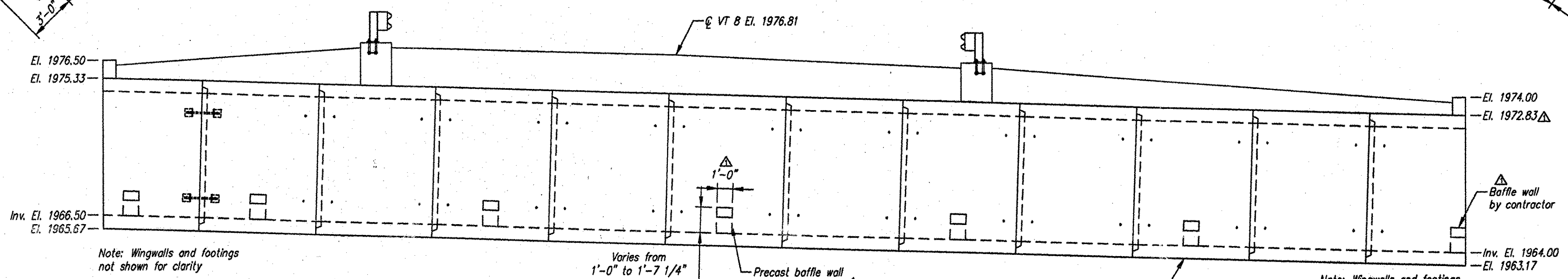


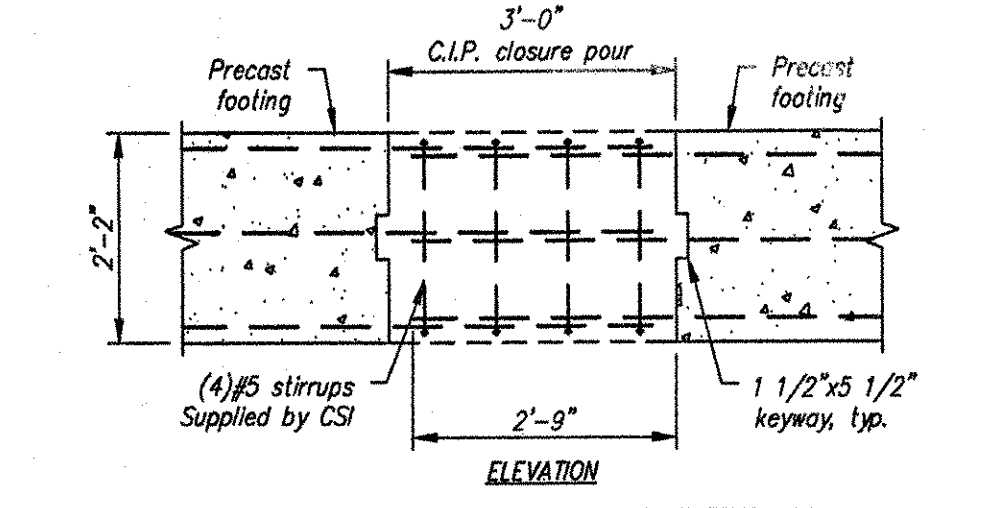
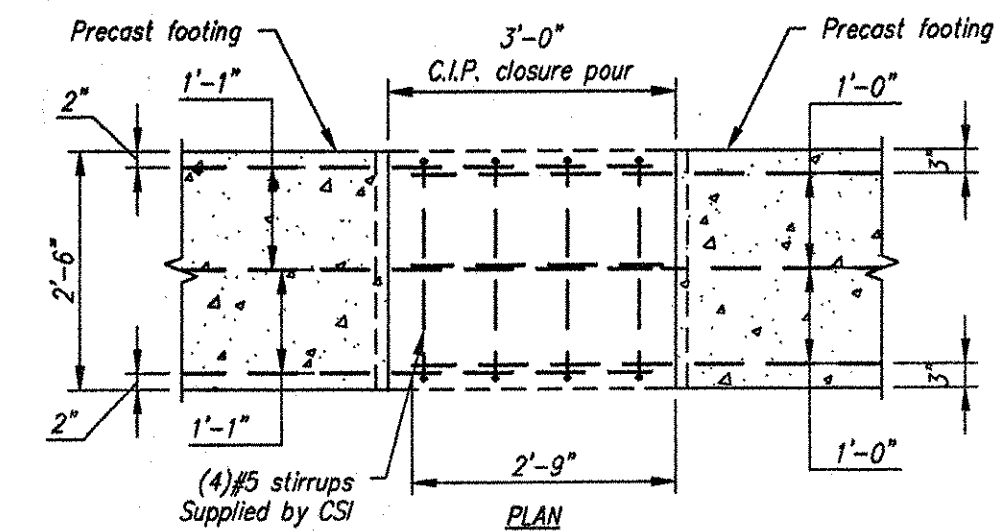
**PLAN**



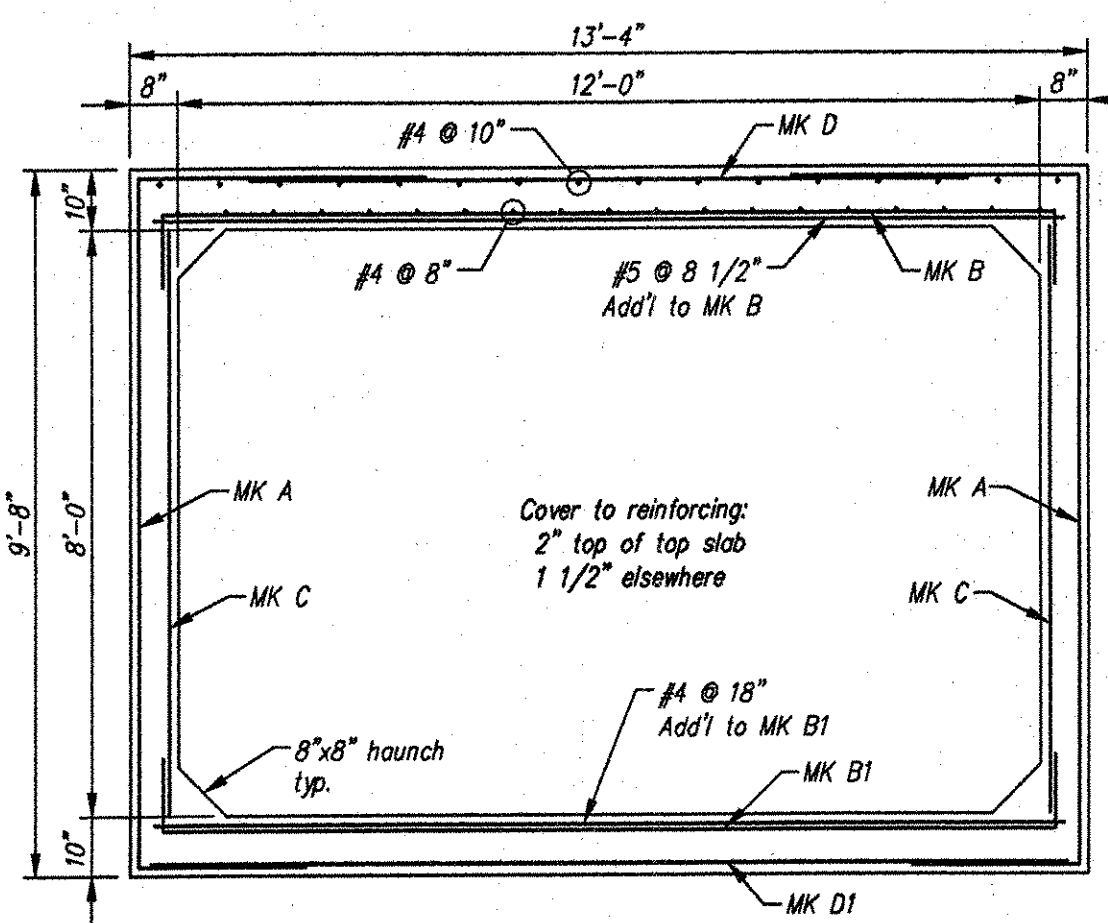
**ELEVATION**

- BOX CULVERT GENERAL NOTES:**
- Structure designed and built in accordance with AASHTO "Standard Specifications for Highway Bridges" and ASTM C1433.
  - Design Parameters:  
 Live load: AASHTO HS25-44  
 Earth Cover: 1.5' to 3'  
 Concrete: Design strength  $f'_c = 5000$  psi  
 Unit weight = 150 pcf  
 Reinforcing: ASTM A615 (rebar), grade 60  
 ASTM A185 (W/F)  $f_y = 65$  ksi  
 Unit weight = 140 pcf  
 Soil: Minimum lateral pressure coefficient .25  
 Maximum lateral pressure coefficient .50  
 Cover to reinforcing: 2" top of top slab  
 1 1/2" elsewhere u.n.o.
  - Dimensions include a joint gap. Actual culvert piece length is 1/2" shorter (i.e. C-2 = 7'-6").
  - No dampproofing supplied by CSI.
  - DBS are Dowel Bar Splicers and DI are Dowel Ins. DI's for C.I.P. curb to be installed and cut/bent in field as required.
  - Precast headwalls not designed for impact load.

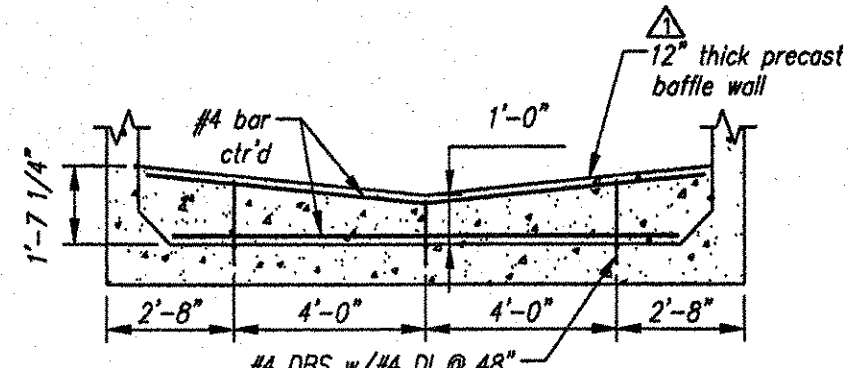
CULVERT PIECE SCHEDULE (MK-FA8000SM)				
MARK	QTY	LENGTH	YDS	WEIGHT
C-1	1	6.27	9.06	18.34 TONS
C-2	1	7.50	9.94	20.13 TONS
C-3	1	7.50	9.38	19.00 TONS
C-4	3	7.50	9.94	20.13 TONS
C-5	3	7.50	9.38	19.00 TONS
C-6	1	7.50	9.94	20.13 TONS
C-7	1	7.50	9.38	19.00 TONS
C-8	1	6.27	8.15	16.50 TONS



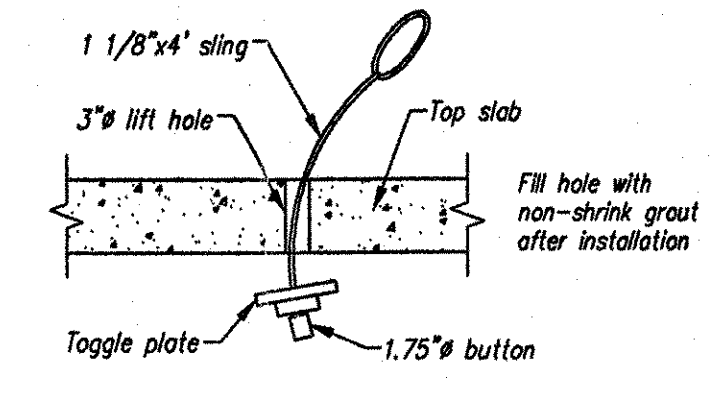
**C.I.P. CLOSURE POUR DETAIL**



**CULVERT REINFORCING DETAIL**



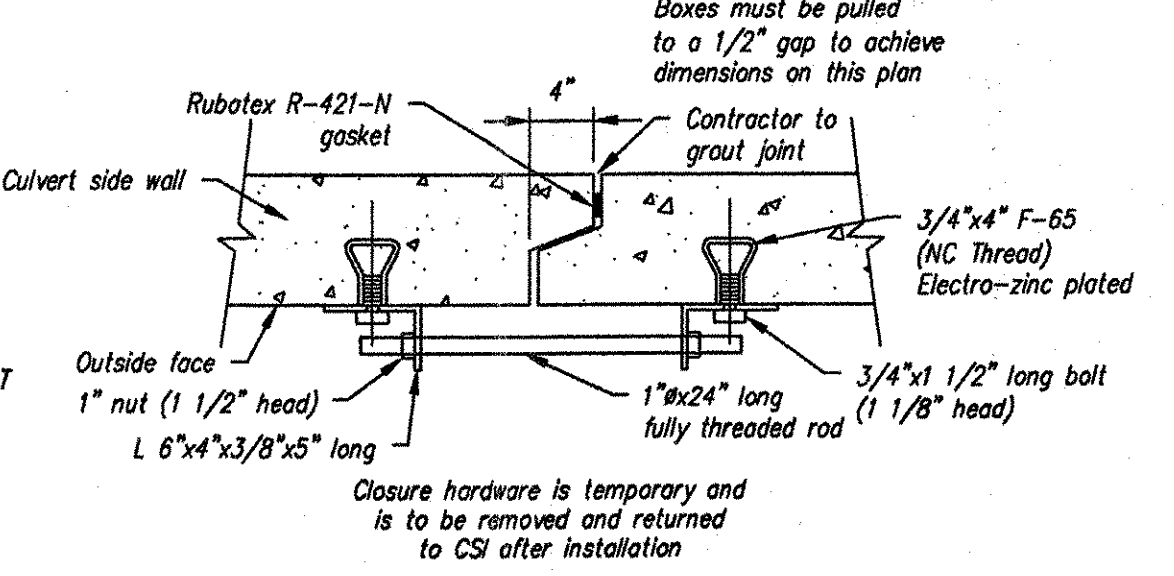
**BAFFLE WALL SECTION**



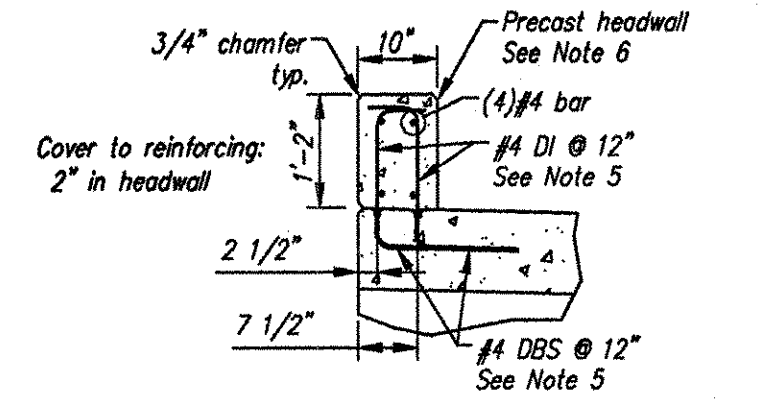
**CULVERT LIFTING DETAIL**

**BENDING SCHEDULE**

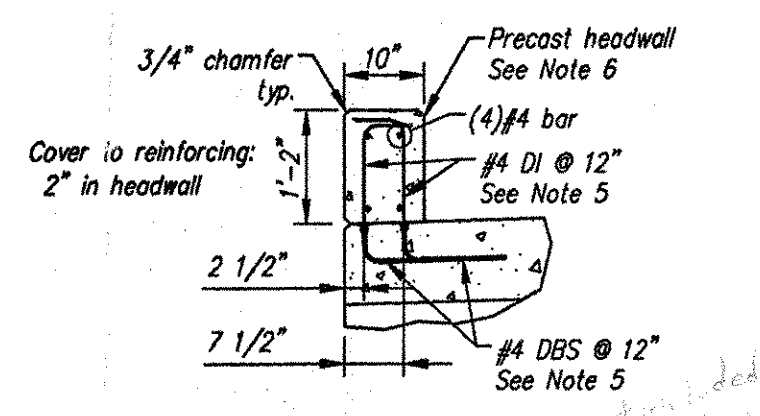
MARK	REINFORCING	REQUIREMENT
MK A	As Req'd = 0.41 IN <sup>2</sup> /FT Use 4x8 W8xW4 +MK 401 @ 18"	
MK B	As Req'd = 0.96 IN <sup>2</sup> /FT Use 2x6 W8xW4 See Reinforcing Detail for Additional Bars	
MK C	As Req'd = 0.20 IN <sup>2</sup> /FT Use 4x12 W8xW4	
MK D	As Req'd = 0.24 IN <sup>2</sup> /FT Use 4x12 W8xW4	
MK B1	As Req'd = 0.65 IN <sup>2</sup> /FT Use 2x6 W8xW4 See Reinforcing Detail for Additional Bars	
MK D1	As Req'd = 0.24 IN <sup>2</sup> /FT Use 4x12 W8xW4	



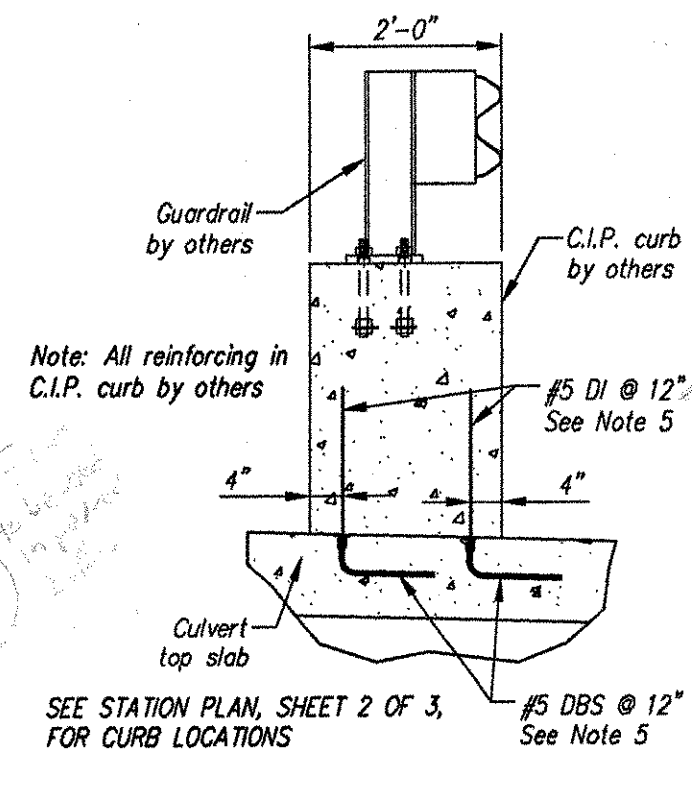
**CLOSURE HARDWARE DETAIL**



**SECTION A**  
1 of 2



**SECTION B**  
1 of 2



**SECTION C**  
1 of 2

Contractor is to verify that all information shown on drawings has been thoroughly checked, complies with the contract documents and is adequate to meet the field conditions. Some dimensions and details may differ slightly from contract drawings to accommodate the manufacturing or design process. Approval of this drawing indicates that any deviation from the contract documents has been reviewed and found to be acceptable. Production will not commence until receipt of signed, approved shop drawings.

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STATE OF VERMONT  
 RAY S. COWAN  
 No. 6269  
 PROFESSIONAL ENGINEER

Stamp for box culvert only  
 SFC ENGINEERING PARTNERSHIP INC.  
 25 SUNDIAL AVENUE, SUITE 205W  
 MANCHESTER, NH 03108-7250  
 TEL: 603-881-8700  
 FAX: 603-881-8711  
 www.sfcinc.com

RECEIVED  
 DEC 05 2006  
 RESUBMIT APPROVED  
 BY gpw DATE 12/10/06

Rev.	Date	DESCRIPTION	By
5			
4			
3			
2			
1	11/21/06	Revised baffle walls to be 12" thick; Changed baffle at outlet to be by others	MS/TK

This drawing is based upon information provided from the following documents and/or sources:  
 Engineer: VAOT  
 Project No: ST CULV (4)  
 Drawings: PROPOSED IMPROVEMENT BRIDGE PROJECT - VT RTE 8, RURAL MAJOR COLLECTOR  
 Sheets 1 through 39 of 39 sheets  
 Readsboro AC STP ST CULV (4) - Special Provisions  
 Supplemental Specifications - Schedule of Prices

Other Sources:

Concrete Systems Inc.  
 9 Commercial St., Hudson, NH 03051  
 Phone 603-889-4163  
 Fax 603-889-2417

STATE AGENCY  
 VAOT

Drawn by: M SCOTT  
 Date: 09/29/2006  
 Checked by: TK/TR  
 Date: 10/03/2006  
 Approved by:

PIKE INDUSTRIES  
 VT RTE 8, RURAL MAJOR COLLECTOR  
 READSBORO, VT

BOX CULVERT LAYOUT AND DETAILS - BRIDGE NO. 02  
 Drawing No. C18331-L01-1  
 Quantity: 1 Project No: AC STP ST CULV (4)

SHEET 1 OF 3