# S.D. Ireland Companies
## *Precast Division*

193 Industrial Ave. Williston, VT 05495
P.O. Box 2286 South Burlington, VT 05407
p: 802-863-6222 f: 802-860-1528
www.sdireland.com

| | | | |
|---|---|---|---|
| Attention: | Brian Emmons | Date: | 4/2/2013 |
| Company: | T-Buck | Job Name: | Jamaica ER-BRF 013-1(16) |
| Address: | | Job Number: | SDI 13251 |
| City, St, Zip: | | Regarding: | Precast Sub Cap Re-submittal #3 |

WE ARE SENDING:

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| 1 | 4/2/2013 | 1 | Transmittal Cover |
| 1 | 4/2/2013 | 4 | Fabrication details, submittal pages |
| | | | |
| | | | |

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**Notes/Remarks:**

1. The attached submittal, specifically regarding Post Tension details, are based upon T-Buck's recent post tension related submittal to the state. Minor clarifications and changes were made concerning the horizontal grout venting existing out of the pre-cast subcap on the vertical threadbar grout duct.

2. All previously provided supporting documents remain the same and have not been re-submitted on.

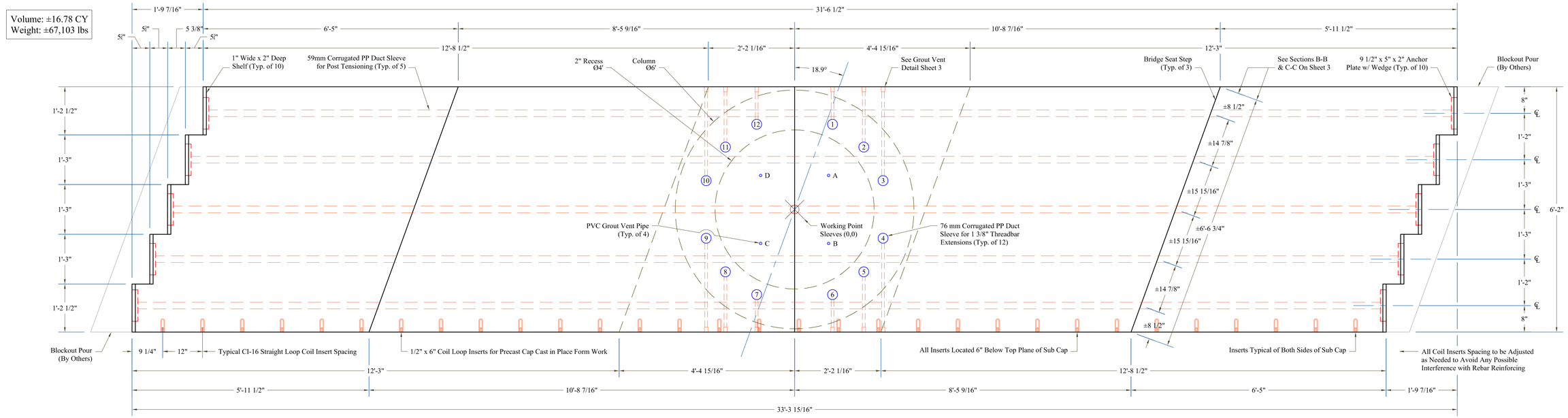
Tim Dudley 1-802-658-0201 ext 253
tdudley@sdireland.com

Copy To: _____

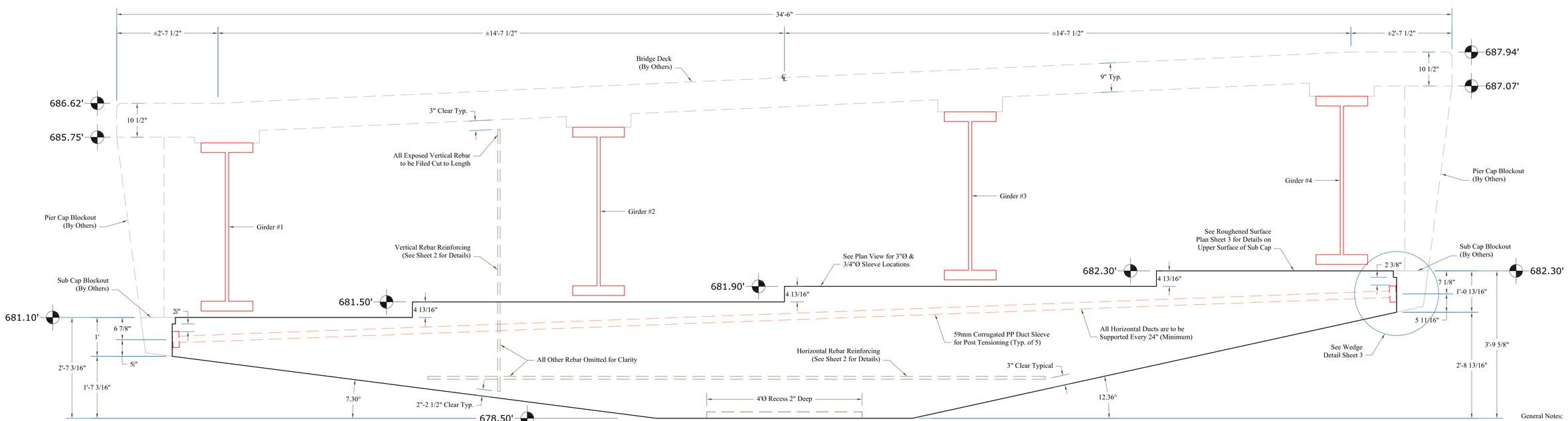
Signed:

*If enclosures are not as noted, kindly notify us at once.*

Volume: ±16.78 CY
Weight: ±67,103 lbs




## Plan View




## Elevation View at ℄

## Sleeve Legend & Coordinates

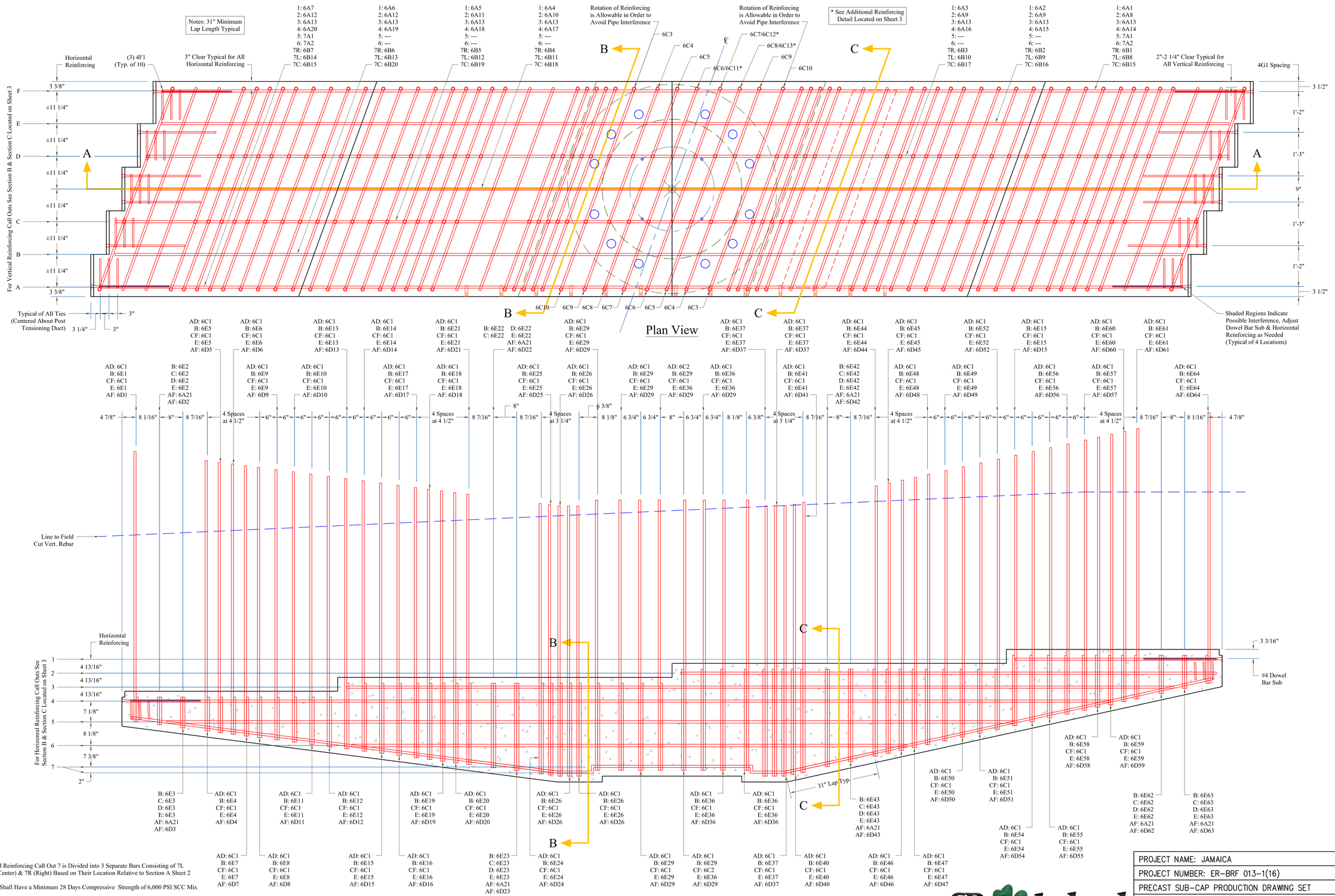
| Mark | Ø | X | Y | Mark | Ø | X | Y | Mark | Ø | X | Y |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 3" | 11 7/16" | 2'-1 11/16" | 7 | 3" | -11 7/16" | -2'-1 11/16" | A | 3/4" | 10 1/4" | 10 1/4" |
| 2 | 3" | 1'-8 7/8" | 1'-6 13/16" | 8 | 3" | -1'-8 7/8" | -1'-6 13/16" | B | 3/4" | 10 1/4" | -10 1/4" |
| 3 | 3" | 2'-2 11/16" | 8 11/16" | 9 | 3" | -2'-2 11/16" | -8 11/16" | C | 3/4" | -10 1/4" | -10 1/4" |
| 4 | 3" | 2'-2 11/16" | -8 11/16" | 10 | 3" | -2'-2 11/16" | 8 11/16" | D | 3/4" | -10 1/4" | 10 1/4" |
| 5 | 3" | 1'-8 7/8" | -1'-6 13/16" | 11 | 3" | -1'-8 7/8" | 1'-6 13/16" | | | | |
| 6 | 3" | 11 7/16" | -2'-1 11/16" | 12 | 3" | -11 7/16" | 2'-1 11/16" | | | | |

General Notes:

1. Concrete Shall Have a Minimum 28 Days Compressive Strength of 6,000 PSI SCC Mix
2. All Reinforcing Rebar to be Level II Bar that is Dual Coated by the Manufacturer
3. All Horizontal Ducts (59mm PP Ducts) are to be Supported Every 24" (Minimum)
4. All Post Tensioning Details are Based on the Post Tensioning Contractors Submittal

SD Ireland PRECAST DIVISION

| | |
|---|---|
| PROJECT NAME: JAMAICA | |
| PROJECT NUMBER: ER-BRF 013-1(16) | |
| PRECAST SUB-CAP PRODUCTION DRAWING SET | |
| DRAWING: PLAN LAYOUT & ELEVATION VIEW | |
| DRAWN BY: CD | DATE: 04/02/13 |
| APPROVED BY: TD | SHEET: 1 OF 4 |




Notes:

1. Horizontal Reinforcing Call Out 7 is Divided into 3 Separate Bars Consisting of 7L (Left), 7C (Center) & 7R (Right) Based on Their Location Relative to Section A Sheet 2

2. Concrete Shall Have a Minimum 28 Days Compressive Strength of 6,000 PSI SCC Mix

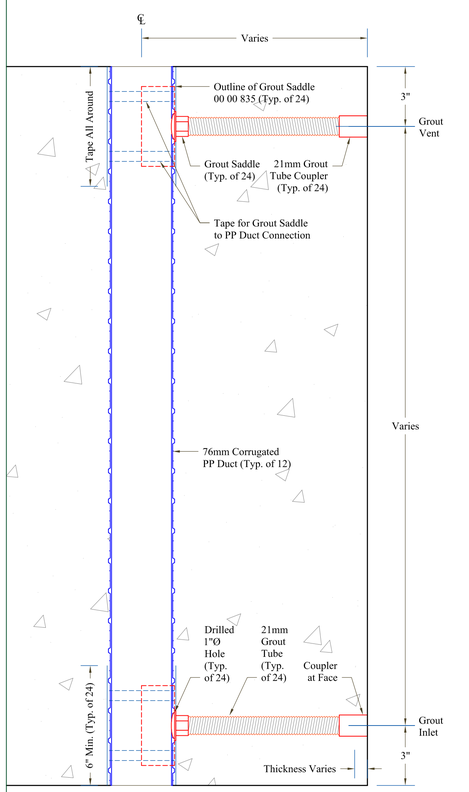
3. All Reinforcing Rebar to be Level II Bar that is Dual Coated by the Manufacturer

4. Precast Sub Cap Shall be Poured in the Upright Position and Handled in the Upright Position Only Using Methods Shown on Lifting Handling Detail Located on Sheet 4

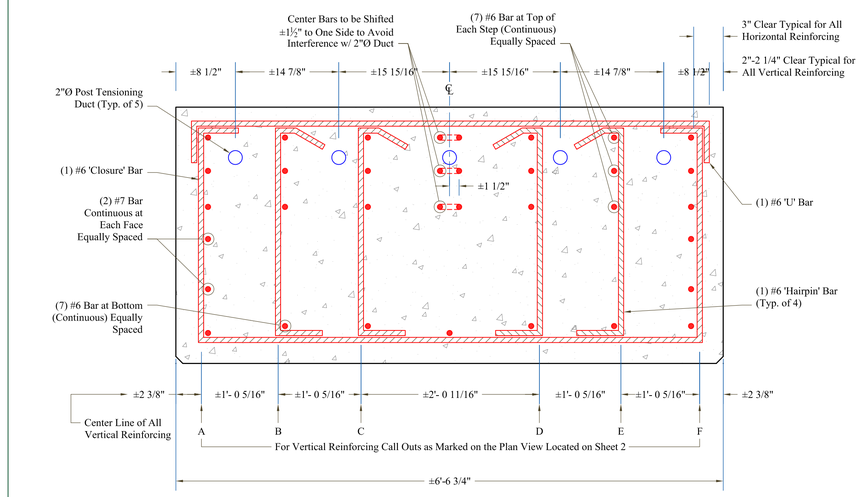
SD Ireland PRECAST DIVISION

| | |
|---|---|
| PROJECT NAME: JAMAICA | |
| PROJECT NUMBER: ER-BRF 013-1(16) | |
| PRECAST SUB-CAP PRODUCTION DRAWING SET | |
| DRAWING: REBAR REINFORCING PLAN & SECTION | |
| DRAWN BY: CD | DATE: 04/02/13 |
| APPROVED BY: TD | SHEET: 2 OF 4 |

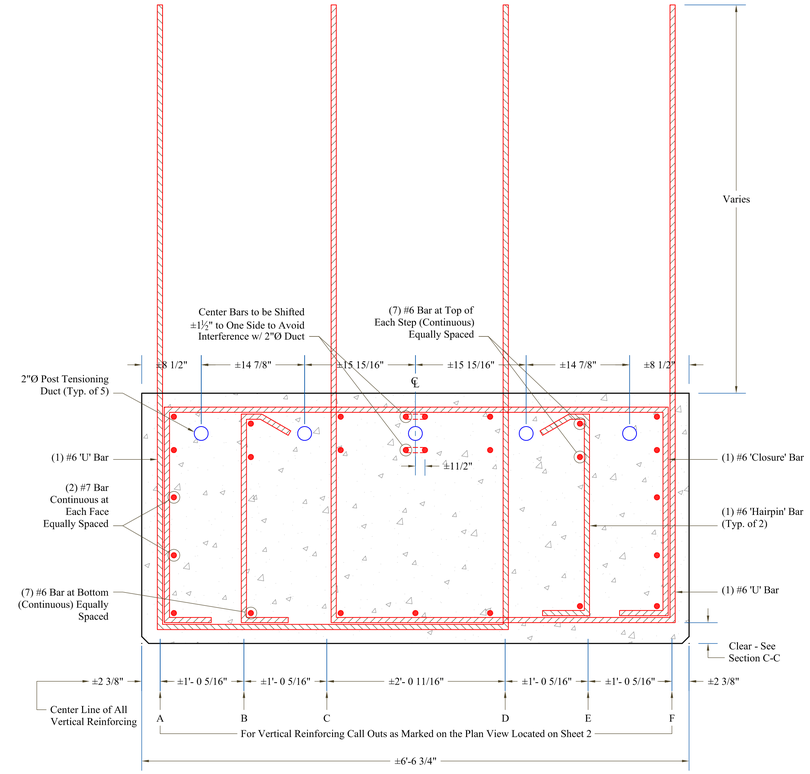
Note: All PP Ducts, Grout Tubes, Grout Saddles, Grout Couplers, Heat Shrink & Anchor Plates to be Provided to S.D. Ireland by the Contractor



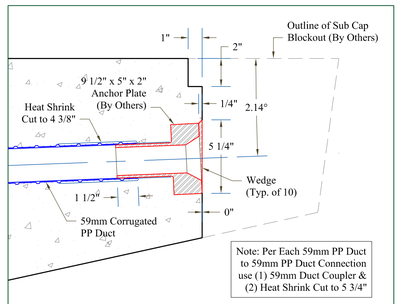

## Grout Vent Detail
(Vertical) Sheet 1



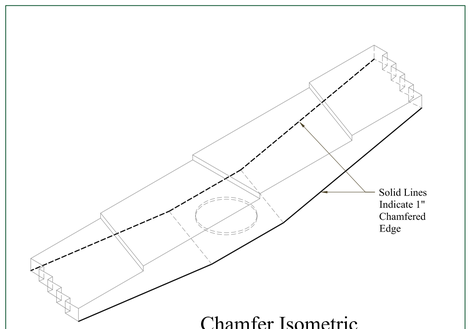

## Section C-C
Sheet 2



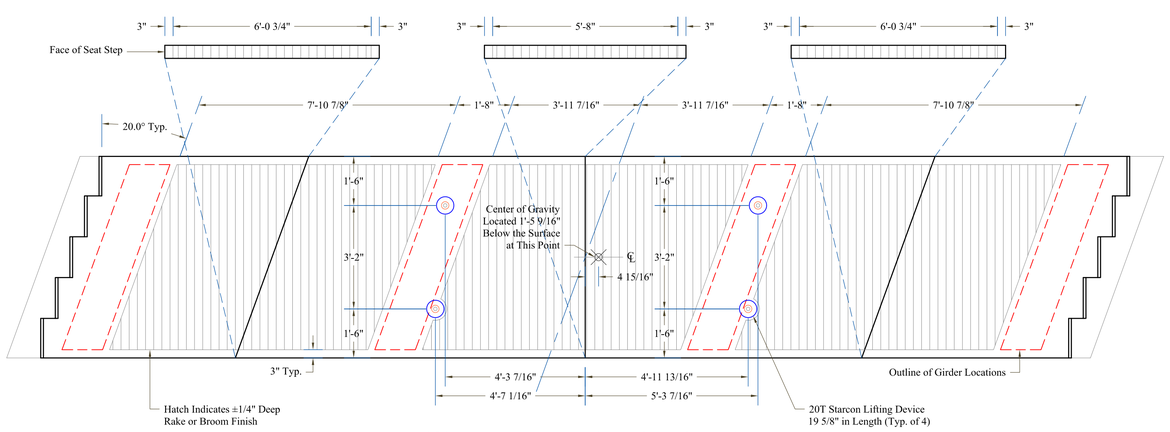

## Section B-B
Sheet 2



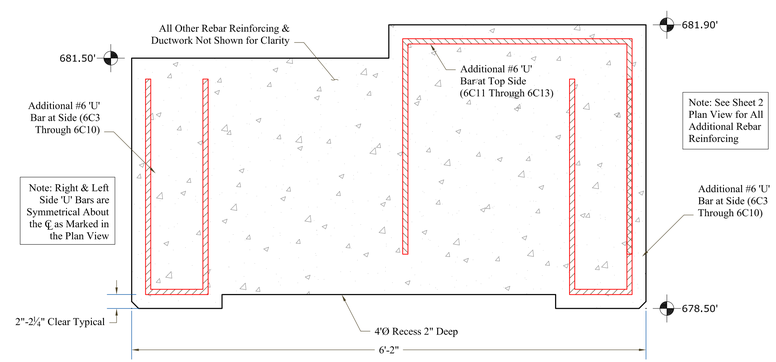

## Wedge Plate Detail
(Horizontal) Sheet 1




## Chamfer Isometric
Sheet 3




## Lifting Insert & Roughened Surface Plan




## Additional Reinforcing Detail
Sheet 1

SD Ireland PRECAST DIVISION

| | |
|---|---|
| PROJECT NAME: JAMAICA | |
| PROJECT NUMBER: ER-BRF 013-1(16) | |
| PRECAST SUB-CAP PRODUCTION DRAWING SET | |
| DRAWING: REBAR SHEDULE & FORM LINER/LIFTING DEVICE PLAN | |
| DRAWN BY: CD | DATE: 04/02/13 |
| APPROVED BY: TD | SHEET: 3 OF 4 |

## Bar List - Horizontal Reinforcing

| Mark | # Total | Length | Type | A | B | C | * |
|---|---|---|---|---|---|---|---|
| 6A1 | 1 | 5'-6 1/4" | 1 | 66 1/4" | | | |
| 6A2 | 1 | 5'-5" | 1 | 65" | | | |
| 6A3 | 1 | 5'-9" | 1 | 69" | | | |
| 6A4 | 1 | 5'-7 3/4" | 1 | 67 3/4" | | | |
| 6A5 | 1 | 5'-6 1/2" | 1 | 66 1/2" | | | |
| 6A6 | 1 | 5'-5 1/4" | 1 | 65 1/4" | | | |
| 6A7 | 1 | 5'-9 1/2" | 1 | 69 1/2" | | | |
| 6A8 | 1 | 16'-2" | 1 | 194" | | | |
| 6A9 | 2 | 15'-8 1/2" | 1 | 188 1/2" | | | |
| 6A10 | 1 | 15'-3 1/4" | 1 | 183 1/4" | | | |
| 6A11 | 1 | 14'-9 3/4" | 1 | 177 3/4" | | | |
| 6A12 | 2 | 14'-4 1/2" | 1 | 172 1/2" | | | |
| 6A13 | 7 | 23'-8 1/2" | 1 | 284 5/8" | | | |
| 6A14 | 1 | 28'-2 1/4" | 1 | 338 1/4" | | | |
| 6A15 | 1 | 27'-10 1/4" | 1 | 334 1/4" | | | |
| 6A16 | 1 | 27'-11 1/2" | 1 | 335 1/2" | | | |
| 6A17 | 1 | 28'-0 3/4" | 1 | 336 3/4" | | | |
| 6A18 | 1 | 28'-2" | 1 | 338" | | | |
| 6A19 | 1 | 27'-10" | 1 | 334" | | | |
| 6A20 | 1 | 27'-11 1/4" | 1 | 335 1/4" | | | |
| 6A21 | 8 | 7'-2 1/4" | 3 | 74 1/2" | 6" | 6" | |
| 7A1 | 2 | 24'-3 3/4" | 1 | 291 1/2" | | | |
| 7A2 | 2 | 15'-10 3/4" | 1 | 190 5/8" | | | |
| 6B1 | 1 | 12'-3 3/4" | 1 | 147 3/4" | | | |
| 6B2 | 1 | 12'-2 1/2" | 1 | 146 1/2" | | | |
| 6B3 | 1 | 12'-6 3/4" | 1 | 150 3/4" | | | |
| 6B4 | 1 | 12'-5 1/2" | 1 | 149 1/2" | | | |
| 6B5 | 1 | 12'-4" | 1 | 148" | | | |
| 6B6 | 1 | 12'-2 3/4" | 1 | 146 3/4" | | | |
| 6B7 | 1 | 12'-7" | 1 | 151" | | | |
| 6B8 | 1 | 12'-4 1/2" | 1 | 148 1/2" | | | |
| 6B9 | 1 | 12'-0 1/2" | 1 | 144 1/2" | | | |
| 6B10 | 1 | 12'-1 3/4" | 1 | 145 3/4" | | | |
| 6B11 | 1 | 12'-3" | 1 | 147" | | | |
| 6B12 | 1 | 12'-4 1/4" | 1 | 148 1/4" | | | |
| 6B13 | 1 | 12'-0 1/4" | 1 | 144 1/4" | | | |
| 6B14 | 1 | 12'-1 1/2" | 1 | 145 1/2" | | | |
| 6B15 | 2 | 11'-8 1/2" | 2a | 78 1/2" | | | |
| 6B16 | 1 | 12'-0 1/2" | 2b | 18 3/4" | 24 1/2" | 35" | |
| 6B17 | 1 | 12'-0 1/2" | 2b | 10 3/4" | 48 3/4" | 18 3/4" | |
| 6B18 | 1 | 12'-0 1/2" | 2b | 12 1/4" | 54" | 12 1/4" | |
| 6B19 | 1 | 12'-0 1/2" | 2b | 19" | 48 3/4" | 10 1/2" | |
| 6B20 | 1 | 12'-0 1/2" | 2b | 35 1/4" | 24 1/2" | 18 1/2" | |

## Bar List - Vertical Reinforcing

| Mark | # Total | Length | Type | A | B | C | * |
|---|---|---|---|---|---|---|---|
| 6C1 | 126 | 20'-0" | 3 | 50" | 95" | 95" | |
| 6C2 | 2 | 14'-7" | 3 | 50" | 95" | 30" | |
| 6C3 | 2 | 6'-7 1/2" | 3 | 17 1/2" | 31" | 31" | |
| 6C4 | 2 | 6'-0 1/2" | 3 | 10 1/2" | 31" | 31" | |
| 6C5 | 2 | 5'-11 1/4" | 3 | 9 1/4" | 31" | 31" | |
| 6C6 | 2 | 6'-0" | 3 | 10" | 31" | 31" | |
| 6C7 | 2 | 6'-2 1/2" | 3 | 12 1/2" | 31" | 31" | |
| 6C8 | 2 | 6'-6 1/2" | 3 | 16 1/2" | 31" | 31" | |
| 6C9 | 2 | 7'-0 1/2" | 3 | 22 1/2" | 31" | 31" | |
| 6C10 | 2 | 8'-1" | 3 | 35" | 31" | 31" | |
| 6C11 | 1 | 6'-8" | 3 | 18" | 31" | 31" | |
| 6C12 | 1 | 8'-7 1/4" | 3 | 41 1/4" | 31" | 31" | |
| 6C13 | 1 | 10'-3 1/4" | 3 | 61 1/4" | 31" | 31" | |

## Bar List - Vertical Reinforcing

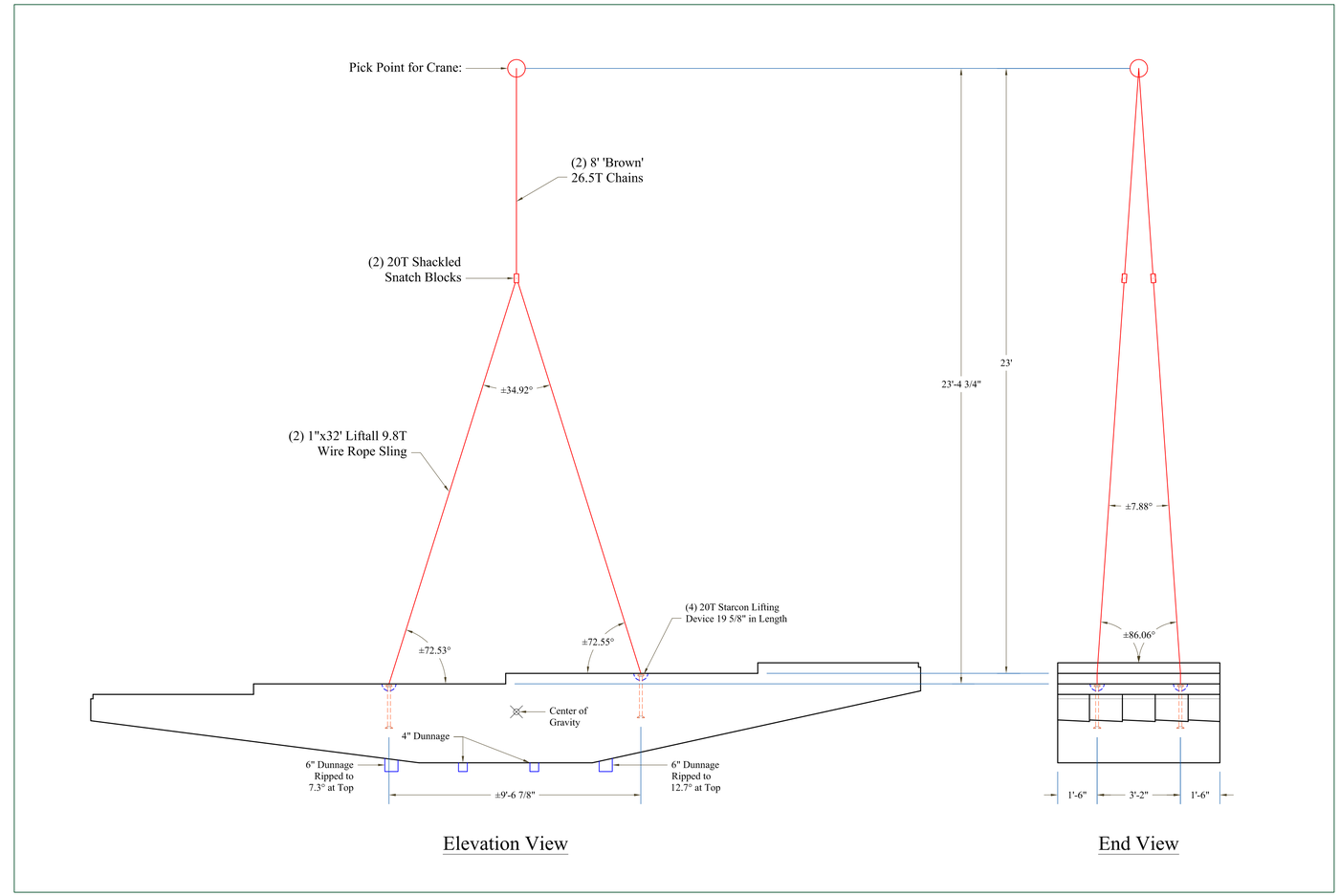
| Mark | # Total | Length | Type | A | B | C | * |
|---|---|---|---|---|---|---|---|
| 6D1 | 1 | 8'-7 1/4" | 4 | 74 1/4" | 8 1/2" | 8 1/2" | |
| 6D2 | 1 | 8'-9 1/4" | 4 | 74 1/4" | 9 1/2" | 9 1/2" | |
| 6D3 | 1 | 8'-11 1/4" | 4 | 74 1/4" | 10 1/2" | 10 1/2" | |
| 6D4 | 1 | 9'-1 1/2" | 4 | 74 1/4" | 11 5/8" | 11 5/8" | |
| 6D5 | 1 | 9'-2 1/2" | 4 | 74 1/4" | 12 1/8" | 12 1/8" | |
| 6D6 | 1 | 9'-3 3/4" | 4 | 74 1/4" | 12 3/4" | 12 3/4" | |
| 6D7 | 1 | 9'-5" | 4 | 74 1/4" | 13 3/8" | 13 3/8" | |
| 6D8 | 1 | 9'-6 1/4" | 4 | 74 1/4" | 14" | 14" | |
| 6D9 | 1 | 9'-7 3/4" | 4 | 74 1/4" | 14 3/4" | 14 3/4" | |
| 6D10 | 1 | 9'-9 1/4" | 4 | 74 1/4" | 15 1/2" | 15 1/2" | |
| 6D11 | 1 | 9'-10 3/4" | 4 | 74 1/4" | 16 1/4" | 16 1/4" | |
| 6D12 | 1 | 10'-0 1/4" | 4 | 74 1/4" | 17" | 17" | |
| 6D13 | 1 | 10'-11 1/4" | 4 | 74 1/4" | 22 1/2" | 22 1/2" | |
| 6D14 | 1 | 11'-1" | 4 | 74 1/4" | 23 3/8" | 23 3/8" | |
| 6D15 | 2 | 11'-2 1/2" | 4 | 74 1/4" | 24 1/8" | 24 1/8" | |
| 6D16 | 1 | 11'-4" | 4 | 74 1/4" | 24 7/8" | 24 7/8" | |
| 6D17 | 1 | 11'-5 1/2" | 4 | 74 1/4" | 25 5/8" | 25 5/8" | |
| 6D18 | 1 | 11'-6 3/4" | 4 | 74 1/4" | 26 1/4" | 26 1/4" | |
| 6D19 | 1 | 11'-7 3/4" | 4 | 74 1/4" | 26 3/4" | 26 3/4" | |
| 6D20 | 1 | 11'-9" | 4 | 74 1/4" | 27 3/8" | 27 3/8" | |
| 6D21 | 1 | 11'-10 1/4" | 4 | 74 1/4" | 28" | 28" | |
| 6D22 | 1 | 12'-0 1/4" | 4 | 74 1/4" | 29" | 29" | |
| 6D23 | 1 | 12'-2 1/2" | 4 | 74 1/4" | 30 1/8" | 30 1/8" | |
| 6D24 | 1 | 12'-4 1/2" | 4 | 74 1/4" | 31 1/8" | 31 1/8" | |
| 6D25 | 1 | 12'-5 1/4" | 4 | 74 1/4" | 31 1/2" | 31 1/2" | |
| 6D26 | 3 | 12'-6 1/4" | 4 | 74 1/4" | 32" | 32" | |
| 6D29 | 6 | 12'-2 1/4" | 4 | 74 1/4" | 30" | 30" | |
| 6D36 | 2 | 12'-11 3/4" | 4 | 74 1/4" | 34 3/4" | 34 3/4" | |
| 6D37 | 3 | 13'-3 3/4" | 4 | 74 1/4" | 36 3/4" | 36 3/4" | |
| 6D40 | 1 | 13'-2 3/4" | 4 | 74 1/4" | 36 1/4" | 36 1/4" | |
| 6D41 | 1 | 13'-1 1/4" | 4 | 74 1/4" | 35 1/2" | 35 1/2" | |
| 6D42 | 1 | 12'-9 1/4" | 4 | 74 1/4" | 33 1/2" | 33 1/2" | |
| 6D43 | 1 | 12'-5 3/4" | 4 | 74 1/4" | 31 3/4" | 31 3/4" | |
| 6D44 | 1 | 12'-2" | 4 | 74 1/4" | 29 7/8" | 29 7/8" | |
| 6D45 | 1 | 12'-0" | 4 | 74 1/4" | 28 7/8" | 28 7/8" | |
| 6D46 | 1 | 11'-10" | 4 | 74 1/4" | 27 7/8" | 27 7/8" | |
| 6D47 | 1 | 11'-8" | 4 | 74 1/4" | 26 7/8" | 26 7/8" | |
| 6D48 | 1 | 11'-6" | 4 | 74 1/4" | 25 7/8" | 25 7/8" | |
| 6D49 | 1 | 11'-3 1/2" | 4 | 74 1/4" | 24 5/8" | 24 5/8" | |
| 6D50 | 1 | 11'-0 3/4" | 4 | 74 1/4" | 23 1/4" | 23 1/4" | |
| 6D51 | 1 | 10'-10 1/4" | 4 | 74 1/4" | 22" | 22" | |
| 6D52 | 1 | 10'-7 1/2" | 4 | 74 1/4" | 20 5/8" | 20 5/8" | |
| 6D54 | 1 | 11'-0" | 4 | 74 1/4" | 22 7/8" | 22 7/8" | |
| 6D55 | 1 | 10'-9 1/4" | 4 | 74 1/4" | 21 1/2" | 21 1/2" | |
| 6D56 | 1 | 10'-6 3/4" | 4 | 74 1/4" | 20 1/4" | 20 1/4" | |
| 6D57 | 1 | 10'-4" | 4 | 74 1/4" | 18 7/8" | 18 7/8" | |
| 6D58 | 1 | 10'-2" | 4 | 74 1/4" | 17 7/8" | 17 7/8" | |
| 6D59 | 1 | 10'-0" | 4 | 74 1/4" | 16 7/8" | 16 7/8" | |
| 6D60 | 1 | 9'-10 1/4" | 4 | 74 1/4" | 16" | 16" | |
| 6D61 | 1 | 9'-8 1/4" | 4 | 74 1/4" | 15" | 15" | |
| 6D62 | 1 | 9'-4 1/4" | 4 | 74 1/4" | 13 1/8" | 13 1/8" | |
| 6D63 | 1 | 9'-1" | 4 | 74 1/4" | 11 3/8" | 11 3/8" | |
| 6D64 | 1 | 8'-9 1/2" | 4 | 74 1/4" | 9 5/8" | 9 5/8" | |

## Bar List - Ties

| Mark | # Total | Length | Type | A | B | C | * |
|---|---|---|---|---|---|---|---|
| 4F1 | 30 | 3'-4" | 7 | 10" | 6" | 8" | |

## Bar List - Dowel Bar Subs

| Mark | # Total | Length | Type | A | B | C | * |
|---|---|---|---|---|---|---|---|
| 4G1 | 12 | 2'-3" | 5 | 27" | --- | | |




## Bar List - Hairpins

| Mark | # Total | Length | Type | A | * |
|---|---|---|---|---|---|
| 6E1 | 2 | 1-11 1/2" | 6 | 8 1/2" | |
| 6E2 | 4 | 2'-0 1/2" | 6 | 9 1/2" | |
| 6E3 | 4 | 2'-1 1/2" | 6 | 10 1/2" | |
| 6E4 | 2 | 2'-2 5/8" | 6 | 11 5/8" | |
| 6E5 | 2 | 2'-3 1/8" | 6 | 12 1/8" | |
| 6E6 | 2 | 2'-3 3/4" | 6 | 12 3/4" | |
| 6E7 | 2 | 2'-4 3/8" | 6 | 13 3/8" | |
| 6E8 | 2 | 2'-5" | 6 | 14" | |
| 6E9 | 2 | 2'-5 3/4" | 6 | 14 3/4" | |
| 6E10 | 2 | 2'-6 1/2" | 6 | 15 1/2" | |
| 6E11 | 2 | 2'-7 1/4" | 6 | 16 1/4" | |
| 6E12 | 2 | 2'-8" | 6 | 17" | |
| 6E13 | 2 | 3'-1 1/2" | 6 | 22 1/2" | |
| 6E14 | 2 | 3'-2 3/8" | 6 | 23 3/8" | |

## Bar List - Hairpins

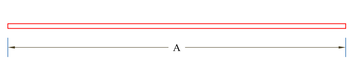
| Mark | # Total | Length | Type | A | * |
|---|---|---|---|---|---|
| 6E15 | 4 | 3'-3 1/8" | 6 | 24 1/8" | |
| 6E16 | 2 | 3'-3 7/8" | 6 | 24 7/8" | |
| 6E17 | 2 | 3'-4 5/8" | 6 | 25 5/8" | |
| 6E18 | 2 | 3'-5 1/4" | 6 | 26 1/4" | |
| 6E19 | 2 | 3'-5 3/4" | 6 | 26 3/4" | |
| 6E20 | 2 | 3'-6 3/8" | 6 | 27 3/8" | |
| 6E21 | 2 | 3'-7" | 6 | 28" | |
| 6E22 | 4 | 3'-8" | 6 | 29" | |
| 6E23 | 4 | 3'-9 1/8" | 6 | 30 1/8" | |
| 6E24 | 2 | 3'-10 1/8" | 6 | 31 1/8" | |
| 6E25 | 2 | 3'-10 1/2" | 6 | 31 1/2" | |
| 6E26 | 6 | 3'-11" | 6 | 32" | |
| 6E29 | 8 | 3'-9" | 6 | 30" | |
| 6E36 | 8 | 4'-1 3/4" | 6 | 34 3/4" | |

## Bar List - Hairpins

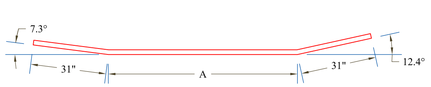
| Mark | # Total | Length | Type | A | * |
|---|---|---|---|---|---|
| 6E37 | 6 | 4'-3 3/4" | 6 | 36 3/4" | |
| 6E40 | 2 | 4'-3 1/4" | 6 | 36 1/4" | |
| 6E41 | 2 | 4'-2 1/2" | 6 | 35 1/2" | |
| 6E42 | 4 | 4'-0 1/2" | 6 | 33 1/2" | |
| 6E43 | 4 | 3'-10 3/4" | 6 | 31 3/4" | |
| 6E44 | 2 | 3'-8 7/8" | 6 | 29 7/8" | |
| 6E45 | 2 | 3'-7 7/8" | 6 | 28 7/8" | |
| 6E46 | 2 | 3'-6 7/8" | 6 | 27 7/8" | |
| 6E47 | 2 | 3'-5 7/8" | 6 | 26 7/8" | |
| 6E48 | 2 | 3'-4 7/8" | 6 | 25 7/8" | |
| 6E49 | 2 | 3'-3 5/8" | 6 | 24 5/8" | |
| 6E50 | 2 | 3'-2 1/4" | 6 | 23 1/4" | |
| 6E51 | 2 | 3'-1" | 6 | 22" | |
| 6E52 | 2 | 2'-11 5/8" | 6 | 20 5/8" | |

## Bar List - Hairpins

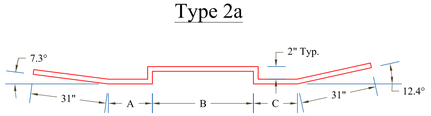
| Mark | # Total | Length | Type | A | * |
|---|---|---|---|---|---|
| 6E54 | 2 | 3'-1 7/8" | 6 | 22 7/8" | |
| 6E55 | 2 | 3'-0 1/2" | 6 | 21 1/2" | |
| 6E56 | 2 | 2'-11 1/4" | 6 | 20 1/4" | |
| 6E57 | 2 | 2'-9 7/8" | 6 | 18 7/8" | |
| 6E58 | 2 | 2'-8 7/8" | 6 | 17 7/8" | |
| 6E59 | 2 | 2'-7 7/8" | 6 | 16 7/8" | |
| 6E60 | 2 | 2'-7" | 6 | 16" | |
| 6E61 | 2 | 2'-6" | 6 | 15" | |
| 6E62 | 4 | 2'-4 1/8" | 6 | 13 1/8" | |
| 6E63 | 4 | 2'-2 3/8" | 6 | 11 3/8" | |
| 6E64 | 2 | 2'-0 5/8" | 6 | 9 5/8" | |




Type 1

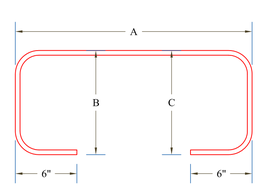



Type 2a

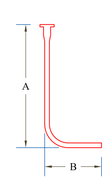



Type 2b

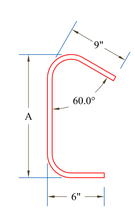
Type 3



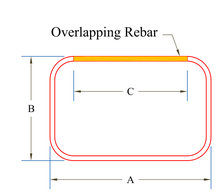

Type 4




Type 5




Type 6




Type 7

Notes:
Rebar Tolerance: +0" -1/4"

SD Ireland PRECAST DIVISION

| | |
|---|---|
| PROJECT NAME: JAMAICA | |
| PROJECT NUMBER: ER-BRF 013-1(16) | |
| PRECAST SUB-CAP PRODUCTION DRAWING SET | |
| DRAWING: REBAR SHEDULE & LIFTING/HANDLING NOTES | |
| DRAWN BY: CD | DATE: 04/02/13 |
| APPROVED BY: TD | SHEET: 4 OF 4 |