

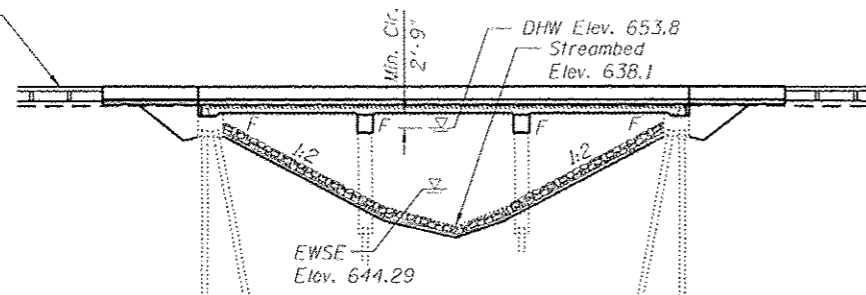
Bench Mark: Cut "C" top NE wingwall Sta. 1593+56.97, 18.45' L.L., Elev. 657.07

Existing Structure: S.N. 027-0073 originally constructed in 1983 as FA Route 796. Section 106 BR-1. Three simple span bridge constructed of 11" PPC Deck Beams supported on pile bent abutments and solid wall encased pile piers supported on concrete piles. Bk. to Bk. of abutment is 76'-10" and out to out width is 34'-8"

Traffic shall be detoured during construction.

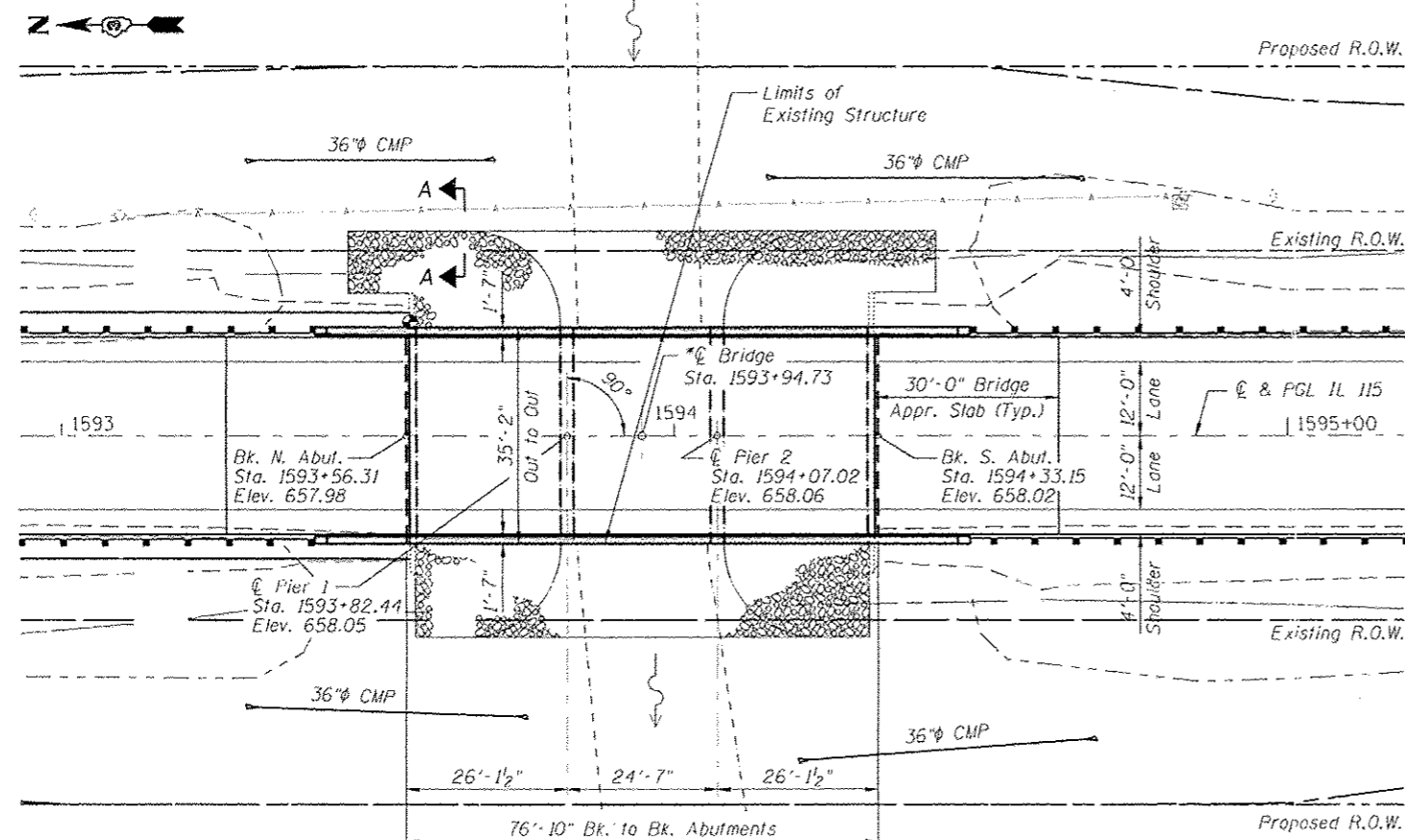
No Salvage.

Traffic Barrier Terminal Type 6 Std. 631031 (Typ.)



ELEVATION

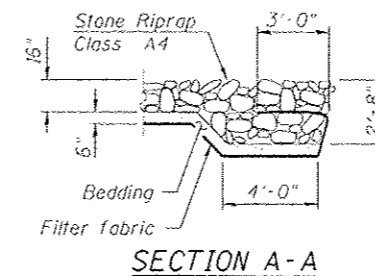
* Bridge station based on field survey dated May 2009



PLAN

SCOPE OF WORK

1. Remove existing PPC Deck Beams and replace with a continuous, three-span reinforced concrete slab.
2. Remove and replace approach slabs.
3. Remove and replace pier caps.
4. Remove each abutment backwall.
5. Repair abutment stems and pier pile encasements.
6. Replace rip rap.
7. Replace embankment and wall drains behind abutment stems.



SECTION A-A

WATERWAY INFORMATION

Drainage Area = 31.9 sq. mi.		Exist. Low Grade Elev. = 656.12 @ Sta. 1586+00		Prop. Low Grade Elev. = 656.12 @ Sta. 1586+00				
Flood	Freq. Yr.	Opening Sq. Ft.		Nat. H.W.E.	Head - Ft.		Headwater El.	
		Exist.	Prop.		Exist.	Prop.	Exist.	Prop.
Design	50	1050	571	653.8	0.0	0.0	653.9	653.9
Base	100	1190	630	654.8	0.0	0.0	654.8	654.8
Overtopping	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Max. Calc.	500	1520	694	656.7	0.1	0.1	656.8	656.8

10-Year Velocity through Existing Bridge = 1.8 fps
10-Year Velocity through Proposed Bridge = 1.8 fps

DESIGN SCOUR ELEVATION TABLE

	N. Abut.	Pier 1	Pier 2	S. Abut.
0100	652.5	638.6	638.6	652.5
0500	652.5	637.2	637.2	652.5

LOADING HL-93

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

DESIGN SPECIFICATIONS

2010 AASHTO LRFD Bridge Design Specifications With 2010 Interims

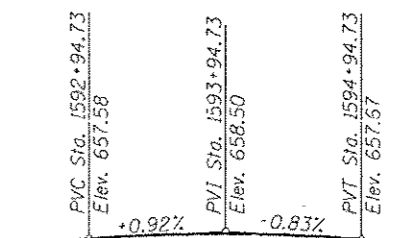
DESIGN STRESSES

FIELD UNITS

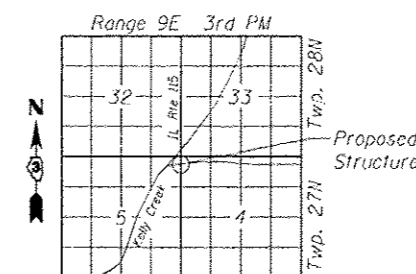
$f_c = 3,500$ psi
 $f_y = 60,000$ psi (reinforcement)

SEISMIC DATA

SPC = A
A = 0.0439
S = 1.2



PROFILE GRADE
(along IL Route 115)



LOCATION SKETCH

GENERAL PLAN AND ELEVATION

IL 115 OVER KELLY CREEK

FAP 796

SEC. (106 BR-1 & BR-4)BR

FORD COUNTY

STA. 1593+94.73

STRUCTURE NO. 027-0073

APPROVED

For Structural Adequacy Only

Carl Rungger
Engineer of Bridges & Structures



Robert J. ...
Signature Date 10-31-12
November 30, 2014
Expires

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GENERAL PLAN AND ELEVATION
S.N. 027-0073

SHEET NO. SB-01 OF SB-13 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
796	(106 BR-1 & BR-4)BR	FORD	78	20

CONTRACT NO. 66980
ILLINOIS FED. AID PROJECT

ZROKA Engineering, P.C.
4216 North Hermitage
Chicago, IL 60613

USER NAME	DESIGNED	REVISIONS
SAW	PM	-
	JLA	REVISION
	SAW	REVISION
	PM	REVISION

PLOT SCALE = 0:2,000 1" = 10'
PLOT DATE = 10/30/2012

FILE NAME: ...A66980-SB0270073-01-DPE.dwg