

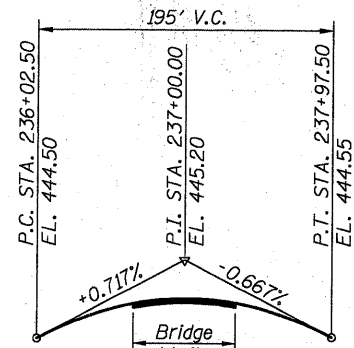
BENCHMARK: T.B.M. Iron Rod Set (by IDOT)
Sta. 230+17.23, 17.4' Rt.
El. 442.931

EXISTING STRUCTURE S.N. 031-0010
was built in 1939 as F.A. Route 155, Section 1B.
The existing structure consists of a 6 1/2" concrete deck on 24" steel beams spanning between treated timber abutments on timber piles.
The existing structure measures 33'-0" back to back of abutments and 37'-4" out to out of deck.

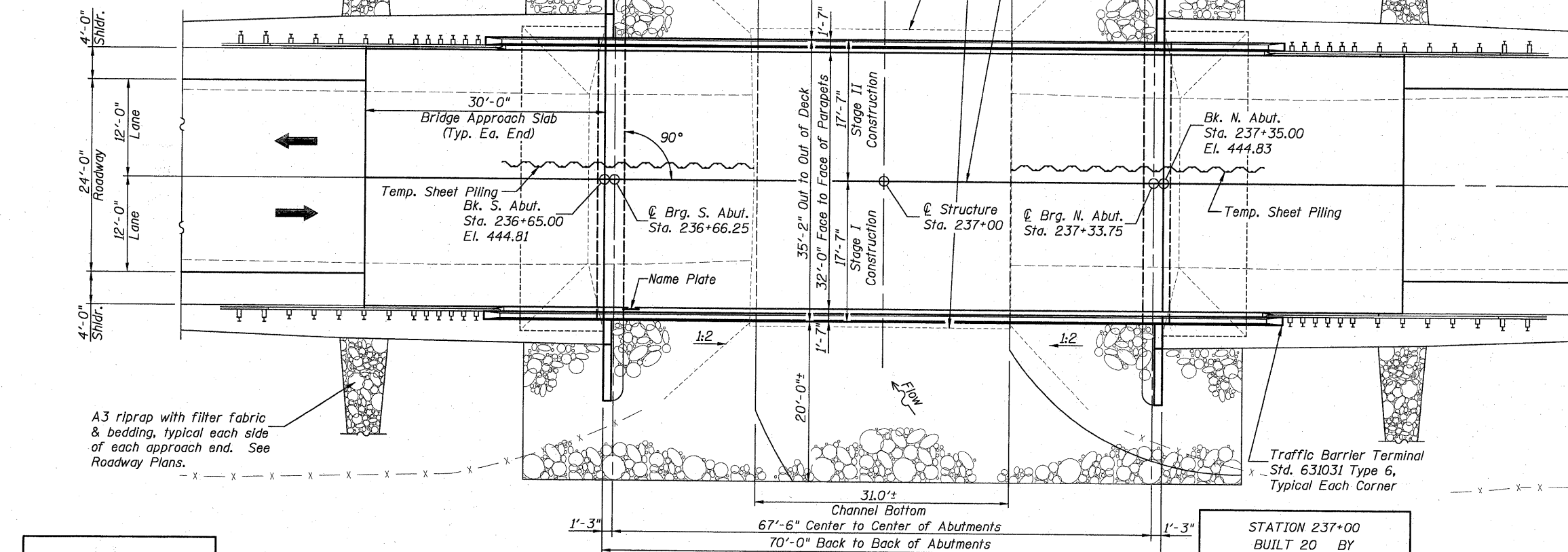
Existing structure to be removed and replaced.

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

SALVAGE: No Salvage



PROFILE GRADE
along FAS 739



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

Bradley G. Hummert
Bradley G. Hummert
Licensed Structural Engineer
in Carlyle, Illinois
No. 081-005428, Expires 11/30/2010

Date: 12/1/09



APPROVED
FOR STRUCTURAL ADEQUACY ONLY

Robert E. Anderson (TSD)
ENGINEER OF BRIDGES AND STRUCTURES

PLAN

STATION 237+00
BUILT 20 BY
STATE OF ILLINOIS
F.A.S. RT. 739 SEC. 1BR
LOADING HL93
STRUCTURE NO. 031-0039

NAME PLATE
See Std. 515001

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

Hatched areas indicate excavation between existing abutments and the new abutments. For quantities of Pavement Removal and Excavation, see Roadway Plans.

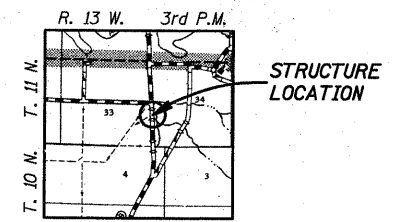
DESIGN SCOUR ELEVATION TABLE

Design Scour Elevation (Feet)	S. Abut.	N. Abut.
	436.37	436.39

WATERWAY INFORMATION

Drainage Area = 1.36 Sq. Mi. Low Grade El. 443.57 @ Sta. 233+05

Flood	Freq. Yr.	Q C.F.S.	Opening Sq. Ft.		Nat. H.W.E.	Head - Ft.		Headwater El.	
			Exst.	Prop.		Exst.	Prop.	Exst.	Prop.
Design	50	1,443	101	231	437.11	3.40	2.43	440.51	439.54
Base	100	1,687	105	239	437.26	3.89	2.68	441.15	439.94
Overtopping	N/A								
Max. Calc.	500	2,286	117	260	437.65	5.32	3.20	442.97	440.85
Scour	10	889	88	209	436.69	2.29	1.76	438.98	438.45



LOCATION SKETCH

INDEX OF SHEETS

- General Plan & Elevation
- General Data
- Stage Construction Details
- Temporary Concrete Barrier for Stage Construction
- Top of Slab Elevations
- Top of Slab Elevations
- Top of Slab Elevations
- Top of South Approach Slab Elevations
- Top of North Approach Slab Elevations
- Superstructure
- Superstructure Details
- Integral Abutment Diaphragm Details
- Bridge Approach Slab Details
- Bridge Approach Slab Details
- Structural Steel
- Steel Details
- South Abutment
- North Abutment
- Bar Splicer Assembly Details
- Metal Shell Pile Details
- Soil Boring Logs
- Soil Boring Logs
- Soil Boring Logs

DESIGN SPECIFICATIONS

2007 AASHTO LRFD Bridge Design Specifications w/2008 Interims

DESIGN STRESSES

FIELD UNITS

f'c = 3,500 psi
fy = 60,000 psi (Reinforcement)
fy = 50,000 psi (M270 Grade 50)
fy = 36,000 psi (M270 Grade 36)

LOADING HL-93

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

SEISMIC DATA

Seismic Performance Zone (SPZ) = 2
Design Spectral Acceleration at 1.0 sec. (S₀₁) = 0.160g
Design Spectral Acceleration at 0.2 sec. (S₀₅) = 0.294g
Soil Site Class = D

GENERAL PLAN & ELEVATION
ELDRED-HILLVIEW ROAD
OVER UNNAMED STREAM
STATION 237+00

SHEET NO. 1 23 SHEETS	F.A.S. RTE. 739	SECTION 1BR	COUNTY GREENE	TOTAL SHEETS 150	SHEET NO. 122
	S.N. 031-0039		CONTRACT NO. 76410		
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT					

H.M. & G. NO. 6020.161