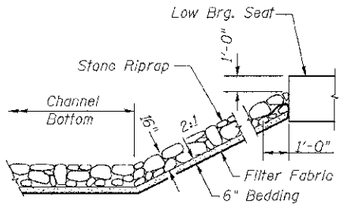
B.M.: RR Spike in Power Pole
Sta. 15+54, 26' Rt.
Elev. 716.93

RR Spike in Power Pole
Sta. 22+13, 27' Rt.
Elev. 705.34

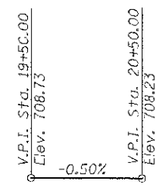
Existing Structure:
Single span reinforced concrete slab with concrete rail on concrete closed abutments. The structure is ±33' back to back of abutments, ±22' out to out deck, and is not skewed.
Str. No. 006-4039

Salvage: None

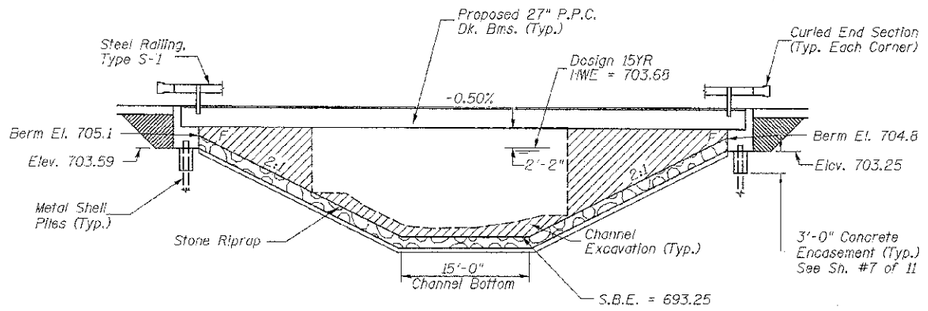
Road to be closed to traffic during construction.



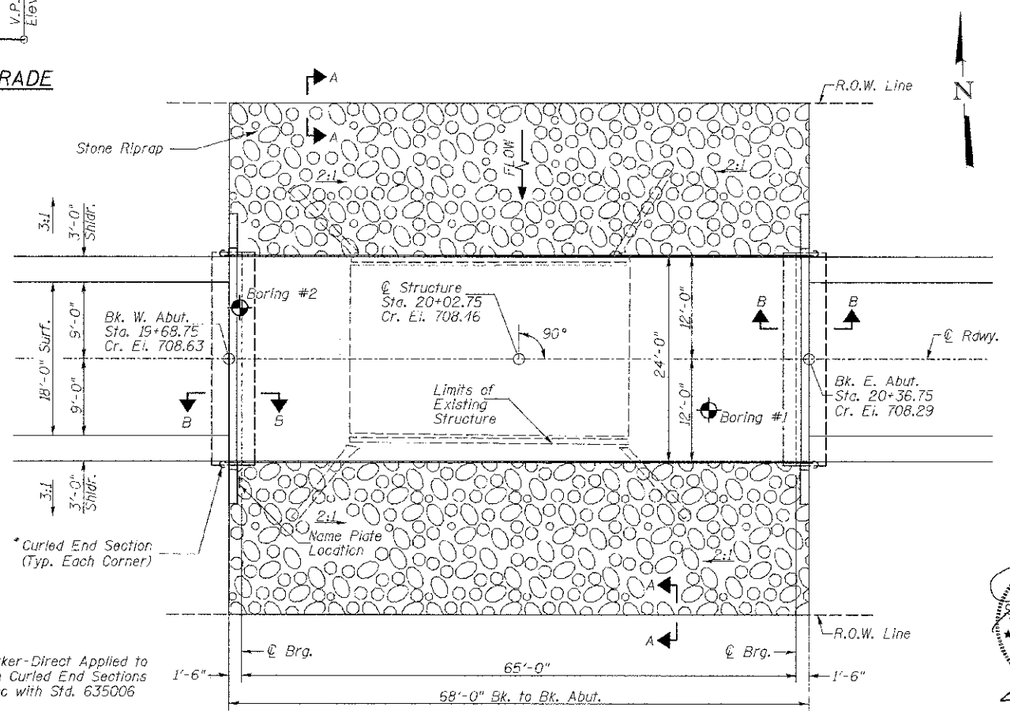
STONE RIPRAP DETAIL



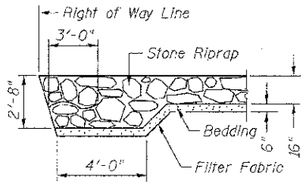
PROFILE GRADE



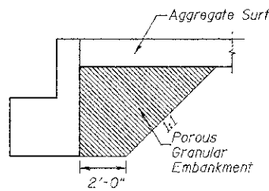
ELEVATION



PLAN



SECTION A-A



SECTION B-B

*Terminal Marker-Direct Applied to be placed on Curled End Sections in accordance with Std. 635006

GENERAL NOTES

The Contractor shall drive test piles to 110% of the nominal required bearing specified in production locations at the substructures specified or approved by the Engineer before ordering the remainder of the piles.

For Soil Boring Logs, See Sheets 8-11 of 11.

A Corrosion Inhibitor shall be used in the concrete for Precast Prestressed Concrete Deck Beams according to Article 1020.05(b)(12) of the Standard Specifications.

Reinforcement Bars shall conform to the requirements of ASTM A706 Grade 60. Reinforcement Bars designated (E) shall be epoxy coated.

Layout of the slope protection system may be varied in the field to suit ground conditions 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 top surface of the beams shall be finished according to the IDOT Manual for Fabrication of Precast Prestressed Concrete Products.

WEST BUREAU CREEK
BUILT 201_ BY
BUREAU ROAD DISTRICT
BUREAU COUNTY
SEC. 07-03126-00-BR
T.R. 109 STATION 20+02.75
F.A. PROJ. BROS-0011(087)
STR. NO. 006-4553 LOADING HL-93

NAME PLATE

Locate Name Plate at S.W. Wingwall Corner of Bridge (See Std. 515001)

TOTAL BILL OF MATERIAL

	ITEM	UNIT	SUPER	SUB	TOTAL
	Channel Excavation	CU YD	———	400	400
①	Stone Riprap, Class A4 (Special)	TON	———	375	375
①	Removal of Existing Structures No. 1	EACH	———	———	1
	Concrete Structures	CU YD	———	21.0	21.0
①	Precast Prestressed Concrete Deck Beams (27" Depth)	SQ FT	1,588	———	1,588
	Reinforcement Bars	POUND	———	2,390	2,390
	Steel Railing, Type S1	FOOT	136	———	136
	Furnishing Metal Shell Piles 12"x0.250"	FOOT	———	256	256
	Driving Piles	FOOT	———	256	256
	Test Pile Metal Shells	EACH	———	2	2
	Pile Shoes	EACH	———	10	10
	Concrete Encasement	CU YD	———	2.6	2.6
	Name Plates	EACH	———	1	1
①	Porous Granular Embankment	CU YD	———	27.6	27.6

① See Special Provisions

DESIGN SCOUR TABLE

Location	W. Abut.	E. Abut.
Design Scour Elevation	703.59	703.25

WATERWAY INFORMATION

Drainage Area = 5.16 Sq. Mi. Low Grade Elev. = 707.17 @ Sta. 23+00.00

Flood	Freq. Yr.	Q C.F.S.	Opening Sq. Ft. Exist.	Prop.	Nat. H.W.E.	Head - Ft. Exist.	Prop.	Headwater El. Exist.	Prop.
Design	15	1,261	241	374	703.68	0.02	0.03	703.70	703.71
Base	100	2,100	275	440	704.80	0.28	0.04	705.08	704.84

DESIGN SPECIFICATIONS

2012 AASHTO LRFD Bridge Design Specifications

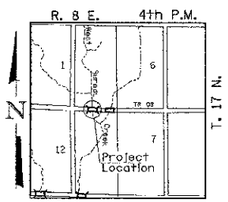
DESIGN STRESSES

(FIELD UNITS)
f'c = 3,500 p.s.i.
fy = 60,000 p.s.i. (Rein.)

(PRECAST PRESTRESSED UNITS)
f'c = 6,000 p.s.i.
f'ci = 5,000 p.s.i.
f's = 270,000 p.s.i. (½" Strands)
f'si = 201,960 p.s.i. (½" Strands)

LOADING HL-93

Allow 50#/sq. ft. for future wearing surface.



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 Standard Specification for Highway Bridges.

This design complies with all requirements of the current AASHTO Guide Specifications for Seismic Design of highway bridges.

12/11/2013

Illinois Structural No. 6440
Expires 11/30/2014

GENERAL PLAN & ELEVATION
BUREAU COUNTY
SECTION 07-03126-00-BR
T.R. 109 OVER WEST BUREAU CREEK

DESIGNED	C.T.M.				
CHECKED	S.T.M./J.E.H.				
DRAWN	C.T.M.				
CHECKED	S.T.M./J.E.H.				

SHEET NO. 1	ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
11 SHEETS	TR 109	07-03126-00-BR	BUREAU	61	14
		S.N. 006-4553	CONTRACT NO. 87528		
	FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT BROS-0011(087)		

3156b00i