

# WALTER STREET PROJECT

1 – 27A WALTER STREET & 452-460 WILLOUGHBY  
ROAD, WILLOUGHBY

MULTI-UNIT RESIDENTIAL BUILDING

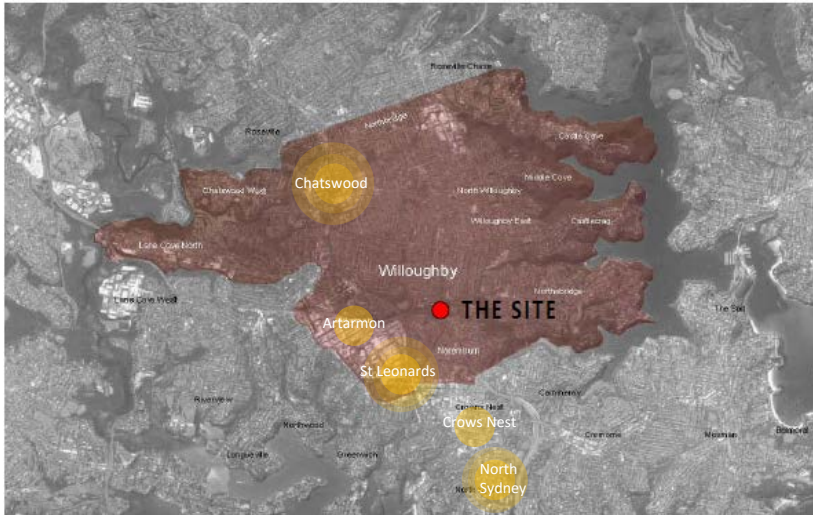
DEVELOPER

WALTER PROJECTS PTY LTD

ARCHITECTS

ARCHITECTURE URBANEIA PTY LTD

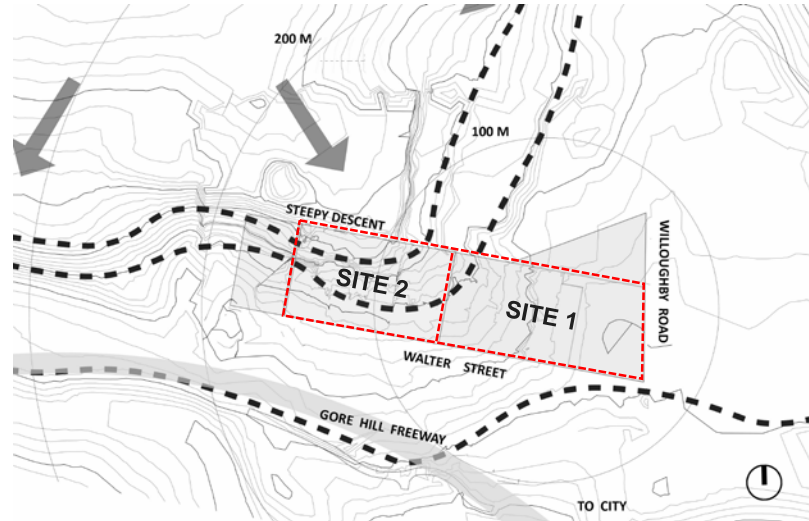




## Metropolitan Context

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

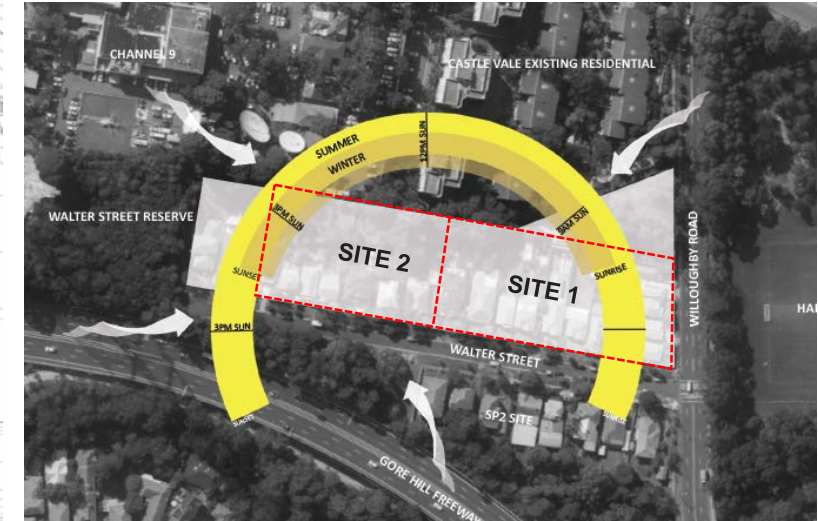
The majority of the Municipality is Residential with the subject site in close proximity to the busy centers of Crows Nest, St Leonards, Chatswood and North Sydney CBD.



## Topography

A significant fall exists from the North-West corner of the Walter Street site to the opposite South-East corner of Walter Street.

The topography requires excavation below the existing ground level, presenting a significant challenge for sitting proposed buildings. It also provides the opportunity to achieve the desired north-facing open spaces; solar access to apartments and capturing the available views.



## Solar & Wind

The site is located at the south facing sloping site, where better elevated views are oriented to south with northern part of the site is partially shaded by existing and proposed buildings and steep topography to upper part of Mirvac Channel 9 development.

However, it is partially protected from cold dry winds in winter by existing 9-storey apartments of Castle Vale R4 high density residential site partially by the steep slope. East part of the site will have cool summer breezes with great daylight access.

SITE 1

TOTAL GFA - SITE 1	
LEVEL	GFA

BLDG B	
Level 0 FRL	606 m²
Level 1 FRL	612 m²
Level 2 FRL	612 m²
Level 3 FRL	494 m²
Level 4 FRL	258 m²
BLDG B	2581 m²

BLDG C	
Level 0 FRL	540 m²
Level 1 FRL	593 m²
Level 2 FRL	593 m²
Level 3 FRL	491 m²
Level 4 FRL	485 m²
Level 5 FRL	485 m²
Level 6 FRL	404 m²
BLDG C	3591 m²

BLDG D	
Level 0 FRL	29 m²
Level 0 FRL	67 m²
Level 1 FRL	509 m²
Level 2 FRL	509 m²
Level 3 FRL	494 m²
Level 4 FRL	494 m²
Level 5 FRL	494 m²
Level 6 FRL	494 m²
Level 7 FRL	494 m²
BLDG D	3583 m²
TOTAL GFA	9756 m²

SITE 1 AREA: 6278.4 m²

PROPOSED FSR: 1.553:1

PROPOSED GFA: 9,756 m²

UNIT TYPE - SITE 1	
Name	Count

BLDG B	
1 BED	3
1 BED + S	3
2 BED	5
2 BED + S	14
3 BED	3
28	
BLDG C	
1 BED + S	6
2 BED	17
2 BED + S	3
3 BED	10
36	
BLDG D	
3 BED	28
28	

TOTAL UNIT TYPE - SITE 1	
Name	Count

1 BED	3
1 BED + S	9
2 BED	22
2 BED + S	17
3 BED	41

SITE 1 TOTAL: 92

SITE 2

TOTAL GFA - SITE 2	
LEVEL	GFA

BLDG E	
Level 0 FRL	203 m²
Level 1 FRL	594 m²
Level 1 FRL	21 m²
Level 2 FRL	592 m²
Level 3 FRL	490 m²
Level 4 FRL	469 m²
Level 5 FRL	469 m²
Level 6 FRL	469 m²
Level 7 FRL	278 m²
BLDG E	3585 m²

BLDG F	
Level 0 FRL	172 m²
Level 1 FRL	593 m²
Level 2 FRL	592 m²
Level 3 FRL	490 m²
Level 4 FRL	469 m²
Level 5 FRL	469 m²
Level 6 FRL	469 m²
Level 7 FRL	277 m²
BLDG F	3530 m²
TOTAL GFA: 17	7116 m²

SITE 2 AREA: 4969 m² (including 66m² easement)

PROPOSED FSR: 1.432:1

PROPOSED GFA: 7,116 m²

UNIT TYPE - SITE2	
Name	Count

BLDG E	
1 BED + S	1
2 BED	16
2 BED + S	14
3 BED	5
36	

BLDG F	
1 BED + S	2
2 BED	17
2 BED + S	12
3 BED	5
36	

TOTAL UNIT TYPE - SITE 2	
Name	Count

1 BED + S	3
2 BED	33
2 BED + S	26
3 BED	10

SITE 2 TOTAL: 72

TOTAL

GFA-TOTAL	
BLDG	GFA

BLDG B	2581 m²
BLDG C	3591 m²
BLDG D	3583 m²
BLDG E	3585 m²
BLDG F	3530 m²
TOTAL GFA	16871 m²

TOTAL SITE AREA: 11247.4 m²

PROPOSED FSR: 1.5:1

PROPOSED GFA: 16,871 m²

ALLOWABLE FSR: 1.5:1

ALLOWABLE GFA: 16,871 m²

TOTAL UNIT TYPE	
Name	Count

1 BED	3	} 10%
1 BED + S	12	
2 BED	55	} 59%
2 BED + S	43	
3 BED	51	31%

TOTAL UNIT NUMBER: 164

CAR PARKING_RESIDENTIAL_TOTAL		
TYPE	DCP REQUIRED	PROVIDED

[R]	161	197
[R][A]	18	18
	179	215

CAR PARKING_MOTORCYCLE_TOTAL		
TYPE	DCP REQUIRED	PROVIDED

[MB]	10	12
	10	12

CAR PARKING_VISITOR_TOTAL		
TYPE	DCP REQUIRED	PROVIDED

[V]	37	37
[V][A]	4	4
	41	41

CAR PARKING_BICYCLE_TOTAL		
TYPE	DCP REQUIRED	PROVIDED

[B]	17	18
[B][V]	14	14
	31	32

SITE CALCULATION-TOTAL				
Name	Area	%	WDGP REQUIRED	COMPLY

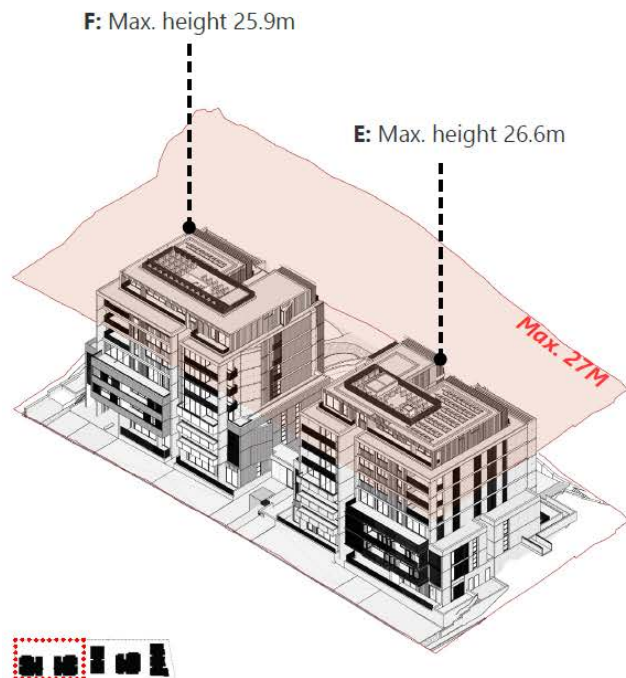
LANDSCAPED AREA	6100 m²	54.2%	>35%	Yes
SITE COVERAGE	3367 m²	29.9%	<30%	
DEEPSOIL LANDSCAPE	4486 m²	39.9%	> 15%	

COMMUNAL OPEN SPACE	3100 m²	27.56%	>25%	Yes
BAL (PRIVATE OPEN SPACE)	3699 m²	33.6%	>30%	

>55%  
(MIN. RECREA-  
TIONAL SPACE)



## 2 | THE PROPOSAL – Key WLEP2012 Controls



**WLEP2012 Controls**

**FSR:** 1.5:1 maximum

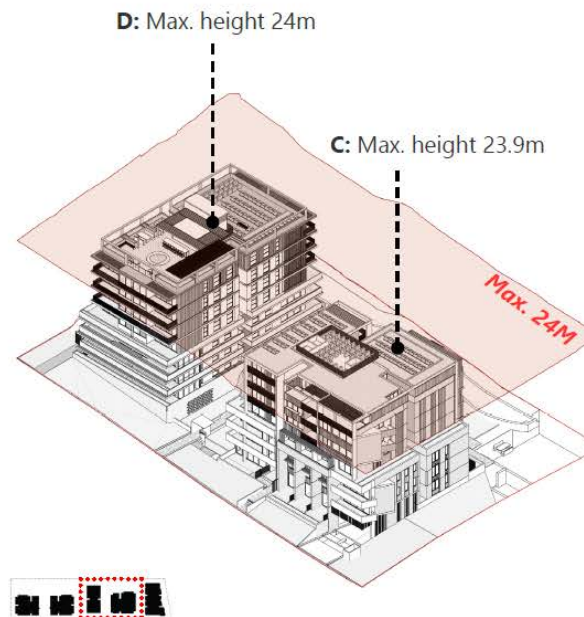
**GFA:** 16,871m<sup>2</sup>

**Affordable Unit:** 4% of total GFA

1 Walter Street and 452-460 Willoughby Road = **17m** maximum measured from natural ground line

3-13a Walter Street = **24m** maximum measured from natural ground line

12 – 27 Walter Street = **27m** maximum measured from natural ground line



**Proposed FSR and Height**

**FSR:** 1.5:1 (complies)

**GFA:** 16,871m<sup>2</sup> (complies)

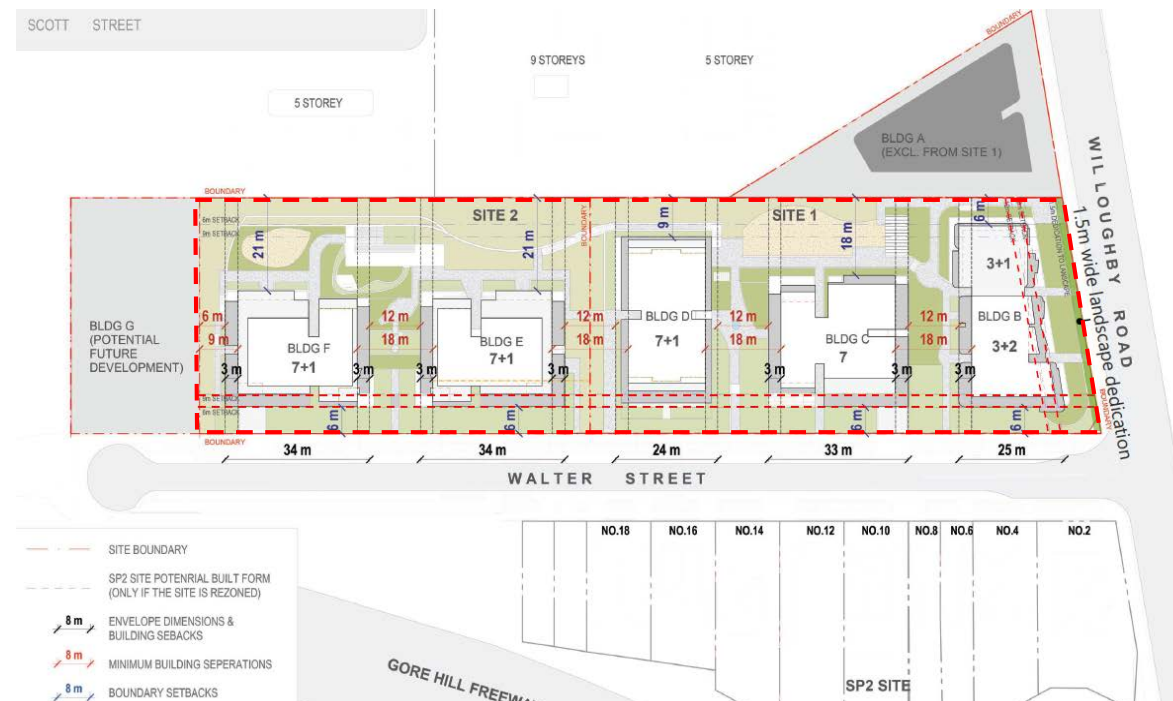
**Affordable Unit:** 4% of total GFA (complies)

1 Walter Street and 452-460 Willoughby Road = **16.97m** maximum measured from natural ground line (complies)

3-13a Walter Street = **24m** maximum measured from natural ground line (complies)

12 – 27 Walter Street = **26.6m** maximum measured from natural ground line (complies)

## Proposed Building Envelope Plan and Setbacks



**Site Coverage:** 29.9% < 30% (complies)  
**Deep Soil:** 39.9% > 15% (complies)  
**Recreational open space:** 61.2% > 55% (complies)  
**Landscape area:** 54.2% > 35% (complies)  
**Communal Open Space:** 27.6% > 25% (complies)

**No. of Unit:** 164  
**No. of Car Space:** 256

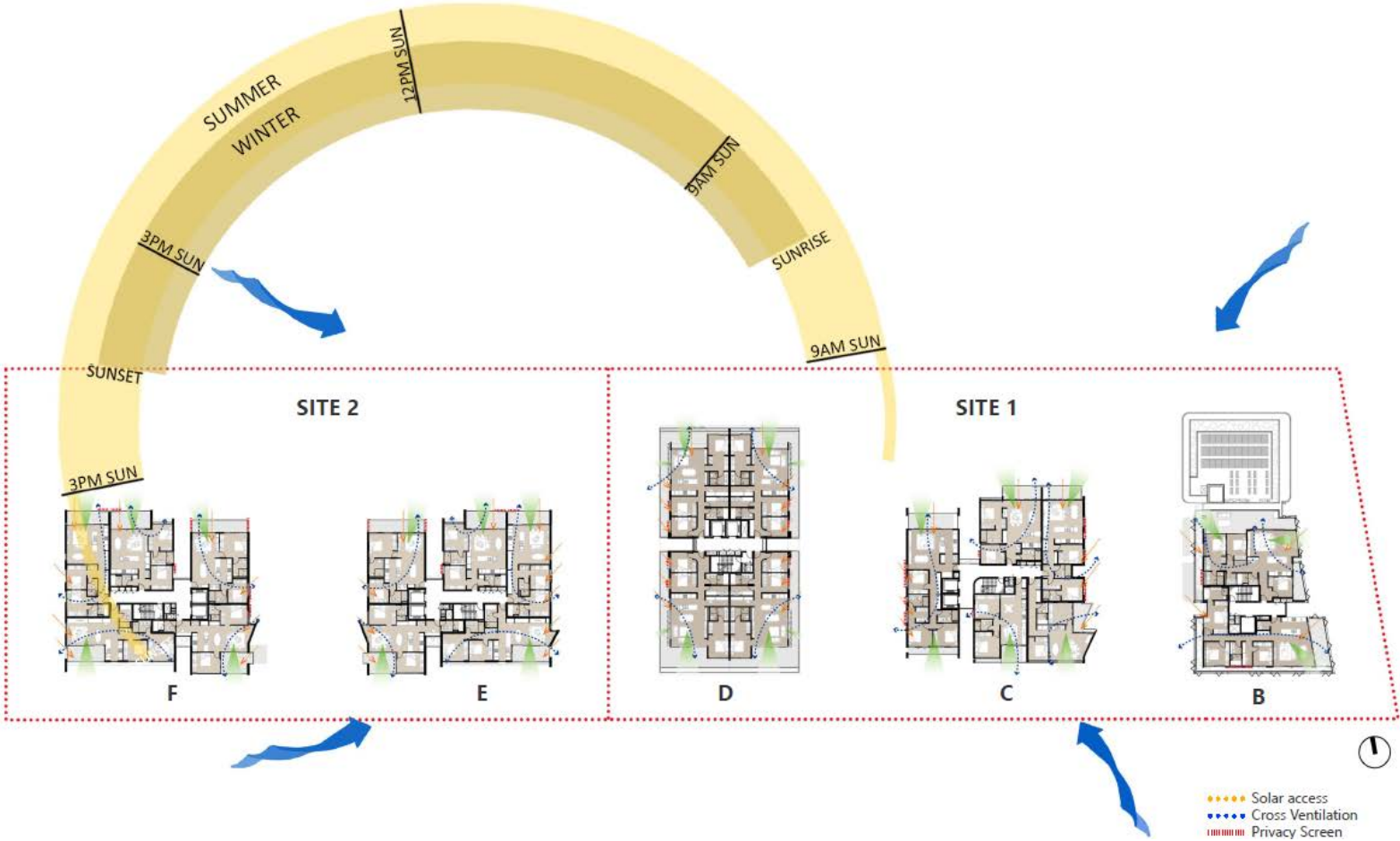
ADG Guidelines

2HR Solar Access: 70% minimum  
Cross Ventilation: 70% minimum

Adaptable Unit: 50% minimum  
Liveable Unit: 20% minimum

Proposal

2HR Solar Access: 76% (complies)  
(living + Private open space)  
2HR Solar Access: 83% (complies)  
(living space Only)  
Cross Ventilation: 80% (complies)  
Adaptable Unit: 50% (complies)  
Liveable Unit: 22% (complies)

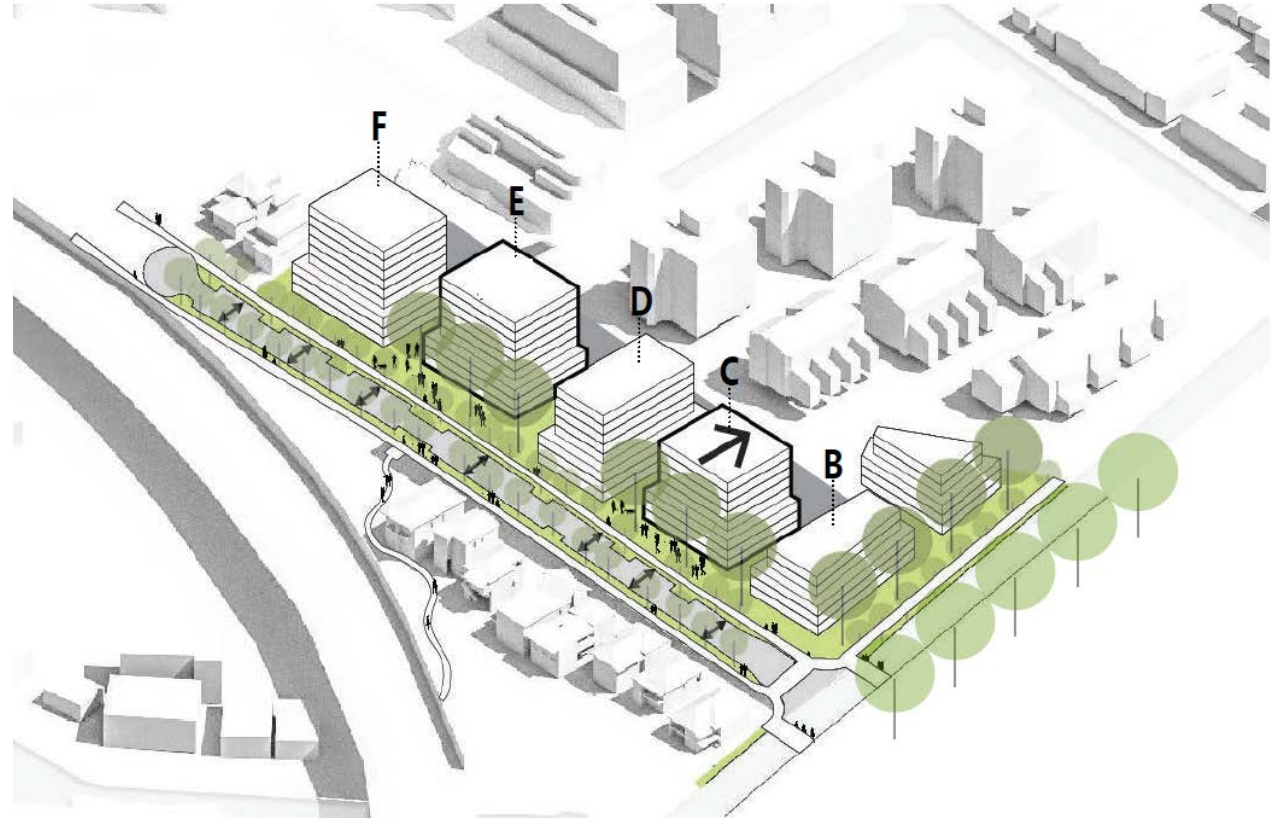




## 2 | THE PROPOSAL – Public Domain and Landscape Strategy

The development contributes to place making by transforming public domain areas of Walter Street and Willoughby Road frontages by:

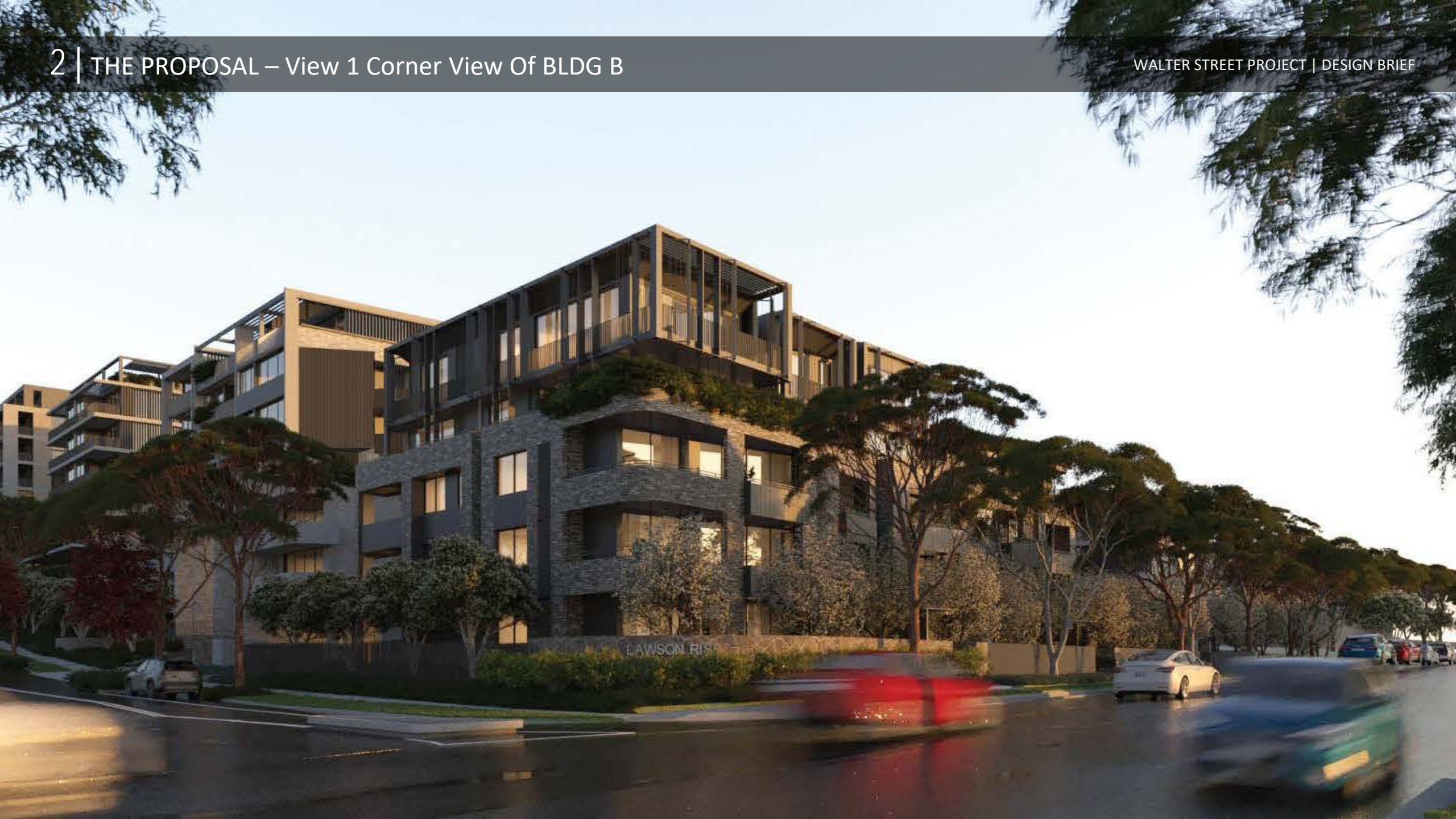
- Under grounding the overhead Electrical cable along both Walter Street and Willoughby Road Frontages of the site and providing **large canopy Trees** enhancing the visual connections and Pedestrian experience.
- Improving pedestrian and cycle ways to the existing paths and connections complimenting the proposed Upgrade of Walter Street Park and linking connections to Channel 9 dedicated public open space allocations over Walter Street Park.
- **Walter Street** will be **widened** creating parking lanes on both sides of the street with 2 traffic lanes and will regrade the footpaths along Walter Street to enhance the current pedestrian experience as part of Public Domain improvements.
- **Generous building setbacks** in combination with large pockets of **deep soil zones** allow the landscape to permeate from the public domain areas into the site and up to the building alignment allowing greater social interaction that flows from the public domain areas to the main landscape entry points and into the site.
- Landscape design plays an important and integral aspect of the project's appearance both within **the streetscape** and internally within **the communal and external areas** of each site. Varying landscape treatments have been used as the primary tool unifying the development and soften the appearance along the streetscape at ground level to create a **green edge** to the proposal, providing an unhindered visual connection between public domain area extending to the built form and visually and physically permeating into the site.



































#### Contamination (Trace Environment)

- The majority of the site has historically been utilized for residential purposes, with the exception of the **north-eastern portion** of the site (462 Willoughby Road) which formally comprised part of a **larger commercial / industrial property** from the 1950s to the 1970s/1980s.
- Based on the findings of the DSI, it is considered that **the site can be made suitable for the proposed high density residential land use**, subject to the recommendations outlined in the contamination report.
- A **Remedial Action Plan** had also been **prepared** to document the proposed remediation strategy and validation program in order to provide an appropriate and cost-effective strategy to render the site suitable for the proposed high density residential land use, without any ongoing management requirements.

#### Flood (Calibre)

- **Flood depth and velocity mapping** have been presented for the 20%, 5%, and 1% AEP and the PMF events. Whilst **flood difference mapping** is also provided to compare developed and existing scenarios.
- The results demonstrate that surface flows will generally discharge with low velocities overland towards Walter Street and Willoughby Road. Though flows within Willoughby Road are already flowing at moderate to high velocities due to the upstream grade in Willoughby Road and **is not associated with the works** proposed within the Walter Street site.

#### Geotech (JC Geotechnics)

- It is anticipated that **excavation conditions** will be through fill, residual soils and variable strength bedrock. Excavation is expected to be initially within very low to low strength sandstone but for most of the excavation, through medium to high strength sandstone.
- It is recommended that a **vibration monitoring plan** is developed to monitor the potential vibration effects during bulk excavation.
- It is recommended that all foundations be founded on consistent bedrock to minimize the risk of long-term differential settlement.
- Waterproofing of basement slab and walls is not considered to be required provided that a drainage layer can be provided below the basement slab.
- It is indicative that the clay and sand soil underlying the site to be generally “Non” Saline.



## Arborist (Redgum Horticultural )

- The Arborist report considers **133 trees**, **109 trees** within the site, **4 trees** on a neighbouring property and **20 trees** on the adjacent road reserve.
- **104 trees** are nominated for **removal and replacement** with species in accordance with the associated Landscape documentation for the development.
- **29 trees** to be **preserved** will be retained and protected through the implementation of adequate measures for their integration into the development

## Traffic (MLA Transport Planning)

- The proposed development includes **2 separate basement** car parks. Vehicular access to the car park is proposed to be provided **off Walter Street at 2 proposed accesses**.
- The loading areas have been designed to accommodate service vehicles up to Willoughby City Council's **9.5m long waste collection vehicle**. The loading area would be used by all service vehicles including **waste collection, removalist vehicles and delivery of bulky items**. Service vehicles can enter and exit the site in a forward direction.
- The DCP requires a total of 218 car parking spaces to be provided. It is proposed to provide a total of **256 car parking spaces** to serve the proposed development.
- Bicycle and motorcycle parking spaces are proposed to be provided in compliance with requirements stipulated in the DCP.
- From a traffic and parking perspective, **the proposed development is considered to be satisfactory**.

## Acoustic (Acoustic Logic)

- Acoustic report has addressed the following issues:
  - 1) Traffic noise intrusion impacts from the Gore Hill Freeway (**M1**) and **surrounding roads**.
  - 2) Noise emission from the **mechanical services** servicing the proposed development in principle.
- All external windows and doors listed are required to be fitted with Q-Ion type acoustic seals. (Mohair Seals are unacceptable).
- The external roof construction is currently proposed to be made of concrete and **does not need any further acoustic treatment**.
- External walls constructed from concrete / masonry elements will **not require any acoustic upgrading** to achieve the acoustic requirements.
- Natural ventilation **is unable to be achieved** for the entirety of the development **with windows open**. Any supplementary fresh air (ventilation system or other) required should be acoustically designed to ensure that the acoustic performance is achieved.



#### **Access** *(BCA Access )*

➤ **Performance Solution Required:**

1) There are 3 locations in BLDG B have non-provisions of required minimum 1540mm wide x 2070mm long clear wheelchair turning spaces within 2m end of accessways.

➤ **Compliance Matters to be Addressed:**

1) The unisex sanitary compartment on communal room of site 1 & site 2 will need to be modified to be a unisex ambulant sanitary.

2) 16x units intended to be adaptable requires further spatial modifications during Design Development stage.

#### **BCA** *(BCA Logic)*

- The architectural design documentation (refer to the DA submission) has been assessed against the applicable provisions of the Building Code of Australia (BCA) and it is considered that such documentation with revision is **capable of complying with the BCA.**
- There are specific areas throughout the development where strict Deemed-to-Satisfy BCA Compliance will not be achieved by the proposed design and site constraints. These matters will need to be address in **a detailed Fire Safety Engineering Report to be prepared.**
- As the building is required to be of Type A Construction, the external façade is required to be **non-combustible** and comply with Clause C1.9 of BCA2019

#### **BASIX** *(Gradwell Consulting)*

➤ **Site 1:**

Nationwide house energy rating scheme – 5.6  
Water – 47 (Target 40)  
Thermal Comfort – Pass (Target Pass)  
Energy – 36 (Target 35)

➤ **Site 2:**

Nationwide house energy rating scheme – 6.3  
Water – 47 (Target 40)  
Thermal Comfort – Pass (Target Pass)  
Energy – 28 (Target 25)



The advertising period is ongoing and will end on 22.11.2021.



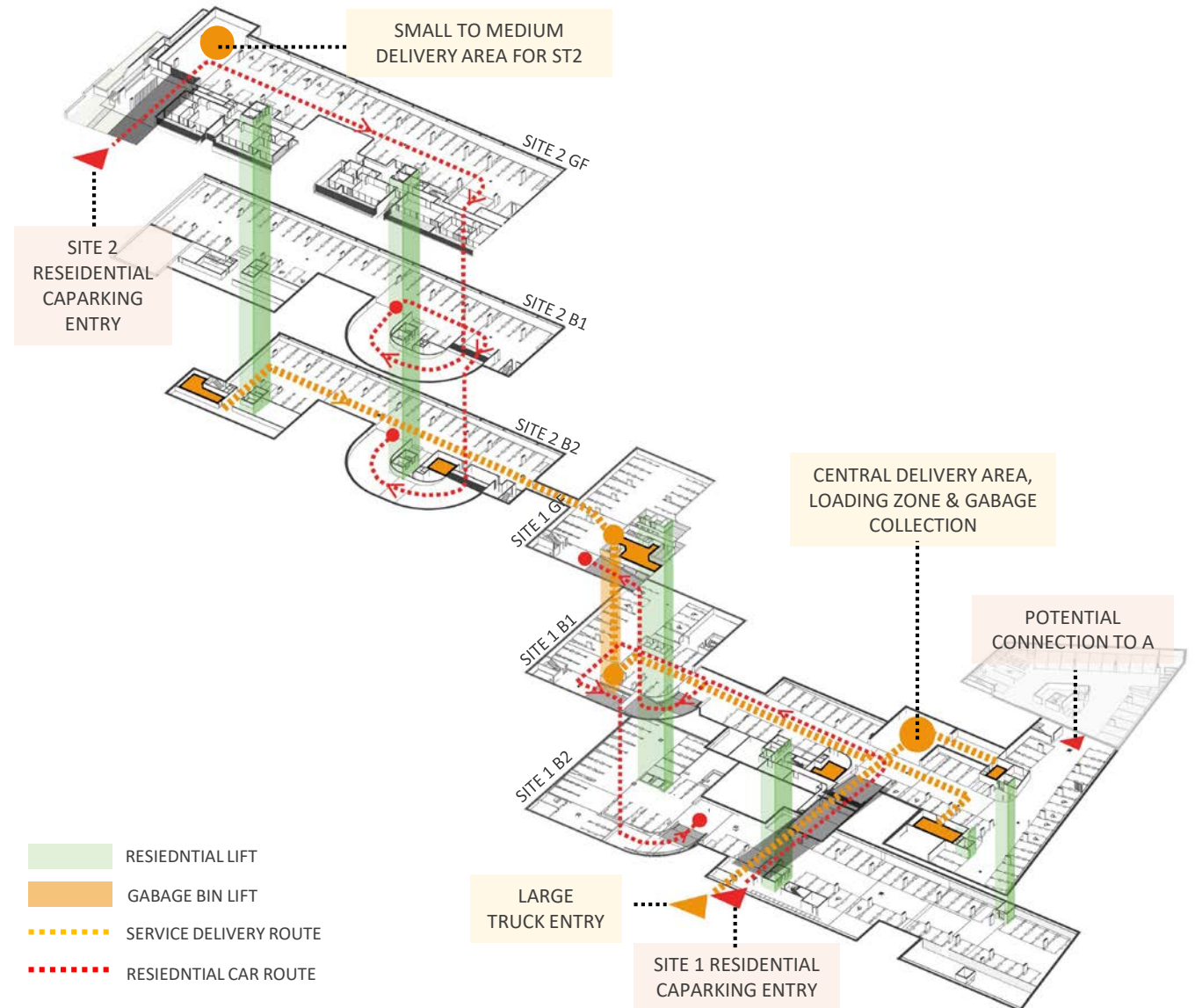
## 5 | ISSUE FOR FURTHER CONSIDERATION

### CENTRAL LOADING ZONE

#### DESIGN EXCELLENCE PANEL COMMENTS:

*'The number of apartments within the development should enable the project's basement access to be reduced to a single more centralized entry/exit point serving an interconnected basement.'*

- The site will operate best if there is **one centralized location** that can service all of site 1 including building A, providing car and truck access arrangement for deliveries and waste management through easement arrangement in compliance with the Objectives of the WLEP and site specific WDCP. The proposed access arrangement means that site A will not be isolated.
- As the project will be staged and due to the level differences between site 1 + site 2; a separate driveway has been provided to service each site for car and truck access for deliveries. The proposed arrangement meets with the objectives of Site specific DCP providing **2 separate Driveway access** points which will spread the traffic on Walter Street rather than intensifying it in one location.
- We have provided a **connection** from basement 2 of site 2 through to site 1 basement level under block D for **garbage transfer** from site 2 to Site 1 garbage pickup area.
- We believe that this arrangement creates unnecessary difficulties in garbage manageability as it has to be taken horizontally into site 1 and then down one level to basement 1 of site 1 and then taken to garbage pickup point for pick up.
- We believe that each site should be serviced separately.



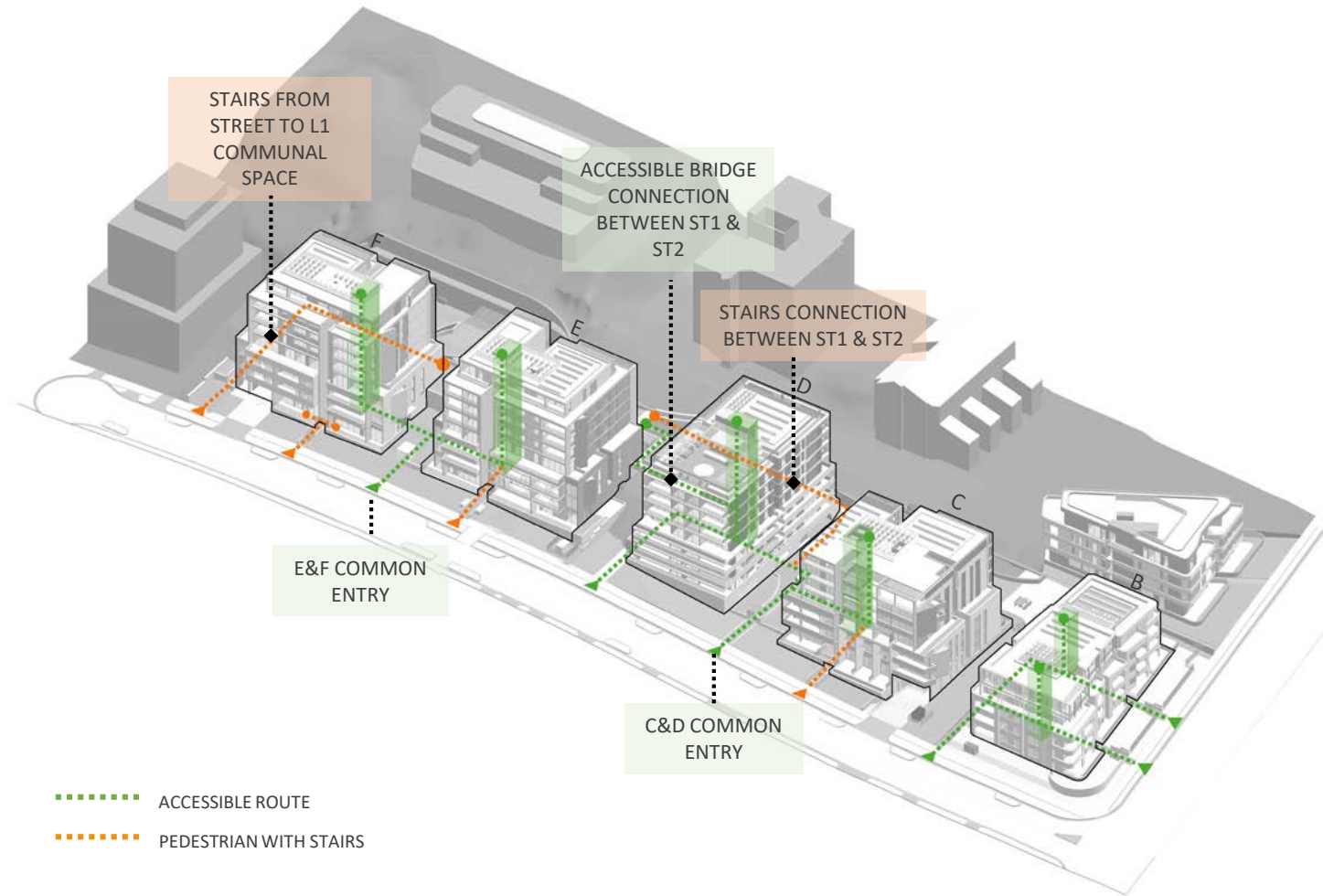


## BUILDING CONNECTIONS

### DESIGN EXCELLENCE PANEL COMMENTS:

*'The proposed separations between the buildings are the least successful open spaces at ground level. They are dominated by vehicular access (Buildings B-C and E-F) and have no deep soil that might support plantings of large trees that would improve cross privacy and the tree canopy cover of the site, which should comply with State Govt and Council targets for bio-diversity and carbon capture.'*

- **In response** Driveways have been relocated under the buildings to create deep soil zones between buildings.
- **Building C+D, E+F are connected** on Ground level by creating landscaped garden entries and secondary entries to enhance social interaction and activate the public domain areas.
- **Individual access points** to ground level apartments from Walter Street and Willoughby Road frontages have been provided through the common access paths of travel rather than individual access points so they do not break up the landscape quality into smaller portions that would only benefit a few apartments rather designed to benefit the whole development and wider community and contribute to public domain areas around the site.
- **2 points of entry** have been provided for each building for enhanced permeability and public domain activation and social interaction at multiple points along each Street frontages.





### **PROJECT FUNDING**

Project funding is in place subject to DA approval and construction can commence early 2022.

### **VPA UPDATE**

A total payment of \$2.5 M as part of VPA has been made in full to Willoughby Council.