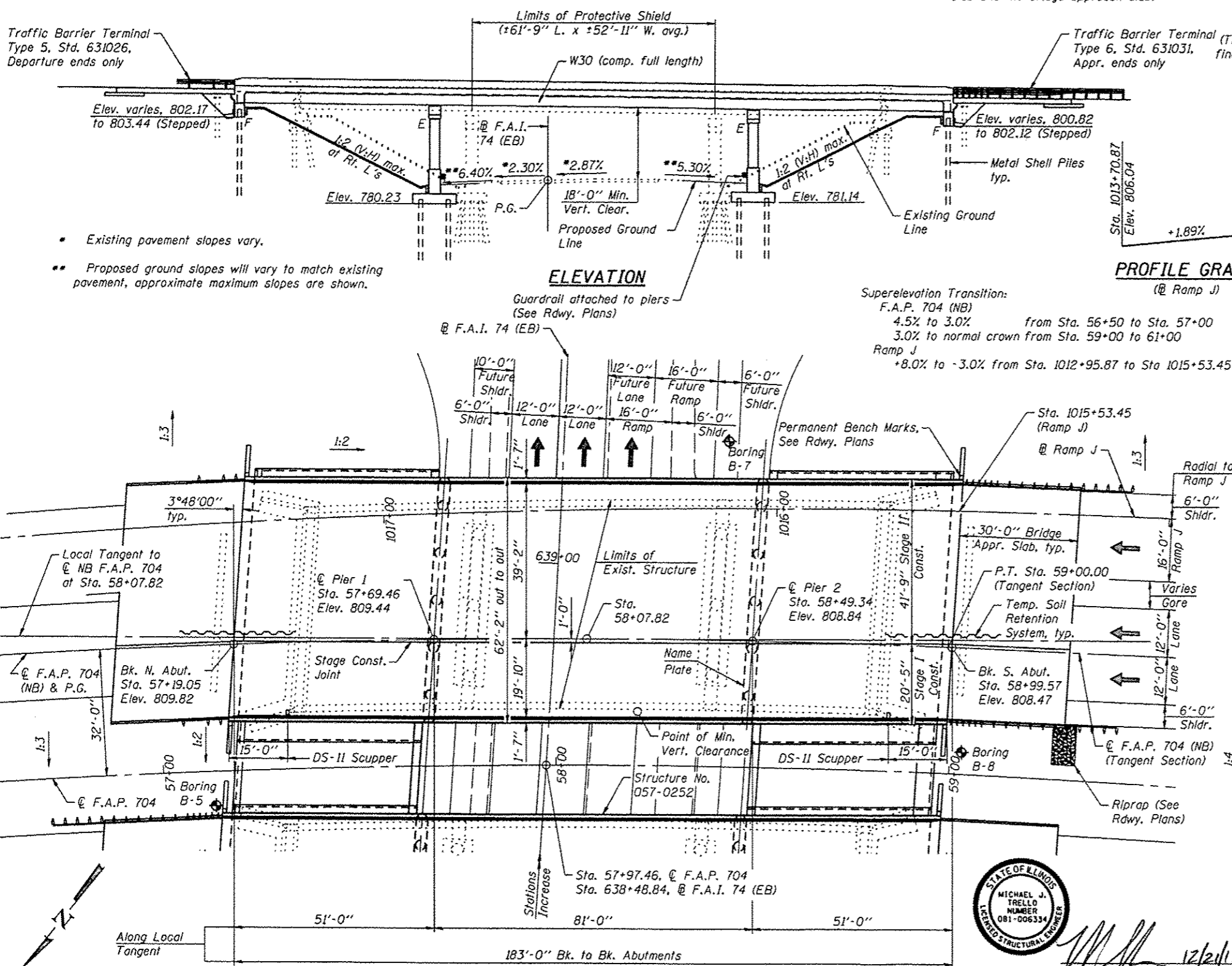


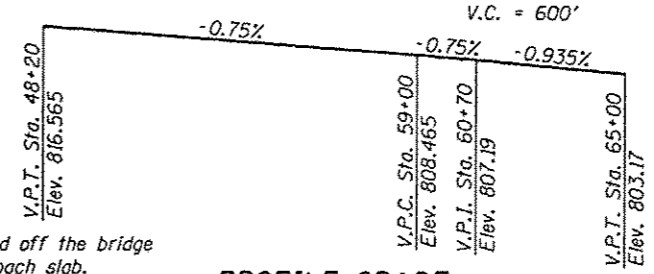
Benchmark: #4848-1 - Chiseled square on the Southeast wing of Structure No. 057-0059. Elev. 809.67.

Existing Structure: S.N. 057-0059 was constructed in 1964 as F.A.I. Rte. 74, Section 57-20HB-1, at Sta. 638+50.46. The bridge is three simple composite spans with concrete deck slab on steel beams located on a horizontal curve on the F.A.P. Rte. 704 northbound alignment and spans 150'-3 1/8" back to back abutments and varies up to 53'-11 1/4" in width. The bridge is skewed 4°1'50" left forward over a horizontal curve of the F.A.I. 74 EB alignment. The bridge was rehabilitated in 1993 as F.A.I. 74, Section 57-20HBR-1 with a concrete overlay, new parapets and steel diaphragms, and substructure repairs.

Existing structure shall be removed and replaced using staged construction to maintain one lane of traffic. Ramp J will be closed during Stage II. No salvage.

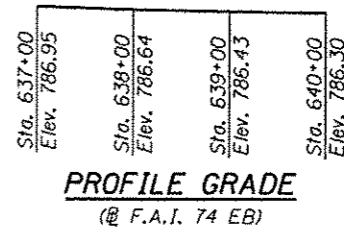


PLAN



PROFILE GRADE

(@ F.A.P. 704 NB)
 (The Profile Grade shows the final elevations after grinding.)



PROFILE GRADE

CURVE DATA

RAMP J
 $\Delta = 28^\circ 03' 49''$ (LT)
 $D = 2^\circ 26' 24''$
 $T = 586.85$
 $L = 1,150.14'$
 $E = 72.22'$
 $R = 2,348.17$
 $S.E. = -$
 $P.C. = \text{Sta. } 1014+67.36$
 $P.T. = \text{Sta. } 1026+17.51$
 $P.I. = \text{Sta. } 1020+54.21$

CURVE DATA

F.A.P. 704
 $\Delta = 72^\circ 26' 50''$ (RT)
 $D = 2^\circ 29' 57''$
 $T = 1,679.29'$
 $L = 2,898.71'$
 $E = 549.26'$
 $R = 2,292.48'$
 $S.E. = 4.50\%$
 $P.C. = \text{Sta. } 38+00.02$
 $P.T. = \text{Sta. } 66+98.73$
 $P.I. = \text{Sta. } 54+79.31$

CURVE DATA

I-74 (EB)
 $\Delta = 78^\circ 00' 35''$ (LT)
 $D = 1^\circ 29' 59''$
 $T = 3,094.20'$
 $L = 5,201.51'$
 $E = 1,095.86'$
 $R = 3,820.35'$
 $S.E. = -$
 $P.C. = \text{Sta. } 621+49.55$
 $P.T. = \text{Sta. } 673+51.06$
 $P.I. = \text{Sta. } 652+43.75$

APPROVED
 For Structural Adequacy Only

D. Carl Runyon, P.E.
 Engineer of Bridges & Structures

DESIGN SPECIFICATIONS
 2010 AASHTO LRFD Bridge Design Specifications
 with 2010 Interims

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

DESIGN STRESSES

FIELD UNITS
 $f'_c = 3,500$ psi
 $f_y = 60,000$ psi (Reinforcement)
 $f_y = 50,000$ psi (M270 Grade 50) (Primary)
 $f_y = 36,000$ psi (M270 Grade 36)

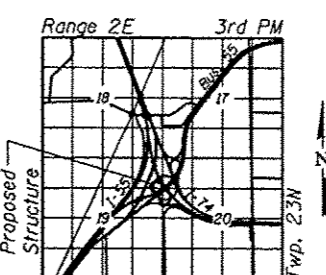
SEISMIC DATA

Seismic Performance Zone (SPZ) = 1
 Design Spectral Acceleration at 1.0 sec. (S_{D1}) = 0.087
 Design Spectral Acceleration at 0.2 sec. (S_{D5}) = 0.152
 Soil Site Class = C

STATION 638+48.84
 BUILT BY
 STATE OF ILLINOIS
 F.A.I. RT. 74 SEC. (57-20HB-1)BR
 LOADING HL-93
 STRUCTURE NO. 057-0251

NAME PLATE

See Std. 515001



LOCATION SKETCH

GENERAL PLAN AND ELEVATION
 FAI 55 BUSINESS (NB) OVER I-74(EB)
 F.A.I. 74 (EB) - SEC. (57-20HB-1)BR
 MCLEAN COUNTY
 STA. 638+48.84
 STRUCTURE NO. 057-0251



Date Signed: 12/21/12
 Exp. Date: 11/30/2014

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

FILE NAME * 0578251-78578-001-GPE.dwg	USER NAME * basvanson	DESIGNED - MJT	REVISED -
		CHECKED - RJP	REVISED -
PLOT SCALE *		DRAWN - BAS	REVISED -
PLOT DATE * 11/6/2012 11:09:07 AM		CHECKED - MJT	REVISED -

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	(57-20HB-1)BR	MCLEAN	440	154
CONTRACT NO. 70570				