Design Study
Submission | Arncliffe & Banksia Precincts,
Rezoning Proposal

ARCHER OFFICE

28th February 2017

CLIENT Podia Pty Ltd.

PLANNING Urbis

ARCHITECT Archer Office

ARCHER OFFICE
Suite 6A, Level 6, 116 Kippax St
Surry Hills NSW 2010
Tel: 02 9191 7326
02 91917326
studio@archeroffice.com

NOMINATED NSW REGISTERED ARCHITECT
Tomek Archer No. 9495

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DEPARTMENT OF PLANNING PROPOSED CONTROLS

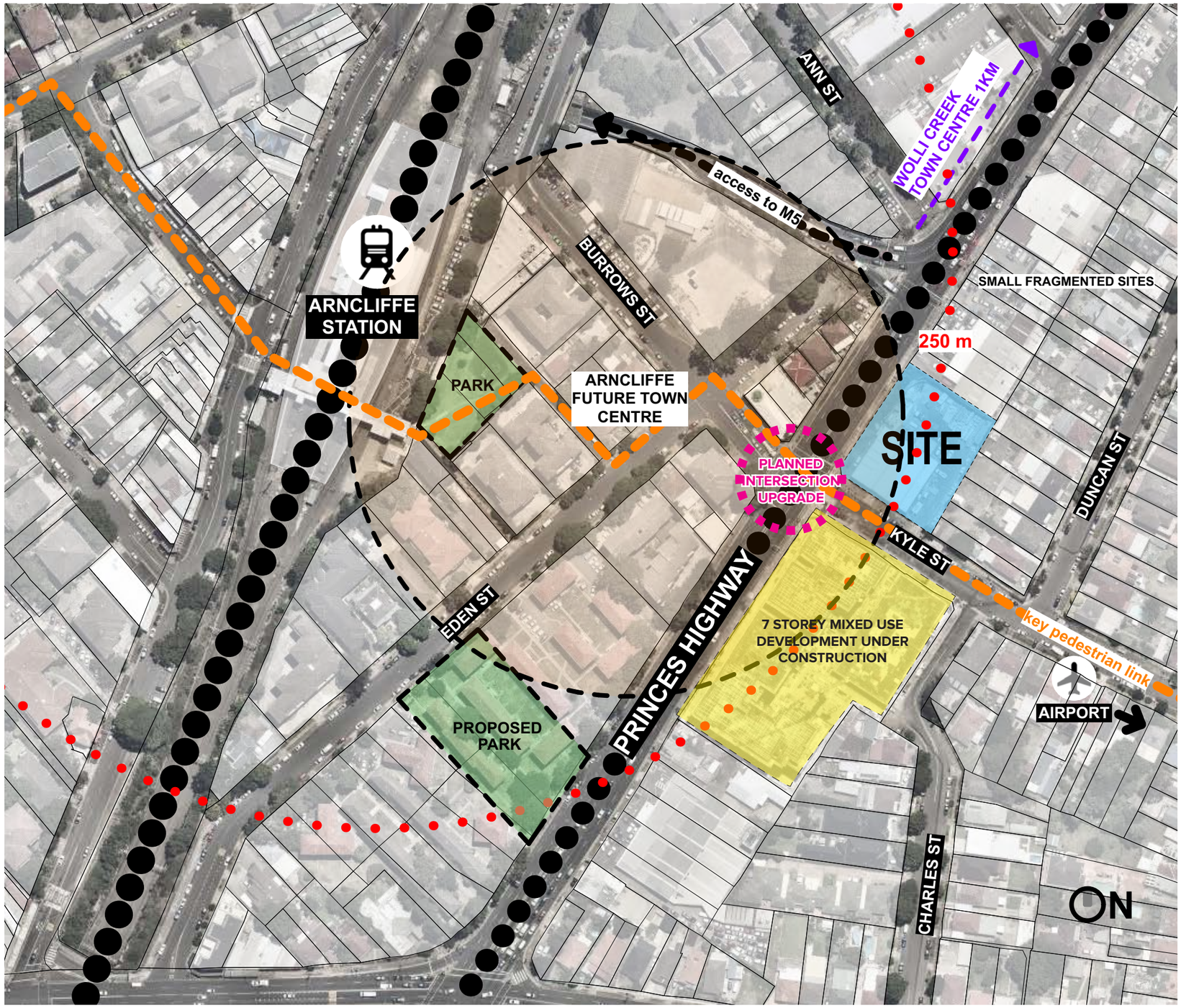
1.0
DEPARTMENT OF PLANNING PROPOSED CONTROLS
SITE ANALYSIS

This study prepared on behalf of Podia explores the development potential of 96 - 102 Princes Highway based on the current rezoning proposal.

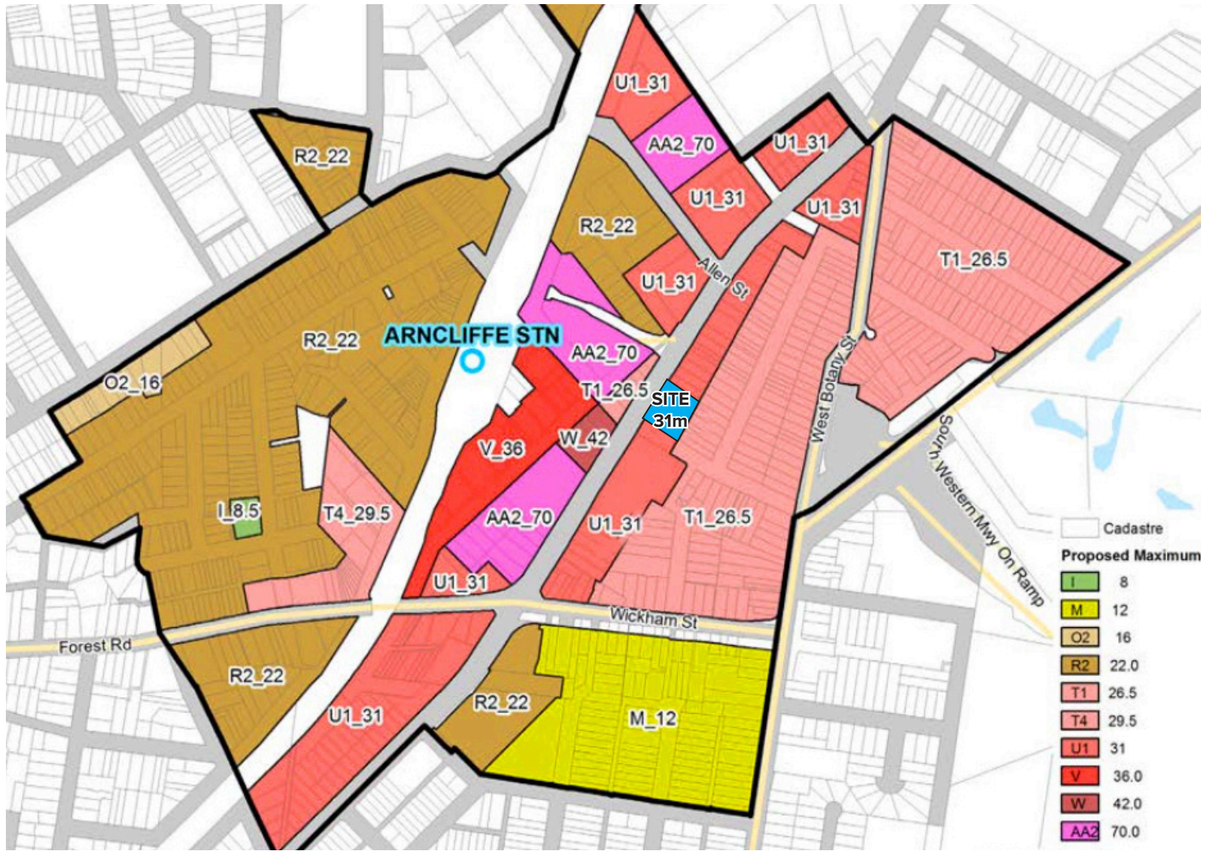
The subject site is a 2,693 m^2 parcel of land currently occupied by an industrial building. The existing zoning is B6 Enterprise and is proposed to be rezoned Mixed Use with an increased LEP height limit of 31m.

Key notes on the site:

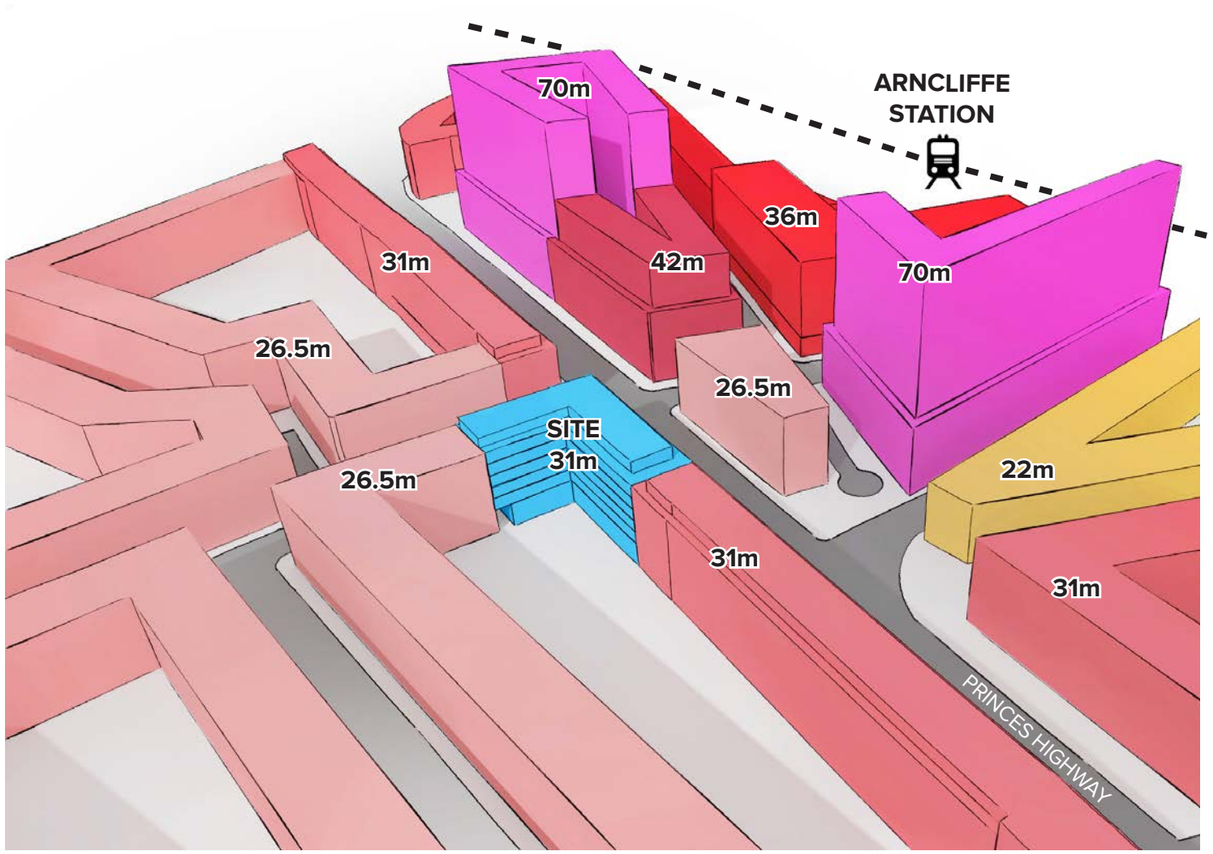
- Positioned on a corner block with views to Sydney CBD, Botany Bay and the broader district.
- 200 metres walk to Arncliffe Train Station (6 Stops to CBD).
- 200 metres walk to Arncliffe Town Centre & shops
- 1km to Wolli Creek Town Centre & Shopping District
- A large parcel compared with surrounding fragmented properties
- Planned intersection upgrade at Kyle Street & Princes Highway will facilitate better cross links to station and surrounding precinct.
- The adjoining site to the south 108 Princes Highway is being developed into 7 storey mixed use project.



1.1
DEPARTMENT OF PLANNING PROPOSED CONTROLS
PROPOSED LEP HEIGHT LIMITS



Proposed LEP Height Map around Arncliffe Station
– Density concentrated to east of Arncliffe Station

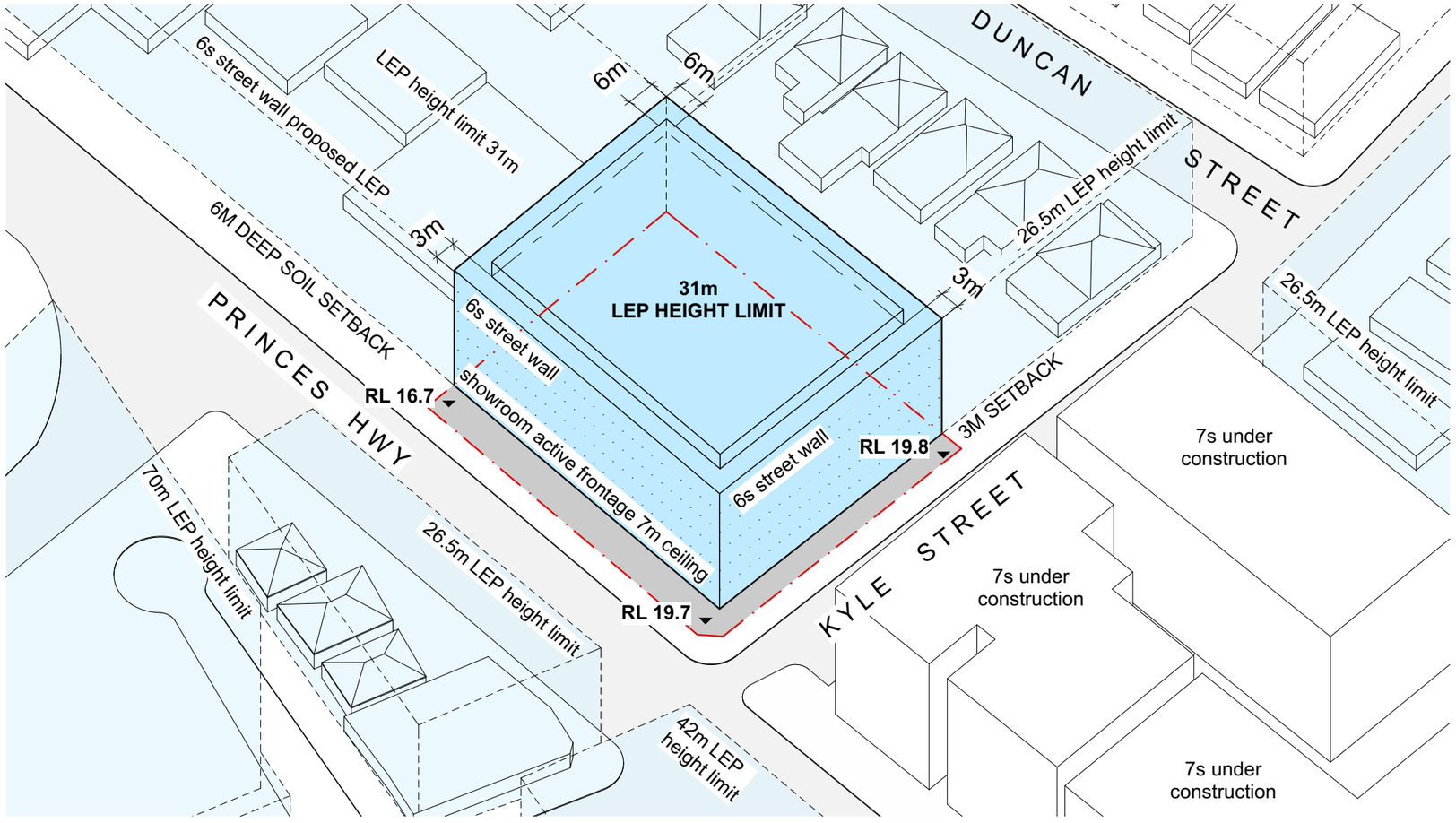


Indicative precinct massing based on proposed LEP & DCP controls

1.2
DEPARTMENT OF PLANNING PROPOSED CONTROLS
CONTROLS SUMMARY

Summary of controls applied to the Site:

- LEP height limit of 31m
- 6 storey street wall along Princes Highway & Kyle Street (*Rockdale Draft DCP)*
- 6 m setback on Princes Highway with deep soil planting (*Rockdale Draft DCP)*
- 3 m setback on Kyle Street (*Rockdale DCP 2011)*
- 3 m setback to Kyle St & Princes Highway above street wall (*Rockdale Draft DCP)*
- 6m side setback to east above street wall assuming non-habitable building separation condition (*NSW Apartment Design Guide 2015)*
- Active frontage along Princes Highway with 7m floor to ceiling for ground floor showrooms (*Rockdale Draft DCP)*



1.3
DEPARTMENT OF PLANNING PROPOSED CONTROLS
MASSING DIAGRAM FSR 2.5:1 HEIGHT 31M

KEY CONTROLS

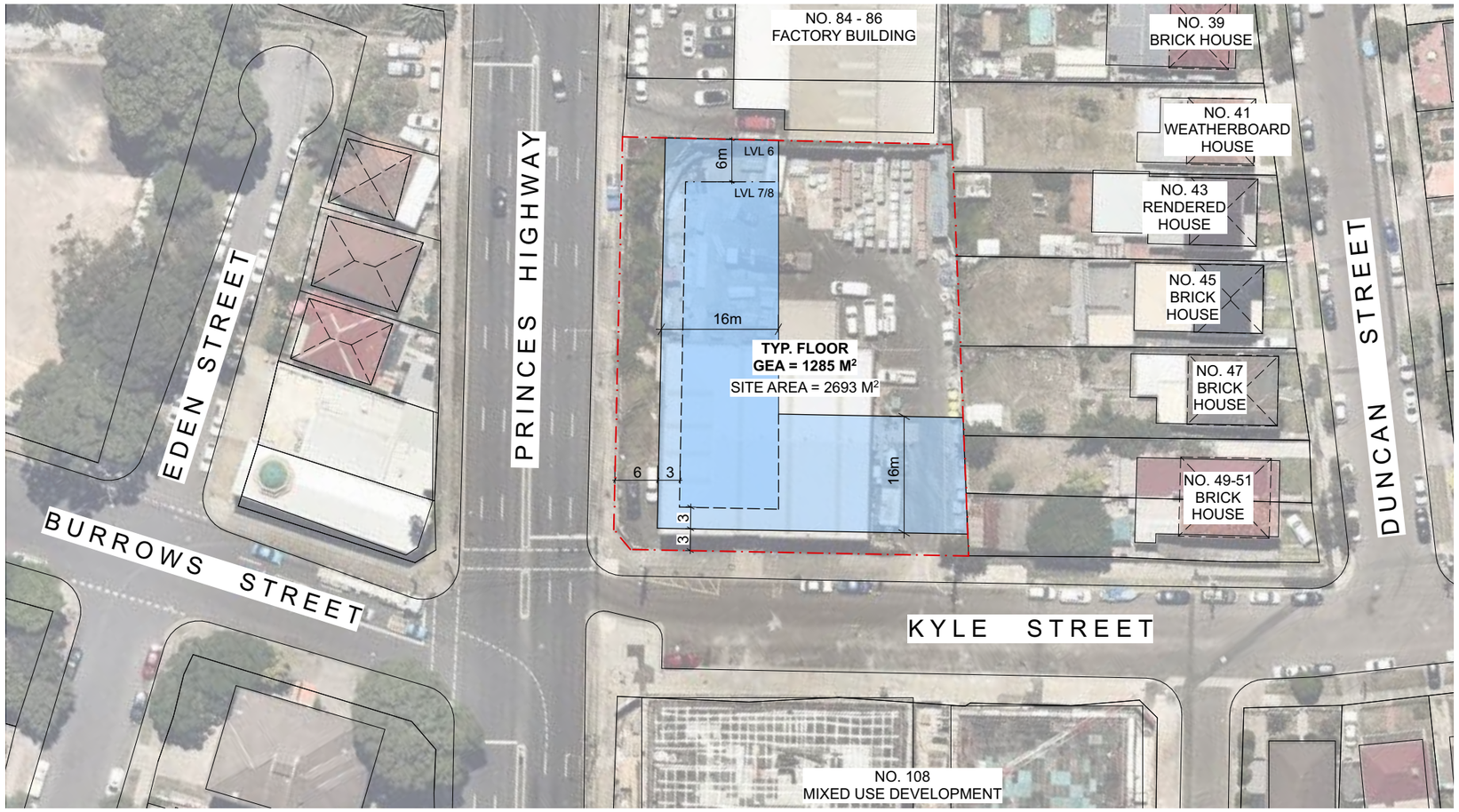
- 2.5 site FSR
- 31m LEP height limit
- 6m Princes Highway setback for deep soil planting (*Rockdale Draft DCP)*
- Kyle street setback 3m (*Rockdale DCP 2011)*
- 6 story street wall control (*Rockdale Draft DCP)*
- 3m front setbacks above street wall (*Rockdale Draft DCP)*
- 6m side setbacks above street wall assuming non-habitable building separation condition (*NSW Apartment Design Guide 2015)*

KEY POINTS

- Massing proposes 2.48 FSR
- 16m building depth
- 31m total height

GEA = Gross Envelope Area
Complete planning envelope and allows for articulation and services. Otherwise defined as maximum permissible envelope.

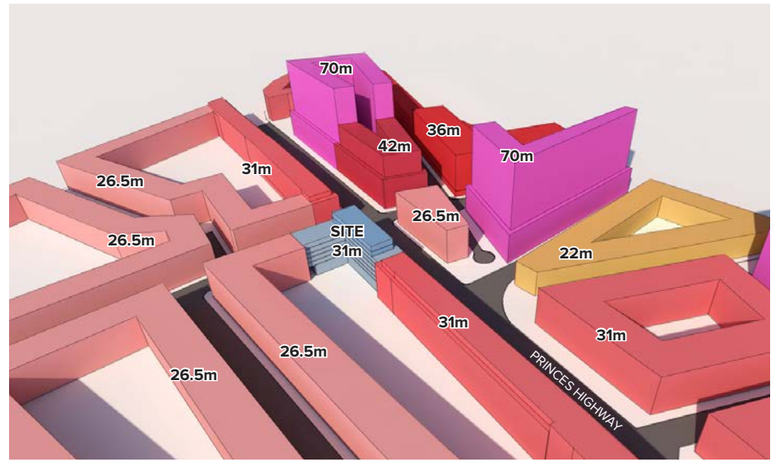
GFA = Gross Floor Area
Measured in accordance with the standard instrument definition



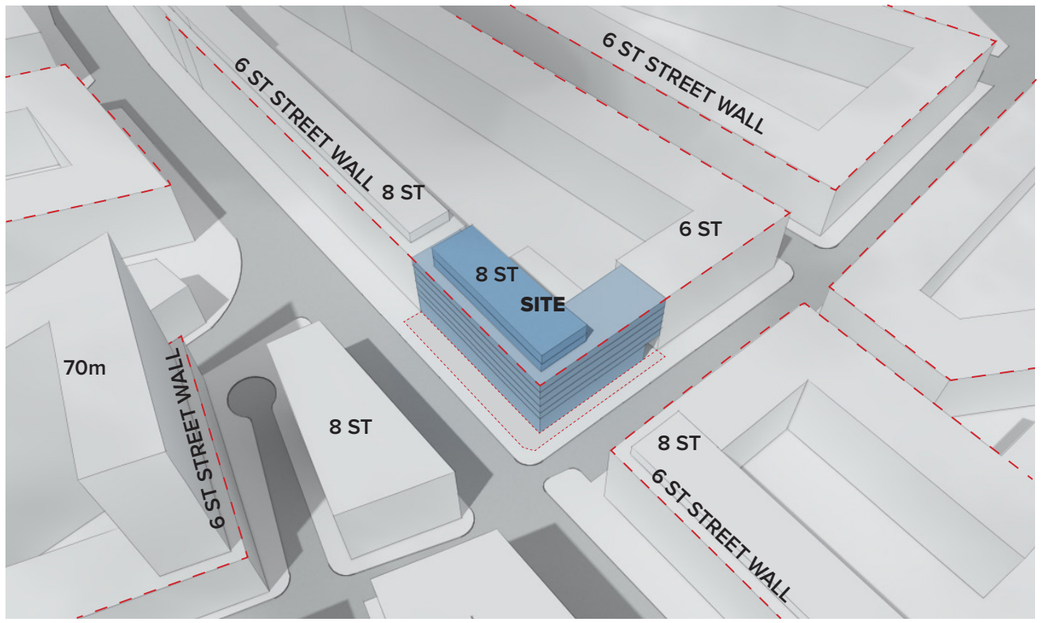
Level	GEA	GFA	FLOOR HEIGHT	RL
	m2	m2		
		75% of GEA		
Roof				50.1
Level 8	600	450	3.5	46.6
Level 7	600	450	3.1	43.5
Level 6	1285	963.75	3.1	40.4
Level 5	1285	963.75	3.1	37.3
Level 4	1285	963.75	3.1	34.2
Level 3	1285	963.75	3.1	31.1
Level 2	1285	963.75	3.7	27.4
Level 1	0	0	3.7	23.7
Ground Floor	1285	963.75	3.7	20
TOTAL	**8910 m2**	**6683 m2**		
Proposed FSR		2.48		

Please note massing is calculated without articulation as planning envelopes only. The GEA / GFA ratio is then applied at a rate of 75% to allow for services, structure, facade articulation, voids etc.

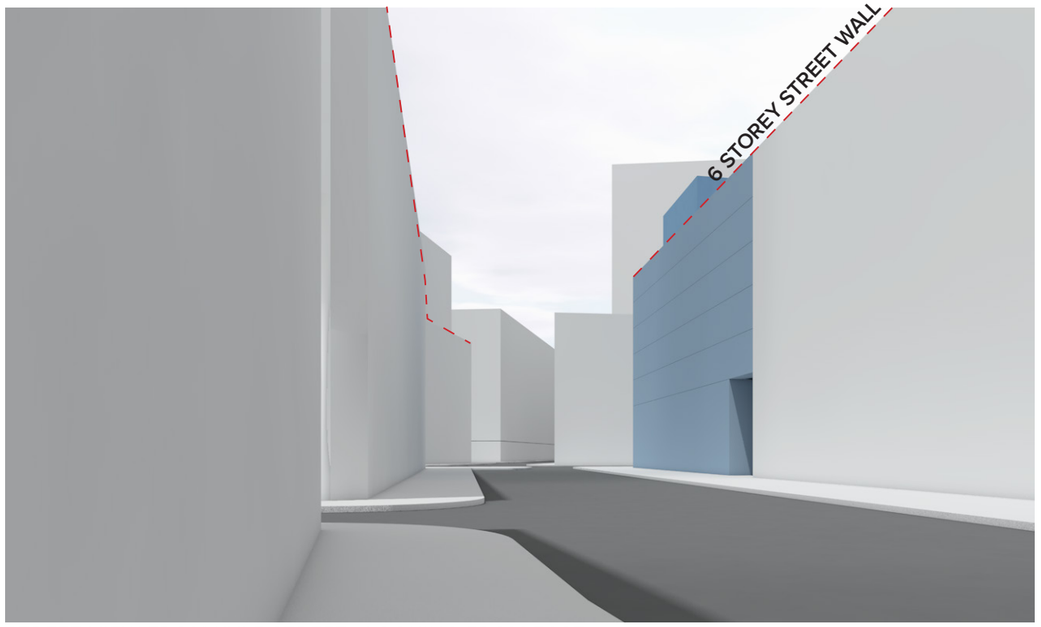
This massing study has been prepared with basic site information.



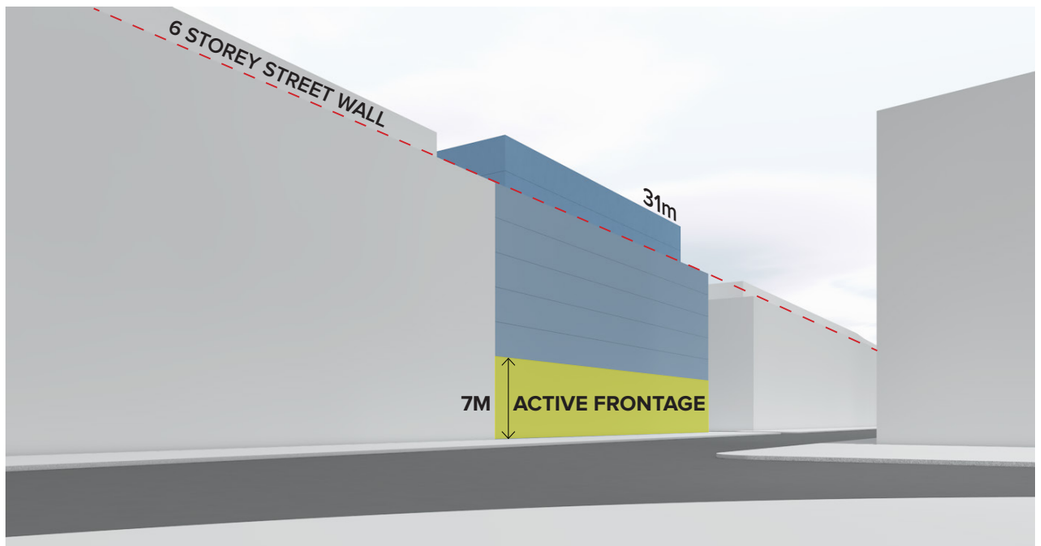
1.4
DEPARTMENT OF PLANNING PROPOSED CONTROLS
URBAN DESIGN ANALYSIS FSR 2.5:1 HEIGHT 31M



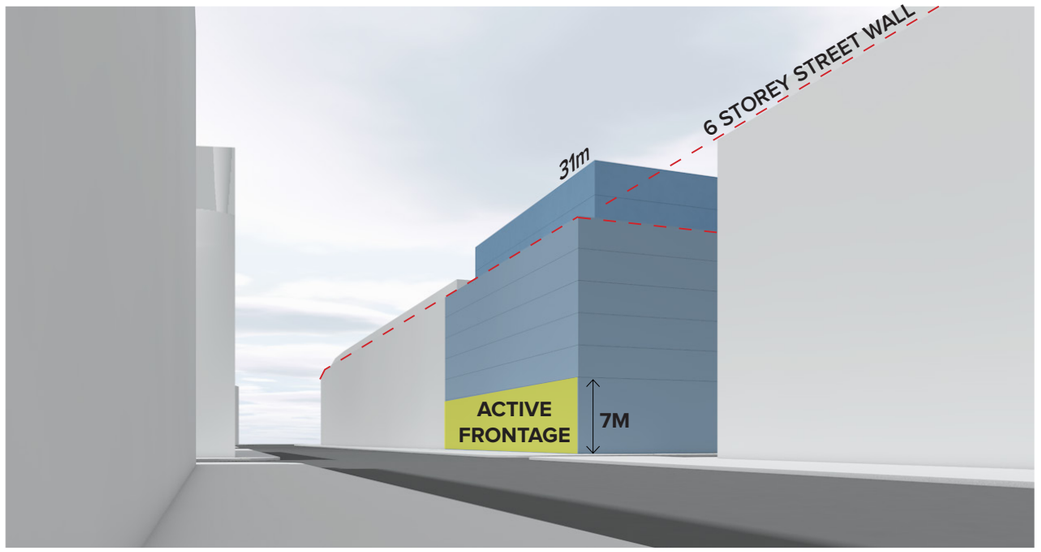
AERIAL VIEW FROM SOUTH WEST



STREET VIEW FROM KYLE STREET - LOOKING FROM EAST



STREET VIEW FROM PRINCES HIGHWAY - LOOKING FROM NORTH



STREET VIEW FROM PRINCES HIGHWAY - LOOKING FROM SOUTH

1.5
DEPARTMENT OF PLANNING PROPOSED CONTROL
INDICATIVE LAYOUT - SOLAR ACCESS & CROSS VENTILATION

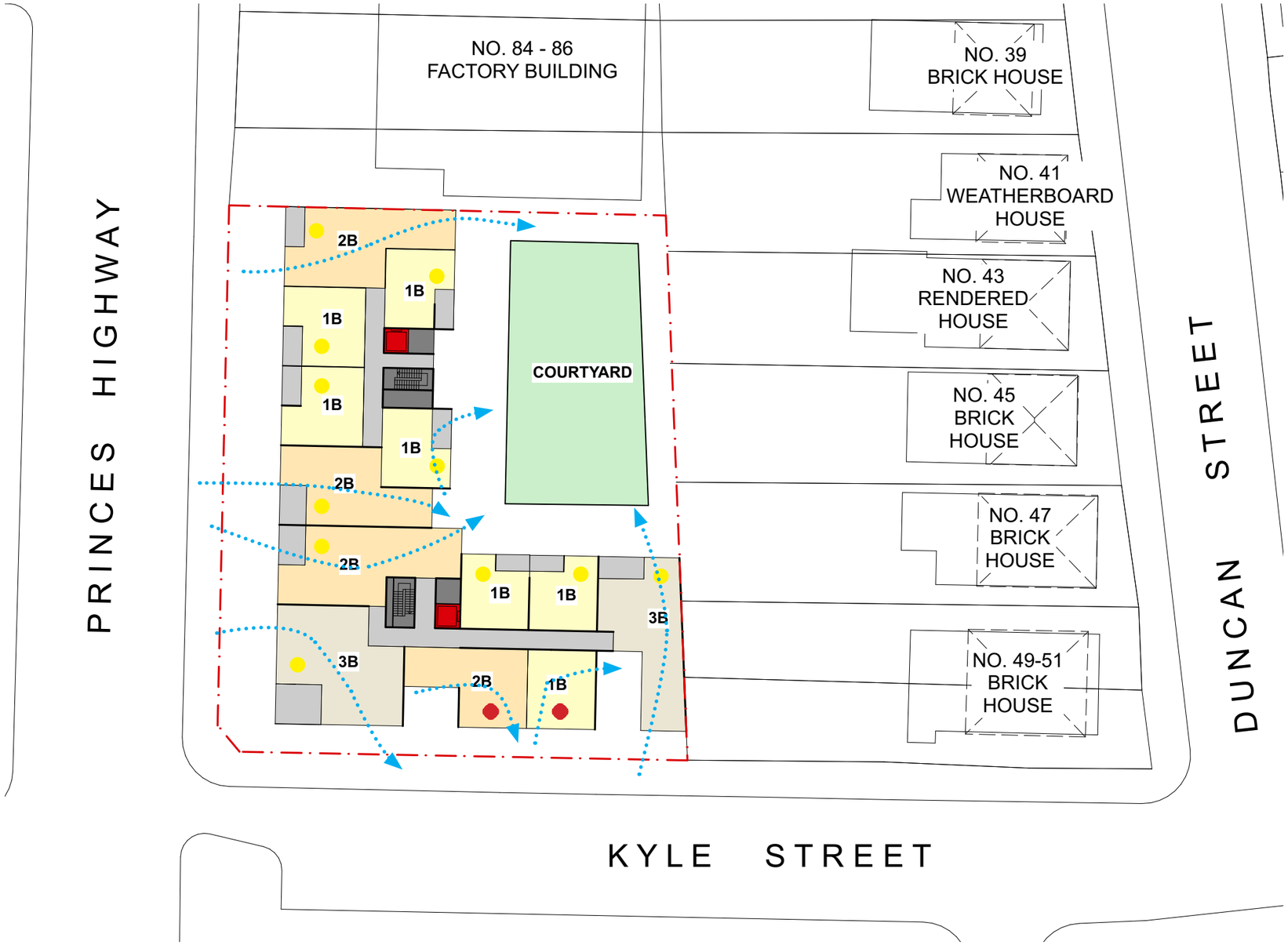
This diagram illustrates how solar access and cross ventilation can be achieved on a typical level for an indicative apartment layout.

Control: Minimum 2 hours direct sun between 9 & 3 for at least 85% of units

11 / 13 apartments achieve this (85%)

Control: Minimum 60% apartments achieve cross ventilation

8 / 13 apartments achieve this (61%)



KEY

Minimum 2 hours direct sun between 9 & 3 achieved

Minimum 2 hours direct sun between 9 & 3 not achieved

cross-ventilation achieved

2

APPLICANT PREFERRED CONTROLS
FSR 3:1 HEIGHT 37M

2.1
APPLICANT PREFERRED CONTROLS
MASSING DIAGRAM FSR 3:1 HEIGHT 37M

KEY CONTROLS

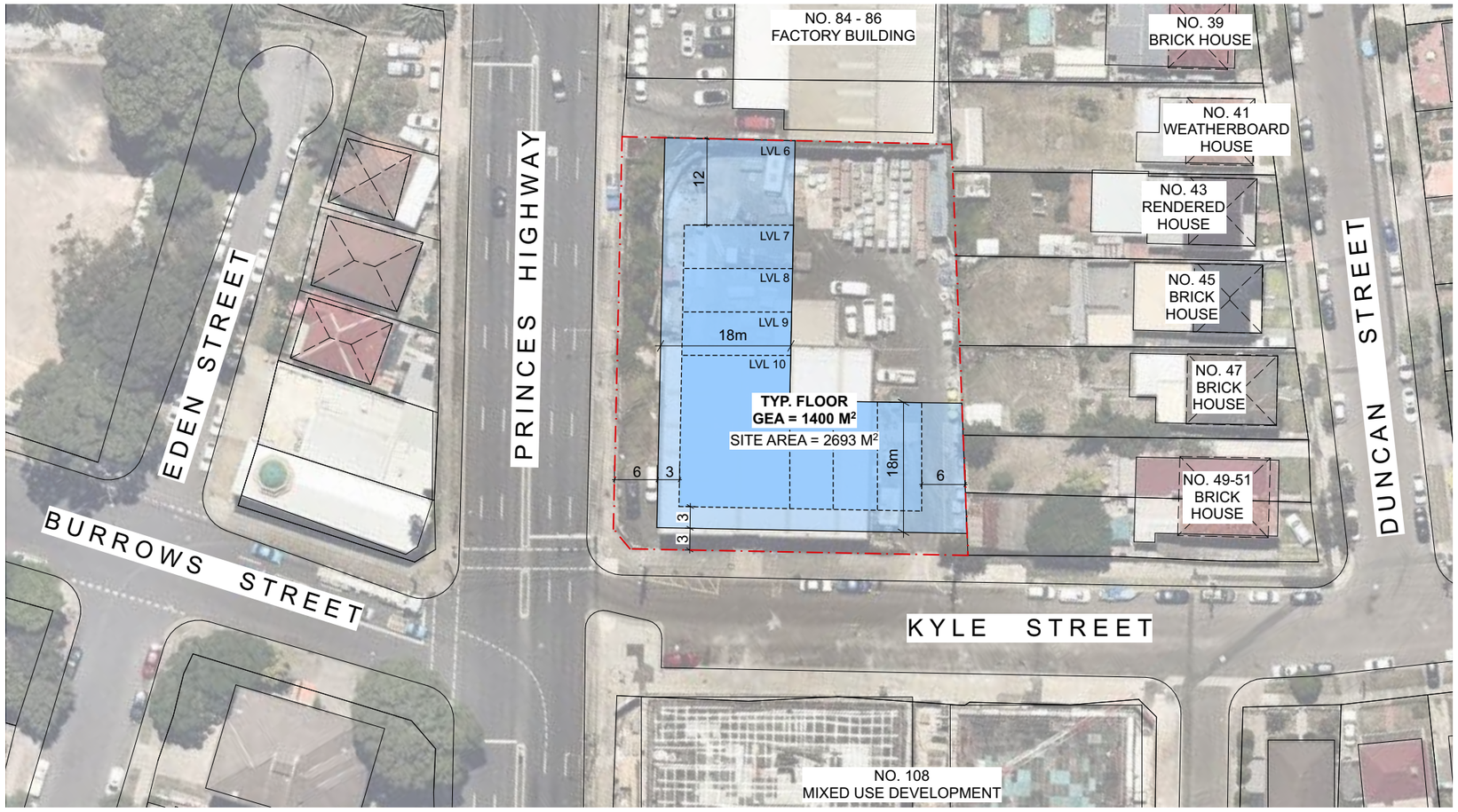
- 6m Princes Highway setback for deep soil planting (*Rockdale Draft DCP)*
- Kyle street setback 3m (*Rockdale DCP 2011)*
- 6 storey street wall control (*Rockdale Draft DCP)*
- 3m front setbacks above street wall (*Rockdale Draft DCP)*
- 6m side setback to east above street wall assuming non-habitable building separation condition (*NSW Apartment Design Guide 2015)*
- 12m side setback to north above street wall assuming habitable building separation condition (*NSW Apartment Design Guide 2015)*

KEY POINTS

- Massing proposes 3.00 FSR
- North setback above street wall allows for habitable rooms
- 18m building depth
  (*max. depth control, NSW Apartment Design Guide 2015)*
- 37m total height
- Stepped building form to reduce overshadowing & define corner

GEA = Gross Envelope Area
Complete planning envelope and allows for articulation and services. Otherwise defined as maximum permissible envelope.

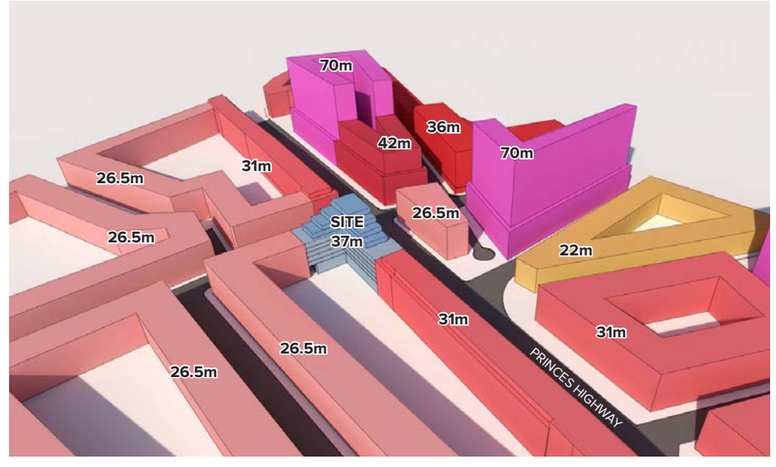
GFA = Gross Floor Area
Measured in accordance with the standard instrument definition



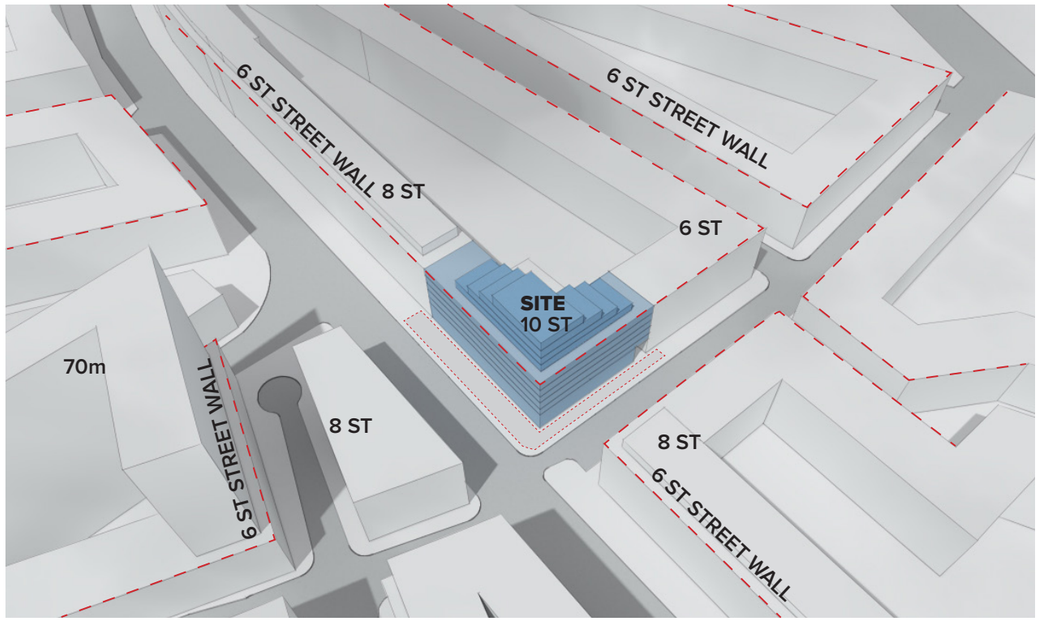
Level	GEA	GFA	FLOOR HEIGHT	RL
	m2	m2		
		75% of GEA		
Roof				56.3
Level 10	320	240	3.5	52.8
Level 9	500	375	3.1	49.7
Level 8	670	502.5	3.1	46.6
Level 7	860	645	3.1	43.5
Level 6	1400	1050	3.1	40.4
Level 5	1400	1050	3.1	37.3
Level 4	1400	1050	3.1	34.2
Level 3	1400	1050	3.1	31.1
Level 2	1400	1050	3.7	27.4
Level 1	0	0	3.7	23.7
Ground Floor	1400	1050	3.7	20
TOTAL	**10750 m2**	**8063 m2**		
Proposed FSR		2.99		

Please note massing is calculated without articulation as planning envelopes only. The GEA / GFA ratio is then applied at a rate of 75% to allow for services, structure, facade articulation, voids etc.

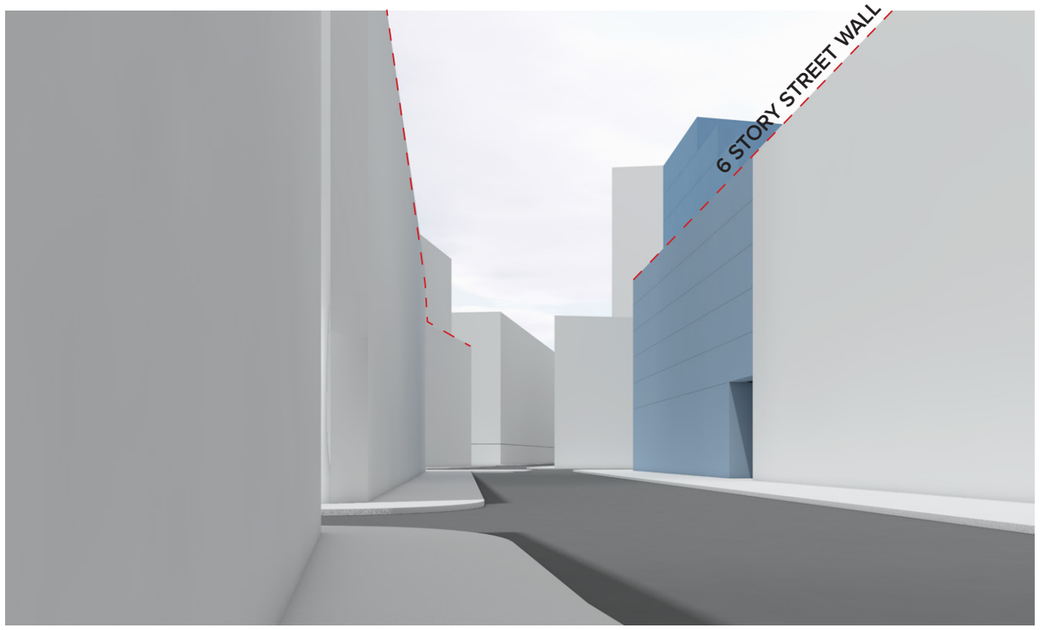
This massing study has been prepared with basic site information.



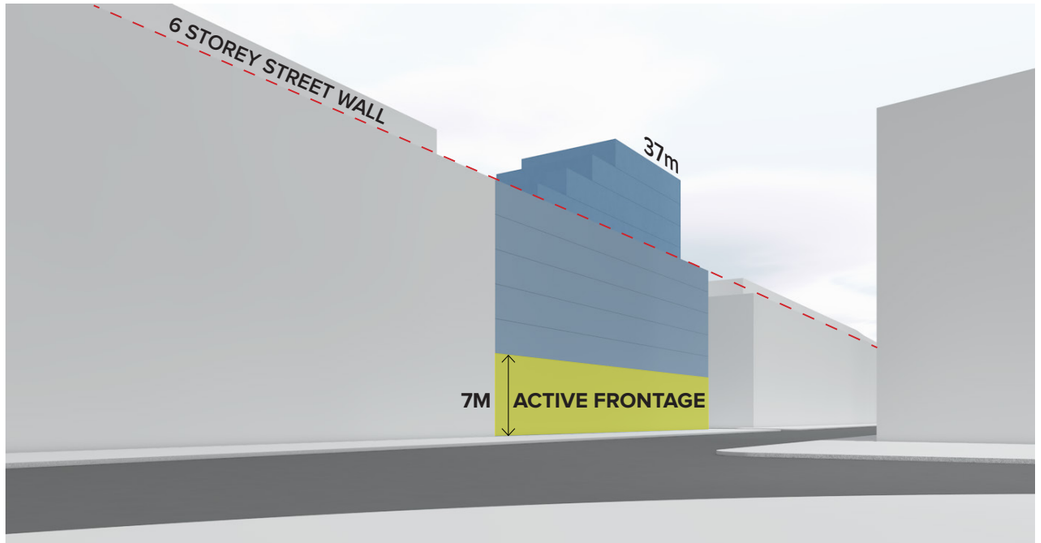
2.2
APPLICANT PREFERRED CONTROLS
URBAN DESIGN ANALYSIS FSR 3:1 HEIGHT 37M



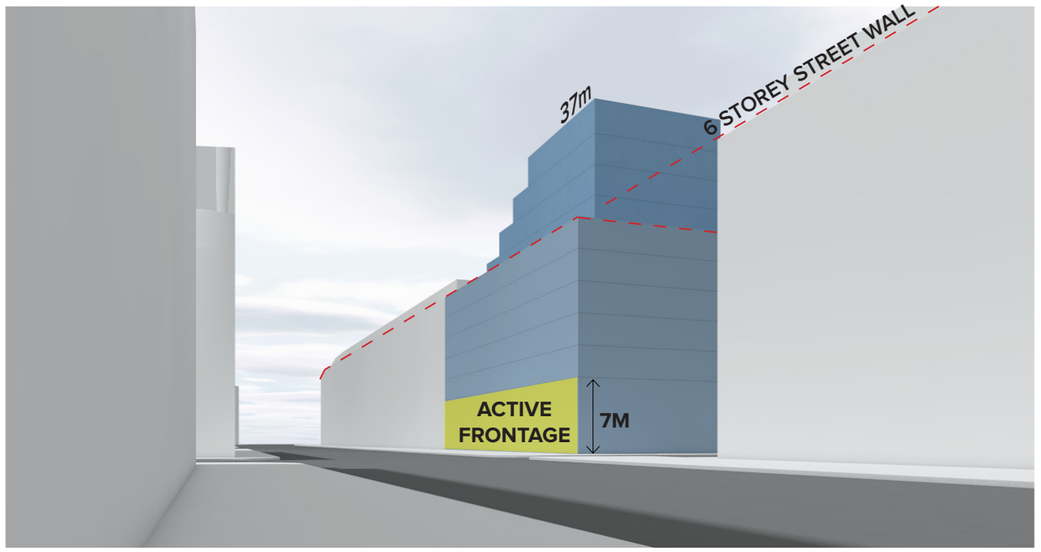
AERIAL VIEW FROM SOUTH WEST



STREET VIEW FROM KYLE STREET - LOOKING FROM EAST



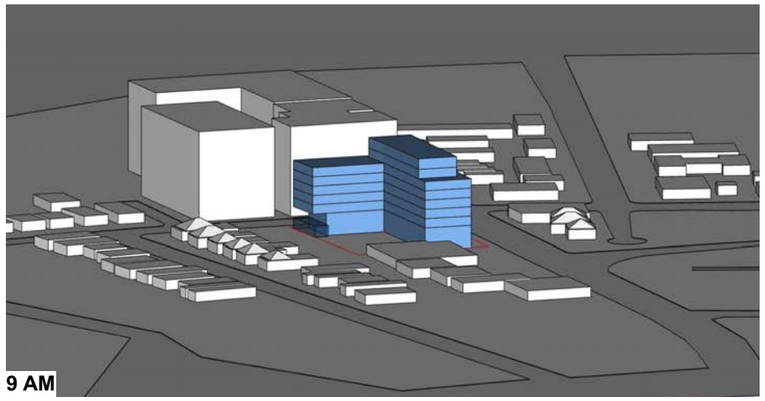
STREET VIEW FROM PRINCES HIGHWAY - LOOKING FROM NORTH

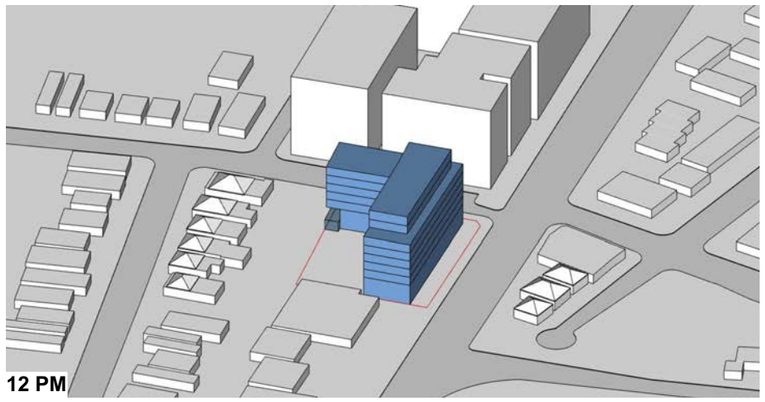


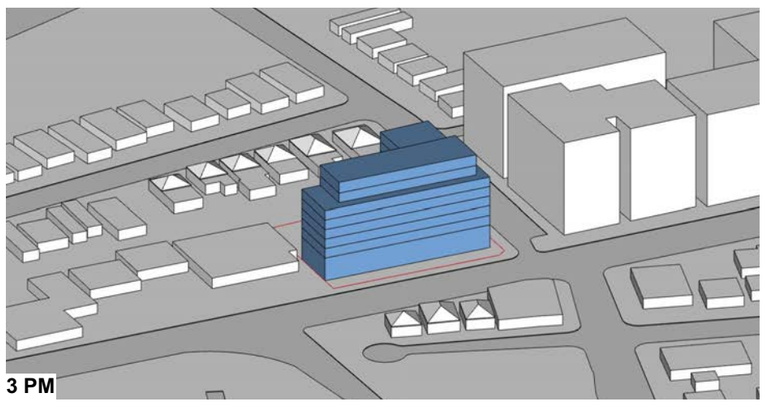
STREET VIEW FROM PRINCES HIGHWAY - LOOKING FROM SOUTH

2.3
APPLICANT PREFERRED CONTROLS
VIEW FROM SUN DIAGRAMS - WINTER 21 JUNE

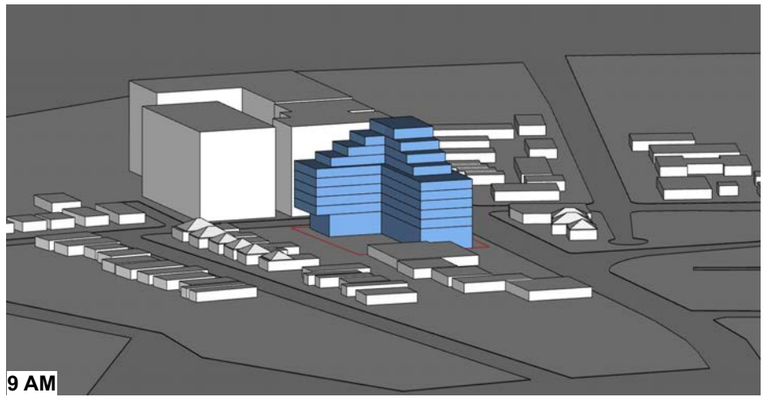
DEPARTMENT OF PLANNING PROPOSED CONTROLS - FSR 2.5:1

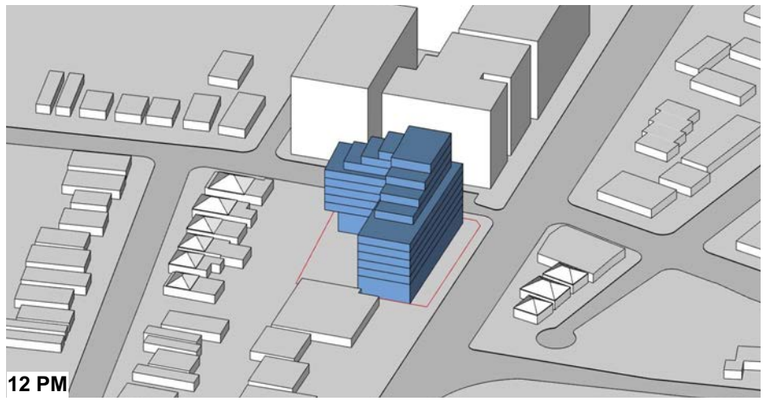


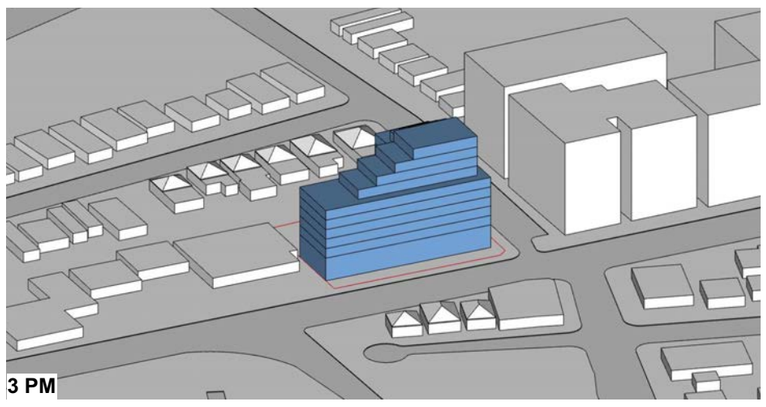




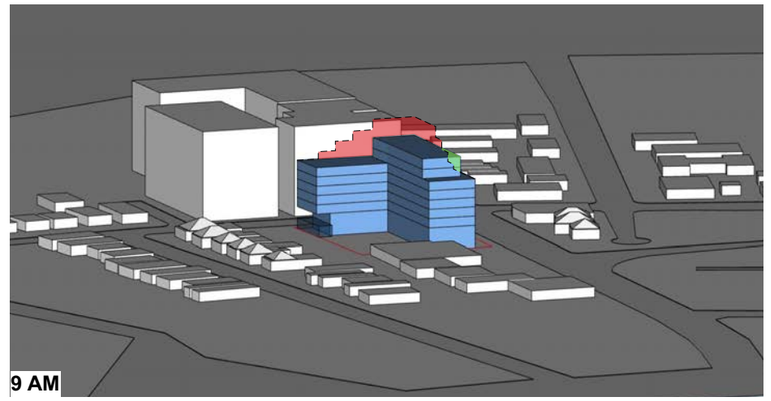
APPLICANT PREFERRED CONTROLS - FSR 3:1 HEIGHT 37M

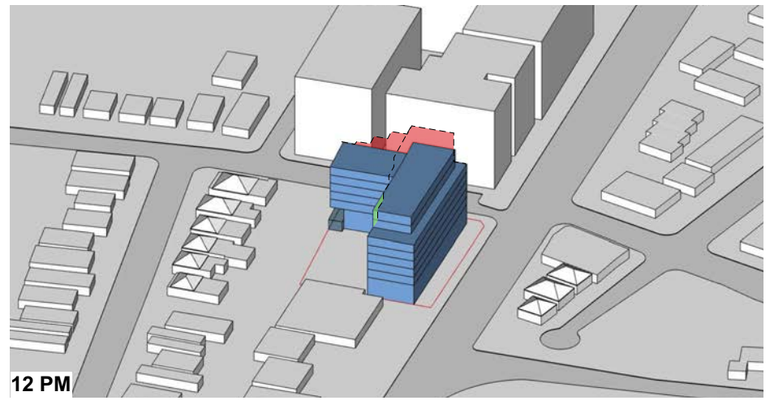


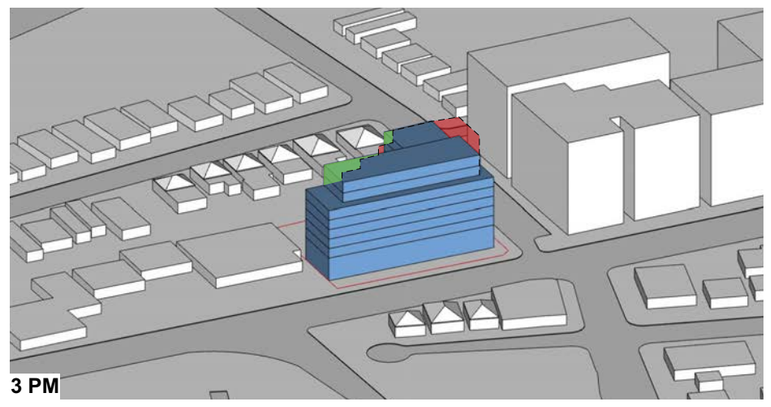




COMPARISON







3

DESIGN STUDIES

3.1.1
DESIGN STUDY 1
MASSING DIAGRAM FSR 3:1 HEIGHT 31M

KEY CONTROLS

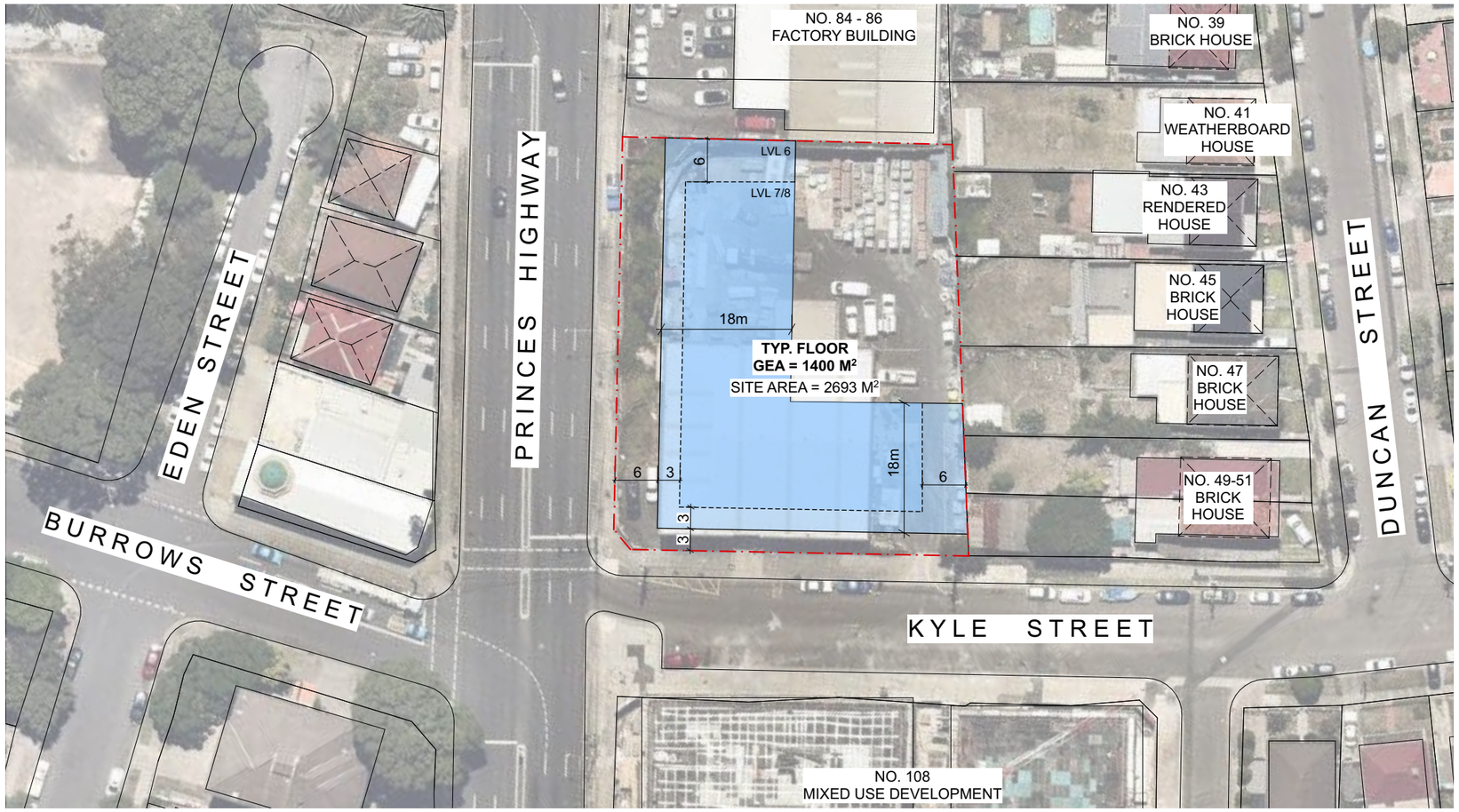
- 31m LEP height limit
- 6m Princes Highway setback for deep soil planting (*Rockdale Draft DCP)*
- Kyle street setback 3m (*Rockdale DCP 2011)*
- 6 story street wall control (*Rockdale Draft DCP)*
- 3m front setbacks above street wall (*Rockdale Draft DCP)*
- 6m side setbacks above street wall assuming non-habitable building separation condition (*NSW Apartment Design Guide 2015)*

KEY POINTS

- Massing proposes 2.99 FSR
- 18m building depth
  max depth Apartment Design Guide 2015
- 31m total height

GEA = Gross Envelope Area
Complete planning envelope and allows for articulation and services. Otherwise defined as maximum permissible envelope.

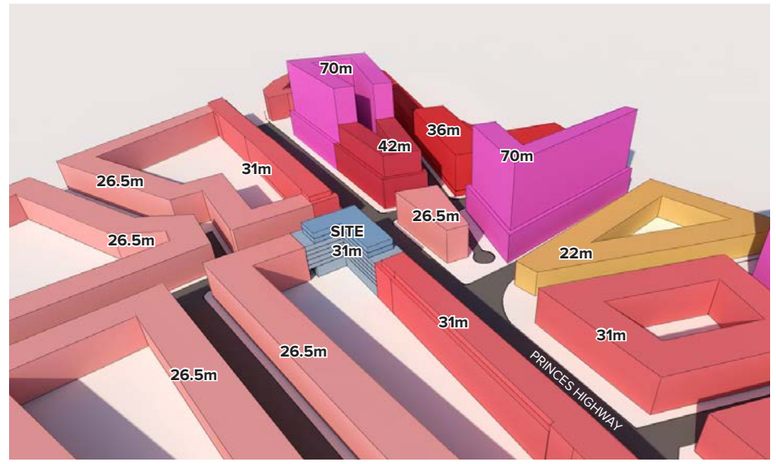
GFA = Gross Floor Area
Measured in accordance with the standard instrument definition



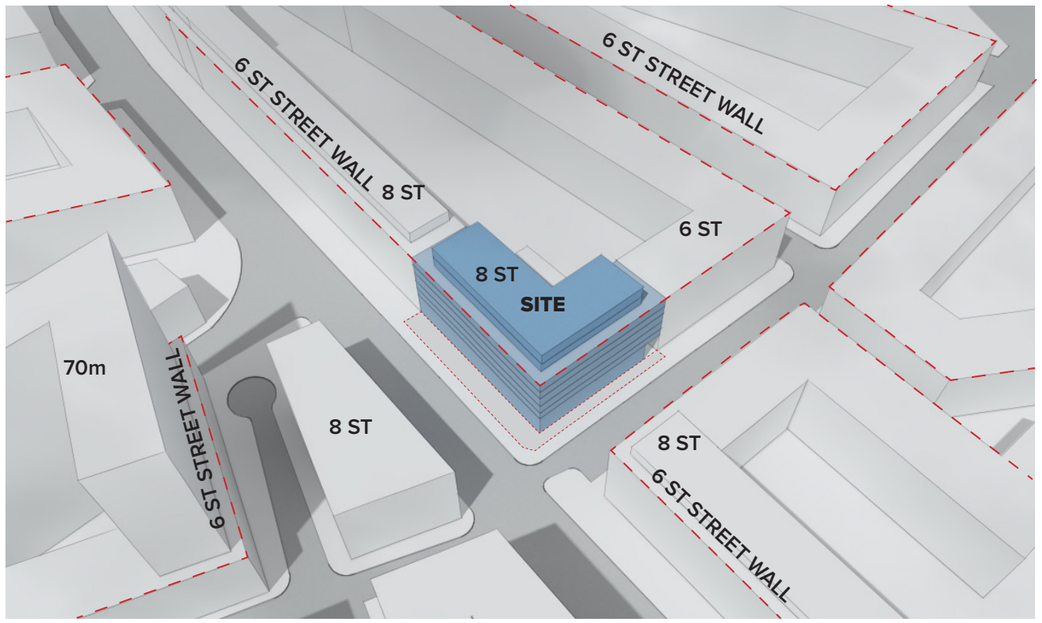
Level	GEA	GFA	FLOOR HEIGHT	RL
	m2	m2		
		75% of GEA		
Roof				50.1
Level 8	950	712.5	3.5	46.6
Level 7	950	712.5	3.1	43.5
Level 6	1400	1050	3.1	40.4
Level 5	1400	1050	3.1	37.3
Level 4	1400	1050	3.1	34.2
Level 3	1400	1050	3.1	31.1
Level 2	1400	1050	3.7	27.4
Level 1	422	316.5	3.7	23.7
Ground Floor	1400	1050	3.7	20
TOTAL	**10722 m2**	**8042 m2**		
Proposed FSR		2.99		

Please note massing is calculated without articulation as planning envelopes only. The GEA / GFA ratio is then applied at a rate of 75% to allow for services, structure, facade articulation, voids etc.

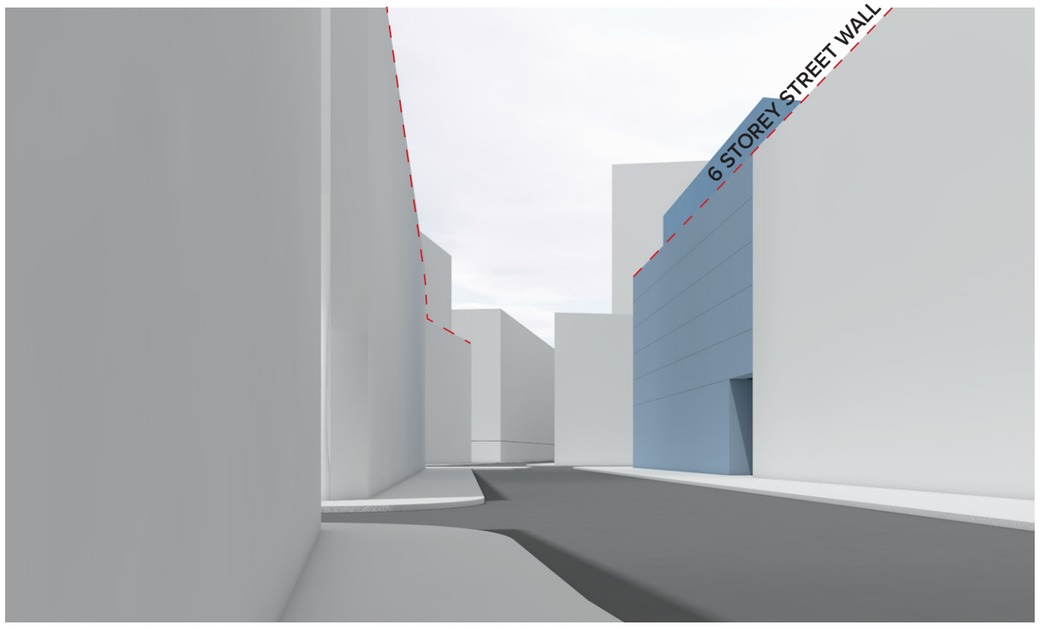
This massing study has been prepared with basic site information.



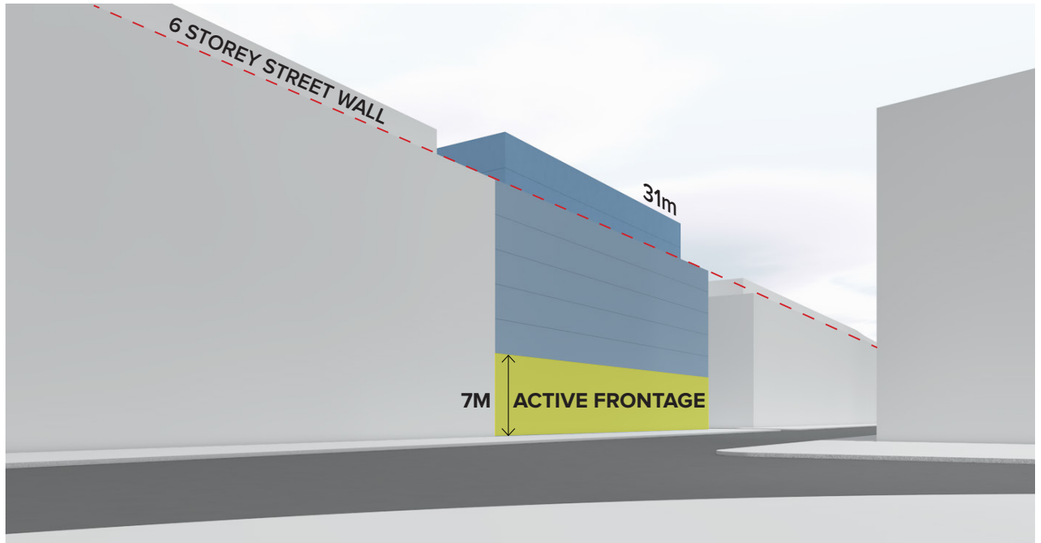
3.1.2
DESIGN STUDY 1
URBAN DESIGN ANALYSIS FSR 3:1 HEIGHT 31M



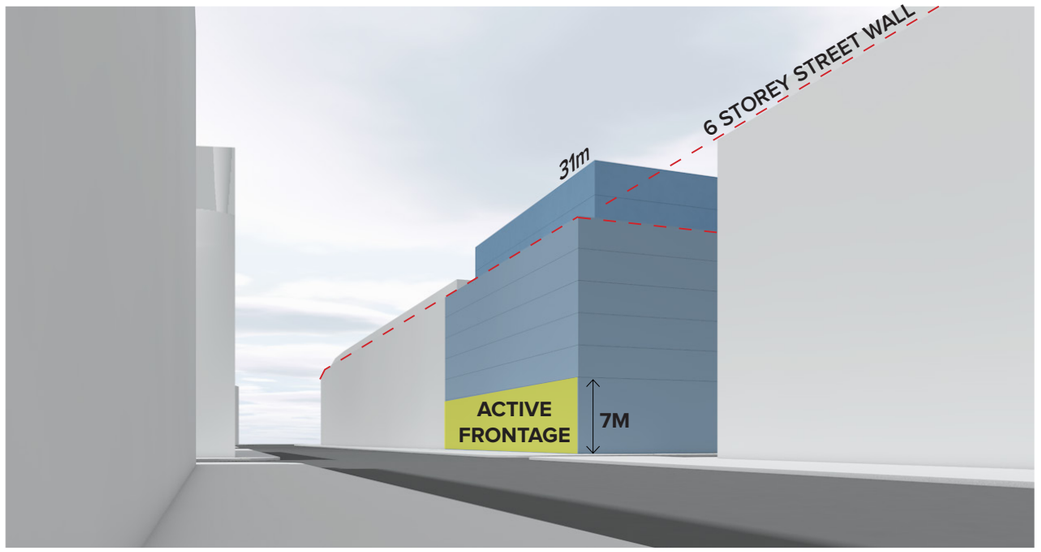
AERIAL VIEW FROM SOUTH WEST



STREET VIEW FROM KYLE STREET - LOOKING FROM EAST



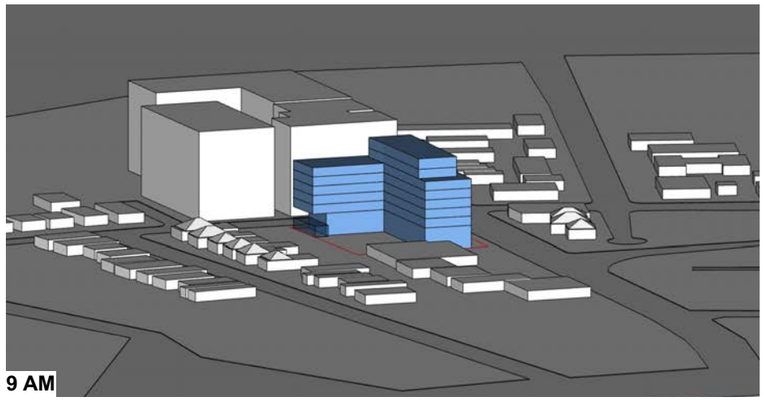
STREET VIEW FROM PRINCES HIGHWAY - LOOKING FROM NORTH

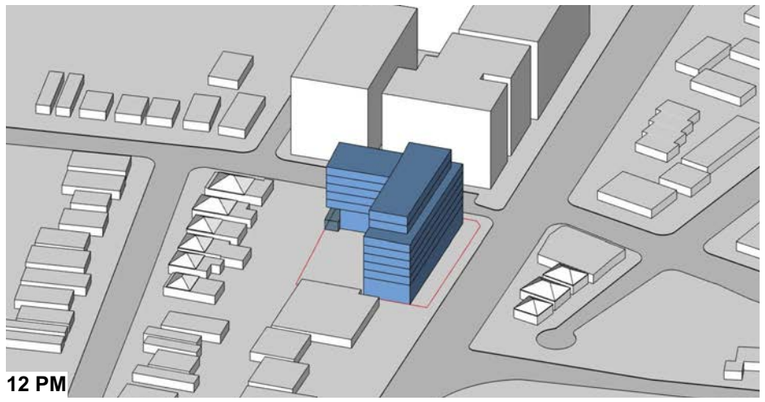


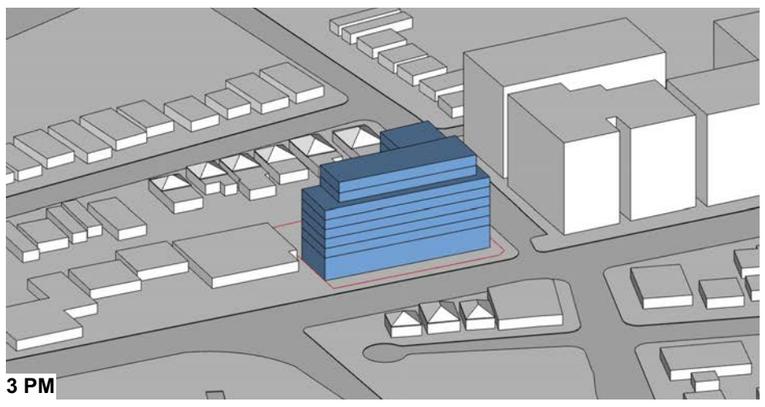
STREET VIEW FROM PRINCES HIGHWAY - LOOKING FROM SOUTH

3.1.3
DESIGN STUDY 1
VIEW FROM SUN DIAGRAMS - WINTER 21 JUNE

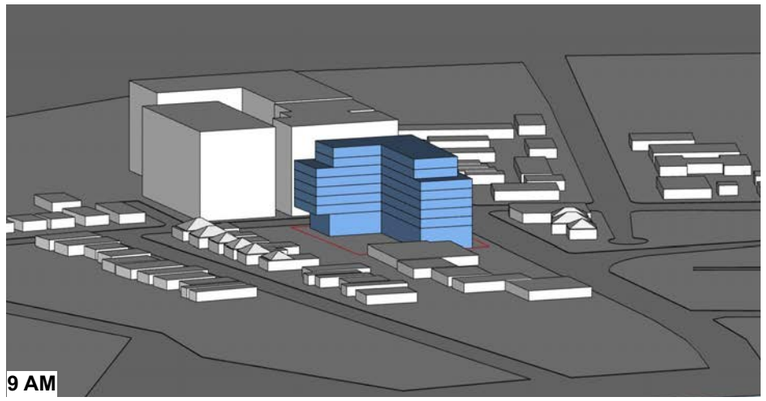
DEPARTMENT OF PLANNING PROPOSED CONTROLS - FSR 2.5:1

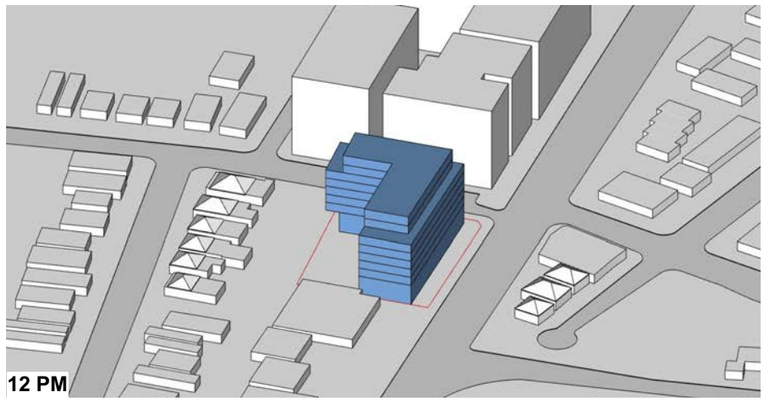


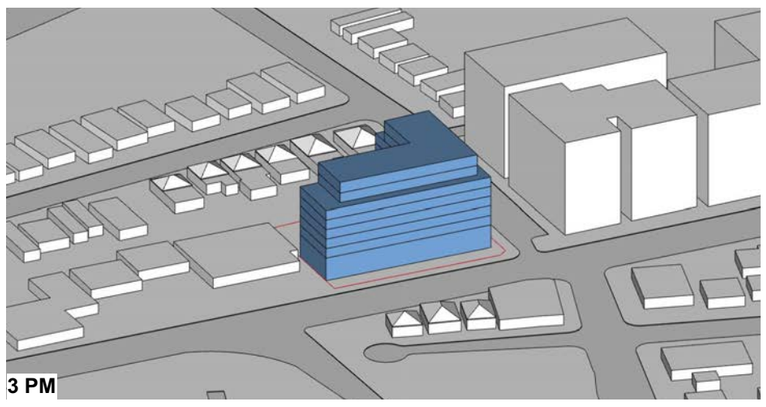




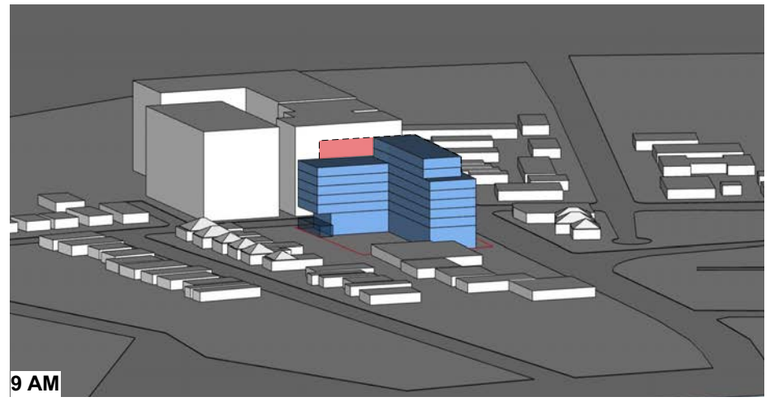
DESIGN STUDY 1 - 3:1 FSR 31M HEIGHT CONTROL

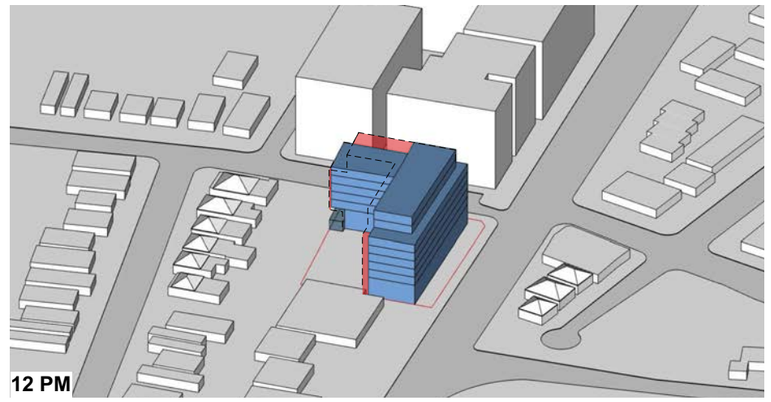


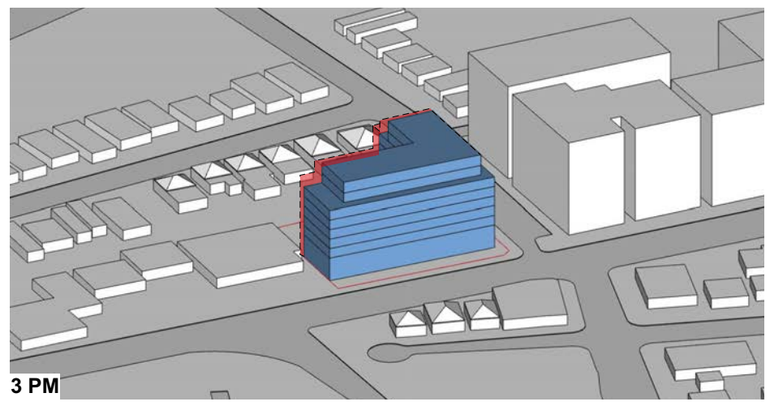




COMPARISON







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3.2.1
DESIGN STUDY 2
MASSING DIAGRAM FSR 3:1 HEIGHT 34M

KEY CONTROLS

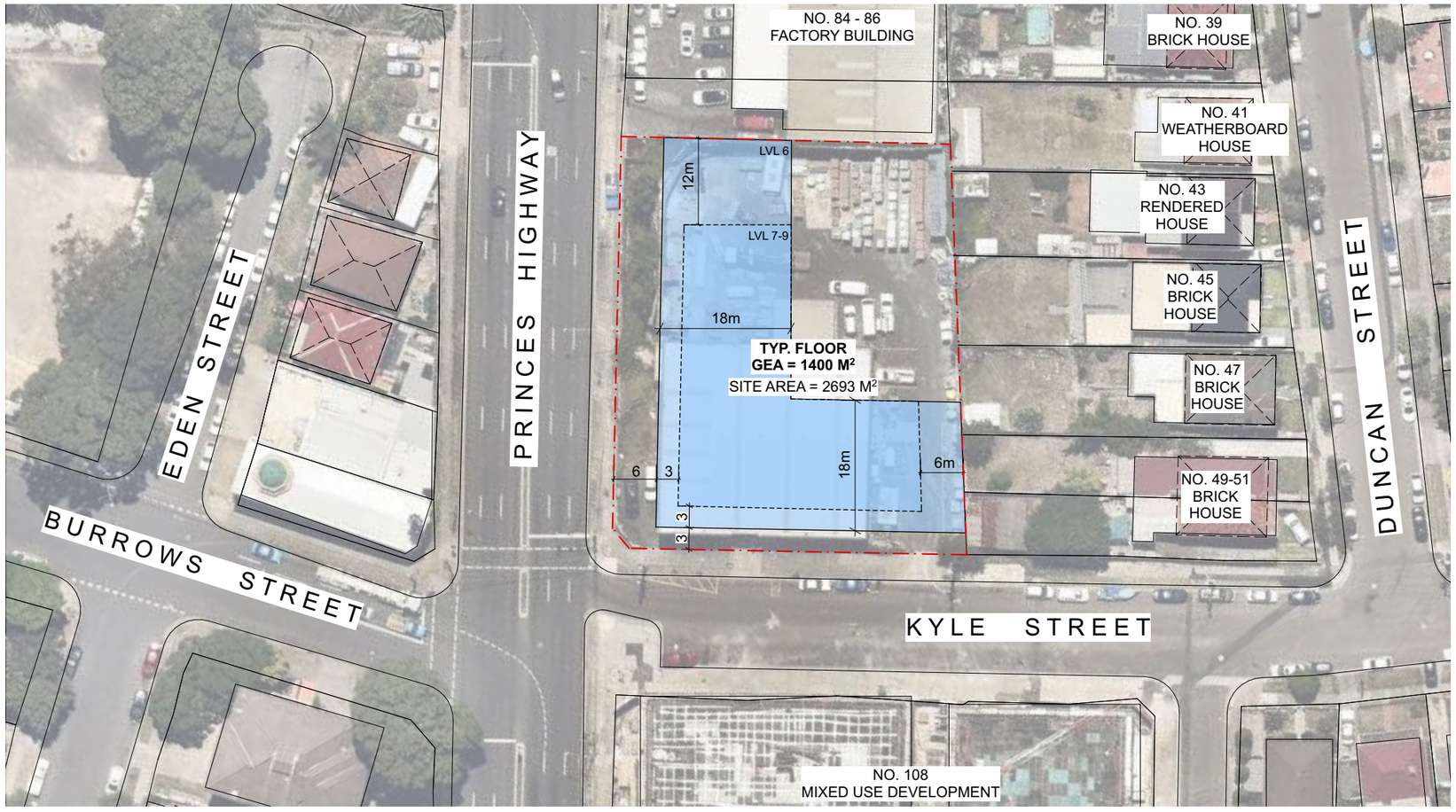
- 6m Princes Highway setback for deep soil planting (*Rockdale Draft DCP)*
- Kyle street setback 3m (*Rockdale DCP 2011)*
- 6 story street wall control (*Rockdale Draft DCP)*
- 3m front setbacks above street wall (*Rockdale Draft DCP)*
- 6m side setback to east above street wall assuming non-habitable building separation condition (*NSW Apartment Design Guide 2015)*
- 12m side setback to north above street wall assuming habitable building separation condition (*NSW Apartment Design Guide 2015)*

KEY POINTS

- Massing proposes 3.00 FSR
- North setback above street wall allows for habitable rooms
- 18m building depth
  max depth Apartment Design Guide 2015
- 34m total height

GEA = Gross Envelope Area
Complete planning envelope and allows for articulation and services. Otherwise defined as maximum permissible envelope.

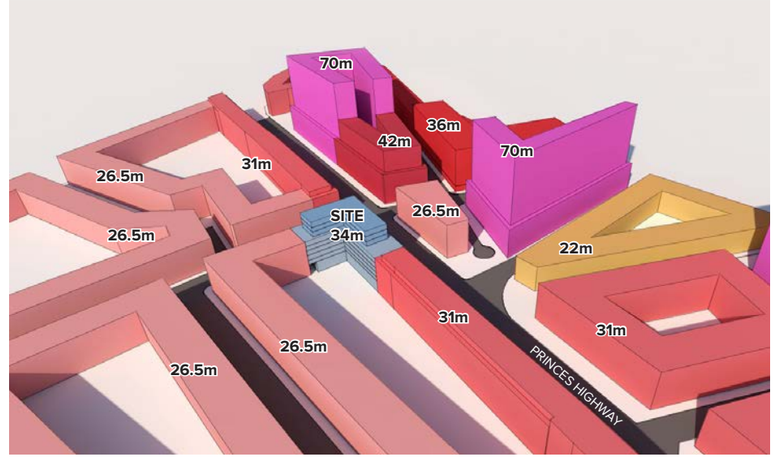
GFA = Gross Floor Area
Measured in accordance with the standard instrument definition



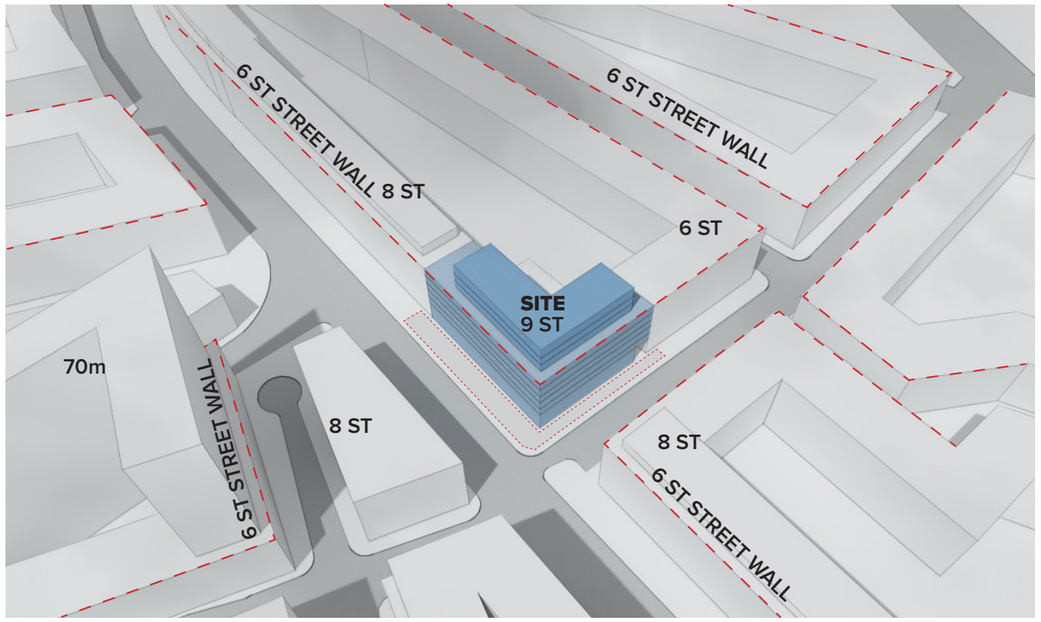
Level	GEA	GFA	FLOOR HEIGHT	RL
	m2	m2		
		75% of GEA		
Roof				53.2
Level 9	850	637.5	3.5	49.7
Level 8	850	637.5	3.1	46.6
Level 7	850	637.5	3.1	43.5
Level 6	1400	1050	3.1	40.4
Level 5	1400	1050	3.1	37.3
Level 4	1400	1050	3.1	34.2
Level 3	1400	1050	3.1	31.1
Level 2	1400	1050	3.7	27.4
Level 1	0	0	3.7	23.7
Ground Floor	1400	1050	3.7	20
TOTAL	**10950 m2**	**8213 m2**		
Proposed FSR		3.05		

Please note massing is calculated without articulation as planning envelopes only. The GEA / GFA ratio is then applied at a rate of 75% to allow for services, structure, facade articulation, voids etc.

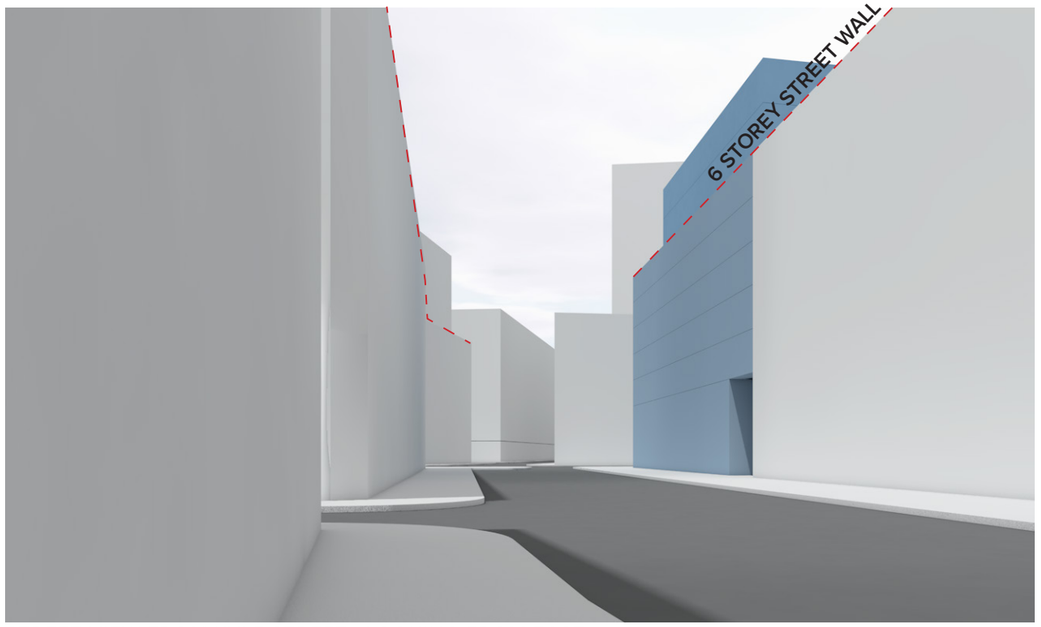
This massing study has been prepared with basic site information.



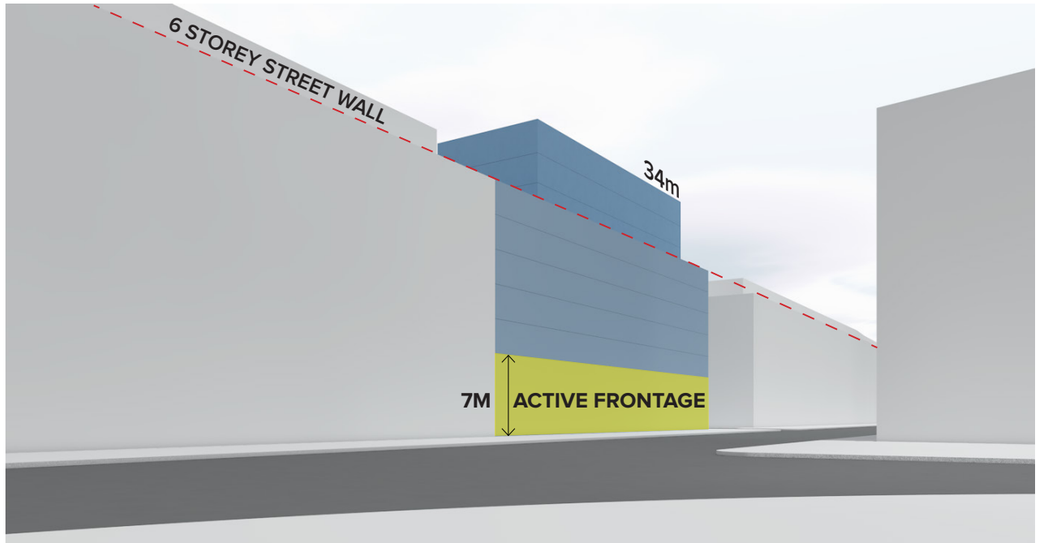
3.2.2
DESIGN STUDY 2
URBAN DESIGN ANALYSIS FSR 3:1 HEIGHT 34M



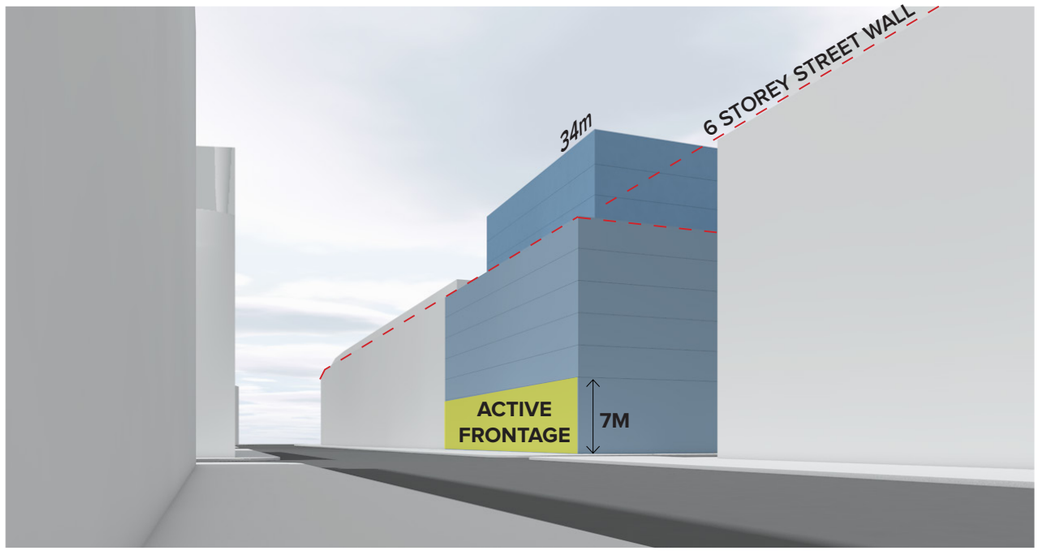
AERIAL VIEW FROM SOUTH WEST



STREET VIEW FROM KYLE STREET - LOOKING FROM EAST



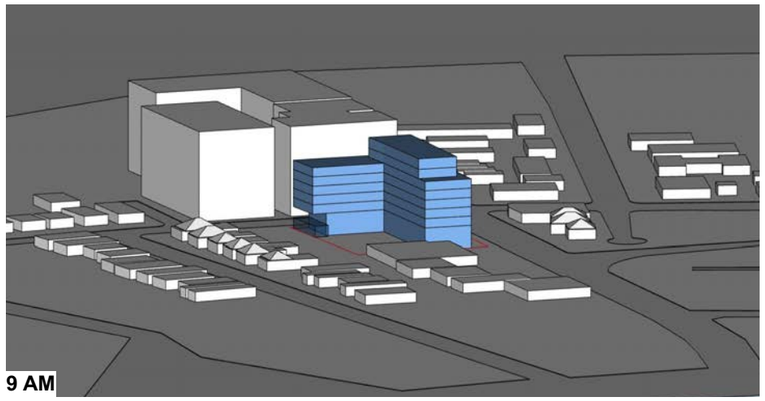
STREET VIEW FROM PRINCES HIGHWAY - LOOKING FROM NORTH

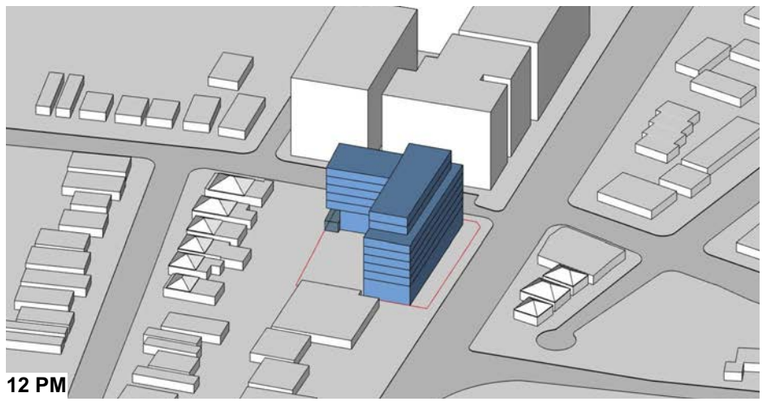


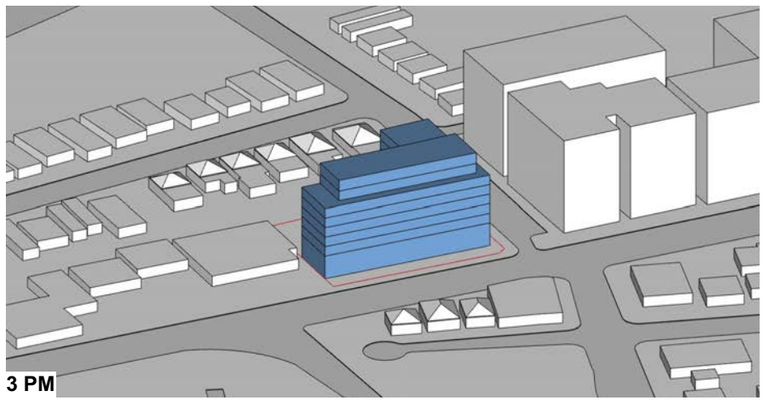
STREET VIEW FROM PRINCES HIGHWAY - LOOKING FROM SOUTH

3.2.3
DESIGN STUDY 2
VIEW FROM SUN DIAGRAMS - WINTER 21 JUNE

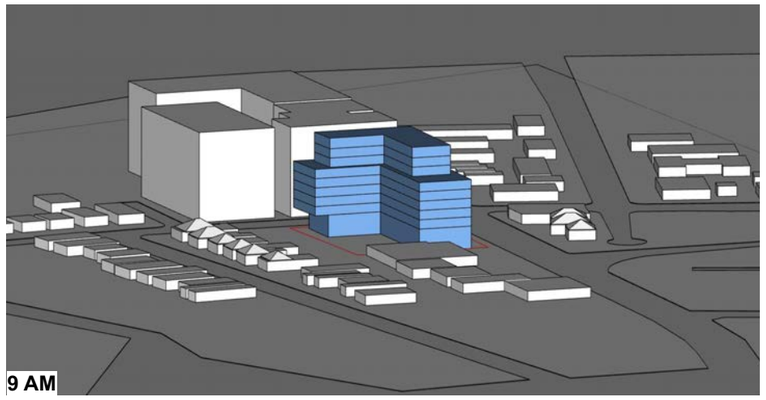
DEPARTMENT OF PLANNING PROPOSED CONTROLS - FSR 2.5:1

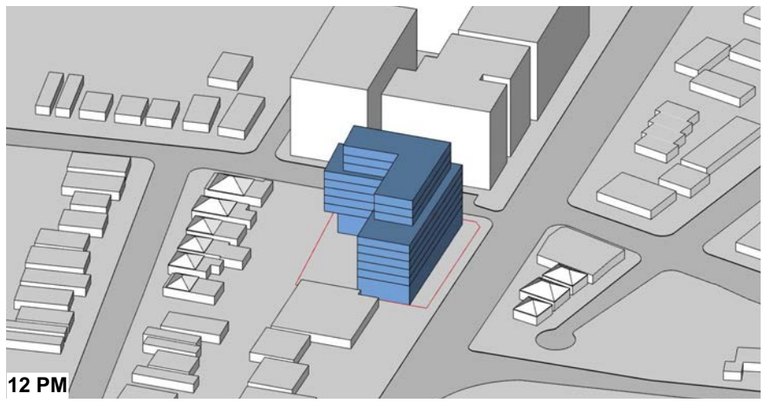




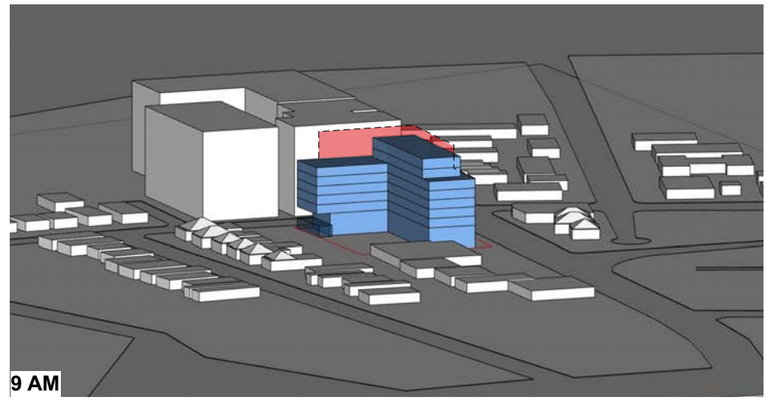


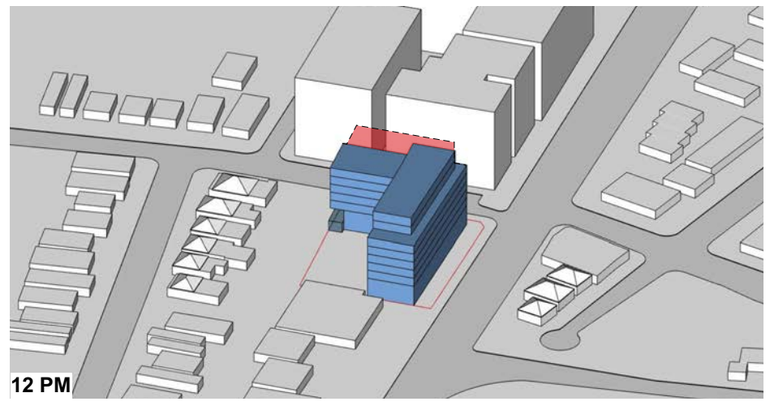
DESIGN STUDY 2 - FSR 3:1 HEIGHT 34M

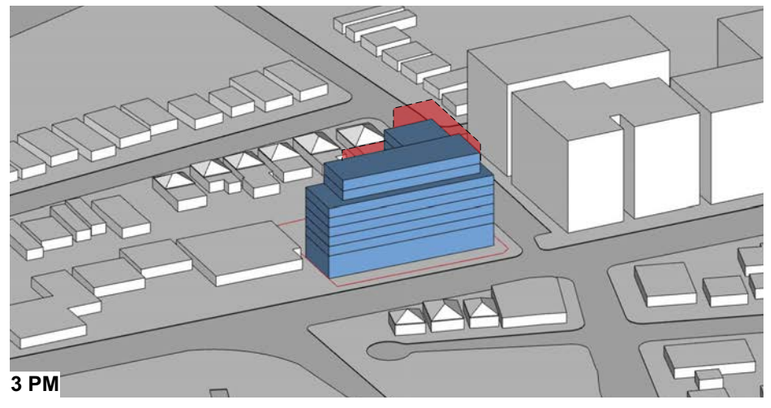




COMPARISON







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