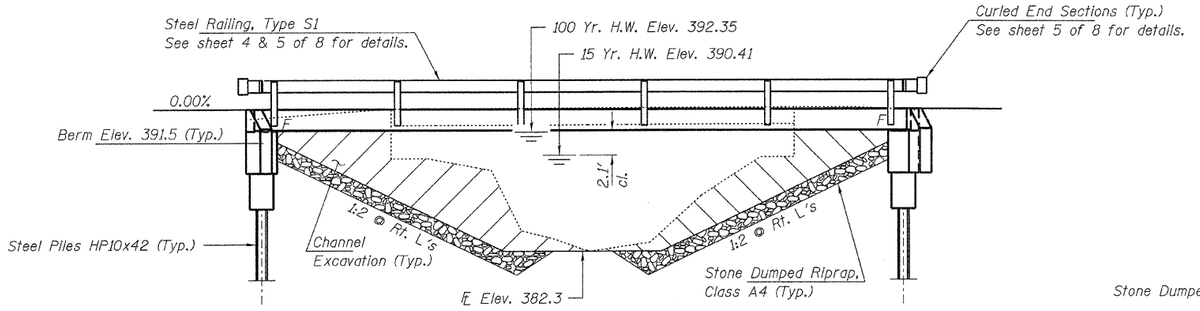
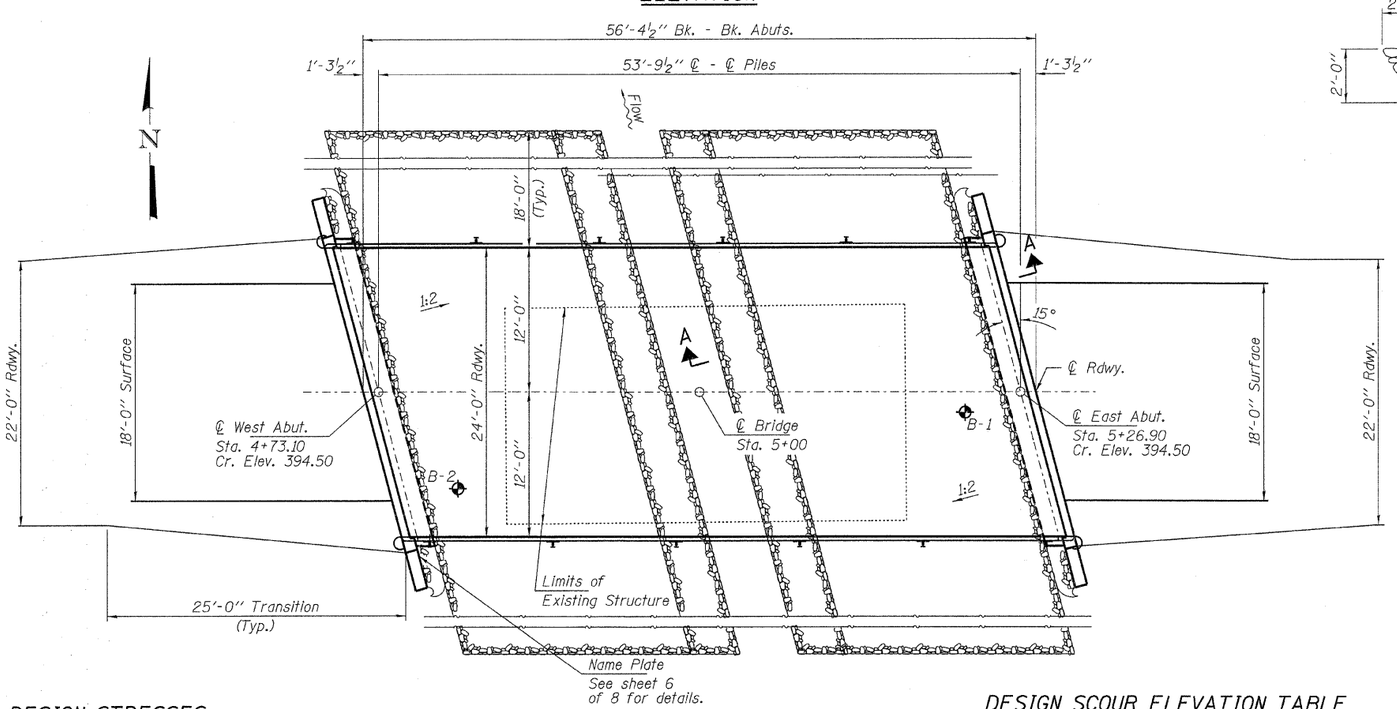
EXISTING STRUCTURE NO. 033-3242: A 28.2' long single span bridge with 2½" wood deck with 2½" wood runners on 1-12" C-channel and 10-12" I-beams on concrete abutments with 4'x24" steel plate retaining wall 5' east of the West Abutment and 7-4" C-channels driven west of the East Abutment. Structure closed to traffic during construction.

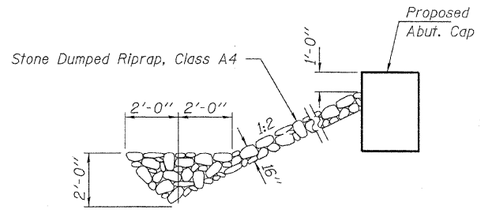
No Salvage



ELEVATION



PLAN



SECTION A-A

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

GENERAL NOTES

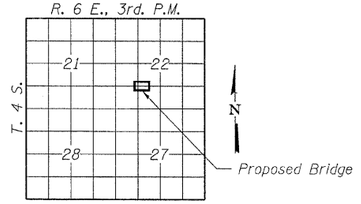
Layout of the slope protection system may be varied to suit ground conditions in the field as directed by the Engineer.

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



LOCATION SKETCH

BUILT 201_ BY
HAMILTON COUNTY
SEC. 09-09115-00-BR
SOUTH CROUCH ROAD DISTRICT
STR. NO. 033-3311
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 (½"ϕ low lax. strands)
fpbt = 201,960 psi (½"ϕ low lax. strands)
fy = 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) = 3
Design Spectral Acceleration at 1.0 sec. (S_{D1}) = 0.307g
Design Spectral Acceleration at 0.2 sec. (S_{DS}) = 0.733g
Soil Site Class = D

WATERWAY INFORMATION

Drainage Area = 1.59 Sq. Mi.
Existing Low Grade Elev. 390.2 @ Sta. 2+00
Proposed Low Grade Elev. 390.2 @ Sta. 2+00

Flood	Freq. Yr.	Q C.F.S.	Opening Sq. Ft. Exist.	Opening Sq. Ft. Prop.	Natural H.W.E.	Head - Ft. Exist.	Head - Ft. Prop.	Headwater El. Exist.	Headwater El. Prop.
Design	15	1039	124	250	390.41	-	-	-	-
Base	100	1840	178	348	392.35	1.85	0.0	394.20	392.35
Max. Calc.	500	-	-	-	-	-	-	-	-

DESIGN SCOUR ELEVATION TABLE

Design Scour Elevation (ft.)	W. Abut.	E. Abut.
	388.9	388.9

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 1/30/2012
ILLINOIS STRUCTURAL NO. 081-6064

LICENSED STRUCTURAL ENGINEER
STEVEN W. MEGGINSON
081-6064
SPRINGFIELD, IL
STATE OF ILLINOIS

Expires 11-30-2012

TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Channel Excavation	Cu. Yd.			30!
Stone Dumped Riprap, Class A4	Ton			260
Removal of Existing Structures	Each			1
Concrete Structures	Cu. Yd.		22.8	22.8
Concrete Encasement	Cu. Yd.		2.8	2.8
Precast Prestressed Concrete Deck Beams (21" Depth)	Sq. Ft.	1,320		1,320
Reinforcement Bars	Pound		2,420	2,420
Steel Railing, Type S1	Foot	109		109
Furnishing Steel Piles HP10x42	Foot		240	240
Driving Piles	Foot		240	240
Name Plates	Each		1	1

FILE NAME = 898068-sht-bridge.dgn	USER NAME =	DESIGNED - A.S.L.	REVISED -	
HAMPTON, LENZINI AND RENWICK, INC. 3366 STEVENSON DRIVE, SUITE 201 SPRINGFIELD, ILLINOIS 62703 ILLINOIS PROFESSIONAL DESIGN FIRM LB / PE / SE CORP. 184.000959		CHECKED - S.W.M.	REVISED -	
	PLOT SCALE =	DRAWN - D.A.B.	REVISED -	
	PLOT DATE = 1/30/2012	CHECKED - S.W.M.	REVISED -	

STATE OF ILLINOIS
HAMILTON COUNTY HIGHWAY DEPARTMENT

GENERAL PLAN & ELEVATION
STRUCTURE NO. 033-3311
SHEET NO. 1 OF 8 SHEETS

T.R.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
107	09-09115-00-BR	HAMILTON	12	5
SOUTH CROUCH ROAD DISTRICT		CONTRACT NO. 99465		
ILLINOIS FED. AID PROJECT				