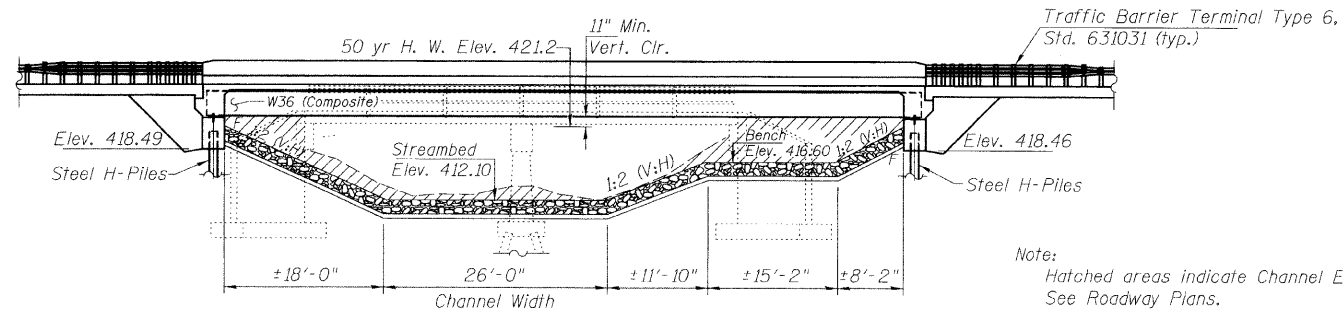


Bench Mark: BM No. 243, chiseled "□" on the South West corner of the existing bridge, Structure 096-0024, U.S. 45 over Martin Creek, Station 138+59, 16.5' Lt., Elevation 423.94.

Existing Structure: #096-0024 built in 1923 on Route 25 Section 10B was a 2 span reinforced concrete slab, 52'-0" Bk to Bk abutments. Supported on spread footing abutments and a pile bent pier. Superstructure replacement & widening in 1973 with PPC deck beams and a bituminous surface. The existing bridge is to be removed and replaced. Traffic shall be maintained using staged construction.

No salvage



**ELEVATION**

Note:  
Hatched areas indicate Channel Excavation.  
See Roadway Plans.

**DESIGN SPECIFICATIONS**

2007 AASHTO LRFD Bridge Design Specifications 4th edition

**DESIGN STRESSES**

**FIELD UNITS**

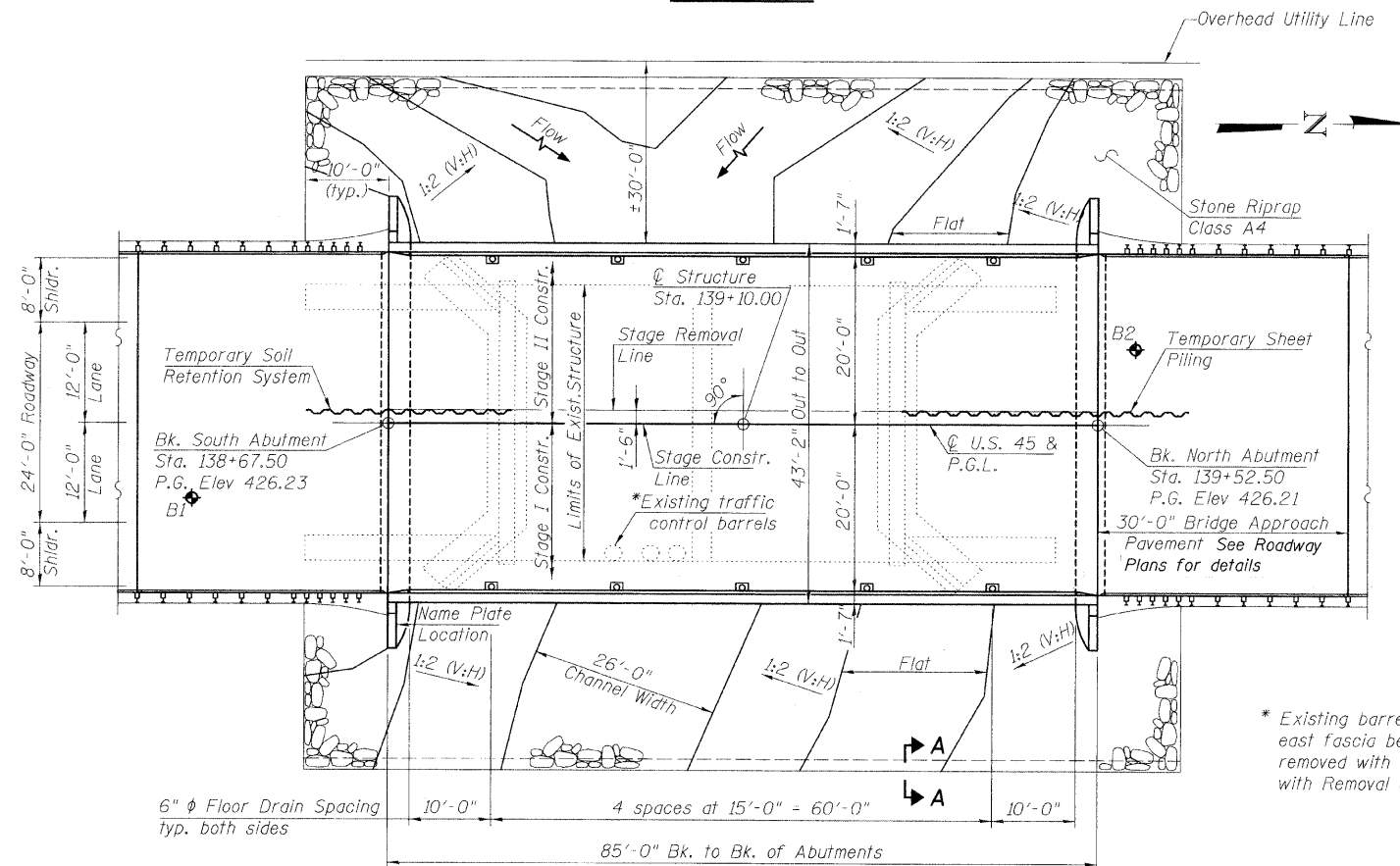
$f'_c = 3,500$  psi  
 $f_y = 60,000$  psi (Reinforcement)  
 $f_y = 50,000$  psi (Primary Steel Members)  
 $f_y = 36,000$  psi (Secondary Steel Members)

**LOADING HL-93**

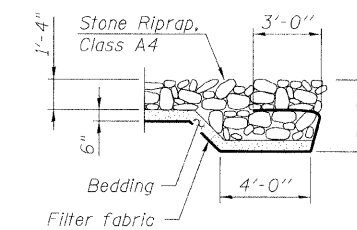
Allow 50#/sq. ft. for future wearing surface.

**SEISMIC DATA**

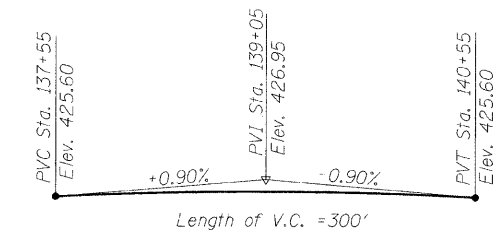
Seismic Performance Zone (SPZ) = 2  
 Bedrock Acceleration Coefficient (A) = 0.092g  
 Site Coefficient (S) = 1.0



**PLAN**



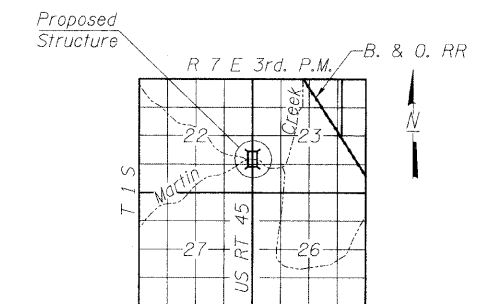
**SECTION A-A**



**PROPOSED PROFILE GRADE**  
(Along C.F.A.P. Route 328)

**INDEX OF SHEETS**

- 1 General Plan and Elevation
- 2 General Notes and Total Bill of Material
- 3 Stage Construction Details
- 4 Temporary Concrete Barrier
- 5-7 Top of Slab Elevations
- 8 Superstructure
- 9 Superstructure Details
- 10 Diaphragm Details
- 11 Concrete Parapet Slipforming Option
- 12 Structural Steel
- 13 South Abutment
- 14 North Abutment
- 15 Bar Splicer Assembly Details
- 16 Steel H-Pile Base Sheet
- 17 Boring Logs

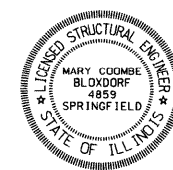


**LOCATION SKETCH**

**GENERAL PLAN AND ELEVATION**  
**U.S. ROUTE 45 OVER MARTIN CREEK**  
**F.A.P. RT. 328 SEC. (9BR1-10BR1) B-1**  
**WAYNE COUNTY**  
**STATION 139+10.00**  
**STRUCTURE NO. 096-0069**

**APPROVED**  
FOR STRUCTURAL ADEQUACY ONLY

*Robert E. Anderson*  
ENGINEER OF BRIDGES AND STRUCTURES



*Mary Coombe Bloxdorf*  
Illinois Structure No. 4859  
Expires: 11/30/08  
Date: 8/06/08

**COOMBE-BLOXDORF P.C.**  
Engineers / Land Surveyors  
Springfield, Illinois  
Design Firm License No. 184-002703

PROJECT NO. 07053-B  
SCALE  
DATE 8/05/08  
DRAWN BY TFG  
CHECKED BY CME/RM/MCB

SHEET NO. 1  
17 SHEETS

F.A.P. RTE. 328	SECTION (9BR1-10BR1) B-1	COUNTY WAYNE	TOTAL SHEETS 67	SHEET NO. 24
CONTRACT NO. 74214				
FED. ROAD DIST. NO. 7 ILLINOIS FED. AID PROJECT				

**WATERWAY INFORMATION**

Drainage Area = 7.32 mi. <sup>2</sup>		Low Grade Elev. = 423.23		Sta. 134+00.00		
Flood	Freq. Yr.	Q C.F.S.	Opening Exist. Prop.	Sq. Ft. Nat. H.W.E. Exist. Prop.	Head - Ft. Exist. Prop.	Headwater El. Exist. Prop.
Design	10	1461	301 452	420.7	1.0 0.7	421.7 421.4
Base	50	2357	324 491	421.2	2.0 1.4	423.2 422.6
Overtopping Exist.	100	2761	338 515	421.5	2.1 1.7	423.6 423.2
Overtopping Prop.	50	2357	324	421.2	2.0	423.2
Max. Calc.	500	3752	340 547	421.9	1.8 2.3	423.7 424.2

STA. 139+10.00  
 BUILT 20... BY  
 STATE OF ILLINOIS  
 F.A.P. RT. 328 SEC. (9BR1-10BR1) B-1  
 LOADING HL-93  
 STRUCTURE NO. 096-0069

**NAME PLATE**  
See Std. 515001

**DESIGN SCOUR TABLE**

Design Scour Elevation (ft.)	S. Abut.	N. Abut.
	418.49	418.46

PLOT DATE = 08/06/2008  
 FILE NAME = \\s08br1-bridge-plans\p1-01-096-0069.dwg  
 SCALE = 100.0000 1" = 1'-0"  
 USER NAME = TFC