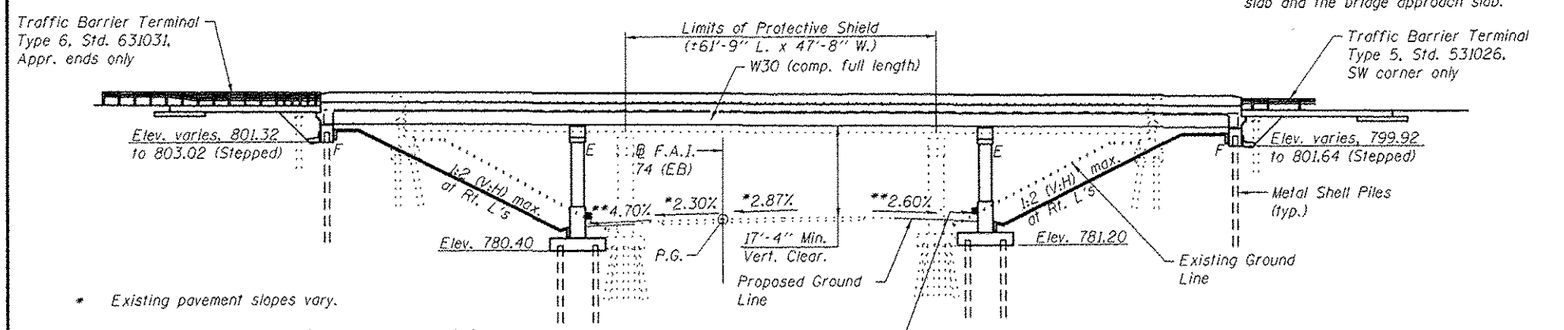
Benchmark: #4848-1 - Chiseled square on the Southeast wing of Structure No. 057-0059. Elev. 809.67.

Existing Structure: S.N. 057-0060 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 southbound alignment and spans 150'-3⅛" back to back abutments and is 47'-8" 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.

The existing structure will be removed and replaced using staged construction to maintain one lane of traffic. Ramps E and F will be closed during Stage II.
No salvage.

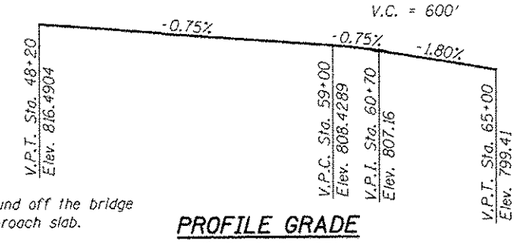
Note:
Up to ¼" will be ground off the bridge slab and the bridge approach slab.



* Existing pavement slopes vary.

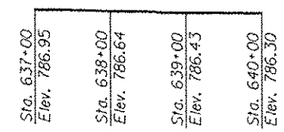
** Proposed ground slopes will vary to match existing pavement, approximate maximum slopes are shown.

ELEVATION



PROFILE GRADE

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



PROFILE GRADE

(@ F.A.I. 74 EB)

INDEX OF SHEETS

1.	General Plan and Elevation
2.	General Data
3.	Slope Wall and Foundation Layout
4	Staging Details
5.	Modified Temporary Concrete Barrier
6.-7.	Top of Slab Elevations
8.-9.	Top of Approach Slab Elevations
10.	Superstructure
11.	Superstructure Details
12.	Integral Abutment Diaphragm Details
13.-15.	Bridge Approach Slab Details
16.	Structural Steel
17.	Bearing Details
18.-19.	Abutments
20.-21.	Piers
22.	Metal Shell Pile Details
23.	Bar Splicer Assembly
24.-26.	Soil Borings

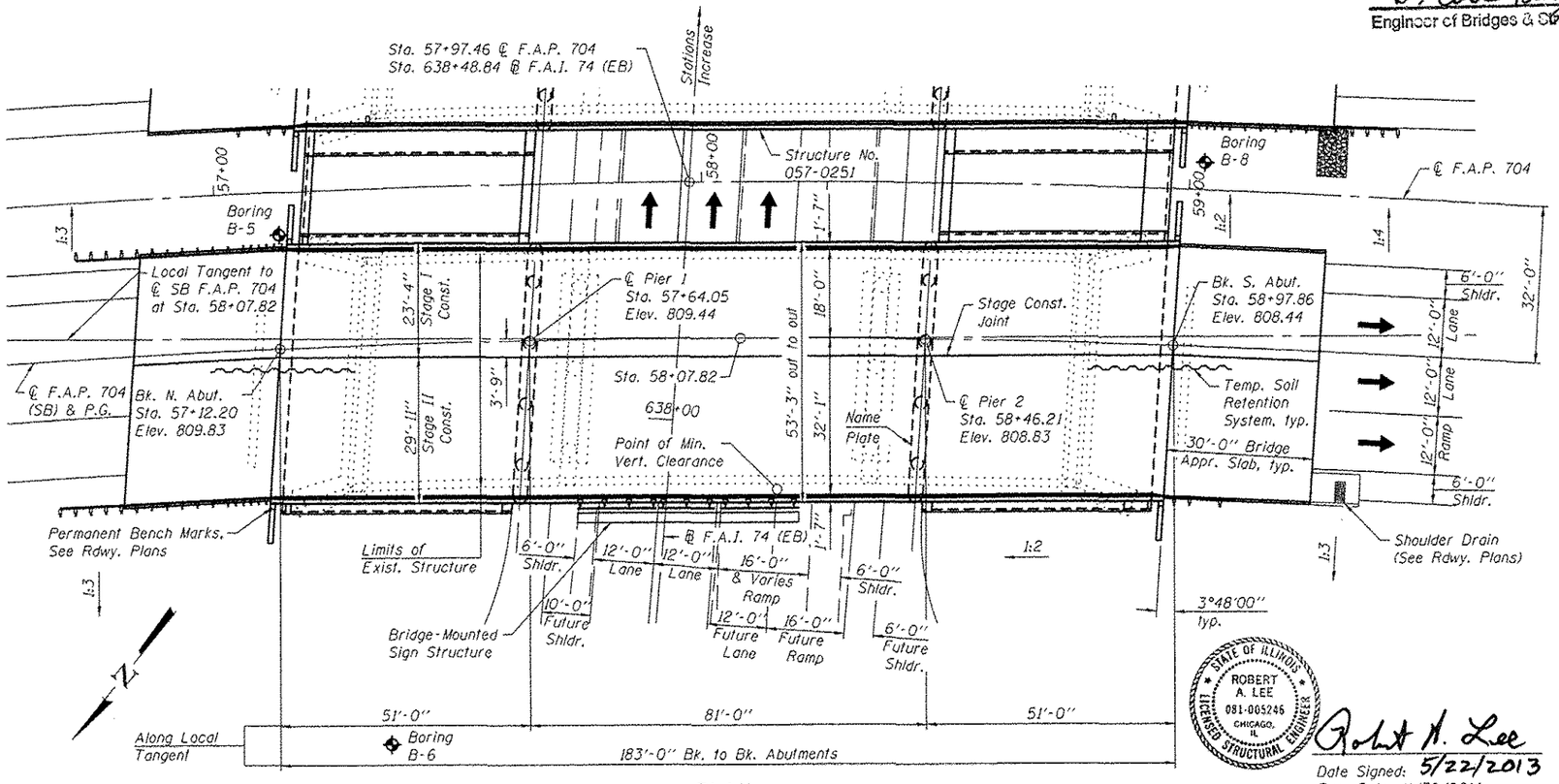
CURVE DATA
F.A.P. 704

Δ = 72° 26' 50" (RT)
D = 2° 29' 57"
T = 1,679.29'
L = 2,898.71'
E = 549.26'
R = 2,292.48'
S.E. = 4.50%
P.C. = Sta. 38+00.02
P.T. = Sta. 66+98.73
P.I. = Sta. 54+79.31

CURVE DATA
I-74 (EB)

Δ = 78° 00' 35" (LT)
D = 1° 29' 59"
T = 3,094.20'
L = 5,201.51'
E = 1,095.86'
R = 3,820.35'
S.E. = --
P.C. = Sta. 621+49.55
P.T. = Sta. 673+51.06
P.I. = Sta. 652+43.75

APPROVED
For Structural Adequacy Only
D. Carl Purvey, III
Engineer of Bridges & Structures



PLAN

STATION 638+48.84
BUILT BY
STATE OF ILLINOIS
F.A.I. RT. 74 SEC. (57-20HB-1)BR-1
LOADING HL-93
STRUCTURE NO. 057-0252

NAME PLATE

See Std. 515001

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

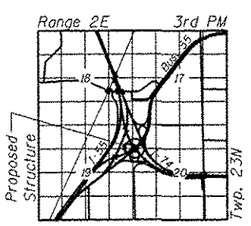
f'c = 3,500 psi
fy = 60,000 psi (Reinforcement)
fy = 50,000 psi (M270 Grade 50) (Primary)
fy = 36,000 psi (M270 Grade 36)

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_{DS}) = 0.152
Soil Site Class = C

STATE OF ILLINOIS
ROBERT A. LEE
081-005245
CHICAGO, IL
LICENSED STRUCTURAL ENGINEER

Robert A. Lee
Date Signed: 5/22/2013
Exp. Date: 11/30/2014



LOCATION SKETCH

GENERAL PLAN AND ELEVATION
FAI 55 BUSINESS (SB) OVER I-74(EB)
F.A.I. 74 (EB) - SEC. (57-20HB-1)BR-1
MCLEAN COUNTY
STA. 638+48.84
STRUCTURE NO. 057-0252

FILE NAME = 0570252-70570-001-GPE.dgn	USER NAME = baswanson	DESIGNED - VPT	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	
FUHRMANN ENGINEERING INC. CIVIL ENGINEERS • LAND SURVEYORS		CHECKED - TF	REVISED -		
	PLOT SCALE =	DRAWN - JAE	REVISED -		
	PLOT DATE = 5/22/2013 9:57:04 AM	CHECKED - BAS	REVISED -		

SHEET NO. 1 OF 26 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	(57-20HB-1)BR-1	MCLEAN	440	182
		CONTRACT NO. 70570		
		ILLINOIS FED. AID PROJECT		