

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CURVE PDIXIE1-5

© F.A.U. RTE 2843
PI STA. = 83+27.12
Δ = 28° 46' 29" (RT)
D = 4° 05' 36"
T = 359.13'
R = 1,400.00'
L = 702.95'
E = 45.33'
SE = 2.4%
P.C. STA. = 79+67.99
P.T. STA. = 86+70.94
Normal Crown
Sta. 74+00.00
Full Superlevation
Sta. 77+19.00 to Sta. 79+91.00
Normal Crown
Sta. 84+25.00

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2843	3249B-F	COOK	22	3
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	
			Sheet 1 of 22	Contract No. 60119

TOTAL BILL OF MATERIAL

ITEM DESCRIPTION	UNIT	TOTAL QUANTITY
FURNISHING STRUCTURAL STEEL	LSUM	1
STORAGE OF STRUCTURAL STEEL	CAL DAY	45

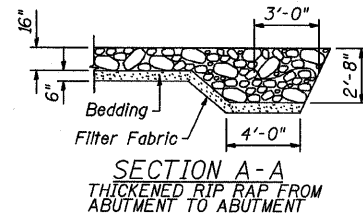
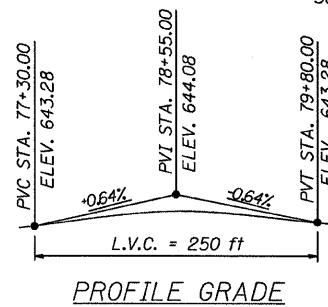
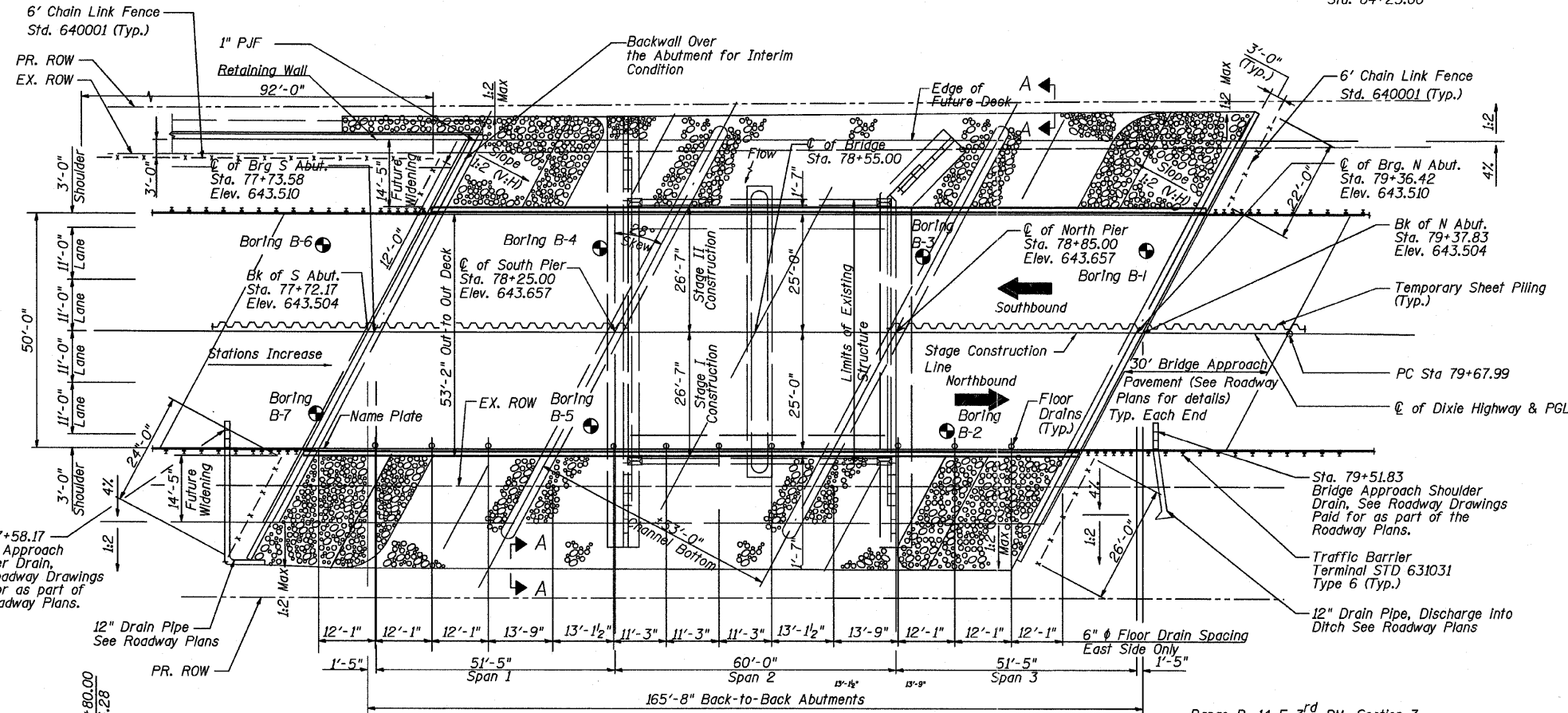
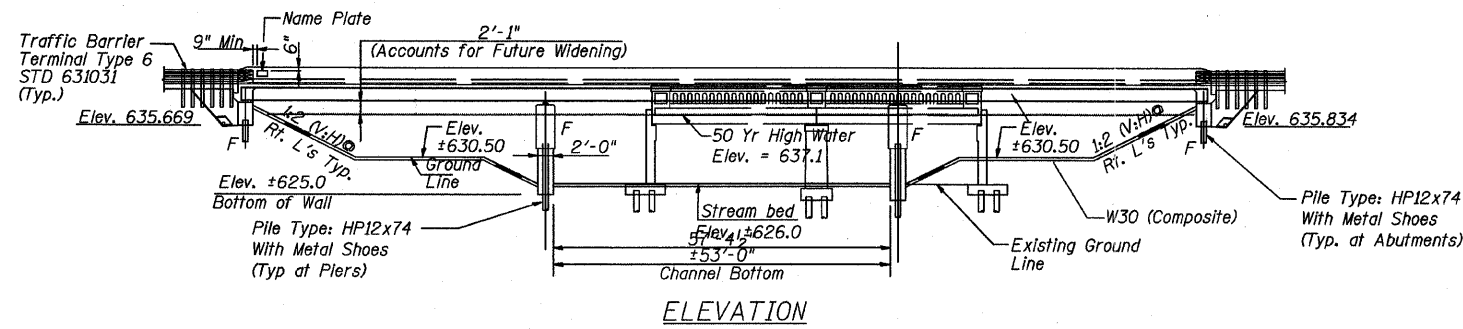
BENCH MARK: Control Point #1, "X" On Concrete Island at Southwest Quadrant of Dixie Highway and Flossmoor Road Elevation = 647.768.

The Existing Structure (SN 016-0775) Was Built in 1917 and Widened in 1930. The Superstructure Consists of a Two Span Cast-In-Place Reinforced Concrete Slab. The Substructure Consists of Two Closed Abutments With Wing-Walls on Each Side and One Pier.

Stage Construction will be Utilized as Shown, Allowing One Lane of Traffic in Each Direction to Remain Open at All Times.

The Existing Bridge will be Removed and Replaced in Two Stages. The Substructure Is Designed to Accomodate a Future Superstructure Widening.

No Salvage



WATERWAY INFORMATION

Drainage Area = 22.7 Sq. Mi. Prop. Low Grade Elev. = 644.6 ft. @ Sta 75+50

Flood	Freq yr.	Q cfs	Opening ft ²		Nat. H.W.E.	Head (ft)		Headwater EL.	
			Exist.	Prop.		Exist.	Prop.	Exist.	Prop.
10	1650	337	946	636.4	0.7	637.1	636.6		
Design	50	2305	337	1038	637.1	1.1	0.2	638.2	637.3
Base	100	2775	337	1091	637.5	1.2	0.2	638.7	637.7
Max Calc	500	3920	337	1226	638.5	1.0	0.2	639.5	638.7

DESIGN SPECIFICATIONS

2002 AASHTO Standard Specifications for Highway Bridges, (17th Edition)

LOADING HS20-44

Allow 50 psf for Future Wearing Surface

DESIGN STRESSES

FIELD UNITS

f'c = 3500 psi
fy = 50,000 psi (M 270 Grade 50)
fy = 60,000 psi (Reinf.)

SEISMIC DATA

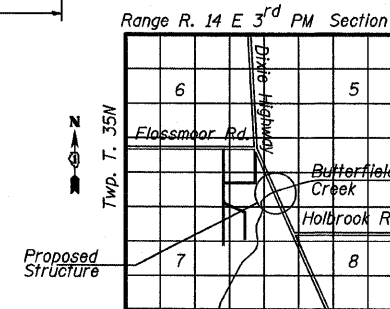
Seismic Performance Category (SPC) = A
Bedrock Acceleration Coefficient (A) 0.04 g
Site Coefficient (S) = 1.0

APPROVED
FOR STRUCTURAL ADEQUACY ONLY

Ralph E. Anderson
ENGINEER OF BRIDGES AND STRUCTURES



Mohsen Farahy
7-24-09
Mohsen Farahy
Licensed Structural Engineer
State of Illinois
Lic. No. 81-5131
Expires: 11-30-2010



STATION 78+55.00
BUILT 20... BY
STATE OF ILLINOIS
F.A.U. ROUTE 2843 SEC. 3249B-R
LOADING HS20
STRUCTURE NO. 016-7946

NAME PLATE
See Std. 51500I.

REVISIONS	
NAME	DATE

GENERAL PLAN, ELEVATION & BILL OF MATERIAL

DIXIE HIGHWAY OVER
BUTTERFIELD CREEK
F.A.U. ROUTE 2843 SECTION 3249B-F
STA. 78+55.00
COOK COUNTY
STRUCTURE NUMBER 016-7946 - PROPOSED
016-0775 - EXISTING

SCALE: NOT-TO-SCALE
DATE 7-10-09

DRAWN BY TH
DESIGNED BY TH
CHECKED BY MF



#PENTBL# #PLTDIV# #FILES# #DATES# #TIMES#