

Guidelines on Design and Construction Requirements for Energy Efficiency of Residential Buildings 2014

Form RTTV (Wall) 2 - Summary of Overall RTTV_{wall} of Building

Sheet No. T1 - 12 BD Ref No. BD 2/9048/18
 Building Address Proposed Residential Development at Lot No. 1068 in Survey District No. 3 Off Anderson Road, Kwun Tong, Kowloon

Overall Gross Wall Area [a] 4946.39 m²

Facade Orientation Facing	Gross Wall Area	Heat Conduction through Opaque Walls	Heat Conduction through Glazing	Solar Radiation through Glazing	RTTV _{wall} at Each Facade	Area-weighted RTTV _{wall}
	(m ²)	(W/m ²)	(W/m ²)	(W/m ²)	(W/m ²)	(W/m ²)
	[b]	[c]	[d]	[e]	[f]=[c]+[d]+[e]	[g]=[f]x[b]/[a]
North	1152.41	4.73	0.38	5.93	11.04	2.57
East	487.62	9.97	0.00	0.00	9.97	0.98
South	1152.23	5.46	0.51	6.68	12.65	2.95
West	2154.14	7.79	0.39	5.21	13.40	5.83

Overall RTTV_{wall} = 12.34 W/m²

< 14 W/m² ok.

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Form RTTV (Roof) 2 - Summary of RTTV_{roof} of Building Envelopes

Sheet No. T1 - 15 BD Ref No. BD 2/9048/18
 Building Address Proposed Residential Development at Lot No. 1068 in Survey District No. 3 Off Anderson Road, Kwun Tong, Kowloon

Overall Roof Area [a] 229.12 m²

Roof	Gross Roof Area (m ²) [b]	Heat Conduction through Opaque Roof (W/m ²) [c]	Heat Conduction through Skylight (W/m ²) [d]	Solar Radiation through Skylight (W/m ²) [e]	RTTV _{roof} at Each Type of Roof (W/m ²) [f]=[c]+[d]+[e]	Area-weighted RTTV _{roof} (W/m ²) [g]=[f]x[b]/[a]
Flat Roof	229.12	3.44	0.00	0.00	3.44	3.44

Overall RTTV_{roof} = 3.44 W/m²

< 4 W/m² ok.

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Form RTTV (Wall) 2 - Summary of Overall RTTV_{wall} of Building

Sheet No.

T2 - 12

BD Ref No. BD 2/9048/18

Building Address

Proposed Residential Development at Lot No. 1068 in Survey District No. 3 Off Anderson Road, Kwun Tong, Kowloon

Overall Gross Wall Area [a]

4909.07 m²

Facade Orientation Facing	Gross Wall Area	Heat Conduction through Opaque Walls	Heat Conduction through Glazing	Solar Radiation through Glazing	RTTV _{wall} at Each Facade	Area-weighted RTTV _{wall}
	(m ²)	(W/m ²)	(W/m ²)	(W/m ²)	(W/m ²)	(W/m ²)
	[b]	[c]	[d]	[e]	[f]=[c]+[d]+[e]	[g]=[f]x[b]/[a]
North	965.79	5.53	0.29	4.40	10.22	2.01
East	1247.95	7.06	0.39	5.08	12.53	3.19
South	964.28	7.21	0.31	3.88	11.40	2.24
West	1731.05	7.11	0.50	7.28	14.90	5.25

Overall RTTV_{wall} = 12.69 W/m²

< 14 W/m² ok.

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Form RTTV (Roof) 2 - Summary of RTTV_{roof} of Building Envelopes

Sheet No. T2 - 15 BD Ref No. BD 2/9048/18
 Building Address Proposed Residential Development at Lot No. 1068 in Survey District No. 3 Off Anderson Road, Kwun Tong, Kowloon

Overall Roof Area [a] 251.10 m²

Roof	Gross Roof Area (m ²)	Heat Conduction through Opaque Roof (W/m ²)	Heat Conduction through Skylight (W/m ²)	Solar Radiation through Skylight (W/m ²)	RTTV _{roof} at Each Type of Roof (W/m ²)	Area-weighted RTTV _{roof} (W/m ²)
	[b]	[c]	[d]	[e]	[f]=[c]+[d]+[e]	[g]=[f]x[b]/[a]
Flat Roof	251.10	3.44	0.00	0.00	3.44	3.44

Overall RTTV_{roof} = 3.44 W/m²
 < 4 W/m² ok.

Guidelines on Design and Construction Requirements for Energy Efficiency of Residential Buildings 2014

Form RTTV (Wall) 2 - Summary of Overall RTTV_{wall} of Building

Sheet No. T3 - 12 BD Ref No. BD 2/9048/18
 Building Address Proposed Residential Development at Lot No. 1068 in Survey District No. 3 Off Anderson Road, Kwun Tong, Kowloon

Overall Gross Wall Area [a] 4809.22 m²

Facade Orientation Facing	Gross Wall Area	Heat Conduction through Opaque Walls	Heat Conduction through Glazing	Solar Radiation through Glazing	RTTV _{wall} at Each Facade	Area-weighted RTTV _{wall}
	(m ²)	(W/m ²)	(W/m ²)	(W/m ²)	(W/m ²)	(W/m ²)
	[b]	[c]	[d]	[e]	[f]=[c]+[d]+[e]	[g]=[f]x[b]/[a]
North	953.38	5.36	0.27	3.80	9.44	1.87
East	1213.93	7.03	0.39	5.07	12.49	3.15
South	934.45	7.25	0.29	3.48	11.03	2.14
West	1707.46	7.09	0.47	6.35	13.91	4.94

Overall RTTV_{wall} = 12.11 W/m²

< 14 W/m² ok.

Guidelines on Design and Construction Requirements for Energy Efficiency of Residential Buildings 2014

Form RTTV (Roof) 2 - Summary of RTTV_{roof} of Building Envelopes

Sheet No. T3 - 15 BD Ref No. BD 2/9048/18
 Building Address Proposed Residential Development at Lot No. 1068 in Survey District No. 3 Off Anderson Road, Kwun Tong, Kowloon

Overall Roof Area [a] 251.10 m²

Roof	Gross Roof Area (m ²)	Heat Conduction through Opaque Roof (W/m ²)	Heat Conduction through Skylight (W/m ²)	Solar Radiation through Skylight (W/m ²)	RTTV _{roof} at Each Type of Roof (W/m ²)	Area-weighted RTTV _{roof} (W/m ²)
	[b]	[c]	[d]	[e]	[f]=[c]+[d]+[e]	[g]=[f]x[b]/[a]
Flat Roof	251.10	3.44	0.00	0.00	3.44	3.44

Overall RTTV_{roof} = 3.44 W/m²

< 4 W/m² ok.

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Form RTTV (Wall) 2 - Summary of Overall RTTV_{wall} of Building

Sheet No. T5 - 11 BD Ref No. BD 2/9048/18
 Building Address Proposed Residential Development at Lot No. 1068 in Survey District No. 3 Off Anderson Road, Kwun Tong, Kowloon

Overall Gross Wall Area [a] 1662.37 m²

Facade Orientation Facing	Gross Wall Area (m ²) [b]	Heat Conduction through Opaque Walls (W/m ²) [c]	Heat Conduction through Glazing (W/m ²) [d]	Solar Radiation through Glazing (W/m ²) [e]	RTTV _{wall} at Each Facade (W/m ²) [f]=[c]+[d]+[e]	Area-weighted RTTV _{wall} (W/m ²) [g]=[f]x[b]/[a]
Northeast	305.00	8.17	0.09	1.33	9.58	1.76
Southeast	226.92	5.17	0.64	9.89	15.70	2.14
Southwest	303.78	9.65	0.10	1.58	11.33	2.07
Northwest	826.67	5.89	0.46	6.23	12.59	6.26

Overall RTTV_{wall} = 12.23 W/m²

< 14 W/m² ok.

Guidelines on Design and Construction Requirements for Energy Efficiency of Residential Buildings 2014

Form RTTV (Roof) 2 - Summary of RTTV_{roof} of Building Envelopes

Sheet No. T5 - 14 BD Ref No. BD 2/9048/18
 Building Address Proposed Residential Development at Lot No. 1068 in Survey District No. 3 Off Anderson Road, Kwun Tong, Kowloon

Overall Roof Area [a] 219.10 m²

Roof	Gross Roof Area (m ²)	Heat Conduction through Opaque Roof (W/m ²)	Heat Conduction through Skylight (W/m ²)	Solar Radiation through Skylight (W/m ²)	RTTV _{roof} at Each Type of Roof (W/m ²)	Area-weighted RTTV _{roof} (W/m ²)
	[b]	[c]	[d]	[e]	[f]=[c]+[d]+[e]	[g]=[f]x[b]/[a]
Flat Roof	219.10	3.44	0.00	0.00	3.44	3.44

Overall RTTV_{roof} = 3.44 W/m²
 < 4 W/m² ok.