

Proposed Bridge Improvement Project

DUXBURY BF 013-4(47) - RTE 100

Precast Footings with Pedestal Walls

Concrete:

Mix Designation: P60TER

1. Specified Mix Design	5000 PSI
2. Proposed Mix Design	6000 PSI
3. Stripping/Handling Strength	3000 PSI
4. Shipping Strength	5000 PSI
5. Install Strength	5000 PSI
6. Traffic Loading	5000 PSI

Fabrication Tolerances:

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

Design Notes:

- Built in accordance to PCI MNL 135 & VT AOT spec 540.
- All overall footing & stem wall dimensions and reinforcing is per sheets 5,42,43,44,45, & 46 of the state plan sheets.
- SDI has not performed any design work for these pieces other than lifting calculations.

Curing Procedure:

- Once precast sections are poured and finished, crews will cover each piece with poly and/or insulated blankets and secure them in place.
- Blankets to remain in place until stripping strength has been achieved.
- Once stripping strength has been achieved, our crews will proceed with pouring pedestal walls and/or placing pieces in the yard to await delivery.

Reinforcing:

General Notes:

- Reinforcing Steel - Precast Footing Sections shall be Level I Black Bar ASTM A615.
- Bar tied at every intersection for spacing 12" and over. Bars spaced less than 12" apart shall be tied at every other intersection. All perimeter intersections to be tied.
- (2) 5' long pieces of bar will be provided for each bar size for testing.

Tolerances:

1. Spacing	±1/2"
2. Clearance	±1/4"

Lap Lengths: (If Needed)

- Per AASHTO 5.11.2.1.1 & 5.11.5.3.1
- Lap Length for Level I (Plain):
- | | |
|--------|-----|
| #4 Bar | 21" |
| #5 Bar | 26" |
| #6 Bar | 31" |

Miscellaneous:

- All bolt pocket hardware and embedded plates to be grade 60 domestic 1" Ø black coil rod (ASTM A29) w/ nuts at each end. Provided by SD Ireland. 24" overall length (coil rod).
- All rebar, lift anchors, and mechanical joint hardware to be made in USA.
- Water repellent, silane shall be applied to all concrete surfaces exposed in the final condition, with exception of the underside of the precast concrete arches. (Per note 16 on page 5 of contract plans)
- All rebar chairs and spacers will be PVC.
- All vertical joints to be match cast.

Installation:

- Installing contractor to offload and set in place with appropriate rated crane & rigging.
- Contractor to shim under precast footings as needed to maintain final lines and grades.
- See last 3 pages of submittal for J.A. McDonald grouting procedure. Sleeves to be used for drilling to bedrock and for placement of grout.
- Contractor to install sheet membrane waterproofing. Preformed sheets in accordance with section 540 and the contract plans.
- All lift device recesses and bolt pockets to be grouted with type IV mortar after installation in accordance with subsection 540.11.

Vermont Agency of Transportation
RECEIVED

CK'D BY TY Lin OK'D BY KMH
August 2, 2016
RESUBMIT No Approved
BY Kristin Higgins DATE 08/03/2016

TYLIN INTERNATIONAL
The stamped documents are hereby:
 Approved
 Approved as noted
 Rejected and resubmit
See front sheet for additional information as applicable.
This review is for general conformance with design concept only. Any deviation from the plan or specifications on drawings noted by the Contractor as no longer reviewed. Rejected by the Engineer shall not relieve the Contractor of the contractual responsibility for any error or deviation from the contract requirements.
Josh Olund 08/03/2016
Revisor Date

CONTRACTORS VISPE:

PRECAST CONCRETE BOX CULVERT SHOP DRAWINGS (SDI JOB #17682)

SUPERVISOR: E. Barendse
DETAILER: I. ADAMS
CHECKER: E. Barendse

PROJECT NAME: DUXBURY
PROJECT #: BF 013-4(47)
LOCATION: DUXBURY, VT

INSTALLER:
J.A. McDONALD
585 Gilman Rd
Lyndon Ctr, VT 05850

07/29/16

FABRICATOR:
193 INDUSTRIAL AVE.
WILLISTON, VT 05495
Ph: (802) 658-0201



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