FED. ROAD DIV. NO.	STATE	FEDERAL AID PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
	RI		2017	1	28

INDEX

STATE OF RHODE ISLAND

DEPARTMENT OF TRANSPORTATION

PLAN, PROFILE AND SECTIONS OF PROPOSED

STATE HIGHWAY

IMPROVEMENTS TO BRANCH RIVER BRIDGE NO. 010801

PROJECT LIMITS

TOWN OF NORTH SMITHFIELD
COUNTY OF PROVIDENCE

R.I. CONTRACT NO. XXX F.A. PROJECT NO. XXX-XXXX(XXX)

PROJECT LENGTH = 0.10 MILES

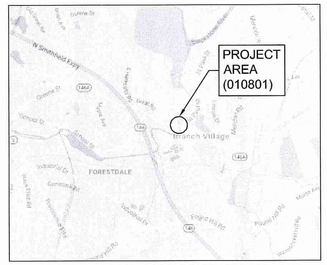
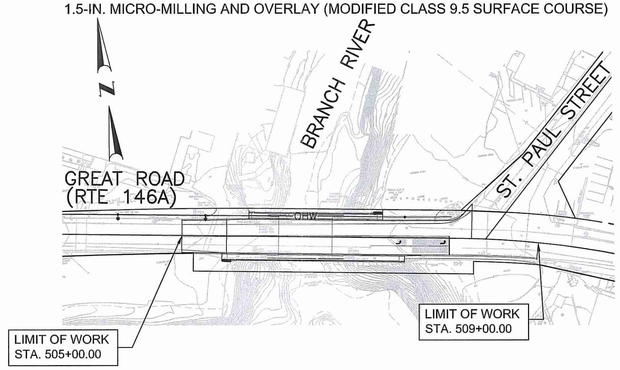


IMAGE OBTAINED FROM GOOGLE EARTH PRO APRIL 2017

LOCATION MAPS
NTS

BRANCH RIVER BRIDGE #010801
1.5-IN. HMA MODIFIED CLASS 9.5 SURFACE COURSE
4.5-IN. HMA CLASS 19 BASE COURSE
12-IN. GRAVEL SUBBASE COURSE (18-IN. IN ROCK CUT)

1.5-IN. MICRO-MILLING AND OVERLAY (MODIFIED CLASS 9.5 SURFACE COURSE)



LAYOUT PLAN
1":80'

SCALES OF DRAWINGS

Plans	1	inch	= 20	feet (or As Noted)
Profiles	1	inch	= 20	feet Horizontal (or As Noted)
Profiles	1	inch	= 5	feet Vertical (or As Noted)
Cross Sections	1	inch	= 4	feet Horizontal (or As Noted)
Cross Sections	1	inch	= 4	feet Vertical (or As Noted)

BASE OF LEVELS

HORIZONTAL DATUM: NAD 1983 R.I. STATE PLANE COORDINATES
VERTICAL DATUM: NAVD 1988

R.I. STANDARD SPECIFICATIONS AND STANDARD DETAILS

SPECIFICATIONS TO GOVERN THIS PROJECT ARE THE R.I. STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, AMENDED AUGUST 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.

CDM Smith

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
AS SPECIFIED IN THE LETTER OF APPROVAL
DATED APR 02 2018 FILE # A-0816
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
APPROVED PLANS MUST BE AT CONSTRUCTION SITE
Martin D. Wencek

RECEIVED
MAR 20 2018
OFFICE OF WATER RESOURCES

RHODE ISLAND
JOSEPH M. BAMBARA
No. 8964
REGISTERED
PROFESSIONAL ENGINEER
CIVIL 03-19-18
NOT FOR CONSTRUCTION

Contract Number XXX
Number of Sheet 1
Total Sheets 28

DESIGN DESIGNATION 010801

2017 AADT	13,220 V.P.D.
2037 AADT	15,460 V.P.D.
D	51% NB/ 49% SB
K	7.4%
T	3.9%
2017 DHV	970 V.P.H.
2037 DHV	1,140 V.P.H.
DESIGN SPEED	35 M.P.H.

RIDEM - REQUEST FOR PRELIMINARY DETERMINATION

R.I. DEPARTMENT OF TRANSPORTATION

APPROVED

ADMINISTRATOR OF PROJECT MGMT DATE

APPROVED

CHIEF ENGINEER DATE

APPROVED

DIRECTOR DATE

DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

APPROVED

DIVISION ADMINISTRATOR DATE

FED. ROAD DIV. NO.	STATE	FEDERAL AID PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
	RI	XXX-XXXX(XXX)	2017	2	28

EXISTING

	EDGE OF PAVEMENT
	BERM
	CURB
	GUARDRAIL
MB	MAILBOX
NO.	UTILITY POLE
	POLE GUY
	LUMINARE
SIGN	SIGN
(SIZE)SD	SUBDRAIN
(SIZE)D	STORMDRAIN
(SIZE)S	SANITARY SEWER
(SIZE)W	WATER MAIN
(SIZE)G	GAS MAIN
(SIZE)T	TELEPHONE DUCT
(SIZE)E	ELECTRIC DUCT
	PLUG AND CAP PIPE
	ABANDONED UTILITY
	FLARED END SECTION
	HEADWALL
WG OR GG	WATER OR GAS GATE
CB	CATCH BASIN
MH	MANHOLE
HYD	HYDRANT
1+00	BASELINE OR CENTERLINE
EXIST. S.H.L. PLAT NO. XX	STATE HIGHWAY LINE
EXIST. S.F.L. PLAT NO. XX	STATE FREEWAY LINE
EXIST. P.E.B.	PERMANENT EASEMENT LINE
EXIST. T.E.B.	TEMPORARY EASEMENT LINE
P	PROPERTY LINE
CITY NAME / TOWN NAME	CITY OR TOWN LINE
PWW	PAVED WATERWAY
ELEV.	CONTOUR LINE
	OPEN DITCH
R.I.H.B.	R.I. HIGHWAY BOUND
S.B.	STONE BOUND
	RETAINING WALL
	FIELD STONE WALL
NO.	BORINGS
TYPE	FENCE
	WOOD OR BRUSH LINE
	TREES
(NAME)	RIVER OR STREAM
	WETLAND AREA
NO. TYPE MATERIAL	BUILDING
	FOUNDATION
	BUILDING TO BE REMOVED
	RAILROAD TRACKS
	CUT AND MATCH
	RIP-RAP
	CUT SLOPE
	FILL SLOPE
	ROCK CUT
00.00	SPOT GRADE
	AREA GRADED TO DRAIN
	BALED HAY RI STD 9.1.0
	BALED HAY & SILT FENCE RI STD. 9.3.0
123 124 125	EDGE OF WETLAND
	WETLAND PERIMETER
ASSF	AREA SUBJECT TO STORM FLOW
100 YR. FLOOD BOUNDARY	100-YEAR FLOOD PLAIN
	LIMIT OF DISTURBANCE
	LIMIT OF CLEARING

NEW

	EDGE OF PAVEMENT
	BERM
	CURB
	GUARDRAIL
	MAILBOX
NO.	UTILITY POLE
GUY	POLE GUY
	LUMINARE
	SIGN
N(SIZE)SD (Length Size)	SUBDRAIN
(Length Size)	STORMDRAIN
N(SIZE)W	WATER MAIN
N(SIZE)G	GAS MAIN
N-#(SIZE)T	TELEPHONE DUCT
N-#(SIZE)E	ELECTRIC DUCT
	PLUG AND CAP PIPE
	ABANDONED UTILITY
	FLARED END SECTION
	HEADWALL
	WATER OR GAS GATE
	CATCH BASIN
	MANHOLE
	HYDRANT
1+00	BASELINE OR CENTERLINE
NEW S.H.L. PLAT NO. XX	STATE HIGHWAY LINE
NEW S.F.L. PLAT NO. XX	STATE FREEWAY LINE
NEW P.E.B.	PERMANENT EASEMENT LINE
NEW T.E.B.	TEMPORARY EASEMENT LINE
	PROPERTY LINE
	CITY OR TOWN LINE
ELEV.	PAVED WATERWAY
	CONTOUR LINE
	OPEN DITCH
	R.I. HIGHWAY BOUND
	STONE BOUND
	RETAINING WALL
	FIELD STONE WALL
NO.	BORINGS
	FENCE
	WOOD OR BRUSH LINE
	TREES
	RIVER OR STREAM
	WETLAND AREA
	BUILDING
	FOUNDATION
	BUILDING TO BE REMOVED
	RAILROAD TRACKS
	CUT AND MATCH
	RIP-RAP
ROADWAY / TOP OF SLOPE	CUT SLOPE
ROADWAY / TOE OF SLOPE	FILL SLOPE
ROCK SHELF / ROCK CUT	ROCK CUT
00.00	SPOT GRADE
ELEV.	AREA GRADED TO DRAIN
	BALED HAY RI STD 9.1.0
	BALED HAY & SILT FENCE RI STD. 9.3.0
	EDGE OF WETLAND
	WETLAND PERIMETER
	AREA SUBJECT TO STORM FLOW
	100-YEAR FLOOD PLAIN
LIMIT OF DISTURBANCE	LIMIT OF DISTURBANCE
LIMIT OF CLEARING	LIMIT OF CLEARING

1.1.0	UNDERDRAIN
1.3.0	CONCRETE CONNECTING COLLAR
2.1.0	CONCRETE HEADWALLS FOR PIPE CULVERTS
2.2.0	STANDARD HEADWALLS FOR MULTIPLE 3'-6" TO 7'-0" PIPE CULVERTS
2.3.0 (DIA.)	PRECAST CONCRETE FLARED END SECTION
3.2.0	BRICK/SOLID BLOCK 4'-0" ROUND MANHOLE
3.2.1 (DIA.)	BRICK/SOLID BLOCK 5'-0" OR 6'-0" ROUND MANHOLE
3.3.0	BRICK/SOLID BLOCK TYPE "D" SQUARE CATCH BASIN
3.3.2	BRICK/SOLID BLOCK TYPE "F" SQUARE CATCH BASIN
3.3.3	SOLID BLOCK FLUSH SQUARE CATCH BASIN
3.4.0	BRICK/SOLID BLOCK TYPE "D" ROUND CATCH BASIN
3.4.1	BRICK/SOLID BLOCK ROUND CATCH BASIN WITH GUTTER INLET
3.4.2	BRICK/SOLID BLOCK TYPE "F" ROUND CATCH BASIN
3.4.3	BRICK/SOLID BLOCK TYPE "R" CATCH BASIN
3.4.4	SOLID BLOCK FLUSH ROUND CATCH BASIN
3.4.5 (DIA.)	BRICK/SOLID BLOCK 5'-0" OR 6'-0" ROUND CATCH BASIN
3.5.0	SOLID BLOCK SHALLOW TYPE "F" SQUARE CATCH BASIN
3.5.1 (SIZE)	SOLID BLOCK SHALLOW 5'-0" OR 6'-0" SQUARE CATCH BASIN
3.6.0	BRICK/SOLID BLOCK DROP INLET
3.7.0 (DIA.)	BRICK/SOLID BLOCK ROUND MANHOLE OR CATCH BASIN GREATER THAN 12'-0"
4.2.0	PRECAST 4'-0" ROUND MANHOLE
4.2.1	PRECAST 5'-0" ROUND MANHOLE
4.2.2	PRECAST 6'-0" ROUND MANHOLE
4.3.0 (SIZE)	PRECAST 4'-0" OR 6'-0" SQUARE MANHOLE OR CATCH BASIN
4.4.0 (DIA.)	PRECAST 4'-0", 5'-0", OR 6'-0" ROUND CATCH BASIN
4.5.0	PRECAST CONCRETE DROP INLET
4.5.1	PRECAST CONCRETE DROP INLET LATERAL OUTLET
4.5.2	PRECAST CONCRETE DROP INLET LONGITUDINAL OUTLET
5.3.0	CATCH BASIN AND MANHOLE STEP
5.4.0	CONCRETE COLLARS
6.1.0	LIGHT-DUTY SQUARE FRAME AND ROUND COVER
6.1.1	HEAVY DUTY SQUARE FRAME AND ROUND COVER
6.2.0	LIGHT-DUTY ROUND FRAME AND COVER
6.2.1	HEAVY-DUTY ROUND FRAME AND COVER
6.3.0	SQUARE FRAME AND GRATE
6.3.1	SQUARE FRAME AND GRATE
6.3.2	SQUARE FRAME AND GRATE (BICYCLE SAFE)
6.3.3	HIGH CAPACITY FRAME AND GRATE
6.3.4	HIGH CAPACITY FRAME AND GRATE (BICYCLE SAFE)
6.4.0	ROUND FRAME AND GRATE
7.1.0S	PRECAST CONCRETE CURB (STRAIGHT)
7.1.0C	PRECAST CONCRETE CURB (CIRCULAR)
7.1.1	3'-0" PRECAST CONCRETE TRANSITION CURB
7.1.2	6'-0" PRECAST CONCRETE TRANSITION CURB
7.1.4	PRECAST 2'-0" RADIUS CORNER
7.1.5	PRECAST CONCRETE INLET STONE (FOR SQUARE CATCH BASIN)
7.1.6	PRECAST CONCRETE INLET STONE (FOR ROUND CATCH BASIN)
7.1.7	PRECAST CONCRETE APRON STONE (FOR SQUARE CATCH BASIN)
7.1.8	PRECAST CONCRETE APRON STONE (FOR ROUND CATCH BASIN)
7.2.0S	PRECAST CONCRETE SLOPED FACE CURB (STRAIGHT)
7.2.0C	PRECAST CONCRETE SLOPED FACE CURB (CIRCULAR)
7.2.1	PRECAST CONCRETE SLOPED FACE TRANSITION CURB
7.2.2	PRECAST CONCRETE TRANSITION CURB (VERTICAL FACE TO SPLOPED FACE)
7.3.0S	GRANITE CURB (STRAIGHT)
7.3.0C	GRANITE CURB (CIRCULAR)
7.3.1	3'-0" GRANITE TRANSITION CURB
7.3.2	6'-0" GRANITE TRANSITION CURB
7.3.3	GRANITE WHEELCHAIR RAMP TRANSITION CURB
7.3.4	GRANITE 2'-0" RADIUS CORNER
7.3.5	GRANITE INLET STONE (FOR SQUARE CATCH BASIN)
7.3.6	GRANITE INLET STONE (FOR ROUND CATCH BASIN)
7.3.7	GRANITE APRON STONE (FOR SQUARE CATCH BASIN)
7.3.8	GRANITE APRON STONE (FOR ROUND CATCH BASIN)
7.4.0	GRANITE SLOPED FACE CURB
7.4.1	GRANITE SLOPED FACE TRANSITION CURB
7.4.2	GRANITE TRANSITION CURB (VERTICAL FACE TO SLOPE FACE)
7.5.0	BITUMINOUS CONCRETE LIP CURB
7.5.1A	BITUMINOUS BERM (CONSTRUCTION METHOD A)
7.5.1B	BITUMINOUS BERM (CONSTRUCTION METHOD B)
7.6.0	CURB SETTING DETAIL
8.2.0	BITUMINOUS CONCRETE DITCH
8.3.0	RIP-RAP DITCH
8.4.0	PAVED WATERWAY
9.1.0	BALED HAY EROSION CHECK
9.2.0	SILT FENCE DETAIL
9.3.0	BALED HAY DITCH EROSION CHECK AND SILT FENCE COMBINED
9.4.0	BALED HAY DITCH AND SWALE EROSION CHECK
9.5.0	LOG AND HAY CHECK DAM
9.7.0	DEWATERING BASIN
9.8.0	BALED HAY CATCH BASIN INLET PROTECTION
9.9.0	CONSTRUCTION ACCESS
10.1.0	WET STONE MASONRY RETAINING WALL
10.2.0	RUBBLE MASONRY WALL
10.3.0	CONCRETE RETAINING WALL
10.4.0	STONE MASONRY STEPS
14.1.0	CONCRETE HIGHWAY BOUND
15.1.0	POST AND MOUNTINGS FOR RURAL MAILBOX
15.2.0 (NO.)	POST AND MULTIPLE MOUNTINGS FOR RURAL MAILBOXES
18.2.0	PRECAST TYPE "A" HANDHOLE
18.2.2	HEAVY DUTY TYPE "H" HANDHOLE
18.3.0	ALUMINUM LIGHTING STANDARDS
20.2.0	BI-DIRECTIONAL CONTROL DEVICE
24.6.1	STREET SIGN MOUNTING DETAIL
26.2.0	POLYETHYLENE DRUM WITH MARKINGS
26.3.0	PVC PLASTIC PIPE TYPE III BARRICADE
31.1.0	CHAIN LINK FENCE 3'-0" TO 4'-0"
31.2.0	CHAIN LINK FENCE 5'-0" TO 6'-0"
31.2.1	CHAIN LINK FENCE 5'-0" TO 6'-0" INTERMEDIATE POST
31.3.0	WOVEN WIRE RIGHT-OF-WAY FENCE (STEEL POST)
34.1.0	TYPICAL GUARDRAIL INSTALLATION
34.2.0	STEEL BEAM GUARDRAIL
34.2.1	STEEL BEAM GUARDRAIL DETAILS
34.2.2	STEEL BEAM GUARDRAIL DOUBLE FACED ASSEMBLY
34.2.3	STEEL BEAM GUARDRAIL FIXTURES
34.2.5	STEEL BEAM GUARDRAIL REFLECTORIZED TRIANGULAR DELINEATOR
34.3.1	GUARDRAIL END SECTION
34.3.2	TERMINAL END SECTION (SINGLE FACE)
34.3.3	ANCHORAGE DETAILS APPROACH END SECTION
34.3.4	ANCHORAGE DETAILS TRAILING END SECTION
34.4.0	STEEL BACKED TIMBER GUARDRAIL
34.4.1	STEEL BACKED TIMBER GUARDRAIL TERMINAL SECTION-TYPE 1
40.1.0	DOUBLE-FACED PRECAST MEDIAN BARRIER
40.2.0	SINGLE-FACED PRECAST MEDIAN BARRIER
40.2.1	SINGLE-FACED PRECAST MEDIAN BARRIER
40.3.0	PRECAST MEDIAN BARRIER TRANSITION UNIT
40.5.0	PRECAST MEDIAN BARRIER FOR TEMPORARY TRAFFIC CONTROL
43.1.0	CEMENT CONCRETE SIDEWALK
43.2.0	BITUMINOUS CONCRETE SIDEWALK
43.3.0	WHEELCHAIR RAMP
43.3.1	WHEELCHAIR RAMP FOR LIMITED RIGHT-OF-WAY AREAS
43.4.0	DRIVEWAY DEVELOPMENT FOR 3'-0" TRANSITION CURB
43.4.1	DRIVEWAY DEVELOPMENT FOR 6'-0" TRANSITION CURB
43.5.0	CEMENT CONCRETE DRIVEWAYS
48.1.0	DETECTABLE WARNING SYSTEM
51.1.0	TREE PROTECTION DEVICE
51.1.1	DRIP LINE TREE PROTECTION DEVICE FOR EXISTING TREES
51.2.0	SHRUB PROTECTION DEVICE
51.3.0	TREE WELL
51.4.0	TREE WALL

AB	ADJUST CATCH BASIN TO GRADE
ABM	ADJUST CATCH BASIN TO MANHOLE
AC	ADJUST CURB STOP TO GRADE
AD	ADJUST DRAINAGE MANHOLE TO GRADE
AE	ADJUST ELECTRIC MANHOLE TO GRADE
AFC	ADJUST FRAME AND COVER TO GRADE
AFG	ADJUST FRAME AND GRATE TO GRADE
AG	ADJUST GAS GATE BOX TO GRADE
AHH	ADJUST HANDHOLE TO GRADE
AS	ADJUST SANITARY SEWER MANHOLE TO GRADE
AT	ADJUST TELEPHONE MANHOLE TO GRADE
AW	ADJUST WATER GATE BOX TO GRADE
BCD	BITUMINOUS CONCRETE DRIVEWAY 3" BITUMINOUS CONCRETE TYPE I-2 8" GRAVEL BORROW SUBBASE COURSE
BPS	BUILD NEW STRUCTURE OVER EXISTING PIPE
CCB	CLEAN CATCH BASIN
CCP	CUT AND CAP PIPE WITH RESTRAINT (ALL SIZES)
CFP	CLEAN AND FLUSH PIPE
CG	CLEARING AND GRUBBING
CMH	CLEAN MANHOLE
CP (DEPTH)	COLD PLANE
CPP	CUT AND PLUG PIPE (ALL TYPES, ALL SIZES)
DB	REMOVE AND DISPOSE BITUMINOUS CURB
DC	REMOVE AND DISPOSE CONCRETE CURB
DCB	REMOVE AND DISPOSE CATCH BASIN
DDI	REMOVE AND DISPOSE DROP INLET
DF	REMOVE AND DISPOSE FENCE
DFC	REMOVE AND DISPOSE FRAME AND COVER
DFE	REMOVE AND DISPOSE FLARED END SECTION
DFG	REMOVE AND DISPOSE FRAME AND GRATE
DFH	REMOVE AND DISPOSE FIRE HYDRANT
DFP	REMOVE AND DISPOSE FLEXIBLE PAVEMENT
DG	REMOVE AND DISPOSE GUARDRAIL
DH	REMOVE AND DISPOSE HEADWALL
DHB	REMOVE AND DISPOSE HIGHWAY BOUND
DHH	REMOVE AND DISPOSE HANDHOLE
DL	REMOVE AND DISPOSE LIGHT AND FOUNDATION
DMB	REMOVE AND DISPOSE MEDIAN BARRIER
DMH	REMOVE AND DISPOSE MANHOLE
DMM	REMOVE AND DISPOSE MEDIAN MARKER
DOW	REMOVE AND DISPOSE OBSERVATION WELL
DP	REMOVE AND DISPOSE PIPE
DPB	REMOVE AND DISPOSE PAVEMENT AND RIGID BASE
DRB	REMOVE AND DISPOSE RIGID BASE
DS	REMOVE AND DISPOSE SIGN
DSS	REMOVE AND DISPOSE TRAFFIC SIGNAL SYSTEM
DSW	REMOVE AND DISPOSE SIDEWALK
DTD	REMOVE AND DISPOSE TELEPHONE DUCT BANKS
DUP	REMOVE AND DISPOSE UTILITY POLE
DWW	REMOVE AND DISPOSE PAVED WATERWAY
FF	FILTER FABRIC RIPRAP FLARED END UNDERLAYMENT
GET	FLARED GUARDRAIL END TREATMENT
IA	IMPACT ATTENUATOR
IDL	IMPERVIOUS DITCH LINER
LOD	LIMIT OF DISTURBANCE
LOR	LIMIT OF REGRADING
LS	4" LOAM AND SEED

NFH	NEW FIRE HYDRANT WITH GATE VALVE
NIC	NOT IN THIS CONSTRUCTION CONTRACT
NWB	FURNISH AND INSTALL NEW WATER GATE VALVE BOX
NWVB	FURNISH AND INSTALL NEW WATER GATE VALVE AND BOX
NWCB	FURNISH AND INSTALL NEW WATER CURB STOP BOX
NWSB	FURNISH AND INSTALL NEW WATER CURB STOP AND BOX
PCD	PERMANENT CHECK DAM
PS	4" PLANTABLE SOIL AND SEED
RCB	RECONSTRUCT TYPE "D" CATCH BASIN, TO CATCH BASIN WITH GUTTER INLET
RCM	R.I.D.O.T. COMMUNICATIONS MANHOLE
RHH	REMOVE, HANDLE, HAUL, TRIM, RESET CURB EDGING, STRAIGHT, CIRCULAR (ALL TYPES)
RLP	RELOCATE LAMP POST
RMB	RELOCATE MAILBOX (BY OTHERS)
RPM	REMOVE PAVEMENT MARKINGS
RRP	RIP-RAP PAD (SEE DETAIL)
RRS	REMOVE AND RELOCATE SIGN
RUP	RELOCATE UTILITY POLE (BY OTHERS)
SB	STONE BAFFLE
SBAE	STEEL BEAM BRIDGE CONNECTION APPROACH END (W/O NESTED RAIL)
SBTE	STEEL BEAM BRIDGE CONNECTION TRAILING END (W/NESTED RAIL)
SD-	STRUCTURAL DISPOSITION - SEE CS PAGES OF SPECIFICATION
SF	REMOVE AND STOCKPILE FENCE
SGA	SPECIAL GRADED AGGREGATE
SGC	REMOVE AND STOCKPILE GRANITE CURB
SGR	REMOVE AND STOCKPILE GUARDRAIL
SH	REMOVE AND STOCKPILE HYDRANT
SS	REMOVE AND STOCKPILE SIGN
STS	REMOVE AND STOCKPILE TRAFFIC SIGNAL SYSTEM
TB	CONCRETE THRUST BLOCK
TEP	TIE EXISTING PIPE INTO NEW STRUCTURE
TNP	TIE NEW PIPE INTO EXISTING STRUCTURE
TBT	THRIE BEAM TRANSITION
TBBC	THRIE BEAM BRIDGE CONNECTION
TT	TREE TRIMMING
WCM	4" WOOD CHIP MULCH
4DY	4" EPOXY RESIN PAVEMENT MARKINGS - DOUBLE YELLOW
6W	6" EPOXY RESIN PAVEMENT MARKINGS - WHITE
12W	12" EPOXY RESIN PAVEMENT MARKINGS - WHITE
6WT	6" PREFORMED PATTERNED MARKING (HIGH PERFORMANCE TAPE)
4Y	4" EPOXY RESIN PAVEMENT MARKINGS - YELLOW
6Y	6" EPOXY RESIN PAVEMENT MARKINGS - YELLOW
P.G.L.	PROFILE GRADE LINE

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
AS SPECIFIED IN THE LETTER OF APPROVAL
DATED APR 02 2018 FILE # 17-0716
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
APPROVED PLANS MUST BE AT CONSTRUCTION SITE
Jonathan D. Venezia

THIS PLAN SHALL NOT BE ALTERED

CDM Smith
260 West Exchange Street, Suite 300
Providence, RI 02903
Tel: (401) 751-5380

REVISIONS		
NO.	DATE	BY
1	6/07	TRB

RHODE ISLAND
DEPARTMENT OF TRANSPORTATION

ROUTINE BRIDGE
BRANCH RIVER BRIDGE

NORTH SMITHFIELD RHODE ISLAND

STANDARD PLAN SYMBOLS & STANDARD LEGEND

CHECKED BY _____ DATE _____ SCALE NO SCALE

0013L_V1_002_STDSYM

FED. ROAD DIV. NO.	STATE	FEDERAL AID PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
	RI	XXX-XXXX(XXX)	2017	3	28

GENERAL NOTES:

1. ANY DAMAGE TO EXISTING PAVEMENT, BRIDGES, CONDUIT, SIDEWALK, FENCES, ETC., CAUSED BY THE CONTRACTOR SHALL BE REPAIRED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE STATE.

2. THE CONTRACTOR SHALL PLACE ALL EQUIPMENT AND MATERIAL AS FAR AWAY AS POSSIBLE FROM THE EDGE OF THE TRAVEL LANE SO AS NOT TO CAUSE A SAFETY HAZARD, IN ACCORDANCE WITH SECTION 106.06 OF THE R.I.D.O.T. STANDARD SPECIFICATION, LATEST EDITION.

3. IT IS THE CONTRACTOR'S RESPONSIBILITY TO ENSURE THAT THE EXISTING CONDITIONS ARE NOT OBLITERATED BEFORE CONTROL POINTS ARE LOCATED AND CONSTRUCTION LAYOUT IS ESTABLISHED. THE CONSTRUCTION LAYOUT SHALL BE PROVIDED IN SUFFICIENT DETAIL, THEREBY ENABLING HIM TO CONSTRUCT THE PROJECT IN CONFORMITY WITH THE PLANS AND SPECIFICATIONS. SURVEY WILL BE PROVIDED BY THE CONTRACTOR. THE RESIDENT ENGINEER WILL NOT AUTHORIZE CONSTRUCTION ACTIVITIES TO BEGIN UNTIL HE IS SATISFIED THAT ALL GROUND CONTROL HAS BEEN ESTABLISHED, TIED DOWN, AND DULY RECORDED IN STANDARD FIELD BOOKS.

4. ALL R.I. STD. 9.9.0 CONSTRUCTION ACCESS ROADS SHALL BE CONSTRUCTED PRIOR TO ANY ROADWAY ACCEPTING CONSTRUCTION TRAFFIC.

5. THE FREQUENCY AND APPLICATION RATES FOR THE DUST CONTROL ITEMS WILL BE AS DIRECTED BY THE ENGINEER.

6. ALL SIDEWALK AND DRIVEWAYS DESIGNATED FOR REPLACEMENT SHALL BE CUT AND MATCHED AT LOCATIONS SHOWN ON THE PLANS OR AS DIRECTED BY THE ENGINEER.

7. ASPHALT EMULSION TACK COAT SHALL BE PLACED PRIOR TO PAVEMENT PLACEMENT ON THE CONCRETE BASE OR COLD PLANED PAVEMENT, AND ON ANY NEW COURSE WHICH HAS BEEN OPEN TO TRAFFIC, OR ANY NEW COURSE WHICH HAS BEEN EXPOSED FOR MORE THAN 3 DAYS, AND/OR AS DIRECTED BY THE ENGINEER. IT SHALL ALSO BE APPLIED TO VERTICAL PAVEMENT FACES BETWEEN ADJOINING PAVEMENT SECTIONS. ALL APPLICATIONS ON BOTH HORIZONTAL AND VERTICAL SURFACES SHALL BE PAID FOR UNDER THE CONTRACT UNIT BID PRICE FOR CODE 403.0300 "ASPHALT EMULSION TACK COAT."

8. THE LIMITS OF CLEARING AND SURFACE DISTURBANCE MUST BE STRICTLY ADHERED TO IN ALL AREAS. IN ADDITION TO THOSE AREAS SPECIFICALLY DESIGNATED ON THE PLANS, THE CONTRACTOR WILL BE RESPONSIBLE FOR PROVIDING AND PLACING, AT HIS OWN EXPENSE, PLANTABLE SOIL AND SEED IN AREAS WHICH ARE OUTSIDE OF THE PROJECT'S AREAS OF DISTURBANCE AND WHICH ARE IMPACTED BY CONSTRUCTION OPERATIONS INCLUDING THOSE AREAS WHERE VEHICLES, EQUIPMENT AND MATERIALS ARE STORED WITH THE PERMISSION OF THE ENGINEER.

9. UNDER NO CIRCUMSTANCE WILL THE CONTRACTOR BE ALLOWED TO STOCKPILE REMOVED PAVEMENT MATERIALS WITHIN THE PROJECT LIMITS.

10. CLEANING AND SWEEPING OF PAVEMENT WILL INCLUDE REMOVAL OF ALL PAVEMENT DEBRIS PRIOR TO THE PLACEMENT OF EACH BITUMINOUS PAVEMENT LIFT. ALL CLEANING AND SWEEPING SHALL BE DONE TO THE SATISFACTION OF THE ENGINEER.

11. PRIOR TO INSTALLATION, ALL SIGNS, MOUNTINGS AND LOCATIONS SHALL BE APPROVED OR MODIFIED BY THE ENGINEER.

12. THE COORDINATE SYSTEM, IF SHOWN, IS THE RHODE ISLAND STATE PLANE COORDINATE SYSTEM.

13. PAVEMENT OPERATIONS FOR CURBED SECTIONS: IN AREAS WHERE CURBING IS SET TO FINISH LINE AND GRADE, THE CONTRACTOR WILL NOT BE REQUIRED TO UTILIZE THE SENSOR AND SKY-TYPE DEVICE FOR AUTOMATIC GRADE CONTROL, BUT WILL BE ALLOWED TO MANUALLY ADJUST THE BITUMINOUS PAVER FOR CONTROLLING GRADE.

14. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING ALL ROADWAYS FREE OF DEBRIS RESULTING FROM THEIR CONSTRUCTION OPERATIONS. ALL DEBRIS SHALL BE REMOVED TO THE SATISFACTION OF THE ENGINEER AT NO ADDITIONAL COST TO THE STATE.

15. NO FUEL STORAGE, VEHICLE REFUELING, OR EQUIPMENT STORAGE SHALL TAKE PLACE IN DESIGNATED WETLANDS, NOR WITHIN 100' OF ANY WATER BODY. THIS REQUIREMENT SHALL NOT SUPERSEDE ANY FEDERAL, STATE OR LOCAL LAW, ORDINANCE, RULE OR REGULATION THAT APPLIES TO THE SAME, UNLESS THIS REQUIREMENT IS MORE STRINGENT THAN SAID LAW, ORDINANCE, RULE OR REGULATION.

16. THE CONTRACTOR SHALL BE RESPONSIBLE TO ENSURE THAT AT THE END OF FINAL PAVING OPERATIONS, FLOW TO EXISTING DRAINAGE STRUCTURES HAS BEEN REESTABLISHED AND THAT NO ISOLATED DEPRESSIONS REMAIN. THERE SHALL BE NO SEPARATE PAYMENT FOR THIS PROVISION; IT SHALL BE CONSIDERED INCIDENTAL TO PAVING AND COLD PLANING OPERATIONS.

17. ALL EMBANKMENTS SHALL BE PLACED IN HORIZONTAL LAYERS NOT EXCEEDING 12" (AFTER COMPACTION) AND SHALL BE COMPACTED AS SPECIFIED BEFORE THE NEXT LAYER IS PLACED. ALSO, EMBANKMENT CONSTRUCTION SHALL CONFORM TO SECTION 202.03.2 OF THE R.I.D.O.T. STANDARD SPECIFICATIONS, LATEST EDITION.

18. IF THIS PROJECT IS ON A HURRICANE EVACUATION AND DIVERSIONARY ROUTE, AS DESIGNATED ON THE COVERSHEET, THE CONTRACTOR IS ADVISED THAT UPON 12 (TWELVE) HOURS NOTICE THE ROADWAY SHALL BE OPEN TO EVACUEES AND EMERGENCY PERSONNEL. ANY EXTRA WORK NECESSARY TO COMPLY WITH THIS REQUIREMENT WILL BE REIMBURSED UNDER FORCE ACCOUNT PROCEDURES.

19. THE CONTRACTOR SHALL READ, BECOME FAMILIAR WITH, AND ADHERE TO ALL OF THE PROVISIONS, CONDITIONS, AND STIPULATIONS STATED IN THE ENVIRONMENTAL APPROVALS ISSUED FOR THE PROJECT FROM THE DEPARTMENT OF ENVIRONMENTAL MANAGEMENT (RIDEM). AND/OR THE ARMY CORPS OF ENGINEERS (ACOE). AND/OR THE COASTAL RESOURCES MANAGEMENT COUNCIL (CRMC). COPIES OF EACH OF THESE PERMITS ARE INCLUDED IN THE CS PAGES OF THE CONTRACT DOCUMENTS. ALL COSTS ASSOCIATED WITH THESE CONDITIONS SHALL BE CONSIDERED INCIDENTAL TO THE CONSTRUCTION AND INCLUDED WITH THE COST FOR THE ASSOCIATED BID ITEM(S).

20. FOR ALL PROJECTS INVOLVING KNOWN SITE REMEDIATION ISSUES, THE CONTRACTOR SHALL READ, BECOME FAMILIAR WITH, AND ADHERE TO ALL OF THE CONSTRUCTION RELATED PROVISIONS, CONDITIONS, AND STIPULATIONS OF ANY REMEDIAL PLANS DEVELOPED FOR THE PROJECT. COPIES OF THESE DOCUMENTS ARE INCLUDED IN THE CS PAGES OF THE CONTRACT DOCUMENTS. ALL COSTS ASSOCIATED WITH COMPLIANCE WITH THESE DOCUMENTS SHALL BE CONSIDERED INCIDENTAL TO THE CONSTRUCTION AND INCLUDED WITH THE COST FOR THE ASSOCIATED BID ITEM(S).

21. NO UNPROTECTED CONSTRUCTED FEATURE MAY PROJECT MORE THAN 4 INCHES ABOVE THE FINISHED GRADE OF A TRAVERSABLE SLOPE IN A CLEAR ZONE, e.g. HEADWALL, DRAINAGE INLET, ETC.

22. THE REMAINING SECTION OR STUB OF A BREAKAWAY BASE MAY NOT PROJECT MORE THAN 4 INCHES ABOVE THE FINISHED GRADE OF A TRAVERSABLE SLOPE IN A CLEAR ZONE, e.g. SIGN POSTS, LIGHT POLES, FIRE HYDRANTS, ETC.

DRAINAGE AND EROSION CONTROL NOTES:

1. FOR ALL PROJECTS WITH AT LEAST ONE(1) ACRE OF SOIL DISTURBANCE. R.I.D.O.T. IS REQUIRED TO DEVELOP AND ENFORCE A SITE SPECIFIC STORM WATER POLLUTION PREVENTION PLAN (SWPPP) IN ORDER TO REMAIN IN COMPLIANCE WITH THE RIPDES GENERAL PERMIT FOR STORMWATER DISCHARGES ASSOCIATED WITH CONSTRUCTION ACTIVITIES. THE CONTRACTOR SHALL READ, BECOME FAMILIAR WITH, AND ADHERE TO ALL OF THE PROVISIONS, CONDITIONS, AND STIPULATIONS OF THE GENERAL PERMIT AND THE SITE SPECIFIC SWPPP FOR THIS PROJECT. COPIES OF THESE DOCUMENTS ARE INCLUDED IN THE CS PAGES OF THE CONTRACT DOCUMENTS. ALL COSTS ASSOCIATED WITH ADHERENCE TO THE SWPPP SHALL BE CONSIDERED INCIDENTAL TO THE CONSTRUCTION AND INCLUDED WITH THE COST FOR THE ASSOCIATED BID ITEM(S).

2. NO UNDISTURBED AREAS SHALL BE CLEARED OF EXISTING VEGETATION AFTER OCTOBER 15 OF ANY CALENDAR YEAR OR DURING ANY PERIOD OF FULL OR LIMITED WINTER SHUTDOWN. ALL DISTURBED SOILS EXPOSED PRIOR TO OCTOBER 15 OF ANY CALENDAR YEAR SHALL BE SEEDED OR PROTECTED BY THAT DATE. ANY SUCH AREAS THAT DO NOT HAVE ADEQUATE VEGETATIVE STABILIZATION, AS DETERMINED BY THE RESIDENT ENGINEER OR ENVIRONMENTAL INSPECTOR, BY NOVEMBER 15 OF ANY CALENDAR YEAR, MUST BE STABILIZED THROUGH THE USE OF EROSION CONTROL MATTING OR HAY MULCH, IN ACCORDANCE WITH SPECIFICATIONS CONTAINED WITHIN THE R.I. SOIL EROSION AND SEDIMENT CONTROL HANDBOOK. IF WORK CONTINUES WITHIN ANY OF THESE AREAS DURING THE PERIOD FROM OCTOBER 15 THROUGH APRIL 15, CARE MUST BE TAKEN TO ENSURE THAT ONLY THE AREA REQUIRED FOR THAT DAY'S WORK IS EXPOSED, AND ALL ERODIBLE SOIL MUST BE RESTABILIZED WITHIN 5 WORKING DAYS. ANY WORK TO CORRECT PROBLEMS RESULTING FROM FAILURE TO COMPLY WITH THIS PROVISION SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. THERE WILL BE NO SEPARATE PAYMENT FOR THIS PROVISION, IT SHALL BE CONSIDERED INCIDENTAL TO CONSTRUCTION OPERATIONS. STABILIZATION OF ONE FORM OR ANOTHER AS DESCRIBED ABOVE SHALL BE ACHIEVED WITHIN 2 WEEKS OF FINAL GRADING.

3. STOCKPILES OF MATERIAL SHALL NOT BE LOCATED WITHIN REGULATED WETLANDS OR BUFFER ZONE AREAS. THEY SHALL HAVE SIDE SLOPES NO GREATER THAN 30% AND STOCKPILES OF ERODABLE MATERIAL SHALL ALSO BE SEEDED AND RINGED WITH R.I. STD. 9.1.0 TO STABILIZE.

4. IF THE PLANS INCLUDE SPECIFIC AREAS FOR PLACEMENT OF CONSTRUCTION DEWATERING BASINS AND/OR EQUIPMENT AND MATERIALS STORAGE AND STOCKPILING, AND IF THE CONTRACTOR ELECTS TO UTILIZE ANY OTHER AREAS FOR THESE PURPOSES, THIS SHALL BE APPROVED BY THE ENGINEER ONLY AFTER OBTAINING ANY NECESSARY PERMITS AND/OR PERMIT MODIFICATIONS FROM THE APPROPRIATE REGULATORY AUTHORITY(IES). ANY PERMITTING REQUIREMENTS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR AND SHALL BE ACCOMPLISHED AT NO COST TO THE STATE. THE ENGINEER WILL COORDINATE SUBMISSION OF ANY REQUIRED PERMIT APPLICATION MATERIALS WITH THE R.I.D.O.T. OFFICE OF ENVIRONMENTAL PROGRAMS.

5. JUTE MESH SHALL BE USED TO STABILIZE PLANTABLE SOIL AND/OR LOAM IN ALL DITCHES, ON ALL SLOPES ADJACENT TO WETLANDS AND WETLAND PERIMETERS, AND ON ALL SLOPES WITHIN WATER QUALITY BASINS. JUTE MESH IN DITCHES SHALL EXTEND TO AN ELEVATION 2 FEET ABOVE THE BOTTOM OF THE DITCH.

6. SEEDING ON ALL SLOPES 3 TO 1 OR STEEPER SHALL CONSIST OF THE FOLLOWING APPLICATIONS UNLESS CHANGED IN THE CONTRACT.

   a. SEEDING TYPE I.

   b. ADHESIVE MULCH STABILIZER

7. UNVEGETATED SLOPES SHALL NOT BE UNATTENDED OR EXPOSED FOR PERIODS IN EXCESS OF 2 WEEKS OR THROUGH THE INACTIVE WINTER SEASON.

8. PRIOR TO DRAINAGE AND UTILITY CONSTRUCTION, THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING THE LOCATION (HORIZONTAL AND VERTICAL) OF ALL EXISTING PIPES AND/OR STRUCTURES WHICH ARE TO BE CONNECTED. ANY VARIATION FOUND FROM THE PLANS MUST BE BROUGHT TO THE ENGINEER'S ATTENTION PRIOR TO DRAINAGE AND UTILITY CONSTRUCTION. WORK CAN COMMENCE ONLY UPON THE ENGINEER'S AUTHORIZATION.

9. ALL DRAINAGE AND UTILITY STRUCTURES WITHIN THE PAVED ROADWAY SHALL BE ADJUSTED TO GRADE WITH THE SURROUNDING PAVEMENT PRIOR TO THE WINTER SHUTDOWN.

10. DURING CONSTRUCTION, THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING DRAINAGE AND RUNOFF FLOW DURING STORMS AND PERIODS OF RAINFALL THROUGHOUT THE WORK AREA.

11. CATCH BASIN RIM GRADES NOTED ON PLANS ARE DEPRESSED 0.1' LOWER THAN THE GUTTER GRADE. RIM ELEVATIONS SHOWN ARE FINAL GRADES. THE CONTRACTOR SHALL PLACE FRAMES AND GRATES 0.1' BELOW THE GRADE CONSTRUCTED IN THIS CONTRACT OR AS DIRECTED BY THE ENGINEER.

12. PROVISIONS FOR CLEARING TO ACCESS OUTFALLS DURING THE CLEANING AND FLUSHING OF THE CLOSED DRAINAGE SYSTEM SHALL BE KEPT TO A MINIMUM.

    ANY VEGETATIVE CLEARING SHALL BE LIMITED TO BRUSH AND TREES LESS THAN 3" DIAMETER.

    NO HEAVY EQUIPMENT MAY ENCROACH UPON VEGETATED PERIMETER OR RIVERBANK WETLANDS AS WELL AS BIOLOGICAL WETLANDS.

13. THE CONTRACTOR SHALL INSTALL ALL EROSION CONTROL DEVICES FOR OUTLET PROTECTION PRIOR TO CLEANING AND FLUSHING STORM WATER DRAINAGE. EROSION CONTROL DEVICES SHALL REMAIN IN PLACE UNTIL ALL FLUSHED SEDIMENTS ARE REMOVED. AT ALL OUTFALL LOCATIONS WHERE PIPES ARE TO BE CLEANED AND FLUSHED, OUTLET PROTECTION (R.I. STD. 9.1.0 OR 9.3.0) SHALL BE INSTALLED TO TRAP SEDIMENTS. THESE SEDIMENTS SHALL THEN BE REMOVED AND DISPOSED OF LEGALLY BEFORE THE OUTLET PROTECTION DEVICES ARE REMOVED. IF OUTLET PROTECTION AT THE OUTFALL IS NOT FEASIBLE, THEN THE OUTLET PIPE OF THE LAST DRAINAGE STRUCTURE TO BE CLEANED SHALL BE PLUGGED TO CAPTURE ALL MATERIALS FLUSHED FROM PIPES. AFTER THE MATERIALS ARE REMOVED FROM THE DRAINAGE STRUCTURE, THE OUTLET SHALL BE UNPLUGGED TO RESUME NORMAL FUNCTIONING.

14. R.I. STD. 9.8.0 BALED HAY INLET PROTECTION SHALL BE INSTALLED AT ALL CATCH BASINS AND INLETS WHENEVER SUBBASE IS EXPOSED, AND SHALL REMAIN IN PLACE UNTIL THE ABUTTING GROUND SURFACES ARE STABILIZED.

15. WHERE BALED HAY INLET PROTECTION AND SILT FENCES ARE USED AT CATCH BASINS, THEY SHALL BE REMOVED AT THE END OF THE PROJECT OR AS DIRECTED BY THE ENGINEER IN ORDER TO PREVENT CLOGGING OF THE INLET.

DRAINAGE AND EROSION CONTROL NOTES (CONTINUED):

16. DETENTION AND RETENTION BASINS MAY BE ROUGH GRADED AND STABILIZED WITH VEGETATION AND/OR OTHER EROSION CONTROL MEASURES AS REQUIRED BY THE ENGINEER PRIOR TO USE AS TEMPORARY SEDIMENTATION BASINS DURING PROJECT CONSTRUCTION. FINAL BASIN CONSTRUCTION SHALL NOT COMMENCE UNTIL ALL SOURCES OF SEDIMENT HAVE BEEN ELIMINATED, FINAL ROADSIDE VEGETATION IS ESTABLISHED AND USE OF TEMPORARY BASINS IS NO LONGER REQUIRED AS DIRECTED BY THE ENGINEER. ANY ISSUES RELATING TO EROSION AND/OR SEDIMENT TRANSPORT INTO WETLAND AREAS RESULTING FROM SUCH USE OF SEDIMENTATION BASINS DURING CONSTRUCTION SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. ANY CORRECTIVE ACTION REQUIRED TO RESOLVE SUCH ISSUES SHALL BE COMPLETED BY THE CONTRACTOR.

17. THE TOE OF ANY FILL SLOPE IS TO REMAIN AT LEAST 1' INSIDE OF ALL EROSION CONTROLS. UNDER NO CIRCUMSTANCES SHALL THE CONTRACTOR COVER ANY PORTION OF THE EROSION CONTROL MEASURES WITH MATERIAL. ANY MATERIAL THAT IS PLACED ON ANY EROSION CONTROLS BY THE CONTRACTOR, OR ANY AGENT OF THE CONTRACTOR, SHALL BE IMMEDIATELY REMOVED BY THE CONTRACTOR, AND ANY NECESSARY REPAIRS TO THE EROSION CONTROLS ACCOMPLISHED.

18. PRIOR TO COMMENCING CONSTRUCTION ACTIVITIES, EROSION AND SEDIMENTATION CONTROLS SHALL BE INSTALLED AT THOSE AREAS INDICATED ON THE PLANS. CLEARING MAY OCCUR PRIOR TO INSTALLATION OF SUCH CONTROLS, HOWEVER NO GRUBBING, GRADING, FILLING, OR OTHER SOIL DISTURBANCE SHALL OCCUR PRIOR TO INSTALLATION. THE LIMITS OF CLEARING AND SURFACE DISTURBANCE MUST BE STRICTLY ADHERED TO IN ALL AREAS.

19. ALL HAY BALES, SILT FENCE OR TEMPORARY PROTECTION SHALL REMAIN IN PLACE UNTIL AN ACCEPTABLE STAND OF GRASS IS ESTABLISHED. IF NEEDED, TEMPORARY SEEDING CAN HELP TO MINIMIZE EROSION. TEMPORARY SEED WILL CONFORM TO R.I.D.O.T. STANDARD TEMPORARY SEED MIX.

20. THE CONTRACTOR MUST REPAIR AND/OR RESEED ANY AREAS THAT DO NOT DEVELOP WITHIN THE PERIOD OF ONE YEAR AND HE SHALL DO SO AT NO ADDITIONAL EXPENSE TO THE STATE.

21. THE NORMAL ACCEPTABLE SEASONAL SEEDING DATES ARE SPECIFIED IN SUBSECTION L.02.03 OF THE R.I.D.O.T. STANDARD SPECIFICATIONS, LATEST EDITION.

22. ADDITIONAL EROSION CONTROLS, SHALL BE INSTALLED AS DIRECTED BY THE RESIDENT ENGINEER. THESE ADDITIONAL ITEMS WILL BE PAID AT THE UNIT PRICE FOR THAT BID ITEM.

UTILITY NOTES:

1. EXISTING UTILITIES HAVE BEEN SHOWN ON THE PLANS USING THE BEST AVAILABLE INFORMATION AND ARE APPROXIMATE. BUILDING SERVICE CONNECTIONS (ELECTRIC, GAS, TELEPHONE, WATER AND SANITARY) ARE NOT SHOWN. CONTRACTOR IS TO ASSUME SERVICES ARE PRESENT TO ALL BUILDINGS.

2. THE CONTRACTOR SHALL VERIFY THE LOCATIONS OF ALL EXISTING DRAINAGE AND UTILITIES BOTH UNDERGROUND AND OVERHEAD BEFORE EXCAVATION BEGINS IN ACCORDANCE WITH CHAPTER 39-1.2 OF THE R.I. GENERAL LAWS ENTITLED "EXCAVATION NEAR UNDERGROUND UTILITY FACILITIES", WITH AMENDMENTS EFFECTIVE AS OF NOVEMBER 1, 2009 AND, WHEN NECESSARY, BY CONTACTING THE INDIVIDUAL UTILITY COMPANIES. EXCAVATION SHALL BE IN ACCORDANCE WITH ALL STATUTES, ORDINANCES, RULES AND REGULATIONS OF ANY APPLICABLE CITY, TOWN, STATE OR FEDERAL AGENCY. THE CONTRACTOR SHOULD UNDERSTAND THAT NOT ALL UTILITIES SUBSCRIBE TO THE DIG SAFE PROGRAM. IT IS THE CONTRACTOR'S RESPONSIBILITY TO NOTIFY ALL UTILITY COMPANIES AND ENSURE THAT ALL UTILITIES HAVE BEEN MARKED PRIOR TO COMMENCING THEIR WORK. ANY DAMAGE TO EXISTING UTILITIES MARKED IN THE FIELD, OR AS A RESULT OF FAILING TO CONTACT THE APPROPRIATE UTILITY COMPANY, SHALL BE REPAIRED OR REPLACED AT NO ADDITIONAL COST TO THE STATE.

3. ALL EXISTING UTILITIES TO BE ABANDONED SHALL BE CAPPED.

4. EXISTING WATER SERVICES SHALL BE RECONNECTED TO THE NEW WATER MAINS.

5. UTILITY SERVICE CONNECTIONS SHALL BE MAINTAINED TO ALL EXISTING FACILITIES TO REMAIN.

6. FIRE HYDRANTS SHALL NOT BE REMOVED FROM SERVICE WITHOUT WRITTEN AUTHORIZATION FROM THE FIRE DEPARTMENT OR THE WATER AUTHORITY.

7. ALL NEW WATER LINES SHALL BE DISINFECTED TO THE SATISFACTION OF THE WATER AUTHORITY IN ACCORDANCE WITH THE SPECIFICATIONS.

8. ALL UTILITY POLE RELATED WORK SHALL BE BY OTHERS.

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
AS SPECIFIED IN THE LETTER OF APPROVAL
DATED APR 02 2018 FILE # 17-0816
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
APPROVED PLANS MUST BE AT CONSTRUCTION SITE
Jayatri D. Wenseck

THIS PLAN SHALL NOT BE ALTERED

REVISIONS		
NO.	DATE	BY
1	4/07	TRB
2	3/10	RBH
3	4/14	MLP

CDM Smith
260 West Exchange Street, Suite 300
Providence, RI 02903
Tel: (401) 751-5360

RHODE ISLAND
DEPARTMENT OF TRANSPORTATION

ROUTINE BRIDGE
BRANCH RIVER BRIDGE

NORTH SMITHFIELD RHODE ISLAND

STANDARD NOTES - 1

CHECKED BY _____ DATE _____ SCALE NO SCALE

FED. ROAD DIV. NO.	STATE	FEDERAL AID PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
	RI	XXX-XXXX(XXX)	2017	4	28

LANDSCAPE NOTES:

1. 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.
2. 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.
3. ALL PLANT MATERIAL IS TO BE FIELD LOCATED BY A REPRESENTATIVE FROM THE R.I.D.O.T. LANDSCAPE ARCHITECTURE UNIT.
4. 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.
5. 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.
6. ALL TREES AND SHRUBS SHALL BE MULCHED WITH PINE BARK MULCH IN ACCORDANCE WITH THE R.I.D.O.T. STANDARD SPECIFICATIONS, LATEST EDITION.
7. ALL TREES AND/OR SHRUBS THAT ARE PLANTED AS A BED SHALL BE MULCHED AS A BED.
8. 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

1. 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

1. 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."
2. 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.
3. 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:

1. ALL SALVAGED TRAFFIC SIGNAL EQUIPMENT SHALL BE DELIVERED TO THE R.I.D.O.T. MAINTENANCE HEADQUARTERS, 360 LINCOLN AVENUE, WARWICK, RHODE ISLAND, 02888.
2. BACK PLATES SHALL BE INSTALLED ON ALL TRAFFIC SIGNAL HEADS.
3. 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.
4. TRAFFIC CONTROLLER CABINETS, UNLESS OTHERWISE NOTED, SHALL BE NEMA TS2 TYPE 1 CABINET SIZE 6 ("P" TYPE) WITH NOMINAL DIMENSIONS OF 52"Hx44"Wx24"D.
5. 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.
6. 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.
7. 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.
8. 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.
9. ALL FOUNDATIONS MUST HAVE CONES OR BARRELS BOLTED TO FOUNDATION BASES UNTIL ACTUAL POLE IS INSTALLED.
10. 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.
11. 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.
12. ALL LOOP DETECTORS SHALL BE CENTERED WITHIN EACH LANE AS DELINEATED, UNLESS OTHERWISE DIMENSIONED ON PLANS.
13. ALL LOOP DETECTORS SHALL BE CUT INTO THE FINAL PAVEMENT SURFACE COURSE.
14. TRAFFIC SIGNAL CONTROLLERS SHALL BE WIRED SO THAT ANY FIRE PRE-EMPTION SHALL OVERRIDE MANUAL (PUSH BUTTON) OPERATION.
15. 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:

1. 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.
2. ALL SIGN MOUNTINGS FOR TEMPORARY AND CONSTRUCTION SIGNS SHALL BE IN ACCORDANCE WITH THE R.I.D.O.T. STANDARD SPECIFICATIONS, LATEST EDITION.
3. 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.
4. 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.
5. POLICE OFFICERS (AND NOT FLAGPERSONS) SHALL BE UTILIZED WHEN WORK WILL IMPACT SIGNALIZED INTERSECTIONS AND LIMITED ACCESS HIGHWAYS.
6. 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.
7. 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.
8. 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."
9. 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.
10. 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.
11. 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-PLANED AND NEW ROADWAY SURFACES THAT WILL BE OPENED TO TRAFFIC AT THE END OF THE SHIFT.

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
AS SPECIFIED IN THE LETTER OF APPROVAL
DATED APR 02 2018 FILE # 17-0816
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
APPROVED PLANS MUST BE AT CONSTRUCTION SITE
Martin D. Wencek

THIS PLAN SHALL NOT BE ALTERED

REVISIONS		
NO.	DATE	BY
1	4/07	TRB
2	11/07	TRB
3	3/10	RBH

RHODE ISLAND
DEPARTMENT OF TRANSPORTATION

ROUTINE BRIDGE
BRANCH RIVER BRIDGE

NORTH SMITHFIELD RHODE ISLAND

STANDARD NOTES - 2

CHECKED BY _____ DATE _____ SCALE NO SCALE

CDM Smith
260 West Exchange Street, Suite 300
Providence, RI 02903
Tel: (401) 751-5360

0013L_V1_004_STDNOTES02

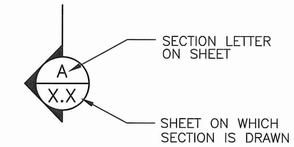
FED. ROAD DIV. NO.	STATE	FEDERAL AID PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
	RI	XXX-XXXX(XXX)	2017	5	28

LIST OF ABBREVIATIONS

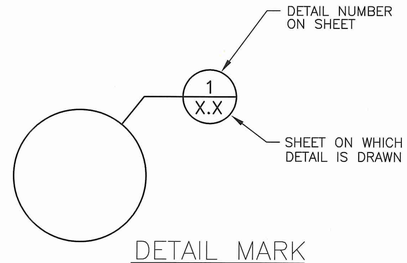
A	
ABUTMENT	= ABUT.
ALTERNATE	= ALT.
ANCHOR BOLT	= A.B.
APPROVED	= APPD.
APPROXIMATE	= APPROX.
AVERAGE	= AVG.
B	
BEAM	= BM.
BACK TO BACK	= B TO B
BETWEEN	= BTWN
BEARING	= BRG.
BITUMINOUS	= BIT.
BUILDING	= BLDG.
BUILDING LINE	= B.L.
BOLT CIRCLE	= B.C.
BOTTOM	= BOT.
C	
CENTER TO CENTER	= C TO C
CENTERLINE	= ℄
CIRCLE	= CIR.
CLEARANCE	= CL.
COLUMN	= COL.
CONCRETE	= CONC.
CONDUIT	= COND.
CONNECTION	= CONN.
CONSTRUCTION	= CONST.
CONTRACTION	= CONTR.
COUNTERSINK	= CSK.
COUPLING	= CPLG.
CLASS I CONTROLLED LOW STRENGTH MATERIAL	= CLMS
D	
DETAIL	= DET.
DIAGONAL	= DIAG.
DIAPHRAGM	= DIAPHM.
DIAMETER	= DIA.
DIMENSION	= DIM.
DRAWING	= DWG.
DRAIN	= DR.
E	
EACH	= EA.
EACH FACE	= E.F.
ELEVATION	= EL.
EXISTING	= EXIST.
EXPANSION	= EXP.
F	
FAR FACE	= F.F.
FAR SIDE	= F.S.
FABRICATE	= FAB.
FACE TO FACE	= F TO F
FLANGE	= FLG.
FLAT HEAD	= F.H.
FOOTING	= FTG.
FOUNDATION	= FDN.
FURNISH, FABRICATE & ERECT	= F.F. & E.

G	
GAGE	= GA.
GALVANIZE	= GALV.
GRADE	= GR.
GRATING	= GRTG.
GROUND	= GND.
H	
HEIGHT	= HGT.
HEXAGON	= HEX.
HORIZONTAL	= HORIZ.
I	
INCH	= IN.
INFORMATION	= INFO.
INSIDE DIAMETER	= I.D.
INVERT	= INV.
J	
JOINT	= JT.
L	
LENGTH	= LGTH.
LIGHTING	= LTG.
LONG	= LG.
LOAD & RESISTANCE FACTOR DESIGN	= LRFD
M	
MATERIAL	= MATL.
MAXIMUM	= MAX.
MEAN HIGH WATER	= M.H.W.
MEAN SEA LEVEL	= M.S.L.
MINIMUM	= MIN.
MISCELLANEOUS	= MISC.
N	
NEAR FACE	= N.F.
NEAR SIDE	= N.S.
NOT TO SCALE	= N.T.S.
NUMBER	= NO.
O	
ON CENTER	= O.C.
OPENING	= OPNG.
OUTSIDE DIAMETER	= O.D.
OPTIONAL	= OPT.
P	
PLATE	= ℙ
POINT OF VERTICAL CURVATURE	= P.V.C.
POINT OF VERTICAL TANGENCY	= P.V.T.
POLYVINYL CHLORIDE	= PVC
POINT OF TANGENCY	= P.T.
POUNDS PER SQUARE INCH	= P.S.I.
POUNDS PER SQUARE FOOT	= P.S.F.

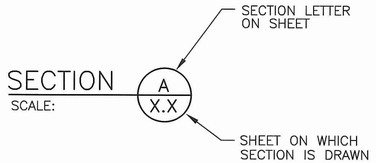
R	
RADIUS	= RAD.
RAILROAD	= RR
REQUIRED	= REQD.
REINFORCING	= REINF.
REHABILITATION	= REHAB.
REMOVE & DISPOSE	= R & D
S	
SECTION	= SECT.
SCHEDULE	= SCH.
SCHEMATIC	= SCHEM.
SHEET	= SH.
SPACES	= SP.
STATION	= STA.
SYMMETRICAL	= SYM.
STAY IN PLACE	= S.I.P.
T	
TOP	= T
TYPICAL	= TYP.
V	
VARIES	= VAR.
VERTICAL CURVE	= V.C.
VERTICAL	= VERT.
W	
WELDED WIRE FABRIC	= W.W.F.
WITH	= W/
WIDE FLANGE	= W
WORKING POINT	= W.P.



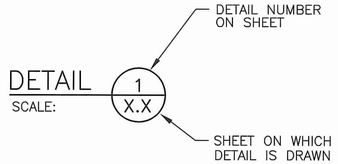
SECTION MARK



DETAIL MARK



SECTION TITLE



DETAIL TITLE

SECTION & DETAIL DESIGNATIONS

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
AS SPECIFIED IN THE LETTER OF APPROVAL
DATED APR 02 2018 FILE # 17-0816
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
APPROVED PLANS MUST BE AT CONSTRUCTION SITE
Christine D. Wenck

CDM Smith
260 West Exchange Street, Suite 300
Providence, RI 02903
Tel: (401) 751-5360

REVISIONS		
NO.	DATE	BY

RHODE ISLAND
DEPARTMENT OF TRANSPORTATION

ROUTINE BRIDGE
BRANCH RIVER BRIDGE

NORTH SMITHFIELD — RHODE ISLAND

LIST OF ABBREVIATIONS

CHECKED BY _____ DATE _____ SCALE NO SCALE

0013L_V1_005_ABBREV

FED. ROAD DIV. NO.	STATE	FEDERAL AID PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
	RI	XXX-XXXX(XXX)	2018	6	28

1

R.I CONTRACT NO. XXXX-XX-XX
R.I.F.A PROJECT NO. XXX-XXX(XXX)
BEGIN PROJECT 505+00.00 GREAT ROAD (BASELINE 136)
MEET EXIST.

R.I CONTRACT NO. XXXX-XX-XX
R.I.F.A PROJECT NO. XXX-XXX(XXX)
BEGIN PROJECT 509+00.00 GREAT ROAD (BASELINE 136)
MEET EXIST.

GREAT ROAD

EXIST. S.H.L. PLAT 136

EXIST. S.H.L. PLAT 434

EXIST. S.H.L. PLAT 267

NEW T.E.B

OHW

502+00 503+00 504+00 505+00 506+00 507+00 508+00 509+00 510+00 511+00 601+00 602+00 603+00

PC +13.29

Mid +60.20

PT +07.10

A.P. 5 LOT 29
N/F
765 GREAT ROAD, LLC
#761 GREAT ROAD

A.P. 5 LOT 52
N/F
765 GREAT ROAD, LLC
#765 GREAT ROAD
(MAIL #761 GREAT ROAD)

A.P. 5 LOT 180
N/F
N. SMITHFIELD VOLUNTEER FIRE DEPT.
#675 ST. PAUL STREET
(MAIL #1470 PROVIDENCE PIKE)

A.P. 5 LOT 232
N/F
N. SMITHFIELD VOLUNTEER FIRE DEPT.
#685 ST. PAUL STREET
(MAIL #1470 PROVIDENCE PIKE)

A.P. 5 LOT 221
N/F
JOHN J. JR. & MARY JEAN PERI
#706 ST. PAUL STREET

A.P. 5 LOT 481
N/F
MCJC REALTY CORP.
#716 ST. PAUL STREET

A.P. 5 LOT 452
N/F
MLS ENTERPRISES, LLC
#659 GREAT ROAD

A.P. 5 LOT 224
N/F
MLP ENTERPRISES, LLC
#653 GREAT ROAD
(MAIL #659 GREAT ROAD)

A.P. 5 LOT 214
N/F
CLAIRE M. ALLARD
#740 GREAT ROAD

A.P. 5 LOT 479
N/F
SAM-MAN REALTY CORP. II
C/O SAMUEL BRICKLE
#590 GREAT ROAD
(MAIL #235 SINGLETON STREET)

A.P. 5 LOT 56
N/F
SHIPPEE DETONNAN COURT FAMILY TRUSTEES
#682 GREAT ROAD
(MAIL #350 PROVIDENCE PIKE)

A.P. 5 LOT 216
N/F
DAVID A. & ANNETTE L. WHITNEY
#2 ANDREWS TERRACE

A.P. 5 LOT 57
N/F
MATTHEW A. & JESSICA L. DUCHARME
#654 GREAT ROAD

A.P. 5 LOT 220
N/F
DANIEL H. & CINDY M. KEENE TRUSTEES
#6 ANDREWS TERRACE
(MAIL #1141 WOONSOCKET HILL ROAD)

BRANCH RIVER

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
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DATED APR 02 2018 / FILE # 17-0816
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Martin D. Wencek

30 0 30 60
HORIZONTAL SCALE: 1" = 30'

REVISIONS		
NO.	DATE	BY

RHODE ISLAND
DEPARTMENT OF TRANSPORTATION

ROUTINE BRIDGE
BRANCH RIVER BRIDGE

NORTH SMITHFIELD RHODE ISLAND

KEY PLAN
BRIDGE 108 - BRANCH RIVER

CHECKED BY _____ DATE _____ SCALE 1"=30'

CDM Smith
260 West Exchange Street, Suite 300
Providence, RI 02903
Tel: (401) 751-5360

FED. ROAD DIV. NO.	STATE	FEDERAL AID PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
	RI	XXX–XXXX(XXX)	2017	7	28

GENERAL NOTES

1. CONSTRUCTION INDICATED ON THESE PLANS SHALL BE IN ACCORDANCE WITH THE LATEST VERSION OF AND MODIFICATIONS TO THE STATE OF RHODE ISLAND STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION AND THE SPECIFICATIONS ACCOMPANYING THESE PLANS. IN CASE OF CONFLICT, THE SPECIAL PROVISIONS OF THE SPECIFICATIONS ACCOMPANYING THESE PLANS SHALL GOVERN.
2. ALL ITEMS NOT REFERENCED FOR MODIFICATION WILL BE "EXISTING TO REMAIN" UNLESS OTHERWISE DIRECTED BY THE ENGINEER.
3. ANY EXISTING PROPERTY THAT WAS NOT PROPOSED TO BE MODIFIED THAT IS DAMAGED BY THE CONTRACTOR SHALL BE REPAIRED BY THE CONTRACTOR AT NO ADDITIONAL COST TO RIDOT.
4. ALL EXISTING PRIVATE PROPERTY LINES, WHERE SHOWN, ARE BASED ON DIGITIZED PLANS AND THEIR EXACT LOCATIONS ARE NOT GUARANTEED.
5. EXISTING SIDEWALK GRAVEL SUBBASE THAT IS CONSIDERED TO BE SUITABLE BY THE RESIDENT ENGINEER SHALL REMAIN IN PLACE AND BE USED AS SIDEWALK SUBBASE.
6. EXPANSION JOINT FILLER SHALL BE INSTALLED BETWEEN CONCRETE SIDEWALKS AND ANY FIXED SMOOTH STRUCTURE.
7. NO BLASTING SHALL BE ALLOWED ON THIS PROJECT.
8. BASEMAPPING COMPLETED BY AEROTECH CORPORATION ON JULY 2017. 365 SMITH ST, SUITE ONE, PROVIDENCE, RI 02908 PHONE: (401) 351–0600
9. HORIZONTAL DATUM: RI STATE PLANE COORDINATES NAD 1983.
10. VERTICAL DATUM: NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88).
11. THE CONTRACTOR SHALL COORDINATE UTILITY POLE LOCATIONS WITH THE APPROPRIATE UTILITY IN ORDER TO MAINTAIN A MINIMUM 3 FOOT PASSABLE WIDTH ALONG THE SIDEWALK.
12. CURB TRANSITIONS FROM 6" CURB REVEAL TO 7" BRIDGE CURB REVEAL TO OCCUR OVER THE APPROACH SLAB.

GENERAL LEGEND

(CFS)	COMPOST FILTER SOCK
(CBSC)	CATCH BASIN SEDIMENTATION CONTROL
(P)	1.5" HMA CLASS 9.5 SURFACE COURSE 4.5" HMA CLASS 19 BASE COURSE 12" GRAVEL BORROW SUBBASE (18" ROCK CUT)
(P–1)	1.5" HMA MICROMILLING 1.5" HMA CLASS 9.5 SURFACE COURSE
(QGII)	ENERGY ABSORPTION GUARDRAIL SYSTEM
(S–1)	CUTTING AND MATCHING ASPHALT
(S–2)	FULL–DEPTH SAWCUT OF BITUMINOUS PAVEMENT
(S–3)	FULL DEPTH SAWCUT OF PORTLAND CEMENT CONCRETE SIDEWALK/DRIVEWAY
(19.6.0)	LOOP VEHICLE DETECTORS
(20.1.0)	PAVEMENT MARKING – LEFT ARROW
(SEAL)	OPEN JOINT SEALING

UTILITY NOTES:

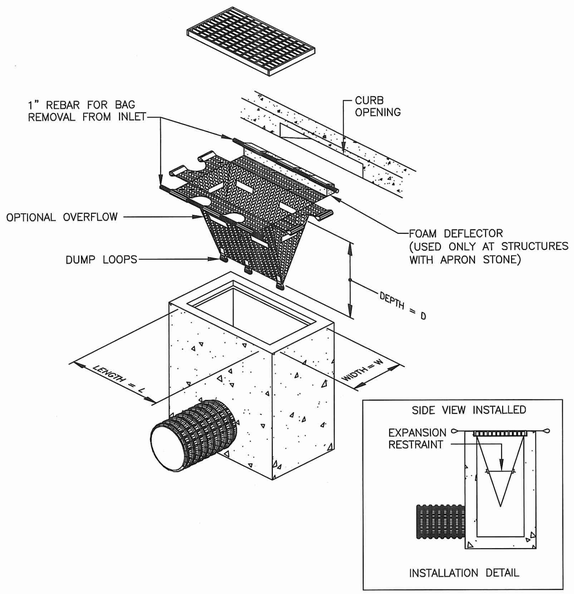
1. ONLY NON–MECHANICAL MEANS OF EXCAVATION SHALL BE USED IN AREAS ADJACENT TO UNDERGROUND UTILITIES UNLESS OTHERWISE DIRECTED BY THE ENGINEER.
2. AN AUTOMATIC TRENCHING MACHINE MAY BE USED IN ACCORDANCE WITH R.I. STD. 18.6.0 FOR CONDUIT UNDER EXISTING ROADWAYS AT LOCATIONS AND DEPTHS APPROVED BY THE ENGINEER.
3. ALL WORK SHALL CONFORM TO THE LATEST REVISION OF THE NATIONAL ELECTRIC CODE, THE REQUIREMENTS OF THE STATE OF RHODE ISLAND, AND NATIONAL GRID.
4. PROPOSED CONDUIT LOCATIONS ARE APPROXIMATE. LOCATIONS TO BE DETERMINED BY FIELD CONDITIONS.
5. THE CONTRACTOR SHALL ALTER THE MASONRY OF THE TOP SECTION OF ALL EXISTING DRAINAGE AND SEWER STRUCTURES AS NECESSARY FOR CHANGES IN GRADE AND RESET ALL WATER, SEWER AND DRAINAGE FRAMES, GRATES AND BOXES TO THE PROPOSED FINISHED SURFACE GRADE. REQUIRED NEW MASONRY SHALL BE CLAY BRICK CONFORMING TO M.04.03.1; CLAY BRICK OF THE RIDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, 2010 EDITION.
6. THE CONTRACTOR SHALL COORDINATE AND MAKE ALL ARRANGEMENTS FOR THE ALTERATION AND ADJUSTMENT OF GAS, ELECTRIC, TELEPHONE AND ANY OTHER PRIVATE UTILITIES BY THE UTILITY COMPANIES.
7. ADJUSTMENTS TO VERIZON OWNED UNDERGROUND EQUIPMENT (MANHOLES, FRAME AND COVERS, CONDUITS, ETC.) MUST BE PERFORMED BY APPROVED CONTRACTOR. ALL ADJUSTMENTS SHALL BE INSPECTED BY VERIZON'S CONTRACT WORK INSPECTOR (C.W.I.). PLEASE CONTACT VERIZON'S C.W.I 24 HOURS IN ADVANCE BEFORE COMMENCING WORK (JOE PATERSON 401–486–0337)

PAVEMENT MARKINGS

1. ALL PERMANENT MARKINGS FOR THIS PROJECT SHALL BE EPOXY RESIN. PAVEMENT MARKINGS SHALL BE PLACED ON THE FINAL SURFACE COURSE NO SOONER THAN 2 WEEKS BUT NO LONGER THAN 4 WEEKS FROM COMPLETION OF THE PAVEMENT OPERATIONS.
2. THE LOCATION OF PAVEMENT MARKINGS SHALL BE IN ACCORDANCE WITH THE CONTRACT DRAWINGS AND THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) 2009 EDITION, AS AMENDED.
3. AT THE COMPLETION OF EACH DAYS PAVING/MILLING, THE CONTRACTOR IS REQUIRED TO PROVIDE TEMPORARY FAST–DRYING WATERBORNE PAINT PAVEMENT MARKINGS BEFORE COMPLETING THE WORK OF THAT DAY AND OPENING THE LANES TO TRAFFIC.
4. WHERE EXISTING PAVEMENT MARKINGS ARE DIFFERENT FROM PROPOSED MARKINGS SHOWN IN AREAS BEYOND PAVEMENT RESURFACING LIMITS, EXISTING MARKINGS SHALL BE REMOVED BY METHOD APPROVED BY THE ENGINEER. CONTRACTOR SHALL VERIFY AND RECORD PAINT MARKING LOCATIONS PRIOR TO ANY PAVEMENT REMOVAL. MARKINGS SHALL BE REPLACED IN ORIGINAL LOCATIONS UNLESS OTHERWISE DIRECTED BY THE ENGINEER.

SIGNS

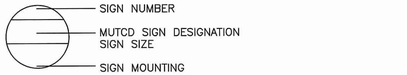
1. ALL NEW DIRECTIONAL, REGULATORY, WARNING, GUIDE SIGNS AND PARKING SIGNS SHALL INCLUDE SUPPORTS, SIGN MOUNTINGS SHALL BE R.I. STD. 24.2.0, UNLESS OTHERWISE INDICATED ON THE PLANS.
2. PRIOR TO INSTALLATION, ALL SIGNS, MOUNTINGS AND LOCATIONS SHALL BE APPROVED OR MODIFIED BY THE ENGINEER.
3. ALL SIGNS SHALL HAVE A MINIMUM VERTICAL CLEARANCE OF 7' OVER THE SIDEWALK.
4. ALL SIGN RADII AND BORDERS SHALL BE AS SPECIFIED IN THE LATEST EDITION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) AS AMENDED.



(CBSC) CATCH BASIN SEDIMENTATION CONTROL

NOT TO SCALE

TYPICAL SIGN DESIGNATION SYMBOL



POLE = EXISTING LIGHT OR TRAFFIC SIGNAL POLE (SEE RI STD. 24.6.1)

EX POST = EXISTING SIGN POST

ARM = PROPOSED MAST ARM

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
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Martin D. Wencek

REVISIONS		
NO.	DATE	BY

CDM Smith
260 West Exchange Street, Suite 300
Providence, RI 02903
Tel: (401) 751-5360

RHODE ISLAND
DEPARTMENT OF TRANSPORTATION

ROUTINE BRIDGE
BRANCH RIVER BRIDGE

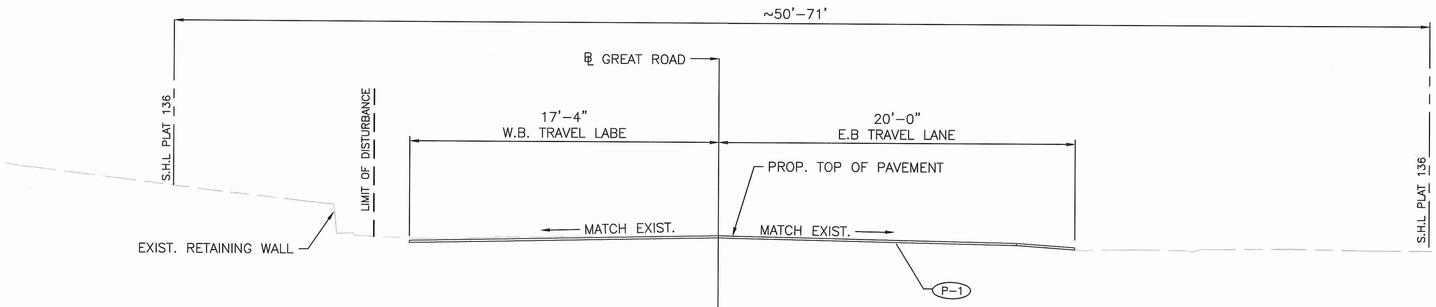
NORTH SMITHFIELD RHODE ISLAND

JOB SPECIFIC

PLAN SYMBOLS, LEGEND AND NOTES
BRIDGE 108 - BRANCH RIVER

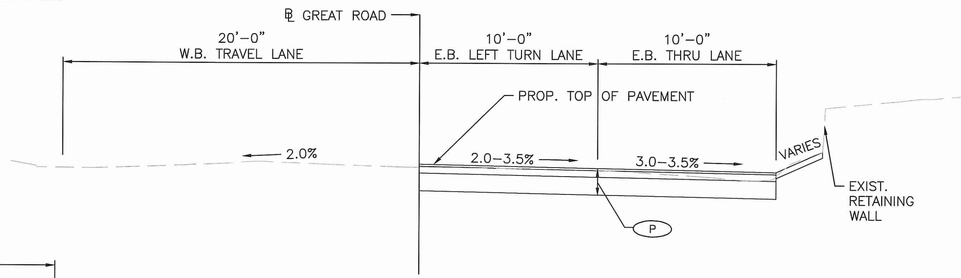
CHECKED BY _____ DATE _____ SCALE NO SCALE

FED. ROAD DIV. NO.	STATE	FEDERAL AID PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
	RI	XXX-XXXX(XXX)	2017	8	28



PROPOSED TYPICAL SECTION
STA 505+00.00 TO 505+50.00

SCALE: 1" = 4'



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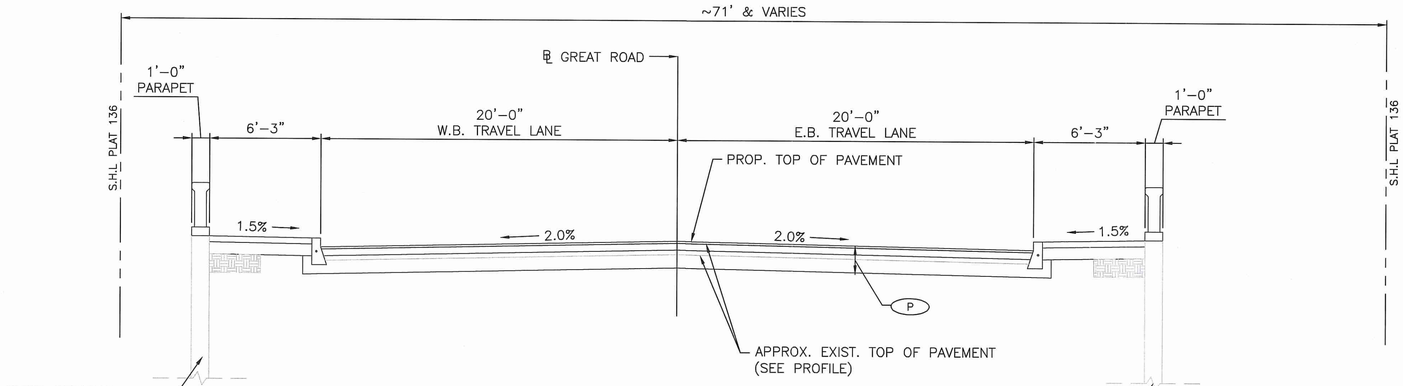
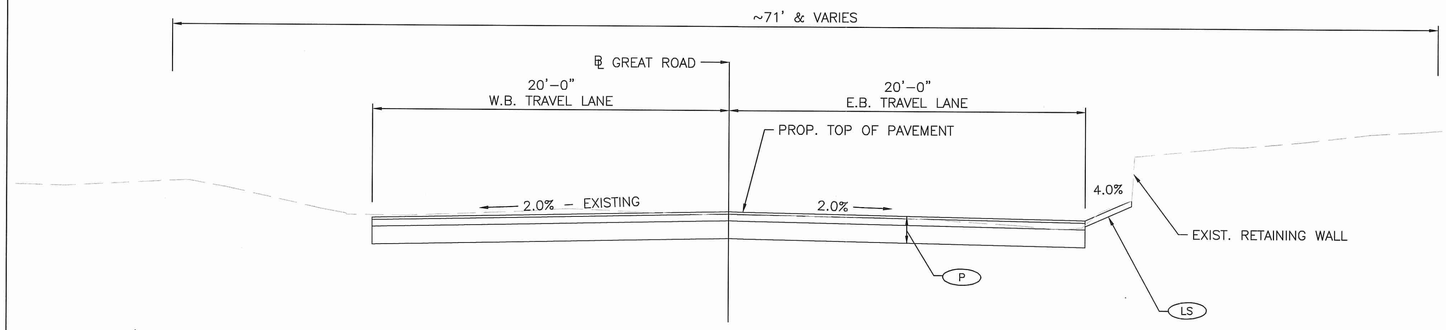
STA 508+25.00 TO 509+00.00

SCALE: 1" = 4'



PROPOSED TYPICAL SECTION
STA 505+50.00 TO 507+50.00

SCALE: 1" = 4'



PROPOSED TYPICAL SECTION
STA 507+50.00 TO 508+25.00

SCALE: 1" = 4'

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
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APPROVED PLANS MUST BE AT CONSTRUCTION SITE

Martin D. Wenek

NOTE:
1. REFER TO BRIDGE PLANS AND CONTRACT DOCUMENTS FOR MEASUREMENT AND PAYMENT OF CURB AND SIDEWALK.

REVISIONS		
NO.	DATE	BY

RHODE ISLAND
DEPARTMENT OF TRANSPORTATION

ROUTINE BRIDGE
BRANCH RIVER BRIDGE

NORTH SMITHFIELD RHODE ISLAND

HIGHWAY TYPICAL SECTIONS
BRIDGE 108 - BRANCH RIVER

CHECKED BY _____ DATE _____ SCALE AS NOTED

CDM Smith
260 West Exchange Street, Suite 300
Providence, RI 02903
Tel: (401) 751-5360

FED. ROAD DIV. NO.	STATE	FEDERAL AID PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
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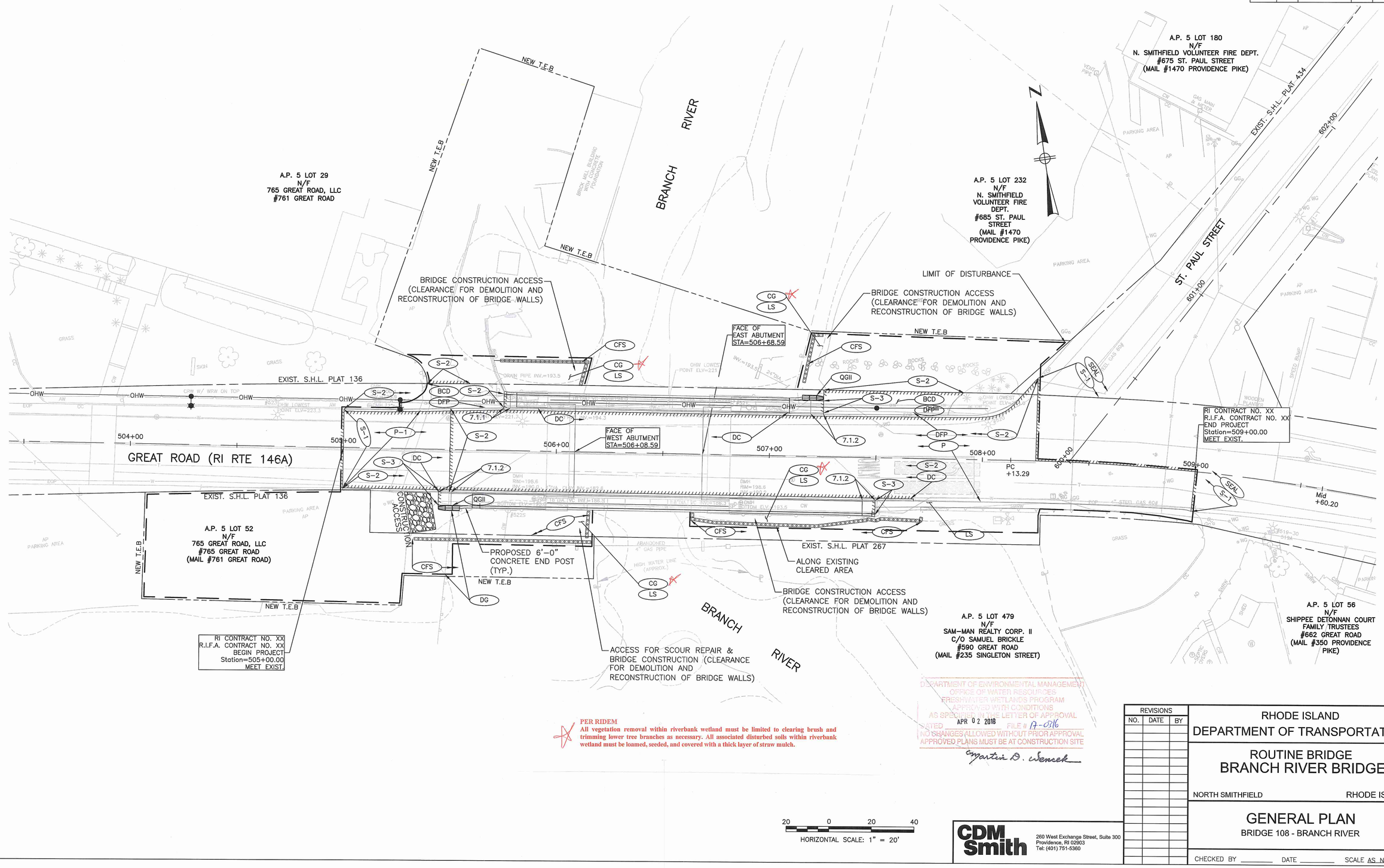

PER RIDEM
All vegetation removal within riverbank wetland must be limited to clearing brush and trimming lower tree branches as necessary. All associated disturbed soils within riverbank wetland must be loamed, seeded, and covered with a thick layer of straw mulch.

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
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Martin D. Wencek

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

CDM Smith
260 West Exchange Street, Suite 300
Providence, RI 02903
Tel: (401) 751-5360

REVISIONS		
NO.	DATE	BY

RHODE ISLAND
DEPARTMENT OF TRANSPORTATION

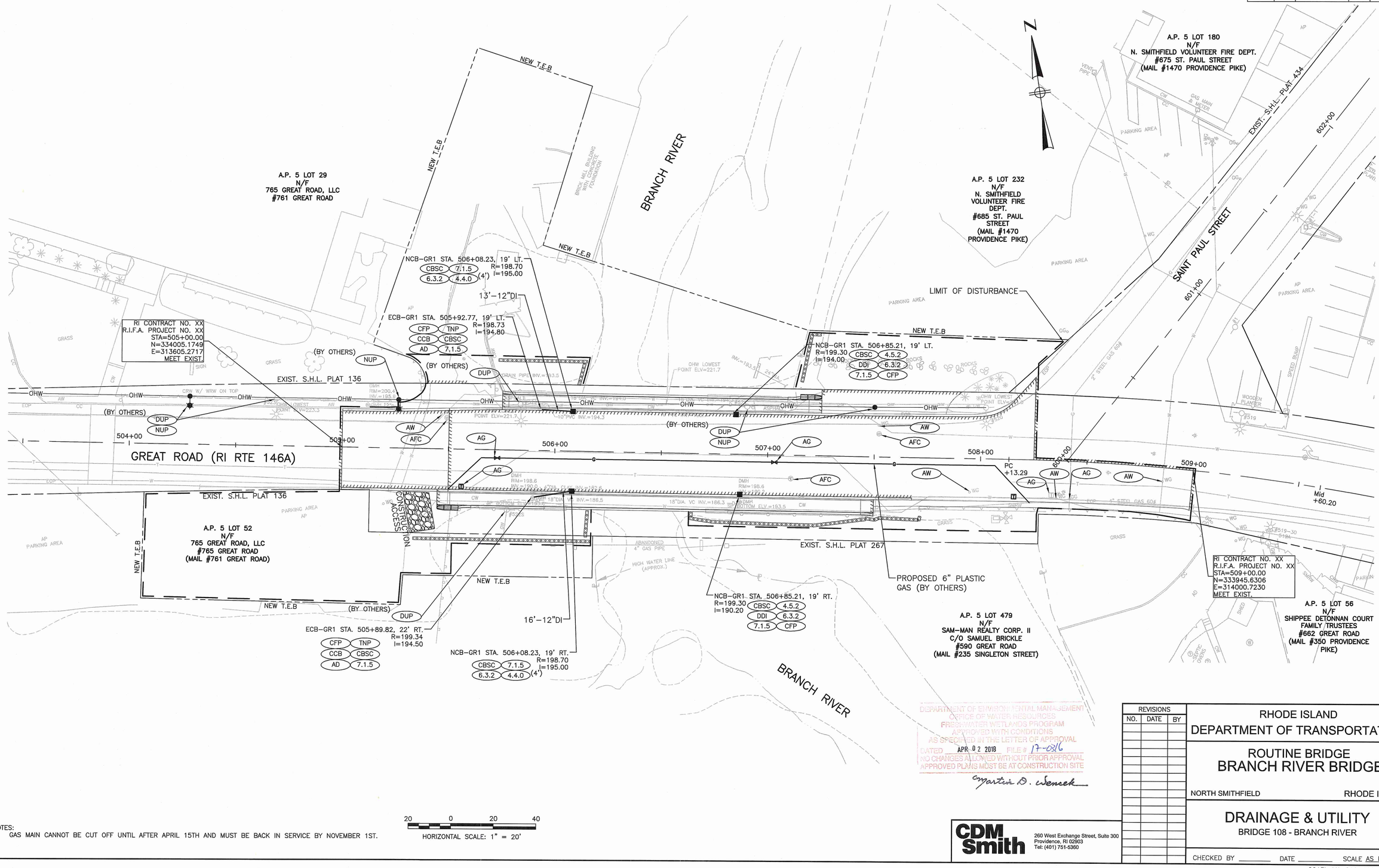
ROUTINE BRIDGE
BRANCH RIVER BRIDGE

NORTH SMITHFIELD RHODE ISLAND

GENERAL PLAN
BRIDGE 108 - BRANCH RIVER

CHECKED BY _____ DATE _____ SCALE AS NOTED

FED. ROAD DIV. NO.	STATE	FEDERAL AID PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
	RI	XXX-XXXX(XXX)	2018	10	28



NOTES:
1. GAS MAIN CANNOT BE CUT OFF UNTIL AFTER APRIL 15TH AND MUST BE BACK IN SERVICE BY NOVEMBER 1ST.

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

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
AS SPECIFIED IN THE LETTER OF APPROVAL
DATED APR 02 2018 FILE # 17-0816
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
APPROVED PLANS MUST BE AT CONSTRUCTION SITE
Martin D. Wencek

CDM Smith
260 West Exchange Street, Suite 300
Providence, RI 02903
Tel: (401) 751-5360

REVISIONS		
NO.	DATE	BY

RHODE ISLAND
DEPARTMENT OF TRANSPORTATION

ROUTINE BRIDGE
BRANCH RIVER BRIDGE

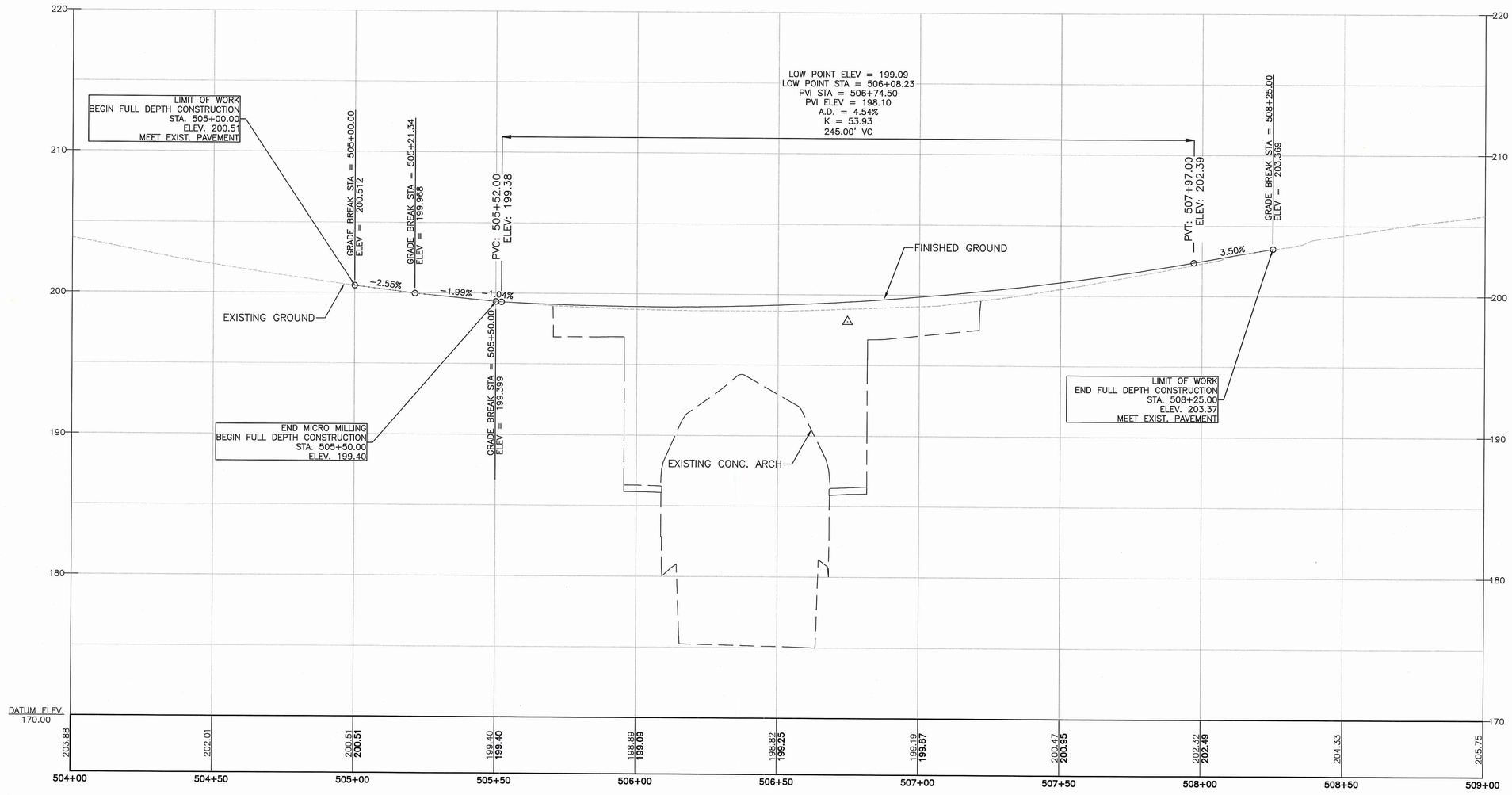
NORTH SMITHFIELD RHODE ISLAND

DRAINAGE & UTILITY
BRIDGE 108 - BRANCH RIVER

CHECKED BY _____ DATE _____ SCALE AS NOTED

0013L_V1_010_108_DRAINUTL

FED. ROAD DIV. NO.	STATE	FEDERAL AID PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
	RI	XXX-XXXX(XXX)	2017	11	28



GREAT ROAD PROFILE

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
AS SPECIFIED IN THE LETTER OF APPROVAL
DATED APR 02 2018 FILE # 17-0316
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Martin D. Wencek

HORIZONTAL SCALE: 1" = 20'
20 0 20 40
VERTICAL SCALE: 1" = 5'
4 0 5 10

CDM Smith
260 West Exchange Street, Suite 300
Providence, RI 02903
Tel: (401) 751-5360

REVISIONS		
NO.	DATE	BY

RHODE ISLAND
DEPARTMENT OF TRANSPORTATION

ROUTINE BRIDGE
BRANCH RIVER BRIDGE

NORTH SMITHFIELD RHODE ISLAND

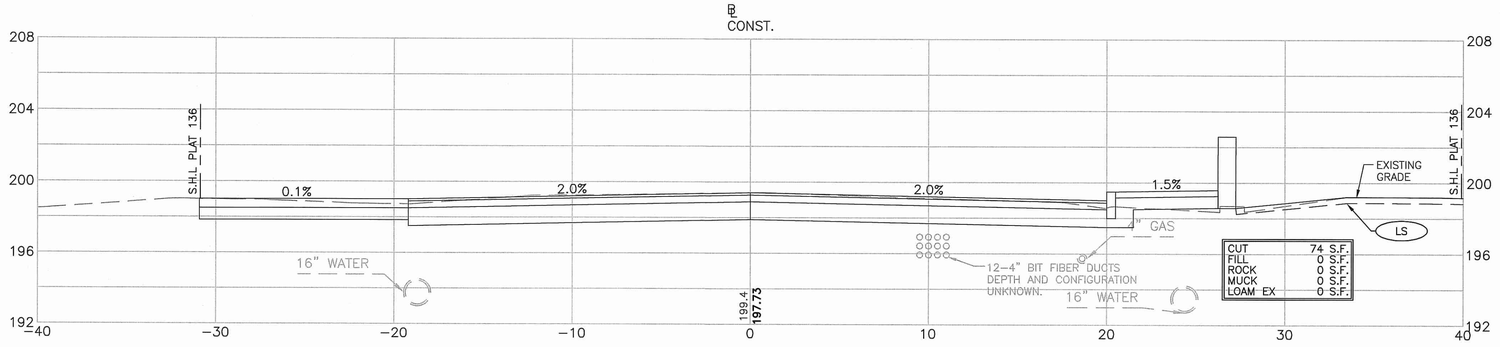
PROFILE
BRIDGE 108 - BRANCH RIVER

CHECKED BY _____ DATE _____ SCALE AS SHOWN

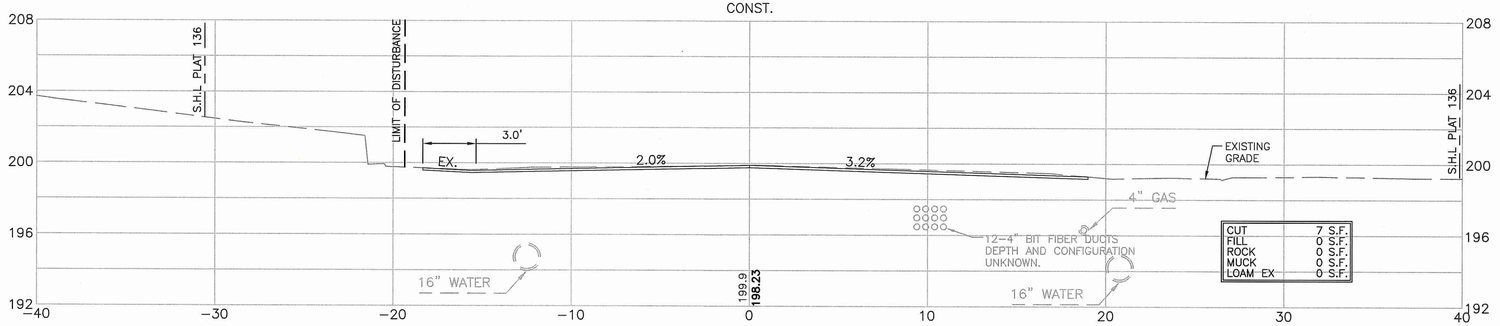
0013L_V1_011_108_PROFILES

FED. ROAD DIV. NO.	STATE	FEDERAL AID PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
	RI	XXX–XXXX(XXX)	2018	12	28

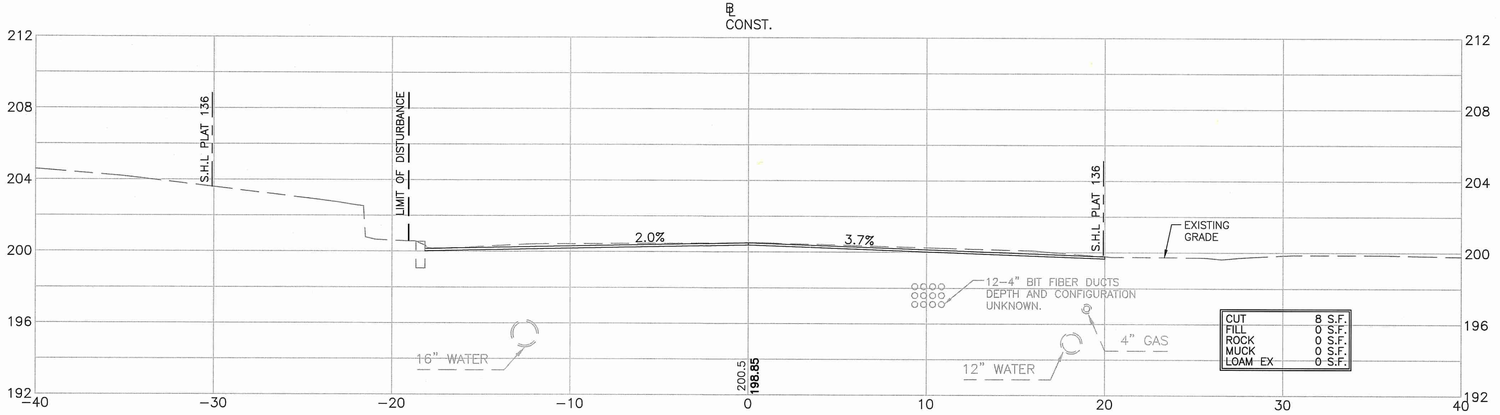
END PMO BEGIN FDC 505+50 GREAT ROAD



505+25 GREAT ROAD



BEGIN PMO 505+00 GREAT ROAD



NOTES:
1. SUBSURFACE STRUCTURES AND SERVICE CONNECTIONS ARE NOT SHOWN ON THE CROSS SECTIONS.
2. SEE TYPICAL BRIDGE SECTIONS FOR ADDITIONAL INFORMATION RELATED TO SECTIONS X+XX TO X+XX.
3. UNLESS INVERTS ARE GIVEN ON THE DRAINAGE AND UTILITY PLANS, PIPE COVER IS ASSUMED AS SUCH: 2' FOR TELECOMMUNICATION, 2.5' FOR ELECTRIC, 3' FOR GAS AND 5' FOR WATER. ASSUMED COVER VARIES WHERE THERE WOULD OTHERWISE BE A CONFLICT BETWEEN UTILITIES IF ASSUMPTIONS WERE MAINTAINED.

HORIZONTAL SCALE: 1" = 4'
4 0 4 8
4 0 4 8
VERTICAL SCALE: 1" = 4'

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
AS SPECIFIED IN THE LETTER OF APPROVAL
DATED APR 02 2018 FILE # 17-0316
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
APPROVED PLANS MUST BE AT CONSTRUCTION SITE
Angela D. Wenck

CDM Smith
260 West Exchange Street, Suite 300
Providence, RI 02903
Tel: (401) 751-5360

REVISIONS		
NO.	DATE	BY

RHODE ISLAND
DEPARTMENT OF TRANSPORTATION

ROUTINE BRIDGE
BRANCH RIVER BRIDGE

NORTH SMITHFIELD RHODE ISLAND

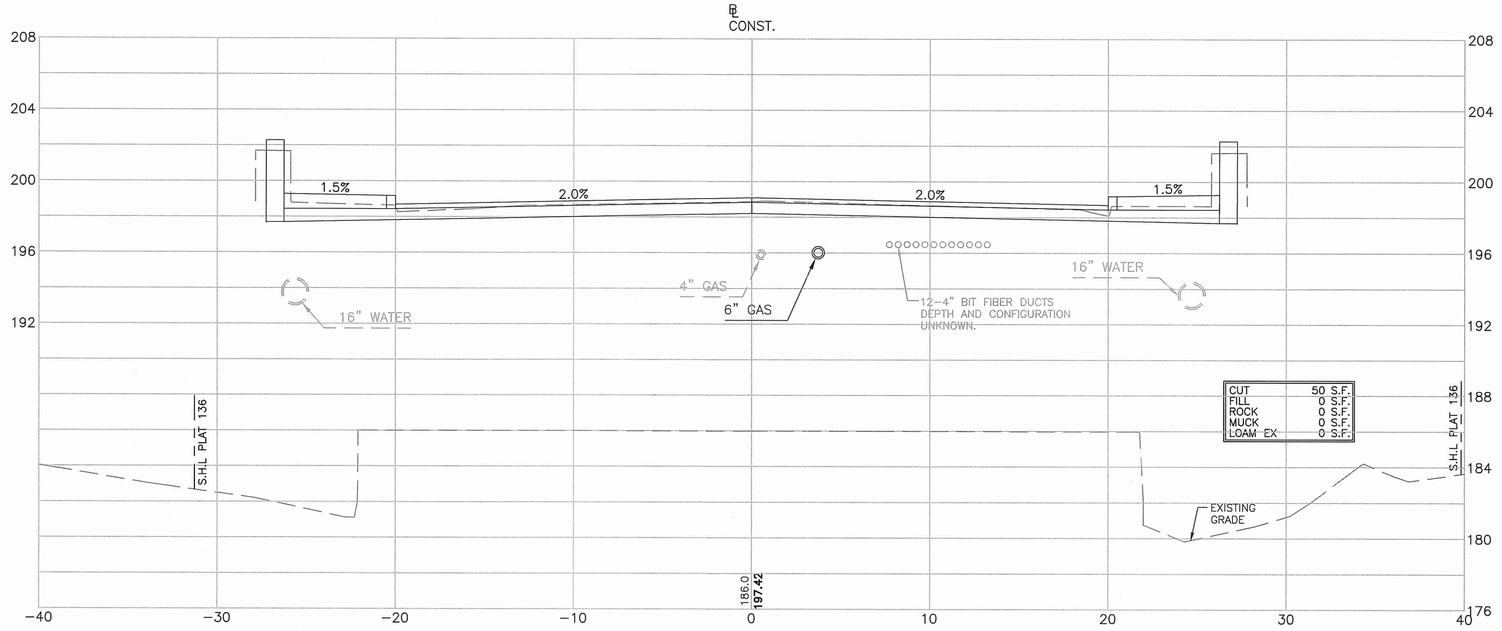
CROSS SECTION 1
BRIDGE 108 - BRANCH RIVER

CHECKED BY _____ DATE _____ SCALE 1"=4'

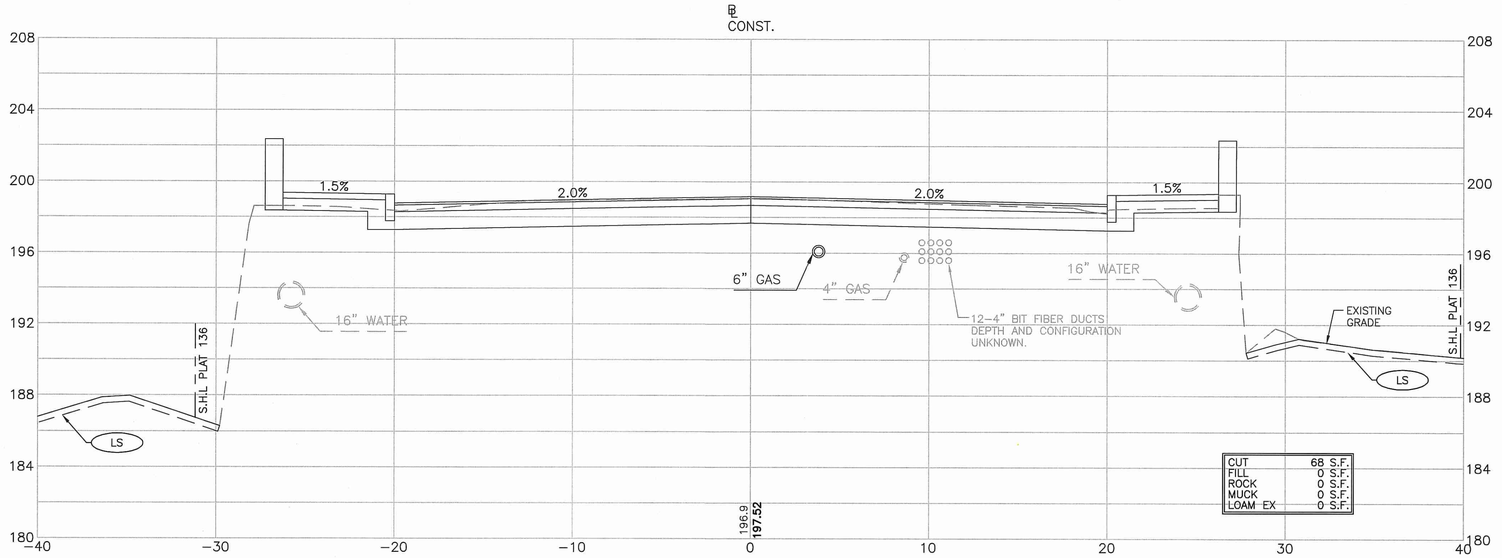
0013L_V1_012_108_X-SECTIONS

FED. ROAD DIV. NO.	STATE	FEDERAL AID PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
	RI	XXX-XXXX(XXX)	2018	13	28

506+00 GREAT ROAD



505+75 GREAT ROAD



HORIZONTAL SCALE: 1" = 4'

4 0 4 8

4 0 4 8

VERTICAL SCALE: 1" = 4'

NOTES:
1. REFER TO CROSS SECTION 1 FOR CROSS SECTION NOTES.

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
AS SPECIFIED IN THE LETTER OF APPROVAL
DATED APR 02 2019 FILE # 17-0316
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
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Gregory D. Wenczek

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Providence, RI 02903
Tel: (401) 751-5360

REVISIONS		
NO.	DATE	BY

RHODE ISLAND
DEPARTMENT OF TRANSPORTATION

ROUTINE BRIDGE
BRANCH RIVER BRIDGE

NORTH SMITHFIELD RHODE ISLAND

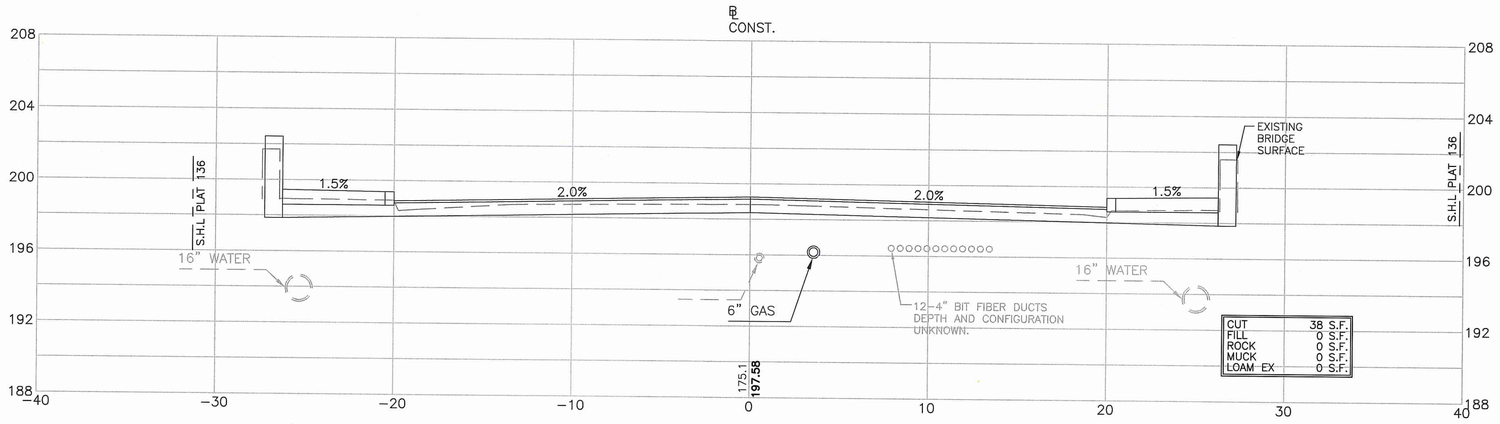
CROSS SECTION 2
BRIDGE 108 - BRANCH RIVER

CHECKED BY _____ DATE _____ SCALE 1"=4'

0013L_V1_013_108_X-SECTIONS

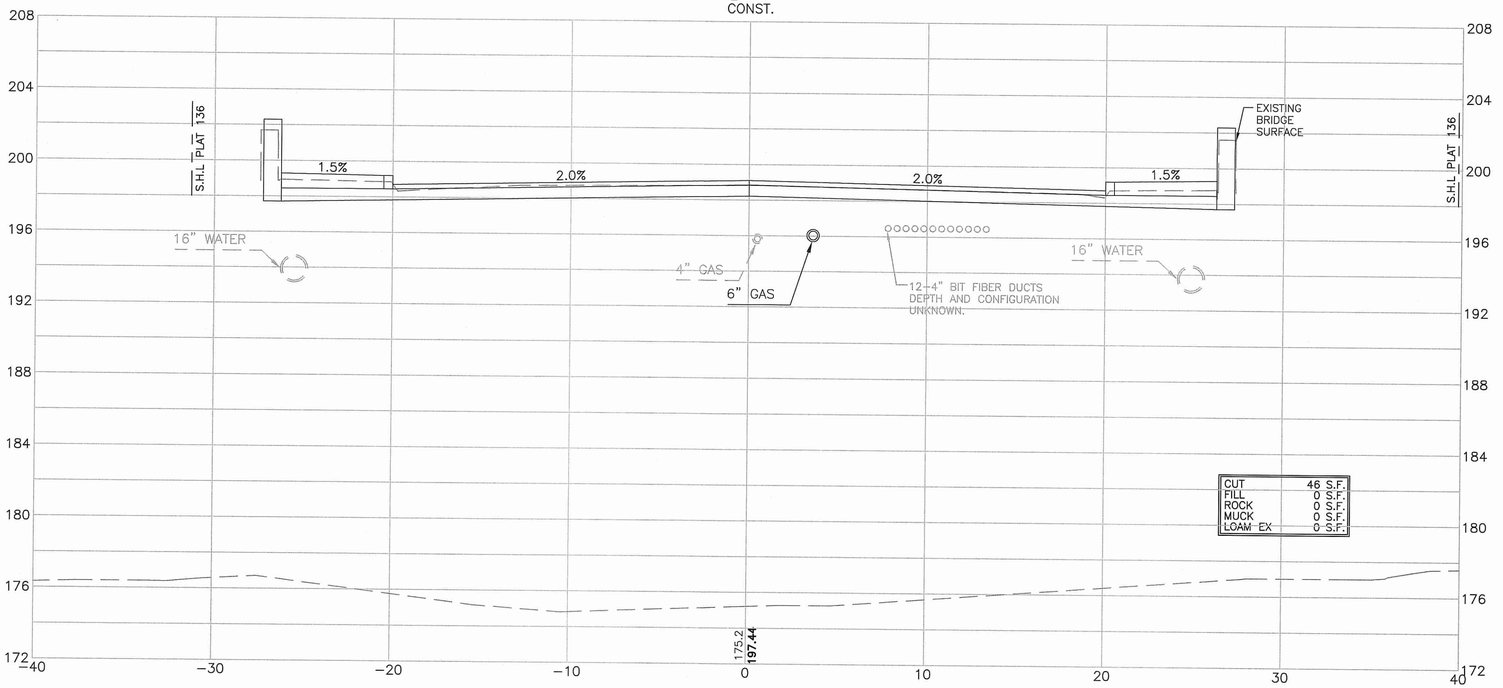
FED. ROAD DIV. NO.	STATE	FEDERAL AID PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
	RI	XXX–XXXX(XXX)	2018	14	28

506+50 GREAT ROAD



CUT	38 S.F.
FILL	0 S.F.
ROCK	0 S.F.
MUCK	0 S.F.
LOAM EX	0 S.F.

506+25 GREAT ROAD



CUT	46 S.F.
FILL	0 S.F.
ROCK	0 S.F.
MUCK	0 S.F.
LOAM EX	0 S.F.

HORIZONTAL SCALE: 1" = 4'

4 0 4 8

VERTICAL SCALE: 1" = 4'

4 0 4 8

NOTES:
1. REFER TO CROSS SECTION 1 FOR CROSS SECTION NOTES.

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
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DATED APR 02 2018 FILE # 17-0816
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Martin D. Wenck

CDM Smith
260 West Exchange Street, Suite 300
Providence, RI 02903
Tel: (401) 751-5360

REVISIONS		
NO.	DATE	BY

RHODE ISLAND
DEPARTMENT OF TRANSPORTATION

ROUTINE BRIDGE
BRANCH RIVER BRIDGE

NORTH SMITHFIELD RHODE ISLAND

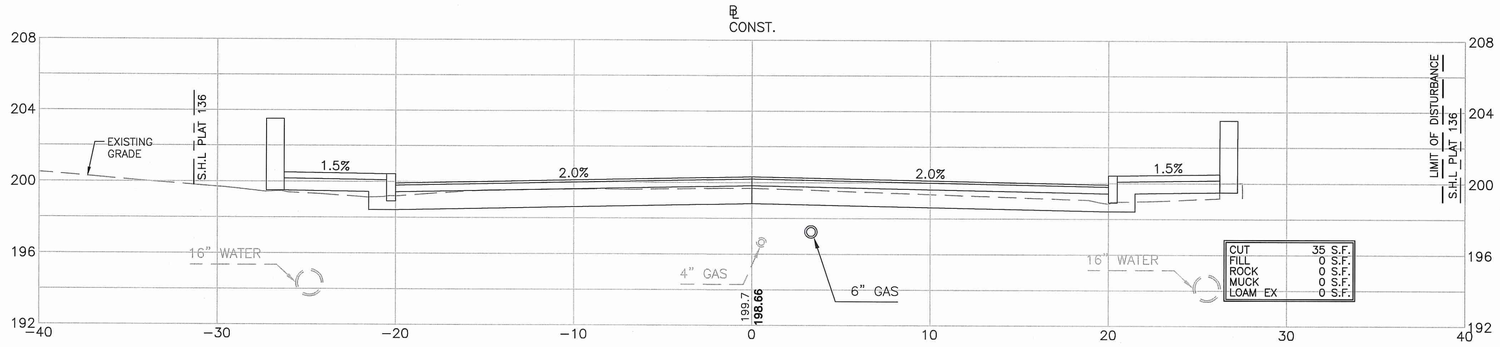
CROSS SECTION 3
BRIDGE 108 - BRANCH RIVER

CHECKED BY _____ DATE _____ SCALE 1"=4'

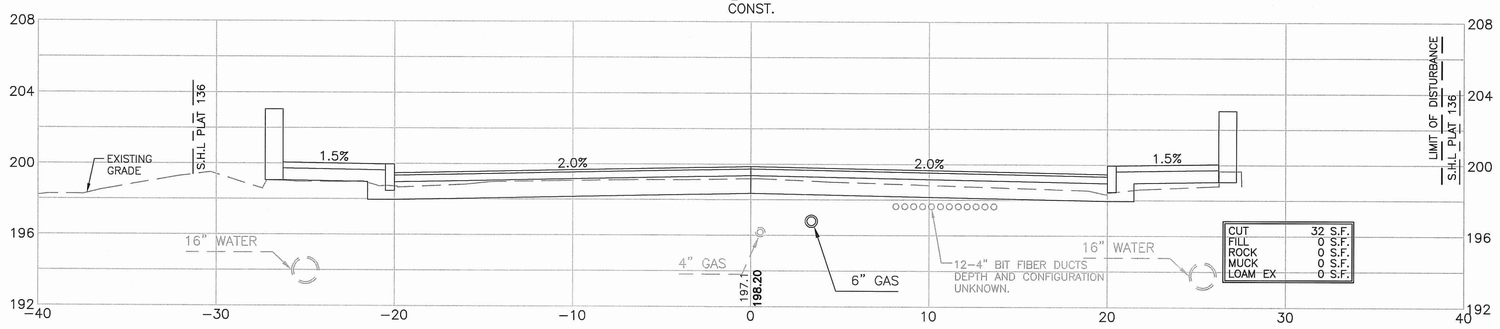
0013L_V1_014_108_X–SECTIONS

FED. ROAD DIV. NO.	STATE	FEDERAL AID PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
	RI	XXX-XXXX(XXX)	2018	15	28

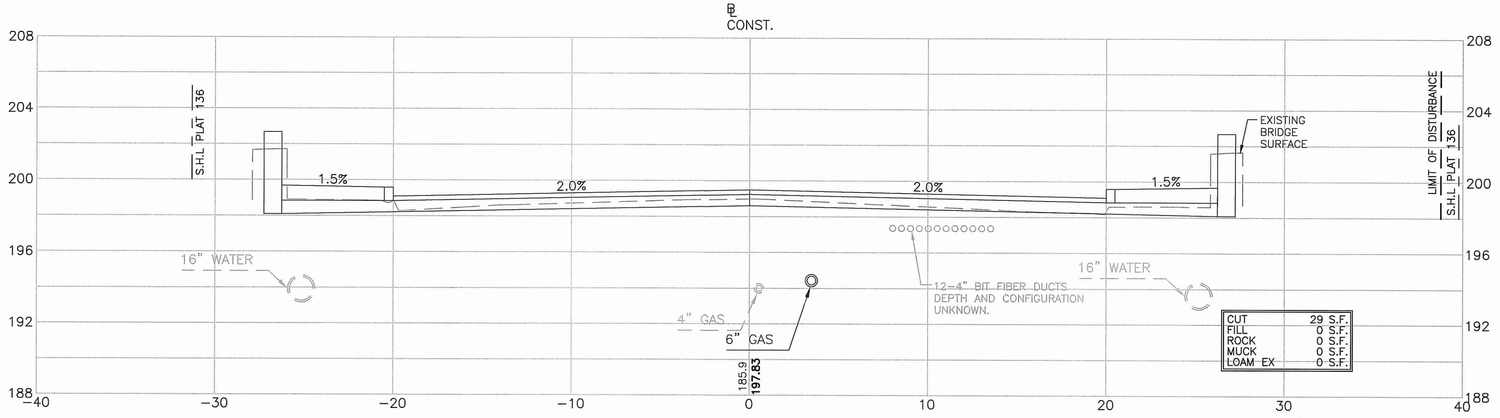
507+25 GREAT ROAD



507+00 GREAT ROAD



506+75 GREAT ROAD



HORIZONTAL SCALE: 1" = 4'

4 0 4 8

4 0 4 8

VERTICAL SCALE: 1" = 4'

NOTES:
1. REFER TO CROSS SECTION 1 FOR CROSS SECTION NOTES.

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
AS SPECIFIED IN THE LETTER OF APPROVAL
DATED APR 02 2019 FILE # A-0316
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Jonathan D. Wencek

CDM Smith
260 West Exchange Street, Suite 300
Providence, RI 02903
Tel: (401) 751-5360

REVISIONS		
NO.	DATE	BY

RHODE ISLAND
DEPARTMENT OF TRANSPORTATION

ROUTINE BRIDGE
BRANCH RIVER BRIDGE

NORTH SMITHFIELD RHODE ISLAND

CROSS SECTION 4

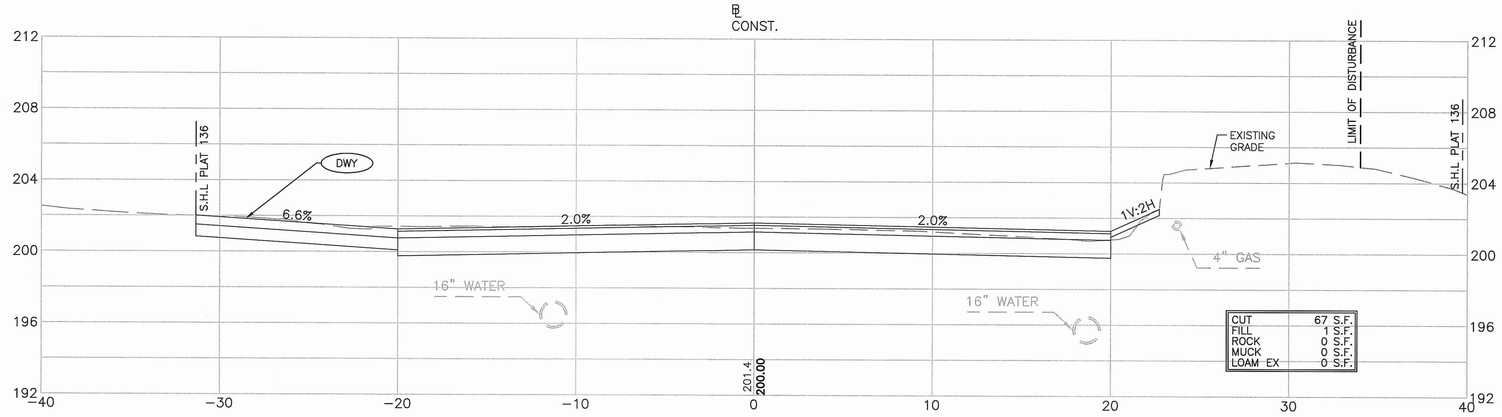
BRIDGE 108 - BRANCH RIVER

CHECKED BY _____ DATE _____ SCALE 1"=4'

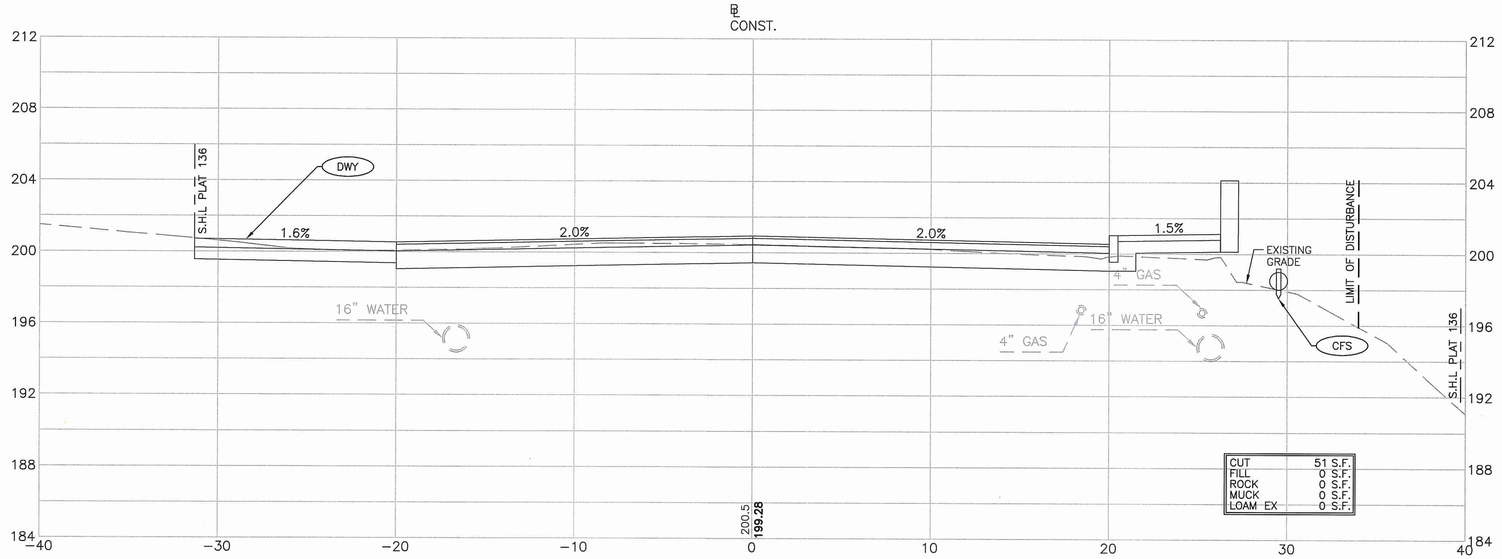
0013L_V1_015_108_X-SECTIONS

FED. ROAD DIV. NO.	STATE	FEDERAL AID PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
	RI	XXX-XXXX(XXX)	2018	16	28

507+75 GREAT ROAD



507+50 GREAT ROAD



HORIZONTAL SCALE: 1" = 4'

4 0 4 8

4 0 4 8

VERTICAL SCALE: 1" = 4'

NOTES:
1. REFER TO CROSS SECTION 1 FOR CROSS SECTION NOTES.

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
AS SPECIFIED IN THE LETTER OF APPROVAL
DATED APR 02 2018 FILE # 17-0316
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
APPROVED PLANS MUST BE AT CONSTRUCTION SITE
Jonathan D. Wenck

CDM Smith
260 West Exchange Street, Suite 300
Providence, RI 02903
Tel: (401) 751-5360

REVISIONS		
NO.	DATE	BY

RHODE ISLAND
DEPARTMENT OF TRANSPORTATION

ROUTINE BRIDGE
BRANCH RIVER BRIDGE

NORTH SMITHFIELD RHODE ISLAND

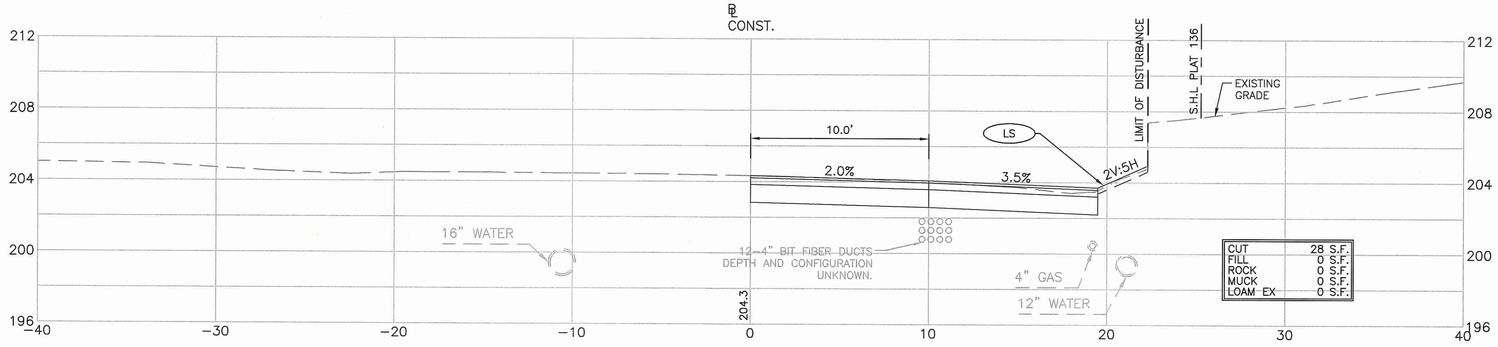
CROSS SECTION 5
BRIDGE 108 - BRANCH RIVER

CHECKED BY _____ DATE _____ SCALE 1"=4'

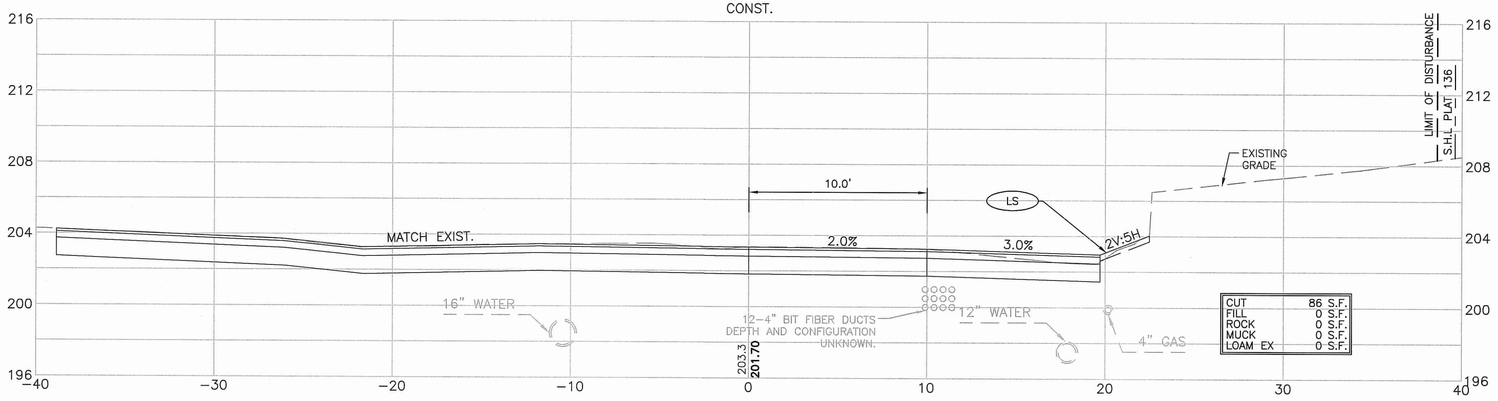
0013L_V1_016_108_X-SECTIONS

FED. ROAD DIV. NO.	STATE	FEDERAL AID PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
	RI	XXX-XXXX(XXX)	2018	17	28

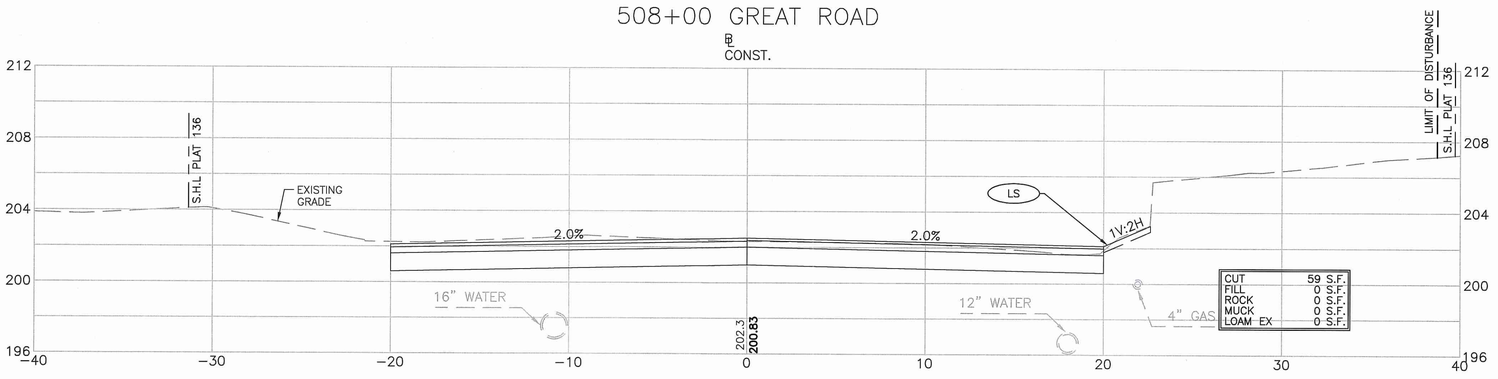
508+50 GREAT ROAD



END PROJECT 508+25 GREAT ROAD



508+00 GREAT ROAD



HORIZONTAL SCALE: 1" = 4'
4 0 4 8
4 0 4 8
VERTICAL SCALE: 1" = 4'

NOTES:
1. REFER TO CROSS SECTION 1 FOR CROSS SECTION NOTES.

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
AS SPECIFIED IN THE LETTER OF APPROVAL
DATED APR 02 2018 FILE # A-0316
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APPROVED PLANS MUST BE AT CONSTRUCTION SITE
Martin D. Wencek

CDM Smith
260 West Exchange Street, Suite 300
Providence, RI 02903
Tel: (401) 751-5360

REVISIONS		
NO.	DATE	BY

RHODE ISLAND
DEPARTMENT OF TRANSPORTATION

ROUTINE BRIDGE
BRANCH RIVER BRIDGE

NORTH SMITHFIELD RHODE ISLAND

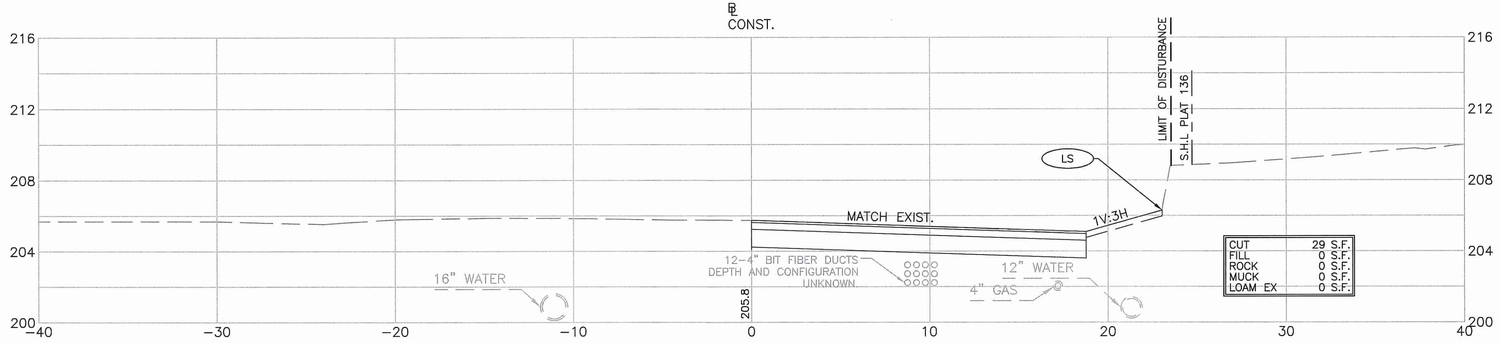
CROSS SECTION 6
BRIDGE 108 - BRANCH RIVER

CHECKED BY _____ DATE _____ SCALE 1"=4'

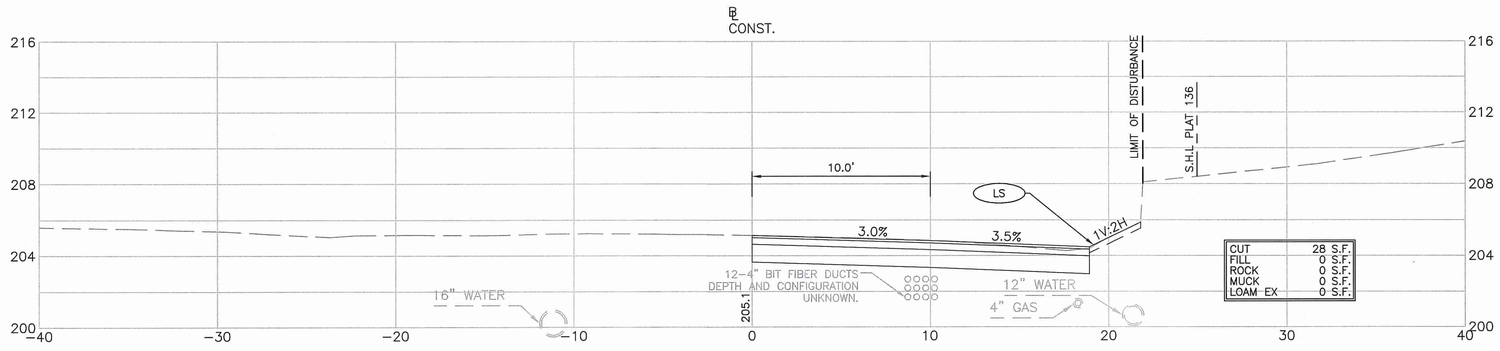
0013L_V1_017_108_X-SECTIONS

FED. ROAD DIV. NO.	STATE	FEDERAL AID PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
	RI	XXX-XXXX(XXX)	2018	18	28

509+00 GREAT ROAD



508+75 GREAT ROAD



HORIZONTAL SCALE: 1" = 4'
4 0 4 8
4 0 4 8
VERTICAL SCALE: 1" = 4'

NOTES:
1. REFER TO CROSS SECTION 1 FOR CROSS SECTION NOTES.

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
AS SPECIFIED IN THE LETTER OF APPROVAL
DATED APR 02 2018 FILE # 17-0816
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
APPROVED PLANS MUST BE AT CONSTRUCTION SITE
Martin D. Wenscek

REVISIONS		
NO.	DATE	BY

CDM Smith
260 West Exchange Street, Suite 300
Providence, RI 02903
Tel: (401) 751-5360

RHODE ISLAND
DEPARTMENT OF TRANSPORTATION

ROUTINE BRIDGE
BRANCH RIVER BRIDGE

NORTH SMITHFIELD RHODE ISLAND

CROSS SECTION 7

BRIDGE 108 - BRANCH RIVER

CHECKED BY _____ DATE _____ SCALE 1"=4'

FED. ROAD DIV. NO.	STATE	FEDERAL AID PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
	RI	XXX–XXXX(XXX)	2018	19	28

N

A.P. 5 LOT 29
N/F
765 GREAT ROAD, LLC
#761 GREAT ROAD

NEW T.E.B

BRICK WALL BUILDING WITH CONCRETE FOUNDATION

BRANCH RIVER

A.P. 5 LOT 180
N/F
N. SMITHFIELD VOLUNTEER FIRE DEPT.
#675 ST. PAUL STREET
(MAIL #1470 PROVIDENCE PIKE)

A.P. 5 LOT 232
N/F
N. SMITHFIELD VOLUNTEER FIRE DEPT.
#685 ST. PAUL STREET
(MAIL #1470 PROVIDENCE PIKE)

EXIST. S.H.L. PLAT 4.34

ST. PAUL STREET

602+00

601+00

LIMIT OF DISTURBANCE

FACE OF EAST ABUTMENT STA=506+68.59

EXIST. S.H.L. PLAT 136

GREAT ROAD (RI RTE 146A)

504+00 (203.9) (202.0)

505+00 200.51 (200.5) (200.5) (199.8)

506+00 199.40 (199.4)

RIM 198.7
199.09 (186.0)
RIM 198.7
198.73 (197.0)

FACE OF WEST ABUTMENT STA=506+08.59

199.25 (175.1)

507+00 199.87 (197.1)

RIM 199.3
RIM 199.3
200.95 (200.5)

508+00 PC +13.29 202.49 (202.3)

600+00 (203.4) (204.3)

509+00 (205.8) (205.0)

RI CONTRACT NO. XX
R.I.F.A. CONTRACT NO. XX
END PROJECT
Station=509+00.00
MEET EXIST.

Mid +60.20

(200.7)

CONSTRUCTION ACCESS

A.P. 5 LOT 52
N/F
765 GREAT ROAD, LLC
#765 GREAT ROAD
(MAIL #761 GREAT ROAD)

EXIST. S.H.L. PLAT 267

ABANDONED 4" GAS PIPE

HIGH WATER LINE (APPROX.)

BRANCH RIVER

A.P. 5 LOT 479
N/F
SAM–MAN REALTY CORP. II
C/O SAMUEL BRICKLE
#590 GREAT ROAD
(MAIL #235 SINGLETON STREET)

A.P. 5 LOT 56
N/F
SHIPPEE DETONINAN COURT FAMILY TRUSTEES
#662 GREAT ROAD
(MAIL #350 PROVIDENCE PIKE)

RI CONTRACT NO. XX
R.I.F.A. CONTRACT NO. XX
BEGIN PROJECT
Station=505+00.00
MEET EXIST.

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
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DATED APR 02 2018 FILE # 17-0316
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Emmartin D. Wenck

KEY:

XX.XX (X" REVEAL)	PROP TOP OF CURB ELEV
XX.XX	PROP GUTTER LINE ELEV
XX.XX (XX.XX)	PROP ELEV (EX ELEV)

NOTES:
1. PROPOSED GRADES IN AREAS OF PMO AND ALL EXISTING SPOT GRADES ARE GENERALLY SHOWN TO ONE DECIMAL POINT EXCEPT IN CERTAIN CRITICAL LOCATIONS.

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

CDM Smith
260 West Exchange Street, Suite 300
Providence, RI 02903
Tel: (401) 751-5360

REVISIONS		
NO.	DATE	BY

RHODE ISLAND
DEPARTMENT OF TRANSPORTATION

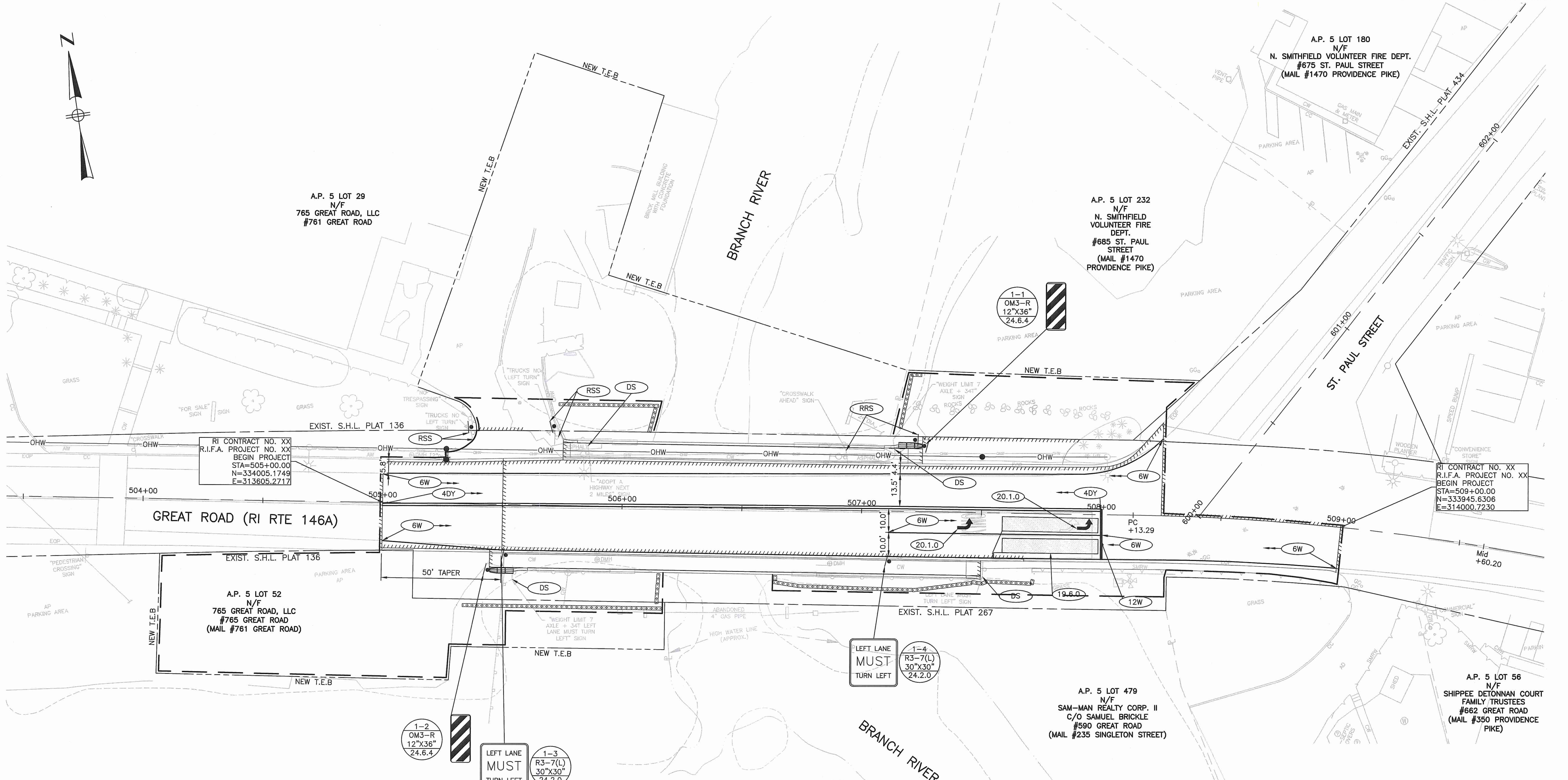
ROUTINE BRIDGE
BRANCH RIVER BRIDGE

NORTH SMITHFIELD RHODE ISLAND

GRADE PLAN
BRIDGE 108 - BRANCH RIVER

CHECKED BY _____ DATE _____ SCALE AS NOTED

FED. ROAD DIV. NO.	STATE	FEDERAL AID PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
	RI	XXX-XXXX(XXX)	2018	20	28



N
A.P. 5 LOT 29
N/F
765 GREAT ROAD, LLC
#761 GREAT ROAD
NEW T.E.B
BRANCH RIVER
A.P. 5 LOT 180
N/F
N. SMITHFIELD VOLUNTEER FIRE DEPT.
#675 ST. PAUL STREET
(MAIL #1470 PROVIDENCE PIKE)
A.P. 5 LOT 232
N/F
N. SMITHFIELD VOLUNTEER FIRE DEPT.
#685 ST. PAUL STREET
(MAIL #1470 PROVIDENCE PIKE)
EXIST. S.H.L. PLAT 434
ST. PAUL STREET
601+00
602+00
1-1
OM3-R
12"X36"
24.6.4
EXIST. S.H.L. PLAT 136
RI CONTRACT NO. XX
R.I.F.A. PROJECT NO. XX
BEGIN PROJECT
STA=505+00.00
N=334005.1749
E=313605.2717
GREAT ROAD (RI RTE 146A)
504+00
505+00
506+00
507+00
508+00
509+00
RSS
DS
RRS
6W
4DY
20.1.0
PC
+13.29
RI CONTRACT NO. XX
R.I.F.A. PROJECT NO. XX
BEGIN PROJECT
STA=509+00.00
N=333945.6306
E=314000.7230
Mid
+60.20
50' TAPER
19.6.0
12W
EXIST. S.H.L. PLAT 267
A.P. 5 LOT 52
N/F
765 GREAT ROAD, LLC
#765 GREAT ROAD
(MAIL #761 GREAT ROAD)
LEFT LANE
MUST
TURN LEFT
1-4
R3-7(L)
30"X30"
24.2.0
A.P. 5 LOT 479
N/F
SAM-MAN REALTY CORP. II
C/O SAMUEL BRICKLE
#590 GREAT ROAD
(MAIL #235 SINGLETON STREET)
A.P. 5 LOT 56
N/F
SHIPPEE DETONNAN COURT FAMILY TRUSTEES
#662 GREAT ROAD
(MAIL #350 PROVIDENCE PIKE)
1-2
OM3-R
12"X36"
24.6.4
1-3
R3-7(L)
30"X30"
24.2.0

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
AS SPECIFIED IN THE LETTER OF APPROVAL
DATED APR 02 2018 FILE # A-0316
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
APPROVED PLANS MUST BE AT CONSTRUCTION SITE
Martin D. Wencek

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

CDM Smith
260 West Exchange Street, Suite 300
Providence, RI 02903
Tel: (401) 751-5360

REVISIONS		
NO.	DATE	BY

RHODE ISLAND
DEPARTMENT OF TRANSPORTATION

ROUTINE BRIDGE
BRANCH RIVER BRIDGE

NORTH SMITHFIELD RHODE ISLAND

SIGNING & STRIPING PLAN
BRIDGE 108 - BRANCH RIVER

CHECKED BY ________ DATE ________ SCALE AS NOTED

FED. ROAD DIV. NO.	STATE	FEDERAL AID PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
	RI	XXX-XXXX(XXX)	2017	21	28

GENERAL NOTES

1. ALL CONSTRUCTION INDICATED ON THESE PLANS SHALL BE IN ACCORDANCE WITH:
   - THE 2013 EDITION OF AND SUPPLEMENTS TO THE RHODE ISLAND DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION (RI STANDARD SPECIFICATIONS).
   - THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS (AASHTO) LRFD BRIDGE CONSTRUCTION SPECIFICATIONS, 3rd EDITION, 2010, INCLUDING THE LATEST INTERIM REVISIONS.
   - THE SPECIFICATIONS ACCOMPANYING THESE PLANS.
2. DIMENSIONS, STATIONS, AND ELEVATIONS ARE SHOWN TO THE NEAREST ONE-HUNDREDTH OF A FOOT OR ONE-EIGHTH OF AN INCH, EXCEPT STRUCTURAL STEEL DIMENSIONS WHICH ARE TO THE NEAREST ONE-SIXTEENTH OF AN INCH.
3. ALL ELEVATIONS ARE REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88).
4. COORDINATES USED ON THESE PLANS ARE BASED ON THE STATEWIDE COORDINATE SYSTEM, THE NORTH AMERICAN DATUM OF 1983 (NAD 83).
5. FOR BENCH MARKS AND TIES SEE HIGHWAY LOCATION PLANS.
6. ANGLES ARE SHOWN TO THE NEAREST SECOND.
7. ALL FOOTINGS SHALL BE APPROVED BY THE ENGINEER AS TO DIMENSIONS, ELEVATIONS, AND SUITABILITY OF FOUNDATION MATERIAL BEFORE THE PLACEMENT OF CONCRETE.
8. ALL WORKING POINTS ARE SHOWN AT THE CENTERLINES OF BEARINGS OF ABUTMENTS AND AT THE CENTERLINES OF PIERS, UNLESS OTHERWISE NOTED.
9. ALL ABUTMENTS AND WALLS ARE DRAWN LOOKING AT THE EXPOSED FACES.
10. THE EXISTING UTILITIES SHOWN ON THE PLANS ARE APPROXIMATE AND WERE LOCATED USING THE BEST AVAILABLE INFORMATION. NO BUILDING SERVICE CONNECTIONS (ELECTRIC, TELEPHONE, GAS, WATER, SANITARY AND OTHERS) ARE SHOWN. THE CONTRACTOR IS TO ASSUME THAT SERVICES TO ALL BUILDINGS ARE PRESENT.
11. BOTH FEDERAL AND STATE LAW (RI. GENERAL LAW 39-1.2) REQUIRE NOTIFICATION OF APPROPRIATE UTILITY COMPANIES BEFORE DIGGING, TRENCHING, BLASTING, DEMOLISHING, BORING, BACKFILLING, GRADING, LANDSCAPING, OR OTHER EARTH MOVING OPERATIONS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO NOTIFY ALL UTILITY COMPANIES (INCLUDING THROUGH THE "DIG SAFE" PROGRAM) TO ENSURE THAT ALL UTILITIES, BOTH UNDERGROUND AND OVERHEAD, HAVE BEEN MARKED BEFORE COMMENCEMENT OF SUCH WORK. THE CONTRACTOR SHOULD UNDERSTAND THAT NOT ALL UTILITIES SUBSCRIBE TO THE "DIG SAFE" PROGRAM. ANY DAMAGE TO EXISTING UTILITIES MARKED IN THE FIELD, OR AS A RESULT OF FAILING TO CONTACT THE APPROPRIATE UTILITY COMPANIES, SHALL BE REPAIRED OR REPLACED (AS DEEMED APPROPRIATE BY THE STATE AND/OR THE IMPACTED UTILITY COMPANY) AT NO ADDITIONAL COST TO THE STATE.

DESIGN DATA

1. DESIGN SPECIFICATIONS

- THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, 7th EDITION, 2014, INCLUDING ALL INTERIM REVISIONS TO DATE.
- THE RHODE ISLAND LRFD BRIDGE DESIGN MANUAL 2007 EDITION INCLUDING ALL REVISIONS TO DATE.
- ALL OTHER APPLICABLE DESIGN SPECIFICATIONS ARE REFERENCED IN SECTION 1 OF THE RHODE ISLAND LRFD BRIDGE DESIGN MANUAL DATED 2007.
- THE 2013 REVISION OF AND SUPPLEMENTS TO THE RHODE ISLAND DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION (RI STANDARD SPECIFICATIONS).
- IN CASE OF CONFLICT, THE RHODE ISLAND LRFD BRIDGE DESIGN MANUAL SHALL GOVERN.

2. LOAD MODIFIERS

THE LOAD MODIFIERS FOR THIS PROJECT ARE AS FOLLOWS:

- THE LOAD MODIFIER FOR DUCTILITY SHALL BE TAKEN AS 1.0 FOR ALL LIMIT STATES.
- THE LOAD MODIFIER FOR REDUNDANCY SHALL BE TAKEN AS 1.0 FOR ALL LIMIT STATES.
- THE LOAD MODIFIER FOR OPERATIONAL IMPORTANCE SHALL BE TAKEN AS 1.0 FOR ALL LIMIT STATES.

3. LOAD FACTORS

ALL LOAD FACTORS SHALL BE IN ACCORDANCE WITH THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, EXCEPT AS MODIFIED IN THE RHODE ISLAND LRFD BRIDGE DESIGN MANUAL (SPECIFIED BELOW).

- THE LOAD FACTOR FOR TEMPERATURE GRADIENT SHALL BE TAKEN AS 0.0 FOR ALL LIMIT STATES.
- THE LOAD FACTOR FOR LIVE LOAD FOR THE EXTREME EVENT I SHALL BE TAKEN AS ZERO.
- THE LOAD FACTOR FOR DEAD LOAD FOR THE EXTREME EVENT I AND EXTREME EVENT II SHALL BE TAKEN AS 1.0.
- THE LOAD FACTOR FOR SETTLEMENT FOR ALL LIMIT STATES SHALL BE TAKEN AS 1.0.

4. LIVE LOADS

- THE DESIGN VEHICULAR LIVE LOAD SHALL BE 1.1 * THE HL-93 DESIGNATION ADJUSTED FOR DYNAMIC LOAD ALLOWANCE AND MULTIPLE PRESENCE FACTOR.
- THE DESIGN PEDESTRIAN LIVE LOAD SHALL BE 75 PSF.

5. WIND LOADING DESIGN DATA

THE WIND LOADING DESIGN SHALL BE IN ACCORDANCE WITH THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, THE RHODE ISLAND LRFD BRIDGE DESIGN MANUAL, AND AS MODIFIED HEREIN.

- EXCEPT DURING CONSTRUCTION, THE DESIGN WIND PRESSURE IS BASED ON A DESIGN WIND SPEED OF 110 MPH.
- THE DESIGN WIND PRESSURES DURING CONSTRUCTION SHALL BE AS SPECIFIED UNDER THE NOTES TITLED "GENERAL NOTES REGARDING TEMPORARY CONSTRUCTION CONDITIONS".

6. TRAFFIC DATA

2017 AADT
2037 AADT
D
K
T
2017 DHV
2037 DHV
DESIGN SPEED

7. THERMAL DESIGN FORCE DATA

UNIFORM TEMPERATURE EFFECTS HAVE BEEN TAKEN INTO CONSIDERATION IN ACCORDANCE WITH PROCEDURE B OF THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS. THE MINIMUM DESIGN TEMPERATURE SHALL BE -10 DEGREES F, AND THE MAXIMUM TEMPERATURE SHALL BE 105 DEGREES F.

8. SEISMIC DESIGN DATA

- THE SEISMIC ANALYSIS AND DESIGN SHALL BE IN ACCORDANCE WITH THE RHODE ISLAND LRFD BRIDGE DESIGN MANUAL.
- THE COMBINATION OF SEISMIC FORCE EFFECTS IS IN ACCORDANCE WITH THE RHODE ISLAND LRFD BRIDGE DESIGN MANUAL.
- THIS BRIDGE HAS BEEN CLASSIFIED AS NON-CRITICAL.
- THE SITE HAS BEEN CLASSIFIED AS SITE CLASS xx.
- THE SOILS ENCOUNTERED IN THE SUBSURFACE INVESTIGATION OF THIS BRIDGE HAVE BEEN DETERMINED TO NOT BE SUSCEPTIBLE TO LIQUIFACTION.

MATERIALS

STRUCTURAL STEEL:

- AASHTO DESIGNATION M 270, GRADE 36

REINFORCING STEEL:

- AASHTO DESIGNATION M 31, GRADE 60

CONCRETE STRENGTHS:

- CLASS HP ¾" f'c=5,000 PSI (XXX)
- CLASS XX ¾" f'c=4,000 PSI (XXX)

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Cynthia D. Wenck

CDM Smith
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REVISIONS		
NO.	DATE	BY

RHODE ISLAND
DEPARTMENT OF TRANSPORTATION

ROUTINE BRIDGE
BRANCH RIVER BRIDGE

NORTH SMITHFIELD RHODE ISLAND

BRIDGE NOTES 1

BRIDGE 108 - BRANCH RIVER

CHECKED BY SBS DATE 09-13-17 SCALE AS NOTED

0013L_V1_00X_108_BRGSTDNOT01

FED. ROAD DIV. NO.	STATE	FEDERAL AID PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
	RI	XXX-XXXX(XXX)	2018	20	28

N

A.P. 5 LOT 29
N/F
765 GREAT ROAD, LLC
#761 GREAT ROAD

A.P. 5 LOT 180
N/F
N. SMITHFIELD VOLUNTEER FIRE DEPT.
#675 ST. PAUL STREET
(MAIL #1470 PROVIDENCE PIKE)

A.P. 5 LOT 232
N/F
N. SMITHFIELD VOLUNTEER FIRE DEPT.
#685 ST. PAUL STREET
(MAIL #1470 PROVIDENCE PIKE)

A.P. 5 LOT 52
N/F
765 GREAT ROAD, LLC
#765 GREAT ROAD
(MAIL #761 GREAT ROAD)

A.P. 5 LOT 479
N/F
SAM-MAN REALTY CORP. II
C/O SAMUEL BRICKLE
#590 GREAT ROAD
(MAIL #235 SINGLETON STREET)

A.P. 5 LOT 56
N/F
SHIPPEE DETONNAN COURT FAMILY TRUSTEES
#662 GREAT ROAD
(MAIL #350 PROVIDENCE PIKE)

BRANCH RIVER

BRANCH RIVER

ST. PAUL STREET

GREAT ROAD (RI RTE 146A)

EXIST. S.H.L. PLAT 136

EXIST. S.H.L. PLAT 136

EXIST. S.H.L. PLAT 267

EXIST. S.H.L. PLAT 434

NEW T.E.B

RI CONTRACT NO. XX
R.I.F.A. PROJECT NO. XX
BEGIN PROJECT
STA=505+00.00
N=334005.1749
E=313605.2717

RI CONTRACT NO. XX
R.I.F.A. PROJECT NO. XX
BEGIN PROJECT
STA=509+00.00
N=333945.6306
E=314000.7230

504+00
505+00
506+00
507+00
508+00
509+00
601+00
602+00

PC +13.29

Mid +60.20

50' TAPER

95.5'
13.5'
4.4'
10.0'
0.0'

RSS
DS
RRS
6W
4DY
20.1.0
19.6.0
12W

1-1
OM3-R
12"X36"
24.6.4

1-2
OM3-R
12"X36"
24.6.4

1-3
R3-7(L)
30"X30"
24.2.0

1-4
R3-7(L)
30"X30"
24.2.0

LEFT LANE
MUST
TURN LEFT

"TRUCKS NO LEFT TURN" SIGN
"CROSSWALK AHEAD" SIGN
"WEIGHT LIMIT 7 AXLE + 34T" SIGN
"ADOPT A HIGHWAY NEXT 2 MILES" SIGN
"WEIGHT LIMIT 7 AXLE + 34T LEFT LANE MUST TURN LEFT" SIGN
"FOR SALE" SIGN
"NO TRESPASSING" SIGN
"PEDESTRIAN CROSSING" SIGN
"CONVENIENCE STORE" SIGN
"COMMERCIAL" SIGN
TRAFFIC SIGN
BRICK MILL BUILDING WITH CONCRETE FOUNDATION
ABANDONED 4" GAS PIPE
HIGH WATER LINE (APPROX.)
VENT PIPE
GAS MAIN & METER
SPEED BUMP
PARKING AREA
GRASS
ROCKS
SHED
SEPTIC SYSTEM

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
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20 0 20 40
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REVISIONS		
NO.	DATE	BY

RHODE ISLAND
DEPARTMENT OF TRANSPORTATION

ROUTINE BRIDGE
BRANCH RIVER BRIDGE

NORTH SMITHFIELD RHODE ISLAND

SIGNING & STRIPING PLAN
BRIDGE 108 - BRANCH RIVER

CHECKED BY _____ DATE _____ SCALE AS NOTED

FED. ROAD DIV. NO.	STATE	FEDERAL AID PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
	RI	XXX-XXXX(XXX)	2017	22	28

CONCRETE NOTES

1. CLASSES OF CONCRETE SHALL BE HIGH PERFORMANCE CLASS HP AND CLASS XX AS DESCRIBED IN THE RI STANDARD SPECIFICATIONS AND THE SPECIAL PROVISIONS OF THE SPECIFICATIONS. REFER TO THE "MATERIAL" NOTES FOR CLASSES OF CONCRETE SPECIFIED FOR VARIOUS COMPONENTS.

2. THE CONTRACTOR MAY, AT THE APPROVAL OF THE ENGINEER, PROPOSE THE USE OF SELF-CONSOLIDATING CONCRETE FOR ANY CLASS OF CONCRETE ON THIS PROJECT. SECTION 606 "SELF CONSOLIDATING CONCRETE (SCC)", CONTAINS THE REQUIREMENTS FOR MODIFYING ALL CLASSES OF CONCRETE MIX DESIGN FOR SELF-CONSOLIDATING APPLICATIONS.

3. ALL PORTLAND CEMENT CONCRETE SHALL BE AIR-ENTRAINED.

4. EXCEPT FOR FOOTINGS CAST BELOW GRADE, ALL REINFORCING STEEL SHALL BE EPOXY COATED.

5. ALL CRITICAL LAP SPLICES SHALL BE AS SHOWN ON THE PLANS. ALL SPLICES NOT SHOWN ON THE PLANS SHALL BE LAPPED IN ACCORDANCE WITH THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS FOR CLASS C LAP SPLICES.

6. THE TOP BARS IN THE DECK SLABS SHALL BE SPLICED AT THE CENTER OF SPANS BETWEEN GIRDERS. THE BOTTOM BARS SHALL BE SPLICED OVER THE GIRDERS.

7. UNLESS OTHERWISE INDICATED ON THE PLANS, ALL MAIN REINFORCING BARS SHALL HAVE THE FOLLOWING MINIMUM COVER:

CONCRETE CAST AGAINST OR PERMANENTLY EXPOSED TO EARTH (FOOTINGS, ABUTMENT AND WALL FACES, BACKWALLS)		3"
DECK SLABS (WITH WEARING SURFACE)	TOP BOTTOM	2" (+1/4", -0") 1" (+1/8", -0")
ALL OTHER BARS		2"

   COVER TO TIES AND STIRRUPS MAY BE 0.5 INCH LESS THAN THE ABOVE VALUES SPECIFIED FOR MAIN REINFORCING, BUT IN NO CASE LESS THAN 1.5 INCHES.

8. ALL ANCHOR BOLTS SHALL BE ASTM DESIGNATION A 307 AND SHALL BE GALVANIZED IN ACCORDANCE WITH AASHTO DESIGNATION M 232 OR METALIZED IN ACCORDANCE WITH SECTION M.05. SWEDGED RODS SHALL BE AASHTO DESIGNATION M 270 GRADE 36 AND SHALL BE GALVANIZED IN ACCORDANCE WITH AASHTO DESIGNATION M 232.

9. ALL ANCHOR BOLTS SHALL BE SET PRIOR TO PLACEMENT OF CONCRETE UNLESS OTHERWISE AUTHORIZED BY THE ENGINEER.

10. HORIZONTAL CONSTRUCTION JOINTS OTHER THAN THOSE SHOWN ON PLANS WILL NOT BE PERMITTED WITHOUT A WRITTEN REQUEST BY THE CONTRACTOR AND PRIOR AUTHORIZATION BY THE ENGINEER.

11. UNLESS OTHERWISE NOTED ON THE PLANS, ALL EXPOSED CONCRETE SURFACES VISIBLE IN ELEVATION TO ONE FOOT BELOW FINAL GROUND LINE (AND THE UNDERSIDE OF ALL CONCRETE DECK SLABS OUTSIDE OF THE FASCIA BEAMS), SHALL RECEIVE A CONCRETE SURFACE RUBBED FINISH IN ACCORDANCE WITH THE RI STANDARD SPECIFICATIONS.

12. THE ENTIRE TOPSIDE SURFACES OF ABUTMENT AND PIER CAP BEAM SEATS, AS WELL AS VERTICAL FACES OF BACKWALLS, AND PARAPETS/BARRIERS SHALL BE PROVIDED WITH A FILM-FORMING SEALER (M12.03.1) CONCRETE SURFACE TREATMENT-PROTECTIVE COATING IN ACCORDANCE WITH SECTION 820 OF THE RI STANDARD SPECIFICATIONS.

13 ALL EXPOSED EDGES AND REENTRANT CORNERS NOT OTHERWISE DETAILED ON THE PLANS SHALL HAVE A MINIMUM ¾" CHAMFER.

14. ALL JOINT SEALANT SHALL BE POLYURETHANE, POLYURETHANE ELASTOMERIC, OR SILICONE SEALANT AS DESIGNATED ON THE PLANS. THE COLOR OF THE JOINT SEALANT, WHERE EXPOSED, SHALL BE NEUTRAL (LIGHT GRAY OR TAN). THE COLOR OF THE SEALANT, WHERE NOT EXPOSED, WILL BE AT THE DISCRETION OF THE CONTRACTOR.

15. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PREVENTING CONCRETE STAINS OR DISCOLORATIONS DURING CONSTRUCTION UNTIL SUCH TIME WHEN THE SURFACES ARE APPROVED AND ACCEPTED. ANY CONCRETE STAINS OR DISCOLORATIONS OCCURRING PRIOR TO ACCEPTANCE OF THE SURFACES SHALL BE REMOVED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE STATE.

16. UNLESS OTHERWISE NOTED ON THE PLANS, JOINT FILLER IS TO BE A PREFORMED, NON-EXPANSIVE, NON-EXTRUDING TYPE IN ACCORDANCE WITH SECTION M.02.11.1 OF THE RI STANDARD SPECIFICATIONS.

17. PLACEMENT, FINISHING AND CURING OF BRIDGE DECK CONCRETE SHALL BE IN ACCORDANCE WITH SECTION 814 OF THE RI STANDARD SPECIFICATIONS AND IN ACCORDANCE WITH THE SEQUENCE AND DIRECTION OF POURS AS SHOWN ON THE PLANS.

    SUPPORT RAILS FOR THE FINISHING MACHINE(S) SHALL BE LOCATED BEYOND THE CURB LINE SUCH THAT THE ENTIRE BRIDGE DECK SHALL RECEIVE A MACHINE FINISH. THE CONTRACTOR SHALL INCLUDE THE LOADING OF THE FINISHING MACHINE(S) AND THE SUPPORT RAIL SYSTEM IN THE DESIGN OF THE CANTILEVER DECK SUPPORT SYSTEM. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE COST AND DESIGN OF THIS SUPPORT SYSTEM WHICH MAY REQUIRE THE ADDITION OF TEMPORARY DIAPHRAGMS OR BRACES TO PREVENT FASCIA STRINGER ROTATION.

18. UNLESS OTHERWISE INDICATED ON THE PLANS, ALL DECK FORMS SHALL BE OF THE REMOVABLE TYPE THAT WILL PRODUCE THE DIMENSIONS SHOWN ON THE PLANS.

19. EMBEDMENT LENGTHS FOR DRILLED AND GROUTED DOWELS SHALL BE IN ACCORDANCE WITH SECTION 819 OF THE RI STANDARD SPECIFICATIONS.

20. IN ACCORDANCE WITH THE RI STANDARD SPECIFICATIONS, ALL METAL TIES, NON-METALLIC TIES OR ANCHORAGES WHICH ARE REQUIRED FOR CONCRETE FORMWORK SHALL BE SO CONSTRUCTED THAT THEY CAN BE REMOVED TO AT LEAST ONE INCH BELOW THE EXPOSED SURFACE OF THE CONCRETE WITHOUT CAUSING DAMAGE TO THE CONCRETE SURFACE. SNAP TIES MAY BE USED ONLY IF APPROVED BY THE ENGINEER. IF THE CONTRACTOR PROPOSES TO USE THEM, A CATALOG CUT AND OTHER NECESSARY INFORMATION MUST BE SUBMITTED TO THE ENGINEER TO DEMONSTRATE THAT THE TIES WILL SNAP-OFF FAR ENOUGH INTO THE CONCRETE TO ALLOW FOR PROPER PATCHING. SNAP TIES MUST PROVIDE ADEQUATE STRENGTH TO SUPPORT THE FORMS. ALL CAVITIES SHALL BE FILLED WITH AN APPROVED CEMENT MORTAR MEETING THE REQUIREMENTS OF ASTM C 928.

21. WATER STOPS ARE REQUIRED FOR HORIZONTAL AND VERTICAL CONSTRUCTION JOINTS IN ABUTMENTS AND WALLS WHEN EXPOSED TO BACKFILL EARTH MATERIAL. WATER STOPS SHALL BE INSTALLED AT THE LOCATIONS DETAILED ON THE PLANS, AT THE LOCATIONS AS SPECIFIED ABOVE AND AT ALL LOCATIONS AS DIRECTED BY THE ENGINEER, ALL IN ACCORDANCE WITH SECTION 812 OF THE RI STANDARD SPECIFICATIONS.

GENERAL NOTES REGARDING TEMPORARY CONSTRUCTION CONDITIONS:

1. DESIGN WIND PRESSURES FOR CONSTRUCTION:

   MINIMUM WIND PRESSURES TO BE USED BY THE CONTRACTOR FOR DESIGN DURING THE CONSTRUCTION CONTRACT (WITH THE EXCEPTION OF SIGNS) SHALL BE FROM THE FOLLOWING TABLE:

HEIGHT ABOVE GROUND	WIND PRESSURE (PSF)
UP TO 17'	33
OVER 17' AND UP TO 33'	37
OVER 33' AND UP TO 50'	41
OVER 50' AND UP TO 75'	44
OVER 75' AND UP TO 100'	47

TABLE NOTES:

A. APPLICATION OF THE TABULAR PRESSURE:

- BRIDGE COMPONENTS DURING CONSTRUCTION, PRIOR TO THE INSTALLATION OF THE PERMANENT BRACING SYSTEMS, NOT INCLUDING CRANE LIFTING.
- FALSE WORK, SHORING, AND SCAFFOLDING AS DEFINED IN FHWA "GUIDE DESIGN SPECIFICATION FOR BRIDGE TEMPORARY WORKS", EXCLUDING 3-DIMENSIONAL LATTICED OR TRUSSED FRAMES OR TOWERS;
- TEMPORARY SHIELDING.

WIND PRESSURES FOR ALL OTHER STRUCTURES SHALL BE CALCULATED BASED ON ASCE "DESIGN LOADS ON STRUCTURES DURING CONSTRUCTION", SEI/ASCE 37-02 (ALL REFERENCES TO THE ASCE 7 IN THE SEI/ASCE 37-02 PUBLICATION, SHALL BE THE LATEST REVISION OF ASCE 7). THE EXPOSURE CATEGORY SHALL BE C.

B. FOR STRUCTURES SITUATED ABOVE LIVE INTERSTATE TRAFFIC, THE TABULAR VALUES SHALL BE INCREASED BY 5 PSF.

2. ERECTION OF BRIDGE COMPONENTS:

   FOR THE ERECTION OF STRUCTURES, THE FOLLOWING SHALL APPLY:

- THE CONTRACTOR SHALL SUBMIT AN ERECTION PLAN THAT PROVIDES COMPLETE DETAILS OF THE PROCESS INCLUDING, BUT NOT LIMITED TO, TEMPORARY SUPPORTS, SCHEDULING AND OPERATION SEQUENCING, CRANE PLACEMENT, AND ASSUMED LOADS AND CALCULATED STRESSES DURING VARYING STAGES OF LIFTING. THIS APPLIES TO STRUCTURES OF ANY KIND. THE CAPACITY OF THE CRANE AND ALL LIFTING AND CONNECTING DEVICES SHALL BE ADEQUATE FOR 125 PERCENT OF THE TOTAL PICK LOAD INCLUDING SPREADERS, RIGGING, HOOKS, AND ALL OTHER MATERIALS. THIS FACTOR OF SAFETY SHALL BE IN ADDITION TO ALL MANUFACTURERS' PUBLISHED FACTORS OF SAFETY.
- A REGISTERED PROFESSIONAL ENGINEER, LICENSED IN THE STATE OF RHODE ISLAND, WILL BE REQUIRED TO STAMP THE CONTRACTOR'S ERECTION PLAN.
- THE CONTRACTOR'S PROFESSIONAL ENGINEER WILL BE REQUIRED TO INSPECT AND PROVIDE WRITTEN APPROVAL OF INSTALLATION, PRIOR TO ALLOWING VEHICLES OR PEDESTRIANS ON OR BELOW THE STRUCTURE. THE PROFESSIONAL ENGINEER MUST ALSO STAMP ALL CHANGES TO THE CONTRACTOR'S ERECTION PLAN. ADDITIONALLY, ALL PROPOSED CHANGES MUST BE SUBMITTED TO RIDOT FOR REVIEW AND APPROVAL PRIOR TO IMPLEMENTATION.
- A MANDATORY PRE-ERECTION CONFERENCE WILL BE HELD AT LEAST TWO WEEKS PRIOR TO THE START OF THE GIRDER INSTALLATION TO DISCUSS THE PLAN AND PROCEDURES, WORK SCHEDULES, CONTINGENCY PLANS, SAFETY REQUIREMENTS AND TRAFFIC CONTROL. THE CONTRACTOR'S PROFESSIONAL ENGINEER AND ERECTION SUBCONTRACTOR WILL BE REQUIRED TO ATTEND THIS MEETING, AS WILL THE RIDOT RESIDENT ENGINEER, THE DESIGN PROJECT ENGINEER AND THE DESIGN CONSULTANT. BASED UPON DISCUSSIONS AT THIS MEETING AND A REVIEW OF THE CONTRACTOR'S ERECTION PLAN, RIDOT MAY ORDER THE CONTRACTOR TO MODIFY AND RESUBMIT THE ERECTION PLAN TO THE ENGINEER FOR REVIEW AND APPROVAL.
- THE CONTRACTOR WILL BE REQUIRED TO PERFORM DAILY INSPECTIONS OF THE ERECTED GIRDERS UNTIL THE BRIDGE DECK IS COMPLETELY POURED.
- THE COST OF PREPARING AND STAMPING THE ERECTION PLAN, COMPUTATIONS, AND REPORTS, RESPONDING TO RIDOT'S COMMENTS AND MAKING THE NECESSARY REVISIONS, AND ATTENDANCE AT MEETINGS SHALL BE CONSIDERED INCIDENTAL TO THE COST OF THE SUPERSTRUCTURE PAY ITEM, BE IT CONCRETE, STEEL OR TIMBER.

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
PROGRAM
CONDITIONS
LETTER OF APPROVAL
APR 02 2018 FILE # 17-0816
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APPROVED PLANS MUST BE AT CONSTRUCTION SITE
Christin D. Vencek

CDM Smith
260 West Exchange Street, Suite 300
Providence, RI 02903
Tel: (401) 751-5360

REVISIONS		
NO.	DATE	BY

RHODE ISLAND
DEPARTMENT OF TRANSPORTATION

ROUTINE BRIDGE
BRANCH RIVER BRIDGE

NORTH SMITHFIELD RHODE ISLAND

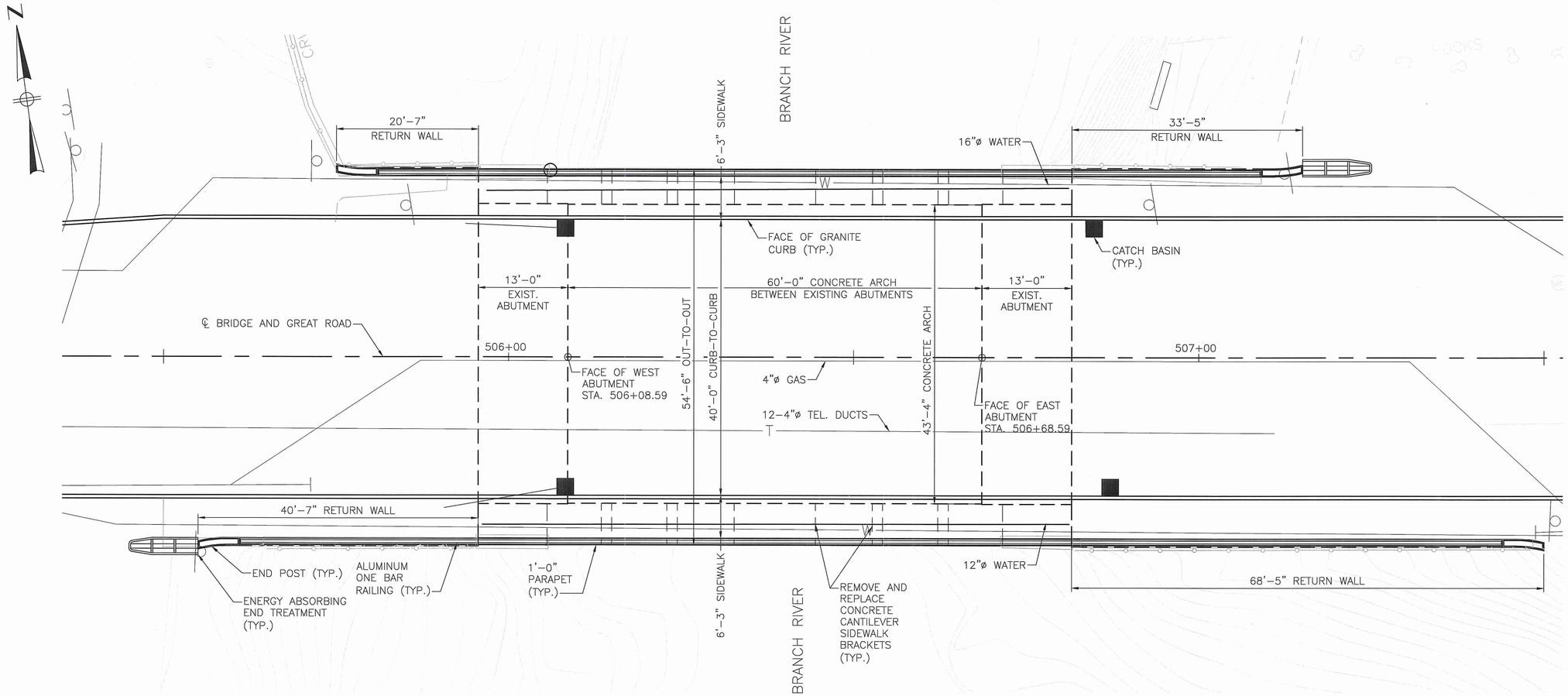
BRIDGE NOTES 2

BRIDGE 108 - BRANCH RIVER

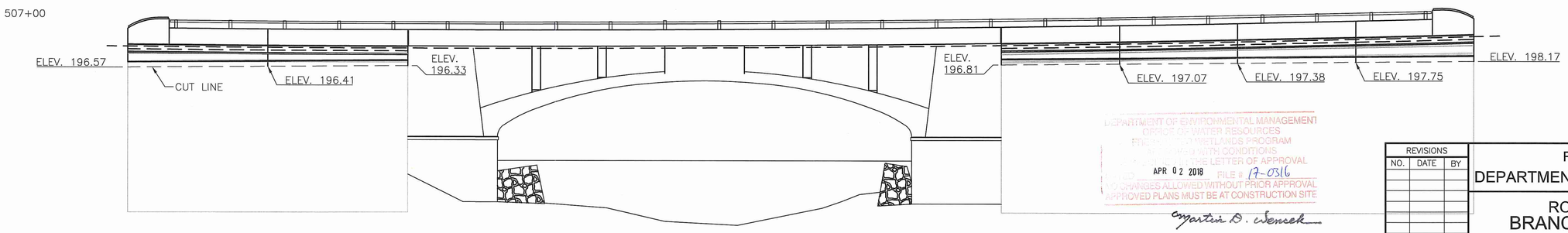
CHECKED BY SBS DATE 09-13-17 SCALE NO SCALE

0013L_V1_00X_108_BRGSTDNOT02

FED. ROAD DIV. NO.	STATE	FEDERAL AID PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
	RI	XXX-XXXX(XXX)	2017	23	28



BRIDGE PLAN
SCALE: 1/8" = 1'-0"



ELEVATION
SCALE: 1/8" = 1'-0"

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
AS NOTED IN THE LETTER OF APPROVAL
APR 02 2018 FILE # 17-0316
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Tel: (401) 751-5360

RHODE ISLAND
DEPARTMENT OF TRANSPORTATION

ROUTINE BRIDGE
BRANCH RIVER BRIDGE

NORTH SMITHFIELD RHODE ISLAND

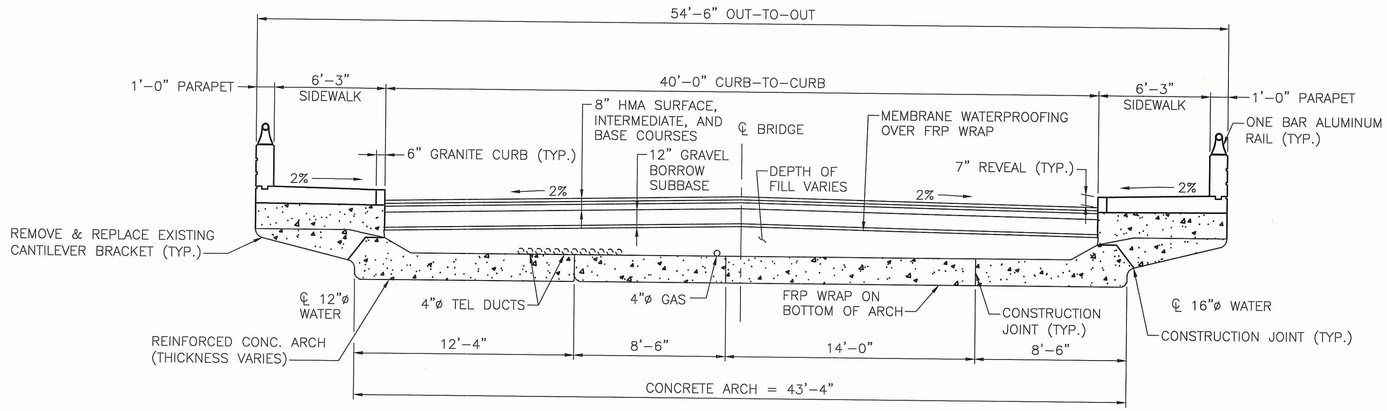
GENERAL PLAN AND ELEVATION

BRIDGE 108 - BRANCH RIVER

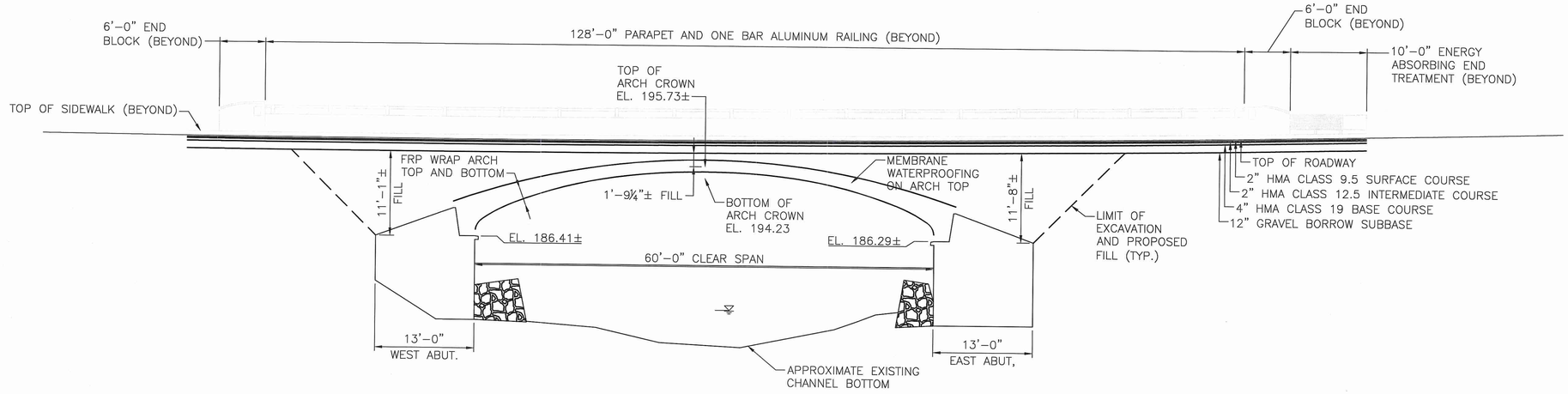
CHECKED BY _____ DATE _____ SCALE AS NOTED

0013I_V1_00X_108_BRGGENERAL_v2

FED. ROAD DIV. NO.	STATE	FEDERAL AID PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
	RI	XXX–XXXX(XXX)	2017	24	28



TRANSVERSE SECTION AT CROWN
SCALE: 1/4" = 1'–0"



LONGITUDINAL SECTION
SCALE: 1/8" = 1'–0"

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
WETLANDS PROGRAM
WITH CONDITIONS
SEE LETTER OF APPROVAL
APR 02 2018 FILE # A-0316
WORKS ALLOWED WITHOUT PRIOR APPROVAL
APPROVED PLANS MUST BE AT CONSTRUCTION SITE
Cynthia D. Wenck

REVISIONS		
NO.	DATE	BY

CDM Smith
260 West Exchange Street, Suite 300
Providence, RI 02903
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RHODE ISLAND
DEPARTMENT OF TRANSPORTATION

ROUTINE BRIDGE
BRANCH RIVER BRIDGE

NORTH SMITHFIELD RHODE ISLAND

TRANSVERSE AND LONGITUDINAL SECTIONS
BRIDGE 108 - BRANCH RIVER

CHECKED BY _____ DATE _____ SCALE AS NOTED

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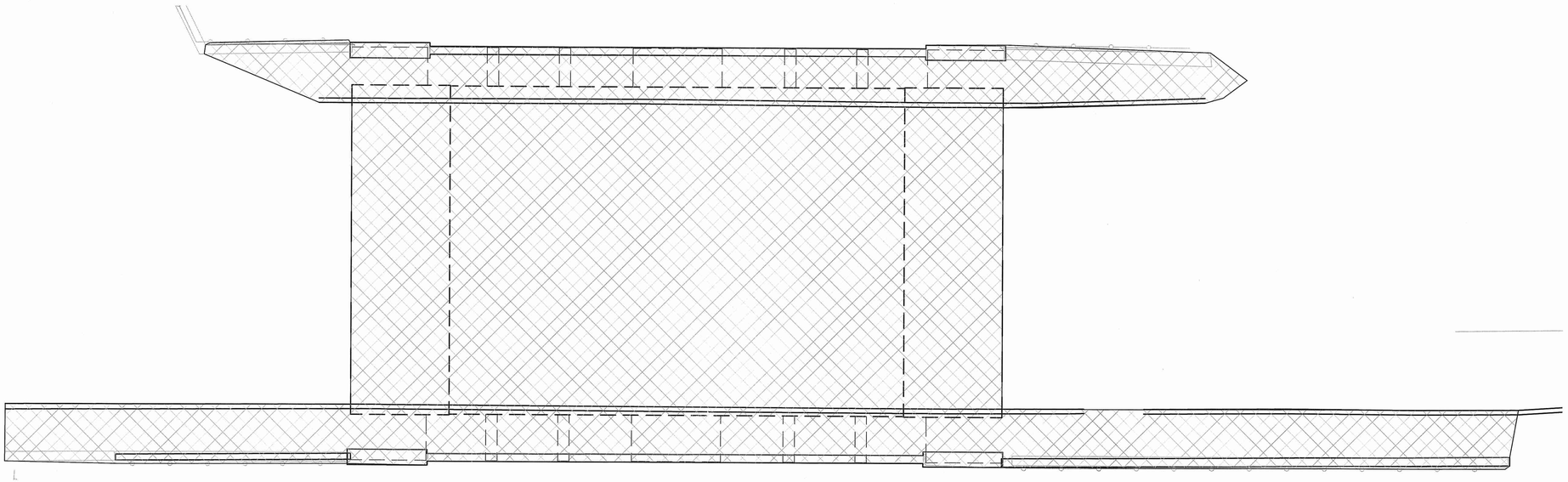
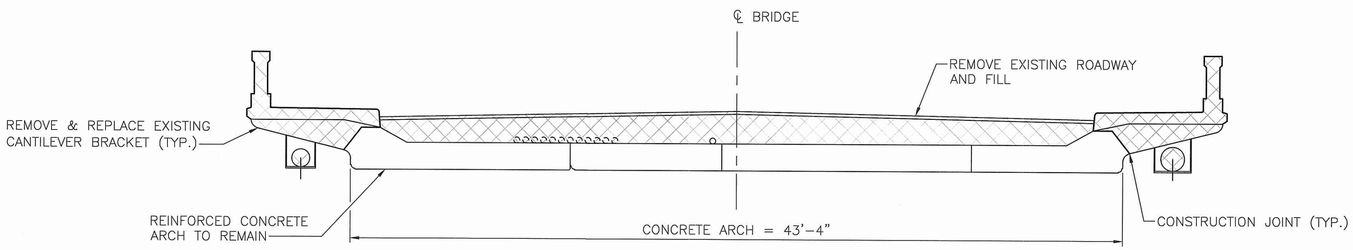
FED. ROAD DIV. NO.	STATE	FEDERAL AID PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
	RI	XXX–XXXX(XXX)	2017	25	28



DEMOLITION PLAN
SCALE: 1/8" = 1'–0"



TRANSVERSE SECTION
SCALE: 1/4" = 1'–0"

DEMOLITION LEGEND

REMOVE SUPERSTRUCTURE

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
AS SPECIFIED IN THE LETTER OF APPROVAL
DATED APR 02 2018 FILE # 17-0516
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
APPROVED PLANS MUST BE AT CONSTRUCTION SITE
Martin D. Wencek

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BRANCH RIVER BRIDGE

NORTH SMITHFIELD RHODE ISLAND

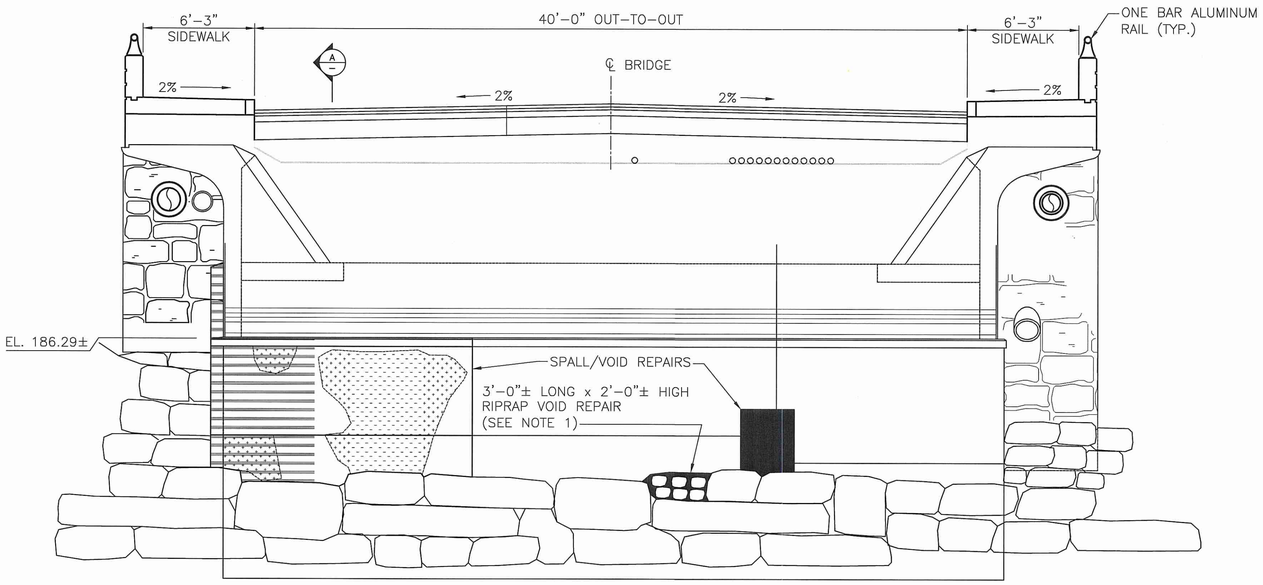
DEMOLITION PLAN

BRIDGE 108 - BRANCH RIVER

CHECKED BY _____ DATE _____ SCALE AS NOTED

0013L_V1_00X_108_DEMO

FED. ROAD DIV. NO.	STATE	FEDERAL AID PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
	RI	XXX–XXXX(XXX)	2017	26	28



EAST ABUTMENT ELEVATION

SCALE: 3" = 1'–0"

WEST ABUTMENT ELEVATION

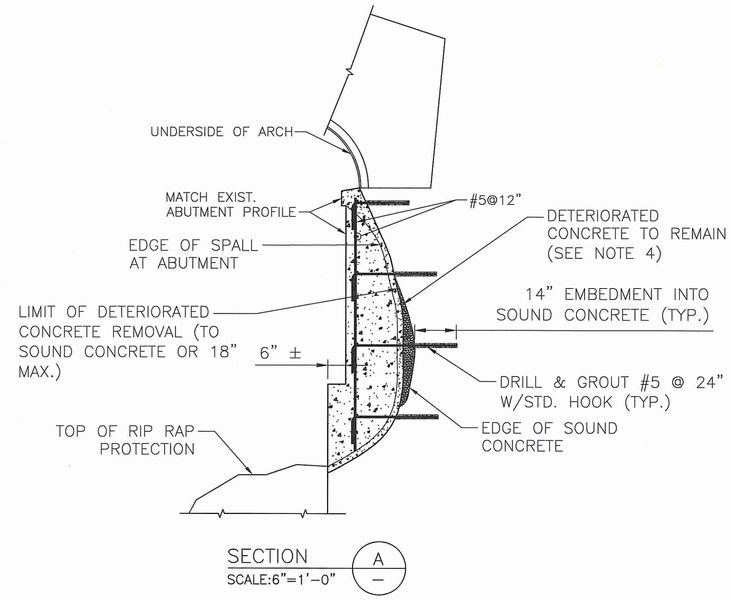
SCALE: 3" = 1'–0"

GENERAL NOTES:

1. RIPRAP VOIDS SHALL BE FILLED WITH DUMPED R–8 AND R–4 RIPRAP PER JOB SPECIFIC SPECIFICATIONS.

CONCRETE REPAIR NOTES

2. REPAIR SECTION A SHALL TAKE PLACE DURING THE CLOSURE OF THE PORTION OF THE ROADWAY ABOVE THE SPALLED AREA.
3. REPAIR SECTION A SHALL BE COMPLETED IN TWO STAGES. REPAIR STAGE 1 SHALL BE COMPLETED PRIOR TO BEGINNING REPAIR STAGE 2.
4. CONTRACTOR SHALL CONTACT THE ENGINEER FOR FURTHER INSTRUCTIONS SHOULD MORE THAN 50% OF THE AREA REMAIN UNSOUND CONCRETE AFTER REMOVAL OF UNSOUND CONCRETE TO A DEPTH OF 18".



SECTION A

SCALE:6"=1'–0"

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FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
AS SPECIFIED IN THE LETTER OF APPROVAL
DATED APR 02 2018 FILE # A-836
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
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LEGEND/ABBREVIATIONS:

STAGE I CONCRETE REPAIR

STAGE II CRACK REPAIR

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DEPARTMENT OF TRANSPORTATION

ROUTINE BRIDGE
BRANCH RIVER BRIDGE

NORTH SMITHFIELD RHODE ISLAND

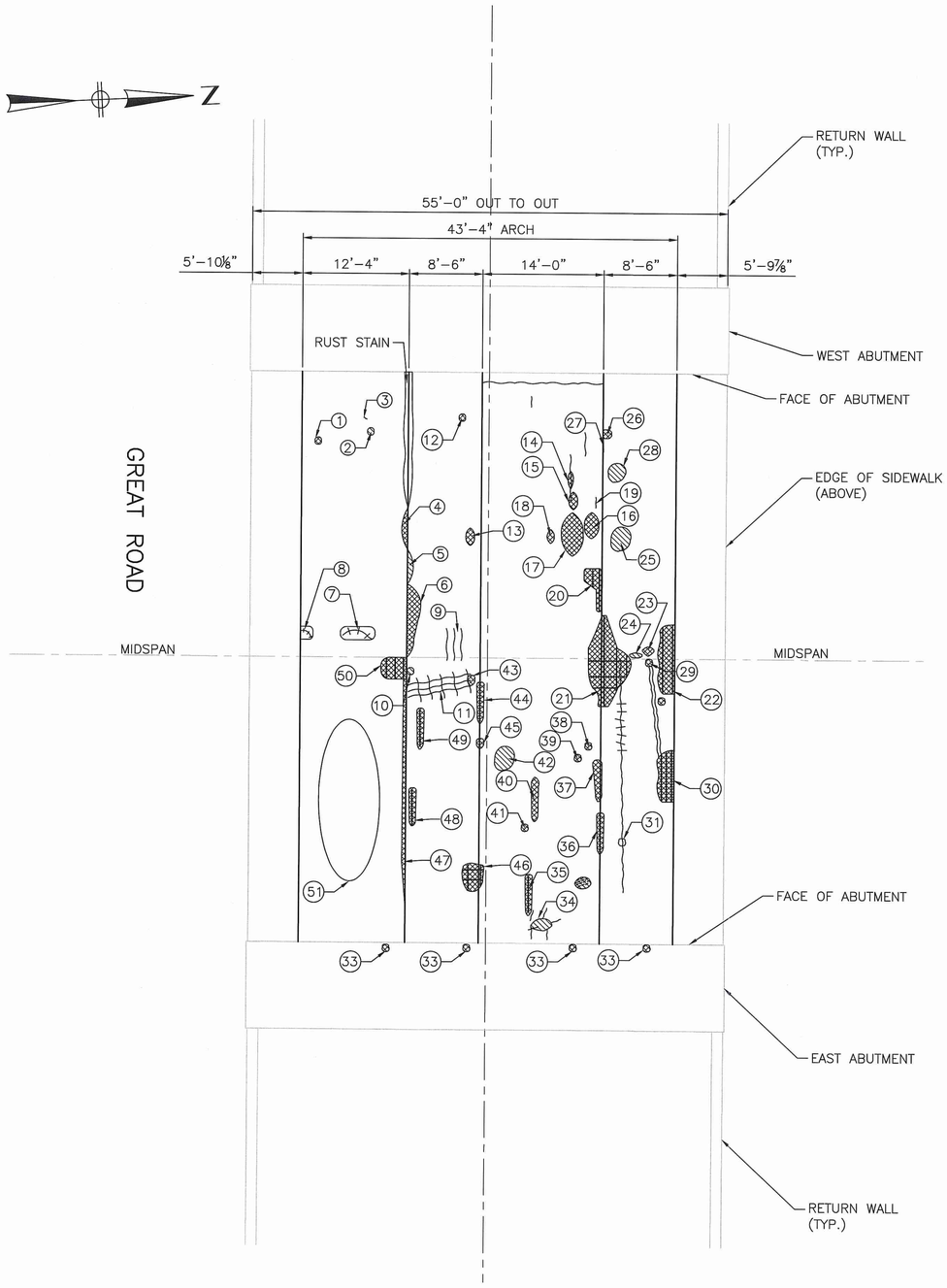
ABUTMENT ELEVATIONS AND REPAIRS

BRIDGE 108 - BRANCH RIVER

CHECKED BY _____ DATE _____ SCALE AS NOTED

0013L_V1_00X_108_ABUTREPAIRS

FED. ROAD DIV. NO.	STATE	FEDERAL AID PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
	RI	XXX-XXXX(XXX)	2017	27	28



ARCH EXISTING CONDITIONS PLAN
SCALE: 1/8" = 1'-0"

EXISTING CONDITION NOTES:
1. 10"L x 9"W x 1.5"D SPALL WITH EXPOSED REBAR 70% SECTION LOSS
2. 11"L x 8"W DELAMINATION
3. 1" DIA PD DRILLED HOLES (3)
4. 4'-10"L x 1'-2"W x 4"D SPALL WITH EXPOSED DEBONDED REBAR – 2'-0"L 50% SECTION LOSS
5. 4'L x 8"W HOLLOW AREA
6. 8'-6"L x 1'-7"W x 3"D SPALL WITH EXPOSED REBAR (3) AND 2 DEBONDED LAPS
7. 1'-6"L x 4'-0"W DELAMINATION WITH EFFLORESCENCE
8. 1'-6"DIA DELAMINATION WITH EFFLORESCENCE
9. HLCR WITH MOISTURE 9'-3"L
10. 6"SQ DELAMINATION WITH 5'-0"L CRACK WITH RS AT MIDSPAN
11. FW AREA OF MAP CRACKING
12. 1'-0"DIA x 2"D SPALL WITH EXPOSED REBAR 10% SECTION LOSS
13. 2'-0"L x 1'-0"W x 1½"D SPALL WITH EXPOSED REBAR AT LAP
14. 1'-11"L x 7"W x 1"D SPALL WITH EXPOSED REBAR
15. 1'-9"L x 1'-6"W x 1½"D SPALL WITH EXPOSED REBAR 50% SECTION LOSS
16. 3'-0"L x 1'-8"W x 1½"D SPALL WITH EXPOSED REBAR OVERLAP. CROSSING REBAR 30% SECTION LOSS.
17. 5'-0"L x 2'-6"W x 1½"D SPALL WITH EXPOSED REBAR OVERLAP. CROSSING REBAR 30% SECTION LOSS.
18. 1'-7"L x 10"W x 2"D SPALL WITH EXPOSED REBAR OVERLAP ($\frac{11}{16}$"DIA REBAR)
19. 2'-0"DIA MAP CRACKING WITH LEAKAGE EFFLORESCENCE AND INCRUSTATION
20. 4'-0"L x 2'-0"W x 2½"D SPALL WITH 2 LINES OF EXPOSED REBAR DEBONDED 4'L. REBAR $\frac{11}{16}$"DIA REMAINING.
21. 10'-6"L x 5'-0"W x 3"D SPALL WITH EXPOSED REBAR UP TO 100% SECTION LOSS DEBONDED 4'L
22. 5'-0"L x 2'-0"W x 2½"D SPALL WITH 3 LINES OF EXPOSED REBAR, UP TO 50% SECTION LOSS
23. 1'-5"L x 1'-9"W x 1½"D SPALL WITH EXPOSED REBAR 50% SECTION LOSS
24. 1'-3"W DELAMINATION/HA
25. 6'-0"L x 2'-6"W x 1"D DELAMINATION WITH EXPOSED DEBONDED REBAR 2'-0"L AT LAP
26. 1'-0"L x 1'-0"W x 1"D SPALL WITH EXPOSED REBAR 50% SECTION LOSS
27. ACRUED LEAKAGE 1'-7" NORTH
28. 1"D DELAMINATION/HA
29. 5'-7"L x $\frac{3}{32}$"W SPALL
30. 6'-0"L x 2'-0"W x 3"D SPALL WITH EXPOSED BROKEN DEBONDED REBAR 3'-0"L. REMAINING REBARS 30% SECTION LOSS. ACTIVE LEAKAGE EFFLORESCENCE & STALACTITES.
31. LEAKAGE, EFFLORESCENCE & STALACTITES
32. SEGD: RANDOM HLCR THROUGHOUT; SEGC: T/O
33. WEEPHOLES
34. 2'-4"W x 8"L DELAMINATION
35. 3'-0"L x 9"W x 1"D SPALL WITH EXPOSED REBAR
36. 2'-0"L x 8"W x 1"D SPALL WITH HEAVY EFFLORESCENCE RUST STAINS
37. 2'-4"L x 7"W x 1½"D SPALL WITH EXPOSED REBAR 50% SECTION LOSS
38. 10'-0"L x 13"W x 1"D SPALL WITH EXPOSED REBAR
39. 10"L x 8"W x 1½"D SPALL WITH EXPOSED REBAR
40. 4'-3"L x 1'-6"W x 1½"D SPALL WITH EXPOSED REBAR DEBONDED AT LAP
41. 6"L x 4"W x 1"D SPALL WITH EXPOSED REBAR
42. 1'-4"DIA DELAMINATION/HA
43. 1'-3"L x 7"W x 1"D SPALL WITH EXPOSED REBAR
44. 4'-9"L x 10"W x 2'-0"D SPALL WITH EXPOSED REBAR 20% SECTION LOSS
45. 11"L x 6"W x 1½"D SPALL WITH EXPOSED REBAR 20% SECTION LOSS
46. 3'-0"L x 1'-7"W x 3"D SPALL WITH EXPOSED REBAR
47. 9'-3"L REBAR EXPOSED SOUTH x 4½"W x FULL DEPTH OF JOINT SPALL WITH REBAR PROTRUDING NORTH END – 10'-0"L DEBONDED TO NORTH QUARTER PT.
48. 4'-4"L x 5"W x FULL DEPTH OF JOINT SPALL WITH EXPOSED REBAR AT 50% SECTION LOSS
49. 6'-0"L x 2'-0"W x FULL DEPTH OF JOINT/1½"D SPALL WITH DEBONDED REBAR AT LAP (3 LINES EXPOSED) – 50% SECTION LOSS
50. 3'-0"L x 2'-6"W x 2"D SPALL WITH EXPOSED REBAR
51. HONEY COMBING

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
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Jennifer D. Wenech

LEGEND/ABBREVIATIONS:

	DELAMINATION/HOLLOW AREA	HLCR	HAIRLINE CRACK
	SPALL	SQ	SQUARE
	CRACK	RS	RUST STAINING
	CRACK WITH EFFLORESCENCE	DIA	DIAMETER
L	LENGTH	HA	HOLLOW AREA
W	WIDTH	H	HOLLOW
D	DEPTH	FW	FULL WIDTH AREA
PD	PARTIAL DEPTH		

NOTE:
1. EXISTING STRUCTURE INFORMATION IS APPROXIMATE AND BASED ON RECORD PLANS.
2. CONTRACTOR SHALL FIELD VERIFY ALL DEFICIENCIES PRIOR TO CONSTRUCTION.

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RHODE ISLAND
DEPARTMENT OF TRANSPORTATION

ROUTINE BRIDGE
BRANCH RIVER BRIDGE

NORTH SMITHFIELD RHODE ISLAND

ARCH EXISTING CONDITIONS PLAN

BRIDGE 108 - BRANCH RIVER

CHECKED BY _____ DATE _____ SCALE AS NOTED

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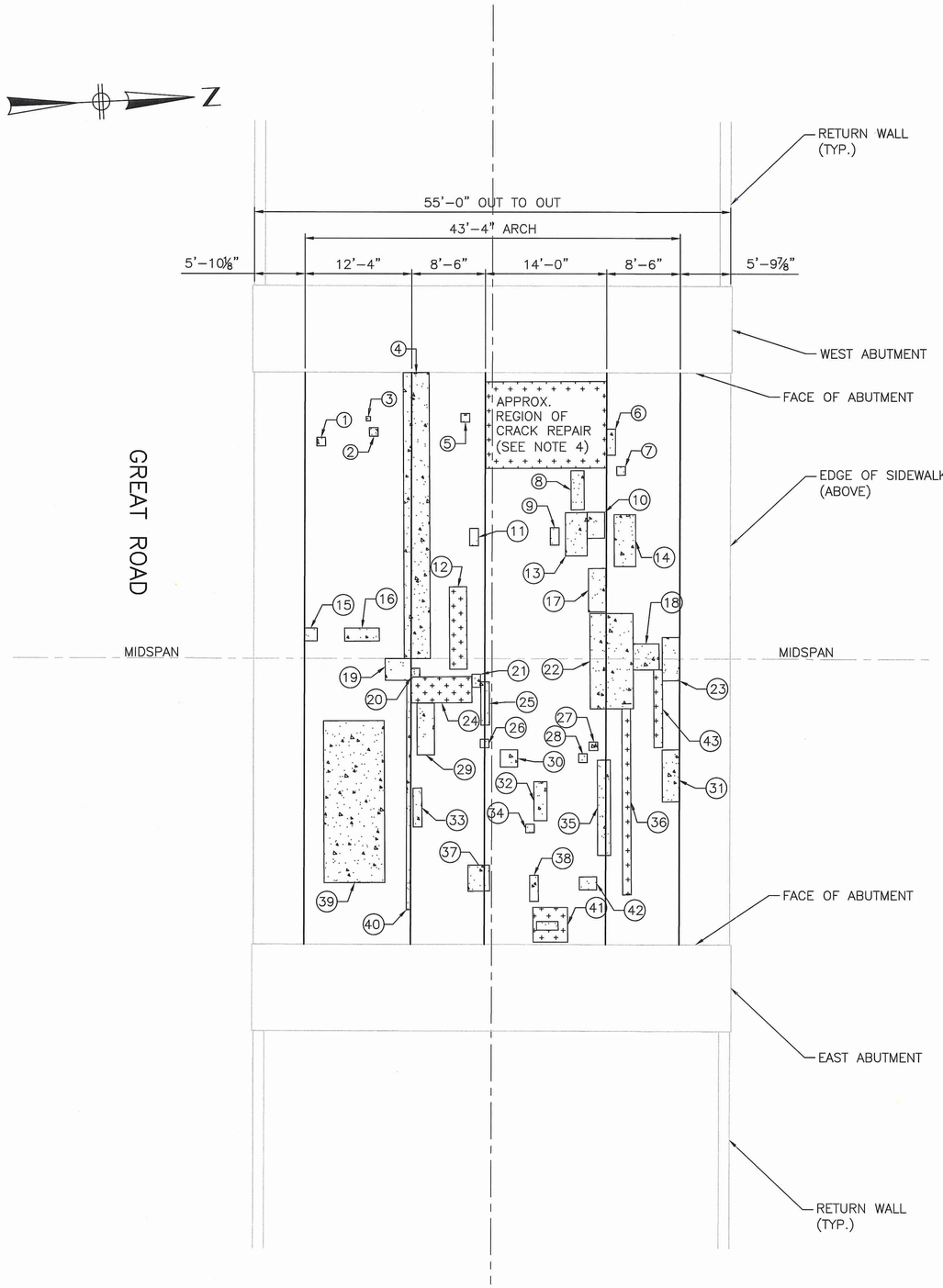
FED. ROAD DIV. NO.	STATE	FEDERAL AID PROJECT NO.	FISCAL YEAR	SHEET NO.	S
	RI	XXX–XXXX(XXX)	2017	28	



ARCH REPAIR PLAN
SCALE: 1/8" = 1'–0"

CONCRETE REPAIR NOTES:
1. 1'–0"L x 1'–0"W CONC. REPAIR.
2. 1'–0"L x 1'–0"W CONC. REPAIR.
3. APPROXIMATE REGION OF CRACK REPAIR (SEE NOTE 4).
4. 18'–0"L x 3'–0"W CONC. REPAIR.
5. 1'–0"L x 1'–0"W CONC. REPAIR.
6. 3'–0"L x 1'–0"W CONC. REPAIR.
7. 1'–0"L x 1'–0"W CONC. REPAIR.
8. 4'–6"L x 1'–6"W CONC. REPAIR.
9. 2'–0"L x 1'–0"W CONC. REPAIR.
10. 3'–0"L x 2'–0"W CONC. REPAIR.
11. 2'–0"L x 1'–0"W CONC. REPAIR.
12. APPROXIMATE REGION OF CRACK REPAIR (SEE NOTE 4).
13. 5'–0"L x 2'–6"W CONC. REPAIR.
14. 6'–0"L x 2'–6"W CONC. REPAIR.
15. 1'–6"L x 1'–6"W CONC. REPAIR.
16. 1'–6"L x 4'–0"W CONC. REPAIR.
17. 5'–0"L x 2'–0"W CONC. REPAIR.
18. 3'–0"L x 3'–0"W CONC. REPAIR.
19. 3'–0"L x 2'–6"W CONC. REPAIR.
20. 1'–0"L x 1'–0"W CONC. REPAIR.
21. 1'–6"L x 1'–0"W CONC. REPAIR.
22. 11–0"L x 5'–0"W CONC. REPAIR.
23. 5'–0"L x 2'–0"W CONC. REPAIR.
24. APPROXIMATE REGION OF CRACK REPAIR (SEE NOTE 4).
25. 5'–0"L x 1'–0"W CONC. REPAIR.
26. 1'–0"L x 1'–0"W CONC. REPAIR.
27. 1'–0"L x 1'–0"W CONC. REPAIR.
28. 1'–0"L x 1'–0"W CONC. REPAIR.
29. 6'–0"L x 2'–0"W CONC. REPAIR.
30. 2'–0"L x 2'–0"W CONC. REPAIR.
31. 6'–0"L x 2'–0"W CONC. REPAIR.
32. 4'–6"L x 1'–6"W CONC. REPAIR.
33. 4'–6"L x 1'–0"W CONC. REPAIR.
34. 1'–0"L x 1'–0"W CONC. REPAIR.
35. 11'–0"L x 1'–6"W CONC. REPAIR.
36. APPROXIMATE REGION OF CRACK REPAIR (SEE NOTE 4).
37. 3'–0"L x 2'–6"W CONC. REPAIR.
38. 3'–0"L x 1'–0"W CONC. REPAIR.
39. 19'–0"L x 7'–0"W CONC. REPAIR.
40. 26'–6"L x 6"W CONC. REPAIR.
41. 1'–0"L x 2'–6"W CONC. REPAIR, WITH ADJACENT REGION OR CRACK REPAIR.
42. 1'–6"L x 2'–0"W CONC. REPAIR.
43. APPROXIMATE REGION OF CRACK REPAIR (SEE NOTE 4).

NOTES:
1. REFER TO SHEET ## FOR LIST OF ABBREVIATIONS.
2. REFER TO SHEET ## FOR GENERAL NOTES.
3. REFER TO SHEET ## FOR CONCRETE REPAIR DETAILS.
4. FOR CRACK REPAIRS, REFER TO RIDOT STANDARD SPECIFICATION SECTION 836 – STRUCTURAL CONCRETE CRACK REPAIR BY EPOXY–RESIN BASE ADHESIVE INJECTION.
5. EXISTING STRUCTURE INFORMATION IS APPROXIMATE AND BASED ON RECORD PLANS.
6. REPAIR LIMITS SHOWN ARE APPROXIMATE AND SHALL BE VERIFIED BY THE CONTRACTOR PRIOR TO THE COMMENCEMENT OF DEMOLITION. THE CONTRACTOR SHALL PROVIDE THE RESIDENT ENGINEER AND ENGINEER THE ANTICIPATED REPAIR LIMITS.
7. UNDERSIDE OF ARCH REPAIRS SHALL NOT BE PERFORMED UNTIL THE TOP OF ARCH IS EXPOSED AND THE EXISTING CONDITIONS ARE DETERMINED. FULL DEP REPAIRS MAY BE REQUIRED BASED UPON THE TOP OF ARCH CONDITION. THE CONTRACTOR SHALL NOTIFY THE RESIDENT ENGINEER AND ENGINEER ONCE THE TOP OF ARCH IS EXPOSED OR PROVIDE A SKETCH OF EXISTING CONDITIONS.
8. CONCRETE SURFACE TREATMENT (PROTECTIVE COATING) SHALL BE APPLIED TO THE FASCIA AND UNDERSIDE OF ARCH UPON COMPLETION OF THE CONCRETE REPAIRS.

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Martin D. Wencek

LEGEND/ABBREVIATIONS:

L	LENGTH		PROPOSED CONCRETE REPAIR
W	WIDTH		
D	DEPTH		PROPOSED CRACK REPAIR
SQ	SQUARE		
DIA	DIAMETER		
PD	PARTIAL DEPTH		
FW	FULL WIDTH AREA		

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REVISIONS		
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ROUTINE BRIDGE
BRANCH RIVER BRIDGE
NORTH SMITHFIELD RHODE ISLA
ARCH REPAIR PLAN
BRIDGE 108 - BRANCH RIVER
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