

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

**BENCHMARK:** T.B.M. Iron Rod Set (by IDOT)  
Sta. 61+25.94, 20.6' Rt.  
El. 515.047

**EXISTING STRUCTURE** S.N. 060-0128  
Built in 1926 as SBI Rte. 11, the Superstructure was reconstructed and widened in 1978 as FAP Rte. 793. The structure consists of 17" P.P.C. deck beams with a bituminous concrete overlay on closed concrete abutments and a concrete pier, all with timber piles. The existing structure measures 56'-3" back to back of abutments and 33'-0" out to out of deck.

The road shall be kept open to one lane of traffic at all times by utilizing stage construction.

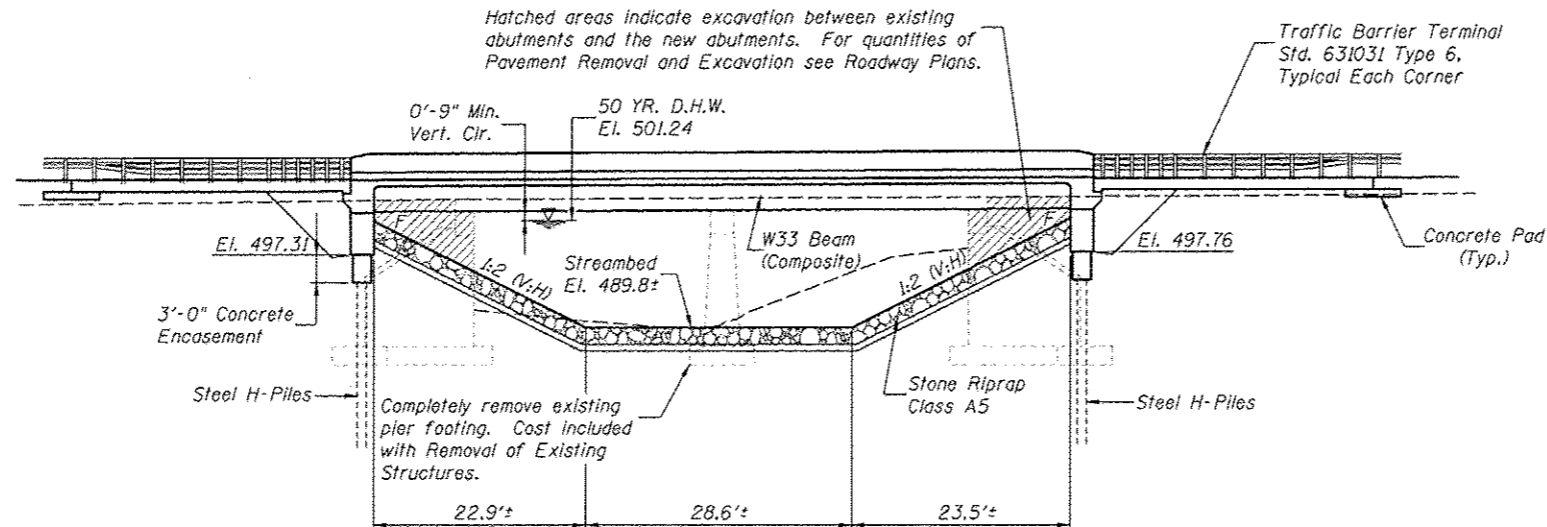
**SALVAGE:** NO SALVAGE

**WATERWAY INFORMATION**

		Drainage Area = 10.13 Sq. Mi.		Low Grade El. 504.26 @ Sta. 53+42					
Flood	Freq. Yr.	Q C.F.S.	Opening Sq. Ft. Exst.	Prop.	Nat. H.W.E.	Head - Ft. Exst.	Prop.	Headwater El. Exst.	Prop.
Design	50	2,750	367.55	593.00	501.24	2.50	1.80	503.74	503.04
Base	100	3,222	380.76	612.49	501.50	3.13	2.07	504.63	503.57
Overtopping Existing	51	2,753	367.55	N/A	501.24	2.53	N/A	503.77	N/A
Overtopping Proposed	250	3,875	N/A	637.25	501.83	N/A	2.43	N/A	504.26
Scour	10	1,705	329.93	541.73	500.54	1.43	1.20	501.97	501.74

**DESIGN SCOUR ELEVATION TABLE**

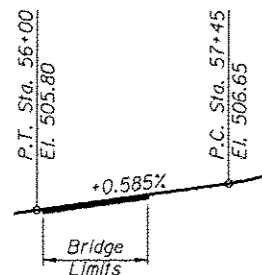
Design Scour Elevation (Feet)	W. Abut.	E. Abut.
	494.31	494.76



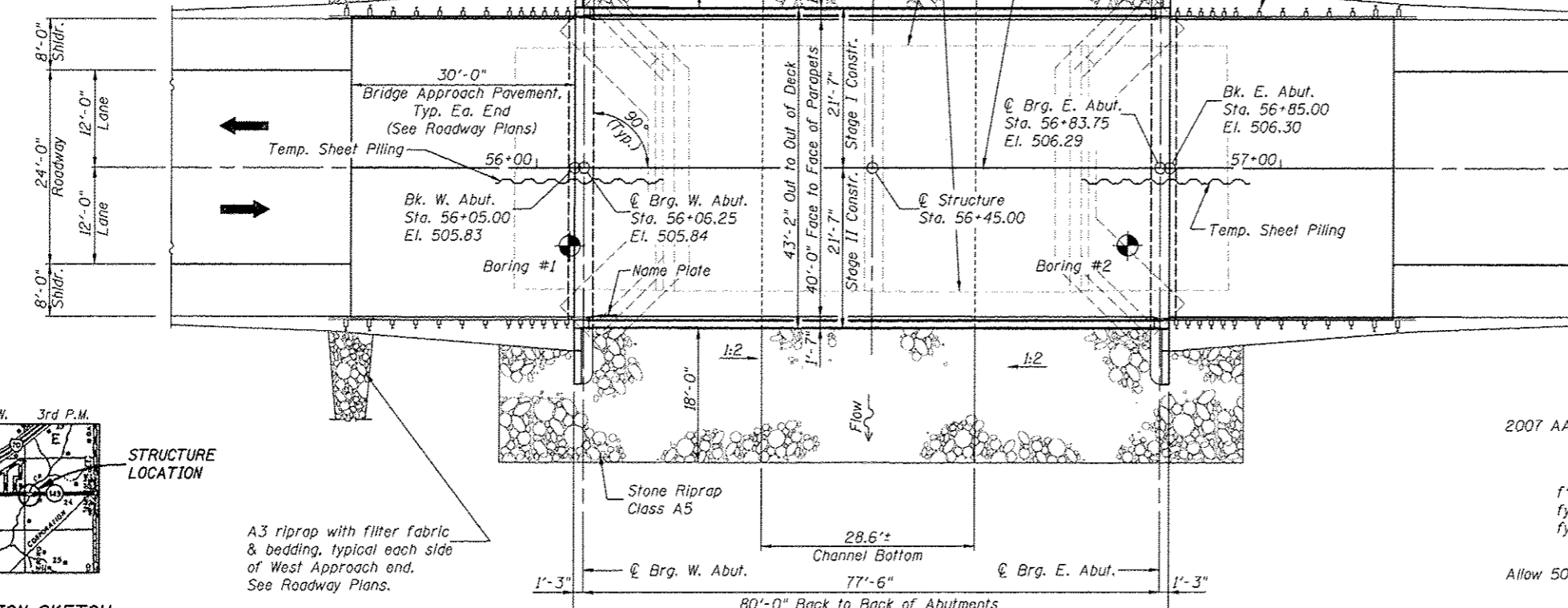
**ELEVATION**

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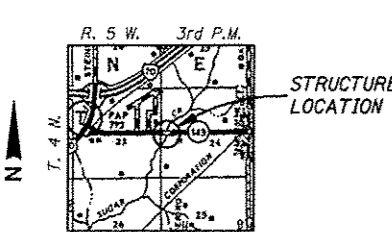
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**PROFILE GRADE**  
along @ Il. Rte. 143



**PLAN**



**LOCATION SKETCH**

DESIGNED	B.G.H.
CHECKED	L.D.G.
DRAWN	K.H.L.
CHECKED	B.G.H.

*Bradley G. Hummert* Date: 2/27/09  
Bradley G. Hummert  
Licensed Structural Engineer  
In Carlyle, Illinois  
No. 081-005428 Expires 11/30/2010



**DESIGN SPECIFICATIONS**  
2007 AASHTO LRFD Bridge Design Specifications

**DESIGN STRESSES**

**FIELD UNITS**  
f<sub>c</sub> = 3,500 psi  
f<sub>y</sub> = 60,000 psi (Reinforcement)  
f<sub>y</sub> = 50,000 psi (M270 Grade 50)

**LOADING HL-93**  
Allow 50#/sq. ft. for future wearing surface.

**SEISMIC DATA**  
Seismic Performance Zone (SPZ) = 1  
Bedrock Acceleration Coefficient (A) = 0.09g  
Site Coefficient (S) = 1.5

STATION 56+45  
BUILT 20 BY  
STATE OF ILLINOIS  
F.A.P. RT. 793 SEC. 40BR-1  
LOADING HL93  
STRUCTURE NO. 060-0341

**NAME PLATE**  
See Std. 515001

**GENERAL PLAN**  
IL. RTE. 143  
OVER SUGAR CREEK  
STATION 56+45

SHEET NO. 1	F.A.P. RTE. 793	SECTION 40BR-1	COUNTY MADISON	TOTAL SHEETS 72	SHEET NO. 33
20 SHEETS	S.N. 060-0341		CONTRACT NO. 76A36		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT			