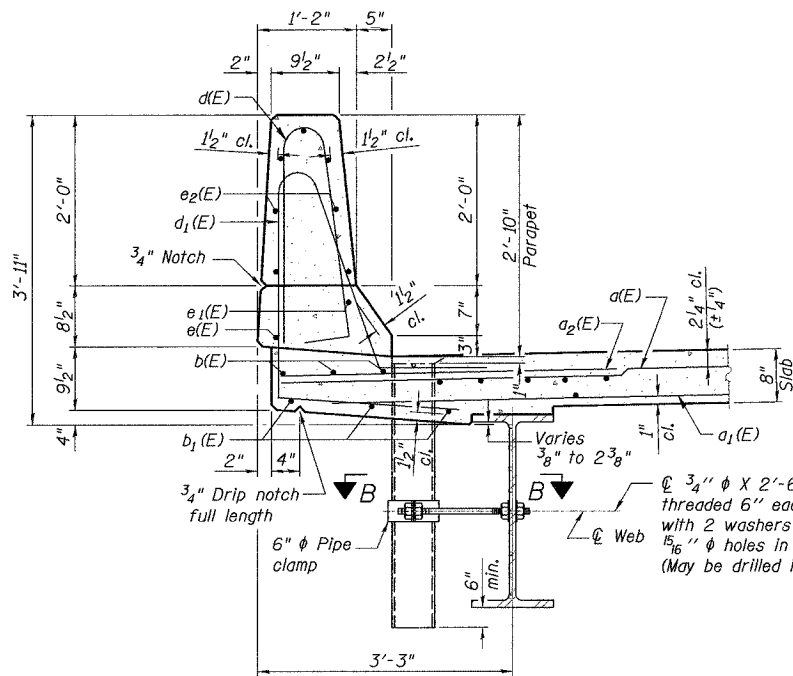


**MINIMUM BAR LAP**  
(Parapet)  
#4 bar = 1'-8"  
#8 bar = 4'-6"

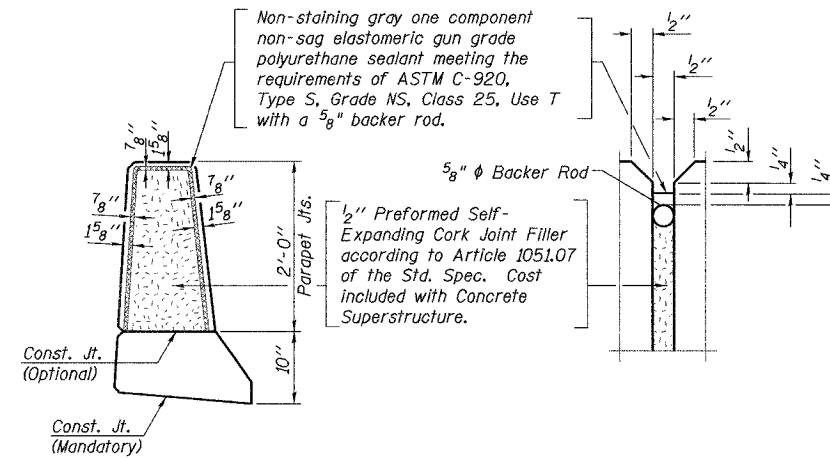
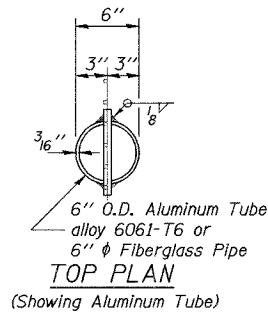
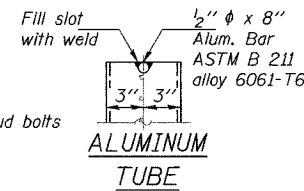
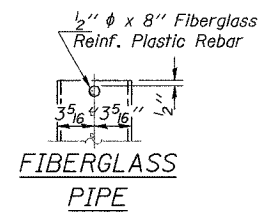
**SUPERSTRUCTURE  
BILL OF MATERIAL**

| Bar                              | No.   | Size | Length  | Shape |
|----------------------------------|-------|------|---------|-------|
| a(E)                             | 324   | #5   | 21'-3"  | —     |
| a1(E)                            | 200   | #5   | 20'-9"  | —     |
| a2(E)                            | 324   | #6   | 6'-0"   | —     |
| a3(E)                            | 24    | #6   | 8'-5"   | —     |
| a4(E)                            | 12    | #6   | 4'-1"   | —     |
| a5(E)                            | 16    | #7   | 21'-3"  | —     |
| a6(E)                            | 4     | #6   | 18'-2"  | —     |
| b(E)                             | 94    | #5   | 37'-10" | —     |
| b1(E)                            | 123   | #5   | 26'-8"  | —     |
| d(E)                             | 162   | #5   | 5'-7"   | —     |
| d1(E)                            | 162   | #5   | 7'-11"  | —     |
| e(E)                             | 4     | #4   | 37'-8"  | —     |
| e1(E)                            | 4     | #8   | 39'-0"  | —     |
| e2(E)                            | 56    | #4   | 18'-1"  | —     |
| x1(E)                            | 80    | #5   | 5'-11"  | —     |
| Floor Drains                     | EACH  |      | 8       |       |
| Concrete Superstructure          | CU YD |      | 116.1   |       |
| Bridge Deck Grooving             | SQ YD |      | 310     |       |
| Protective Coat                  | SQ YD |      | 409     |       |
| Reinforcement Bars, Epoxy Coated | LB    |      | 26,710  |       |
| Bar Splicers                     | EACH  |      | 278     |       |

**INSIDE ELEVATION OF PARAPET**



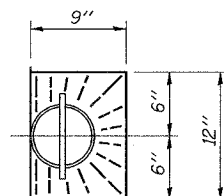
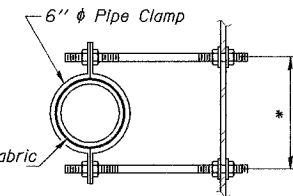
**SECTION THRU PARAPET**



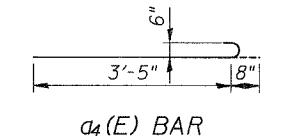
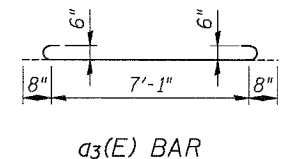
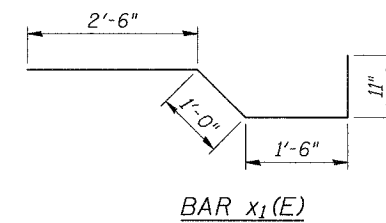
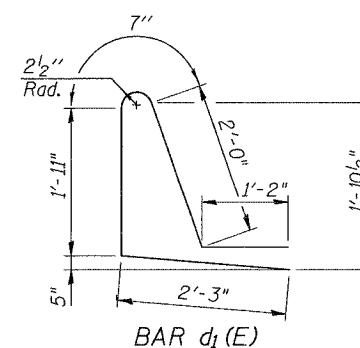
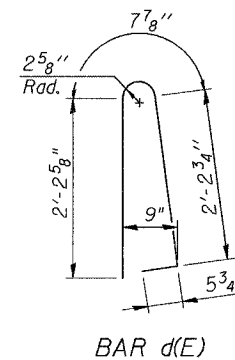
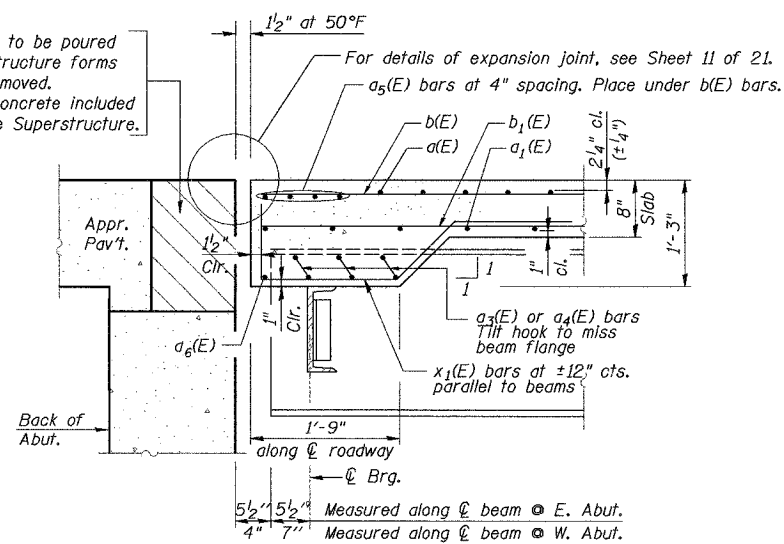
Notes:  
Fiberglass pipe shall conform to ASTM D 2996, with short-time rupture strength hoop tensile stress of 30,000 p.s.i. minimum.

Bars indicated thus 1 x 3-#5 etc. indicates 1 line of bars with 3 lengths per line.

\* Dimension as required by Pipe Clamp



Hatched area to be poured after superstructure forms have been removed. Quantity of concrete included with Concrete Superstructure.



**DECK DETAILS**

IL Route 176 over the Kishwaukee River  
F.A.P. RTE 533, SECTION 119R-2B  
McHENRY COUNTY  
STATION 10+00.00  
S.N. 056-0078

DATE: 10-05-07  
GRAEF, ANHALT, SCHLOEMER & ASSOCIATES INC  
CHICAGO ILLINOIS