RTTV Summary Sheet

ance
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 New Kowloon Inland Lot No. 6567, Kai Tak, Kowloon	BD Ref. No. BD 2/4048/17 (Pt.V)
Building Type:	Residential (Tower 1) (Sheet 1 of 3)	
RTTV calculated by	☑ 1. Registered Professional Engineers	
	☐ 2. Architect	
	☐ 3. Others, please specify:	
No. of Storeys (Residential Units)	31	

Table 1 (N/A)

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	East	Southeast	South	South
Wall Orientation Factor	1.072	1.051	0.975	0.975
Total External Wall Area (Residential Units)	888.1 m²	1046.9 m²	2141.7 m²	2141.7 m²
Total Window Factor	1577.7 m²	1597.0 m²	326.5 m²	326.5 m²
Window to Wall Ratio	= 0.640	= 0.604	= 0.132	= 0.132
Heat Conduction – Opaque Wall	1.03 W/m²	1.71 W/m²	8.43 W/m²	8.43 W/m²
Heat Conduction – Window	0.72 W/m²	0.67 W/m²	0.14 W/m²	0.14 W/m²
Window – Glass Type	F1 Area= 1290 m² SC= 0.34 VLT= % ER= % F2 Area= 287.5 m² SC= 0.34 VLT= % ER= % Area= m² SC= VLT= % ER= %	F1 Area= 1263 m² SC= 0.34 VLT= % ER= % F2 Area= 333.4 m² SC= 0.34 VLT= % ER= % W1 Area= 0.89 m² SC= 0.34 VLT= % ER= %	F1 Area= 146.1 m² SC= 0.34 VLT= % ER= % F2 Area= 150.3 m² SC= 0.34 VLT= % ER= % W1 Area= 23.9 m² SC= 0.34 VLT= % ER= %	W2 Area= 6.24 m² SC= 0.34 VLT= % ER= % Area= m² SC= VLT= % ER= % Area= m² SC= VLT= % ER= %
Window – Double Glazing	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No
Window – External Shading	Overhang ☑ Yes ☐ No Sidefin ☐ Yes ☑ No	Overhang ☑ Yes ☐ No Sidefin ☐ Yes ☑ No	Overhang ☑ Yes ☐ No Sidefin ☐ Yes ☑ No	Overhang ☑ Yes ☐ No Sidefin ☐ Yes ☑ No
Solar Radiation through Glazing	9.74 W/m²	9.01 W/m²	1.83 W/m²	1.83 W/m²
Average Absorptivity	0.534	0.530	0.716	0.715
$RTTV_{Wall}$ at each facade	11.49 W/m²	11.39 W/m²	10.39 W/m²	10.39 W/m²
Overall $RTTV_{Wall}$	10.37 W/m²			

Table 3

$RTTV_{Roof}$						
Roof Orientation Factor	2.16					
Total Roof Area (Residential Units)	290.9 m²					
Total Skylight Area	/ m²					
Heat Conduction – Roof	1.19 W/m²					
Heat Conduction – Skylight	/ W/m²					
Skylight (N/A) – Glass Type	☐ Reflective	Area= m²	SC=	VLT= %	ER= %	
	☐ Tinted	Area= m²	SC=	VLT= %	ER= %	
	☐ Clear	Area= m²	SC=	VLT= %	ER= %	
Skylight (N/A) – Double Glazing	☐ Yes ☐ No					
Skylight (N/A) – External Shading	☐ Yes ☐ No					
Solar Radiation through Glazing	/ W/m²					
Average Absorptivity (roof)	0.3					
Overall $RTTV_{Roof}$	1.19 W/m²					

RTTV Summary Sheet

BUILDINGS DEPARTMENT 屋宇署

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 New Kowloon Inland Lot No. 6567, Kai Tak, Kowloon	BD Ref. No. BD 2/4048/17 (Pt.V)
Building Type:	Residential (Tower 1) (Sheet 2 of 3)	
RTTV calculated by	☑ 1. Registered Professional Engineers	
	☐ 2. Architect	
	☐ 3. Others, please specify:	
No. of Storeys (Residential Units)	31	

Table 1 (N/A)

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		Southwest	West	West	Nothwest
Wall Orientation Factor		1.092	1.131	1.131	0.965
Total External Wall Area (Residential Units)		957.5 m²	1473.9 m²	1473.9 m²	1494.9 m²
Total Window Factor		32.3 m²	617.0 m²	617.0 m²	1809.4 m²
Window to Wall Ratio		= 0.033	= 0.295	= 0.295	= 0.548
Heat Conduction	Opaque Wall	9.32 W/m²	7.34 W/m²	7.34 W/m²	2.03 W/m²
	Window	0.04 W/m²	0.35 W/m²	0.35 W/m²	0.55 W/m²
Window	Glass Type	F2: Area= 8.24 m², SC= 0.34, VLT= %, ER= % W1: Area= 24.1 m², SC= 0.34, VLT= %, ER= % Area= m², SC=, VLT= %, ER= %	F1: Area= 209.1 m², SC= 0.34, VLT= %, ER= % F2: Area= 306.9 m², SC= 0.34, VLT= %, ER= % W1: Area= 48.8 m², SC= 0.34, VLT= %, ER= %	W2: Area= 52.2 m², SC= 0.34, VLT= %, ER= % Area= m², SC=, VLT= %, ER= % Area= m², SC=, VLT= %, ER= %	F1: Area= 1193 m², SC= 0.34, VLT= %, ER= % F2: Area= 553.5 m², SC= 0.34, VLT= %, ER= % W1: Area= 3.0 m², SC= 0.34, VLT= %, ER= %
	Double Glazing	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No
	External Shading	Overhang ☑ Yes ☐ No Sidefin ☐ Yes ☑ No	Overhang ☑ Yes ☐ No Sidefin ☐ Yes ☑ No	Overhang ☑ Yes ☐ No Sidefin ☐ Yes ☑ No	Overhang ☑ Yes ☐ No Sidefin ☐ Yes ☑ No
Solar Radiation through Glazing		0.51 W/m²	4.74 W/m²	4.74 W/m²	7.50 W/m²
Average Absorptivity		0.642	0.576	0.601	0.566
$RTTV_{Wall}$ at each facade		9.86 W/m²	12.44 W/m²	12.43 W/m²	10.08 W/m²
Overall $RTTV_{Wall}$		10.37 W/m²			

Table 3

$RTTV_{Roof}$					
Roof Orientation Factor					
Total Roof Area (Residential Units)		m²			
Total Skylight Area		m²			
Heat Conduction	Roof	W/m²			
	Skylight	W/m²			
Skylight	Glass Type	☐ Reflective	Area= m²	SC=	VLT= %	ER= %
		☐ Tinted	Area= m²	SC=	VLT= %	ER= %
		☐ Clear	Area= m²	SC=	VLT= %	ER= %
	Double Glazing	☐ Yes ☐ No			
	External Shading	☐ Yes ☐ No			
Solar Radiation through Glazing		W/m²			
Average Absorptivity (roof)					
Overall $RTTV_{Roof}$		W/m²			

屋宇署 BUILDINGS DEPARTMENT

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 New Kowloon Inland Lot No. 6567, Kai Tak, Kowloon	BD Ref. No. BD 2/4048/17 (Pt.V)
Building Type:	Residential (Tower 1) (Sheet 3 of 3)	
RTTV calculated by	☑ 1. Registered Professional Engineers	
	☐ 2. Architect	
	☐ 3. Others, please specify:	
No. of Storeys (Residential Units)	31	

Table 1 (N/A)

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	Nothwest	North	Northeast			
Wall Orientation Factor	0.965	0.79	0.924			
Total External Wall Area (Residential Units)	1494.9 m²	Window to Wall Ratio = 0.548	1228.2 m²	Window to Wall Ratio = 0.368	1306.3 m²	Window to Wall Ratio = 0.116	m²	Window to Wall Ratio =
Total Window Factor	1809.4 m²		716.6 m²		171.0 m²		m²	
Heat Conduction — Opaque Wall	2.03 W/m²		3.60 W/m²		6.14 W/m²			W/m²
Heat Conduction — Window	0.55 W/m²		0.31 W/m²		0.11 W/m²			W/m²
Window — Glass Type	W2 Area= 59.5 m² SC= 0.34 VLT= % ER= %		F1 Area= 522.1 m² SC= 0.34 VLT= % ER= %		F1 Area= 146.1 m² SC= 0.34 VLT= % ER= %		☐ Reflective Area= m² SC= VLT= % ER= %	
	Area= m² SC= VLT= % ER= %		F2 Area= 194.5 m² SC= 0.34 VLT= % ER= %		F2 Area= 24.9 m² SC= 0.34 VLT= % ER= %		☐ Tinted Area= m² SC= VLT= % ER= %	
	Area= m² SC= VLT= % ER= %		Area= m² SC= VLT= % ER= %		Area= m² SC= VLT= % ER= %		☐ Clear Area= m² SC= VLT= % ER= %	
Window — Double Glazing	☐ Yes ☐ No		☐ Yes ☐ No		☐ Yes ☐ No		☐ Yes ☐ No	
Window — External Shading	Overhang ☑ Yes ☐ No		Overhang ☑ Yes ☐ No		Overhang ☑ Yes ☐ No		Overhang ☐ Yes ☐ No	
	Sidefin ☐ Yes ☑ No		Sidefin ☐ Yes ☑ No		Sidefin ☐ Yes ☑ No		Sidefin ☐ Yes ☐ No	
Solar Radiation through Glazing	7.50 W/m²		4.13 W/m²		1.52 W/m²			W/m²
Average Absorptivity	0.566		0.615		0.583			
$RTTV_{Wall}$ at each facade	10.08 W/m²		8.04 W/m²		7.77 W/m²			W/m²
Overall $RTTV_{Wall}$	10.37 W/m²							

Table 3

$RTTV_{Roof}$						
Roof Orientation Factor						
Total Roof Area (Residential Units)	m²					
Total Skylight Area	m²					
Heat Conduction — Roof	W/m²					
Heat Conduction — Skylight	W/m²					
Skylight — Glass Type	☐ Reflective	Area= m²	SC=	VLT= %	ER= %	
	☐ Tinted	Area= m²	SC=	VLT= %	ER= %	
	☐ Clear	Area= m²	SC=	VLT= %	ER= %	
Skylight — Double Glazing	☐ Yes ☐ No					
Skylight — External Shading	☐ Yes ☐ No					
Solar Radiation through Glazing	W/m²					
Average Absorptivity (roof)						
Overall $RTTV_{Roof}$	W/m²					

屋宇署 BUILDINGS DEPARTMENT

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 New Kowloon Inland Lot No. 6567, Kai Tak, Kowloon	BD Ref. No. BD 2/4048/17 (Pt.V)
Building Type:	Residential (Tower 2) (Sheet 1 of 3)	
RTTV calculated by	☑ 1. Registered Professional Engineers ☐ 2. Architect ☐ 3. Others, please specify:	
No. of Storeys (Residential Units)	31	

Table 1 (N/A)

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		East	Southeast	South	Southwest
Wall Orientation Factor		1.072	1.051	0.975	1.092
Total External Wall Area (Residential Units)		1805.3 m²	1780.2 m²	2035.5 m²	1186.1 m²
Total Window Factor		1469.4 m²	0 m²	578.7 m²	990.2 m²
Window to Wall Ratio		= 0.449	= 0	= 0.221	= 0.455
Heat Conduction	Opaque Wall	4.93 W/m²	11.04 W/m²	7.58 W/m²	5.08 W/m²
	Window	0.50 W/m²	0 W/m²	0.23 W/m²	0.52 W/m²
Window	Glass Type	F1 Area= 1114 m² SC= 0.34 VLT= % ER= %	☐ Reflective Area= m² SC= VLT= % ER= %	F1 Area= 365.5 m² SC= 0.34 VLT= % ER= %	F1 Area= 478.1 m² SC= 0.34 VLT= % ER= %
		F2 Area= 355 m² SC= 0.34 VLT= % ER= %	☐ Tinted Area= m² SC= VLT= % ER= %	F2 Area= 137.6 m² SC= 0.34 VLT= % ER= %	F2 Area= 367.7 m² SC= 0.34 VLT= % ER= %
		Area= m² SC= VLT= % ER= %	☐ Clear Area= m² SC= VLT= % ER= %	W2 Area= 75.6 m² SC= 0.34 VLT= % ER= %	W2 Area= 122.7 m² SC= 0.34 VLT= % ER= %
	Double Glazing	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No
	External Shading	Overhang ☑ Yes ☐ No	Overhang ☐ Yes ☐ No	Overhang ☑ Yes ☐ No	Overhang ☑ Yes ☐ No
		Sidefin ☐ Yes ☑ No	Sidefin ☐ Yes ☐ No	Sidefin ☐ Yes ☑ No	Sidefin ☐ Yes ☑ No
Solar Radiation through Glazing		6.83 W/m²	0 W/m²	3.06 W/m²	7.05 W/m²
Average Absorptivity		0.563	0.774	0.655	0.761
$RTTV_{Wall}$ at each facade		12.26 W/m²	11.04 W/m²	10.87 W/m²	12.65 W/m²
Overall $RTTV_{Wall}$		11.02 W/m²			

Table 3

$RTTV_{Roof}$						
Roof Orientation Factor		2.16				
Total Roof Area (Residential Units)		287.2 m²				
Total Skylight Area		/ m²				
Heat Conduction	Roof	1.19 W/m²				
	Skylight	/ W/m²				
Skylight (N/A)	Glass Type	☐ Reflective	Area= m²	SC=	VLT= %	ER= %
		☐ Tinted	Area= m²	SC=	VLT= %	ER= %
		☐ Clear	Area= m²	SC=	VLT= %	ER= %
	Double Glazing	☐ Yes ☐ No				
	External Shading	☐ Yes ☐ No				
Solar Radiation through Glazing		/ W/m²				
Average Absorptivity (roof)		0.3				
Overall $RTTV_{Roof}$		1.19 W/m²				

BUILDINGS DEPARTMENT 屋宇署

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 New Kowloon Inland Lot No. 6567, Kai Tak, Kowloon	BD Ref. No. BD 2/4048/17 (Pt.V)
Building Type:	Residential (Tower 2) (Sheet 2 of 3)	
RTTV calculated by	☑ 1. Registered Professional Engineers	
	☐ 2. Architect	
	☐ 3. Others, please specify:	
No. of Storeys (Residential Units)	31	

Table 1 (N/A)

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		Southwest	West	West	Nothwest
Wall Orientation Factor		1.092	1.131	1.131	0.965
Total External Wall Area (Residential Units)		1186.1 m²; Window to Wall Ratio = 0.455	2284.3 m²; Window to Wall Ratio = 0.166	2284.3 m²; Window to Wall Ratio = 0.166	1602.8 m²; Window to Wall Ratio = 0
Total Window Factor		990.2 m²	454.7 m²	454.7 m²	0 m²
Heat Conduction	Opaque Wall	5.08 W/m²	9.47 W/m²	9.47 W/m²	9.89 W/m²
	Window	0.52 W/m²	0.20 W/m²	0.20 W/m²	0 W/m²
Window	Glass Type	W2 Area= 21.8 m² SC= 0.34 VLT= % ER= %	F1 Area= 175.3 m² SC= 0.34 VLT= % ER= %	W2 Area= 72.3 m² SC= 0.34 VLT= % ER= %	☐ Reflective Area= m² SC= VLT= % ER= %
		Area= m² SC= VLT= % ER= %	F2 Area= 206.1 m² SC= 0.34 VLT= % ER= %	Area= m² SC= VLT= % ER= %	☐ Tinted Area= m² SC= VLT= % ER= %
		Area= m² SC= VLT= % ER= %	W1 Area= 1.1 m² SC= 0.34 VLT= % ER= %	Area= m² SC= VLT= % ER= %	☐ Clear Area= m² SC= VLT= % ER= %
	Double Glazing	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No
	External Shading	Overhang ☑ Yes ☐ No	Overhang ☑ Yes ☐ No	Overhang ☑ Yes ☐ No	Overhang ☐ Yes ☐ No
		Sidefin ☐ Yes ☑ No	Sidefin ☐ Yes ☑ No	Sidefin ☐ Yes ☑ No	Sidefin ☐ Yes ☐ No
Solar Radiation through Glazing		7.05 W/m²	2.67 W/m²	2.67 W/m²	0 W/m²
Average Absorptivity		0.761	0.627	0.627	0.763
$RTTV_{Wall}$ at each facade		12.65 W/m²	12.33 W/m²	12.33 W/m²	9.89 W/m²
Overall $RTTV_{Wall}$		11.02 W/m²			

Table 3

$RTTV_{Roof}$					
Roof Orientation Factor					
Total Roof Area (Residential Units)		m²			
Total Skylight Area		m²			
Heat Conduction	Roof	W/m²			
	Skylight	W/m²			
Skylight	Glass Type	☐ Reflective	Area= m²	SC=	VLT= %	ER= %
		☐ Tinted	Area= m²	SC=	VLT= %	ER= %
		☐ Clear	Area= m²	SC=	VLT= %	ER= %
	Double Glazing	☐ Yes ☐ No			
	External Shading	☐ Yes ☐ No			
Solar Radiation through Glazing		W/m²			
Average Absorptivity (roof)					
Overall $RTTV_{Roof}$		W/m²			

BUILDINGS DEPARTMENT 屋宇署

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 New Kowloon Inland Lot No. 6567, Kai Tak, Kowloon	BD Ref. No. BD 2/4048/17 (Pt.V)
Building Type:	Residential (Tower 2) (Sheet 3 of 3)	
RTTV calculated by	☑ 1. Registered Professional Engineers	
	☐ 2. Architect	
	☐ 3. Others, please specify:	
No. of Storeys (Residential Units)	31	

Table 1 (N/A)

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		North	Northeast		
Wall Orientation Factor		0.79	0.924		
Total External Wall Area (Residential Units)		1904.7 m² ; Window to Wall Ratio = 0.450	549.4 m² ; Window to Wall Ratio = 0.642	m² ; Window to Wall Ratio =	m² ; Window to Wall Ratio =
Total Window Factor		1555.4 m²	987.2 m²	m²	m²
Heat Conduction	Opaque Wall	3.67 W/m²	0.41 W/m²	W/m²	W/m²
	Window	0.37 W/m²	0.62 W/m²	W/m²	W/m²
Window	Glass Type	F1 Area= 997.4 m² SC= 0.34 VLT= % ER= %	F1 Area= 743.2 m² SC= 0.34 VLT= % ER= %	☐ Reflective Area= m² SC= VLT= % ER= %	☐ Reflective Area= m² SC= VLT= % ER= %
		F2 Area= 467.6 m² SC= 0.34 VLT= % ER= %	F2 Area= 244.1 m² SC= 0.34 VLT= % ER= %	☐ Tinted Area= m² SC= VLT= % ER= %	☐ Tinted Area= m² SC= VLT= % ER= %
		W2 Area= 90.5 m² SC= 0.34 VLT= % ER= %	Area= m² SC= VLT= % ER= %	☐ Clear Area= m² SC= VLT= % ER= %	☐ Clear Area= m² SC= VLT= % ER= %
	Double Glazing	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No
	External Shading	Overhang ☑ Yes ☐ No	Overhang ☑ Yes ☐ No	Overhang ☐ Yes ☐ No	Overhang ☐ Yes ☐ No
		Sidefin ☐ Yes ☑ No	Sidefin ☐ Yes ☑ No	Sidefin ☐ Yes ☐ No	Sidefin ☐ Yes ☐ No
Solar Radiation through Glazing		5.04 W/m²	8.43 W/m²	W/m²	W/m²
Average Absorptivity		0.609	0.540		
$RTTV_{Wall}$ at each facade		9.08 W/m²	9.46 W/m²	W/m²	W/m²
Overall $RTTV_{Wall}$		11.02 W/m²			

Table 3

$RTTV_{Roof}$					
Roof Orientation Factor					
Total Roof Area (Residential Units)		m²			
Total Skylight Area		m²			
Heat Conduction	Roof	W/m²			
	Skylight	W/m²			
Skylight	Glass Type	☐ Reflective	Area= m²	SC=	VLT= % ER= %
		☐ Tinted	Area= m²	SC=	VLT= % ER= %
		☐ Clear	Area= m²	SC=	VLT= % ER= %
	Double Glazing	☐ Yes ☐ No			
	External Shading	☐ Yes ☐ No			
Solar Radiation through Glazing		W/m²			
Average Absorptivity (roof)					
Overall $RTTV_{Roof}$		W/m²			

BUILDINGS DEPARTMENT 屋宇署

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 New Kowloon Inland Lot No. 6567, Kai Tak, Kowloon		BD Ref. No. BD 2/4048/17 (Pt.V)
Building Type:	Residential (Mansion A)	
RTTV calculated by	☑ 1. Registered Professional Engineers	
	☐ 2. Architect	
	☐ 3. Others, please specify:	
No. of Storeys (Residential Units)	4	

Table 1 (N/A)

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

$RTTV_{Wall}$		Southeast	Southwest	Nothwest	Northeast
Facade Orientation Facing		Southeast	Southwest	Nothwest	Northeast
Wall Orientation Factor		1.051	1.092	0.965	0.924
Total External Wall Area (Residential Units)		153.3 m²	28.0 m²	119.8 m²	67.7 m²
Total Window Factor		8.9 m²	60.2 m²	40.5 m²	157.9 m²
Window to Wall Ratio		= 0.055	= 0.683	= 0.253	= 0.700
Heat Conduction	Opaque Wall	10.17 W/m²	0.93 W/m²	6.11 W/m²	0.68 W/m²
	Window	0.06 W/m²	0.78 W/m²	0.26 W/m²	0.68 W/m²
Window	Glass Type	F1 Area= 2.05 m², SC= 0.34, VLT= %, ER= %	F1 Area= 60.24 m², SC= 0.34, VLT= %, ER= %	F1 Area= 31.91 m², SC= 0.34, VLT= %, ER= %	F1 Area= 78.87 m², SC= 0.34, VLT= %, ER= %
		W1 Area= 6.85 m², SC= 0.34, VLT= %, ER= %	Area= m², SC=, VLT= %, ER= %	F2 Area= 4.01 m², SC= 0.34, VLT= %, ER= %	F2 Area= 79.06 m², SC= 0.34, VLT= %, ER= %
		Area= m², SC=, VLT= %, ER= %	Area= m², SC=, VLT= %, ER= %	W1 Area= 4.57 m², SC= 0.34, VLT= %, ER= %	Area= m², SC=, VLT= %, ER= %
	Double Glazing	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No
	External Shading	Overhang ☑ Yes ☐ No	Overhang ☑ Yes ☐ No	Overhang ☑ Yes ☐ No	Overhang ☑ Yes ☐ No
		Sidefin ☐ Yes ☑ No	Sidefin ☐ Yes ☑ No	Sidefin ☐ Yes ☑ No	Sidefin ☐ Yes ☑ No
Solar Radiation through Glazing		0.82 W/m²	10.58 W/m²	3.46 W/m²	9.18 W/m²
Average Absorptivity		0.800	0.534	0.517	0.534
$RTTV_{Wall}$ at each facade		11.05 W/m²	12.29 W/m²	9.83 W/m²	10.54 W/m²
Overall $RTTV_{Wall}$		10.74 W/m²			

Table 3

$RTTV_{Roof}$						
Roof Orientation Factor		2.16				
Total Roof Area (Residential Units)		115.8 m²				
Total Skylight Area		/ m²				
Heat Conduction	Roof	1.19 W/m²				
	Skylight	/ W/m²				
Skylight (N/A)	Glass Type	☐ Reflective	Area= m²	SC=	VLT=	
		☐ Tinted	Area= m²	SC=	VLT= %	ER= %
		☐ Clear	Area= m²	SC=	VLT= %	ER= %
	Double Glazing	☐ Yes ☐ No				
	External Shading	☐ Yes ☐ No				
Solar Radiation through Glazing		/ W/m²				
Average Absorptivity (roof)		0.3				
Overall $RTTV_{Roof}$		1.19 W/m²				

RTTV Summary Sheet

BUILDINGS DEPARTMENT 屋宇署

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 New Kowloon Inland Lot No. 6567, Kai Tak, Kowloon	BD Ref. No. BD 2/4048/17 (Pt.V)
Building Type:	Residential (Mansion B)	
RTTV calculated by	☑ 1. Registered Professional Engineers	
	☐ 2. Architect	
	☐ 3. Others, please specify:	
No. of Storeys (Residential Units)	4	

Table 1 (N/A)

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		Southeast	Southwest	Nothwest	Northeast
Wall Orientation Factor		1.051	1.092	0.965	0.924
Total External Wall Area (Residential Units)		114.1 m²	32.2 m²	144.2 m²	82.4 m²
Total Window Factor		38.3 m²	70.8 m²	3.4 m²	203.5 m²
Window to Wall Ratio		= 0.251	= 0.688	= 0.023	= 0.712
Heat Conduction	Opaque Wall	6.38 W/m²	0.85 W/m²	9.68 W/m²	0.51 W/m²
	Window	0.28 W/m²	0.79 W/m²	0.02 W/m²	0.69 W/m²
Window	Glass Type	F1: Area= 33.1 m², SC= 0.34, VLT= %, ER= %	F1: Area= 70.8 m², SC= 0.34, VLT= %, ER= %	W1: Area= 3.4 m², SC= 0.34, VLT= %, ER= %	F1: Area= 115.3 m², SC= 0.34, VLT= %, ER= %
		F2: Area= 4.0 m², SC= 0.34, VLT= %, ER= %	Area= m², SC=, VLT= %, ER= %	Area= m², SC=, VLT= %, ER= %	F2: Area= 88.2 m², SC= 0.34, VLT= %, ER= %
		W1: Area= 1.1 m², SC= 0.34, VLT= %, ER= %	Area= m², SC=, VLT= %, ER= %	Area= m², SC=, VLT= %, ER= %	Area= m², SC=, VLT= %, ER= %
	Double Glazing	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No
	External Shading	Overhang ☑ Yes ☐ No	Overhang ☑ Yes ☐ No	Overhang ☑ Yes ☐ No	Overhang ☑ Yes ☐ No
		Sidefin ☐ Yes ☑ No	Sidefin ☐ Yes ☑ No	Sidefin ☐ Yes ☑ No	Sidefin ☐ Yes ☑ No
Solar Radiation through Glazing		3.75 W/m²	10.66 W/m²	0.32 W/m²	9.33 W/m²
Average Absorptivity		0.511	0.535	0.857	0.539
$RTTV_{Wall}$ at each facade		10.41 W/m²	12.30 W/m²	10.02 W/m²	10.54 W/m²
Overall $RTTV_{Wall}$		10.66 W/m²			

Table 3

$RTTV_{Roof}$					
Roof Orientation Factor		2.16			
Total Roof Area (Residential Units)		148.0 m²			
Total Skylight Area		/ m²			
Heat Conduction	Roof	1.19 W/m²			
	Skylight	/ W/m²			
Skylight (N/A)	Glass Type	☐ Reflective	Area= m²	SC=	VLT= % ER= %
		☐ Tinted	Area= m²	SC=	VLT=
		☐ Clear	Area= m²	SC=	VLT=
	Double Glazing	☐ Yes ☐ No			
	External Shading	☐ Yes ☐ No			
Solar Radiation through Glazing		/ W/m²			
Average Absorptivity (roof)		0.3			
Overall $RTTV_{Roof}$		1.19 W/m²			

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 New Kowloon Inland Lot No. 6567, Kai Tak, Kowloon	BD Ref. No. BD 2/4048/17 (Pt.V)
Building Type:	Residential (Mansion C/ Mansion D)
RTTV calculated by	☑ 1. Registered Professional Engineers
	☐ 2. Architect
	☐ 3. Others, please specify:
No. of Storeys (Residential Units)	5

Table 1 (N/A)

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		Southeast				Southwest				Nothwest				Northeast						
Wall Orientation Factor		1.051				1.092				0.965				0.924						
Total External Wall Area (Residential Units)		58.5 m²	Window to Wall Ratio = 0.111			124.8 m²	Window to Wall Ratio = 0.472			170.3 m²	Window to Wall Ratio = 0.241			173.7 m²	Window to Wall Ratio = 0.656					
Total Window Factor		7.4 m²				111.6 m²				53.9 m²				330.8 m²						
Heat Conduction	Opaque Wall	9.13 W/m²				3.82 W/m²				6.70 W/m²				1.11 W/m²						
	Window	0.12 W/m²				0.54 W/m²				0.24 W/m²				0.64 W/m²						
Window	Glass Type	F1	Area= 7.4 m²	SC= 0.34	VLT= % ER= %	F1	Area= 111.6 m²	SC= 0.34	VLT= % ER= %	F1	Area= 53.9 m²	SC= 0.34	VLT= % ER= %	F1	Area= 184.7 m²	SC= 0.34	VLT= % ER= %			
			Area= m²	SC=	VLT= % ER= %		Area= m²	SC=	VLT= % ER= %		Area= m²	SC=	VLT= % ER= %	F2	Area= 146.1 m²	SC= 0.34	VLT= % ER= %			
			Area= m²	SC=	VLT= % ER= %		Area= m²	SC=	VLT= % ER= %		Area= m²	SC=	VLT= % ER= %		Area= m²	SC=	VLT= % ER= %			
	Double Glazing	☐ Yes ☐ No				☐ Yes ☐ No				☐ Yes ☐ No				☐ Yes ☐ No						
	External Shading	Overhang ☑ Yes ☐ No				Overhang ☑ Yes ☐ No				Overhang ☑ Yes ☐ No				Overhang ☑ Yes ☐ No						
		Sidefin ☐ Yes ☑ No				Sidefin ☐ Yes ☑ No				Sidefin ☐ Yes ☑ No				Sidefin ☐ Yes ☑ No						
Solar Radiation through Glazing		1.66 W/m²				7.32 W/m²				3.29 W/m²				8.60 W/m²						
Average Absorptivity		0.502				0.516				0.527				0.530						
$RTTV_{Wall}$ at each facade		10.91 W/m²				11.68 W/m²				10.24 W/m²				10.34 W/m²						
Overall $RTTV_{Wall}$		10.66 W/m²																		

Table 3

$RTTV_{Roof}$						
Roof Orientation Factor		2.16				
Total Roof Area (Residential Units)		199.9 m²				
Total Skylight Area		/ m²				
Heat Conduction	Roof	1.19 W/m²				
	Skylight	/ W/m²				
Skylight (N/A)	Glass Type	☐ Reflective	Area= m²	SC=	VLT= %	ER= %
		☐ Tinted	Area= m²	SC=	VLT= %	ER= %
		☐ Clear	Area= m²	SC=	VLT= %	ER= %
	Double Glazing	☐ Yes ☐ No				
	External Shading	☐ Yes ☐ No				
Solar Radiation through Glazing		/ W/m²				
Average Absorptivity (roof)		0.3				
Overall $RTTV_{Roof}$		1.19 W/m²				

屋宇署 BUILDINGS DEPARTMENT

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 New Kowloon Inland Lot No. 6567, Kai Tak, Kowloon	BD Ref. No. BD 2/4048/17 (Pt.V)
Building Type:	Residential (Mansion E)
RTTV calculated by	☑ 1. Registered Professional Engineers
	☐ 2. Architect
	☐ 3. Others, please specify:
No. of Storeys (Residential Units)	6

Table 1 (N/A)

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		Southeast					Southwest					Nothwest					Northeast				
Wall Orientation Factor		1.051					1.092					0.965					0.924				
Total External Wall Area (Residential Units)		95.3 m²	Window to Wall Ratio = 0.209				44.9 m²	Window to Wall Ratio = 0.640				97.7 m²	Window to Wall Ratio = 0.211				164.2 m²	Window to Wall Ratio = 0.685			
Total Window Factor		25.1 m²					80.0 m²					26.2 m²					357.3 m²				
Heat Conduction	Opaque Wall	7.47 W/m²					1.26 W/m²					6.89 W/m²					0.82 W/m²				
	Window	0.12 W/m²					0.73 W/m²					0.12 W/m²					0.66 W/m²				
Window	Glass Type	F1	Area= 11.9 m²	SC= 0.34	VLT= % ER= %		F1	Area= 80.0 m²	SC= 0.34	VLT= % ER= %		F1	Area= 11.9 m²	SC= 0.34	VLT= % ER= %		F1	Area= 249.6 m²	SC= 0.34	VLT= % ER= %	
		W1	Area= 1.7 m²	SC= 0.34	VLT= % ER= %			Area= m²	SC=	VLT= % ER= %		W1	Area= 2.7 m²	SC= 0.34	VLT= % ER= %		F2	Area= 107.7 m²	SC= 0.34	VLT= % ER= %	
		W2	Area= 11.6 m²	SC= 0.34	VLT= % ER= %			Area= m²	SC=	VLT= % ER= %		W2	Area= 11.6 m²	SC= 0.34	VLT= % ER= %			Area= m²	SC=	VLT= % ER= %	
	Double Glazing	☐ Yes ☐ No					☐ Yes ☐ No					☐ Yes ☐ No					☐ Yes ☐ No				
	External Shading	Overhang ☑ Yes ☐ No					Overhang ☑ Yes ☐ No					Overhang ☑ Yes ☐ No					Overhang ☑ Yes ☐ No				
		Sidefin ☐ Yes ☑ No					Sidefin ☐ Yes ☑ No					Sidefin ☐ Yes ☑ No					Sidefin ☐ Yes ☑ No				
Solar Radiation through Glazing		3.11 W/m²					9.93 W/m²					2.89 W/m²					8.99 W/m²				
Average Absorptivity		0.506					0.532					0.516					0.578				
$RTTV_{Wall}$ at each facade		10.71 W/m²					11.92 W/m²					9.90 W/m²					10.47 W/m²				
Overall $RTTV_{Wall}$		10.63 W/m²																		

Table 3

$RTTV_{Roof}$						
Roof Orientation Factor		2.16				
Total Roof Area (Residential Units)		145.9 m²				
Total Skylight Area		/ m²				
Heat Conduction	Roof	1.19 W/m²				
	Skylight	/ W/m²				
Skylight (N/A)	Glass Type	☐ Reflective	Area= m²	SC=	VLT= %	ER= %
		☐ Tinted	Area= m²	SC=	VLT= %	ER= %
		☐ Clear	Area= m²	SC=	VLT= %	ER= %
	Double Glazing	☐ Yes ☐ No				
	External Shading	☐ Yes ☐ No				
Solar Radiation through Glazing		/ W/m²				
Average Absorptivity (roof)		0.3				
Overall $RTTV_{Roof}$		1.19 W/m²				