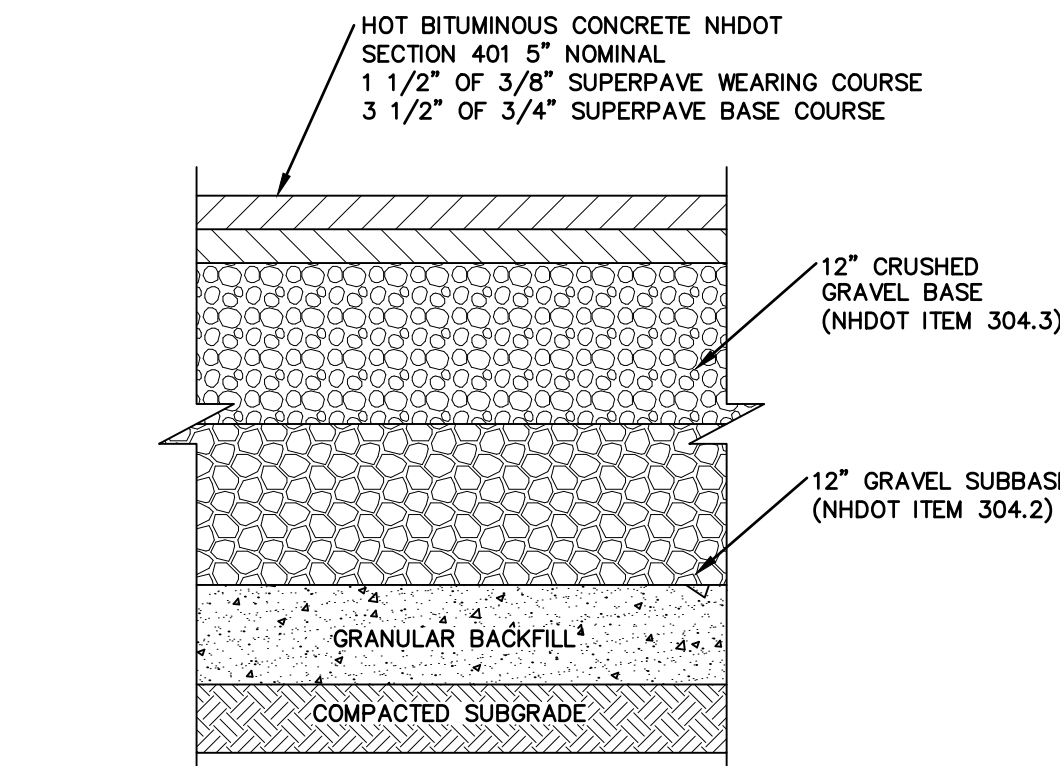


ELEVATION VIEW

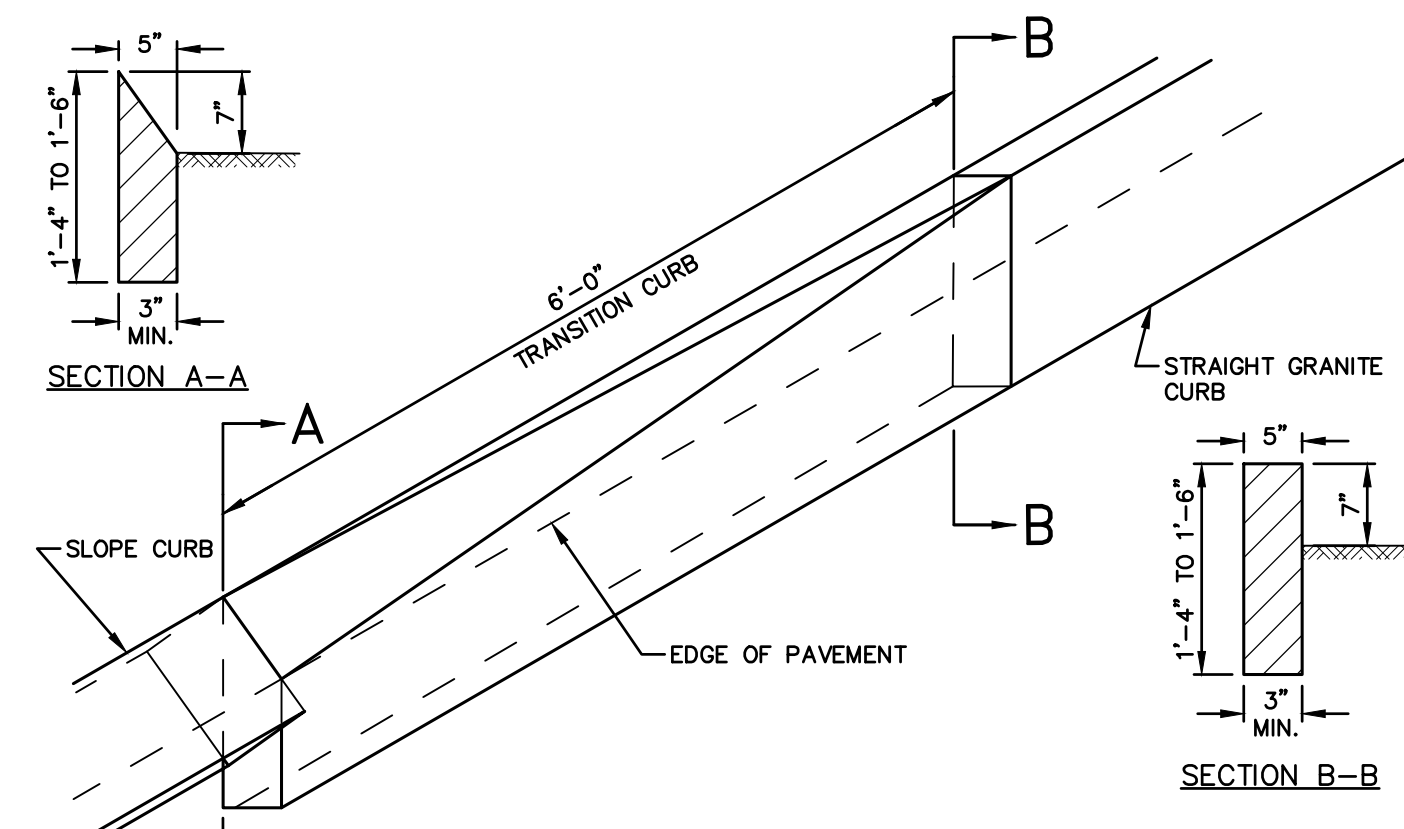


DOME AND DETECTABLE WARNING DETAILS
NOT TO SCALE TO BE INSTALLED AT ADA WALKWAY TIPDOWNS.

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

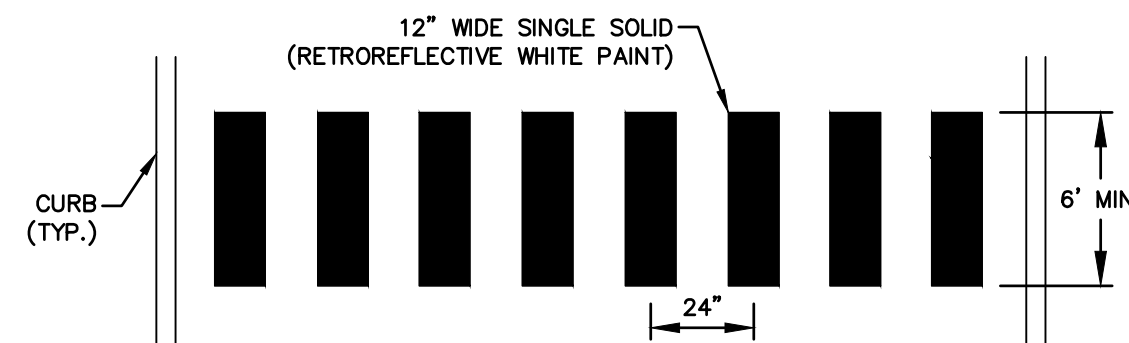


TYPICAL ROAD PAVEMENT SECTION
NOT TO SCALE



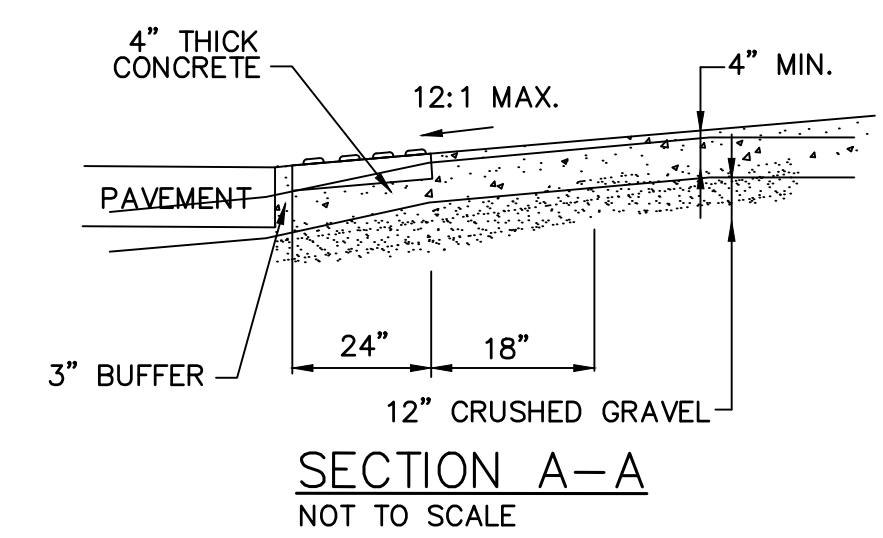
STRAIGHT TO SLOPE CURB TRANSITION
NOT TO SCALE

THE INTENT OF THIS ITEM IS TO PROVIDE A SMOOTH TRANSITION BETWEEN STRAIGHT GRANITE CURB AND SLOPE CURB WITHOUT REQUIRING FIELD CHIPPING DURING INSTALLATION. THE SLOPE CURB MAY REQUIRE ADJUSTMENTS TO MEET THE TRANSITION PIECE HEIGHT AND BEVEL THAT ARE NOT STANDARD NHDOT PRACTICE. TRANSITION SLOPE TO STANDARD REVEAL AS QUICKLY AS POSSIBLE TO PROVIDE FOR THIS SMOOTH TRANSITION.



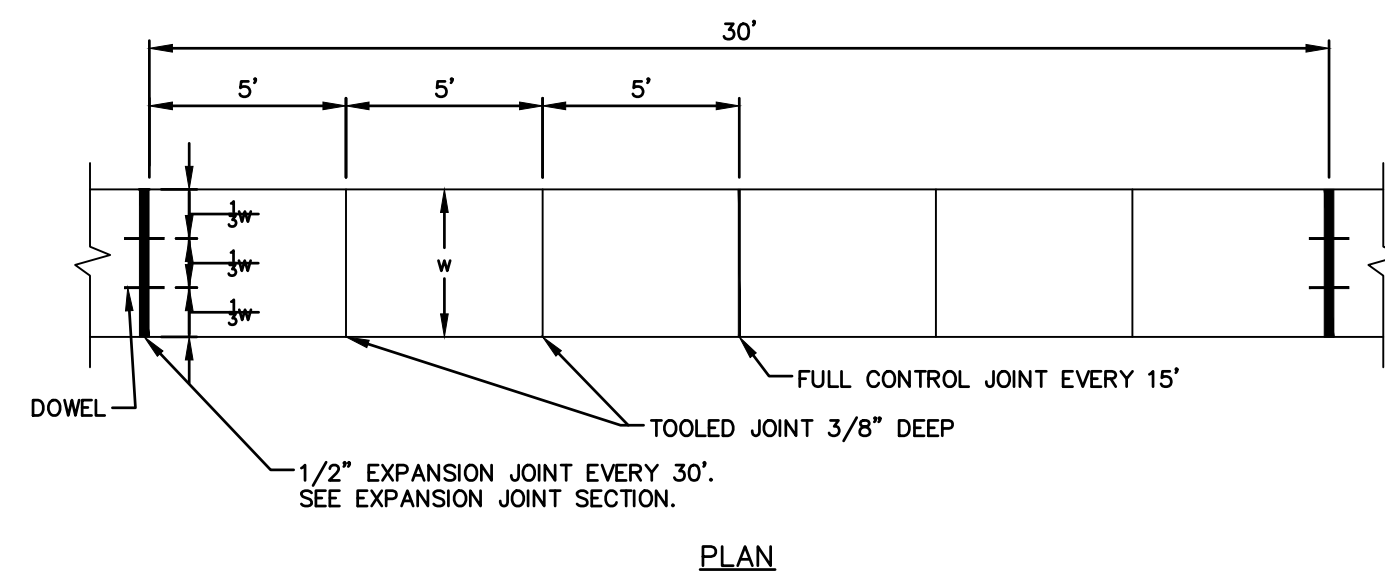
CROSS-WALK MARKING DETAIL
NOT TO SCALE

NOTE: EXISTING CROSSWALK MARKING SHALL BE OBLITERATED IN ACCORDANCE WITH SECTION 632/3.6 'OBLITERATION OF PAVEMENT MARKING' OF NHDOT STANDARD SPECIFICATIONS AND SHALL BE CONSIDERED SUBSIDIARY.

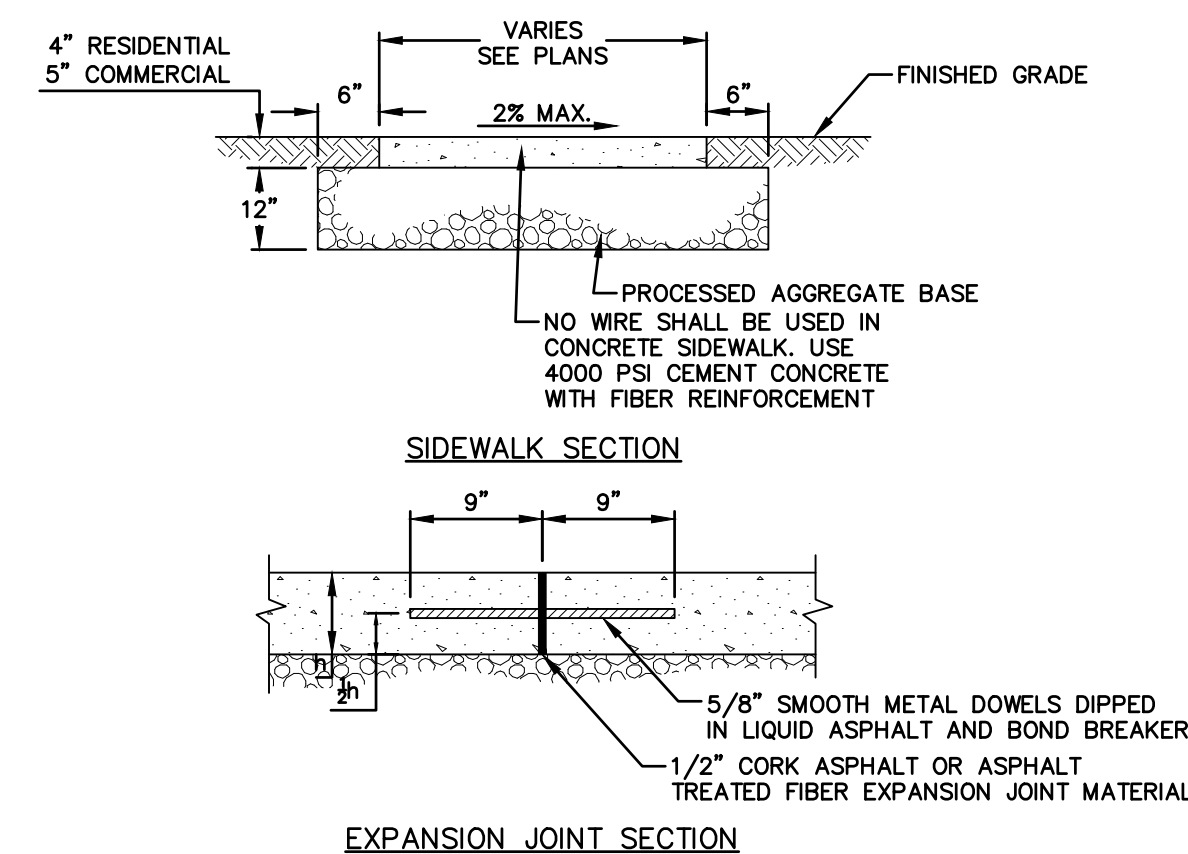


SECTION A-A
NOT TO SCALE

PAVEMENT MIX DESIGNS IN THE R.O.W. TO BE APPROVED BY THE DEPARTMENT OF PUBLIC WORKS.

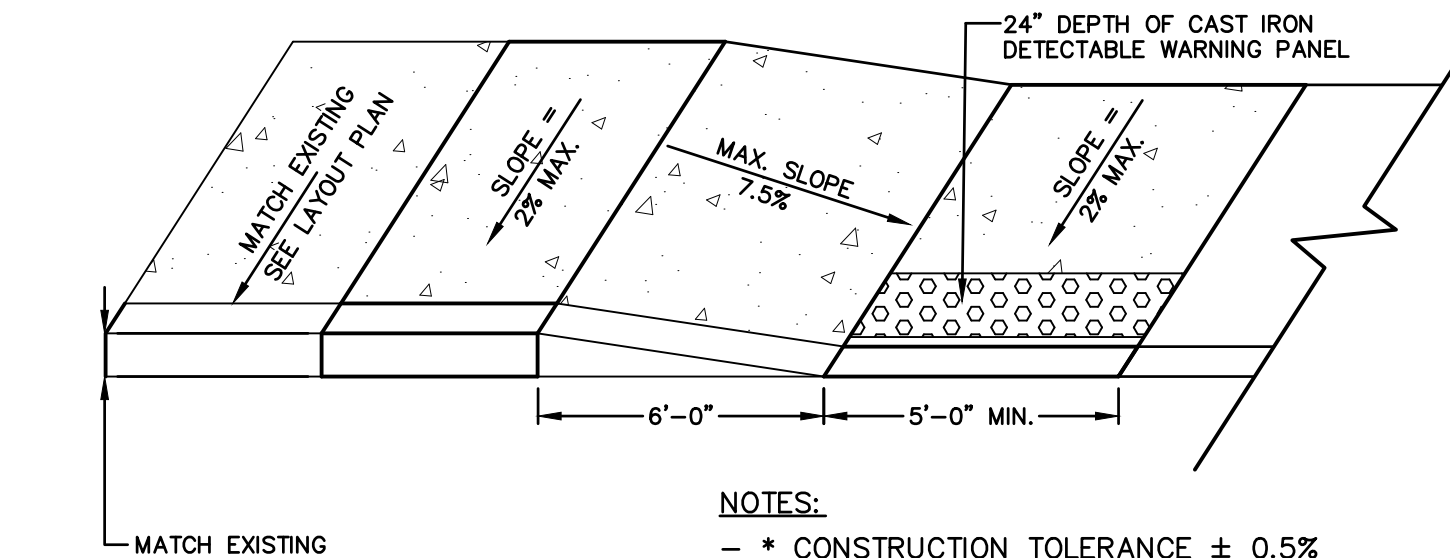


CONCRETE SIDEWALK
SCALE: NOT TO SCALE



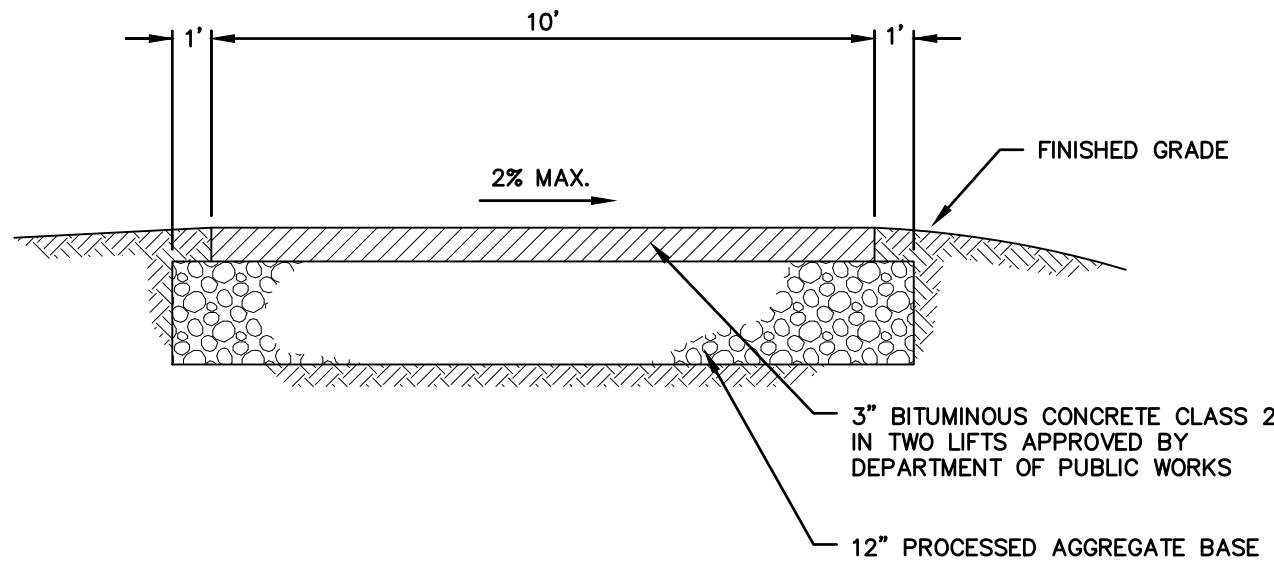
SIDEWALK SECTION

EXPANSION JOINT SECTION

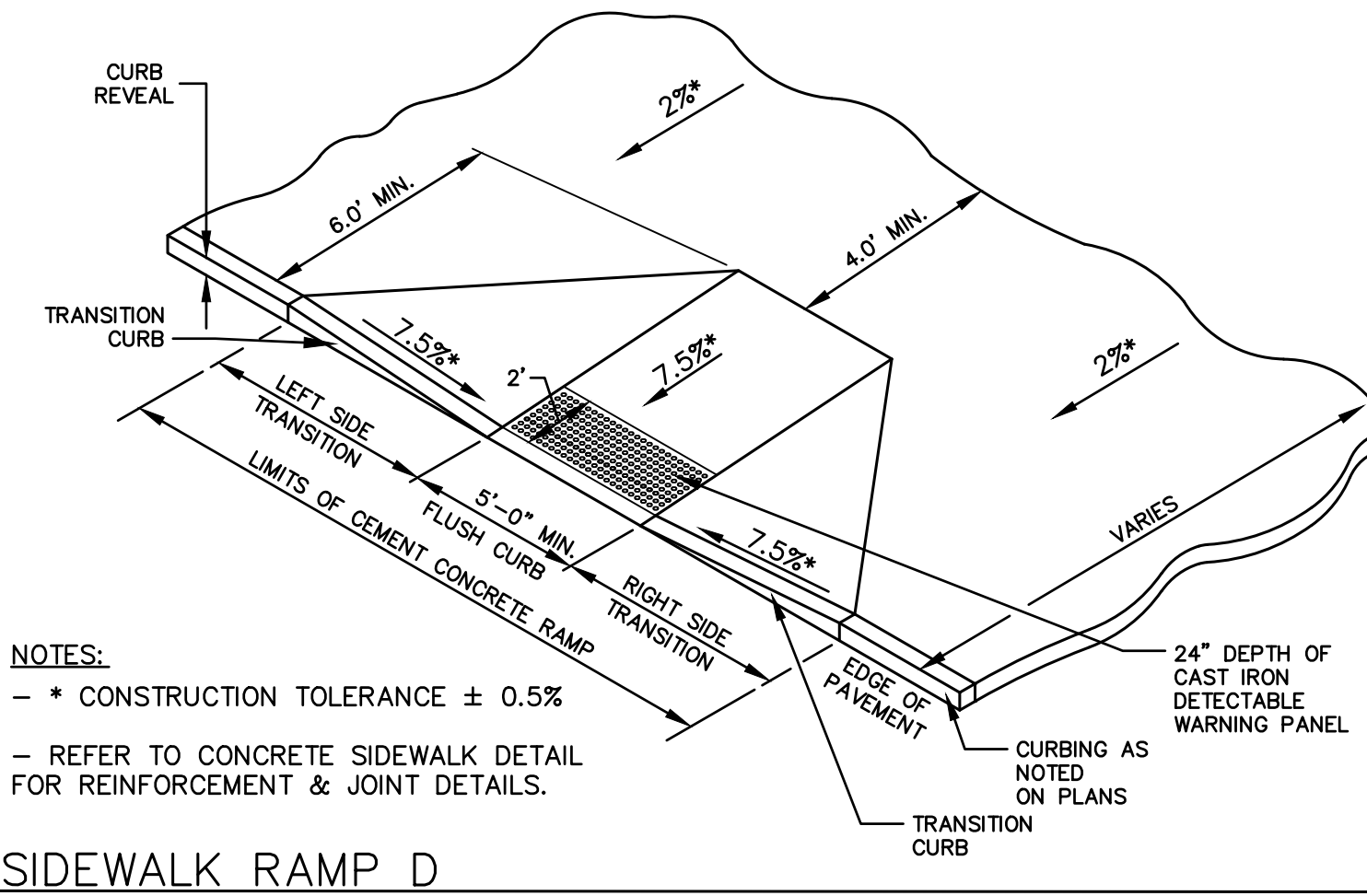


SIDEWALK RAMP A
NOT TO SCALE

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

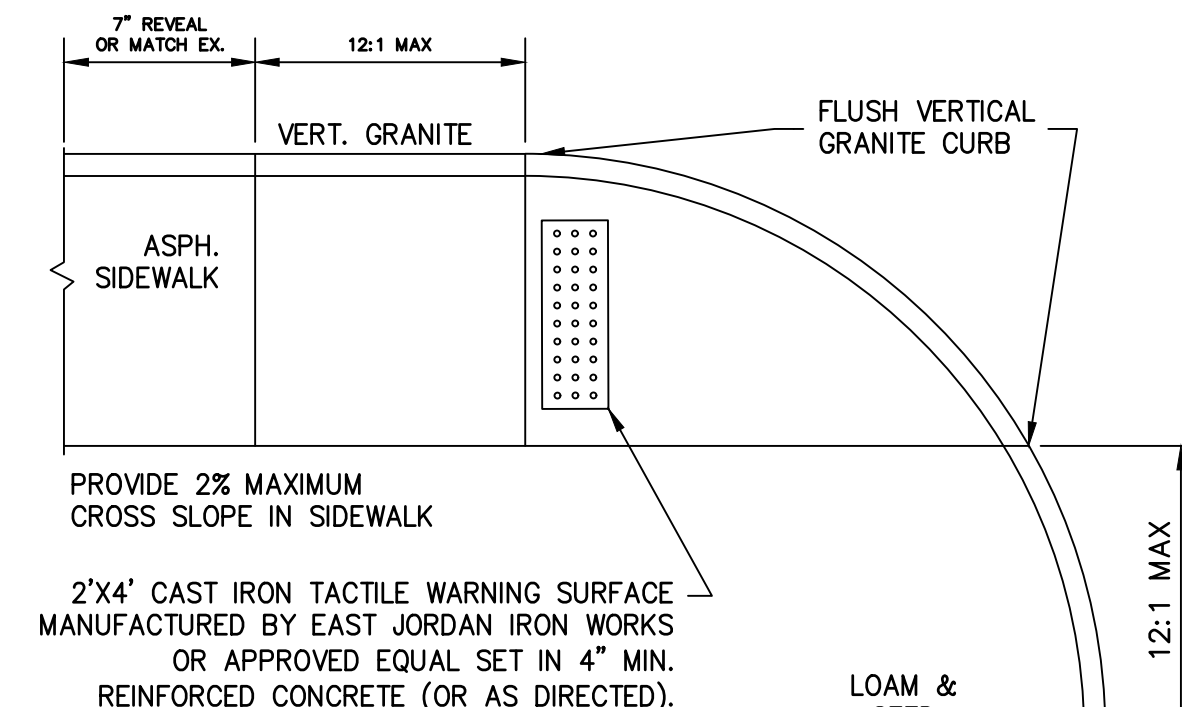


BITUMINOUS CONCRETE MULTI-USE TRAIL
NOT TO SCALE

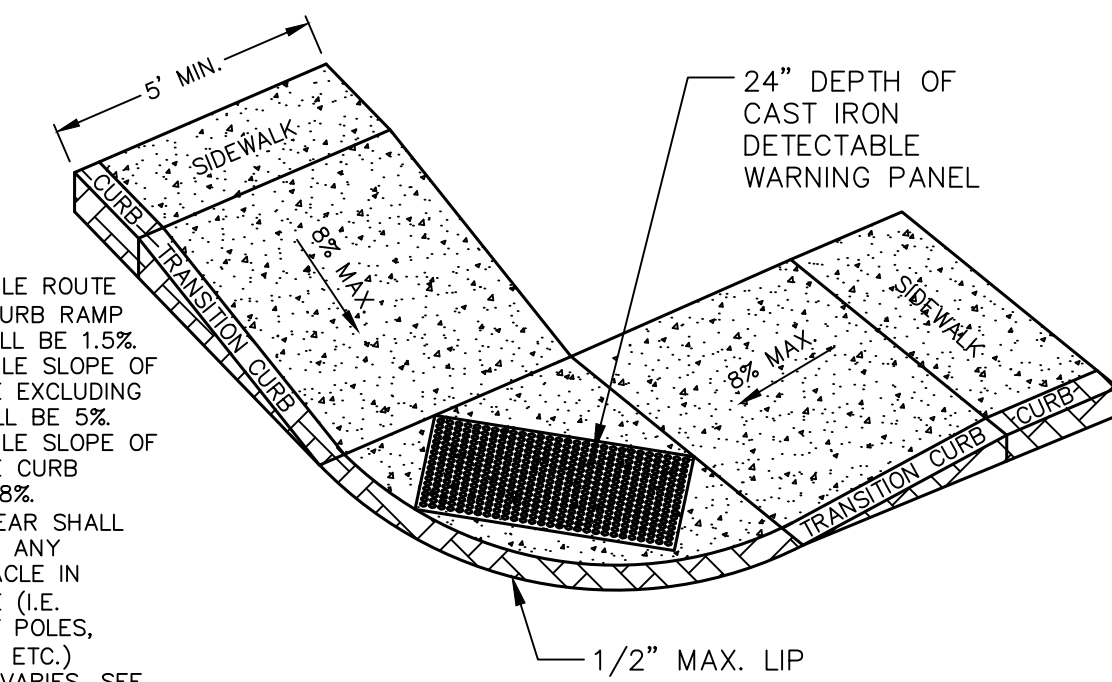


SIDEWALK RAMP D
NOT TO SCALE

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



END OF SIDEWALK PEDESTRIAN RAMP
NOT TO SCALE



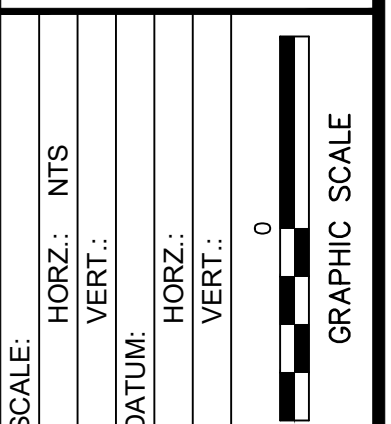
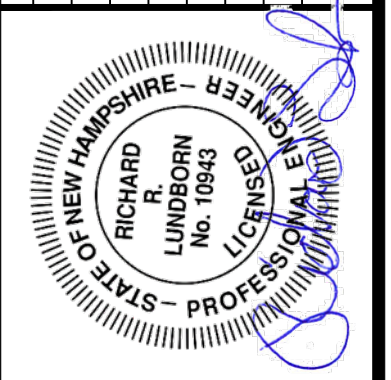
NOTES:
1. MAXIMUM ALLOWABLE ROUTE (SIDEWALK) AND CURB RAMP CROSS SLOPE SHALL BE 1.5%
2. MAXIMUM ALLOWABLE SLOPE OF ACCESSIBLE ROUTE EXCLUDING CURB RAMP SHALL BE 5%
3. MAXIMUM ALLOWABLE SLOPE OF ACCESSIBLE ROUTE CURB RAMP SHALL BE 8%
4. MINIMUM OF 4' CLEAR SHALL BE MAINTAINED AT ANY PERMANENT OBSTACLE 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.

ACCESSIBLE CURB RAMP-TYPE C
NOT TO SCALE

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

File Path: F:\P20180317A10\CH3\3Dwg\20180317A10_DET01-RDWY.dwg Layout: CD-550-SITE Plotted: Mon, August 19, 2019 - 11:03 AM User: dtugal
MIS VIEW: LAYER STATE: Plotter: DWG TO PDF-PC3 CTB File: FO.STB

No.	DATE	DESCRIPTION	DESIGNER/REVIEWER
5.	8/19/2019	TAC SUBMITTAL	RRL
4.	7/24/2019	TAC SUBMITTAL	RRL
3.	6/20/2019	TAC SUBMITTAL	RRL
2.	5/20/2019	TAC SUBMITTAL	RRL
1.	3/18/2019	TAC SUBMITTAL	RRL

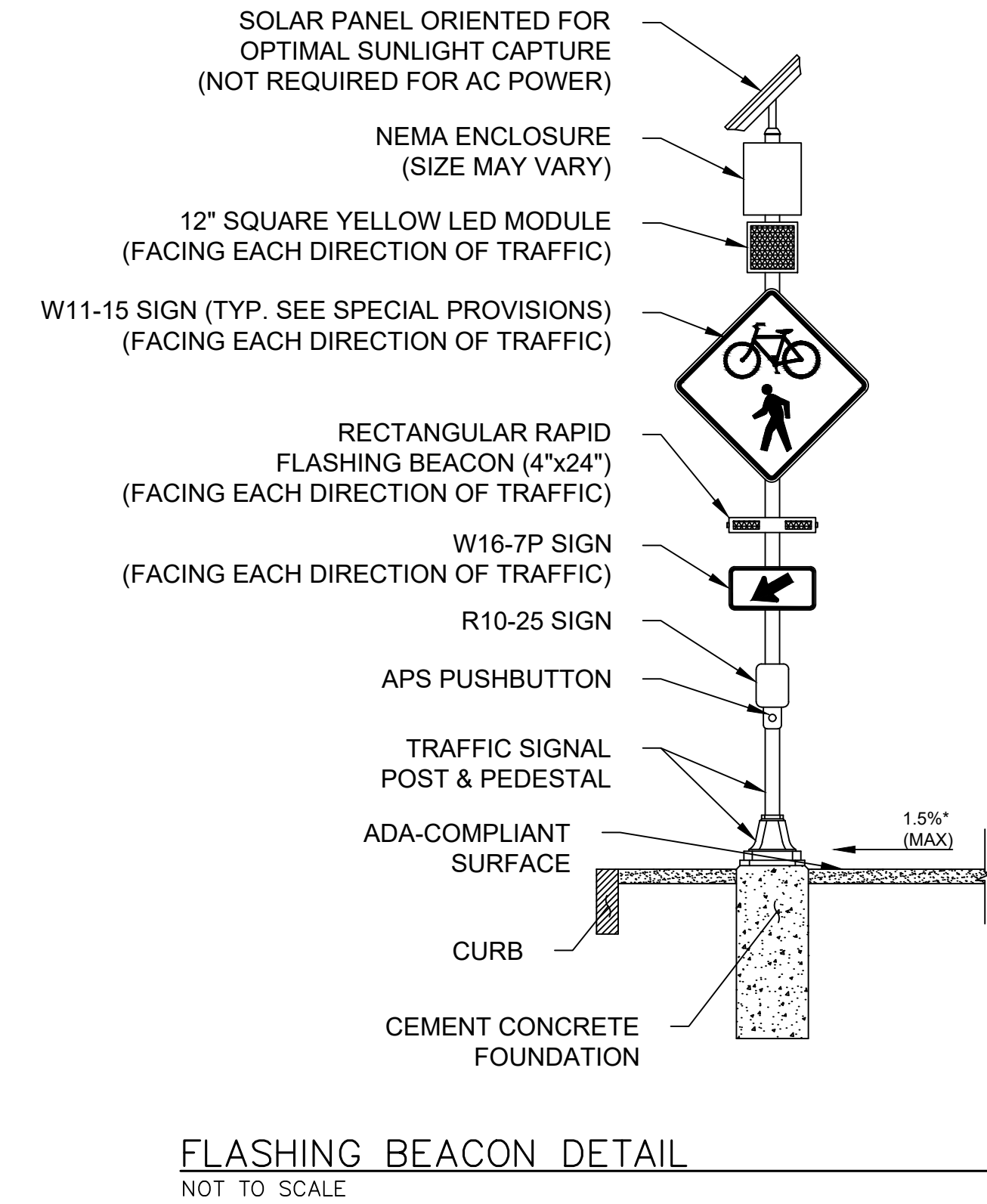


FUSS & O'NEILL
UPPER SQUARE BUSINESS CENTER
5 FLETCHER STREET, SUITE 1
KENNEBUNK, MAINE 04043
www.fandoc.com

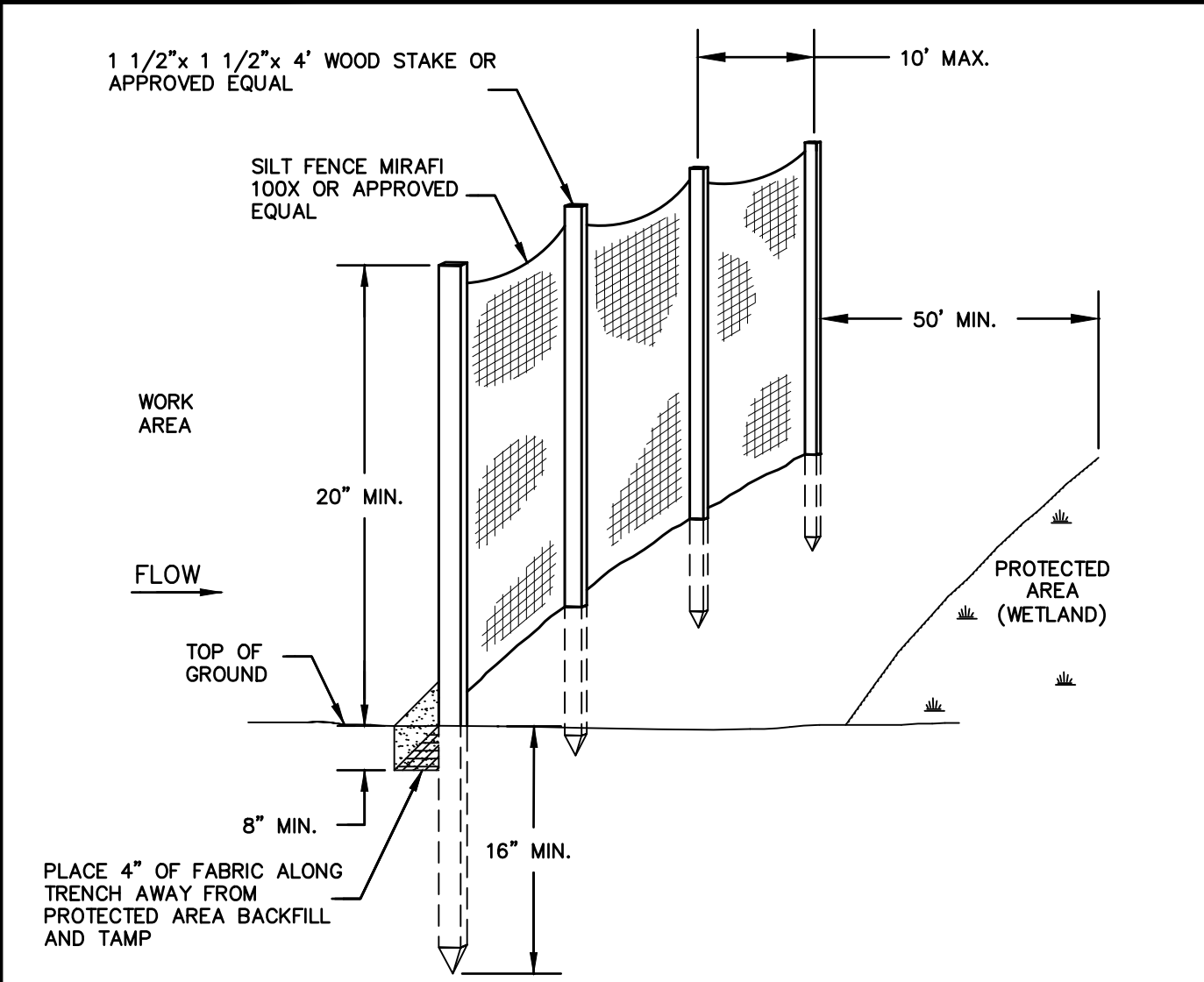
CATE STREET DEVELOPMENT, LLC
SITE DETAILS
CATE STREET
PORTSMOUTH
NEW HAMPSHIRE

PROJ. No.: 20180317.A10
DATE: 08/19/2019
CD-550

CP	IDENT#	SIZE OF SIGN		TEXT	TEXT DIMENSIONS			SHIELD SIZE (INCH)	AROW (INCH)	NUMERAL (INCH)	# SIGNS REQ'D	SIGN AREA (SQ. FT.)		POSTS PER SIGN					REMARKS	
		WIDTH (INCHES)	HEIGHT (INCHES)		LETTER HEIGHT (INCH)							NOM AREA	TOTAL AREA	BREAKAWAY	STEEL BEAM	CONCRETE BASE	4" OD ALUMINUM	U-CHANNEL GALV		
					UC	LC	CAPS													
	W1-6L	48	24				3		6.5		1	8.00	24.00						2	BLACK/YELLOW
	W3-1	30	30								1	6.25	6.25						1	BLACK/RED/YELLOW
	W3-1A	30	30				4D				1	6.25	6.25						1	BLACK/YELLOW
	W11-2	30	30								8	6.25	50.00						1	BLACK/FLUORESCENT/YELLOW-GREEN
	W11-15	30	30								6	6.25	37.50						1	BLACK/FLUORESCENT/YELLOW-GREEN
	W11-15P	24	18				4D 4D				2	3.00	6.00							BLACK/FLUORESCENT/YELLOW-GREEN
	W13-1P	18	18				3E			8E	2	2.25	4.50							BLACK/YELLOW MOUNT UNDER W1-5
	W3-1P	18	18				3E			8E	2	2.25	4.50							BLACK/YELLOW MOUNT UNDER W1-5
	W16-7P	24	12						3		8	2.00	16.00							BLACK/YELLOW MOUNT UNDER W11-2
	W16-9P	24	12				5C				6	2.00	12.00							BLACK/YELLOW MOUNT UNDER W11-2
	R3-17BP	24	8								1	1.33	1.33							WHITE/BLACK MOUNT ON W11-15
	D11-1	24	18				4D		2.5		1	3.00	3.00						1	WHITE/GREEN
	M6-2	12	9								1	0.75	0.75						1	WHITE/GREEN

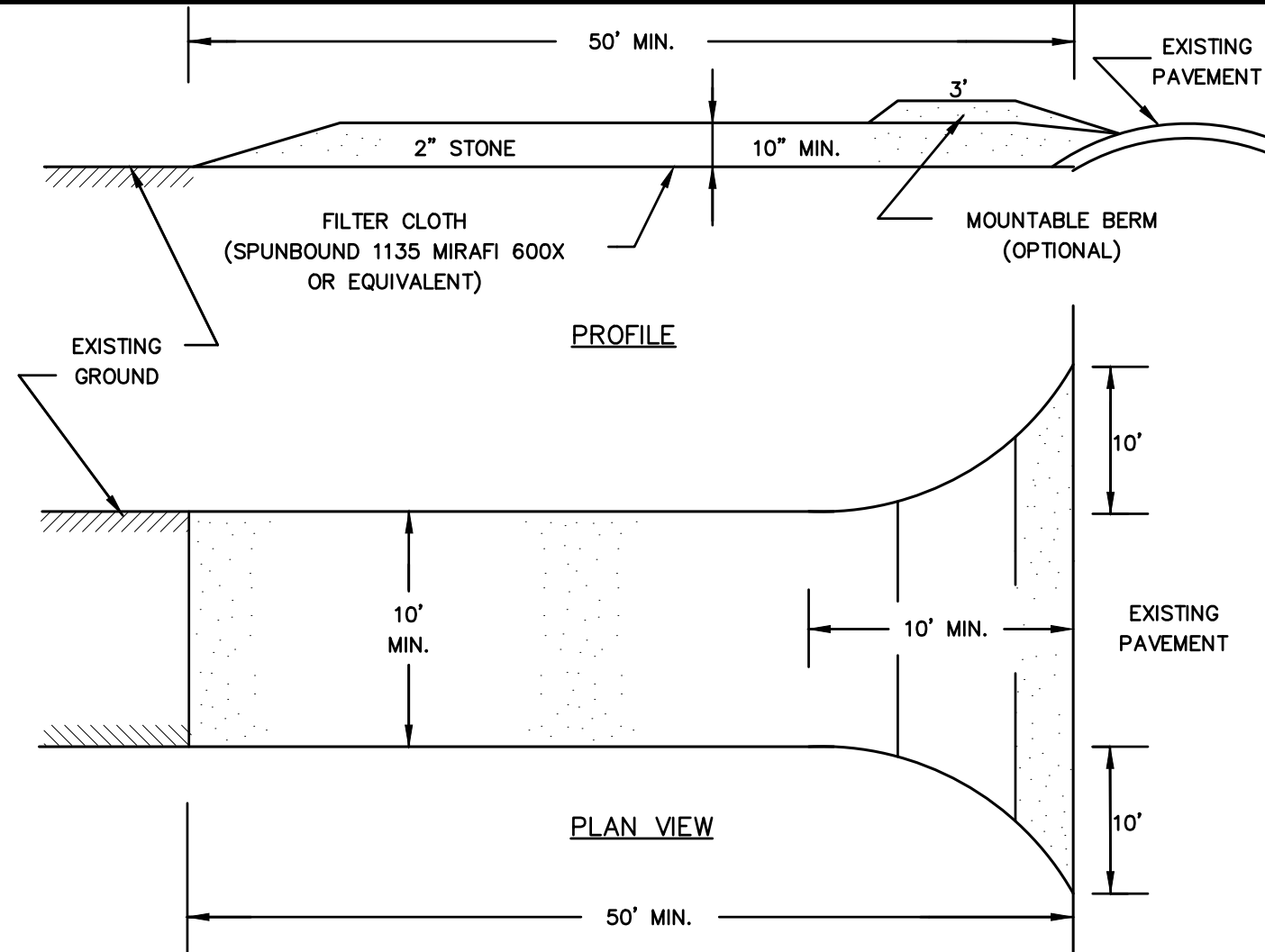


SCALE: HORZ.: NTS VERT.: 1"=10'		DATE: 08/19/2019	
DATUM:		GRAPHIC SCALE	
FUSS & O'NEILL UPPER SQUARE BUSINESS CENTER 5 FLETCHER STREET, SUITE 1 KENNEBUNK, MAINE 04043 www.fandoc.com			
CATE STREET DEVELOPMENT, LLC		NEW HAMPSHIRE	
SIGN DETAILS		CATE STREET	
PORTSMOUTH		DESIGNER REVIEWER	
PROJ. No.: 20180317.A10		DATE: 08/19/2019	
CS-124			



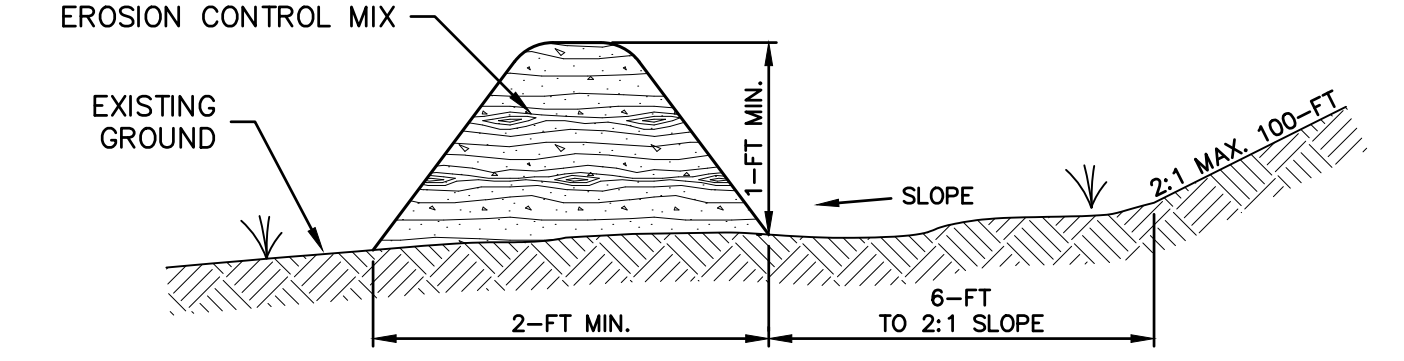
- MAINTENANCE REQUIREMENTS:**
- FENCES SHOULD BE INSPECTED AND MAINTAINED IMMEDIATELY AFTER EACH RAINFALL AND AT LEAST DAILY DURING PROLONGED RAINFALLS;
 - SEDIMENT DEPOSITION SHOULD BE REMOVED, AT A MINIMUM, WHEN DEPOSITION ACCUMULATES TO ONE-HALF THE HEIGHT OF THE FENCE, AND MOVED TO AN APPROPRIATE LOCATION SO THE SEDIMENT IS NOT READILY TRANSPORTED BACK TOWARD THE SILT FENCE.
 - 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.
 - 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.
 - 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.
 - 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.
 - 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:**
- 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.
 - THE MAXIMUM CONTRIBUTING DRAINAGE AREA ABOVE THE FENCE SHOULD BE LESS THAN 1A ACRE PER 100 LINEAR FEET OF FENCE;
 - THE MAXIMUM LENGTH OF SLOPE ABOVE THE FENCE SHOULD BE 100 FEET;
 - THE MAXIMUM SLOPE ABOVE THE FENCE SHOULD BE 2:1;
 - 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.
 - SILT FENCING SHOULD NOT BE STAPLED OR NAILED TO TREES.
 - THE FILTER FABRIC SHOULD BE A PERVIOUS SHEET OF PROPYLENE, NYLON, POLYESTER OR ETHYLENE YARN AND SHOULD BE CERTIFIED BY THE MANUFACTURER OR SUPPLIER.
 - 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.
 - 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.
 - 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.
 - 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 POSTS, WITH A MINIMUM 6-INCH OVERLAP, AND SECURELY SEALED.
 - A MANUFACTURED SILT FENCE SYSTEM WITH INTEGRAL POSTS MAY BE USED.
 - POST SPACING SHOULD NOT EXCEED 6 FEET.
 - A TRENCH SHOULD BE EXCAVATED APPROXIMATELY 4 INCHES WIDE AND 4 INCHES DEEP ALONG THE LINE OF POSTS AND UP GRADIENT FROM THE BARRIER.
 - 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 SURFACE.
 - THE TRENCH SHOULD BE BACKFILLED AND THE SOIL COMPACTED OVER THE FILTER FABRIC.
 - 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.
 - SILT FENCES SHOULD BE INSTALLED WITH "SMILES" OR "J-HOOKS" TO REDUCE THE DRAINAGE AREA THAT ANY SEGMENT WILL IMPOUND.
 - THE ENDS OF THE FENCE SHOULD BE TURNED UPHILL.
 - SILT FENCES PLACED AT THE TOE OF A SLOPE SHOULD BE SET AT LEAST 6 FEET FROM THE TOE TO ALLOW SPACE FOR SHALLOW PONDING AND TO ALLOW FOR MAINTENANCE ACCESS WITHOUT DISTURBING THE SLOPE.
 - 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:**
- 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 THEN BE RECONSTRUCTED.
 - THE CONTRACTOR SHOULD SWEEP THE PAVEMENT AT EXITS WHENEVER SOIL MATERIALS ARE TRACKED ONTO THE ADJACENT PAVEMENT OR TRAVELED WAY.
 - 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:**
- THE MINIMUM STONE USED SHOULD BE 3-INCH CRUSHED STONE.
 - 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.
 - THE PAD SHOULD BE THE FULL WIDTH OF CONSTRUCTION ACCESS ROAD OR 10 FEET, WHICHEVER IS GREATER.
 - THE PAD SHOULD SLOPE AWAY FROM THE EXISTING ROADWAY.
 - THE PAD SHOULD BE AT LEAST 6 INCHES THICK.
 - THE GEOTEXTILE FILTER FABRIC SHOULD BE PLACED BETWEEN THE STONE PAD AND THE EARTH SURFACE BELOW THE PAD.
 - 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.
 - 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:**
- EROSION CONTROL MIX BERMS SHOULD BE INSPECTED IMMEDIATELY AFTER EACH RAINFALL AND AT LEAST DAILY DURING PROLONGED RAINFALL.
 - EROSION CONTROL MIX BERMS SHOULD BE REPAIRED IMMEDIATELY IF THERE ARE ANY SIGNS OF EROSION OR SEDIMENTATION BELOW THEM.
 - 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).
 - SEDIMENT DEPOSITS SHOULD BE REMOVED AFTER EACH STORM EVENT.
 - SEDIMENT DEPOSITS MUST BE REMOVED WHEN DEPOSITS REACH APPROXIMATELY ONE THIRD (1/3) OF THE HEIGHT OF THE BARRIER.
 - EROSION CONTROL MIX BERMS SHOULD BE RESHAPED OR REAPPLIED AS NEEDED.
 - 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:**
- EROSION CONTROL MIX CAN BE MANUFACTURED ON OR OFF OF THE PROJECT SITE.
 - 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.
 - WOOD AND BARK CHIPS, GROUND CONSTRUCTION DEBRIS OR REPROCESSED WOOD PRODUCTS WILL NOT BE ACCEPTABLE AS THE ORGANIC COMPONENT OF THE MIX.
 - 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):**
- 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.
 - IN THE EVENT THAT USE OF CONTINUOUS CONTAINED BERM IS DESIRED, THE PRODUCT SELECTED SHOULD BE REVIEWED AND APPROVED BY THE DESIGN ENGINEER.
 - INSTALLATION OF CONTINUOUS CONTAINED BERMS SHALL BE PERFORMED IN ACCORDANCE WITH THE SPECIFICATIONS OF THE MANUFACTURER.

EROSION CONTROL MIX BERM DETAIL
NOT TO SCALE

WINTER STABILIZATION & CONSTRUCTION PRACTICES:

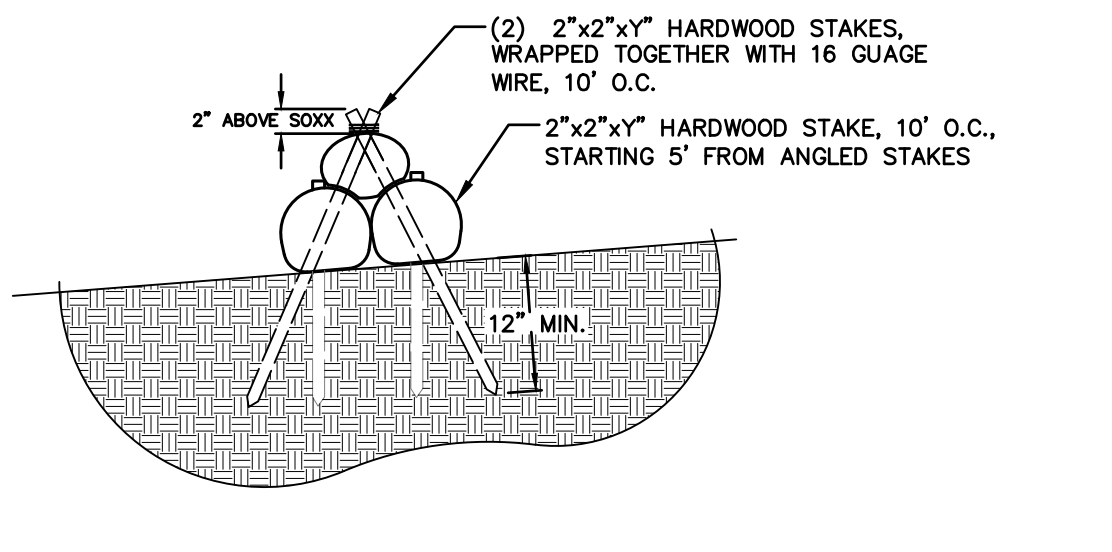
- MAINTENANCE REQUIREMENTS:**
- MAINTENANCE MEASURES SHOULD BE PERFORMED THROUGHOUT CONSTRUCTION, INCLUDING OVER THE WINTER PERIOD. AFTER EACH RAINFALL, SNOWSTORM, OR PERIOD OF THAWING AND RUNOFF, THE SITE CONTRACTOR SHOULD CONDUCT INSPECTION OF ALL INSTALLED EROSION CONTROL PRACTICES AND PERFORM REPAIRS AS NEEDED TO INSURE THEIR CONTINUED FUNCTION.
 - 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.
- THE AREA OF EXPOSED, UNSTABILIZED SOIL SHOULD BE LIMITED TO 1-ACRE AND SHOULD BE PROTECTED AGAINST EROSION BY THE METHODS DISCUSSED IN NHSM, 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:
 - 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 NHSM, VOL. 3 FOR SPECIFICATION).
 - 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.
 - ALL STONE COVERED SLOPES MUST BE CONSTRUCTED AND STABILIZED BY OCTOBER 15.
 - INSTALLATION OF ANCHORED HAY MULCH OR EROSION CONTROL MIX SHOULD NOT OCCUR OVER SNOW OF GREATER THAN 1 INCH IN DEPTH.
 - ALL MULCH APPLIED DURING WINTER SHOULD BE ANCHORED (I.E. BY NETTING, TRACKING, WOOD CELLULOSE FIBER).
 - 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.
 - 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.
 - INSTALLATION OF EROSION CONTROL BLANKETS SHOULD NOT OCCUR OVER SNOW OF GREATER THAN 1 INCH IN DEPTH OR ON FROZEN GROUND.
 - 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.
 - ALL STONE LINED DITCHES AND CHANNELS MUST BE CONSTRUCTED AND STABILIZED BY OCTOBER 15.
 - 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.
 - 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 EMBODMENT OF THESE BARRIERS.

- DUST CONTROL PRACTICES:**
- APPLY DUST CONTROL MEASURES AS NECESSARY TO MAINTAIN CONTROL OF DUST ON SITE.
 - 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.
 - STONE APPLICATION:**
A) COVER SURFACE WITH CRUSHED OR COARSE GRAVEL.
B) IN AREAS NEAR WATERWAYS USE ONLY CHEMICALLY STABILIZED OR WASHED AGGREGATE.
 - 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.)

DUST CONTROL PRACTICES:

- 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://encourc.state.nh.us/rules/state_agencies/agr3800.html



SILT SOCK PYRAMIND STACK DETAIL
NOT TO SCALE

GENERAL CONSTRUCTION PHASING:

- 1. STABILIZATION:**
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:
- 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.
 - 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.**
- FLAG OR OTHERWISE DELINEATE AREAS NOT TO BE DISTURBED.
 - EXCLUDE VEHICLES AND CONSTRUCTION EQUIPMENT FROM THESE AREAS TO PRESERVE NATURAL VEGETATION.

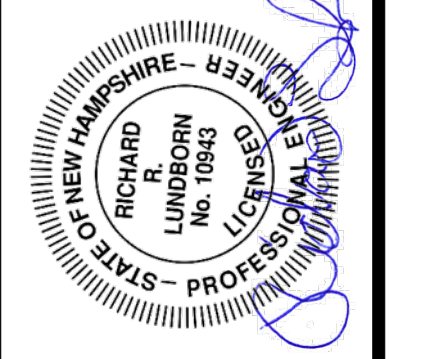
- ALL GRADED OR DISTURBED AREAS INCLUDING SLOPES SHOULD BE PROTECTED DURING CLEARING AND CONSTRUCTION IN ACCORDANCE WITH THE APPROVED EROSION AND SEDIMENT CONTROL PLAN DEPICTED ON GRADING PLANS.
- ALL EROSION AND SEDIMENT CONTROL PRACTICES AND MEASURES SHOULD BE CONSTRUCTED, APPLIED AND MAINTAINED IN ACCORDANCE WITH THE APPROVED EROSION AND SEDIMENT CONTROL PLAN DEPICTED ON GRADING PLANS.
- TOPSOIL REQUIRED FOR THE ESTABLISHMENT OF VEGETATION SHOULD BE STOCKPILED IN THE AMOUNT NECESSARY TO COMPLETE FINISHED GRADING AND BE PROTECTED FROM EROSION.
- SLOPES SHOULD NOT BE CREATED SO CLOSE TO PROPERTY LINES AS TO ENDANGER ADJOINING PROPERTY WITHOUT ADEQUATE PROTECTION AGAINST SEDIMENTATION, EROSION, SLIPPAGE, SETTLEMENT, SUBSIDENCE OR OTHER RELATED DAMAGE.
- AREAS TO BE FILLED SHOULD BE CLEARED, GRUBBED AND STRIPPED OF TOPSOIL TO REMOVE TREES, VEGETATION, ROOTS AND/OR OTHER OBJECTIONABLE MATERIALS.
- 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.
- 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.
- 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.
- 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 LISTS.
- 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.
- 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 NHSM, VOL.3.
- ROUGHEN THE SURFACE OF ALL SLOPES DURING THE CONSTRUCTION OPERATION TO RETAIN WATER, INCREASE INFILTRATION AND FACILITATE VEGETATION ESTABLISHMENT.
- 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.
- 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.
- 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.
- ALL GRADED AREAS SHOULD BE PERMANENTLY STABILIZED IMMEDIATELY FOLLOWING FINISHED GRADING.

SOIL STOCKPILE PRACTICES:

- LOCATE STOCKPILES A MINIMUM OF 50-FT. AWAY FROM CONCENTRATED FLOWS OF STORMWATER, DRAINAGE COURSES OR INLETS.
- PROTECT ALL STOCKPILES FROM STORMWATER RUN-ON USING TEMPORARY PERIMETER MEASURES SUCH AS DIVERSIONS, BERMS, SANDBAGS OR OTHER APPROVED PRACTICES.
- STOCKPILES SHOULD BE SURROUNDED BY SEDIMENT BARRIERS AS DESCRIBED ON THE PLANS AND IN NHSM VOL. 3. TO PREVENT MIGRATION OF MATERIAL BEYOND THE IMMEDIATE CONFINES OF THE STOCKPILE.
- IMPLEMENT WIND EROSION CONTROL PRACTICES AS APPROPRIATE ON ALL STOCKPILED MATERIAL.
- PLACE BAGGED MATERIALS ON PALLETS OR UNDERCOVER.
- PROTECTION OF INACTIVE STOCKPILES:**
8. 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.
- 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.
- WHEN A STORM IS PREDICTED, STOCKPILES SHOULD BE PROTECTED WITH AN ANCHORED PROTECTIVE COVERING.

SOIL STOCKPILE PRACTICES:

NO.	DATE	DESCRIPTION	DESIGNER/REVIEWER
1.			
2.			
3.			
4.			
5.			



SCALE:	HORIZ: NTS	VERT: NTS
DATUM:	HORIZ: NTS	VERT: NTS
GRAPHIC SCALE:	0	

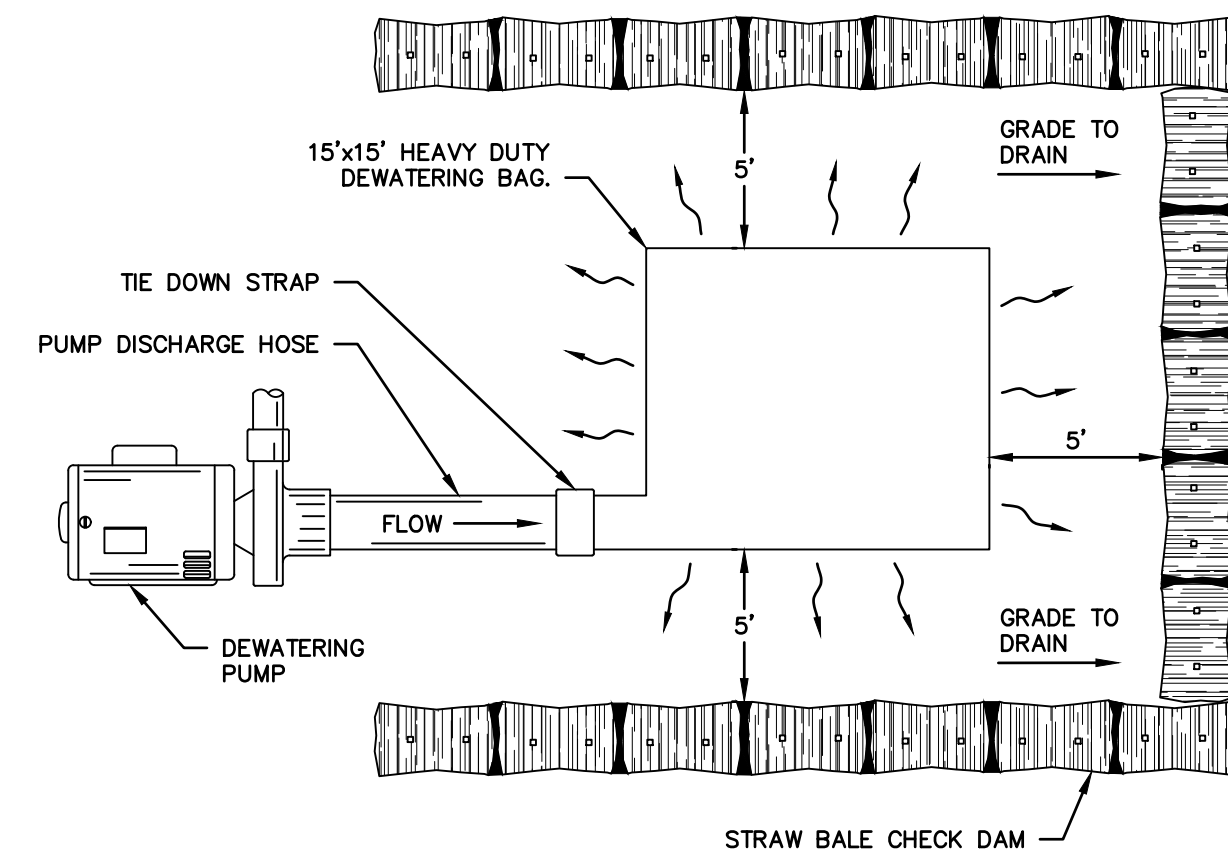
FUSS & O'NEILL
UPPER SQUARE BUSINESS CENTER
5 FLETCHER STREET, SUITE 1
KENNEBUNK, MAINE 04043
207.563.0669
www.fandoo.com

CATE STREET DEVELOPMENT, LLC
EROSION CONTROL DETAILS
CATE STREET
PORTSMOUTH
NEW HAMPSHIRE

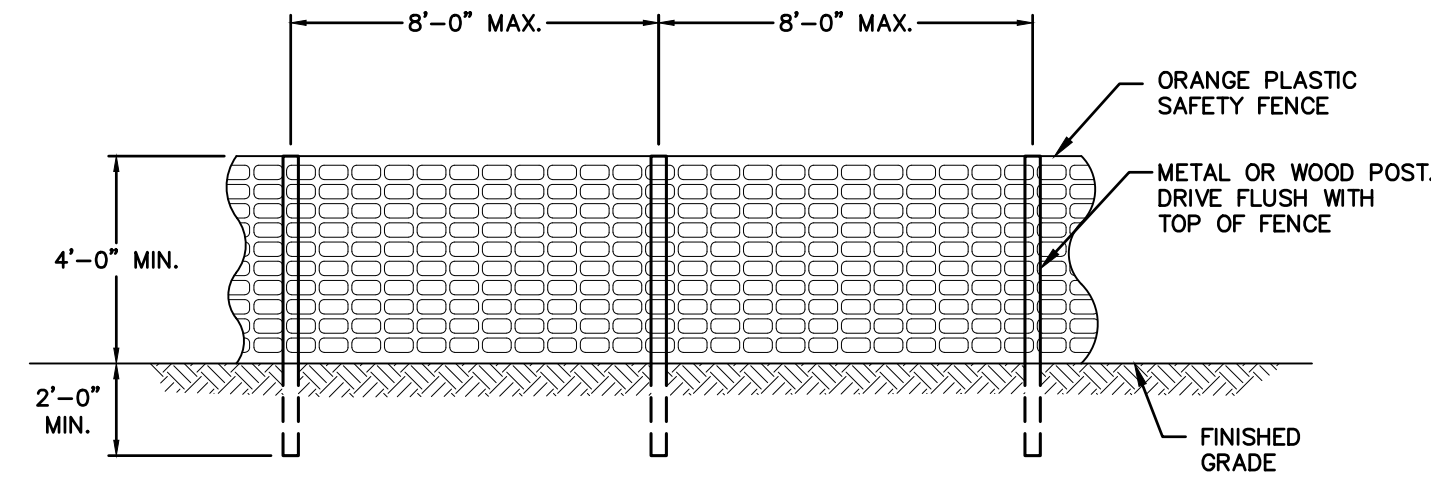
PROJ. No.: 20180317.A10
DATE: 08/19/2019

CD-560

File Path: F:\P20180317A10\CH3\DWG\20180317A10_DET01-RDWY.dwg Layout: CD-562-ECP Plotted: Mon, August 19, 2019 - 11:03 AM User: ddigal
 MS VIEW: PLOTTER: DWG TO PDF-PC3 CTB File: FO-STB

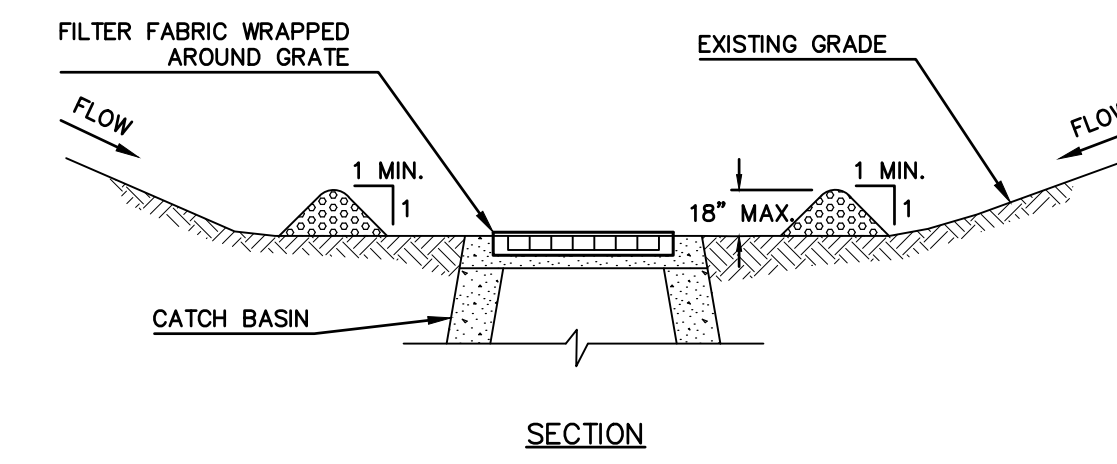
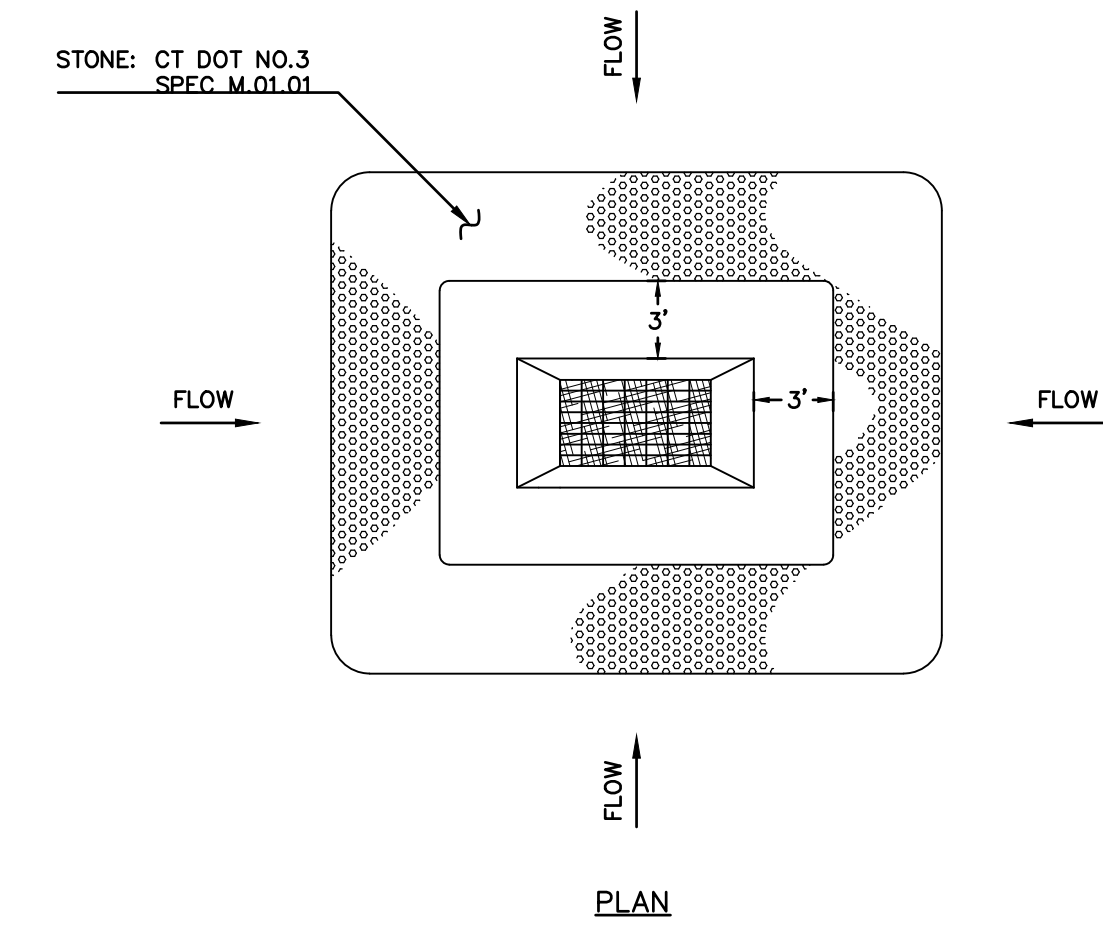


DEWATERING BAG
NOT TO SCALE

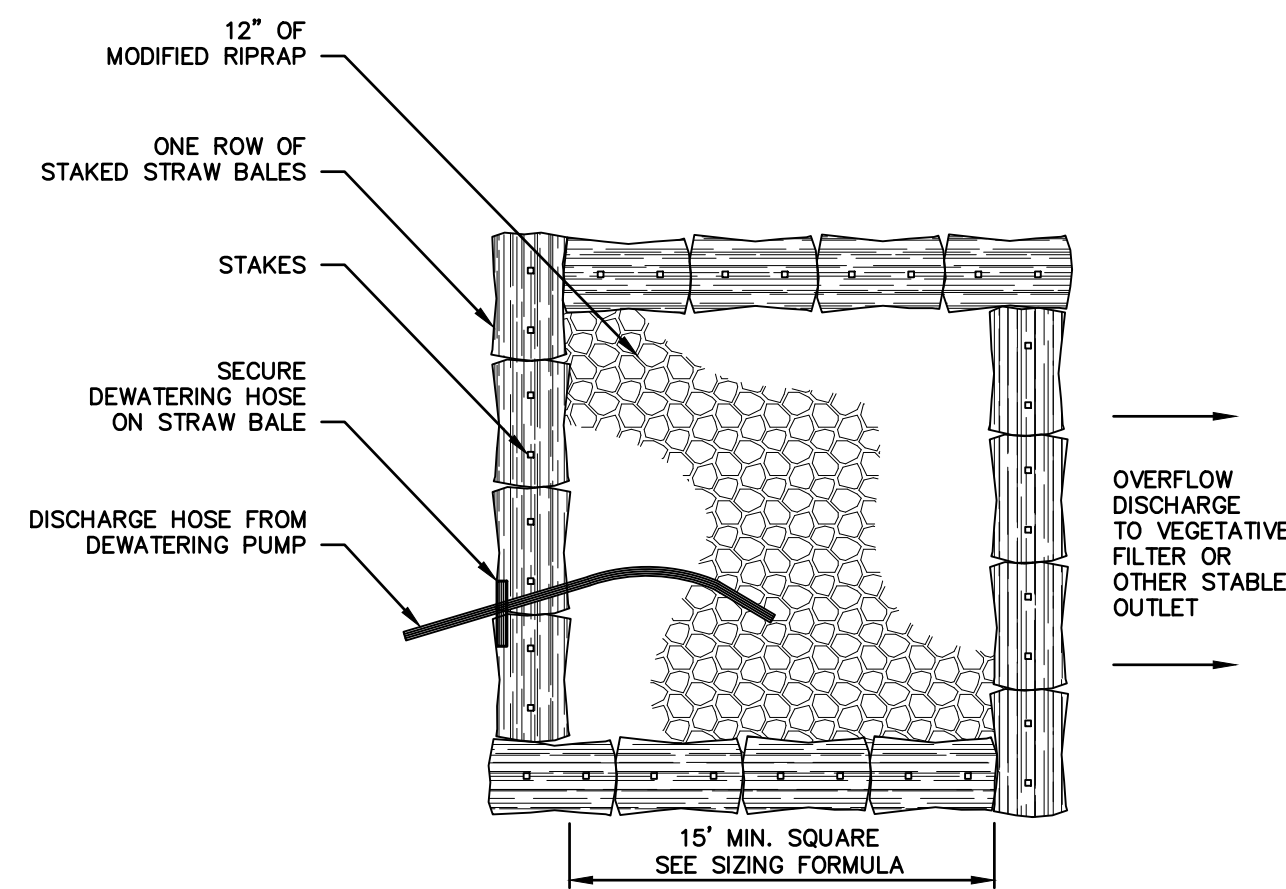


FOR TREE PROTECTION FENCE SHALL BE PLACED AT DRIPLINE OF TREES.

PROTECTIVE SAFETY FENCE
SCALE: N.T.S.



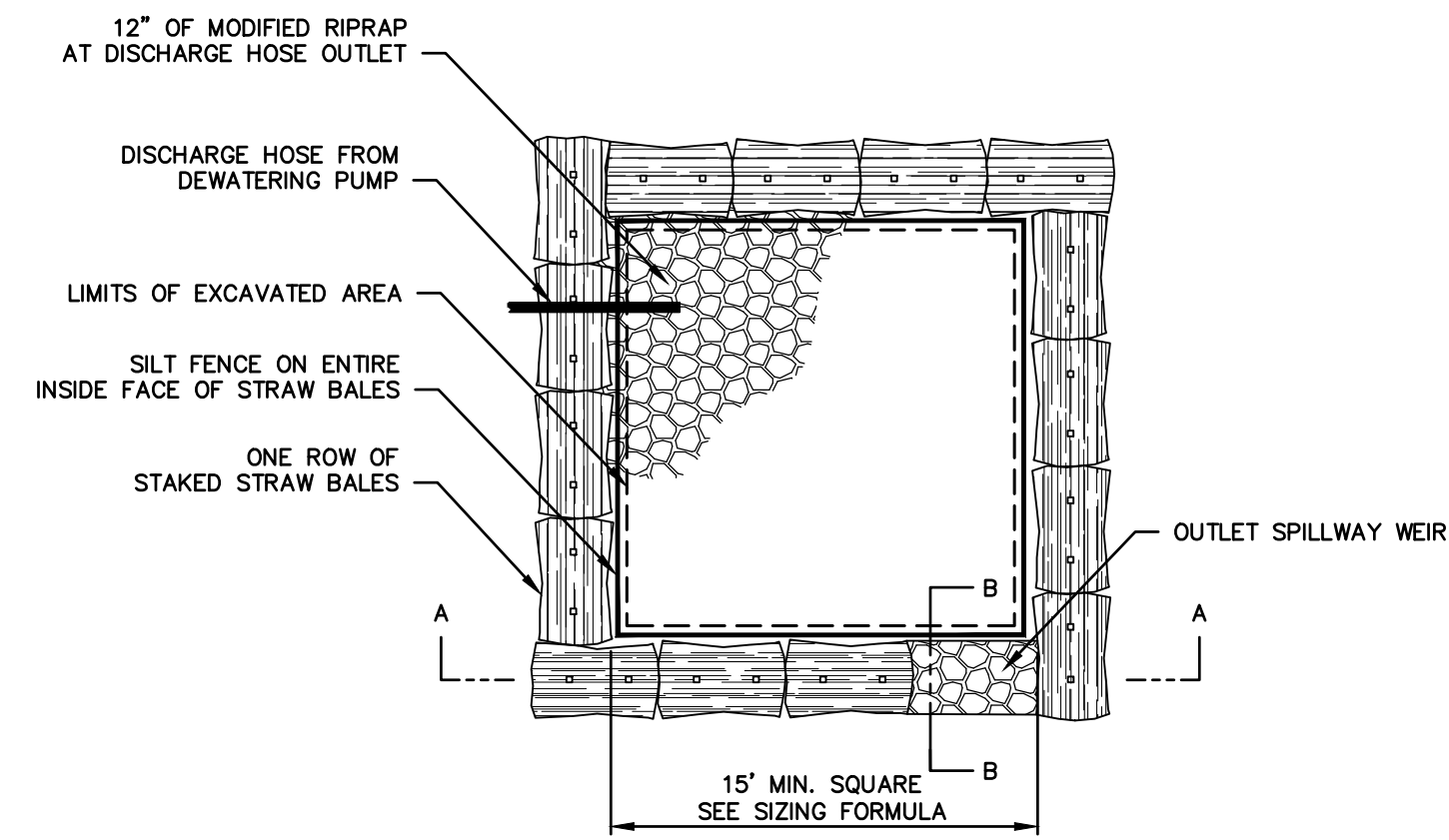
LOW POINT STONE CHECK DAM
NOT TO SCALE



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

PLAN

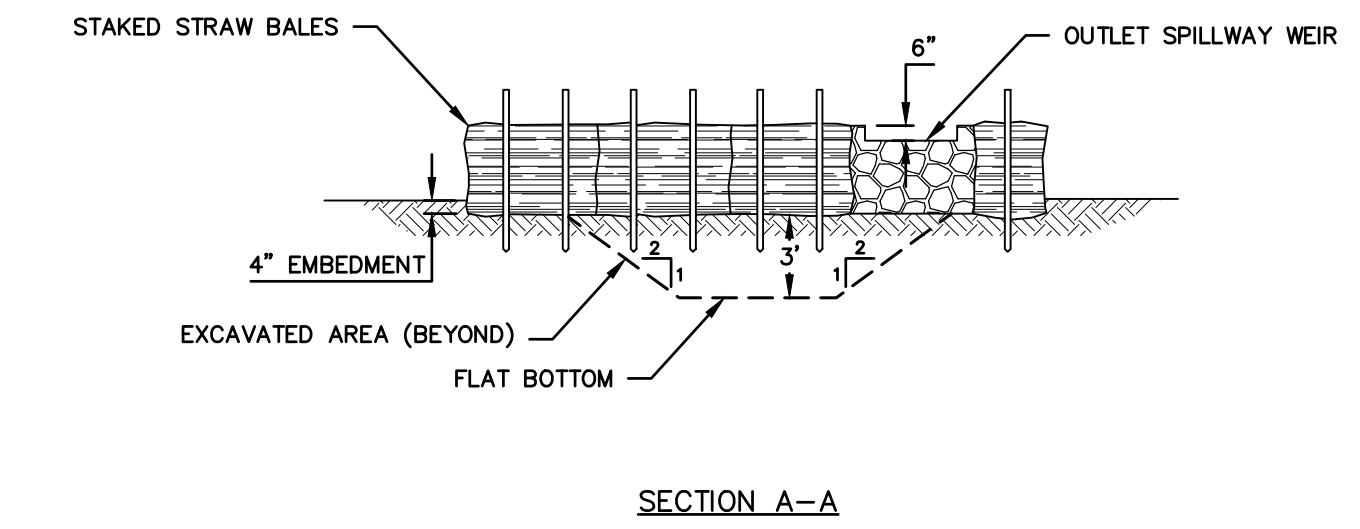
PUMP SETTLING BASIN TYPE I
NOT TO SCALE



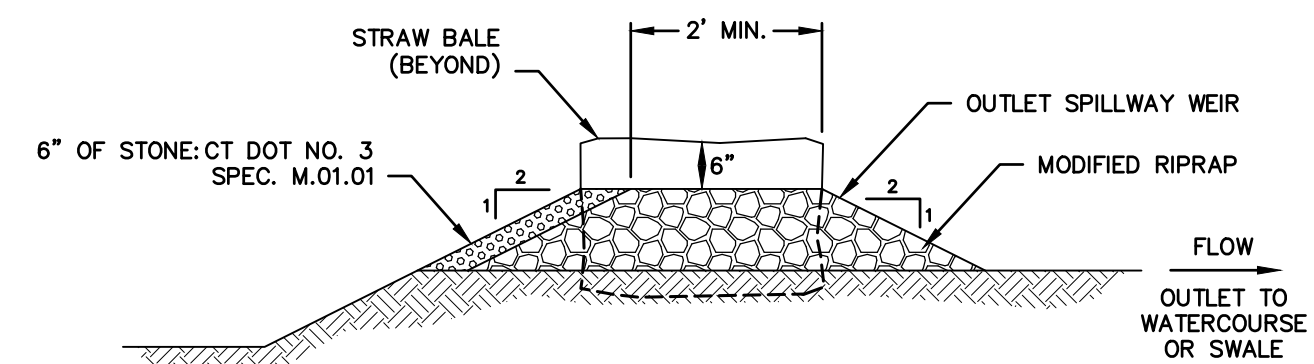
SIZING FORMULA:
CUBIC FT. OF REQUIRED STORAGE = PUMP DISCHARGE RATE (GPM) x 16

PLAN

PUMP SETTLING BASIN TYPE II
NOT TO SCALE

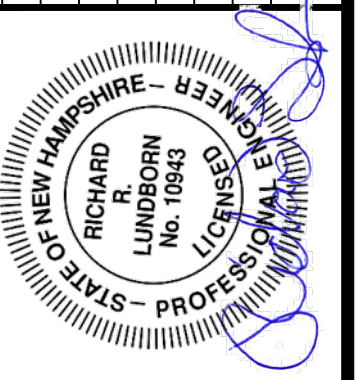


SECTION A-A



SECTION B-B

No.	DATE	DESCRIPTION	DESIGNER/REVIEWER
5.	8/19/2019	TAC SUBMITTAL	JVA/DAD RRL
4.	7/24/2019	TAC SUBMITTAL	JVA/DAD RRL
3.	6/20/2019	TAC SUBMITTAL	JVA/DAD RRL
2.	5/20/2019	TAC SUBMITTAL	JVA/DAD RRL
1.	3/18/2019	TAC SUBMITTAL	JVA/DAD RRL



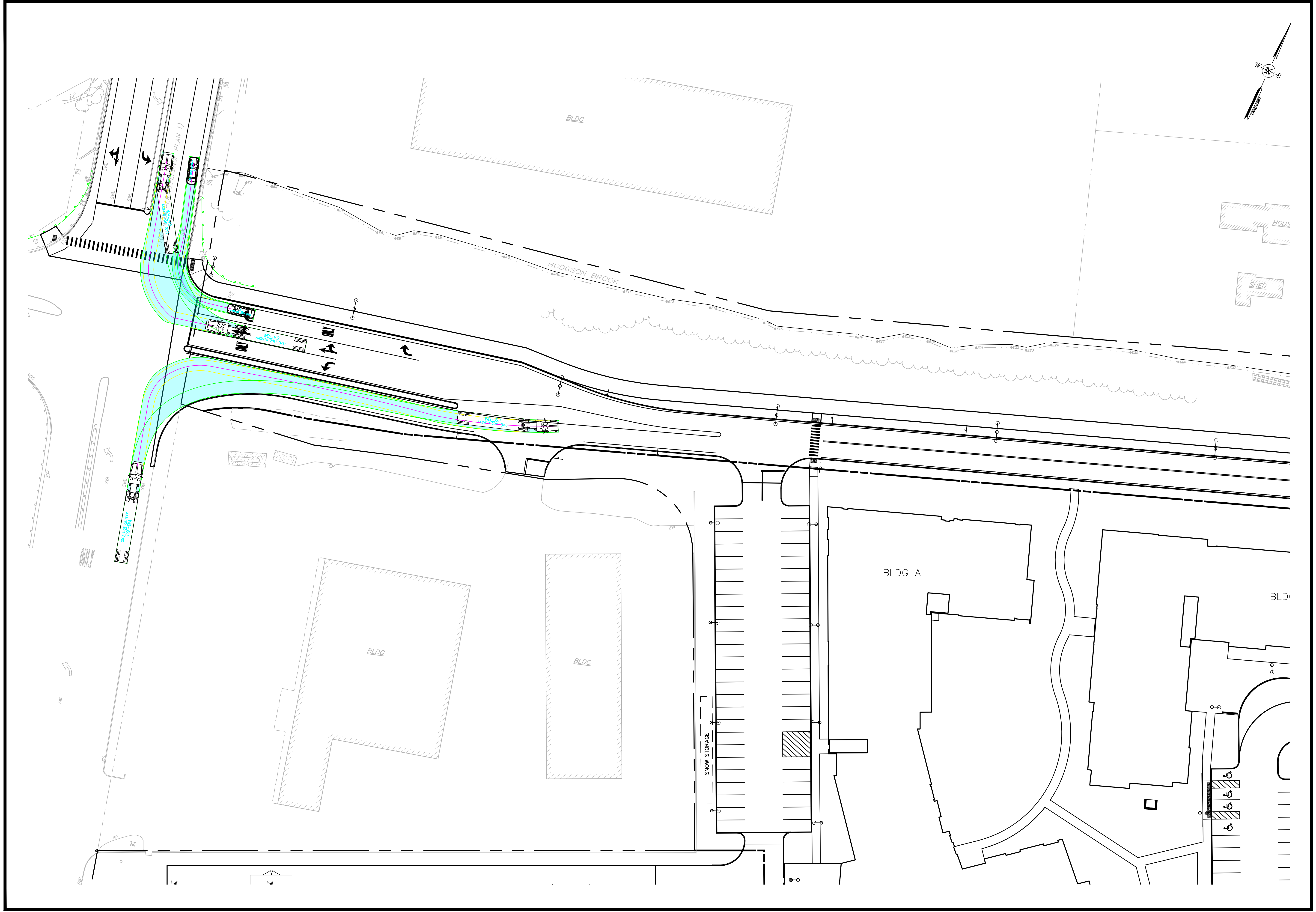
SCALE:	HORIZ.: NTS	VERT.: NTS
DATUM:		
GRAPHIC SCALE		

FUSS & O'NEILL
 UPPER SQUARE BUSINESS CENTER
 5 FLETCHER STREET, SUITE 1
 KENNEBUNK, MAINE 04043
 207.563.0609
 www.fandoc.com

CATE STREET DEVELOPMENT, LLC
EROSION CONTROL DETAILS
 CATE STREET
 PORTSMOUTH NEW HAMPSHIRE

PROJ. No.: 20180317.A10
 DATE: 08/19/2019

CD-562

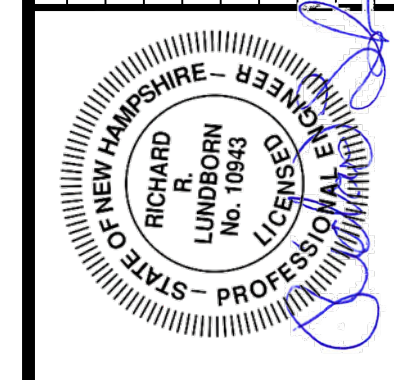


CT-101

CATE STREET DEVELOPMENT, LLC
**WB-62 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
 www.fandoo.com

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



No.	DATE	DESCRIPTION	DESIGNER REVIEWER
5.	8/19/2019	TAC SUBMITTAL	RRL
4.	7/24/2019	TAC SUBMITTAL	RRL
3.	6/20/2019	TAC SUBMITTAL	RRL
2.	5/20/2019	TAC SUBMITTAL	RRL
1.	3/18/2019	TAC SUBMITTAL	RRL

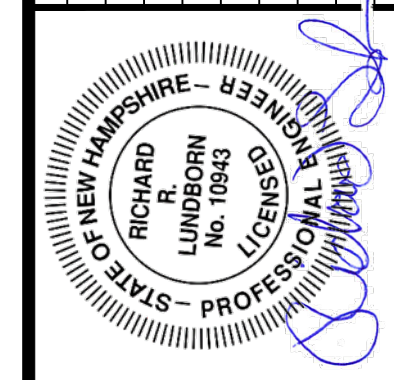


CT-102

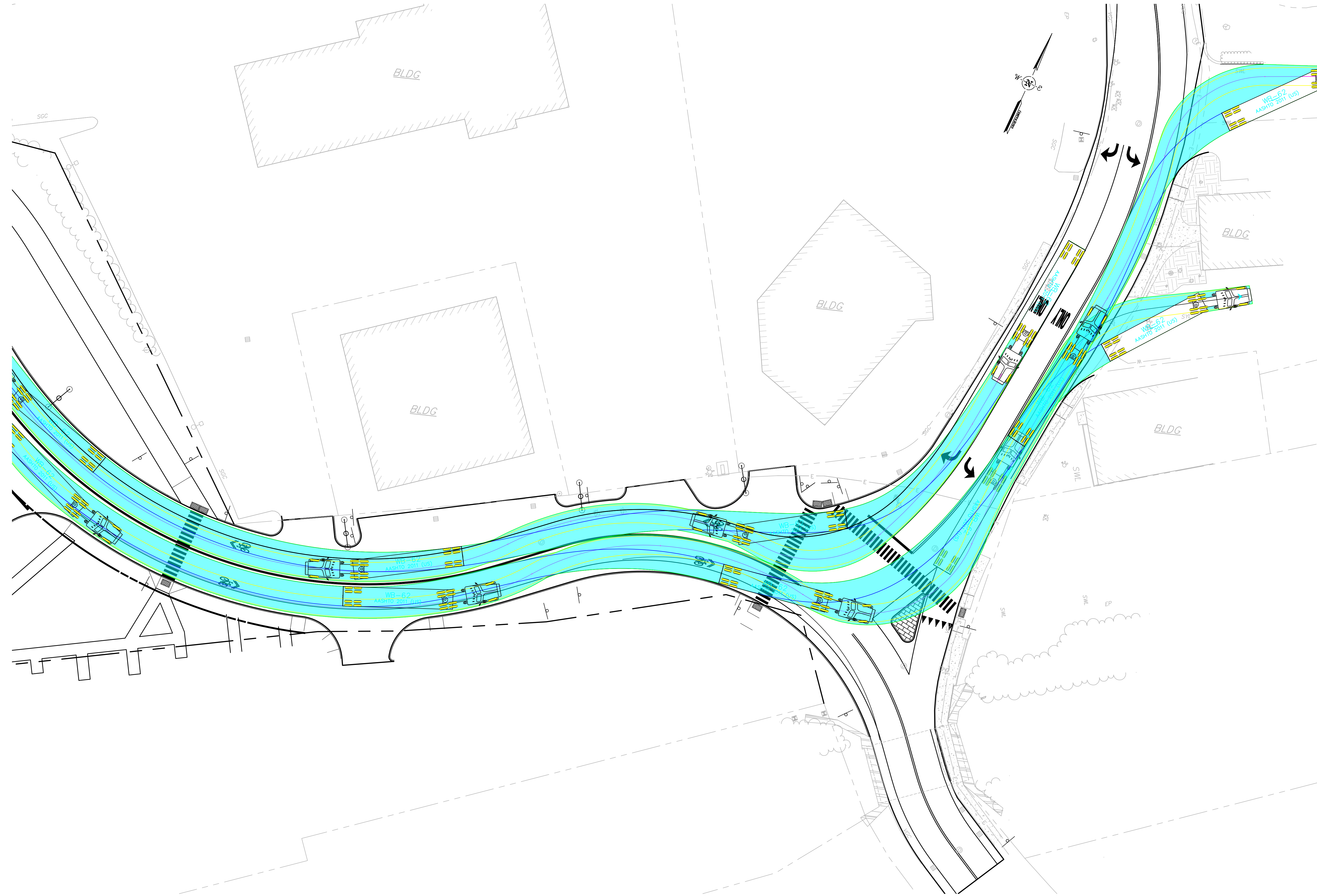
CATE STREET DEVELOPMENT, LLC
**WB-62 TRUCK
 TURNING MOVEMENTS**
 CATE STREET/WEST END YARDS
 PORTSMOUTH NEW HAMPSHIRE

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

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



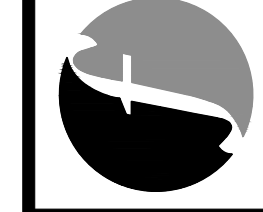
No.	DATE	DESCRIPTION	DESIGNER REVIEWER
5.	8/19/2019	TAC SUBMITTAL	JVA/DAD
4.	7/24/2019	TAC SUBMITTAL	JVA/DAD
3.	6/20/2019	TAC SUBMITTAL	JVA/DAD
2.	5/20/2019	TAC SUBMITTAL	JVA/DAD
1.	3/18/2019	TAC SUBMITTAL	JVA/DAD



CT-103

PROJ. No.: 20180317.A10
 DATE: 08/19/2019

CATE STREET DEVELOPMENT, LLC
WB-62 TRUCK
TURNING MOVEMENTS
 CATE STREET/WEST END YARDS
 PORTSMOUTH NEW HAMPSHIRE

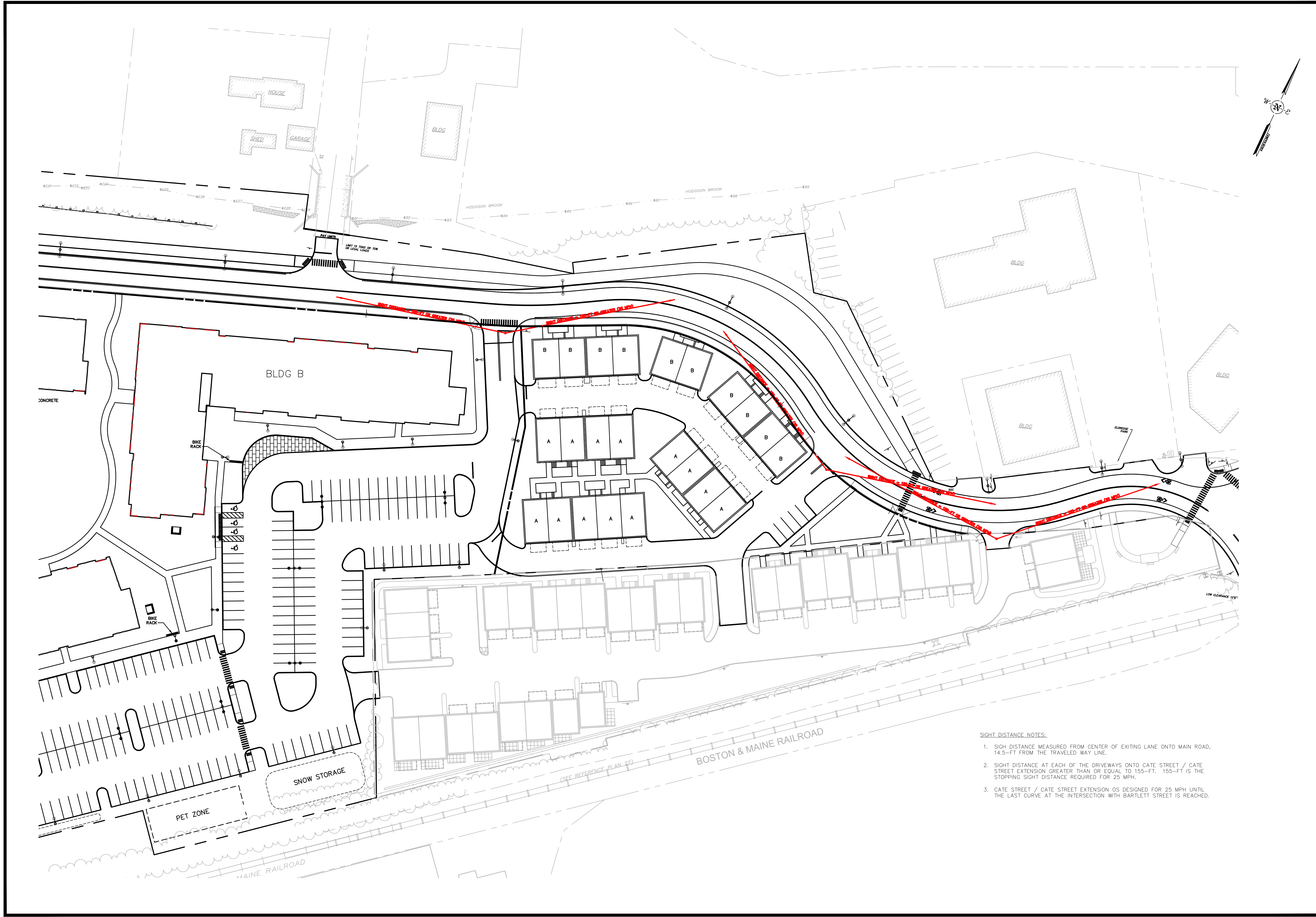


FUSS & O'NEILL
 UPPER SQUARE BUSINESS CENTER
 5 FLETCHER STREET, SUITE 1
 KENNEBUNK, MAINE 04043
 207.563.0609
 www.fandoo.com

SCALE: HORZ.: 1"=20'
 VERT.: 1"=20'
 DATUM: HORZ.: NAD83
 VERT.: NGVD29
 20 10 0 20
 GRAPHIC SCALE

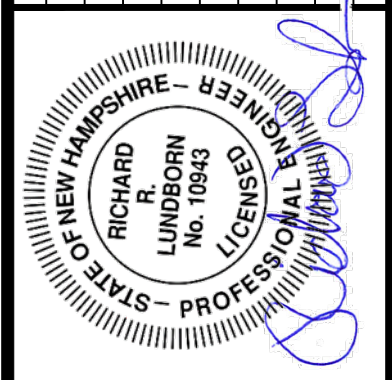


No.	DATE	DESCRIPTION	DESIGNER REVIEWER
5.	8/19/2019	TAC SUBMITTAL	JVA/DAD RRL
4.	7/24/2019	TAC SUBMITTAL	JVA/DAD RRL
3.	6/20/2019	TAC SUBMITTAL	JVA/DAD RRL
2.	5/20/2019	TAC SUBMITTAL	JVA/DAD RRL
1.	3/18/2019	TAC SUBMITTAL	JVA/DAD RRL



- SIGHT DISTANCE NOTES:**
1. SIGHT DISTANCE MEASURED FROM CENTER OF EXITING LANE ONTO MAIN ROAD, 14.5-FT FROM THE TRAVELED WAY LINE.
 2. SIGHT DISTANCE AT EACH OF THE DRIVEWAYS ONTO CATE STREET / CATE STREET EXTENSION GREATER THAN OR EQUAL TO 155-FT. 155-FT IS THE STOPPING SIGHT DISTANCE REQUIRED FOR 25 MPH.
 3. CATE STREET / CATE STREET EXTENSION OS DESIGNED FOR 25 MPH UNTIL THE LAST CURVE AT THE INTERSECTION WITH BARTLETT STREET IS REACHED.

No.	DATE	DESCRIPTION	DESIGNER REVIEWER
5.	8/19/2019	TAC SUBMITTAL	RRL
4.	7/24/2019	TAC SUBMITTAL	RRL
3.	6/20/2019	TAC SUBMITTAL	RRL
2.	5/20/2019	TAC SUBMITTAL	RRL
1.	3/18/2019	TAC SUBMITTAL	RRL

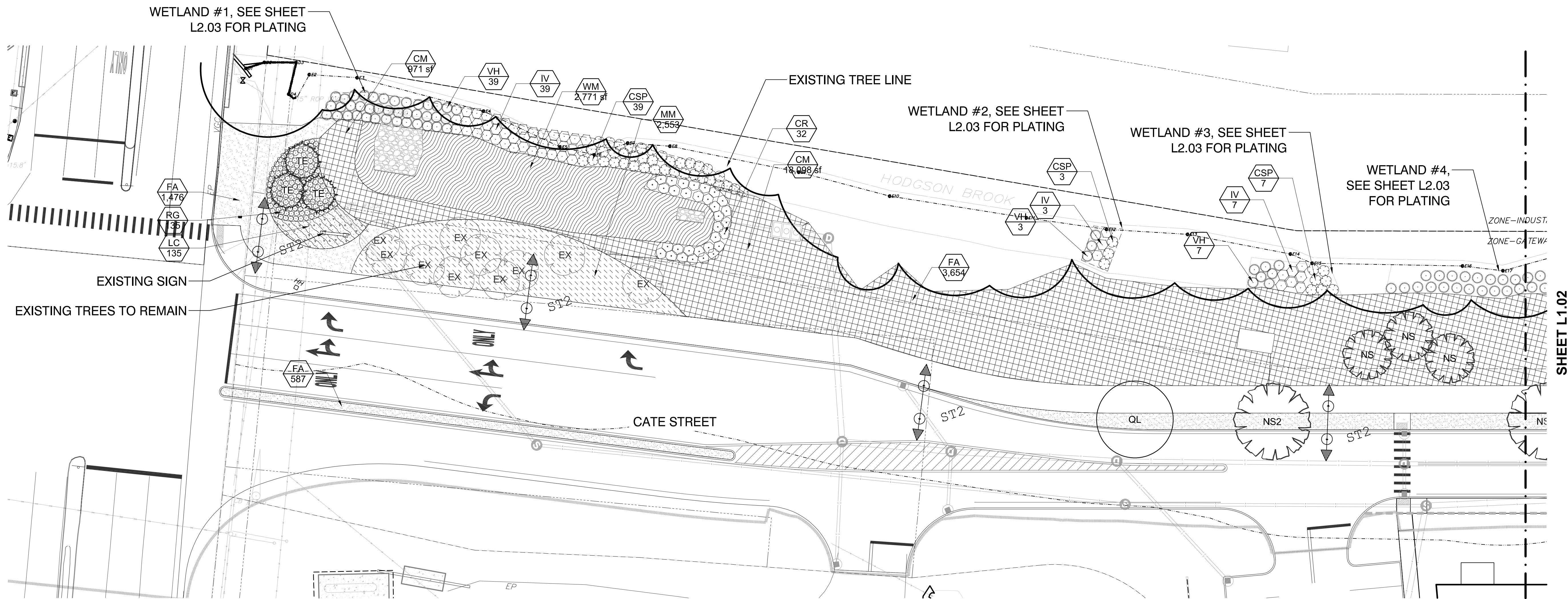


SCALE:	HORIZ.: 1"=20'
	VERT.: 1"=20'
DATUM:	HORIZ.: NAD83
	VERT.: NGVD29
	20 10 0 20
	GRAPHIC SCALE

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

CATE STREET DEVELOPMENT, LLC
SIGHT DISTANCE
 CATE STREET / WEST END YARDS
 PORTSMOUTH NEW HAMPSHIRE

PROJ. No.: 20180317.A10
 DATE: 08/19/2019
CT-104

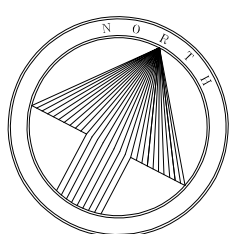
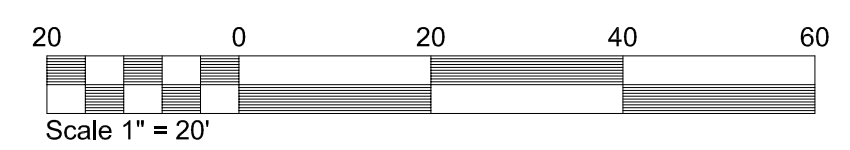
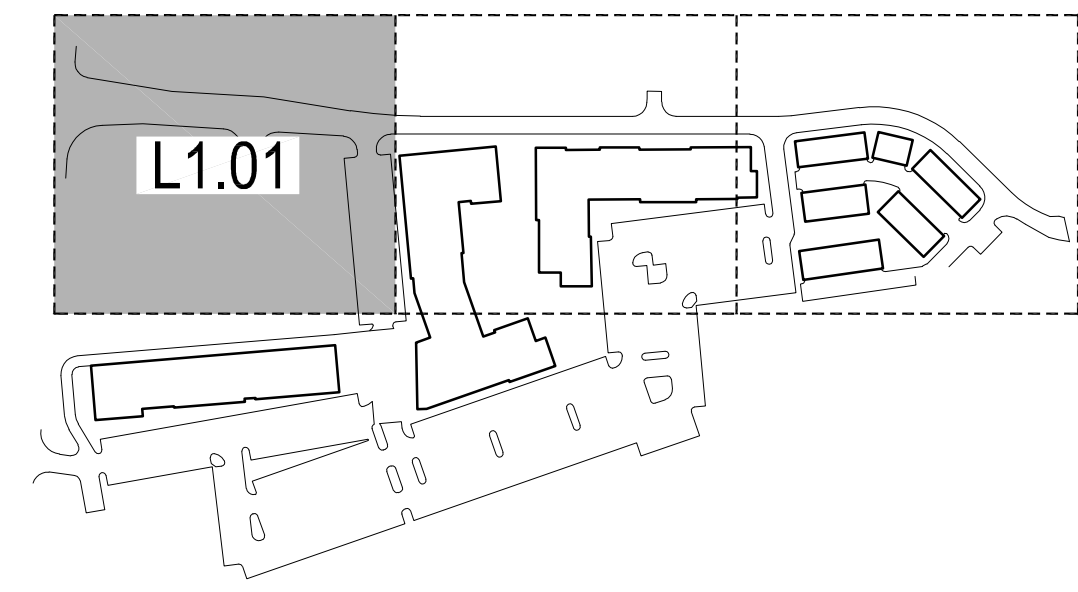


SHEET L1.02

CATE STREET
PREPARED FOR
CATE STREET DEVELOPMENT LLC

PLANT SCHEDULE CATE STREET						
TREES	QTY	BOTANICAL / COMMON NAME	SIZE	ROOT	SPACING	REMARKS
AR	12	Acer rubrum / Red Maple	8 - 10' HT, #10		As Shown	
BN	3	Betula nigra / River Birch Multi-Trunk	2.5" cal.			
NS	6	Nyssa sylvatica / Sour Gum	1.5" cal.	B & B		
NSZ	9	Nyssa sylvatica / Sour Gum	3" cal.	B & B		
QL	8	Quercus robur x bicolor "Long" / Regal Prince Oak	3" cal.	B & B		
TE	5	Thuja occidentalis "Emerald" / Emerald Arborvitae	6" min.	B & B	6' hgt.	
SHRUBS	QTY	BOTANICAL / COMMON NAME	CONTAINER	MIN. SIZE	SPACING	REMARKS
CA	38	Clethra alnifolia / Summersweet Clethra	1 gal		36" o.c.	
CR	73	Cornus sericea / Red Twig Dogwood	1 gal		48" o.c.	
CS	83	Clethra alnifolia "Ruby Spice" / Ruby Spice Clethra	3 gal		3" o.c.	
CSP	81	Clethra alnifolia / Sweet Pepper Clethra	3 gal		4" o.c.	
HA	86	Hydrangea arborescens / Wild Hydrangea	3 gal		4" o.c.	
IG	68	Ilex glabra / Inkberry Holly	3 gal		3" o.c.	
IV	81	Ilex verticillata / Winterberry	2 gal.		4" o.c.	
IW	87	Ilex verticillata / Winterberry	1 gal		42" o.c.	
MP	34	Myrica pensylvanica / Northern Bayberry	3 gal		36" o.c.	
RG	135	Rhus aromatica "Gro-Low" / Gro-Low Fragrant Sumac	3 gal.		24" o.c.	
VH	135	Vaccinium corymbosum / Highbush Blueberry	2 gal.		4" o.c.	
GROUND COVERS	QTY	BOTANICAL / COMMON NAME	CONTAINER	MIN. SIZE	SPACING	REMARKS
CM	29,688 sf	Conservation Seed Mix / Conservation Seed	SF			Hydroseed
FA	13,198	Festuca arundinacea / Tall Fescue Seed Mix	SF			
LC	135	Liriope spicata / Creeping Lily Turf	1 gal.		18" o.c.	
MM	2,425	Mulch / Hardwood Mulch	SF		12" o.c.	
WM	4,712 sf	Wetland Seed Mix / Wetland Seed	SF			Hydroseed

- NOTE:**
- REFER TO SHEET L2.03 FOR INFORMATION REGARDING THE INVASIVE SPECIES REMOVAL.
 - ALL LANDSCAPING WILL BE INSTALLED PER DEPARTMENT STANDARDS. A PRE-PLANTING MEETING WILL BE HELD. CONTACT CORIN HALLOWELL @ 766-1329.



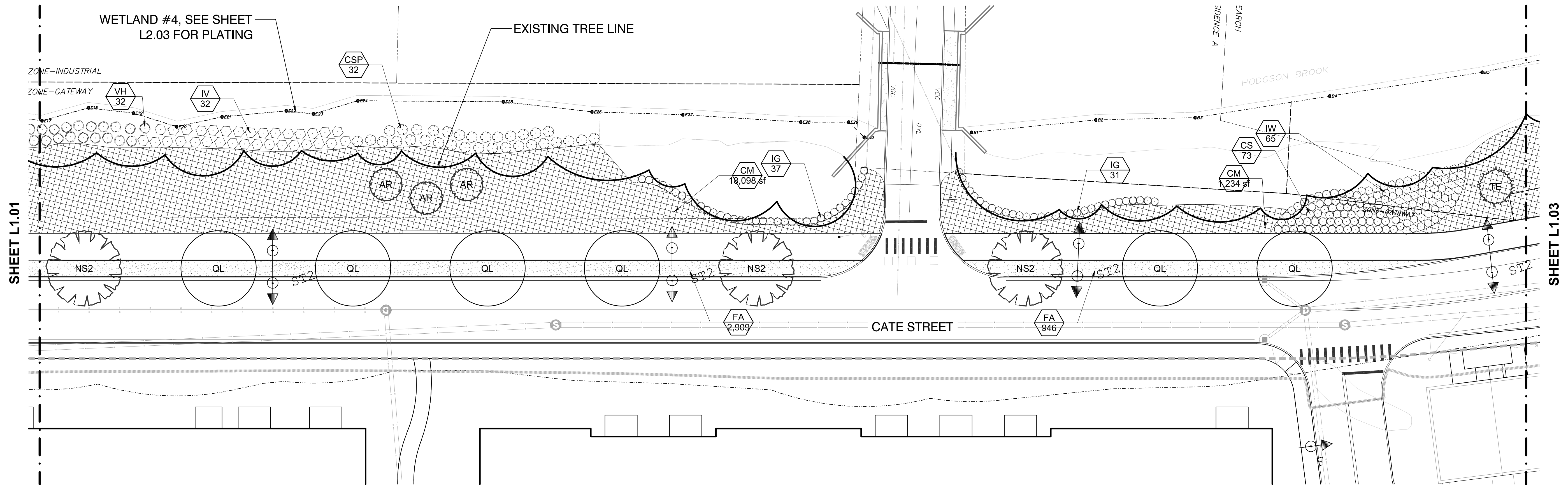
SHEET STATUS			
MARK	DATE	BY	RELEASE
A	03/18/2019	SS	TAC SUBMITTAL
B	05/20/2019	SS	TAC RE-SUBMITTAL
C	08/20/2019	SS	TAC RE-SUBMITTAL
D	07/24/2019	JM	TAC RE-SUBMITTAL

SHEET TITLE:
LANDSCAPE PLAN

PROJECT NUMBER:
18041.00

L1.01

DATE: 03.18.2019
PERMIT ISSUE



NOTE: FOR AREA OF INVASIVE SPECIES REMOVAL,
SEE DETAIL SHEET L2.03 FOR PLANT LIST

PLANT SCHEDULE CATE STREET						
TREES	QTY	BOTANICAL / COMMON NAME	SIZE	ROOT	SPACING	REMARKS
AR	12	Acer rubrum / Red Maple	8 - 10' HT, #10		As Shown	
BN	3	Betula nigra / River Birch Multi-Trunk	2.5" cal.			
NS	6	Nyssa sylvatica / Sour Gum	1.5" cal.	B & B		
NS2	9	Nyssa sylvatica / Sour Gum	3" cal.	B & B		
QL	8	Quercus robur x bicolor "Long" / Regal Prince Oak	3" cal.	B & B		
TE	5	Thuja occidentalis "Emerald" / Emerald Arborvitae	6' min.	B & B	6' hgt.	
SHRUBS	QTY	BOTANICAL / COMMON NAME	CONTAINER	MIN. SIZE	SPACING	REMARKS
CA	38	Clethra alnifolia / Summersweet Clethra	1 gal		36" o.c.	
CR	73	Cornus sericea / Red Twig Dogwood	1 gal		48" o.c.	
CS	83	Clethra alnifolia "Ruby Spice" / Ruby Spice Clethra	3 gal		3' o.c.	
CSP	81	Clethra alnifolia / Sweet Pepper Clethra	3 gal		4' o.c.	
HA	86	Hydrangea arborescens / Wild Hydrangea	3 gal		4' o.c.	
IG	68	Ilex glabra / Inkberry Holly	3 gal		3' o.c.	
IV	81	Ilex verticillata / Winterberry	2 gal.		4' o.c.	
IW	87	Ilex verticillata / Winterberry	1 gal		42" o.c.	
MP	34	Myrica pensylvanica / Northern Bayberry	3 gal		36" o.c.	
RG	135	Rhus aromatica "Gro-Low" / Gro-Low Fragrant Sumac	3 gal.		24" o.c.	
VH	135	Vaccinium corymbosum / Highbush Blueberry	2 gal.		4' o.c.	
GROUND COVERS	QTY	BOTANICAL / COMMON NAME	CONTAINER	MIN. SIZE	SPACING	REMARKS
CM	29,688 sf	Conservation Seed Mix / Conservation Seed	SF			Hydroseed
FA	13,198	Festuca arundinacea / Tall Fescue Seed Mix	SF			
LC	135	Liriope spicata / Creeping Lily Turf	1 gal.		18" o.c.	
MM	2,425	Mulch / Hardwood Mulch	SF		12" o.c.	
WM	4,712 sf	Wetland Seed Mix / Wetland Seed	SF			Hydroseed

CATE STREET
PREPARED FOR
CATE STREET DEVELOPMENT LLC

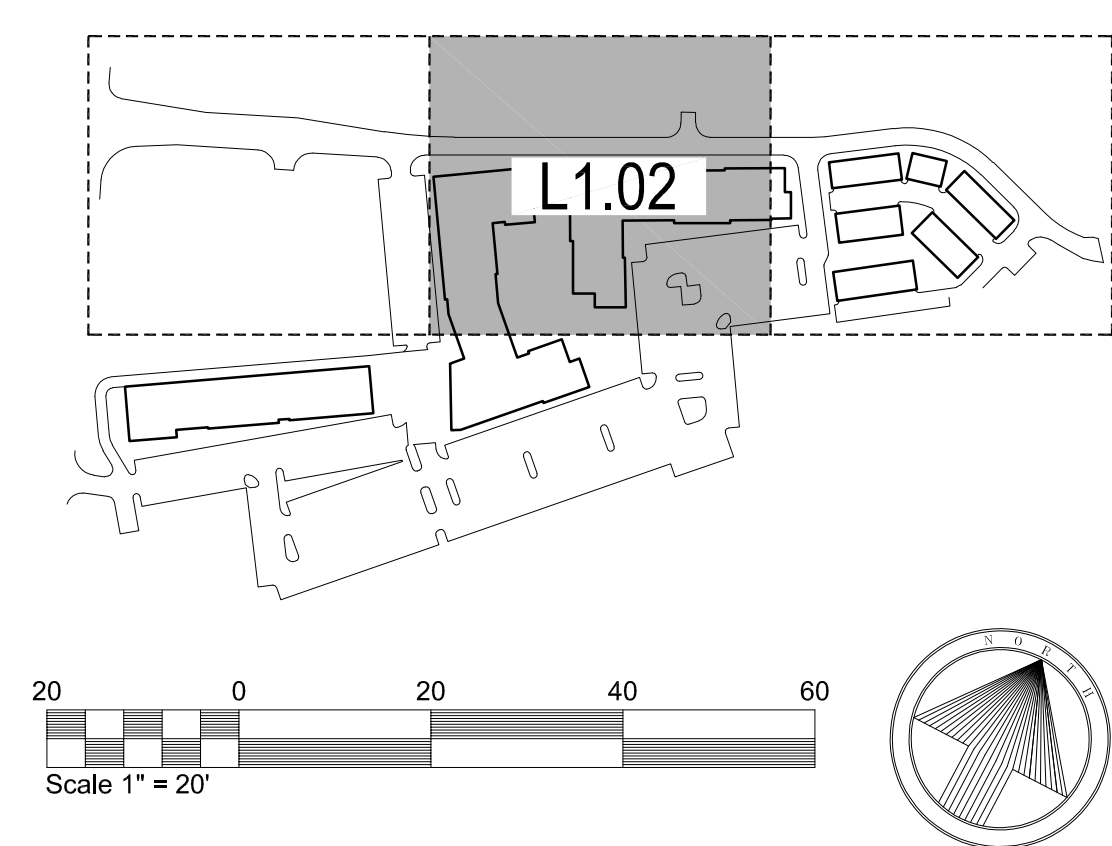
SHEET STATUS			
MARK	DATE	BY	RELEASE
A	03/18/2019	SS	TAC SUBMITTAL
B	05/20/2019	SS	TAC RE-SUBMITTAL
C	08/20/2019	SS	TAC RE-SUBMITTAL
D	07/24/2019	JM	TAC RE-SUBMITTAL

SHEET TITLE:
LANDSCAPE PLAN

PROJECT NUMBER:
18041.00

L1.02

DATE: 03.18.2019
PERMIT ISSUE



CATE STREET
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	08/20/2019	SS	TAC RE-SUBMITTAL
D	07/24/2019	JM	TAC RE-SUBMITTAL

SHEET TITLE:

**STREAM
BUFFER
PLAN**

PROJECT NUMBER:

18041.00

L1.03

DATE: 03.18.2019

PERMIT ISSUE



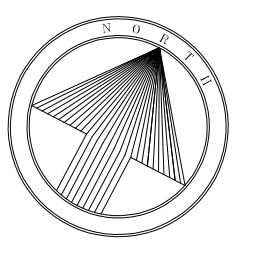
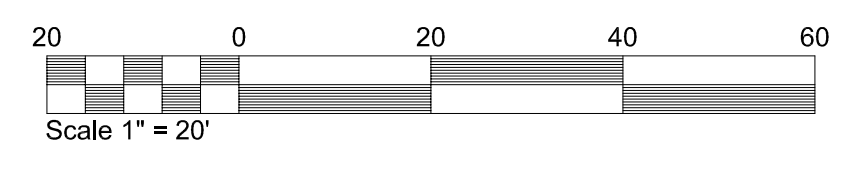
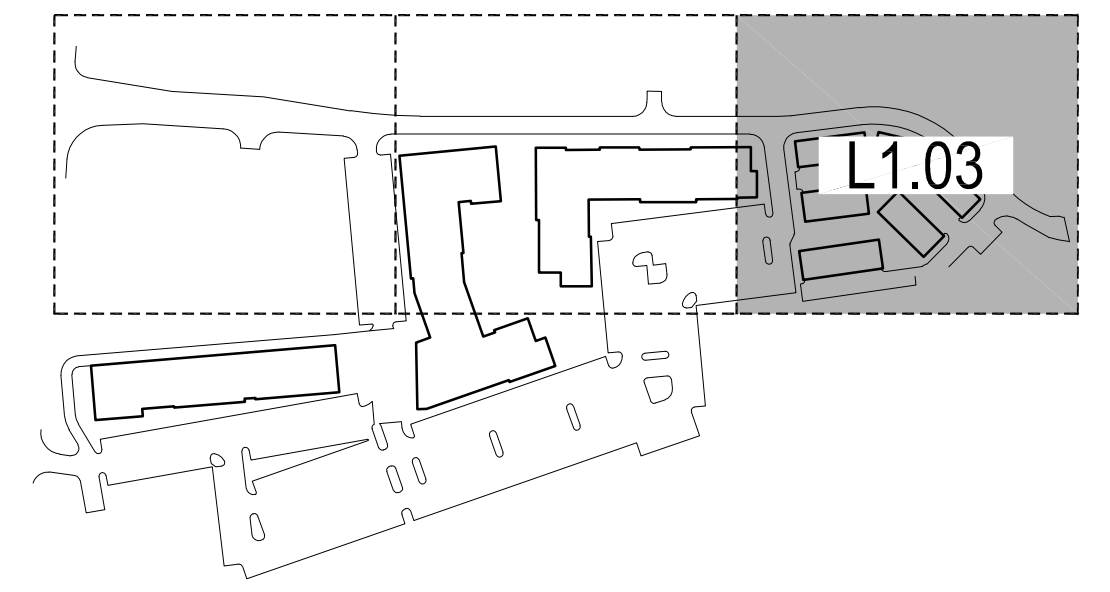
SHEET L1.02

PLANT SCHEDULE CATE STREET

TREES	QTY	BOTANICAL / COMMON NAME	SIZE	ROOT	SPACING	REMARKS
AR	12	Acer rubrum / Red Maple	8 - 10' HT, #10		As Shown	
BN	3	Betula nigra / River Birch Multi-Trunk	2.5" cal.			
NS	6	Nyssa sylvatica / Sour Gum	1.5" cal.	B & B		
NS2	9	Nyssa sylvatica / Sour Gum	3" cal.	B & B		
QL	8	Quercus robur x bicolor "Long" / Regal Prince Oak	3" cal.	B & B		
TE	5	Thuja occidentalis "Emerald" / Emerald Arborvitae	6' min.	B & B	6' hgt.	

SHRUBS	QTY	BOTANICAL / COMMON NAME	CONTAINER	MIN. SIZE	SPACING	REMARKS
CA	38	Clethra alnifolia / Summersweet Clethra	1 gal		36" o.c.	
CR	73	Cornus sericea / Red Twig Dogwood	1 gal		48" o.c.	
CS	83	Clethra alnifolia "Ruby Spice" / Ruby Spice Clethra	3 gal		3" o.c.	
CSP	81	Clethra alnifolia / Sweet Pepper Clethra	3 gal		4" o.c.	
HA	86	Hydrangea arborescens / Wild Hydrangea	3 gal		4" o.c.	
IG	68	Ilex glabra / Inkberry Holly	3 gal		3" o.c.	
IV	81	Ilex verticillata / Winterberry	2 gal.		4" o.c.	
IW	87	Ilex verticillata / Winterberry	1 gal		42" o.c.	
MP	34	Myrica pensylvanica / Northern Bayberry	3 gal		36" o.c.	
RG	135	Rhus aromatica "Gro-Low" / Gro-Low Fragrant Sumac	3 gal.		24" o.c.	
VH	135	Vaccinium corymbosum / Highbush Blueberry	2 gal.		4" o.c.	

GROUND COVERS	QTY	BOTANICAL / COMMON NAME	CONTAINER	MIN. SIZE	SPACING	REMARKS
CM	29,688 sf	Conservation Seed Mix / Conservation Seed	SF			Hydroseed
FA	13,198	Festuca arundinacea / Tall Fescue Seed Mix	SF			
LC	135	Liriope spicata / Creeping Lily Turf	1 gal.		18" o.c.	
MM	2,425	Mulch / Hardwood Mulch	SF		12" o.c.	
WM	4,712 sf	Wetland Seed Mix / Wetland Seed	SF			Hydroseed



NEW ENGLAND WETLAND PLANTS, INC

820 WEST STREET, AMHERST, MA 01002
 PHONE: 413-548-8000 FAX 413-549-4000
 EMAIL: INFO@NEWP.COM WEB ADDRESS: WWW.NEWP.COM

New England Erosion Control/Restoration Mix For Detention Basins and Moist Sites

Botanical Name	Common Name	Indicator
<i>Elymus riparius</i>	Riverbank Wild Rye	FACW
<i>Schizachyrium scoparium</i>	Little Bluestem	FACU
<i>Festuca rubra</i>	Red Fescue	FACU
<i>Andropogon gerardii</i>	Big Bluestem	FAC
<i>Panicum virgatum</i>	Switch Grass	FAC
<i>Vernonia noveboracensis</i>	New York Ironweed	FACW+
<i>Agrostis perennans</i>	Upland Bentgrass	FACU
<i>Bidens cernua</i>	Nodding Bur Marigold	OBL
<i>Eupatorium maculatum (Eutrochium maculatum)</i>	Spotted Joe Pye Weed	OBL
<i>Eupatorium perfoliatum</i>	Boneset	FACW
<i>Aster novae-angliae (Symphyotrichum novae-angliae)</i>	New England Aster	FACW-
<i>Scirpus cyperinus</i>	Wool Grass	FACW
<i>Juncus effusus</i>	Soft Rush	FACW+

PRICE PER LB. \$34.00 MIN. QUANTITY 3 LBS. TOTAL: \$102.00 APPLY: 35 LBS/ACRE :1250 sq ft/lb

The New England Erosion Control/Restoration Mix for Detention Basins and Moist Sites contains a selection of native grasses and wildflowers designed to colonize generally moist, recently disturbed sites where quick growth of vegetation is desired to stabilize the soil surface. It is an appropriate seed mix for ecologically sensitive restorations that require stabilization as well as long-term establishment of native vegetation. This mix is particularly appropriate for detention basins that do not hold standing water. Many of the plants in this mix can tolerate infrequent inundation, but not constant flooding. The mix may be applied by hand, by mechanical spreader, or by hydro-seeder. After sowing, lightly rake, roll or cultipack to insure good seed-to-soil contact. Best results are obtained with a Spring or late Summer seeding. Late Fall and Winter dormant seeding requires an increase in the application rate. A light mulching of clean, weed-free straw is recommended.

New England Wetland Plants, Inc. may modify seed mixes at any time depending upon seed availability. The design criteria and ecological function of the mix will remain unchanged. Price is 5/bulk pound, FOB warehouse, Plus SH and applicable taxes.

NEW ENGLAND WETLAND PLANTS, INC

820 WEST STREET, AMHERST, MA 01002
 PHONE: 413-548-8000 FAX 413-549-4000
 EMAIL: INFO@NEWP.COM WEB ADDRESS: WWW.NEWP.COM

New England Conservation/Wildlife Mix

Botanical Name	Common Name	Indicator
<i>Elymus virginicus</i>	Virginia Wild Rye	FACW-
<i>Schizachyrium scoparium</i>	Little Bluestem	FACU
<i>Andropogon gerardii</i>	Big Bluestem	FAC
<i>Festuca rubra</i>	Red Fescue	FACU
<i>Sorghastrum nutans</i>	Indian Grass	UPL
<i>Panicum virgatum</i>	Switch Grass	FAC
<i>Chamaecrista fasciculata</i>	Partridge Pea	FACU
<i>Desmodium paniculatum</i>	Panicledleaf Tick Trefoil	
<i>Verbena hastata</i>	Blue Vervain	FACW
<i>Asclepias tuberosa</i>	Butterfly Milkweed	NI
<i>Rudbeckia hirta</i>	Black Eyed Susan	FACU-
<i>Helianthus autumnale</i>	Common Sneezeweed	FACW+
<i>Aster pilosus (Symphyotrichum pilosum)</i>	Heath Aster	UPL
<i>Solidago juncea</i>	Early Goldenrod	
<i>Agrostis perennans</i>	Upland Bentgrass	FACU

PRICE PER LB \$36.50 MIN. QUANTITY 2 LBS. TOTAL: \$73.00 APPLY: 25 LBS/ACRE :1750 sq ft/lb

The New England Conservation/Wildlife Mix provides a permanent cover of grasses, wildflowers, and legumes for both good erosion control and wildlife habitat value. The mix is designed to be a no maintenance seeding, and is appropriate for cut and fill slopes, detention basin side slopes, and disturbed areas adjacent to commercial and residential projects. New England Wetland Plants, Inc. may modify seed mixes at any time depending upon seed availability. The design criteria and ecological function of the mix will remain unchanged. Price is 5/bulk pound, FOB warehouse, Plus SH and applicable taxes.

RESTORATION SEQUENCE NOTES:

- EROSION CONTROL WILL BE PLACED AROUND ALL JURISDICTIONAL WETLANDS PRIOR TO THE START OF WORK.
- INITIAL WORK FOR INVASIVE SPECIES REMOVAL WILL BE PERFORMED WITH GUIDANCE BY STAFF FROM GES INC.
- INVASIVE SPECIES REMOVAL WILL IDEALLY BE DONE ONCE THE VEGETATION IS MATURE DURING THE LATE SPRING OR EARLY SUMMER TO AID IN IDENTIFICATION. INVASIVE SPECIES VEGETATION WILL INITIALLY BE CUT AS NEEDED TO AVOID THE POTENTIAL SPREAD OF SEEDS. ANY MATERIAL IN "SEED" WILL BE BAGGED AND DISPOSED OF PROPERLY.
- ALL WORK WILL BE PERFORMED FROM THE UPPER AREA OF THE SITE BY LONG REACH EXCAVATORS. ANY SMALL-SCALE WORK WILL BE DONE BY HAND TO REDUCE BANK IMPACTS AND ELIMINATE ANY UNNEEDED WEEKENING OF THE STABILITY OF THE BANK. NO WORK WILL BE PERFORMED FROM WITHIN THE STREAM.
- EXCAVATION WORK WILL BEGIN BY REMOVING REMAINING ROOT MATERIAL AND "SEED BANK" FROM THE SLOPE AND ANY DEBRIS.
- ALL FILL MATERIAL, INCLUDING PAVEMENT, CINDER BLOCKS, CEMENT, TRASH, I.E. BUCKETS, COUCHES, APPLIANCES, EXERCISE EQUIPMENT, ETC., WILL BE REMOVED AND DISPOSED OF PROPERLY.
- ANY CULVERTS EXISTING IN THE BANK TO BE REMOVED WILL BE SAW CUT OR CRUSHED AND REMOVED. THE REMAINING PORTIONS OF CULVERTS WILL BE LEFT IN PLACE AND WILL BE FILLED WITH CEMENT TO CLOSE THEM OFF. THIS WILL REDUCE THE ADDITIONAL BANK IMPACT RESULTING FROM THEIR REMOVAL ENTIRELY.
- ANY DEBRIS REMOVAL NEAR MATURE TREE ROOTS WILL BE PERFORMED BY HAND SHOVEL OR SMALL MACHINE TO REDUCE DAMAGE TO ROOT STRUCTURE.
- CLEAN TOP SOIL WILL BE ADDED TO AREAS OF REMOVED MATERIALS, INCLUDING CULVERT ENDS. THIS MATERIAL WILL BE LEVELED TO CREATE A SMOOTH BANK TO BE PLANTED.
- THE FOLLOWING SPECIES WILL BE PLANTED IN RANDOM SPACING AT THE SPECIFIED NUMBERS AND SPACING IN EACH RESTORATION AREA BELOW: HIGHBUSH BLUEBERRY (VACCINIUM CORYMBOSUM), WINTERBERRY (ILEX VERTICILATTA), SWEET PEPPER BUSH (CLETHERA ALNIFOLIA). ANY EXPOSED AREAS WILL BE SEEDED WITH AN EROSION CONTROL SEED MIX @ 35LBS/ACRE. THIS WORK WILL BE PERFORMED BY HAND TOOLS. ALL PLANTS ARE TO BE IN 1-2 GALLON POTS AS AVAILABLE AT THE TIME OF THE PLANTING. PLANTS WILL BE LAID OUT PER THE RESTORATION PLAN IN RANDOM ORDER. HOLES WILL BE DUG BY HAND FOR PLANTING. ONCE PLANTED THE HOLES WILL BE BROUGHT LEVEL WITH ADDITIONAL SOIL. THE ENTIRE EXPOSED SLOPES WILL BE SEEDED AS SPECIFIED AND WILL BE COVERED WITH JUTE MATTING AFTER TO ELIMINATE EROSION. SUPPLEMENTAL WATERING WILL OCCUR SHOULD THERE NOT BE SIGNIFICANT RAINFALL.

IMPACT AREA 1 WILL HAVE 1,875 SF OF DISTURBANCE. THIS WILL BE PLANTED WITH A TOTAL OF 117 PLANTS AT A SPACING OF 4' OC

39- HIGHBUSH BLUEBERRY (VACCINIUM CORYMBOSUM),

39- WINTERBERRY (ILEX VERTICILATTA)

39- SWEET PEPPER BUSH (CLETHERA ALNIFOLIA),

IMPACT AREA 2 WILL HAVE 148 SF OF DISTURBANCE. THIS WILL BE PLANTED WITH A TOTAL OF 9 PLANTS AT A SPACING OF 4' OC

3- HIGHBUSH BLUEBERRY (VACCINIUM CORYMBOSUM),

3- WINTERBERRY (ILEX VERTICILATTA)

3- SWEET PEPPER BUSH (CLETHERA ALNIFOLIA),

IMPACT AREA 3 WILL HAVE 344 SF OF DISTURBANCE. THIS WILL BE PLANTED WITH 21 TOTAL PLANTS AT 4' OC SPACING

7- HIGHBUSH BLUEBERRY (VACCINIUM CORYMBOSUM),

7- WINTERBERRY (ILEX VERTICILATTA)

7- SWEET PEPPER BUSH (CLETHERA ALNIFOLIA),

IMPACT AREA 4 WILL HAVE 3,412 SF OF DISTURBANCE. THIS WILL BE PLANTED WITH A TOTAL OF 96 PLANTS AT A SPACING OF 6' OC.

32- HIGHBUSH BLUEBERRY (VACCINIUM CORYMBOSUM),

32- WINTERBERRY (ILEX VERTICILATTA)

32- SWEET PEPPER BUSH (CLETHERA ALNIFOLIA),

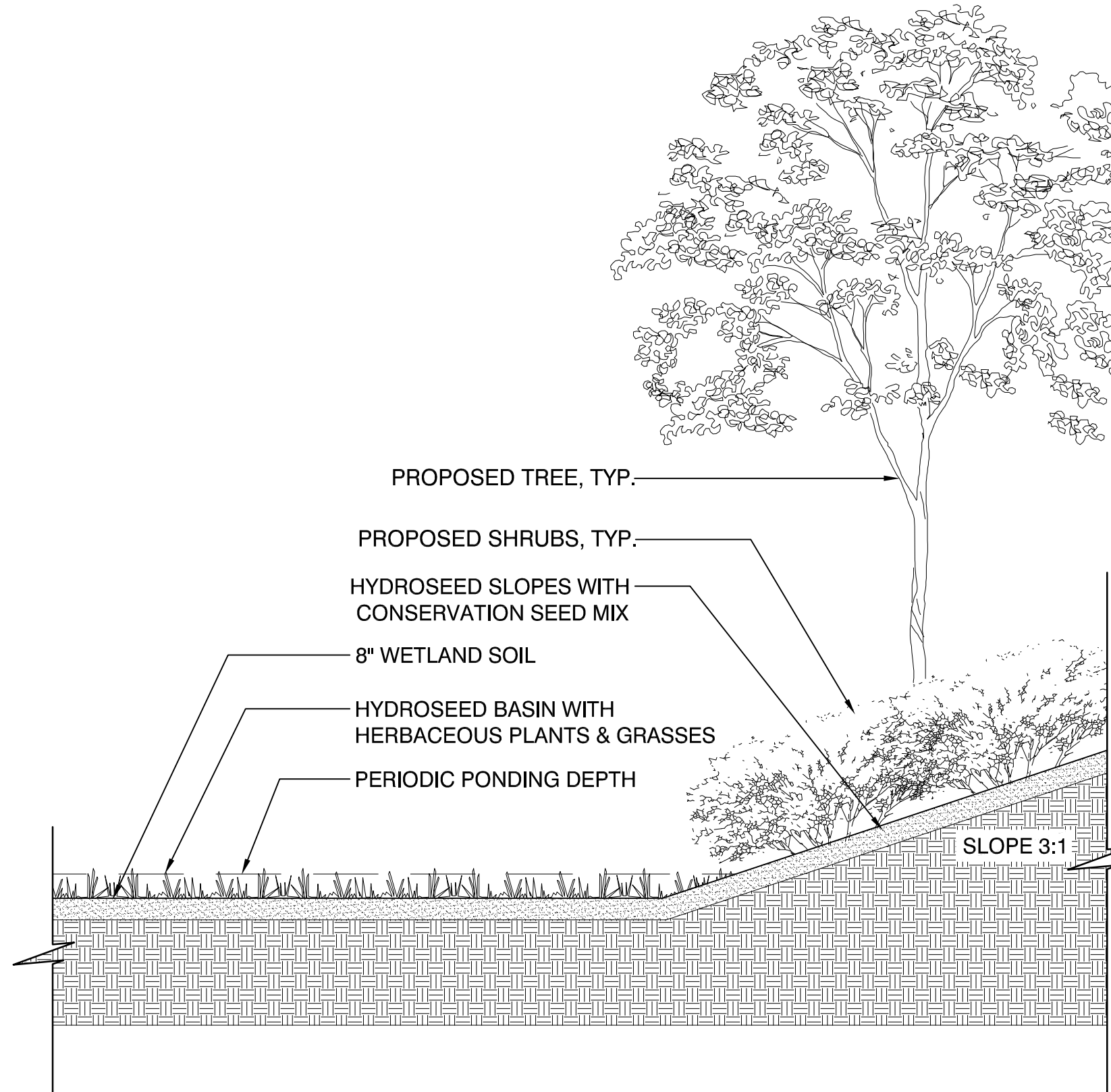
10. MONITORING OF THE RESTORATION AREAS WILL BE DONE UNDER THE DIRECTION OF THE NHDES WETLANDS BUREAU, AS THESE AREAS FALL UNDER THEIR JURISDICTION.

1 SPEC: WETLAND SEED MIX

N.T.S.

2 SPEC: CONSERVATION SEED MIX

N.T.S.



3 DETAIL: WATER CONSERVATION POND

1/4" = 1'-0"

City of Portsmouth Tree Planting Requirements

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.

- 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.
- ALL** Wire and Burlap shall be removed from the root ball **AND** planting hole.
- 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.
- The root collar of the tree shall be 2"-3" above grade of planting hole for finished depth.
- 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.
- 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**.
- An earth berm shall be placed around the perimeter of the planting hole except where curbed planting beds or pits are being used.
- 2"-3" of mulch shall be placed over the planting area.
- At the time the planting is complete the planting shall receive additional water to ensure complete hydration of the roots, backfill material and mulch layer.
- Stakes and guys shall be used where appropriate and/or necessary. Guy material shall be non-damaging to the tree.
- All planting stock shall be specimen quality, free of defects, and disease or injury. The City of Portsmouth, NH reserves the right to refuse/reject any plant material or planting action that fails to meet the standards set forth in the ANSI A300 Part 6 Standard Practices for Planting and Transplanting and/or The City of Portsmouth, NH Planting Requirements.

4 DETAIL: CITY OF PORTSMOUTH TREE PLANTING REQUIREMENTS

5 DETAIL: RESTORATION SEQUENCE NOTES

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

COPYRIGHT © 2005 BY SITE solutions, LLC. LANDSCAPE ARCHITECTS. ALL RIGHTS RESERVED. THIS DOCUMENT (INCLUDING ELECTRONIC AND REPRODUCTIONS) IS THE PROPERTY OF SITE solutions, LLC. AND ONLY FOR USE ON THE PROJECT SPECIFIED HEREIN. IT IS NOT TO BE USED ON OTHER PROJECTS OR EXTENSIONS TO THIS PROJECT, IN WHOLE OR IN PART, EXCEPT BY THE EXPRESSED WRITTEN AGREEMENT WITH SITE solutions, LLC. THIS DOCUMENT AND REPRODUCTIONS SHALL NOT BE CONSIDERED A CERTIFIED DOCUMENT.

PROFESSIONAL STAMP:

CATE STREET
 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	08/20/2019	SS	TAC RE-SUBMITTAL
D	07/24/2019	JM	TAC RE-SUBMITTAL

SHEET TITLE:

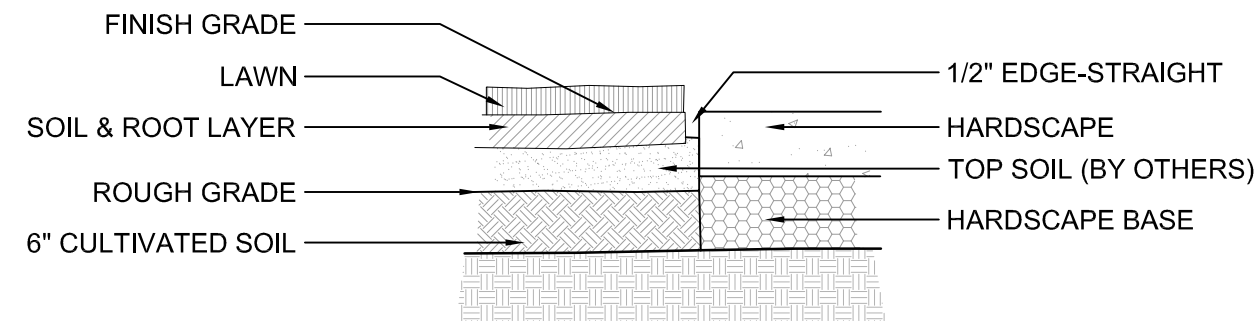
LANDSCAPE DETAILS

PROJECT NUMBER:
18041.00

L2.01

DATE: 03.18.2019

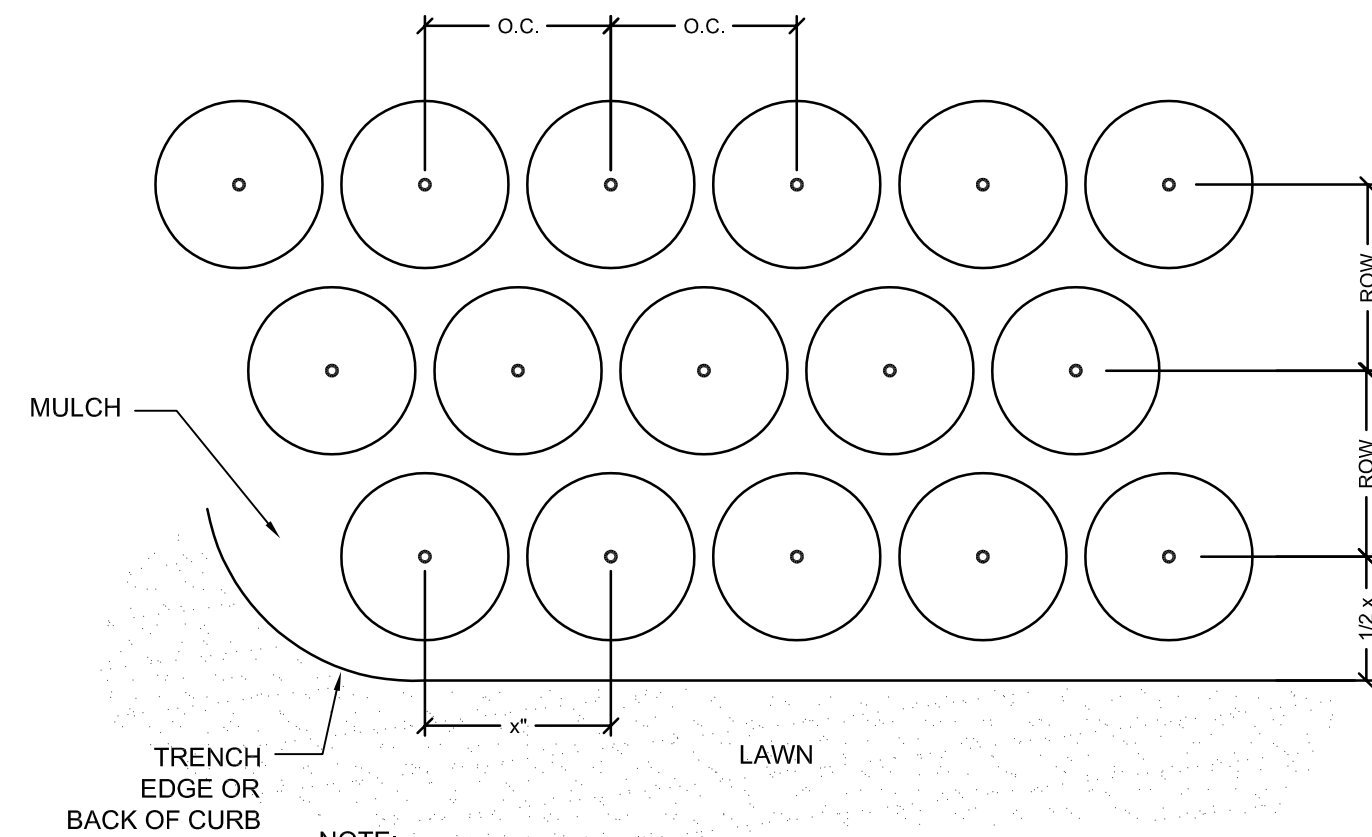
PERMIT ISSUE



INSTALLATION NOTES:

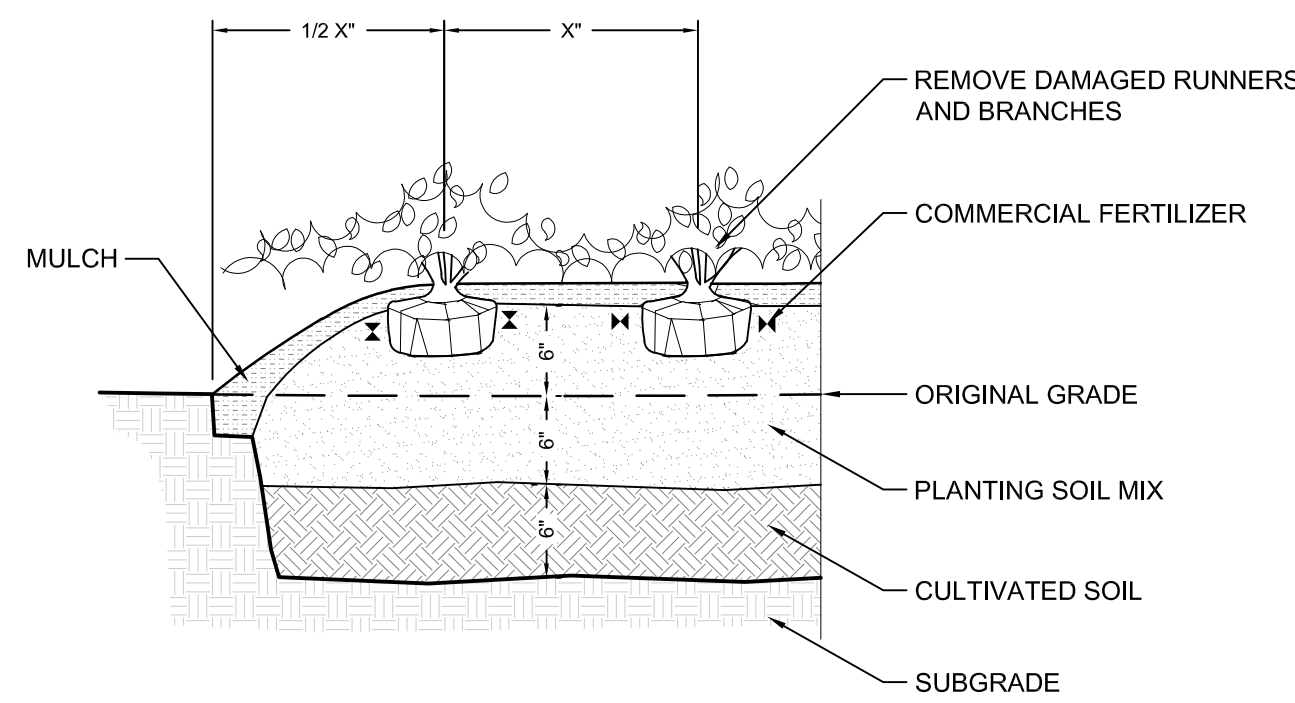
1. GENERAL CONTRACTOR TO PROVIDE GRADES TO WITHIN TWO TENTH OF A FOOT FOR PROPOSED GRADES.
2. CULTIVATE TO A DEPTH OF 6".
3. FINE GRADE AS REQUIRED TO REACH FINISH GRADE PER CIVIL DRAWINGS.
4. APPLY LIME AND FERTILIZER, AS SPECIFIED.
5. APPLY PRE-EMERGENT HERBICIDE PER MANUFACTURE'S RECOMMENDATION.
6. 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.



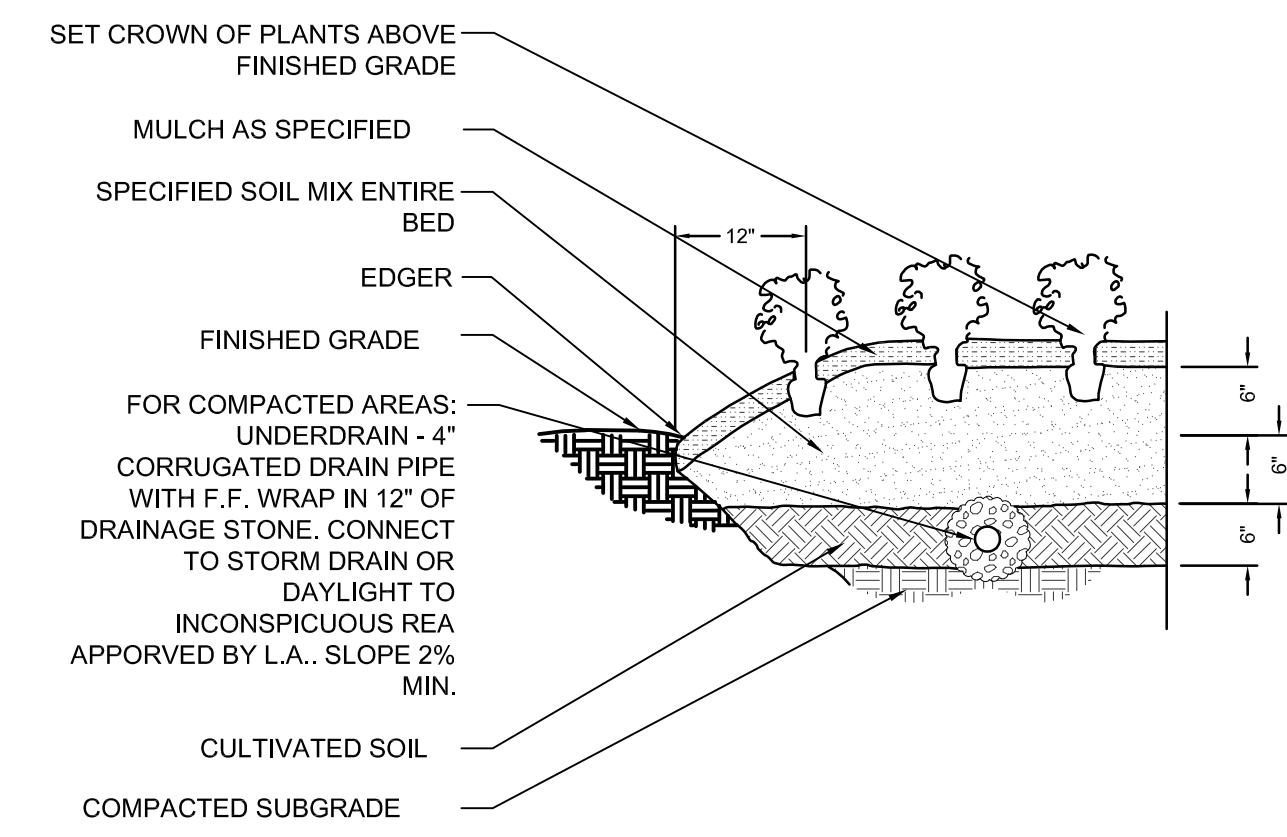
- NOTE:**
1. IF ROOTBALL IS WRAPPED IN NON-BIODEGRADABLE BURLAP, REMOVE ENTIRE WRAP AFTER PLACED IN PIT.
 2. "X"= TYP. ON CENTER SPACING AS SHOWN ON PLANT SCHEDULE
 3. ALL ROWS TO BE STRAIGHT AND PARALLEL

4 PLAN: TYP. PLAN MASS SPACING
SCALE: N.T.S.



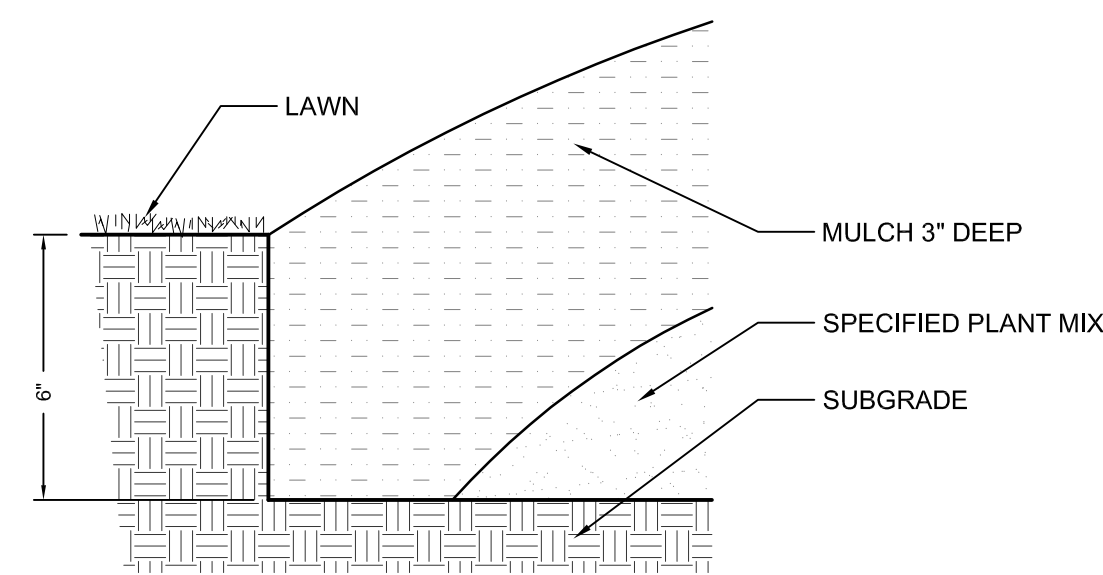
- NOTES:**
1. IF ROOTBALL IS WRAPPED IN NON-BIODEGRADABLE BURLAP, REMOVE ENTIRE WRAP AFTER PLACED IN PIT.
 2. "X"= TYP. ON CENTER SPACING AS SHOWN ON PLANT SCHEDULE
 3. ALL ROWS TO BE STRAIGHT AND PARALLEL
 4. TYP. BED INSTALLATION DETAIL FOR ERICACEOUS PLANT MATERIAL (RHODODENDRON, AZALEAS, PIERIS,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

6 SECTION: TYP. ERICACEOUS PLANT MATERIAL INSTALL.
SCALE: N.T.S.



- NOTES:**
1. REFER TO SPECIFICATIONS FOR FERTILIZATION REQUIREMENTS.

7 SECTION: SEASONAL COLOR & PERENNIAL BED PREP.
SCALE: N.T.S.



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

2 SECTION: TRENCH EDGE
SCALE: N.T.S.

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, EXCEPTING 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 REUSE/REJECT ANY PLANT MATERIAL OR PLANTING ACTION THAT FAILS TO MEET THE STANDARDS SET FORTH IN THE ANSI A300 PART 6 STANDARD PRACTICES FOR PLANTING AND TRANSPORTATION AND/OR THE CITY OF PORTSMOUTH, NH PLANTING REQUIREMENTS.

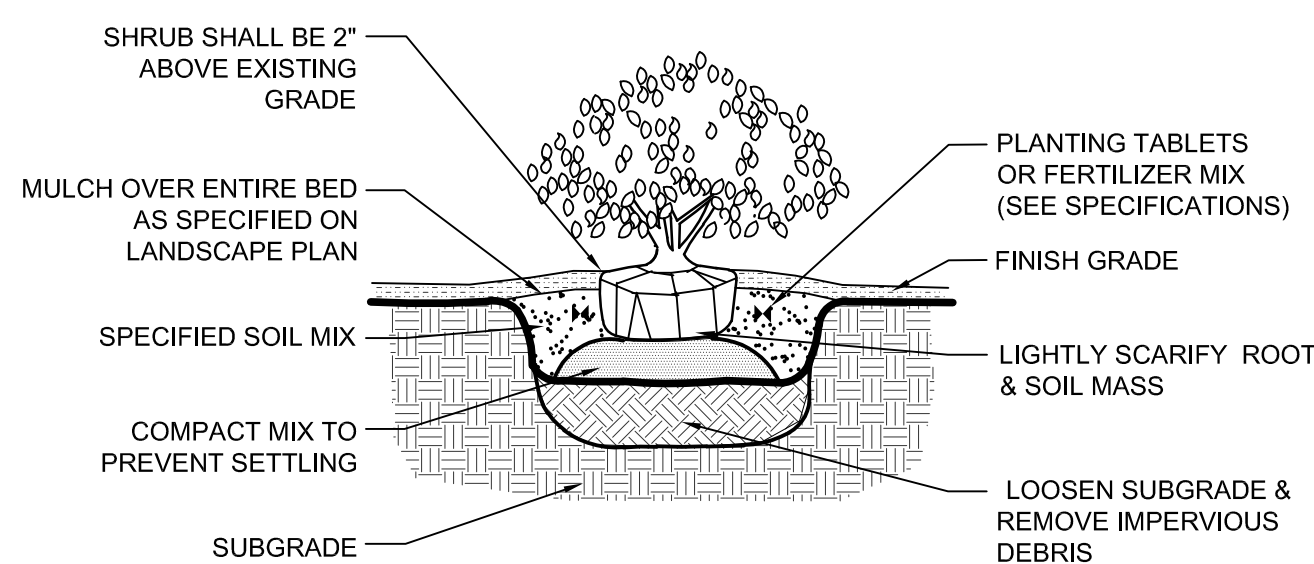
DEPARTMENT OF PUBLIC WORKS CITY OF PORTSMOUTH, NH

NO.	DESCRIPTION	DATE

STANDARD DETAIL OF TREE PLANTING
PORTSMOUTH, NEW HAMPSHIRE

DRAWING SCALE: N.T.S. March, 2015

5 DETAIL: TREE PLANTING
SCALE: N.T.S.



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

3 SECTION: TYP. CONTAINERIZED SHRUB PLANTING
SCALE: N.T.S.

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. Set 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-biodegradable 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.

SHEET STATUS			
MARK	DATE	BY	RELEASE
A	03/18/2019	SS	TAC SUBMITTAL
B	05/20/2019	SS	TAC RE-SUBMITTAL
C	08/20/2019	SS	TAC RE-SUBMITTAL
D	07/24/2019	JM	TAC RE-SUBMITTAL

SHEET TITLE:

LANDSCAPE DETAILS

PROJECT NUMBER:
18041.00

L2.02

DATE: 03.18.2019

PERMIT ISSUE

New Hampshire Invasive Species Committee

NH Invasive Plant Species Watch List
Approved by the ISC April 11, 2018

The NH Invasive Plant Species Watch List is a non-regulatory reference tool that serves to:

- identify potentially invasive non-native plant species based on degree of invasive qualities (e.g., aggressive growth, rapid reproduction, and/or lack of natural herbivores) and presence (but not necessarily abundance) in NH and/or nearby elsewhere in New England;
- inform prevention (e.g., early detection/rapid response), monitoring, and management decision-making for species that may impact NH's ecosystems or economy; and
- increase awareness of invasive plant species.

Scientific Name	Synonyms	Common Name
<i>Abutilon theophrasti</i> Medik.		Velvetleaf Indian-mallow
<i>Acer glabrum</i> Maxim.		Amur maple
<i>Agrostemma githago</i> L. var. <i>githago</i>	<i>Lychnis githago</i> (L.) Scop.	Common corncockle
<i>Aira caryophylla</i> L.	<i>Aspiris caryophylla</i> (L.) Nash	Common silver-hairgrass
<i>Allium vineale</i> L.		Crow garlic
<i>Amorpha fruticosa</i> L.	<i>Amorpha fruticosa</i> L. var. <i>angustifolia</i> Pursh; <i>A. fruticosa</i> L. var. <i>oblongifolia</i> Palmer; <i>A. fruticosa</i> L. var. <i>tennesseensis</i> (Shuttlw. ex Kunze) Palmer	False indigo-bush
<i>Aralia elata</i> (Miq.) Soem.	<i>Dimorpharthus elatus</i> Miq.	Japanese angelica-tree
<i>Barbarea vulgaris</i> Ait. f.	<i>Barbarea arcuata</i> (Opiz ex J. & K. Presl) Reichenb.; <i>B. stricta</i> , of authors not Andr.; <i>B. vulgaris</i> var. <i>arcuata</i> (Opiz ex J. & K. Presl) Fries; <i>Campe barbarea</i> (L.) W. Wight ex Piper; <i>C. stricta</i> , of authors not (Andr.) W. Wight ex Piper; <i>Erysimum barbarea</i> L.	Garden yellow-rocket
<i>Brassica juncea</i> (L.) Czern.	<i>Brassica juncea</i> (L.) Czern. var. <i>crispifolia</i> Bailey; <i>Sinapis juncea</i> L.	Chinese mustard
<i>Brassica nigra</i> (L.) W.D.J. Koch	<i>Sinapis nigra</i> L.	Black mustard
<i>Bromus tectorum</i> L.	<i>Anisantha tectorum</i> (L.) Nevski	Cheat brome
<i>Cardamine impatiens</i> L.		Narrow-leaved bitter-cress
<i>Centaurea jacea</i> L.	<i>Centaurea debeauxii</i> Gren. & Godr. ssp. <i>thullieri</i> Dostal; <i>C. jacea</i> L. ssp. <i>decipiens</i> (Thunb.) Čelak; <i>C. jacea</i> L. ssp. <i>pratensis</i> Čelak; <i>C. pratensis</i> Thunb.; <i>C. thullieri</i> (Dostal) J. Duvinç. & Lambinon; <i>Cyanus jacea</i> (L.) P. Gaertn.; <i>Jacea pratensis</i> Lam.	Brown knapweed
<i>Centaurea nigra</i> L.	<i>Jacea nigra</i> (L.) Hill	Black knapweed

NH Invasive Plant Species Watch List: April 11, 2018

1

Scientific Name	Synonyms	Common Name
<i>Chelidonium majus</i> L.	<i>Chelidonium majus</i> L. var. <i>laciniatum</i> (P. Mill.) Syme; <i>C. majus</i> L. var. <i>plenum</i> Wehrhahn	Greater celandine
<i>Cirsium palustre</i> (L.) Scop.	<i>Carduus palustris</i> L.	Marsh thistle
<i>Cirsium vulgare</i> (Savi) Ten.	<i>Carduus lanceolatus</i> L.; <i>C. vulgaris</i> Savi; <i>Cirsium lanceolatum</i> (L.) Scop.	Common thistle
<i>Convolvulus arvensis</i> L.	<i>Strophocaulos arvensis</i> (L.) Small	Field bindweed
<i>Cytisus scoparius</i> (L.) Link	<i>Spartium scoparium</i> L.	Scotch broom
<i>Digitaria sanguinalis</i> (L.) Scop.	<i>Panicum sanguinale</i> L.	Hairy crabgrass
<i>Eichhornia crassipes</i> (Mart.) Solms-Laubach	<i>Eichhornia speciosa</i> Kunth; <i>Piaropus crassipes</i> (Mart.) Raf.	Common water-hyacinth
<i>Elymus repens</i> (L.) Gould	<i>Agropyron repens</i> (L.) Gould; <i>Elytigeria repens</i> (L.) Desv. ex B.D. Jackson; <i>Triticum repens</i> L.	Creeping wild-rye
<i>Epilobium hirsutum</i> L.		Hairy willow-herb
<i>Epipactis helleborine</i> (L.) Crantz	<i>Epipactis latifolia</i> (L.) All.; <i>Serapias helleborine</i> L.	Broad-leaved helleborine
<i>Euonymus europaeus</i> L.		European spindle-tree
<i>Euonymus fortunei</i> (Turcz.) Hand.-Mazz	<i>Euonymus fortunei</i> (Turcz.) Hand.-Mazz var. <i>radicans</i> (Sieb. ex Miq.) Rehd.; <i>E. fortunei</i> (Turcz.) Hand.-Mazz var. <i>vegetus</i> (Rehd.) Rehd.; <i>E. radicans</i> Sieb. ex Miq.; <i>E. radicans</i> Sieb. ex Miq. var. <i>vegetus</i> Rehd.	Climbing spindle-tree
<i>Festuca filiformis</i> Pourret	<i>Festuca capillata</i> Lam.; <i>F. ovina</i> L. var. <i>capillata</i> (Lam.) Alef.; <i>F. tenuifolia</i> Sibthorp	Fine-leaved sheep fescue
<i>Ficaria verna</i> Huds. ssp. <i>fertilis</i> (Lawrie ex Laegaard) Stace	<i>Ficaria verna</i> Huds. ssp. <i>bulbifera</i> A. & D. Löve; <i>Ranunculus ficaria</i> L. ssp. <i>bulbifer</i> Lambinon; <i>R. ficaria</i> L. ssp. <i>bulbifera</i> (Marsden-Jones) Lawrie, an illegitimate name; <i>R. ficaria</i> var. <i>bulbifera</i> Marsden-Jones	Fig-crowfoot
<i>Froelichia gracilis</i> (Hook.) Moq.	<i>Oplotecho gracilis</i> Moq.	Slender cotton-weed
<i>Galium mollugo</i> L.		Whorled bedstraw
<i>Glechoma hederacea</i> L.	<i>Glechoma hederacea</i> L. var. <i>micrantha</i> Moric.; <i>G. hederacea</i> L. var. <i>parviflora</i> (Benth.) House; <i>Nepeta hederacea</i> (L.) Trevisan	Gill-over-the-ground
<i>Hylotelephium telephium</i> (L.) H. Ohba	<i>Sedum purpureum</i> (L.) J. A. Schultes; <i>S. purpurascens</i> W.D.J. Koch; <i>S. telephium</i> L.	Purple orpine
<i>Kochia scoparia</i> (L.) Schrad.	<i>Bassia scoparia</i> (L.) A.J. Scott; <i>Chenopodium scoparium</i> L.; <i>Kochia scoparia</i> (L.) Schrad. var. <i>pubescens</i> Fenzl; <i>K. scoparia</i> (L.) Schrad. var. <i>subvillosa</i> Moq.	Summer-cypress
<i>Lamium amplexicaule</i> L. var. <i>amplexicaule</i>		Common henbit

NH Invasive Plant Species Watch List: April 11, 2018

2

Scientific Name	Synonyms	Common Name
<i>Lamium purpureum</i> L.	<i>Lamium dissectum</i> With.; <i>L. hybridum</i> , of authors not Vill.	Red henbit
<i>Lonicera xylosteum</i> L.		Fly honeysuckle
<i>Lupinus polyphyllus</i> Lindl. var. <i>polyphyllus</i>	<i>Lupinus pallidipes</i> Heller; <i>L. polyphyllus</i> Lindl. var. <i>albiflorus</i> L.H. Bailey; <i>L. polyphyllus</i> Lindl. var. <i>pallidipes</i> (Heller) C.P. Sm.	Blue lupine
<i>Lychnis flos-cuculi</i> L. ssp. <i>flos-cuculi</i>	<i>Coronaria flos-cuculi</i> (L.) A. Braun; <i>Silene flos-cuculi</i> (L.) Clairville	Ragged robin lychnis
<i>Lysimachia arvensis</i> (L.) U. Manns & A. Anderb.	<i>Anagallis arvensis</i> L.; <i>A. arvensis</i> L. var. <i>caerulea</i> (Schreb.) Gren. & Godr.; <i>A. caerulea</i> Schreb.	Scarlet pimpernel
<i>Lysimachia vulgaris</i> L.		Garden yellow-loosestrife
<i>Miscanthus sinensis</i> Anderss.	<i>Miscanthus sinensis</i> Anderss. var. <i>gracillimus</i> A.S. Hitchc.	Chinese silvergrass
<i>Mycelis muralis</i> (L.) Dumort.	<i>Lactuca muralis</i> (L.) Fresen.	Wall-lettuce
<i>Myosotis scorpioides</i> L.	<i>Myosotis palustris</i> (L.) Hill	Water forget-me-not
<i>Nasturtium microphyllum</i> Boenn. ex Reichenb.	<i>Nasturtium officinale</i> Ait. f. var. <i>microphyllum</i> (Boenn. ex Reichenb.) Thellung; <i>Rorippa microphylla</i> (Boenn. ex Reichenb.) Hyl. ex A. & D. Löve	One-rowed water-cress
<i>Nasturtium officinale</i> Ait. f.	<i>Boerhaavia nasturtium-aquaticum</i> (L.) Hayek; <i>Rorippa nasturtium aquaticum</i> (L.) Hayek; <i>Sisymbrium nasturtium-aquaticum</i> L.	Two-rowed water-cress
<i>Oenanthe javanica</i> (Blume) DC		Java water dropwort
<i>Persicaria longiseta</i> (Bruijn) Kitagawa	<i>Persicaria caespitosa</i> (Blume) Nakai var. <i>longiseta</i> (Bruijn) Reed; <i>Polygonum caespitosum</i> Blume var. <i>longisetum</i> (Bruijn) Steward; <i>P. longisetum</i> Bruijn	Oriental lady's-thumb smartweed
<i>Phellodendron amurense</i> Rupr.	<i>Phellodendron amurense</i> Rupr. var. <i>sachalinense</i> F. Schmidt; <i>P. japonicum</i> Maxim.; <i>P. sachalinense</i> (F. Schmidt) Sarg.	Amur corktree
<i>Poa compressa</i> L.		Flat-stemmed blue grass
<i>Poa nemoralis</i> L.		Wood blue grass
<i>Populus alba</i> L.	<i>Populus alba</i> L. var. <i>balleana</i> Lauche	White poplar
<i>Ranunculus repens</i> L.	<i>Ranunculus repens</i> L. var. <i>degeneratus</i> Schur; <i>R. repens</i> L. var. <i>erectus</i> DC.; <i>R. repens</i> L. var. <i>glabratus</i> DC.; <i>R. repens</i> L. var. <i>pleniflorus</i> Fern.; <i>R. repens</i> L. var. <i>villosus</i> Lamotte	Spot-leaved crowfoot
<i>Raphanus raphanistrum</i> L. ssp. <i>raphanistrum</i>		Wild radish

NH Invasive Plant Species Watch List: April 11, 2018

3

Scientific Name	Synonyms	Common Name
<i>Rhinanthus minor</i> L. ssp. <i>minor</i>	<i>Rhinanthus crista-galli</i> L., in part; <i>R. crista-galli</i> L. var. <i>fallax</i> (Wimmer & Grab.) Druce; <i>R. stenophyllus</i> (Schur) Schinz & Thellung	Little yellow-rattle
<i>Rumex acetosella</i> L. ssp. <i>pyrenaicus</i> (Pourret ex Lapeyr.) Akeroyd	<i>Acetosella vulgaris</i> (Koch) Fourn. ssp. <i>pyrenaica</i> (Pourret ex Lapeyr.) A. Löve; <i>Rumex acetosella</i> L. var. <i>pyrenaicus</i> (Pourret ex Lapeyr.) Timbal-Lagave; <i>R. pyrenaicus</i> Pourret ex Lapeyr.	Sheep dock
<i>Securigera varia</i> (L.) Lassen	<i>Coronilla varia</i> L.	Purple crown-vetch
<i>Silphium perfoliatum</i> L.		Cup-plant rosinweed
<i>Sinapis arvensis</i> L.	<i>Brassica arvensis</i> Rabenh.; <i>B. kaber</i> (DC.) L.C. Wheeler; <i>B. kaber</i> (DC.) L.C. Wheeler var. <i>pinnatifida</i> (Stokes) L.C. Wheeler	Corn charlock
<i>Solanum carolinense</i> L. var. <i>carolinense</i>		Carolina nightshade
<i>Solanum dulcamara</i> L.		Climbing nightshade
<i>Sonchus arvensis</i> L.	<i>Sonchus arvensis</i> L. ssp. <i>uliginosus</i> (Bieb.) Nyman; <i>S. uliginosus</i> Bieb.	Field sow-thistle
<i>Sorbaria sorbifolia</i> (L.) A. Braun	<i>Schizoneotus sorbifolius</i> (L.) Lindl.; <i>Spiraea sorbifolia</i> L.	False spiraea
<i>Tanacetum vulgare</i> L.	<i>Chrysanthemum uliginosum</i> Pers.; <i>C. vulgare</i> (L.) Bernh.	Common tansy
<i>Tussilago farfara</i> L.		Coltsfoot
<i>Typha xglauca</i> Godr.		Hybrid cattail
<i>Valeriana officinalis</i> L.		Common valerian
<i>Vinca minor</i> L.		Lesser periwinkle

Taxonomy: Haines, A. 2015 (November 17). Tracheophyte Checklist of New England. Website: <http://www.arthurhaines.com/tracheophyte-checklist>.

NH Invasive Plant Species Watch List: April 11, 2018

4

Fact Sheet:
Prohibited Invasive Plant Species Rules, Agr 3800

New Hampshire
Department of Agriculture,
Markets & Food

Updated 01/31/2017

This fact sheet is a synopsis of the adopted rules on invasive plant species and is intended for general use by the nursery and landscape industry, plant growers, plant dealers, general public, State Agencies, and Municipalities. A complete copy of the rules can be accessed on the internet at http://agriculture.nh.gov/topics/plants_insects.htm.

In accordance with the Invasive Species Act, HB 1258-FN, the NH Department of Agriculture, Markets & Food, Division of Plant Industry is the lead state agency responsible for the evaluation, publication and development of rules on invasive plant species for the purpose of protecting the health of native species, the environment, commercial agriculture, forest crop production, or human health. The rule, Agr 3800, states "No person shall collect, transport, import, export, move, buy, sell, distribute, propagate or transport any living and viable portion of any plant species, which includes all of their cultivars and varieties, listed in Table 3800.1, New Hampshire prohibited invasive species list".

New Hampshire Prohibited Invasive Plant Species List

Scientific name	Synonyms	Common name
<i>Acer platanoides</i> L.	<i>Acer platanoides</i> var. <i>schvedleri</i> Nichols	Norway maple
<i>Ailanthus altissima</i> (P. Mill.) Swingle	<i>Ailanthus glandulosa</i> Desv.	Tree of heaven
<i>Alliaria petiolata</i> (Bieb.) Cavara & Grande	<i>Alliaria alliaria</i> (L.) Britt.; <i>Alliaria officinalis</i> Andr. ex Bieb.; <i>Erysimum alliaria</i> L.; <i>Sisymbrium alliaria</i> (L.) Scop.	Garlic mustard
<i>Alnus glutinosa</i> (L.) Gaertn.	<i>Alnus alnus</i> (L.) Britt.; <i>Betula alnus</i> L. var. <i>glutinosa</i> L.	European black alder
<i>Berberis thunbergii</i> DC.		Japanese barberry
<i>Berberis vulgaris</i> L.		European barberry
<i>Celastrus orbiculatus</i> Thunb.		Oriental bittersweet
<i>Centaurea stoebe</i> L. ssp. <i>micranthos</i> (Gugler) Hayek	<i>Centaurea hibernica</i> DC.; <i>Centaurea maculosa</i> Lam., misapplied; <i>Centaurea maculosa</i> Lam. ssp. <i>micranthos</i> Gugler	Spotted knapweed
<i>Cynanchum louiseae</i> Kartsch & Gandhi	<i>Cynanchum nigrum</i> (L.) Pers.; <i>Vincetoxicum nigrum</i> (L.) Pers.	Black swallow-wort
<i>Cynanchum rossicum</i> (Kleopow) Borhidi	<i>Cynanchum medium</i> , of authors not R. Br.; <i>Vincetoxicum medium</i> , of authors not (R. Br.) Dcne.; <i>Vincetoxicum rossicum</i> (Kleopow) Barbarich	Pale swallow-wort
<i>Elaeagnus umbellata</i> Thunb. var. <i>parvifolia</i> (Royle) Schneid.	<i>Elaeagnus parvifolia</i> Royle	Autumn olive
<i>Euonymus alatus</i> (Thunb.) Sieb.	<i>Celastrus alatus</i> Thunb.	Burning bush
<i>Frangula alnus</i> P. Mill.	<i>Rhamnus frangula</i> L.	Glossy buckthorn
<i>Glycyrrhiza maxima</i> (Hartman) Holmb.	<i>Glycyrrhiza spectabilis</i> Mert. & Koch; <i>Molonia maxima</i> Hartman	Reed sweet grass
<i>Heracleum mantegazzianum</i> Sommier & Levier		Giant hogweed
<i>Hesperis matronalis</i>		Dames rocket

<i>Impatiens glandulifera</i> Royle	<i>Impatiens roylei</i> Walp.	Ornamental jewelweed
<i>Iris pseudacorus</i> L.		Water-flag
<i>Lepidium latifolium</i> L.	<i>Cardaria latifolia</i> (L.) Spach	Perennial pepperweed
<i>Ligustrum obtusifolium</i> Sieb. & Zucc. var. <i>obtusifolium</i>	<i>Ligustrum obtusifolium</i> var. <i>leioclydx</i> (Nakai) H. Hara	Blunt-leaved privet
<i>Ligustrum vulgare</i> L.		Common privet
<i>Lonicera japonica</i> Thunb.	<i>Nintooa japonica</i> (Thunb.) Sweet	Japanese honeysuckle
<i>Lonicera maackii</i> (Rupr.) Herder*		Amur honeysuckle*
<i>Lonicera morrowii</i> Gray*		Morrow's honeysuckle*
<i>Lonicera tatarica</i> L.*		Tartarian honeysuckle*
<i>Lonicera x bella</i> Zabel*	<i>Lonicera morrowii</i> x <i>L. tatarica</i>	Bella honeysuckle*
<i>Lysimachia nummularia</i> L.		Moneypew
<i>Microsagium vimineum</i> (Trin.) A. Camus	<i>Andropogon vimineum</i> Trin.; <i>Eulalia viminea</i> (Trin.) Kuntze	Japanese stilt grass
<i>Persicaria perfoliata</i> (L.) H. Gross	<i>Ampelgynomium perfoliatum</i> (L.) Roberty & Vautier; <i>Polygonum perfoliatum</i> L.	Mile-a-minute weed
<i>Pueraria montana</i> (Lour.) Merr. var. <i>lobata</i> (Willd.) Maesen & S. Almeida	<i>Dalichos lobatus</i> Willd.; <i>Pueraria lobata</i> (Willd.) Ohwi; <i>Pueraria thunbergiana</i> (Sieb. & Zucc.) Benth.	Kudzu
<i>Reynoutria japonica</i> Houtt. var. <i>japonica</i>	<i>Fallopia japonica</i> (Houtt.) R. Deer.; <i>Pleuroperis cuspidatus</i> (Sieb. & Zucc.) Moldenke; <i>Polygonum cuspidatum</i> Sieb. & Zucc.	Japanese knotweed
<i>Reynoutria sachalinensis</i> (F. Schmidt) ex Maxim.) Nakai	<i>Fallopia sachalinensis</i> (F.S. Petrop. ex Maxim.) R. Deer.; <i>Polygonum sachalinense</i> F. Schmidt ex Maxim.	Giant knotweed
<i>Reynoutria x bohémica</i> Chrték & Chrtková	<i>Fallopia japonica</i> x <i>F. sachalinensis</i> ; <i>Fallopia x bohémica</i> (Chrték & Chrtková) J.P. Bailey; <i>Polygonum x bohemicum</i> (Chrték & Chrtková) P.F. Zika & A.L. Jacobson	Bohemia knotweed
<i>Rhamnus cathartica</i> L.		Common buckthorn
<i>Rosa multiflora</i> Thunb. ex Murr.		Multiflora rose

Variance: Persons conducting temporary scientific studies, which may include hybridization of seedless species may apply for a variance to do so by contacting the NH Department of Agriculture, Markets & Food, Division of Plant Industry.



For additional information
Douglas Cygan, Invasive Species Coordinator
New Hampshire Department of Agriculture
Division of Plant Industry
State Lab Building, Lab D
29 Hazen Drive
Concord, NH 03301
(603) 271-3488
douglas.cygan@agr.nh.gov
<http://www.agriculture.nh.gov/divisions/plant-industry/invasive-plants.htm>

SITE solutions

LANDSCAPE ARCHITECTURE • LAND PLANNING
3715 Northside Parkway T: 404.705.9411
300 Northcreek Blvd, 300 F: 404.705.9491
Atlanta, Georgia 30327 www.sitesolutionsla.com

COPYRIGHT © 2005 by SITE solutions, LLC. LANDSCAPE ARCHITECTS. ALL RIGHTS RESERVED. THIS DOCUMENT (INCLUDING ELECTRONIC AND REPRODUCTIONS) IS THE PROPERTY OF SITE solutions, LLC. AND ONLY FOR USE ON THE PROJECT SPECIFIED HEREIN. IT IS NOT TO BE USED ON OTHER PROJECTS OR EXTENSIONS TO THIS PROJECT, IN WHOLE OR IN PART, EXCEPT BY THE EXPRESSED WRITTEN AGREEMENT WITH SITE solutions, LLC. THIS DOCUMENT AND REPRODUCTIONS SHALL NOT BE CONSIDERED A CERTIFIED DOCUMENT.

PROFESSIONAL STAMP:

CATE STREET
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	08/20/2019	SS	TAC RE-SUBMITTAL
D	07/24/2019	JM	TAC RE-SUBMITTAL

SHEET TITLE:

LANDSCAPE DETAILS

PROJECT NUMBER:

18041.00

L2.03

DATE: 03.18.2019

PERMIT ISSUE

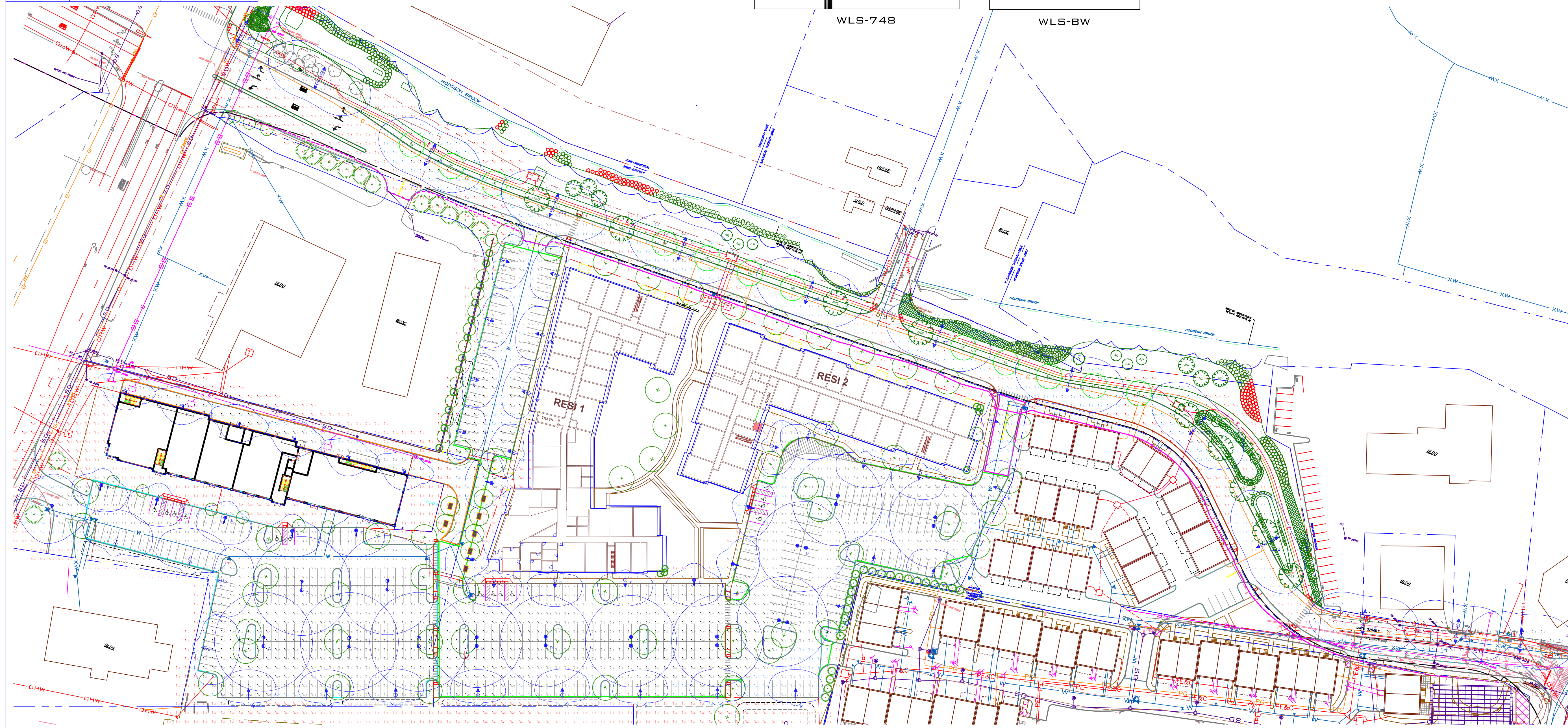
REVISIONS			5	6/20/19	TO
REV #	DATE	BY:	6	6/23/19	TO
1	12/10/18	TO	7	7/10/19	TO
2	3/17/19	TO			
3	5/16/19	TO			
4	5/19/19	TO			



WLS-748



WLS-BW



ENERGY SERVICES GROUP OF WLS

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

BASED ON THE INFORMATION PROVIDED, ALL DIMENSIONS AND LUMINAIRE LOCATIONS SHOWN REPRESENT RECOMMENDED POSITIONS. THE ENGINEER AND/OR ARCHITECT MUST DETERMINE APPLICABILITY OF THE LAYOUT TO EXISTING OR FUTURE FIELD CONDITIONS.
 THIS LIGHTING PATTERN REPRESENTS ILLUMINATION LEVELS CALCULATED FROM LABORATORY DATA TAKEN UNDER CONTROLLED CONDITIONS UTILIZING CURRENT INDUSTRY STANDARD LAMP RATINGS IN ACCORDANCE WITH ILLUMINATING ENGINEERING SOCIETY APPROVED METHODS. ACTUAL PERFORMANCE OF ANY MANUFACTURER'S LUMINAIRE MAY VARY DUE TO VARIATION IN ELECTRICAL VOLTAGE, TOLERANCE IN LAMPS AND OTHER VARIABLE FIELD CONDITIONS.

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

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

WEST END YARDS
PORTSMOUTH, NH

WLS LIGHTING SYSTEMS

Consider the Impact!

1919 WINDSOR PLACE
FORT WORTH, TX 76110
WWW.WLSLIGHTING.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 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
ELDRIDGE BREWERY REALTY PARTNERSHIP
1 CATE ST
PORTSMOUTH, NH 03801
R.C.R.D. BOOK 2572 PAGE 2635

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

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

TAX MAP 164, LOT 1
PORTSMOUTH LUMBER & HARDWARE, LLC
105 BARTLETT STREET
PORTSMOUTH, NH 03801
R.C.R.D. BOOK 5372, PAGE 2806

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

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

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

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

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

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

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

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

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

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

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

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

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

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

TAX MAP 234, LOT 7-6
CREFHIII 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

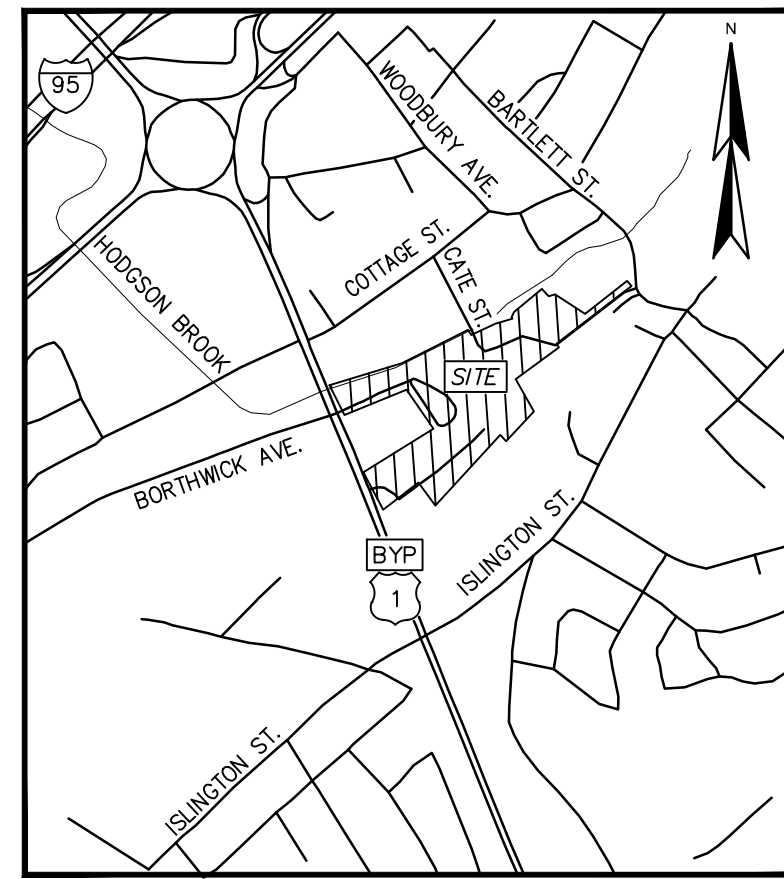
NOTES:

- REFERENCE: TAX MAP 163, LOT 33 - 12,230 SF OR 0.28 AC. TAX MAP 163, LOT 34 - 64,109 SF OR 1.47 AC.
- OWNER OF RECORD: CATE STREET DEVELOPMENT LLC 11 ELKINS STREET, SUITE 420 BOSTON, MA 02127 R.C.R.D. BOOK 5959, PAGE 109
- ZONES: GW1-GATEWAY NEIGHBORHOOD MIXED USE CORRIDOR (SEE CITY OF PORTSMOUTH ZONING ORDINANCE FOR DIMENSIONAL REQUIREMENTS. SUBJECT LOTS WERE REZONED TO GW1 ON DECEMBER 4, 2017 PER SAID ORDINANCE.)
-SEE SITE PLANS FOR DIMENSIONAL REQUIREMENTS AND DEVELOPMENT SITE STANDARDS.
- 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.M.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. ADDITIONAL FIELD SURVEY PERFORMED BY M.C. DURING NOVEMBER 2016 AND OCTOBER 2018 USING A LEICA HDS SCANNER.
- THE LIMITS OF JURISDICTIONAL WETLANDS WERE DELINEATED BY MARC JACOBS IN NOVEMBER 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 2102 AND FIELD INDICATORS FOR IDENTIFYING HYDRIC SOILS IN NEW ENGLAND, VERSION 4, MAY 2017, NEW ENGLAND HYDRIC SOILS TECHNICAL COMMITTEE.
- FLOOD HAZARD ZONE: "X", PER FIRM MAP #33015C0259E, DATED 5/17/05.
- VERTICAL DATUM IS BASED ON NGVD29 PER DISK V 28 1942 ELEV. 25.59.
- HORIZONTAL DATUM BASED ON NEW HAMPSHIRE STATE PLANE(2800) NAD83(2011) DERIVED FROM REDUNDANT GPS OBSERVATIONS UTILIZING THE KEYNET GPS VRS NETWORK.
- 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.
- 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.
- FINAL MONUMENTATION MAY BE DIFFERENT THAN THE PROPOSED MONUMENTATION SHOWN HEREON, DUE TO THE FACT THAT SITE CONDITIONS WILL DICTATE THE ACTUAL LOCATION AND TYPE OF MONUMENTS INSTALLED IN THE FIELD. PLEASE REFER TO EITHER THE "MONUMENTATION LOCATION PLAN" TO BE RECORDED OR CONTACT DOUCET SURVEY, INC. FOR CLARIFICATION OF MONUMENTS SET. (A RECORDED PLAN WILL BE PRODUCED AT THE DISCRETION OF DOUCET SURVEY, INC.).

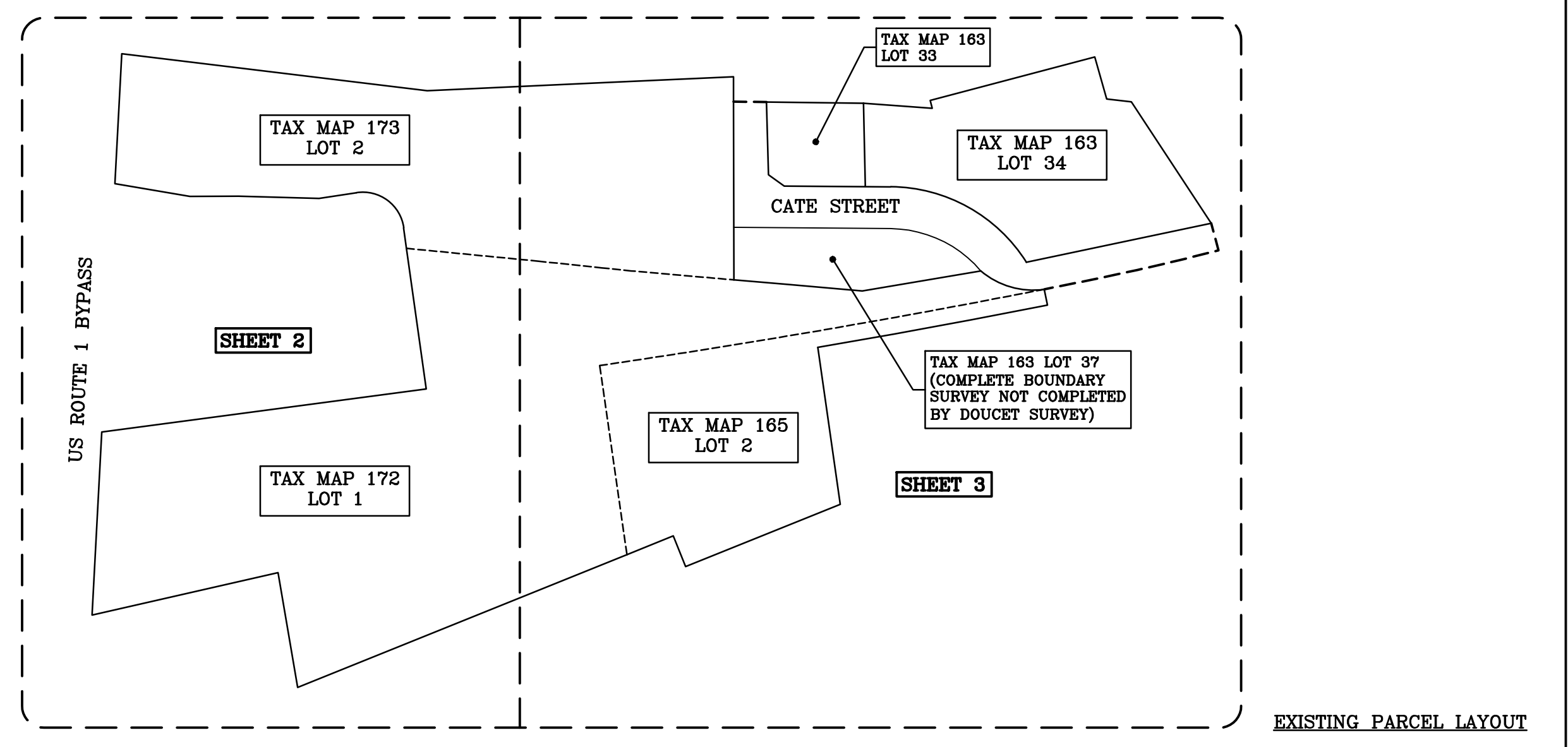
-SEE SHEET 4 FOR NOTES 12 & 13 SPECIFIC TO EXISTING AND PROPOSED EASEMENT.
-SEE SHEET 6 FOR NOTES SPECIFIC TO EXISTING CONDITIONS.

REFERENCE PLANS

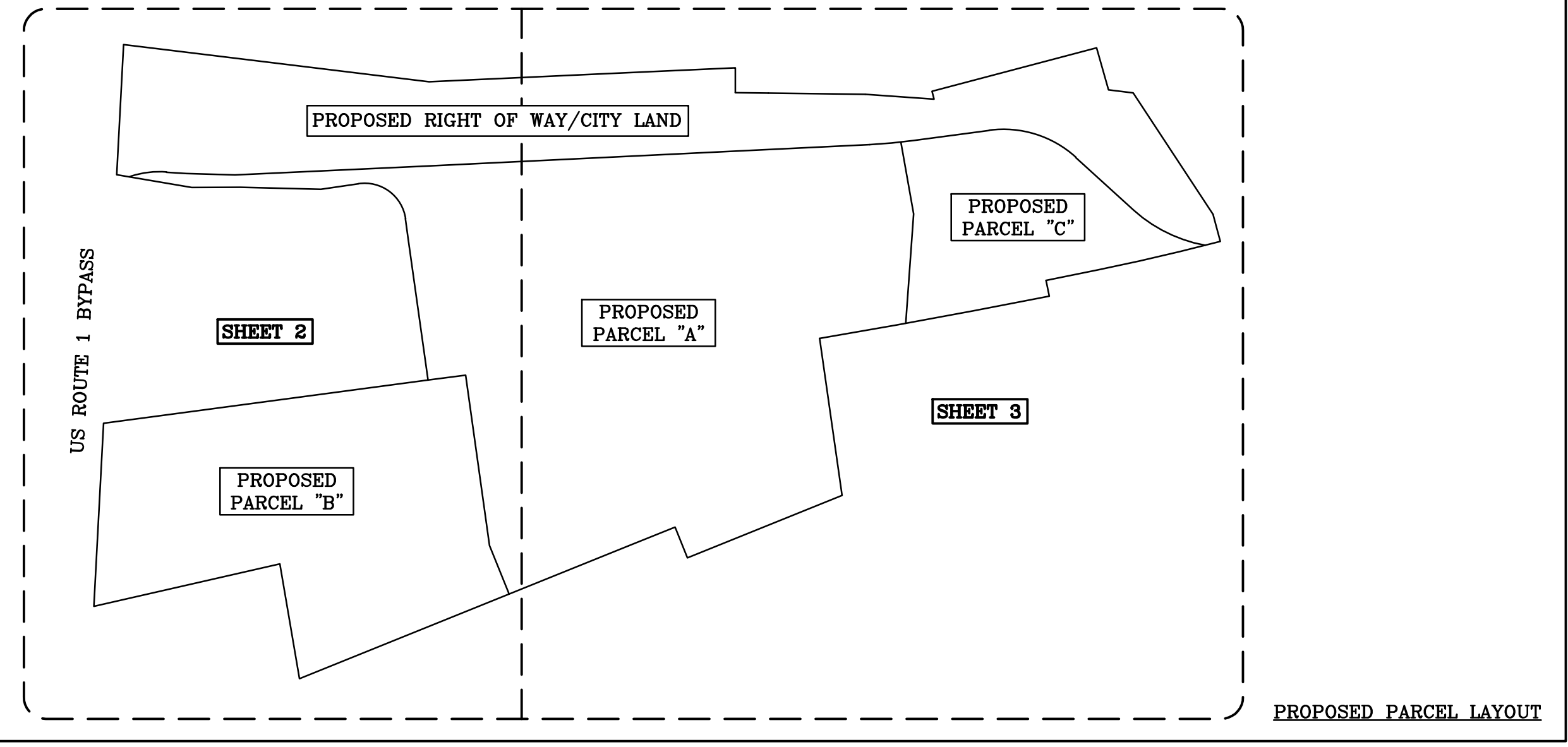
- "MAINE-NEW HAMPSHIRE INTERSTATE BRIDGE AUTHORITY, PISCATAQUA RIVER BRIDGE, KITTERY, MAINE-PORTSMOUTH, NEW HAMPSHIRE, RIGHT OF WAY MAPS, N.H. APPROACH BY ALBERT MOULTON, CE, DATED 1954, ON FILE AT THE NEW HAMPSHIRE DEPARTMENT OF TRANSPORTATION.
- "PLAT OF LAND U.S. ROUTE 1 BY-PASS PORTSMOUTH, NEW HAMPSHIRE FOR GRIFFIN FAMILY CORP.", BY DURGIN, VERRA AND ASSOCIATES, INC., DATED JANUARY 20, 1992, RECEIVED FROM THE OFFICE OF JAMES VERRA.
- "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.
- "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.
- "LAND IN PORTSMOUTH, N.H., BOSTON AND MAINE RAILROAD TO ALL STATE REALTY CORPORATION", BY BRENTON V. SCHOFIELD, DATED FEBRUARY 1984, R.C.R.D. PLAN 160.
- "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.
- "SUBDIVISION OF LAND HEIRS OF CORNELIUS COAKLEY", BY MCKENNA ASSOCIATES, DATED JULY 26, 1972, R.C.R.D. PLAN D-3790.
- "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.
- "SITE PLAN OF ELDRIDGE PARK WEST PREPARED FOR ELDRIDGE BREWERY REALTY PARTNERSHIP", BY KIMBALL CHASE COMPANY, INC., DATED JULY 23, 1987, R.C.R.D. PLAN D-16894.
- "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.
- "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.
- "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.
- "PLAN SHOWING DIVISION OF ELDRIDGE 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.
- "PLAN OF LAND PORTSMOUTH, N.H. ATLANTIC REALTY CORP. TO KITTERY LAUNDRY, INC.", BY JOHN W. DURGIN, DATED AUGUST 1984, R.C.R.D. PLAN 300.
- "CITY OF PORTSMOUTH, N.H. DEFENSE HOMES SEWER LOCATION PLAN", BY JOHN W. DURGIN DATED MAY 1961, R.C.R.D. PLAN 1106.
- "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.
- "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.
- "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.
- "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.
- "PLOT PLAN FOR MARIAN M. BADGER, PORTSMOUTH, N.H.", BY JOHN W. DURGIN, DATED JULY 1973, RECEIVED FROM THE OFFICE OF JAMES VERRA.
- "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.
- "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.
- "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.
- "LOT LINE REVISION PLAN TAX MAP R-34 LOTS 6 & 7-8, 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.
- "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.
- "LOT LINE REVISION PLAN LAND OF SEARAY REALTY, LLC", BY DOUCET SURVEY, INC., DATED MARCH 12, 2014, R.C.R.D. PLAN D-38435.
- "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.
- "PLAN OF A LOT OF LAND BELONGING TO FRANK JONES", DATED JULY 1901, R.C.R.D. PLAN #223.
- "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.
- "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.
- "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.
- "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.
- "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.i.s.)



EXISTING PARCEL LAYOUT



PROPOSED PARCEL LAYOUT

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

NO.	DATE	DESCRIPTION	MWF	BY
1	8/19/19	ADD ADDITIONAL EASEMENTS		

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

APPROVED FOR THE RECORD

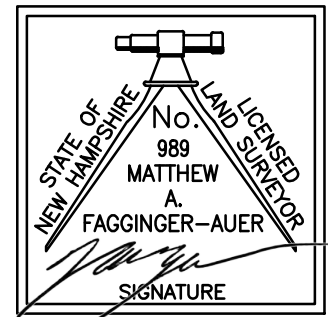
CHAIRMAN PORTSMOUTH PLANNING BOARD DATE

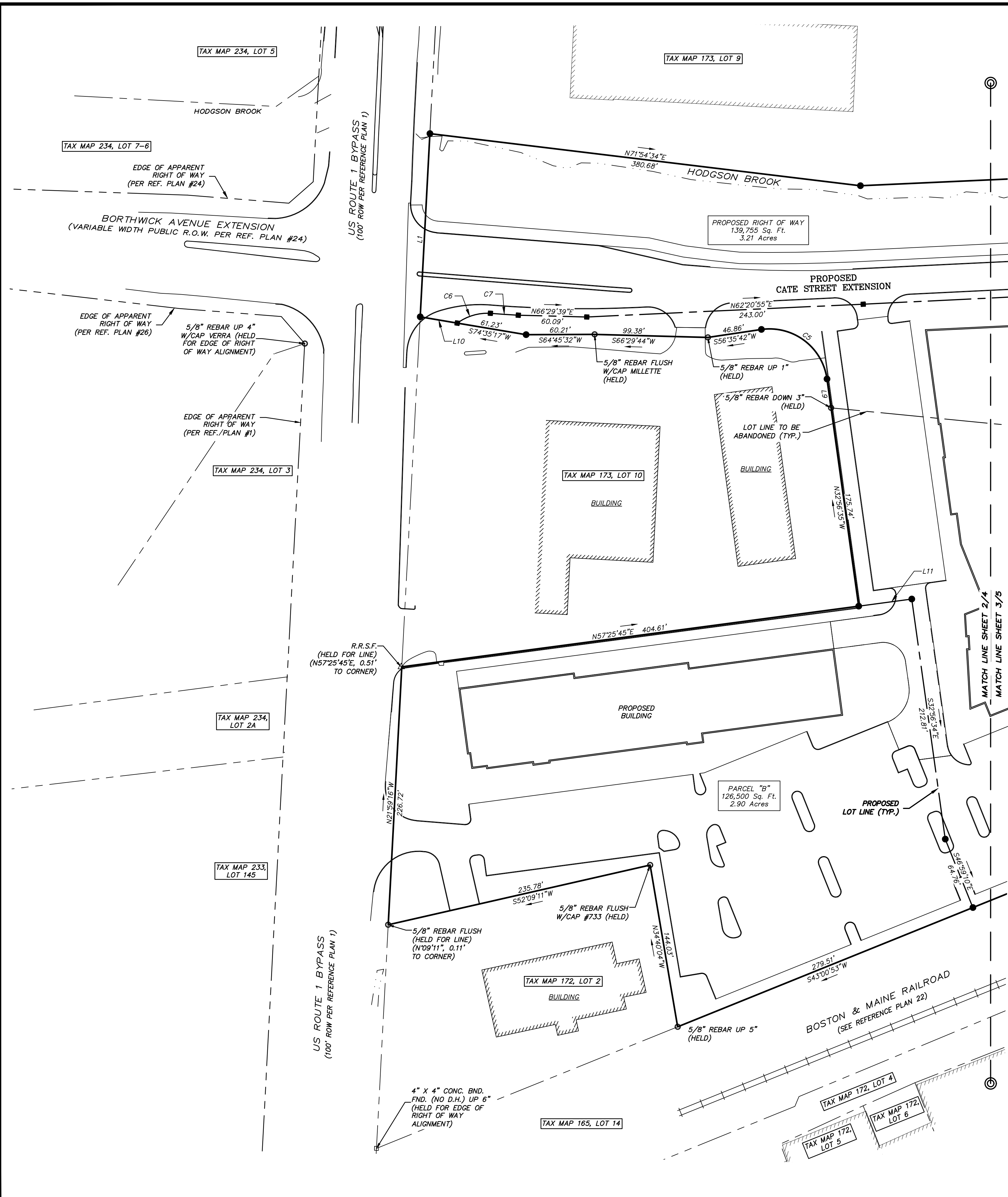
DOUCET SURVEY
Serving Your Professional Surveying & Mapping Needs
102 Kent Place, Newmarket, NH 03857 (603) 659-6560
2 Commerce Drive (Suite 202) Bedford, NH 03110 (603) 614-4060
10 Storer Street (Riverview Suite) Kennebunk, ME (207) 502-7005
http://www.doucetsurvey.com

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.

[Signature] L.L.S. #989
8/19/19 DATE

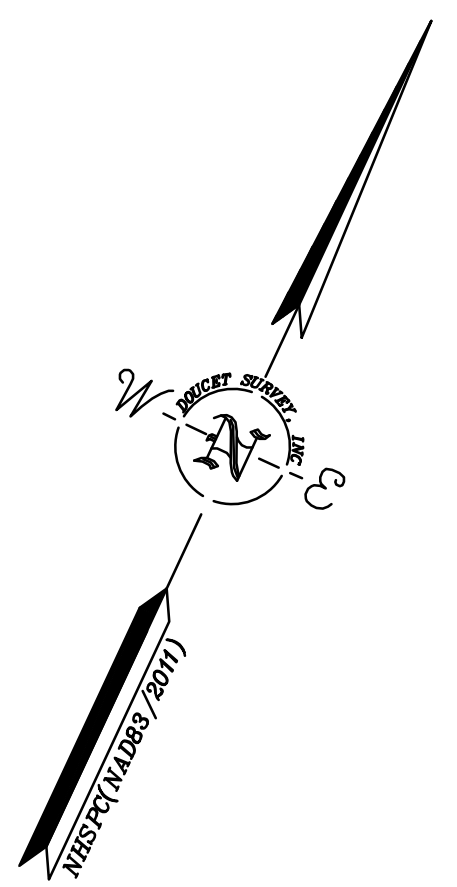
THE CERTIFICATIONS SHOWN HEREON ARE INTENDED TO MEET REGISTRY OF DEED REQUIREMENTS AND ARE NOT A CERTIFICATION TO TITLE OR OWNERSHIP OF PROPERTY SHOWN. OWNERS OF ADJOINING PROPERTIES ARE ACCORDING TO CURRENT TOWN ASSESSORS RECORDS.



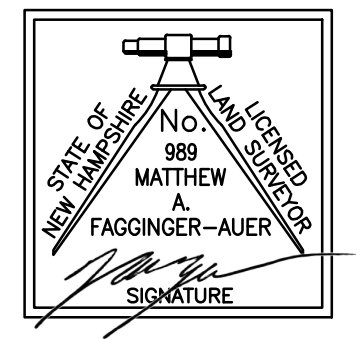


CURVE TABLE					
CURVE	ARC LENGTH	RADIUS	DELTA ANGLE	CHORD BEARING	CHORD LENGTH
C1	19.41'	2836.93'	0°23'31"	S50°31'13"W	19.41'
C2	134.92'	2836.93'	2°43'29"	N52°04'44"E	134.90'
C3	180.71'	11451.20'	0°54'15"	N54°18'39"E	180.71'
C4	108.14'	11451.20'	0°32'28"	N55°02'01"E	108.14'
C5	80.85'	51.00'	90°49'33"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

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



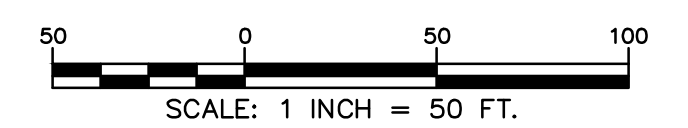
- LEGEND**
- LOT LINE
 - - - PROPOSED LOT LINE
 - · - · APPARENT RIGHT OF WAY LINE
 - · - · LOT LINE TO BE ABANDONED
 - · - · APPROXIMATE ABUTTER LOT LINE
 - · - · EDGE OF WETLAND
 - BOUND FOUND
 - △ R.R.S.F.
 - RAILROAD SPIKE FOUND
 - IRON PIPE/ROD FOUND
 - 4"x4" GRANITE BOUND TO BE SET
 - 5/8" REBAR W/ID CAP TO BE SET
 - BOUND FOUND
 - IRON PIPE FOUND
 - CONC.
 - D.H.



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.

Matthew A. Faginger-Auer
 L.L.S. #989
 DATE 8/19/19

APPROVED FOR THE RECORD
 CHAIRMAN PORTSMOUTH PLANNING BOARD DATE



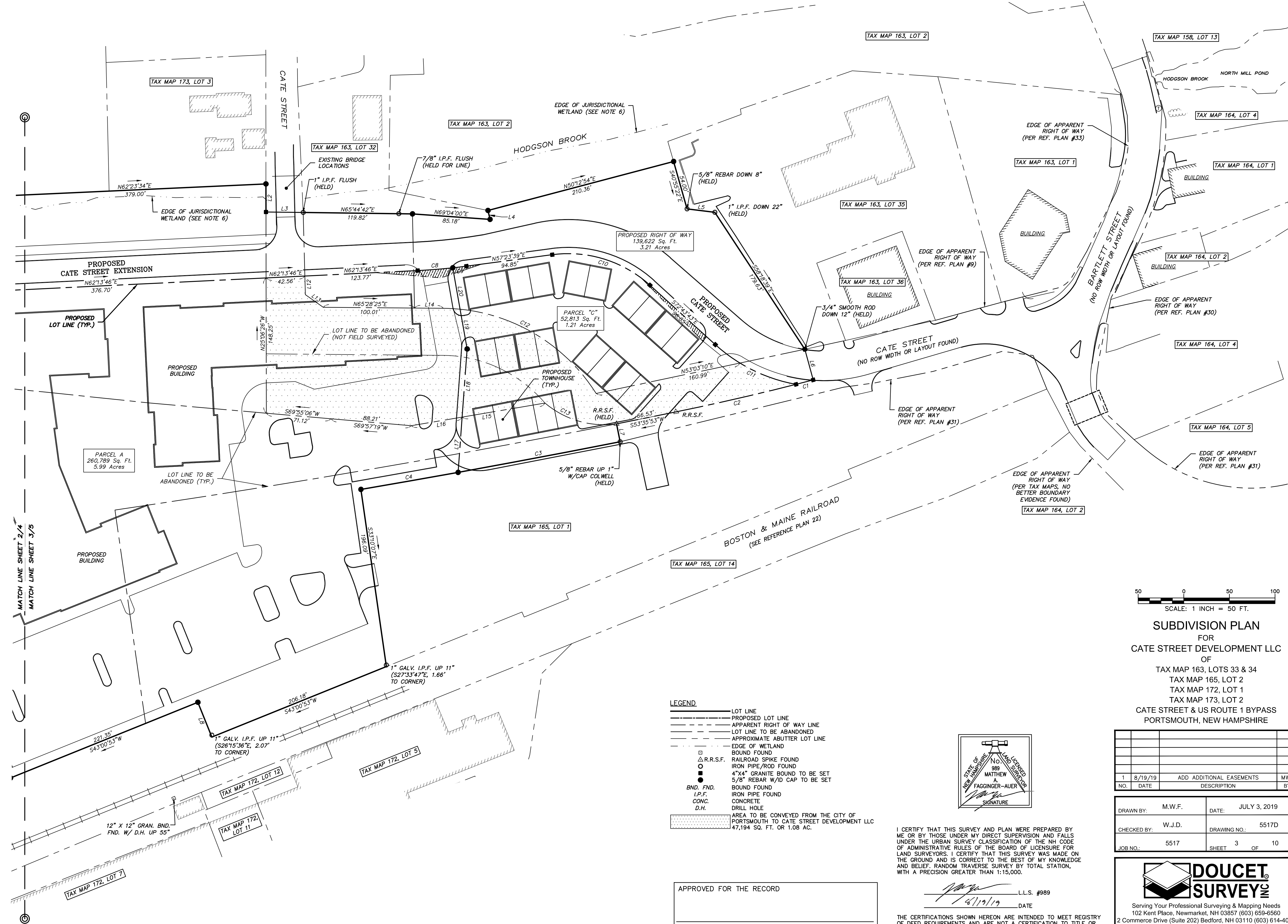
SUBDIVISION PLAN
 FOR
CATE STREET DEVELOPMENT LLC
 OF
 TAX MAP 163, LOTS 33 & 34
 TAX MAP 165, LOT 2
 TAX MAP 172, LOT 1
 TAX MAP 173, LOT 2
 CATE STREET & US ROUTE 1 BYPASS
 PORTSMOUTH, NEW HAMPSHIRE

NO.	DATE	DESCRIPTION	MWF	BY
1	8/19/19	ADD ADDITIONAL EASEMENTS	MWF	

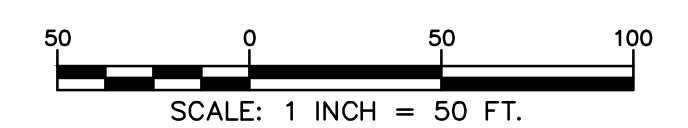
DRAWN BY:	M.W.F.	DATE:	JULY 3, 2019
CHECKED BY:	W.J.D.	DRAWING NO.:	5517D
JOB NO.:	5517	SHEET	2 OF 10

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

FILE NAME: Y:\PROJECTS\5517.DWG DATE: 4/19/2019 10:51:50 AM PLOT DATE: 8/19/2019 10:51:50 AM PLOT NAME: SUB PLANS.dwg LAYOUT NAME: SUB (2) PLOTTED: Monday, August 19, 2019 10:51:50 AM

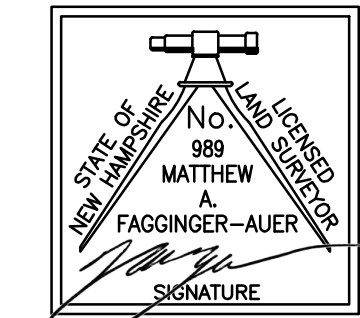


MATCH LINE SHEET 2/4
MATCH LINE SHEET 3/5



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

- LEGEND**
- LOT LINE
 - - - PROPOSED LOT LINE
 - · - - APPARENT RIGHT OF WAY LINE
 - · - - LOT LINE TO BE ABANDONED
 - · - - APPROXIMATE ABUTTER LOT LINE
 - · - - EDGE OF WETLAND
 - · - - BOUND FOUND
 - R.R.S.F.
 - RAILROAD SPIKE FOUND
 - IRON PIPE/ROD FOUND
 - 4"x4" GRANITE BOUND TO BE SET
 - 5/8" REBAR W/D CAP TO BE SET
 - BOUND FOUND
 - IRON PIPE FOUND
 - CONC.
 - D.H.
 - AREA TO BE CONVEYED FROM THE CITY OF PORTSMOUTH TO CATE STREET DEVELOPMENT LLC 47,194 SQ. FT. OR 1.08 AC.



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.

APPROVED FOR THE RECORD
CHAIRMAN PORTSMOUTH PLANNING BOARD DATE

Matthew A. Faccinger-Auer
L.L.S. #989
DATE 8/10/19

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.

NO.	DATE	DESCRIPTION	BY
1	8/19/19	ADD ADDITIONAL EASEMENTS	MWF

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

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

SEE SHEET 1 FOR NOTES 1-11.

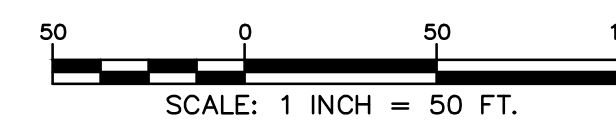
12. THE FOLLOWING LOTS ARE EITHER SUBJECT TO OR IN BENEFIT OF, BUT NOT LIMITED TO, THE FOLLOWING EASEMENTS/RIGHTS OF RECORD:

- 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 2411, PAGE 1484 AND R.C.R.D. PLAN D-10722 (TO BE ABANDONED).
 - B. EXCEPTING AN 8" WATER PIPE LOCATED UNDER SUBJECT PARCEL SEE R.C.R.D. BOOK 2783, PAGE 560, LOCATION OF SUBJECT WATER PIPE UNKNOWN.
 - C. SUBJECT TO A 10' WIDE ELECTRIC EASEMENT, SEE R.C.R.D. BOOK 1257, PAGE 324 AND R.C.R.D. PLAN D-19110.
 - D. SUBJECT TO A WATER LINE EASEMENT, SEE R.C.R.D. BOOK 950, PAGE 174, LOCATION OF SUBJECT WATERLINE UNKNOWN.
 - E. SUBJECT TO AN ELECTRIC EASEMENT, SEE R.C.R.D. BOOK 1374, PAGE 97, LOCATION OF SUBJECT EASEMENT UNKNOWN.
 - F. SUBJECT TO AN ELECTRIC EASEMENT, SEE R.C.R.D. BOOK 2364, PAGE 397, LOCATION OF SUBJECT EASEMENT UNKNOWN.
 - G. SUBJECT TO A 15' DRIVEWAY EASEMENT, SEE R.C.R.D. BOOK 2216, PAGE 18, LOCATION OF SUBJECT EASEMENT UNKNOWN.
- TAX MAP 173, LOT 2
 - H. SUBJECT TO A 70' WIDE ACCESS EASEMENT IN FAVOR OF TAX MAP 173, LOT 10, SEE R.C.R.D. BOOK 3204, PAGE 87 AND R.C.R.D. PLAN D-24912 (TO BE ABANDONED).
 - I. SUBJECT TO A DRAINAGE EASEMENT TO THE UNITED STATES OF AMERICA, SEE R.C.R.D. BOOK 1423, PAGE 240 AND PLAN D-19110.
 - J. SUBJECT TO A 10' WIDE ELECTRIC EASEMENT, SEE R.C.R.D. BOOK 1257, PAGE 324. SEE ALSO R.C.R.D. PLAN D-19110.
 - K. SUBJECT TO EASEMENTS FOR PASSAGE AND PIPE LINES, SEE R.C.R.D. BOOK 2205, PAGE 646 AND PLAN D-24912. LOCATION OF SUBJECT EASEMENTS UNKNOWN.
 - L. SUBJECT TO A SEWER AND WATER EASEMENT IN FAVOR OF THE CITY OF PORTSMOUTH, SEE R.C.R.D. BOOK 1476, PAGE 252 (TO BE ABANDONED).
- TAX MAP 165, LOT 2
 - M. SUBJECT TO A SEWER EASEMENT, SEE R.C.R.D. BOOK 1659, PAGE 273 (TO BE ABANDONED).
 - N. DRIVEWAY RIGHTS, SEE R.C.R.D. BOOK 1659, PAGE 273, LOCATION AND STATUS UNKNOWN.
 - O. ADDITIONAL COVENANTS AND EXCEPTIONS, SEE R.C.R.D. BOOK 1659, PAGE 273.
- TAX MAP 173, LOT 10 (NOT SUBJECT PARCEL)
 - P. SUBJECT TO A SEWER EASEMENT, SEE R.C.R.D. BOOK 1270, PAGE 418.
 - Q. SUBJECT TO A WATER EASEMENT, SEE R.C.R.D. BOOK 1448, PAGE 465.

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

- A. PROPOSED 20' WIDE ELECTRIC EASEMENT IN FAVOR OF EVERSOURCE AND TAX MAP 173, LOT 10.
 - B. PROPOSED 20' WIDE SEWER EASEMENT IN FAVOR OF THE CITY OF PORTSMOUTH.
 - C. PROPOSED 20' WIDE WATER SERVICE EASEMENT IN FAVOR OF TAX MAP 172, LOT 2.
 - D. PROPOSED SIGN EASEMENT IN FAVOR OF GATE STREET DEVELOPMENT LLC.
- ADDITIONAL PROPOSED EASEMENTS:
- PARCEL "A" (RESIDENTIAL LOT)
 - E. BLANKET UTILITY EASEMENT IN FAVOR OF EVERSOURCE.
 - F. BLANKET WATER SERVICE EASEMENT IN FAVOR OF TAX MAP 172, LOT 2.
 - G. BLANKET ACCESS EASEMENT IN FAVOR OF TAX MAP 172, LOT 2 AND PROPOSED PARCELS "B" & "C".
 - H. BLANKET WATER EASEMENT IN FAVOR OF THE CITY OF PORTSMOUTH TO MAINTAIN VALVES AND HYDRANTS.
 - I. 5' WIDE SNOW STORAGE EASEMENT IN FAVOR OF THE CITY OF PORTSMOUTH ALONG THE SOUTHERN LINE OF THE PROPOSED RIGHT OF WAY.
 - J. BLANKET ACCESS EASEMENT FOR EMERGENCY SERVICES.
 - PARCEL "B" (COMMERCIAL LOT)
 - K. BLANKET ACCESS EASEMENT IN FAVOR OF TAX MAP 172, LOT 2 AND PROPOSED PARCELS "A" & "C".
 - L. BLANKET WATER EASEMENT IN FAVOR OF THE CITY OF PORTSMOUTH TO MAINTAIN VALVES AND HYDRANTS.
 - M. BLANKET ACCESS EASEMENT FOR EMERGENCY SERVICES.
 - PARCEL "C" (TOWNHOUSE LOT)
 - N. BLANKET UTILITY EASEMENT IN FAVOR OF EVERSOURCE.
 - O. BLANKET ACCESS EASEMENT IN FAVOR OF TAX MAP 172, LOT 2 AND PROPOSED PARCELS "A" & "B".
 - P. BLANKET WATER EASEMENT IN FAVOR OF THE CITY OF PORTSMOUTH TO MAINTAIN VALVES AND HYDRANTS.
 - Q. 5' WIDE SNOW STORAGE EASEMENT IN FAVOR OF THE CITY OF PORTSMOUTH ALONG THE SOUTHERN LINE OF THE PROPOSED RIGHT OF WAY.
 - R. BLANKET ACCESS EASEMENT FOR EMERGENCY SERVICES.
 - S. SIGHT LINE EASEMENT IN FAVOR OF THE CITY OF PORTSMOUTH. NO PLANTINGS OR OBSTRUCTIONS WITHIN THIS EASEMENT TALLER THAN THREE (3) FEET WILL BE ALLOWED IN ORDER TO MAINTAIN SIGHT DISTANCE.

TAX MAP 165, LOT 1 & TAX MAP 172, LOT 2
T. BLANKET ACCESS EASEMENT IN FAVOR OF TAX MAP 165, LOT 1 AND TAX MAP 172, LOT 2 OVER PROPOSED PARCELS A, B & C.



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

NO.	DATE	ADD ADDITIONAL EASEMENTS	DESCRIPTION	MWF	BY
1	8/19/19				

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

DOUCET SURVEY
Serving Your Professional Surveying & Mapping Needs
102 Kent Place, Newmarket, NH 03857 (603) 659-6560
2 Commerce Drive (Suite 202) Bedford, NH 03110 (603) 614-0060
10 Storer Street (Riverview Suite) Kennebunk, ME (207) 502-7005
http://www.doucetsurvey.com

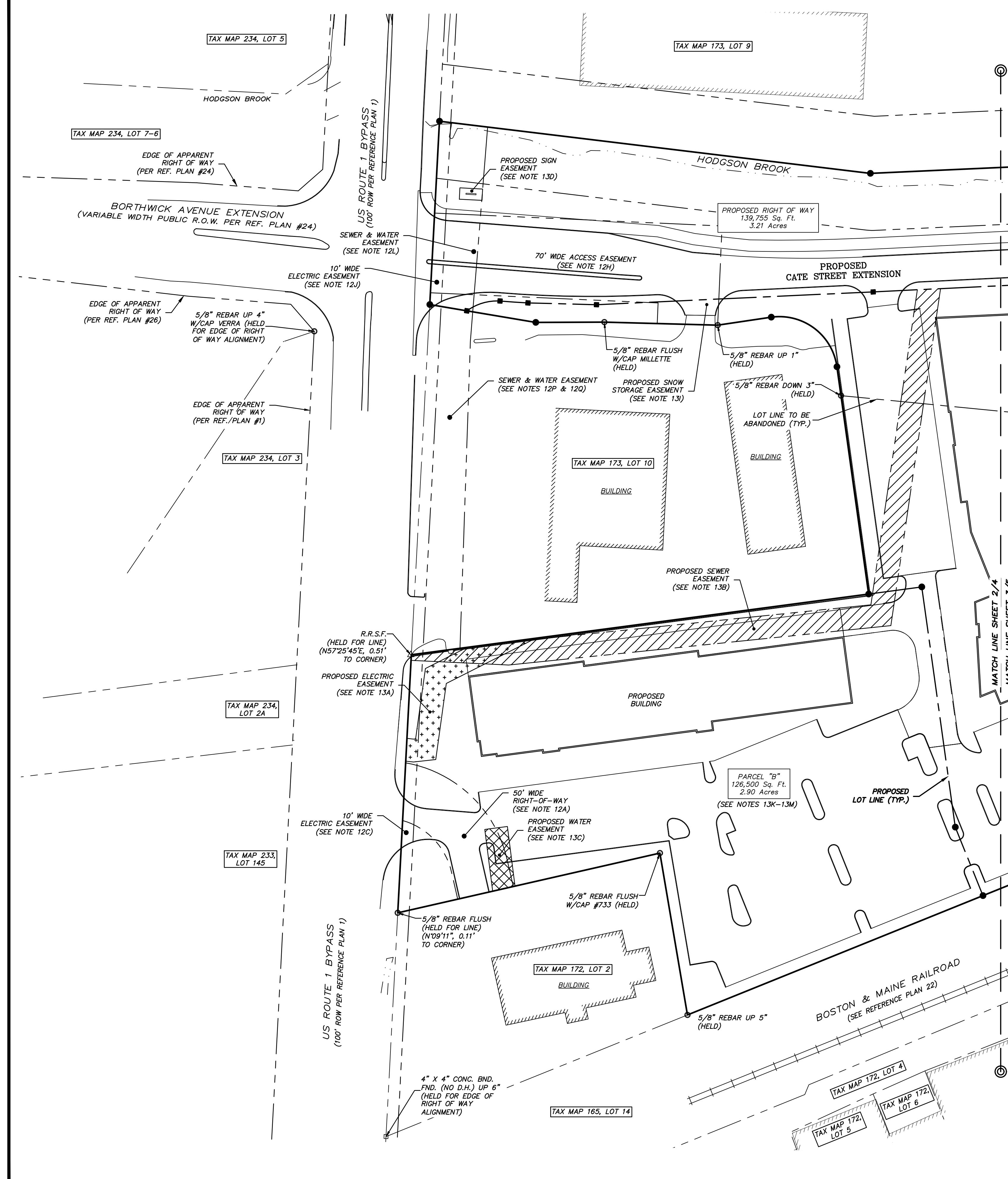
- LEGEND**
- LOT LINE
 - PROPOSED LOT LINE
 - - - APPARENT RIGHT OF WAY LINE
 - - - LOT LINE TO BE ABANDONED
 - - - APPROXIMATE ABUTTER LOT LINE
 - - - EXISTING EASEMENT LINE (SEE NOTE #12)
 - - - PROPOSED EASEMENT LINE (SEE NOTE #13)
 - - - EDGE OF WETLAND
 - BOUND FOUND
 - △ R.R.S.F. RAILROAD SPIKE FOUND
 - IRON PIPE/ROD FOUND
 - 4"x4" GRANITE BOUND TO BE SET
 - 5/8" REBAR W/D CAP TO BE SET
 - BND. FND. BOUND FOUND
 - I.P.F. IRON PIPE FOUND
 - CONC. CONCRETE
 - D.H. DRILL HOLE

APPROVED FOR THE RECORD
CHAIRMAN PORTSMOUTH PLANNING BOARD DATE

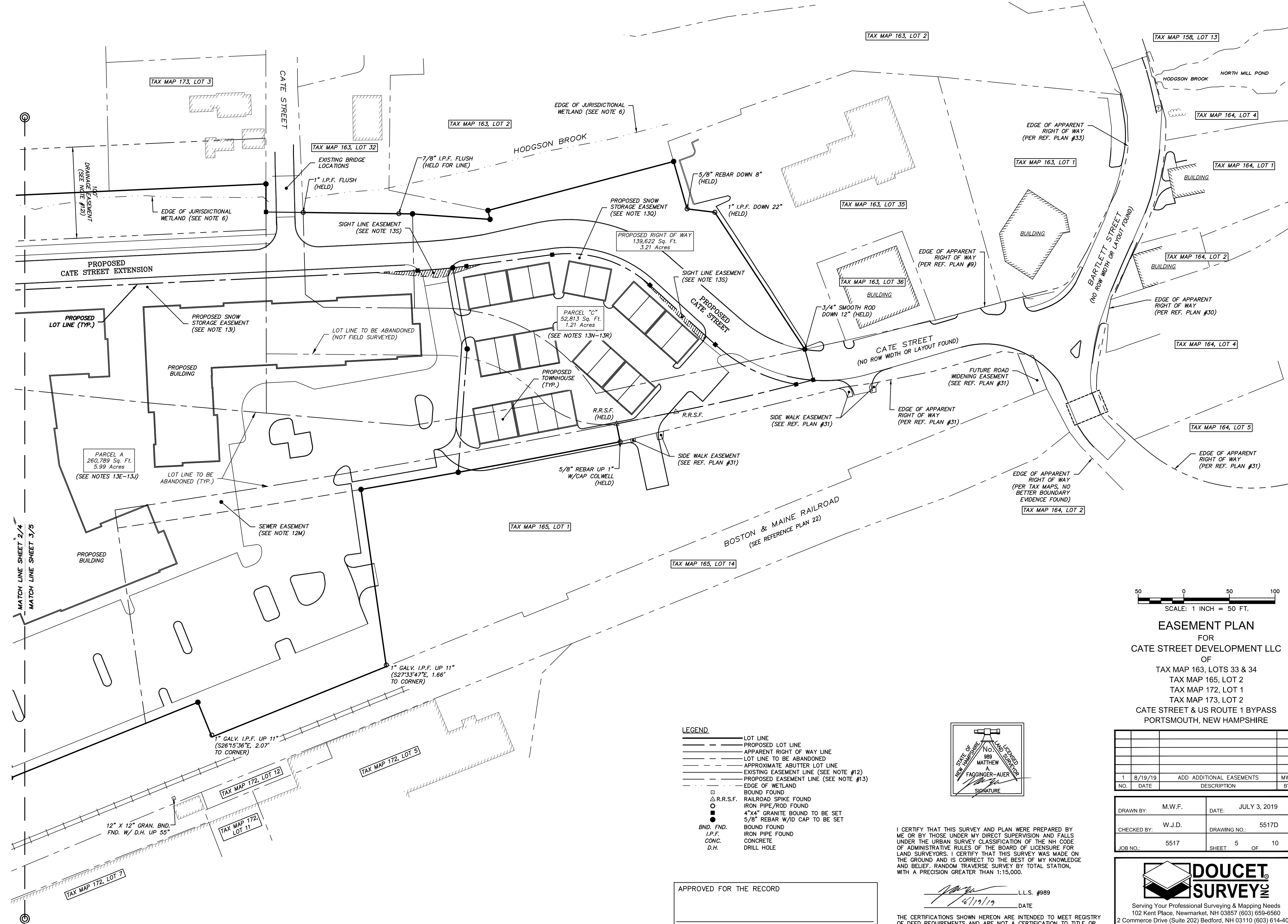
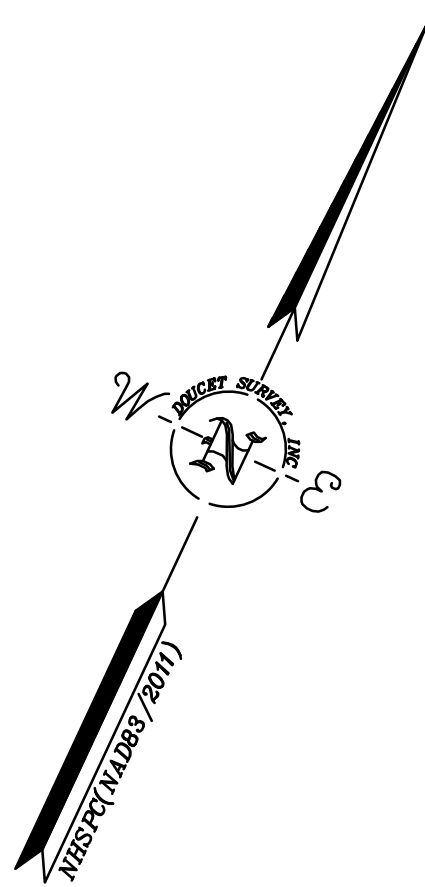
I CERTIFY THAT THIS SURVEY AND PLAN WERE PREPARED BY ME OR BY THOSE UNDER MY DIRECT SUPERVISION AND FALLS UNDER THE URBAN SURVEY CLASSIFICATION OF THE NH CODE OF ADMINISTRATIVE RULES OF THE BOARD OF LICENSURE FOR LAND SURVEYORS. I CERTIFY THAT THIS SURVEY WAS MADE ON THE GROUND AND IS CORRECT TO THE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

Matthew A. Fagginger-Auer
8/19/19 L.L.S. #989
DATE

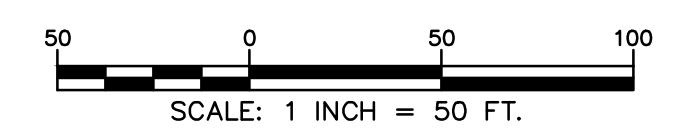
THE CERTIFICATIONS SHOWN HEREON ARE INTENDED TO MEET REGISTRY OF DEED REQUIREMENTS AND ARE NOT A CERTIFICATION TO TITLE OR OWNERSHIP OF PROPERTY SHOWN. OWNERS OF ADJOINING PROPERTIES ARE ACCORDING TO CURRENT TOWN ASSESSORS RECORDS.



FILE NAME: Y:\PROJECTS\5517.DWG DATE: 4/19/2019 10:51:50 AM PLOTTER: HPGLA8000 August 19, 2019 - 1:55pm



MATCH LINE SHEET 2/4
MATCH LINE SHEET 3/5



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

- LEGEND**
- LOT LINE
 - - - PROPOSED LOT LINE
 - - - APPARENT RIGHT OF WAY LINE
 - - - LOT LINE TO BE ABANDONED
 - - - APPROXIMATE ABUTTER LOT LINE
 - - - EXISTING EASEMENT LINE (SEE NOTE #12)
 - - - PROPOSED EASEMENT LINE (SEE NOTE #13)
 - - - EDGE OF WETLAND
 - BOUND FOUND
 - △ R.R.S.F. RAILROAD SPIKE FOUND
 - IRON PIPE/ROD FOUND
 - 4"x4" GRANITE BOUND TO BE SET
 - 5/8" REBAR W/ID CAP TO BE SET
 - BND. FND. BOUND FOUND
 - I.P.F. IRON PIPE FOUND
 - CONC. CONCRETE
 - D.H. DRILL HOLE

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

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

APPROVED FOR THE RECORD
CHAIRMAN PORTSMOUTH PLANNING BOARD DATE

[Signature] L.L.S. #989
DATE

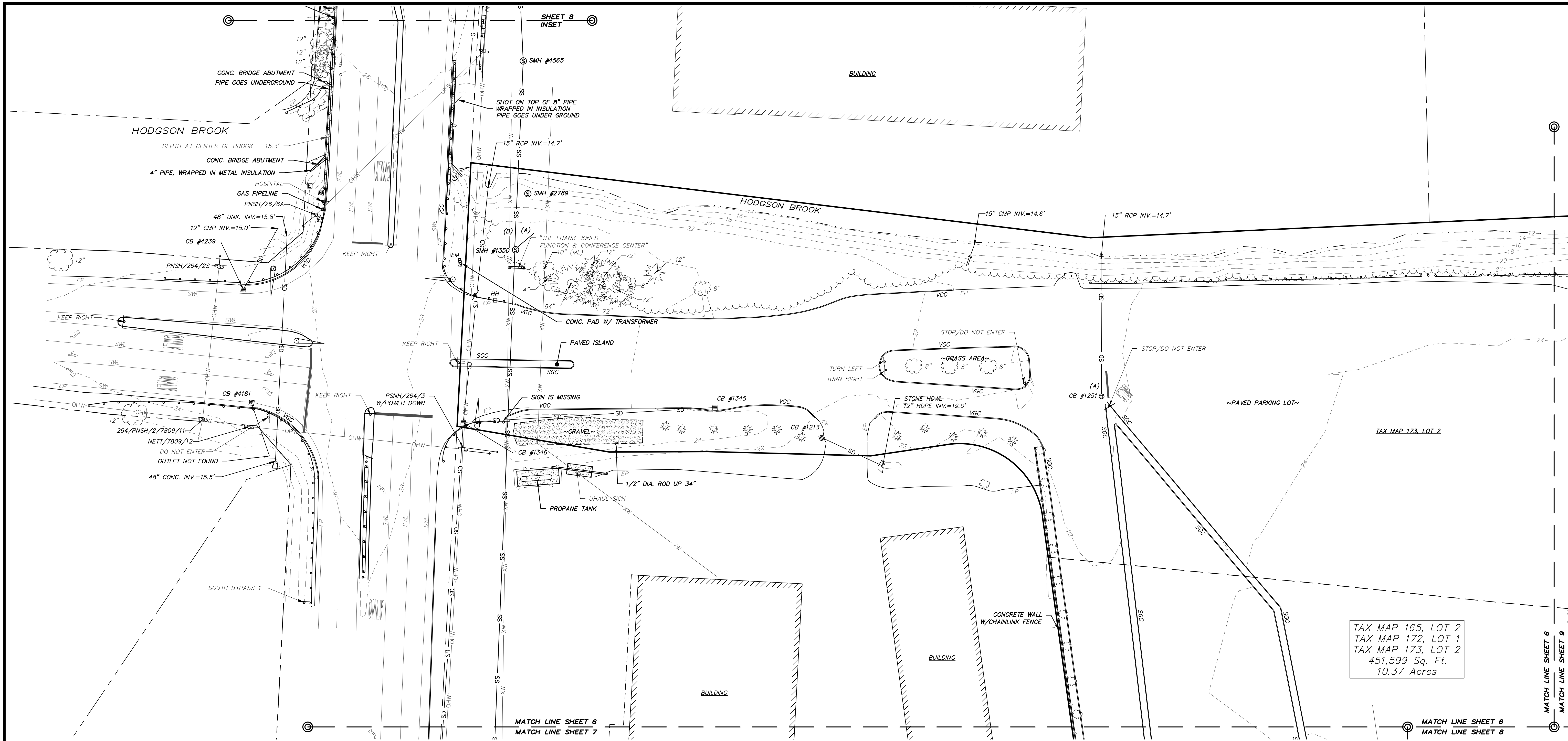
THE CERTIFICATIONS SHOWN HEREON ARE INTENDED TO MEET REGISTRY OF DEED REQUIREMENTS AND ARE NOT A CERTIFICATION TO TITLE OR OWNERSHIP OF PROPERTY SHOWN. OWNERS OF ADJOINING PROPERTIES ARE ACCORDING TO CURRENT TOWN ASSESSORS RECORDS.

NO.	DATE	ADD ADDITIONAL EASEMENTS	MWF
1	8/19/19		

DRAWN BY:	M.W.F.	DATE:	JULY 3, 2019
CHECKED BY:	W.J.D.	DRAWING NO.:	5517D
JOB NO.:	5517	SHEET	5 OF 10

DOUCET SURVEY
Serving Your Professional Surveying & Mapping Needs
102 Kent Place, Newmarket, NH 03857 (603) 659-6560
2 Commerce Drive (Suite 202) Bedford, NH 03110 (603) 614-0060
10 Storer Street (Riverview Suite) Kennebunk, ME (207) 502-7005
http://www.doucetsurvey.com

FILE NAME: Y:\PROJECTS\5517.DWG DATE: 4/30/2019 10:53:10 AM PLOT DATE: 8/19/2019 10:53:10 AM PLOTTER: HPGLA8000 August 19, 2019 - 1:55pm

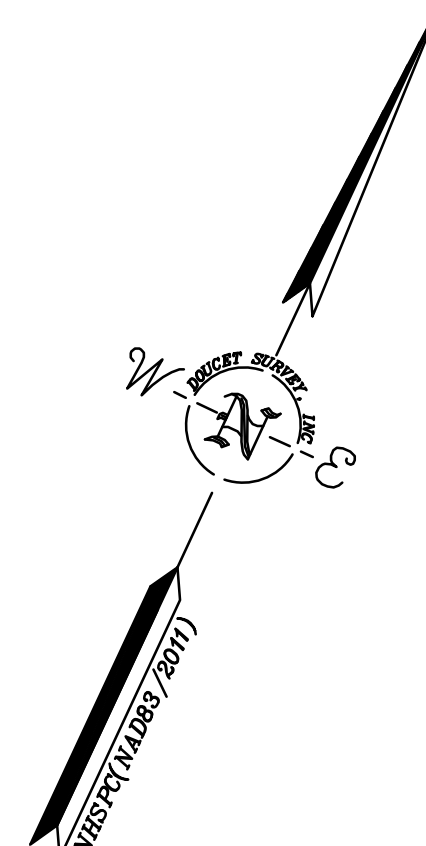
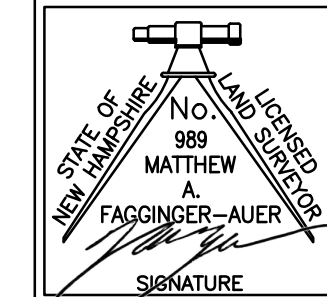


TAX MAP 165, LOT 2
TAX MAP 172, LOT 1
TAX MAP 173, LOT 2
451,599 Sq. Ft.
10.37 Acres

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. 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. ADDITIONAL 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.

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



SCALE: 1 INCH = 30 FT.

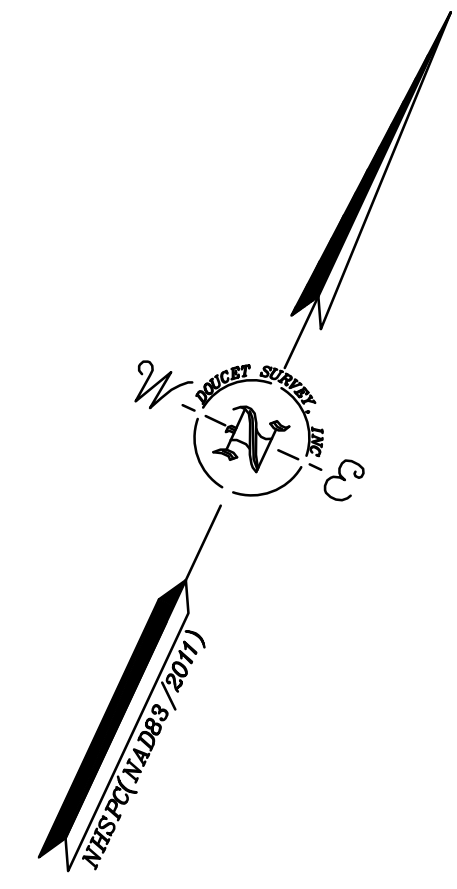
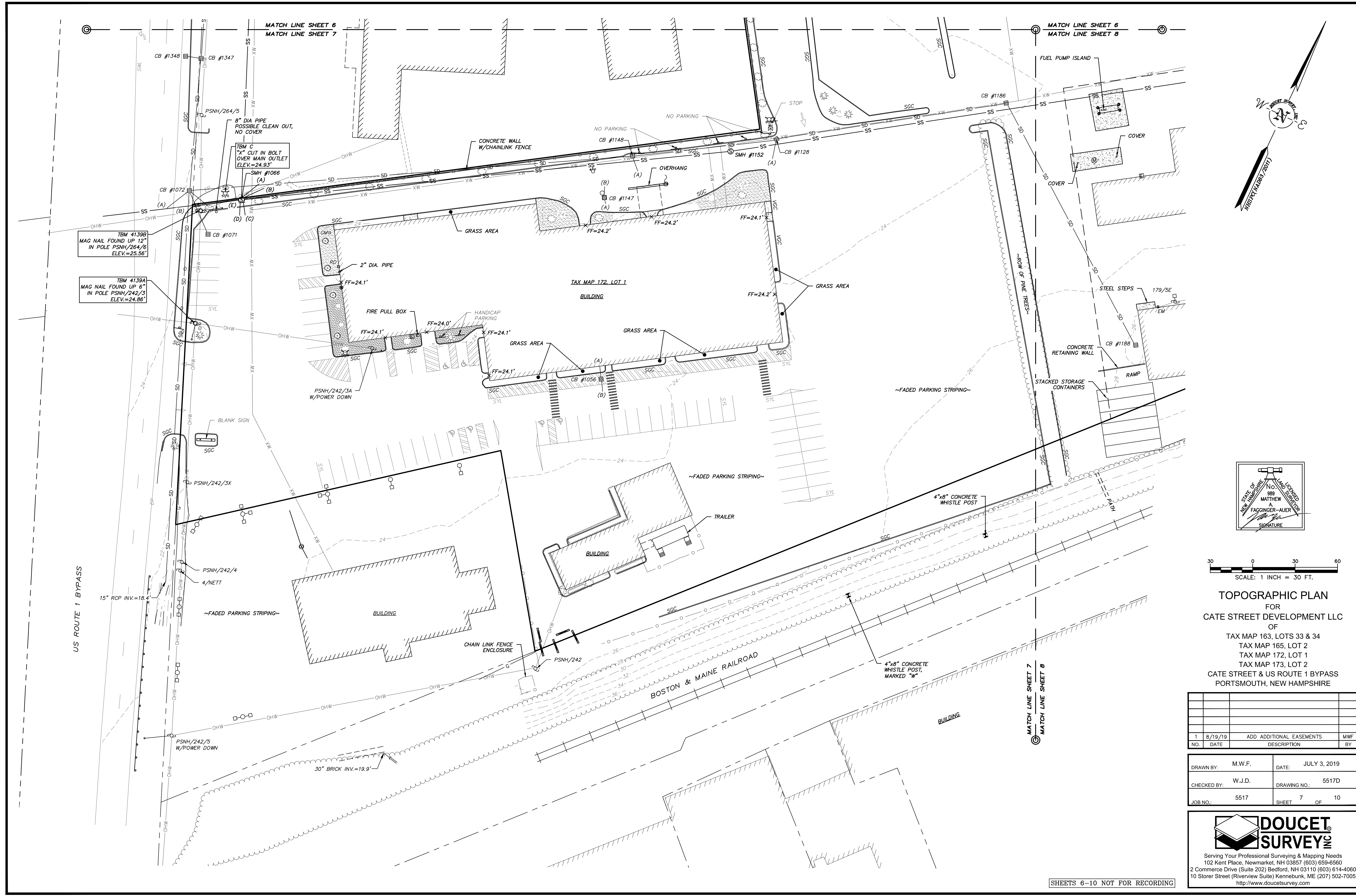
TOPOGRAPHIC PLAN
FOR
CATE STREET DEVELOPMENT LLC
OF
TAX MAP 163, LOTS 33 & 34
TAX MAP 165, LOT 2
TAX MAP 172, LOT 1
TAX MAP 173, LOT 2
CATE STREET & US ROUTE 1 BYPASS
PORTSMOUTH, NEW HAMPSHIRE
SHEETS 6-10 NOT FOR RECORDING

NO.	DATE	ADD ADDITIONAL EASEMENTS	MWF
		DESCRIPTION	BY
1	8/19/19		

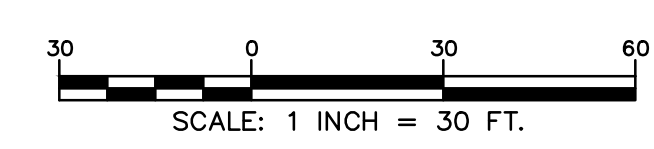
DRAWN BY:	M.W.F.	DATE:	JULY 3, 2019
CHECKED BY:	W.J.D.	DRAWING NO.:	5517D
JOB NO.:	5517	SHEET	6 OF 10

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

FILE NAME: Y:\WORK\5517.DWG DATE: 4/13/2019 10:51:57 AM USER: PUNJANG LAYOUT NAME: TOPG.DWG PLOTTED: Monday, August 19, 2019 1:10:00pm



No. 988
 MATHIEW A. FAGGINGER-AUER
 SIGNATURE



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

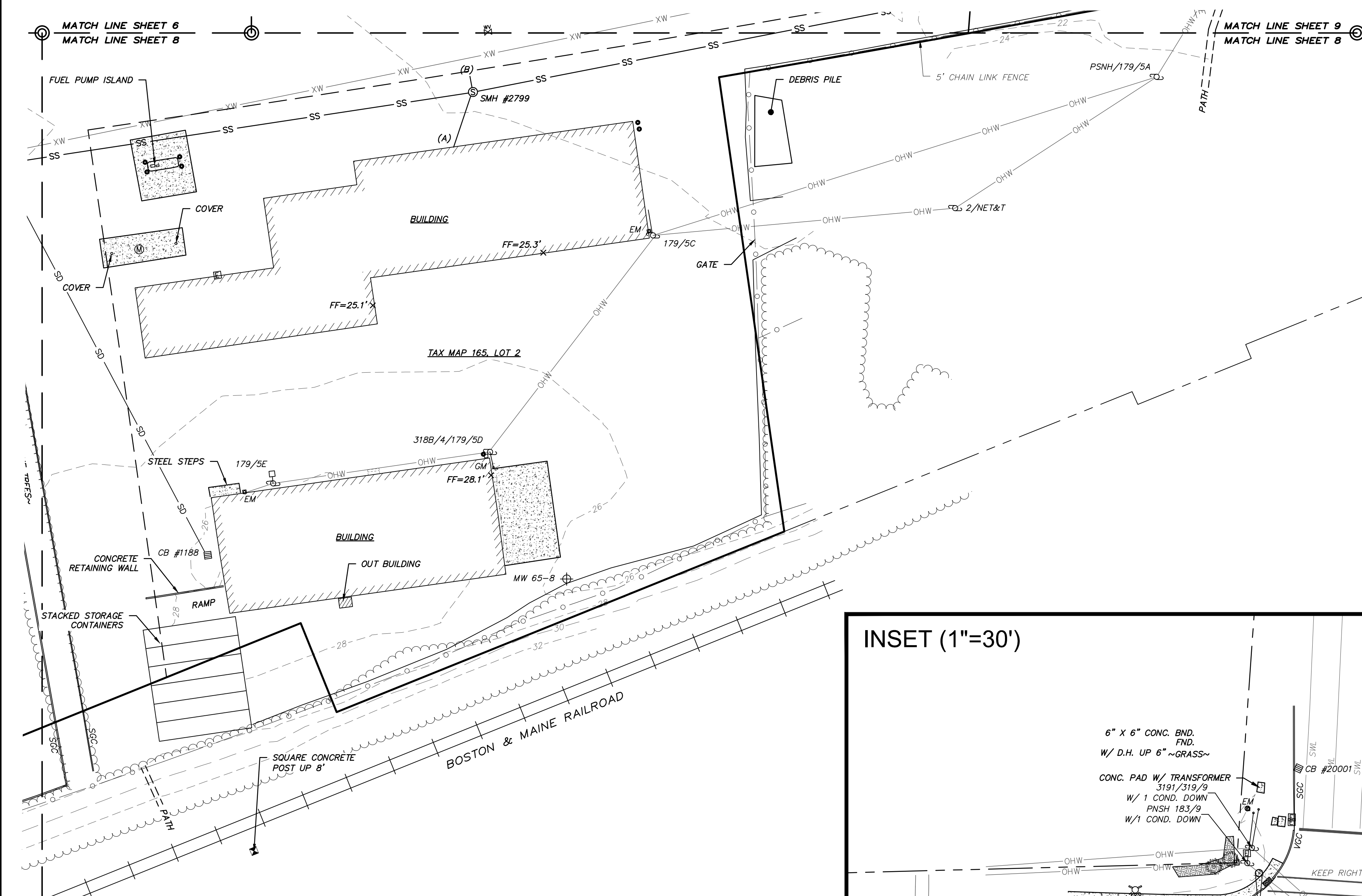
NO.	DATE	ADD ADDITIONAL EASEMENTS	MWF
		DESCRIPTION	BY
1	8/19/19		

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


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

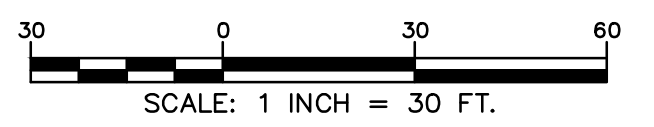
SHEETS 6-10 NOT FOR RECORDING

FILE NAME: \\V:\PROJECTS\5517_CSD (5517) (5517) (5517) SUB PLANS.dwg LAYOUT NAME: TOPG (5517) PLOTTED: Monday, August 19, 2019 1:10:08pm



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

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



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

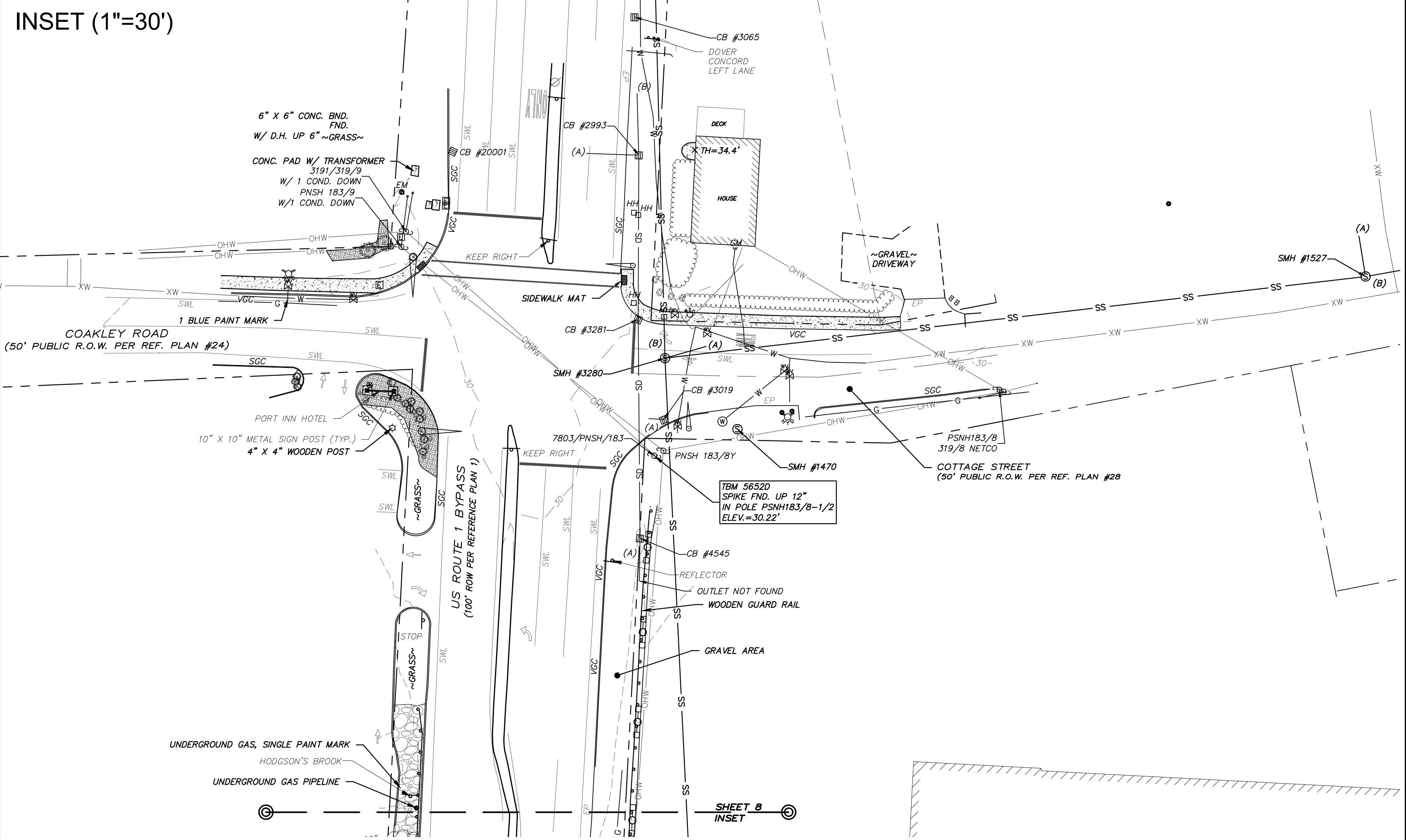
NO.	DATE	ADD. ADDITIONAL EASEMENTS	MWF
1	8/19/19		

NO.	DATE	DESCRIPTION	BY

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

SHEETS 6-10 NOT FOR RECORDING

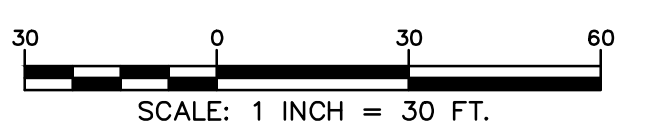
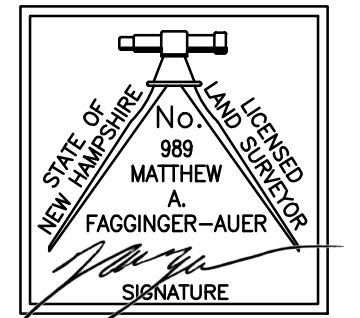
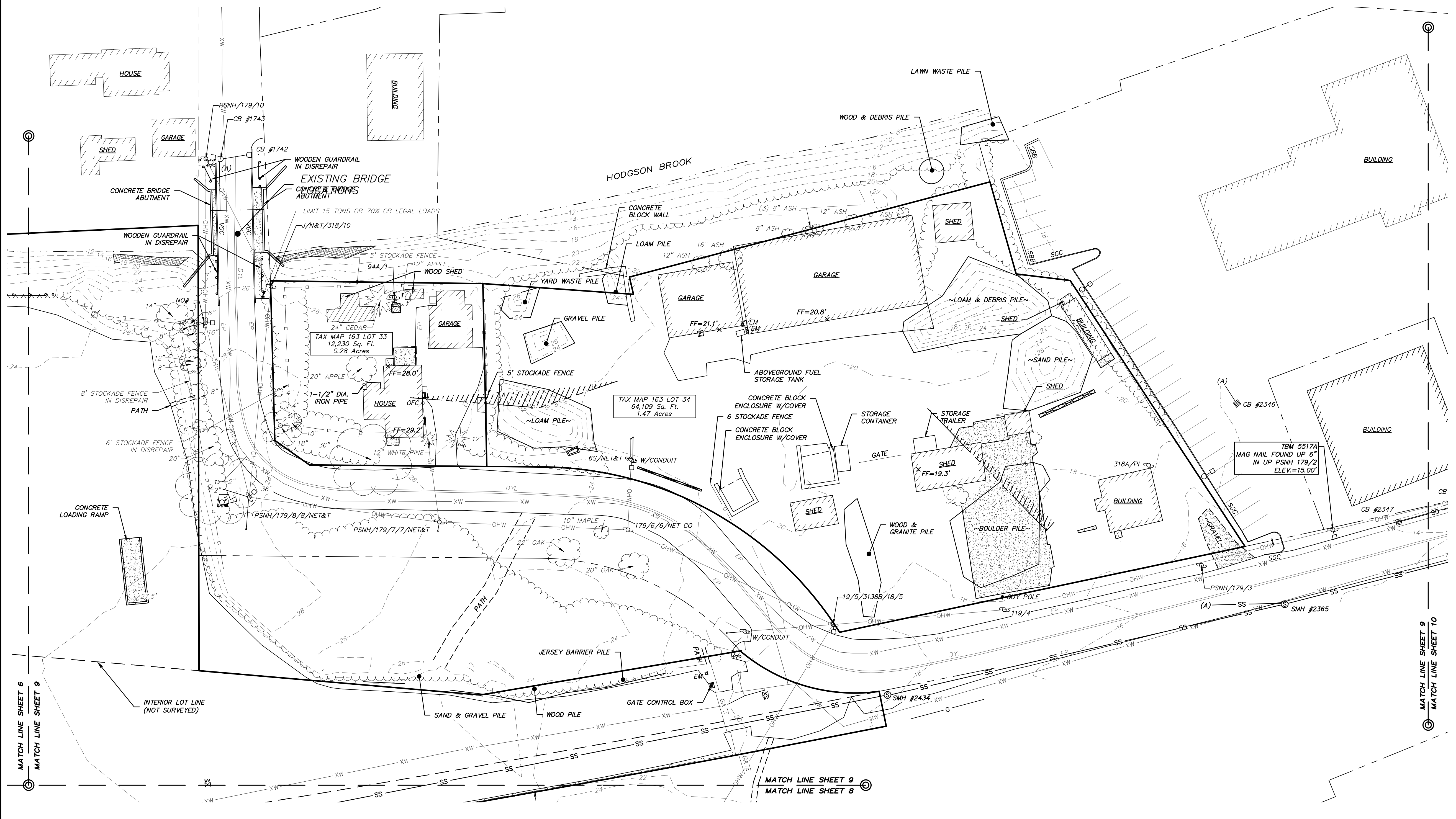
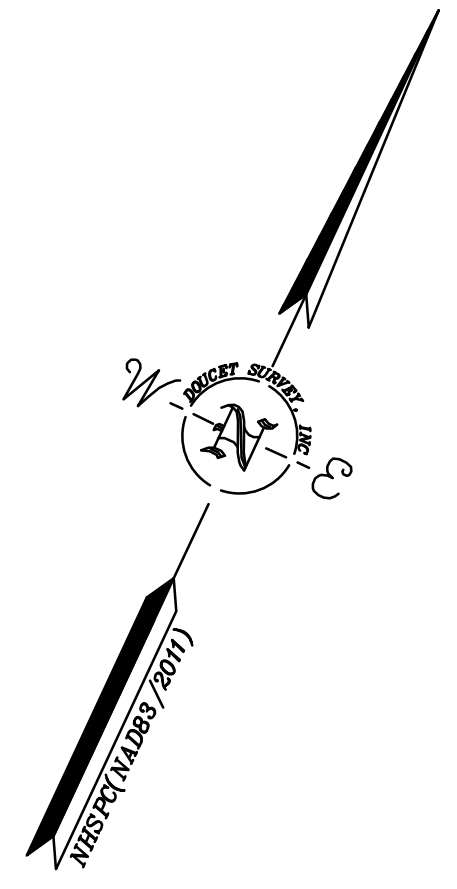
INSET (1"=30')



MATCH LINE SHEET 7
 MATCH LINE SHEET 8

SHEET 8
 INSET

FILE NAME: \\V:\PROJECTS\5517.DWG (SHEET 4) 130\NEW\5517.DWG (SHEET 8) PLOTTED: Monday, August 19, 2019 11:01am



TOPOGRAPHIC PLAN
 FOR
GATE 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
 GATE STREET & US ROUTE 1 BYPASS
 PORTSMOUTH, NEW HAMPSHIRE

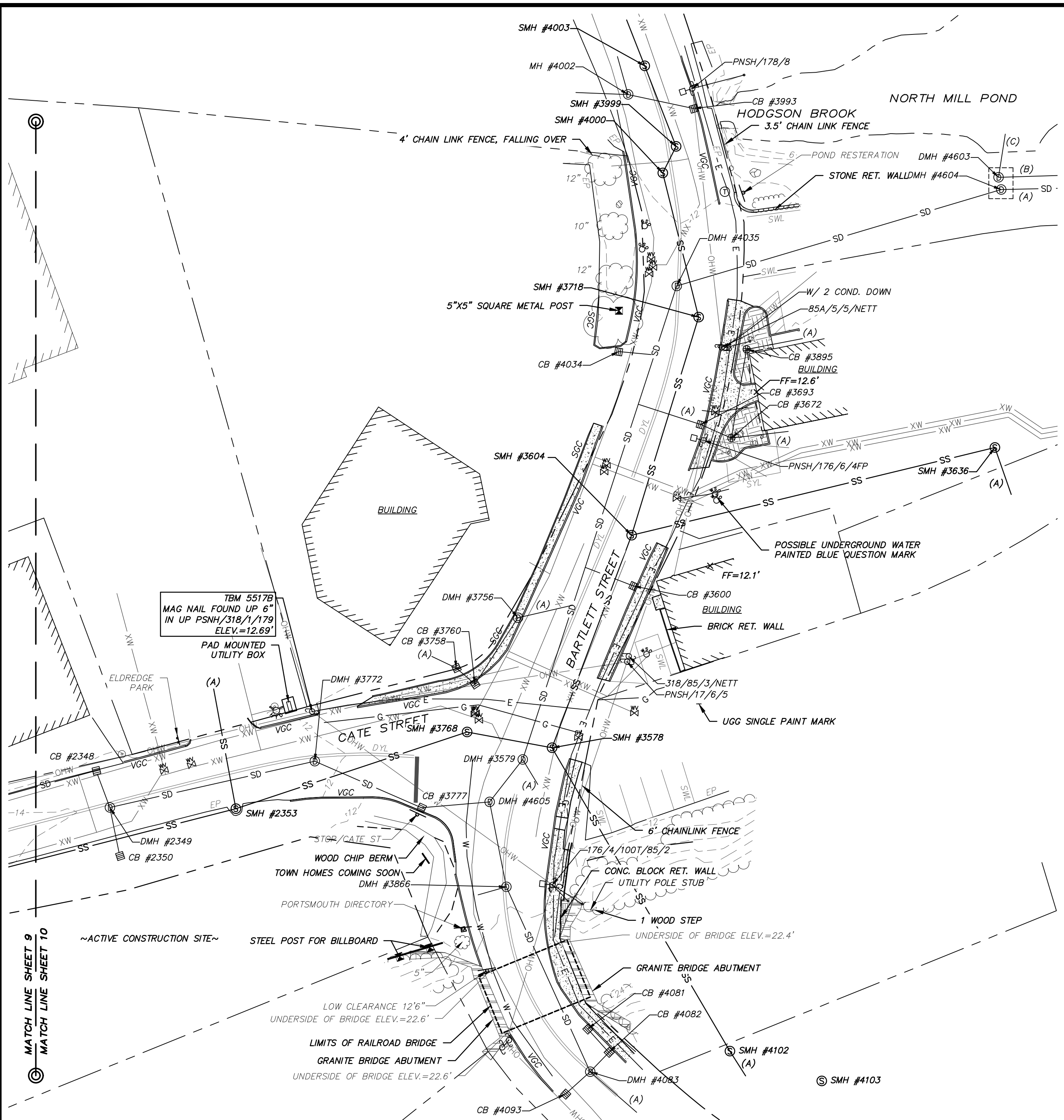
NO.	DATE	ADD ADDITIONAL EASEMENTS	MWF
		DESCRIPTION	BY
1	8/19/19		

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

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

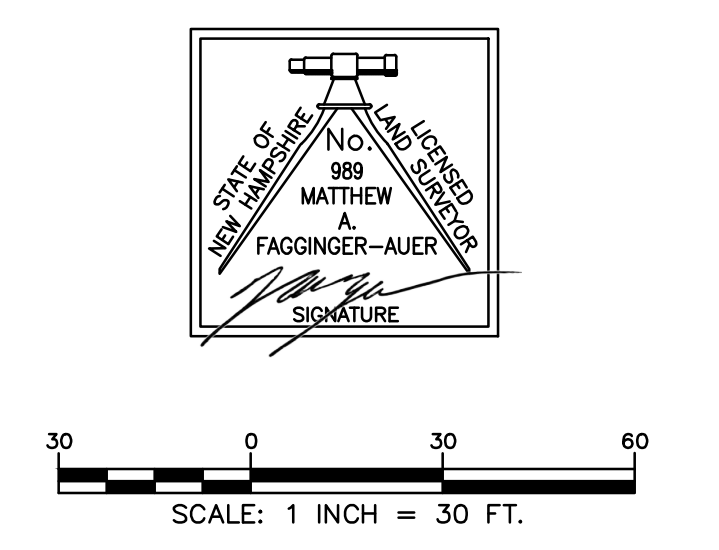
SHEETS 6-10 NOT FOR RECORDING

FILE NAME: \\P:\PROJECTS\5517.DWG DATE: 4/19/2019 10:51:19 AM USER: PLSM/PLS/PLS LAYOUT NAME: DTPW (5517) PLOTTED: Monday, August 19, 2019 1:10:20pm



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

SEWER STRUCTURES		
SMH #1066 RIM ELEV.=23.2' (A) 4" PVC INV.=18.5' (D) UNKN. INV.=12.3' (1152) 10" UNKN. INV.=11.8' (C) 4" PVC INV.=16.0' (D) 4" PVC INV.=16.0' (1350) UNKN. INV.=11.9' (E) UNKN. INV.=11.6'	SMH #2434 RIM ELEV.=18.2' (2799) 10" UNKN. INV.=9.7' (2365) 12" UNKN. INV.=9.7' (SMH) INV.=9.9' (NO PIPES VISIBLE)	SMH #3768 RIM ELEV.=11.4' (2353) 24" PVC INV.=6.0' (3578) 24" PVC INV.=5.9' (SMH) INV.=12.3' (SMH) INV.=11.7' (NO VISIBLE PIPES) (4000) 12" PVC INV.=5.8'
SMH #1152 RIM ELEV.=22.6' (1066) 10" UNKN. INV.=11.3' (2799) 10" UNKN. INV.=11.2'	SMH #2799 RIM ELEV.=23.8' (A) 4" DI INV.=21.1' (B) 8" UNKN. INV.=12.1' (1527) 8" CLAY DROP INLET INV.=21.1'	SMH #4000 RIM ELEV.=12.3' (3718) 10" PVC INV.=5.8' (3999) 10" PVC INV.=5.8' (SMH) INV.=13.3' (A) 10" CI INV.=6.6'
SMH #1350 RIM ELEV.=25.5' (A) 8" CLAY INV.=14.9' (4565) UNKN. INV.=14.7' (1066) UNKN. INV.=14.4'	SMH #3280 RIM ELEV.=29.8' (1527) 8" CLAY DROP INLET INV.=21.1'	SMH #4003 RIM ELEV.=13.3' (3999) 10" PVC INV.=5.8' (A) 10" CI INV.=6.6'
SMH #1470 RIM ELEV.=29.4' FULL OF DEBRIS	SMH #3578 RIM ELEV.=10.9' (3604) 36" PVC INV.=3.0' (3768) 24" PVC INV.=5.8' (A) 6" CLAY INV.=25.3' (B) 8" CLAY INV.=24.7'	SMH #4103 RIM ELEV.=12.5' (NO VISIBLE PIPES, POSSIBLE ELECTRIC MANHOLE)
SMH #2353 RIM ELEV.=12.7' (2365) 24" PVC INV.=6.5' (3768) 24" PVC INV.=6.5' (A) 6" PVC INV.=7.2'	SMH #3604 RIM ELEV.=11.3' (3578) 36" PVC INV.=2.5' (3636) 36" PVC INV.=2.5' (3718) 10" PVC INV.=4.7' (A) 36" PVC INV.=2.2'	SMH #4565 RIM ELEV.=28.4' PIPES SUBMERGED WATER LEVEL=16.5' SUMP=15.4'
SMH #2365 RIM ELEV.=14.4' (A) 10" CI INV.=9.3' (2434) 10" METAL INV.=9.2' (2353) 24" METAL INV.=9.2'	SMH #3636 RIM ELEV.=10.3' (3604) 36" PVC INV.=2.3' (A) 36" PVC INV.=2.2'	SMH #4607 RIM ELEV.=13.2' (A) 8" PVC INV.=17.9' (B) 8" PVC INV.=17.7'
	SMH #3718 RIM ELEV.=11.5' (3604) 10" PVC INV.=5.3' (4000) 10" PVC INV.=5.5'	



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
1	8/19/19	ADD ADDITIONAL EASEMENTS	MWF

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

DOUCET SURVEY
Serving Your Professional Surveying & Mapping Needs
102 Kent Place, Newmarket, NH 03857 (603) 659-6560
2 Commerce Drive (Suite 202) Bedford, NH 03110 (603) 614-0660
10 Storer Street (Riverview Suite) Kennebunk, ME (207) 502-7005
http://www.doucetsurvey.com

SHEETS 6-10 NOT FOR RECORDING