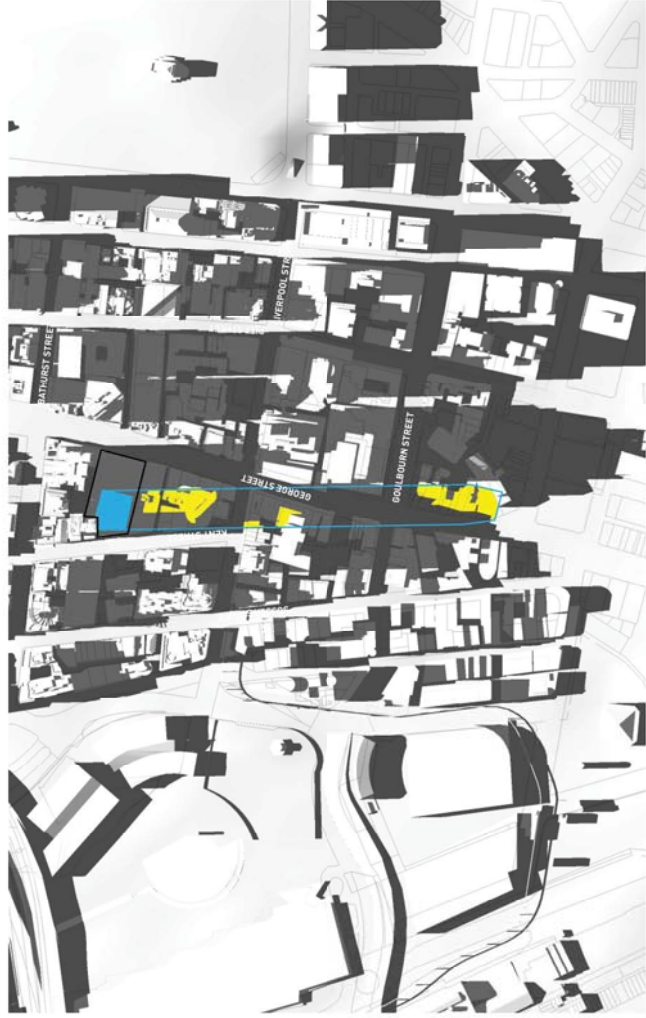


Investigation & Analysis

Shadow Analysis - Context

Proposed Envelope

Winter Solstice - 21 June



12pm



1pm

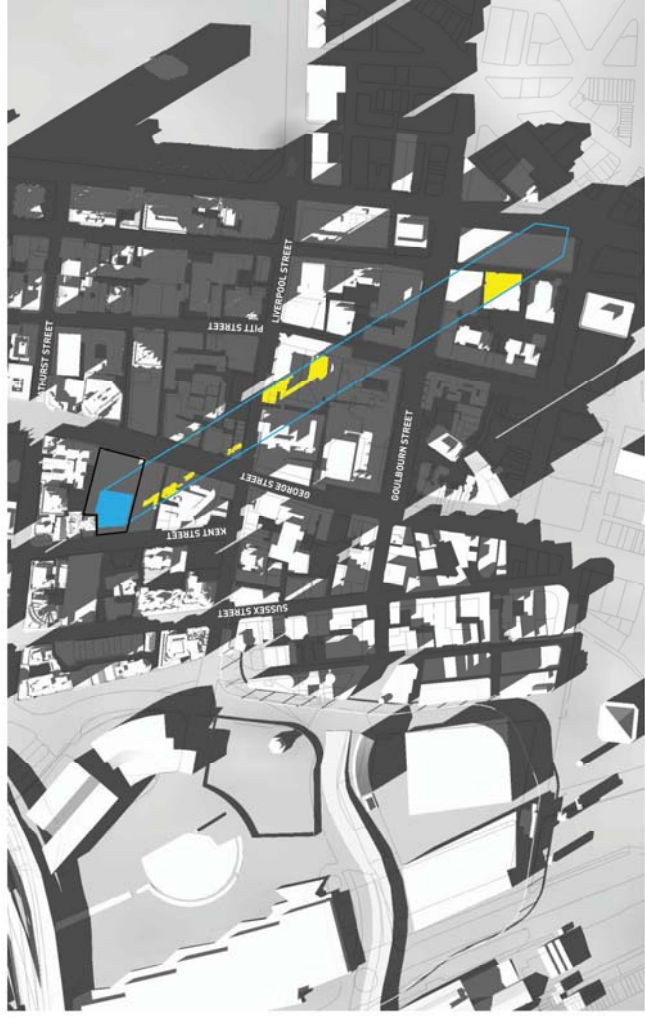
- Existing Shadow
- Proposed Envelope Shadow
- Rooftops Affected by Proposed Envelope
- Street Level Affected by Proposed Envelope

Investigation & Analysis

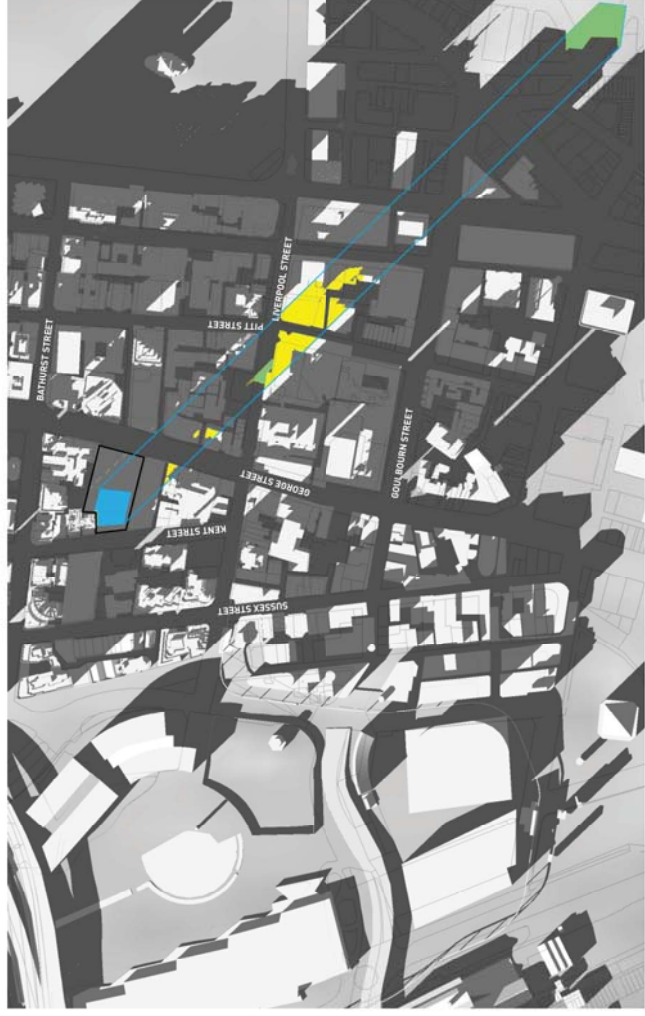
Shadow Analysis - Context

Proposed Envelope

Winter Solstice - 21 June



2pm



3pm

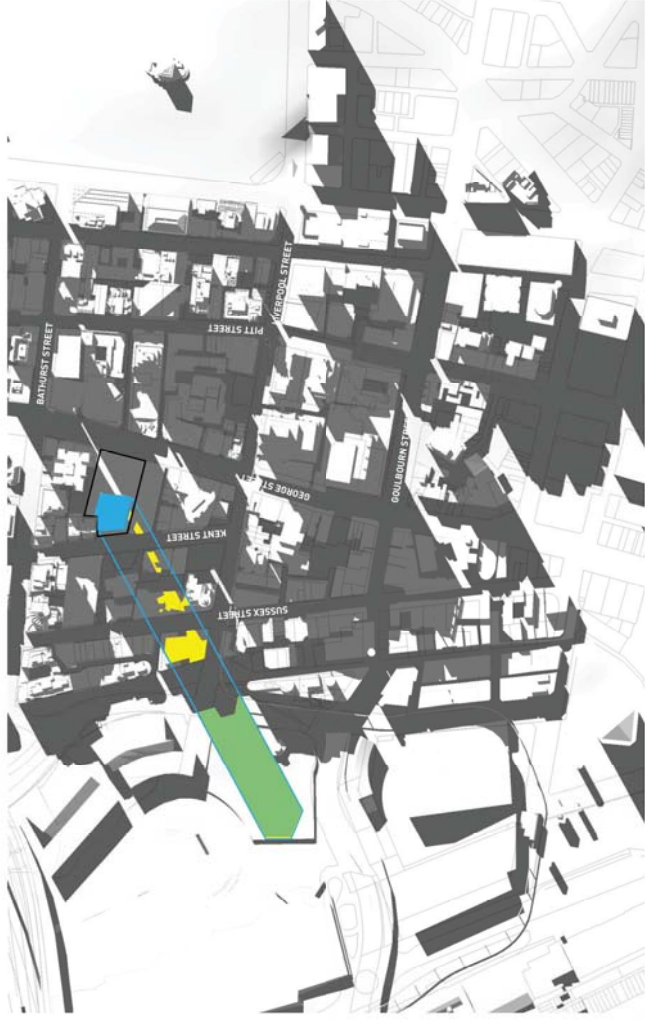
- Existing Shadow
- Proposed Envelope Shadow
- Rooftops Affected by Proposed Envelope
- Street Level Affected by Proposed Envelope

Investigation & Analysis

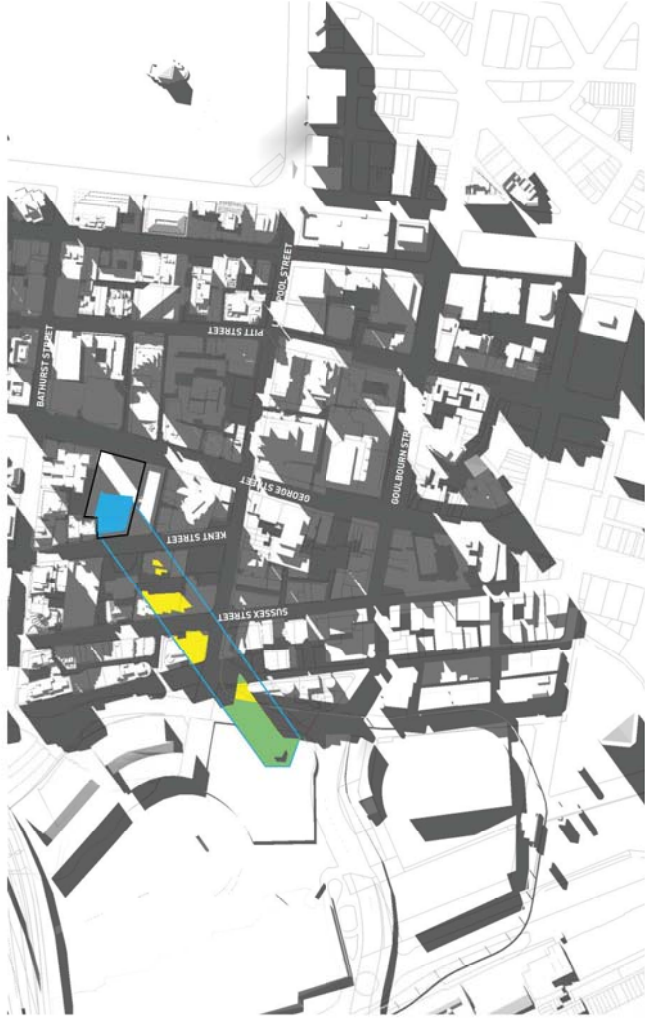
Shadow Analysis - Context

Proposed Envelope

Equinox - 21 March / 23 Sept



9am



930am

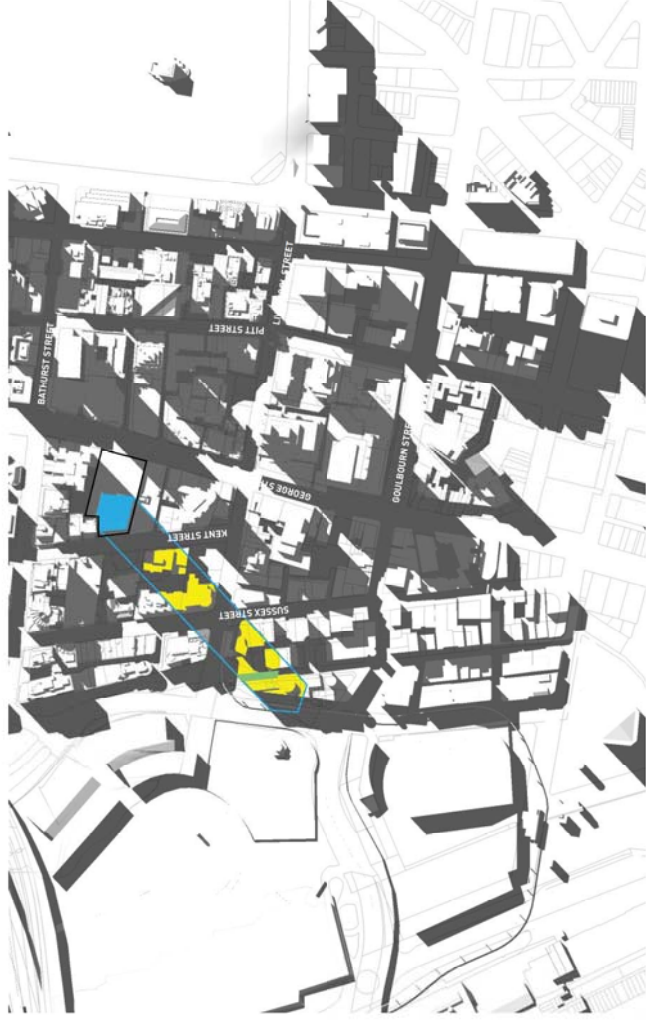
- Existing Shadow
- Proposed Envelope Shadow
- Rooftops Affected by Proposed Envelope
- Street Level Affected by Proposed Envelope

Investigation & Analysis

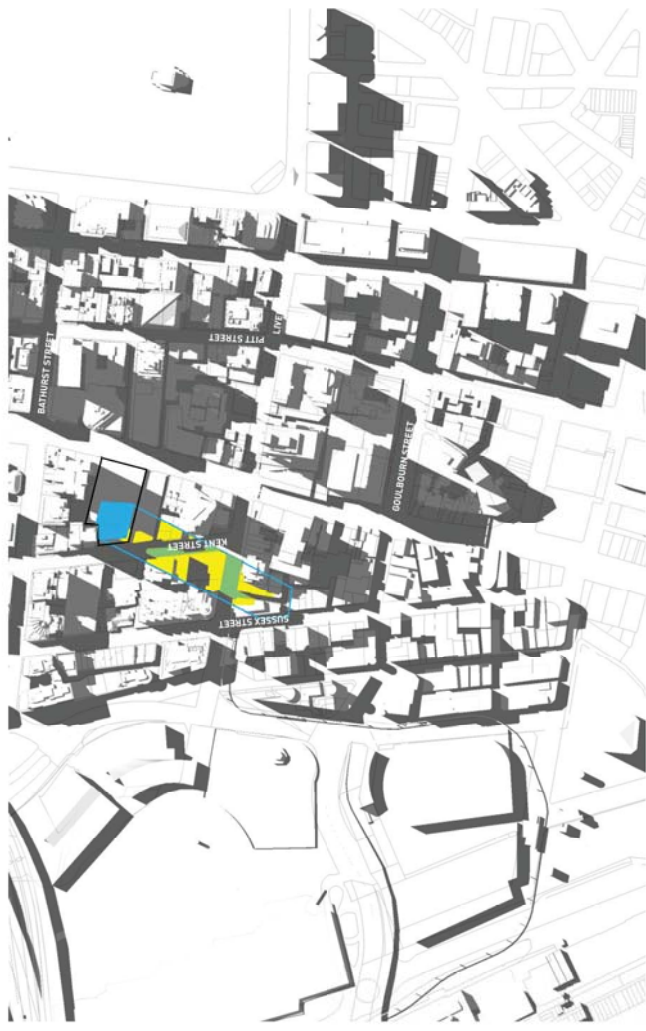
Shadow Analysis - Context

Proposed Envelope

Equinox - 21 March / 23 Sept



10am



11am

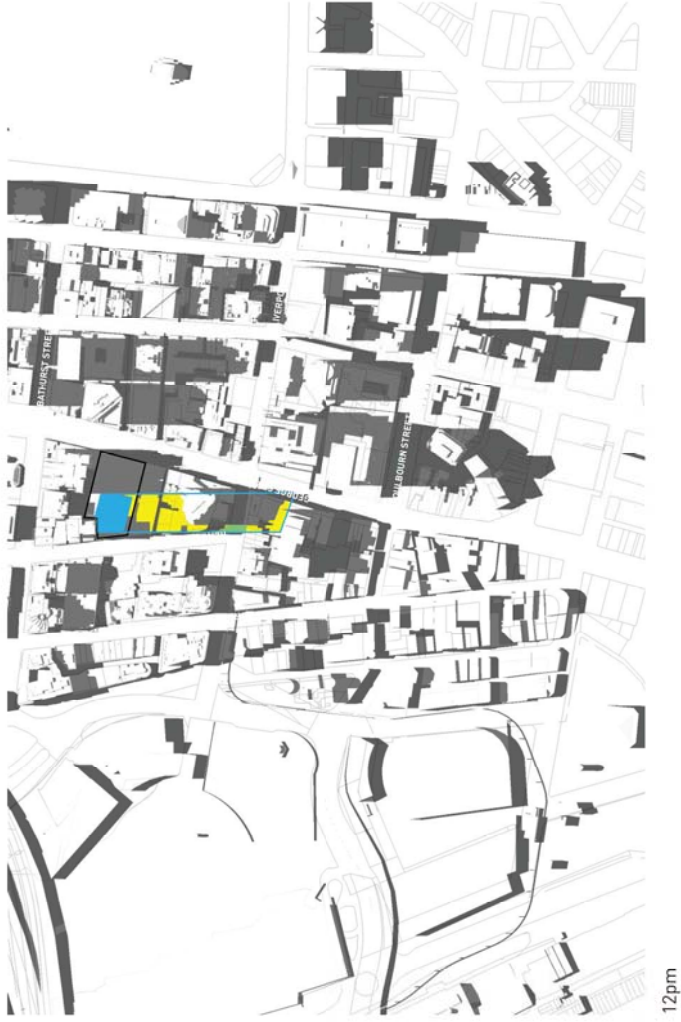
- Existing Shadow
- Proposed Envelope Shadow
- Rooftops Affected by Proposed Envelope
- Street Level Affected by Proposed Envelope

Investigation & Analysis

Shadow Analysis - Context

Proposed Envelope

Equinox - 21 March / 23 Sept



- Existing Shadow
- Proposed Envelope Shadow
- Rooftops Affected by Proposed Envelope
- Street Level Affected by Proposed Envelope

Investigation & Analysis

Shadow Analysis - Context

Proposed Envelope

Equinox - 21 March / 23 Sept



- Existing Shadow
- Proposed Envelope Shadow
- Rooftops Affected by Proposed Envelope
- Street Level Affected by Proposed Envelope

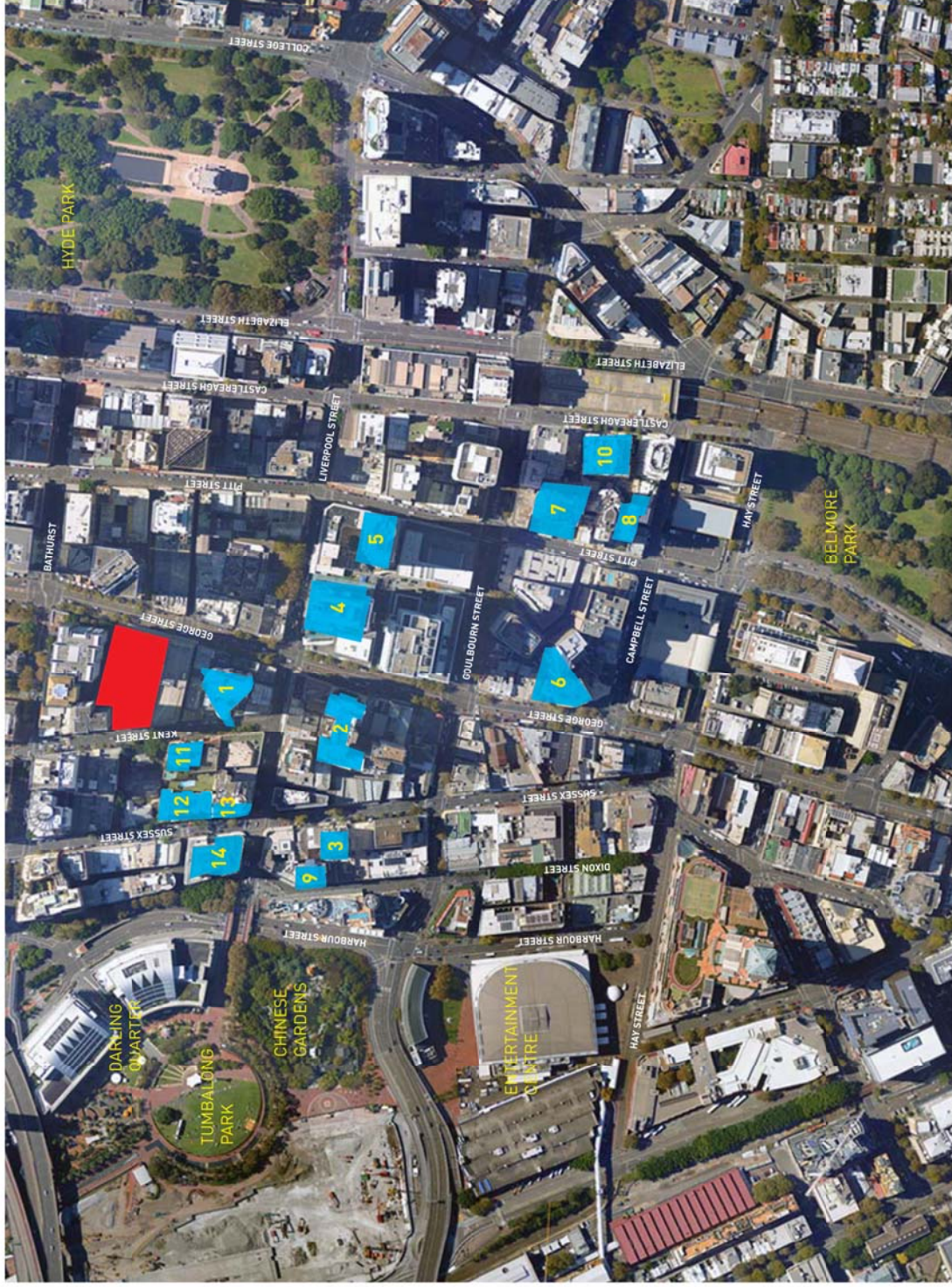
Investigation & Analysis

Shadow Analysis - Existing Residential Towers Proposed Envelope

Due to the proposed 260m high envelope, an analysis needs to be undertaken of the shadow impact on existing neighbouring residential apartments to ensure SEPP65 rule of thumb 'direct sunlight' is not adversely affected.

Identified Residential Apartments

- 01 - 537-551 George Street (Meriton Tower)
- 02 - 569 George Street (Summit Apartments)
- 03 - 361-363 Sussex Street (Regal Apartments)
- 04 - 91-95 Liverpool Street (World Tower)
- 05 - 391 Pitt Street (Above Rydges Hotel)
- 06 - 710-720 George Street (Inmark Tower)
- 07 - 398 Pitt Street (The Miramar)
- 08 - 416-418 Pitt Street & 420 Pitt Street (Mosaic)
- 09 - 8 Dixon Street
- 10 - 303-307 Castlereagh Street
- 11 - 533-539 Kent Street (Meriton House)
- 12 - 336-346 Sussex Street (Windsor Plaza)
- 13 - 352 Sussex Street (Landmark Apartments)
- 14 - 339 Sussex Street (Emporio Apartments)



Investigation & Analysis

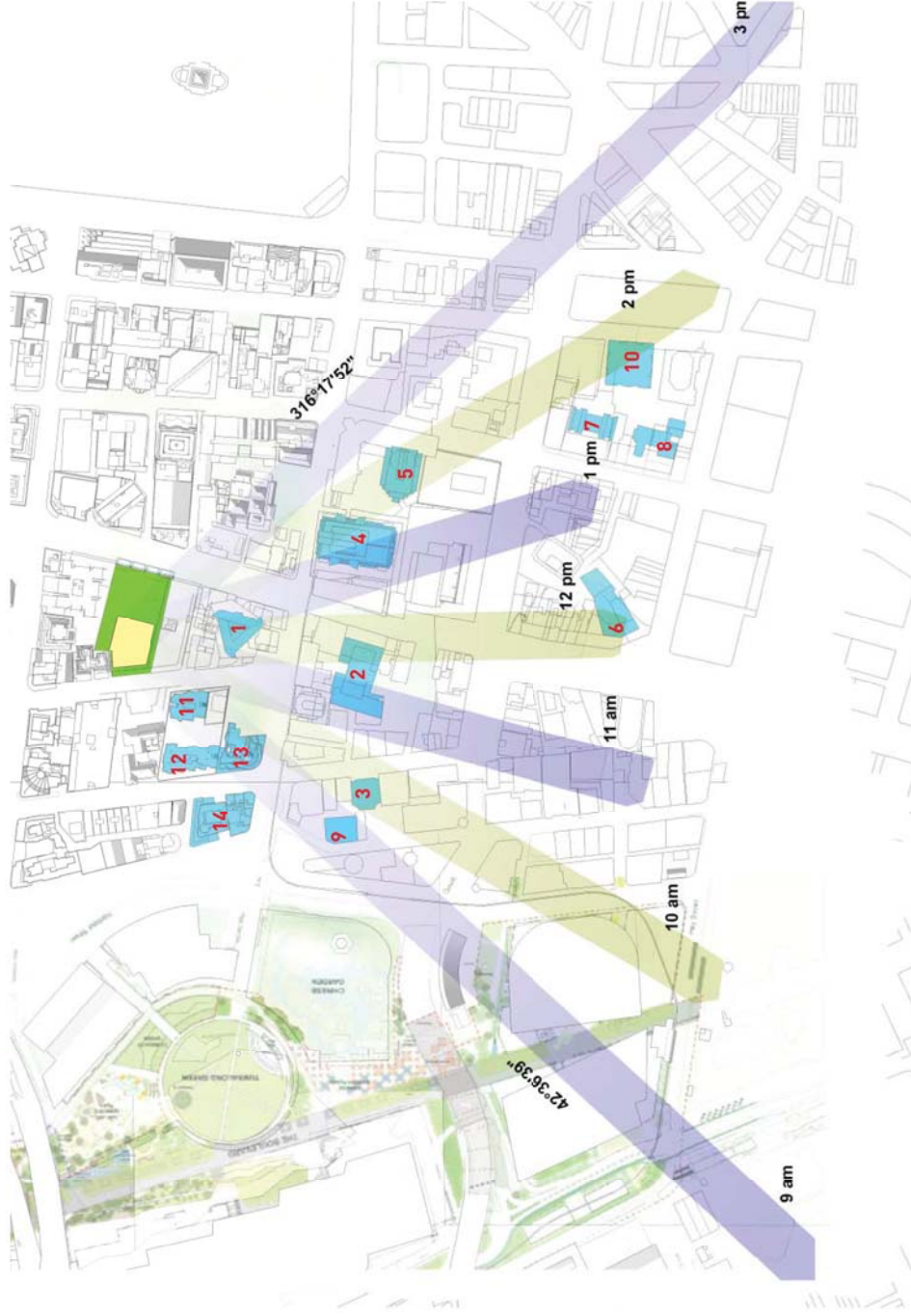
Shadow Analysis - Existing Residential Towers Proposed Envelope

Winter Solstice - 21 June

The proposed 505 George St envelope produces a long fast moving shadow during the winter solstice.

The identified residential buildings which are overshadowed by the proposed 505 George Street envelope are listed in blue below

- 01 - 537-551 George Street (Meriton Tower)
- 02 - 569 George Street (Summit Apartments)
- 03 - 361-363 Sussex Street (Regal Apartments)
- 04 - 91-95 Liverpool Street (World Tower)
- 05 - 391 Pitt Street (Above Rydges Hotel)
- 06 - 710-720 George Street (Immark Tower)
- 07 - 398 Pitt Street (The Miramar)
- 08 - 416-418 Pitt Street & 420 Pitt Street (Mosaic)
- 09 - 8 Dixon Street
- 10 - 303-307 Castlereagh Street
- 11 - 533-539 Kent Street (Meriton House)
- 12 - 336-346 Sussex Street (Windsor Plaza)
- 13 - 352 Sussex Street (Landmark Apartments)
- 14 - 339 Sussex Street (Emporio Apartments)



Investigation & Analysis

Shadow Analysis - Existing Residential Towers Proposed Envelope

Winter Solstice - 21 June

The proposed 505 George St envelope partly overshadows existing residential buildings 1, 2, 3, 6, 11 and 13 between the hours of 10am and 12pm. The shadow is fast moving and allows the buildings to receive daylight exposure in the afternoon and hence maintain its current minimum of 2 hours of direct sunlight.

- 01 - 537-551 George Street (Meriton Tower) ✓
- 02 - 569 George Street (Summit Apartments) ✓
- 03 - 361-363 Sussex Street (Regal Apartments) ✓
- 06 - 710-720 George Street (Inmark Tower) ✓
- 11 - 533-539 Kent Street (Meriton House) ✓
- 13 - 352 Sussex Street (Landmark Apartments) ✓

- Indicates Additional Shadowing by 505 George St Envelope
- Analysis shows minimum 2 hours of direct sunlight achieved



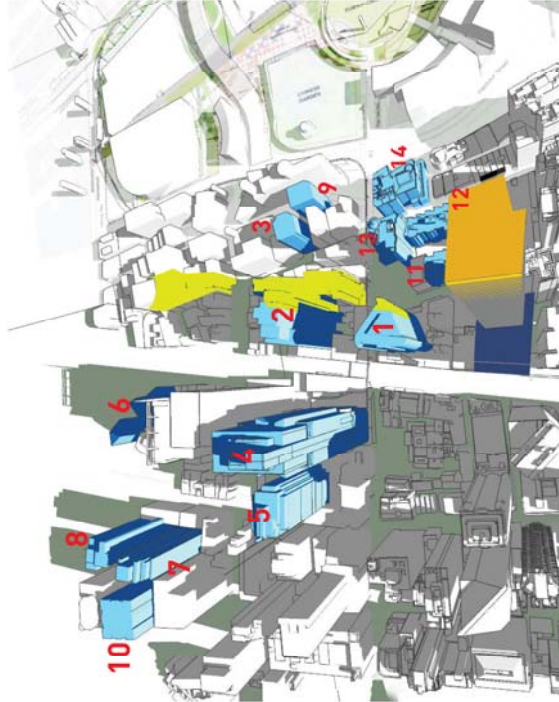
10am



12pm



9am



11am

Investigation & Analysis

Shadow Analysis - Existing Residential Towers Proposed Envelope

Winter Solstice - 21 June

The proposed 505 George St envelope partly overshadows existing residential buildings 1, 4 and 5 between the hours of 1pm and 2pm. The shadow is fast moving and allows the buildings to continue daylight exposure in the morning and late afternoon and hence maintain its current minimum of 2 hours of direct sunlight.

- 01 - 537-551 George Street (Meriton Tower) ✓
- 04 - 91-95 Liverpool Street (World Tower) ✓
- 05 - 391 Pitt Street (Above Rydges Hotel) ✓

Indicates Additional Shadowing by 505 George St Envelope
 Analysis shows minimum 2 hours of direct sunlight achieved



2pm



1pm



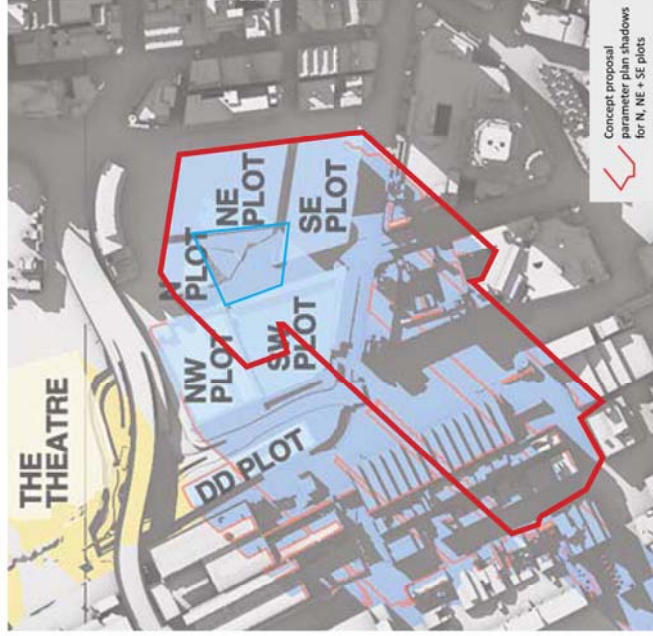
3pm

Investigation & Analysis

Shadow Analysis - Future Haymarket Square Proposed Envelope

Winter Solstice - 21 June, 9am

The winter solstice overshadowing impact of the proposed massing envelope at 505 George St has been assessed against the proposed Haymarket square development. While the 9am shadow reaches the Haymarket precinct, it has little to no impact on Haymarket Square due to the overshadowing caused by its own proposed buildings.



Shadow study of the proposed development at The Haymarket Precinct and the impact upon the proposed Haymarket Square.

The Haymarket Precinct
Design Report for SSDA2
Section 5 - Shadow Studies
March 2013

Denton Corker Marshall



Current 505 George Street shadow cast, showing the proposed Haymarket Precinct Massing



Proposed 505 George Street tower shadow cast, showing the proposed Haymarket Precinct Massing

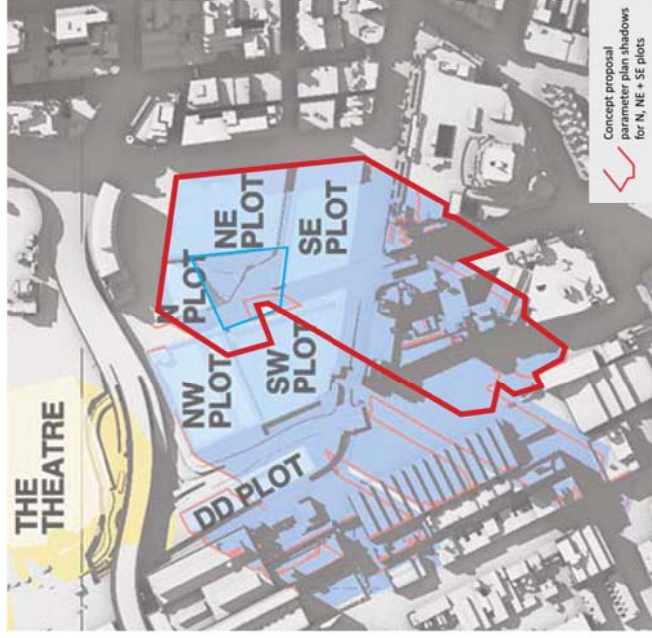
- Existing Shadows
- Shadows cast onto Rooftops
- Shadows cast onto Pedestrian Space / Street Level

Investigation & Analysis

Shadow Analysis - Future Haymarket Square Proposed Envelope

Winter Solstice - 21 June, 10am

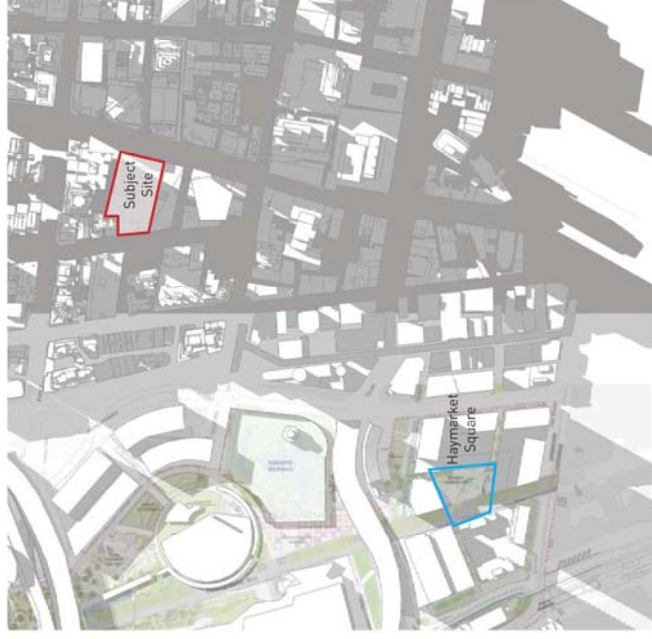
By 10am the proposed 505 George St massing envelope shadow is past the Haymarket precinct and hence has no impact on the proposed Haymarket Square.



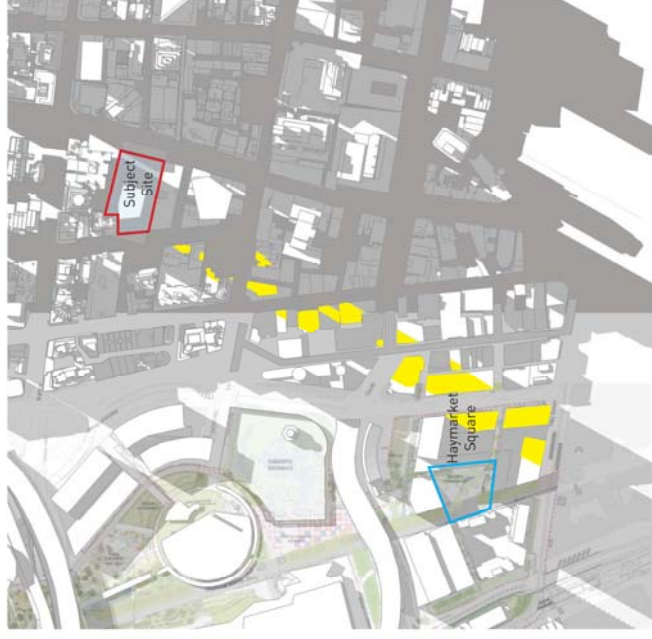
Shadow study of the proposed development at The Haymarket Precinct and the impact upon the proposed Haymarket Square.

The Haymarket Precinct
Design Report for SSDA2
Section 5 - Shadow Studies
March 2013

Denton Corker Marshal



Current 505 George Street shadow cast, showing the proposed Haymarket Precinct Massing



Proposed 505 George Street tower shadow cast, showing the proposed Haymarket Precinct Massing

- Existing Shadows
- Shadows cast onto Rooftops
- Shadows cast onto Pedestrian Space / Street Level

Massing Envelope Drawings Contents & Introduction

The massing envelope drawings aim to establish parameters to enable flexibility and innovation during the Stage 2 DA and competitive design phases.

Some of these parameters include;

- An opportunity to create a key new built element for Sydney that will make a positive contribution to the city skyline and will serve as a future landmark.
- Establish active edges for the podium levels, providing human scale, a consistent street edge, and integrating the development with its immediate context
- Establish a built form and massing for the tower that responds to local urban context.
- Provide for increased permeability across the site.

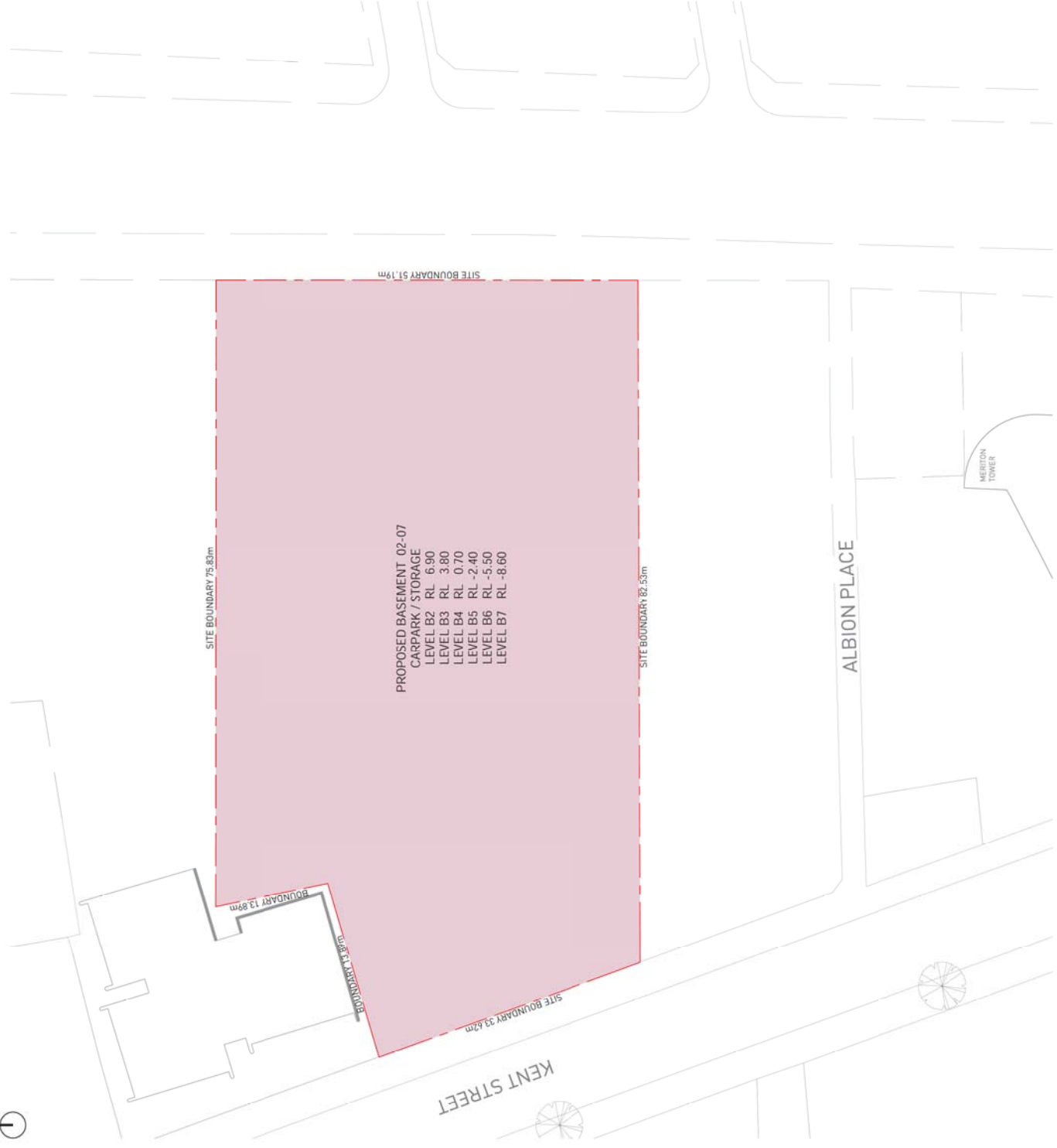
While potential uses and floorplate levels are noted in the massing envelope drawings, the final mix and individual plate heights will be determined during the Stage 2 DA and competitive design processes.

58 - Contents & Introduction
59 - Site Plan
60 - Basement Levels 02-06
61 - Basement Level 01
62 - Lower Ground / Kent Street
63 - Ground Level / George Street
64 - Podium Level 01
65 - Podium Level 02
66 - Podium Level 03
68 - Tower Levels 04-74
69 - Roof Level
70 - Section A-A
71 - East Elevation (George Street)
72 - North Elevation
73 - West Elevation (Kent Street)
74 - South Elevation

Massing Envelope Drawings Basement Level 02-07

NOTES:

*RL XX - APPROXIMATE RELATIVE LEVEL AND APPROXIMATE DIMENSIONS.
- INDICATIVE ONLY: DELINEATION OF USES TO BE DEFINED AT STAGE 2DA.



Service/Plant
 Podium
 Residential tower
 Basement

Massing Envelope Drawings

Basement Level 01

NOTES:

*RL XX - APPROXIMATE RELATIVE LEVEL AND APPROXIMATE DIMENSIONS.
- INDICATIVE ONLY: DELINEATION OF USES TO BE DEFINED AT STAGE 2DA.



Massing Envelope Drawings Lower Ground / Kent Street

NOTES:

*RL XX - APPROXIMATE RELATIVE LEVEL AND APPROXIMATE DIMENSIONS.
- INDICATIVE ONLY: DELINEATION OF USES TO BE DEFINED AT STAGE 2DA.



- Service/Plant
- Podium
- Residential tower
- Basement

Massing Envelope Drawings

Ground Level / George Street

NOTES:

*RL XX - APPROXIMATE RELATIVE LEVEL AND APPROXIMATE DIMENSIONS.
- INDICATIVE ONLY: DELINEATION OF USES TO BE DEFINED AT STAGE 2DA.



Massing Envelope Drawings

Podium Level 01

NOTES:

- *RL XX - APPROXIMATE RELATIVE LEVEL AND APPROXIMATE DIMENSIONS.
- INDICATIVE ONLY: DELINEATION OF USES TO BE DEFINED AT STAGE 2DA.



- Service/Plant
- Podium
- Residential tower
- Basement

Massing Envelope Drawings

Podium Level 02

NOTES:

*RL XX - APPROXIMATE RELATIVE LEVEL AND APPROXIMATE DIMENSIONS.
- INDICATIVE ONLY: DELINEATION OF USES TO BE DEFINED AT STAGE 2DA.



Service/Plant
 Podium
 Residential tower
 Basement

Massing Envelope Drawings

Podium Level 03

NOTES:

- *RL XX - APPROXIMATE RELATIVE LEVEL AND APPROXIMATE DIMENSIONS.
- INDICATIVE ONLY: DELINEATION OF USES TO BE DEFINED AT STAGE 2DA.

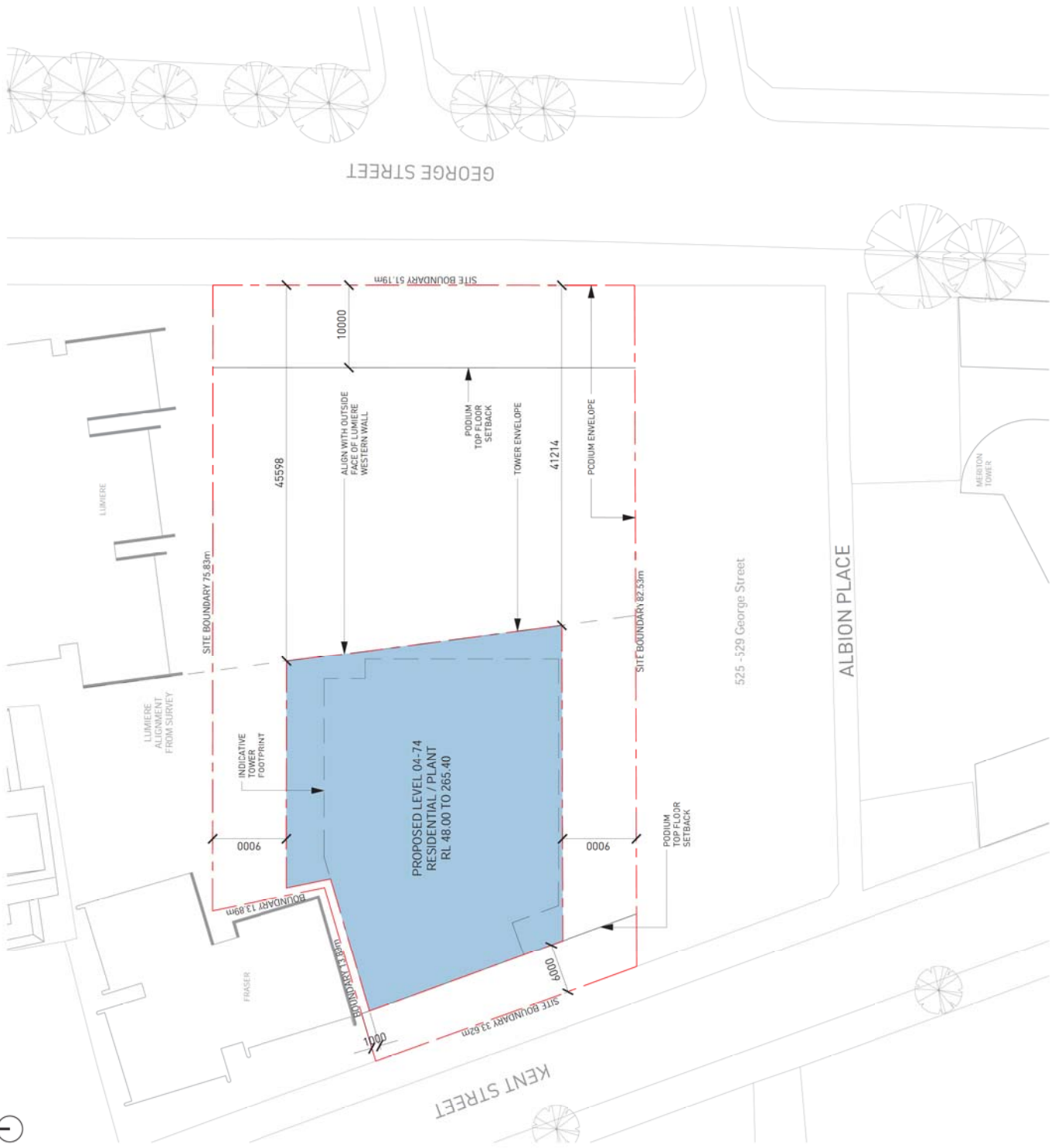


- Service/Plant
- Podium
- Residential tower
- Basement

Massing Envelope Drawings Low Rise Levels 04-74

NOTES:

- *RL XX - APPROXIMATE RELATIVE LEVEL AND APPROXIMATE DIMENSIONS.
- INDICATIVE ONLY: DELINEATION OF USES TO BE DEFINED AT STAGE 2DA.



- Service/Plant
- Podium
- Residential tower
- Basement

Massing Envelope Drawings Plant Levels 75

NOTES:

- *RL XX - APPROXIMATE RELATIVE LEVEL AND APPROXIMATE DIMENSIONS.
- INDICATIVE ONLY: DELINEATION OF USES TO BE DEFINED AT STAGE 2DA.



- Service/Plant
- Podium
- Residential tower
- Basement



Massing Envelope Drawings

Roof

NOTES:

- *RL XX - APPROXIMATE RELATIVE LEVEL AND APPROXIMATE DIMENSIONS.
- INDICATIVE ONLY: DELINEATION OF USES TO BE DEFINED AT STAGE 2DA.



- Service/Plant
- Podium
- Residential tower
- Basement

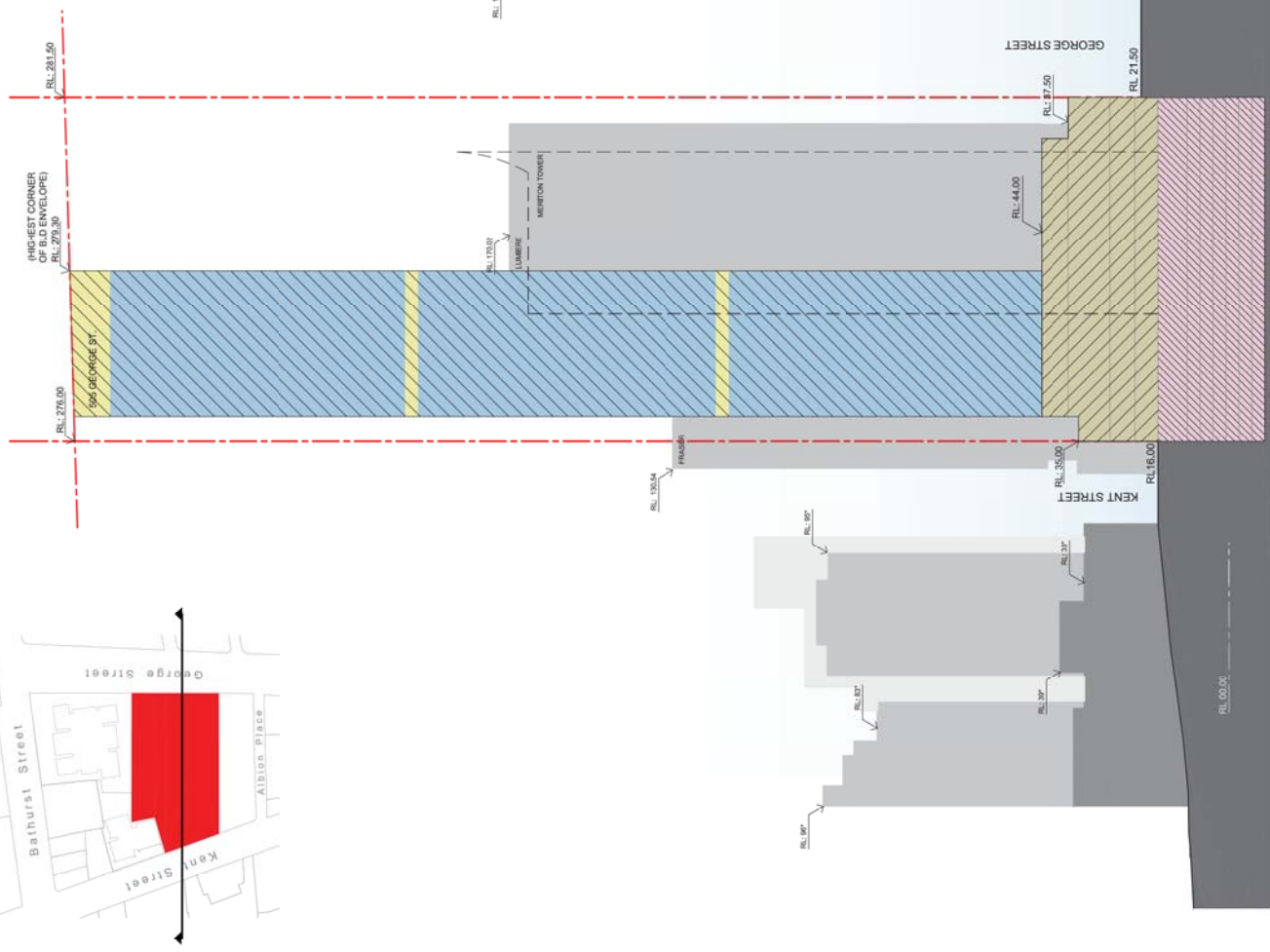
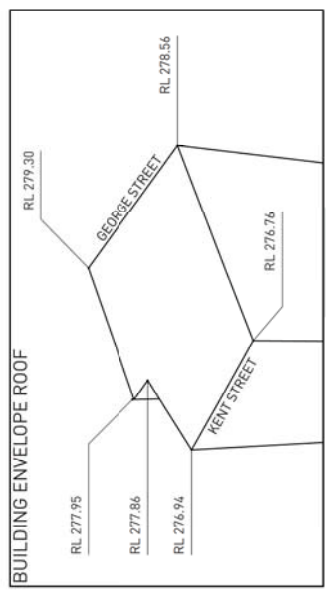


Massing Envelope Drawings

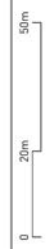
Section A-A

NOTES:

*RL XX - APPROXIMATE RELATIVE LEVEL AND APPROXIMATE DIMENSIONS.
 - INDICATIVE ONLY: DELINEATION OF USES TO BE DEFINED AT STAGE ZDA.



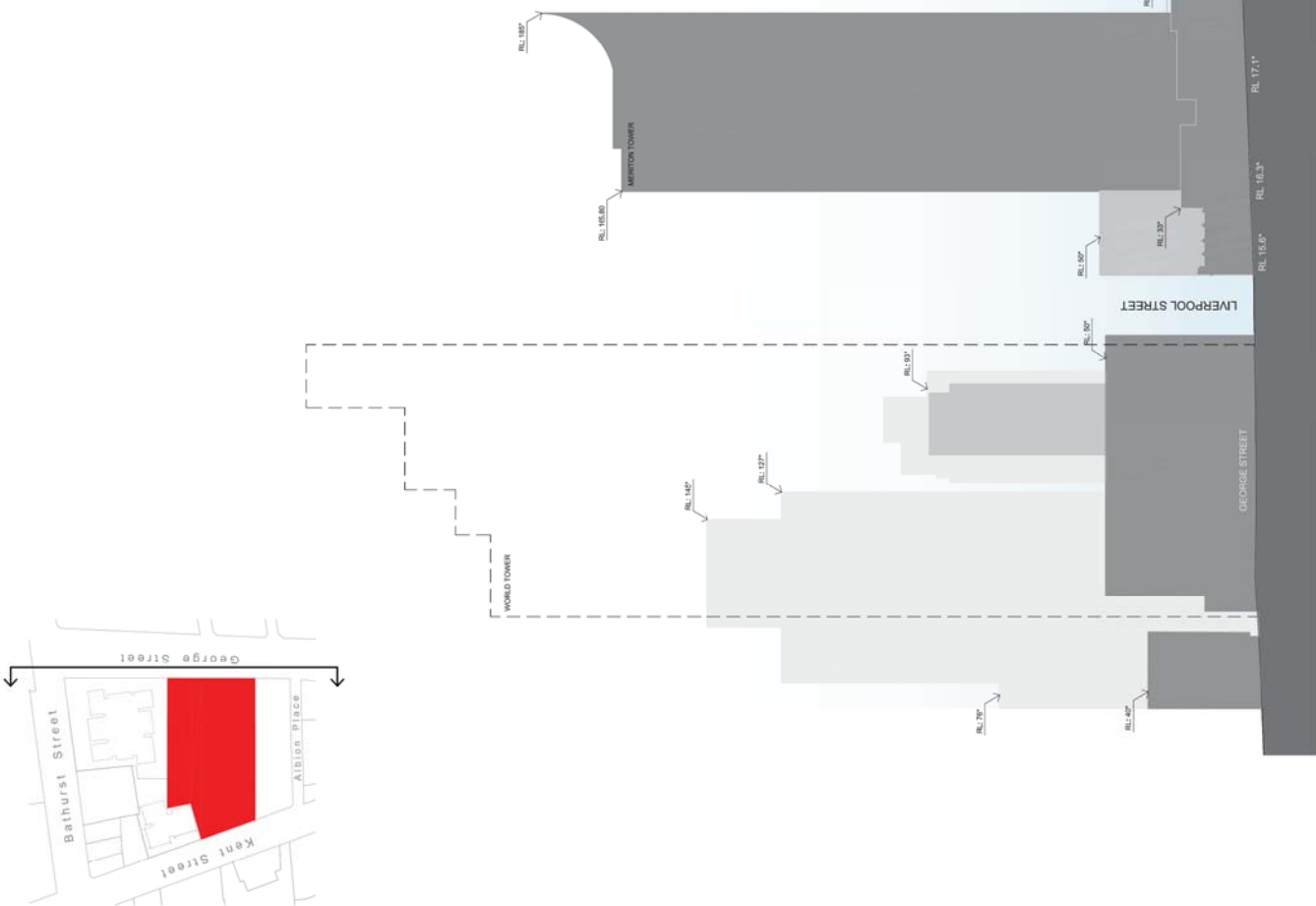
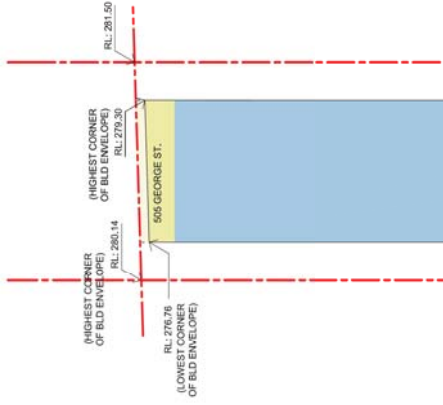
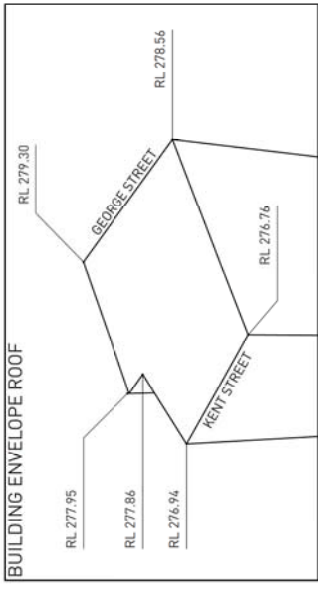
- Existing Background Buildings
- Existing Foreground Buildings
- Service/Plant
- Podium
- Residential tower
- Basement



Massing Envelope Drawings East Elevation (George Street)

NOTES:

*RL XX - APPROXIMATE RELATIVE LEVEL AND APPROXIMATE DIMENSIONS.
- INDICATIVE ONLY: DELINEATION OF USES TO BE DEFINED AT STAGE 2DA.



Existing Background Buildings
 Existing Foreground Buildings
 Service/Plant
 Podium
 Residential tower
 Basement

0 20m 50m

cronepartners CPG mirvac

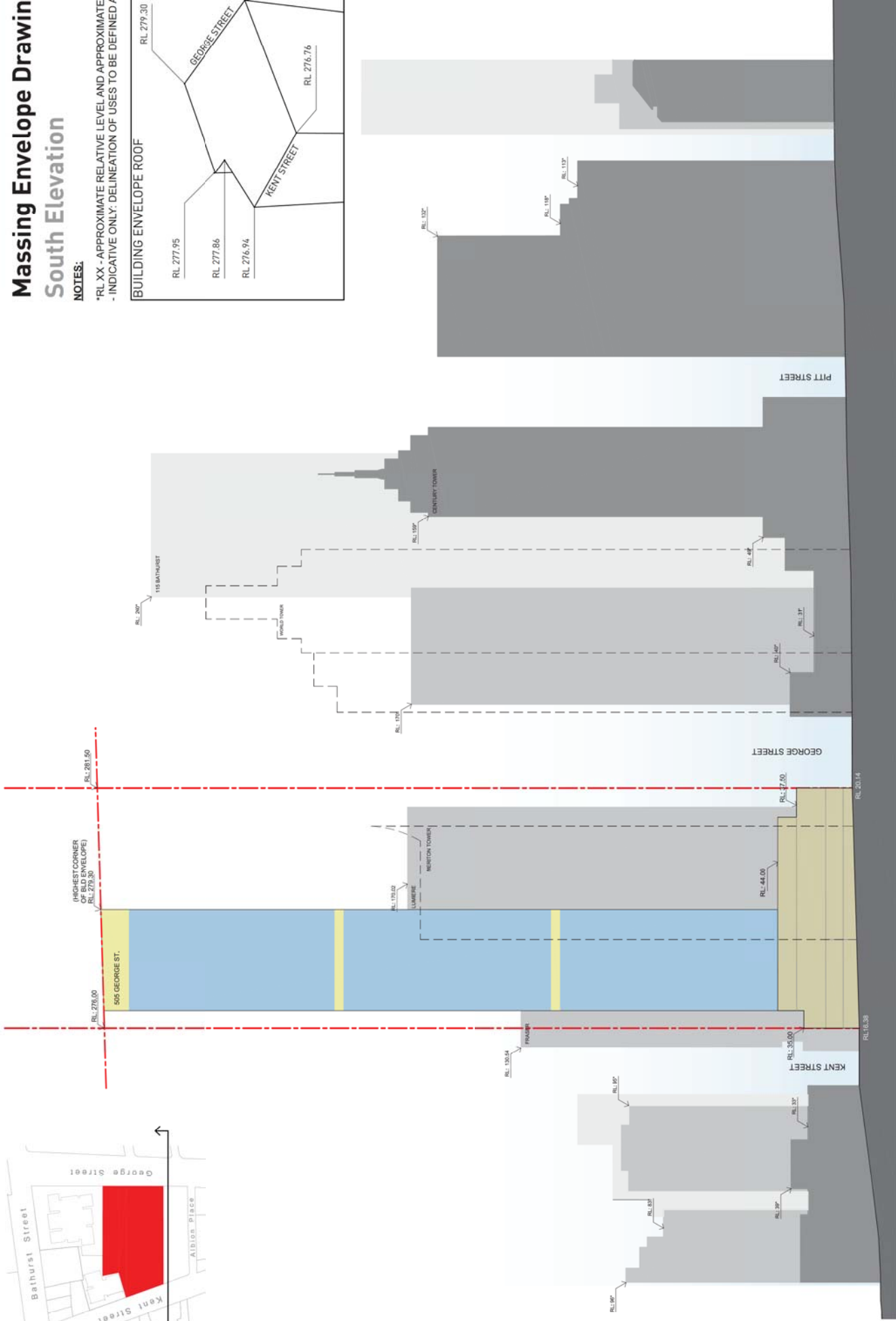
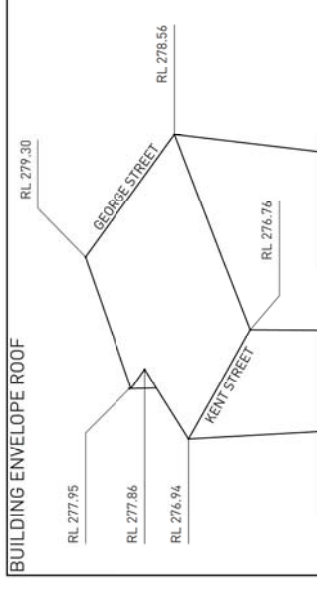
Planning Proposal | 505 - 523 George St | Sydney | 24.09.14

Massing Envelope Drawings

South Elevation

NOTES:

*RL XX - APPROXIMATE RELATIVE LEVEL AND APPROXIMATE DIMENSIONS.
- INDICATIVE ONLY: DELINEATION OF USES TO BE DEFINED AT STAGE 2DA.



- Existing Background Buildings
- Existing Foreground Buildings
- Service/Plant
- Podium
- Residential tower
- Basement



Indicative Scheme Contents & Introduction

The indicative scheme aims to prove that a tower can fit within the proposed massing envelope and comply with the relevant LEP / DCP controls and SEPP 65 guidelines

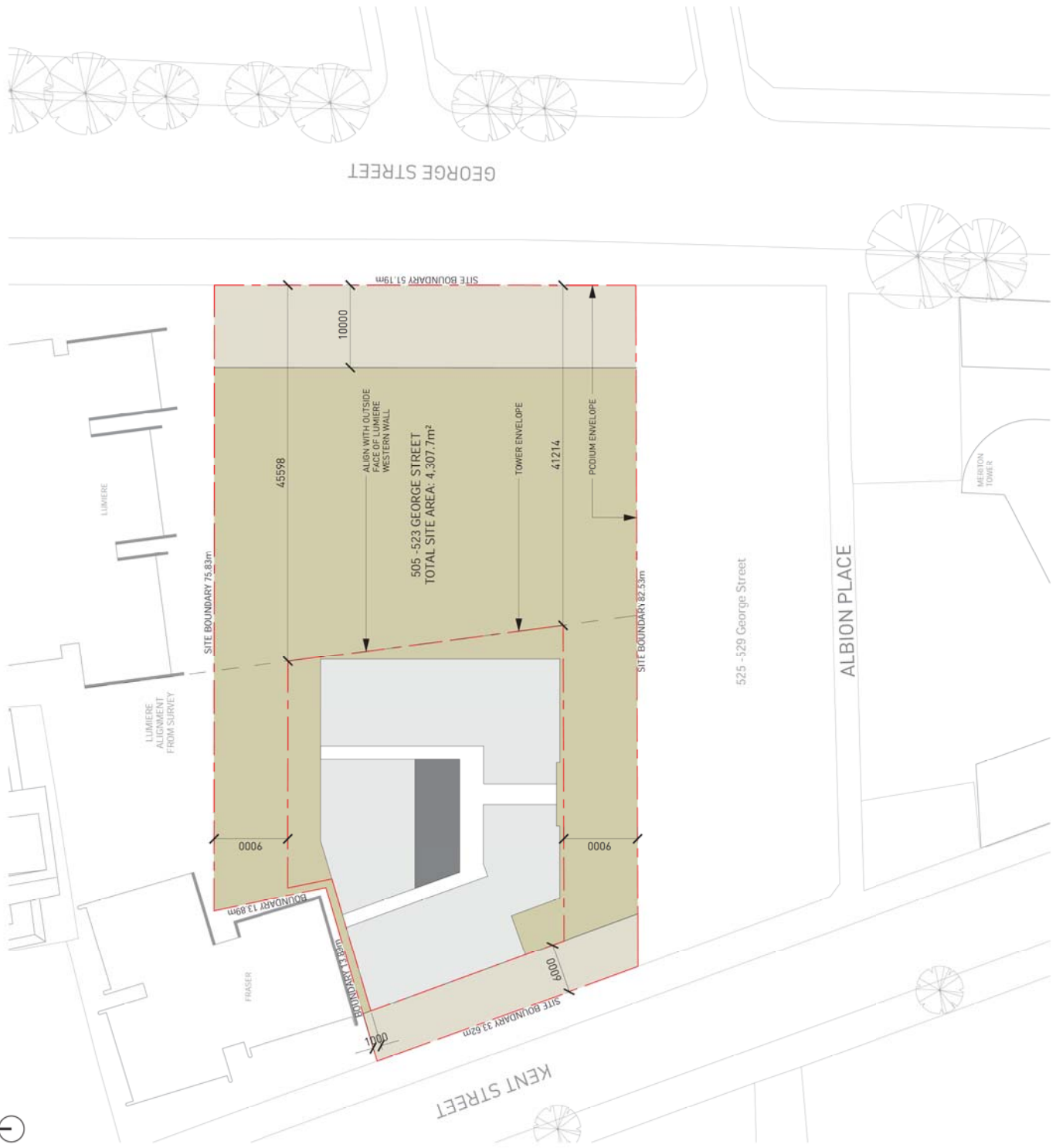
It is indicative only and the final design and outcome will be subject to the stage 2 DA and competitive design processes.

76 - Site Plan
77 - Podium Section
78 - Typical Low Rise
79 - Typical Mid Rise
80 - Typical High Rise
81 - Penthouse
82 - Area Schedule
83 - SEPP65 Analysis Direct Sunlight
84 - SEPP65 Analysis Cross Ventilation
85 - SEPP65 Analysis South Facing Units
86 - Aerial Montage
87 - George Street Podium Montage
88 - Kent Street Podium Montage

Indicative Scheme Site Plan

NOTES:

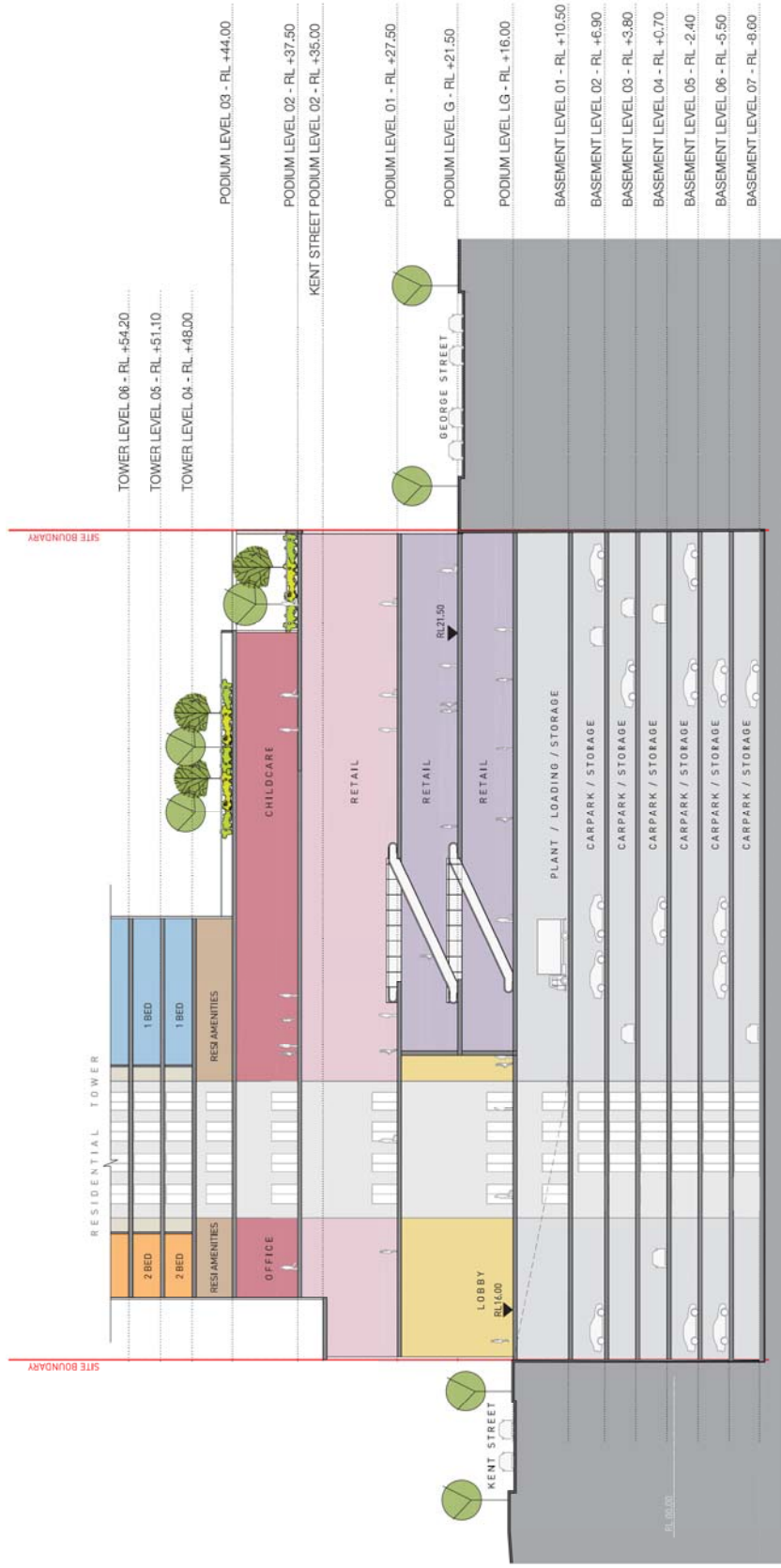
- *RL XX - APPROXIMATE RELATIVE LEVEL AND APPROXIMATE DIMENSIONS.
- INDICATIVE ONLY: DELINEATION OF USES TO BE DEFINED AT STAGE 2DA.



Indicative Scheme Podium Section

NOTES:

- *RL XX - APPROXIMATE RELATIVE LEVEL AND APPROXIMATE DIMENSIONS.
- INDICATIVE ONLY: DELINEATION OF USES TO BE DEFINED AT STAGE 2DA.



Indicative Scheme Typical Low Rise

NOTES:

- INDICATIVE ONLY: FINAL YIELD AND LAYOUT TO BE DEFINED AT STAGE 2DA.

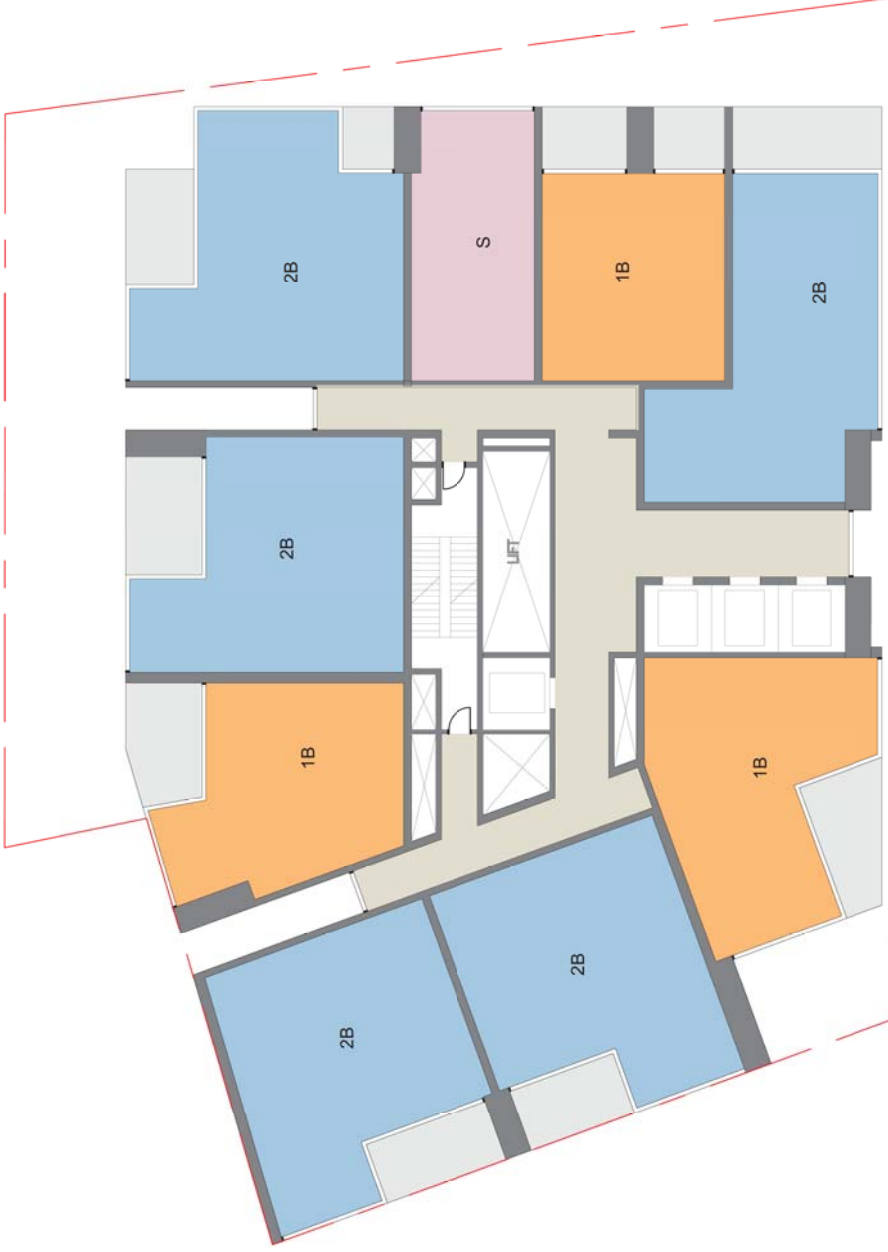


- Studio
- 1 Bed
- 2 Bed
- 3 Bed

Indicative Scheme Typical Mid Rise

NOTES:

- INDICATIVE ONLY: FINAL YIELD AND LAYOUT TO BE DEFINED AT STAGE 2DA.

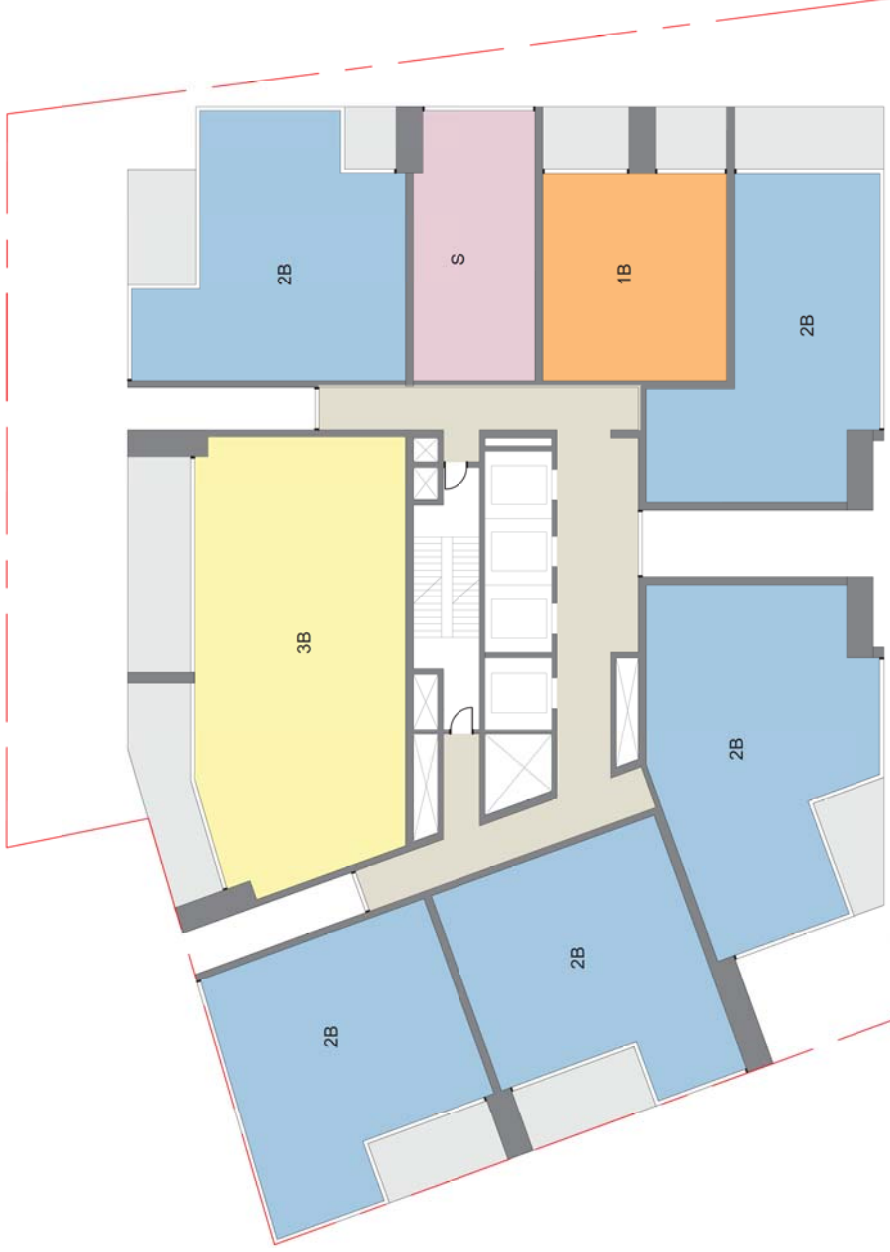


- Studio
- 1 Bed
- 2 Bed
- 3 Bed

Indicative Scheme Typical High Rise

NOTES:

- INDICATIVE ONLY: FINAL YIELD AND LAYOUT TO BE DEFINED AT STAGE 2DA.

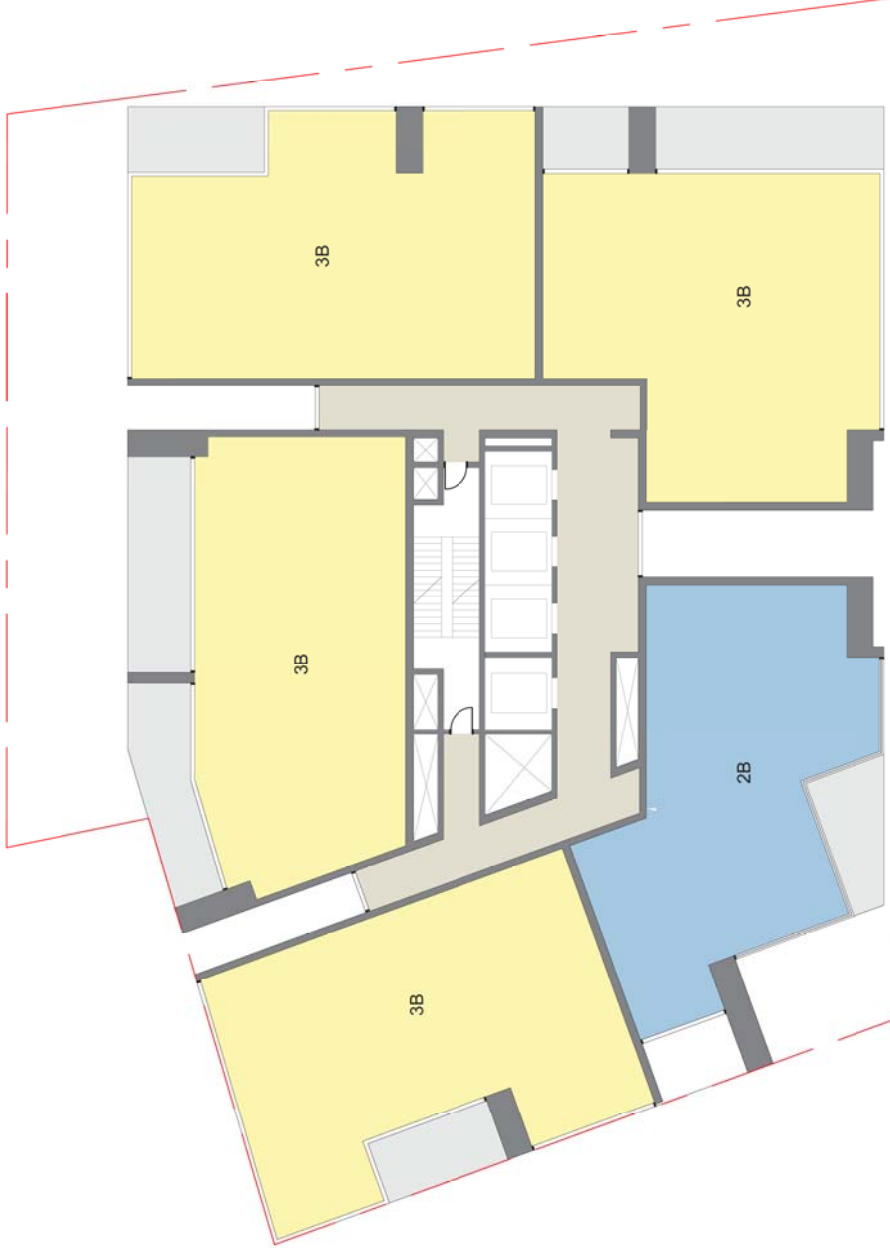


- Studio
- 1 Bed
- 2 Bed
- 3 Bed

Indicative Scheme Penthouse

NOTES:

- INDICATIVE ONLY: FINAL YIELD AND LAYOUT TO BE DEFINED AT STAGE 2DA.



- Studio
- 1 Bed
- 2 Bed
- 3 Bed



Indicative Scheme Area Schedule

Level	Use	Height (Floor to Ceiling)	Area (sq. metres)	NSA / NLA	Unit Typology	Total
Roof						
Tower Level 75	Plant	7.30	268.70	985m²		
Tower Level 74	Residential	3.30	265.40	985m²	0	0
Tower Level 73	Residential	3.10	262.30	985m²	0	0
Tower Level 72	Residential	3.10	259.20	985m²	0	0
Tower Level 71	Residential	3.10	256.10	985m²	0	0
Tower Level 70	Residential	3.10	253.00	985m²	0	0
Tower Level 69	Residential	3.10	249.90	985m²	0	0
Tower Level 68	Residential	3.10	246.80	985m²	1	5
Tower Level 67	Residential	3.10	243.70	985m²	1	5
Tower Level 66	Residential	3.10	240.60	985m²	1	5
Tower Level 65	Residential	3.10	237.50	985m²	1	5
Tower Level 64	Residential	3.10	234.40	985m²	1	5
Tower Level 63	Residential	3.10	231.30	985m²	1	5
Tower Level 62	Residential	3.10	228.20	985m²	1	5
Tower Level 61	Residential	3.10	225.10	985m²	1	5
Tower Level 60	Residential	3.10	222.00	985m²	1	5
Tower Level 59	Residential	3.10	218.90	985m²	1	5
Tower Level 58	Residential	3.10	215.80	985m²	1	5
Tower Level 57	Residential	3.10	212.70	985m²	1	5
Tower Level 56	Residential	3.10	209.60	985m²	1	5
Tower Level 55	Residential	3.10	206.50	985m²	1	5
Tower Level 54	Residential	3.10	203.40	985m²	1	5
Tower Level 53	Residential	3.10	200.30	985m²	1	5
Tower Level 52	Residential	3.10	197.20	985m²	1	5
Tower Level 51	Residential	3.10	194.10	985m²	1	5
Tower Level 50	Residential	3.10	191.00	985m²	1	5
Tower Level 49	Residential	3.10	187.90	985m²	1	5
Tower Level 48	Residential / Plant	3.30	184.80	1,005m²	2	3
Tower Level 47	Residential	3.10	181.70	985m²	1	5
Tower Level 46	Residential	3.10	178.60	985m²	1	5
Tower Level 45	Residential	3.10	175.50	985m²	1	5
Tower Level 44	Residential	3.10	172.40	985m²	1	5
Tower Level 43	Residential	3.10	169.30	985m²	1	5
Tower Level 42	Residential	3.10	166.20	985m²	1	5
Tower Level 41	Residential	3.10	163.10	985m²	1	5
Tower Level 40	Residential	3.10	160.00	985m²	1	5
Tower Level 39	Residential	3.10	156.90	985m²	1	5
Tower Level 38	Residential	3.10	153.80	985m²	1	5
Tower Level 37	Residential	3.10	150.70	985m²	1	5
Tower Level 36	Residential	3.10	147.60	985m²	1	5
Tower Level 35	Residential	3.10	144.50	985m²	1	5
Tower Level 34	Residential	3.10	141.40	985m²	1	5
Tower Level 33	Residential	3.10	138.30	985m²	1	5
Tower Level 32	Residential	3.10	135.20	985m²	1	5
Tower Level 31	Residential	3.10	132.10	985m²	1	5
Tower Level 30	Residential	3.10	129.00	985m²	1	5
Tower Level 29	Residential	3.10	125.90	985m²	1	5
Tower Level 28	Residential	3.10	122.80	985m²	1	5
Tower Level 27	Residential / Plant	3.30	119.70	947m²	2	3
Tower Level 26	Residential	3.10	116.60	927m²	1	2
Tower Level 25	Residential	3.10	113.50	907m²	1	2
Tower Level 24	Residential	3.10	110.40	907m²	1	2
Tower Level 23	Residential	3.10	107.30	907m²	1	2
Tower Level 22	Residential	3.10	104.20	907m²	1	2
Tower Level 21	Residential	3.10	101.10	907m²	1	2
Tower Level 20	Residential	3.10	98.00	907m²	1	2
Tower Level 19	Residential	3.10	94.90	907m²	1	2
Tower Level 18	Residential	3.10	91.80	907m²	1	2
Tower Level 17	Residential	3.10	88.70	907m²	1	2
Tower Level 16	Residential	3.10	85.60	907m²	1	2
Tower Level 15	Residential	3.10	82.50	907m²	1	2
Tower Level 14	Residential	3.10	79.40	907m²	1	2
Tower Level 13	Residential	3.10	76.30	907m²	1	2
Tower Level 12	Residential	3.10	73.20	907m²	1	2
Tower Level 11	Residential	3.10	70.10	907m²	1	2
Tower Level 10	Residential	3.10	67.00	907m²	1	2
Tower Level 9	Residential	3.10	63.90	907m²	1	2
Tower Level 8	Residential	3.10	60.80	907m²	1	2
Tower Level 7	Residential	3.10	57.70	907m²	1	2
Tower Level 6	Residential	3.10	54.60	907m²	1	2
Tower Level 5	Residential	3.10	51.50	907m²	1	2
Tower Level 4	Residential	3.10	48.40	907m²	1	2
Tower Level 3	Residential / Ammies / Deck	4.00	44.30	4,308m²	1	4
Podium Level 2	Community / Plant	37.50	4.00	4,308m²	1	4
Podium Level 1	Retail (incl Mezz)	10.00	27.50	5,368m²	3,910m²	3,910m²
George St Entry	Lobby / Retail	6.00	2.90	3,968m²	3,968m²	2,597m²
Commercial Entry	Lobby / Retail / Plant	6.00	5.00	6,258m²	3,320m²	3,320m²
Basement 1	Plant / Loading / Storage	5.50	16.00	3,200m²	3,151m²	2,868m²
Basement 2	Plant / Loading / Storage	3.60	6.90	4,209m²	4,209m²	
Basement 3	Plant / Loading / Storage	3.10	3.80	4,209m²	4,209m²	
Basement 4	Carpark	3.10	0.70	4,209m²	4,209m²	
Basement 5	Carpark	3.10	-2.40	4,209m²	4,209m²	
Basement 6	Carpark	3.10	-4.00	4,209m²	4,209m²	
Basement 7	Carpark	3.10	-6.60	4,209m²	4,209m²	
Total			118,951	111,571m²	64,837m²	52,037m²
			65	50%	30%	11%
			176	50%	41	58%

Summary Schedule	GFA	NSA / NLA	Unit Typology	Total
TOWER	55,238m²	42,408m²		
PODIUM	187m²	26m²		
Residential	55,238m²	42,408m²		
Commercial / Retail / Other	187m²	26m²		
Childcare (Excl From GFA)	5,000m²			
Retail	4,599m²	3,910m²		
Sub-Total	65,422m²	46,364m²		
TOTAL	64,837m²	52,037m²		
Height	HT(m)	RL(m)	No.	
Agreed Height Above Kent St	260.00	276.00	314	
Agreed Height Above George St	260.00	281.50	17	
Achieved on Kent Street (RL 16.00m)	260.00	276.00	24	
Comparison			0.00	
Carparking				
Residential			314	
Community			1	
Childcare			17	
Retail			15	
Service Vehicles			24	
TOTAL			371	
FSR SCHEDULE				
Site Area	FSR	Area	4,308m²	
Permissible GFA				
Base Case	8.00	34,464m²		
Accommodation Floor Space (Office / Retail / Others)	12.90	55,850m²		
10% Uplift (Design Excellence)	13.75	59,235m²		
Accommodation Floor Space (Residential)	14.00	60,312m²		
10% Uplift (Design Excellence)	15.40	66,343m²		
FSR Calculation (mixed use)	%	FSR	Area	
Maximum Commercial / Retail / Other Component	21%	2.65	11,414m²	
Maximum Residential Component	79%	11.03	47,528m²	
TOTAL		13.68	58,942m²	
TOTAL (incl 10% Uplift Design Excellence)		15.05	64,837m²	
Achieved GFA (mixed use)				
Commercial / Retail / Other Component			11,414m²	
Residential Component			53,422m²	
TOTAL ACHIEVED			64,837m²	

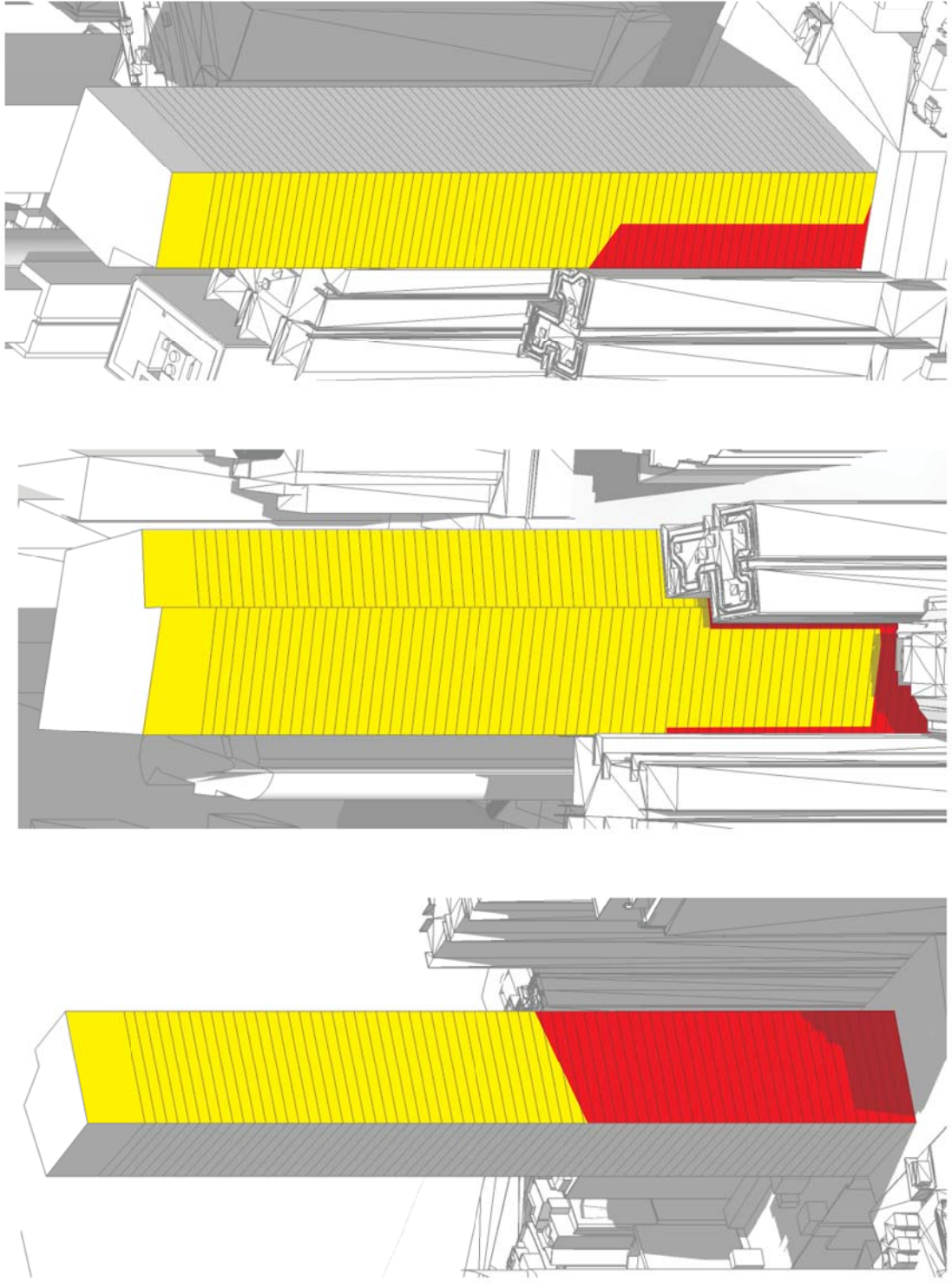
General Notes:-
 -GFA - Gross Building Area - Total Building Area
 -NLA - Gross Floor Area - As per CoS Council Definition
 -NSA - Net Lettable Area - As per PCA method of measurement
 -All area values are based on covered drawings and are subject to final design and survey
 -Dimension of areas are indicative only and will be defined in the Stage 2 DA

DRAFT SCHEDULE ONLY BASED
ON INDICATIVE SCHEME

Indicative Scheme

SEPP 65 Analysis

Direct Sunlight



East aspect

North aspect

West aspect

Hours Sunlight > 2 hours

Hours Sunlight < 2 hours

Orientation	Units				Total
	East	South	West	North	
Penhouse	75				75
High Rise	74	1	3	0	5
	73	1	3	0	5
	72	1	3	0	5
	71	1	3	0	5
	70	1	3	0	5
	69	3	2	0	8
	68	3	2	0	8
	67	3	2	0	8
	66	3	2	0	8
	65	3	2	0	8
Mid Rise	64	3	2	0	8
	63	3	2	0	8
	62	3	2	0	8
	61	3	2	0	8
	60	3	2	0	8
	59	3	2	0	8
	58	3	2	0	8
	57	3	2	0	8
	56	3	2	0	8
	55	3	2	0	8
Low Rise	54	3	2	0	8
	53	3	2	0	8
	52	3	2	0	8
	51	3	2	0	8
	50	3	2	0	8
	49	3	2	0	8
	48	3	2	0	8
	47	3	2	0	8
	46	3	2	0	8
	45	3	2	0	8
Podium	44	3	4	2	9
	43	3	4	2	9
	42	3	4	2	9
	41	3	4	2	9
	40	3	4	2	9
	39	3	4	2	9
	38	3	4	2	9
	37	3	4	2	9
	36	3	4	2	9
	35	3	4	2	9
Residential Apartments	34	3	4	2	9
	33	3	4	2	9
	32	3	4	2	9
	31	3	4	2	9
	30	3	4	2	9
	29	3	4	2	9
	28	3	4	2	9
	27	3	4	2	9
	26	3	4	2	9
	25	3	4	2	9
Commercial	24	3	4	2	9
	23	3	4	2	9
	22	3	4	2	9
	21	3	4	2	9
	20	3	4	2	9
	19	3	4	2	9
	18	3	4	2	9
	17	3	4	2	9
	16	3	4	2	9
	15	3	4	2	9
Total	14	0	0	0	14
	13	0	0	0	14
	12	0	0	0	14
	11	0	0	0	14
	10	0	0	0	14
	9	0	0	0	14
	8	0	0	0	14
	7	0	0	0	14
	6	0	0	0	14
	5	0	0	0	14
4	0	0	0	14	
3	0	0	0	14	
2	0	0	0	14	
1	0	0	0	14	
George St	131	132	133	0	433
Market St	0	0	0	0	0
LG	0	0	0	0	0
B1	0	0	0	0	0
B2	0	0	0	0	0
B3	0	0	0	0	0
B4	0	0	0	0	0
B5	0	0	0	0	0
Basement	0	0	0	0	0
Podium	131	132	133	0	433
George St	131	132	133	0	433
Market St	0	0	0	0	0
LG	0	0	0	0	0
B1	0	0	0	0	0
B2	0	0	0	0	0
B3	0	0	0	0	0
B4	0	0	0	0	0
B5	0	0	0	0	0
Basement	0	0	0	0	0
Podium	131	132	133	0	433
George St	131	132	133	0	433
Market St	0	0	0	0	0
LG	0	0	0	0	0
B1	0	0	0	0	0
B2	0	0	0	0	0
B3	0	0	0	0	0
B4	0	0	0	0	0
B5	0	0	0	0	0
Basement	0	0	0	0	0
Podium	131	132	133	0	433

SEPP 65 Rule of thumb min 70%

Achieved 75%

Indicative Scheme

SEPP 65 Analysis

RFDC Key Rules of Thumb

Design element	Response
<p>Building depth The proposed envelope will have a maximum depth of approximately 34m. In order to achieve natural daylight and cross ventilation it is proposed to include slots within the building design similar to that which has been developed elsewhere in the CBD (e.g. Lumiere and One Central Park).</p>	<p>The proposed envelope will have a maximum depth of approximately 34m. In order to achieve natural daylight and cross ventilation it is proposed to include slots within the building design similar to that which has been developed elsewhere in the CBD (e.g. Lumiere and One Central Park).</p>
<p>Building separation¹</p> <ul style="list-style-type: none"> Up to 4 storeys (12m): <ul style="list-style-type: none"> 12m between habitable rooms/balconies; 9m between habitable & non-habitable rooms; and 6m between non-habitable rooms. 5 to 8 storeys (up to 25m) <ul style="list-style-type: none"> 18 m between habitable rooms/balconies 13 m between habitable rooms/balconies & non-habitable rooms 9 m between non-habitable rooms 9 storeys and above (over 25m) <ul style="list-style-type: none"> 24m between habitable rooms/balconies 18m between habitable/balconies & non-habitable rooms; 12m between non-habitable rooms 	<p>Building separation has been assessed separately at Section 7.3 of this report. As noted the proposal is considered to provide a satisfactory outcome in terms of privacy and building separation.</p>
<p>Apartment layout</p> <ul style="list-style-type: none"> Single-aspect apartments should be limited in depth to 8 metres from a window. The back of a kitchen should be no more than 8 metres from a window. <p>Minimum apartment sizes as follows:</p> <ul style="list-style-type: none"> 50m² for 1 bedroom apartment 70m² for 2 bedroom apartments 95m² for 3+ bedroom apartments 	<p>The proposal can comply.</p>
<p>Balconies Primary balconies adjacent to primary living areas for all apartments with minimum depth of 2m</p>	<p>All apartments will be provided with a balcony or winter garden depending on the location of the apartment within the building, meeting the required minimum dimensions.</p>
<p>Ceiling heights</p> <ul style="list-style-type: none"> 3.3m minimum for ground floor and first floor in mixed use buildings 2.7m minimum (finished floor level to finished ceiling level) for all habitable rooms on all floors. 2.4m for non habitable rooms (2.25m minimum). 2 storey units - 2.4m minimum for second storey if 50% or more of the apartment has 2.7m ceiling height 	<p>The proposal complies with the recommended minimum ceiling heights.</p>
<p>Internal circulation Where units are arranged off a double-loaded corridor, the number of units accessible from a single core/corridor should be limited to 8.</p>	<p>With an average of 8.4 units per floor, the proposal will slightly exceed the maximum number of units (8) accessed from the proposed single corridor. However this exceedance only occurs on the lower levels of the building and is due to the configuration of the floor plate and</p>
<p>Storage In addition to kitchen cupboards and bedroom wardrobes, provide accessible storage facilities at the following rates:</p> <ul style="list-style-type: none"> 6m² for studio and 1 bedroom apartments 8m² for 2 bedroom apartments 10m² for 3 + bedroom apartments <p>50% of storage space to be provided in apartments</p> <p>Daylight access</p> <ul style="list-style-type: none"> Living rooms and private open spaces for at least 70% of apartments in a development should receive a minimum of 2 hours direct sunlight, between 9am and 3pm in mid winter. Limit the number of single aspect apartments with a southerly aspect (SW-SE) to a maximum of 10% of the total number of units proposed. <p>Natural ventilation</p> <ul style="list-style-type: none"> Building depths which support natural ventilation typically range from 10 to 18 metres. 60% of apartments should be naturally cross ventilated 25% of kitchens should have access to natural ventilation 	<p>the installation of one central lift core. Notwithstanding this the corridors will be naturally lit through the provision of slots within the building and will provide a high level amenity for future residents.</p> <p>Storage has been allowed for in the basement design.</p> <p>The analysis of the indicative scheme prepared by Crone Partners indicates that the proposal is capable of achieving the minimum 70 % required. Refer to the solar access diagrams in Appendix A.</p> <p>There are no single aspect apartments proposed.</p> <p>Natural ventilation will be achieved by way of introduction of slots within the building's facade.</p> <p>Approximately 67% of the proposed apartments will be capable of natural cross ventilation.</p> <p>The location of kitchens will be determined in the detailed design of the building.</p>

¹ Building separation is measured in metres, balcony to balcony or external wall to external wall

Indicative Scheme

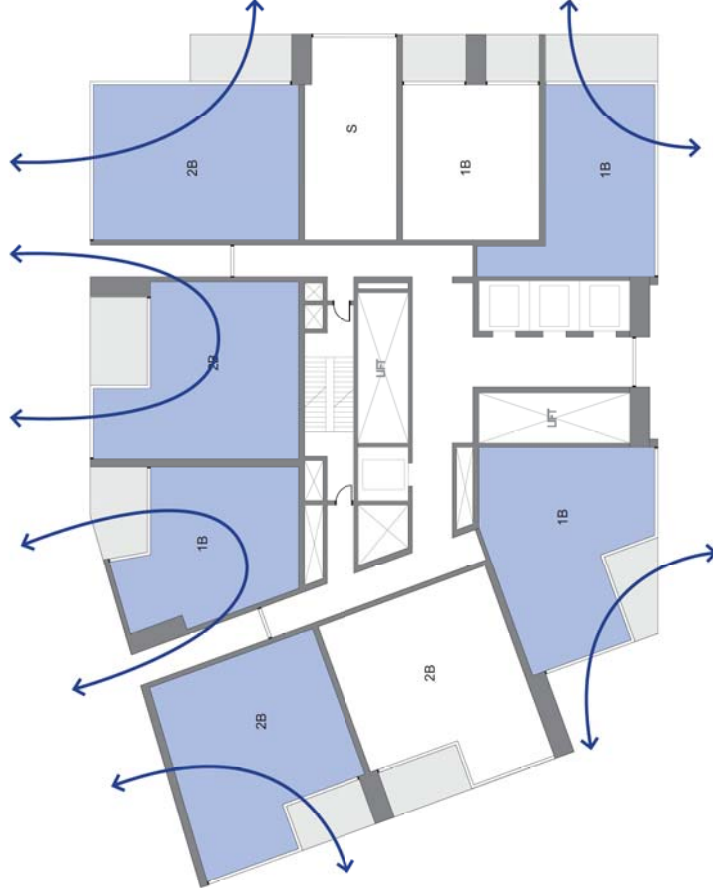
SEPP 65 Analysis

Cross Ventilation

Level	Units	%
Penthouse		
75	5	100%
74	5	100%
73	5	100%
72	5	100%
71	5	100%
70	5	100%
69	4	100%
68	4	100%
67	5	63%
66	5	63%
65	5	63%
64	5	63%
63	5	63%
High Rise		
62	5	63%
61	5	63%
60	5	63%
59	5	63%
58	5	63%
57	5	63%
56	5	63%
55	5	63%
54	5	63%
53	5	63%
52	5	63%
51	5	63%
50	5	63%
49	5	63%
48	4	67%
47	6	67%
46	6	67%
45	6	67%
44	6	67%
43	6	67%
42	6	67%
41	6	67%
40	6	67%
Mid Rise		
39	6	67%
38	6	67%
37	6	67%
36	6	67%
35	6	67%
34	6	67%
33	6	67%
32	6	67%
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11	6	67%
10	6	67%
9	6	67%
8	6	67%
7	6	67%
6	6	67%
5	6	67%
4	6	67%
3	6	67%
Podium		
2	2	67%
Basement		
1	1	67%
Total		
	301	67%

SEPP 65 Rule of Thumb Min 60%

Achieved 67%



Typical low rise

Indicative Scheme

SEPP 65 Analysis

South Facing Units

Units	Area	%
75	0	0%
76	0	0%
77	0	0%
78	0	0%
79	0	0%
80	0	0%
81	0	0%
82	0	0%
83	0	0%
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480	0	0%

Indicative Scheme

Aerial Montage



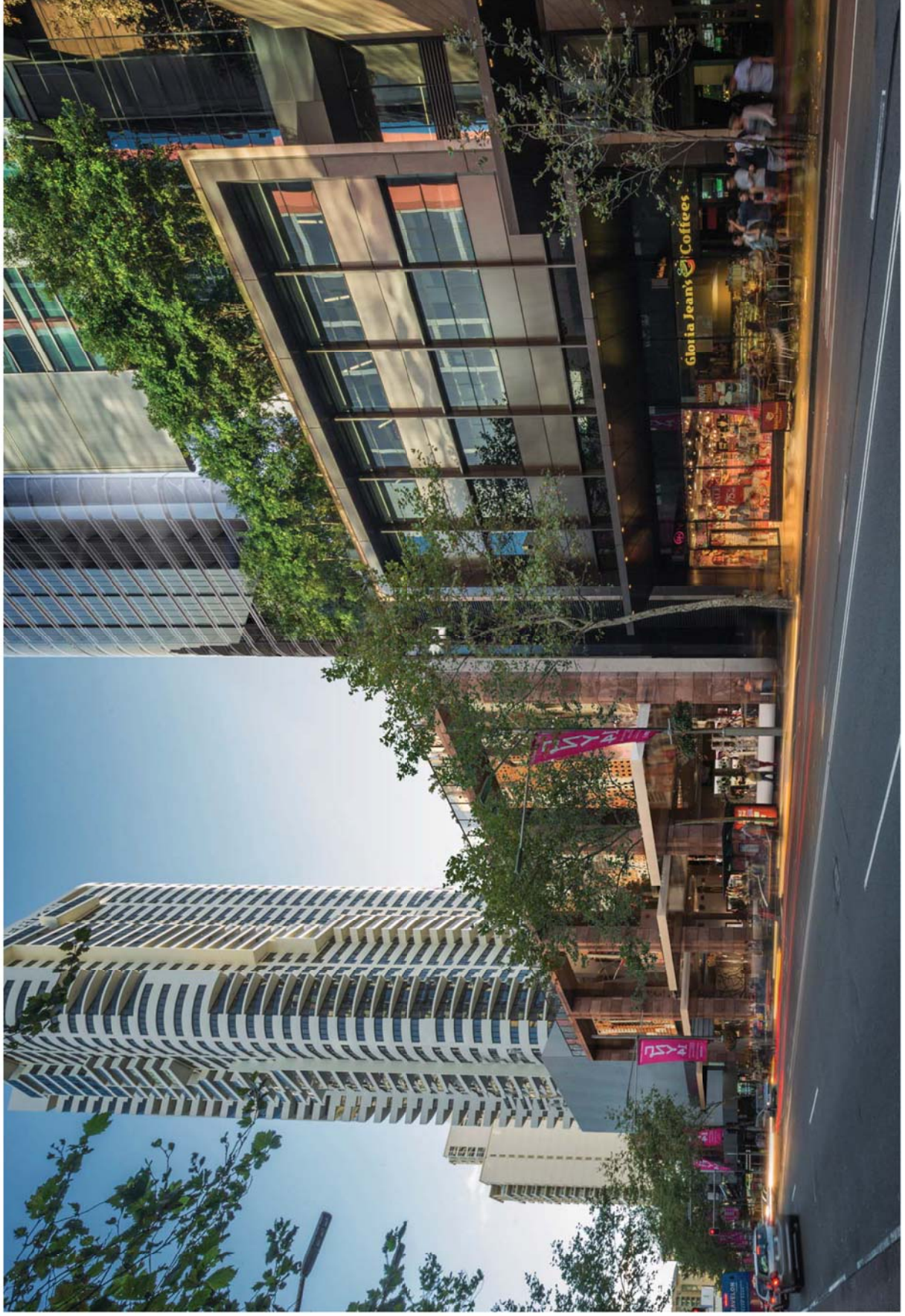
Existing Condition



Proposed Indicative Scheme

Indicative Scheme

George St Podium Montage



Indicative Scheme Kent St Podium Montage

