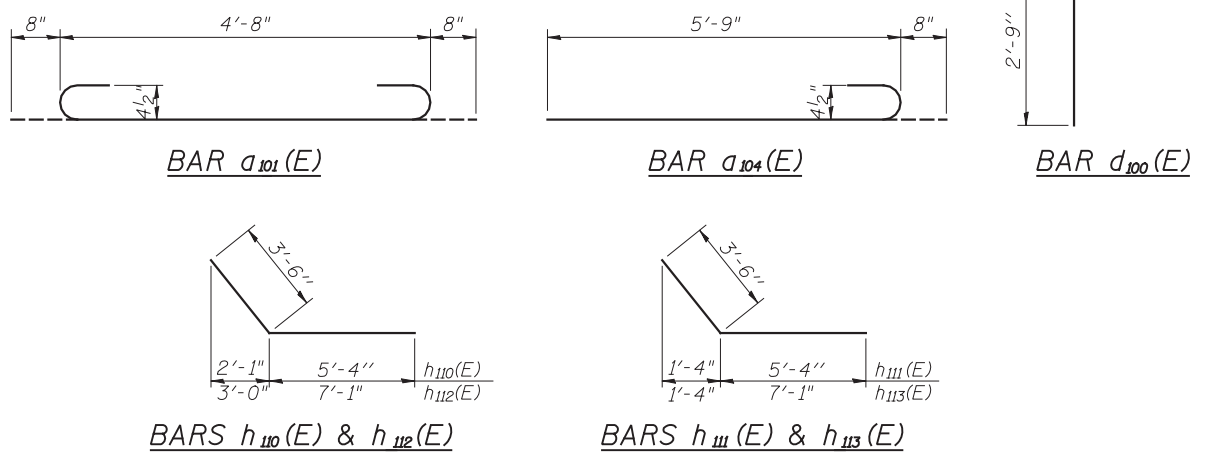
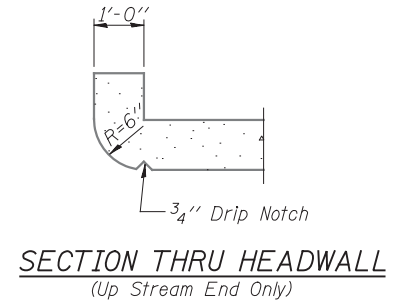


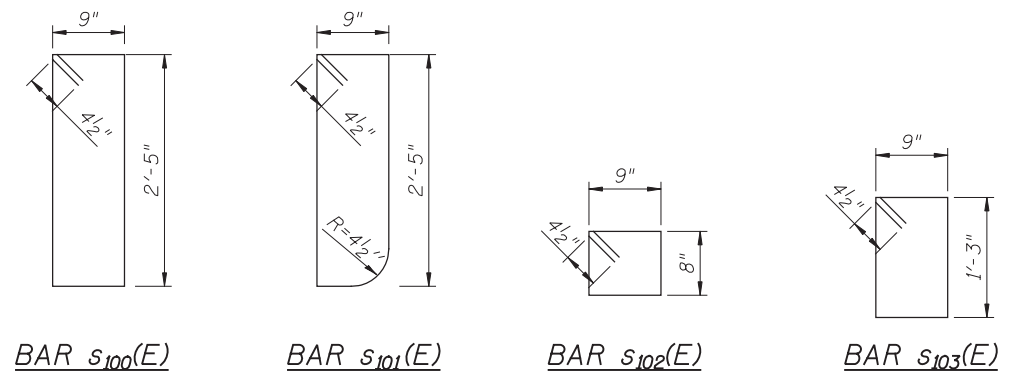
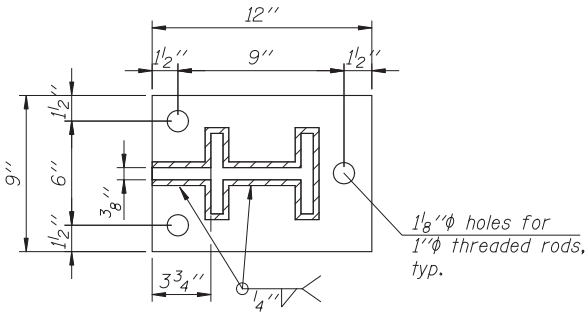
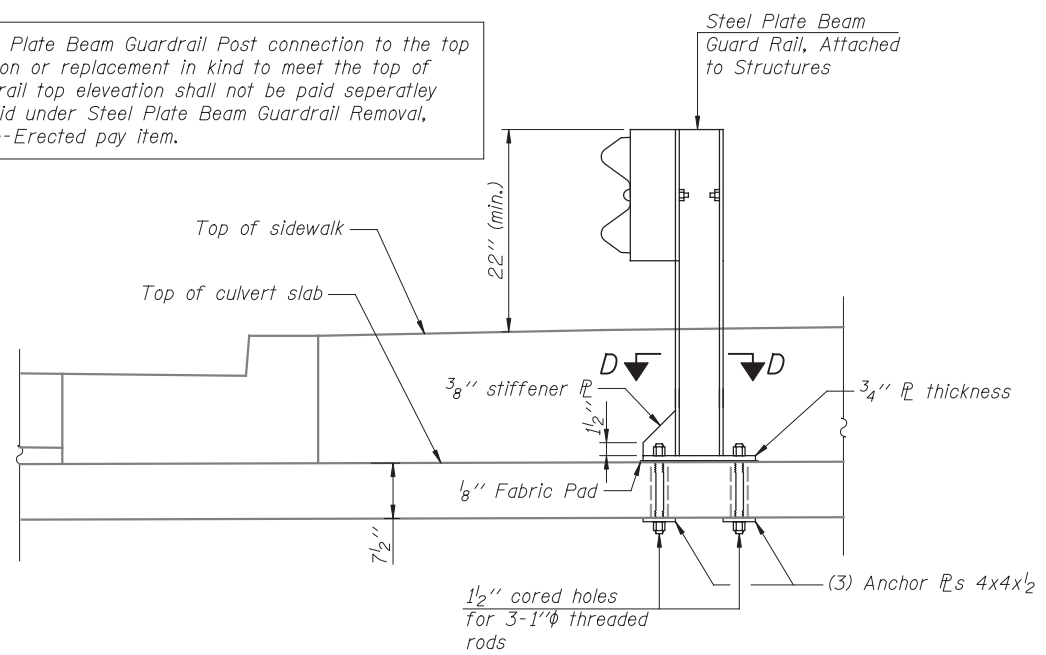
MINIMUM BAR LAPS

- #4 Bar 1'-9"
- #5 Bar 2'-2"
- #6 Bar 2'-7"
- #7 Bar 3'-5"
- #8 Bar 4'-6"



BILL OF MATERIAL				
Bar	No.	Size	Length	Shape
a101(E)	310	#6	6'-0"	U
a102(E)	42	#4	4'-8"	—
a103(E)	52	#5	4'-8"	—
a104(E)	40	#6	6'-5"	U
a105(E)	8	#4	5'-9"	—
a106(E)	10	#5	5'-9"	—
a107(E)	14	#6	5'-9"	—
d100(E)	12	#4	4'-6"	L
h100(E)	12	#6	21'-6"	—
h101(E)	24	#4	20'-11"	—
h102(E)	12	#4	20'-11"	—
h103(E)	12	#6	25'-9"	—
h104(E)	24	#4	24'-11"	—
h105(E)	12	#4	24'-11"	—
h106(E)	12	#5	21'-1"	—
h107(E)	12	#5	25'-1"	—
h108(E)	38	#6	5'-9"	—
h109(E)	8	#5	5'-9"	—
h110(E)	16	#7	8'-10"	—
h111(E)	14	#7	8'-10"	—
h112(E)	16	#7	10'-7"	—
h113(E)	14	#7	10'-7"	—
h114(E)	6	#7	9'-5"	—
h115(E)	6	#7	10'-8"	—
h116(E)	6	#7	7'-0"	—
h117(E)	6	#7	7'-0"	—
h118(E)	18	#4	6'-0"	—
h119(E)	18	#4	7'-0"	—
s100(E)	7	#4	7'-1"	U
s101(E)	7	#4	7'-1"	U
s102(E)	14	#4	3'-7"	U
s103(E)	14	#4	4'-9"	U
v100(E)	242	#5	3'-7"	—
v101(E)	52	#4	7'-11"	—
Reinforcement Bars, Epoxy Coated		Pound		9,810
Concrete Box Culverts		Cu. Yd.		40.4

Cost for Steel Plate Beam Guardrail Post connection to the top slab modification or replacement in kind to meet the top of existing guardrail top elevation shall not be paid separately and will be paid under Steel Plate Beam Guardrail Removal, Stored and Re-Erected pay item.



STEEL PLATE BEAM GUARD RAIL ATTACHED TO STRUCTURES
(Section shown at South end)

SECTION D-D

HBM
ENGINEERING GROUP, LLC
4415 WEST HARRISON ST.
SUITE 231
HILLSIDE, IL 60162
PHONE: (708) 236-0900
FAX: (708) 236-0901

DESIGNED - MI, LAB	REVISED -
CHECKED - MI	REVISED -
DRAWN - LAB, AI	REVISED -
CHECKED - MAI, MI	REVISED -

DATE - 12/24/2012

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SECTIONS AND DETAILS
BOX CULVERT (4'-0" x 2'-6") - STA. 78 + 69.39

F.A.P. RTE. 305	SECTION 1920.01-B-R	COUNTY COOK	TOTAL SHEETS 60	SHEET NO. 43
				CONTRACT NO. 60W04
ILLINOIS FED. AID PROJECT				

SHEET NO. S2-07 OF S2-10 SHEETS