

B.M.
RR Spike in Power Pole
Sta. 35+37, ±33' Rt.
Elev. 101.29

Chiseled "□" on West Hdw.
at Field Entrance
Sta. 45+35, ±20' Lt.
Elev. 98.44

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
CH 9	*	IROQUOIS	17	7
FED. ROAD DIST. NO. 7	ILLINOIS	PROJECT	BRS-334(112)	
*04-00052-03-BR			CONTRACT #87357	

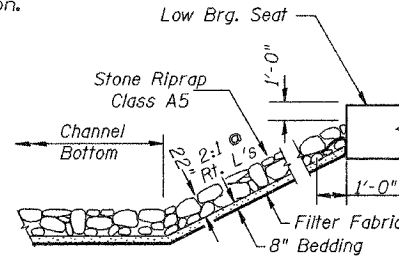
SHEET NO. 1
OF 8 SHEETS

EXISTING STRUCTURE:

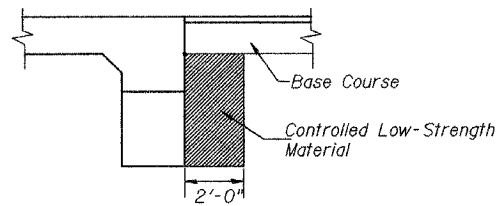
Three span reinforced concrete slab superstructure on closed timber abutments with concrete cap and pile bent piers on timber piles. The structure is 70'-0" back to back of abutments, 28'-6" out to out of deck, and is skewed 20° Rt. Ah. Str. No. 038-0059

Salvage: None

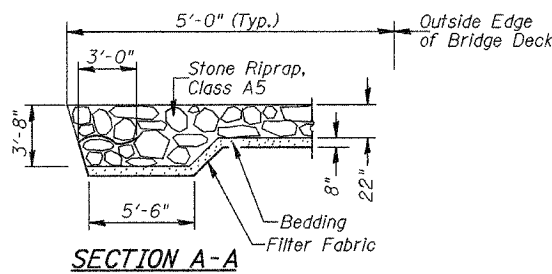
Road to be closed to traffic during construction.



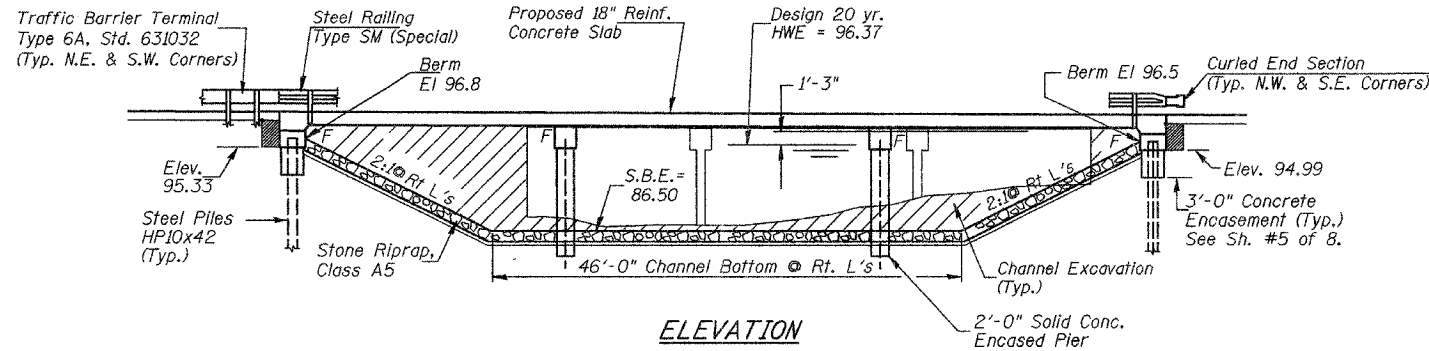
STONE RIPRAP DETAIL



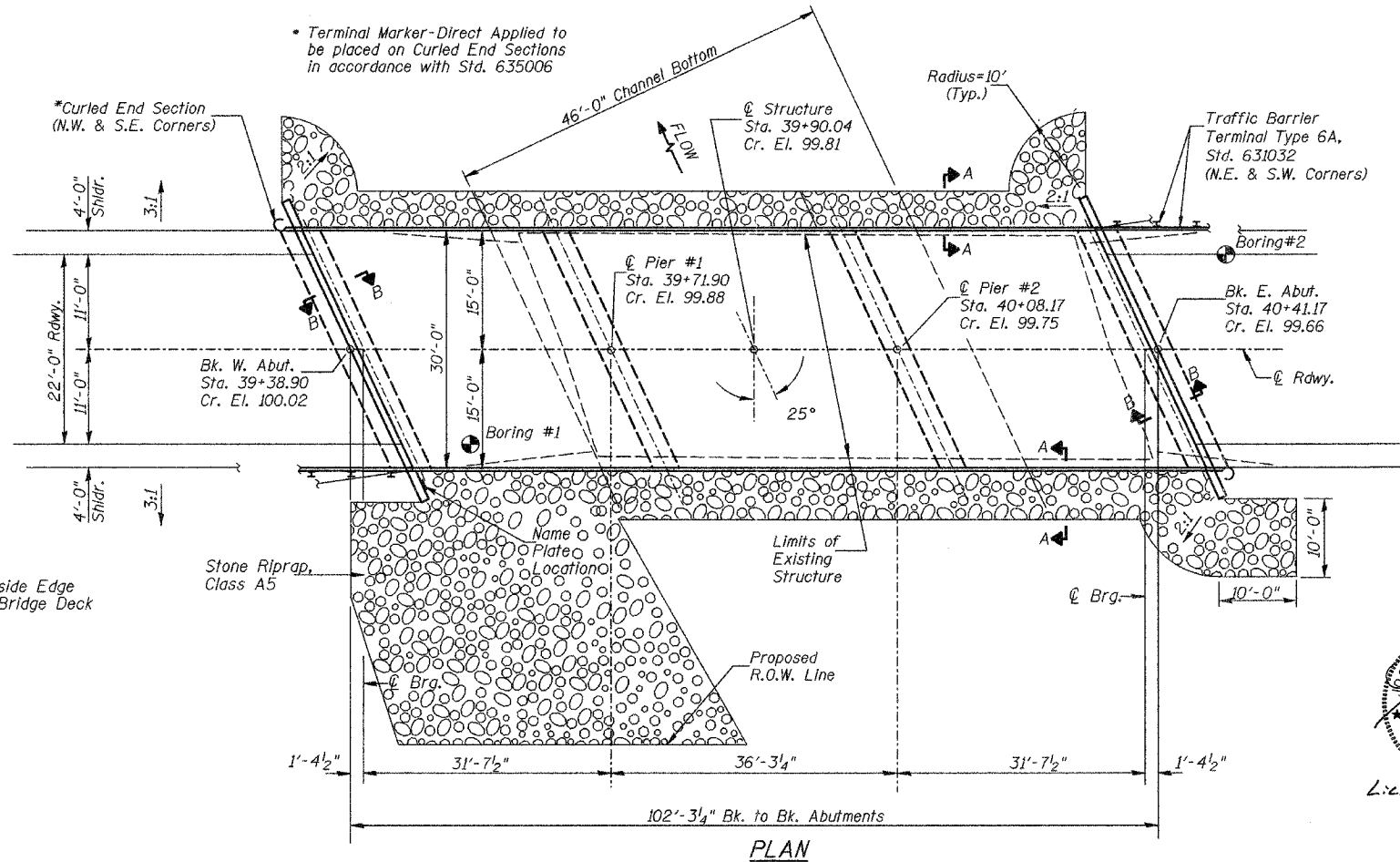
SECTION B-B



SECTION A-A



ELEVATION



PLAN

WATERWAY INFORMATION

Drainage Area = 17.49 Sq. Mi.		Low Grade Elev. = 99.38 @ Sta. 43+50.00						
Flood	Freq. Yr.	Q C.F.S.	Opening Sq. ft.		Nat. H.W.E. ft.	Head - ft.		Headwater Elev. - ft.
			Exist.	Prop.		Exist.	Prop.	
Design	20	1,741	469	657	96.37	0.02	0.03	96.39
Base	100	2,484	508	713	97.02	0.15	0.18	97.17

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

DESIGN SPECIFICATIONS

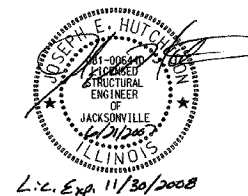
2002 AASHTO & Interims

DESIGN STRESSES

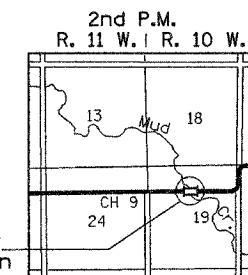
(FIELD UNITS)
f'c = 3,500 p.s.i.
fy = 60,000 p.s.i. (Rein.)

LOADING HS20-44

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



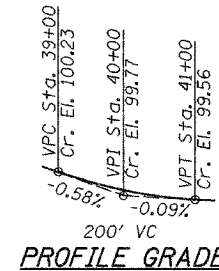
Lic. Exp. 11/30/2008



LOCATION SKETCH

GENERAL NOTES

The Contractor shall drive test piles to 110% of the nominal required bearing specified in production locations at the substructures specified or approved by the Engineer before ordering the remainder of the piles.
For Soil Boring Logs, See Sheets 7 & 8 of 8.
Reinforcement Bars shall conform to the requirements of ASTM A706 Grade 60 (IL Modified). See Special Provisions.
Reinforcement bars designated (E) shall be epoxy coated.
The Steel H-Piles shall be according to AASHTO M270 Grade 50.
Layout of the slope protection system may be varied in the field to suit ground conditions as directed by the Engineer.
The backfill around the piers shall be placed after the superstructure is in place.
All Construction Joints shall be bonded.
Excavation behind existing abutment walls shall be done before removing the existing Superstructure.
The Contractor shall make allowance for the deflection of forms, shrinkage and settlement of falsework, in addition to allowance for dead load deflection.
The existing structure shall be disposed of outside of the right of way.



PROFILE GRADE

**MUD CREEK
BUILT 200. BY
IROQUOIS COUNTY
SEC. 04-00052-03-BR
C.H. 9 STATION 39+90.04
F.A. PROJ. BRS-334(112)
STR. NO. 038-5513 LOADING HS20-44**

NAME PLATE

Locate Name Plate at S.W. Wingwall Corner of Bridge (See Std. 515001)

TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Channel Excavation	CU YD	—	850	850
Stone Riprap, Class A5	TON	—	765	765
Filter Fabric	SQ YD	—	740	740
① Removal of Existing Structures	EACH	—	—	1
Structure Excavation	CU YD	—	90	90
Concrete Structures	CU YD	—	80.1	80.1
Concrete Superstructure	CU YD	179.0	—	179.0
Concrete Encasement	CU YD	—	5.9	5.9
① Reinforcement Bars, Epoxy Coated	POUND	36,530	8,640	45,170
Steel Bridge Rail, Type SM (Special)	FOOT	205	—	205
Furnishing Steel Piles HPI0x42	FOOT	—	523	523
Driving Piles	FOOT	—	523	523
Test Pile Steel HPI0x42	EACH	—	2	2
Name Plates	EACH	—	—	1
Controlled Low-Strength Material	CU YD	—	16.0	16.0
① Underwater Structure Excavation Protection-Location 1 (Pier #1)	EACH	—	1	1
① Underwater Structure Excavation Protection-Location 2 (Pier #2)	EACH	—	1	1

① See Special Provisions

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 Specification for Highway Bridges.
This design complies with all requirements of the current AASHTO Guide Specifications for Seismic Design of highway bridges.

J. E. Hutcheson
Illinois Structural No. 6440
Expires 11/30/2008

**GENERAL PLAN & ELEVATION
C.H. 9 OVER MUD CREEK
SECTION 04-00052-03-BR
IROQUOIS COUNTY
STR. NO. 038-5513
STATION 39+90.04**

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