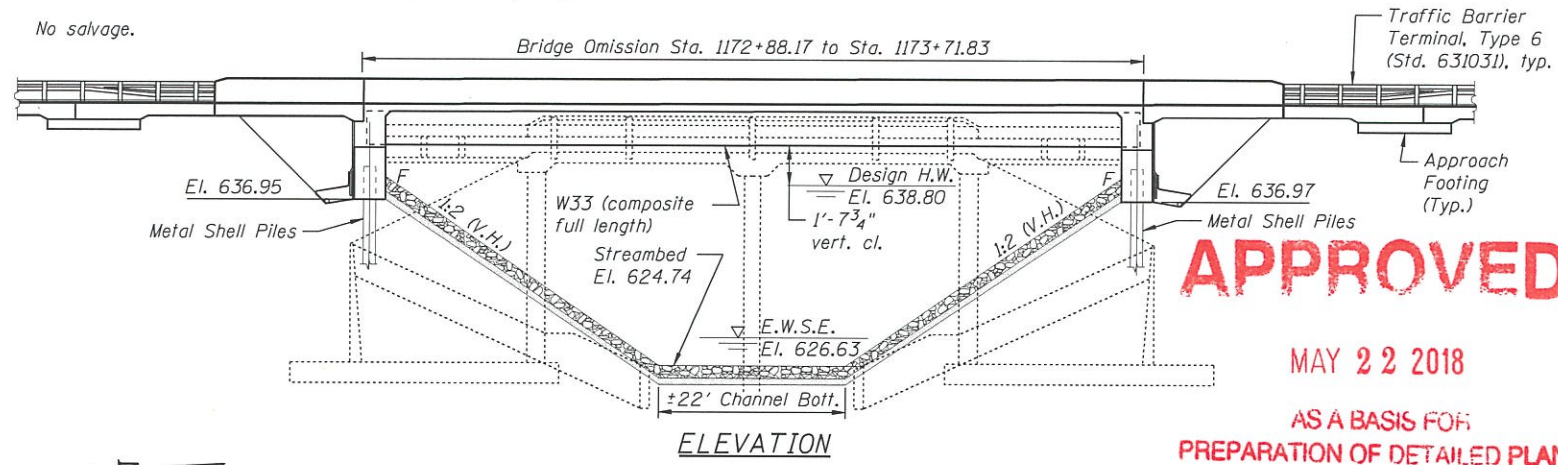


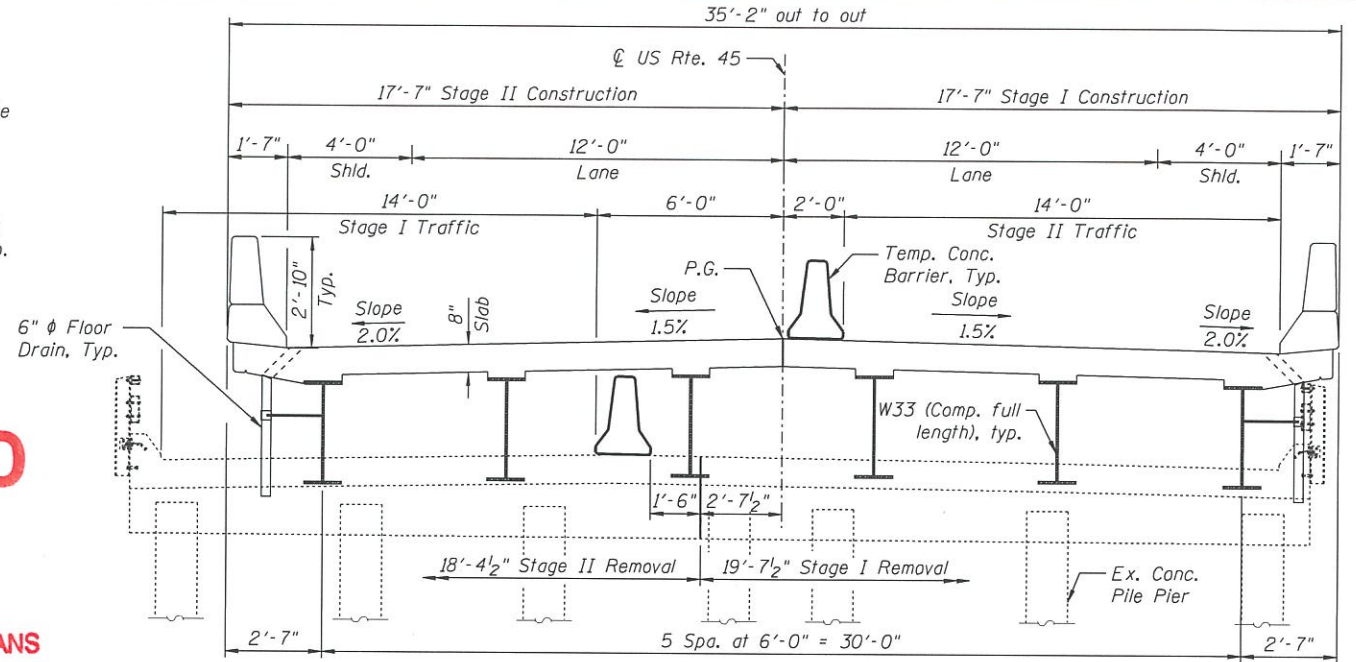
B.M. #1: Chiseled "□" in top of N.E. Wingwall, Sta. 1173+05.20, 22.95' Lt., Elev. 641.696

Existing Structure: S.N. 038-0039 (ex.), originally constructed in 1922 as a single span concrete slab bridge (Rt. SBI-25, Sec. 36). In 1952 the bridge was converted into a two span bridge by widening the original north and south Abutments and adding a center Pier that consists of 6 precast concrete piles directly supporting a new widened Superstructure slab (Rt. SBI-25, Sec. 36B1). The Superstructure slab was then replaced in 1984 (Rt. SBI-25, Sec. 36BR-1). Concrete Sealer was applied to the deck surface in 2012. Currently, the existing structure consists of 11" CIP concrete slab supported on closed abutments and a center concrete pile Pier. The existing bridge currently measures 47'-8" back to back of Abutment and 38'-0" out to out of bridge deck. Existing structure to be removed and replaced using stage construction.

No salvage.



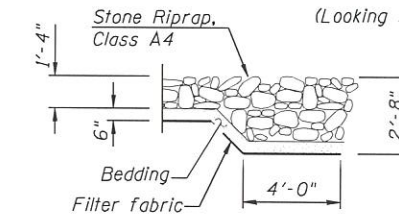
APPROVED
MAY 22 2018
AS A BASIS FOR
PREPARATION OF DETAILED PLANS



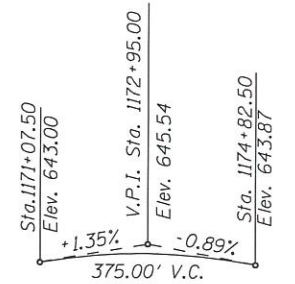
CROSS SECTION
(Looking South)

DESIGN SCOUR
ELEVATION TABLE

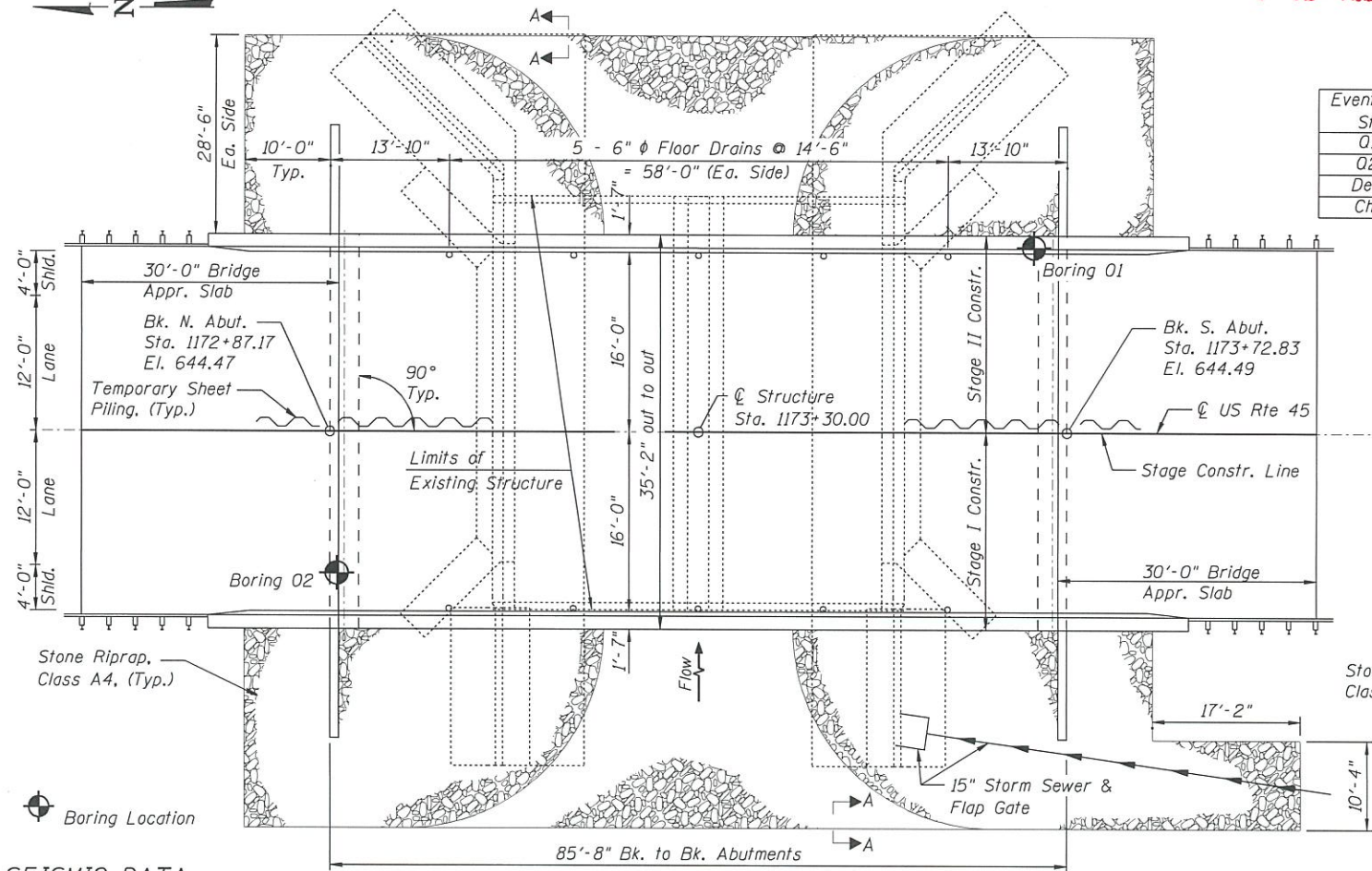
Event/Limit	Design Scour Elevations (ft.)		Item
State	North Abut.	South Abut.	113
Q100	636.95	636.97	8
Q200	636.95	636.97	
Design	636.95	636.97	
Check	636.95	636.97	



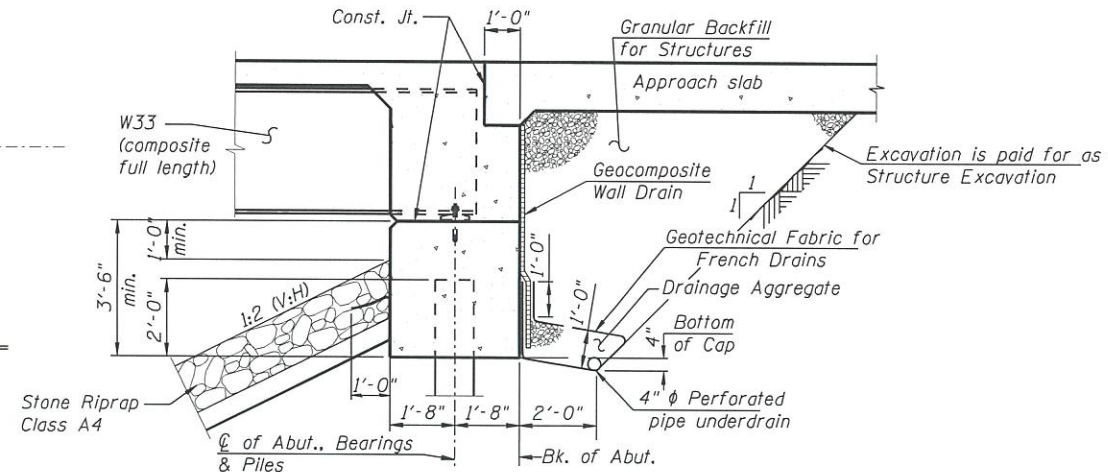
SECTION A-A



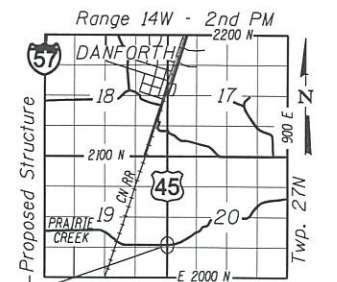
PROFILE GRADE
(F.A.S. Route 317)



PLAN



SECTION THRU INTEGRAL ABUTMENT



LOCATION SKETCH

SEISMIC DATA

Seismic Performance Zone (SPZ) = 1
Design Spectral Acceleration at 1.0 sec. (S_{D1}) = 0.078 g
Design Spectral Acceleration at 0.2 sec. (S_{D5}) = 0.133 g
Soil Site Class = C

DESIGN SPECIFICATIONS

2017 AASHTO LRFD Bridge Design Specifications, 8th Edition

LOADING HL-93

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

HIGHWAY CLASSIFICATION

FAS 317 (US45)
Functional Class: Major Collector
ADT: 2520 (2020) / 3000 (2040)
ADTT: 330 (2020) / 393 (2040)
DHV: 285 (2040)
Design Speed: 55 mph
Posted Speed: 55 mph
Two-Way Traffic
Directional Distribution: 50/50

DESIGN STRESSES

FIELD UNITS
f'_c = 3,500 p.s.i.
f'_c = 4,000 p.s.i. (Superstructure Concrete)
f_y = 60,000 p.s.i. (Reinforcement)
f_y = 50,000 p.s.i. (Structural Steel)
AASHTO M270 Grade 50W

WATERWAY INFORMATION

FLOOD	FREQUENCY (Yr.)	Q (cfs)	OPENING Sq. ft		NAT. H.W.E.		HEAD - ft.		HEADWATER EL.	
			Exist.	Prop.	Exist.	Prop.	Exist.	Prop.	Exist.	Prop.
	10	1570	482	579	637.9	0.1	0.1	638.0	638.0	
Hydraulic Design	50	2410	522	645	638.8	0.5	0.4	639.3	639.2	
Base/Scour Des.	100	2760	535	667	639.1	0.7	0.5	639.8	639.6	
Scour Check	200	3130	547	688	639.4	0.9	0.7	640.3	640.0	
Max. Calc.	500	3610	561	713	639.7	1.5	0.8	641.2	640.5	
Overtopping	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	

**GENERAL PLAN & ELEVATION
US RT. 45 OVER PRAIRIE CREEK**

F.A.S. ROUTE 317 (US 45)

SECTION (36BR-1)ES

IROQUOIS COUNTY

STATION 1173+30.00

STRUCTURE NO. 038-0225



USER NAME = \$USER\$	DESIGNED - BL/AA	REVISED -
PLOT SCALE = \$SCALE\$	DRAWN - AA	REVISED -
PLOT DATE = \$DATE\$	CHECKED - OAO	REVISED -
	DATE - 05-14-2018	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GENERAL PLAN
S.N. 038-0225

SHEET NO. OF SHEETS

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
317	(36BR-1)ES	IROQUOIS		
			CONTRACT NO.	66F70
[ILLINOIS] FED. AID PROJECT				