



**NOTES:**

1. For  $d_{10}(E)$ ,  $s_{12}(E)$ , and  $v_{10}(E)$  Bar dimensions see sheet S-160.
2. For minimum lap lengths and drain detail see sheet S-160.

**BILL OF MATERIAL**

Bar	No.	Size	Length	Shape
$b_{13}(E)$	8	#4	12'-0"	—
$b_{14}(E)$	8	#4	16'-11"	—
$b_{15}(E)$	1	#4	5'-0"	⤿
$b_{16}(E)$	1	#4	8'-0"	—
$d_{10}(E)$	19	#4	5'-4"	L
$d_{16}(E)$	2	#5	20'-4"	—
$d_{17}(E)$	6	#5	10'-1"	—
$d_{18}(E)$	6	#5	10'-5"	—
$d_{19}(E)$	6	#5	7'-5"	—
$s_{11}(E)$	8	#5	4'-0"	—
$s_{12}(E)$	10	#4	3'-7"	⤿
$s_{13}(E)$	2	#5	31'-11"	□
$t_{11}(E)$	19	#4	12'-0"	—
$v_{10}(E)$	19	#5	9'-2"	L
$v_{13}(E)$	22	#4	6'-6"	—
Structure Excavation			Cu. Yd.	38
Concrete Structures			Cu. Yd.	13.1
Reinforcement Bars, Epoxy Coated			Pound	1,010

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USER NAME = mthomas	DESIGNED - BWS	REVISED -
PLOT SCALE =	CHECKED - EKM	REVISED -
PLOT DATE = 10/27/2010	DRAWN - RD	REVISED -
	CHECKED - SCD	REVISED -

**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

**EAST HEADWALL DETAILS**  
**HICKORY CREEK TRIBUTARY CULVERT**  
 SHEET NO. 3 OF 3 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	99-5-Y	WILL	276	190
			CONTRACT NO. 60147	
ILLINOIS FED. AID PROJECT				