



# RTTV Summary Sheet

Notes:  
 ER = External Reflectance  
 SC = Shading Coefficient  
 VLT = Visible Light Transmittance  
 Window and skylight data should represent the major proportion of its use in the development.

PNAP  
**APP-156**  
 Appendix **A**

Address: *Proposed Composite Development at 65-71 Main Street, Ap Lei Chau* BD Ref. No. \_\_\_\_\_

Building Type: Residential

RTTV calculated by:  1. Registered Professional Engineers  
 2. Architect  
 3. Others, please specify: \_\_\_\_\_

No. of Storeys (Residential Units): *23*

Table 1

Deemed to Satisfy RTTV <sub>Wall</sub>									
Facade Orientation Facing									
Average Absorptivity									
Average Window to Wall Ratio									
Shading Coefficient of Glazing									
Average Shading Coefficient of Facade									
Visible Light Transmittance		%	%	%	%	%	%	%	%
External Reflectance		%	%	%	%	%	%	%	%

Table 2

RTTV <sub>Wall</sub>																	
Facade Orientation Facing		SW				NW				NE				SE			
Wall Orientation Factor		1.092				0.965				0.924				1.013			
Total External Wall Area (Residential Units)		555.8 m <sup>2</sup>				1071.66 m <sup>2</sup>				630.38 m <sup>2</sup>				766.87 m <sup>2</sup>			
Window to Wall Ratio		= 0.25				= 0.63				= 0.25				= 0.37			
Total Window Factor		138.4 m <sup>2</sup>				676 m <sup>2</sup>				156 m <sup>2</sup>				281.5 m <sup>2</sup>			
Heat Conduction	Opaque Wall	5.51 W/m <sup>2</sup>				2.22 W/m <sup>2</sup>				4.73 W/m <sup>2</sup>				3.74 W/m <sup>2</sup>			
	Window	0.46 W/m <sup>2</sup>				1.68 W/m <sup>2</sup>				0.37 W/m <sup>2</sup>				0.54 W/m <sup>2</sup>			
Window	Glass Type	<input type="checkbox"/> Reflective	Area= m <sup>2</sup>	SC=	VLT= %	<input type="checkbox"/> Reflective	Area= m <sup>2</sup>	SC=	VLT= %	<input type="checkbox"/> Reflective	Area= m <sup>2</sup>	SC=	VLT= %	<input type="checkbox"/> Reflective	Area= m <sup>2</sup>	SC=	VLT= %
		<input type="checkbox"/> Tinted	Area= m <sup>2</sup>	SC=	VLT= %	<input type="checkbox"/> Tinted	Area= m <sup>2</sup>	SC=	VLT= %	<input type="checkbox"/> Tinted	Area= m <sup>2</sup>	SC=	VLT= %	<input type="checkbox"/> Tinted	Area= m <sup>2</sup>	SC=	VLT= %
		<input checked="" type="checkbox"/> Clear	Area= 138.4 m <sup>2</sup>	SC= 0.68	VLT= 50%	<input checked="" type="checkbox"/> Clear	Area= 676 m <sup>2</sup>	SC= 0.63	VLT= 50%	<input checked="" type="checkbox"/> Clear	Area= 156 m <sup>2</sup>	SC= 0.41	VLT= 50%	<input checked="" type="checkbox"/> Clear	Area= 281.5 m <sup>2</sup>	SC= 0.63	VLT= 50%
	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			
	Sidefin	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No				<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No				<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No				<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No			
Solar Radiation through Glazing		5.9 W/m <sup>2</sup>				13.42 W/m <sup>2</sup>				5.34 W/m <sup>2</sup>				7.64 W/m <sup>2</sup>			
Average Absorptivity		0.74				0.78				0.72				0.81			
RTTV <sub>Wall</sub> at each facade		11.88 W/m <sup>2</sup>				17.32 W/m <sup>2</sup>				10.46 W/m <sup>2</sup>				11.92 W/m <sup>2</sup>			
Overall RTTV <sub>Wall</sub>		13.52 W/m <sup>2</sup>															

Table 3

RTTV <sub>Roof</sub>											
Roof Orientation Factor		2.16									
Total Roof Area (Residential Units)		54.36 m <sup>2</sup>									
Total Skylight Area		0 m <sup>2</sup>									
Heat Conduction	Roof	3.53 W/m <sup>2</sup>									
	Skylight	0 W/m <sup>2</sup>									
Skylight	Glass Type	<input type="checkbox"/> Reflective	Area= m <sup>2</sup>	SC=	VLT= %	ER= %	<input type="checkbox"/> Reflective	Area= m <sup>2</sup>	SC=	VLT= %	ER= %
		<input type="checkbox"/> Tinted	Area= m <sup>2</sup>	SC=	VLT= %	ER= %	<input type="checkbox"/> Tinted	Area= m <sup>2</sup>	SC=	VLT= %	ER= %
		<input type="checkbox"/> Clear	Area= m <sup>2</sup>	SC=	VLT= %	ER= %	<input type="checkbox"/> Clear	Area= m <sup>2</sup>	SC=	VLT= %	ER= %
Double Glazing		<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No									
External Shading		<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No									
Solar Radiation through Glazing		0 W/m <sup>2</sup>									
Average Absorptivity (roof)		1									
Overall RTTV <sub>Roof</sub>		3.53 W/m <sup>2</sup>									

< 14

< 4