

F.A. DIST.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
6401	02-00325-00-BR	McLEAN	51	41
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS		FED. AID PROJECT

BENCH MARK : Chiseled "□" on SE corner of concrete bridge rail, on Fell St. 150' N. of Kelsey St. - Elev. 768.97

EXISTING STRUCTURE : No. 057-6304 - Single span concrete closed spandrel arch structure, 44'-0" bk. - bk.; 29'-0" c.-c. deck. To be removed by Contractor. No Salvage.

GENERAL NOTES

Reinforcement bars shall conform to the requirements of AASHTO M 31 or M 322 Grade 60.
 The Contractor shall make allowance for the deflection of forms, shrinkage and settlement of falsework, in addition to allowance for dead load deflection.
 The Contractor shall drive one metal shell test pile in a permanent location at both the South Abutment and at Pier 2 as directed by the Engineer before ordering the remainder of piles.
 For Pavement Removal and Channel Excavation between existing and new abutments, see Roadway Plans.
 Holes shall be precored for the metal shell piles which are to be driven at the abutment locations. Holes shall be drilled at proper locations through the embankment to elevation 756.00 and the piles shall be driven through these holes. If oversized holes are drilled, the void outside the pipe shall be filled with dry loose sand. The cost of complying with these requirements will not be paid for separately but shall be considered as included in the unit price for the pay items involved.
 The formwork for the deck shall be removed before placing the approach pavement.
 All construction joints shall be bonded.

DESIGN SPECIFICATIONS

2002 AASHTO Specifications

DESIGN STRESSES

FIELD UNITS
 f'c = 3,500 psi
 fy = 60,000 psi (Reinf.)

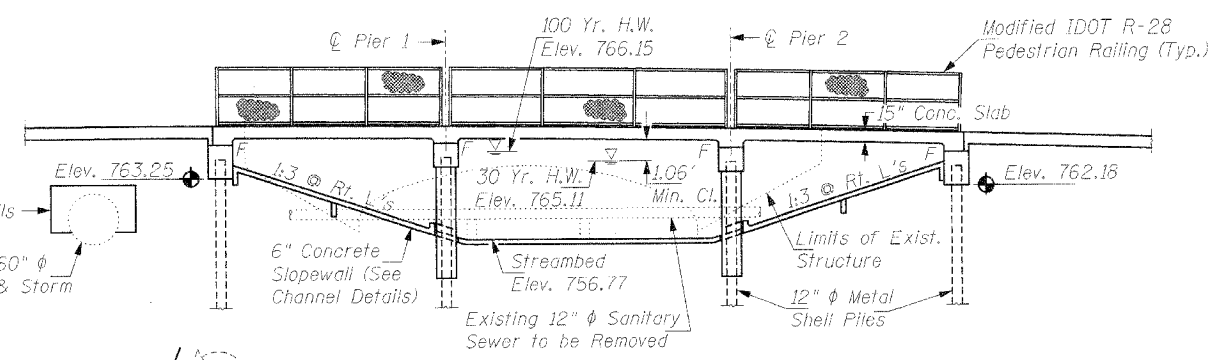
LOADING HS20-44

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

TOTAL BILL OF MATERIAL

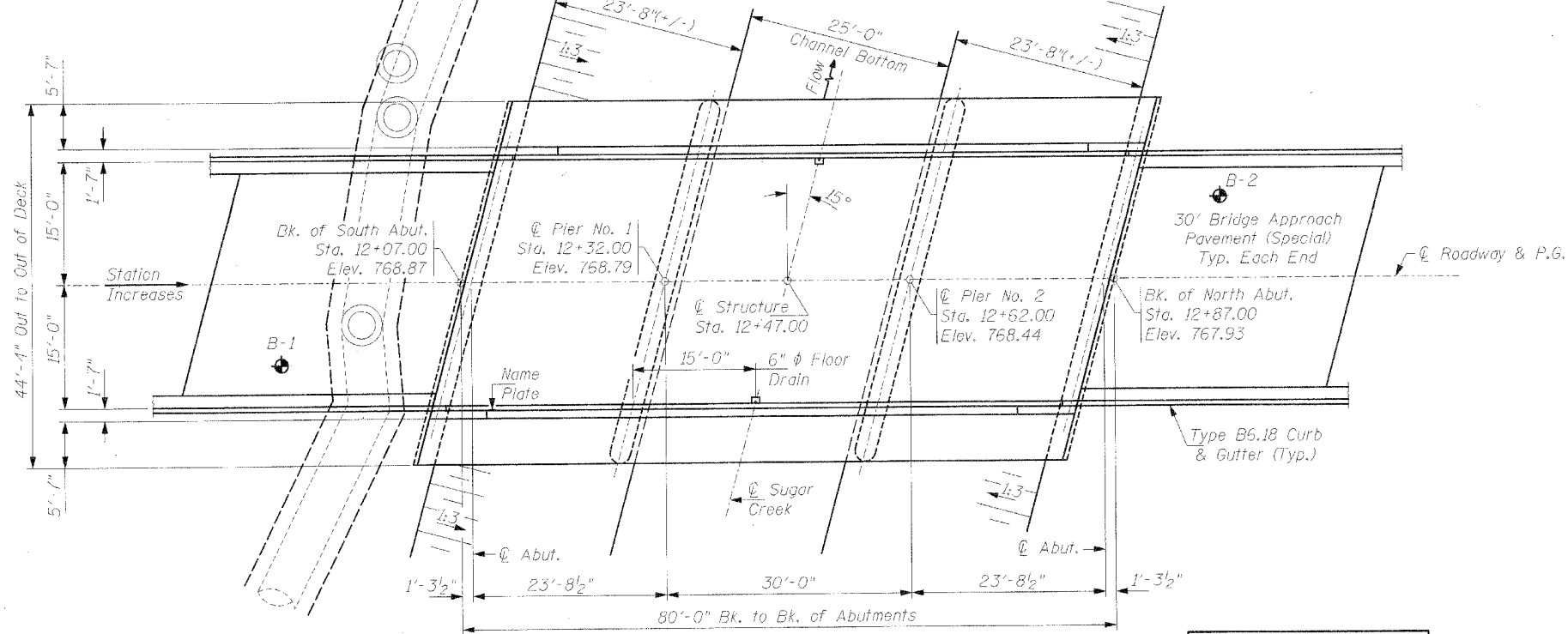
ITEM	UNIT	SUPER	SUB	TOTAL
Removal of Existing Structure No. 1	Each			1
Concrete Structures	Cu. Yd.		108.0	108.0
Concrete Superstructure	Cu. Yd.	191.6		191.6
Reinforcement Bars, Epoxy Coated	Pound	42630	11220	53850
Furnishing Metal Pile Shells 12"	Foot		975	975
Driving and Filling Shells	Foot		975	975
Test Pile Metal Shells	Each		2	2
Name Plates	Each	1		1
Pedestrian Railing	Foot	158		158
Protective Coat	Sq. Yd.	474		474
Floor Drains	Each	2		2
Structure Excavation	Cu. Yd.		63	63
Bridge Deck Grooving	Sq. Yd.	264		264
Underwater Structure Excavation Protection	Each		2	2

NOTE:
 Reinforced Concrete Encasement shall be constructed prior to beginning any other construction activities.



ELEVATION

Construction Equipment will NOT be allowed over the 60" Combined Sewer outside the Limits of Encasement.



PLAN

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."



Gerald B. Rotherham
 LICENSED STRUCTURAL ENGINEER

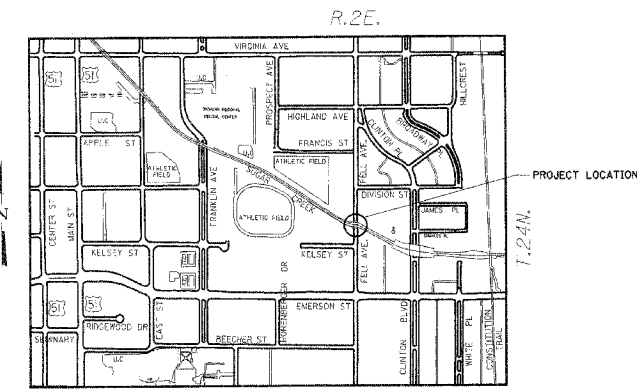
Feb 11, 2006
 DATE LIC. EXP. DATE: *11/20/2006*

SUGAR CREEK
 BUILT BY
 CITY OF BLOOMINGTON
 SEC. 02-00325-00-BR
 STA. 12+47.00
 STR. NO. 057-6338
 LOADING HS20
NAME PLATE
 See Std. 515001

WATERWAY INFORMATION

Drainage Area = 9.75 Sq. Mi. Low Grade Elev. 767.59 @ Sta. 13+00

Flood	Freq. Yr.	Q		Opening		Nat. H.W.E.	Head - Ft.		Headwater El.
		C.F.S.	Exist.	Sq. Ft.	Prop.		Exist.	Prop.	
Design	30	1,560	219	314	765.11	1.54	0.39	766.65	765.50
Base	100	2,270	219	392	766.15	1.54	0.28	767.69	766.43
Overtopping									
Max. Calc.	500	3,420	219	418	766.48	1.85	0.25	768.33	766.73



LOCATION SKETCH

GENERAL PLAN

FELL AVENUE over SUGAR CREEK
 FAU ROUTE 6401 SECTION 02-00325-00-BR
 BLOOMINGTON, ILLINOIS McLEAN COUNTY
 STATION 12+47.00
 STRUCTURE NO. 057-6338

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JOB NO.
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