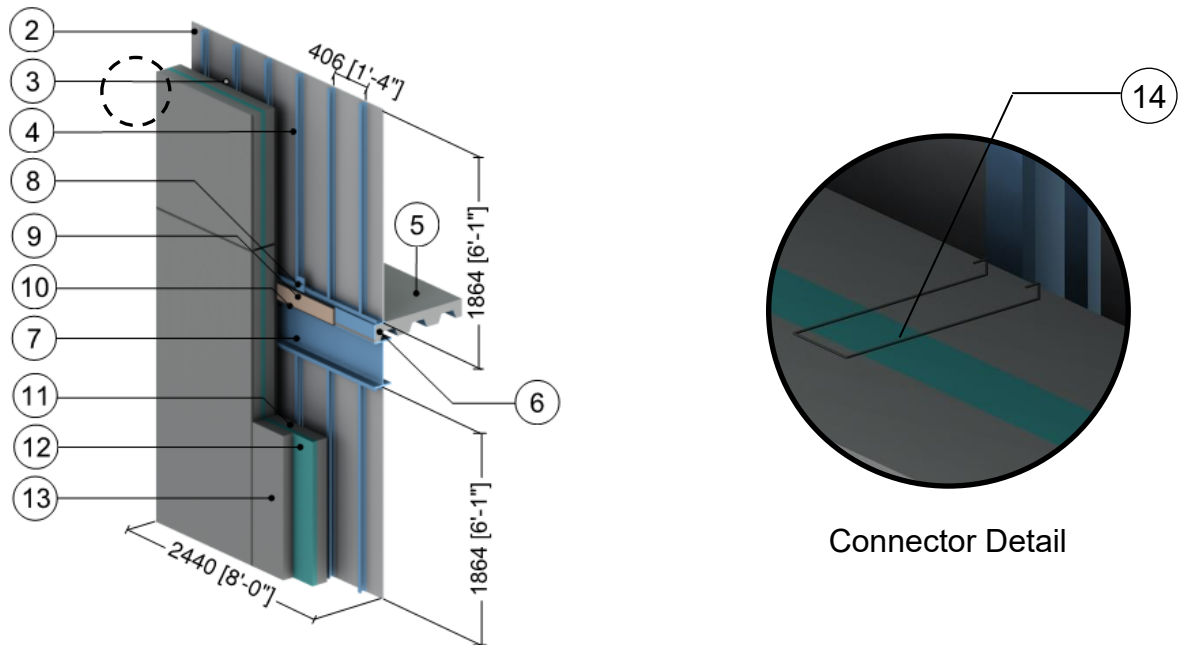


Detail 7.2.10

Precast Sandwich Panel Wall Assembly with Steel Connectors at 16" o.c. – Intermediate Floor Intersection



ID	Component	Thickness Inches (mm)	Conductivity Btu-in / ft ² ·hr·°F (W/m K)	Nominal Resistance hr·ft ² ·°F/Btu (m ² K/W)	Density lb/ft ³ (kg/m ³)	Specific Heat Btu/lb·°F (J/kg K)
1	Interior Film (bottom) ¹	-	-	R-0.6 to R-0.9 (0.11 RSI to 0.16 RSI)	-	-
2	Gypsum Board	1/2" (13)	1.1 (0.16)	R-0.5 (0.08 RSI)	50 (800)	0.26 (1090)
3	Air in Stud Cavity	5 5/8" (143)	-	R-0.9 (0.16 RSI)	0.075 (1.2)	0.24 (1000)
4	3 5/8" x 1 5/8" Steel Studs with Top and Bottom Tracks	18 Gauge	430 (62)	-	489 (7830)	0.12 (500)
5	Concrete Topping	6" (152)	6.3 (0.9)	-	120 (1920)	0.20 (850)
6	Steel Deck	1/16" (1.6)	347 (50)	-	489 (7830)	0.12 (500)
7	Steel Beam (W410)	-	347 (50)	-	489 (7830)	0.12 (500)
8	Gravity and Slot Anchors at Slab	-	347 (50)	-	489 (7830)	0.12 (500)
9	Semi Rigid Insulation	1" (25)	0.24 (0.034)	R-4.2 (0.75 RSI)	4 (64)	0.20 (850)
10	Silicone Sealant	-	2.4 (0.35)	-	174 (2800)	0.17 (700)
11	Precast Sandwich Panel, Interior Concrete	4" (102)	12.5 (1.8)	-	140 (2250)	0.20 (850)
12	Precast Sandwich Panel, Insulation	2" (51)	-	R-10 (1.76 RSI)	1.8 (28)	0.29 (1220)
13	Precast Sandwich Panel, Exterior Concrete	4" (102)	12.5 (1.8)	-	140 (2250)	0.20 (850)
14	Precast Sandwich Panel, Steel Connectors @ 16" (406) o.c.	16 Gauge	430 (62)	-	489 (7830)	0.12 (500)
15	Exterior Film ¹	-	-	R-0.2 (0.03 RSI)	-	-

¹ Value selected from table 1, p. 26.1 of 2009 ASHRAE Handbook – Fundamentals depending on surface orientation