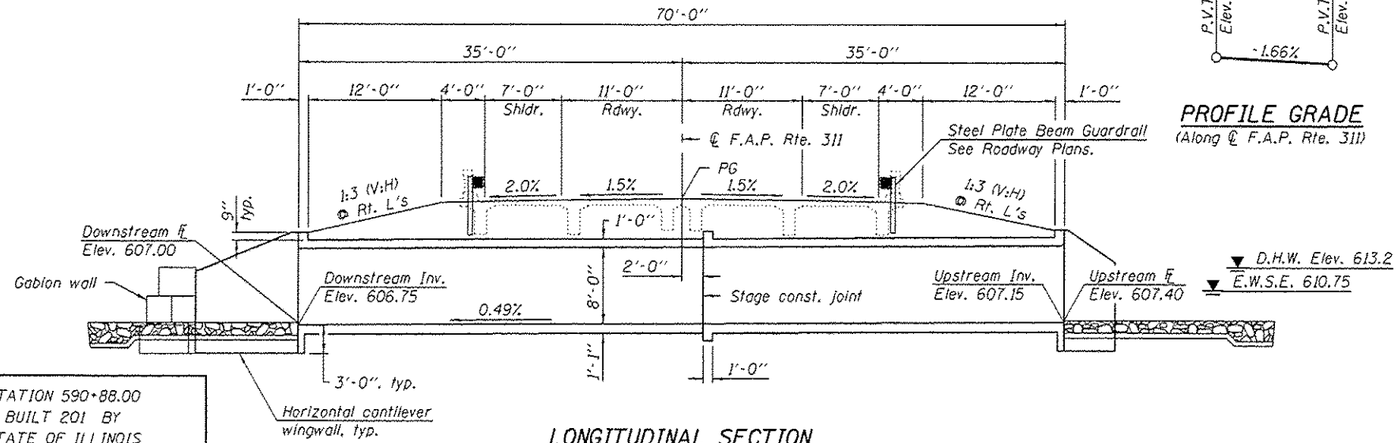
Benchmark: Chiseled "□" on southeast wingwall of S.N. 050-0065: Sta. 590+67.74, 21.06' Rt., Elev. 620.44

Existing Structure: S.N. 050-0065 built in 1947 as F.A. Route 97, Section 4B, at Sta. 590+92. The existing structure consists of a single span reinforced concrete T-girder superstructure supported on closed abutments with untreated timber piles. 34'-0" back-to-back abutments and 40'-4" out-to-out deck. The existing structure is to be removed and replaced. Traffic is to be maintained using stage construction.

No salvage.



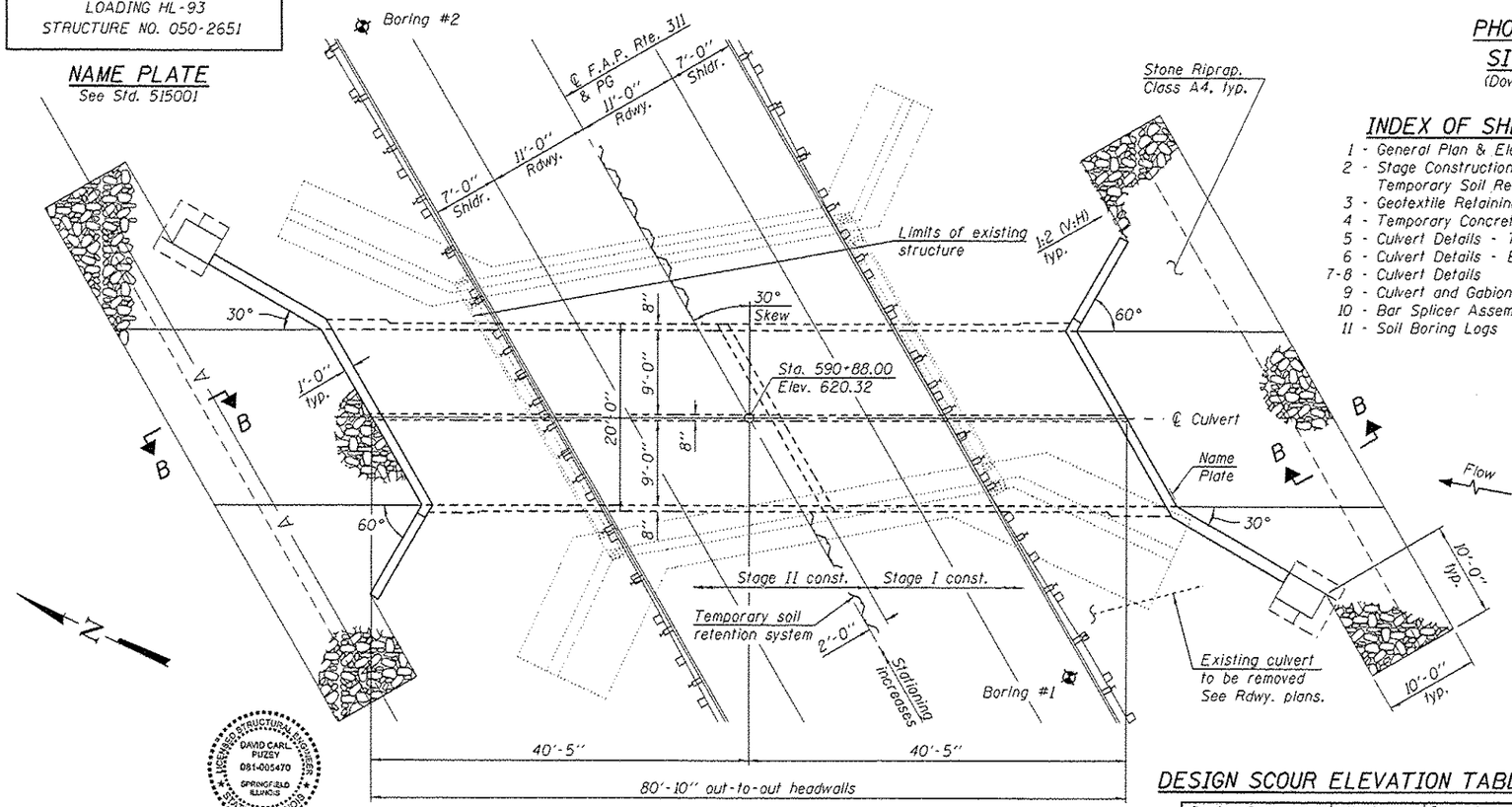
LONGITUDINAL SECTION

(Horizontal dimensions are taken at Rt. L's to ℄ F.A.P. Rte. 311)

STATION 590+88.00
BUILT 201 BY
STATE OF ILLINOIS
F.A.P. RTE 311 - SEC. (4)BR-1
LOADING HL-93
STRUCTURE NO. 050-2651

NAME PLATE

See Std. 515001



PLAN

DESIGNED - [signature]
CHECKED -
DRAWN - MICHAEL B. MOSSMAN
CHECKED - GRR/ARS

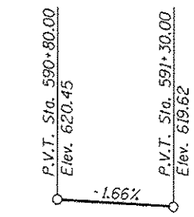
EXAMINED
PASSED
[signature]
ACTING ENGINEER OF BRIDGE DESIGN
ACTING ENGINEER OF BRIDGES AND STRUCTURES

DATE - 10/1/2013
REVISED
REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

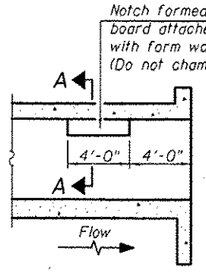
SHEET NO. 1 OF 11 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
311	(4)BR-1	LASALLE	38	18
		CONTRACT NO. 66813		
		ILLINOIS FED. AID PROJECT		

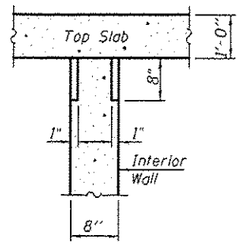


PROFILE GRADE

(Along ℄ F.A.P. Rte. 311)



LONGITUDINAL SECTION



SECTION A-A

PHOEBE NESTING SITE DETAILS

(Downstream End Only)

INDEX OF SHEETS

GENERAL NOTES

Reinforcement bars designated (E) shall be epoxy coated.

Layout of slope protection system may be varied in the field to suit ground conditions as directed by the Engineer.

Precast alternate not allowed.

Excavation behind existing abutment walls shall be performed to balance front and back soil pressure before removing the existing superstructure. The Contractor shall sawcut the upper portion of the existing abutment at the stage removal line before Stage I removal to ensure the remaining portion will not be prematurely damaged.

TOTAL BILL OF MATERIAL

ITEM	UNIT	TOTAL
Stone Riprap, Class A4	Sq. Yd.	210
Filter Fabric	Sq. Yd.	210
Gabions	Cu. Yd.	17
Removal of Existing Structures	Each	1
Reinforcement Bars, Epoxy Coated	Pound	40,590
Bar Splicers	Each	120
Name Plates	Each	1
Concrete Box Culverts	Cu. Yd.	203.6
Geotextile Retaining Wall	Sq. Ft.	78
Temporary Soil Retention System	Sq. Ft.	335

WATERWAY INFORMATION

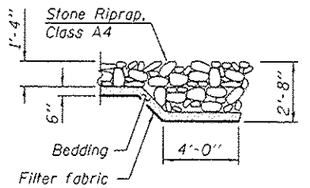
Drainage Area = 1.78 sq. mi.
Existing Low Grade Elev. 616.33 @ Sta. 597+00
Proposed Low Grade Elev. 616.33 @ Sta. 597+00

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	361	128	86	612.2	0.0	0.0	612.2	612.2
Design	50	564	158	105	613.2	0.0	0.0	613.2	613.2
Base	100	647	169	111	613.6	0.0	0.2	613.6	613.7
Overtopping	-	-	-	-	-	-	-	-	-
Max. Calc.	500	851	193	126	614.4	0.2	0.7	614.6	615.1

Existing 10-year velocity = 2.8 ft./sec.
Proposed 10-year velocity = 4.2 ft. / sec.

DESIGN SCOUR ELEVATION TABLE

Design Scour Elevation (ft.)	Upstream	Downstream
	604.15	603.75



SECTION B-B

DESIGN STRESSES

FIELD UNITS

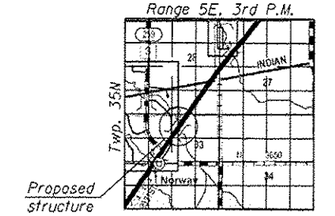
f'c = 3,500 psi
fy = 60,000 psi (Reinforcement)

DESIGN SPECIFICATIONS

2012 AASHTO LRFD Bridge Design Specifications, 6th Edition

LOADING HL-93

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



LOCATION SKETCH

GENERAL PLAN & ELEVATION
ILLINOIS ROUTE 71 OVER TRIBUTARY TO FOX RIVER
F.A.P. RTE. 311 - SEC. (4)BR-1
LASALLE COUNTY
STATION 590+88.00
STRUCTURE NO. 050-2651

DAVID CARL PUZEY 081-005470 SPRINGFIELD ILLINOIS STATE OF ILLINOIS LICENSED STRUCTURAL ENGINEER

EXPIRES 11-30-2014