

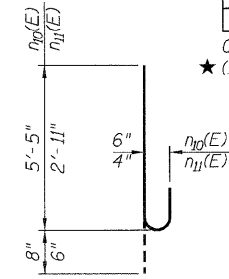
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAP 326	★	McHENRY	502	338
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT-	326	

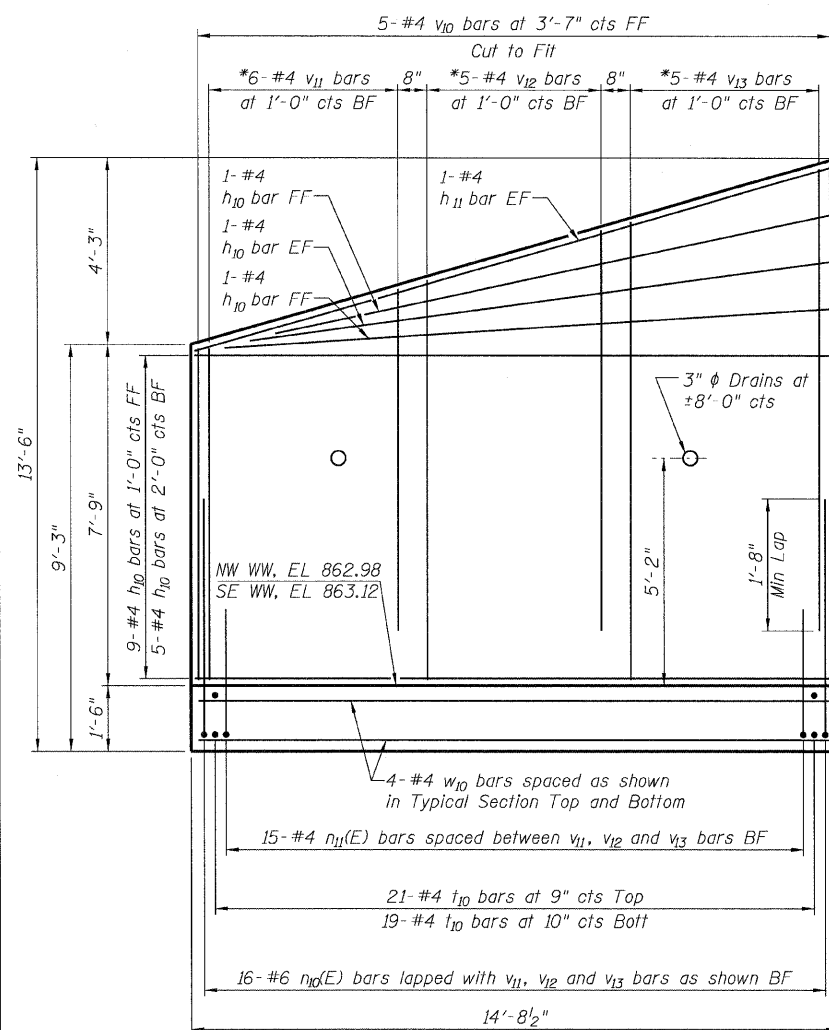
Contract No. 62882  
★ (105X & 106)WRS-2

**BILL OF MATERIAL**  
(Total for 4 Wingwalls)

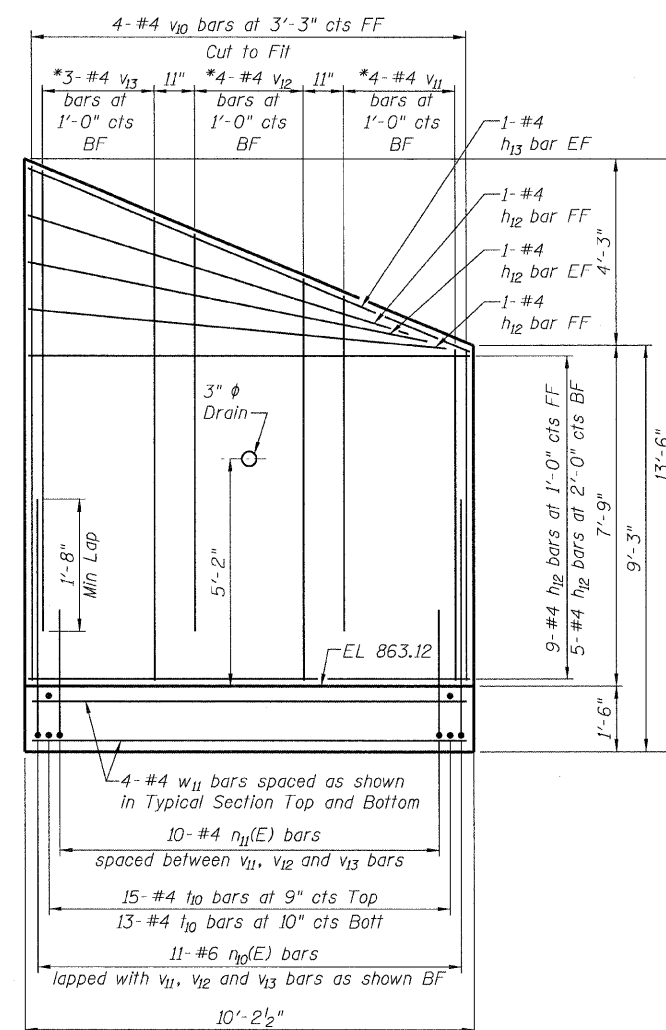
Bar	No.	Size	Length	Shape
$h_{10}$	36	#4	14'-4"	—
$h_{11}$	4	#4	14'-11"	—
$h_{12}$	36	#4	9'-10"	—
$h_{13}$	4	#4	10'-8"	—
$n_{10}(E)$	54	#6	6'-1"	⌋
$n_{11}(E)$	50	#4	3'-5"	⌋
$t_{10}$	136	#4	6'-4"	—
$v_{10}$	18	#4	11'-8"	—
$v_{11}$	20	#4	6'-7"	—
$v_{12}$	14	#4	7'-11"	—
$v_{13}$	16	#4	9'-3"	—
$w_{10}$	16	#4	14'-4"	—
$w_{11}$	16	#4	9'-11"	—
Reinforcement Bars		Pound	1,890	
Reinforcement Bars, Epoxy Coated		Pound	610	
Concrete Box Culverts		Cu. Yd.	33.3	



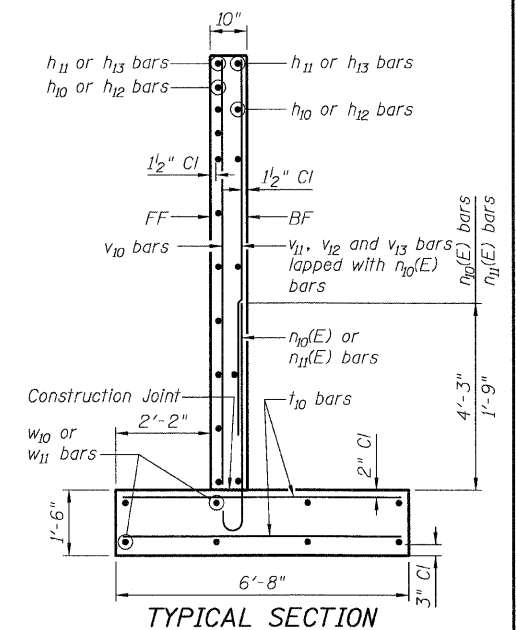
BARS  $n_{10}(E)$  and  $n_{11}(E)$



NORTHWEST AND SOUTHEAST WINGWALLS



NORTHEAST AND SOUTHWEST WINGWALL



TYPICAL SECTION

**Stanley Consultants INC.**  
8501 West Higgins Road, Suite 730, Chicago, Illinois 60631-2801  
www.stanleyconsultants.com  
Illinois Firm Registration No.: 1184-001533

CULVERT DETAILS  
IL ROUTE 47 OVER  
S. BRANCH KISHWAUKEE RIVER  
F.A.P. 326 - SECT. (105X & 106)WRS-2  
McHENRY COUNTY  
STATION 25+24.62  
STRUCTURE NO. 056-0085

DESIGNED	- DSE
CHECKED	- NDR
DRAWN	- RTT
CHECKED	- NDR
DATE	- Aug. 5, 2009

**NOTE:**

\*Lap  $v_{11}$ ,  $v_{12}$  and  $v_{13}$  bars with  $n_{10}(E)$  bars

**MIN BAR LAP**

#4 1'-8"

**LEGEND**

FF = Front Face  
BF = Back Face  
EF = Each Face  
NW WW = Northwest Wingwall  
SE WW = Southeast Wingwall