

Bench Mark: BM 206, chiseled square on top of north end of west concrete curb on existing structure. Elevation 438.261

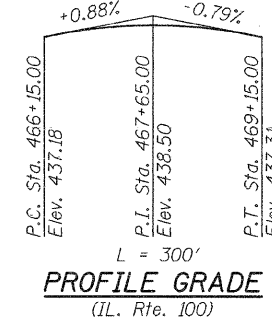
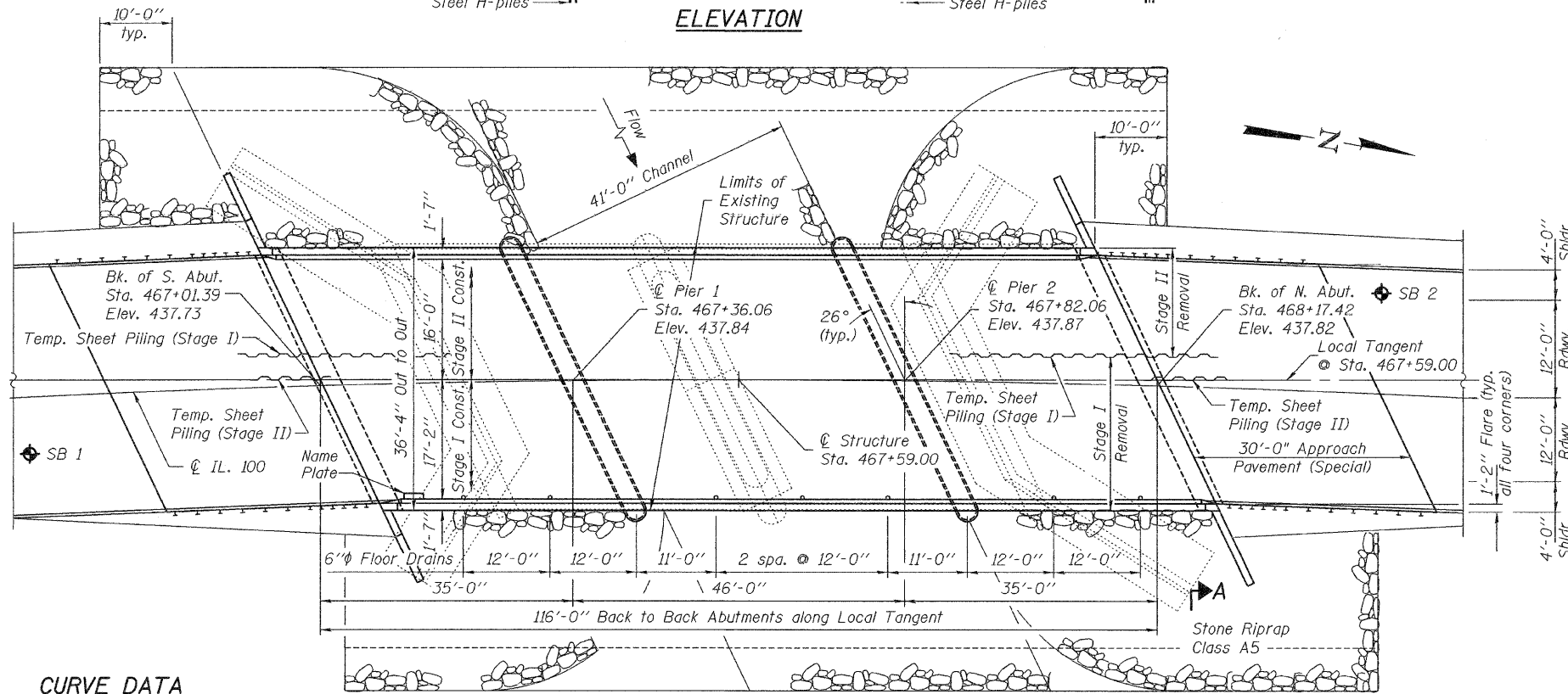
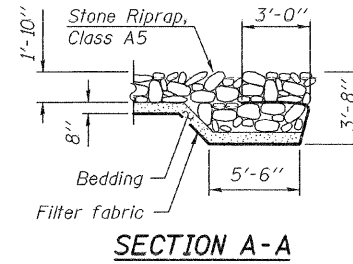
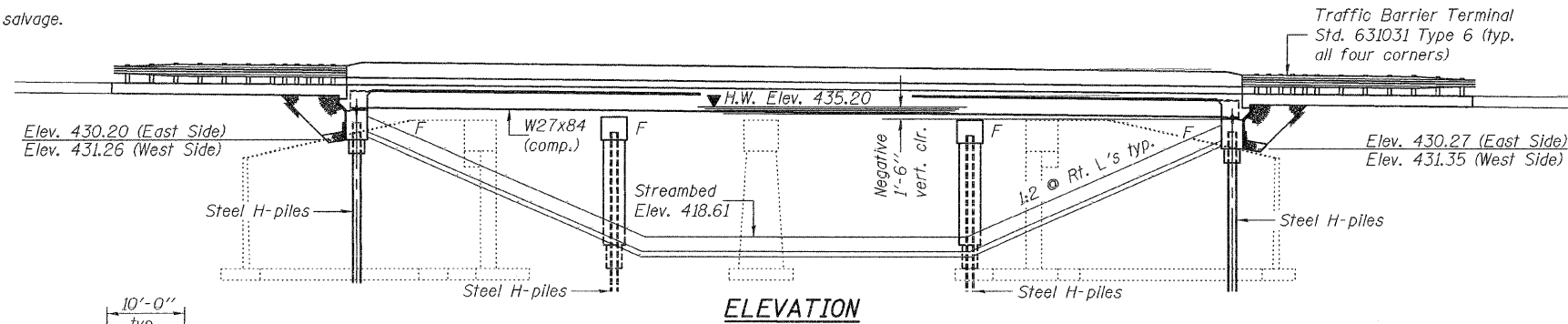
Existing Structure: S.N. 007-0004, originally built in 1924 as S.B.I. Route 38, Section 5B. The superstructure was replaced and the structure was widened in 1981. The existing structure is a two span deck beam bridge supported on closed abutments and a solid wall pier all on pile supported footings. The back to back abutment length is 72'-7" and the out to out bridge width is 36'-0". Traffic is to be maintained utilizing stage construction.

No salvage.

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	JOB SHEETS	SHEET NO.	SHEET NO.
F.A.P. 304	5BR-2	CALHOUN	68	25	28 SHEETS
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT			

Contract #76948



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STATION 467+59.00  
BUILT 200 BY  
STATE OF ILLINOIS  
F.A.P. RT. 304 SEC. 5BR-2  
LOADING HL93  
STRUCTURE NO. 007-0027

**NAME PLATE**  
See Std. 515001

**CURVE DATA**

PI Sta. = 467+41.98  
 $\Delta = 20^\circ-56'-30''$  (RT)  
 $D = 2^\circ-49'-17''$   
 $R = 2,030.70'$   
 $T = 375.30'$   
 $L = 742.22'$   
 $E = 34.39'$   
 $S.E. = 5.8\%$   
P.C. Sta. = 463+66.68  
P.T. Sta. = 471+08.91

**DESIGN SCOUR ELEVATION TABLE**

Design Scour Elevation (feet)	S. Abut.	Pier 1	Pier 2	N. Abut.
	430.0	416.6	416.6	430.1

**WATERWAY INFORMATION**

Drainage Area = 5.57 sq. mi. Low Grade Elev. 436.21 @ Sta. 462+00

Flood Yr.	Freq.	Q	Opening Sq. Ft.	Nat. Exist.	Head - Ft. Exist.	Headwater El. Prop.	Headwater El. Prop.		
Design	50	3,081	743.82	997.32	435.20	0.30	0.15	435.50	435.35
Base	100	3,664	743.82	997.32	435.20	0.43	0.22	435.63	435.42
Overtopping	N/A	-	-	-	-	-	-	0.00	0.00
Max. Calc.	500	5,107	743.82	997.32	435.19	0.83	0.43	436.02	435.62
Scour	10	1,848	743.82	997.32	435.20	0.11	0.06	435.31	435.26

DESIGNED	YSS
CHECKED	RLM
DRAWN	PRC
CHECKED	RLM



02/27/08

**APPROVED**  
FOR STRUCTURAL ADEQUACY ONLY  
*Robert E. Anderson*  
ENGINEER OF BRIDGES AND STRUCTURES

**LOADING HL-93**

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

**DESIGN SPECIFICATIONS**  
2007 AASHTO LRFD Bridge Design Specifications, 4th. Edition

**DESIGN STRESSES**

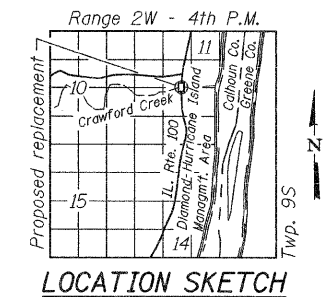
$f'_c = 3,500$  psi  
 $f_y = 60,000$  psi (reinforcement)  
 $f_y = 50,000$  psi (M270 Grade 50 structural steel)

**SEISMIC DATA**

Seismic Performance Zone (SPZ) = 1  
Bedrock Acceleration Coefficient (A) = 0.054g  
Site Coefficient (S) = 2.0



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EDWARDSVILLE, ILLINOIS  
ILLINOIS LICENSED STRUCTURAL  
ENGINEER NO. 081-005642  
EXPIRES NOV. 30, 2008



**GENERAL PLAN AND ELEVATION**  
**IL. ROUTE 100 OVER**  
**CRAWFORD CREEK**  
**F.A.P. ROUTE 304 - SECTION 5BR-2**  
**CALHOUN COUNTY**  
**STATION 467+59.00**  
**STRUCTURE NO. 007-0027**