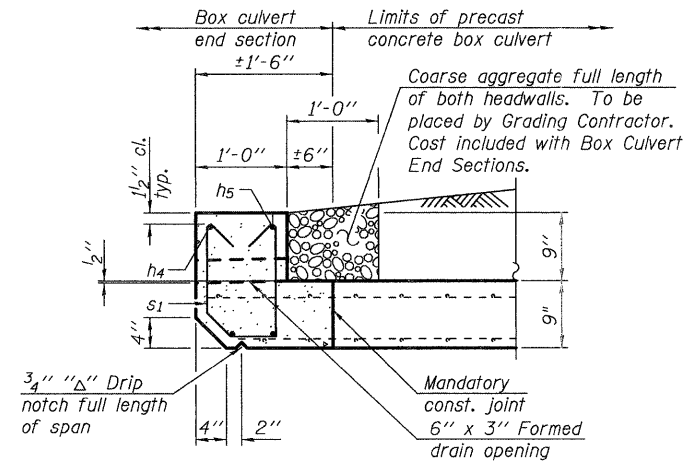
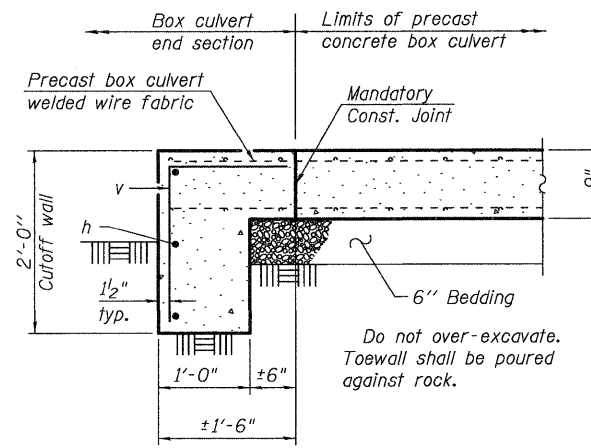


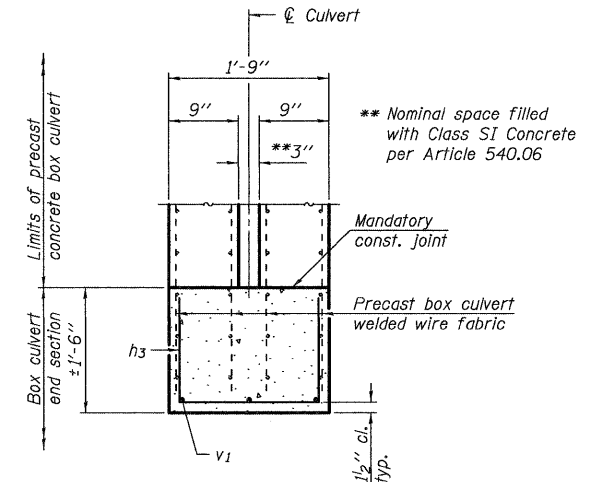
SECTION B-B
(Downstream Section)



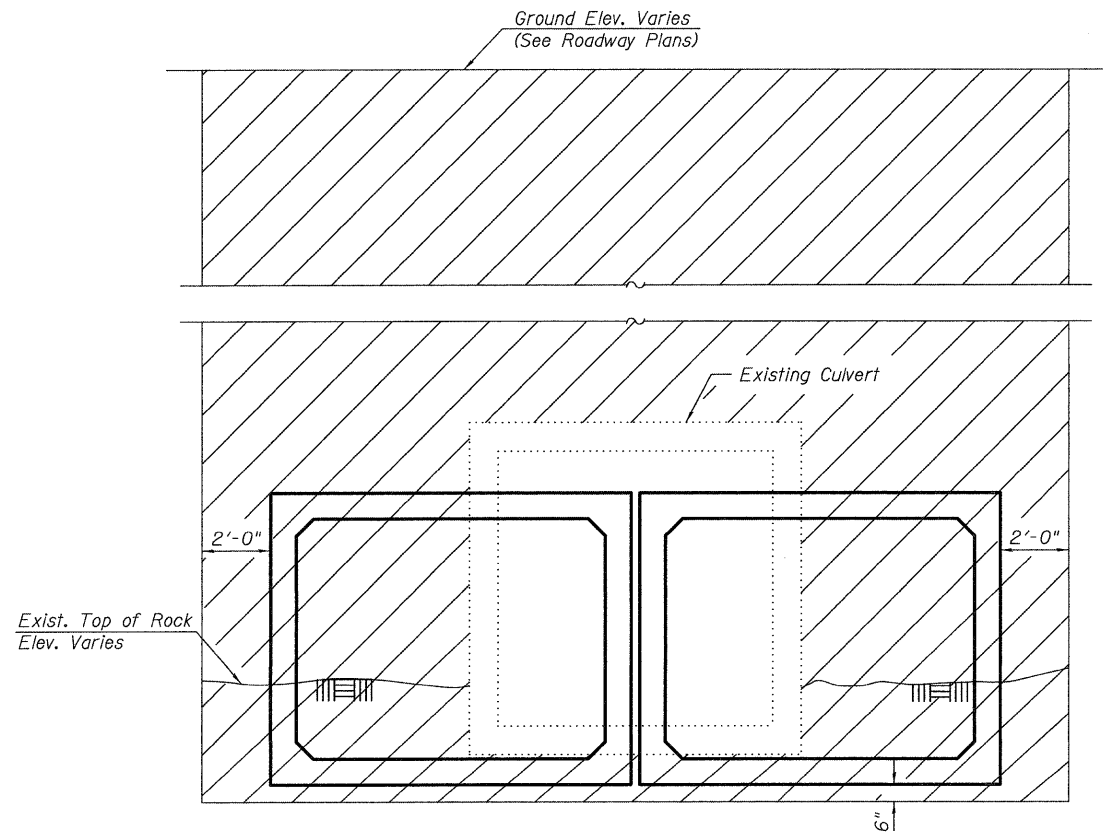
SECTION B-B
(Upstream Section)



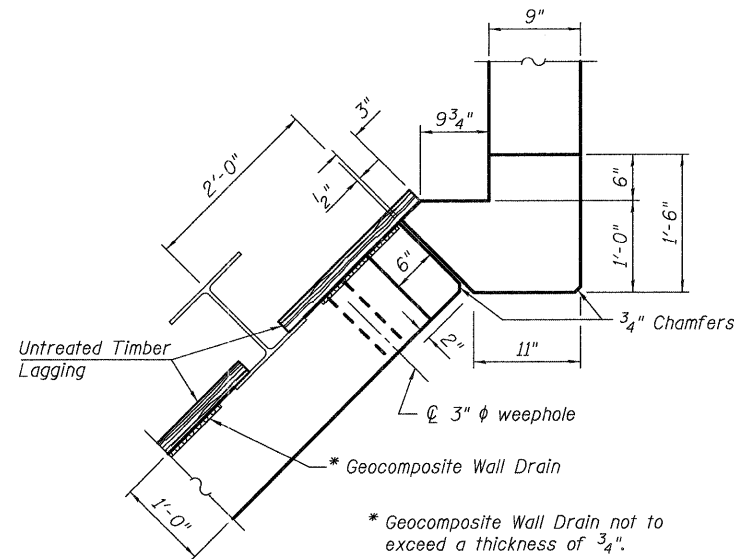
SECTION C-C
(Typ. Both Ends)



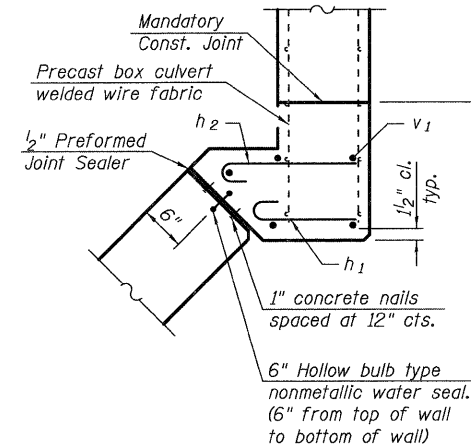
SECTION D-D
(Typ. Both Ends)



SECTION THRU CULVERT
(Showing excavation pay limits)



SECTION E-E
(Showing dimensions, wall drain, and weephole)



SECTION E-E
(Showing reinforcement and seal)

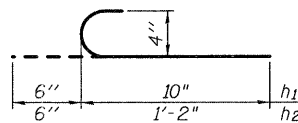
**ONE END SECTION
BILL OF MATERIAL**

(For information only)

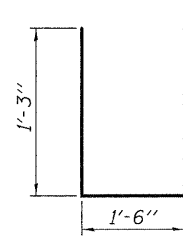
Bar	No.	Size	Length	Shape
h	3	#5	21'-4"	—
h ₁	22	#4	1'-4"	⌋
h ₂	22	#4	1'-8"	⌋
h ₃	8	#4	4'-0"	⌋
h ₄	2	#6	21'-4"	—
h ₅	2	#6	22'-6"	—
h ₆	44	#5	17'-9"	—
s	20	#4	4'-0"	⌋
s ₁	20	#4	3'-10"	⌋
v	20	#4	2'-11"	⌋
v ₁	13	#5	8'-3"	—
v ₂	38	#5	16'-2"	—
Concrete Structures			Cu. Yd.	11.3
Stud Shear Connectors			Each	60
Reinforcement Bars			Pound	1,930
Bar Splicers			Each	10
Furnishing Soldier Piles (HP Section)			Foot	154
Drilling and Setting Soldier Piles (in rock)			Cu. Ft.	282
Untreated Timber Lagging			Sq. Ft.	240
Concrete Box Culverts			Cu. Yd.	5.1
Geocomposite Wall Drain			Sq. Ft.	58

** Only s or s₁ bars are required for each end section.

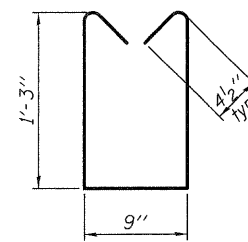
The above pay items will not be measured for payment but shall be included in the contract unit price each for Box Culvert End Sections of the culvert number specified.



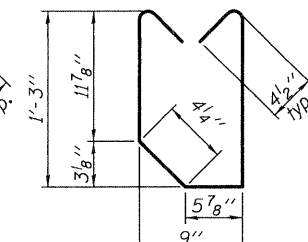
BARS h₁ and h₂



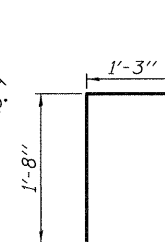
BAR h₃



BAR s



BAR s₁



BAR v

DESIGNED - DAVID L. GREIFZU
CHECKED - MICHAEL D. ROLAPE
DRAWN - MICHAEL B. MOSSMAN
CHECKED - D.L.G. / M.D.R.

EXAMINED
PASSED
ENGINEER OF BRIDGES AND STRUCTURES

DATE - August 1, 2011

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BOX CULVERT END SECTION DETAILS
STRUCTURE NO. 018-8311

SHEET NO. 3 OF 6 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
828	(108,109,110)RS-3	CUMBERLAND	56	41
CONTRACT NO. 74252				
ILLINOIS FED. AID PROJECT				