



# 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**

House A

Address: *Proposed Residential Development at K.B.L., No. 580 (K.P.),  
 82 Apollook's Path, The Peak, HONG KONG*

BD Ref. No.

Building Type: Residential

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

No. of Storeys (Residential Units): *3*

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		E				S				W				N			
Wall Orientation Factor		<i>1.072</i>				<i>0.975</i>				<i>1.131</i>				<i>0.79</i>			
Total External Wall Area (Residential Units)		<i>127.96 m²</i>				<i>174.83 m²</i>				<i>76.25 m²</i>				<i>101.65 m²</i>			
Window to Wall Ratio		<i>0.31</i>				<i>0.57</i>				<i>0.56</i>				<i>0.53</i>			
Total Window Factor		<i>39.94 m²</i>				<i>99.08 m²</i>				<i>42.58 m²</i>				<i>58.17 m²</i>			
Heat Conduction	Opaque Wall	<i>7.73 W/m²</i>				<i>3.24 W/m²</i>				<i>5.43 W/m²</i>				<i>3.36 W/m²</i>			
	Window	<i>0.37 W/m²</i>				<i>0.63 W/m²</i>				<i>0.71 W/m²</i>				<i>0.48 W/m²</i>			
Window	Glass Type	<input type="checkbox"/> Reflective	Area= m²	SC=	VLT= %	ER= %	<input type="checkbox"/> Reflective	Area= m²	SC=	VLT= %	ER= %	<input type="checkbox"/> Reflective	Area= m²	SC=	VLT= %	ER= %	
		<input type="checkbox"/> Tinted	Area= m²	SC=	VLT= %	ER= %	<input type="checkbox"/> Tinted	Area= m²	SC=	VLT= %	ER= %	<input type="checkbox"/> Tinted	Area= m²	SC=	VLT= %	ER= %	
		<input checked="" type="checkbox"/> Clear	Area= <i>39.94</i> m²	SC= <i>0.44</i>	VLT= <i>51</i> %	ER= <i>19</i> %	<input checked="" type="checkbox"/> Clear	Area= <i>99.08</i> m²	SC= <i>0.44</i>	VLT= <i>51</i> %	ER= <i>19</i> %	<input checked="" type="checkbox"/> Clear	Area= <i>42.58</i> m²	SC= <i>0.42</i>	VLT= <i>51</i> %	ER= <i>19</i> %	
	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		<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 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		<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		<input type="checkbox"/> Yes <input checked="" 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		<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No					
Solar Radiation Through Glazing		<i>5.93 W/m²</i>				<i>9.76 W/m²</i>				<i>10.62 W/m²</i>				<i>7.68 W/m²</i>			
Average Absorptivity		<i>0.61</i>				<i>0.79</i>				<i>0.5</i>				<i>0.13</i>			
RTTV <sub>Wall</sub> at each facade		<i>3.74 W/m²</i>				<i>4.96 W/m²</i>				<i>2.66 W/m²</i>				<i>2.84 W/m²</i>			
Overall RTTV <sub>Wall</sub>		<i>13.79 W/m²</i>															

Table 3

RTTV <sub>Roof</sub>											
Roof Orientation Factor		<i>2.16</i>									
Total Roof Area (Residential Units)		<i>167.05 m²</i>									
Total Skylight Area		<i>7.34 m²</i>									
Heat Conduction	Roof	<i>2.75 W/m²</i>									
	Skylight	<i>0.06 W/m²</i>									
Skylight	Glass Type	<input type="checkbox"/> Reflective	Area= m²	SC=	VLT= %	ER= %	<input type="checkbox"/> Reflective	Area= m²	SC=	VLT= %	ER= %
		<input type="checkbox"/> Tinted	Area= m²	SC=	VLT= %	ER= %	<input type="checkbox"/> Tinted	Area= m²	SC=	VLT= %	ER= %
		<input checked="" type="checkbox"/> Clear	Area= <i>7.34</i> m²	SC= <i>10.3</i>	VLT= <i>50</i> %	ER= <i>5</i> %	<input checked="" type="checkbox"/> Clear	Area= m²	SC=	VLT= %	ER= %
Double Glazing		<input checked="" type="checkbox"/> Yes <input 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		<i>1.17 W/m²</i>									
Average Absorptivity (roof)		<i>0.7</i>									
Overall RTTV <sub>Roof</sub>		<i>3.98 W/m²</i>									



# RTTV Summary Sheet

House B

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 Residential Development at R.B.L. No. 540 (R.P.), 8 & 8A Potcock's Path, The Peak, HONG KONG*

Building Type: Residential

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

No. of Storeys (Residential Units): *3*

BD Ref. No.

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	E				S				W				N			
Wall Orientation Factor	1.072				0.975				1.131				0.79			
Total External Wall Area (Residential Units)	70.04 m <sup>2</sup>		Window to Wall Ratio = 0.34		127.26 m <sup>2</sup>		Window to Wall Ratio = 0.52		137.93 m <sup>2</sup>		Window to Wall Ratio = 0.6		105.11 m <sup>2</sup>		Window to Wall Ratio = 0.68	
Total Window Factor	23.99 m <sup>2</sup>		0.34		65.83 m <sup>2</sup>		0.52		83.37 m <sup>2</sup>		0.6		71.75 m <sup>2</sup>		0.68	
Heat Conduction	Opaque Wall	7.66 W/m <sup>2</sup>		2.23 W/m <sup>2</sup>		4.59 W/m <sup>2</sup>		2.73 W/m <sup>2</sup>								
	Window	0.41 W/m <sup>2</sup>		0.49 W/m <sup>2</sup>		0.81 W/m <sup>2</sup>		0.71 W/m <sup>2</sup>								
Window	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"/> 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"/> Tinted	Area= m <sup>2</sup>	SC=	VLT= %	ER= %
		<input checked="" type="checkbox"/> Clear	Area= 23.99 m <sup>2</sup>	SC= 0.44	VLT= 51% ER= 19%	<input checked="" type="checkbox"/> Clear	Area= 65.83 m <sup>2</sup>	SC= 0.44	VLT= 51% ER= 19%	<input checked="" type="checkbox"/> Clear	Area= 83.37 m <sup>2</sup>	SC= 0.44	VLT= 51% ER= 19%	<input checked="" type="checkbox"/> Clear	Area= 71.75 m <sup>2</sup>	SC= 0.44
	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 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								
	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	6.28 W/m <sup>2</sup>		6.92 W/m <sup>2</sup>		11.38 W/m <sup>2</sup>		11.08 W/m <sup>2</sup>									
Average Absorptivity	0.5		0.82		0.64		0.5									
RTTV <sub>Wall</sub> at each facade	2.28 W/m <sup>2</sup>		2.79 W/m <sup>2</sup>		5.28 W/m <sup>2</sup>		3.86 W/m <sup>2</sup>									
Overall RTTV <sub>Wall</sub>	13.79 W/m <sup>2</sup>															

Table 3

RTTV <sub>Roof</sub>						
Roof Orientation Factor	2.66					
Total Roof Area (Residential Units)	189.88 m <sup>2</sup>					
Total Skylight Area	8.02 m <sup>2</sup>					
Heat Conduction	Roof	2.76 W/m <sup>2</sup>				
	Skylight	0.06 W/m <sup>2</sup>				
Skylight	Glass Type	<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 checked="" type="checkbox"/> Clear	Area= 8.02 m <sup>2</sup>	SC= 0.3	VLT= 50 %	ER= 5 %
Double Glazing	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No					
External Shading	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No					
Solar Radiation through Glazing	1.12 W/m <sup>2</sup>					
Average Absorptivity (roof)	0.7					
Overall RTTV <sub>Roof</sub>	3.94 W/m <sup>2</sup>					