

Bench Mark: Chiseled "□" on top of box culvert, 39' Rt. of Station 366+80, Elevation 462.94.

Existing Structure: S.M. 061-0041 Built in 1923 as S.B.I. Rt. 12 Sec. 13B at Station 679+43 as a three simple span 159'-0" Bk.-Bk. abutments, supported on timber piles. Bridge widening, and superstructure replacement with PPC deck beams in 1970. Existing bridge to be removed and replaced. Traffic maintained utilizing stage construction.

No salvage.

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

STATION 375+53.00
BUILT 20 BY
STATE OF ILLINOIS
F.A.P. RT. 327 - SEC. 13B-1 & 13B-2
LOADING HL-93
STRUCTURE NO. 061-0091

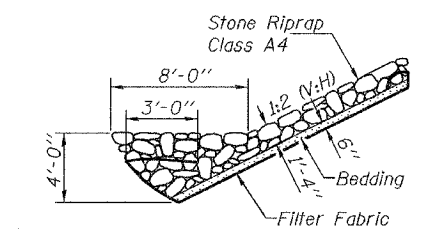
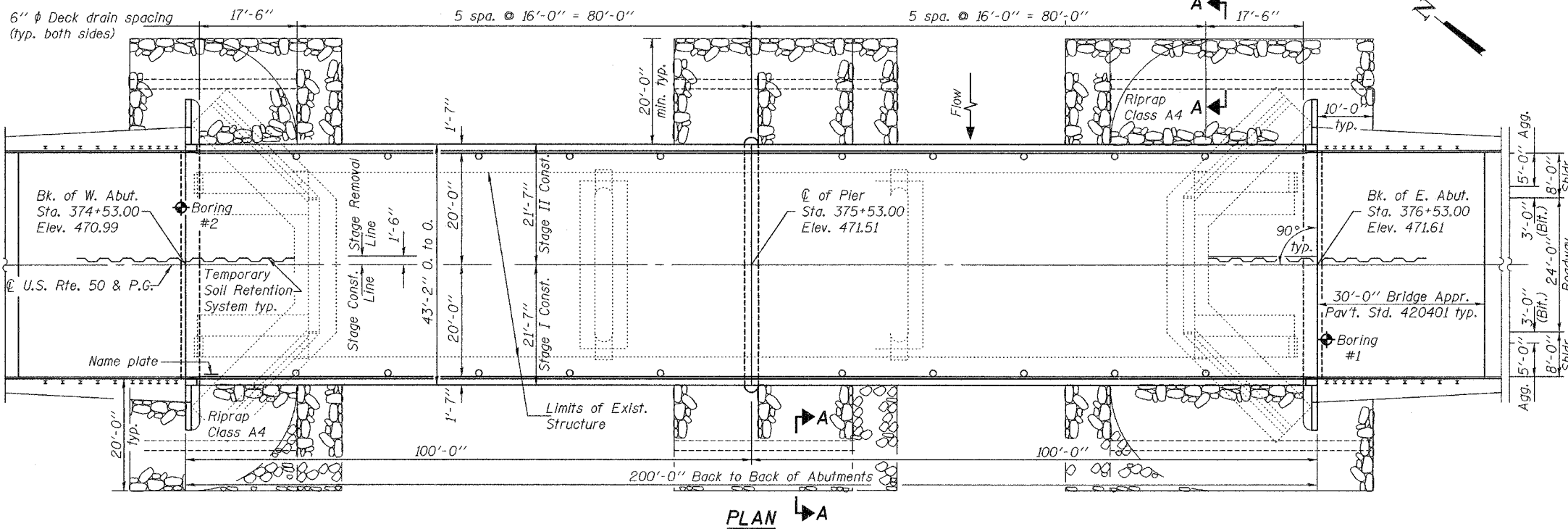
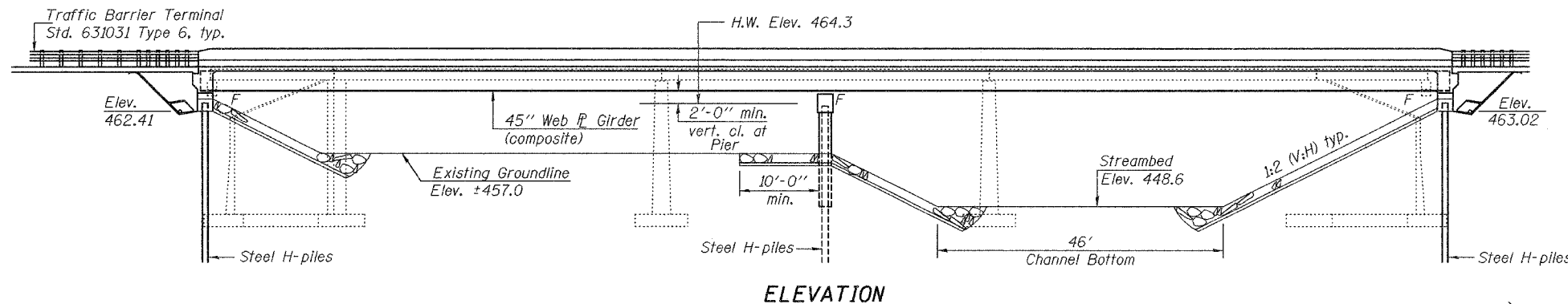
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|-----------------------|---------------|-------------------|-----------|-----------|
| ROUTE NO. | SECTION | COUNTY | SHEET NO. | SHEET NO. |
| FAP 327 | 13B-1 & 13B-2 | MARION | 78 | 35 |
| FED. ROAD DIST. NO. 7 | ILLINOIS | FED. AID PROJECT- | | |

Contract No. 94964

INDEX OF SHEETS

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- 2 General Data & Stage Construction Details
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- 9 Structural Steel
- 10 Structural Steel Details
- 11 Anchor Bolt Details
- 12 West Abutment
- 13 East Abutment
- 14 Pier
- 15 Bar Splicer Assembly Details
- 16-17 Boring Logs

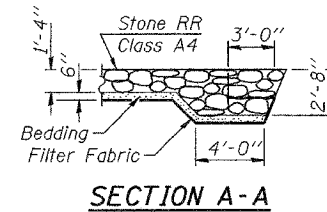
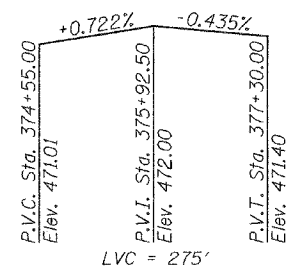
NAME PLATE
See Std. 515001



STONE RIPRAP ANCHOR DETAIL

TOTAL BILL OF MATERIAL

| ITEM | UNIT | SUPER | SUB | TOTAL |
|--|---------|-------|--------|--------|
| Porous Granular Embankment (Special) | Cu. Yd. | | 173.9 | 173.9 |
| Stone Riprap, Class A4 | Sq. Yd. | | 1092 | 1092 |
| Filter Fabric | Sq. Yd. | | 1092 | 1092 |
| Removal of Existing Structures | Each | | 1 | 1 |
| Structure Excavation | Cu. Yd. | | 212.3 | 212.3 |
| Driving Steel Piles | Foot | | 1325 | 1325 |
| Floor Drains | Each | 20 | | 20 |
| Concrete Structures | Cu. Yd. | | 99.4 | 99.4 |
| Concrete Superstructure | Cu. Yd. | | 287.4 | 287.4 |
| Bridge Deck Grooving | Sq. Yd. | | 884.4 | 884.4 |
| Protective Coat | Sq. Yd. | | 1056.4 | 1056.4 |
| Furnishing and Erecting Structural Steel | L. Sum | 0.69 | | 0.69 |
| Stud Shear Connectors | Each | 3024 | | 3024 |
| Reinforcement Bars, Epoxy Coated | Pound | 70380 | 11440 | 81820 |
| Furnishing Steel Piles HP12x84 | Foot | | 1325 | 1325 |
| Test Pile Steel HP12x84 | Each | | 3 | 3 |
| Temporary Soil Retention System | Sq. Ft. | | 615.0 | 615.0 |
| Name Plates | Each | | 1 | 1 |
| Bar Splicers | Each | 734 | 61 | 795 |
| Underwater Structure Excavation | Each | | 1 | 1 |
| Protection Location 3 | | | | |
| Geocomposite Wall Drain | Sq. Yd. | | 92.7 | 92.7 |
| Pipe Underdrains for Structures, 4" | Foot | | 151.3 | 151.3 |



SECTION A-A

PROFILE GRADE
(along Q Roadway)

| | |
|----------|--------------------|
| DESIGNED | Robert J. Mitchell |
| CHECKED | h.f. duong |
| DRAWN | h.f. duong |
| CHECKED | h.f. duong |

EXAMINED
PASSED
Feb 2, 2006
ENGINEER OF BRIDGE DESIGN
ENGINEER OF BRIDGES AND STRUCTURES



WATERWAY INFORMATION

Existing Low Grade Elev. 470.0 @ Sta. 376+00
Proposed Low Grade Elev. 470.0 @ Sta. 376+00

| Flood | Freq. Yr. | Q C.F.S. | Opening Sq. Ft. | | Head - Ft. | | Headwater El. | | |
|-------------|-----------|----------|-----------------|-------|---------------|-------|---------------|-------|-------|
| | | | Exist. | Prop. | H.W.E. Exist. | Prop. | Exist. | Prop. | |
| Design | 50 | 9194 | 1372 | 1397 | 463.0 | 1.3 | 1.3 | 464.3 | 464.3 |
| Base | 100 | 10461 | 1432 | 1464 | 464.3 | 1.9 | 1.9 | 466.2 | 466.2 |
| Overtopping | 500 | 13458 | 1581 | 1633 | 464.7 | 2.1 | 2.1 | 466.8 | 466.8 |
| Max. Calc. | | | | | 465.7 | 2.9 | 2.8 | 468.6 | 468.5 |

LOADING HL-93

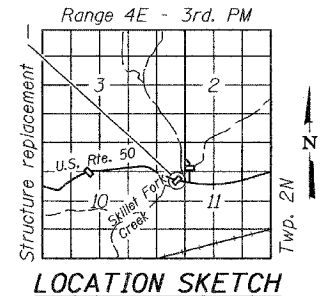
Allow 50 psf for future wearing surface
DESIGN SPECIFICATIONS
A.A.S.H.T.O. LRFD Bridge Design Specifications
U.S., 3rd. Edition - 2004

DESIGN STRESSES

$f'_c = 3,500$ psi
 $f_y = 60,000$ psi (reinforcement)
 $f_y = 50,000$ psi (structural steel M270, GR50)
 $f_y = 36,000$ psi (structural steel M270, GR36)

SEISMIC DATA

Seismic Performance Zone (SPZ) = 2
Bedrock Acceleration Coefficient (A) = 9.0%
Site Coefficient (S) = 1.5



LOCATION SKETCH

GENERAL PLAN
U.S. RTE. 50 OVER
SKILLET FORK CREEK
F.A.P. RTE. 327 - SEC. 13B-1 & 13B-2
MARION COUNTY
STATION 375+53.00
STRUCTURE NO. 061-0091