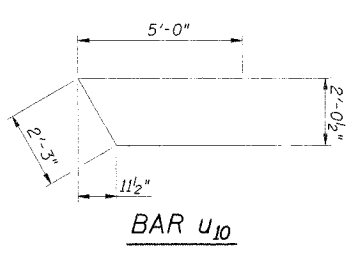
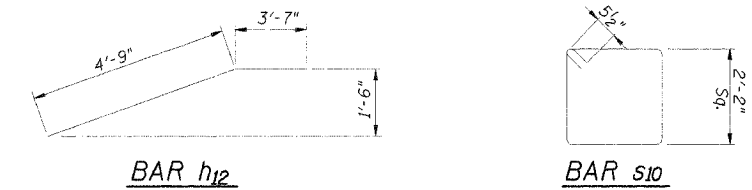
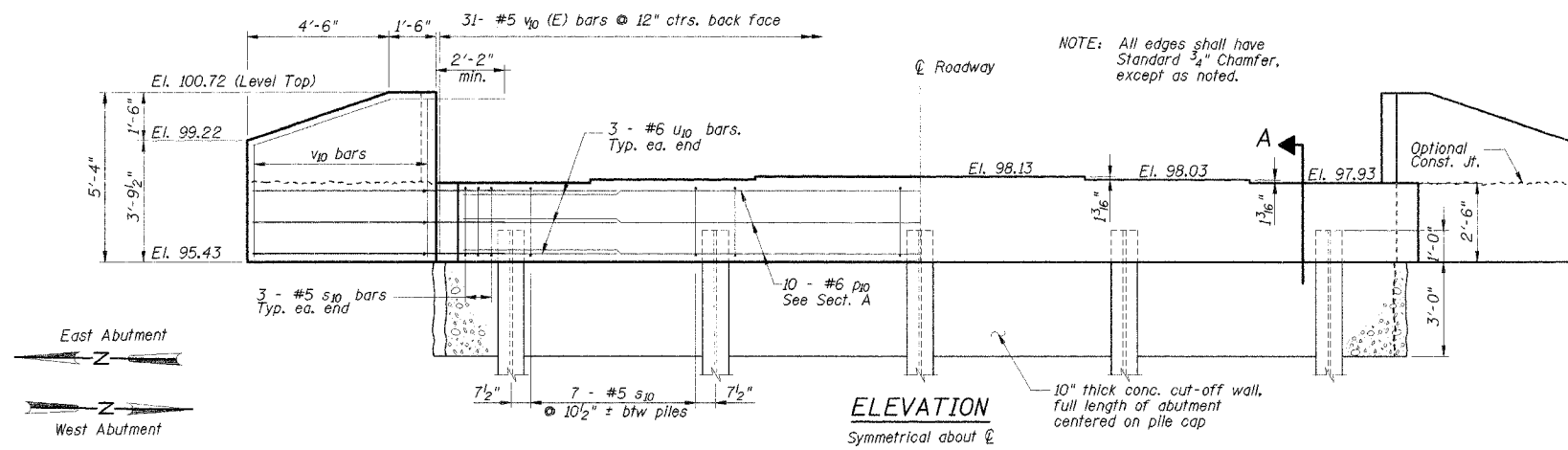
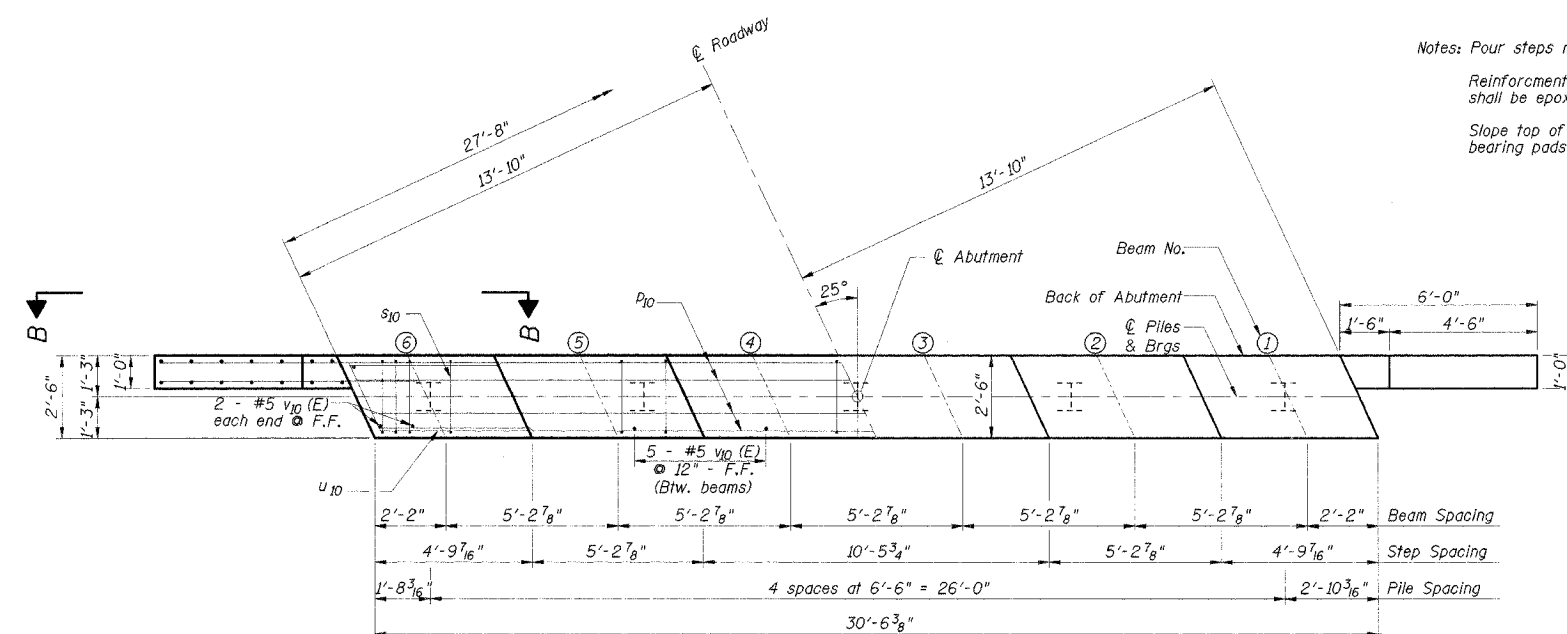


|                       |          |                  |              |           |
|-----------------------|----------|------------------|--------------|-----------|
| ROUTE NO.             | SECTION  | COUNTY           | TOTAL SHEETS | SHEET NO. |
| TR 373                | *        | Vermilion        | 19           | 13        |
| FED. ROAD DIST. NO. / | ILLINOIS | FED. AID PROJECT |              |           |

\*02-04130-00-BR

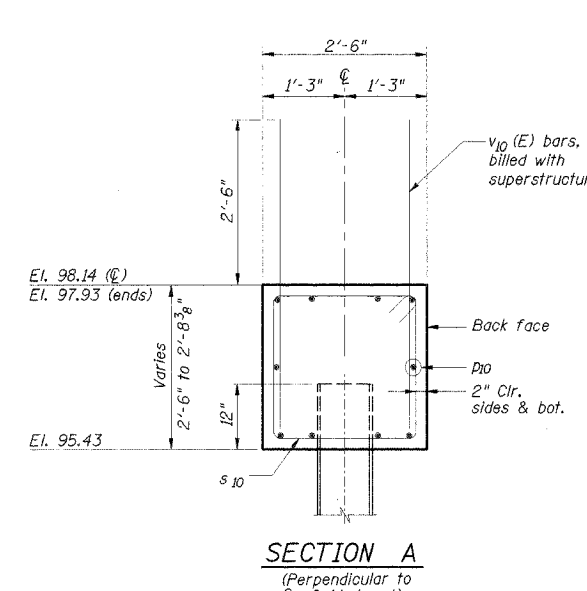


Notes: Four steps monolithically with cap.  
Reinforcement bars designated (E) shall be epoxy coated.  
Slope top of Abutment to drain between bearing pads

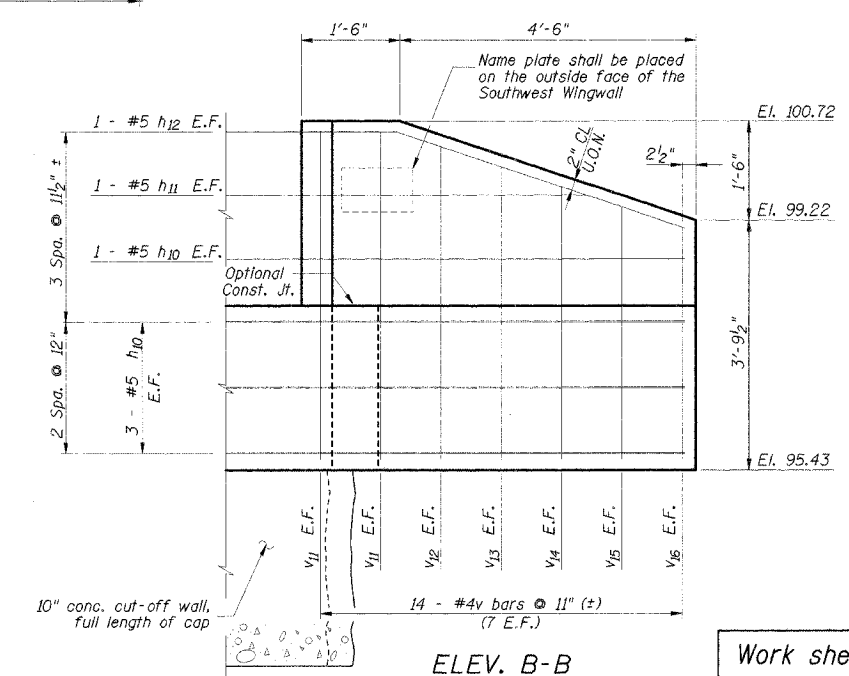


**PILE DATA**

Type: Steel HP10x42  
No. Required: 4 West Abutment, 4 East Abutment  
Capacity: 32 T/Pile @ both abutments  
Est. Length: 35 Ft. N. Abutment, 35 Ft. S. Abutment  
Test Piles: 1 West Abutment, 1 East Abutment



F.F. - Front Face  
B.F. - Back Face  
E.F. - Each Face  
U.O.N. - Unless otherwise noted



Work sheets 13 & 14 together.

**BILL OF MATERIAL - 2 ABUTS.**

| Bar                         | No. | Size     | Length | Shape |
|-----------------------------|-----|----------|--------|-------|
| h <sub>10</sub>             | 32  | #5       | 8'-0"  | —     |
| h <sub>11</sub>             | 8   | #5       | 6'-6"  | —     |
| h <sub>12</sub>             | 8   | #5       | 8'-4"  | —     |
| P <sub>10</sub>             | 20  | #6       | 30'-2" | —     |
| s <sub>10</sub>             | 68  | #5       | 9'-7"  | □     |
| u <sub>10</sub>             | 12  | #6       | 12'-3" | □     |
| v <sub>11</sub>             | 16  | #4       | 4'-11" | —     |
| v <sub>12</sub>             | 8   | #4       | 4'-8"  | —     |
| v <sub>13</sub>             | 8   | #4       | 4'-5"  | —     |
| v <sub>14</sub>             | 8   | #4       | 4'-1"  | —     |
| v <sub>15</sub>             | 8   | #4       | 3'-10" | —     |
| v <sub>16</sub>             | 8   | #4       | 3'-6"  | —     |
| Concrete Structures         |     | Cu. Yds. | 18.8   |       |
| Reinforcement Bars          |     | Lbs.     | 2,360  |       |
| Test Pile, Steel HP10x42    |     | Each     | 2      |       |
| Furnish Steel Pile, HP10x42 |     | Foot     | 280    |       |
| Drive Steel Pile            |     | Foot     | 280    |       |
| Metal Shoes                 |     | Each     | 8      |       |
| Name Plate                  |     | Each     | 1      |       |
| Concrete Cut-off Wall       |     | Cu. Yds. | 5.7    |       |
| Structure Excavation        |     | Cu. Yds. | 108    |       |

|      |               |     |      |          |    |
|------|---------------|-----|------|----------|----|
| DSGN | K.J. Hoffmann |     |      |          |    |
| DR   | K.J. Hoffmann |     |      |          |    |
| CHK  | K.E. Brandau  |     |      |          |    |
| APVD | K.E. Brandau  | NO. | DATE | REVISION | BY |

**FRAUENHÖFFER**

Frauenhoffer and Associates, P.C. Consulting Engineers  
3002 Crossing Court Champaign, Il. 61822 217-351-6268

|  |  |                      |
|--|--|----------------------|
| <b>ABUTMENTS</b>   |  | SHEET 13             |
| CATLIN ROAD DISTRICT<br>SECTION 05-00154-00-BR<br>VERMILION COUNTY |  | DWG NO. 5068-abt.dgn |
|  |  | DATE FEB 2006        |
|  |  | PROJ NO. 506E        |