

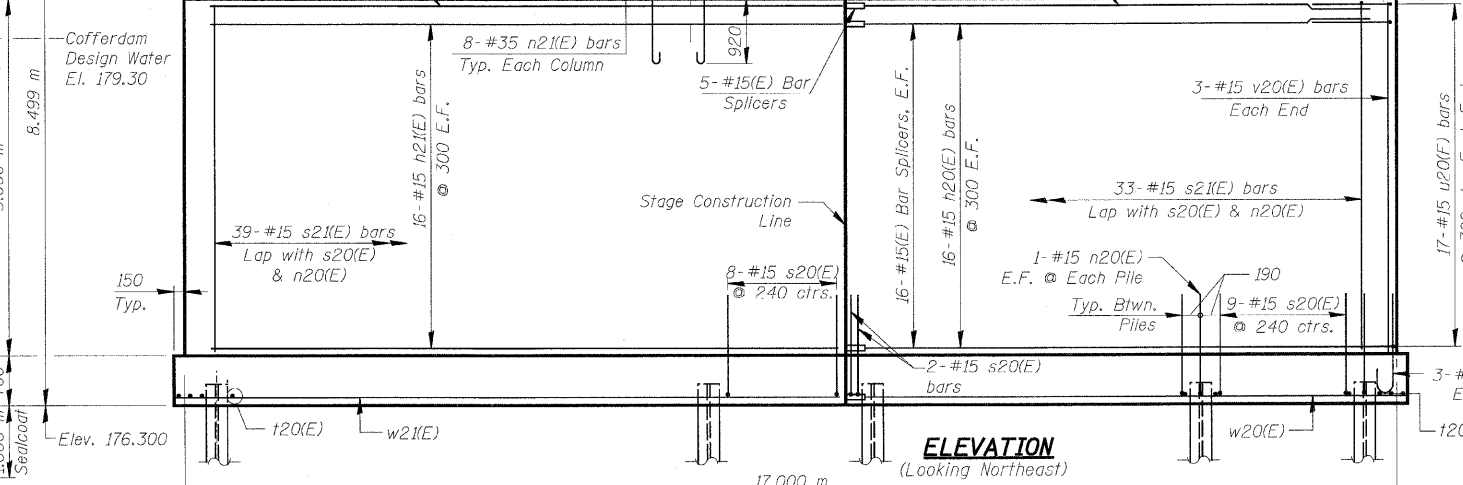
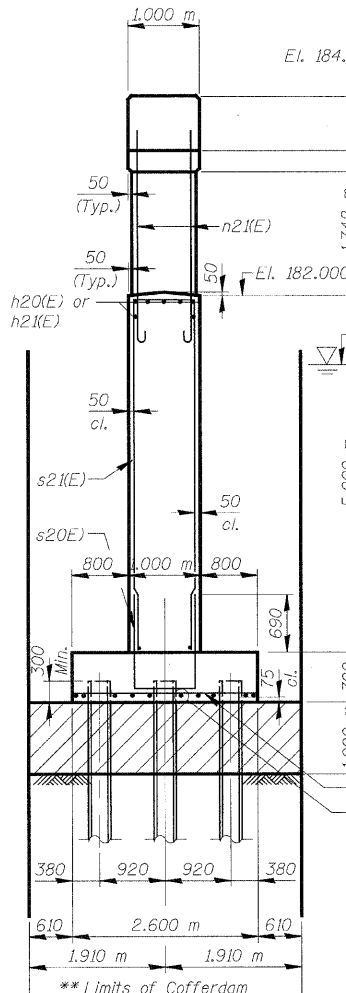
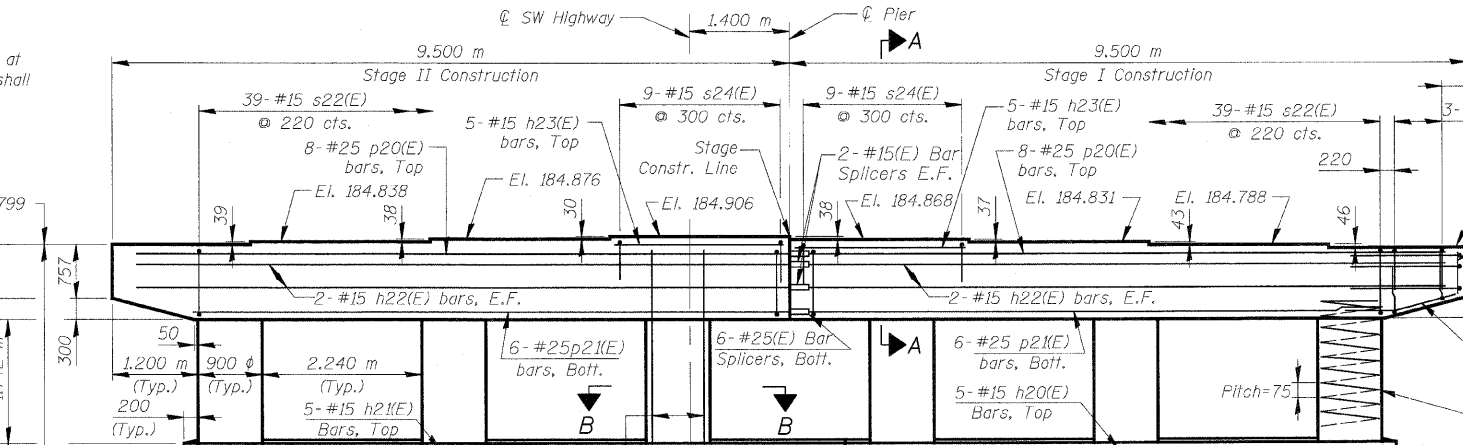
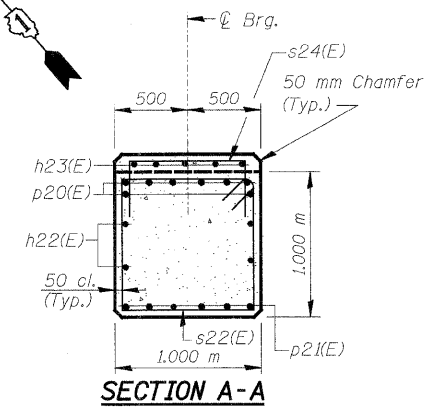
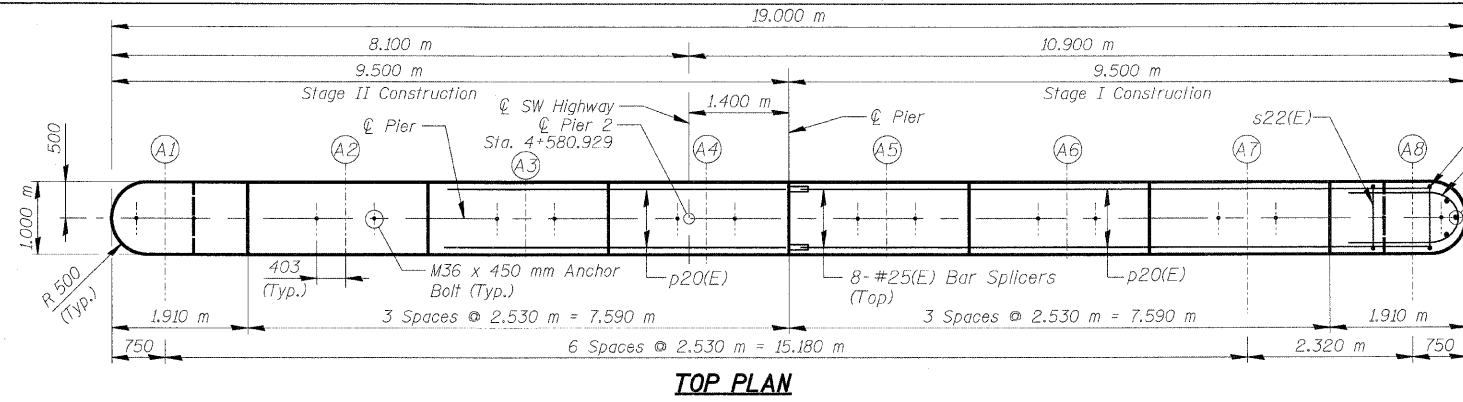
**NOTES:**

Space Reinforcement in cap to miss anchor bolts.  
All edges shall have standard 20 mm chamfer except as noted.  
Pour steps monolithically with cap.

| TYP. LAP SPLICE |          |
|-----------------|----------|
| BAR SIZE        | MIN. LAP |
| #15             | 890 mm   |
| #20             | 1.110 m  |
| #25             | 1.850 m  |

\*\* The bottom of the cofferdam shall be at EL 172.19 or lower. The cofferdam shall have a minimum section modulus of 492,000 mm<sup>3</sup>/m.

| F.A.U. RTE.         | SECTION     | COUNTY   | TOTAL SHEETS     | SHEET NO. |
|---------------------|-------------|----------|------------------|-----------|
| 3578                | 15V B-1-R-1 | COOK     | 243              | 147       |
| STA.                |             | TO STA.  |                  |           |
| FED. ROAD DIST. NO. |             | ILLINOIS | FED. AID PROJECT |           |
| CONTRACT NO. 62388  |             |          |                  |           |



**PILE DATA**  
Type: Steel HP 12x53 with pile shoes  
Nominal Required Bearing: 1860 kN  
Allowable Resistance Available: 573 kN  
Est. Length: 9.5 m  
No. Production Piles: 24  
No. Test Piles: None

**PATRICK ENGINEERING INC.**  
LISLE, ILLINOIS

(Shall be cut 300 mm below the final grade elevation after Stage II construction)

**A & B DIMENSIONS**

| Bar    | A   | B       |
|--------|-----|---------|
| s20(E) | 900 | 1.30 m  |
| s21(E) | 900 | 4.950 m |
| s23(E) | 900 | 750     |
| s24(E) | 900 | 450     |

**BILL OF MATERIAL**

| Bar                              | No.  | Size           | Length (m) | Shape |
|----------------------------------|------|----------------|------------|-------|
| h20(E)                           | 37   | # 15           | 7.180      | —     |
| h21(E)                           | 37   | # 15           | 8.720      | —     |
| h22(E)                           | 8    | # 15           | 8.950      | —     |
| h23(E)                           | 10   | # 15           | 2.430      | —     |
| n20(E)                           | 22   | # 15           | 1.480      | —     |
| n21(E)                           | 48   | # 35           | 3.920      | —     |
| p20(E)                           | 16   | # 25           | 8.950      | —     |
| p21(E)                           | 12   | # 25           | 8.300      | —     |
| p22(E)                           | 12   | # 15           | 1.830      | —     |
| s20(E)                           | 64   | # 15           | 3.500      | —     |
| s21(E)                           | 72   | # 15           | 10.800     | —     |
| s22(E)                           | 78   | # 15           | 3.880      | —     |
| s23(E)                           | 12   | # 15           | 2.400      | —     |
| s24(E)                           | 18   | # 15           | 1.800      | —     |
| sp20(E)                          | 6    | # 15           | * 1.790    | —     |
| t20(E)                           | 70   | # 25           | 2.500      | —     |
| u20(E)                           | 34   | # 15           | 3.150      | —     |
| u21(E)                           | 6    | # 20           | 3.590      | —     |
| v20(E)                           | 6    | # 15           | 4.950      | —     |
| v21(E)                           | 6    | # 15           | 0.600      | —     |
| w20(E)                           | 10   | # 15           | 7.780      | —     |
| w21(E)                           | 10   | # 15           | 9.320      | —     |
| Cofferdam Excavation             |      | m <sup>3</sup> | 204        |       |
| Cofferdam (Location-1)           | Each |                | 1          |       |
| Concrete Structures              |      | m <sup>3</sup> | 143.4      |       |
| Seal Coat Concrete               |      | m <sup>3</sup> | 70.7       |       |
| Reinforcement Bars, Epoxy Coated |      | kg             | 7,680      |       |
| Bar Splicers                     | Each |                | 65         |       |
| Furnishing Steel Piles HP310x79  |      | m              | 228.0      |       |
| Driving Piles                    |      | m              | 228.0      |       |
| Pile Shoes                       | Each |                | 24         |       |

\* Height of spiral

- NOTES:**
- Reinforcement bars designated (E) shall be Epoxy Coated.
  - Bars indicated thus 20 x 3 - #15 etc. indicates 20 lines of bars with 3 lengths per line.
  - All dimensions are in millimeters (mm) except as noted.
  - Minimum lap for spirals 770 mm.

**REVISIONS**

| NAME | DATE |
|------|------|
|      |      |
|      |      |
|      |      |
|      |      |
|      |      |

**ILLINOIS DEPARTMENT OF TRANSPORTATION**  
**PIER 2**  
**SOUTHWEST HIGHWAY OVER**  
**B&O RAILROAD AND STONY CREEK**  
FAJ 3578 SECTION 15V B-1-R-1  
STRUCTURE NUMBER 016-2771  
COOK COUNTY STATION 4+716.497

SCALE: NONE DRAWN BY: E. Mroozek  
DATE: 6/17/09 CHECKED BY: G. Hatlestad

6/26/2009 8:44:00 AM  
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