

B.M. # 3; Chiseled "□", on northwest wingwall of existing bridge. Elev. 778.11.

ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FA. 587	22BR	BUREAU	24	9
FHWA, RD. NO. 6 ILLINOIS FED. AID PROJECT				

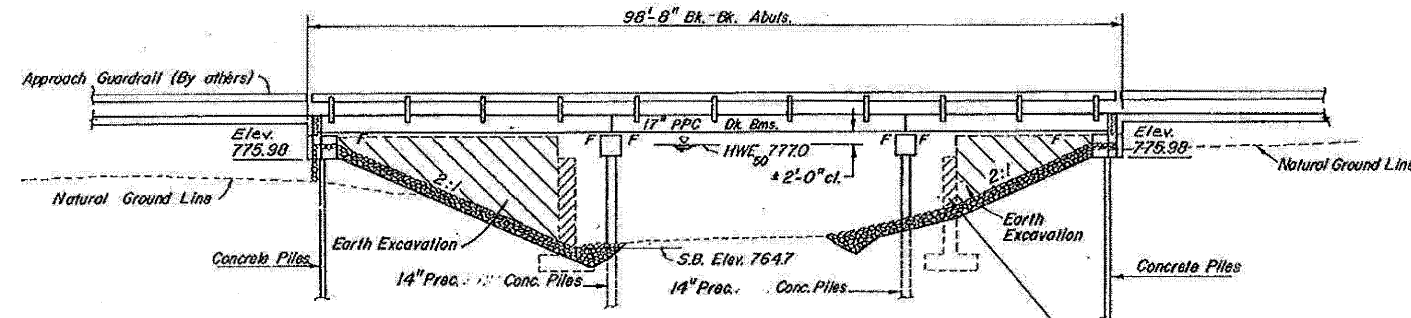
SHEET NO. 1  
8 SHEETS

**EXISTING STRUCTURE #006-0077:**

Built in 1923 as Sec. 22, SBI Rte. 18. Single span R.C. thru-girder w/ transverse R.C. girders, R.C. closed abutment on timber piles. 48'-3" Bk.-Bk. x 25'-8" o-o. To be removed. No salvage.

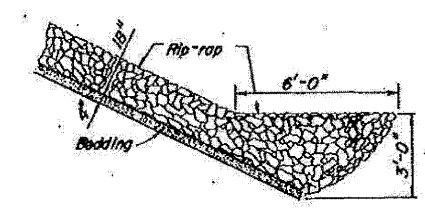
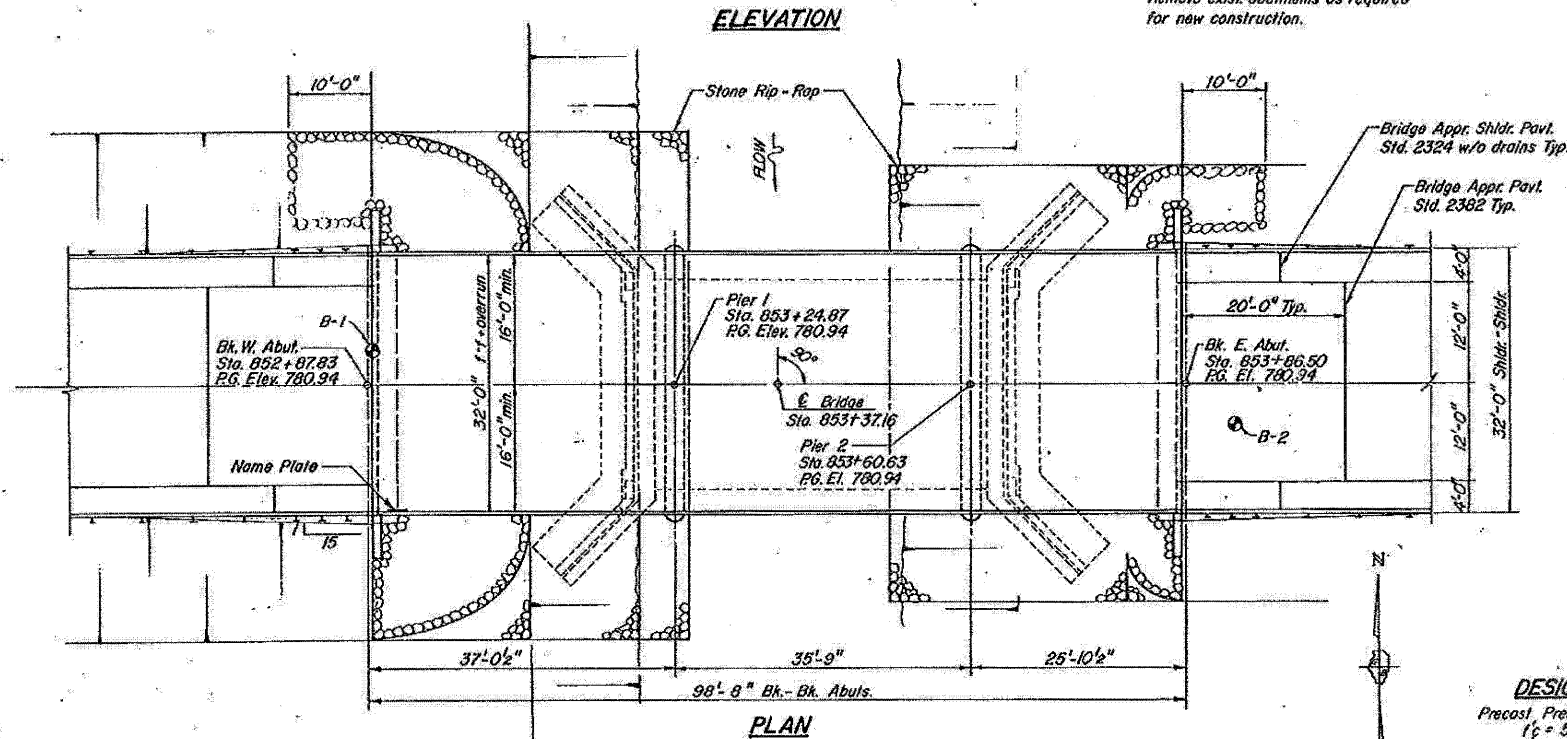
**GENERAL NOTES**

1. REINFORCEMENT BARS SHALL CONFORM TO THE REQUIREMENTS OF AASHTO M-31 OR M-53, GRADE 60.
2. THE TOP SURFACE OF THE BEAMS SHALL BE FINISHED IN ACCORDANCE WITH ARTICLE 505.06 OF THE STANDARD SPECIFICATION EXCEPT THAT THE SURFACE SHALL NOT BE ROUGHED BY BROOMING. THE FINISHED SURFACE SHALL BE FREE OF DEPRESSIONS OR HIGH SPOTS WITH SHARP CORNERS, AND THE TOP OF KEYS SHALL BE ROUNDED OR CHAMFERED A MINIMUM OF 1/4".
3. A CALCIUM NITRITE CORROSION INHIBITOR, AS COVERED IN THE SPECIAL PROVISIONS, SHALL BE USED IN THE CONCRETE FOR PRECAST/PRESTRESSED CONCRETE DECK BEAMS.
4. THE CONTRACTOR SHALL DRIVE ONE (1) CONCRETE TEST PILE IN A PERMANENT LOCATION AT THE EAST ABUTMENT AND ONE (1) PRECAST CONCRETE (14") TEST PILE IN A PERMANENT LOCATION AT PIER 1, AS DIRECTED BY THE ENGINEER, BEFORE ORDERING THE REMOVAL OF PILES.
5. ALL STRUCTURAL STEEL SHALL BE SHOP PAINTED WITH THE ZINC-SILICATE AND VINYL PAINT SYSTEM.
6. LAYOUT OF STONE RIP RAP MAY BE VARIED IN THE FIELD TO SUIT GROUND CONDITIONS AS DIRECTED BY THE ENGINEER.



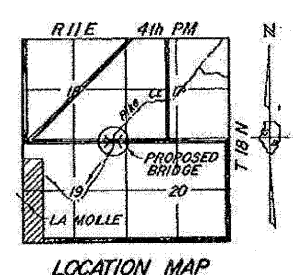
**TOTAL BILL OF MATERIAL**

ITEM	UNIT	SUB	SUPER	TOTAL
Class X Concrete	Cu. Yd.	49.3		49.3
Reinforcement Bars	Pound	4890		4890
RPC Deck Beams (17" Depth)	Sq. Ft.		3067	3067
Steel Railings, Type S-1	Lin. Ft.		192	192
Precast Concrete Piles 14"	Lin. Ft.	319		319
Test Pile, Precast Concrete	Each	1		1
Concrete Piles	Lin. Ft.	323		323
Test Pile, Concrete	Each	1		1
Waterproof Membrane System	Sq. Yd.		351	351
RC. Mortar Fairing Course	Lin. Ft.		683	683
Blk. Conc. Surf. Crse., Class I	Ton		45	45
Name Plates	Each		1	1
Stone Riprap	Sq. Yd.	450		450
Removal of Existing Structures	Each		1	1
Earth Excavation	Cu. Yd.	550		550
Furnish & Erect Structural Steel	Pound	900		900



**DESIGN STRESSES**  
 Precast, Prestressed Units  
 $f_c = 5,000$  p.s.i.  
 $f_t = 4,000$  p.s.i.  
 $f_s = 270,000$  p.s.i. (2" # strands)  
 $f_s = 189,000$  p.s.i. (1 1/2" # strands)  
 Field Units:  
 $f_c = 3,500$  p.s.i.  
 $f_y = 60,000$  p.s.i. (Reinf.)

**LOADING HS20-44**  
 Design Specifications: 1983 A.A.S.H.T.O. & 1984, 1985 INTERIMS  
 Allow 25 #/sq.ft. for future wearing surface.



**APPROVED**  
 FOR STRUCTURAL ADEQUACY ONLY  
 James T. Rayburn  
 Engineer of Bridges and Structures

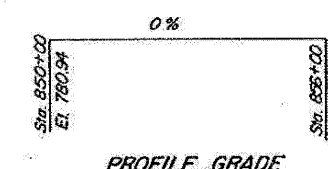
**GENERAL PLAN & ELEVATION**  
 F.A. ROUTE 587 OVER PIKE CREEK  
 SECTION 22BR BUREAU COUNTY  
 STA. 853+37.16  
 STRUCTURE NUMBER 006-0147

GREENE & BRADFORD, Ltd.  
 CONSULTING ENGINEERS  
 1818 STEVENSON DR. • 217-259-6611 • SPRINGFIELD, ILL.

**WATERWAY INFORMATION**

Flood	Freq. Yr.	Q C.F.S.	Opening Sq. Ft.		Not. HWE	Head - Ft.		Headwater El.	
			Exist.	Prop.		Exist.	Prop.	Exist.	Prop.
Design	50	2508	405	662	7770'	0.66	0.66	777.66	777.66
Base	100	2868	405	679	7772'	0.62	0.81	777.82	778.01
Overtopping	300	3420		712	7776'		1.03		778.63

F.A. PROJECT MA BR 587(9)  
 STATION 853+37.16  
 BUILT 196 BY  
 STATE OF ILLINOIS  
 F.A. ROUTE 587 SECTION 22BR  
 LOADING HS20  
 STR. NO. 006-0147



**NAME PLATE**  
 (SEE STD. 2113)

REVISIONS	DATE	BY

REVISIONS	DATE	BY



USER NAME = kghan  
 DESIGNED DB  
 DRAWN DB  
 CHECKED AS  
 DATE OCTOBER 14, 2011

REVISED -  
 REVISED -  
 REVISED -  
 REVISED -

STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

EXISTING PLAN - STRUCTURE  
 SCALE: NTS SHEET NO. 43 OF 61 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
587	22 BRBR	BUREAU	61	43

CONTRACT NO. 66995  
 FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT

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