

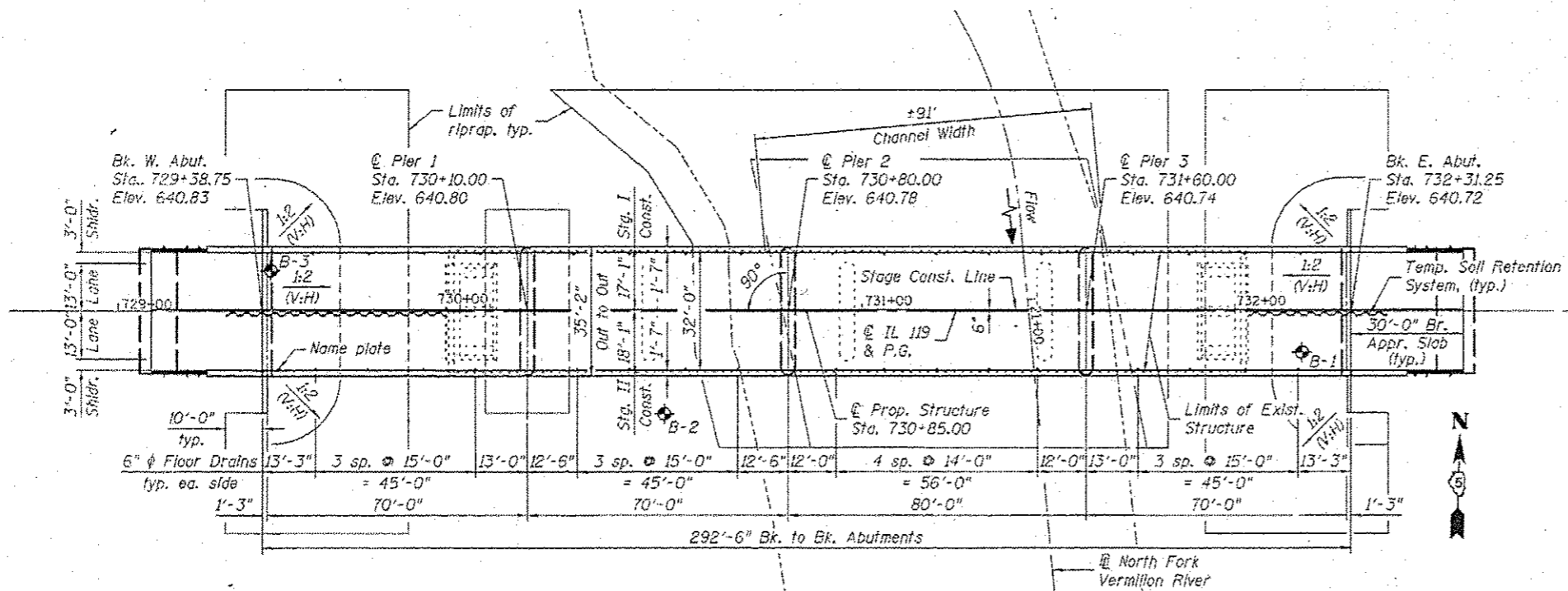
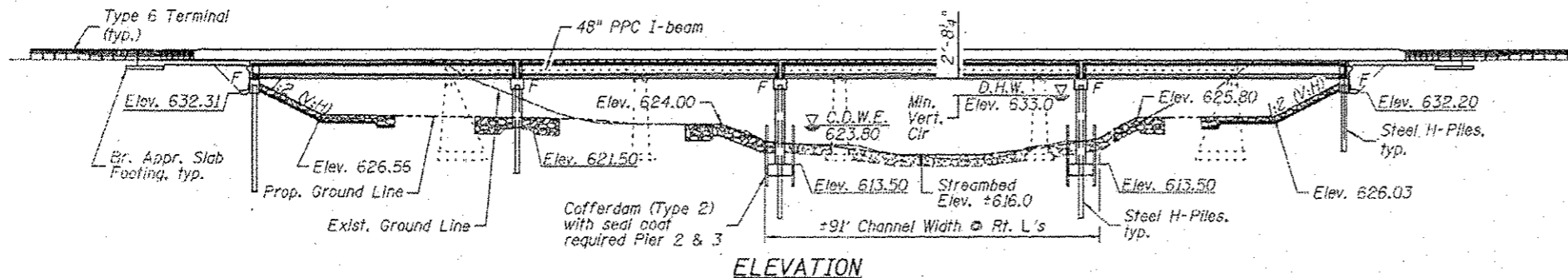
Bench Mark: Chiseled "□" on the southeast corner of hub guard of S.N. 092-0065. Elev. 641.19

Exist. Structure: S.N. 092-0065, built in 1932 as SBI 119. Section 116B at Sta. 730+96. In 1980, superstructure was reconstructed with PPC deck beams. Current 4-span (52'-53'-53'-52') structure is 33'-0" wide between rails and 214.2' bk. to bk. abutments with no skew. Substructure consists of spill-thru abutments and RC piers on piles. Structure to be removed and replaced using stage construction. One lane of traffic to be maintained during construction.

Salvage: Existing steel WF beams, framing angles and tie plates supporting deficient PPC deck beams shall be salvaged in accordance with Section 501.02 of the Std. Specs. for reuse by IDOT. Members shall be removed and delivered to the location designated by the District.

TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Stone Riprap, Class A4	Sq. Yd.		1200	1200
Stone Dumped Riprap, Class A6	Sq. Yd.		791	791
Filter Fabric	Sq. Yd.		1200	1200
Removal of Existing Structures	Each			1
Structure Excavation	Cu. Yd.		289	289
Cofferdam Excavation	Cu. Yd.		183	183
Cofferdam (Type 2), Location 1	Each		1	1
Cofferdam (Type 2), Location 2	Each		1	1
Floor Drains	Each	34		34
Concrete Structures	Cu. Yd.		301.2	301.2
Concrete Superstructure	Cu. Yd.	505.3		505.3
Bridge Deck Grooving	Sq. Yd.	1178		1178
Seal Coat Concrete	Cu. Yd.		62.2	62.2
Concrete Encasement	Cu. Yd.		4.2	4.2
Protective Coat	Sq. Yd.	1531		1531
Furnishing and Erecting Precast Prestressed Concrete I-Beams, 48 in.	Foot	1728		1728
Reinforcement Bars, Epoxy Coated	Pound	121930	25840	147770
Bar Splicers	Each	1091	245	1337
Furnishing Steel Piles HP12x53	Foot		550	550
Furnishing Steel Piles HP14x89	Foot		1449	1449
Driving Piles	Foot		1999	1999
Test Pile Steel HP12x53	Each		2	2
Test Pile Steel HP14x89	Each		3	3
Name Plates	Each		1	1
Geocomposite Wall Drain	Sq. Yd.		70	70
Granular Backfill for Structures	Cu. Yd.		150	150
Asbestos Bearing Pad Removal	Each		44	44
Diamond Grinding (Bridge Section)	Sq. Yd.	1099		1099
Pipe Underdrains for Structures 4"	Foot		129	129
Temporary Soil Retention System	Sq. Ft.		1262	1262

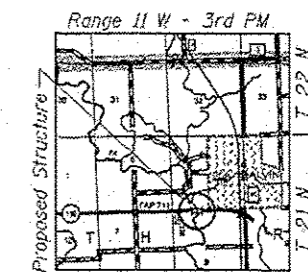


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PROFILE GRADE

(along E. Roadway)
Up to 1/4" shall be ground off the top slab and the bridge approach slab. The profile grade shown is the final elevation after grinding.



LOCATION SKETCH

GENERAL PLAN & ELEVATION
IL 119 OVER N. FORK VERMILION RIVER
F.A.P. RTE. 711 - SECTION 116BR-1
VERMILION COUNTY
STA. 730+85.00
STRUCTURE NO. 092-0207

DESIGN SPECIFICATIONS

2010 AASHTO LRFD Bridge Design Specifications with 2010 Interims

DESIGN STRESSES

FIELD UNITS

$f'_c = 3,500$ psi
 $f_y = 60,000$ psi (Reinforcement)

PRECAST PRESTRESSED UNITS

$f'_c = 6,000$ psi
 $f'_{ci} = 5,000$ psi
 $f_{pu} = 270,000$ psi (1/2" ϕ Low Relax. Strands)
 $f_{psi} = 201,960$ psi (1/2" ϕ Low Relax. Strands)

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. (S_{d1}) = 0.088
 Design Spectral Acceleration at 0.2 sec. (S_{d5}) = 0.155
 Soil Site Class = C

Notes:

For riprap layout, see sheet 2 of 33.

For elevation showing excavation limits, see sheet 4 of 33.

APPROVED

For Structural Adequacy Only

Chris Linneman
 Engineer of Bridges & Structures



Signed: *Chris Linneman*
 Date: 3/17/2014
 License Expires: 11/30/2014

GENERAL PLAN & ELEVATION
STRUCTURE NO. 092-0207

SHEET NO. 1 OF 33 SHEETS

EFK Moen, LLC
 Civil Engineering Design
 331 Salem Place, Suite 225
 Fairview Heights, IL 62108
 Phone 618-286-4250

USER NAME = cdl	DESIGNED - CTW	REVISED -
CHECKED - CDL	REVISIONS -	
PLOT SCALE = 8/12" = 1' ON PLOT	DRAWN - CTW	REVISIONS -
PLOT DATE = 3/17/2014	DATE - 3/17/2014	REVISIONS -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

F.A.P. RTE. 711	SECTION 116BR-1	COUNTY VERMILION	TOTAL SHEETS 84	SHEET NO. 31
ILLINOIS FED. AID PROJECT			CONTRACT NO. 70614	