

# Precast Bridge Abutments

## Bristol BRF 021-1(29)

### Concrete:

Mix Designation: P60TER

- |                         |          |
|-------------------------|----------|
| 1. Specified Mix Design | 5000 PSI |
| 2. Proposed Mix Design  | 6000 PSI |
| 3. Striping Strength    | 3500 PSI |
| 4. Handling Strength    | 3500 PSI |
| 5. Shipping Strength    | 5000 PSI |
| 6. Install Strength     | 5000 PSI |
| 7. 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"                              |
| 6. Rebar Clearance  | +1/4"                            |
| 7. Insert Placement | ±1/4"                            |

### Reinforcing:

#### General Notes:

1. Reinforcing Steel - ASTM A615, Grade 60, Level II, Dual Coated.
2. Bar tied at every intersection.
3. Grout Sleeves to be epoxy coated.
4. Three grout couplers will be provided for each bar size for testing purposes
5. See rebar schedule for random bar samples available for the State. Two #4 bars @ 2'-6" will be provided for testing as well.

#### Tolerances:

1. Spacing ±1"
2. Clearance ±1/4"
3. Clear Cover 3" U.N.O.

#### Lap Lengths:

1. Per AASHTO 5.11.2.1.1 & 5.11.5.3.1  
Lap Length for Level II (Dual Coated):  
#4 Bar=17"  
#5 Bar=26"  
#6 Bar=39"  
#7 Bar=53"  
#8 Bar=69"

Note: See pg 6 for typical vertical lap lengths for bars extending into cast in place abutment sections

### General Notes:

1. All precast pieces will be dry fit prior to shipping.
2. All lifting anchor points to be grouted after use.(by site contractor
3. All rebar spacing chairs to be plastic
4. All exposed edges to be chamfered 1"

### Post Tensioning

1. All anchoring assemblies will be galvanized plated.
2. Two tensioning strands per duct.
3. Tension ducts will be 3" SCH 40 PVC conduit.
4. Post tension strands will be .5"Ø, 270 ksi, low relaxation, 7-wire strands.
5. Strands will be tensioned to 32 kips prior to the H-pile sleeves being filled with HPC RS.
6. Tensioning block outs to be filled with grout of vertical overhead repair material after tensioning is complete.

CONTRACTORS VISPE:	Vermont Agency of Transportation <b>RECEIVED</b> CK'D BY MEM _____ OK'D BY CWC _____ Apr. 17, 2015 RESUBMIT _____ APPROVED ✓ BY C. Carlson DATE 04-17-2015	Rev. 1 Date 04/16/15 By IBA	Description Changes per State Review	PRECAST CONCRETE ABUTMENT SHOP DRAWINGS (SDI JOB #15264) SUPERVISOR: M. WHEELER DETAILER: I. ADAMS CHECKER: E. Barendse ENGINEER: VTAOT	PROJECT NAME: Bristol BRF 021-1(29) PROJECT #: 021-1(29) LOCATION: Bristol, VT	INSTALLER: S.D. Ireland Concrete 193 Industrial Ave Williston, VT 05495 03/17/2015	FABRICATOR: 193 INDUSTRIAL AVE. WILLISTON, VT 05495 Ph: (802) 658-0201 COVER_SHEET	1_OF_16
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