

TBM 1 - RR spike in 36" tree,
19' Lt. of Sta. 9+43 - Elev. 498.04

TBM 2 - RR spike in guy pole,
17' Rt. of Sta. 10+50 - Elev. 494.10

Existing Structure: Structure No.: 026-3096. Single span timber
deck bridge with runners on steel stringers supported on closed
timber backed steel pile abutments. 40' L. x 16' W. No skew.
To be removed. See Special Provisions for salvage.

LOADING HL-93

50#/sq. ft. included in dead load
for future wearing surface.

DESIGN SPECIFICATIONS

2010 (4th ED.) AASHTO LRFD
Bridge Design Specifications.

DESIGN STRESSES

FIELD UNITS

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

PRECAST PRESTRESSED UNITS

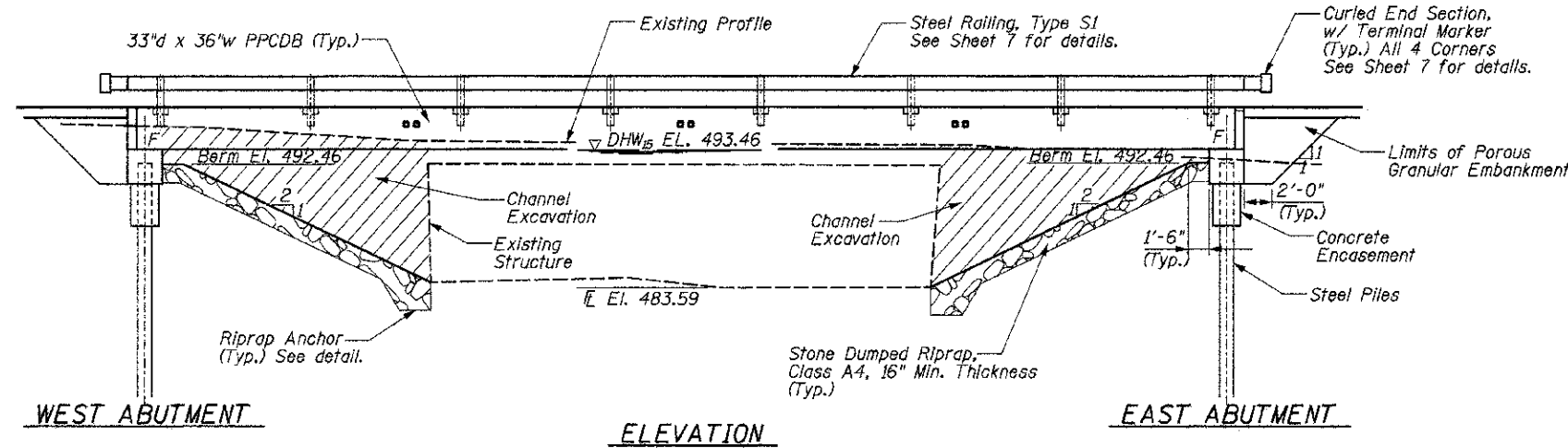
$f'_c = 6,000$ psi
 $f_{ci} = 5,000$ psi
 $f_{pu} = 270,000$ psi ($\frac{1}{2}$ " ϕ low lax. strands)
 $f_{pbt} = 201,960$ psi ($\frac{1}{2}$ " ϕ low lax. strands)
 $f_y = 60,000$ psi (reinforcement)

SEISMIC DATA

Seismic Performance Zone (SPZ) = 2
Soil Site Classification = C
 $S_{D1} = 0.155$ $S_{D5} = 0.376$

BILL OF MATERIALS (BRIDGE ONLY)

ITEM	UNIT	TOTAL
Channel Excavation	Cu Yd	254
Porous Granular Embankment	Ton	108
Stone Dumped Riprap, Class A4	Ton	170
Removal of Existing Structures	Each	1
Concrete Structures	Cu Yd	21.6
Concrete Encasement	Cu Yd	3.6
PPCDB (33" Depth)	Sq Ft	1888
Reinforcement Bars	Pound	3540
Steel Railing, Type S1	Foot	160
Furnishing Steel Piles HP12x53	Foot	488
Driving Piles	Foot	488
Pile Shoes	Each	10
Test Pile Steel HP12x53	Each	1
Name Plates	Each	1
Terminal Marker - Direct Applied	Each	4



GENERAL NOTES

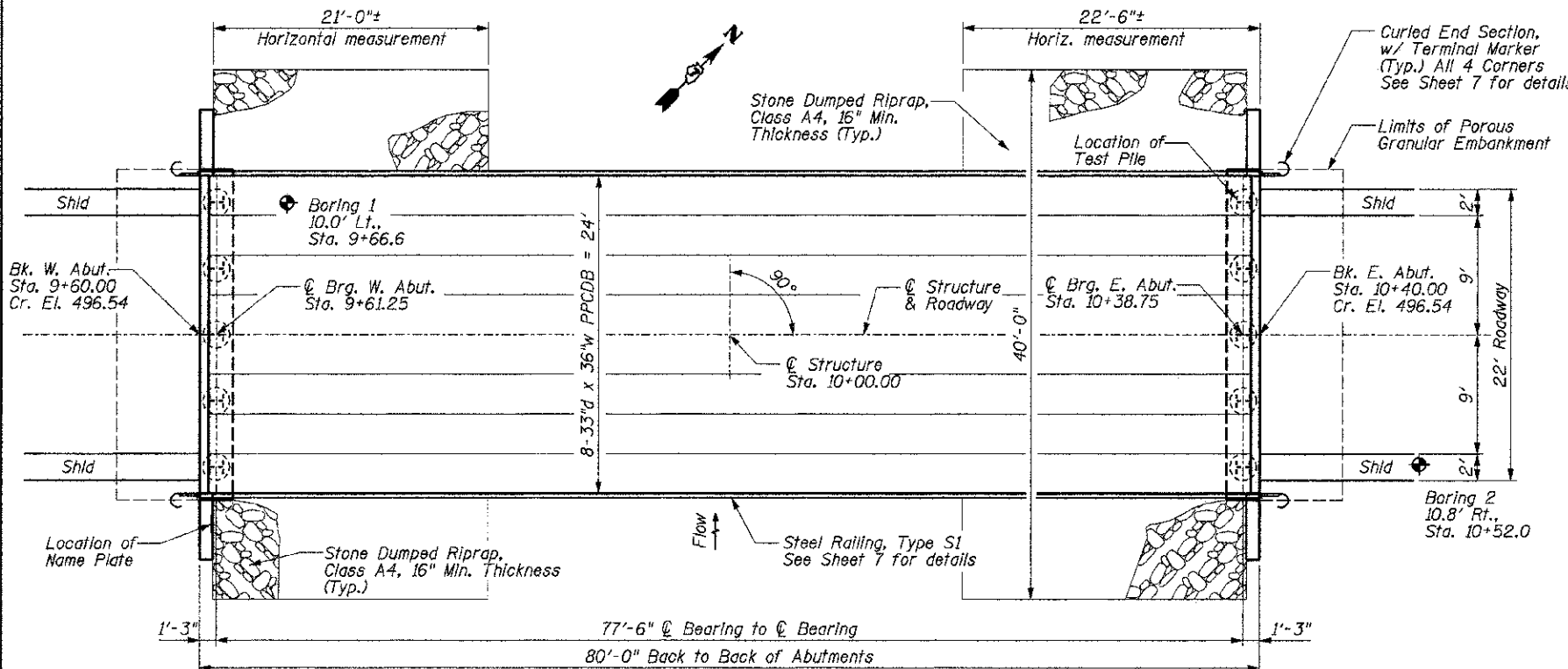
Layout of slope protection system may be varied in the field to suit
ground conditions as directed by the Engineer.

Channel excavation shall be excavated as shown within the limits of
the proposed bridge, then tapered to the existing channel at the ROW line.
If the Engineer deems the material satisfactory, it may be used to
construct the roadway embankment.

See Specifications for Soil Borings.

Do not scale these drawings.

The abutment bearing seat surfaces for the precast prestressed concrete
deck beams shall be adjusted by shimming to assure firm and even bearing.
As required, $\frac{1}{8}$ " fabric adjusting shims of the dimensions of the Exterior
Bearing Pad shall be provided for each bearing. The top surface of the
beams shall be finished according to the IDOT Manual for Fabrication of
Precast Prestressed Concrete Products.

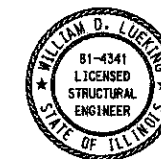


SUCK CREEK
BUILT 201_ BY
FAYETTE COUNTY
SEC. 11-13133-00-BR
LOADING HL-93
STR. NO. 026-3457

NAME PLATE

See Std. 515001

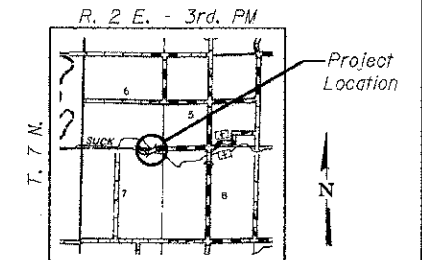
I certify that to the best of knowledge, information
and belief, this bridge design is structurally adequate
for the design loading shown on the plans.
The design is an economical one for the style of structure
and complies with requirements of the current AASHTO
Standard Specifications for Highway Bridges.



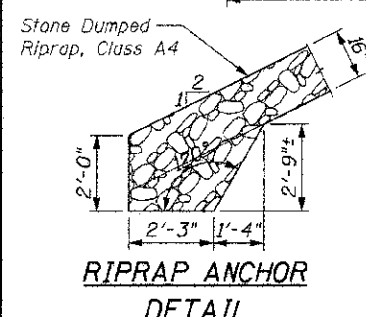
William D. Lueking
William D. Lueking

12/20/2012
Date of Signing

11/30/2014
Date of License Expiration



LOCATION SKETCH



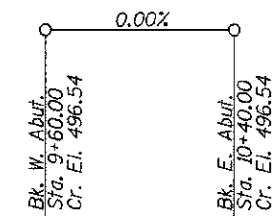
**RIPRAP ANCHOR
DETAIL**

WATERWAY INFORMATION

Drainage Area = 13.5 sq. mi. Low Grade Elev. 491.5 @ Sta. 10+50

Flood	Freq. Yr.	Q C.F.S.	Opening Sq. Ft.		Nat. H.W.E.		Head - Ft.		Headwater El.	
			Exist.	Prop.	Exist.	Prop.	Exist.	Prop.	Exist.	Prop.
Design	15	2900	310	539	493.46	0.57	0.24	494.03	493.70	
Base	100	4610	310	547	494.64	0.41	0.55	495.05	495.19	
Overtopping	<4	1400	282	408	491.67	0.21	0.03	491.88	491.70	
Max. Calc.	500	6250	310	547	495.53	0.36	0.78	495.89	496.31	

GRADE ON STRUCTURE
(along ϕ TR 221)



RHUTASEL and ASSOCIATES, INC.
CONSULTING ENGINEERS • LAND SURVEYORS
CENTRALIA, ILLINOIS
FREEBURG, ILLINOIS
ILLINOIS DESIGN FIRM LICENSE NO. 184-000287

DESIGNED - BLT	REVISED -
DRAWN - JN	REVISED -
CHECKED - WDL	REVISED -
DATE - 12/20/2012	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**GENERAL PLAN AND ELEVATION
STRUCTURE NO. 026-3457**

ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
TR 221	11-13133-00-BR	FAYETTE	11	4
CONTRACT NO. 95698				
RAAF JOB NO. 50912 ILLINOIS FED. AID PROJECT				