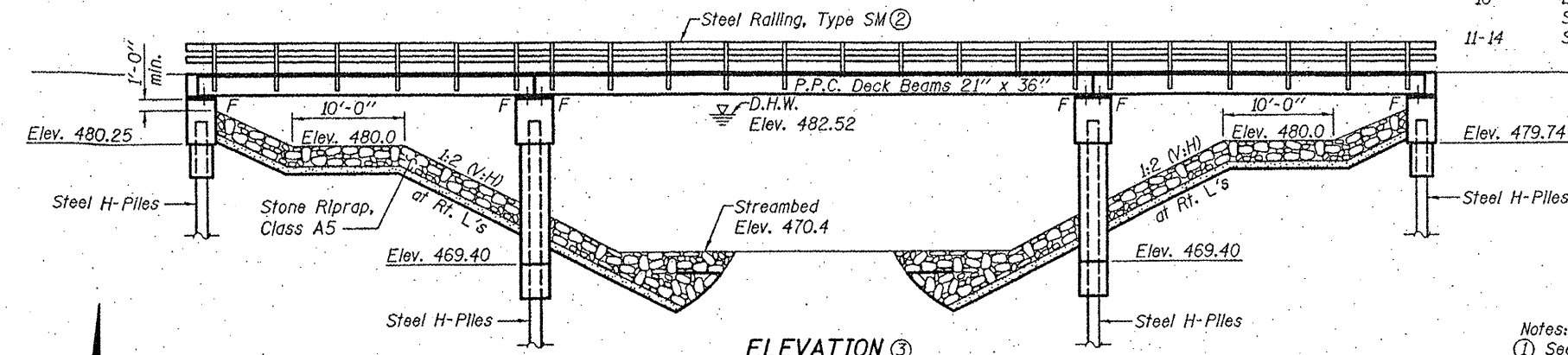
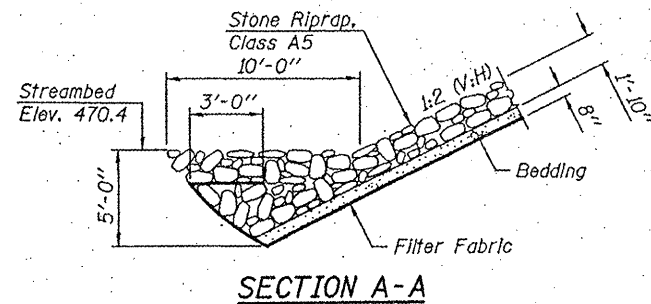


Existing Structure: SN 060-3161 constructed in 1937 is a riveted steel Pratt pony truss measuring 68'-0" back-to-back abutments, 20'-0" out-to-out deck, with a 0° skew. The superstructure is supported by closed abutments.

Traffic Control: Bridge will be closed during construction.

Salvage: None



INDEX OF SHEETS

Sheet No.	Description
1	General Plan
2	Superstructure
3	21" x 36" PPC Deck Beam (Span 1 & 3)
4	21" x 36" PPC Deck Beam (Span 2)
5	21" x 36" PPC Deck Beam Details
6	Steel Railing, Type SM With Hot-Mix Asphalt Wearing Surface
7	Abutments
8	Piers
9	HP Pile Details
10	Bar Splicer Assembly and Mechanical Splicer Details
11-14	Soil Boring Logs

GENERAL NOTES

Reinforcement bars shall conform to the requirements of ASTM A 706 Gr 60. See Special Provisions.
 Reinforcement bars designated (E) shall be epoxy coated.
 The existing structural steel coating contains lead. The Contractor shall take appropriate precautions to deal with the presence of lead on this project.
 Layout of the slope protection system may be varied to suit ground conditions in the field as directed by the Engineer.
 Excavation behind existing abutment walls shall be performed to balance front and back soil pressure before removing the existing superstructure.
 The pay item for Underwater Structure Excavation Protection - Location 1 is to be used for Pier 1 construction. The pay item for Underwater Structure Excavation Protection - Location 2 is to be used for Pier 2 construction.

DESIGN SPECIFICATIONS

2007 AASHTO LRFD Bridge Design Specifications with 2008 and 2009 Interims
LOADING HL-93
 Allow 50#/sq. ft. for future wearing surface.

DESIGN STRESSES

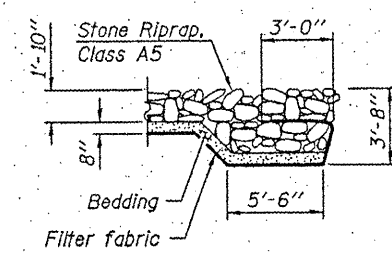
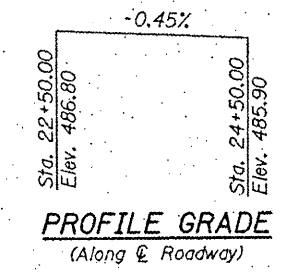
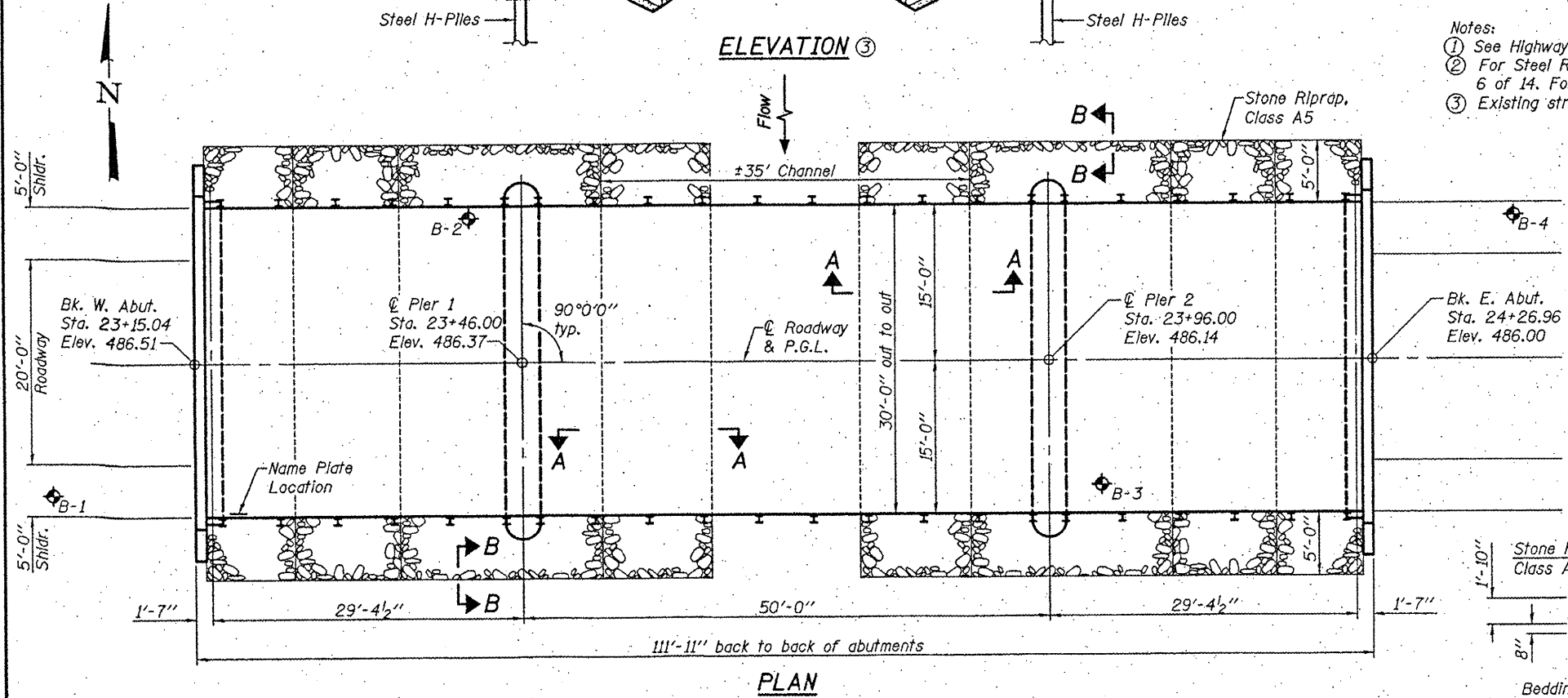
FIELD UNITS
 $f'_c = 3,500$ psi
 $f_y = 60,000$ psi (Reinforcement)
PRECAST PRESTRESSED UNITS
 $f'_c = 6,000$ psi
 $f'_{ci} = 5,000$ psi
 $f_{pu} = 270,000$ psi ($\frac{1}{2}$ " ϕ low-lax strands)
 $f_{pbt} = 201,960$ psi ($\frac{1}{2}$ " ϕ low-lax strands)

SEISMIC DATA

Seismic Performance Zone (SPZ) = 2
 Design Spectral Acceleration at 1.0 sec. (S_{D1}) = 0.25g
 Design Spectral Acceleration at 0.2 sec. (S_{D5}) = 0.57g
 Soil Site Class = D

TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Stone Riprap, Class A5	Sq. Yd.	-	398	398
Filter Fabric	Sq. Yd.	-	398	398
Hot-Mix Asphalt Surface Course, Mix "C", N50	Ton	39	-	39
Removal of Existing Structures	Each	-	-	1
Concrete Structures	Cu. Yd.	-	131.0	131.0
Concrete Encasement	Cu. Yd.	-	10.0	10.0
Precast Prestressed Concrete Deck Beams (21" Depth)	Sq. Ft.	3,293	-	3,293
Reinforcement Bars, Epoxy Coated	Pound	-	15,100	15,100
Steel Railing, Type SM	Foot	224	-	224
Furnishing Steel Piles HP12x53	Foot	-	576	576
Furnishing Steel Piles HP14x73	Foot	-	720	720
Driving Piles	Foot	-	1,296	1,296
Test Pile Steel HP12x53	Each	-	2	2
Test Pile Steel HP14x73	Each	-	2	2
Pile Shoes	Each	-	22	22
Name Plates	Each	-	1	1
Waterproofing Membrane System	Sq. Yd.	366	-	366
Portland Cement Mortar Furring Course	Foot	988	-	988
Underwater Structure Excavation Protection - Location 1	Each	-	1	1
Underwater Structure Excavation Protection - Location 2	Each	-	1	1
Mechanical Splicers	Each	-	56	56



DESIGN SCOUR ELEVATION TABLE

Design Scour Elevation (ft.)	W. Abut.	Pier 1	Pier 2	E. Abut.
	480.3	454.2	454.2	479.7

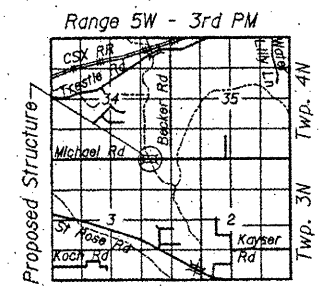
WATERWAY INFORMATION

Drainage Area = 26.07 Sq. Mi. Low Grade Elev. 483.73 at Sta. 24+24.09

Flood	Freq. Yr.	Q C.F.S.	Opening Sq. Ft.		Head - Ft.		Headwater El.		
			Exist.	Prop.	H.W.E. Exist.	Prop.	Exist.	Prop.	
Design	25	4490	612	732	482.52	1.34	1.13	483.86	483.65
Base	100	6250	653	795	483.16	1.50	1.38	484.66	484.54
Overtopping Max Calc.	500	8420			483.83				487.23

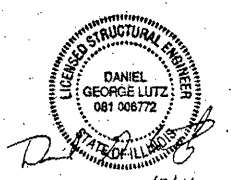
SUGAR CREEK
 BUILT 2011 BY
 MADISON COUNTY
 SEC. 06-11114-00-BR
 STATION 23+71
 STR. NO. 060-3346 LOADING HL-93

NAME PLATE 1



SECTION B-B

I certify that to the best of 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 Bridge Design Specifications.



**MICHAEL ROAD (T.R. 305A)
 OVER SUGAR CREEK
 SECTION 06-11114-00-BR
 MADISON COUNTY
 STATION 23+71.00**