FED. ROAD DIV. NO.	STATE	FEDERAL AID PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
1	R.I.			1	47

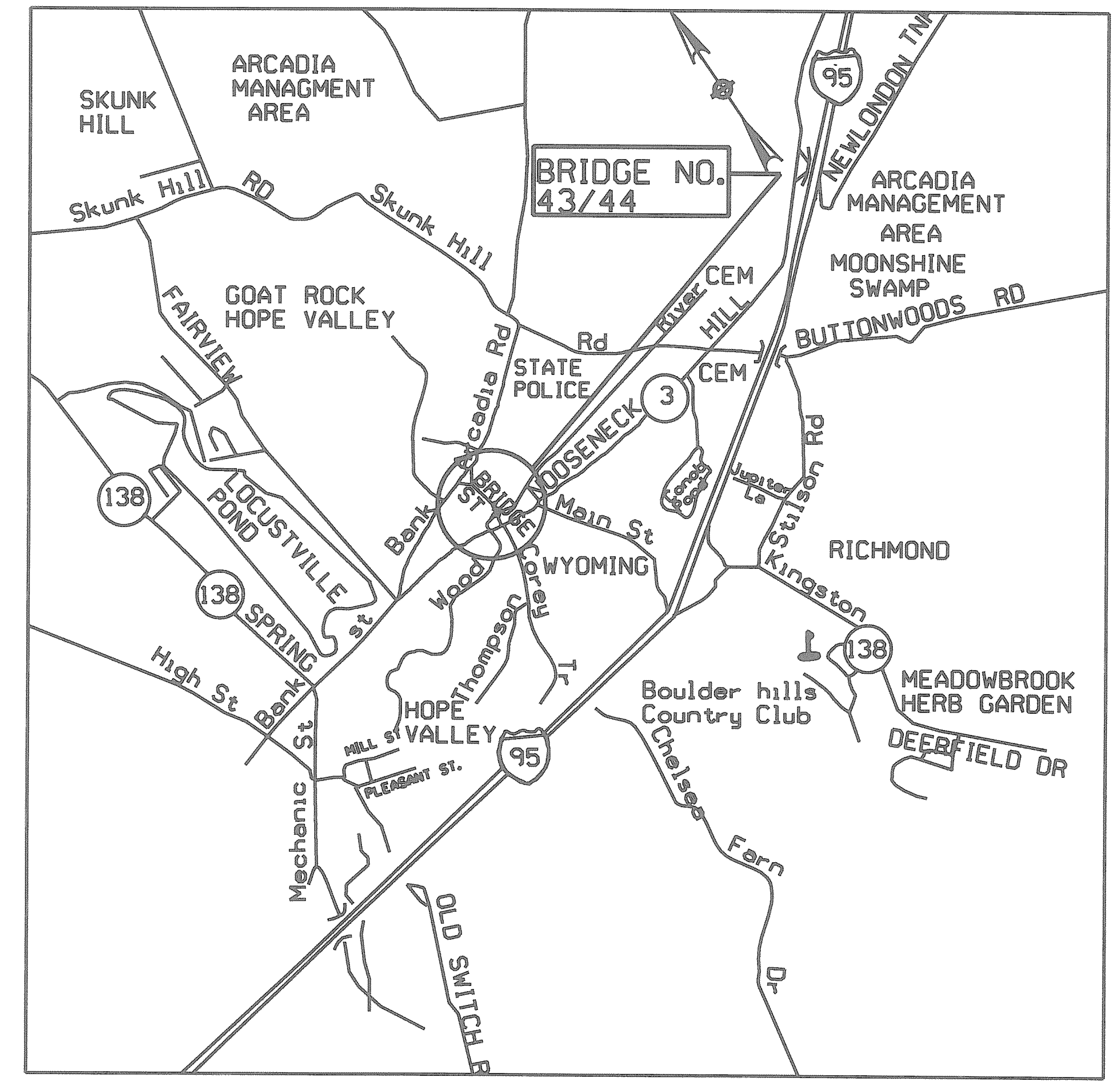
STATE OF RHODE ISLAND
DEPARTMENT OF TRANSPORTATION

PROPOSED
BRIDGE REPLACEMENT
OF
WYOMING BRIDGES NO. 43 & 44
OVER
WOOD RIVER

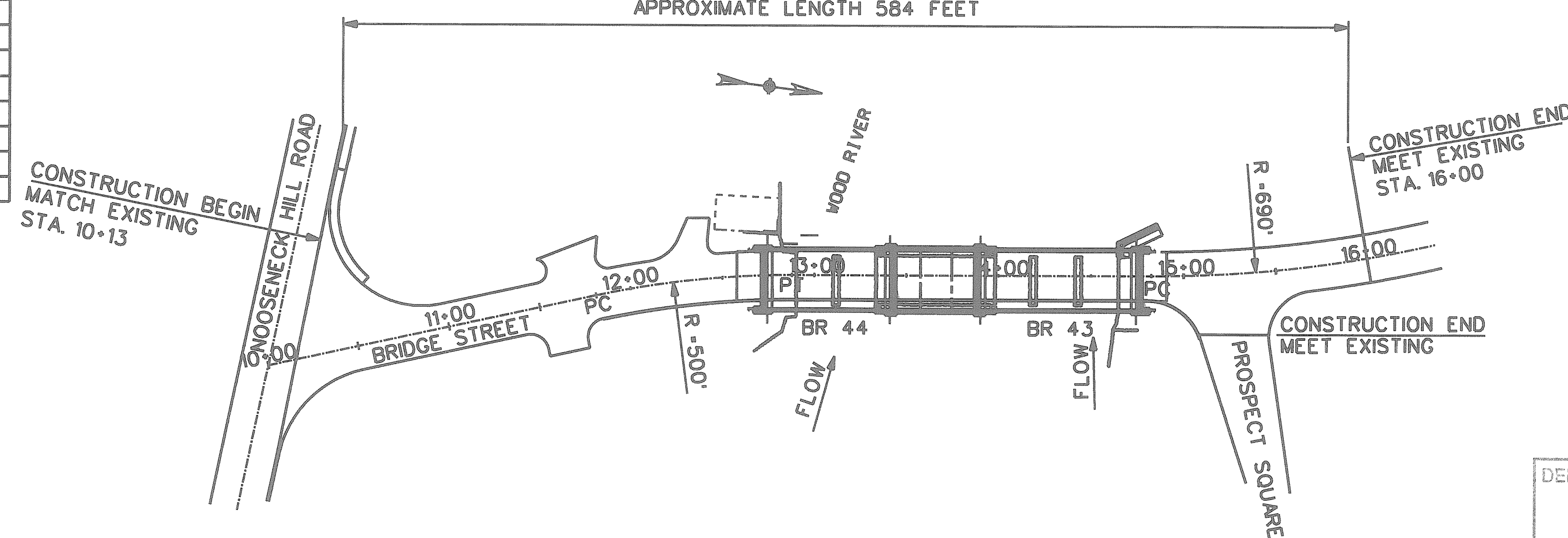
RICHMOND/HOPKINTON, RHODE ISLAND
RHODE ISLAND CONTRACT NO. 93128
FEDERAL AID PROJECT NO. BRM-BCDR (003)

DRAWINGS INDEX

SHEET NO.	DESCRIPTION
1	TITLE
2	LEGEND
3	STANDARD NOTES-1
4	STANDARD NOTES-2
5	WETLAND INTRUSION PLAN
6	DRAINAGE INLET PLAN
7	TYPICAL ROADWAY SECTIONS
8	GENERAL PLAN
9.	LOCATION PLAN
10.	DRAINAGE-UTILITY PLAN
11.	CONSTRUCTION DETAILS-1
12.	CONSTRUCTION DETAILS-2
13.	CONSTRUCTION DETAILS-3
14.	TRAFFIC MAINTENANCE AND DETOUR PLAN
15.	ROADWAY PROFILE
16.	BRIDGE STREET CROSS SECTIONS - STA. 10+50 TO STA. 12+00.
17.	BRIDGE STREET CROSS SECTIONS - STA. 12+36 TO STA 12+67
18.	BRIDGE STREET CROSS SECTIONS - STA. 13+75 TO STA 14+75
19.	BRIDGE STREET CROSS SECTIONS - STA. 15+00 TO STA 16+00
20.	GENERAL NOTES
21.	BRIDGE PLAN AND ELEVATION
22.	DEMOLITION PLAN
23.	ABUTMENT 1 PLAN, ELEVATION AND DETAILS
24.	ABUTMENTS 2 AND 3 PLAN AND ELEVATION
25.	ABUTMENTS 2 AND 3 DETAILS
26.	ABUTMENT 4 PLAN, ELEVATION AND DETAILS
27.	RETAINING WALLS #2 AND #3 PLAN
28.	FOOTING PLAN WALLS #2 AND #3 AND JOINT DETAILS
29.	WALL #3 ELEVATION AND TYPICAL WALL SECTIONS
30.	ABUTMENT JOINT DETAILS
31.	RETAINING WALL #4 PLAN, ELEVATION, SECTION AND ABUTMENT FILL
32.	RETAINING WALL #5 PLAN, ELEVATION AND SECTION
33.	BRIDGE CROSS SECTION AND CURB DETAILS
34.	BRIDGE 44-FRAMING PLAN
35.	BRIDGE 43/44 PRESTRESSED BOX BEAMS CROSS SECTIONS - I
36.	BRIDGE 43/44 PRESTRESSED BOX BEAMS CROSS SECTIONS - II
37.	BRIDGE 43-FRAMING PLAN
38.	BRIDGE 43/44 PRESTRESSED BOX BEAMS CROSS SECTIONS - III
39.	BRIDGE 43/44 PRESTRESSED BOX BEAMS CROSS SECTIONS - IV
40.	POST TENSION/LATERAL TIES DETAILS
41.	BRIDGE RAIL DETAILS
42.	BRIDGE END POST PLAN AND DETAILS
43.	BORING LOGS - 1
44.	BORING LOGS - 2
45.	BORING LOGS - 3
46.	TEST PITS -1
47.	TEST PITS -2



LOCUS MAP



WYOMING BRIDGE NO. 43/44
BRIDGE STREET
(ARCADIA RD)

SCALE 1" = 60'

RHODE ISLAND SPECIFICATIONS AND STANDARD DETAILS

SPECIFICATIONS TO GOVERN THIS PROJECT ARE RI STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, 2004 EDITION AND THE STATE AND THE FEDERAL SPECIAL PROVISIONS INCLUDED IN THE CONTRACT DOCUMENTS. STANDARD DETAILS FOR THIS PROJECT ARE RI STANDARD DETAILS, JUNE 15, 1998.

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

MAY 6 2008

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
AS SPECIFIED IN THE LETTER OF APPROVAL
DATED JUN 13 2008 FILE # 08-0043
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
APPROVED PLANS MUST BE AT CONSTRUCTION SITE.

Martin D. Wencek

ALAN M. ...OVITZ
No.
REGISTERED PROFESSIONAL ENGINEER

PAVEMENT COMPOSITION

BRIDGE:

1½" BIT. SURFACE COURSE TYPE I-1
1½" MIN. BRIDGE BINDER

ROADWAY:

2" BITUMINOUS SURFACE COURSE, TYPE I-1
2" BITUMINOUS BINDER COURSE
3" BITUMINOUS BASE COURSE

TRAFFIC DATA DESIGN YEAR 2020

AADT 1850 VPD (2000)
TRUCK PERCENTAGE = 9%
DESIGN SPEED = 30 MPH

HYDRAULIC DATA

DRAINAGE AREA:	58.5 SQUARE MILES
DESIGN DISCHARGE:	2125 C. F. S.
DESIGN FREQUENCY:	100-YEAR STORM
DESIGN VELOCITY:	8.93 F. P. S.
DESIGN HIGH WATER:	85.93 FEET

SOIL PRESSURE

ALLOWABLE FOUNDATION PRESSURE 3 TSF

RIDEM SUBMISSION

R. I. DEPARTMENT OF TRANSPORTATION

APPROVED
CHIEF OF DESIGN ____ DATE ____

APPROVED
CHIEF ENGINEER ____ DATE ____

APPROVED
DIRECTOR ____ DATE ____

DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

DIVISION ADMINISTRATION ____ DATE ____

RI STATEWIDE COORDINATE SYSTEM
NAD 1983

BASE OF LEVELS
NGVD29

SCALE OF DRAWING
AS NOTED

CONTRACT NUMBER ....
NUMBER OF SHEET ....1....
TOTAL SHEETS ....47....

Dewberry
Dewberry-Goodkind, Inc.
A Dewberry Company
280 Summer St. 10th Floor - Boston, MA 02110
Phone: (617) 695-3400
Fax: (617) 695-3310

PROJECT: WYOMING
RHODE ISLAND, TOWN OF RICHMOND/HOPKINTON
BRIDGE STREET OVER WOOD RIVER BRIDGE NOS. 43/44
100% DESIGN SUBMISSION
FILE: M:\15200.44\CAD\PS&E\PRINTINGSHEETS\SHT 01.DGN

IN CHARGE OF: EB GK
DESIGNED BY: JN, SK, GK
DESIGN CHECKED BY: JN, SK, GK
DETAILED BY: JN, SK, GK
DETAIL CHECKED BY: SK

TIME: $TIME$

FED.DIV. ROAD NO.	STATE	FEDERAL AID PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
	R.I.			2	47

PROJECT: WYOMING
RHODE ISLAND, TOWN OF RICHMOND\HOPKINTON
BRIDGE STREET OVER WOOD RIVER BRIDGE NOS. 43\44
100% DESIGN

In Charge Of: EB
Designed By: SK, LD, GK
Design Checked By: SK
Detailed By: SK, LD, GK
Detail Checked By: SK

EXISTING

	EDGE OF PAVEMENT
	BERM
	CURB
	GUARDRAIL
	MAILBOX
-O-NO.	UTILITY POLE
GUY	POLE GUY
	LUMINARE
	SIGN
(SIZE)UD	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
	PERMANENT EASEMENT LINE
	TEMPORARY EASEMENT LINE
℄	PROPERTY LINE
CITY NAME / TOWN NAME	CITY OR TOWN LINE
PWW / ELEV.	PAVED WATERWAY
ELEV.	CONTOUR LINE
	OPEN DITCH
R.I.H.B. / S.B.	R.I. HIGHWAY BOUND
	STONE BOUND
	RETAINING WALL
	FIELD STONE WALL
NO. / TYPE	BORINGS
	FENCE
	WOOD OR BRUSH LINE
	TREES
(NAME)	RIVER OR STREAM
	WETLAND
NO. / TYPE / MATERIAL	BUILDING
	FOUNDATION
	EXISTING BUILDING TO BE REMOVED
	RAILROAD TRACKS
	CUT AND MATCH
	RIP-RAP
	CUT SLOPE
	FILL SLOPE
	ROCK CUT
00x00	SPOT GRADE
	AREA GRADED TO DRAIN
	BALED HAY RI STD 9.1.0
	BALED HAY RI STD. 9.3.0
123 124 125	EDGE OF WETLAND
	WETLAND PERIMETER
ASSF	AREA SUBJECT TO STORM FLOWAGE
	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
P.E.B.	PERMANENT EASEMENT LINE
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
	BUILDING
	FOUNDATION
	EXISTING 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 RI STD. 9.3.0
	EDGE OF WETLAND
	WETLAND PERIMETER
	AREA SUBJECT TO STORM FLOWAGE
	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 (X)	POST AND MULTIPLE MOUNTINGS FOR RURAL MAILBOXES (NO.)
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 (X)	COLD PLANE (DEPTH)
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

MAY 6 2008

PAVEMENT STRUCTURE

A (X")	BITUMINOUS SURFACE COURSE
B (X")	BITUMINOUS BASE COURSE
C (X")	GRAVEL BORROW SUBBASE COURSE

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

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
AS SPECIFIED IN THE LETTER OF APPROVAL
DATED JUN 1 5 2008 FILE # 08-0043
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
APPROVED PLANS MUST BE AT CONSTRUCTION SITE.

Dewberry
Dewberry - Goodkind, Inc.
A Dewberry Company
260 SUMMER STREET
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RIDEM SUBMISSION

REVISIONS NO.	DATE	BY

RHODE ISLAND
DEPARTMENT OF TRANSPORTATION

BRIDGE REPLACEMENT
WYOMING BRIDGE NO. 43/44
RICHMOND/HOPKINTON

STANDARD PLAN SYMBOLS & STANDARD LEGEND

CHECKED BY _____ DATE _____ SCALE AS NOTED

FED.DIV. ROAD NO.	STATE	FEDERAL AID PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
	R.I.			3	47

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 AND 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. ANY SUBCONTRACTORS EMPLOYED BY THE CONTRACTOR OR R.I.D.O.T. ON THIS PROJECT SHALL WORK WITHIN THE SAME PROTECTED WORK AREAS AS THE CONTRACTOR. NO SEPARATE LANE CLOSURES WILL BE PAID FOR.

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

11. 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.

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

13. THE COORDINATE SYSTEM IS THE R.I. STANDARD GRID SYSTEM, NAD 83. THE VERTICAL CONTROL IS NGVD 29.

14. 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.

15. 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.

16. 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.

17. 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.

18. 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.

DRAINAGE AND EROSION CONTROL NOTES:

1. THE CONTRACTOR SHALL READ, BECOME FAMILIAR WITH, AND ADHERE TO ALL OF THE PROVISIONS, CONDITIONS, AND STIPULATIONS STATED IN THE ENVIRONMENTAL PERMITS ISSUED FOR THE PROJECT FROM THE DEPARTMENT OF ENVIRONMENTAL MANAGEMENT (RIDEM). AND/OR THE ARMY CORPS OF ENGINEERS (ACOE). AND/OR THE COASTAL RESOURSE 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).

2. NO UNDISTURBED AREAS SHALL BE CLEARED OF EXISTING VEGETATION AFTER OCTOBER 15 OF ANY CALENDAR YEAR. 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 ADDITIONAL WORK TO CORRECT THE PROBLEM 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.

3. STABILIZATION OF ONE FORM OR ANOTHER AS DESCRIBED ABOVE SHALL BE ACHIEVED WITHIN 15 DAYS OF FINAL GRADING.

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

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 1.
   b. ADHESIVE MULCH STABILIZER

7. DENUDED 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. ALL DRAINAGE PIPES SHALL BE REINFORCED CONCRETE PIPE (RCP), CLASS III, WITH MORTAR JOINTS UNLESS OTHERWISE NOTED ON THE PLANS. ALL RCP 30" AND LARGER SHALL HAVE "O" RING GASKETS, AND THE JOINTS ON THE OUTSIDE OF THE PIPE SHALL BE MORTARED.

13. UPON FINAL ACCEPTANCE STORM WATER DRAINAGE FACILITIES SHALL BE MAINTAINED BY THE R.I.D.O.T., DIVISION OF MAINTENANCE. CATCH BASINS, PIPING SYSTEMS, AND DISCHARGE STRUCTURES SHALL BE ANNUALLY INSPECTED FOR INTEGRITY AND STABILITY.

14. ALL UTILITY AND DRAINAGE WORK, INCLUDING CLEANING AND FLUSHING CATCH BASINS, MANHOLES AND PIPES, SHALL BE COMPLETED PRIOR TO THE REMOVAL OF THE PAVEMENT STRUCTURE.

15. PROVISIONS FOR CLEARING TO ACCESS OUTFALLS DURING THE CLEANING AND FLUSHING OF THE CLOSED DRAINAGE SYSTEM SHALL BE KEPT TO A MINIMUM.
   a. ANY VEGETATIVE CLEARING SHALL BE LIMITED TO BRUSH AND TREES LESS THAN 3" DIAMETER.
   b. NO HEAVY EQUIPMENT MAY ENCROACH UPON VEGETATED PERIMETER OR RIVERBANK WETLANDS AS WELL AS BIOLOGICAL WETLANDS.

16. ALL ACCUMULATED SEDIMENT THAT RESULTS FROM THE CLEANING AND FLUSHING OF PIPE OPERATION MUST BE REMOVED FROM THE PROJECT AND DISPOSED OF PROPERLY IN AN AREA OUTSIDE OF RIDEM OR CRMC JURISDICTION.

17. 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 PROPERLY 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 MAY BE UNPLUGGED TO RESUME NORMAL FUNCTIONING.

18. CLEAN AND FLUSH ALL PIPES WITHIN THE AREA OF WORK WITH PLUG IN PLACE. ALL DEBRIS SHALL BE REMOVED FROM THE CATCH BASIN PRIOR TO REMOVING TEMPORARY PLUG. REMOVE PLUG AND FLUSH LENGTHS OF PIPE TO THE OUTFALL.

DRAINAGE AND EROSION CONTROL NOTES (CONTINUED):

20. 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.

21. 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.

22. SEDIMENTATION BASINS SHALL BE ROUGH GRADED FOR 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.

23. ALL HAY BALES AND SILT FENCE SHALL BE INSTALLED WITH THE LOWER 6" BURIED AND BACKFILLED WITH COMPACTED SOIL MATERIAL. WHEN USED IN COMBINATION, A SUFFICIENT AMOUNT OF SILT FENCE SHALL BE PLACED IN THE TRENCH SO THAT THE HAY BALE STAKES ARE DRIVEN THROUGH THE FABRIC OF THE FENCE.

24. 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, AT NO COST TO THE STATE.

25. DURING CONSTRUCTION, THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL EROSION CONTROL MAINTENANCE AND SHALL INSPECT/REPLACE ALL CONTROLS AS NEEDED. MAINTENANCE WILL BE CARRIED OUT IN ACCORDANCE WITH SECTION 212 OF THE R.I.D.O.T. STANDARD SPECIFICATIONS, LATEST EDITION. THE CONTRACTOR IS RESPONSIBLE FOR CARRYING OUT NECESSARY MAINTENANCE DURING ALL PHASES OF PROJECT CONSTRUCTION, INCLUDING PERIODS OF WINTER SHUTDOWN.

26. 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.

27. TEMPORARY TREATMENTS SHALL CONSIST OF HAY, STRAW, OR FIBER MULCH OR PROTECTIVE COVERS SUCH AS A MAT OR FIBER LINING (JUTE, FIBERGLASS NETTING, EXCELSIOR BLANKETS). THEY SHALL BE INCORPORATED INTO THE WORK AS WARRANTED OR AS ORDERED BY THE ENGINEER.

28. THE CONTRACTOR, AT HIS OPTION, MAY USE STRAW OR HAY FOR EROSION CONTROL AT NO ADDITIONAL COST TO THE STATE. HAY OR STRAW APPLICATIONS SHOULD BE IN THE AMOUNT 3,000-4,000 LBS/ACRE.

29. 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.

30. 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.

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

32. ADDITIONAL EROSION CONTROLS, NOT SHOWN ON THESE PLANS, SHALL BE INSTALLED AS CONDITIONS WARRANT, OR AS DIRECTED BY THE RESIDENT ENGINEER. THESE ADDITIONAL ITEMS WILL BE PAID AT THE UNIT PRICE FOR THAT BID ITEM.

33. 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.

34. PRIOR TO CLEARING AND GRUBBING OPERATIONS AND/OR DISTURBING ANY SOILS ADJACENT TO ANY WETLAND OR WETLAND BUFFER ALL TEMPORARY HAY BALES AND/OR SILT FENCES SHALL BE INSTALLED AS INDICATED ON THE PLANS. THE LIMITS OF CLEARING AND SURFACE DISTURBANCE MUST BE STRICTLY ADHERED TO IN ALL AREAS.

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 THE "DIG SAFE LAW" ENACTED BY R.I. LEGISLATURE BILL NO. 79S-291, WHICH BECAME EFFECTIVE JULY 1, 1979 AND 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.

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

MAY 6 2008

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
AS SPECIFIED IN THE LETTER OF APPROVAL
DATED JUN 13 2008 FILE # 08-0043
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL.
APPROVED PLANS MUST BE AT CONSTRUCTION SITE.
Martin D. Wenck

PROJECT: WYOMING
RHODE ISLAND, TOWN OF RICHMOND\HOPKINTON
BRIDGE STREET OVER WOOD RIVER BRIDGE NOS. 43\44
100% DESIGN

In Charge Of: EB
Designed By: SK, LD, GK
Design Checked By: SK
Detailed By: SK, LD, GK
Detail Checked By: SK

RIDEM SUBMISSION

REVISIONS NO.	DATE	BY

RHODE ISLAND
DEPARTMENT OF TRANSPORTATION

BRIDGE REPLACEMENT
WYOMING BRIDGE NO. 43/44
RICHMOND/HOPKINTON

STANDARD NOTES - 1

CHECKED BY _____ DATE _____ SCALE AS NOTED

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FED.DIV. ROAD NO.	STATE	FEDERAL AID PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
	R.I.			4	47

TEMPORARY CONSTRUCTION NOTES:

1. FOR ALL CONSTRUCTION OPERATIONS AND ALL TEMPORARY CONSTRUCTION PHASES, CONDITIONS AND SITUATIONS, THE FOLLOWING SHALL APPLY:

   a. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE DESIGN OF TEMPORARY BRACING SYSTEMS FOR ALL MATERIALS AND EQUIPMENT AS REQUIRED GIVEN THE DESIGN WIND LOADING IN THE TABLE BELOW. THIS DESIGN WIND LOADING SHALL GOVERN THROUGHOUT THE DURATION OF THE CONTRACT.

HEIGHT ABOVE GROUND* (feet)	WIND PRESSURE FOR TRUSSES (psf)	WIND PRESSURE ALL OTHER MATERIALS & EQUIPMENT (psf)
17	32	22
33	39	26
50	43	28
100	48	33
295	59	40

   * FOR HEIGHTS NOT GIVEN, USE THE WIND PRESSURE FOR THE NEXT HIGHEST HEIGHT. FOR STRUCTURES SPANNING AN INTERSTATE HIGHWAY, MINIMUM WIND PRESSURE SHALL BE THE HEIGHT OF: (i) 35 psf OR (ii) VALUE TABULATED ABOVE.

   b. 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, ASSUMED LOADS AND CALCULATED STRESSES DURING VARYING STAGES OF LIFTING. THIS APPLIES TO STRUCTURES OF ANY KIND.

   c. A REGISTERED PROFESSIONAL ENGINEER, LICENSED IN THE STATE OF RHODE ISLAND, WILL BE REQUIRED TO STAMP THE CONTRACTOR'S ERECTION PLAN.

   d. THE CONTRACTOR'S PROFESSIONAL ENGINEER WILL BE REQUIRED TO INSPECT AND PROVIDE WRITTEN APPROVAL OF EACH PHASE OF A GIRDER 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 CHANGES MUST BE SUBMITTED TO R.I.D.O.T. FOR REVIEW AND APPROVAL PRIOR TO IMPLEMENTATION.

   e. A MANDATORY PRE-ERECTION CONFERENCE WILL BE HELD AT LEAST TWO WEEKS PRIOR TO THE START OF 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 RESIDENT ENGINEER, THE DESIGN PROJECT ENGINEER, AND THE DESIGN CONSULTANT. BASED UPON DISCUSSIONS AT THIS MEETING AND REVIEW OF THE CONTRACTOR'S ERECTION PLAN, R.I.D.O.T. MAY ORDER THE CONTRACTOR TO MODIFY AND RESUBMIT THE ERECTION PLAN TO THE ENGINEER FOR REVIEW AND APPROVAL.

   f. THE CONTRACTOR WILL BE REQUIRED TO PERFORM DAILY INSPECTION OF THE ERECTED GIRDERS UNTIL THE BRIDGE DECK IS COMPLETELY POURED.

   g. THE COST OF PREPARING AND STAMPING THE ERECTION PLAN, COMPUTATIONS, AND REPORTS, RESPONDING TO R.I.D.O.T.'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.

LANDSCAPE NOTES:

1. ALL PLANT MATERIAL MUST BE TAGGED AT THE NURSERY IN ACCORDANCE WITH THE R.I.D.O.T. STANDARD SPECIFICATIONS, LATEST EDITION.
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 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 WITH SECTION M18 OF THE R.I.D.O.T. STANDARD SPECIFICATIONS, LATEST EDITION.

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.
2. FOR CANTILEVER SIGN STRUCTURES, DOUBLE CANTILEVER ARMS WILL BE USED EXCLUSIVELY; SINGLE CANTILEVER ARMS AND TRUSSES WILL NOT BE ALLOWED.
3. FOR OVERHEAD SPAN SIGN STRUCTURES, SINGLE ARMS WILL BE USED EXCLUSIVELY.

DESIGN

1. THE BASIC WIND SPEED, V, USED IN THE DETERMINATION OF THE DESIGN WIND PRESSURE SHALL BE 130 MPH.
2. THE DESIGN OF ANCHOR BOLTS SHALL RESULT IN A DUCTILE STEEL FAILURE PRIOR TO ANY SUDDEN BRITTLE FAILURE OF THE CONCRETE.
3. WHEN THE CLEARANCE BETWEEN THE BOTTOM OF THE LEVELING NUTS AND THE TOP OF THE CONCRETE IS EQUAL TO OR GREATER THAN ONE BOLT DIAMETER, BENDING STRESSES IN THE ANCHOR BOLTS SHALL BE CONSIDERED IN THE DESIGN.
4. AT THIS TIME, THE FATIGUE PROVISIONS OF THE SPECIFICATIONS SHALL ONLY BE APPLIED TO CANTILEVER STRUCTURES, PENDING DEVELOPMENT OF THE FURTHER SPECIFICATIONS. HOWEVER, ANY NON-CANTILEVERED STRUCTURES MAY WARRANT SPECIAL FATIGUE CONSIDERATIONS, AT THE DISCRETION OF THE DESIGNER. THESE STRUCTURES SHALL BE DESIGNED FOR FATIGUE LOADING EITHER BY USING A DYNAMIC ANALYSIS OF THE STRUCTURE OR BY USING APPLICABLE EQUIVALENT STATIC PRESSURE DESIGN PROVISIONS FROM THE SPECIFICATIONS. SUCH CASES SHALL BE DISCUSSED WITH THE DEPARTMENT DURING THE PRELIMINARY DESIGN PHASE.
5. STRUCTURE COMPONENTS AND THEIR CONNECTIONS SHALL BE DESIGNED TO RESIST THE WORST-CASE FATIGUE LOADING UPON EVALUATION OF ALL APPLICABLE CASES ACTING SEPARATELY.
6. POLES AND ARMS SHALL HAVE A MINIMUM TAPER OF 0.14" PER FOOT, IN ORDER TO MINIMIZE THEIR SUSCEPTIBILITY TO VORTEX SHEDDING; AS A RESULT, THIS FATIGUE LOAD CASE MAY BE ELIMINATED FROM THE DESIGN.
7. UNTIL THE DEPARTMENT CAN CONDUCT FURTHER RESEARCH, GALLOPING FATIGUE LOADING SHALL BE INCORPORATED IN ALL DESIGNS. VIBRATION MITIGATION DEVICES WILL NOT BE PERMITTED AS A SUBSTITUTE FOR THIS LOAD CASE, UNLESS CALCULATIONS ARE SUBMITTED THAT PROVE THEIR EFFECTIVENESS.
8. TRAFFIC SIGNAL STRUCTURES ON ROADWAYS WITH LIMITED TRUCK TRAFFIC MAY BE DECLARED EXEMPT FROM TRUCK-INDUCED FATIGUE LOADING, UPON DISCUSSION WITH THE DEPARTMENT ON A CASE-BY-CASE BASIS.
9. IN REGARD TO "FATIGUE IMPORTANCE FACTORS, IF", THE FOLLOWING SHALL APPLY:
   - FATIGUE CATEGORY I WILL APPLY ONLY TO INTERSTATES AND ONLY TO SIGN STRUCTURES. FATIGUE CATEGORY II WILL APPLY TO ALL OTHER STRUCTURES.
   - FOR FATIGUE CATEGORY I, TRUCK-INDUCED LOADING WILL BE BASED ON 65 MPH VELOCITY.
   - FOR FATIGUE CATEGORY II, TRUCK-INDUCED LOADING WILL BE BASED ON 30 MPH VELOCITY.

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. HEADED CAST-IN-PLACE ANCHOR BOLTS SHALL BE USED IN LIEU OF HOOKED ANCHOR BOLTS.

TRAFFIC SIGNAL NOTES:

1. ALL SALVAGED TRAFFIC SIGNAL EQUIPMENT SHALL BE DELIVERED TO THE R.I.D.O.T. ANTHONY FACILITY, 16 MAPLEDALE STREET, COVENTRY, RHODE ISLAND, 02816.
2. BACK PLATES ARE REQUIRED ON ALL TRAFFIC SIGNAL HEADS AND SHALL BE INCLUDED IN THE PRICE OF THE SIGNAL HEAD.
3. THE CONTRACTOR SHALL SUPPLY AND INSTALL ON THE UPPER LEFT HAND CORNER OF THE BACK OR 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. THE TRAFFIC CONTROLLER SHALL BE ORIENTED SO THAT THE CABINET DOOR IS FACING THE SIDEWALK, UNLESS OTHERWISE STATED ON PLANS.
5. 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.
6. 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.
7. 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. BARE GROUND WIRE WILL NOT BE PAID FOR SEPARATELY BUT SHALL BE INCLUDED IN THE PRICE OF PVC CONDUIT ITEMS.
8. FINAL PLACEMENT OF SIGNAL HEADS, DETECTORS, STOP BARS AND CROSSWALKS TO BE DETERMINED IN THE FIELD DURING CONSTRUCTION ACCORDING TO OBSERVED INTERSECTION CHARACTERISTICS BY THE ENGINEER.
9. 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.
10. ALL FOUNDATIONS MUST HAVE CONES OR BARRELS BOLTED TO FOUNDATION BASES UNTIL ACTUAL POLE IS INSTALLED.
11. 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.
12. ACCESS TO PEDESTRIAN PUSHBUTTONS SHALL MEET ADA REQUIREMENTS. ALL PEDESTRIAN PUSHBUTTONS SHALL BE ADA COMPLIANT WITH A 2" DIAMETER. SIGNS INSTALLED AT PROPOSED PEDESTRIAN PUSHBUTTONS SHALL BE MUTCD 2003 CODE R10-3B (LEFT OR RIGHT) AND SHALL BE INSTALLED SO THAT IT IS CLEARLY INDICATED WHICH CROSSING IS ASSIGNED TO EACH BUTTON.
13. ALL LOOP DETECTORS SHALL BE CENTERED WITHIN EACH LANE AS DELINEATED, UNLESS OTHERWISE DIMENSIONED ON PLANS.
14. ALL LOOP DETECTORS SHALL BE CUT INTO THE FINAL PAVEMENT SURFACE COURSE.
15. TRAFFIC SIGNAL CONTROLLERS SHALL BE WIRED SO THAT ANY FIRE PRE-EMPTION SHALL OVERRIDE MANUAL (PUSH BUTTON) OPERATION.
16. 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 DURING THE WHICH 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. PAYMENT WILL BE INCLUDED UNDER THE PAY ITEM FOR "MAINTENANCE AND MOVEMENT TRAFFIC PROTECTION."
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. DRUM BARRICADES 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. ROAD WORK AHEAD (W20-1) 36"x36" AND END ROAD WORK (G20-2) 36"x18" SIGNS SHALL BE MOUNTED AT ALL INTERSECTING STREETS, AS SHOWN ON THE PLANS

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

MAY 6 2008

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
AS SPECIFIED IN THE LETTER OF APPROVAL
DATED JUN 13 2008 FILE # 08-0043
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL.
APPROVED PLANS MUST BE AT CONSTRUCTION SITE.
Agustin D. Wenck

PROJECT: WYOMING
RHODE ISLAND, TOWN OF RICHMOND\HOPKINTON
BRIDGE STREET OVER WOOD RIVER BRIDGE NOS. 43\44
100% DESIGN

In Charge Of: EB
Designed By: SK, LD, GK
Design Checked By: SK
Detailed By: SK, LD, GK
Detail Checked By: SK

RIDEM SUBMISSION

REVISIONS NO.	DATE	BY

RHODE ISLAND
DEPARTMENT OF TRANSPORTATION

BRIDGE REPLACEMENT
WYOMING BRIDGE NO. 43/44
RICHMOND/HOPKINTON

STANDARD NOTES – 2

CHECKED BY _____ DATE _____ SCALE AS NOTED

Dewberry
Dewberry - Goodkind, Inc.
A Dewberry Company
280 SUMMER STREET
10TH FLOOR
BOSTON, MA 02210
PHONE: 617 695-3400
FAX: 617 695-3110

FED.DIV. ROAD NO.	STATE	FEDERAL AID PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
	R.I.			5	47

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

MAY 6 2008

50' PERIMETER WETLANDS	200' RIVERBANK WETLANDS
2,926 sq.ft.	9,478 sq.ft.
4,708 sq.ft.	3,735 sq.ft.
4,807 sq.ft.	2,926 sq.ft.
	4,708 sq.ft.
	4,807 sq.ft.
TOTAL 12,441 sq.ft.	TOTAL 25,654 sq.ft.

NOTE:
NO WORK SHALL BE PERMITTED OUTSIDE OF THE LIMITS OF VEGETATIVE AND SURFACE DISTURBANCE(LDCG), SHOWN ON THE PLANS.

PLAN

SCALE: 1"=20'

PROJECT: WYOMING
RHODE ISLAND, TOWN OF RICHMOND\HOPKINTON
BRIDGE STREET OVER WOOD RIVER BRIDGE NOS. 43\44
100% DESIGN

In Charge Of: EB
Designed By: SK, LD, GK
Design Checked By: SK
Detailed By: SK, LD, GK
Detail Checked By: SK

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
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DATED JUN 13 2008 FILE # 08-0043
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL.
APPROVED PLANS MUST BE AT CONSTRUCTION SITE.
Martin D. Wencek

RIDEM SUBMISSION

REVISIONS		
NO.	DATE	BY

RHODE ISLAND
DEPARTMENT OF TRANSPORTATION

BRIDGE REPLACEMENT
WYOMING BRIDGE NO. 43/44
RICHMOND/HOPKINTON

WETLAND INTRUSION PLAN

Dewberry
Dewberry-Goodkind, Inc.
280 SUMMER STREET
10TH FLOOR
BOSTON, MA 02210
PHONE: 617 695 3400
FAX: 617 695 3110

CHECKED BY ______ DATE ______ SCALE AS NOTED

FED.DIV. ROAD NO.	STATE	FEDERAL AID PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
	R.I.			6	47

PROJECT: WYOMING
RHODE ISLAND, TOWN OF RICHMOND\HOPKINTON
BRIDGE STREET OVER WOOD RIVER BRIDGE NOS. 43\44
100% DESIGN

FILE: M:\1525\43_44\Wetland Permit Application\cp1.dwg

In Charge Of:	EB
Designed By:	SK, LD, GK
Design Checked By:	SK
Detailed By:	SK, LD, GK
Detail Checked By:	SK

PLAN
SCALE: 1"=20'

RIDEM SUBMISSION

REVISIONS		
NO.	DATE	BY

RHODE ISLAND
DEPARTMENT OF TRANSPORTATION

BRIDGE REPLACEMENT
WYOMING BRIDGE NO. 43/44
RICHMOND/HOPKINTON

DRAINAGE INLET PLAN

CHECKED BY _____ DATE _____ SCALE AS NOTED

Dewberry
Dewberry - Goodkind, Inc.
A Dewberry Company
280 SUMMER STREET
10TH FLOOR
BOSTON, MA 02210
PHONE: 617 695 3400
FAX: 617 695 3110

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
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AS SPECIFIED IN THE LETTER OF APPROVAL
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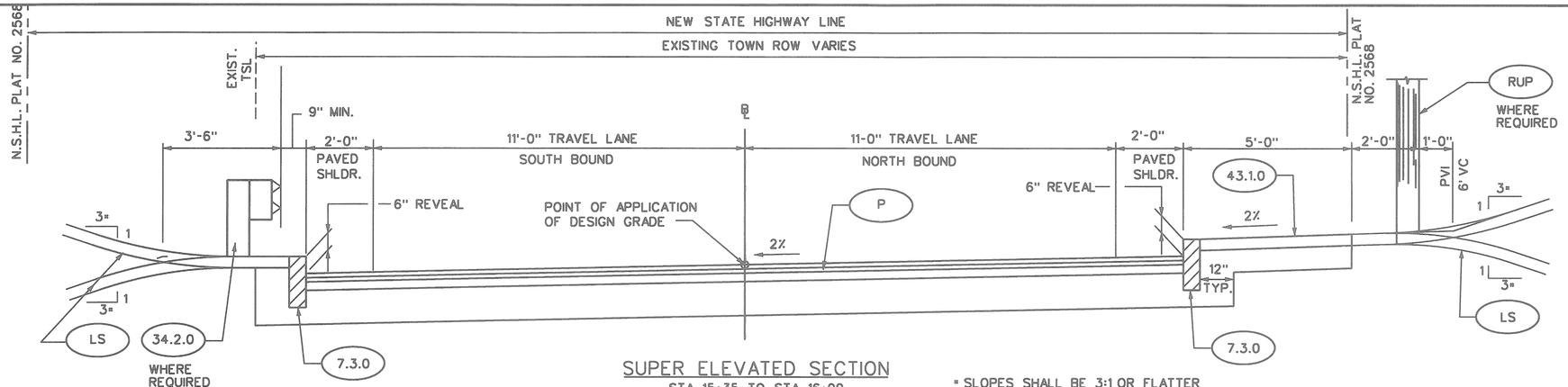
Maureen D. Wenck

MAY 6 2008

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

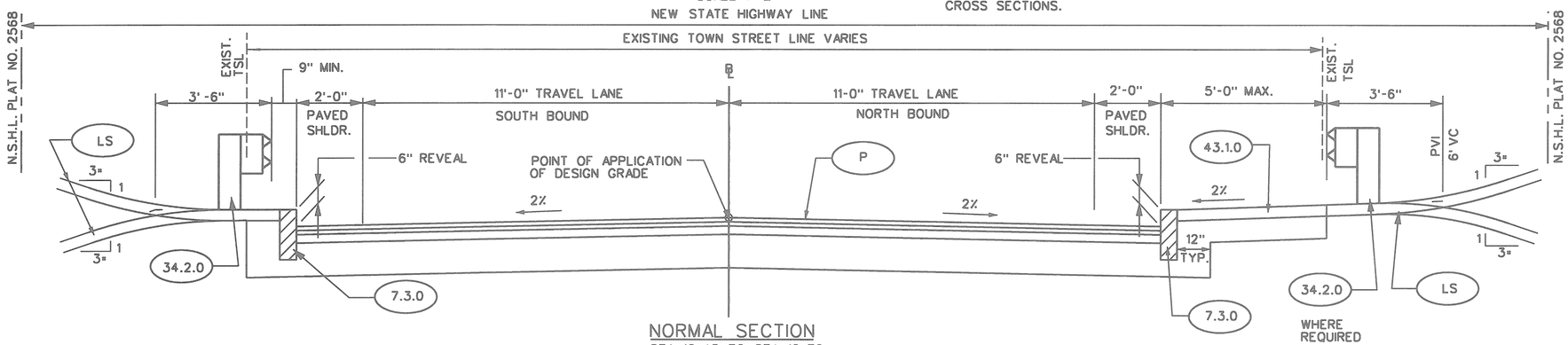
FED. ROAD DIV. NO.	STATE	FEDERAL AID PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
1	R.I.			7	47



SUPER ELEVATED SECTION

STA. 15+35 TO STA. 16+00
SCALE: 1"=2'

* SLOPES SHALL BE 3:1 OR FLATTER UNLESS NOTED OTHERWISE ON THE CROSS SECTIONS.



NORMAL SECTION

STA. 12+45 TO STA. 12+70
SCALE: 1"=2'

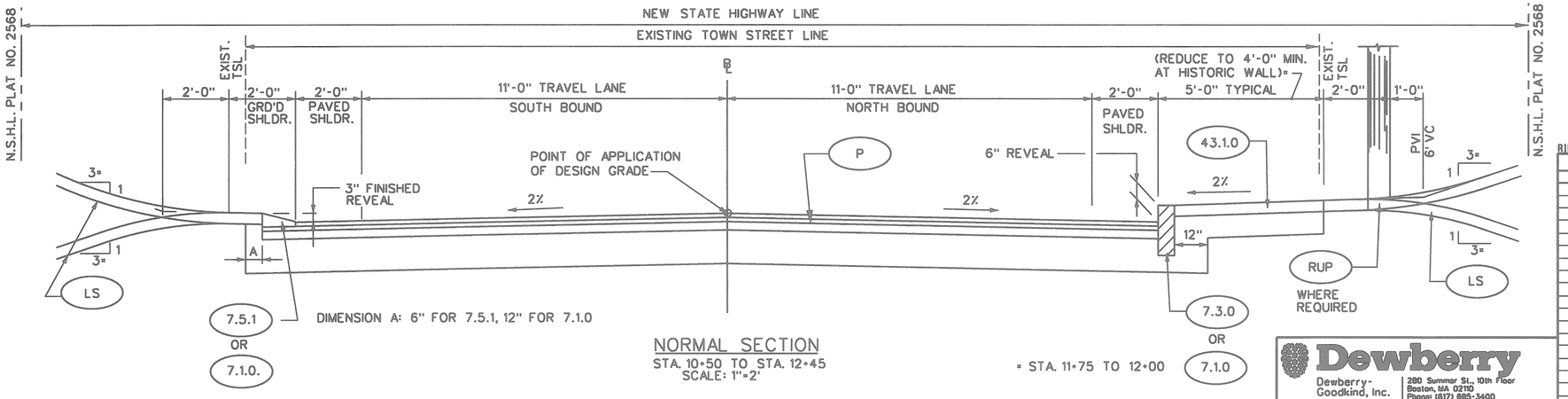
LEGEND

(P) NEW PAVEMENT STRUCTURE
- 2" BITUMINOUS SURFACE COURSE, TYPE I-1
- 2" BITUMINOUS BINDER COURSE
- 3" BITUMINOUS BASE COURSE
- 12" GRAVEL BORROW SUBBASE COURSE

(LS) 4" LOAM & SEED, TYPE 2

RIGHT-OF-WAY LINE LEGEND

ESHL	EXISTING STATE HIGHWAY LINE
ESL	EXISTING TOWN STREET LINE/PROPERTY LINE
TEB	TEMPORARY EASEMENT BOUNDARY LINE
PAB	PERMANENT AERIAL EASEMENT BOUNDARY LINE
PDB	PERMANENT DRAINAGE EASEMENT BOUNDARY LINE
PGB	PERMANENT GUY EASEMENT BOUNDARY LINE
PEB	PERMANENT EASEMENT BOUNDARY LINE
SHL	NEW STATE HIGHWAY LINE



NORMAL SECTION

STA. 10+50 TO STA. 12+45
SCALE: 1"=2'

* STA. 11+75 TO 12+00

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DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
AS SPECIFIED IN THE LETTER OF APPROVAL
DATED JUN 13 2008 FILE # 08-2043
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL.
APPROVED PLANS MUST BE AT CONSTRUCTION SITE.
Cynthia D. Wenck

MAY 6 2008

RIDEM SUBMISSION

REVISIONS NO.	DATE	BY

RHODE ISLAND DEPARTMENT OF TRANSPORTATION

BRIDGE REPLACEMENT
WYOMING BRIDGE NO. 43/44
RICHMOND/HOPKINTON

TYPICAL ROADWAY SECTIONS

CHECKED BY _____ DATE _____ SCALE AS NOTED

Dewberry
Dewberry-Goodkind, Inc.
A Dewberry Company
280 Summer St., 10th Floor
Boston, MA 02110
Phone: (617) 695-3400
Fax: (617) 695-3310

PROJECT: WYOMING
RHODE ISLAND, TOWN OF RICHMOND/HOPKINTON
BRIDGE STREET OVER WOOD RIVER BRIDGE NOS. 43/44
100% DESIGN SUBMISSION
FILE: M:\1529\8_44\CADD\Sht\PRINTINGSHEETS\SHT 03.DGN

IN CHARGE OF:	EB		
DESIGNED BY:	SK, GK, JN		
DESIGN CHECKED BY:	SK, GK		
DETAILED BY:	SK, GK, JN		
DETAIL CHECKED BY:	SK, EB		

TIME: $TIME$
DATE: $DATE$

FED.DIV. ROAD NO.	STATE	FEDERAL AID PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
	R.I.			8	47

PROJECT: WYOMING
RHODE ISLAND, TOWN OF RICHMOND\HOPKINTON
BRIDGE STREET OVER WOOD RIVER BRIDGE NOS. 43\44
100% DESIGN

In Charge Of: EB
Designed By: SK, LD, GK
Design Checked By: SK
Detailed By: SK, LD, GK
Detail Checked By: SK

STA. 10+00 BRIDGE STREET ℄ =
STA. 325+41.21 NOOSENECK HILL RD (RT 3) ℄

PLAN

PLAN

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DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
AS SPECIFIED IN THE LETTER OF APPROVAL
DATED JUN 1 9 2008 FILE # 08-0043
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL.
APPROVED PLANS MUST BE AT CONSTRUCTION SITE.
MAY 6 2008

RIDEM SUBMISSION

REVISIONS NO.	DATE	BY

RHODE ISLAND
DEPARTMENT OF TRANSPORTATION

BRIDGE REPLACEMENT
WYOMING BRIDGE NO. 43/44
RICHMOND/HOPKINTON

GENERAL PLAN

CHECKED BY _____ DATE _____ SCALE _____

Dewberry
Dewberry - Goodkind, Inc.
A Dewberry Company
260 SUMMER STREET
10TH FLOOR
BOSTON, MA 02210
PHONE: 617 695 3400
FAX: 617 695 3110

FED.DIV. ROAD NO.	STATE	FEDERAL AID PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
	R.I.			9	47

PROJECT: WYOMING
RHODE ISLAND, TOWN OF RICHMOND\HOPKINTON
BRIDGE STREET OVER WOOD RIVER BRIDGE NOS. 43\44
100% DESIGN
FILE: M:\1525\43_44\Cad\Ps&e\printingsheets\sheet 5.dwg

In Charge Of: EB
Detailed By: LD
Designed By: JL
Detail Checked By: LD
Design Checked By: JL

NOOSENECK HILL RD (RT-3)
BRIDGE STREET (AKA ARCADIA RD)
WOOD RIVER
RICHMOND
HOPKINTON
PROSPECT SQUARE
ALDRICH STREET
POND AREA
ONE STORY # 1122 MAIN STREET
1 1/2 STORY # 8
N/F WINIFRED WOODMANSEE AND SHIRLEY WASHBURN 1 PINE HAVEN DRIVE WYOMING, R.I. 02898
N/F PETER & SUE-ANN MOYNIHAN 8 BRIDGE ST. VOL. 101 PG. 42
N/F TOWN OF HOPKINTON
N/F STATE OF RHODE ISLAND (DEPT OF AGRICULTURE)
N/F STATE OF RHODE ISLAND
N/F GUY E. RODGERS P.O.BOX 146 WYOMING, R.I. 02898
N/F JEFFREY AND BRENDA J CHALIFOUX 89 HIGHVIEW AVE. HOPE VALLEY R.I. 02832
N/F STATE OF RHODE ISLAND

PT 12+87.71
N:157,575.7310
E:272,364.9566

P.C. STA: 11+84.82
OFFSET: 20.65' L

P.C.11+81.15
N:157,496.2346
E:272,435.6088

BENCH MARK NO.2
P.T. STA: 11+56.73
OFFSET: 23.07' L

P.C. STA: 12+43.02
OFFSET: 18.9' L

P.T. STA: 12+29.79
OFFSET: 23.5' L

P.I. STA: 12+34.43
N: 157,532.2043
E: 272,396.0312

SURVEY BASELINE STA.9+50
N: 157546.0843
E: 272405.6734

STA. 10+00 BRIDGE STREET ℄ =
STA. 325+41.21 NOOSENECK HILL RD (RT 3) ℄
N 157374.3961
E 272569.6683

STATION 6+93
ARCADIA ROAD AND ROUTE 138/3
N 157365.7642
E 272590.1404

BENCH MARK NO.1

STA 323+76.67 NOOSENECK HILL ROAD ℄ =
STA. 8+43 SURVEY ℄ 23.82' LEFT
N 157440.1607
E 272721.1497

C-#1
CENTRAL RADIUS=N: 157,866.250 E: 272,771.8941

C-#2
CENTRAL RADIUS= N:157,333.3516 E:271,690.1997
P.T.= N:157,948.4002 E:272,002.9539
P.I.= N:157,871.8083 E:272,153.5850

PC 14+82.50
N:157,734.2692
E:272,251.7734

P.T. STA: 15+07.76
OFFSET: 34.23' R

POC 16+00
N:157,823.6360
E:272,175.7109
IRON POST @ LEDGE OUTCROP

P.C. STA: 15+43.08
OFFSET: 37.53' R

SURVEY BASELINE
STA. 12+50
N: 157789.6589
E: 272232.3086

NEW STATE HIGHWAY LINE, PLAT NO. 2568

PROP. BRIDGE 44
PROP. BRIDGE 43

100 YEAR FLOOD PLAIN ELEVATION ELEV. 85.93

SIDEWALK WIDTH VARIES 13+00

PROP. LIMIT OF WORK

RIDEM 50' PERIMETER WETLAND
RIDEM 200' RIVERBANK WETLAND
RIDEM SUBMISSION

Kindly be advised that this Permit is not equivalent to a verification of the type or extent of freshwater wetlands on site.
6 2008

PLAN
SCALE: 1"=20'

CURVE TABLE					
CURVE	P.C. STATION	LENGTH	P.T. STATION	RADIUS	DELTA
C1	STA. 11+81.15	106.56'	STA. 12+87.71	500.00'	12°12'38"
C2	STA. 14+82.50	117.50'	STA. 16+00 *	690.00'	09°45'24"

* NOTE P.O.C.

BENCH MARKS		
NO.	DESCRIPTION	ELEVATION
1	PK SPIKE SET 1' UP STREET SIDE NE. CO. POLE #142	113.66
2	PK NAIL SET 1' UP STREET SIDE NE. CO. POLE #102	106.72
3	PK NAIL SET 1' +/- UP FROM GROUND NE. CO. POLE #69	96.60

NOTE:
SEE SHEET 6 FOR BENCHMARK #3 LOCATION

STATE OF RHODE ISLAND
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
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APPROVED PLANS MUST BE AT CONSTRUCTION SITE.
Jonathan D. Mercier

STA. 20+00 NOOSENECK HILL RD ℄ =
STA. 8+43 SURVEY ℄ 23.82' LEFT
ROUTE 138 AND 3
NOOSENECK HILL ROAD
N 66° 31 04"W
TO STA. 6+93
WALK
18.21
DH IN NW COR. PED. LT. POLE
N 23° 28' 04"W
23.82'
33.74
37.80
TOP OF BOTTOM STEP
COR. FOUNDATION
STATION 8+43
N 157,418.3150
E 272,730.6338
STATION 8+43

STA. 24+00 NOOSENECK HILL RD ℄ =
STA. 4+43 SURVEY ℄ 23.82' LEFT
N 157,280.8672
E 272,354.2346
DOUBLE HEADED NAIL IN # 144
N 24° 09' 40"W
16.72'
36.51
NOOSENECK HILL ROAD
N 66° 31 04"W
ROUTE 138 AND 3
TO STA. 6+93
32.23
37.88
PK IN 24" TREE
PK NAIL POLE #1
COREY TRAIL
STATION 4+43
N 157,265.6164
E 272,361.0761
STATION 4+43

ARCADIA ROAD
SPIKE SET IN POLE # 142
TO STA. 4.43
40.28
STA. 6+93
WALK
TO STA. 8+43
31.70
28.73
P.K NAIL 12" PINE
DRILL HOLE IN FND. 1" UP
STATION 6+93

R.R. SPIKE
DRIVE
39.34
BRIDGE STREET
STATION 9+50
TO 12+50
27.75
D.H. IN CORNER WALL
21.28
BIT. WALK
P.K IN TREE

P.K. U POLE # 957
40.28
BRIDGE ST. A.K.A. ARCADIA ROAD
TO 9+50
STA. 12+50
TO 14+50
14.53
41.01
P.K. NAIL SET IN FIRST BOULDER
PROSPECT SQUARE
NAIL SET IN 6" TREE

Dewberry
Dewberry - Goodkind, Inc.
A Dewberry Company
31 ST JAMES AVENUE
3RD FLOOR
BOSTON, MA 02116
PHONE: 617 695 3400
FAX: 617 695 3110

REVISIONS		
NO.	DATE	BY

RHODE ISLAND
DEPARTMENT OF TRANSPORTATION

BRIDGE REPLACEMENT
WYOMING BRIDGE NO. 43/44
RICHMOND/HOPKINTON

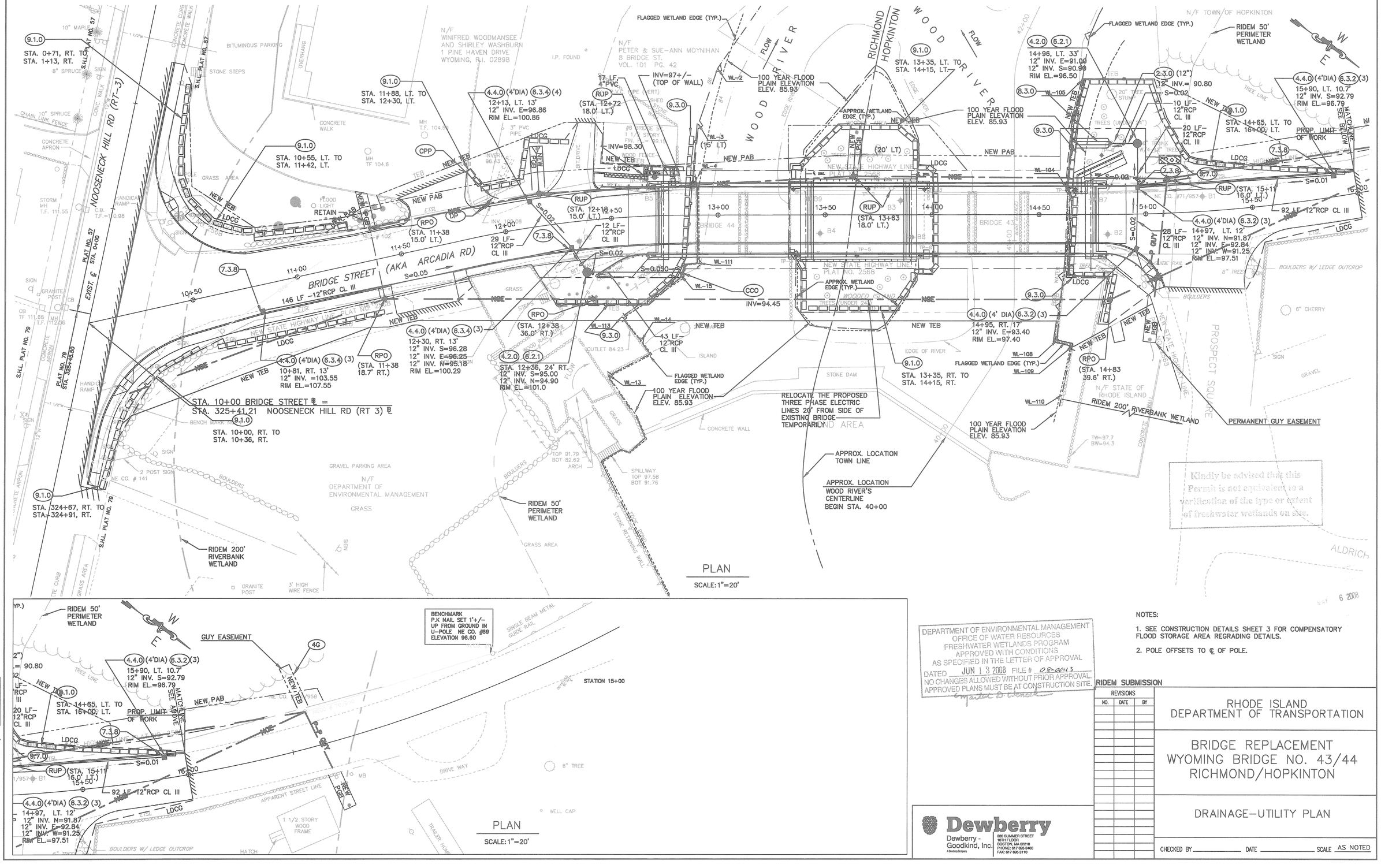
LOCATION PLAN

CHECKED BY _____ DATE _____ SCALE AS NOTED

FED.DIV. ROAD NO.	STATE	FEDERAL AID PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
	R.I.			6	47

PROJECT: WYOMING
RHODE ISLAND, TOWN OF RICHMOND\HOPKINTON
BRIDGE STREET OVER WOOD RIVER BRIDGE NOS. 43\44
100% DESIGN

In Charge Of:	EB
Designed By:	SK, LD, GK
Design Checked By:	SK
Detailed By:	SK, LD, GK
Detail Checked By:	SK



NOTES:

1. SEE CONSTRUCTION DETAILS SHEET 3 FOR COMPENSATORY FLOOD STORAGE AREA REGRADING DETAILS.
2. POLE OFFSETS TO ℄ OF POLE.

RIDEM SUBMISSION

REVISIONS		
NO.	DATE	BY

RHODE ISLAND DEPARTMENT OF TRANSPORTATION

BRIDGE REPLACEMENT
WYOMING BRIDGE NO. 43/44
RICHMOND/HOPKINTON

DRAINAGE–UTILITY PLAN

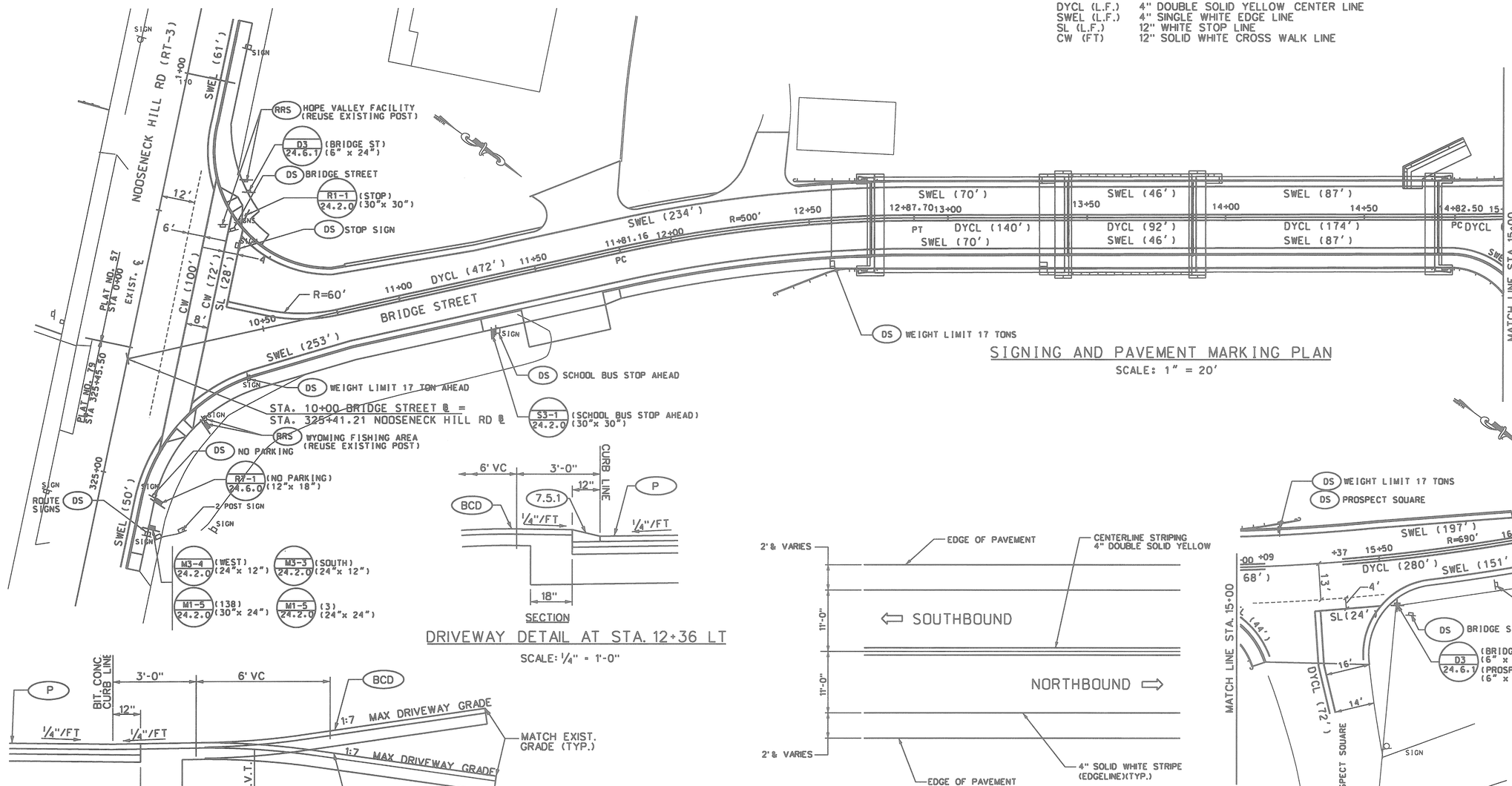
CHECKED BY _____ DATE _____ SCALE AS NOTED

Dewberry
Dewberry - Goodkind, Inc.
A Dewberry Company
280 SUMMER STREET
10TH FLOOR
BOSTON, MA 02210
PHONE: 617 695 3400
FAX: 617 695 3110

FED. ROAD DIV. NO.	STATE	FEDERAL AID PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
1	R.I.			11	47

STRIPING LEGEND

DYCL (L.F.) 4" DOUBLE SOLID YELLOW CENTER LINE
SWEL (L.F.) 4" SINGLE WHITE EDGE LINE
SL (L.F.) 12" WHITE STOP LINE
CW (FT) 12" SOLID WHITE CROSS WALK LINE



SIGNING AND PAVEMENT MARKING PLAN

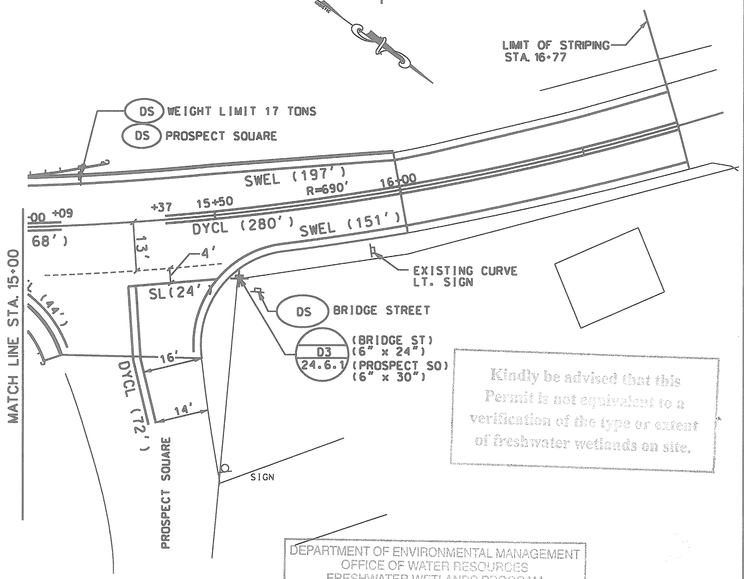
SCALE: 1" = 20'

SECTION

DRIVEWAY DETAIL AT STA. 12+36 LT

SCALE: 1/4" = 1'-0"

NOTE:
1. STRIPING ON FINAL SURFACE COURSE SHALL BE EPOXY RESIN. IT SHALL BE PLACED ON THE FINAL SURFACE COURSE OF NEWLY PAVED ROADWAYS NO SOONER THAN 2 WEEKS BUT NO LONGER THAN 4 WEEKS FROM THE COMPLETION OF EACH DAYS PAVING OPERATION. EPOXY RESIN PAVEMENT MARKINGS WILL USUALLY BE PLACED OVER TEMPORARY WATERBORNE PAVEMENT MARKINGS.



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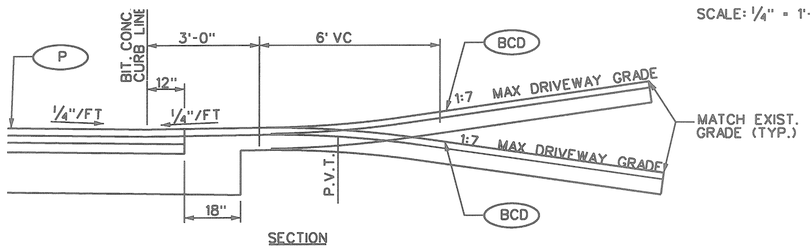
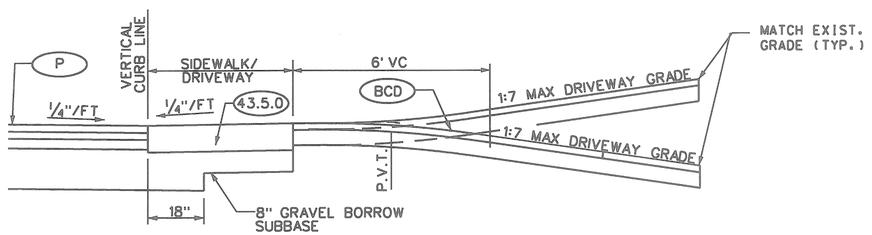


SECTION

DRIVEWAY DETAIL AT NON-SIDEWALK SECTIONS

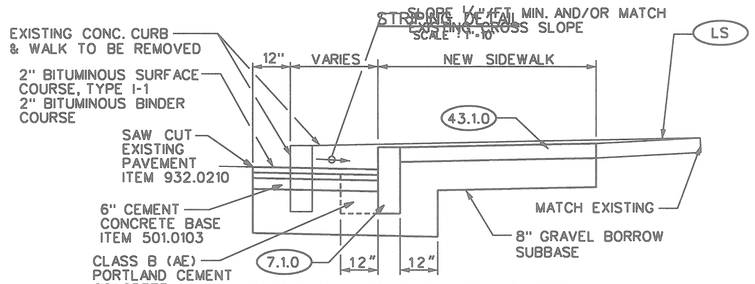
SCALE: 1/4" = 1'-0"



SECTION

DRIVEWAY DETAIL AT SIDEWALK SECTIONS

SCALE: 1/4" = 1'-0"



SCALE: 1" = 1'-0"

CURB SETTING DETAIL ALONG NOOSENECK HILL ROAD

SCALE: 1/4" = 1'-0"

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
AS SPECIFIED IN THE LETTER OF APPROVAL
DATED JUN 13 2008 FILE # 08-0043
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL.
APPROVED PLANS MUST BE AT CONSTRUCTION SITE.
Engineer D. Wenck
MAY 6 2008

RIDEM SUBMISSION

REVISIONS		
NO.	DATE	BY

RHODE ISLAND
DEPARTMENT OF TRANSPORTATION

BRIDGE REPLACEMENT
WYOMING BRIDGE NO. 43/44
RICHMOND/HOPKINTON

CONSTRUCTION DETAILS-1
STRIPING

CHECKED BY _____ DATE _____ SCALE AS NOTED

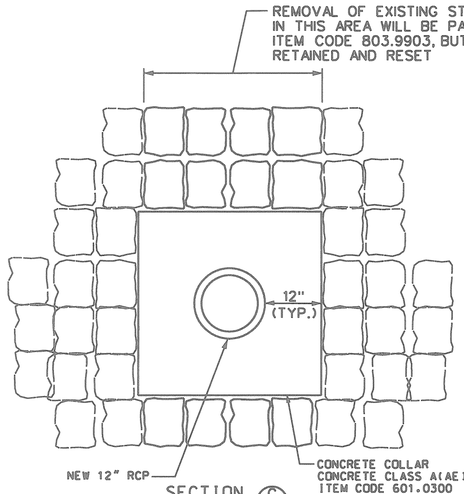
Dewberry
Dewberry-Goodkind, Inc.
A Dewberry Company
280 Summer St., 10th Floor
Boston, MA 02210
Phone: (617) 695-3400
Fax: (617) 695-3310

PROJECT: WYOMING
RHODE ISLAND, TOWN OF RICHMOND/HOPKINTON
BRIDGE STREET OVER WOOD RIVER BRIDGE NOS. 43/44
100% DESIGN SUBMISSION
FILE: M:\152\09_44\CAD\PS&E\PRINTINGSHEETS\SHT 07.DGN

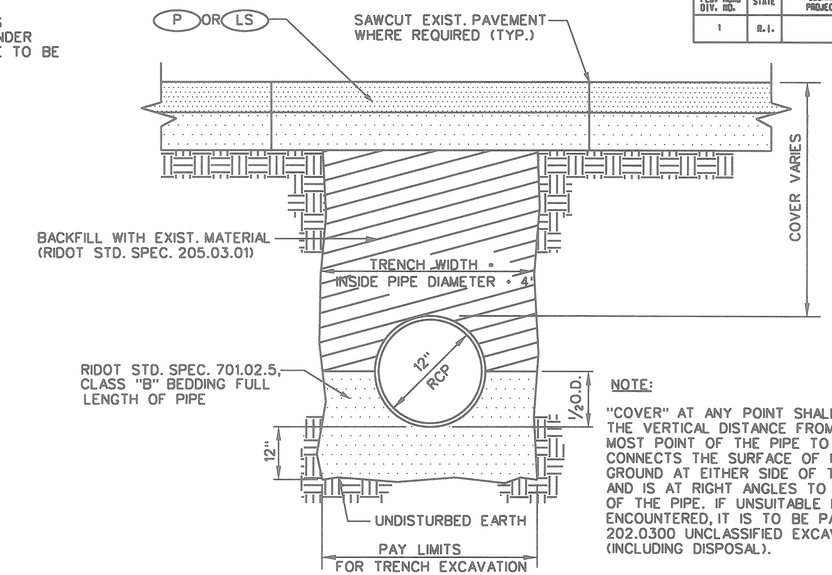
IN CHARGE OF: EB
DESIGNED BY: SK, GK, JN
DESIGN CHECKED BY: SK, GK
DETAILED BY: SK, GK, JN
DETAIL CHECKED BY: SK, EB

TIME: @TIME@
DATE: @DATE@

FED. ROAD DIV. NO.	STATE	FEDERAL AID PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
1	R.I.			12	47

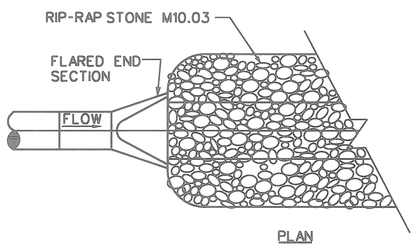


SECTION
CONCRETE COLLAR OUTFALL (CCO)
(STA. 12+82 26.5' RT)
SCALE : NONE

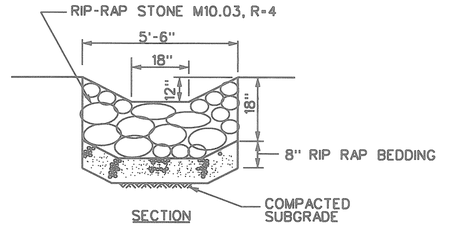


TYPICAL TRENCH FOR DRAINAGE INSTALLATION
SCALE : NONE

NOTE:
"COVER" AT ANY POINT SHALL BE DEFINED AS THE VERTICAL DISTANCE FROM THE UPPER MOST POINT OF THE PIPE TO A LINE WHICH CONNECTS THE SURFACE OF UNDISTURBED GROUND AT EITHER SIDE OF THE TRENCH AND IS AT RIGHT ANGLES TO THE DIRECTION OF THE PIPE. IF UNSUITABLE MATERIAL IS ENCOUNTERED, IT IS TO BE PAID UNDER ITEM 202.0300 UNCLASSIFIED EXCAVATION (INCLUDING DISPOSAL).



PLAN



SECTION

NOTES:
1. RIP-RAP SHALL BE A MINIMUM OF 1.5 FEET THICK PLACED ON 8"-INCHES OF CRUSHED STONE.
2. GRADED RIP-RAP STONE SHALL CONFORM TO M.10.03.2, R -4.
3. BEDDING FOR RIP-RAP SHALL BE IN ACCORDANCE WITH M.10.03.1, FS-2 FILTER STONE.

RIP-RAP DITCH AT FLARED END SECTION AT 12 " PIPE OUTLET

SYSTEM	QCS-1	QCS-2
INLET INVERT ELEV.	93.50	91.00
OUTLET INVERT ELEV.	93.50	91.00
ORIFICE SIZE	4.5"	5.4"
ORIFICE INVERT ELEV.	93.58	91.08
WEIR LENGTH	2"	2"
WEIR CREST ELEV.	97.75	93.00

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MAY 6 2008

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
AS SPECIFIED IN THE LETTER OF APPROVAL
DATED JUN 13 2008 FILE # 08-0043
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL.
APPROVED PLANS MUST BE AT CONSTRUCTION SITE.
Ingaberi D. Wenck

RIDEM SUBMISSION

REVISIONS		
NO.	DATE	BY

RHODE ISLAND
DEPARTMENT OF TRANSPORTATION

BRIDGE REPLACEMENT
WYOMING BRIDGE NO. 43/44
RICHMOND/HOPKINTON

CONSTRUCTION DETAILS-2

CHECKED BY _____ DATE _____ SCALE AS NOTED

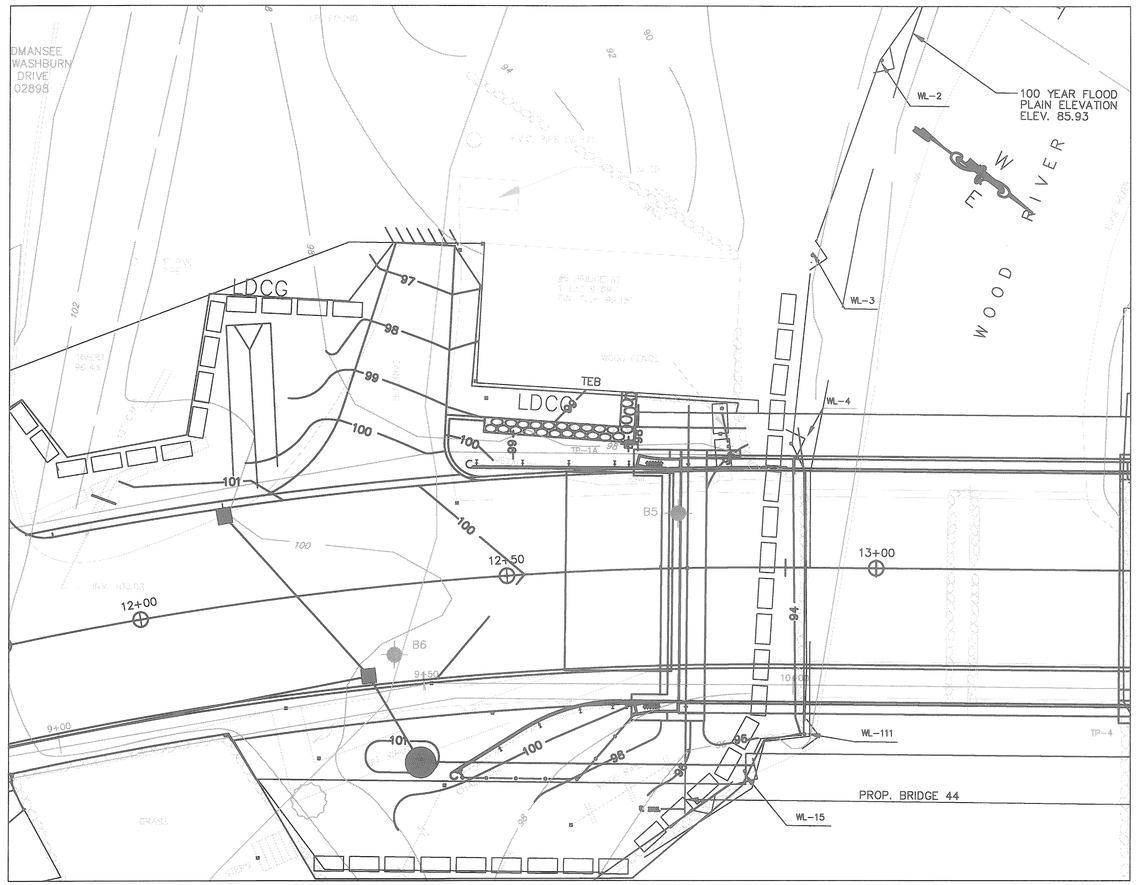
Dewberry
Dewberry-Goodkind, Inc.
A Dewberry Company
200 Summer St., 10th Floor
Boston, MA 02110
Phone: (617) 695-3400
Fax: (617) 695-3310

PROJECT: WYOMING
RHODE ISLAND, TOWN OF RICHMOND/HOPKINTON
BRIDGE STREET OVER WOOD RIVER BRIDGE NOS. 43/44
100% DESIGN SUBMISSION
FILE: M:\152809.44\CAD\PSNE\PRINTINGSHEETS\SHT 08.DGN

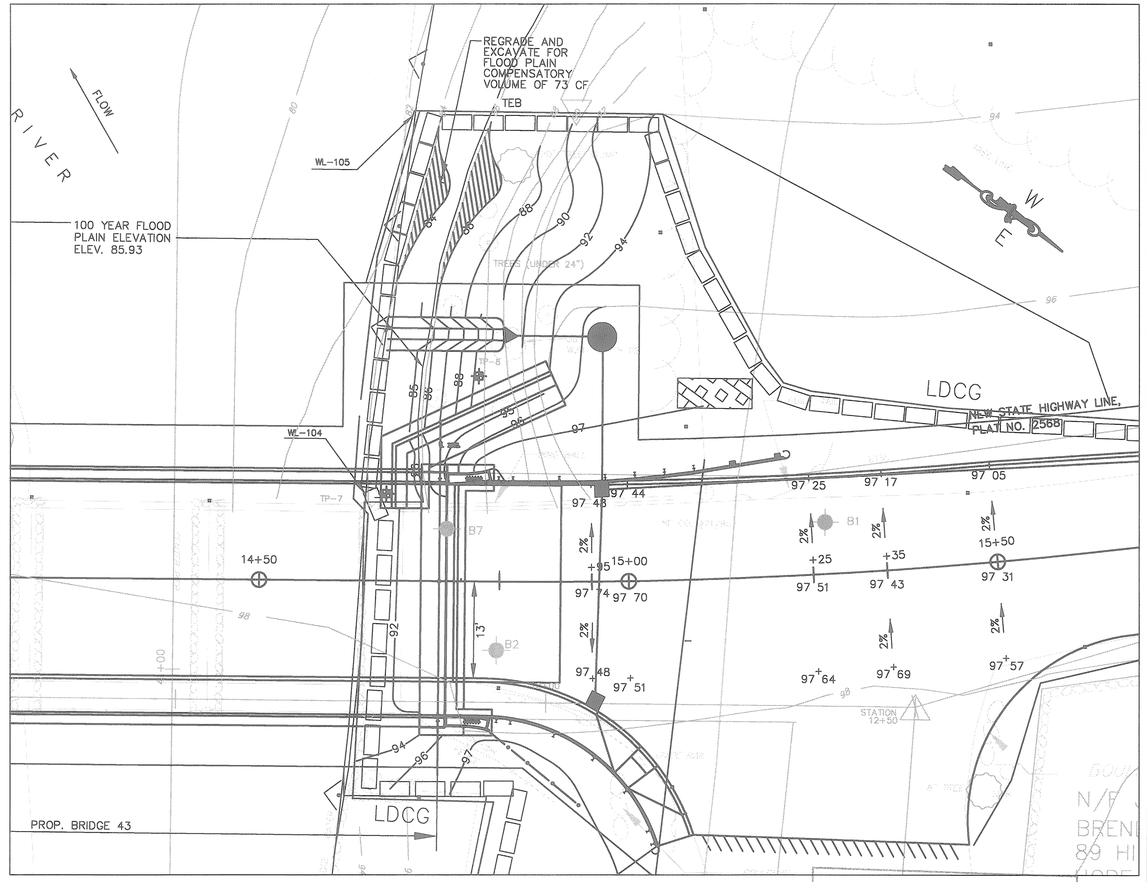
IN CHARGE OF EB
DESIGNED BY SK, GK, JN
DESIGN CHECKED BY SK, GK
DETAILED BY SK, GK, JN
DETAIL CHECKED BY SK, EB

TIME: @TIME@
DATE: @DATE@

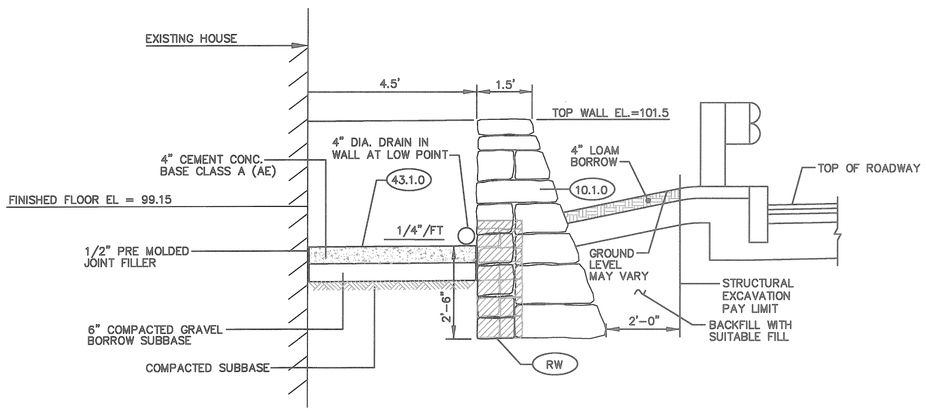
FED.DIV. ROAD NO.	STATE	FEDERAL AID PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
	R.I.			9	47



GRADING DETAIL PLAN – ABUTMENT 1
SCALE: 1"=10'

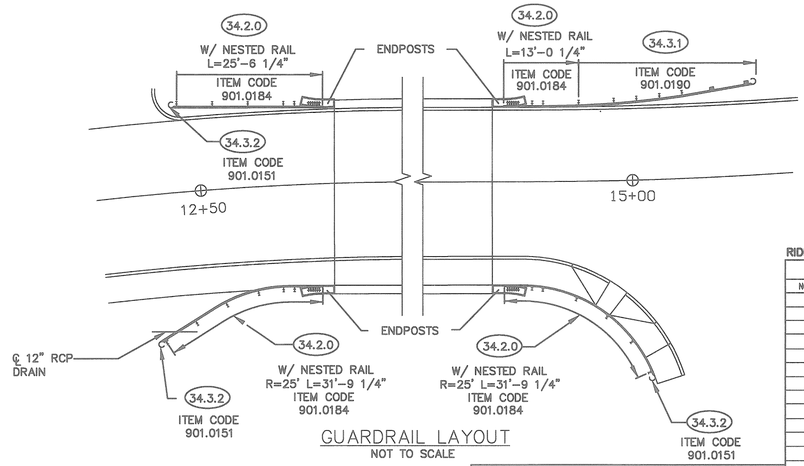


GRADING DETAIL PLAN – ABUTMENT 4
SCALE: 1"=10'



NEW CEMENT CONCRETE SIDEWALK & WALL DETAIL
SCALE: 1/2" = 1'

NOTE:
REFER TO MANDATORY SEQUENCE OF CONSTRUCTION–ROADWAY IN SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.



GUARDRAIL LAYOUT
NOT TO SCALE

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NOTE: PROPOSED GRADES SHOWN 97+XX

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
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NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL.
APPROVED PLANS MUST BE AT CONSTRUCTION SITE.

JUN 5 2008

RIDEM SUBMISSION

REVISIONS		
NO.	DATE	BY

RHODE ISLAND
DEPARTMENT OF TRANSPORTATION

BRIDGE REPLACEMENT
WYOMING BRIDGE NO. 43/44
RICHMOND/HOPKINTON

CONSTRUCTION DETAILS–3

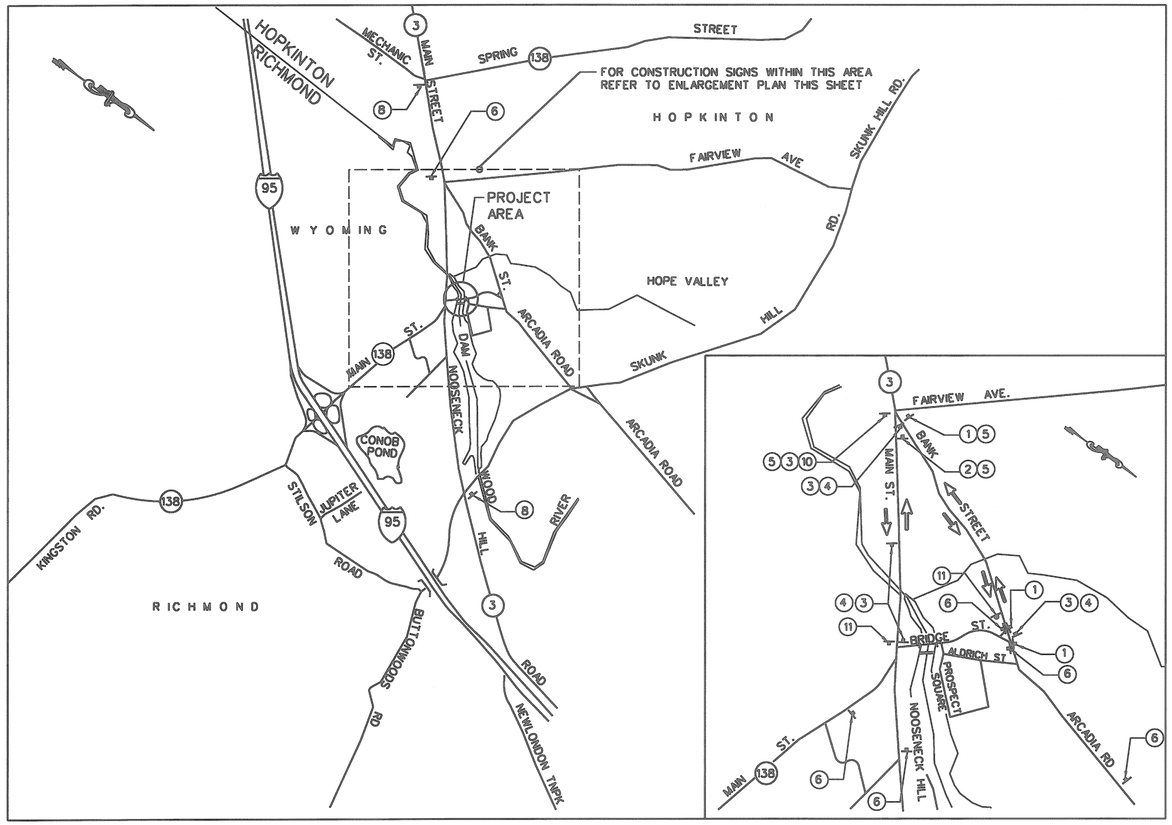
CHECKED BY _____ DATE _____ SCALE AS NOTED

Dewberry
Dewberry - Goodkind, Inc.
A Dewberry Company
260 SUMMER STREET
10TH FLOOR
BOSTON, MA 02210
PHONE: 617 695-3400
FAX: 617 695-3110

PROJECT: WYOMING
RHODE ISLAND, TOWN OF RICHMOND\HOPKINTON
BRIDGE STREET OVER WOOD RIVER BRIDGE NOS. 43\44
100% DESIGN

In Charge Of:	EB
Designed By:	SK, LD, GK
Design Checked By:	SK
Detailed By:	SK, LD, GK
Detail Checked By:	SK

FED. ROAD DIV. NO.	STATE	FEDERAL AID PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
1	R.I.			14	47



DETOUR PLAN
SCALE: 1"=2000'±

ENLARGEMENT PLAN
SCALE: 1"=1000'±

DETOUR SIGN SCHEDULE

SYMBOL	LEGEND	DESIGNATION	SIZE	QUANTITY
1	DETOUR	M4-9(L)	(30"x 24")	4
2	DETOUR	M4-9(R)	(30"x 24")	1
3	DETOUR	M4-8	(24"x 12")	4
4		M6-3	(21"x 15")	3
5	BRIDGE ST.	(SPECIAL)	(20"x 12")	2
6	BRIDGE STREET CLOSED AHEAD LOCAL TRAFFIC ONLY	(SPECIAL)	(60"x 30")	6
7	BRIDGE CLOSED	R11-2 (SPECIAL)	(48"x 30")	2
8	BRIDGE STREET CLOSED 1 MILE AHEAD LOCAL TRAFFIC ONLY	R11-3 (SPECIAL)	(60"x 30")	2
10		M6-2(L)	(21"x 15")	1
11	END DETOUR	M4-8a	(24"x 18")	2
12	BRIDGE CLOSED	SPECIAL	(24"x 12")	2

NOTES:

1. ALL SIGNS SHALL BE ERECTED FOR MAXIMUM VISIBILITY.
2. ALL SIGNS SHALL CONFORM TO THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, MUTCD 2000 EDITION.
3. THE DETOUR SHALL BE IN PLACE PRIOR TO THE CLOSING OF THE WORK AREA.
4. ALL SIGNS MAY BE FIELD ADJUSTED AS DIRECTED BY THE ENGINEER.
5. ACCESS TO ALL BUSINESSES AND RESIDENCES WITHIN THE WORK AREA SHALL BE MAINTAINED AT ALL TIMES.
6. SIGN (5) TO BE MOUNTED ON TOP OF SIGNS (1) AND (2).

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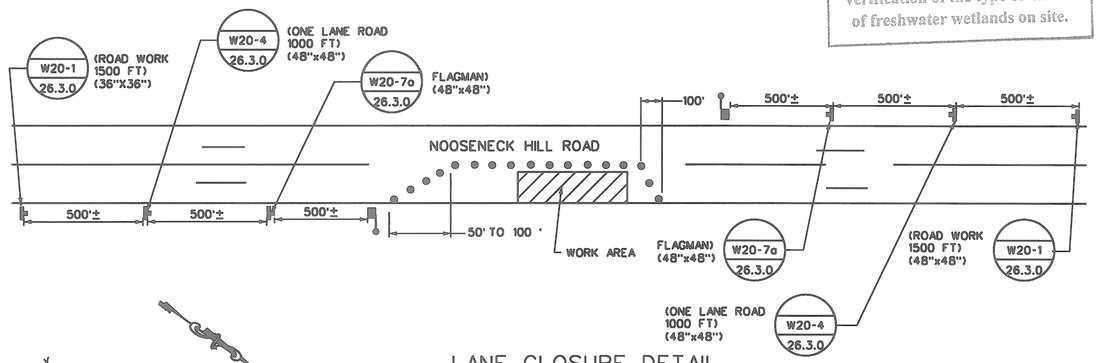
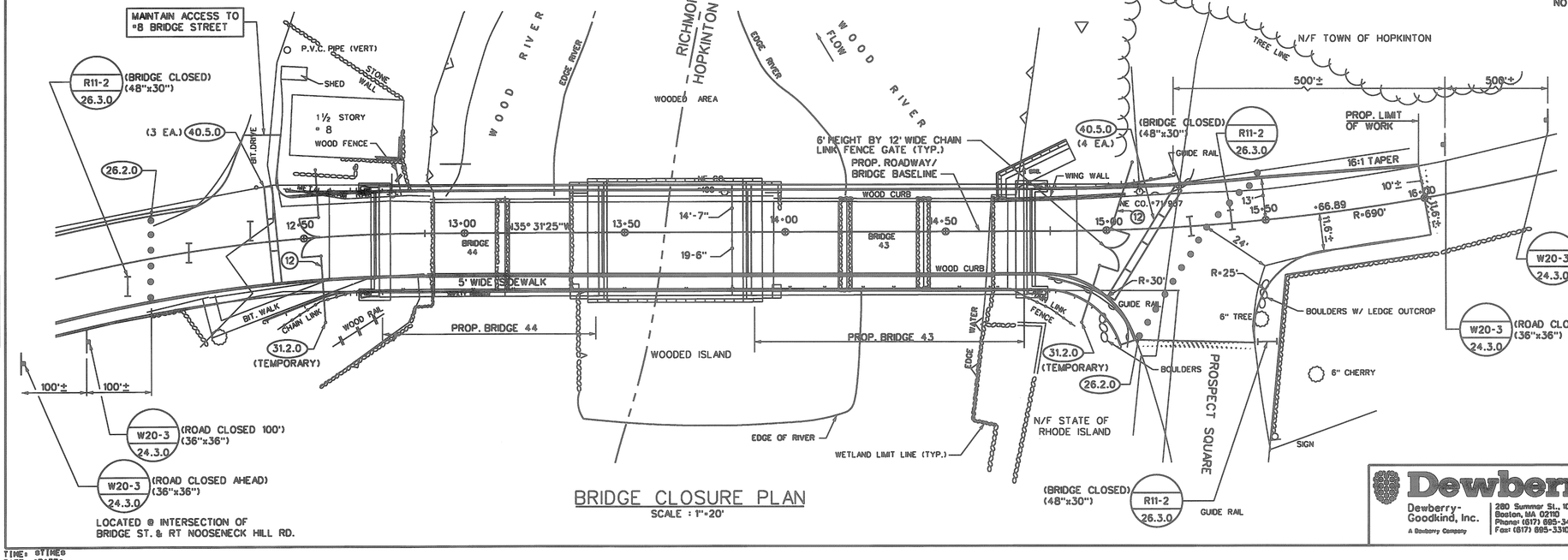


LANE CLOSURE DETAIL
NOT TO SCALE



BRIDGE CLOSURE PLAN
SCALE : 1"=20'

LEGEND:

- DRUM-R.I. STD. 26.2.0/CONE-R.I. STD. 26.1.0
- FLAGPERSON
- DIRECTION OF TRAFFIC
- (PVC) PLASTIC PIPE BARRICADE-R.I. STD. 26.3.0
- PRECAST MEDIAN BARRIER-R.I. STD. 40.5.0

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
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NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL.
APPROVED PLANS MUST BE AT CONSTRUCTION SITE.
MAY 6 2008
Martin D. Wenick

RIDEM SUBMISSION

REVISIONS		
NO.	DATE	BY

RHODE ISLAND
DEPARTMENT OF TRANSPORTATION

BRIDGE REPLACEMENT
WYOMING BRIDGE NO. 43/44
RICHMOND/HOPKINTON

TRAFFIC MAINTENANCE AND DETOUR PLAN

CHECKED BY _____ DATE _____ SCALE AS NOTED

Dewberry
Dewberry-Goodkind, Inc.
A Dewberry Company
280 Summer St., 10th Floor
Boston, MA 02210
Phone: (617) 695-3400
Fax: (617) 695-3310

PROJECT: WYOMING
RHODE ISLAND, TOWN OF RICHMOND/HOPKINTON
BRIDGE STREET OVER WOOD RIVER BRIDGE NOS. 43/44
100% DESIGN SUBMISSION
FILE: N:\152093.44\CADD\PS&E\PRINTINGSHEETS\SHT 10.DGN

IN CHARGE OF: EB
DESIGNED BY: SK, GK, JN
DESIGN CHECKED BY: SK, GK
DETAILED BY: SK, GK, JN
DETAIL CHECKED BY: SK, EB

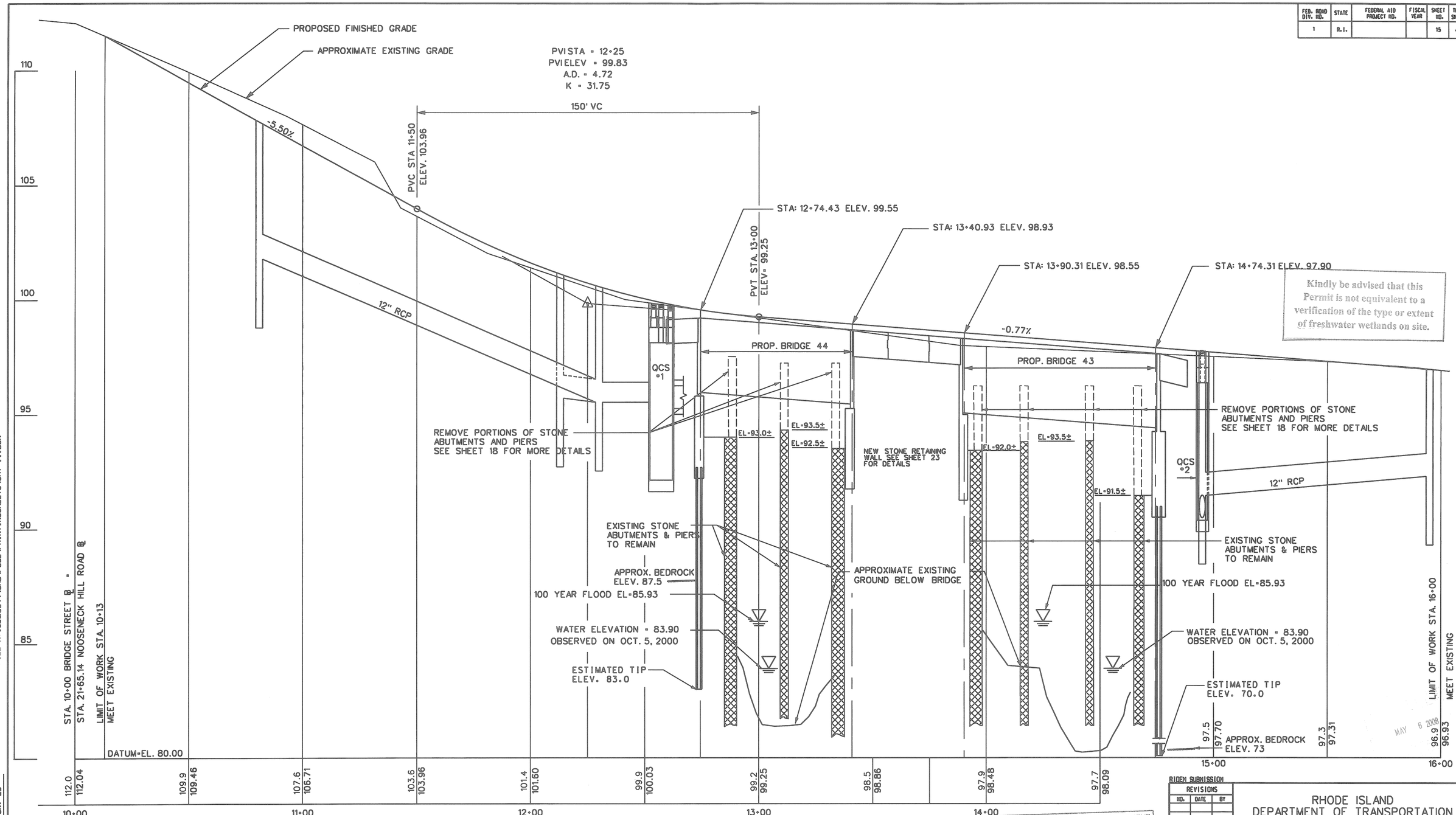
TIME: @TIME@
DATE: @DATE@

FED. ROAD DIV. NO.	STATE	FEDERAL AID PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
1	R.I.			15	47

PROJECT: WYOMING
RHODE ISLAND, TOWN OF RICHMOND/HOPKINTON
BRIDGE STREET OVER WOOD RIVER BRIDGE NOS. 43/44
100% DESIGN SUBMISSION
FILE#: M:\1528\9...44\CADD\PS&E\PRINTINGSHEETS\SHT 11.DGN

IN CHARGE OF: EB
DESIGNED BY: SK, GK, JN
DESIGN CHECKED BY: SK, GK
DETAILED BY: SK, GK, JN
DETAIL CHECKED BY: SK, EB

TIME: @TIME@
DATE: @DATE@



PROFILE - BRIDGE STREET
SCALES: HORIZ : 1"=20'
VERT : 1"=2'

NOTE: SEE SHEET 4 FOR SUPERELEVATION TABLE

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DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
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Maryann D. Wenck

MAY 6 2008

RIDEM SUBMISSION

REVISIONS		
NO.	DATE	BY

Dewberry
Dewberry-Goodkind, Inc.
A Dewberry Company
280 Summer St., 10th Floor
Boston, MA 02210
Phone: (617) 695-3400
Fax: (617) 695-3310

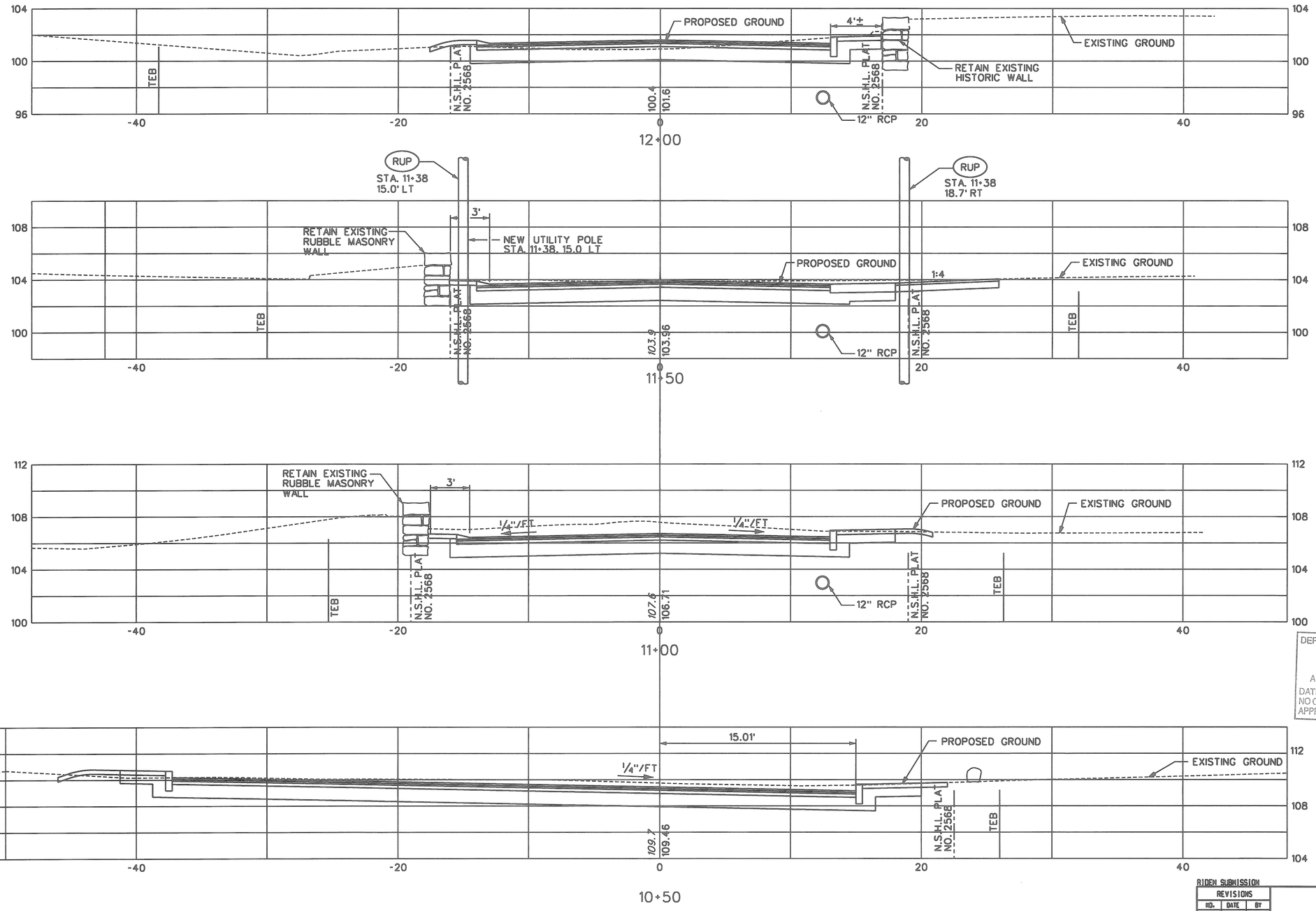
RHODE ISLAND
DEPARTMENT OF TRANSPORTATION

BRIDGE REPLACEMENT
WYOMING BRIDGE NO. 43/44
RICHMOND/HOPKINTON

ROADWAY PROFILE

CHECKED BY _____ DATE _____ SCALE AS NOTED

FED. ROAD DIV. NO.	STATE	FEDERAL AID PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
1	R.I.			16	47



EARTHWORKS	
EXCAVATION	39 S.F.
FILL	
USM EXCA.	
ROCK EXCA.	
STRUC. EXCA.	

EARTHWORKS	
EXCAVATION	60 S.F.
FILL	
USM EXCA.	
ROCK EXCA.	
STRUC. EXCA.	

EARTHWORKS	
EXCAVATION	75 S.F.
FILL	
USM EXCA.	
ROCK EXCA.	
STRUC. EXCA.	

EARTHWORKS	
EXCAVATION	112 S.F.
FILL	
USM EXCA.	
ROCK EXCA.	
STRUC. EXCA.	

EARTHWORKS SUMMARY	
EARTH EXC.	573 C.Y.
FILL	109 C.Y.

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DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
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Martin D. Wencek
MAY 6 2008

RIDEM SUBMISSION

REVISIONS		
NO.	DATE	BY

RHODE ISLAND
DEPARTMENT OF TRANSPORTATION

BRIDGE REPLACEMENT
WYOMING BRIDGE NO. 43/44
RICHMOND/HOPKINTON

BRIDGE STREET
CROSS SECTIONS
STA. 10+50 TO STA 12+00

CHECKED BY _____ DATE _____ SCALE 1" = 4'

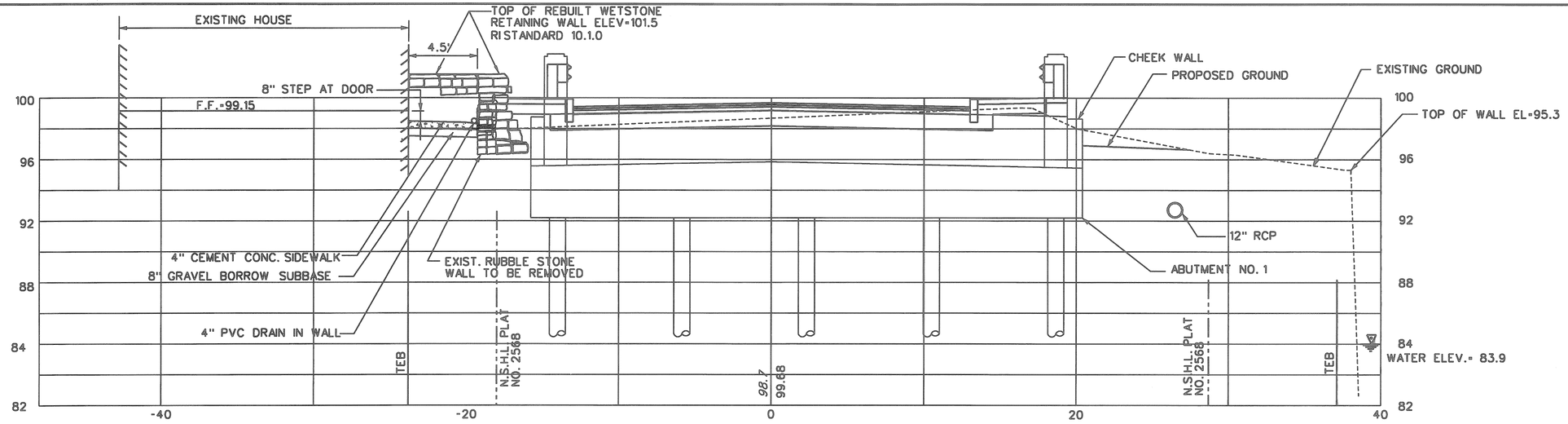
Dewberry
Dewberry-Goodkind, Inc.
A Dewberry Company
280 Summer St., 10th Floor
Boston, MA 02210
Phone: (617) 695-3400
Fax: (617) 695-3310

PROJECT: WYOMING
RHODE ISLAND, TOWN OF RICHMOND/HOPKINTON
BRIDGE STREET OVER WOOD RIVER BRIDGE NOS. 43/44
100% DESIGN SUBMISSION
FILE: M:\1528\9_44\CADD\PS&E\PRINTINGSHEETS\SHT 12.DGN

IN CHARGE OF: EB
DESIGNED BY: SK, GK, JN
DESIGN CHECKED BY: SK, GK
DETAILED BY: SK, GK, JN
DETAIL CHECKED BY: SK, EB

TIME: @TIME@
DATE: @DATE@

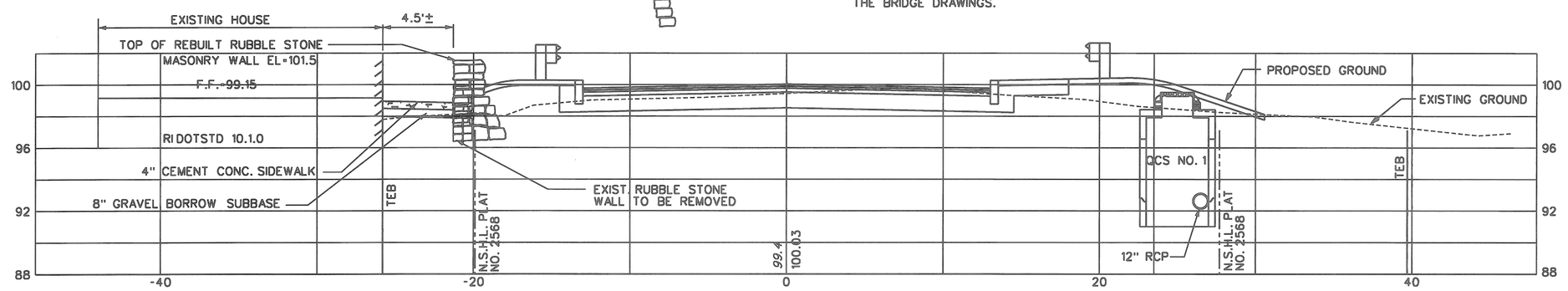
FED. ROAD DIV. NO.	STATE	FEDERAL AID PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
1	R.I.			17	47



12+67

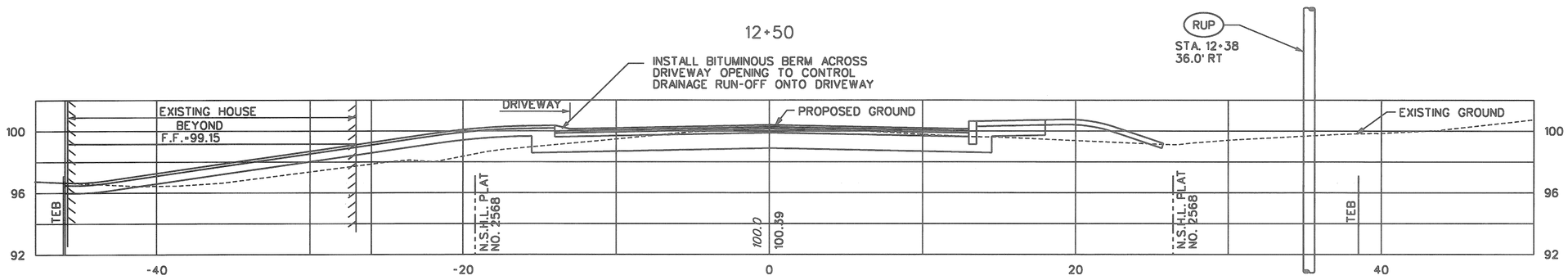
FOR CONSTRUCTION DETAILS BETWEEN STA. 12+58 (THE BEGINNING OF APPROACH SLAB NO. 1) AND STA. 14+91 (THE END OF APPROACH SLAB NO.4) REFER TO THE BRIDGE DRAWINGS.

EARTHWORKS	
EXCAVATION	20 S.F.
FILL	14 S.F.
USM EXCA.	
ROCK EXCA.	
STRUC. EXCA.	275 S.F.



12+50

EARTHWORKS	
EXCAVATION	30 S.F.
FILL	19 S.F.
USM EXCA.	
ROCK EXCA.	
STRUC. EXCA.	14 S.F.



12+36

EARTHWORKS	
EXCAVATION	31 S.F.
FILL	20 S.F.
USM EXCA.	
ROCK EXCA.	
STRUC. EXCA.	64 S.F.

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

MAY 6 2008

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
AS SPECIFIED IN THE LETTER OF APPROVAL
DATED JUN 13 2008 FILE # 08-0043
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL.
APPROVED PLANS MUST BE AT CONSTRUCTION SITE.

RIDEM SUBMISSION

REVISIONS

NO.	DATE	BY

RHODE ISLAND
DEPARTMENT OF TRANSPORTATION

BRIDGE REPLACEMENT
WYOMING BRIDGE NO. 43/44
RICHMOND/HOPKINTON

BRIDGE STREET
CROSS SECTIONS
STATION 12+36 TO STA. 12+67

CHECKED BY _____ DATE _____ SCALE 1" = 4'

Dewberry
Dewberry-Goodkind, Inc.
A Dewberry Company
280 Summer St., 10th Floor
Boston, MA 02210
Phone: (617) 695-3400
Fax: (617) 695-3310

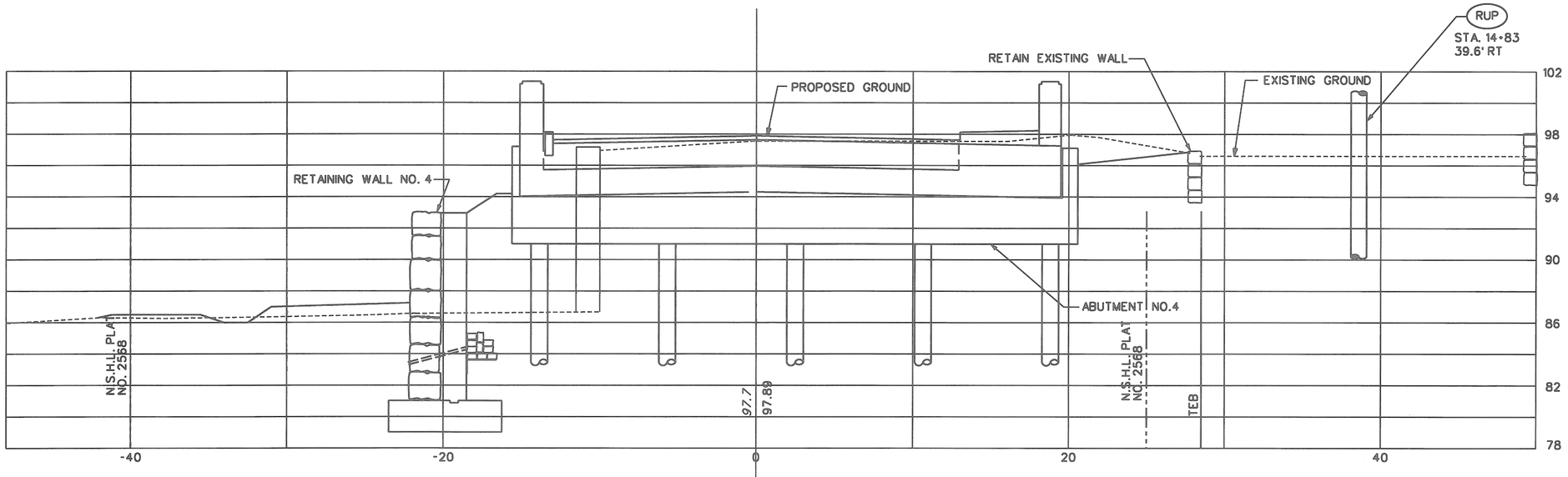
PROJECT: WYOMING
RHODE ISLAND, TOWN OF RICHMOND/HOPKINTON
BRIDGE STREET OVER WOOD RIVER BRIDGE NOS. 43/44
100% DESIGN SUBMISSION
FILE: M:\152389.44\CAD\PS&E\PRINTINGSHEETS\SHT 13.DGN

IN CHARGE OF EB
DESIGNED BY SK, GK, JN
DESIGN CHECKED BY SK, GK
DETAILED BY SK, GK, JN
DETAIL CHECKED BY SK, EB

TIME: $TIME$
DATE: $DATE$

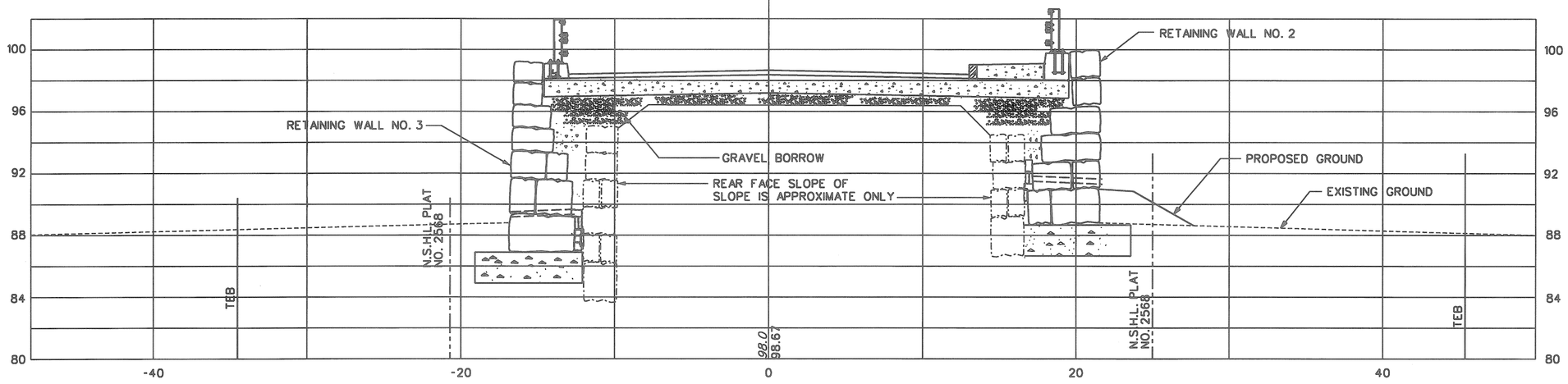
FED. ROAD DIV. NO.	STATE	FEDERAL AID PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
1	R.I.			18	47

FOR CONSTRUCTION DETAILS BETWEEN STA. 12+58 (THE BEGINNING OF APPROACH SLAB NO. 4) AND STA. 14+91 (THE END OF APPROACH SLAB NO.4) REFER TO THE BRIDGE DRAWINGS.



14+75

EARTHWORKS	
EXCAVATION	35 S.F.
FILL	7 S.F.
USM EXCA.	———
ROCK EXCA.	———
STRUC. EXCA.	325 S.F.



13+75

EARTHWORKS	
EXCAVATION	———
FILL	9 S.F.
USM EXCA.	———
ROCK EXCA.	———
STRUC. EXCA.	56 S.F.

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MAY 6 2008

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
AS SPECIFIED IN THE LETTER OF APPROVAL
DATED JUN 13 2008 FILE # 08-0043
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APPROVED PLANS MUST BE AT CONSTRUCTION SITE.
Martin D. Wencek

RIDEM SUBMISSION

REVISIONS		
NO.	DATE	BY

RHODE ISLAND
DEPARTMENT OF TRANSPORTATION

BRIDGE REPLACEMENT
WYOMING BRIDGE NO. 43/44
RICHMOND/HOPKINTON

BRIDGE STREET
CROSS SECTIONS
STATION 13+75 TO STA. 14+75

CHECKED BY _____ DATE _____ SCALE 1" = 4'

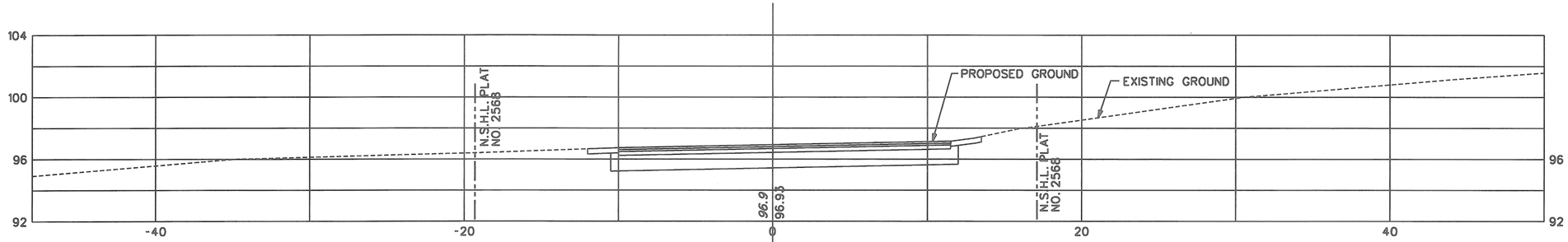
Dewberry
Dewberry-Goodkind, Inc.
A Dewberry Company
280 Summer St., 10th Floor
Boston, MA 02110
Phone: (617) 695-3400
Fax: (617) 695-3310

PROJECT: WYOMING
RHODE ISLAND, TOWN OF RICHMOND/HOPKINTON
BRIDGE STREET OVER WOOD RIVER BRIDGE NOS. 43/44
100% DESIGN SUBMISSION
FILE: M:\52899.44\CADD\PSAE\PRINTINGSHEETS\SHT 14.DGN

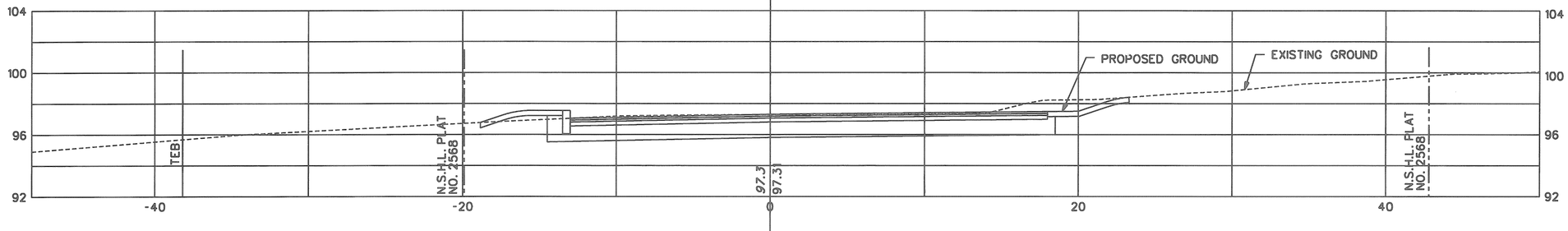
IN CHARGE OF: EB
DESIGNED BY: SK, CK, JN
DESIGN CHECKED BY: SK, CK
DETAILED BY: SK, CK, JN
DETAIL CHECKED BY: SK, EB

TIME: @TIME@
DATE: @DATE@

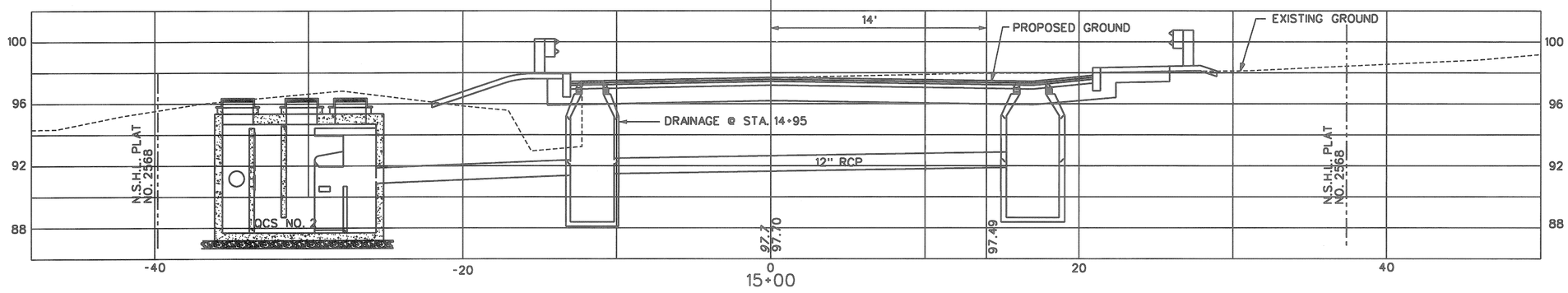
FED. ROAD DIV. NO.	STATE	FEDERAL AID PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
1	R.I.			19	47



EARTHWORKS	
EXCAVATION	34.5 S.F.
FILL	
USM EXCA.	
ROCK EXCA.	
STRUC. EXCA.	



EARTHWORKS	
EXCAVATION	59.5 S.F.
FILL	1 S.F.
USM EXCA.	
ROCK EXCA.	
STRUC. EXCA.	



EARTHWORKS	
EXCAVATION	59.5 S.F.
FILL	18.5 S.F.
USM EXCA.	
ROCK EXCA.	
STRUC. EXCA.	

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

MAY 6 2008

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
AS SPECIFIED IN THE LETTER OF APPROVAL
DATED JUN 1 3 2008 FILE # 08-0043
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL.
APPROVED PLANS MUST BE AT CONSTRUCTION SITE.
Maureen D. Wenck

RIDEM SUBMISSION

REVISIONS		
NO.	DATE	BY

RHODE ISLAND
DEPARTMENT OF TRANSPORTATION

BRIDGE REPLACEMENT
WYOMING BRIDGE NO. 43/44
RICHMOND/HOPKINTON

BRIDGE STREET
CROSS SECTIONS
STA. 15+00 TO STA 16+00

CHECKED BY _____ DATE _____ SCALE 1" = 4'

Dewberry
Dewberry-Goodkind, Inc.
A Dewberry Company
280 Summer St., 10th Floor
Boston, MA 02210
Phone: (617) 695-3400
Fax: (617) 695-3310

PROJECT: WYOMING
RHODE ISLAND, TOWN OF RICHMOND/HOPKINTON
BRIDGE STREET OVER WOOD RIVER BRIDGE NOS. 43/44
100% DESIGN SUBMISSION
FILE: N:\1529\03-44\CAD\PS&E\PRINTINGSHEETS\SHT 15.DGN

IN CHARGE OF EB
DESIGNED BY SK, GK, JN
DESIGN CHECKED BY SK, GK
DETAILED BY SK, GK, JN
DETAIL CHECKED BY SK, EB

TIME: $TIME$
DATE: $DATE$

FED. ROAD DIV. NO.	STATE	FEDERAL AID PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
1	R.I.			20	47

GENERAL NOTES

1. ALL CONSTRUCTION INDICATED ON THESE PLANS SHALL BE IN ACCORDANCE WITH:

   #THE LATEST REVISION OF AND MODIFICATIONS TO THE STATE OF RHODE ISLAND STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION (DATED 2004)

   #THE SEVENTEENTH EDITION OF THE STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES OF THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS, DATED 2002, INCLUDING THE LATEST INTERIM SPECIFICATIONS.

   #THE SPECIFICATIONS ACCOMPANYING THESE PLANS

   #IN CASE OF CONFLICT, THE SPECIAL PROVISIONS OF THE SPECIFICATIONS ACCOMPANYING THESE PLANS SHALL GOVERN.

2. DIMENSIONS, STATIONS, AND ELEVATIONS ARE SHOWN TO THE NEAREST ONE-HUNDREDTH OF A FOOT OR ONE-EIGHT OF AN INCH, EXCEPT STRUCTURAL STEEL DIMENSIONS WHICH ARE TO THE NEAREST ONE-SIXTEENTH OF AN INCH. ALL ELEVATIONS ARE REFERENCED TO NGVD29.

3. COORDINATES USED ON THESE PLANS ARE BASED ON THE STATE RECTANGULAR COORDINATE SYSTEM.

4. FOR BENCH MARKS AND TIES SEE HIGHWAY LOCATION PLANS.

5. ANGLES ARE SHOWN TO THE NEAREST SECOND.

6. ALL FOOTINGS SHALL BE APPROVED BY THE ENGINEER AS TO DIMENSIONS, ELEVATIONS, AND SUITABILITY OF FOUNDATION MATERIAL BEFORE THE PLACING OF CONCRETE.

7. ALL WORKING POINTS ARE SHOWN AT THE INTERSECTIONS OF CENTER LINES OF BEARING OF ABUTMENTS AND CENTER LINE OF CONSTRUCTION.

8. ALL ABUTMENTS AND WALLS ARE DRAWN LOOKING AT THE EXPOSED FACES.

9. SOME WALL DRAINS MAY REQUIRE DRILLING THROUGH STONEWALLS.

10. CONTRACTOR IS TO NOTIFY HOMEOWNER OF #8 BRIDGE STREET OF PRE-DRILLING AND PIPE INSTALLATION AT ABUTMENT NO. 1.

11. PIPE PILES SHALL BE CLEAN AND RUST FREE WHERE IN CONTACT WITH CONCRETE

DESIGN DATA

SPECIFICATIONS

* SEVENTEENTH EDITION OF THE STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES OF THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS (AASHTO), DATED 2002, INCLUDING LATEST INTERIM SPECIFICATIONS.

* THE LATEST REVISION OF AND MODIFICATIONS TO THE 2004 STATE OF RHODE ISLAND STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION.

DESIGN MANUAL

THE LATEST EDITION OF THE STATE OF RHODE ISLAND DETMENT OF TRANSPORTATION BRIDGE DESIGN MANUAL DATED 1993, INCLUDING ALL REVISIONS TO DATE.

DESIGN LOADING

* AASHTO HS 25-44 LOADING
* RHODE ISLAND LEGAL LOAD
* PEDESTRIAN LIVE LOAD - 85 PSF

MATERIALS

REINFORCING STEEL:

* AASHTO DESIGNATION M 31 (ASTM DESIGNATION A 615) GRADE 60.

PRESTRESSING STEEL:

* UNCOATED SEVEN WIRE LOW-RELAXATION STRAND, AASHTO DESIGNATION M 203 (ASTM DESIGNATION A 416) GRADE 270.

CONCRETE:

* CLASS A(AE) f'c = 3.000 PSI
* CLASS XX(AE) f'c = 4.000 PSI
* CLASS X(AE) f'c = 5.000 PSI
* CLASS HP(AE) f'c = 5.000 PSI

CONTROLLED LOW STRENGTH MATERIAL:

* CLASS III MINIMUM STRENGTH 200 PSI

FOUNDATIONS

* PILE CAPACITY 50 TON
MAXIMUM ALLOWABLE SOIL BEARING CAPACITY 3 TSF

CONCRETE NOTES

1. CLASSES OF CONCRETE SHALL BE HP(AE), X(AE), XX(AE) & A(AE), AS DESCRIBED IN THE LATEST REVISION OF TABLES (1) & (2) UNDER SECTION 601 "PORTLAND CEMENT CONCRETE" OF THE RHODE ISLAND STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION AND THE SPECIAL PROVISIONS OF THE SPECIFICATIONS. SEE INDIVIDUAL BRIDGE QUANTITIES FOR CLASSES OF CONCRETE USED.

2. ALL PORTLAND CEMENT CONCRETE SHALL BE AIR-ENTRAINED PORTLAND CEMENT CONCRETE AS DESIGNATED BY THE SYMBOL (AE) FOLLOWING THE CLASS OF CONCRETE.
   NOTE:
   ALL CONCRETE IS TO BE MODIFIED THROUGH THE ADDITION OF CALCIUM NITRITE BASED CORROSION INHIBITOR IN ACCORDANCE WITH THE RHODE ISLAND STANDARD SPECIFICATIONS.

3. REINFORCING STEEL SHALL CONFORM TO AASHTO DESIGNATION M 31 (ASTM DESIGNATION A 615) GRADE 60. EPOXY COATED BARS ARE DISTINGUISHED FROM NON-EPOXY COATED BARS AS SHOWN ON THE PLANS. ALL WIRE TIES AND MISCELLANEOUS HARDWARE USED FOR PLACEMENT OF EPOXY COATED REINFORCING SHALL ALSO BE EPOXY COATED.

4. EPOXY COATING FOR REINFORCING STEEL SHALL CONFORM TO AASHTO DESIGNATION M 284 (ASTM DESIGNATION A 775 AND D 3963).

5. WELDED WIRE FABRIC FOR REINFORCING SHALL CONFORM TO AASHTO DESIGNATION M 55 (ASTM DESIGNATION A 185) GRADE 60.

6. UNLESS OTHERWISE SHOWN ON THE PLANS, ALL REINFORCING SHALL BE LAPPED ACCORDING TO THE FOLLOWING CHART. LENGTHS IN PARENTHESES ARE FOR EPOXY COATED REINFORCING.

BAR SIZE	CLASS OF CONCRETE X (AE)	XX (AE)
#4	12" (12")	12" (12")
#5	12" (12")	12" (12")
#6	12" (14")	14" (16")

NOTE:
THE LAPS LISTED ABOVE ARE FOR NONCRITICAL SPLICES (AASHTO CLASS A SPLICE) WHERE BAR SPACING IS GREATER THAN SIX INCHES. ALL CRITICAL SPLICES SHALL BE AS SHOWN ON THE PLANS.

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

	MINIMUM COVER
CONCRETE CAST AGAINST OR PERMANENTLY EXPOSED TO EARTH (FOOTINGS, ABUTMENT AND WALL FACES, BACKWALLS)	3"
STIRRUPS, TIES AND SPIRALS	2 "
ALL OTHER BARS	2"

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

9. ALL ANCHOR BOLTS SHALL BE ASTM DESIGNATION A 307, AND SHALL BE GALVANIZED IN ACCORDANCE WITH AASHTO DESIGNATION M 232 (ASTM DESIGNATION A 153), OR METALIZED IN A MANNER APPROVED BY THE ENGINEER. SUCH APPROVAL DOES NOT RELIEVE THE CONTRACTOR OF THE RESPONSIBILITY TO PREVENT CONCRETE STAINS OR DISCOLORATIONS. SWEDGED RODS SHALL BE AASHTO DESIGNATION M 270 (ASTM DESIGNATION A 709) GRADE 36 AND SHALL BE IN ACCORDANCE WITH AASHTO DESIGNATION M 232 (ASTM DESIGNATION A 153).

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 SHALL RECEIVE A CONCRETE SURFACE RUBBED FINISH IN ACCORDANCE WITH THE RI STANDARD SPECIFICATIONS.

12. THE ENTIRE SURFACES OF BEAM SEATS, FACES OF BACKWALLS (EXCEPT FOR PRESTRESSED BUTTED BOXES AND SLABS WHERE THE BACKWALL IS CAST AGAINST THE BOXES OR SLABS), SHALL BE PROVIDED WITH A CONCRETE SURFACE TREATMENT- PROTECTIVE COATING IN ACCORDANCE WITH THE SPECIAL PROVISIONS.

13. ALL EXPOSED EDGES AND REENTRANT CORNERS NOT OTHERWISE DETAILED ON THE PLANS SHALL HAVE A MINIMUM 3/4" CHAMFER.

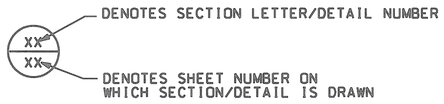
14. ALL JOINT SEALANT SHALL BE POLYURETHANE BASE, POLYURETHANE ELASTOMERIC OR SILICONE SEALANT UNLESS OTHERWISE DESIGNATED ON THE PLANS. THE COLOR OF THE JOINT SEALANT, WHERE EXPOSED, SHALL BE NEUTRAL (LIGHT GRAY OR TAN). COLOR OF THE SEALANT, WHERE NOT EXPOSED, WILL BE AT THE DISCRETION OF THE CONTRACTOR.

15. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PREVENTING CONCRETE STAINS OR DISCOLORATIONS DURING CONSTRUCTION UNTIL SUCH TIME AS THE SURFACES ARE APPROVED AND ACCEPTED. ANY CONCRETE STAINS OR DISCOLORATIONS OCCURING PRIOR TO ACCEPTANCE OF THE SURFACES SHALL BE REMOVED BY THE CONTRACTOR AT HIS OWN EXPENSE.

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

17. HANDHELD VIBRATORS SHALL BE EQUIPPED WITH RUBBER TIPPED HEADS WHEN USED TO CONSOLIDATE CONCRETE AROUND EPOXY-COATED REINFORCEMENT

18. IN ACCORDANCE WITH THE RI STANDARD SPECIFICATIONS, ALL METAL TIES OR ANCHORAGES WHICH ARE REQUIRED FOR CONCRETE FORMWORK SHALL BE SO CONSTRUCTED THAT THEY CAN BE REMOVED TO AT LEAST TWO INCHES FROM THE EXPOSED SURFACE OF CONCRETE WITHOUT CAUSING DAMAGE TO CONCRETE SURFACE. SNAP TIES MAY BE USED ONLY IF APPROVED BY THE ENGINEER. IF A CONTRACTOR PROPOSES TO USE THEM HE MUST SUBMIT A CATALOG CUT AND OTHER NECESSARY INFORMATION 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 TO THE SATISFACTION OF THE ENGINEER.



SECTION AND DETAIL DESIGNATIONS

BRIDGE WORK ITEMS FOR WHICH SHOP DRAWINGS AND OR SUBMITTALS ARE REQUIRED

1. BRIDGE DEMOLITION; EQUIPMENT, DETAILED SEQUENCE OF WORK
2. FOUNDATION PILES; INSTALLATION AND LOAD TESTING PROCEDURES, EQUIPMENT AND DETAIL
3. PILE POINTS AND SPLICES
4. ARCHITECTURAL TREATMENTS (GRANITE VENEER, ETC.)
5. ASPHALTIC EXPANSION JOINT
6. PRECAST/PRESTRESSED CONCRETE UNITS (BEAMS, BOXES)
7. REINFORCING STEEL, SPLICES, AND INSERTS
8. BRIDGE BEARINGS
9. BRIDGE RAILINGS
10. BRIDGE NAME SEAL TABLETS
11. GRANITE CURB FOR BRIDGES
12. DECK SEALERS AND MEMBRANES
13. PRE CONSTRUCTION SURVEY, POST CONSTRUCTION SUMMARY OF SURROUNDING STRUCTURES
14. REMOVAL AND STOCKPILE OF EXISTING STONE MASONRY
15. VORTECHS DRAINAGE STRUCTURE (HIGHWAY ITEM)
16. TEMPORARY ACCESS TO * 8 BRIDGE STREET

SUGGESTED SEQUENCE OF CONSTRUCTION

1. THIS SUGGESTED SEQUENCE OF CONSTRUCTION IS INTENDED TO BE A GENERAL DESCRIPTION OF THE MAJOR CONSTRUCTION ACTIVITIES REQUIRED. IT IS NOT INTENDED TO BE A COMPLETE DESCRIPTION OF THE WORK, OR A SPECIFICATION OF MEANS AND METHODS. REFER TO THE PLANS AND OTHER CONTRACT DOCUMENTS FOR THE REQUIREMENTS OF THE CONTRACT.
2. CONSTRUCT TEMPORARY DETOUR AND CLOSE BRIDGE STREET TO TRAFFIC.
3. DEMOLISH EXISTING BRIDGE 43. UTILIZE BRIDGE 44 AND/OR INSTALL TEMPORARY ACCESS TO ISLAND FROM THE NORTH SIDE.
4. CONSTRUCT NORTHERLY PORTION OF ISLAND AND ABUTMENT *3 ALONG WITH PORTIONS OF WALL *2 AND *3.
5. CONSTRUCT ABUTMENT *4, AND RETAINING WALL *4.
6. CONSTRUCT BRIDGE 43 SUPERSTRUCTURE
7. DEMOLISH EXISTING BRIDGE 44. UTILIZE BRIDGE 43 AND/OR INSTALL TEMPORARY ACCESS FROM SOUTH SIDE.
8. CONSTRUCT REMAINING PART OF ISLAND, WALL *2, WALL *3 AND ABUTMENT *2.
9. CONSTRUCT ABUTMENT 1.
10. CONSTRUCT BRIDGE 44 SUPERSTRUCTURE
11. RECONSTRUCT ROADWAYS
12. COMPLETE FINAL DETAILS.
13. REMOVE DETOUR AND RE-OPEN BRIDGE STREET TO TRAFFIC.

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

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
AS SPECIFIED IN THE LETTER OF APPROVAL
DATED JUN 13 2008 FILE # 05-0943
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL.
APPROVED PLANS MUST BE AT CONSTRUCTION SITE.

Martin D. Wencek

MAY 6 2008

RIDEM SUBMISSION

REVISIONS NO.	DATE	BY

RHODE ISLAND
DEPARTMENT OF TRANSPORTATION

BRIDGE REPLACEMENT
WYOMING BRIDGE NO. 43/44
RICHMOND/HOPKINTON

GENERAL NOTES

CHECKED BY _____ DATE _____ SCALE AS NOTED

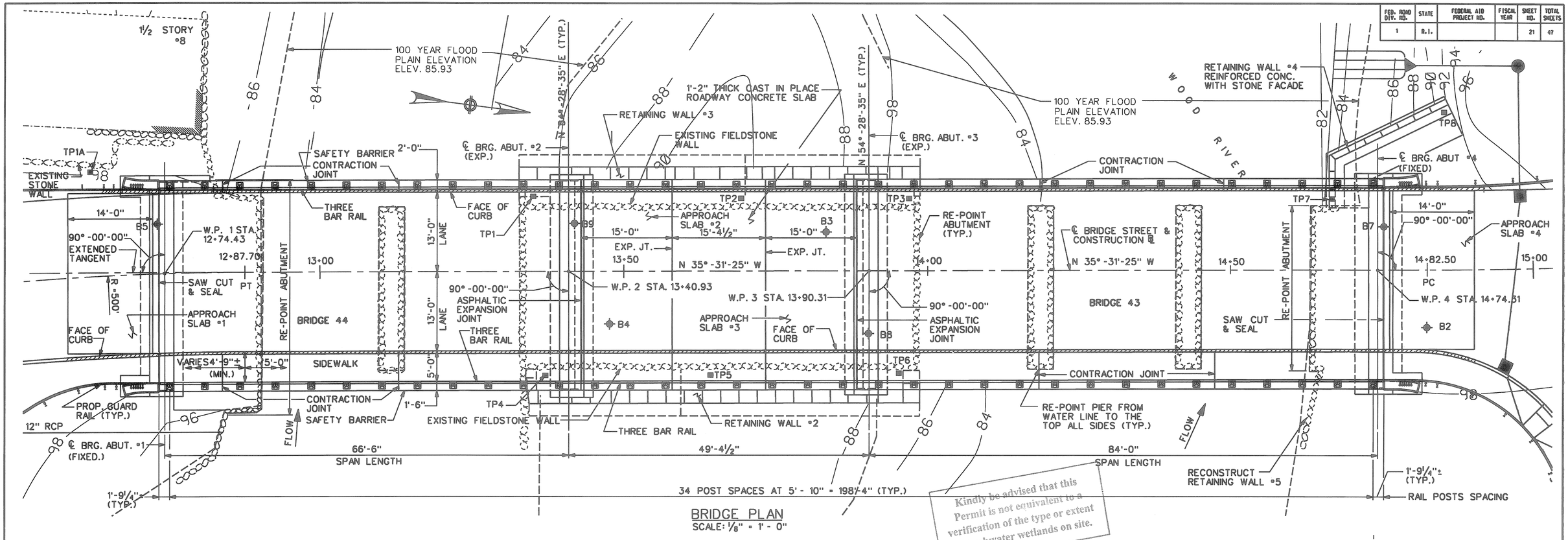
Dewberry
Dewberry-Goodkind, Inc.
A Dewberry Company
280 Summer St., 10th Floor
Boston, MA 02110
Phone: (617) 695-3400
Fax: (617) 695-3310

PROJECT: WYOMING
RHODE ISLAND, TOWN OF RICHMOND/HOPKINTON
BRIDGE STREET OVER WOOD RIVER BRIDGE NOS. 43/44
100% DESIGN SUBMISSION
FILE: M:\525\43_44\CAD\PSBE\PRINTINGSHEETS\SHT 16.DGN

IN CHARGE OF: EB
DESIGNED BY: SK, CK, JN
DESIGN CHECKED BY: SK, CK
DETAILED BY: SK, CK, JN
DETAIL CHECKED BY: SK, EB

TIME: @TIME@
DATE: @DATE@

FED. ROAD DIV. NO.	STATE	FEDERAL AID PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
1	R.I.			21	47



BRIDGE PLAN
SCALE: ⅛" = 1' - 0"

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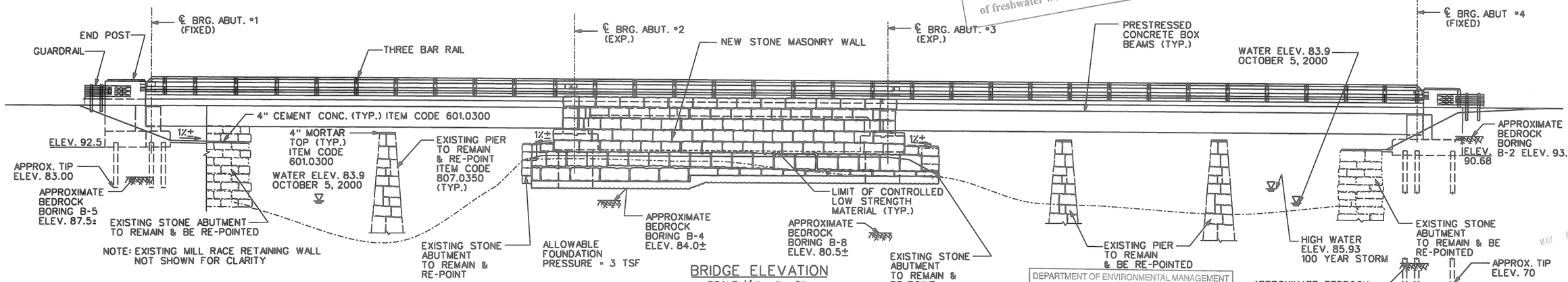
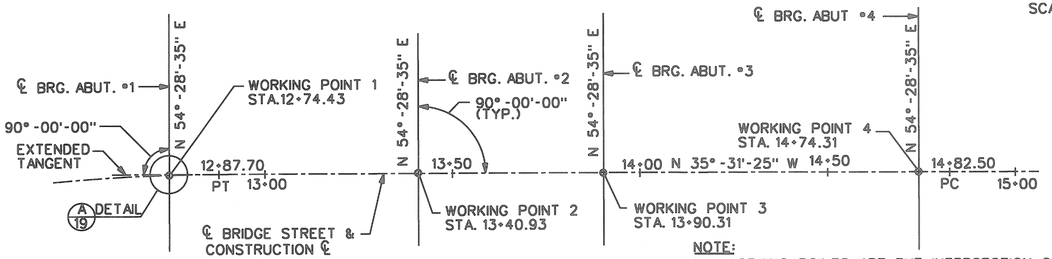


BRIDGE ELEVATION
SCALE: ⅛" = 1' - 0"



WORK POINT LAYOUT
SCALE: 1" : 20'

NOTE:
ALL WORKING POINTS ARE THE INTERSECTION OF BRIDGE STREET ℄ & ℄ BRG.

TABLE OF COORDINATES		
WORKING POINT	NORTHING	EASTING
W.P.1	157565.0259	272372.8173
W.P.2	157619.0463	272334.0347
W.P.3	157659.2273	272305.3489
W.P.4	157727.5929	272256.5416

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
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FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
AS SPECIFIED IN THE LETTER OF APPROVAL
DATED JUN 13 2008 FILE # 08-0043
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL.
APPROVED PLANS MUST BE AT CONSTRUCTION SITE.
Maureen D. Wenck

NOTE:
SEE GENERAL NOTES ON SHEET 16 FOR GUIDANCE PROVISION FOR ABUTMENT 4 CONSTRUCTION.

MAY 6 2008

RIDEM SUBMISSION

REVISIONS		
NO.	DATE	BY

Dewberry
Dewberry-Goodkind, Inc.
A Dewberry Company
200 Summer St., 10th Floor
Boston, MA 02110
Phone: (617) 695-3400
Fax: (617) 695-3310

RHODE ISLAND
DEPARTMENT OF TRANSPORTATION

BRIDGE REPLACEMENT
WYOMING BRIDGE NO. 43/44
RICHMOND/HOPKINTON

BRIDGE PLAN AND ELEVATION

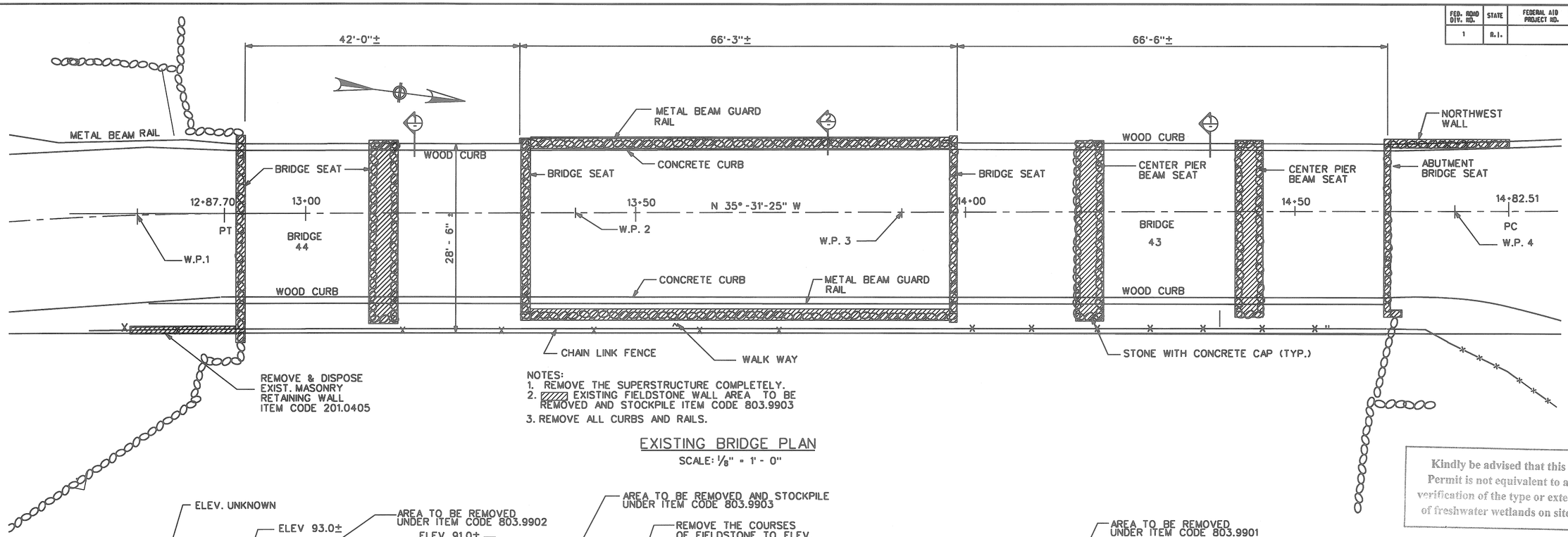
CHECKED BY _____ DATE _____ SCALE AS NOTED

PROJECT: WYOMING
RHODE ISLAND, TOWN OF RICHMOND/HOPKINTON
BRIDGE STREET OVER WOOD RIVER BRIDGE NOS. 43/44
100% DESIGN SUBMISSION
FILE No: 152899.44\CAD\PSNE\PRINTINGSHEETS\SHT 17.DGN

IN CHARGE OF: EB
DESIGNED BY: SK, GK, JN
DESIGN CHECKED BY: SK, GK
DETAILED BY: SK, GK, JN
DETAIL CHECKED BY: SK, EB

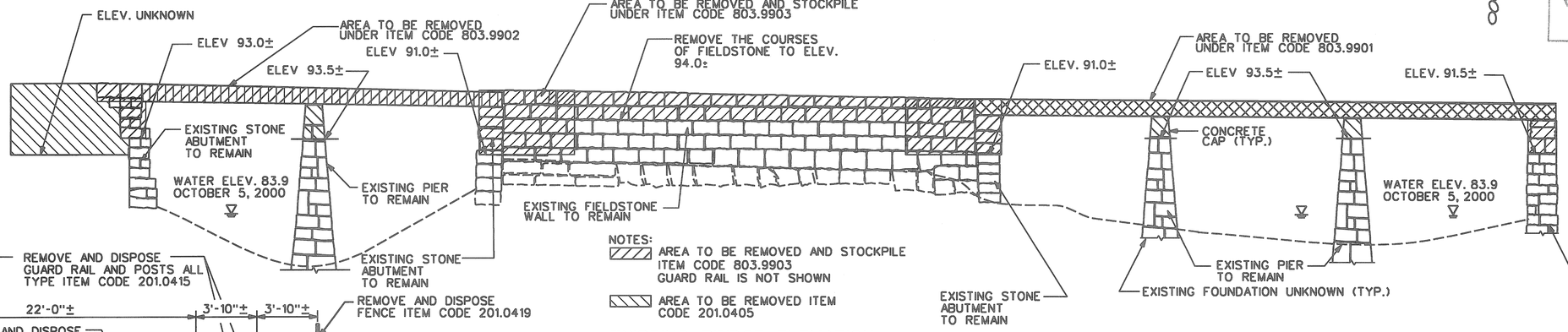
TIME: &TIME&
DATE: &DATE&

FED. ROAD DIV. NO.	STATE	FEDERAL AID PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
1	R.I.			22	47



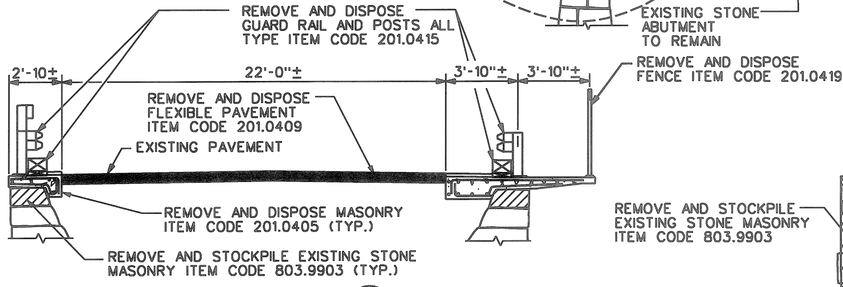
NOTES:
1. REMOVE THE SUPERSTRUCTURE COMPLETELY.
2. ▨ EXISTING FIELDSTONE WALL AREA TO BE REMOVED AND STOCKPILE ITEM CODE 803.9903
3. REMOVE ALL CURBS AND RAILS.

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

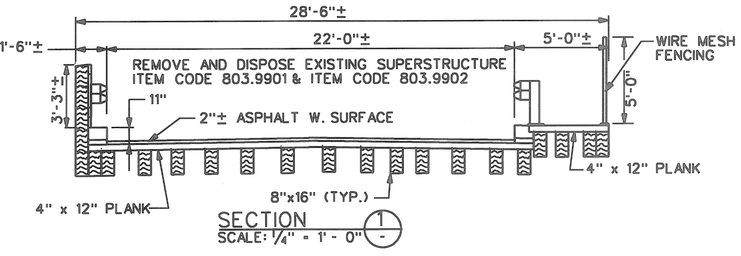


NOTES:
- ▨ AREA TO BE REMOVED AND STOCKPILE ITEM CODE 803.9903 GUARD RAIL IS NOT SHOWN
- ▨ AREA TO BE REMOVED ITEM CODE 201.0405

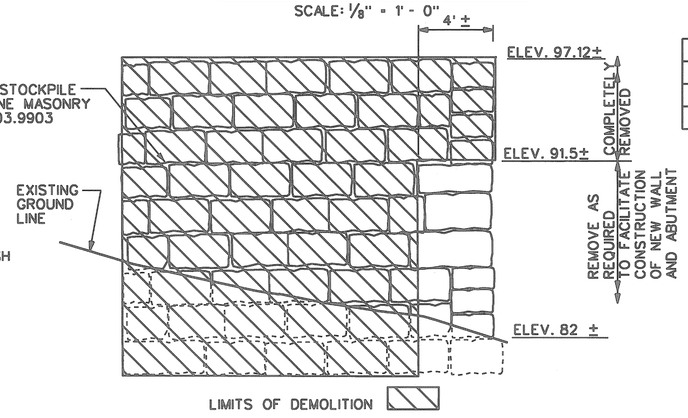
EXISTING BRIDGE ELEVATION
SCALE: 1/8" = 1' - 0"



SECTION (2)
SCALE: 1/4" = 1' - 0"



SECTION (1)
SCALE: 1/4" = 1' - 0"



NORTHWEST WALL ELEVATION
SCALE: 1/4" = 1' - 0"

LIST OF APPROXIMATE DEMOLITION QUANTITIES

201.0405	REMOVE AND DISPOSE MASONRY	C.Y.	34
803.9903	REMOVE AND STOCKPILE EXISTING STONE MASONRY	C.Y.	120
803.9901	REMOVE AND DISPOSE EXISTING SUPERSTRUCTURE BRIDGE 43	L.S.	1
803.9902	REMOVE AND DISPOSE EXISTING SUPERSTRUCTURE BRIDGE 44	L.S.	1

NOTE:
ALL DIMENSIONS AND DETAILS SHOWN FOR THE EXISTING STRUCTURE HAVE BEEN TAKEN FROM PLANS DATED OCTOBER 17, 1960 AND ARE NOT GUARANTEED. THE CONTRACTOR SHALL DETERMINE AND ESTABLISH ALL DIMENSIONS AND DETAILS NECESSARY FOR COMPLETION OF ALL WORK BY FIELD MEASUREMENT.

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

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
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APPROVED PLANS MUST BE AT CONSTRUCTION SITE.
Martin D. Wencek

MAY 6 2008

RIDEM SUBMISSION

REVISIONS NO.	DATE	BY

RHODE ISLAND
DEPARTMENT OF TRANSPORTATION

BRIDGE REPLACEMENT
WYOMING BRIDGE NO. 43/44
RICHMOND/HOPKINTON

DEMOLITION PLAN

CHECKED BY _____ DATE _____ SCALE AS NOTED

Dewberry
Dewberry-Goodkind, Inc.
A Dewberry Company
280 Summer St., 10th Floor
Boston, MA 02210
Phone: (617) 695-3400
Fax: (617) 695-3310

PROJECT: WYOMING
RHODE ISLAND, TOWN OF RICHMOND/HOPKINTON
BRIDGE STREET OVER WOOD RIVER BRIDGE NOS. 43/44
100% DESIGN SUBMISSION
FILE=M:\152389_44\CAD\PSE\PRINTINGSHEETS\SHT 18.DGN

IN CHARGE OF EB
DESIGNED BY SK, GK, JN
DESIGN CHECKED BY SK, GK
DETAILED BY SK, GK, JN
DETAIL CHECKED BY SK, EB

TIME: $TIME$
DATE: $DATE$

FED. ROAD DIV. NO.	STATE	FEDERAL AID PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
1	R.I.			23	47

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DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
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Martin D. Wencek

MAY 6 2008

PROJECT: WYOMING
RHODE ISLAND, TOWN OF RICHMOND/HOPKINTON
BRIDGE STREET OVER WOOD RIVER BRIDGE NOS. 43/44
100% DESIGN SUBMISSION
FILE: M:\15208.44\CAD\PS&E\PRINTINGSHEETS\SHT 19.DGN

IN CHARGE OF: EB
DESIGNED BY: SK, OK, JN
DESIGN CHECKED BY: SK, OK
DETAILED BY: SK, OK, JN
DETAIL CHECKED BY: SK, EB

RIDEM SUBMISSION

REVISIONS		
NO.	DATE	BY

RHODE ISLAND
DEPARTMENT OF TRANSPORTATION

BRIDGE REPLACEMENT
WYOMING BRIDGE NO. 43/44
RICHMOND/HOPKINTON

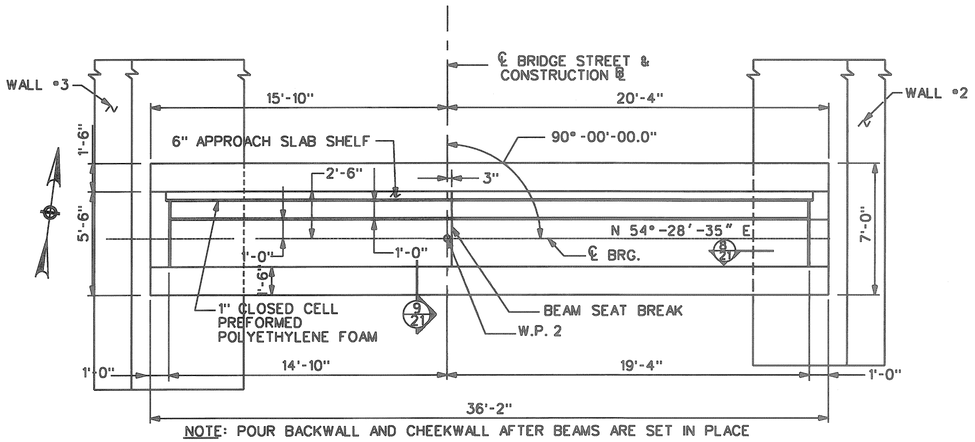
ABUTMENT 1 PLAN, ELEVATION AND DETAILS

Dewberry
Dewberry-Goodkind, Inc. A Dewberry Company
280 Summer St., 10th Floor Boston, MA 02110 Phone: (617) 695-3400 Fax: (617) 695-3310

CHECKED BY ______ DATE ______ SCALE AS NOTED

TIME: $TIME$
DATE: $DATE$

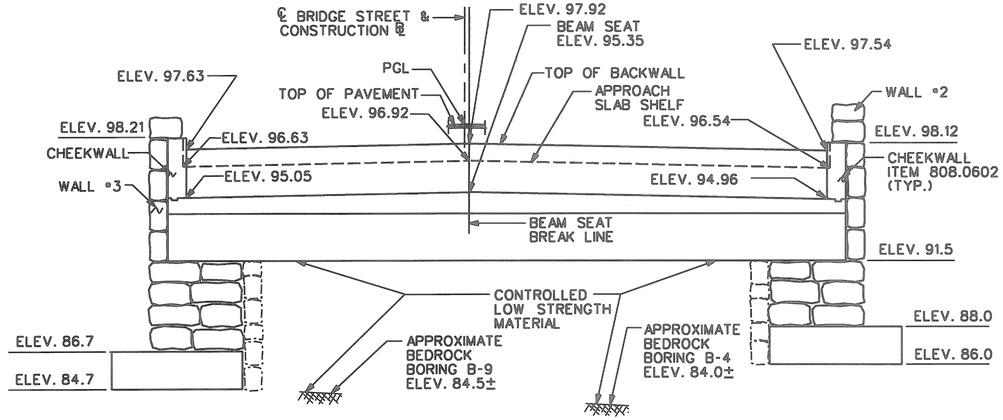
FED. ROAD DIV. NO.	STATE	FEDERAL AID PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
1	R.I.			24	47



NOTE: POUR BACKWALL AND CHEEKWALL AFTER BEAMS ARE SET IN PLACE

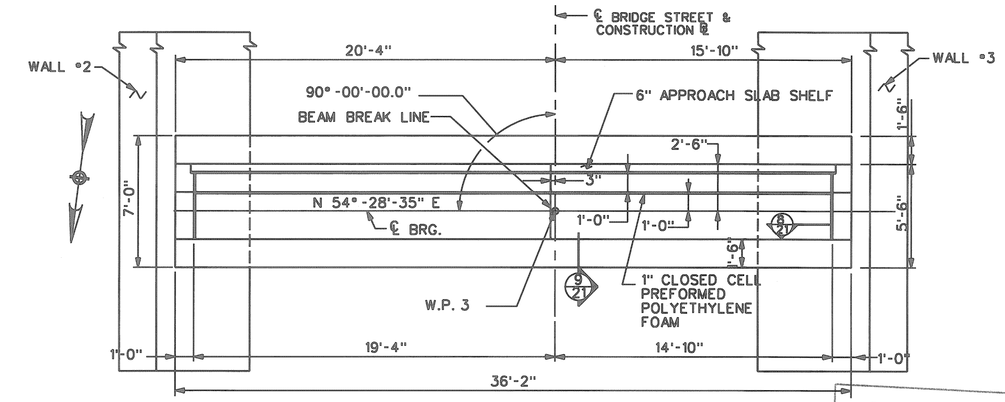
ABUTMENT 2 PLAN

SCALE: 1/4"=1'-0"



ABUTMENT 2 ELEVATION

SCALE: 1/4"=1'-0"



ABUTMENT 3 PLAN

SCALE: 1/4"=1'-0"

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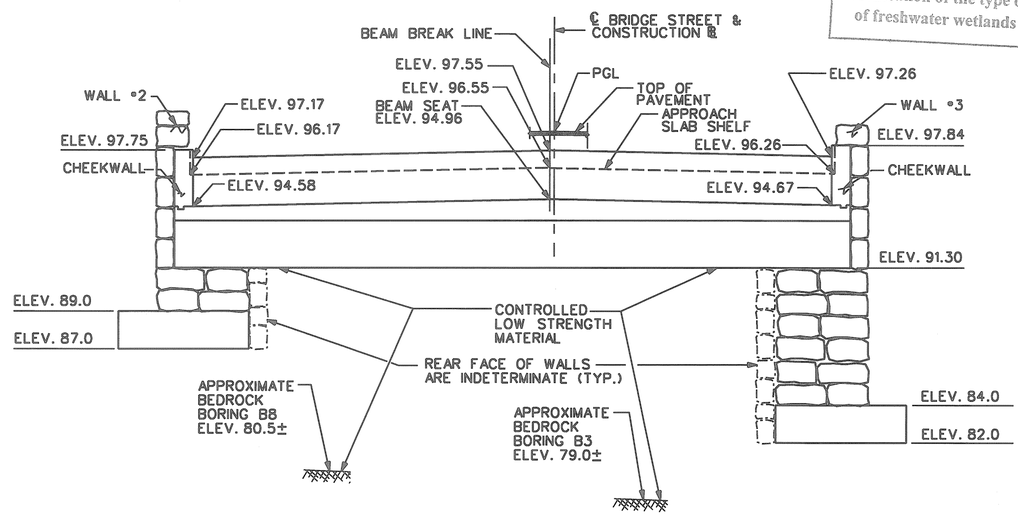

ABUTMENT 3 ELEVATION

SCALE: 1/4"=1'-0"

NOTES:

1. STONE MASONRY NOT SHOWN
2. REAR FACE OF EXISTING MASONRY WALL IS APPROXIMATE ONLY

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
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Martin D. Wenck

MAY 6 2008

RIDEM SUBMISSION

REVISIONS NO.	DATE	BY

RHODE ISLAND
DEPARTMENT OF TRANSPORTATION

BRIDGE REPLACEMENT
WYOMING BRIDGE NO. 43/44
RICHMOND/HOPKINTON

ABUTMENTS 2 AND 3 PLAN AND ELEVATION

CHECKED BY _____ DATE _____ SCALE AS NOTED

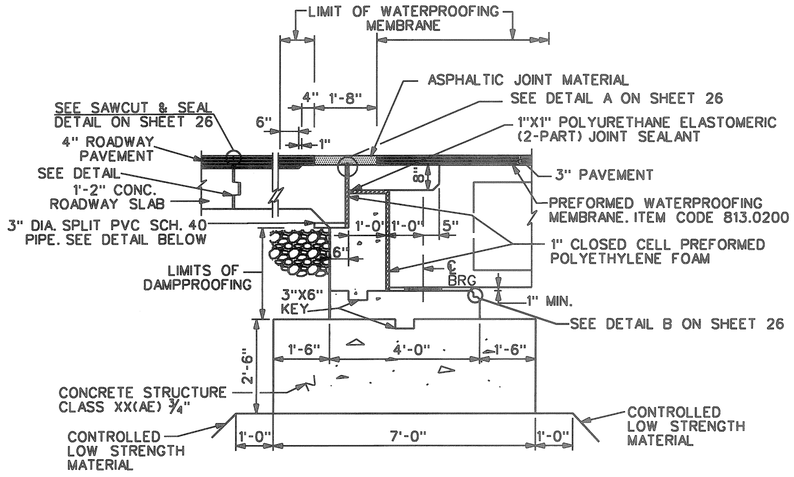
Dewberry
Dewberry-Goodkind, Inc.
A Dewberry Company
280 Summer St., 10th Floor
Boston, MA 02110
Phone: (617) 695-3400
Fax: (617) 695-3310

PROJECT: WYOMING
RHODE ISLAND, TOWN OF RICHMOND/HOPKINTON
BRIDGE STREET OVER WOOD RIVER BRIDGE NOS. 43/44
100% DESIGN SUBMISSION
FILE: N:\15289.44\CAD\PSbE\PRINTINGSHEETS\SHT 20.DGN

IN CHARGE OF: EB
DESIGNED BY: SK, GK, JN
DESIGN CHECKED BY: SK, GK
DETAILED BY: SK, GK, JN
DETAIL CHECKED BY: SK, EB

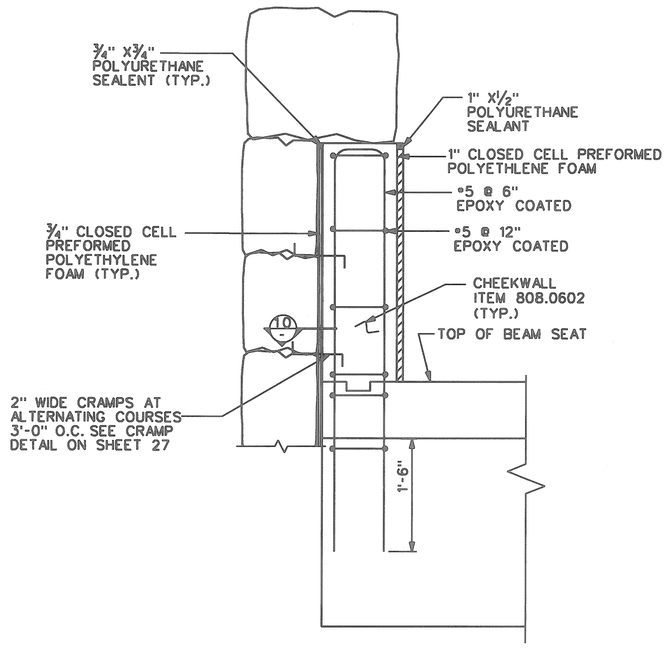
TIME: 9TIME9
DATE: 9DATE9

FED. ROAD DIV. NO.	STATE	FEDERAL AID PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
1	R.I.			25	47

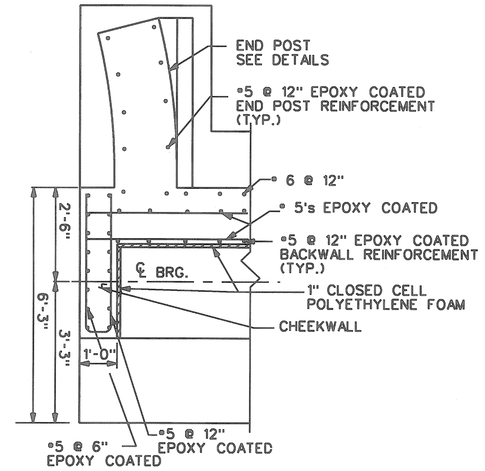


NOTE:
1. POUR BACKWALL AFTER BEAMS ARE IN PLACE.
2. BLOCK-OUT SHALL BE PROVIDED AT BEAM ENDS AT ABUTMENTS 2 & 3.

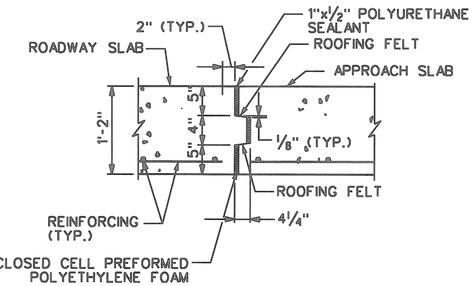
SECTION — SCALE: ½" = 1' - 0" — 9/20



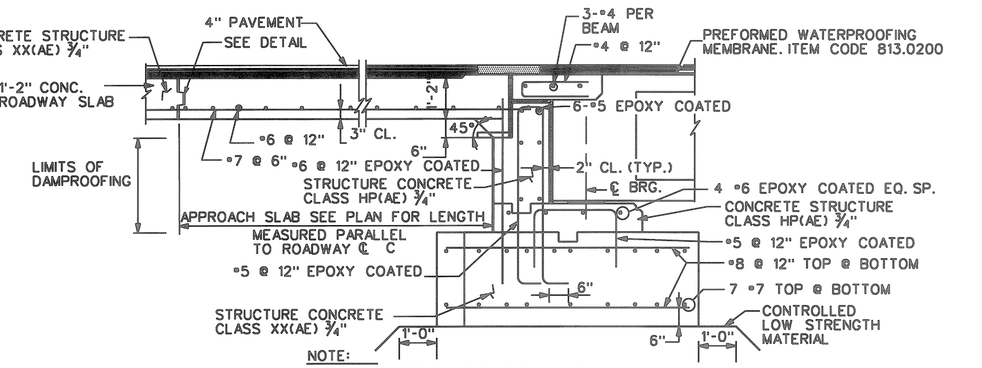
SECTION — SCALE: 1" = 1' - 0" — 8/20



SECTION — SCALE: ½" = 1' - 0" — 12/21

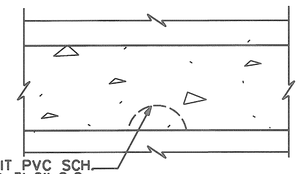


TYPICAL ROADWAY SLAB TO APPROACH SLAB KEY
SCALE: 1" = 1' - 0"

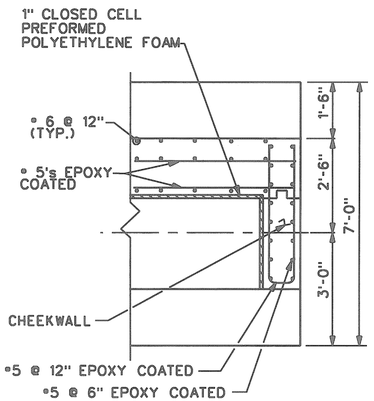


NOTE:
1. EXISTING STONE ABUTMENT NOT SHOWN
2. POUR CONCRETE BACKWALL AND CHEEKWALL AFTER BEAMS ARE IN PLACE.
3. BACKWALL SHALL BE STRUCTURE CONCRETE CLASS HP(AE) ¾"
4. FOR ABUTMENT CROSS SECTION AT SIDEWALK FOR ABUTMENTS 2 & 3 SEE SHEET 26

ABUTMENT NO. 2 & NO. 3 REINFORCEMENT
SCALE: ½" = 1' - 0"



PIPE DRAIN DETAIL
NOT TO SCALE



NOTE: STONE MASONRY NOT SHOWN

SECTION — SCALE: ½" = 1' - 0" — 10/-

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OFFICE OF WATER RESOURCES
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Emparteri D. Wenceck
MAY 6 2008

RIDEM SUBMISSION

REVISIONS NO.	DATE	BY

RHODE ISLAND
DEPARTMENT OF TRANSPORTATION

BRIDGE REPLACEMENT
WYOMING BRIDGE NO. 43/44
RICHMOND/HOPKINTON

ABUTMENTS 2 AND 3 DETAILS

CHECKED BY _____ DATE _____ SCALE AS NOTED

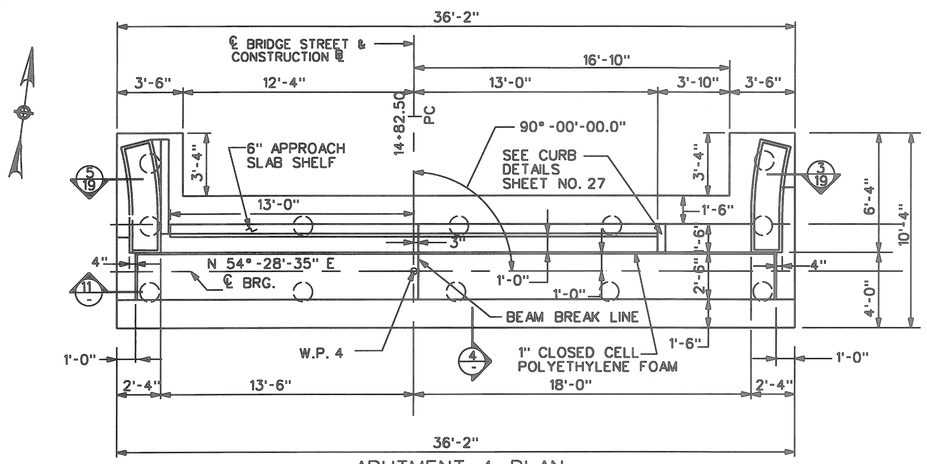
Dewberry
Dewberry-Goodkind, Inc.
A Dewberry Company
280 Summer St., 10th Floor
Boston, MA 02210
Phone: (617) 695-3400
Fax: (617) 695-3310

PROJECT: WYOMING
RHODE ISLAND, TOWN OF RICHMOND/HOPKINTON
BRIDGE STREET OVER WOOD RIVER BRIDGE NOS. 43/44
100% DESIGN SUBMISSION
FILE: M:\52899.44\CADD\PS&E\PRINTINGSHEETS\SHT 21.DGN

IN CHARGE OF: EB
DESIGNED BY: SK, GK, JN
DESIGN CHECKED BY: SK, GK
DETAILED BY: SK, GK, JN
DETAIL CHECKED BY: SK, EB

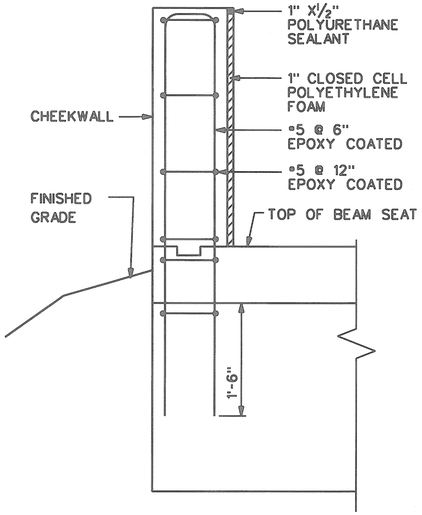
TIME: @TIME@
DATE: @DATE@

FED. ROAD DIV. NO.	STATE	FEDERAL AID PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
1	R.I.			26	47



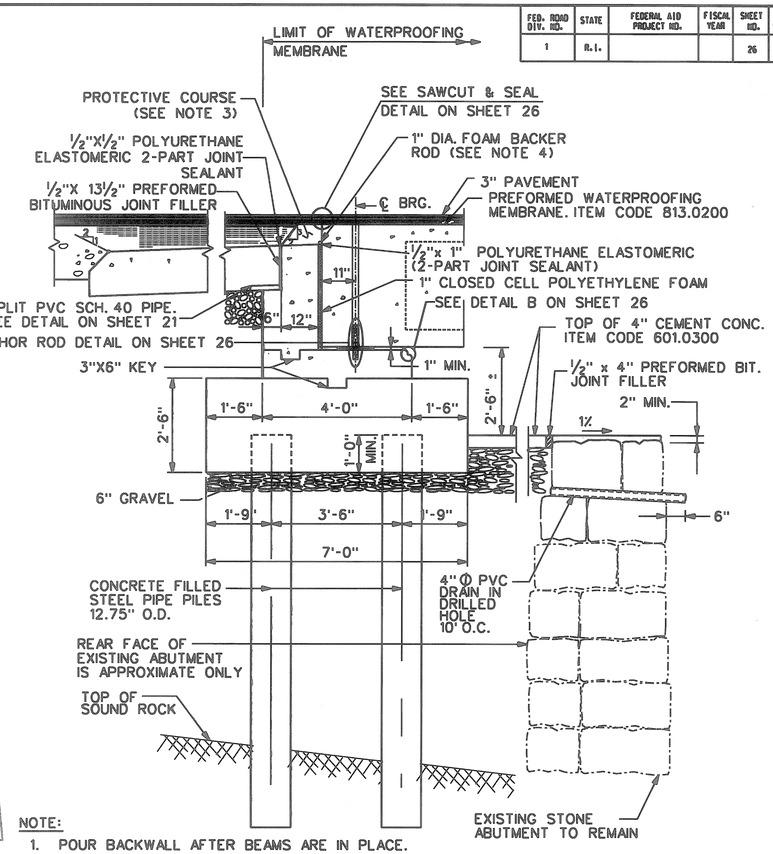
ABUTMENT 4 PLAN

SCALE: 1/4"=1'-0"



SECTION 11/19 11/–

SCALE: 1" = 1' - 0"

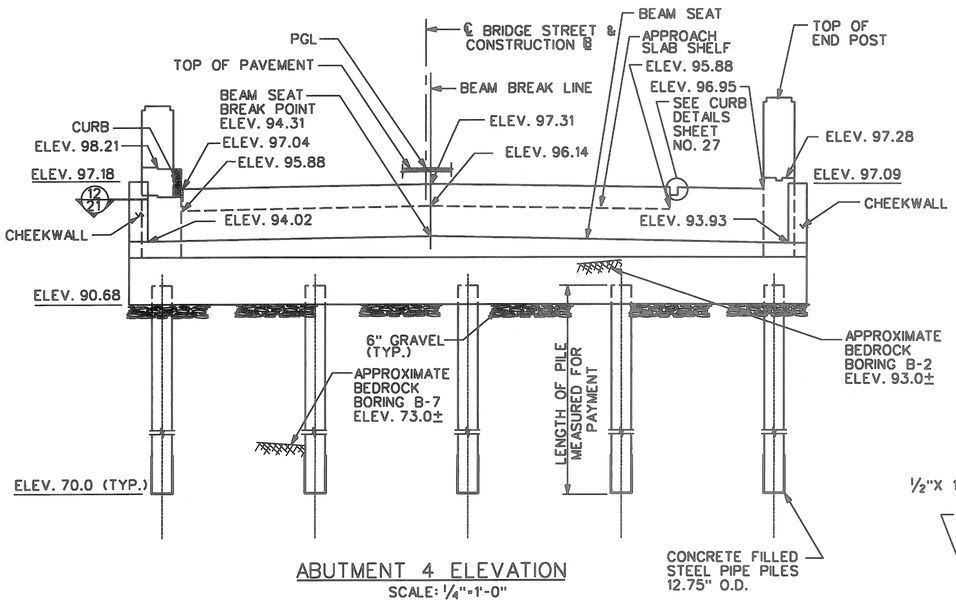


NOTE:

1. POUR BACKWALL AFTER BEAMS ARE IN PLACE.
2. FOR TYPICAL JOINT PLAN DETAILS AT SIDEWALK AND SAFETY BARRIER SEE SHEET 24.
3. BRIDGE BINDER TO BE PLACED IN 2 INCH LAYERS AND COMPACTED WITH MECHANICAL HAND-GUIDED TAMPER WITHIN 12 HOURS AFTER PLACING MEMBRANE WATERPROOFING
4. DRAPE MEMBRANE WATERPROOFING OVER CLOSED CELL FOAM BACKER

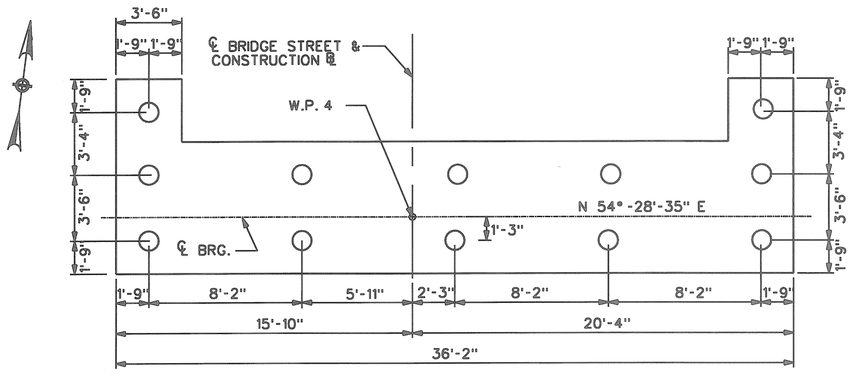
SECTION 4/– 4/19 ABUTMENTS 1 & 4

SCALE: 1/2" = 1' - 0"



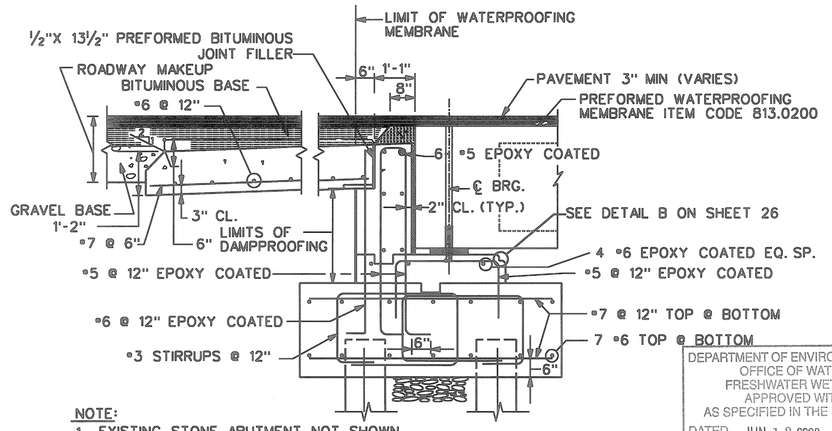
ABUTMENT 4 ELEVATION

SCALE: 1/4"=1'-0"



ABUTMENT 4 PILE LAYOUT

SCALE: 1/4"=1'-0"



NOTE:

1. EXISTING STONE ABUTMENT NOT SHOWN
2. POUR BACKWALL AND CHEEKWALL AFTER BEAMS ARE IN PLACE.
3. APPROACH SLAB IS 14'-0" LONG MEASURED PARALLEL TO ROADWAY ℄
4. APPROACH SLAB SHALL BE CONCRETE STRUCTURE CLASS XX 3/4"
5. BACKWALL SHALL BE STRUCTURE CONCRETE CLASS HP 3/4"

ABUTMENT NO. 1 AND 4 REINFORCEMENT

SCALE: 1/2" = 1' - 0"

SUGGESTED SEQUENCE OF CONSTRUCTION ABUTMENT NO. 4 AND RECONSTRUCTION OF RETAINING WALL NO.5

THE CONTRACTOR SHALL EXCAVATE FOR THE FOOTING CONSTRUCTION AND PIPE PILE INSTALLATION. THE VARIATION IN THE LEVEL OF BEDROCK SURFACE AS INDICATED IN THE BORING LOGS SHALL BE VERIFIED BY THE EXCAVATIONS AND THE SUBSEQUENT INITIATION OF DRILLING FOR PILES.

THE EXCAVATION AND PIPE PILE INSTALLATION BEGINNING FROM THE WEST SIDE, AS WELL AS THE PRIOR RE-CONSTRUCTION OF RETAINING WALLS #4 AND #5 MAY SUGGEST THAT A CHANGE IN THE ABUTMENT DESIGN BE CONSIDERED. THE CONTOUR OF THE BEDROCK SURFACE SHALL BE PREPARED BASED ON THE ADDITIONAL INFORMATION SO DETERMINED AND CONDITIONS SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER FOR REVIEW AND RE-DESIGN AS NECESSARY.

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DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
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RIDEM SUBMISSION

REVISIONS NO.	DATE	BY

RHODE ISLAND DEPARTMENT OF TRANSPORTATION

BRIDGE REPLACEMENT WYOMING BRIDGE NO. 43/44 RICHMOND/HOPKINTON

ABUTMENT 4 PLAN, ELEVATION AND DETAILS

CHECKED BY _____ DATE _____ SCALE AS NOTED

Dewberry

Dewberry-Goodkind, Inc.
A Dewberry Company
280 Summer St., 10th Floor
Boston, MA 02110
Phone: (617) 695-3400
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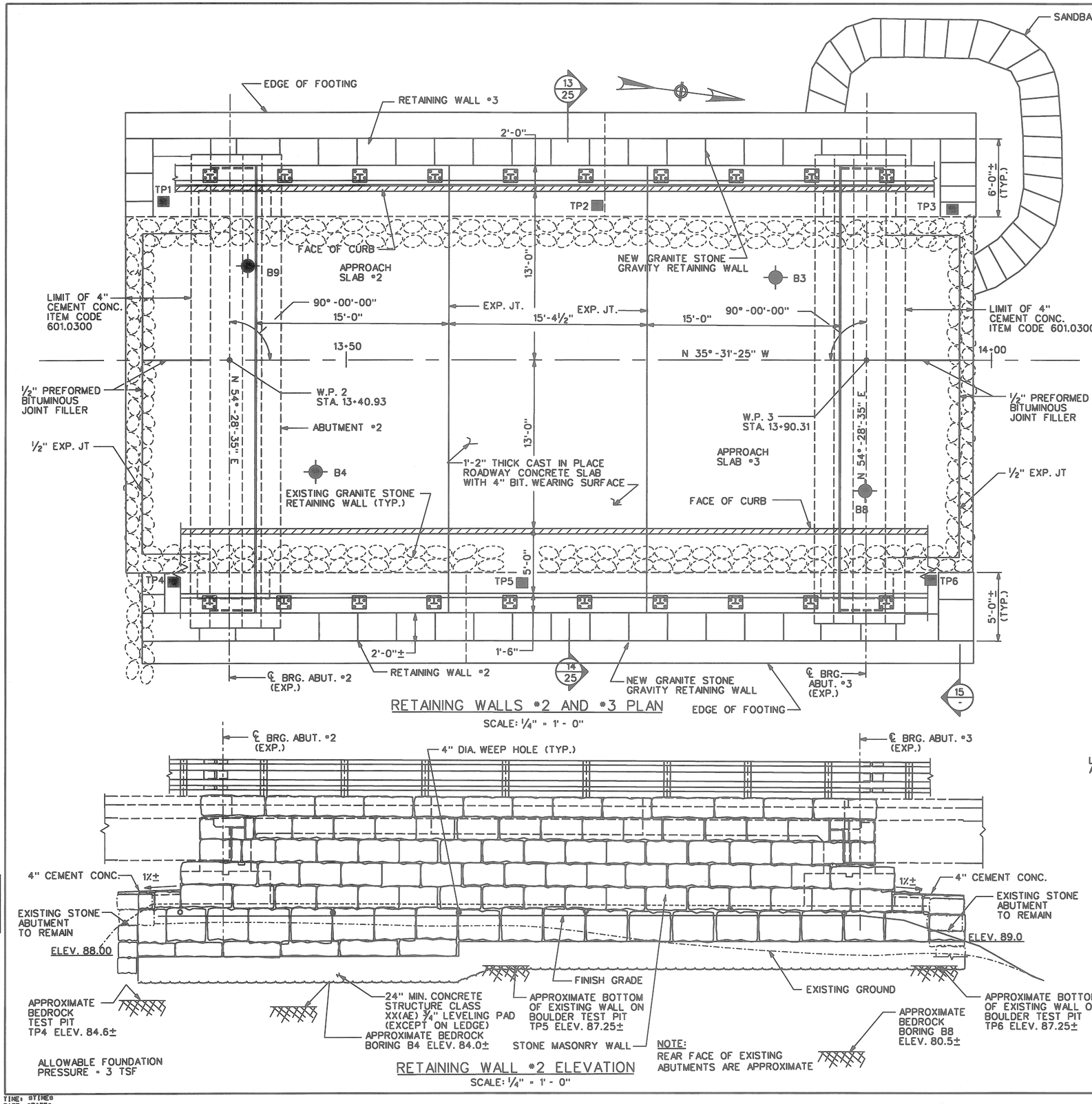
PROJECT: WYOMING
RHODE ISLAND. TOWN OF RICHMOND/HOPKINTON
BRIDGE STREET OVER WOOD RIVER BRIDGE NOS. 43/44
100% DESIGN SUBMISSION
FILE: M:\1523\9_44\CAD\PS&E\PRINTINGSHEETS\SHT 22.DGN

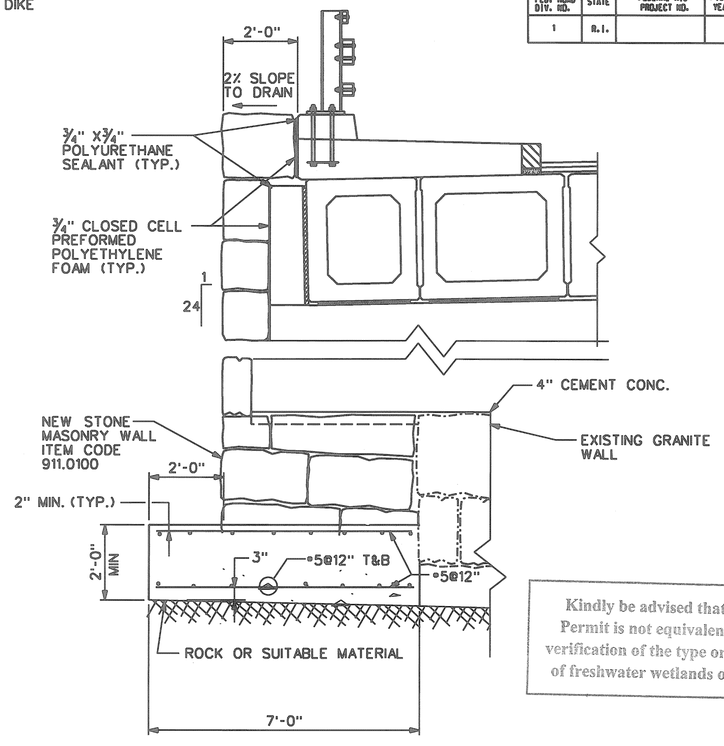
IN CHARGE OF: EB
DESIGNED BY: SK, GK, JN
DESIGN CHECKED BY: SK, GK
DETAILED BY: SK, GK, JN
DETAIL CHECKED BY: SK, EB

TIME: @TIME@
DATE: @DATE@

FED. ROAD DIV. NO.	STATE	FEDERAL AID PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
1	R.I.			27	47



RETAINING WALLS #2 AND #3 PLAN
SCALE: ¼" = 1'-0"



SECTION 15/- SCALE: ½" = 1'-0"

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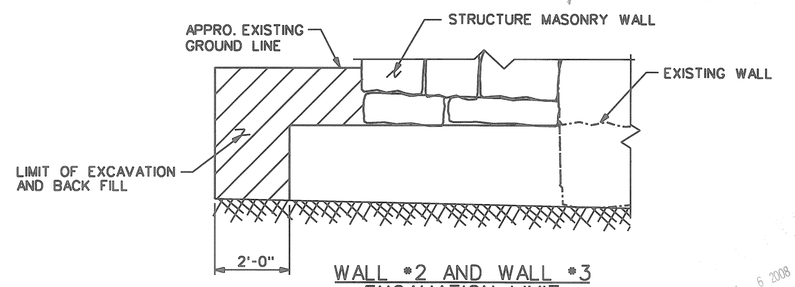
DATED JUN 17 2008 FILE # 08-0042
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL.
APPROVED PLANS MUST BE AT CONSTRUCTION SITE.
Angela D. Wenck



WALL #2 AND WALL #3 EXCAVATION LIMIT
SCALE: ½" = 1'-0"

MAY 6 2008

NOTE: REAR FACE OF EXISTING ABUTMENTS ARE APPROXIMATE

RETAINING WALL #2 ELEVATION
SCALE: ¼" = 1'-0"

TOP OF WALL #2 & #3 ELEVATIONS

STATION	WALL #3	WALL #2
13+40.00	99.26	100.03
13+50.00	99.18	99.95
13+60.00	99.11	99.88
13+70.00	99.03	99.80
13+80.00	98.95	99.72
13+90.00	98.87	99.64

Dewberry
Dewberry-Goodkind, Inc.
A Dewberry Company
280 Summer St., 10th Floor
Boston, MA 02110
Phone: (617) 695-3400
Fax: (617) 695-3310

RIDEM SUBMISSION

REVISIONS NO.	DATE	BY

RHODE ISLAND DEPARTMENT OF TRANSPORTATION

BRIDGE REPLACEMENT
WYOMING BRIDGE NO. 43/44
RICHMOND/HOPKINTON

RETAINING WALLS #2 AND #3 PLAN

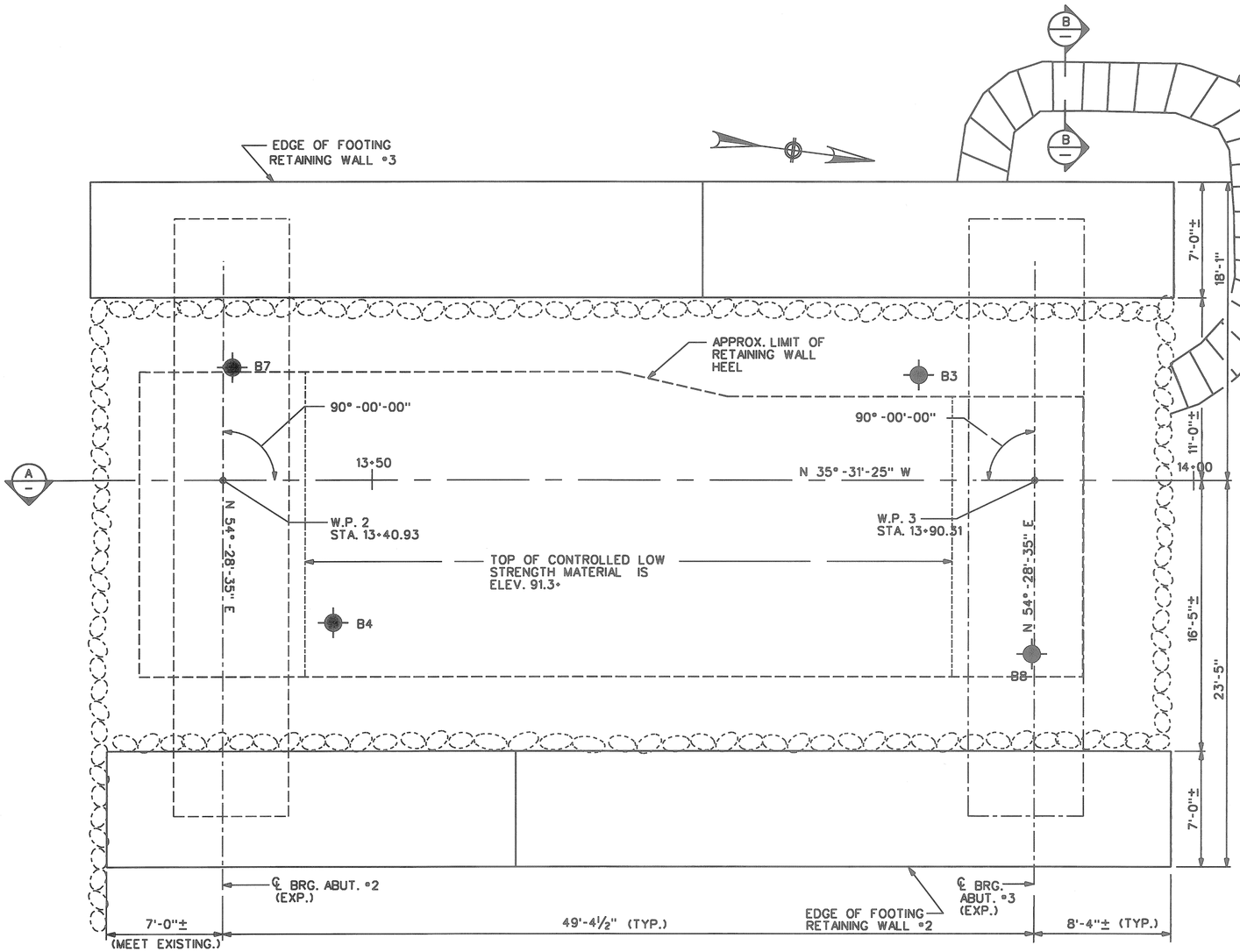
CHECKED BY _____ DATE _____ SCALE AS NOTED

PROJECT: WYOMING
RHODE ISLAND, TOWN OF RICHMOND/HOPKINTON
BRIDGE STREET OVER WOOD RIVER BRIDGE NOS. 43/44
100% DESIGN SUBMISSION
FILE: N:\152893.44\CADD\PSE\PRINTINGSHEETS\SHT 23.DGN

IN CHARGE OF: EB
DESIGNED BY: SK, GK, JN
DESIGN CHECKED BY: SK, GK
DETAILED BY: SK, GK, JN
DETAIL CHECKED BY: SK, EB

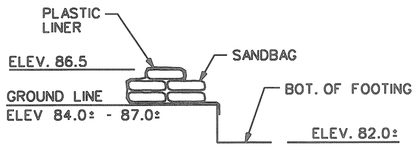
TIME: @TIME@
DATE: @DATE@

FED. ROAD DIV. NO.	STATE	FEDERAL AID PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
1	R.I.			28	47

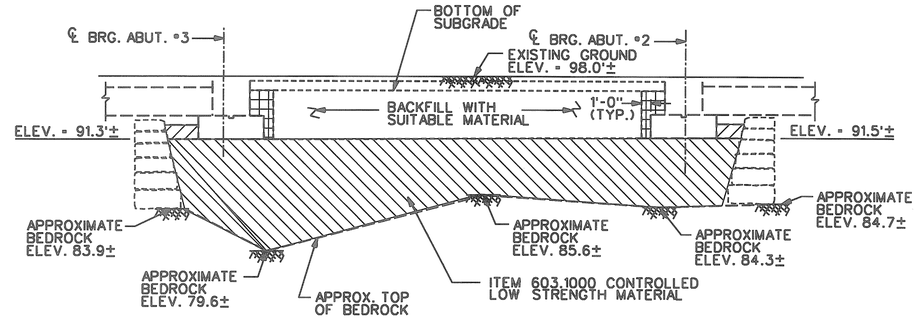


FOOTING PLAN WALLS ℄2 AND ℄3
SCALE: ¼" = 1' - 0"

NOTE:
1. ALL EXISTING GRANULAR SOILS EXPOSED AFTER RETAINING WALL FOOTING EXCAVATION SHALL BE COMPACTED TO 95% OF THEIR STANDARD PROCTOR MAXIMUM DRY DENSITIES WITH A VIBRATOR ROLLER OR COMPACTOR PRIOR TO SUBSEQUENT CONSTRUCTION OPERATION



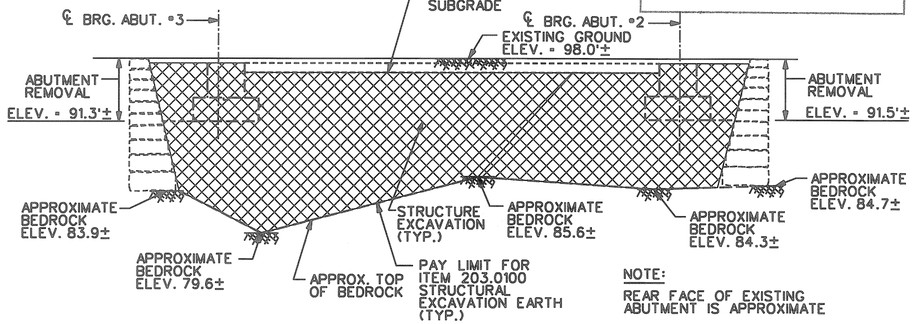
SECTION B-B
SCALE: ¼" = 1'-0"



TYPICAL ABUTMENT PAY LIMITS
SCALE: ⅛" = 1' - 0"

LEGEND
- ITEM 603.1000 CONTROLLED LOW STRENGTH MATERIAL
- ITEM 203.0700 PERVIOUS FILL
- BACK FILL

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



NOTE:
REAR FACE OF EXISTING ABUTMENT IS APPROXIMATE

SECTION A-A - ABUTMENT EXCAVATION LIMITS
SCALE: ⅛" = 1' - 0"

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
AS SPECIFIED IN THE LETTER OF APPROVAL
DATED JUN 13 2008 FILE # 08-0043
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL.
APPROVED PLANS MUST BE AT CONSTRUCTION SITE.
Krystin D. Wenck
MAY 6 2008

RIDEM SUBMISSION

REVISIONS		
NO.	DATE	BY

RHODE ISLAND
DEPARTMENT OF TRANSPORTATION

BRIDGE REPLACEMENT
WYOMING BRIDGE NO. 43/44
RICHMOND/HOPKINTON

FOOTING PLAN WALLS ℄2 AND ℄3 AND JOINT DETAILS

CHECKED BY _____ DATE _____ SCALE AS NOTED

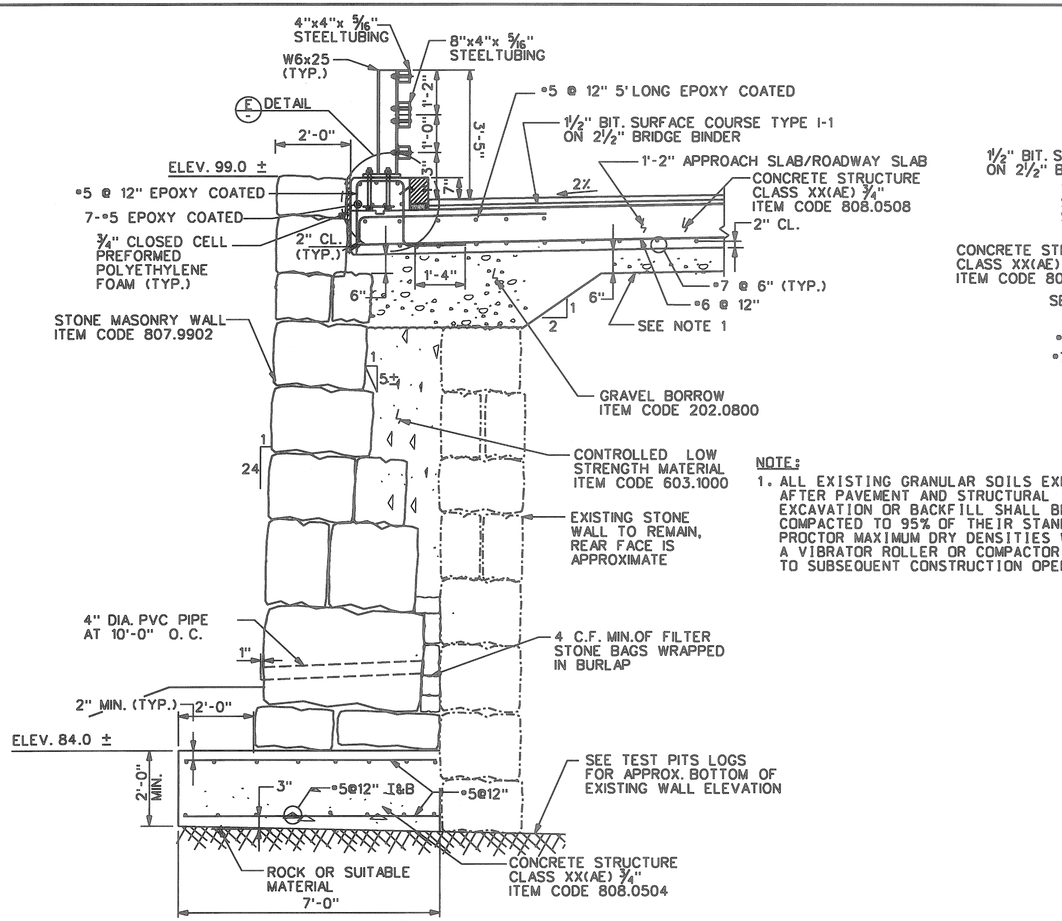
Dewberry
Dewberry-Goodkind, Inc.
A Dewberry Company
280 Summer St., 10th Floor
Boston, MA 02110
Phone: (617) 695-3400
Fax: (617) 695-3310

PROJECT: WYOMING
RHODE ISLAND, TOWN OF RICHMOND/HOPKINTON
BRIDGE STREET OVER WOOD RIVER BRIDGE NOS. 43/44
100% DESIGN SUBMISSION
FILE: N:\1529\89_44\CAD\PS&E\PRINTINGSHEETS\SHT 24.DGN

IN CHARGE OF: EB
DESIGNED BY: SK, GK, JN
DESIGN CHECKED BY: SK, GK
DETAILED BY: SK, GK, JN
DETAIL CHECKED BY: SK, EB

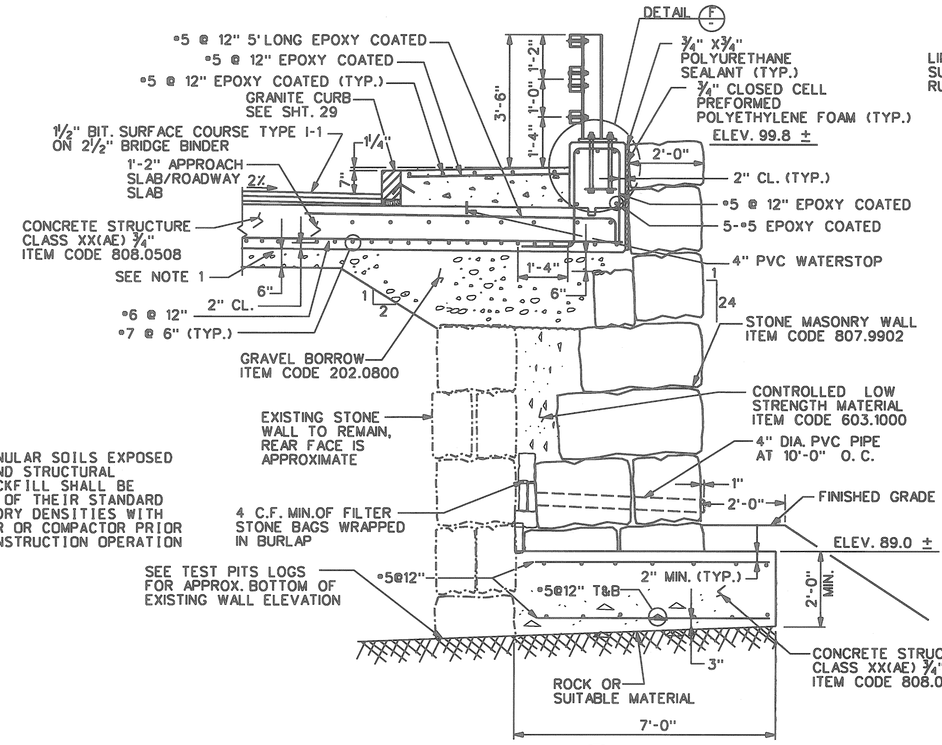
TIME: @TIME@
DATE: @DATE@

FED. ROAD DIV. NO.	STATE	FEDERAL AID PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
1	R.I.			29	47

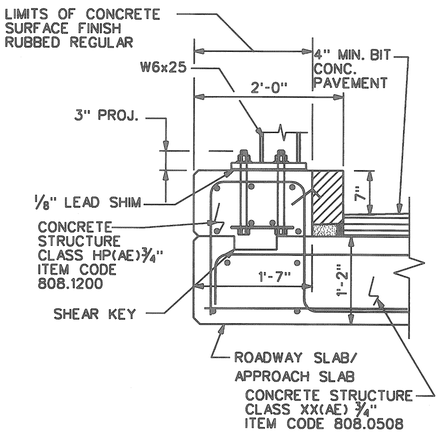


SECTION 13/23 (WALL *3)
SCALE: 1/2" = 1' - 0"

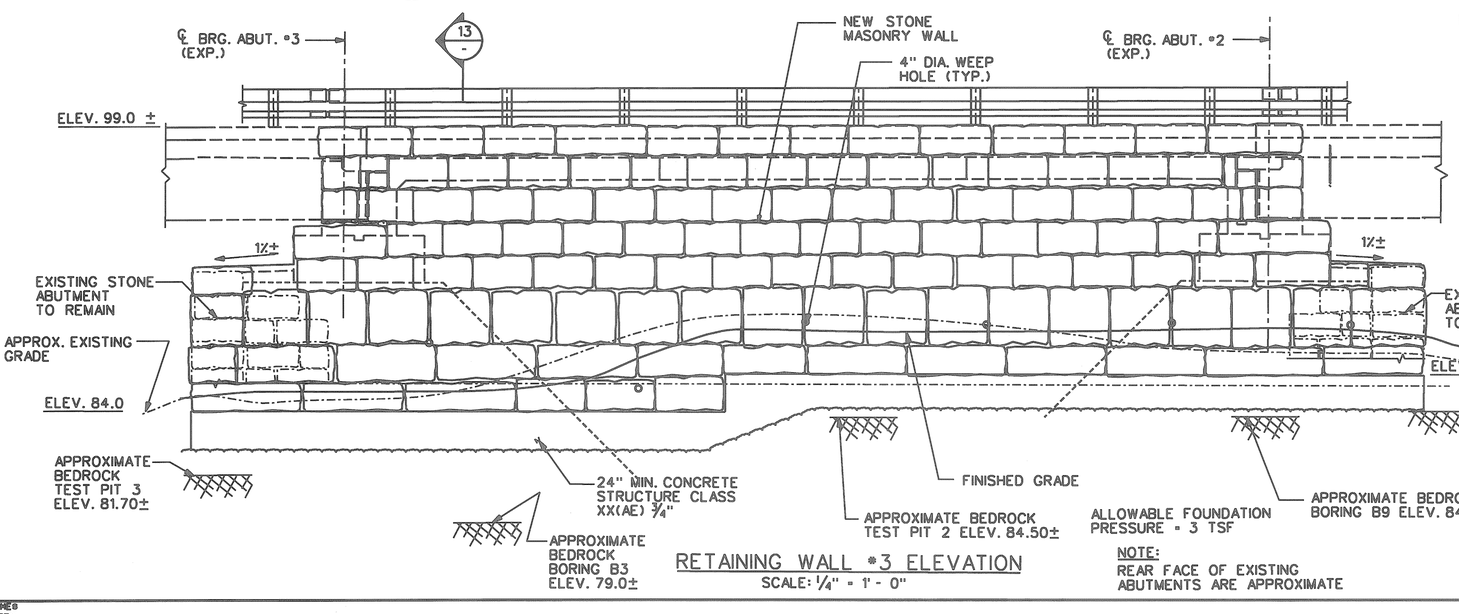
NOTE:
1. ALL EXISTING GRANULAR SOILS EXPOSED AFTER PAVEMENT AND STRUCTURAL EXCAVATION OR BACKFILL SHALL BE COMPACTED TO 95% OF THEIR STANDARD PROCTOR MAXIMUM DRY DENSITIES WITH A VIBRATOR ROLLER OR COMPACTOR PRIOR TO SUBSEQUENT CONSTRUCTION OPERATION



SECTION 14/23 (WALL *2)
SCALE: 1/2" = 1' - 0"

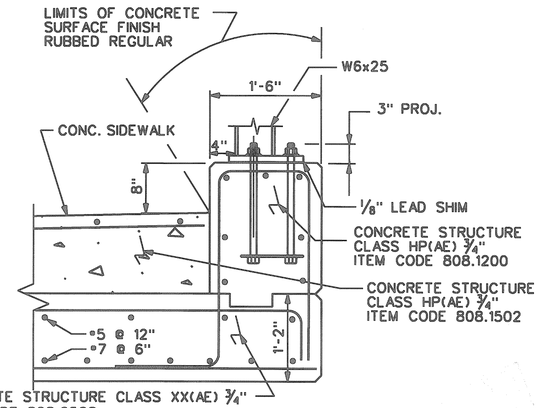


DETAIL E
SCALE: 1" = 1' - 0"
(WALL *3)



RETAINING WALL *3 ELEVATION
SCALE: 1/4" = 1' - 0"

NOTE:
REAR FACE OF EXISTING ABUTMENTS ARE APPROXIMATE



DETAIL F
SCALE: 1" = 1' - 0"
(WALL *2)

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

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS SPECIFIED IN THE LETTER OF APPROVAL
DATED JUN 13 2008 FILE # 08-0043
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL.
APPROVED PLANS MUST BE AT CONSTRUCTION SITE.
Martin D. Wenck

MAY 6 2008

RIDEM SUBMISSION

REVISIONS		
NO.	DATE	BY

RHODE ISLAND DEPARTMENT OF TRANSPORTATION

BRIDGE REPLACEMENT
WYOMING BRIDGE NO. 43/44
RICHMOND/HOPKINTON

WALL *3 ELEVATION AND TYPICAL SECTIONS

CHECKED BY _____ DATE _____ SCALE AS NOTED

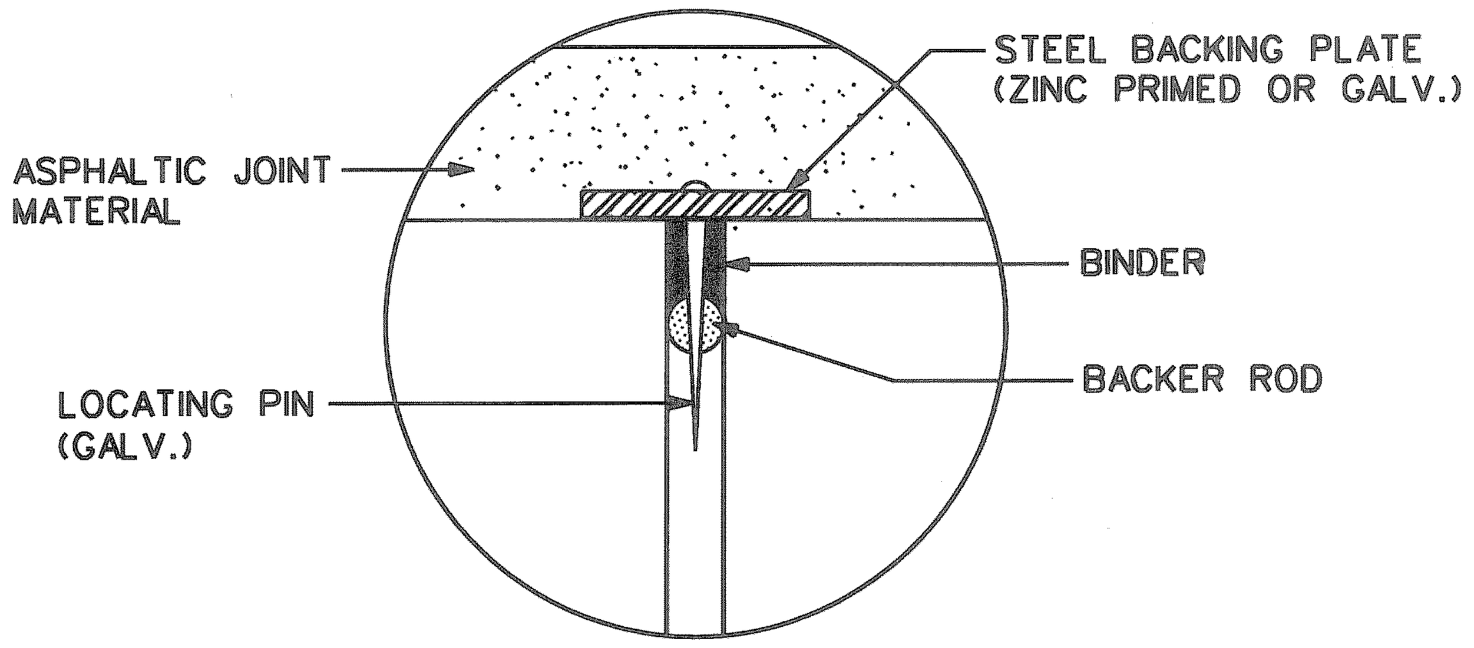
Dewberry
Dewberry-Goodkind, Inc.
A Dewberry Company
200 Summer St., 10th Floor
Boston, MA 02110
Phone: (617) 695-3400
Fax: (617) 695-3310

PROJECT: WYOMING
RHODE ISLAND, TOWN OF RICHMOND/HOPKINTON
BRIDGE STREET OVER WOOD RIVER BRIDGE NOS. 43/44
100% DESIGN SUBMISSION
FILE: M:\15288.44\CAD\PSBE\PRINTINGSHEETS\SHT 25.DGN

IN CHARGE OF:	EB		
DESIGNED BY:	SK.	CK.	JN
DESIGN CHECKED BY:	SK.	CK.	
DETAILED BY:	SK.	CK.	JN
DETAIL CHECKED BY:	SK.	EB	

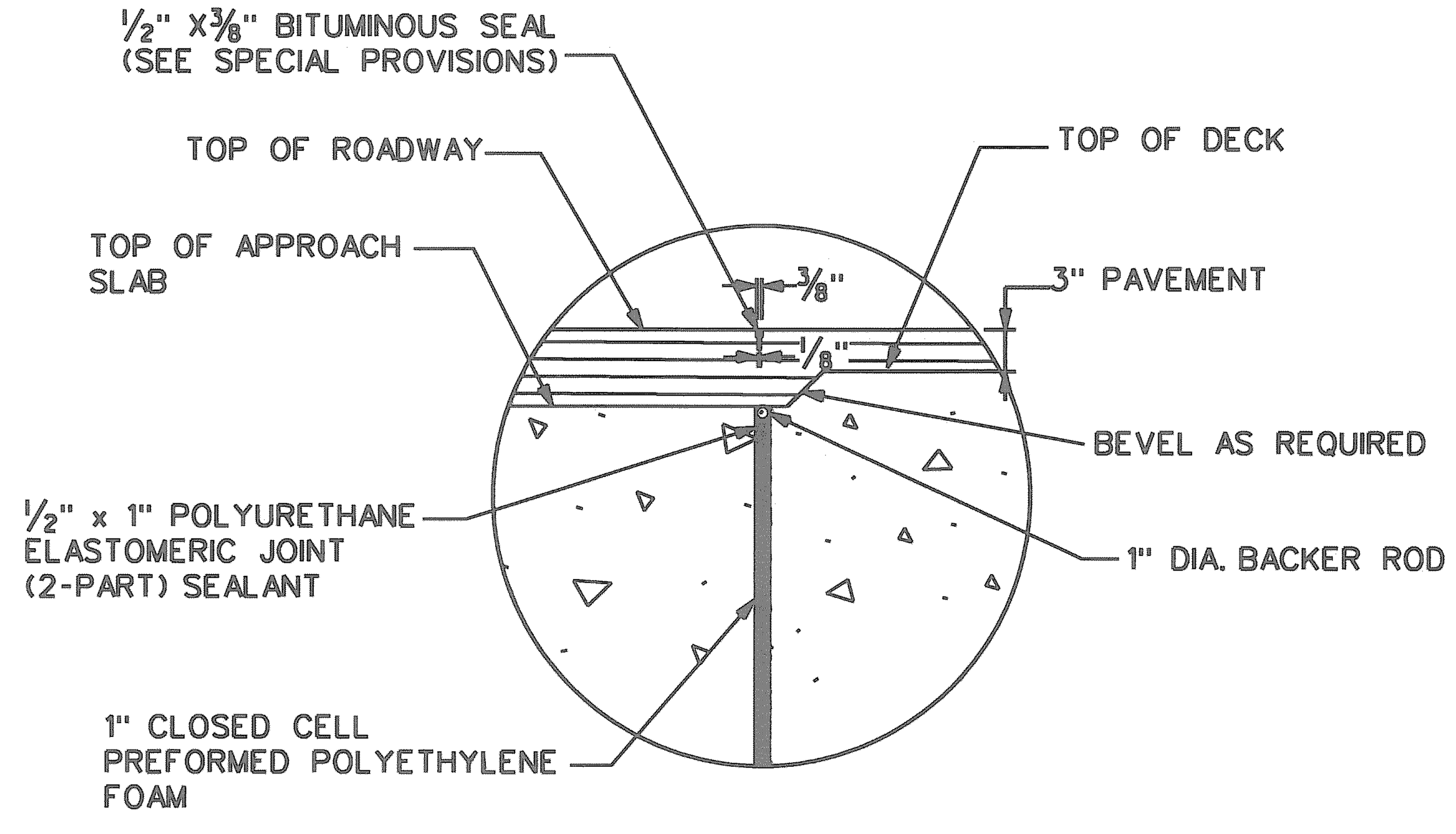
TIME: @TIME@
DATE: @DATE@

FED. ROAD DIV. NO.	STATE	FEDERAL AID PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
1	R.I.			30	47



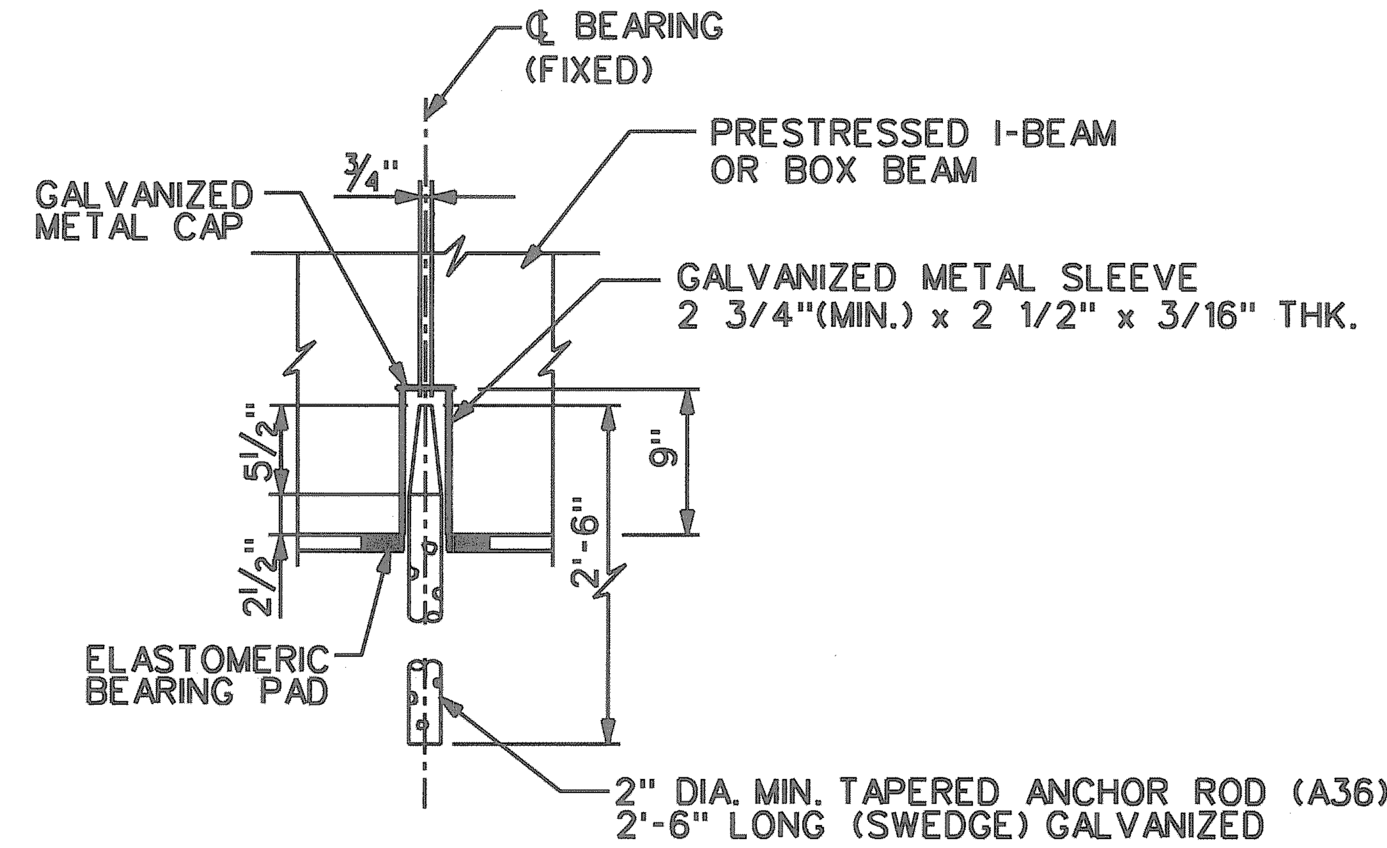
DETAIL A

SCALE: 1" = 1' - 0"



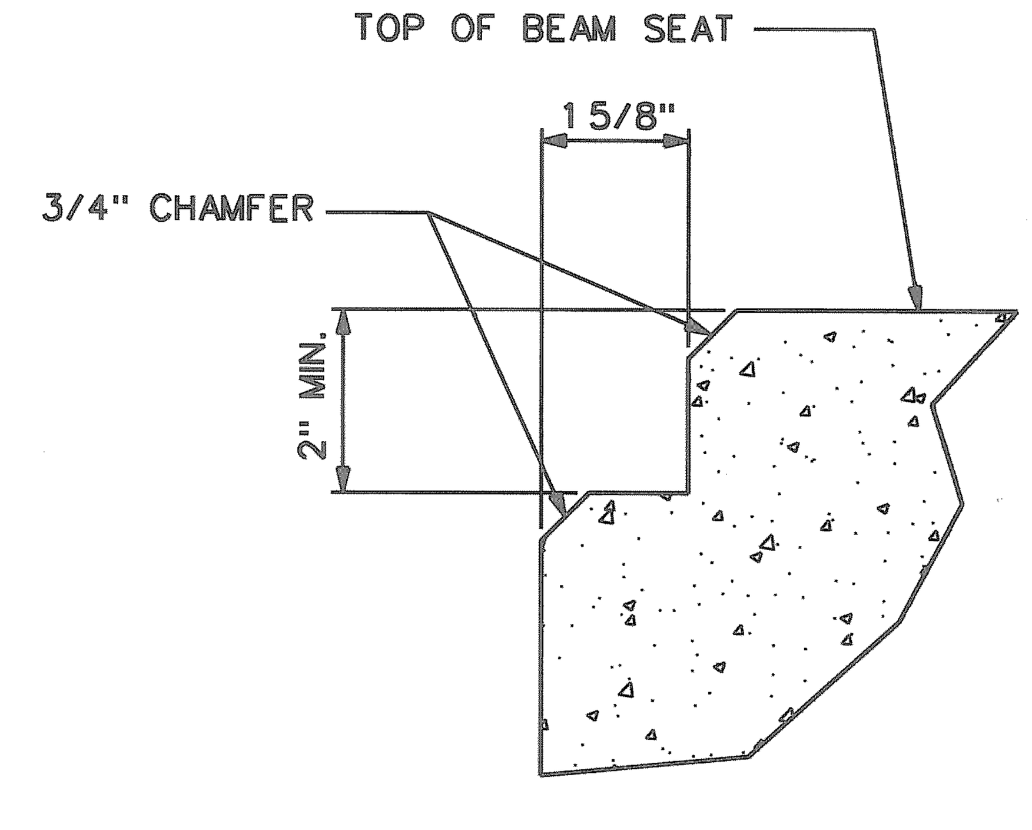
SAWCUT AND SEAL DETAIL FOR 3" BITUMINOUS WEARING SURFACE

SCALE: 1" = 1' - 0"



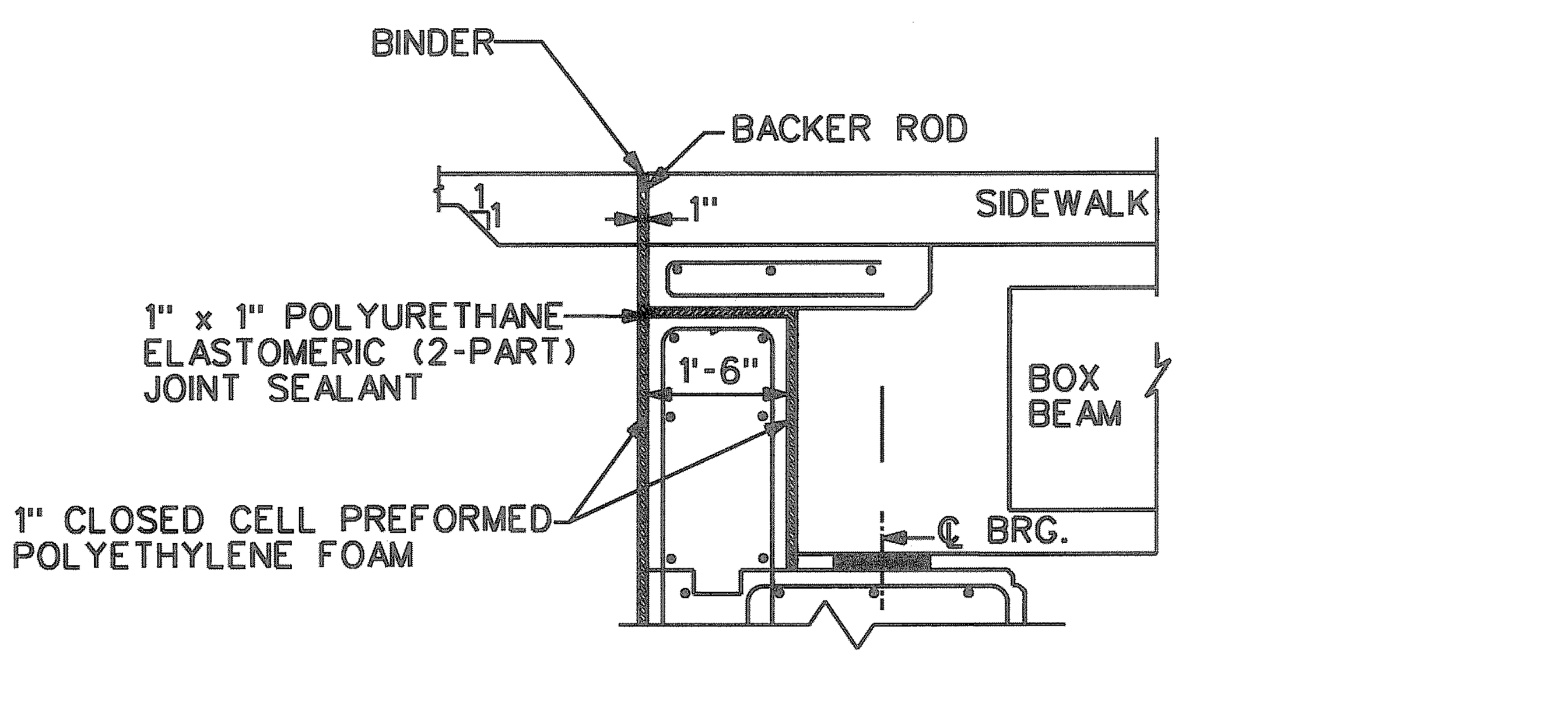
ANCHOR ROD DETAILS

SCALE: 1" = 1'-0"



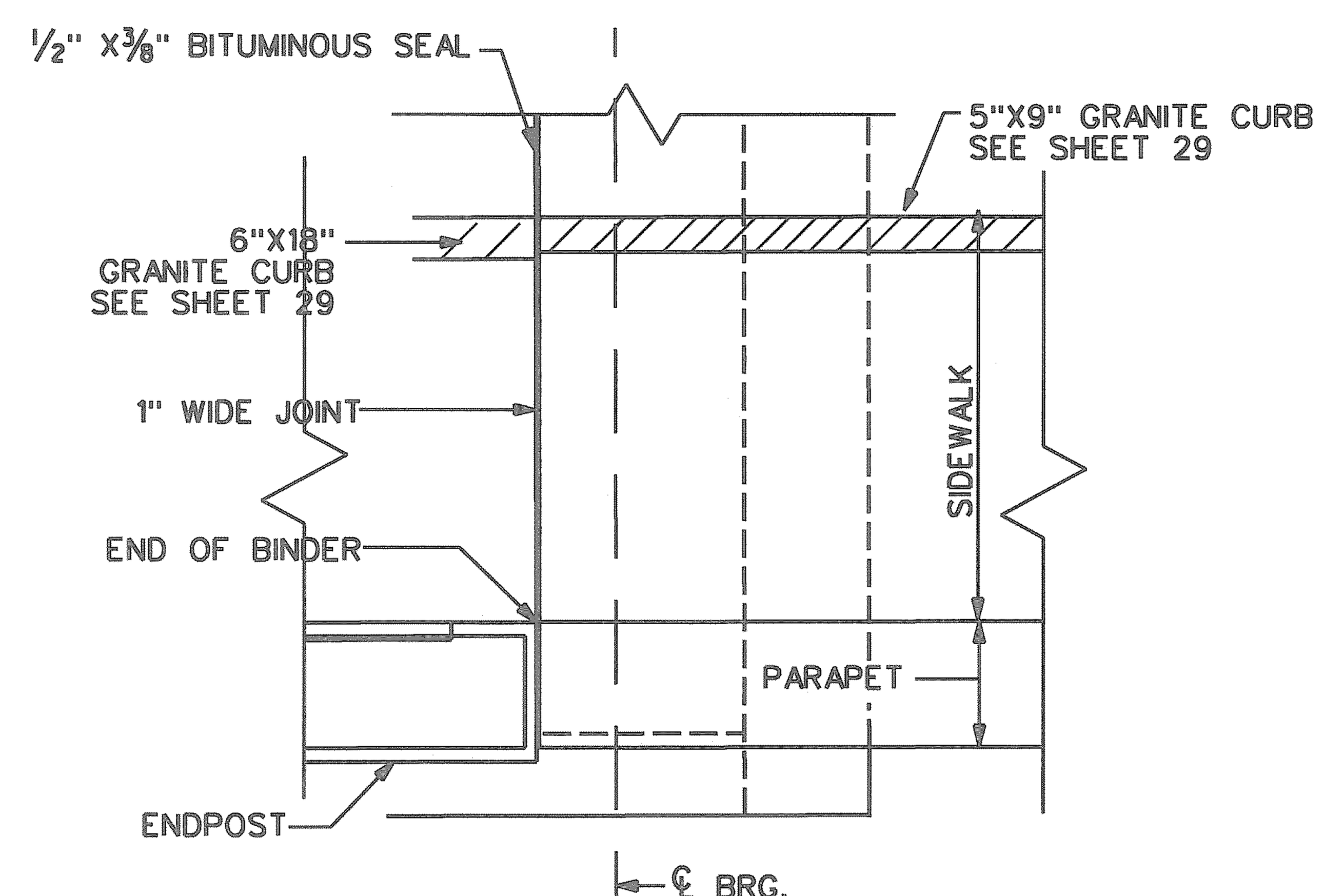
DETAIL B

NOT TO SCALE



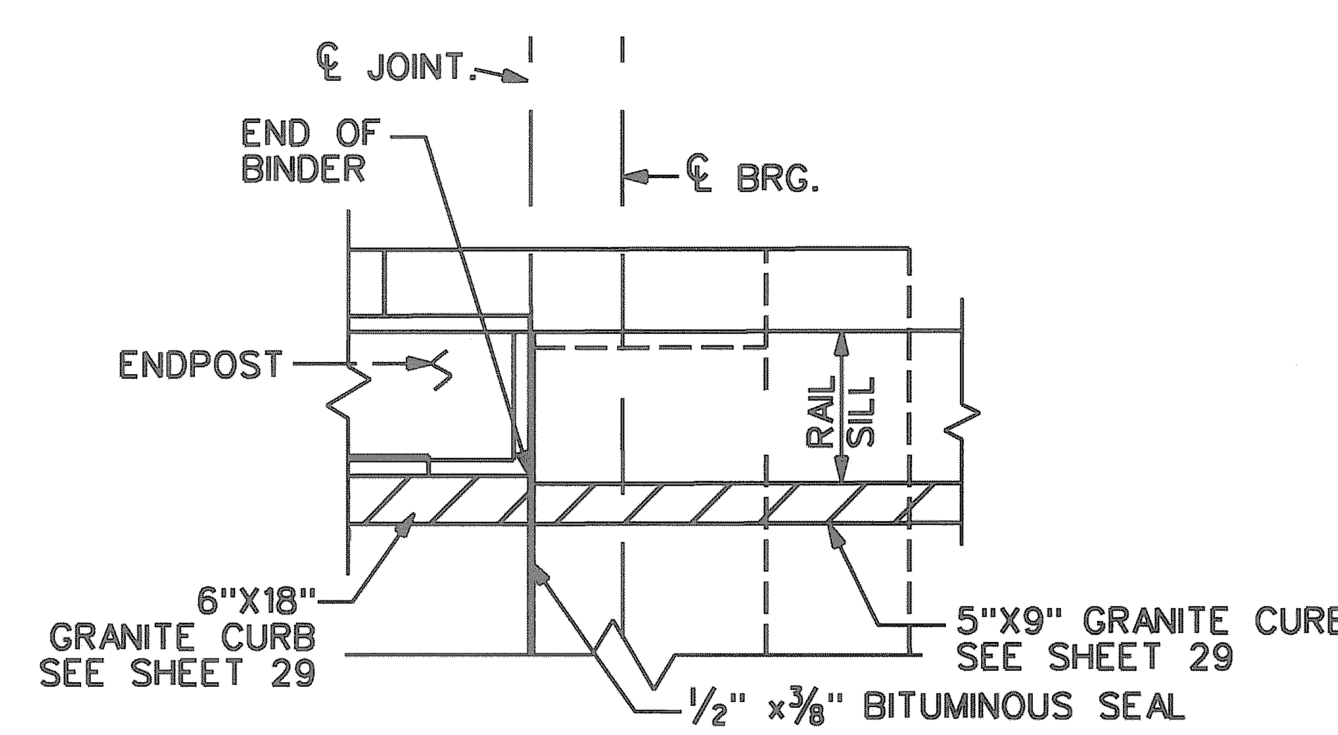
ABUTMENTS 2 & 3 CROSS SECTION AT SIDEWALK

SCALE: ½" = 1' - 0"



JOINT PLAN AT SIDEWALK - ABUTMENTS 1 & 4

SCALE: ½"= 1'-0"



JOINT PLAN AT SAFETY BARRIER - ABUTS. 1 & 4

SCALE: ½"= 1'-0"

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DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
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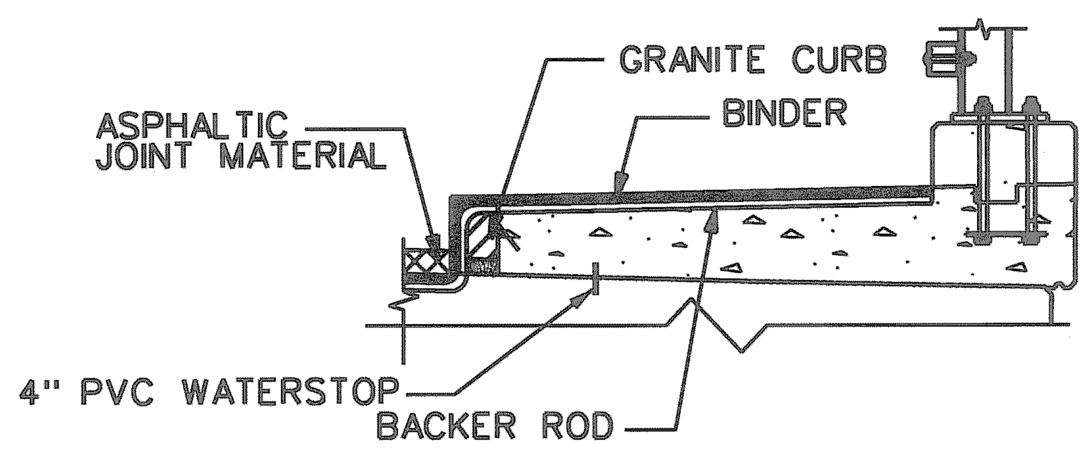
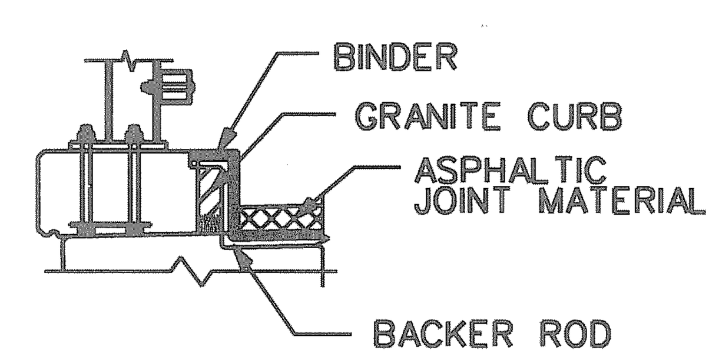
APPROVED PLANS MUST BE AT CONSTRUCTION SITE.
Martin D. Wencek

MAY 6 2008



TYPICAL JOINT SECTION THRU SIDEWALK

SCALE: ½"= 1'-0"



TYPICAL JOINT SECTION THRU SAFETY BARRIER

SCALE: ½"= 1'-0"

RIDEM SUBMISSION

REVISIONS		
NO.	DATE	BY

RHODE ISLAND
DEPARTMENT OF TRANSPORTATION

BRIDGE REPLACEMENT
WYOMING BRIDGE NO. 43/44
RICHMOND/HOPKINTON

ABUTMENT JOINT DETAILS

CHECKED BY ________ DATE ________ SCALE AS NOTED

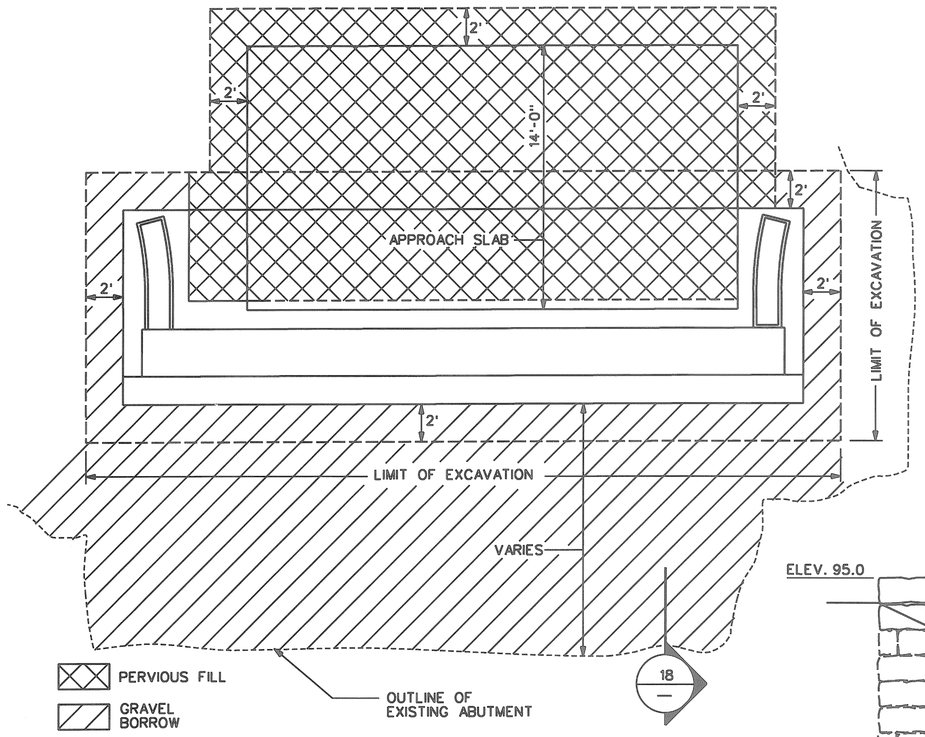
Dewberry
Dewberry-Goodkind, Inc.
A Dewberry Company
280 Summer St., 10th Floor
Boston, MA 02110
Phone: (617) 695-3400
Fax: (617) 695-3310

PROJECT: WYOMING
RHODE ISLAND, TOWN OF RICHMOND/HOPKINTON
BRIDGE STREET OVER WOOD RIVER BRIDGE NOS. 43/44
100% DESIGN SUBMISSION
FILE: M:\15293_44\CAD\PS&E\PRINTINGSHEETS\SHT 26.DGN

IN CHARGE OF: EB
DESIGNED BY: SK, GK, JN
DESIGN CHECKED BY: SK, GK
DETAILED BY: SK, GK, JN
DETAIL CHECKED BY: SK, EB

TIME: $TIME$
DATE: $DATE$

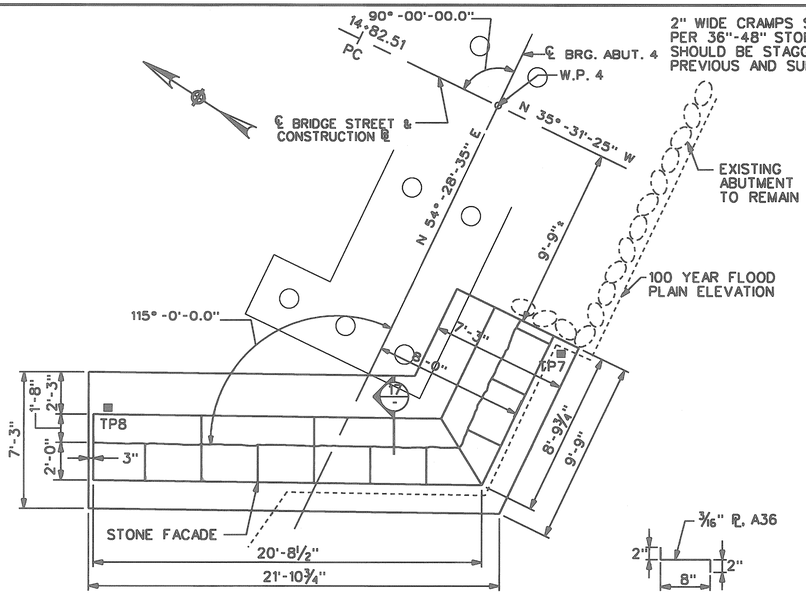
FED. ROAD DIV. NO.	STATE	FEDERAL AID PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
1	R.I.			31	47



TYPICAL ABUTMENT 1 & 4 FILL PLAN

SCALE: 1/4"= 1'-0"

NOTE:
1. ABUTMENT 1 SHOWN, ABUTMENT 4 SIMILAR
2. SEE RETAINING WALL NO.5 PLAN



NOTE: SEE SAND BAG DIKE DETAIL

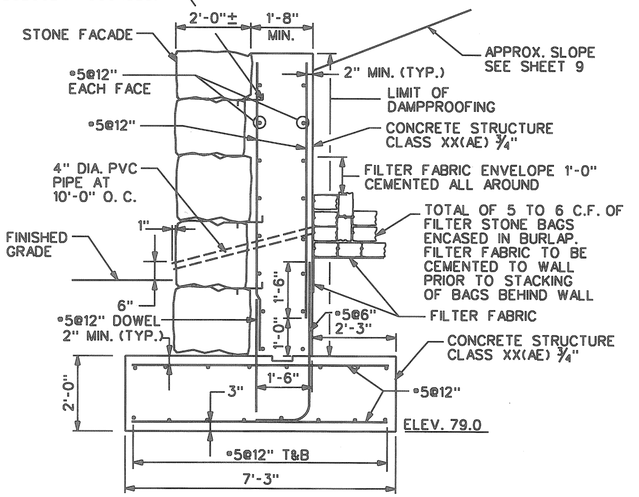
RETAINING WALL #4 PLAN

SCALE: 1/4"=1'-0"

CRAMP DETAIL

SCALE: 1" = 1'- 0"

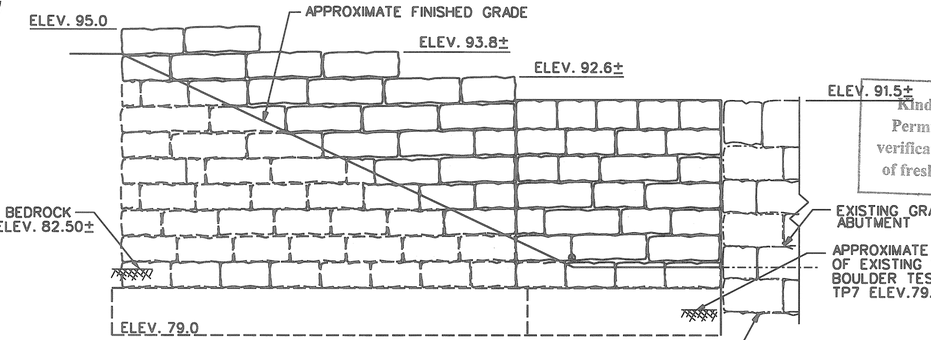
2" WIDE CRAMPS SET (1 PER 24" STONE & 2 PER 36"-48" STONE) IN EACH COURSE. CRAMPS SHOULD BE STAGGERED FROM THOSE IN PREVIOUS AND SUBSEQUENT COURSES.



NOTES:
1. THE REAR FACE OF THE STONE FACADE SHALL BE CLEANED THOROUGHLY PRIOR TO PLACE CONCRETE.
2. THE STEM CONCRETE CAN BE PLACED IN MULTIPLE LIFTS IN ORDER NOT TO CAUSE ANY DAMAGE TO THE GRANITE STONE FACADE.
3. THE STONE FACADE WILL BE PAID UNDER ITEM 807.9903.
4. THE TIES FOR THE FACADE SHALL BE HOT-DIP GALVANIZED.

SECTION 17

SCALE: ½" = 1'- 0"



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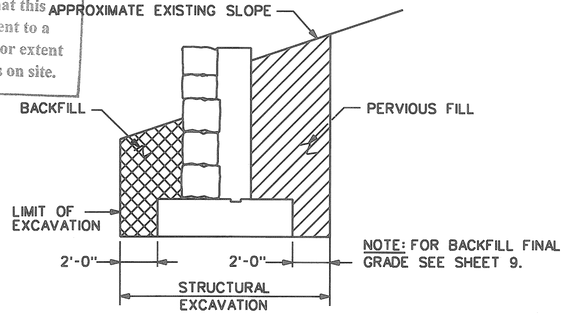
RETAINING WALL #4 DEVELOPED ELEVATION

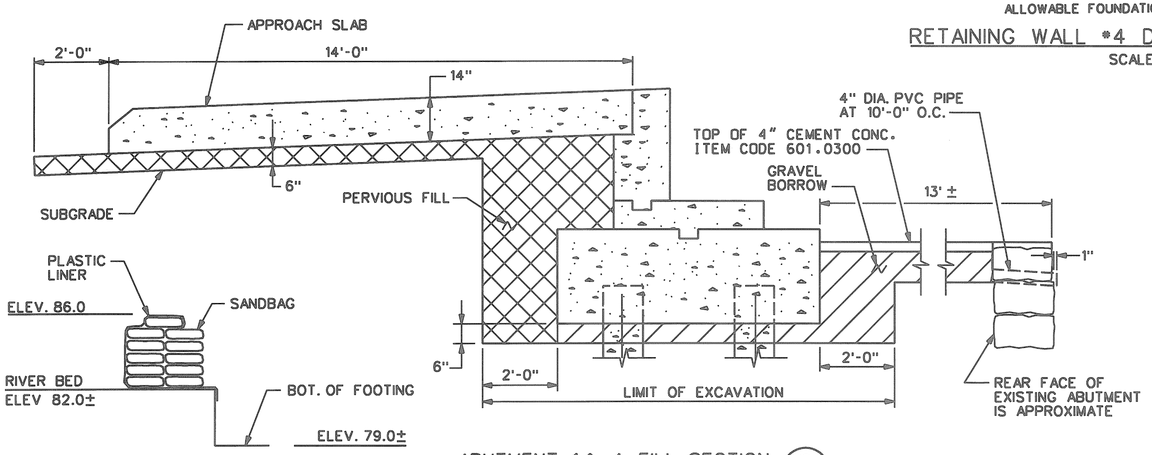
SCALE: 1/4"=1'-0"



NOTE: FOR BACKFILL FINAL GRADE SEE SHEET 9.

EXCAVATION LIMITS RETAINING WALL #4

SCALE: 1/4" = 1'-0"



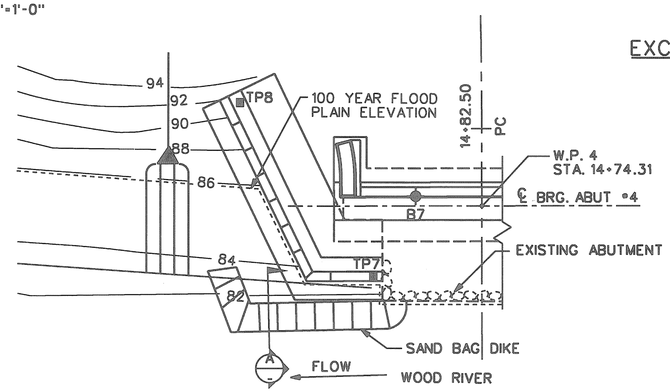
SAND BAG DIKE SECTION A

SCALE: ¼" = 1'-0"

ABUTMENT 1 & 4 FILL SECTION 18

SCALE: ½"=1'-0"

NOTE: ABUTMENT 1 SHOWN



SAND BAG DIKE PLAN

SCALE: ⅛" = 1'-0"

RHODE ISLAND DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
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AS SPECIFIED IN THE LETTER OF APPROVAL
DATED JUN 13 2008 FILE # 08-0043
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL.
APPROVED PLANS MUST BE AT CONSTRUCTION SITE.
MAY 6 2008
Maureen D. Wenceck

RIDEM SUBMISSION

REVISIONS NO.	DATE	BY

RHODE ISLAND DEPARTMENT OF TRANSPORTATION

BRIDGE REPLACEMENT
WYOMING BRIDGE NO. 43/44
RICHMOND/HOPKINTON

RETAINING WALL #4 PLAN, ELEVATION, SECTION AND ABUTMENT FILL

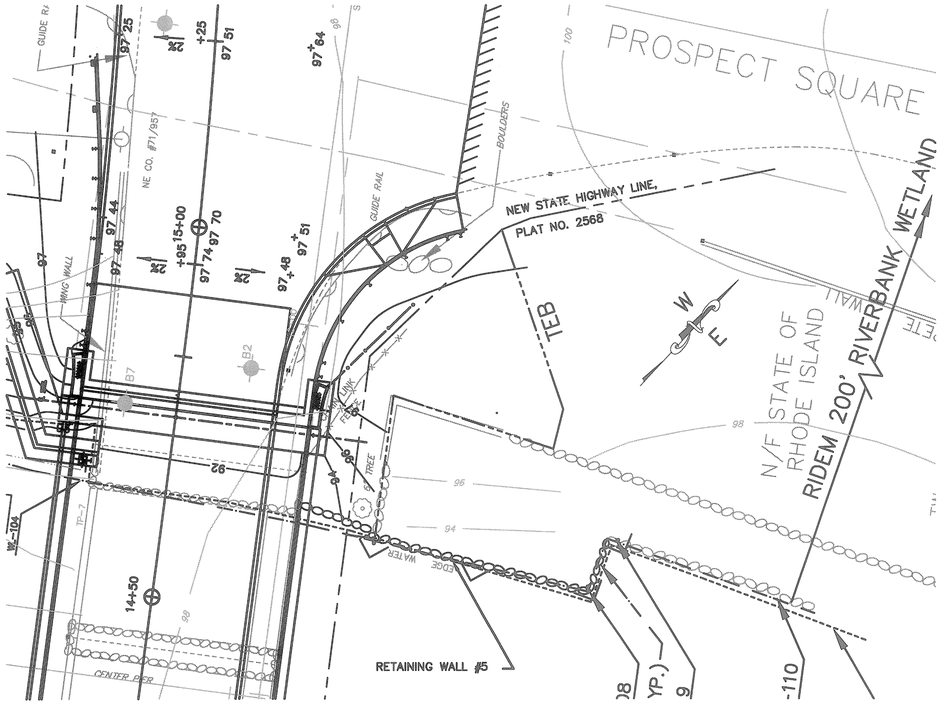
CHECKED BY _____ DATE _____ SCALE AS NOTED

Dewberry
Dewberry-Goodkind, Inc.
A Dewberry Company
280 Summer St., 10th Floor
Boston, MA 02210
Phone: (617) 695-3400
Fax: (617) 695-3310

PROJECT: WYOMING
RHODE ISLAND, TOWN OF RICHMOND/HOPKINTON
BRIDGE STREET OVER WOOD RIVER BRIDGE NOS. 43/44
100% DESIGN SUBMISSION
FILE: M:\1529\89_44\CAD\PS&E\PRINTINGSHEETS\SHT 26.DGN

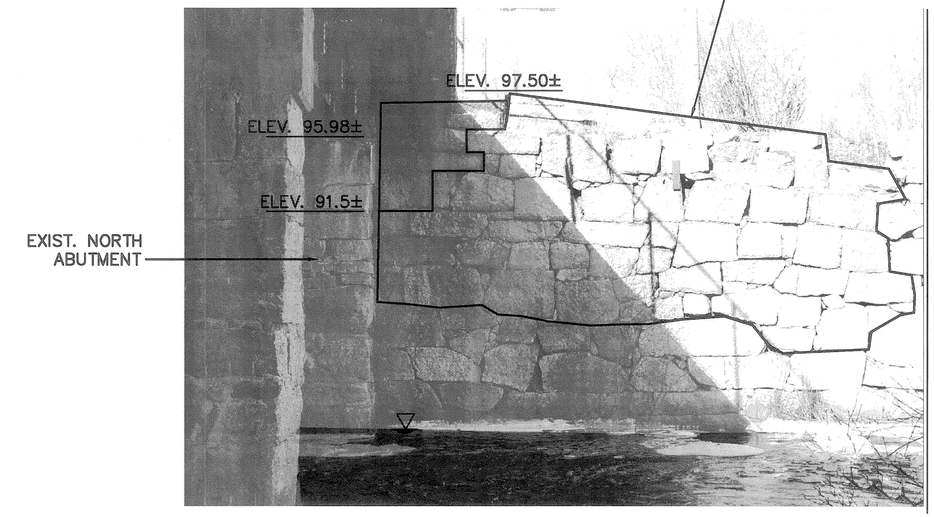
IN CHARGE OF: EB
DESIGNED BY: SK, CK, JN
DESIGN CHECKED BY: SK, CK
DETAILED BY: SK, CK, JN
DETAIL CHECKED BY: SK, EB

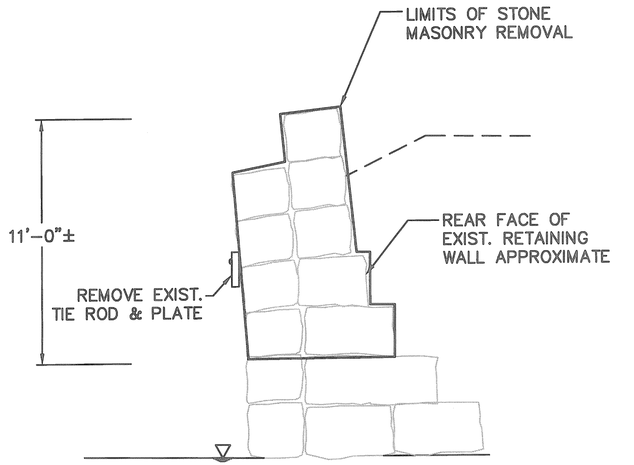
TIME: @TIME@
DATE: @DATE@



PLAN – RETAINING WALL #5

SCALE: 2:1

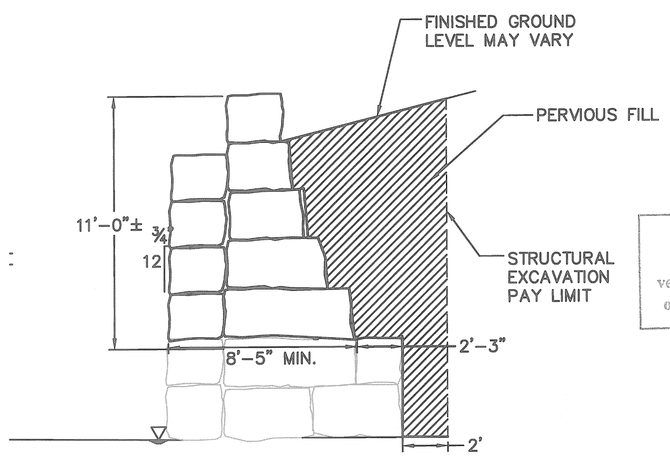




SECTION – EXISTING RETAINING WALL #5

SCALE: 6" = 1'

NOTE:
EXISTING WALL OUT OF PLUMB 4" TO 8" ±.



SECTION – PROPOSED RETAINING WALL #5

SCALE: 6"= 1'

NOTE:
1. THIS WALL SHALL BE RECONSTRUCTED ACCORDING TO R.I STANDARD DETAIL 10.1.0.(WET STONE RETAINING WALL).
2. THE CONTRACTOR SHALL USE ANY SUPPLEMENTARY STONES FROM THE REAR OF THE WALL.
3. ANY NEWLY ACQUIRED STONES SHALL BE OF A SHAPE AND SIZE THAT PERMITS PROPER INTERLOCKING WITH THE EXISTING STONES AND SHALL MATCH THE APPEARANCE OF THE ADJOINING WALL.

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DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
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APPROVED PLANS MUST BE AT CONSTRUCTION SITE.
Cynthia D. Wenck

MAY 6 2008

FED.DIV. ROAD NO.	STATE	FEDERAL AID PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
	R.I.			32	47

RIDEM SUBMISSION

REVISIONS NO.	DATE	BY

Dewberry
Dewberry - Goodkind, Inc.
A Dewberry Company

RHODE ISLAND
DEPARTMENT OF TRANSPORTATION

BRIDGE REPLACEMENT
WYOMING BRIDGE NO. 43/44
RICHMOND/HOPKINTON

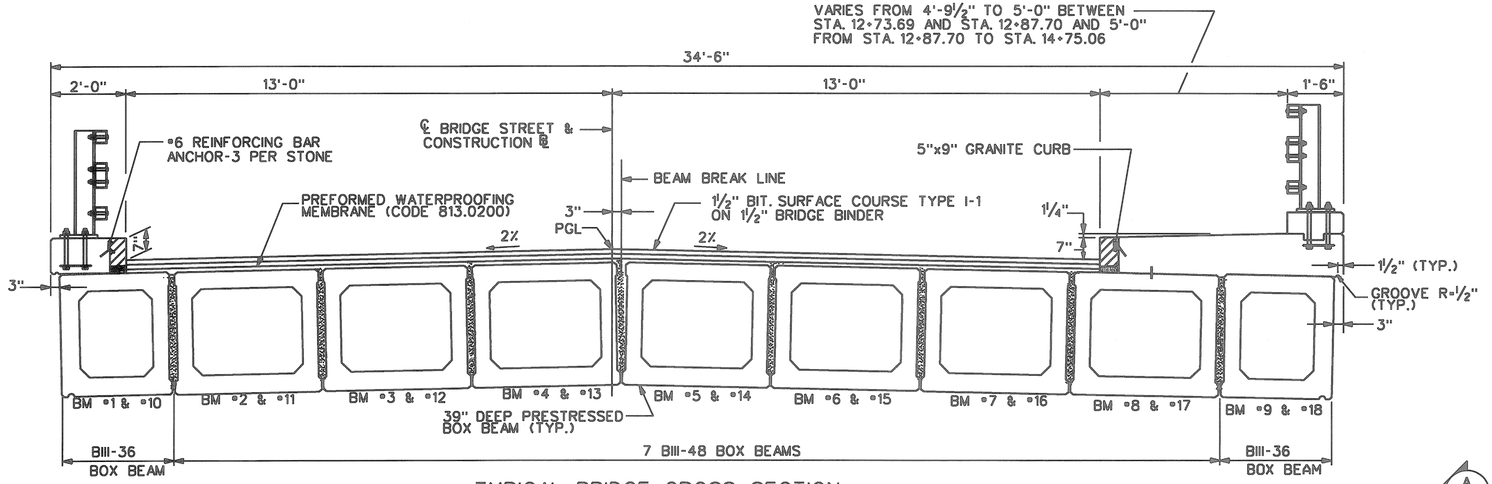
RETAINING WALL #5
PLAN, ELEVATION & SECTION

CHECKED BY _____ DATE _____ SCALE AS NOTED

PROJECT: WYOMING
RHODE ISLAND, TOWN OF RICHMOND\HOPKINTON
BRIDGE STREET OVER WOOD RIVER BRIDGE NOS. 43\44
100% DESIGN

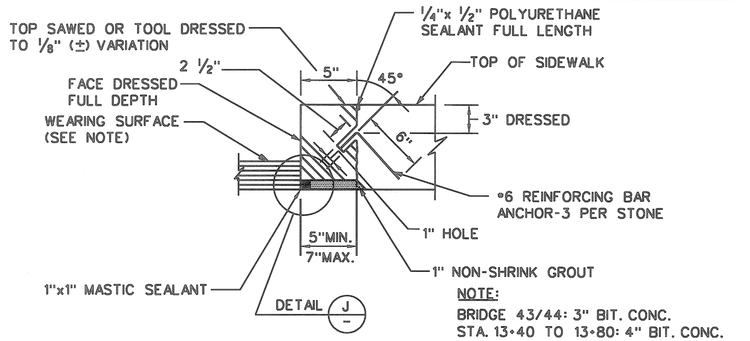
FILE: M:\1525\43_44\Cad\Ps&e\printingsheets\sheet 28.dwg

FED. ROAD DIV. NO.	STATE	FEDERAL AID PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
1	R.I.			33	47



TYPICAL BRIDGE CROSS SECTION

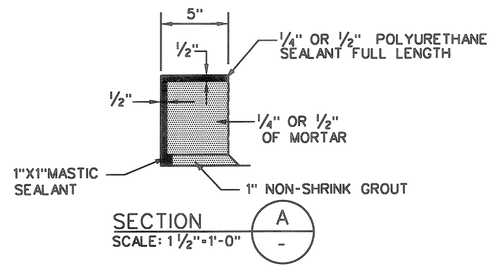
SCALE: ½" = 1'-0"



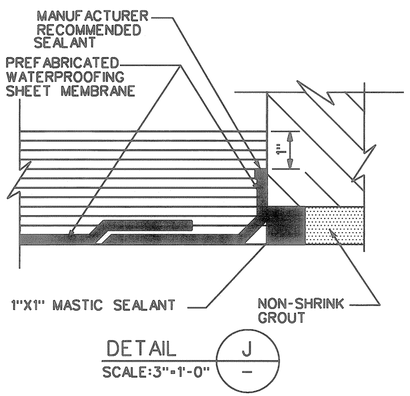
NOTE:
BRIDGE 43/44: 3" BIT. CONC. STA. 13+40 TO 13+80: 4" BIT. CONC. 5" X 10" CURB

TYPICAL CURB DETAIL - 5" X 9"

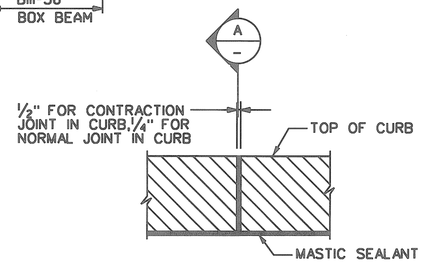
SCALE: 1 ½"=1'-0"



SCALE: 1 ½"=1'-0"

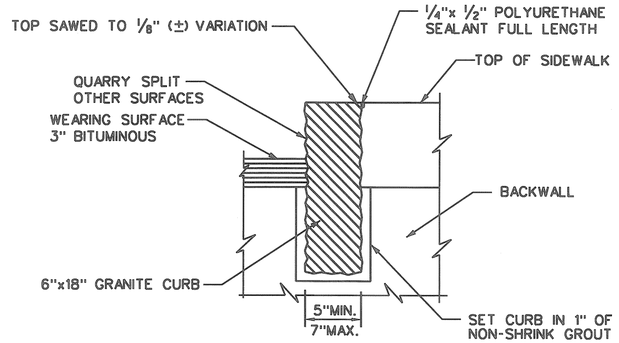


SCALE:3"=1'-0"



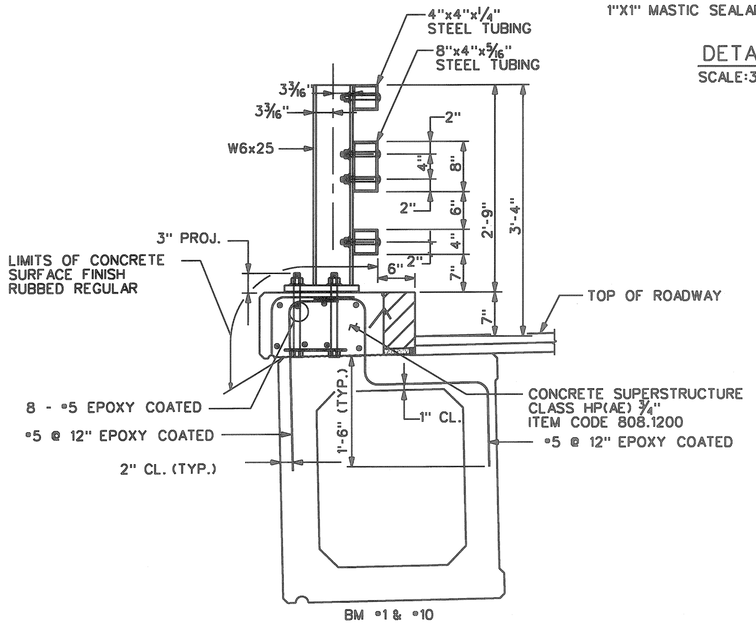
ELEVATION AT FACE OF CURB

NOT TO SCALE



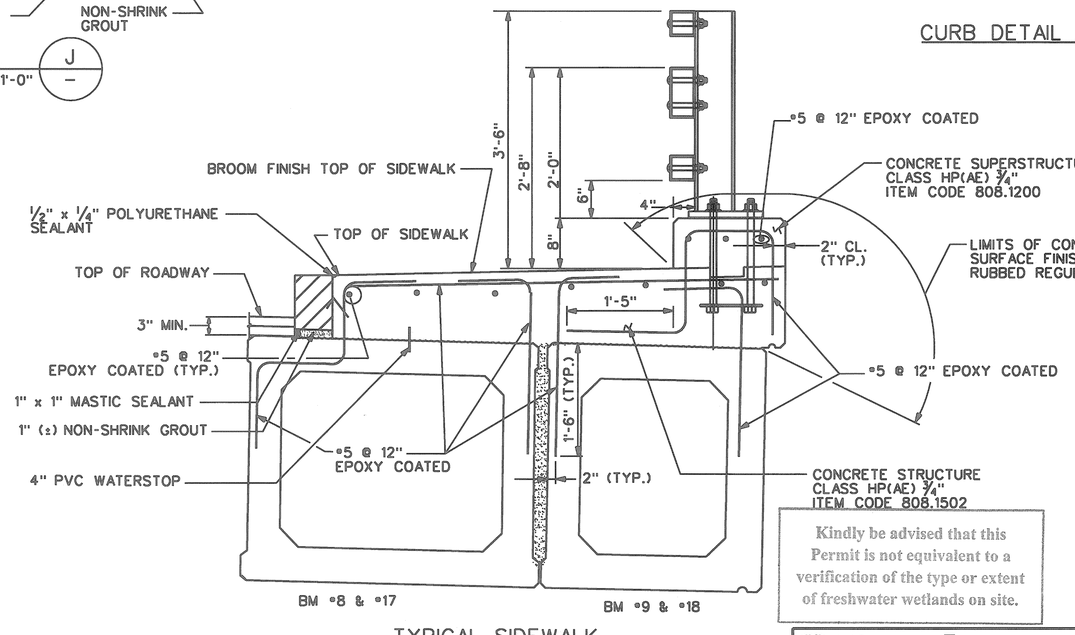
CURB DETAIL AT ABUTMENT 1 & 4 BACKWALLS - 6" X 18"

SCALE: 1 ½"=1'-0"



TYPICAL SAFETY CURB

SCALE: 1" = 1'- 0"



TYPICAL SIDEWALK

SCALE: 1" = 1'- 0"

CURB NOTES:

1 FOR CUTTING TOLERANCES ON GRANITE CURB SEE R.I. STANDARD SPECIFICATION M-09.05.

2 STRAIGHT CURB SHALL BE FURNISHED IN LENGTHS OF NOT LESS THAN 6 FEET OR GREATER THAN 10 FEET.

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
AS SPECIFIED IN THE LETTER OF APPROVAL
DATED JUN 13 2008 FILE # 08-0043
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL.
APPROVED PLANS MUST BE AT CONSTRUCTION SITE.
Martin D. Wencek
MAY 6 2008

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

Dewberry
Dewberry-Goodkind, Inc.
A Dewberry Company
280 Summer St., 10th Floor
Boston, MA 02210
Phone: (617) 695-3400
Fax: (617) 695-3310

PROJECT: WYOMING
RHODE ISLAND, TOWN OF RICHMOND/HOPKINTON
BRIDGE STREET OVER WOOD RIVER BRIDGE NOS. 43/44
100% DESIGN SUBMISSION
FILE: M:\1520\93.44\CAD\PS&E\PRINTINGSHEETS\SHT 27.DGN

IN CHARGE OF:	EB
DESIGNED BY:	SK, GK, JN
DESIGN CHECKED BY:	SK, GK
DETAILED BY:	SK, GK, JN
DETAIL CHECKED BY:	SK, EB

TIME: @TIME@
DATE: @DATE@

RIDEM SUBMISSION

REVISIONS		
NO.	DATE	BY

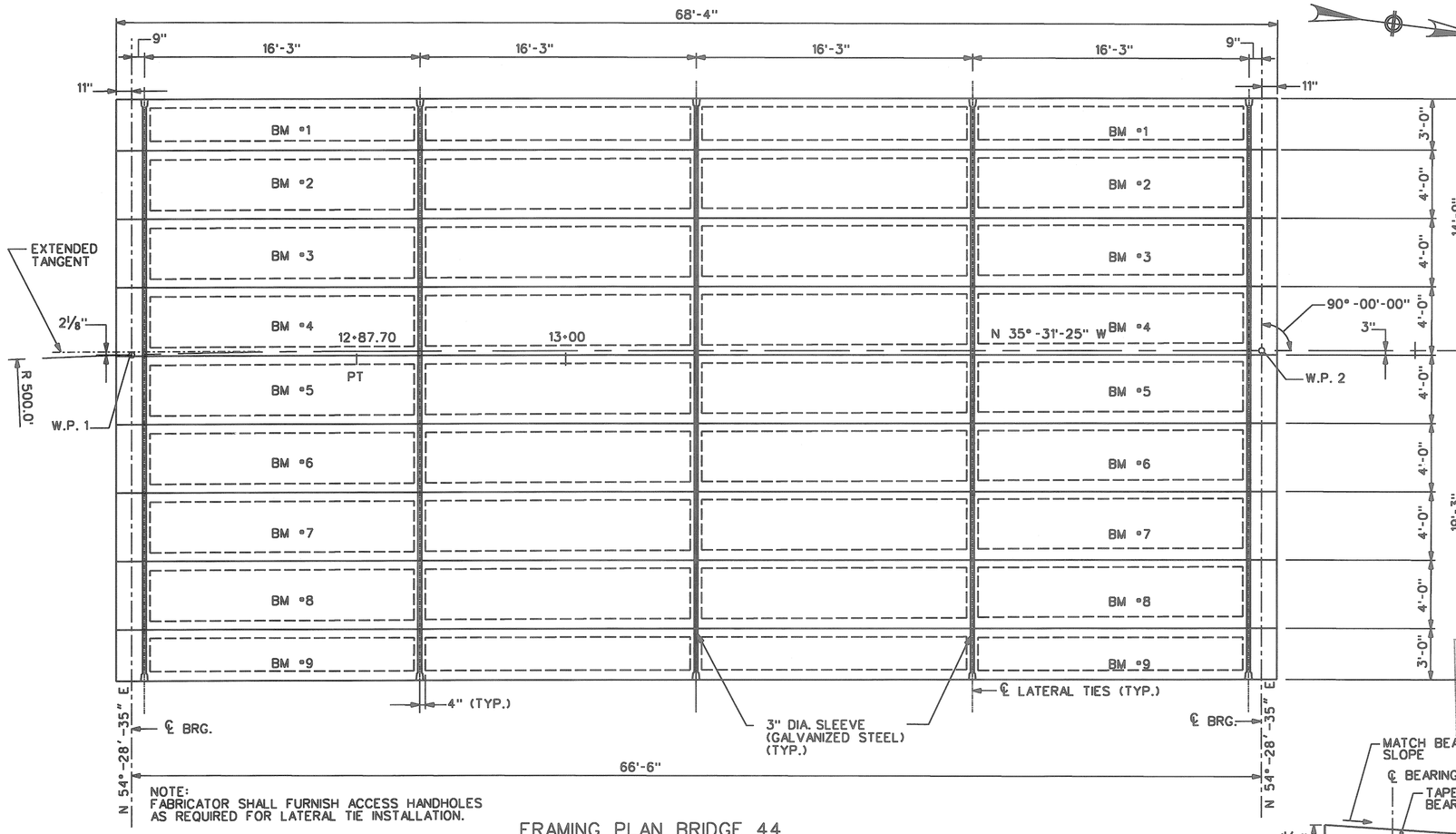
RHODE ISLAND DEPARTMENT OF TRANSPORTATION

BRIDGE REPLACEMENT
WYOMING BRIDGE NO. 43/44
RICHMOND/HOPKINTON

BRIDGE CROSS SECTION AND CURB DETAILS

CHECKED BY _____ DATE _____ SCALE AS NOTED

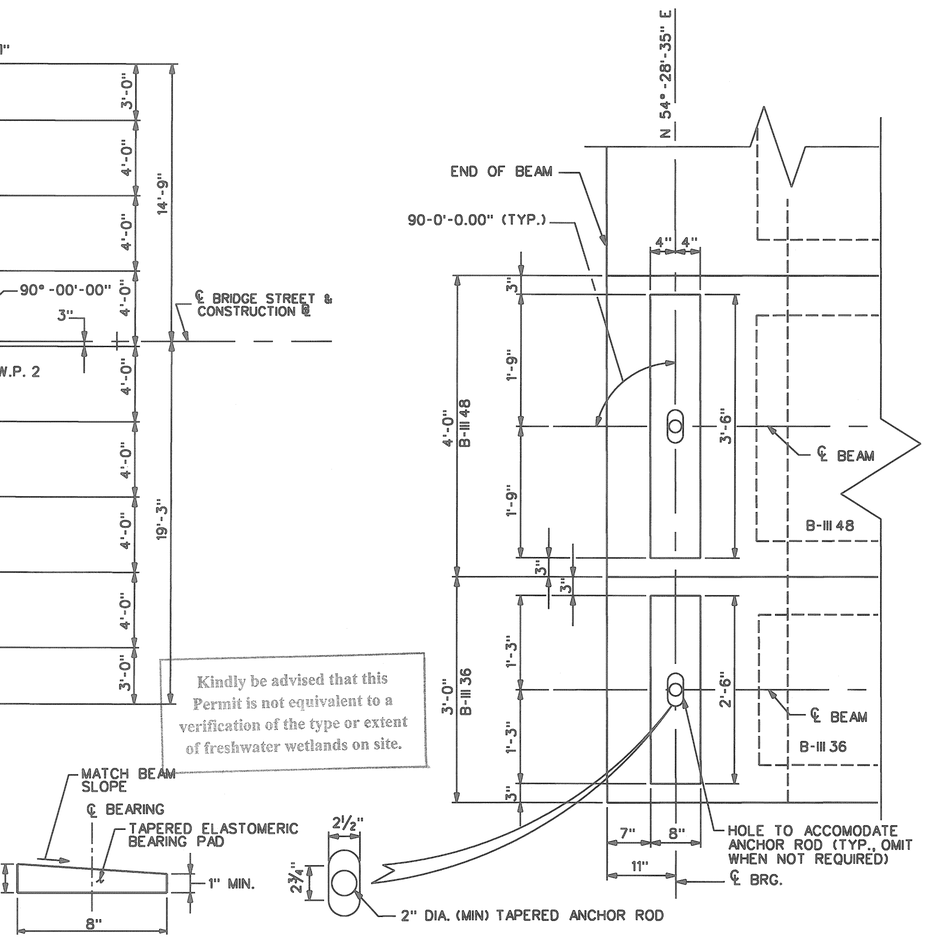
FED. ROAD DIV. NO.	STATE	FEDERAL AID PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
1	R.I.			34	47



NOTE:
FABRICATOR SHALL FURNISH ACCESS HANDHOLES AS REQUIRED FOR LATERAL TIE INSTALLATION.

FRAMING PLAN BRIDGE 44

SCALE: ¼" = 1' - 0"



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

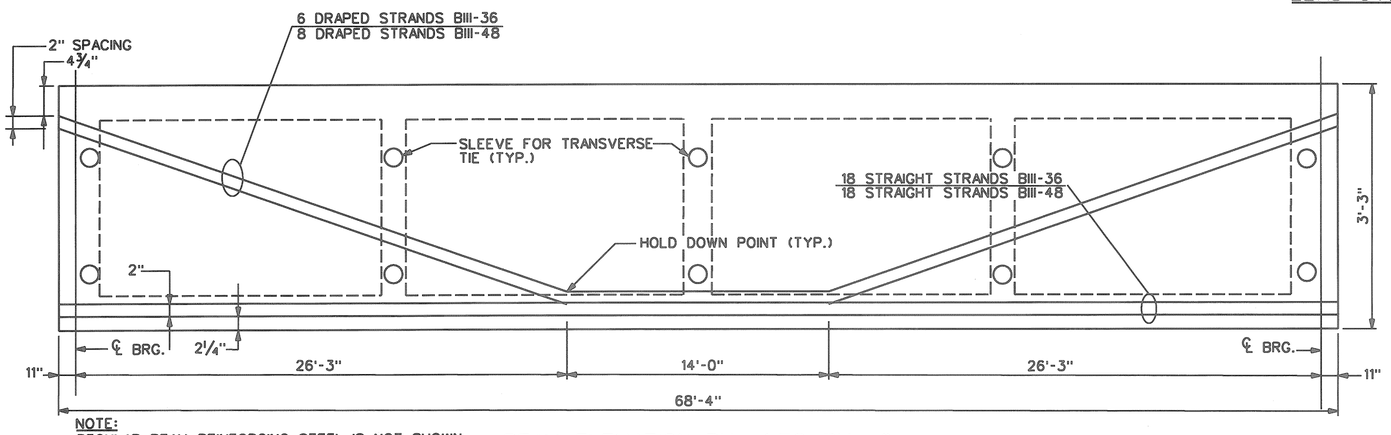
ELASTOMERIC BEARING PAD SECTION

SCALE: 3"= 1'-0"

NOTE:
PROVIDE ANCHOR RODS AT ABUTMENTS 1 AND 4 ONLY

TYPICAL BEARING LAYOUT PLAN

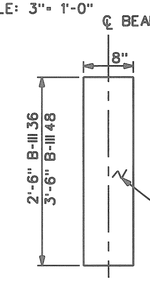
SCALE: 1" = 1' - 0"



NOTE:
REGULAR BEAM REINFORCING STEEL IS NOT SHOWN

BEAM ELEVATION BM #1 TO BM #9

SCALES: HORZ. ¼" = 1' - 0"
VERT. 1" = 1' - 0"



ELASTOMERIC BEARING PAD PLAN

SCALE: 1" = 1' - 0"

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
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Martin D. Wencek

MAY 6 2008

RIDEM SUBMISSION

REVISIONS NO.	DATE	BY

RHODE ISLAND
DEPARTMENT OF TRANSPORTATION

BRIDGE REPLACEMENT
WYOMING BRIDGE NO. 43/44
RICHMOND/HOPKINTON

BRIDGE 44-FRAMING PLAN

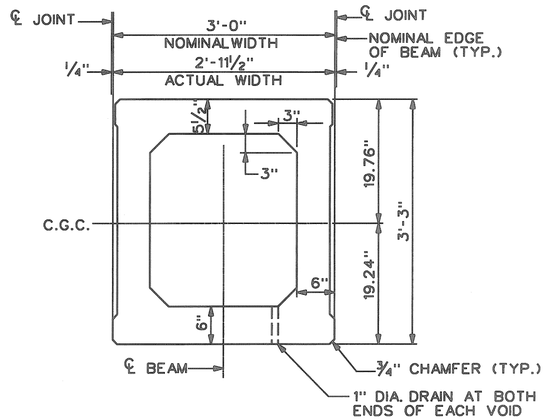
CHECKED BY _____ DATE _____ SCALE AS NOTED

Dewberry
Dewberry-Goodkind, Inc.
A Dewberry Company
280 Summer St., 10th Floor
Boston, MA 02210
Phone: (617) 695-3400
Fax: (617) 695-3310

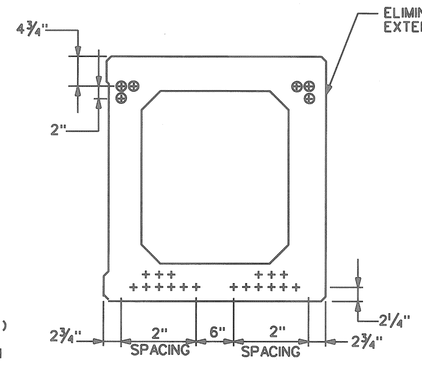
PROJECT: WYOMING
RHODE ISLAND, TOWN OF RICHMOND/HOPKINTON
BRIDGE STREET OVER WOOD RIVER BRIDGE NOS. 43/44
100% DESIGN SUBMISSION
FILE: M:\1529\3_44\CAD\PSBE\PRINTINGSHEETS\SHT 29.DGN

IN CHARGE OF EB
DESIGNED BY SK, GK, JN
DESIGN CHECKED BY SK, GK
DETAILED BY SK, GK, JN
DETAIL CHECKED BY SK, EB

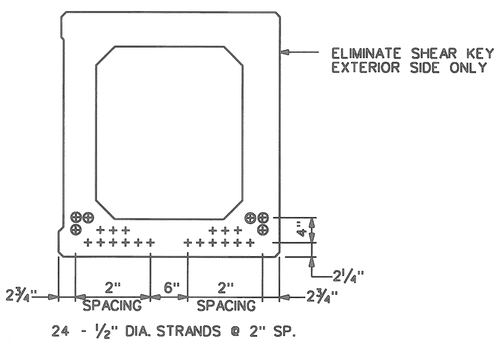
TIME: @TIME@
DATE: @DATE@



BOX BEAM B-III 36 (TYPICAL)
SCALE: 1" = 1' - 0"

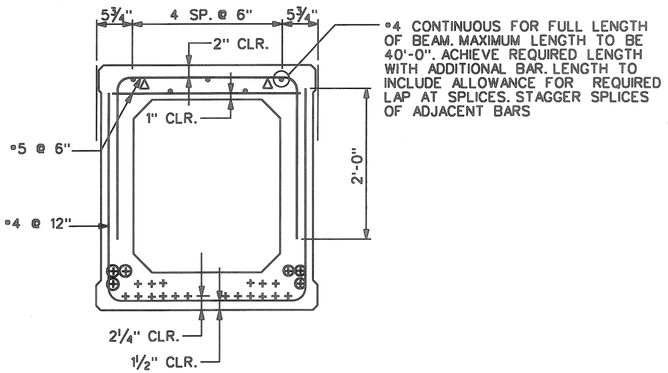


BOX BEAM B-III 36 BM *1 & BM *9
STRANDS LOCATION END SECTION
SCALE: 1" = 1' - 0"

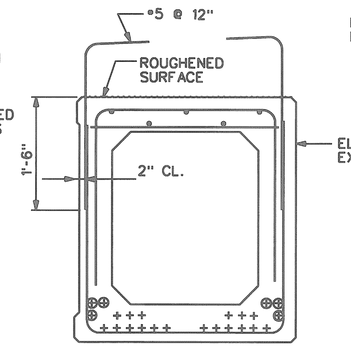


24 - ½" DIA. STRANDS @ 2" SP.

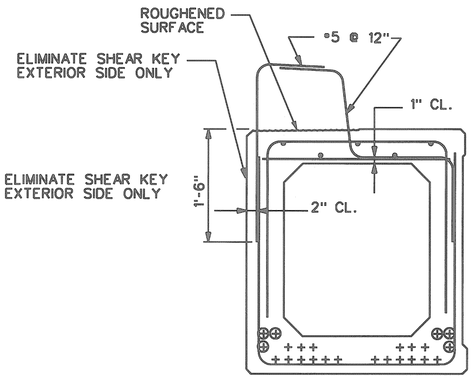
BOX BEAM B-III 36 BM *1 & BM *9
STRANDS LOCATION MIDSPAN SECTION
SCALE: 1" = 1' - 0"



BOX BEAM B-111 36 - BM *1 & BM *9
REINFORCING STEEL MIDSPAN SECTION
SCALE: 1" = 1' - 0"



ADDITIONAL REINFORCING STEEL
BEAM *9 ONLY
SCALE: 1" = 1' - 0"



ADDITIONAL REINFORCING STEEL
BEAM *1 ONLY
SCALE: 1" = 1' - 0"

PRESTRESSED CONCRETE NOTES

1. THE FABRICATION OF ALL PRESTRESSED ELEMENTS SHALL BE IN ACCORDANCE WITH THE LATEST REVISION OF SECTION 809 "PRECAST/PRESTRESSED/POST-TENSIONED CONCRETE ELEMENTS" OF THE RHODE ISLAND STANDARD SPECIFICATIONS.
2. ANY PRECAST MANUFACTURING PLANT FURNISHING PRECAST PRESTRESSED BRIDGE MEMBERS SHALL BE CERTIFIED BY THE PRECAST PRESTRESSED CONCRETE INSTITUTE PLANT CERTIFICATION PROGRAM. THE CERTIFICATION SHALL BE AS A MINIMUM IN THE B3 CATEGORY. EXCEPT FOR DRAPED STRAND BRIDGE MEMBERS IN WHICH CASE A CATEGORY B4 CERTIFICATION WILL BE REQUIRED. THE MANUFACTURER SHALL SUBMIT PROOF OF CERTIFICATION PRIOR TO THE START OF PRODUCTION.
3. BOX BEAMS AND SLABS ARE DETAILED WITH NOMINAL DIMENSIONS (SUCH AS 47 1/2") AND NOMINAL 1/2" JOINTS BETWEEN UNITS TO ACCOUNT FOR CONSTRUCTION TOLERANCES AND TO PROVIDE FOR AN EXACT OVERALL STRUCTURE WIDTH.
4. LIFTING DEVICES ARE THE RESPONSIBILITY OF THE PRECASTER.
5. THE CONCRETE SHALL HAVE A MINIMUM 28-DAY COMPRESSIVE STRENGTH OF 6000 PSI. THE MINIMUM REQUIRED COMPRESSIVE STRENGTH AT STRESS TRANSFER SHALL NOT BE LESS THAN 4000 PSI.
6. PRESTRESSING STRANDS SHALL CONSIST OF UNCOATED HIGH STRENGTH SEVEN WIRE LOW-RELAXATION STRANDS HAVING A NOMINAL DIAMETER OF 0.50" OR 0.60" CONFORMING TO THE REQUIREMENTS OF AASHTO STANDARD SPECIFICATION M 203 (ASTM DESIGNATION A 416) GRADE 270. INITIAL PRESTRESSING TENSION = 29.46 KIPS/STRAND
7. LATERAL TIES SHALL CONSIST OF SEVEN WIRE HIGH STRENGTH UNCOATED LOW-RELAXATION PRESTRESSING STRANDS HAVING A NOMINAL DIAMETER OF 0.60" CONFORMING TO AASHTO DESIGNATION M 203 (ASTM DESIGNATION A 416) GRADE 270. LATERAL TIES SHALL BE INCLUDED IN THE UNIT PRICE FOR PRESTRESSED CONCRETE DECK UNITS. CORROSION PROTECTION OF THE LATERAL TIES SHALL BE AS DETAILED ON DRAWINGS.
8. NON-PRESTRESSED REINFORCEMENT SHALL CONFORM TO AASHTO DESIGNATION M 31 (ASTM DESIGNATION A 615) GRADE 60 AND SHALL BE EPOXY COATED.
9. ALL EXPOSED CORNERS SHALL BE CHAMFERED ¾ INCH UNLESS OTHERWISE NOTED.
10. ANY STRUCTURAL MEMBERS DAMAGED DURING FABRICATION, SHIPPING OR ERECTION, SUCH THAT THEIR STRUCTURAL INTEGRITY IS COMPROMISED, SHALL BE REJECTED AND REPLACED AT THE CONTRACTOR'S OWN EXPENSE. THE ENGINEER SHALL BE THE SOLE JUDGE IN DETERMINING THE STRUCTURAL INTEGRITY OF DAMAGED PRESTRESSED MEMBERS. ANY DAMAGE THAT IS NOT STRUCTURAL IN NATURE SHALL BE REPAIRED TO THE SATISFACTION OF THE ENGINEER.
11. DURING HANDLING, THE BEAMS MUST BE MAINTAINED IN AN UPRIGHT POSITION AT ALL TIMES AND MUST BE PICKED UP ONLY BY MEANS OF APPROVED LIFTING DEVICES AT THEIR APPROVED SUPPORT POINTS.
12. DIMENSIONAL TOLERANCES SHALL NOT EXCEED THOSE RECOMMENDED IN THE LATEST EDITION OF THE PCI MANUAL FOR QUALITY CONTROL FOR PLANTS AND OF PRECAST PRESTRESSED CONCRETE PRODUCTS.
13. THE EXTERIOR FACE OF FASCIA BEAMS SHALL RECEIVE A RUBBED FINISH (IN FIELD OR IN THE PLANT) IN ACCORDANCE WITH THE RHODE ISLAND STANDARD SPECIFICATIONS. THE COST SHALL BE INCLUDED IN THE UNIT PRICE BID FOR PRESTRESSED CONCRETE MEMBERS.
14. THE TOP SURFACES OF THE PRESTRESSED SLABS, BOX BEAMS, & GIRDERS SHALL HAVE EITHER A SMOOTH OR RAKED FINISHED AS NOTED ON PLANS.
15. ALL SHOP DRAWINGS SHALL BE SUBMITTED TO THE ENGINEER IN SUFFICIENT TIME TO PERMIT CAREFUL CHECKING.
16. ALL PRESTRESSING STEEL AND EPOXY COATED REINFORCING BARS SHALL BE SECURELY TIED TO PREVENT DISLOCATION. TIES USED FOR THE EPOXY COATED REINFORCING STEEL SHALL ALSO BE COATED.
17. THE DETAILS OF ALL INSERTS, ANCHORS, AND ANY OTHER ITEMS REQUIRED TO BE CAST INTO THE PRECAST PRESTRESSED UNITS (WHETHER DETAILED ON THE CONTRACT DRAWINGS OR PROVIDED FOR THE CONTRACTOR'S CONVENIENCE) SHALL BE SHOWN ON THE SHOP DRAWINGS. PRECAST UNITS SHALL NOT BE FIRED OR DRILLED INTO FOR ATTACHMENT PURPOSES. ALL HARDWARE SHALL BE GALVANIZED.
18. THE NON-SHRINK GROUT SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 10,000 PSI AFTER 28 DAYS AS DETERMINED BY TESTING UNDER ASTM DESIGNATION C-109 AND SHALL NOT EXHIBIT ANY MEASURABLE DECREASE IN VOLUME AFTER CURING. THE CONTRACTOR SHALL STRICTLY FOLLOW THE MANUFACTURER'S RECOMMENDATIONS. NO TRAFFIC OR EQUIPMENT SHALL BE PERMITTED ON THE STRUCTURE UNTIL THE GROUT HAS CURED FOR AT LEAST 72 HOURS OR AS DIRECTED BY THE ENGINEER. GROUTING SHALL BE PERFORMED IN ACCORDANCE WITH THE DETAILS SHOWN. THE GROUT SHALL BE ON THE RIDOT APPROVED MATERIAL LIST.
19. THE ABUTMENT BACKWALLS FOR PRESTRESSED SLABS AND BOX BEAMS SHALL BE POURED AFTER THE BEAMS ARE IN PLACE.
20. ENDS OF BEAMS SHALL BE VERTICAL AFTER ALL DEAD LOADS HAVE BEEN PLACED.
21. ALLOWANCES FOR FABRICATION TOLERANCES SHALL BE PERMITTED IN ACCORDANCE WITH AASHTO AND PCI.

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
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JUN 6 2008

LEGEND
- ▲ REBAR SUPPORT STRANDS. 5000# TENSION
- + STRAIGHT STRANDS
- ⊕ DRAPED STRANDS
- ● REINFORCING STEEL

FED. ROAD DIV. NO.	STATE	FEDERAL AID PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
1	R.I.			35	47

RIDEM SUBMISSION

REVISIONS		
NO.	DATE	BY

RHODE ISLAND
DEPARTMENT OF TRANSPORTATION

BRIDGE REPLACEMENT
WYOMING BRIDGE NO. 43/44
RICHMOND/HOPKINTON

BRIDGE 43/44 PRESTRESSED
BOX BEAMS CROSS SECTIONS-I

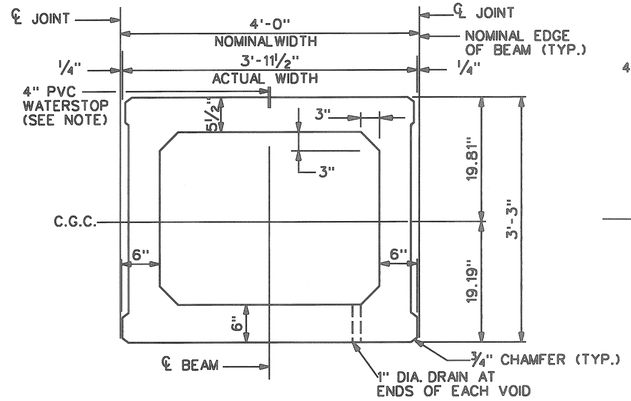
CHECKED BY _____ DATE _____ SCALE AS NOTED

Dewberry
Dewberry-Goodkind, Inc.
A Dewberry Company
280 Summer St., 10th Floor
Boston, MA 02210
Phone: (617) 695-3400
Fax: (617) 695-3310

IN CHARGE OF: EB
DESIGNED BY: SK, GK, JN
DESIGN CHECKED BY: SK, GK
DETAILED BY: SK, GK, JN
DETAIL CHECKED BY: SK, EB

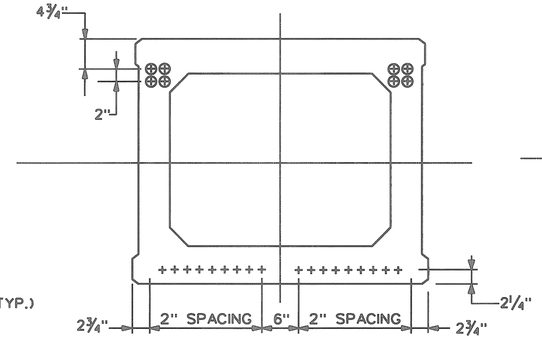
PROJECT: WYOMING
RHODE ISLAND, TOWN OF RICHMOND/HOPKINTON
BRIDGE STREET OVER WOOD RIVER BRIDGE NOS. 43/44
100% DESIGN SUBMISSION
FILE: #s15289..44\CAD\PS&E\PRINTINGSHEETS\SHT 29.DGN
TIME: &TIME&
DATE: &DATE&

FED. ROAD DIV. NO.	STATE	FEDERAL AID PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
1	R.I.			36	47



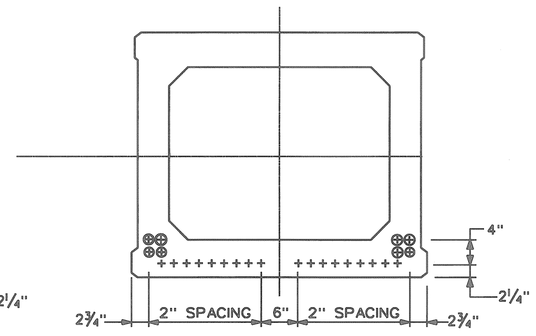
NOTE: PVC WATERSTOP AT BEAMS #8 & #17 ONLY.

BOX BEAM B-III 48 (TYPICAL)
SCALE: 1" = 1' - 0"



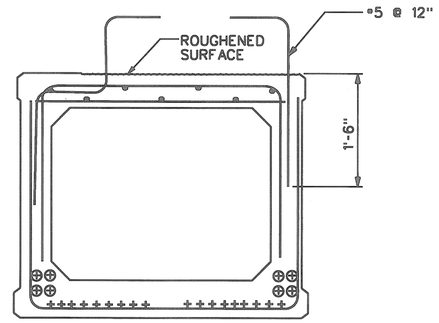
26 - ½" DIA. STRANDS @ 2" SP.

BOX BEAM B-III 48 BM #2 TO BM #8 STRANDS LOCATION END SECTION
SCALE: 1" = 1' - 0"

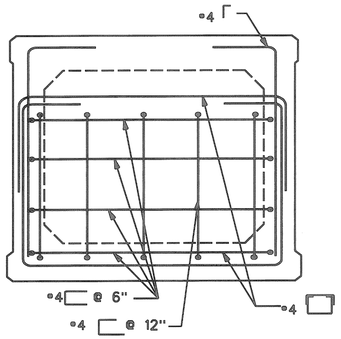


26 - ½" DIA. STRANDS @ 2" SP.

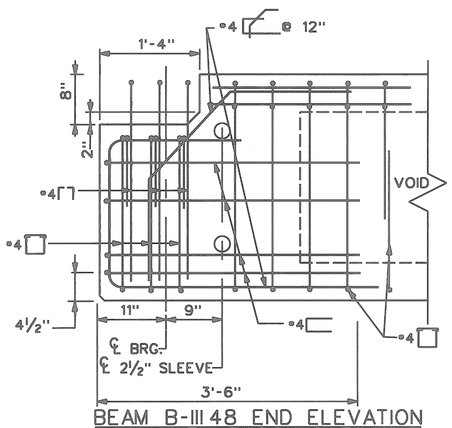
BOX BEAM B-III 48 BM #2 TO BM #8 STRANDS LOCATION MIDSPAN SECTION
SCALE: 1" = 1' - 0"



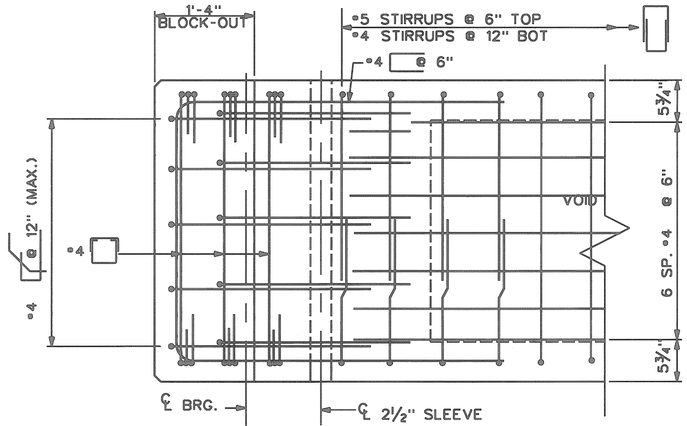
ADDITIONAL REINFORCING STEEL BM #8
SCALE: 1" = 1' - 0"



REINFORCING STEEL END SECTION BIII-48 WITH BLOCK-OUT
SCALE: 1" = 1' - 0"

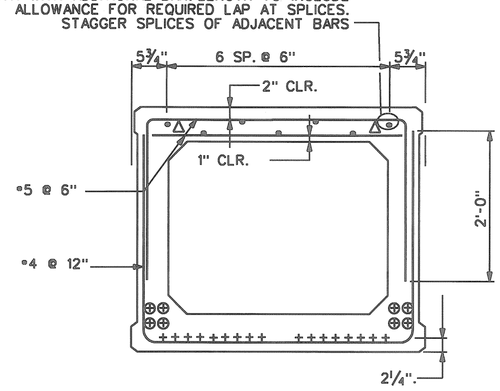


BEAM B-III 48 END ELEVATION WITH BLOCK-OUT
SCALE: 1" = 1' - 0"

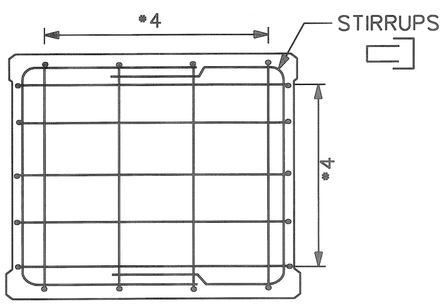


BEAM B-III 48 END PLAN WITH BLOCK-OUT
SCALE: 1" = 1' - 0"

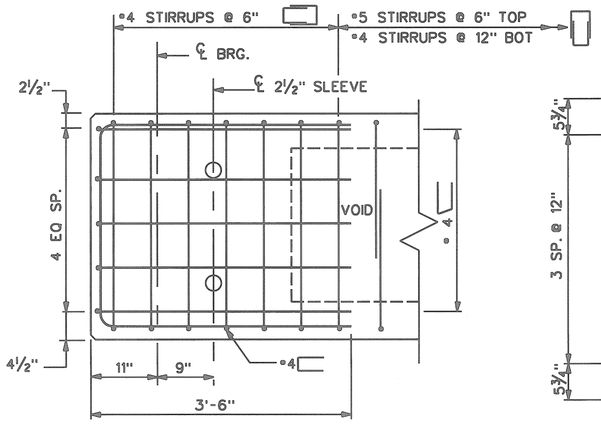
#4 CONTINUOUS FOR FULL LENGTH OF BEAM. MAXIMUM LENGTH TO BE 40'-0". ACHIEVE REQUIRED LENGTH WITH ADDITIONAL BAR. LENGTH TO INCLUDE ALLOWANCE FOR REQUIRED LAP AT SPLICES. STAGGER SPLICES OF ADJACENT BARS



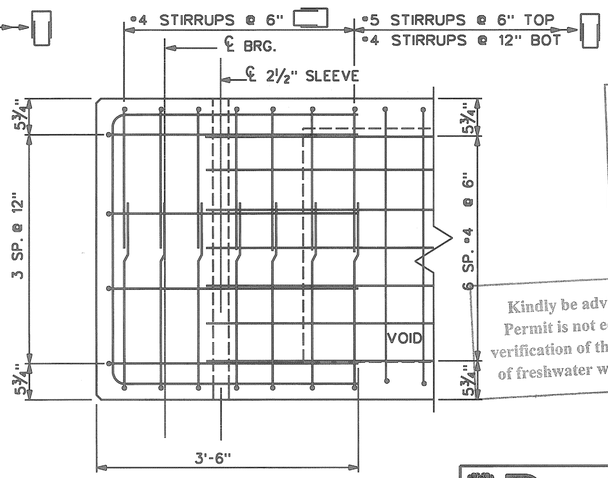
REINFORCING STEEL MIDSPAN SECTION BIII-48
SCALE: 1" = 1' - 0"



REINFORCING STEEL END SECTION BIII-48 WITHOUT BLOCK-OUT
SCALE: 1" = 1' - 0"



BEAM B-III 48 END ELEVATION WITHOUT BLOCK-OUT
SCALE: 1" = 1' - 0"



BEAM B-III 48 END PLAN WITHOUT BLOCK-OUT
SCALE: 1" = 1' - 0"

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
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Maureen D. Wencek

MAY 6 2008

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LEGEND
- △ REBAR SUPPORT STRANDS. 5000# TENSION
- \+ STRAIGHT STRANDS
- ⊕ DRAPED STRANDS
- ● REINFORCING STEEL

RIDEM SUBMISSION

REVISIONS NO.	DATE	BY

RHODE ISLAND DEPARTMENT OF TRANSPORTATION

BRIDGE REPLACEMENT
WYOMING BRIDGE NO. 43/44
RICHMOND/HOPKINTON

BRIDGE 43/44 PRESTRESSED BOX BEAMS CROSS SECTIONS-II

CHECKED BY _____ DATE _____ SCALE AS NOTED

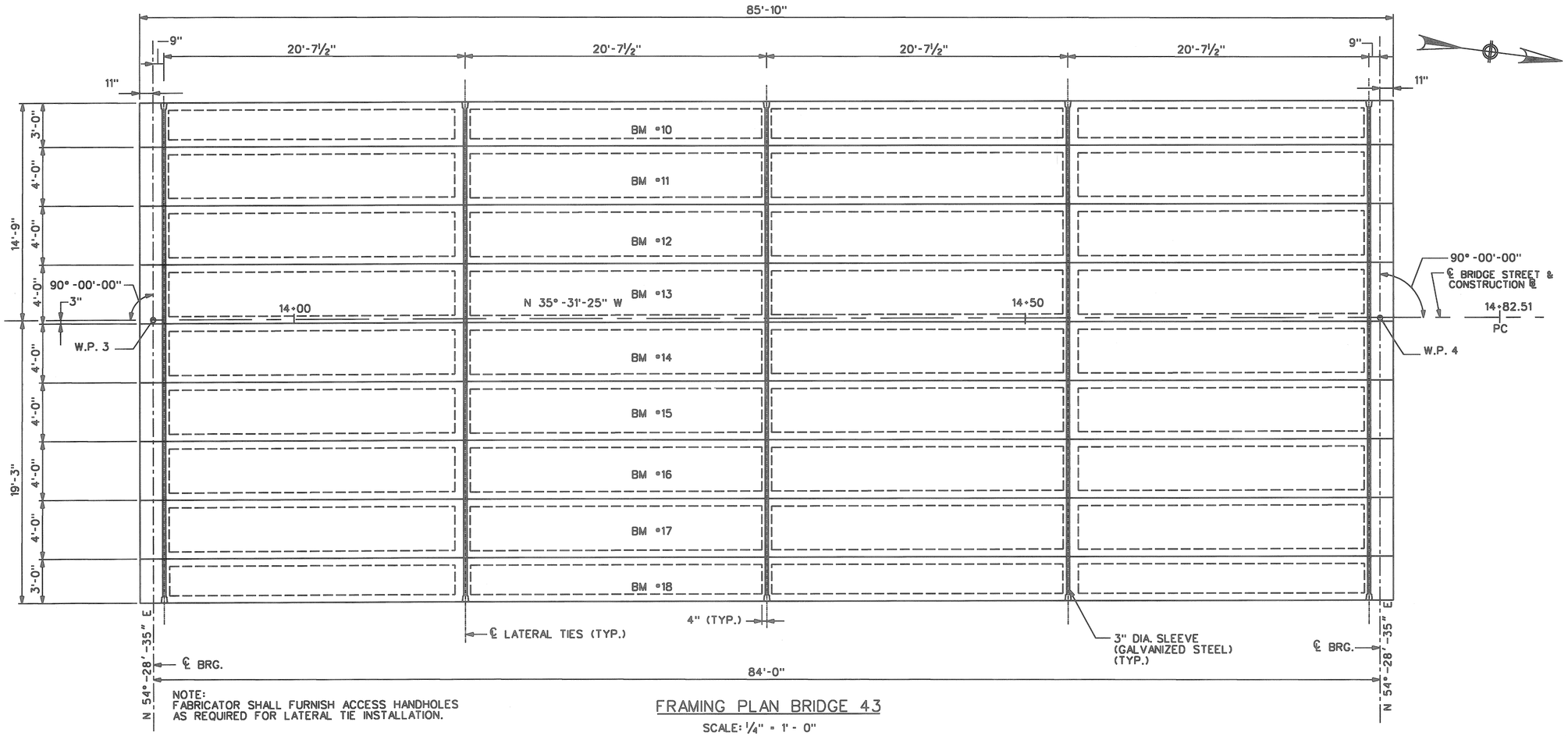
Dewberry
Dewberry-Goodkind, Inc.
A Dewberry Company
280 Summer St., 10th Floor
Boston, MA 02110
Phone: (617) 695-3400
Fax: (617) 695-3310

PROJECT: WYOMING
RHODE ISLAND, TOWN OF RICHMOND/HOPKINTON
BRIDGE STREET OVER WOOD RIVER BRIDGE NOS. 43/44
100% DESIGN SUBMISSION
FILE: M:\52893_44\CADD\PS&E\PRINTINGSHEETS\SHT 30.DGN

IN CHARGE OF: EB
DESIGNED BY: SK, GK, JN
DESIGN CHECKED BY: SK, DK
DETAILED BY: SK, GK, JN
DETAIL CHECKED BY: SK, EB

TIME: @TIME@
DATE: @DATE@

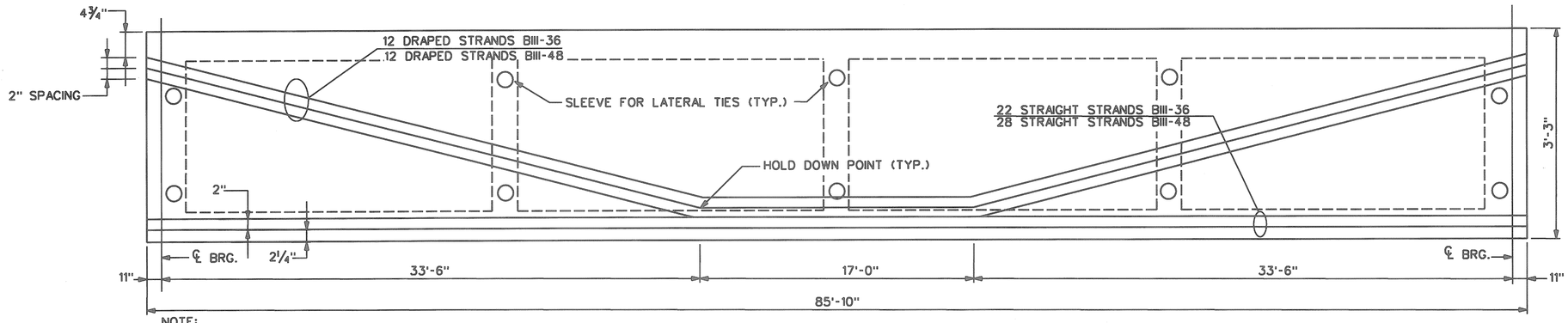
FED. ROAD DIV. NO.	STATE	FEDERAL AID PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
1	R.I.			37	47



NOTE:
FABRICATOR SHALL FURNISH ACCESS HANDHOLES AS REQUIRED FOR LATERAL TIE INSTALLATION.

FRAMING PLAN BRIDGE 43

SCALE: 1/4" = 1' - 0"



NOTE:
REGULAR BEAM REINFORCING STEEL IS NOT SHOWN

BEAM ELEVATION BM #10 TO BM #18

SCALES: HORZ. 1/4" = 1' - 0"
VERT. 1" = 1' - 0"

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

NOTE:
FOR ELASTOMERIC BEARING PAD DETAILS AND LAYOUT, SEE BRIDGE 44 FRAMING PLAN, SHEET 30.

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
AS SPECIFIED IN THE LETTER OF APPROVAL
DATED JUN 13 2008 FILE # 08-0243
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL.
APPROVED PLANS MUST BE AT CONSTRUCTION SITE.
Martin D. Wencek
MAY 6 2008

RIDEM SUBMISSION

REVISIONS		
NO.	DATE	BY

RHODE ISLAND
DEPARTMENT OF TRANSPORTATION

BRIDGE REPLACEMENT
WYOMING BRIDGE NO. 43/44
RICHMOND/HOPKINTON

BRIDGE 43-FRAMING PLAN

CHECKED BY _____ DATE _____ SCALE AS NOTED

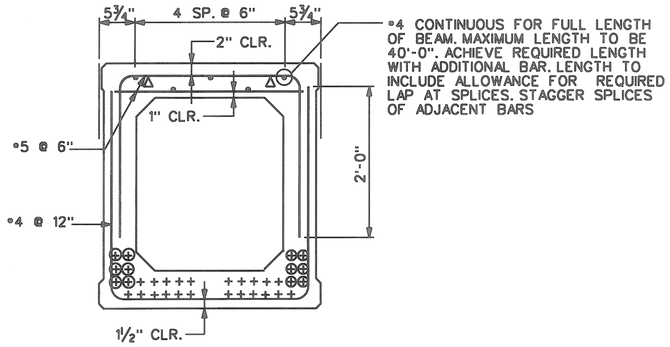
Dewberry
Dewberry-Goodkind, Inc.
A Dewberry Company
280 Summer St., 10th Floor
Boston, MA 02210
Phone: (617) 695-3400
Fax: (617) 695-3310

PROJECT: WYOMING
RHODE ISLAND, TOWN OF RICHMOND/HOPKINTON
BRIDGE STREET OVER WOOD RIVER BRIDGE NOS. 43/44
100% DESIGN SUBMISSION
FILE: H:\15289.44\CAD\PS&E\PRINTINGSHEETS\SHT 31.DGN

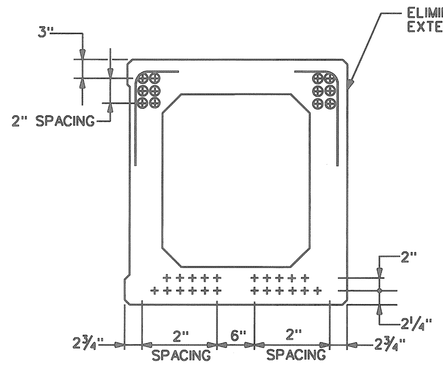
IN CHARGE OF: EB
DESIGNED BY: SK, GK, JN
DESIGN CHECKED BY: SK, GK
DETAILED BY: SK, GK, JN
DETAIL CHECKED BY: SK, EB

TIME: @TIME@
DATE: @DATE@

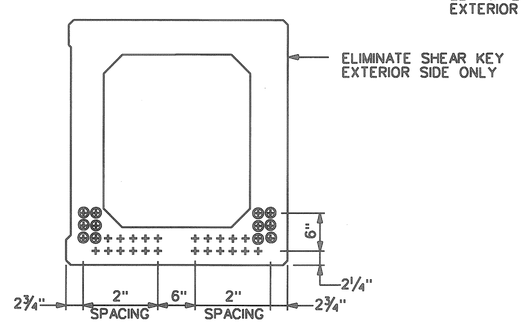
FED. ROAD DIV. NO.	STATE	FEDERAL AID PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
1	R.I.			30	47



BOX BEAM B-III 36 - BM #10 & BM 18
REINFORCING STEEL MIDSPAN SECTION
SCALE: 1" = 1' - 0"

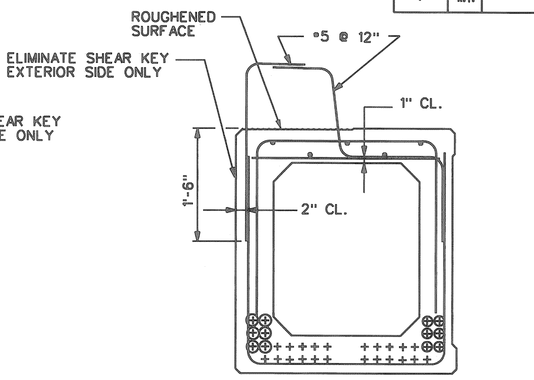


BOX BEAM B-III 36 BM #10 & BM #18
STRANDS LOCATION END SECTION
SCALE: 1" = 1' - 0"

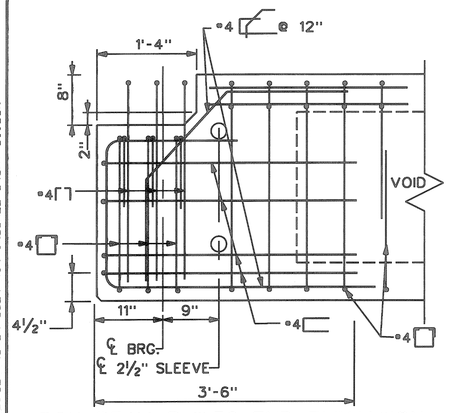


34 - ½" DIA. STRANDS @ 2" SP.

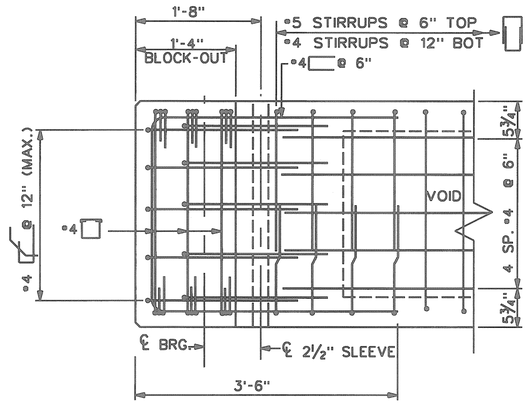
BOX BEAM B-III 36 BM #10 & BM #18
STRANDS LOCATION MIDSPAN SECTION
SCALE: 1" = 1' - 0"



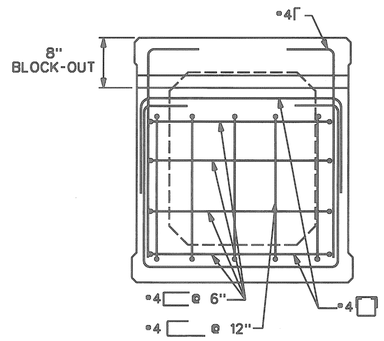
ADDITIONAL REINFORCING STEEL
BEAM #10 ONLY
SCALE: 1" = 1' - 0"



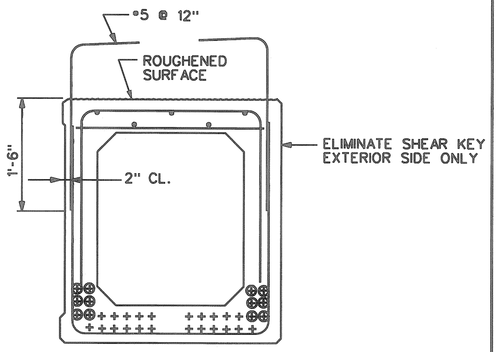
BOX BEAM B-III 36 END ELEVATION
WITH BLOCK-OUT
SCALE: 1" = 1' - 0"



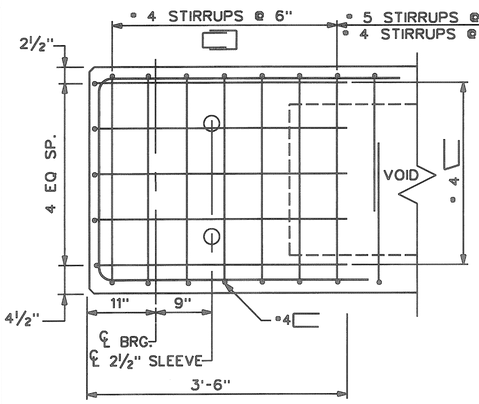
BOX BEAM B-III 36 END PLAN
WITH BLOCK-OUT
SCALE: 1" = 1' - 0"



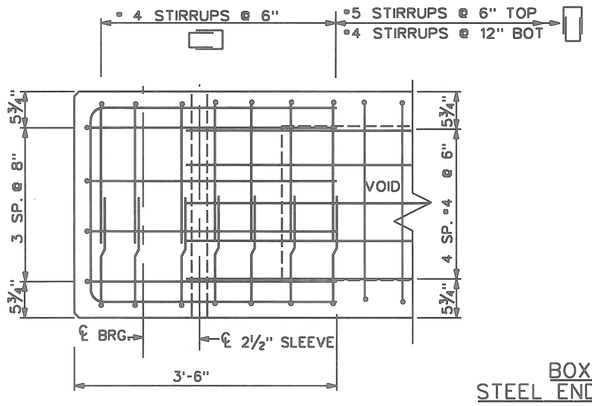
BOX BEAM B-III 36 REINFORCING
STEEL END SECTION - (WITH BLOCK-OUT)
SCALE: 1" = 1' - 0"



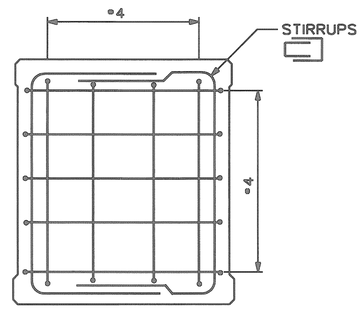
ADDITIONAL REINFORCING STEEL
BEAM #18 ONLY
SCALE: 1" = 1' - 0"



BOX BEAM B-III 36 END ELEVATION
WITHOUT BLOCK-OUT
SCALE: 1" = 1' - 0"



BOX BEAM B-III 36 END PLAN
WITHOUT BLOCK-OUT
SCALE: 1" = 1' - 0"



BOX BEAM B-III 36 REINFORCING
STEEL END SECTION - (WITHOUT BLOCK-OUT)
SCALE: 1" = 1' - 0"

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DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
AS SPECIFIED IN THE LETTER OF APPROVAL
DATED JUN 13 2008 FILE # 08-0043
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL.
APPROVED PLANS MUST BE AT CONSTRUCTION SITE.
Martin D. Wencek
MAY 6 2008

NOTE:
FOR PRESTRESSED CONCRETE NOTES SEE SHEET NO. 31.

LEGEND
- △ REBAR SUPPORT STRANDS. 5000# TENSION
- + STRAIGHT STRANDS
- ⊛ DRAPED STRANDS
- ● REINFORCING STEEL

RIDEM SUBMISSION

REVISIONS NO.	DATE	BY

RHODE ISLAND
DEPARTMENT OF TRANSPORTATION

BRIDGE REPLACEMENT
WYOMING BRIDGE NO. 43/44
RICHMOND/HOPKINTON

BRIDGE 43/44 PRESTRESSED
BOX BEAMS CROSS SECTIONS-III

CHECKED BY _____ DATE _____ SCALE AS NOTED

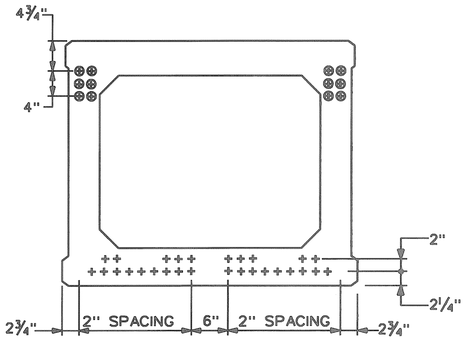
Dewberry
Dewberry-Goodkind, Inc.
A Dewberry Company
280 Summer St., 10th Floor
Boston, MA 02210
Phone: (617) 695-3400
Fax: (617) 695-3310

PROJECT: WYOMING
RHODE ISLAND, TOWN OF RICHMOND/HOPKINTON
BRIDGE STREET OVER WOOD RIVER BRIDGE NOS. 43/44
100% DESIGN SUBMISSION
FILE #: 152893.44\CAD\PSHE\PRINTINGSHEETS\SHT 01.DGN

IN CHARGE OF: EB
DESIGNED BY: SK, GK, JN
DESIGN CHECKED BY: SK, GK
DETAILED BY: SK, GK, JN
DETAIL CHECKED BY: SK, EB

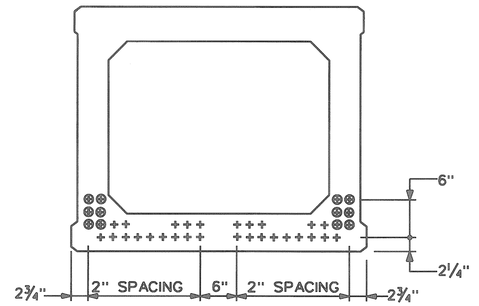
TIME: @TIME@
DATE: @DATE@

FED. ROAD DIV. NO.	STATE	FEDERAL AID PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
1	R.I.			39	47



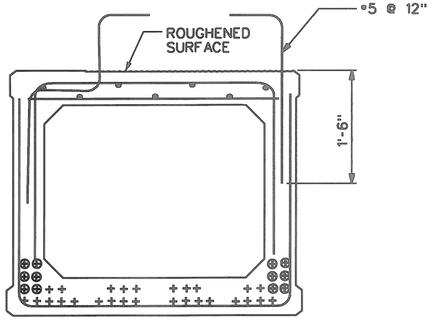
40 - ½" DIA. STRANDS @ 2" SP.

BOX BEAM B-III 48 BM #11 TO BM #17
STRANDS LOCATION END SECTION
SCALE: 1" = 1' - 0"



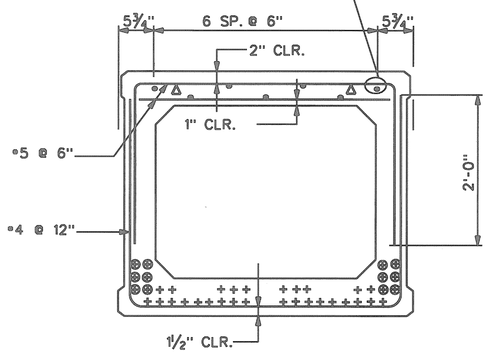
40 - ½" DIA. STRANDS @ 2" SP.

BOX BEAM B-III 48 BM #11 TO BM #17
STRANDS LOCATION MIDSPAN SECTION
SCALE: 1" = 1' - 0"



ADDITIONAL REINFORCING STEEL BM #17
SCALE: 1" = 1' - 0"

#4 CONTINUOUS FOR FULL LENGTH OF BEAM. MAXIMUM LENGTH TO BE 40'-0". ACHIEVE REQUIRED LENGTH WITH ADDITIONAL BAR. LENGTH TO INCLUDE ALLOWANCE FOR REQUIRED LAP AT SPLICES. STAGGER SPLICES OF ADJACENT BARS



REINFORCING STEEL MIDSPAN SECTION BIII-48
BM#11 TO BM #17
SCALE: 1" = 1' - 0"

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DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
AS SPECIFIED IN THE LETTER OF APPROVAL
DATED JUN 13 2008 FILE # 08-0043
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL.
APPROVED PLANS MUST BE AT CONSTRUCTION SITE.
Maureen D. Wenck
MAY 6 2008

LEGEND
- △ REBAR SUPPORT STRANDS. 5000# TENSION
- + STRAIGHT STRANDS
- ⊛ DRAPED STRANDS
- ● REINFORCING STEEL

RIDEM SUBMISSION

REVISIONS NO.	DATE	BY

RHODE ISLAND
DEPARTMENT OF TRANSPORTATION

BRIDGE REPLACEMENT
WYOMING BRIDGE NO. 43/44
RICHMOND/HOPKINTON

BRIDGE 43/44 PRESTRESSED
BOX BEAMS CROSS SECTIONS-IV

CHECKED BY _____ DATE _____ SCALE AS NOTED

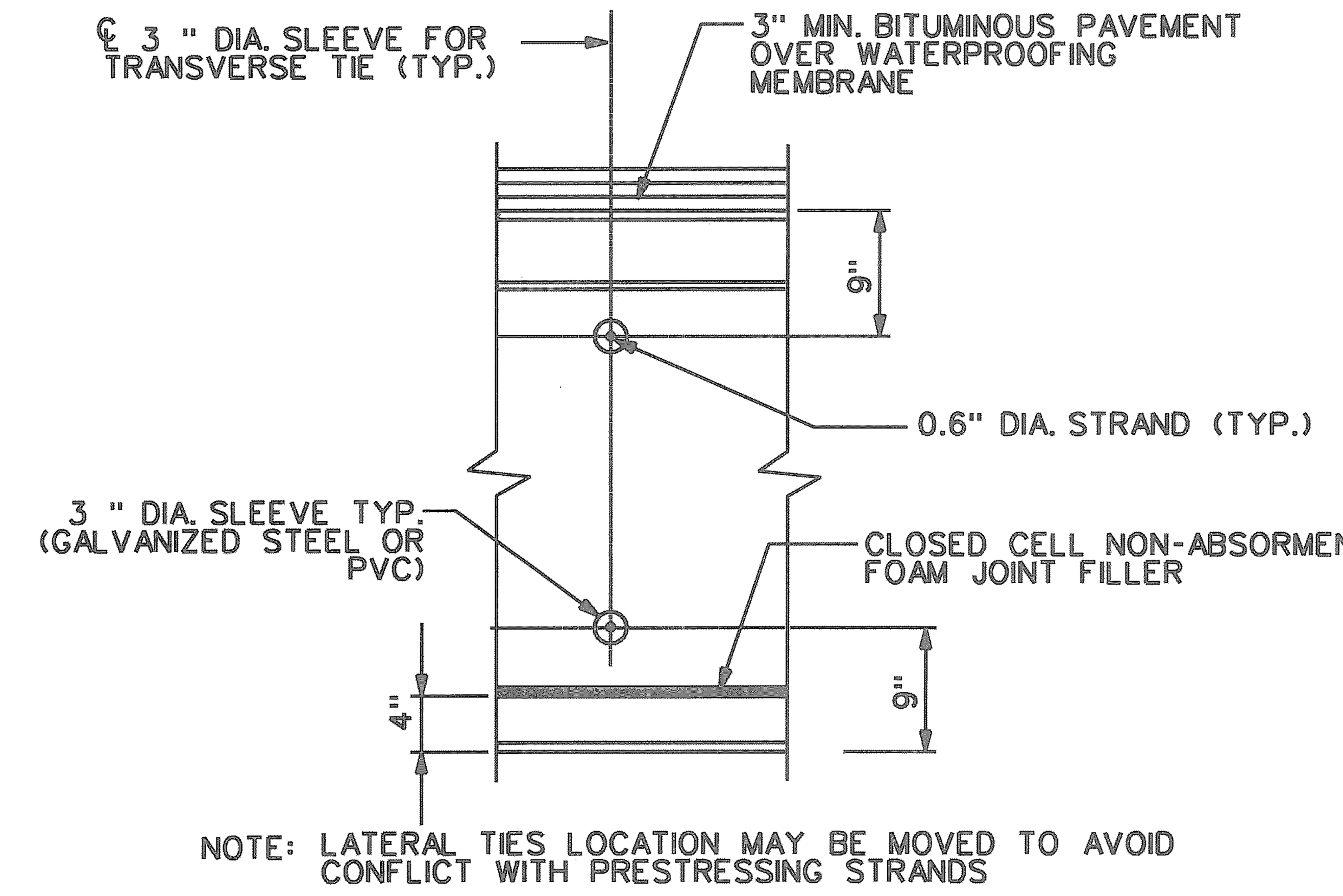
Dewberry
Dewberry-Goodkind, Inc.
A Dewberry Company
280 Summer St., 10th Floor
Boston, MA 02210
Phone: (617) 695-3400
Fax: (617) 695-3310

PROJECT: WYOMING
RHODE ISLAND, TOWN OF RICHMOND/HOPKINTON
BRIDGE STREET OVER WOOD RIVER BRIDGE NOS. 43/44
100% DESIGN SUBMISSION
FILE: M:\152809.44\CAD\PS&E\PRINTINGSHEETS\SHT 33.DGN

IN CHARGE OF: EB
DESIGNED BY: SK. CK. JN
DESIGN CHECKED BY: SK. CK
DETAILED BY: SK. CK. JN
DETAIL CHECKED BY: SK. EB

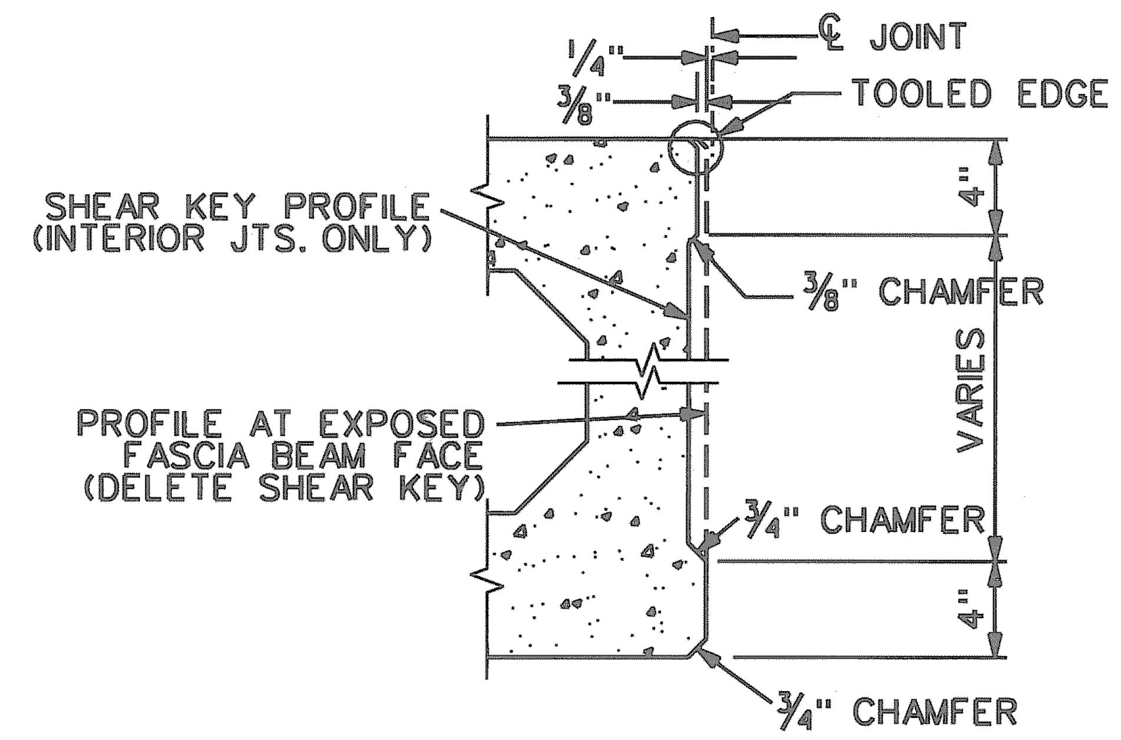
TIME: @TIME@
DATE: @DATE@

FED. ROAD DIV. NO.	STATE	FEDERAL AID PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
1	R.I.			40	47



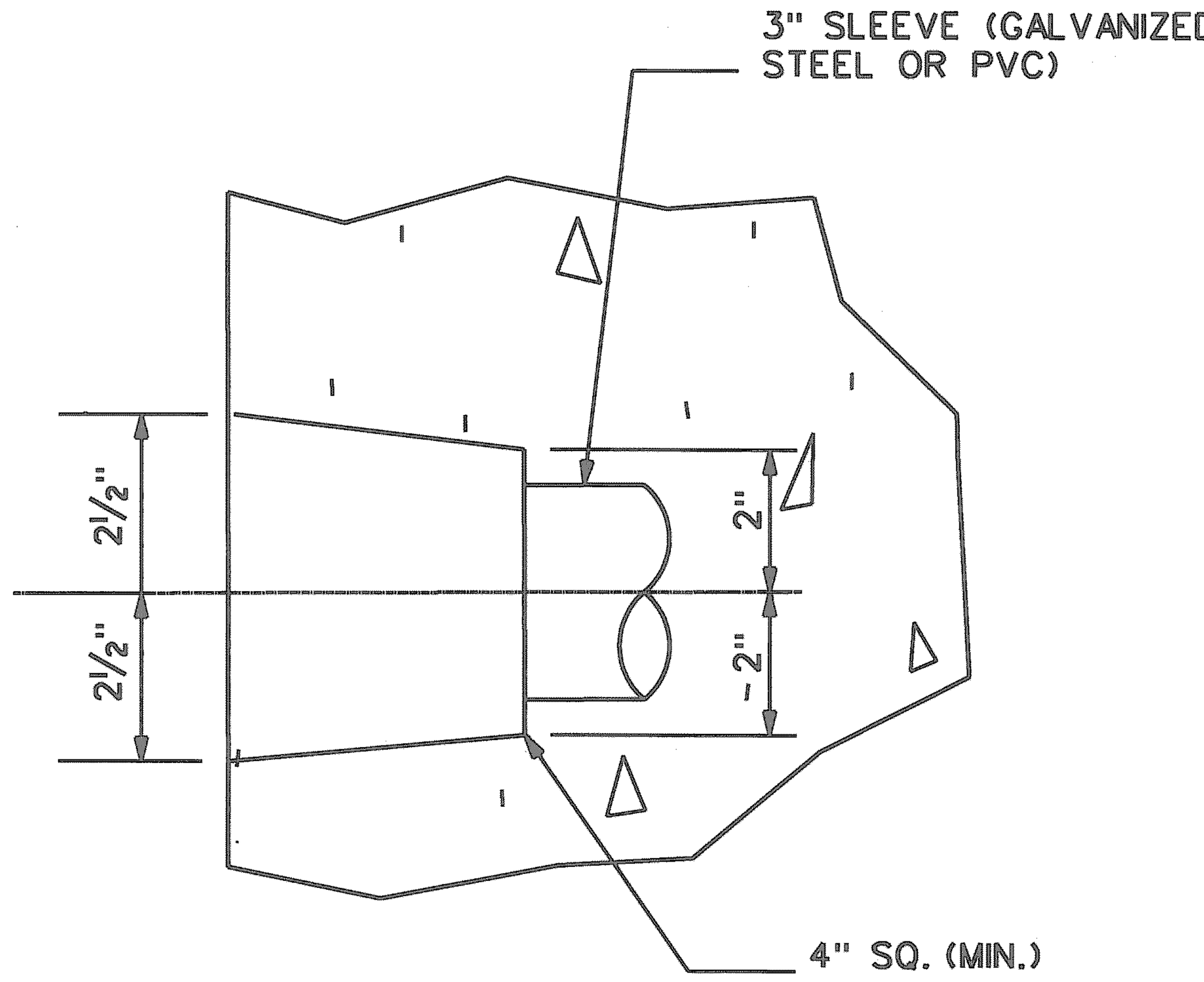
TYPICAL BEAM ELEVATION AT TRANSVERSE TIE LOCATIONS (1/-)

SCALE : 1" = 1'- 0"



SHEAR KEY LAYOUT

SCALE: 1½" = 1'-0"



ANCHORAGE DETAIL

NOT TO SCALE

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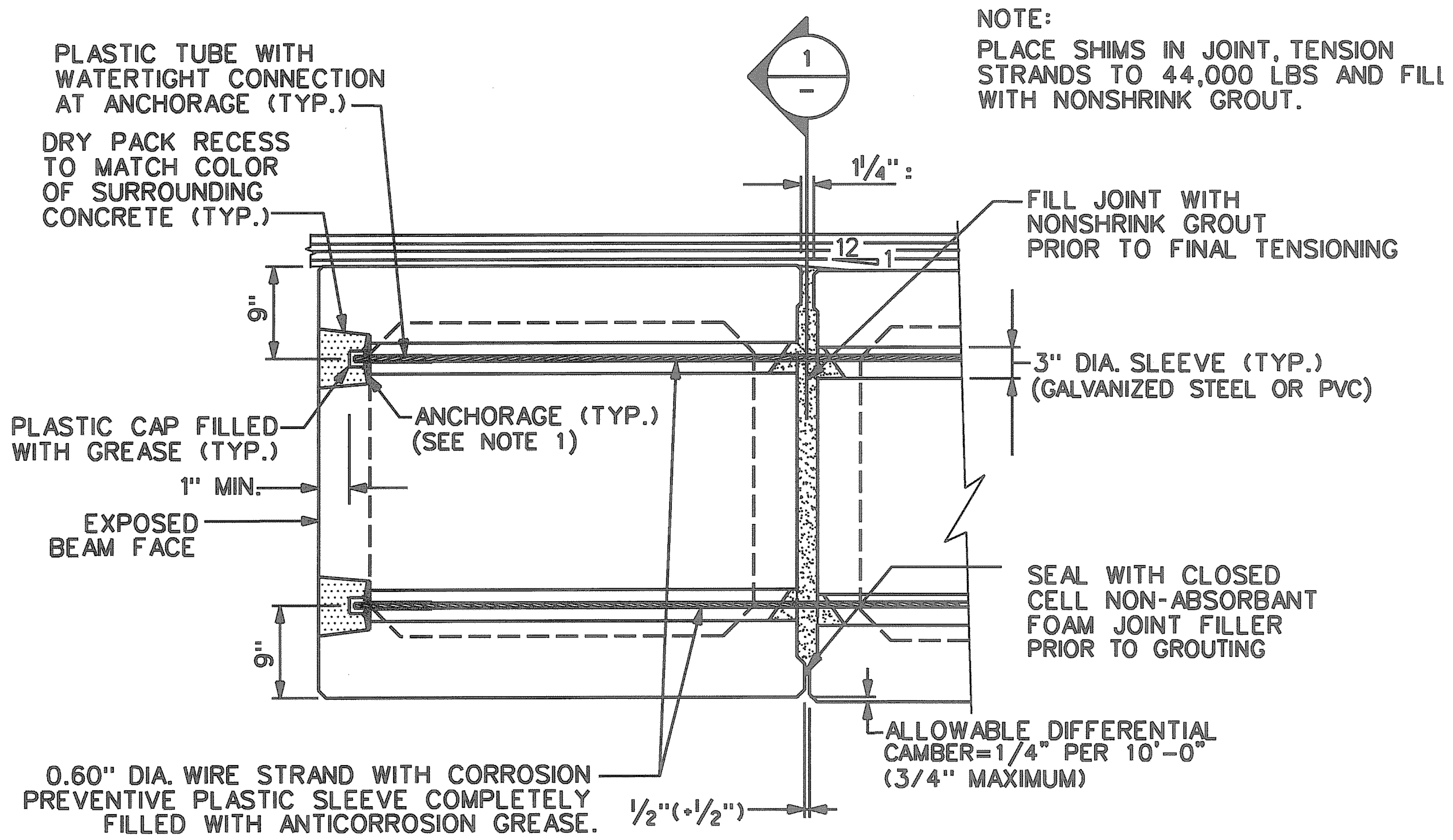
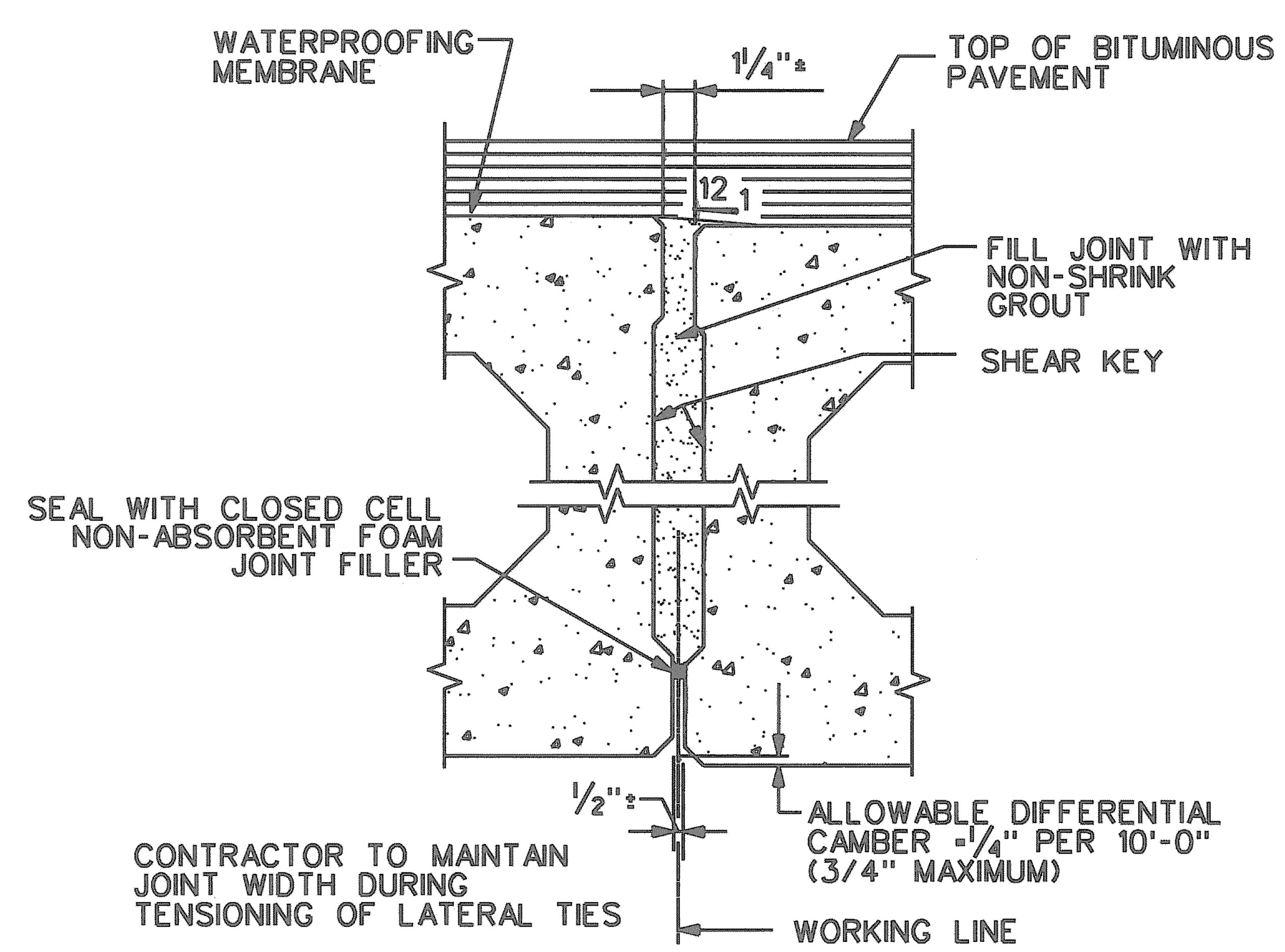
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
AS SPECIFIED IN THE LETTER OF APPROVAL
DATED JUN 13 2008 FILE # 08-0043
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL.
APPROVED PLANS MUST BE AT CONSTRUCTION SITE.
Martin D. Wencek

NOTE:
PLACE SHIMS IN JOINT, TENSION STRANDS TO 44,000 LBS AND FILL WITH NONSHRINK GROUT.



LATERAL TIE DETAIL

SCALE : 1" = 1'- 0"



JOINT DETAIL

SCALE : 1" = 1'- 0"

POST TENSION NOTES

1. DETAILS OF THE ANCHORAGE ASSEMBLY TO BE SUBMITTED FOR REVIEW AND APPROVAL BY THE ENGINEER.
2. ALL PRESTRESSED BOX BEAMS SHALL BE ERECTED AS INDICATED ON THE CONTRACT DRAWINGS. THEY SHALL BE SET TO THE SPECIFIED (NOMINAL) DIMENSIONS AND WITH THE SPECIFIED (NOMINAL) ½ INCH SPACING BETWEEN UNITS. THE LATERAL POST-TENSIONING STRANDS SHALL BE TENSIONED INITIALLY TO 5,000 POUNDS. SAID LATERAL POST-TENSIONING IS NOT EXPECTED TO DRAW THE UNITS TOGETHER. AFTER THE UNITS ARE IN PLACE, THE FOAM JOINT FILLER SHALL BE PLACED AT THE BOTTOM OF THE SHEAR KEYS. APPROVED NON-SHRINK GROUT SHALL THEN BE PLACED INTO THE SHEAR KEYS AND ALLOWED TO CURE, AFTER WHICH THE STRANDS SHALL BE STRESSED TO THE FULL 44,000 POUNDS.
3. THE CONTRACTOR SHALL FURNISH THE STATE WITH CALCULATIONS FOR THE THEORETICAL ELONGATION OF THE LATERAL POST-TENSIONING STRANDS SO THAT THE STRAND TENSION INDICATED ON THE CALIBRATED METER CAN BE VERIFIED. THE CONTRACTOR SHALL FURNISH RECORDS TO THE STATE OF THE GAUGE READINGS VERSUS THE MEASURED ELONGATIONS.

MAY 6 2008

RIDEM SUBMISSION

REVISIONS		
NO.	DATE	BY

RHODE ISLAND
DEPARTMENT OF TRANSPORTATION

BRIDGE REPLACEMENT
WYOMING BRIDGE NO. 43/44
RICHMOND/HOPKINTON

POST TENSION/LATERAL TIES DETAILS

Dewberry
Dewberry-Goodkind, Inc.
A Dewberry Company
280 Summer St., 10th Floor
Boston, MA 02210
Phone: (617) 695-3400
Fax: (617) 695-3310

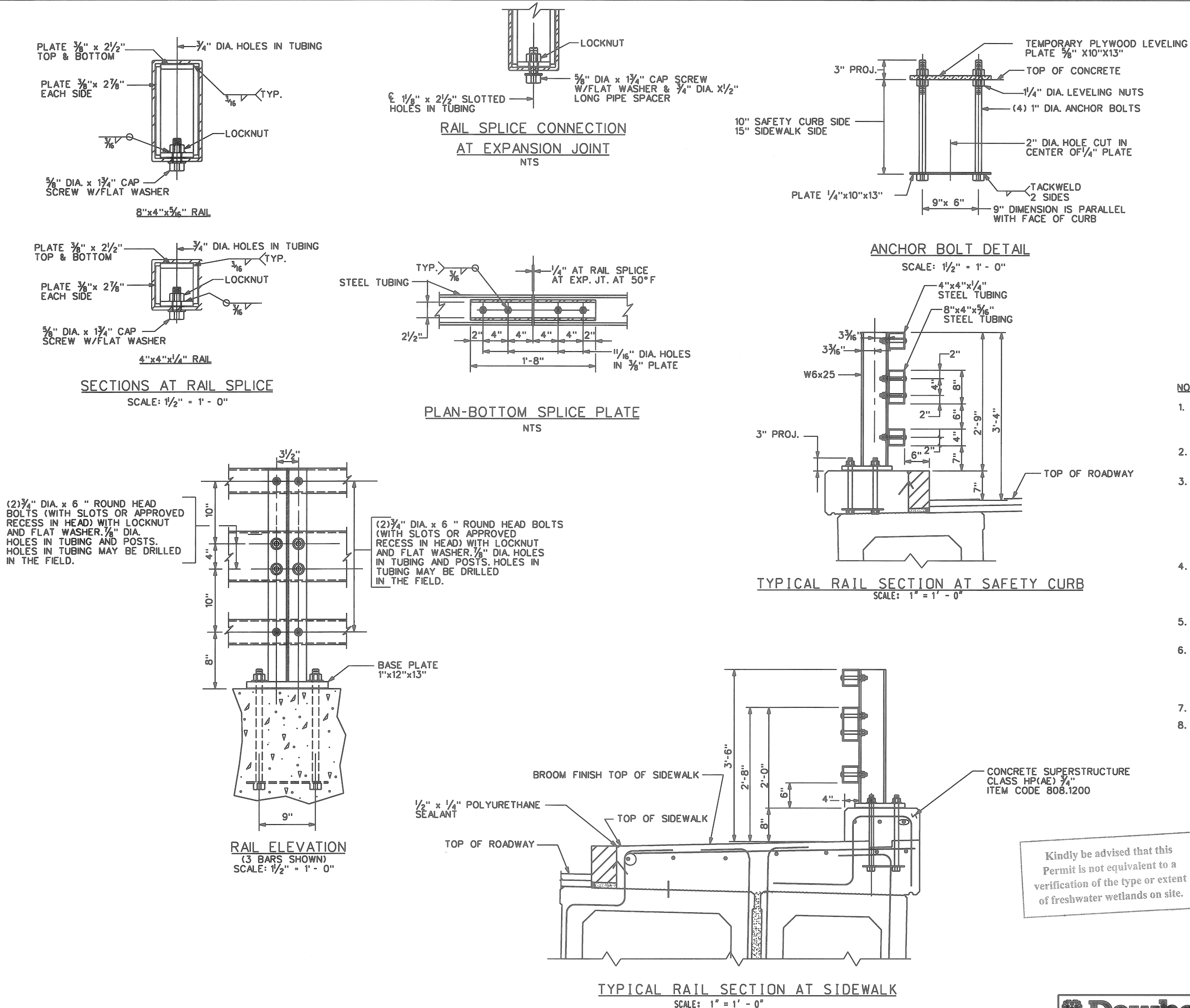
CHECKED BY________ DATE________ SCALE AS NOTED

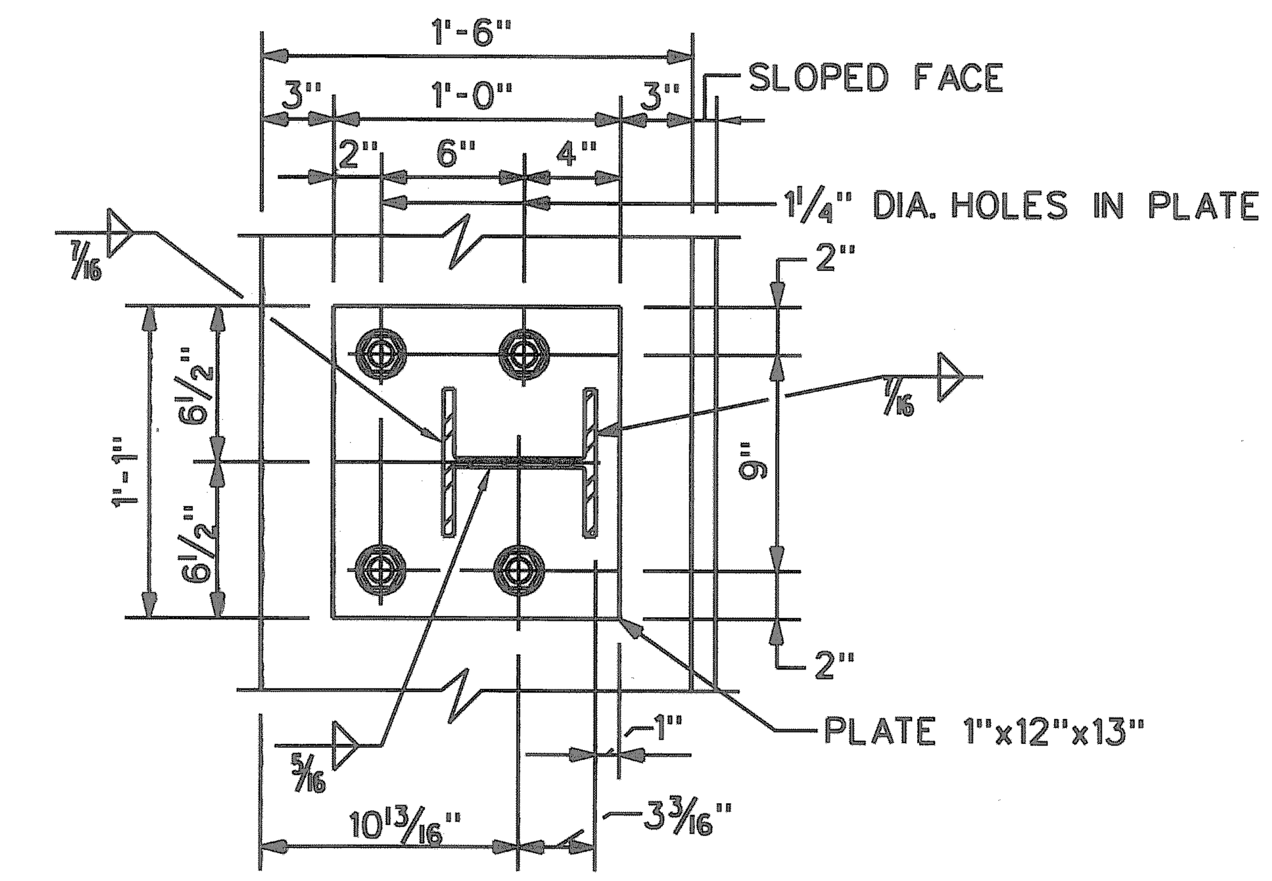
PROJECT: WYOMING
RHODE ISLAND, TOWN OF RICHMOND/HOPKINTON
BRIDGE STREET OVER WOOD RIVER BRIDGE NOS. 43/44
100% DESIGN SUBMISSION
FILE: N:15289.44\CAD\PS&E\PRINTINGSHEETS\SHT 34.DGN

IN CHARGE OF: EB
DESIGNED BY: SK, DK, JN
DESIGN CHECKED BY: SK, DK
DETAILED BY: SK, DK, JN
DETAIL CHECKED BY: SK, EB

TIME: $TIME$
DATE: $DATE$

FED. ROAD DIV. NO.	STATE	FEDERAL AID PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
1	R.I.			41	47





BEARING PLATE PLAN
SCALE: 1/2"= 1' - 0"

NOTES:

1. STRUCTURAL STEEL TUBING SHALL CONFORM TO THE REQUIREMENTS OF ASTM DESIGNATION A 500, GRADE B, STRUCTURAL STEEL TUBING. RAIL TUBING SHALL MEET THE LONGITUDINAL CHARPY V-NOTCH REQUIREMENTS OF 15 FT. LBS. AT 0 DEG. F FOR ASTM A500, GRADE B.
2. RAIL POSTS AND BASE PLATES SHALL CONFORM TO THE REQUIREMENTS OF ASTM A572 GR. 50 EXCEPT ANCHOR PLATES MAY BE ASTM A36.
3. THREADED STUDS AND MATCHING NUTS FOR RAIL-TO-POST ATTACHMENT SHALL CONFORM TO ASTM A276 TYPE 304, STAINLESS STEEL, AND SHALL BE TORQUE TESTED PER AWS D1.5, 7.7.1. ALL OTHER BOLTS AND NUTS SHALL CONFORM TO ASTM 307 AND ASTM 563 GRADE A RESPECTIVELY OR BETTER. ANCHOR RODS SHALL CONFORM TO ASTM 449 EXCEPT THAT ASTM 307 NUTS MAY BE USED ON THE BOTTOM OF ANCHOR ASSEMBLY. WASHERS SHALL BE HARDENED STEEL COMMERCIAL TYPE A PLAIN WIDE WASHERS AND SHALL MEET DIMENSIONAL REQUIREMENTS OF A.N.S.I B18.22.
4. ALL STEEL COMPONENTS (EXCEPT STAINLESS) SHALL BE GALVANIZED AFTER FABRICATION IN CONFORMANCE TO AASHTO M232 (ASTM A153) AND ASSHTO M111 (ASTM A123). THE GALVANIZING KETTLE SHALL HAVE 0.05 TO 0.09 PERCENT NICKEL. IF PAINTING IS REQUIRED IT SHALL BE APPLIED IN THE SHOP WITHIN 14 DAYS OF GALVANIZING AND 8 HOURS OF PRETREATMENT.
5. ALL FIELD DRILLED HOLES SHALL BE COATED WITH AN APPROVED ZINC RICH PAINT BEFORE ERECTION.
6. EXPANSION JOINT SHALL BE PROVIDED BETWEEN ANY TWO (2) POSTS WHICH SPAN A BRIDGE EXPANSION JOINT OR WOOD ISLAND EXPANSION JOINTS. BOLTS LOCATED AT EXPANSION JOINT SHALL BE PROVIDED WITH LOCKNUTS AND SHALL BE TIGHTENED ONLY TO A POINT THAT WILL ALLOW RAILING MOVEMENT.
7. PROVIDE 1/8" ELASTOMERIC SHIMS UNDER RAIL POST BASE PLATE.
8. RAIL POST SPACING SHALL BE 6'-3" MAXIMUM (SEE PLAN VIEW).

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
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NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL.
APPROVED PLANS MUST BE AT CONSTRUCTION SITE.
Martin D. Wencek

MAY 6 2008

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PROJECT: WYOMING
RHODE ISLAND, TOWN OF RICHMOND/HOPKINTON
BRIDGE STREET OVER WOOD RIVER BRIDGE NOS. 43/44
100% DESIGN SUBMISSION
FILE: M:\15289.44\CAD\PS&E\PRINTINGSHEETS\SHT 35.DGN

IN CHARGE OF: EB
DESIGNED BY: SK, GK, JN
DESIGN CHECKED BY: SK, GK
DETAILED BY: SK, GK, JN
DETAIL CHECKED BY: SK, EB

RIDEN SUBMISSION

REVISIONS		
NO.	DATE	BY

RHODE ISLAND
DEPARTMENT OF TRANSPORTATION

BRIDGE REPLACEMENT
WYOMING BRIDGE NO. 43/44
RICHMOND/HOPKINTON

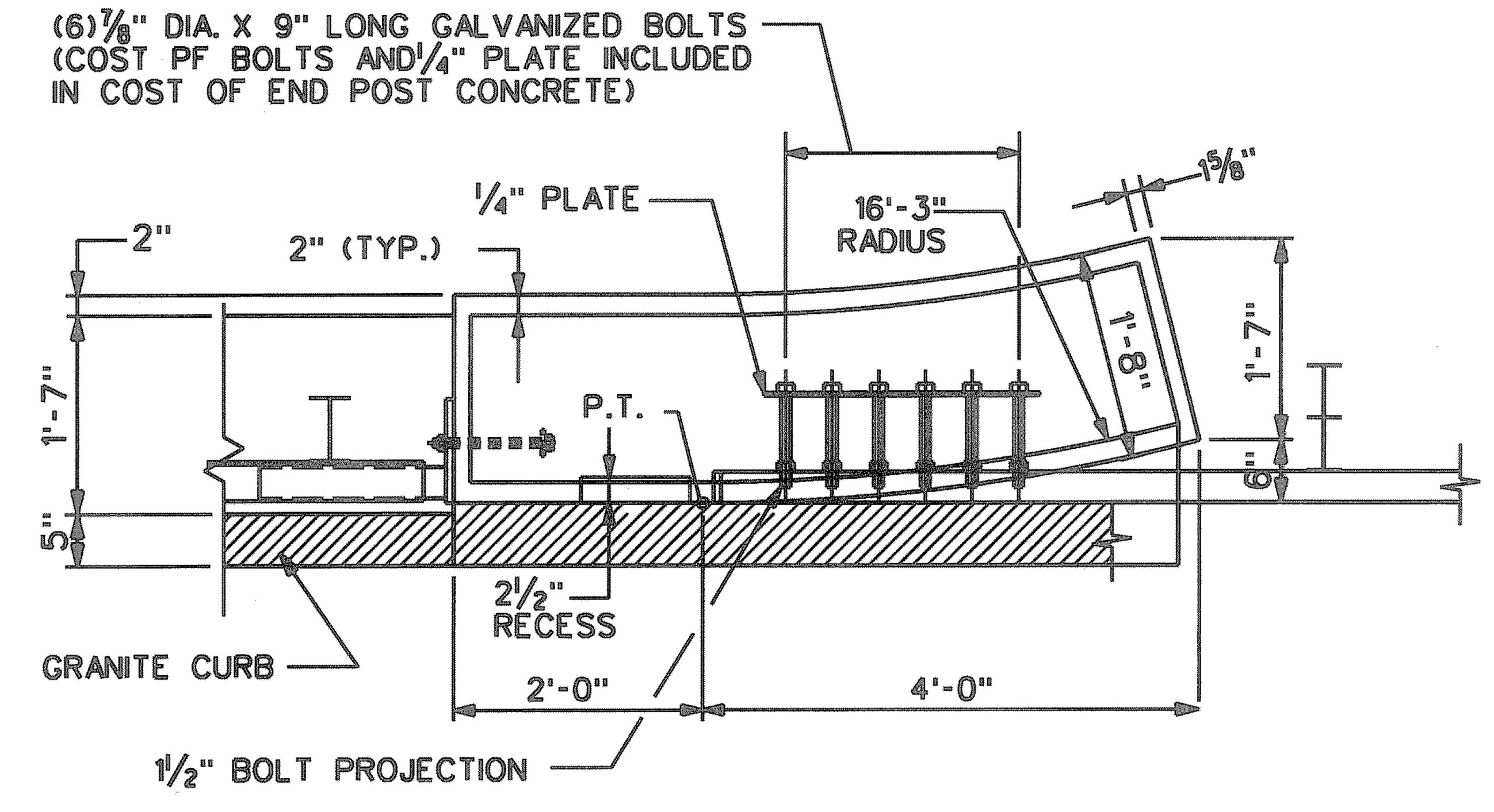
BRIDGE RAIL DETAILS

Dewberry
Dewberry-Goodkind, Inc.
A Dewberry Company
280 Summer St., 10th Floor
Boston, MA 02210
Phone: (617) 695-3400
Fax: (617) 695-3310

CHECKED BY ______ DATE ______ SCALE AS NOTED

TIME: $TIME$
DATE: $DATE$

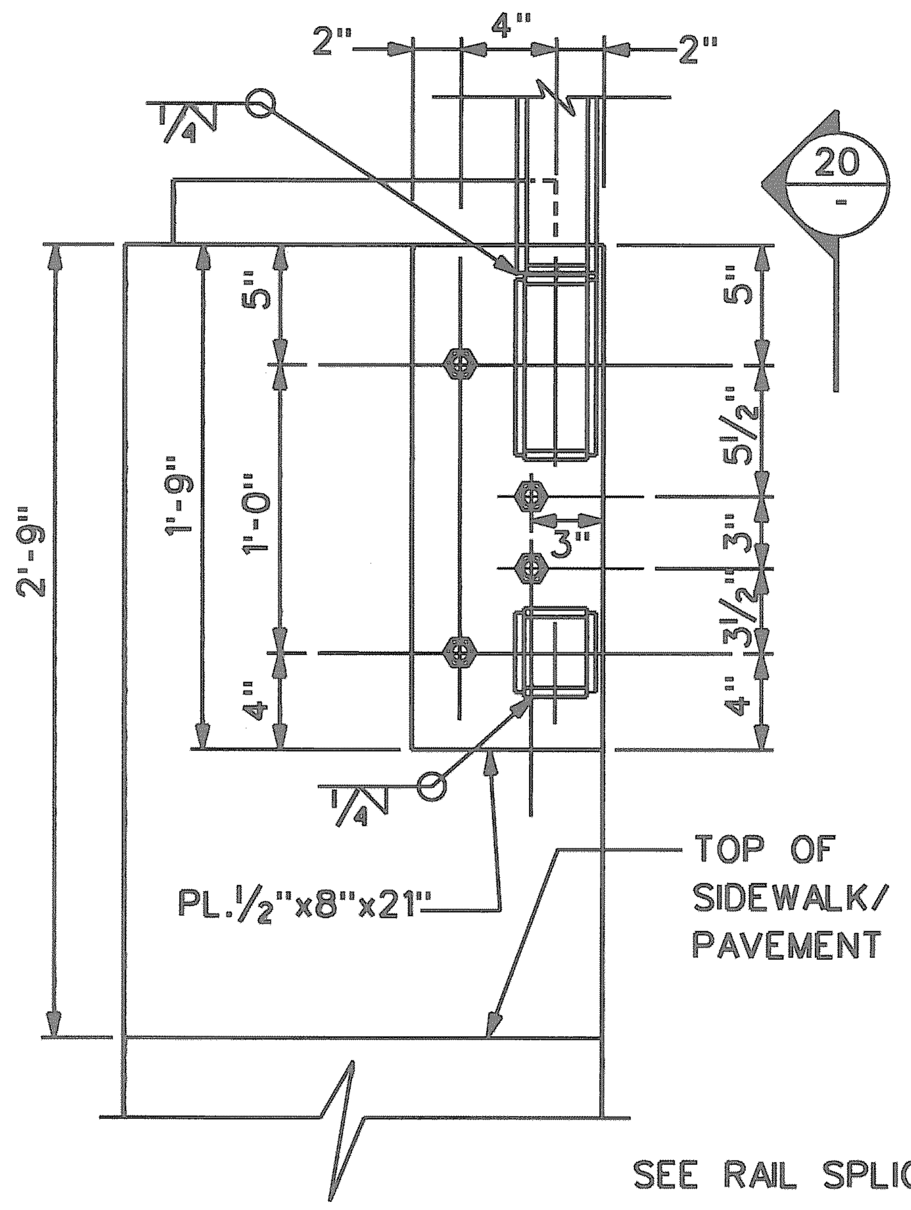
FED. ROAD DIV. NO.	STATE	FEDERAL AID PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
1	R.I.			42	47



NOTE: SEE DETAIL A SHEET 19 FOR SOUTHWEST ENDPOST

END POST PLAN AT SAFETY CURB BARRIER

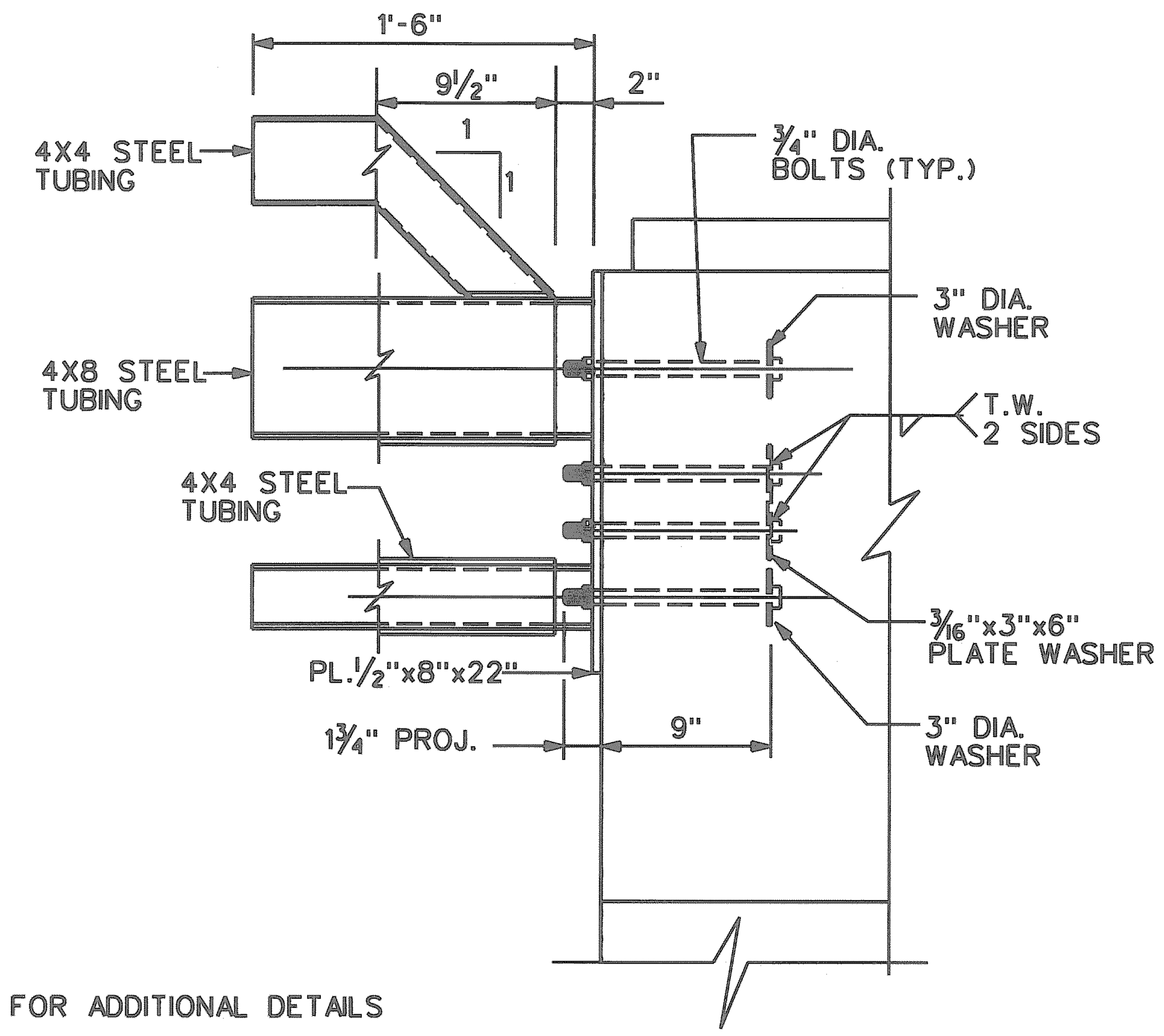
SCALE: 3/4" = 1'-0"



SEE RAIL SPLICE FOR ADDITIONAL DETAILS

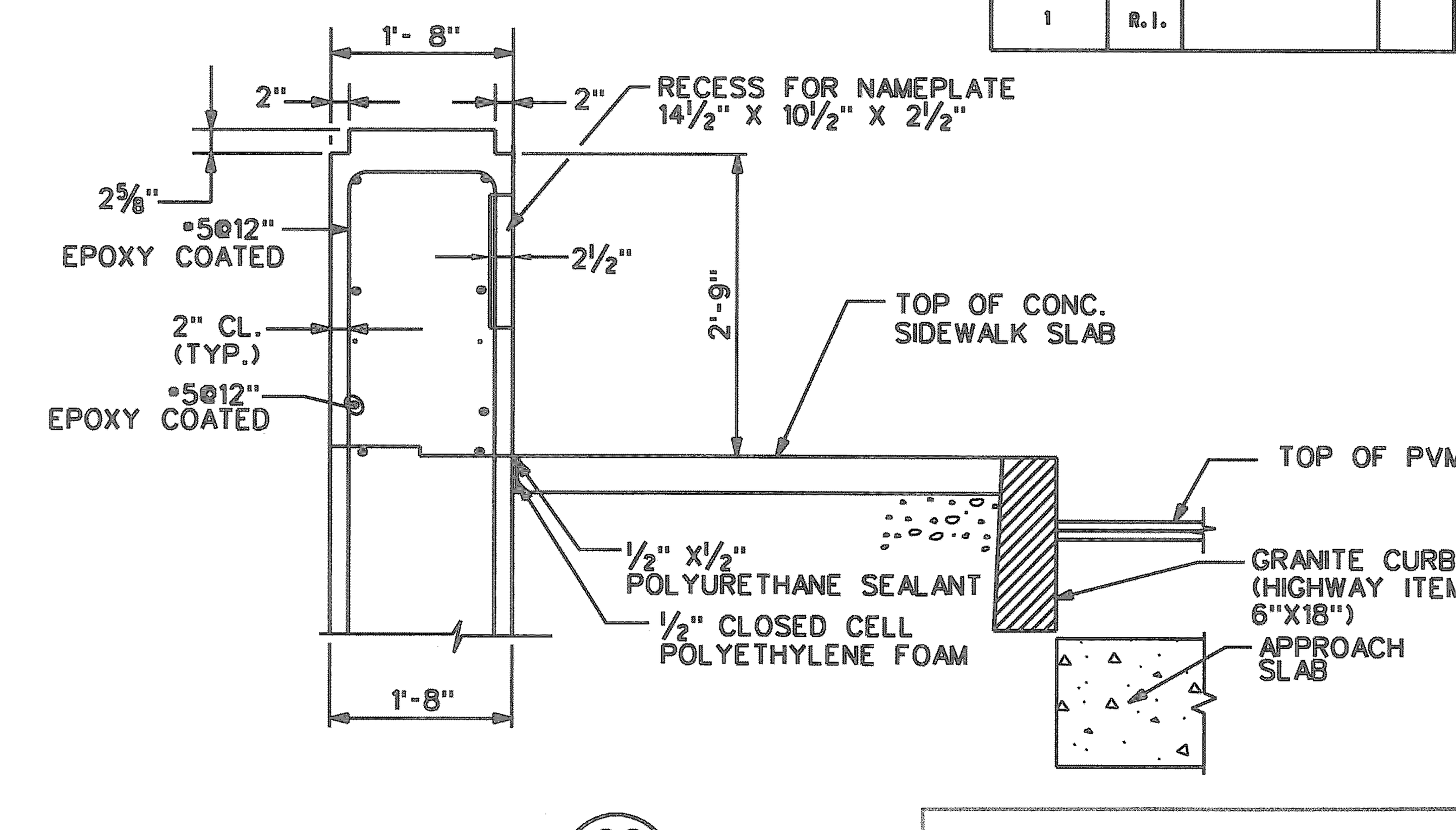
BRIDGE RAIL TO END POST CONNECTING PLATE ELEVATION

SCALE: 1 1/2" = 1'-0"



SECTION 20

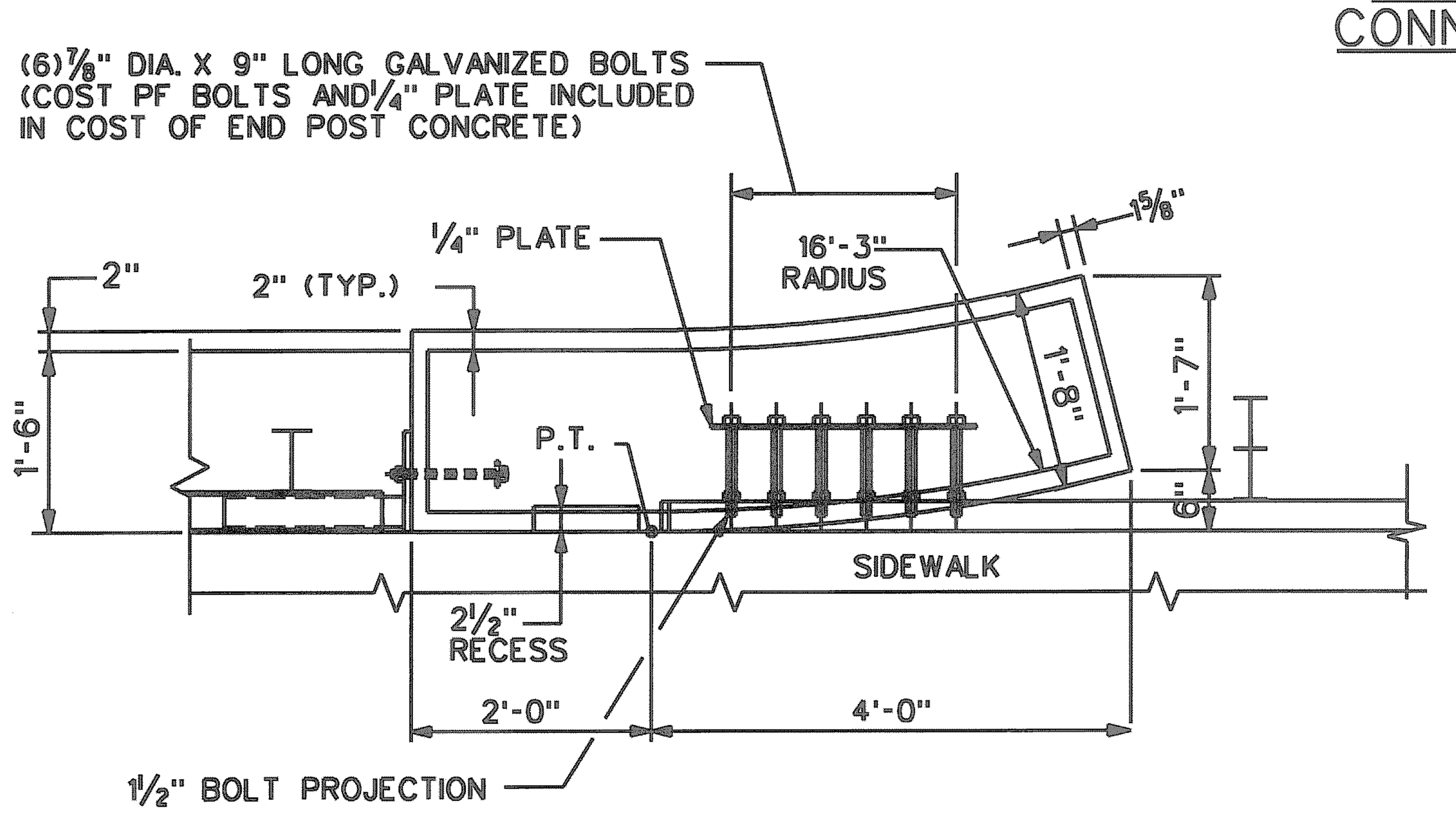
SCALE: 1 1/2" = 1'-0"



SECTION 22

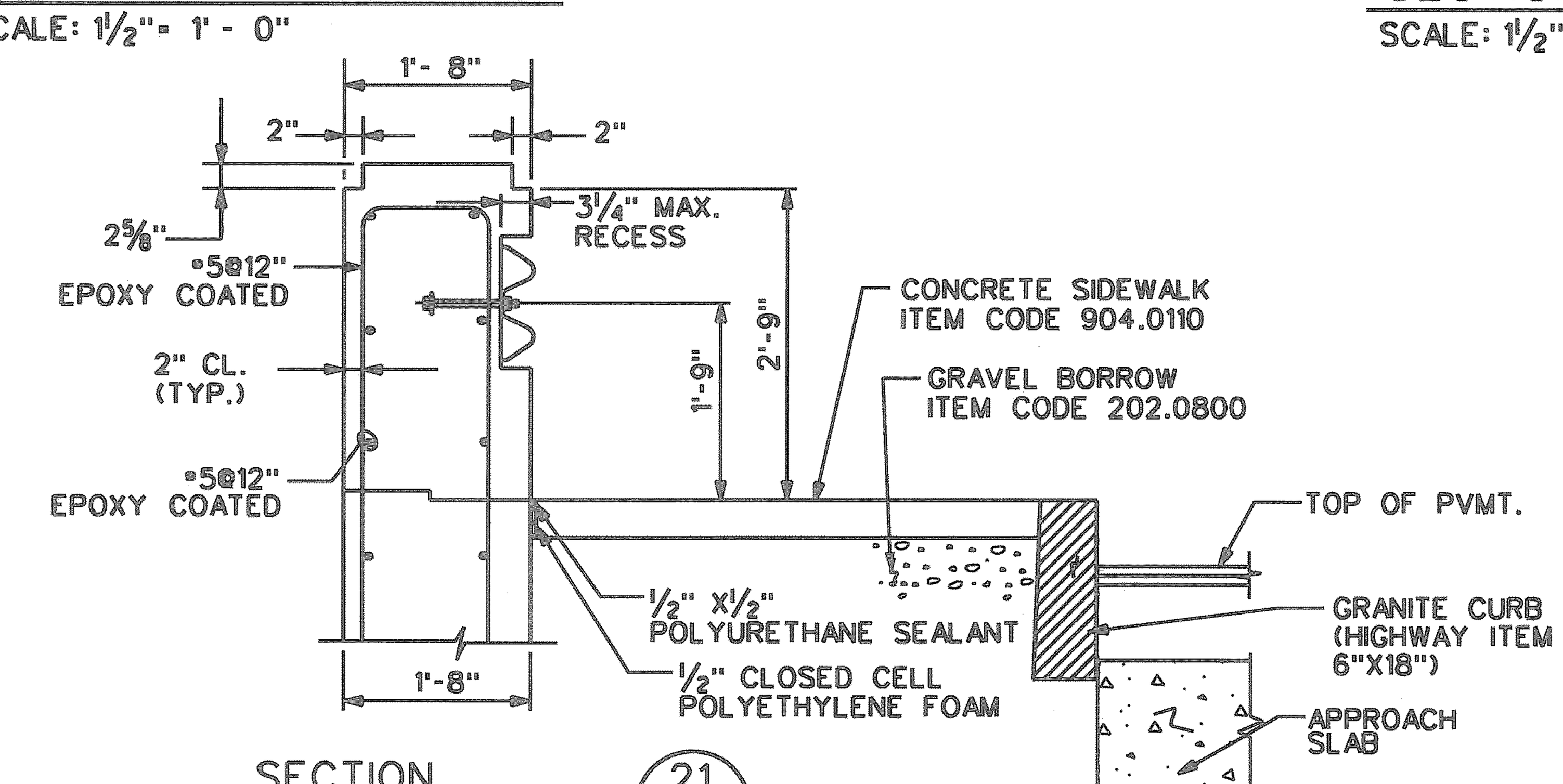
SCALE: 3/4" = 1'-0"

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



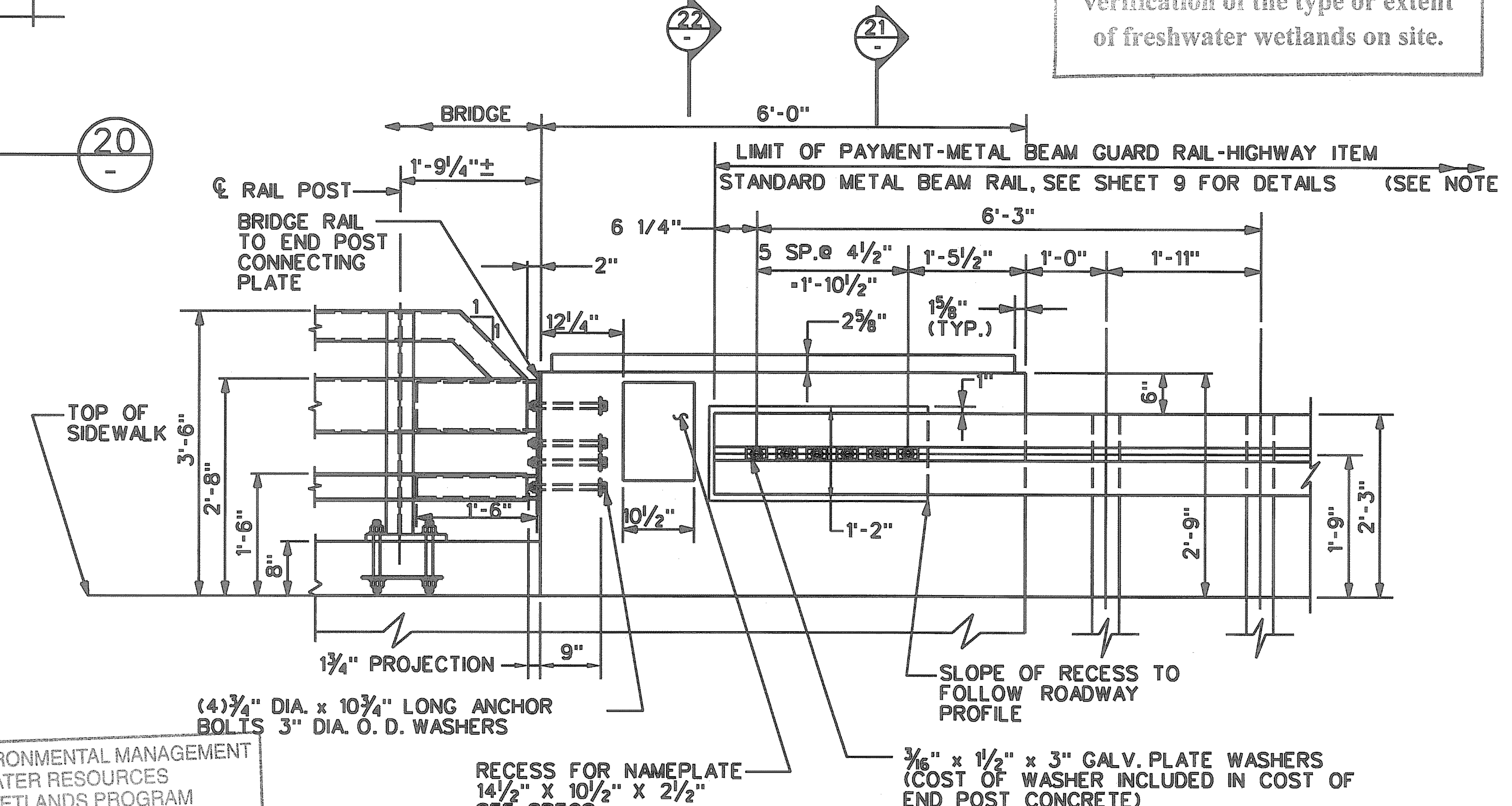
END POST PLAN AT SIDEWALK

SCALE: 3/4" = 1'-0"



SECTION 21

SCALE: 3/4" = 1'-0"

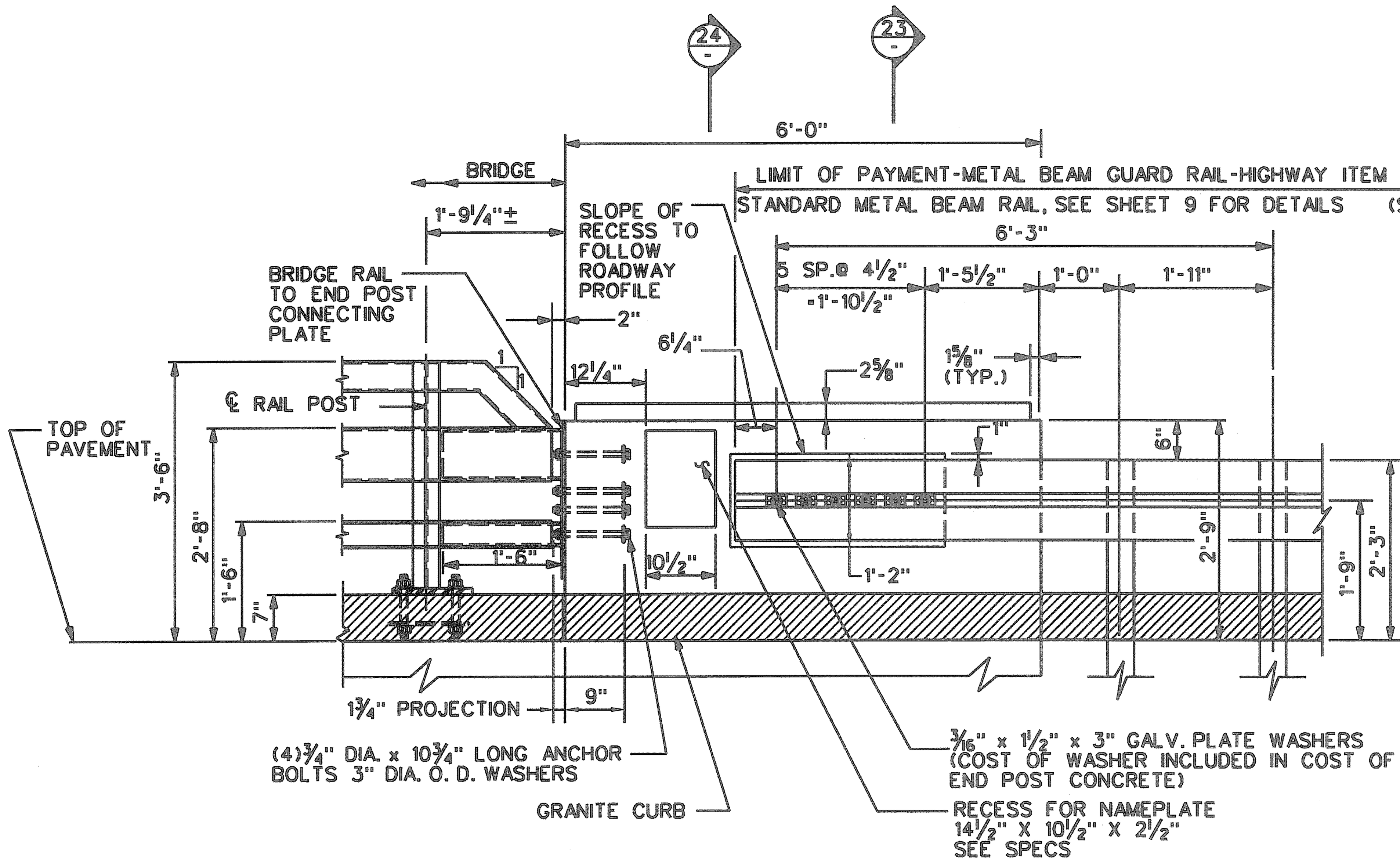


END POST ELEVATION AT SIDEWALK

SCALE: 3/4" = 1'-0"

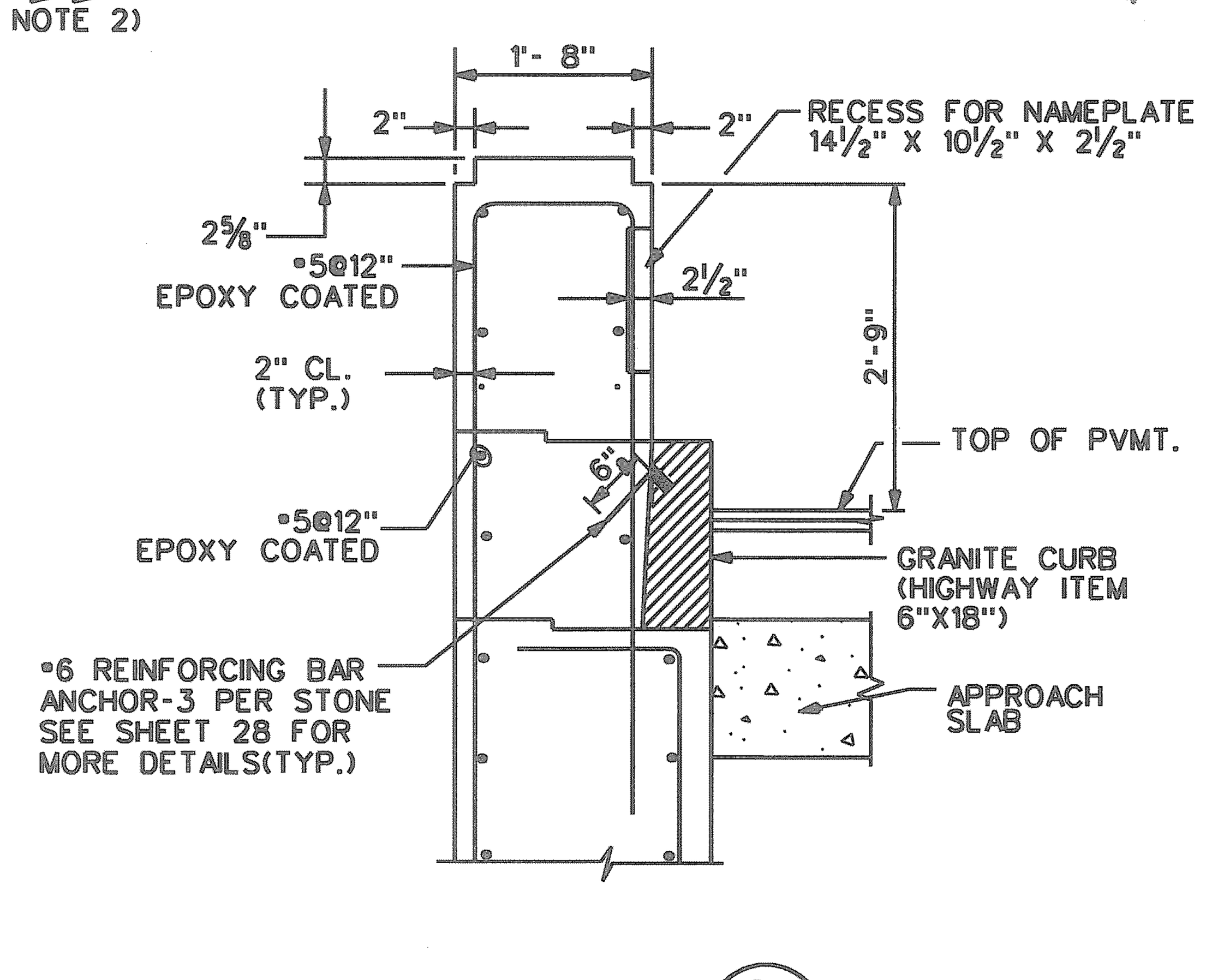
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
AS SPECIFIED IN THE LETTER OF APPROVAL
DATED JUN 13 2008 FILE # 08-0043
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL.
APPROVED PLANS MUST BE AT CONSTRUCTION SITE.

MAY 6 2008



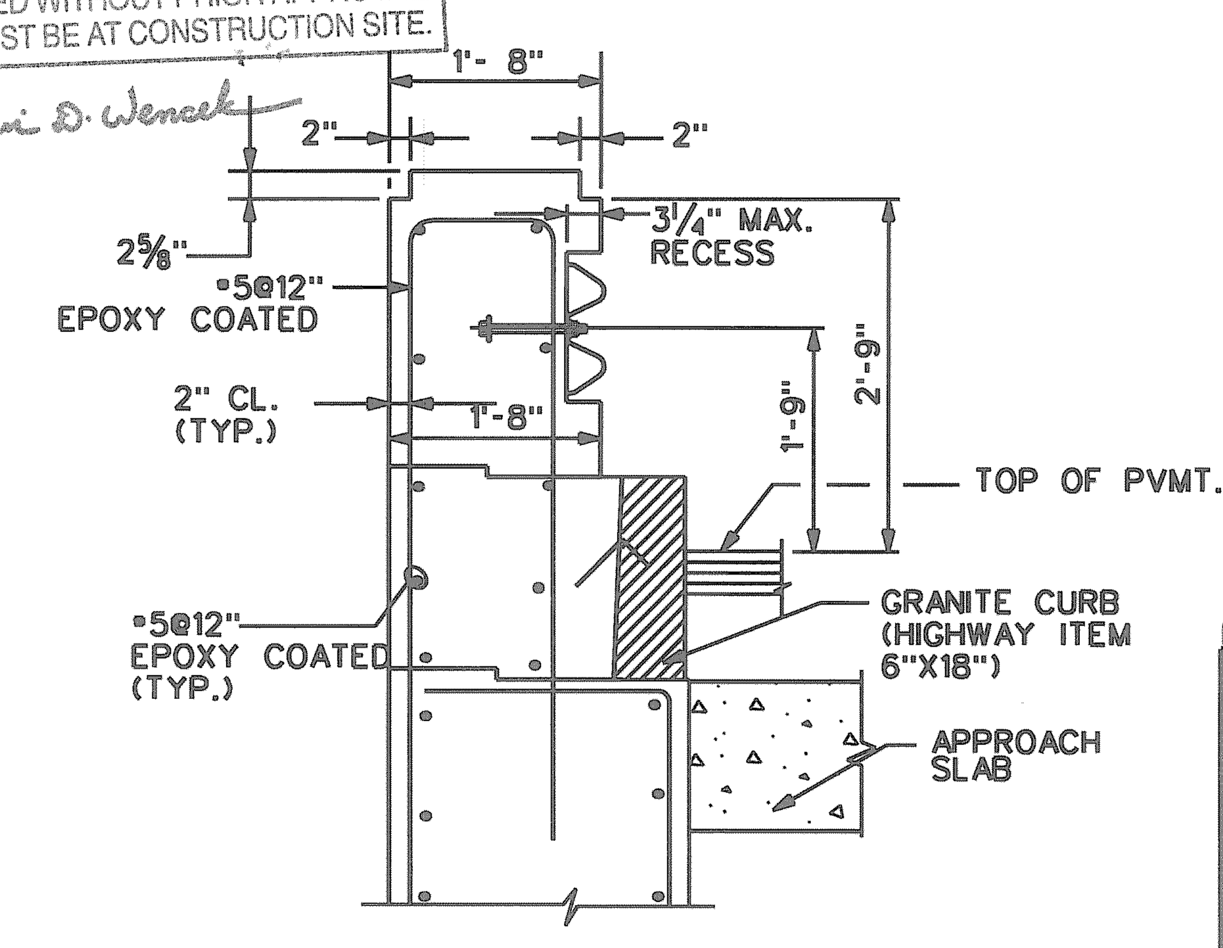
END POST ELEVATION AT SAFETY CURB BARRIER

SCALE: 3/4" = 1'-0"



SECTION 24

SCALE: 3/4" = 1'-0"



SECTION 23

SCALE: 3/4" = 1'-0"

NOTES:

1. TO INSURE PROPER GUARD RAIL ANCHORAGE, THE GUARD RAIL INSTALLATION SHALL BEGIN AT EACH END OF THE BRIDGE AND WORK INTO THE APPROACHES.
2. THE COST OF THE GUARD RAIL TRANSITION TO BRIDGE END POSTS ARE HIGHWAY ITEMS. APPROACH SECTIONS AND TRAILING SECTIONS ARE SEPARATE ITEMS IN THE PROPOSAL.
3. THE COST OF ANCHORAGE (PLATE, ANCHOR BOLTS AND TUBE SLEEVE) SHALL BE INCLUDED IN COST OF END POST CONCRETE.

BIDDEN SUBMISSION

REVISIONS

NO.	DATE	BY

RHODE ISLAND DEPARTMENT OF TRANSPORTATION

BRIDGE REPLACEMENT WYOMING BRIDGE NO. 43/44 RICHMOND/HOPKINTON

BRIDGE END POST PLAN AND DETAILS

Dewberry
Dewberry-Goodkind, Inc. A Dewberry Company
280 Summer St., 10th Floor Boston, MA 02210 Phone: (617) 695-3400 Fax: (617) 695-3310

CHECKED BY ______ DATE ______ SCALE AS NOTED

PROJECT: WYOMING
RHODE ISLAND, TOWN OF RICHMOND/HOPKINTON
BRIDGE STREET OVER WOOD RIVER BRIDGE NOS. 43/44
100% DESIGN SUBMISSION
FILE: M:\15289.44\CAD\PS&E\PRINTINGSHEETS\SHT 36.DGN

IN CHARGE OF: EB
DESIGNED BY: SK, GK, JN
DESIGN CHECKED BY: SK, GK
DETAILED BY: SK, GK, JN
DETAIL CHECKED BY: SK, EB

TIME: $TIME$
DATE: $DATE$

FED. ROAD DIV. NO.	STATE	FEDERAL AID PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
1	R.I.			43	47

INSPECTOR: A. DELLE
DRILLER: R. COOK, JR.
HELPER: J. NAISMITH

SAMPLER I. D. 1⅜"
CASING I. D. 4"

DATE START 04/19/94
DATE FINISH 04/19/94

GROUND ELEVATION 97.5 ±
GROUND WATER DEPTH DRY

DEPTH BELOW SURFACE	CASING BLOWS PER FOOT	SAMPLER NO DEPTHS ELEV. FT.	TYPE OF SAMPLE	PENETRATION BLOWS PER 6 INCHES	DENSITY OR CONSIST MOISTURE	PROFILE CHANGE DEPTH ELEV.	FIELD IDENTIFICATION OF SOIL, REMARKS (REMARKS INCLUDE COLOR TYPE OF SOIL ETC. ROCK COLOR TYPE CONDITION HARDNESS DRILLING TIME SEAMS ETC.)
	56	0 - 1.5	D-1	X-23-33		0.5	ASPHALT
	29				DENSE		BRN. C-F SAND, TR OF M-F GRAVEL, TR OF SILT
	23					3.5	
	200/6"	3.5	C-1	CORED 60"			
5		TO 8.5		REC. 65%			LT PINK GRANITE BEDROCK FRACTURED W/HORIZONTAL AND DIAGONAL SEAMS
				RQD. 63%			
						8.5	
10							
15							
20							

CASING: WT. 300 FALL 24 SAMPLER: WT. 140 FALL 30 SAMPLES D-3, C-1

BORING B-1
SCALE: 1/4" = 1' - 0"

INSPECTOR: A. DELLE
DRILLER: R. COOK, JR.
HELPER: J. NAISMITH

SAMPLER I. D. 1⅜"
CASING I. D. 4"

DATE START 04/19/94
DATE FINISH 04/19/94

GROUND ELEVATION 98.0±
GROUND WATER DEPTH DRY

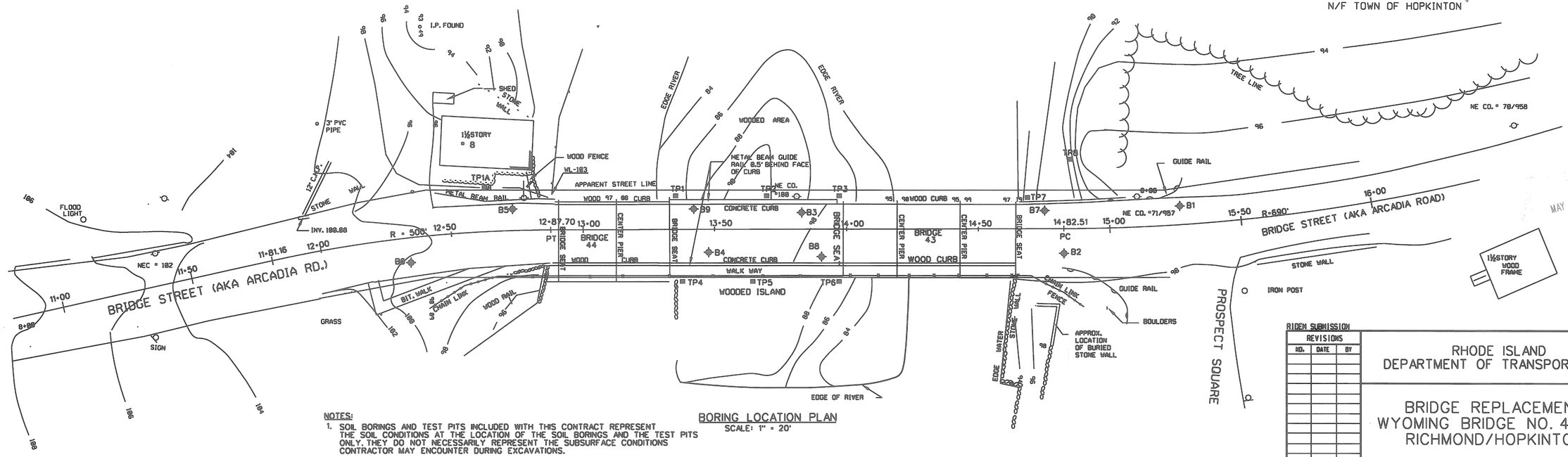
DEPTH BELOW SURFACE	CASING BLOWS PER FOOT	SAMPLER NO DEPTHS ELEV. FT.	TYPE OF SAMPLE	PENETRATION BLOWS PER 6 INCHES	DENSITY OR CONSIST MOISTURE	PROFILE CHANGE DEPTH ELEV.	FIELD IDENTIFICATION OF SOIL, REMARKS (REMARKS INCLUDE COLOR TYPE OF SOIL ETC. ROCK COLOR TYPE CONDITION HARDNESS DRILLING TIME SEAMS ETC.)
	52	0 - 1.5	D-1	X-23-33		0.5	ASPHALT
	48				DENSE		BRN. C-F SAND, TR OF M-F GRAVEL, TR OF SILT
	40					5.0	
	20						
5	100/6"	5.0	C-1	CORED 60"			
		10.0		REC. 85%			LT PINK GRANITE BEDROCK FRACTURED W/HORIZONTAL AND DIAGONAL SEAMS
				RQD. 55%			
						10.0	
10							
15							
20							

CASING: WT. 300 FALL 24 SAMPLER: WT. 140 FALL 30 SAMPLES D-3, C-1

BORING B-2
SCALE: 1/4" = 1' - 0"

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

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
AS SPECIFIED IN THE LETTER OF APPROVAL
DATED JUN 13 2008 FILE # 08-0043
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL.
APPROVED PLANS MUST BE AT CONSTRUCTION SITE.
Martin D. Wencek



BORING LOCATION PLAN
SCALE: 1" = 20'

NOTES:
1. SOIL BORINGS AND TEST PITS INCLUDED WITH THIS CONTRACT REPRESENT THE SOIL CONDITIONS AT THE LOCATION OF THE SOIL BORINGS AND THE TEST PITS ONLY. THEY DO NOT NECESSARILY REPRESENT THE SUBSURFACE CONDITIONS CONTRACTOR MAY ENCOUNTER DURING EXCAVATIONS.
2. SOIL BORINGS WERE DONE BY ALLSTATE DRILLING COMPANY, 227 WAMPANOAG TRAIL, RIVERSIDE, RI 02915.
3. ◆ BORING LOCATION
4. ■ TEST PIT LOCATION

PROJECT: WYOMING
RHODE ISLAND, TOWN OF RICHMOND/HOPKINTON
BRIDGE STREET OVER WOOD RIVER BRIDGE NOS. 43/44
100% DESIGN SUBMISSION
FILE: M:\1529\9_44\CAD\PSE\PRINTINGSHEETS\SHT 37.DGN

IN CHARGE OF: EB
DESIGNED BY: SK, GK, JN
DESIGN CHECKED BY: SK, GK
DETAILED BY: SK, GK, JN
DETAIL CHECKED BY: SK, EB

TIME: @TIME@
DATE: @DATE@

RIDEM SUBMISSION

REVISIONS		
NO.	DATE	BY

Dewberry
Dewberry-Goodkind, Inc.
A Dewberry Company
260 Summer St., 10th Floor
Boston, MA 02210
Phone: (617) 695-3400
Fax: (617) 695-3310

RHODE ISLAND
DEPARTMENT OF TRANSPORTATION

BRIDGE REPLACEMENT
WYOMING BRIDGE NO. 43/44
RICHMOND/HOPKINTON

BORING LOGS - 1

CHECKED BY _____ DATE _____ SCALE AS NOTED

FED. ROAD DIV. NO.	STATE	FEDERAL AID PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
1	R.I.			44	47

INSPECTOR: A. DELLE
DRILLER: R. COOK, JR.
HELPER: J. NAISMITH

SAMPLER I. D. 1⅜"
CASING I. D. 4"

DATE START 04/19/94
DATE FINISH 04/19/94

GROUND ELEVATION 98.0 ±
GROUND WATER DEPTH 12.0'

DEPTH BELOW SURFACE	CASING BLOWS PER FOOT	SAMPLER NO DEPTHS ELEV. FT.	TYPE OF SAMPLE	PENETRATION BLOWS PER 6 INCHES	DENSITY OR CONSIST MOISTURE	PROFILE CHANGE DEPTH ELEV.	FIELD IDENTIFICATION OF SOIL, REMARKS (REMARKS INCLUDE COLOR TYPE OF SOIL ETC. ROCK COLOR TYPE CONDITION HARDNESS DRILLING TIME SEAMS ETC.)
	45	0 - 1.5	D-1	X-11-13		0.5	ASPHALT
	25				MED. DENSE		BRN. C-F SAND, TR OF FINE GRAVEL, TR OF SILT
	22						
	16						
5	14						
	1	5 - 7.0	D-2	4-3-3-3	LOOSE		
	5						
	10						
	10						BOT. OF FOOTING ELEV. 83.0 WALL 2 & 3
10	10						
	9	10-11.5	D-3	1-0-0	VERY DENSE		BRN. C-F SAND, TR OF FINE GRAVEL, TR OF SILT
	6						
	5						
	5						
15	10	14.5 TO	C	CORED 4.5'			COBBLE
	16	19.0		REC. 11%			
	47			RQD. 0%			APPRO. PILE TIP ABUTMENT 3
	69						
	100					19.0	
20		19.0 TO	C-1	CORED 60"			LT PINK GRANITE BEDROCK FRACTURED W/HORIZONTAL AND DIAGONAL SEAMS
		24.0		REC. 100%			
						24.0	

CASING: WT. 300 FALL 24 SAMPLER: WT. 140 FALL 30 SAMPLES D-3, C-1

BORING B-3
SCALE: 1/4" = 1' - 0"

INSPECTOR: A. DELLE
DRILLER: R. COOK, JR.
HELPER: J. NAISMITH

SAMPLER I. D. 1⅜"
CASING I. D. 4"

DATE START 04/18/94
DATE FINISH 04/18/94

GROUND ELEVATION 98.5 ±
GROUND WATER DEPTH 12.0'

DEPTH BELOW SURFACE	CASING BLOWS PER FOOT	SAMPLER NO DEPTHS ELEV. FT.	TYPE OF SAMPLE	PENETRATION BLOWS PER 6 INCHES	DENSITY OR CONSIST MOISTURE	PROFILE CHANGE DEPTH ELEV.	FIELD IDENTIFICATION OF SOIL, REMARKS (REMARKS INCLUDE COLOR TYPE OF SOIL ETC. ROCK COLOR TYPE CONDITION HARDNESS DRILLING TIME SEAMS ETC.)
	54	0-1.5	D-1	X-30-27		0.5	ASPHALT
	34				VERY DENSE		BRN. C-F SAND, TR OF FINE GRAVEL, TR OF SILT
	23						
	17						
5	20						
	6	5-7.0	D-2	13-11-15-11			
	25				MED. DENSE		BRN. C-F SAND, TR OF FINE GRAVEL, TR OF SILT
	26						
	16						
10	37						
	22	10-12	D-3	4-5-7-6			BRN. C-F SAND, TR OF MF GRAVEL, TR OF SILT
	30						
	72						APPRO. PILE TIP ABUTMENT 2
	69						
15	100	14.5 TO	C-1	CORED 60"			
		19.0		REC. 99%			LT PINK GRANITE BEDROCK FRACTURED W/HORIZONTAL SEAMS
				RQD. 85%			
						19.5	
20							

CASING: WT. 300 FALL 24 SAMPLER: WT. 140 FALL 30 SAMPLES D-3, C-1

BORING B-4
SCALE: 1/4" = 1' - 0"

INSPECTOR: A. DELLE
DRILLER: R. COOK, JR.
HELPER: J. NAISMITH

SAMPLER I. D. 1⅜"
CASING I. D. 4"

DATE START 04/20/94
DATE FINISH 04/20/94

GROUND ELEVATION 99.5 ±
GROUND WATER DEPTH 12.0'

DEPTH BELOW SURFACE	CASING BLOWS PER FOOT	SAMPLER NO DEPTHS ELEV. FT.	TYPE OF SAMPLE	PENETRATION BLOWS PER 6 INCHES	DENSITY OR CONSIST MOISTURE	PROFILE CHANGE DEPTH ELEV.	FIELD IDENTIFICATION OF SOIL, REMARKS (REMARKS INCLUDE COLOR TYPE OF SOIL ETC. ROCK COLOR TYPE CONDITION HARDNESS DRILLING TIME SEAMS ETC.)
	85	0-1.5	D-1	X-21-24		0.5	ASPHALT
	37				VERY DENSE		BRN. C-F SAND, TR OF FINE GRAVEL, TR OF SILT
	31						
	23						
5	31						
	1	5-7.0	D-2	12-12-52-24			
	58				VERY DENSE		BRN. C-F SAND, TR OF SILT
	57						
	39						
10	85						
	75	10-12	D-3	49-29-20-21			APPRO. PILE TIP ABUTMENT 1
	147				DENSE	12.0	
		12.0 TO	C-1	CORED 60"			LT PINK GRANITE BEDROCK FRACTURED W/HORIZONTAL AND VERTICAL SEAMS
		15.0		REC. 100%			
15				RQD. 20%			
20							

CASING: WT. 300 FALL 24 SAMPLER: WT. 140 FALL 30 SAMPLES D-3, C-1

BORING B-5
SCALE: 1/4" = 1' - 0"

INSPECTOR: A. DELLE
DRILLER: R. COOK, JR.
HELPER: J. NAISMITH

SAMPLER I. D. 1⅜"
CASING I. D. 4"

DATE START 04/18/94
DATE FINISH 04/18/94

GROUND ELEVATION 99.5 ±
GROUND WATER DEPTH 12.0'

DEPTH BELOW SURFACE	CASING BLOWS PER FOOT	SAMPLER NO DEPTHS ELEV. FT.	TYPE OF SAMPLE	PENETRATION BLOWS PER 6 INCHES	DENSITY OR CONSIST MOISTURE	PROFILE CHANGE DEPTH ELEV.	FIELD IDENTIFICATION OF SOIL, REMARKS (REMARKS INCLUDE COLOR TYPE OF SOIL ETC. ROCK COLOR TYPE CONDITION HARDNESS DRILLING TIME SEAMS ETC.)
	18	0-1.5	D-1	53-25-32		0.5	ASPHALT
	52				VERY DENSE		BRN. C-F SAND, TR OF FINE GRAVEL, TR OF SILT
	27						
	22						
5	27						
	18	5-7.0	D-2	10-9-16-16			
	25				DENSE		BRN. C-F SAND, TR M-F GRAVEL, TR OF SILT
	30						
	31						
10	29					10.1	
	100	10-10.1	N/R	49-29-20-21			
		10.1 TO	C-1	CORED 60"			LT PINK GRANITE BEDROCK FRACTURED W/HORIZONTAL SEAMS
		15.1		REC. 77%			
				RQD. 66%			
15						15.1	
20							

CASING: WT. 300 FALL 24 SAMPLER: WT. 140 FALL 30 SAMPLES D-3, C-1

BORING B-6
SCALE: 1/4" = 1' - 0"

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

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
AS SPECIFIED IN THE LETTER OF APPROVAL
DATED JUN 1 8 2008 FILE # 08-0043
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL.
APPROVED PLANS MUST BE AT CONSTRUCTION SITE.

MAY 6 2008

RIDEN SUBMISSION

REVISIONS NO.	DATE	BY

RHODE ISLAND
DEPARTMENT OF TRANSPORTATION

BRIDGE REPLACEMENT
WYOMING BRIDGE NO. 43/44
RICHMOND/HOPKINTON

BORING LOGS - 2

CHECKED BY _____ DATE _____ SCALE AS NOTED

Dewberry
Dewberry-Goodkind, Inc.
A Dewberry Company
280 Summer St., 10th Floor
Boston, MA 02210
Phone: (617) 695-3400
Fax: (617) 695-3310

PROJECT: WYOMING
RHODE ISLAND, TOWN OF RICHMOND/HOPKINTON
BRIDGE STREET OVER WOOD RIVER BRIDGE NOS. 43/44
100% DESIGN SUBMISSION
FILE: M:\152899.44\CAD\PS&E\PRINTINGSHEETS\SHT 38.DGN

IN CHARGE OF: EB
DESIGNED BY: SK. GK. JN
DESIGN CHECKED BY: SK. GK.
DETAILED BY: SK. GK. JN
DETAIL CHECKED BY: SK. EB

TIME: $TIME$
DATE: $DATE$

FED. ROAD DIV. NO.	STATE	FEDERAL AID PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
1	R.I.			45	47

INSPECTOR: JOHN
DRILLER: R. COOK, JR.
HELPER: J. NAISMITH

SAMPLER I.D. 1⅜"
CASING I.D. 4"

DATE START 10/20/00
DATE FINISH 10/21/00

GROUND ELEVATION 98.0±
GROUND WATER DEPTH 14.0'

DEPTH BELOW SURFACE	CASING BLOWS PER FOOT	SAMPLER NO DEPTHS ELEV. FT.	TYPE OF SAMPLE	PENETRATION BLOWS PER 6 INCHES	DENSITY OR CONSIST MOISTURE	PROFILE CHANGE DEPTH ELEV.	FIELD IDENTIFICATION OF SOIL, REMARKS (REMARKS INCLUDE COLOR TYPE OF SOIL ETC. ROCK COLOR TYPE CONDITION HARDNESS DRILLING TIME SEAMS ETC.)
	4	0-2.0	D-1	16*-12-10-5		0.4	ASPHALT
	10				MED DENSE		F-M LT -DK BR SAND AND F-C GRAVEL, TR OF SILT
	12						
	6						
	5						
	1	5-7.0	D-2	1-0-1-8	VERY LOOSE		
	1						
	123						
	81						
10	51						
	20	10-12.0	N/C	120/2"	LOOSE		COBBLES AT 10.0' ROLLER BIT TO 12.0' THEN BROVE CASING
	22						
	25					13.0	
	48						
	31						
	20	15-17.0	D-3	12-14-17-22			
	22						
	25						
	25						
20	28						
	21	20-22.0	D-4	19-24-26-36			
	36						
	68						APPRO. PILE TIP ABUTMENT 4
	51					24.8	
	200	24.8 TO	C-1	CORED 60"			LT WHITE-PINK GRANITE BEDROCK - FRACTURED
		29.8		REC. 60"			
				100% REC.			
				87% RQD.			
30						29.8	
							END OF BORING
							DENOTES 300 HAMMER

GROUND SURFACE TO 24.8 FT USED NX CASING; THEN CORED TO 29.8'
CASING: WT. 300 FALL 24 SAMPLER: WT. 140 FALL 30 SAMPLES D-4, C-1

BORING B-7
SCALE: 1/4" = 1' - 0"

INSPECTOR: JOHN
DRILLER: R. COOK, JR.
HELPER: J. NAISMITH

SAMPLER I.D. 1⅜"
CASING I.D. 4"

DATE START 10/19/00
DATE FINISH 10/19/00

GROUND ELEVATION 98.0±
GROUND WATER DEPTH 14.4'

DEPTH BELOW SURFACE	CASING BLOWS PER FOOT	SAMPLER NO DEPTHS ELEV. FT.	TYPE OF SAMPLE	PENETRATION BLOWS PER 6 INCHES	DENSITY OR CONSIST MOISTURE	PROFILE CHANGE DEPTH ELEV.	FIELD IDENTIFICATION OF SOIL, REMARKS (REMARKS INCLUDE COLOR TYPE OF SOIL ETC. ROCK COLOR TYPE CONDITION HARDNESS DRILLING TIME SEAMS ETC.)
	5	0-2.0	D-1	X-15-20-19		0.5	ASPHALT
	21				MED DENSE		F-M LT BR SAND, TR OF FINE GRAVEL, TR OF SILT-FILL
	19						
	17						
	13						
	31	5-7.0	D-2	2-3-3-7	LOOSE		
	70						
	35						
	30						
10	28						
	1	10-12.0	D-3	5-2-2-10	VERY LOOSE		
	1					11.5	
	49						F-C DK BR-ORANGE SAND AND F-C GRAVEL, TR OF SILT
	18						
	21						
	20	15-17.0	D-4	26-42-49-61			APPRO. PILE TIP ABUTMENT 3
	49				VERY DENSE	17.5	
	200	17.5 TO	C-1	CORED 60"			LT WHITE-PINK GRANITE BEDROCK - FRACTURED
		22.5		REC. 43"			
20				72% REC.			
				62% RQD.			
						22.5	
							END OF BORING

GROUND SURFACE TO 17.5 FT USED NX CASING; THEN CORED TO 22.5'
CASING: WT. 300 FALL 24 SAMPLER: WT. 140 FALL 30 SAMPLES D-4, C-1

BORING B-8
SCALE: 1/4" = 1' - 0"

INSPECTOR: JOHN
DRILLER: R. COOK, JR.
HELPER: J. NAISMITH

SAMPLER I.D. 1⅜"
CASING I.D. 4"

DATE START 10/19/00
DATE FINISH 10/20/00

GROUND ELEVATION 98.5 ±
GROUND WATER DEPTH 14.4'

DEPTH BELOW SURFACE	CASING BLOWS PER FOOT	SAMPLER NO DEPTHS ELEV. FT.	TYPE OF SAMPLE	PENETRATION BLOWS PER 6 INCHES	DENSITY OR CONSIST MOISTURE	PROFILE CHANGE DEPTH ELEV.	FIELD IDENTIFICATION OF SOIL, REMARKS (REMARKS INCLUDE COLOR TYPE OF SOIL ETC. ROCK COLOR TYPE CONDITION HARDNESS DRILLING TIME SEAMS ETC.)
	5	0-2.0	D-1	X-19-22-25		0.5	ASPHALT
	12				DENSE		F-C LT BR SAND AND F-C GRAVEL, TR OF SILT-FILL
	22						
	41						
	12						
	11	5-7.0	D-2	1-2-2-6	VERY LOOSE		
	21						
	31						
	20						
10	22					10.5	
	21	10-12.0	D-3	12-22-28-37	DENSE		F-C DK BR SAND AND F-C GRAVEL, TR OF SILT AND COBBLES
	37						
	40					13.7	
	200	13.7 TO	C-1	CORED 60"		APPRO. PILE TIP ABUTMENT 2	LT WHITE-PINK GRANITE BEDROCK - FRACTURED
		18.7		REC. 55"			
				92% REC.			
				80% RQD.			
						18.7	
20							
							END OF BORING

GROUND SURFACE TO 13.7 FT USED NX CASING; THEN CORED TO 18.7'
CASING: WT. 300 FALL 24 SAMPLER: WT. 140 FALL 30 SAMPLES D-4, C-1

BORING B-9
SCALE: 1/4" = 1' - 0"

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

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
AS SPECIFIED IN THE LETTER OF APPROVAL
DATED JUN 13 2008 FILE # 08-0043
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL.
APPROVED PLANS MUST BE AT CONSTRUCTION SITE.

Martin D. Wencek

MAY 6 2008

RIDEM SUBMISSION

REVISIONS		
NO.	DATE	BY

RHODE ISLAND
DEPARTMENT OF TRANSPORTATION

BRIDGE REPLACEMENT
WYOMING BRIDGE NO. 43/44
RICHMOND/HOPKINTON

BORING LOGS - 3

CHECKED BY ______ DATE ______ SCALE AS NOTED

Dewberry
Dewberry-Goodkind, Inc.
A Dewberry Company
280 Summer St., 10th Floor
Boston, MA 02110
Phone: (617) 695-3400
Fax: (617) 695-3310

PROJECT: WYOMING
RHODE ISLAND, TOWN OF RICHMOND/HOPKINTON
BRIDGE STREET OVER WOOD RIVER BRIDGE NOS. 43/44
100% DESIGN SUBMISSION
FILE: M:\15293.44\CAD\PS&E\PRINTINGSHEETS\SHT 39.DGN

IN CHARGE OF: EB
DESIGNED BY: SK, DK, JN
DESIGN CHECKED BY: SK, DK
DETAILED BY: SK, DK, JN
DETAIL CHECKED BY: SK, EB

TIME: $TIME$
DATE: $DATE$

FED. ROAD DIV. NO.	STATE	FEDERAL AID PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
1	R.I.			46	47

TEST PIT LOG | PROJECT DESCRIPTION BRIDGES 43/44 LOCATION RICHMOND, RI. | TEST PIT No. 1A DATE 10/18/2000

INSPECTOR: J. NSIBIRWA
DRILLER: R. COOK, JR.
HELPER: J. NAISMITH

GROUND ELEV. 98.40 ±
TIME STARTED _____
TIME FINISHED _____

DEPTH	SOIL DESCRIPTION	EXCAV. EFFORT	BOULDER SIZE
0–14	FINE SAND W/GRAVEL	E	

REMARKS:

EXCAVATION EFFORT	ABBREVIATIONS	LEGEND: BOULDER SIZE
E - EASY M - MODERATE D - DIFFICULT	F - FINE M - MEDIUM C - COURSE F/M - FINE TO MEDIUM	6"-18".....A 18"-36".....B 36" AND LARGER...C

TEST PIT TP-1A
SCALE: 1/4" = 1' - 0"

TEST PIT LOG | PROJECT DESCRIPTION BRIDGES 43/44 LOCATION RICHMOND, RI. | TEST PIT No. 1 DATE 10/18/2000

INSPECTOR: J. NSIBIRWA
DRILLER: R. COOK, JR.
HELPER: J. NAISMITH

GROUND ELEV. 88.0 ±
TIME STARTED _____
TIME FINISHED _____

DEPTH	SOIL DESCRIPTION	EXCAV. EFFORT	BOULDER SIZE
0–14	SAND, GRAVEL AND COBBLES LEDGE	E	

REMARKS:
NO FOOTING

EXCAVATION EFFORT	ABBREVIATIONS	LEGEND: BOULDER SIZE
E - EASY M - MODERATE D - DIFFICULT	F - FINE M - MEDIUM C - COURSE F/M - FINE TO MEDIUM	6"-18".....A 18"-36".....B 36" AND LARGER...C

TEST PIT TP-1
SCALE: 1/4" = 1' - 0"

TEST PIT LOG | PROJECT DESCRIPTION BRIDGES 43/44 LOCATION RICHMOND, RI. | TEST PIT No. 2 DATE 10/18/2000

INSPECTOR: J. NSIBIRWA
DRILLER: R. COOK, JR.
HELPER: J. NAISMITH

GROUND ELEV. 90.40 ±
TIME STARTED _____
TIME FINISHED _____

DEPTH	SOIL DESCRIPTION	EXCAV. EFFORT	BOULDER SIZE
0–14	FINE SAND W/DEBRIS GRAVEL, BOULDERS BOTTOM OF WALL ROCK ELEVATION	D	A

REMARKS:

EXCAVATION EFFORT	ABBREVIATIONS	LEGEND: BOULDER SIZE
E - EASY M - MODERATE D - DIFFICULT	F - FINE M - MEDIUM C - COURSE F/M - FINE TO MEDIUM	6"-18".....A 18"-36".....B 36" AND LARGER...C

TEST PIT TP-2
SCALE: 1/4" = 1' - 0"

TEST PIT LOG | PROJECT DESCRIPTION BRIDGES 43/44 LOCATION RICHMOND, RI. | TEST PIT No. 3 DATE 10/18/2000

INSPECTOR: J. NSIBIRWA
DRILLER: R. COOK, JR.
HELPER: J. NAISMITH

GROUND ELEV. 85.70 ±
TIME STARTED _____
TIME FINISHED _____

DEPTH	SOIL DESCRIPTION	EXCAV. EFFORT	BOULDER SIZE
0–14	SAND & GRAVEL COBBLES AND BOULDERS BOTTOM OF WALL	M	B

REMARKS:
NO FOOTING, BEDROCK FOUNDED ON RIVERBED GRAVEL

EXCAVATION EFFORT	ABBREVIATIONS	LEGEND: BOULDER SIZE
E - EASY M - MODERATE D - DIFFICULT	F - FINE M - MEDIUM C - COURSE F/M - FINE TO MEDIUM	6"-18".....A 18"-36".....B 36" AND LARGER...C

TESTPIT TP-3
SCALE: 1/4" = 1' - 0"

TEST PIT LOG | PROJECT DESCRIPTION BRIDGES 43/44 LOCATION RICHMOND, RI. | TEST PIT No. 4 DATE 10/24/2000

INSPECTOR: J. NSIBIRWA
DRILLER: R. COOK, JR.
HELPER: J. NAISMITH

GROUND ELEV. 89.50 ±
TIME STARTED _____
TIME FINISHED _____

DEPTH	SOIL DESCRIPTION	EXCAV. EFFORT	BOULDER SIZE
0–14	SAND & GRAVEL (FILL) COBBLES BOTTOM OF WALL ROCK ELEV.	M	

REMARKS:

EXCAVATION EFFORT	ABBREVIATIONS	LEGEND: BOULDER SIZE
E - EASY M - MODERATE D - DIFFICULT	F - FINE M - MEDIUM C - COURSE F/M - FINE TO MEDIUM	6"-18".....A 18"-36".....B 36" AND LARGER...C

TEST PIT TP-4
SCALE: 1/4" = 1' - 0"

TEST PIT LOG | PROJECT DESCRIPTION BRIDGES 43/44 LOCATION RICHMOND, RI. | TEST PIT No. 5 DATE 10/24/2000

INSPECTOR: J. NSIBIRWA
DRILLER: R. COOK, JR.
HELPER: J. NAISMITH

GROUND ELEV. 90.25 ±
TIME STARTED _____
TIME FINISHED _____

DEPTH	SOIL DESCRIPTION	EXCAV. EFFORT	BOULDER SIZE
0–14	FINE SAND WITH GRAVEL BOULDERS BOTTOM OF WALL	M	B C

REMARKS:

EXCAVATION EFFORT	ABBREVIATIONS	LEGEND: BOULDER SIZE
E - EASY M - MODERATE D - DIFFICULT	F - FINE M - MEDIUM C - COURSE F/M - FINE TO MEDIUM	6"-18".....A 18"-36".....B 36" AND LARGER...C

TEST PIT TP-5
SCALE: 1/4" = 1' - 0"

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

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
AS SPECIFIED IN THE LETTER OF APPROVAL
DATED JUN 13 2008 FILE # 08-0043
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL.
APPROVED PLANS MUST BE AT CONSTRUCTION SITE.
Angelina D. Wenck
MAY 6 2008

RIDEM SUBMISSION

REVISIONS NO.	DATE	BY

RHODE ISLAND
DEPARTMENT OF TRANSPORTATION

BRIDGE REPLACEMENT
WYOMING BRIDGE NO. 43/44
RICHMOND/HOPKINTON

TEST PITS - 1

CHECKED BY _____ DATE _____ SCALE AS NOTED

Dewberry
Dewberry-Goodkind, Inc.
A Dewberry Company
280 Summer St., 10th Floor
Boston, MA 02210
Phone: (617) 695-3400
Fax: (617) 695-3310

PROJECT: WYOMING
RHODE ISLAND, TOWN OF RICHMOND/HOPKINTON
BRIDGE STREET OVER WOOD RIVER BRIDGE NOS. 43/44
100% DESIGN SUBMISSION
FILE: M:\52899_44\CAD\PS&E\PRINTINGSHEETS\SHT 40.DGN

IN CHARGE OF: EB
DESIGNED BY: SK, GK, JN
DESIGN CHECKED BY: SK, GK
DETAILED BY: SK, GK, JN
DETAIL CHECKED BY: SK, EB

TIME: @TIME@
DATE: @DATE@

FED. ROAD DIV. NO.	STATE	FEDERAL AID PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
1	R.I.			47	47

TEST PIT LOG

PROJECT
DESCRIPTION: BRIDGES 43/44
LOCATION: RICHMOND, RI.
TEST PIT No. 6
DATE 10/24/2000

INSPECTOR: J. NSIBIRWA
DRILLER: R. COOK, JR.
HELPER: J. NAISMITH
GROUND ELEV. 88.0 ±
TIME STARTED ____
TIME FINISHED ____

DEPTH	SOIL DESCRIPTION	EXCAV. EFFORT	BOULDER SIZE
0–1	FINE SAND & BOULDERS	M	C
2–14			

REMARKS:
BOTTOM OF WALL ON BOULDERS

EXCAVATION EFFORT	ABBREVIATIONS	LEGEND: BOULDER SIZE
E - EASY	F - FINE	6"-18"....A
M - MODERATE	M - MEDIUM	18"-36"....B
D - DIFFICULT	C - COURSE	36" AND LARGER...C
	F/M - FINE TO MEDIUM	

TEST PIT TP-6
SCALE: 1/4" = 1'-0"

TEST PIT LOG

PROJECT
DESCRIPTION: BRIDGES 43/44
LOCATION: RICHMOND, RI.
TEST PIT No. 7
DATE 10/23/2000

INSPECTOR: J. NSIBIRWA
DRILLER: R. COOK, JR.
HELPER: J. NAISMITH
GROUND ELEV. 82.0 ±
TIME STARTED ____
TIME FINISHED ____

DEPTH	SOIL DESCRIPTION	EXCAV. EFFORT	BOULDER SIZE
0–1	SAND AND GRAVEL	E	
1–2	COBBLES AND BOULDERS		C
2	BOTTOM OF WINGWALL		
3–14			

REMARKS:
WALL IS ON RIVERBED GRAVEL

EXCAVATION EFFORT	ABBREVIATIONS	LEGEND: BOULDER SIZE
E - EASY	F - FINE	6"-18"....A
M - MODERATE	M - MEDIUM	18"-36"....B
D - DIFFICULT	C - COURSE	36" AND LARGER...C
	F/M - FINE TO MEDIUM	

TEST PIT TP-7
SCALE: 1/4" = 1'-0"

TEST PIT LOG

PROJECT
DESCRIPTION: BRIDGES 43/44
LOCATION: RICHMOND, RI.
TEST PIT No. 8
DATE 10/25/2000

INSPECTOR: J. NSIBIRWA
DRILLER: R. COOK, JR.
HELPER: J. NAISMITH
GROUND ELEV. 92.0 ±
TIME STARTED 7.30AM
TIME FINISHED 10.30AM

DEPTH	SOIL DESCRIPTION	EXCAV. EFFORT	BOULDER SIZE
0'–4'	FILL W/MICA	E	
4'–6'	FINE SAND W/TRACE OF GRAVEL	E	
6'–9'	SAND WITH SILT BOULDERS LEDGE	D	A
10'–14'			

REMARKS:

EXCAVATION EFFORT	ABBREVIATIONS	LEGEND: BOULDER SIZE
E - EASY	F - FINE	6"-18"....A
M - MODERATE	M - MEDIUM	18"-36"....B
D - DIFFICULT	C - COURSE	36" AND LARGER...C
	F/M - FINE TO MEDIUM	

TEST PIT TP-8
SCALE: 1/4" = 1'-0"

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

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
AS SPECIFIED IN THE LETTER OF APPROVAL
DATED JUN 13 2008 FILE # 08-0043
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL.
APPROVED PLANS MUST BE AT CONSTRUCTION SITE.

Martin D. Wencek

MAY 6 2008

PROJECT: WYOMING
RHODE ISLAND, TOWN OF RICHMOND/HOPKINTON
BRIDGE STREET OVER WOOD RIVER BRIDGE NOS. 43/44
100% DESIGN SUBMISSION
FILE: M:\15299_44\CAD\PS&E\PRINTINGSHEETS\SHT 41.DGN

IN CHARGE OF: EB
DESIGNED BY: SK, DK, JN
DESIGN CHECKED BY: SK, DK
DETAILED BY: SK, DK, JN
DETAIL CHECKED BY: SK, EB

RIDEM SUBMISSION

REVISIONS		
NO.	DATE	BY

Dewberry
Dewberry-Goodkind, Inc.
A Dewberry Company
280 Summer St., 10th Floor
Boston, MA 02110
Phone: (617) 695-3400
Fax: (617) 695-3310

RHODE ISLAND
DEPARTMENT OF TRANSPORTATION

BRIDGE REPLACEMENT
WYOMING BRIDGE NO. 43/44
RICHMOND/HOPKINTON

TEST PITS - 2

CHECKED BY ____ DATE ____ SCALE AS NOTED

TIME: $TIME$
DATE: $DATE$

RHODE ISLAND
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
235 Promenade Street, Providence, RI 02908-5767 TDD 401-222-4462

June 13, 2008

Rhode Island Department of Transportation
c/o Robert Shawver, P.E., Associate Chief Engineer
Two Capitol Hill
Providence, RI 02903-1124

Insignificant Alteration – Permit

RE: Application No. 08-0043 in reference to the property and proposed project located:

Bridge Street (AKA Arcadia Road), approximately 350 feet northwest of the intersection with Nooseneck Hill Road (Rt. 3), at Utility Pole No. 100, Assessor's Plat 176, Lots 1 &2, Plat 177, Lot 3, Richmond, RI, Assessor's Plat 29, Lot 26, Hopkinton, RI.

Dear Mr. Shawver:

Kindly be advised that the Department of Environmental Management's ("DEM") Freshwater Wetlands Program ("Program") has completed its review of your **Request for Preliminary Determination** application. This review included a site inspection of the above referenced property ("subject property") and an evaluation of the proposed bridge replacement as illustrated and detailed on site plans submitted with your application. These site plans were received on May 6, 2008.

Our observations of the subject property, review of the site plans and evaluation of the proposed project reveals that alterations of freshwater wetlands are proposed. However, pursuant to Rule 9.00 of the Rules and Regulations Governing the Administration and Enforcement of the Fresh Water Wetlands Act (Rules), this project may be permitted as an **insignificant alteration** to freshwater wetlands under the following terms and conditions:

Terms and Conditions for Application No. 08-0043:

1. This letter is the DEM's permit for this project under the R.I. Fresh Water Wetlands Act, Rhode Island General Laws (RIGL) Section 2-1-18 et seq.

2. This permit is specifically limited to the project, site alterations and limits of disturbance as detailed on the site plans submitted with your application and received by the Program on May 6, 2008. A copy of the site plans stamped approved by the DEM is enclosed. Changes or revisions to the project that would alter freshwater wetlands are not authorized without a permit from the DEM.
3. Where the terms and conditions of the permit conflict with the approved site plans, these terms and conditions shall be deemed to supersede the site plans.

4. You must notify this Program in writing immediately prior to the commencement of site alterations and upon completion of the project.

5. A copy of the stamped approved site plans and a copy of this permit must be kept at the site at all times during site preparation, construction, and final stabilization. Copies of this permit and the stamped approved plans must be made available for review by any DEM or City/Town representative upon request.

6. The effective date of this permit is the date this letter was issued. This permit expires four (4) years from the date of issue unless renewed pursuant to the Rules.

7. Any material utilized in this project must be clean and free of matter that could pollute any freshwater wetland.

8. Prior to commencement of site alterations, you shall erect or post a sign resistant to the weather and at least twelve (12) inches wide and eighteen (18) inches long, which boldly identifies the initials "DEM" and the application number of this permit. This sign must be maintained at the site in a conspicuous location until such time that the project is complete.

9. Temporary erosion and sediment controls detailed or described on the approved site plans shall be properly installed at the site prior to or commensurate with site alterations. Such controls shall be properly maintained, replaced, supplemented, or modified as necessary throughout the life of this project to minimize soil erosion and to prevent sediment from being deposited in any wetlands not subject to disturbance under this permit.

10. Upon permanent stabilization of all disturbed soils, temporary erosion and/or sediment controls consisting of hay bales and/or silt fence must be removed.

11. You are responsible for the proper installation, operation, maintenance and stability of any mitigative features, facilities, and systems of treatment and control which are installed or used in compliance with this permit to prevent harm to adjacent wetlands until such time that you document that this responsibility has been assumed by another person or organization.

12. You are obligated to install, utilize and follow all best management practices detailed or described on the approved site plans in the construction of the project to minimize or prevent adverse impacts to any adjacent freshwater wetlands and the functions and values provided by such wetlands.

13. Excavation to compensate for loss in flood storage as provided on the approved site plans is mandatory and must be completed prior to any filling or construction alterations within flood plain or areas subject to flooding on the subject property. Written certification must be provided to this Program by a registered land surveyor that such excavation and grading has been accomplished as permitted. Such certification shall be submitted within twenty (20) days of completion of the required excavation and grading.

14. All construction activities involving soil disturbances within watercourses must be limited to the low flow period (i.e., the period from July 1 to October 31 of any calendar year). Soil disturbance in these watercourses must temporarily cease in the event of any abnormally high stormwater runoff event during the low flow period.

15. You must provide written certification from a registered land surveyor or registered professional engineer that the stormwater drainage system including any and all basins, piping systems, catch basins, culverts, swales and any other stormwater management control features have been constructed/installed in accordance with the site plans approved by this permit. This written certification must be submitted to this Program within twenty (20) days of its request or upon completion of the project.

Pursuant to the provisions in Rule 7.09 and 11.04, as applicable, any properly recorded and valid permit is automatically transferred to the new owner upon sale of the property.

Kindly be advised that this permit is not equivalent to a determination of the type or extent of freshwater wetlands on the subject property. Should you wish to obtain such verification, you may submit an application in accordance with Rule 8.03.

You are required to comply with the terms and conditions of this permit and to carry out this project in compliance with the Rules at all times. Failure to do so may result in an enforcement action by this Department.

In permitting the proposed alterations, the DEM assumes no responsibility for damages resulting from faulty design or construction.

This permit does not remove your obligation to obtain any local, state, or federal approvals or permits required by ordinance or law and does not relieve you from any duties owed to adjacent landowners with specific reference to any changes in drainage.

Please contact Joseph Casey of my staff at (telephone: 401-222-6820, Ext. 7412) should you have any questions regarding this letter.

Sincerely,

Martin D. Wencek

Martin D. Wencek, Permitting Supervisor
Office of Water Resources
Freshwater Wetlands Program

MDW/JC/jc

Enclosure: Approved site plans

xc: Loren R. Gengarella, Acting Hopkinton Building Official
Loren R. Gengarella, Richmond Building Official
Dennis Reip, Project Manager, Dewberry Goodkind, Inc.