

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

**DESIGN SPECIFICATIONS**

2002 A.A.S.H.T.O. Specifications & Supplements

**DESIGN STRESSES**

*Precast Units*  
f<sub>y</sub> = 60,000 psi  
f'c = 5,000 psi (Precast)

*Field Units*  
f<sub>y</sub> = 60,000 psi (Reinforcement)  
f<sub>y</sub> = 50,000 psi (AASHTO M270 Gr. 50)

**TOTAL BILL OF MATERIALS**

| DESCRIPTION                                | UNIT    | QTY.  |
|--|---------|-------|
| Structure Excavation                       | Cu. Yd. | 1,128 |
| Name Plates                                | Each    | 1     |
| Pipe Underdrains for Structures 4"         | Foot    | 659   |
| Concrete Gutter, Type A (Modified)         | Foot    | 658.7 |
| Furnishing Soldier Piles (W Section)       | Foot    | 1,655 |
| Geocomposite Wall Drain                    | Sq. Yd. | 900   |
| Drilling & Setting Soldier Piles (In Soil) | Cu. Ft. | 1,503 |
| Drilling & Setting Soldier Piles (In Rock) | Cu. Ft. | 3,834 |
| Retaining Wall (Special)                   | Sq. Ft. | 8,881 |
| Staining Concrete Structures               | Sq. Yd. | 800   |

**GENERAL NOTES**

Reinforcement Bars shall conform to the requirements of ASTM A706 Gr 60. See Special Provisions.

Reinforcement bars designated (E) shall be epoxy coated.

Concrete shall be painted in accordance with special provisions. The color shall be selected by the engineer.

Exposed steel wide flange/pile shall be painted with an inorganic zinc rich primer/acrylic/acrylic paint system for shop and field painting except for portions located more than 4 feet below the finished grade at the front face of the wall. The finished coat shall be only applied to the exposed surfaces of the steel piles after the concrete panels have been installed. The color of the final finish coat shall be approved by the Resident Engineer and Project Engineer. See special provisions for Cleaning and Painting New Metal Structures.

After placement of bottom precast panel, fill must be placed equally on both sides in order to continue construction of wall and place additional panels. Backfill at front face of wall must be at finished grade.

All form liners required for the precast concrete panels are included in the pay item. "Retaining Wall (Special)".

Method used for cutting piles to their final length shall result in a smooth and neat appearance. Jagged edges shall not be acceptable.

Installation of the name plate shall be in accordance with Highway Standard 515001-03 and Article 515 of the Standard Specifications. The location of the name plate to be determined by the Resident Engineer.

LEFT STATION 709+10 TO 715+65  
BUILT 20\_\_ BY  
STATE OF ILLINOIS  
F.A.P. RTE. 742 SEC. 37R-4  
STRUCTURE NO. 071-7003

**NAME PLATE**  
See Std. 515001

**GENERAL NOTES & TOTAL BILL OF MATERIALS**  
**STRUCTURE NO. 071-7003**

|          |     |
|----------|-----|
| DESIGNED | JMW |
| CHECKED  | DFM |
| DRAWN    | CTH |
| CHECKED  | DFM |

| SHEET NO. 4 | F.A.P. RTE. | SECTION               | COUNTY             | TOTAL SHEETS     | SHEET NO. |
|-------------|-------------|-----------------------|--------------------|------------------|-----------|
| 13 SHEETS   | 742         | 37R-4                 | OGLE               | 867              | 203       |
|             |             |                       | CONTRACT NO. 64E17 |                  |           |
|             |             | FED. ROAD DIST. NO. 7 | ILLINOIS           | FED. AID PROJECT |           |