

Bench Mark: 4685-2 Chiseled square located on top of the southwest wingwall of the existing South Abutment. Elev. 720.19

Existing Structure: S.N. 010-0051, originally built in 1931 as SBI Route 47, Section 129B. In 1981, the superstructure was replaced, the substructure widened and caps reconstructed as F.A. Route 100, Section 129 BR. In 2000, superstructure repairs were made including a new bituminous overlay. The existing structure is a three simple span PPC deck beam bridge measuring 143'-8" back to back of abutments and 33'-0" out to out of deck. The existing structure is to be removed and replaced.

No Salvage

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ROUTE NO.	SECTION	COUNTY	SHEET	SHEET NO. 1
F.A.P. 326	129BR-3	CHAMPAIGN	30	12
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT	17 SHEETS

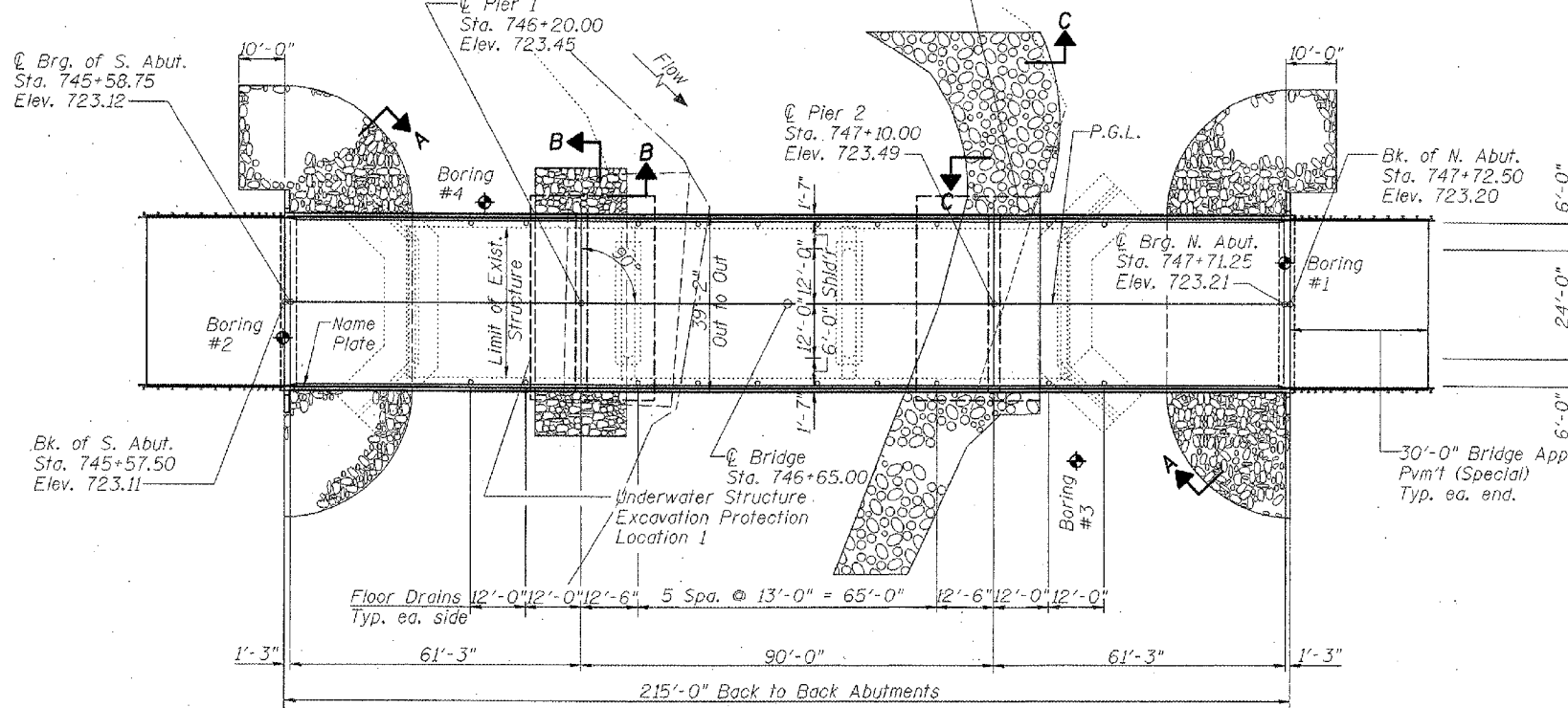
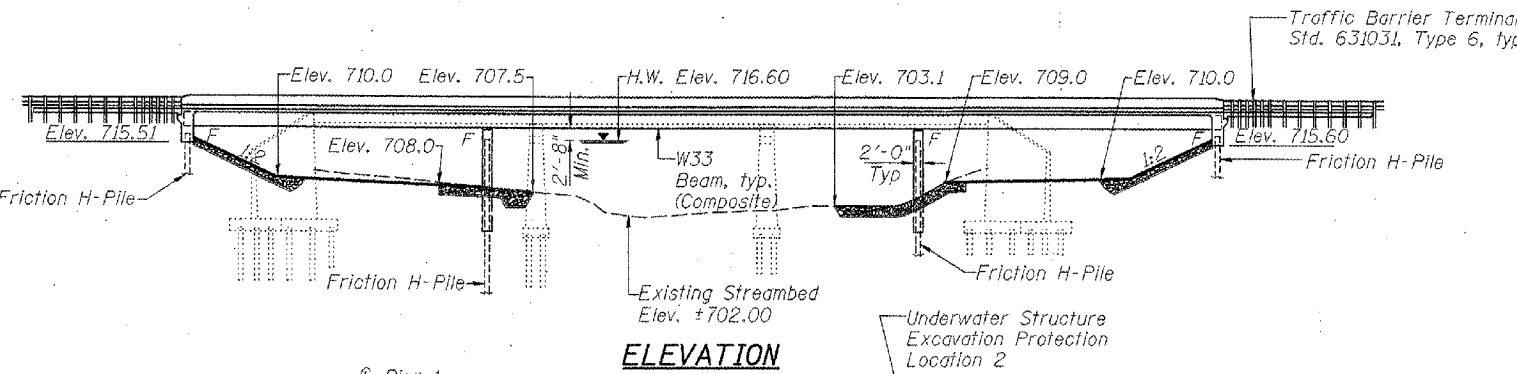
CONTRACT #70344

NOTES:

1. Up to 4" will be ground off the bridge slab and the approach pavement.
2. The Profile Grade shows the final elevations after grinding.
3. See Dwg. S-2 for Section A, B and C.

TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Porous Granular Embankment, Special	Cu. Yd.		153	153
Stone Riprap, Class A5	Sq. Yd.		1,002	1,002
Dumped Riprap, Special	Ton		345	345
Filter Fabric	Sq. Yd.		1,002	1,002
Removal of Existing Structures	Each		1	1
Structure Excavation	Cu. Yd.		243	243
Floor Drains	Each	20		20
Concrete Structures	Cu. Yd.		164.1	164.1
Concrete Superstructure	Cu. Yd.	286		286
Bridge Deck Grooving	Sq. Yd.	812		812
Protective Coat	Sq. Yd.	1,040		1,040
Furnishing and Erecting Structural Steel	L. Sum	1		1
Stud Shear Connectors	Each	3,384		3,384
Reinforcement Bars, Epoxy Coated	Pound	62,960	10,820	73,780
Furnishing Steel Piles HP10x42	Foot		1,569	1,569
Driving Steel Piles	Foot		1,569	1,569
Test Pile Steel HP10x42	Each		4	4
Name Plates	Each	1		1
Geocomposite Wall Drain	Sq. Yd.		75	75
Pipe Underdrains for Structures 4"	Foot		141	141
Bar Splicers	Each	76	0	76
Diamond Grinding (Bridge Section)	Sq. Yd.	1,020		1,020
Underwater Structure Excavation Protection Location 1	Each		1	1
Underwater Structure Excavation Protection Location 2	Each		1	1

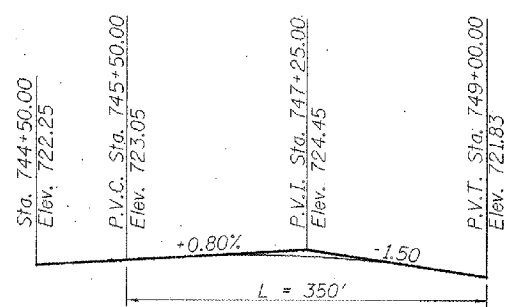


WATERWAY INFORMATION

Proposed Low Grade Elev. = 720.09 @ Sta. 752+00.01

Drainage Area = 114.4 Sq. Mi. Low Grade Elev. = 720.09 @ Sta. 752+00.01

Flood	Freq. Yr.	Q C.F.S.	Opening Sq. Ft.		Nat. H.W.E.	Head-Ft.		Headwater El.	
			Exist.	Prop.		Exist.	Prop.	Exist.	Prop.
	10	5,153	1,228	1,570	715.4	0.7	0.5	716.1	715.9
Design	50	7,540	1,389	1,806	716.6	1.0	0.7	717.6	717.3
Base	100	8,515	1,442	1,886	717.0	1.1	0.8	718.1	717.8
Overtopping									
Max. Calc.	500	10,786	1,563	2,069	717.9	1.4	0.9	719.3	718.8

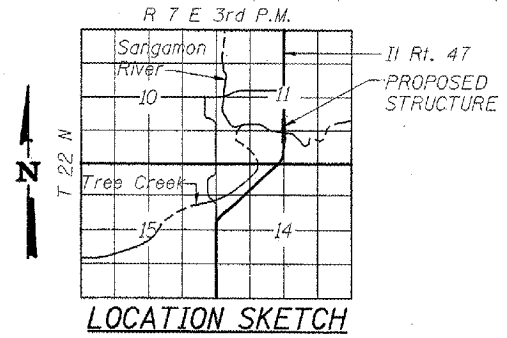


STATION 746+65.00
BUILT BY
STATE OF ILLINOIS
F.A.P. RT. 326 SEC. (129BR-3) BR
LOADING HS20
STR. NO. 010-0281

NAME PLATE
See Std. 515001

APPROVED
For Structural Adequacy Only

Ralph E. Anderson (TJD)
Engineer of Bridges & Structures



LOADING HS20-44
Allow 50#/sq. ft. for future wearing surface.
DESIGN SPECIFICATIONS
2002 AASHTO

DESIGN STRESSES

FIELD STRESSES
 $f_c = 3,500$ psi
 $f_y = 60,000$ psi (reinforcement)
 $f_y = 50,000$ psi (M270 Grade 50W)

SEISMIC DATA

Seismic Performance Category (SPC) = A
 Bedrock Acceleration Coefficient (A) = 0.047g
 Site Coefficient (S) = 1.2



Clark Dietz, Inc.
Structural Engineer
Clark Dietz, Inc.
DATE: 8/17/06
License Expires 11-30-2006

"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 Specifications for Highway Bridges'."

GENERAL PLAN AND ELEVATION
 IL. ROUTE 47
 OVER SANGAMON RIVER
 F.A.P. ROUTE 326 SEC. (129BR-3) BR
 CHAMPAIGN COUNTY
 STATION 746+65.00
 STRUCTURE NO. 010-0281

REVISIONS		DATE
NAME		

REVISIONS