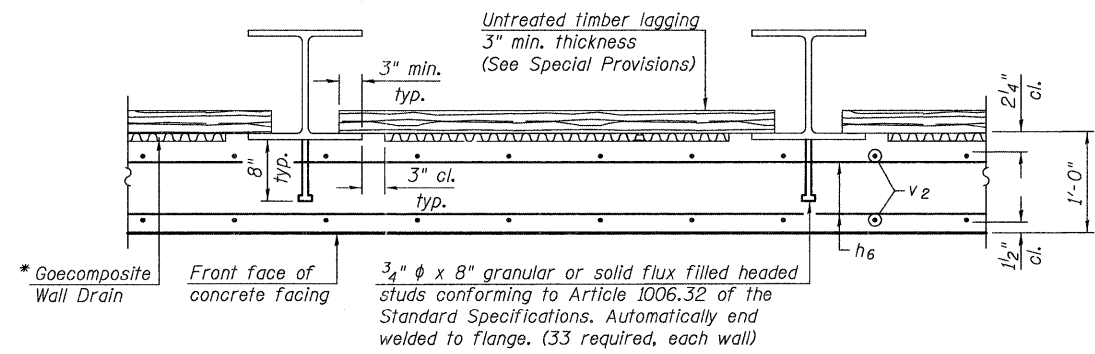
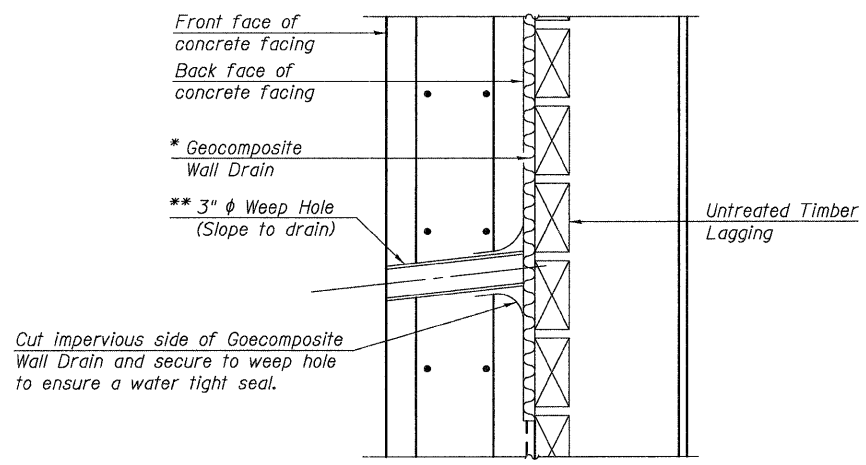


SECTION E-E



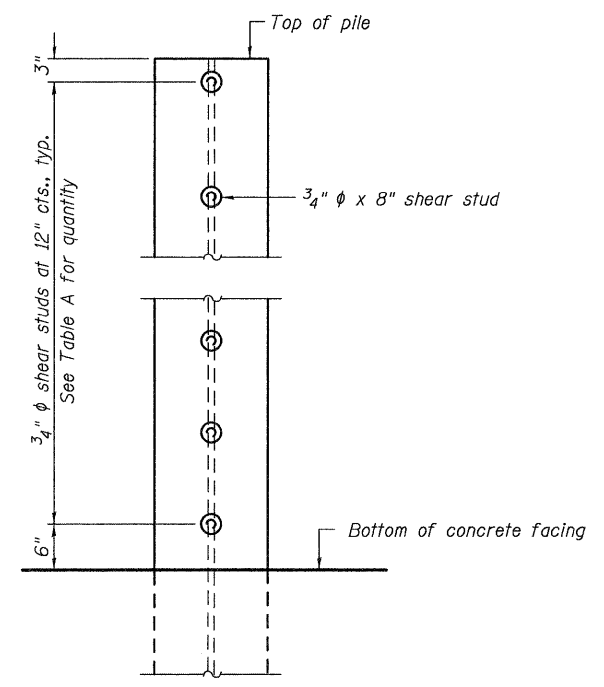
SECTION G-G



WEEP HOLE DRAIN DETAIL

** Cost of the weep hole drain and the connection to the geocomposite wall drain are included with Box Culvert End Sections.

Note:
The Contractor is responsible for the design and performance of the lagging using no less than a 3 in. nominal rough-sawn thickness and timber with a minimum allowable bending stress of 1000 psi.



SHEAR STUD DETAIL
(Elevation of Pile Shown)

TABLE A
(Upstream)

Soldier Pile	Pile Size	Top Elevation (ft.)	Bottom Elevation (ft.)	Total Height (ft.)	Number of Shear Studs
1	HP 14 x 102	601.2	574.0	27.2	13
2	HP 14 x 102	599.18	574.0	25.18	11
3	HP 14 x 102	597.15	574.0	23.15	9
4	HP 14 x 102	595.13	580.0	15.13	
Total				91	33

TABLE A
(Downstream)

Soldier Pile	Pile Size	Top Elevation (ft.)	Bottom Elevation (ft.)	Total Height (ft.)	Number of Shear Studs
1	HP 14 x 102	600.7	574.0	26.7	13
2	HP 14 x 102	598.68	574.0	24.68	11
3	HP 14 x 102	596.65	574.0	22.65	9
4	HP 14 x 102	594.63	580.0	14.63	
Total				89	33

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. 018-8650

SHEET NO. 4 OF 7 SHEETS

F.A.P. RTE. 773	SECTION (108,109,110)RS-3	COUNTY CUMBERLAND	TOTAL SHEETS 56	SHEET NO. 35
				CONTRACT NO. 74252
ILLINOIS FED. AID PROJECT				