ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
CH 33	*	LASALLE	53	10
FED. ROAD DIST. NO. 7	ILLINOIS	PROJECT	BRS-1365(111)	

*05-00626-00-BR CONTRACT *87368

SHEET NO. 1 OF 22 SHEETS

B.M.: RR Spike in Power Pole, Sta. 15+41, 70' Lt. Elev. 611.54

RR Spike in Power Pole, Sta. 31+96, 40' Rt. Elev. 635.03

Existing Structure:
Single span concrete T-beam superstructure supported on concrete closed abutments on timber pile supported concrete footings. The structure is ±53'-11" back to back of abutments, 25'-4" out to out of deck, and is skewed 30° left ahead.
Str. No. 050-3055

Salvage: Riprap

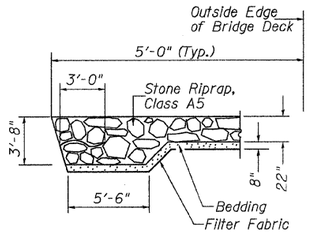
Road to be closed to traffic during construction.

NOTE:
For Bill of Material and General Notes, See Sheet 2 of 22.

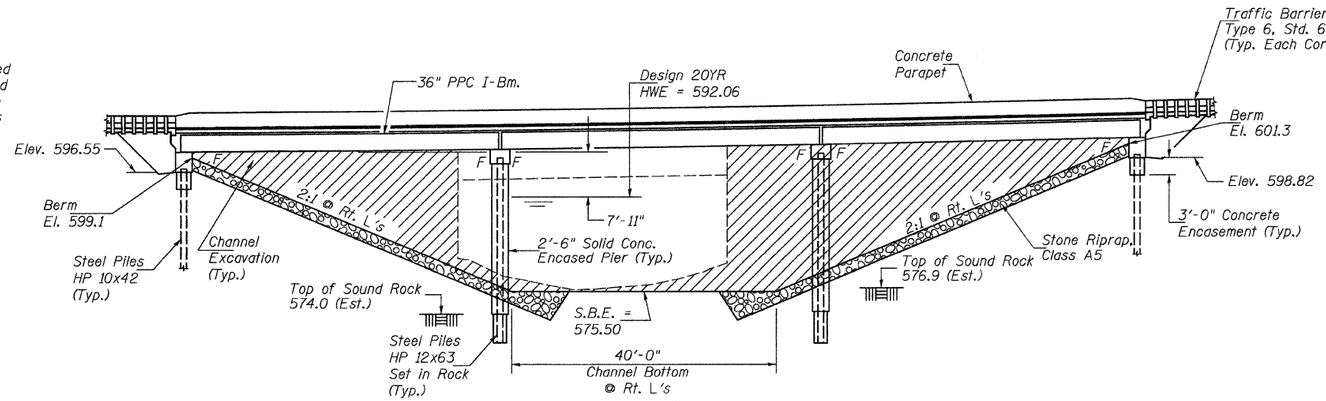
LITTLE VERMILION RIVER
BUILT 200_ BY
LASALLE COUNTY
SEC. 05-00626-00-BR
C.H. 33 STATION 20+11.86
F.A. PROJ. BRS-1365(111)
STR. NO. 050-3587 LOADING HL-93

NAME PLATE

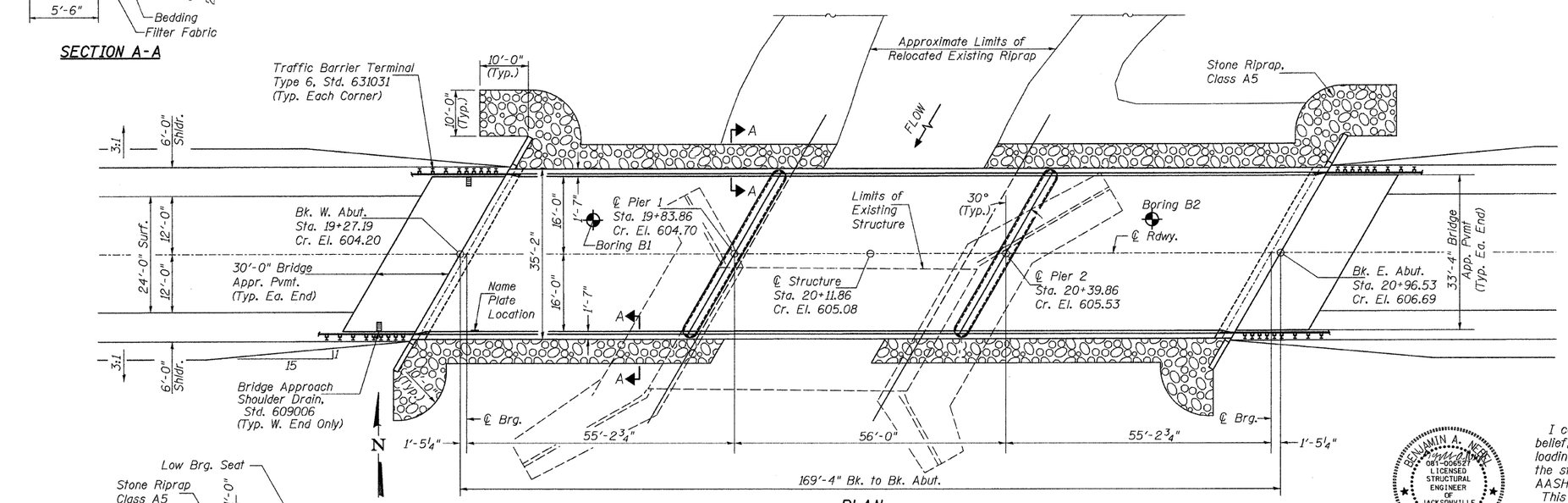
Locate Name Plate on Face of Parapet S.W. Corner of Bridge (See Std. 515001)



SECTION A-A

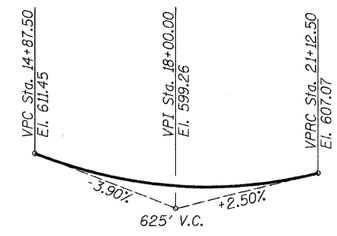


ELEVATION



PLAN

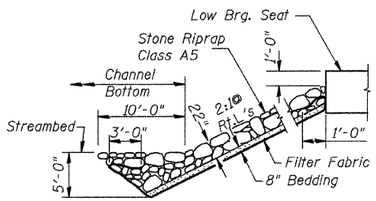
Note: The existing footings shall be removed as required to construct the proposed piers and set piles in rock.



PROFILE GRADE

DESIGN SCOUR TABLE

Location	W. Abut	Pier 1	Pier 2	E. Abut
Design Scour Elevation	596.6	574.0	574.5	598.8



STONE RIPRAP DETAIL

WATERWAY INFORMATION

Drainage Area = 69.8 Sq. Mi. Low Grade Elev. = 604.02 @ Sta. 18+68.39

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.
Design	20	4,581	588	1,156	592.06	0.29	0.03	592.35	592.09
Base	100	6,499	671	1,375	594.09	0.53	0.04	594.62	594.13

Construction of this project complies with IDNR, Office of Water Resources Statewide Permit No. 2

SEISMIC DATA

Seismic Performance Zone (SPZ) = 1
Bedrock Acceleration Coefficient (A) = 0.040 g
Site Coefficient (S) = 1.0

LOADING HL-93

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

DESIGN SPECIFICATIONS

2007 AASHTO (LRFD)

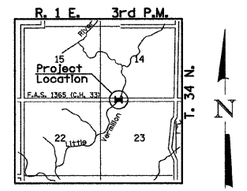
DESIGN STRESSES

FIELD UNITS

f'c = 3,500 p.s.i.
fy = 60,000 p.s.i. (Reinforcement)

PRECAST PRESTRESSED UNITS

f'c = 6,000 p.s.i.
f'ci = 5,000 p.s.i.
f's = 270,000 p.s.i. (½" ϕ low relaxation strands)
f'si = 201,960 p.s.i. (½" ϕ low relaxation strands)



LOCATION SKETCH

BENJAMIN A. NEIL
062-052537
LICENSED STRUCTURAL ENGINEER OF
JACKSONVILLE, ILLINOIS
Lic. Exp. 11/30/2010

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 LRFD Bridge Design Specifications.
This design complies with all requirements of the current AASHTO Guide Specifications for Seismic Design of highway bridges.

Benjamin A. Neil 1/16/2009
Illinois Structural No. 6527
Expires 11/30/2010

DESIGNED	B.A.N.
CHECKED	J.O.H./J.E.H.
DRAWN	C.E.T./T.A.C.
CHECKED	B.A.N./J.E.H.

2498B001

GENERAL PLAN & ELEVATION