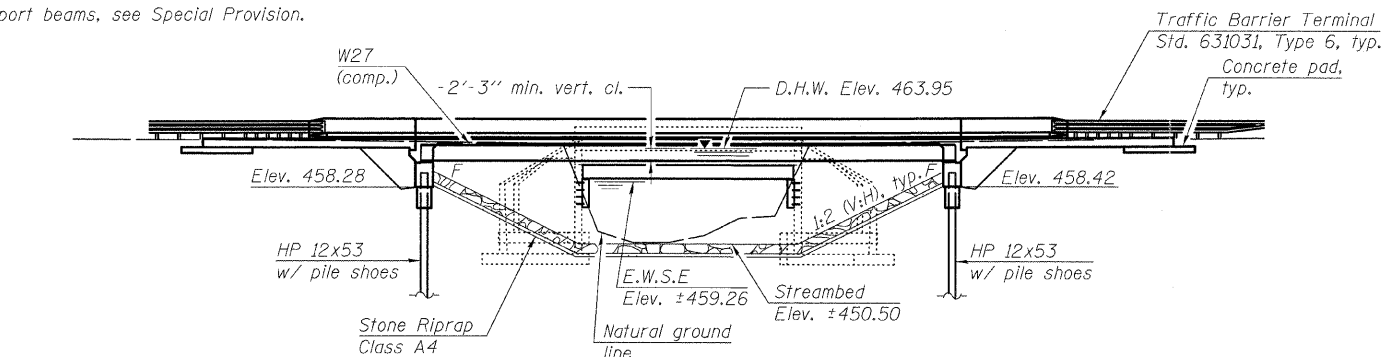


STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

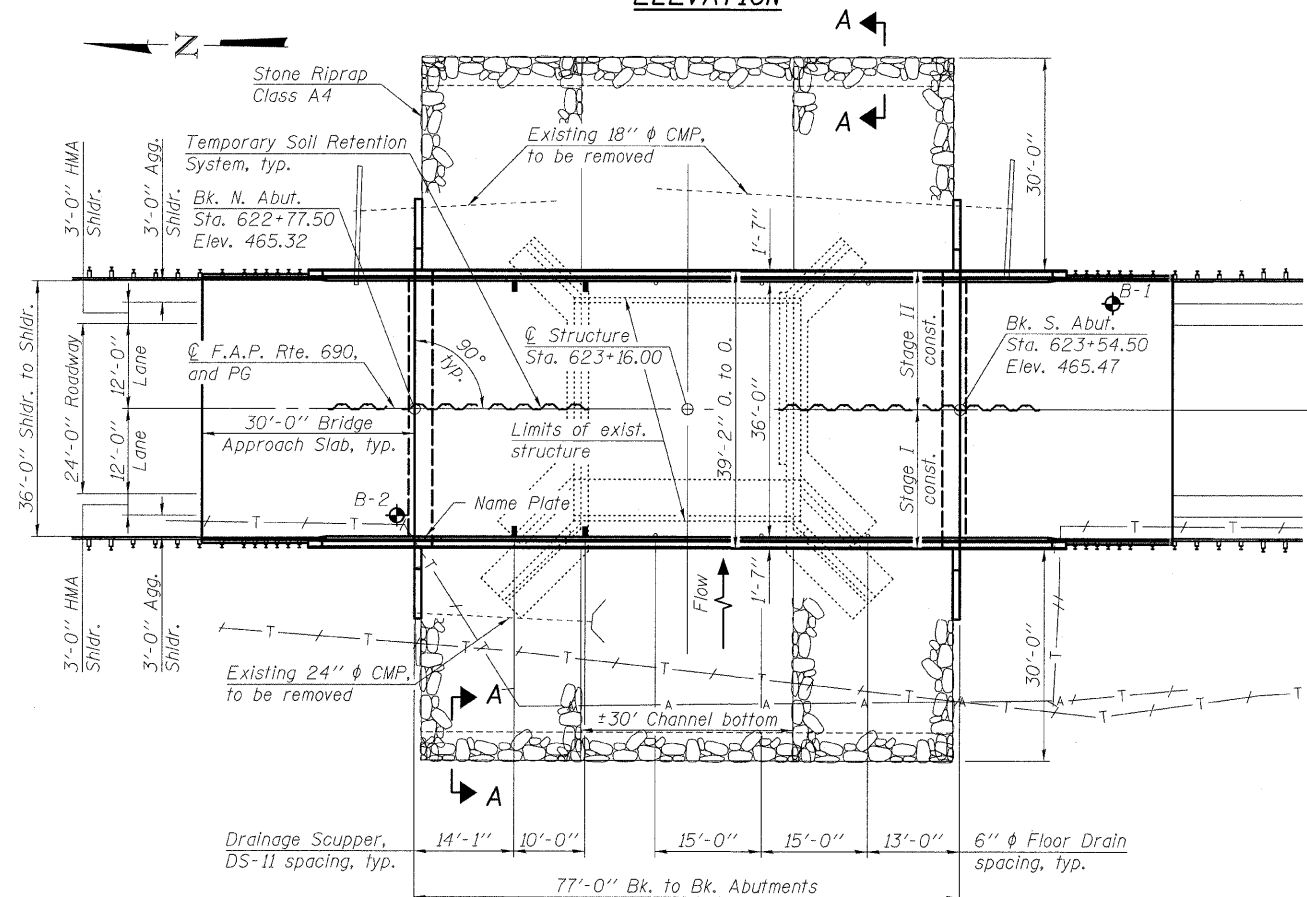
Bench Mark: Chiseled "□" on top of NW wingwall of bridge at North Abutment Station ±623+00, ±16' right Elev. 465.25.

Existing Structure: S.N. 014-0026 was built in the 1920's located approximately 2.2 miles south of Trenton. In 1948, S.N. 014-0026 was widened under F.A. Route 156 Section 481. The structure has had a new bituminous overlay in 2005. The existing structure consists of one span, 32' long, 31' wide out-to-out, and no skew. The substructure consists of closed reinforced concrete abutments founded on spread footings with attached wingwalls. Structure carries IL 160 over Branch Lake Creek. The existing pavement is two 12' lanes with 3' shoulders. Staged construction shall be used during construction.

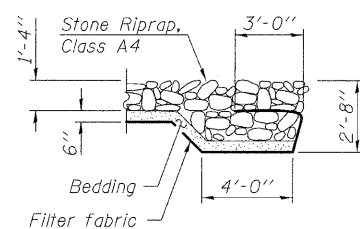
Salvage temporary support beams, see Special Provision.



ELEVATION



PLAN



SECTION A-A

INDEX OF SHEETS

1. General Plan & Elevation
2. General Data
3. Temporary Support System
4. Temporary Soil Retention System
5. Stage Construction Details
6. Temporary Concrete Barrier
- 7.-8. Top of Slab Elevations
- 9.-10. Top of Approach Slab Elevations
- 11.-12. Superstructure Details
- 13.-14. Approach Slab
15. Diaphragm
16. Drainage Scupper Details
17. Structural Steel
18. Bearing Details
19. North Abutment
20. South Abutment
21. Steel H-Pile Details
22. Bar Splicer Details
23. Cantilever Forming Brackets
24. Parapet Slipforming Option
25. Boring Logs

DESIGN SCOUR ELEVATION TABLE

Design Scour Elevation (ft.)	N. Abut. 458.30	S. Abut. 458.17
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LOADING HL-93

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

DESIGN SPECIFICATIONS

2007 AASHTO LRFD Bridge Design Specifications with 2008 Interims

DESIGN STRESSES

FIELD UNITS

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

SEISMIC DATA

Seismic Performance Zone (SPZ) = 2  
Design Spectral Acceleration at 1.0 sec. ( $S_{D1}$ ) = 0.26g  
Design Spectral Acceleration at 0.2 sec. ( $S_{D5}$ ) = 0.56g  
Soil Site Class = D

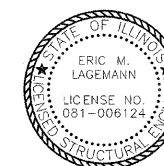
STATION 623+16.00  
BUILT 201 BY  
STATE OF ILLINOIS  
F.A.P. RT. 690 SEC. 481B  
LOADING HL-93  
STR. NO. 014-0079

NAME PLATE

See Std. 515001

APPROVED  
FOR STRUCTURAL ADEQUACY ONLY

*Eric Lagemann* (TS)  
ENGINEER OF BRIDGES AND STRUCTURES



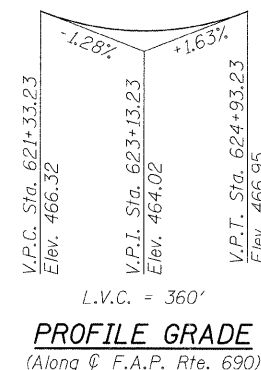
*Eric Lagemann* 2/24/10  
Expires 11/30/2010 Date

GENERAL PLAN & ELEVATION  
IL 160 OVER BRANCH LAKE CREEK  
F.A.P. RTE. 690 - SECTION 481B  
CLINTON COUNTY  
STATION 623+16.00  
STRUCTURE NO. 014-0079

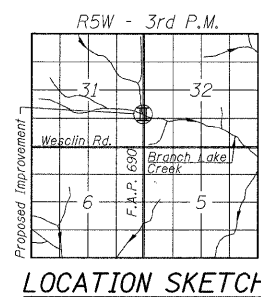
WATERWAY INFORMATION

Drainage Area = 2.52 Sq. Mi. Low Grade Elev. 465.31 @ Sta. 622+91.58

Flood	Freq. Yr.	Q	Opening Sq. Ft.		Head - Ft.		Headwater El.		
			Exist.	Prop.	Exist.	Prop.	Exist.	Prop.	
Design	50	1,700	271.44	592.39	463.95	0.76	0.06	464.71	464.01
Base	100	2,020	271.44	592.39	464.61	0.89	0.11	465.50	464.72
Exist Overtopping	45	1,683	271.44	-	463.92	0.75	-	464.67	-
Proposed Overtopping	200	2,315	-	592.39	465.12	-	0.19	-	465.31
Scour	10	1,020	271.44	592.39	461.96	0.19	0.03	462.15	461.99



PROFILE GRADE  
(Along & F.A.P. Rte. 690)



LOCATION SKETCH

DESIGNED	KAK
CHECKED	EML
DRAWN	KAK
CHECKED	EML

**HORNER & SHIFRIN, INC.**  
ENGINEERS

SHEET NO. 1 25 SHEETS	F.A.P. RTE. 690	SECTION 481B	COUNTY CLINTON	TOTAL SHEETS 46	SHEET NO. 18
	FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT			CONTRACT NO. 76C21	