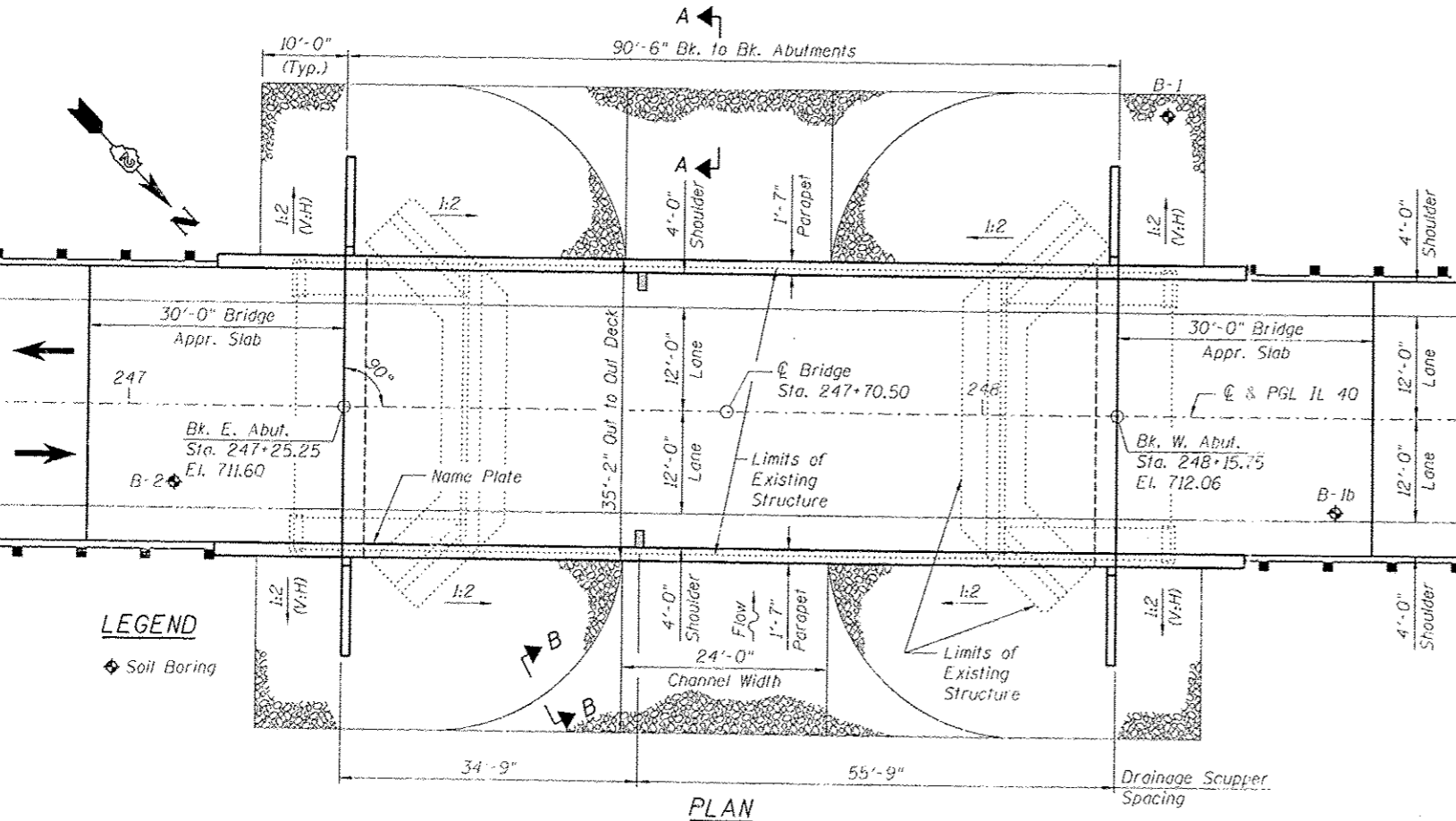
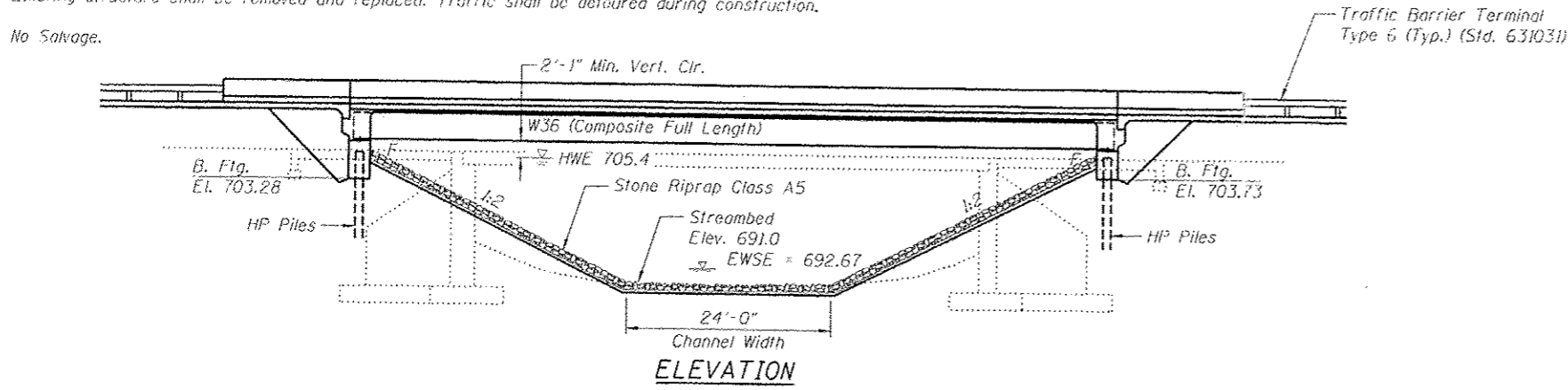


Bench Mark: Top of ROW marker, Sta. 235+96.37, 32.57' Rt., Elev. 740.68

Existing Structure: S.N. 008-0014 originally constructed in 1926 as SBI Route 40 Section 5-B. It was originally a single span reinforced concrete deck girder superstructure built on closed abutments. In 1971 the superstructure was replaced with PPC deck beams built on reconstructed abutment caps as SBI 40, Section 5BR-1. In 1996, the HMA wearing surface was removed and replaced with a 5" concrete overlay. In 2009, bridge railings and six PPC deck beams were replaced as FAP Route 646, Section (5 BR-1)D. Bk. to Bk. abutments is 62'-9³/₄" and Out to Out of deck is 33'-0".

Existing structure shall be removed and replaced. Traffic shall be detoured during construction.

No Salvage.



LEGEND
 ◆ Soil Boring

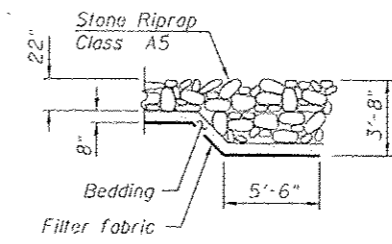
LOADING HL-93
 Allow 50#/sq. ft. for future wearing surface

DESIGN SPECIFICATIONS
 2010 AASHTO LRFD Bridge Design Specifications With 2010 Interims

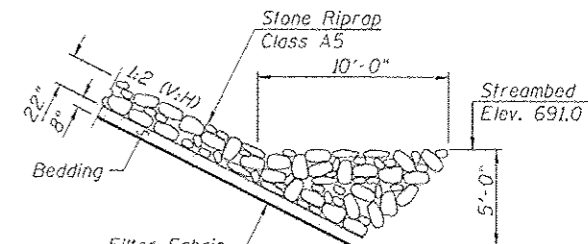
DESIGN STRESSES

FIELD UNITS
 $f_c = 3,500$ psi
 $f_y = 60,000$ psi (reinforcement)
 $f_y = 50,000$ psi (M270 Grade 50W)

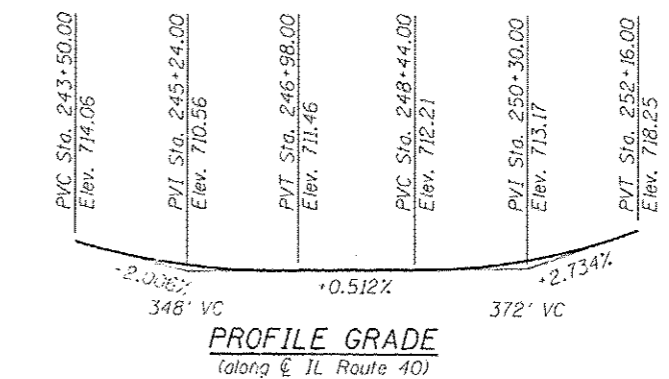
SEISMIC DATA
 Seismic Performance Zone (SPZ) = 1
 Design Spectral Acceleration @ 1.0 sec $S_{D1} = 0.058$
 Design Spectral Acceleration @ 0.2 sec $S_{D5} = 0.097$
 Soil Site Class = C



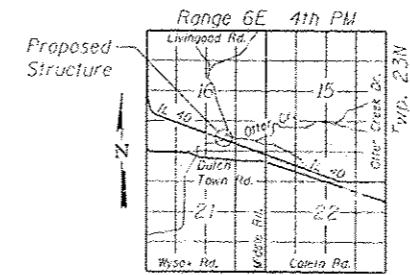
SECTION A-A



SECTION B-B



PROFILE GRADE
 (along IL Route 40)



LOCATION SKETCH

GENERAL PLAN & ELEVATION
ILLINOIS ROUTE 40 OVER OTTER CREEK
FAP 646 - SEC. 5BR-3
CARROLL COUNTY
STA. 247+70.50
STRUCTURE NO. 008-0051

APPROVED
 For Structural Adequacy Only

Debra J. Johnson
 November 30, 2014
 Engineer of Bridges & Structures



Debra J. Johnson
 Signature
 November 30, 2014
 Date

ZROKA engineering
 Zroka Engineering, P.C.
 4216 North Hamitage
 Chicago, IL 60613

USER NAME: SAW	DESIGNED: PWM	REVISED:
PLOT SCALE: 0.25000 1" = 10'	CHECKED: DAZ	REVISED:
PLOT DATE: 10/9/2013	DRAWN: SAW	REVISED:
	CHECKED: PWM	REVISED:

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

GENERAL PLAN & ELEVATION
 S.N. 008-0051

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
646	5BR-3	CARROLL	84	24

SHEET NO. 1 OF 19 SHEETS

ILLINOIS FED. AID PROJECT