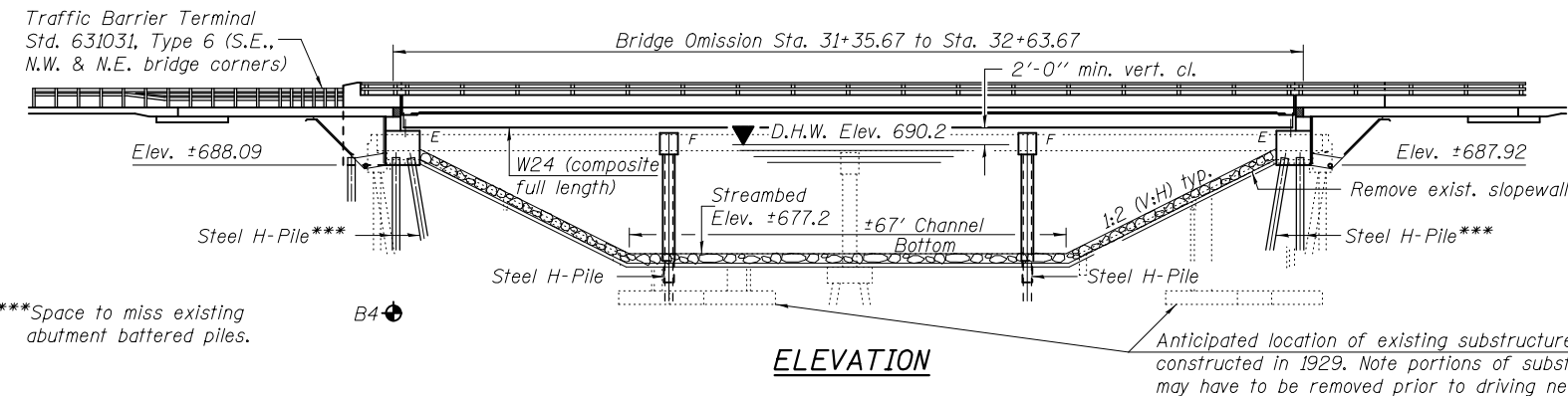


Bench Mark: Chiseled "square" on N.E. wingwall Sta. ±31+33.0, 20' LT., Elev. = 692.78

Existing Structure: S.N.102-0040 was built in 1974 as S.B.I. Route 117, Section 114BR, at Station 31+99.90. The existing two span structure consists of simple span PPC deck beams supported on pile bent abutments and a solid wall (pile supported) pier. The structure is 134'-6" back to back of abutments and 39'-0" out to out of deck beams. The existing structure will be replaced. Stage construction will be utilized to maintain one lane of traffic in each direction at all times.

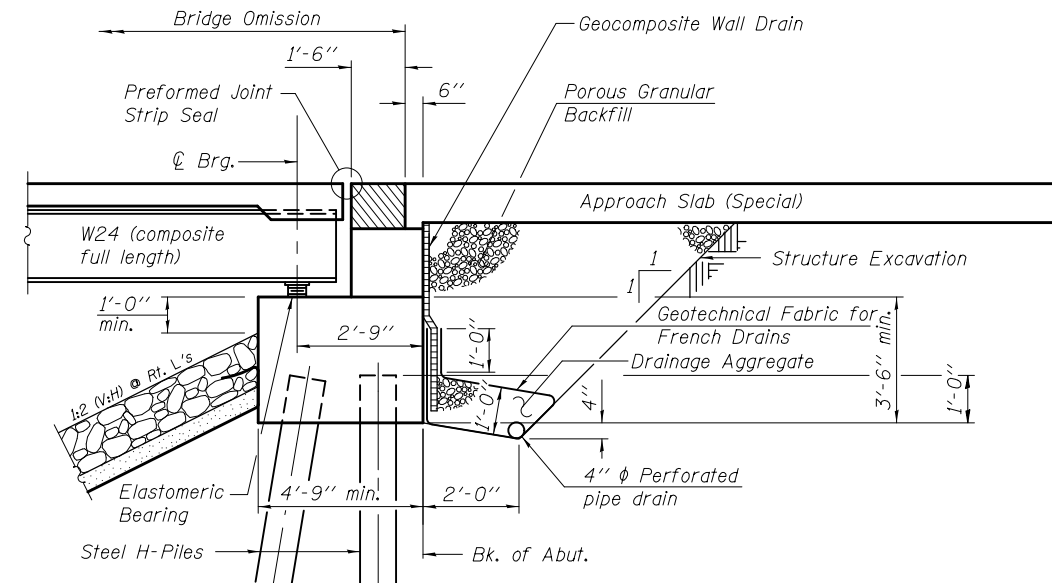
No salvage



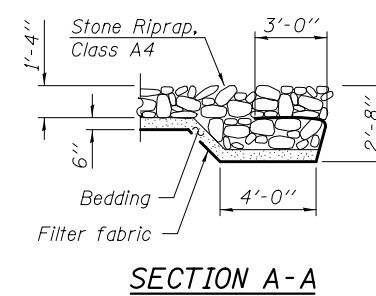
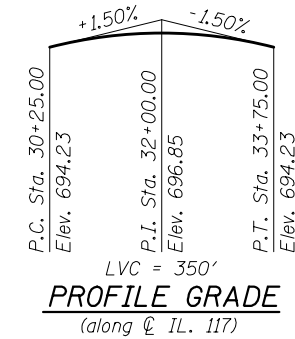
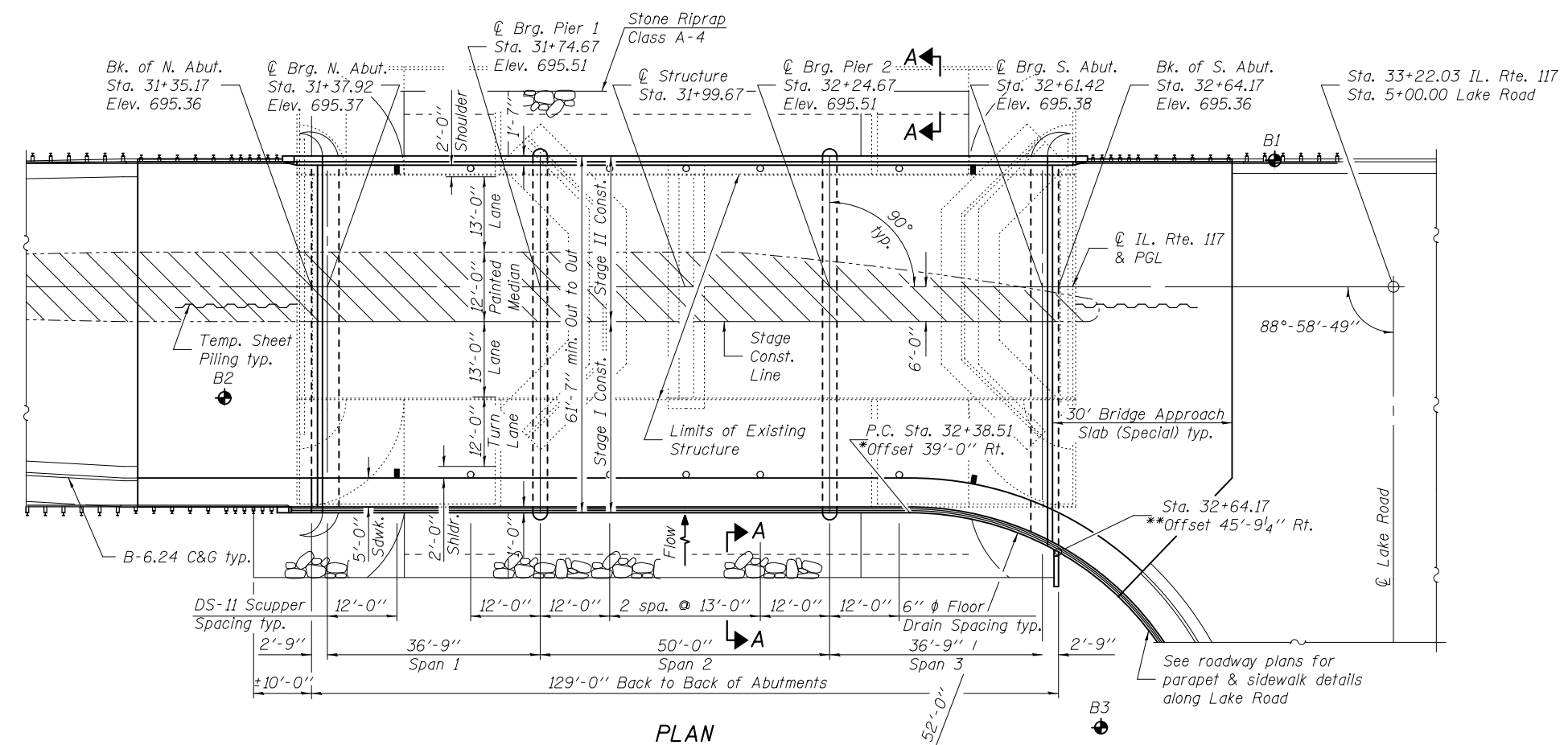
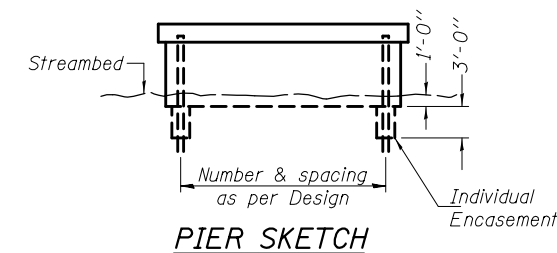
***Space to miss existing abutment battered piles.

DESIGN SCOUR ELEVATION TABLE

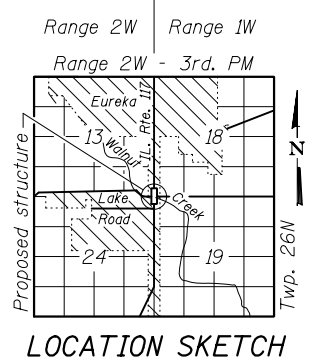
Design Scour Elevation (ft.)	N. Abut.	Pier 1	Pier 2	S. Abut.
	688.09	673.2	673.2	687.92



SECTION THRU ABUTMENTS



SECTION A-A



HIGHWAY CLASSIFICATION

F.A.P. Rte. 702 - Il. Rte. 117

Functional Class: Rural Minor Arterial

ADT: 10,300 (2001); 15,500 (2021)

ADTT: 900 (2001); 1,350 (2021)

DHV: 1,030 (2001)

Speed: 45 m.p.h (posted); 45 m.p.h. (design)

Two-way traffic Directional Dist. 50:50

LOADING HL 93

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

DESIGN SPECIFICATIONS

2010 AASHTO LRFD Bridge Design Specifications

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}) = 0.045g

Design Spectral Acceleration at 0.2 sec. (S_{D5}) = 0.11g

Soil Site Class = B

GENERAL PLAN & ELEVATION

ILLINOIS ROUTE 117 OVER

WALNUT CREEK

F.A.P. RTE. 702 - SEC. (6CS,114)RS-1

WOODFORD COUNTY

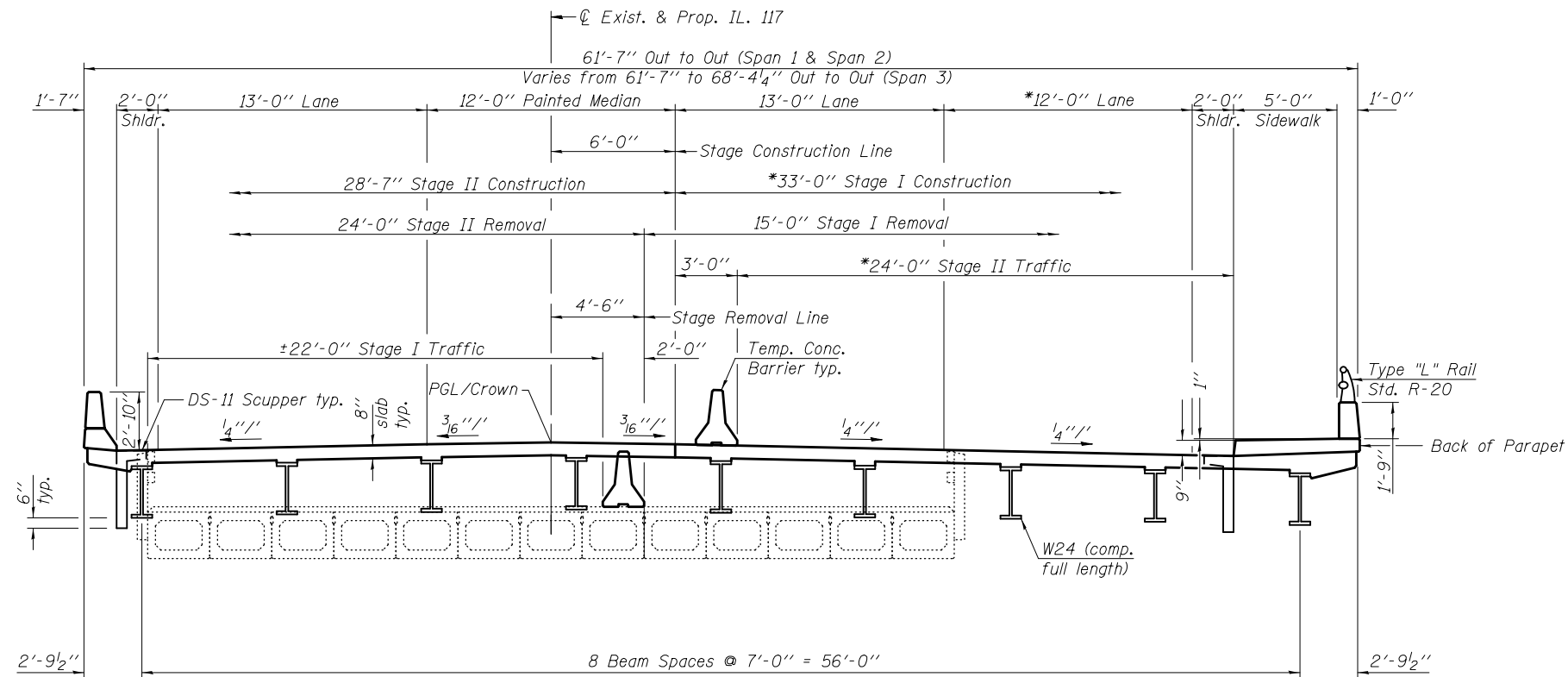
STATION 31+99.67

STRUCTURE NO. 102-0080

WATERWAY INFORMATION

Drainage Area = 52.90 sq. mi. Proposed Low Grade Elev. 695.88 @ Sta. 31+50

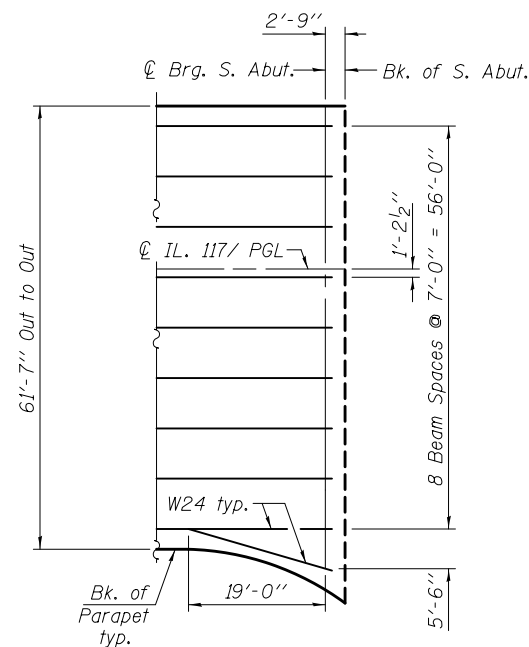
Flood	Freq. Yr.	Q C.F.S.	Opening Sq. Ft.		Nat. H.W.E.		Head - Ft.		Headwater El.	
			Exist.	Prop.	Exist.	Prop.	Exist.	Prop.	Exist.	Prop.
10		3300	1015	1023	689.0	689.0	0.5	0.3	689.5	689.3
Design	50	5106	1158	1158	690.2	690.2	0.5	0.4	690.7	690.6
Base	100	5878	1169	1216	690.7	690.7	0.4	0.4	691.1	691.1
Overtopping	480	7650	1169	-	691.9	691.9	0.9	-	692.8	-
Max. Calc.	500	7733	1169	1273	692.0	692.0	1.3	0.6	693.3	692.6



CROSS SECTION

(Looking South)
 (*Dimension varies in Span 3)

Note: Add additional beam near South Abutment (as shown in partial framing plan).



PARTIAL FRAMING PLAN

(Span 3)

DETAILS
ILLINOIS ROUTE 117 OVER
WALNUT CREEK
F.A.P. RTE. 702 - SEC. (6CS, 114)RS-1
WOODFORD COUNTY
STATION 31+99.67
STRUCTURE NO. 102-0080

FILE NAME =	USER NAME =	DESIGNED -	REVISD -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	SHEET NO. 2 OF 2 SHEETS	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
		CHECKED -	REVISD -			702	(6CS,114)RS-1	WOODFORD			
		DRAWN -	REVISD -			CONTRACT NO. 66443					
		CHECKED -	REVISD -			ILLINOIS FED. AID PROJECT					