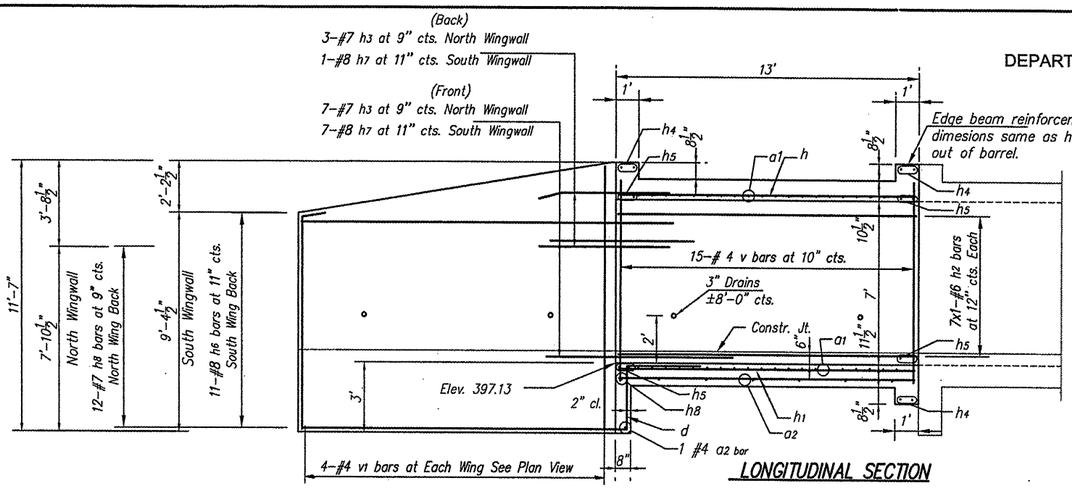
Contract #97312

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
-	99-00009 -01-FP	ST. CLAIR		80
FED. ROAD DIST. NO. 8	ILLINOIS	FED. AID PROJECT- 99-089-97		
CULVERT STRUCTURAL				

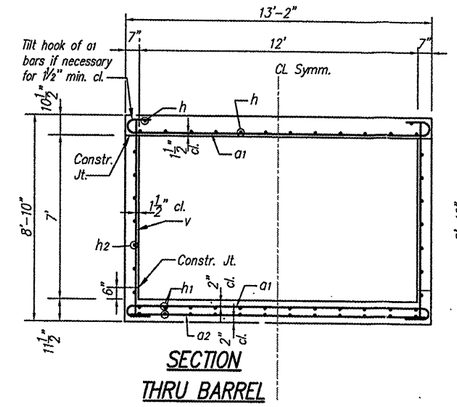
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

REINFORCEMENT BACK FACE

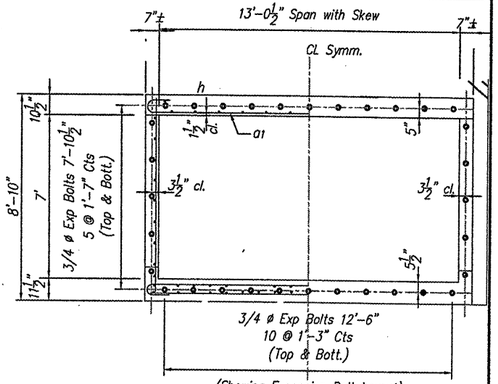
Wingwall



LONGITUDINAL SECTION



SECTION THRU BARREL

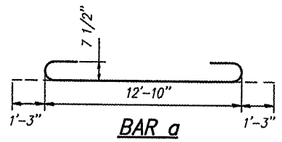


(Showing Expansion Bolt Layout)

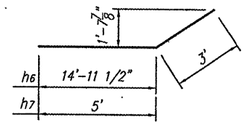
ELEVATION VIEW AT END OF EXISTING CULVERT

Dimension at Rt. L's to CL of Roadway.

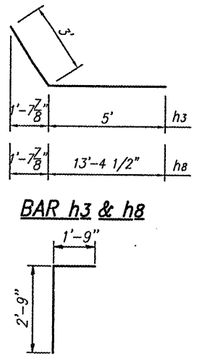
* a bars in skew portion of slab shall be order full length & cut ot fit. Balance of bar to be used in opposite end of culvert.



BAR a

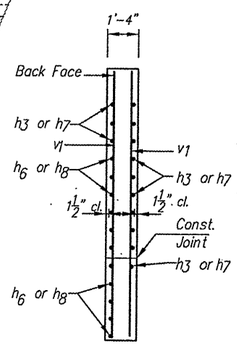


BAR h6 & h7



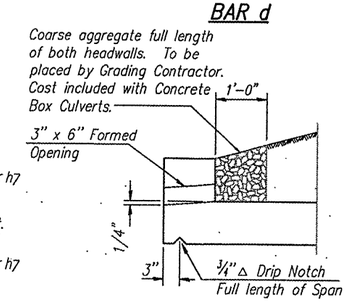
BAR h3 & h8

BAR d

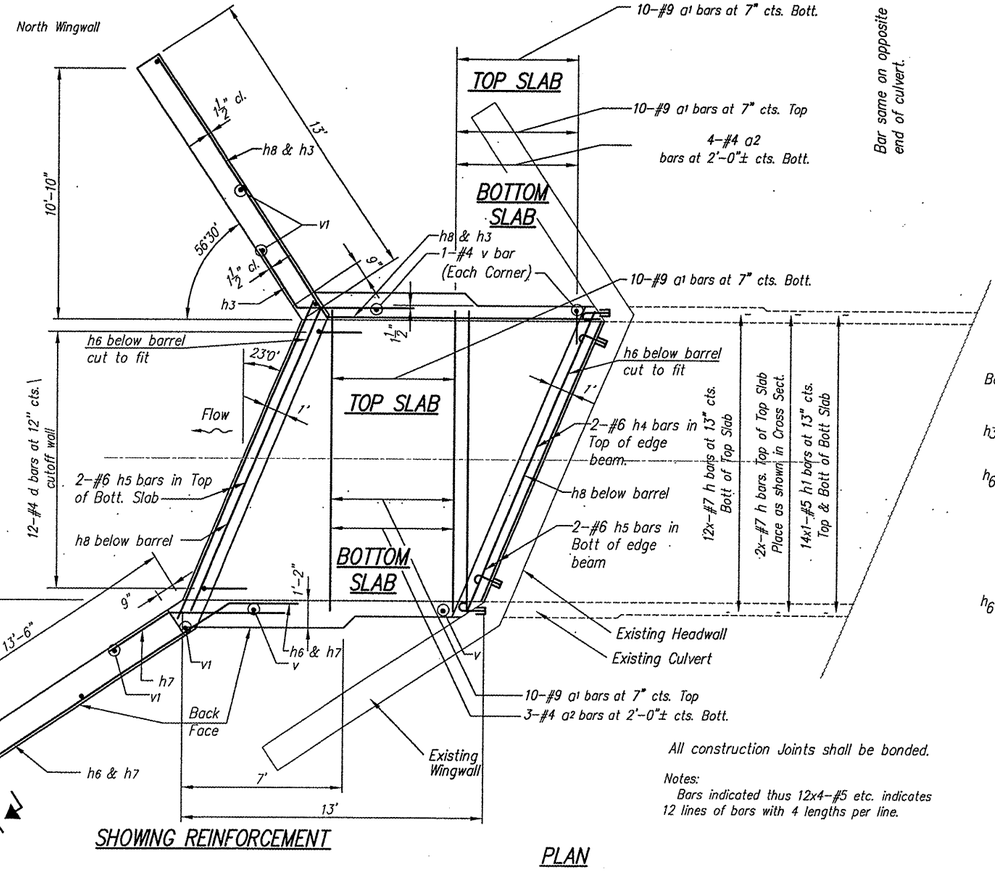


SECTION A-A

Coarse aggregate full length of both headwalls. To be placed by Grading Contractor. Cost included with Concrete Box Culverts.



AT DOWNSTREAM END DRAIN DETAIL



SHOWING REINFORCEMENT

PLAN

Bar same on opposite end of culvert.

All construction Joints shall be bonded.

Notes:
Bars indicated thus 12x4-#5 etc. indicates 12 lines of bars with 4 lengths per line.

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a_1	40	# 9	15'-4"	
a_2	8	# 4	12'-3"	
d	12	# 4	4'-6"	L
h	14	# 7	12'-9"	
h_1	28	# 5	12'-9"	
h_2	14	# 6	12'-9"	
h_3	10	# 7	8'-0"	
h_4	6	# 8	14'-1 1/4"	
h_5	8	# 6	14'-9 1/2"	
h_6	11	# 8	17'-11 1/2"	
h_7	8	# 8	8'-0"	
h_8	12	# 8	16'-4 1/2"	
v	30	# 4	8'-6"	
v_1	8	# 4	11'-3"	
Concrete Box Culverts		Cu. Yd.	33	
Expansion Bolts, 3/4"Ø		Each	30	
Reinforcement Bars		Pound	5,156	

DESIGN STRESSES

f_y = 60,000 psi
f_c = 3,500 psi

LOADING HS 20-44 & ALT

200

EXAMINED
ENGINEER OF BRIDGE DESIGN

PASSED
ENGINEER OF BRIDGE AND STRUCTURES

DESIGNED	JPG
CHECKED	*
DRAWN	PES
CHECKED	TPW

BB-T-0

T:\Client\SD_IGET\313_074_ph_II\design\culvert\base sheet prep\MOUSETTE-S3.dwg, Layout4, 5/11/2007 8:37:40 AM, \\PHW100\KM-3035, Ledger, 1:2, PHW07, PHW07