

**WEST ABUTMENT BILL OF MATERIAL**

| Bar   | No. | Size | Length | Shape   |       |
|---|-----|------|--------|---------|-------|
| h(E)  | 32  | #6   | 10'-6" | —       |       |
| p(E)  | 10  | #7   | 42'-9" | —       |       |
| s <sub>2</sub> (E)                                | 30  | #5   | 11'-7" | □       |       |
| s <sub>3</sub> (E)                                | 12  | #5   | 7'-8"  | □       |       |
| u(E)  | 8   | #6   | 15'-1" | ┘       |       |
| v(E)  | 84  | #5   | 4'-4"  | —       |       |
| v <sub>1</sub> (E)                                | 16  | #5   | 10'-9" | —       |       |
| <b>Concrete Structures</b>                        |     |      |        | Cu. Yd. | 17.3  |
| <b>Reinforcement Bars, Epoxy Coated</b>           |     |      |        | Pound   | 2,580 |
| <b>Furnishing Metal Shell Piles, 12" x 0.250"</b> |     |      |        | Foot    | 200   |
| <b>Driving Piles</b>                              |     |      |        | Foot    | 200   |
| <b>Test Pile, Metal Shells</b>                    |     |      |        | Each    | 1     |
| <b>Concrete Encasement</b>                        |     |      |        | Cu. Yd. | 3.3   |
| <b>Protective Coat</b>                            |     |      |        | Sq. Yd. | 6     |
| <b>Name Plate</b>                                 |     |      |        | Each    | 1     |

For Pile Details see sheet 17 of 21.

Reinforcement Bars designated (E) shall be Epoxy Coated.

**WEST ABUTMENT S.N. 038-4558**

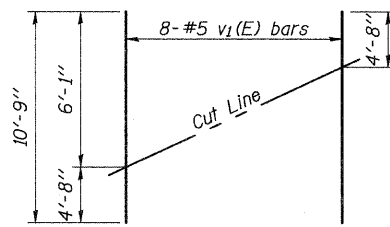
**PILE DATA**  
(See Special Provisions)

Type: Metal Shell - 12" Dia. x 0.250" walls  
 No. Required: \*6  
 Nominal Required Bearing: 220 k  
 Factored Resistance Available: 120 k  
 Est. Length: 40 Ft.  
 No. Test Piles: 1

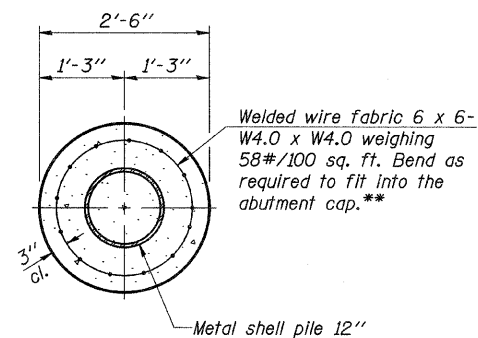
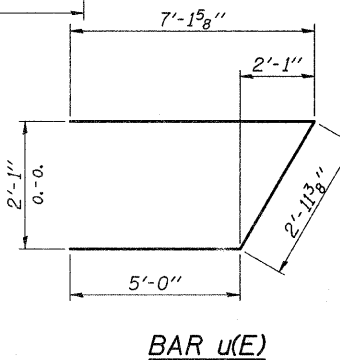
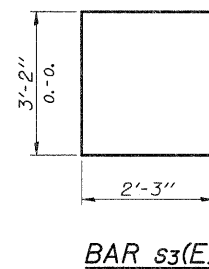
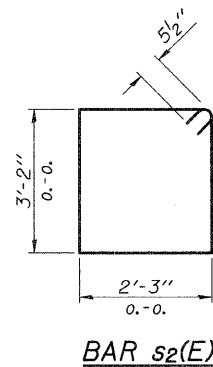
\*Includes 1 test pile to be driven in a permanent location at the abutment.  
 The test piles shall be driven to 110 percent of the Nominal Required Bearing indicated above.

|          |                 |
|----------|-----------------|
| DESIGNED | A.L.S.          |
| CHECKED  | A.R.K.          |
| DRAWN    | S.A.P.          |
| CHECKED  | A.L.S. & A.R.K. |

AI-R 11-1-06



Order v<sub>1</sub>(E) full length. Cut as shown and use remainder of bars in opposite face.



Note: Forms for encasement may be omitted when soil conditions permit.

**SECTION A-A PILE ENCASEMENT DETAIL**

\*\*The cost of Reinforcement is incidental to the cost of "Concrete Encasement". Extend Reinforcement 2'-0" into cap.

**FEHR-GRAHAM & ASSOCIATES, LLC**  
ENGINEERING AND SCIENCE CONSULTANTS  
FREEPORT, IL ROCKFORD, IL ROCHELLE, IL MONROE, WI SPRINGFIELD, IL

|   |                        |                 |                          |              |
|---|------------------------|-----------------|--------------------------|--------------|
| TWP. RTE. 55B   | SECTION 07-16121-00-BR | COUNTY IROQUOIS | TOTAL SHEETS 33          | SHEET NO. 17 |
| MARTINTON ROAD DIST. ILLINOIS   |                        |                 | CONTRACT NO. 87487       |              |
| 4440 ASH GROVE SPRINGFIELD, IL 62711 (217)-793-8600 www.fehr-graham.com |                        |                 | F.A. PROJ. BROS-075(145) |              |