Bench Mark: RR spike in power pole (East side of pole), ±300' North of S.N. 082-0082 on the West side of IL 4. Elev. 418.70.

Existing Structure: S.N. 082-0082 was built in 1924 under S.A. Route 26 Section 47-15D. The existing structure consists of one span, 26' long, 32'-5" wide out-to-out reinforced concrete slab, and no skew. The substructure consists of closed reinforced concrete abutments founded on spread footings with attached wingwalls. Structure carries IL 4 over Little Mud Creek. The existing pavement is two 11' lanes with 2' shoulders. Staged construction shall be used during construction.

Salvage temporary support beams, see Special Provision.

Precast alternate is not allowed.

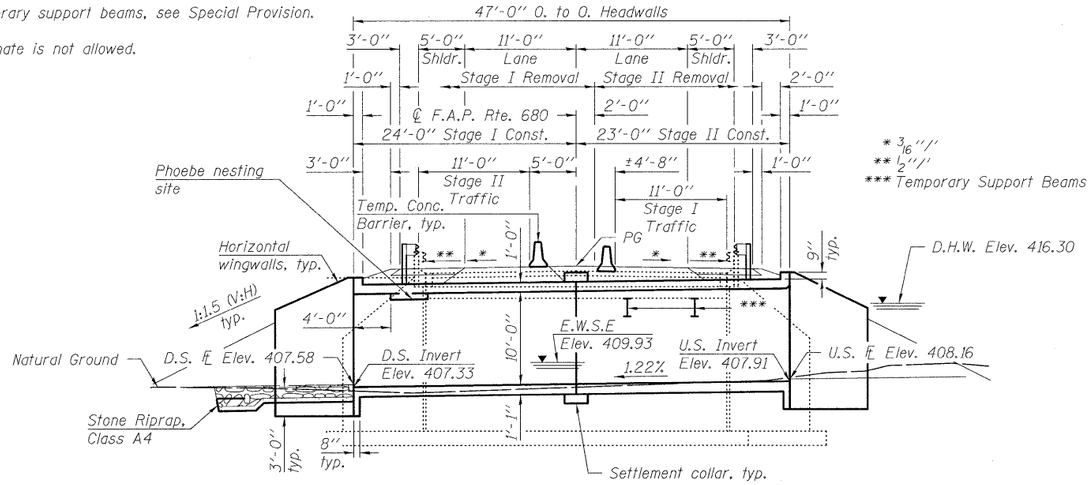
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

INDEX OF SHEETS

1. General Plan & Elevation
2. Temporary Support System
3. Temporary Sheet Piling
4. Stage Construction Details
5. Temporary Concrete Barrier
6. Culvert Plan
7. Culvert Elevation and Details
8. Boring Logs

TOTAL BILL OF MATERIAL

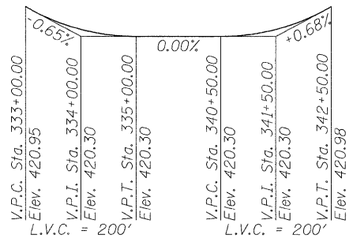
ITEM	UNIT	TOTAL
Stone Riprap, Class A4	Sq. Yd.	68
Filter Fabric	Sq. Yd.	68
Removal of Existing Structures	Each	1
Reinforcement Bars	Pound	28,690
Reinforcement Bars, Epoxy Coated	Pound	18,490
Name Plates	Each	1
Concrete Box Culverts	Cu. Yd.	192.6
Temporary Sheet Piling	Sq. Ft.	2,933
Temporary Support System	L Sum	1



* 3/16"/'
** 1/2"/'
*** Temporary Support Beams

LONGITUDINAL SECTION

(Horizontal dimensions shown are at right angles to ℄ roadway.)



PROFILE GRADE

(Along ℄ F.A.P. Rte. 680)

GENERAL NOTES

Reinforcement bars shall conform to the requirements of ASTM A 706 Gr. 60.

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.

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.

Temporary support beams for slab shall be installed for Stage I traffic and shall be placed before Stage I removal.

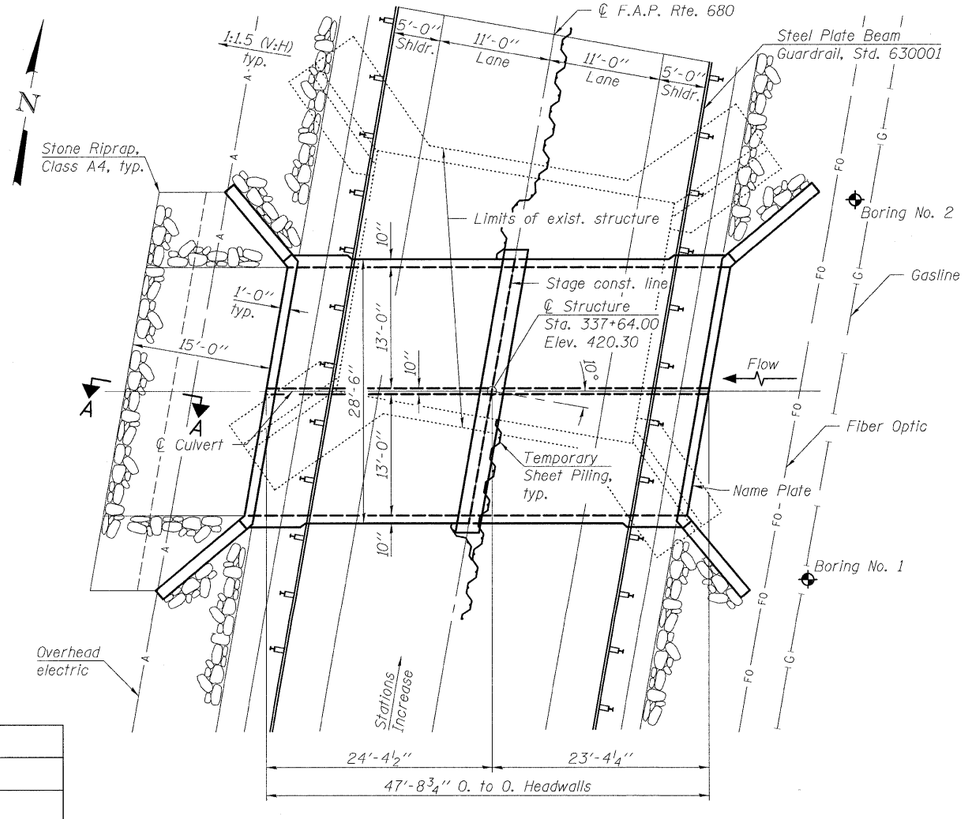
WATERWAY INFORMATION

Drainage Area = 2.41 Sq. Mi. Low Grade Elev. 420.30 @ Sta. 335+00.00

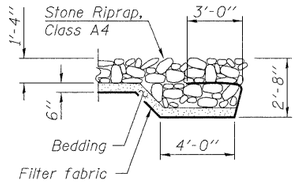
Flood	Freq. Yr.	Q C.F.S.	Opening Sq. Ft. Exist.	Opening Sq. Ft. Prop.	Nat. H.W.E.	Head - Ft. Exist.	Head - Ft. Prop.	Headwater El. Exist.	Headwater El. Prop.
	10	654	175.3	221.0	415.6	0.7	0.6	416.3	416.2
Design	50	1101	191.7	239.2	416.3	1.2	1.0	417.5	417.3
Base	100	1162	196.4	244.4	416.5	1.5	1.2	418.0	417.7
Overtopping	N/A								
Max. Calc.	500	1526	200.7	260.0	417.1	2.2	1.5	419.3	418.6

DESIGN SCOUR ELEVATION TABLE

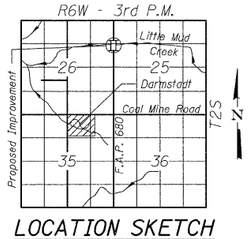
Design Scour Elevation (ft.)	D.S. Invert	U.S. Invert
	403.33	403.91



PLAN



SECTION A-B



LOCATION SKETCH

STATION 337+64.00
BUILT 201 BY
STATE OF ILLINOIS
F.A.P. RT. 680 SEC. 47-1BR
LOADING HS20-44
STR. NO. 082-2021

NAME PLATE

See Std. 515001

LOADING HS20-44

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

DESIGN SPECIFICATIONS

2002 AASHTO

DESIGN STRESSES

FIELD UNITS

f'c = 3,500 psi
fy = 60,000 psi (Reinforcement)
fy = 36,000 psi (M270 Grade 36)

APPROVED
FOR STRUCTURAL ADEQUACY ONLY
D. Carl Puzey (TDD)
ENGINEER OF BRIDGES AND STRUCTURES

STATE OF ILLINOIS
ERIC M. LAGEMANN
LICENSE NO. 081-006124
PROFESSIONAL ENGINEER

Eric Lagemann 10/19/11
License Expires 11/30/2012 Date

GENERAL PLAN & ELEVATION
IL 4 OVER LITTLE MUD CREEK
F.A.P. RTE. 680 - SECTION 47-1BR
ST. CLAIR COUNTY
STATION 337+64.00
STRUCTURE NO. 082-2021

DESIGNED	KAK
CHECKED	EML
DRAWN	KAK
CHECKED	EML

HORNER & SHIFRIN, INC.
ENGINEERS

SHEET NO. 1	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
8 SHEETS	680	47-1BR	ST. CLAIR	44	29
			CONTRACT NO. 76388		
	FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		