

# CATE STREET

## CATE STREET · PORTSMOUTH · NEW HAMPSHIRE ROADWAY PLANS

MAY, 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. 303227  
404.705.9411

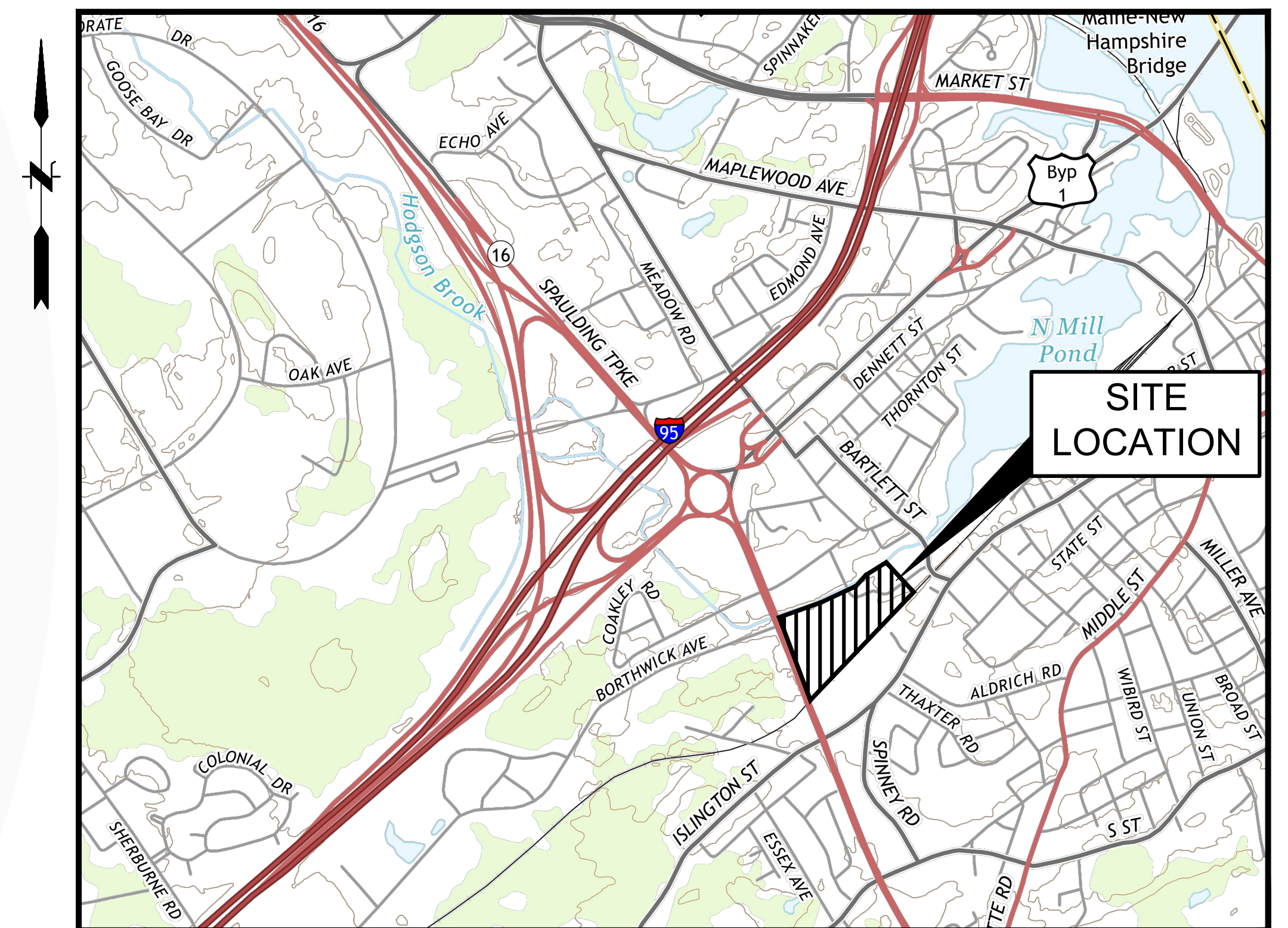
**NATURAL RESOURCES  
CONSULTANT**  
GOVE ENVIRONMENTAL SERVICES, INC  
8 CONTINENTAL DRIVE  
BUILDING 2, SUITE H  
EXETER, NH. 03833-7507  
603.778.0644

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

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

### SHEET INDEX

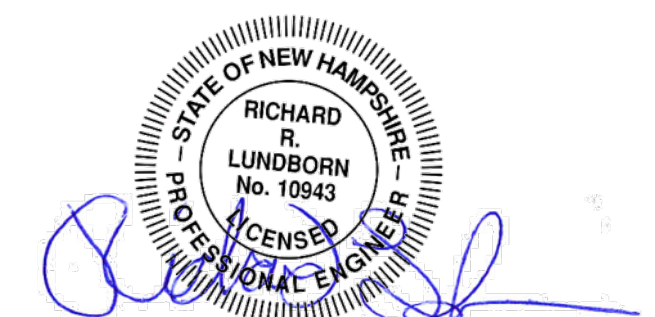
SHEET No.	SHEET TITLE
GI-001	COVER SHEET
CN-001-CN-002	GENERAL NOTES & LEGEND
CP-100-CP-102	SITE PREPARATION PLANS
CS-001	TYPICAL ROADWAY SECTIONS
CS-100-CS-104	ROADWAY PLANS & PROFILES
CG-001	ROADWAY DRAINAGE STRUCTURE TABLE
CG-100-CG-104	GRADING, DRAINAGE & EROSION CONTROL PLANS
CU-001	ROADWAY SEWER STRUCTURE TABLE
CU-100-CU-106	UTILITY PLANS
CD-510-CD-513	DRAINAGE DETAILS
CD-520	WATER & MISC. DETAILS
CD-530-CD-531	SEWER DETAILS
CD-540	UTILITY DETAILS
CD-550	SITE DETAILS
CD-560-CD-562	EROSION CONTROL DETAILS
CT-101-CT-107	TURNING MOVEMENTS
L1.00-L1.04	LANDSCAPE PLANS
LS1	LIGHTING PLANS
SURVEY PLANS	PLAN OF LAND
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.



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

GI-001

GENERAL

- 1. SYMBOLS AND LEGENDS OF PROJECT FEATURES ARE GRAPHIC REPRESENTATIONS AND ARE NOT NECESSARILY SHOWN ON THE DRAWINGS TO SCALE OR TO THEIR ACTUAL DIMENSION OR LOCATION. COORDINATE DETAIL SHEET DIMENSIONS, MANUFACTURERS' LITERATURE, SHOP DRAWINGS AND FIELD MEASUREMENTS OF SUPPLIED PRODUCTS FOR LAYOUT OF THE PROJECT FEATURES.
2. DO NOT RELY SOLELY ON ELECTRONIC VERSIONS OF DRAWINGS, SPECIFICATIONS, AND DATA FILES THAT ARE PROVIDED BY THE ENGINEER. FIELD VERIFY LOCATION OF PROJECT FEATURES.
3. PERFORM NECESSARY CONSTRUCTION NOTIFICATIONS, APPLY FOR AND OBTAIN NECESSARY PERMITS, PAY FEES, AND POST BONDS ASSOCIATED WITH THE WORK AS REQUIRED BY THE CONTRACT DOCUMENTS.
4. SEE ARCHITECTURAL DRAWINGS FOR DIMENSIONS OF BUILDINGS AND ADJACENT SITE ELEMENTS INCLUDING SIDEWALKS, RAMPS, BUILDING ENTRANCES, STAIRWAYS, UTILITY PENETRATIONS, CONCRETE DOOR PADS, COMPACTOR PAD, LOADING DOCKS, BOLLARDS, ETC.
5. PLEASE READ ALL OTHER NOTES ON THIS PAGE. THEY CONTAIN INFORMATION RELATED TO AND ASSOCIATED WITH THIS PROJECT AND DESIGN.
6. IF, DURING CONSTRUCTION, IT BECOMES APPARENT THAT DEFICIENCIES EXIST IN THE APPROVED DRAWINGS, THE OWNER SHALL BE REQUIRED TO CORRECT THE DEFICIENCIES TO MEET THE REQUIREMENTS OF THE REGULATIONS AT NO EXPENSE TO THE CITY.
7. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO FAMILIARIZE THEMSELVES WITH THE SITE AND EXISTING CONDITIONS SURROUNDING IT AND THEREON. THE CONTRACTOR SHALL ADVISE THE APPROPRIATE AUTHORITY OF HIS INTENTIONS AT LEAST 48 HOURS IN ADVANCE.
8. ALL MATERIALS AND METHODS OF CONSTRUCTION SHALL CONFORM TO THE CITY OF PORTSMOUTH SITE PLAN REGULATIONS, CITY OF PORTSMOUTH DEPARTMENT OF PUBLIC WORKS STANDARD SPECIFICATIONS, AND THE LATEST EDITION OF THE NEW HAMPSHIRE DEPARTMENT OF TRANSPORTATION'S STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION. ALL CONSTRUCTION DETAILS SHALL BE IN ACCORDANCE WITH THE CITY OF PORTSMOUTH.
9. THE CONTRACTOR SHALL BID AND PERFORM THE WORK IN ACCORDANCE WITH ALL LOCAL, STATE AND NATIONAL CODES, SPECIFICATIONS, REGULATIONS, AND STANDARDS.
10. THE CONTRACTOR IS RESPONSIBLE FOR THE MEANS AND METHODS OF CONSTRUCTION AND FOR CONDITIONS AT THE SITE. THESE PLANS, PREPARED BY FUSS & O'NEILL DO NOT EXTEND TO OR INCLUDE SYSTEMS PERTAINING TO THE SAFETY OF THE CONSTRUCTION CONTRACTOR OR THEIR EMPLOYEES, AGENTS OR REPRESENTATIVES IN THE PERFORMANCE OF THE WORK. THE SEAL OF THE SURVEYOR OR ENGINEER HERE ON DOES NOT EXTEND TO ANY SUCH SAFETY SYSTEMS THAT MAY NOW OR HEREAFTER BE INCORPORATED INTO THESE PLANS. THE CONSTRUCTION CONTRACTOR SHALL PREPARE OR OBTAIN THE APPROPRIATE SAFETY SYSTEMS WHICH MAY BE REQUIRED BY THE U.S. OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA) AND/OR LOCAL REGULATIONS.

WORK RESTRICTIONS

- 16. DO NOT CLOSE OR OBSTRUCT ROADWAYS, SIDEWALKS, FIRE HYDRANTS, AND UTILITIES WITHOUT APPROPRIATE PERMITS.
2. WORK IS RESTRICTED TO THE HOURS OF TO THE HOURS (TIME) TO (TIME) ON (DAY) THROUGH (DAY)

REGULATORY REQUIREMENTS

- 1. WITHIN LOCAL RIGHTS-OF-WAY, PERFORM THE WORK IN ACCORDANCE WITH LOCAL MUNICIPAL STANDARDS.
2. WITHIN STATE RIGHTS-OF-WAY, PERFORM THE WORK IN ACCORDANCE WITH THE LATEST EDITION OF THE DEPARTMENT OF TRANSPORTATION'S STANDARD SPECIFICATIONS AND ISSUED REVISIONS/SUPPLEMENTS.
3. PROVIDE TRAFFIC SIGNAGE AND PAVEMENT MARKINGS IN CONFORMANCE WITH THE LATEST EDITION OF THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES.
4. BE RESPONSIBLE FOR SITE SECURITY AND JOB SAFETY. PERFORM CONSTRUCTION ACTIVITIES IN ACCORDANCE WITH OSHA STANDARDS AND LOCAL REQUIREMENTS.
5. DISPOSE OF DEMOLITION DEBRIS IN ACCORDANCE WITH APPLICABLE FEDERAL, STATE AND LOCAL REGULATIONS, ORDINANCES AND STATUTES.
6. THIS PROJECT DISTURBS MORE THAN ONE ACRE OF LAND AND FALLS WITHIN THE NEW HAMPSHIRE DEP STORMWATER AND DEWATERING WASTEWATER FROM CONSTRUCTION ACTIVITIES GENERAL PERMIT PROCESS. (NAME OF APPLICANT) HAS SUBMITTED INFORMATION TO THE DEP TO SATISFY THIS GENERAL PERMIT. THE CONTRACTOR MUST HAVE A COPY OF THIS GENERAL PERMIT ON SITE AT ALL TIMES.

EROSION AND SEDIMENT CONTROL

- 1. INSTALL EROSION CONTROL MEASURES PRIOR TO STARTING ANY WORK ON THE SITE. REFER TO THE EROSION AND SEDIMENT CONTROL DRAWINGS.
2. IMPLEMENT ALL NECESSARY MEASURES REQUIRED TO CONTROL STORMWATER RUNOFF, DUST, SEDIMENT, AND DEBRIS FROM EXITING THE SITE. PERFORM CORRECTIVE ACTION AS NEEDED FOR EROSION CLEANUP AND REPAIRS TO OFF SITE AREAS, IF ANY, AT NO COST TO OWNER.
3. INSPECT AND MAINTAIN EROSION CONTROL MEASURES PER THE SCHEDULE IN THE EROSION AND SEDIMENT CONTROL DRAWINGS. DISPOSE OF SEDIMENT IN AN UPLAND AREA. DO NOT ENCUMBER OTHER DRAINAGE STRUCTURES AND PROTECTED AREAS.
4. PERFORM CONSTRUCTION SEQUENCING IN SUCH A MANNER TO CONTROL EROSION AND TO MINIMIZE THE TIME THAT EARTH MATERIALS ARE EXPOSED BEFORE THEY ARE COVERED, SEEDED, OR OTHERWISE STABILIZED.
5. UPON COMPLETION OF CONSTRUCTION AND ESTABLISHMENT OF PERMANENT GROUND COVER, REMOVE AND DISPOSE OF TEMPORARY EROSION CONTROL MEASURES, CLEAN SEDIMENT AND DEBRIS FROM TEMPORARY MEASURES AND FROM PERMANENT STORM DRAIN AND SANITARY SEWER SYSTEMS.

DEMOLITION

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

CONSTRUCTION LAYOUT

- 1. PROVIDE PROPER TRANSITIONS BETWEEN EXISTING AND PROPOSED SITE IMPROVEMENTS. FIELD VERIFY EXISTING PAVEMENT AND GROUND ELEVATIONS AT THE INTERFACE WITH PROPOSED PAVEMENTS AND DRAINAGE STRUCTURES BEFORE START OF CONSTRUCTION.
2. PRIOR TO ORDERING MATERIALS AND BEGINNING CONSTRUCTION, FIELD VERIFY PROPOSED UTILITY ROUTES AND IDENTIFY ANY INTERFERENCES OR OBSTRUCTIONS WITH EXISTING UTILITIES OR PUBLIC RIGHTS-OF-WAY.
3. IMMEDIATELY INFORM THE ENGINEER IN WRITING IF EXISTING UTILITY CONDITIONS CONFLICT OR DIFFER FROM THAT INDICATED AND IF THE WORK CANNOT BE COMPLETED AS INDICATED.
4. DIMENSIONS ARE FROM FACE OF CURB, FACE OF BUILDING, FACE OF WALL, AND CENTER LINE OF PAVEMENT MARKINGS, UNLESS NOTED OTHERWISE.
5. BOUNDS OR MONUMENTATION DISTURBED DURING CONSTRUCTION SHALL BE SET OR RESET BY A PROFESSIONAL LICENSED SURVEYOR.

EARTHWORK

- 1. NOTIFY UTILITY LOCATOR SERVICE AT LEAST 72 HOURS BEFORE STARTING EXCAVATION. CALL DIGSAFE: 1-888-DIG-SAFE
2. STOP WORK IN THE VICINITY OF SUSPECTED CONTAMINATED SOIL, GROUNDWATER OR OTHER MEDIA. IMMEDIATELY NOTIFY THE OWNER SO THAT APPROPRIATE TESTING AND SUBSEQUENT ACTION CAN BE TAKEN. RESUME WORK IN THE IMMEDIATE VICINITY ONLY UPON DIRECTION BY THE OWNER.
3. WITHIN THE LIMITS OF THE BUILDING FOOTPRINT, PERFORM EARTHWORK OPERATIONS TO SUBGRADE ELEVATIONS. SEE DRAWINGS BY OTHERS FOR WORK ABOVE SUBGRADE.

UTILITIES

- 1. TERMINATE EXISTING UTILITIES IN CONFORMANCE WITH LOCAL, STATE AND INDIVIDUAL UTILITY COMPANY STANDARD SPECIFICATIONS AND DETAILS. COORDINATE UTILITY SERVICE DISCONNECTS WITH UTILITY REPRESENTATIVES.
2. THE TYPE, SIZE AND LOCATION OF DEPICTED UNDERGROUND UTILITIES ARE APPROXIMATE REPRESENTATIONS OF INFORMATION OBTAINED FROM FIELD LOCATIONS OF VISIBLE FEATURES, EXISTING MAPS AND PLANS OF RECORD, UTILITY MAPPING, AND OTHER SOURCES OF INFORMATION OBTAINED BY THE ENGINEER. ASSUME NO GUARANTEE AS TO THE COMPLETENESS, SERVICEABILITY, EXISTENCE, OR ACCURACY OF UNDERGROUND FACILITIES. FIELD VERIFY THE EXACT LOCATIONS, SIZES, AND ELEVATIONS OF THE POINTS OF CONNECTIONS TO EXISTING UTILITIES.
3. PAY ALL FEES AND COSTS ASSOCIATED WITH UTILITY MODIFICATIONS AND CONNECTIONS, REGARDLESS OF THE ENTITY THAT PERFORMS THE WORK.
4. COORDINATE THE WORK AND WORK SCHEDULE WITH UTILITY COMPANIES. PROVIDE ADEQUATE NOTICE TO UTILITIES TO PREVENT DELAYS IN CONSTRUCTION.
5. INTERIOR DIAMETERS OF STORM DRAIN AND SANITARY SEWER STRUCTURES SHALL BE DETERMINED BY THE PRECAST MANUFACTURER, BASED ON THE INDICATED PIPE SYSTEM LAYOUT AND LOCAL MUNICIPAL STANDARDS.

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

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

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

PAVEMENT

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

GENERAL SITE RESTORATION

- 1. PROVIDE 6 INCHES OF TOPSOIL AND SEED TO AREAS DISTURBED DURING CONSTRUCTION AND NOT DESIGNATED TO BE RESTORED WITH IMPERVIOUS SURFACES (BUILDINGS, PAVEMENTS, WALKS, ETC.) UNLESS OTHERWISE NOTED.
2. REPAIR DAMAGES RESULTING FROM CONSTRUCTION LOADS, AT NO ADDITIONAL COST TO OWNER.
3. RESTORE AREAS DISTURBED BY CONSTRUCTION OPERATIONS TO THEIR ORIGINAL CONDITION OR BETTER, AT NO ADDITIONAL COST TO OWNER.

STREAM BUFFER RESTORATION SEQUENCE NOTES:

- 1. EROSION CONTROL WILL BE PLACED AROUND ALL JURISDICTIONAL WETLANDS PRIOR TO THE START OF WORK.
2. INITIAL WORK FOR INVASIVE SPECIES REMOVAL WILL BE PERFORMED WITH GUIDANCE BY STAFF FROM GES INC.
3. 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.
4. 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 WEAKENING OF THE STABILITY OF THE BANK. NO WORK WILL BE PERFORMED FROM WITHIN THE STREAM.
5. EXCAVATION WORK WILL BEGIN BY REMOVING REMAINING ROOT MATERIAL AND "SEED BANK" FROM THE SLOPE AND ANY DEBRIS.
6. ALL FILL MATERIAL, INCLUDING PAVEMENT, CINDER BLOCKS, CEMENT, TRASH, I.E. BUCKETS, COUCHES, APPLIANCES, EXERCISE EQUIPMENT, ETC., WILL BE REMOVED AND DISPOSED OF PROPERLY.
7. 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.
8. ANY DEBRIS REMOVAL NEAR MATURE TREE ROOTS WILL BE PERFORMED BY HAND SHOVEL OR SMALL MACHINE TO REDUCE DAMAGE TO ROOT STRUCTURE.
9. 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.
10. 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 VERTICILLATA),
SWEET PEPPER BUSH (CLEATHERA 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 VERTICILLATA)
39- SWEET PEPPER BUSH (CLEATHERA 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 VERTICILLATA)
3- SWEET PEPPER BUSH (CLEATHERA 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 VERTICILLATA)
7- SWEET PEPPER BUSH (CLEATHERA 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 VERTICILLATA)
32- SWEET PEPPER BUSH (CLEATHERA ALNIFOLIA),
11. MONITORING OF THE RESTORATION AREAS WILL BE DONE UNDER THE DIRECTION OF THE NHDES WETLANDS BUREAU, AS THESE AREAS FALL UNDER THEIR JURISDICTION.

Table with 5 columns: CATEGORY, AREA, REQUIREMENT, REQUIRED, PROVIDED. Includes rows for COMMERCIAL BUILDING, EATING AND DRINKING, RETAIL, OFFICE, and TOTAL.

Table with 5 columns: CATEGORY, REQUIRED, SHARED %, SHARED REQUIRED, PROVIDED. Includes rows for EATING AND DRINKING, RETAIL, OFFICE, TOTAL, BICYCLE PARKING, and HANDICAP ACCESSIBLE.

Table with 5 columns: RESIDENTIAL A AND B, UNITS, REQUIREMENT, REQUIRED, PROVIDED. Includes rows for UNITS <750 SQ. FT., UNITS >750 SQ. FT., and TOTAL.

Table with 5 columns: TOWNHOMES, UNITS, REQUIREMENT, REQUIRED, PROVIDED. Includes rows for UNITS >750 SQ. FT. and BICYCLE PARKING IS INTERNAL.

SITE NOTES:

- 1. REFERENCE: TAX MAP 163, LOT 33
TAX MAP 163, LOT 34
TAX MAP 165, LOT 2
TAX MAP 172, LOT 1
TAX MAP 173, LOT 2
2. TOTAL PARCEL AREA: TAX MAP 163, LOT 33-12,230 SQ. FT. OR 0.28 AC.
TAX MAP 163, LOT 34-64,109 SQ. FT. OR 1.47 AC.
COMBINED AREA-451,572 SQ. FT. OR 10.37 AC.
TAX MAP 165, LOT 2
TAX MAP 172, LOT 1
TAX MAP 173, LOT 2
OWNER OF RECORD:
CATE STREET DEVELOPMENT, LLC
60 K STREET
BOSTON, MA 02127
RCRD BOOK5929, PAGE 109
3. ZONES: G-1-GATEWAY NEIGHBORHOOD MIXED USE
DIMENSIONAL REQUIREMENTS, DEVELOPMENT SITE STANDARDS:
REQUIRED PROPOSED
MIN. DEVELOPMENT AREA 20,000 sq.ft. 579,856 SF
MIN. SITE WIDTH 100 ft. VARIES > 100 ft.
MIN. LOT DEPTH 100 ft. VARIES > 100 ft.
MIN. PERIMETER BUFFER 75 ft. FROM RES. N/A
MAX. DEV. BLOCK 800 ft. LENGTH, 610 ft.
2,200 LINEAR ft.
MIN. FRONTAGE 50 ft. 227 ft.
MAX. BUILDING HEIGHT 45 ft. 45 ft.
25-FT STEP BACK
MAX. BUILDING COVERAGE 70 % 18.6 %
MIN. OPEN SPACE 20 % 32.7 %
COMMUNITY SPACE ALL TYPES
WETLAND SETBACKS 100 ft. 104 ft.
IMPERVIOUS COVER 390,471 sq. ft. (67.3%)
ZONING INFORMATION LISTED HEREON IS BASED ON THE CITY OF PORTSMOUTH ZONING ORDINANCE DATED JULY 11, 2016 AS AVAILABLE ON THE CITY WEBSITE ON DECEMBER 15, 2016. ADDITIONAL REGULATIONS APPLY, AND REFERENCE IS HEREBY MADE TO THE EFFECTIVE ZONING ORDINANCE. THE LAND OWNER IS RESPONSIBLE FOR COMPLYING WITH ALL APPLICABLE MUNICIPAL, STATE AND FEDERAL REGULATIONS.
5. FIELD SURVEY PERFORMED BY P.J.S. & J.C.M. DURING NOVEMBER 2016 USING A TRIMBLE S6 TOTAL STATION, A TRIMBLE R8 SURVEY GRADE GPS UNIT, A TRIMBLE TSC3 DATA COLLECTOR AND A SOKKIA B21 AUTO LEVEL, BY L.P.S. & S.N.F. DURING JULY 2018 AND T.M.M. & J.C.M. IN SEPTEMBER & OCTOBER 2018 USING A TRIMBLE S6 TOTAL STATION WITH A TRIMBLE TSC3 DATA COLLECTOR. TRAVERSE ADJUSTMENT BASED ON LEAST SQUARE ANALYSIS. ADDITIONAL FIELD SURVEY PERFORMED BY M.C. DURING NOVEMBER 2016 AND OCTOBER 2018 USING A LEICA HDS SCANNER.
6. THE LIMITS OF JURISDICTIONAL WETLANDS WERE DELINEATED BY MARC JACOBS IN NOVEMBER OF 2016 AND REVIEWED BY GOVE ENVIRONMENTAL SERVICES, INC. DURING APRIL 2018 IN ACCORDANCE WITH THE US ARMY CORPS OF ENGINEERS WETLAND DELINEATION MANUAL, TECHNICAL REPORT Y-87-1, JANUARY 1987 AND REGIONAL SUPPLEMENT TO THE CORPS OF ENGINEERS WETLAND DELINEATION MANUAL; NORTHCENTRAL AND NORTHEAST REGION, VERSION 2.0 JANUARY 2012 AND FIELD INDICATORS FOR IDENTIFYING HYDRIC SOILS IN NEW ENGLAND, VERSION 4, MAY 2017, NEW ENGLAND HYDRIC SOILS TECHNICAL COMMITTEE.
7. FLOOD HAZARD ZONE: "X", PER FIRM MAP #33015C0259E, DATED 5/17/05.
8. VERTICAL DATUM IS BASED ON NGVD29 PER DISK V 28 1942 ELEV. 25.59.
9. HORIZONTAL DATUM BASED ON NEW HAMPSHIRE STATE PLANE(2800) NAD83(2011) DERIVED FROM REDUNDANT GPS OBSERVATIONS UTILIZING THE KEYNET GPS VRS NETWORK.
10. REFERENCE PLANS: REFER TO THE PLAN OF LAND AT THE END OF THIS PACKAGE FOR ALL REFERENCE PLANS AND EASEMENTS THAT THE PARCELS ARE SUBJECT TO.
11. IF, DURING CONSTRUCTION, IT BECOMES APPARENT THAT ADDITIONAL EROSION CONTROL MEASURES ARE REQUIRED TO STOP ANY EROSION ON THE CONSTRUCTION SITE, THE PROPERTY OWNER SHALL BE REQUIRED TO INSTALL THE NECESSARY EROSION PROTECTION AT NO EXPENSE TO THE CITY.
12. ALL CONDITIONS ON THIS PLAN SHALL REMAIN IN EFFECT IN PERPETUITY PURSUANT TO THE REQUIREMENTS OF THE SITE PLAN REGULATIONS.
13. THIS SITE PLAN SHALL BE RECORDED IN THE ROCKINGHAM COUNTY REGISTRY OF DEEDS.
14. ALL IMPROVEMENTS SHOWN ON THE SITE PLAN SHALL BE CONSTRUCTED AND MAINTAINED IN ACCORDANCE WITH THE PLAN BY THE PROPERTY OWNER AND ALL FUTURE OWNERS. NO CHANGES SHALL BE MADE TO THIS SITE PLAN WITHOUT EXPRESS APPROVAL OF THE PORTSMOUTH PLANNING DIRECTOR

Table with columns: No., DATE, TAC, SUBMITAL, DESCRIPTION, RFL, DESIGNER/REVIEWER.

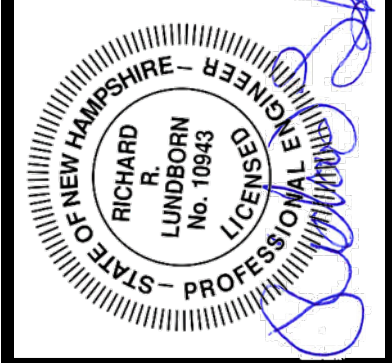
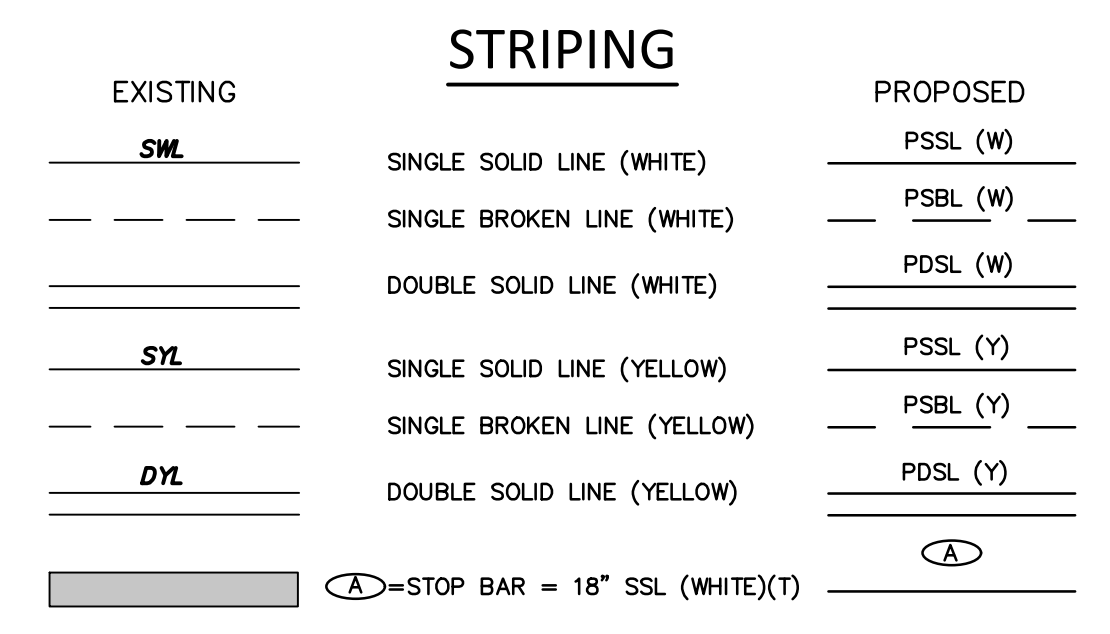
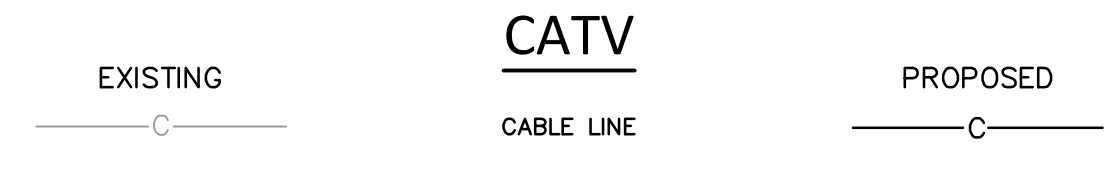
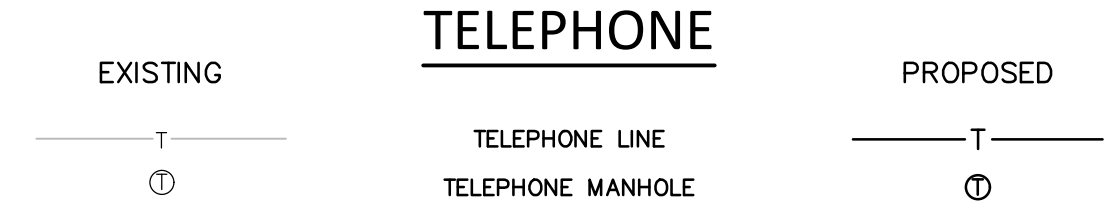
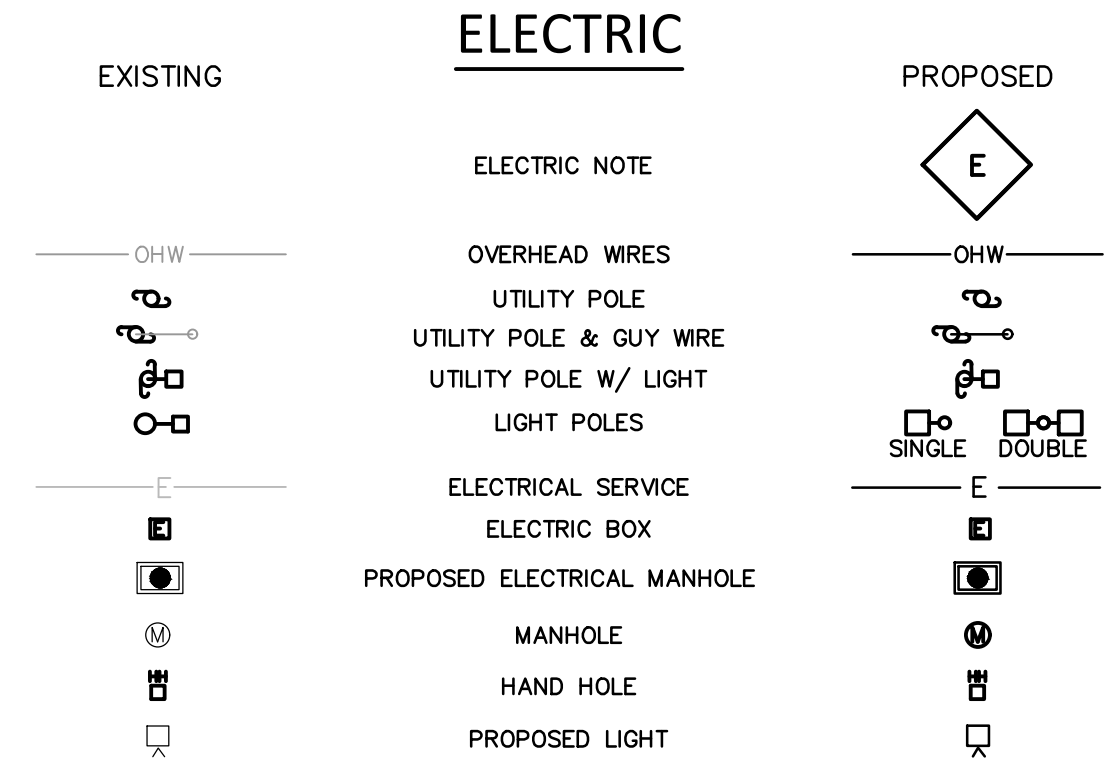
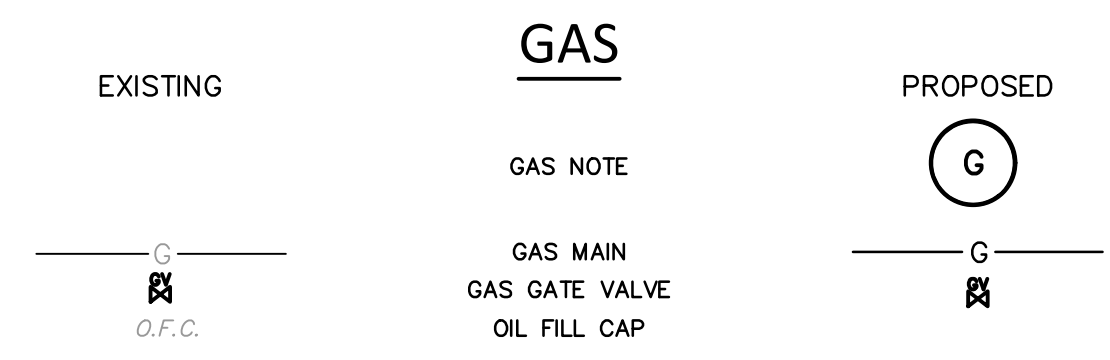
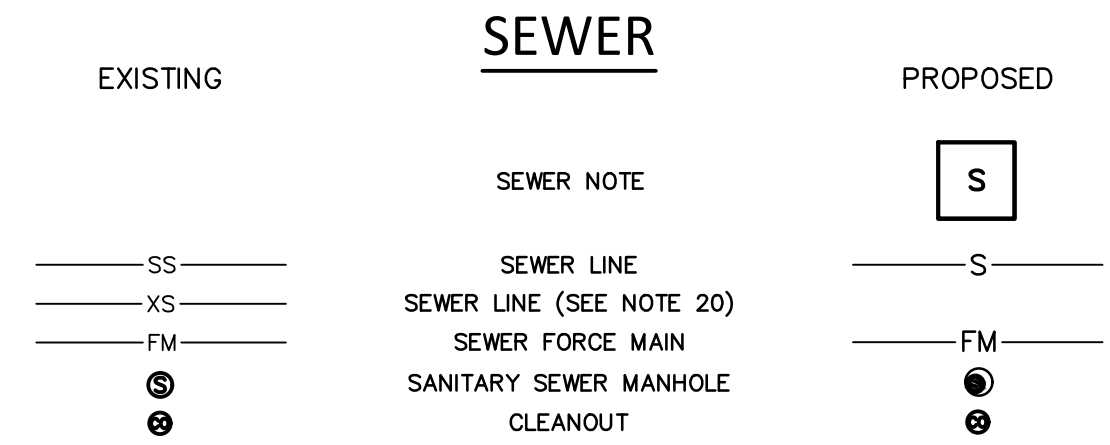
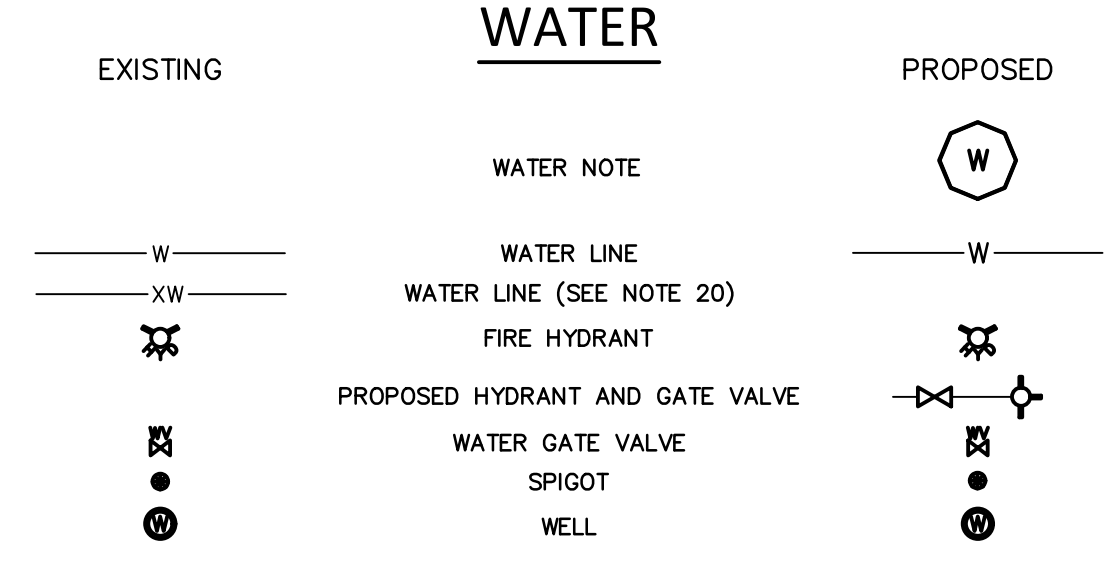
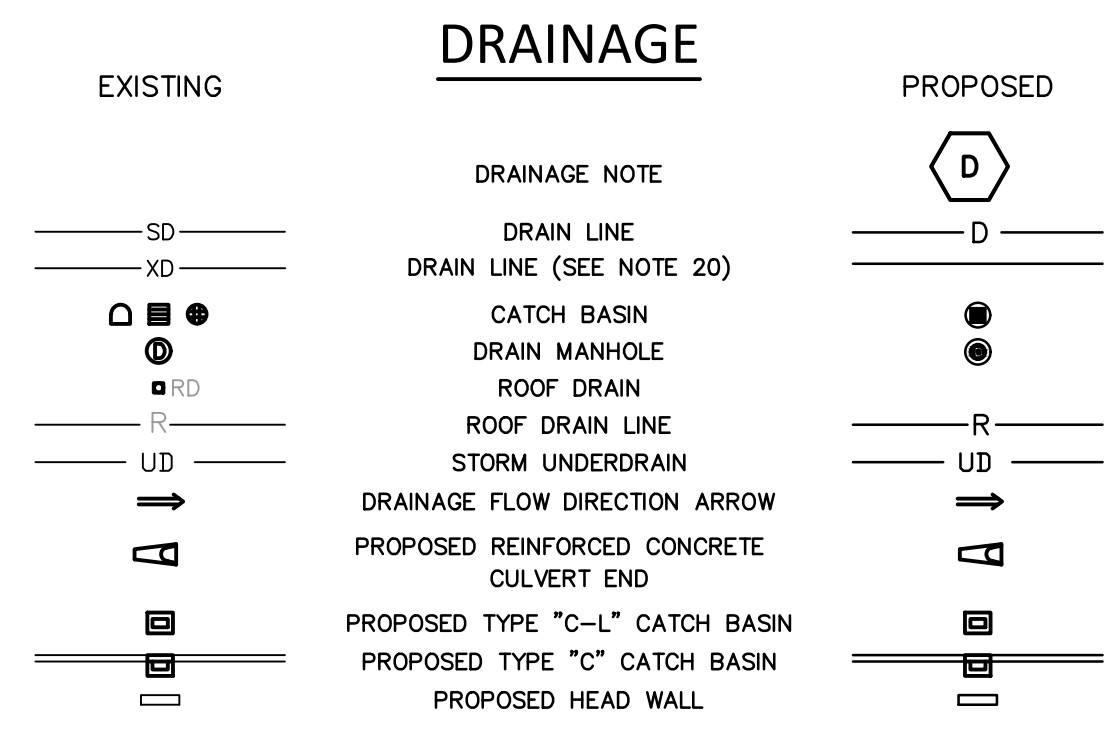
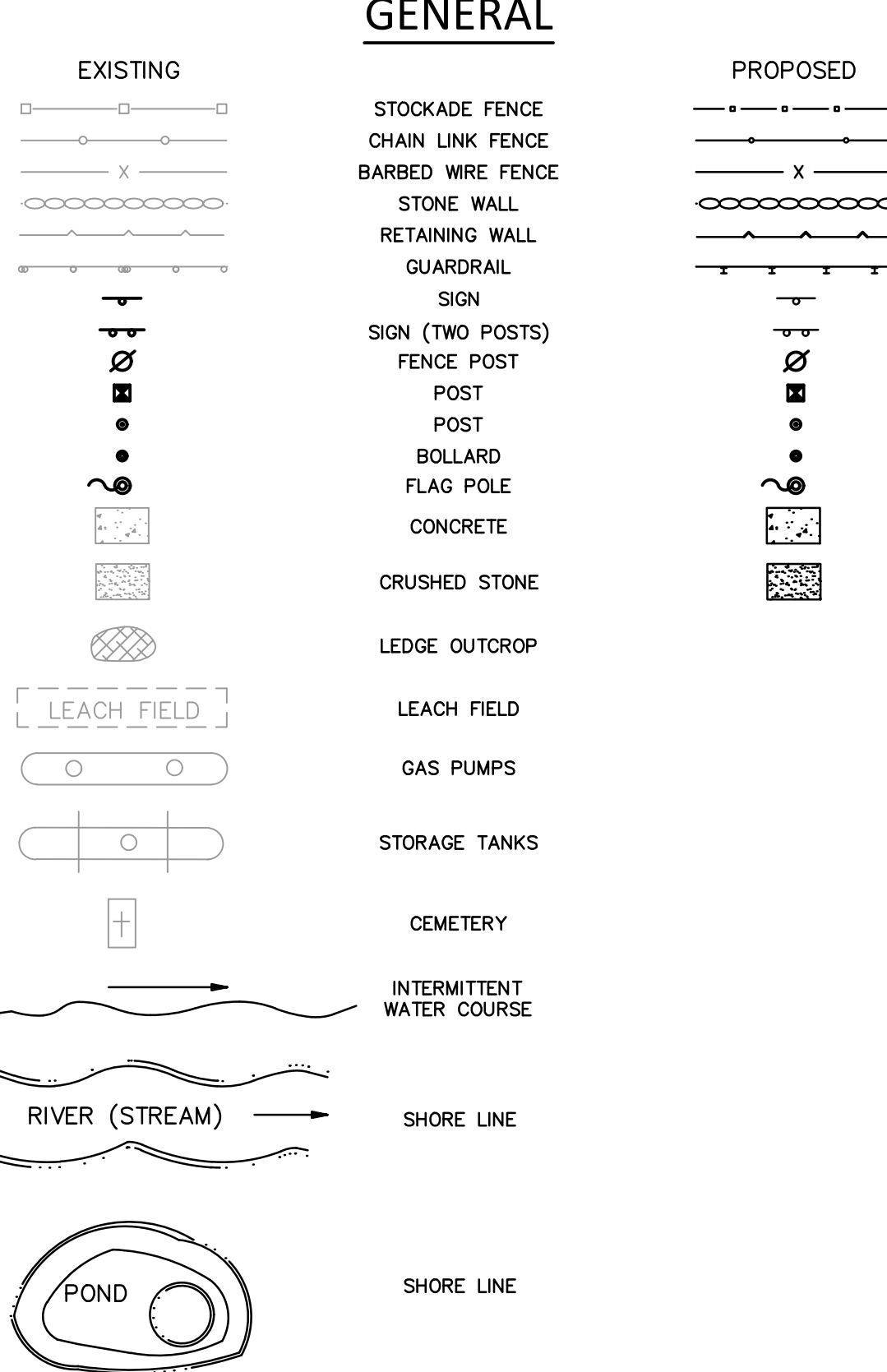
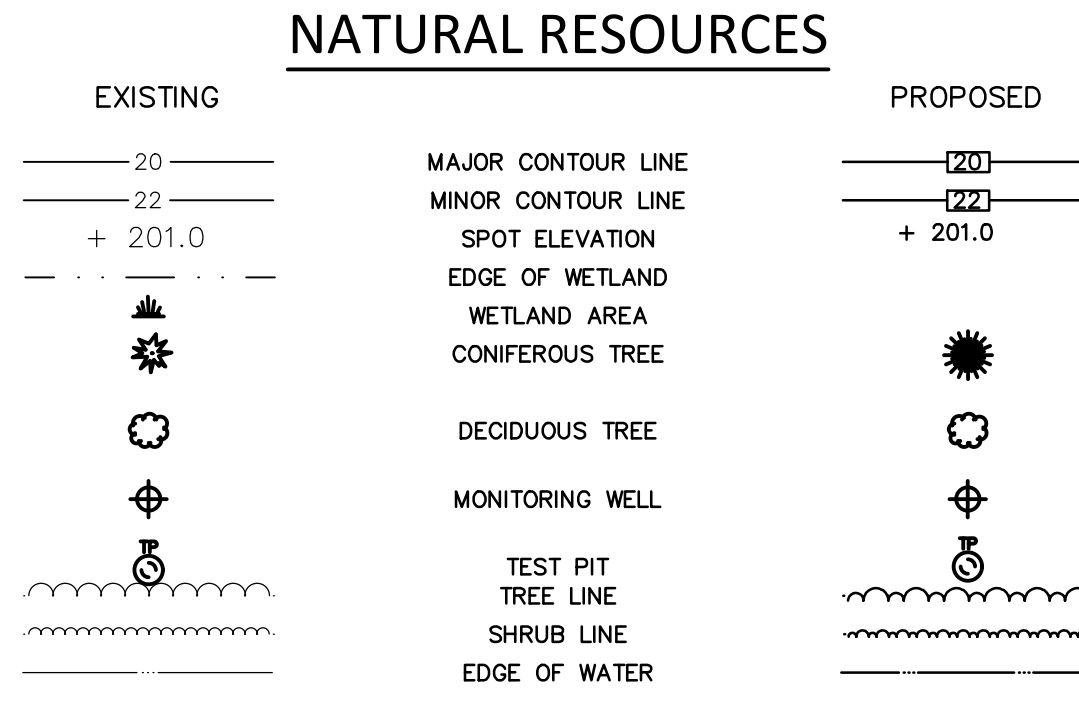
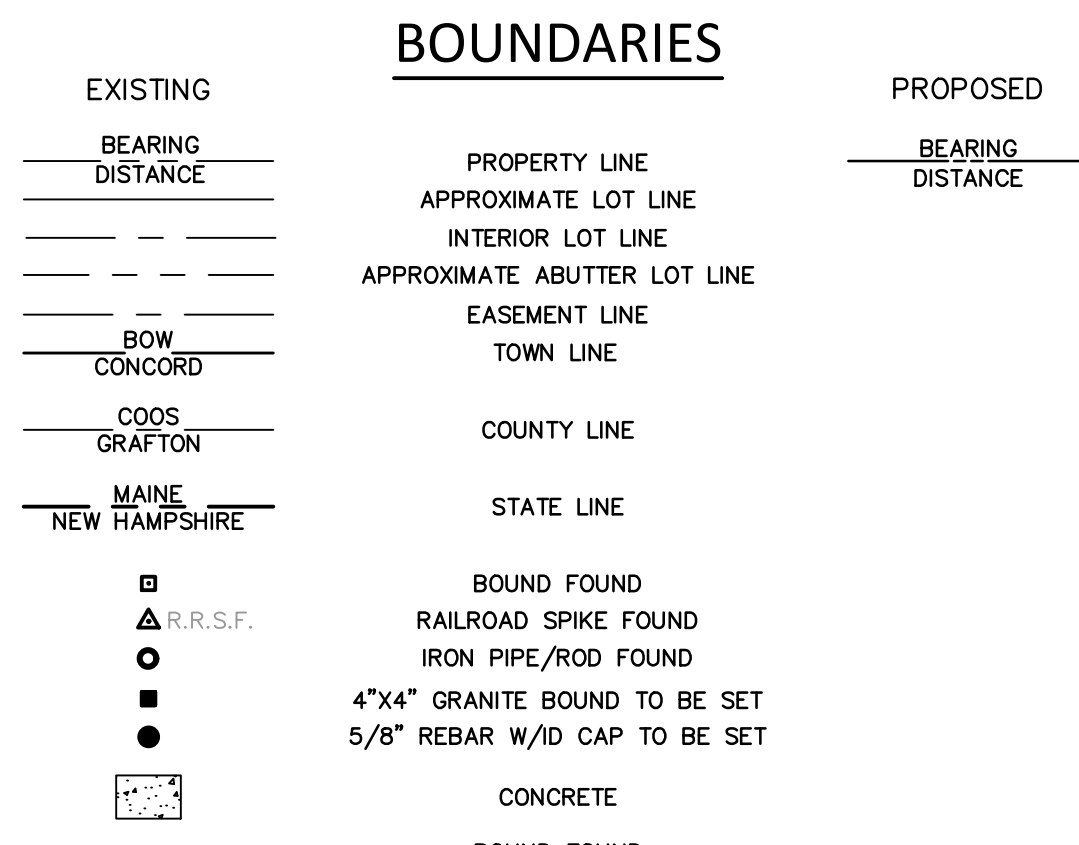


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FUSS & O'NEILL logo and address: UPPER SQUARE BUSINESS CENTER, 5 FLETCHER STREET, SUITE 1, KENNEBUNK, MAINE 04043, 207.563.0669, www.fandoc.com.

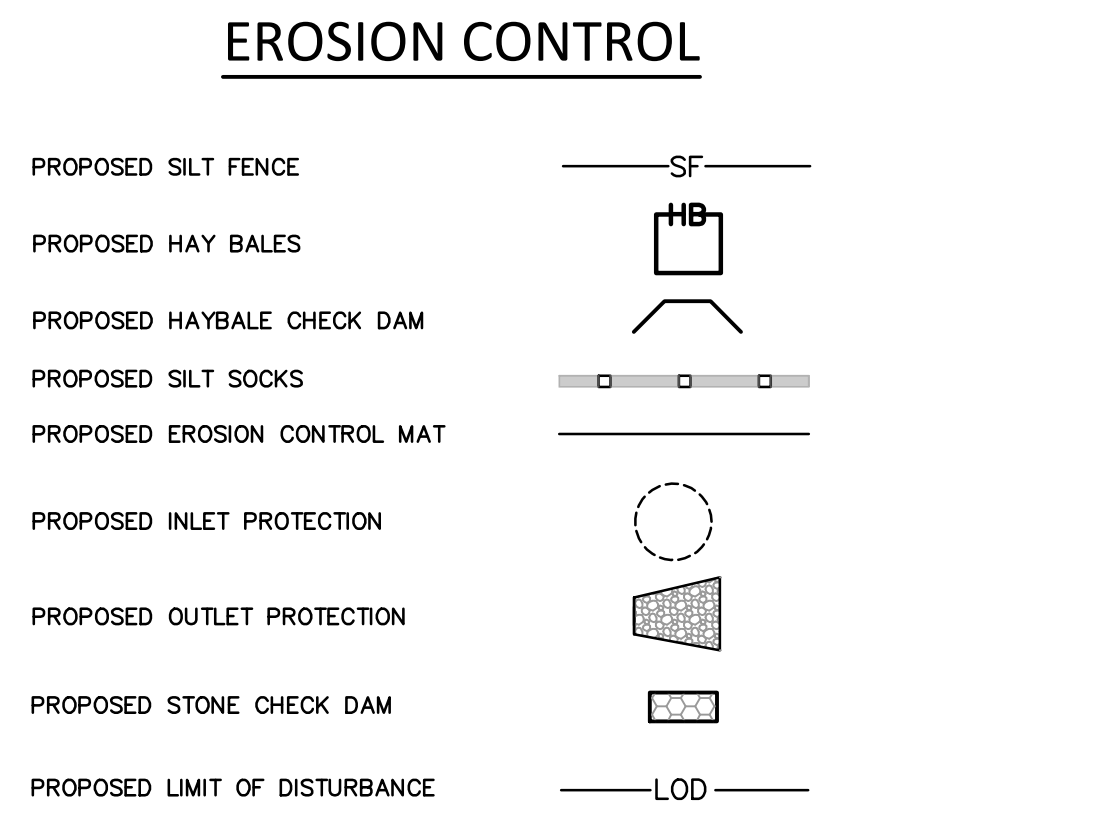
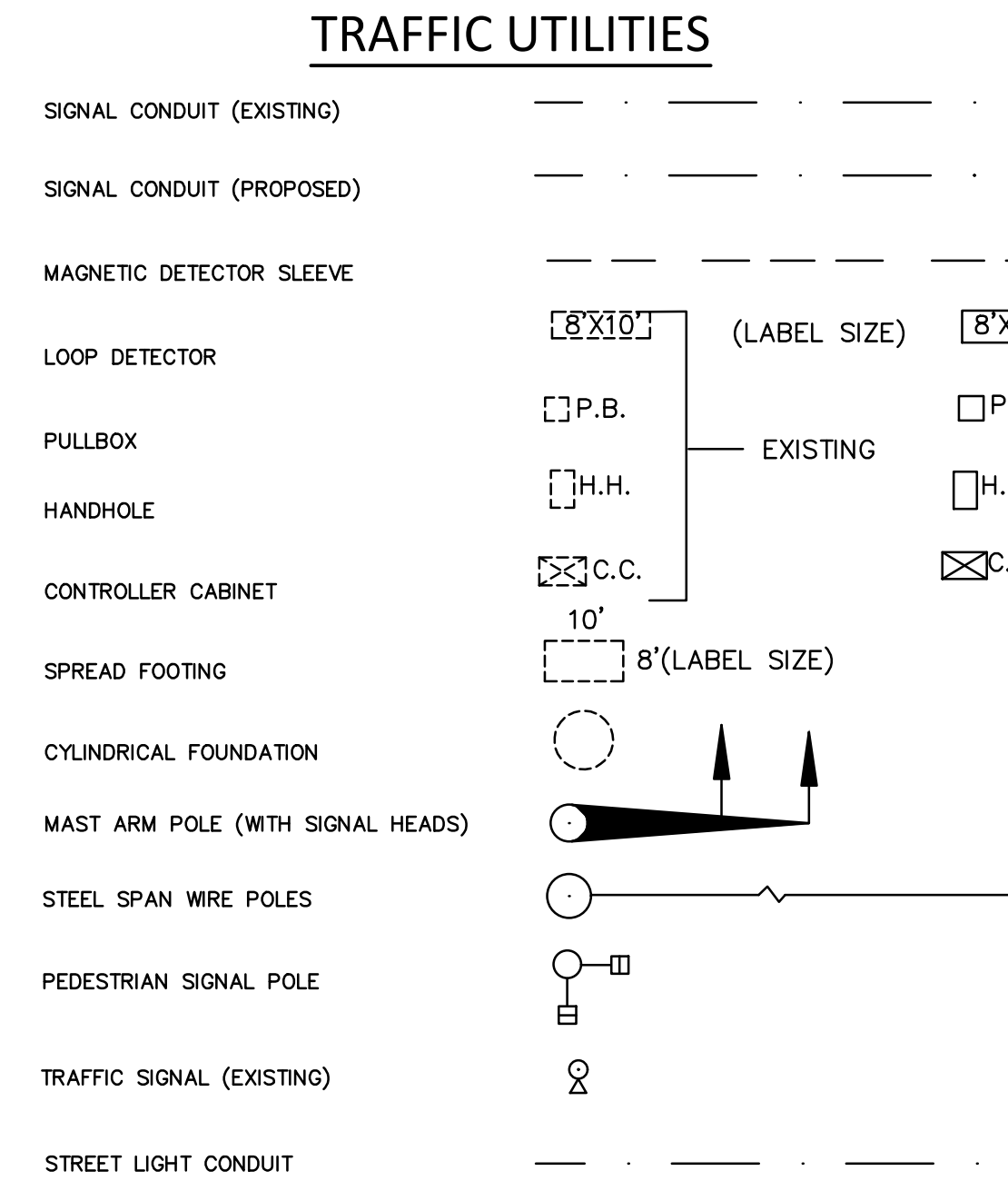
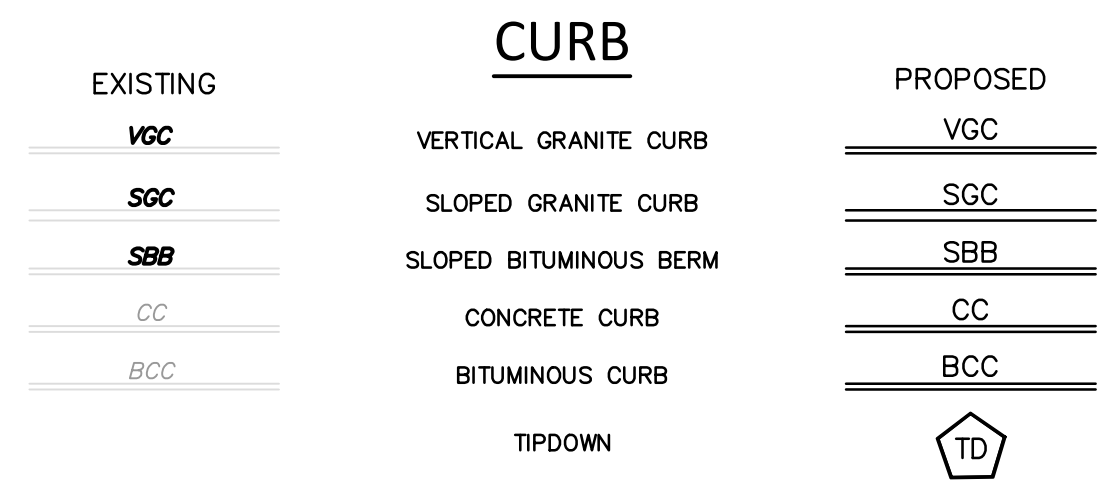
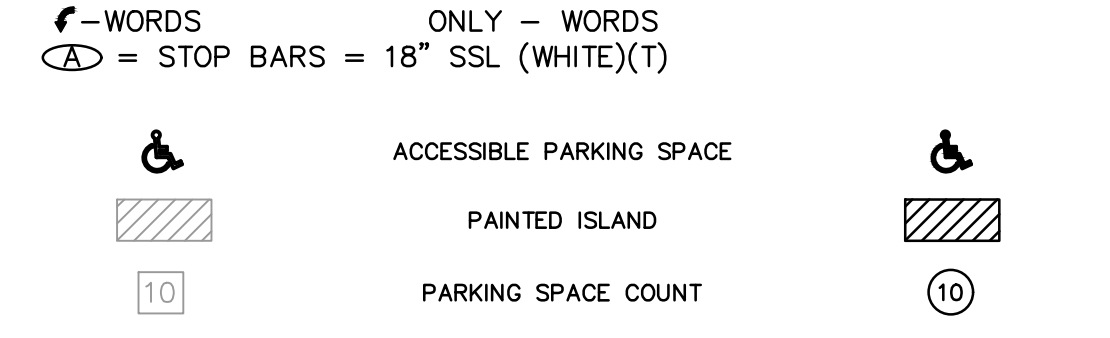
CATE STREET DEVELOPMENT, LLC GENERAL NOTES CATE STREET PORTSMOUTH NEW HAMPSHIRE

PROJ. No.: 20180317.A10 DATE: 05/20/2019 CN-001

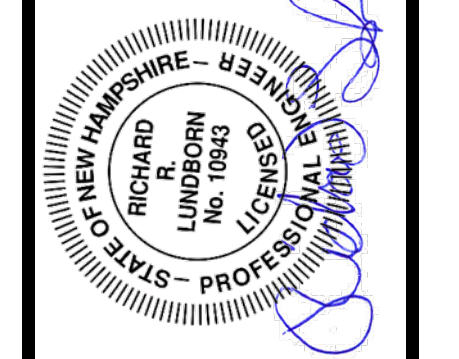


GENERAL PAVEMENT MARKING NOTE:  
 PLACEMENT AND COLOR OF PAVEMENT MARKING LINES, SYMBOLS AND WORDS SHALL CONFORM TO THE (MUTCD) SECTION 632 OF NHDOT STANDARD SPECIFICATION BOOK, CONTRACT SUPPLEMENTAL SPECIFICATIONS, THE STATE OF NEW HAMPSHIRE PAVEMENT MARKING STANDARD DETAIL SHEETS, AND STANDARD PLAN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

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



No.	DATE	TAC	SUBMITAL	DESCRIPTION	DESIGNER	REVIEWER
1	3/18/2019					



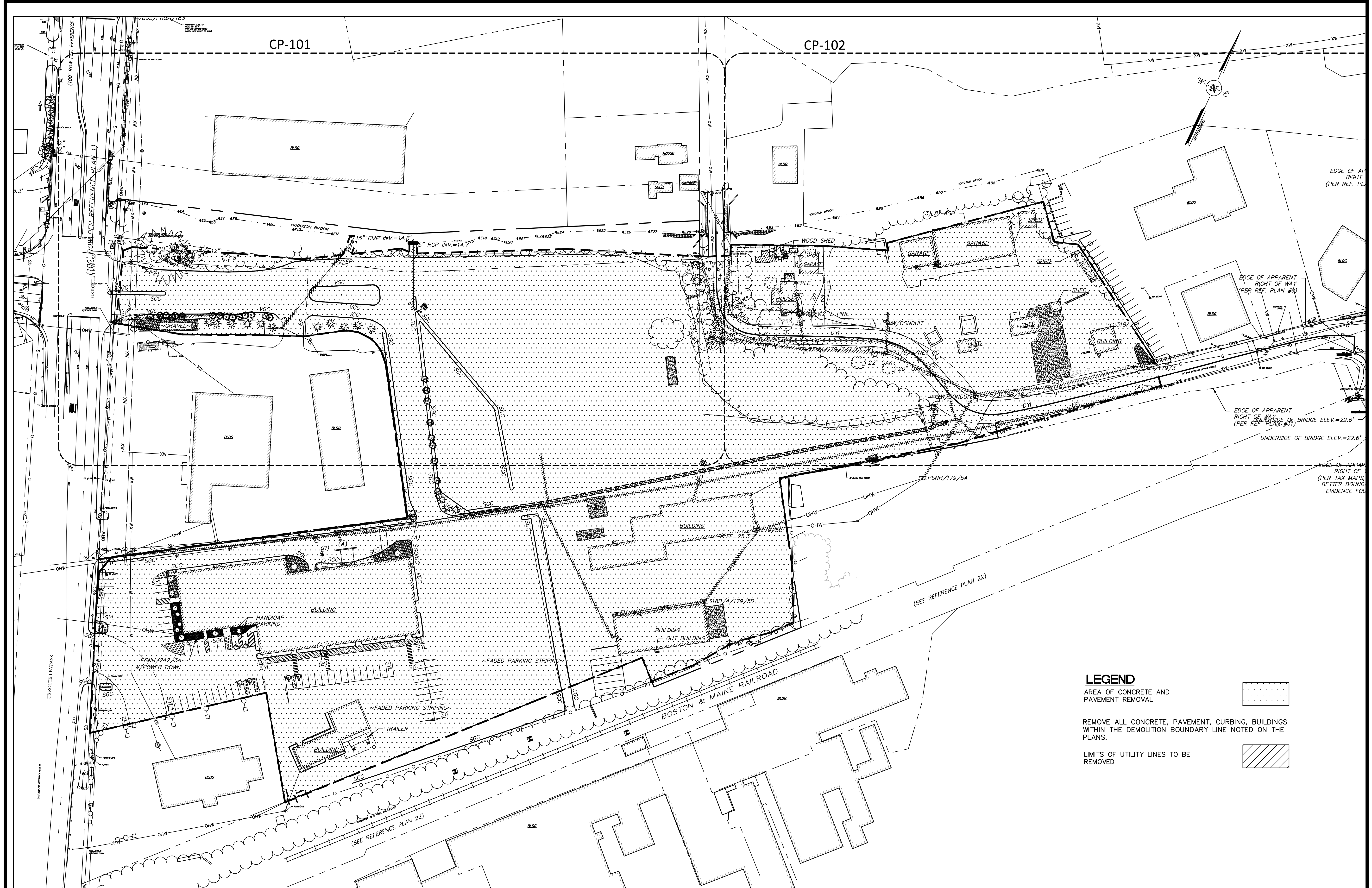
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	NTS	
DATUM:	HORIZ.:	VERT.:

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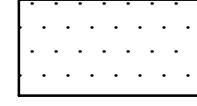
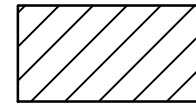
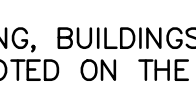
CATE STREET DEVELOPMENT, LLC  
 LEGEND  
 CATE STREET  
 PORTSMOUTH NEW HAMPSHIRE

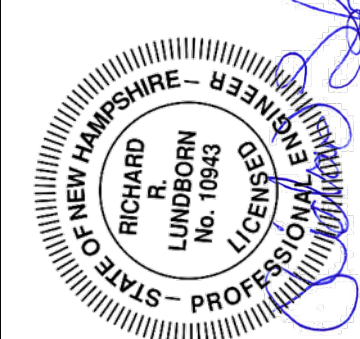
PROJ. No.: 20180317.A10  
 DATE: 05/20/2019

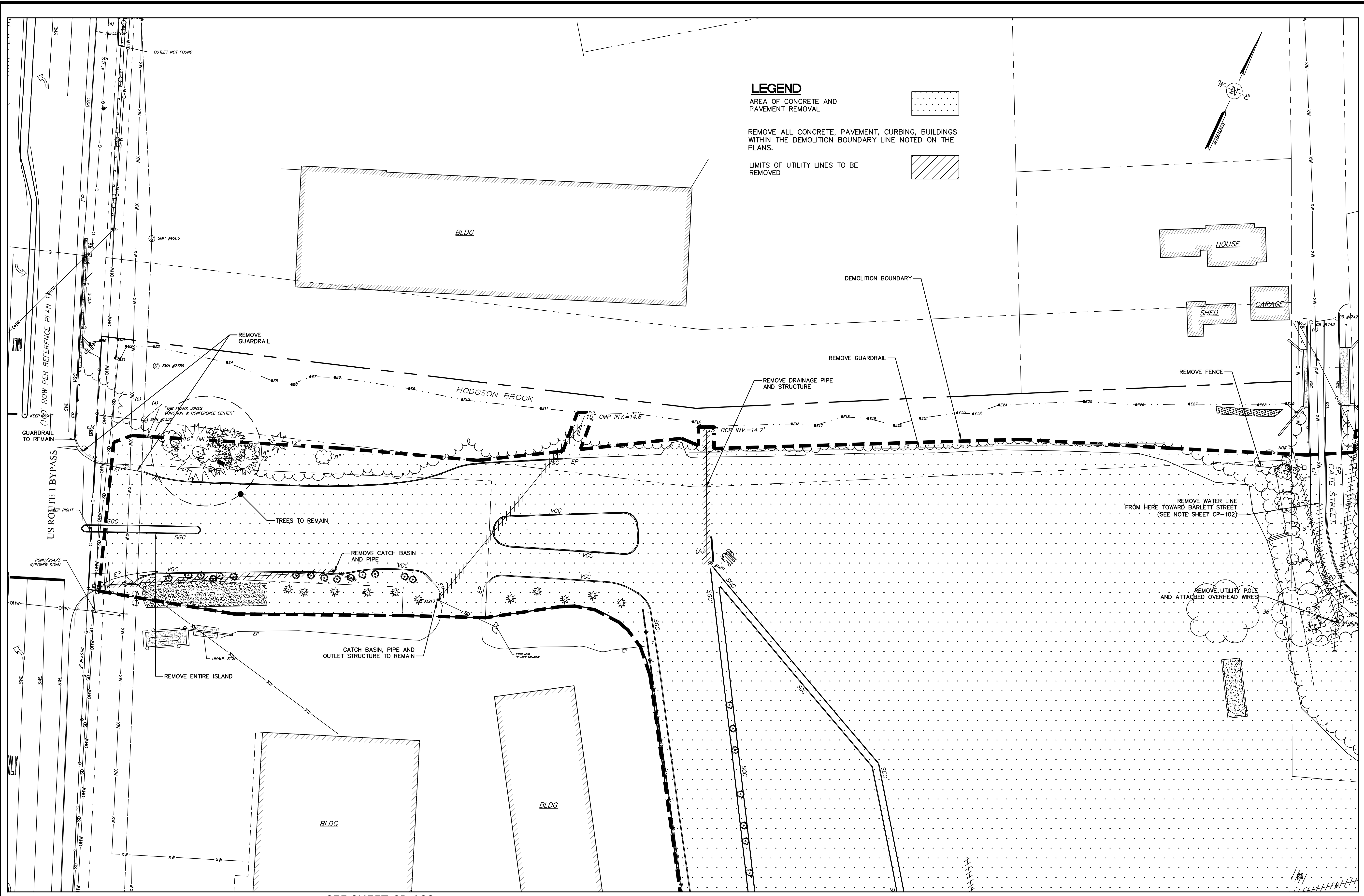
CN-002



**LEGEND**

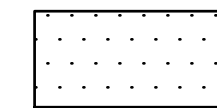
- AREA OF CONCRETE AND PAVEMENT REMOVAL 
- REMOVE ALL CONCRETE, PAVEMENT, CURBING, BUILDINGS WITHIN THE DEMOLITION BOUNDARY LINE NOTED ON THE PLANS. 
- LIMITS OF UTILITY LINES TO BE REMOVED 

	<p>DATE: 3/18/2019          TAC SUBMITTAL          DATE: 5/20/2019          TAC SUBMITTAL</p>
<p>SCALE: HORIZ.: 1"=60'          VERT.: 1"=60'</p> <p>DATUM: HORIZ.: NAD83          VERT.: NGVD29</p> <p>60 30 0 60          GRAPHIC SCALE</p>	<p><b>FUSS &amp; O'NEILL</b>          UPPER SQUARE BUSINESS CENTER          5 FLETCHER STREET, SUITE 1          KENNEBUNK, MAINE 04043          207.563.6609          www.fussdo.com</p>
<p>CATE STREET DEVELOPMENT, LLC</p> <p>OVERALL ROADWAY          PREPARATION PLAN          CATE STREET</p> <p>PORTSMOUTH NEW HAMPSHIRE</p>	<p>PROJ. No.: 20180317.A10          DATE: 05/20/2019</p> <p style="font-size: 24pt; font-weight: bold;">CP-100</p>



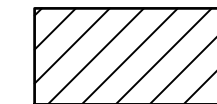
**LEGEND**

AREA OF CONCRETE AND PAVEMENT REMOVAL



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

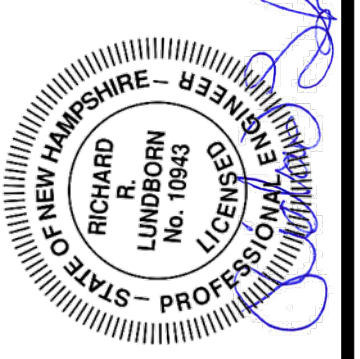
LIMITS OF UTILITY LINES TO BE REMOVED



SEE SHEET CP-102

SEE SHEET CP-103

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



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

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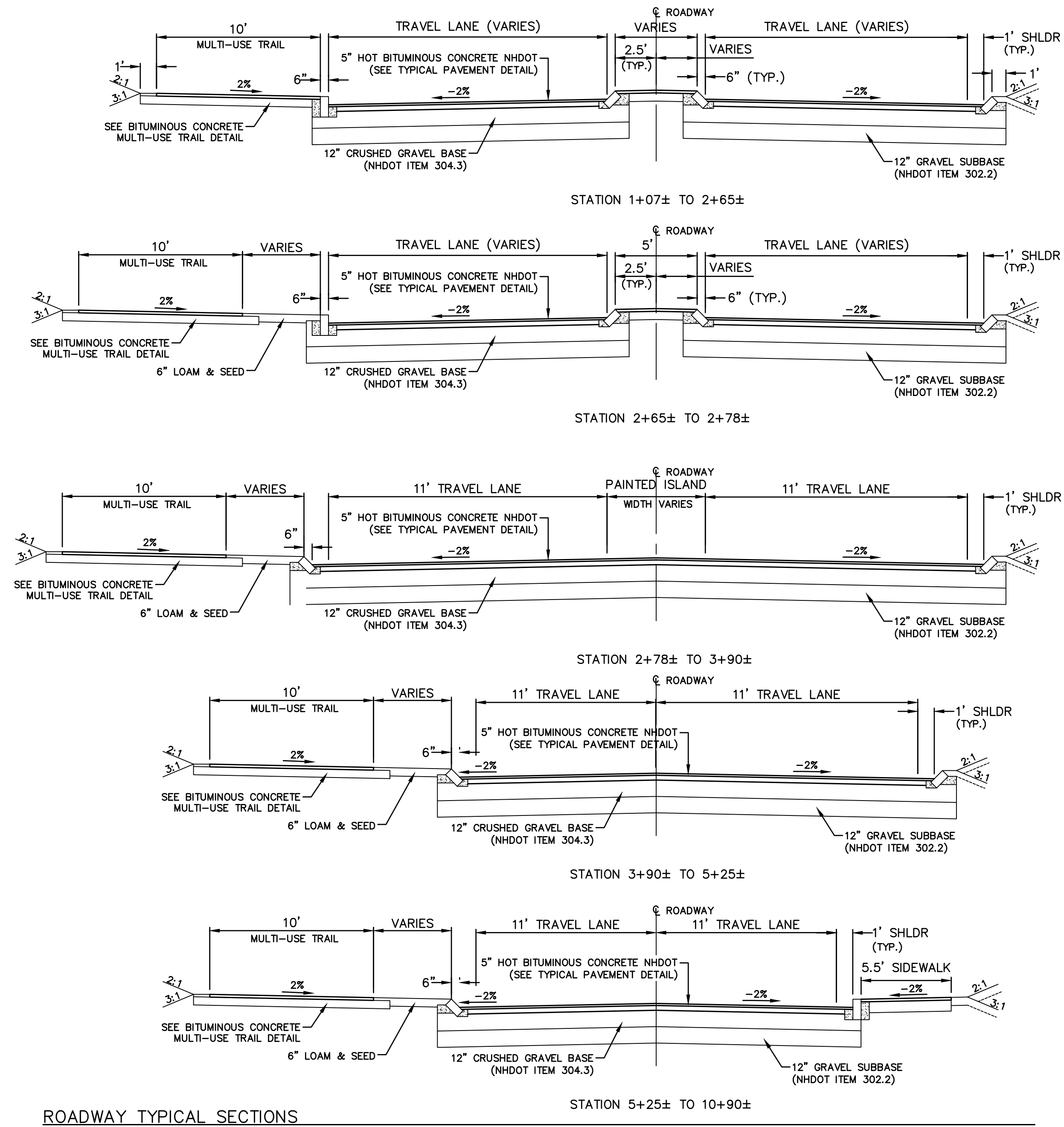
CATE STREET DEVELOPMENT, LLC  
 SITE PREPARATION PLAN  
 CATE STREET  
 PORTSMOUTH NEW HAMPSHIRE

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

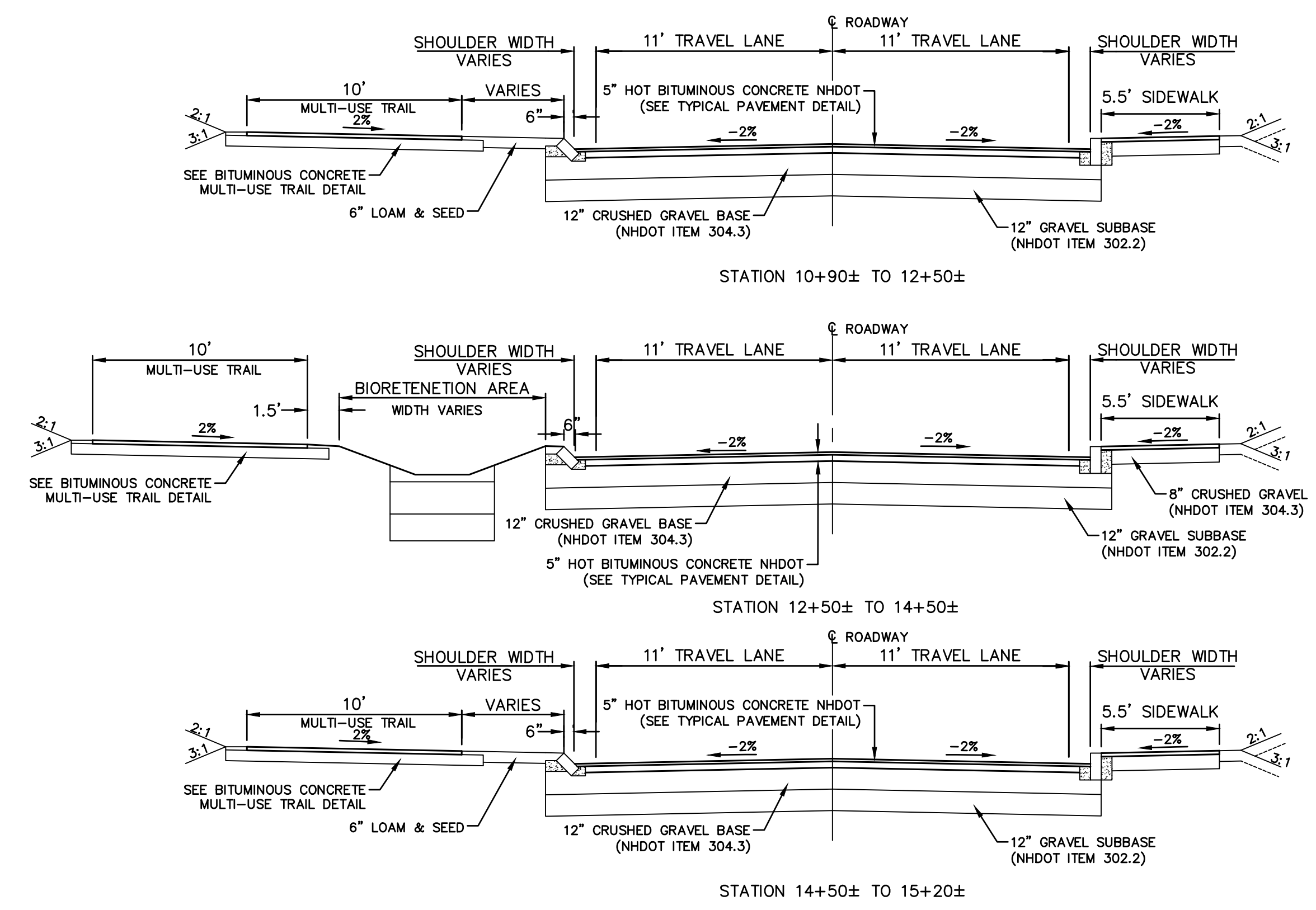
**CP-101**



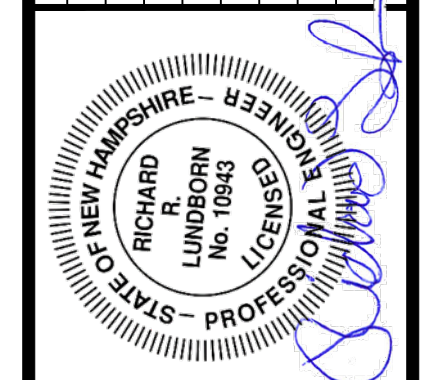
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 MS VIEW: LAYER STATE: Plotter: DWG TO PDF-PC3 CTB File: FO.STB



ROADWAY TYPICAL SECTIONS  
 SCALE: 1"=5'



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



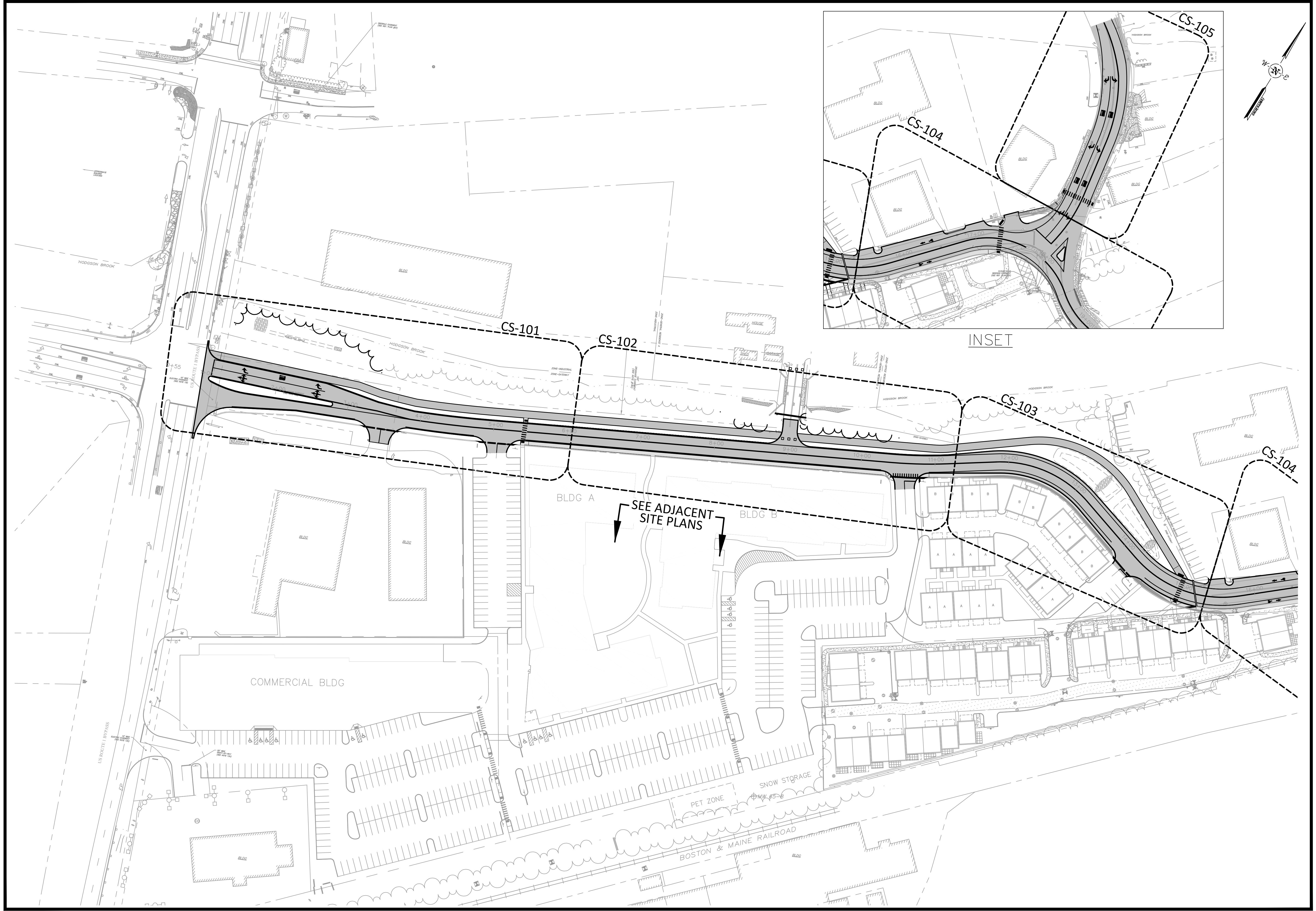
SCALE:	HORIZ.:	VERT.:
	DATUM:	
	HORIZ.:	NAD83
	VERT.:	NAVD88

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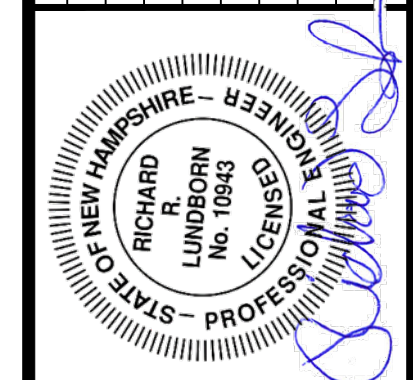
CATE STREET DEVELOPMENT, LLC  
 TYPICAL ROADWAY SECTIONS  
 CATE STREET  
 PORTSMOUTH NEW HAMPSHIRE

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

CS-001



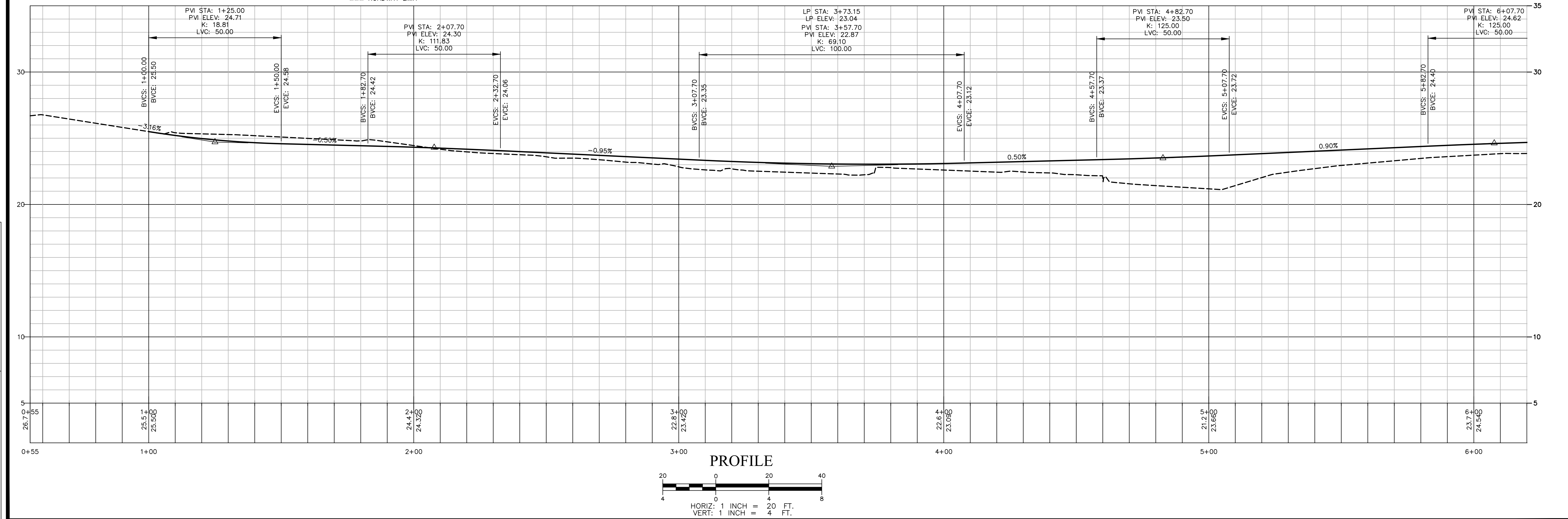
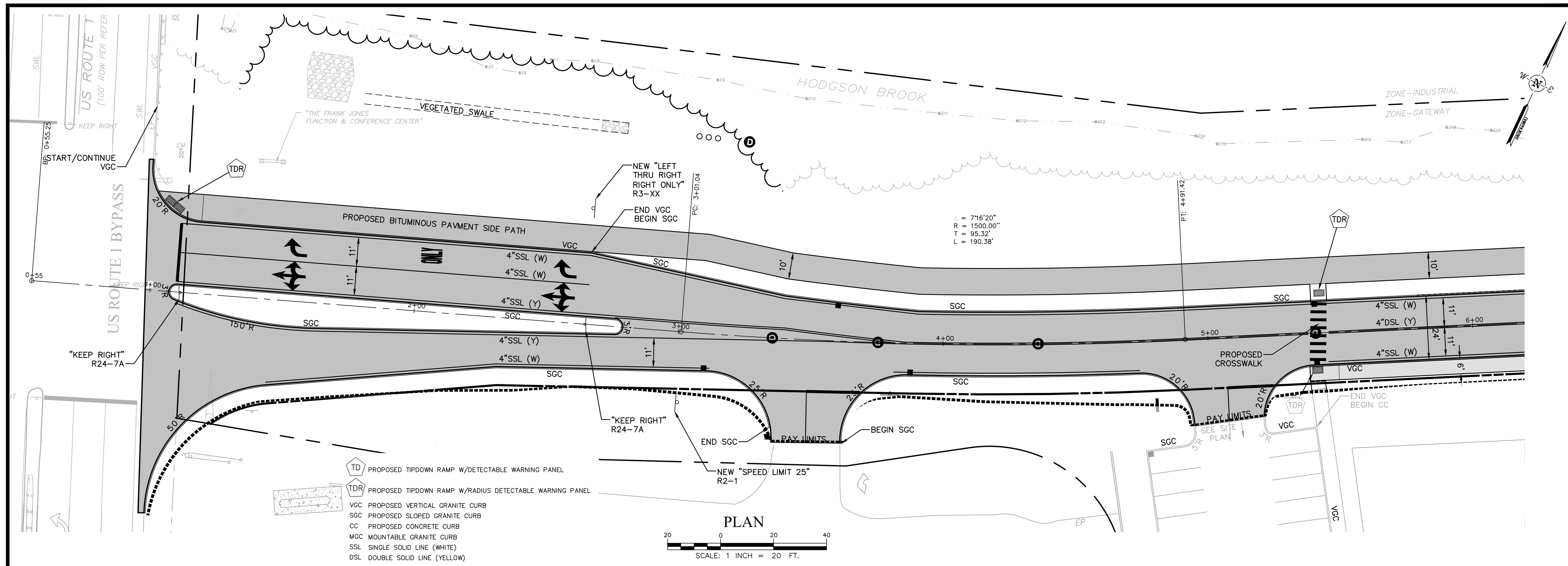
<p>SCALE: HORIZ.: 1"=60'          VERT.: 1"=60'</p>		<p>GRAPHIC SCALE</p>
<p>DATUM: HORIZ.: NAD83          VERT.: NAVD88</p>		
<p><b>FUSS &amp; O'NEILL</b>          UPPER SQUARE BUSINESS CENTER          5 FLETCHER STREET, SUITE 1          KENNEBUNK, MAINE 04043          www.fandoo.com</p>		
<p>CATE STREET DEVELOPMENT, LLC  <b>OVERALL ROADWAY PLAN</b>          CATE STREET          PORTSMOUTH NEW HAMPSHIRE</p>		
<p>PROJ. No.: 20180317.A10          DATE: 05/20/2019</p>		
<p><b>CS-100</b></p>		



NO.	DATE	DESCRIPTION	DESIGNER REVIEWER
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2.	5/20/2019	TAC SUBMITTAL	RRL



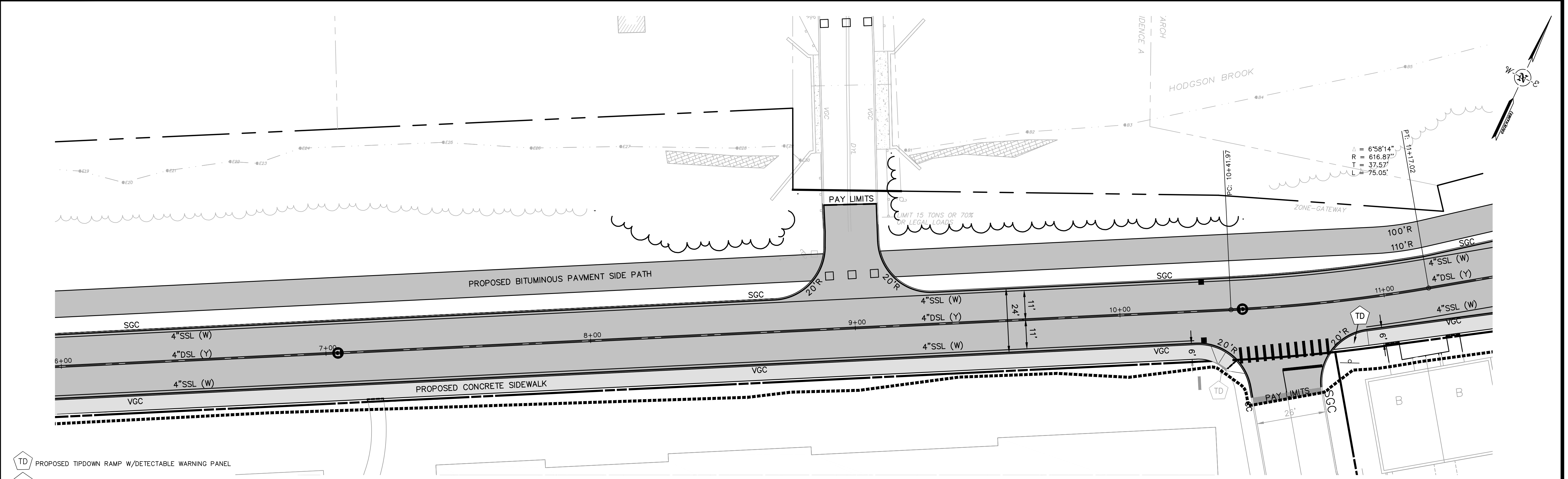
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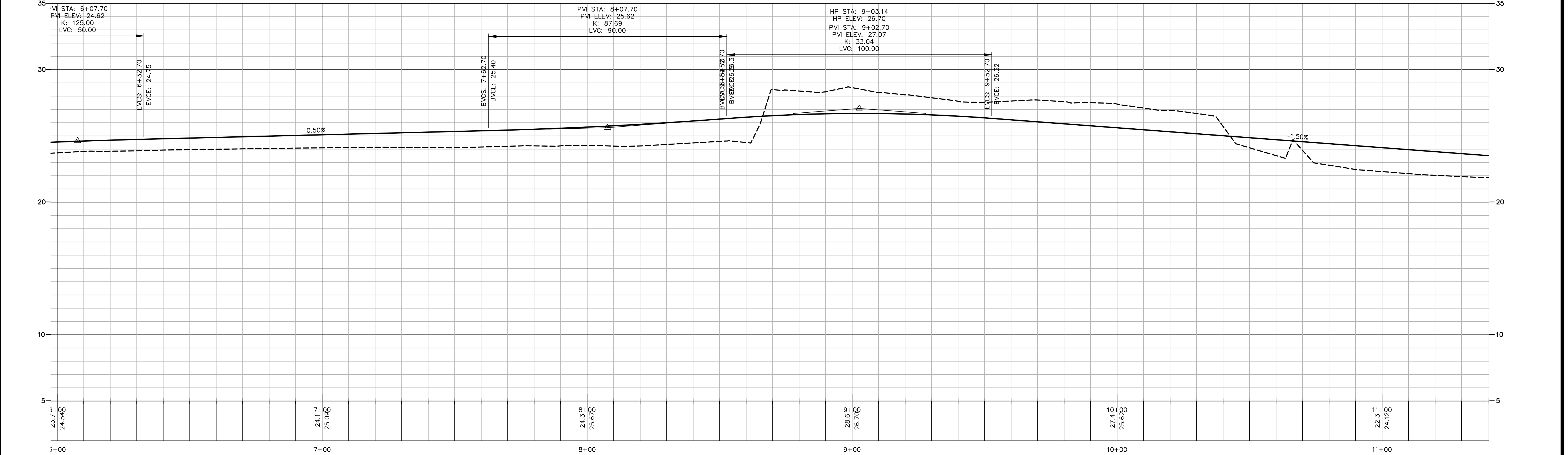
PROJ. No.: 20180317.A10	DATE: 05/20/2019
<p><b>FUSS &amp; O'NEILL</b>          UPPER SQUARE BUSINESS CENTER          5 FLETCHER STREET, SUITE 1          KENNEBUNK, MAINE 04043          207.563.6669          www.fandoo.com</p>	
<p>CATE STREET DEVELOPMENT, LLC          ROADWAY PLAN &amp; PROFILE          CATE STREET          PORTSMOUTH NEW HAMPSHIRE</p>	
<p>SCALE: HORZ.: 1 INCH = 20 FT.          VERT.: 1 INCH = 4 FT.</p>	<p>DATUM: NAD83          HORZ.: NAD83          VERT.: NGVD29</p>
<p>PROFESSIONAL ENGINEER          RICHARD R. LUNDORF          Lic. 0683          LICENSED PROFESSIONAL ENGINEER          STATE OF NEW HAMPSHIRE</p>	
<p>DESIGNER REVIEWER</p>	
<p>DESCRIPTION</p>	
<p>DATE</p>	
<p>TAC. SUBMITTAL</p>	
<p>JVA/DAD</p>	
<p>JVA/DAD</p>	
<p>5/20/2019</p>	
<p>3/18/2019</p>	
<p>1.</p>	
<p>2.</p>	

**CS-101**

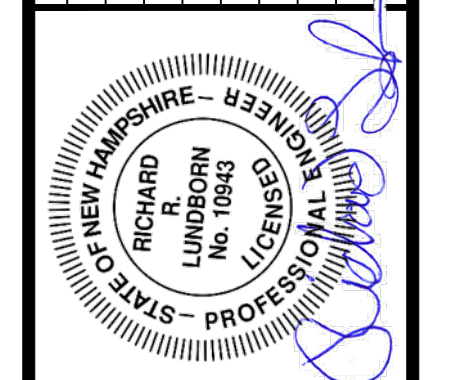
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 MS VIEW: LAYER STATE: Plotter: DWG TO PDF-PC3 CTB File: FO.STB



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



NO.	DATE	DESCRIPTION	DESIGNER	REVIEWER
1.	3/18/2019	TAC SUBMITTAL	JVA/DAO	RRJ
2.	5/20/2019	TAC SUBMITTAL	JVA/DAO	RRJ

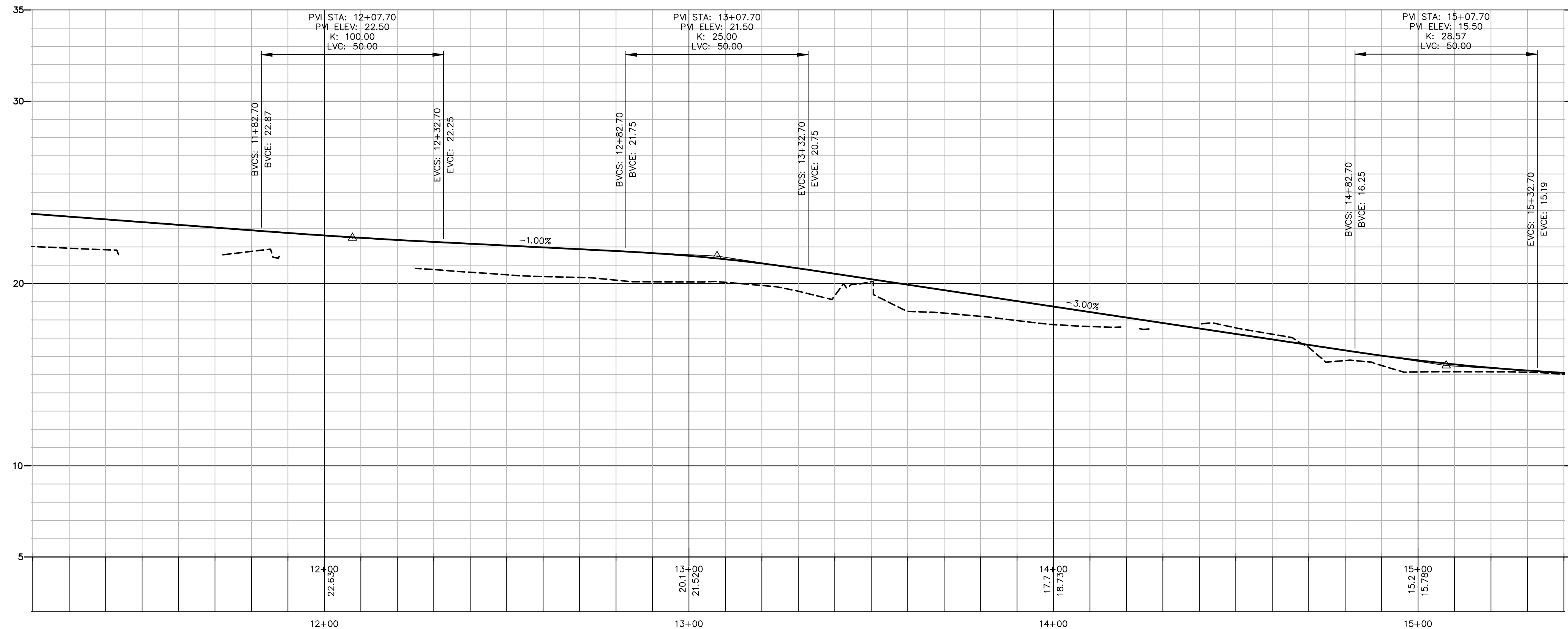
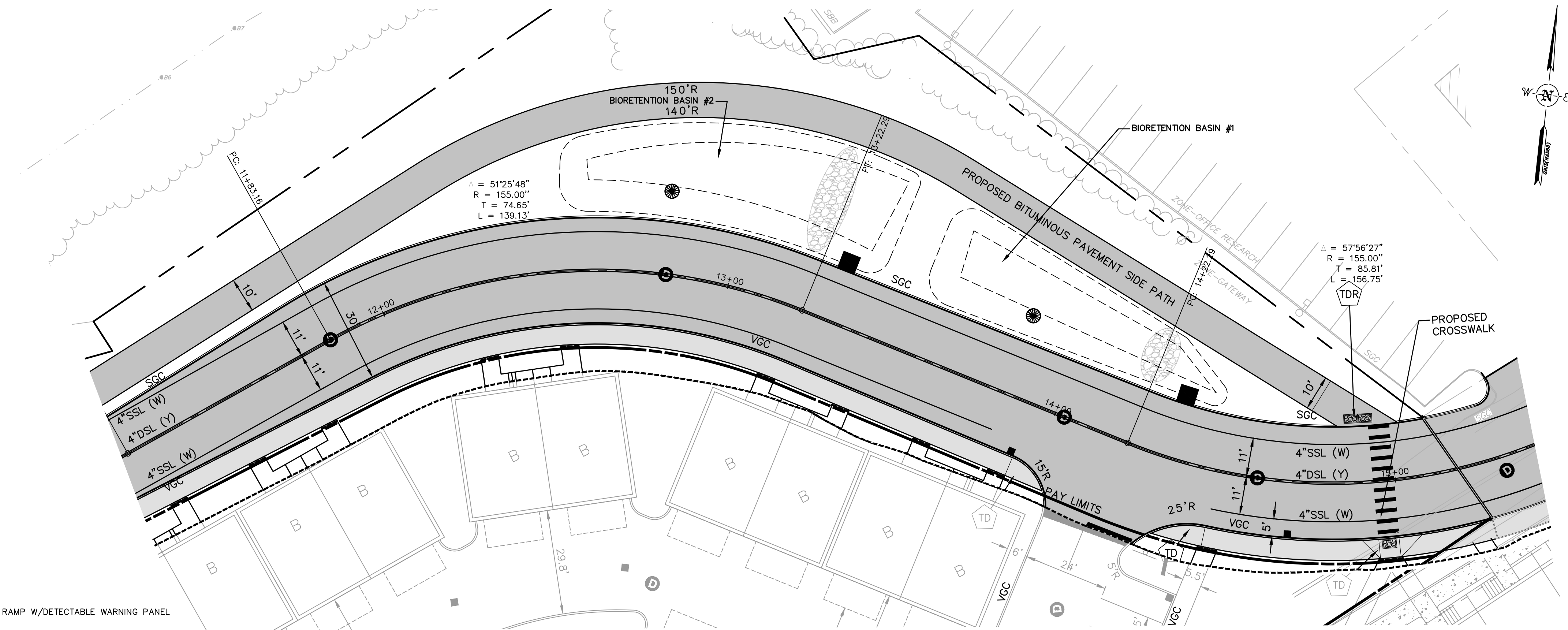


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	VERT: 1" = 4'
DATUM:	HORIZ: NAD83
	VERT: NGVD29
	GRAPHIC SCALE

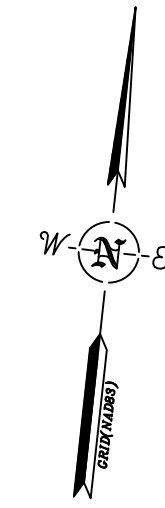
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 PORTSMOUTH NEW HAMPSHIRE  
 ROADWAY PLAN & PROFILE  
 CATE STREET

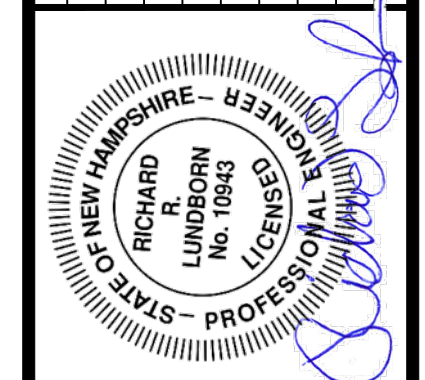
PROJ. No.: 20180317.A10  
 DATE: 05/20/2019  
**CS-102**



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



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



SCALE:	HORIZ: 1 INCH = 20 FT.
	VERT: 1 INCH = 4 FT.
DATUM:	NAD83
	VERT.: NGVD29
GRAPHIC SCALE	

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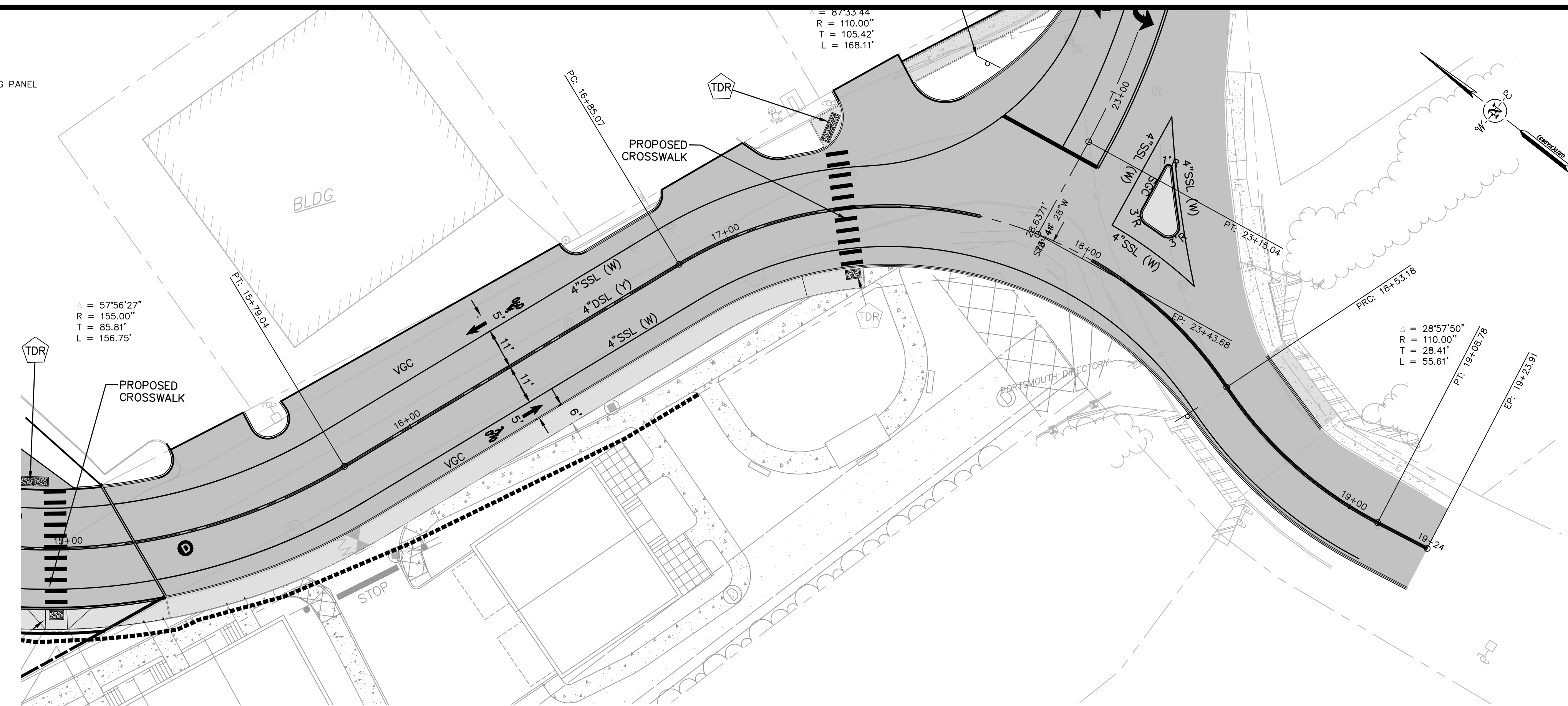
CATE STREET DEVELOPMENT, LLC  
**ROADWAY PLAN & PROFILE**  
 CATE STREET  
 PORTSMOUTH NEW HAMPSHIRE

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

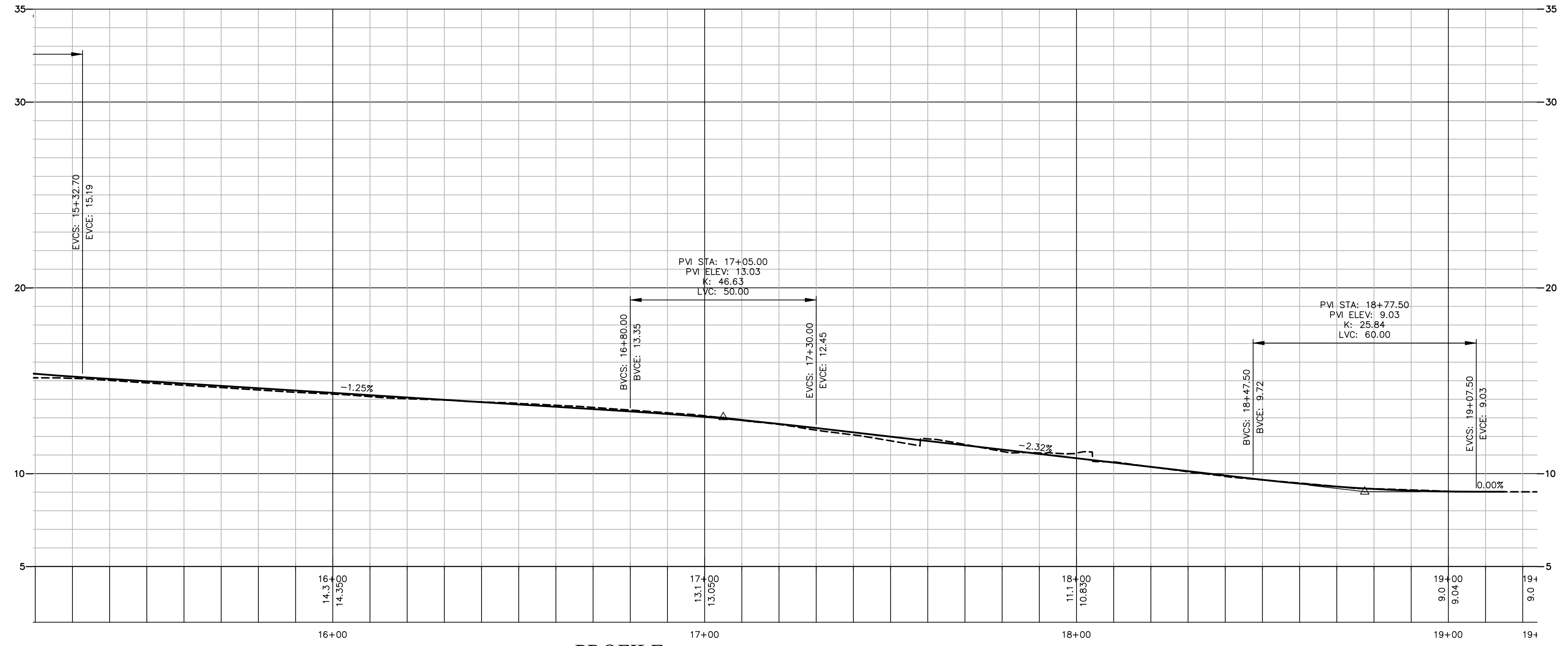
**CS-103**

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

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

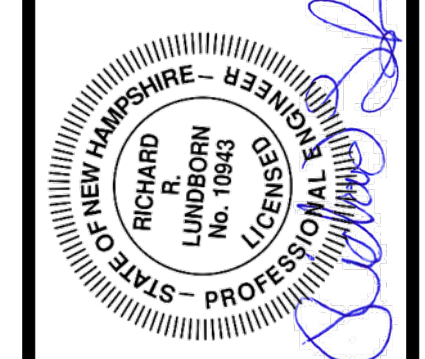


PLAN  
 SCALE: 1 INCH = 20 FT.



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

NO.	DATE	DESCRIPTION	DESIGNER/REVIEWER
1.		TAC SUBMITTAL	JVA/DAD
2.	5/20/2019	TAC SUBMITTAL	JVA/DAD



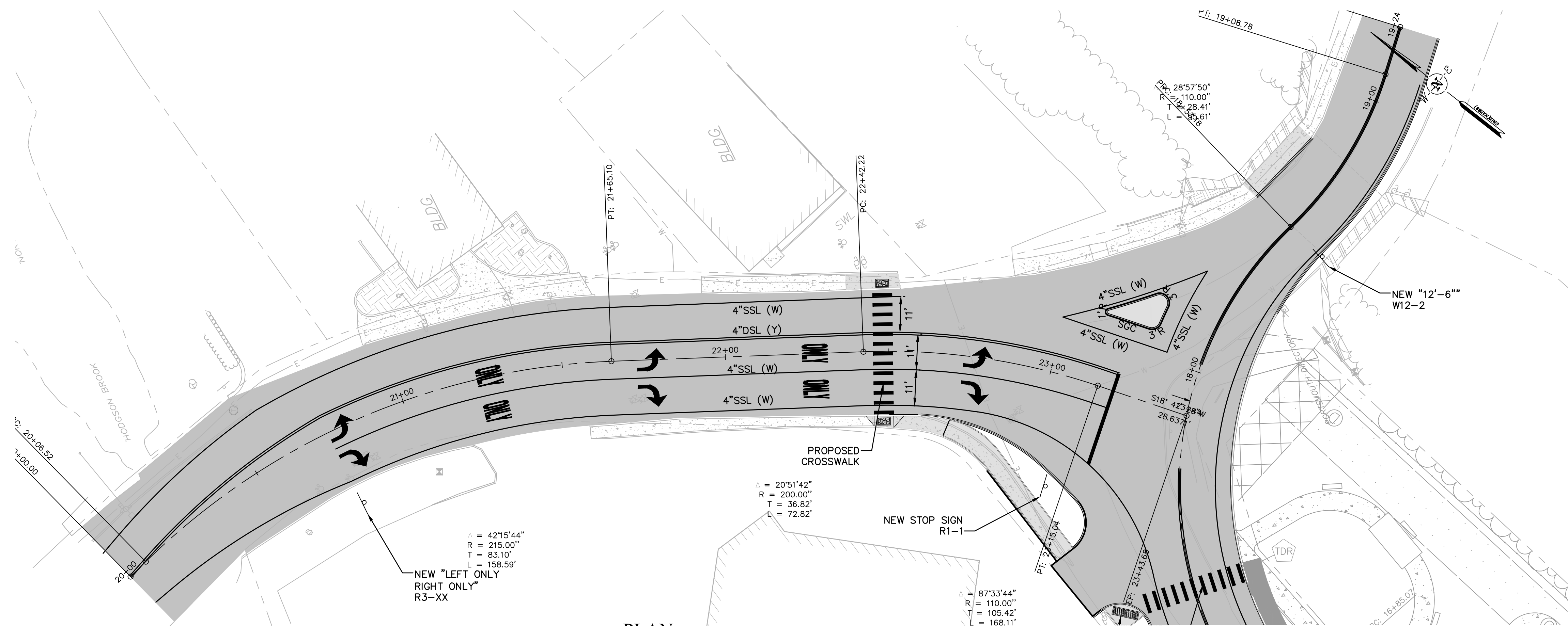
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DATUM:	HORIZ: NAD83
	VERT: NGVD29
	GRAPHIC SCALE

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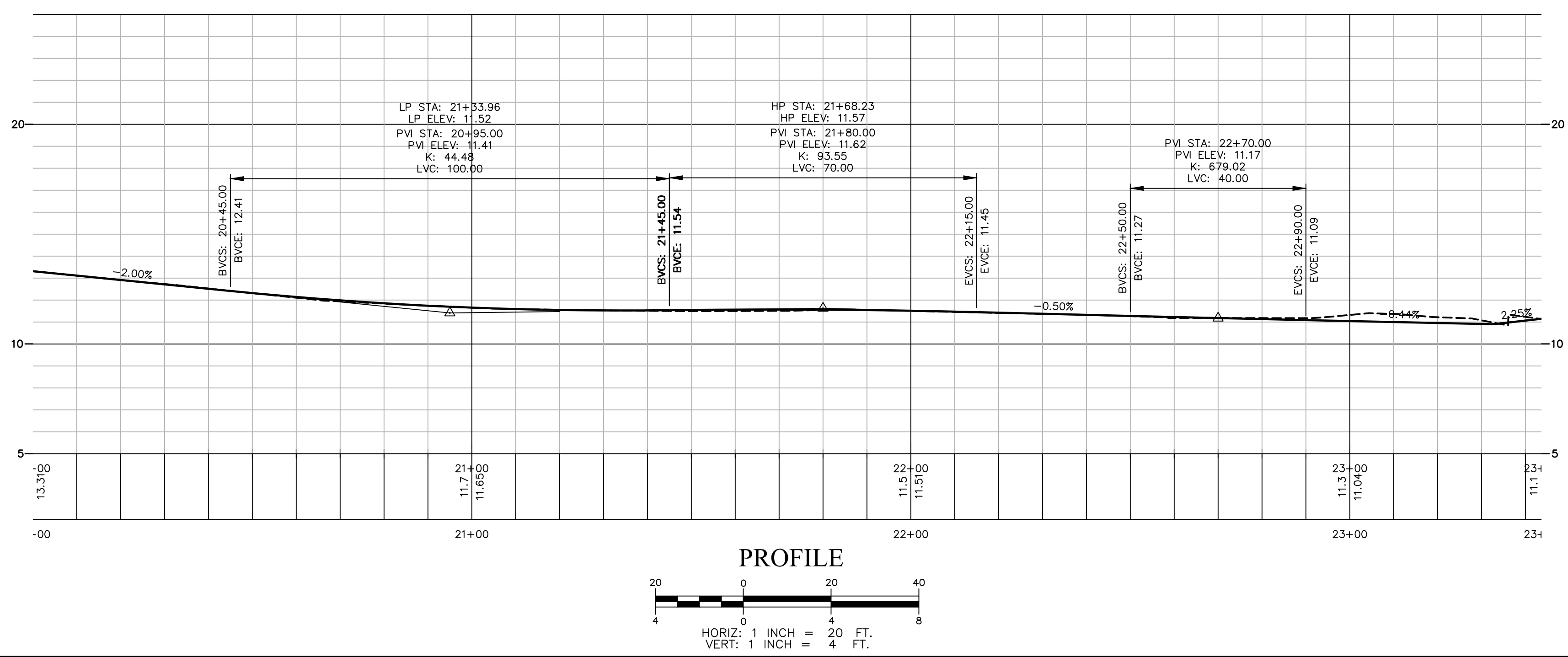
CATE STREET DEVELOPMENT, LLC  
**ROADWAY PLAN & PROFILE**  
 CATE STREET  
 PORTSMOUTH NEW HAMPSHIRE

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

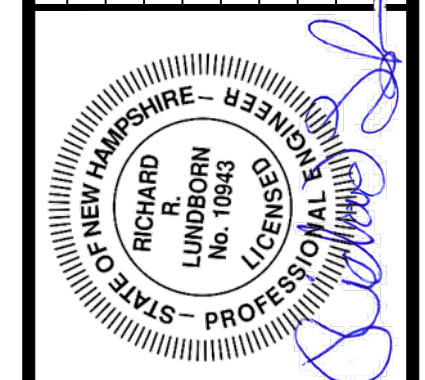
**CS-104**



- PROPOSED TIPDOWN RAMP W/DETECTABLE WARNING PANEL
- PROPOSED TIPDOWN RAMP W/RADIUS DETECTABLE WARNING PANEL
- PROPOSED VERTICAL GRANITE CURB
- PROPOSED SLOPED GRANITE CURB
- PROPOSED CONCRETE CURB
- MOUNTABLE GRANITE CURB
- SINGLE SOLID LINE (WHITE)
- DOUBLE SOLID LINE (YELLOW)
- ROADWAY LIMIT



NO.	DATE	DESCRIPTION	DESIGNER/REVIEWER
1.			
2.	5/20/2019	TAC SUBMITTAL	JVA/DAO
	3/18/2019	TAC SUBMITTAL	JVA/DAO



SCALE:	HORIZ: 1 INCH = 20 FT.
	VERT: 1 INCH = 4 FT.
DATUM:	HORIZ: NAD83
	VERT: NGVD29
GRAPHIC SCALE	

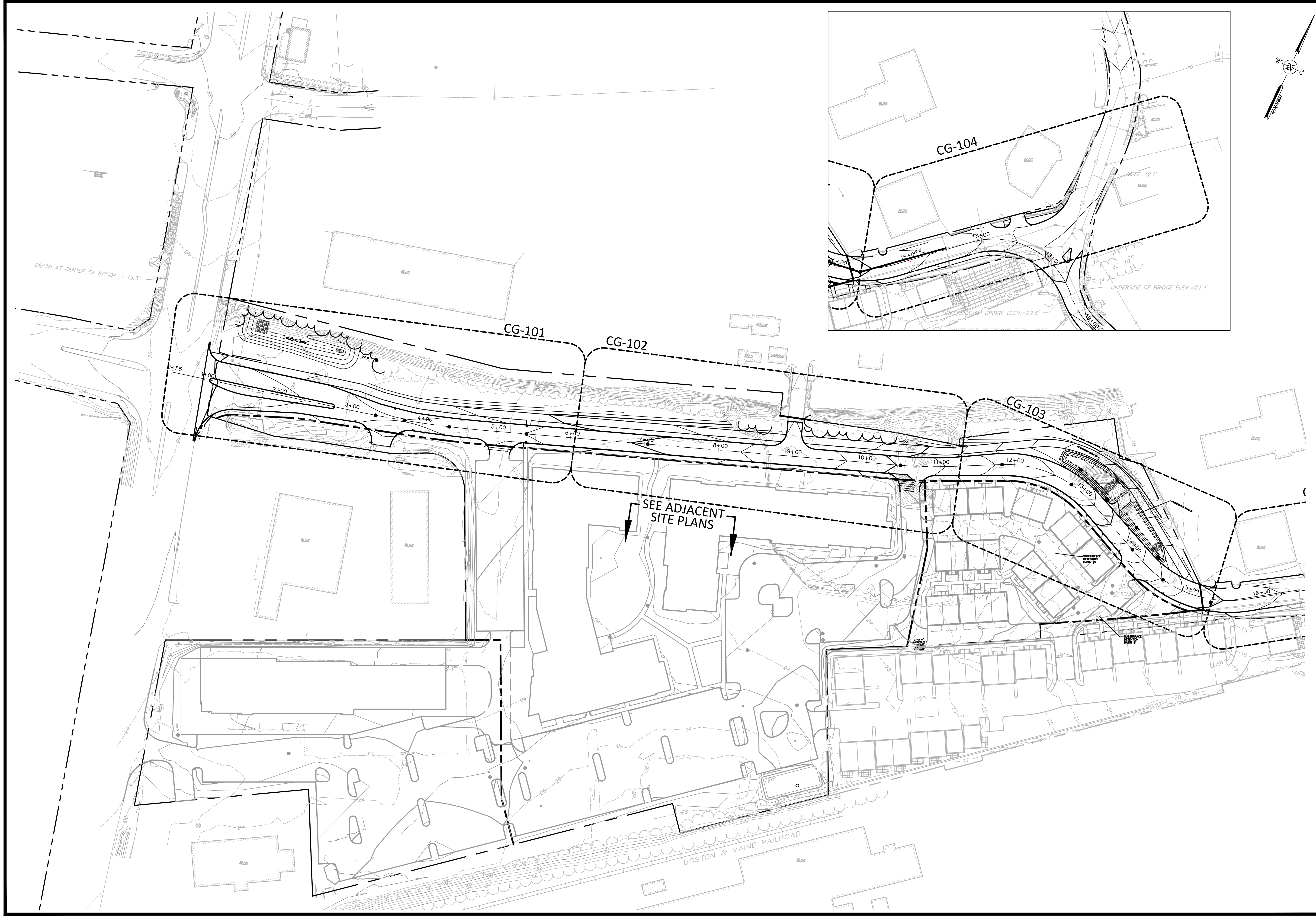
**FUSS & O'NEILL**  
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CATE STREET DEVELOPMENT, LLC  
**ROADWAY PLAN & PROFILE**  
 CATE STREET  
 PORTSMOUTH NEW HAMPSHIRE

PROJ. No.: 20180317.A10  
 DATE: 05/20/2019  
**CS-105**

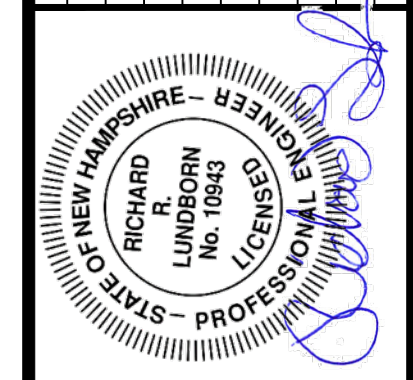


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 MS VIEW: LAYER STATE: Plotter: DWG TO PDF PC3 CTB File: FOSTB



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 SITE PLANS

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



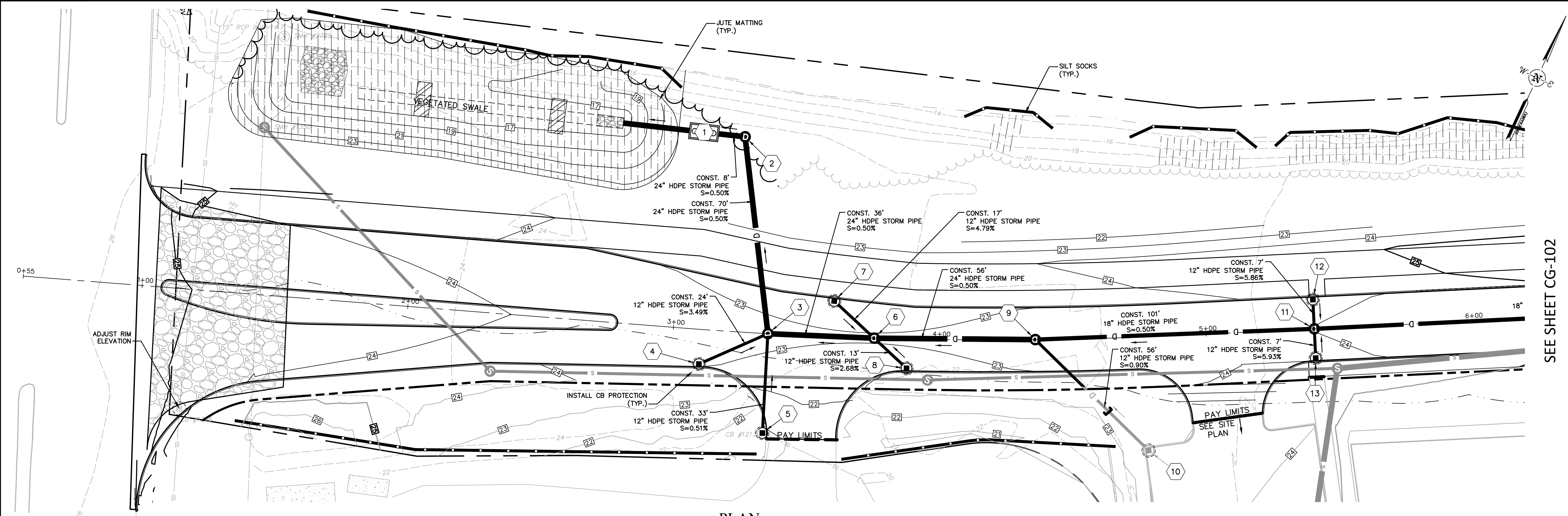
SCALE:	HORIZ.: 1"=60'
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GRAPHIC SCALE	

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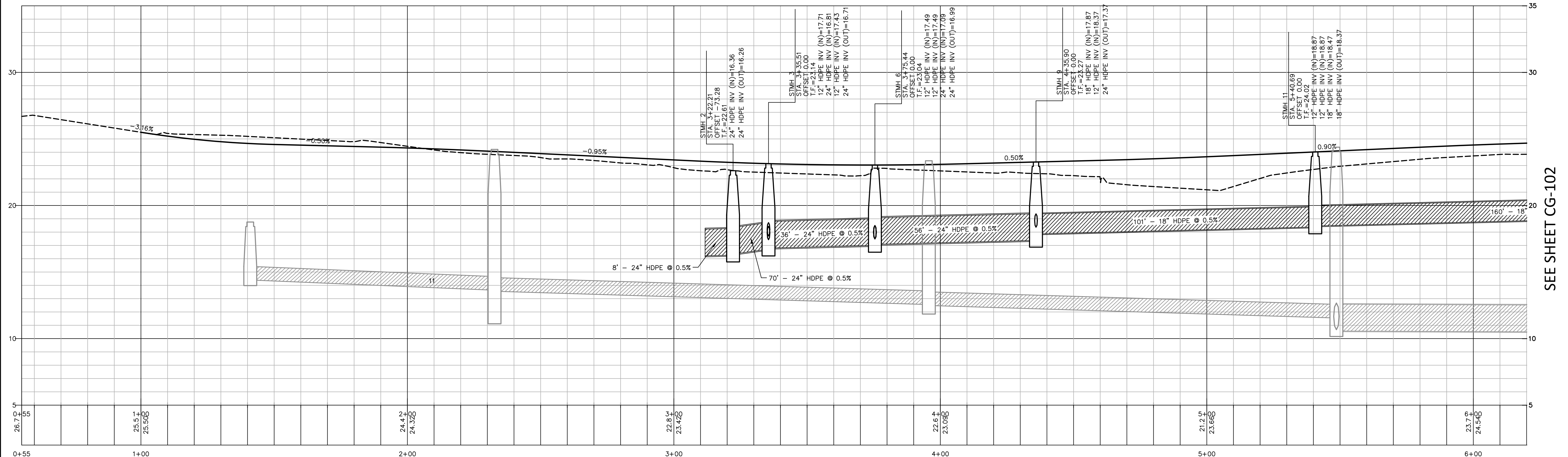
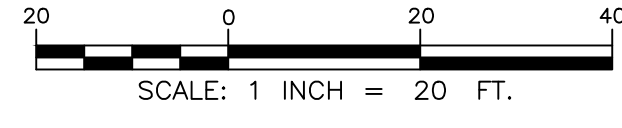
CATE STREET DEVELOPMENT, LLC  
**GRADING, DRAINAGE &  
 EROSION CONTROL PLAN**  
 CATE STREET  
 PORTSMOUTH NEW HAMPSHIRE

PROJ. No.: 20180317.A10  
 DATE: 05/20/2019  
**CG-100**

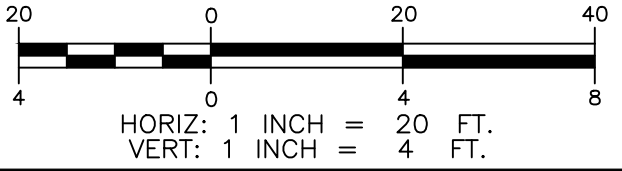
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PLAN



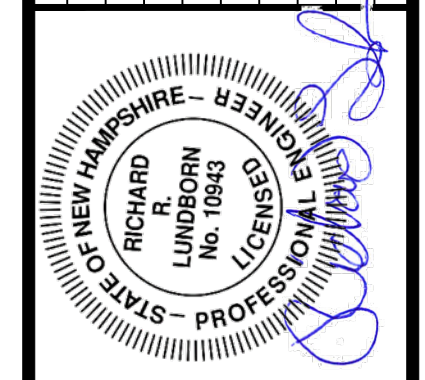
PROFILE



SEE SHEET CG-102

SEE SHEET CG-102

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



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

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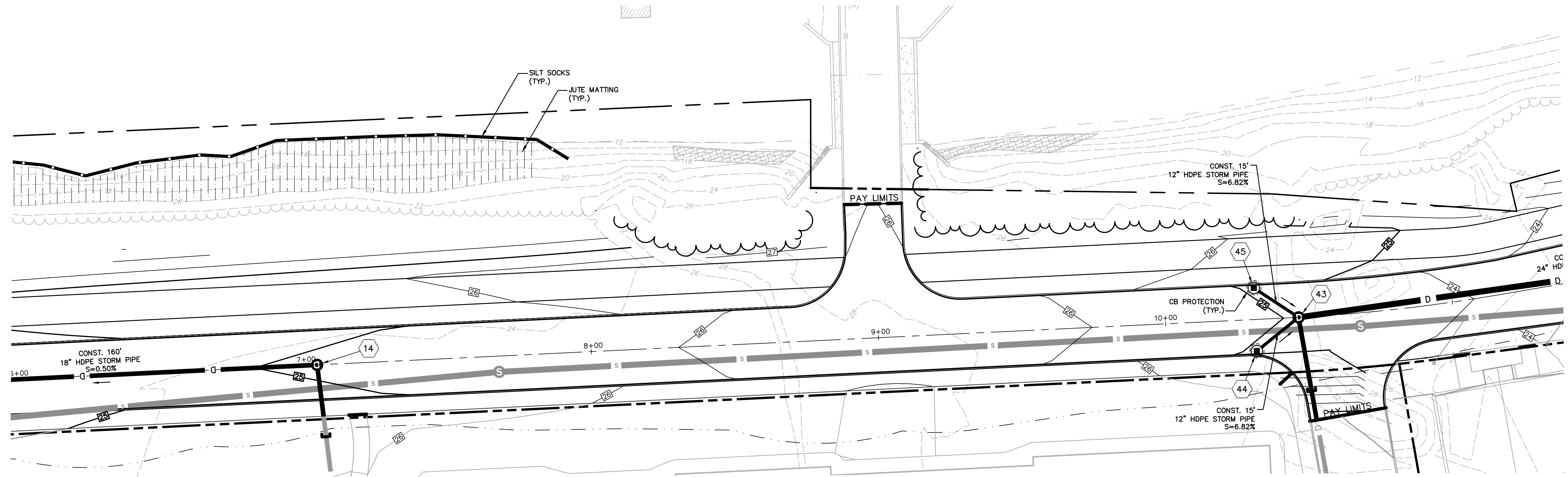
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 PORTSMOUTH NEW HAMPSHIRE

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

**CG-101**

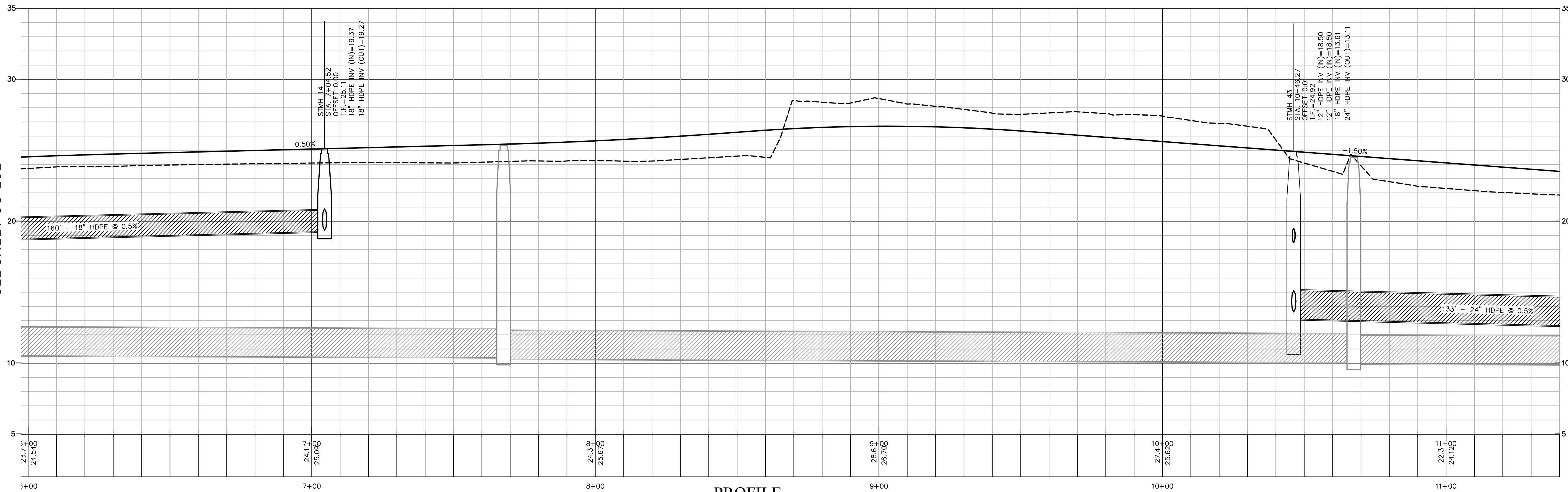


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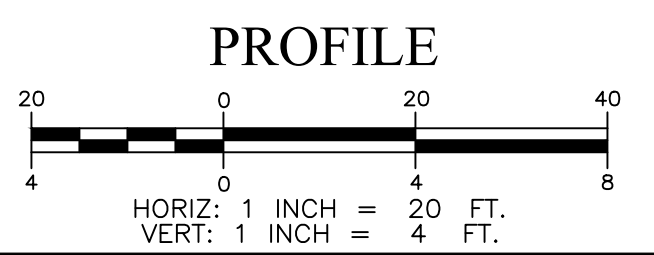


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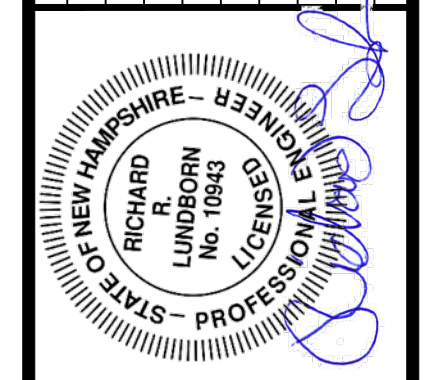
SEE SHEET CG-101



SEE SHEET CG-103



No.	DATE	DESCRIPTION	DESIGNER	REVIEWER
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2	5/20/2019	TAC SUBMITTAL	JVA/DAO	JVA/DAO



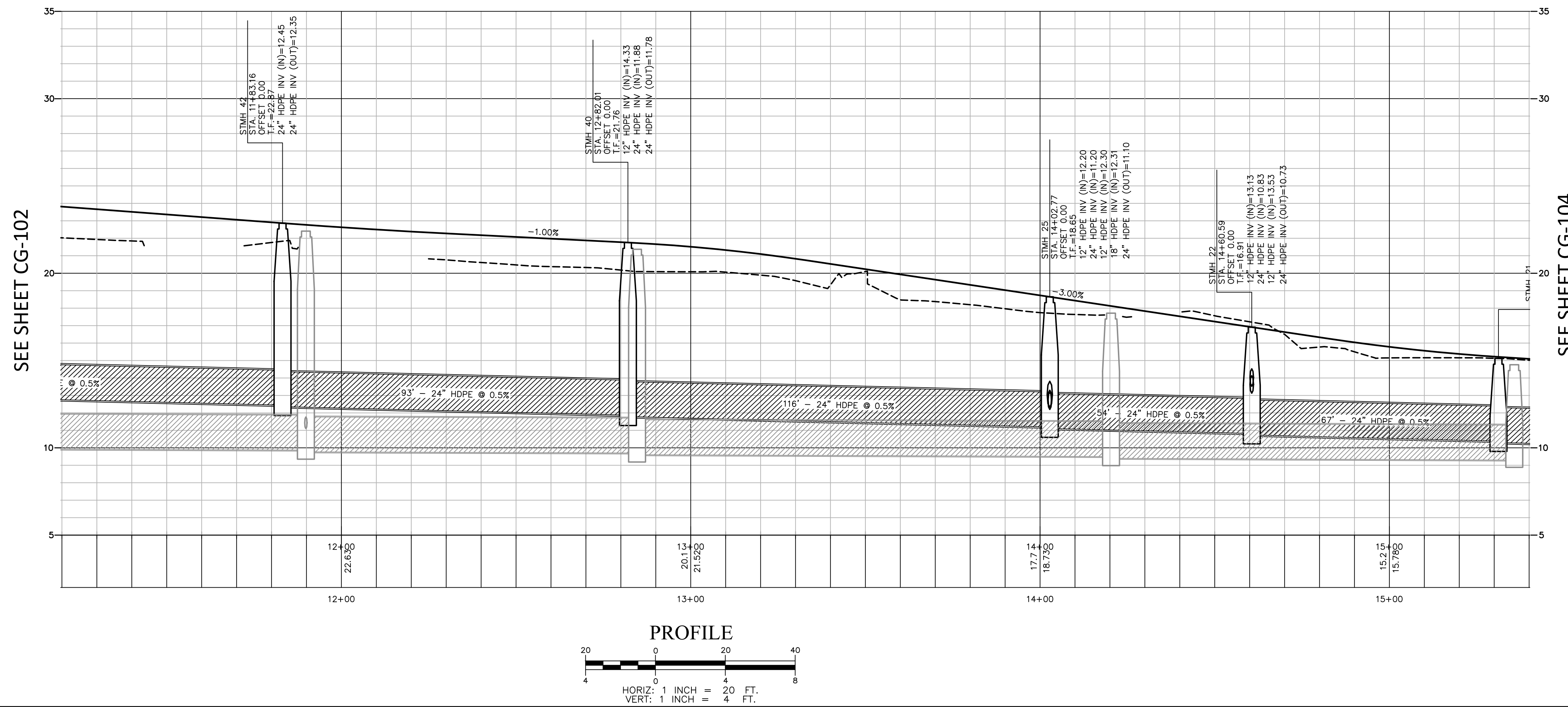
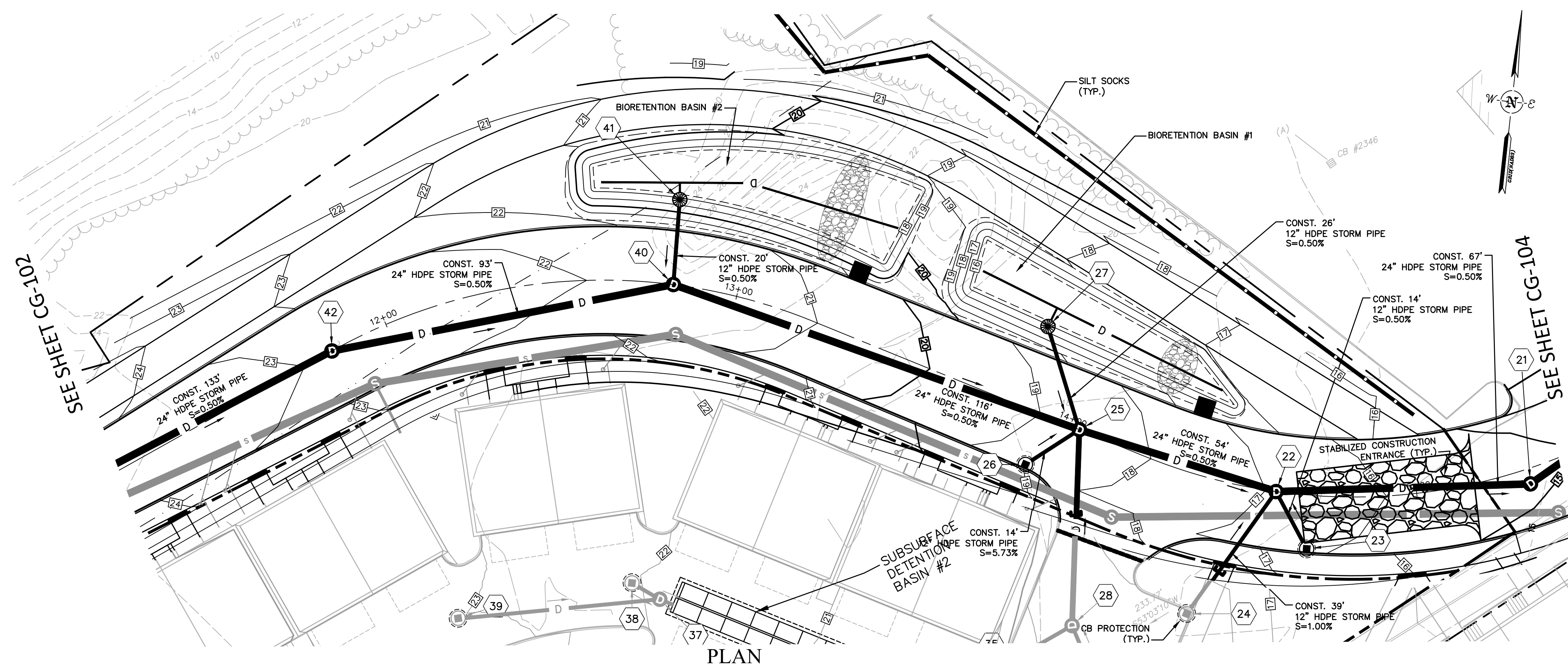
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DATUM:	HORIZ: NAD83 VERT: NGVD29	
GRAPHIC SCALE		

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

**CG-102**



**CG-103**

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

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

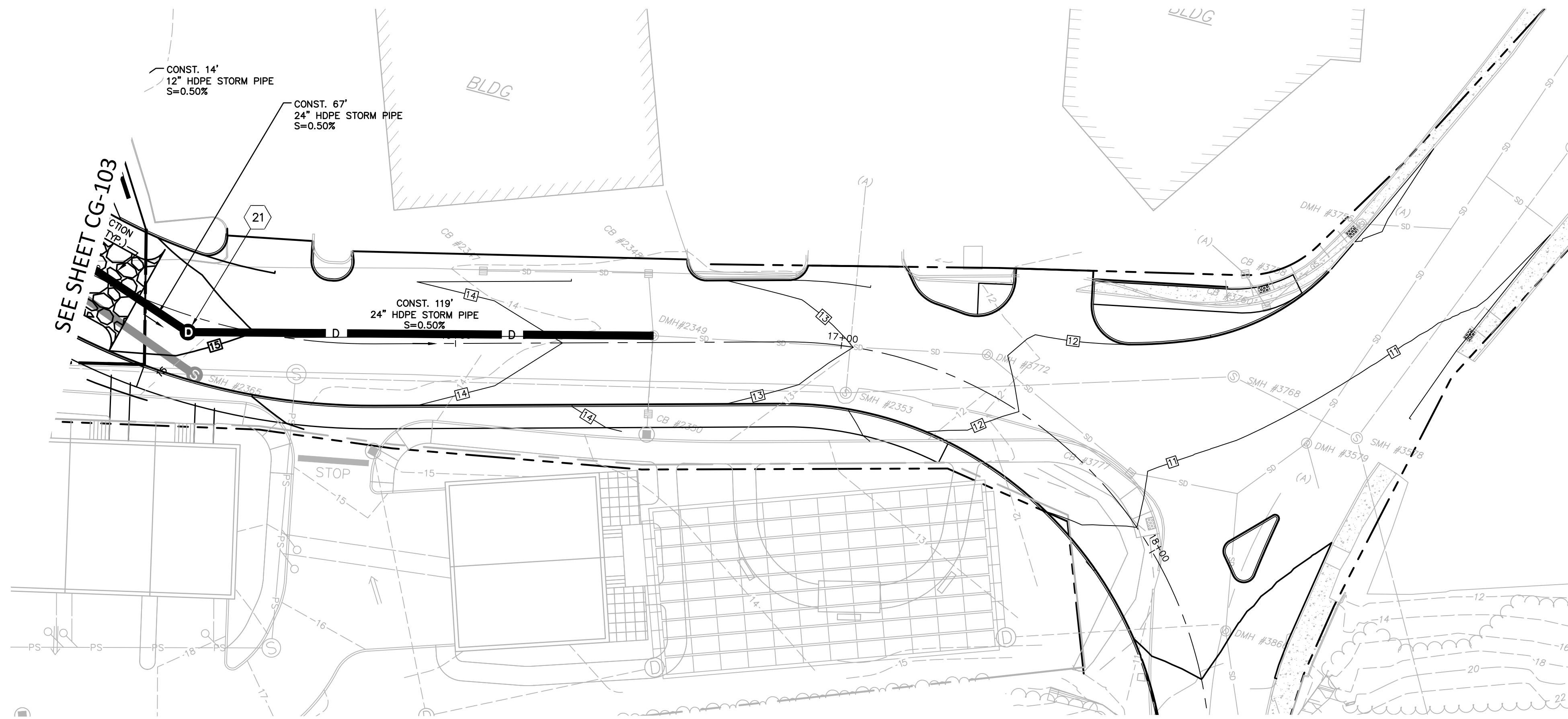
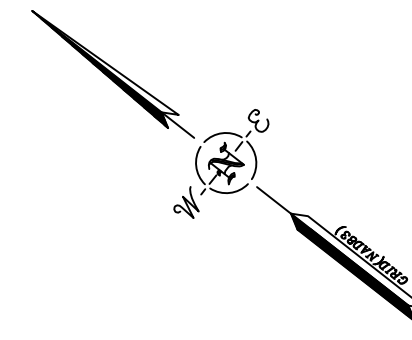
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SCALE:  
 HORIZ.: 1"=20'  
 VERT.: 1"=4'  
 DATUM: NAD83  
 VERT.: NGVD29  
 GRAPHIC SCALE

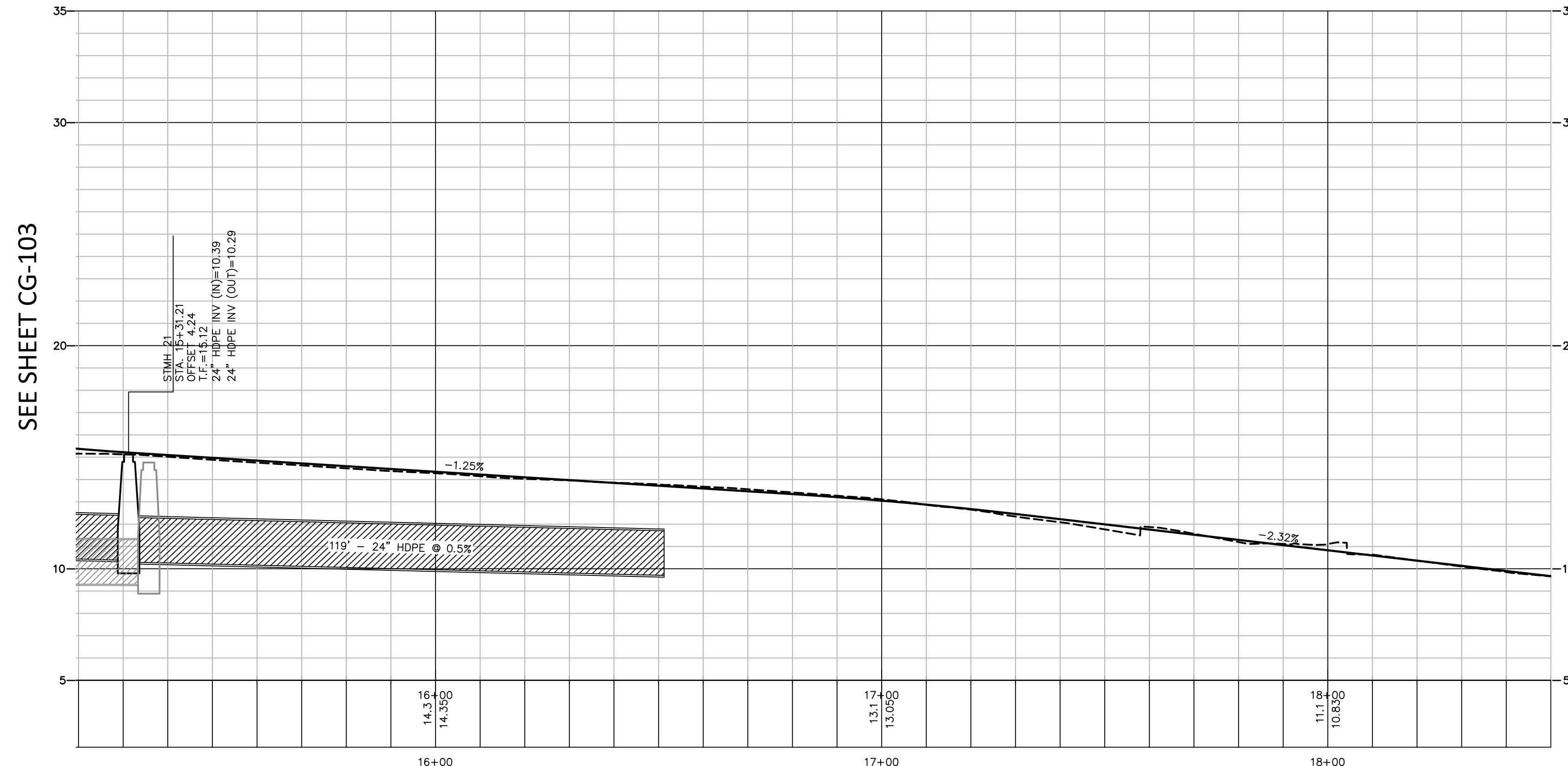
STATE OF NEW HAMPSHIRE  
 RICHARD R. LUNDY  
 No. 10843  
 LICENSED PROFESSIONAL ENGINEER

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

SEE SHEET CG-102 (Left)  
 SEE SHEET CG-104 (Right)

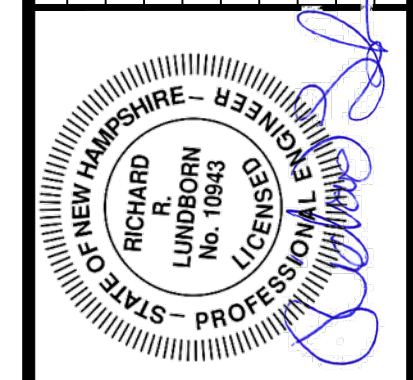


PLAN  
 SCALE: 1 INCH = 20 FT.



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

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



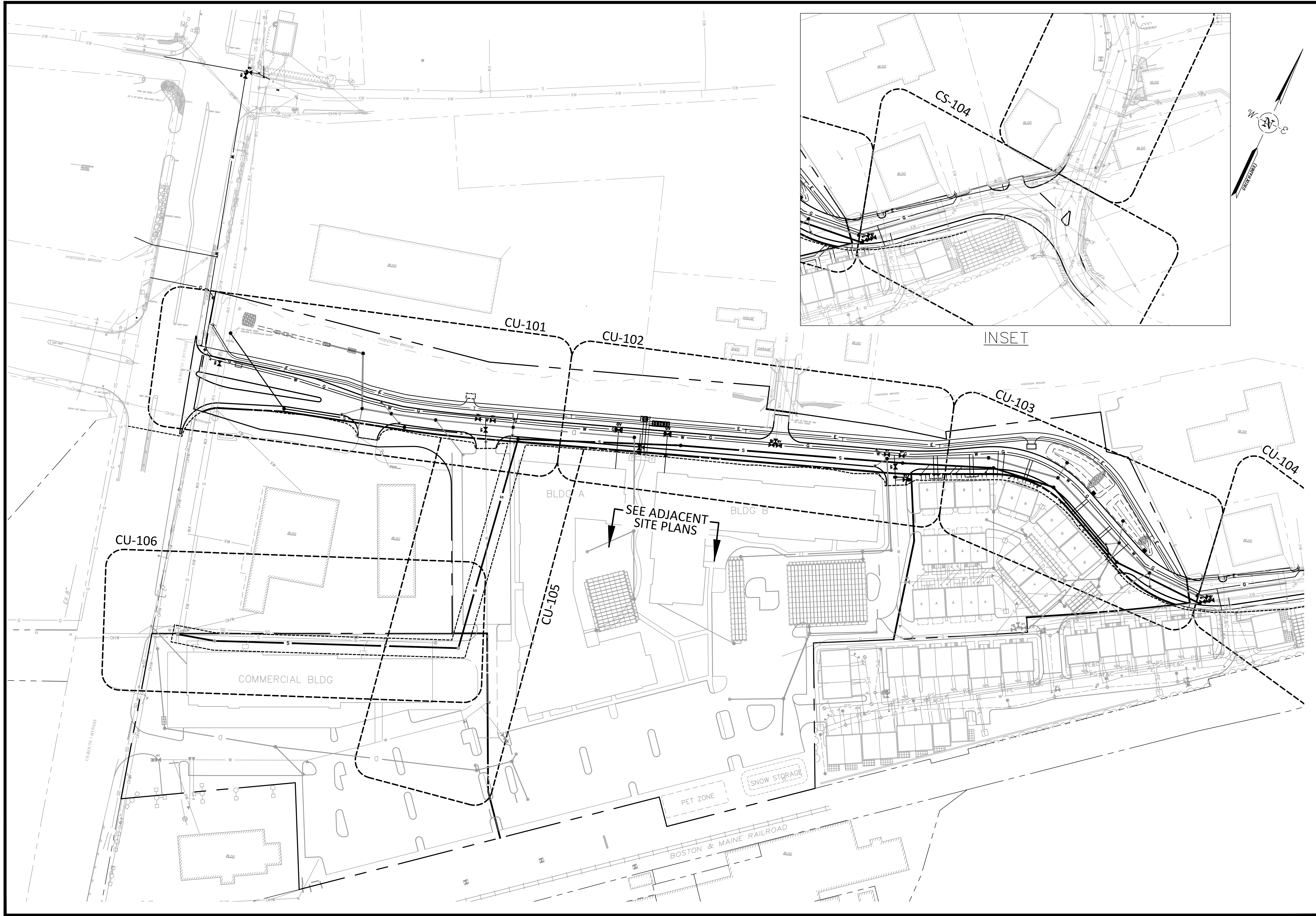
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	VERT: NGVD29

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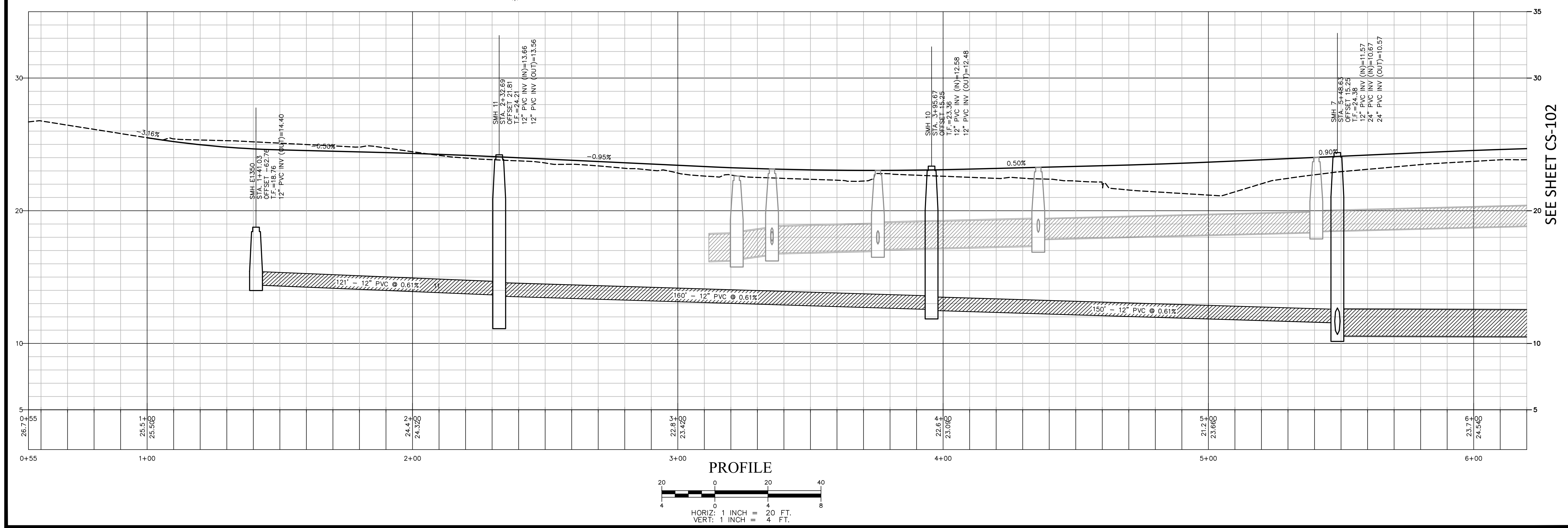
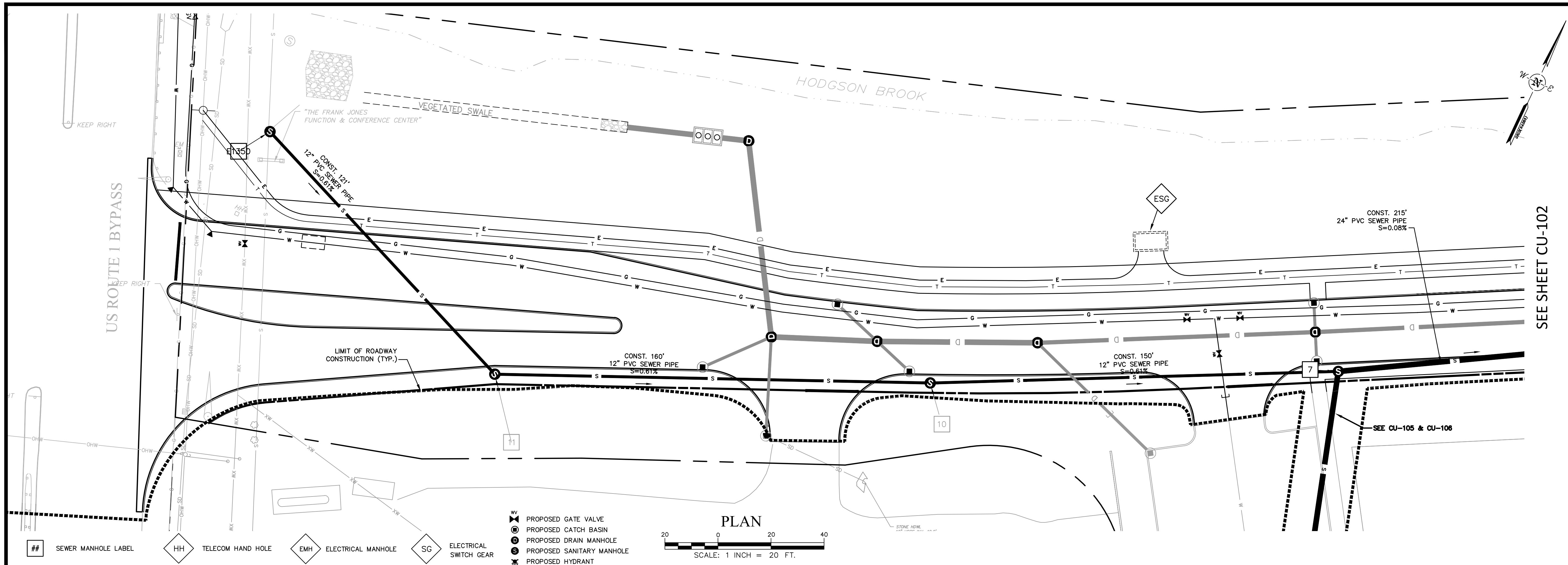
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 PORTSMOUTH NEW HAMPSHIRE

PROJ. No.: 20180317.A10  
 DATE: 05/20/2019  
**CG-104**





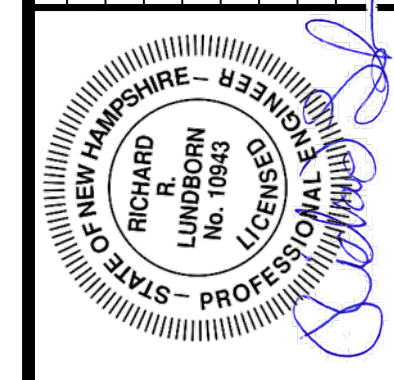
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<p>CATE STREET DEVELOPMENT, LLC  <b>OVERALL UTILITY PLAN</b>          CATE STREET          PORTSMOUTH NEW HAMPSHIRE</p>	
<p><b>FUSS &amp; O'NEILL</b>          UPPER SQUARE BUSINESS CENTER          5 FLETCHER STREET, SUITE 1          KENNEBUNK, MAINE 04043          www.fandoc.com</p>	
<p>SCALE: HORZ.: 1"=60'          VERT.: 1"=60'</p>	<p>DATUM:          HORZ.: NAD83          VERT.: NGVD29</p>
<p>60 30 0 60          GRAPHIC SCALE</p>	
<p>STATE OF NEW HAMPSHIRE          RICHARD R. LINDORF          No. 1846          LICENSED PROFESSIONAL ENGINEER</p>	
<p>1. 3/18/2019 TAC SUBMITTAL</p>	<p>DESIGNER REVIEWER</p>
<p>2. 5/20/2019 TAC SUBMITTAL</p>	<p>RRL</p>



SEE SHEET CU-102

SEE SHEET CS-102

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



SCALE:	HORIZ.:	VERT.:
	HORIZ.:	VERT.:
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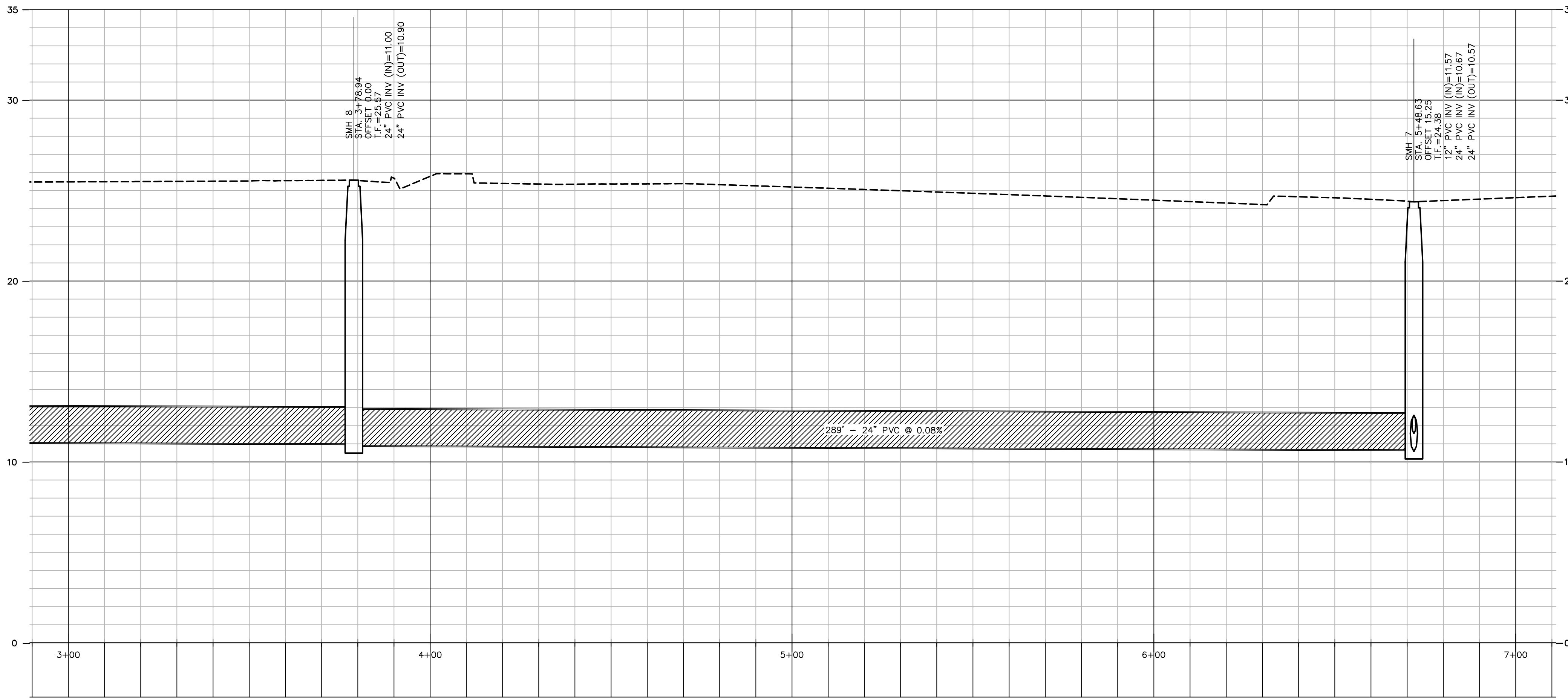
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 UTILITY PLAN & PROFILE  
 CATE STREET  
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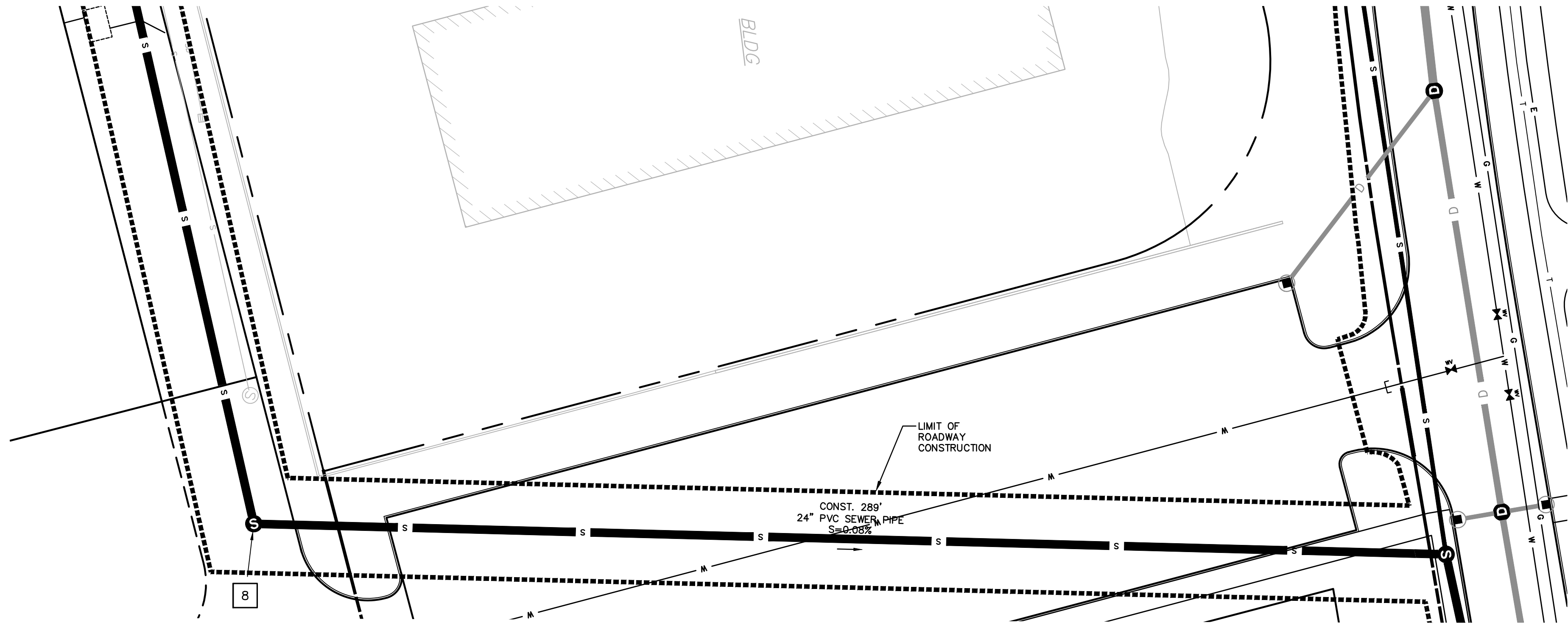
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 DATE: 05/20/2019  
**CU-101**



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



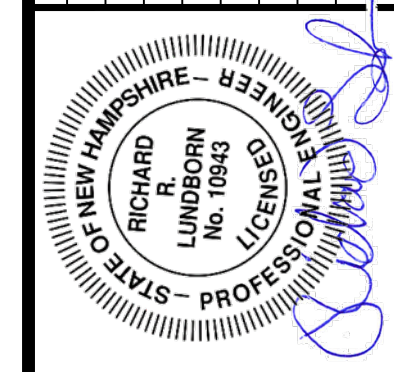
**PROFILE**  
 HORIZ: 1 INCH = 20 FT.  
 VERT: 1 INCH = 4 FT.



**PLAN**  
 SCALE: 1 INCH = 20 FT.

SEE SHEET CU-101

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



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DATUM:	HORIZ: NAD83	VERT: NGVD29
GRAPHIC SCALE		

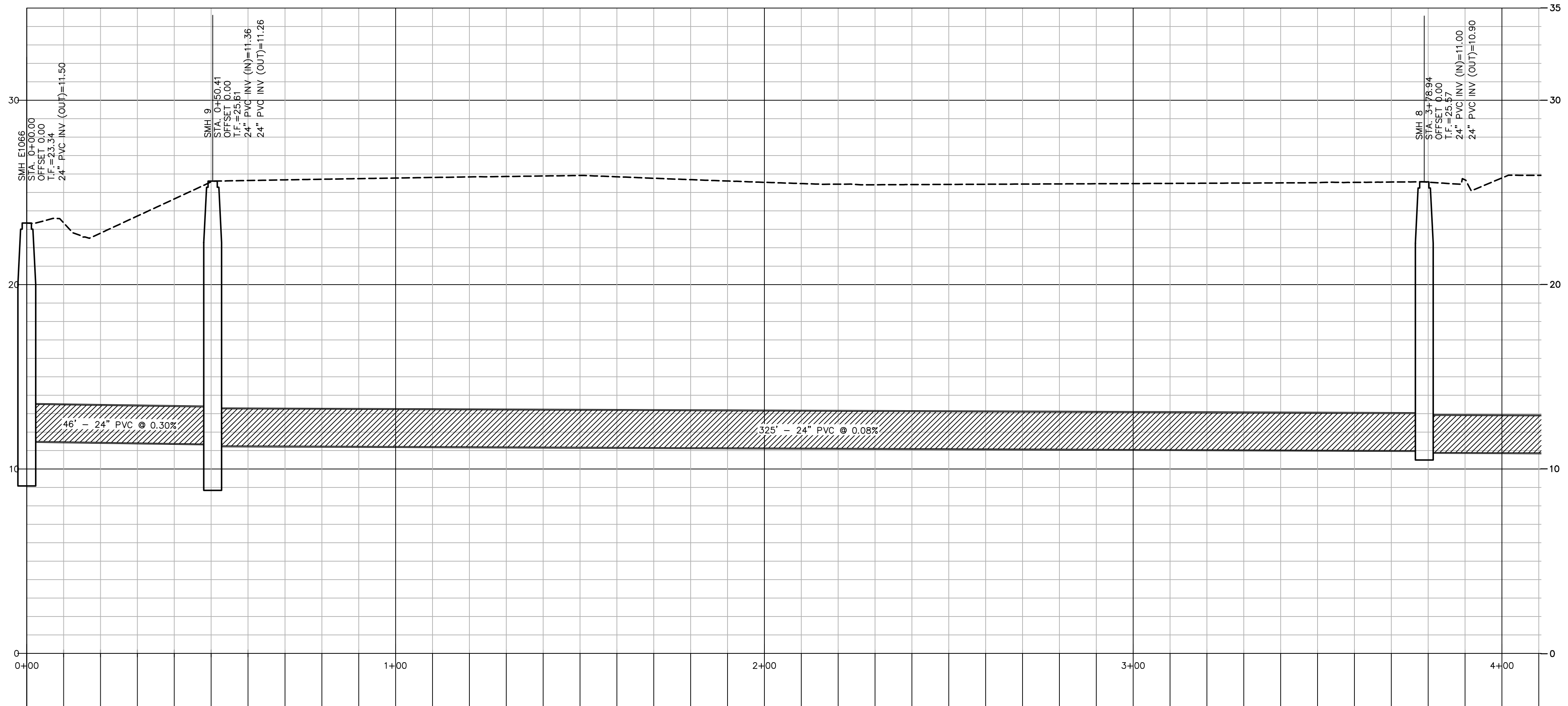
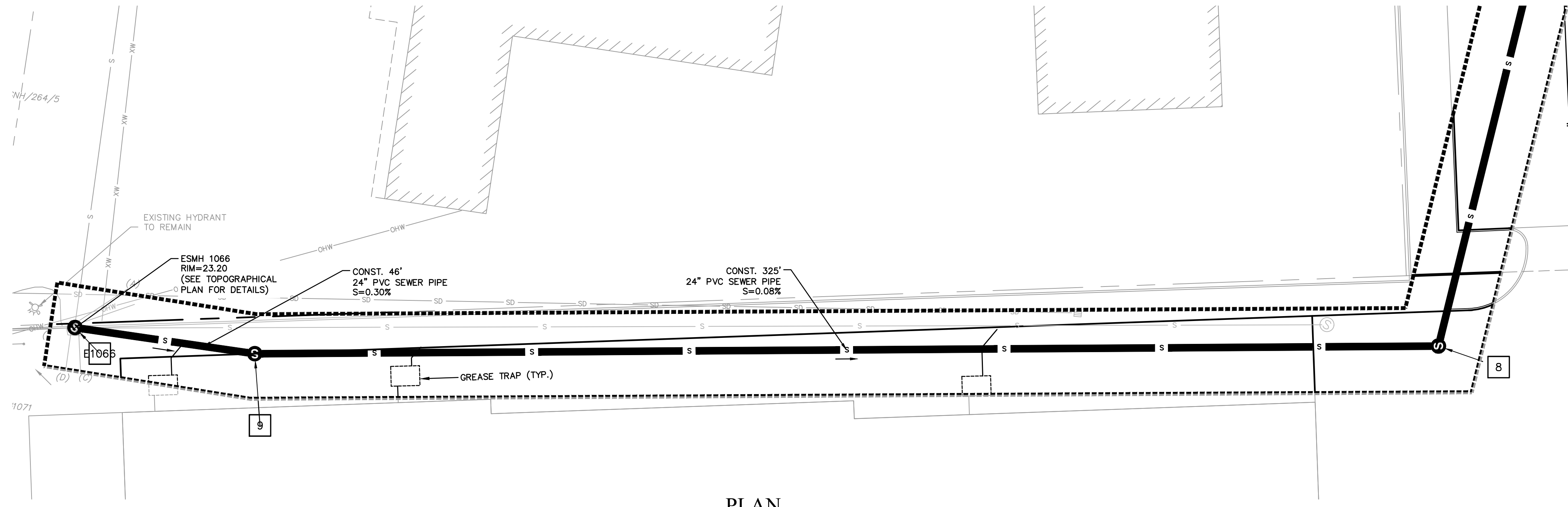
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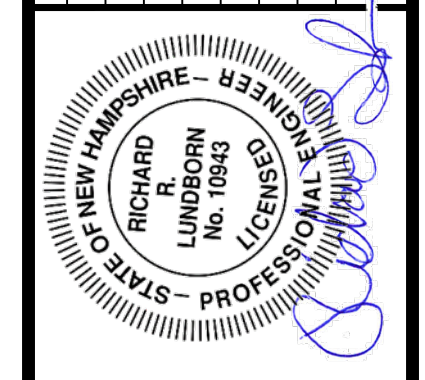
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 DATE: 05/20/2019  
**CU-105**



- XX ELECTRICAL
- HH TELECOM HAND HOLE
- EMH SWITCH GEAR & ELECTRICAL MANHOLE
- ## SEWER MANHOLE LABEL
- W PROPOSED GATE VALVE
- ⊙ PROPOSED CATCH BASIN
- ⊙ PROPOSED DRAIN MANHOLE
- ⊙ PROPOSED SANITARY MANHOLE
- \* PROPOSED HYDRANT



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



SCALE:	HORIZ.:	VERT.:
	DATUM:	
	HORIZ.:	NAD83
	VERT.:	NGVD29
	GRAPHIC SCALE	

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 UTILITY PLAN & PROFILE  
 CATE STREET  
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PROJ. No.: 20180317.A10  
 DATE: 05/20/2019  
**CU-106**

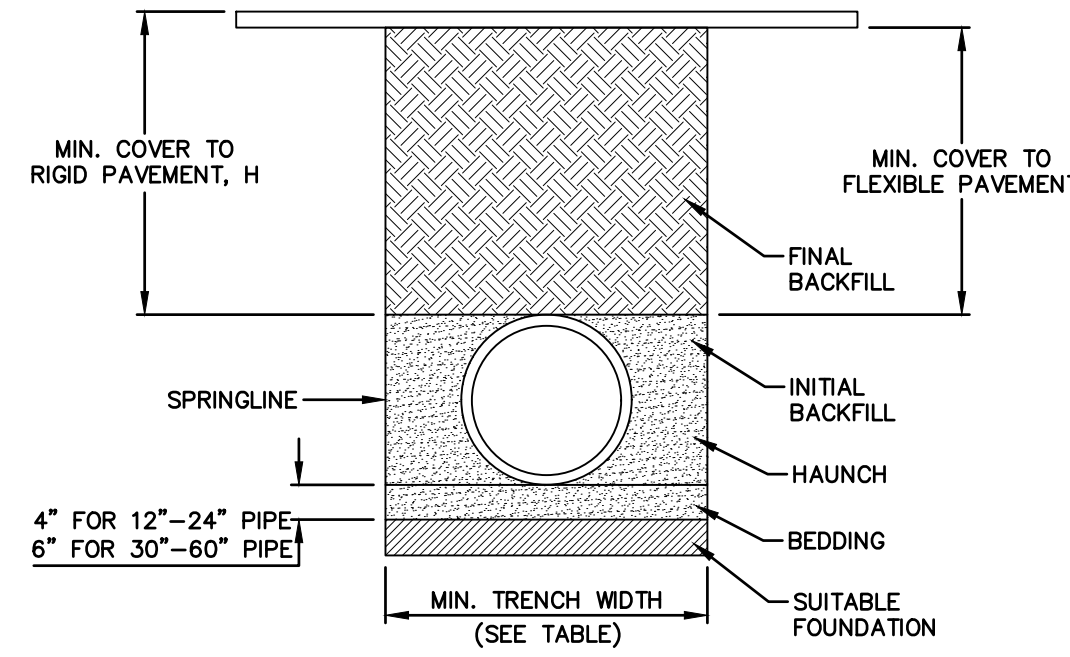


TABLE 1, RECOMMENDED MINIMUM TRENCH WIDTHS

PIPE DIAM.	MIN. TRENCH WIDTH
12" (300mm)	30" (762mm)
15" (375mm)	34" (864mm)
18" (450mm)	39" (991mm)
24" (600mm)	48" (1219mm)
30" (750mm)	56" (1422mm)
36" (900mm)	64" (1629mm)
42" (1050mm)	72" (1829mm)
48" (1200mm)	80" (2032mm)
60" (1500mm)	96" (2438mm)

TABLE 2, MINIMUM RECOMMENDED COVER BASED ON VEHICLE LOADING CONDITIONS

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

\*VEHICLE IN EXCESS OF 75T MAY REQUIRE ADDITIONAL COVER

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

PIPE DIA.	CLASS I				CLASS II				CLASS III				CLASS IV			
	95%	90%	85%	80%	95%	90%	85%	80%	95%	90%	85%	80%	95%	90%	85%	80%
12" (305mm)	41" (12.5m)	29" (8.5m)	21" (6.4m)	16" (4.9m)	20" (6.4m)	16" (4.9m)	16" (4.9m)	16" (4.9m)	20" (6.4m)	16" (4.9m)	16" (4.9m)	16" (4.9m)	20" (6.4m)	16" (4.9m)	16" (4.9m)	16" (4.9m)
15" (375mm)	42" (12.8m)	29" (8.8m)	24" (7.3m)	16" (4.9m)	21" (6.4m)	16" (4.9m)	16" (4.9m)	16" (4.9m)	22" (6.7m)	17" (5.2m)	16" (4.9m)	16" (4.9m)	22" (6.7m)	17" (5.2m)	16" (4.9m)	16" (4.9m)
18" (450mm)	44" (13.4m)	30" (9.1m)	24" (7.3m)	16" (4.9m)	22" (6.7m)	16" (4.9m)	16" (4.9m)	16" (4.9m)	22" (6.7m)	17" (5.2m)	16" (4.9m)	16" (4.9m)	22" (6.7m)	17" (5.2m)	16" (4.9m)	16" (4.9m)
24" (600mm)	48" (14.6m)	33" (10.1m)	26" (8.1m)	14" (4.3m)	24" (7.3m)	14" (4.3m)	14" (4.3m)	14" (4.3m)	24" (7.3m)	14" (4.3m)	14" (4.3m)	14" (4.3m)	24" (7.3m)	14" (4.3m)	14" (4.3m)	14" (4.3m)
30" (750mm)	52" (15.8m)	36" (10.7m)	28" (8.8m)	14" (4.3m)	26" (7.9m)	14" (4.3m)	14" (4.3m)	14" (4.3m)	26" (7.9m)	14" (4.3m)	14" (4.3m)	14" (4.3m)	26" (7.9m)	14" (4.3m)	14" (4.3m)	14" (4.3m)
36" (900mm)	56" (17.0m)	39" (11.9m)	30" (9.1m)	14" (4.3m)	28" (8.5m)	14" (4.3m)	14" (4.3m)	14" (4.3m)	28" (8.5m)	14" (4.3m)	14" (4.3m)	14" (4.3m)	28" (8.5m)	14" (4.3m)	14" (4.3m)	14" (4.3m)
42" (1050mm)	60" (18.3m)	42" (12.8m)	33" (10.1m)	14" (4.3m)	30" (9.1m)	14" (4.3m)	14" (4.3m)	14" (4.3m)	30" (9.1m)	14" (4.3m)	14" (4.3m)	14" (4.3m)	30" (9.1m)	14" (4.3m)	14" (4.3m)	14" (4.3m)
48" (1200mm)	64" (19.5m)	44" (13.4m)	36" (10.7m)	14" (4.3m)	32" (9.7m)	14" (4.3m)	14" (4.3m)	14" (4.3m)	32" (9.7m)	14" (4.3m)	14" (4.3m)	14" (4.3m)	32" (9.7m)	14" (4.3m)	14" (4.3m)	14" (4.3m)
60" (1500mm)	72" (21.9m)	48" (14.6m)	40" (12.1m)	14" (4.3m)	36" (10.7m)	14" (4.3m)	14" (4.3m)	14" (4.3m)	36" (10.7m)	14" (4.3m)	14" (4.3m)	14" (4.3m)	36" (10.7m)	14" (4.3m)	14" (4.3m)	14" (4.3m)

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

NOTES:

- 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 IVB MATERIALS (MH, CH) AS DEFINED IN PREVIOUS VERSIONS OF ASTM D2321 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.

HP STORM TRENCH INSTALLATION DETAIL  
NOT TO SCALE

- 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'-4" MAY BE USED TO REACH THE DESIRED ELEVATION.
- THE STRUCTURES SHALL BE DESIGNED FOR H-20 LOADING.
- ADJUSTING THE FRAME TO GRADE MAY BE DONE WITH PRECAST CONCRETE GRADE RINGS OR CLAY BRICKS (2 COURSES MAX.). FRAME TO BE SET IN A FULL BED OF MORTAR.
- SLAB TOPS MAY BE USED WHERE PIPE WOULD OTHERWISE ENTER INTO THE CONE SECTION OF THE STRUCTURE AND WHERE PERMITTED.
- PIPE ELEVATIONS SHOWN ON THE PLAN SHALL BE FIELD VERIFIED PRIOR TO PRECASTING.
- PIPE ENDS SHALL PROJECT NO MORE THAN 3-INCHES BEYOND THE INSIDE WALL OF THE STRUCTURE.
- PRECAST SECTIONS SHALL HAVE A TONGUE AND GROOVE JOINT 4-INCHES HIGH AT AN 11° ANGLE CENTERED IN THE WIDTH OF THE WALL AND SHALL BE ASSEMBLED USING ONE STRIP OF BUTYL RUBBER SEALANT OR APPROVED FLEXIBLE SEALANT.
- STEPS ARE NOT ALLOWED.

CATCH BASIN SPECIFIC NOTES:

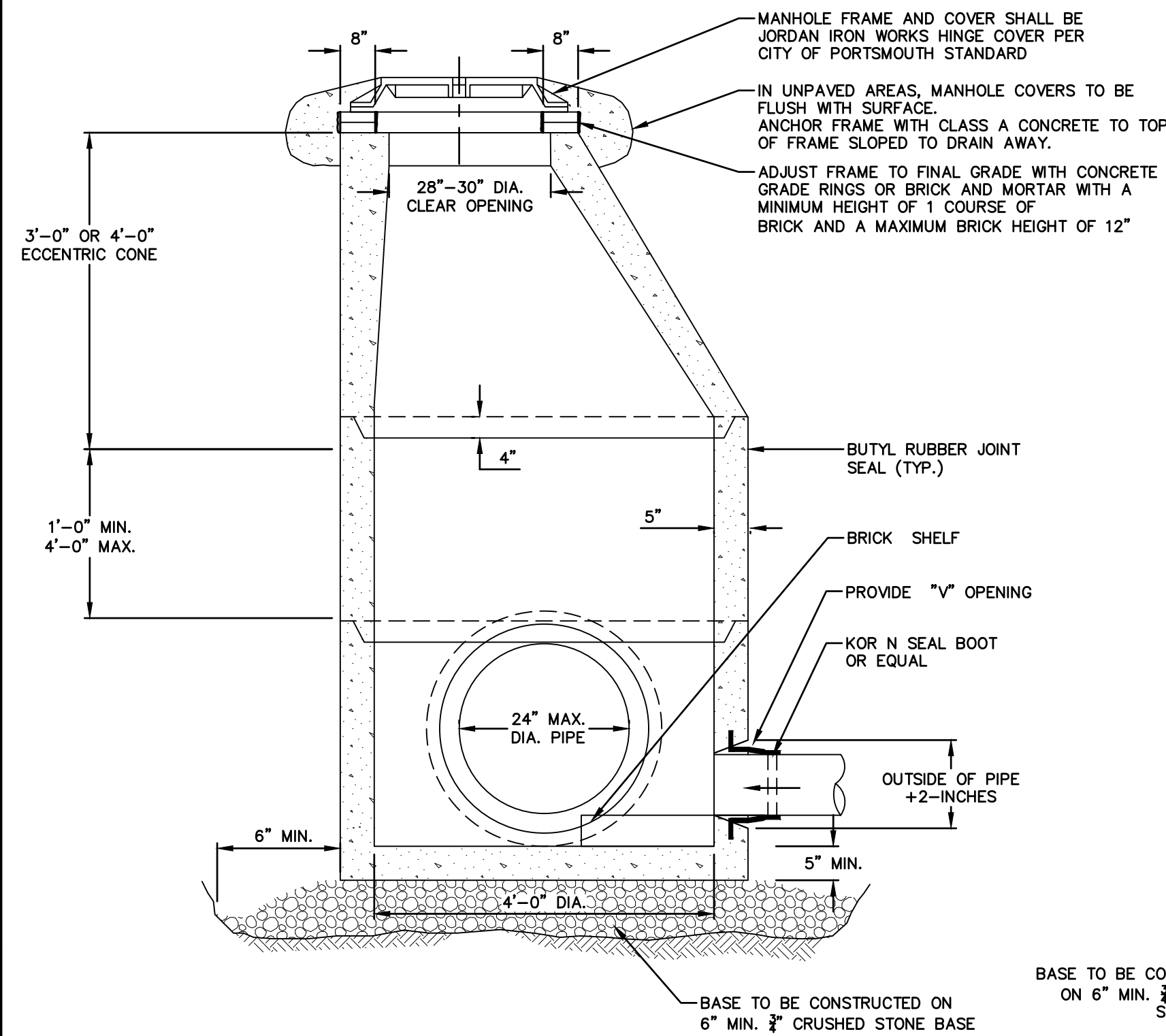
- CONE SECTIONS MAY BE CONCENTRIC OR ECCENTRIC FOR CATCH BASINS.
- "ELIMINATOR" OIL/WATER SEPARATORS SHALL BE INSTALLED TIGHT TO THE INSIDE OF THE CATCH BASINS ON THE OUTLET PIPE.

DRAIN MANHOLE SPECIFIC NOTES:

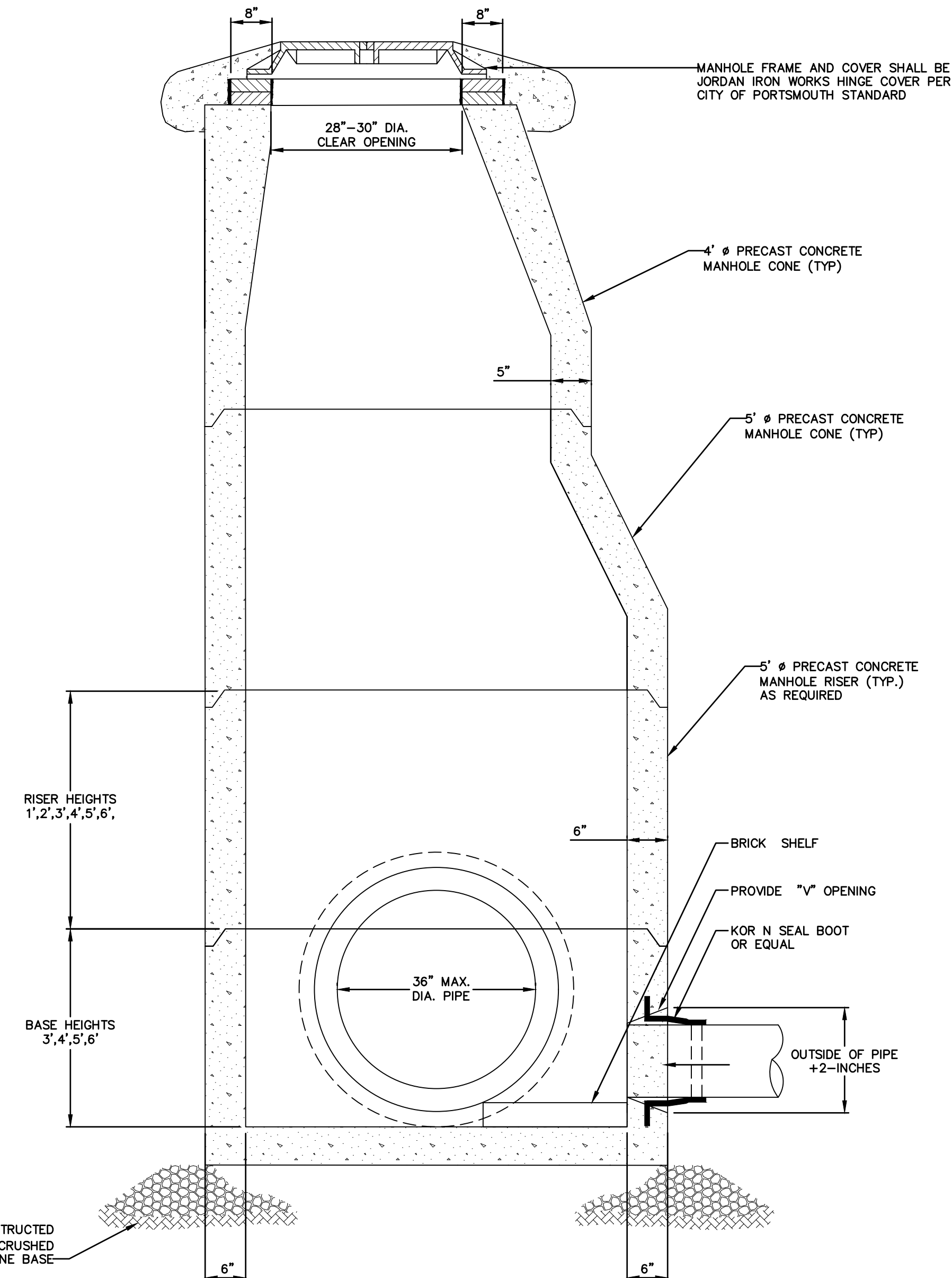
- ALL STRUCTURES WITH MULTIPLE PIPES SHALL HAVE A MINIMUM OF 12-INCHES OF INSIDE SURFACE BETWEEN THE HOLES, NO MORE THAN 75% OF A HORIZONTAL CROSS SECTION SHALL BE HOLES, AND THERE SHALL BE NO HOLES CLOSER THAN 3-INCHES TO ANY JOINT.

PRECAST DRAINAGE STRUCTURE NOTES

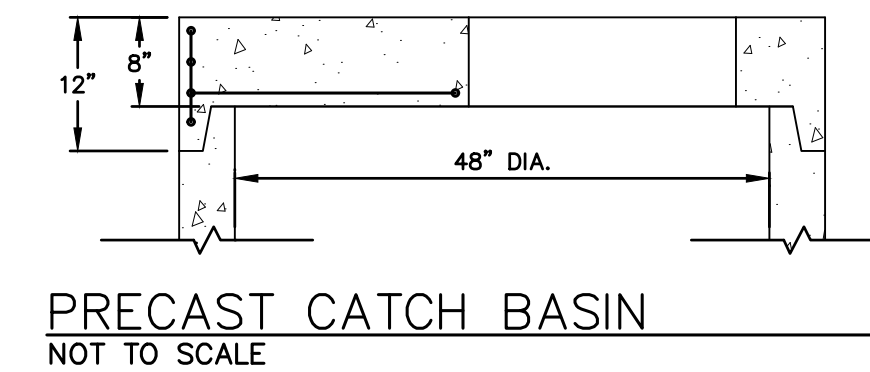
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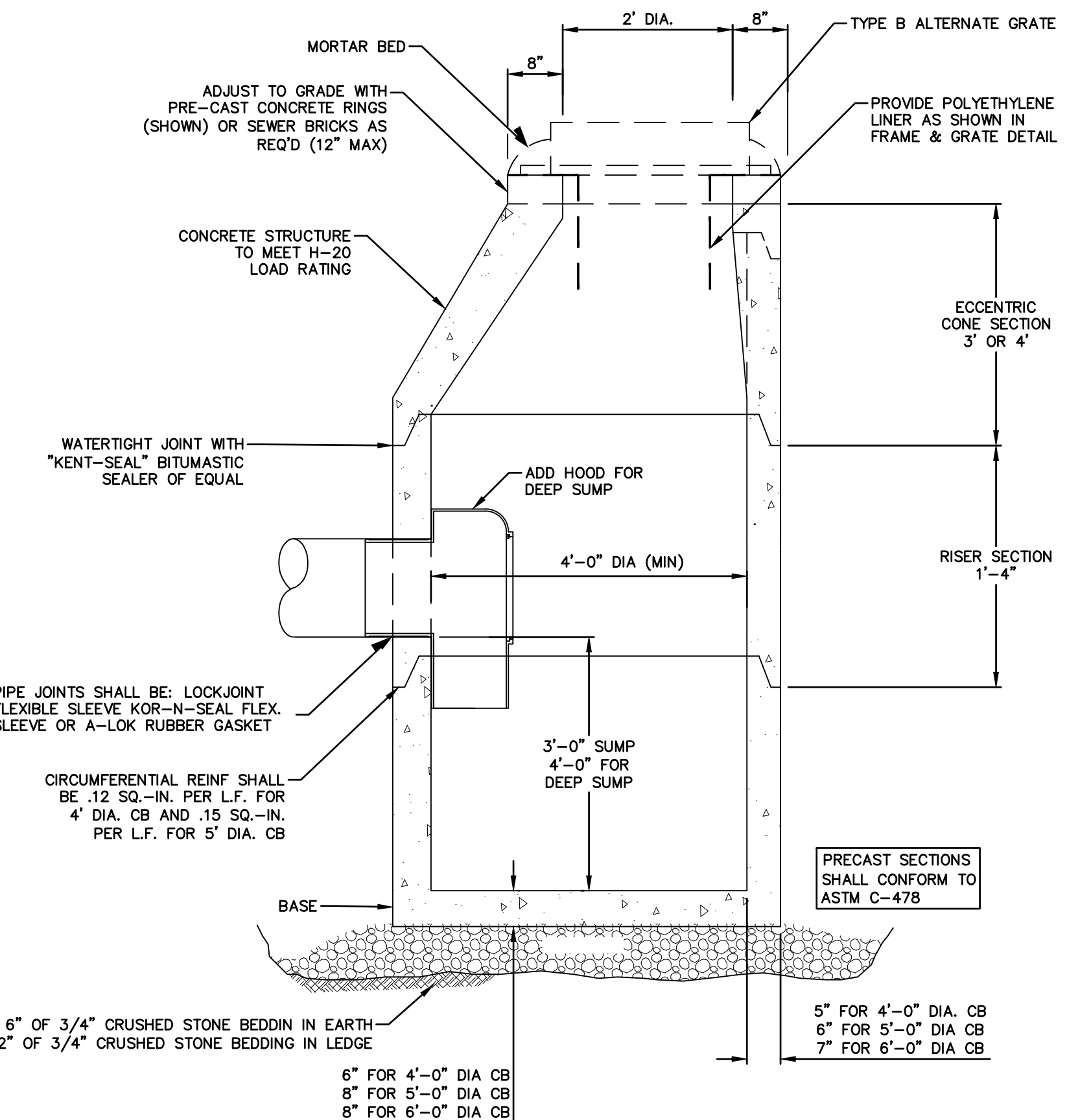
4' PRECAST DRAIN MANHOLE  
SCALE: N.T.S.



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



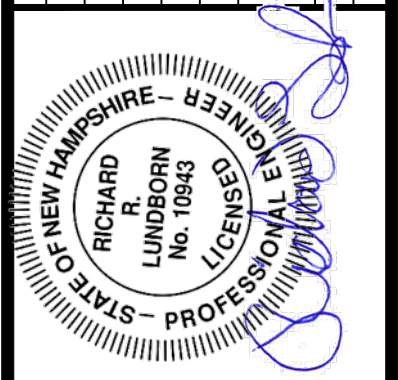
PRECAST CATCH BASIN  
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PRECAST CATCH BASIN  
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No.	DATE	DESCRIPTION	DESIGNER	REVIEWER
2	5/20/2019	TAC SUBMITTAL	JVA/DAD	JVA/DAD
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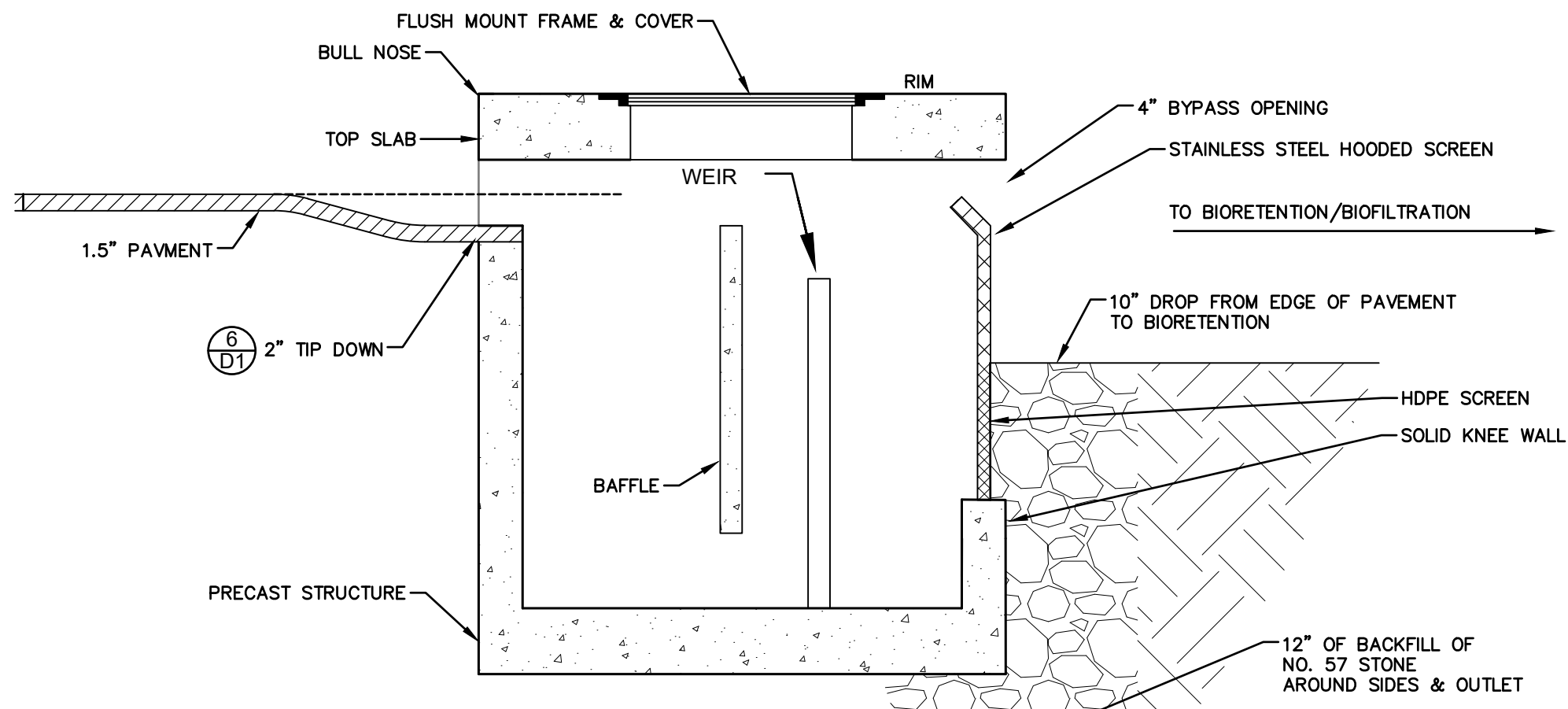
PROJ. No.: 20180317.A10  
DATE: 05/20/2019

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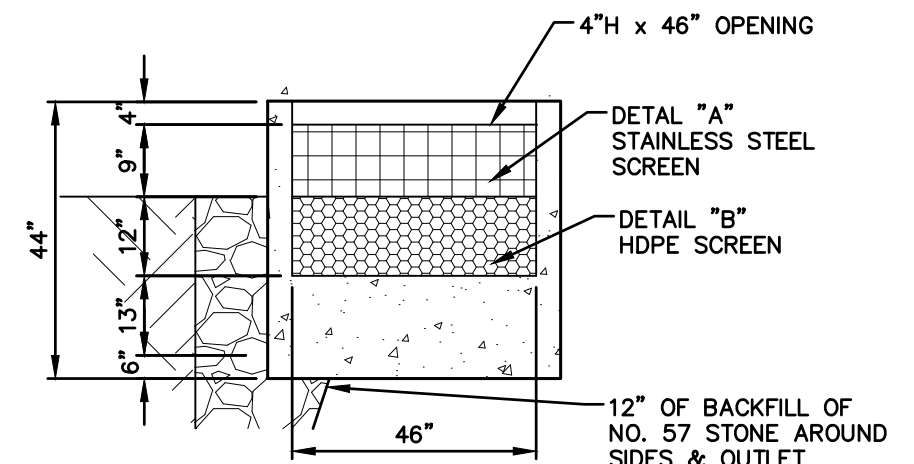


**PRETX SPECIFICATIONS**

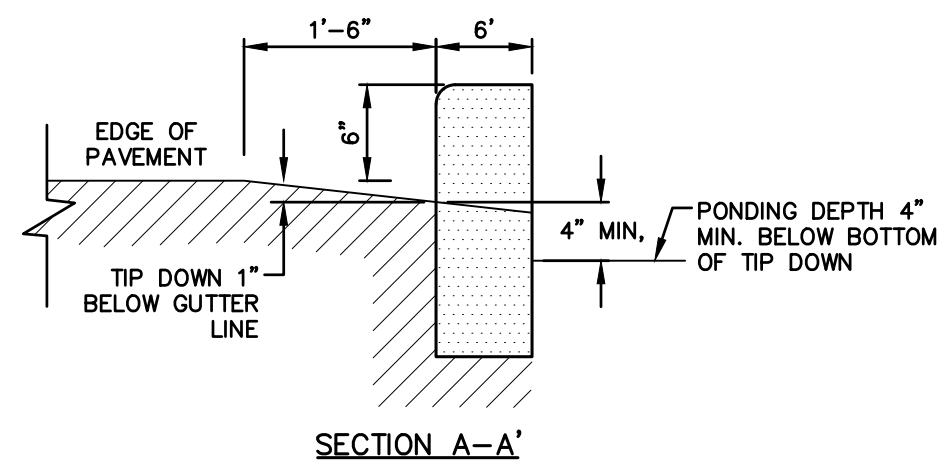
- A. GENERAL**
- PRETX SYSTEMS ARE A PRE-FILTER AND CRITICAL MAINTENANCE DEVICE THAT EXTENDS THE OPERATING LIFE AND REDUCES THE MAINTENANCE BURDEN OF BIORETENTION SYSTEMS, RAIN GARDENS, BIOSWALES AND OTHER TYPES OF SURFACE BEST MANAGEMENT PRACTICES BY FILTERING OUT SEDIMENT, TRASH AND DEBRIS AT THE INLET.
- 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 REQUIREMENTS.
  - 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.
  - PRECAST BASES SHALL BE FINISHED 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.
- 5. 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.
- 6. 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.



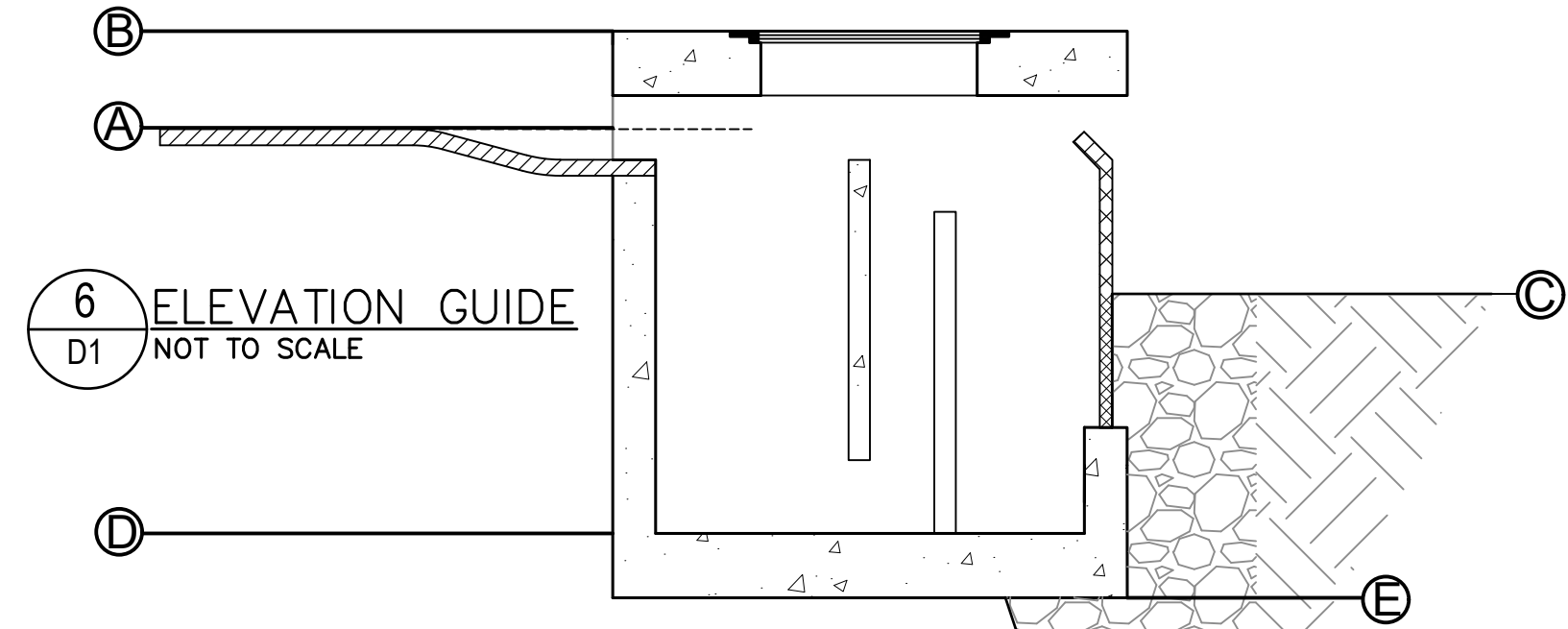
**1 PRETEX CURB DETAIL**  
D1 NOT TO SCALE



**3 PRETEX CURB OUTLET SIDE**  
D1 NOT TO SCALE

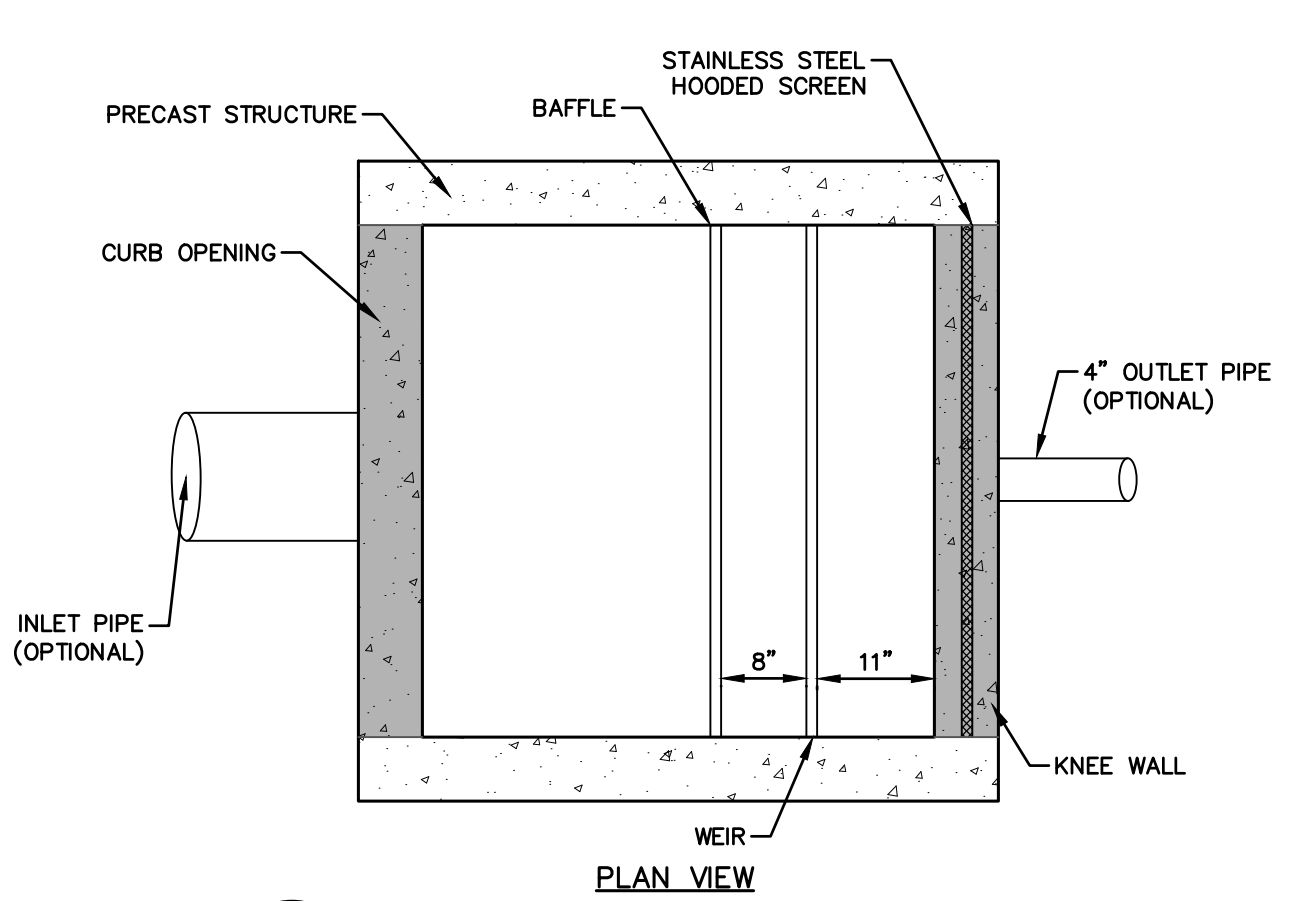


**5 TIP DOWN CURB INLET DETAIL**  
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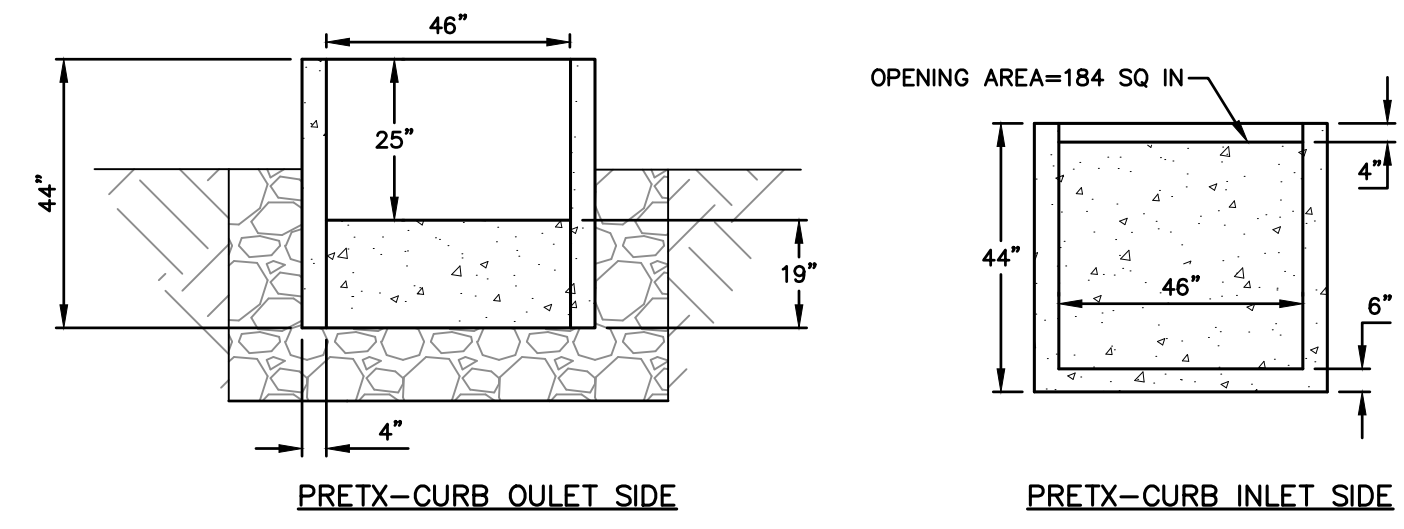


**6 ELEVATION GUIDE**  
D1 NOT TO SCALE

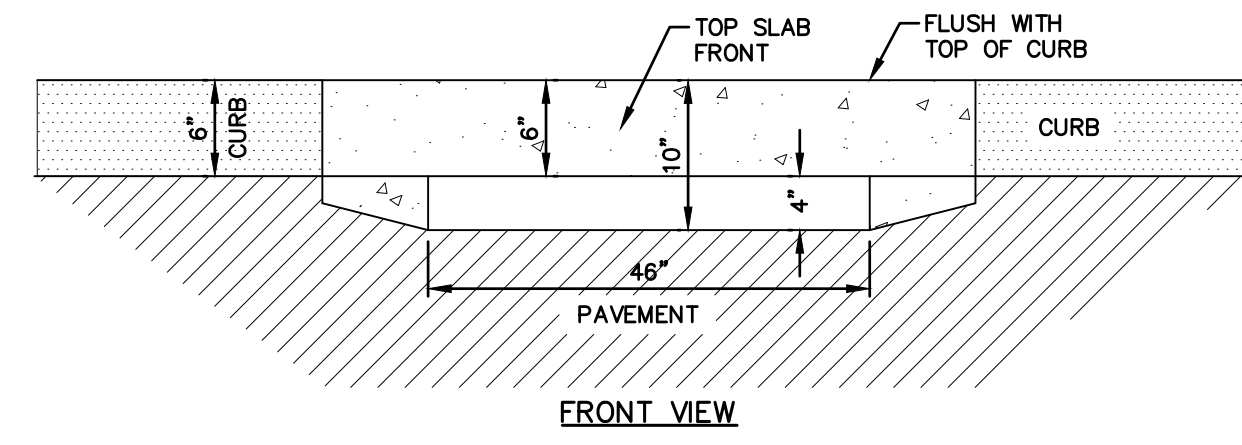
PRETX-CURB ELEVATION GUIDE		
POINT	DESCRIPTION	HEIGHT IN REFERENCE TO PT. A
A	EDGE OF PAVEMENT	0 INCHES
B	OUTSIDE TOP SLAB	8 INCHES
C	TOP OF BIORETENTION	12 INCHES
D	SUMP INVERT	36 INCHES
E	OUTSIDE BOTTOM	42 INCHES



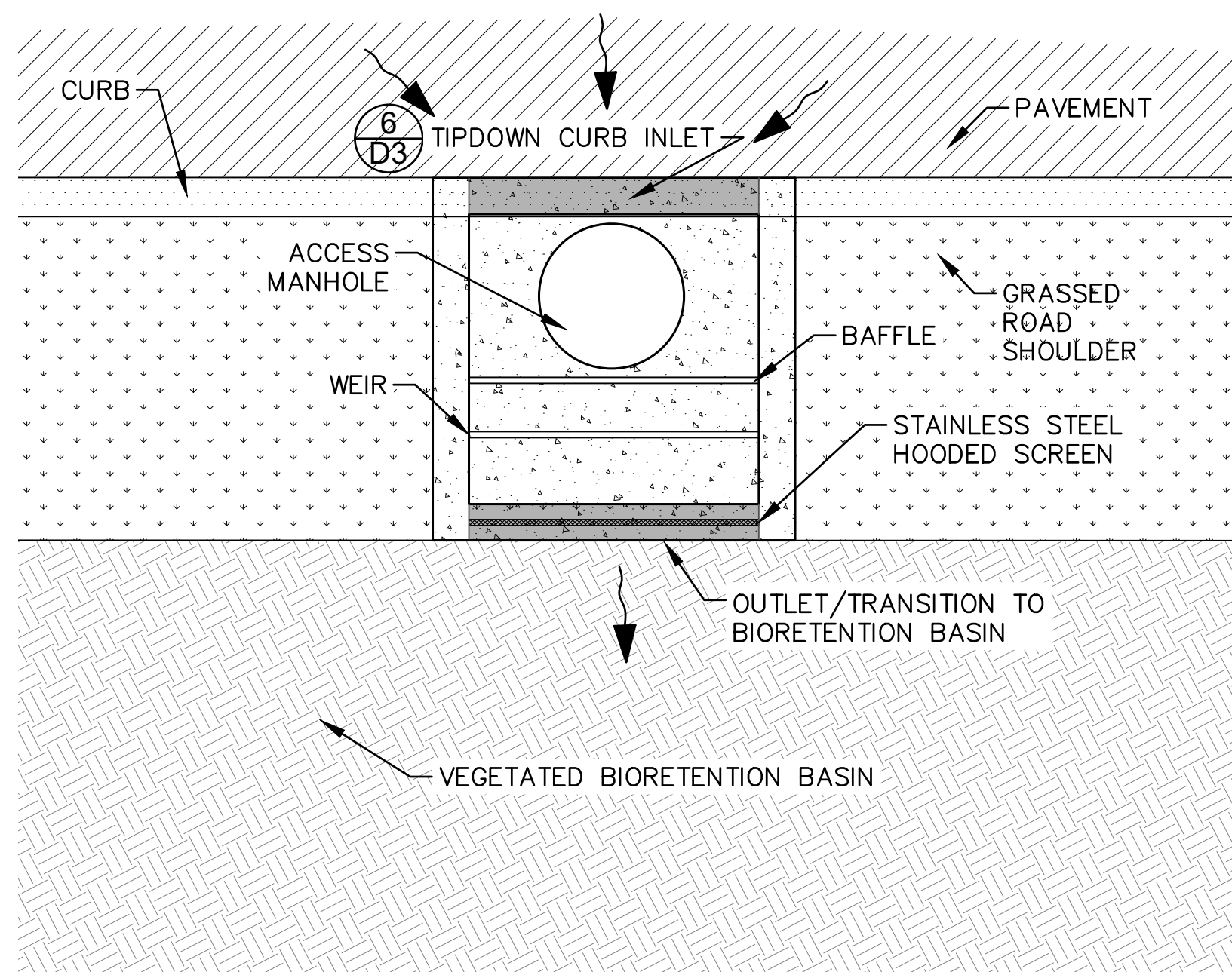
**2 PRETREATMENT CATCH BASIN**  
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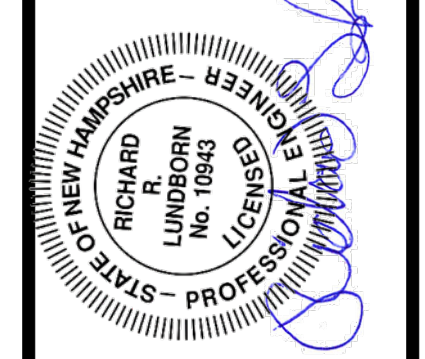
**4 PRETEX CURB SIDE DETAIL**  
D1 NOT TO SCALE



**7 PRETEX CURB OUTLET TO BIORETENTION CONFIGURATION**  
D1 NOT TO SCALE



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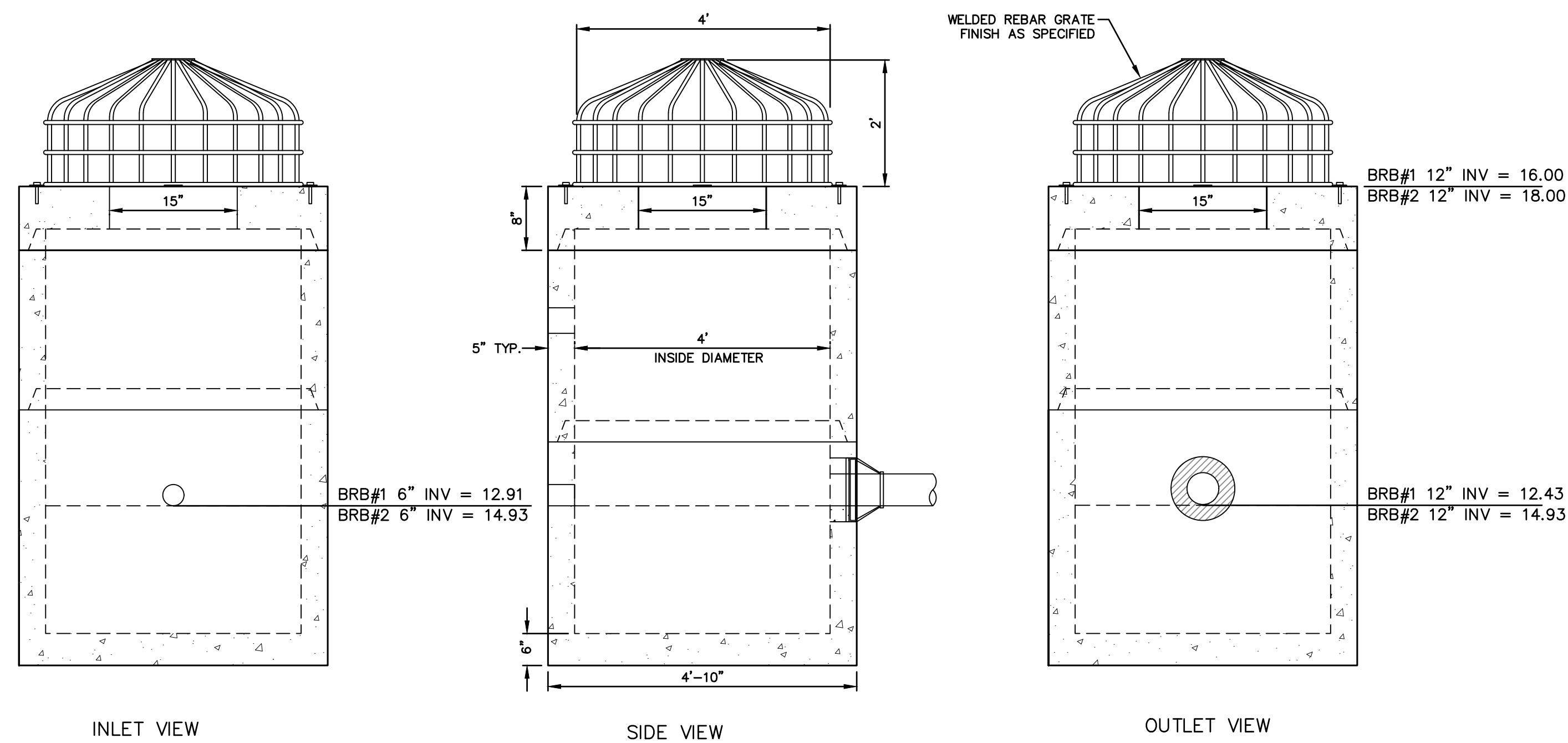
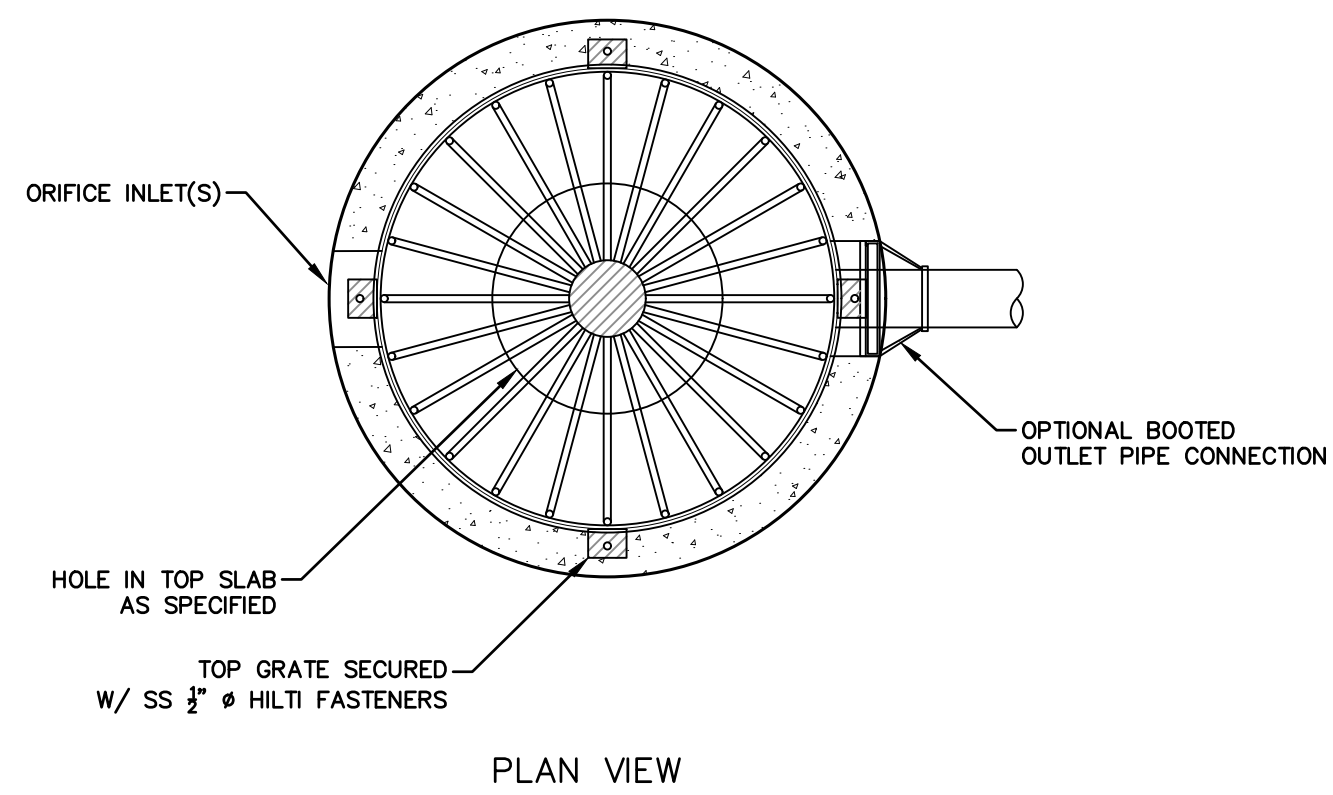
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 DRAINAGE DETAILS  
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DATE: 05/20/2019

**CD-512**

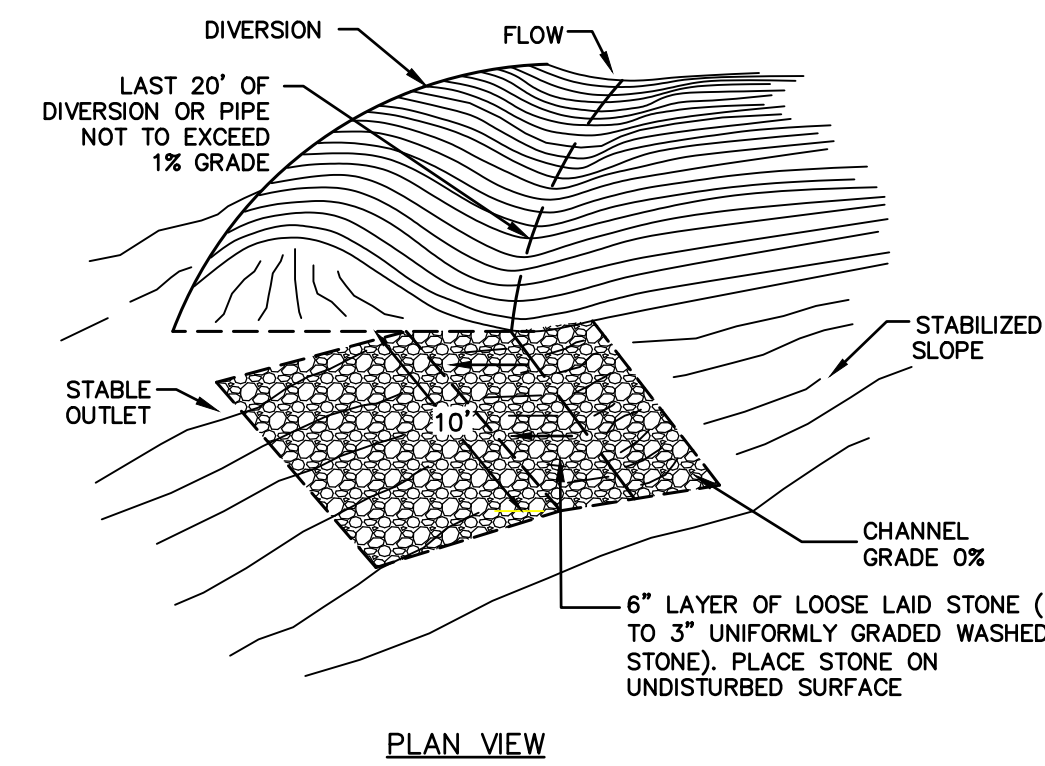
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- General Notes**
- Steel Reinforcement Conforms to Latest ASTM Specification:
    - ASTM A-615, Grade 60 Black Deformed Bars
    - ASTM A-185 Welded Wire Fabric
    - 0.12 Sq. In./Lineal Ft. And 0.12 Sq. In.(Both Ways) Base Bottom
  - Concrete:  $f_c = 4,000$  psi @ 28 Days Minimum, Type III Cement
  - Butyl Rubber Joint Sealant Provided Conforms to ASTM C-990 And Federal Spec SS-S-210A
  - HS-20 Design Loading Conforms to Latest Specifications
    - ASTM C478, AASHTO M199 Precast Reinforced Concrete Manhole Sections
  - One Pour Monolithic Base Section

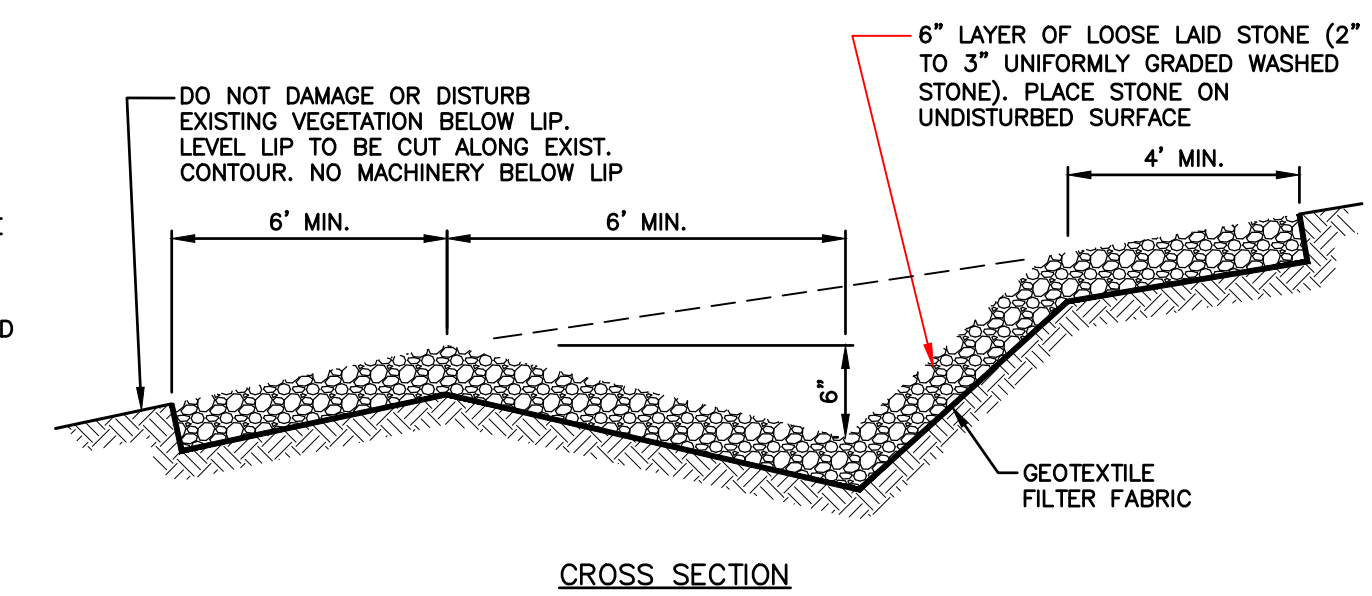
**OVERFLOW OUTLET CONTROL STRUCTURE (4'Ø) W/PEAKED TOP GRATE**

NOT TO SCALE



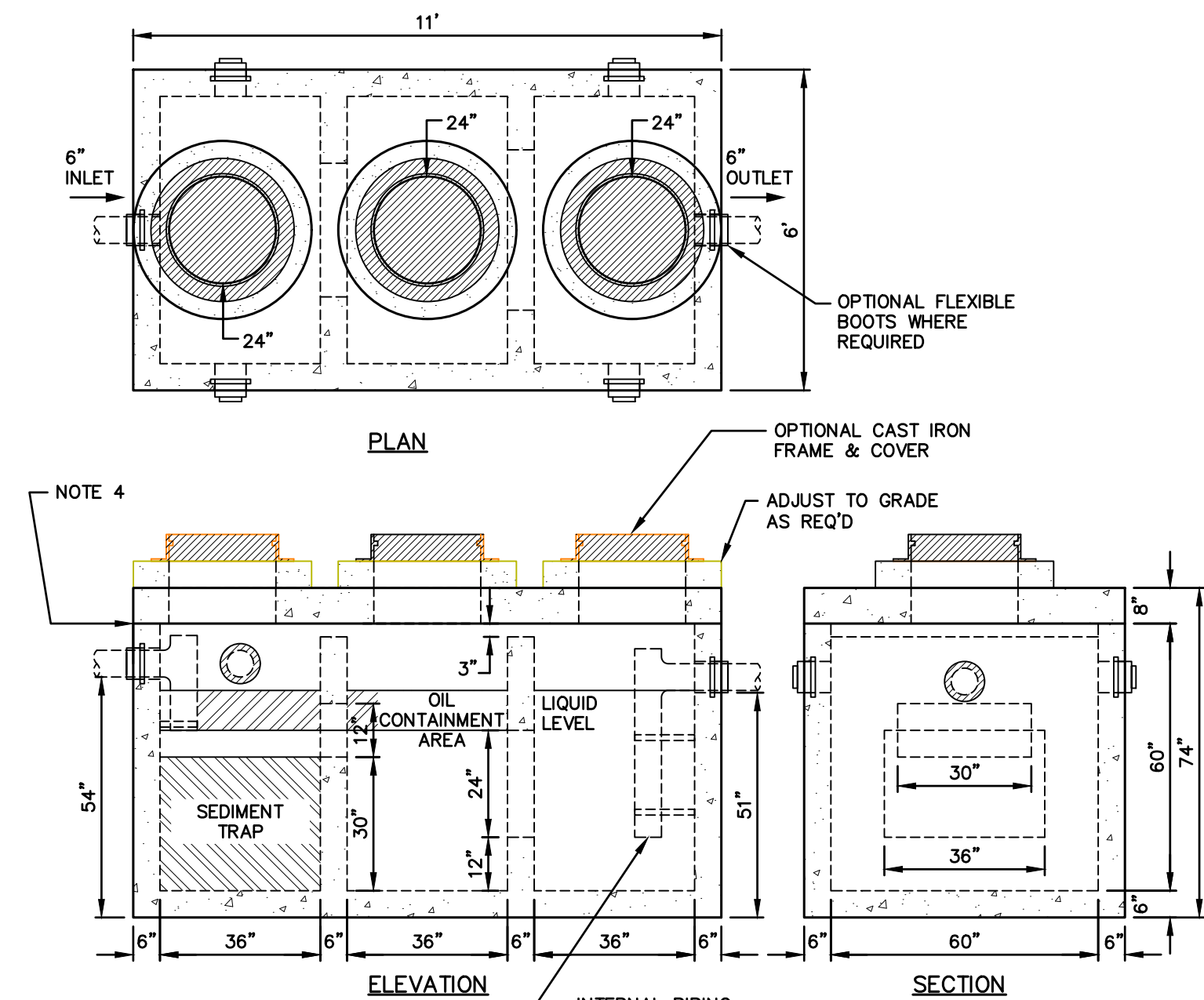
- CONSTRUCTION SPECIFICATIONS**
- SPREADERS SHALL BE INSTALLED WITH LEVEL INSTRUMENT, CONSTRUCT LEVEL UP TO 0% GRADE TO ENSURE UNIFORM SHEET FLOW. LEVEL SPREADER SHALL BE CONSTRUCTED ON UNDISTURBED SOIL (NOT FILL).
  - SELECT GEOTEXTILE FABRIC BASED ON UNDISTURBED SOILS (SAND, SILTS, CLAY, ETC.)
  -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

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



**STONE LINED LEVEL SPREADER**

NOT TO SCALE

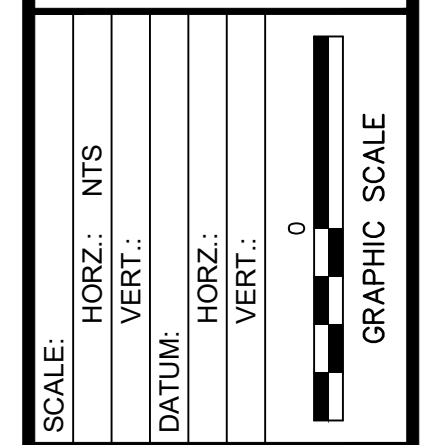
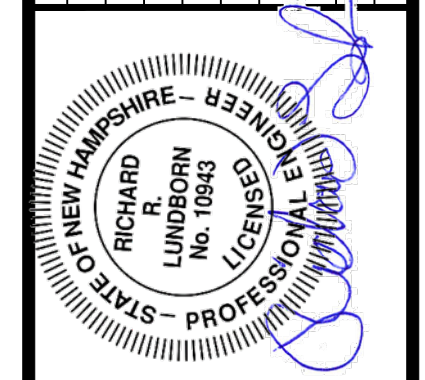


- GENERAL NOTES**
- CONCRETE:  $f_c = 5,000$  PSI @ 28 DAYS MINIMUM TYPE III CEMENT
  - STEEL REINFORCEMENT CONFORMS TO LATEST ASTM SPECIFICATIONS: ASTM-A615 GRADE 60 BLACK DEFORMED BARS
  - DESIGN LOADING: AASHTO-HS20-44 DESIGN SPECIFIED AS ACI 318-08, AASHTO-1992
  - BUTYL RUBBER JOINT SEALANT PROVIDED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

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

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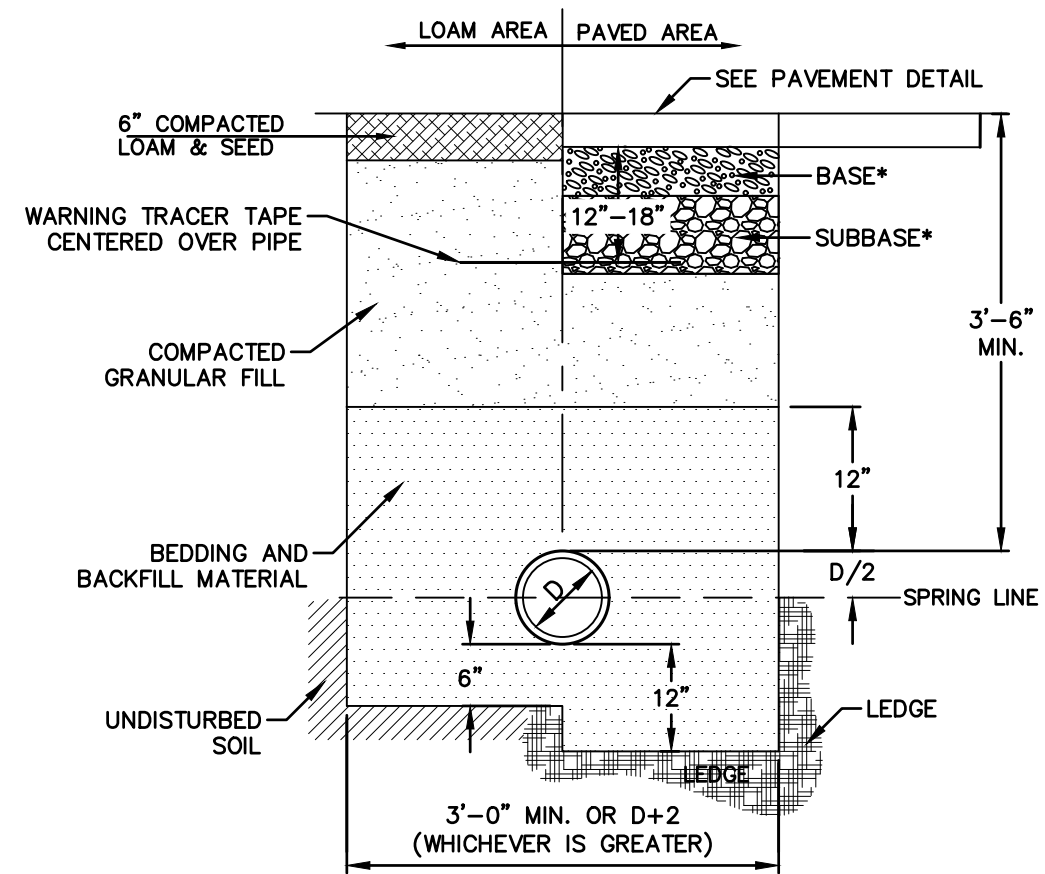


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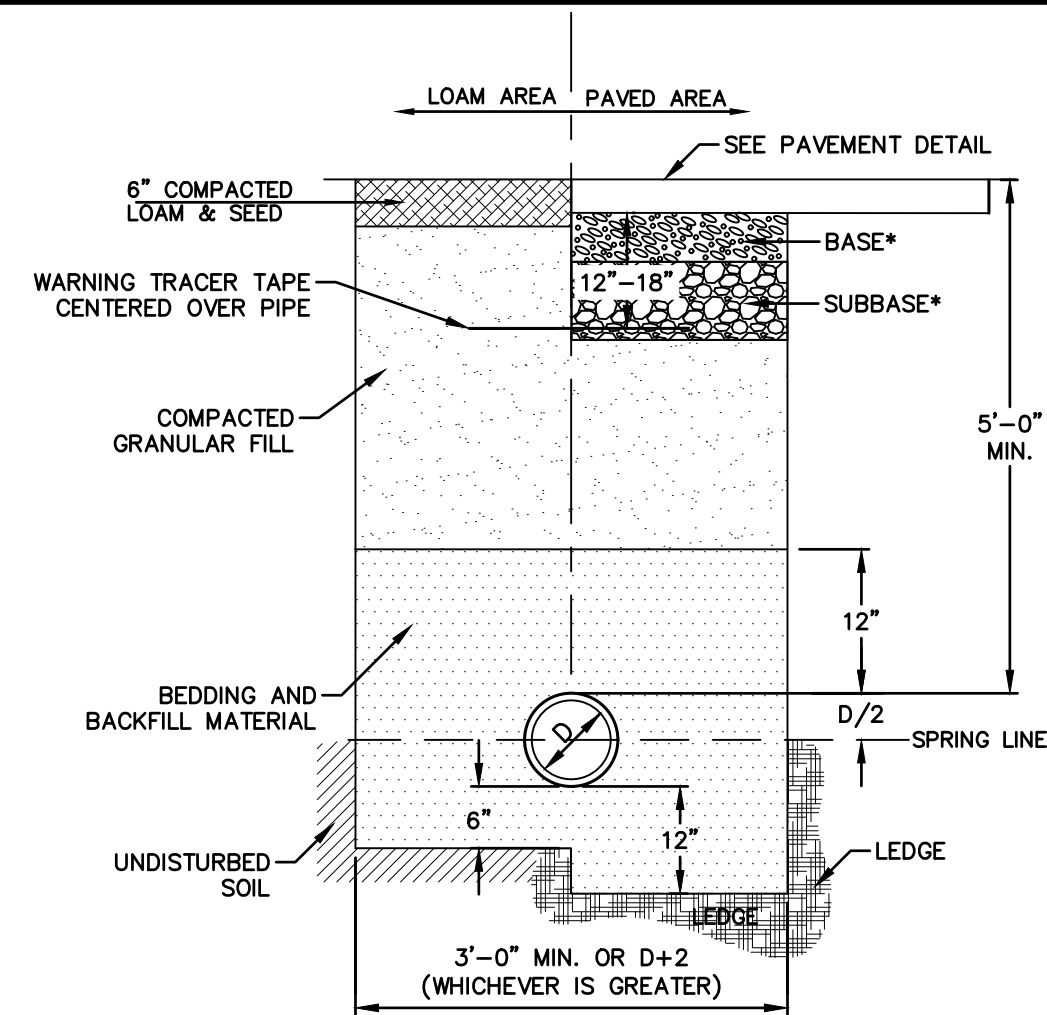
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**DRAINAGE DETAILS**  
 CATE STREET  
 PORTSMOUTH NEW HAMPSHIRE

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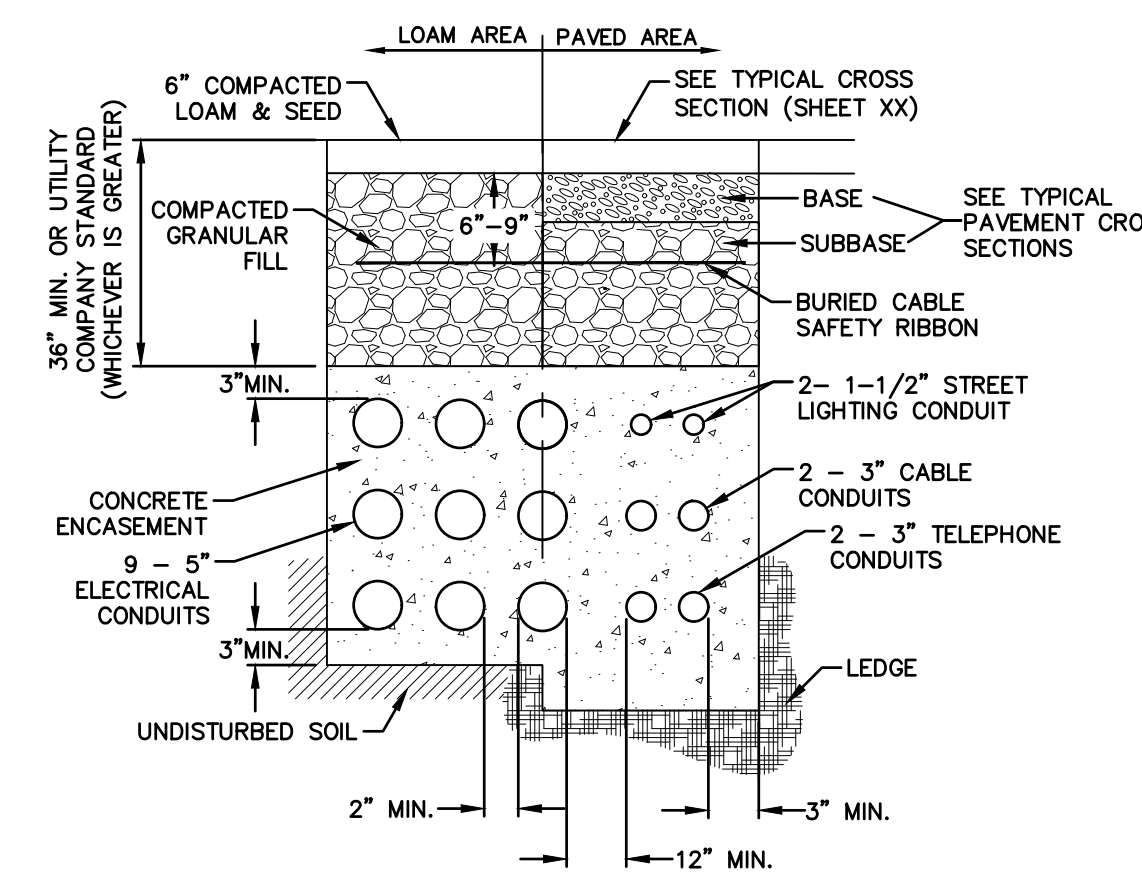
**CD-513**



**GAS TRENCH**  
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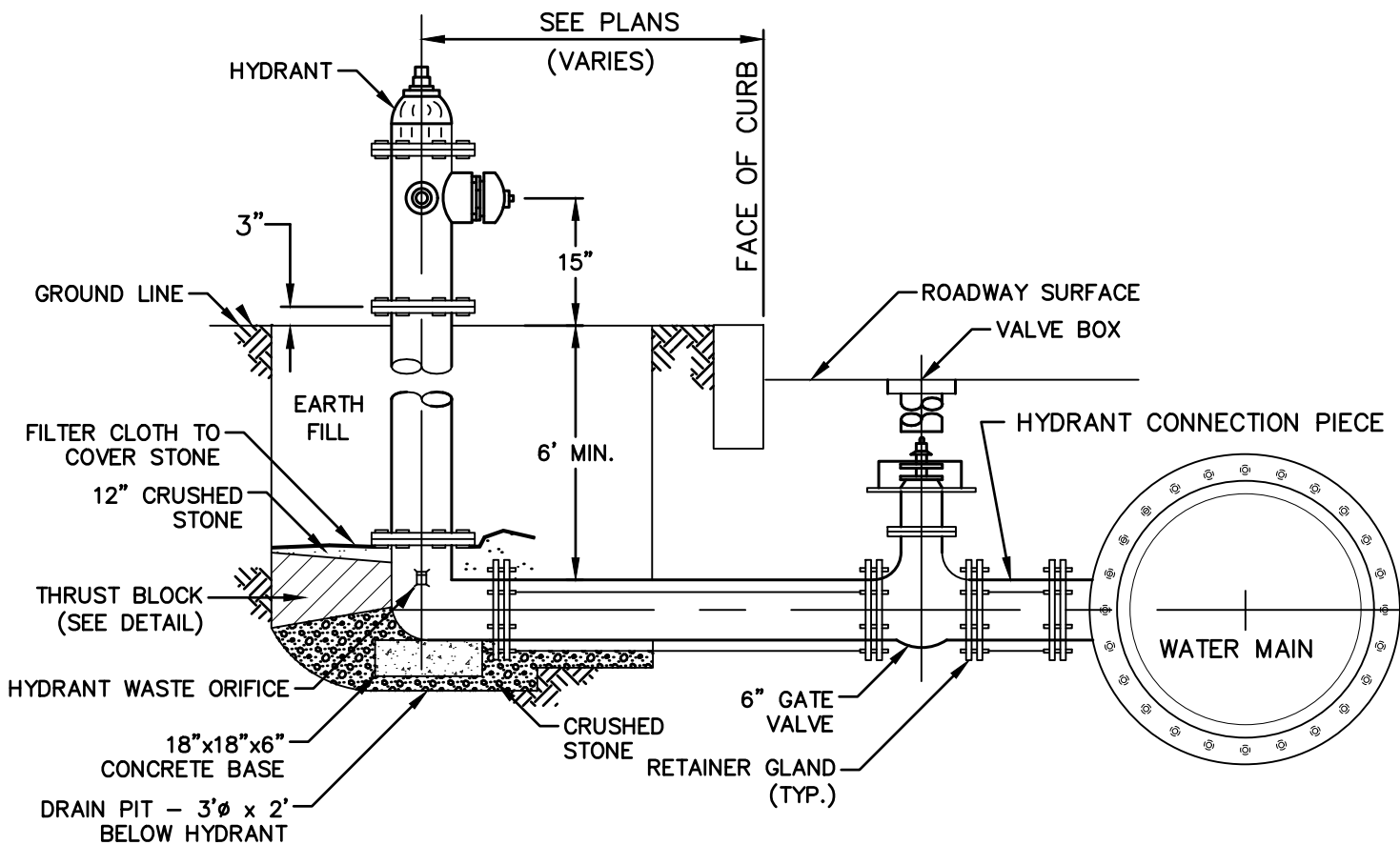


**WATER TRENCH SECTION**  
NOT TO SCALE



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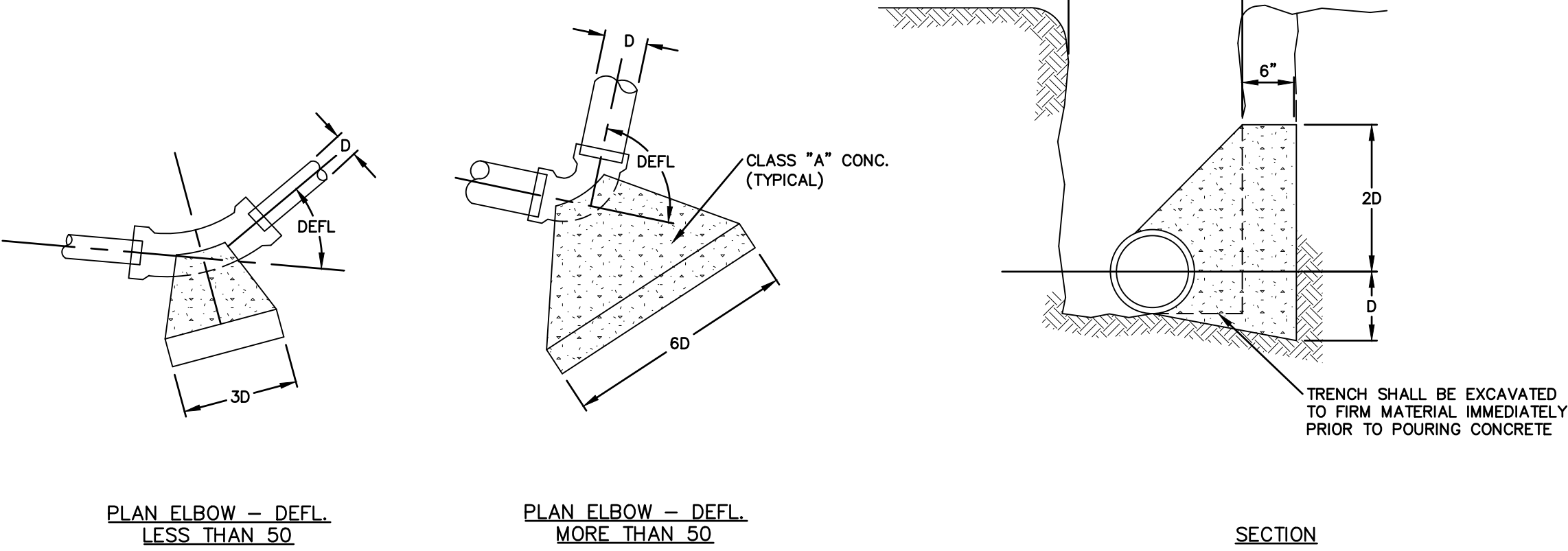
1. NUMBER, MATERIAL, AND SIZE OF UTILITY CONDUITS TO BE DETERMINED BY LOCAL OR AS SHOWN ON CONDUIT PLAN.
2. DIMENSIONS SHOWN REPRESENTS OWNER'S MINIMUM REQUIREMENTS. ACTUAL DIMENSIONS MAY BE GREATER BASED ON UTILITY COMPANY STANDARDS, BUT MAY NOT BE LESS THAN SHOWN.
3. NO CONDUIT SHALL EXCEED 360 DEGREES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



**FIRE HYDRANT**  
NOT TO SCALE

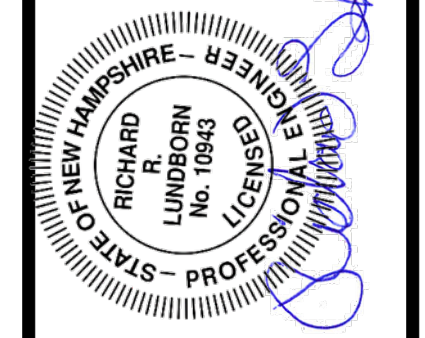
PPE DIA. (INCHES)	MINIMUM THRUST BLOCK VOLUME (CUBIC YARDS)
4	0.2
6	0.25
8	0.3
10	0.35
12	0.4
16	0.7

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



**CONCRETE THRUST BLOCKS**  
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DATUM:	HORIZ.: 0	VERT.: 0
GRAPHIC SCALE		

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PORTSMOUTH NEW HAMPSHIRE

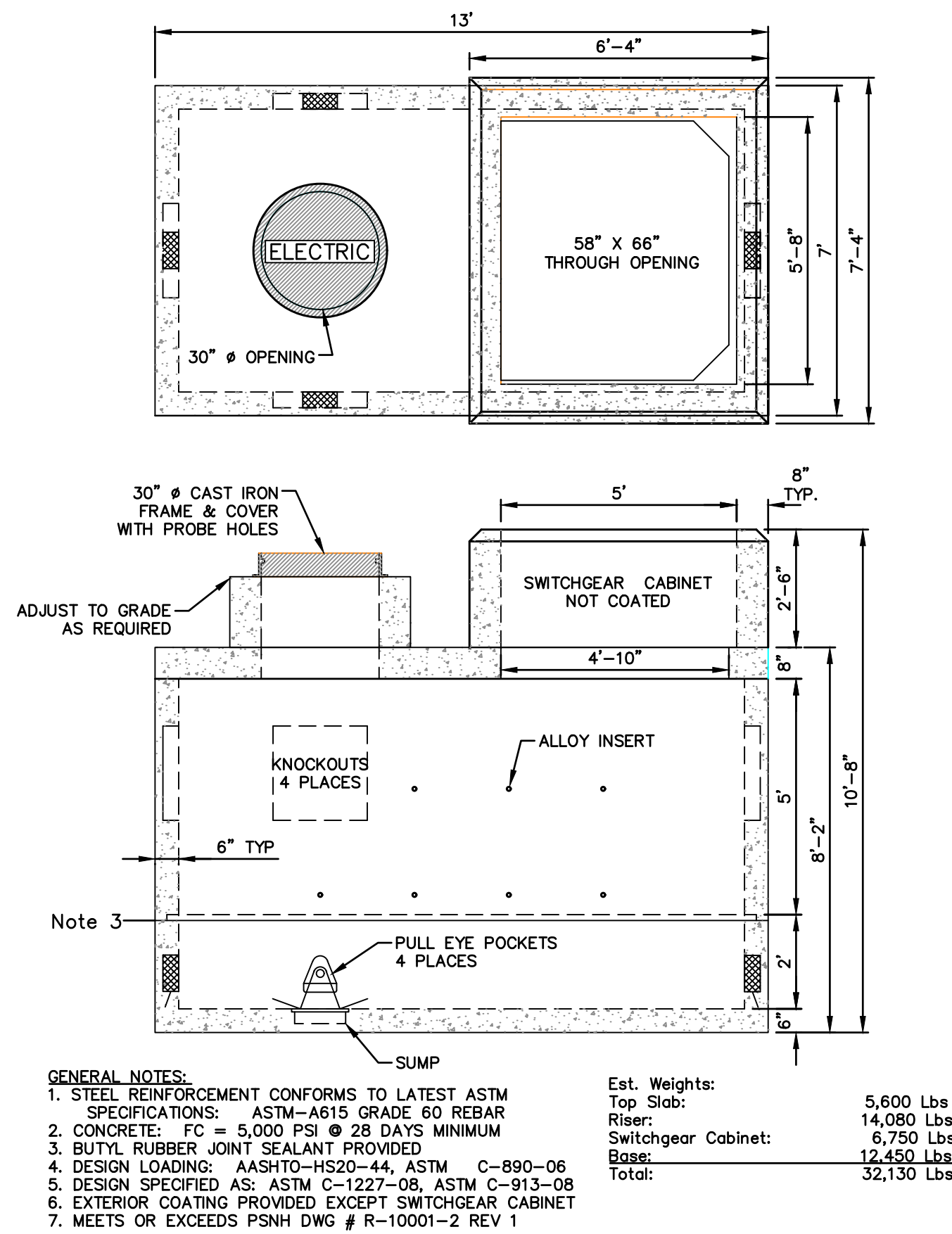
PROJ. No.: 20180317.A10  
DATE: 05/20/2019

**CD-520**

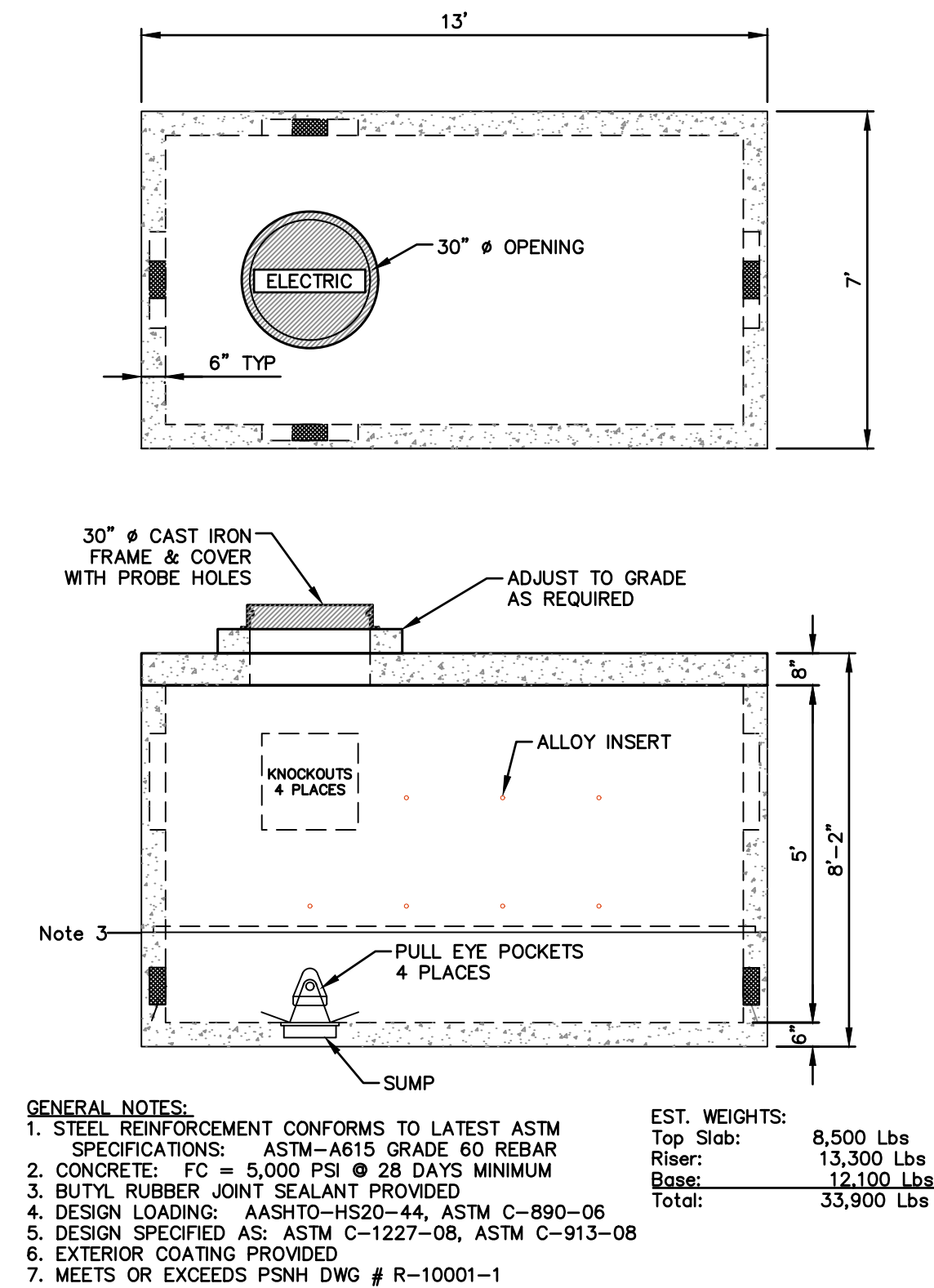




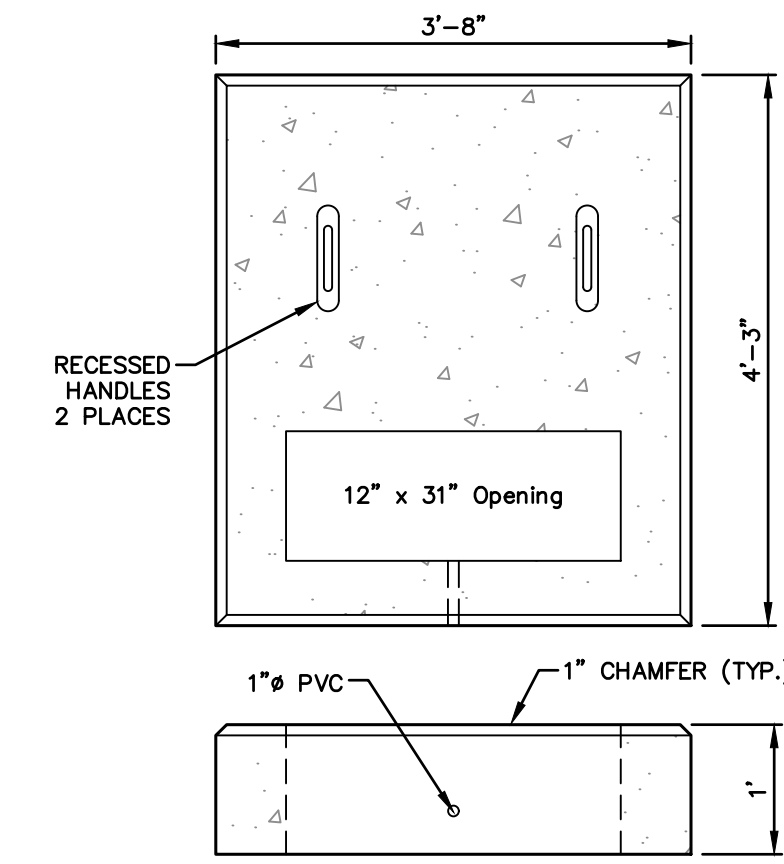




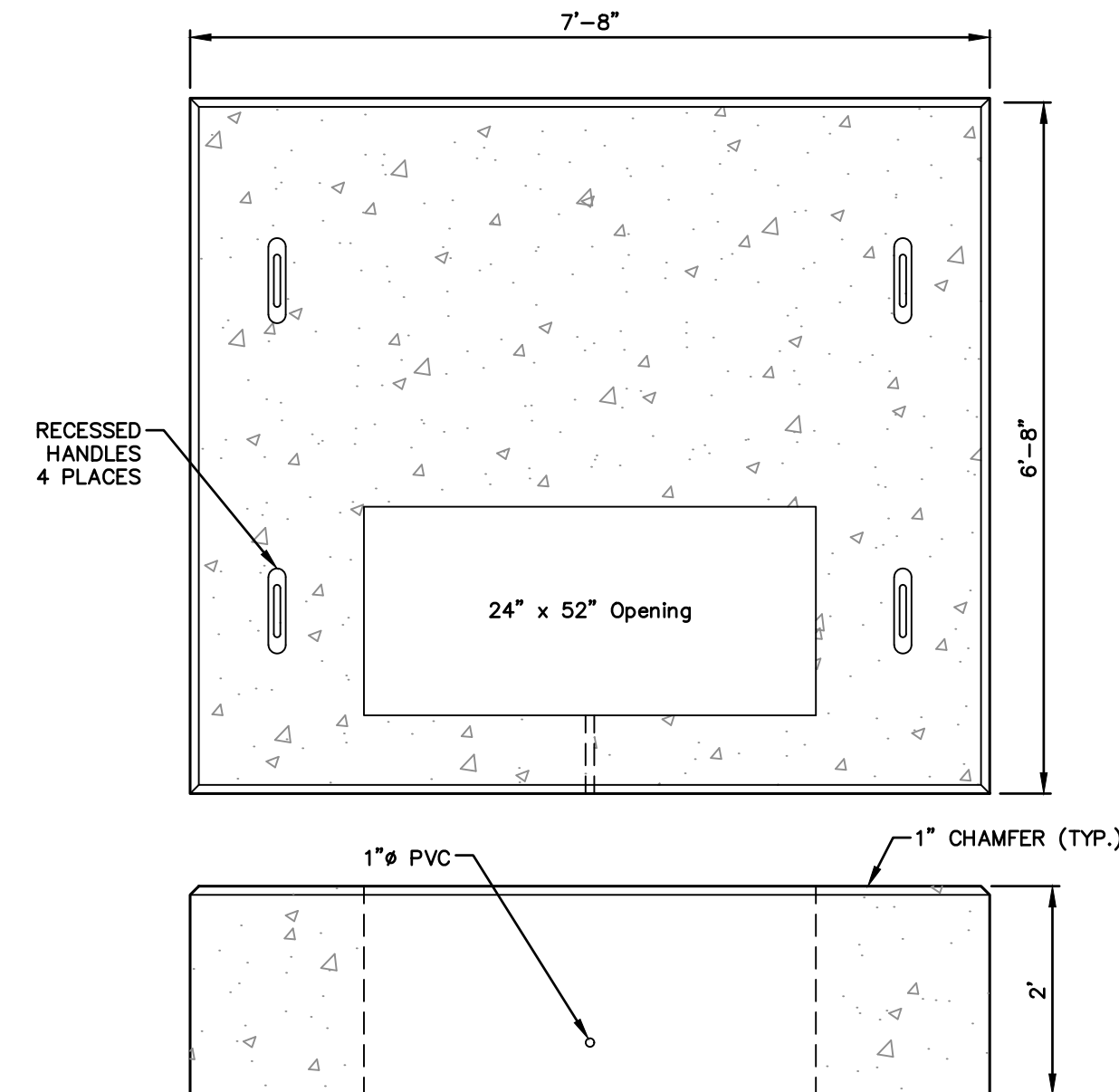
**EVERSOURCE SWITCHGEAR CABINET ASSEMBLY**  
 NOT TO SCALE



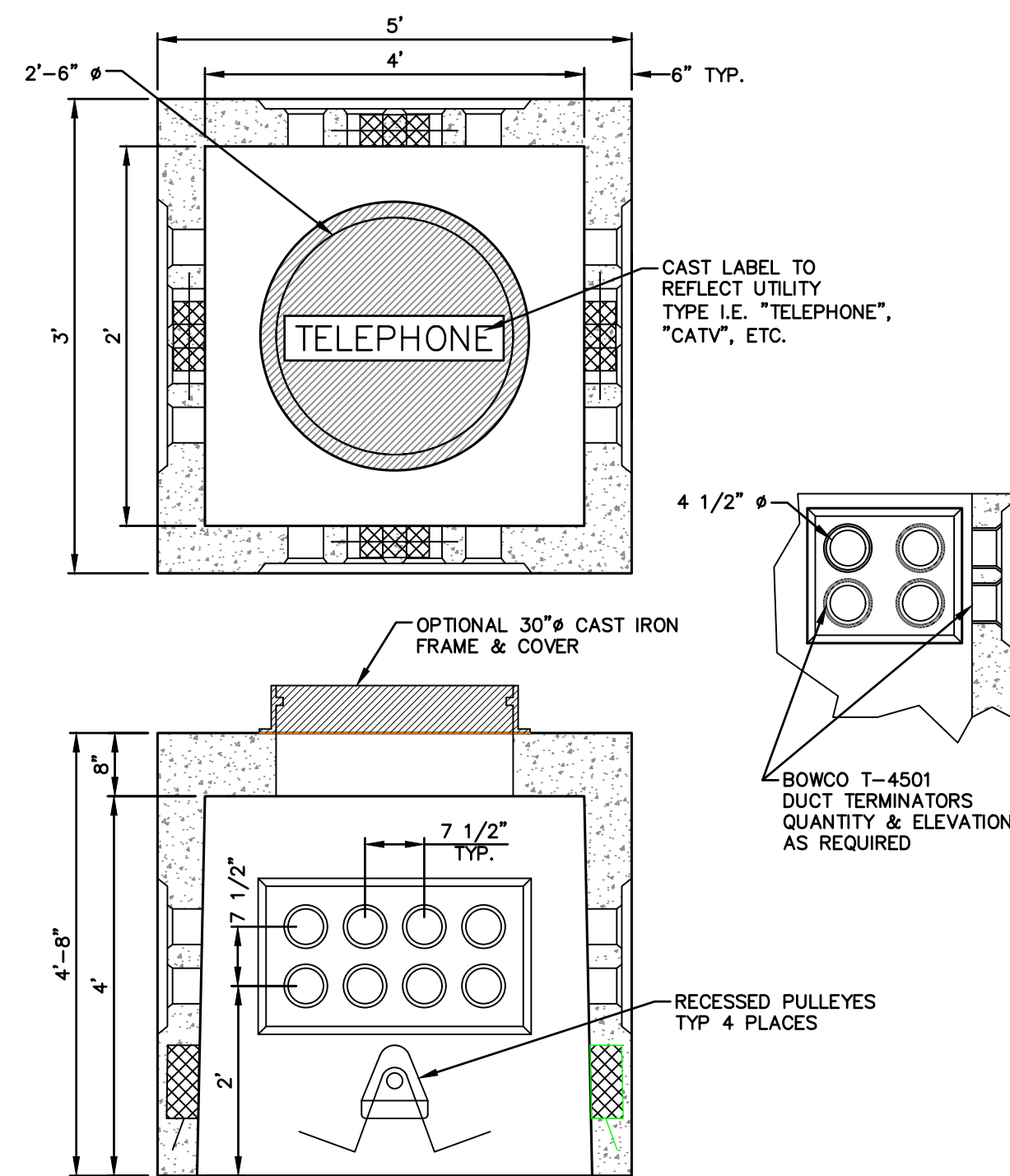
**EVERSOURCE MANHOLE ASSEMBLY**  
 NOT TO SCALE



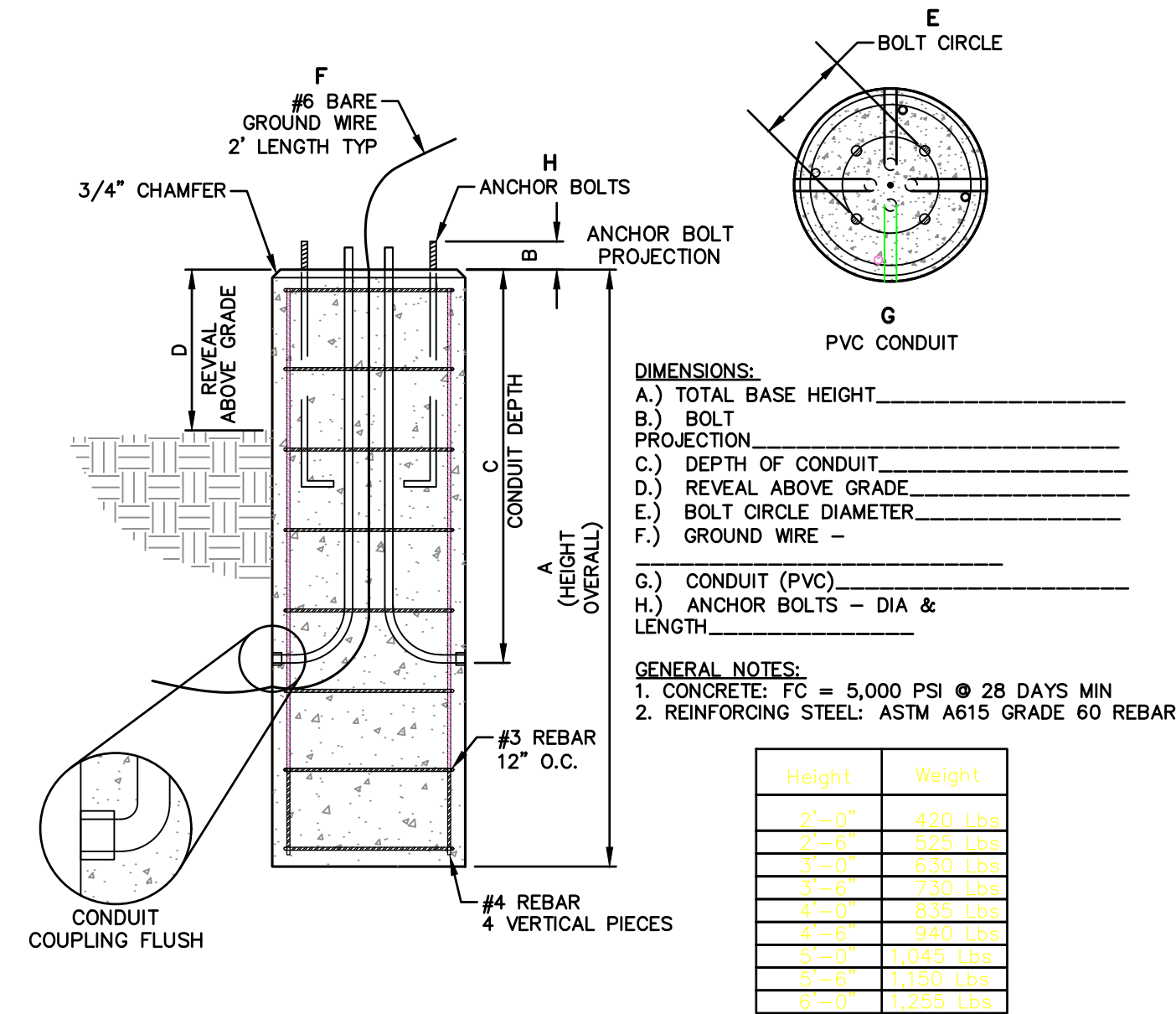
**SINGLE-PHASE TRANSFORMER PAD**  
 NOT TO SCALE 25-75 KVA



**3 PHASE TRANSFORMER PAD**  
 NOT TO SCALE 75-500 KVA



**4'x4'x4' HANDHOLE**  
 NOT TO SCALE

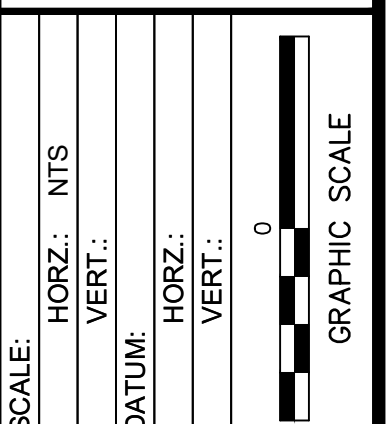
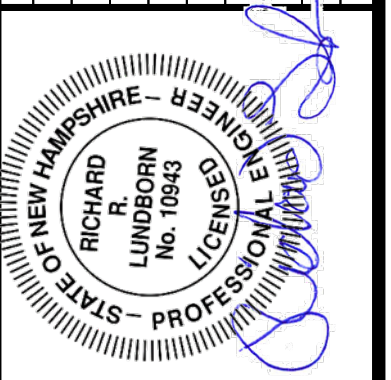


**16" Ø LIGHT POLE BASE**  
 NOT TO SCALE

**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

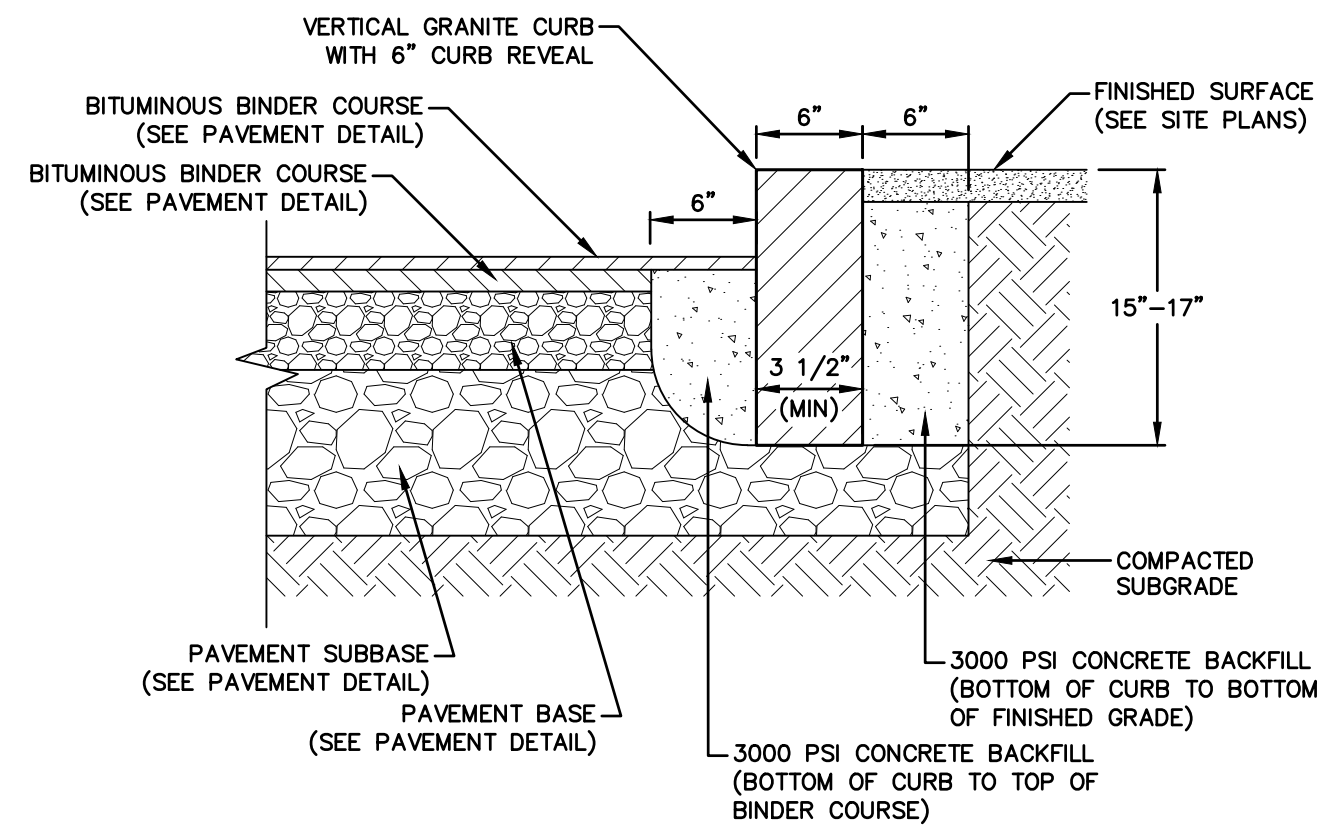
No.	DATE	DESCRIPTION	DESIGNER	REVIEWER
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1.	3/18/2019	TAC SUBMITTAL	JVA/DAO	RRL



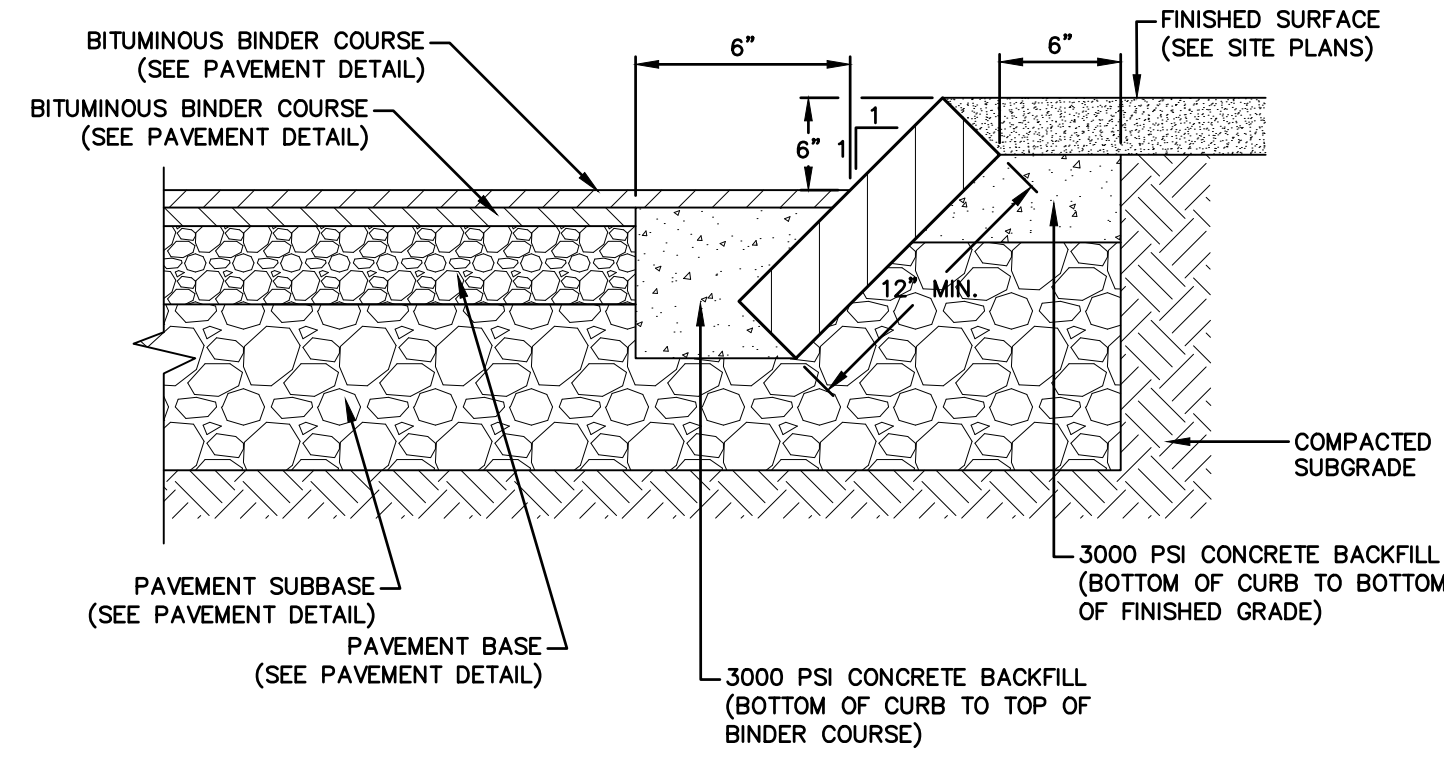
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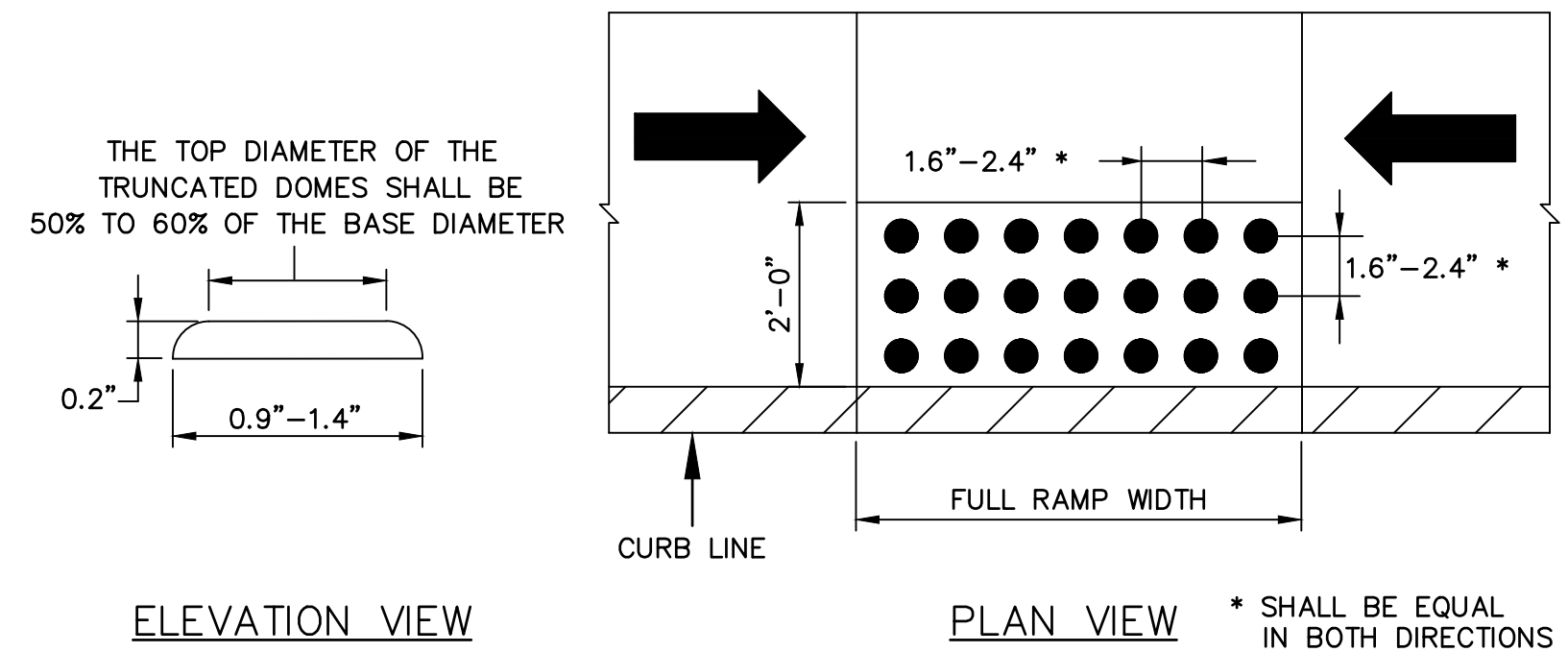
PROJ. No.: 20180317.A10  
 DATE: 05/20/2019  
**CD-540**



**VERTICAL GRANITE CURB INSTALLED**  
SCALE: NOT TO SCALE



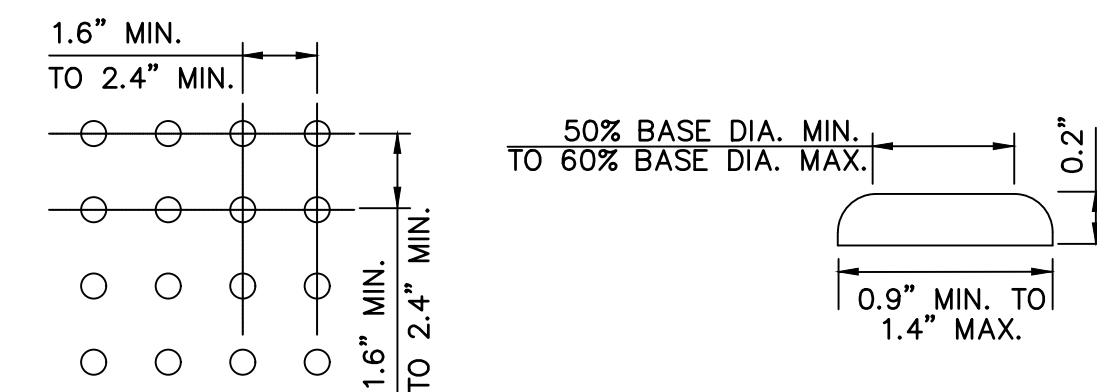
**SLOPED GRANITE CURB INSTALLED**  
SCALE: NOT TO SCALE



**ELEVATION VIEW PLAN VIEW** \* SHALL BE EQUAL IN BOTH DIRECTIONS

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

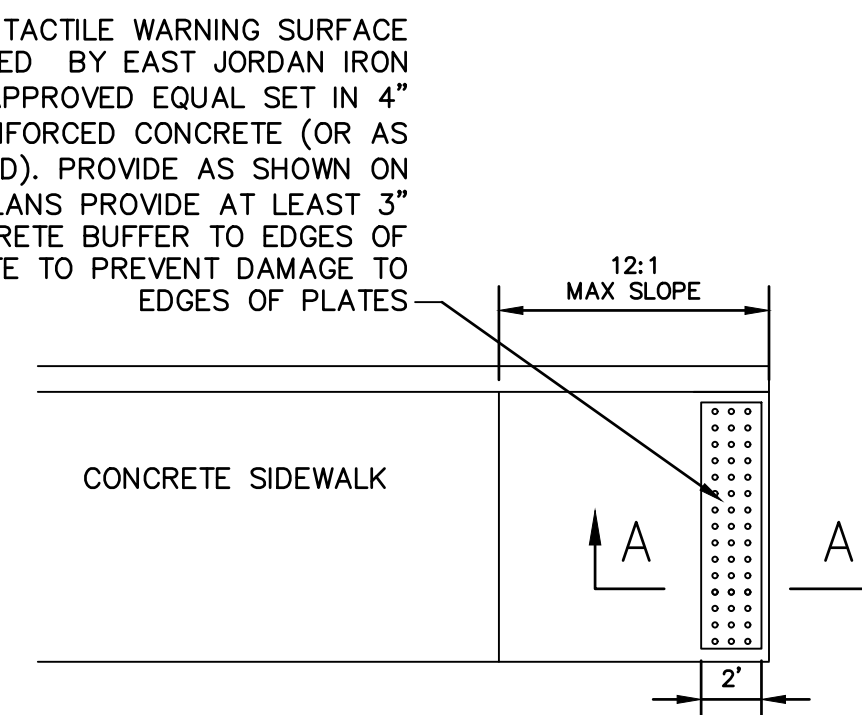
**DOMES AND DETECTABLE WARNING DETAILS**  
NOT TO SCALE TO BE INSTALLED AT ADA WALKWAY TIPDOWNS.



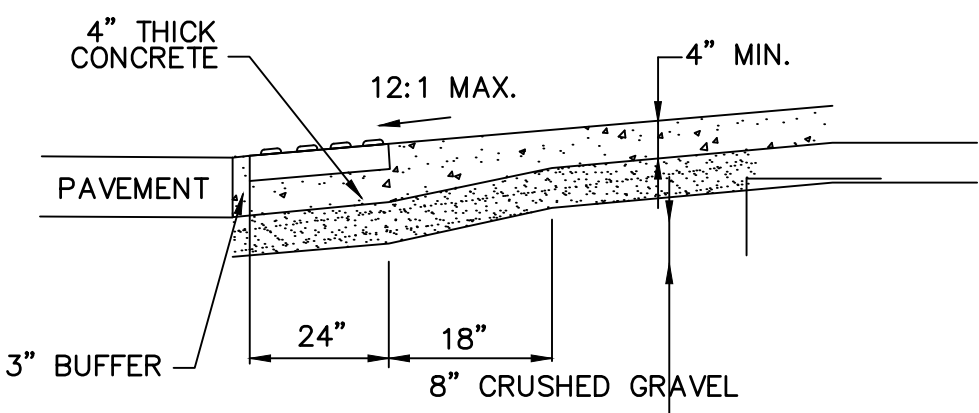
**DOMES SPACING**  
NOT TO SCALE

**DOMES SECTION**  
NOT TO SCALE

CAST IRON TACTILE WARNING SURFACE MANUFACTURED BY EAST JORDAN IRON WORKS OR APPROVED EQUAL SET IN 4" MIN. REINFORCED CONCRETE (OR AS DIRECTED). PROVIDE AS SHOWN ON GENERAL PLANS PROVIDE AT LEAST 3" CONCRETE BUFFER TO EDGES OF CONCRETE TO PREVENT DAMAGE TO EDGES OF PLATES

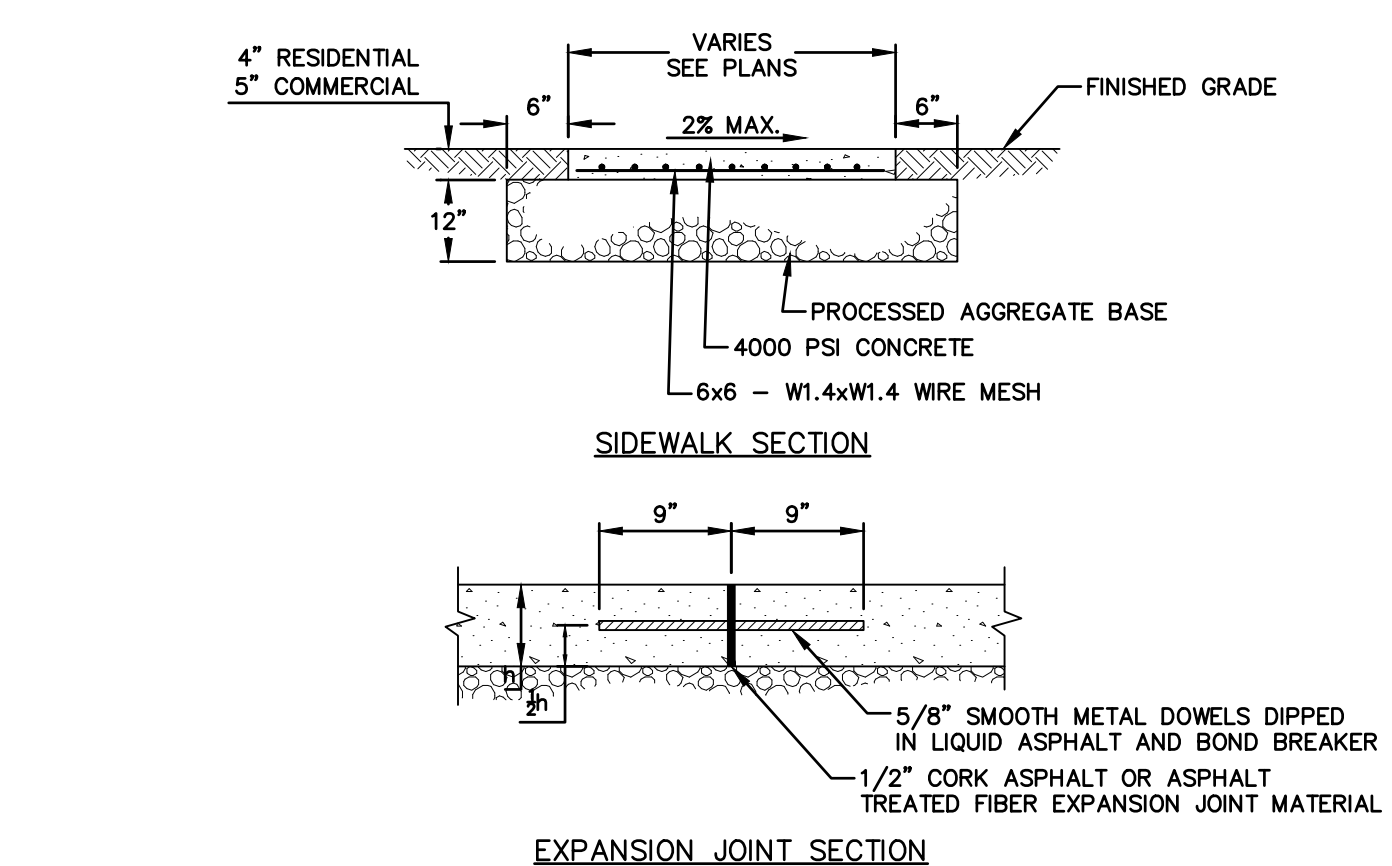
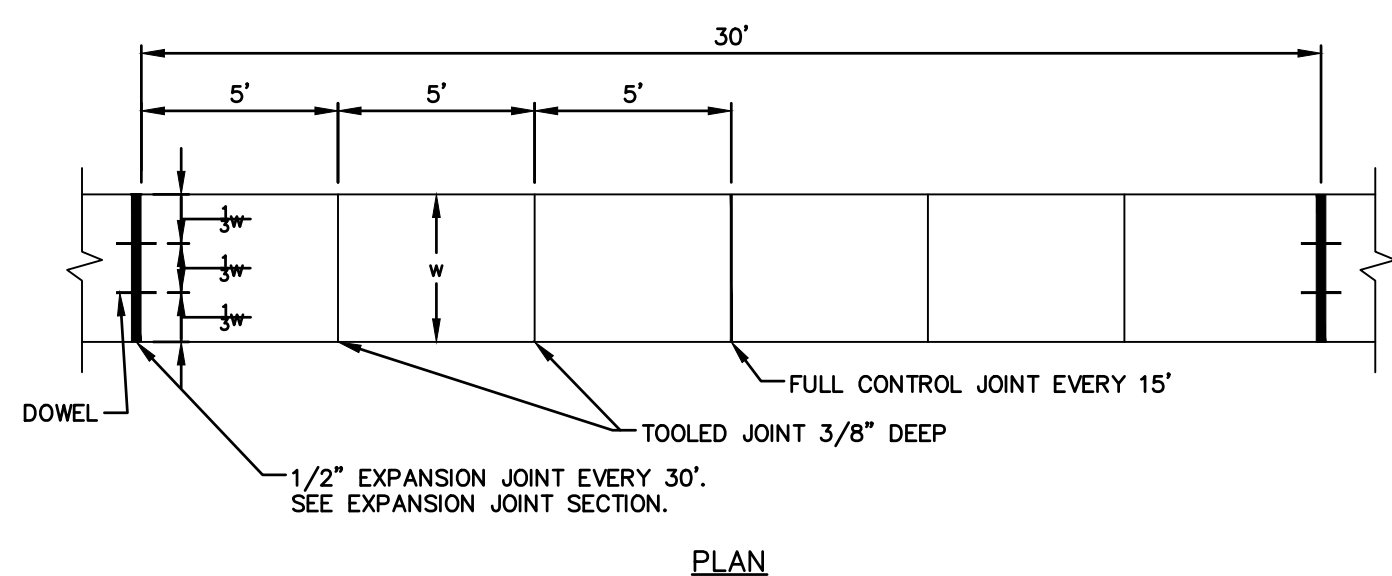


**ADA END RAMP**  
NOT TO SCALE



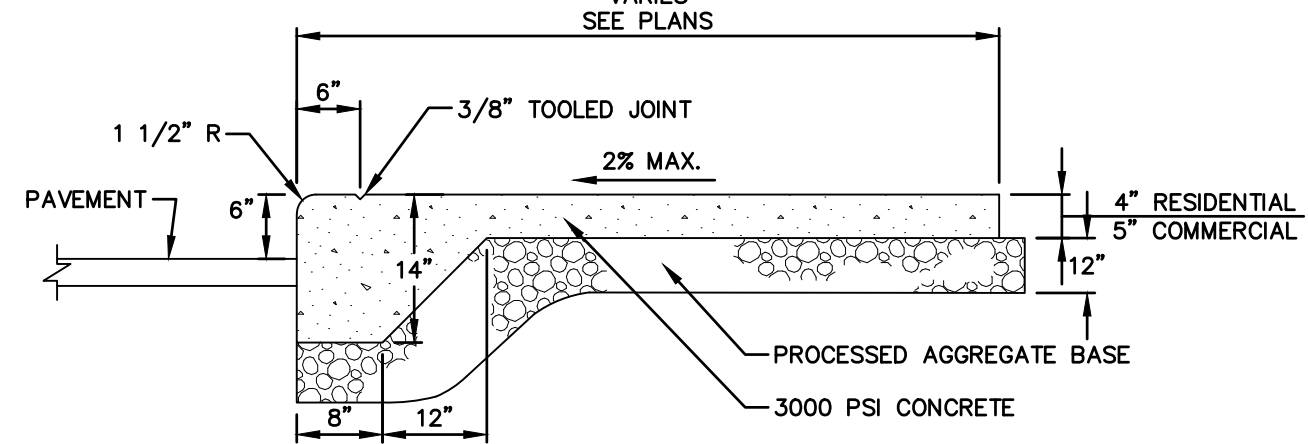
**SECTION A-A**  
NOT TO SCALE

**TYPICAL ROAD PAVEMENT SECTION**  
NOT TO SCALE

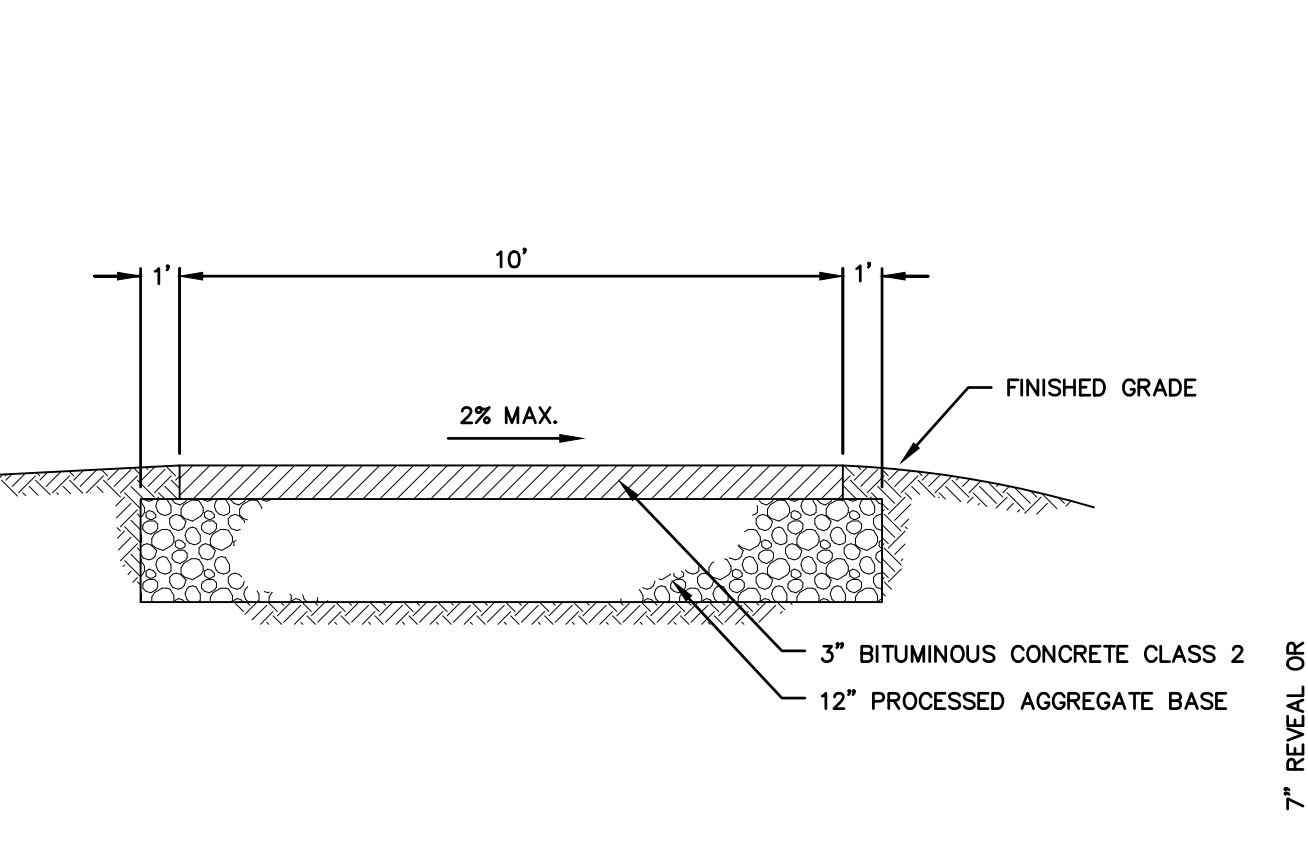


**CONCRETE SIDEWALK**  
SCALE: NOT TO SCALE

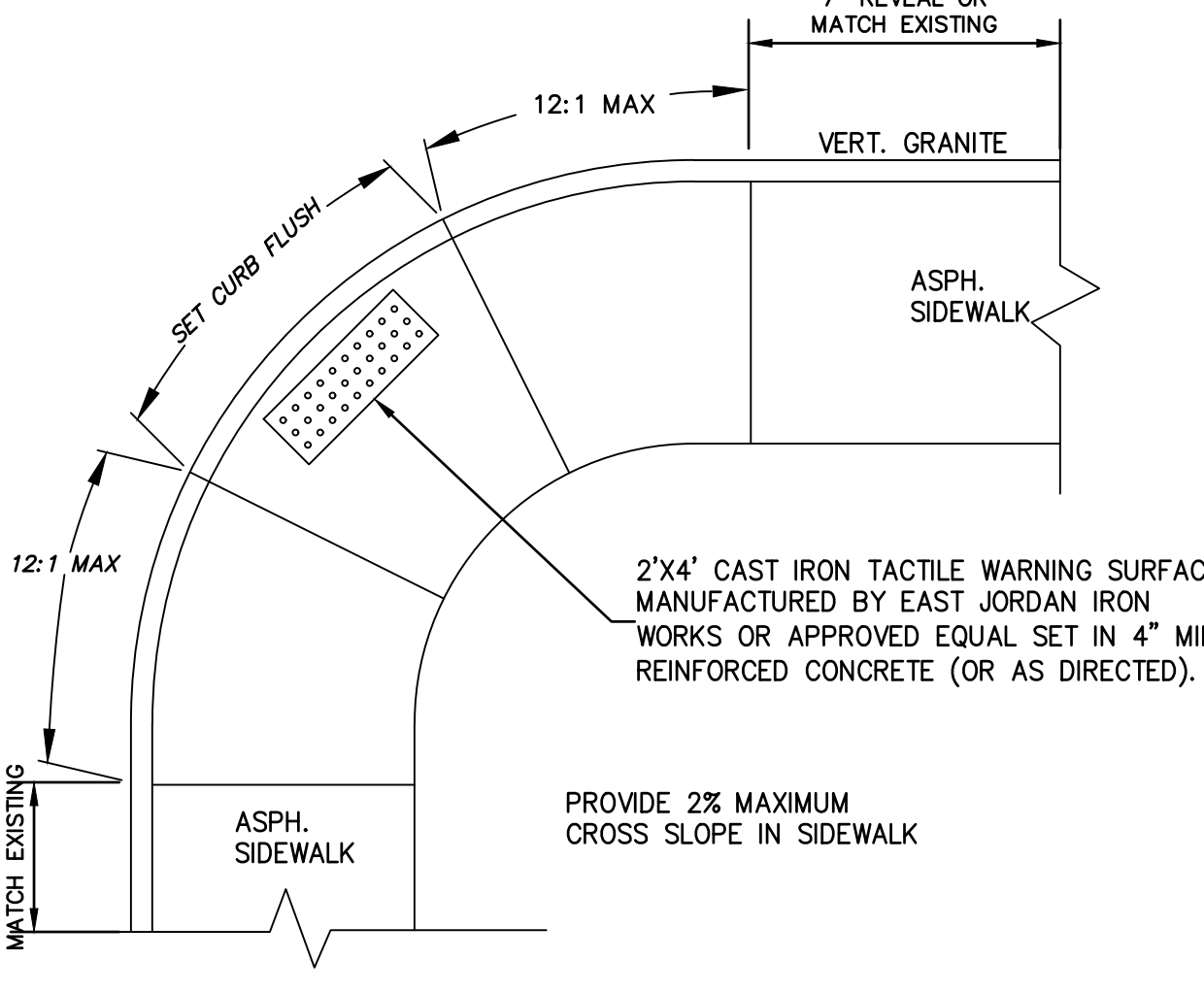
**MOUNTABLE GRANITE CURB INSTALLED**  
NOT TO SCALE



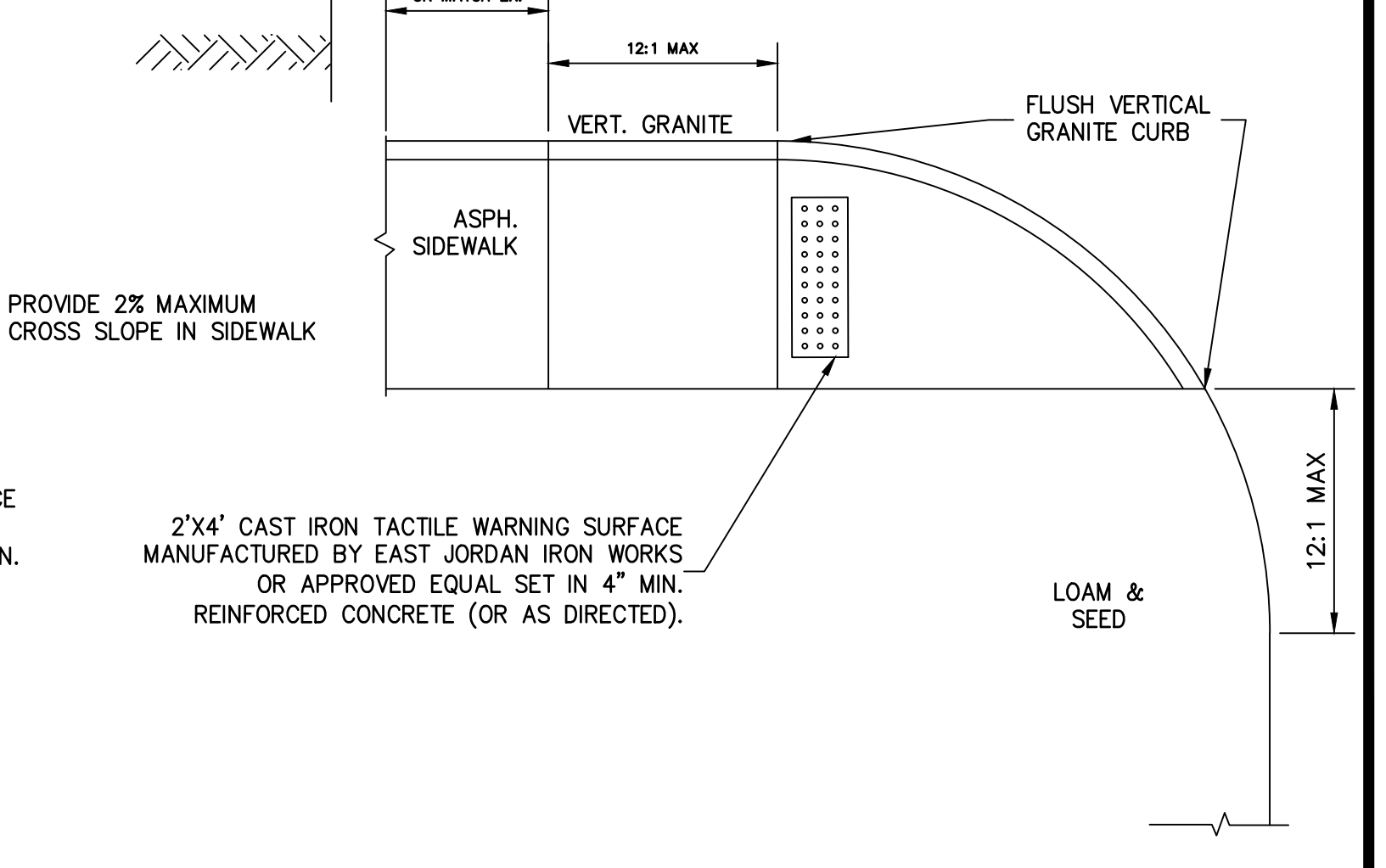
**MONOLITHIC CONCRETE CURB AND WALK**  
SCALE: NOT TO SCALE



**BITUMINOUS CONCRETE MULTI-USE TRAIL**  
NOT TO SCALE

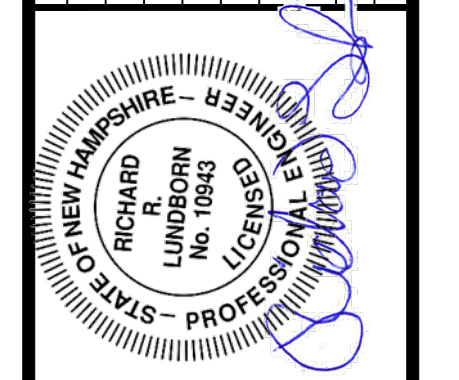


**TYPICAL CORNER PEDESTRIAN RAMP**  
NOT TO SCALE



**END OF SIDEWALK PEDESTRIAN RAMP**  
NOT TO SCALE

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



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DATUM:	HORIZ.: DATUM	VERT.: DATUM
GRAPHIC SCALE	0	

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PROJ. No.: 20180317.A10  
DATE: 05/20/2019  
**CD-550**

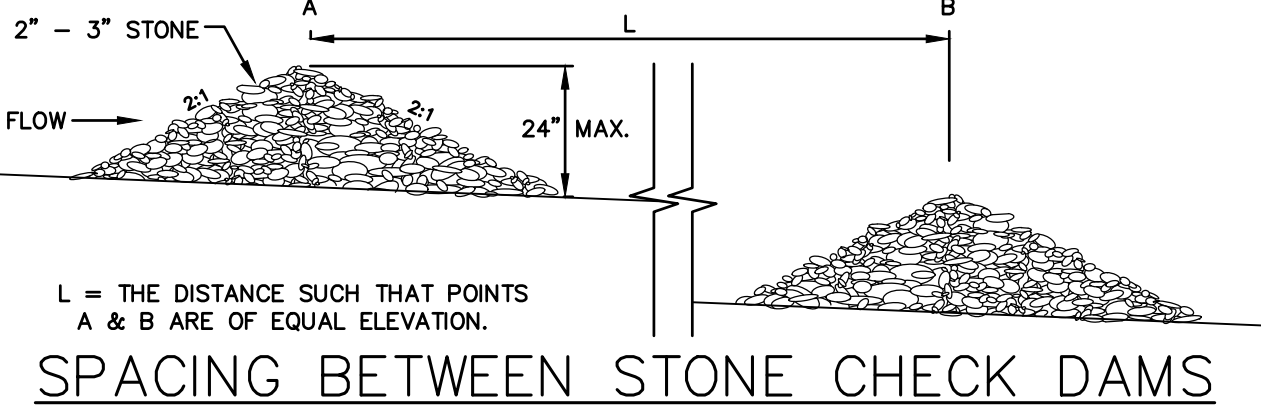
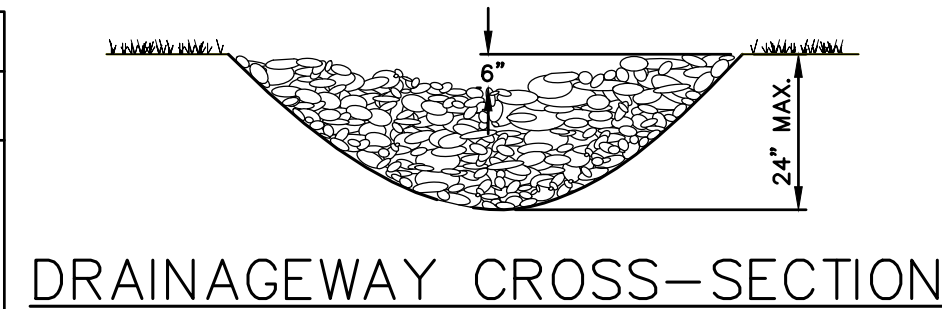
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MS VIEW: LAYER STATE: PLOTTER: DWG TO PDF-PC3 CTB File: FO.STB



D10=10" RIP-RAP GRADATION		
% OF WEIGHT SMALLER THAN THE GIVEN SIZE	SIZE OF STONE (INCHES)	
100	15 TO 20	
85	10 TO 18	
50	10 TO 15	
15	3 TO 5	

APRON DIMENSION TABLE					
PIPE OUTLET	W <sub>o</sub>	W	L <sub>a</sub>	T	450
24" HDPE OUTLET	6.0'	11'	8'	12"	3"

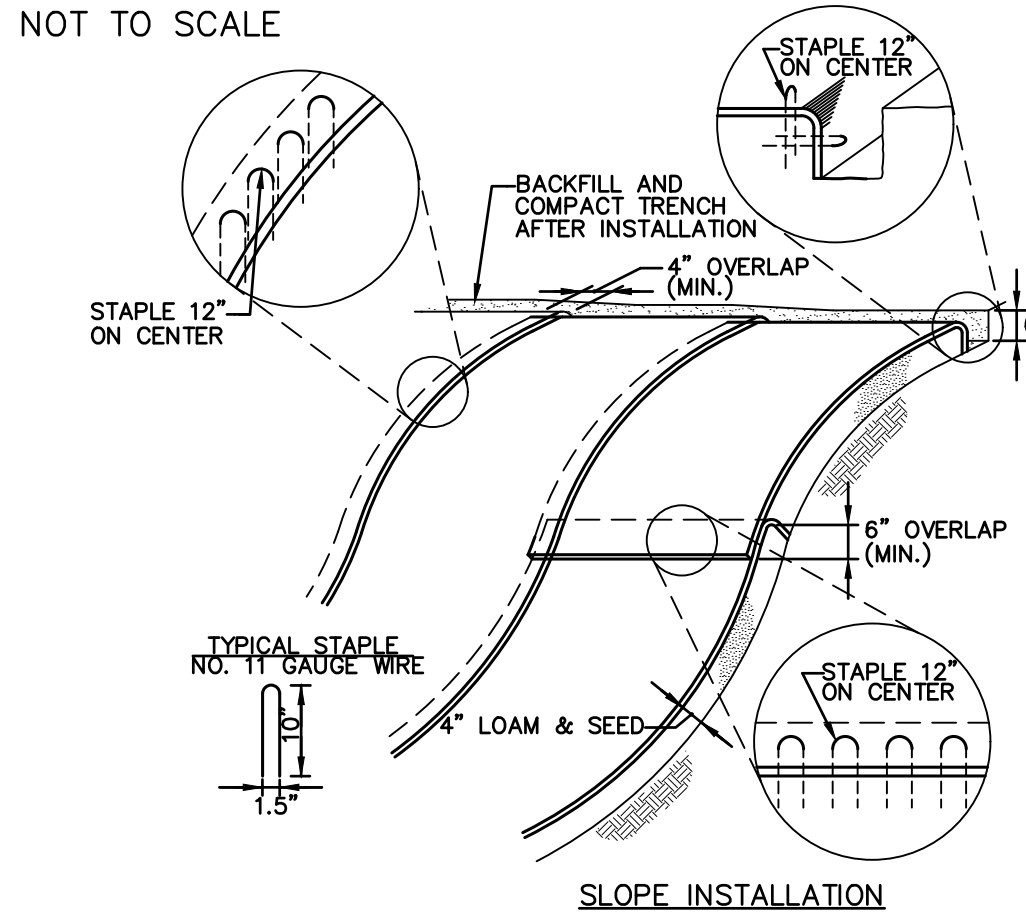
SPACING BETWEEN CHECK DAMS	
SLOPE (FT/FT)	LENGTH (FT)
0.020	75
0.030	60
0.040	37
0.050	30
0.060	19
0.100	15
0.120	13
0.150	10



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

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

### STONE CHECK DAM INSTALLATION DETAIL



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

- CONSTRUCTION SPECIFICATIONS:**
- MANUFACTURER'S INSTALLATION INSTRUCTIONS:
    - PREPARE SOIL BEFORE INSTALLING ROLLED EROSION CONTROL PRODUCTS (RECP's), INCLUDING ANY NECESSARY APPLICATION OF LIME, FERTILIZER, AND SEED. NOTE: WHEN USING CELL-O-SEED DO NOT SEED PREPARED AREA. CELL-O-SEED MUST BE INSTALLED WITH PAPER SIDE DOWN.
    - BEGIN AT THE TOP OF THE SLOPE BY ANCHORING THE RECP's IN A 6" (15 CM) DEEP X 6" (15 CM) WIDE TRENCH WITH APPROXIMATELY 12" (30cm) OF RECP'S EXTENDED BEYOND THE UP-SLOPE PORTION OF THE TRENCH. ANCHOR THE RECP'S WITH A ROW OF STAPLES/STAKES APPROXIMATELY 12" (30 CM) APART IN THE BOTTOM OF THE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING. APPLY SEED TO COMPACTED SOIL AND FOLD REMAINING 12" (30 CM) PORTION OF RECP'S BACK OVER SEED AND COMPACTED SOIL. SECURE RECP'S OVER COMPACTED SOIL WITH A ROW OF STAPLES/STAKES SPACED APPROXIMATELY 12" (30 CM) APART ACROSS THE WIDTH OF THE RECP's.
    - ROLL THE RECP's (A.) DOWN OR (B.) HORIZONTALLY ACROSS THE SLOPE. RECP's WILL UNROLL WITH APPROPRIATE SIDE AGAINST THE SOIL SURFACE. ALL RECP's MUST BE SECURELY FASTENED TO SOIL SURFACE BY PLACING STAPLES/STAKES IN APPROPRIATE LOCATIONS AS SHOWN IN THE STAPLE PATTERN GUIDE. WHEN USING THE DOT SYSTEM, STAPLES/STAKES SHOULD BE PLACED THROUGH EACH OF THE COLORED DOTS CORRESPONDING TO THE APPROPRIATE STAPLE PATTERN.
    - THE EDGES OF PARALLEL RECP's MUST BE STAPLED WITH APPROXIMATELY 2" - 5" (5 CM - 12.5 CM) OVERLAP DEPENDING ON RECP'S TYPE.
    - CONSECUTIVE RECP's SPICED DOWN THE SLOPE MUST BE PLACED END OVER END (SHINGLE STYLE) WITH AN APPROXIMATE 3" (7.5 CM) OVERLAP. STAPLE THROUGH OVERLAPPED AREA, APPROXIMATELY 12" (30 CM) APART ACROSS ENTIRE RECP'S WIDTH. NOTE: IN LOOSE SOIL CONDITIONS, THE USE OF STAPLE OR STAKE LENGTHS GREATER THAN 6" (15 CM) MAY BE NECESSARY TO PROPERLY SECURE THE RECP's.

- SITE PREPARATION:
  - PROPER SITE PREPARATION IS ESSENTIAL TO ENSURE COMPLETE CONTACT OF THE PROTECTION MATTING WITH THE SOIL.
  - GRADE AND SHAPE AREA IF INSTALLATION.
  - REMOVE ALL ROCKS, CLOUDS, TRASH, VEGETATIVE OR OTHER OBSTRUCTIONS SO THAT THE INSTALLED BLANKETS WILL HAVE DIRECT CONTACT WITH THE SOIL.
  - PREPARE SEEDBED BY LOOSENING 2-3 INCHES OF TOPSOIL ABOVE FINAL GRADE.
  - INCORPORATE AMENDMENTS, SUCH AS LIME AND FERTILIZER, INTO SOIL ACCORDING TO SOIL TEST AND THE SEEDING PLAN.
- SEEDING:
  - SEED AREA BEFORE BLANKET INSTALLATION FOR EROSION CONTROL AND REVEGETATION. SEEDING AFTER MAT INSTALLATION IS OFTEN SPECIFIED FOR TURF REINFORCEMENT APPLICATIONS. WHEN SEEDING PRIOR TO BLANKET INSTALLATION, ALL CHECK SLOTS AND OTHER AREAS DISTURBED DURING INSTALLATION MUST BE RESEDED.
  - WHEN SOIL FILLING IS SPECIFIED, SEED THE MATTING AND THE ENTIRE DISTURBED AREA AFTER INSTALLATION AND PRIOR TO FILLING THE MAT WITH SOIL.

### EROSION CONTROL - BLANKET SLOPE PROTECTION

NOT TO SCALE

### PERMANENT VEGETATION:

#### SPECIFICATIONS:

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

#### SEEDBED PREPARATION:

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

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

\*EQUIVALENT TO 50% CALCIUM PLUS MAGNESIUM OXIDE

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

\*LOW PHOSPHATE FERTILIZER (N-P205-K20) OR EQUIVALENT

- FERTILIZER SHOULD BE RESTRICTED TO LOW PHOSPHATE, SLOW RELEASE NITROGEN FERTILIZER WHEN APPLIED TO AREAS BETWEEN 25 AND 250-FT FROM A SURFACE WATER BODY. NO FERTILIZER EXCEPT LIMESTONE SHOULD BE APPLIED WITHIN 25-FT OF A SURFACE WATER BODY. THESE ARE THE REQUIREMENTS FOR ANY WATER BODY PROTECTED BY THE COMPREHENSIVE SHORELAND PROTECTION ACT.

#### SEEDING:

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

#### HYDROSEEDING:

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

#### MAINTENANCE REQUIREMENTS:

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

### PERMANENT VEGETATION SEEDING RECOMMENDATIONS

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

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

### TEMPORARY VEGETATION:

#### SPECIFICATIONS:

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

#### SEEDBED PREPARATION:

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

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

\*EQUIVALENT TO 50% CALCIUM PLUS MAGNESIUM OXIDE

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

\*LOW PHOSPHATE FERTILIZER (N-P205-K20) OR EQUIVALENT

- FERTILIZER SHOULD BE RESTRICTED TO LOW PHOSPHATE, SLOW RELEASE NITROGEN FERTILIZER WHEN APPLIED TO AREAS BETWEEN 25 AND 250-FT FROM A SURFACE WATER BODY. NO FERTILIZER EXCEPT LIMESTONE SHOULD BE APPLIED WITHIN 25-FT OF A SURFACE WATER BODY. THESE ARE THE REQUIREMENTS FOR ANY WATER BODY PROTECTED BY THE COMPREHENSIVE SHORELAND PROTECTION ACT.

#### SEEDING:

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

#### MAINTENANCE REQUIREMENTS:

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

### TEMPORARY VEGETATION SEEDING RECOMMENDATIONS

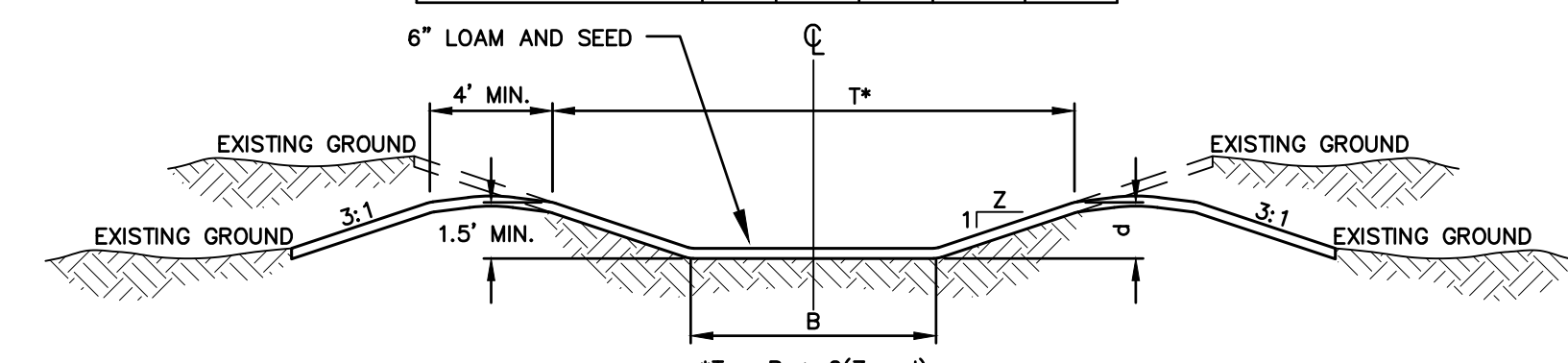
SPECIES	PER ACRE BUSHELS (BU) OR POUNDS (LBS.)	PER 1,000-SF	REMARKS
WINTER RYE	2.5 BU OR 112 LBS.	2.5 LBS.	BEST FOR FALL SEEDING. SEED FROM AUGUST 15 TO SEPTEMBER 15 FOR BEST COVER. SEED TO A DEPTH OF 1 INCH.
OATS	2.5 BU OR 80 LBS.	2.0 LBS.	BEST FOR SPRING SEEDING. SEED NO LATER THAN MAY 15 FOR SUMMER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

**SOURCES:**

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

### SWALE DIMENSION TABLE

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



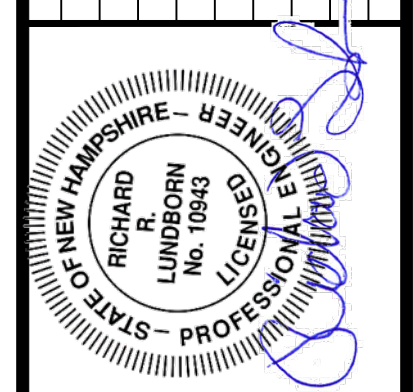
#### MAINTENANCE NOTES:

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

### VEGETATED SWALE DETAIL

NOT TO SCALE

NO.	DATE	DESCRIPTION	DESIGNER REVIEWER
1.	5/20/2019	TAC SUBMITTAL	JVA/DAD
2.	3/18/2020	TAC SUBMITTAL	JVA/DAD



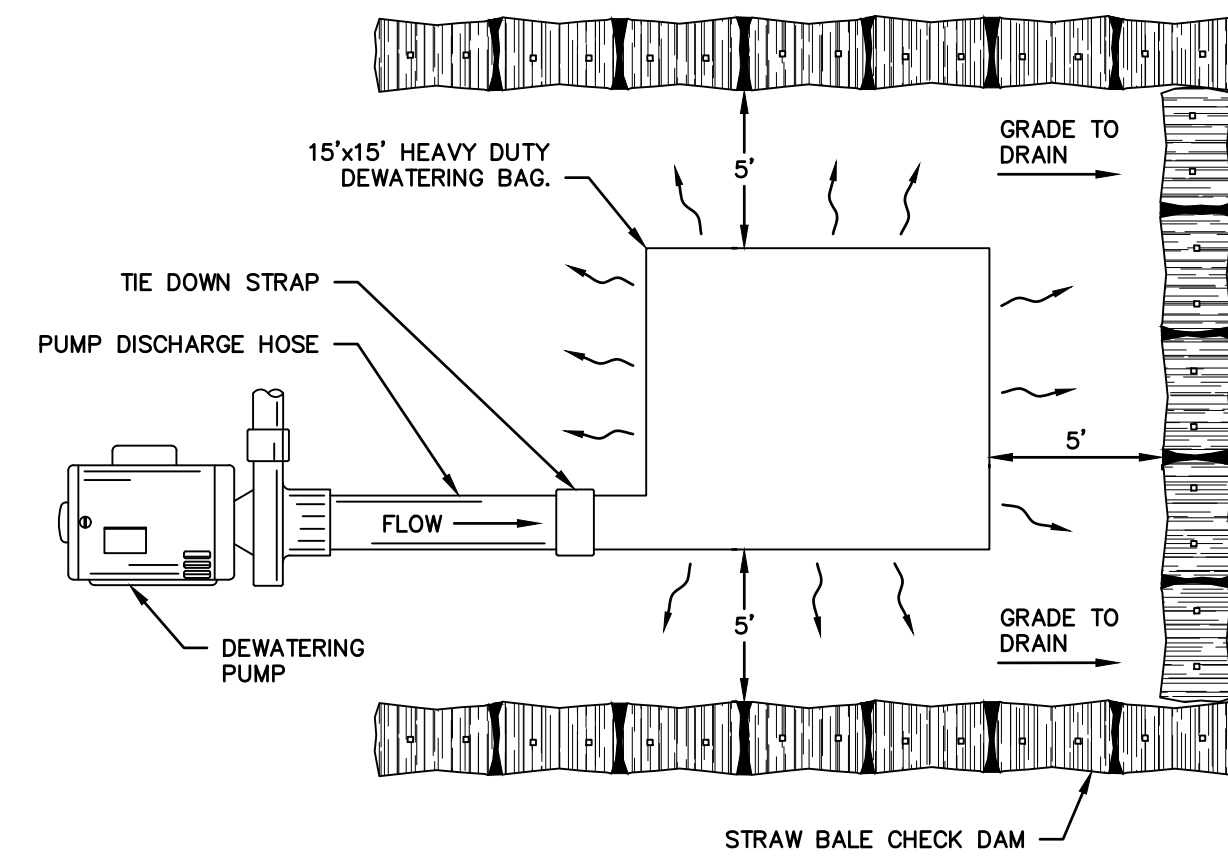
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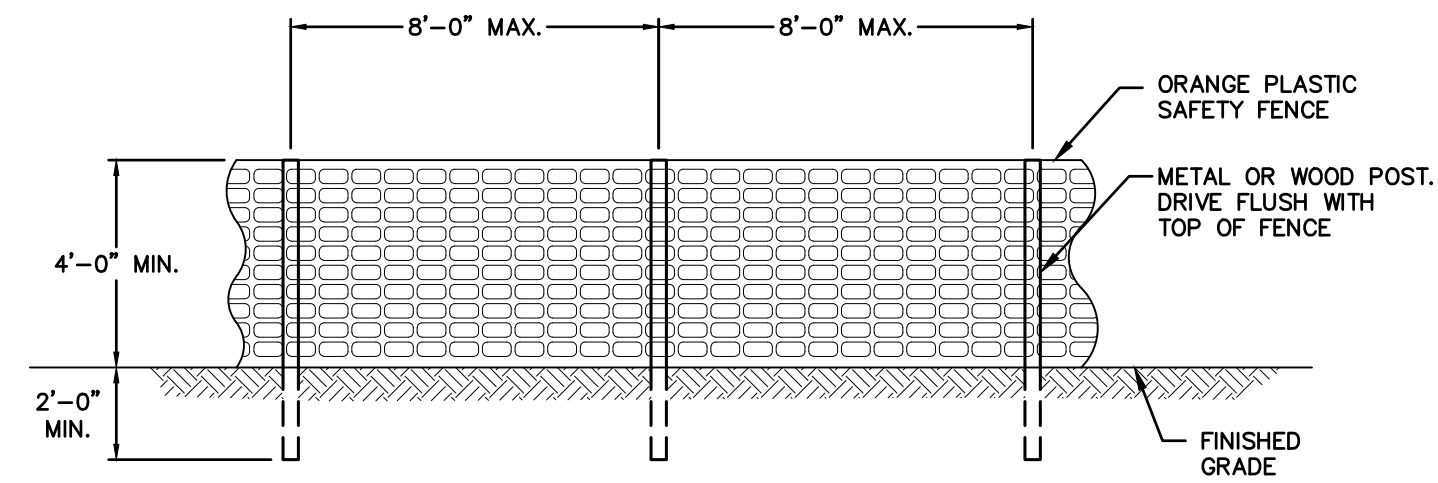
CATE STREET DEVELOPMENT, LLC  
 DETAILS  
 CATE STREET  
 PORTSMOUTH  
 NEW HAMPSHIRE

PROJ. No.: 20180317A10  
 DATE: 05/20/2019  
**CD-561**

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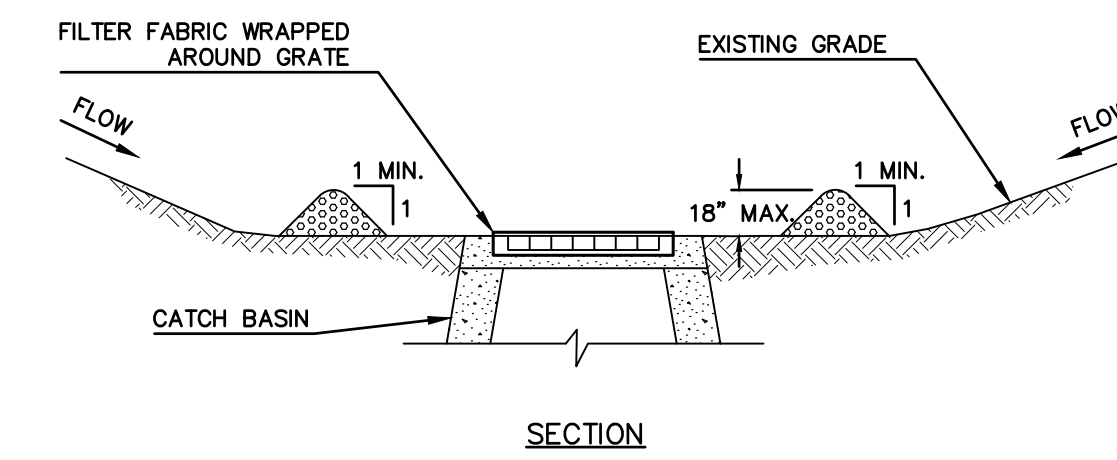
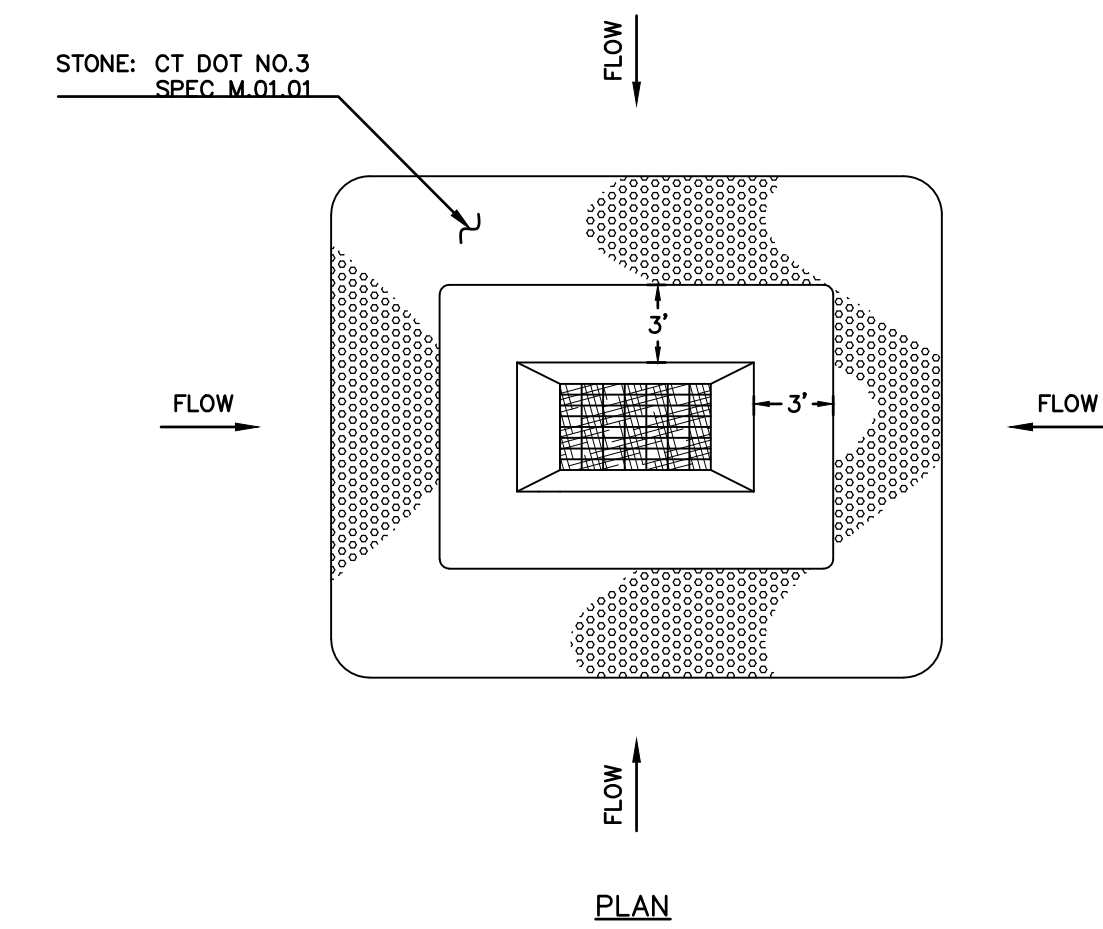


**DEWATERING BAG**  
 NOT TO SCALE

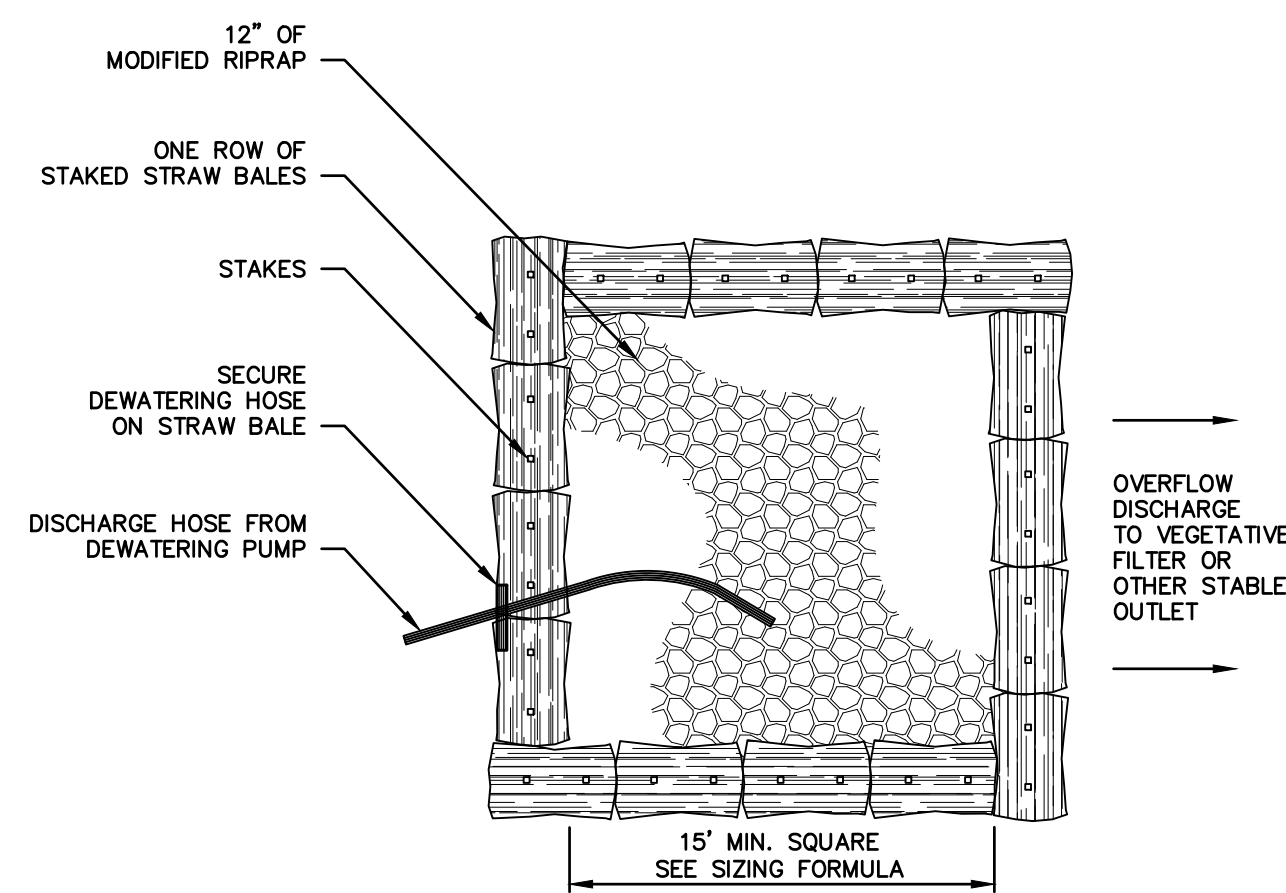


FOR TREE PROTECTION FENCE SHALL BE PLACED AT DRIPLINE OF TREES.

**PROTECTIVE SAFETY FENCE**  
 SCALE: N.T.S.



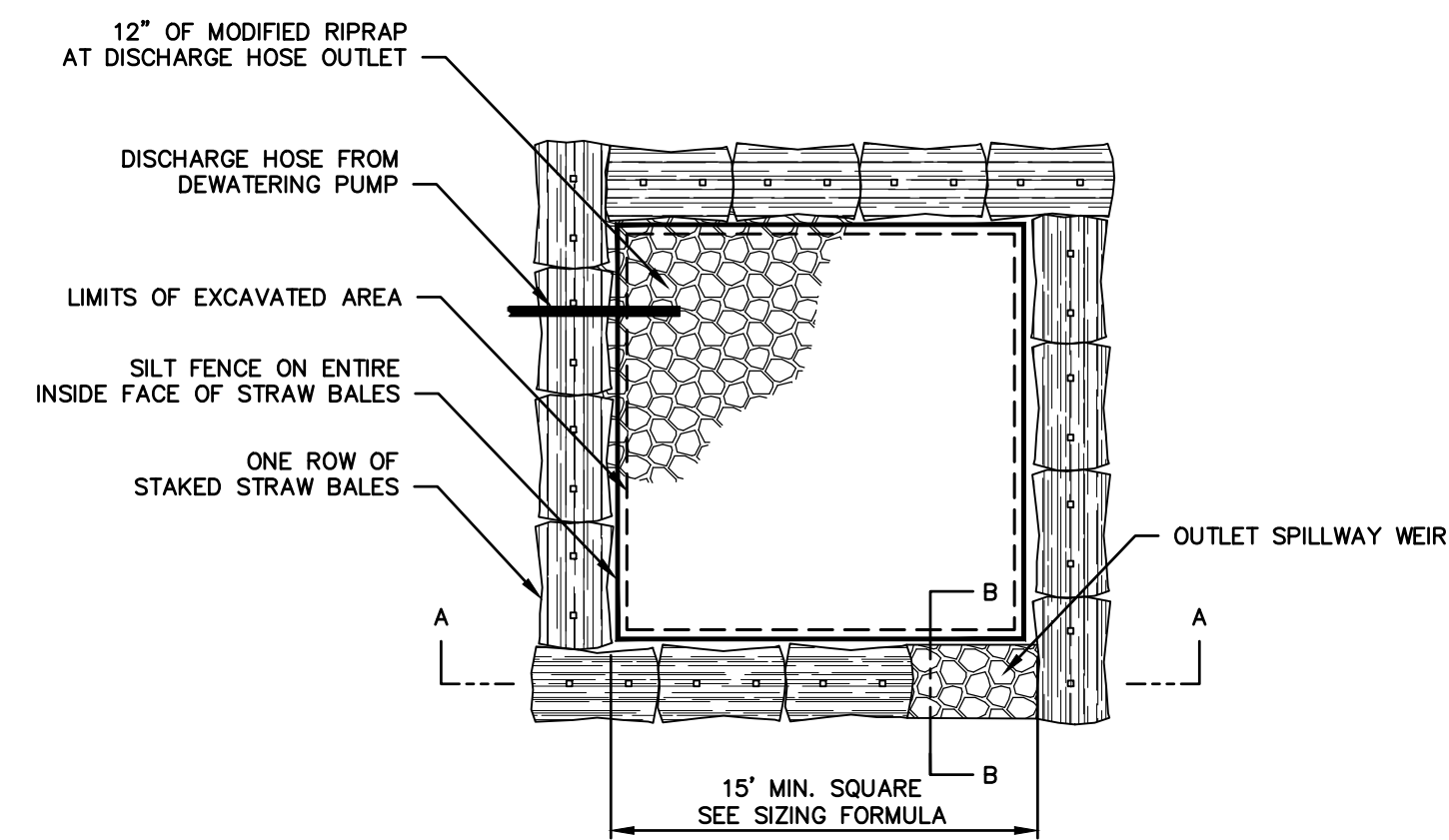
**LOW POINT STONE CHECK DAM**  
 NOT TO SCALE



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

PLAN

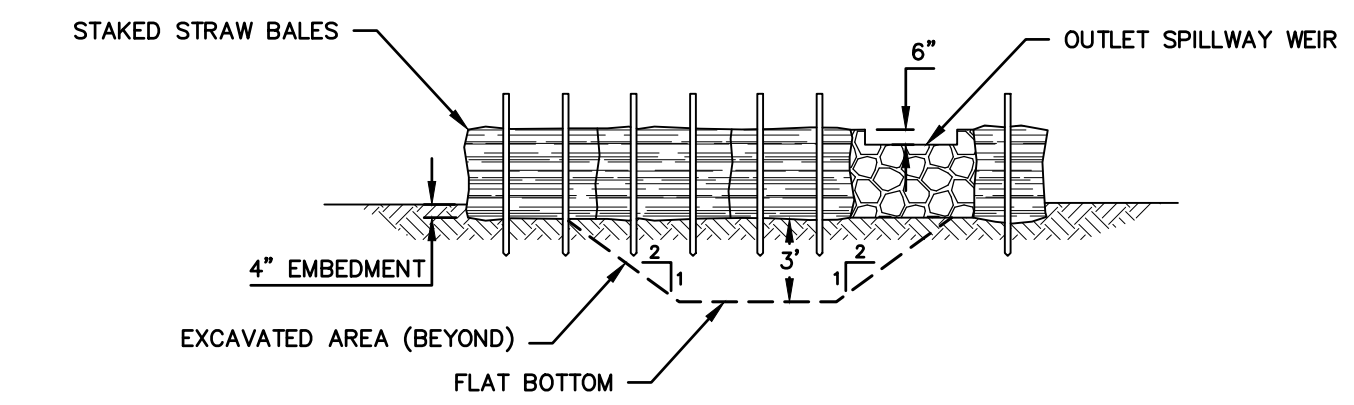
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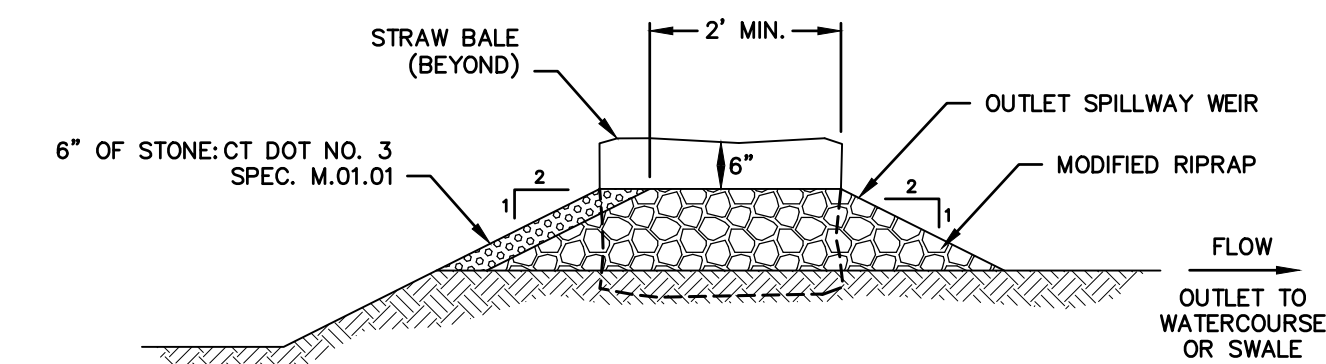
**SIZING FORMULA:**  
 CUBIC FT. OF REQUIRED STORAGE = PUMP DISCHARGE RATE (GPM) x 16

PLAN

**PUMP SETTLING BASIN TYPE II**  
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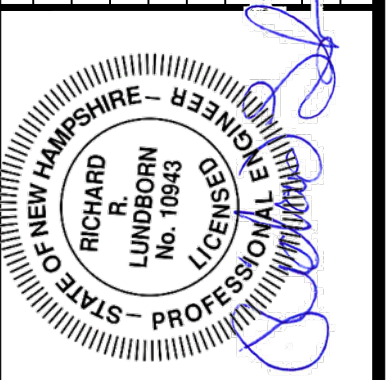


SECTION A-A



SECTION B-B

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

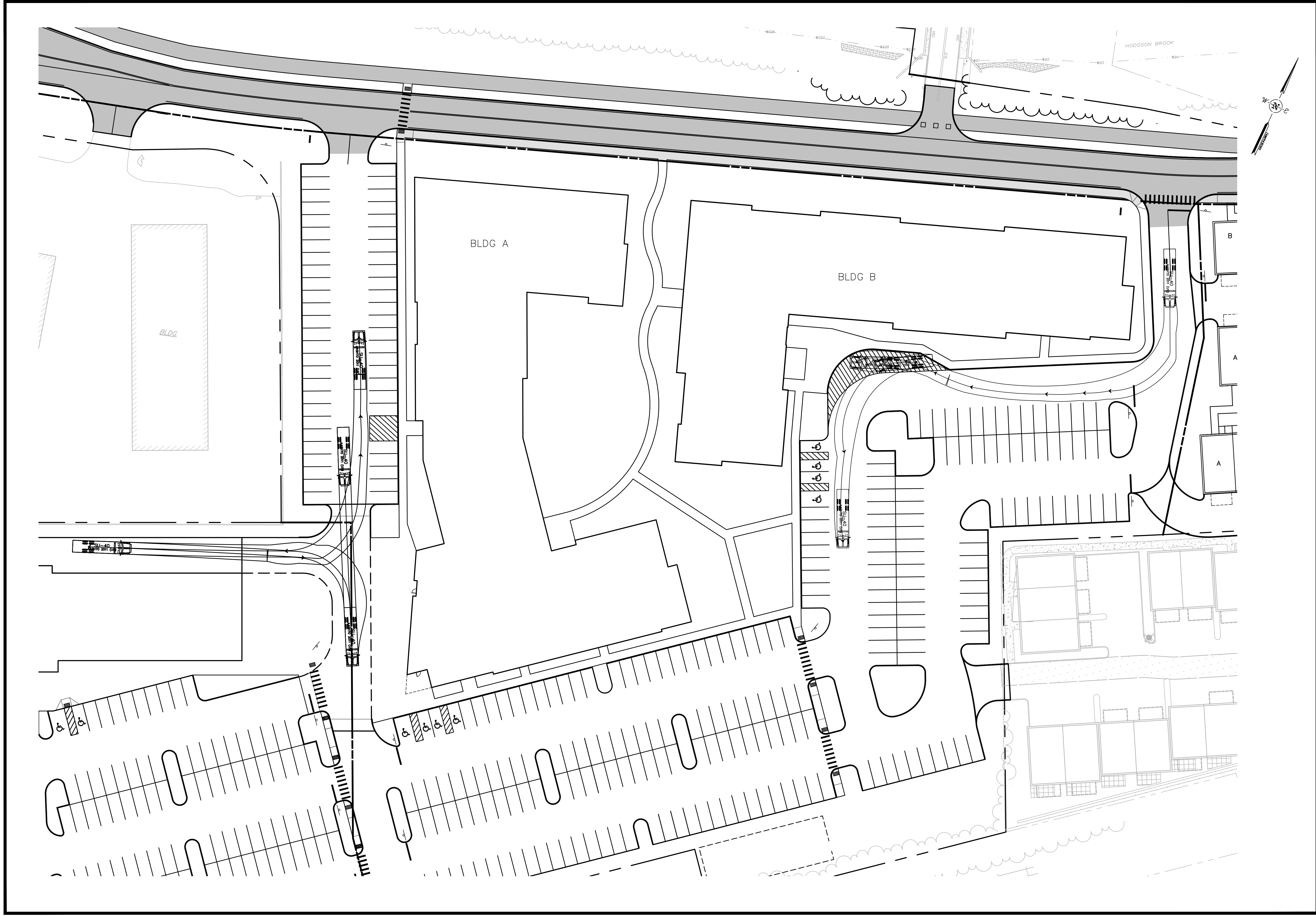


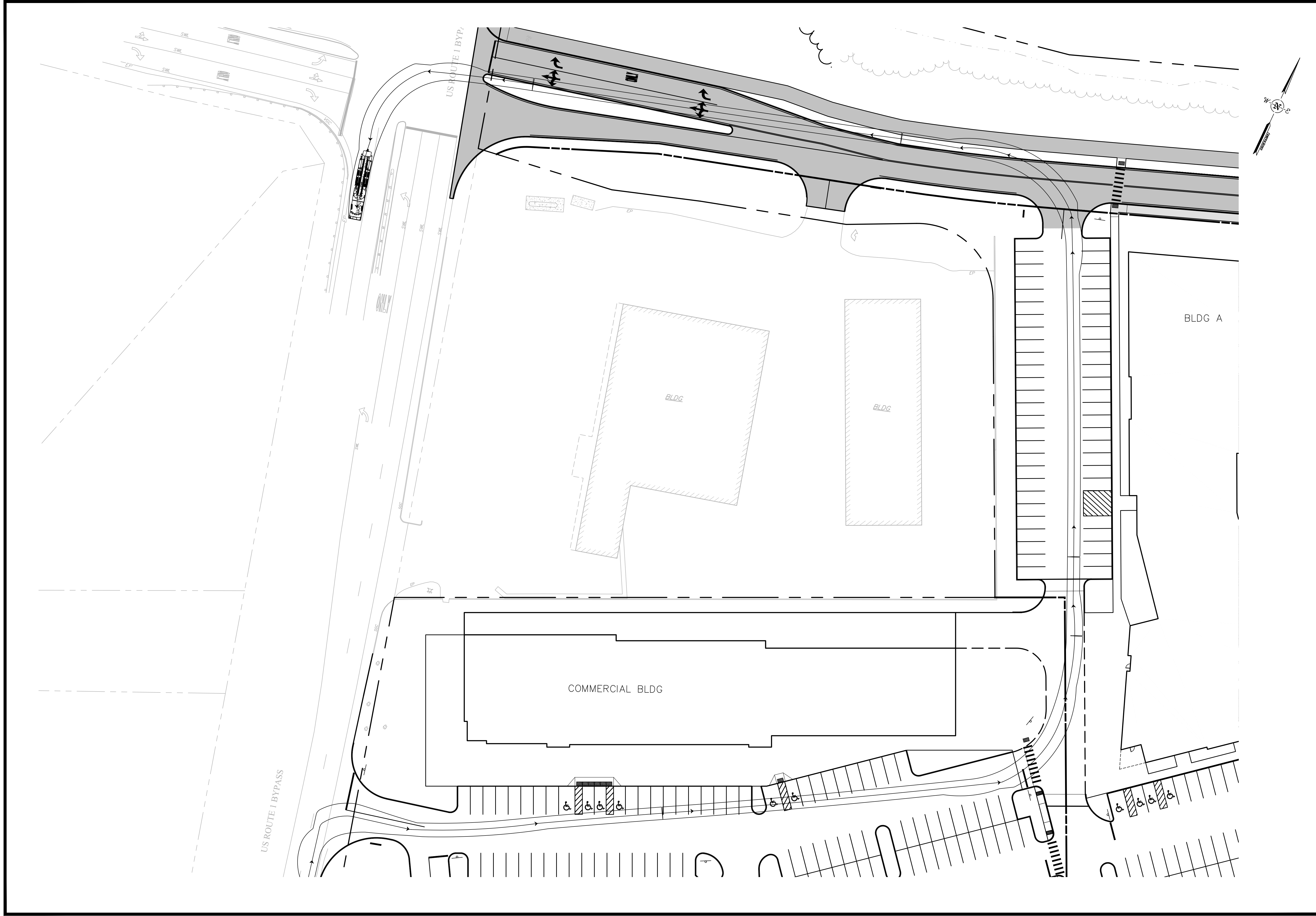
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DATUM:	HORIZ.: NTS	VERT.: NTS
GRAPHIC SCALE		

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

PROJ. No.: 20180317.A10  
 DATE: 05/20/2019  
**CD-562**





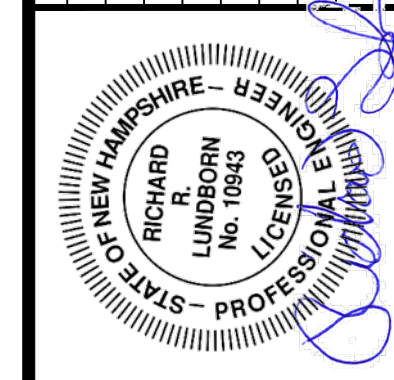
**CT-103**

CATE STREET DEVELOPMENT, LLC  
 WB-50 TRUCK  
 TURNING MOVEMENTS  
 CATE STREET/WEST END YARDS  
 PORTSMOUTH NEW HAMPSHIRE

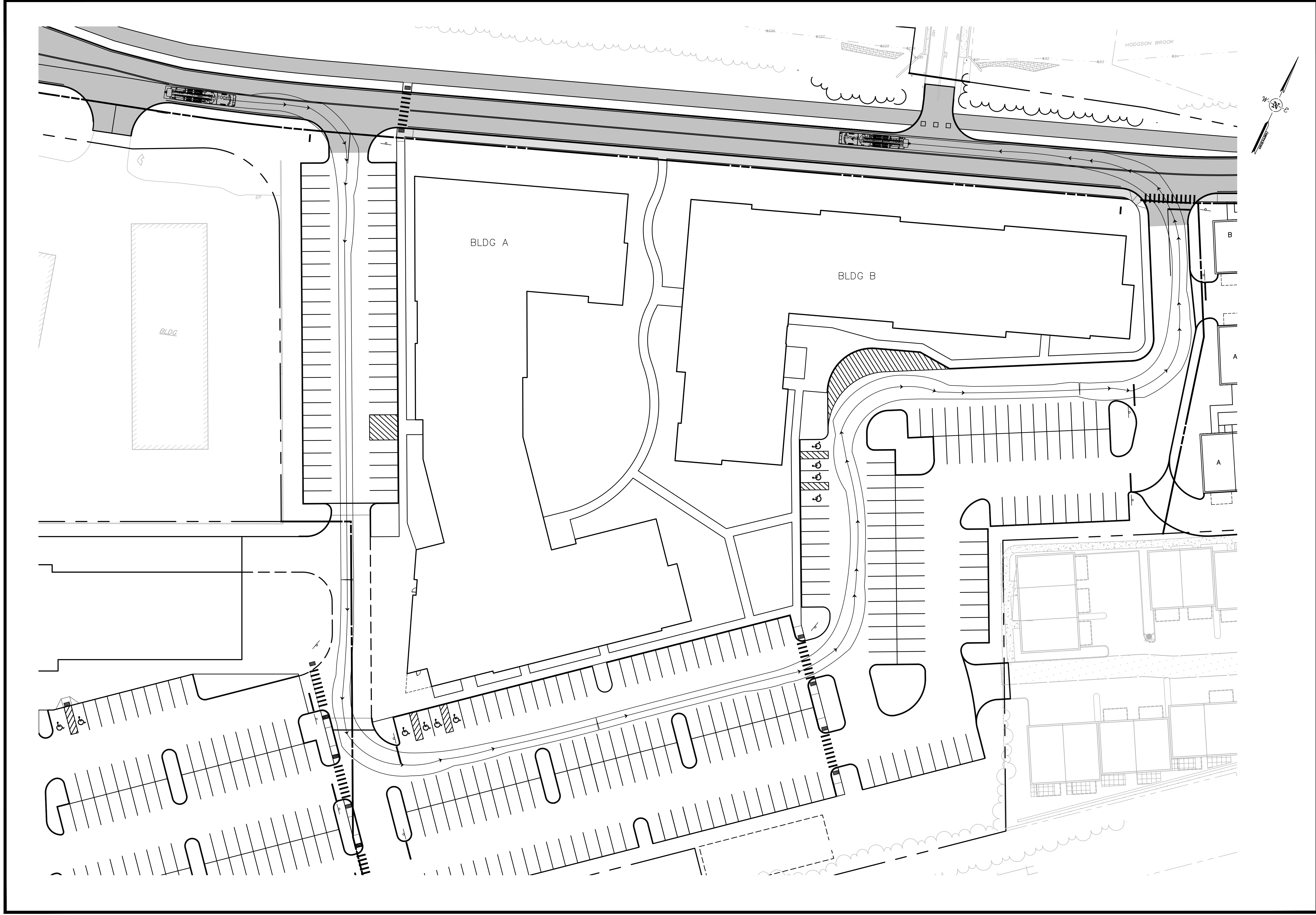
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**FUSS & O'NEILL**  
 UPPER SQUARE BUSINESS CENTER  
 5 FLETCHER STREET, SUITE 1  
 KENNEBUNK, MAINE 04043  
 207.563.0609  
 www.fandoo.com

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

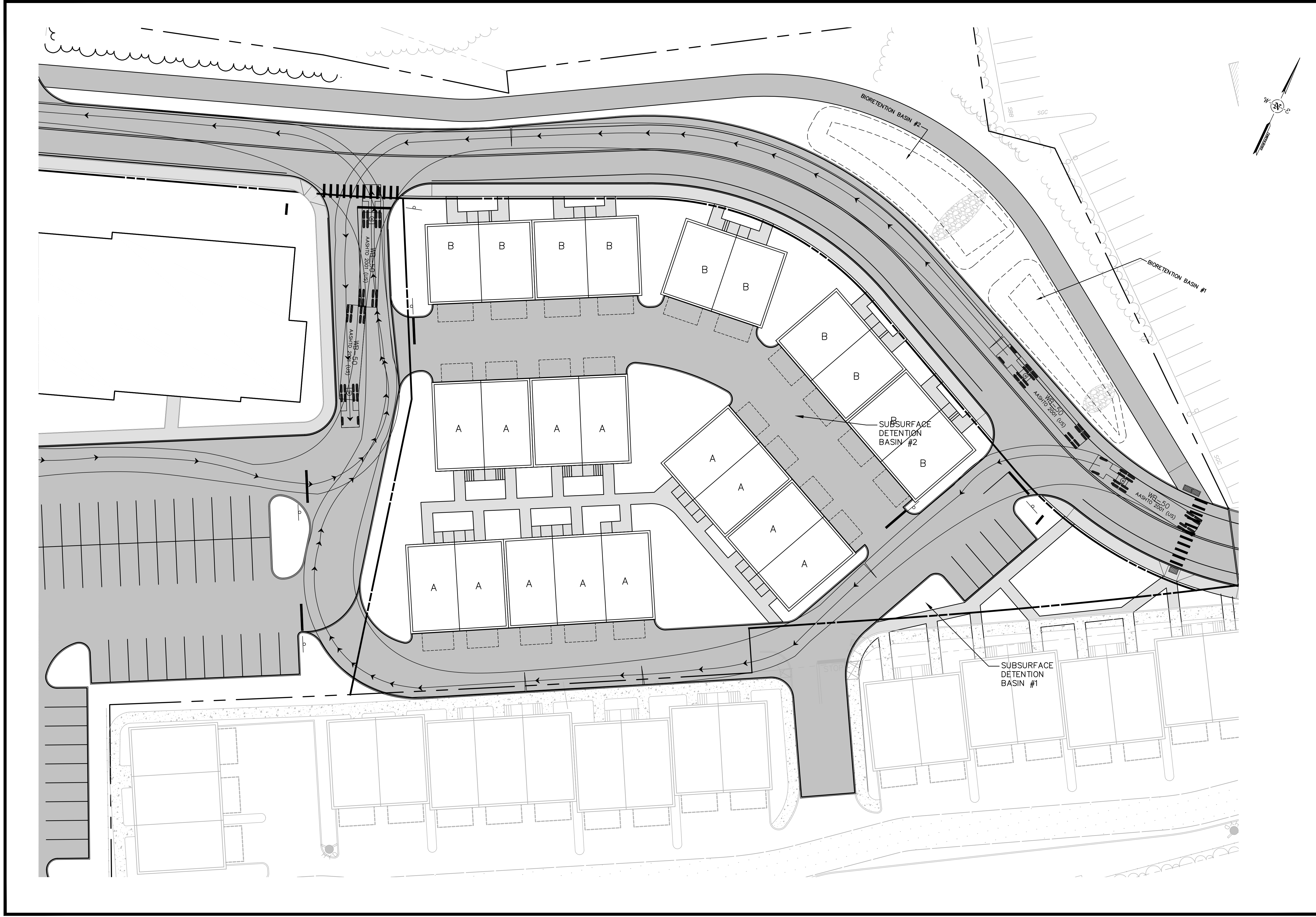
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NO.	DATE	DESCRIPTION	DESIGNER/REVIEWER
1.	3/18/2019	TAC SUBMITTAL	RRL
2.	5/20/2019	TAC SUBMITTAL	JVA/DAO





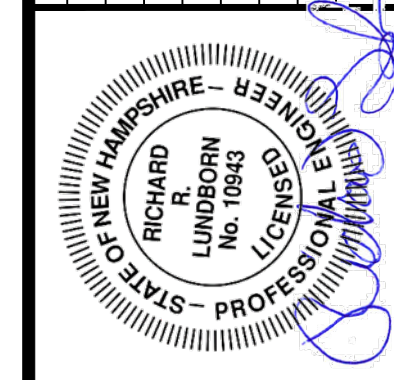


**CT-105**

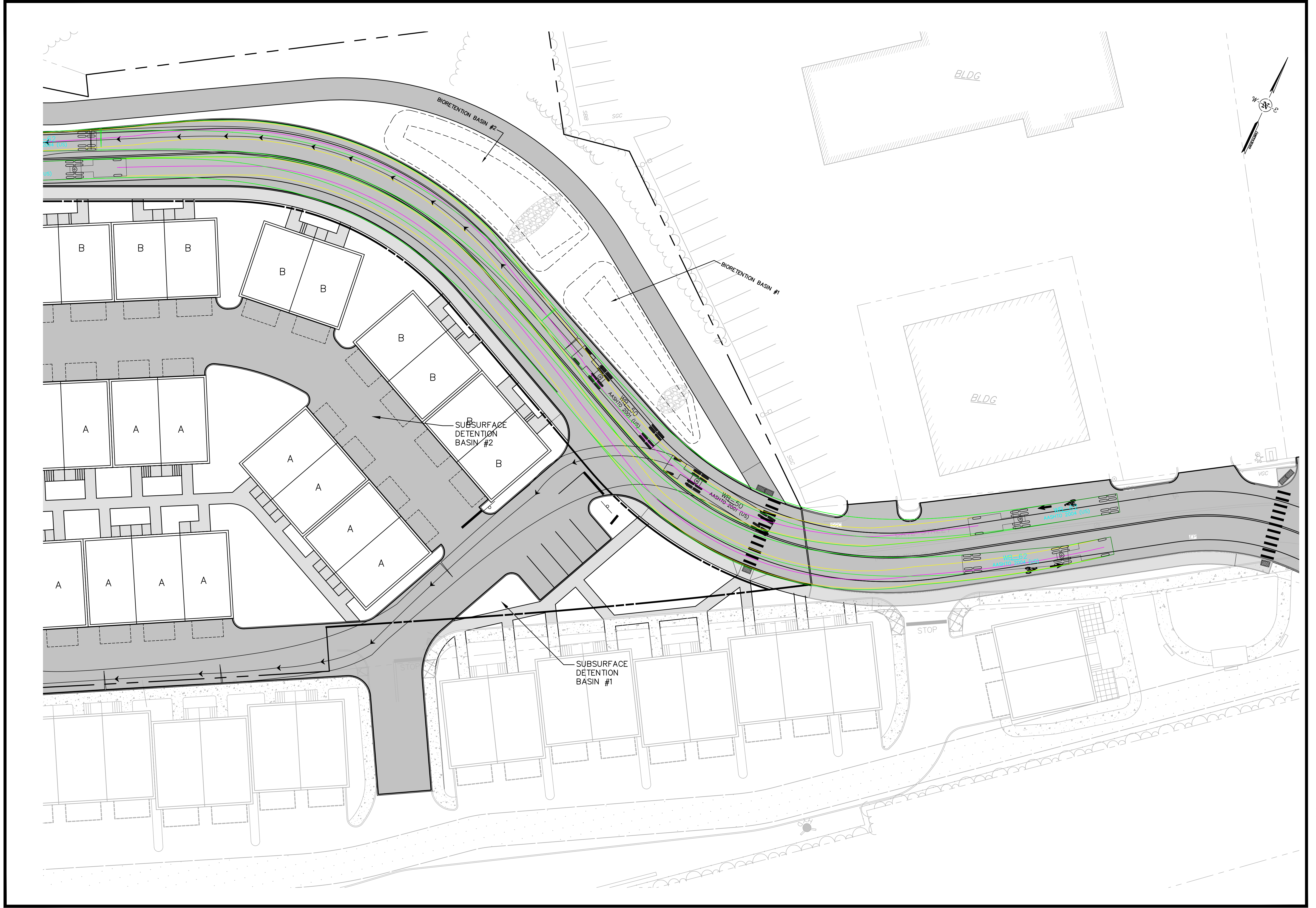
CATE STREET DEVELOPMENT, LLC  
 WB-50 TRUCK  
 TURNING MOVEMENTS  
 CATE STREET/WEST END YARDS  
 PORTSMOUTH NEW HAMPSHIRE

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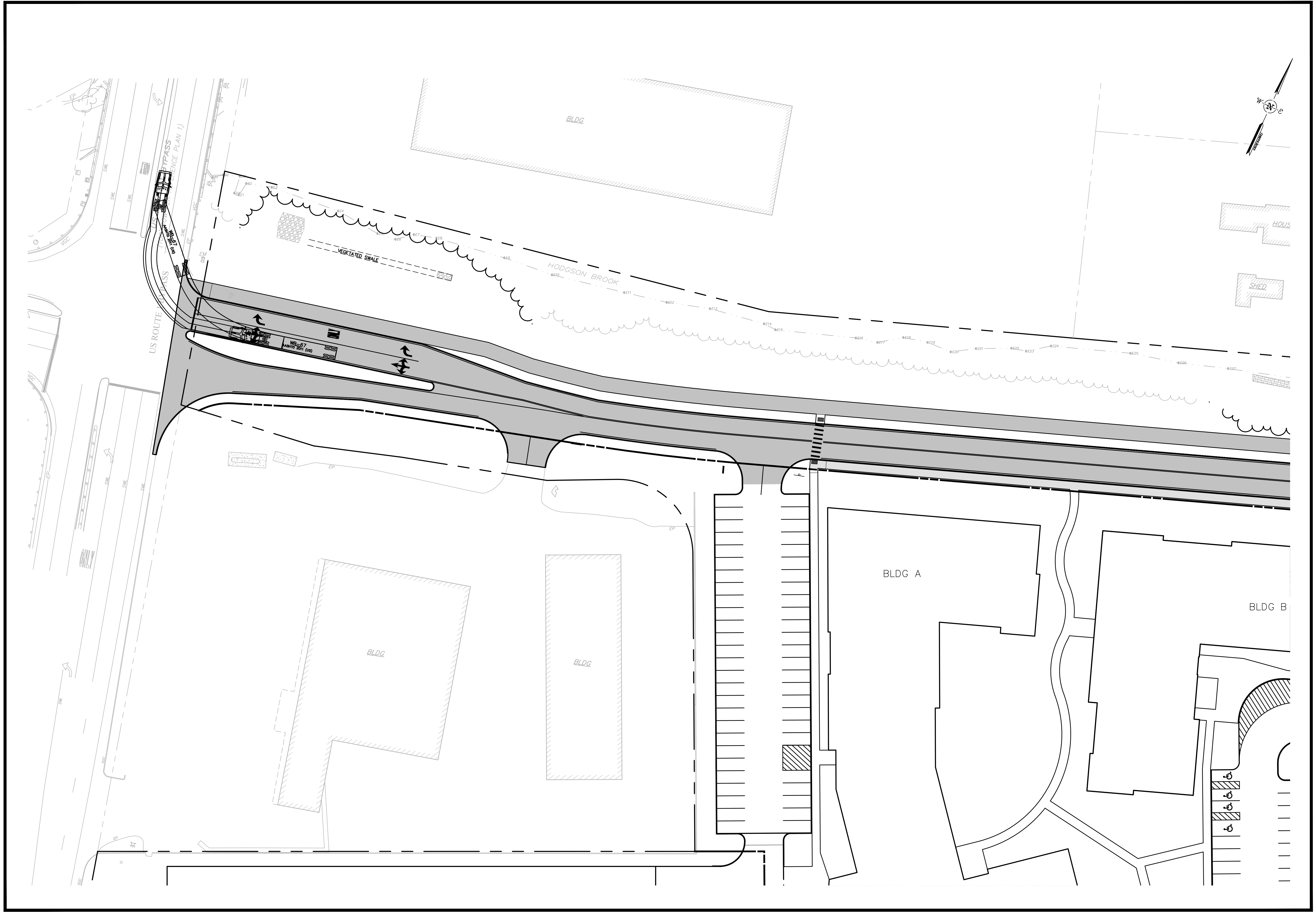
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 VERT.: NGVD29  
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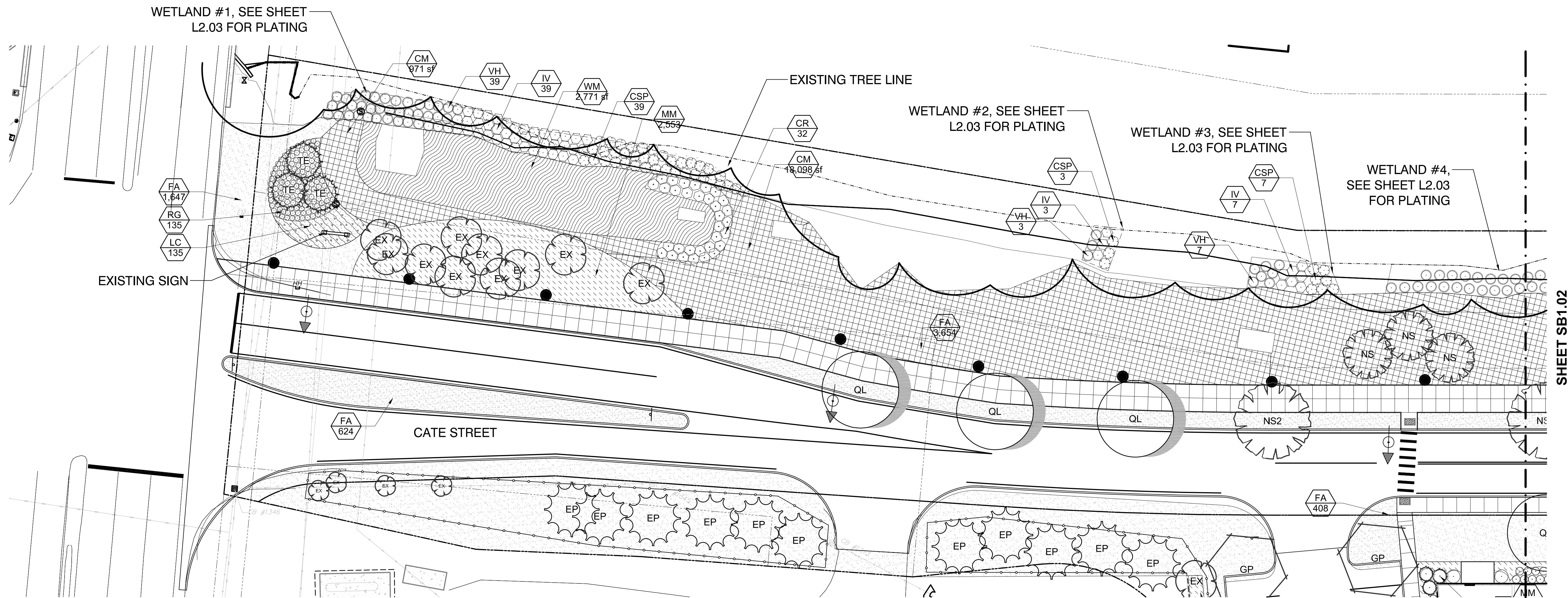
NO.	DATE	DESCRIPTION	DESIGNER	REVIEWER
1.	3/18/2019	TAC SUBMITTAL	JVA/DAD	RRL
2.	5/20/2019	TAC SUBMITTAL	JVA/DAD	RRL



<p>SCALE: HORZ.: 1"=20'          VERT.: 1"=20'</p>		<p>GRAPHIC SCALE</p>
<p>DATUM: HORZ.: NAD83          VERT.: NGVD29</p>		
<p><b>FUSS &amp; O'NEILL</b>          UPPER SQUARE BUSINESS CENTER          5 FLETCHER STREET, SUITE 1          KENNEBUNK, MAINE 04043          www.fandoo.com</p>		
<p>CATE STREET DEVELOPMENT, LLC  <b>WB-62 TRUCK</b>  <b>TURNING MOVEMENTS</b>          CATE STREET/WEST END YARDS          PORTSMOUTH NEW HAMPSHIRE</p>		
<p>PROJ. No.: 20180317.A10          DATE: 05/20/2019</p>		
<p><b>CT-106</b></p>		
<p>DESIGNER: DDUGAL          DATE: 5/20/2019          TAC SUBMITTAL</p>		<p>DESIGNER REVIEWER: [Signature]</p>
<p>REGISTERED PROFESSIONAL ENGINEER          RICHARD R. LUNDBORN          No. 10843          STATE OF NEW HAMPSHIRE</p>		<p>DESCRIPTION: [Blank]</p>



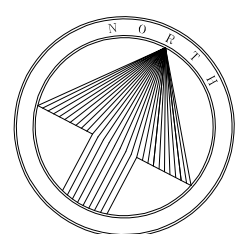
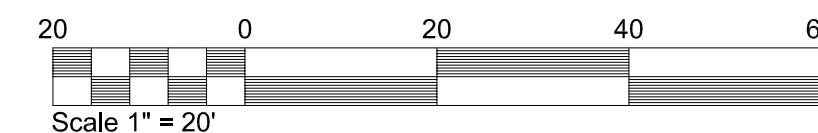
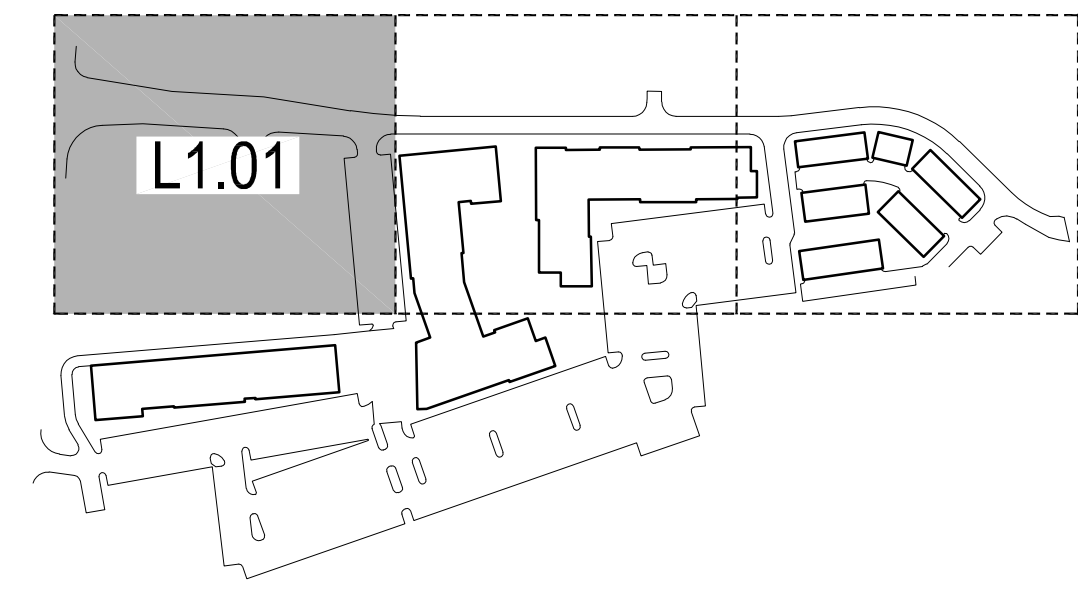
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<p>STATE OF NEW HAMPSHIRE          PROFESSIONAL ENGINEER          RICHARD R. LUNDBORN          No. 10843</p>				



SHEET SB1.02

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

PLANT SCHEDULE CATE STREET						
TREES	QTY	BOTANICAL NAME / 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.			
EX	10	Existing Tree / Existing Tree	-			
NS	6	Nyssa sylvatica / Sour Gum	1.5" cal.	B & B		
NS2	9	Nyssa sylvatica / Sour Gum	3" cal.	B & B		
QL	12	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 NAME / COMMON NAME	CONTAINER	MIN. SIZE	SPACING	REMARKS
CA	46	Clethra alnifolia / Summersweet Clethra	1 gal		36" o.c.	
CR	73	Cornus sericea / Red Twig Dogwood	1 gal		48" o.c.	
CS	101	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	78	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	95	Ilex verticillata / Winterberry	1 gal		42" o.c.	
MP	81	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 NAME / COMMON NAME	CONTAINER	MIN. SIZE	SPACING	REMARKS
CM	31,424 sf	Conservation Seed Mix / Conservation Seed	SF			Hydroseed
FA	10,962	Festuca arundinacea / Tall Fescue Seed Mix	SF			
LC	135	Liriope spicata / Creeping Lily Turf	1 gal.		18" o.c.	
MM	2,553	Mulch / Hardwood Mulch	SF		12" o.c.	
WM	4,631 sf	Wetland Seed Mix / Wetland Seed	SF			Hydroseed



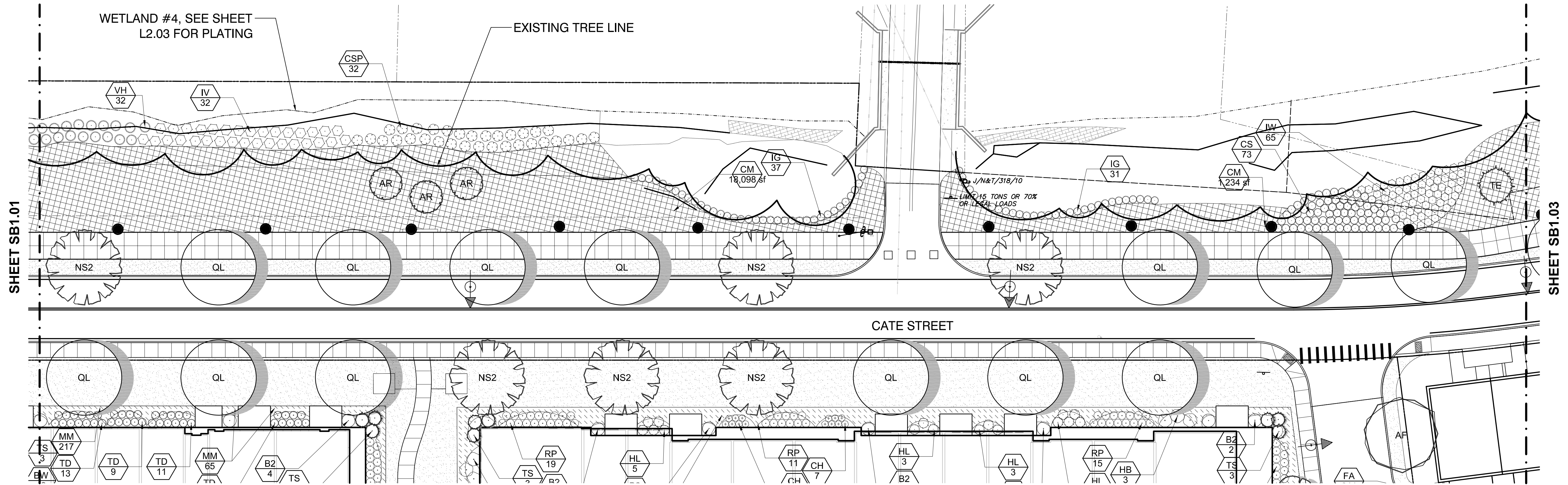
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MARK	DATE	BY	RELEASE
A	03/18/2019	SS	TAC SUBMITTAL
B	05/20/2019	SS	TAC RE-SUBMITTAL

SHEET TITLE:  
**LANDSCAPE PLAN**

PROJECT NUMBER:  
**18041.00**

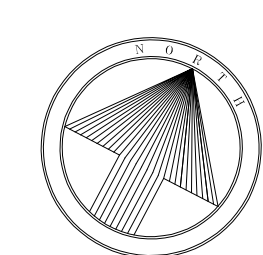
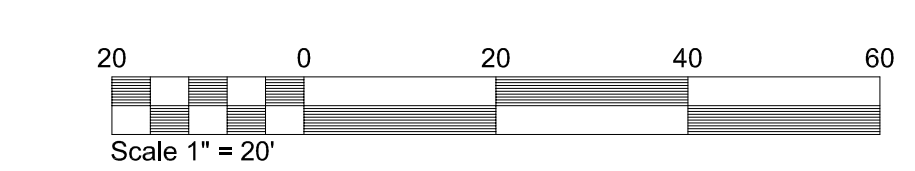
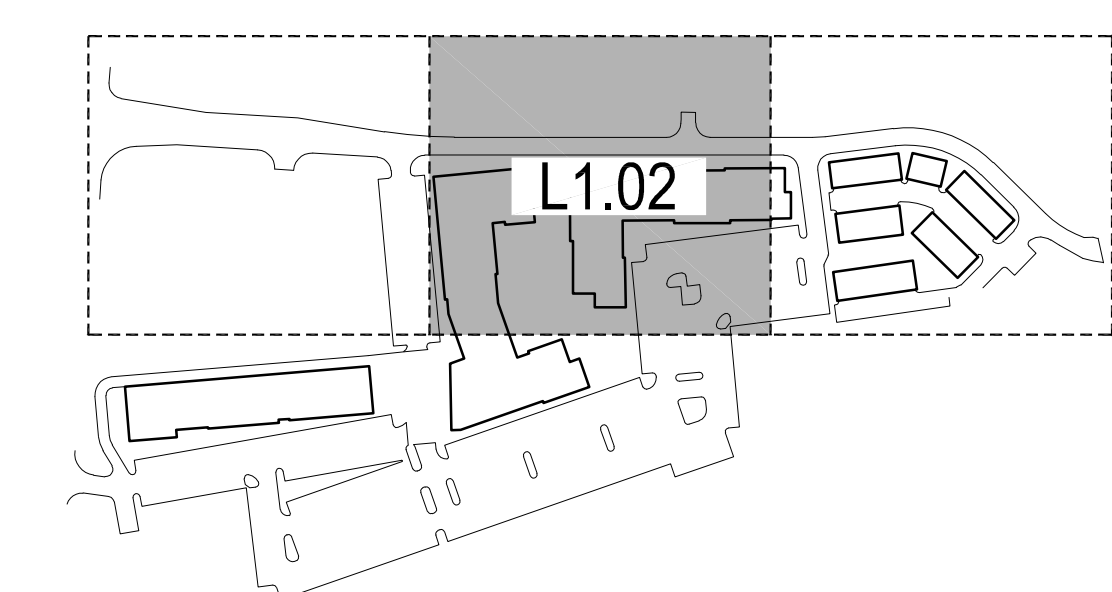
**L1.01**

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 NAME / 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.			
EX	10	Existing Tree / Existing Tree	-			
NS	6	Nyssa sylvatica / Sour Gum	1.5" cal.	B & B		
NS2	9	Nyssa sylvatica / Sour Gum	3" cal.	B & B		
QL	12	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 NAME / COMMON NAME	CONTAINER	MIN. SIZE	SPACING	REMARKS
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CS	101	Clethra alnifolia 'Ruby Spice' / Ruby Spice Clethra	3 gal		3' o.c.	
CSP	81	Clethra alnifolia / Sweet Pepper Clethra	3 gal		4' o.c.	
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GROUND COVERS	QTY	BOTANICAL NAME / COMMON NAME	CONTAINER	MIN. SIZE	SPACING	REMARKS
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LC	135	Liriope spicata / Creeping Lily Turf	1 gal.		18" o.c.	
MM	2,553	Mulch / Hardwood Mulch	SF		12" o.c.	
WM	4,631 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

SHEET TITLE:  
**STREAM BUFFER 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

SHEET TITLE:

**STREAM  
BUFFER  
PLAN**

PROJECT NUMBER:

18041.00

**L1.03**

DATE: 03.18.2019

PERMIT ISSUE



SHEET SB1.02

**PLANT SCHEDULE CATE STREET**

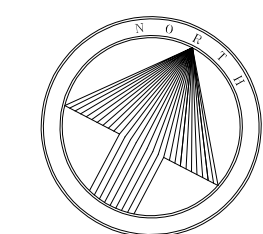
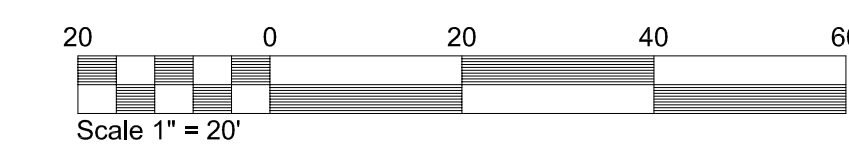
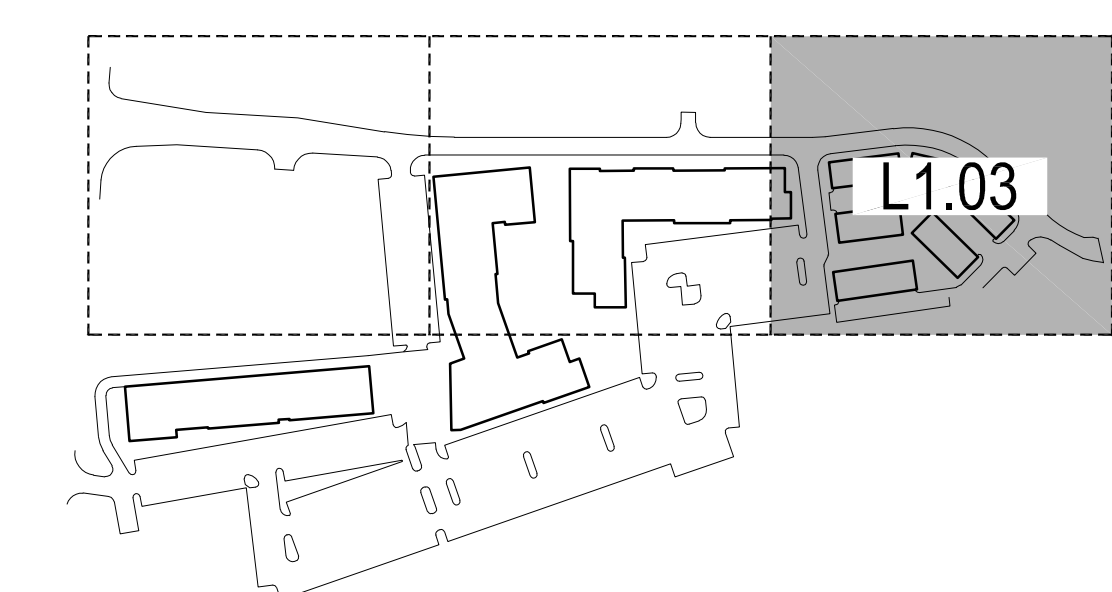
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NS	6	Nyssa sylvatica / Sour Gum	1.5" cal.	B & B		
NS2	9	Nyssa sylvatica / Sour Gum	3" cal.	B & B		
QL	12	Quercus robur x bicolor 'Long' / Regal Prince Oak	3" cal.	B & B		
TE	5	Thuja occidentalis 'Emerald' / Emerald Arborvitae	6' min.	B & B	6' hgt.	

SHRUBS	QTY	BOTANICAL NAME / COMMON NAME	CONTAINER	MIN. SIZE	SPACING	REMARKS
CA	46	Clethra alnifolia / Summersweet Clethra	1 gal		36" o.c.	
CR	73	Cornus sericea / Red Twig Dogwood	1 gal		48" o.c.	
CS	101	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	78	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	95	Ilex verticillata / Winterberry	1 gal		42" o.c.	
MP	81	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 NAME / COMMON NAME	CONTAINER	MIN. SIZE	SPACING	REMARKS
CM	31,424 sf	Conservation Seed Mix / Conservation Seed	SF			Hydroseed
FA	10,962	Festuca arundinacea / Tall Fescue Seed Mix	SF			
LC	135	Liriope spicata / Creeping Lily Turf	1 gal.		18" o.c.	
MM	2,553	Mulch / Hardwood Mulch	SF		12" o.c.	
WM	4,631 sf	Wetland Seed Mix / Wetland Seed	SF			Hydroseed



**LANDSCAPE & SCREENING NOTES:**

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

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

C) "THE PROPERTY OWNER SHALL BE RESPONSIBLE TO REMOVE AND REPLACE DEAD OR DISEASED PLANT MATERIALS IMMEDIATELY WITH THE SAME TYPE, SIZE AND QUANTITY OF PLANT MATERIALS AS ORIGINALLY INSTALLED, UNLESS ALTERNATIVE PLANTINGS ARE REQUESTED, JUSTIFIED AND APPROVED BY THE PLANNING BOARD OR PLANNING DIRECTOR."

**CITY OF PORTSMOUTH PLANTING SPECIFICATIONS:**

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

**SITE PLAN NOTE:**

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

**LANDSCAPE NOTES:**

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

CATE STREET AND STREAM BUFFER DETAILED PLANT SCHEDULE						
Quantity	Botanical Name / Common Name	Plant Size at Installation	Plant Size at maturity	Growth Habit	Salt Tolerance (soil)	Notes
<b>Trees</b>						
12	Acer rubrum / Red Maple	8 - 10' HT.	45' ht.	Broadly Pyramidal	Low	Native
3	Betula nigra / River Birch Multi-Trunk	2.5" cal.	40-70' ht.	Rounded to Pyramidal	Low	Tolerates Salt Spray
10	Existing Tree / Existing Tree	-				
6	Nyssa sylvatica / Sour Gum	1.5" cal.	40-70' ht.	Pyramidal	Medium	
9	Nyssa sylvatica / Sour Gum	3" cal.	40-70' ht.	Pyramidal	Medium	
12	Quercus robur x bicolor `Long` / Regal Prince Oak	3" cal.	60' ht.	Columnar	Medium	
5	Thuja occidentalis `Emerald` / Emerald Arborvitae	6' min.	40' ht.	Conically Pyramidal	High	Native
<b>Shrubs</b>						
46	Clethra alnifolia / Summersweet Clethra	1 gal	6' ht.	Spreading / Open	High	Native, Tolerates salt spray
73	Cornus sericea / Red Twig Dogwood	1 gal	4-8' ht.	Rounded		Native, Tolerates salt spray
101	Clethra alnifolia `Ruby Spice` / Ruby Spice Clethra	3 gal	6' ht.	Spreading / Open	High	Native, Tolerates salt spray
81	Clethra alnifolia / Sweet Pepper Clethra	3 gal	6' ht.	Spreading / Open	High	Native, Tolerates salt spray
78	Hydrangea arborescens / Wild Hydrangea	3 gal	4-6' ht.	Spreading / Open		
68	Ilex glabra / Inkberry Holly	3 gal	4-8' ht.	Rounded		Native, Tolerates salt spray
81	Ilex verticillata / Winterberry	2 gal.	6-8' ht.	Spreading / Open		Native. Tolerates salt spray
95	Ilex verticillata / Winterberry	1 gal	6-8' ht.	Spreading / Open		Native. Tolerates salt spray
81	Myrica pensylvanica / Northern Bayberry	3 gal	6'-8' ht.	Rounded	High	Native, Tolerates salt spray
135	Rhus aromatica `Gro-Low` / Gro-Low Fragrant Sumac	3 gal.	2' ht.	Low Spreading	High	
135	Vaccinium corymbosum / Highbush Blueberry	2 gal.	4-8' ht.	Rounded		Native. Two varieties required to improve pollination.
<b>Ground Cover</b>						
31424	Conservation Seed Mix / Conservation Seed	SF				
10962	Festuca arundinacea / Tall Fescue Grass	SF				
135	Liriope spicata / Creeping Lily Turf	1 gal.	12" ht.	Spreading	Low	
2553	Mulch / Hardwood Mulch	SF				
4631	Wetland Seed Mix / Wetland Seed	SF				



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

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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

SHEET TITLE:  
**LANDSCAPE NOTES & PLANT SCHEDULES**

PROJECT NUMBER:  
 18041.00

**L1.06**

DATE: 03.18.2019  
 PERMIT ISSUE

**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 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 \$/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>	Panicleleaf 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>Helenium 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 \$/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 REMANING 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),

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

**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

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SHEET STATUS			
MARK	DATE	BY	RELEASE
A	03/06/2019	SS	TAC SUBMITTAL
B	05/20/2019	SS	TAC RE-SUBMITTAL

SHEET TITLE:  
**STREAM BUFFER DETAILS**

PROJECT NUMBER:  
 18041.00

**L2.01**

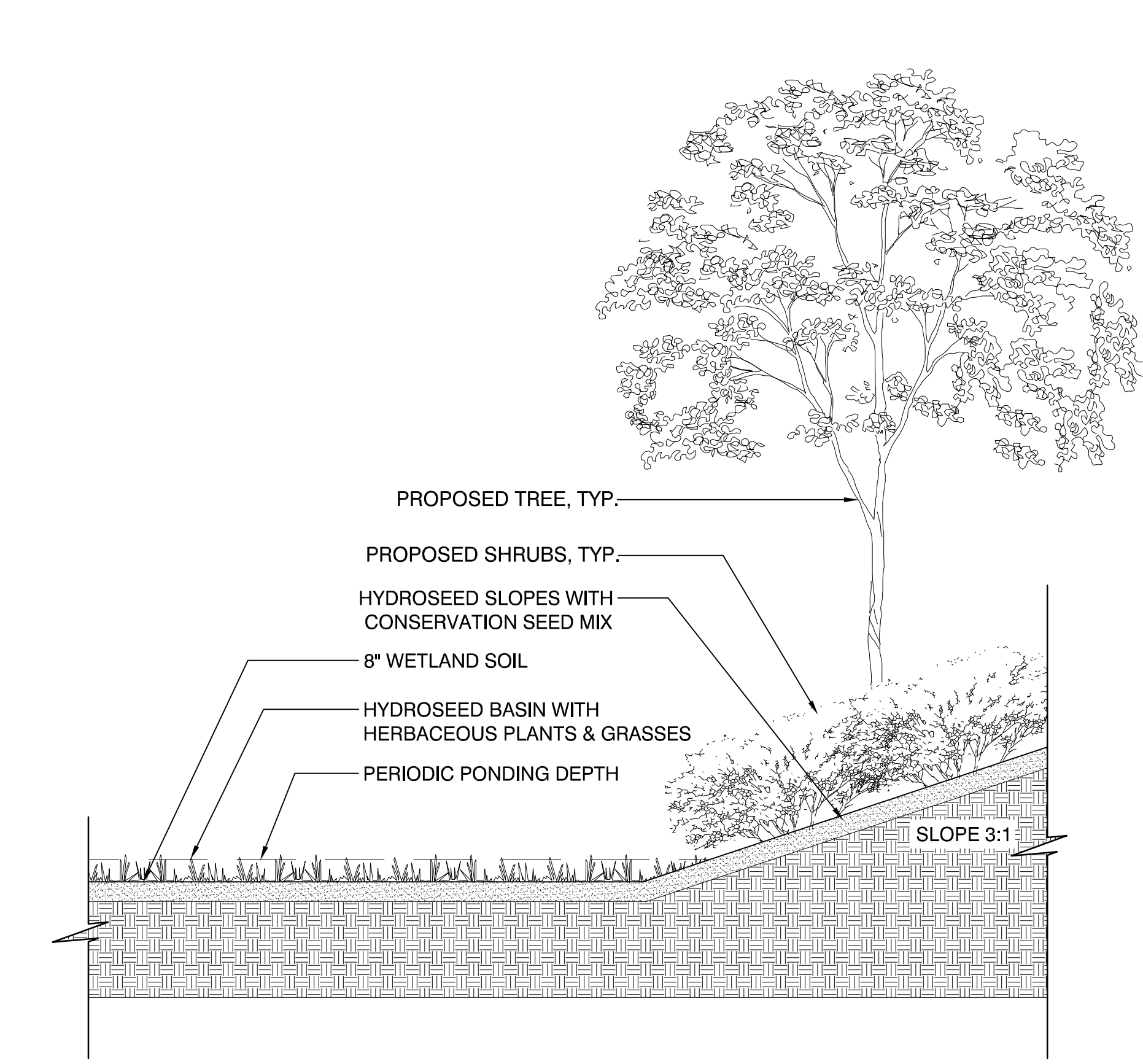
DATE: 03.18.2019  
 NOT FOR CONSTRUCTION

**1 SPEC: WETLAND SEED MIX**

N.T.S.

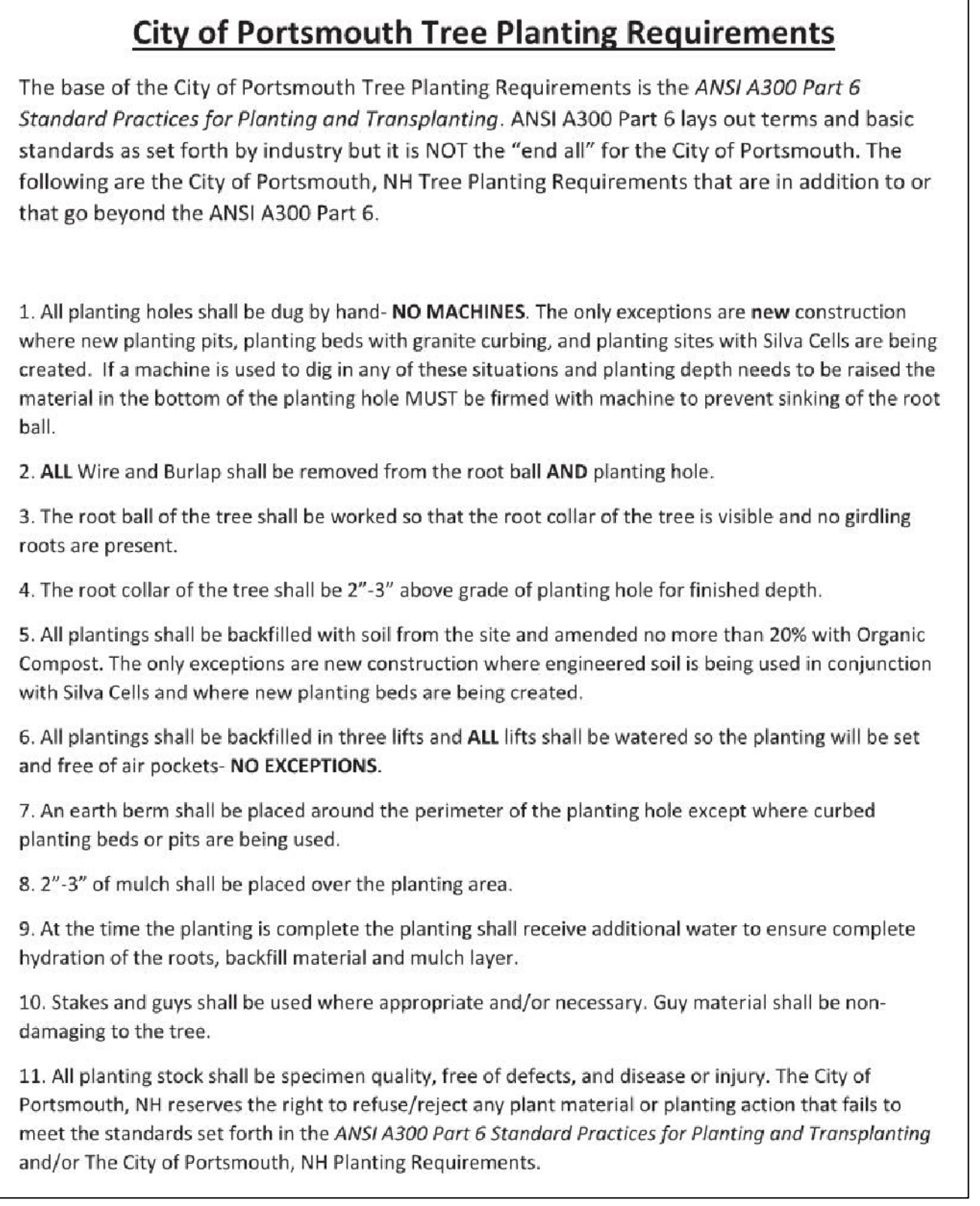
**2 SPEC: CONSERVATION SEED MIX**

N.T.S.



**3 DETAIL: WATER CONSERVATION POND**

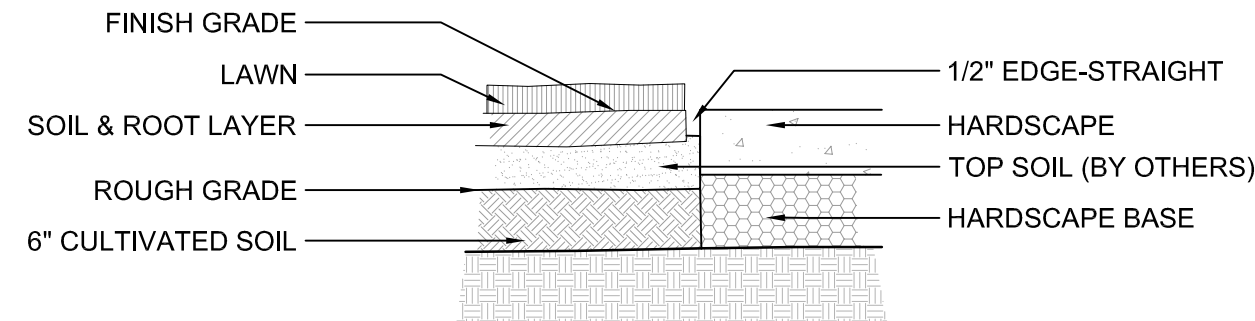
1/4" = 1'-0"



**4 DETAIL: CITY OF PORTSMOUTH TREE PLANTING REQUIREMENTS**

**5 DETAIL: RESTORATION SEQUENCE NOTES**



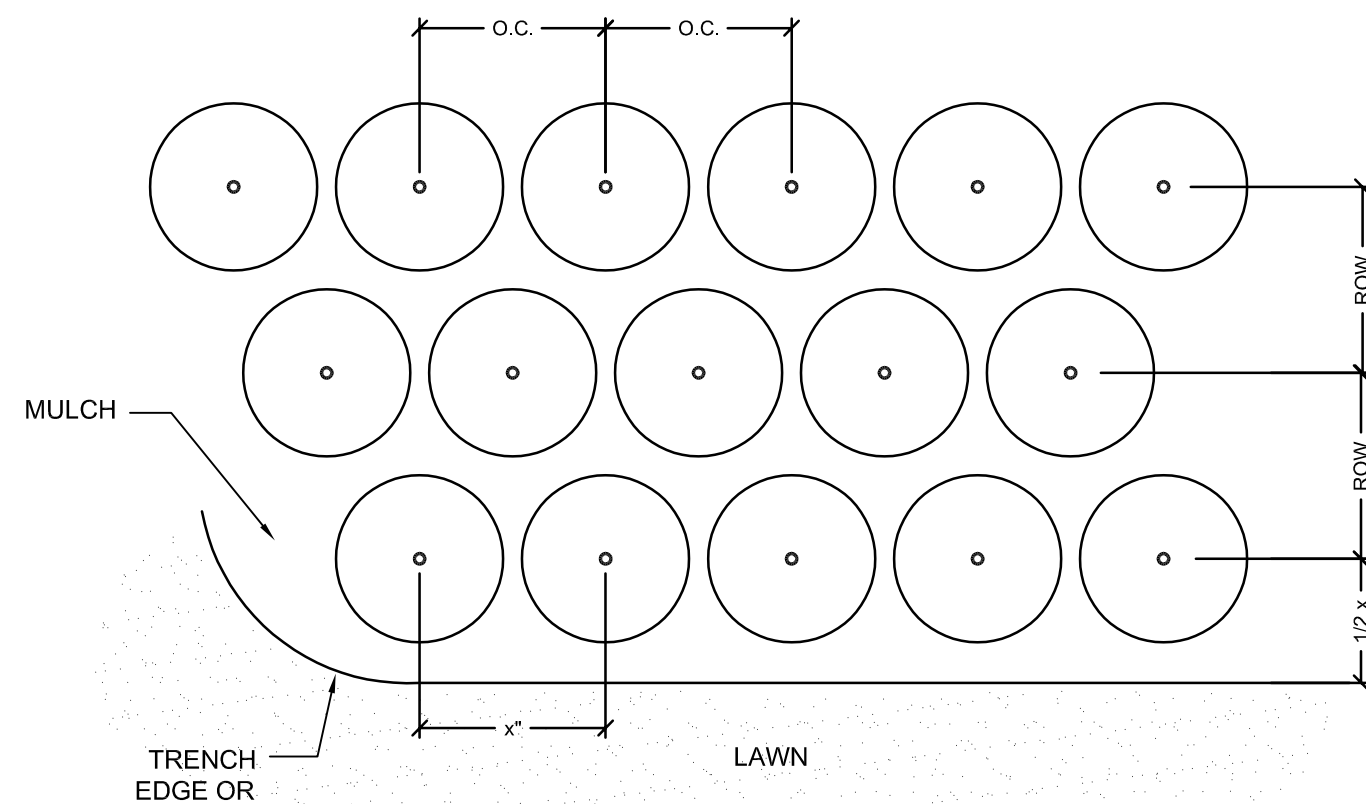


**INSTALLATION NOTES:**

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**

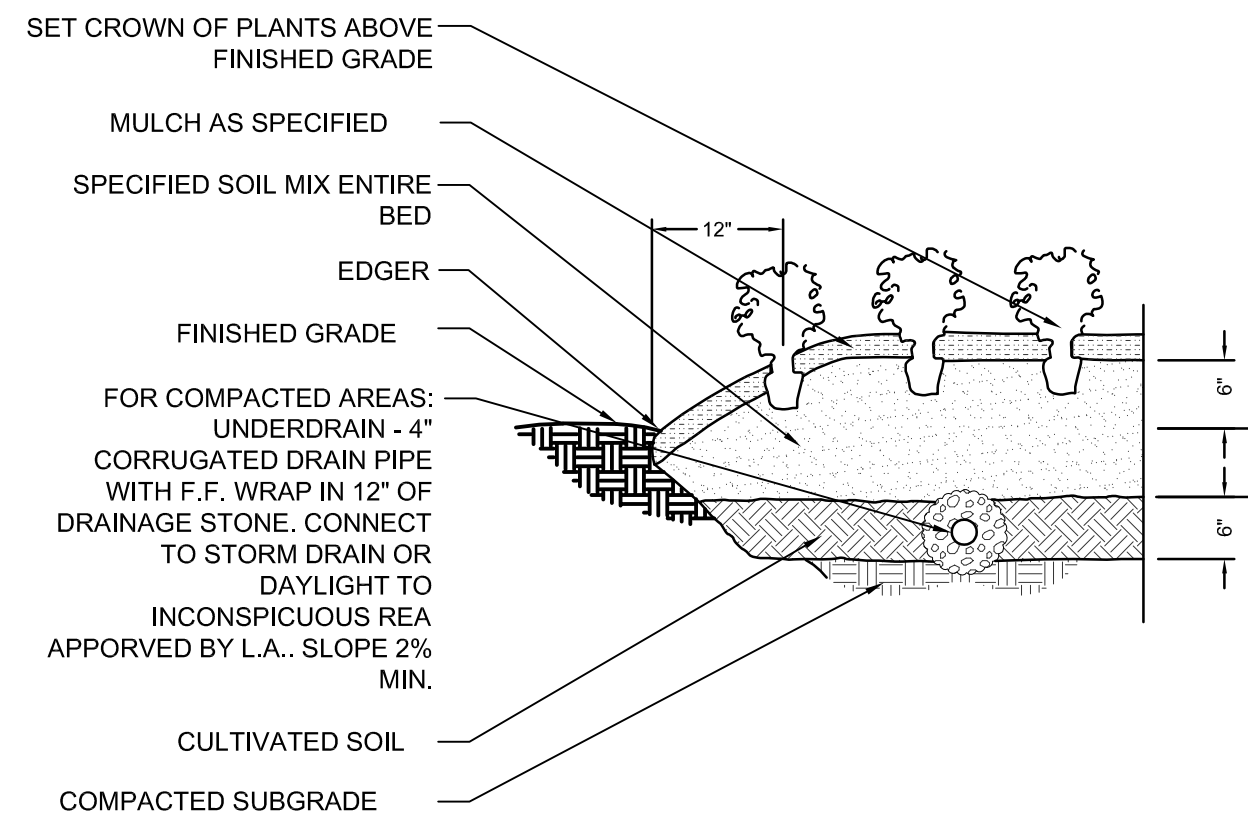
SCALE: N.T.S.



- 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: NTS

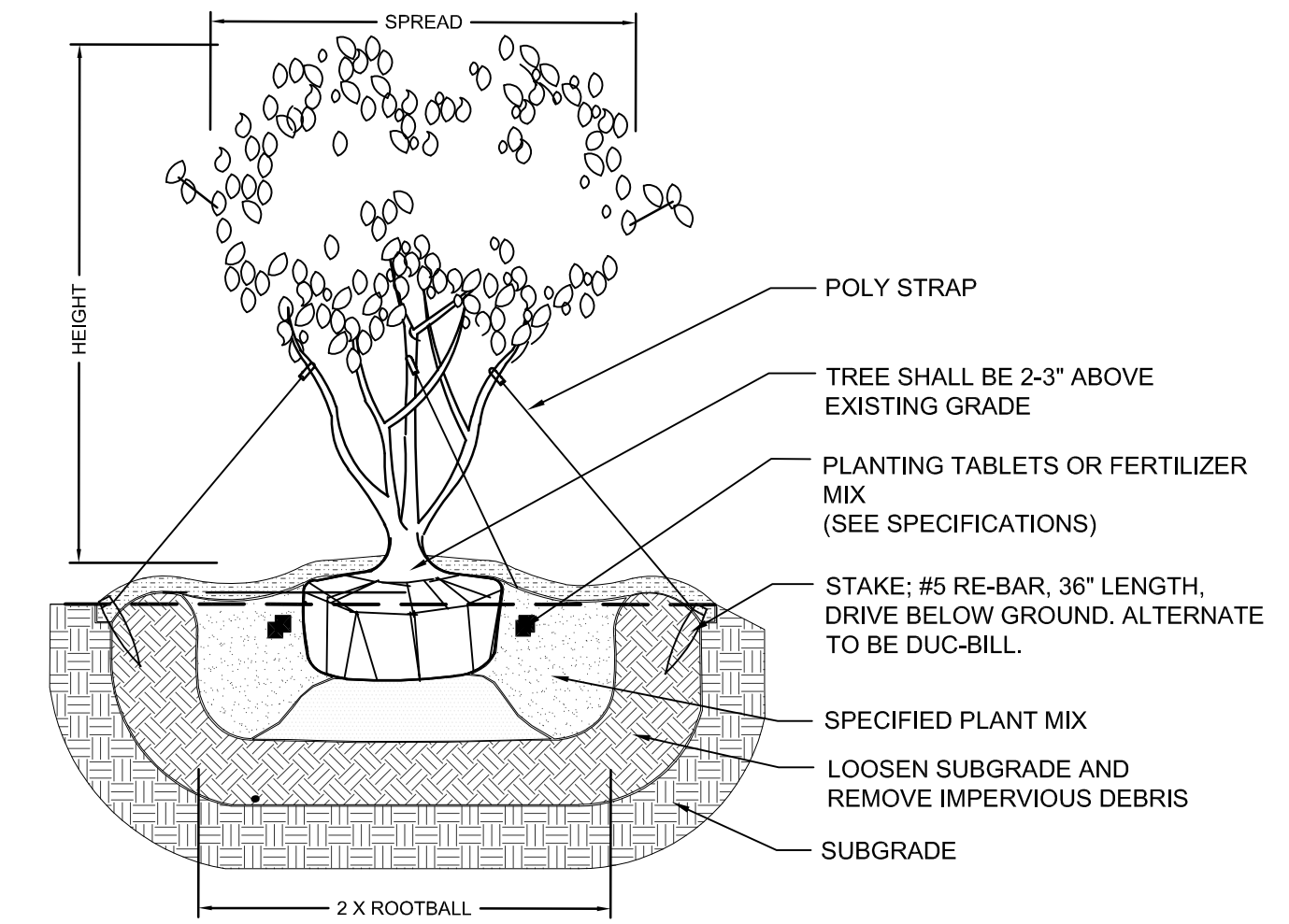


**NOTES:**

1. REFER TO SPECIFICATIONS FOR FERTILIZATION REQUIREMENTS.

**7 SECTION: SEASONAL COLOR & PERENNIAL BED PREP.**

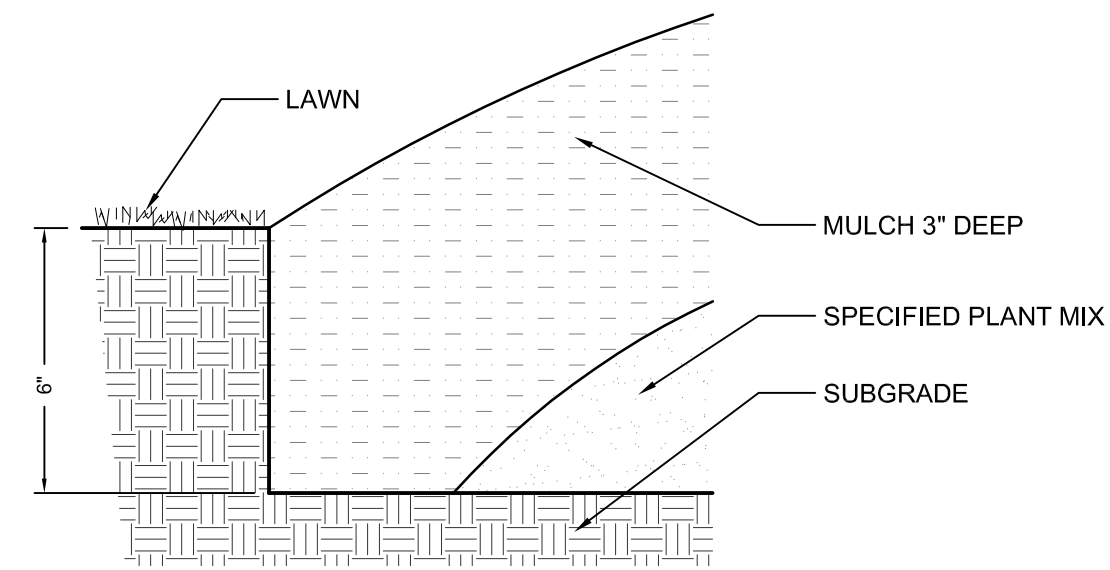
SCALE: NTS



**9 SECTION: TYP. MULTI TRUNK TREE PLANTING 6' & UP**

SCALE: NTS

1. Contractor to carefully examine the contract documents and existing conditions before submitting bid proposal or commencing work.
2. Damage to existing utilities or site improvements caused by the contractor are the full responsibility of contractor.
3. Contractor's base bid to include all materials, labor, permits, equipment, tools, insurance, ETC. to perform the work as described in the contract documents.
4. Contractor to complete work within schedule established by owner.
5. Contractor to provide one year warranty for all material from date of substantial completion.
6. Provide unit price for all materials (installed cost) listed on the plant schedule.
7. Contractor to provide interim maintenance (watering, pruning, fertilizing, guying, mowing, trimming, adequate drainage of ponding areas, edging, weeding, mulching, application of insecticides/herbicides, and general landscape clean-up) until substantial completion notice is provided by the owner or landscape architect.
8. Perform work in compliance with all applicable laws, codes, and regulations required by authorities having jurisdiction over such work and provide for permits required by local authorities.
9. Topsoil shall be natural, fertile, friable, sandy clay loam capable of sustaining plant growth, free of stones, stumps, ETC.
10. For all turf lawn areas spread 2-3" of topsoil into existing soil to a depth of 6" below finish grade. Hand rake finished grades to provide even contours.
11. All planted material shall be equivalent in quality to specimen grade or better, as noted by the American Association of Nurserymen, latest edition. All trees of lesser quality shall be rejected by the city arborist.
12. Plant material to be free of disease, insect pests, eggs, or larvae. Damaged plant material shall be rejected.
13. Mulch to be clean, fresh, new, double shredded bark, 3 inches deep.
14. Test plant beds and plant pits for adequate drainage. Work shall be made by the contractor at no additional cost to owner. Hardpan or moisture barriers shall be broken, or drain pipes to be installed to provide proper drainage of plant areas. Plant pits shall be excavated to the bottom of the pit. Fill each plant pit with water and observe the pit for 2 hours. If the water has not dissipated by 50% within 2 hours, notify the landscape architect of such in writing before installing plants in the questionable area(s), otherwise contractor shall be held liable for the livability of the plant. In hardpan conditions where water does not drain within 2 hours, install drain pipes as per tree planting in compacted soil area detail.
15. Trees shall be installed 2-3" above finish grade in hardpan areas unless otherwise directed to provide drainage.
16. Plant beds shall be neatly edged using a 3" wide by 6" wide deep trench. Provide 2/1 side slope behind trench edge.
17. Ground cover, shrub mass beds shall be cultivated to a depth of 12 inches below grade to break through compacted or hardpan soil. Remove all stones, roots, and inferior material. Add specified soil amendments and fertilizer. Elevate entire bed 6 inches above original grade. Rake to a consistent smooth surface. Install plants, edge bed area, mulch and water thoroughly.
18. Set all plants plumb and turned so that the most attractive side is viewed.
19. Plants shall be measured to their main structure, not tip to tip of branches.
20. Remove top one-third burlap of B & B wrapping. Remove all binding. If rootball is wrapped in non-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.

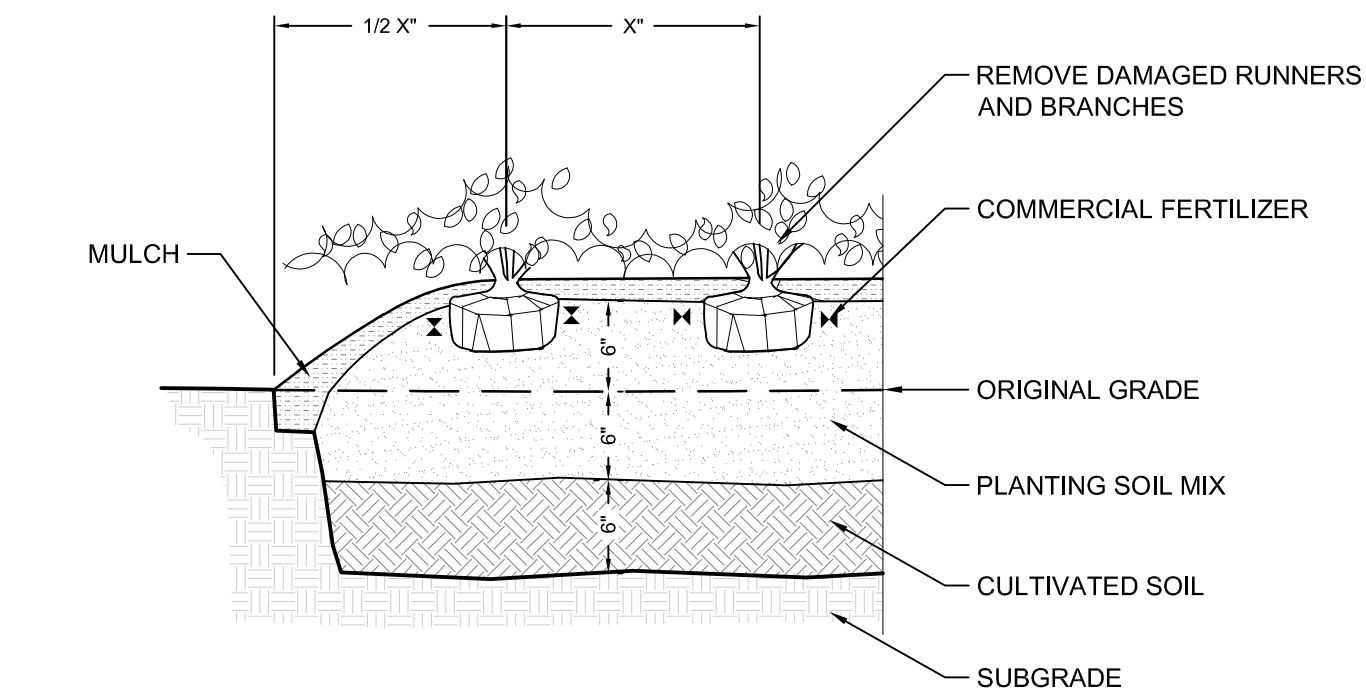


**NOTES:**

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

**2 SECTION: TRENCH EDGE**

SCALE: NTS

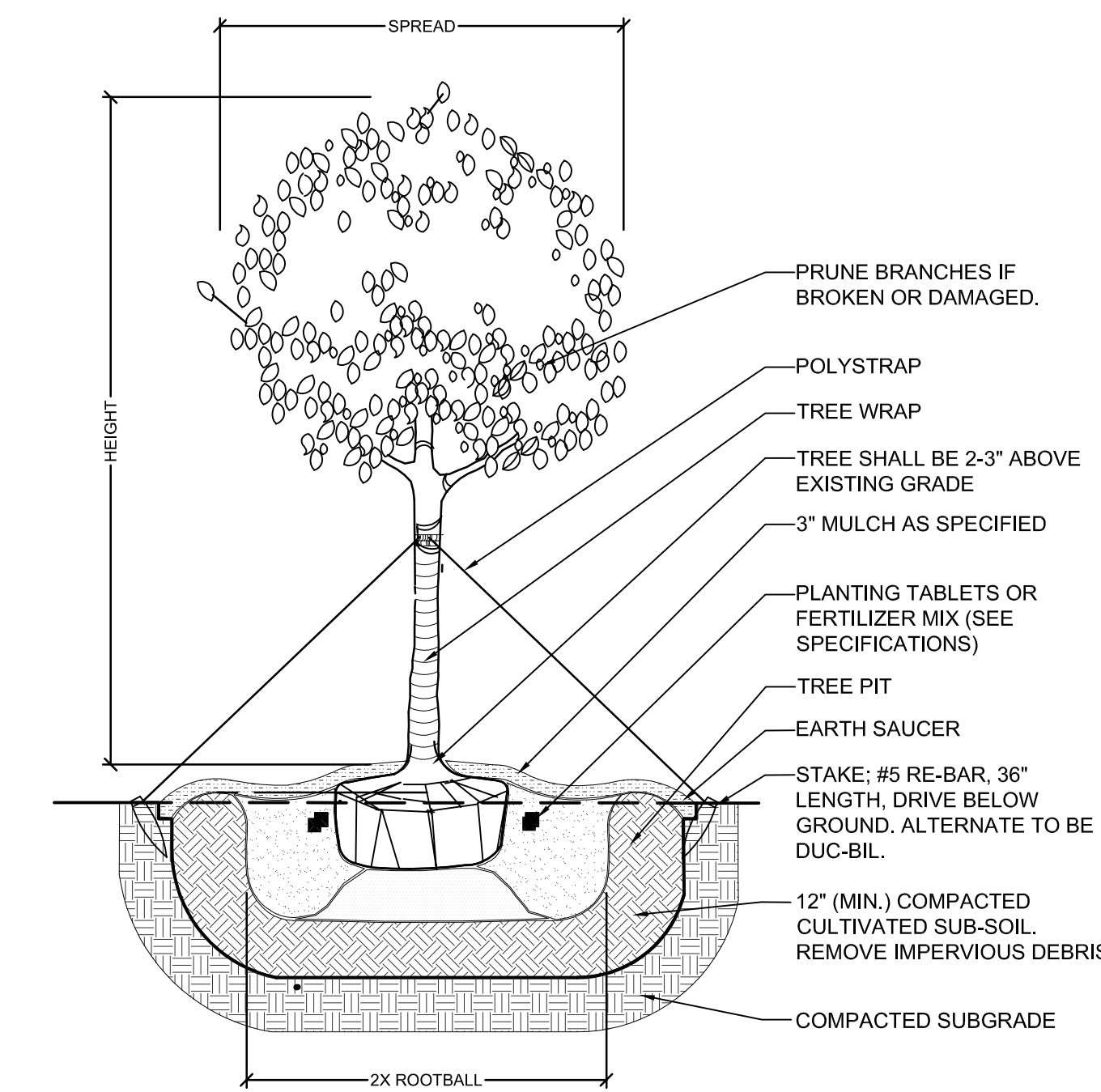


**NOTES:**

1. IF ROOTBALL IS WRAPPED IN NON-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.)

**5 SECTION: TYP. ERICACEOUS PLANT MATERIAL INSTALL.**

SCALE: NTS

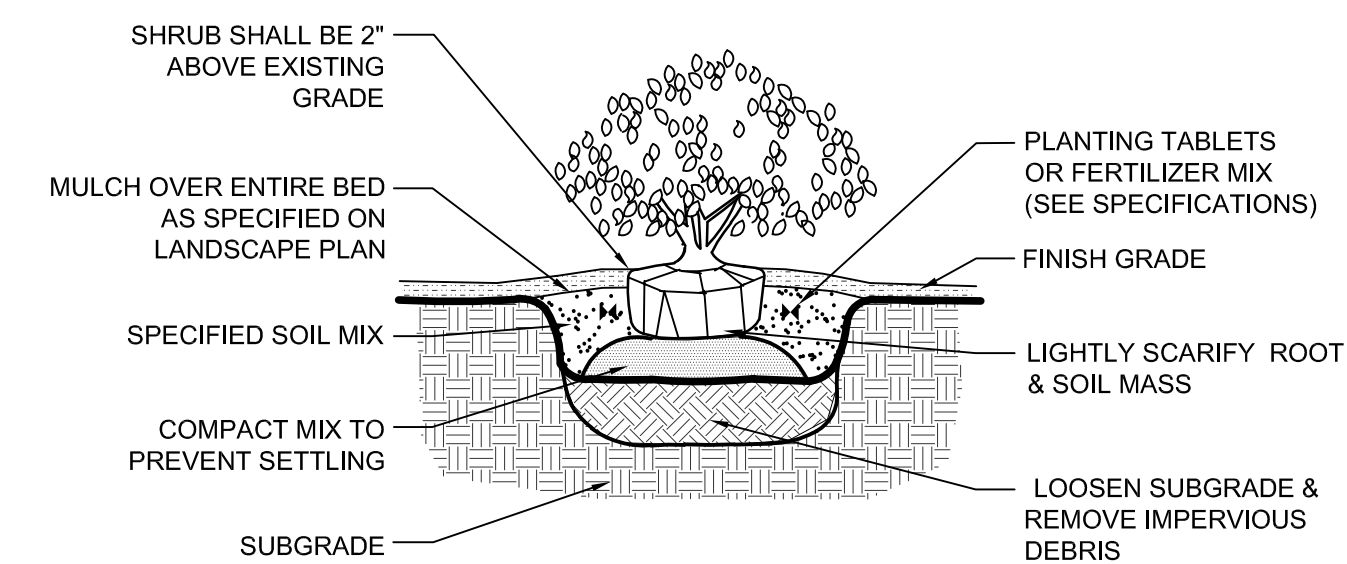


**TREE PLANTING NOTES & PROCEDURES**

1. EXCAVATE TREE PIT TO A DEPTH EQUAL TO DEPTH OF ROOTBALL PLUS 24", AND A WIDTH EQUAL TO TWO (2) TIMES THE DIAMETER OF THE ROOTBALL.
2. FILL TREE PIT WITH WATER AND CONFIRM PERCOLATION RATE. (NOTIFY LANDSCAPE ARCHITECT IF POOR DRAINAGE CONDITIONS EXIST.)
3. INSTALL TREE PER DETAIL AVOIDING DAMAGE TO ROOTBALL OR TREE TRUNK.
4. ADD SPECIFIED FERTILIZER TABLETS & MYCORRHIZAL TRANSPLANT INOCULANT.
5. REMOVE BURLAP ON TOP 1/3 OF TREE ROOTBALL. REMOVE BURLAP ON TOP 1/3 OF TREE ROOTBALL.
6. IMMEDIATELY SOAK TREE PIT WITH WATER AND REMOVE ANY AIR POCKETS THAT MAY HAVE OCCURRED DURING BACKFILLING.

**8 SECTION: TYPICAL TREE PLANTING**

SCALE: NTS

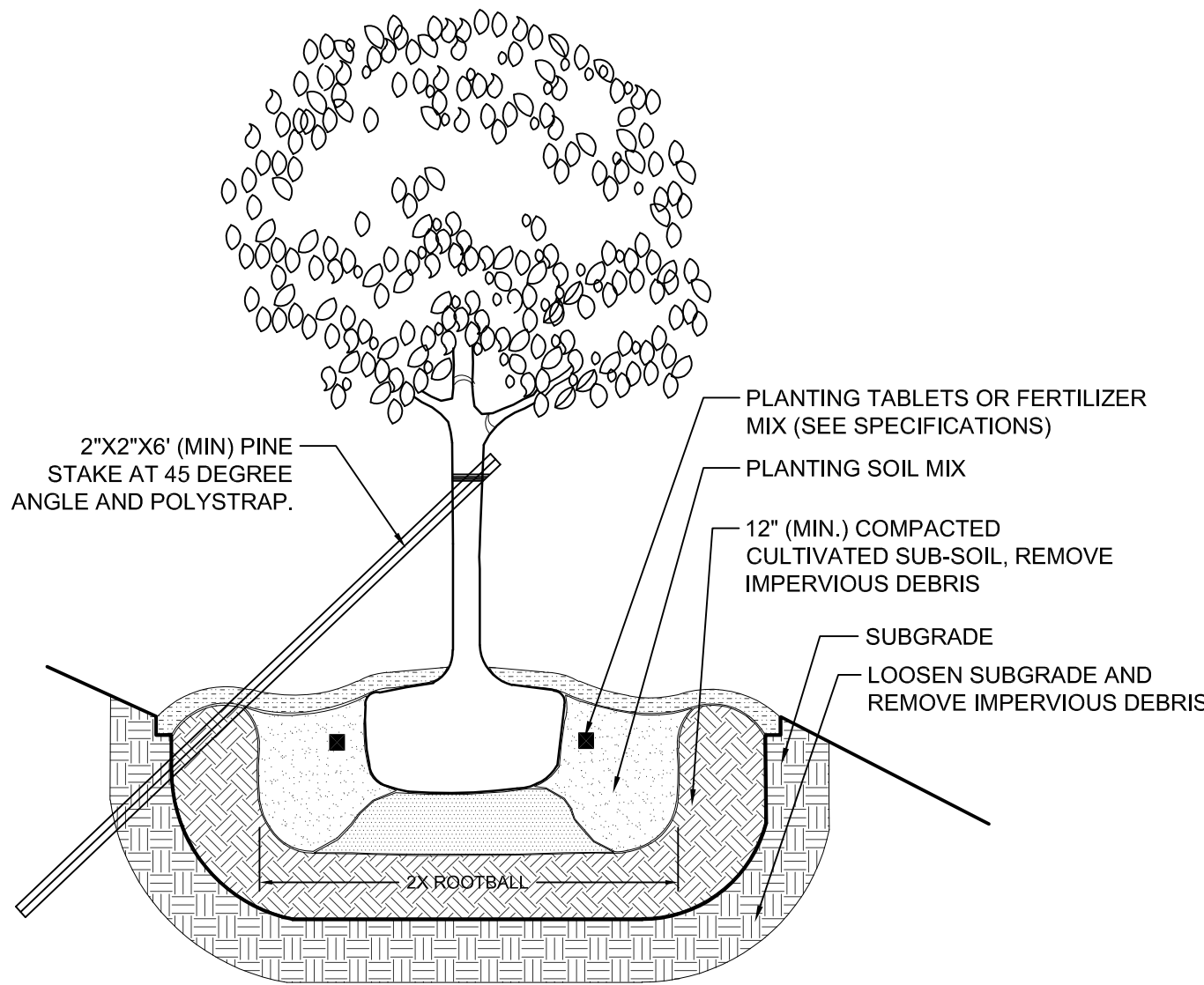


**NOTES:**

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

**3 SECTION: TYP. CONTAINERIZED SHRUB PLANTING**

SCALE: NTS



**TREE PLANTING NOTES & PROCEDURES**

1. DRIVE STAKE 30" INTO GRADE AT A 45 DEGREE ANGLE.
2. ALL STAKES AND INSTALLATION TO MATCH.
3. PROVIDE TREE SAUCER TO EACH TREE.
4. SECURE STAKE TO TREE WITH #4 GALVANIZED WIRE & POLYSTRAPS.
5. MINIMUM ONE STAKE PER TREE UNDER 2" CALIPER. STAKE TO BE 2"X2" PINE.
6. MINIMUM ONE GUY PER TREE ALL TREES OVER 2" CALIPER. SEE TREE PLANTING NOTES.
7. IF ROOTBALL IS WRAPPED IN NON-BIODEGRADABLE BURLAP, REMOVE ENTIRE WRAP AFTER PLACED IN PIT.
8. SEE TYPICAL TREE PLANTING DETAIL

**6 SECTION: TYP. TREE PLANTING ON SLOPE**

SCALE: NTS

PROFESSIONAL STAMP:

SHEET STATUS			
MARK	DATE	BY	RELEASE
A	03/06/2019	SS	TAC SUBMITTAL
B	05/20/2019	SS	TAC RE-SUBMITTAL

SHEET TITLE:

**LANDSCAPE DETAILS**

PROJECT NUMBER:  
**18041.00**

**L2.02**

DATE: 03.18.2019

NOT FOR CONSTRUCTION

**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 ginnala</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>Aspris 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> (Shuttw. ex Kunze) Palmer	False indigo-bush
<i>Aralia elata</i> (Miq.) Seem.	<i>Dimorphanthus 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. Duvin. & 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>Elytrigia 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> (Lawralice 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) Lawalree, an illegitimate name; <i>R. ficaria</i> var. <i>bulbifera</i> Marsden-Jones	Fig-crowfoot
<i>Froelichia gracilis</i> (Hook.) Moq.	<i>Oplotecha 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> Fernald; <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>Myelis 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>Baumeria 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> (Brujin) Kitagawa	<i>Persicaria caespitosa</i> (Blume) Nakai var. <i>longiseta</i> (Brujin) Reed; <i>Polygonum caespitosum</i> Blume var. <i>longisetum</i> (Brujin) Steward; <i>P. longisetum</i> Brujin	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>degenerates</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) Fourr. ssp. <i>pyrenaica</i> (Pourret ex Lapeyr.) A. Löve; <i>Rumex acetosella</i> L. var. <i>pyrenaicus</i> (Pourret ex Lapeyr.) Timbal-Lagrange; <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.) Byrman; <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.artburhaines.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](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 transplant 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>schwedleri</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 hiebersteinii</i> DC.; <i>Centaurea maculosa</i> Lam., misapplied; <i>Centaurea maculosa</i> Lam. ssp. <i>micranthos</i> Gugler	Spotted knapweed
<i>Cynanchum louiseae</i> Kartesz & 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>Glyceria maxima</i> (Hartman) Holmb.	<i>Glyceria spectabilis</i> Mert. & Koch; <i>Molinia 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>leiocalyx</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.		Moneyswort
<i>Microsagium vimineum</i> (Trin.) A. Camus	<i>Andropogon vimineum</i> Trin.; <i>Eulalia viminea</i> (Trin.) Kuntze	Japanese silt 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](mailto: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

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PROFESSIONAL STAMP:

**CATE STREET**  
PREPARED FOR  
**CATE STREET DEVELOPMENT LLC**

SHEET STATUS

MARK	DATE	BY	RELEASE
A	03/06/2019	SS	TAC SUBMITTAL
B	05/20/2019	SS	TAC RE-SUBMITTAL

SHEET TITLE:

**LANDSCAPE  
DETAILS**

PROJECT NUMBER:

18041.00

**L2.03**

DATE: 03.18.2019

NOT FOR CONSTRUCTION



# REVISIONS

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



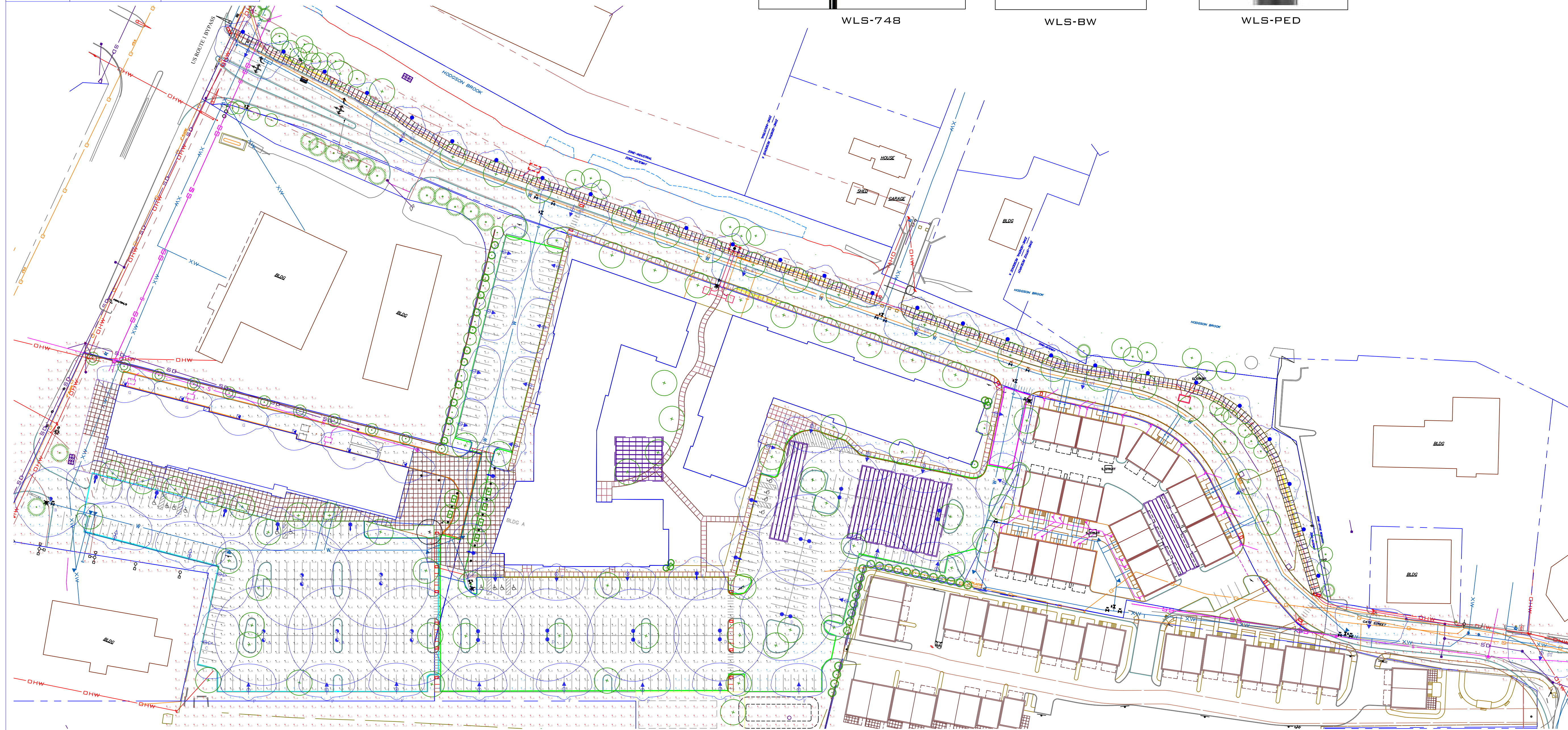
WLS-748



WLS-BW



WLS-PED



ENERGY SERVICES GROUP OF WLS

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

BASED ON THE INFORMATION PROVIDED, ALL DIMENSIONS AND LUMINAIRE LOCATIONS SHOWN REPRESENT RECOMMENDED POSITIONS. THE ENGINEER AND/OR ARCHITECT MUST DETERMINE APPLICABILITY OF THE LAYOUT TO EXISTING OR FUTURE FIELD CONDITIONS.

THIS LIGHTING PATTERN REPRESENTS ILLUMINATION LEVELS CALCULATED FROM LABORATORY DATA TAKEN UNDER CONTROLLED CONDITIONS UTILIZING CURRENT INDUSTRY STANDARD LAMP RATINGS IN ACCORDANCE WITH ILLUMINATING ENGINEERING SOCIETY APPROVED METHODS. ACTUAL PERFORMANCE OF ANY MANUFACTURER'S LUMINAIRE MAY VARY DUE TO VARIATION IN ELECTRICAL VOLTAGE, TOLERANCE IN LAMPS AND OTHER VARIABLE FIELD CONDITIONS.

Label	Avg	Max	Min	Avg/Min	Max/Min	PtSpcLr	PtSpcTb
CATE ST ENTRANCE	1.8	4.4	0.9	2.0	4.9	10	10
RESIDENTIAL PARKING	2.8	6.4	0.8	3.5	8.0	10	10
RETAIL PARKING	3.7	7.2	0.9	4.1	8.0	10	10
RETAIL REAR AND SIDE	2.3	4.7	0.3	7.7	15.7	10	10

Symbol	Qty	Label	Lumens	LLF	Description	Lum. Watts
⊙	5	A	N.A.	0.950	WLS-748-135W-5F-4K 20' MOUNTING HEIGHT	135
⊙	1	B	N.A.	0.950	WLS-748-135W-5F-4K 20' MOUNTING HEIGHT	135
⊙	4	C	N.A.	0.950	WLS-748-135W-4F-4K-HS 20' MOUNTING HEIGHT	135
⊙	8	D	N.A.	0.950	WLS-748-110W-5F-4K 20' MOUNTING HEIGHT	110
⊙	10	E	N.A.	0.950	WLS-748-80W-4F-4K 16' MOUNTING HEIGHT	80
⊙	28	F	N.A.	0.950	WLS-748-80W-4F-4K-HS 16' MOUNTING HEIGHT	80
⊙	6	G	N.A.	0.980	WLS-BW-70-2M-4K ASST MOUNTING HEIGHT	70
⊙	27	J	N.A.	0.980	WLS-PED-2M-P8-02-525-4K 8' MOUNTING HEIGHT	34
⊙	9	ST	9316	0.900	AFFIN-S901-80W-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

WLS-14527A

DATE - 11/16/18

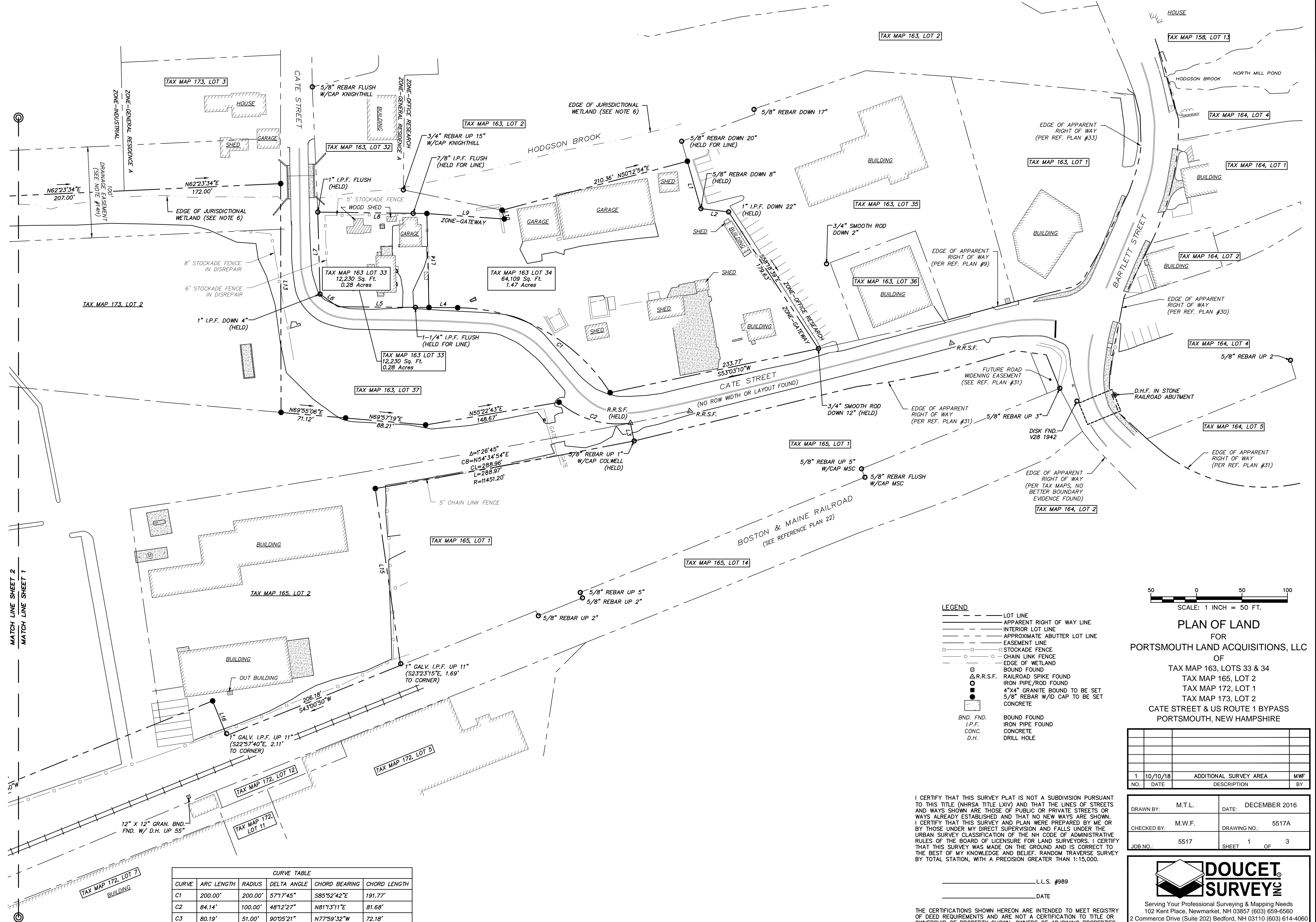
SCALE: 1"=60'

800-633-8711

PM: ROBBY

BY: TO

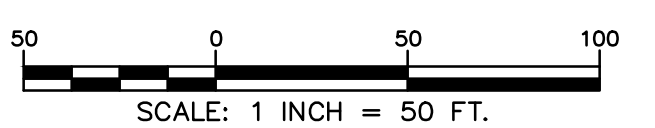
SHEET 1 OF 1



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

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

- LEGEND**
- LOT LINE
  - - - APPARENT RIGHT OF WAY LINE
  - INTERIOR LOT LINE
  - - - APPROXIMATE ABUTTER LOT LINE
  - - - EASEMENT LINE
  - STOCKADE FENCE
  - CHAIN LINK FENCE
  - EDGE OF WETLAND
  - BOUND FOUND
  - △ R.R.S.F. RAILROAD SPIKE FOUND
  - IRON PIPE/ROD FOUND
  - 4"x4" GRANITE BOUND TO BE SET
  - 5/8" REBAR W/ID CAP TO BE SET
  - CONCRETE
  - BND. FND. BOUND FOUND
  - I.P.F. IRON PIPE FOUND
  - CONC. CONCRETE
  - D.H. DRILL HOLE



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

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

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

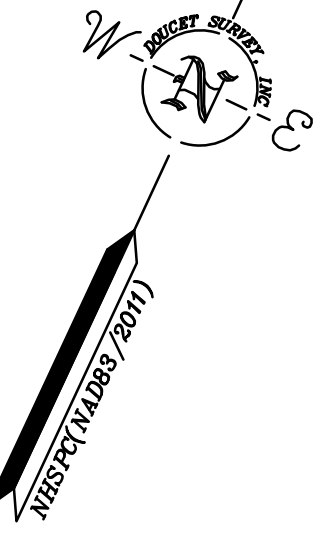
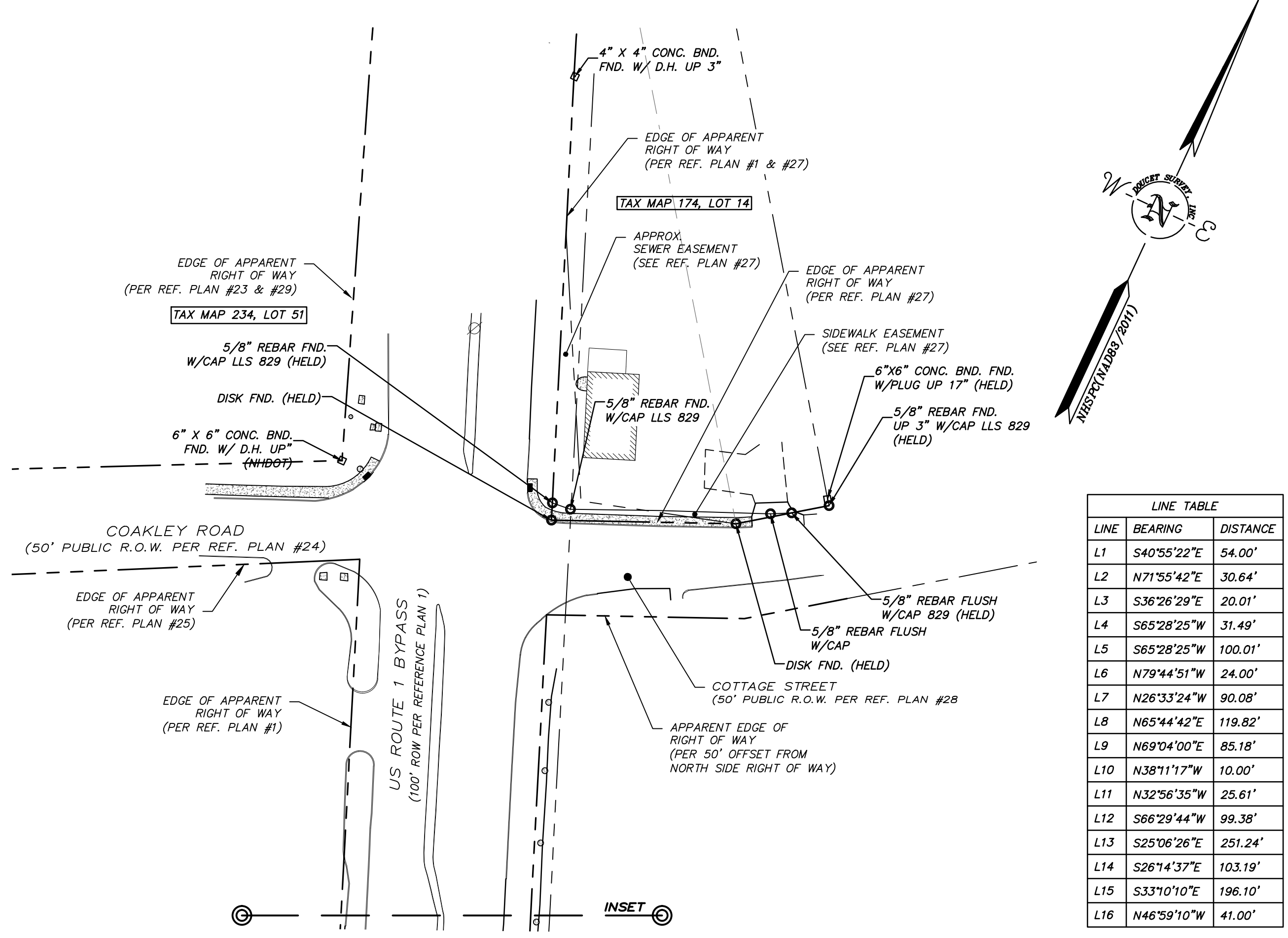
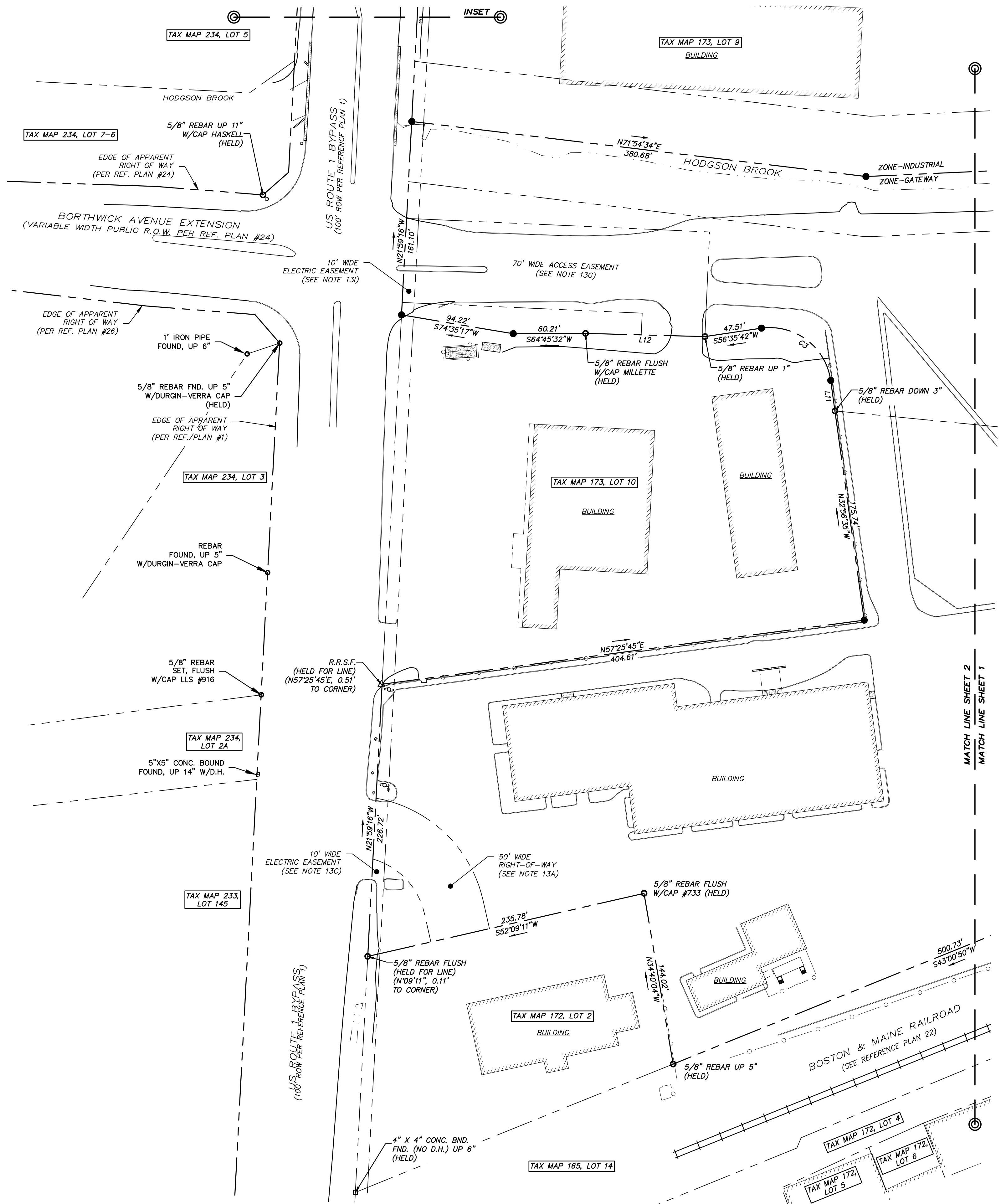
I CERTIFY THAT THIS SURVEY PLAT IS NOT A SUBDIVISION PURSUANT TO THIS TITLE (NHRSA TITLE LXIV) AND THAT THE LINES OF STREETS AND WAYS SHOWN ARE THOSE OF PUBLIC OR PRIVATE STREETS OR WAYS ALREADY ESTABLISHED AND THAT NO NEW WAYS ARE SHOWN. I CERTIFY THAT THIS SURVEY AND PLAN WERE PREPARED BY ME OR BY THOSE UNDER MY DIRECT SUPERVISION AND FALLS UNDER THE RULES OF THE BOARD OF LICENSURE FOR LAND SURVEYORS. I CERTIFY THAT THIS SURVEY WAS MADE ON THE GROUND AND IS CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF. RANDOM TRAVERSE SURVEY BY TOTAL STATION, WITH A PRECISION GREATER THAN 1:15,000.

\_\_\_\_\_  
L.L.S. #989  
DATE

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

**DOUCET SURVEY**  
Serving Your Professional Surveying & Mapping Needs  
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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\101517\_CAD (REV. 4/13)/101517A\_C3D.dwg LAYOUT: MAIN\_PLOT (D) PLOTTED: Wednesday, October 10, 2018 - 2:05pm



LINE TABLE		
LINE	BEARING	DISTANCE
L1	S40°55'22"E	54.00'
L2	N71°55'42"E	30.64'
L3	S36°26'29"E	20.01'
L4	S65°28'25"W	31.49'
L5	S65°28'25"W	100.01'
L6	N79°44'51"W	24.00'
L7	N26°33'24"W	90.08'
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L14	S26°14'37"E	103.19'
L15	S33°10'10"E	196.10'
L16	N46°59'10"W	41.00'

CURVE TABLE					
CURVE	ARC LENGTH	RADIUS	DELTA ANGLE	CHORD BEARING	CHORD LENGTH
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- LEGEND**
- LOT LINE
  - APPARENT RIGHT OF WAY LINE
  - INTERIOR LOT LINE
  - APPROXIMATE ABUTTER LOT LINE
  - EASEMENT LINE
  - STOCKADE FENCE
  - CHAIN LINK FENCE
  - EDGE OF WETLAND
  - BOUND FOUND
  - △ R.R.S.F.
  - RAILROAD SPIKE FOUND
  - IRON PIPE/ROD FOUND
  - 4"x4" GRANITE BOUND TO BE SET
  - 5/8" REBAR W/ID CAP TO BE SET
  - CONCRETE
  - BND. FND.
  - I.P.F.
  - CONC.
  - D.H.
  - BOUND FOUND
  - IRON PIPE FOUND
  - CONCRETE
  - DRILL HOLE

SCALE: 1 INCH = 50 FT.

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

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

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

I CERTIFY THAT THIS SURVEY PLAN IS NOT A SUBDIVISION PURSUANT TO THIS TITLE (NH RSA TITLE LXIV) AND THAT THE LINES OF STREETS AND WAYS SHOWN ARE THOSE OF PUBLIC OR PRIVATE STREETS OR WAYS ALREADY ESTABLISHED AND THAT NO NEW WAYS ARE SHOWN. I CERTIFY THAT THIS SURVEY AND PLAN WERE PREPARED BY ME OR BY THOSE UNDER MY DIRECT SUPERVISION AND FALLS UNDER THE URBAN SURVEY CLASSIFICATION OF THE NH CODE OF ADMINISTRATIVE RULES OF THE BOARD OF LICENSURE FOR LAND SURVEYORS. I CERTIFY THAT THIS SURVEY WAS MADE ON THE GROUND AND IS CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF. RANDOM TRAVERSE SURVEY BY TOTAL STATION, WITH A PRECISION GREATER THAN 1:15,000.

\_\_\_\_\_  
L.L.S. #989  
DATE

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.

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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

ABUTTERS

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

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

TAX MAP 163, LOT 2  
INDUSTRIAL RENTS-NH, LLC  
6 WAYNE ROAD  
WESTFORD, MA 01886  
R.C.R.D. BOOK 5606, PAGE 2334

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

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

TAX MAP 163, LOT 2  
INDUSTRIAL RENTS-NH, LLC  
6 WAYNE RD  
WESTFORD, MA 01886  
R.C.R.D. BOOK 5606 PAGE 2334

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

TAX MAP 163, LOT 35  
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 164, LOT 1  
PORTSMOUTH LUMBER & HARDWARE, LLC  
105 BARTLETT STREET  
PORTSMOUTH, NH 03801  
R.C.R.D. BOOK 5372, PAGE 2606

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

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

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

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

TAX MAP 165, LOT 1  
MERTON ALAN INVESTMENTS, LLC  
C/O JOAN RYAN & CASSASSA  
459 LAFAYETTE RD  
HAMPTON, NH 03842  
R.C.R.D. BOOK 4771 PAGE 1259

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

TAX MAP 172, LOT 2  
406 HIGHWAY 1 BYPASS, 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 2856 PAGE 1071

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

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

TAX MAP 174, LOT 14  
COLMAN C. GARLAND  
416 SADDLEBACK DRIVE  
FARVIEW, TX 75069  
R.C.R.D. BOOK 2232, PAGE 1002

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

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

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

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

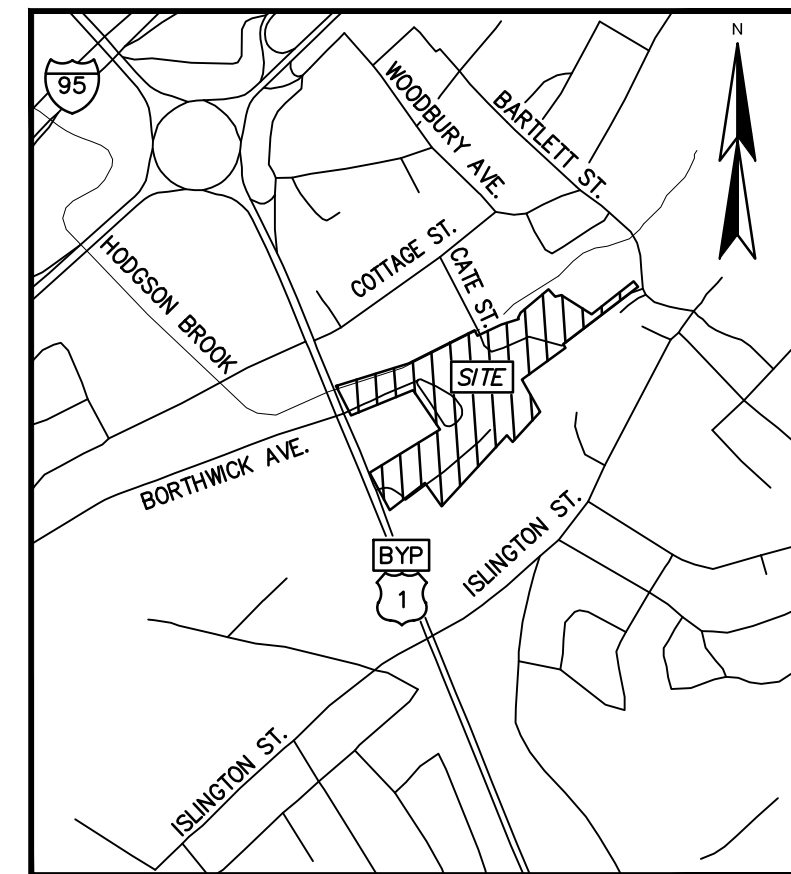
TAX MAP 234, LOT 7-6  
CREFIII WARAMAUG PORTSMOUTH, LLC  
C/O CTMI, LLC  
PO BOX 741328  
DALLAS, TX 75374  
R.C.R.D. BOOK 5620, PAGE 1675

NOTES:

- 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
- TOTAL PARCEL AREA: TAX MAP 163, LOT 33-12,230 SQ. FT. OR 0.28 AC.  
TAX MAP 163, LOT 34-64,109 SQ. FT. OR 1.47 AC.  
COMBINED AREA-451,572 SQ. FT. OR 10.37 AC.  
TAX MAP 165, LOT 2  
TAX MAP 172, LOT 1  
TAX MAP 173, LOT 2
- OWNER OF RECORD: PORTSMOUTH LAND ACQUISITIONS, LLC  
300 GAY STREET  
MANCHESTER, NH 03103  
R.C.R.D. BOOK 5393, PAGE 2976
- ZONES: GW-GATEWAY  
DIMENSIONAL REQUIREMENTS:  
MIN. LOT AREA 43,560 sq.ft.  
MIN. FRONTAGE 200 ft.  
MIN. FRONT SETBACK 30 ft.  
MIN. SIDE SETBACK 30 ft.  
MIN. REAR SETBACK 50 ft.  
MAX. BUILDING HEIGHT 40 ft.  
MAX. BUILDING COVERAGE 30 %  
WETLAND SETBACKS 100 ft.
- ZONING INFORMATION LISTED HEREON IS BASED ON THE CITY OF PORTSMOUTH ZONING ORDINANCE DATED JULY 11, 2016 AS AVAILABLE ON THE CITY WEBSITE ON DECEMBER 15, 2016. ADDITIONAL REGULATIONS APPLY, AND REFERENCE IS HEREBY MADE TO THE EFFECTIVE ZONING ORDINANCE. THE LAND OWNER IS RESPONSIBLE FOR COMPLYING WITH ALL APPLICABLE MUNICIPAL, STATE AND FEDERAL REGULATIONS.
- 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.
- MANMADE AND NATURAL JURISDICTIONAL WETLAND BOUNDARIES WERE DELINEATED BY MARC JACOBS, CERTIFIED WETLAND SCIENTIST NUMBER 080, IN NOVEMBER 2016 ACCORDING TO THE STANDARDS OF THE US ARMY CORPS OF ENGINEERS - WETLANDS DELINEATION MANUAL, TECHNICAL REPORT Y-87-1, JANUARY 1987; THE U.S. ARMY CORPS OF ENGINEERS REGIONAL SUPPLEMENT TO THE CORPS OF ENGINEERS WETLAND DELINEATION MANUAL- NORTHCENTRAL AND NORTHEAST REGION 2012; THE CODE OF ADMINISTRATIVE RULES, NH DEPARTMENT OF ENVIRONMENTAL SERVICES - WETLANDS BUREAU - CHAPTER ENV-WT 100-900 AND THE CITY OF PORTSMOUTH ZONING ORDINANCE, ARTICLE 10. PREDOMINANT HYDRIC SOILS WERE IDENTIFIED UTILIZING THE FIELD INDICATORS FOR IDENTIFYING HYDRIC SOILS IN NEW ENGLAND, VERSION 3, APRIL 2004 AND THE FIELD INDICATORS OF HYDRIC SOILS IN THE UNITED STATES, VERSION 7, 2010. THE STATUS OF VEGETATION AS HYDROPHYTIC WAS DETERMINED ACCORDING TO THE NORTHCENTRAL AND NORTHEAST 2016 REGIONAL WETLAND PLANT LIST - U.S. ARMY CORPS OF ENGINEERS. COPIES OF SITE PLANS DEPICTING THE WETLAND DELINEATION WHICH HAVE BEEN REVIEWED BY THE WETLAND SCIENTIST ARE INDIVIDUALLY STAMPED & SIGNED AND DATED. THIS NOTE HAS BEEN CUSTOMIZED FOR THIS SITE/PROJECT.
- FLOOD HAZARD ZONE: "X", PER FIRM MAP #3301500259E, 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.).
- THE FOLLOWING LOTS ARE EITHER SUBJECT TO OR IN BENEFIT OF, BUT NOT LIMITED TO, THE FOLLOWING EASEMENTS/RIGHTS OF RECORD:  
TAX MAP 172, LOT 1  
A. SUBJECT TO A 50' WIDE RIGHT OF WAY FOR THE BENEFIT OF TAX MAP 172, LOT 2 SEE R.C.R.D. BOOK 3127, PAGE 176 AND R.C.R.D. PLAN D-10722.  
B. EXCEPTING AN 8" WATER PIPE LOCATED UNDER SUBJECT PARCEL, SEE R.C.R.D. BOOK 2783, PAGE 560, LOCATION OF SUBJECT WATER PIPE UNKNOWN.  
C. SUBJECT TO A 10' WIDE ELECTRIC EASEMENT, SEE R.C.R.D. BOOK 1257, PAGE 324 AND R.C.R.D. PLAN D-19110.  
D. SUBJECT TO A WATER LINE EASEMENT, SEE R.C.R.D. BOOK 950, PAGE 174, LOCATION OF SUBJECT WATERLINE UNKNOWN.  
E. SUBJECT TO AN ELECTRIC EASEMENT, SEE R.C.R.D. BOOK 1374, PAGE 97, LOCATION OF SUBJECT EASEMENT UNKNOWN.  
F. SUBJECT TO AN ELECTRIC EASEMENT, SEE R.C.R.D. BOOK 2364, PAGE 397, LOCATION OF SUBJECT EASEMENT UNKNOWN.  
TAX MAP 173, LOT 2  
G. SUBJECT TO A 70' WIDE ACCESS EASEMENT IN FAVOR OF TAX MAP 173, LOT 10, SEE R.C.R.D. BOOK 3204, PAGE 87 AND R.C.R.D. PLAN D-24912.  
H. SUBJECT TO A DRAINAGE EASEMENT TO THE UNITED STATES OF AMERICA, SEE R.C.R.D. BOOK 1423, PAGE 240.  
I. SUBJECT TO A 10' WIDE ELECTRIC EASEMENT, SEE R.C.R.D. BOOK 1257, PAGE 324. SEE ALSO R.C.R.D. PLAN D-19110.

REFERENCE PLANS

- "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 1964, 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 1964, 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., SAIED 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, RECIEVED 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-36990.
- "LOT LINE REVISION PLAN TAX MAP R-34 LOTS 6 & 7-6, LOCATED ON BORTHWICK AVE., COAKLEY ROAD AND U.S. ROUTE 1 BYPASS IN PORTSMOUTH, NH", BY KIMBALL CHASE, DATED OCTOBER 20, 1993, R.C.R.D. PLAN #D-22886.
- "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.

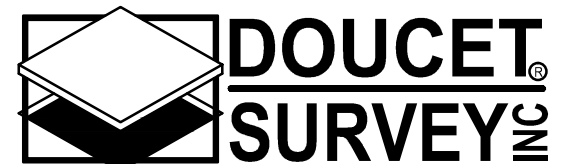


LOCATION MAP (n.t.s.)

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

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

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

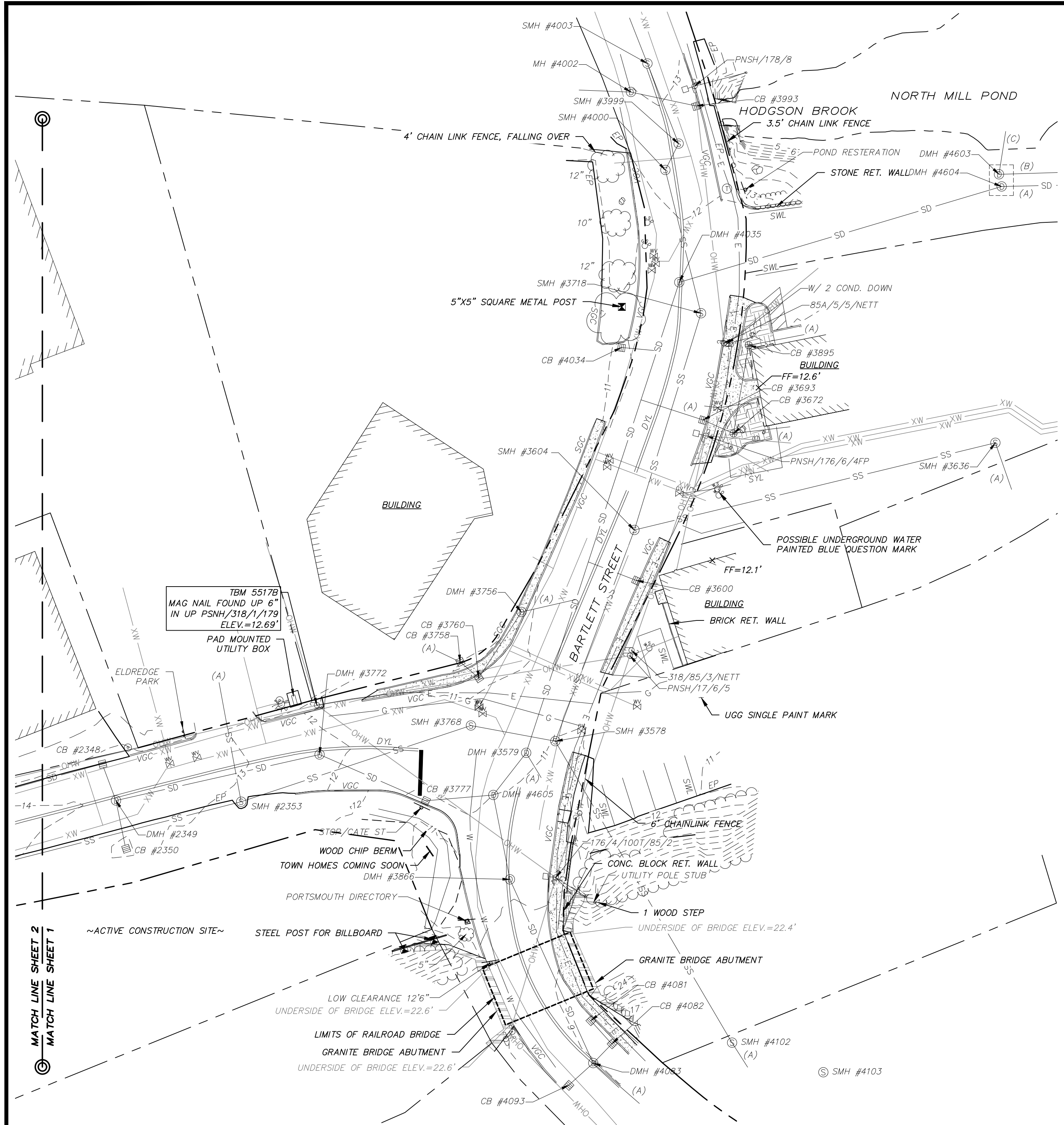


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I CERTIFY THAT THIS SURVEY PLAT IS NOT A SUBDIVISION PURSUANT TO THIS TITLE (NH RSA TITLE LXIV) AND THAT THE LINES OF STREETS AND WAYS SHOWN ARE THOSE OF PUBLIC OR PRIVATE STREETS OR WAYS ALREADY ESTABLISHED AND THAT NO NEW WAYS ARE SHOWN. I CERTIFY THAT THIS SURVEY AND PLAN WERE PREPARED BY ME OR BY THOSE UNDER MY DIRECT SUPERVISION AND FALLS UNDER THE URBAN SURVEY CLASSIFICATION OF THE NH CODE OF ADMINISTRATIVE RULES OF THE BOARD OF LICENSURE FOR LAND SURVEYORS. I CERTIFY THAT THIS SURVEY WAS MADE ON THE GROUND AND IS CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF. RANDOM TRAVERSE SURVEY BY TOTAL STATION, WITH A PRECISION GREATER THAN 1:15,000.

\_\_\_\_\_.L.L.S. #989  
\_\_\_\_\_.DATE

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.



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'
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 #2348 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 #2349 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 #2350 RIM ELEV.=12.6' (FULL OF SILT & DEBRIS) (3772) 15" HDPE INV.=9.1'	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 #1188 RIM ELEV.=25.7' (1186) 8" PVC INV.=22.3'	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 #1213 RIM ELEV.=20.3' (HDWL) 12" HDPE INV.=17.6'	CB #3019 RIM ELEV.=28.8' (A) 8" PVC INV.=25.4' (A) 18" CMP INV.=16.5'	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 #1251 RIM ELEV.=20.9' (A) 18" CMP INV.=16.5'	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 #1345 RIM ELEV.=23.3' (1346) 12" RCP INV.=19.1'	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 #1346 RIM ELEV.=25' (1345) 12" RCP INV.=17.4' (1347) 15" RCP INV.=15.9' (A) 15" RCP INV.=15.7'	DMH #3579 RIM ELEV.=11.2' (4035) 36" BRICK TROUGH INV.=2.0' (4605) 24" RCP INV.=4.2'	CB #4002 RIM ELEV.=12.9' (BOLTED SHUT)	
CB #1347 RIM ELEV.=23.9' (1348) 12" RCP INV.=18.8' (1072) 15" RCP INV.=15.9' (1346) 15" RCP INV.=15.8'			

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 #2789) RIM ELEV.=20.1' (SUMP) 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 #3999) RIM ELEV.=12.6' (4000) 10" PVC INV.=5.9' (4003) 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' (2434) 10" UNKN. INV.=10.6'	SMH #4000 RIM ELEV.=12.3' (3718) 10" PVC INV.=5.8' (3999) 10" PVC INV.=5.8' (SMH #4003) RIM ELEV.=13.3' (3999) 12" PVC INV.=6.5' (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' (4565) UNKN. INV.=16.4' (A) 4" CI INV.=23.3'	SMH #4003 RIM ELEV.=13.3' (3999) 12" PVC INV.=6.5' (A) 10" CI INV.=6.6' (SMH #4102) RIM ELEV.=11.3' (3578) 30" PVC INV.=3.7' (A) 30" PVC INV.=3.6'
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 #1527 RIM ELEV.=31.6' (3280) 8" CLAY INV.=24.8' (A) 6" CLAY INV.=25.3' (B) 8" CLAY INV.=24.7'	SMH #3604 RIM ELEV.=11.3' (3578) 36" PVC INV.=2.5' (3636) 36" PVC INV.=2.5' (3768) 24" PVC INV.=6.5' (3718) 10" PVC INV.=4.7'	SMH #4565 RIM ELEV.=28.4' PIPES SUBMERGED WATER LEVEL=16.5' SUMP=15.4'
SMH #2353 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'	

**NOTES:**

- 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
- FIELD SURVEY PERFORMED BY P.J.S. & J.C.M. DURING NOVEMBER 2016 USING A TRIMBLE S6 TOTAL STATION, A TRIMBLE RB 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.
- 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: NORTHEASTRAL 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.
- 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.
- 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.
- UNDERGROUND UTILITIES SHOWN HEREON ARE BASED ON OBSERVABLE PHYSICAL EVIDENCE AND PAINT MARKS FOUND ON-SITE.
- 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.
- 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.
- 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.

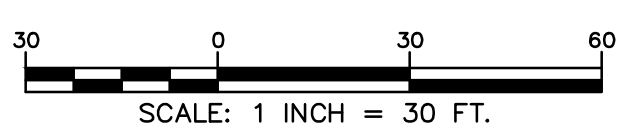
OWNER OF RECORD  
GATE STREET DEVELOPMENT, LLC  
60 K STREET  
BOSTON, MA 02127  
R.C.R.D. BOOK 5959, PAGE 109

**LEGEND**

- APPROXIMATE LOT LINE
- INTERIOR LOT LINE
- APPROXIMATE ABUTTER LOT LINE
- EASEMENT LINE
- STOCKADE FENCE
- CHAIN LINK FENCE
- GUARDRAIL
- OVERHEAD WIRES
- SEWER LINE
- DRAIN LINE
- GAS LINE
- WATER LINE
- MAJOR CONTOUR LINE
- MINOR CONTOUR LINE
- TREE LINE
- SHRUB LINE
- EDGE OF WETLAND
- SEWER LINE (SEE NOTE 20)
- DRAIN LINE (SEE NOTE 20)
- WATER LINE (SEE NOTE 20)
- UTILITY POLE & GUY WIRE
- UTILITY POLE W/ LIGHT
- LIGHT POLE
- SIGN SIGN (TWO POSTS)
- FENCE POST
- POST
- BOLLARD
- FIRE HYDRANT
- WATER GATE VALVE
- SPRIGOT
- GAS GATE VALVE
- OIL FILL CAP
- ELECTRIC BOX
- CATCH BASIN
- DRAIN MANHOLE
- ROOF DRAIN
- MANHOLE
- SEWER MANHOLE
- CLEANOUT
- HAND HOLE
- WETLAND AREA
- FLAG POLE
- CONIFEROUS TREE
- DECIDUOUS TREE
- MONITORING WELL
- DRAINAGE FLOW DIRECTION ARROW
- CONCRETE
- CRUSHED STONE
- LEDGE OUTCROP
- ACCESSIBLE PARKING SPACE
- MAST ARM
- JERSEY BARRIER
- TYPICAL FINISHED FLOOR
- ELECTRIC METER
- EDGE OF PAVEMENT
- VERTICAL GRANITE CURB
- SLOPED BITUMINOUS CURB
- SINGLE WHITE LINE
- SINGLE YELLOW LINE
- DOUBLE YELLOW LINE

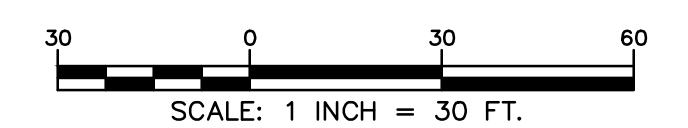
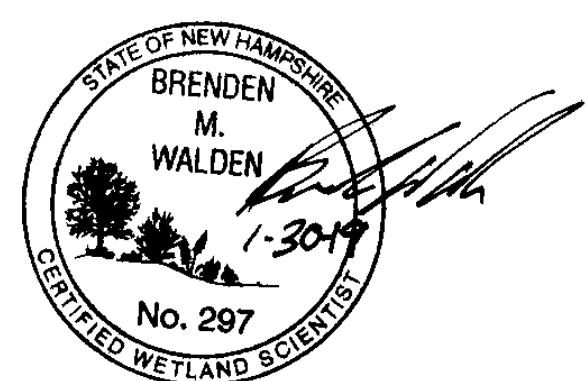
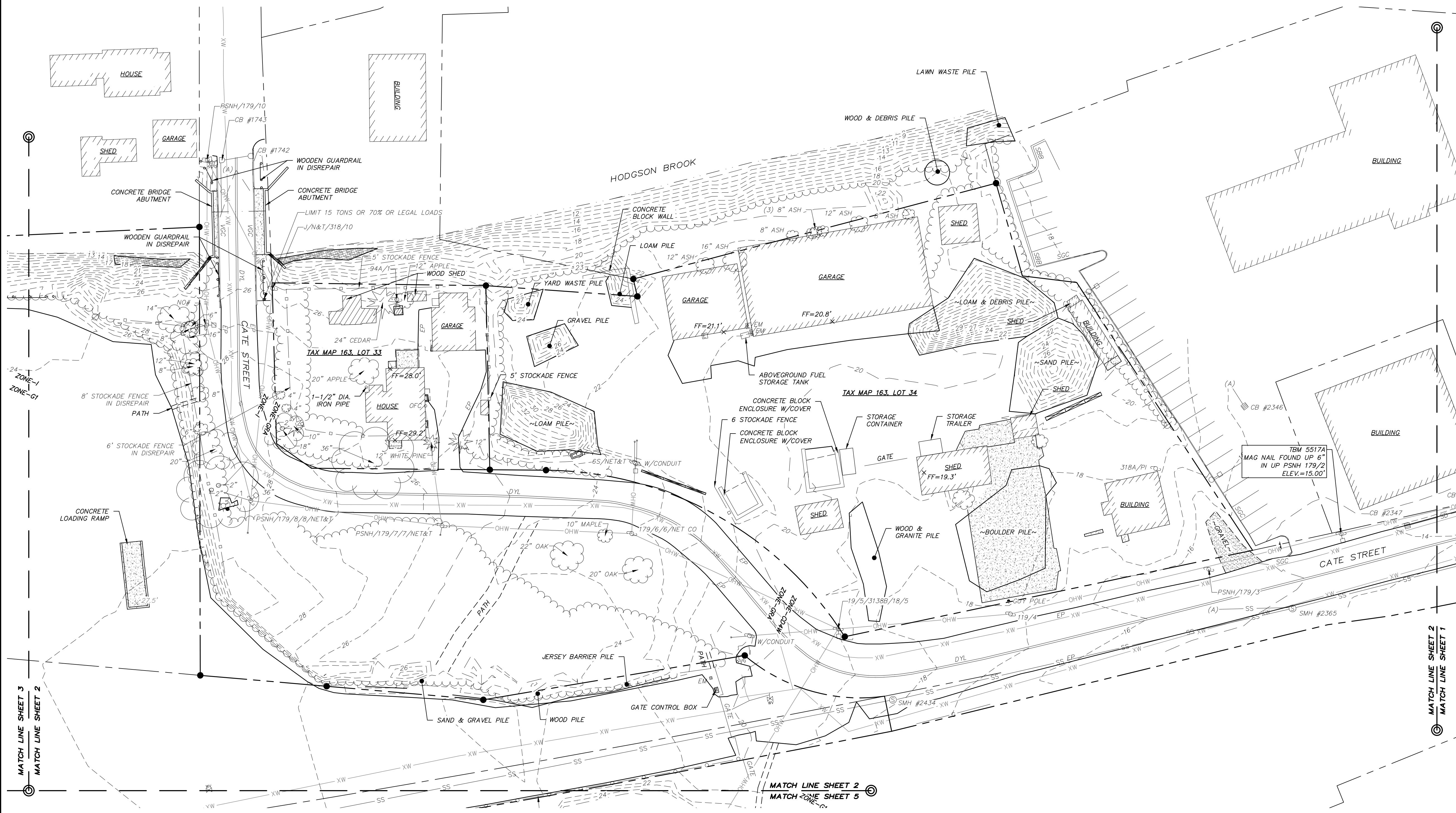
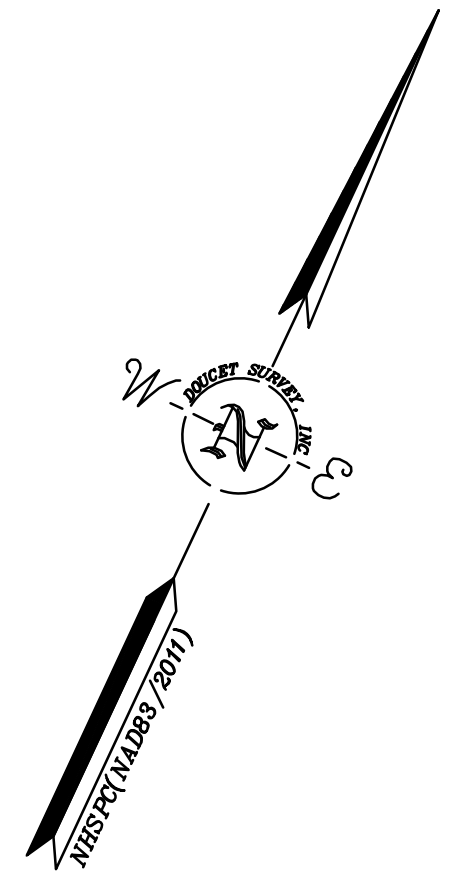
DATE: DECEMBER 2016  
DRAWN BY: M.T.L.  
CHECKED BY: M.W.F.  
JOB NO.: 5517  
SHEET 1 OF 5

**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) 614-0600  
10 Storer Street (Riverview Suite) Kennebunk, ME (207) 502-7005  
http://www.doucetsurvey.com



**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

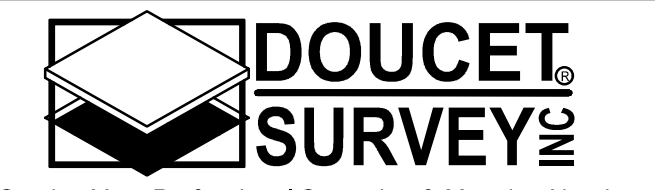




**TOPOGRAPHIC PLAN**  
 FOR  
**CATE STREET DEVELOPMENT, LLC**  
 OF  
 TAX MAP 163, LOTS 33 & 34  
 TAX MAP 165, LOT 2  
 TAX MAP 172, LOT 1  
 TAX MAP 173, LOT 2  
 CATE STREET & US ROUTE 1 BYPASS  
 PORTSMOUTH, NEW HAMPSHIRE

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

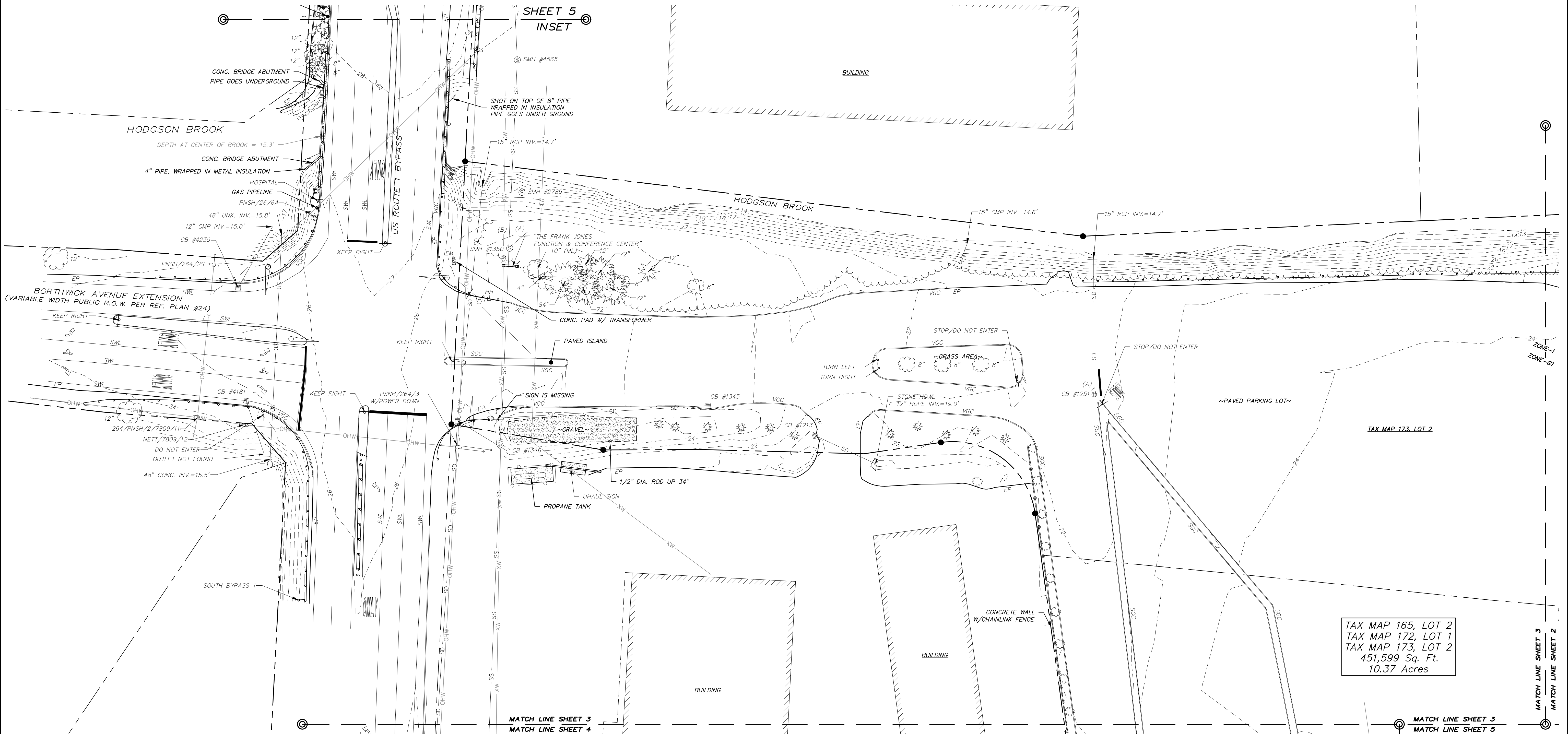
DRAWN BY:	M.T.L.	DATE:	DECEMBER 2016
CHECKED BY:	M.W.F.	DRAWING NO.:	5517A
JOB NO.:	5517	SHEET	2 OF 5



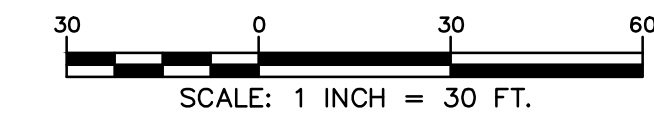
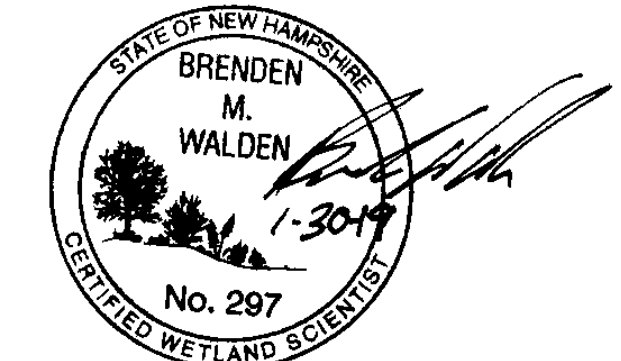
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FILE NAME: \\P:\PROJECTS\5517\_CSD (S&M) 4130\DWG\5517A\_CSD.dwg LAYOUT NAME: 5517\_02 PLOTTED: Wednesday, January 30, 2019 - 9:35am

FILE NAME: Y:\PROJECTS\5171\_CSD (SE 4130)\DWG\5171A\_CSD.dwg LAYOUT NAME: TPO (3) PLOTTED: Wednesday, January 30, 2019 - 9:35am



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



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

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

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

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