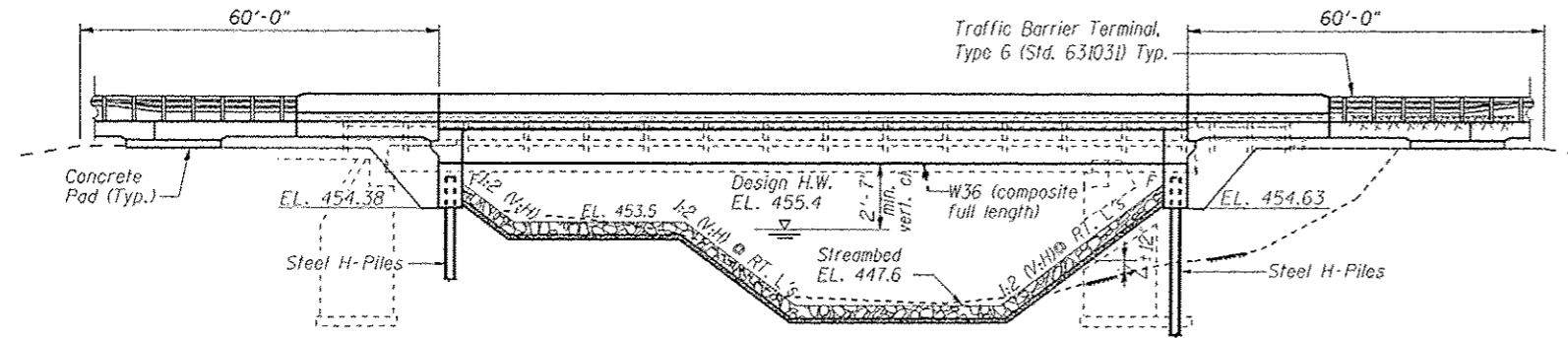


Existing Structure: S.M. 029-0017, originally constructed in 1935. The Existing concrete closed abutments were widened and the deck was replaced with Single span PPC deck beams reconstructed in 1971 as SBI Rt 78, Section 137BR. In 1987 bridge railings were replaced and the top of deck was resurfaced. The bridge measures 78'-6" back to back of abutments and 33' out to out of deck.

The existing bridge is to be removed and replaced. Traffic shall be maintained using stage construction.

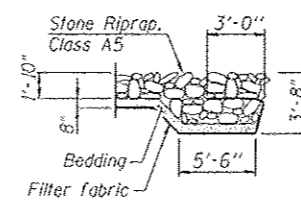
No salvage



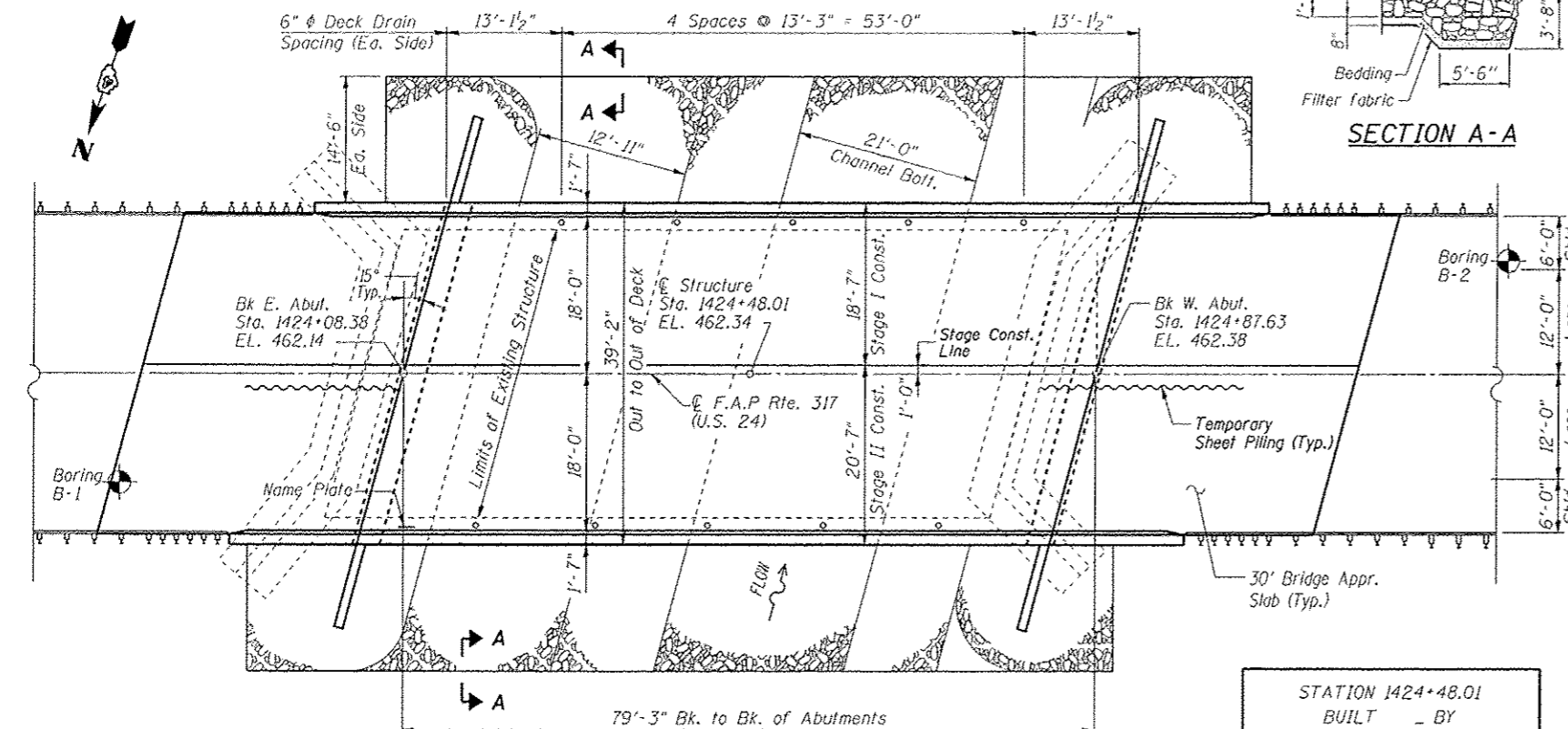
DESIGN SCOUR ELEVATION TABLE

Design Scour Elevations (ft.)	E. Abut.	W. Abut.
	454.38	454.63

ELEVATION



SECTION A-A



PLAN

STATION 1424+48.01
BUILT BY
STATE OF ILLINOIS
FA RTE. 317 SEC. 137-BR
LOADING HL-93
STR. NO. 029-0073

NAME PLATE
See Std. 515001

DESIGN SPECIFICATIONS

2010 AASHTO LRFD Bridge Design Specifications with 2010 Interims

DESIGN STRESSES

Field Units
f_c = 3,500 p.s.i.
f_y = 60,000 p.s.i. (Reinforcement)
f_y = 50,000 p.s.i. (Structural Steel)
AASHTO M270 Grade 50W

LOADING HL-93

Allow 50#/sq. ft. for future wearing surface.

SEISMIC DATA

Seismic Performance Zone (SPZ) = 1
Design Spectral Acceleration at 1.0 Sec. (S₀₁) = 0.09g
Design Spectral Acceleration at 0.2 Sec. (S₀₅) = 0.14g
Soil Site Class = C

INDEX OF SHEETS

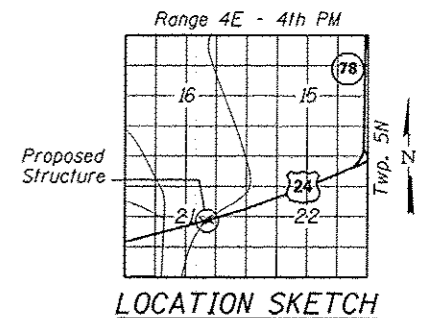
1. General Plan and Elevation
2. Footing Layout, Stage Construction Details
3. Deck Elevations
4. Deck Elevations
5. Top of East Approach Slab Elevations
6. Top of West Approach Slab Elevations
7. Superstructure
8. Superstructure Details
9. Diaphragm Details
10. Bridge Approach Slab Details
11. Bridge Approach Slab Details
12. Steel Beam Framing Plan and Details
13. Bearing Details
14. East Abutment Details
15. West Abutment Details
16. HP Pile Details
17. Bar Splicer Assembly and Mechanical Splicer Details
18. Temporary Concrete Barrier for Stage Construction
19. Soil Boring Logs

TOTAL BILL OF MATERIAL

ITEM	UNITS	SUPER	SUB	TOTAL
Removal of Existing Structures	Each			1
Structure Excavation	Cu. Yd.		64	64
Granular Backfill for Structures	Cu. Yd.		130	130
Stone Riprap, Class A5	Sq. Yd.		693	693
Filter Fabric	Sq. Yd.		693	693
Concrete Encasement	Cu. Yd.		6.6	6.6
Concrete Structures	Cu. Yd.		59.0	59.0
Concrete Superstructure	Cu. Yd.	249		249
Bridge Deck Grooving	Sq. Yd.	529		529
Protective Coat	Sq. Yd.	657		657
Furnishing and Erecting Structural Steel	L. Sum	0.5		0.5
Stud Shear Connectors	Each	1,962		1,962
Reinforcement Bars, Epoxy Coated	Pound	51,970	9,770	61,740
Bar Splicers	Each	480	100	580
Furnishing Steel Piles HP14x89	Foot		291	291
Driving Piles	Foot		291	291
Test Pile Steel HP14x89	Each		1	1
Geocomposite Wall Drain	Sq. Yd.		81	81
Name Plates	Each	1		1
Anchor Bolts, 1"	Each		24	24
Floor Drains	Each	10		10
Pipe Underdrains for Structures 4"	Foot		128	128
Temporary Sheet Piling	Sq. Ft.		427	427

GENERAL NOTES

1. Fasteners shall be ASTM A325 Type 1, mechanically galvanized bolts in painted areas and ASTM A325 Type 3 in unpainted areas. Bolts $\frac{3}{4}$ in. ϕ , holes $\frac{5}{16}$ in. ϕ , unless otherwise noted.
2. Calculated weight of Structural Steel = 88,860 Pounds.
3. All structural steel shall be AASHTO M 270 Grade 50W.
4. No field welding is permitted except as specified in the contract documents.
5. Reinforcement bars designated (E) shall be epoxy coated.
6. Structural steel shall only be painted for a distance equal to the depth of embedment into the concrete cap plus 3 inches. Painted areas shall be primed in the shop with a Department approved zinc rich primer. Field painting will not be required.
7. Layout of slope protection system may be varied in the field to suit ground conditions in the field as directed by the Engineer.
8. The embankment configuration shown shall be the minimum that must be placed and compacted prior to construction of the abutments.
9. Excavation behind existing abutment walls shall be performed to balance front and back soil pressure before removing the existing superstructure. The Contractor shall sawcut the upper portion of the existing abutment at the stage removal line before Stage I removal to ensure the remaining portion will not be prematurely damaged.
10. Slipforming of parapets is not allowed
11. Piles shall be driven through 21 in. diameter precored holes extending through existing concrete footing at Elevation 431.99. Cost included in Driving Piles.



LOCATION SKETCH

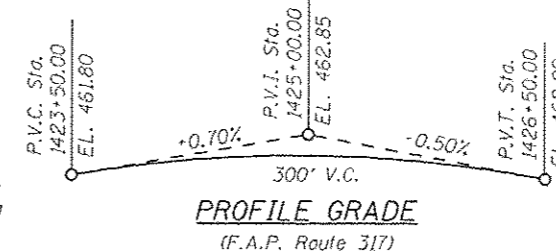


APPROVED

For Structural Adequacy Only

Olufemi A. Oladeinde
Engineer of Bridges & Structures

Signed: *Olufemi A. Oladeinde*
OLUFEMI A. OLADEINDE, P.E., S.E.
LICENSE EXPIRES 11/30/2014



PROFILE GRADE

(F.A.P. Route 317)

GENERAL PLAN & ELEVATION
U.S. 24 OVER LITTLE SISTER CREEK
F.A.P. RTE. 317 - SEC. 137-BR
FULTON COUNTY
STATION 1424+48.01
STRUCTURE NO. 029-0073



USER NAME	DESIGNED	REVISIONS
LRT	LRT	REVISIONS
DAO	DAO	REVISIONS
TCS	TCS	REVISIONS
LRT	LRT	REVISIONS

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GENERAL PLAN AND ELEVATION
STRUCTURE NO. 029-0073

SHEET NO. 1 OF 19 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
317	(137 BR, BR-1) BR	FULTON	118	45

CONTRACT NO. 68699

ILLINOIS FED. AID PROJECT