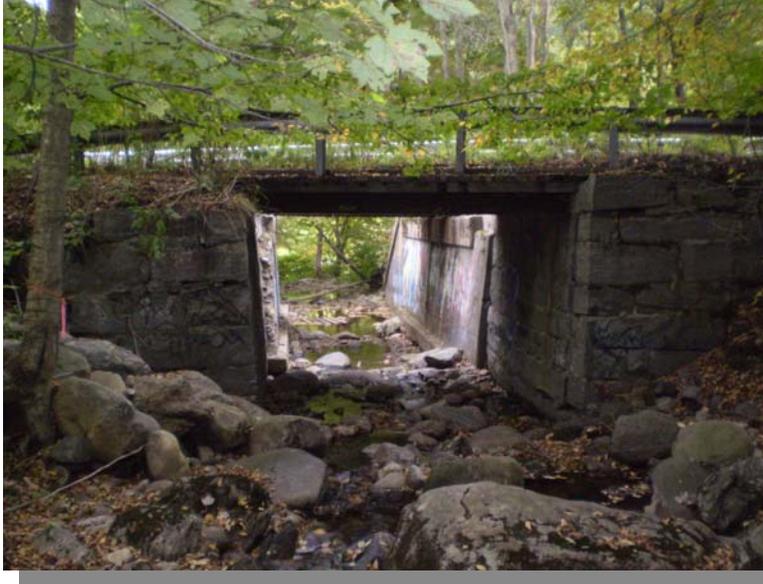


PROJECT INFORMATION FOR THE REPLACEMENT OF THE BRIDGE CARRYING METRO-NORTH RAILROAD (WATERBURY BRANCH) OVER SPRUCE BROOK (BRIDGE No. 8276R) BEACON FALLS/NAUGATUCK

STATE PROJECT No. 304-008



GENERAL INFORMATION

This project consists of the complete removal of the existing steel superstructure and portions of the existing substructures, and the installation of twin precast concrete box culverts. This bridge is one of four that will be replaced/rehabilitated during a 21 day outage of the Waterbury Branch Railroad. The overall project duration is estimated to be 12 months. At the present time, the project is scheduled to be advertised in September 2011 and the start of construction is anticipated to begin May 2012. The estimated construction cost is Range E.

The existing railroad bridge, which was constructed in 1900 and rehabilitated in 1947, consists of a 7-foot wide open deck, steel girder superstructure supported on concrete abutments, with a maximum span of 17 feet over Spruce Brook.

MNRR Bridge No. 08276R directly abuts the Connecticut Department of Environmental Protection (DEP) vehicular Bridge No. 06387, which carries an unnamed gravel road through the Naugatuck State Forest. The DEP vehicular bridge consists of a 14-foot wide concrete slab deck founded on stone masonry abutments, with a maximum span of 15 feet over Spruce Brook.

The proposed work consists of the replacement of MNRR Bridge No. 08276R and the adjacent DEP vehicular Bridge No. 06387. Improvements include removal of the existing superstructures, removal of the easterly abutments and placement of two 8' high by 10' wide precast concrete box culverts and construction of new wingwalls upstream and downstream of the box culverts. The existing railway crossing and adjacent access road will be replaced.

Access to the site will be provided from Cold Springs Road through the Naugatuck State Forest via an unimproved gravel road that parallels the MNRR tracks. This access route is within the State of Connecticut MNRR property. The proposed project will not require construction easements.

Department of Transportation

Contractor Information

**STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION_
PROJECT SCOPE CODES FOR CONTRACT ITEMS**

AMOUNT

<u>CODE</u>	<u>FROM</u>	<u>TO</u>
"A"	LESS THAN	\$ 100,000
"B"	\$ 100,000	\$ 199,999
"C"	\$ 200,000	\$ 499,999
"D"	\$ 500,000	\$ 999,999
"E"	\$ 1,000,000	\$ 2,499,999
"F"	\$ 2,500,000	\$ 4,999,999
"G"	\$ 5,000,000	\$ 7,499,999
"H"	\$ 7,500,000	\$ 9,999,999
"I"	\$ 10,000,000	\$ 14,999,999
"J"	\$ 15,000,000	\$ 19,999,999
"K"	\$ 20,000,000	\$ 29,999,999
"L"	\$ 30,000,000	\$ 39,999,999
"M"	\$ 40,000,000	\$ 59,999,999
"N"	\$ 60,000,000	\$ 89,999,999
"O"	\$ 90,000,000	\$ 119,999,999
"P"	\$ 120,000,000	\$ 159,999,999
"Q"	\$ 160,000,000	\$ 199,999,999
"R"	\$ 200,000,000	\$ 249,999,999
"S"	\$ 250,000,000	\$ 299,999,999
"T"	\$ 300,000,000	\$ 399,999,999
"U"	\$ 400,000,000	\$ 499,999,999
"V"	\$ 500,000,000	\$ 599,999,999
"W"	\$ 600,000,000	AND OVER

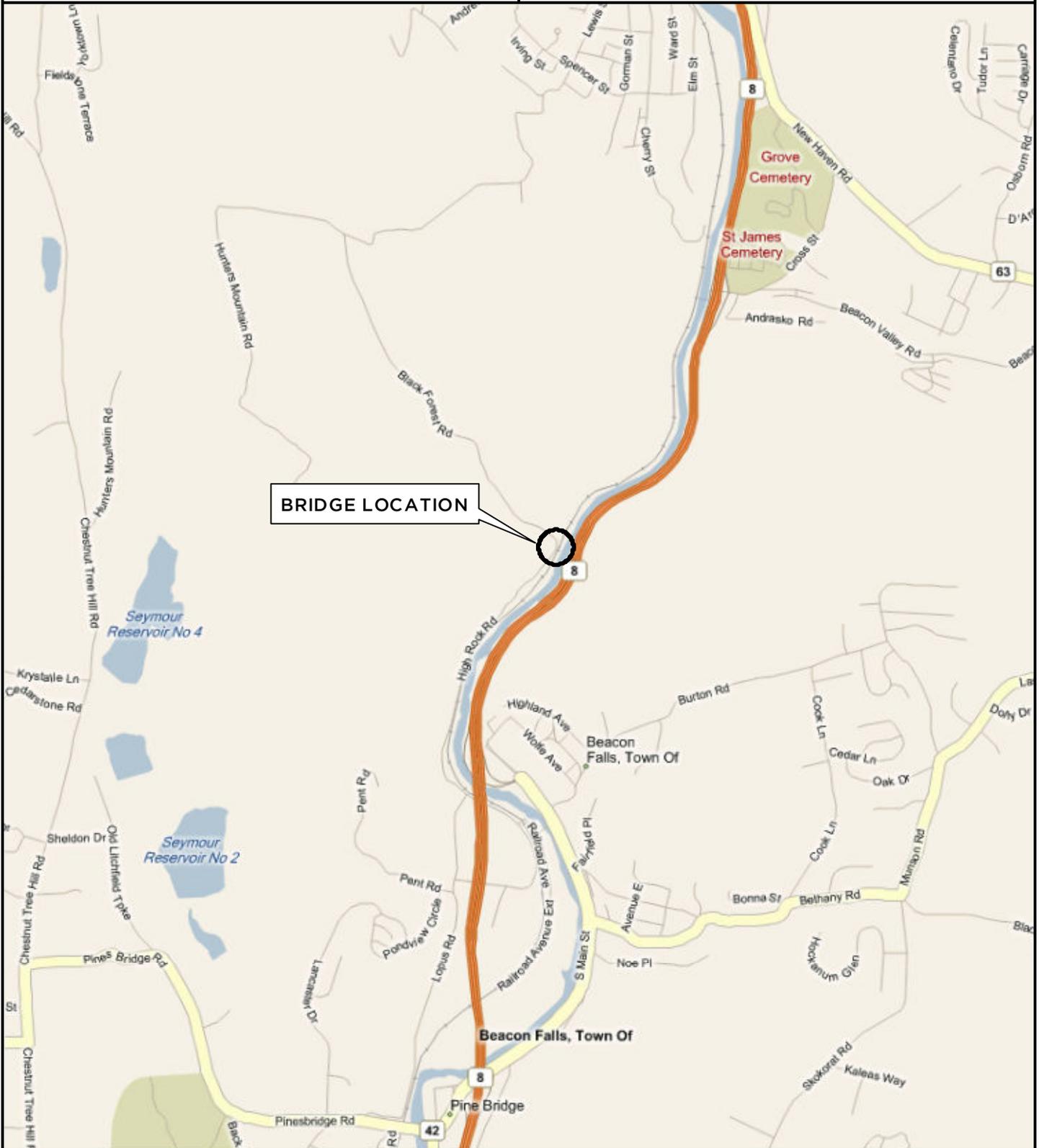
For any questions regarding this project scope code, please contact the Transportation Manager of Contracts at (860) 594-3390.



ANCHOR
ENGINEERING SERVICES, INC.

41 Sequin Drive
Glastonbury, CT 06033
Phone: (860) 633-8770
Fax: (860) 633-5971

**METRO-NORTH BRIDGE NO. 08276R
OVER SPRUCE BROOK
BEACON FALLS, CT**



BING MAPS ROAD
WEB MAPPING
2010

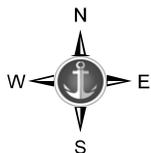
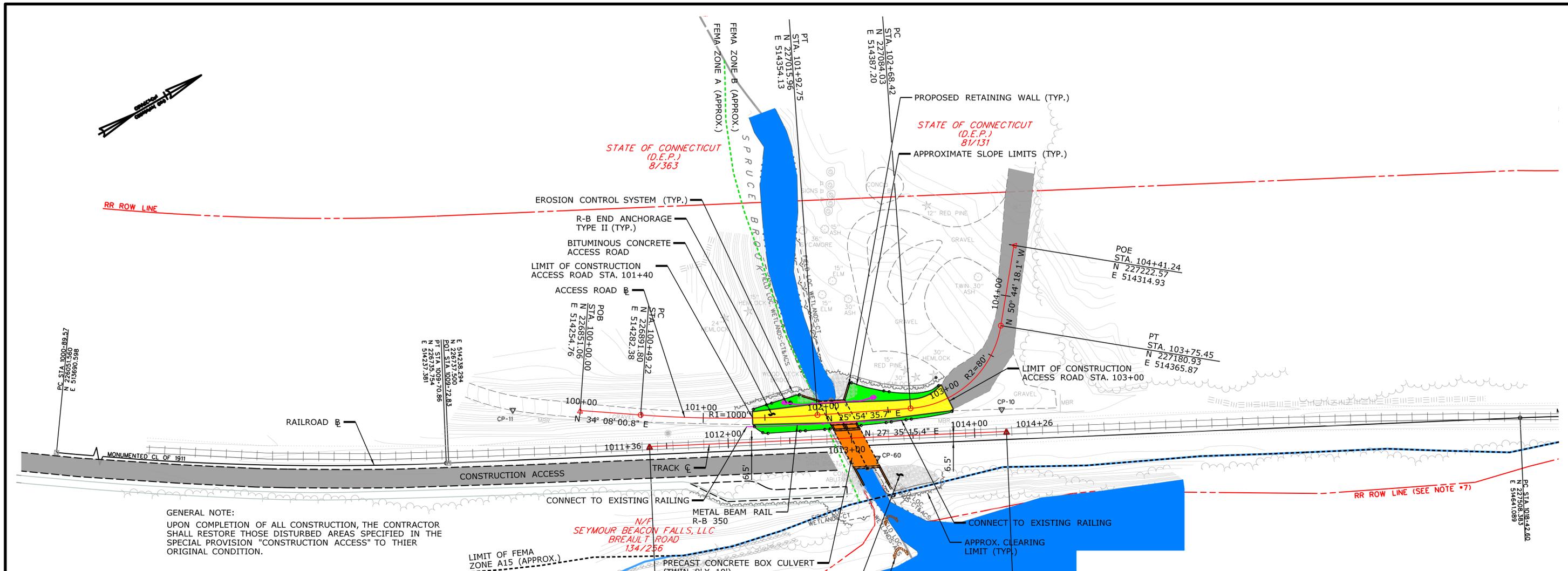


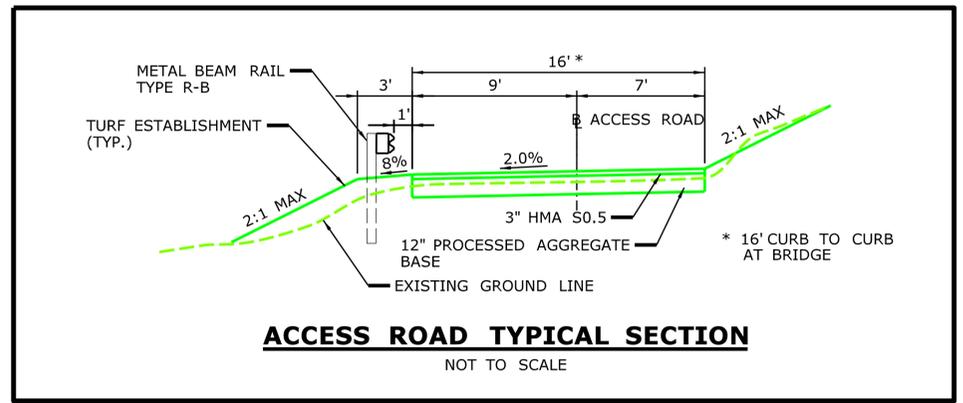
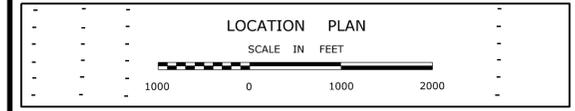
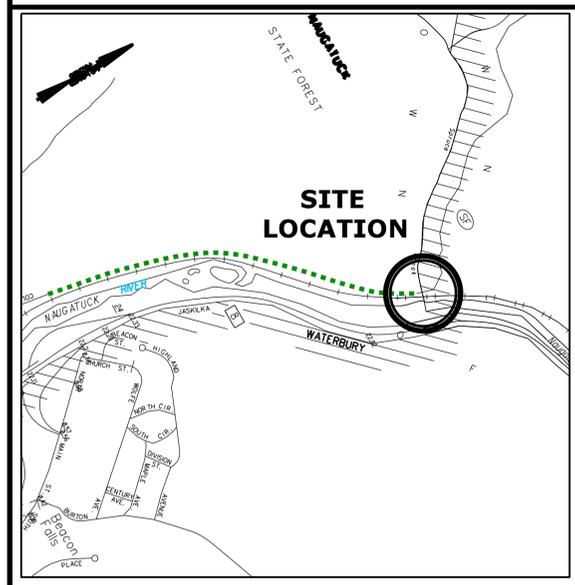
FIGURE
LOCATION PLAN

PROJECT
304-008

DATE
MAR. 2011

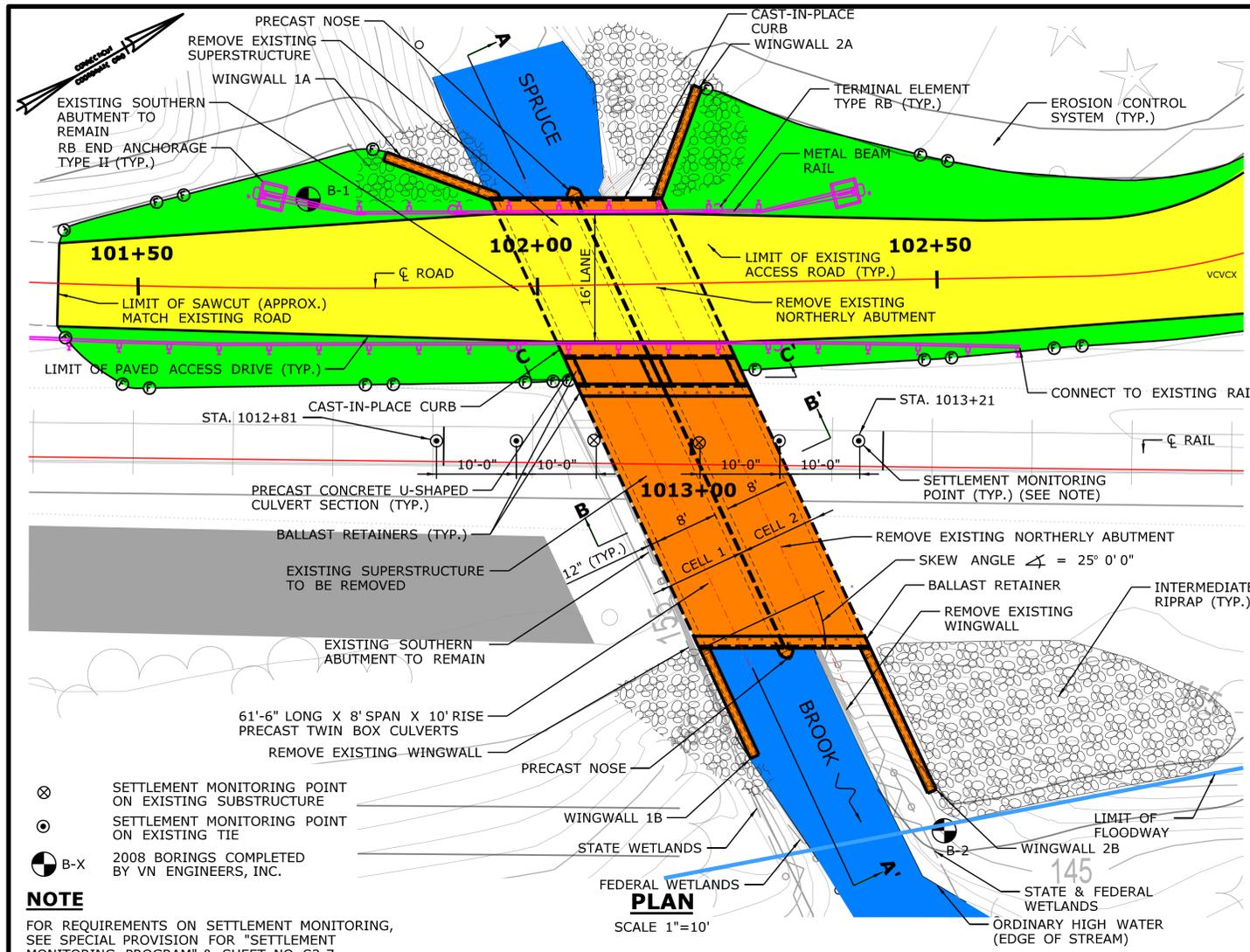


GENERAL NOTE:
UPON COMPLETION OF ALL CONSTRUCTION, THE CONTRACTOR SHALL RESTORE THOSE DISTURBED AREAS SPECIFIED IN THE SPECIAL PROVISION "CONSTRUCTION ACCESS" TO THEIR ORIGINAL CONDITION.



DESCRIPTION	COLOR
ROW OR PROPERTY LINES	[Red Line]
FULL DEPTH PAVEMENT RECONSTRUCTION	[Yellow Area]
WETLANDS	[Pink Area]
STRUCTURES / SIDEWALK	[Orange Area]
CUT	[Brown Area]
FILL	[Green Area]
WATERCOURSE	[Blue Area]
CONSTRUCTION ACCESS	[Grey Area]
EXISTING SIDEWALK	[Dark Grey Area]

THE INFORMATION, INCLUDING ESTIMATED QUANTITIES OF WORK SHOWN ON THESE SHEETS IS BASED ON LIMITED INVESTIGATIONS BY THE STATE AND IS IN NO WAY WARRANTED TO INDICATE THE CONDITIONS OF ACTUAL QUANTITIES OF WORK WHICH WILL BE REQUIRED. Plotted Date: 12/20/10	DESIGNER/DRAFTER: P. LIU CHECKED BY: T. YOUNG SCALE IN FEET 0 40 80 SCALE 1"=40'	STATE OF CONNECTICUT DEPARTMENT OF TRANSPORTATION Filename: S2-01_HW_MSH_304_008_MNRR_08276R_PLN01.dgn	SIGNATURE/BLOCK: ANCHOR ENGINEERING SERVICES, INC. APPROVED BY: _____ DATE: _____	PROJECT TITLE: BRIDGE NO. 08276R METRO-NORTH RAILROAD (WATERBURY BRANCH) MP 19.21 OVER SPRUCE BROOK	TOWN: BEACON FALLS NAUGATUCK	PROJECT NO.: 304-008 DRAWING NO.: S2-1 SHEET NO.: 15
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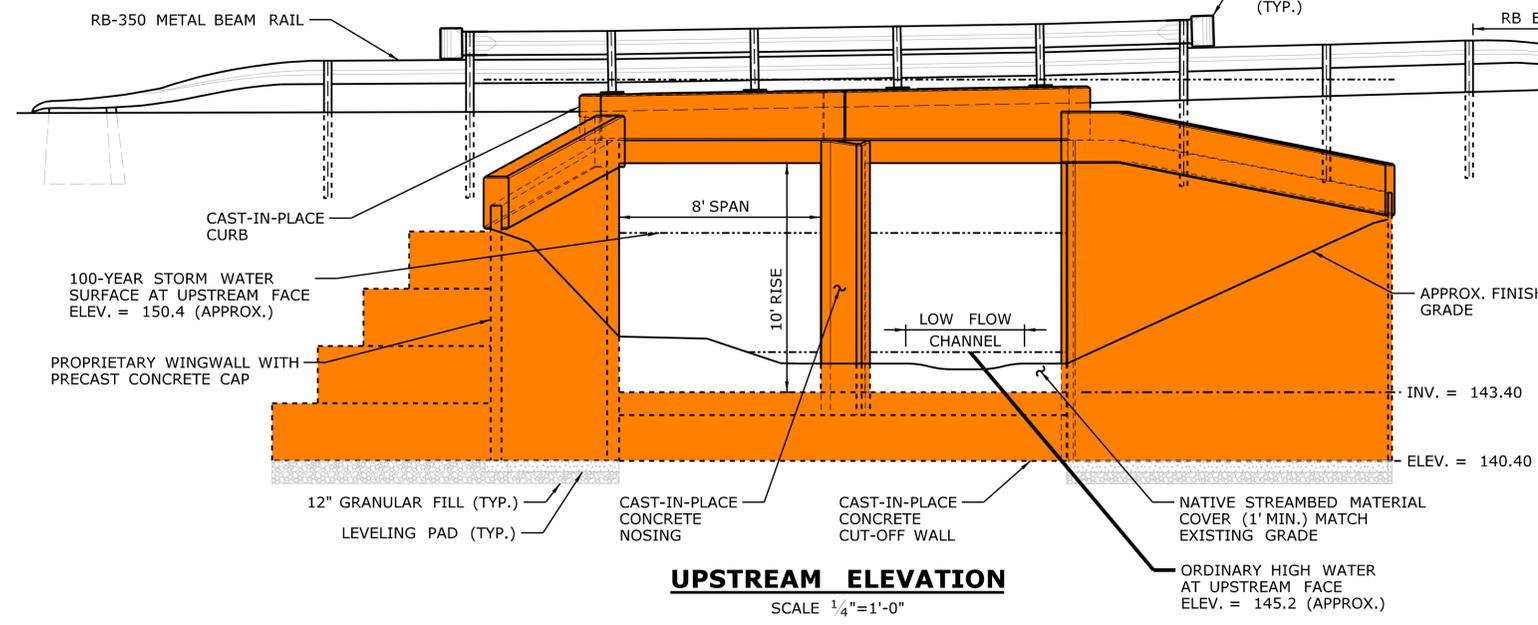


DESCRIPTION	COLOR
ROW OR PROPERTY LINES	Red
FULL DEPTH PAVEMENT RECONSTRUCTION	Yellow
WETLANDS	Magenta
STRUCTURES / SIDEWALK	Orange
CUT	Brown
FILL	Green
WATERCOURSE	Blue
CONSTRUCTION ACCESS	Grey
EXISTING SIDEWALK	Dark Grey

- ### GENERAL NOTES
- SPECIFICATIONS:** CONNECTICUT DEPARTMENT OF TRANSPORTATION FORM 816 (2004), SUPPLEMENTAL SPECIFICATIONS DATED JULY 2010 AND SPECIAL PROVISIONS AS AMENDED.
 - DESIGN SPECIFICATIONS:** STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES, (AASHTO 2002) AND THE AMERICAN RAILROAD ENGINEERING AND MAINTENANCE-OF-WAY ASSOCIATION MANUAL FOR RAILWAY ENGINEERING (AREMA 2008), AS SUPPLEMENTED BY THE CONNECTICUT DEPARTMENT OF TRANSPORTATION BRIDGE DESIGN MANUAL (2003), INCLUDING REVISION TO 2008
 - ALLOWABLE DESIGN STRESSES:**

CLASS "A" CONCRETE	BASED ON F'C = 3,000 PSI
CLASS "F" CONCRETE	BASED ON F'C = 4,000 PSI
REINFORCEMENT (ASTM A615 GRADE 60)	FY = 60,000 PSI
PRECAST UNITS	F'C = 4,000 PSI
 - LIVE LOADS:** RAILROAD BRIDGE: COOPER E80 LOADING
ACCESS ROAD BRIDGE: HS-20
 - FUTURE PAVING ALLOWANCE:** RAILROAD BRIDGE: N/A
ACCESS ROAD BRIDGE: NONE
 - BITUMINOUS CONCRETE OVERLAY ON ROADWAY BRIDGE :** 3" OF 0.5 INCH SUPERPAVE PLACED IN TWO EQUAL LIFTS.
 - FOUNDATION PRESSURES:** THE VARIOUS GROUP LOADINGS NOTED REFER TO THE GROUP LOADS AS GIVEN IN THE AASHTO STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES AND AMERICAN RAILROAD ENGINEERING AND MAINTENANCE-OF-WAY ASSOCIATION MANUAL FOR RAILWAY ENGINEERING.
 - DIMENSIONS:** WHEN DECIMAL DIMENSIONS ARE GIVEN TO LESS THAN THREE DECIMAL PLACES, THE OMITTED DIGITS SHALL BE ASSUMED TO BE ZEROS.
 - EXISTING DIMENSIONS:** DIMENSIONS OF THE EXISTING STRUCTURE SHOWN ON THESE PLANS ARE FOR GENERAL REFERENCE ONLY. THEY HAVE BEEN TAKEN FROM THE ORIGINAL DESIGN DRAWINGS AND ARE NOT GUARANTEED. THE CONTRACTOR SHALL TAKE ALL FIELD MEASUREMENTS NECESSARY TO ASSURE PROPER FIT OF THE FINISHED WORK AND SHALL ASSUME FULL RESPONSIBILITY FOR THEIR ACCURACY.
 - EXISTING STRUCTURES:** THE LOCATIONS OF THE EXISTING ABUTMENT AND WINGWALL FOOTINGS ARE APPROXIMATE AND ARE SHOWN FOR GRAPHICAL PURPOSES ONLY. THE APPROXIMATE LOCATIONS HAVE BEEN DETERMINED BASED ON FIELD LOCATION OF THE VISIBLE PORTIONS OF THE EXISTING SUBSTRUCTURE.
 - CLASS "A" CONCRETE:** CLASS "A" CONCRETE SHALL BE USED THROUGHOUT, EXCEPT AS NOTED UNDER CLASS "F" CONCRETE.
 - CLASS "F" CONCRETE:** CLASS "F" CONCRETE SHALL BE USED FOR THE ROADWAY CURBS, CONCRETE BALLAST RETAINERS, CAPPING AND WINGWALL CAPS.
 - JOINT SEAL:** SEE SPECIAL PROVISIONS.
 - EXPOSED EDGES:** EXPOSED EDGES OF CONCRETE SHALL BE BEVELED 1"x1" UNLESS DIMENSIONED OTHERWISE.
 - CONCRETE COVER:** ALL REINFORCEMENT SHALL HAVE TWO INCHES OF COVER UNLESS NOTED OTHERWISE.
 - REINFORCEMENT:** ALL REINFORCEMENT SHALL BE ASTM A615 GRADE 60.
 - EPOXY COATED REINFORCING BARS:** ALL REINFORCEMENT IN THE CURBS, BALLAST RETAINERS, AND WINGWALL CAPS SHALL BE EPOXY COATED UNLESS OTHERWISE NOTED. THESE BARS SHALL BE INCLUDED IN THE PAY ITEM FOR "DEFORMED STEEL BARS (EPOXY COATED)."
 - PREFORMED EXPANSION JOINT FILLER:** THE COST OF FURNISHING AND INSTALLING PREFORMED EXPANSION JOINT FILLER SHALL BE INCLUDED IN THE COST OF THE ITEM "CLASS 'F' CONCRETE."
 - CONSTRUCTION JOINTS:** CONSTRUCTION JOINTS, OTHER THAN THOSE SHOWN ON THE PLANS, WILL NOT BE PERMITTED WITHOUT THE PRIOR APPROVAL OF THE ENGINEER.
 - WINGWALLS 1A, 1B, 2A, AND 2B SHALL BE PAID FOR UNDER "RETAINING WALL (SITE 2)".**

NOTE
FOR REQUIREMENTS ON SETTLEMENT MONITORING, SEE SPECIAL PROVISION FOR "SETTLEMENT MONITORING PROGRAM" & SHEET NO. S2-7.

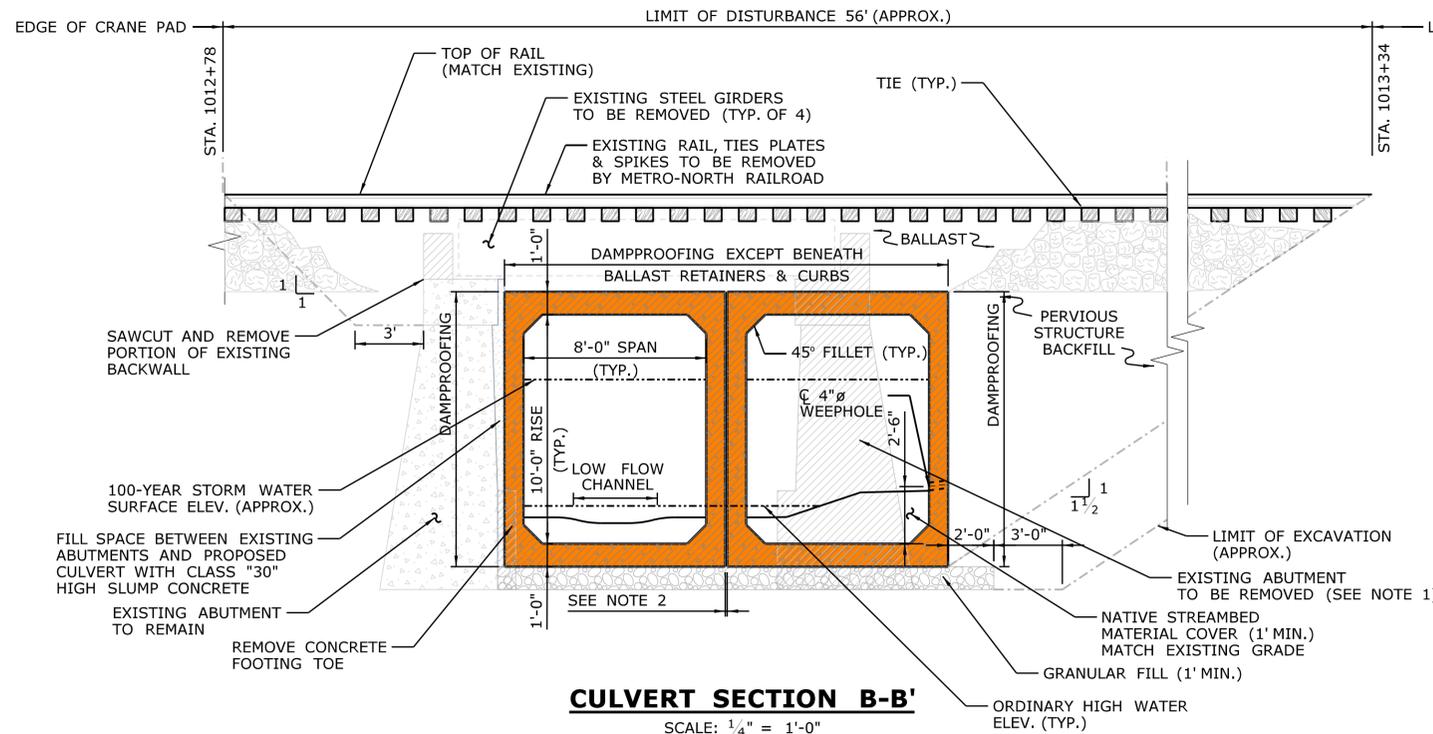


SHIPPING DATA				
MEMBER	SHIPPING LENGTH	SHIPPING HEIGHT	SHIPPING WIDTH	SHIPPING WEIGHT
BC-1A,1D BC-2A,2D	12'-4"	9'-4"	6'-10"	25,000 LBS
BC-1B,1C BC-2B,2C	12'-4"	9'-4"	6'-3"	34,200 LBS
BC-1E BC-2E	12'-4"	9'-4"	4'-2"	23,000 LBS
BC-1F,1K BC-2F,2K	12'-4"	9'-4"	6'-9"	24,000 LBS
BC-1G THRU 1J BC-2G THRU 2J	12'-4"	9'-4"	6'-9"	37,000 LBS

SEE SHEET NO. S2-5 FOR CROSS SECTION AND PRECAST SECTION MEMBER ARRANGEMENT.

TRANSPORTATION DIMENSION AND WEIGHT		
	ALLOWANCE	PROVIDED
VEHICLE WIDTH	8'-6"	8'-6"
VEHICLE LENGTH	48'-0"	48'-0"
VEHICLE HEIGHT	13'-6"	13'-4"
VEHICLE WEIGHT	80,000 LBS FOR 51' WHEELBASE	
AXLE WEIGHTS OF VEHICLES	20,000 LBS PER AXLE	

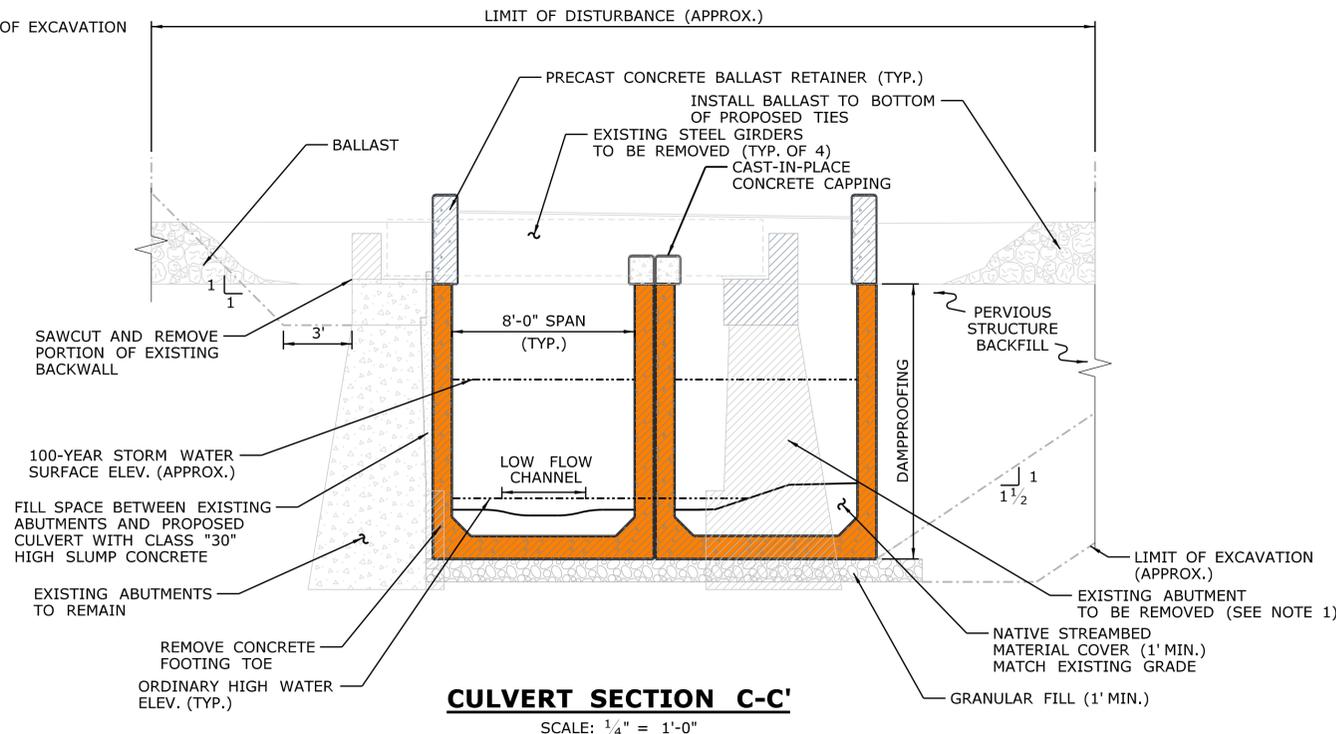
DESIGNER/DRAFTER: M. APPLEBY	CHECKED BY: T. YOUNG	STATE OF CONNECTICUT DEPARTMENT OF TRANSPORTATION	SIGNATURE/BLOCK: ANCHOR ENGINEERING SERVICES, INC.	PROJECT TITLE: BRIDGE NO. 8276R METRO-NORTH RAILROAD (WATERBURY BRANCH) MP 19.21 OVER SPRUCE BROOK	TOWN: BEACON FALLS NAUGATUCK	PROJECT NO.: 304-008
SCALE AS NOTED	Plotted Date: 12/20/10	File name: S2-04_SB_MSH_304_008_MNRR_08276R_GPN01.dgn	APPROVED BY: _____ DATE: _____	DRAWING TITLE: GENERAL PLAN	DRAWING NO.: S2-4	SHEET NO.: 18



CULVERT SECTION B-B'

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

MAXIMUM ALLOWABLE FOUNDATION BEARING PRESSURE: 2 TONS/SQ FT

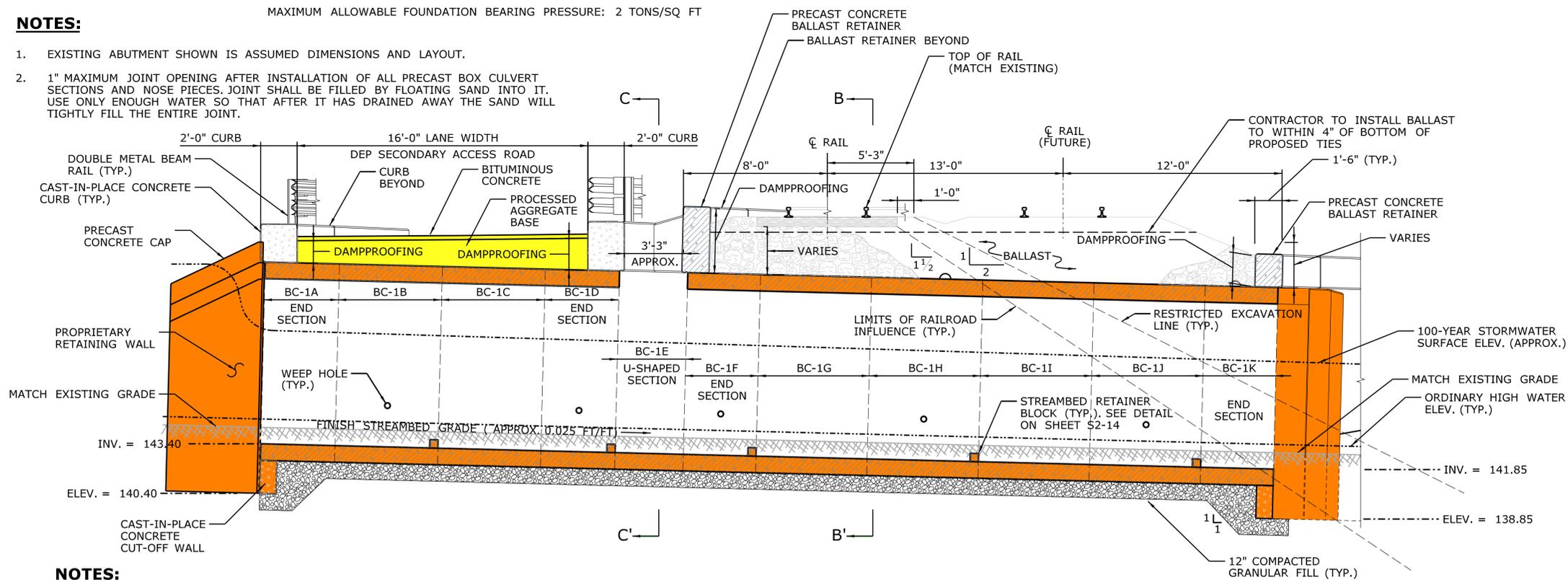


CULVERT SECTION C-C'

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

NOTES:

- EXISTING ABUTMENT SHOWN IS ASSUMED DIMENSIONS AND LAYOUT.
- 1" MAXIMUM JOINT OPENING AFTER INSTALLATION OF ALL PRECAST BOX CULVERT SECTIONS AND NOSE PIECES. JOINT SHALL BE FILLED BY FLOATING SAND INTO IT. USE ONLY ENOUGH WATER SO THAT AFTER IT HAS DRAINED AWAY THE SAND WILL TIGHTLY FILL THE ENTIRE JOINT.



CULVERT SECTION A-A'

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

NOTES:

- ALL EXCAVATION IN THE SPRUCE BROOK BETWEEN THE EXISTING ABUTMENT FACES SHALL BE PAID FOR UNDER THE ITEM "CHANNEL EXCAVATION".
- LIMITS OF CHANNEL EXCAVATION ARE BOTTOM OF 12" GRANULAR FILL BELOW BOX CULVERT, RETAINING WALLS AND CUTOFF WALLS.
- THE HANDLING, STOCKPILING, STORAGE & REUSE OF NATIVE STREAMBED MATERIAL SHALL BE PAID FOR UNDER THE ITEM "STOCKPILING AND HANDLING OF REUSE NATIVE STREAMBED MATERIAL".
- WEEPHOLES SHALL BE CENTERED LONGITUDINALLY IN ALTERNATING CULVERT SECTIONS AS SHOWN AND SHALL BE LOCATED VERTICALLY 2'-6" ABOVE CULVERT INVERT.
- PRECAST SECTIONS FOR CULVERT CELL NO. 1 SHOWN. SECTIONS FOR CELL NO. 2 SIMILAR. FOR SHIPPING DATA, SEE SHEET NO. S2-4.
- THE COST OF FURNISHING AND CONSTRUCTING STREAMBED RETAINER BLOCKS SHALL BE INCLUDED IN THE ITEM "10' x 8' PRECAST CONCRETE BOX CULVERT".

DESCRIPTION	COLOR
ROW OR PROPERTY LINES	[Red]
FULL DEPTH PAVEMENT RECONSTRUCTION	[Yellow]
WETLANDS	[Magenta]
STRUCTURES / SIDEWALK	[Orange]
CUT	[Brown]
FILL	[Green]
WATERCOURSE	[Blue]
CONSTRUCTION ACCESS	[Grey]
EXISTING SIDEWALK	[Dark Grey]

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