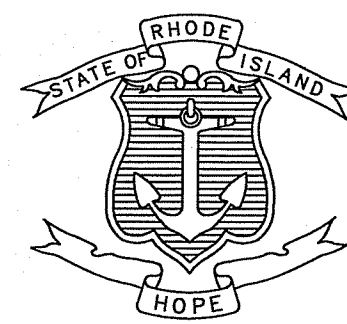


INDEX

| SHEET NO. | DESCRIPTION |
|-----------|---|
| 1 | COVER SHEET |
| 2 | STANDARD PLAN SYMBOLS & STANDARD LEGEND |
| 3-4 | STANDARD NOTES |
| 5 | JOB SPECIFIC SYMBOLS, LEGEND & NOTES |
| 6-8 | HIGHWAY GENERAL PLANS |
| 9 | BRIDGE PLAN & ELEVATION |
| 10 | MISCELLANEOUS DETAILS |
| 11-13 | DRAINAGE & UTILITY PLANS |
| 14-18 | PROFILES |
| 19 | HIGHWAY GRADING PLAN - ROUTE 146A |
| 20 | HIGHWAY GRADING PLAN - HEROUX DR. |

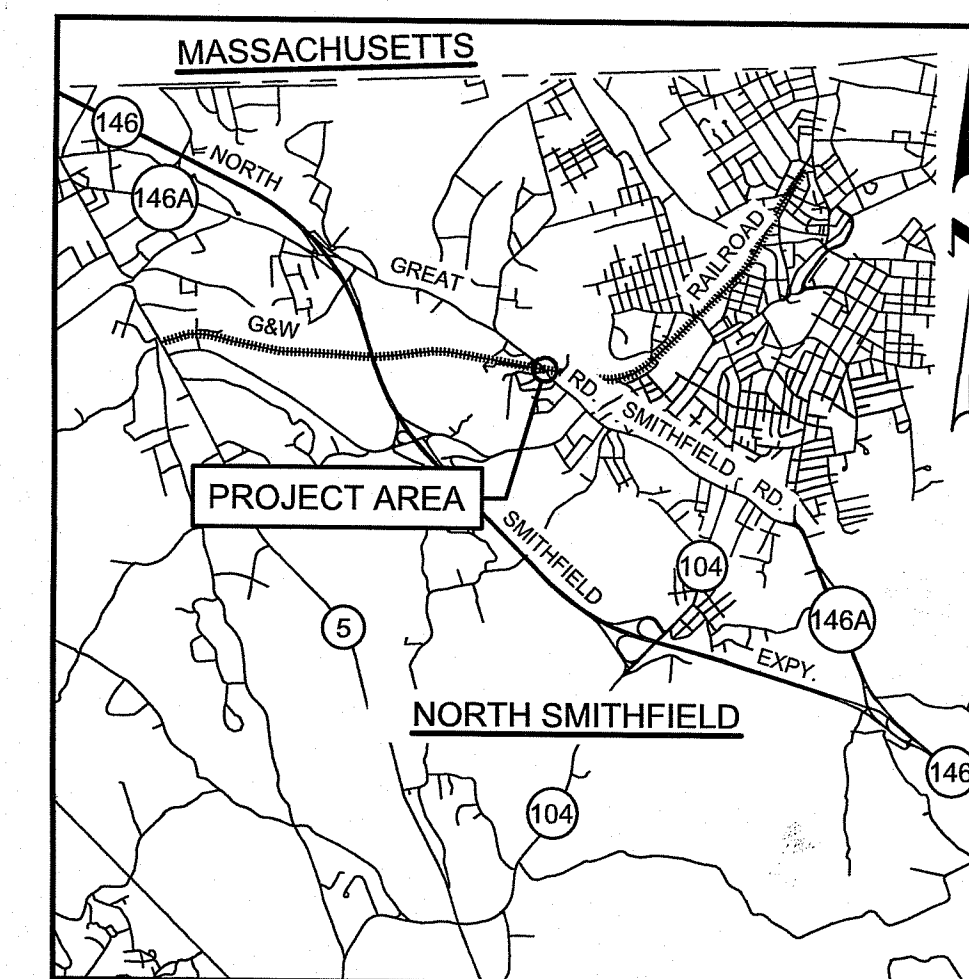
STATE OF RHODE ISLAND



DEPARTMENT OF TRANSPORTATION

PLAN, PROFILE AND SECTIONS OF PROPOSED STATE HIGHWAY

UNION VILLAGE BRIDGE NO. 107 REPLACEMENT ROUTE 146A (GREAT ROAD) OVER G&W RAILROAD



LOCATION MAP
SCALE: 1" = 5,000'

TOWN OF NORTH SMITHFIELD
COUNTY OF PROVIDENCE

R.I. CONTRACT NO. 2018-CB-038 F.A. PROJECT NO.

FULL-DEPTH RECONSTRUCTION (ROUTE 146A)
2" CLASS 12.5 HMA
5" CLASS 19 HMA
12" GRAVEL BORROW SUBBASE COURSE

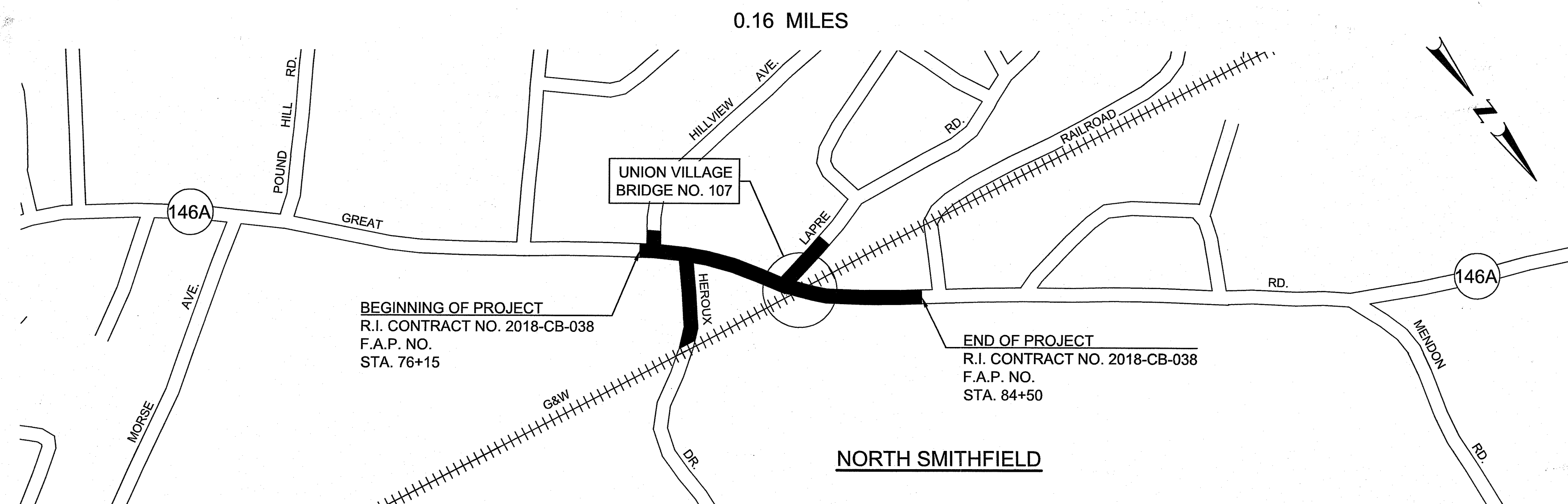
PAVEMENT STRUCTURE:
PAVEMENT MICROMILLING & OVERLAY
2" MICROMILLING (ROUTE 146A & LAPRE RD.)
2" (MINIMUM) CLASS 12.5 HMA (ROUTE 146A & LAPRE RD.)

FULL DEPTH RECLAMATION (HEROUX DR.)
4" CLASS 12.5 HMA
8" ASPHALT STABILIZED (RECYCLED) BASE COURSE

DESIGN DESIGNATION

| ROUTE 146A (GREAT RD.) | |
|------------------------|---------------|
| AADT (2018) | 13,200 V.P.D. |
| AADT (2038) | 14,100 V.P.D. |
| D | 50%/50% |
| K | 16% |
| T | 5% |
| DDHV | 1,056 V.P.H. |
| DHV | 2,112 V.P.D. |
| DESIGN SPEED | 35 M.P.H. |

R.I. STANDARD SPECIFICATIONS AND STANDARD DETAILS
SPECIFICATIONS TO GOVERN THIS PROJECT ARE THE R.I. STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, AMENDED 2013, WITH ALL REVISIONS, AND THE STATE AND FEDERAL SPECIAL PROVISIONS INCLUDED IN THE CONTRACT DOCUMENTS. STANDARD DETAILS FOR THIS PROJECT ARE R.I. STANDARD DETAILS, 1998 EDITION, WITH ALL REVISIONS.



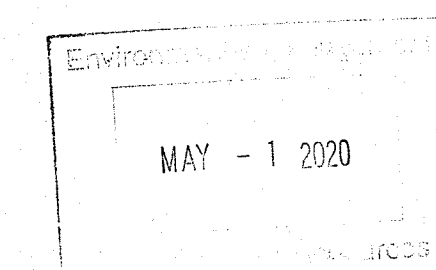
LAYOUT PLAN
SCALE: 1" = 250'

SCALES OF DRAWINGS

| | |
|----------------|-----------------------------|
| Plans | 1 inch = 20, 40 & 50 feet |
| Profiles | 1 inch = 20 feet Horizontal |
| Profiles | 1 inch = 4 feet Vertical |
| Cross Sections | 1 inch = 4 feet Horizontal |
| Cross Sections | 1 inch = 4 feet Vertical |

BASE OF LEVELS
NAVD 88

NAD 83 (2011) (2010.00)



PERMIT
SUBMISSION
MARCH 30, 2020

| | |
|--|------|
| R.I. DEPARTMENT OF TRANSPORTATION | |
| APPROVED | DATE |
| ADMINISTRATOR, PROJECT MANAGEMENT | DATE |
| APPROVED | DATE |
| CHIEF ENGINEER OF INFRASTRUCTURE | DATE |
| APPROVED | DATE |
| DIRECTOR | DATE |
| DEPARTMENT OF TRANSPORTATION FEDERAL HIGHWAY ADMINISTRATION | |
| APPROVED | DATE |
| DIVISION ADMINISTRATOR | DATE |

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
AS SPECIFIED IN THE LETTER OF APPROVAL
DATED JUN 03 2020 FILE # 18-0356
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
APPROVED PLANS MUST BE AT CONSTRUCTION SITE

Contract Number 2018-CB-038

Number of Sheet 1

Total Sheets 20



WSP USA Inc.
2348 POST ROAD
SUITE 27
WARWICK, RI 02886
TEL: +1 401.738.6600

LANDSCAPE NOTES:

- ALL PLANT MATERIAL MUST BE TAGGED AT THE NURSERY (A RECOGNIZED GROWER OF PLANT MATERIAL) IN ACCORDANCE WITH THE R.I.D.O.T. STANDARD SPECIFICATIONS, LATEST EDITION. ALL PLANT MATERIAL MUST BE NURSERY GROWN; NO PLANTATION GROWN PLANT MATERIAL WILL BE ACCEPTED.
- ALL PLANT SUBSTITUTIONS AND/OR CHANGES IN PLANT LOCATION MUST BE APPROVED IN ACCORDANCE WITH THE R.I.D.O.T. STANDARD SPECIFICATIONS, LATEST EDITION.
- ALL PLANT MATERIAL IS TO BE FIELD LOCATED BY A REPRESENTATIVE FROM THE R.I.D.O.T. LANDSCAPE ARCHITECTURE UNIT.
- A R.I.D.O.T. LANDSCAPE REPRESENTATIVE MUST BE ON SITE TO APPROVE ALL TRIMMING AND CLEARING NECESSARY TO COMPLETE THE WORK AS SHOWN ON THE PLANS.
- ANY TOPSOIL USED AS PLANTABLE SOIL SHALL HAVE A SANDY LOAM TEXTURE RELATIVELY FREE OF SUBSOIL MATERIAL, STONES, ROOTS, LUMPS OF SOIL, TREE LIMBS, TRASH OR CONSTRUCTION DEBRIS, AND SHALL CONFORM TO SECTION M.18 OF THE R.I.D.O.T. STANDARD SPECIFICATIONS, LATEST EDITION.
- ALL TREES AND SHRUBS SHALL BE MULCHED WITH PINE BARK MULCH IN ACCORDANCE WITH THE R.I.D.O.T. STANDARD SPECIFICATIONS, LATEST EDITION.
- ALL TREES AND/OR SHRUBS THAT ARE PLANTED AS A BED SHALL BE MULCHED AS A BED.
- PROVIDE A MINIMUM 6'-8" BRANCHING STANDARD ON ALL TREES INSTALLED ADJACENT TO SIDEWALKS AND/OR PEDESTRIAN ACCESS AREAS.

STRUCTURAL NOTES FOR HIGHWAY SIGNS, LUMINAIRES AND TRAFFIC SIGNALS:

GENERAL

- ALL SUPPORT DESIGNS AND ASSOCIATED SHOP DRAWING REVIEWS SHALL BE IN CONFORMANCE WITH THE LATEST EDITION, OF THE AASHTO STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES AND TRAFFIC SIGNALS (THE "SPECIFICATIONS"), INCLUDING THE LATEST INTERIM SPECIFICATIONS, EXCEPT AS MODIFIED HEREIN.

CONSTRUCTION DRAWINGS AND DETAILS

- THE FOLLOWING NOTES SHALL BE INCLUDED ON ALL PLANS AND/OR SHOP DRAWINGS IN REFERENCE TO ANCHOR BOLTS:
 - "PRETENSIONING OF ALL ANCHOR NUTS IS REQUIRED, AND SHALL BE ACCOMPLISHED BY TIGHTENING TO 1/6TH TURN BEYOND THE SNUG-TIGHT POSITION."
 - "THE MAXIMUM CLEARANCE BETWEEN THE BOTTOM OF THE LEVELING NUTS AND THE TOP OF THE CONCRETE IS CRITICAL AND SHALL NOT EXCEED THE AMOUNT SPECIFIED ON THIS DRAWING."
- THE USE OF GROUT UNDER BASE PLATES SHALL GENERALLY NOT BE PERMITTED. IF SPECIFIC CONDITIONS WARRANT ITS USE, THE GROUT SHALL NOT BE CONSIDERED LOAD CARRYING; LOADS SHALL BE DIRECTLY SUPPORTED BY THE ANCHOR BOLTS. ADEQUATE DRAINAGE SHALL BE PROVIDED.
- THE DAMPENING EFFECTS OF VIBRATION MITIGATION DEVICES SHALL NOT BE CONSIDERED IN THE DESIGN OF STRUCTURAL SUPPORTS FOR SIGNS AND TRAFFIC SIGNALS. IF THE CONTRACTOR CHOOSES TO USE THESE DEVICES FOR WARRANTY PURPOSES, THE TYPE OF DEVICES PROPOSED SHALL BE APPROVED BY THE DEPARTMENT PRIOR TO FABRICATION OF SUPPORTS.

TRAFFIC SIGNAL NOTES:

- ALL SALVAGED TRAFFIC SIGNAL EQUIPMENT SHALL BE DELIVERED TO THE R.I.D.O.T. MAINTENANCE HEADQUARTERS, 360 LINCOLN AVENUE, WARWICK, RHODE ISLAND, 02888.
- BACK PLATES SHALL BE INSTALLED ON ALL TRAFFIC SIGNAL HEADS.
- THE CONTRACTOR SHALL SUPPLY AND INSTALL ON THE UPPER LEFT HAND CORNER OF THE BACK OF THE CONTROLLER CABINET DOOR A LAMINATED INTERSECTION GRAPHIC AND TABLE DEPICTING THE TRAFFIC DETECTOR RELAY CHANNEL ASSIGNMENTS. THE DIAGRAM SHALL BE A GRAPHIC OF THE INDIVIDUAL INTERSECTION ORIENTED SIMILAR TO THE PLANS SHOWING THE LOCATIONS OF EACH OF THE LOOP DETECTORS. THE DIAGRAM SHALL, AT A MINIMUM, INCLUDE DETECTOR NUMBERS, STREET NAME LABELS, NORTH ARROW, AND CONTROLLER CABINET LOCATION. THE ASSIGNMENT INFORMATION SHALL BE INCLUDED IN A TABLE WHICH SHALL INCLUDE, AT A MINIMUM, THE APPROACH NAME, DETECTOR NUMBER, TERMINAL NUMBER, DETECTOR RACK SLOT NUMBER, RELAY NUMBER, RELAY CHANNEL NUMBER, AND PHASE ASSOCIATED WITH EACH DETECTOR.
- TRAFFIC CONTROLLER CABINETS, UNLESS OTHERWISE NOTED, SHALL BE NEMA TS2 TYPE 1 CABINET SIZE 6 ("P" TYPE) WITH NOMINAL DIMENSIONS OF 52"x44"x24"D.
- ALL DELAY AND EXTENSION TIMES, AS CALLED FOR ON THE PLANS, FOR PROPOSED LOOP DETECTORS SHALL BE PROGRAMMED IN THE TRAFFIC SIGNAL CONTROLLER AND NOT THE DETECTOR RELAY.
- A BARE GROUND WIRE SHALL BE PLACED IN ALL PVC CONDUITS AND SHALL BE BONDED TO GROUND RODS IN ACCORDANCE WITH SECTION T.03 OF THE RHODE ISLAND DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION.
- THE FINAL POSITION OF SIGNAL HEADS, PEDESTRIAN PUSHBUTTONS, DETECTORS, AND STOP LINE AND CROSSWALK PAVEMENT MARKINGS SHALL BE AS DIRECTED BY THE ENGINEER IN THE FIELD ACCORDING TO ACTUAL INTERSECTION CHARACTERISTICS.
- A 2' MINIMUM BUFFER SHALL BE PROVIDED BETWEEN THE CURB AND ALL LATERAL OBSTRUCTIONS (INCLUDING ALL SIGNAL POLES AND TRAFFIC/PEDESTRIAN SIGNAL HEADS) TO PROVIDE ADEQUATE CLEARANCE FOR TURNING VEHICLES.
- ALL FOUNDATIONS MUST HAVE CONES OR BARRELS BOLTED TO FOUNDATION BASES UNTIL ACTUAL POLE IS INSTALLED.
- WHEN PLACING TRAFFIC SIGNAL HANDHOLES OR CONDUIT IN EXISTING PORTLAND CEMENT CONCRETE SIDEWALKS, THE ENTIRE SIDEWALK SQUARE OF CONCRETE SHALL BE REPLACED IN ACCORDANCE WITH R.I. STD. 43.1.0. NO PATCHES WILL BE ALLOWED.
- ALL PEDESTRIAN PUSHBUTTONS SHALL BE COMPLIANT WITH "THE AMERICANS WITH DISABILITIES ACT ACCESSIBILITY GUIDELINES FOR BUILDINGS AND FACILITIES" (ADAAG) AND SHALL INCLUDE A PRESSURE-ACTIVATED (NON-MOVING) BUTTON. SIGNS APPLICABLE TO PUSHBUTTON ACTUATION SHALL BE INSTALLED SUCH THAT THE CROSSING ASSIGNED TO EACH BUTTON IS CLEARLY INDICATED. IF SITE CONDITIONS DO NOT ALLOW PEDESTRIAN PUSHBUTTONS TO BE INSTALLED WHERE CALLED FOR ON THE PLANS, THE R.I.D.O.T. TRAFFIC ENGINEERING UNIT SHALL BE CONSULTED WITH THROUGH AN R.F.I. PRIOR TO INSTALLING THE PUSHBUTTONS. THE FINAL PLACEMENT OF ALL PEDESTRIAN PUSHBUTTONS SHALL BE IN ACCORDANCE WITH ADAAG AND THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, LATEST EDITION.
- ALL LOOP DETECTORS SHALL BE CENTERED WITHIN EACH LANE AS DELINEATED, UNLESS OTHERWISE DIMENSIONED ON PLANS.
- ALL LOOP DETECTORS SHALL BE CUT INTO THE FINAL PAVEMENT SURFACE COURSE.
- TRAFFIC SIGNAL CONTROLLERS SHALL BE WIRED SO THAT ANY FIRE PRE-EMPTION SHALL OVERRIDE MANUAL (PUSH BUTTON) OPERATION.
- THE CONTRACTOR SHALL WORK CONTINUOUSLY TO RESTORE TRAFFIC SIGNAL OPERATION TO ITS INTENDED PURPOSE WHEN REPLACING THE TRAFFIC SIGNAL EQUIPMENT. A POLICE DETAIL IS REQUIRED TO DIRECT TRAFFIC AT THE INTERSECTION AT ALL TIMES WHEN THE TRAFFIC SIGNAL IS INOPERATIVE. AT NO TIME SHALL THE CONTRACTOR LEAVE THE SITE BEFORE RESTORING FULL TRAFFIC OPERATIONS.

MAINTENANCE AND PROTECTION OF TRAFFIC NOTES:

ALL MAINTENANCE AND PROTECTION OF TRAFFIC CONTROL SETUPS, SIGNS, CHANNELIZING DEVICES, ETC., SHALL BE IN ACCORDANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, LATEST EDITION.

ALL SIGN MOUNTINGS FOR TEMPORARY AND CONSTRUCTION SIGNS SHALL BE IN ACCORDANCE WITH THE R.I.D.O.T. STANDARD SPECIFICATIONS, LATEST EDITION.

THE CONTRACTOR SHALL COVER ALL EXISTING AND/OR TEMPORARY SIGNS THAT ARE NOT RELEVANT TO THE TRAFFIC CONTROL REQUIRED DURING ANY PARTICULAR STAGE OF THE CONTRACT.

ADVANCE FLAGPERSON SIGNS (W20-7A) SHALL BE USED IN ADVANCE OF ANY POINT AT WHICH A FLAGPERSON OR A POLICE OFFICER HAS BEEN STATIONED TO CONTROL TRAFFIC. WHEN NEEDED, AN APPROPRIATE DISTANCE MESSAGE MAY BE DISPLAYED ON A SUPPLEMENTAL PLATE (24"x18") BELOW THE FLAGPERSON SYMBOL SIGN. THE SIGN SHALL BE PROMPTLY REMOVED OR COVERED WHENEVER THE FLAGPERSON IS NOT AT THE STATION.

POLICE OFFICERS (AND NOT FLAGPERSONS) SHALL BE UTILIZED WHEN WORK WILL IMPACT SIGNALIZED INTERSECTIONS AND LIMITED ACCESS HIGHWAYS.

POLYETHYLENE DRUMS SHALL BE UTILIZED AS A CHANNELIZING DEVICE WHEN A TRAFFIC CONTROL SET-UP IS TO REMAIN BEYOND WORKING HOURS WHEN NO WORKERS ARE PRESENT. CONES SHALL BE UTILIZED WHEN A TRAFFIC CONTROL SET-UP IS TO REMAIN ONLY DURING WORKING HOURS AND IS SUBSEQUENTLY BROKEN DOWN AT THE END OF THE WORKDAY.

ARROW PANELS SHALL BE SET IN THE FLASHING FOUR CORNERS CAUTION MODE UNLESS UTILIZED FOR A MERGING TAPER. ARROW PANELS SET IN THE FLASHING ARROW MODE SHALL NOT BE UTILIZED FOR LANE SHIFTS.

TEMPORARY CONSTRUCTION SIGNS AND OTHER WORKZONE TRAFFIC CONTROL DEVICES THAT ARE DAMAGED OR REQUIRE RELOCATION SHALL BE REPLACED AND / OR RELOCATED UNDER THE PAY ITEM FOR "MAINTENANCE AND MOVEMENT TRAFFIC PROTECTION."

THE PRIVATE VEHICLES OF CONSTRUCTION WORKERS SHALL NOT BE PARKED ON THE TRAVEL LANES OR SHOULDERS. THEY MAY BE PARKED WITHIN THE STATE RIGHT-OF-WAY ONLY IN AREAS 30' BEYOND THE OUTSIDE EDGE OF THE TRAVEL LANES AND/OR IN AREAS APPROVED BY THE ENGINEER.

TEMPORARY CONSTRUCTION SIGNS AND OTHER TEMPORARY TRAFFIC CONTROL DEVICES SHALL BE INSTALLED PRIOR TO THE START OF WORK IN ANY AREA OPEN TO TRAFFIC, AND SHALL BE REMOVED AS SOON AS PRACTICAL WHEN THEY ARE NO LONGER APPROPRIATE.

THE INTENDED VEHICLE PATHS THROUGH EACH WORK ZONE SHALL BE CLEARLY MARKED AT ALL TIMES. WATERBORNE PAVEMENT MARKINGS SHALL BE INSTALLED BEFORE THE END OF THE WORK SHIFT ON ALL COLD-PLANNED AND NEW ROADWAY SURFACES THAT WILL BE OPENED TO TRAFFIC AT THE END OF THE SHIFT.

Christopher D. Simonetti

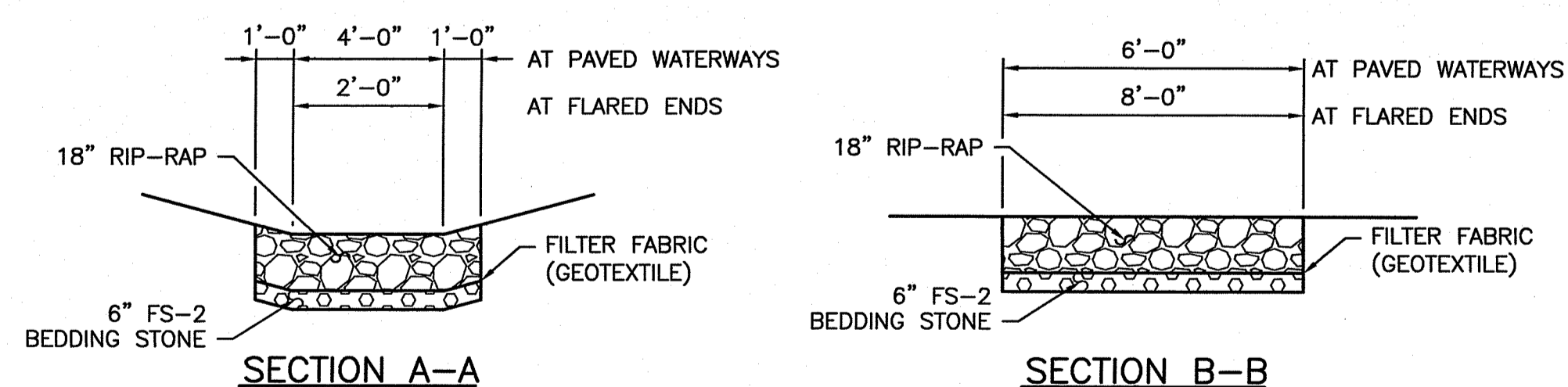
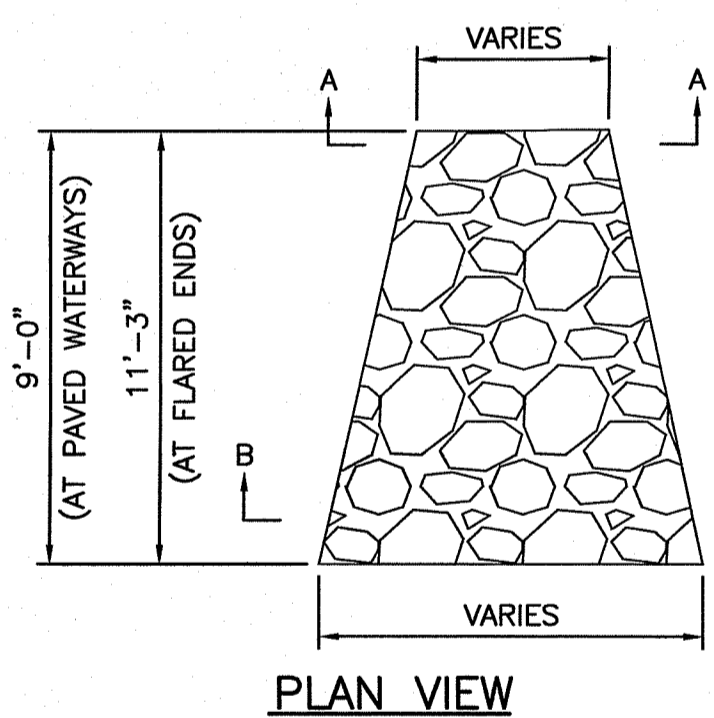
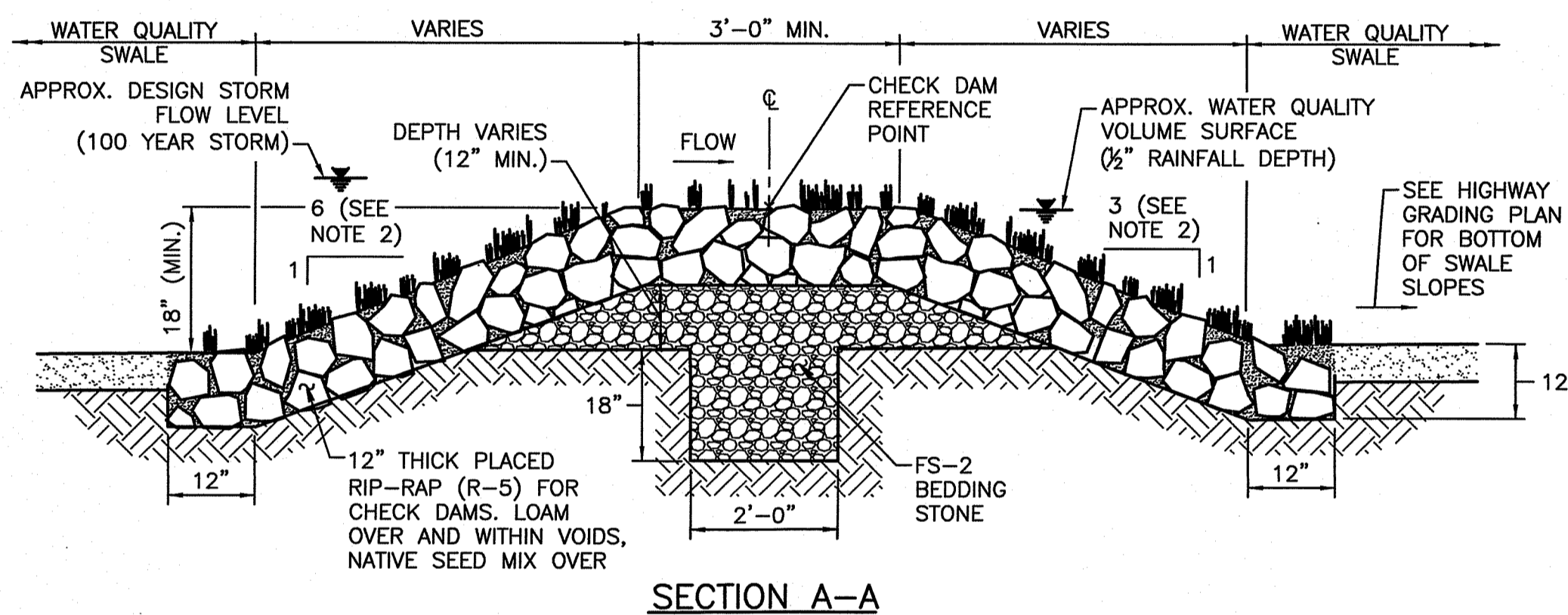
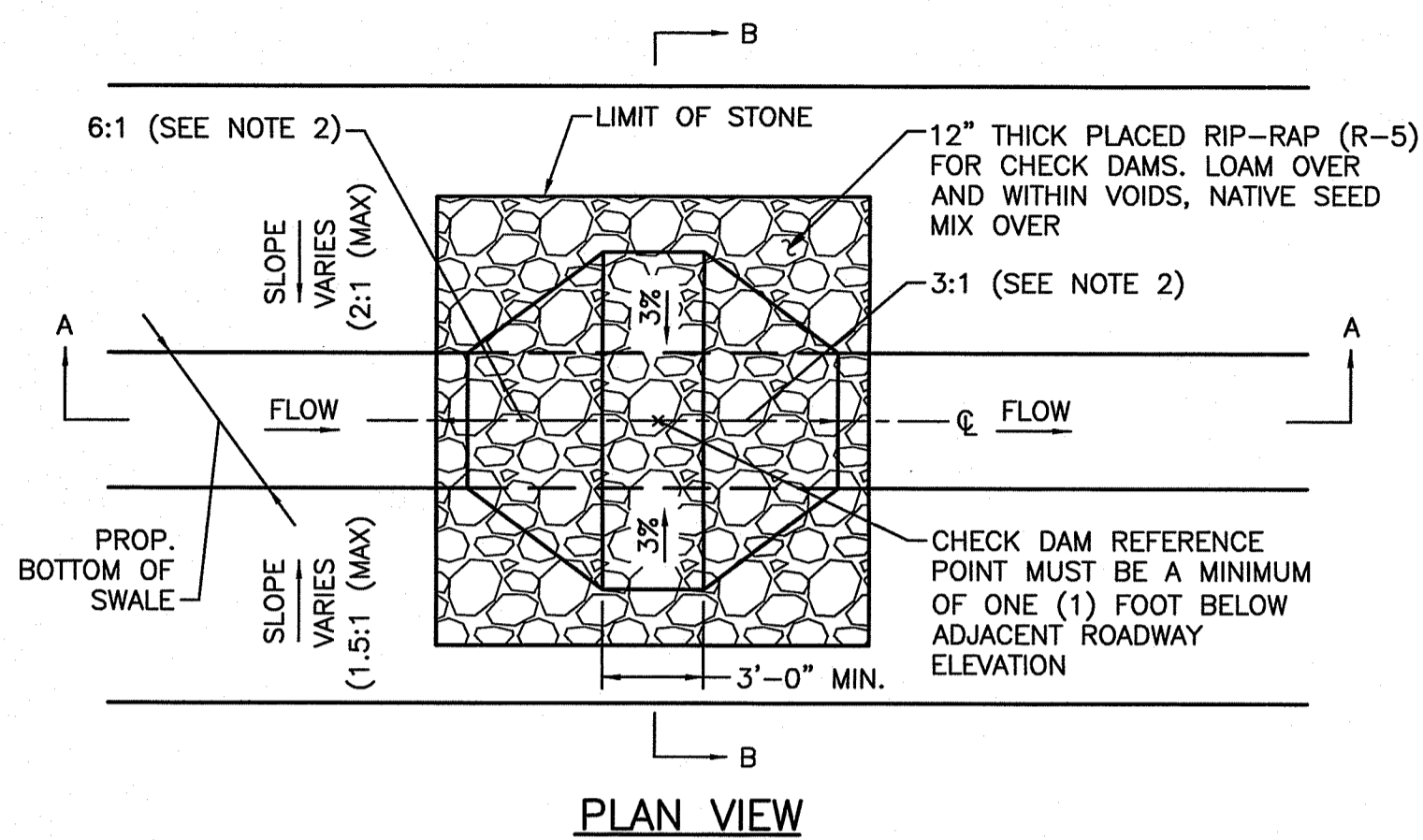
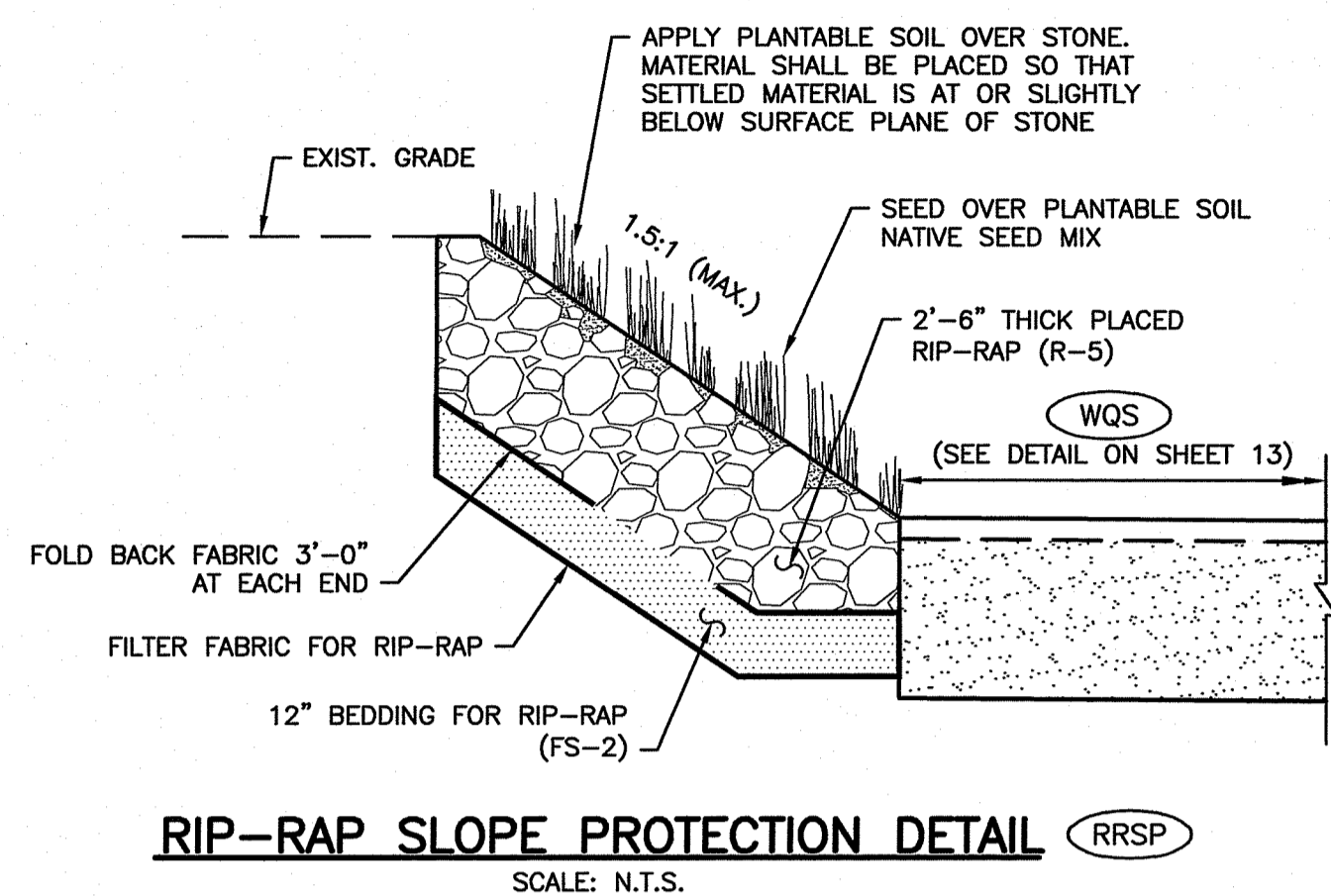
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
 OFFICE OF WATER RESOURCES
 FRESHWATER WETLANDS PROGRAM
 APPROVED WITH CONDITIONS
 AS SPECIFIED IN THE LETTER OF APPROVAL
 DATED JUN 03 2020 FILE # 19-035c
 NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
 APPROVED PLANS MUST BE AT CONSTRUCTION SITE

THIS PLAN SHALL NOT BE ALTERED

| REVISIONS | | | RHODE ISLAND DEPARTMENT OF TRANSPORTATION | |
|-----------|-------|-----|--|---------------------------|
| NO. | DATE | BY | | |
| 1 | 4/07 | TRB | PLANS FOR BRIDGE REPLACEMENT | |
| 2 | 11/07 | TRB | BRIDGE NO. 107 | |
| 3 | 3/10 | RBH | NORTH SMITHFIELD, RHODE ISLAND | |
| | | | STANDARD NOTES - 2 | |
| | | | CHECKED BY _____ | DATE _____ SCALE NO SCALE |

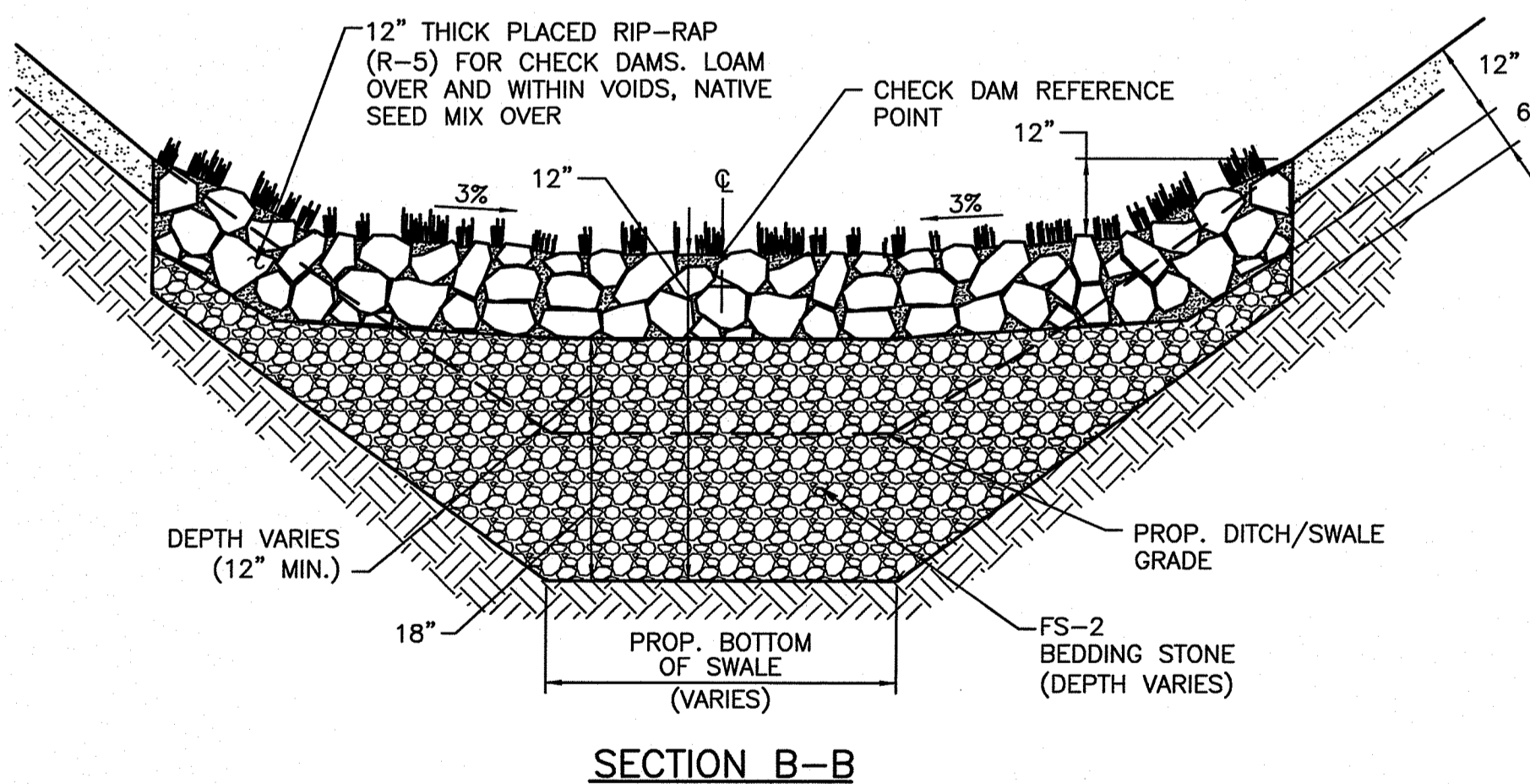


WSP USA Inc.
 2348 POST ROAD
 SUITE 27
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 TEL: +1 401.738.6600



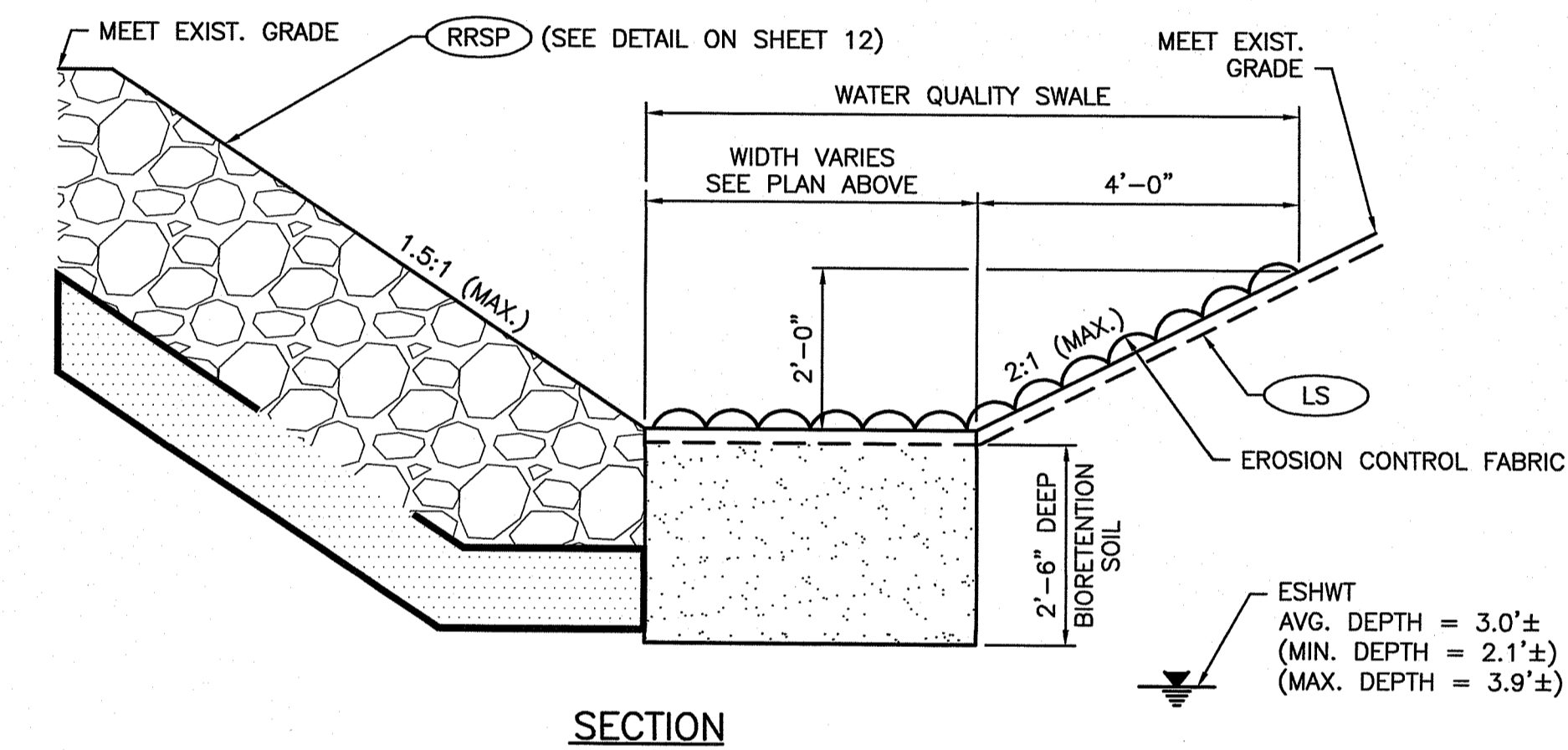
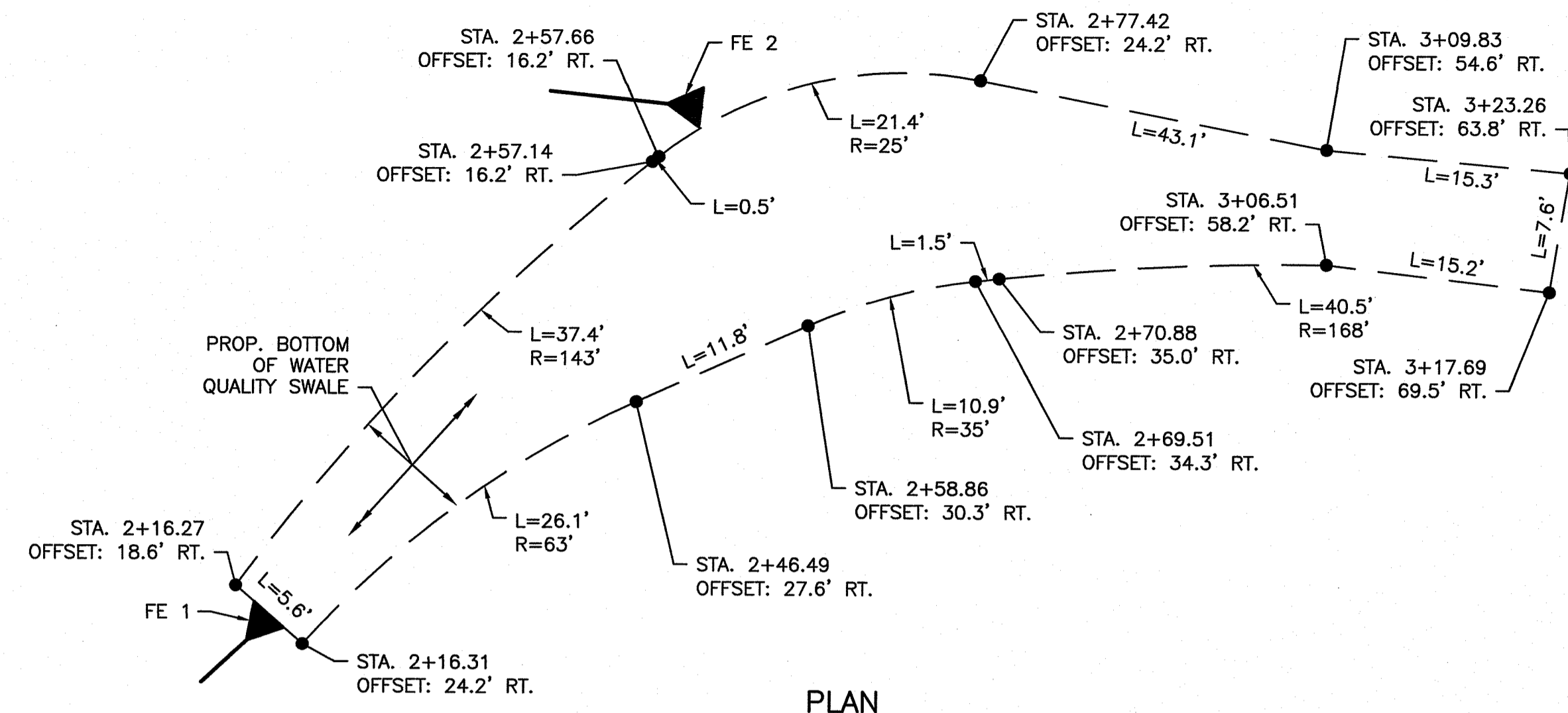
- NOTES:**
- RIP-RAP AND BEDDING SHALL BE IN ACCORDANCE WITH SECTION M.10 OF THE RI STD. SPECIFICATIONS FOR BRIDGE AND HIGHWAY. RIP-RAP SHALL BE MODIFIED NSA NO. R-4, BEDDING SHALL BE MODIFIED NSA NO. F-2.
 - DIMENSIONS MAY BE MODIFIED BY THE ENGINEER TO MEET FIELD CONDITIONS.
 - UNLESS OTHERWISE SPECIFIED, DUMPED RIP-RAP SHALL BE USED.

RIP-RAP PAD DETAILS (RRP)
SCALE: N.T.S.



- NOTES:**
- SEE SHEET 26 FOR LOCATION AND ELEVATION OF CHECK DAM REFERENCE POINTS.
 - CONTRACTOR SHALL FIELD VERIFY THAT THE DIFFERENCE BETWEEN CHECK DAM REFERENCE POINT ELEVATION AND ADJACENT TOP OF SLOPE ELEVATION IS NOT LESS THAN 1-FOOT. IF FIELD CONDITIONS DO NOT RESULT IN 1-FOOT ELEVATION DIFFERENCE BETWEEN PROVIDED CHECK DAM REFERENCE POINT AND ADJACENT TOP OF SLOPE ELEVATION, CONTRACTOR SHALL NOTIFY ENGINEER.
 - LONGITUDINAL CHECK DAM SLOPES SHALL BE 6:1 ON THE UPSTREAM SIDE AND 3:1 ON THE DOWNSTREAM SIDE.
 - APPLY LOAM OVER AND WITHIN THE RIP-RAP FOR CHECK DAMS. MATERIAL SHOULD BE PLACED SO THAT SETTLED MATERIAL IS AT OR SLIGHTLY BELOW SURFACE PLANE OF RIP-RAP AND SHALL BE WORKED INTO THE VOIDS OF THE RIP-RAP FOR CHECK DAMS. LOAM SHALL BE RAKED BY HAND.
 - SEED SHALL BE ITEM L02.0104 - NATIVE SEED MIX (TYPE 4).

RIP-RAP CHECK DAM DETAILS (PCD-S)
SCALE: N.T.S.



- NOTES:**
- STATIONS AND OFFSETS REFER TO THE CENTERLINE OF CONSTRUCTION ON HEROUX DRIVE.
 - INFILTRATION SYSTEM CONSTRUCTION AND MATERIALS SHALL CONFORM TO RI STORMWATER DESIGN AND INSTALLATION STANDARDS MANUAL, MARCH 2015, APPENDIX F.3 CONSTRUCTION STANDARDS/SPECIFICATIONS FOR INFILTRATION BMP'S. AFTER CONSTRUCTION, THE CONTRACTOR SHALL COORDINATE FINAL INSPECTIONS WITH THE OWNER IN ACCORDANCE WITH TABLE F-5 IN APPENDIX F.3.
 - THE CONTRACTOR IS REQUIRED TO SUBMIT A LIST OF MATERIALS, GRADATIONS AND THE NAME AND ADDRESS OF THE SUPPLIERS TO THE ENGINEER FOR APPROVAL PRIOR TO BRINGING MATERIAL ON SITE. MATERIAL CERTIFICATIONS SHALL ALSO BE REQUIRED FOR REVIEW AND APPROVAL.
 - THE CONTRACTOR IS RESPONSIBLE FOR FAMILIARIZING THEMSELVES WITH THE ABOVE REFERENCED MANUAL WHICH CAN BE FOUND AT:
<http://www.dem.ri.gov/pubs/regs/regs/water/swmanual15.pdf>
 - GREAT CARE MUST BE TAKEN TO PREVENT THE SOIL IN THE INFILTRATION AREA FROM BECOMING COMPACTED. THE CONTRACTOR SHALL MARK OUT THE INFILTRATION SYSTEM LOCATION BEFORE THE START OF CONSTRUCTION. DRAINAGE SHALL ONLY BE ALLOWED TO ENTER THE INFILTRATION AREA AFTER CONSTRUCTION IS COMPLETE AND CONTRIBUTING AREAS ARE STABILIZED.
 - IF LARGE ROCKS OR BOULDERS ARE FOUND WITHIN 36" BELOW THE INFILTRATION SYSTEM OR WITHIN 10' OF THE SYSTEM, THE CONTRACTOR SHALL REMOVE THE ROCKS/BOULDERS AND REPLACE WITH GRAVEL BORROW. THE CONTRACTOR SHALL COORDINATE THIS WORK WITH THE ENGINEER.

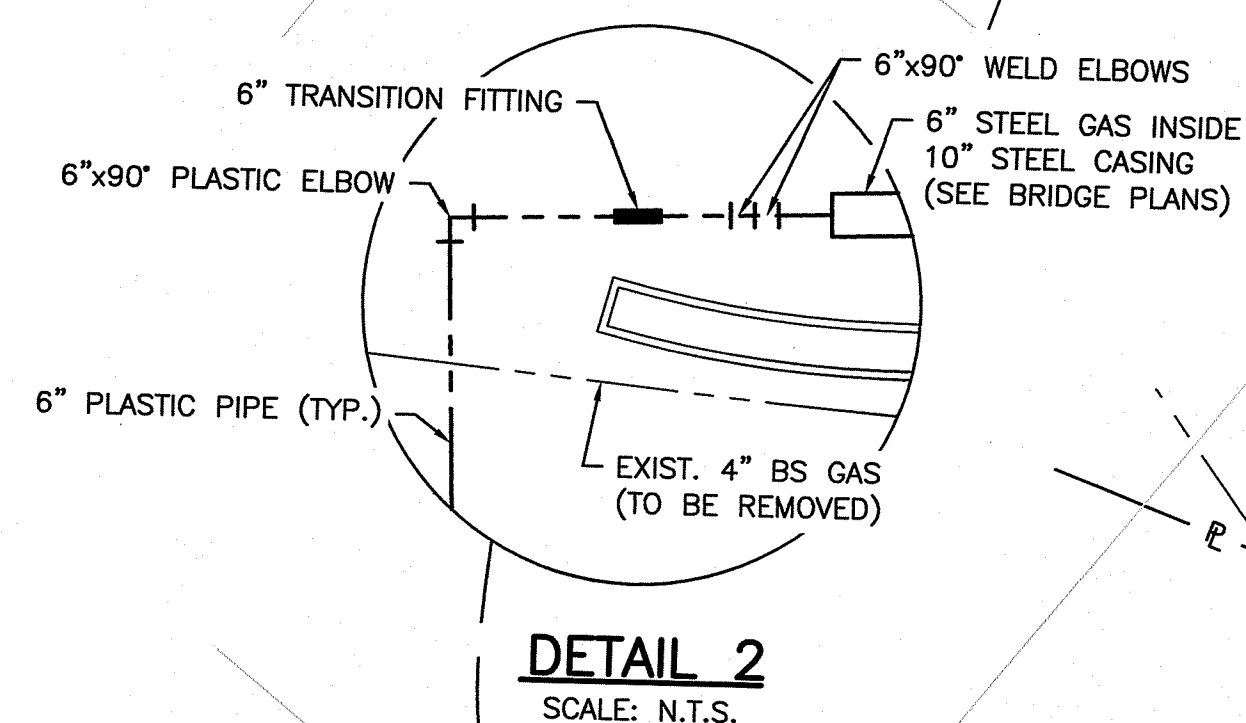
WATER QUALITY SWALE DETAIL (WQS)
SCALE: N.T.S.

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
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DATED JUN 03 2020 FILE # 19-0326
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
APPROVED _____

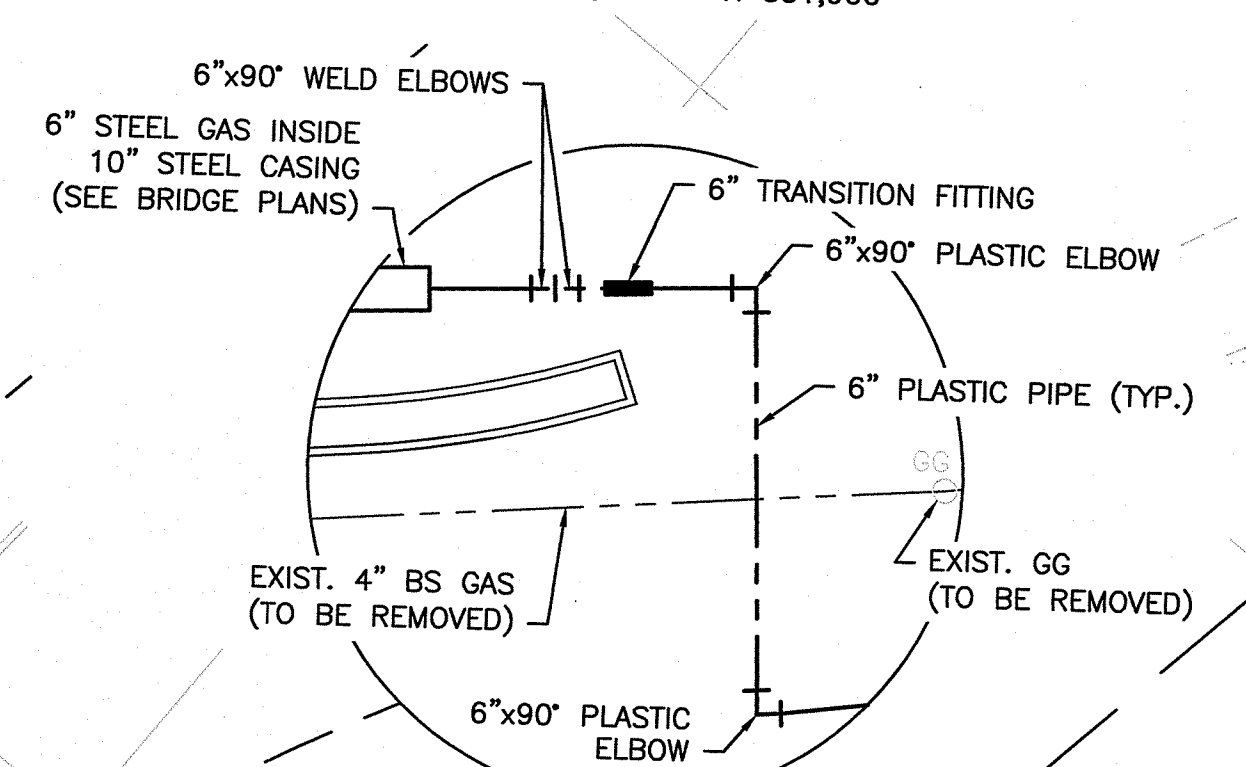
| REVISIONS | | |
|-----------|------|-----|
| NO. | DATE | BY |
| 1 | 3/20 | WSP |

| | |
|---|---------------------------|
| RHODE ISLAND DEPARTMENT OF TRANSPORTATION | |
| PLANS FOR BRIDGE REPLACEMENT BRIDGE NO. 107 NORTH SMITHFIELD, RHODE ISLAND | |
| MISCELLANEOUS DETAILS | |
| CHECKED BY _____ | DATE _____ SCALE AS NOTED |

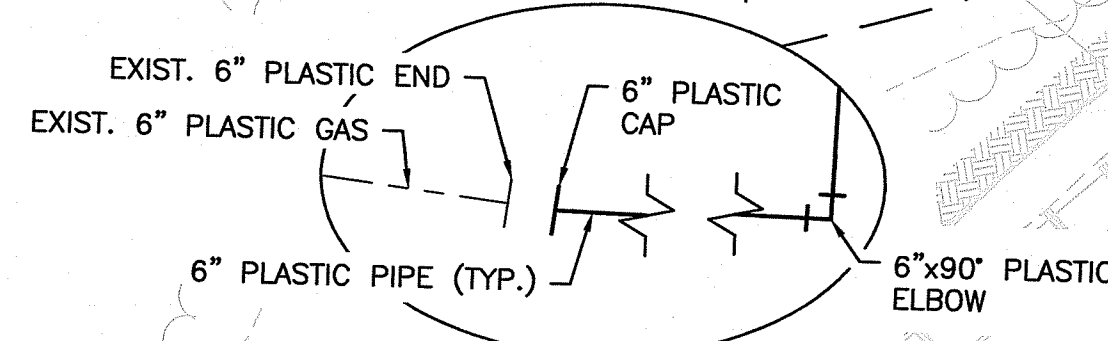
wsp
WSP USA Inc.
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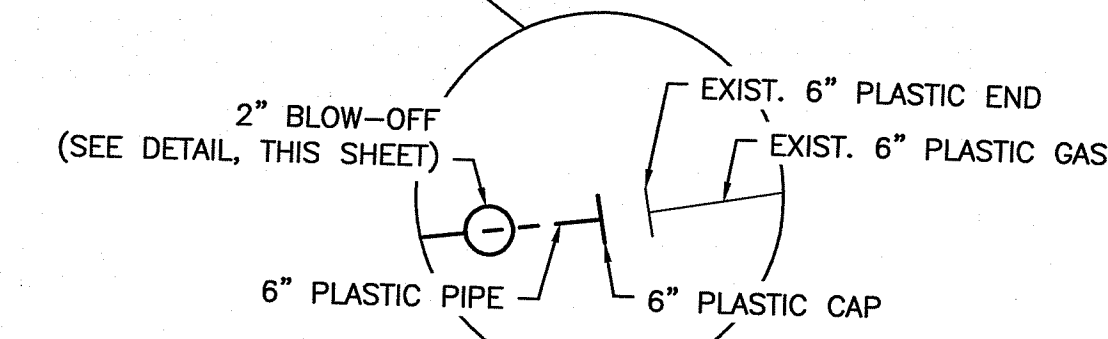
DETAIL 2
SCALE: N.T.S.



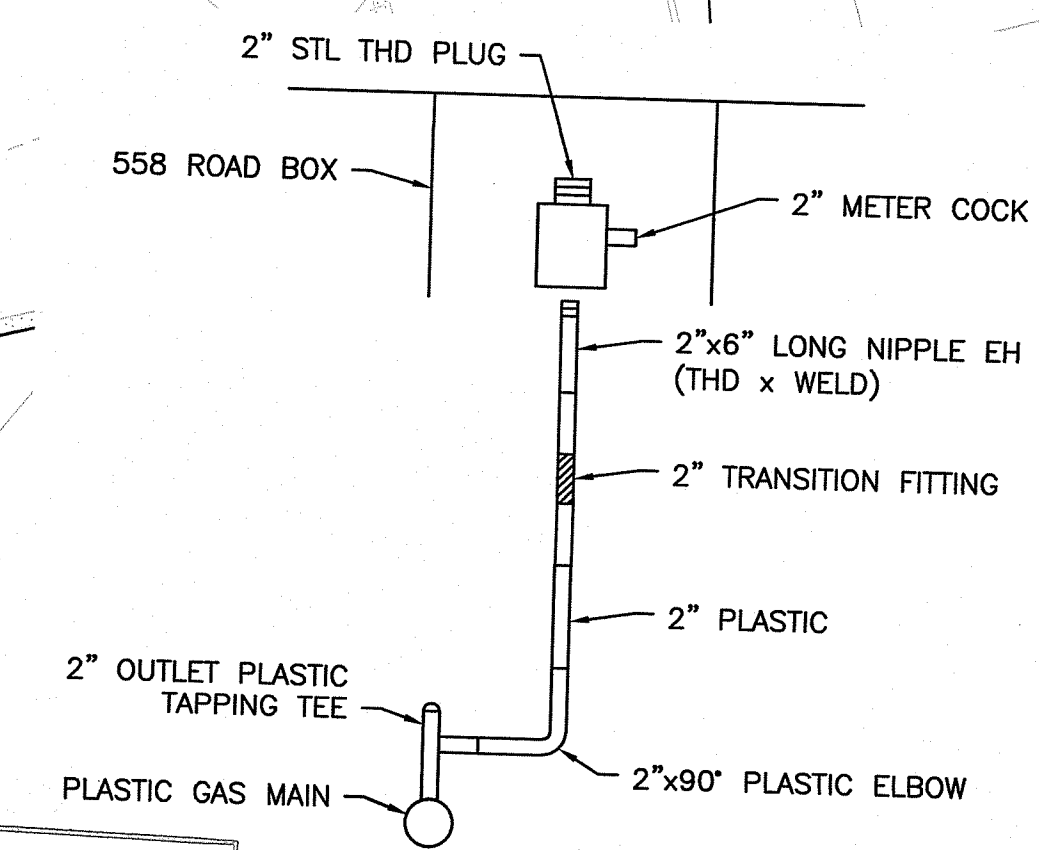
DETAIL 3
SCALE: N.T.S.



DETAIL 1
SCALE: N.T.S.



DETAIL 4
SCALE: N.T.S.



BLOW-OFF DETAIL
SCALE: N.T.S.

- NOTES:**
- CATCH BASIN RIM ELEVATIONS LISTED ON THIS SHEET ARE SET 0.1' BELOW THE FINAL GUTTER GRADES IN ACCORDANCE WITH THE STANDARD NOTES ON SHEET 3.
 - MANHOLE RIM ELEVATIONS LISTED ON THIS SHEET ARE FLUSH WITH THE FINAL ROADWAY GRADES.
 - TEMPORARY AND PROPOSED WIRE CLEARANCES FROM THE TOP OF TRACKS TO LOWEST WIRE SHALL BE A MINIMUM OF 23'-0".

- GAS NOTES:**
- ALL NEW GAS INSTALLS BY BRIDGE CONTRACTORS NATIONAL GRID APPROVED GAS SUB.
 - ALL TIE-INS/ABANDONMENTS BY NATIONAL GRID CREWS.
 - ALL MATERIALS SUPPLIED BY NATIONAL GRID.

Kindly be advised that this Permit is not equivalent to a verification of the type or extent of freshwater wetlands on site.

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
AS SPECIFIED IN THE LETTER OF APPROVAL
DATED JUN 03 2020 FILE # 19-0356
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
APPROVED PLANS MUST BE AT CONSTRUCTION SITE

| REVISIONS | | |
|-----------|------|-----|
| NO. | DATE | BY |
| 1 | 3/20 | WSP |

RHODE ISLAND
DEPARTMENT OF TRANSPORTATION

PLANS FOR BRIDGE REPLACEMENT
BRIDGE NO. 107
NORTH SMITHFIELD, RHODE ISLAND

DRAINAGE & UTILITY PLAN
NO. 3

CHECKED BY _____ DATE _____ SCALE 1"=20'

wsp

WSP USA Inc.
2348 POST ROAD
SUITE 27
WARWICK, RI 02886
TEL: +1 401.738.6600

