

Proposed Box Culvert Project

Richmond STP RS 0284 (11)

US Route 2, Richmond, VT.



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Note:
 This shop drawing represents S.D. Ireland's interpretation of the architect's plans and specifications as well as our contract requirements for this project.

Prior to manufacture and production from this drawing all dimensions, methods of construction, and existing conditions must be checked, revised and approved by S.D. Ireland's client.

General Notes:
 1) All Mortar and Control Joints are Assumed to be 1/2"
 2) All lengths stated are actual lengths.
 3) All lengths stated to be verified in the field by others:
 -Not the responsibility of S.D. Ireland
 4) Estimated Heavy Pick at ±19,660 lbs.

Legend:

Concrete:

Required Strengths:

1. Mix Design - 6000 PSI
2. Striping Strength - 3000 PSI
3. Handling Strength - 3000 PSI
4. Shipping Strength - 4000 PSI
5. Placement Strength - 5000 PSI

Fabrication Tolerances:

1. Width ±1/4"
2. Length ±1/4"
3. Height ±1/4"
4. Rebar Cover 2" Min. (Unless Noted Otherwise)
5. Rebar Length -1/2"
6. Insert Placement ±1/4"

Design Notes:

1. Design is in accordance w/ ASTM C1433, PCI MNL135, VAOT540 & AASHTO Standard Specifications for Highway & Bridges 17th Ed. (2002 w/ Revisions) & VTrans Structures Design Manual 5th Ed. (2010 w/ Revisions)
2. Any conflict between tolerances listed above shall result in the usage of the stricter tolerance
3. Design Live Load = AASHTO HS-25
4. Materials and Manufacturing shall conform to ASTM C1433

Reinforcing:

General Notes:

1. Reinforcing Steel ASTM A615, Grade 60 (Unless Noted Otherwise)
2. Materials and Manufacturing shall conform to ASTM C1433
3. Bar Spacing Per Plans

Tolerances:

1. Spacing ±1/2"
2. Clearance ±1/4"

Lap Lengths:

1. Per AASHTO 8.25 & 8.32

Joint Treatment:

Grout:

1. Horizontal Application - 5 Star Grout or Equal
2. Vertical Application - Quikrete Mortar or Equal

Application:

1. Down to 40°. Anything below 40° will necessitate cold weather curing (i.e. external heat source, blankets, etc.)

Waterproofing:

1. Membrane waterproofing to be determined in a separate submittal
2. Silane 40 shall be applied on all exposed concrete surfaces

Miscellaneous:

1. All exposed hardware to be galvanized.
2. Final installed joints shall be 1/2" in width ±1/4"
3. All bolts & threaded rods to be ASTM F1554 Grade 105 Unless Noted Otherwise

Legend:

- (A) Oxford A750-5 (Qty: 84)
- (B) Oxford A750-7 (Qty: 16)
- (C) Angle Bracket, Galvanized (Qty: 8)
- (D) Patterson Bolt Pocket (Qty: 88)
- (E) CX-51 1"Øx6" Open Coil Insert #2210 (Qty: 16)
- (F) P.A. Insert Corp. 5/8" Plastic Insert (Qty: 10)
- (G) 1"Ø Threaded Rod (Qty: 44)
- (H) 1/2" Washer (Qty: 16)
- (I) 1"Ø Threaded Nut (Qty: 104)
- (J) 1"Ø Coil Rod, Galvanized (Qty: 8)
- (K) 1"Ø Washer, Galvanized (Qty: 8)
- (L) 1"Ø Coil Nut, Galvanized (Qty: 8)
- (M) P.A. Insert Corp. 3/4" Plastic Insert (Qty: 16)

- NO EXCEPTION TAKEN
- MAKE CORRECTIONS NOTED
- REJECTED
- REVISE AND RESUBMIT
- SUBMIT SPECIFIED ITEM

CHECKING IS ONLY FOR GENERAL CONFORMANCE WITH THE DESIGN CONCEPT OF THE PROJECT AND GENERAL COMPLIANCE WITH THE INFORMATION GIVEN IN THE CONTRACT DOCUMENTS. ANY ACTION SHOWN IS SUBJECT TO THE REQUIREMENTS OF THE PLANS AND SPECIFICATIONS. CONTRACTOR IS RESPONSIBLE FOR DIMENSIONS WHICH SHALL BE CONFIRMED AND CORRELATED AT THE JOB SITE; FABRICATION PROCESSES AND TECHNIQUES OF CONSTRUCTION; COORDINATION OF HIS WORK WITH THAT OF ALL OTHER TRADES AND THE SATISFACTORY PERFORMANCE OF THE WORK.



Rev.	Date	By	Description
1	08/22/12	CD	Changes Per State Review
2	09/13/12	CD	Changes Per Engineering Review
3	10/19/12	CD	Per McFarland-Johnson Review
4	10/22/12	CD	Weep Holes Added to Wing Walls

Project Name: STP RS 0284 (11)
 Project Location: Richmond, VT
 Drawing Title: Precast Concrete Culvert
 Job #: 11707 Date: 11/30/11
 Scale: N.T.S. Page: 1 of 5

10/22/2012 DATE 10/22/2012 BY CHA