



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 Residential Development at NKIL 6566 Kai Tak Area 1K Site 2, Kai Tak, Kowloon (Tower 1) ID Ref. No.

Building Type: Residential

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

No. of Storeys (Residential Units): 36

Table 1

Deemed to Satisfy RTTV_{Wall}

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_{Wall}

Facade Orientation Facing	N				NW				W				E							
Wall Orientation Factor	0.79				0.965				1.131				1.072							
Total External Wall Area (Residential Units)	2614.92 m ²				1643.22 m ²				2298.2 m ²				2159.77 m ²							
Total Window Factor	653.58 m ²				601.53 m ²				729.83 m ²				727.54 m ²							
Heat Conduction	6.11 W/m ²				6.31 W/m ²				7.96 W/m ²				7.33 W/m ²							
Window	0.21 W/m ²				0.24 W/m ²				0.39 W/m ²				0.37 W/m ²							
Window	Glass Type				Glass Type				Glass Type				Glass Type							
	AREA	SC	ER	VLT	AREA	SC	ER	VLT	AREA	SC	ER	VLT	AREA	SC	ER	VLT				
	GL-01	110.4	0.449	11	68	GL-01	0	0.449	11	68	GL-01	131.5	0.449	11	68	GL-01	0	0.449	11	68
	GL-02	23.3	0.92	7	87	GL-02	0	0.92	7	87	GL-02	23.3	0.92	7	87	GL-02	8.6	0.92	7	87
	GL-03	204.02	0.445	11	71	GL-03	221	0.445	11	71	GL-03	233.33	0.445	11	71	GL-03	204.58	0.445	11	71
	GL-04	315.86	0.449	11	70	GL-04	380.53	0.449	11	70	GL-04	341.7	0.449	11	70	GL-04	514.36	0.449	11	70
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				Overhang <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No				Overhang <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No				Overhang <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No							
	Sidefin <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No				Sidefin <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No				Sidefin <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No				Sidefin <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No							
Solar Radiation through Glazing	3.91 W/m ²				4.14 W/m ²				6.80 W/m ²				6.80 W/m ²							
Average Absorptivity	0.8				0.8				0.8				0.8							
RTTV _{Wall} at each facade	10.24 W/m ²				10.69 W/m ²				15.14 W/m ²				14.51 W/m ²							
Overall RTTV _{Wall}	12.12 W/m ²																			

Table 3

RTTV_{Roof}

Roof Orientation Factor	2.16															
Total Roof Area (Residential Units)	215.59 m ²															
Total Skylight Area	0 m ²															
Heat Conduction	2.81 W/m ²															
Skylight	0 W/m ²															
Skylight	Glass Type		Reflective	Area=	m ²	SC=	VLT=	%	ER=	%						
			Tinted	Area=	m ²	SC=	VLT=	%	ER=	%						
			Clear	Area=	m ²	SC=	VLT=	%	ER=	%						
Double Glazing	<input type="checkbox"/> Yes <input type="checkbox"/> No															
External Shading	<input type="checkbox"/> Yes <input type="checkbox"/> No															
Solar Radiation through Glazing	0 W/m ²															
Average Absorptivity (roof)	0.7															
Overall RTTV _{Roof}	2.81 W/m ²															



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 Appendix **A**

Address: Proposed Residential Development at NKIL 6566 Kai Tak Area 1K Site 2, Kai Tak, Kowloon (Tower 1) ID Ref. No.

Building Type: Residential

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

No. of Storeys (Residential Units):

Table 1

Deemed to Satisfy RTTV_{Wall}

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_{Wall}

Facade Orientation Facing	SE				S				NE							
Wall Orientation Factor	1.051				0.975				0.924							
Total External Wall Area (Residential Units)	1708.69 m ²				3361.70 m ²				237.06 m ²				m ²	Window to Wall Ratio		
Total Window Factor	1067.52 m ² = 0.62				1185.70 m ² = 0.35				0 m ² = 0				m ²	=		
Heat Conduction	Opaque Wall	4.78 W/m ²				7.14 W/m ²				9.53 W/m ²				W/m ²		
	Window	0.65 W/m ²				0.30 W/m ²				0 W/m ²				W/m ²		
Window	Glass Type	AREA	SC	ER	VLT	AREA	SC	ER	VLT	AREA	SC	ER	VLT			
		GL-01	221.61	0.469	11	68	84.2	0.469	11	68						
		GL-02	39.40	0.92	7	87	23.40	0.92	7	87						
		GL-03	257.09	0.495	11	71	455.72	0.495	11	71						
	GL-04	429.10	0.469	11	70	523.66	0.469	11	70							
Double Glazing	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No				<input checked="" 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 checked="" type="checkbox"/> Yes <input type="checkbox"/> No				<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No				<input type="checkbox"/> Yes <input type="checkbox"/> No				<input type="checkbox"/> Yes <input type="checkbox"/> No		
	Sidelfin	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No				<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No				<input type="checkbox"/> Yes <input type="checkbox"/> No				<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
Solar Radiation through Glazing	10.14 W/m ²				2.0 W/m ²				0 W/m ²				W/m ²			
Average Absorptivity	0.8				0.8				0.8							
RTTV _{Wall} at each facade	15.56 W/m ²				9.44 W/m ²				9.53 W/m ²				W/m ²			
Overall RTTV _{Wall}													12.12 W/m ²			

Table 3

RTTV_{Roof}

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