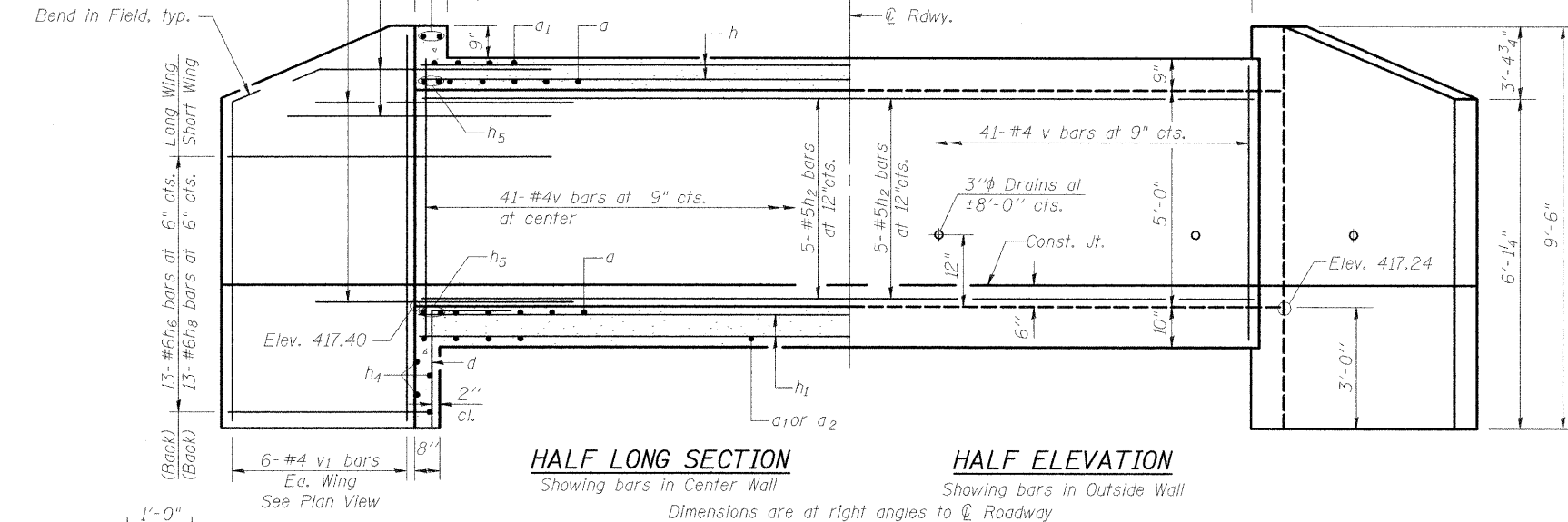


ST. CLAIR COUNTY

SECTION NO.	ROAD DISTRICT	COUNTY	SHEET OF SHEETS
97-17114-00-BR	SHILOH VALLEY	ST. CLAIR	5 OF 6
FHWA REG NO. 7		PROJECT NO. BROS-0163(033)	
FEDERAL AID PROJECT		CONTRACT NO. 97381	

(Back)  
6-#5h<sub>3</sub> bars at 6" cts. Short Wing  
6-#5h<sub>7</sub> bars at 6" cts. Long Wing

(Front)  
10-#5h<sub>3</sub> bars at 6" cts. Short Wing  
10-#5h<sub>7</sub> bars at 6" cts. Long Wing

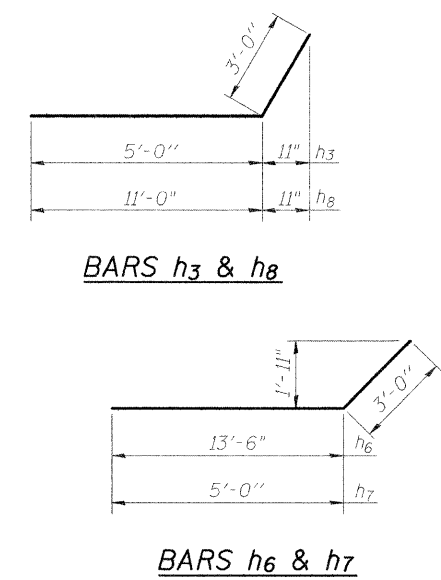


**HALF LONG SECTION**

Showing bars in Center Wall  
Dimensions are at right angles to  $\varnothing$  Roadway

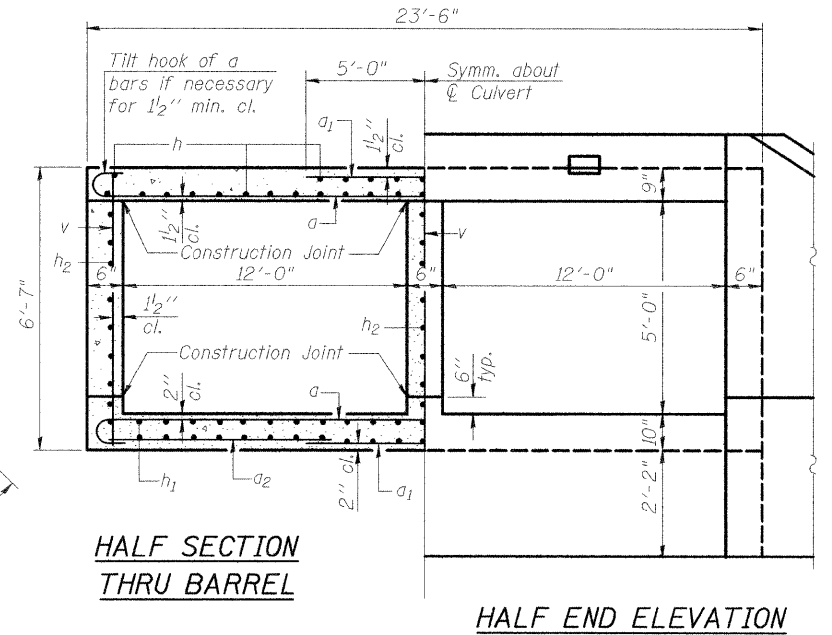
**HALF ELEVATION**

Showing bars in Outside Wall  
Dimensions are at right angles to  $\varnothing$  Roadway



**BARS h<sub>3</sub> & h<sub>8</sub>**

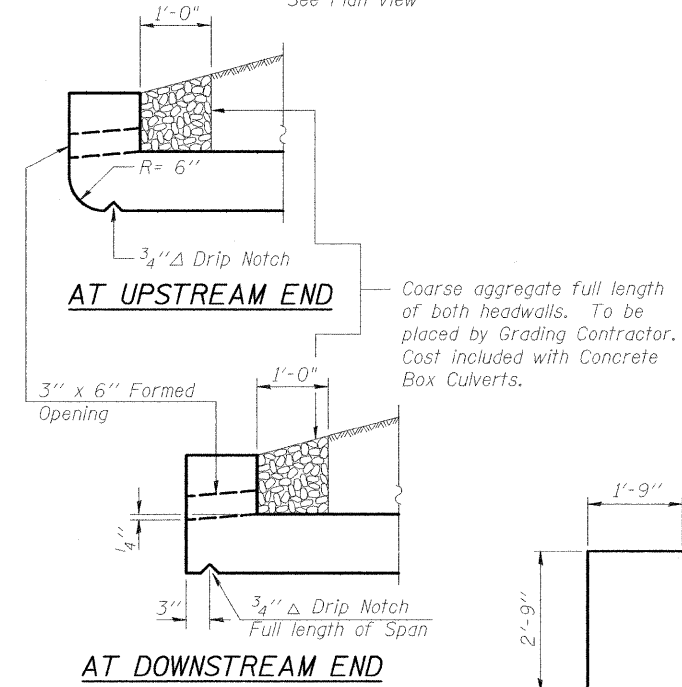
**BARS h<sub>6</sub> & h<sub>7</sub>**



**HALF SECTION THRU BARREL**

**HALF END ELEVATION**

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



**AT UPSTREAM END**

**AT DOWNSTREAM END**

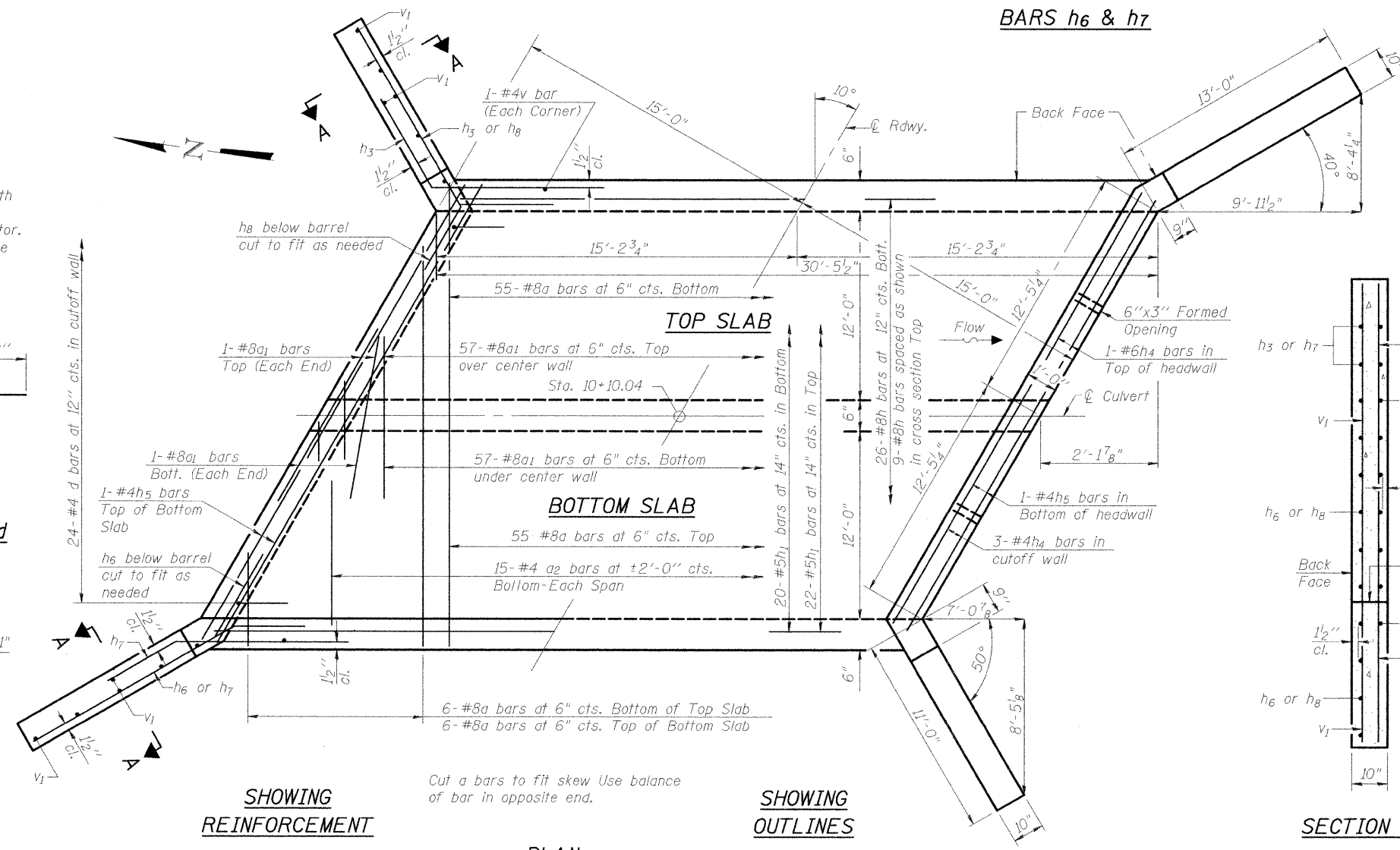
**DRAIN DETAIL**

**BAR d**

**BAR a**

DESIGNED	RAB
CHECKED	AMC
DRAWN	JAS
CHECKED	RAB

DB-H-R 10-22-04



**SHOWING REINFORCEMENT**

Cut a bars to fit skew Use balance of bar in opposite end.

**SHOWING OUTLINES**

**PLAN**

**BILL OF MATERIAL**

Bar	No.	Size	Length	Shape
a	122	#8	26'-10"	C
a <sub>1</sub>	122	#8	10'-0"	C
a <sub>2</sub>	30	#4	8'-10"	C
d	48	#4	4'-6"	C
h	35	#8	30'-0"	C
h <sub>1</sub>	42	#5	30'-0"	C
h <sub>2</sub>	15	#5	30'-0"	C
h <sub>3</sub>	32	#5	8'-0"	C
h <sub>4</sub>	10	#6	25'-5"	C
h <sub>5</sub>	8	#6	25'-5"	C
h <sub>6</sub>	26	#6	16'-6"	C
h <sub>7</sub>	32	#5	8'-0"	C
h <sub>8</sub>	26	#6	14'-0"	C
v	127	#4	6'-3"	C
v <sub>1</sub>	24	#4	9'-2"	C
Concrete Box Culverts			Cu. Yd.	70.0
Reinforcement Bars			Pound	19,990



5-11-2009  
License Expires 11-30-2010

**SECTION A-A**