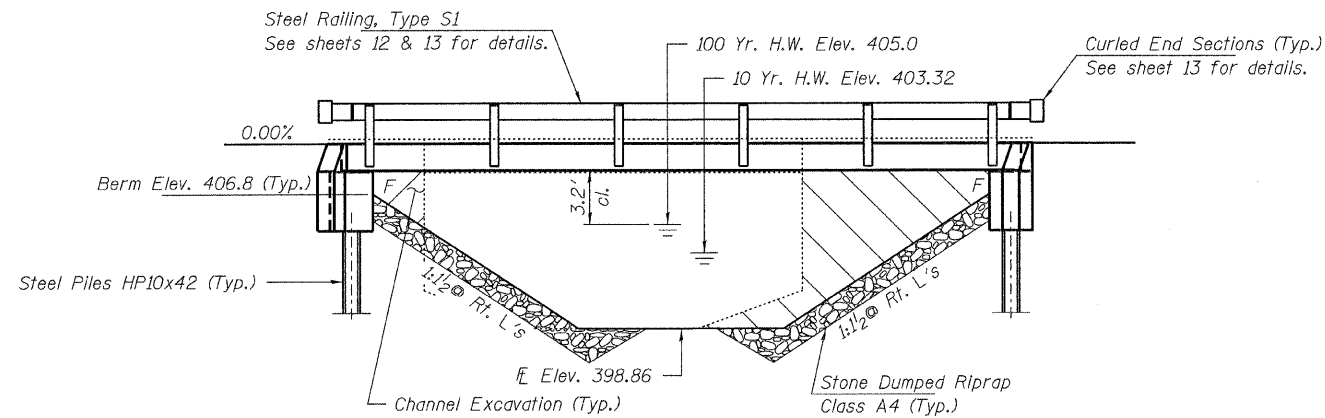


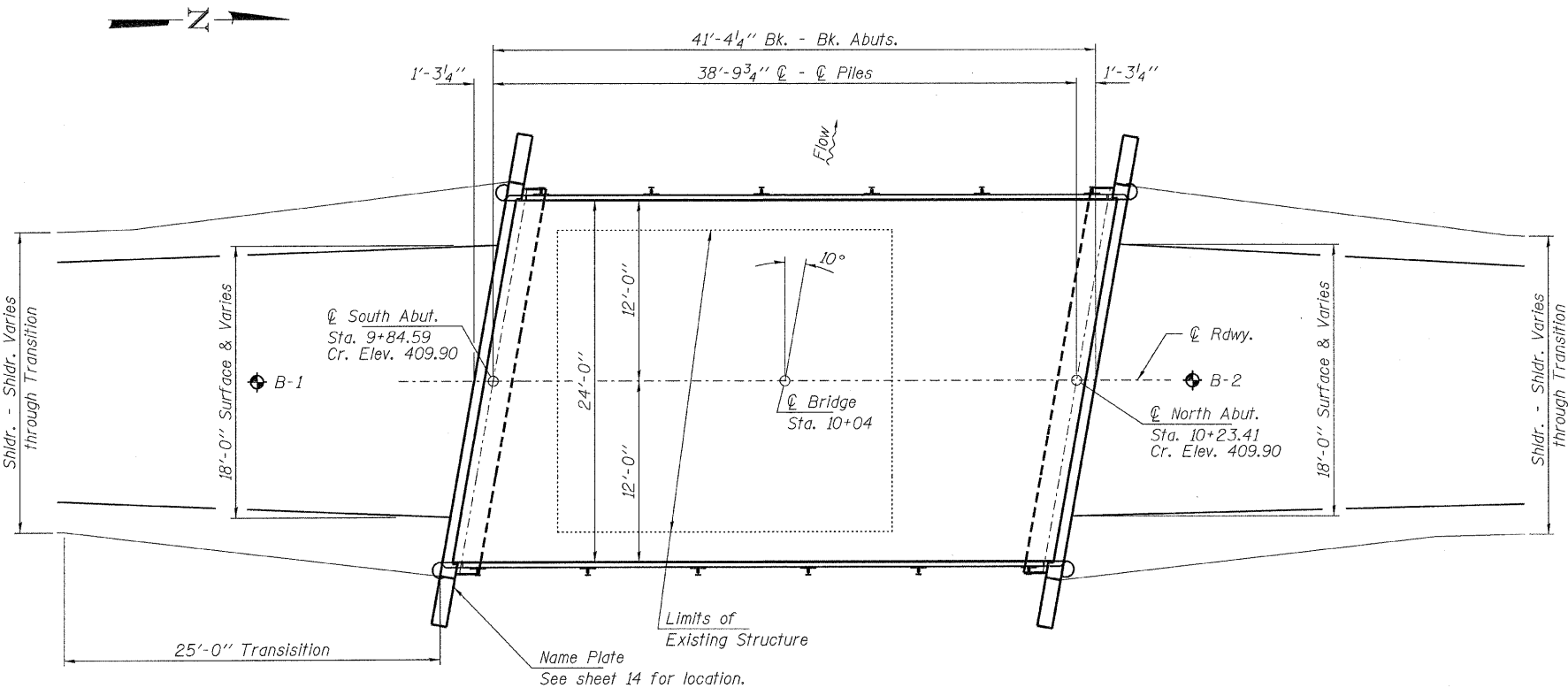
BENCHMARK: BM#1 - PK Nail in 10" Ash Tree. 39.0' Rt., Sta. 7+89, Elev. 410.10

EXISTING STRUCTURE NO. 028-3125: Sta. 10+00 - Single span cast in place concrete bridge with concrete curbs on closed concrete abutments and wingwalls. 20.25' fc.-fc. abuts., 20.00' fc.-fc. curbs. Structure closed to traffic.

No Salvage



ELEVATION



PLAN

DESIGN STRESSES

FIELD UNITS

f'c = 3,500 psi  
fy = 60,000 psi (Reinf.)

PRECAST PRESTRESSED UNITS

f'c = 6,000 psi  
f'ci = 5,000 psi  
fpu = 270,000 psi (1/2" low lax. strands)  
fpbt = 201,960 psi (1/2" low lax. strands)  
fy = 60,000 psi (Reinf.)

LOADING HL - 93

Design Specifications: 2010 AASHTO LRFD with all applicable interims. 50#/Sq. Ft. included in dead load for future wearing surface.

SEISMIC DATA

Seismic Performance Zone (SPZ) = 3  
Design Spectral Acceleration at 1.0 sec. (SD1) = 0.325 g  
Design Spectral Acceleration at 0.2 sec. (SDS) = 0.767 g  
Soil Site Class = D

WATERWAY INFORMATION

Drainage Area = 3.92 Sq. Mi.		Existing Low Grade Elev. 408.4 @ Sta. 11+00		Proposed Low Grade Elev. 408.4 @ Sta. 11+00					
Flood	Freq. Yr.	Q C.F.S.	Opening Sq. Ft. Exist.	Prop.	Natural H.W.E.	Head - Ft. Exist.	Prop.	Headwater El. Exist.	Prop.
Design	10	587	77.05	82.90	403.3	-	-	-	-
Base	100	1170	111.07	129.60	405.0	-	0.0	-	405.0
Max. Calc.	500								

GENERAL NOTES

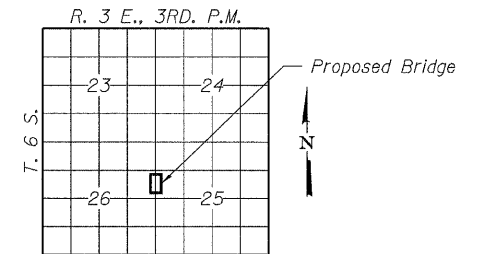
Layout of the slope protection system may be varied to suit ground conditions in the field as directed by the Engineer. Reinforcement bars shall conform to the requirements of ASTM A 706 Gr 60 (IL Modified). See Special Provisions. Excavation required to construct the Abutments shall be included in the cost of Concrete Structures. No additional compensation will be allowed for Structure Excavation. All proposed construction activities shall be in accordance with Nationwide Permit number 14 of the Department of the Army authorized under Section 404 of the Clean Water Act. The IEPA has issued Section 401 Water Quality Certification for this activity. See Special Provisions for conditions.

BUILT 2010 BY  
FRANKLIN COUNTY  
SEC. 08-02136-00-BR  
BENTON ROAD DISTRICT  
STR. NO. 028-3406  
LOADING HL-93

NAME PLATE  
See Std. 515001

INDEX OF STRUCTURE SHEETS

- 8. General Plan & Elevation
- 9. Riprap Details
- 10. Superstructure
- 11-12. Superstructure Details
- 13. Steel Railing, Type S-1
- 14. Abutments
- 15. HP Pile Details
- 16. Borings



LOCATION SKETCH

TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Channel Excavation	Cu. Yd.			120
Stone Dumped Riprap, Class A4	Ton			335
Removal of Existing Structures	Each			1
Concrete Structures	Cu. Yd.		21.8	21.8
Concrete Encasement	Cu. Yd.		2.8	2.8
Precast Prestressed Concrete Deck Beams (17" Depth)	Sq. Ft.	960		960
Reinforcement Bars	Pound		2,330	2,330
Steel Railing, Type S1	Foot	78		78
Furnishing Steel Piles HP10x42	Foot		300	300
Driving Piles	Foot		300	300
Name Plates	Each		1	1

I certify that to the best of my knowledge, information and belief, this bridge design is structurally adequate for the design loading shown on the plans. The design is an economical one for the style of structure and complies with requirements of the current "AASHTO LRFD Specifications."

Steven W. Megginson 2/7/2011  
ILLINOIS STRUCTURAL NO. 081-6064



Expires 11-30-2012

GENERAL PLAN & ELEVATION  
STRUCTURE NO. 028-3406

DESIGNED - A.S.L.
CHECKED - S.W.M.
DRAWN - D.A.B.
CHECKED - S.W.M.

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184.000999  
ILLINOIS PROFESSIONAL DESIGN FIRM LS / PE / SE CORPORATION

PROJECT NUMBER: 09.0150.130 DATE: 02/07/11

T.R.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
272	08-02136-00-BR	FRANKLIN	16	8
BENTON ROAD DISTRICT		CONTRACT NO. 99426		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT BROS-0055(061)		