BM TJM, #4 : Set a chiseled "□" in top of N.W. Abut. Wing Wall of bridge #009-0006; on IL 78, 0.47 miles North of Illini St. in Chandlerville. Bridge over Sangamon River overflow. NAVD 88 Elev. = 464.94 Ft.

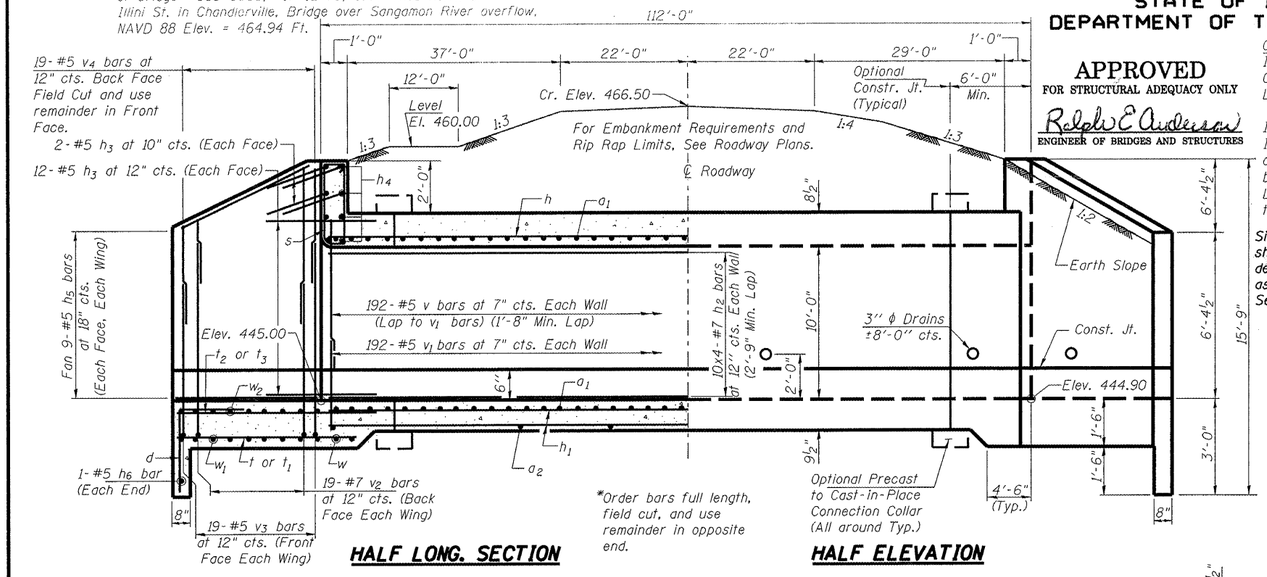
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

APPROVED
FOR STRUCTURAL ADEQUACY ONLY
Ralph E Anderson
ENGINEER OF BRIDGES AND STRUCTURES

Current Ratings (9/22/08) on File for Existing Structure No. 009-0006
Inventory: HS 6
Operating: HS 10
Live Load Restrictions: No

Inventory and Operating Ratings are provided for information only. Inventory and Operating Ratings are based on HS loading and configuration using the load factor method. Live Load Restrictions are based on Illinois legal loads and configurations. The Ratings and the Live Load Restrictions are not necessarily representative of capacities to support the Contractor's equipment.

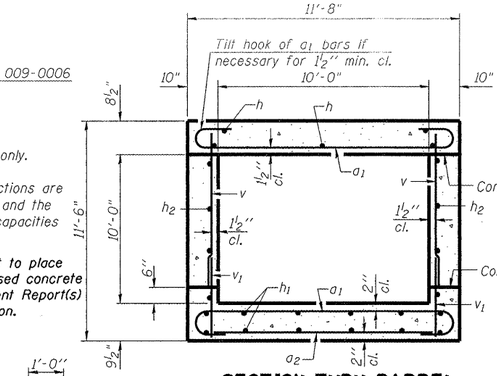
Since the above rating was calculated, a contract has been let to place shoring under the most severely deteriorated precast prestressed concrete deck beams. The Contractor shall submit Structural Assessment Report(s) as required for Contractor's means and methods of construction.
See Special Provisions.



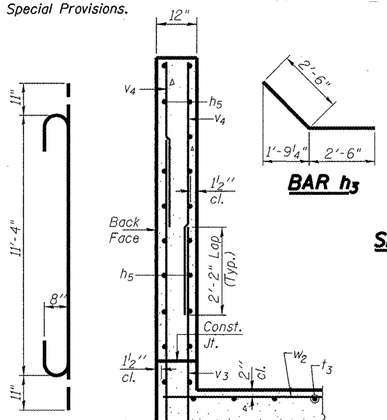
HALF LONG. SECTION

*Order bars full length, field cut, and use remainder in opposite end.

HALF ELEVATION

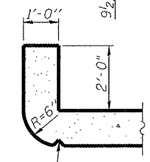


SECTION THRU BARREL



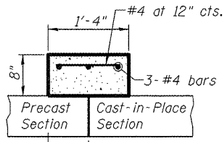
SECTION A-A

BAR h5



SECTION THRU HEADWALL

(Up Stream End Only)

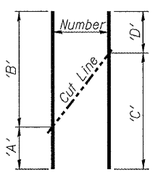


OPTIONAL PRECAST TO CAST-IN-PLACE CONNECTION COLLAR

BAR a1

BARS d, v2 & v3

Bar	'E'	'F'
d	2'-8"	1'-9"
v2	7'-4"	3'-0"
v3	5'-2"	10"



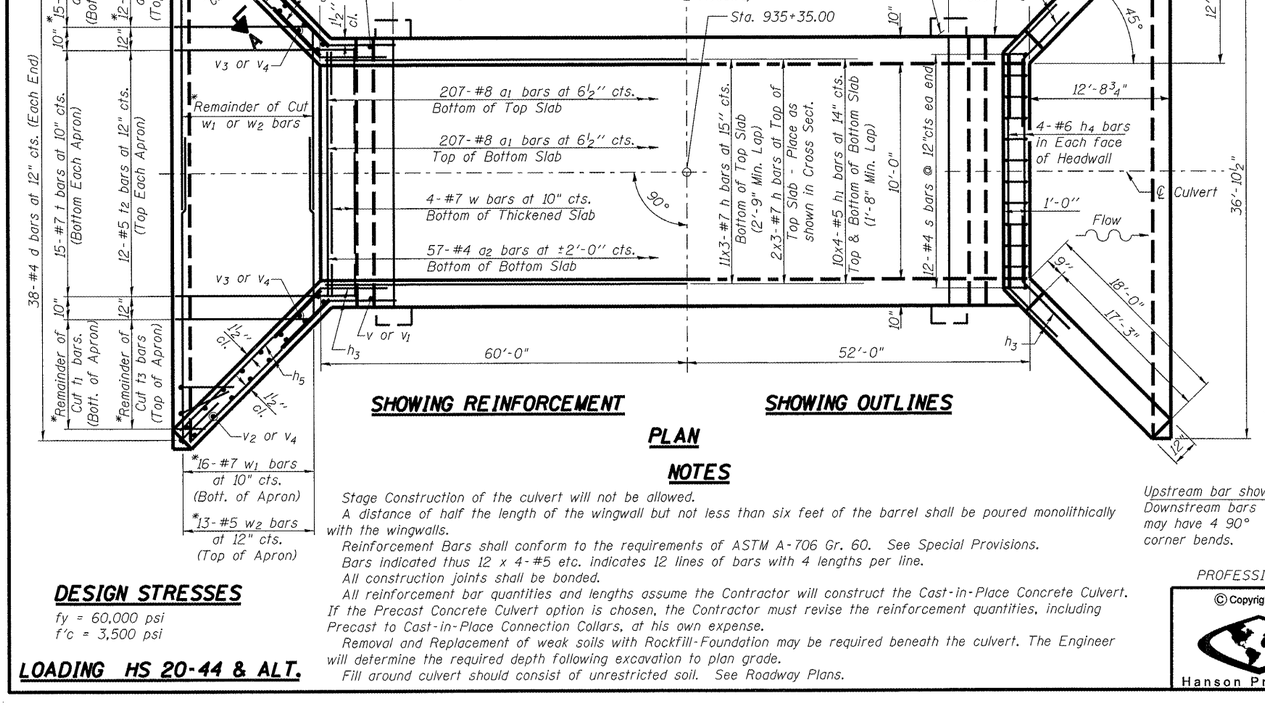
Bar	Number	'A'	'B'	'C'	'D'
t1	15	10"	12'-6"	12'-6"	10"
t3	12	1'-3"	12'-3"	12'-3"	1'-3"
v4	19	4'-5"	8'-7"	10'-9"	2'-3"
w1	16	7'-7"	20'-1"	20'-1"	7'-7"
w2	13	7'-6"	19'-6"	19'-6"	7'-6"

FIELD CUTTING DIAGRAM

Order t_1, t_3, v_4, w_1 or w_2 full length. Cut as shown and use remainder of bars in opposite end.

BILL OF MATERIAL

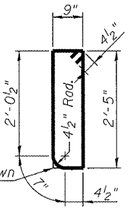
Bar	No.	Size	Length	Shape
a1	414	#8	13'-2"	
a2	57	#4	10'-10"	
d	76	#4	4'-5"	
h	39	#7	39'-3"	
h1	80	#5	29'-3"	
h2	80	#7	30'-0"	
h3	112	#5	5'-0"	
h4	16	#6	10'-8"	
h5	72	#5	17'-9"	
h6	2	#5	36'-6"	
s	24	#4	6'-11"	
t	30	#7	17'-0"	
t1	30	#7	13'-4"	
t2	24	#5	17'-0"	
t3	24	#5	13'-6"	
v	388	#5	10'-0"	
v1	388	#5	2'-10"	
v2	76	#7	10'-4"	
v3	76	#5	6'-0"	
v4	76	#5	13'-0"	
w	8	#7	11'-4"	
w1	32	#7	27'-8"	
w2	26	#5	27'-0"	
Removal of Existing Structure No. 3		Each	1	
Asbestos Bearing Pad Removal		Each	240	
Concrete Box Culverts		Cu. Yd.	210.4	
Reinforcement Bars		Pound	41680	
Rockfill-Foundation		Ton	300	



SHOWING REINFORCEMENT

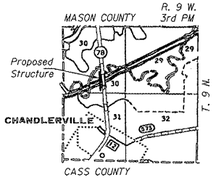
SHOWING OUTLINES

PLAN



BAR s

Upstream bar shown
Downstream bars may have 4 90° corner bends.



LOCATION SKETCH

THOMAS B. HANSON
041-004752
LICENSED STRUCTURAL ENGINEER OF
SPRINGFIELD
ILLINOIS

DATE SIGNED : 3/27/09
LIC. EXP. DATE : 11/30/2009

GENERAL PLAN
F.A.P. 614 (IL 78) OVER SANGAMON RIVER OVERFLOW
SECTION 144 (B-1)
CASS COUNTY
STA. 935+35.00
STRUCTURE NUMBER 009-2509

NOTES

Stage Construction of the culvert will not be allowed.

A distance of half the length of the wingwall but not less than six feet of the barrel shall be poured monolithically with the wingwalls.

Reinforcement Bars shall conform to the requirements of ASTM A-706 Gr. 60. See Special Provisions.

Bars indicated thus 12 x 4-#5 etc. indicates 12 lines of bars with 4 lengths per line.

All construction joints shall be bonded.

All reinforcement bar quantities and lengths assume the Contractor will construct the Cast-in-Place Concrete Culvert. If the Precast Concrete Culvert option is chosen, the Contractor must revise the reinforcement quantities, including Precast to Cast-in-Place Connection Collars, at his own expense.

Removal and Replacement of weak soils with Rockfill-Foundation may be required beneath the culvert. The Engineer will determine the required depth following excavation to plan grade.

Fill around culvert should consist of unrestricted soil. See Roadway Plans.

DESIGN STRESSES

fy = 60,000 psi
f'c = 3,500 psi

LOADING HS 20-44 & ALT.

PROFESSIONAL DESIGN FIRM LICENSE #184-001084

HANSON
Hanson Professional Services Inc.

JOB NO. 07S2026
DATE 03/27/09
SHEET NO. 1
4 SHEETS

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
614	144(B-1)	Cass	351	223
		CONTRACT NO. 72A76		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

LAYOUT	TEH	01/06/09
DRAWN	Rod	01/12/09
REVIEWED	MNM	01/13/09

03/27/2009
\\07 Jobs\07s2026\CADD\ShrunkSheet\Master Sheet Files\009-2509 Master Sheet File.dgn