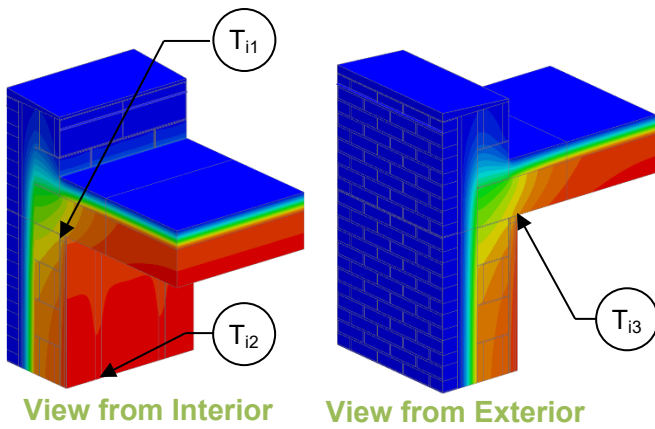


Detail 7.5.11

Owens Corning Exterior Insulated Concrete Block Wall Assembly with Heckmann Pos-I-Tie Vener Anchoring System Supporting Brick Veneer – Roof to Wall Intersection with Uninsulated Parapet



Thermal Performance Indicators

Assembly 1D (Nominal) R-Value	R_{1D}	R-5.6 (0.99 RSI) + exterior insulation
Transmittance / Resistance without Anomaly	U_r , R_r , U_w , R_w	“clear field” U- and R-values for: r = roof w = wall
Transmittance / Resistance	U, R	U- and R-values for overall assembly
Surface Temperature Index ¹	T_i	0 = exterior temperature 1 = interior temperature
Linear Transmittance	ψ	Incremental increase in per length of parapet

¹Assumptions and limitations for surface temperatures identified in ASHRAE 1365-RP

Nominal (1D) vs. Assembly Performance Indicators

Base Assembly – Wall

Exterior Insulation 1D R-Value (RSI)	R_{1Dw} ft ² ·hr·°F / Btu (m ² K / W)	R_w ft ² ·hr·°F / Btu (m ² K / W)	U_w Btu/ft ² ·hr ·°F (W/m ² K)
R-10.0 (1.76)	R-15.6 (2.75)	R-13.4 (2.36)	0.075 (0.42)
R-20.0 (3.52)	R-25.6 (4.51)	R-20.0 (3.52)	0.050 (0.28)

Base Assembly - Roof

Roof Insulation 1DR-Value (RSI)	R_r ft ² hr °F / Btu (m ² K / W)	U_r Btu/ft ² ·hr ·°F (W/m ² K)
R-20 (3.52)	R-21.9 (3.86)	0.046 (0.26)

Parapet Linear Transmittance

Exterior Insulation 1D R-Value (RSI)	R ft ² ·hr·°F / Btu (m ² K / W)	U Btu/ft ² ·hr ·°F (W/m ² K)	ψ Btu/ft hr °F (W/m K)
R-10.0 (1.76)	R-8.9 (1.56)	0.113 (0.64)	0.292 (0.505)
R-20.0 (3.52)	R-10.0 (1.75)	0.100 (0.57)	0.290 (0.502)

Temperature Indices

	R10	R20	
T_{i1}	0.72	0.74	Min T on interior CMU surface, at concrete roof slab intersection
T_{i2}	0.85	0.89	Max T on interior CMU surface, at studs and away from concrete roof slab intersection
T_{i3}	0.78	0.79	Min T on concrete ceiling, at drywall intersection, exposed to interior air