

RTTV Summary Sheet

Address: Nos. 1-19 Chung Ching Street, Sai Ying Pun, Hong Kong		BD Ref. No. BD2/4022/19
Building Type:	Residential	
RTTV Calculated by:	<input checked="" type="checkbox"/> 1. Registered Professional Engineers Thomas Anderson & Partners Consulting Engineers Ltd. <input type="checkbox"/> 2. Architect <input type="checkbox"/> 3. Others, please specify:	
No. of Storeys (Residential Units)	24	

Table 1

Facade Orientation Facing	Designed to Satisfy RTTV _{reqd}			
	East Elevations	North Elevations	West Elevations	South Elevations
Average Absorptivity	0.42	0.42	0.42	0.42
Average Window to Wall Ratio	0.64	0.59	0.32	0.42
Shading Coefficient of Glazing	0.33	0.33	0.33	0.33
Average Shading Coefficient of Facade	0.33	0.33	0.33	0.33
Visible Light Transmittance	52 %	52 %	52 %	52 %
External Reflectance	14 %	14 %	14 %	14 %

Table 2

Facade Orientation Facing		RTTV _{reqd}			
		East Elevations	North Elevations	West Elevations	South Elevations
Wall Orientation Factor		1.072	0.79	1.131	0.975
Total External Wall Area (Residential Units)		2347.2 m ²	965.2 m ²	3436.7 m ²	648.6 m ²
Total Window Area		1504.2 m ²	569.7 m ²	1101.2 m ²	270.4 m ²
Window to Wall Ratio		0.64	0.59	0.32	0.42
Heat Conduction	Opaque Wall	1.98 W/m ²	1.55 W/m ²	4.28 W/m ²	2.52 W/m ²
	Window	0.71 W/m ²	0.50 W/m ²	0.59 W/m ²	0.44 W/m ²
Window	Glass Type	<input type="checkbox"/> Reflective Area = m ² SC = VLT = % ER = %	<input type="checkbox"/> Reflective Area = m ² SC = VLT = % ER = %	<input type="checkbox"/> Reflective Area = m ² SC = VLT = % ER = %	<input type="checkbox"/> Reflective Area = m ² SC = VLT = % ER = %
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		<input checked="" type="checkbox"/> Clear Area = 1504.2 m ² SC = 0.33 VLT = 52 % ER = 14 %	<input checked="" type="checkbox"/> Clear Area = 569.7 m ² SC = 0.33 VLT = 52 % ER = 14 %	<input checked="" type="checkbox"/> Clear Area = 1101.2 m ² SC = 0.33 VLT = 52 % ER = 14 %	<input checked="" type="checkbox"/> Clear Area = 270.4 m ² SC = 0.33 VLT = 52 % ER = 14 %
		Double Glazing <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
External Shading	Overhang	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
	Sidfin	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Solar Radiation through Glazing		8.59 W/m ²	6.15 W/m ²	4.43 W/m ²	5.24 W/m ²
Average Absorptivity		0.42	0.42	0.42	0.42
RTTV _{reqd} at each Facade		11.31 W/m ²	8.21 W/m ²	9.10 W/m ²	8.20 W/m ²
Overall RTTV _{reqd}		9.61 W/m ²			

7800
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< 14 W/m²

Table 3

Roof Orientation Facing		RTTV _{reqd}			
Total Roof Area (Residential Units)		159.60 m ²			
Total Skylight Area		2.81 m ²			
Heat Conduction	Roof	2.81 W/m ²			
	Skylight	2.81 W/m ²			
Skylight	Glass Type	<input type="checkbox"/> Reflective Area = m ² SC = VLT = % ER = %	<input type="checkbox"/> Reflective Area = m ² SC = VLT = % ER = %	<input type="checkbox"/> Reflective Area = m ² SC = VLT = % ER = %	<input type="checkbox"/> Reflective Area = m ² SC = VLT = % ER = %
		<input type="checkbox"/> Tinted Area = m ² SC = VLT = % ER = %	<input type="checkbox"/> Tinted Area = m ² SC = VLT = % ER = %	<input type="checkbox"/> Tinted Area = m ² SC = VLT = % ER = %	<input type="checkbox"/> Tinted Area = m ² SC = VLT = % ER = %
		<input checked="" type="checkbox"/> Clear Area = m ² SC = VLT = % ER = %	<input checked="" type="checkbox"/> Clear Area = m ² SC = VLT = % ER = %	<input checked="" type="checkbox"/> Clear Area = m ² SC = VLT = % ER = %	<input checked="" type="checkbox"/> Clear Area = m ² SC = VLT = % ER = %
		Double Glazing <input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No
External Shading	Overhang	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No
	Sidfin	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No
Solar Radiation through Glazing		0.2 W/m ²			
Average Absorptivity (Roof)		0.2			
Overall RTTV _{reqd}		2.81 W/m ²			

< 4 W/m²

ER = External Reflectance; SC = Shading Coefficient & VLT = Visible Light Transmittance