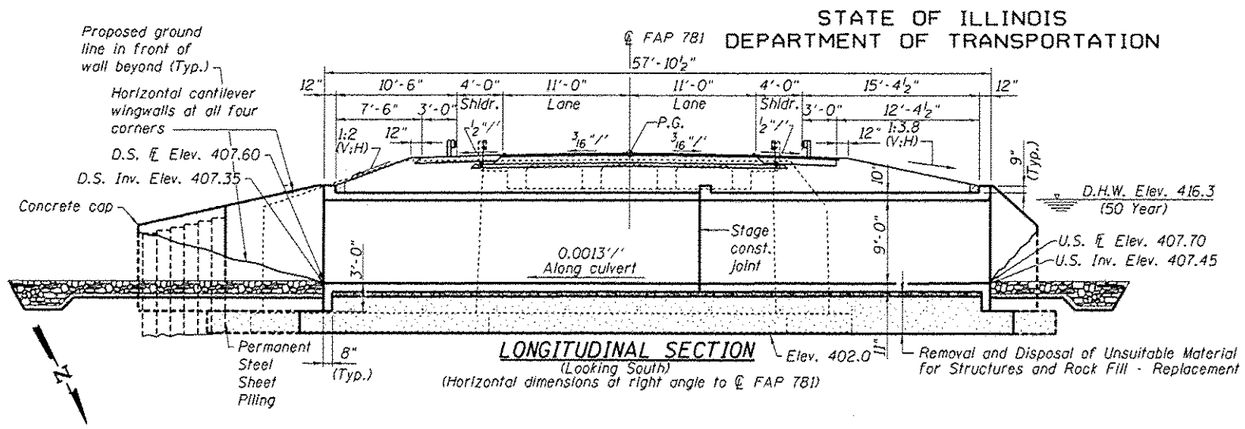
BENCHMARK: BM 511-Chiseled square on top of southwest wing of SN 051-0035, Elev. 421.12 (NAVD 88)

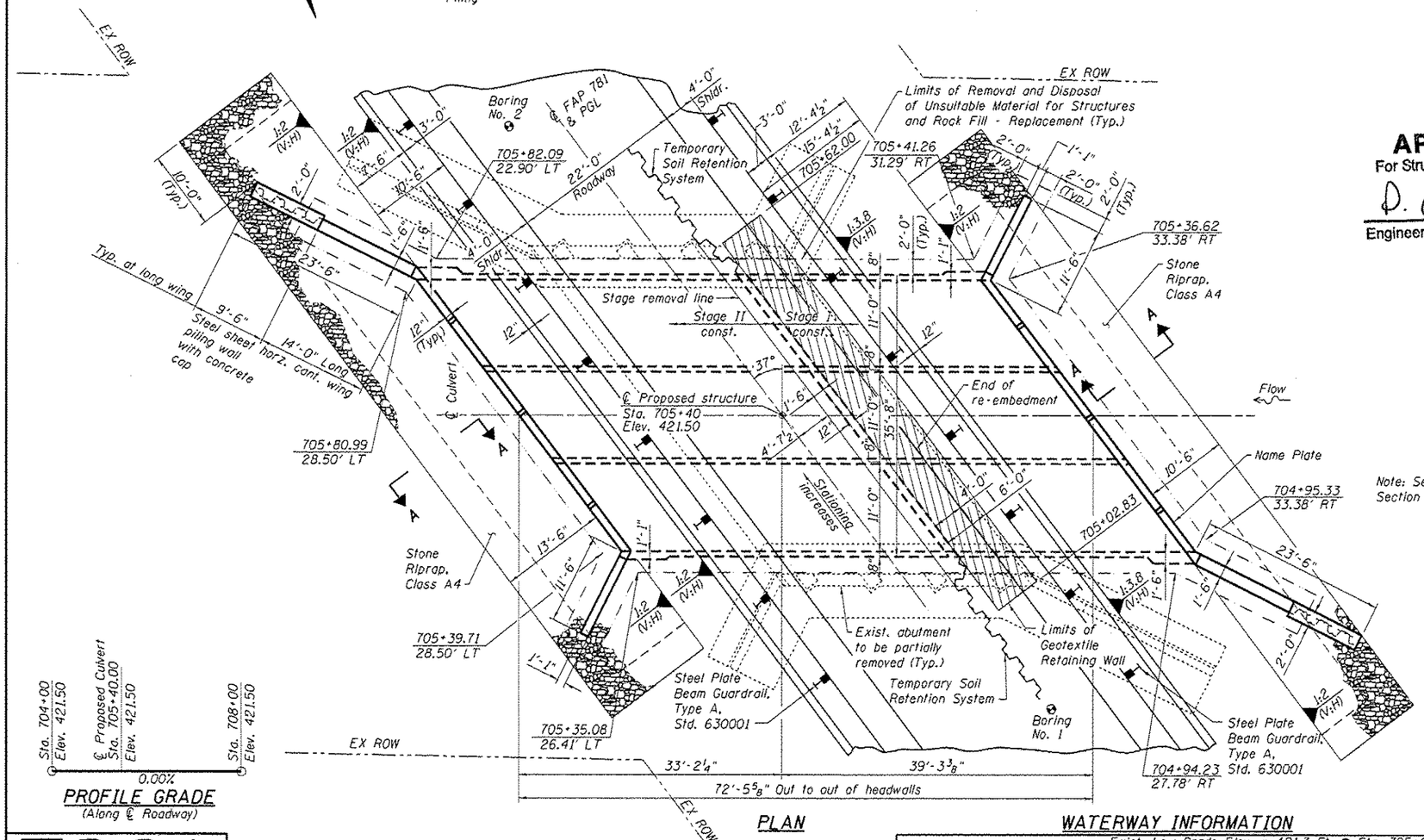
EXISTING STRUCTURE:
SN 051-0035 was originally built in 1933 as SBI 181, Section 109B. The original brick railing was removed and replaced with a steel rail. The date of this work is unknown. It is a single span reinforced concrete tee beam structure on concrete abutments and wingwalls supported on timber piles. The deck width is 25'-4" and the length is 50'-0" face to face of abutments. The structure was constructed at a 37° skew. Traffic shall be maintained utilizing stage construction.

No salvage.

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



LONGITUDINAL SECTION
(Looking South)
(Horizontal dimensions at right angle to ℄ FAP 781)



PLAN

PROFILE GRADE
(Along ℄ Roadway)

STRUCTURE INDEX OF SHEETS

General Plan	Sheet No. 1 of 10
General Data	Sheet No. 2 of 10
Stage Construction Details	Sheet No. 3 & 4 of 10
Box Culvert Details	Sheet No. 5 & 6 of 10
Steel Sheet Piling Wall Details	Sheet No. 7 of 10
Bar Splicer Assembly Details	Sheet No. 8 of 10
Temporary Concrete Barrier For Stage Construction	Sheet No. 9 of 10
Boring Logs	Sheet No. 10 of 10

SCOUR INFORMATION

Design Scour Elevation (Ft.)	Downstream	Upstream
	404.35	404.45

APPROVED
For Structural Adequacy Only
D. Carl Puzey JFS
Engineer of Bridges & Structures

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

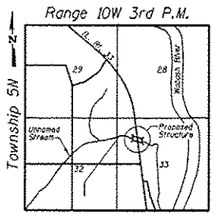
DESIGN SPECIFICATIONS
2002 AASHTO

LOADING HS20-44
Allow 50 psf for future wearing surface.

WATERWAY INFORMATION

Drainage Area = 2.33 Sq. Mi.
Exist. Low Grade Elev. = 421.3 Ft. @ Sta. 705+05
Prop. Low Grade Elev. = 421.50 Ft. @ Sta. 705+05

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.
	10	462	186	232	414.4	0.0	0.0	414.4	414.4
Design	50	739	257	291	416.3	0.0	0.0	416.3	416.3
Base	100	863	285	297	417.0	0.0	0.0	417.0	417.0
Max. Calc.	500	1160	304	297	418.5	0.2	0.2	418.7	418.7



LOCATION SKETCH

STATE OF ILLINOIS
ERIC L. HENKE
No. 6159
LICENSED STRUCTURAL ENGINEER
EXPIRES 11-30-10
SIGNATURE
06-30-10
DATE

GENERAL PLAN
IL 33 OVER UNNAMED STREAM
FAP ROUTE 781 - SECTION 109B-1
LAWRENCE COUNTY
STATION 705+40
STRUCTURE NO. 051-2008

SHEET NO. 1	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
10 SHEETS	781	109B-1	LAWRENCE	34	15
			CONTRACT NO. 74105		
	FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

ESCA CONSULTANTS, INC.		
DESIGNED BY:	ELH	03/10
DRAWN BY:	DWH/HAS	03/10
CHECKED BY:	ELH	06/10
APPROVED BY:	RDP	06/10

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