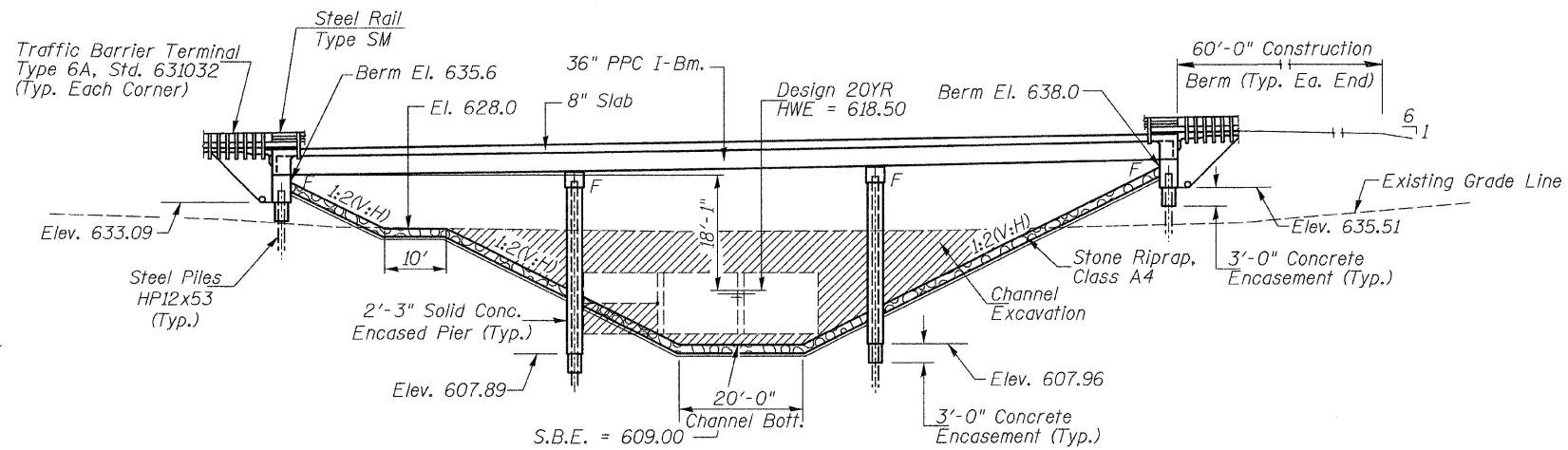


BM - Railroad Spike in Power Pole Sta. 41+44, 48' Lt. Elev. 632.63
 BM - Railroad Spike in Power Pole Sta. 46+54, 47' Lt. Elev. 653.72

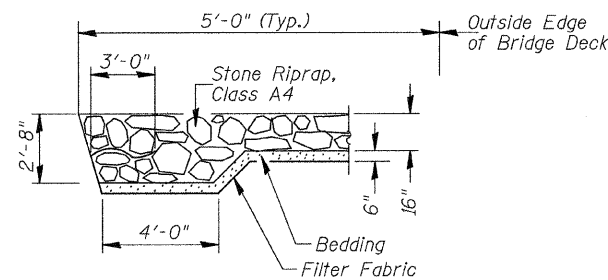
Existing Structure:
 Triple 12'x10' reinforced concrete box culvert.
 The structure is ±51' in length and skewed 5° right ahead.
 The structure was constructed in 1918.
 SN 059-5003

Salvage: See Special Provisions

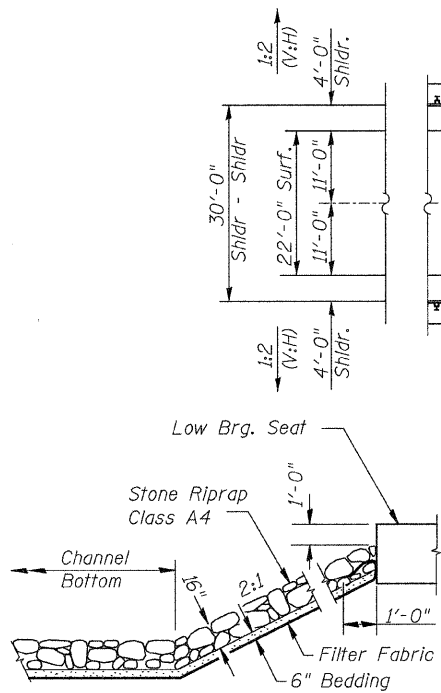
Road to be closed to traffic during construction.



ELEVATION



SECTION A-A



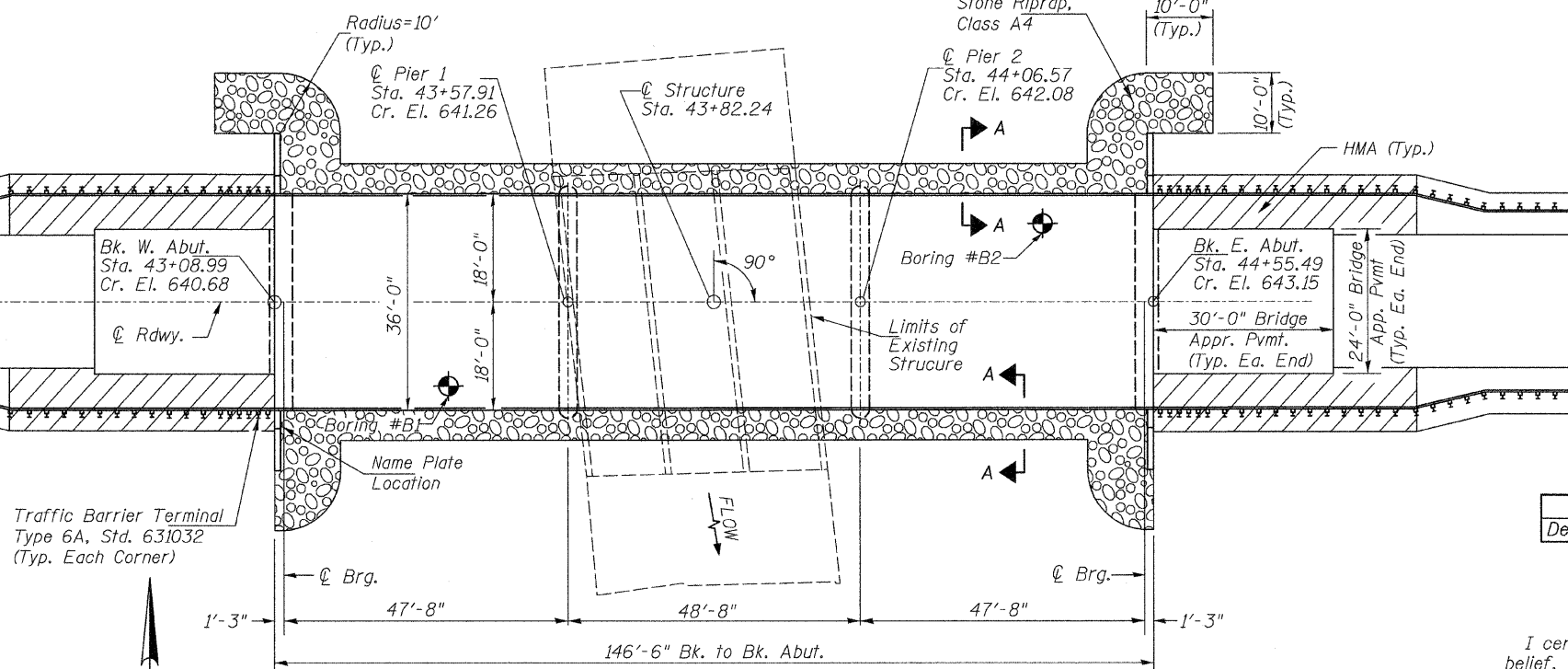
STONE RIPRAP DETAIL

WATERWAY INFORMATION

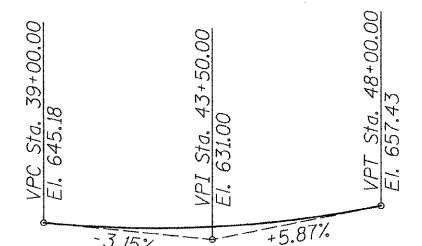
Drainage Area = 5.39 Sq. Mi. Low Grade Elev. = 640.23 @ Sta. 42+14.28

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	20	1,965	227	359	618.50	1.86	0.02	620.36	618.52
Base	100	2,930	263	416	619.52	3.48	0.20	623.00	619.72

DESIGNED	JOH
CHECKED	BAN
DRAWN	TC
CHECKED	JOH



PLAN



PROFILE GRADE

DESIGN SCOUR TABLE

Location	W. Abut	Pier 1	Pier 2	E. Abut
Design Scour Elevation	633.09	607.89	607.96	635.51

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 Bridge Design Specifications.

Prop. d. [Signature] 3/2/2010
 Illinois Structural No. 6527
 Expires 11/30/2010

SEISMIC DATA

Seismic Performance Zone (SPZ) = 1
 Design Spectral Acceleration at 1.0 sec. (S_{D1}) = 0.12g
 Design Spectral Acceleration at 0.2 sec. (S_{D5}) = 0.24g
 Soil Site Class = C

LOADING HL-93

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

DESIGN SPECIFICATIONS

2007 AASHTO LRFD Bridge Design Specifications with Interims

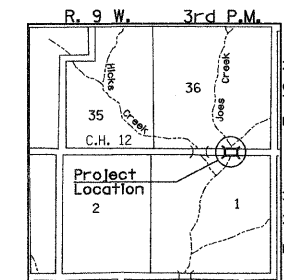
DESIGN STRESSES

FIELD UNITS

f'_c = 3,500 psi
 f_y = 60,000 psi (Reinforcement)

PRECAST PRESTRESSED UNITS

f'_c = 6,000 p.s.i.
 f'_{ci} = 5,000 p.s.i.
 f'_s = 270,000 p.s.i. ($\frac{1}{2}$ " ϕ low relaxation strands)
 f'_{si} = 201,960 p.s.i. ($\frac{1}{2}$ " ϕ low relaxation strands)



LOCATION SKETCH

GENERAL PLAN AND ELEVATION

C.H. 12 OVER JOES CREEK
 SECTION 07-00090-00-BR
 MACOUPIN COUNTY
 STATION 43+82.24
 STRUCTURE NO. 059-3557

SHEET NO. 1 22 SHEETS	ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	CH 12	07-00090-00-BR	MACOUPIN	77	30
SN 059-3557			CONTRACT NO. 93538		
FED. ROAD DIST. NO. 7 ILLINOIS		FED. AID PROJECT BRS-0732(148)			