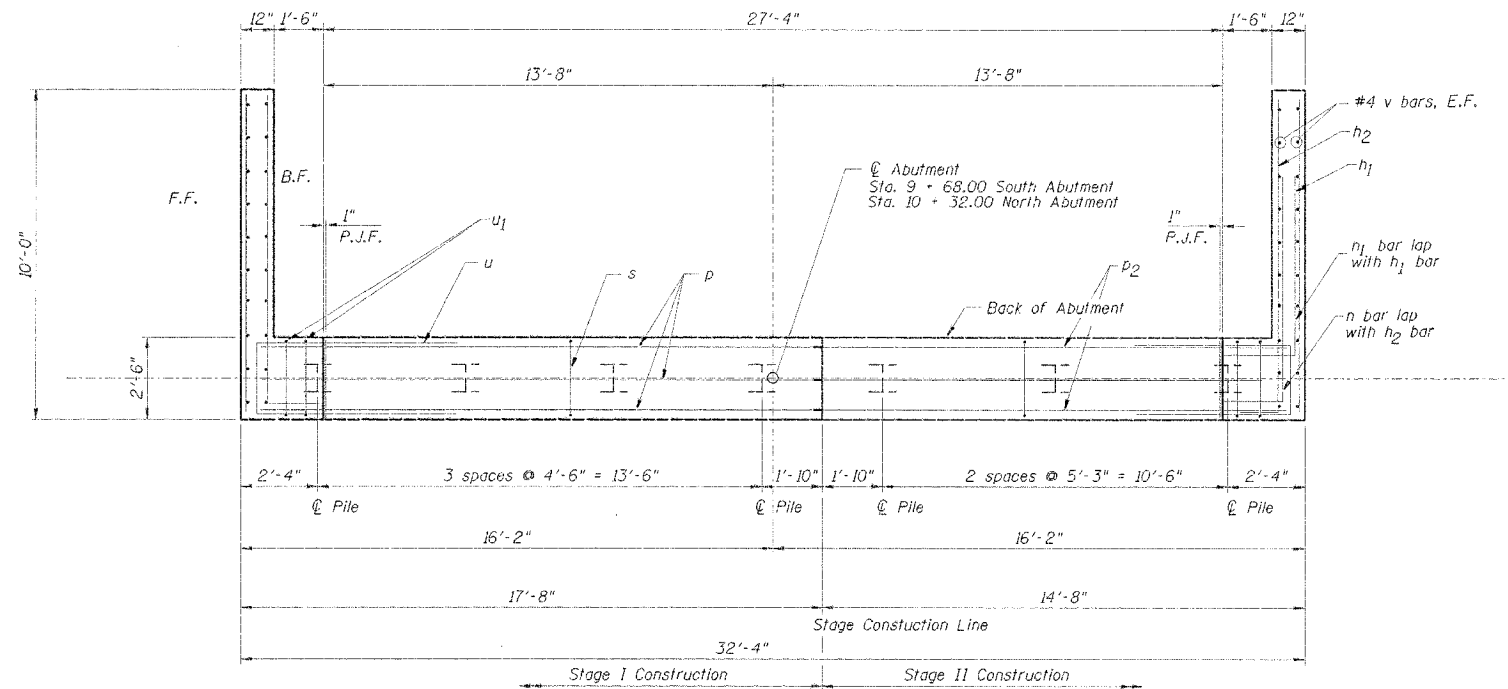


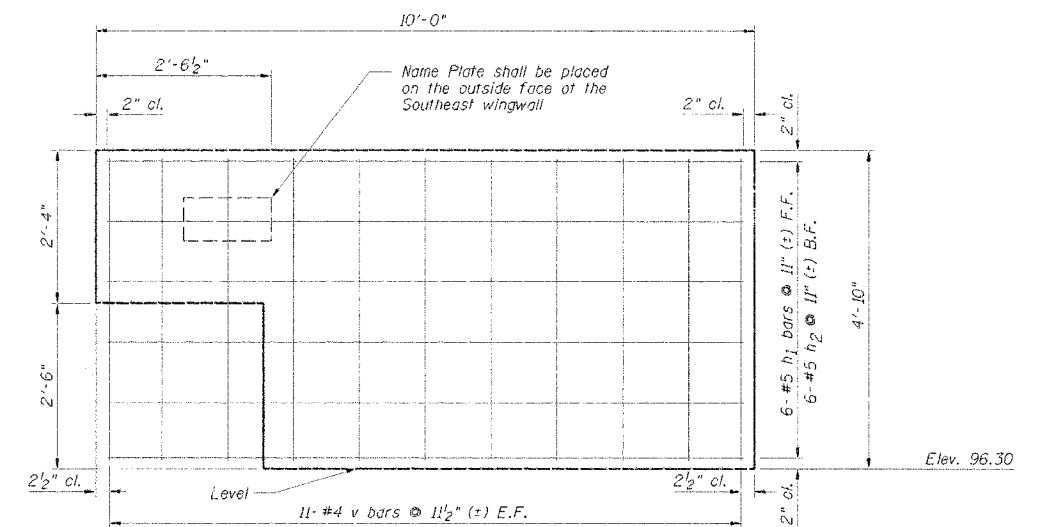
| | | | | |
|-----------------------|---------|------------------|--------------|-------|
| PROJECT NO. | SECTION | COUNTY | TOTAL SHEETS | SHEET |
| TR 318A | * | Vermilion | 12 | 6 |
| FED. ROAD DIST. NO. 7 | ALIGNED | FED. AID PROJECT | | |

*00-06121-00-BR



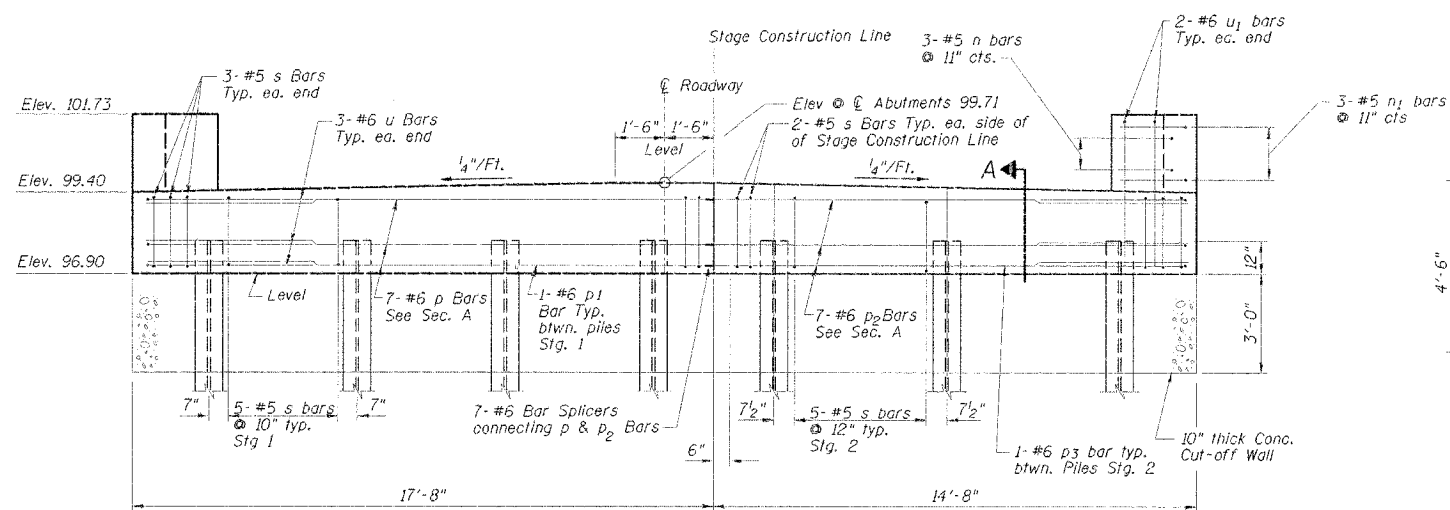
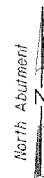
TOP PLAN

North Abutment Shown, South Abutment is a Mirror Image.



WINGWALL ELEVATION

Wingwalls shall be poured after beams are in place



ELEVATION

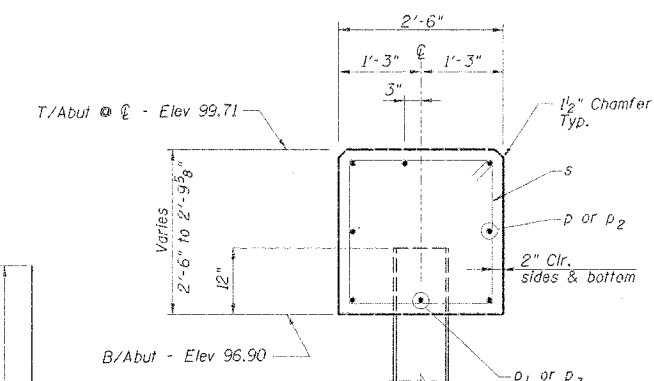
PILE DATA

Note: The Steel H-piles shall be according to AASHTO M270 Grade 50.

Type: Steel HP 10 x 42
 Nominal Required Bearing: 108 kips
 Allowable Resistance Available: 54 kips
 Estimated Length: 30 ft. N. Abutment
 23 ft. S. Abutment

No. Required: 6 @ North Abutment
 6 @ South Abutment
 Test Piles: 1 @ North Abutment
 1 @ South Abutment

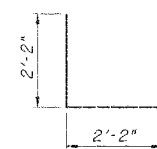
| | | | | | |
|------|---------------|-----|------|----------|----|
| DSGN | R.J. Wagner | | | | |
| DR | C.B. Beaudoin | | | | |
| CHK | K.E. Brandau | | | | |
| APVD | K.E. Brandau | NO. | DATE | REVISION | BY |



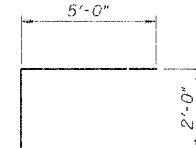
SECTION A

BAR n

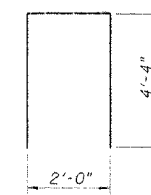
BAR h2



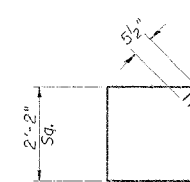
BAR n1



BAR u



BAR u1



BAR s

BILL OF MATERIAL - 2 ABUTS.

| Bar | No. | Size | Length | Shape | |
|---------------------------------|-----|------|--------|----------|------|
| h1 | 24 | #5 | 9'-7" | — | |
| h2 | 24 | #5 | 10'-4" | — | |
| n | 12 | #5 | 6'-0" | L | |
| n1 | 12 | #5 | 4'-4" | L | |
| p | 14 | #6 | 17'-4" | — | |
| p1 | 6 | #6 | 4'-0" | — | |
| p2 | 14 | #6 | 14'-4" | — | |
| p3 | 4 | #6 | 4'-9" | — | |
| s | 70 | #5 | 9'-7" | □ | |
| u | 12 | #6 | 12'-0" | — | |
| u1 | 8 | #6 | 10'-8" | — | |
| v | 88 | #4 | 4'-6" | — | |
| Concrete Structures | | | | Cu. Yds. | 23.6 |
| Reinforcement Bars | | | | Lbs. | 2670 |
| Test Pile, Steel HP10x42 | | | | Each | 2 |
| Furnishing Steel Piles, HP10x42 | | | | Foot | 318 |
| Driving Piles | | | | Foot | 318 |
| Pile Shoes | | | | Each | 14 |
| Name Plate | | | | Each | 1 |
| Concrete Cut-off Wall | | | | Cu. Yds. | 6.0 |
| Structure Excavation | | | | Cu. Yds. | 104 |
| Bar Splicers | | | | Each | 14 |

FRAUENHOPFER

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

ABUTMENTS

ELWOOD ROAD DISTRICT
 SECTION 00-06121-00-BR
 VERMILION COUNTY

| | |
|----------|--------------|
| SHEET | 6 |
| DWG NO. | elwd-abt.dgn |
| DATE | JAN 2005 |
| PROJ NO. | 20053 |