

Bench Mark: Chiseled "□" on top of northeast wingwall of S.N. 055-0003, Elev. 680.50. Chiseled "□" on top of southwest wingwall of S.N. 055-0027, Elev. 680.74.

Existing Structure: Structure Number 055-0003 was originally built in 1965 as S.B.I. Rte 3, Section 38BR over Farmers Fork Creek. In 1987 the structure was widened to accommodate a left turn lane when the two lane highway was upgraded to a four lane expressway under Sections 38-1, 37B-2, and 38B-2. In 2004, three deck beams were replaced on the structure under Section 38B-4. In 2008, two additional deck beams were replaced under Sections (37B)I and (38B-2)I. The existing structure is a single span PPC deck beam bridge on closed abutments with pile-supported spread footings, 53'-0" out-to-out deck width, 52'-6" bk.-bk. abutment length. The structure is at a 45 degree right ahead skew.

Existing Structure: Structure Number 055-0027 was originally built in 1987 as F.A.P. Rte 10, Section 38-1, 37B-2, and 38B-2, over Farmers Fork Creek. In 2009 nine of the deck beams were replaced under Section (38B-2)I. The existing structure is a three simple span PPC deck beam bridge on pile bent abutments and piers. The out-to-out deck width is 40'-0" and the bk.-bk. abutment length is 94'-0". The structure is at a 45 degree right ahead skew.

The existing structures shall be removed and replaced.

Traffic to be maintained utilizing crossovers. Traffic will be maintained on existing S.N. 055-0003 while S.N. 055-0081 is constructed. Traffic will be maintained on S.N. 055-0081 while S.N. 055-0080 is constructed.

No Salvage.

DESIGN SCOUR ELEVATION TABLE

Design Scour Elevation (ft.)	S.N. 055-0080		S.N. 055-0081	
	N. Abut.	S. Abut.	N. Abut.	S. Abut.
	675.5	675.9	675.8	676.2

WATERWAY INFORMATION

Drainage Area = 4.12 Sq. Mi.		Exist. Low Grade Elev. 680.80 @ Sta. 153+16		Prop. Low Grade Elev. 683.66 @ Sta. 152+97		
Flood	Freq. Yr.	Q C.F.S.	Opening Sq. Ft. Exist. Prop.	Not. H.W.E.	Head - Ft. Exist. Prop.	Headwater El. Exist. Prop.
	10	883	333 454	676.2	0.7 0.7	676.9 676.9
Design	50	1,373	369 504	676.9	1.3 1.0	678.2 677.9
Base	100	1,597	382 522	677.1	1.6 1.1	678.7 678.2
Overtop Exist.	400	1,997	402	677.5	3.7	681.2
Max. Calc.	500	2,130	-	560	1.4	679.0

INDEX OF SHEETS

- 1 General Plan & Elevation
- 2 General Data
- 3 Temporary Sheet Piling
- 4 Substructure Layout
- 5-7 Top of Slab Elevations
- 8 Top of North Approach Slab Elevations SN 055-0080
- 9 Top of South Approach Slab Elevations SN 055-0080
- 10 Top of North Approach Slab Elevations SN 055-0081
- 11 Top of South Approach Slab Elevations SN 055-0081
- 12 Superstructure SN 055-0080
- 13 Superstructure SN 055-0081
- 14 Superstructure Details
- 15 Diaphragm Details SN 055-0080
- 16 Diaphragm Details SN 055-0081
- 17 Drainage Scupper, DS-11
- 18-19 Bridge Approach Slab Details SN 055-0080
- 20-21 Bridge Approach Slab Details SN 055-0081
- 22 Framing Plan
- 23-24 Girder Details
- 25 North Abutment SN 055-0080
- 26 South Abutment SN 055-0080
- 27 North Abutment SN 055-0081
- 28 South Abutment SN 055-0081
- 29 Metal Shell Pile Details
- 30 Bar Splicer Assembly and Mechanical Splicer Details
- 31 Concrete Parapet Slipforming Option
- 32-35 Soil Borings

DESIGN SPECIFICATIONS

2010 AASHTO LRFD Bridge Design Specifications 5th Edition

LOADING HL-93

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

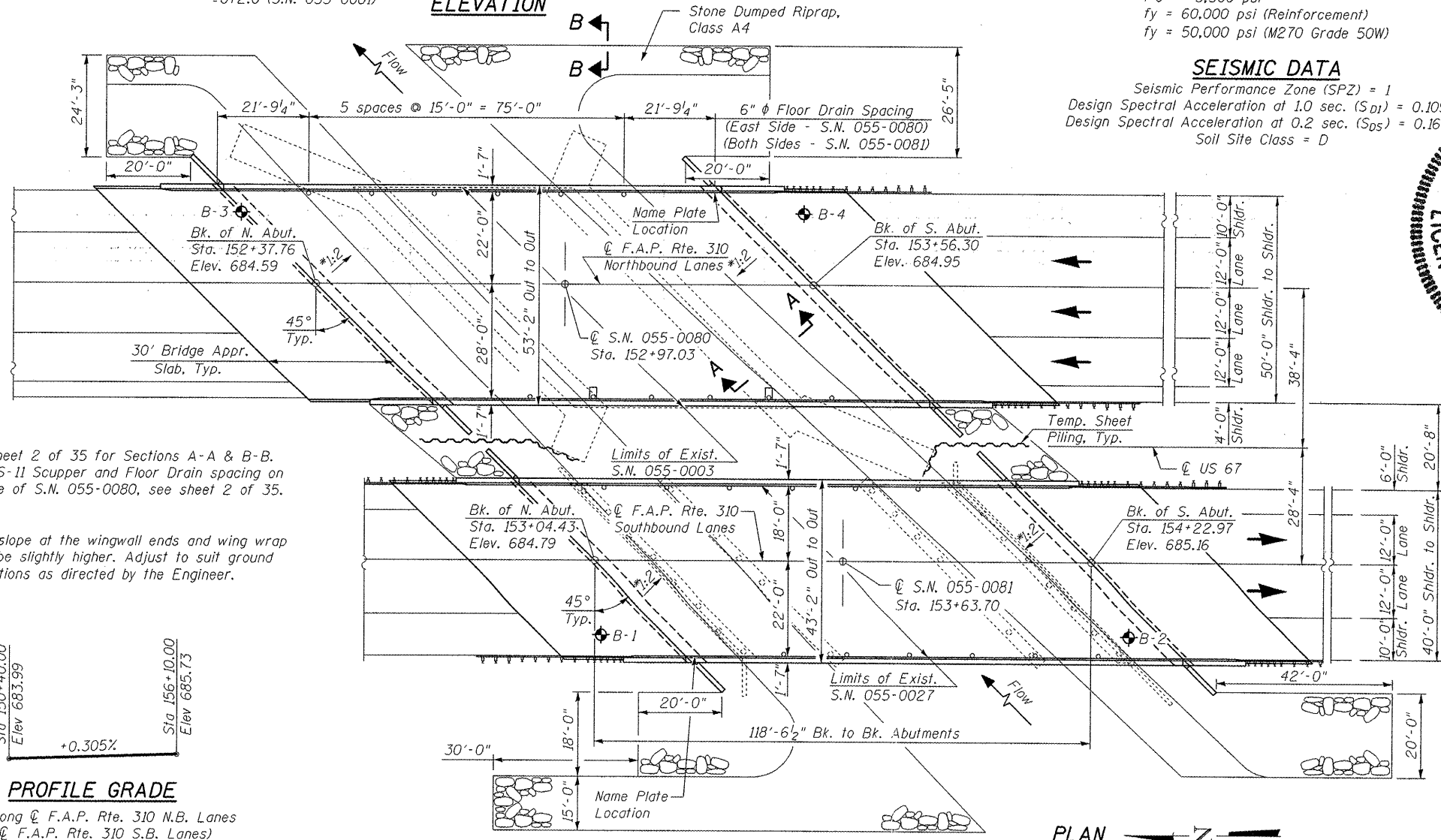
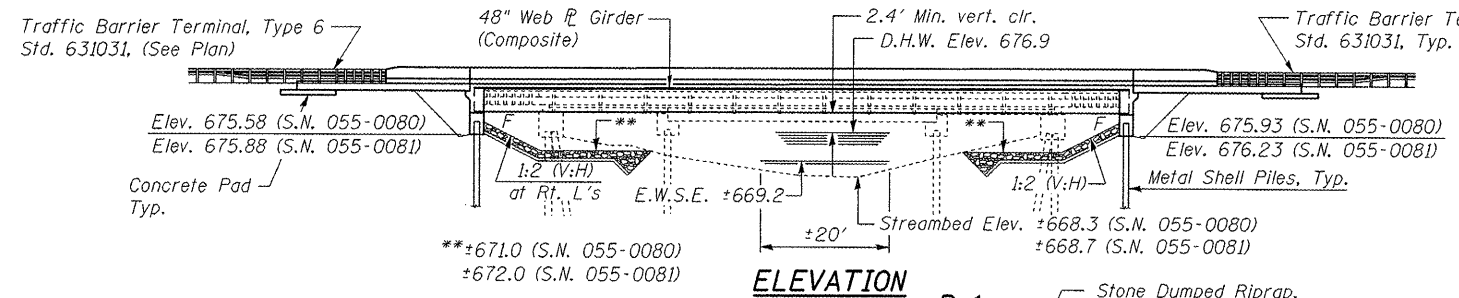
DESIGN STRESSES

FIELD UNITS

$f'_c = 3,500$ psi
 $f_y = 60,000$ psi (Reinforcement)
 $f_y = 50,000$ psi (M270 Grade 50W)

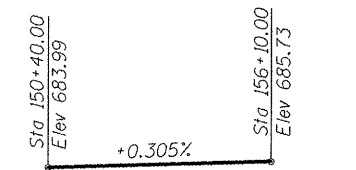
SEISMIC DATA

Seismic Performance Zone (SPZ) = 1
 Design Spectral Acceleration at 1.0 sec. (S_{D1}) = 0.109g
 Design Spectral Acceleration at 0.2 sec. (S_{D5}) = 0.164g
 Soil Site Class = D

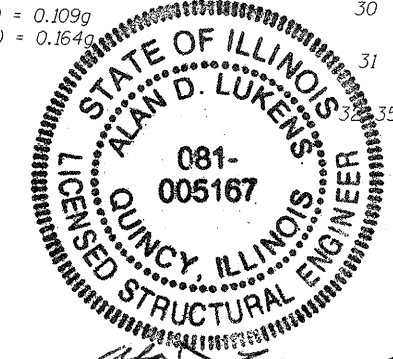


Notes:
 See sheet 2 of 35 for Sections A-A & B-B.
 For DS-11 Scupper and Floor Drain spacing on west side of S.N. 055-0080, see sheet 2 of 35.

*The slope at the wingwall ends and wing wrap may be slightly higher. Adjust to suit ground conditions as directed by the Engineer.

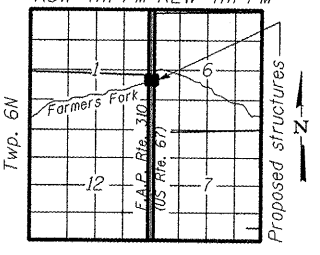


PROFILE GRADE
 (Along F.A.P. Rte. 310 N.B. Lanes & F.A.P. Rte. 310 S.B. Lanes)



APPROVED
 For Structural Adequacy Only
 [Signature]
 Engineer of Bridges & Structures

Alan D. Lukens
 Licensed Structural Engineer
 State of Illinois No. 081-005167
 License Expires 11/30/12



LOCATION SKETCH

GENERAL PLAN & ELEVATION
US 67 OVER FARMERS FORK CREEK
FAP ROUTE 310 SECTION (38B-2)BR
MCDONOUGH COUNTY
STATION 152+97.03 (SN 055-0080)
STATION 153+63.70 (SN 055-0081)
STRUCTURE NO. 055-0080 (N.B.)
STRUCTURE NO. 055-0081 (S.B.)

FILE NAME =	USER NAME = r.jp	DESIGNED - KTH	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	GENERAL PLAN & ELEVATION S.N. 055-0080 (NB) & S.N. 055-0081 (SB)	F.A.P. RTE. 310	SECTION (38B-2)BR	COUNTY MCDONOUGH	TOTAL SHEETS 130	SHEET NO. 58	
P:\07files\070205\Phase2\Bridges\Plans\01.GPE\Plan&Elev.dgn	PLOT SCALE = 0:2.0624" = 1" / IN.	CHECKED - ADL	REVISED -			SHEET NO. 1 OF 35 SHEETS		CONTRACT NO. 68691		ILLINOIS FED. AID PROJECT	
	PLOT DATE = 1/23/2012	DRAWN - BCJ	REVISED -			Klingner & Associates P.C.					
		CHECKED - RJP	REVISED -								