B.M.: RR Spike in Power Pole
Sta. 16+24, 38' Lt.
Elev. 574.05

RR Spike in Power Pole
Sta. 23+45, 38' Lt.
Elev. 577.78

Existing Structure:
Three span reinforced concrete deck on steel stringers superstructure supported on concrete pile bent piers with exposed timber piles and pile bent abutments. The structure is ±74' back to back of abutments, ±24' out to out of deck and is not skewed.
Str. No. 069-3099

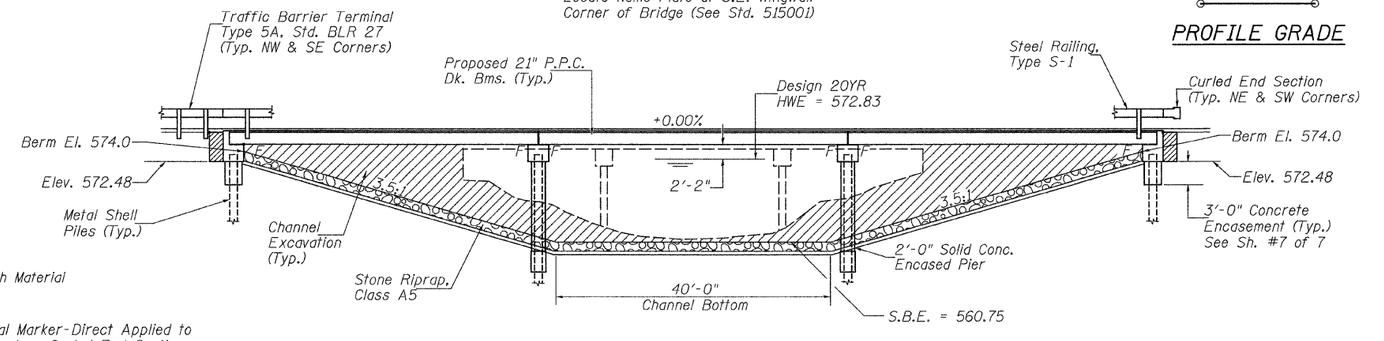
Salvage: None

Road to be closed to traffic during construction.

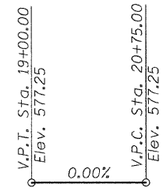
NORTH FORK MAUVAISE TERRE CREEK
BUILT 200_ BY
MORGAN COUNTY
SEC. 07-00098-00-BR
CH 32 STATION 20+00.00
F.A. PROJ. BRS-1614(103)
STR. NO. 069-3265 LOADING HS20-44

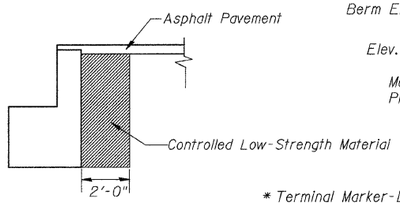
NAME PLATE

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



PROFILE GRADE

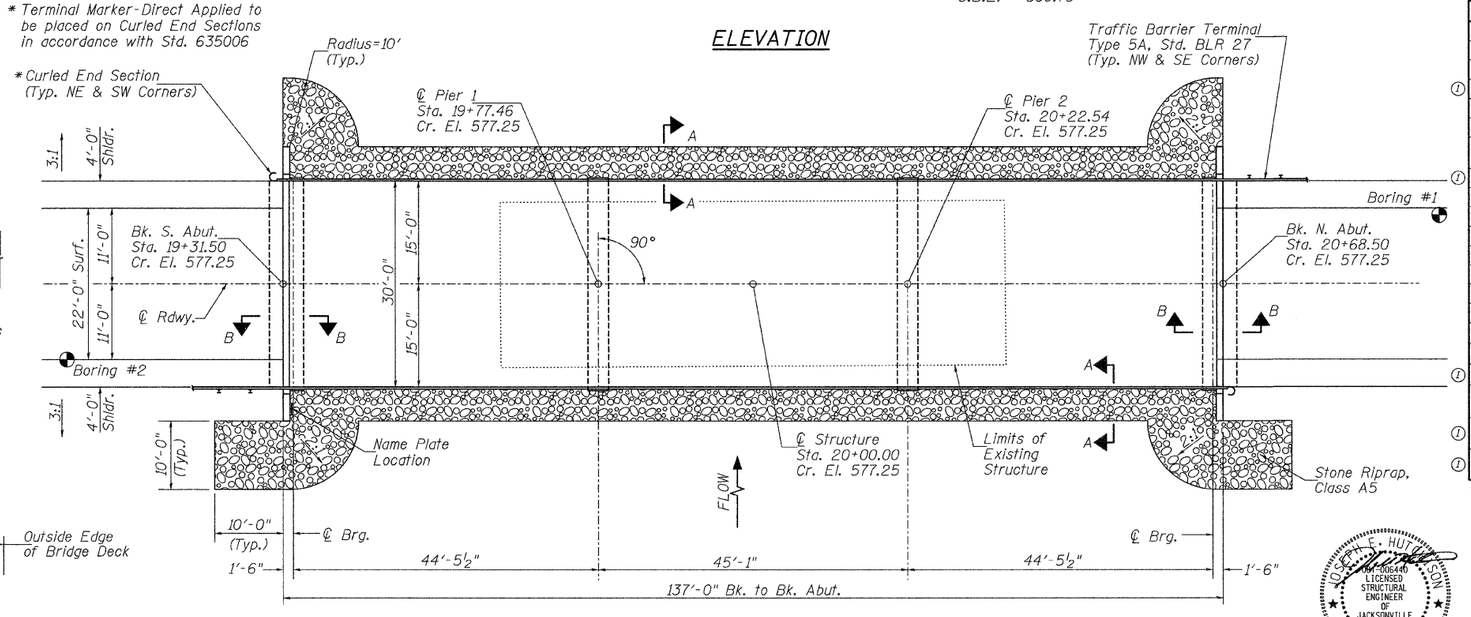




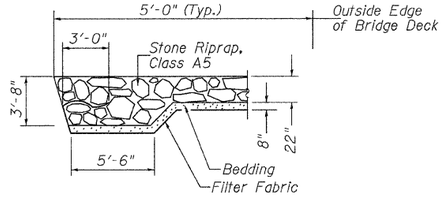
SECTION B-B

* Terminal Marker-Direct Applied to be placed on Curled End Sections in accordance with Std. 635006

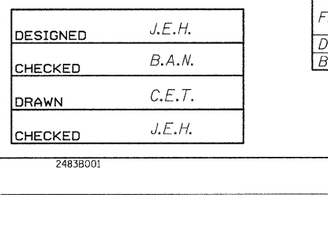
ELEVATION



PLAN



SECTION A-A



STONE RIPRAP DETAIL

WATERWAY INFORMATION

Drainage Area = 48.7 Sq. Mi. Low Grade Elev. = 577.25 @ Sta. 20+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.
Design	20	5,147	503	951	572.83	1.64	0.32	574.47	573.15
Base	100	7,456	548	1,037	573.54	3.92	0.90	577.46	574.44

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

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

2483B001

DESIGN SPECIFICATIONS

2002 AASHTO & Interims

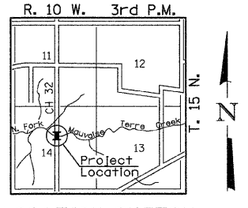
DESIGN STRESSES

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

(PRECAST PRESTRESSED UNITS)
f'c = 5,000 p.s.i.
f'ci = 4,000 p.s.i.
f's = 270,000 p.s.i. (½" Strands)
f'si = 201,960 p.s.i. (½" Strands)

LOADING HS20-44

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



LOCATION SKETCH

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
CH 32	*	MORGAN	19	7
FED. ROAD DIST. NO. 7	ILLINOIS	PROJECT	BRS-1614(103)	
*07-00098-00-BR		CONTRACT *	93451	

SHEET NO. 1 OF 7 SHEETS

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 Special Provisions.

A Corrosion Inhibitor shall be used in the concrete for Precast Prestressed Concrete Deck Beams according to Article 1020.05(b)(12) of the Standard Specifications.

Reinforcement Bars shall conform to the requirements of ASTM A706 Grade 60. See Special Provisions.

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

The existing structural steel coating may contain lead. The contractor should take appropriate precautions to deal with the presence of lead on this project.

The top surface of the beams shall be finished according to the IDOT Manual for Fabrication of Precast Prestressed Concrete Products.

TOTAL BILL OF MATERIAL

	ITEM	UNIT	SUPER	SUB	TOTAL
	Channel Excavation	CU YD	——	1,400	1,400
	Stone Riprap, Class A5	TON	——	800	800
	Filter Fabric	SQ YD	——	770	770
(1)	Removal of Existing Structures	EACH	——	——	1
	Structure Excavation	CU YD	——	95	95
	Concrete Structures	CU YD	——	92.3	92.3
	Precast Prestressed Concrete Deck Beams (21" Depth)	SQ FT	4,050	——	4,050
(1)	Reinforcement Bars	POUND	——	8,500	8,500
	Steel Railing, Type S1	FOOT	274	——	274
	Furnishing Metal Shell Piles 12"	FOOT	——	1,242	1,242
	Driving Piles	FOOT	——	1,242	1,242
	Test Pile Metal Shells	EACH	——	4	4
	Pile Shoes	EACH	——	24	24
	Concrete Encasement	CU YD	——	9.0	9.0
	Name Plates	EACH	——	——	1
	Waterproofing Membrane System	SQ YD	457	——	457
	Portland Cement Mortar Fairing Course	FOOT	300	——	300
(1)	Controlled Low-Strength Material	CU YD	——	20.3	20.3
	Hot-Mix Asphalt Surface Course, Mix "C", N50	TON	46	——	46
(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

JOSEPH E. HUTCHINSON
No. 6440
LICENSED STRUCTURAL ENGINEER OF JACKSONVILLE
11/1/2006
ILLINOIS
Lic Exp 11/30/2008

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.

Illinois Structural No. 6440
Expires 11/30/2008

GENERAL PLAN & ELEVATION
COUNTY HIGHWAY 32
OVER NORTH FORK MAUVAISE TERRE CREEK
SECTION 07-00098-00-BR
MORGAN COUNTY
STR. NO. 069-3265
STATION 20+00.00