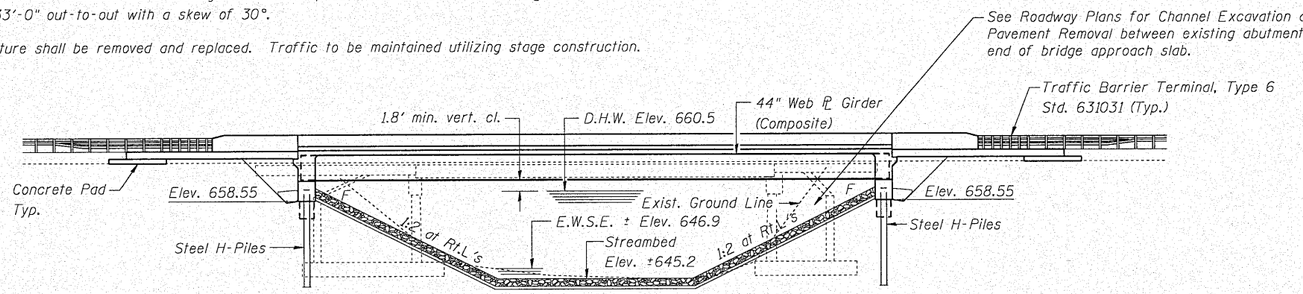
Benchmark: Railroad spike in top of Southeast Abutment. Sta. 1219+93.84. 17.89' Lt., NAVD88 Elev. 662.17.

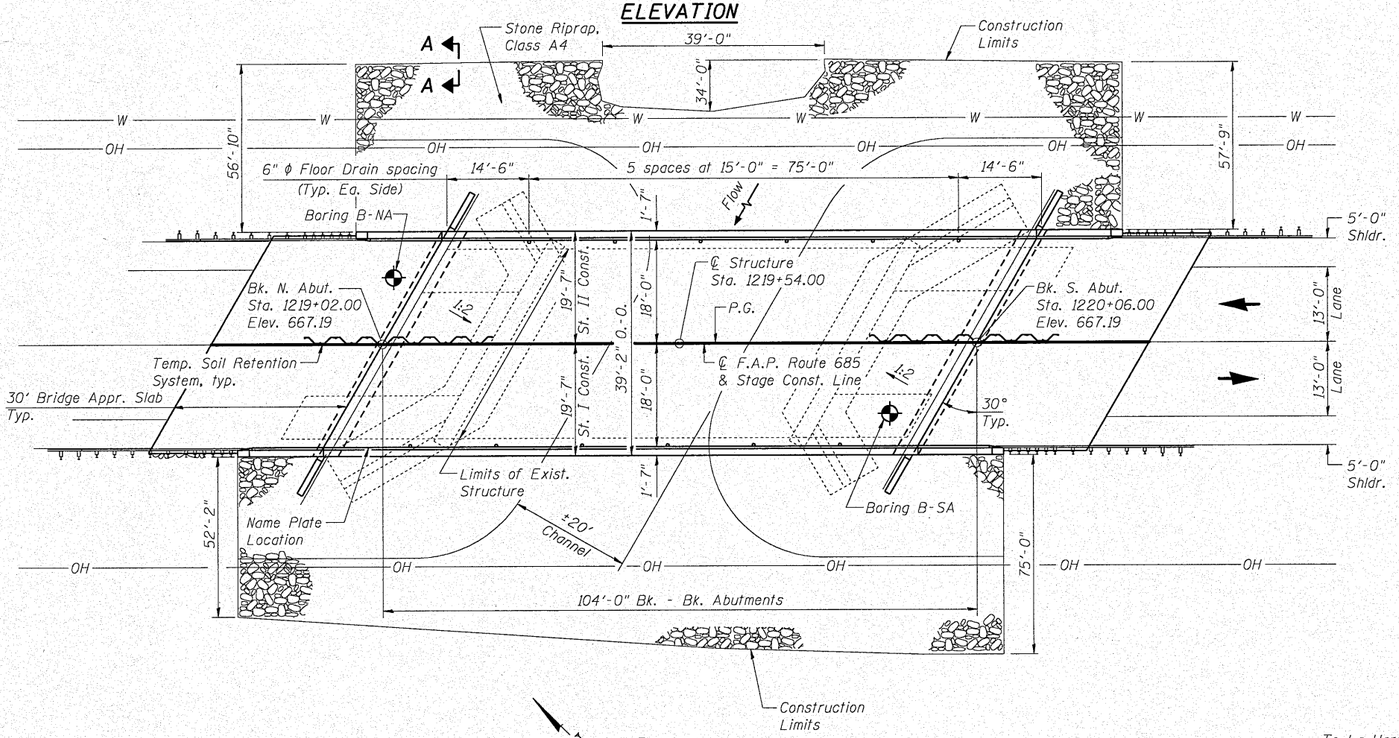
Existing Structure: S.N. 034-0008 was originally built in 1928 as SBI Rte. 95 Section 118-B at Station 1219+54. In 1971 the existing superstructure was removed and replaced with PPC deck beams under FA Rte. 82, Section 118BR. In 1994 the existing hot-mix asphalt surface was removed and replaced with hot-mix asphalt surfacing and waterproofing under FA Rte 685, Section 118BR-1. In 2002 the hot-mix asphalt surface was removed and replaced with a 5" reinforced concrete wearing surface under FAP Rte. 685, Section 118BR. The superstructure consists of eleven 27"x36" PPC deck beams on closed concrete abutments and footings with timber piles. The structure is 63'-5½" back-to-back of abutments and the width is 33'-0" out-to-out with a skew of 30°.

The existing structure shall be removed and replaced. Traffic to be maintained utilizing stage construction.

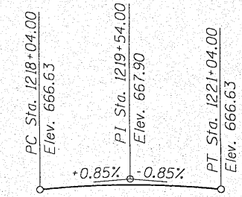
No Salvage.



ELEVATION



PLAN



PROFILE GRADE

(along ℄ roadway IL Rte. 9)

Note:
See sheet 2 of 23 for Section A-A.

UTILITY LEGEND

OH = Overhead Electric
W = Water Line

INDEX OF SHEETS

1	General Plan & Elevation
2	General Data
3	Stage Construction Details
4	Temporary Concrete Barrier for Stage Construction
5-6	Top of Slab Elevations
7	Top of North Approach Slab Elevations
8	Top of South Approach Slab Elevations
9	Superstructure
10	Superstructure Details
11	Diaphragm Details
12-13	Bridge Approach Slab Details
14	Framing Plan
15-16	Girder Details
17	North Abutment
18	South Abutment
19	HP Pile Details
20	Bar Splicer Assembly and Mechanical Splicer Details
21	Concrete Parapet Slipforming Option
22-23	Boring Logs

LOADING HL-93

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

DESIGN SPECIFICATIONS

2007 AASHTO LRFD Bridge Design Specifications with 2008 & 2009 Interims

DESIGN STRESSES

FIELD UNITS

f'_c = 3,500 psi
f_y = 60,000 psi (Reinforcement)
f_y = 50,000 psi (Structural Steel) M270 Gr. 50W

SEISMIC DATA

Seismic Performance Zone (SPZ) = 1
Design Spectral Acceleration at 1.0 sec. (S_{D1}) = 0.105g
Design Spectral Acceleration at 0.2 sec. (S_{DS}) = 0.154g
Soil Site Class = D

APPROVED
For Structural Adequacy Only
Ralph E. Anderson (for)
Engineer of Bridges & Structures

STATE OF ILLINOIS
ALAN D. LUKENS
081-005167
QUINCY, ILLINOIS
LICENSED STRUCTURAL ENGINEER

Alan D. Lukens 10-28-10
Alan D. Lukens — Date
Licensed Structural Engineer
State of Illinois No. 081-005167
License Expires 11/30/12

WATERWAY INFORMATION

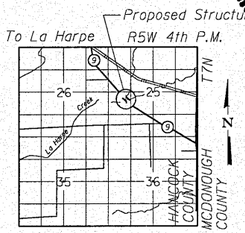
Drainage Area = 19.23 mi.² Prop. Low Grade Elev. 667.17 @ Sta. 1218+00

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	2,315	733	828	659.0	0.5	0.0	659.6	659.0
Design	50	3,563	820	957	660.5	1.1	0.3	661.6	660.8
Base	100	4,128	851	1,005	661.0	1.3	0.4	662.3	661.4
Overtopping									
Max. Calc.	500	5,474	912	1,093	662.0	1.0	0.4	663.0	662.4

10 Year Velocity through Proposed Bridge = 2.86 fps

DESIGN SCOUR ELEVATION TABLE

Design Scour Elevation (ft.)	N. Abut.	S. Abut.
	658.55	658.55



LOCATION SKETCH

KLINGNER & ASSOCIATES, P.C.
Engineers • Architects • Surveyors
801 North 24th Street, Quincy, IL Ph. (217) 223-5678 - Fax (217) 223-3183
4508 Paris Gravel Road, Hannibal, MO Ph. (573) 221-8028 - Fax (573) 221-0812
608 N. 4th Street, Suite 108, Burlington, IA Ph. (319) 752-1636 - Fax (319) 752-3585
115 North Prairie Street, Galesburg, IL Ph. (309) 342-4842 - Fax (309) 341-3783
Internet Address: www.klingner.com
STATE OF ILLINOIS DESIGN FIRM # 1842738

GENERAL PLAN & ELEVATION
IL 9 OVER LAHARPE CREEK
FAP ROUTE 685 SECTION 118B-1
HANCOCK COUNTY
STATION 1219+54.00
S.N. 034-0528

FILE NAME =	USER NAME =	DESIGNED RJP	REVISED -
		CHECKED ADL	REVISED -
	PLOT SCALE =	DRAWN RJP	REVISED -
	PLOT DATE =	CHECKED ADL	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GENERAL PLAN & ELEVATION
STRUCTURE NO. 034-0528
SHEET NO. 1 OF 23 SHEETS

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
685	(117,118)RS-4,119RS-1; 118B-1	HANCOCK	101	43

CONTRACT NO. 72B05
ILLINOIS FED. AID PROJECT

Klingner & Associates P.C.

P:\09files\090044\Work Order 1 (IL 9 over LaHarpe Creek)\Bridge Plans\GPE & GENERAL DETAILS.dgn 10/28/2010 4:06:39 PM