Cross Section & Energy Efficiencies

Ceiling Below Attic Space

Zone 4 Required RSI: 6.91 Equivalent Required R-Value: 39.3

Calculation for RSI (Paralell Path):

$$\frac{100}{\frac{11}{\text{[\% area of framing (Af)] from Table A-9.36.2.4.(1)A}} \times \frac{89}{\text{[\% area of cavity (Ac)] from Table A-9.36.2.4.(1)A}}}$$

89	X	0.0085	+	89	X	0.0188
Thickness (mm) for 2x4 bottom chord of truss		RSI per mm		Thickness (mm) for insulation within cavity		RSI per mm
[RSIf] from Table A-9.36.2.4.(1)D				[RSIc] from Table A-9.36.2.4.(1)D		

Calculation for RSI (Continuous Path):

Item Description	Thickness (mm)	RSI per mm	RSI	Equivalent Effective R-Value
Exterior Air Film	N/A	N/A	0.0300	0.17
min. 300mm blown-in insulation above bottom chords	300.0000	0.0188	5.6250	31.96
			0.0000	0.00
Paralell Path RSI	As Per Calculation Above		1.4733	8.37
6 mil poly vapour barrier	0.0000	0.0000	0.0000	0.00
1/2" Gypsum Board	13.0000	0.0061	0.0793	0.45
Interior Air Film	N/A	N/A	0.1000	0.57
			0.0000	0.00
			0.0000	0.00
			7.308 Total Effective RSI	41.52 Equivalent Effective R-Value

Wall Above Grade - Fibercement

Zone 4 Required RSI: 2.78 Equivalent R-Value: 15.8

Calculation for RSI (Paralell Path):

$$\frac{100}{\frac{23}{\text{[\% area of framing (Af)] from Table A-9.36.2.4.(1)A}} \times \frac{77}{\text{[\% area of cavity (Ac)] from Table A-9.36.2.4.(1)A}}}$$

140	X	0.0085	+	140	X	0.0238
Thickness (mm) for 2x6 framed wall		RSI per mm		Thickness (mm) for R-19 (R-20 compressed)		RSI per mm
[RSIf] from Table A-9.36.2.4.(1)D				[RSIc] from Table A-9.36.2.4.(1)D		

Calculation for RSI (Continuous Path):

Item Description	Thickness (mm)	RSI per mm	RSI	Equivalent Effective R-Value
Exterior Air Film	N/A	N/A	0.030	0.17
Horizontal Fibercement Siding	8.0000	0.0030	0.024	0.14
1/2" Air Cavity	N/A	N/A	0.160	0.91
1/2" Fir Ply Sheeting	12.5000	0.0111	0.139	0.79
Paralell Path RSI - As per Calculation Above	As Per Calculation Above		2.356	13.39
6 mil poly vapour barrier	N/A	N/A	0.000	0.00
1/2" Gypsum Board	13.0000	0.0061	0.079	0.45
Interior Air Film	N/A	N/A	0.120	0.68
			0.000	0.00
			0.000	0.00
			2.91 Total Effective RSI	16.525 Equivalent Effective R-Value

Unheated Floor Above Frost Line

Zone 4 Required RSI: 1.96 Equivalent R-Value: 11.1

Calculation for RSI (Paralell Path):

$$\frac{100}{\frac{0}{\text{[\% area of framing (Af)] from Table A-9.36.2.4.(1)A}} \times \frac{0}{\text{[\% area of cavity (Ac)] from Table A-9.36.2.4.(1)A}}}$$

0	X	0.0000	+	0	X	0.0000
Thickness (mm) for 2x4 bottom chord of truss		RSI per mm		Thickness (mm) for insulation within cavity		RSI per mm
[RSIf] from Table A-9.36.2.4.(1)D				[RSIc] from Table A-9.36.2.4.(1)D		

Calculation for RSI (Continuous Path):

Item Description	Thickness (mm)	RSI per mm	RSI	Equivalent Effective R-Value
Interior Air Film	N/A	N/A	0.160	0.17
4" Concrete Floor	102.0000	0.0004	0.041	0.23
			0.000	0.00
Paralell Path RSI - N/A for Concrete Floor	As Per Calculation Above		0.000	0.00
			0.000	0.00
50mm (2") styrospan (Extruded Polystyrene Foam, Type 2, 3, or 4)	50.0000	N/A	1.760	10.00
			0.000	0.00
			0.000	0.00
			0.000	0.00
			1.961 Total Effective RSI	10.402 Equivalent Effective R-Value

Wall in Contact with Ground

Zone 4 Required RSI: 1.99 Equivalent R-Value: 11.3

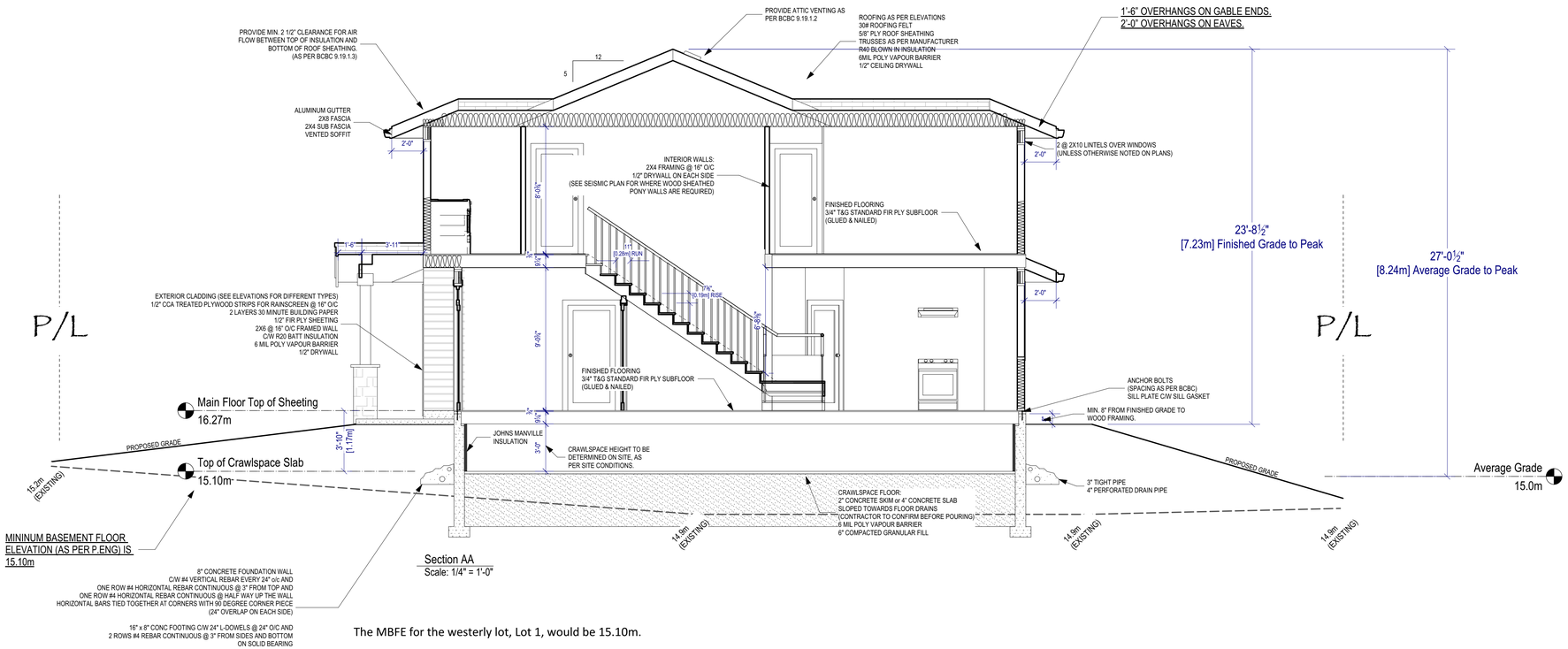
Calculation for RSI (Paralell Path):

$$\frac{100}{\frac{0}{\text{[\% area of framing (Af)] from Table A-9.36.2.4.(1)A}} \times \frac{0}{\text{[\% area of cavity (Ac)] from Table A-9.36.2.4.(1)A}}}$$

0	X	0.0000	+	0	X	0.0000
Thickness (mm) for 2x4 framed wall		RSI per mm		Thickness (mm) for R-12 Insulation		RSI per mm
[RSIf] from Table A-9.36.2.4.(1)D				[RSIc] from Table A-9.36.2.4.(1)D		

Calculation for RSI (Continuous Path):

Item Description	Thickness (mm)	RSI per mm	RSI	Equivalent Effective R-Value
Exterior air film (N/A as it's under ground)	N/A	N/A	0.0000	0.00
8" Cement Foundation Wall	203.2000	0.0004	0.0813	0.46
			0.0000	0.00
			0.0000	0.00
Paralell Path RSI - N/A	As Per Calculation Above		0.0000	0.00
R-13 Johns Manville Foil-faced insulation	N/A	N/A	2.2100	12.56
			0.0000	0.00
Interior Air Film	N/A	N/A	0.1200	0.68
			0.0000	0.00
			0.0000	0.00
			2.411 Total Effective RSI	13.7 Equivalent Effective R-Value



Section AA
Scale: 1/4" = 1'-0"

The MBFE for the westerly lot, Lot 1, would be 15.10m.

1234 COLWOOD DRIVE COLWOOD, B C	DWG NO: 4 OF 5	DESIGN BY:	Colwood, B.C.
	DATE:	DRAWN BY:	