0603141_76A36_01_GPEL.DGN FEB. 21, 2013

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

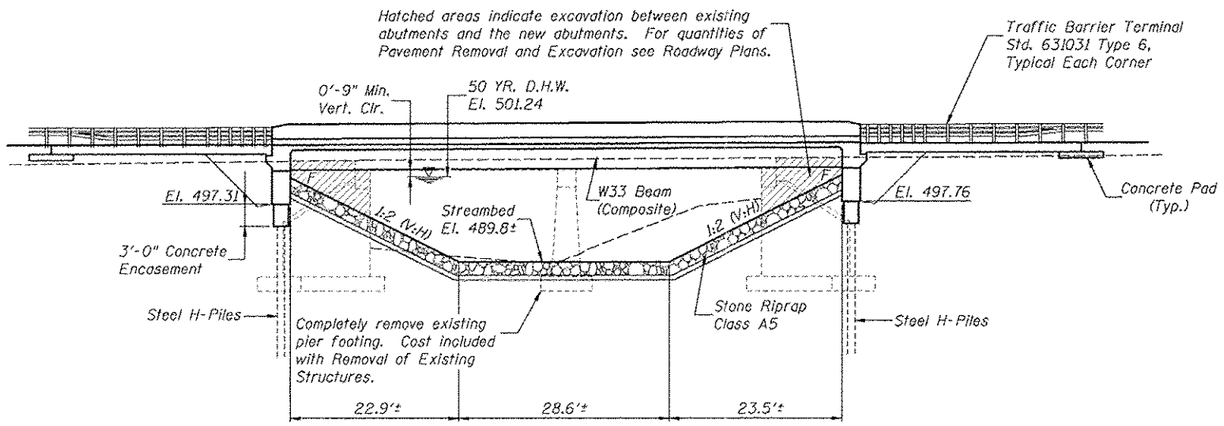
BENCHMARK: T.B.M. Iron Rod Set (by IDOT)
Sta. 61+25.94, 20.6' Rt.
El. 515.047

EXISTING STRUCTURE S.N. 060-0128

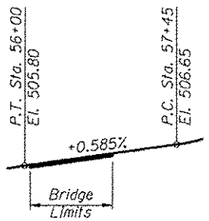
Built in 1926 as SBI Rte. 11, the Superstructure was reconstructed and widened in 1978 as FAP Rte. 793. The structure consists of 17" P.P.C. deck beams with a bituminous concrete overlay on closed concrete abutments and a concrete pier, all with timber piles. The existing structure measures 56'-3" back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

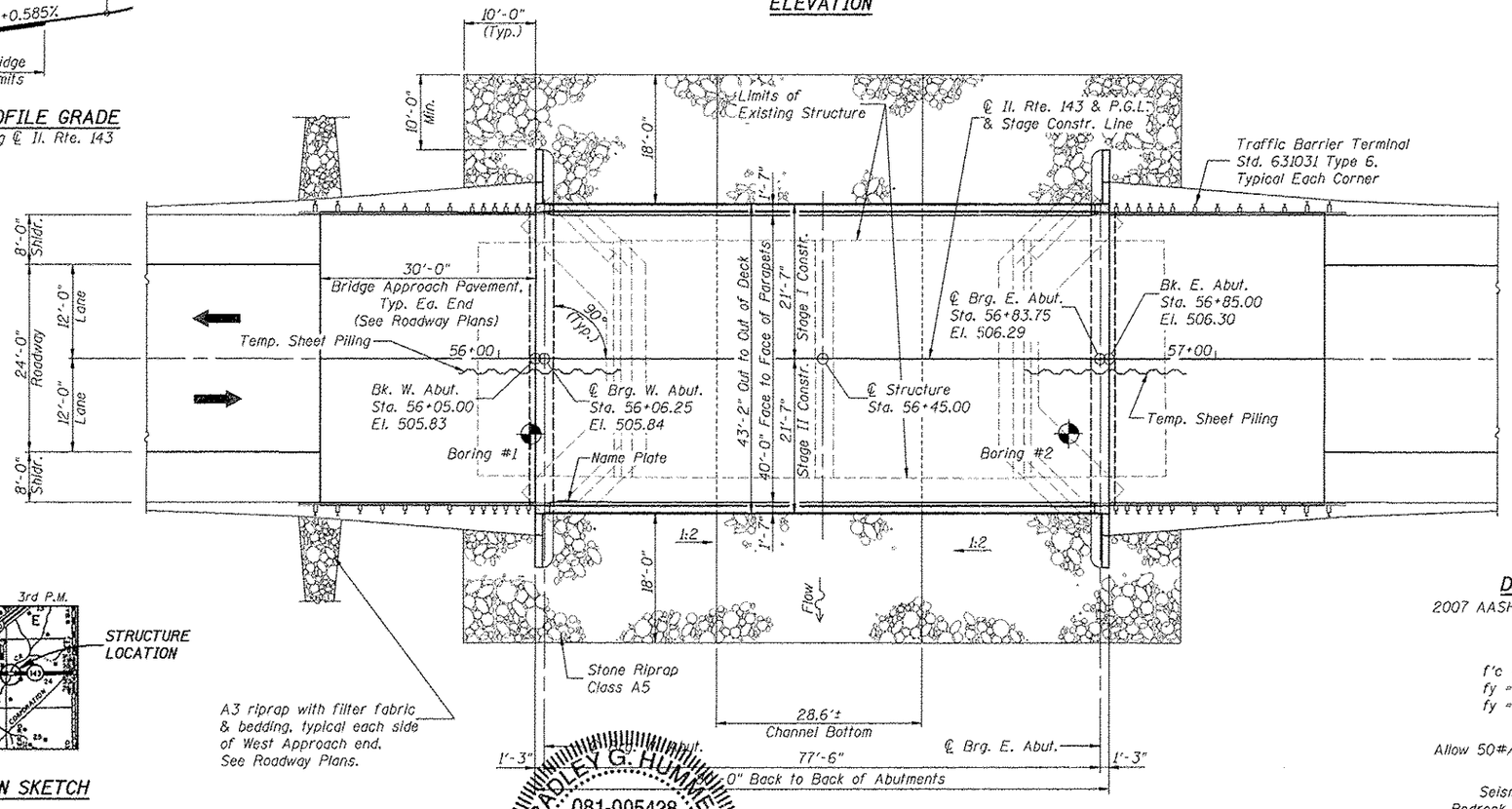
SALVAGE: NO SALVAGE

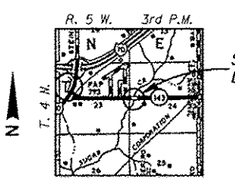


ELEVATION



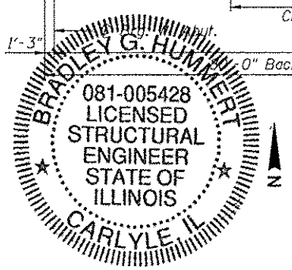
PROFILE GRADE
along ℄ Il. Rte. 143





LOCATION SKETCH

A3 riprap with filter fabric & bedding, typical each side of West Approach end. See Roadway Plans.



PLAN

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. Exist.	Opening Sq. Ft. Prop.	Nat. H.W.E.	Head - Ft. Exist.	Head - Ft. Prop.	Headwater El. Exist.	Headwater El. 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

INDEX OF SHEETS

1. General Plan & Elevation
2. General Data
3. Stage Construction Details
4. Temporary Concrete Barrier for Stage Construction
5. Top Of Slab Elevations
6. Top Of Slab Elevations
7. Top Of Slab Elevations
8. Top of West Approach Pavement Elevations
9. Top of East Approach Pavement Elevations
10. Superstructure
11. Superstructure Details
12. Integral Abutment Diaphragm Details
13. Structural Steel
14. Steel Details
15. West Abutment
16. East Abutment
17. Bar Splicer Assembly Details
18. HP Pile Details
18A. Concrete Parapet Slipforming Option
19. Soil Boring Logs
20. Soil Boring Logs

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

DESIGN SPECIFICATIONS
2007 AASHTO LRFD Bridge Design Specifications

DESIGN STRESSES

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

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

Bradley G. Hummert Date: 2/21/13
Bradley G. Hummert
Licensed Structural Engineer
in Carlyle, Illinois
No. 081-005428 Expires 11/30/2014

APPROVED
For Structural Adequacy Only
Engineer of Bridges & Structures

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

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

H.M. & G. NO. 6020.101