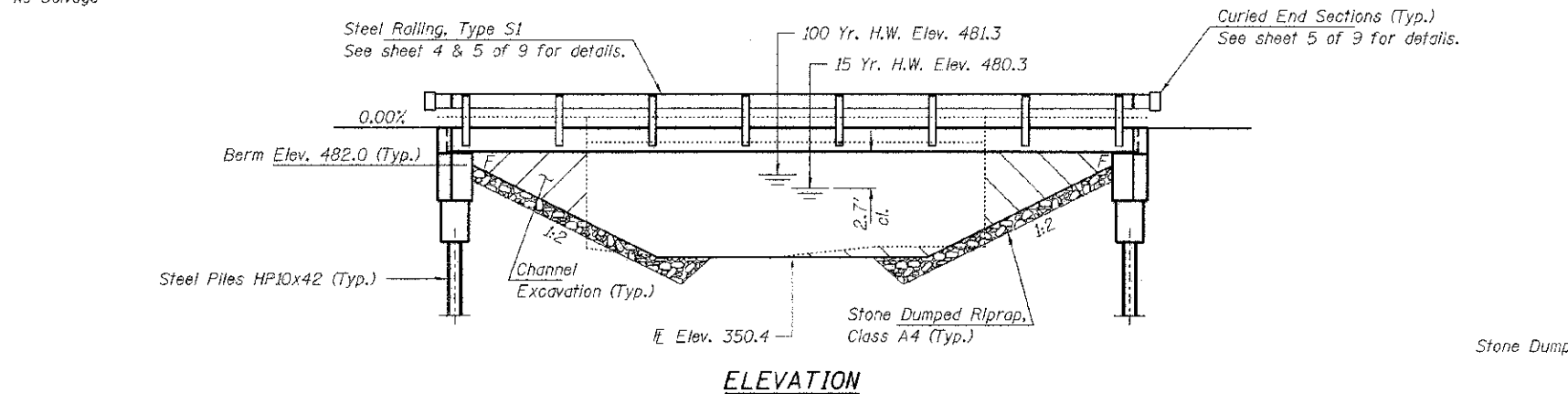
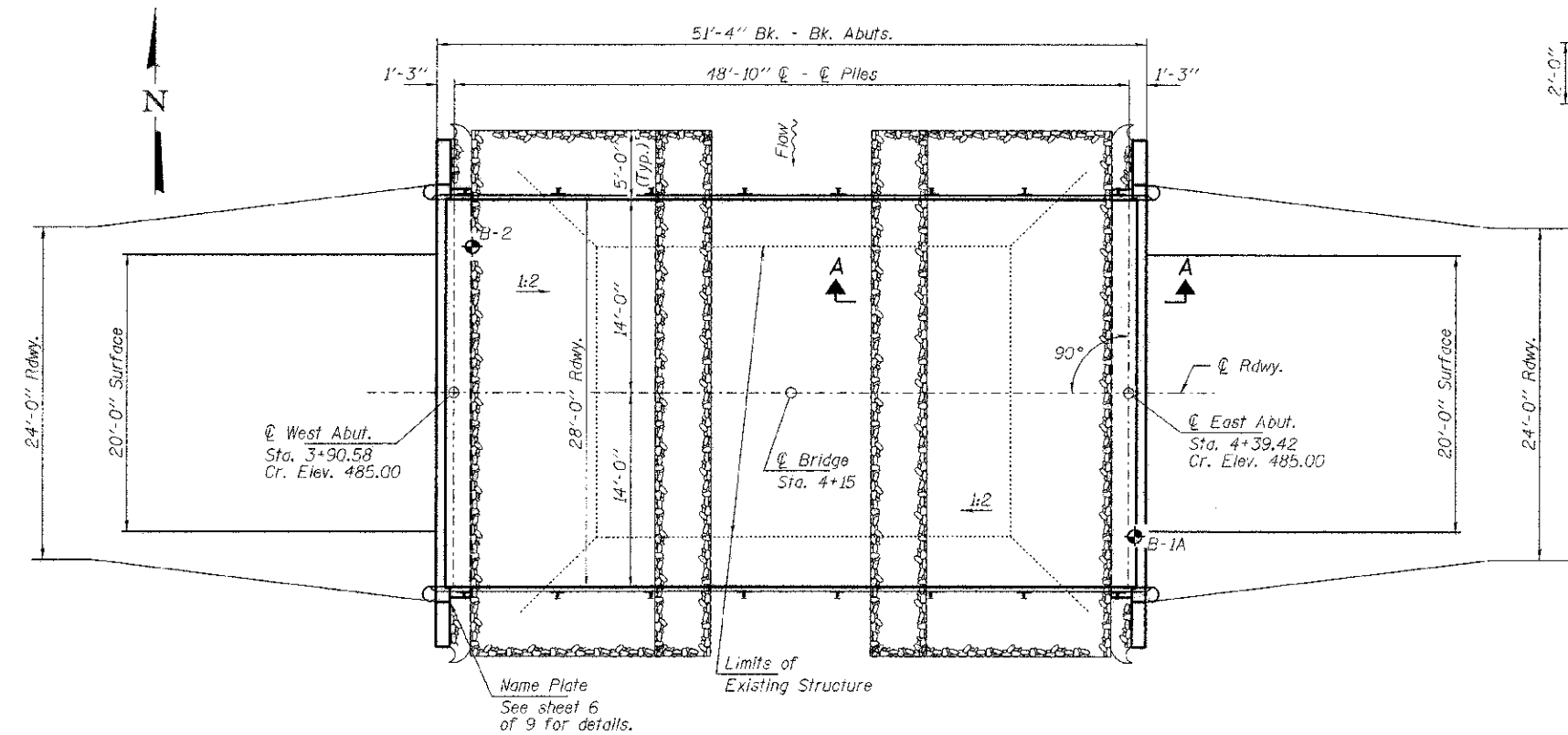


EXISTING STRUCTURE: 114" Corrugated Metal Pipe with wood headwalls. 35.5' long.
Structure closed to traffic.

No Salvage



ELEVATION



PLAN

DESIGN STRESSES

FIELD UNITS

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

PRECAST PRESTRESSED UNITS

$f'_c = 6,000$ psi
 $f'_{ci} = 5,000$ psi
 $f_{pu} = 270,000$ psi ($\frac{1}{2}$ " low lax. strands)
 $f_{pb} = 201,960$ psi ($\frac{1}{2}$ " low lax. strands)
 $f_y = 60,000$ psi (Reinf.)

LOADING HL-93

Design Specifications: 2010 AASHTO LRFD
with all applicable interims.
50#/Sq. Ft. included in dead load for
future wearing surface.

SEISMIC DATA

Seismic Performance Zone (SPZ) = 2
Design Spectral Acceleration at 1.0 sec. (S_{D1}) = 0.208g
Design Spectral Acceleration at 0.2 sec. (S_{D5}) = 0.472g
Soil Site Class = D

WATERWAY INFORMATION

Drainage Area = 0.36 Sq. Mi.		Existing Low Grade Elev.		Proposed Low Grade Elev.		Sta.	
Flood	Freq. Yr.	Q C.F.S.	Opening Sq. Ft. Exist.	Natural Prop. H.W.E.	Head - Ft. Exist.	Headwater El. Prop.	Sta.
Design	15	215	115	148	480.3	0.0	480.3
Base	100	372	139	187	481.3	0.0	481.3
Max. Calc.	500	572	147	201	481.6	0.1	481.7

DESIGN SCOUR ELEVATION TABLE

Design Scour Elevation (ft.)	W. Abut.	E. Abut.
	479.4	479.4

I certify that to the best of my knowledge, information and belief, this bridge design is structurally adequate for the design loading shown on the plans. The design is an economical one for the style of structure and complies with requirements of the current "AASHTO LRFD Specifications."

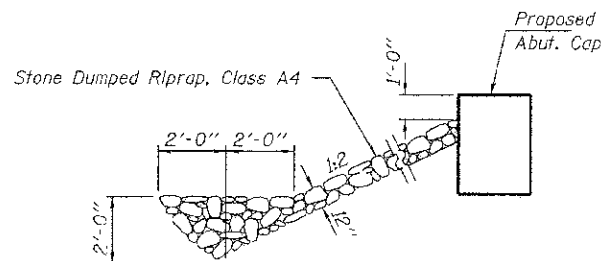
Steven W. Medinson 4/6/2012
ILLINOIS STRUCTURAL NO. 081-6064



Expires 11-30-2012

GENERAL NOTES

Layout of the slope protection system may be varied to suit ground conditions in the field as directed by the Engineer.
The Contractor shall drive test piles to 110% of the nominal required bearing specified in production locations at West Abutment or approved by the Engineer before ordering the remainder of piles.
Reinforcement bars shall conform to the requirements of ASTM A 706 Gr 60. See Special Provisions.
Excavation required to construct the Abutments shall be included in the cost of Concrete Structures. No additional compensation will be allowed for Structure Excavation.
All proposed construction activities shall be in accordance with Nationwide Permit number 14 of the Department of the Army authorized under Section 404 of the Clean Water Act.
The IEPA has issued Section 401 Water Quality Certification for this activity. See Special Provisions for conditions.

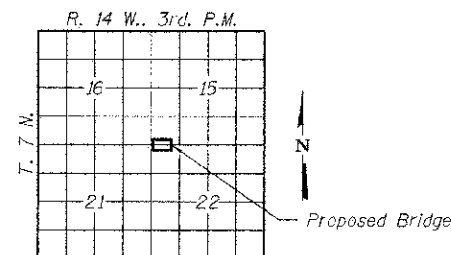


SECTION A-A

Note: See Special Provisions for Stone Dumped Riprap, Class A4.

INDEX OF STRUCTURE SHEETS

1. General Plan & Elevation
2. 21" x 48" PPC Deck Beam
3. 21" x 48" PPC Deck Beam Details
4. Superstructure Details
5. Steel Railing, Type S-1
6. Abutments
7. HP Pile Details
- 8-9. Borings



LOCATION SKETCH

N. FORK OLD CHANNEL
BUILT 20L BY
JASPER COUNTY
SEC. 11-00118-00-BR
C.H. 14
STR. NO. 040-3264
LOADING HL-93

NAME PLATE

See Std. 515001

TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Channel Excavation	Cu. Yd.			140
Stone Dumped Riprap, Class A4	Ton			100
Removal of Existing Structures	Each			1
Concrete Structures	Cu. Yd.		25.2	25.2
Concrete Encasement	Cu. Yd.		2.8	2.8
Precast Prestressed Concrete Deck Beams (21" Depth)	Sq. Ft.	1,400		1,400
Reinforcement Bars	Pound		2,590	2,590
Steel Railing, Type S1	Foot	99		99
Furnishing Steel Piles HP10x42	Foot		350	350
Driving Piles	Foot		350	350
Test Pile Steel HP10x42	Each		1	1
Name Plates	Each		1	1