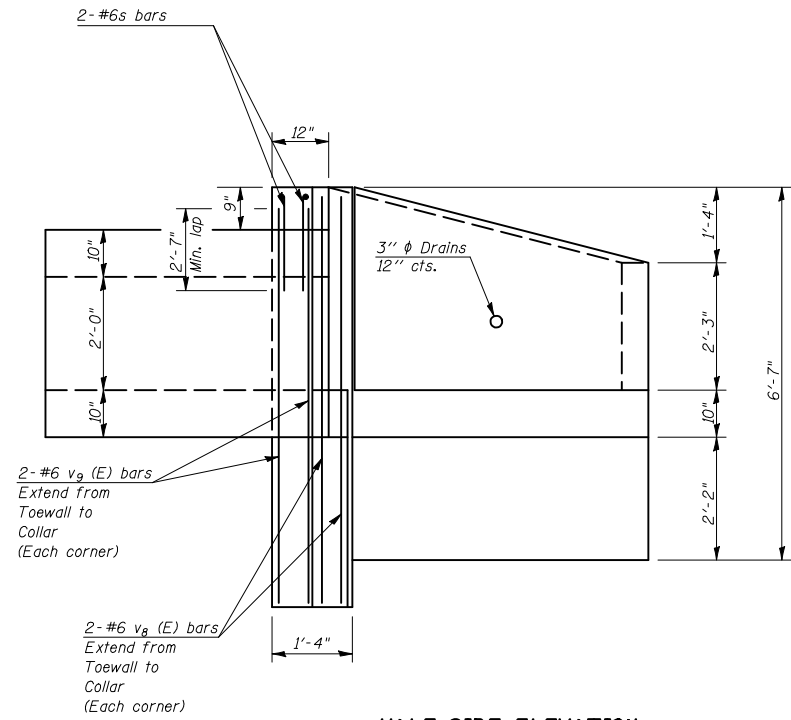


F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
323	(149,150)RS-3	EDGAR	83	41
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

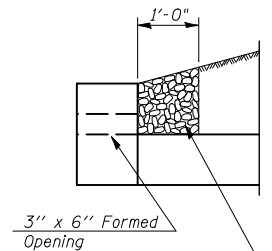
CAST-IN-PLACE BOX CULVERT END SECTION DETAIL

CULVERT NO. 1, PROPOSED S.N. 023-2017

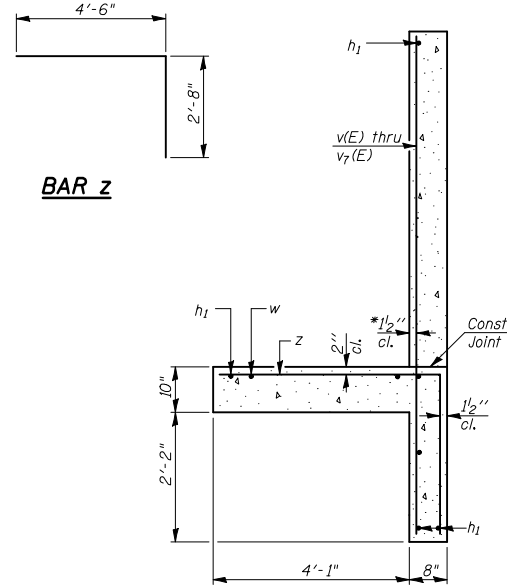
STATION 1701 + 41.00



HALF SIDE ELEVATION



3' x 6' Formed Opening
Coarse aggregate full length on both headwalls
Cost included with Box Culvert End Section

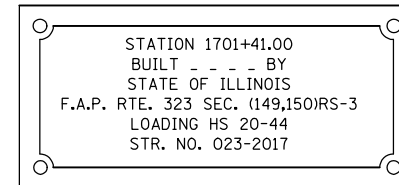


SECTION A-A

*v(E) bars shall not be placed more than 1/2" cl. from back face of wingwall.

- NOTES**
- All bars should be rounded and shall conform to the requirements of Art. 1006.10 of Standard Specs.
 - The Precast Concrete Box Culvert Sections shall conform to the requirements of AASHTO M273.
 - Reinforcement bars designated (E) shall be epoxy coated.
 - All construction joints shall be bonded.
 - Expansion bolts shall be 3/4" phi hooked bolts. Hooked bolts shall extend 6" into concrete collar. The cost of the bolts shall be included in the cost of Box Culvert End Section.
 - All dimensions are in FEET (')-INCHES (") unless otherwise noted.

- Concrete and Rebar quantities and lengths calculated for the cast-in-place End Sections will vary based on the precast box culverts supplied.
- End Sections will be paid for at the contract unit price each for BOX CULVERT END SECTION, as outlined in Art. 540.08, which prices shall include all concrete, rebar, and all other items necessary to complete the proposed work.
- Drain holes shall be provided in accordance with Art. 503.12.
- voids between the Precast Concrete Box Culvert and the Cast-in-place toewall / cutoff wall shall be filled with Non-shrink grout.
- Drawings not to scale.



NAME PLATE

* See Highway Standard 515001-02 for dimensions and placement.

* Name Plate will be paid for at the contract unit price per "EACH" for "NAME PLATES".

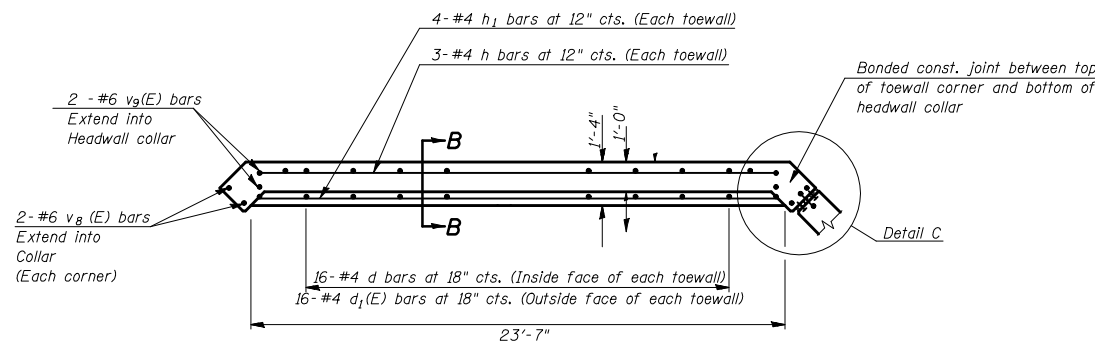
LOADING HS 20-44

BILL OF MATERIAL (ONE END SECTION)

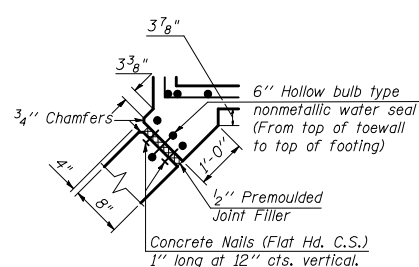
Bar	No.	Size	Length	Shape
d	16	#4	2'-8"	
d1(E)	16	#4	3'-6"	
h	7	#4	23'-11"	
h1	16	#4	7'-0"	
h2	2	#4	7'-1"	
h3	4	#4	9"	
h4	4	#4	1'-2"	
s	4	#6	18'-0"	
v (E)	2	#4	5'-1"	
v1(E)	2	#4	5'-3"	
v2(E)	2	#4	5'-5"	
v3(E)	2	#4	5'-7"	
v4(E)	2	#4	5'-9"	
v5(E)	2	#4	5'-11"	
v6(E)	2	#4	6'-1"	
v7(E)	2	#4	6'-3"	
v8(E)	4	#6	7'-3"	
v9(E)	4	#6	7'-0"	
w	12	#5	7'-0"	
z	18	#5	7'-2"	
Concrete/End Section				
Reinforcement Bars, Epoxy Coated	Cu. Yd.	10.0		
Reinforcement Bars, Epoxy Coated	Pound	141.0		
Reinforcement Bars	Pound	560.0		
Expansion Bolt 3/4" phi	Each	16.0		

TOTAL BILL OF MATERIALS

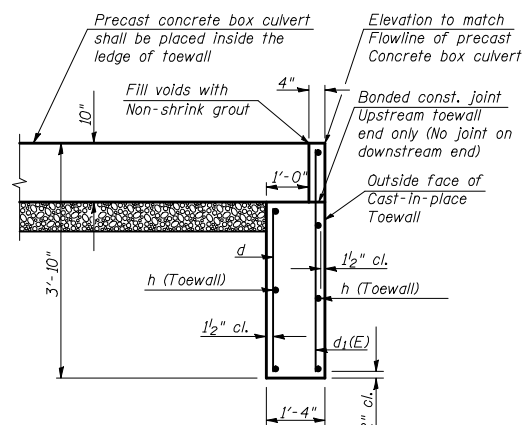
Item	Unit	Qty.
Box Culvert End Section Culvert No. 1	Each	2.0
Name Plate	Each	1.0



TOEWALL DETAIL WITH CORNER DIMENSIONS



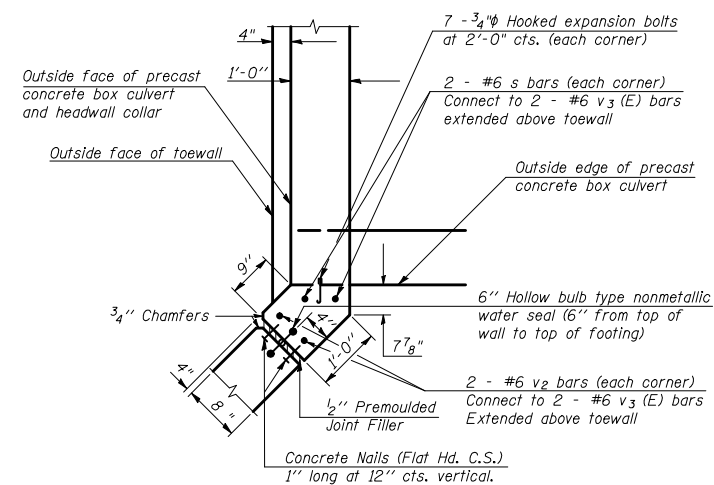
CORNER DETAIL C



SECTION B-B TOEWALL DETAIL ONLY

(SIDE WALL OF PRECAST BOX CULVERT NOT SHOWN)

Porous Granular Material - CA 7 (6")
(Included in pay item for precast box culvert)



CAST-IN-PLACE CORNER DETAIL FOR HEADWALL COLLAR

SHEET 7 OF 7

DRAWING NOT TO SCALE

ILLINOIS DEPARTMENT OF TRANSPORTATION
DETAIL OF BOX CULVERT END SECTION (CAST IN PLACE)
FAP ROUTE 323 (US 36)
SECTION (149,150)RS-3
EDGAR COUNTY

SCALE: NOT TO SCALE DRAWN BY: JMS
DATE: 06/12/2008 CHECKED BY: