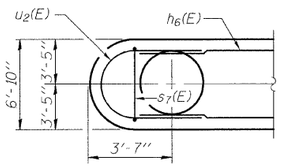
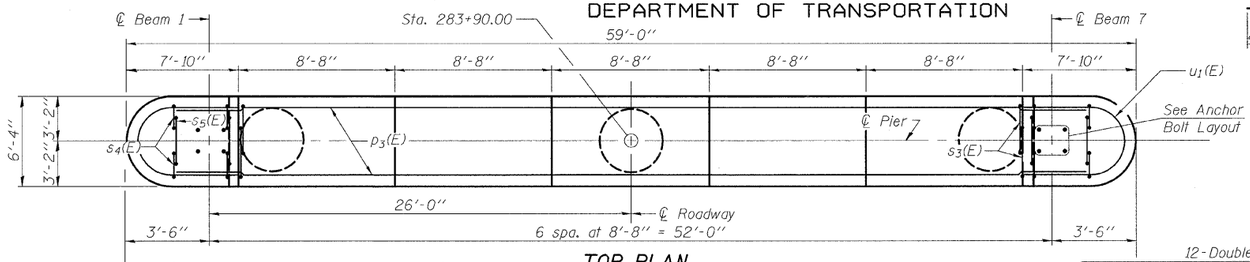
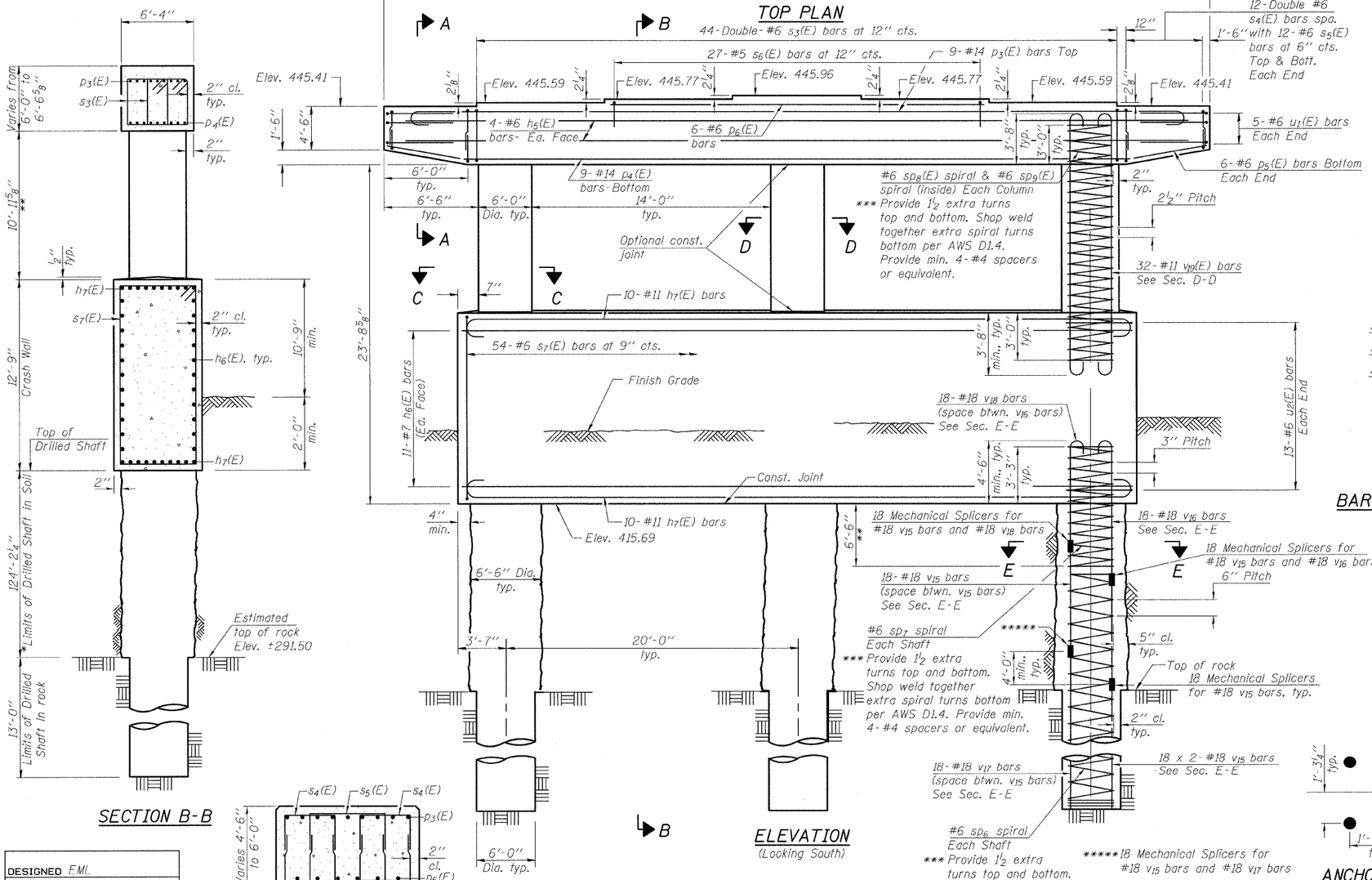
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION




SECTION C-C



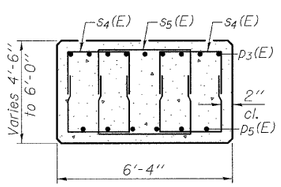

TOP PLAN







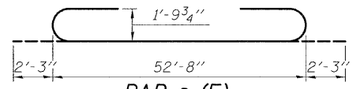
SECTION B-B



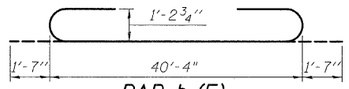

SECTION A-A



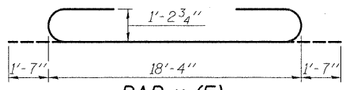

ELEVATION
(Looking South)



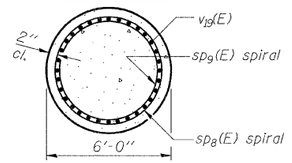

BAR $p_3(E)$



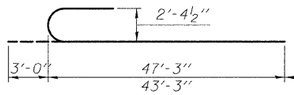

BAR $h_7(E)$



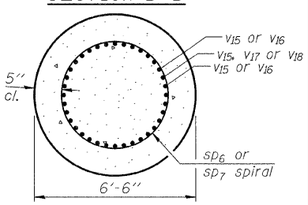

BAR $v_{19}(E)$



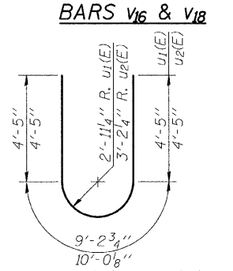

SECTION D-D



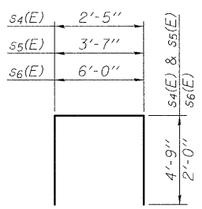

BARS $v_{16}$ & $v_{18}$



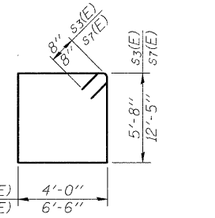

SECTION E-E



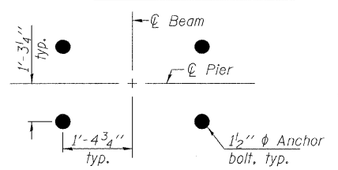

BARS $u_1(E)$ & $u_2(E)$




BARS $s_4(E)$, $s_5(E)$ & $s_6(E)$




BARS $s_3(E)$ & $s_7(E)$




ANCHOR BOLT LAYOUT

BILL OF MATERIAL

| Bar | No. | Size | Length | Shape |
|---|---|---|---|---|
| $h_5(E)$ | 8 | #6 | 52'-8" | |
| $h_6(E)$ | 22 | #7 | 40'-4" | |
| $h_7(E)$ | 20 | #11 | 43'-6" | |
| | | | | |
| $p_3(E)$ | 9 | #14 | 57'-2" | |
| $p_4(E)$ | 9 | #14 | 47'-0" | |
| $p_5(E)$ | 12 | #6 | 6'-0" | |
| $p_6(E)$ | 6 | #6 | 25'-8" | |
| | | | | |
| $s_3(E)$ | 88 | #6 | 20'-8" | |
| $s_4(E)$ | 96 | #6 | 11'-11" | |
| $s_5(E)$ | 48 | #6 | 13'-1" | |
| $s_6(E)$ | 27 | #5 | 10'-0" | |
| $s_7(E)$ | 54 | #6 | 39'-2" | |
| | | | | |
| **** $sp_6$ | 3 | #6 | 130'-6" | |
| **** $sp_7$ | 3 | #6 | 9'-9" | |
| **** $sp_8(E)$ | 3 | #6 | 17'-0" | |
| **** $sp_9(E)$ | 3 | #6 | 17'-0" | |
| | | | | |
| $u_1(E)$ | 10 | #6 | 18'-1" | |
| $u_2(E)$ | 26 | #6 | 18'-10" | |
| | | | | |
| $v_{15}$ | 162 | #18 | 47'-3" | |
| $v_{16}$ | 54 | #18 | 50'-3" | |
| $v_{17}$ | 54 | #18 | 51'-3" | |
| $v_{18}$ | 54 | #18 | 46'-3" | |
| $v_{19}(E)$ | 96 | #11 | 21'-6" | |
| Structure Excavation | | Cu. Yd. | 41 | |
| Concrete Structures | | Cu. Yd. | 272.8 | |
| Reinforcement Bars | | Pound | 237,170 | |
| Reinforcement Bars, Epoxy Coated | | Pound | 46,440 | |
| Drilled Shaft in Soil | | Cu. Yd. | 457.9 | |
| Drilled Shaft in Rock | | Cu. Yd. | 40.8 | |
| Mechanical Splicers | | Each | 216 | |

Cast steps monolithically with cap.
Space cap reinforcement to miss anchor bolts.
**** Length is height of spiral.
Bars indicated thus 18 x 2-#18 etc. indicates 18 lines of bars with 2 lengths per line.

PIER 3

STRUCTURE NO. 082-0038

| | |
|---|---|
| DESIGNED | EML |
| CHECKED | KAK |
| DRAWN | AJF |
| CHECKED | KAK |

* The quantities and reinforcement detailing are based on the top of shaft and the estimated top of rock elevations shown and may change based on the actual top of rock encountered at each shaft and the final top of shaft elevation.
** Splicing of reinforcement will not be allowed in this region.
*** Allowable substitution: Provide 1½ extra turns top and bottom with 135° standard hook into core at ends of spiral.

HORNER & SHIFRIN, INC.
ENGINEERS

| SHEET NO. 41 | F.A.P. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---|---|---|---|---|---|
| 48 SHEETS | 312 | 64-1VBR | ST. CLAIR | 259 | 93 |
| | | | CONTRACT NO. 76882 | | |
| | | ILLINOIS FED. AID PROJECT | | | |