

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

Bench Mark: Chiseled "x" on fire hydrant bolt at S.E. corner pelly Rd. and Route 2 Elev. 718.46
Existing Structure: S.N. 101-0023 Single Span ±38.52' Bk. to Bk. abutments ±68.24' Out to Out. R.C. Tee-Beam bridge on closed abutments. Built as S.B.I. Rt. 2 Sect. 34-BR at Station 1105+08.0 in 1953. The Contractor shall remove the existing structure as required and replace it with a single span PPC I-Beam superstructure on integral abutments. The road shall be kept open to one lane of traffic in each direction at all times by utilizing stage construction.
No salvage.

STATION 216+34.64
BUILT 2010 BY
STATE OF ILLINOIS
LOADING HL-93
STRUCTURE NO. 101-0184

NAME PLATE
See Std. 515001

LOADING HL-93
Allow 50#/sq. ft. for future wearing surface.

DESIGN SPECIFICATIONS
2007 AASHTO LRFD Bridge Design Specifications
with 2008 Interims

DESIGN STRESSES

FIELD UNITS

f'c = 3,500 psi
fy = 60 ksi (Reinforcement)

PRECAST PRESTRESSED UNITS

f'c = 6,000 psi
f'ci = 5,000 psi
fpu = 270 ksi (low lax. 1/2" dia. strands)
fpbt = 202.5 ksi (low lax. 1/2" dia. strands)

SEISMIC DATA

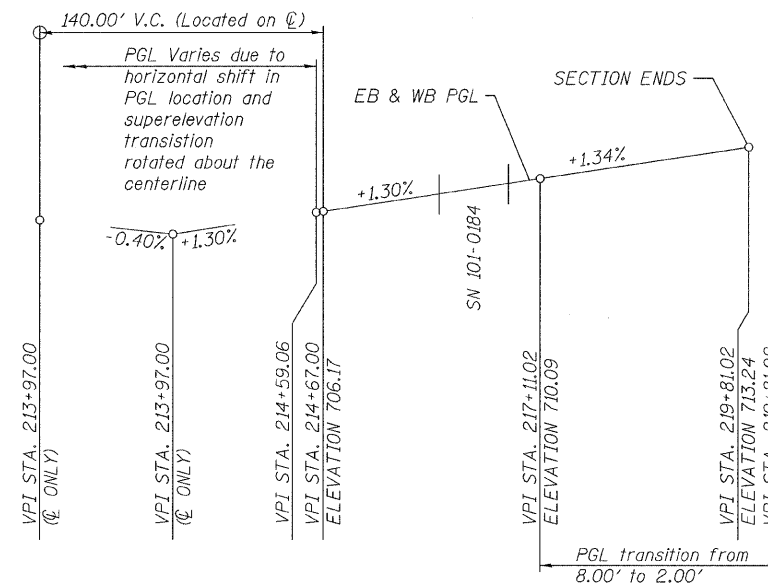
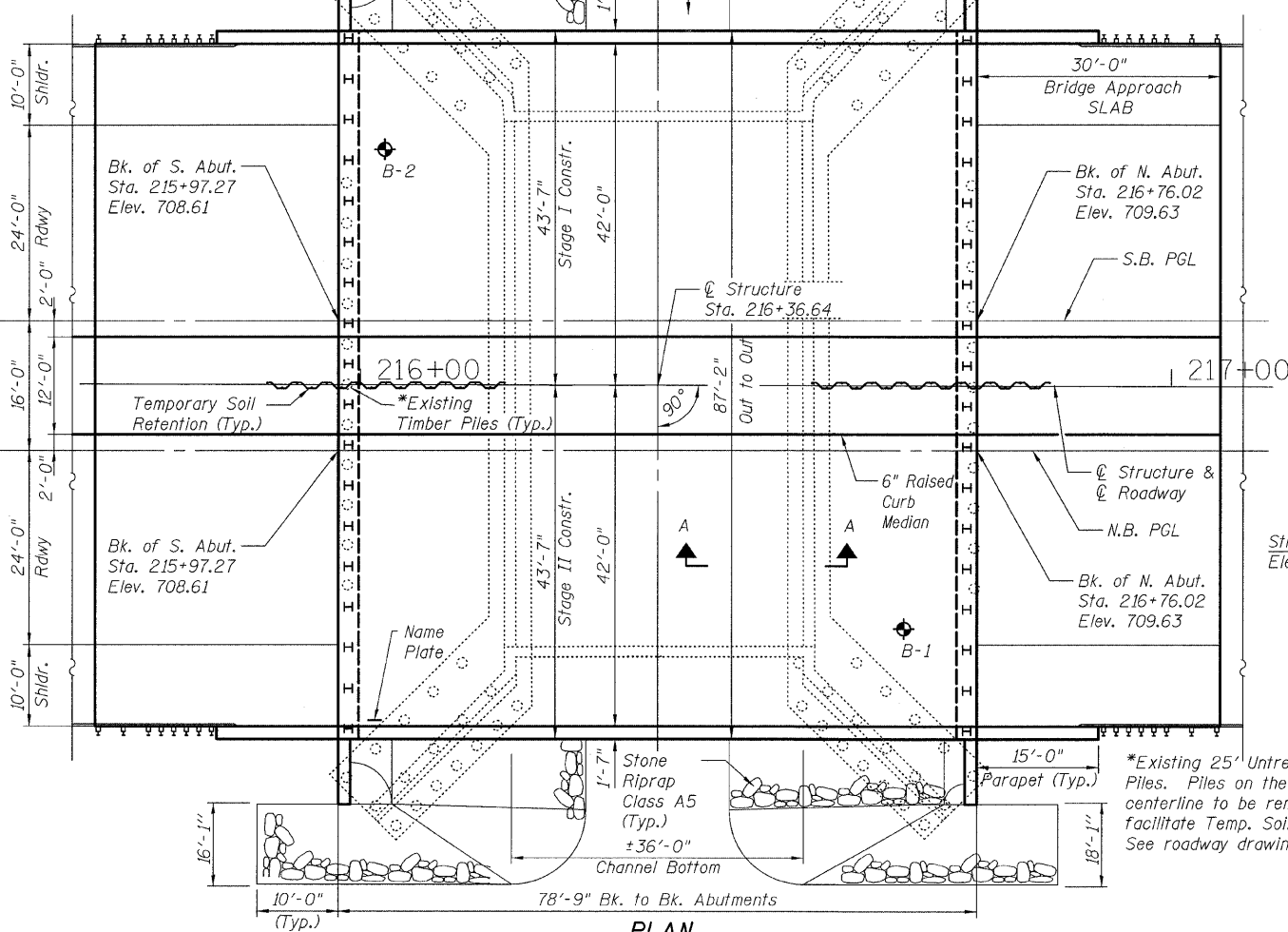
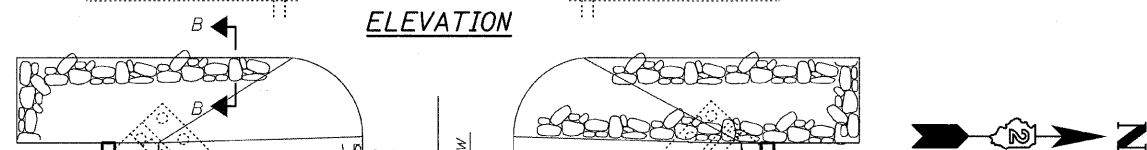
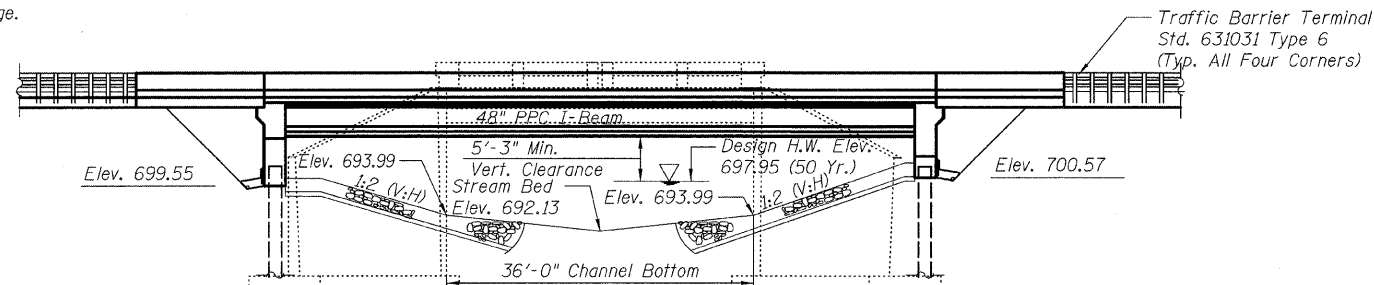
Seismic Performance Zone (SPZ) = 2
Design Spectral Acceleration at 1.0 sec. (S_{D1}) = 0.238 g
Design Spectral Acceleration at 0.2 sec. (S_{D5}) = 0.653 g
Soil Site Class = C

DESIGN SCOUR ELEVATION TABLE

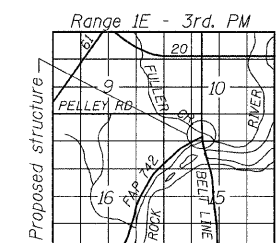
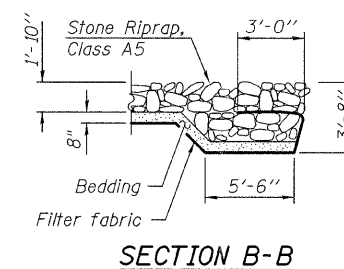
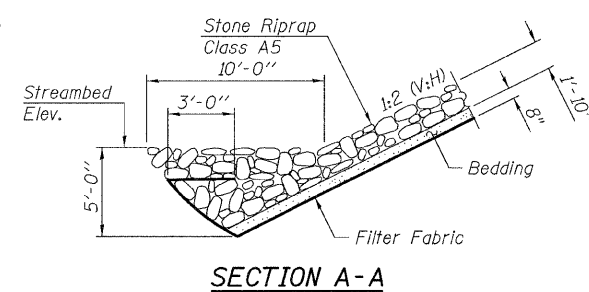
Design Scour Elevation (ft.)	S. Abut. 699.55	N. Abut. 700.57
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PROFILE GRADE LINE
F.A.P. RTE. 742



LOCATION SKETCH

WATERWAY INFORMATION

Drainage Area = 4.79 sq. mi Low Grade Elev. 708.07 @ Sta. 214+99

Flood	Freq. Yr.	Q C.F.S.	Opening Sq. Ft.		Nat. H.W.E.	Head - Ft.		Headwater El.	
			Exist.	Prop.		Exist.	Prop.	Exist.	Prop.
Design	50	889.92	176.42	210.11	697.95	0.12	0.00	698.07	698.00
Base	100	1009.99	185.03	220.12	698.19	0.19	0.01	698.38	698.20
Overtopping									
Max. Calc.	500	1280.15	200.20	243.69	698.61	0.44	0.12	699.05	698.75

APPROVED
FOR STRUCTURAL ADEQUACY ONLY

Ralph E. Anderson (TSP)
ENGINEER OF BRIDGES AND STRUCTURES

DLZ 85 W. Algonquin Rd. Ste. 220
Arlington Heights IL 60005
(847)-640-0840

SHEET NO. 1 OF 22 SHEETS	F.A.P. RTE. 742	SECTION 34BR-1	COUNTY WINNEBAGO	TOTAL SHEETS 78	SHEET NO. 36
	CONTRACT NO. 64E68				
FED. ROAD DIST. NO. 2 ILLINOIS FED. AID PROJECT					

DLZ ILLINOIS, INC.
85 W. Algonquin Rd. Ste. 220
Arlington Heights IL 60005
Signed: *John B. Donahue*
Date: *October 8th, 2009*
Expiration Date: 11/30/10

GENERAL PLAN AND ELEVATION
IL ROUTE 2 OVER FULLER CREEK
F.A.P. ROUTE 742 SECTION 34BR-1
WINNEBAGO COUNTY
STATION 216+36.64
STRUCTURE NUMBER 101-0184

DESIGNED PRD
CHECKED WAT
DRAWN RTG/PRD
CHECKED ASP