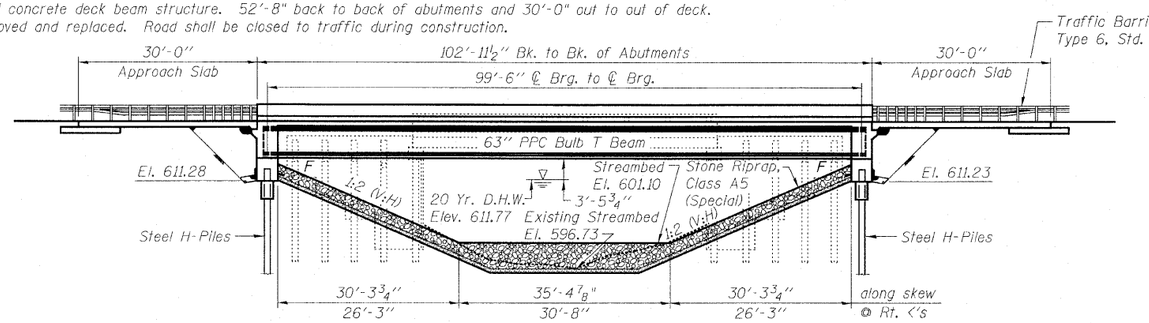
EXISTING STRUCTURE: S.N. 050-3056
Originally built in 1965 as F.A.S. Route 1365, Section 112 A. The existing structure is a single span (1 @ 51'-0") precast, prestressed concrete deck beam structure. 52'-8" back to back of abutments and 30'-0" out to out of deck. Structure to be removed and replaced. Road shall be closed to traffic during construction.

No salvage.

BENCH MARK: Chiseled "△" on top of hub guard, southwest corner of bridge, Elev. 620.55



TOMAHAWK CREEK
BUILT 2011 BY
LASALLE COUNTY
SECTION 10-00650-00-BR
FAS RTE 1365 STATION 20+00
STR. NO. 050-3594 LOADING HL-93

NAME PLATE LETTERING

Refer To Std. 515001-03

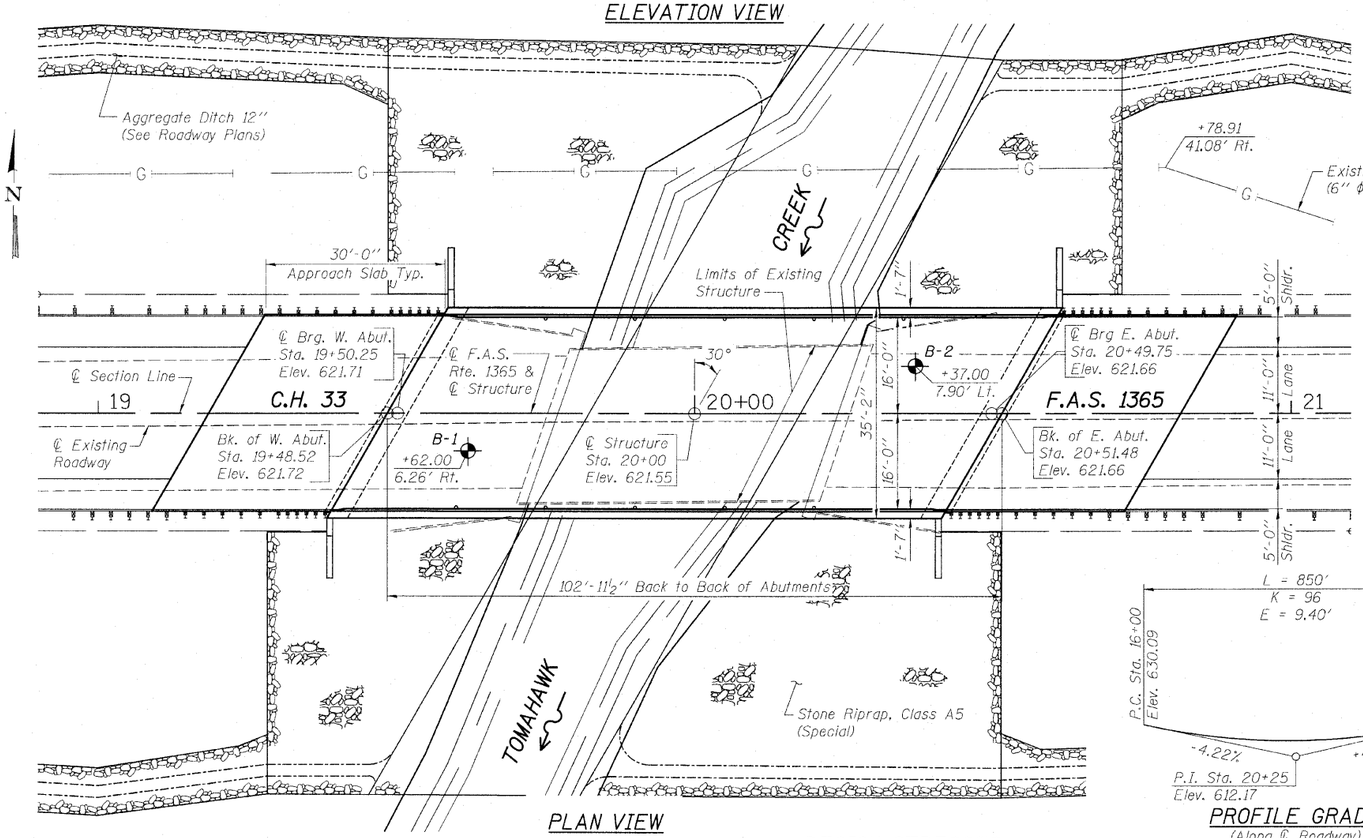
BILL OF MATERIAL - BRIDGE

	ITEM	UNIT	SUPER	SUB	TOTAL
	Channel Excavation	Cu. Yd.	———	1,533	1,533
*	Removal of Existing Structures	Each	———	———	1
	Structure Excavation	Cu. Yd.	———	616	616
	Floor Drains	Each	10	———	10
	Concrete Structures	Cu. Yd.	23.3	48.6	71.9
	Concrete Superstructure	Cu. Yd.	286.9	———	286.9
	Bridge Deck Grooving	Sq. Yd.	549	———	549
	Concrete Encasement	Cu. Yd.	———	4.2	4.2
**	Protective Coat	Sq. Yd.	671	———	671
	Furnishing and Erecting Precast Prestressed Concrete Bulb T-Beams 63"	Foot	504.0	———	504.0
	Reinforcement Bars, Epoxy Coated	Pound	56,380	6,120	62,500
	Bar Splicers	Each	68	———	68
	Furnishing Steel Piles HP12x63	Foot	———	130	130
	Driving Piles	Foot	———	130	130
	Test Pile Steel HP12x63	Each	———	2	2
	Name Plates	Each	1	———	1
	Geocomposite Wall Drain	Sq. Yd.	———	130	130
	Concrete Headwalls for Pipe Drains	Each	———	4	4
*	Porous Granular Embankment, Special	Cu. Yd.	———	264	264
*	Stone Riprap, Class A5 (Special)	Ton	———	2,230	2,230
*	Asbestos Bearing Pad Removal	Each	———	22	22
*	Pipe Underdrains for Structures 4"	Foot	———	208	208

* See Special Provisions.

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

ELEVATION VIEW



PLAN VIEW

PROFILE GRADE

(Along ℄ Roadway)

DESIGN SCOUR ELEVATION TABLE

Design Scour Elevation (ft.)	W. Abut.	E. Abut.
	611.28	611.23

WATERWAY INFORMATION

Drainage Area = 35.0 mi² Low Grade Elev.=621.55 ft. @ Sta. 20+05

Flood	Freq. Yr.	Q ft³/s	Opening ft²		Nat. H.W.E. ft	Head - ft		Headwater Elev. - ft	
			Exist.	Prop.		Exist.	Prop.	Exist.	Prop.
Design	20	2,950	477	607	611.77	0.17	0.11	611.94	611.88
Base	100	4,330	523	663	612.76	0.56	0.40	613.32	613.16
Overtopping	-	-	-	-	-	-	-	-	-

DESIGN STRESSES

FIELD UNITS

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

PRECAST PRESTRESSED UNITS

f'_c = 6,000 psi
f'_{ci} = 5,000 psi
f_{pu} = 270,000 psi (½" ϕ Low Lax Strands)
f_{pbt} = 201,960 psi (½" ϕ 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_{DS}) = 0.11g
Soil Site Class = B

STATE OF ILLINOIS — BRIAN K. CONVERSE — 081-005213 — DIXON, IL — STRUCTURAL ENGINEER

Brian K. Converse
DATE: 10/27/2010
EXPIRES 11/30/10

"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 STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES'."

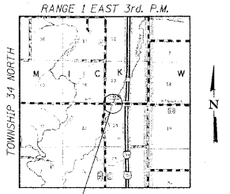
GENERAL NOTES

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.

INDEX OF SHEETS



LOCATION SKETCH

LOADING HL-93

Allow 50#/Sq. Ft. for Future Wearing Surface

DESIGN SPECIFICATIONS

2007 AASHTO LRFD Bridge Design Specifications with 2008 & 2009 Interims

GENERAL PLAN & ELEVATION
C.H. 33 OVER TOMAHAWK CREEK
F.A.S. RTE. 1365 - SEC. 10-00650-00-BR
LASALLE COUNTY
STATION 20+00
S.N. 050-3594

WHA JOB NUMBER 1155D08

WILLETT, HOFMANN & ASSOCIATES, INC.
CONSULTING ENGINEERS
Land Surveying - Transportation - Structural
Environmental - Architecture
809 East Second Street Dixon, Illinois 61021
Phone 815.284.3381 Fax 815.284.3385
Design Firm #184-000918
www.willetthofmann.com

Designed By: M. A. Cackley Date: 6/10
Checked By: B. K. Converse Date: 7/10
Drawn By: R. D. Allen Date: 6/10

STRUCTURAL SHEET NO. 1 OF 18 SHEETS

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1365	10-00650-00-BR	LASALLE	39	14
		CONTRACT NO. 87448		
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT BRS-1365(113)		

FILE NAME = s:\Structs\1155D08_Crt33_Lasalle County\Drawings\1155_GPE.dgn