# WEST END YARDS

CATE STREET · PORTSMOUTH · NEW HAMPSHIRE

SITE PLANS

NOVEMBER, 2018

## PREPARED FOR

# CATE STREET DEVELOPMENT, LLC

60 K STREET BOSTON, MA 02127 987.490.5278

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# 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

# LIGHTING CONSULTANT

WLS LIGHTING 1919 WINDSOR PLACE FORTH WORTH, TX. 76110 817.731.6020

# NATURAL RESOURCES

# CONSULTANT

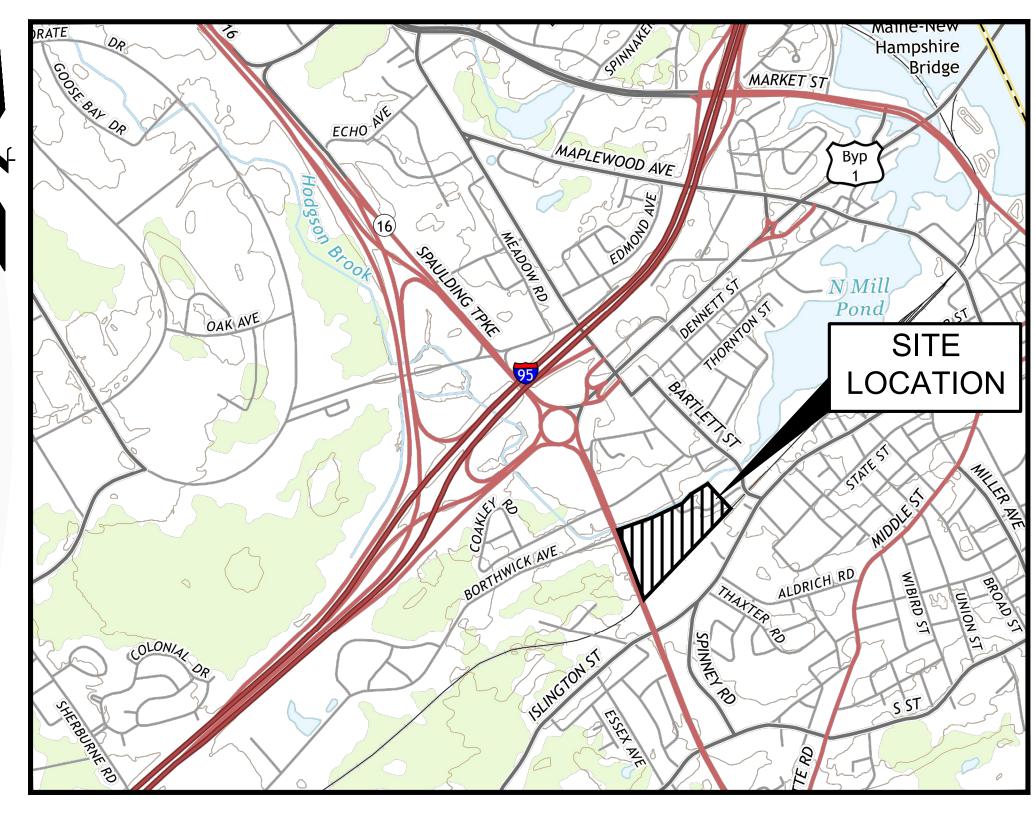
GOVE ENVIRONMENTAL SERVICES, INC 8 CONTINENTAL DRIVE BUILDING 2, SUITE H EXETER, NH. 03833-7507 603.778.0644

#### GEOTECHNICAL ENGINEERS

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

## LAND SURVEYOR

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



LOCATION MAP

SCALE: 1" = 1200'



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

PROJ. No.: 20170308.000 DATE: JANUARY 2019

GI-001

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#### **GENERAL**

- 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. BASE PLAN: THE PROPERTY LINES SHOWN WERE DETERMINED BY AN ACTUAL FIELD SURVEY CONDUCTED BY (NAME OF SURVEYOR), AND FROM PLANS OF RECORD. THE TOPOGRAPHY AND PHYSICAL FEATURES ARE BASED ON AN ACTUAL FIELD SURVEY PERFORMED ON THE GROUND BY (NAME OF SURVEYOR) AND AERIAL SERVICES PERFORMED BY (NAME OF AERIAL COMPANY) DURING (DATE PERFORMED).
- 6. TOPOGRAPHIC ELEVATIONS ARE BASED ON (NAME) DATUM.
- 7. GEOTECHNICAL DATA INCLUDING TEST PIT AND BORING LOCATIONS AND ELEVATIONS WERE OBTAINED FROM (NAME OF GEOTECHNICAL ENGINEER).
- 8. WETLANDS WERE DELINEATED BY (NAME OF SOIL SCIENTIST) ON (DATE).

#### **WORK RESTRICTIONS**

- 1. 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

- 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 CONNECTICUT 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

#### 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**

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

- 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**

- NOTIFY UTILITY LOCATOR SERVICE AT LEAST 72 HOURS BEFORE STARTING
- "CALL BEFORE YOU DIG" AT 1-800-922-4455. MA, RI: "DIG SAFE" AT 1-888-344-7233.
- "DIG SAFELY: NEW YORK" AT 811.
- 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**

- 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: O TO 20 FEET DEEP; 4 FEET. 20 FEET OR GREATER; 5 FEET.

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

#### <u>PAVEMENT</u>

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).

#### 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.

## **LEGEND**

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PROPOSED CONTOURS PROPOSED SPOT ELEVATION PROPOSED CLEARING LIMIT (APPROX.) CONSTRUCTION HAUL ROUTE PROPOSED ROOF DRAIN PROPOSED CABLE LINE PROPOSED SANITARY SEWER LINE PROPOSED STORM DRAINAGE LINE PROPOSED TELEPHONE LINE PROPOSED WATER MAIN PROPOSED GAS MAIN PROPOSED ELECTRICAL SERVICE PROPOSED LIMIT OF DISTURBANCE PROPOSED HYDRANT AND GATE VALVE PROPOSED REINFORCED CONCRETE CULVERT END PROPOSED YARD DRAIN PROPOSED HANDHOLE PROPOSED TYPE "C" CATCH BASIN PROPOSED HEAD WALL PROPOSED STORM MANHOLE PROPOSED SANITARY MANHOLE PROPOSED ELECTRICAL MANHOLE PROPOSED SIGN PROPOSED LIGHT PROPOSED BITUMINOUS CURB TOWN WETLANDS LINE PROPOSED EROSION CONTROL MAT PROPOSED CONCRETE WALK PROPOSED CHAIN LINK FENCE PROPOSED BARB WIRE FENCE PROPOSED STOCKADE FENCE PROPOSED SILT FENCE PROPOSED HAY BALES PROPOSED HAYBALE CHECK DAM \_\_\_\_\_ **EXISTING CONTOURS EXISTING TREE LINE** 

EXISTING DECIDUOUS TREE **EXISTING EVERGREEN TREE EXISTING UTILITY POLE EXISTING WATER GATE VALVE EXISTING TELEPHONE MANHOLE** EXISTING HYDRANT **EXISTING CATCH BASIN EXISTING SANITARY MANHOLE** EXISTING STORM MANHOLE EXISTING SANITARY SEWER LINE EXISTING TELEPHONE LINE EXISTING WATER MAIN EXISTING ELECTRICAL SERVICE

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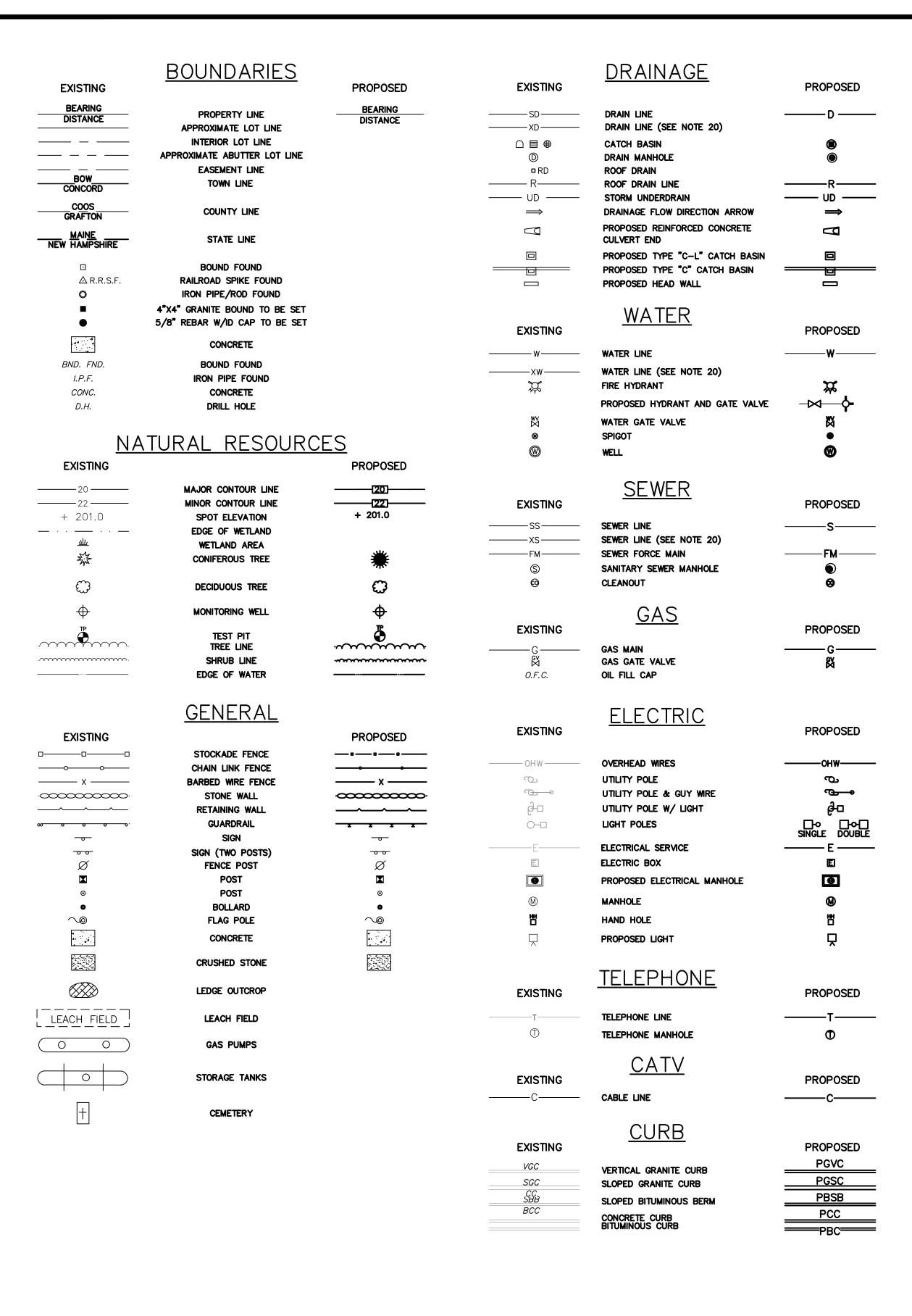
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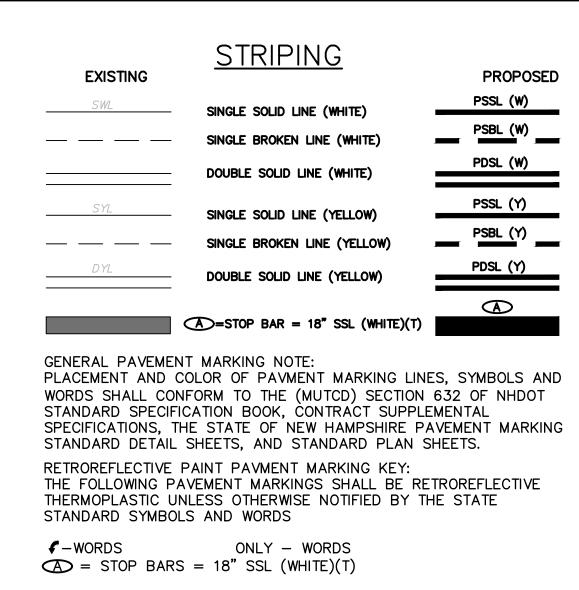
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PROJ. No.: 20180317.A10 DATE: 02/05/2019

**GEN** 





# **EROSION CONTROL**

PROPOSED SILT FENCE	SF
PROPOSED HAY BALES	THB
PROPOSED HAYBALE CHECK DAM	
PROPOSED SILT SOCKS	
PROPOSED EROSION CONTROL MAT	
PROPOSED INLET PROTECTION	
PROPOSED OUTLET PROTECTION	
PROPOSED STONE CHECK DAM	<b>E</b>
PROPOSED STONE CHECK DAM	LOD

TRAFFIC UTILITIES

ACCESSIBLE PARKING SPACE

PARKING SPACE COUNT

PAINTED ISLAND

STREET LIGHT CONDUIT

SIGNAL CONDUIT (EXISTING)	_ · _ · · <del>_</del>
SIGNAL CONDUIT (PROPOSED)	<del></del>
MAGNETIC DETECTOR SLEEVE	<del></del>
LOOP DETECTOR	[8'X10'] (LABEL SIZE) [8'X10']
PULLBOX	☐P.B. ☐P.B. — PROPOSED
HANDHOLE	[]H.H.
CONTROLLER CABINET	<b>⊠</b> c.c. <b>□</b>
SPREAD FOOTING	10' [] 8'(LABEL SIZE)
CYLINDRICAL FOUNDATION	NOTE ANGLE  FROM
MAST ARM POLE (WITH SIGNAL HEADS)	TO ARM
STEEL SPAN WIRE POLES	·
PEDESTRIAN SIGNAL POLE	
TRAFFIC SIGNAL (EXISTING)	₽

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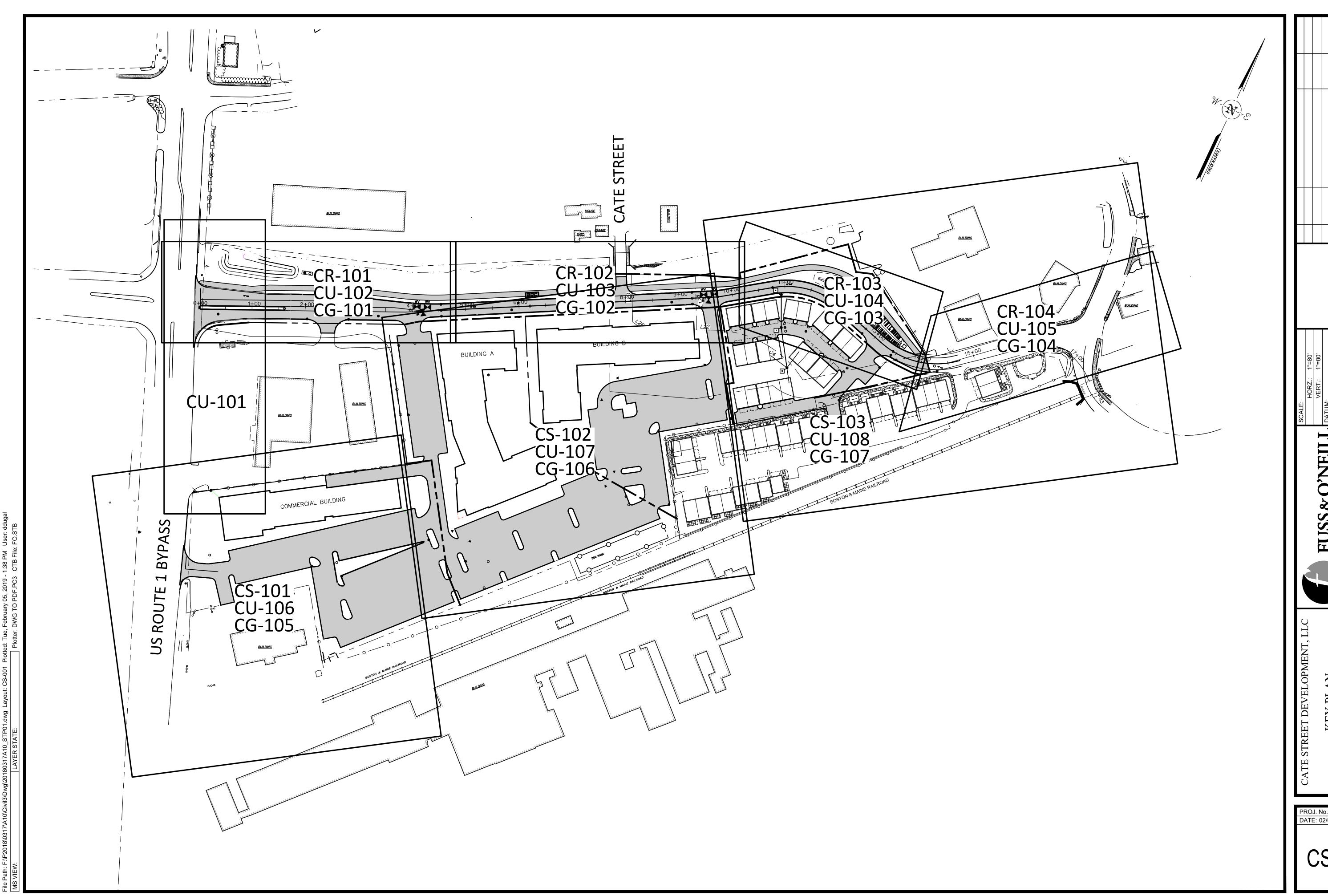
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UPPER SQUARE BUSINESS CENTER
5 FLETCHER STREET, SUITE 1
KENNEBUNK, MAINE 04043
207.363.0669

ATE STREET DEVELOPMENT, GENERAL NOTES & LEGEN WEST END YAPPS

PROJ. No.: 20180317.A10 DATE: 02/05/2019

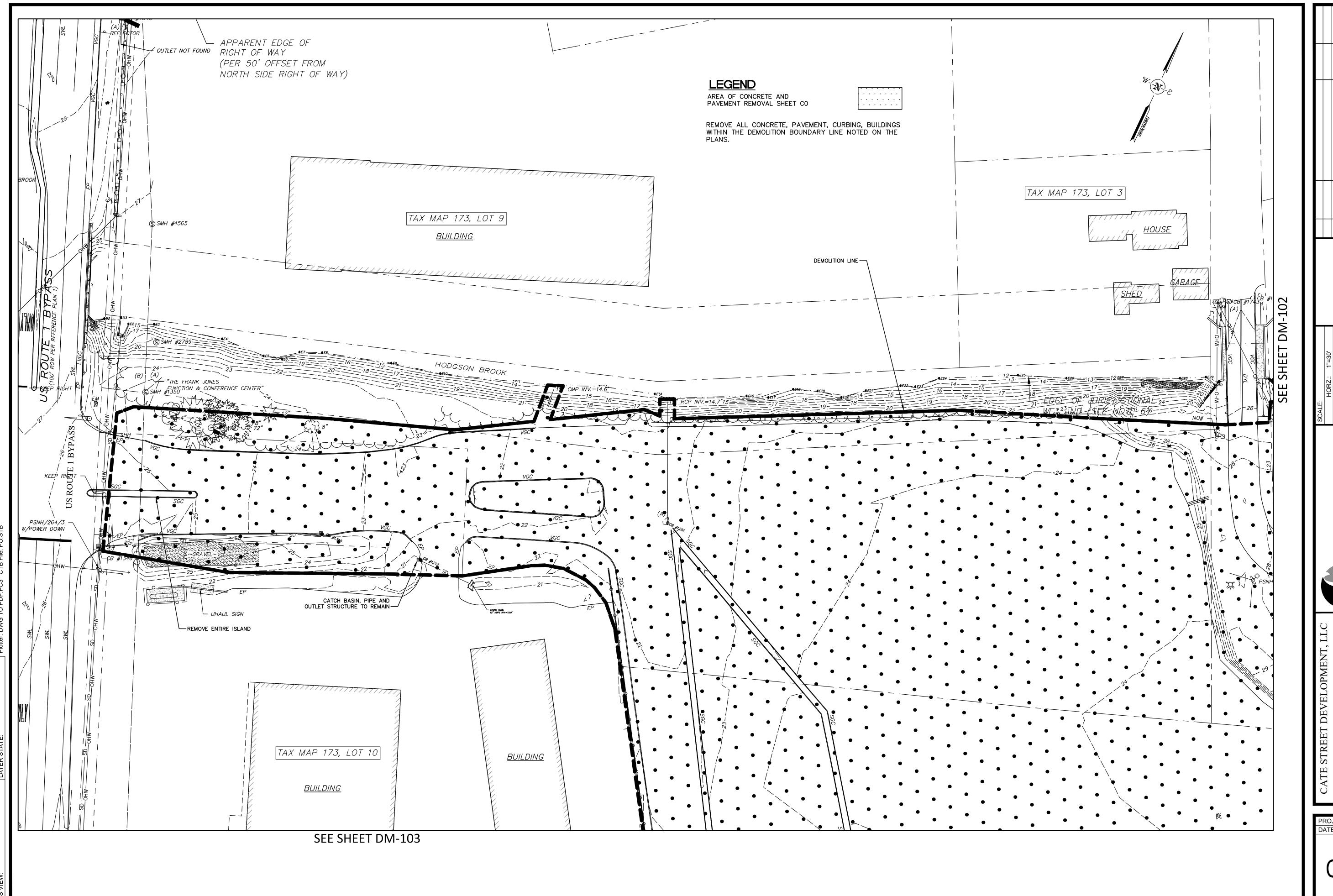
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www.fando.com KEY PLAN

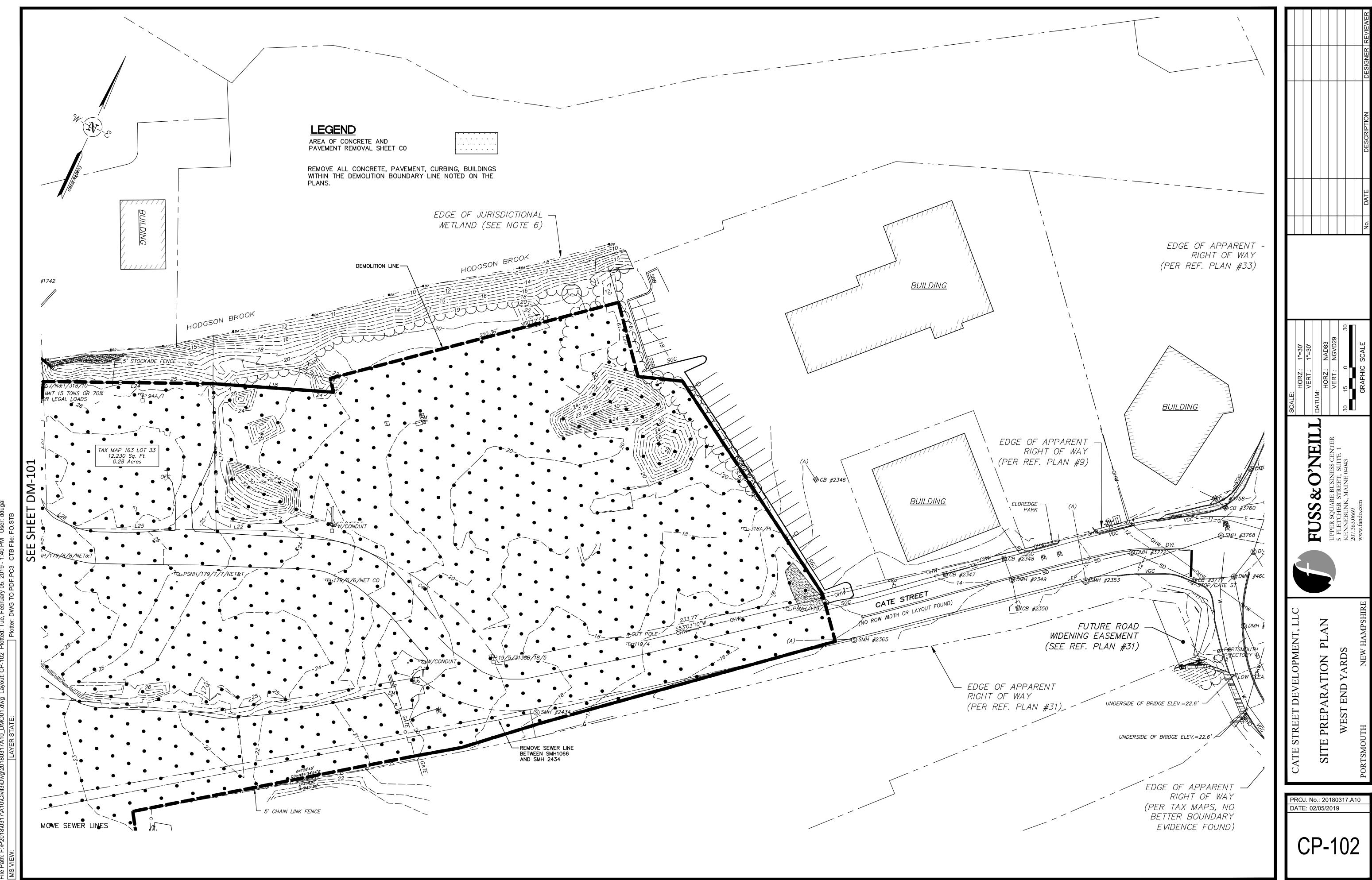
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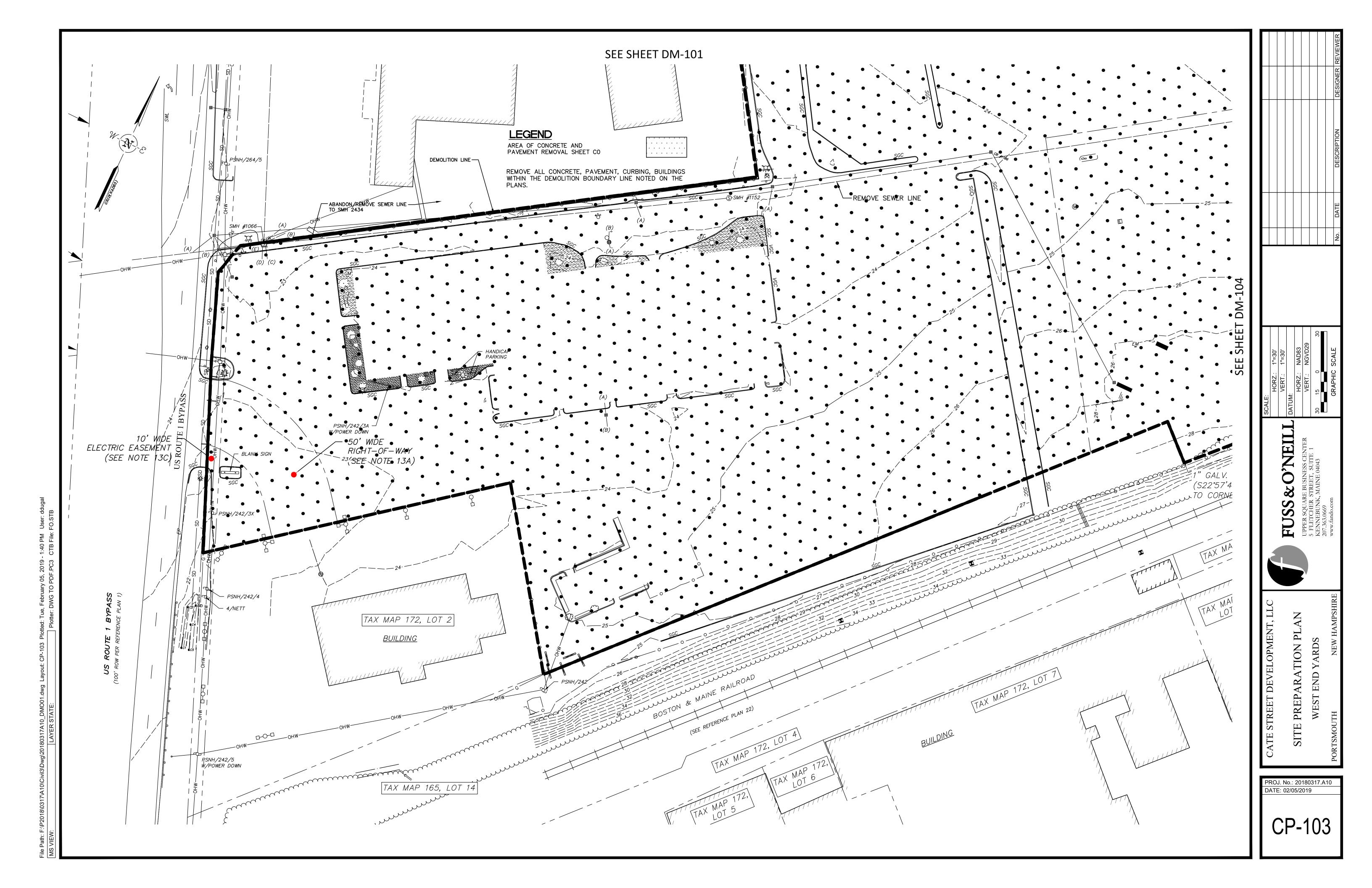


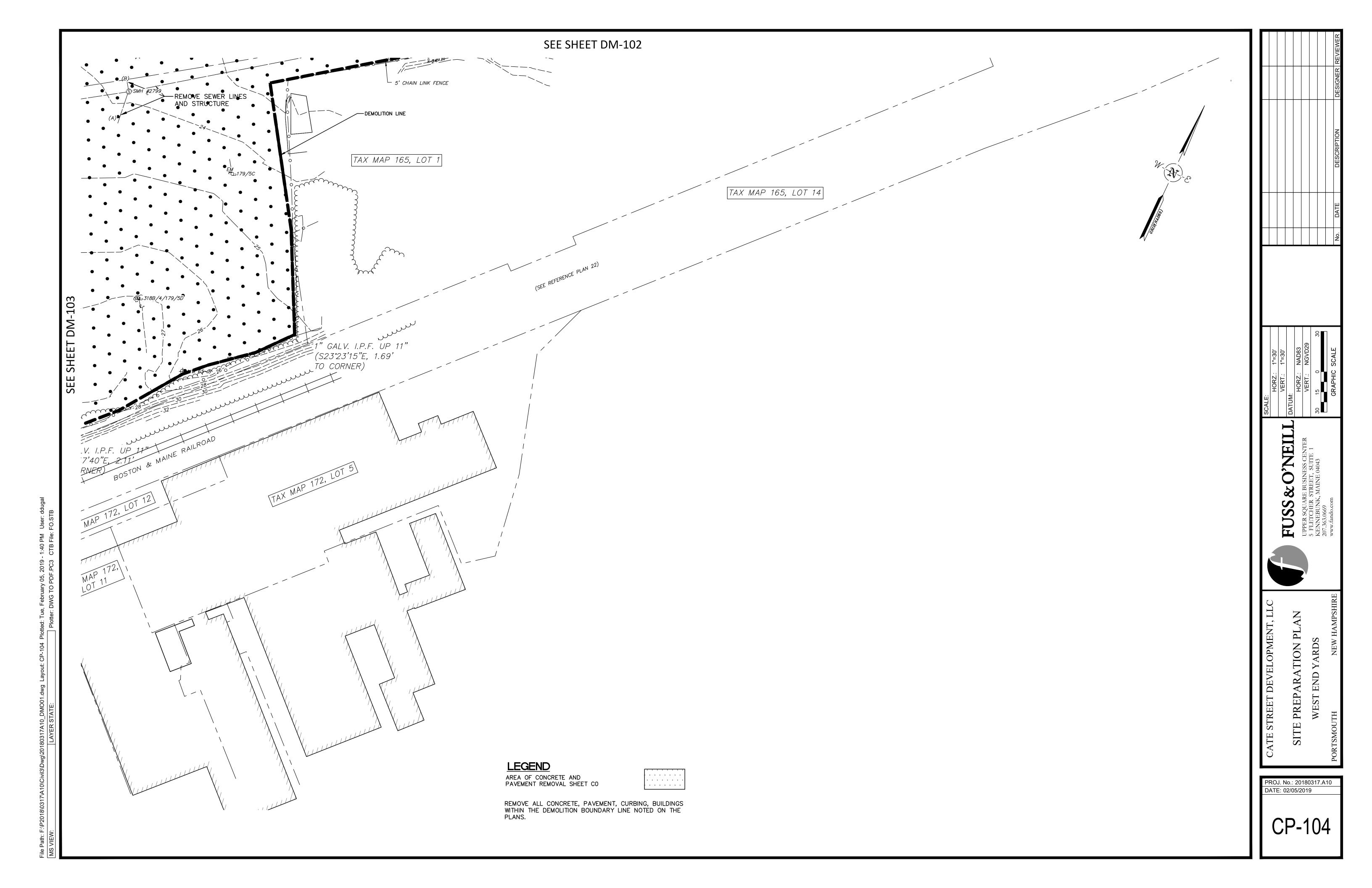
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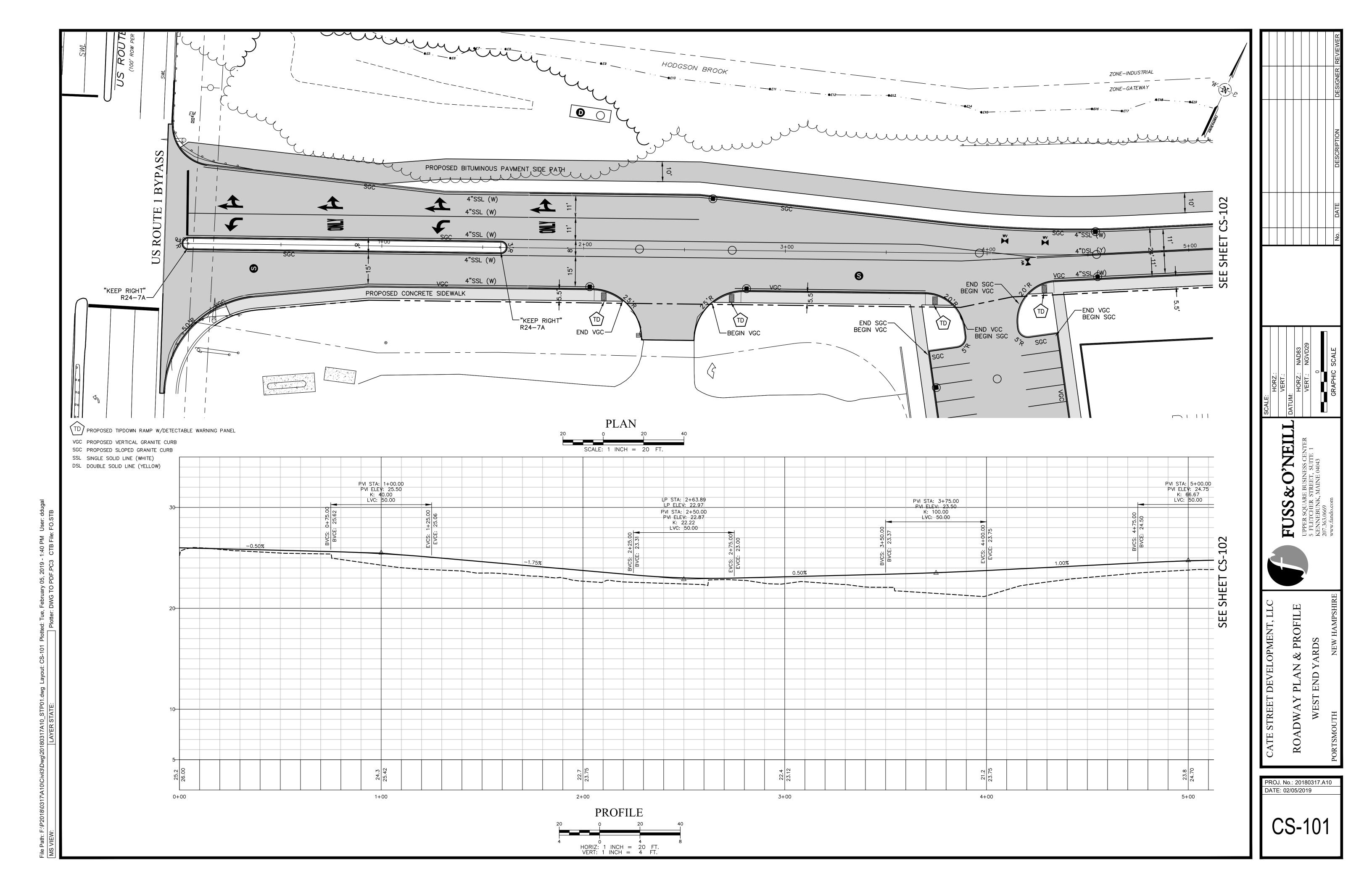
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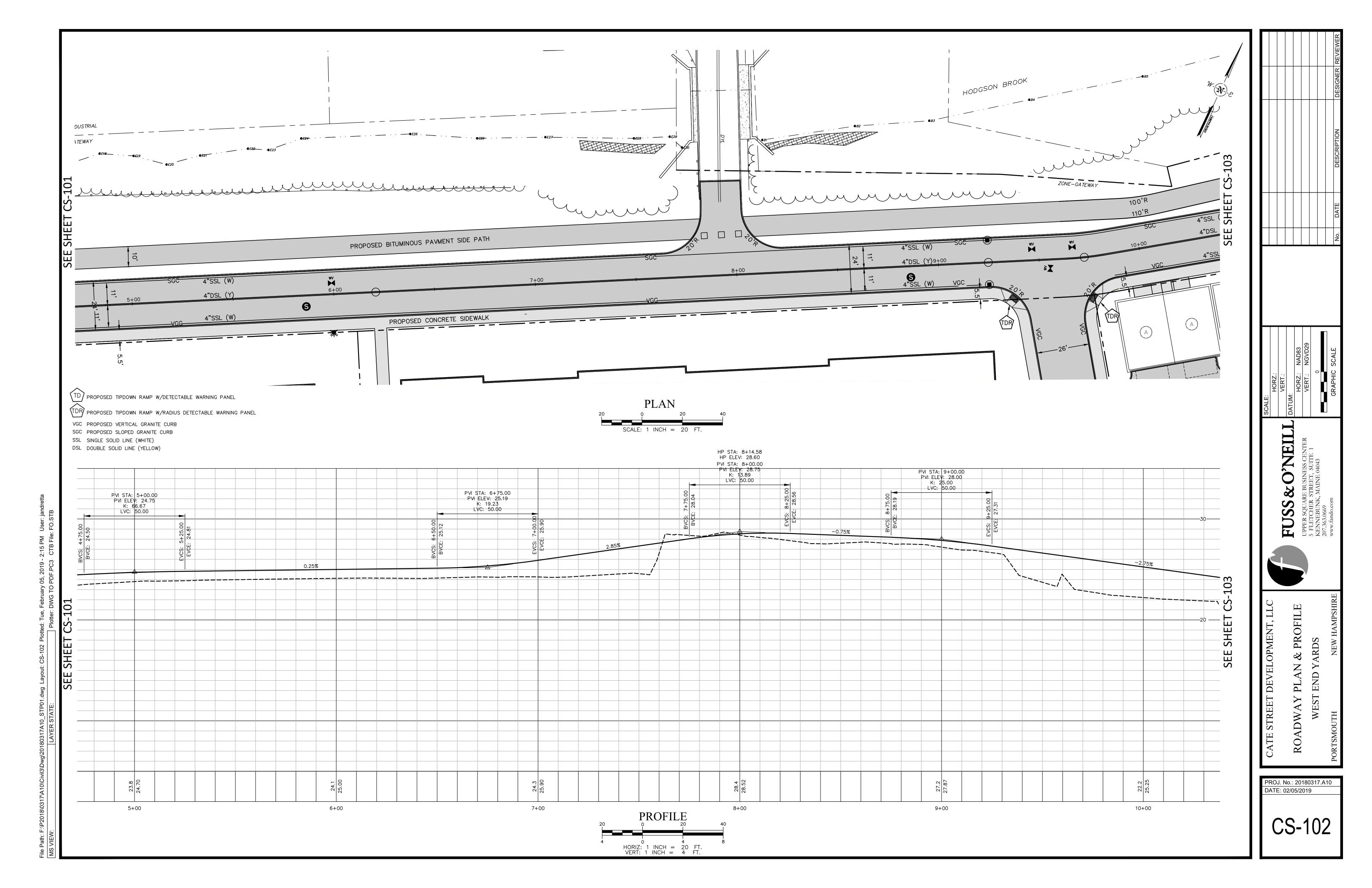


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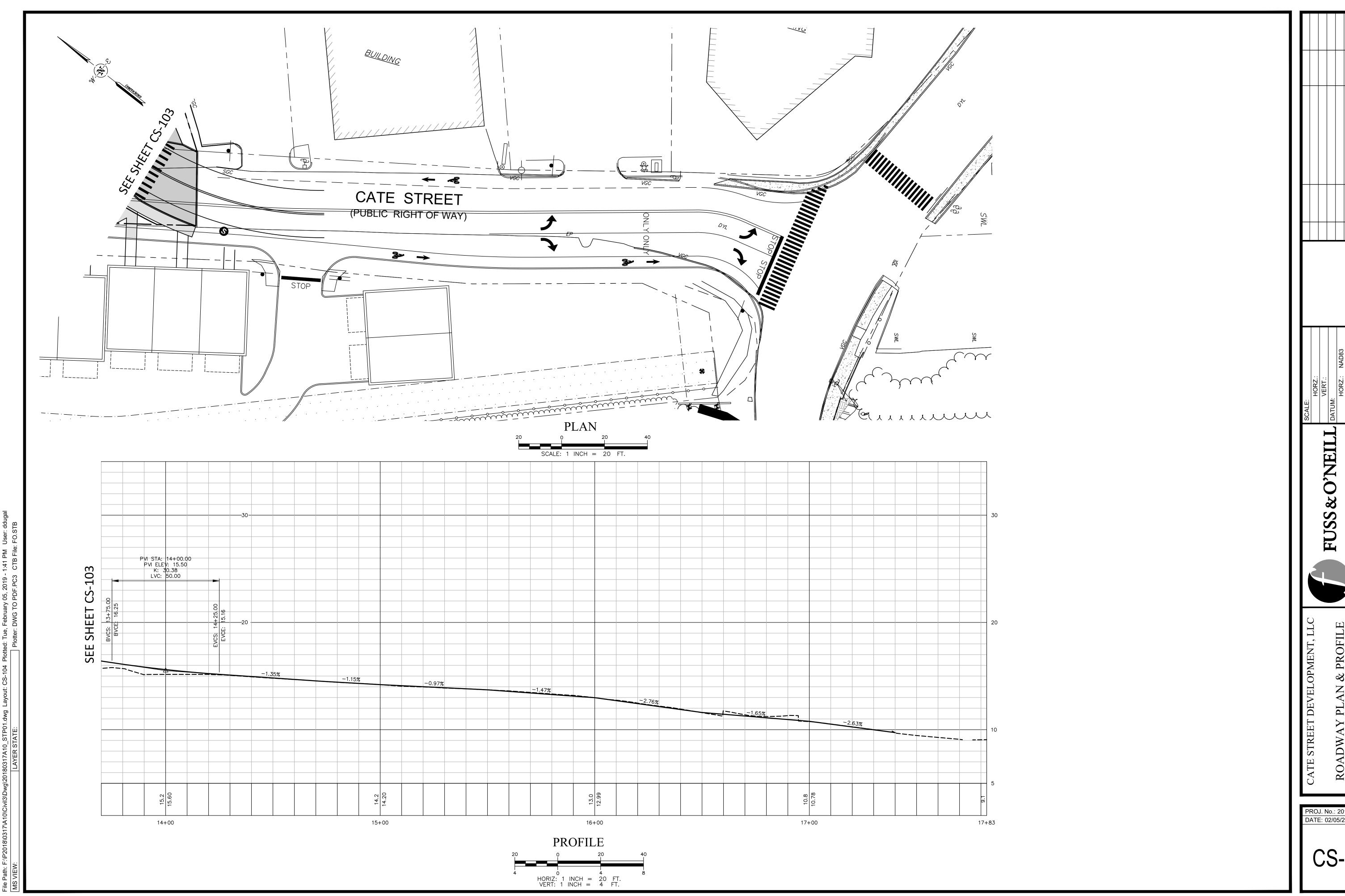








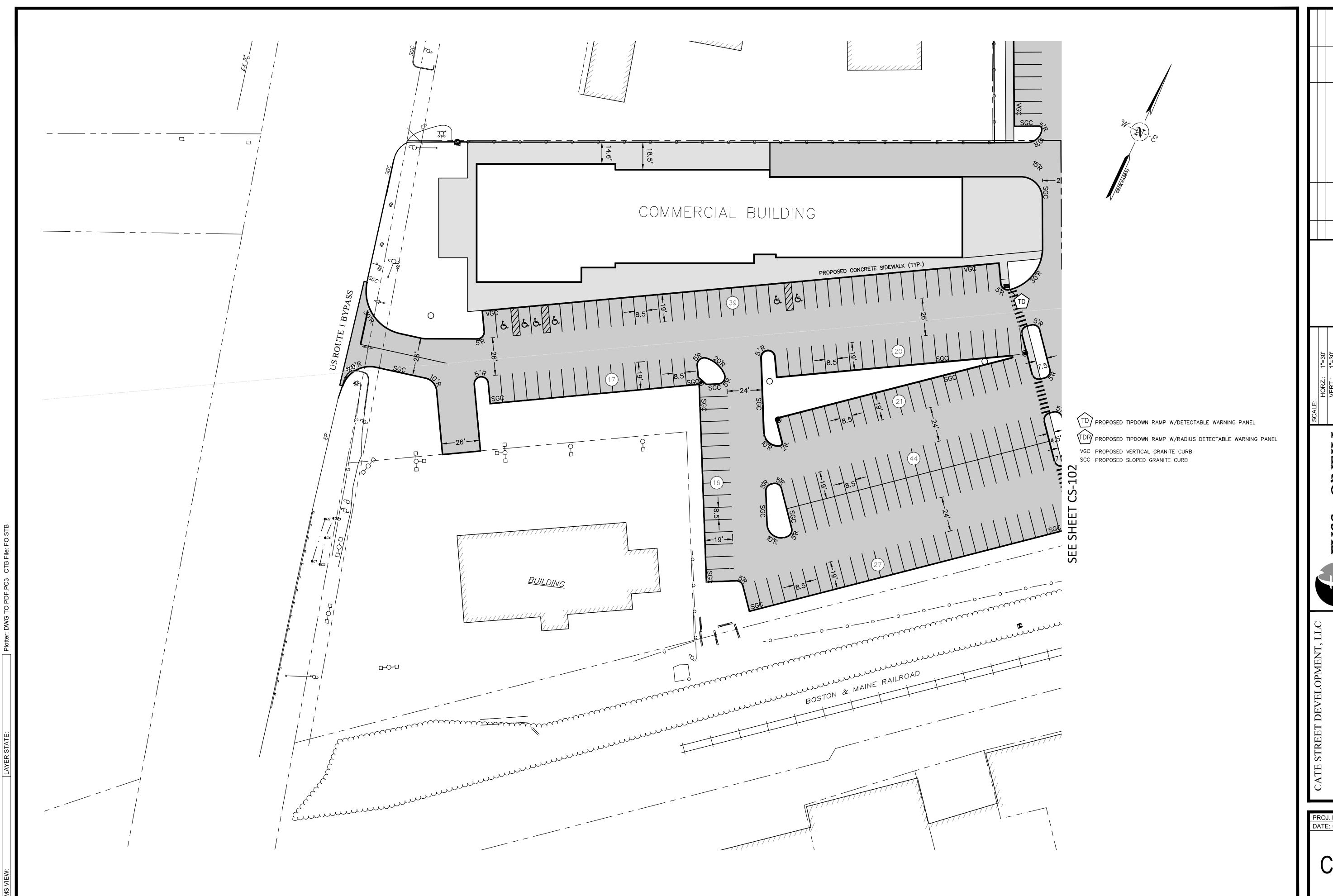
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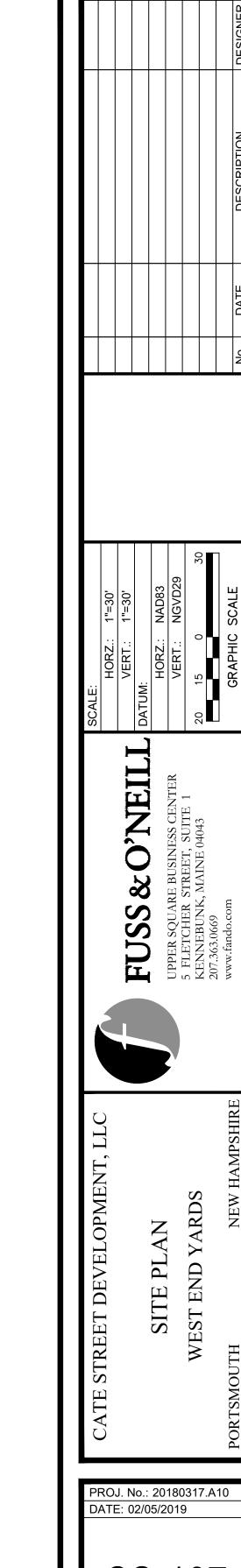
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CS-106



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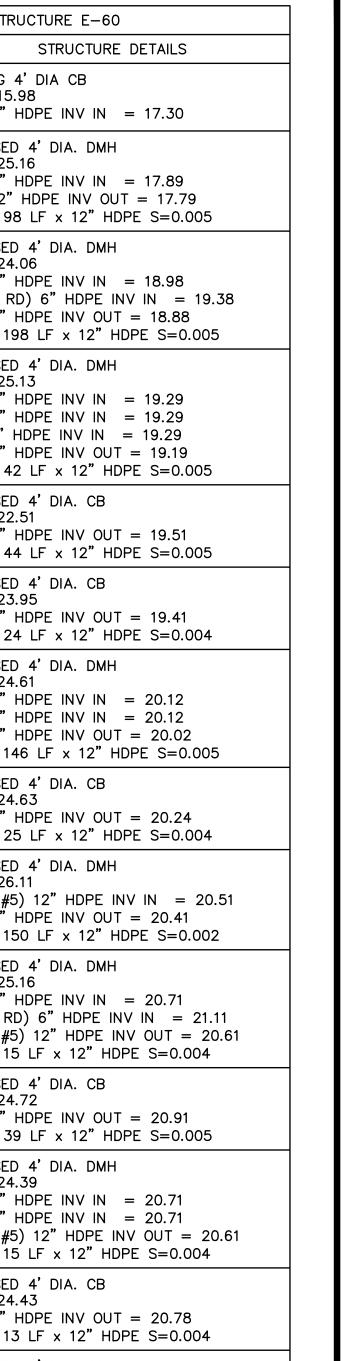
CTDUCTURE	STRUCTURE 1-20		
STRUCTURE 1	STRUCTURE DETAILS  PROPOSED 4' DIA. DMH STA. 2+07.53, L 65.99' RIM = 23.30 (2) 24" HDPE INV IN = 17.20 (SWALE) 24" HDPE INV OUT = 17.10		
2	CONSTRUCT 33 LF x 24" HDPE S=0.003  PROPOSED 4' DIA. DMH STA. 2+27.69, 0.00' RIM = 23.27 (3) 12" HDPE INV IN = 18.64 (4) 18" HDPE INV IN = 18.14 (E1) 12" HDPE INV IN = 18.64 (1) 24" HDPE INV OUT = 17.64 CONSTRUCT 66 LF x 24" HDPE S=0.006		
3	PROPOSED 4' DIA. CB STA. 2+03.28, R 18.92' RIM = 23.31 (2) 12" HDPE INV OUT = 19.31 CONSTRUCT 27 LF x 12" HDPE S=0.022		
4	PROPOSED 4' DIA. DMH  STA. 2+73.66, 0.00'  RIM = 22.99  (5) 12" HDPE INV IN = 18.91  (6) 12" HDPE INV IN = 18.91  (7) 18" HDPE INV IN = 18.51  (2) 18" HDPE INV OUT = 18.41  CONSTRUCT 42 LF x 18" HDPE S=0.006		
5	PROPOSED 4' DIA. CB STA. 2+63.79, L 25.41' RIM = 22.46 (4) 12" HDPE INV OUT = 19.03 CONSTRUCT 24 LF x 12" HDPE S=0.004		
6	PROPOSED 4' DIA. CB STA. 2+81.00, R 18.89' RIM = 22.65 (4) 12" HDPE INV OUT = 19.00 CONSTRUCT 17 LF x 12" HDPE S=0.004		
7	PROPOSED 4' DIA. DMH STA. 3+96.16, L 0.16' RIM = 23.71 (8) 12" HDPE INV IN = 19.79 (11) 18" HDPE INV IN = 19.39 (4) 18" HDPE INV OUT = 19.29 CONSTRUCT 119 LF x 18" HDPE S=0.006		
8	PROPOSED 4' DIA. DMH STA. 4+05.79, R 62.07' RIM = 24.12 (9) 12" HDPE INV IN = 20.18 (10) 12" HDPE INV IN = 20.18 (7) 12" HDPE INV OUT = 20.08 CONSTRUCT 59 LF x 12" HDPE S=0.005		
9	PROPOSED 4' DIA. CB STA. 3+75.67, R 66.73' RIM = 23.20 (8) 12" HDPE INV OUT = 20.32 CONSTRUCT 27 LF x 12" HDPE S=0.005		
10	PROPOSED 4' DIA. CB STA. 3+95.42, R 196.32' RIM = 0.01 (8) 12" HDPE INV OUT = 20.84 CONSTRUCT 133 LF x 12" HDPE S=0.005		
11	PROPOSED 4' DIA. DMH STA. 4+54.25, 0.00' RIM = 24.29 (12) 12" HDPE INV IN = 20.24 (13) 12" HDPE INV IN = 20.24 (14) 12" HDPE INV IN = 20.24 (7) 18" HDPE INV OUT = 19.74 CONSTRUCT 55 LF x 18" HDPE S=0.006		
12	PROPOSED 4' DIA. CB STA. 4+54.25, R 11.02' RIM = 24.07 (11) 12" HDPE INV OUT = 20.32 CONSTRUCT 8 LF x 12" HDPE S=0.007		
13	PROPOSED 4' DIA. CB STA. 4+54.29, L 11.30' RIM = 24.07 (11) 12" HDPE INV OUT = 20.32 CONSTRUCT 8 LF x 12" HDPE S=0.007		
14	PROPOSED 4' DIA. DMH STA. 6+20.79, 0.00' RIM = 25.05 (15) 12" HDPE INV IN = 21.40 (18) 12" HDPE INV IN = 21.40 (11) 12" HDPE INV OUT = 21.30 CONSTRUCT 163 LF x 12" HDPE S=0.006		
15	PROPOSED 4' DIA. DMH STA. 6+07.87, R 125.49' RIM = 26.34 (BASIN #1) 8" HDPE INV IN = 22.28 (14) 12" HDPE INV OUT = 21.95 CONSTRUCT 123 LF x 12" HDPE S=0.004		

STRUCTURE 1-20		
STRUCTURE	STRUCTURE DETAILS	
16	PROPOSED 4' DIA. DMH STA. 5+93.62, R 125.49' RIM = 27.10 (17) 12" HDPE INV IN = 22.71 (BASIN #1) 12" HDPE INV OUT = 22.61 CONSTRUCT 13 LF x 12" HDPE S=0.005	
17	PROPOSED 4' DIA. CB STA. 5+36.75, R 125.00' RIM = 27.37 (16) 12" HDPE INV OUT = 22.98 CONSTRUCT 53 LF x 12" HDPE S=0.005	
18	PROPOSED 4' DIA. DMH STA. 9+24.79, 0.00' RIM = 27.32 (19) 12" HDPE INV IN = 23.45 (20) 12" HDPE INV IN = 23.45 (14) 12" HDPE INV OUT = 23.35 CONSTRUCT 301 LF x 12" HDPE S=0.006	
19	PROPOSED 4' DIA. CB STA. 9+24.79, R 11.00' RIM = 27.10 (18) 12" HDPE INV OUT = 23.52 CONSTRUCT 8 LF x 12" HDPE S=0.006	
20	PROPOSED 4' DIA. CB STA. 9+24.79, L 11.00' RIM = 27.10 (18) 12" HDPE INV OUT = 23.52 CONSTRUCT 8 LF x 12" HDPE S=0.006	

	STRUCTURE 22-47		
STRUCTURE	STRUCTURE DETAILS		
22	PROPOSED 4' DIA. DMH RIM = 15.08 (23) 15" HDPE INV IN = 10.72 (E???) 18" HDPE INV OUT = 10.47 CONST. 119 LF x 18" HDPE S=0.006		
23	PROPOSED 4' DIA. DMH RIM = 17.21 (24) 12" HDPE INV IN = 11.48 (25) 15" HDPE INV IN = 11.33 (22) 15" HDPE INV OUT = 11.23 CONST. 79 LF x 15" HDPE S=0.006		
24	PROPOSED 4' DIA. CB RIM = 16.62 (23) 12" HDPE INV OUT = 12.13 CONST. 13 LF x 12" HDPE S=0.039		
25	PROPOSED 4' DIA. DMH RIM = 19.20 (26) 12" HDPE INV IN = 11.99 (28) 15" HDPE INV IN = 11.84 (27) 12" HDPE INV IN = 11.99 (23) 15" HDPE INV OUT = 11.74 CONST. 63 LF x 15" HDPE S=0.006		
26	PROPOSED 4' DIA. CB RIM = 18.97 (25) 12" HDPE INV OUT = 12.34 CONST. 8 LF x 12" HDPE S=0.032		
27	PROPOSED OVERFLOW STRUCTURE RIM = 16.60 (25) 12" HDPE INV OUT = 12.10 CONST. 23 LF x 12" HDPE S=0.004		
28	PROPOSED 4' DIA. DMH RIM = 21.74 (29) 12" HDPE INV IN = 12.72 (30) 12" HDPE INV IN = 12.72 (41) 12" HDPE INV IN = 12.72 (25) 15" HDPE INV OUT = 12.47 CONST. 97 LF x 15" HDPE S=0.006		
29	PROPOSED OVERFLOW STRUCTURE RIM = 18.29 (28) 12" HDPE INV OUT = 13.90 CONST. 24 LF x 12" HDPE S=0.043		
30	PROPOSED 4' DIA. DMH RIM = 22.27 (31) 6" HDPE INV IN = 13.84 (BASIN #2) 12" HDPE INV IN = 13.44 (28) 12" HDPE INV OUT = 13.34 CONST. 62 LF x 12" HDPE S=0.009		
31	PROPOSED 4' DIA. DMH RIM = 23.58 (BASIN #3) 6" HDPE INV IN = 14.36 (30) 6" HDPE INV OUT = 14.26 CONST. 42 LF x 6" HDPE S=0.009		
32	PROPOSED 4' DIA. DMH RIM = 23.36 (34) 12" HDPE INV IN = 15.37 (33) 12" HDPE INV IN = 15.37 (BASIN #3) 12" HDPE INV OUT = 15.27 CONST. 23 LF x 12" HDPE S=0.010		
33	PROPOSED 4' DIA. CB RIM = 22.07 (32) 12" HDPE INV OUT = 17.09 CONST. 35 LF x 12" HDPE S=0.045		
34	PROPOSED 4' DIA. CB RIM = 23.28 (32) 12" HDPE INV OUT = 15.54 CONST. 4 LF x 12" HDPE S=0.024		
35	PROPOSED 4' DIA. DMH RIM = 19.44 (38) 12" HDPE INV IN = 14.97 (36) 12" HDPE INV IN = 14.97 (37) 12" HDPE INV IN = 14.97 (BASIN #2) 18" HDPE INV OUT = 14.47 CONST. 5 LF x 18" HDPE S=0.007		
36	PROPOSED 4' DIA. CB RIM = 19.74 (35) 12" HDPE INV OUT = 15.00 CONST. 6 LF x 12" HDPE S=0.003		

	STRUCTURE 22-47
STRUCTURE	STRUCTURE DETAILS
37	PROPOSED 4' DIA. CB RIM = 17.72 (35) 12" HDPE INV OUT = 15.29 CONST. 65 LF x 12" HDPE S=0.005
38	PROPOSED 4' DIA. DMH RIM = 18.71 (39) 12" HDPE INV IN = 15.53 (40) 12" HDPE INV IN = 15.53 (35) 12" HDPE INV OUT = 15.43 CONST. 45 LF x 12" HDPE S=0.010
39	PROPOSED 4' DIA. CB RIM = 19.26 (38) 12" HDPE INV OUT = 15.74 CONST. 43 LF x 12" HDPE S=0.005
40	PROPOSED 4' DIA. CB RIM = 18.53 (38) 12" HDPE INV OUT = 15.58 CONST. 11 LF x 12" HDPE S=0.004
41	PROPOSED 4' DIA. DMH RIM = 23.14 (42) 12" HDPE INV IN = 13.76 (28) 12" HDPE INV OUT = 13.66 CONST. 94 LF x 12" HDPE S=0.010
42	PROPOSED 4' DIA. DMH RIM = 26.01 (43) 12" HDPE INV IN = 14.86 (41) 12" HDPE INV OUT = 14.76 CONST. 101 LF x 12" HDPE S=0.010
43	PROPOSED 4' DIA. DMH RIM = 20.40 (BASIN #4) 12" HDPE INV IN = 16.01 (42) 12" HDPE INV OUT = 15.91 CONST. 126 LF x 12" HDPE S=0.008
44	PROPOSED 4' DIA. DMH RIM = 23.68 (45) 12" HDPE INV IN = 19.29 (BLDG B RD) 6" HDPE INV IN = -2.98 (BASIN #4) 12" HDPE INV OUT = 19.19 CONST. 10 LF x 12" HDPE S=0.014
45	PROPOSED 4' DIA. DMH RIM = 24.89 (47) 12" HDPE INV IN = 19.98 (46) 12" HDPE INV IN = 19.98 (44) 12" HDPE INV OUT = 19.88 CONST. 56 LF x 12" HDPE S=0.010
46	PROPOSED 4' DIA. CB RIM = 23.40 (45) 12" HDPE INV OUT = 20.28 CONST. 62 LF x 12" HDPE S=0.005
47	PROPOSED 4' DIA. CB RIM = 25.13 (45) 12" HDPE INV OUT = 21.03 CONST. 70 LF x 12" HDPE S=0.014

	STRUCTURE E-60
STRUCTURE	STRUCTURE DETAILS
E??	EXISTING 4' DIA CB RIM = 15.98 (48) 12" HDPE INV IN = 17.30
48	PROPOSED 4' DIA. DMH RIM = 25.16 (49) 12" HDPE INV IN = 17.89 (E??) 12" HDPE INV OUT = 17.79 CONST. 98 LF x 12" HDPE S=0.005
49	PROPOSED 4' DIA. DMH RIM = 24.06 (50) 12" HDPE INV IN = 18.98 (RETAIL RD) 6" HDPE INV IN = 19.38 (48) 12" HDPE INV OUT = 18.88 CONST. 198 LF x 12" HDPE S=0.005
50	PROPOSED 4' DIA. DMH RIM = 25.13 (53) 12" HDPE INV IN = 19.29 (52) 12" HDPE INV IN = 19.29 (51) 12" HDPE INV IN = 19.29 (49) 12" HDPE INV OUT = 19.19 CONST. 42 LF x 12" HDPE S=0.005
51	PROPOSED 4' DIA. CB RIM = 22.51 (50) 12" HDPE INV OUT = 19.51 CONST. 44 LF x 12" HDPE S=0.005
52	PROPOSED 4' DIA. CB RIM = 23.95 (50) 12" HDPE INV OUT = 19.41 CONST. 24 LF x 12" HDPE S=0.004
53	PROPOSED 4' DIA. DMH RIM = 24.61 (55) 12" HDPE INV IN = 20.12 (54) 12" HDPE INV IN = 20.12 (50) 12" HDPE INV OUT = 20.02 CONST. 146 LF x 12" HDPE S=0.005
54	PROPOSED 4' DIA. CB RIM = 24.63 (53) 12" HDPE INV OUT = 20.24 CONST. 25 LF x 12" HDPE S=0.004
55	PROPOSED 4' DIA. DMH RIM = 26.11 (BASIN #5) 12" HDPE INV IN = 20.51 (53) 12" HDPE INV OUT = 20.41 CONST. 150 LF x 12" HDPE S=0.002
56	PROPOSED 4' DIA. DMH RIM = 25.16 (57) 12" HDPE INV IN = 20.71 (BLG A RD) 6" HDPE INV IN = 21.11 (BASIN #5) 12" HDPE INV OUT = 20.61 CONST. 15 LF x 12" HDPE S=0.004
57	PROPOSED 4' DIA. CB RIM = 24.72 (56) 12" HDPE INV OUT = 20.91 CONST. 39 LF x 12" HDPE S=0.005
58	PROPOSED 4' DIA. DMH RIM = 24.39 (60) 12" HDPE INV IN = 20.71 (59) 12" HDPE INV IN = 20.71 (BASIN #5) 12" HDPE INV OUT = 20.61 CONST. 15 LF x 12" HDPE S=0.004
59	PROPOSED 4' DIA. CB RIM = 24.43 (58) 12" HDPE INV OUT = 20.78 CONST. 13 LF x 12" HDPE S=0.004
60	PROPOSED 4' DIA. CB RIM = 23.71 (58) 12" HDPE INV OUT = 21.07 CONST. 72 LF x 12" HDPE S=0.005

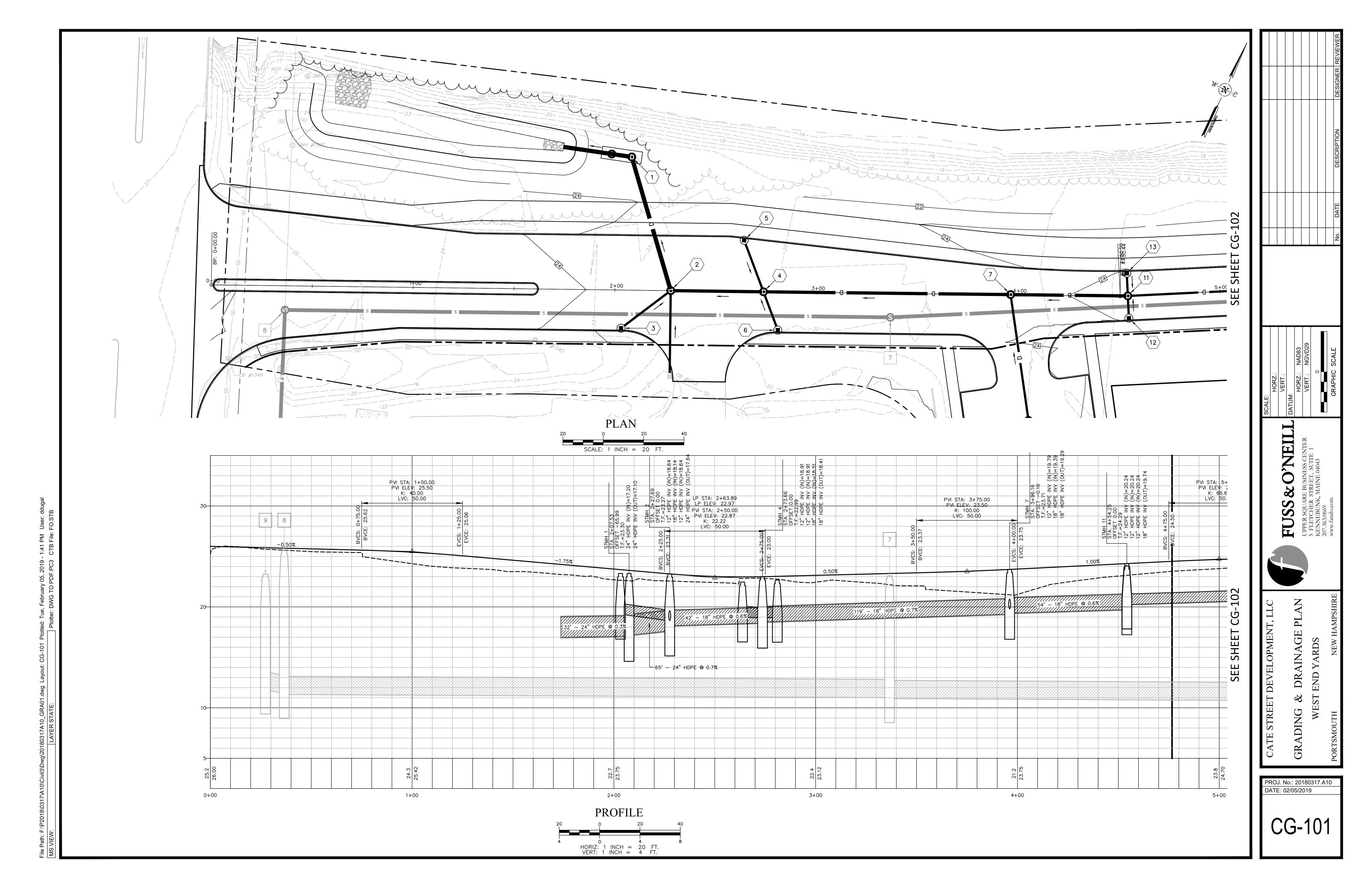


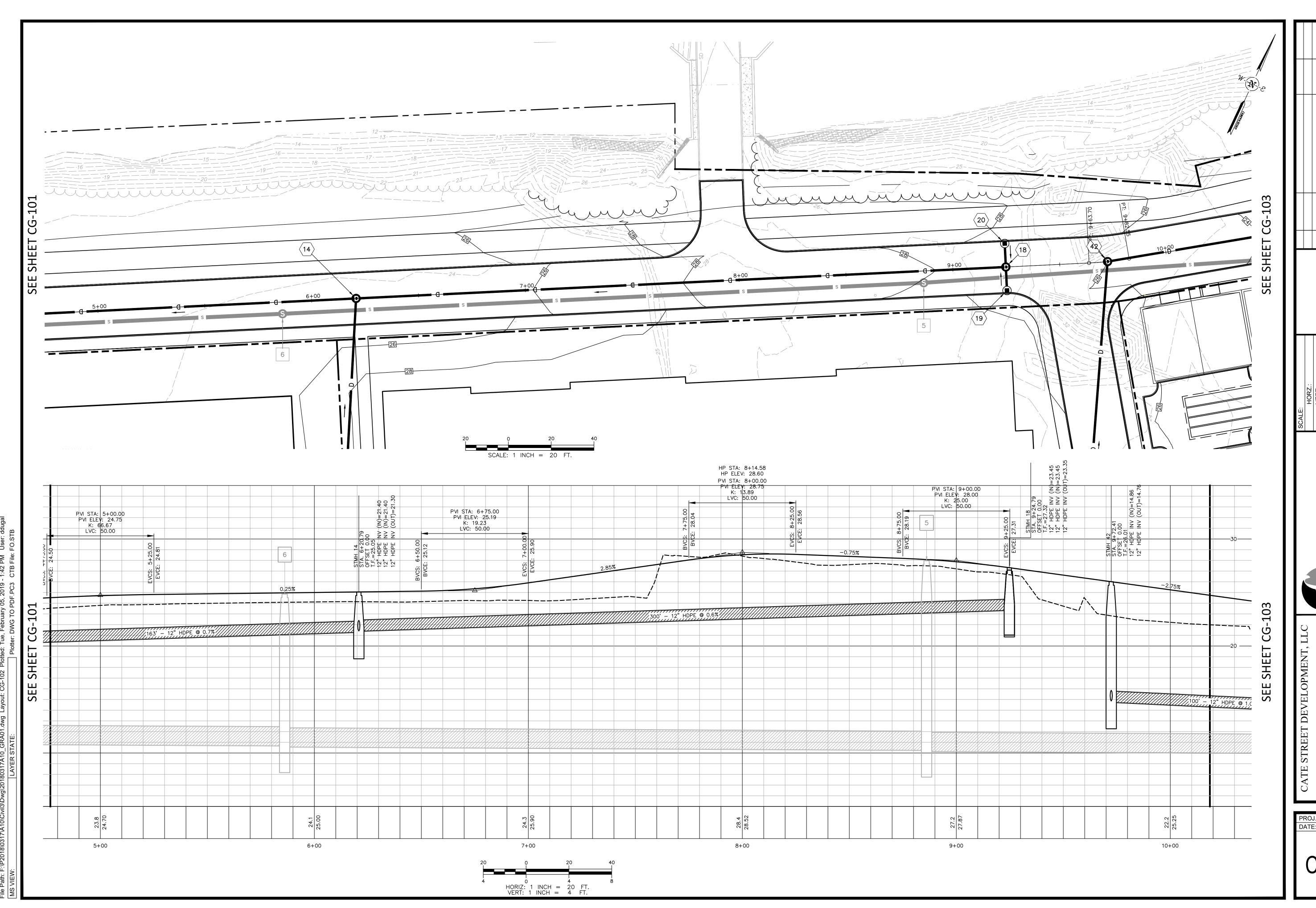
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UPPER SQUARE BUSINESS CENTER
5 FLETCHER STREET, SUITE 1
KENNEBUNK, MAINE 04043
207 343 0649 SPOT ELEVATION EXHIBIT

PROJ. No.: 20180317.A10 DATE: 02/05/2019

CG-001

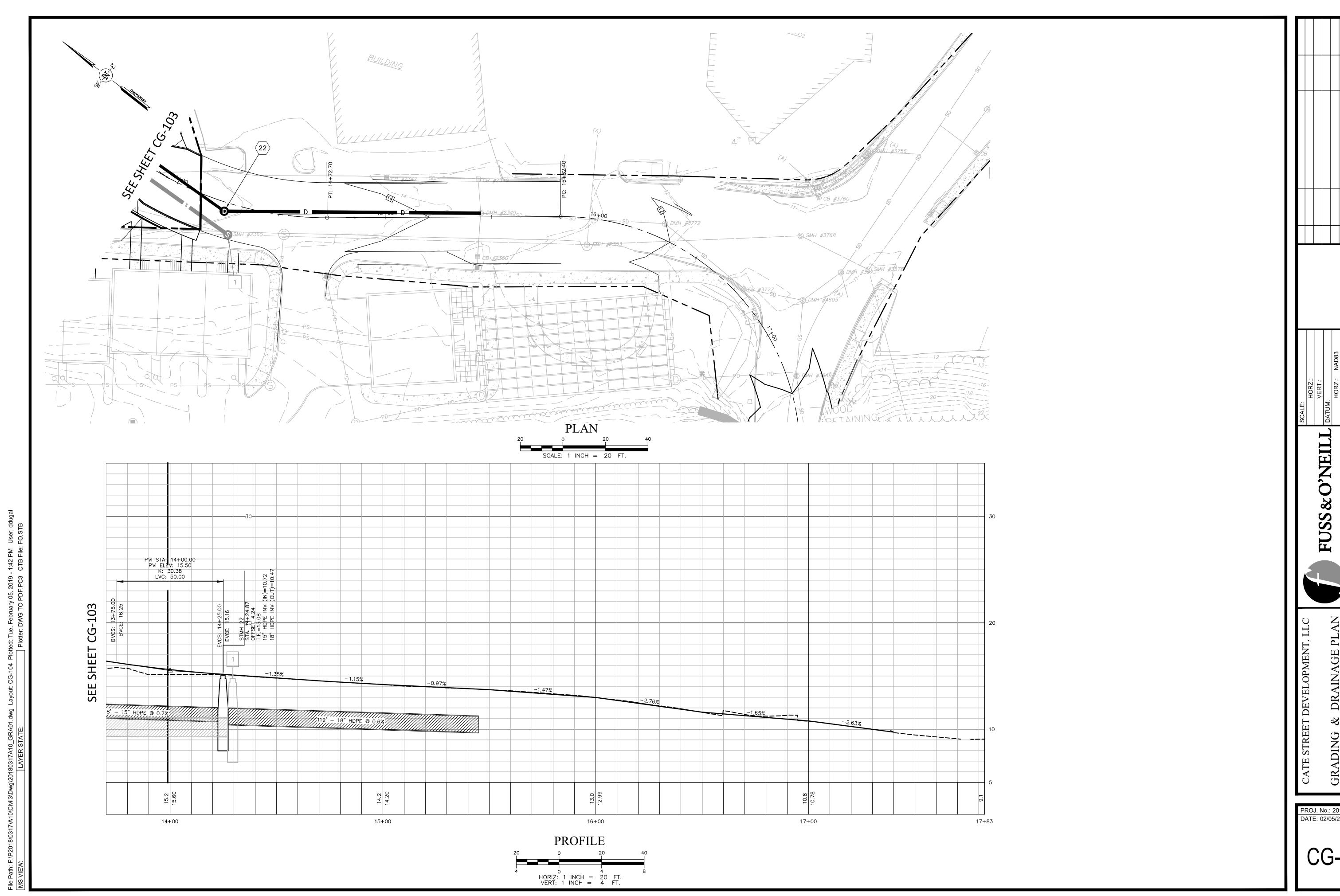




&O'NEILL FUSS (UPPER SQUARUS FLETCHER SKENNEBUNK, 207.363.0669 www.fando.com PROJ. No.: 20180317.A10 DATE: 02/05/2019

CG-102

O'NEILL FUSS & (UPPER SQUARE BUSE FLETCHER STREIN KENNEBUNK, MAIN 207.363.0669 www.fando.com DRAINAGE PLAN

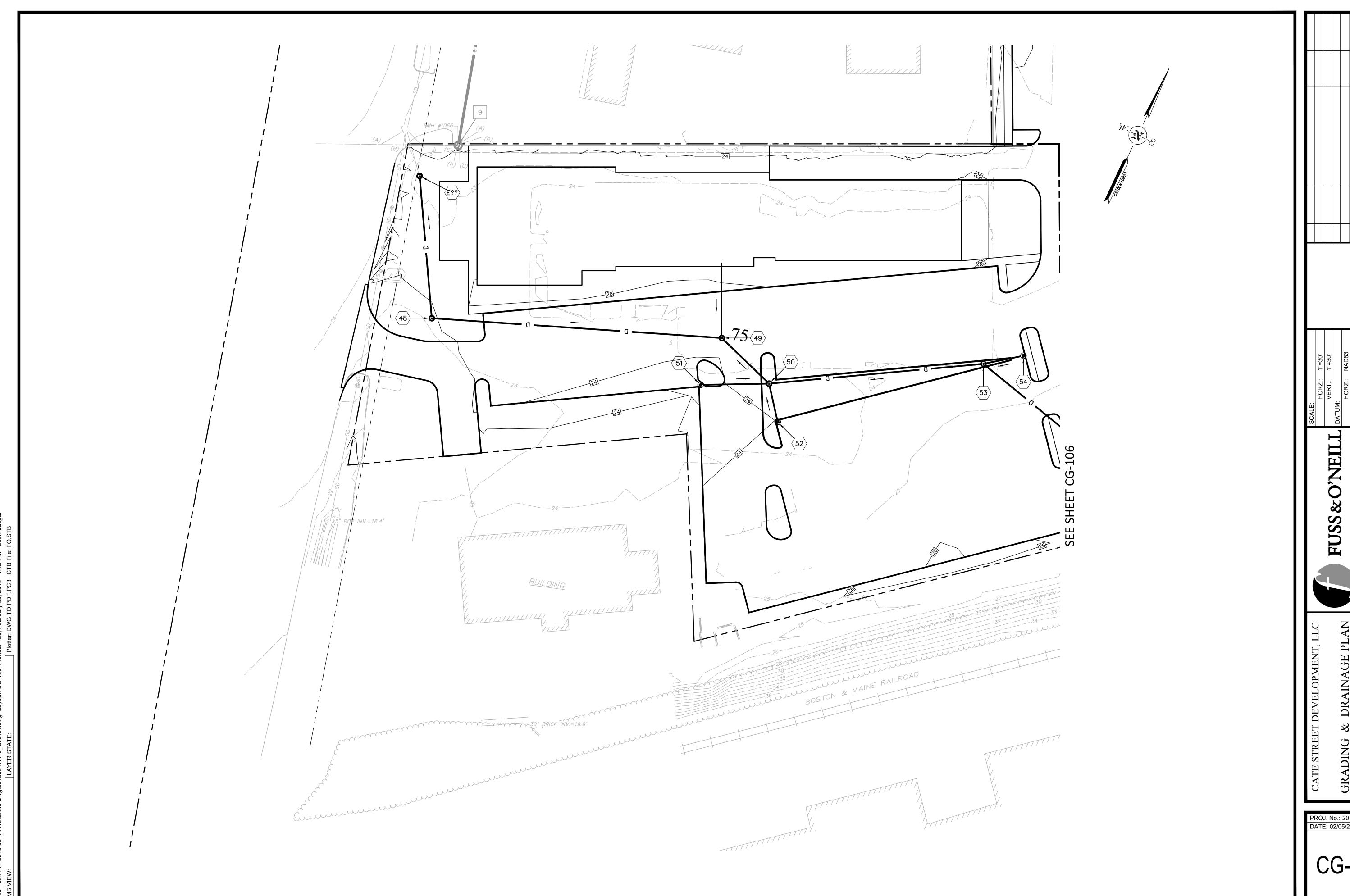


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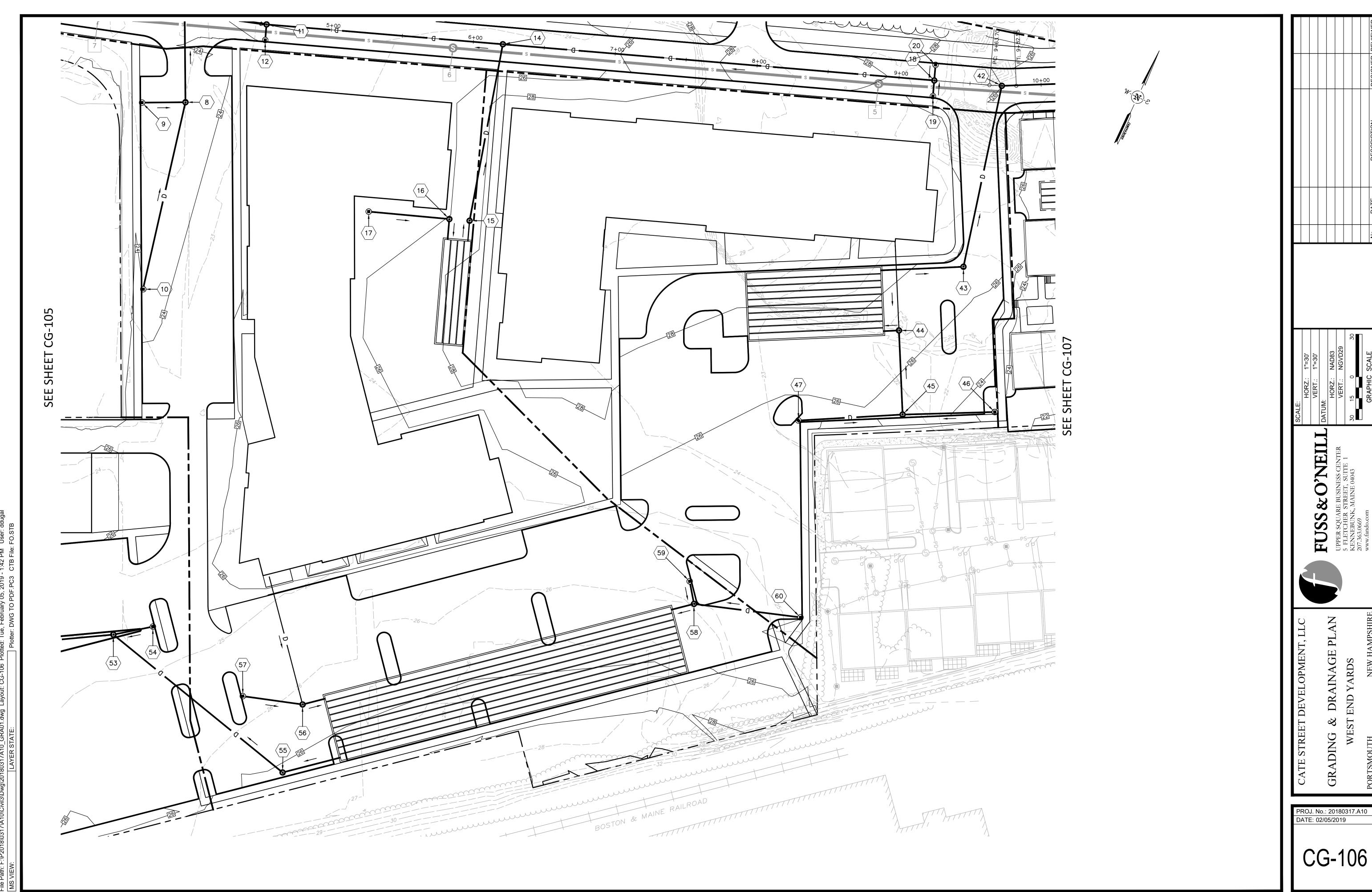
CG-104



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CG-105

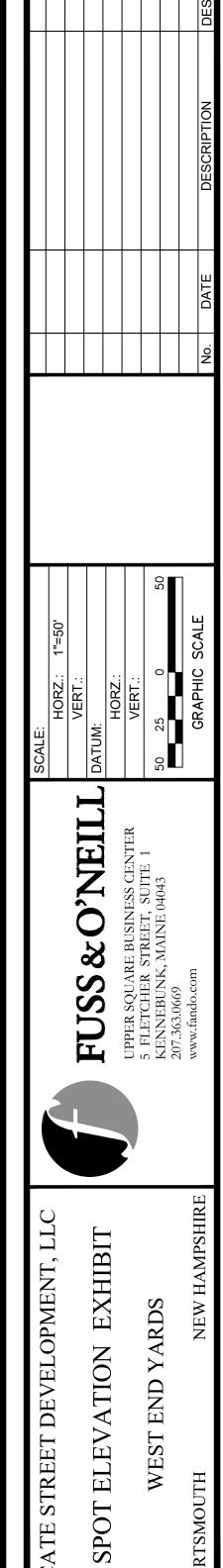


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FUSS & PROJ. No.: 20180317.A10 DATE: 02/05/2019

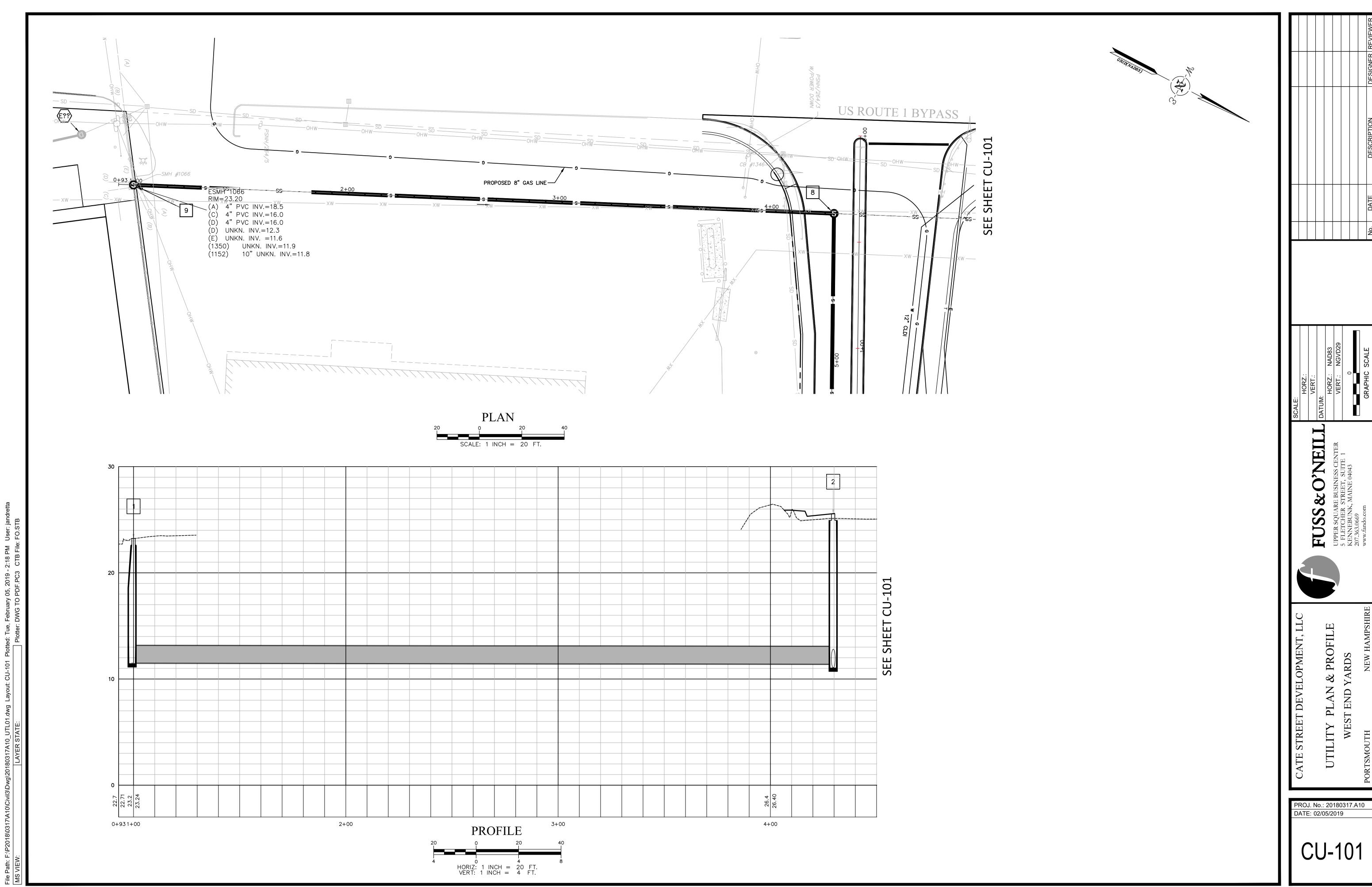
CG-107

SEWER SYSTEM		
STRUCTURE	STRUCTURE DETAILS	
1	EXISTING 4' SEWER MANHOLE STA. 14+29.41, R 14.36' RIM = 14.75 (2) 21" PVC INV IN = 9.30	
2	PROPOSED 4' DIA. SEWER MANHOLE STA. 13+43.00, R 7.97' RIM = 17.05 (3) 21" PVC INV IN = 9.49 (1) 21" PVC INV OUT = 9.39 CONSTRUCT 88 LF x 21" PVC S=0.001	
3	PROPOSED 4' DIA. SEWER MANHOLE STA. 11+88.31, R 5.50' RIM = 21.47 (4) 21" PVC INV IN = 9.75 (2) 21" PVC INV OUT = 9.65 CONSTRUCT 151 LF x 21" PVC S=0.001	
4	PROPOSED 4' DIA. SEWER MANHOLE STA. 10+92.29, R 15.25' RIM = 23.06 (5) 21" PVC INV IN = 9.94 (3) 21" PVC INV OUT = 9.84 CONSTRUCT 85 LF x 21" PVC S=0.001	
5	PROPOSED 4' DIA. SEWER MANHOLE STA. 8+86.13, R 5.50' RIM = 27.96 (6) 21" PVC INV IN = 10.26 (4) 21" PVC INV OUT = 10.16 CONSTRUCT 202 LF x 21" PVC S=0.001	
6	PROPOSED 4' DIA. SEWER MANHOLE STA. 5+86.13, R 5.50' RIM = 24.86 (7) 21" PVC INV IN = 10.68 (5) 21" PVC INV OUT = 10.58 CONSTRUCT 297 LF x 21" PVC S=0.001	
7	PROPOSED 4' DIA. SEWER MANHOLE STA. 3+36.64, R 11.87' RIM = 23.07 (8) 21" PVC INV IN = 11.04 (6) 21" PVC INV OUT = 10.94 CONSTRUCT 247 LF x 21" PVC S=0.001	
8	PROPOSED 4' DIA. SEWER MANHOLE STA. 0+36.64, R 11.99' RIM = 25.58 (9) 21" PVC INV IN = 11.45 (7) 21" PVC INV OUT = 11.35 CONSTRUCT 297 LF x 21" PVC S=0.001	
9	PROPOSED 4' DIA. SEWER MANHOLE STA. 0+27.31, R 342.07' RIM = 23.24 (8) 21" PVC INV OUT = 11.80 CONSTRUCT 327 LF x 21" PVC S=0.001	



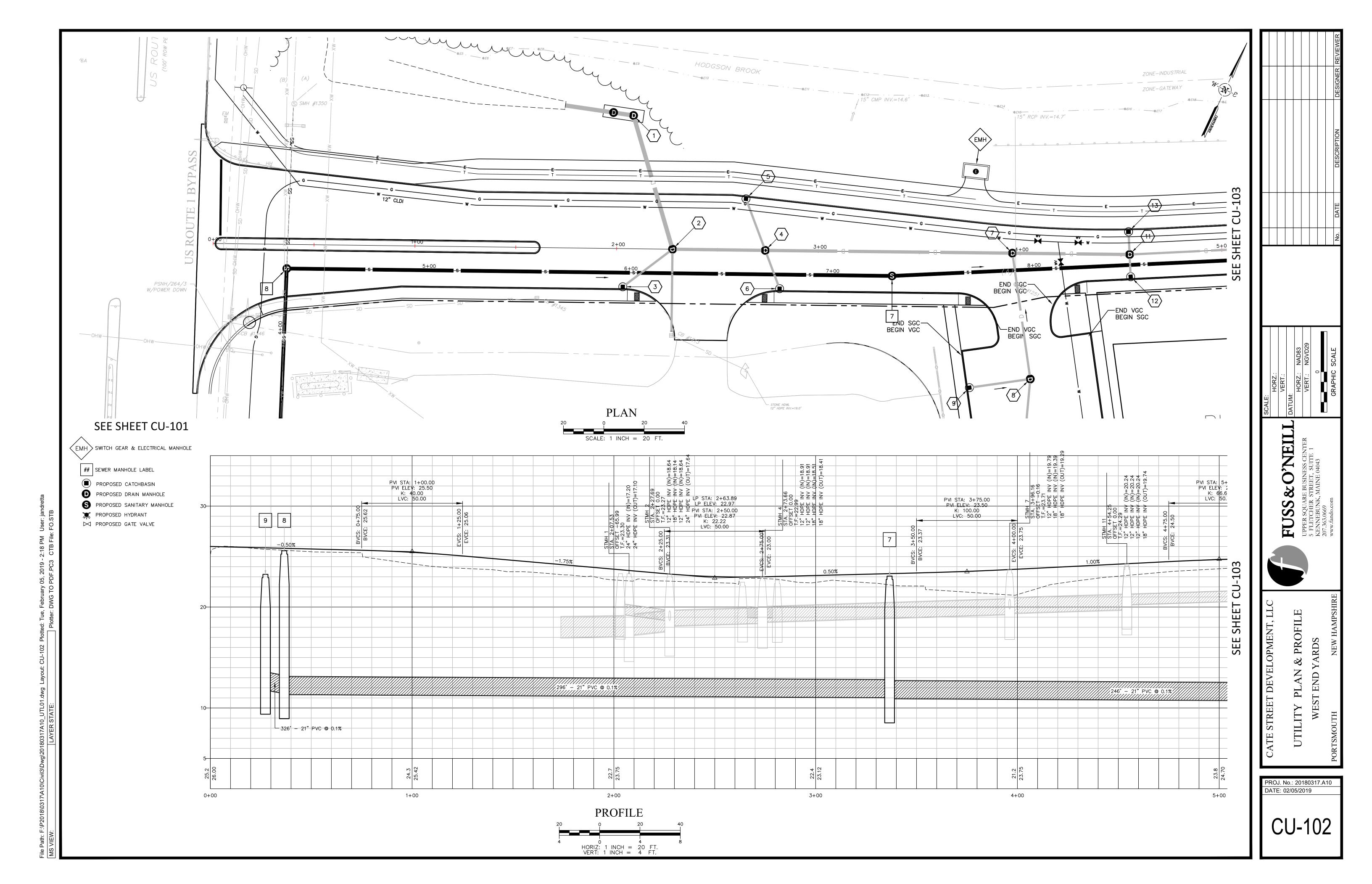
PROJ. No.: 20180317.A10
DATE: 02/05/2019

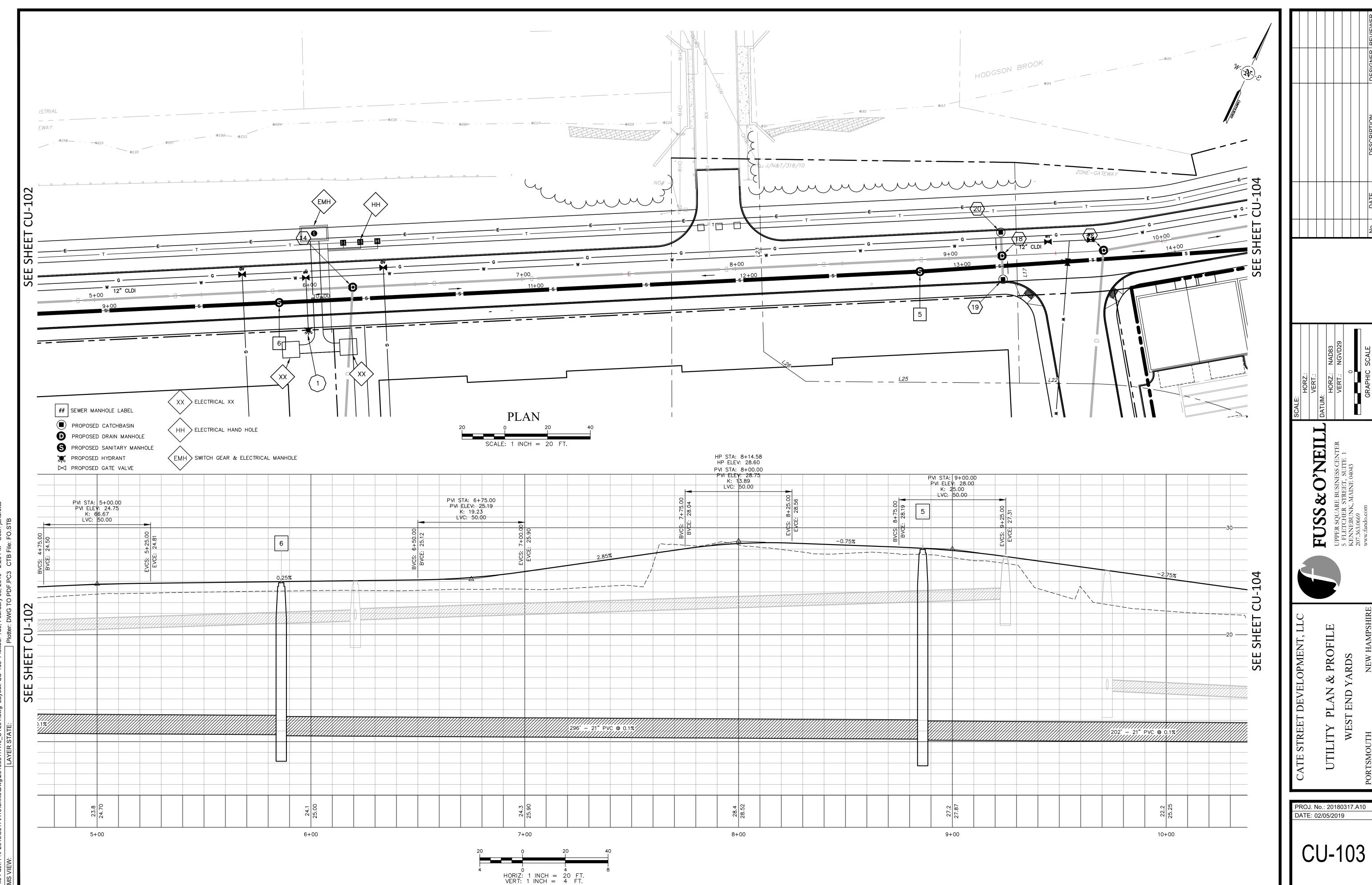
CU-001



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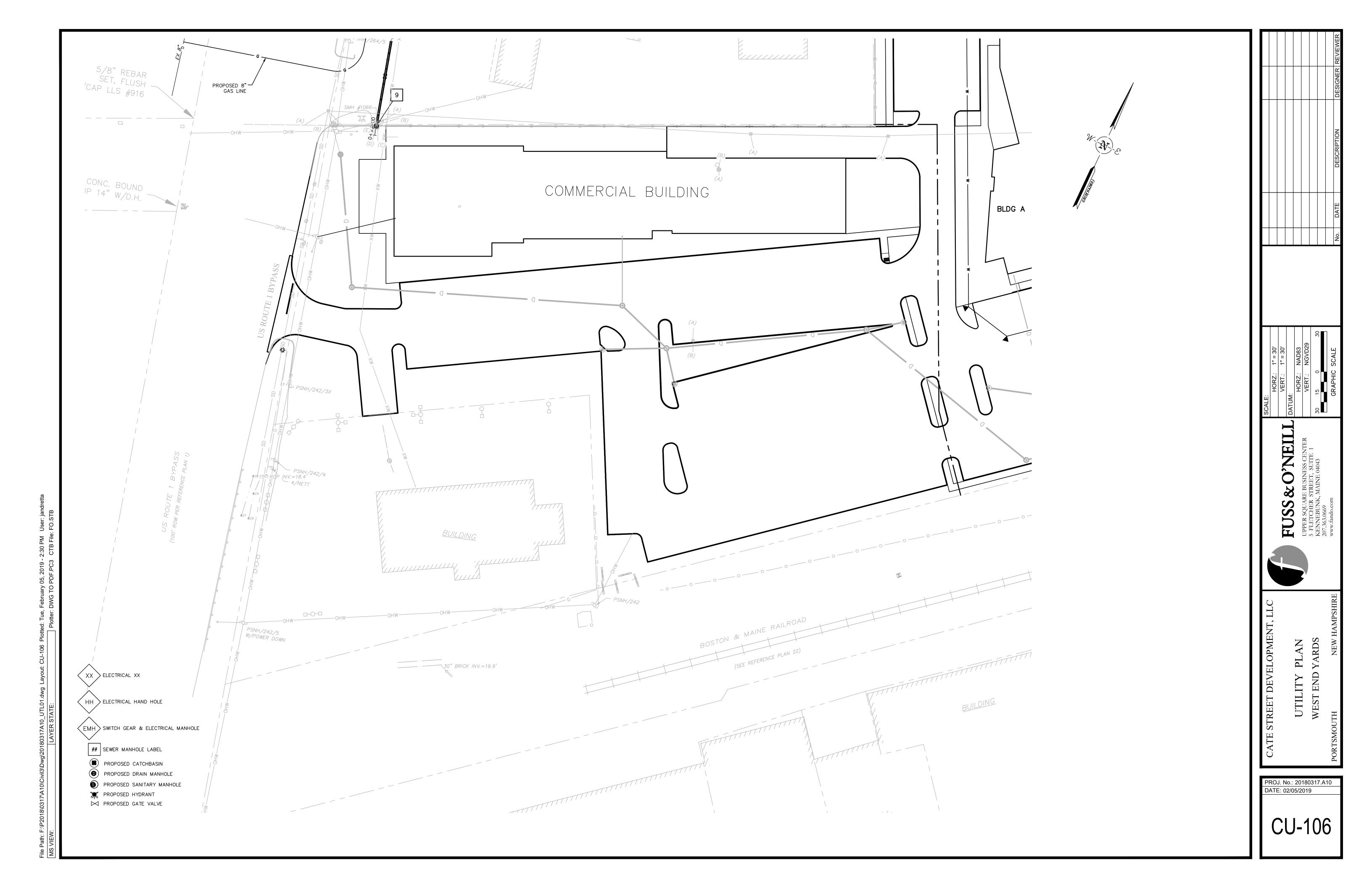




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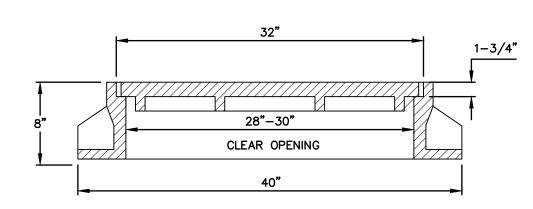


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CU-107

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<u>PLAN</u>

**SECTION** 

# STANDARD SANITARY MANHOLE FRAME & COVER SCALE: N.T.S.

#### MANHOLE NOTES

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

LOCATION
GUTTERS, LOW
LYING, WET
UNPAVED AREAS
NORMALLY DRY

TYPE
BOLTED & GASKETED
(BOLTS SHALL BE 1/2" STAINLESS STEEL.)

NORMALLY DRY STANDARD UNPAVED AND

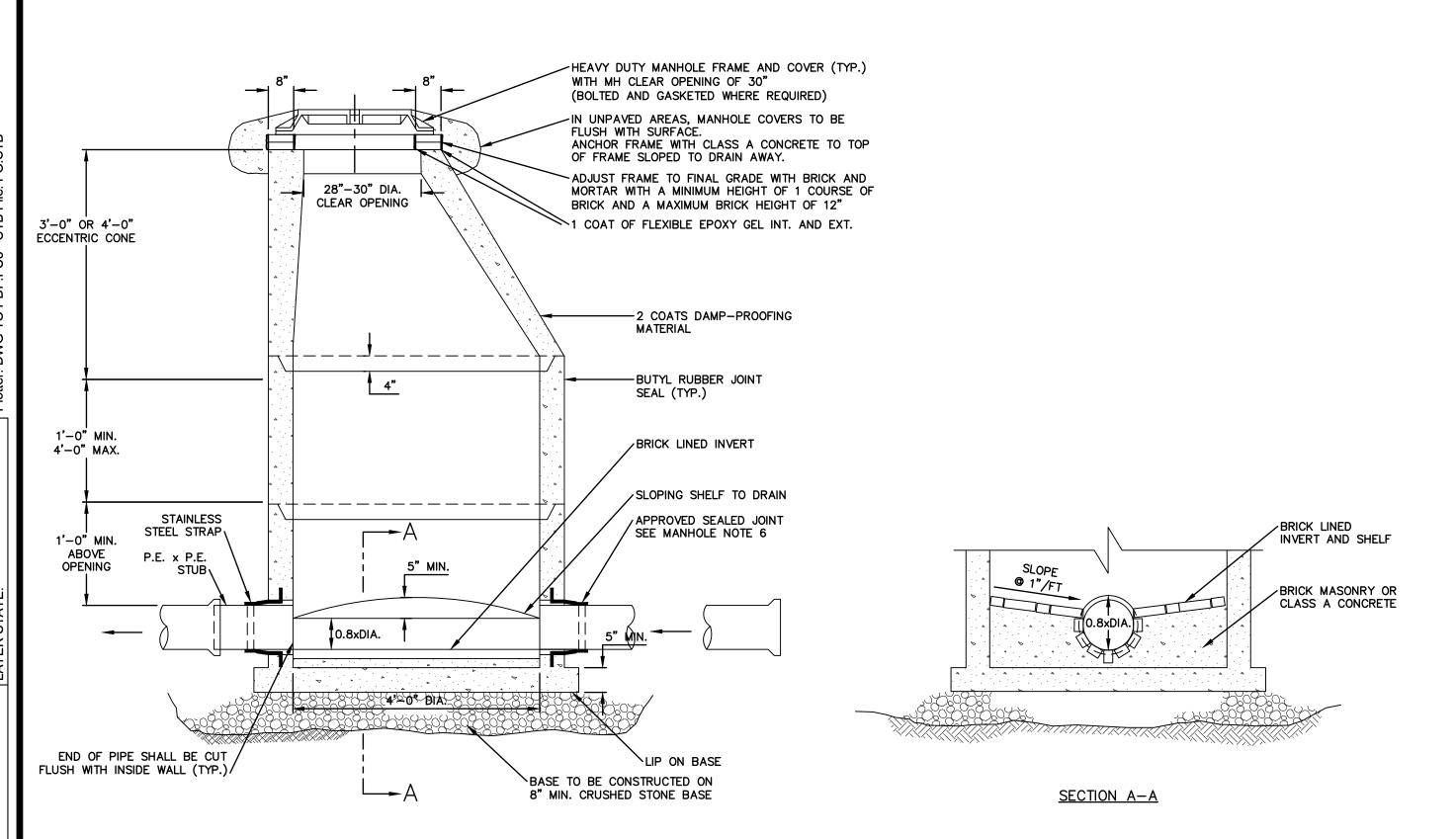
REQUIRED" CAST INTO THE COVER IN 2" LETTERS.

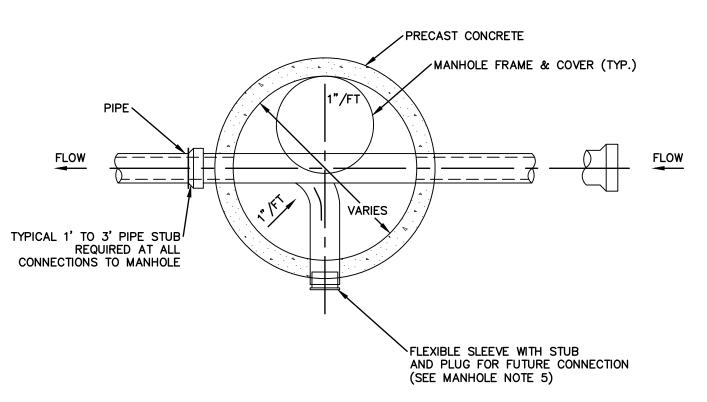
PAVED AREAS
VALVE STRUCTURES WATERTIGHT
THE COVER SHALL HAVE THE WORDS "SANITARY SEWER", "CONFINED SPACE PERMIT

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

# MANHOLE NOTES

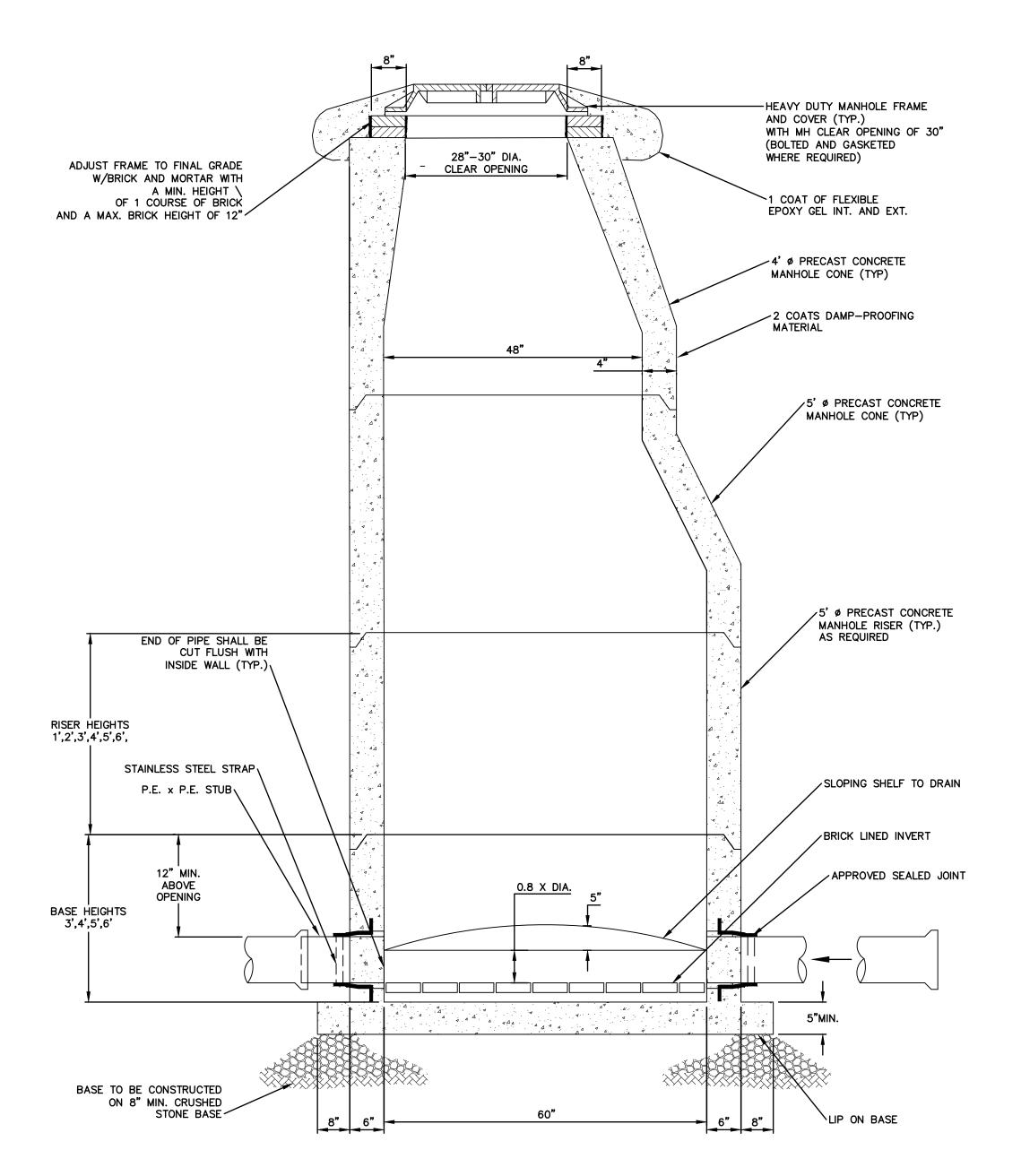
SCALE: N.T.S.





MANHOLE PLAN VIEW

SCALE: N.T.S.



5' PRECAST MANHOLE

SCALE: N.T.S.

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4' PRECAST MANHOLE

SCALE: N.T.S.

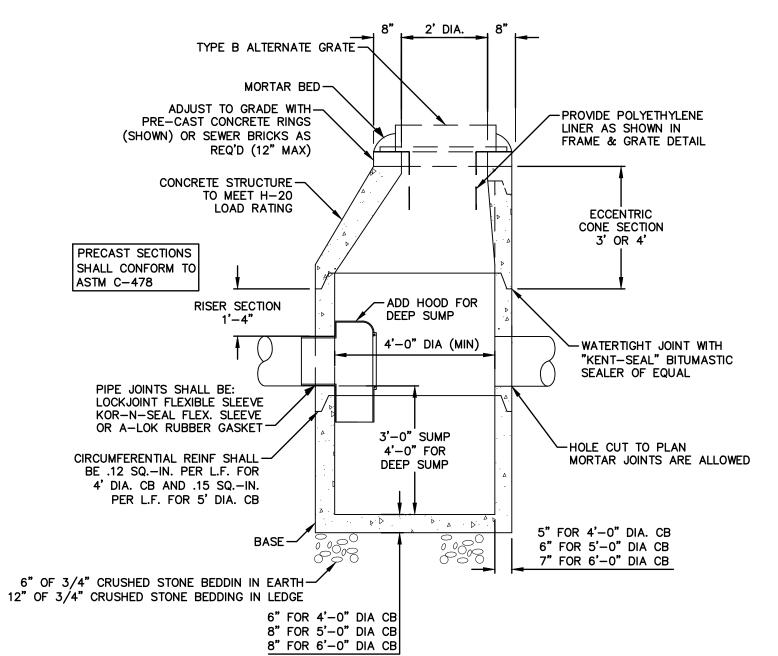
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DATE: 02/05/2019

DETAILS

O'NEILL

FUSS



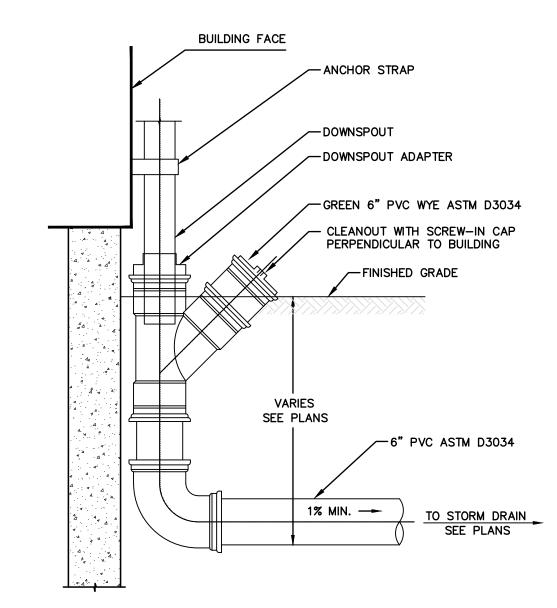
1. ALL SECTIONS SHALL BE CONCRETE, CLASS AA (4,000 PSI) CIRCUMFERENTIAL REINFORCEMENT SHALL BE 0.12 SQ. IN. PER L.F. IN ALL SECTIONS AND SHALL BE PLACED IN THE CENTER THIRD OF THE WALL.

- 2. THE TONGUE AND GROOVE OF THE JOINT SHALL CONTAIN ONE LINE OF CIRCUMFERENTIAL REINFORCEMENT EQUAL TO 0.12 SQ. IN. PER L.F.
- 3. RISERS OF 1'-4" MAY BE USED TO REACH THE DESIRED ELEVATION.
  4. STEPS ARE NOT ALLOWED.

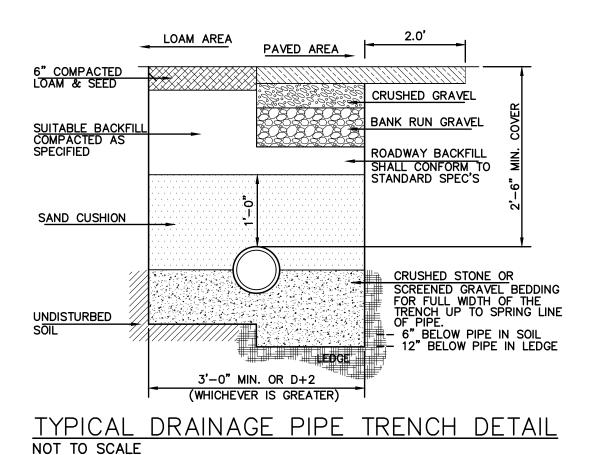
PRECAST REINFORCED CATCH BASIN

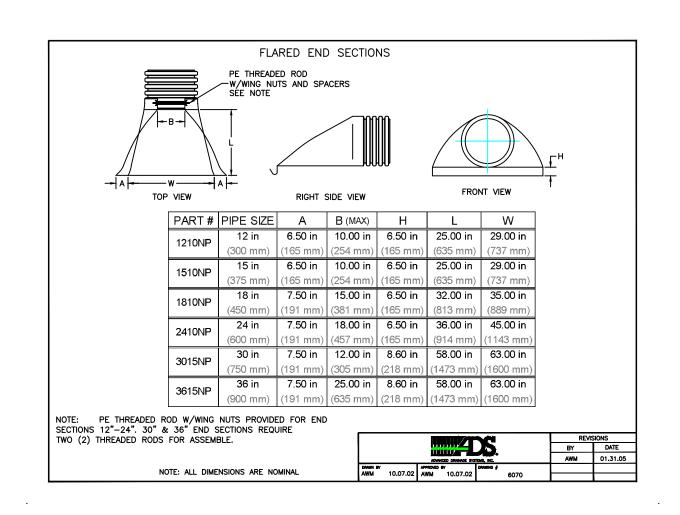
12" PEDESTRIAN SAFE LIGHT DUTY DUCTILE IRON DROP-IN GRATE 12" RISER MATCH COLLECTOR PIPE TYPE. FINISHED GRADE (GRASS OR LANDSCAPED AREA) BEDDING MATERIAL (SEE STORM SEWER TRENCH DETAIL) LONG RADIUSED FLBOW COLLECTOR PIPE. SIZE AND TYPE PER PLANS.

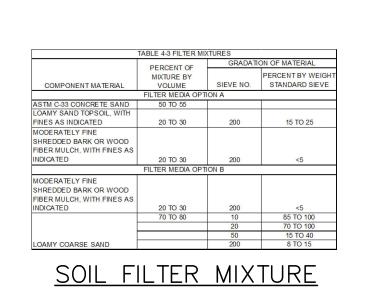
> YARD DRAIN (LIGHT DUTY) NOT TO SCALE

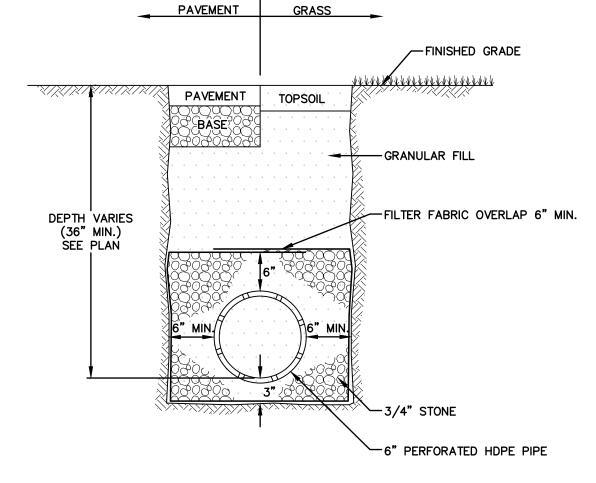


ROOF LEADER DRAIN CONNECTION NOT TO SCALE







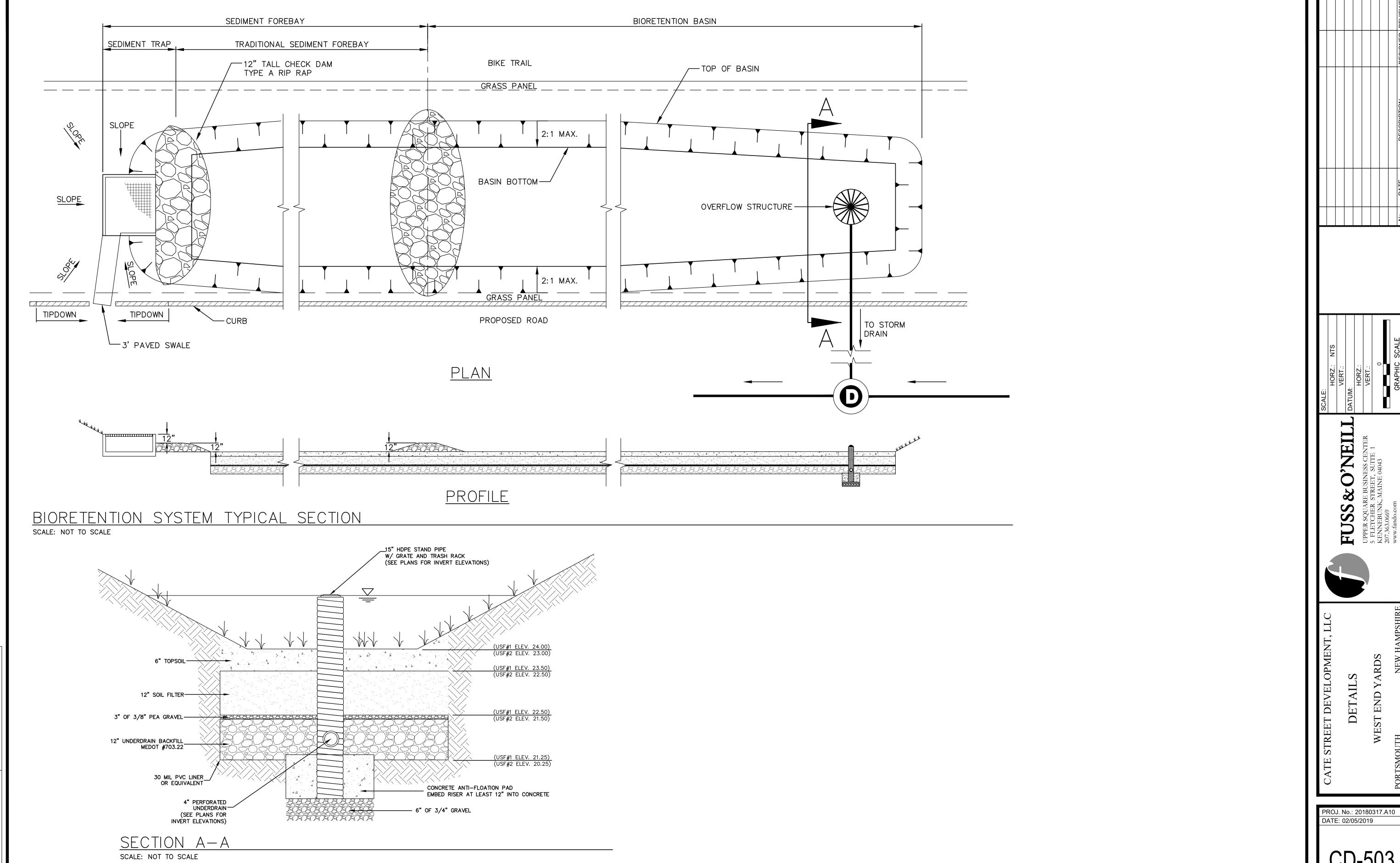


UNDERDRAIN NOT TO SCALE

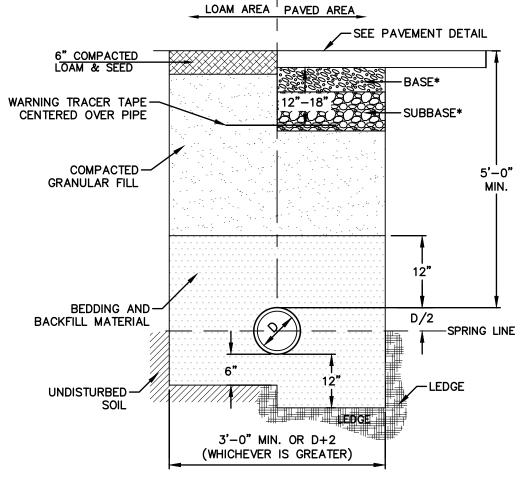
O'NEILI **FUSS** 

DETAIL WEST

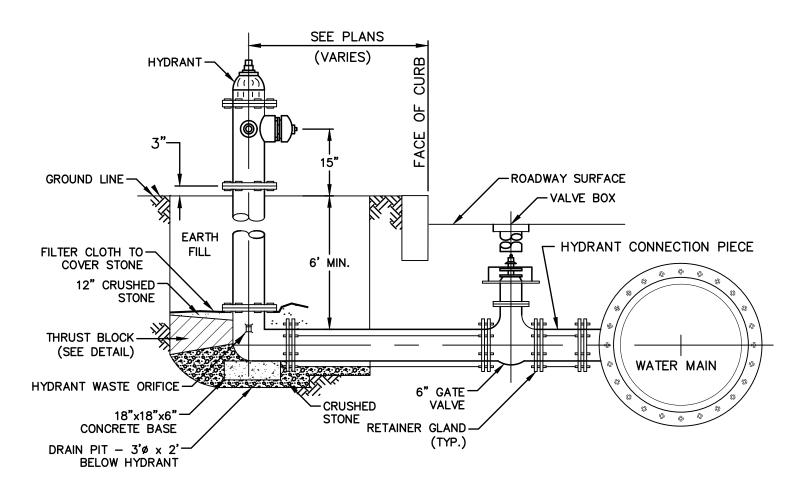
PROJ. No.: 20180317.A10 DATE: 02/05/2019



CD-503



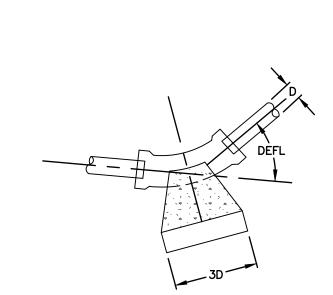
WATER TRENCH SECTION NOT TO SCALE

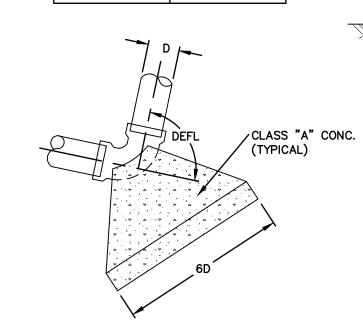


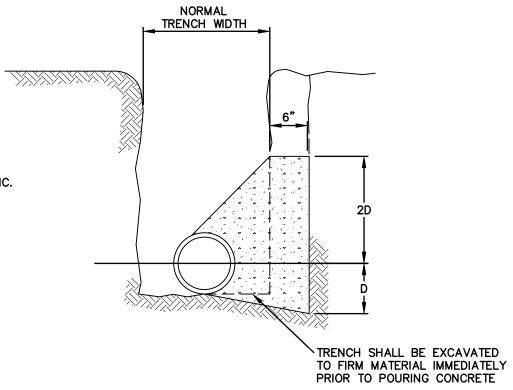
FIRE HYDRANT NOT TO SCALE

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





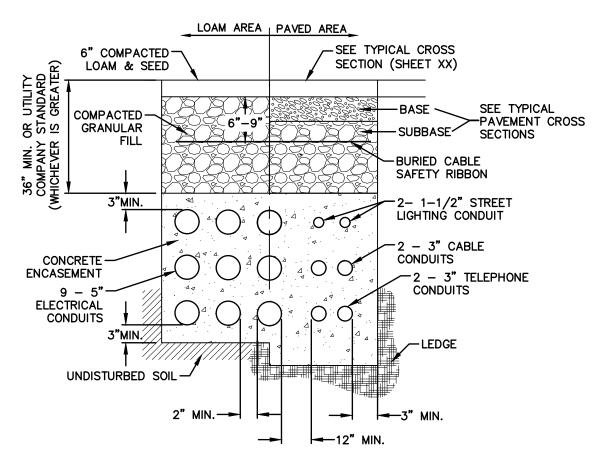


<u>PLAN ELBOW — DEFL.</u> <u>LESS THAN 50</u>

<u>PLAN ELBOW — DEFL.</u> <u>MORE THAN 50</u>

<u>SECTION</u>

CONCRETE THRUST BLOCKS



# ELECTRICAL AND COMMUNICATION CONDUIT NOT TO SCALE

- 1. NUMBER, MATERIAL, AND SIZE OF UTILITY CONDUITS TO BE DETERMINED BY LOCAL OR AS SHOWN ON CONDUIT PLAN.

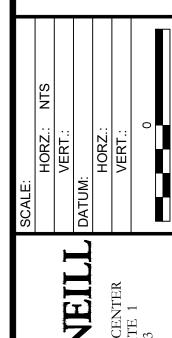
- AS SHOWN ON CONDUIT PLAN.

  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.
- 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.?????



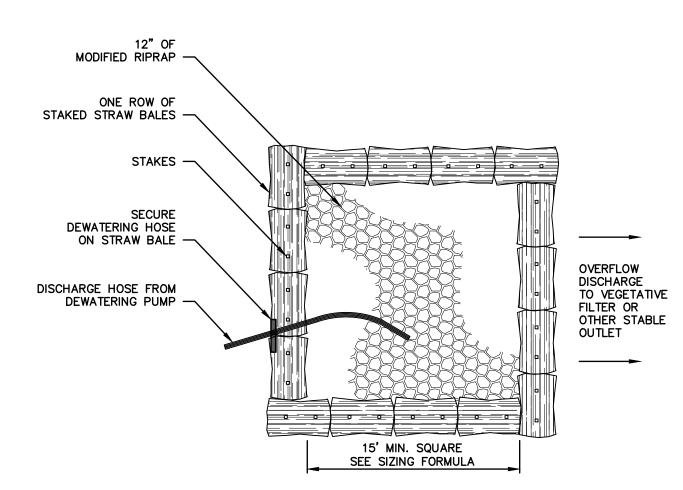
O'NEILL FUSS



DETAILS

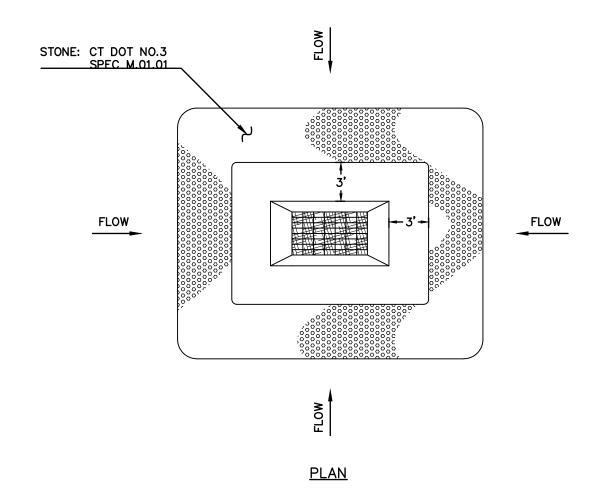
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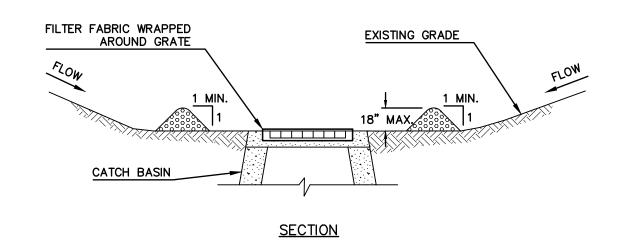
DEWATERING BAG NOT TO SCALE



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

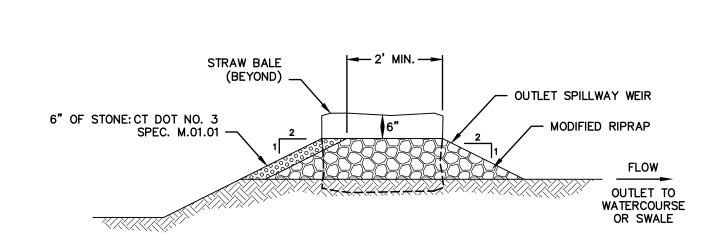
PLAN
PUMP SETTLING BASIN TYPE I
NOT TO SCALE





LOW POINT STONE CHECK DAM
NOT TO SCALE





<u>PLAN</u>

OUTLET SPILLWAY WEIR

PUMP SETTLING BASIN TYPE II
NOT TO SCALE

15' MIN. SQUARE SEE SIZING FORMULA

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

ONE ROW OF STAKED STRAW BALES —

SECTION B-B

DETAILS

WEST END YARDS

TEMOLITH

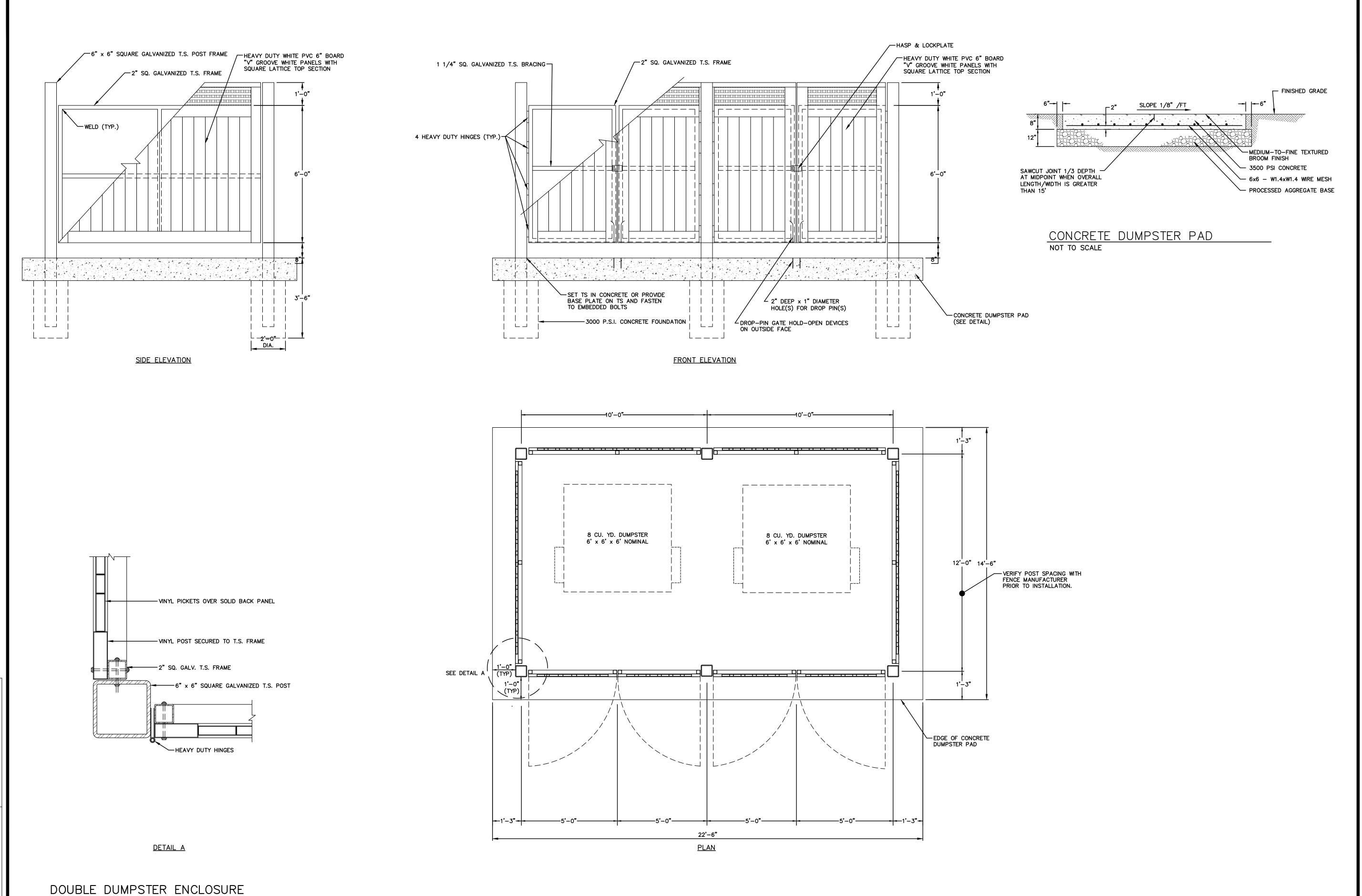
WEND WARDS

&O'NEILL

FUSS

PROJ. No.: 20180317.A10 DATE: 02/05/2019

CD-505



SCALE: N.T.S.

CATE STREET DEVELOPMENT, LLC

DETAILS

WEST END YARDS

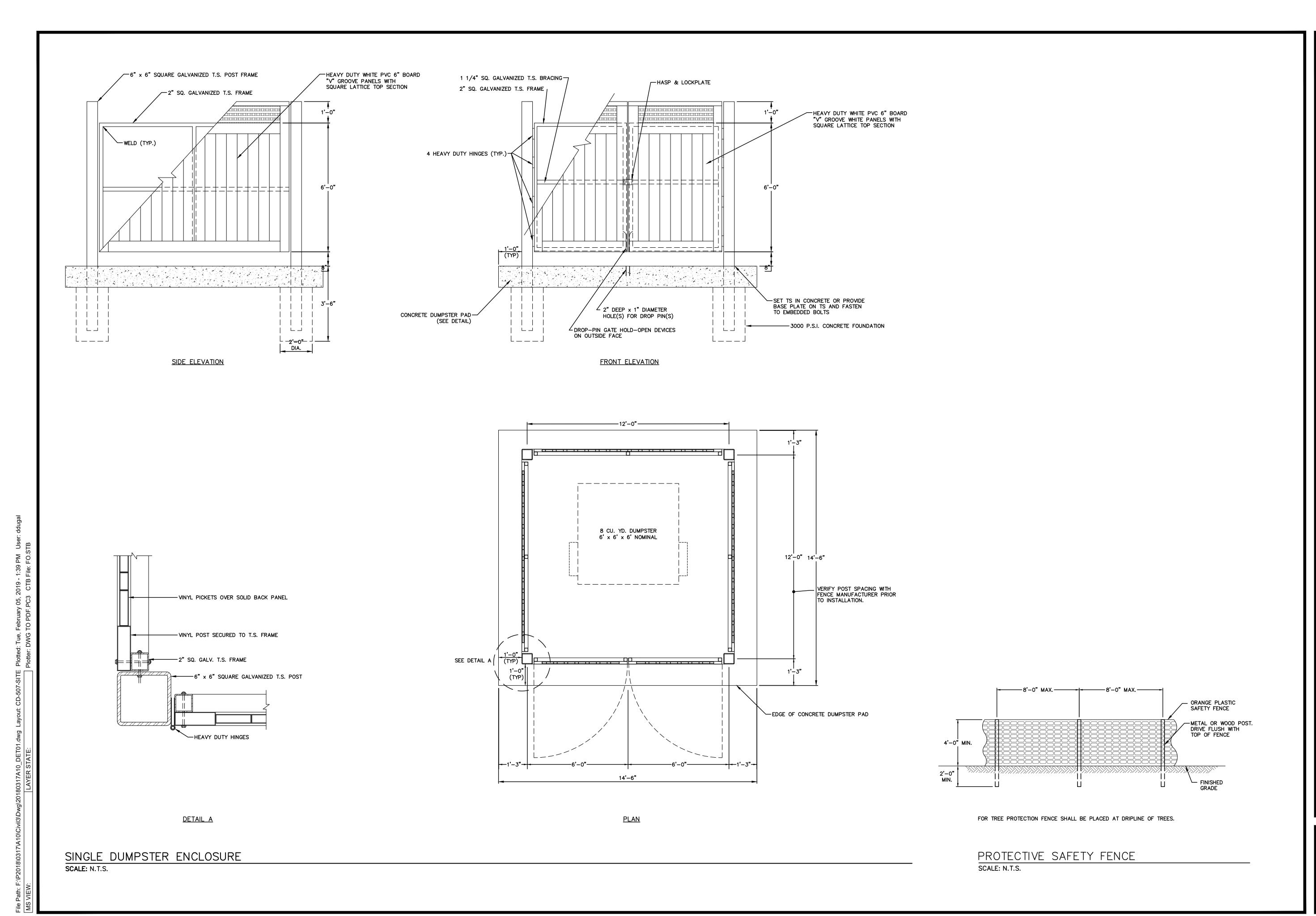
PORTSMOTTH

NEW HAMPSHIRE

WEWW.fando.com

PROJ. No.: 20180317.A10 DATE: 02/05/2019

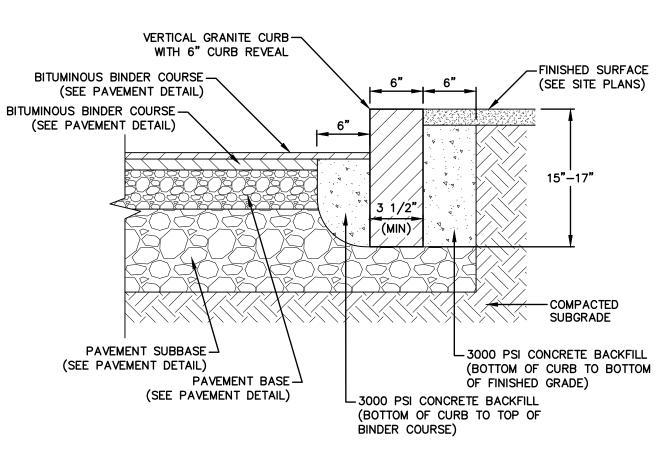
CD-506



O'NEILL FUSS UPPER SQUAR 5 FLETCHER DETAILS

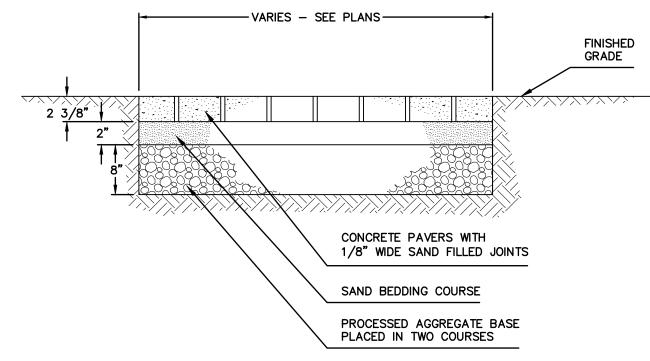
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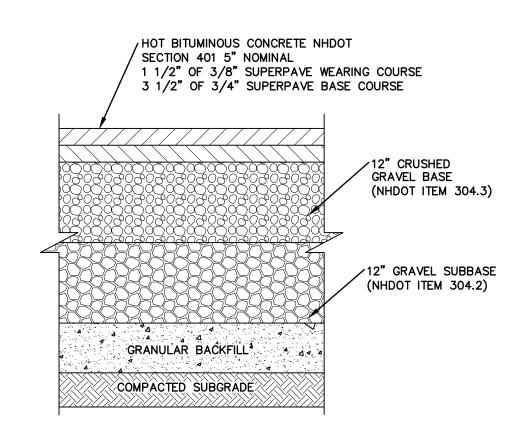


FINISHED SURFACE BITUMINOUS BINDER COURSE -(SEE SITE PLANS) (SEE PAVEMENT DETAIL) BITUMINOUS BINDER COURSE -(SEE PAVEMENT DETAIL) - COMPACTED SUBGRADE L3000 PSI CONCRETE BACKFILL PAVEMENT SUBBASE  $\Delta$  (SEE PAVEMENT DETAIL) (BOTTOM OF CURB TO BOTTOM OF FINISHED GRADE) PAVEMENT BASE — (SEE PAVEMENT DETAIL) ☐3000 PSI CONCRETE BACKFILL (BOTTOM OF CURB TO TOP OF BINDER COURSE) SLOPED GRANITE CURB INSTALLED

SCALE: NOT TO SCALE



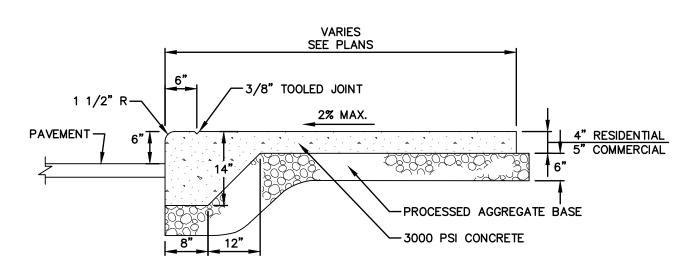
VERTICAL GRANITE CURB INSTALLED SCALE: NOT TO SCALE



- FINISHED GRADE

- 2" BITUMINOUS CONCRETE CLASS 2 ─ 6" PROCESSED AGGREGATE BASE

TYPICAL PAVEMENT SECTION NOT TO SCALE



MONOLITHIC CONCRETE CURB AND WALK SCALE: NOT TO SCALE

BITUMINOUS CONCRETE WALK NOT TO SCALE

2% MAX.

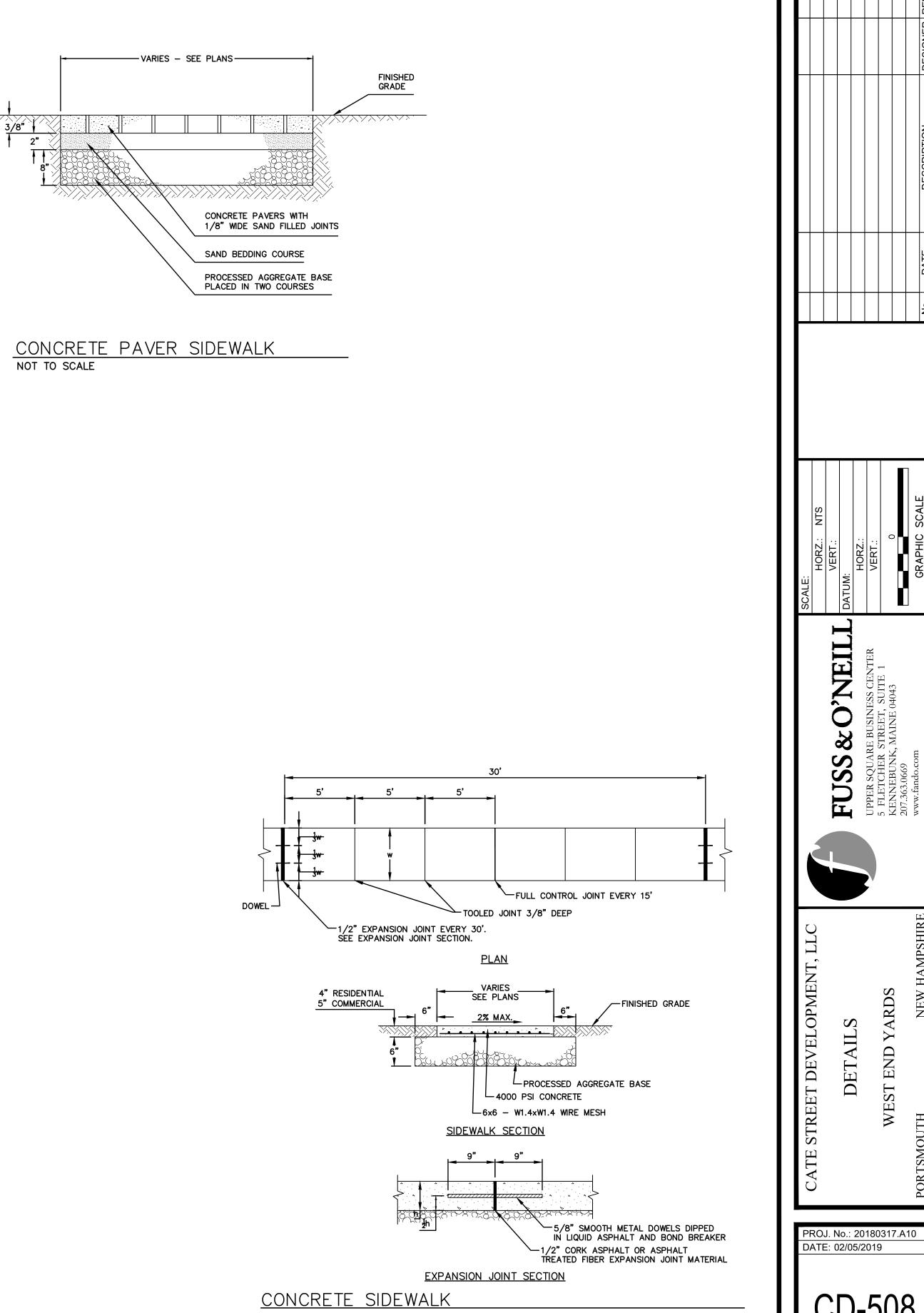
SCALE: NOT TO SCALE

CD-508

O'NEILL

FUSS

**DETAILS** 



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

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

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

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

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

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

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

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

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

- 3. THE MAXIMUM LENGTH OF SLOPE ABOVE THE FENCE SHOULD BE 100 FEET;
- 4. THE MAXIMUM SLOPE ABOVE THE FENCE SHOULD BE 2:1;
- 5. FENCES SHOULD BE INSTALLED FOLLOWING THE CONTOUR OF THE LAND AS CLOSELY AS POSSIBLE, AND A. THE ENDS OF THE FENCE SHOULD BE FLARED UPSLOPE: B. THE FABRIC SHOULD BE EMBEDDED A MINIMUM OF 8 INCHES IN DEPTH AND 4 INCHES IN WIDTH IN A TRENCH EXCAVATED INTO THE GROUND, OR IF SITE CONDITIONS INCLUDE FROZEN GROUND, LEDGE, O THE PRESENCE OF HEAVY ROOTS, THE BASE OF THE FABRIC SHOULD BE EMBEDDED WITH A MINIMUM THICKNESS OF 8 INCHES OF 3/4-INCH STONE:

C. THE SOIL SHOULD BE COMPACTED OVER THE EMBEDDED FABRIC; D. SUPPORT POSTS SHOULD BE SIZED AND ANCHORED ACCORDING TO THE MANUFACTURER'S INSTRUCTIONS WITH MAXIMUM POST SPACING OF 6 FEET;

E. ADJOINING SECTIONS OF THE FENCE SHOULD BE OVERLAPPED BY A MINIMUM OF 6 INCHES (24 INCHES IS PREFERRED), FOLDED AND STAPLED TO A SUPPORT POST. IF METAL POSTS ARE USED, FABRIC SHOULD BE WIRE-TIED DIRECTLY TO THE POSTS WITH THREE DIAGONAL TIES.

SILT FENCING SHOULD NOT BE STAPLED OR NAILED TO TREES.

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

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

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

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

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

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

13. POST SPACING SHOULD NOT EXCEED 6 FEET.

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

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

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

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

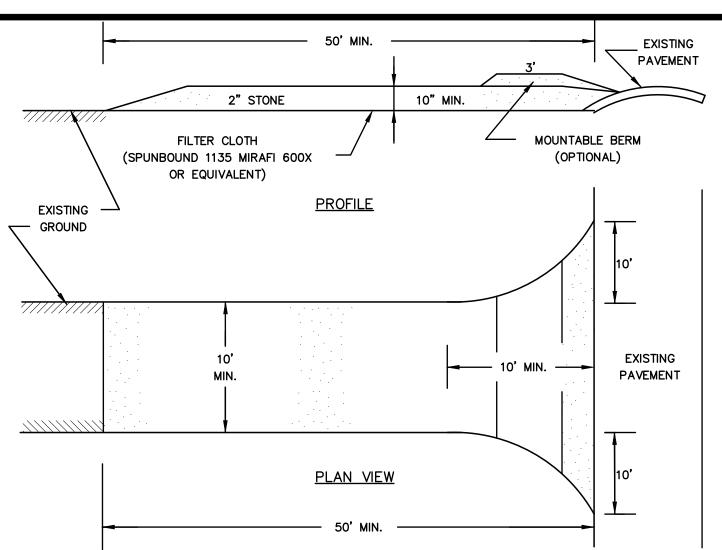
18. SILT FENCES SHOULD BE INSTALLED WITH "SMILES" OR "J-HOOKS" TO REDUCE THE DRAINAGE AREA THAT ANY SEGMENT WILL IMPOUND.

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

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

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

SILT FENCE BARRIER



WHEN THE CONTROL PAD BECOMES INEFFECTIVE, THE STONE SHOULD BE REMOVED ALONG WITH THE COLLECTED SOIL MATERIAL, REGRADED ON SITE, AND STABILIZED. THE ENTRANCE SHOULD TEN BE

THE CONTRACTOR SHOULD SWEEP THE PAVEMENT AT EXITS WHENEVER SOIL MATERIALS ARE TRACKED ONTO THE ADJACENT PAVEMENT OR TRAVELED WAY.

WHEN WHEEL WASHING IS REQUIRED, IT SHOULD BE CONDUCTED ON AN AREA STABILIZED WITH AGGREGATE, WHICH DRAINS INTO AN APPROVED SEDIMENT-TRAPPING DEVICE. ALL SEDIMENT SHOULD BE PREVENTED FROM ENTERING STORM DRAINS, DITCHES, OR WATERWAYS.

CONSTRUCTION SPECIFICATIONS:

1. THE MINIMUM STONE USED SHOULD BE 3-INCH CRUSHED STONE.

THE MINIMUM LENGTH OF THE PAD SHOULD BE 75 FEET, EXCEPT THAT THE MINIMUM LENGTH MAY BE REDUCED TO 50 FEET IF A 3-INCH TO 6-INCH BERM IS INSTALLED AT THE ENTRANCE OF THE PROJECT

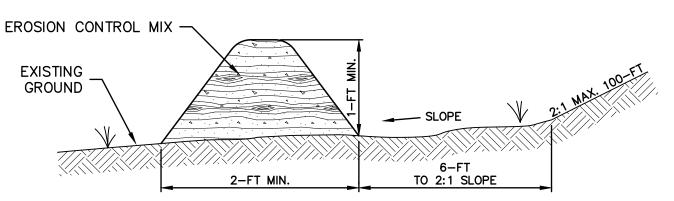
THE PAD SHOULD BE THE FULL WIDTH OF CONSTRUCTION ACCESS ROAD OR 10 FEET, WHICHEVER IS GREATER.

THE PAD SHOULD SLOPE AWAY FROM THE EXISTING ROADWAY. THE PAD SHOULD BE AT LEAST 6 INCHES THICK.

THE GEOTEXTILE FILTER FABRIC SHOULD BE PLACED BETWEEN THE STONE PAD AND THE EARTH SURFACE RELOW THE PAD.

THE PAD SHOULD BE MAINTAINED OR REPLACED WHEN MUD AND SOIL PARTICLES CLOG THE VOIDS IN THE STONE SUCH THAT MUD AND SOIL PARTICLES ARE TRACKED OFF-SITE. NATURAL DRAINAGE THAT CROSSES THE LOCATION OF THE STONE PAD SHOULD BE INTERCEPTED AND

PIPED BENEATH THE PAD, AS NECESSARY, WITH SUITABLE OUTLET PROTECTION. USDA—SCS STABILIZED CONSTRUCTION ENTRANCE



# EROSION CONTROL MIX BERM CROSS SECTION

NOT TO SCALE

NOT TO SCALE

MAINTENANCE REQUIREMENTS: EROSION CONTROL MIX BERMS SHOULD BE INSPECTED IMMEDIATELY AFTER EACH RAINFALL AND AT LEAST

DAILY DURING PROLONGED RAINFALL. 2. EROSION CONTROL MIX BERMS SHOULD BE REPAIRED IMMEDIATELY IF THERE ARE ANY SIGNS OF EROSION OR SEDIMENTATION BELOW THEM.

3. IF THERE ARE SIGNS OF BREACHING OF THE BARRIER, OR IMPOUNDING OF LARGE VOLUMES OF WATER BEHIND THEM, THE EROSION CONTROL MIX BERMS SHOULD BE REPLACED WITH OTHER MEASURES TO INTERCEPT AND TRAP SEDIMENT (SUCH AS A DIVERSION BERM DIRECTING RUNOFF TO A SEDIMENT TRAP OR BASIN). SEDIMENT DEPOSITS SHOULD BE REMOVED AFTER EACH STORM EVENT.

5. SEDIMENT DEPOSITS MUST BE REMOVED WHEN DEPOSITS REACH APPROXIMATELY ONE THIRD (1/3) OF THE HFIGHT OF THE BARRIER. EROSION CONTROL MIX BERMS SHOULD BE RESHAPED OR REAPPLIED AS NEEDED. ANY SEDIMENT DEPOSITS REMAINING IN PLACE AFTER THE BARRIER IS NO LONGER REQUIRED SHOULD BE

CONSTRUCTION SPECIFICATIONS:

1. EROSION CONTROL MIX CAN BE MANUFACTURED ON OR OFF OF THE PROJECT SITE. 2. EROSION CONTROL MIX MUST CONSIST PRIMARILY OF ORGANIC MATERIAL, SEPARATED AT THE POINT OF

GENERATION, AND MAY INCLUDE SHREDDED BARK, STUMP GRINDINGS, COMPOSTED BARK, OR ACCEPTABLE MANUFACTURED PRODUCTS. WOOD AND BARK CHIPS, GROUND CONSTRUCTION DEBRIS OR REPROCESSED WOOD PRODUCTS WILL NOT BE ACCEPTABLE AS THE ORGANIC COMPONENT OF THE MIX.

COMPOSITION OF THE EROSION CONTROL MIX SHOULD BE AS FOLLOWS: A. EROSION CONTROL MIX SHALL BE A WELL GRADED MIXTURE OF PARTICLE SIZES FREE OF REFUSE, PHYSICAL CONTAMINANTS, MATERIAL TOXIC TO PLANT GROWTH AND MAY NOT CONTAIN ROCKS LESS THAN 4-INCHES IN DIAMETER:

B. ORGANIC MATTER = 25-65% DRY WEIGHT BASIS C. PARTICLES PASSING BY WEIGHT:

PASSING BY WEIGHT: SCREEN: 3-INCH 1-INCH 90-100%

3/4-INCH 70-100% 1 /4-INCH 30-75% D. THE ORGANIC PORTION NEEDS TO BE FIBROUS AND ELONGATED. E. THE MIX SHOULD CONTAIN NO SILTS, CLAYS OR FINE SANDS.

DRESSED TO CONFORM TO THE EXISTING GRADE, PREPARED AND SEEDED.

F. SOLUBLE SALTS CONTENT < 4.0 mmhos/cm G. pH OF THE MIX SHOULD BE BETWEEN 5.0 AND 8.0 THE BARRIER MUST BE PLACED ALONG A RELATIVELY LEVEL CONTOUR. 6. IT MAY BE NECESSARY TO CUT TALL GRASSES AND WOODY VEGETATION TO AVOID CREATING VOIDS AND

BRIDGES IN THE BARRIER THAT WOULD ENABLE FINES TO WASH UNDER THE BARRIER THROUGH THE GRASS BLADES OR PLANT STEMS. THE BARRIER MUST BE A MINIMUM OF 12-INCHES TALL AS MEASURED ON THE UPHILL SIDE OF THE BARRIER. 8. THE BARRIER MUST BE A MINIMUM OF 2-FT WIDE.

CONTINUOUS CONTAINED BERM (ALTERNATIVE):

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

3. INSTALLATION OF CONTINUOUS CONTAINED BERMS SHALL BE PERFORMED IN ACCORDANCE WITH THE SPECIFICATIONS OF THE MANUFACTURER.

EROSION CONTROL MIX BERM DETAIL

## WINTER STABILIZATION & CONSTRUCTION PRACTICES:

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

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

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

THE AREA OF EXPOSED, UNSTABILIZED SOIL SHOULD BE LIMITED TO 1-ACRE AND SHOULD BE PROTECTED AGAINST EROSION BY THE METHODS DISCUSSED IN NHSMM, VOL. 3 AND ELSEWHERE IN THIS PLAN SET, PRIOR TO ANY THAW OR SPRING MELT EVENT. STABILIZATION AS FOLLOWS SHOULD BE COMPLETED WITHIN A DAY OF ESTABLISHING THE GRADE THAT IS FINAL OR THAT OTHERWISE WILL EXIST FOR MORE THAN 5

ALL PROPOSED VEGETATED AREAS HAVING A SLOPE OF LESS THAN 15% WHICH DO NOT EXHIBIT A MINIMUM 85% VEGETATIVE GROWTH BY OR ARE DISTURBED AFTER OCTOBER 15, SHOULD BE SEEDED AND COVERED WITH 3 TO 4 TONS OF HAY OR STRAW MULCH PER ACRE SECURED WITH ANCHORED NETTING, OR 2 INCHES OF EROSION CONTROL MIX (REFER TO NHSMM, VOL. 3 FOR SPECIFICATION)

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

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

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

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

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

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

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

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

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

## CONTROL PRACTICES:

1. APPLY DUST CONTROL MEASURES AS NECESSARY TO MAINTAIN CONTROL OF DUST ON SITE

WATER APPLICATION: .) MOISTEN EXPOSED SOIL SURFACES PERIODICALLY WITH ADEQUATE WATER TO CONTROL DUST. B) AVOID EXCESSIVE APPLICATION OF WATER THAT WOULD RESULT IN MOBILIZING SEDIMENT AND SUBSEQUENT DEPOSITION IN NATURAL WATERBODIES.

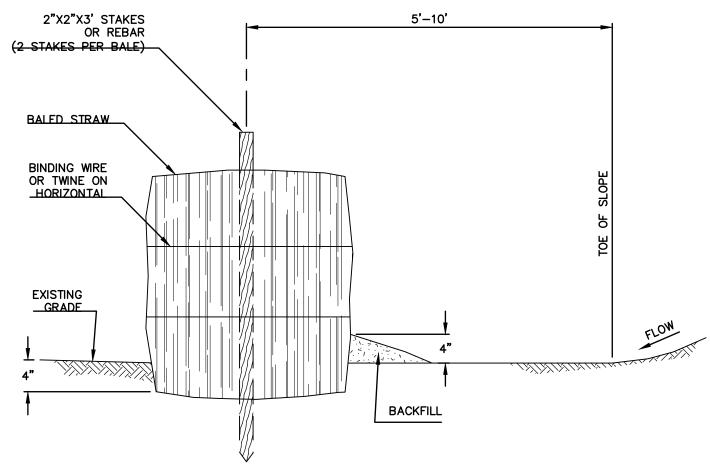
3. STONE APPLICATION:

A) COVER SURFACE WITH CRUSHED OR COARSE GRAVEL. B) IN AREAS NEAR WATERWAYS USE ONLY CHEMICALLY STABILIZED OR WASHED AGGREGATE.

4. REFER TO "NEW HAMPSHIRE STORMWATER MANAGEMENT MANUAL, VOLUME 3 CONSTRUCTION PHASE EROSION AND SEDIMENT CONTROLS, DECEMBER 2008" FOR OTHER ALLOWABLE DUST CONTROL PRACTICES (I.E. COMMERCIAL TACKIFIERS OR CHEMICAL TREATMENTS SUCH AS CALCIUM CHLORIDE, ETC.)

## INVASIVE SPECIES NOTE:

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



TOE OF SLOPE STRAW BALE BARRIER
NOT TO SCALE

## **GENERAL** CONSTRUCTION PHASING:

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

A) IN AREAS THAT WILL NOT BE PAVED: i) A MINIMUM OF 85% VEGETATIVE COVER HAS BEEN ESTABLISHED;

ii) A MINIMUM OF 3-INCHES OF NON-EROSIVE MATERIAL SUCH AS STONE OR A CERTIFIED COMPOST BLANKET HAS BEEN INSTALLED, OR;

iii) EROSION CONTROL BLANKETS HAVE BEEN INSTALLED

OF THE ISSUED PERMIT OR AN INDEPENDENT MONITOR.

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

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

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

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

5. ONLY DISTURB, CLEAR, OR GRADE AREAS NECESSARY FOR CONSTRUCTION.

A) FLAG OR OTHERWISE DELINEATE AREAS NOT TO BE DISTURBED.

B) EXCLUDE VEHICLES AND CONSTRUCTION EQUIPMENT FROM THESE AREAS TO PRESERVE NATURAL

ALL GRADED OR DISTURBED AREAS INCLUDING SLOPES SHOULD BE PROTECTED DURING CLEARING AND CONSTRUCTION IN ACCORDANCE WITH THE APPROVED EROSION AND SEDIMENT CONTROL PLAN DEPICTED

7. ALL EROSION AND SEDIMENT CONTROL PRACTICES AND MEASURES SHOULD BE CONSTRUCTED, APPLIED AND MAINTAINED IN ACCORDANCE WITH THE APPROVED EROSION AND SEDIMENT CONTROL PLAN

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

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

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

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

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

13. ALL FILLS SHOULD BE COMPACTED IN ACCORDANCE WITH PROJECT SPECIFICATIONS TO REDUCE EROSION

SLIPPAGE, SETTLEMENT, SUBSIDENCE OR OTHER RELATED PROBLEMS. FILL INTENDED TO SUPPORT BUILDINGS, STRUCTURES, SITE UTILITIES, CONDUITS AND OTHER FACILITIES, SHOULD BE COMPACTED IN ACCORDANCE WITH LOCAL REQUIREMENTS OR CODES. 14. IN GENERAL, FILLS SHOULD BE COMPACTED IN LAYERS RANGING FROM 6 TO 24 INCHES IN THICKNESS.

THE CONTRACTOR SHOULD REVIEW THE PROJECT GEOTECHNICAL REPORT AND/OR THE "PROJECT SPECIFIC PHASING NOTES" FOR SPECIFIC GUIDANCE. 15. ANY AND ALL FILL MATERIAL SHOULD BE FREE OF BRUSH, RUBBISH, ROCKS (LARGER THAN 3/4 THE DEPTH OF THE LIFT BEING INSTALLED), LOGS, STUMPS, BUILDING DEBRIS, FROZEN MATERIAL AND OTHER

OBJECTIONABLE MATERIALS THAT WOULD INTERFERE WITH OR PREVENT CONSTRUCTION OF SATISFACTORY

16. FROZEN MATERIAL OR SOFT, MUCKY OR HIGHLY COMPRESSIBLE (I.E. CLAY, SILT) MATERIALS ARE SUSCEPTIBLE TO ACCELERATED SETTLEMENT AND POTENTIAL ACCELERATED EROSION. WORK IN AREAS

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

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

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

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

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

22. ALL GRADED AREAS SHOULD BE PERMANENTLY STABILIZED IMMEDIATELY FOLLOWING FINISHED GRADING. ABOVE NOTES EXCERPTED, ADAPTED AND REFERENCED FROM "NEW HAMPSHIRE STORMWATER MANAGEMENT MANUAL, VOLUME 3 CONSTRUCTION PHASE EROSION AND SEDIMENT CONTROLS, DECEMBER 2008" (NHSMM, VOL. 3)

# STOCKPILE PRACTICES

1. LOCATE STOCKPILES A MINIMUM OF 50-FT. AWAY FROM CONCENTRATED FLOWS OF STORMWATER, DRAINAGE COURSES OR INLETS.

2. PROTECT ALL STOCKPILES FROM STORMWATER RUN-ON USING TEMPORARY PERIMETER MEASURES SUCH AS DIVERSIONS, BERMS, SANDBAGS OR OTHER APPROVED PRACTICES. 3. STOCKPILES SHOULD BE SURROUNDED BY SEDIMENT BARRIERS AS DESCRIBED ON THE PLANS AND IN

NHSMM VOL. 3. TO PREVENT MIGRATION OF MATERIAL BEYOND THE IMMEDIATE CONFINES OF THE

4. IMPLEMENT WIND EROSION CONTROL PRACTICES AS APPROPRIATE ON ALL STOCKPILED MATERIAL.

5. PLACE BAGGED MATERIALS ON PALLETS OR UNDERCOVER.

6. INACTIVE SOIL STOCKPILES SHOULD BE COVERED WITH ANCHORED TARPS OR PROTECTED WITH SOIL STABILIZATION MEASURES (TEMPORARY SEED AND MULCH OR OTHER TEMPORARY STABILIZATION PRACTICE) AND TEMPORARY PERIMETER SEDIMENT BARRIERS (I.E. SILT FENCE, ETC.) AT ALL TIMES.

INACTIVE STOCKPILES OF CONCRETE RUBBLE, ASPHALT CONCRETE RUBBLE, AGGREGATE MATERIALS, AND SIMILAR MATERIALS SHOULD BE PROTECTED WITH TEMPORARY SEDIMENT PERIMETER BARRIERS (I SILT FENCE, ETC.) AT ALL TIMES. IF THE MATERIALS ARE A SOURCE OF DUST, THEY SHOULD ALSO E

PROTECTION OF ACTIVE STOCKPILES:

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

WHEN A STORM IS PREDICTED, STOCKPILES SHOULD BE PROTECTED WITH AN ANCHORED PROTECTIVE COVERING.

NEIL

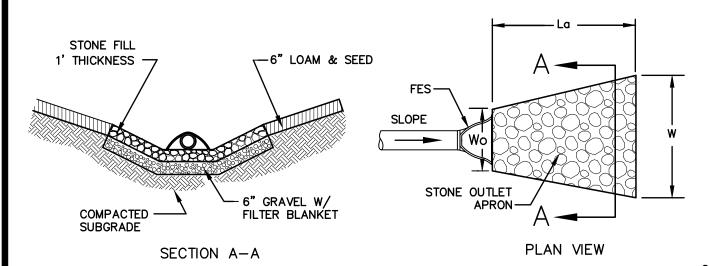
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NOT TO SCALE



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

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

. ALL PIPE CULVERTS SHALL HAVE END SECTIONS OR HEADWALLS. END SECTION MATERIAL AND MANUFACTURER SHALL MATCH THAT OF THE PIPE CULVERT.

THE LARGEST RIP-RAP SIZE DETERMINED DURING HYDROLOGIC ANALYSIS HAS BEEN USED FOR ALL OUTLETS FOR ECONOMY AND SIMPLICITY. APRON LENGTHS, WIDTHS AND THICKNESSES HAVE BEEN ROUNDED UP TO WHOLE NUMBERS FOR EASE OF CONSTRUCTION.

PREPARE THE SUB-GRADE FOR THE FILTER MATERIAL, GEOTEXTILE FABRIC, AND RIP-RAP TO THE GRADES SHOWN ON THE PLANS.

MINIMUM 6" SAND/GRAVEL BEDDING OR GEOTEXTILE FABRIC REQUIRED UNDER ALL ROCK RIP-RAP. THE ROCK OR GRAVEL USED FOR FILTER OR RIP-RAP SHALL CONFORM TO THE SPECIFIED GRADATION. GEOTEXTILE FABRICS SHALL BE PROTECTED FROM PUNCTURE OR TEARING DURING THE PLACEMENT OF ROCK RIP-RAP. DAMAGED AREAS IN THE FABRIC SHALL BE REPAIRED BY PLACING A PIECE OF FABRIC

OVER THE DAMAGED AREA OR BY COMPLETE REPLACEMENT OF THE FABRIC. ALL OVERLAPS REQUIRED FOR REPAIRS OR JOINING TWO (2) PIECES OF FABRIC SHALL BE A MINIMUM OF 12 INCHES. STONE FOR THE RIP-RAP MAY BE PLACED BY EQUIPMENT AND SHALL BE CONSTRUCTED TO THE FULL LAYER THICKNESS IN ONE OPERATION AND IN SUCH A MANNER AS TO PREVENT SEGREGATION OF THE

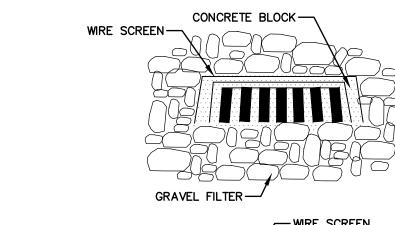
RIP-RAP SIZE CHOSEN FOR THE WORST CASE OF ALL OUTLETS. ALL RIP-RAP USED FOR PIPE OUTLET PROTECTION WILL HAVE THE SAME GRADATION AND THICKNESS.

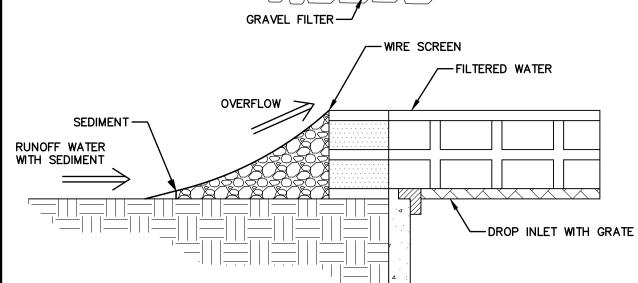
OUTLETS SHALL BE INSPECTED AND CLEANED ANNUALLY AND AFTER ANY MAJOR STORM EVENT. ANY EROSION OR DAMAGE TO THE RIP-RAP SHALL BE REPAIRED IMMEDIATELY.

THE CHANNEL IMMEDIATELY DOWNSTREAM FROM THE OUTLET SHOULD BE CHECKED TO SEE THAT NO EROSION IS OCCURRING THE DOWNSTREAM CHANNEL SHOULD BE KEPT CLEAR OF OBSTRUCTIONS SUCH AS FALLEN TREES, DEBRIS, AND SEDIMENT THAT COULD CHANGE FLOW PATTERNS AND/OR TAILWATER DEPTHS ON THE PIPES. REPAIRS MUST BE CARRIED OUT IMMEDIATELY TO AVOID ADDITIONAL DAMAGE TO THE OUTLET PROTECTION APRON.

# RIP RAP APRON OUTLET PROTECTION

NOT TO SCALE





## BLOCK AND GRAVEL INLET SEDIMENT FILTER NOT TO SCALE

**CONSTRUCTION SPECIFICATIONS:** PLACE CONCRETE BLOCKS LENGTHWISE ON THEIR SIDE IN A SINGLE ROW AROUND THE PERIMETER OF THE INLET, WITH THE ENDS OF ADJACENT BLOCKS ABUTTING. THE HEIGHT OF THE BARRIER CAN BE VARIED, DEPENDING ON DESIGN NEEDS, BY STACKING COMBINATIONS OF 4-INCH, 8-INCH AND 12-INCH WIDE BLOCKS. THE BARRIER OF BLOCKS SHALL BE AT LEAST 12 INCHES HIGH AND NO GREATER THAN 24

WIRE MESH SHALL BE PLACED OVER THE OUTSIDE VERTICAL FACE (WEBBING) OF THE CONCRETE BLOCKS TO PREVENT STONE FROM BEING WASHED THROUGH THE HOLES IN THE BLOCKS. HARDWARE CLOTH OR COMPARABLE WIRE MESH WITH 1/2-INCH OPENINGS SHALL BE USED.

STONE SHALL BE PILED AGAINST THE WIRE TO THE TOP OF THE BLOCK BARRIER, AS SHOWN ABOVE. STONE GRADATION SHALL BE WELL GRADED WITH THE MAXIMUM STONE SIZE OF 6 INCHES AND MINIMUM

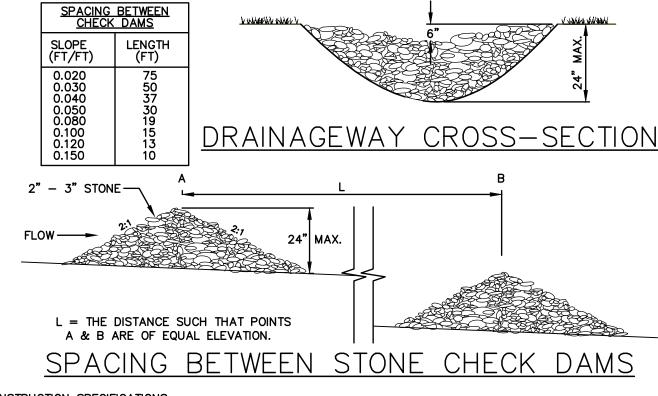
IF THE STONE FILTER BECOMES CLOGGED WITH SEDIMENT SO THAT IT NO LONGER ADEQUATELY PERFORMS ITS FUNCTION, THE STONE MUST BE PULLED AWAY FROM THE BLOCKS, CLEANED AND REPLACED.

<u>MAINTENANCE NOTES:</u> I. THE STRUCTURE SHALL BE INSPECTED AFTER EACH RAIN AND REPAIRS MADE AS NEEDED.

SEDIMENT SHALL BE REMOVED AND THE TRAP RESTORED TO ITS ORIGINAL DIMENSIONS WHEN THE SEDIMENT HAS ACCUMULATED TO 1/2 THE DESIGN DEPTH OF THE TRAP. REMOVED SEDIMENT SHALL BE DEPOSITED IN A SUITABLE AREA AND IN SUCH A MANNER THAT IT WILL NOT ERODE.

STRUCTURES SHALL BE REMOVED AND THE AREA STABILIZED WHEN THE REMAINING DRAINAGE AREA HAS BEEN PROPERLY STABILIZED.

<u>SEDIMENTATION CONTROL AT CATCH BASINS</u> NOT TO SCALE



CONSTRUCTION SPECIFICATIONS:

1. STRUCTURES SHALL BE INSTALLED ACCORDING TO THE DIMENSIONS SHOWN ON THE PLANS AT THE APPROPRIATE SPACING

2. CONSTRUCTION OPERATIONS SHALL BE CARRIED OUT IN SUCH A MANNER SO THAT EROSION. AIR AND WATER POLLUTION WILL BE MINIMIZED.

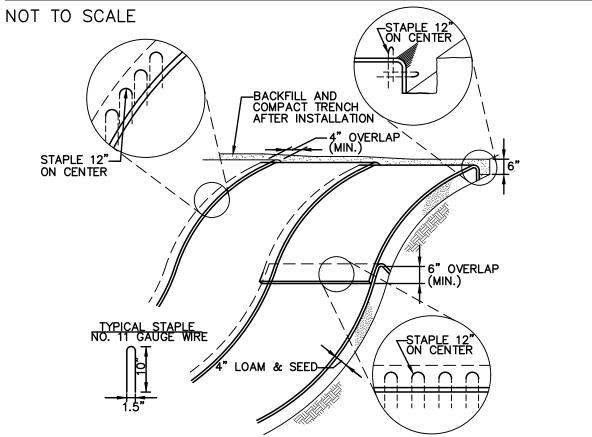
3. STRUCTURES SHALL BE REMOVED FROM THE CHANNEL WHEN THEIR USEFUL LIFE HAS BEEN COMPLETED.

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

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. CHECK DAM INSTALLATION DETAIL



**SLOPE INSTALLATION** 

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.

2. ANY FAILURE SHOULD BE REPAIRED IMMEDIATELY. IF WASHOUT OF THE SLOPE, DISPLACEMENT OF THE MAT, OR DAMAGE TO THE MAT OCCURS, THE AFFECTED SLOPE SHALL BE REPAIRED AND RESEEDED, AND THE AFFECTED AREA OF MAT SHALL BE RE-INSTALLED.

CONSTRUCTION SPECIFICATIONS:

MANUFACTURE'S INSTALLATION INSTRUCTIONS: A. PREPARE SOIL BEFORE INSTALLING ROLLED EROSION CONTROL PRODUCTS (RECP's), INCLUDING ANY NECESSARY APPLICATION OF LIME, FERTILIZER, AND SEED. NOTE: WHEN USING CELL—O—SEED DO NOT SEED PREPARED AREA. CELL—O—SEED MUST BE

INSTALLED WITH PAPER SIDE DOWN. 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.

D. THE EDGES OF PARALLEL RECP'S MUST BE STAPLED WITH APPROXIMATELY 2" - 5" (5 CM -12.5 CM) OVERLAP DEPENDING ON RECP's TYPE.

CONSECUTIVE RECP'S SPLICED DOWN THE SLOPE MUST BE PLACED END OVER END (SHINGLE STYLE) WITH AN APPROXIMATE 3" (7.5 CM) OVERLAP. STAPLE THROUGH OVERLAPPED AREA, APPROXIMATELY 12" (30 CM) APART ACROSS ENTIRE RECP's WIDTH. NOTE: IN LOOSE SOIL CONDITIONS, THE USE OF STAPLE OR STAKE LENGTHS GREATER THAN 6" (15 CM) MAY BE NECESSARY TO PROPERLY SECURE THE RECP's.

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, CLODS, 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.

A. SEED AREA BEFORE BLANKET INSTALLATION FOR EROSION CONTROL AND REVEGETATION. SEEDING AFTER MAT INSTALLATION IS OFTEN SPECIFIED FOR TURF REINFORCEMENT APPLICATIONS. WHEN SEEDING PRIOR TO BLANKET INSTALLATION, ALL CHECK SLOTS AND OTHER AREAS DISTURBED DURING INSTALLATION MUST BE RESEEDED.

INSTALLATION AND PRIOR TO FILLING THE MAT WITH SOIL. EROSION CONTROL — BLANKET <u>SLOPE PROTECTION</u> NOT TO SCALE

PERMANENT VEGETATION:

**SPECIFICATIONS:** 

INSTALL NEEDED EROSION AND SEDIMENT CONTROL MEASURES SUCH AS SILTATION BARRIERS, DIVERSIONS, AND SEDIMENT TRAPS.

2. GRADE AS NEEDED FOR THE ACCESS OF EQUIPMENT FOR SEEDBED PREPARATION, SEEDING, MULCH APPLICATION, AND MULCH ANCHORING.

3. RUNOFF SHOULD BE DIVERTED FROM THE SEEDBED AREA.

4. ON SLOPES 4:1 OR STEEPER, THE FINAL PREPARATION SHOULD INCLUDE CREATING HORIZONTAL GROOVES PERPENDICULAR O THE DIRECTION OF THE SLOPE TO CATCH SEED AND REDUCE RUNOFF.

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

REMOVE FROM THE SURFACE ALL STONES 2INCHES OR LARGER IN ANY DIMENSION. REMOVE ALL OTHER DEBRIS, SUCH AS WIRE, CABLE, TREE ROOTS, CONCRETE CLODS, LUMPS, TRASH OR OTHER UNSUITABLE

3. INSPECT SEEDBED JUST BEFORE SEEDING. IF TRAFFIC HAS LEFT THE SOIL COMPACTED; THE AREA MUST BE TILLED AND FIRMED AS ABOVE.

PREPARED. ALL BUT CLAY AND SILT SOILS SHOULD BE ROLLED TO FIRM THE SEEDBED WHEREVER FEASIBLE.

WHERE THE SOIL HAS BEEN COMPACTED BY CONSTRUCTION OPERATIONS, LOOSEN SOIL TO A DEPTH OF 2 INCHES BEFORE APPLYING FERTILIZER, LIME AND SEED.

5. IF APPLICABLE, FERTILIZER AND ORGANIC SOIL AMENDMENTS SHOULD BE APPLIED DURING THE GROWING

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:
1. INOCULATE ALL LEGUME SEED WITH THE CORRECT TYPE OF INOCULANT.

2. APPLY SEED UNIFORMLY BY HAND, CYCLONE SEEDER, DRILL CULTIPACKER TYPE SEEDER OR HYDROSEEDER (SLURRY INCLUDING SEED AND FERTILIZER). NORMAL SEEDING DEPTH IS FROM 1/4 TO 1/2 INCH. HYDROSEEDING THAT INCLUDES MULCH MAY BE LEFT ON SOIL SURFACE.

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 SEEDED IN LATE SUMMER AT LEAST 35% OF THE SEED SHOULD BE HARD SEED (UNSCARIFIED). IF SEEDING CANNOT BE DONE WITHIN THE SPECIFIED SEEDING DATES. MULCH ACCORDING TO THE "TEMPORARY AND PERMANENT MULCHING" PRACTICE DESCRIBED IN THE NHSSM, VOL 3. AND DELAY SEEDING UNTIL THE NEXT RECOMMENDED

AREAS SEEDED BETWEEN MAY 15 AND AUGUST 15 SHOULD BE COVERED WITH HAY OR STRAW MULCH, ACCORDING TO THE "TEMPORARY AND PERMANENT MULCHING" PRACTICE DESCRIBED IN THE NHSSM, VOL 3.

6. VEGETATED GROWTH COVERING AT LEAST 85% OF THE DISTURBED AREA SHOULD BE ACHIEVED PRIOR TO OCTOBER 15. IF THIS CONDITION IS NOT ACHIEVED, IMPLEMENT OTHER TEMPORARY STABILIZATION MEASURES FOR OVERWINTER PROTECTION.

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

2. SLOPES BUST BE NO STEEPER THAN 2:1 (2 FEET HORIZONTALLY BY 1 FOOT VERTICALLY.

3. LIME AND FERTILIZER MAY BE APPLIED SIMULTANEOUSLY WITH THE SEED. THE USE OF FIBER MULCH ON CRITICAL AREAS IS NOT RECOMMENDED (UNLESS IT IS USED TO HOLD STRAW OR HAY). BETTER PROTECTION IS GAINED BY USING STRAW MULCH AND HOLDING IT WITH ADHESIVE MATERIALS OR 500 POUNDS PER ACRE OF WOOD FIBER MULCH.

4. SEEDING RATES MUST BE INCREASED BY 10% WHEN HYDROSEEDING.

MAINTENANCE REQUIREMENTS:

1. PERMANENT SEEDED AREAS SHOULD BE INSPECTED AT LEAST MONTHLY DURING THE COURSE OF CONSTRUCTION. INSPECTION, MAINTENANCE AND CORRECTIVE ACTIONS SHOULD CONTINUE UNTIL THE OWNER ASSUMES PERMANENT OPERATION OF THE SITE.

SEEDED AREAS SHOULD BE MOWED AS REQUIRED TO MAINTAIN A HEALTHY STAND OF VEGETATION. MOWING

HEIGHT AND FREQUENCY DEPEND OF TYPE OF GRASS COVER.

3. BASED ON INSPECTION, AREAS SHOULD BE RESEEDED TO ACHIEVE FULL STABILIZATION OF EXPOSED SOILS.

4. AT A MINIMUM 85% OF THE SOIL SURFACE SHOULD BE COVERED BY VEGETATION.

5. IF ANY EVIDENCE OF EROSION OR SEDIMENTATION IS APPARENT, REPAIRS SHOULD BE MADE AND AREAS SHOULD BE RESEEDED, WITH OTHER TEMPORARY MEASURES (I.E. MULCH, ETC.) USED TO PROVIDE EROSION PROTECTION DURING THE PERIOD OF VEGETATION ESTABLISHMENT.

# PERMANENT VEGETATION SEEDING RECOMMENDATIONS

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

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

TEMPORARY VEGETATION:

1. INSTALL NEEDED EROSION AND SEDIMENT CONTROL MEASURES SUCH AS SILTATION BARRIERS, DIVERSIONS AND SEDIMENT TRAPS

2. GRADE AS NEEDED FOR THE ACCESS OF EQUIPMENT FOR SEEDBED PREPARATION, SEEDING, MULCH APPLICATION, AND MULCH ANCHORING.

3. RUNOFF SHOULD BE DIVERTED FROM THE SEEDBED AREA.

4. ON SLOPES 4:1 OR STEEPER, THE FINAL PREPARATION SHOULD INCLUDE CREATING HORIZONTAL GROOVES PERPENDICULAR O THE DIRECTION OF THE SLOPE TO CATCH SEED AND REDUCE RUNOFF.

SEEDBED PREPARATION:
1. STONES AND TRASH SHOULD BE REMOVED SO AS NOT TO INTERFERE WITH THE SEEDING AREA.

2. WHERE THE SOIL HAS BEEN COMPACTED BY CONSTRUCTION OPERATIONS, LOOSEN SOIL TO A DEPTH OF : INCHES BEFORE APPLYING FERTILIZER, LIME AND SEED.

3. IF APPLICABLE, FERTILIZER AND ORGANIC SOIL AMENDMENTS SHOULD BE APPLIED DURING THE GROWING

4. APPLY LIMESTONE AND FERTILIZER ACCORDING TO SOIL TEST RECOMMENDATIONS. IF SOIL TESTING IS NO 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

INCREASED BY 10% WHEN HYDROSEEDING.

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

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

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

1. APPLY SEED UNIFORMLY BY HAND, CYCLONE SEEDER, DRILL CULTIPACKER TYPE SEEDER OR HYDRO SEEDER (SLURRY INCLUDING SEED AND FERTILIZER). NORMAL SEEDING DEPTH IS FROM 1/4 TO 1/2 INCH. HYDROSEÈDING THAT INCLUDES MULCH MAY BE LEFT ON SOIL SURFACE. SEEDING RATES MUST BE

2. TEMPORARY SEED SHOULD TYPICALLY OCCUR PRIOR TO SEPTEMBER 15.

3. AREAS SEEDED BETWEEN MAY 15 AND AUGUST 15 SHOULD BE COVERED WITH HAY OR STRAW MULCH, ACCORDING TO THE "TEMPORARY AND PERMANENT MULCHING" PRACTICE DESCRIBED IN THE NHSSM. VOL

4. VEGETATED GROWTH COVERING AT LEAST 85% OF THE DISTURBED AREA SHOULD BE ACHIEVED PRIOR TO OCTOBER 15. IF THIS CONDITION IS NOT ACHIEVED, IMPLEMENT OTHER TEMPORARY STABILIZATION MEASURES FOR OVERWINTER PROTECTION.

MAINTENANCE REQUIREMENTS: TEMPORARY SEEDING SHOULD BE INSPECTED WEEKLY AFTER ANY RAINFALL EXCEEDING 1/2 INCH IN 24 HOURS ON ACTIVE CONSTRUCTION SITES. TEMPORARY SEEDING SHOULD BE INSPECTED JUST PRIOR TO

SEPTEMBER 15, TO ASCERTAIN WHETHER ADDITIONAL SEEDING IS REQUIRED TO PROVIDE STABILIZATION OVER THE WINTER PERIOD. 2. BASED ON INSPECTION, AREAS SHOULD BE RESEEDED TO ACHIEVE FULL STABILIZATION OF EXPOSED SOILS. IF IT IS TOO LATE IN THE PLANTING SEASON TO APPLY ADDITIONAL SEED, THEN OTHER TEMPORARY

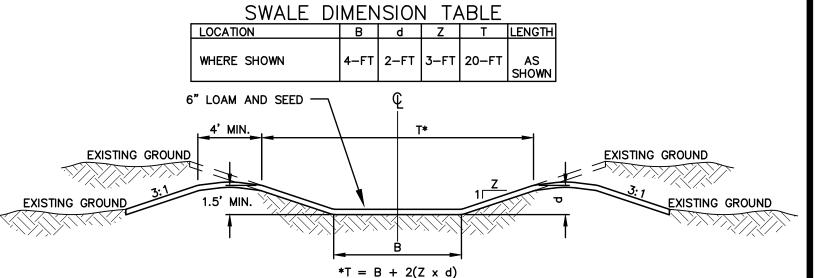
3. IF ANY EVIDENCE OF EROSION OR SEDIMENTATION IS APPARENT, REPAIRS SHOULD BE MADE AND AREAS SHOULD BE RESEEDED, WITH OTHER TEMPORARY MEASURES (I.E. MULCH, ETC.) USED TO PROVIDE EROSION PROTECTION DURING THE PERIOD OF VEGETATION ESTABLISHMENT.

## TEMPORARY VEGETATION SEEDING RECOMMENDATIONS

STABILIZATION MEASURES SHOULD BE IMPLEMENTED.

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.

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



MAINTENANCE NOTES:

1. THE SWALE(S) SHALL BE MOWED WITH THE REST OF THE SITES LAWN AREAS TO PROMOTE HEALTHY GROWTH AND PREVENT THE ENCROACHMENT OF WEEDS AND WOODY VEGETATION. DO NOT MOW GRASS IN SWALE(S) TOO SHORT. THIS WILL

REDUCE THE SWALES FILTERING ABILITY. 2. THE SWALE(S) SHOULD BE FERTILIZED ON AN AS NECESSARY BASIS, TO KEEP THE GRASS HEALTHY. OVER FERTILIZATION COULD RESULT IN THE SWALE(S) BECOMING A SOURCE OF POLLUTION TO THE SURROUNDING WETLAND AREAS. 3. THE SWALE(S) SHOULD BE INSPECTED PERIODICALLY AND AFTER EVERY MAJOR STORM. RILLS AND DAMAGED AREAS

VEGETATED SWALE DETAIL

SHOULD BE PROMPTLY REPAIRED AND RE-VEGETATED AS NECESSARY TO PREVENT FURTHER DETERIORATION.

DETAIL

NEIL

S

PROJ. No.: 20180317.A10 DATE: 02/05/2019

WHEN SOIL FILLING IS SPECIFIED. SEED THE MATTING AND THE ENTIRE DISTURBED AREA AFTER

NOT TO SCALE

ABUTTERS

SLATTERY & DUMONT, LLC 66 OLD CONCORD TURNPIKE #10 ARRINGTON, NH 03825 R.C.R.D. BOOK 3471, PAGE 196 TAX MAP 163, LOT 1

TAX MAP 158, LOT 13

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 R.C.R.D BOOK 5261 PAGE 2208

R.C.R.D. BOOK 2572 PAGE 2635

R.C.R.D. BOOK 3923 PAGE 202

TAX MAP 163, LOT 36

PORTSMOUTH, NH 03801

TAX MAP 164, LOT 1

105 BARTLETT STREET

TAX MAP 164, LOT 2

105 BARTLETT STREET

TAX MAP 164, LOT 4

PORTSMOUTH, NH 03801

BOSTON & MAINE CORP.

NO. BILLERICA, MA 01862

R.C.R.D. BOOK 5808, PAGE 1379

IRON HORSE PARK, HIGH STREET

PORTSMOUTH, NH 03801

CST HOLDINGS. LLC

3 CATE ST

R.C.R.D. BOOK 3558, PAGE 464 R.C.R.D. BOOK 3406 PAGE 1383 TAY MAP 164 LOT 12 TAX MAP 163, LOT 35 JOSEPH GOBBI SUPPLY CORP. ELDREDGE BREWERY REALTY PARTNERSHIP PO BOX 125 1 CATE ST PORTSMOUTH, NH 03802 PORTSMOUTH, NH 03801 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 164, LOT 5

HOUSTON HOLDINGS, LLC

653 ISLINGTON STREET

PORTSMOUTH, NH 03801

TAX MAP 165, LOT 14 PORTSMOUTH LUMBER & HARDWARE, LLC BOSTON AND MAINE CORP IRON HORSE PK HIGH ST NO BILLERICA, MA 01862 R.C.R.D. BOOK 5372, PAGE 2606 R.C.R.D. BOOK PAGE

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

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

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

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

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

TAX MAP 233, LOT 145 CITY OF PORTSMOUTH 1 JUNKINS AVENUE PORTSMOUTH, NH 03801 R.C.R.D. BOOK 5127, PAGE 2074 TAX MAP 234, LOT 2A

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

R.C.R.D. BOOK 5548, PAGE 738

HARTFORD, CT 06141

PUBLIC SERVICE CO. OF NH

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

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

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

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

R.C.R.D. BOOK 5393, PAGE 2976

3. OWNER OF RECORD: PORTSMOUTH LAND ACQUISITIONS, LLC 300 GAY STREET MANCHESTER, NH 03103

4. ZONES: GW-GATEWAY DIMENSIONAL REQUIREMENTS:

MIN. FRONTAGE MIN. FRONT SETBACK MIN. SIDE SETBACK MIN. REAR SETBACK 50 ft. MAX. BUILDING HEIGHT 40 ft. MAX. BUILDING COVERAGE WETLAND SETBACKS 100 ft.

ZONING INFORMATION LISTED HEREON IS BASED ON THE CITY OF PORTSMOUTH ZONING ORDINANCE DATED JULY 11, 2016 AS AVAILABLE ON THE CITY WEBSITE ON DECEMBER 15, 2016. ADDITIONAL REGULATIONS APPLY, AND REFERENCE IS HEREBY MADE TO THE EFFECTIVE ZONING ORDINANCE. THE LAND OWNER IS RESPONSIBLE FOR COMPLYING WITH ALL APPLICABLE MUNICIPAL, STATE AND FEDERAL REGULATIONS.

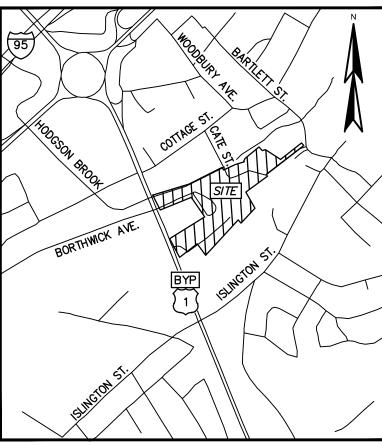
- 5. FIELD SURVEY PERFORMED BY P.J.S. & J.C.M. DURING NOVEMBER 2016 USING A TRIMBLE S6 TOTAL STATION, A TRIMBLE R8 SURVEY GRADE GPS UNIT, A TRIMBLE TSC3 DATA COLLECTOR AND A SOKKIA B21 AUTO LEVEL. BY L.P.S. & S.N.F. DURING JULY 2018 AND T.M.M. & J.C.M. IN SEPTEMBER & OCTOBER 2018 USING A TRIMBLE S6 TOTAL STATION WITH A TRIMBLE TSC3 DATA COLLECTOR. TRAVERSE ADJUSTMENT BASED ON LEAST SQUARE ANALYSIS. ADDITONAL FIELD SURVEY PERFORMED BY M.C. DURING NOVEMBER 2016 AND OCTOBER 2018 USING A LEICA HDS SCANNER.
- 6. MANMADE AND NATURAL JURISDICTIONAL WETLAND BOUNDARIES WERE DELINEATED BY MARC JACOBS, CERTIFIED WETLAND SCIENTIST NUMBER 090, IN NOVEMBER 2016 ACCORDING TO THE STANDARDS OF THE US ARMY CORPS OF ENGINEERS - WETLANDS DELINEATION MANUAL, TECHNICAL REPORT Y-87-1, JANUARY 1987; THE U.S. ARMY CORPS OF ENGINEERS REGIONAL SUPPLEMENT TO THE CORPS OF ENGINEERS WETLAND DELINEATION MANUAL: NORTHCENTRAL AND NORTHEAST REGION 2012; THE CODE OF ADMINISTRATIVE RULES, NH DEPARTMENT OF ENVIRONMENTAL SERVICES - WETLANDS BUREAU - CHAPTER ENV-WT 100-900 AND THE CITY OF PORTSMOUTH ZONING ORDINANCE, ARTICLE 10. PREDOMINANT HYDRIC SOILS WERE IDENTIFIED UTILIZING THE FIELD INDICATORS FOR IDENTIFYING HYDRIC SOILS IN NEW ENGLAND, VERSION 3, APRIL 2004 AND THE FIELD INDICATORS OF HYDRIC SOILS IN THE UNITED STATES, VERSION 7, 2010. THE STATUS OF VEGETATION AS HYDROPHYTIC WAS DETERMINED ACCORDING TO THE NORTHCENTRAL AND NORTHEAST 2016 REGIONAL WETLAND PLANT LIST -U.S. ARMY CORPS OF ENGINEERS. COPIES OF SITE PLANS DEPICTING THE WETLAND DELINEATION WHICH HAVE BEEN REVIEWED BY THE WETLAND SCIENTIST ARE INDIVIDUALLY STAMPED & SIGNED AND DATED. THIS NOTE HAS BEEN CUSTOMIZED FOR THIS SITE/PROJECT.
- 7. FLOOD HAZARD ZONE: "X", PER FIRM MAP #33015C0259E, DATED 5/17/05.
- 8. VERTICAL DATUM IS BASED ON NGVD29 PER DISK V 28 1942 ELEV. 25.59.
- 9. HORIZONTAL DATUM BASED ON NEW HAMPSHIRE STATE PLANE(2800) NAD83(2011) DERIVED FROM REDUNDANT GPS OBSERVATIONS UTILIZING THE KEYNET GPS VRS NETWORK.
- 10. THE INTENT OF THIS PLAN IS TO SHOW THE LOCATION OF BOUNDARIES IN ACCORDANCE WITH AND IN RELATION TO THE CURRENT LEGAL DESCRIPTION, AND IS NOT AN ATTEMPT TO DEFINE UNWRITTEN RIGHTS, DETERMINE THE EXTENT OF OWNERSHIP, OR DEFINE THE LIMITS
- 11. DUE TO THE COMPLEXITY OF RESEARCHING ROAD RECORDS AS A RESULT OF INCOMPLETE, UNORGANIZED, INCONCLUSIVE, OBLITERATED, OR LOST DOCUMENTS, THERE IS AN INHERENT UNCERTAINTY INVOLVED WHEN ATTEMPTING TO DETERMINE THE LOCATION AND WIDTH OF A ROADWAY RIGHT OF WAY. THE EXTENT OF (THE ROAD(S)) AS DEPICTED HEREON IS/ARE BASED ON RESEARCH CONDUCTED AT THE PORTSMOUTH CITY HALL, PORTSMOUTH DEPARTMENT OF ENGINEERING, THE ROCKINGHAM COUNTY REGISTRY OF DEEDS, AND THE NEW HAMPSHIRE DEPARTMENT OF TRANSPORTATION.
- 12. FINAL MONUMENTATION MAY BE DIFFERENT THAN THE PROPOSED MONUMENTATION SHOWN HEREON, DUE TO THE FACT THAT SITE CONDITIONS WILL DICTATE THE ACTUAL LOCATION AND TYPE OF MONUMENTS INSTALLED IN THE FIELD. PLEASE REFER TO EITHER THE "MONUMENTATION LOCATION PLAN" TO BE RECORDED OR CONTACT DOUCET SURVEY, INC. FOR CLARIFICATION OF MONUMENTS SET. (A RECORDED PLAN WILL BE PRODUCED AT THE DISCRETION OF DOUCET SURVEY, INC.).
- 13. THE FOLLOWING LOTS ARE EITHER SUBJECT TO OR IN BENEFIT OF, BUT NOT LIMITED TO, THE FOLLOWING EASEMENTS/RIGHTS OF RECORD: TAX MAP 172. LOT 1
- A. SUBJECT TO A 50' WIDE RIGHT OF WAY FOR THE BENEFIT OF TAX MAP 172, LOT 2 SEE R.C.R.D. BOOK 3127, PAGE 176 AND R.C.R.D. PLAN D-10722. B. EXCEPTING AN 8" WATER PIPE LOCATED UNDER SUBJECT PARCEL, SEE R.C.R.D. BOOK
- 2783, PAGE 560, LOCATION OF SUBJECT WATER PIPE UNKNOWN. C. SUBJECT TO A 10' WIDE ELECTRIC EASEMENT, SEE R.C.R.D. BOOK 1257, PAGE 324 AND R.C.R.D. PLAN D-19110.
- D. SUBJECT TO A WATER LINE EASEMENT, SEE R.C.R.D. BOOK 950, PAGE 174, LOCATION OF SUBJECT WATERLINE UNKNOWN.
- E. SUBJECT TO AN ELECTRIC EASEMENT, SEE R.C.R.D. BOOK 1374, PAGE 97, LOCATION OF SUBJECT EASEMENT UNKNOWN.
- F. SUBJECT TO AN ELECTRIC EASEMENT, SEE R.C.R.D. BOOK 2364, PAGE 397, LOCATION OF SUBJECT EASEMENT UNKNOWN.
- TAX MAP 173, LOT 2 G. SUBJECT TO A 70' WIDE ACCESS EASEMENT IN FAVOR OF TAX MAP 173, LOT 10, SEE
- R.C.R.D. BOOK 3204, PAGE 87 AND R.C.R.D. PLAN D-24912. H. SUBJECT TO A DRAINAGE EASEMENT TO THE UNITED STATES OF AMERICA, SEE
- R.C.R.D. BOOK 1423, PAGE 240. I. SUBJECT TO A 10' WIDE ELECTRIC EASEMENT, SEE R.C.R.D. BOOK 1257, PAGE 324.

SEE ALSO R.C.R.D. PLAN D-19110.

#### REFERENCE PLANS

1982. R.C.R.D. PLAN D-10722.

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



LOCATION MAP (n.t.s.)

# PLAN OF LAND

PORTSMOUTH LAND ACQUISITIONS, LLC

TAX MAP 163, LOTS 33 & 34 TAX MAP 165, LOT 2 TAX MAP 172. LOT 1 **TAX MAP 173, LOT 2** 

CATE STREET & US ROUTE 1 BYPASS PORTSMOUTH, NEW HAMPSHIRE

			+
1	10/10/18	ADDITIONAL SURVEY AREA	N
NO.	DATE	DESCRIPTION	

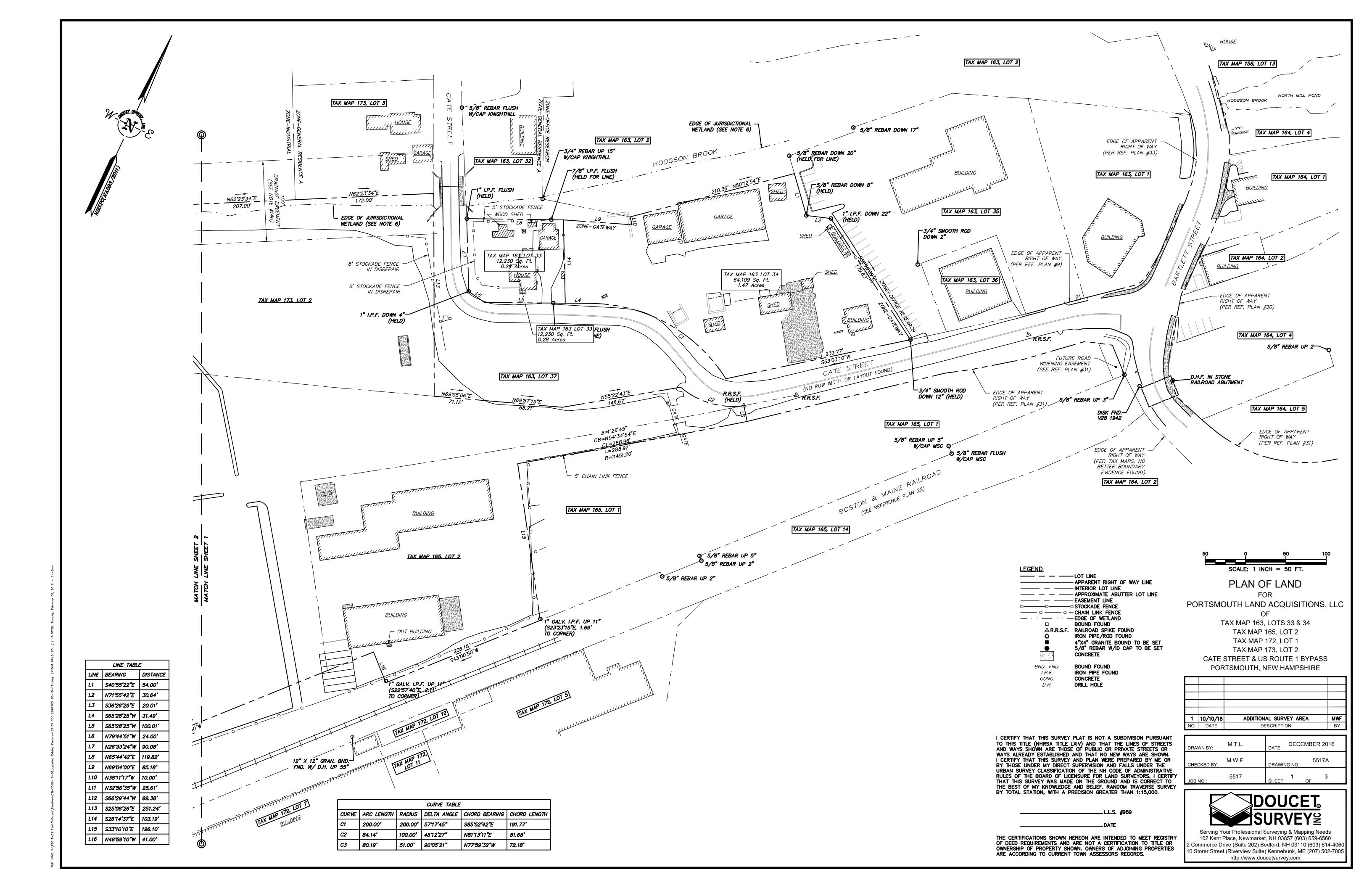
DRAWN BY:	M.T.L.	DECEMBER 2016
CHECKED BY:	M.W.F.	5517A DRAWING NO.:
JOB NO.:	5517	3 3 SHEET OF

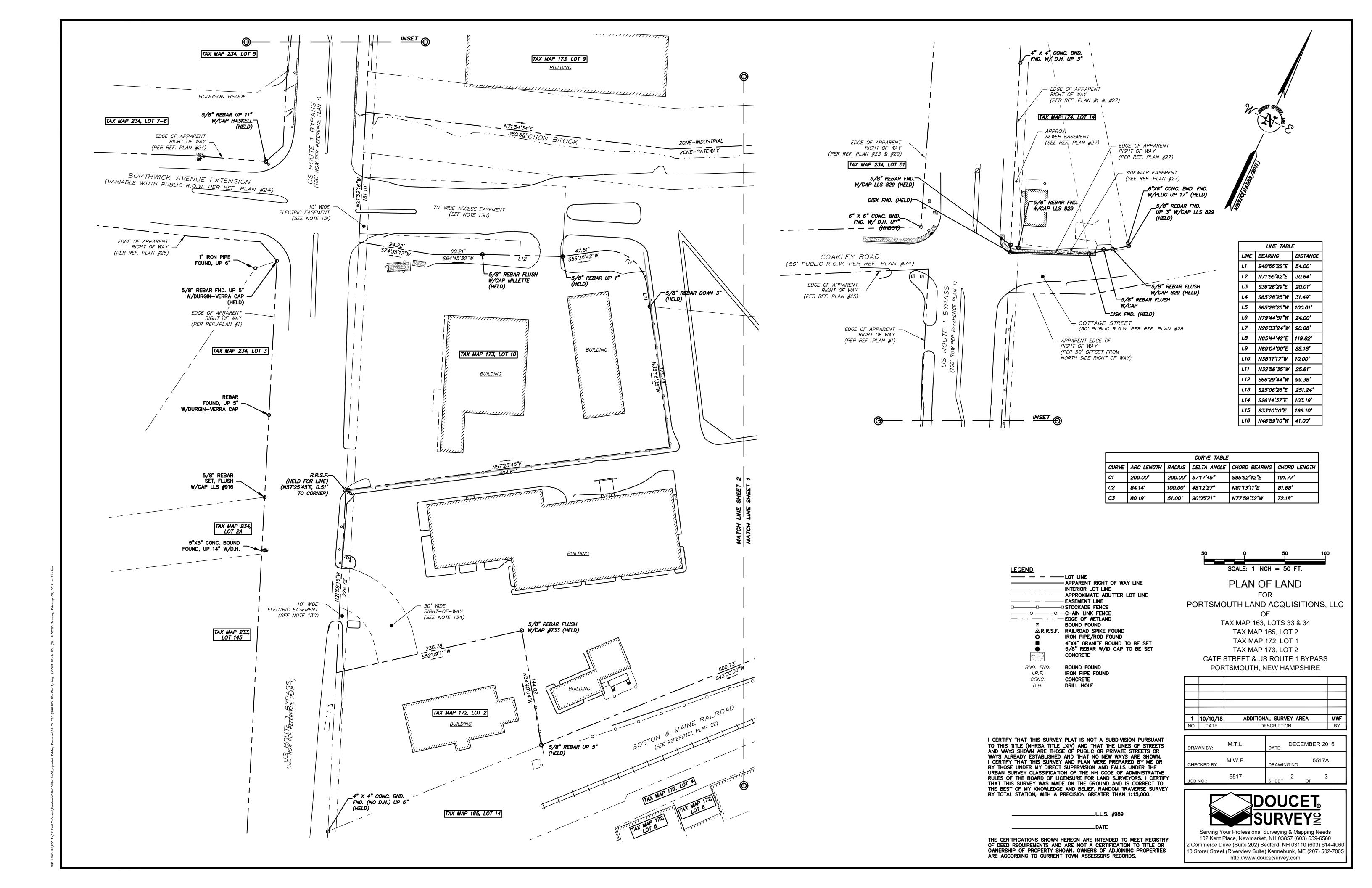


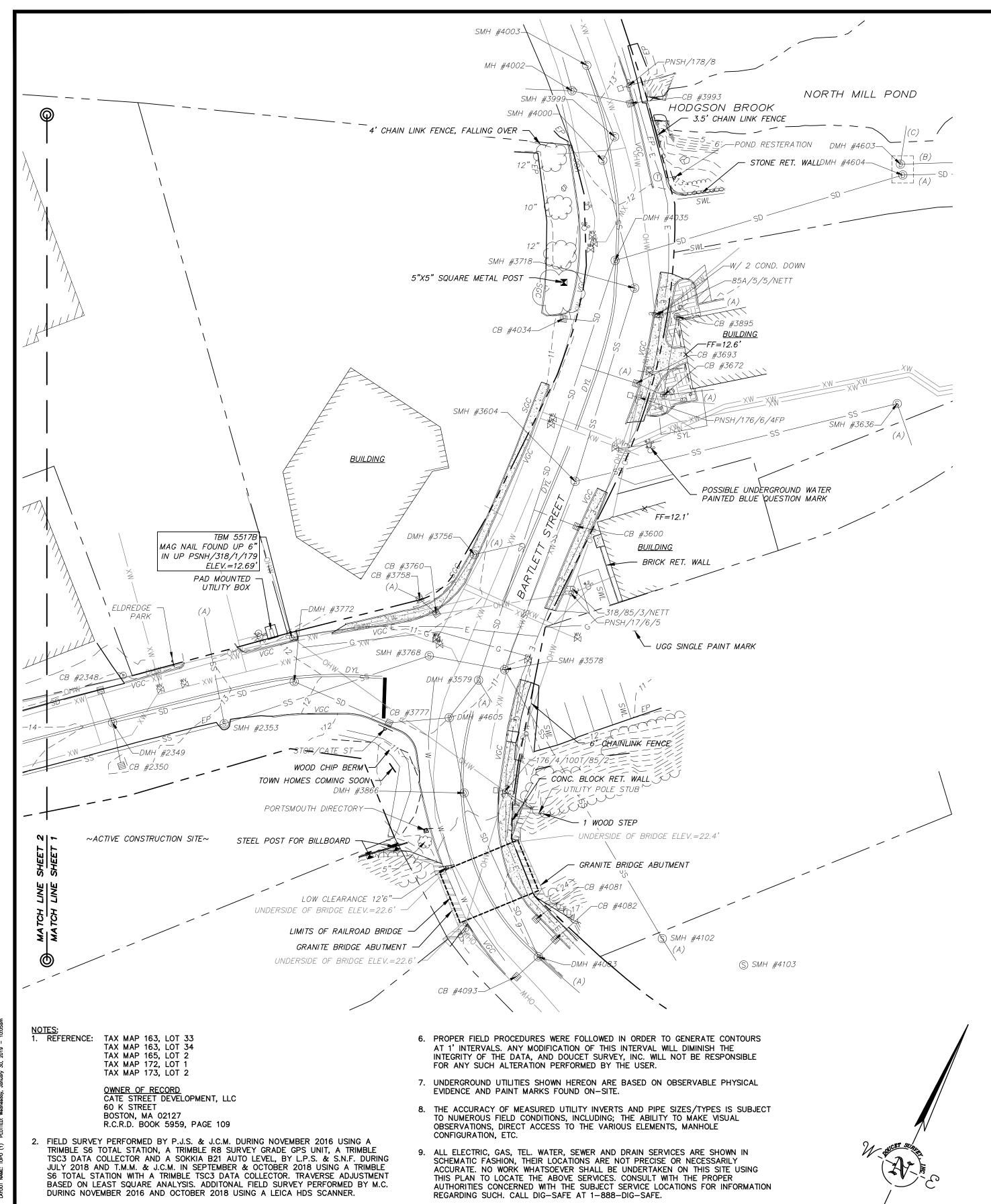
Serving Your Professional Surveying & Mapping Needs 102 Kent Place, Newmarket, NH 03857 (603) 659-6560 2 Commerce Drive (Suite 202) Bedford, NH 03110 (603) 614-4060 10 Storer Street (Riverview Suite) Kennebunk, ME (207) 502-7005 http://www.doucetsurvey.com

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

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.







10. UNDERGROUND UTILITY DATA WAS PROVIDED TO DOUCET SURVEY, INC. BY THE CITY

OF PORTSMOUTH GIS DEPARTMENT ON NOVEMBER 15, 2016. THIS DATA IS FOR

PLANNING PURPOSES ONLY AND DOUCET SURVEY DOES NOT GUARANTEE THE

BE CONDUCTED PRIOR FINAL DESIGN AND/OR CONSTRUCTION.

ACCURACY OR EXISTENCE OF THE DATA PROVIDED. ON-SITE INSPECTION SHOULD

3. THE LIMITS OF JURISDICTIONAL WETLANDS WERE DELINEATED BY MARC JACOBS IN

APRIL 2018 IN ACCORDING TO THE US ARMY CORPS OF ENGINEERS WETLAND

SUPPLEMENT TO THE CORPS OF ENGINEERS WETLAND DELINEATION MANUAL:

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

NEW ENGLAND HYDRIC SOILS TECHNICAL COMMITTEE.

NOVEMBER 2016 AND REVIEWED BY GOVE ENVIRONMENTAL SERVICES, INC. DURING

DELINEATION MANUAL, TECHNICAL REPORT Y-87-1, JANUARY 1987 AND REGIONAL

NORTHCENTRAL AND NORTHEAST REGION, VERSION 2.0, JANUARY 2102 AND FIELD

. HORIZONTAL DATUM BASED ON NEW HAMPSHIRE STATE PLANE(2800) NAD83(2011)

DERIVED FROM REDUNDANT GPS OBSERVATIONS UTILIZING THE KEYNÉT GPS VRS

INDICATORS FOR IDENTIFYING HYDRIC SOILS IN NEW ENGLAND, VERSION 4, MAY 2017,

CB #1056	CB #1348	CB #3600	CB #4034
RIM ELEV.=23.3'	RIM ELEV.=24.6'	RIM ELEV.=11.1'	RIM ELEV.=10.8'
(A) 4" UNKN. INV.=17.6'	(1347) 12" RCP INV.=19.2'	12" PVC INV.=7.5'	12" PVC INV.=7.5'
(B) 4" UNKN. INV.=17.7'			
	CB #1742	CB #3672	DMH #4035
CB #1071	RIM ELEV.=24.7'	RIM ELEV.=11.9'	RIM ELEV.=11.7'
RIM ELEV.=22.7'	(1743) 12" RCP INV.=19.7"	(3693) 4" PVC INV.=8.2'	(NO VISIBLE PIPES)
(1072) 12" RCP INV.=17.3'		(3895) 4" PVC INV.=8.7'	SUMP=1.3'
	CB #1743	(A) 4" PVC INV.=8.3'	WATER LEVEL=1.8'
CB #1072	RIM ELEV.=24.7'		
RIM ELEV.=23.7'	(1742) 12" RCP INV.=19.5'	CB #3693	CB #4081
(A) 6" CMP INV.=17.6'	(A) 12" RCP INV.=19.5'	RIM ELEV.=11.0'	RIM ELEV.=8.7'
(1071) 12" RCP INV.=17.5'		(3672) 4" PVC INV.=8.2'	(4082) 12" HDPE INV.=5.8'
(1148) 12" CMP INV.=17.5'	CB #1926	(A) 12" PVC INV.=7.9'	
(1347) 15" RCP INV.=17.1'	RIM ELEV.=29.7'		CB #4082
(B) 15" RCP INV.=17.0'	8" PVC INV.=27.9' (OUTFALL)	DMH #3756	RIM ELEV.=8.7'
		RIM ELEV.=11.6'	(4081) 12" HDPE INV.=5.7'
CB #1128	CB #2346	(2360) 12" PVC INV.=7.8'	(4083) 12" HDPE INV.=5.9'
RIM ELEV.=22.7'	RIM ELEV.=15.6'	(A) 12" PVC INV.=7.8'	
(A) 6" PVC INV.=19.4'	(A) 12" RCP INV.=11.3'		DMH #4083
(1186) 12" CMP INV.=18.9'		DMH #3756	RIM ELEV.=8.9'
(1148) 12" CMP INV.=18.8'	CB #2347	RIM ELEV.=11.6'	(3866) 42"WX24H CMP INV.=5.0'
	RIM ELEV.=13.8'	(3760) 12" PVC INV.=7.7'	(4083) 12" HDPE INV.=5.7'
CB #1147	(2348) 15" HDPE INV.=9.7"	(A) 12" PVC INV.=7.8'	(4093) 12" HDPE INV.=5.6'
RIM ELEV.=22.2			(A) 42"WX24H CMP INV.=5.0'
(A) 6" PVC INV.=18.7'	CB #2348	CB #3758	
(B) 12" CMP INV.=18.3'	RIM ELEV.=13.6'	RIM ELEV.=10.9'	CB #4093
	(2347) 15" HDPE INV.=9.8"	(3760) 12" PVC INV.=8.0'	RIM ELEV.=9.0'
CB #1148	(2349) 15" HDPE INV.=9.8'	(A) 8" PVC INV.=7.9'	(4083) 12" HDPE INV.=5.9'
RIM ELEV.=22.4'			
(A) 6" PVC INV.=18.7'	CB #2349	CB #3760	CB #4181
(1128) 12" CMP INV.=18.1'	RIM ELEV.=13.8'	RIM ELEV.=10.7'	RIM ELEV.=24.7'
(1148) 12" CMP INV.=18.2'	(2348) 15" HDPE INV.=9.1'	(3756) 12" PVC INV.=8.0'	12" CMP INV.=19.7'
	(2350) 15" HDPE INV.=10.3'	(3758) 12" PVC INV.=8.0'	
CB #1186	(3772) 15" HDPE INV.=9.1'		CB #4239
RIM ELEV.=23.5'		DMH #3772	RIM ELEV.=25.0'
(1188) 12" CMP (NOT VISIBLE)	CB #2350	RIM ELEV.=12.2'	12" CMP INV.=20.3'
(1128) 12" CMP INV.=20.0'	RIM ELEV.=12.6'	(2349) 15" HDPE INV.=8.7'	
	(FULL OF SILT & DEBRIS)	(3777) 15" HDPE INV.=8.6'	CB #4545
CB #1188			RIM ELEV.=27.8'
RIM ELEV.=25.7'	CB #2993	CB #3777	(3281) 15" RCP INV.=22.0'
(1186) 8" PVC INV.=22.3'	RIM ELEV.=30.2	RIM ELEV.=10.7'	(A) 18" RCP INV.=21.3'
	(A) 15" RCP INV.=26.2'	(3772) 15" HDPE INV.=7.7'	
CB #1213	(B) 12" UNKN. INV.=26.1'	(4605) 15" HDPE INV.=7.6'	DMH #4603 & 4604
RIM ELEV.=20.3'	(3281) 15" RCP INV.=26.0'		RIM ELEV.=10.3'
(HDWL) 12" HDPE INV.=17.6'		DMH #3866	(4035) 42" RCP INV.=1.0'
	CB #3019	RIM ELEV.=10.2'	(A) 36" RCP INV. (RECESSED)
CB #1251	RIM ELEV.=28.8'	(4083) 42"WX24H CMP INV.=5.3'	(B) UNKN. (RECESSED)
RIM ELEV.=20.9'	(A) 6" PVC INV.=25.4'	(4605) 24" RCP INV.=5.4'	(C) 42" RCP INV.=1.2'
(A) 18" CMP INV.=16.5'		(A) 8" CI INV.=8.0'	
	CB #3065		DMH #4605
CB #1345	RIM ELEV.=31.5'	CB #3895	RIM ELEV.=11.0'
RIM ELEV.=23.3'	WATER ELEV.=27.4'	RIM ELEV.=11.9'	(3579) 24" RCP INV.=4.4'
(1346) 12" RCP INV.=19.1'	(NO PIPES VISIBLE)	(3672) 4" PVC INV.=9.7'	(3777) 15" CMP INV.=7.5'
OD #4746		(A) 4" PVC INV.=9.9'	(3866) 24" RCP INV.=4.6'
CB #1346	CB #3281	OD #7007	
RIM ELEV.=25'	RIM ELEV.=29.8'	CB #3993	
(1345) 12" RCP INV.=17.4'	(2993) 15" RCP INV.=24.3'	RIM ELEV.=12.6'	
(1347) 15" RCP INV.=15.9'	(4545) 15" RCP INV.=24.2'	(NO VISIBLE PIPES)	
(A) 15" RCP INV.=15.7'	DMI #7570	APPEARS TO OPEN TO BROOK	
OD #4747	DMH #3579	SUMP=1.5'	
CB #1347	RIM ELEV.=11.2'	WATER LEVEL=1.8'	
RIM ELEV.=23.9'	(4035) 36" BRICK TROUGH INV.=2.0'	CB #4003	
(1348) 12" RCP INV.=18.8'	(4605) 24" RCP INV.=4.2'	CB #4002	
(1072) 15" RCP INV.=15.9'	(A) UNKN. INV.=2.0'	RIM ELEV.=12.9'	
(1346) 15" RCP INV.=15.8'		(BOLTED SHUT)	•

INTERIOR LOT LINE
—— — — APPROXIMATE ABUTTER LOT LINE
EASEMENT LINE
$\circ\circ$ — Chain link fence
<del>∞ ∘ ∘ ∘ ∘</del> GUARDRAIL
OHWOVERHEAD WIRES
SSSEWER LINE
G GAS LINE
W WATER LINE
— 20 — MAJOR CONTOUR LINE
— — — 22 — — — MINOR CONTOUR LINE
SHRUB LINE
— — EDGE OF WETLAND
XS-SEWER LINE (SEE NOTE 20)

UTILITY POLE & GUY WIRE

UTILITY POLE W/ LIGHT

LIGHT POLE

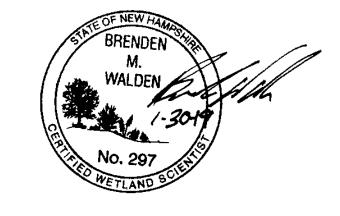
<del></del>	SIGN
00	SIGN (TWO POSTS)
Ø	FENCE POST
×	POST
<u>-</u> ⊚	POST
•	BOLLARD
**	FIRE HYDRANT
<b>≯</b> ∀0	TINE TITORANT
₩V	WATER GATE VALVE
₩	SPIGOT
GV	GAS GATE VALVE
0.F.C.	OIL FILL CAP
E	ELECTRIC BOX
	CATCH BASIN
	DRAIN MANHOLE
□ RD	ROOF DRAIN
· · -	
M	MANHOLE
<u> </u>	SEWER MANHOLE
© HH	CLEANOUT
	HAND HOLE
<u> 7117</u>	WETLAND AREA
$\sim$	FLAG POLE
Z.Z	CONIFEROUS TREE
<u> </u>	DECIDUOUS TREE
کوری	DECIDOOOS IREE

SYL

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 GRANITE CURB SLOPED BITUMINOUS BERM SINGLE WHITE LINE SINGLE YELLOW LINE DOUBLE YELLOW LINE

SEWER STRUCTURES		
SMH #1066	SMH #2434	SMH #3768
RIM ELEV.=23.2'	RIM ELEV.=18.2'	RIM ELEV.=11.4'
(A) 4" PVC INV.=18.5'	(2799) 10" UNKN. INV.=9.7'	(2353) 24" PVC INV.=6.0'
(D) UNKN. INV.=12.3'	(2365) 12" UNKN. INV.=9.7'	(3578) 24" PVC INV.=5.9'
(1152) 10" UNKN. INV.=11.8'		
(C) 4" PVC INV.=16.0'	SMH #2789	SMH #3999
(D) 4" PVC INV.=16.0'	RIM ELEV.=20.1'	RIM ELEV.=12.6'
(1350) UNKN. INV.=11.9'	(SUMP) INV.=9.9'	(4000) 10" PVC INV.=5.9'
(E) UNKN. INV.=11.6'	NO PIPES VISIBLE	(4003) 12" PVC INV.=5.8'
	1,10,11,10,11,11,11	
SMH #1152	SMH #2799	SMH #4000
RIM ELEV.=22.6'	RIM ELEV.=23.8'	RIM ELEV.=12.3'
(1066) 10" UNKN. INV.=11.3'	(A) 4" DI INV.=21.1'	(3718) 10" PVC INV.=5.8'
(2799) 10" UNKN. INV.=11.2'	(B) 8" UNKN. INV.=12.1'	(3999) 10" PVC INV.=5.8'
(2799) 10 ONNIN. INV.=11.2	(1152) 10" UNKN. INV.=10.7'	(3999) 10 F VC IIVV.=3.0
	<u>  `                                   </u>	
SMH #1350	(2434) 10" UNKN. INV.=10.6'	SMH #4003
RIM ELEV.=25.5'		RIM ELEV.=13.3'
(A) 8" CLAY INV.=14.9'	SMH #3280	(3999) 12" PVC INV.=6.5'
(4565) UNKN. INV.=14.7'	RIM ELEV.=29.8'	(A) 10" CI INV.=6.6
(1066) UNKN. INV.=14.4'	(1527) 8" CLAY DROP INLET INV.=21.1'	
	(4565) UNKN. INV.=16.4'	SMH #4102
SMH #1470	(A) 4" CI INV.=23.3'	RIM ELEV.=11.3'
RIM ELEV.=29.4'	(B) UNKN. INV.=16.5'	(3578) 30" PVC INV.=3.7'
FULL OF DEBRIS		(A) 30" PVC INV.=3.6'
	SMH #3578	
SMH #1527	RIM ELEV.=10.9'	SMH #4103
RIM ELEV.=31.6'	(3604) 36" PVC INV.=3.0'	RIM ELEV.=10.5'
(3280) 8" CLAY INV.=24.8'	(3768) 24" PVC INV.=5.8'	(NO VISIBLE PIPES, POSSIBL
(A) 8" CLAY INV.=25.3'	(4102) 30" PVC INV=3.1'	ELECTRIC MANHOLE)
(B) 8" CLAY INV.=24.7'		
	SMH #3604	SMH #4565
SMH #2353	RIM ELEV.=11.3'	RIM ELEV.=26.4'
RIM ELEV.=12.7'	(3578) 36" PVC INV.=2.5'	PIPES SUBMERGED
(2365) 24" PVC INV.=6.5'	(3636) 36" PVC INV.=2.5'	WATER LEVEL=16.5'
(3768) 24" PVC INV.=6.5'	(3718) 10" PVC INV.=4.7'	SUMP=15.4'
(A) 6" PVC INV =7.2'		
	SMH #3636	SMH #4607
SMH #2365	RIM ELEV.=10.3'	RIM ELEV.=33.2'
RIM ELEV.=14.4'	(3604) 36" PVC INV.=2.3'	(A) 8" PVC INV.=17.9'
(A) 10" CI INV.=9.3'	(A) 36" PVC INV.=2.2'	(B) 8" PVC INV.=17.7'
(2434) 10" METAL INV.=9.2'	V. 1 00 1 VO 11 VV 2. Z	(5) 5 1 4 5 114417.7
. ,	01111110740	
(2353) 24" METAL INV.=9.2'	SMH #3718	
	RIM ELEV.=11.5'	
	(3604) 10" PVC INV.=5.3'	
	(4000) 10" PVC INV.=5.5'	





CATE STREET DEVELOPMENT, LLC

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

PORTSMOUTH, NEW HAMPSHIRE

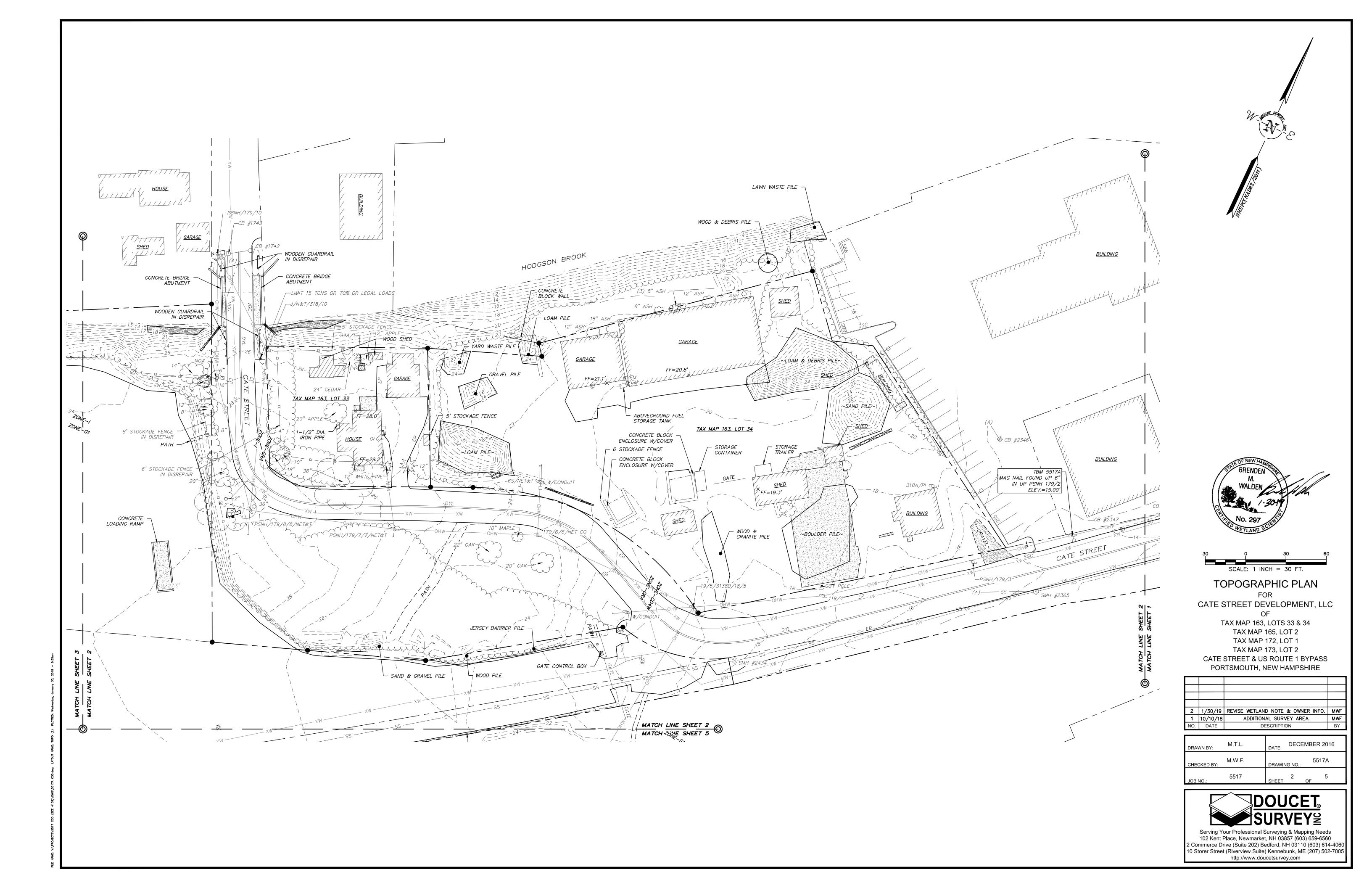
2	1/30/19	REVISE WETLAND NOTE & OWNER INFO.	M,
1	10/10/18	ADDITIONAL SURVEY AREA	М
NO.	DATE	DESCRIPTION	Е

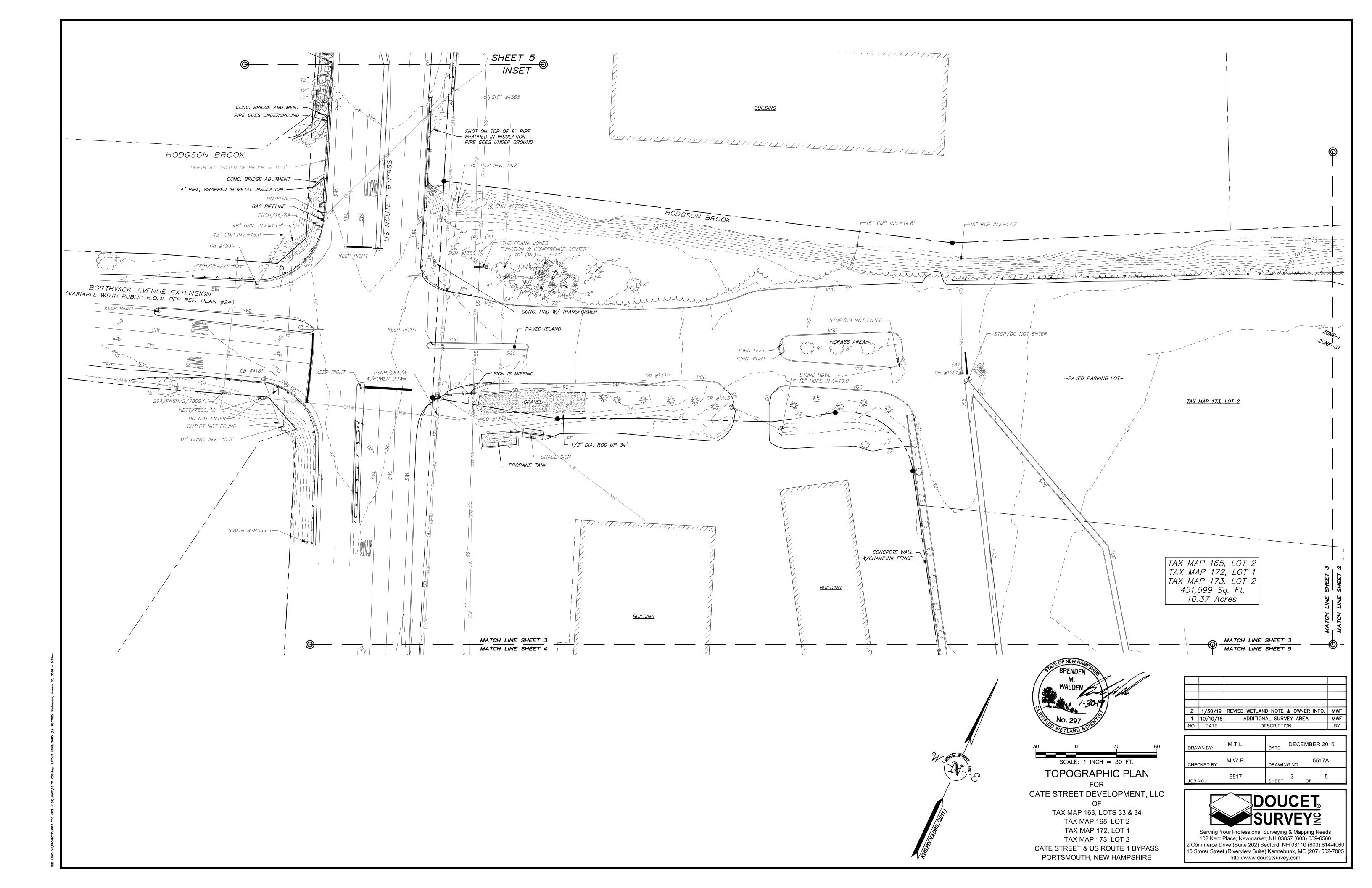
	DRAWN BY:	M.T.L.	DATE:	DECE	EMBER	2016	
	CHECKED BY:	M.W.F.	DRAWIN	NG NO.:	55 <sup>-</sup>	17A	
	JOB NO.:	5517	SHEET	1	OF	5	
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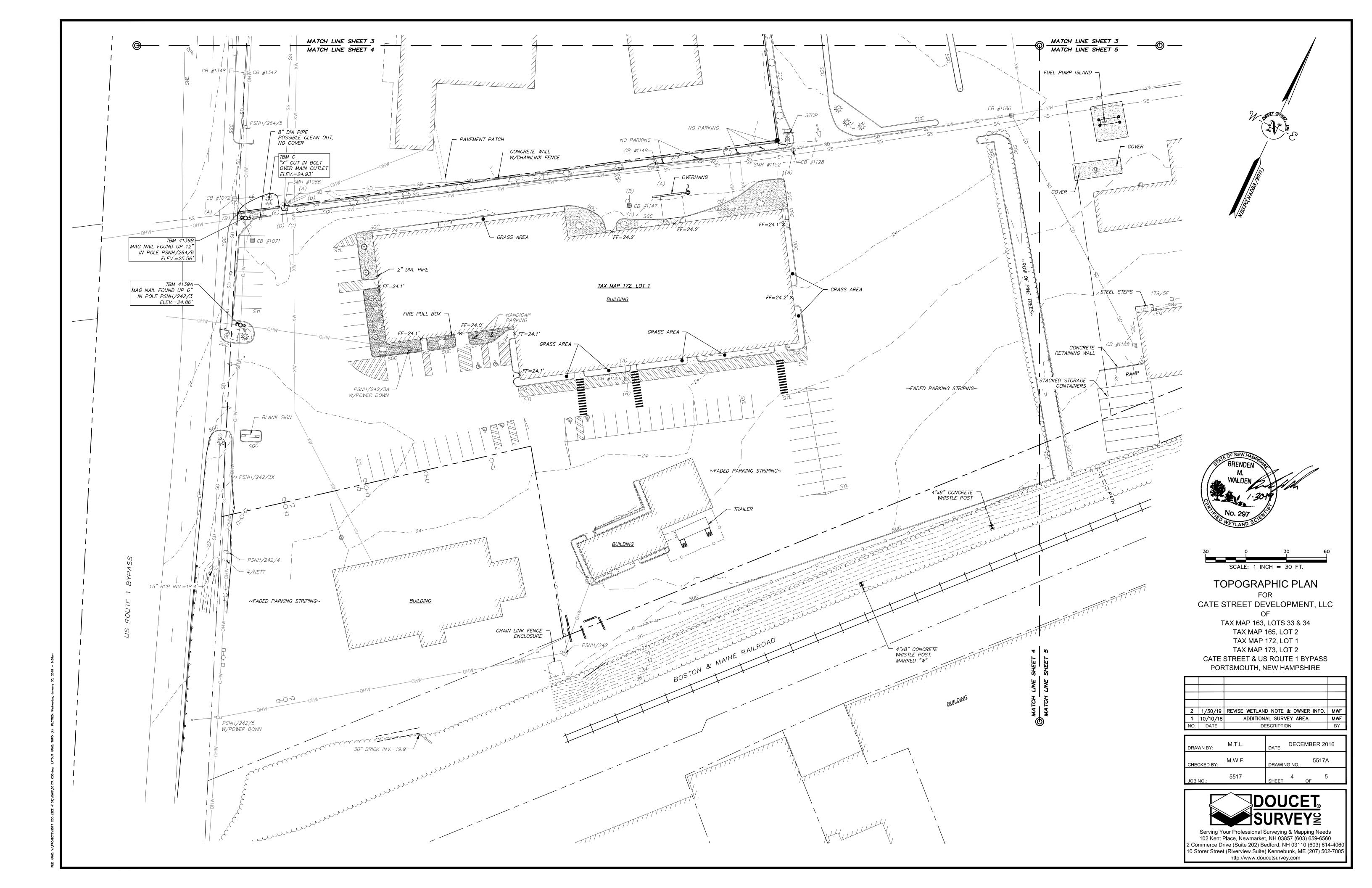


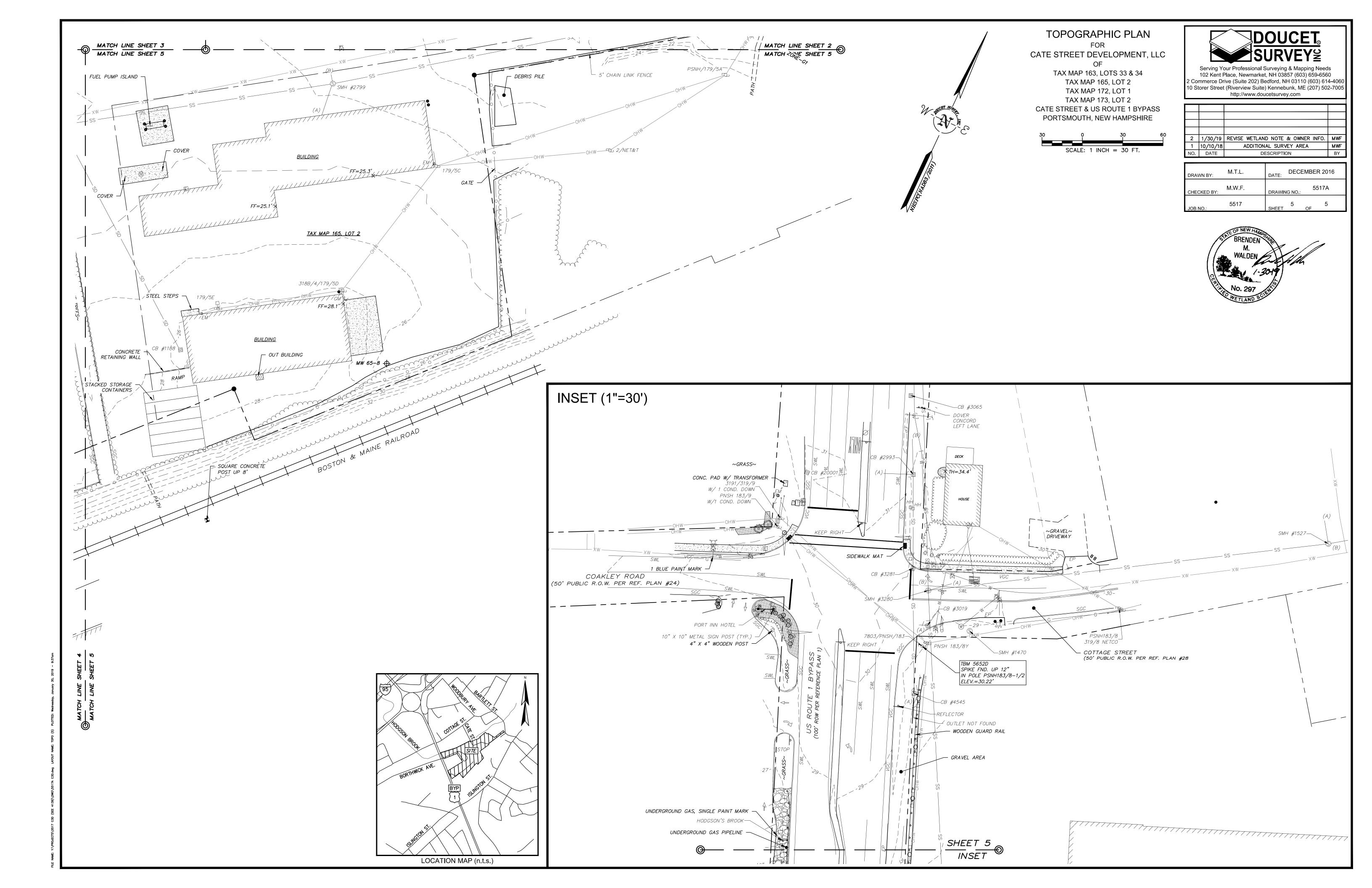
Serving Your Professional Surveying & Mapping Needs 102 Kent Place, Newmarket, NH 03857 (603) 659-6560 2 Commerce Drive (Suite 202) Bedford, NH 03110 (603) 614-4060 10 Storer Street (Riverview Suite) Kennebunk, ME (207) 502-7005 http://www.doucetsurvey.com

<u>LEGEND</u>	
	- APPROXIMATE LOT LINE
	-INTERIOR LOT LINE
	- APPROXIMATE ABUTTER LOT I
	-EASEMENT LINE
	□STOCKADE FENCE
0 0 -	- CHAIN LINK FENCE
<del>~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ </del>	∘ GUARDRAIL
OHW	
SS	-SEWER LINE
———— SD ———	
——— G ———	00
——— W ———	
	- MAJOR CONTOUR LINE
	- MINOR CONTOUR LINE
.~~~~~~	
	J
	- EDGE OF WETLAND
	- SEWER LINE (SEE NOTE 20)
	- DRAIN LINE (SEE NOTE 20)
	- WATER LINE (SEE NOTE 20)
Q.	UTILITY POLE









## CITY OF PORTSMOUTH NEW HAMPSHIRE

## WORK SESSION APPLICATION

## TECHNICAL ADVISORY COMMITTEE

Map 172 Lotbelow)Zone G1 Wetlands: Inland X Coastal Lot Area 13.3AC+\-Date of Approvals (Indicate if Pending) Conservation Commission Pending Conditional Use Board of Adjustment Historic District Commission \_\_\_\_\_\_Subdivision \_\_\_\_Pending \_\_\_Other \_\_Pending Street Address Description of Project including all use(s) Redevelopment of Tax maps & Lots, 163-34, 163-37,165-2,172-1 & 173-2 into a reconfigured Cate St. intersecting Rte 1 Bypass and a mixed use development on 9.6Ac.+/- including approximately 22,000sf retail space, office Space, & 273 residential units.(see attached) (See Attached Breakdown) Building(s) Footprint \_\_\_ Gross Floor Area # of Dwelling Units <u>273+/-</u> Number of Parking Spaces: Existing Total Proposed 495+/-Print Information Below Property Owner's Name Torrington Properties c/o Jay Bisognano Street Address 60K Street City/TownBoston State MA Zip 02127 978-490-5278 jb@torprops.com Telephone # Cell Phone # Fax # Email Address Print Information Below Applicant's / Developer's Name Torrington Properties c/o Jay Bisognano Street Address 60K Street City/Town Boston State MA Zip 02127 978-490-5278 jb@torprops.com Telephone # Cell Phone # Fax # **Email Address** Print Information Below (Include Additional Contact Information on Next Page) Check One: Owner's Attorney X Applicant's Attorney □ Engineer □ Surveyor □ Other □ If other, state relationship Representative's Name John Bosen, Bosen & Associates Street Address 266 Middle Street City/TownPortsmouthState NH Zip 03801 603-427-5500 jbosen@bosenandassociates.com Cell Phone # Email Address Telephone # Fax # I hereby apply for an informal work session with the Technical Advisory Committee and understand that a formal Site Review application shall be required in order to seek final approvals. I also acknowledge that a formal Site Review application and fee shall be required to comply with all of the ordinances and any stipulations of the Site Review Committee of the City of Portsmouth in the development and construction of this project. Jay Bisognano Print Owner's Name Date Owner's Signature Rick Lundborn, PE 2/5/19 Applicant's/Developer's Signature Print Applicant's/Developer's Name (Agent) (Agent)

At a minimum, the application for a Work Session shall include a site or subdivision plan reflecting the existing and proposed conditions. Any additional information the applicant wishes to provide for review and feedback by the TAC is optional. Typically applicants will be limited to one TAC Work Session per project.

### **Attachments**

The following materials shall be submitted to the Planning Department by the Work Session submission deadline along with the completed Application Form:

- X Ten (10) folded copies of the site plan four (4) full-size (22" x 34") and six (6) reduced (11" x 17")
- X Digital copy of any plans and/or exhibits (in PDF format)

#### Additional Contacts

## **Co-Developers**





#### Architects





#### **Civil Engineer**

Mr. Rick Lundborn
Fuss and O'Neill, Inc
Sr Proj Mgr | Regional Off Mgr
Community Development
(207) 363-0669 x2314 Work
(603) 767-4728 Mobile
rlundborn@fando.com
5 Fletcher Street Suite 1
Kennebunk, ME 04043

#### **Project Consultant**



#### **Legal Counsel**

# John Bosen Bosen & Associates Principal 603.427.5500 Work jbosen@bosenandassociates.com 266 Middle Street Portsmouth, NH 03801

#### **Pre-Construction General Manager**



#### **Owner's Representative**

