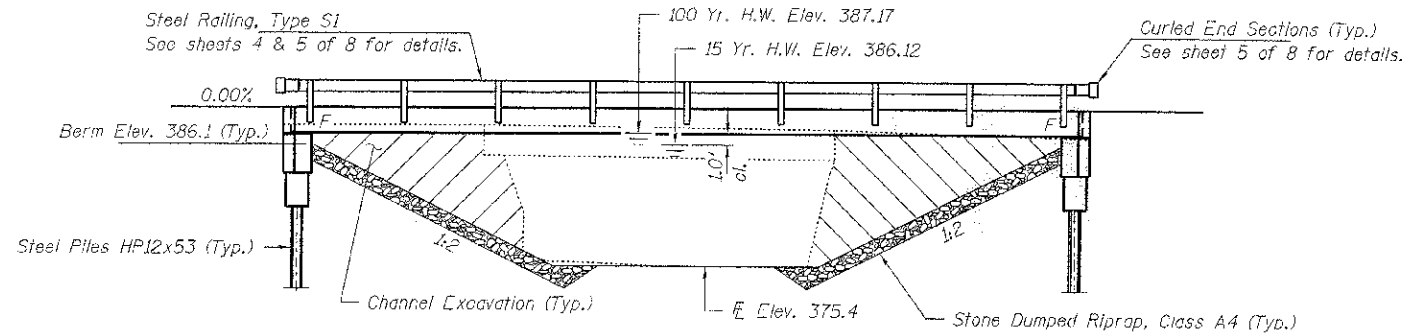


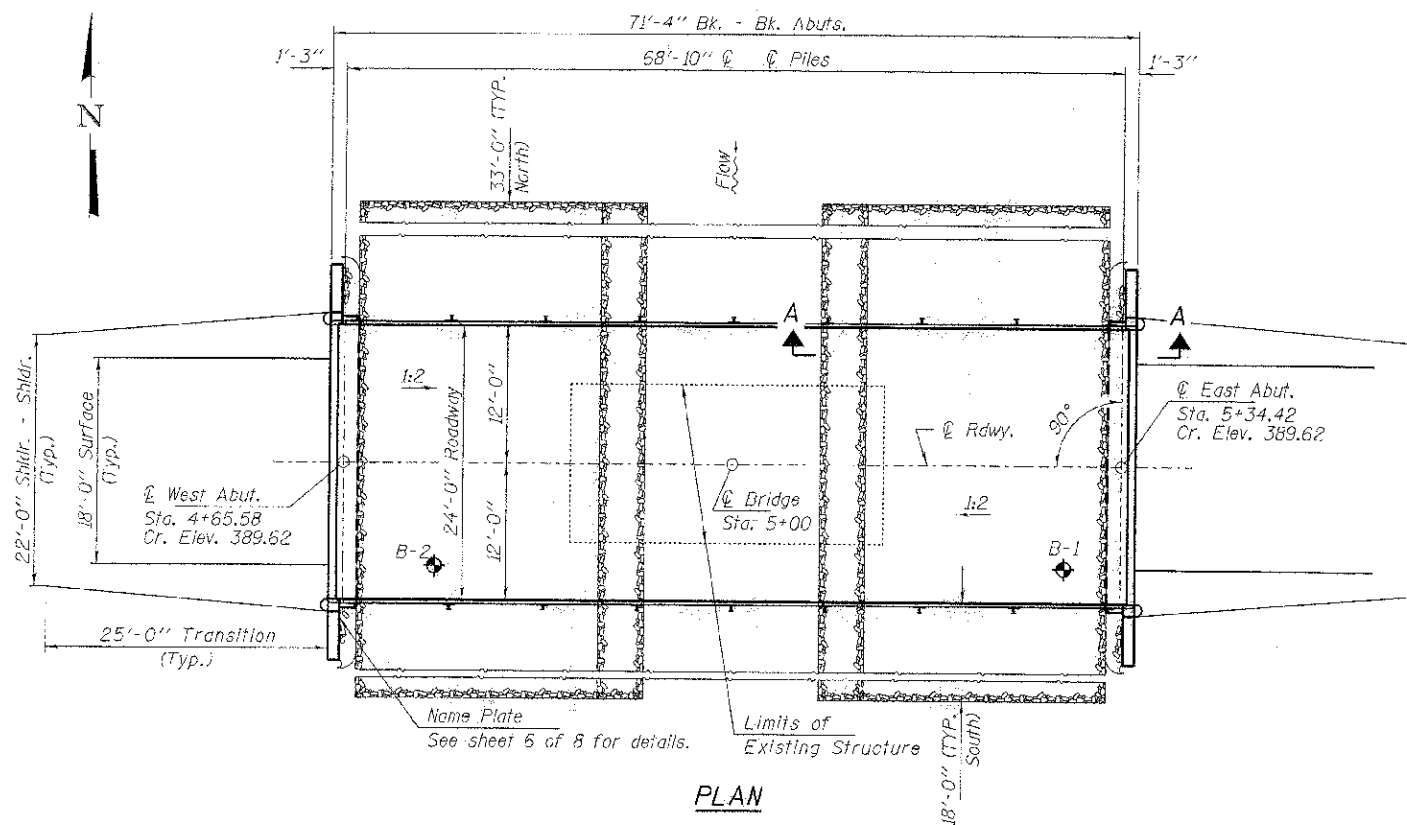
BENCHMARK:

EXISTING STRUCTURE: Single span steel beam with timber deck bridge on timber abutments, 29.5' fc.-fc. abuts.; 21.7' o.-o. deck; Str. No. 097-3024 Structure closed to traffic during construction.

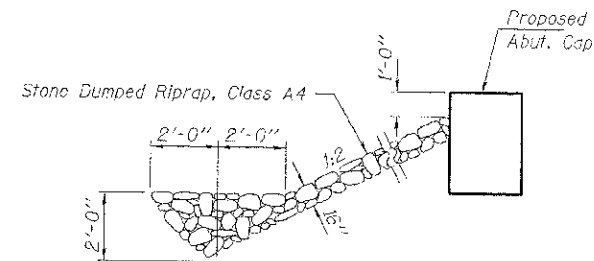
No Salvage



ELEVATION

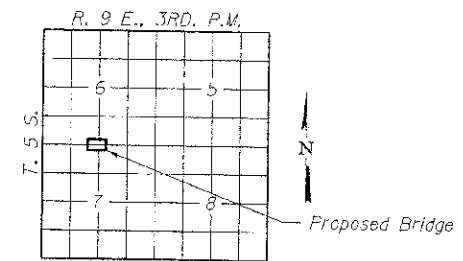


PLAN



SECTION A-A

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



LOCATION SKETCH

GENERAL NOTES

Layout of the slope protection system may be varied to suit ground conditions in the field as directed by the Engineer. 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.

INDEX OF STRUCTURE SHEETS

1. General Plan & Elevation
2. 27"x45" PPC Deck Beam
3. 27"x48" PPC Deck Beam Details
4. Superstructure Details
5. Steel Railing, Type S-1
6. Abutments
7. HP Pile Details
8. Borings

SEVEN MILE CREEK
BUILT 2011 BY
WHITE COUNTY
SEC. 10-00118-00-BR
C.H. 11
STR. NO. 097-3280
LOADING HL-93

NAME PLATE
See Std. 515001

DESIGN STRESSES

FIELD UNITS

f'c = 3,500 psi
fy = 60,000 psi (Reinf.)

PRECAST PRESTRESSED UNITS

f'c = 6,000 psi
f'ci = 5,000 psi
fpu = 270,000 psi (1/2" low lax. strands)
fpbt = 201,960 psi (2" low lax. strands)
fy = 60,000 psi (Reinf.)

LOADING HL-93

Design Specifications: 2012 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. (S₁) = 0.299g
Design Spectral Acceleration at 0.2 sec. (S_{0.2}) = 0.714g
Soil Site Class = D

DESIGN SCOUR ELEVATION TABLE

Design Scour Elevation (ft.)	W. Abut.	E. Abut.
	383.5	383.5

WATERWAY INFORMATION

Drainage Area = 27.3 Sq. Mi.		Existing Low Grade Elev.		Proposed Low Grade Elev.		Sta.	
Flood	Freq. Yr.	Opening Sq. Ft. Exist.	Prop.	Natural H.W.E. Exist.	Prop.	Headwater El. Exist.	Prop.
Design	15	4170	244	482	386.12		
Base	100	6930	244	548	387.17	0.23	0.18
Max. Calc.	500					387.4	387.4

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. Megginson 10/02/2012
ILLINOIS STRUCTURAL ENGINEER NO. 081-6064



Expires 11-30-2012

TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Channel Excavation	Cu. Yd.			424
Stone Dumped Riprap, Class A4	Ton			360
Removal of Existing Structures	Each			1
Concrete Structures	Cu. Yd.		23.4	23.4
Concrete Encasement	Cu. Yd.		2.8	2.8
Precast Prestressed Concrete Deck Beams (27" Depth)	Sq. Ft.	1,680		1,680
Reinforcement Bars	Pound		2,510	2,510
Steel Railing, Type S1	Foot	138		138
Furnishing Steel Piles HP12x53	Foot		200	200
Driving Piles	Foot		200	200
Name Plates	Each		1	1

FILE NAME = 1:2973-sht-ns1doe.dgn	USER NAME =	DESIGNED - A.S.L.	REVISED -
HAMPTON LENZINI AND REHWICK, INC.		CHECKED - S.W.M.	REVISED -
2025 SPRINGFIELD, ILLINOIS 62704		DRAWN - D.A.B.	REVISED -
ILLINOIS PROFESSIONAL ENGINEER NO. 197-0610007		CHECKED - S.W.M.	REVISED -
PLOT SCALE =			
PLOT DATE = 10/2/2012			

STATE OF ILLINOIS
WHITE COUNTY HIGHWAY DEPARTMENT

GENERAL PLAN & ELEVATION
STRUCTURE NO. 097-3280

C.H.	SECTION	COUNTY	TOTAL SHEETS
11	10-00118-00-BR	WHITE	12
			5
			CONTRACT NO. 99483

SHEET NO. 1 OF 6 SHEETS

ILLINOIS FED. AID PROJECT 8405-931059