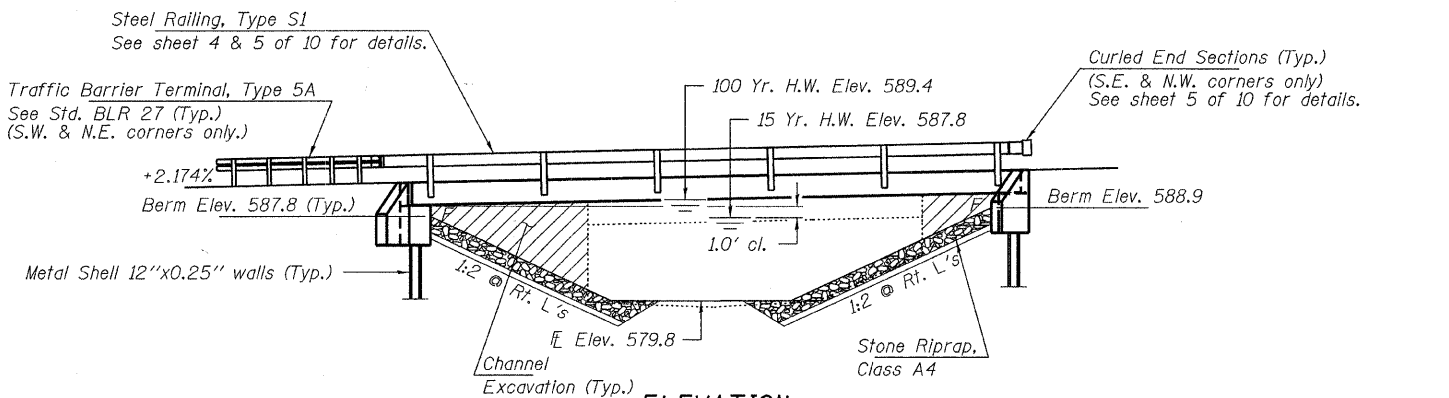


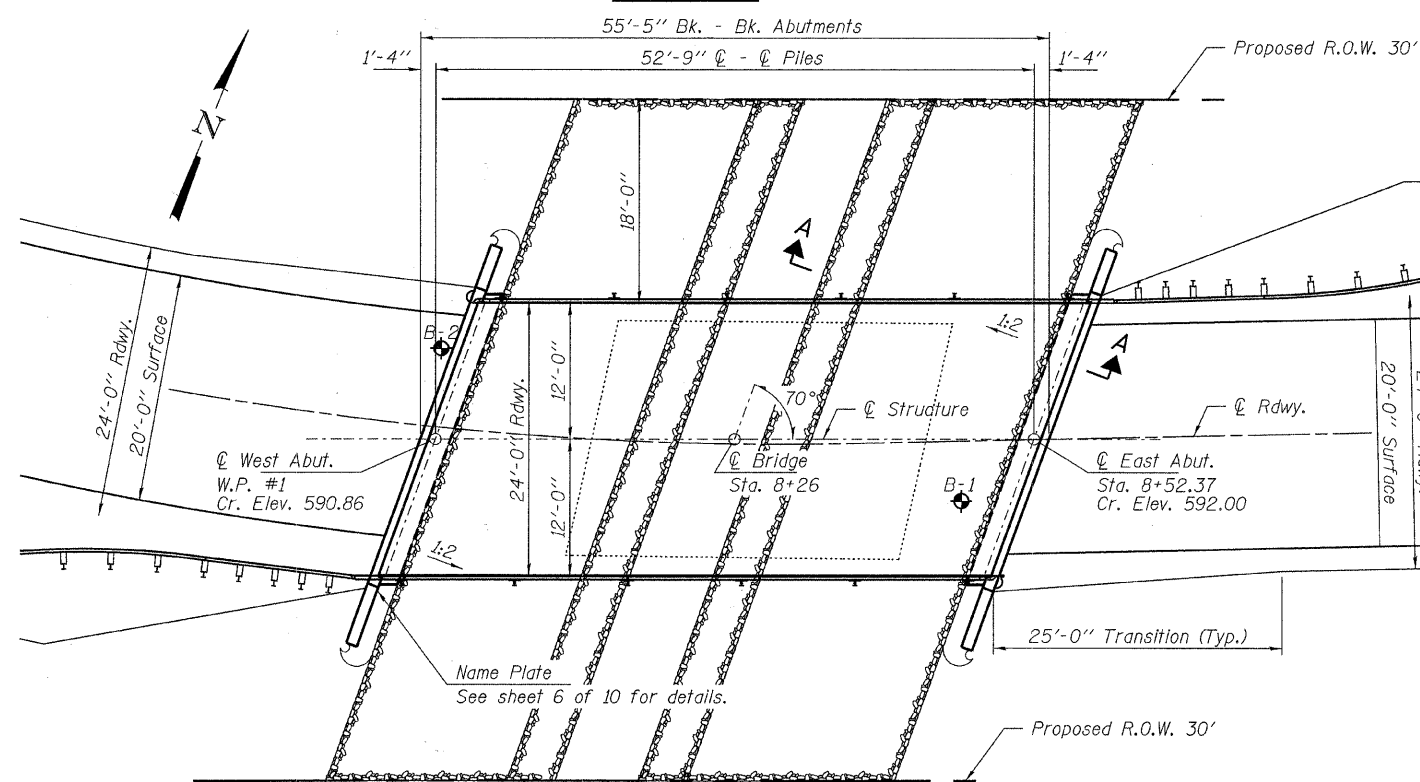
BENCHMARK: Nail located near the bottom of 5th power pole from intersection; Elev. 598.50

EXISTING STRUCTURE NO. 087-3323: Sta. 8+28 - Single span I-beam bridge with timber deck on closed timber abutments and wingwalls, 29.4' fc.-fc. abuts.; 20.7' o.-o. deck Structure closed to traffic.

No Salvage



ELEVATION



PLAN

DESIGN STRESSES

FIELD UNITS

$f'_c = 3,500$ psi
 $f_y = 60,000$ psi (Reinf.)

PRECAST PRESTRESSED UNITS

$f'_c = 6,000$ psi
 $f'_ci = 5,000$ psi
 $f_{pu} = 270,000$ psi ($\frac{1}{2}$ " ϕ low lax. strands)
 $f_{pbt} = 201,960$ psi ($\frac{1}{2}$ " ϕ low lax. strands)
 $f_y = 60,000$ psi (Reinf.)

LOADING HL-93

Design Specifications: 2007 AASHTO LRFD with all applicable interims.
50#/Sq. Ft. included in dead load for future wearing surface.

SEISMIC DATA

Seismic Performance Zone (SPZ) = 2
Design Spectral Acceleration at 1.0 sec. (S_{D1}) = 0.286g
Design Spectral Acceleration at 0.2 sec. (S_{D5}) = 0.652g
Soil Site Class = E

WATERWAY INFORMATION

Drainage Area = 2.0 Sq. Mi.		Existing Low Grade Elev. 588.4 @ Sta. 7+50		Proposed Low Grade Elev. 589.2 @ Sta. 7+00		
Flood	Freq. Yr.	Q C.F.S.	Opening Sq. Ft.	Natural H.W.E.	Head - Ft.	Headwater El.
			Exist. Prop.	Exist. Prop.	Exist. Prop.	Exist. Prop.
Design	15	1310	200 240	587.8	0.8 0.0	588.6 587.8
Base	100	2300	200 290	589.4	0.5 0.7	589.9 590.1
Exist. Overtop	15	1310	0 0	587.8	0.8 0.0	588.6 587.8
Prop. Overtop	100	2300	160 10	589.4	0.5 0.7	589.9 590.1
Max. Calc.	500	3300	200 300	590.3	0.3 0.5	590.6 590.8

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. Mezzinson 4/5/2011
ILLINOIS STRUCTURAL NO. 081-6064 Expires 11-30-2012

GENERAL NOTES

Layout of the slope protection system may be varied to suit ground conditions in the field as directed by the Engineer.
The Contractor shall drive test piles to 110% of the nominal required bearing specified in production locations at West Abutment or approved by the Engineer before ordering the remainder of piles. Reinforcement bars shall conform to the requirements of ASTM A 706 Gr 60. 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.

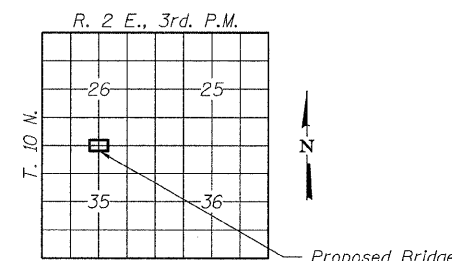
INDEX OF STRUCTURE SHEETS

1. General Plan & Elevation
2. 21" x 48" PPC Deck Beam
3. 21" x 48" PPC Deck Beam Details
4. Superstructure Details
5. Steel Railing, Type S1
6. West Abutment
7. East Abutment
8. Metal Shell Pile Details
- 9-10. Borings

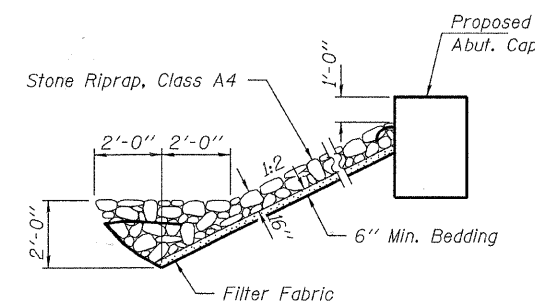
POLE CAT CREEK
BUILT 201 BY
SHELBY COUNTY
SEC. 07-04121-00-BR
COLD SPRING ROAD DISTRICT
STR. NO. 087-3572
LOADING HL-93

NAME PLATE

See Std. 515001

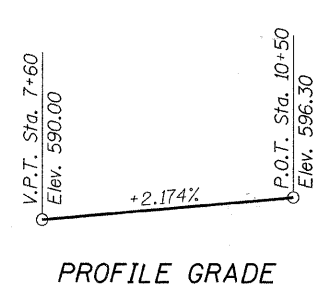


LOCATION SKETCH

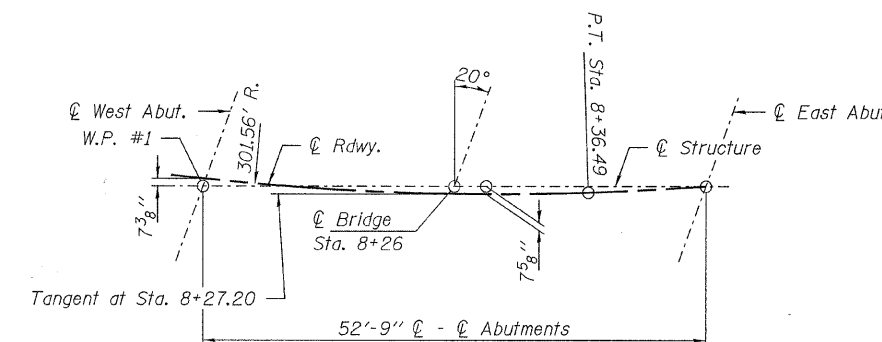


SECTION A-A

Note: See Special Provisions for Stone Riprap, Class A4.



PROFILE GRADE



OFFSET SKETCH

TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Channel Excavation	Cu. Yd.			75
Stone Riprap, Class A4	Ton			265
Filter Fabric	Sq. Yd.			350
Removal of Existing Structures	Each			1
Concrete Structures	Cu. Yd.		24.8	24.8
Precast Prestressed Concrete Deck Beams (21" Depth)	Sq. Ft.	1,296		1,296
Reinforcement Bars	Pound		2,750	2,750
Steel Railing, Type S1	Foot	111		111
Furnishing Piles Metal Shell 12"	Foot		420	420
Driving Piles	Foot		420	420
Test Pile Metal Shell	Each		1	1
Name Plates	Each		1	1

FILE NAME = 070476-shr-bridge.dgn
USER NAME =
DESIGNED - D.W.T.
CHECKED - S.W.M.
DRAWN - D.T.M.
CHECKED - S.W.M.

DESIGNED - D.W.T.
CHECKED - S.W.M.
DRAWN - D.T.M.
CHECKED - S.W.M.

STATE OF ILLINOIS
SHELBY COUNTY HIGHWAY DEPARTMENT

GENERAL PLAN & ELEVATION
STRUCTURE NO. 087-3572

SHEET NO. 1 OF 10 SHEETS

T.R.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
373	07-04121-00-BR	SHELBY	18	9
COLD SPRING ROAD DISTRICT			CONTRACT NO. 95656	
ILLINOIS FED. AID PROJECT BR05-173(174)				