

South Bend, IN #204**SI**

TABLE 301.1 EXTERIOR DESIGN CONDITIONS

WINTER Design Dry Bulb: minus 19°C	HDD18: 3489
SUMMER Design Dry Bulb:32°C;Mean Coincident Wet Bulb:23°C	CDD18: 380
Annual Operating Hours, 8AM - 4PM when 12.8°C <= T <= 20.6°C: 635	

TABLE 402.3.1(A) MAX. THERMAL TRANSMITTANCE (U)

Roof	0.312
Wall adjacent to unconditioned space	0.761
Floor over unconditioned space	0.284

TABLE 402.3.1(B) MAX. EXEMPT SKYLIGHT AREA AS % OF ROOF AREA

Visible Light Transmittance (VLT)	Light level Lux	Range of Lighting Power Densities			
		<10.8	10.8-16.2	16.3-21.5	>21.5
0.75	320	2.3	3.4	4.5	5.6
	540	2.5	4.0	5.5	7.0
	750	2.8	4.6	6.4	8.2
0.50	320	3.6	5.1	6.6	8.1
	540	3.9	6.0	8.1	10.2
	750	4.2	6.9	9.6	12.3

TABLE 402.3.2 MINIMUM THERMAL RESISTANCE (R-VALUE)

Slab on grade: Unheated / Heated:	600 mm	900 mm	1200 mm
	R-3/R-5	R-2/R-4	R-2/R-4
Horizontal	R-3/R-5	R-2/R-4	R-2/R-4
Vertical	R-1/R-3	R-1/R-3	R-1/R-3

Wall below grade:	R-2

TABLE 402.4.1.1 MAX. WALL THERMAL TRANSMITTANCE (Uow)

ILD Range	WWR	HC Range	Insulation Position	
			Interior/Integral	Exterior
All	0 to 100	0.0 - 28	0.477	0.477
0.0 to 16.1	24	29 - 56	0.505	0.625
		57 - 85	0.551	0.704
		85 +	0.585	0.727
	62	29 - 56	0.500	0.585
16.2 to 32.3	20	57 - 85	0.528	0.642
		85 +	0.556	0.664
		29 - 56	0.511	0.664
	65	57 - 85	0.568	0.772
		85 +	0.619	0.812
		29 - 56	0.500	0.602
32.4 to 37.7	18	57 - 85	0.539	0.670
		85 +	0.568	0.693
		29 - 56	0.511	0.676
	65	57 - 85	0.574	0.795
		85 +	0.630	0.840
		29 - 56	0.500	0.608

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TABLE 402.4.1.2 MAXIMUM WINDOW WALL RATIO (WWR)

Internal Load Density (ILD) Range	Projection Factor (PF) Range	Solar Heat Gain Coefficient (SHGC) Range	Fenestration U-Factor (Uof)		
			Base Case		Perimeter Daylighting
			to 2.96	to 2.22	to 0.00
0.0 - 16.1	0.00 - 0.25	0.87 - 0.63	24	25	27
		0.62 - 0.53	27	29	32
		0.52 - 0.44	30	32	36
		0.43 - 0.34	32	35	41
		0.33 - 0.23	36	40	48
	0.26 - 0.50	0.22 - 0.00	41	46	59
		0.87 - 0.63	31	33	37
		0.62 - 0.53	34	37	43
		0.52 - 0.44	36	40	48
		0.43 - 0.34	39	43	53
16.2 - 32.3	0.50 +	0.33 - 0.00	42	47	60
		0.87 - 0.63	36	39	46
		0.62 - 0.53	39	43	52
		0.52 - 0.44	41	45	57
		0.43 - 0.00	42	48	62
	0.00 - 0.25	0.87 - 0.63	20	21	22
		0.62 - 0.53	24	25	27
		0.52 - 0.44	27	28	31
		0.43 - 0.34	30	32	36
		0.33 - 0.23	34	37	43
32.4 - 37.7	0.26 - 0.50	0.22 - 0.00	41	45	56
		0.87 - 0.63	27	29	31
		0.62 - 0.53	31	33	37
		0.52 - 0.44	34	36	42
		0.43 - 0.34	37	40	47
	0.50 +	0.33 - 0.00	41	45	55
		0.87 - 0.63	33	35	39
		0.62 - 0.53	36	39	46
		0.52 - 0.44	39	42	51
		0.43 - 0.00	42	46	56
	0.00 - 0.25	0.87 - 0.63	18	19	20
		0.62 - 0.53	21	22	24
		0.52 - 0.44	24	25	28
		0.43 - 0.34	27	29	32
		0.33 - 0.23	32	34	39
	0.26 - 0.50	0.22 - 0.00	39	42	51
		0.87 - 0.63	24	26	28
		0.62 - 0.53	28	30	33
		0.52 - 0.44	31	33	38
		0.43 - 0.34	34	37	43
	0.50 +	0.33 - 0.00	38	42	51
		0.87 - 0.63	30	31	35
		0.62 - 0.53	33	36	41
		0.52 - 0.44	36	39	46
		0.43 - 0.00	39	43	48