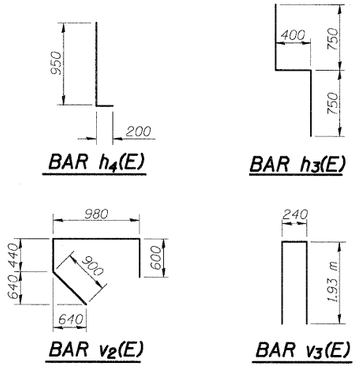
Notes:
Space reinforcement in cap to miss anchor bolts.
Work this sheet with sheet 15 of 24.
Pour steps monolithically with cap.

| ROUTE NO. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---|---|---|---|---|
| S.B.I. F.A.P. 310 | * | MADISON | 272 | 115 |
| FED. ROAD DIST. NO. 7 | ILLINOIS | FED. AID PROJECT- | | |

SHEET NO. 14
24 SHEETS

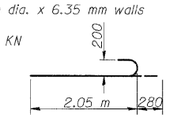
*60-15HB-2 CONTRACT NO. 76624




## APPR. BENT-PILE DATA

(For Two South Bents)

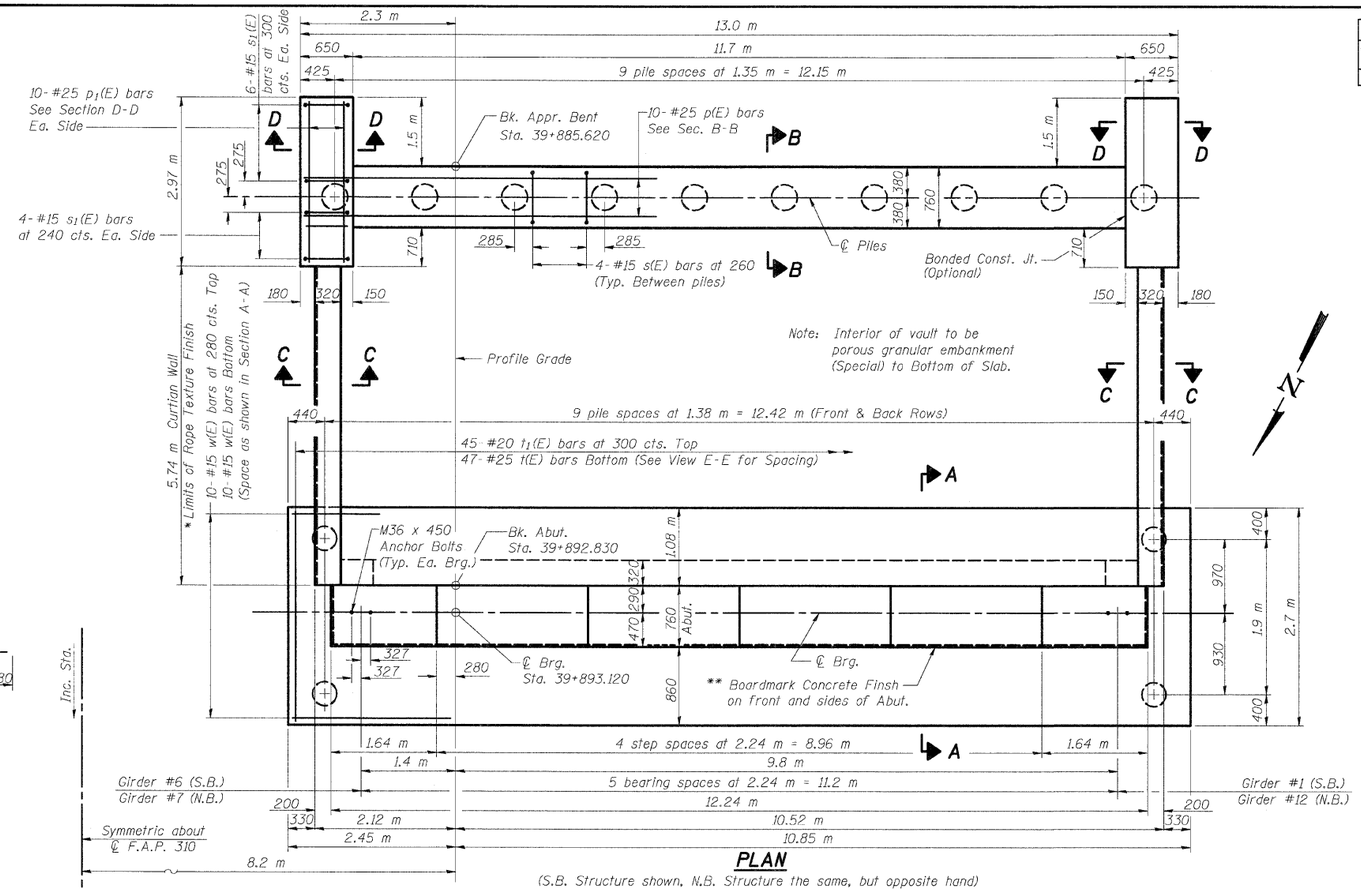
Type & Size: Metal Shell - 356 mm dia. x 6.35 mm walls
Nominal Required Bearing: 900 KN
Allowable Resistance Available: 300 KN
N.B.S. Est. Length: 14.5 m
N.B.S. No. Req'd. : 10
S.B.S. Est. Length: 14.5 m
S.B.S. No. Req'd. : 10




## ABUT.-PILE DATA

(For Two South Abutments)

Type & Size: Metal Shell - 356 mm dia. x 6.35 mm walls
Nominal Required Bearing: 1500 KN
Allowable Resistance Available: 500 KN
N.B.S. Est. Length: 16.0 m
N.B.S. No. Req'd. : 20
S.B.S. Est. Length: 17.0 m
S.B.S. No. Req'd. : 19 plus 1 Test Pile




## PLAN

(S.B. Structure shown, N.B. Structure the same, but opposite hand)

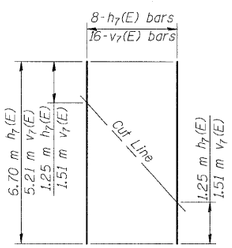
## BILL OF MATERIAL FOR TWO SOUTH ABUTMENTS

| Bar | No. | Size | Length (m) | Shape |
|---|---|---|---|---|
| h(E) | 40 | #20 | 12.16 | |
| $h_1$(E) | 10 | #15 | 12.16 | |
| $h_2$(E) | 24 | #15 | 12.56 | |
| $h_3$(E) | 88 | #15 | 1.90 | |
| $h_4$(E) | 48 | #15 | 1.15 | |
| $h_5$(E) | 8 | #20 | 6.30 | |
| $h_6$(E) | 32 | #15 | 1.00 | |
| $h_7$(E) | 32 | #15 | 6.70 | |
| $h_8$(E) | 40 | #15 | 5.66 | |
| $h_9$(E) | 40 | #15 | 1.40 | |
| n(E) | 212 | #25 | 2.33 | |
| p(E) | 20 | #25 | 12.90 | |
| $p_1$(E) | 40 | #25 | 2.87 | |
| s(E) | 72 | #15 | 3.80 | |
| $s_1$(E) | 40 | #15 | 3.58 | |
| t(E) | 94 | #25 | 2.60 | |
| $t_1$(E) | 90 | #20 | 2.60 | |
| v(E) | 82 | #20 | 3.10 | |
| $v_1$(E) | 82 | #25 | 3.10 | |
| $v_2$(E) | 80 | #15 | 2.92 | |
| $v_3$(E) | 80 | #15 | 4.10 | |
| $v_4$(E) | 80 | #15 | 1.00 | |
| $v_5$(E) | 16 | #15 | 3.80 | |
| $v_6$(E) | 32 | #15 | 4.95 | |
| $v_7$(E) | 64 | #15 | 5.21 | |
| $v_8$(E) | 268 | #15 | 1.00 | |
| w(E) | 40 | #15 | 13.20 | |
| Concrete Structures | | | $m^3$ | 185.5 |
| Reinforcement Bars, Epoxy Coated | | | kg | 13,400 |
| Test Piles metal shells | | | Each | 1 |
| *** Structure Excavation | | | $m^3$ | 332 |
| Furnishing Metal Shell Piles 356 mm x 6.35mm | | | m | 933.0 |
| Driving Piles | | | m | 933.0 |
| Concrete Sealer | | | $m^2$ | 134 |
| Porous Granular Embankment (Special) | | | $m^3$ | 341 |
| Form Liner Texture Surface | | | $m^2$ | 157 |

* Patterned Rope Texture Concrete (See Sheet 19 of 24 for Details) (See Special Provisions)

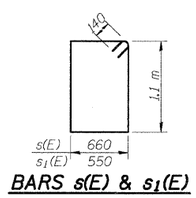
** Random Width Boardmark Concrete (See Sheet 19 of 24 for details)

*** Structure Excavation is 166 $m^3$ per Abutment

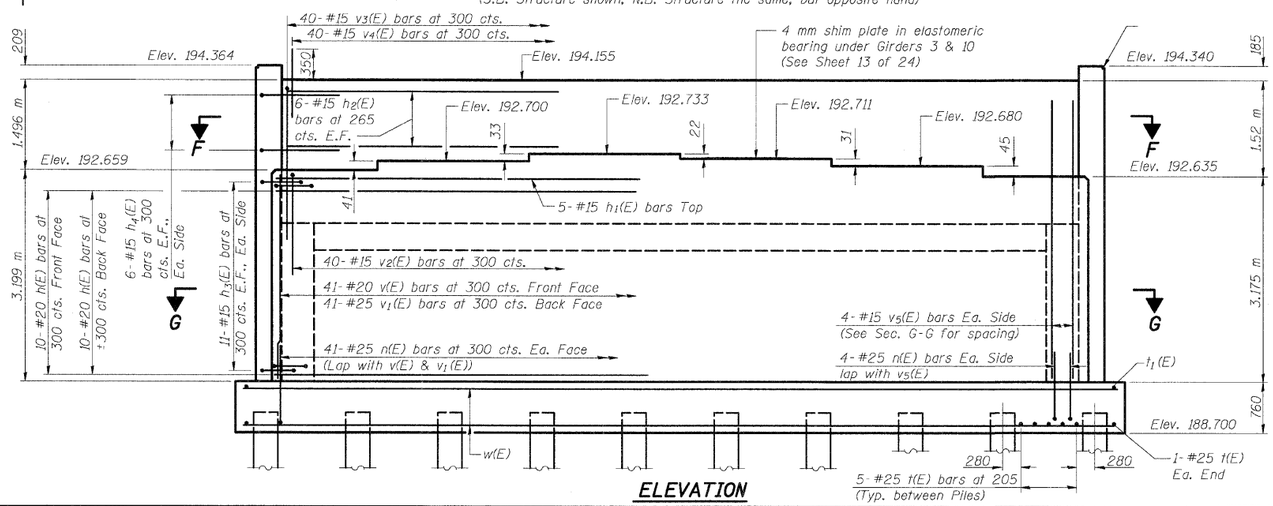



## FIELD CUTTING DIAGRAM

Order $h_7$(E) & $v_7$(E) bars full length.
Cut to fit as shown and use remainder of bars in opposite face of wall.




## BARS s(E) & s1(E)




## ELEVATION

**SOUTH ABUTMENTS (1 OF 2)**
**FAP RTE. 310 (IL RTE. 255) OVER**
**IL RTE 111**
**SECTION 60-15HB-2**
**MADISON COUNTY**
**STATION 39+914.647**
**SN 060-0330 (NB) & 060-0331 (SB)**

| | |
|---|---|
| DESIGNED | ADL |
| CHECKED | WLW |
| DRAWN | ADL/DGM |
| CHECKED | WLW |

Klingner & Assoc., P.C.

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