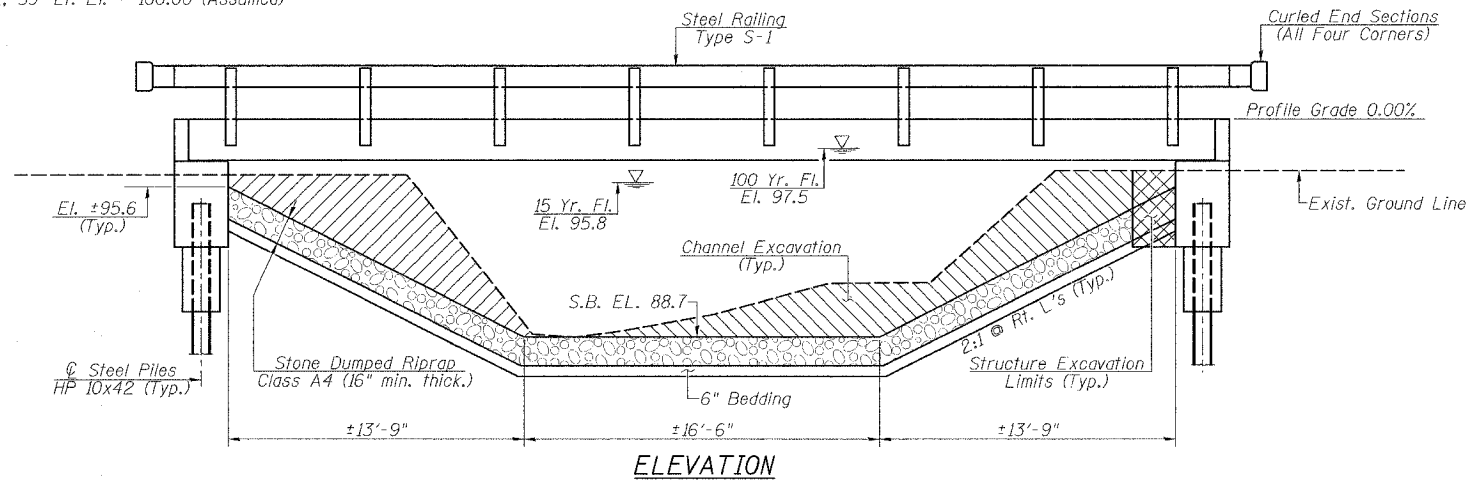


Existing Structure: Single span poured concrete deck bridge founded on closed concrete abutments. ±20'-0" Out.-Out. deck, ±22'-0" Bk.-Bk. abutments. Concrete railing, 0° skew. Existing Structure No. 042-3062.

BM #1: 60d nail and washer in power pole. Sta. 8+52.39' Lt. El. = 100.00 (Assumed)

T.R. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
77	05-09111-00-BR	JERSEY	10	4
CONTRACT NO. 97344				
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				



TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Stone Dumped Riprap, Class A4	Ton		210	210
Filter Fabric	Sq. Yd.		315	315
Structure Excavation	Cu. Yd.		75	75
Concrete Structures	Cu. Yd.		25.2	25.2
Concrete Encasement	Cu. Yd.		2.2	2.2
Precast Prestressed Concrete Deck Beams (21" Depth)	Sq. Ft.	1144		1144
Reinforcement Bars	Pound		2430	2430
Steel Railing, Type S-1	Foot	98		98
Furnishing Steel Piles HP 10x42	Foot		364	364
Driving Piles	Foot		364	364
Test Pile, Steel HP 10x42	Each		1	1
Name Plates	Each		1	1

WATERWAY INFORMATION

Drainage Area = 1.17 Sq. Mi. Pr. Low Grade Elev. 97.80 @ Sta. 05+00

Flood Yr.	Freq.	Q C.F.S.	Opening Exist.	Opening Prop.	Natural H.W.E. Exist.	Natural H.W.E. Prop.	Head - ft. Exist.	Head - ft. Prop.	Headwater El. Exist.	Headwater El. Prop.
Design	15	1063	139	218	95.8	97.5	3.4	0.2	99.2	96.0
Base	100	1828	171	293	97.5	97.5	1.7	0.9	99.2	98.4
Exist. Overtop.	14	1100								
Prop. Overtop.	120	1910								
Max. Calc.	500	2496	171	293	98.6	98.6	1.2	1.6	99.8	100.2

DESIGN STRESSES

FIELD UNITS	PRECAST PRESTRESSED UNITS
$f_c = 1400$ psi	$f_c = 5000$ psi
$v_c = 56.2$ psi	$f'_{ci} = 4000$ psi
$f_s = 24000$ psi	$f'_s = 270000$ psi
$n = 9$	$f'_s = 201960$ psi
	$\frac{1}{2}" \phi$ Strands

GENERAL NOTES

See Proposal for Boring Data.
 Reinforcement bars shall conform to the requirements of ASTM A706, Grade 60. (Illinois Modified) See Special Provisions.
 The layout of the riprap slope may be varied to suit conditions in the field as determined by the Engineer.
 The contractor shall drive one test pile in a permanent location at the East abutment as directed by the Engineer in the field prior to ordering the remainder of piles.

DESIGN SPECIFICATIONS

2002 AASHTO Standard Specifications.

LOADING HS 20-44

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

STREAM
 BUILT 200 BY
 JERSEY COUNTY
 SECTION 05-09111-00-BR
 STA. 8+22.25
 STR. NO. 042-3145 LOADING HS 20

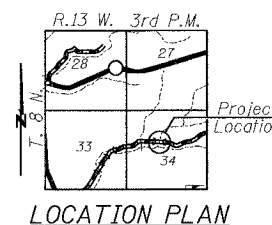
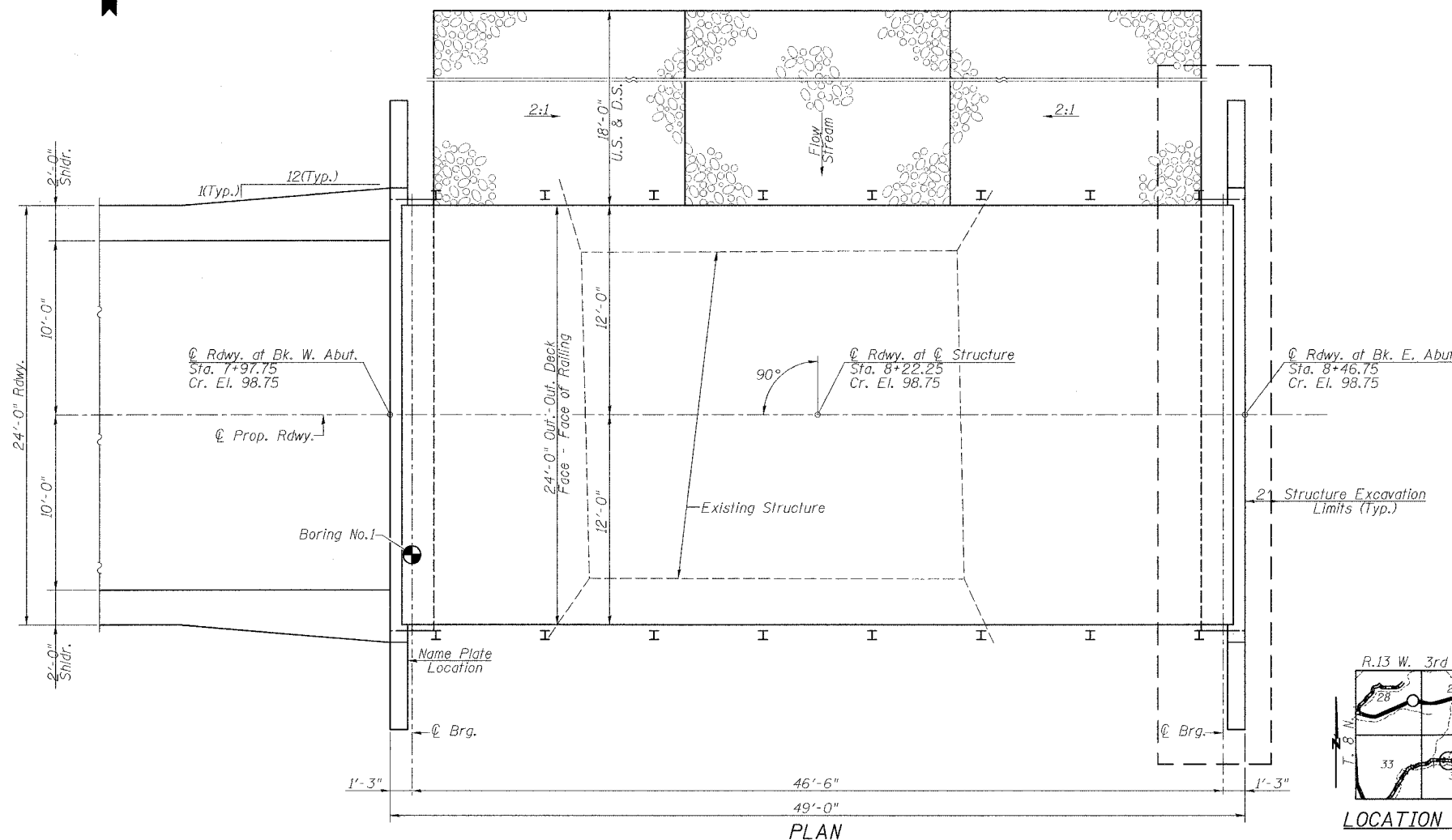
NAME PLATE
 (Standard 515001)

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 "A.A.S.H.T.O. Standard Specifications For Highway Bridges".



Mark A. Henderson 34608

Expiration Date 11/30/2008



FILE NAME: 8711.EP	USER NAME: BUSLHR	DESIGNED: -	REVISED: -	<p>Allen Henderson & Associates, Inc. Civil and Structural Engineers Springfield, IL. 62703 Phone: (217)544-8033 IL Design Firm No. 184-001907</p>	GENERAL PLAN & ELEVATION		T.R. RTE.: 77	SECTION: 05-09111-00-BR	COUNTY: JERSEY	TOTAL SHEETS: 10	SHEET NO.: 4	
PLOT SCALE: 8.5X11.5	CHECKED: -	REVISOR: -	REVISION: -		SCALE: 1/4" = 1'		SHEET NO. 4 OF 10 SHEETS		STA. 5+90.00 TO STA. 10+00.00		CONTRACT NO. 97344	
PLOT DATE: 8/24/08	DATE: -	REVISOR: -	REVISION: -		FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT							