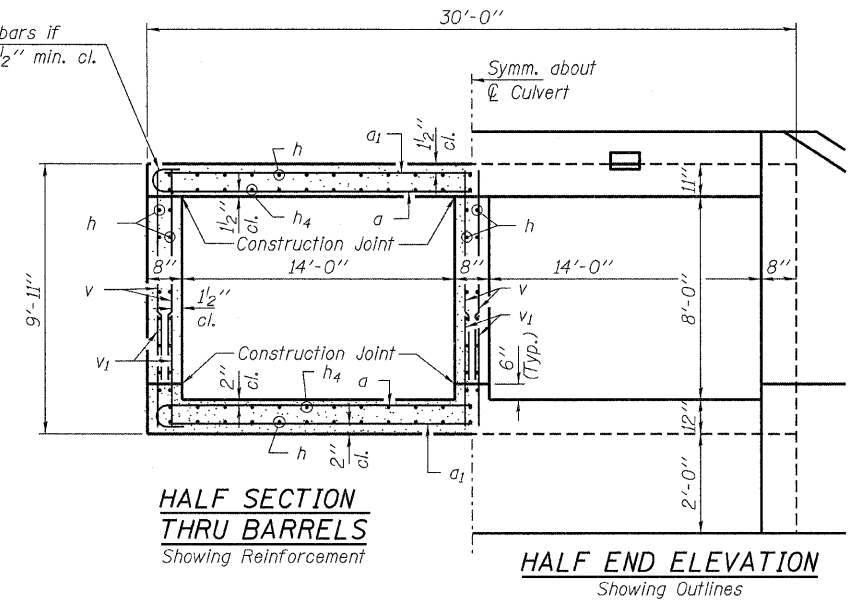


Tilt hook of a bars if necessary for 1/2" min. cl.



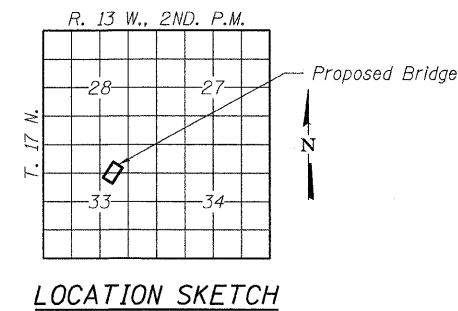
NOTES

Exposed edges shall be beveled 3/4".
 For backfilling and embankment, see Standard Specifications, except that porous granular embankment shall be placed as shown in backfill detail for the full length of the culvert.
 Reinforcement bars shall conform to the requirements of AASHTO M-31, or M-322 Grade 60.
 It shall be the responsibility of the Contractor to divert flow during construction in order to keep construction areas free of water. The method of water diversion shall be subject to the approval of the Engineer and shall be included in the cost of Concrete Box Culverts.
 All construction joints shall be bonded.
 Precast concrete box culverts will not be allowed.
 All bars shall be epoxy coated.

BILL OF MATERIAL

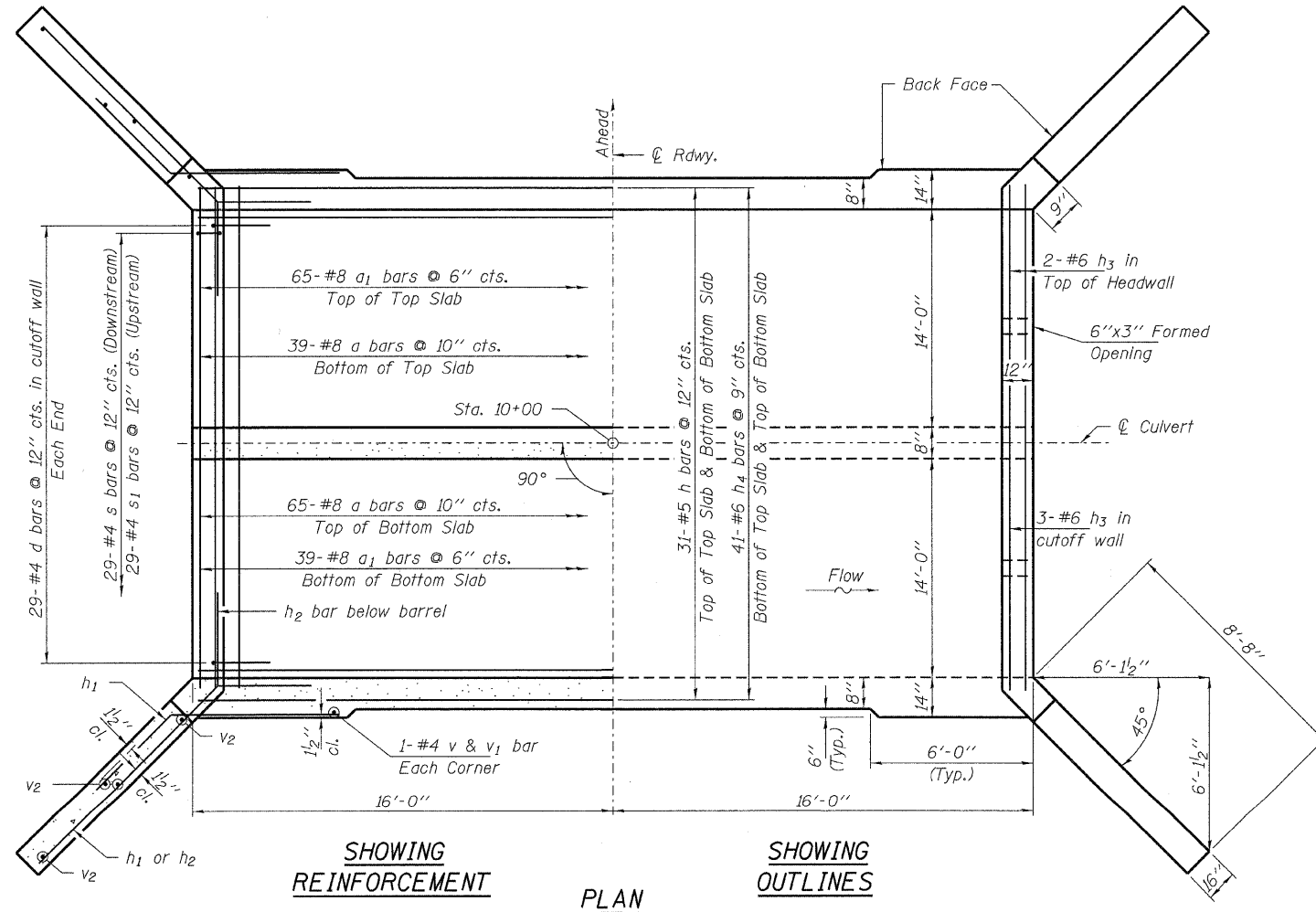
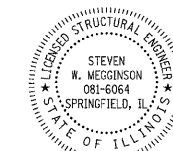
Bar	No.	Size	Length	Shape
a	104	#8	31'-6"	U
a1	104	#8	29'-8"	—
d	58	#4	4'-6"	L
h	110	#5	31'-8"	—
h1	48	#8	8'-0"	—
h2	36	#8	12'-5"	—
h3	10	#6	29'-8"	—
h4	82	#6	31'-8"	—
s	29	#4	5'-3"	□
s1	29	#4	4'-11"	□
v	238	#5	8'-3"	—
v1	238	#5	2'-8"	—
v2	16	#4	12'-4"	—
Riprap, Special		Sq. Yd.	92	
Concrete Box Culverts		Cu. Yd.	114.1	
Reinforcement Bars, Epoxy Coated		Pounds	30,400	
Porous Granular Embankment		Ton	370	
Name Plates		Each	1	
Porous Granular Backfill, Special		Cu. Yd.	57	

**CULVERT DETAILS
STRUCTURE NO. 092-5025**



I certify that to the best of my knowledge, information and belief, this culvert 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. Mezzanese 9/13/2010
 ILLINOIS STRUCTURAL NO. 081-6064 Expires 11-30-2010



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

DESIGN STRESSES

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

LOADING HL-93

Design Specifications: 2007 AASHTO LRFD with all applicable interims.

HAMPTON, LENZINI AND RENWICK, INC.
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 SPRINGFIELD, ILLINOIS 62703
 217.546.3400 www.hlrrengineering.com

T.R.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
58	08-17127-00-BR	VERMILION	10	8
SIDELL ROAD DISTRICT		CONTRACT NO. 91438		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT BROS-0183(304)		