

Bench Mark: 4800-1 Chiseled square on top of the Northwest wingwall of structure number 010-0113, Station 2079+78.29, 17.78' Lt., Elevation = 657.97.

Existing Structure: S.N. 010-0113 was built in 1939 as S.A. Route 15, Section 94B, Station 79+50. In 1979, the R.C. Deck Girder Bridge was widened and the 2-span superstructure reconstructed with simple span PPC Deck Beams as F.A. Route 808, Section 94BR, Station 79+50. The substructure consists of a solid wall pier and closed abutments, all of which are on spread footings. The back to back abutment length is 78'-6" and the structure width is 33'-0" out to out deck. The existing bituminous wearing surface with waterproofing membrane is approximately 2-3/4" thick. The bridge is filled with Type S steel bridge railing and is skewed 38°51' right forward to FAP 808. Existing structure to be removed and replaced. Traffic to be maintained using stage construction.

No Salvage

STATION 2079+82.00
 BUILT 20... BY
 STATE OF ILLINOIS
 F.A.P. RT. 808 SEC. 94BR-1
 LOADING HL-93
 STRUCTURE NO. 010-0286

NAME PLATE
 See Std. 515001

SEISMIC DATA

Seismic Performance Zone (SPZ) = 1
 Design Spectral Acceleration at 1.0 sec. ($S_{0.1}$) = 0.146g
 Design Spectral Acceleration at 0.2 sec. ($S_{0.2}$) = 0.272g
 Soil Site Class = D

DESIGN STRESSES
 FIELD UNITS

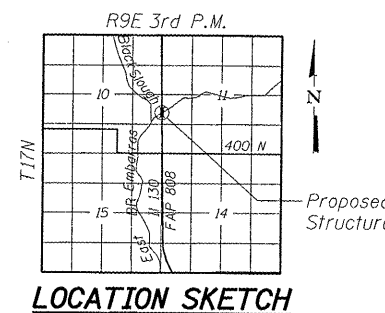
f'_c = 3,500 psi
 f_y = 60,000 psi (Reinforcement)

DESIGN SPECIFICATIONS

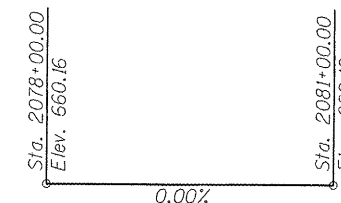
2010 AASHTO LRFD Bridge Design Specifications

LOADING HL-93

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



LOCATION SKETCH



PROFILE GRADE

(Along \hat{C} of Rdwy.)
 The profile grade shows the final elevations after grinding.

DESIGN SCOUR ELEVATION TABLE

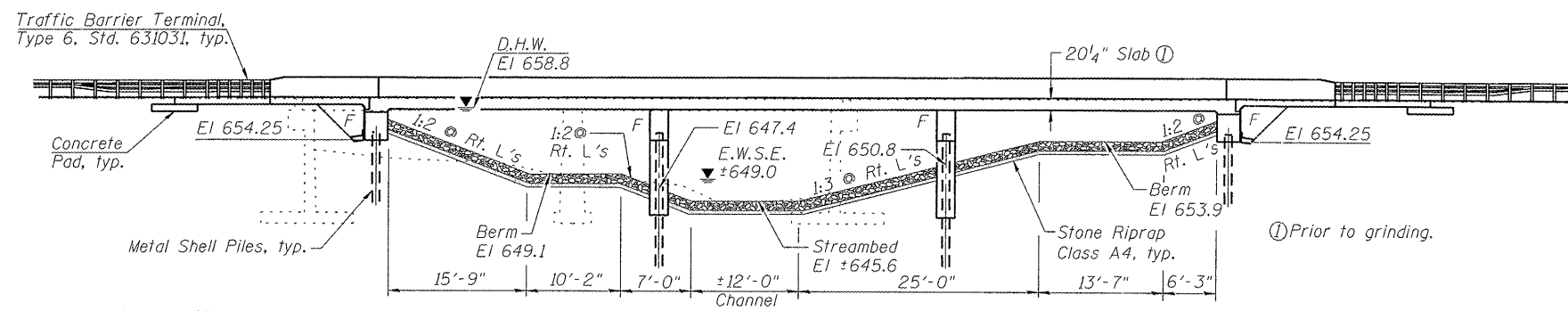
Design Scour Elevation (ft.)	S. Abut.	Pier 1	Pier 2	N. Abut.
	654.25	633.6	635.3	654.25

WATERWAY INFORMATION

Drainage Area = 37.6 sq. mi. Exist. Low Grade Elev. 659.97 ft @ Sta. 2079+50.00
 Prop. Low Grade Elev. 660.16 ft @ Sta. 2079+67.00

Flood	Freq. Yr.	Q C.F.S.	Opening Sq. Ft.		Head - Ft.		Headwater El.		
			Exist.	Prop.	H.W.E. Exist.	Prop.	Exist.	Prop.	
Design	50	3121	459	592	657.5	0.4	0.3	657.9	657.8
Overtopping (Ex.)	87	3550	484	660	658.8	1.0	0.5	659.8	659.3
Base	100	3607	484	660	659.4	1.3	0.6	660.7	660.0
Overtopping (Pr.)	135	3725		660	659.5		0.7	660.2	
Max. Calc.	500	4775	484	660	660.5	0.9	0.7	661.4	661.2

10 yr. Velocity = 4.3 ft/sec. (E) & 3.4 ft/sec. (P)

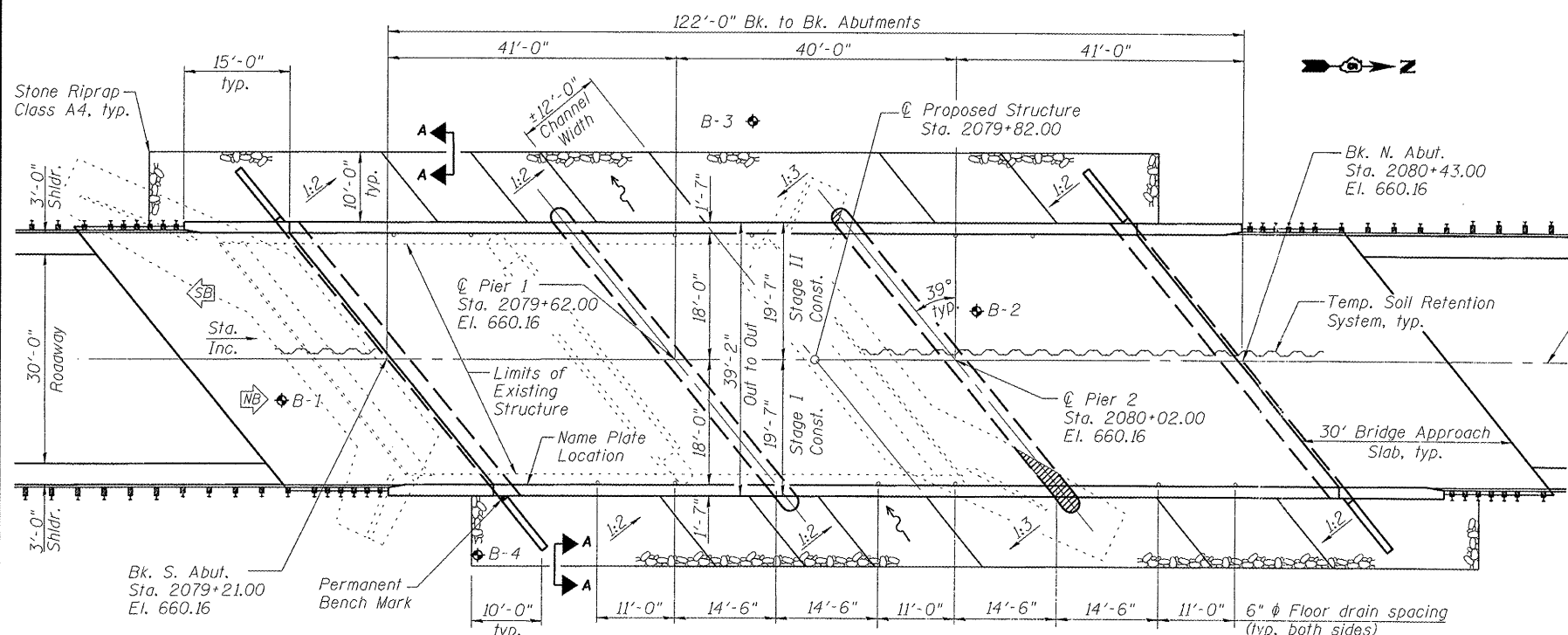


ELEVATION

(Looking West)
 (Horiz. dim. @ Rt. L's)

LEGEND

Indicates portions of Existing Foundations to be Removed to facilitate Proposed Pier Installation.



PLAN

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

LICENSED STRUCTURAL ENGINEER
 RUBEN V. BOEHLER
 081-5880
 STATE OF ILLINOIS

[Signature] 5-16-2011
 RUBEN V. BOEHLER, S.E.
 ILLINOIS STRUCTURAL NO. 5880
 EXPIRES: NOVEMBER 30, 2012

GENERAL PLAN AND ELEVATION
ILLINOIS ROUTE 130 OVER
E. BRANCH EMBARRAS RIVER
F.A.P. RTE. 808 - SEC. 94BR-1
CHAMPAIGN COUNTY
STATION 2079+82.00
STRUCTURE NO. 010-0286

HURST-ROSCH ENGINEERS, INC.
 HILLSBORO, ILLINOIS 62049
 (217)532-3959 FAX (217)532-3212
 HR JOB # 190-1580

Notes: See sheet 2 of 19 for Section A-A.
 Up to 1/4 inch will be ground off the bridge slab and the bridge approach pavements.
 Temporary Soil Retention System must fit within 18 inch gap between Stage I removal and construction.

FILE NAME =	USER NAME =	DESIGNED - JSP	REVISED -
		CHECKED - CJC	REVISED -
		DRAWN - UJ	REVISED -
		CHECKED - RVB	REVISED -

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

GENERAL PLAN AND ELEVATION
 STRUCTURE NO. 010-0286

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
808	94BR-1	CHAMPAIGN	50	14
CONTRACT NO. 70582				

SHEET NO. 1 OF 19 SHEETS

ILLINOIS FED. AID PROJECT