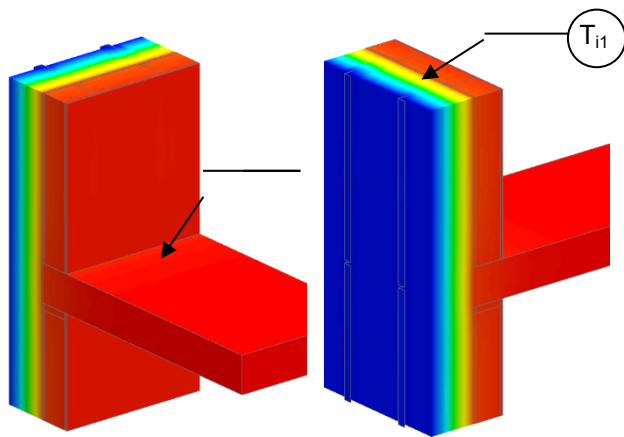


Detail 5.2.38

Exterior Insulated 6" x 1 5/8" Steel Stud (16" o.c.) Wall Assembly with FRP Vertical Brackets and Rail System Supporting Metal Cladding – Intermediate Floor Intersection

Thermal Performance Indicators



View from Interior

View from Exterior

Assembly 1D (Nominal) R-Value	R_{1D}	R-3.2 (0.56 RSI) + exterior insulation
Transmittance / Resistance without Anomaly	U_o, R_o	"clear wall" U- and R-value without slab
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 transmittance per linear length of slab

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

Nominal (1D) vs. Assembly Performance Indicators

Exterior Insulation 1D R-Value (RSI)	R_{1D} ft ² ·hr·°F / Btu (m ² K / W)	R_o ft ² ·hr·°F / Btu (m ² K / W)	U_o Btu/ft ² ·hr ·°F (W/m ² K)	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-42 (7.40)	R-45.2 (7.96)	R-40.0 (7.04)	0.025 (0.14)	R-39.5 (6.96)	0.025 (0.14)	0.002 (0.003)

Temperature Indices

	R42	
T_{i1}	0.94	Min T on sheathing cavity centre away from slab
T_{i2}	0.96	Max T on sheathing, at slab, at steel studs