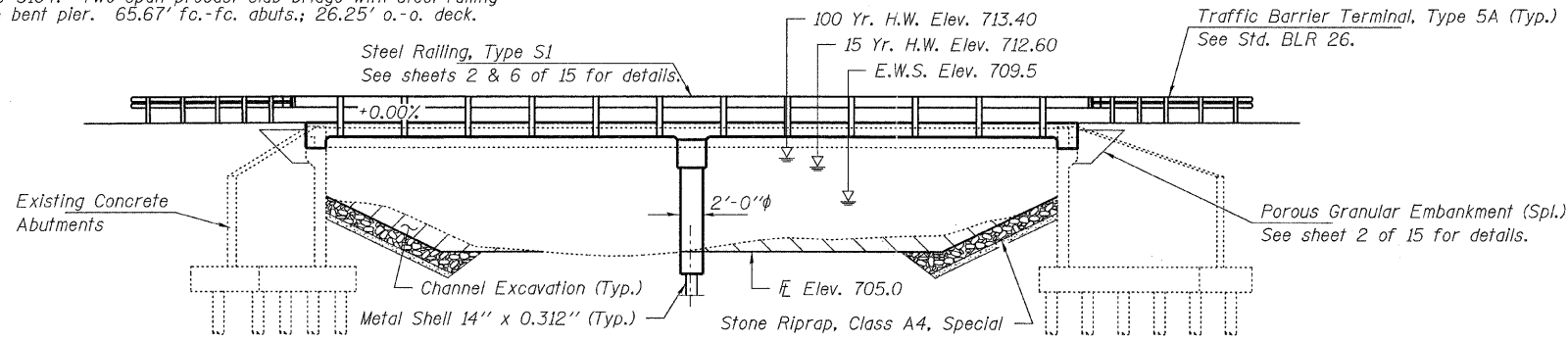


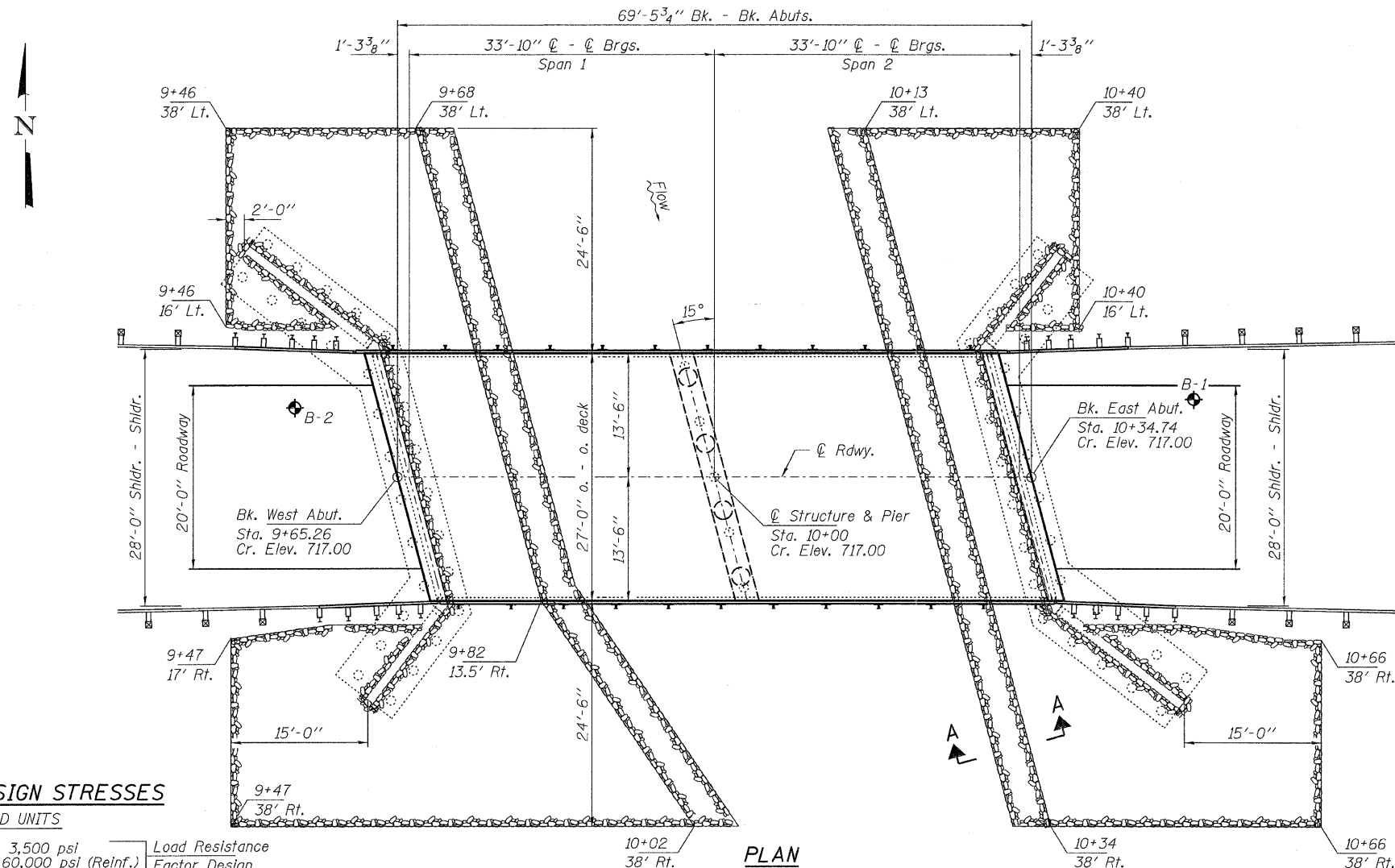
BENCHMARK: Cut square on NW Abutment. 15' Lt., Sta. 9+62, Elev. 716.38

EXISTING STRUCTURE: 045-3104. Two span precast slab bridge with steel railing on closed abutments and pile bent pier. 65.67' fc.-fc. abutts.; 26.25' o.-o. deck. Structure closed to traffic.

No Salvage



ELEVATION



PLAN

WATERWAY INFORMATION

Flood Yr.	Freq.	Q C.F.S.	Opening Sq. Ft.		Natural Head - Ft.		Headwater El.		
			Exist.	Prop.	Exist.	Prop.	Exist.	Prop.	
Design	15	1300	370	380	712.39	0.13	0.12	712.52	712.51
Base	100	1900	420	430	713.40	0.29	0.28	713.69	713.68
Max. Calc.	500	2390	460	470	713.94	0.38	0.37	714.32	714.31

Existing Low Grade Elev. 716.5 @ Sta. 9+50
Proposed Low Grade Elev. 716.7 @ Sta. 9+00

Drainage Area = 26.1 Sq. Mi.

10 Year Velocity through Existing Bridge = 3.3 fps
10 Year Velocity through Proposed Bridge = 3.2 fps

DESIGN SCOUR ELEVATION TABLE

Design Scour Elevation (ft.)	W. Abut.	Pier	E. Abut.
	701.4	697.6	701.4

DESIGN STRESSES

FIELD UNITS

f'c = 3,500 psi Load Resistance
fy = 60,000 psi (Reinf.) Factor Design

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) = 1
Design Spectral Acceleration at 1.0 sec. (SD1) = 0.091g
Design Spectral Acceleration at 0.2 sec. (SDS) = 0.163g
Soil Site Class = D

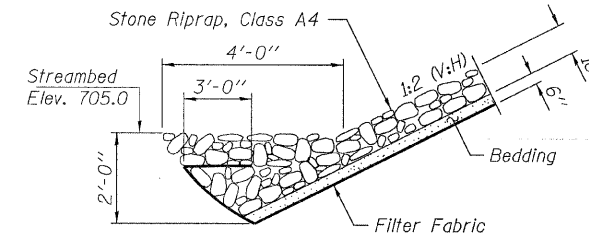
INDEX OF STRUCTURE SHEETS

1. General Plan & Elevation
2. General Details
3. Slab Elevations
4. Superstructure
5. Superstructure Details
6. Steel Railing, Type S1
7. Abutment Details
8. Steel HP Pile Details
- 9-10. Borings
- 11-15. Existing Bridge Plans

W. BR. BIG ROCK CREEK
BUILT 201 BY
KANE COUNTY
HINCKLEY ROAD
SEC. 07-03011-01-BR
STR. NO. 045-3104
LOADING HL-93

NAME PLATE

See Std. 515001

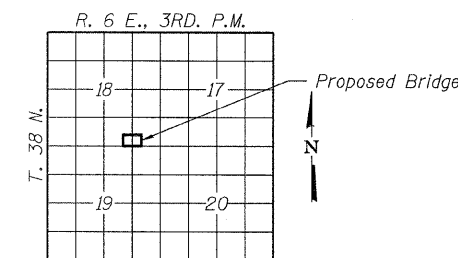


SECTION A-A

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



PROFILE GRADE



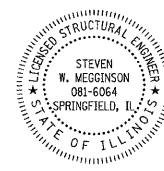
LOCATION SKETCH

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. Meigs 2/23/2012

ILLINOIS STRUCTURAL NO. 081-6064

Expires 11-30-2012



FILE NAME = 100031-shr-bridge.dgn	USER NAME =	DESIGNED - D.W.T.	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	GENERAL PLAN & ELEVATION STRUCTURE NO. 045-3104 SHEET NO. 1 OF 15 SHEETS	T.R.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
HAMPTON, LENZINI AND RENWICK, INC.	CHECKED - A.S.L.	REVISOR -				193	07-03011-01-BR	KANE	29	10
1348 STEVENSON DRIVE, SUITE 201 SPRINGFIELD, ILLINOIS 62703	PLOT SCALE =	DRAWN - D.A.B.	REVISED -			HINCKLEY ROAD		CONTRACT NO. 63699		
ILLINOIS PROFESSIONAL DESIGN FIRM L3 / PE / SE CORP. 164-000959	PLOT DATE = 2/2/2012	CHECKED - S.W.M.	REVISED -			[ILLINOIS] FED. AID PROJECT BROS-0089(138)				