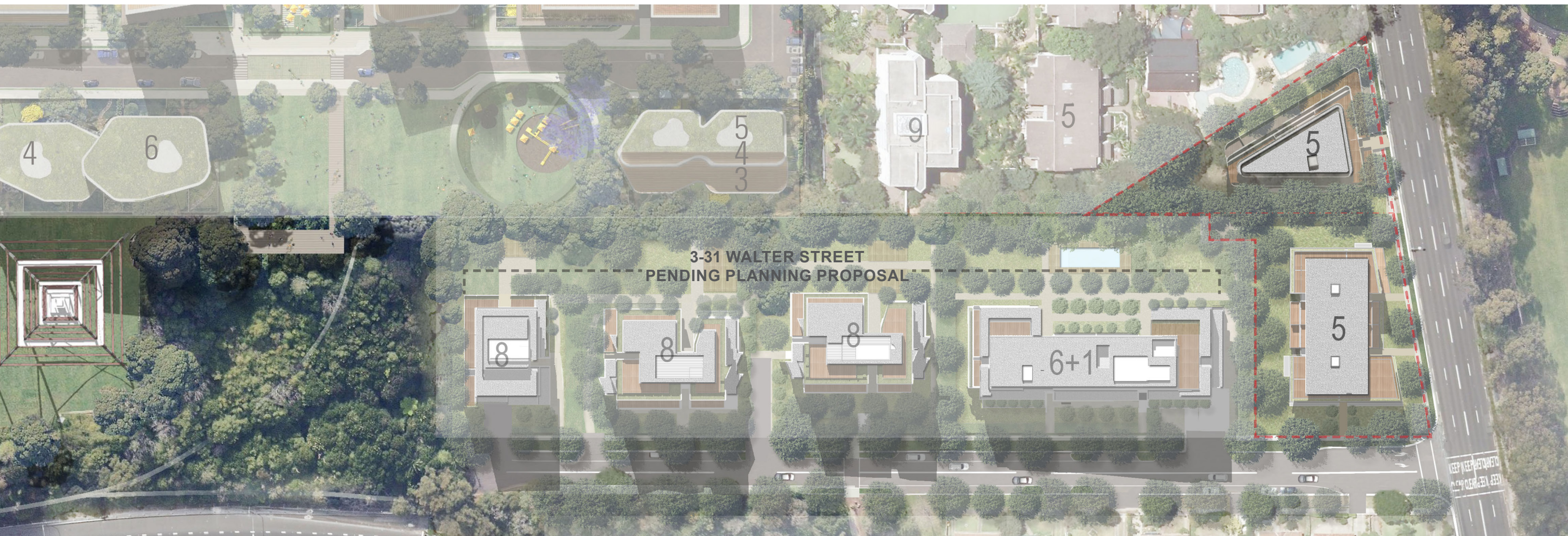




DESIGN REPORT

CONTENTS

1	PLANNING FRAMEWORK	
1.1	Regional Planning Strategies	5
1.2	Willoughby Local Environment Plan	6
2	THE SITE	
2.1	Context Plan	8
2.2	Extent of Land for Rezone	15
2.3	Site Analysis	16
2.4	Site Context	20
3	DESIGN PURPOSE	
3.1	Precinct Overview	25
3.2	Existing Site	26
3.3	R3 Zone Development Application	27
3.4	R4 Proposed Schema	28
3.5	Traffic Management	29
3.6	Green Zone	31
4	DESIGN CONCEPT	
4.1	Planning Control Studies	33
4.2	Massing Principles	35
5	DEVELOPMENT PROPOSAL	
5.1	Site Plan	46
5.2	Floor Plans	48
5.3	Street Elevations	56
5.4	Sections	58
5.5	Perspective	62
5.6	Yield	71
	Appendix	74

EXECUTIVE SUMMARY

This report has been prepared By Architecture Urbaneia P/L on Behalf of Walter Street Developments ATF/Walter Developments Trust for the sites at 1-1A Walter street and 450-462 Willoughby Road Willoughby.

The Report aims to address issues which relate to the proposed increase in density of the site from the current R3 Medium Density zone with 0.9:1 FSR and height limit of 12 m to R4 High density with a maximum FSR of 1.5:1 (Including 4% affordable housing) with maximum of height limits of 5 storey.

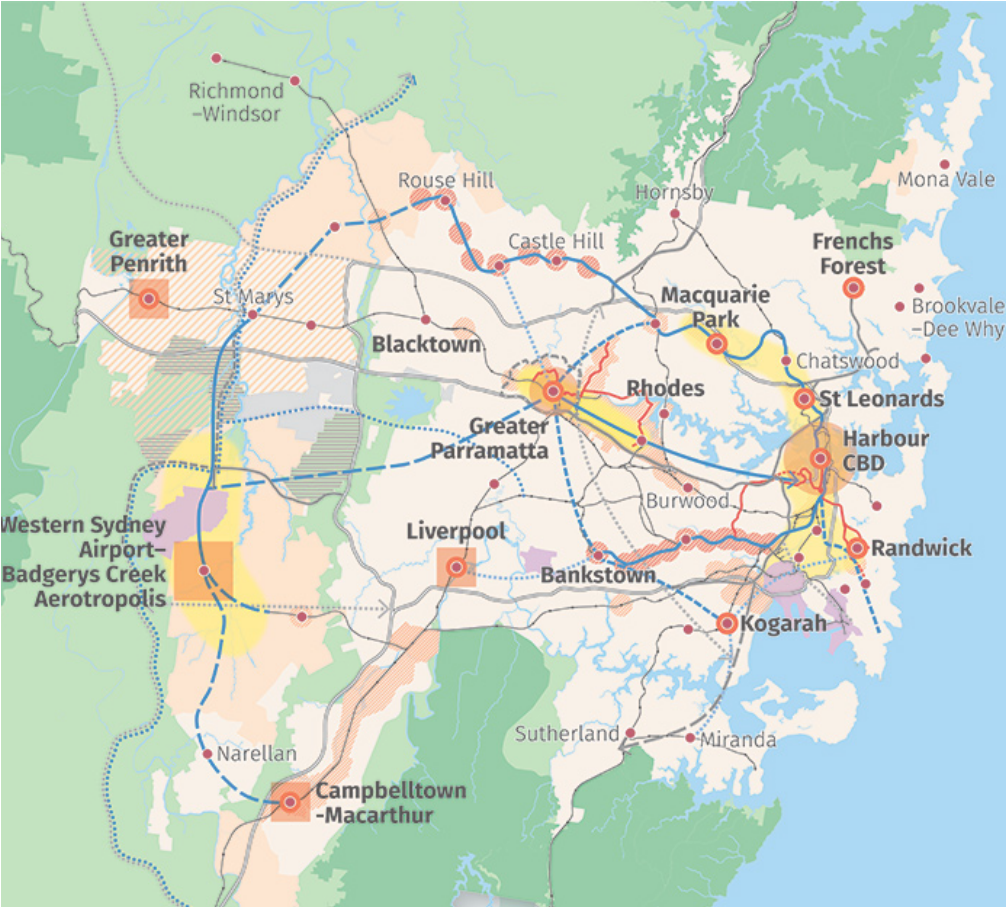
We have under taken Built Form comparison analysis of the existing neighbouring developments at no 2 Artarmon road known as the Mirvac Development as well as the recent Channel 9 court approved and recently exhibited scheme increasing the height limits to maximum of 12 storey with FSR to 1.5:1.

We have placed significant emphasis on analysing both the current built forms on the neighbouring Mirvac site which has 3;5 and 9 storey buildings as well as channel 9's proposed amended master plan, and pending planning proposal on 3- 31 Walter Street to establish the proposed built forms.

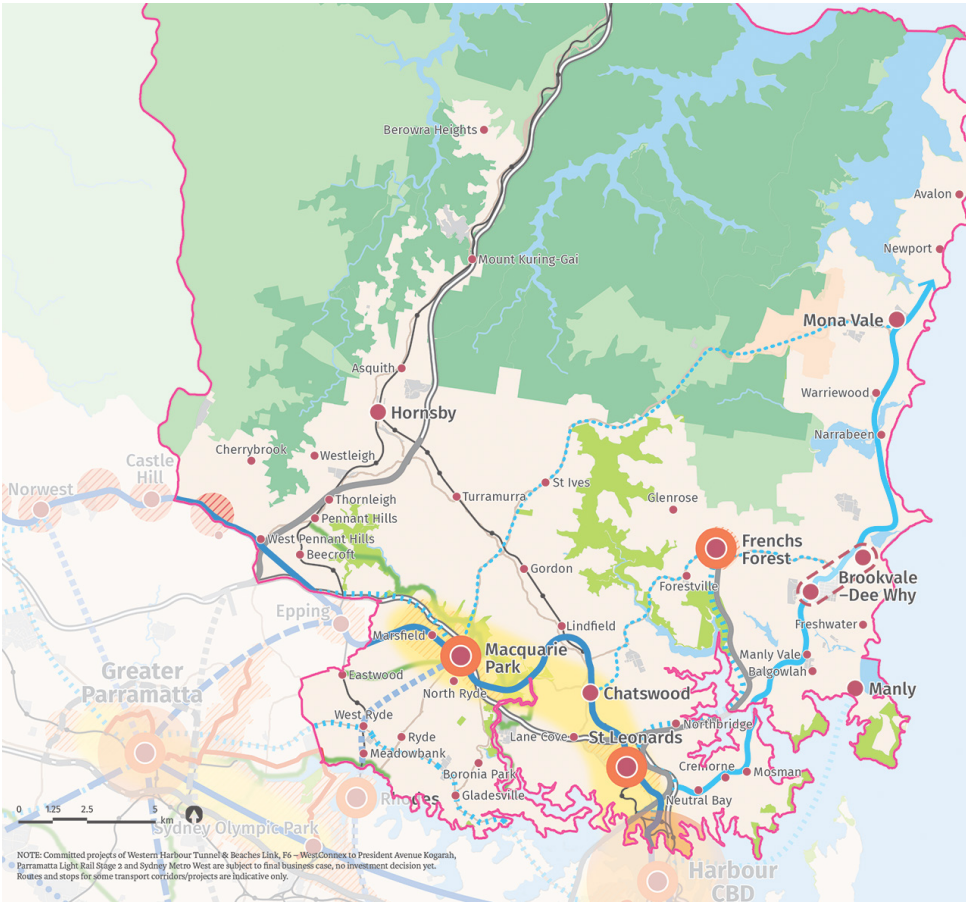
1.0

PLANNING FRAMEWORK

1.1 REGIONAL PLANNING STRATEGIES



SYDNEY METROPOLITAN PLAN 2056



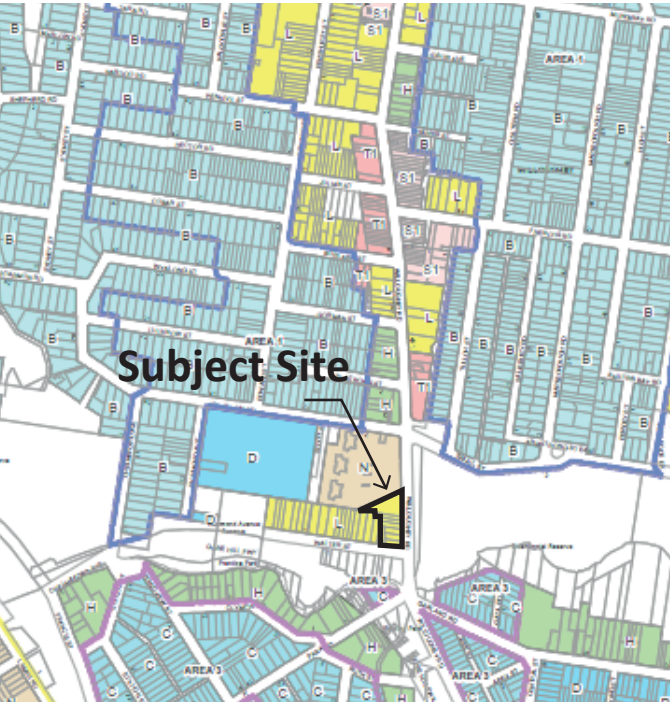
SYDNEY NORTH SUBREGION PLAN 2056



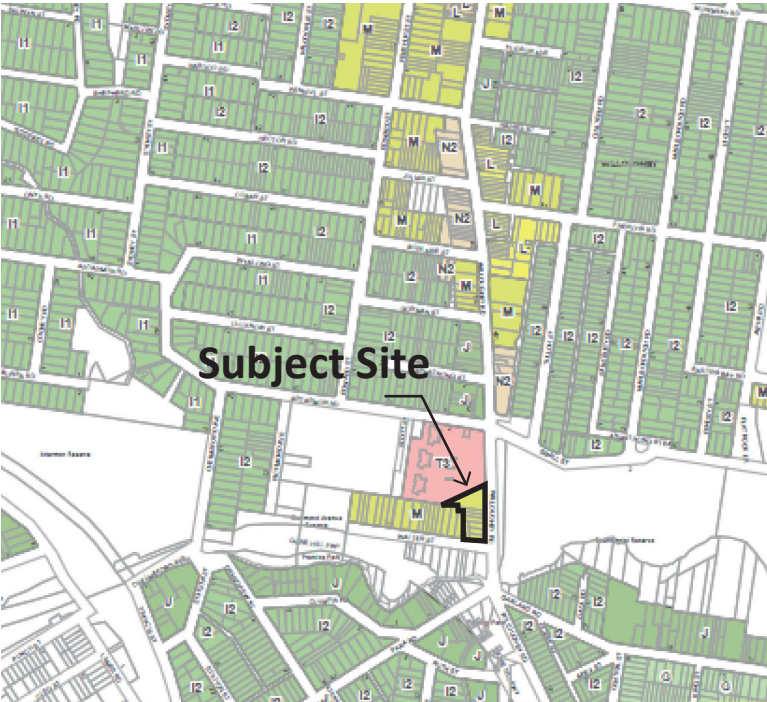
WILLOUGHBY CITY STRATEGY



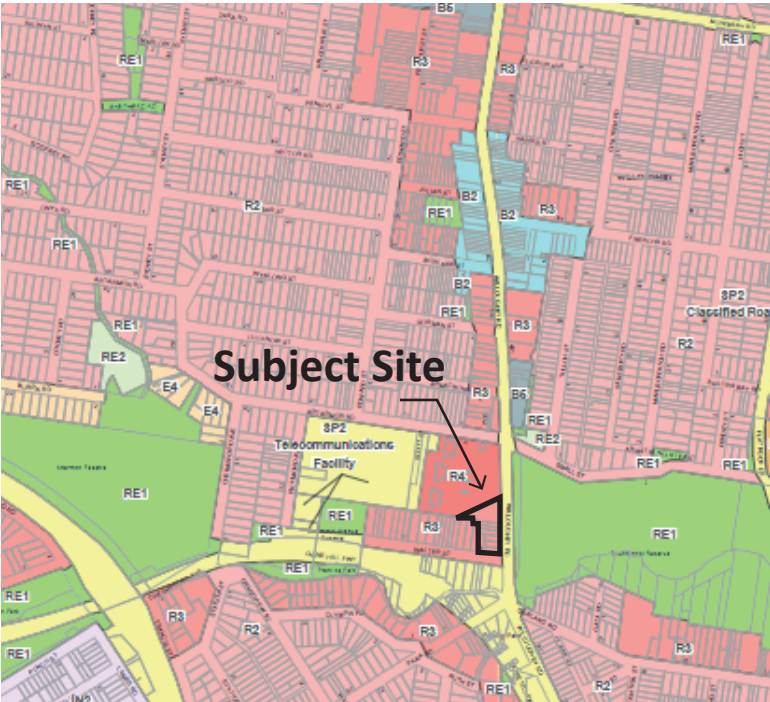
1.2 WILLOUGHBY LOCAL ENVIRONMENT PLAN



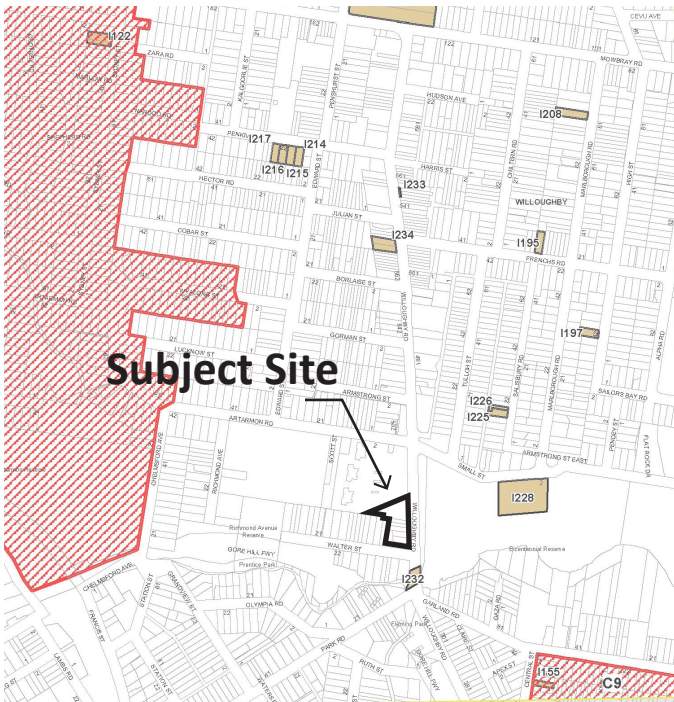
LEP: FSR Class L = 0.9:1



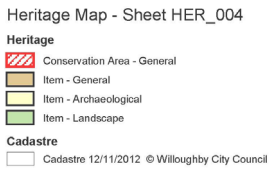
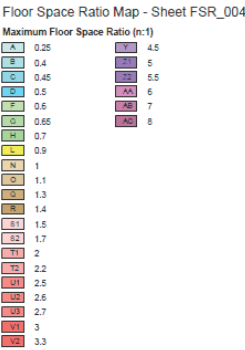
LEP: Height Class M = 12m



LEP: Land Use Zone R3 = Medium Density Residential



LEP: Heritage Not within a conservation area



2.0

THE SITE

2.1 THE SITE

METROPOLITAN CONTEXT PLAN

The proposed development is located in the Northern Sydney city of Willoughby, approximately 8.5km North of the Sydney CBD. Willoughby falls under the governance of the Willoughby City Council.

It is a majority residential area, with close proximity to the busy centres of St Leonards, Chatswood and North Sydney CBD. One of the council's immediate strategic directions is an increase in housing, to meet the growing population demand in an area in close proximity to public transport corridors and facilities and major urban centres.

The *Willoughby City Strategy 2013-2029* states that “Willoughby’s natural and built environments, the cultures of its residents and the range of services and activities make it an attractive and dynamic place to live, work and visit.”

The site is in an ideal location for higher density to meet the anticipated urban strategy targets of state and Willoughby City.



2.1 THE SITE

CONTEXT
PUBLIC TRANSPORT & PARKING PLAN

TRAINS

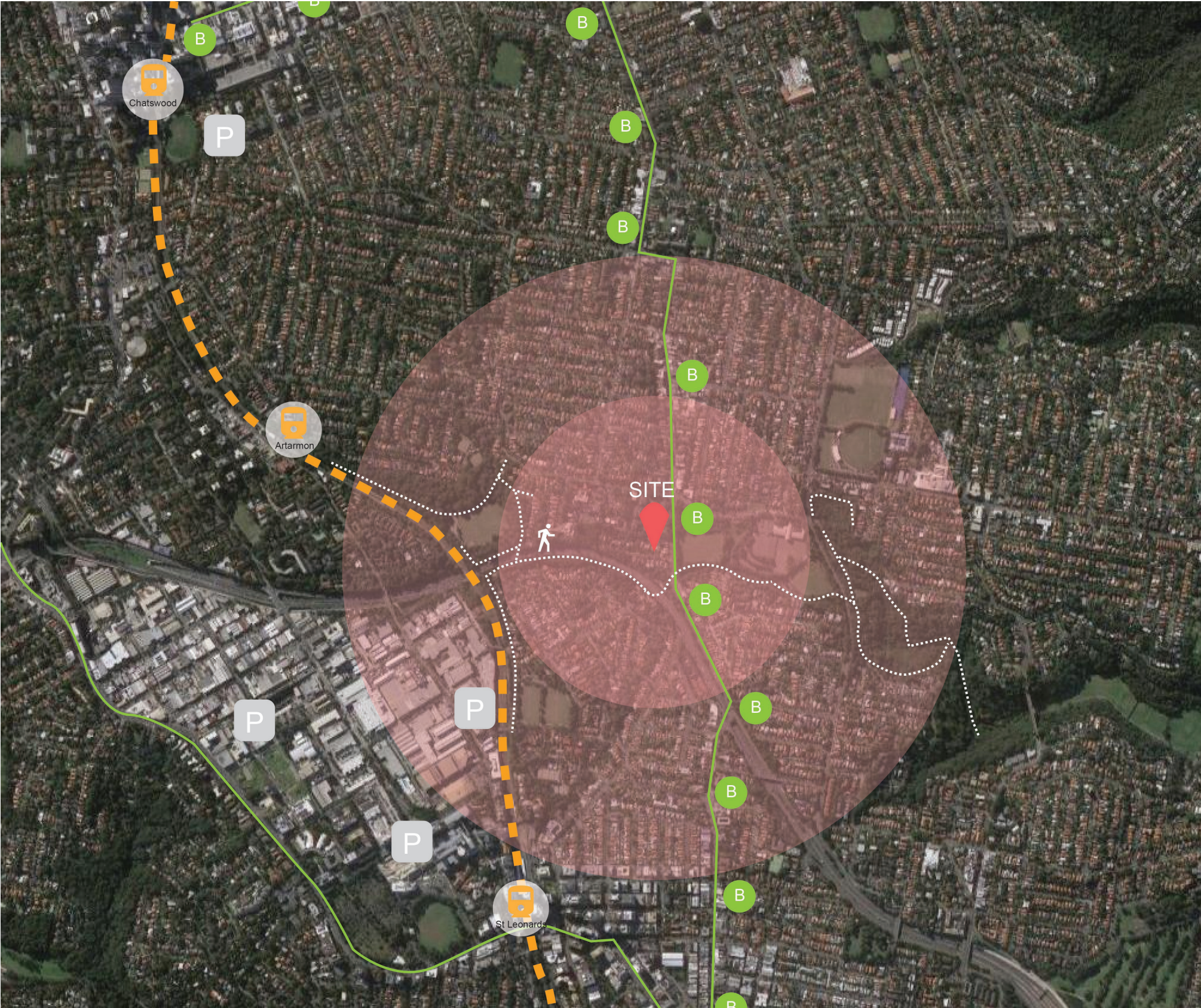
The site is located an approximately equal distance from St Leonards and Artarmon train stations, with St Leonards 1.7km away. Both stations are serviced by the T1 North Shore, Northern and Western Line.

BUSES

The site is well serviced by buses running North and South on Willoughby Road. The closest bus stop is 190m away from the intersection of Walter St and Willoughby Rd, a few minutes’ walk.

Key

-  Site
-  Bus
-  Train



2.1 THE SITE

CONTEXT
GREEN SPACE PLAN

Walter St and Willoughby Rd are directly connected to considerable green space, which is a focal point of the locality. Bicentennial Reserve Oval and Hallstrom Park are adjacent to Willoughby Rd and a few moment’s walk. The grounds are home to Incinerator Art Space and The Incinerator Cafe.

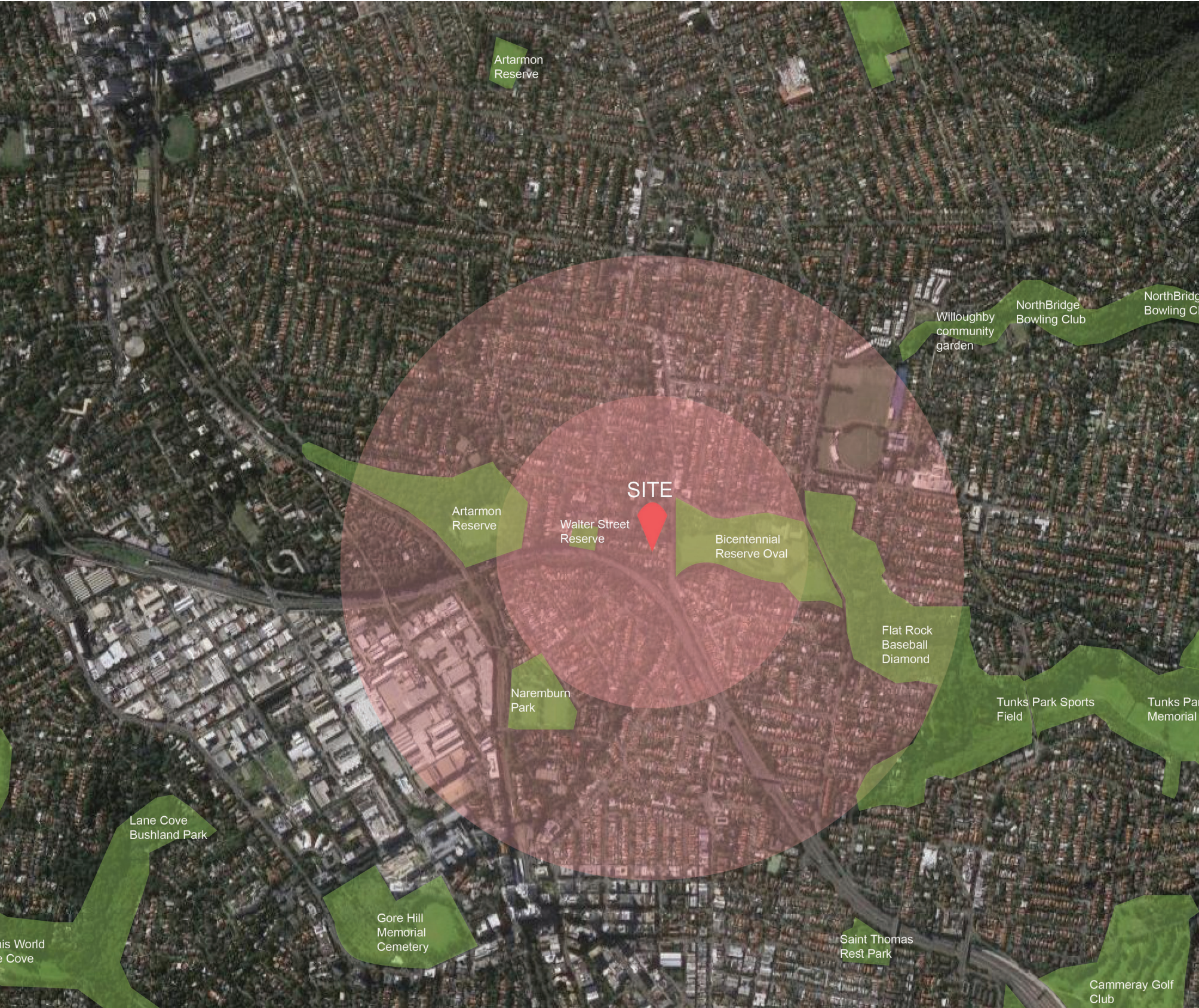
Further along the park is Willoughby Leisure Centre, North Sydney Netball Club and Flat Rock Baseball Diamond, providing considerable opportunities for sports and physical activities. Flat Rock Creek flows alongside this entire green zone.

Artarmon Reserve is located 1.6km away from Walter St. Naremburn Park is 1.4km away/

Key

 Site

 Open Space



2.1 THE SITE

CONTEXT
CULTURAL PRECINCTS PLAN

A number of urban cultural centres are found in the suburbs nearby the site.

CHATSWOOD CBD

Chatswood CBD is arguably North Sydney’s premier civic location, due to its combination of business and commercial opportunities, cultural areas and entertainment facilities. Victoria Ave begins at the Chatswood Interchange and is a pedestrianised avenue for culture and cuisine. It leads to The Concourse, Chatswood’s entertainment centre, and continues past Westfield Chatswood.

ARTARMON

Artarmon boasts a commercial district larger than Chatswood’s, offering a variety of large and small shopping opportunities.

LANE COVE & LANE COVE WEST

Lane Cove features an aquatic leisure centre and oval alongside its commercial district. Lane Cove West has a business park a short distance away.

CROWS NEST

A busy restaurant strip on Willoughby Rd sits behind the business CBD of Crows Nest and St Leonards.

NEUTRAL BAY

The green suburb of Neutral Bay winds down to the harbour past small streets and parks.



Key



Site



Precincts

2.1 THE SITE

CONTEXT ROAD NETWORK PLAN

PACIFIC HIGHWAY

At over 1000kms the Pacific Highway is the central route of travel along Australia's East coast and the Pacific, as the name suggests. It intersects North Sydney by winding through St Leonards, providing vehicular traffic and visitors. This intersection connects Willoughby to the greater roadways in and out of Sydney.

WARRINGAH FREE WAY

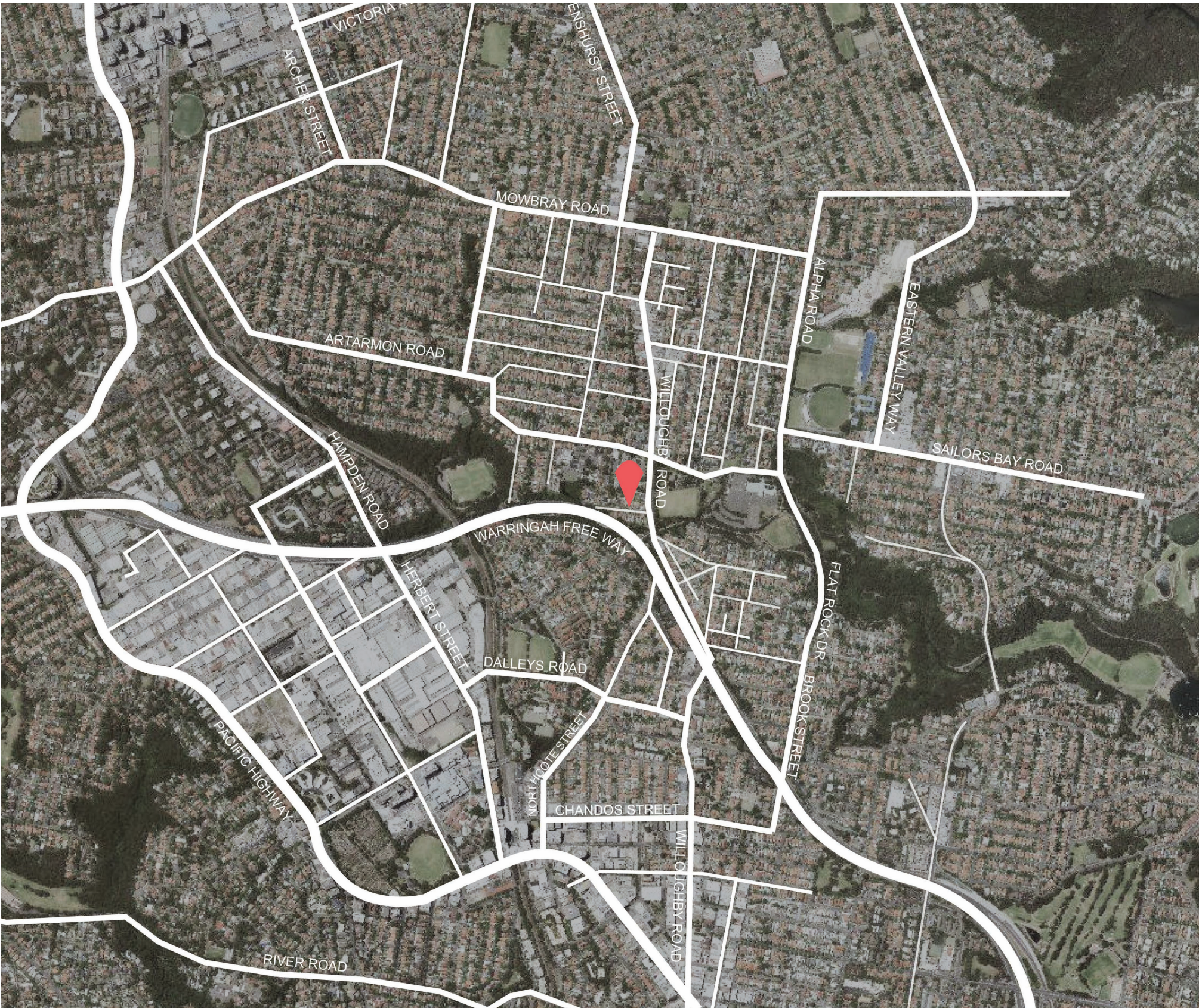
This major free way branches off the Pacific Highway after the Sydney Harbour Bridge and bends West, connecting North Sydney to the suburbs of Sydney's North-West and passing right by Walter St.

WILLOUGHBY ROAD

Willoughby's central North-South arterial road.

ARTARMON ROAD & CHANDOS STREET

Smaller roads but similarly important in the area.



2.1 THE SITE

CONTEXT
LOCAL AMENITY PLAN

The site is located right in the centre of Willoughby and greater North Sydney, and has considerable amenity in most directions as shown.

It is directly connected to a major bus route and has many parks and leisure centres nearby. Schools, retail centres and hospitals are all close.

Key



Site



Sports and Recreation Facilities



Community Facilities



Schools



Post Office



Retail Centres



2.2 THE SITE

DEVELOPMENT PRECEDENTS IN WILLOUGHBYLOCALITY

A. CENTENNIAL AVE & EDDY RD,
CHATSWOOD

Land Use Zone: R4
LEP height: 24m
LEP Floor Space Ratio: 1.5:1

B. PACIFIC HWY & VICTORIA AVE,
CHASWOOD

Land Use Zone: Varies. B3, B4 & R4
LEP height: Varies. 34m & 60m
LEP Floor Space Ratio: Varies. 1.7:1
& 6:1

C. ALBERT AVE, ARCHER ST,
JOHNSON ST & ORCHARD RD,
CHATSWOOD

Land Use Zone: Varies. B4 & R4
LEP height: Varies. 34m
LEP Floor Space Ratio: 1.7:1

D. 421-473 PACIFIC HWY,
ARTARMON

Land Use Zone: R4
LEP height: 138m
LEP Floor Space Ratio: 1.7:1

E. HAMPDEN LN, JERSEY RD,
BULLER RD & BENTON AVE,
ARTARMON

Land Use Zone: R4
LEP height: 36m
LEP Floor Space Ratio: 2:1

F. 6-30 ARTARMON ROAD,
WILLOUGHBY

Land Use Zone: Channel 9 (SP2)
LEP height: Unspecified

Approval:
Dwellings :400
Gross Floor Area: 35,886m2
FSR: 1.2:1
Height: Between 2 and 8 Storeys

Proposed:
Dwelling: 510
Gross Floor Area: 45,876m2
FSR: 1.5:1 (exclude affordable housing)
Height: Between 4 and 12 storeys

G. CORNER OF WILLOUGHBY RD &
ARTARMON ROAD, WILLOUGHBY

Land Use Zone: R4
LEP height: 27m
LEP Floor Space Ratio: 1:1

H. 3-31 WALTER STREET,
WILLOUGHBY

Land Use Zone: R3
LEP height: 12m
LEP Floor Space Ratio: 0.9:1

Proposed (UNDER GATEWAY PROCESS):
Land Use Rezoning: R4
Height: 21.7-24.8m
Dwelling: 233
Gross Floor Area: 16,847m2
FSR: 1.5:1 (exclude 5% Affordable Housing)
Height: Between 7 and 8 storeys

I. HERBERT ST & FRANCIS ST,
NAREMBURN

Land Use Zone: R4
LEP height: 40m
LEP Floor Space Ratio: 1.5:1



2.3 EXTENT OF LAND FOR REZONING

All lots on the subject site are zoned R3 Medium Density Residential.

The proposed development will amalgamate the residential properties and currently vacant lots of Willoughby Road, from No. 450 to No. 462, as well as the adjoining lot No. 1 and No.1A Walter Street to the South.

The adjoining No. 3 to No. 31 Walter St is part of a separate masterplan proposal for R4 rezoning under pending assessment. Surrounding proposed Channel 9 precincts and existing Mirva housing development area also R4 zone.

The development application seeks to have the included lots rezoned as R4 High Density Residential.



2.3 THE SITE

The area of the site is 3930 m2.

STREET FRONTAGES

The site has two street frontages. The majority of the included lots all front Willoughby Road, and both the site and the street are proposed to be redesigned. No. 462 Willoughby Road provides a link to the Walter Street sites at its rear, and the site has a considerable street frontage to the busy Willoughby Road.

GROUND PLANE AND TOPOGRAPHY

A significant fall exists from the North-West corner of the Walter Street site to the opposite South-East corner. The topography requires excavation below the existing ground level, presenting a significant challenge for siting proposed buildings. No. 462 Willoughby Road is currently an unbuilt green area with a mildly undulating ground plane.

NEIGHBOURING BUILDINGS

Upon redevelopment, the majority of Walter Street's remaining existing buildings will be on the South side of the street, these being No. 2 to 18 in the SP2 zone. The proposed development of No. 3-31 Walter Street will be neighbours to the site.

GREEN ZONES

Walter St has many densely vegetated zones. These are at the end of the cul-de-sac, the rear Northern boundary and the opposite South side. The proposed development aims to respect these zones and retain existing trees on the site, while introducing substantial new green zones.



2.3 SITE OWNERSHIP

- No.1-1A Walter Street + No. 450-460 Willoughby road under 1 owner-ship;
- No.462 Willoughby Road under another ownership by Aux Property Group



PRIMARY SITE

SECONDARY SITE

1.3 SITE OWNERSHIP

- No.462 Willoughby Road under another ownership by Aux Property Group
- No.15, Walter Street privately owned
- No.29+29a;+31 Walter Street are Privately owned



2.3 Daylight & Wind Orientation

North part of site would be partial shade by existing building.



2.4 SITE ANALYSIS

SITE CONSTRAINTS

TRAFFIC ALONG WILLOUGHBY ROAD

Intense vehicular movements along Willoughby Road cause difficulty for cars to exit and entry the development and for people to walk across the road.

VEHICULAR NOISE

The Gore Hill Freeway is located to the South of Walter Street and the SP2 zone and Willoughby Road has busy traffic as well.

SIGNIFICANT SLOPE

The fall from the North-West at surrounding the site is significant.

SHADED BY SOME EXISTING BUILDINGS

The existing apartments to the North cause shadows on at certain times of day.



TRAFFIC ALONG WILLOUGHBY ROAD



VEHICULAR NOISE



SHADED BY SOME EXISTING BUILDINGS



SURROUNDING SIGNIFICANT SLOPE

2.3 SITE ANALYSIS

SITE OPPORTUNITIES

ACCESS

Walter Street and public domain improvements will create a pedestrian-friendly roadway. A secondary connection to Willoughby Rd will be opened up via a new connection to the pedestrian and existing cycle ways.

COMMUNITY BENEFIT

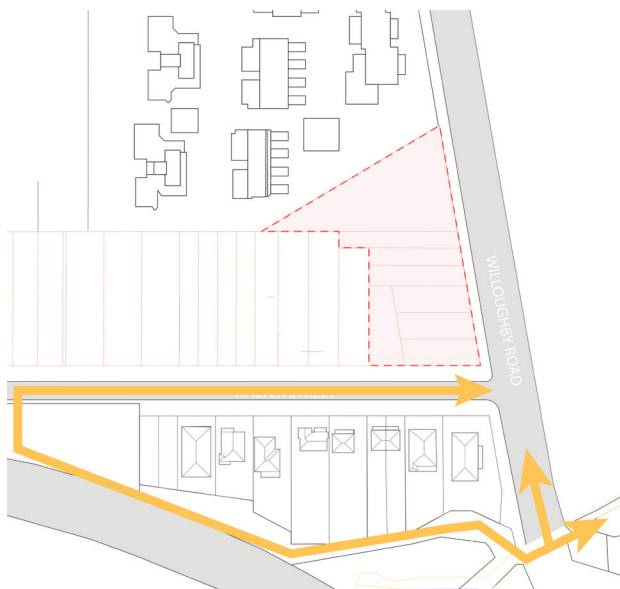
The proposed upgrades to Walter street and public domain areas will contribute directly to existing over-crowded single lane congested road way. The upgrade will provide a safe pedestrian zone by way of footpath upgrades and realignment. It is also proposed that a set of traffic lights be constructed for the Walter and Willoughby Road junction. The Draft Traffic Report is submitted. The traffic study forms part of the Proposed Master plan and Walter street upgrade.

LANDSCAPE

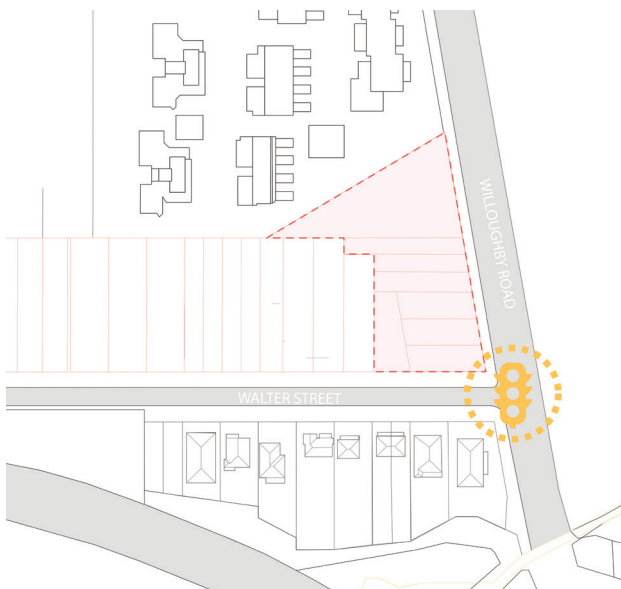
The site is opposite to the Hallstrom Park.

VIEWS

The site enjoys views South towards Naremburn and views East to the Hallstrom Park.



PEDESTRAIN & BIKE ACCESS



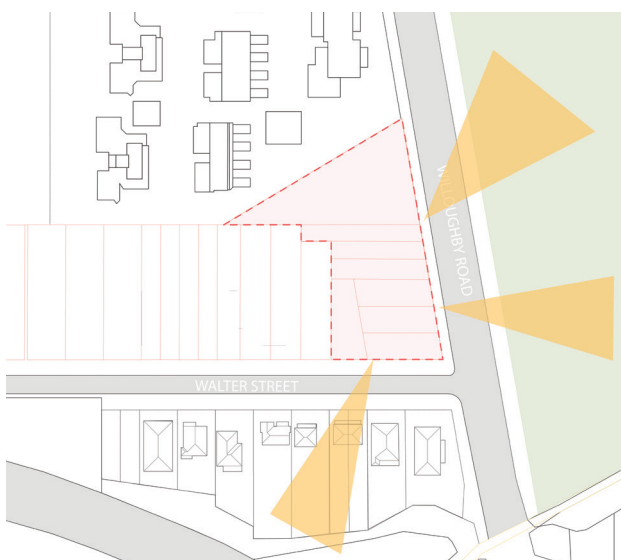
NEW INTERSECTION



COMMUNITY BENEFIT



LANDSCAPE



VIEWS



ARCHITECTURAL INTEREST

SITE SURVEY 1:400



2.4 SITE DESCRIPTION

CONTEXT



2.4 SITE DESCRIPTION

EXISTING SITE



Walter St opposite frontage, view West



View North from Willoughby Rd, and towards 450-462 Willoughby Rd



450-454 Willoughby Rd



456-460 Willoughby Rd

3.0

DESIGN RESPONSE

3.1 PRECINT OVERVIEW

The initial design undertaking was to separate the site into individual parts. No.3- No.31 Walter Street is an individually submitted to gateway, including site A, B, C and D. This report is subject to site E and site F.

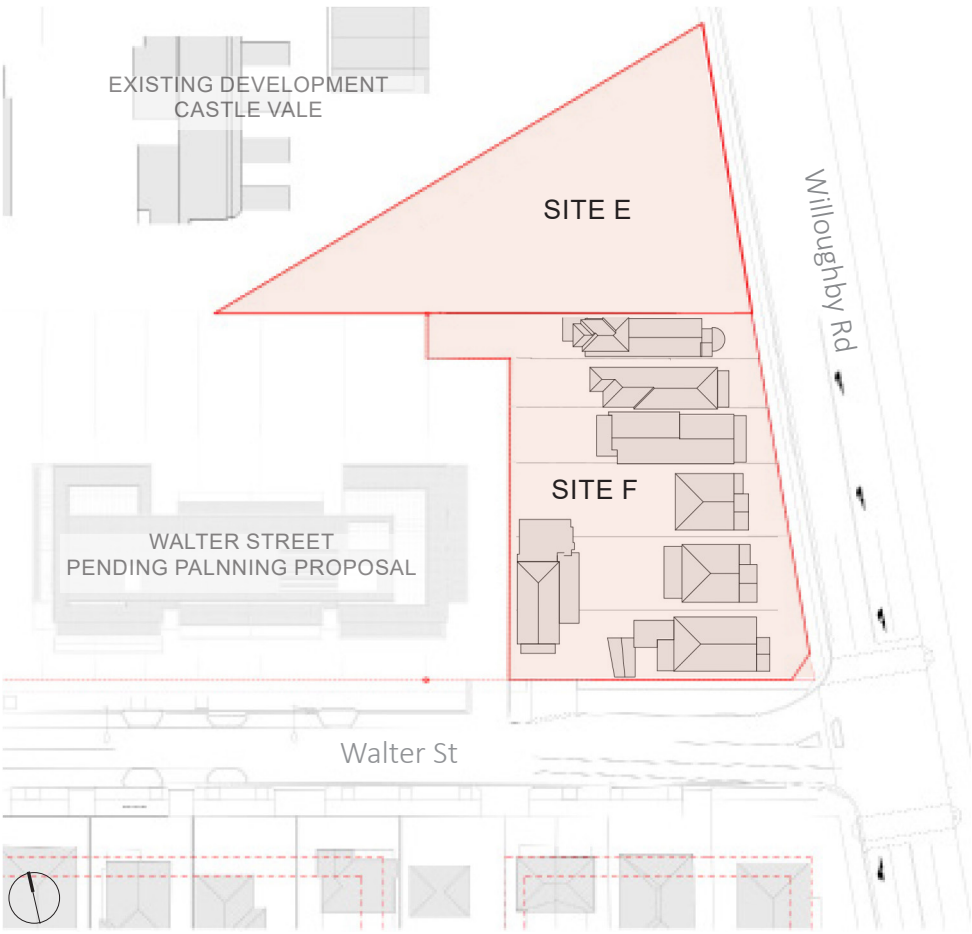
Several alternative schemes were prepared for each part. The individual treatments are as follows:

SITE E. 1-1A Walter St. and 450- 460 Willoughby Road.

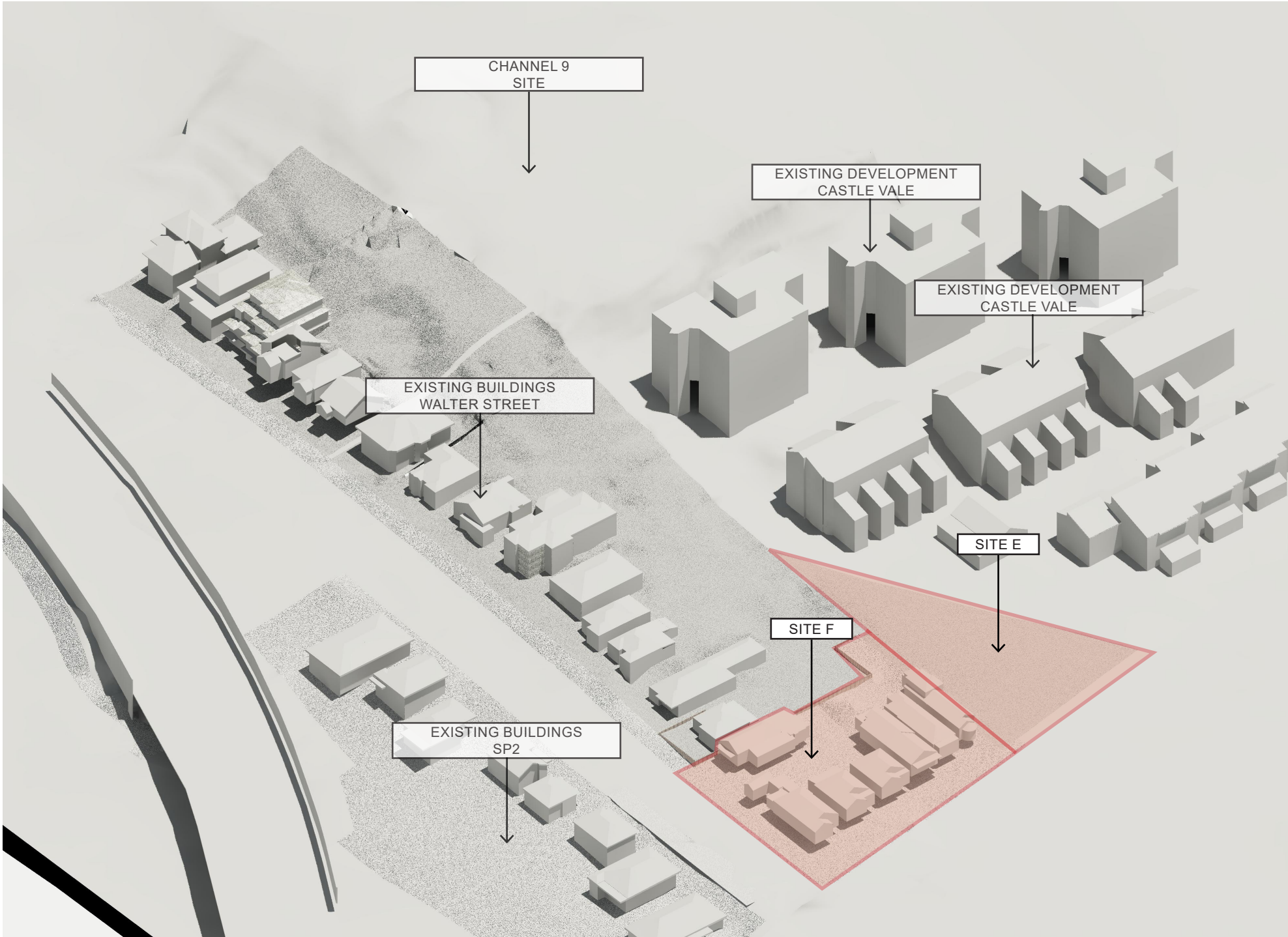
SITE F. 462 Willoughby Road.



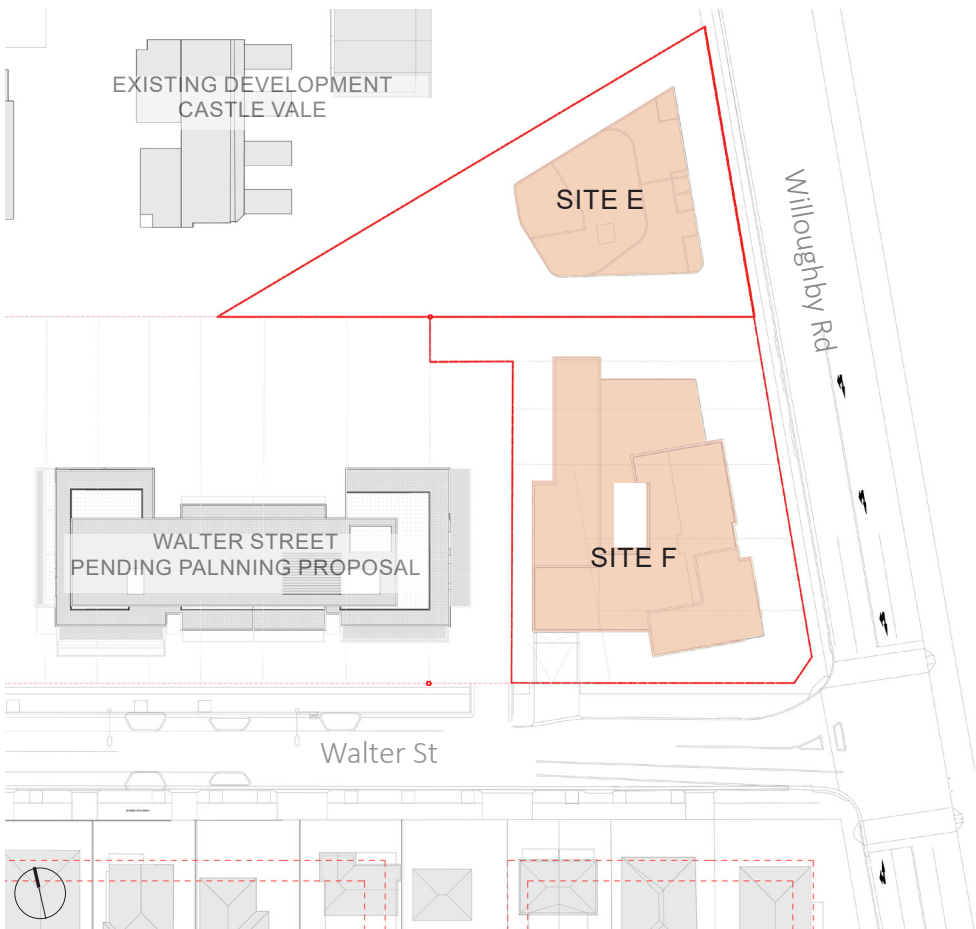
3.2 EXISTING SITE



Existing Site.

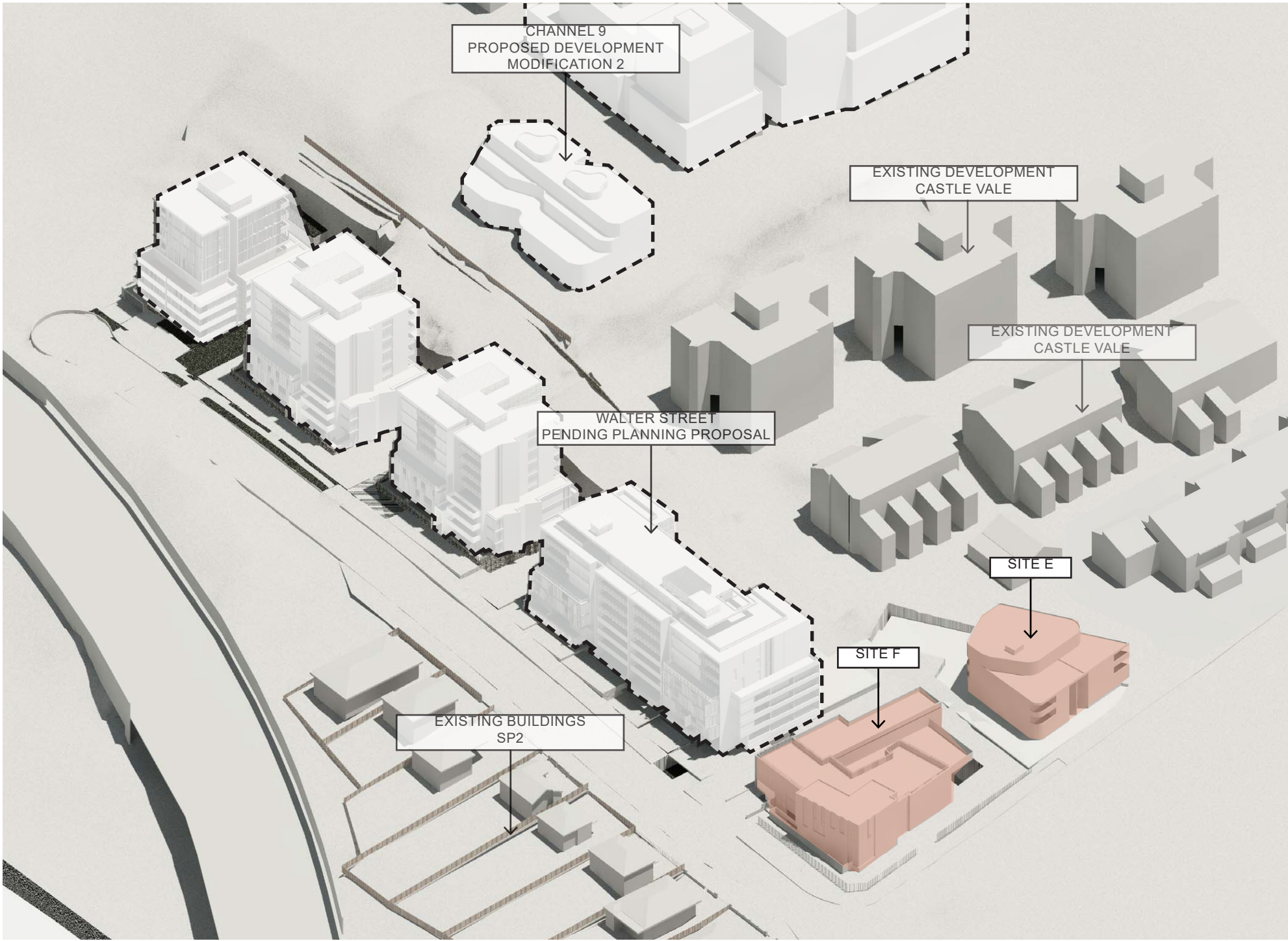


3.3 R3 ZONE DEVELOPMENT APPLICATIONS

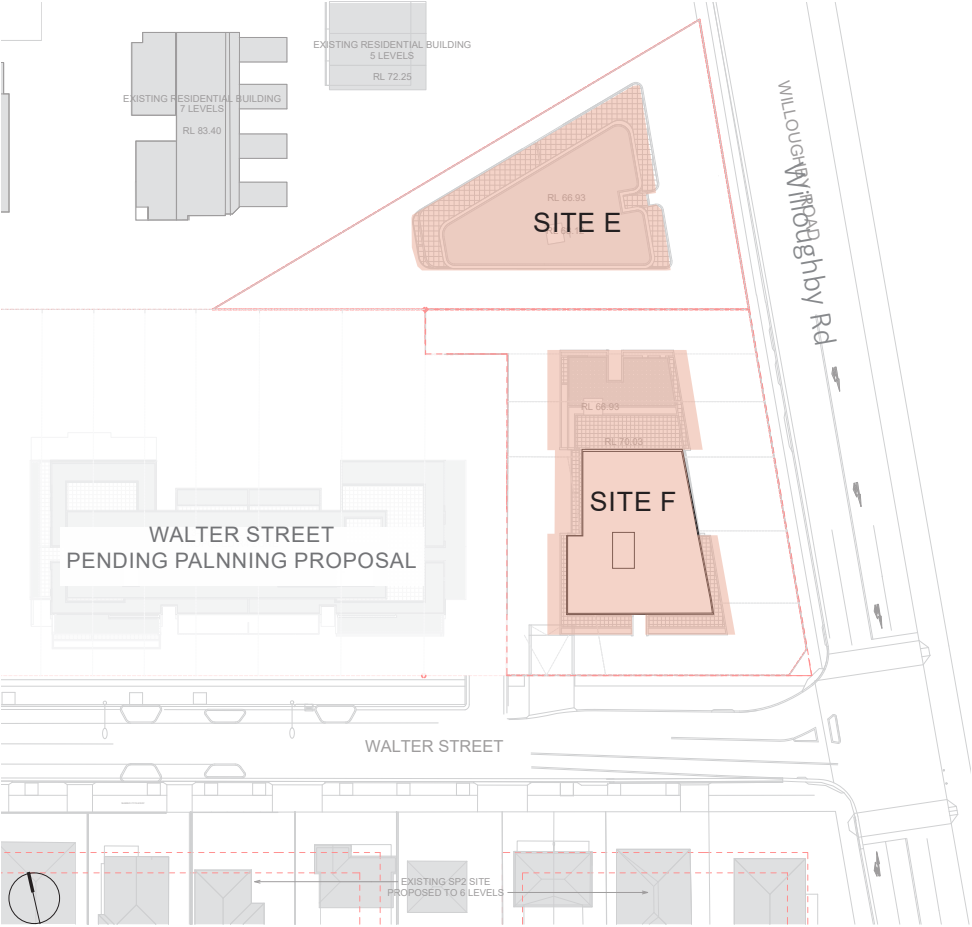


The site plan shows completed or ongoing development applications submitted under the current R3 zoning. The complying height is 12m and FSR is 0.9:1.

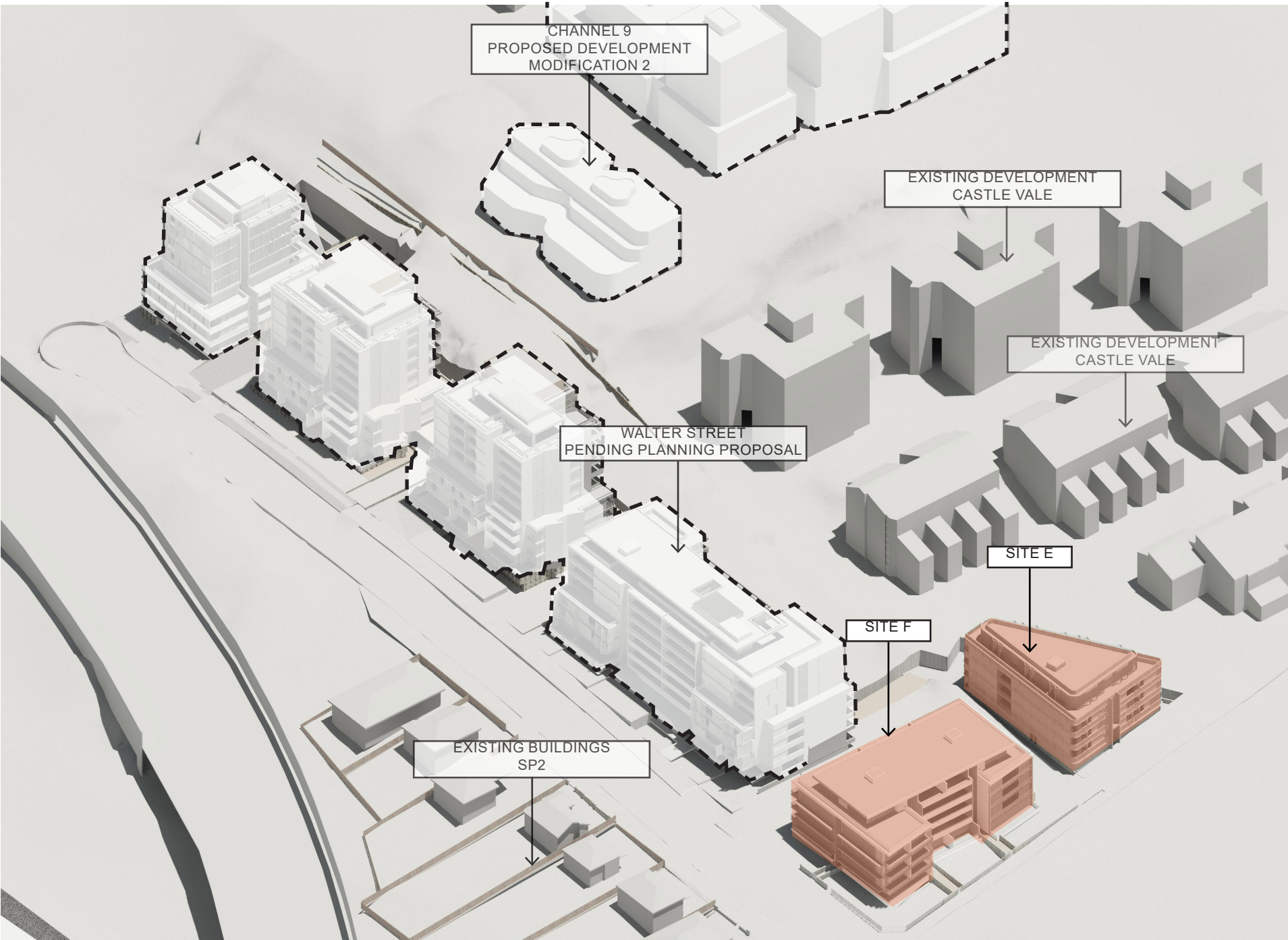
No. 3-31 Walter St have been submitted to the gateway. The remaining sites shown will be dealt with separately by existing owners.



3.4 R4 PROPOSED MASTER PLAN



The chosen proposal will be submitted alongside a proposed R4 rezoning. The proposed height is 5-6 storeys, with maximum FSR of 1.5:1 including 4% affordable housing.



3.5 TRAFFIC MANAGEMENT

ROAD WIDENING & WILLOUGHBY ROAD TRAFFIC LIGHTS

To accommodate for any increased vehicular traffic, a new intersection with new traffic lights is proposed for the intersection of Walter St and Willoughby Rd. This will ensure equity and safety at an already busy intersection. It is also possible that a “Left Turn Only” will accommodate the extra traffic generation.

It is proposed that Walter Street will be widened on one side to allow for 2 central lanes, with on-street parking spaces on each side of the street. The street width will go from 7.2m to 10.5m.

Detail drawing refer to civil drawing.

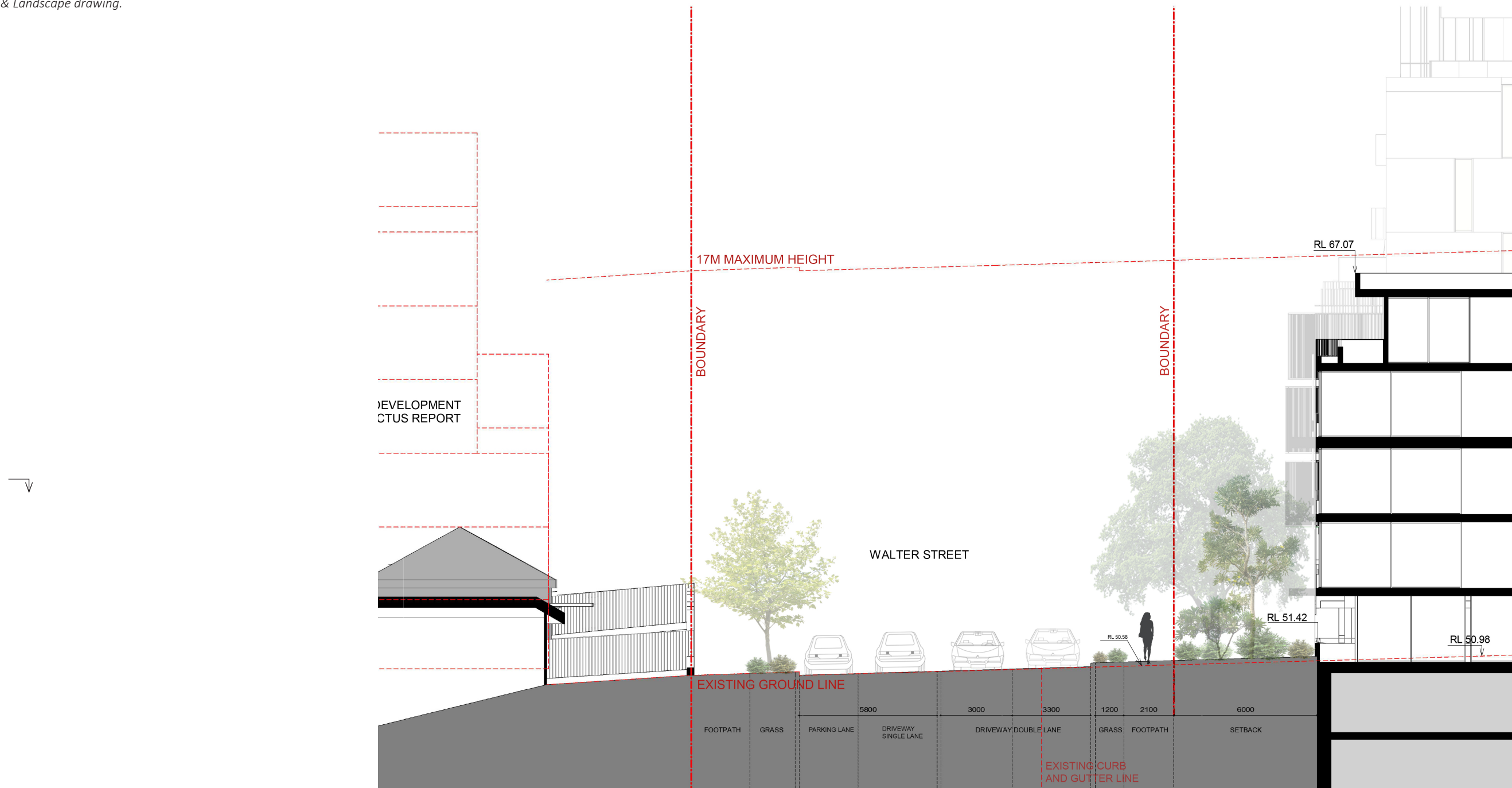


3.5 TRAFFIC MANAGEMENT

WALTER STREET SECTION

The proposal also seeks to reclaim part of the existing verge to allow for the street widening. The concept also proposes to regrade the footpaths for the safety of the community, as the existing footpaths are too steep along parts of Walter St. The public domain improvements will be a public benefit as part of the VPA contribution for the planning proposal.

Detail drawing refer to civil drawing & Landscape drawing.



3.6 GREEN ZONE & SEMI-PUBLIC OPEN SPACE

The benefit of the master plan is better integration of the built form and landscape areas. The proposal enlarges gaps between buildings and allows for greater permeability from public domain areas through the sites.



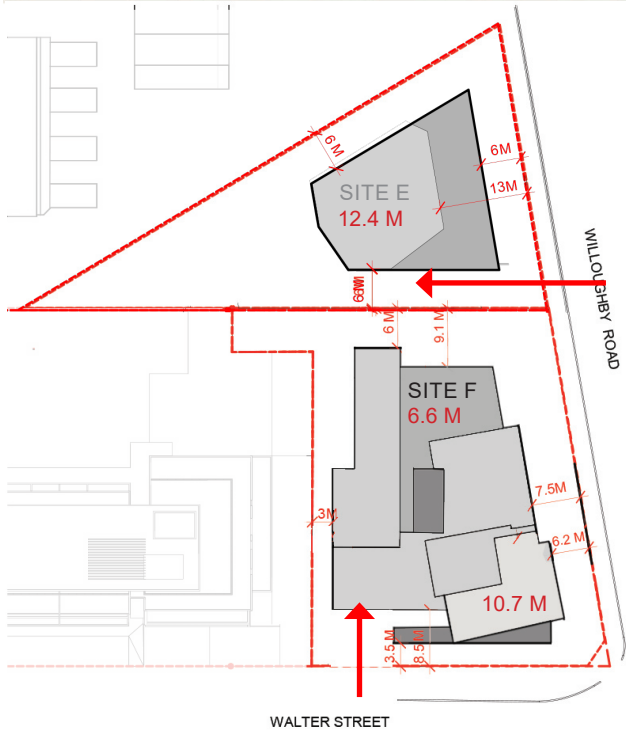
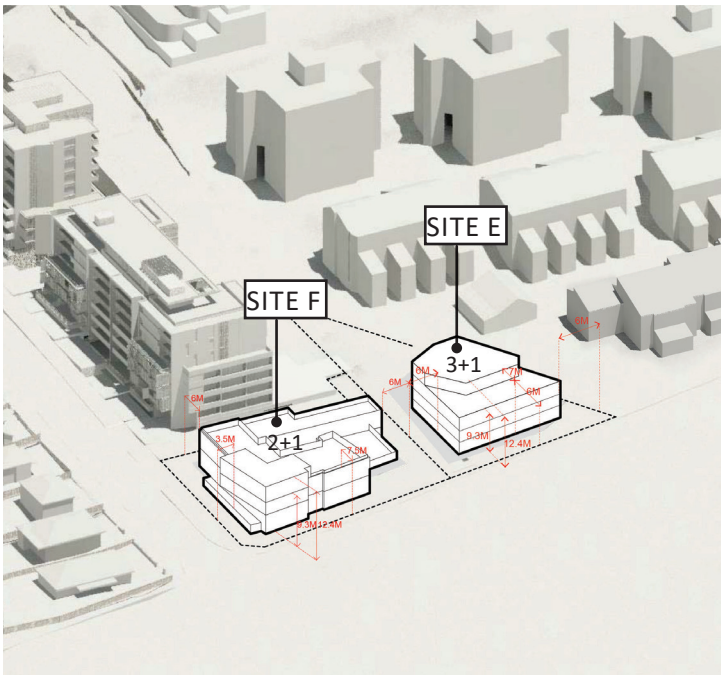
4.0

DESIGN CONCEPT

4.1 PLANNING CONTROL STUDIES

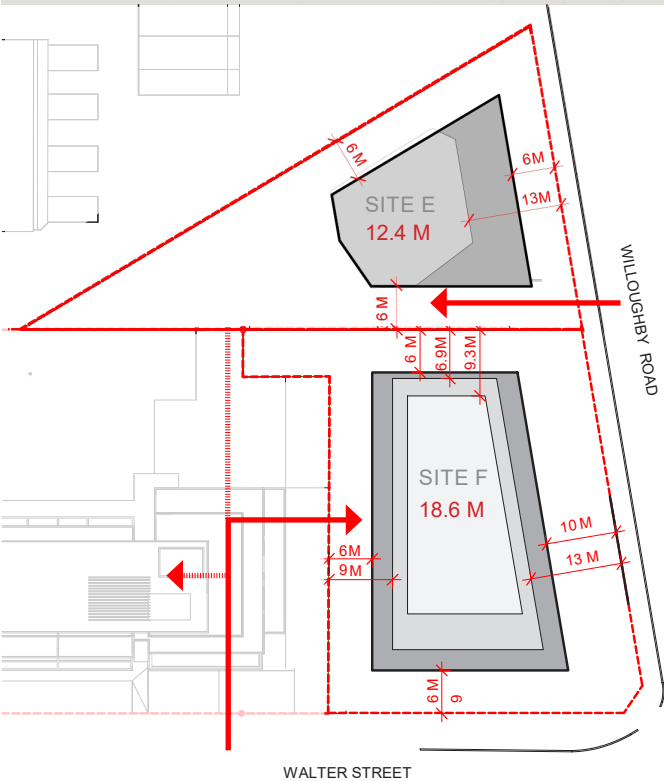
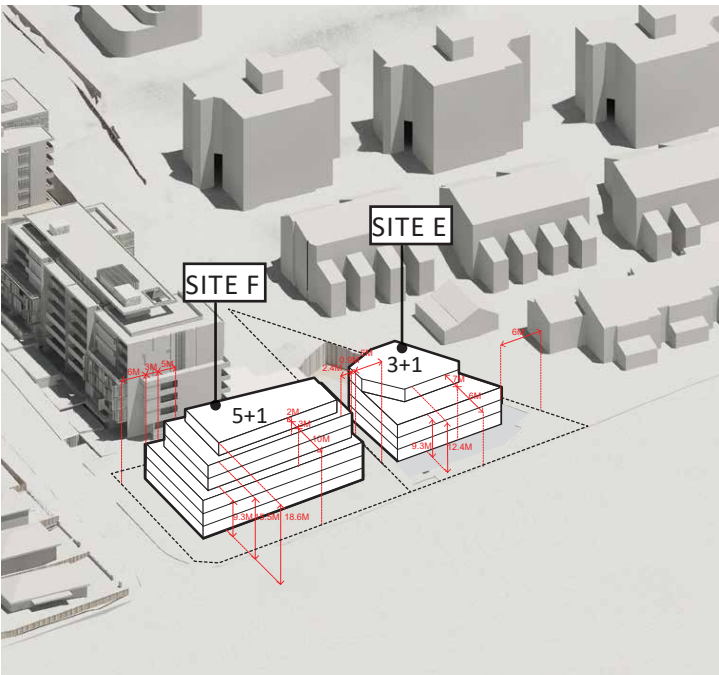
R3 SENARIO_APPROVED SITE F
FSR_

SITE E: **0.9 : 1** (Excludes 4 % Afford. Housing)
0.936: 1 (Includes 4 % Afford. Housing)
SITE F: **0.589:1** (Approved Childcare site)



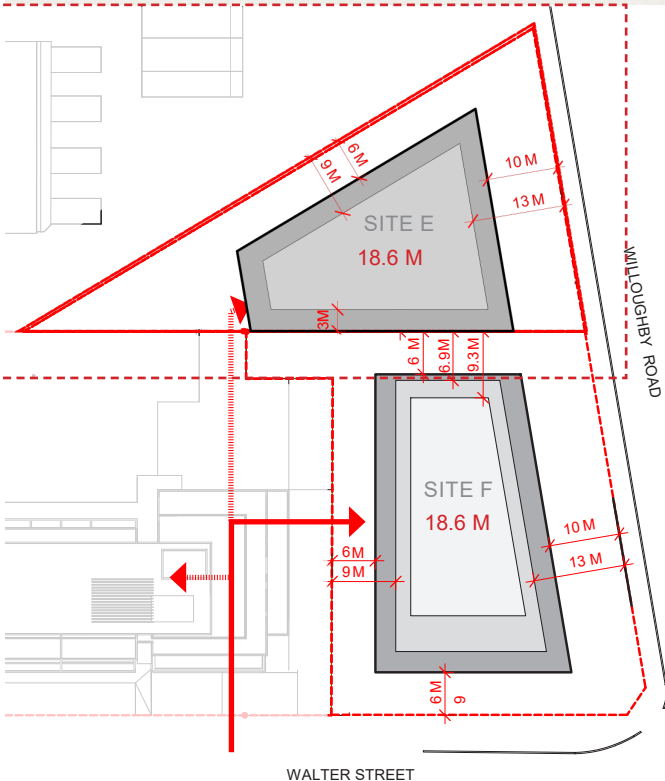
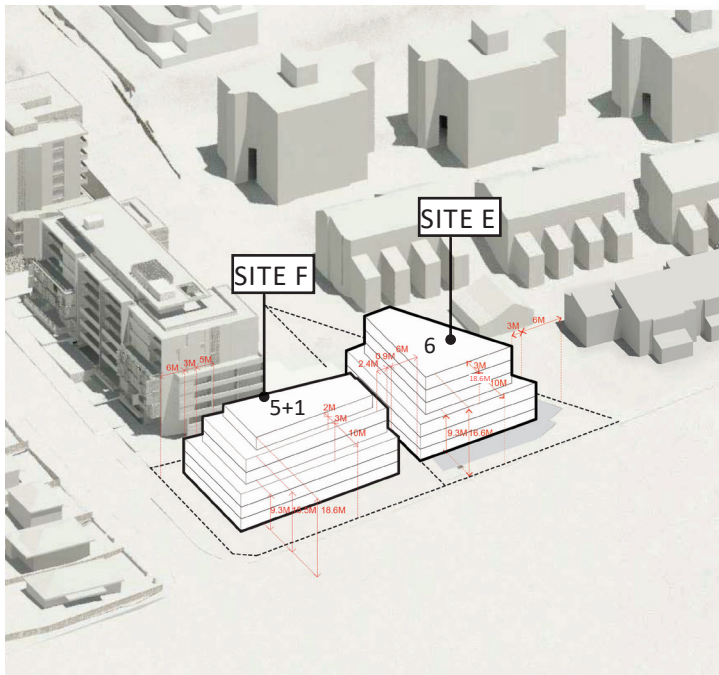
SITE E:R3 (3+1) & SITE F: R4 (5+1)
FSR_

SITE E: **0.9 : 1** (Excludes 4 % Afford.)
0.936: 1 (Includes 4 % Afford.)
SITE F: **1.5 : 1** (Excludes 4 % Afford.)
1.56: 1 (Includes 4 % Afford.)



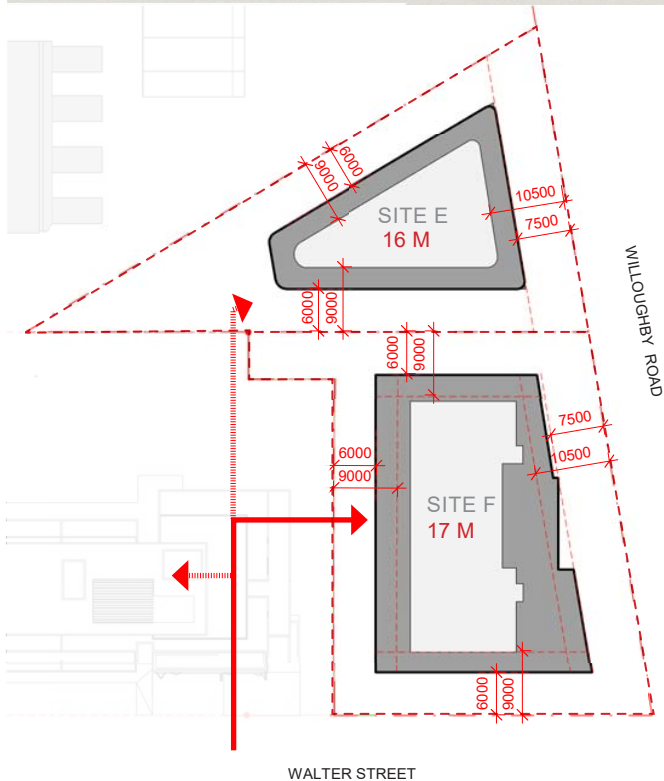
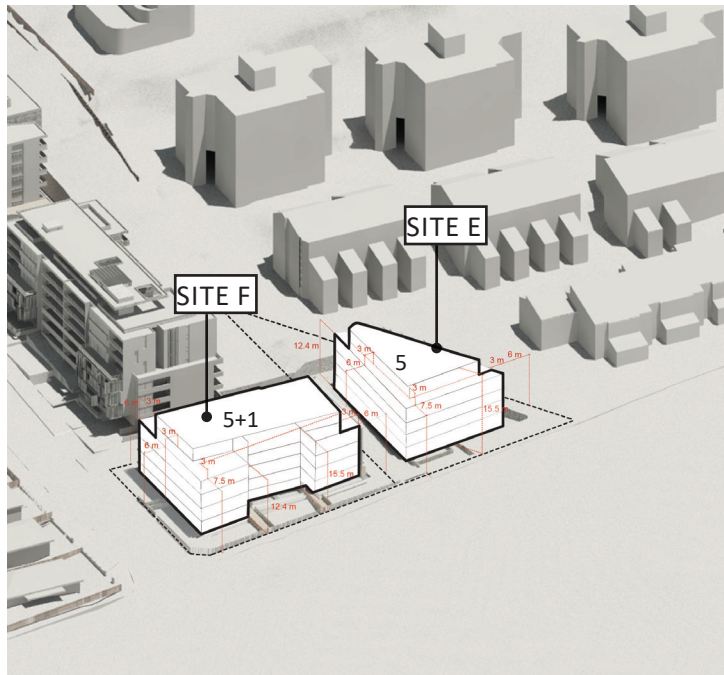
SITE E: R4 (6)+ SITE F: R4 (5+1)
FSR_

SITE E: **1.58: 1** (Excludes 4 % Afford.)
1.64 (Includes 4 % Afford.)
SITE F: **1.5 : 1** (Excludes 4 % Afford.)
1.56: 1 (Includes 4 % Afford.)



SITE E: R4(5) & SITE F:R4(5+1)
FSR_PREFERRED SCHEME

SITE E: **1.3:1** (Includes 4 % Afford.)
SITE F: **1.5:1** (Includes 4 % Afford.)



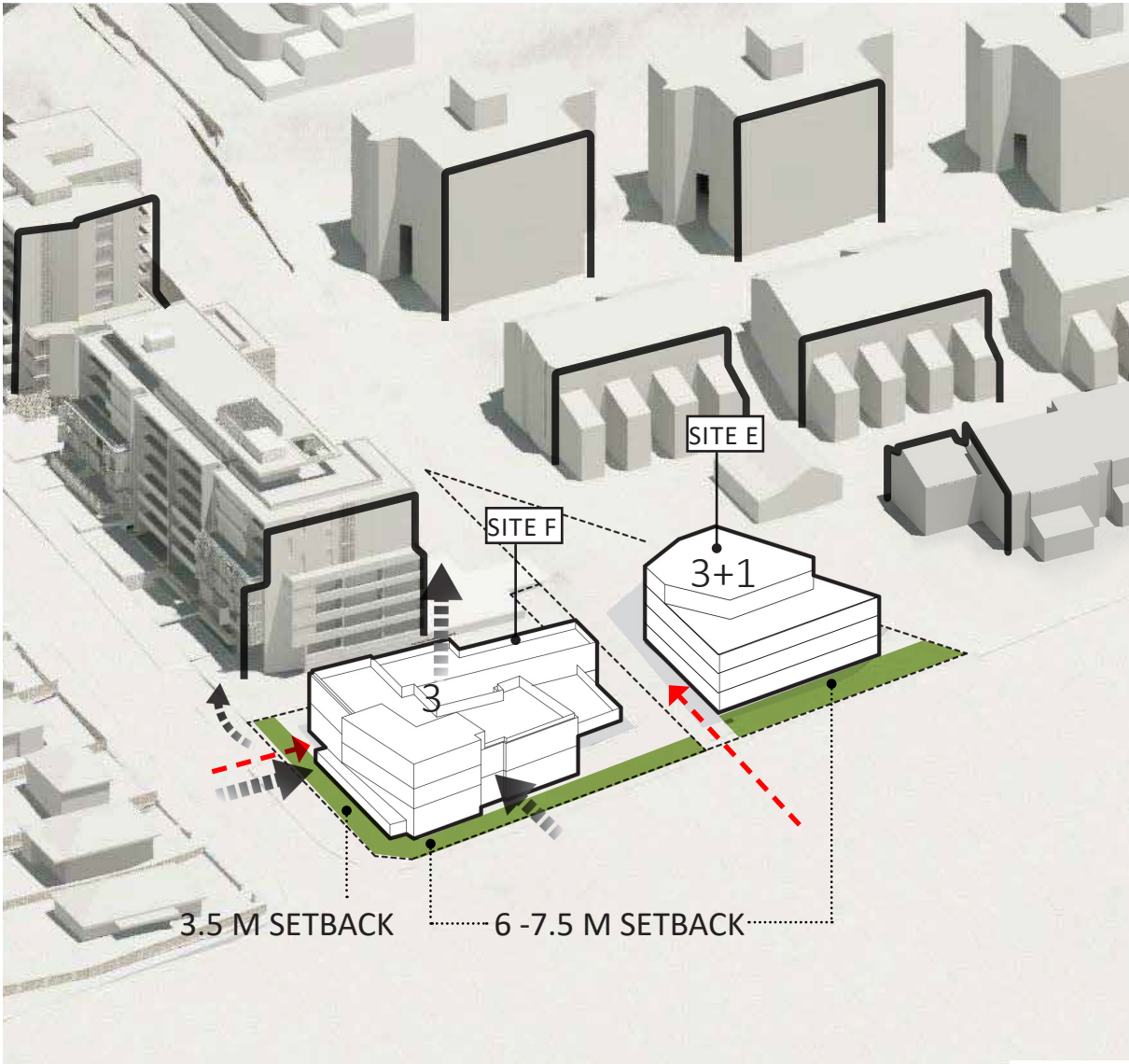
4.1 PLANNING CONTROL STUDIES

R3 SENARIO --> R4 SENARIO 1

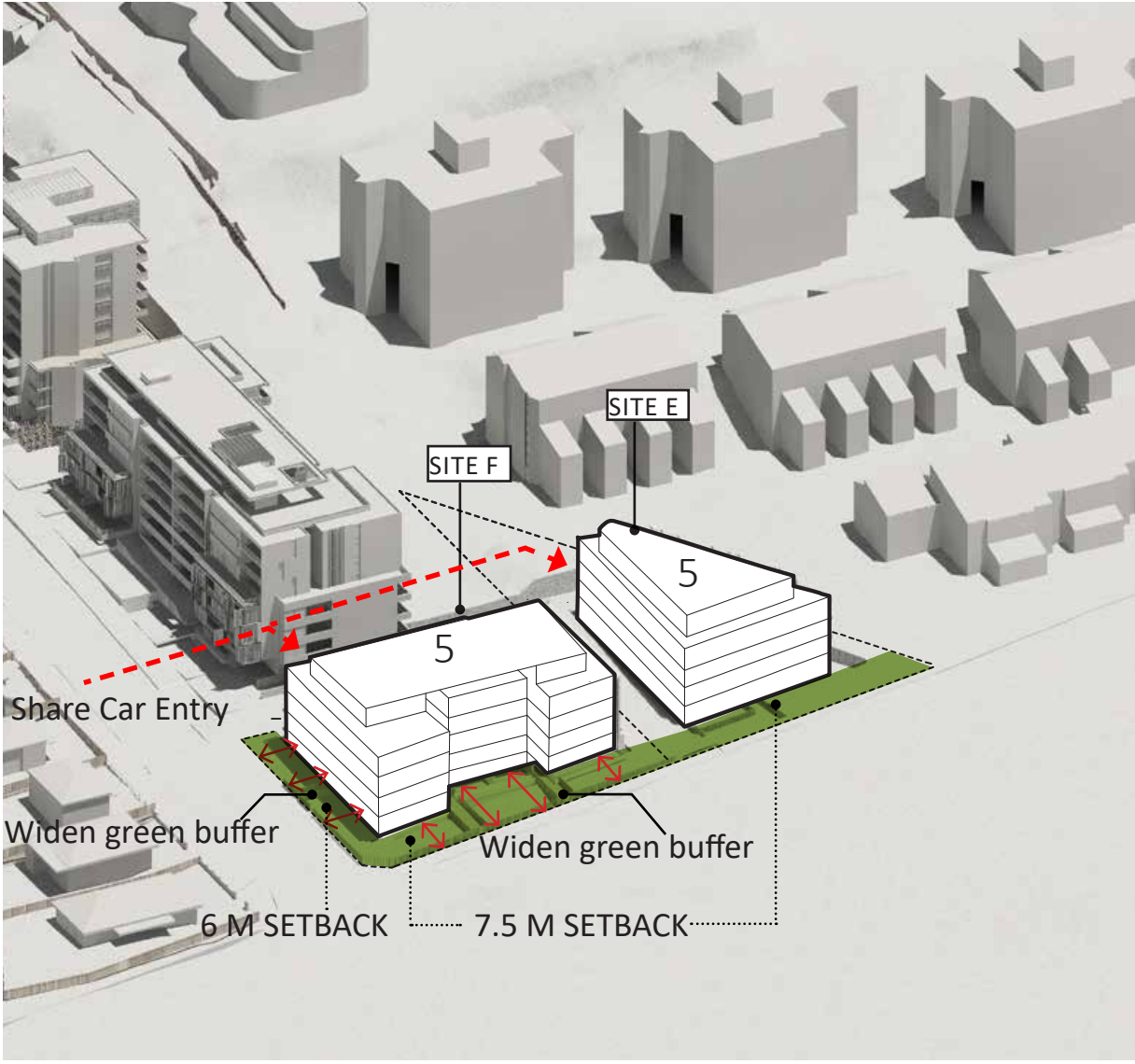
R3 senario looks insignificant compared to the bulk and the scale of the surrounding buildings, including the existing development and the proposed development.

In R4 senario, by pushing back the building setback further away from the boundary, there would be more opportunity for deep soil landscape as a green buffer to minizse the noise issue from the heavy traffic on Willoughby Road.

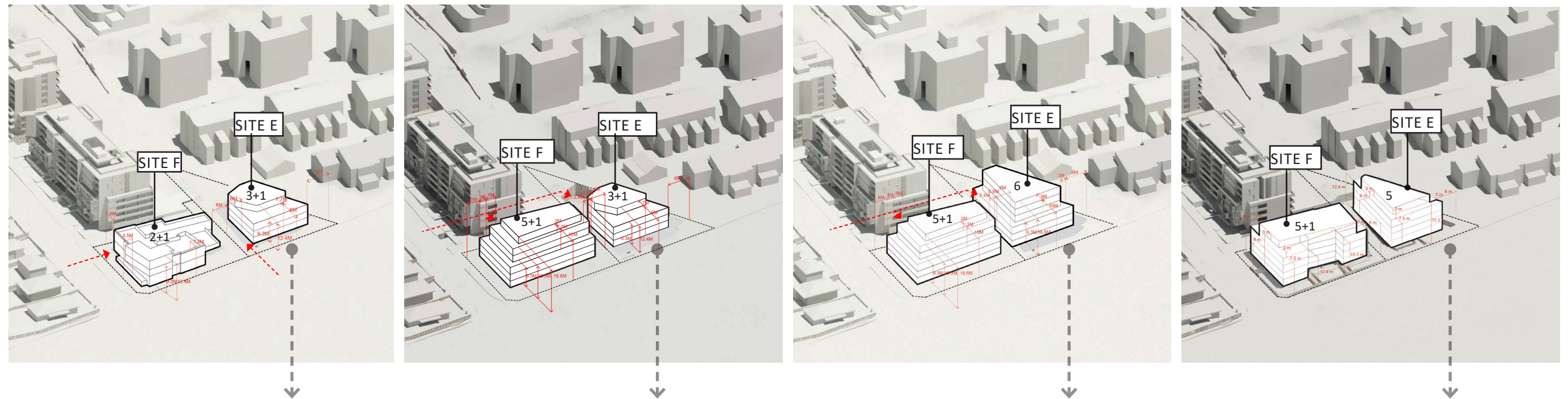
In R3 senario, driveway on Willoughby Road would significantly increase the traffic on willoughby Road. Sharing car entry with surrouding development (SITE A: 3-13 Walter Street) could be a better way for car access as reducing the number of car entries on street.



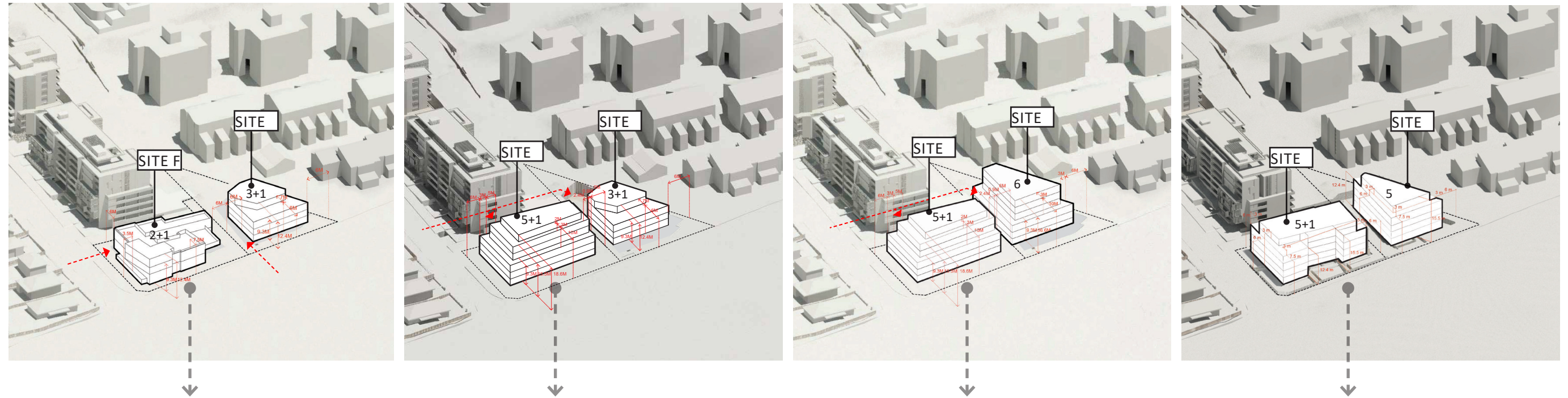
R3 SENARIO



R4 SENARIO



SITE E : 1682 m ²	R3 SENARIO	R3 (SITE E) + R4 (SITE F) SENARIO	R4 SENARIO 1	R4 SENARIO 2
FSR	0.9 : 1 (0.936: 1 Includes 4 % Afford. Housing)	0.9 : 1 (0.936: 1 Includes 4 % Afford. Housing)	1.58 : 1 (Exclude 4% Afford. Housing)	1.3 : 1 (Include 4% Afford. Housing)
GFA	1513.8 m ² (1574.4 m ² Includes 4 % Afford. Housing)	1513.8 m ² (1574.4 m ² Includes 4 % Afford. Housing)	2763.9 m ²	2195 m ²
DENSITY	23 APARTMENTS (Includes 1 Afford. Housing)	23 APARTMENTS (Includes 1 Afford. Housing)	29 APARTMENTS	26 APARTMENTS
HEIGHT	12.4 m	12.4 m	19.6 m	16 m
NO. LEVEL	3+1	3+1	6	5
NO. CAR PARK	20	20	45	36
TRAFFIC IM-PACT	EXIT& ENTRY AT BUSY ROAD	EXIT& ENTRY AT BUSY ROAD	IMPROVED	IMPROVED
STREET SET-BACK/ NOISE BUFFER	3.5-7.5m (close to main traffic road)	3.5-7.5m (close to main traffic road)	10m, IMPROVED	7.5 m, IMPROVED
STREETSCAPE/ BUILDING SCALE	INSIGNFICANT COMAPRED TO SURROUND-ING	INSIGNFICANT COMAPRED TO SUR-ROUNDING	IMPROVED	IMPROVED
SITE COVER-AGE	497 m ² (29.5 %)	497 m ² (29.5 %)	619 m ² (36.8 %) ↑	561.47 m ² (33 %) ↑
DEEP SOIL	623 m ² (37 %)	623 m ² (37 %)	539.5 m ² (32.1 %) ↑	685.752 m ² (40.8 %) ↑



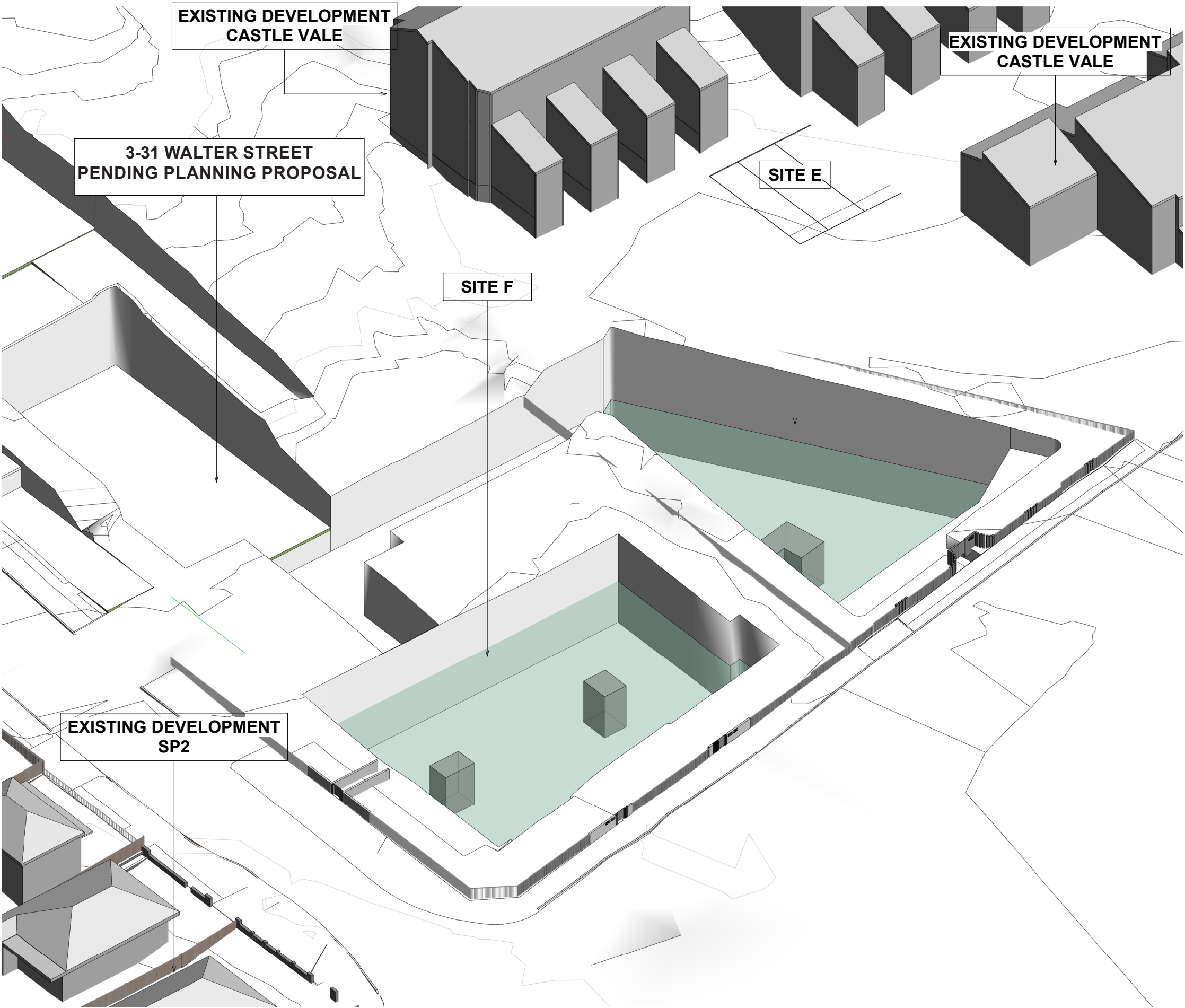
SITE F: 2248 m ²	R3 SENARIO	R3 (SITE E) + R4 (SITE F) SENARIO	R4 SENARIO 1	R4 SENARIO 2
FSR	0.589 : 1	1.5 : 1 (Exclude 4% Afford.)	1.5 : 1 (Exclude 4% Afford.)	1.5 : 1 (Include 4% Afford.)
GFA	1327 m ²	3506.9 m ²	3506.9 m ²	3372 m ²
DENSITY	N/A	38 APARTMENTS	38 APARTMENTS	41 APARTMENTS
HEIGHT	9.3 m	21.7 m	21.7 m	17 m
NO. LEVEL	2+1	5+1	5+1	5
NO. CAR PARK	38	53	53	49
TRAFFIC IM- PACT	ENTRY AT WALTER ST.	SHARED CAR ENTRY, IMPROVED	SHARED CAR ENTRY, IMPROVED	IMPROVED
STREET SET- BACK/ NOISE	3.5-7.5m	6-10m , IMPROVED	6-10m , IMPROVED	7.5 m , IMPROVED
STREETSCAPE/ SCALE	INSIGNFICANT TO THE CONTEXT	IMPROVED ↑	IMPROVED ↑	IMPROVED ↑
SITE COVERAGE	610 m ² (27.2%)	772.4 m ² (34.3%) ↑	772.4 m ² (34.3%) ↑	864 m ² (38.4%) ↑
DEEP SOIL	600 m ² (26.7%)	939.1 m ² (41.7%) ↑	939.1 m ² (41.7%) ↑	928 m ² (41 %) ↑

4.2 MASSING PRINCIPLES

BASEMENT 2

LEGEND

- Basement
- Lift and Fire Stair

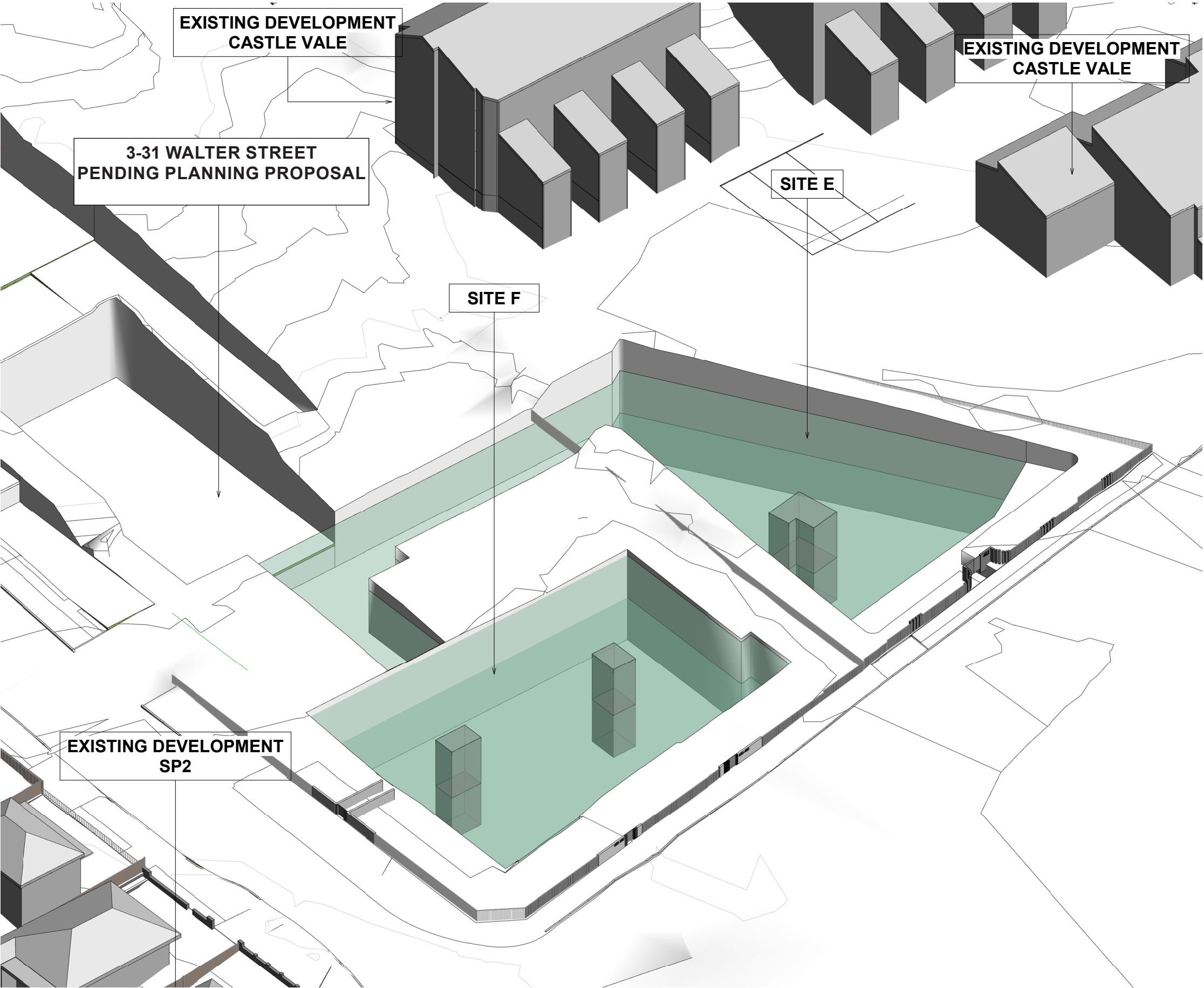


4.2 MASSING PRINCIPLES

BASEMENT 1

LEGEND

-  BASEMENT
-  LIFT AND FIRE STAIR

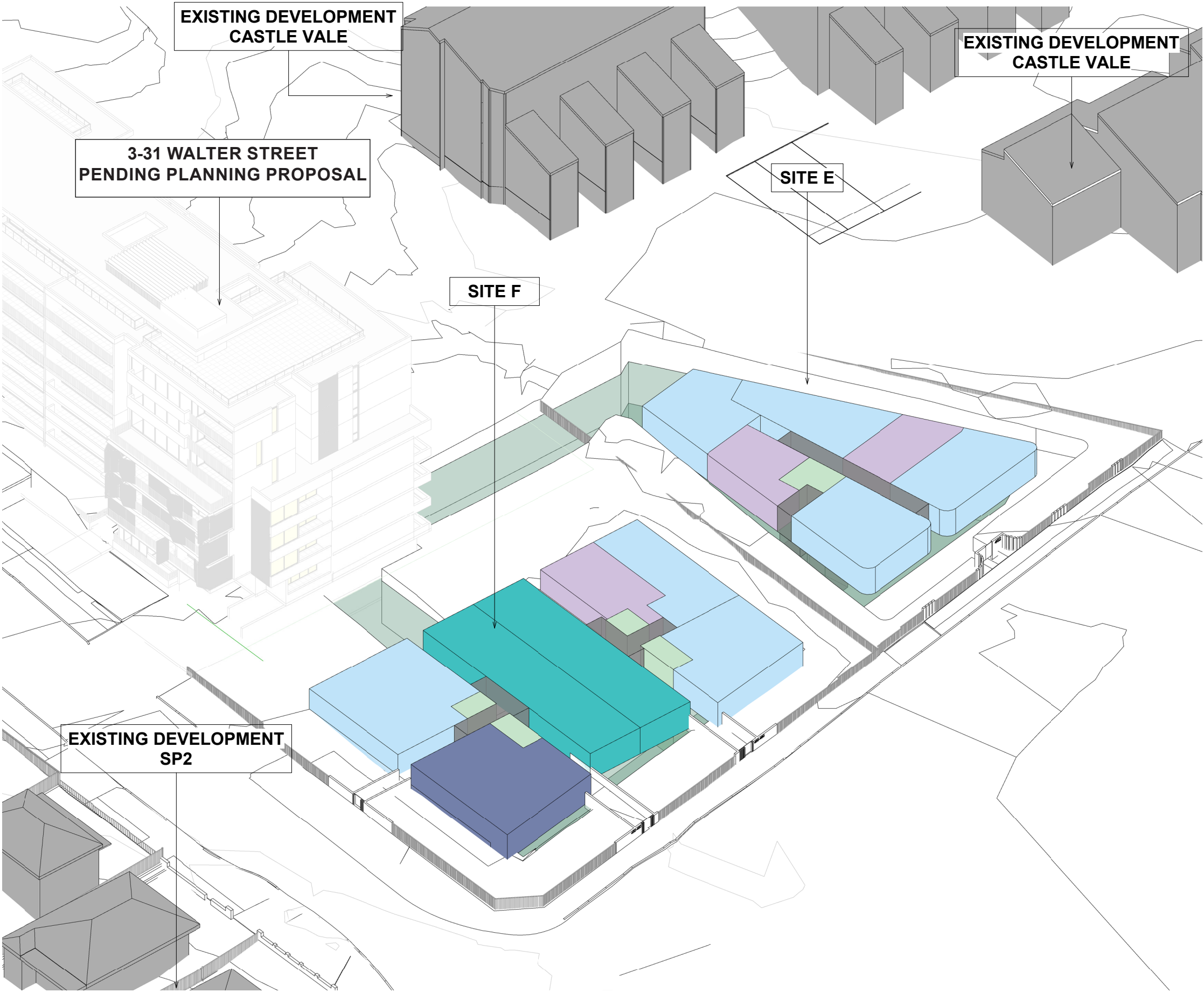


4.2 MASSING PRINCIPLES

GROUND FLOOR

LEGEND

- LIFT & FIRE STAIR
- COMMON ROOM
- 1 BED
- 2 BED
- 2 BED+STUDY
- 3 BED

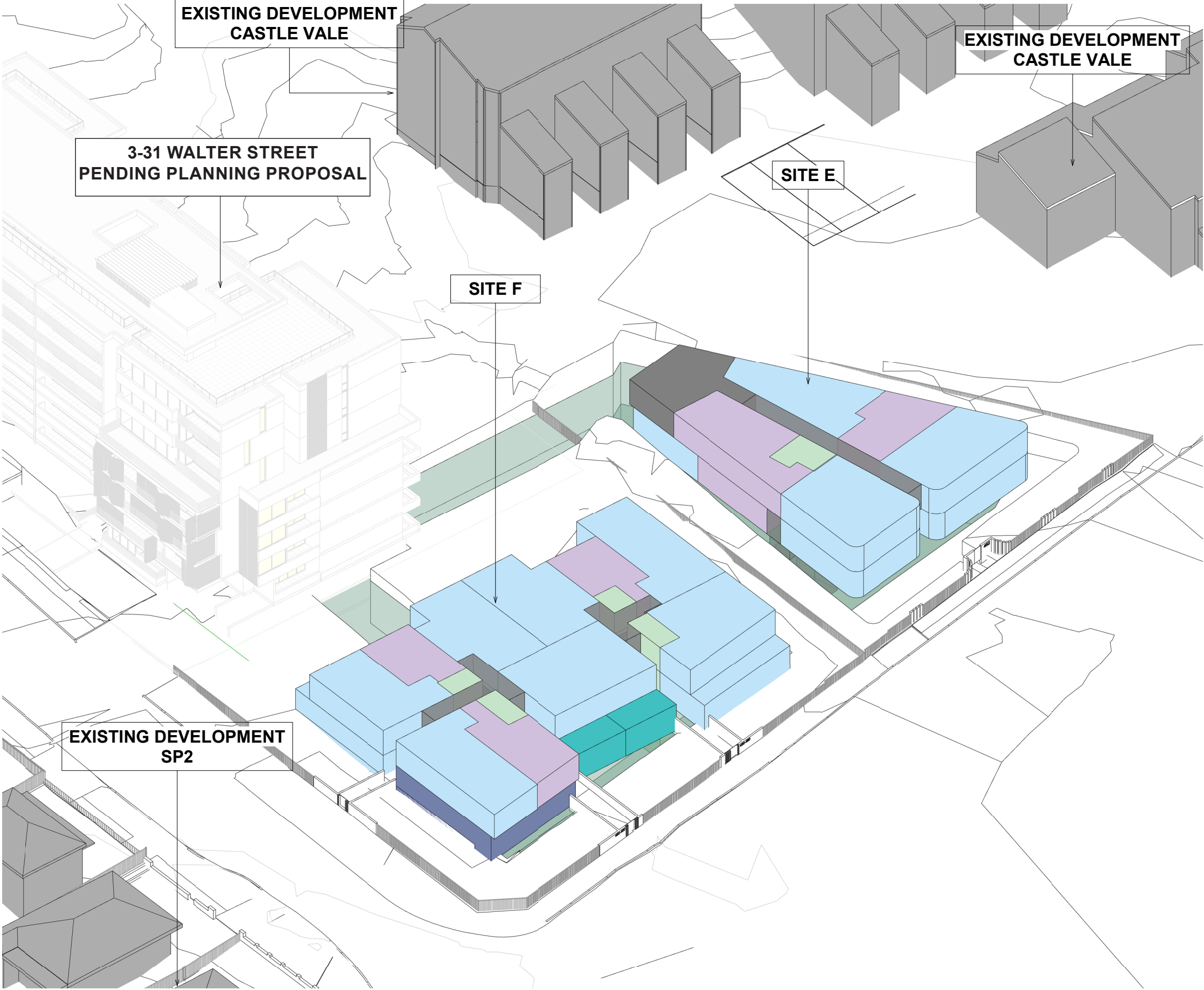


4.2 MASSING PRINCIPLES

LEVEL 1

LEGEND

- LIFT & FIRE STAIR
- COMMON ROOM
- 1 BED
- 2 BED
- 2 BED+STUDY
- 3 BED

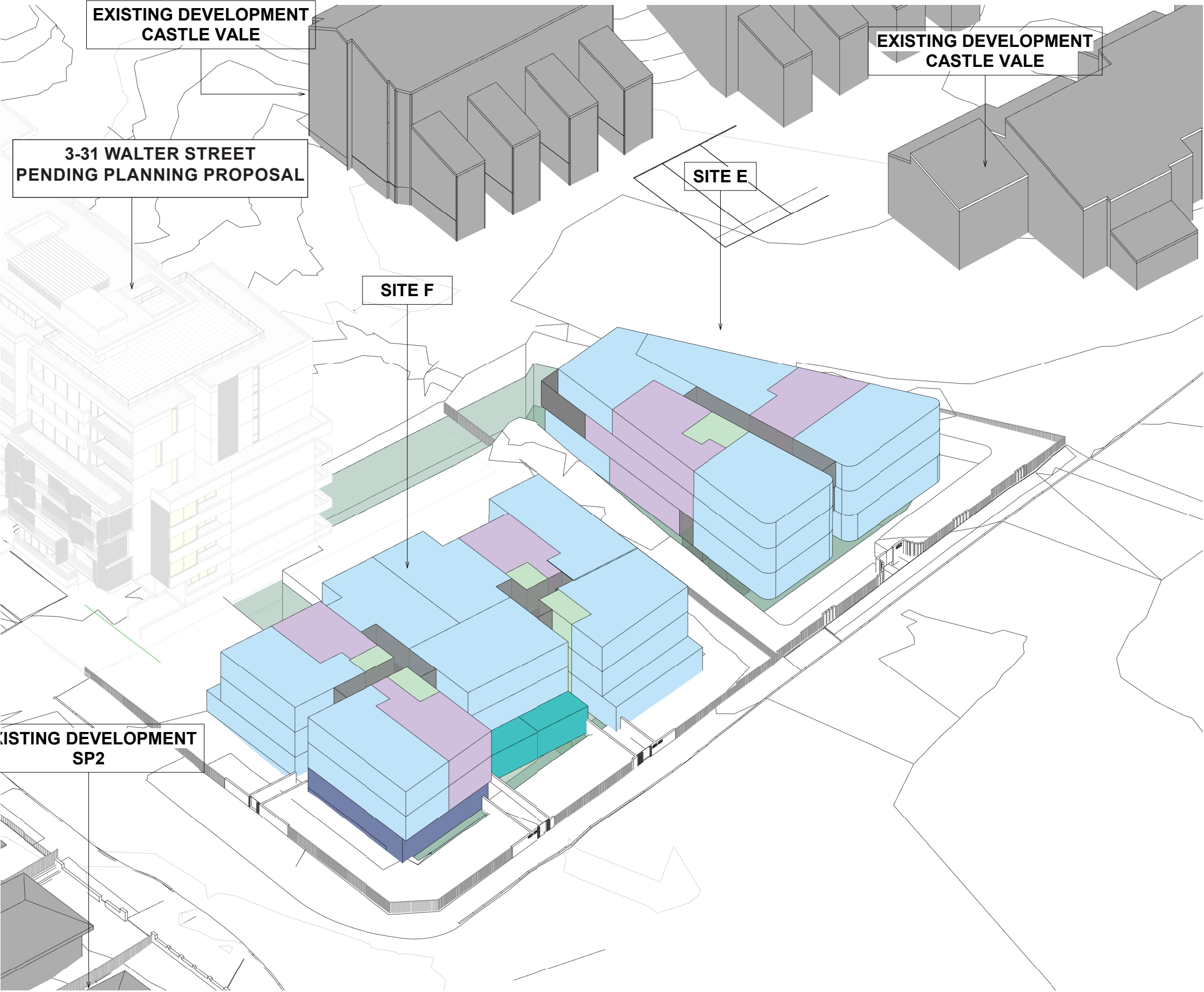


4.2 MASSING PRINCIPLES

LEVEL 2

LEGEND

- LIFT & FIRE STAIR
- COMMON ROOM
- 1 BED
- 2 BED
- 2 BED+STUDY
- 3 BED

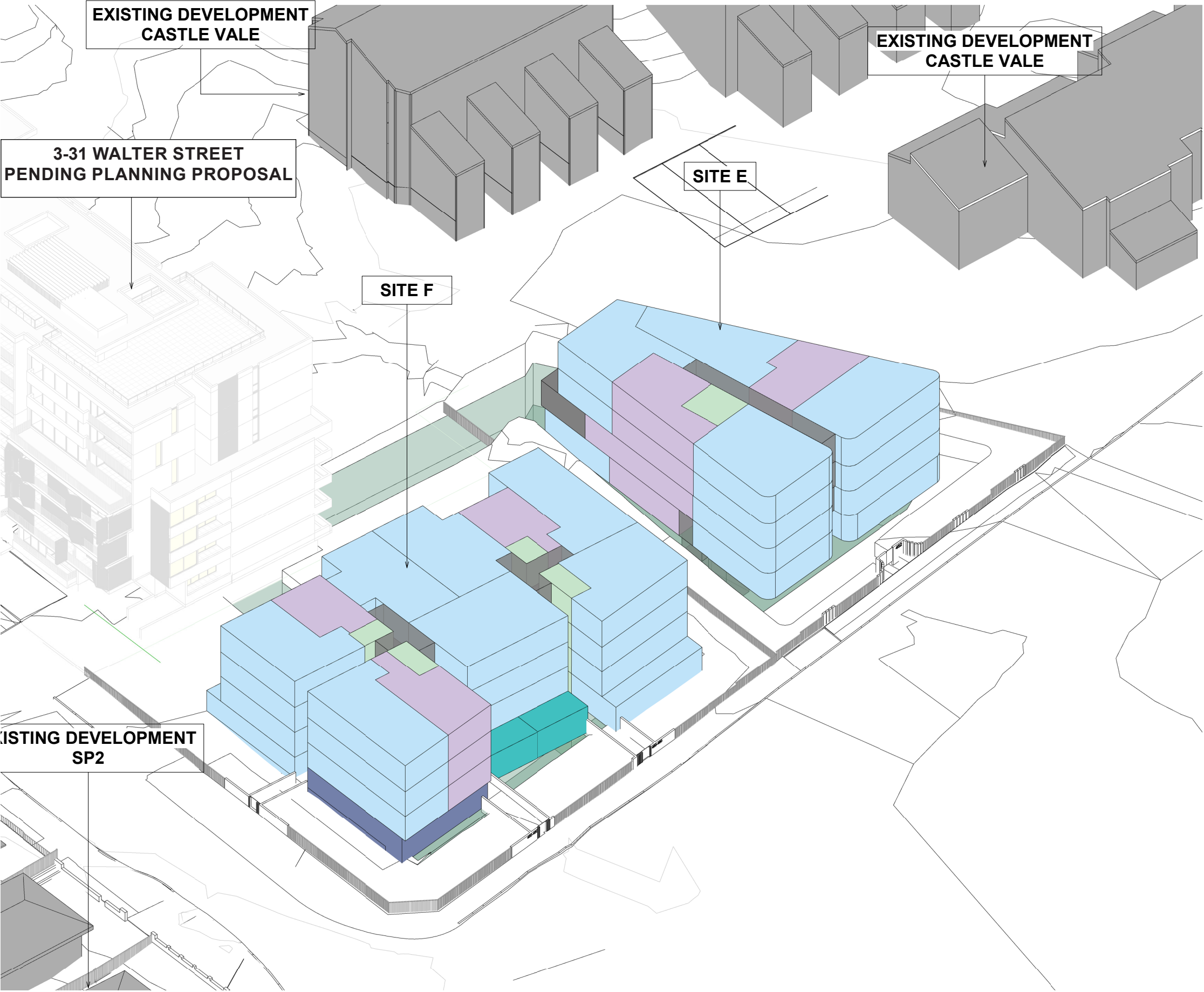


4.2 MASSING PRINCIPLES

LEVEL 3

LEGEND

- LIFT & FIRE STAIR
- COMMON ROOM
- 1 BED
- 2 BED
- 2 BED+STUDY
- 3 BED

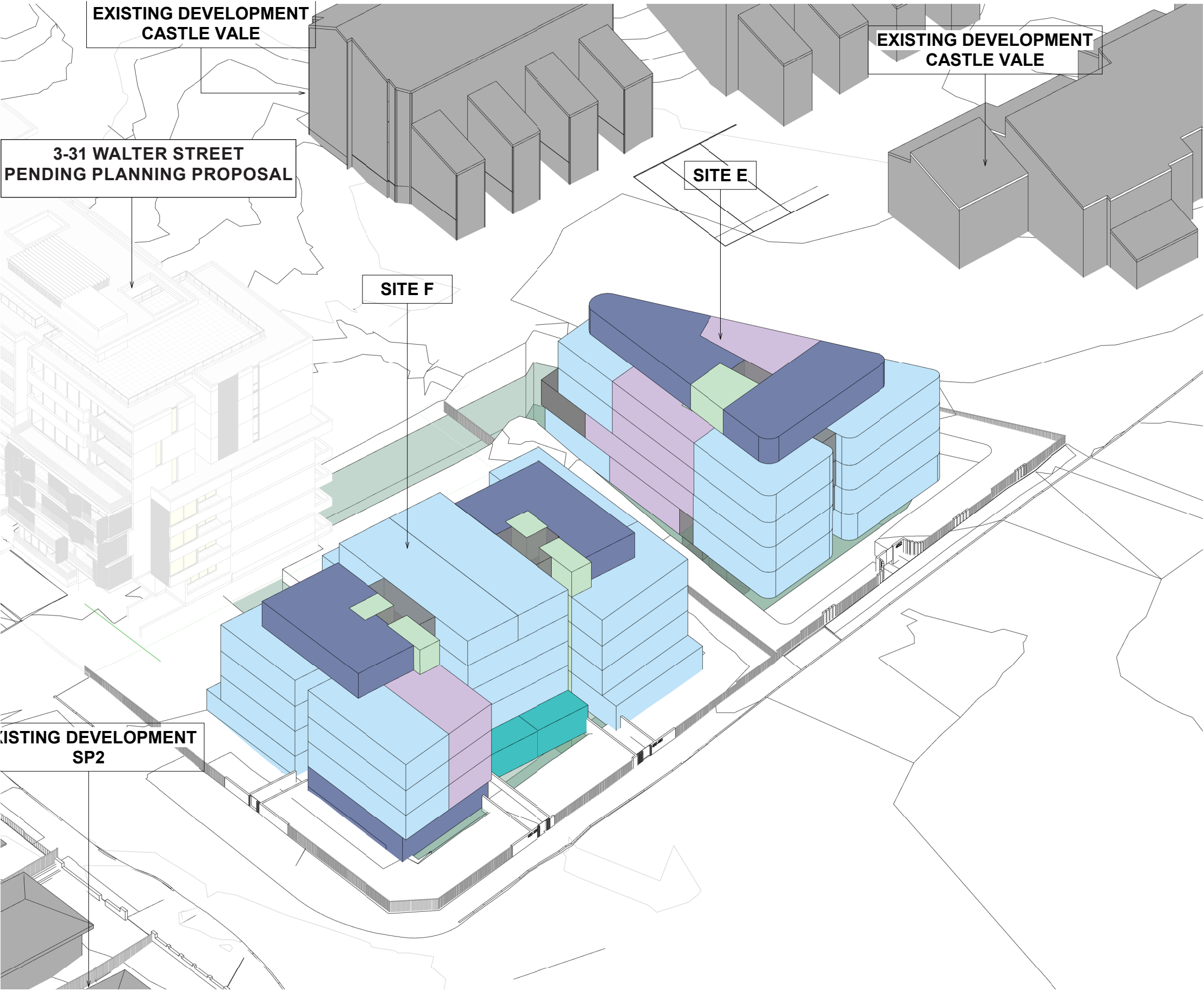


4.3 MASSING PRINCIPLES

LEVEL 4

LEGEND

- LIFT & FIRE STAIR
- COMMON ROOM
- 1 BED
- 2 BED
- 2 BED+STUDY
- 3 BED



5.0

DEVELOPMENT PROPOSAL



3-31 WALTER STREET
PENDING PLANNING PROPOSAL

4

4

4

9

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8

9

5

4

11

12

4

7

9

4

6

5

4

3

5

8

8

8

6+1

5



5.1 SITE COVERAGE

SITE E:
NO 462 WILLOUGHBY ROAD

SITE AREA : 1682 m²
 SITE COVERAGE: 561.47 m²(**33%**)

TOTAL LANDSCAPED AREA =
 913.355 m²(54.3 % OF SITE)

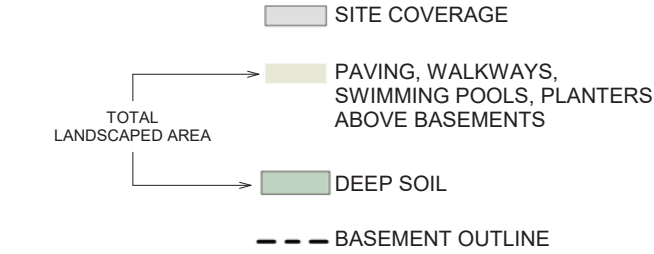
OF WHICH 685.752 m² IS DEEP SOIL (**40.8%** OF SITE)

SITE F
NO. 1-1A WALTER STREET & 450- 460 WILLOUGHBY ROAD

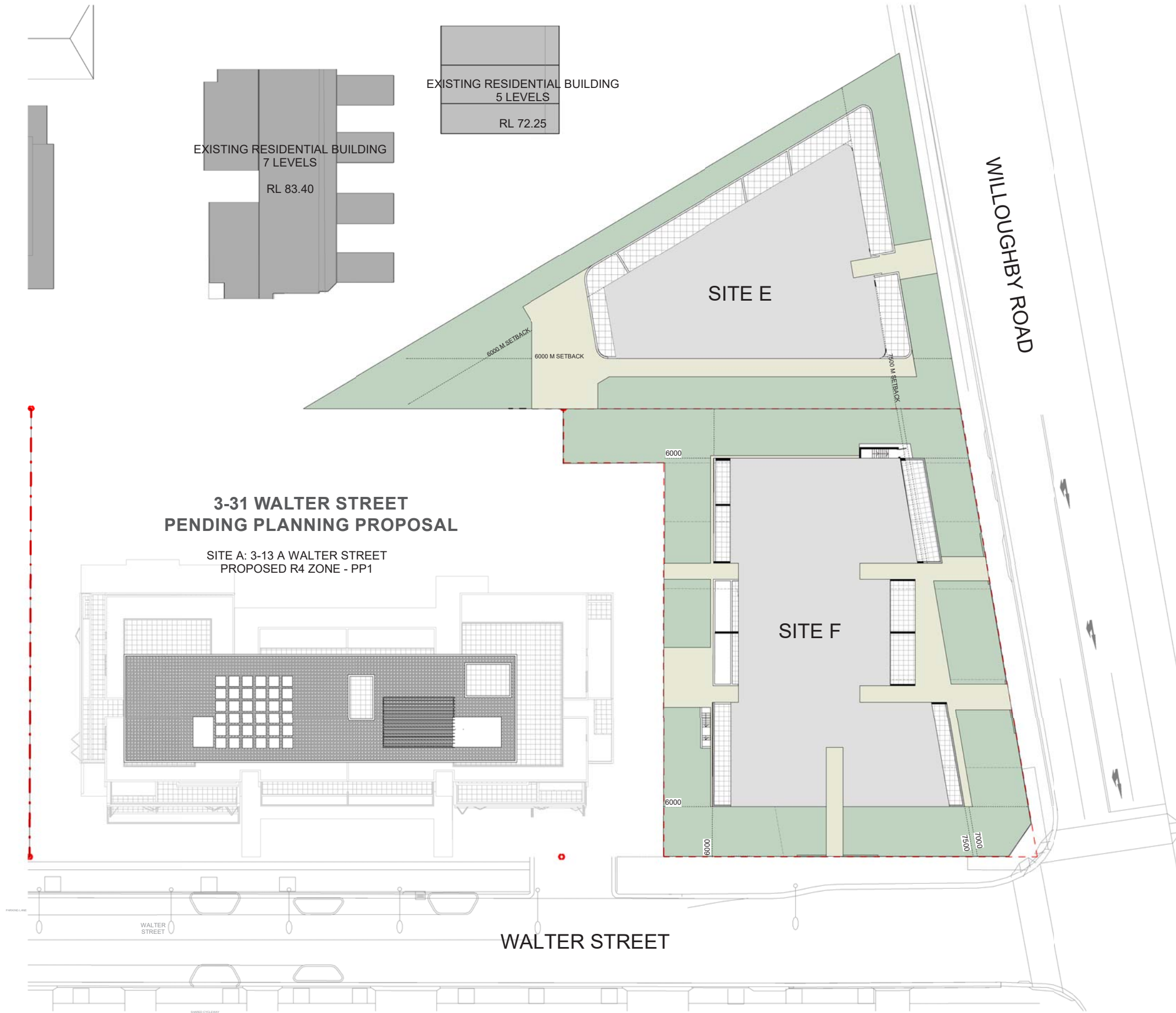
SITE AREA : 2248m²
 SITE COVERAGE: 864m² (**38.4%**)

TOTAL LANDSCAPED AREA =
 1169.2m²(52 % OF SITE)

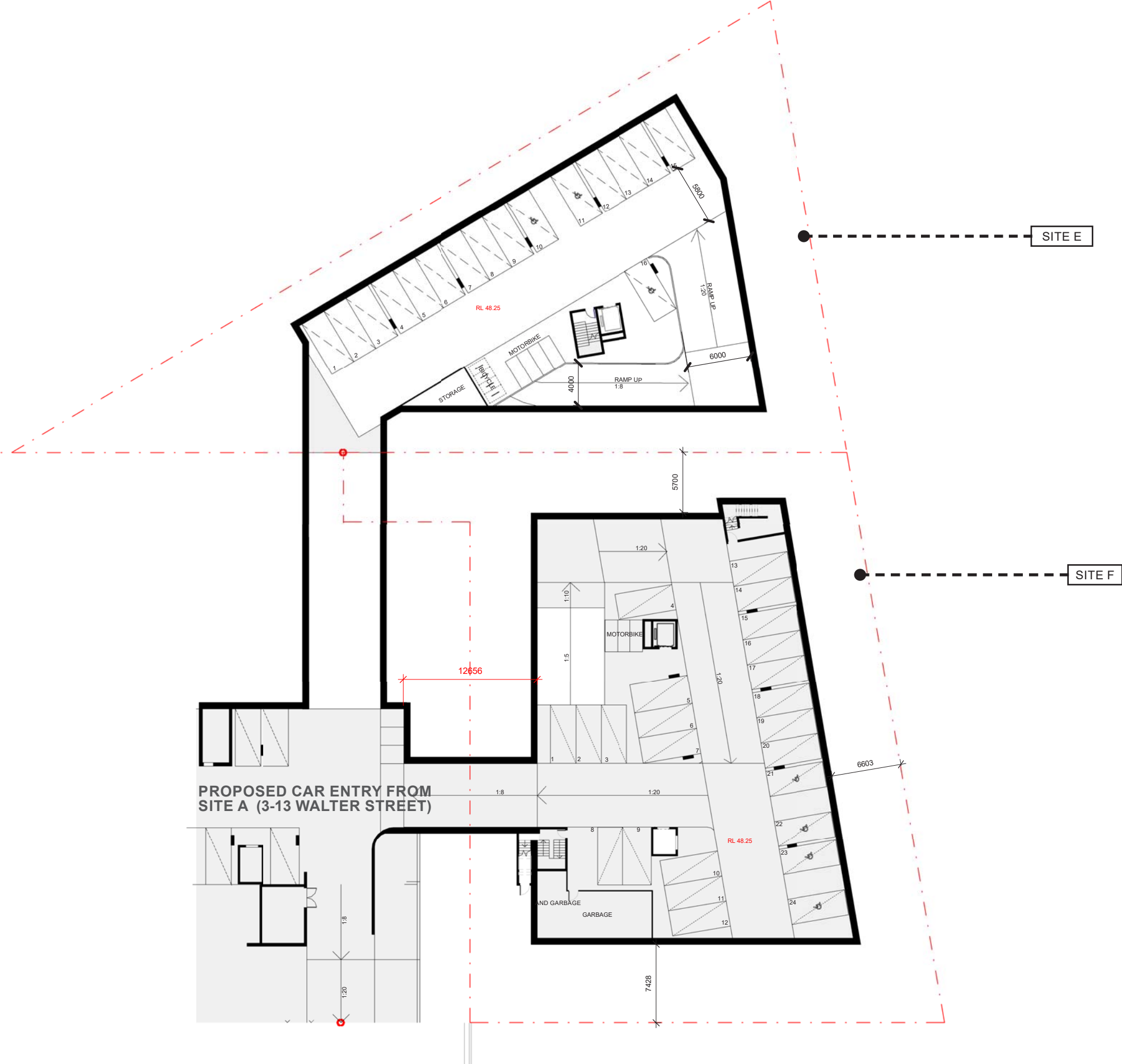
OF WHICH 928m² IS DEEP SOIL (**41%** OF SITE)



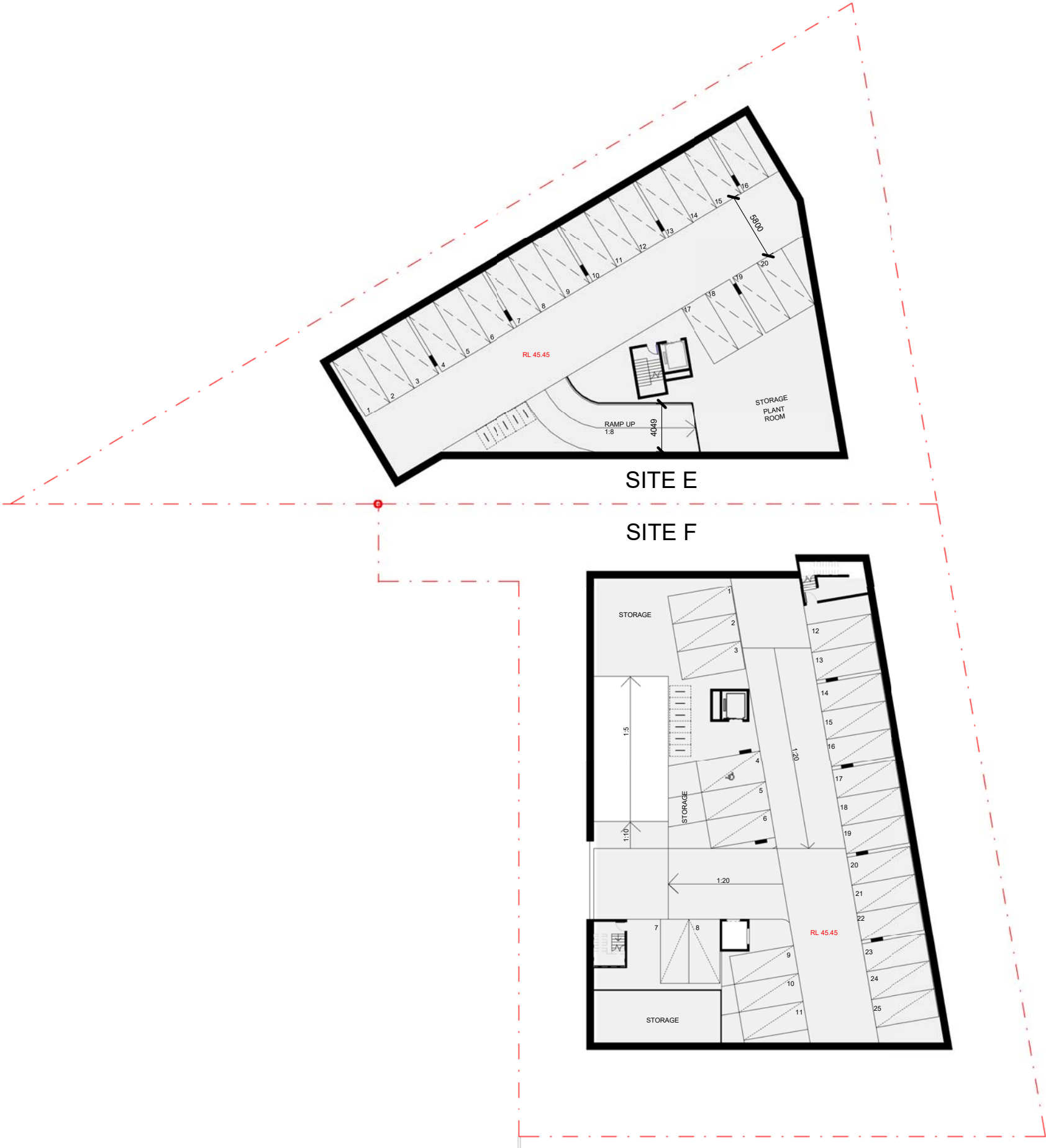
SITE COVERAGE
 1:500 @ A3



5.2 BASEMENT 1



5.2 BASEMENT 2



5.2 GROUND LEVEL

LEGEND

- 1 BED
- 2 BED
- 2 BED + STUDY
- 3 BED

GROUND FLOOR PLAN
1:250 @ A3



5.2 LEVEL 1



LEGEND

- 1 BED
- 2 BED
- 3 BED
- COMMON ROOM

TYPICAL FLOOR PLAN LV1
1:250 @ A3

5.2 LEVEL 2&3



LEGEND

- 1 BED
- 1 BED + STUDY
- 2 BED
- 3 BED

FLOOR PLAN LV2 - LV3
1:250 @ A3

5.2 LEVEL 4

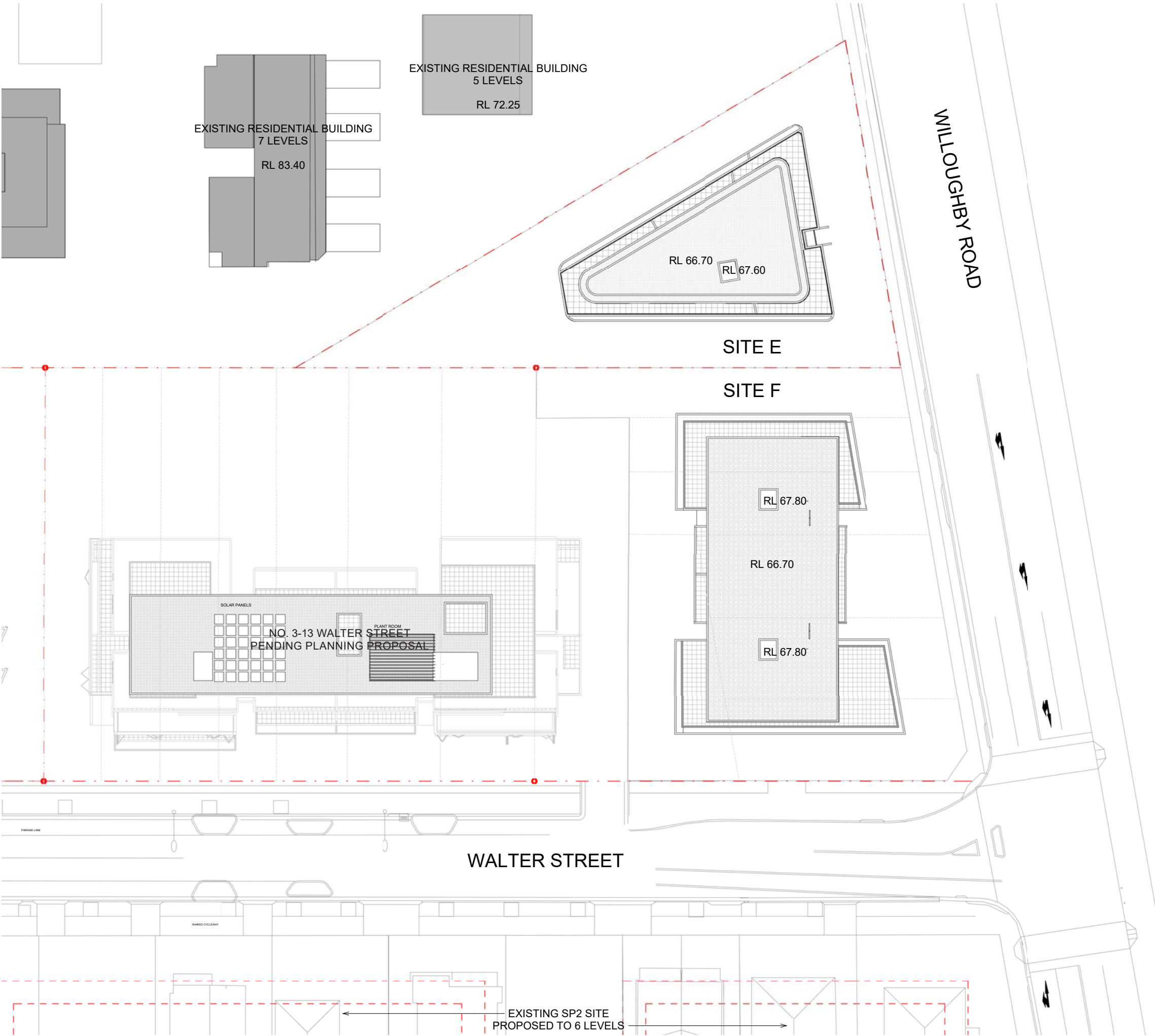
LEGEND

- 1 BED
- 2 BED
- 3 BED

TYPICAL FLOOR PLAN LV4
1:250 @ A3



5.2 ROOF PLAN



TYPICAL FLOOR PLAN LV4
1:250 @ A3

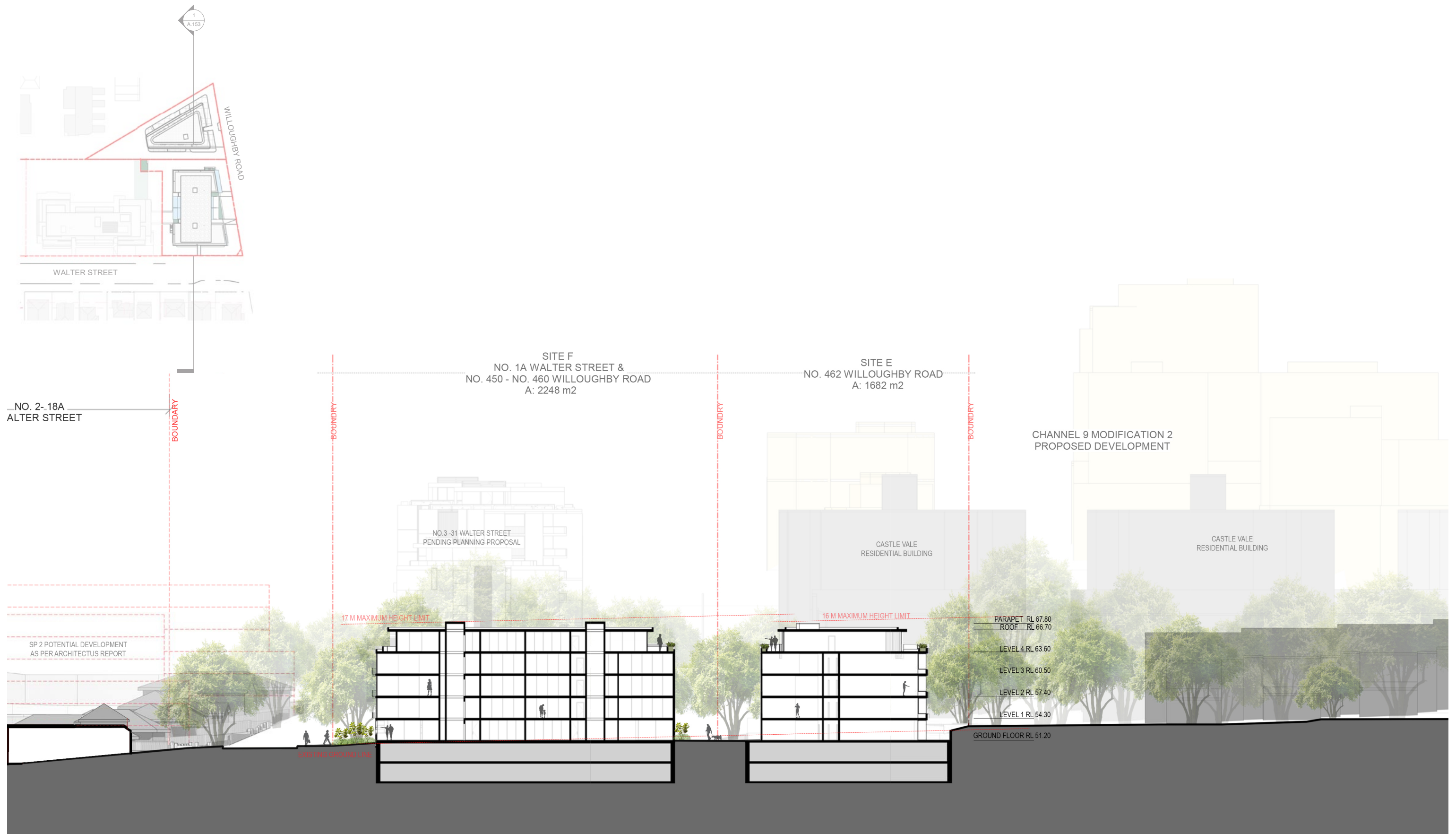
5.3 WILLOUGHBY ROAD EAST ELEVATION

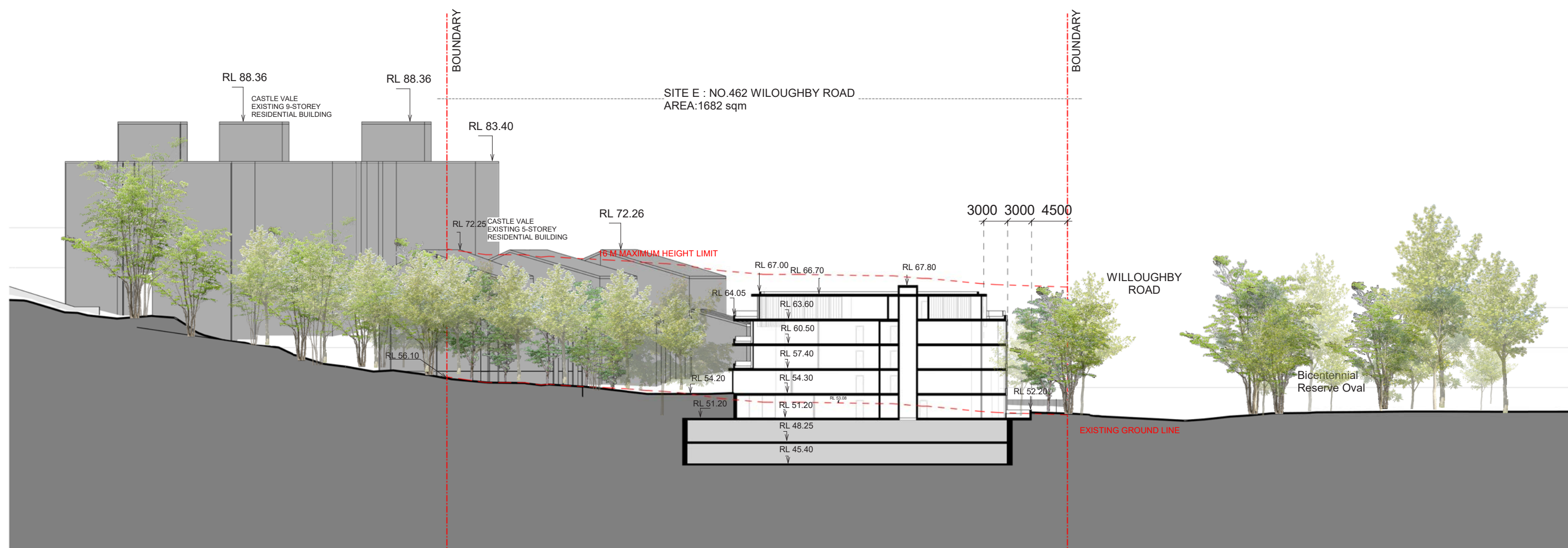
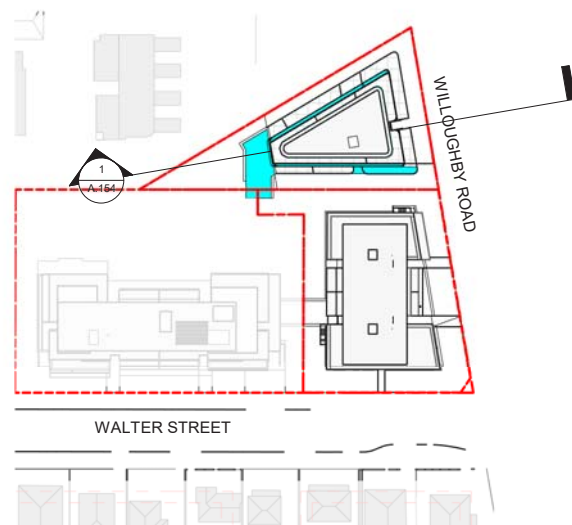


WILLOUGHBY ROAD ELEVATION
1 : 250 @A1

5.3 WALTER STREET SOUTH ELEVATION

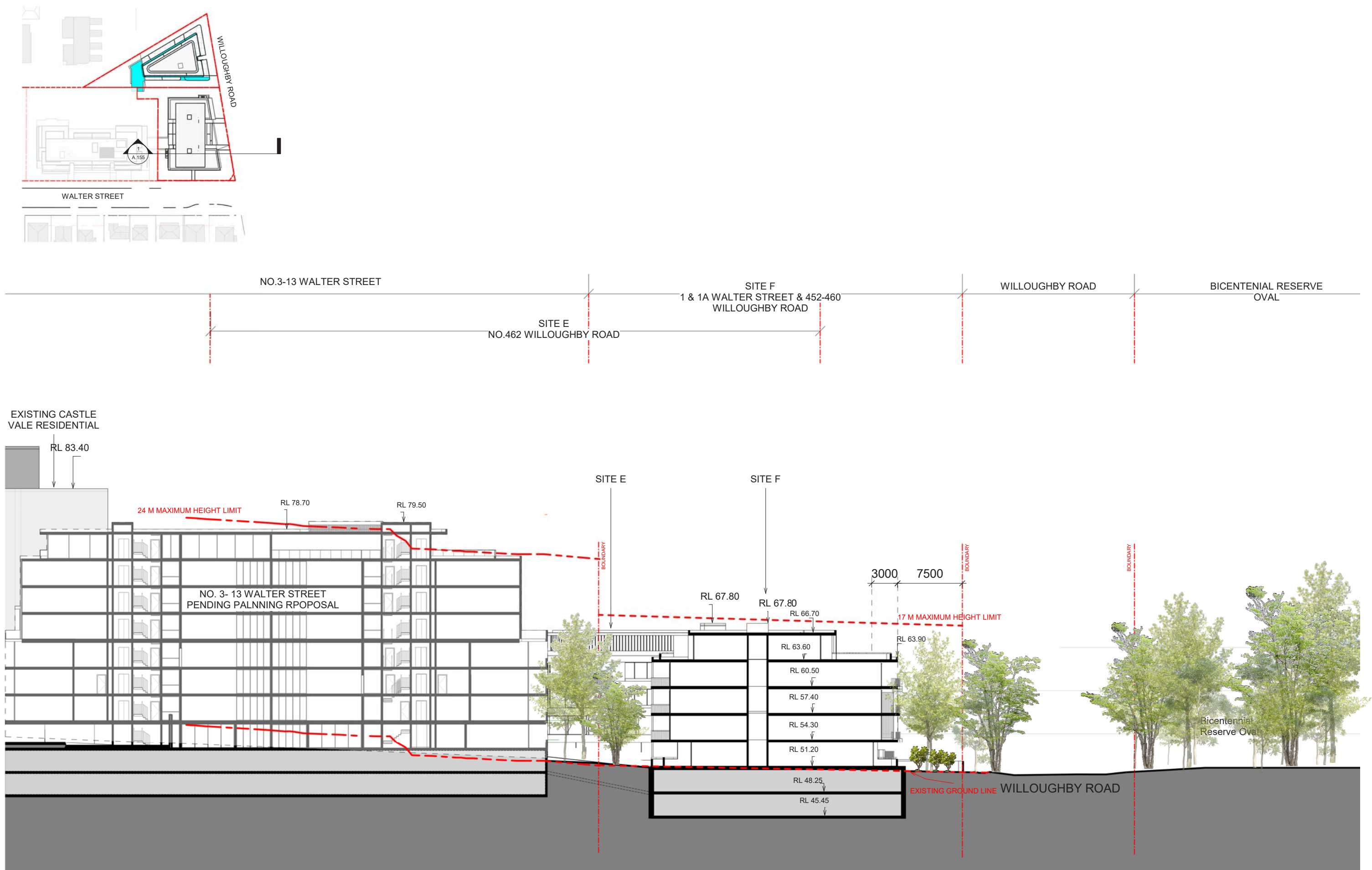




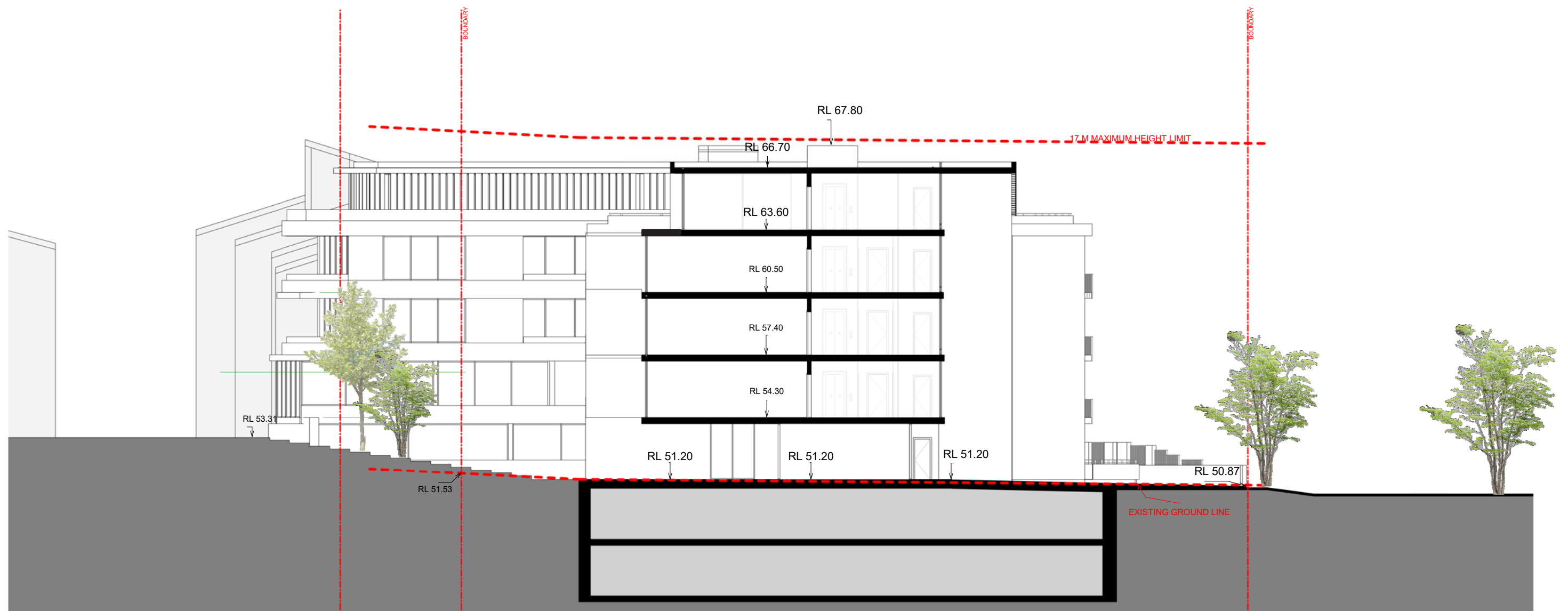
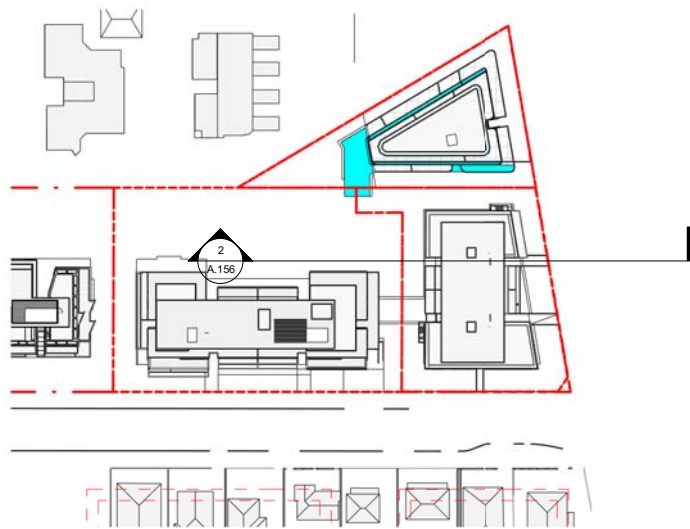


CROSS SECTION SITE E (NO. 462)
As indicated @A1

1:250 @ A1
1:500 @ A3



CROSS SECTION SITE F_A 1:200 @ A1
 As indicated @A1 1:400 @ A3



CROSS SECTION SITE F_B

As indicated @A1

Perspectives

Option 1

Option 2

Option 3

OPTION 1

5.5 PERSPECTIVES_OPTION 1_VIEW A



5.5 PERSPECTIVES_OPTION 1_VIEW B



OPTION 2

5.5 PERSPECTIVES_OPTION 2_VIEW A



5.5 PERSPECTIVES_OPTION 2_VIEW B



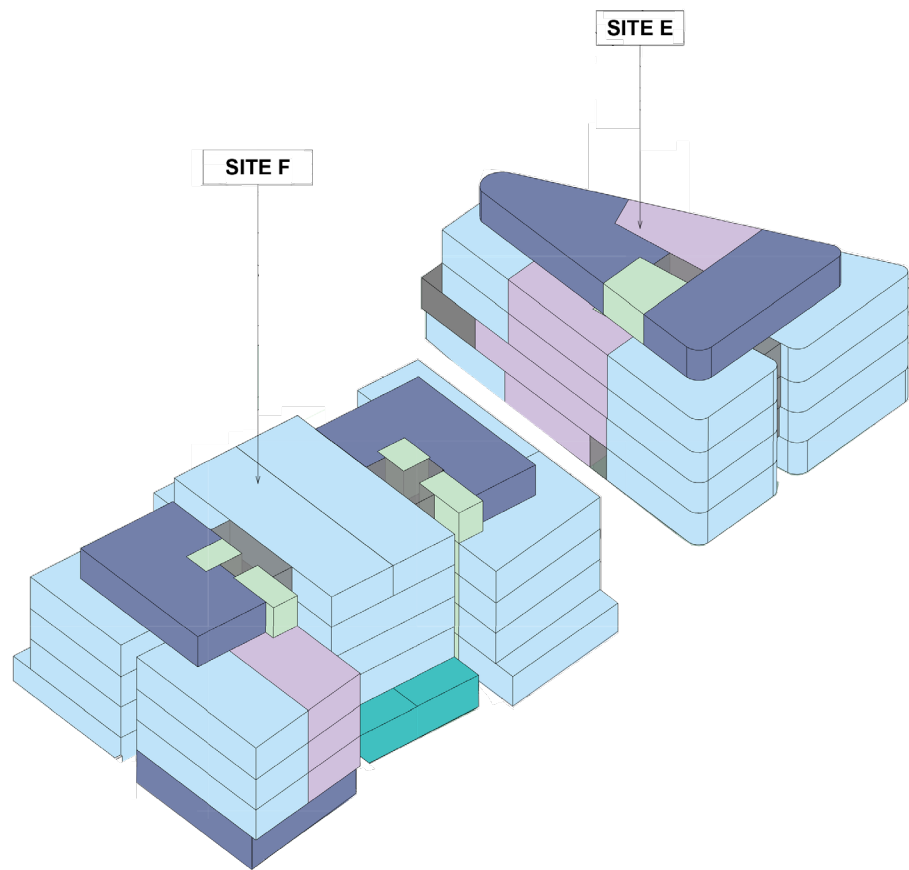
OPTION 3

5.5 PERSPECTIVES_OPTION 3



5.6 YEILD

SUMMARY



LEGEND

- LIFT & FIRE STAIR
- 1 BED
- 2 BED
- 2 BED + STUDY
- 3 BED

SITE E

Site Area:

1 682 M²

FSR (Includes 4% Affordable Housing):

1.31

Proposed GFA:

2 208 M²

No. Levels:

5

Building Height:

16 M

No. Units:

26

No. Carspaces:

36 (INCLUDE 3 ADAPTABLE)

Solar Access:

84.6%

Cross Ventilation:

65.4%

SITE F

Site Area:

2 248 M²

FSR (Includes 4% Affordable Housing):

1.5

Proposed GFA:

3 376 M²

No. Levels:

5

Building Height:

17 M

No. Units:

41

No. Carspaces:

49 (INCLUDE 4 ADAPTABLE)

Solar Access:

72.1%

Cross Ventilation:

79%

TOTAL

Site Area:

3 930 M²

FSR (Includes 4% Affordable Housing):

1.42

Proposed GFA:

5 584 M²

No. Levels:

5

Building Height:

16-17 M

No. Units:

67

No. Carspaces:

85 (INCLUDE 7 ADAPTABLE)

5.6 GFA CALCULATION

SITE E _ NO. 462 WILLOGHBY ROAD

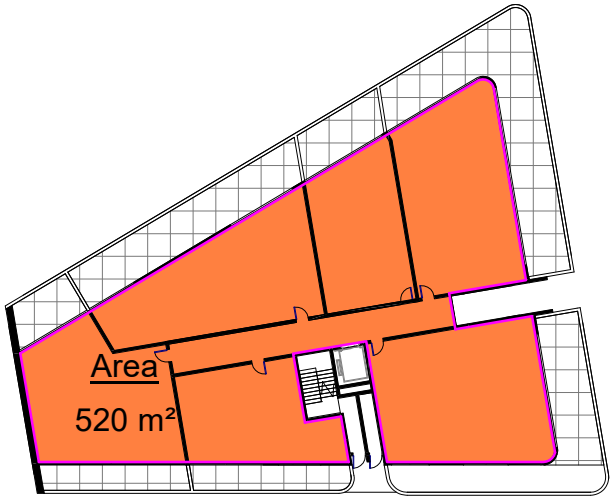
UNIT TYPE		
UNIT TYPE	Count	
1 BED	9	35%
2 BED	15	58%
3 BED	2	7%
Grand total: 26		26

Area Schedule (Rentable)	
Level	Area
GROUND FLOOR	520 m²
LEVEL 1	488 m²
LEVEL 2	470 m²
LEVEL 3	470 m²
LEVEL 4	260 m²
	2208 m²

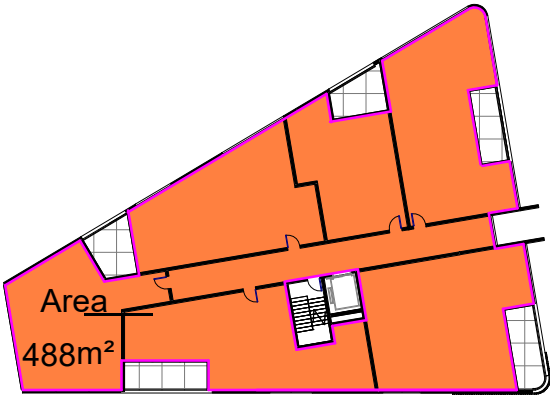
SITE E: SITE AREA: 1682 SQM

PROPOSED GFA : 2208 SQM

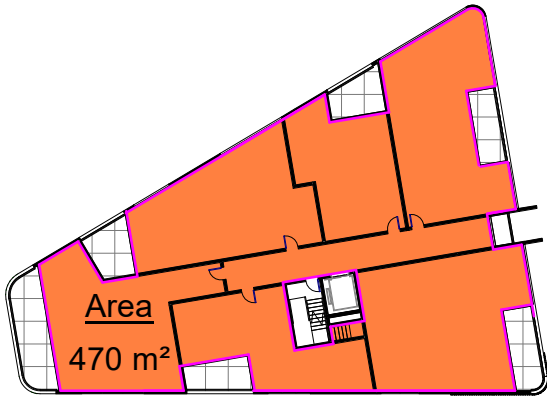
PROPOSED FSR : 1.31:1 (INCLUDING 4% AFFORDABLE HOUSING : 88.3 SQM)



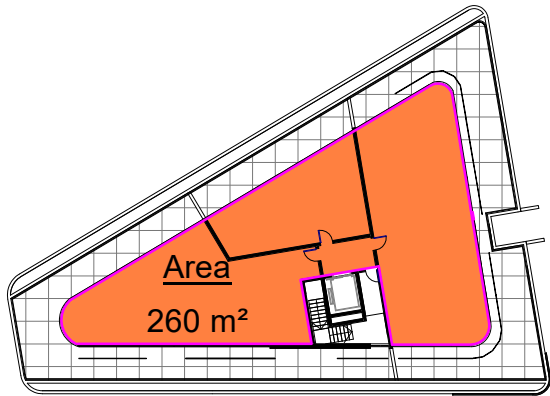
1 GROUND FLOOR



2 LEVEL 1 - 2



3 LEVEL 3



4 LEVEL 4

5.6 GFA CALCULATION

SITE F _ NO.1&1A WALTER ST &
NO. 450-460 WILLOGHBY ROAD

UNIT TYPE	
Name	Count

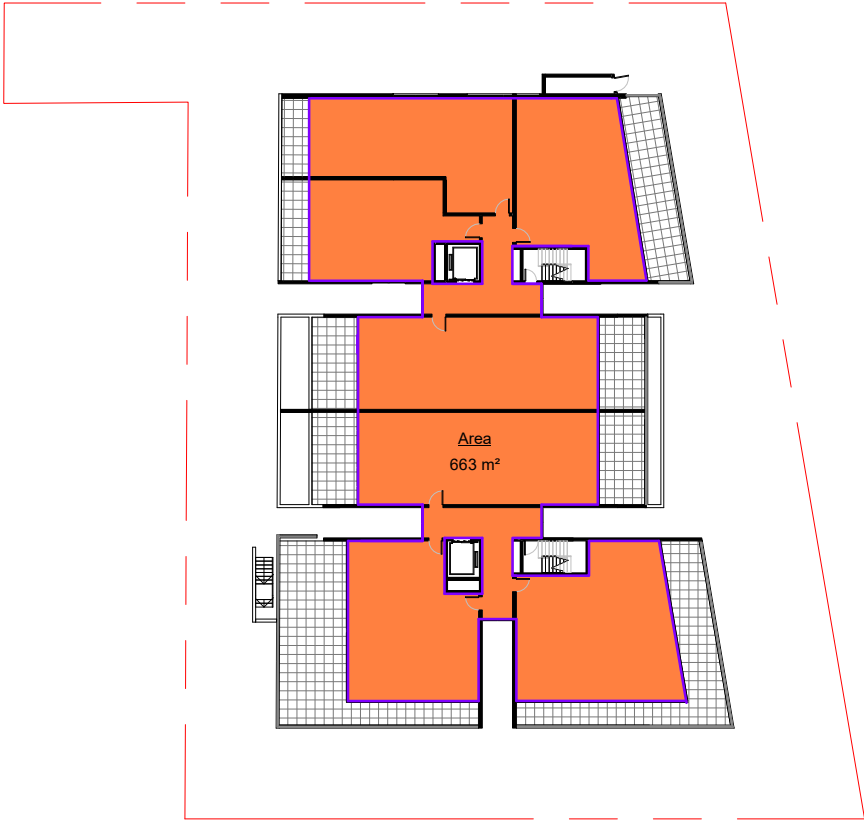
1 BED	10
2 BED	26
2 BED+STUDY	2
3 BED	3
TOTAL	41

GROSS FLOOR AREA	
LEVEL	Area

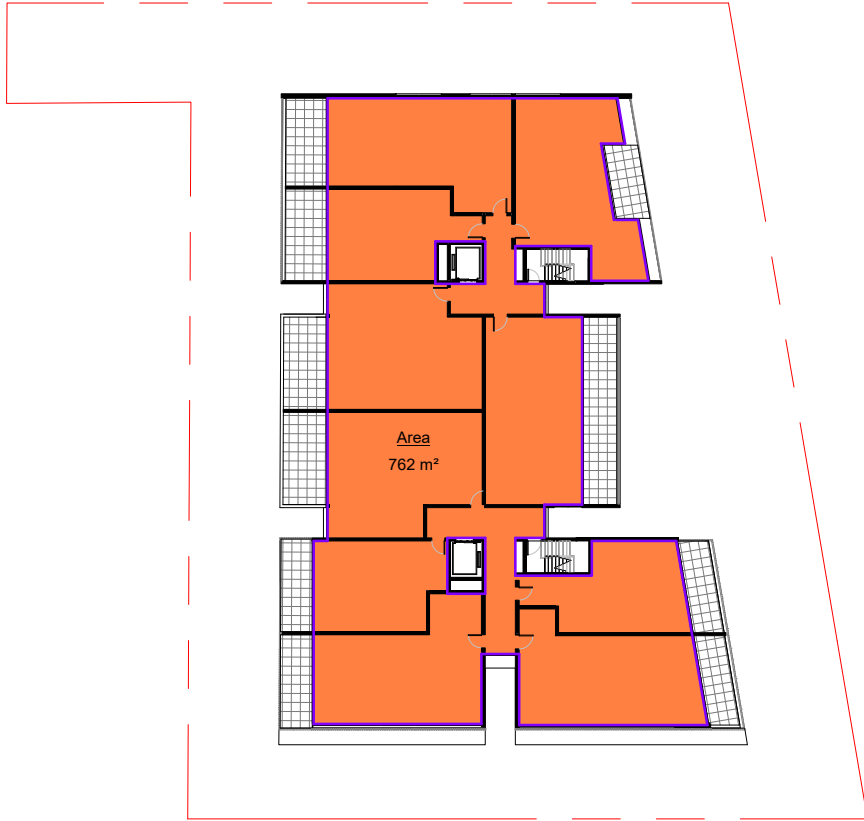
GROUND FLOOR	663 m²
LEVEL 1	762 m²
LEVEL 2	762 m²
LEVEL 3	762 m²
LEVEL 4	427 m²
	3376 m²

SITE AREA : 2248 SQM

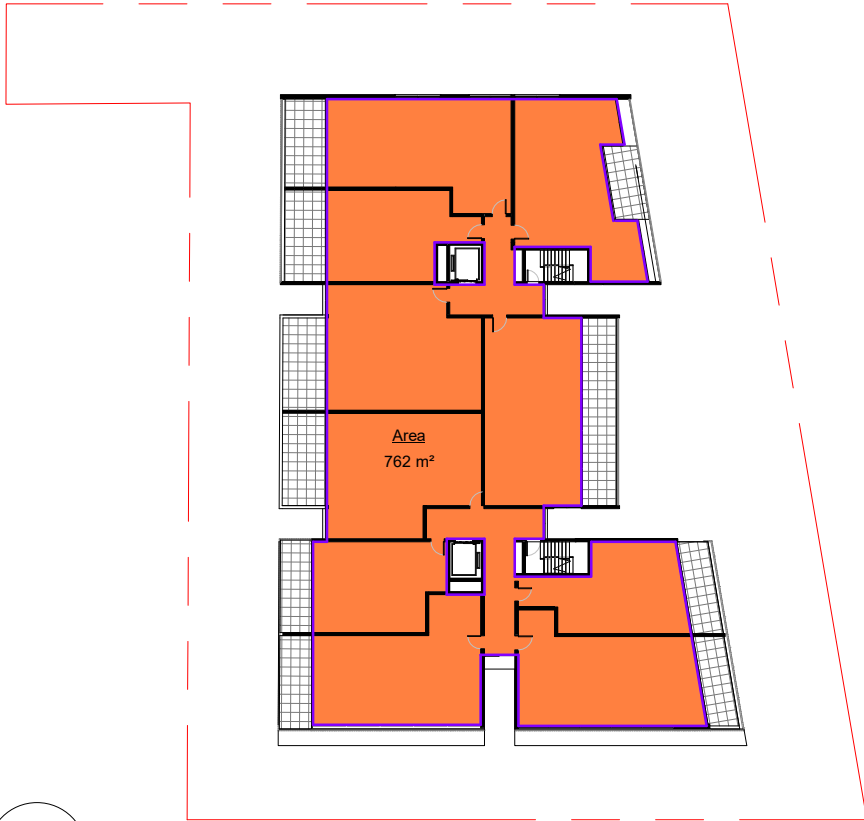
PROPOSED GFA : 3376 SQM
PROPOSED FSR : 1.5:1 (including 4% Affordable housing)



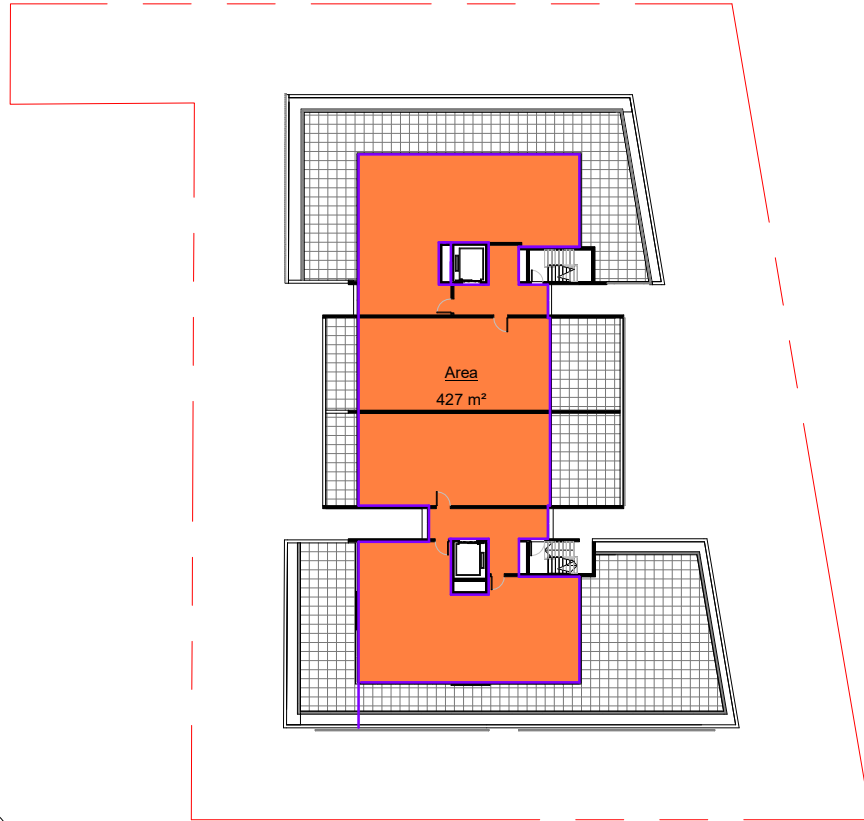
1 GROUND FLOOR



2 LEVEL 1 - 2



3 LEVEL 3



4 LEVEL 4

Appendix

CONTENTS:

APPENDIX A - SUN VIEW DIAGRAM, SOLAR ACCESS & CROSS VENTILATION

APPENDIX B - SHADOW IMPACT ON SP2 SITE

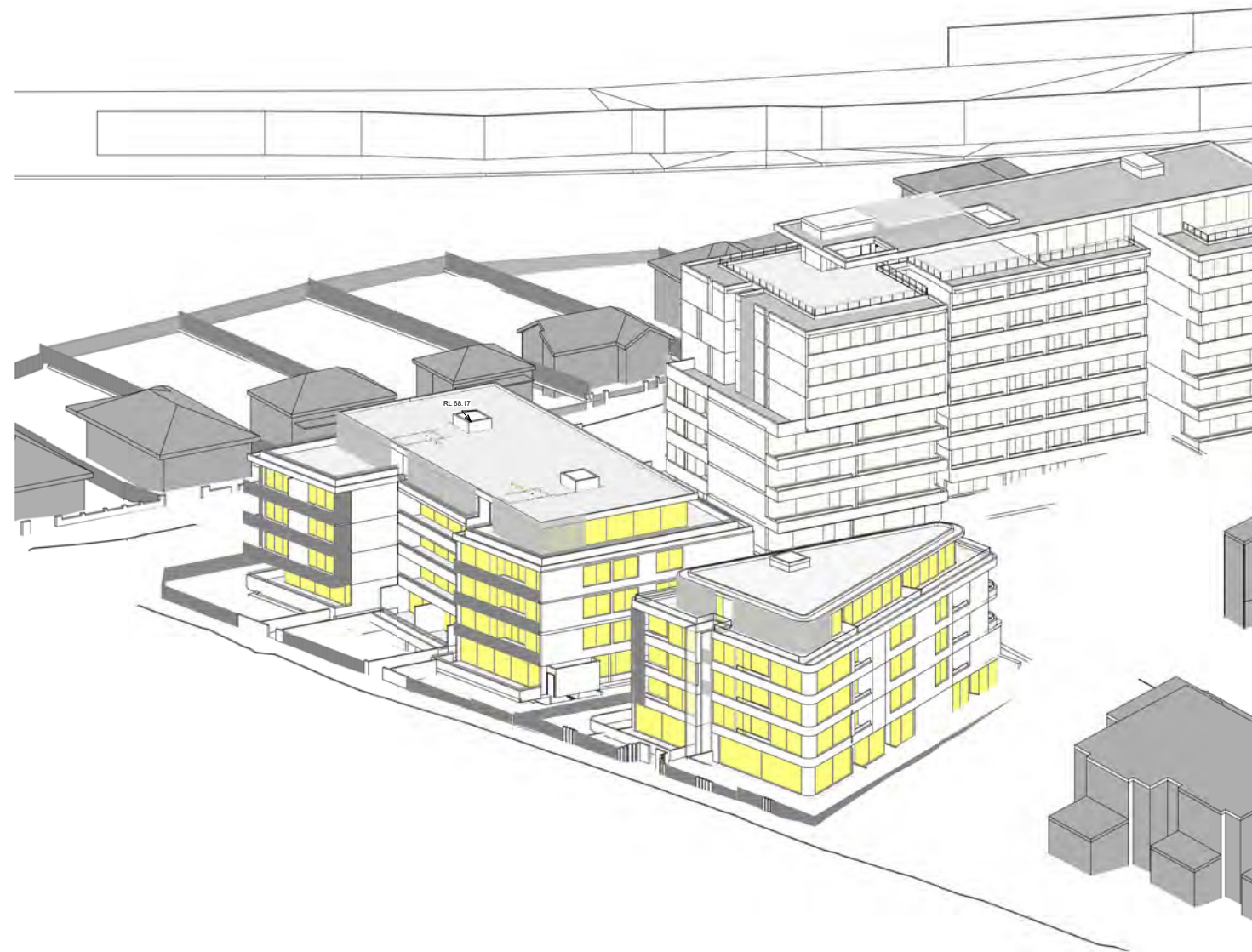
APPENDIX C - AMENDED LEP MAP EXTRACTS

APPENDIX D - LANDSCAPE DRAWINGS

APPENDIX E - CIVIL DRAWINGS

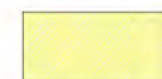
Appendix A

SUN VIEW DIAGRAMS & SOLAR ACCESS

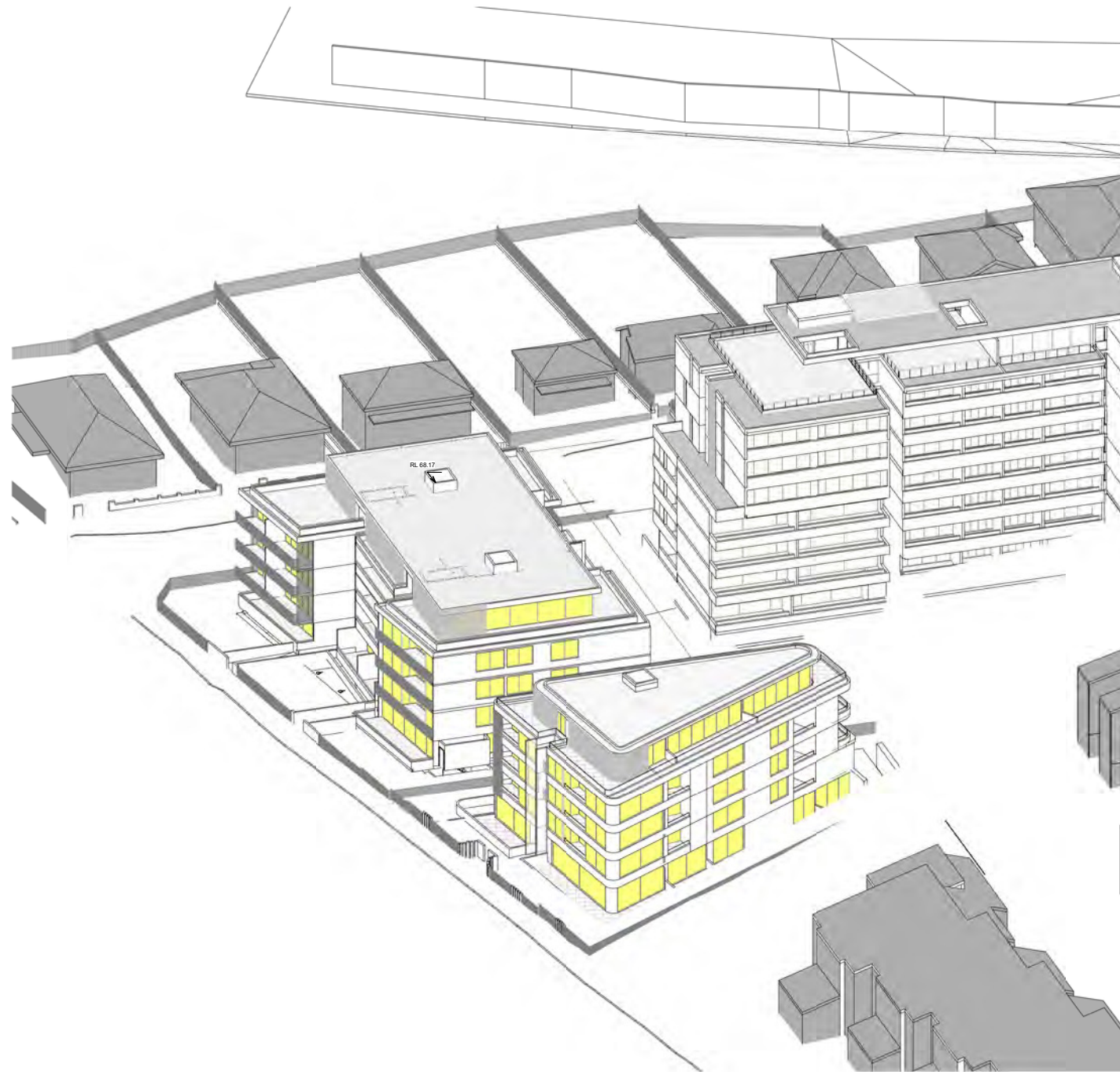


**WALTER ST. MASTER PLAN SOLAR ACCESS STUDY
WITH CAHNNEL 9 MODIFICATION 2**

VIEW FROM THE SUN 9 AM



DENOTES LOCATION OF THE LIVING ROOM



WALTER ST. MASTER PLAN SOLAR ACCESS STUDY WITH CAHNNEL 9 MODIFICATION 2

VIEW FROM THE SUN 10 AM



DENOTES LOCATION OF THE LIVING ROOM

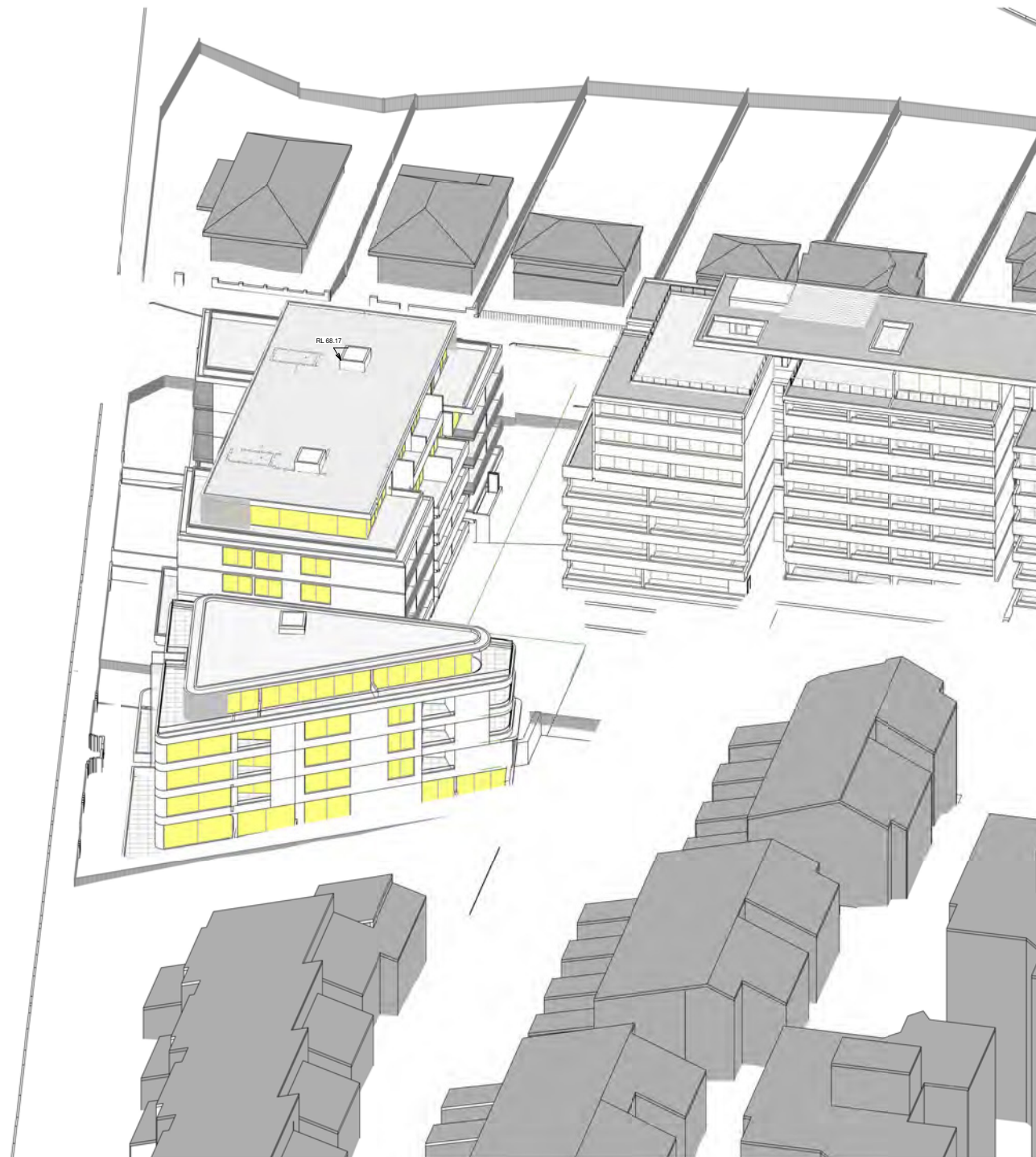


**WALTER ST. MASTER PLAN SOLAR ACCESS STUDY
WITH CAHNNEL 9 MODIFICATION 2**

VIEW FROM THE SUN 11 AM



DENOTES LOCATION OF THE LIVING ROOM

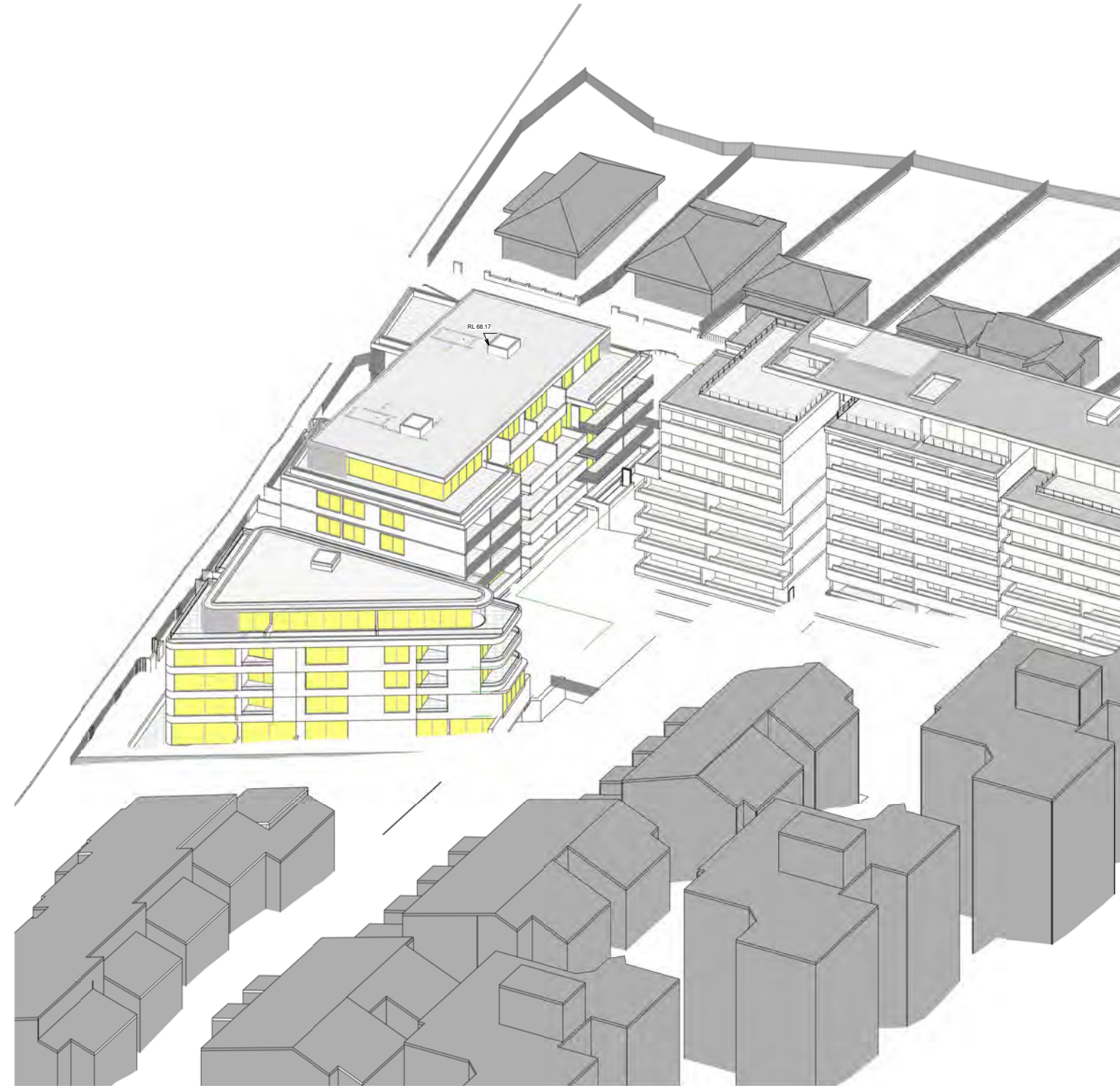


**WALTER ST. MASTER PLAN SOLAR ACCESS STUDY
WITH CAHNNEL 9 MODIFICATION 2**

VIEW FROM THE SUN 12 PM



DENOTES LOCATION OF THE LIVING ROOM



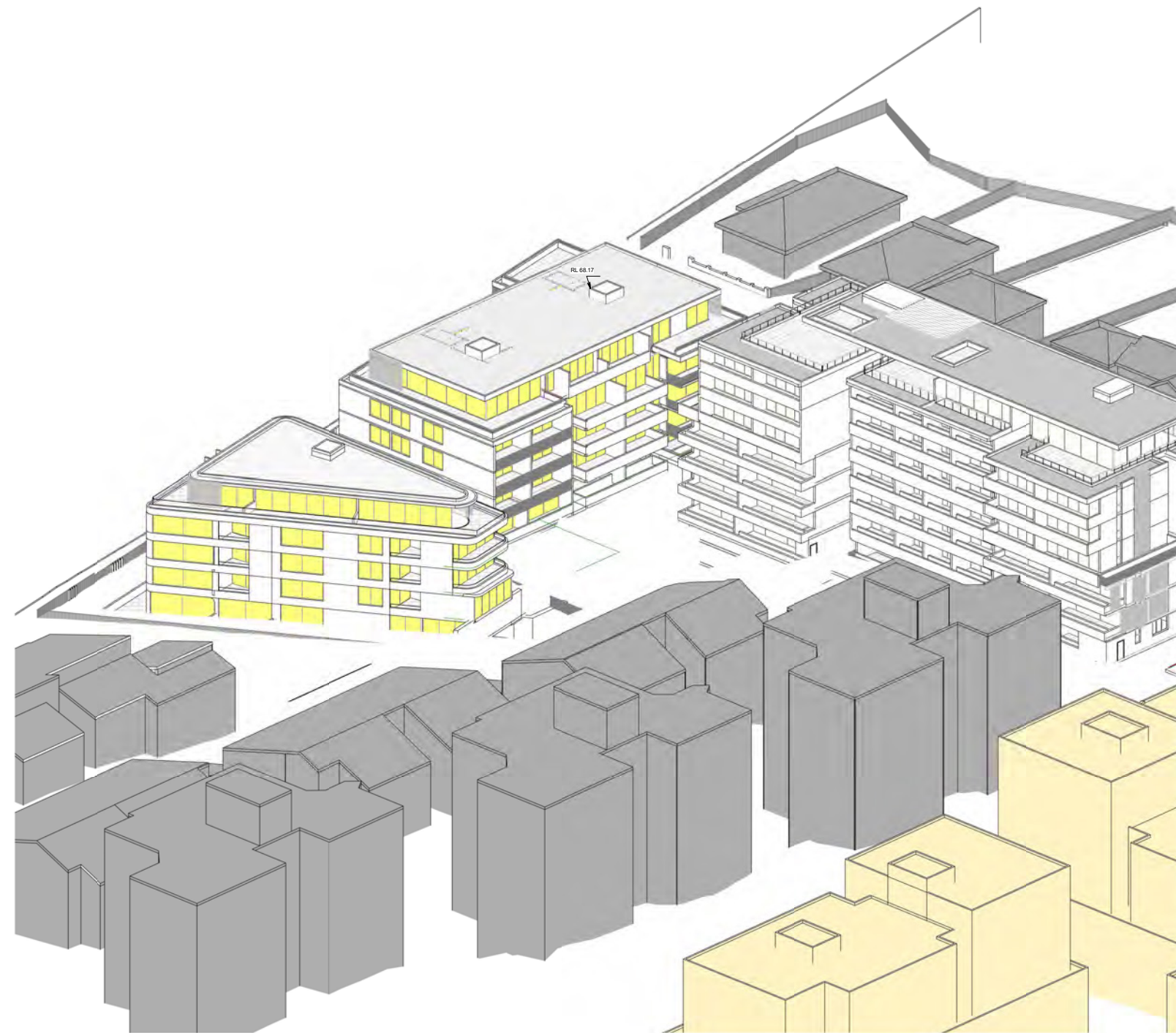
**WALTER ST. MASTER PLAN SOLAR ACCESS STUDY
WITH CAHNNEL 9 MODIFICATION 2**

VIEW FROM THE SUN 1 PM



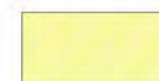
DENOTES LOCATION OF THE LIVING ROOM

ME AS SUN PROPOSED



WALTER ST. MASTER PLAN SOLAR ACCESS STUDY WITH CAHNEL 9 MODIFICATION 2

VIEW FROM THE SUN 2 PM

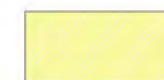


DENOTES LOCATION OF THE LIVING ROOM

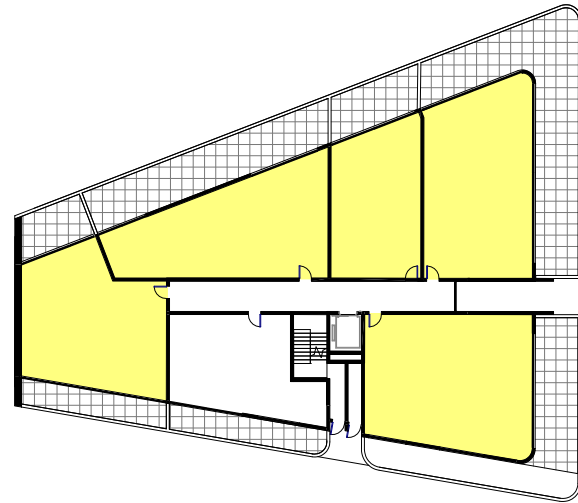


**WALTER ST. MASTER PLAN SOLAR ACCESS STUDY
WITH CAHNEL 9 MODIFICATION 2**

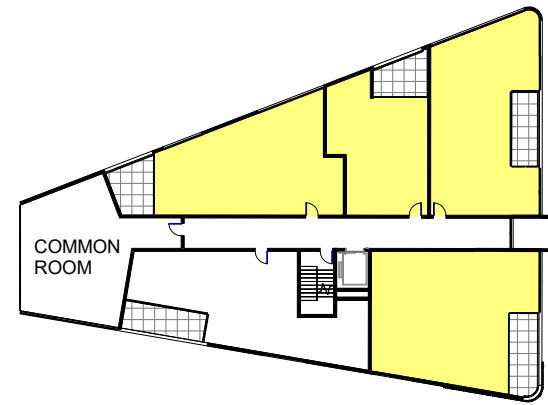
VIEW FROM THE SUN 3 PM



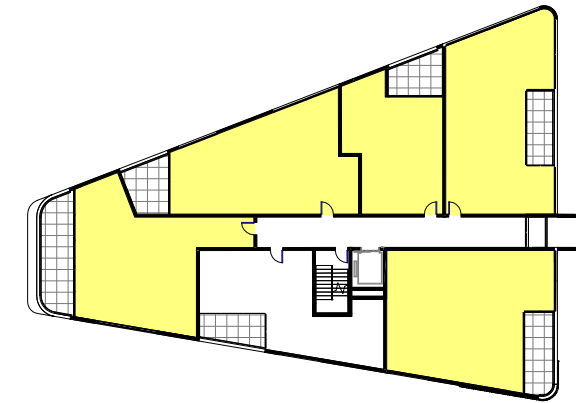
DENOTES LOCATION OF THE LIVING ROOM



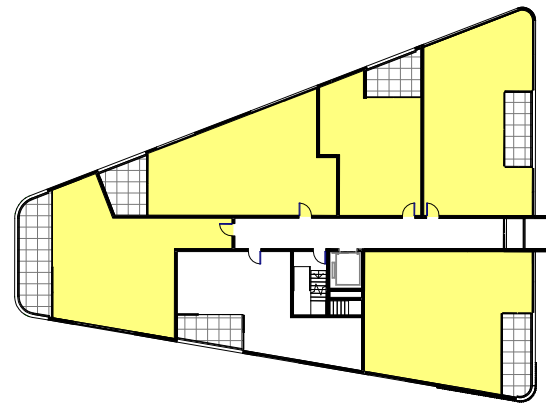
GROUND



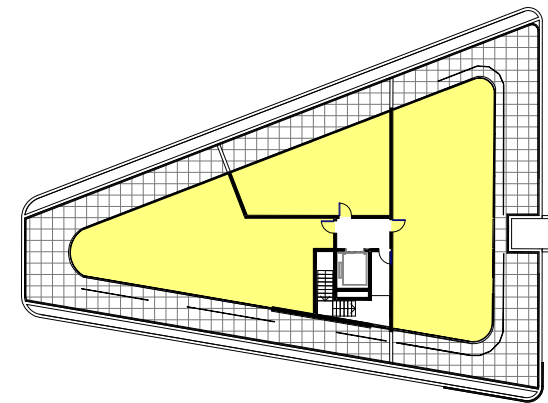
LEVEL 1



LEVEL 2



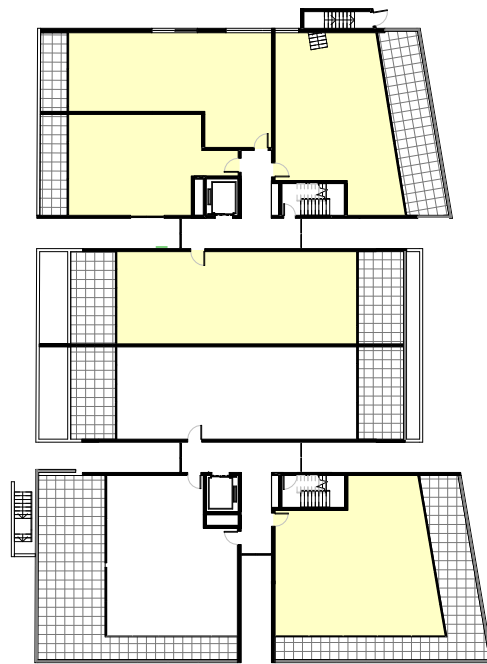
LEVEL 3



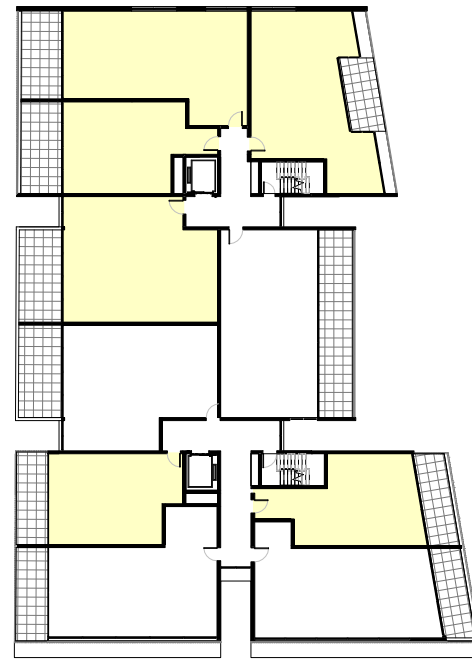
LEVEL 4

SITE E: NO.462 WILLOUGHBY ROAD

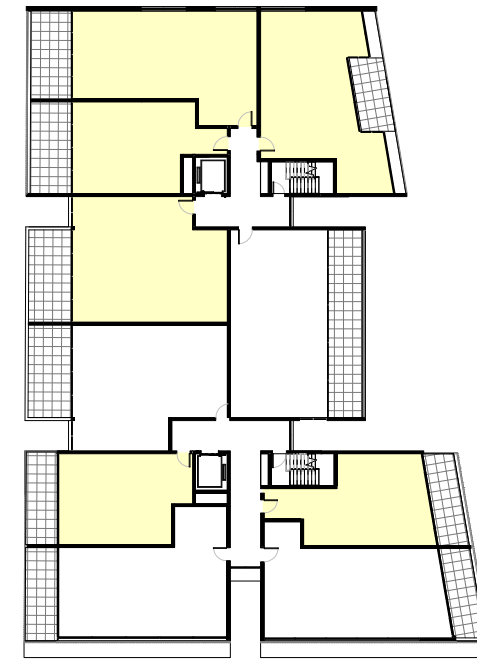
SOLAR ACCESS : $22/26 = 84.6\%$
COMPLIANT



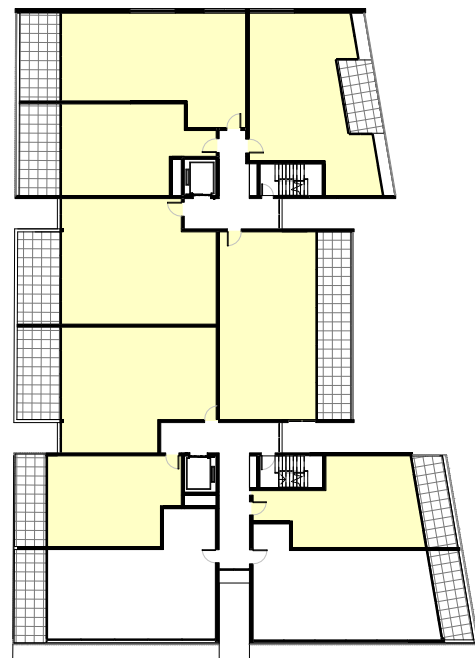
GROUND



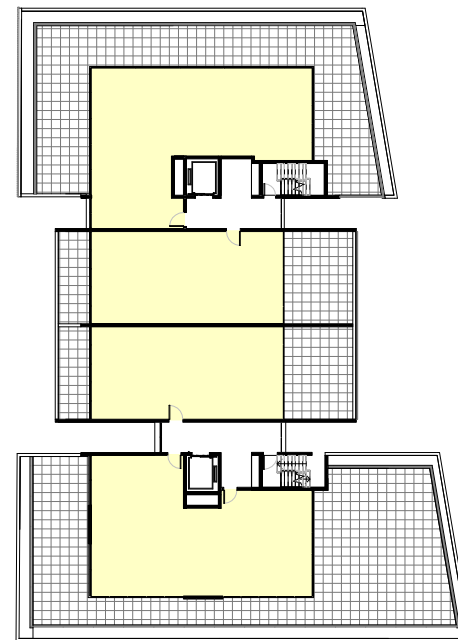
LEVEL 1



LEVEL 2



LEVEL 3



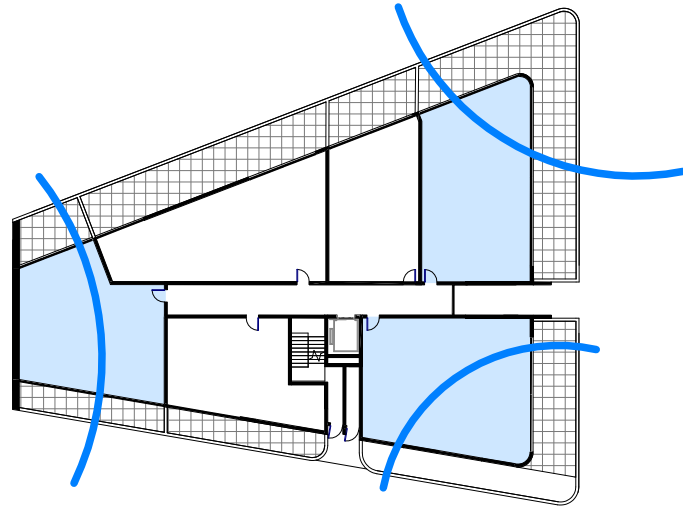
LEVEL 4

SITE F_NO.1A WALTER STREET &
450 - 460 WILLOUGHBY ROAD

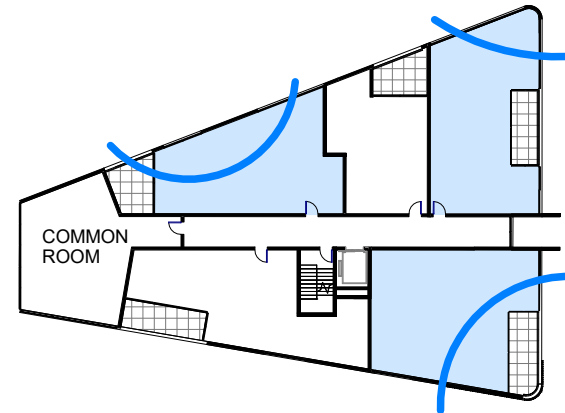
SOLAR ACCESS : 29/41= 70%
COMPLIANT

Appendix B

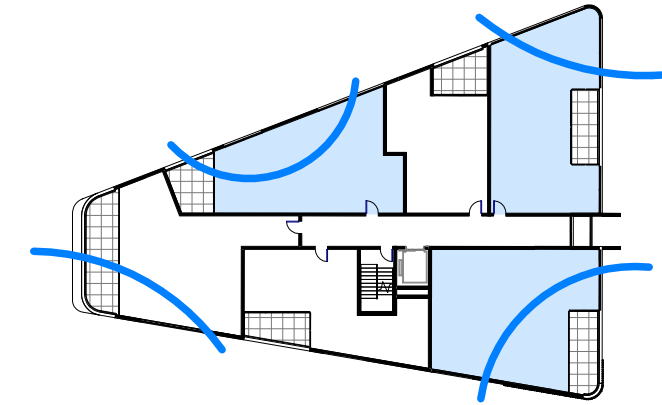
CROSS VENTILATION



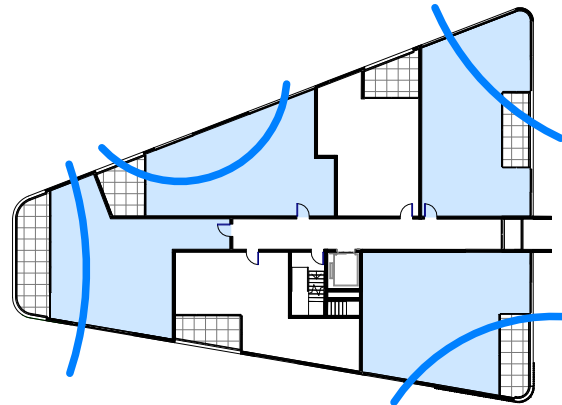
① CROSS VENT - GROUND FLOOR



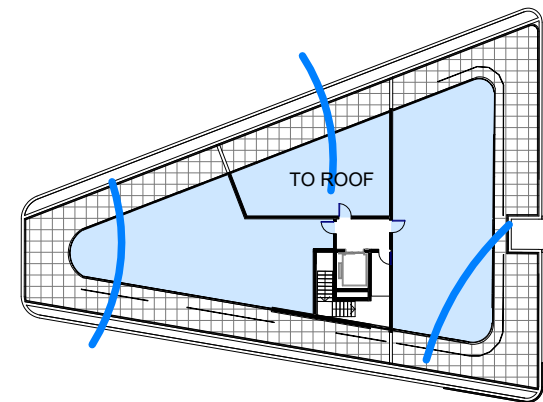
② CROSS VENT - LEVEL 1



③ CROSS VENT -LEVEL 2



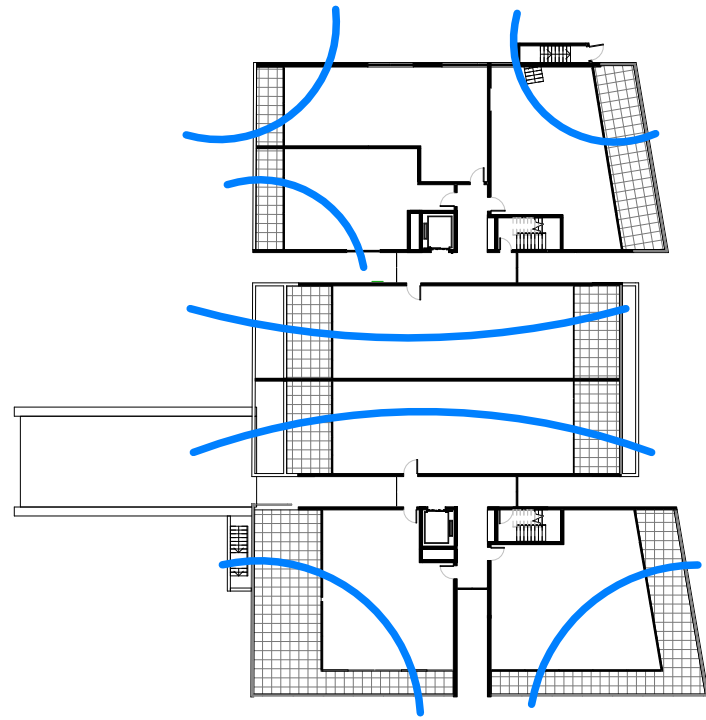
④ CROSS VENT -LEVEL 3



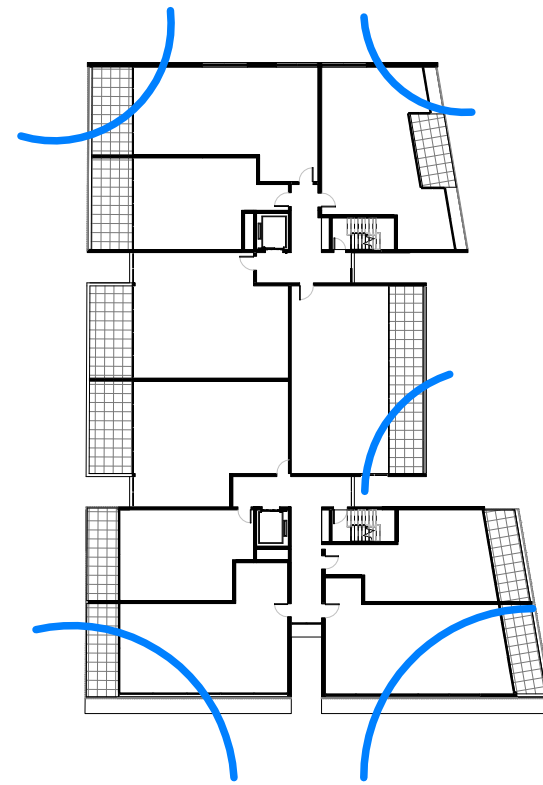
⑤ CROSS VENT -LEVEL 4

SITE E_ NO.462 WILLOUGHBY ROAD

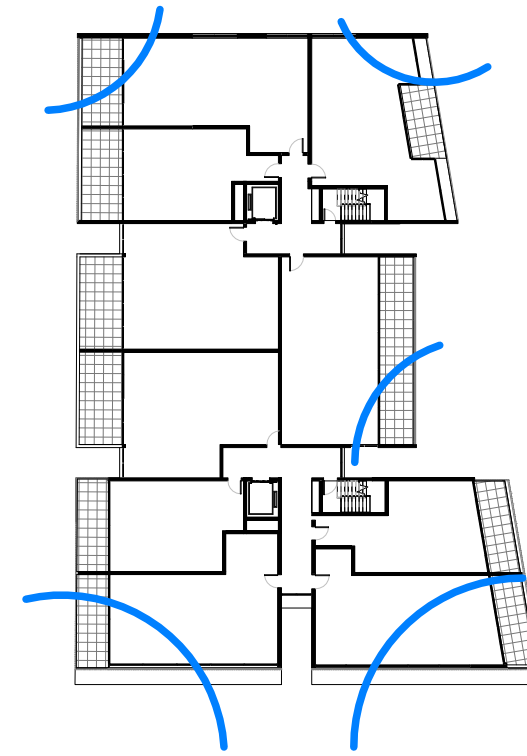
CROSS VENTILATION : $17/26 = 65.4\%$
COMPLIANT



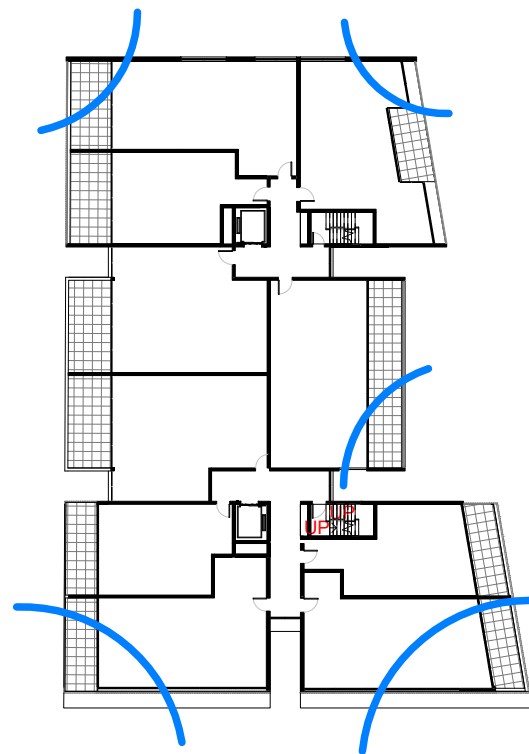
GROUND



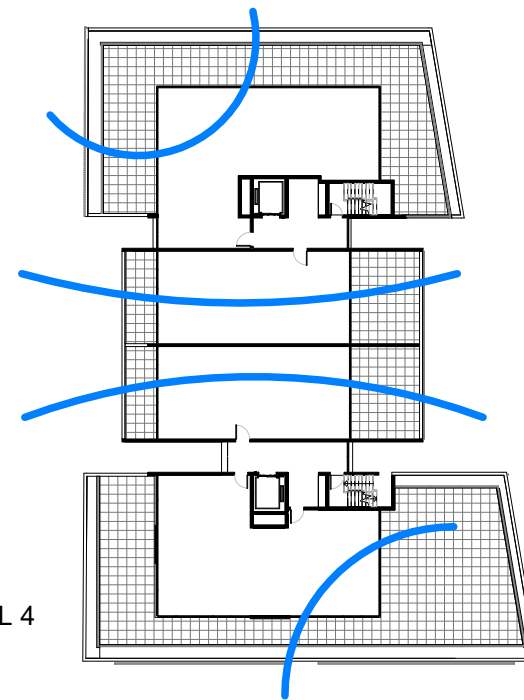
LEVEL 1



LEVEL 2



LEVEL 3



LEVEL 4

SITE F_NO.1A WALTER STREET &
450 - 460 WILLOUGHBY ROAD

CROSS VENTILATION : 26/41= 63%
COMPLIANT

Appendix C

CONTENTS:

PROPOSED AMENDED LEP EXTRACT MAPS - Floor Space Ratio

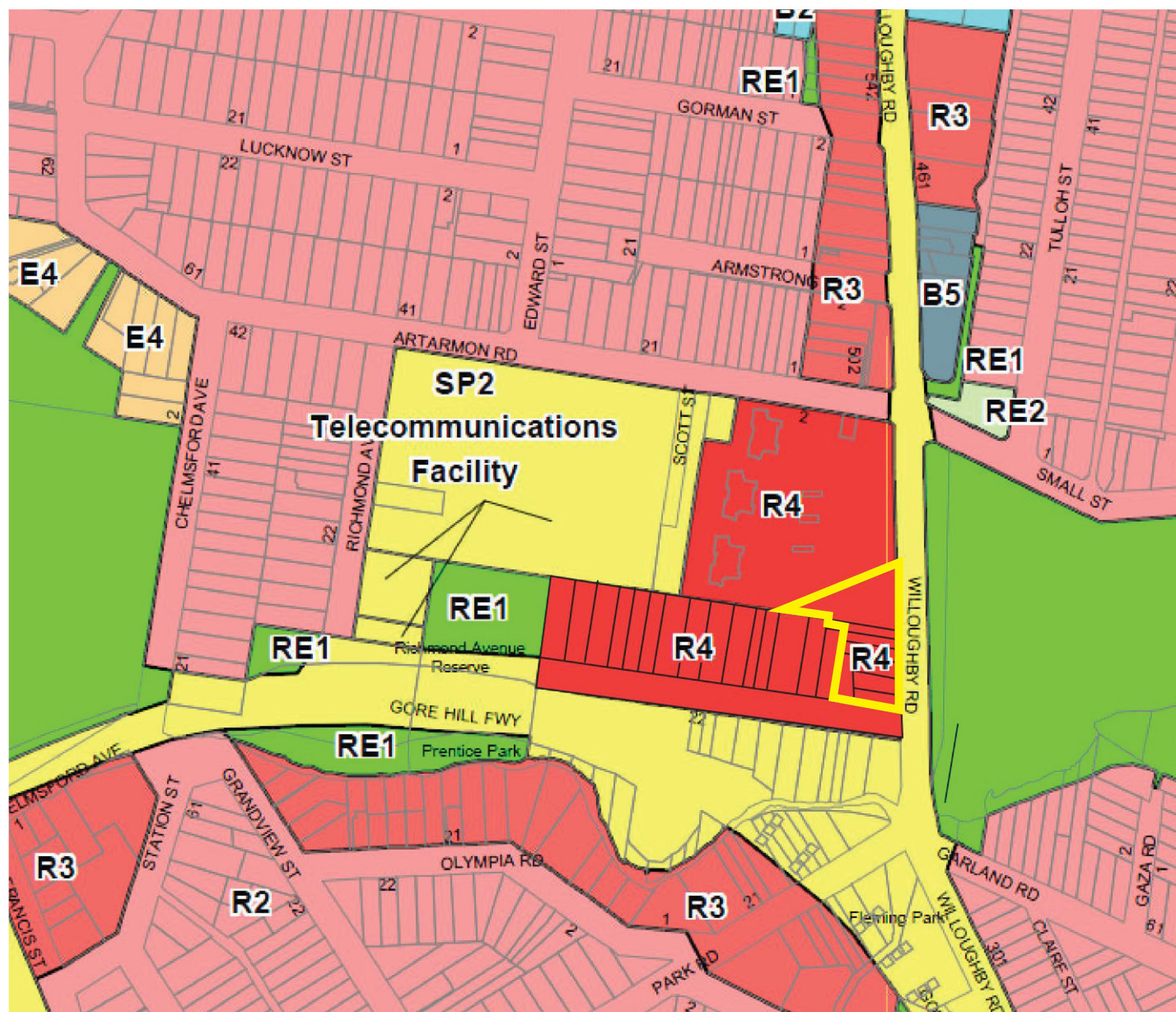
PROPOSED AMENDED LEP EXTRACT MAPS - Maximum Building Height

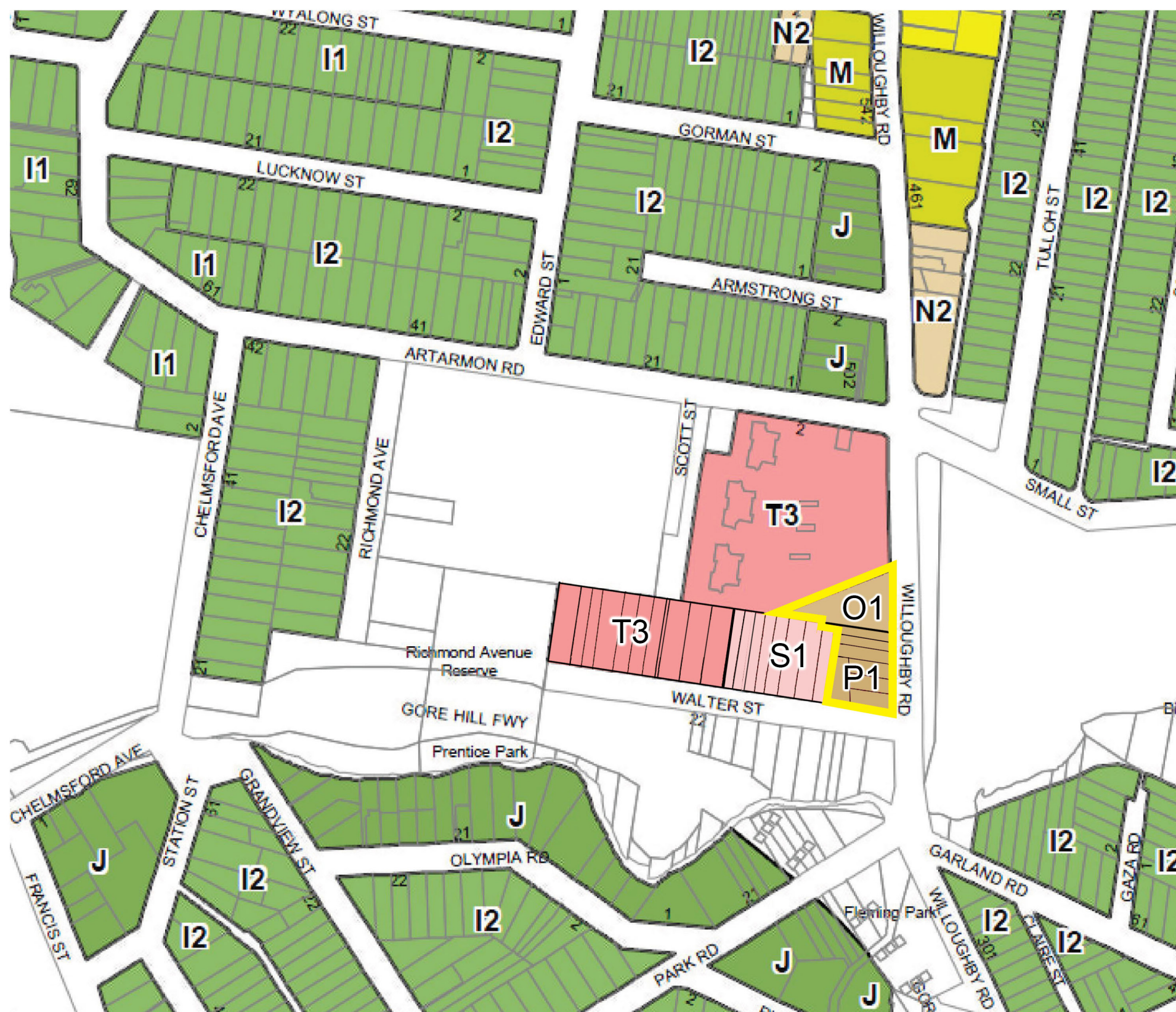
PROPOSED AMENDED LEP EXTRACT MAPS - Proposed Zoning

Land Zoning Map - Sheet LZN_004

Zone	
B1	Neighbourhood Centre
B2	Local Centre
B3	Commercial Core
B4	Mixed Use
B5	Business Development
B7	Business Park
E1	National Parks and Nature Reserves
E2	Environmental Conservation
E4	Environmental Living
IN1	General Industrial
IN2	Light Industrial
R2	Low Density Residential
R3	Medium Density Residential
R4	High Density Residential
RE1	Public Recreation
RE2	Private Recreation
SP1	Special Activities
SP2	Infrastructure
	SITE

PROPOSED ZONING - HIGH DENSITY RESIDENTIAL





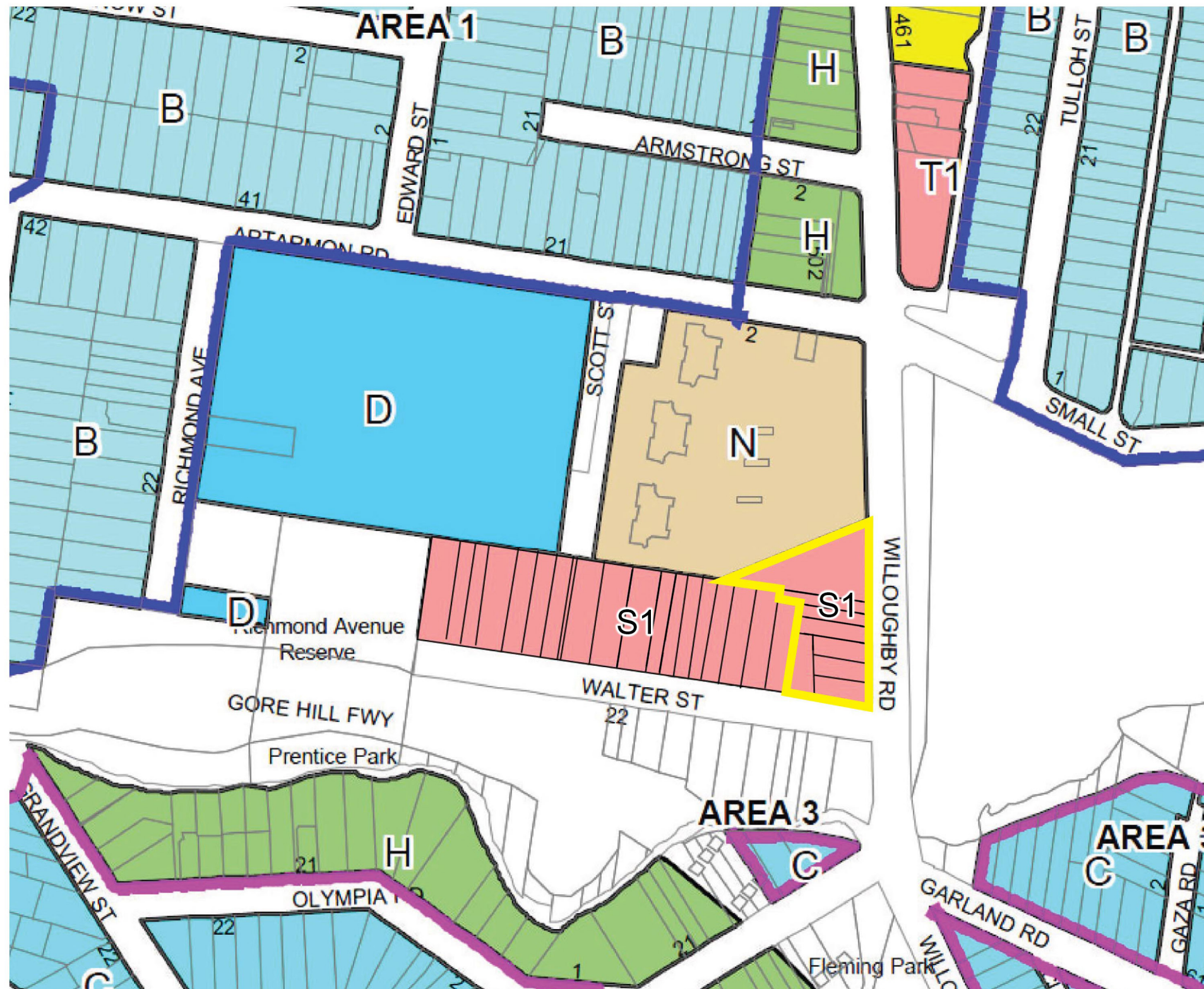
Maximum Building Height (m)

A	3.5	S2	24.5
G	7	T1	25
I1	8	T2	26
I2	8.5	T3	27
J	9	T4	29
L	11	U	34
M	12	V1	36
N1	13.5	V2	38.5
N2	14	W	40
O	15.5	AA1	60
P	18	AB1	80
Q	20	AB2	90
R	21	Area 1	Refer Cl 4.3A
S1	24	Area 2	Refer Cl 4.3A
		Area 3	Refer Cl 4.3A
		SITE	

PROPOSED MAXIMUM BUILDING HEIGHT

O1 : SITE E (NO.462 WILLOUGHBY ROAD) - 16m
P1: SITE F (NO.1 - 1A WALTER STREET
& NO.450-460 WILLOUGHBY ROAD) - 17m

PROPOSED AMENDED LEP EXTRACT MAPS



Floor Space Ratio Map - Sheet FSR_

Maximum Floor Space Ratio (n:1)	
A	0.25
B	0.4
C	0.45
D	0.5
E	0.6
F	0.65
G	0.7
H	0.9
L	1
N	1.1
O	1.3
Q	1.4
R	1.5
S1	1.7
S2	2
T1	2.2
T2	2.5
U1	2.6
U2	2.7
U3	3
V1	3.3
V2	4.5
Y	5
Z1	5.5
Z2	6
AA	7
AB	8
AC	SITE

PROPOSED FLOOR SPACE RATIO- 1.5:1

Appendix D

LANDSCAPE DRAWINGS

Appendix E

CIVIL DRAWINGS