

EXISTING STRUCTURE NO. 1: S.N. 050-3016

Originally built in 1956 as F.A.S. Route 260, Section 41-G. The existing structure is a single span (1@51'-11") steel girder structure on closed reinforced concrete abutments. 53'-9" Bk. to Bk. of abutments and 27'-8" out to out of deck. Structure to be removed and replaced. Road shall be closed to traffic during construction.

No salvage.

EXISTING STRUCTURE NO. 2:

There also is a second existing reinforced concrete closed abutment slab structure located west of the bridge that shall be removed.

No salvage.

BENCH MARK: Chiseled "□" on the southeast wingwall of exist. bridge, Elev. 615.38

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BILL OF MATERIAL - BRIDGE

ITEM	UNIT	SUPER	SUB	TOTAL
Channel Excavation	Cu. Yd.	---	1,991	1,991
Removal of Existing Structures No. 1	Each	---	---	1
Removal of Existing Structures No. 2	Each	---	---	1
Structure Excavation	Cu. Yd.	---	178	178
Floor Drains	Each	12	---	12
Concrete Structures	Cu. Yd.	22	46.7	68.7
Concrete Superstructure	Cu. Yd.	273.3	---	273.3
Bridge Deck Grooving	Sq. Yd.	534	---	534
Concrete Encasement	Cu. Yd.	---	4.2	4.2
Protective Coat	Sq. Yd.	665	---	665
Furnishing and Erecting Precast Prestressed Concrete Bulb T-Beams 63"	Foot	539.0	---	539.0
Reinforcement Bars, Epoxy Coated	Pound	52,940	5,830	58,770
Bar Splicers	Each	62	---	62
Furnishing Steel Piles HP12x6.3	Foot	---	170	170
Driving Piles	Foot	---	170	170
Test Pile Steel HP12x6.3	Each	---	2	2
Name Plates	Each	1	---	1
Geocomposite Wall Drain	Sq. Yd.	---	126	126
Porous Granular Embankment, Special	Cu. Yd.	---	186	186
Stone Riprap, Class A5 (Special)	Ton	---	1,652	1,652
Pipe Underdrains for Structures 4"	Foot	---	202	202

* See Special Provisions.
** Includes Deck, Approach Pavement, and Top & Inside Face of Parapet Only.

GENERAL NOTES:

Reinforcement bars shall conform to the requirements of ASTM A 706 Gr 60. See Special Provisions.
Reinforcement bars designated (E) shall be epoxy coated.
Layout of the slope protection system may be varied to suit ground conditions in the field as directed by the Engineer.

WATERWAY INFORMATION

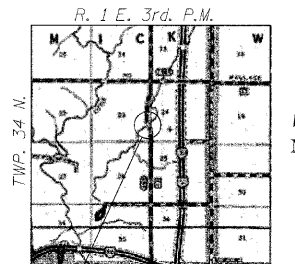
Drainage Area = 36.4 sq. mi. Low Grade Elev. 619.34 @ Sta. 20+57.64

Flood	Freq. Yr.	Q C.F.S.	Opening Sq. Ft.		Nat. H.W.E.	Head - Ft.		Headwater El.	
			Exist.	Prop.		Exist.	Prop.	Exist.	Prop.
Design	20	3,050	477	636	609.15	0.86	0.12	610.01	609.03
Base	100	4,460	527	728	610.31	2.59	0.06	612.90	610.37

DESIGN SCOUR ELEVATION TABLE

Design Scour Elevation (ft.)	S. Abut.	N. Abut.
	609.64	609.13

TOMAHAWK CREEK
BUILT 2012 BY
LASALLE COUNTY
SECTION 10-00651-00-BR
F.A.S. RTE. 260 STATION 20+00
STR. NO. 050-3604 LOADING HL-93



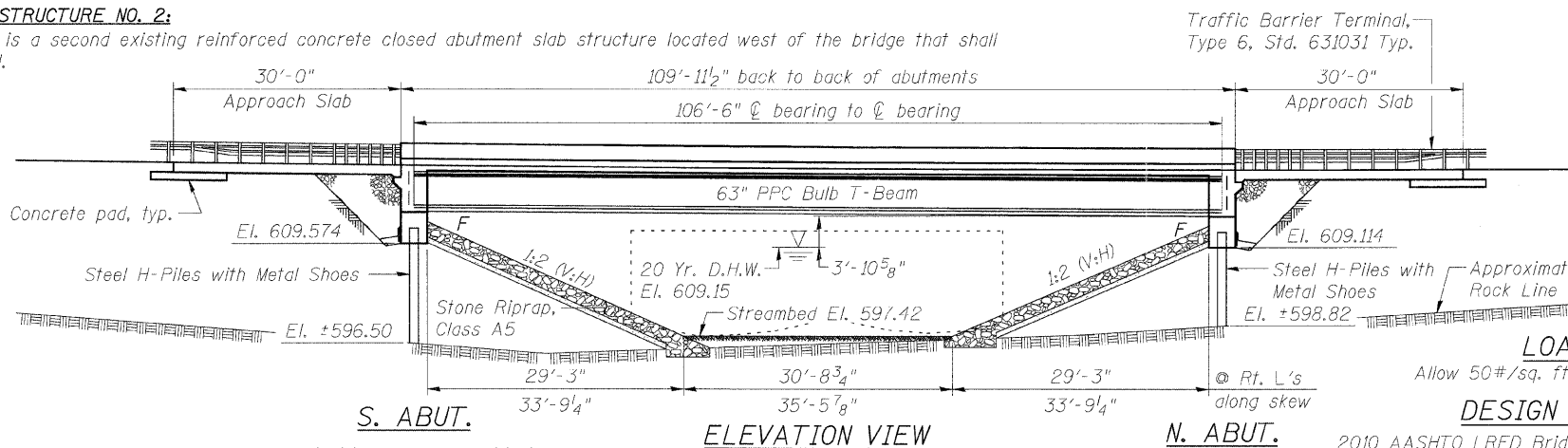
NAME PLATE LETTERING
Refer To Std. 515001



Brian K. Conner
DATE: 12/23/2011
EXPIRES 11/30/12

"I certify that to the best of my knowledge, information and belief, this bridge design is structurally adequate for the design loading shown on the plans, the design is an economical one for the style of structure and complies with requirements of the current 'AASHTO Bridge Design Specifications.'"

GENERAL PLAN & ELEVATION
C.H. 13 OVER TOMAHAWK CREEK
F.A.S. 260 - SEC. 10-00651-00-BR
LASALLE COUNTY
STATION 20+00
STRUCTURE NO. 050-3604



LOADING HL-93

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

DESIGN SPECIFICATIONS

2010 AASHTO LRFD Bridge Design Specifications, 5th. Edition & 2011 Interims

DESIGN STRESSES

FIELD UNITS

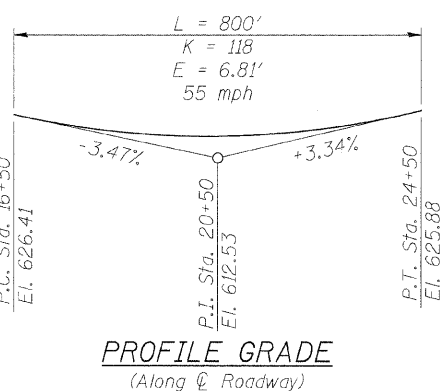
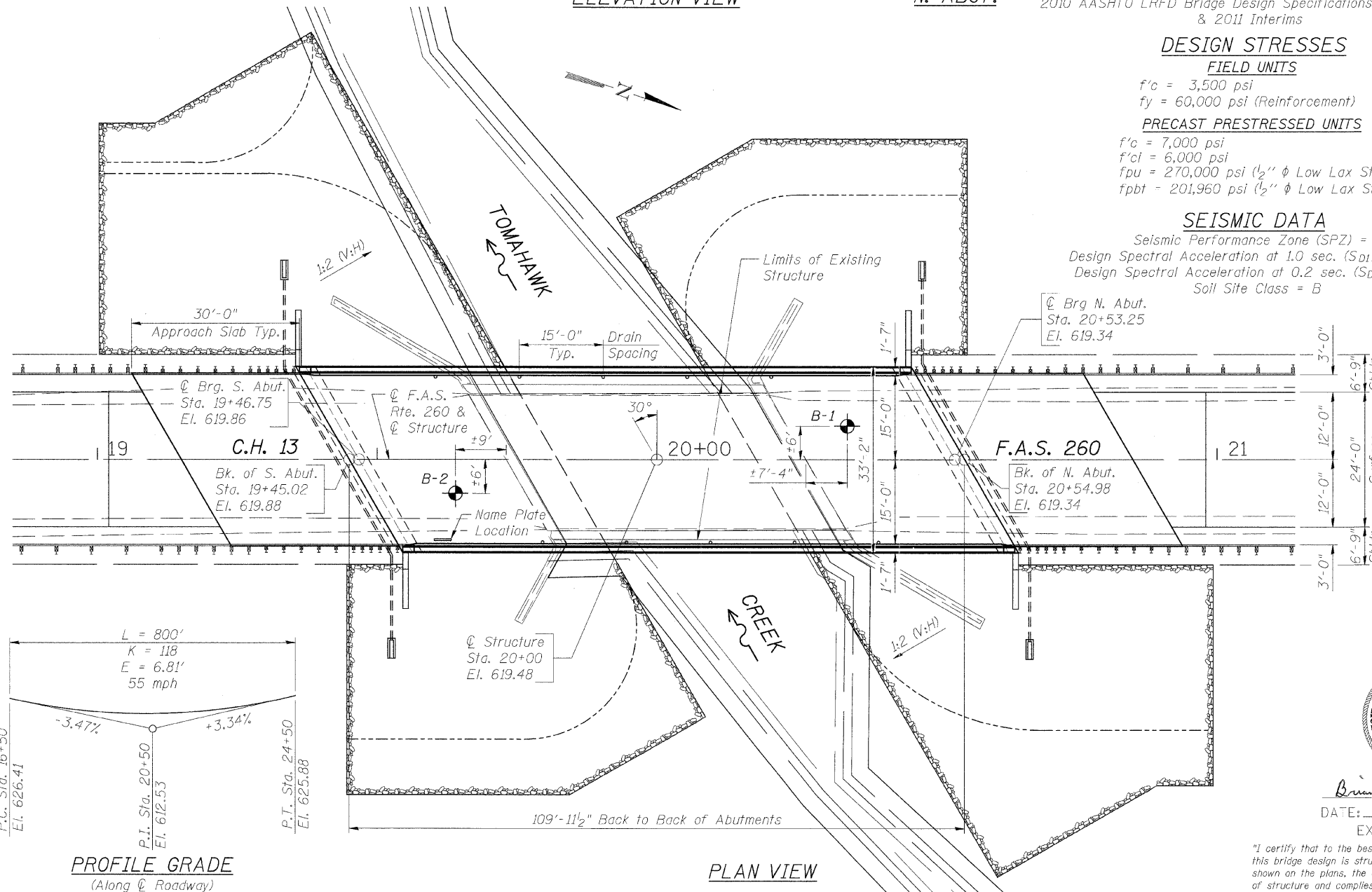
$f'_c = 3,500$ psi
 $f_y = 60,000$ psi (Reinforcement)

PRECAST PRESTRESSED UNITS

$f'_c = 7,000$ psi
 $f'_{ci} = 6,000$ psi
 $f_{pu} = 270,000$ psi ($1/2'' \phi$ Low Lax Strands)
 $f_{pbt} = 201,960$ psi ($1/2'' \phi$ Low Lax Strands)

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



DESIGNED - B.K.C.	REVISED -
CHECKED - M.A.C.	REVISED -
DRAWN - F.D.L.	REVISED -
CHECKED - B.K.C.	REVISED -

LASALLE COUNTY
C.H. 13 OVER TOMAHAWK CREEK
STATION 20+00

GENERAL PLAN & ELEVATION
STRUCTURE NO. 050-3604
STRUCTURAL SHEET NO. 1 OF 18 SHEETS

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
260	10-00651-00-BR	LASALLE	51	18
WHA* 1156D08		CONTRACT NO. 87466		
FED. ROAD DIST. NO. - ILLINOIS FED. AID PROJECT BRS-0260105				

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