Benchmark: Chiseled "□" in Southwest Wingwall Sta. 317+32.95, 18.99' Lt. Elevation 622.98

Existing Structure: SN 046-0071 was originally constructed at Sta.317+68.00 in 1923 as S.B.I. Rte 25 Section 39C. It was reconstructed as SN 046-0107 in 1979 as F.A.S. 1323 Section 39C-BR. It is a single span 27" P.P.C. deck beam structure supported on pile supported stub abutments. The length of the structure is 72'-0" back to back of abutments and its width is 36'-0" out to out of deck. The skew is 0°.

Existing structure to be removed and replaced. Traffic will be detoured. Slide in bridge construction shall be utilized to limit time of road closure.

No Salvage

SEISMIC DATA

Seismic Performance Zone (SPZ) = 1
Design Spectral Acceleration @ 1.0 sec (SD1) = .073
Design Spectral Acceleration @ 0.2 sec (SDS) = .126
Soil Site Class = C

LOADING HL-93

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

DESIGN SPECIFICATIONS

AASHTO LRFD Bridge Design Specifications with 2015 Interims

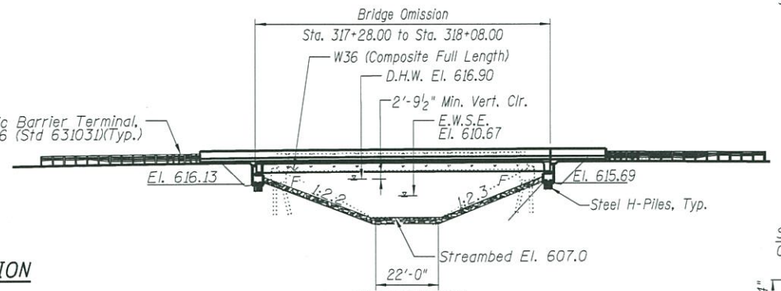
DESIGN STRESSES

FIELD UNITS

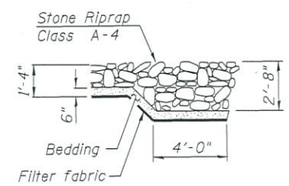
f'_c = 3,500 psi
f'_c = 4,000 psi (Superstructure Concrete)
f_y = 60,000 psi (reinforcement)
f_y = 50,000 psi (M270 Grade 50W)

PRECAST UNITS

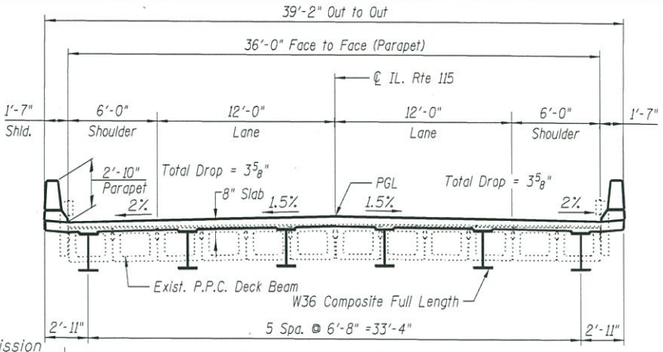
f'_c = 5,000 psi
f_y = 60,000 psi (reinforcement)



ELEVATION



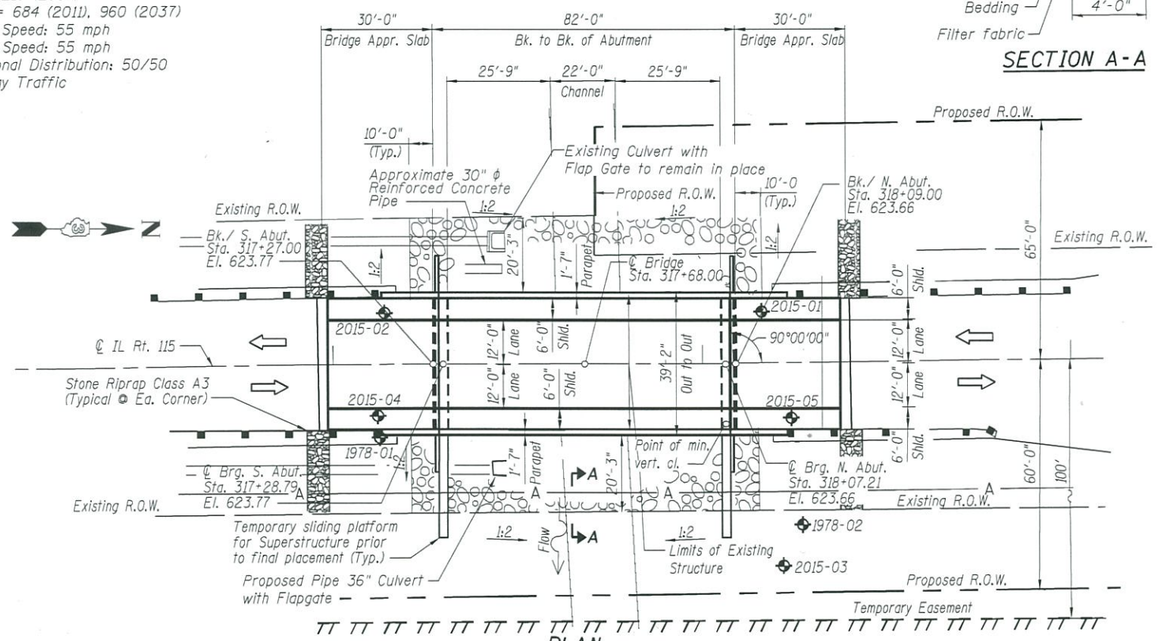
SECTION A-A



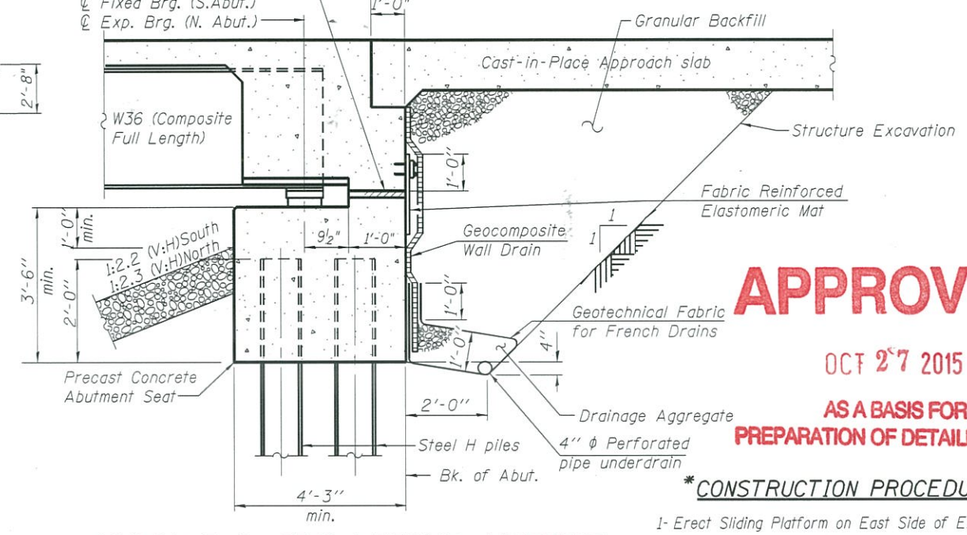
CROSS SECTION
(Looking North)

HIGHWAY CLASSIFICATION

Route: FAU 6188 (IL 115)
Functional Class: Minor Arterial
ADT: 2850 (2011), 4000 (2037)
DHV = 213 (2037)
ADTT = 684 (2011), 960 (2037)
Design Speed: 55 mph
Posted Speed: 55 mph
Directional Distribution: 50/50
Two Way Traffic



PLAN



SECTION THRU SEMI-INTEGRAL ABUTMENT

APPROVED
OCT 27 2015
AS A BASIS FOR PREPARATION OF DETAILED PLANS

*CONSTRUCTION PROCEDURE

1- Erect Sliding Platform on East Side of Existing Bridge
2-Erect Structural Steel
3-Erect Deck & Diaphragm
4-Remove Existing Bridge
5-Drive Steel H-Piles
6-Place Precast Abutments
7-Slide Superstructure in Place
8-Place Bearings & Secure Superstructure
9-Place Approaches & Wingwalls
10- Place Riprap.

*Estimated time for Steps 4 thru 8 is 5 days. Estimated time for Steps 9 and 10 is 17 days. Total Estimated time of Road Closure and Detour is 22 days.

DESIGN SCOUR ELEVATION TABLE

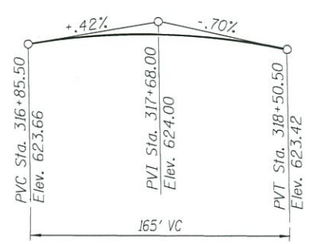
Event/Limit State	Design Scour Elevations (ft.)		Item 113
	South Abut.	North Abut.	
Q100	616.13	615.69	8
Q200	616.13	615.69	
Design	616.13	615.69	
Check	616.13	615.69	

WATERWAY INFORMATION

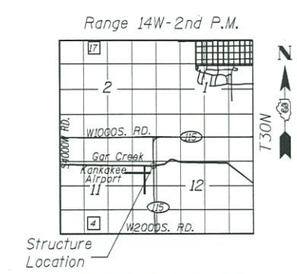
Drainage Area = - 19.6 sq. mi
Exist. Low Grade Elev. = 622.90 @ Sta. 318+00
Prop. Low Grade Elev. = 623.15 @ Sta. 318+00

Flood	Freq. Yr.	Q C.F.S.	Opening Sq. Ft. Exist.	Opening Sq. Ft. Prop.	Nat. H.W.E.	Head - Ft. Exist.	Head - Ft. Prop.	Headwater El. Exist.	Headwater El. Prop.
	10	986	253	344	615.2	0.0	0.0	615.2	615.2
Hydraulic Design	50	1440	338	452	616.9	0.0	0.0	616.9	616.9
Base/Scour Design	100	1610	369	491	617.4	0.0	0.0	617.4	617.4
Scour Check	200	1793	402	531	617.9	0.0	0.0	617.9	617.9
Max. Calc.	500	2030	444	582	618.6	0.0	0.0	618.6	618.6
Overtopping	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

10-Year Velocity through Existing Bridge = 3.9 fps
10-Year Velocity through Proposed Bridge = 2.8 fps



PROFILE GRADE
(along ℄ IL.Route 115)



LOCATION SKETCH

GENERAL PLAN
IL. ROUTE 115 OVER GAR CREEK
FAU 6188 (IL 115) SECTION (39C)1-BR
KANKAKEE COUNTY
STA. 317+68.00
STRUCTURE NO. 046-0152

MILHOUSE ENGINEERING & CONSTRUCTION

USER NAME = taledge	DESIGNED - LAS	REVISED -	
	CHECKED - DAZ	REVISED -	
PLOT SCALE = 20.0000 ' / in.	DRAWN - TCS	REVISED -	
PLOT DATE = 10/23/2015	CHECKED - LAS	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GENERAL PLAN
STRUCTURE NO. 046-0152
SHEET NO. 1 OF 1 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
6188	(39C) 1-BR	KANKAKEE		
		CONTRACT NO. 66B67		
		ILLINOIS FED. AID PROJECT		

FILE NAME = P:\2015\066 IDOT 03 Various Phase II (PTB 145-18) K012 13 & 14\066-03 ITS, IL 115 over Gar Creek PTB 145B1\Bridge Plans\B152_66B67_TSL.dgn