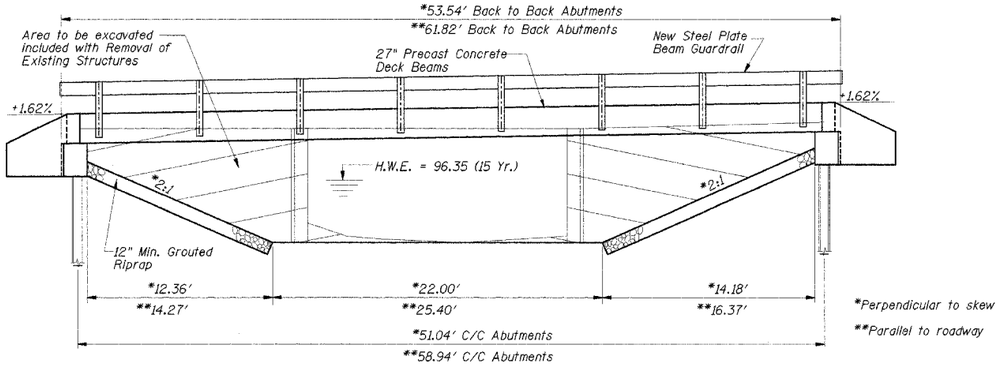
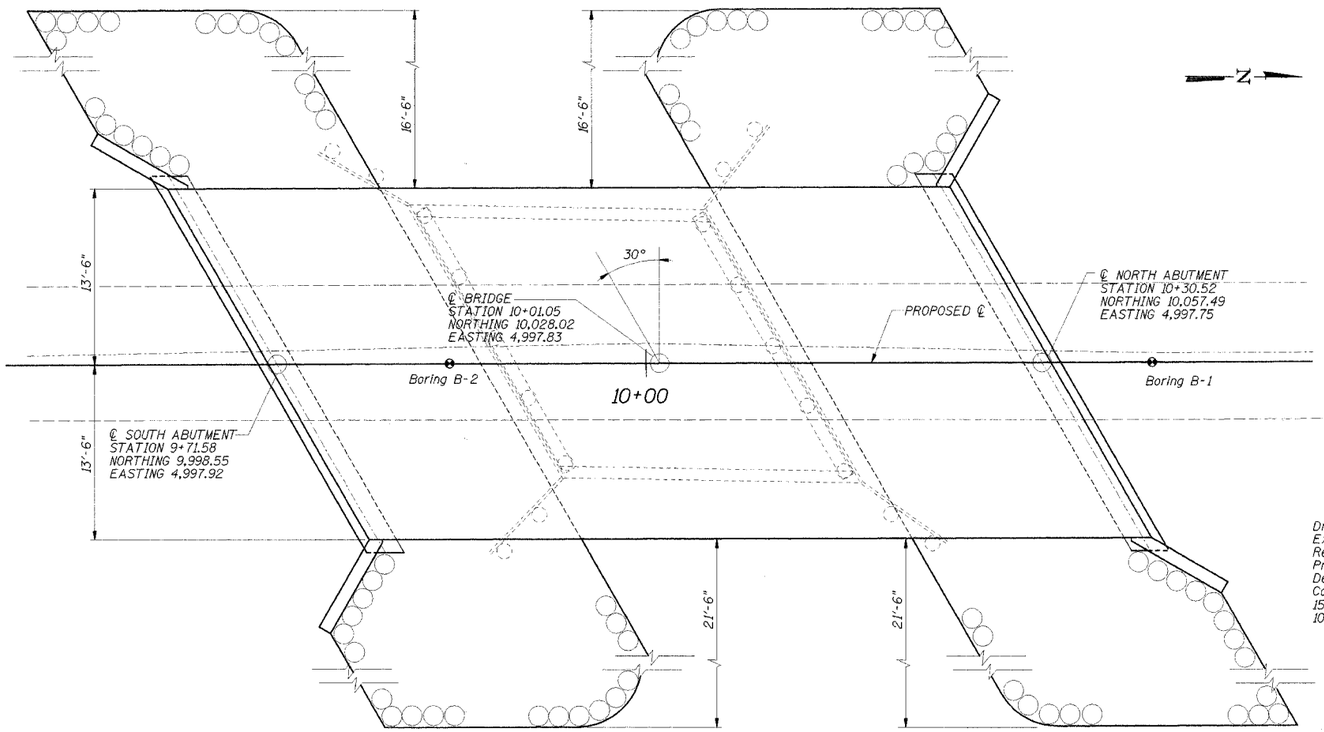
BM #1 - R.R. SPIKE IN TIMBER POST STA 7+48, 22.6' RT. OF ℄, ELEV. 103.61
BM #2 - CHISELED "X" IN TOP OF SOUTHWEST CURB, STA. 9+82, - ELEV. 100.00
BM #3 - R.R. SPIKE IN POWER POLE STA 11+60, 22.0' RT., ELEV. 106.05
C.P. = CONTROL POINT



ELEVATION



PLAN

GENERAL NOTES

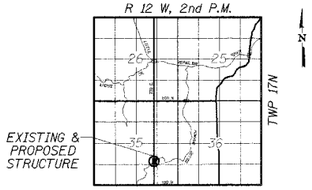
1. The Contractor shall drive 1 steel test pile in a permanent location at each abutment as directed by the Engineer before ordering the remainder of piles.
2. Boring Data is shown only as a guide to bidders in estimating soil conditions which may be encountered during construction.
3. Class SI or MS Concrete shall be used in the abutments.

BORING DATA

N - Standard Penetration Test - Blows per foot to drive 2" O.D. split spoon sampler 12" with 140 lb. hammer falling 30".
Qu - Unconfined Compressive Strength - Tons/Sq. Ft.
W - Water Content - Percentage of oven dry weight - %
B - Bulge Failure, S - Shear Failure, E - Estimated Value

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
TR 96	*	VERMILION	12	5
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

*02-03132-00-BR

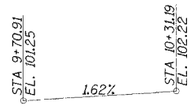


LOCATION SKETCH

STRUCTURE NO. 092-3492
SEC. 02-03132-00-BR BUILT 200
CARROLL ROAD DISTRICT
VERMILION COUNTY
LOADING HS-20-44

NAME PLATE

See Standard 515001



PROFILE GRADE

DESIGN SPECIFICATIONS

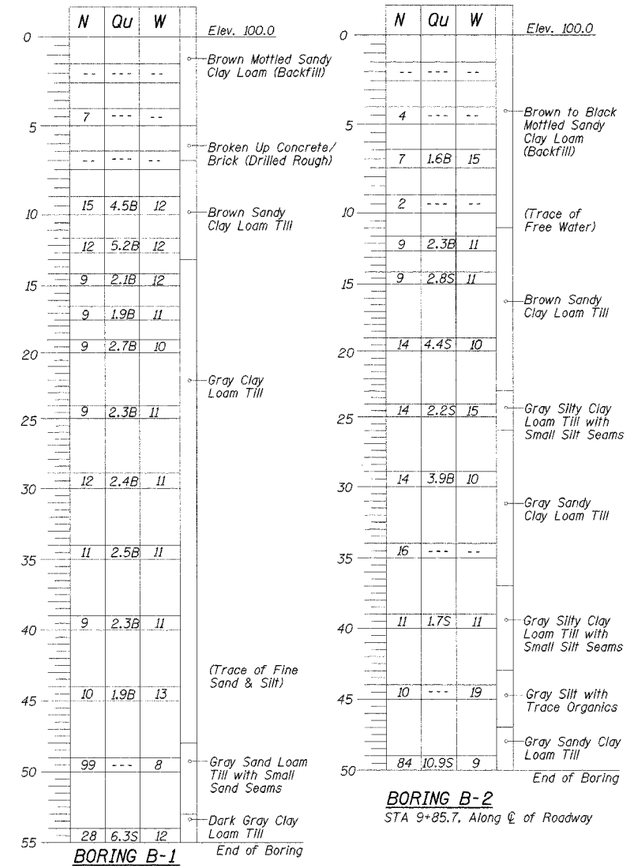
AASHTO (2002) and applicable Interims

DESIGN LOADING

HS 20-44
25 P.S.F Future Wearing Surface

DESIGN STRESSES

f'_c = 3,500 psi (Cast in Place Concrete)
f'_c = 5,000 psi (P.P.C. Units)
f'_{ci} = 4,000 psi (P.P.C. Units)
f_y = 60,000 psi (Reinforcement)
f'_s = 270,000 psi (½" ϕ Strands)
f'_{si} = 201,960 psi (½" ϕ Strands)



BORING B-1
STA 10+39, Along ℄ of Roadway

BORING B-2
STA 9+85.7, Along ℄ of Roadway

WATERWAY DATA

Drainage Area	2.96 Sq. Mi.
Existing Opening (15 Yr.)	75.2 Sq. Ft.
Required Opening (15 Yr.)	148.9 Sq. Ft.
Proposed Opening (15 Yr.)	149.6 Sq. Ft.
Design Discharge (15 Yr.)	444.4 C.F.S.
Computed Discharge (100 Yr.)	688.1 C.F.S.
15 Yr. Head	0.00 Ft.
100 Yr. Head	0.01 Ft.

TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Removal of Existing Structures	Each	1		1
Precast Prestressed Concrete Deck Beams (27" Deep)	Sq. Ft.	1628		1628
Steel Railing, Type S-1	Foot	121		121
Concrete Structures	Cu. Yds.		21.8	21.8
Furnishing Steel Piles, HP10x42	Foot		390	390
Driving Steel Piles, HP10x42	Foot		390	390
Test Piles, Steel HP10x42	Each		2	2
Metal Shoes	Each		10	10
Concrete Cut-off Wall	Cu. Yds.		6.4	6.4
Grouted Riprap	Sq. Yds.		299	299
Name Plate	Each		1	1
Reinforcement Bars	Pound		2240	2240
Structure Excavation	Cu. Yds.		101	101
Controlled Low Strength Material (CLSM)	Cu. Yds.		56	56

LICENSED STRUCTURAL ENGINEER
KEITH E. BRANDAU
81-4905
CHAMPAIGN
STATE OF ILLINOIS

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 the requirements of the current "AASHTO Standard Specifications for Highway Bridges."

Keith E. Brandau 2/15/06
KEITH E. BRANDAU
Illinois Licensed Structural Engineer Number 4905
License Expires 11/30/06

DSGN	R.T. Mumm					
DR	R.T. Mumm					
CHK	K.E. Brandau					
APVD	K.E. Brandau	NO.	DATE	REVISION	BY	APVD

FRAUENHOFFER
Frauenhoffer and Associates, P.C. Consulting Engineers
3002 Crossing Court Champaign, Il. 61822 217-351-6268

GENERAL PLAN AND ELEVATION
CARROLL ROAD DISTRICT
SECTION 02-03132-00-BR
VERMILION COUNTY

SHEET 5
DWG NO. 5072gpe.dgn
DATE JAN 2006
PROJ NO. 5072