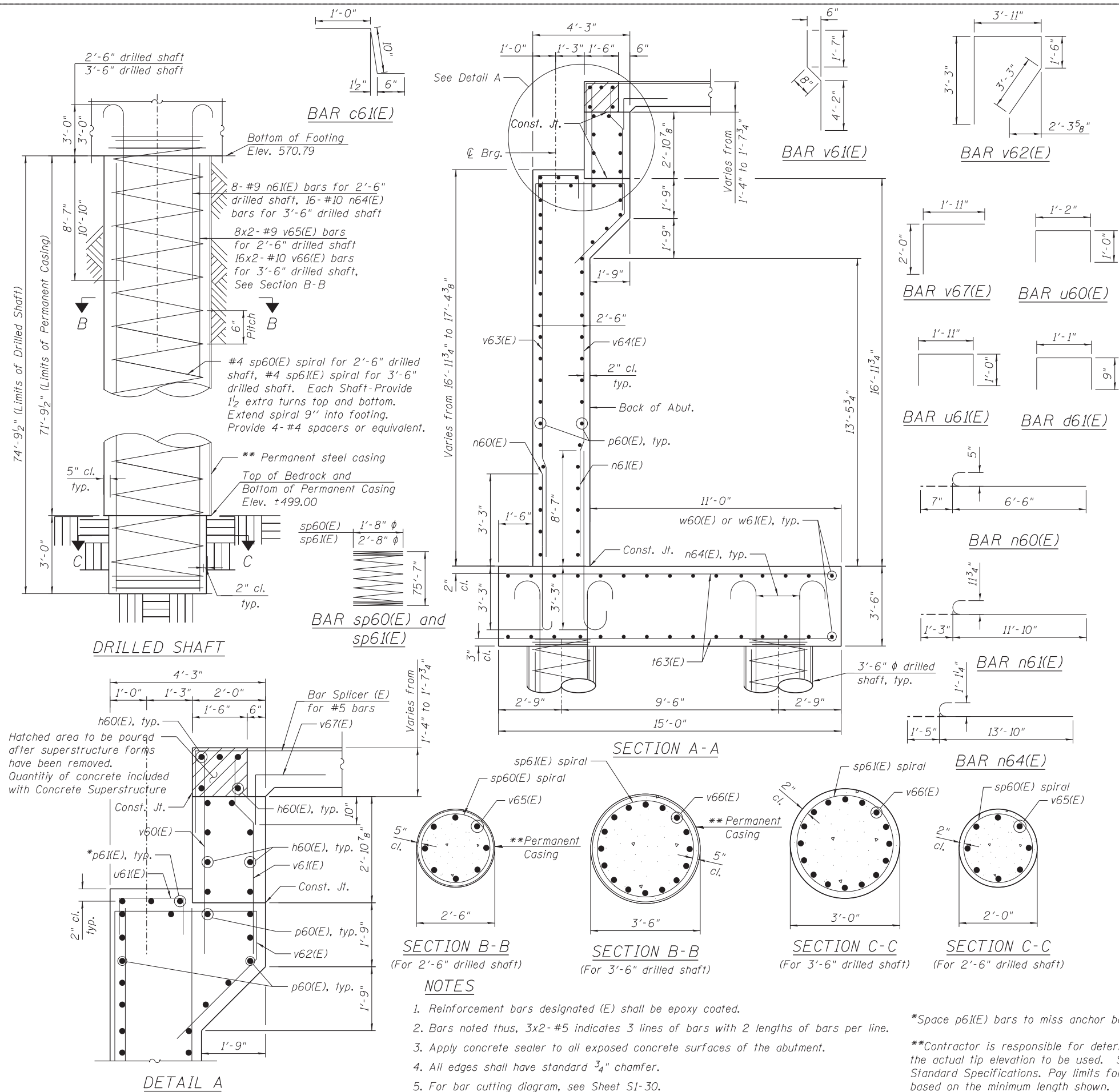


BILL OF MATERIAL

| Bar | No. | Size | Length | Shape |
|---------|-----|------|---------|-------|
| b60(E) | 22 | #5 | 1'-2" | — |
| c60(E) | 6 | #5 | 9'-6" | — |
| c61(E) | 6 | #5 | 2'-4" | — |
| d60(E) | 101 | #5 | 5'-9" | — |
| d61(E) | 48 | #4 | 2'-7" | — |
| e60(E) | 4 | #4 | 19'-7" | — |
| e61(E) | 4 | #4 | 22'-7" | — |
| e62(E) | 4 | #4 | 21'-9" | — |
| e63(E) | 4 | #4 | 24'-6" | — |
| h60(E) | 26 | #5 | 30'-6" | — |
| h61(E) | 23 | #5 | 19'-7" | — |
| h62(E) | 23 | #5 | 22'-7" | — |
| h63(E) | 23 | #5 | 21'-9" | — |
| h64(E) | 23 | #5 | 24'-6" | — |
| h65(E) | 16 | #5 | 1'-11" | — |
| h66(E) | 24 | #5 | 9'-5" | — |
| h67(E) | 12 | #5 | 7'-9" | — |
| h68(E) | 12 | #5 | 4'-0" | — |
| n60(E) | 62 | #5 | 7'-1" | — |
| n61(E) | 187 | #9 | 13'-1" | — |
| n62(E) | 40 | #5 | 7'-1" | — |
| n63(E) | 88 | #9 | 13'-2" | — |
| n64(E) | 256 | #10 | 15'-3" | — |
| p60(E) | 46 | #5 | 32'-0" | — |
| p61(E) | 3 | #5 | 9'-8" | — |
| sp60(E) | 8 | #4 | 75'-7" | — |
| sp61(E) | 16 | #4 | 75'-7" | — |
| t60(E) | 12 | #9 | 8'-2" | — |
| t61(E) | 7 | #9 | 22'-10" | — |
| t62(E) | 4 | #9 | 22'-10" | — |
| t63(E) | 183 | #9 | 14'-6" | — |
| t64(E) | 3 | #9 | 35'-10" | — |
| t65(E) | 7 | #9 | 35'-10" | — |
| t66(E) | 5 | #9 | 21'-2" | — |
| t67(E) | 11 | #9 | 10'-8" | — |
| t68(E) | 3 | #9 | 28'-6" | — |
| t69(E) | 7 | #9 | 28'-6" | — |

| Bar | No. | Size | Length | Shape |
|------------------------------------|-----|-------|---------|-------|
| u61(E) | 11 | #4 | 3'-11" | — |
| v60(E) | 59 | #5 | 6'-1" | — |
| v61(E) | 59 | #5 | 6'-5" | — |
| v62(E) | 59 | #5 | 11'-11" | — |
| v63(E) | 62 | #5 | 16'-8" | — |
| v64(E) | 123 | #9 | 16'-8" | — |
| v65(E) | 128 | #9 | 41'-7" | — |
| v66(E) | 256 | #10 | 42'-8" | — |
| v67(E) | 62 | #5 | 3'-11" | — |
| v68(E) | 40 | #5 | 21'-9" | — |
| v69(E) | 88 | #9 | 21'-9" | — |
| v70(E) | 12 | #5 | 6'-1" | — |
| v71(E) | 36 | #5 | 6'-3" | — |
| w60(E) | 42 | #7 | 29'-3" | — |
| w61(E) | 54 | #7 | 33'-2" | — |
| w62(E) | 12 | #7 | 16'-2" | — |
| w63(E) | 2 | #7 | 16'-3" | — |
| w64(E) | 2 | #7 | 17'-4" | — |
| w65(E) | 2 | #7 | 24'-9" | — |
| x60(E) | 96 | #5 | 6'-6" | — |
| Porous Granular Embankment | | Cu Yd | 1310 | |
| Concrete Structures | | Cu Yd | 344.0 | |
| Concrete Superstructure | | Cu Yd | 10.7 | |
| Protective Coat | | Sq Yd | 18 | |
| Reinforcement Bars, Epoxy Coated | | Pound | 154,320 | |
| Permanent Casing | | Foot | 1,723 | |
| Drilled Shaft in Soil, 30" | | Cu Yd | 105 | |
| Drilled Shaft in Soil, 42" | | Cu Yd | 410 | |
| Drilled Shaft in Rock, 24" | | Cu Yd | 3 | |
| Drilled Shaft in Rock, 36" | | Cu Yd | 13 | |
| Concrete Sealer | | Sq Ft | 2,591 | |
| Geocomposite Wall Drain | | Sq Yd | 220 | |
| Braced Excavation | | Cu Yd | 2,570 | |
| Pipe Underdrains for Structures 6" | | Foot | 119 | |

| Minimum Bar Laps | |
|------------------|---------|
| Bar | Lap |
| #4 | 2'-7" |
| #5 | 3'-3" |
| #6 | 3'-10" |
| #7 | 5'-2" |
| #8 | 6'-9" |
| #9 | 8'-7" |
| #10 | 10'-10" |



- NOTES**
1. Reinforcement bars designated (E) shall be epoxy coated.
 2. Bars noted thus, 3x2-#5 indicates 3 lines of bars with 2 lengths of bars per line.
 3. Apply concrete sealer to all exposed concrete surfaces of the abutment.
 4. All edges shall have standard 3/4" chamfer.
 5. For bar cutting diagram, see Sheet S1-30.

*Space p61(E) bars to miss anchor bolts.

**Contractor is responsible for determining the casing thickness and the actual tip elevation to be used. See Article 516.06(d) of the Standard Specifications. Pay limits for the Permanent Casing shall be based on the minimum length shown.

HBM
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INSPECTION & TESTING
RESEARCH & TESTING

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SUITE 231
HILLSIDE, IL 60162
PHONE: (708) 236-0900
FAX: (708) 236-0901

| |
|--------------------------------------|
| 0161709-60W25-S29-SouthAbutment3.dgn |
| USER NAME = will.mar.dous |
| PLOT SCALE = 3/8"=1'-0" |
| PLOT DATE = 6/14/2013 |

| | |
|------------------------|-----------|
| DESIGNED - MI, MAF | REVISED - |
| DRAWN - LAB, MAF | REVISED - |
| CHECKED - MAI, MI, JJS | REVISED - |
| DATE - 6/17/2013 | REVISED - |

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**SOUTH ABUTMENT SECTIONS AND DETAILS
STRUCTURE NO. 016-1709**

SCALE: SHEET S1-29 OF 51 SHEETS STA. TO STA.

| | | | | |
|--------------------|-----------|--------|---------------------------|-----------|
| F.A.I. R.T.E. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| 90/94/290 | 2013-007R | COOK | 317 | 173 |
| CONTRACT NO. 60W25 | | | ILLINOIS FED. AID PROJECT | |