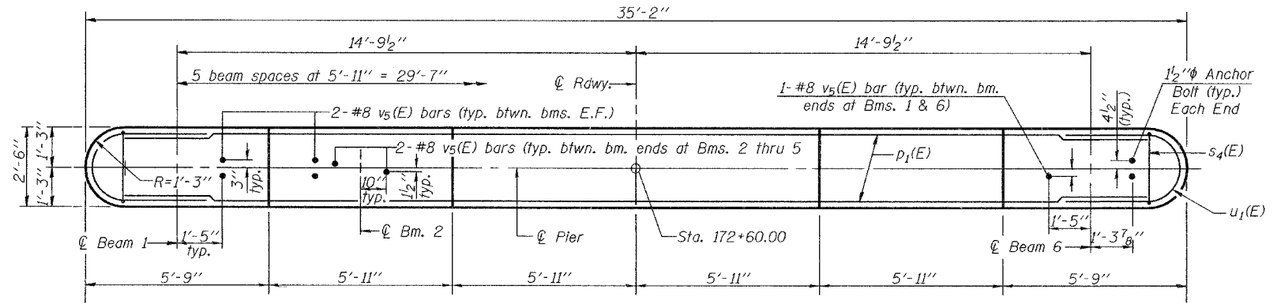
Notes: Pour steps monolithically with cap.
Space reinforcement in cap to miss anchor bolts.
For anchor bolt installation details see sheet 11 of 27.

# STATE OF ILLINOIS
# DEPARTMENT OF TRANSPORTATION

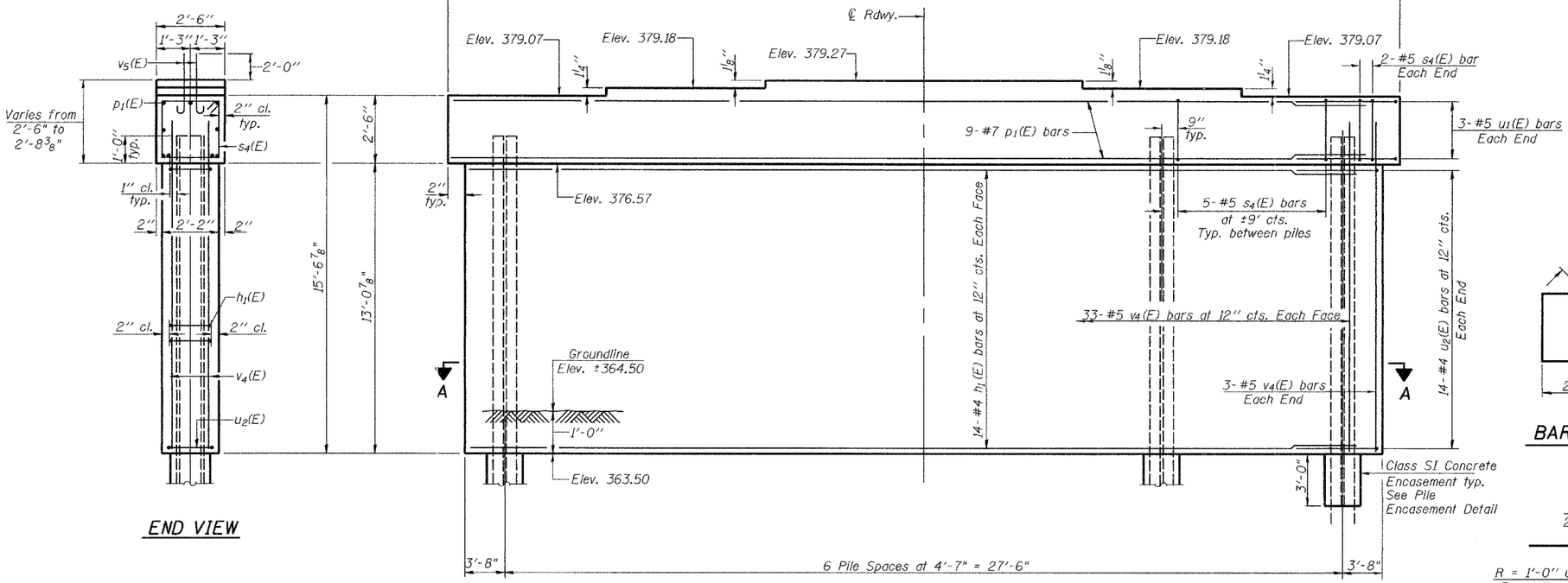
| ROUTE NO. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---|---|---|---|---|
| F.A.P. 857 | 101BR-6 | WHITE | 106 | 40 |
| FED. ROAD DIST. NO. 7 | ILLINOIS | FED. AID PROJECT- | | |

SHEET NO. 21
27 SHEETS

Contract #98960

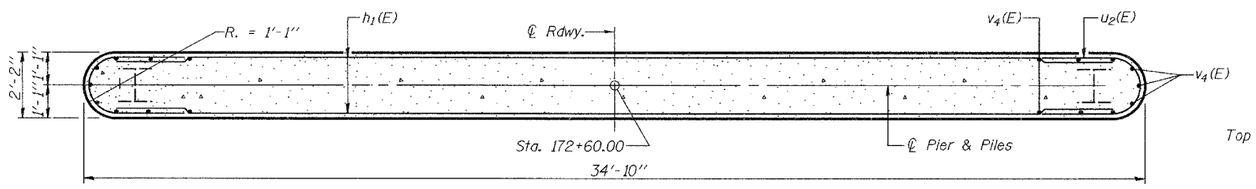



## TOP PLAN

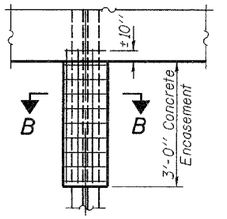


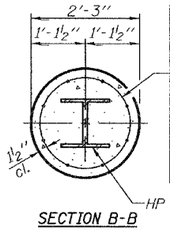

## END VIEW

## ELEVATION
(Looking East)




## SECTION A-A



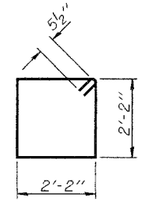

Welded wire fabric 6 x 6-W4.0 x W4.0 weighing 58#/100 sq. ft. The cost of Excavation and Reinforcement is included with Concrete Encasement. Forms for Encasement may be omitted when soil conditions permit.

SECTION B-B

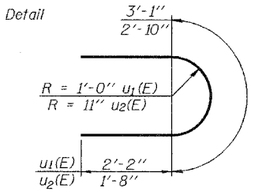
## PILE ENCASEMENT DETAIL

### PILE DATA

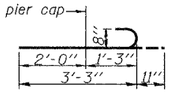
Pile Type: Steel HP 14 x 102
Nominal Required Bearing: = 720 kips
Factored Resistance Available: = 360 kips
Est. Length: 67'
No. of Production Piles: 7




BAR $s_4(E)$




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




BAR $v_5(E)$

### BILL OF MATERIAL

| Bar | No. | Size | Length | Shape |
|---|---|---|---|---|
| $h_1(E)$ | 28 | #4 | 32'-6" | |
| $p_1(E)$ | 9 | #7 | 32'-8" | |
| $s_4(E)$ | 29 | #5 | 9'-7" | |
| $u_1(E)$ | 6 | #5 | 7'-5" | |
| $u_2(E)$ | 28 | #4 | 6'-2" | |
| $v_4(E)$ | 72 | #5 | 14'-4" | |
| $v_5(E)$ | 30 | #8 | 4'-2" | |
| Concrete Structures | | Cu. Yd. | 44.2 | |
| Reinforcement Bars, Epoxy Coated | | Pound | 3070 | |
| Furnishing Steel Piles HP14x102 | | Foot | 469 | |
| Driving Piles | | Foot | 469 | |
| Structure Excavation | | Cu. Yd. | 8.9 | |
| Underwater Structure Excavation Protection Location 3 | | Each | 1 | |
| Concrete Encasement | | Cu. Yd. | 2.9 | |

| | |
|---|---|
| DESIGNED | W. A. Beisner |
| CHECKED | Fesseha Teklehaimanot |
| DRAWN | R. Sommer |
| CHECKED | WAB/FT |

December 4 2006
EXAMINED Thomas J. Domagalski
ENGINEER OF BRIDGE DESIGN
PASSED Ralph E. Anderson
ENGINEER OF BRIDGES AND STRUCTURES

## PIER 3
## F.A.P. RT. 857 SEC. 101BR-6
## WHITE COUNTY
## STATION 171+58.50
## STRUCTURE NO. 097-0071