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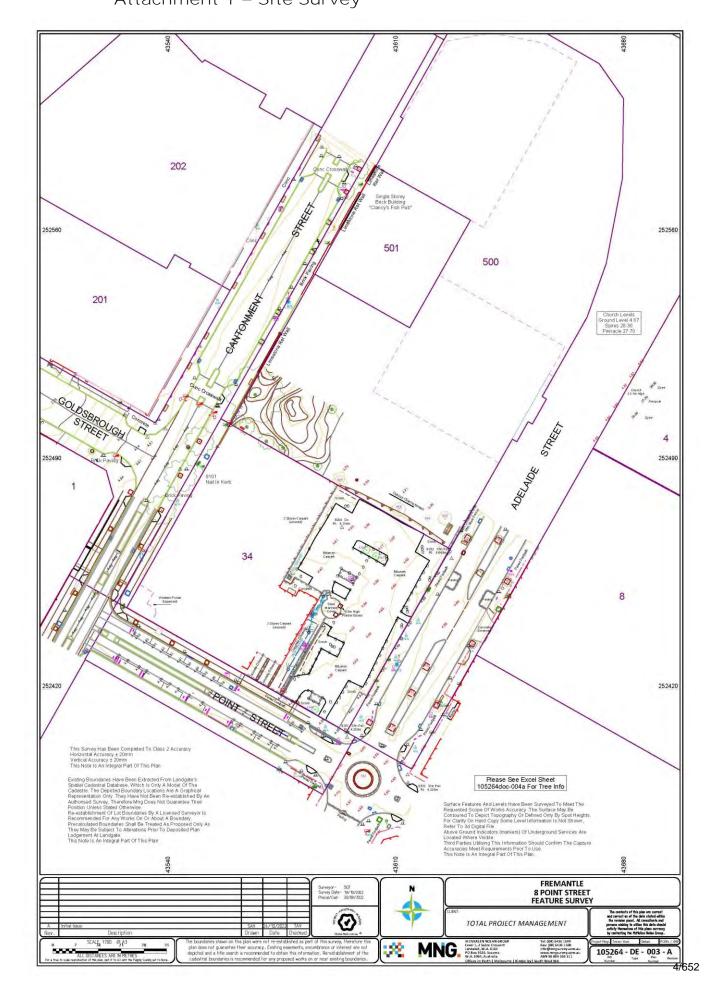


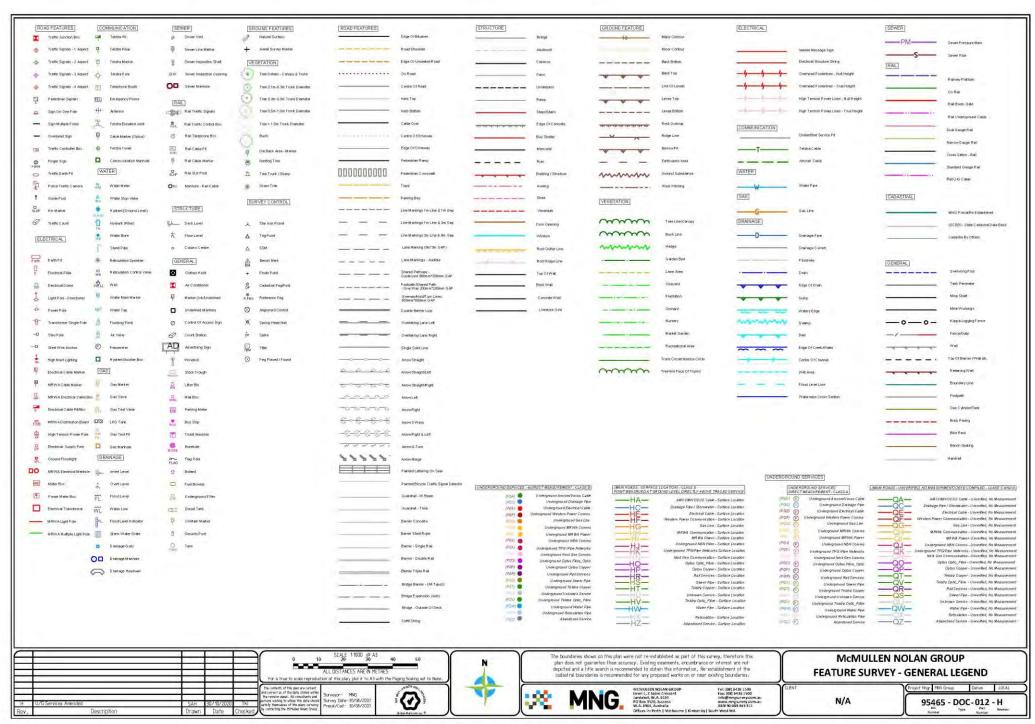
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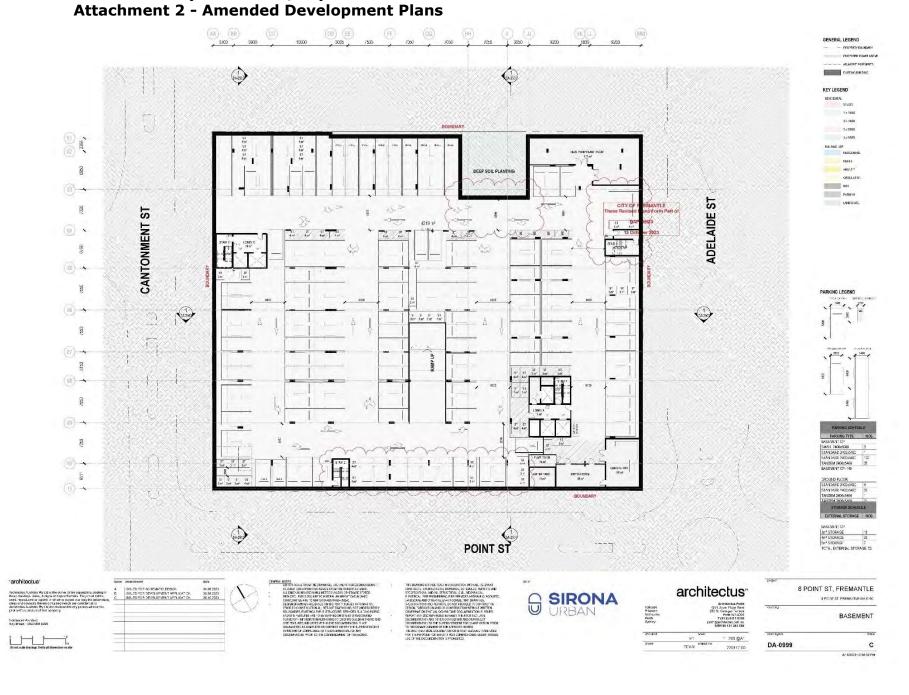
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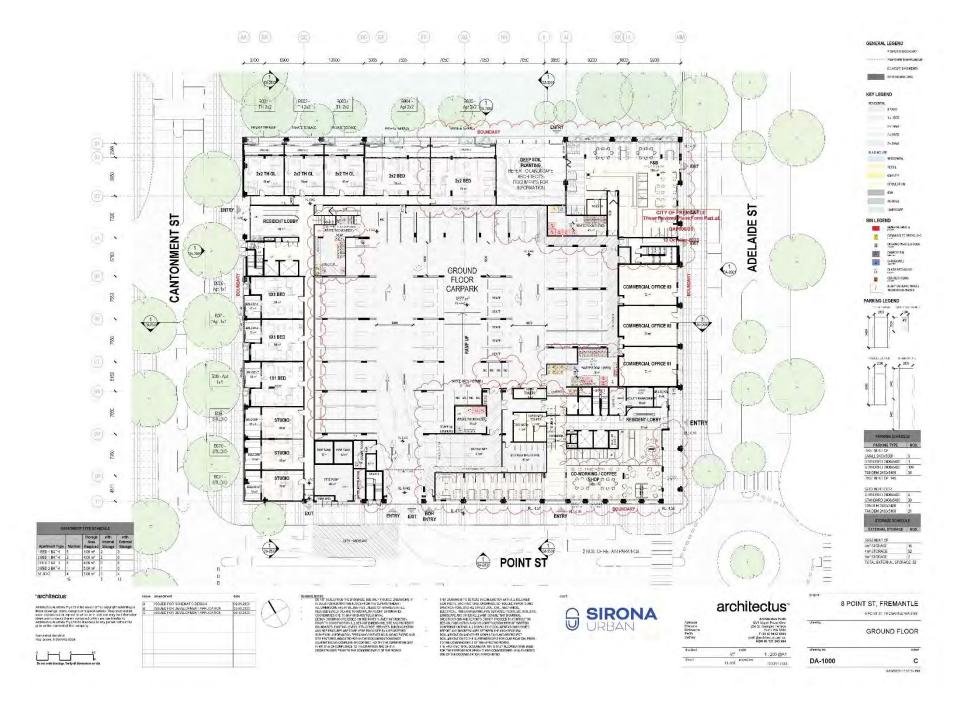
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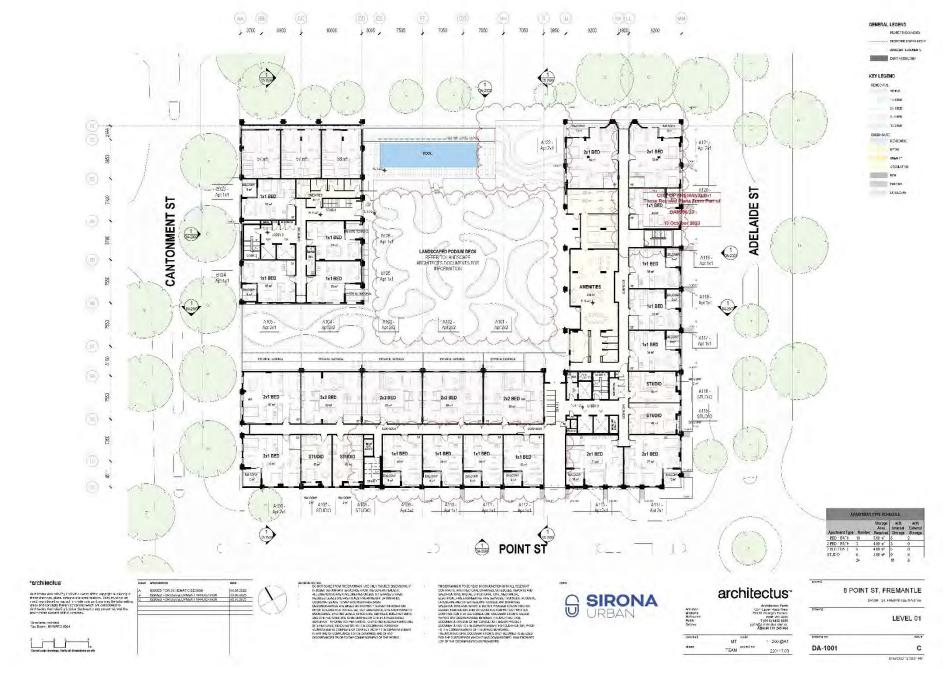


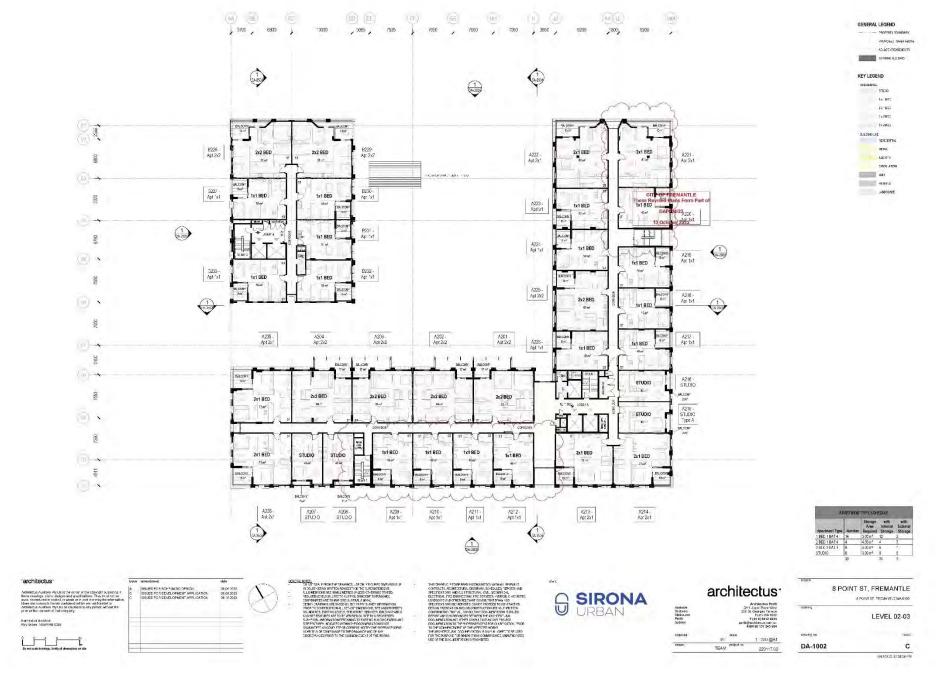


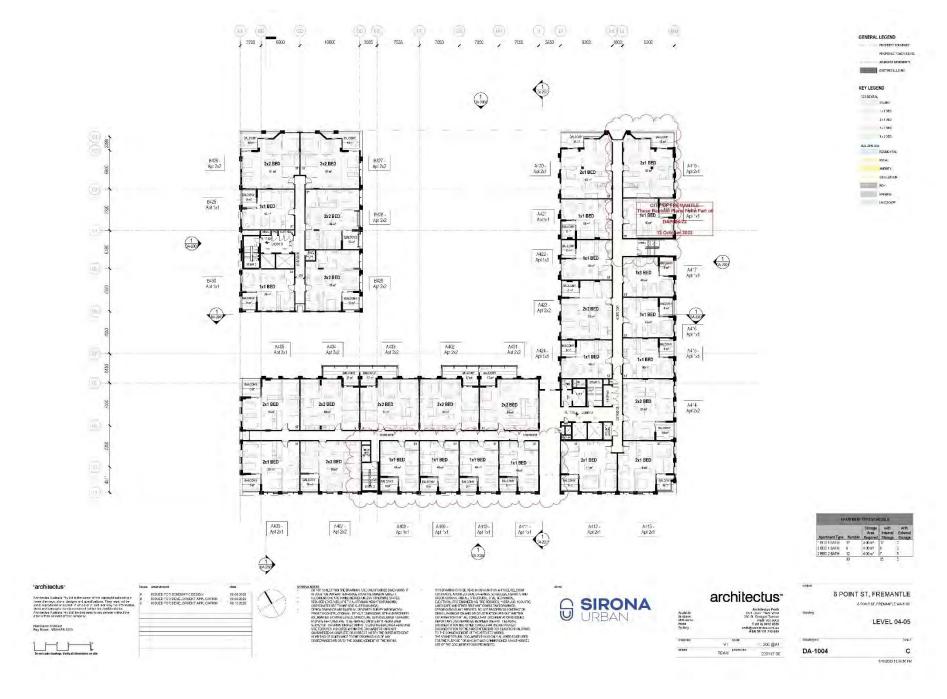
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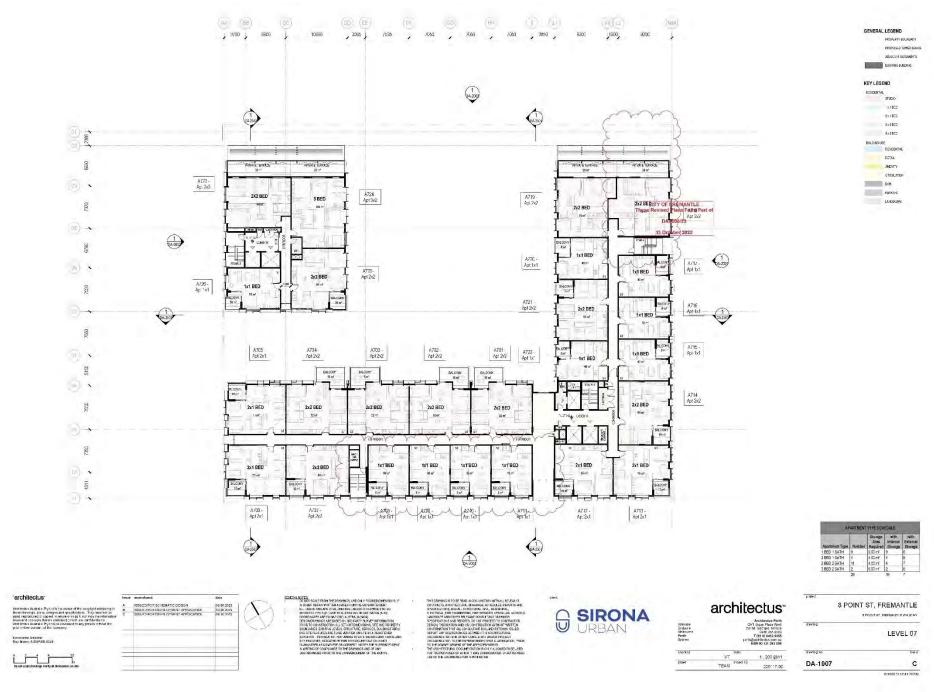


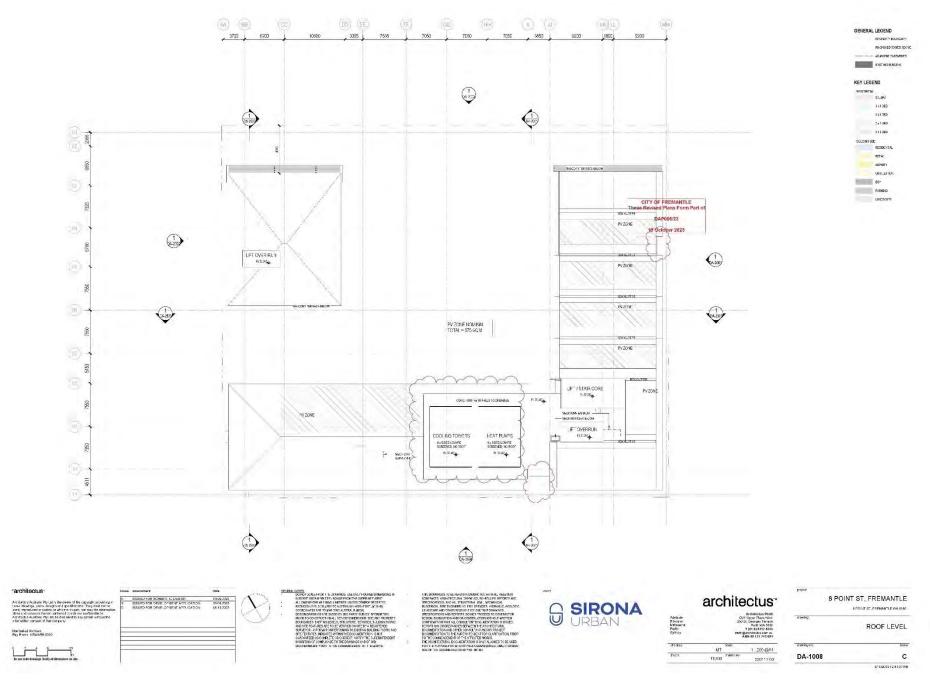














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C312	LIGHT GREY CONCRETE LOOK CLADEING	
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GT02	SHOPFRONT CLASS FINISH	
GT03	POOL GLASS FINISH	
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CE12	LIGHT GREY CONCRETE LOOK CLADDING
CD'3	GREY CONSRETE LOOK CLADEING
FKC1	CHAMPASHE CARPARK AUTOMATIC DOOR
G.05	5-IOPERONT GLASS FINISH
G 03	POOL SLABB FINISH
L'201	CHAMPAGNE LOUWRE FINISH
MOT	CLAMPAGNE METAL ROOF
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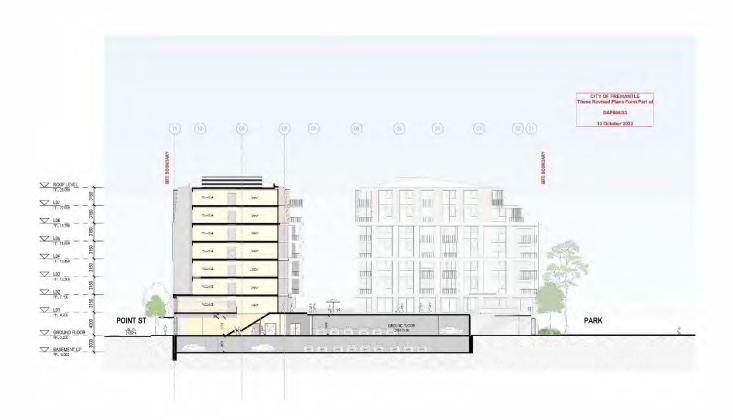
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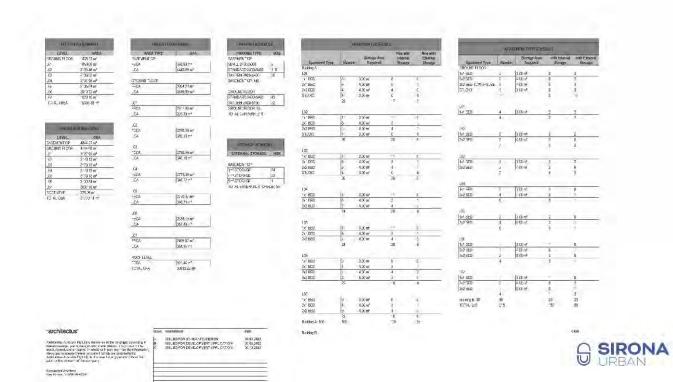
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# C2311-11 LOT 34 (NO. 8) POINT STREET, FREMANTLE - EIGHT STOREY MIXED USE DEVELOPMENT COMPRISING 215 MULTIPLE DWELLINGS AND RESTAURANT/CAFE AND OFFICE USES (ED DAP006/23)

### **Attachment 3 - Amended Development Summary**

		_	-	_				DEVELOP	MENT MATRIX									
PROJES	CL SCHEMA) IC	US-	IPVFIS	FLOG3 HFIG-IT (mm)	584 (50M)	FFCA (SQVI)	JCA CAR PARK / STORES (S(IM)	BALCONIES (SQM)	NSA 8, NLA (SQMJ/Plot Ratio	STRATA (SOM)	C ROULATION (SQM)	CORE / SERVICES / WASTE	BEST TOBBY (SQM):	GIAR FEB (SQM)	SOHO COMMERCIAL	RESI AMENITY	UNITS PER LEVEL	Floor Efficiency ? (FFCA / NSA)
ROOF	ROOF	OVER-RUN / PLANT		3,500	228	31	101				100	H 8			-		100	
			7	400	3,008	2,495		854	1,929	1,322	829	185					26	27%
			6		8,130	2,633	1	357	2.037	1,954	346	185	9	1.			26	1/%
			5	The same of	3,179	2,774	-	348	2,107	2,034	361	180			-		30	76%
			4	3,150	3,179	2,774		348	2.107	2,034	364	180	~	1	-		30	76%
			3.	1	3,179	2,75C	-	348	2,108	2,034	364	125			-		33	76%
			3		3,179	2,790		346	2,108	2,034	364	185					83	76%
		and the second second second	1	TANK T	3,128	2.81/		293	1,860	1,7/8	393 306	165	-	-	150	363	26	96%
DINTSTREET	GROLAD FLOOR	LOBBY / RETAIL / RESI	GF	4,000	4,715	2,094	2,458	242	1,496	613	306	675	110	583	213	90	- 11	69%
	BASEMENTOL	FARKING	B1	3,000	4,844	189	4.443	100				470	38		-	1	1	
VELOPIVENT SUMI	AMILY																	
			DEVELOPMENT HE GHT															
			SUB TOTAL		31,769	21,341	6,952	2,634	15,692	14,273	2,824	2,430	148	58	3 213	393	215	73.5%
				- 1	GBA-FECA+U	CA										STRATA	vs GBA	44.9%
					FFC4- NSA+C	IRC+CORF+IC	BBY-ALAHAMEA	HY.								NSA	s GBA	49.4%
																FFCA:	ur NEA	73.5%

Unit Typology	Average Area	No. of Units	%	Carpank	Ratio	Total
Studio	45	19.	7%	0	0	5/5
1.3md	49	93	43%	69.73	0.75	4557
2x1 Bed	76	38	18%	28	- 1	2,886
2x2 Red	85	£1	28%	81.5	1.5	5185
2 ded Townhouse	102	3	1%	1.5	1.5	306
3 3nd	118	5	3%	50	- 7	590
		719		213.75		14201





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C2311-11 LOT 34 (NO. 8) POINT STREET, FREMANTLE - EIGHT STOREY
MIXED USE DEVELOPMENT COMPRISING 215 MULTIPLE DWELLINGS AND RESTAURANT/
CAFE AND OFFICE USES (ED DAP006/23)



We acknowledge the Whadjuk people of the Noongar nation as traditional owners of the land on which we live and work. We acknowledge and respect their enduring culture, their contribution to the life of this city, and Elders, past and present.

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Date	Status	Prepared by	Approved by	Graphics	File
03.07.23	Draft	George Ashton	Dan Lees	SA	D1
11.07.23	Final	George Ashton	Dan Lees	SA	F1
	03.07.23	03.0723 Draft	03.07.23 Draft George Ashton	030723 Draft George Ashton Dan Lees	030723 Draft George Ashton Dan Lees SA

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### **Executive Summary**

This report has been prepared by **element**, in association with Architectus and on behalf of Point Street Partners Pty Ltd, in support of a development application for a mixed use redevelopment of Lot 34 (No. 8) Point Street, Fremantle (the subject site), comprising:

- · The demolition of the existing buildings and structures at the subject site; and
- · The construction of an eight storey (plus basement) mixed use development offering:
- Ground floor commercial activation to Adelaide Street as a primary pedestrian street within the Fremantle
  City Centre, in the form of a café and co-working space at the corner of Point Street, and four flexibly
  designed commercial tenancies initially designated for office use;
- 220 quality residential apartments, of varying sizes, that will contribute to the density and diversity of housing choice within the Fremantle City Centre;
- Associated car parking and building services across the Ground and Basement levels, accessed via a consolidated vehicle crossover to Point Street; and
- A range of additional community benefits in the form of:
- Provision for additional street trees within surrounding road reserves, to enhance pedestrian amenity adjacent the subject site;
- \* Provision for public art delivery; and
- A highly sustainable development approach that will deliver environmental performance that well
  exceeds standard practice, with a targeted 5 Star Green Star equivalency.

The vision for the project is to develop an inspirational, appropriately proportioned, quality product, which addresses the specific needs of the Fremantle demographics and market, and is considerate of its location and heritage, on a prominent site within the Fremantle City Centre, and in close proximity to the Fremantle Railway Station.

The proposed development represents an exciting opportunity for the Fremantle City Centre that will support the realisation of the City of Fremantle's City Centre revitalisation aims, and aligns with State level strategic planning objectives in relation to infill development and increased density within identified metropolitan activity centres.

Through a detailed planning assessment and an examination of the benefits that will be realised through the delivery of the proposed development, this report demonstrates that the proposed development is consistent with the principles of orderly and proper planning, and warrants approval accordingly. In particular, this report demonstrates that the proposed development:

- Will activate an underutilised site within the heart of the Fremantle City Centre, replacing an existing car
  park with a quality mixed use development that provides activation of the surrounding public realm and an
  appropriate interface with the adjoining State Heritage Listed Princess May Reserve;
- Is consistent with identified State level strategic planning objectives in relation to infill development and activity centre based planning;

- Will support the City's desire to rejuvenate the Fremantle City Centre as a higher density precinct that
  attracts new residents, workers and visitors, on a site that is identified as a major opportunity site for
  redevelopment under the City's Freo 2029: Transformational Moves strategy:
- Will contribute to the provision of more diverse and affordable housing opportunities for the local community, catering for a diverse mix of people, cultures and lifestyles, including universally accessible housing options;
- Is compatible with recently approved developments in the immediate vicinity of the subject site, and will
  complement the planned redevelopment of the adjacent Woolstores site; and
- Has been skilfully designed to respond to the local context and historic heritage character, whilst capitalising
  on the location of the subject site within the Fremantle City Centre and in close proximity to the Fremantle
  Railway Station, resulting in a high-quality design outcome that that respects the cultural heritage character
  of the locality.

As such, the approval of the proposed redevelopment by the Metro Inner South Joint Development Assessment Panel is respectfully requested.



### 1. Introduction

This report has been prepared by **element**, on behalf of Point Street Partners Pty Ltd, in support of a development application for a proposed eight storey mixed use development at Lot 34 (No. 8) Point Street, Fremantle (the subject site), within the City of Fremantle (the City).

Designed by Architectus, the proposed redevelopment of the subject site represents an exciting opportunity for the Fremantle City Centre that will deliver:

- Ground floor commercial activation to Adelaide Street as a primary pedestrian street within the Fremantle City Centre;
- A diverse range of quality residential apartments that will contribute to the density and diversity of housing within the Fremantle City Centre; and
- . A range of additional community benefits in the form of:
  - Supporting streetscape upgrades within the Adelaide Street and Point Street verges immediately adjacent the subject site, including the provision of new street trees:
  - Provision for public art delivery; and
  - A highly sustainable development approach that will deliver environmental performance that well exceeds standard practice, with a targeted 5 Star Green Star equivalency.

In doing so, the project will support the City's desire to rejuvenate the Fremantle City Centre as a higher density precinct that attracts new residents, workers and visitors, with the subject site identified as a major opportunity site for redevelopment under the City's Freo 2029: Transformational Moves strategy.

This report has been prepared to provide an overview of the subject site and the proposed development, as well as a detailed assessment against relevant planning requirements and an examination of the planning merits of the proposal. The report is also accompanied by a detailed Architectural Design Report and associated plans prepared by Architectus, as well as supporting documentation prepared by the following consultants:

- · Landscaping Aspect Studios.
- · Surveying MNG.
- Heritage element.
- Acoustics and Sustainability Stantec.
- · Stormwater Hera Engineering.
- · Transport and Access Uloth and Associates,
- Waste Encycle.

### 1.1 Development Approval Pathway

The proposed development has an estimated construction cost in excess of \$10 million and is therefore a mandatory Joint Development Assessment Panel (JDAP) application. This application requires determination by the Metro Inner South JDAP, based on a report and recommendation prepared by the City.

### 1.2 Pre-Lodgement Engagement Activities

In formulating the proposed design response, the proponent team has engaged extensively with the City to ensure that the proposed development aligns with the City's aspirations for the site and the broader City Centre precinct. This includes meetings and communications with the City's elected members, executive team, technical officers and independent Design Advisory Committee (DAC), to assist in refining the proposed land use mix and built form response, with particular regard for the City's desire to increase the residential population in the Fremantle City Centre.

In addition, the proponent team has undertaken preliminary consultation with the Department of Planning, Lands and Heritage (DPLH) to assist in refining the design response and proposed interface conditions to the adjoining State Heritage Listed Princess May Reserve, to the north of the subject site.



### 2. Subject Site

### 2.1 Property Description and Tenure

The subject site comprises Lot 34 (No. 8) Point Street, Fremantle and is located within Fremantle City Centre.

The subject site has a total land area of 5,015m², and is bound by Princess May Reserve to the north, Adelaide Street to the east, Point Street to the south, and Cantonment Street to the west.

Refer to Figure 1 - Location Plan

The Certificate of Title details for the subject site are summarised in Table 1 below. Copies of the Certificate of Title and associated Deposited Plan are enclosed at Appendix A.

Table 1 - Certificate of Title Details

Lot	Survey	Volume	Folio	Area	Registered Proprietor	
34	P61988	2775	144	5,015m <sup>2</sup>	Point Street Partners Pty Ltd	

Refer to Appendix A - Certificate of Title

Refer to Figure 2 - Cadastral Plan

The following encumbrances are registered against the Certificate of Title for the subject site.

- An easement burden in favour of the Electricity Networks Corporation, which relates to existing power
  infrastructure at the Point Street frontage of the subject site, which can be readily modified if required as part
  of the construction of the proposed development;
- A restrictive covenant registered by the City in 2014, which requires that any redevelopment of the subject site achieves a 5 Star Green Star rating or equivalent, as proposed by this development application; and
- · Three (3) separate caveats lodged by the City.

The subject site currently contains a public car parking facility, comprising both open-air, at-grade parking at the Adelaide Street frontage, and a two-storey parking structure at the Cantonment Street frontage. Access to the existing public car parking bays is via multiple crossovers to Point Street, and a single crossover to Cantonment Street along the northern lot boundary. All existing structures will be demolished to accommodate the proposed redevelopment, and existing crossovers removed and consolidated into a single vehicle access driveway off Point Street to service the proposed development.

Refer to Figure 3 - Aerial Plan

The subject site is relatively flat, with a minor change in level from north to south, consistent with the established grade of the adjacent road reserves.

Refer to Appendix B - Site Feature Survey

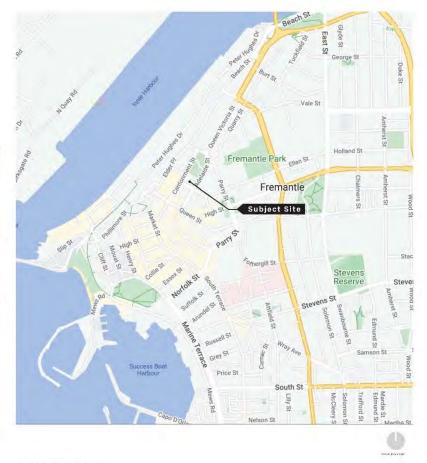
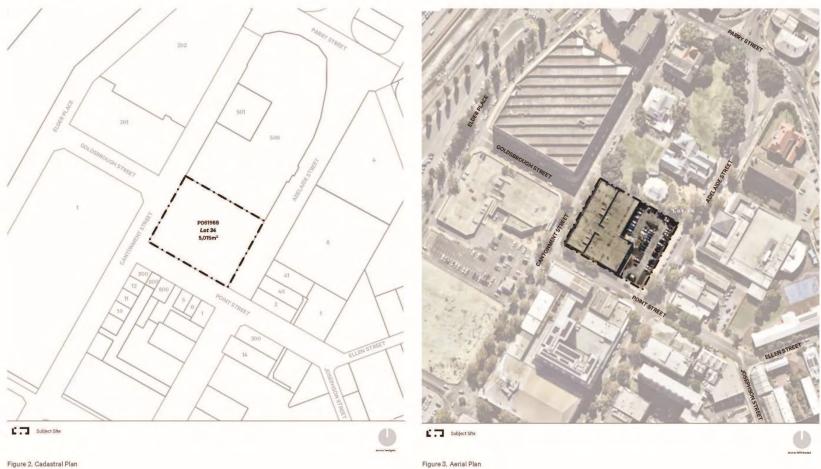


Figure 1. Location Plan

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#### 8 Point Street, Fremantle Proposed Mixed Use Development



### 2.2 Site Context and Surrounding Development

Walyalup (Fremantle) is located on Beeliar, one of the land divisions of the Whadjuk Noongar people. Prior to European contact, the area served as a significant meeting place and trading hub for the traditional landowners, and was abundant in food, water and shelter materials.

These days, Fremantle is a key tourist destination with a rich cultural history, evident in its architectural form and key sites such as the Fishing Boat Harbour, Fremantle Port, the Roundhouse, and Fremantle Prison.

The subject site is located within the Fremantle City Centre, and is surrounded predominately by commercial and other active uses, along with limited residential uses, the former Woolstores sites to the west, and Princess May Reserve and its associated State Heritage Listed buildings to the north.

More contemporary planning and development in the locality reflects the City's vision for a higher density, mixed use City Centre, with planned or recently completely developments in the locality including:

- The recently completed Kings Square redevelopment, comprising both the Walyalup Civic Centre and the FOMO buildings;
- The recently completed M/27 apartments at 12 Parry Street, Fremantle;
- · The recently completed Little Lane apartments at 52 Adelaide Street, Fremantle;
- · The approved LIV apartments at 51 Queen Victoria Street, Fremantle;
- · The approved Queens Square apartment building at 26 Parry Street, Fremantle;
- . The approved Bethanie led over 55's development at 8 Queen Victoria Street, Fremantle;
- · The approved Spicer's site hotel redevelopment at 10 Henderson Street, Fremantle;
- · The approved Woolstores Shopping Centre development at 28 Cantonment Street, Fremantle; and
- The planned broader Woolstores redevelopment, which is currently under assessment by the State Development Assessment Unit (SDAU).

The subject site presents an exciting opportunity to further this ongoing regeneration of the City Centre, on a site that is identified as a major redevelopment opportunity under the City's Freo 2029: Transformational Moves strategy.

The City Centre location also provides access to a range of important amenities and facilities, including:

- The Perth to Fremantle Rail Line, with Fremantle Railway Station located within 250 metres of the subject site:
- · A range of high frequency bus services that operate throughout the Fremantle City Centre;
- · Multiple public and private schools, and tertiary education institutions; and
- · A range of significant retail, dining, entertainment and cultural facilities.

The City Centre location also provides access to a range of local and regional recreation facilities, including the immediately adjacent Princess May Reserve to the north, and the nearby multi use recreation facilities within Fremantle Park.

A more detailed context and character analysis is also provided in the accompanying Architectural and Landscape Design Reports.

Refer to Appendix C - Architectural Design Report

Refer to Appendix D - Landscape Design Report

### 2.3 Environmental and Heritage Considerations

A desktop search of the Australian Heritage Database, the Department of Planning, Lands and Heritage (DPLH) Aboriginal Heritage Inquiry System, the Heritage Council's State Register of Heritage Places and the City's Statutory Heritage List indicates that there are no listings of local, State, national or Aboriginal heritage significance at the subject site.

A desktop search of relevant environmental factors also indicates that the subject site:

- Is not located within a bushfire prone area under the Department of Fire and Emergency Services (DFES)
   State Map of Bushfire Prone Areas;
- Is not a registered contaminated site under the Department of Water and Environmental Regulation's (DWER)
   Contaminated Sites Database; and
- Is not identified as having any risk of acid sulphate soils occurring within 3 metres of the natural soil surface.

As such, there are no known environmental or heritage constraints that would inhibit the proposed redevelopment of the subject site.

However, it is acknowledged that there are a number of heritage listed properties in the vicinity of the subject site, including:

- The State heritage listed Princess May Reserve (Place No. 851) and the associated Film and Television Institute building (Place No. 842), located immediately to the north of the subject site across 1 Parry Street and 51 Cantonment Street. Fremantle: and
- The State heritage listed Elders Wool Stores (Place No. 852), located to the west of the subject site, on the
  opposite side of Cantonment Street.

Refer to Figure 4 - Surrounding State Heritage Context



Figure 4. Surrounding State Heritage Context

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As such, this report is accompanied by a detailed Heritage Impact Statement (HIS) prepared by **element**, a copy of which is enclosed at Appendix E. The findings of the HIS are also discussed in Section 6 of this report.

Refer to Appendix E - Heritage Impact Statement

The applicant is also aware of their separate obligation to comply with the requirements of the Aboriginal Cultural Heritage Act 2021.

### 2.4 Previous Development Approval

In March 2020, the previous landowner obtained development approval from the Metro South West JDAP for a proposed redevelopment of the subject site, in the form of a seven storey mixed use development comprising:

- A 168 room hotel;
- · Shops;

8

- · Offices; and
- · 45 residential apartments.

This approval remains valid, and was approved with a number of variations to the established planning framework, as referenced throughout this report.

### 3. Proposed Development

### 3.1 Development Overview

This development application seeks approval for the demolition of the existing buildings and structures at the subject site, and the construction of an eight (8) storey mixed use development comprising:

- Ground floor commercial activation to Adelaide Street as a primary pedestrian street within the Fremantle
  City Centre, in the form of a café and co-working space at the corner of Point Street, and four (4) flexibly
  designed commercial tenancies initially designated for office use;
- 220 quality residential apartments, of varying sizes, that will contribute to the density and diversity of housing choice within the Fremantle City Centre;
- Associated car parking and building services across the Ground and Basement levels, accessed via a
  consolidated vehicle crossover to Point Street; and
- A range of additional community benefits in the form of:
- Provision for additional street trees within surrounding road reserves, to enhance pedestrian amenity adjacent the subject site;
- Provision for public art delivery; and
- A highly sustainable development approach that will deliver environmental performance that well exceeds standard practice, with a targeted 5 Star Green Star equivalency and initiatives that include:
- Apartments and communal areas that are designed to capitalise on access to northern winter daylight and cross ventilation.
- Provision for rooftop solar PV cells and electric vehicle charging capacity within the proposed car parking levels, and
- High performance façade systems to optimise thermal and acoustic performance throughout the development.

Refer to Appendix C - Architectural Design Report

As noted above, the proponent is also intending to pursue related public realm upgrades within the adjoining City managed road reserves, to support the proposed development and enhance public amenity around the subject site in the form of

- Provision for new street trees along Adelaide Street and Point Street, to improve long term tree canopy and enhance pedestrian amenity adjacent the subject site; and
- Removal of two street trees, and modifications to existing kerbing and on-street parking bays on Point Street, to accommodate the new car park entry and DFES hardstand area.

As these works are located outside the boundaries of the subject site and within adjoining City managed road reserves, it is acknowledged that they do not form part of this development application and will require separate engineering approvals from the City. However, the works within the adjacent City managed road reserves are still detailed in the accompanying Architectural and Landscape Design Reports, for context and completeness, and to enable in-principle agreement to be reached with the City as part of the development application process.

Refer to Appendix D - Landscape Design Report

### 3.2 Design Approach

The subject site offers an exciting opportunity to inject new life into the Fremantle City Centre, and better connect with this emerging and characterful precinct.

The vision for the subject site is to develop an inspirational, appropriately proportioned, quality product that addresses the specific needs of the Fremantle market, and is considerate of its location and heritage. Through a thorough analysis of the surrounding context, Architectus has identified three key design drivers for the project, heing:

Connection to Park: Celebrating the adjacency to the heritage listed Princess May Reserve.

An Active Precinct: Enlivening the streetscape and parkland through the introduction of density and diverse, active ground floor uses.

Stitching into the Fabric of Fremantle: responding to and integrating with the urban context through form, articulation and use, adding vibrancy and connectivity to the area:

These result in a design approach that:

- Prioritises streetscape and parkland activation with commercial and residential uses at Ground Level fronting all adjacent streets and public spaces;
- Breaks down the bulk and scale of the proposed development into distinct elements, with a U-shaped built form that steps down to Princess May Reserve and maximises northern solar access for both apartments and the proposed Level 1 communal courtyard;
- Provides for a critical mass of residents at the subject site, with strong connections to the parkland amenity
  within Princess May Reserve, including a direct pedestrian connection with the private Level 1 communal
  countward and
- Appropriately frames the street frontages of the subject site, providing a sense of enclosure to surrounding streets.

The Ground Level has been thoughtfully designed to activate as much street frontage as possible, with retail and commercial land uses along the primary Adelaide Street frontage, punctuated by the building's primary residential address and lobby.

Secondary frontages are then activated with ground floor residential apartment and townhouse style dwellings, which are raised above street level, in order to provide an appropriate balance between activation and passive surveillance of the public realm, and the privacy and safety of building occupants.

The Ground Level townhouses fronting Princess May Reserve will provide a quality offering, and enjoy direct access to the park via private courtyards with crafted brick walls transitioning between the public and private realm.

Back of House frontage at Ground Level is minimised, with car parking and servicing accessed via Point Street, and approximately aligned with the adjacent car park entrance to the Little Lane Apartments development.

The dominant shoulder of the building form to Adelaide Street, Point Street and Cantonment Street sits at a height of six storeys and 19,85m, with a more recessive upper two levels above reaching an ultimate height of 26,05m. The design aims to present a confident, formal, well-proportioned facade at the three street frontages, with appropriate solidity, materiality and scale. The definition of a strong base, middle and top has driven both the architectural language and form, with:

- The base being active and textured, enhancing the ground level experience and connection to place, including a set back colonnade at the corner of Adelaide Street and Point Street that provides depth and articulation to the proposed commercial use on this prominent street corner;
- The middle being highly permeable, open to views, and expressed horizontally as double height groupings of floors, breaking down the perceived scale of the building; and
- The top framing the skyline in a manner that is inspired by the industrial vernacular of Fremantle, with the
  two upper levels clad in a metallic finish that creates a lighter transition to the sky, and framed openings that
  create a profiled silhouette to the building form.

To the Princess May Reserve frontage, the upper two levels have been setback in 4 metre increments to present a stepped form to the park, whilst the central portion of this elevation presents as a single storey only. This approach opens up views to the park and provides a strong connection with the Level 1 communal courtyard, which provides a range of amenities for residents, including:

- · Extensive landscaped gardens;
- · A pool and associated decked area; and
- · Supporting indoor amenities, including a gym, and a communal dining and lounge area.

As the building transitions towards Princess May Reserve, the ratio of solidity to openings also begins to shift, while maintaining a consistency of proportion and materiality. Generous balcony frontages addressing the park take inspiration from the traditional verandah typologies of Fremantle's colonial architecture, presenting a softer and finer grain response to Princess May Reserve.

The typical floorplate levels have been developed in consideration of the subject site's solar orientation and views, to optimise solar aspect to apartments, and to capitalise on the desirable north aspect to Princess May Reserve and the Level 1 communal courtyard. The apartments also benefit from desirable vistas in all directions, including Princess May Reserve and the Perth CBD to the north, Monument Hill and Fremantle Prison to the east, the Fremantle Harbour and Fremantle City Centre to the south, and the Fremantle Port and Indian Ocean to the west.

The typical floorplate offers a range of dwelling types from studios through to three-bedroom apartments, providing affordability and choice within the development for a range of prospective occupants. Opportunities to broaden the availability of housing choice has also been considered through the provision of adaptable floorplates, with the ability to convert adjoining one-bedroom apartments to cater for larger households subject to purchaser demand.

The built form is also complemented by extensive landscaping that includes significant shade tree canopy cover to enhance user comfort within the Level 1 communal courtyard, and on structure planting to soften the upper level interface with Princess May Reserve, as detailed in the accompanying Landscape Design Report prepared by Aspect Studios. The landscape design includes endemic, sensory, and productive plantings that are carefully selected to support local biodiversity, creating habitats for wildlife and contributing to the ecological balance of the area.

Refer to Appendix D - Landscape Design Report

A more detailed overview of the proposed design approach, including a response to the ten principles of good design under State Planning Policy 7.0 – Design of the Built Environment (SPP7.0) is provided in the accompanying Architectural Design Report prepared by Architectus.

Refer to Appendix C - Architectural Design Report

### 3.3 Parking, Access and Servicing

On-site parking facilities for the proposed development are provided across the Ground and Basement Levels, with access via Point Street to the south. These levels provide parking facilities for a range of different transport modes, including bicycles, scooters and motorcycles, and private cars, as detailed in Table 2. The car parking levels also include infrastructure planning to accommodate EV charging to all car parking bays subject to purchaser demand, and as a future proofing measure for EV charging capacity.

Commercial loading requirements will be managed via the proposed on-site loading dock, which has been conveniently located immediately adjacent the proposed crossover to Point Street. A separate on-street hardstand area has also been designated to meet Department of Fire and Emergency Services (DFES) access requirements, as shown on the accompanying architectural plans.

### 3.4 Development Summary Table

The particulars of the proposed development are summarised in Table 2 below.

Table 2 - Development Summary

Building Level	Proposed
Basement Level	153 car parking bays, including 36 bays provided in a tandem arrangement;
	Four (4) motorcycle bays;
	Residential storerooms; and
	Utilities and services infrastructure.
Ground Level	Coffee shop and co-working space at the corner of Point Street and Adelaide Terrace;
	Four (4) commercial office tenancies fronting Adelaide Street;
	Two (2) separate residential entry lobbies fronting Adelaide Street and Cantonment Street,
	Level 1 amenity area pedestrian connection from Princess May Reserve;
	Three (3) studio apartments;
	Three (3) one-bedroom apartments;
	Two (2) two-bedroom apartments;
	Six (6) two-bedroom, two-storey townhouse apartments fronting Princess May Reserve;
	73 car parking bays, including 46 bays provided in a tandem arrangement;
	Four (4) motorcycle bays;
	Residential storerooms;
	Resident bike parking facilities, comprising 52 individual bicycle racks;
	Four (4) commercial staff bike racks;
	Eight (8) visitor bike racks;
	Residential and commercial waste rooms; and
	Utilities and services infrastructure.
Level 1	Landscaped podium deck, pool and associated residential amenities;
	Six (6) studio apartments;
	11 one-bedroom apartments;
	Eight (8) two-pedroom apartments; and
	Upper levels of ground floor townhouse units fronting Princess May Reserve.

<b>Building Level</b>	Proposed
Levels 2 - 3	12 studio apartments;
	30 one-bedroom apartments; and
	26 two-bedroom apartments.
Levels 4 - 5	24 one-bedroom apartments; and
	36 two-bedroom apartments.
Level 6	11 one-bedroom apartments;
	13 two-bedroom apartments; and
	Three (3) three-bedroom apartments.
Level 7	Nine (9) one-bedroom apartments;
	15 two-bedroom apartments; and
	Two (2) three-bedroom apartments.
Roof Level	Rooftop services compounds and lift overruns; and
	Rooftop solar panels.



## 4. Design Advisory Committee Engagement

Prior to lodging this development application, the project team provided a preliminary design presentation to the City's DAC on 12 June 2023.

The key responses to the DAC feedback against each of the ten principles of good design under SPP70 is provided below.

#### · Context and Character:

- As requested by the DAC, the companying Architectural Design Report specifically addresses the
  interface of the Ground Level residential apartments with both Cantonment Stroot and Princess May
  Reserve, Ground Level residential apartments and townhouse style dwellings are raised above the level of
  the adjoining public realm, and are provided with operable and visually permeable screening devices, in
  order to provide an appropriate balance between activation and passive surveillance of the public realm,
  and the privacy and safety of building occupants.
- As detailed in Section 3.2. of this report, the street frontage elevations have been further considered to
  provide a clear base, middle and top, and increased horizontal articulation, to break down the bulk and
  height of the development, particularly to Adelaide Street and Point Street.
- The northern elevation has also been revised to provide a softer, more fine-grained interface with Princess May Reserve. This has been achieved through the provision of larger residential balconies and onstructure landscaping, to provide a more open and nature-inspired relationship with the adjoining reserve.

#### Landscape Quality:

- Information has been provided to demonstrate universal access to the proposed development, including to the proposed Level 1 communal courtyard.
- The accompanying Landscape Design Report also clarifies:
- The approach to deep soil planting area compliance under the R-Codes Volume 2; which provides an appropriate mix of true deep soil and planting on structure to deliver significant tree canopy cover within the subject site; and
- Proposed plantings within each of the landscaped spaces, with the 'Port Outlook' area of the Level 1 communal courtyard specified with appropriate shade tolerant species.

#### . Built Form and Scale:

Articulation of building facades has been adjusted to break down the perceived bulk and scale of the
development, with a particular emphasis on softening façade treatments to Princess May Reservé, as
detailed in the accompanying Architectural Design Report.

#### · Functionality and Build Quality:

 As requested by the DAC, this report is accompanied by a Waste Management Plan that details the waste storage and collection arrangements for the proposed development. This includes consideration of a range of options for minimising the impact of waste collection arrangements on the pedestrian footpaths abutting the subject site, as discussed in Section 7.4 of this report.

#### · Sustainability:

- As requested by the DAC, this report is accompanied by a detailed Sustainability Report that outlines the
  project's commitment to a self-certified 5 Star Green Star equivalency. This includes:
  - \* Apartments and communal areas that are designed to capitalise on access to northern winter daylight and cross ventilation:
- Provision for rooftop solar PV cells and electric vehicle charging capacity within the proposed car parking levels;
- \* Water efficient fixtures and fittings; and
- High performance façade systems to optimise thermal and acoustic performance throughout the development.

#### Amenity:

- As requested by the DAC, the accompanying Architectural Design Report includes building performance diagrams that demonstrate natural light and cross ventilation outcomes for the proposed residential apartments. This demonstrates that the proposed development meets the associated requirements of the R-Codes Volume 2, with 72% of the proposed apartments having access to the required 2 hours of sunlight on 21 June, and 89% of the proposed apartments being capable of achieving cross flow ventilation.
- Natural light and ventilation are also provided to all residential apartment corridors within the development, consistent with the requirements of the R-Codes Volume 2.

#### · Legibility:

 Further details have been provided in relation to the legibility of the proposed residential entry lobbies in the accompanying Architectural Design Report, as requested by the DAC. The residential entry lobbies are clearly visible and easily identifiable for pedestrians, and are highlighted through clear glazing, lighting and building canopies.

#### · Safety:

Further details have been provided in the accompanying Architectural Design Report to demonstrate
the safety considerations around the proposed Level 1 communal courtyard. The access to the Level 1
communal facility from Princess May Reserve is treated with a secure, gated access control to ensure
safety and security for residents.

#### · Community:

- The proposed development includes a diverse range of apartment sizes that meets the requirements of the R-Codes Volume 2, caters for a diverse range of households, and comprises:
- \* 9.5% (21) studio apartments;
- \* 40% (88) one-bedroom apartments;
- \* 48% (106) two-bedroom apartments; and
- \* 2.5% (5) three-bedroom apartments.
- Opportunities to further broaden the availability of housing choice have also been considered through the
  provision of adaptable floorplates, with the ability to convert adjoining one-bedroom apartments to cater
  for additional larger households subject to purchaser demand. This information has been included in the
  accompanying Architectural Design Report, as requested by the DAC.

#### · Aesthetics:

 Further details have been provided in relation to the proposed materials and finishes in the accompanying Architectural Design Report, as requested by the DAC.

These changes respond positively to the feedback received from the DAC and result in a high quality development outcome that aligns with the ten principles of good design under SPP7.0, as addressed in the accompanying Architectural Design Report prepared by Architectus.

Refer to Appendix C - Architectural Design Report

## 5. Planning Assessment

#### 5.1 Perth and Peel @3.5 Million

The Perth and Peel @ 3.5 Million framework is the primary spatial plan for the Perth and Peel Metropolitan Regions, and builds on the vision established under Directions 2031.

The framework recognises that land for residential, commercial and industrial development is a finite resource, and that Perth and Peel cannot sustain a widespread pattern of development based on historical and traditional notions of what constitutes a household, a home and a community. As a result, the framework seeks to achieve a more consolidated urban form, and strengthen key activity centres and employment nodes as the Perth and Peel population grows to 35 million people by 2050. This includes a focus on:

- Promoting higher-density residential development, particularly within activity centres, station precincts, and other areas serviced by high-frequency public transport routes;
- Integrating land use planning and efficient public transport in a manner that maximises the use of existing infrastructure assets;
- Providing housing diversity and choice, with opportunities for more affordable living within areas of high amenity;
- Supporting urban and economic development of the activity centres network as places that attract people to live and work by optimising land use and transport linkages between centres;
- · Ensuring that major public transit corridors are supported by higher-density residential land uses; and
- Consolidating urban areas to provide for more efficient use of urban land and infrastructure, with improved
  access to public transport and community facilities.

The subject site is located in the central sub-region under the framework, within an identified 'Activity Centre' (the Fremantle Strategic Metropolitan Centre) and in close proximity to the Fremantle Railway Station.

The framework recognises that existing activity centres within the central sub-region provide significant opportunities to accommodate an increased density of development, with a key focus on residential infill. This establishes the Fremantle City Centre precinct as an important area for higher-density residential and commercial growth, as proposed by this development application, to assist in meeting the City's identified residential infill target of 7,030 additional dwellings by 2050.

In the context of the above, the proposal presents the opportunity to deliver increased residential density in an appropriate location within the Fremantle City Centre, and in a manner that is consistent with the State Government's Perth and Peel @ 3.5 Million framework.

#### 5.2 Metropolitan Region Scheme

The Metropolitan Region Scheme (MRS) provides the legal basis for controls on the development and use of land at the regional level.

The subject site is zoned 'Central City Area' under the MRS and is not affected by any reservations or road widening requirements under the MRS.

Refer to Figure 5 - Extract of MRS

The Central City Area zone is intended to accommodate a diverse range of city centre land uses, including higher density residential and commercial land uses of the type proposed.

## 5.3 City of Fremantle Strategic Community Plan (2015 – 2025)

The City of Fremantle's Strategic Community Plan (2015 – 2025) is consistent with the Perth and Peel @ 3.5 Million plan, with its focus on:

- Encouraging sustainable revitalisation of the Fremantle City-Centre, with ambitious targets for the development of new dwellings, commercial office and retail floorspace;
- Delivering more diverse and affordable housing opportunities for the local community, with increased residential density in urban centres;
- · Promoting the use of alternative modes of transport, and the principles of transit oriented development; and
- · Encouraging heritage interpretation opportunities to strengthen sense of place, history and heritage.

This includes a stated desire under the City's Freo 2029. Transformational Moves strategy to economically and socially reviralise the core area of the City Centre, with a focus on increasing its working and residential populations. In this regard, the proposed development presents a significant opportunity to support an increased residential population in the City Centre, on a site that is identified as a 'major opportunity site' under the Transformational Moves strategy.

The redevelopment of the subject site for residential purposes also aligns with the principles of transit oriented development, and proposes a design that is responsive to the surrounding heritage context as detailed in the accompanying HIS.

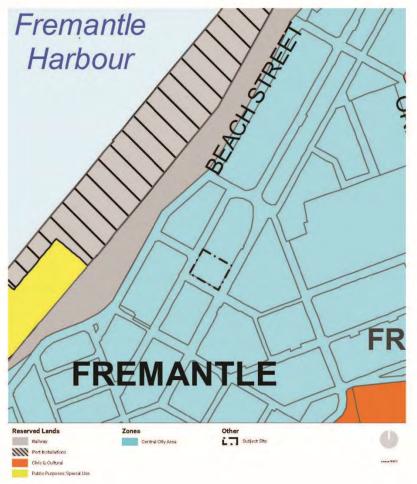


Figure 5. Extract of MRS

#### 5.4 City of Fremantle Local Planning Scheme No. 4

The City of Fremantle Local Planning Scheme No. 4 (LPS4) is the primary statutory control on land use and development within the City.

The subject site is zoned 'City Centre' under LPS4 and is located within Local Planning Area 1 – City Centre, Sub Area 1.3.2, Sites 3a and 3b.

Refer to Figure 6 - Extract of LPS4

Refer to Figure 7 - Sub Area 1.3.2 Site Boundaries

The objectives of the City Centre zone under LPS4 are that new development shall:

- provide for a full range of shopping, office, administrative, social, recreation, entertainment and community services, consistent with the region-serving role of the centre and including residential uses; and
- ii. comply with the objectives of local planning area 1 of schedule 7; and
- iii. conserve places of heritage significance the subject of or affected by development.

The proposed development is consistent with the above objectives, on the basis that it will:

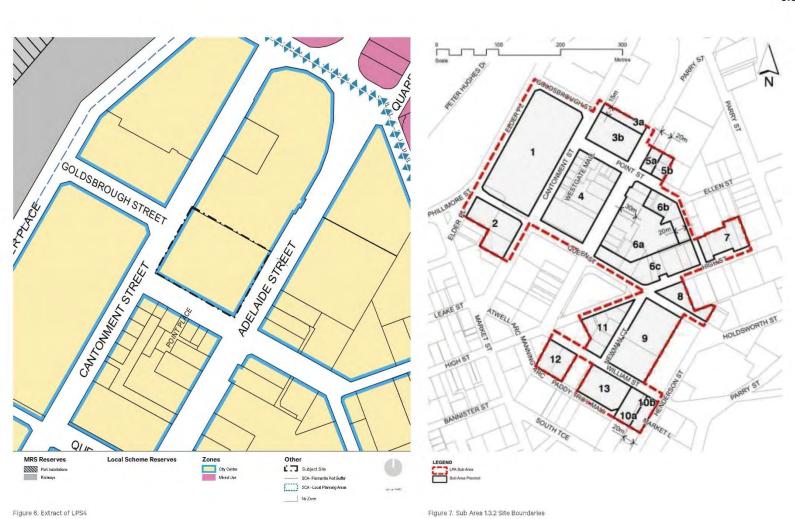
- Introduce new residential and commercial land uses at the subject site, consistent with the subject site's location within the Fremantle Strategic Metropolitan Centre; and
- Respect and conserve the identified cultural heritage values of Princess May Reserve as an important component of Fremantle's unique cultural heritage, as detailed in the accompanying HIS.

In addition, the proposed development is consistent with the general aims of LPS4, on the basis that it will:

- Provide greater housing choice to cater for a diverse mix of people, cultures and lifestyles, including universally accessible housing options;
- Complement and contribute to the community's desired identity and character for Fremantle, through a
  design response that is informed by a thorough site context analysis; and
- Deliver an urban form outcome that will contribute to the sustainable development of the City, by delivering an appropriate density of development in close proximity to the Fremantle Railway Station that will:
- Reduce reliance on, and the impact of, private motor vehicles;
- Encourage the use of public transport, walking and cycling; and
- Promote the compatible use of land surrounding essential infrastructure.

Land use permissibility and development controls applicable to the subject site under LPS4 are also addressed below.

#### element.



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#### 5.4.1 Land Use Permissibility

A summary of the proposed land uses and their respective permissibility within the City Centre zone under LPS4 is provided in Table 3 below.

#### Table 3 - Land Use Permissibility

Proposed Land Use	Permissibility	Justification
Restaurant/Café	Discretionary (D)	The proposed restaurant/café land use is appropriate for a City Centre environment, will provide for activation of the surrounding public realm at ground level, and is consistent with the objectives for the City Centre zone under LPS4.
Office	Permitted ('P')	Permitted use that is entirely appropriate within the City Centre zone, and is consistent with the specific planning requirements that apply to Local Planning Area 1 – City Centre, Sub Area 1.32 under LPS4.
Multiple Dwelling	Discretionary (D)	The proposed multiple dwelling land use will contribute to the density and diversity of housing within the City, consistent with the objectives of LPS4 and the Free 2029. Transformational Moves strategy.

All the proposed land uses are therefore capable and worthy of approval in accordance with the applicable City Centre zoning under LPS4.

#### 5.4.2 Development Standards and Requirements

An assessment against the applicable development standards and requirements of LPS4 is provided in Table 4 below. Where detail justification is required, this is provided following the table.

Table 4 - LPS4 Development Standards and Requirements

Requirement	Response	Compliance
Application of the R-Codes		
Cl4.2.4	An assessment against the R-AC3 provisions of the R-Codes Volume 2 is	Complies.
R-AC3 provisions of the R-Codes shall be applied as relevant.	provided at Appendix E.	
Schedule 7		
The General site requirements specified in Table 21 of the R-Codes Volume 2 for development at the R-AC3 density do not apply to any type of residential development in Sub Area 13.2.		
Car and Bicycle Parking		
Subject to clause 4.7.2, a person shall not use land for a purpose specified in Table 2 of LPS4 unless car parking spaces, delivery bays and bicycle racks of the number specified in Table 2 of LPS4 are provided and sealed, drained and marked to the Council's specifications.	The proposed development allocates six (6) car parking bays to the commercial component, in lieu of the 18 required under LPS4.	Approval sought for commercial car parking
Café/Restaurant Use:	Compliant bicycle parking facilities are provided for the commercial	shortfall. Refer to discussion below.
<ul> <li>1 car bay per 5 seats or per 5m<sup>2</sup> dining area, whichever is greater. Approximately 8 bays required.</li> </ul>	component, comprising:	
1 delivery bay required.	Four (4) bicycle racks for commercial staff;	
<ul> <li>1 Class 1 or 2 bicycle rack per 100m² of public area. 2 Class 1 or 2 bicycle racks required.</li> </ul>	<ul> <li>Eight (8) Class 3 bicycle racks for commercial visitors; and</li> </ul>	
2 Class 3 bicycle racks required.	Two (2) staff showers and six (6) staff lockers.	
Office Use:	A shared delivery and loading bay is also provided for the commercial	
1 car bay per 30m² GLA. 10 bays required.	tenancies, at the Ground Level.	
<ul> <li>1 delivery bay per 500m² GLA. 1 deliver bay required.</li> </ul>	Resident parking for all modes of transport has been assessed separately	
<ul> <li>1 Class 1 or 2 bicycle rack per 200m² GLA. 2 Class 1 or 2 bicycle racks required.</li> </ul>	against the requirements of the R-Codes Volume 2.	
End-of-Trip Facilities:	In accordance with Schedule 7, residential visitor parking is not required within Local Planning Area 1 - City Centre, Sub Area 1.3.2. Therefore, no	
One male and one female shower (or 2 unisex) required.		
One locker per Class 1 or 2 bike rack. 4 lockers required.	residential visitor parking is proposed.	
Schedule 7		
The provisions of clauses 4.7.1 to 4.7.4 inclusive do not apply for Office land uses where located above ground floor level.		
The provisions of clause 4.7.3 (a) (i) and (ii) of the Scheme do not apply in Sub Area 13.2.		
The provisions of clauses 4.7.1 to 4.7.4 inclusive do not apply for visitor parking for residential land uses.		

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#### element.

Requirement	Response	Compliance	
Schedule 7: Land Use Considerations			
Notwithstanding the provisions of Table 1 – Zoning:	The Adelaide Street frontage is activated with commercial land uses at the	Approval sought for minor variations, Refer to discussion below,	
(f) Residential uses will not be permitted in new buildings at ground level adjacent to Adelaide Street.	Ground Level, which provide direct activation and surveillance of the adjacent public realm.		
(ii) Land uses at ground level adjacent to Adelaide Street shall contribute to generating interest and activity within the adjacent public realm; and	However, it is acknowledged that a small portion of the Adelaide Street		
(iii) A minimum of 15% of the net lettable area within all new development on sites with a development site area greater than 3000m° shall be provided for Office use.	frontage at Ground Level does interface with the side elevation of the corner townhouse apartment fronting Princess May Reserve.		
	In addition, the proposed office land uses total only $288m^\circ$ , representing 1,3% of the total net sellable area of the proposed development.		
New development fronting Adelaide Street shall incorporate design measures to.	The Adelaide Street frontage is activated with commercial land uses at the	Complies.	
(i) Provide continuous weather protection at ground level for pedestrians along these streets and public spaces; and	Ground Level, and residential windows and balconies at the upper building levels.		
(II) Generate interest and activity within the adjacent public realm.	Permanently fixed, solid canopies are also provided to Adelaide Street,		
	projecting forward from the nil setback building façade, and providing weather protection for pedestrians within the public realm.		
New development at ground level adjacent to other streets and public areas may incorporate a mix of land uses and shall incorporate design measures to contribute to an interesting and diverse public realm.	Secondary street frontages are activated with a mix of residential land uses (to Cantonment Street) and commercial land uses (to Point Street), which will provide activation and passive surveillance of surrounding streets.	Complies.	
Schedule 7: Building Heights and Setbacks			
Building Height	Approval sought for a maximum building parapet height of 26.05 metres in accordance with clause 4.8.11 of LPS4, which permits building height variations where sites contain or a re-adjacent to building that have a greater	Approval sought in accordance with cl4.811. Refer to discussion below.	
Site 3a – 17.5m			
Site 3b - 21m, with additional height up to 24.5m subject to the upper level being sufficiently setback to ensure it is not visible from the street and/or public spaces adjoining the site.	height than that specified under Schedule 7 of LPS4.		
Minimum façade height fronting a street or public space – 10m.			
Finished Floor Levels	The ground floor level is set at RL4.842, which is a maximum of 544mm	Complies.	
In the front elevation of all new development the ground floor level must be no greater than 600mm above the level of the adjacent footpath and the first floor level must be at least 4.5 metres above the level of the footpath adjacent to the site.	above the level of adjacent footpaths abutting the subject site.		
Street Setbacks	The development maintains a nil setback to the main column line along the	Complies,	
Minimum – Nil.	Adelaide Street, Point Street and Cantonment Street boundaries, noting that a small colonnade area is provided at the corner of Adelaide Street and Point		
Maximum - 2m.	a small colonnade area is provided at the corner of Adeialde Street and Point Street.		
Side and Rear Setbacks	Nil setback interface proposed to Princess May Reserve.	Complies.	
Minimum – Nil.			

#### Car Parking

As noted above, the proposed development seeks approval for a commercial car parking shortfall of 12 bays, with six (6) commercial car parking bays provided in lieu of the 18 required under LPS4, based on the extent of the proposed commercial land uses.

This variation is considered acceptable in a City Centre location, where commercial staff parking is typically limited, and the use of alternative modes of transport is actively encouraged. Similarly, the City Centre is a mixed use, multi destination environment where visitors typically park once and visit a range of destinations, with high levels of reciprocity in car parking use.

The café use is also primarily aimed as a serviced co-working space that supports flexible working arrangements for residents of the proposed apartments, and the proposed commercial office spaces, which are also designed to support potential live-work opportunities for residents of the proposed apartments. As such, car parking demand associated with these commercial uses is expected to be much lower than ordinarily contemplated by the car parking requirements under LPS4, which supports the reduced commercial parking allocation.

In accordance with the above, the proposed commercial car parking shortfall is appropriate in this instance, noting that a far more substantial commercial car parking shortfall was approved as part of the previous 2020 development approval for the subject site.

#### Land Use

As noted above, approval is sought for variations to the specific land use requirements that apply to the subject site under Schedule 7 of LPS4, to permit:

- A small portion of the Adelaide Street frontage at ground level to interface with the side elevation of the corner residential townhouse apartment fronting Princess May Reserve; and
- An office land use component of 288m², representing 1.3% of the total net sellable area of the proposed development in lieu of the 15% recommended under Schedule.7 of LPS4.

Approval is therefore sought in accordance with clause 4.8.2 of LPS4, which states that:

The Council may vary other requirements of the Scheme subject to being satisfied in relation to all of the following:

- a. The variation will not be detrimental to the amenity of adjoining properties or with the locality generally;
- b. Conservation of the cultural heritage values of buildings onsite and adjoining; and
- c. Any other relevant matter outlined in Council's local planning policies.

Having due regard to the above, the proposed variations are considered appropriate on the basis that:

- The overall land use mix aligns with the Freo 2029: Transformational Moves strategy, with the significant residential component specifically responding to the City's stated intent to increase the residential population in the City Centre;
- The proposed development will assist the City in meeting its residential infill targets under the Perth and Peel @3.5 Million framework, in an appropriate location within an identified major activity centre;
- The proposed mix of land uses will contribute to the active use of the development across all hours of the day and evening, with traditional office and hospitality uses, and residential land uses that provide activation and passive surveillance outside normal business hours;
- The provision of predominantly residential land uses on site will have no detrimental impact on adjoining
  properties or the locality generally, being a typical feature of mixed use, activity centre environments that
  does not create any conflict with surrounding commercial and institutional land uses within the Fremantle
  City Centre; and

- The proposed residential land use at ground level affects only a small, 10.4 metre wide portion of the overall
  Adelaide Street frontage of 64.7 metres, with the balance being appropriately activated with commercial land
  uses as detailed above. The proposed variation is therefore considered minor in nature, noting that:
- The proposed residential use provides for an appropriate interface to Princess May Reserve, and still
  includes window openings fronting Adelaide Street for activation and passive surveillance; and
- The presence of Princess May Reserve inherently limits the ability to provide consistent commercial activation along this portion of Adelaide Street in any case, irrespective of proposed ground floor land uses at the subject site.

Accordingly, the proposed land use mix is consistent with the established strategic planning framework at a State and local level, and warrants approval accordingly.

It is also noted that a similar variation to the commercial office floorspace requirements was supported as part of the previous 2020 redevelopment approval for the subject site.

#### **Building Height**

With respect to building height the development seeks approval in accordance with clause 4.8.1.1 of LPS4, which states that:

Where sites contain or are adjacent to buildings that depict a height greater than that specified in the general or specific requirements in schedule 7. Council may vary the maximum height requirements subject to being satisfied in relation to all of the following —

- a. the variation would not be detrimental to the amenity of adjoining properties or the locality generally,
- b. degree to which the proposed height of external walls effectively graduates the scale between buildings of varying heights within the locality.
- c. conservation of the cultural heritage values of buildings on-site and adjoining, and
- d. any other relevant matter outlined in Council local planning policies.

Accordingly, the proposed development exhibits a maximum parapet height of 26.05 metres, which sits below the 26.748 metre parapet height of the nearby Johnson Court apartments at 23 Adelaide Street, which has a height greater than that specified in the general or specific requirements in Schedule 7 of LPS4.

The presence of the Johnson Court apartments therefore enlivens the available discretion under clause 4.8.1.1, noting that both the City and the State Administrative Tribunal have previously established that the term 'adjacent' in a built form sense does not refer solely to buildings immediately adjoining a site, and is commonly accepted to include places close to or nearby a site. So given that the Johnson Court apartments are in close proximity to and clearly visible from the subject site it is logical to conclude they are 'adjacent' buildings for the purpose of clause 4.8.1.1 of LPS4.

Noting the above, and the relevant assessment criteria under clause 4.8.1.1 of LPS4, the proposed maximum building height of 26.05 metres is appropriate in this instance, on the basis that:

- The site is identified as a major opportunity site under the Freo 2029: Transformational Moves strategy, as
  a suitable location for a landmark development that can make a significant contribution to the urban infill
  objectives that underpin the strategy;
- The dominant shoulder of the building form to Adelaide Street, Point Street and Cantonment Street sits at a
  height of 19.85m, with a more recessive upper two levels above reaching an ultimate height of 26.05m, and a
  façade design that effectively mitigates the bulk and scale impact of the project;

- The building massing fronting Princess May Reserve has been developed to present a 19.85m high shoulder to each corner, before setting back at 4m increments at the upper two levels, consistent with the intent of the applicable Site 3a controls under Schedule 7 to provide a tiered setback to the park;
- Whilst the Princess May Reserve interface is higher than the LPS4 guidance of 175 metres, the central
  portion of this elevation presents only at single storey, creating an attractive and open interface with the
  Level 1 communal courtyard, and an average height across the length of the Princess May Reserve elevation
  of only 12.3 metres;
- The interface with Princess May Reserve is supported in the accompanying HIS, which concludes that the
  proposed development will not adversely impact the cultural heritage values of this important State Heritage
  Listed place;
- The proposed building height sits comfortably within the surrounding context, which includes the
  Johnson Court apartments, the 24,5 metre high Little Lane Apartments at 52 Adelaide Street, the planned
  redevelopment of the Woolstores site to the west, and the permitted maximum heights of between 28.2
  metres and 38.9 metres that are capable of approval on other adjacent and nearby sites under LPS4;
- The proposed development is surrounded by streets and public open space to all sides, with no direct
  interfaces to existing buildings and privately owned properties, which minimises the potential for adverse
  amenity impacts on adjoining properties and the locality generally;
- The resultant overshadowing impacts at midday on June 21 are largely contained within the Point Street and Adelaide Street road reserves, with only limited impact to existing commercial properties on the southern side of Point Street, as shown in the accompanying Architectural Design Report;
- The overall bulk and scale of the development is entirely appropriate in the Fremantle City Centre, and aligns
  with applicable State level strategic planning for strategic metropolitan activity centre localities; and
- The development is of an exceptionally high standard of design that will make a positive overall contribution to the City Centre environment.

It is also noted that the plans show rooftop lift overruns and other minor projections that comprise 10% of the roof space and project 2.6m above the main roof line. This is consistent with clause 4.81.3 of LPS4.

#### 5.4.3 LPS4 Report of Review

It noted that the City has recently undertaken a Report of Review in relation to its existing LPS4, as required under Regulation 66 the *Planning and Development (Local Planning Schemes) Regulations 2015.* 

The report of review has been endorsed by both the Council and the Western Australian Planning Commission (WAPC), with the WAPC concluding that:

- · LPS4 is acceptable in the short term, subject to some minor administrative amendments; and
- The City should commence preparation of a new Local Planning Strategy, which may ultimately lead to a new Local Planning Scheme.

However, as preparation of a new Local Planning Strategy has not yet commenced, the Report of Review has no material bearing on this development application.

#### 5.5 City of Fremantle Local Planning Policies

The City maintains a suite of local planning policies (LPPs) that are applicable to the proposed redevelopment of the subject site, including:

- LPP16 Heritage Assessment and Protection, which has been appropriately considered in the accompanying HIS:
- LPP1.9 Design Advisory Committee and Principles of Design, which has been appropriately addressed as
  part of the accompanying Architectural Design Report prepared by Architectus, and as part of the applicant
  team's ongoing engagement with the City's DAC;
- LPP2.10 Landscaping of Development and Existing Vegetation on Development Sites, which has been
  appropriately considered in the accompanying Landscape Plans and Landscape Design Report.
- LPP2.24 Waste Management Plans for New Development, which has been appropriately considered in the accompanying Waste Management Plan (WMP).

Other applicable LPPs are addressed below.

#### 5.5.1 LPP2.3 Fremantle Port Buffer Area Development Guidelines

LPP2.3 provides a framework for ensuring the land use and development compatibility for land around the Fremantle Port. The subject site is located within the Area 2 referral area under LPP2.3, in which the identified amenity impacts are not as great as in Area 1. Accordingly residential and other sensitive land uses are appropriate subject to the adoption of suitable construction specifications for:

- · Windows and other openings;
- · Acoustic façade treatments and insulation; and
- · Air conditioning systems.

It is understood that these will be enforced through a standard condition of development approval, consistent with the previous redevelopment approval for the subject site.

#### 5.5.2 LPP2.13 Sustainable Buildings Design Requirements

LPP2.13 establishes sustainable building design requirements that apply to all major development within the City. It requires that all development shall achieve a 4 Star Green Star rating, or its equivalent demonstrated through a report provided by a suitability qualified professional.

Accordingly, this application is accompanied by a Sustainability Report prepared by Stantec, which provides a pathway for achieving a self-certified 5 Star Green Star rating equivalent that exceeds the minimum sustainability standards of LPP2.13.

It is also expected that this requirement for a 4 Star Green Star rating or suitable equivalent will be reinforced via a condition of development approval.

Refer to Appendix G - Sustainability Report

## 5.5.3 LPP2.18 New Residential Developments in the City Centre Zone – Noise from an Existing Source

LPP2.18 applies to all residential development in the City Centre zone, and provides a framework to ensure appropriate noise attenuation measures for new residential dwellings, as detailed in the accompanying acoustic report.

Refer to Appendix H - Acoustic Report

In addition, LPP2.18 notes that a standard condition will be included on any issued approval requiring a Notification on Title for each residential dwelling, to notify owners and prospective purchasers that the land is located in or adjacent to, an area where non-residential uses may exist or be approved and, as a result, the land may be affected by activities and noise not normally associated with residential development. This is consistent with the previous redevelopment approval for the subject site.

#### 5.5.4 LPP2.19 Contributions for Public Art and/or Heritage Works

LPP2.19 provides a framework for requiring certain types of development to contribute a percentage of the total cost of works to the provision of public art or heritage conservation works.

LPP2:19 applies to all major development within the City Centre area with an estimated cost of works in excess of \$1million, and requires a contribution of one per cent of the estimated cost of works to be set aside for public art or heritage works.

As permitted by the Policy, the proposed development intends to incorporate on-site public art to be developed as part of further detailed design, with the requirement for public art to be dealt with via a standard condition of development approval. Early design thinking has identified the Point Street elevation at Ground Level as a potential public art opportunity, to assist in minimising the visual impact of required street frontage service infrastructure.

Alternatively, public art funding could be pooled with surrounding developments to contribute planned Cantonment Street streetscape improvements.

#### 5.5.5 LPP3.1.5 Precinct 5

LPP3.1.5 provides detailed design provisions to complement the land use and development requirements prescribed in the Local Planning Scheme No. 4 for 'Precinct S', which broadly covers the inner areas of the Fremantle City Centre, inclusive of the subject site.

LPP3.1.5 recognises that Precinct 5 is the centre of the city's civic, retail, commercial and residential life, which is clearly recognised through the intensity of activity and scale of development. Key components of the stated precinct vision under LPP3.1.5 that are relevant to the proposed development include that Precinct 5:

- Aims to attract new residents and high value business activity that would want to be associated with a
  neighbourhood of contemporary identity while still being part of the broader Fremantle sense of place and
  lifestyle
- Combines key retail anchors and shopping streets together with a diverse mix of uses that generate activity
  throughout the week and into the evening.
- Has new buildings of contemporary and innovative architecture that provide a distinctive yet sympathetic
  balance to the precinct's retained and conserved heritage buildings and places.
- Has new buildings that reflect the community's commitment to progressive environmental sustainability and incorporate a high quality of design and materials that is appropriate for this central city location.
- Has a built form that provides a good balance between providing activated and comfortable public spaces
  with the provision of sufficient new floorspace to accommodate increased numbers of workers and residents
  at a density to support a sustainable future for the city.
- Accommodates the city's highest density of residents and businesses, with easy access to public transport
  via a network of convenient, safe and attractive pedestrian routes and spaces.

The proposed development will actively further these objectives, delivering a density and diversity of residential housing in close proximity to existing public transport, retail and public amenities, and in a manner that will provide support for local businesses, and encourage activation and passive surveillance outside normal business hours. These benefits are proposed to be delivered in a contemporary and highly sustainable building that is of a high quality, and is informed by a thorough context analysis to ensure it is responsive to the surrounding character of the Fremantle City Centre, as discussed throughout this report.

The subject site is also located within the 'Contemporary Influence' area under LPP3.1.5 at the point where it transitions from the 'Mid Century Woolstores Influence' area to the west. The 'Contemporary Influence' area is identified as the primary opportunity to transform the area with a new character resulting from high quality and contextually appropriate contemporary architecture, as proposed by this development application.

An assessment against the relevant detailed design requirements of LPP3.15 is also provided in Table 5 below.

Table 5 - LPP3.1.5 Assessment

Requirement	Response	Compliance
Public Realm		
Primary Streets (Adelaide Street)		
5.11 Lower levels of the development should be designed to reinforce the significance of the primary streets with an appropriate scale and high standard of details, materials and finishes.	The proposed development provides a high quality design response at ground level, with a materials palette that is informed by a detailed analysis of the surrounding context, as outlined in the Architectural Design Report at Appendix C.	Complies.
5.1.2 Development is encouraged to incorporate a mix of active land uses at ground level that extend the hours of activity in the adjacent public domain beyond traditional retail hours.	The proposed development incorporates five (5) separate commercial tenancies, which are flexibly designed to offer opportunities for various commercial enterprises, including a café and co-working space at the corner of Adelaide Street and Point Street.	Complies.
	The inclusion of a significant residential component above ground level at the Adelaide Street frontage will also increase activation and passive surveillance outside normal business hours.	
5.1.3 Residential uses and on-site vehicle parking are not permitted at ground level adjacent to	No vehicle parking areas or residential apartments are oriented towards Adelaide Street at ground level.	Approval sought for minor variation, relating to the corner townhouse apartment fronting Princes May Reserve.
primary streets.	It is acknowledged that a small portion of the Adelaide Street frontage at ground level does interface with the side elevation of the corner townhouse apartment fronting Princess May Reserve. However, this variation is considered minor in nature, as detailed in Section 5.42 of this report.	
5.1.4 Multiple ground level tenancies shall be provided and shall obtain their main public	Five (5) separate commercial tenancies are proposed fronting Adelaide Street, each with direct access from the street.	Complies.
pedestrian entry directly from and level with the primary street. Wide building frontages with a single use or tenancy should be limited,	The main residential lobby is also accessible directly from Adelaide Street.	
5.1.5 Ground floor frontages are to be predominantly glazed or open to the street and shall incorporate design measures to contribute to an interesting, safe and diverse public realm.	Glazed frontages are provided to the commercial tenancies and residential entry lobby fronting Adelaide Street, providing direct activation and surveillance of the adjacent public realm.	Complies.
5.1.6 No vehicle access, blank walls and/or service areas should be located on primary street frontages if alternative locations are available. If vehicle access is necessary from the primary street, vehicle entrance points and services areas are to be integrated in to the overall building design and shall minimise detraction from the pedestrian environment and street vitality. Vehicle crossovers are to be minimised, consolidated and shared where possible.	primary street under LPP3.15. I building	
5.1.7 Weather protection along footpaths for pedestrians shall be provided, either in the form of awnings or first floor balconies, and satisfy all of the following:	Permanently fixed, solid canopies are provided over Adelaide Street at ground level, at a height of 32 metres above the adjoining footpath level, to provide weather protection for pedestrians within the public realm.	Approval sought for minor departures related to
a) Shelter to be continuous along all primary street frontages;	A canopy depth of 1.4m is proposed in lieu of 2.4 metres, to maintain appropriate separation from existing and proposed	canopy depth, to maintain
<ul> <li>b) The weather protection shall be integrated with the building design, appropriately scaled and designed to reinforce the importance of primary streets while still providing shelter and a sense of enclosure for pedestrians;</li> </ul>	street trees along Adelaide Street.	appropriate clearance from existing street trees along Adelaide Street.
c) The weather protection shall be permanently fixed and shall be constructed of materials that provide sun and rain protection (i.e. a high degree of sun shading and water impenetrability).		
<li>d) The weather protection shall project a minimum horizontal distance of 24 metres over the adjacent footpath; and</li>		
e) Awnings shall have a consistent clear height from footpath level of between 3m and 3.5m.		
Council may, at its discretion, vary any of the above requirements where:		
D The installation of weather protection would be incompatible with the heritage significance of the existing building; or		
ii) Necessary to ensure appropriate clearances from street infrastructure or trees; or		
iii) The installation of weather protection would present significant practical difficulties in terms of vehicle accessibility and there is no satisfactory alternative design solution available.		

Requirement	Response	Compliance
5.1.9 Any area where the building is setback from the front lot boundary shall be designed and reated as part of the adjacent pedestrian domain.	The small colonnade area at the corner of Adelaide Street and Point Street will be provided with pavement treatments that are consistent with the adjacent public realm, offering a covered extension of the adjacent footpath and an opportunity for alfresco dining.	Complies.
Secondary Streets (Point Street and Cantonment Street)		
5.21 Ground level frontages to secondary streets may incorporate a mix of land uses and must incorporate design measures and passive surveillance to contribute to an interesting, safe and diverse public realm.	Secondary street frontages are activated with a mix of residential land uses (to Cantonment Street) and commercial land uses (to Point Street), which will provide activation and passive surveillance of surrounding streets.	Complies.
5.22 Retail and commercial floorspace shall provide major pedestrian entries directly from and evel with from the street.	The café and co-working space at the corner of Adelaide Street and Point Street is directly accessible from both street frontages, via two separate entry points.	Complies.
5.23 Weather protection along footpaths of secondary streets adjoining retail/commercial/ entertainment uses shall be provided, either in the form of awnings or first floor balconies, and	Continuous canopies are not required along secondary streets; however, a permanently fixed, solid canopy is provided over the secondary residential pedestrian entry fronting Cantonment Street.	Approval sought for minor departures related to canopy depth, to maintain appropriate clearance from existing street trees along Cantonment Street.
atisfy all of the following: i) The weather protection shall be integrated with the building design:	The canopy is situated 3.2 metres above the adjoining footpath level, and projects 1.2m over the adjacent footpath so as not to impact existing street trees along Cantonment Street.	
<ul> <li>The weather protection shall be permanently fixed and shall be constructed of materials that provide sun and rain protection (i.e. a high degree of sun shading and water impenetrability);</li> </ul>		
2) The weather protection shall project a minimum horizontal distance of 2 metres over the adjacent footpath; and		
t) Awnings shall have a consistent clear height above footpath level of 275m.		
Council may, at its discretion, vary any of the above requirements where:		
The installation of weather protection would be incompatible with the heritage significance of the existing building; or		
D Necessary to ensure appropriate clearances from street infrastructure or trees; or		
ii) The installation of weather protection would present significant practical difficulties in terms of vehicle accessibility and there is no satisfactory alternative design solution available.		
5.24 Vehicle entrance points and services areas are to be integrated in to the overall building design and shall minimise detraction from the pedestrian environment and street vitality. Vehicle	The proposed development consolidates the existing crossovers at the subject site into a single vehicular entry off Point Street, and contains all car parking within the building envelope to ensure it is not visible to the street.	Complies.
rossovers are to be minimised, consolidated and shared where possible. On-site vehicle parking s not permitted at ground level adjacent to secondary streets.	Street frontage service cabinets and rooms are also oriented towards Point Street and are integrated into the design of the proposed development with similar façade treatments. These are viewed as a public art intervention opportunity, to be investigated at the detailed design stage, to maintain visual interest and vitality in the adjacent public realm.	
5.25 Where residential uses are located at ground level, the design should achieve a clear distinction between the private place and public space, whilst still allowing for passive surveillance and interaction with the street.	Ground floor dwellings fronting Cantonment Street are raised above street level and provided with operable screening to their associated outdoor terraces, to provide an appropriate balance of privacy, security, passive surveillance and activation, as recommended by the DAC.	Complies.
Built Form and Legibility		
21 The significance of primary streets should be reinforced with continuous developed edges of consistent scale and massing that creates a strong sense of urban enclosure as well as framing and reinforcing views to major Fremantle landmarks that provide legibility and contribute to the city's image.	The development provides a continuous built edge of a consistent scale along Adelaide Street, that provides a sense of enclosure of the street, consistent with the pre-lodgement advice provided by the City's DAC.	Complies.
5.3 Views and glimpses of Fremantle landmarks, particularly to the port and of port infrastructure, are encouraged wherever possible at ground level along secondary streets and off-street poedestrian links and other openings between buildings, and from upper levels of new buildings.	Apartments facing Cantonment Street are oriented to take advantage of available views down Goldsbrough Street, consistent with Figure 6 of LPP3.15.	Complies.
3.4 Incorporate sensitive transitions between lower scale existing heritage buildings and taller new structures where they are directly adjoining.	The stepped form of the development to Princess May Reserve is designed to ensure a respectful interface with the existing heritage buildings to the north, as detailed in the accompanying HIS at Appendix E.	Complies.
3.5 Passive surveillance of streets and other public spaces is to be provided by frequent upper Toor windows, terraces and balconies overlooking the public space.	The proposed development addresses the street with extensive upper level windows and balconies to all streets and public spaces, providing for a marked increase in passive surveillance from the subject site to the adjoining public realm.	Complies.

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Requirement	Response	Compliance
66 As redevelopment of the precinct is likely to be carried out over a number of years, consideration should be given to the appropriate treatment of all walls and parapets that will be visible or remain semi-permanently exposed.	The development maintains public realm interfaces to all sides, and therefore has been designed with active, articulated frontages to all sides.	
6.7 Redevelopment of full street blocks and other large sites should ensure integration into their	The façade design is informed by a detailed analysis of the surrounding context, resulting in:	Complies:
surroundings and maintain consistency of the city centre development pattern and street level linkages. The horizontal expanse of long facades should address the desired character for its location through articulation and fenestration, architectural detailing and treatment of rouflines.	<ul> <li>A confident, formal, well-proportioned façade that addresses its three street frontages with appropriate solidity, fenestration, materiality and scale, anchoring the prominent street corners of the site, and punctuated by inset residential balconies;</li> </ul>	
	<ul> <li>The definition of a strong base, middle and top, with these elements expressed horizontally as double height groupings of floors, breaking down the perceived scale of the building, and the upper levels creating a lighter transition to the sky that inspired by the industrial vernacular of Fremantle; and</li> </ul>	
	<ul> <li>A transition to a finer grain response at the Princess May Reserve interface, with generous residential balconies that take inspiration from the traditional verandah typologies of Fremantle's colonial architecture, and upper level setbacks to Princess May Reserve.</li> </ul>	
6.8 Consider the impact of new development in long views from city approach streets, the railway, Monument Hill, Victoria Quay and Fremantle Harbour, particularly with regard to the arrangement	As discussed in Section 5.4.2 of this report, the proposed development is compatible with the scale of development in the locality, and is articulated in the round to present a high quality design to all building elevations.	Complies.
and bulk of taller buildings and to the design of roofs and screening of rooftop service elements. New development shall contribute positively to these views.	The industrial inspired articulation of the upper building levels will also contribute positively to the City Centre skyline, and all rooftop services will be screened to minimise visual impact.	

#### 5.6 State Planning Policies

#### 5.6.1 State Planning Policy 5.4 - Road and Rail Noise

State Planning Policy 5.4; Road and Rail Noise (SPP5.4) seeks to minimise the adverse impact of road and rail noise on noise-sensitive land uses within the specified trigger distance of major transport infrastructure.

The provisions of SPP5.4 apply to the proposed development on the basis that:

- · A portion of the subject site is located within 200 metres of the Perth to Fremantle Railway Line; and
- This application proposes the development of new residential apartments, which are identified as a noisesensitive land use under SPP5.4.

Accordingly, this application is accompanied by an acoustic report prepared by Stantec, which details the noise mitigation measures that will be implemented to ensure compliance with SPP5.4. These recommended acoustic treatments will be adopted during detailed design, with an additional acoustic report to be provided at the building permit stage.

Refer to Appendix H - Acoustic Report

## 5.6.2 State Planning Policy 7.3 – Residential Design Codes, Volume 2 – Apartments

The R-Codes Volume 2 forms part of the Design WA suite of documents and is the primary tool for the assessment of residential apartment developments in R-Coded residential areas throughout the State.

The R-Codes Volume 2 is a performance-based policy that seeks to elevate the importance of design quality in the assessment of new residential apartment projects. In doing so, the R-Codes Volume 2 represents a shift from the deemed-to-comply approach of the previous Residential Design Codes, in acknowledgement that there are limits to the effectiveness of highly prescriptive controls in achieving good design outcomes. Accordingly, the R-Codes Volume 2 is structured to provide:

- . A Statement of Intent for each Design Element that explains the intended outcome and why it is important;
- · Element Objectives that further define the intended outcome for each Design Element;
- · Acceptable Outcomes that are specific measures designed to assist in meeting the Element Objectives; and
- Design Guidance that outlines additional matters that can be considered in seeking to address the Element Objectives.

As a performance-based policy, the R-Codes Volume 2 seeks to ensure that applications for development approval meet the applicable Element Objectives for each Design Element, and states that:

While addressing the Acceptable Outcomes is likely to achieve the Objectives, it is not a deemed-to-comply pathway and the proposal will be assessed in context of the entire design solution to ensure the Objectives are achieved. Additionally, proposals may also satisfy the Objectives via alternative means or solutions.

Accordingly, this application is accompanied by a detailed assessment against the Element Objectives of the R-Codes Volume 2, having regard to the associated Acceptable Outcomes and Design Guidance. A copy of this assessment is provided at Appendix F.

Refer to Appendix F - R-Codes Volume 2 Assessment

## 6. Heritage Impact Statement Summary

As noted previously, the subject site is surrounded by a number of heritage listed places and is directly adjoining a State Heritage Listed property in Princess May Reserve. This application is therefore supported by a detail HIS that assesses the potential impact of the proposed development on adjacent heritage listed places.

The HIS acknowledges that the Fremantle region has always been a significant place for the Whadjuk Noongar people, as part of the Aboriginal cultural region of Beeliar. Its Noongar name is Walyalup (the place of walyo) and local people are called Whadjuk. To the local Whadjuk people, Fremantle is a place of ceremonies, significant cultural practices and trading.

Although Fremantle had been settled as a port town since 1829, it was the discovery of gold in the east of the colony in the 1890s that saw Fremantle transform from a modest port to an industrial town. The completion of the Fremantle harbour in 1897 saw Fremantle become the primary port in Western Australia. The railway link to Perth had been completed in 1880 and the establishment of the railway workshops by the Public Works Department saw Fremantle become a major manufacturing centre.

Princess May Reserve comprises an open park-like setting, and contains the Fremantle Boys' School (fmr) 1854-1915, Princess May Girls' School (fmr) 1901, and the Household Management Centre (fmr) 1912. The buildings are products of the convict period of Western Australia's development, the gold boom period, and World War One. The buildings were replaced with education facilities in alternative locations during the 1950s and 1960s, and were subsequently vacated and fell into disrepair.

From the 1970s onwards, new uses were found for these significant redundant buildings. The reserve was opened for public use, the Film and Television Institute was located within the Boys' School (now DADAA), the Fremantle Education Centre in the Princess May Girls' School (fmr), and Clancy's Fish Pub in the Household Management Centre (fmr).

Today Princess May Reserve functions as a public park and is open at all times. With its tall northern building, Princess May Girls' School (fmr), mature trees and limestone walls, the place has a landmark quality. The statement of significance for Princess May Reserve (Place No. 851) has been included in full below:

Princess May Reserve, consisting of the stone boundary wall on the northeastern perimeter, Princess May Girls' School (fmr), Household Management Centre (fmr), Fremantle Boys School (fmr), and surrounding grounds has cultural heritage significance because:

the place is important for its role in the development of education in Western Australia, for people from Fremantle and its surrounding districts and, in more recent times, for its adaptation for ongoing community uses;

the place contains a very competent, classically derived stone building, with a distinctive belvedere, and a fine example of architecture in the Victorian Tudor manner, with a rich, picturesque roofline and refined details;

Fremantle Boys School (fmr) is rare, being one of a small number of colonial buildings to survive in an urban centre; and one of few in a Victorian Tudor style;

the place is associated with a number of eminent chief architects from the Public Works Department, including the state's earliest architect, James Austin. Others include James Manning, John Grainger, William Hardwick and Hillson Beasley. The place is also associated with George Humble, who taught at the school for its first 25 years;

the reserve, and in particular Fremantle Boys School (fmr) and Princess May Girls' School (fmr), have high aesthetic values in relation to their design and use of construction materials, as well as being places of high artistic achievement from two separate periods, and, collectively with the Household Management Centre (fmr), they constitute a landmark of significant value to the community:

Fremantle Boys School (fmr) was one of the two earliest government built educational institutions in Western Australia, served continually for over a century, and demonstrates, in a physical way, the rapid growth of Fremantle in the late nineteenth and early twentieth centuries, representing over a century of educational architecture; and

Princess May Girls School (fmr) and Household Management Centre (fmr) reflect the attitudes to infants and girls in the first half of the twentieth century and provide a close examination of gender differences in educational philosophy and the provision of facilities.

This statement of significance has informed the assessment of heritage impacts contained within the supporting HIS, which concludes that:

- The development site does not extend into the adjacent State Registered Princess May Reserve and there
  are no significant structures located within this zone. As such, there are no conservation works proposed;
- A number of design decisions were made to minimise the impact of the development on the adjacent site, including the reallocation of height toward the southern boundary, and the finer grain detailing to the park facing elevation;
- The height of the development will have a visual impact on the adjoining heritage site, primarily due to the
  new development being built up to the lot boundary. However, the open space between the new development
  and the buildings within the heritage site ameliorates the impact on views to the place and its understanding
  as a significant heritage place in the landscape. There is sufficient curtilage around the built fabric, provided
  by the heritage listing, to largely mitigate the impact of the proposed development at the proposed height;
- Key views and vistas to the heritage site are from the north looking south. As the proposed development sits
  behind this, it does not impede on any views, however it will be visible when viewing the heritage site. The
  backdrop is softened to some extent by existing plantings, mostly mature trees, being retained at intervals
  along the southern boundary of the heritage site, in front of the new development. Further, the northern
  elevation of the building has been designed to be fine grain and open in appearance, in order to appear
  lighter against the adjoining heritage site.
- As the development is located to the south of the heritage site, there are no overshadowing concerns related to the development.

#### 8 Point Street, Fremantle Proposed Mixed Use Development

In accordance with the above, the HIS identifies that the proposed development respects the identified values of the surrounding significant heritage places, considering the local context in the design approach and integration. The design approach ensures the setting, form and history of the surrounding heritage places are maintained while also identifying opportunities to deliver increased connection and improved interface conditions to Princess May Reserve, and can be supported on this basis.

For further details, please refer to the accompanying HIS prepared by **element** and included as Appendix E. Refer to Appendix E - Heritage Impact Statement

## 7. Supporting Technical Report Summaries

#### 7.1 Acoustic Report

As noted previously, this application is supported by an Acoustic Report prepared by Stantec and enclosed as Appendix H.

The acoustic documentation identifies the applicable acoustic criteria and provides guidance on recommended acoustic treatments to satisfy the provisions of the National Construction Code (NCC), the Environmental Protection (Noise) Regulations 1997, SPP54, LPP2.18 and LPP2.3, including a proposed alternative compliance approach to satisfying the requirements of LPP2.18 and LPP2.3 based on the application of SPP54 noise criteria.

The recommendations provided in the acoustic documentation are informed by on-site noise modelling and are designed to ensure compliance with the applicable noise targets at the detailed design stage. It is anticipated that this will form a standard condition of development approval, to be appropriately addressed in a more detailed Acoustic Report to be provided to the City for endorsement prior to the submission of a Building Permit.

For further details, please refer to the Acoustic Report at Appendix H.

#### 7.2 Sustainability Report

This report is also accompanied by a Sustainability Report prepared by Stantec and enclosed as Appendix G.

The Sustainability Report assessment examines the project's potential NCC 2022 Section J compliance, including NatHERS ratings for the proposed residential apartments, and provides a pathway assessment for achieving the targeted 5 Star Green Star equivalent to satisfy the requirements of the City's LPP2.13.

Targeted Green Star points have been selected according to previous experience with similar projects, with a target of 41 points providing a generous 6 point buffer for demonstrating 5 Star Green Star equivalency. This targeted points strategy will continue to be refined throughout the detailed design stages of the project, and it is expected that a condition of approval will be included to require the submission of a further Sustainability Report at Building Permit stage, to demonstrate that the 5 Star Green Star equivalent design requirements have been adopted by the project team.

The self-certified Green Star equivalency is an alternative pathway that is specifically contemplated under LPP2.13, and the targeted 5 Star equivalency exceeds the minimum 4 Star requirements of LPP2.13.

For further details, please refer to the Sustainability Report at Appendix G.

#### 7.3 Transport Impact Statement

This report is also accompanied by a Transport Impact Statement (TIS) prepared by Uloth and Associates and enclosed as Appendix I.

The TIS concludes that the development could generate up to 1,160 vehicle trips per day, with 78 trips and 77 vehicle trips respectively, during the AM and PM peak hours. With less than 100 vehicle trips per hour during the critical peak hours, the proposed development will only have a 'moderate impact' on the surrounding road network. The traffic impact is also a reduction of 490 vehicle trips per day compared to the previously approved Development Application for the subject site from 2020, which is estimated to have generated 1,650 vehicle trips per day, with 106 vehicle trips and 131 vehicle trips, respectively, during the AM and PM peak hours. This is based on the previously approved land use mix of 168 hotel rooms, 45 residential apartments and 933 square metres of commercial tenancies.

In addition, the TIS provides necessary swept path data for vehicles accessing the proposed on-site car parking areas, and details the recommended road reserve modifications within Point Street to accommodate residential waste collection, the proposed new vehicle crossover, and the required DFES hardstand area.

For further details, please refer to the TIS at Appendix I.

#### 7.4 Waste Management Plan

This report is also accompanied by a Waste Management Plan (WMP) prepared by Encycle and enclosed as Appendix J.

The WMP outlines the overall approach to waste management for the development, and sets out four scenarios for the storage and collection of waste, recyclables and Food Organics Garden Organics (FOGO) based on a range of collection frequencies and collection points.

Predicted waste generation has been calculated using the generation rates in the WALGA Waste Management Plan Guidelines and relevant information in the City's LPP2.24. Bin storage areas have then been sized accordingly, to accommodate the required number of bins as specified in the WMP, with the waste management strategy incorporating.

- Dual chute systems in each residential building core, for general waste and commingled recycling, with dual chute access hatches accessible on each residential floor in designated waste rooms;
- Source separated FOGO collection with 140L bins in the waste room on each residential floor to collect food waste;
- Two separate residential bin stores at Ground Level for storage of all residential waste, recycling and FOGO, including designated space for bulky objects that are not suitable for chute disposal;
- A bin wash and bin holding zone at Ground Level to accommodate any overflow of bins from bin stores 1 and 2, and bins awaiting collection; and
- · Two commercial bin stores for the café and offices at Ground Level.

A private contractor will service the full range of commercial bins, accessing the on-site ground floor loading dock with a rear-lift vehicle.

The City will service the residential waste, commingled recycling and FOGO bins. However, due to insurance limitations, the City's waste collection vehicles are not currently permitted to enter building loading docks located internally to undertake waste services. The current waste collection schedule of the City and the requirement by the City to collect waste from the verge will result in a substantial number of bins presented each week to the verge along both Cantonment Street and Point Street, which is a potential concern for both the proponent and the City. Accordingly, feedback is sought from the City on the preferred scenario to be adopted for this development, which include three alternate waste collection scenarios that can reduce, or eliminate, the number of bins presented to the verge each week.

The aforementioned scenarios are outlined below, noting that in all scenarios general waste will be collected twice weekly from a rear-lift vehicle.

- Scenario 1: complies with the City's current requirements, with all residential bins presented to the verge for collection, commingled recycling bins collected fortnightly, and FOGO bins weekly, from the verge by a side-lift vehicle:
- Scenario 2: with all residential bins presented to the verge for collection, commingled recycling bins collected twice weekly and FOGO bins weekly, from the verge by a side-lift vehicle;
- Scenario 3: with all residential bins presented to the verge for collection, and both commingled recycling bins and FOGO bins collected twice weekly, from the verge by a side-lift vehicle; or
- Scenario 4: with all residential general waste, commingled recycling, and FOGO bins collected internally by either City or a private contractor.

Scenarios 3 and 4 present a deviation from the published guidelines and also agreements made with the City to date; however, they align with other Councils' collection regimes within the Perth metropolitan area and represent the best outcome for this development and, potentially, future developments within Fremantle.

For further details, please refer to the WMP at Appendix J.





## 8. Planning Merit

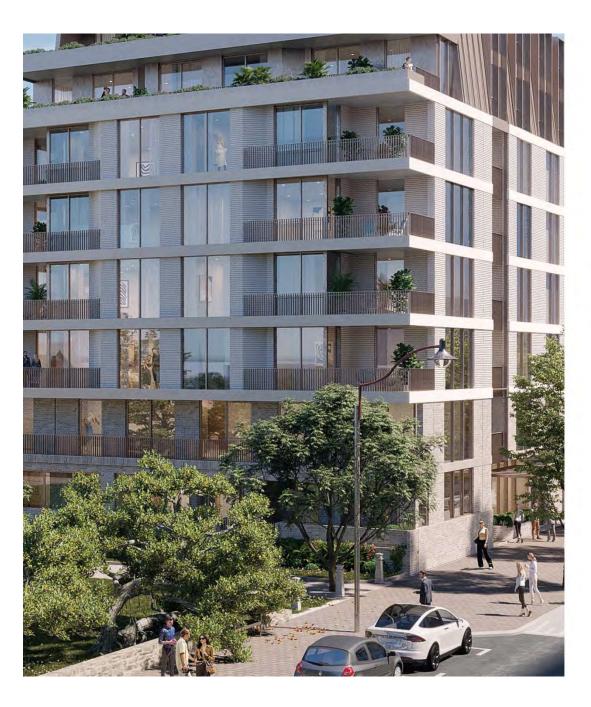
In addition to the detailed assessment and justification provided in the preceding sections of this report, the principles of orderly and proper planning require that new development presents a logical extension of existing development in the locality and is consistent with the planning vision for the area. Having regard to the matters listed under Clause 67 of the Deemed Provisions contained within the Planning and Development (Local Planning Schemes) Regulations 2015, the key points regarding the proposed development are summarised as follows:

- The proposed redevelopment will activate an underutilised site within the heart of the Fremantle City Centre, replacing an existing car park with a high quality mixed use development that will support an increased residential population within the City Centre, consistent with the established strategic planning framework at a State and local level;
- The proposal is consistent with the aims and objectives of LPS4, and associated local planning policies, as detailed throughout this report;
- The proposed development has been designed to respond to applicable State planning policies, including SPP5.4, SPP7.0 and SPP7.3, as detailed throughout this report and accompanying attachments;
- The proposed development will provide for a higher density of development in close proximity to existing public transport, consistent with the principles of transit-oriented development;
- The proposed development is compatible with recently approved developments in the immediate vicinity of the subject site, and will complement the planned redevelopment of the adjacent Woolstores site;
- The design incorporates high quality landscaping within subject site and adjacent road reserves, which will contribute to long term tree canopy in the area;
- The proposal represents a high quality development outcome for the subject site that will make a significant positive contribution to the streetscape and provide a range of housing options for the local community; and
- Traffic, access, loading and waste requirements have been appropriately addressed through the supporting TIS and WMP, and will not have any adverse impact on the locality.

For these reasons, the proposed development represents an appropriate and desirable use for the subject site, and has significant planning merit.

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## 9. Conclusion

This report has been prepared by **element**, on behalf of Point Street Partners Pty Ltd, in support of a development application for a mixed use redevelopment of Lot 34 (No. 8) Point Street, Fremantle.

The proposed development presents an exciting opportunity to deliver a contemporary redevelopment of the subject site that accords with the City's desire to promote an increased density and diversity of housing opportunities in the City Centre, within a highly sustainable development that respects the cultural heritage character of the locality.

Based on the detailed planning assessment presented in this report, it has been demonstrated that the proposal is generally compliant with the relevant requirements under LPS4 and associated local and State planning policies, and will provides for a range of beneficial outcomes for the local community.

The development has been skilfully designed to respond to the local context and historic heritage character, whilst capitalising on the location of the subject site within the Fremantle City Centre and in close proximity to the Fremantle Railway Station. This results in a high-quality design outcome that delivers an appropriate mix of residential apartments that will cater for a diverse range of people, cultures and lifestyles.

In accordance with the above, the proposed development is observed to be closely aligned with the City's desired future character for the area, and will make a positive overall contribution to the streetscape, skyline, and the amenity of the locality. As such, the support of the City and the approval of this development application by the Metro Inner South JDAP are respectfully requested.

C2311-11 LOT 34 (NO. 8) POINT STREET, FREMANTLE - EIGHT STOREY
MIXED USE DEVELOPMENT COMPRISING 215 MULTIPLE
DWELLINGS AND RESTAURANT/CAFE AND OFFICE USES (ED DAP006/23)
Attachment 5 - Architectural Design Report



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#### Nominated Architect

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Project and report	8 Point Street, Fremantle, WA	
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Version and date issued	Issued for Development Application	Approved by: Marc Torres
Report contact	Marc Torres Architectus	
This report is considered a draft unless signed by a Director or Principal	Approved by: Mark Black Mark Blent	_

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#### PROJECT TEAM

Architecture and Interiors Architectus Client/Development Manager Sirona Urban

Project Management Total Project Management

Quantity Surveyors WT Partnership Element

Town Planning Structural and Civil Hera

Services Link / Best / Alphazeta

Fire Engineer Stantec BCA/NCC Compliance Resolve Group

Landscape Aspect Sustainability/ESD/Acoustics Stantec Surveyor MNG Waste Consultant Encycle Traffic Consultant Uloth Geotechnical Golder Environmental Stantec

8 Point Street, Fremantle Sirona Urban

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Architectus acknowledges the Australian Aboriginal and Torres Strait Islander peoples of this nation as the Traditional Custodians of the lands on which we live and work.

We pay our respects to Elders, past and present and emerging.

Architectus is committed to honouring Australian Aboriginal and Torres Strait Islander peoples' unique cultural and spiritual relationships to the land, waters and seas and their rich contribution to society.

architectus\*\*

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8 Point Street, Fremantle Sirona Urban

#### **8 Point Street**

## **Executive Summary**

8 Point Street offers an exciting opportunity to inject new life into the northern end of town, and better connect the city centre with this emerging and characterful precinct.

The vision for 8 Point Street, Fremantle is to develop an inspirational, appropriately proportioned, quality product which addresses the specific needs of the Fremantle demographics and market, and is considerate of its location and heritage.

The site sits within a 5 minute walk of the recently re-developed Kings Square precinct and the Fremantle Train Station, and currently consists of a two storey car parking structure occupying half the site, and an open air parking area to the other half of the site.

The site is surrounded by several heritage assets, including the Elders Woolstore and the Princess May Reserve to the North.

This proposal is inspired and informed by three key drivers:

**Connection to Park:** Celebrating the adjacency to the heritage listed Princess May Reserve.

**An Active Precinct:** Enliven the streetscape and parkland through the introduction of density and diverse, active ground floor uses.

Stitching into the Fabric of Fremantle: A proposal which responds and is integrated with its urban context through form, articulation and use, and adding vibrancy and connectivity to the area.





# SITE APPRECIATION

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#### Site Location

The site is located within the City of Fremantle, bound by Point Street to the south, Adelaide Street to the east, and Cantonment Street to the west. The site borders Princess May Park to the north, which is a heritage listed reserve containing several listed buildings. To the west of the site is more industrial in nature, characterised by the heritage listed woolstore buildings and the Fremantle harbour.

The site is within walking distance to Fremantle Town Centre, a vibrant and eclectic centre, which has experienced significant development over the past 5 years to compliment the historic architecture of the area. There is further major developments planned over the next 10-20 years, which will see the precinct in and around the Point Street site transform as an extension of the City Centre.

Address: 8 Point Street Fremantle, WA 6160

Site Area: 5,015sqm

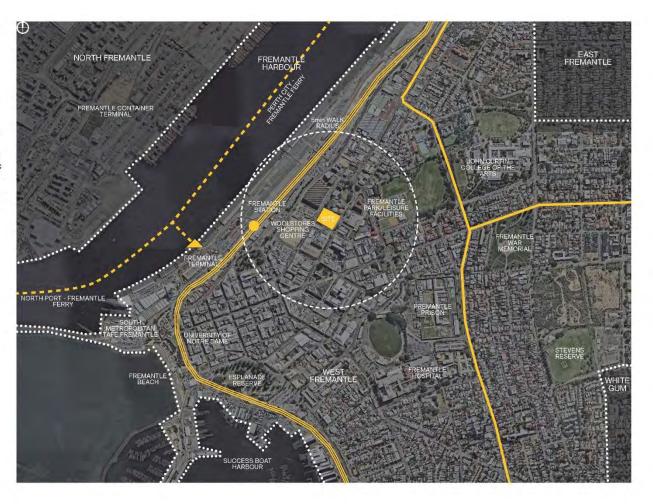
RPD: LOT 34 P06 1988

Local Government: City of Fremantle

#### Legend:

BUS & TRAIN STATION
FERRY TERMINAL
MAJOR ROADS
TRAIN LINE
FERRY ROUTE

8 Point Street, Fremantle Sirona Urban



#### Local Character

Fremantle has developed a reputation for being gritty, eclectic and quirky as well as creative, musical and artistic. It is a place to discover hidden venues and experience a laid-back atmosphere and lifestyle. This experience is reflected in the City's four aspirational brand pillars: eclectic & quirky, culturally significant, vibrant, and welcoming & inclusive. Fremantle is actively positioning itself as a place to visit, work and live.

Fremantle's building typology defines it's character with a mix of stately post-colonial heritage buildings, civic structures, and residences. These contrast with robust storage warehouses and port infrastructure, reflecting the town's history. The Point Street site exemplifies this eclectic blend, showcasing the varied architectural styles that contribute to Fremantle's local identity.

Extensive research and understanding of the local character and building typologies have been instrumental in shaping the design and concept of the proposed development outlined in this Development Application (DA). The project takes into account the fundamental principles outlined in State Planning Policy 7.0 and Local Planning Policy 1.9, ensuring a sensitive and specific response that aligns with these policies.

The proposed development seeks to blend harmoniously with the existing fabric of the area by incorporating diverse architectural references. It aims to create a cohesive and contextual design that respects Fremantle's rich heritage and character.



1. Edgy and Cool



2. Industrial - Neighbouring Woolstores



3. Welcoming and Inclusive



4. Eclectic and Quirky



5. Culturally Significant



6. Kings Square

8 Point Street, Fremantle

Sirona Urban

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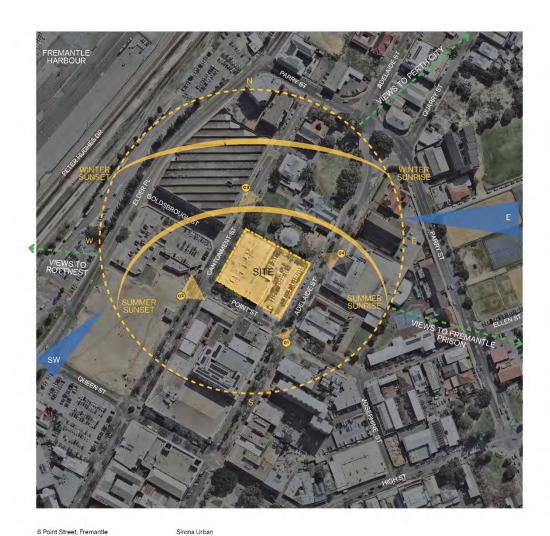
#### Site Details

- The site is relatively flat in topography and is partly cleared with the western side currently occupied by an existing carparking structure.
- The site is not impacted by any neighbouring sites, and enjoys views to the park with the potential for 360 degree views at upper levels of the port, ocean, Fremantle town centre, and local landmarks
- Adelaide Street forms a major route into Fremantle, connecting Kings Square to Canning Highway. The street is primarily retail/commercial in nature, however includes some significant heritage assets towards the northern end.
- Cantonment street sees less footfall given its less active uses, however has the potential to become a more prominent and active street with future developments on the Woolstore sites. This side of the Princess May Park is home to Clancy's Fish Pub, which is a popular F&B destination for the city.
- Point Street can be characterised as low scale & fine grain. The portion of Point Street directly adjacent the Site contains single storey retail - the built form being of low value. Point Street continues further east and includes some attractive townhouse residences.
- The street condition surrounding the site is generally of high quality, with attractive and healthy street trees lining Adelaide and Cantonment Street. Princess May Park to the north provides a significant natural amenity to the site



8 Point Street, Fremantle Sirona Urban 10

# Site Appreciation Site Details





01. View from corner of Point Street and Adelaide Street



02. View from corner of Point Street and Cantonment Street



03. View from Cantonment Street and Princess May Park



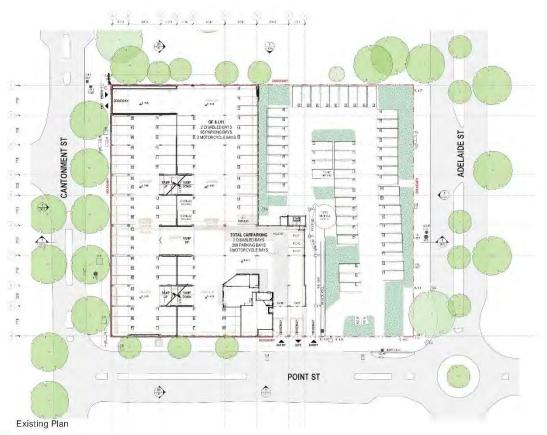
04. View from Adelaide Street

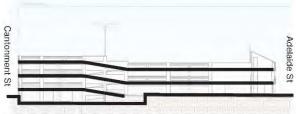
## **Existing Site Conditions**

The site contains the existing West Gate Car Park structure, offering ground + 2 levels of parking, with the upper level being open to air. The building steps in half levels, with floor to floor heights of circa 2.65m. The building has recently undergone maintenance work to reopen and provide 80 car parking bays.

The original car park structure provides 302 car bays and occupies approximately half of the site, with the other half containing open to air at grade parking - providing a further 53 parking bays.

Through the design process the design team investigated thoroughly whether the existing car park structure could be retained and utilised to avoid demolition costs and provide parking for the new development. It was however determined through these investigations that the existing car park had low value as an existing asset, and significantly compromised any proposed design outcome on site. Removal of the car park allows the proposed design to meaningfully engage at the fine grain with its surrounds on all boundary interfaces.





Existing East- West Section

8 Point Street, Fremantle Sirona Urban

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# Site Appreciation Existing Site Conditions







Ground Floor



Upper Level



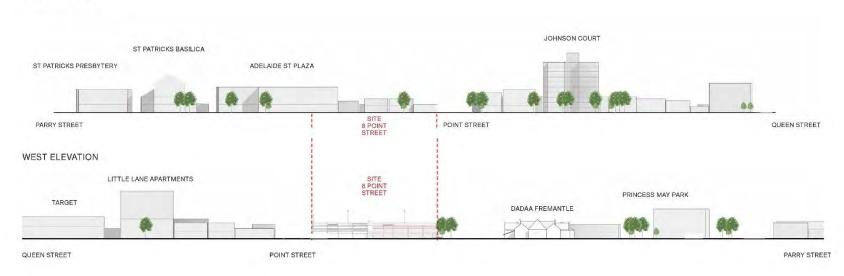
Carpark from Princess May Park

Aerial View Carpark From Adelaide Street

8 Point Street, Fremantle Sirona Urban

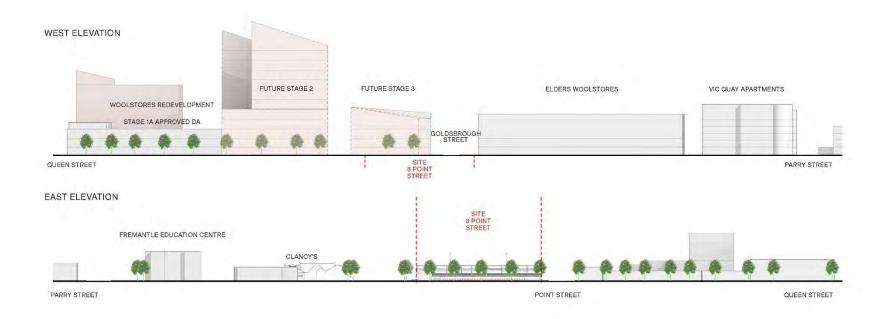
## Site Appreciation Adelaide Street

#### EAST ELEVATION





## Site Appreciation Cantonment Street













# Site Appreciation Site Views from 30m



View to North West



View to South West



8 Point Street, Fremantle

Sirona Urban

# Site Appreciation Site Views from 30m



View to South East



View to North East





# SITEHISTORY

# Site History Local Heritage

The City of Fremantle has a rich and diverse history of built form, and contains numerous designated Heritage Areas.

The design team have focused on integrating and celebrating the adjoining environments and uncovering opportunities to honour existing street rhythms, urban massing, views, and sightlines to inspire a unique connection to place.



Fremantle Boys School



St. Patricks Basilica

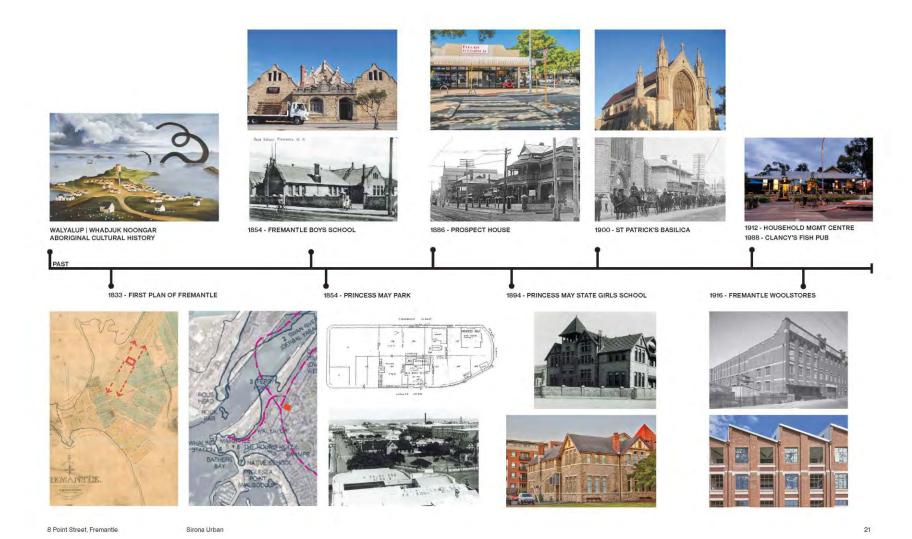


Elders Woolstores

#### MAJOR HERITAGE AREAS



# Site History A Timeline





#### First Nations History

Pre-colonisation | Aboriginal Culture | Whadjuk Noongar

The traditional owners of the greater Fremantle/Walyalup area are the Whadjuk people and the area is a place they hunted, fished, traded goods, passed on their creation stories (dreamtime), sang, danced, underwent rites of passage and mourned their dead. They lived with an affinity to the land and a respect for the environment, observing and following the seasons and living in harmony with the natural world.

The mouth of the Swan River is the place where the Wagyl fought the Crocodile spirit and used the crocodile's tail to separate the fresh water from salt water.

Beeliar is the name of the country on which Fremantle is situated on. Beeliar is one of the land divisions of the Whadjuk people. The area was traditionally covered with lakes, water holes, swamp, marsh lands, with sand plains and hills providing a rich environment for plant and marine life. During the seasons of Kambarang, Birak and Bunuru - Beeliar would have provided a large variety of food resources for the Whadjuk people during the warmer months of the year along the coastal plain.

The town of Fremantle in the Whadjuk region has always been an important meeting place for Nyoongar people. The area contains many campsites and spiritual sites which have been used by Nyoongar people from pre-contact to the



8 Point Street, Fremantle

1833 - First Plan of Fremantle

European settlement of Fremantle was in 1829 by Captain James Stirling.

The first official plan of Fremantle was published in 1833, based on surveys completed by Surveyor-General John Septimus Roe in 1830. Notable landmarks include Arthur's Head, the Round House, High Street, Kings Square and the Church.

Adelaide Street, Cantonment Street and Point Street all formed part of this plan. A stone quarry was located north of the site. Cantonment Street appears on Surveyor-General Roe's earliest maps, and used to continue as Cantonment Road to Cantonment Hill, until this section was renamed as Queen Victoria Street in 1892.



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#### 1854 - School Grounds / Princess May Park

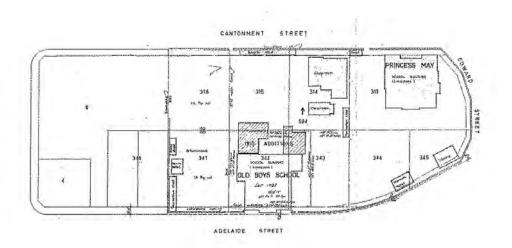
Princess May Park is named after Princess Mary of Teck, who visited Fremantle in 1901 as the Duchess of Cornwall and York. The Princess May Girls State School was initially named after her.

The reserve formed the heart of a precinct that would be made up of predominantly educational and religious uses for over a century.

What is now the Park was originally the grounds of the 1854 Fremantle Boys School, and later the PM Girls School. The third building in the Park was the Household Management Centre of the PMGS. The buildings were built in stages between 1854 and 1914.

The buildings were a product of the convict period of WA development, the gold boom period and World War 1. The first plan of the area indicates a stone wall surrounding the entire site, with landscape surfaces of gravel and asphalt. Grass and trees were planted in the 1950's.

In the 1960's the John Curtin School was opened, seeing the students of the Boys and Girls school transferred and leaving the buildings vacant and derelict. Various tenants have occupied these buildings in the proceeding years, including the Fremantle Television Institute, DADAA, the Fremantle Education Centre and Clancy's Fish Pub.







8 Point Street, Fremantle

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1854 - Fremantle Boys School 1886 - Prospect House 1900 - Princess May Girls School

The FBS was designed by William Ayshford Sanford and was built by convict labour in 1853-1854. Later additions were made in 1910. It is an example of Victorian Tudor Architecture.

It was upgraded to a high school in 1947, and closed in 1958 when John Curtin High School opened. However the building has been in almost continuous use since it was built.

The Film and Television Institute (FTI) including its cinema, was the tenant from 1971-2014. The building is now leased to DADAA. Prospect House was built in 1886 on the corner of Adelaide and Point Streets for Captain William Dochray Jackson. Captain Jackson was Port Pilot and Superintendent of Rottnest Island form 1867-1885. The Jackson family lived here until 1897. Later it became a boarding house, home of a music teacher, a doctor's surgery, flats, and was eventually demolished in 1967.

The location for a new girls school had been reserved on the site in 1894, with the Princess May School constructed in 1900.

Fremantle's rapidly rising population started to put pressure on the teachers and classrooms by as early as 1911. By 1928, all primary school students had been transferred to the South Terrace Primary School, with the PMGS reclassified as a high school in 1946. The building eventually became an annexe to John Curtin High School in 1957.

The building is currently occupied by the Fremantle Education Centre.













8 Point Street, Fremantle Sirona Urban

#### 1900 - St Patrick's Basilica

St Patrick's Fremantle was established around 1850, as the third Catholic Community in Western Australia. A presbytery, chapel and convent were built on the site in 1859 by the Benedictines. Oblate Fathers arrived in Fremantle in 1894 and commissioned a new church, which was constructed in 1900.

The Basilica is in Federation Gothic style, designed by Michael Cavanagh. The adjacent Presbytery replaced the original Benedictine building in 1916.

#### 1912 - The Household Management Centre

The Household Management Centre was constructed to provide the necessary accommodation for the growing number of Household Management students in Fremantle. The new premises were located on the Cantonment Street side of the existing school block. Construction commenced and was completed in late 1912.

It consisted of two distinct areas - the cookery and laundry centre and the house-wifery rooms. A cloakroom and a storeroom separated the two areas.

As with the other buildings on the site, it continued to be used as an annexe when the John Curtin Senior High School was built.

As part of the redevelopment of the park, the Household Management Centre was converted into a tavern, the first such license in WA as distinct from a hotel license.

Entrances were originally from the park side into both rooms. In 1988 two doors allowed access on the Cantonment Street side and landscaping outside gave the pub a Cantonment Street frontage for the first time in its history.

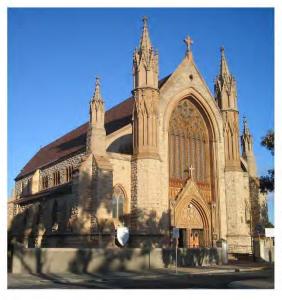
### 1927, 1950-56 / 1969-1970 - Fremantle Woolstores

The Fremantle Woolstores were four large buildings on the southern side of Fremantle Harbour. They included: Westralian Farmers, Elder Smith and Co, Gainsborough Mort, Dalgety and Co. The larger two operations were Elders Woolstore and Dalgety Woolstore.

The two largest buildings were located between Queen Street to Goldsbrough Street, then the Elders Woolstores between Goldsbrough and James Street.

The bottom (south-western) block was demolished c. 1985 in favour of the Woolstores shopping centre (Coles etc.), which has now in turn been demolished 2022. The remaining building is currently a derelict 'heritage building'.

Further to the north-east, is the Dalgetys woolstore.







8 Point Street, Fremantle Sirona Urban

#### Recent & Future Developments

Elders Wool Stores is part of a complex of multi-storey brick buildings bound by Cantonment Street, Elder Place, Goldsbrough Street and Parry Street, Fremantle. The complex was constructed for Goldsbrough Mort and Co. Pty Ltd (later Elder Smith-Goldsbrough Mort Ltd) in three developmental stages. 1927, 1950-1956 and 1969-1970.

In 1924 Goldsbrough Mort Ltd (GM) was established in Fremantle, and in 1927 built the first stage of the north woolstores on Goldsbrough St. Prior to 1927, the location comprised a Church of England Rectory, a duplex with sheds and stable, 8 terrace houses and a large stone residence.

The north woolstores were built in stages from 1927, 1936-38, 1950-56, 1962-63, 1969-70. In 1968-69 a linking bridge was built over Goldsbrough Street between the north and south woolstores on the 2nd, 3rd and 4th floors. The woolstores ceased operations in 1982, after handling 9,703,315 bales of wool.

The south woolstores were purchased in 1984 by Fremantle businessman Joe Rotondella for \$3.5m, and the building and bridge was demolished in 1985 for a new shopping complex and carpark.





#### **Recent & Future Developments**

The 8 Point Street site, is classified as a "Major Opportunity Site" in "FREO 2029" Future Vision. It is a pivotal part of the future master plan vision for the City of Fremantle.

The following map highlights a range of recent and future developments for the City.

The design team recognised the significance of investigating these contemporary developments that are starting to rejuvenate the city's urban fabric.

These buildings, encompassing residential and public amenities, represent a diverse array of emerging environments that breathe new life into the surrounding area. Identifying and understanding them has been important for the design team's work.

The design proposal has been carefully crafted, taking into account the influence of these contemporary developments and the strategic positioning of the site within the urban context. The design team has incorporated the essence and characteristics of these emerging environments, ensuring that the proposal aligns with the evolving urban fabric. This thoughtful approach guarantees a harmonious integration of the project within its surroundings.

# Legend: RESIDENTIAL MIXED USE COMMERCIAL OTHER



# Site History Recent & Future Developments





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8 Point Street, Fremantle

#### Fremantle Future Vision

Sirona Urban has collaborated closely with the City of Fremantle to ensure alignment with the area's strategic vision "Freo 2029".

The proposal responds directly to the City Objectives/Priorities in supporting residential development and creating a sense of community within the City Centre, by:

Ensuring good design: attractive, flexible, robust and safe

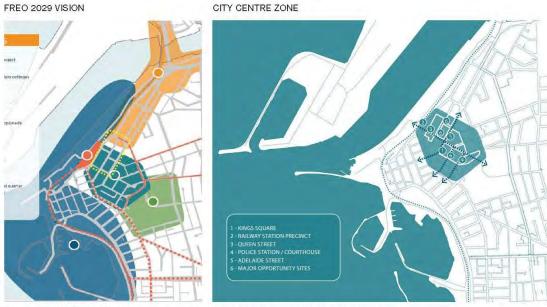
Supporting walkability: connected, legible, green

Coordinating infrastructure renewal/upgrades

Concentrating civic uses and service provision in the City Centre at an appropriate scale

Encouraging uses that contribute to the vibrancy, inclusiveness and economic vitality of the City Centre, day and night

Respecting/building on Fremantle's authenticity and character









8 Point Street, Fremantle

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# DESIGN CONCEPT

#### State Planning Policy 7.0

#### Design Principles Response

#### 1. Context and Character

Good design responds to and enhances the distinctive characteristics of a local area, contributing to a sense of place.

Key to the design proposal has been to create a design response that prioritises:

- Creating a strong connection between Princess May Park and the envisioned development to foster a unique sense of place and identity.
- Increasing critical mass and activity at retail areas, expanding connections to the City center, and revitalising Princess May Park to bring renewed vibrancy to the area.
- Enhancing streetscape interaction with residential addresses on Adelaide and Cantonment Streets, improving public transport links and enabling adaptable commercial uses like F&B and Commercial offices along Adelaide Street.
- The facade language takes its cues from the rich tapestry of Fremantle's built character, while addressing the unique duality of the site's contrasting streetscapes and park.
- Granularity in material selection, form modulation, height, and setbacks contributes positively to the urban context.
- Confident, well-proportioned facade addressing three street frontages with appropriate solidity, materiality, and scale, complementing rather than competing with Heritage buildings.
- Varying unit typologies including townhouses and units with spacious balconies to engage residents with the park
- A balance between passive surveillance and engagement with the public realm. Ground floor apartment typologies enhance passive surveillance, improving Princess May Park and surrounding streets through inviting interfaces, level changes, landscaped buffers and a raised threshold with planting and balustrades.

#### 2. Landscape Quality

Good design recognises that together landscape and buildings operate as an integrated and sustainable system, within a broader ecological context.

Key to the design proposal has been to create a design response that prioritises:

- North-facing residential amenities offer an attractive, generous, and comfortable living environment while contributing to the area's biodiversity.
- Consideration of equitable access from the residents' communal space to the Park and the security of the podium
- A 'hybrid' approach has been taken to achieving the provision of landscape amenity. The landscape design consists of deep soil zones and planting on structure (As defined in DesignWA) to create a landscape approach which is respectful of the surrounding urban context and architectural form
- A seamless yet secured connection between the public realm and Princess May Park, enhancing the relationship between community spaces by introducing active residential courtyards and visual connection to communal amenity at Level 01.
- Strong interface between architecture, landscape, and interior spaces creates a cohesive and dynamic environment, reflecting the unique atmosphere of Fremantle.
- Selection of endemic planting that represent an eclectic mix of local species together with robust plant species selected to meet the requirements of the public realm design.
- A diverse selection of sun and shade tolerant endemic, native and exotic species, have been proposed that will be robust and waterwise and well suited to this aspect.

#### 3. Built Form and Scale

Good design ensures that the massing and height of development is appropriate to its setting and successfully negotiates between existing built form and the intended future character of the local area.

Key to the design proposal has been to create a design response that prioritises:

- Diverse existing streetscapes feature varied scales, grains, characters, and uses, including solid edge on Cantonment Street and low-rise structures on Point Street.
- The massing is articulated as four defined building blocks responding uniquely to street conditions with scale and facade language in mind.
- Taller buildings address the prominent Adelaide/Point/Cantonment corner, while northern blocks transition in height and grain, respecting adjacent heritage buildings.
- Active uses at lower levels expressed through a transitioning podium language, with retail frontage maintaining Adelaide Street's fabric and transitioning to double-storey townhouses facing the park and Cantonment Street.
- Design achieves seamless massing and use transition, fostering harmonious flow and connection within the development, while respecting the surrounding streetscapes.
- Vertical articulation of massing at northern and western ends and adjacent main lift lobby creates moments of depth and relief to facade and provides natural daylight/ventilation to internal corridors for improved residential amenity.

#### 4. Functionality and Build Quality

Good design meets the needs of users efficiently and effectively, balancing functional requirements to perform well and deliver optimum benefit over the full life-cycle.

Key to the design proposal has been to create a design response that prioritises:

- Minimising traffic on main streets to enhance pedestrian comfort.
- Convenient access to residential bicycle parking and end-of-trip facilities from Point Street, alongside vehicle access to the basement and ground level car park and service areas
- Setbacks at street level to create distinct interactions with residential lobbies, retail spaces, and commercial office offerings, emphasising entry points and changing uses at the Adelaide Street corner of Point Street.
- Apartment design with spatial planning following function and maximising views of Fremantle and scenic locations, while optimising northern outlook and visual connectivity throughout the development wherever possible.
- Flexibility and adaptability enable future modifications without major disruptions, while high-quality materials ensure lasting performance and minimal maintenance impact.
- Waste Management strategy developed to minimise impact to pedestrian accessibility and away from public footpaths.

#### State Planning Policy 7.0

#### Design Principles Response

#### 5. Sustainability

Good design optimises the sustainability of the built environment, delivering positive environmental, social and economic outcomes.

Key to the design proposal has been to create a design response that prioritises:

- Built form that allows in natural light and outlook to scenic views.
- Responsive design considers location, solar orientation, and natural ventilation.
- •Promotion of local Australian materials and manufacturing.
- Integration of best practices across all aspects of the development and through all consultant services provided.
- Overall design response ensures a highquality outcome and focused in the lifecycle of the building.

Comprehensive initiatives are being employed to achieve a 5 Star Green Star rating including:

- · Solar shading
- · Natural ventilation
- · Predominantly north facing apartments
- · Low emission vehicle infrastructure
- · Water saving fixtures
- · Efficient building methodologies
- · PV cells on roofscapes and
- · EV charging stations

#### 6. Amenity

Good design provides successful places that offer a variety of uses and activities while optimising internal and external amenity for occupants, visitors and neighbours, providing environments that are comfortable, productive and healthy.

Key to the design proposal has been to create a design response that prioritises:

- Significant opportunity to enhance the area of Fremantle through the site's location.
- Incorporation of retail and commercial office offerings at ground level.
- Deep soil contributions enable landscaped amenities to combat urban heat gain and support community engagement.
- Seamless integration between architecture, landscape, and interior spaces.
- Provision of residential pool deck, wellness facilities, private roof terraces, and lounges for residents' enjoyment and access to daylight.
- 89% of the provided apartments are capable of being cross ventilated.
- 72% of apartments achieve a minimum 2 hours of solar access on 21st June between 9am and 3pm, in excess of the 70% required under planning provisions.
- The proposal meets the 20% silver level apartment requirement in accordance with the livable design guidelines.
- Apartment balconies meet or exceed the minimum requirement set out in State Planning Policy 7.3
- Enhancing natural daylight and ventilation to shared corridor spaces for improved residential amenity.

#### 7. Legibility

Good design results in buildings and places that are legible, with clear connections and easily identifiable elements to help people find their way around.

Key to the design proposal has been to create a design response that prioritises:

- Emphasis on scale and mass to enhance street hierarchy and park transitions.
- Well-designed, easily identifiable entries, amenities, and opportunities for public art to enrich the user experience.
- Creating clear and intuitive pathways and access points for residents entering the apartment building from the street.
- Entrances to the lobbies and ground floor apartments are clearly visible and easily identifiable for pedestrians.
- Fostering a sense of community connection in Fremantle through thoughtful design.
- Vibrant indoor-outdoor transitions achieved through carefully selected materials.
- Creation of an engaging and seamless environment through attention to finer design details



Distinctive character and vibrant streets



Enlivened streets and local amenities



Inviting built form and human-scale streetscapes

8 Point Street, Fremantle Sirona Urban

#### State Planning Policy 7.0

#### Design Principles Response

#### 8. Safety

Good design optimises safety and security, minimising the risk of personal harm and supporting safe behaviour and use.

Key to the design proposal has been to create a design response that prioritises:

- Emphasis on good natural surveillance for building security.
- · 24 hr safety of the end user.
- · Welcoming entry points.
- Detailed curation of residents' travel paths for safe and seamless transitions through the development and access to the private communal amenity areas on podium Level 01.
- Two secure, easily identified residential entry points on Adelaide and Cantonment streets, with an additional discreet entry point on Point Street for enhanced safety and flexibility.
- Activated edges with day and night activity such as retail to the corner of Point and Adelaide Streets, Commercial uses along Adelaide Street, residential lobbies off Cantonment and Adelaide Streets, residential units to Cantonment Street and Princess May Reserve, and bicycle and car parking access off Point Street.
- Highlight visible and well-lit afterhours access points
- Footpaths and integrated landscape designed with comfort and safety of pedestrians and cyclists as a priority.
- Secure and designated at grade and underground parking is provided residents.

#### 9. Community

Good design responds to local community needs as well as the wider social context, providing buildings and spaces that support a diverse range of people and facilitate social interaction.

Key to the design proposal has been to create a design response that prioritises:

- Retail and commercial offerings at ground level to enhance the village atmosphere.
- Diverse amenities on the landscaped podium for gathering and relaxation and to activate the existing Princess May Park.
- Meeting diverse resident needs through apartment mix and amenities.
- Presenting innovative ways to offer more housing options through flexible and adaptable apartment typologies, including the combination of two apartments or the implementation of twin key apartments.
- For example, ability to convert adjoining 1 bedroom apartments to cater for larger households, broadening the availability of housing choice.
- Variety of semi-private amenities to enhance residents' lifestyle, well being and allow choice.
- Creating an essence and sense of place that is distinctively connected to Fremantle.

#### 10. Aesthetics

Good design is the product of a skilled, judicious design process that results in attractive and inviting buildings and places that engage the senses.

Key to the design proposal has been to create a design response that prioritises:

- Timeless architectural aesthetic and adaptable buildings for long-term sustainability.
- High-quality human experience on all floors and transition through the precinct.
- Inspiration from historical and contemporary buildings, emphasising symmetry, proportion, and balance.
- Seamless transition of the façade to the park, with ample natural light and scenic views.
- Celebrating the vision to enhance the neighbourhood through the building's expression, materials, and details, while ensuring safety, warmth, and vibrancy for residents.



Diverse building typologies and rich urban fabric



Quality public realm enhancing engagement



Optimising amenity and comfortable living



#### **Local Planning Policy 1.9**

#### Design Principles Response

#### Local Planning Scheme No. 4

The proposed design aligns with the key 7 design principles of Local Planning Policy 1.9 by the City of Fremantle. While there are overarching and close synergies with the 10 principles of Good Design State Planning Policy 7.0, we appreciate that the specific design principles of LPP 1.9 reinforce the City's commitment to responsible urban planning, aiming to enhance the strong Vision the City has for Fremantle especially in terms of livability, functionality, and aesthetics. LPP 1.9 specifically considers the needs and aspirations of the Fremantle community and has been a guiding design basis to the proposal.

This page is a summary of the key priorities of the design proposal and responds holistically to the requirements of the LPP 1.9.

#### 1. Character

#### The Proposal

- Celebrates the uniqueness of Fremantle through architectural expression, materiality, and amenity.
- Strengthens connection and future vibrancy of the City and Port.
- Is a precinct and destination with a strong sense of identity.



#### 5. Legibility

#### The Proposal

- Introduces scale and mass to reinforce street hierarchy and transition to park.
- Has well-designed entries, amenities, and opportunities for public art to enhance user experience and foster a sense of community connection in Fremantle.
- Vibrant indoor-outdoor transition at fine-grain levels through material selections.

#### 2. Continuity and Enclosure

#### The Proposal

- Has varied apartment types for harmonious context and public-private transition along the site's boundaries.
- Spacious north facing landscaped amenity elevated from the ground level.
- Seamless visual connection to the neighbouring Princess May Park physically divided through a combination of transitioning landscaped elements and varying residential scaled apartment types.

#### 6. Adaptability

#### The Proposal

- Promotes lasting quality through good design principles and sustainability initiatives.
- Has spatial planning that is flexible and adaptability, and provides variety.
- Celebrates the surroundings context by orientation to major views and vistas and engaging with existing urban networks and public amenities.

#### 3. Quality of the Public Realm

- Has attractive and comfortable north-facing
- Seamless connection of public realm to Princess May Park to enhance community synergy between public and private realms.
- landscape, and interior spaces to ensure smooth transition and foster a vibrancy characteristic of Fremantle.

#### 7. Diversity

#### The Proposal

- Has compliant, equitable and inclusive design for a diverse community both at a public and
- Celebrates diverse housing typologies and a wide choice of onsite amenities.
- Has a generous landscaped podium area that promotes biodiversity and is a signature to Fremantle's character.

#### The Proposal

- residential amenities with rich biodiversity...
- A strong interface between architectural,

#### 4. Ease of Movement

#### The Proposal

- Prioritises pedestrian mobility and connection to the City's existing urban networks.
- Has end-of-trip facilities and less vehicle accommodation with a single level of basement carpark only.
- Offers various apartment typologies for easy ground-level access and connectivity to existing surrounding streets and Princess May Park.









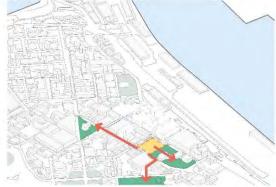
#### **Analysis and Opportunities**

#### **Connection to Town Centre**



- The site sits between two major routes connecting Canning highway to the Fremantle Town Centre
- Adelaide and Cantonment Streets vary in character, but are similar in proportions
- Both Streets present wide tree lined boulevards

#### **Connection to Green Spaces**



- The site is adjacent to Princess May Park
- 5 min walking distance to Fremantle Park & Kings Square

#### Relationship with Historic Buildings



- The site is classified as heritage adjacent land
- Princess May Reserve is on the City of Fremantle Heritage List and State Register of Heritage Places
- Several locally listed and state listed buildings near the site include the Elders Woolstores & Saint Patricks Basilica





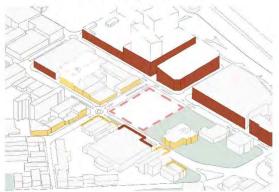


8 Point Street, Fremantle Sirona Urban

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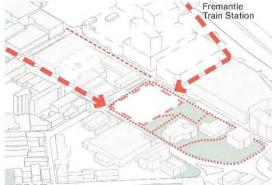
#### **Analysis and Opportunities**

#### **A Contrasting Street Grain**



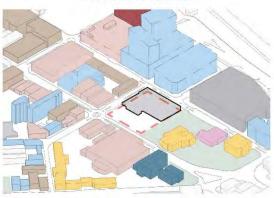
- Streetscapes contrast in both scale, grain, character and use
- Cantonment has a hard, robust street edge with little relief
- Point Street is much more granular and low rise
- Adelaide Street transitions from small scale, to a larger scale in contrast to Cantonment Street

#### **Established Pedestrian Movements**



- Primary pedestrian movement occurs along Adelaide St
- Retail uses connect to the City Center & Kings Square
- Princess May Park offers secondary pedestrian movement
- The site has good connectivity to the Train Station

#### **A Diverse Precinct**



- The site sits within an area of diverse building uses
- This includes, retail, commercial, residential, F&B, education, arts & culture and future hotel use























#### **Design Response**

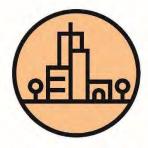
#### Design Drivers

There are three key drivers that underpin the design for the proposal



Connection to Park

Celebrate the adjacency to the heritage listed Princess May Reserve



**An Active Precinct** 

Enliven the streetscape and parkland through the introduction of density and diverse, active ground floor uses

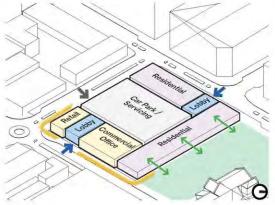


Stitching into the Fremantle Fabric

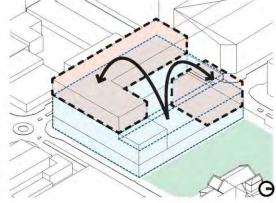
Built form and building uses to respond and integrate with the urban context

#### Form and Mass

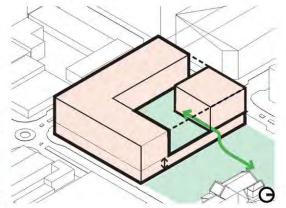
#### Street + Park Activation



#### Redistribution of Mass



#### Addressing + Connecting to Park

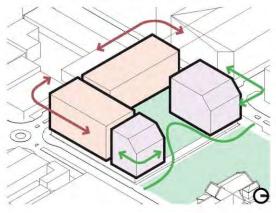


- Activating streetscape and parkland with Retail & Residential Uses
- Primary residential address from Adelaide Street
- Secondary address from Cantonment Street, with strong link to the train station
- Apartments raised above street level to introduce activation along Cantonment street and provide security to residents
- Car parking and servicing accessed via Point Street, aligned with adjacent car park entrance

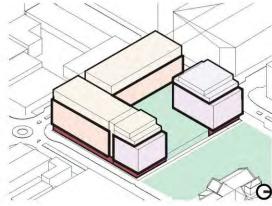
- Redistribution of the bulk and mass from the north to the three main street frontages
- Provide a critical mass of residents within the Fremantle city centre
- The additional building height will deliver an increased number of residents
- Assists the City to achieve their State Government infill targets
- Create a strong connection between the site and the adjacent park
- Reduce building frontage to the park
- Create beautifully landscaped, north facing podium for resident amenity
- Create a softer transition between the built form and nature

#### Form and Mass

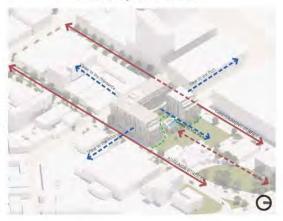
#### **Buildings Addressing Streets + Park**



Expression of Base + Middle + Top



Streets, Park & Port



- Bulk and massing is articulated as 4 building blocks
- Each respond to their contrasting street conditions through scale and facade articulation
- Two taller buildings address the prominent Adelaide /Point / Cantonment corner conditions
- Two northern blocks create a transition in height towards the parkland and heritage buildings
- The architectural expression of base, middle and top is celebrated
- The base is active and textured, enhancing the ground level experience and connection to place
- The middle is permeable and opens to views and connects with the local context
- The top is expressive and frames the sky inspired by industrial vernacular

- The buildings respond to outlook and the street vernacular
- The form responds to the formal rhythms of the primary streets along Adelaide and Cantonment Streets
- The form transitions to the park and opens to north facing outlook and connections



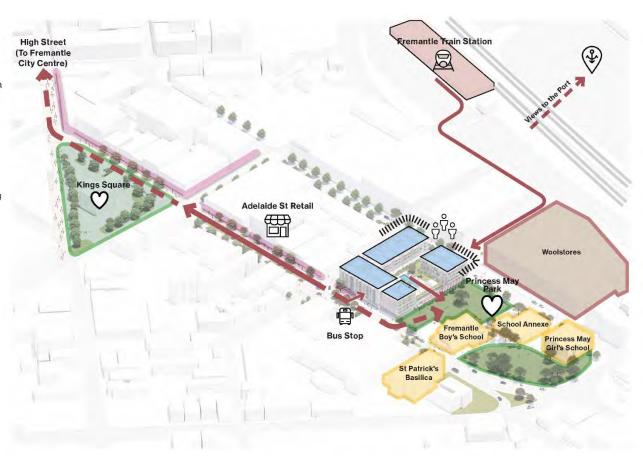
#### Connecting the Urban Fabric

The site at 8 Point Street forms the missing piece in connecting the northern end of Fremantle to the City Centre. The proposal will introduce density to this currently under utilised site and precinct.

Princess May Park has the potential to become a vibrant, active precinct through the introduction of critical mass and extension of retail uses along Adelaide Street.

Public transport links are promoted through residential addresses strategically located to Adelaide and Cantonment Streets

The quality and legibility of Princess May Park and Cantonment Street will be improved by the introduction of ground floor residences providing passive surveillance to this currently inactive area.



#### Legend:

Residential
Retail Street Front
Green Space
Heritage Listed
Industrial
Circulation

#### **Urban Context**

#### Responding to local built form

Street Frontages

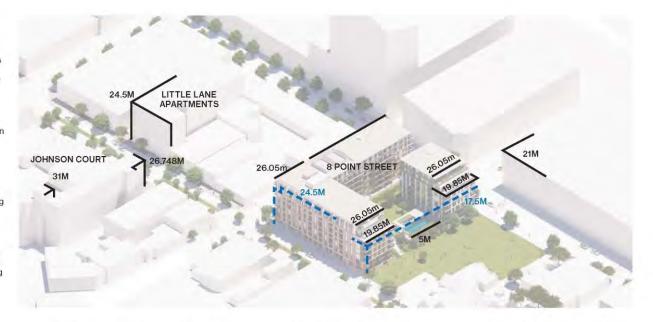
The dominant shoulder of the building form to Adelaide and Point Street sits at a height of 19.85m, with a more recessive upper two levels above reaching an ultimate height of 26.05m. This is just below the tallest point of the nearby Johnson Court Apartments.

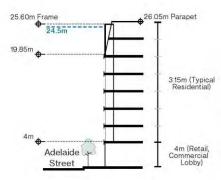
#### Park Frontages

The building massing fronting the park has been developed to present a 19.85m high shoulder to each corner, before setting back at 4m increments at the upper two levels.

While this is higher than the LPS height guidance of 17.5m, the central portion of this elevation presents only at single storey, creating an "average height" across the length of the elevation of 12.3m.

The following pages outline the key design considerations in reducing the impact of height on the site and creating a bulk and massing which responds appropriately to its surrounding context.





Sirona Urban

8 Point Street, Fremantle





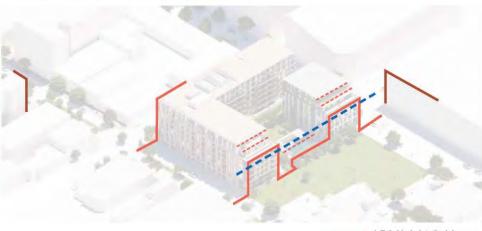


# Design Concept Height Comparison

Sightline Setbacks to Park



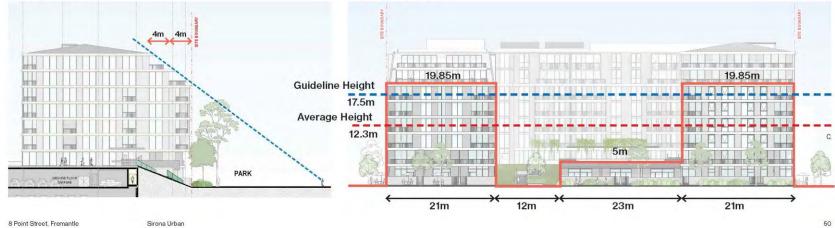
#### **Average Height Across Park Elevation**

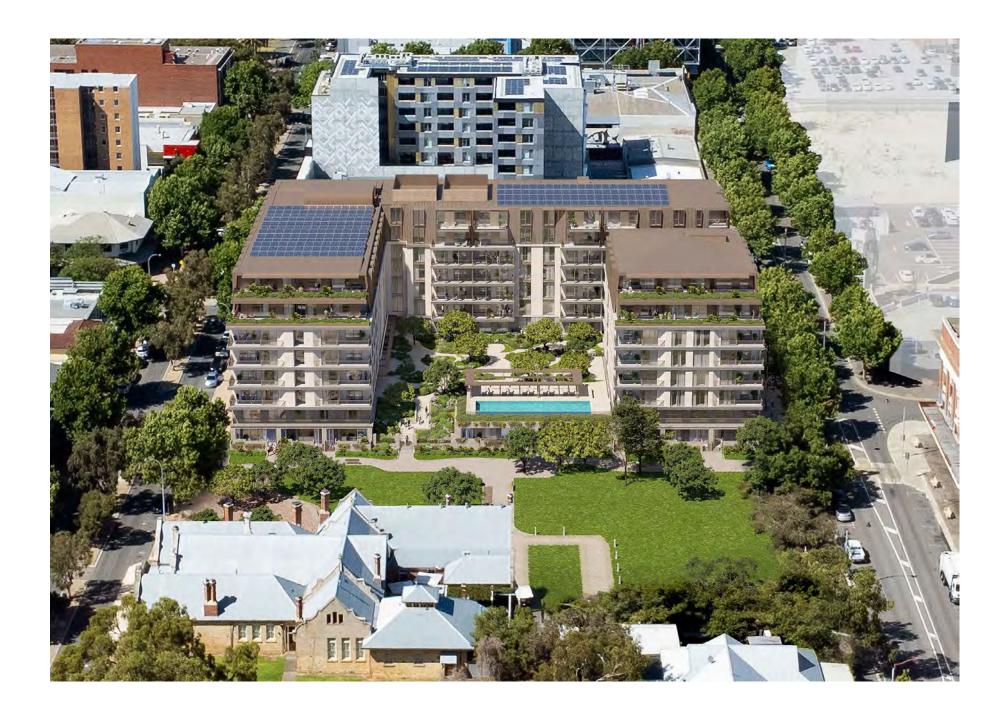


-- LPS Height Guidance

#### **Park Section**

#### **Park Elevation**





# Design Concept Residents' Journey

### **Placemaking Ingredients**

Key elements in shaping the interior journey are the emphasis on community connections and local arts.

The site becomes a desirable destination, seamlessly integrated into Fremantle's rich and characterful fabric. Careful curation of material finishes creates an appealing environment, celebrating the local arts scene.

The development captivates residents and visitors, crafting a unique and inviting atmosphere. This focus on community, art, and integration enhances its allure and ensures it stands out while remaining quintessentially "Fremantle".

### **Building Diagram**



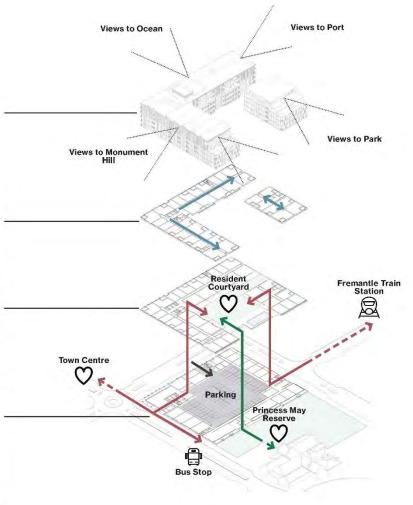












8 Point Street, Fremantle Sirona Urban 52



### **Ground Floor Activation**

### Creating an active ground plane

The ground plane has been thoughtfully designed to activate as much street frontage with appropriate uses as possible. Retail/ Commercial space is provided along the eastern portion of the site, continuing the established Adelaide Street retail strip through to Princess May Park.

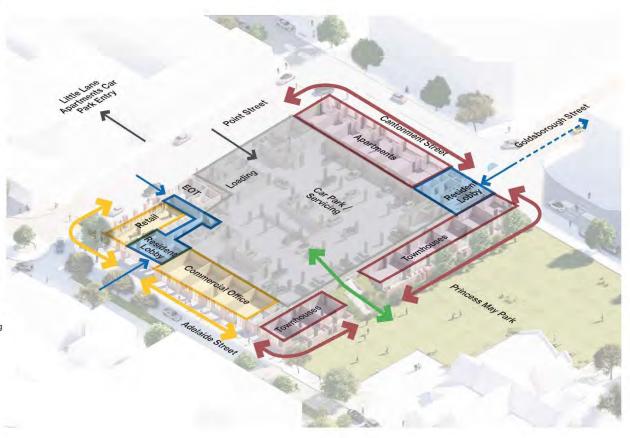
Retail frontage is punctuated by the building's primary residential address and lobby. The lift lobby will have a secondary entrance/exit via Point Street, which will also provide access for residents and staff to the End of Trip facilities and bike parking.

Townhouse style dwellings are proposed at ground floor and level 1, raised above street level to allow for privacy and basement below. The Townhouses fronting the parkland will provide a premium offering, while single storey accommodation along Cantonment Street will inject activation to this future developing precinct.

A dedicated lobby and lift core services the ground floor accommodation and apartment building above, located to activate the Cantonment/May Park corner and strengthen links to the Fremantle Train Station via Goldsbrough Street.

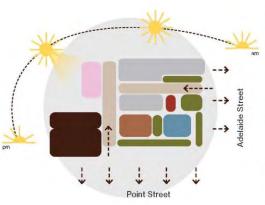
Back of House frontage is minimised, with car parking and servicing accessed via Point Street, aligned with adjacent car park entrance to the Little Lane Apartments Development.

226 bays have been provided across 2 levels of parking at ground floor and basement. A loading bay is provided adjacent the car park entrance, with direct access to commercial waste room and goods receiving store.



8 Point Street, Fremantle Sirona Urban 54

# Design Concept Ground Floor Interior Spaces



















Flexible co-working / cafe space

and site

Seamless circulation

Crafty joinery

8 Point Street, Fremantle Sirona Urban 55

# Level 01 Podium - Resident Amenity

### A connected podium deck

The level 1 pdoium deck offers the opportunity to create a beautifully landscaped and active amenity zone for residents. The landscaped deck will have a strong visual connection with the parkland below, as well as a physical connection via a private external stair - providing true deep soil planting within the site.

The external stair link forms a strong connecting spine between the parkland, resident amenity, and main building core.

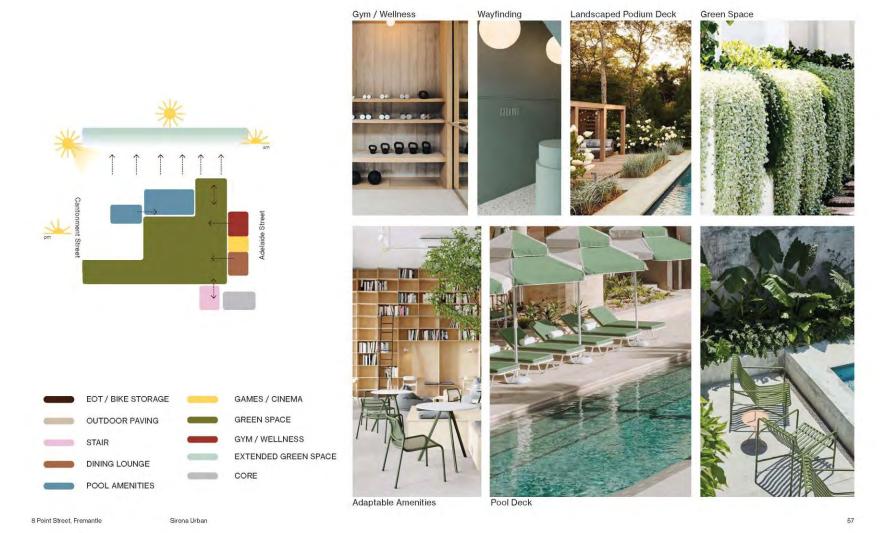
Residents can access the podium amenity floor via the two main lift cores, or the external stair from the park. Residents will have access to a north facing pool deck, landscaped communal courtyard and residential amenities, including gym, yoga studio, shared kitchen and dining room, multipurpose space and toilet/change facilities.

Podium level apartments have the benefit of extended private courtyards, creating a unique and premium offering to these units, while also providing a landscaped buffer between private and communal spaces.



8 Point Street, Fremantle Sirona Urban 5

# Design Concept Resident Podium Amenity



# Typical Floor

The floorplate has been developed in consideration of the site's solar orientation and views.

The East-West orientation to 2/3rds of the floor plate provides optimum solar aspect to these apartment types, as well as north facing apartments to the Park and central courtyard.

Typical floors contain 6 south west facing units, which have been designed as 1 Bed or Studio apartments where possible. While these apartments do not receive optimal solar orientation, they do enjoy views of the city centre and ocean beyond.

The site enjoys significant vistas in all directions:

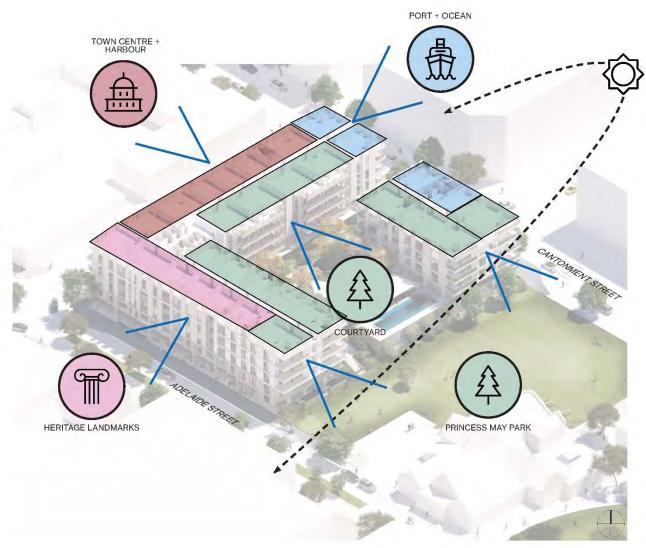
North: Princess May Reserve / Perth CBD

East: Monument Hill / Fremantle Prison

South: Fremantle Town Centre / Harbour

West: Fremantle Port / Ocean

Further to this, the proposal includes a beautifully landscaped central courtyard providing visual amenity to the internally facing apartments.



8 Point Street, Fremantle Sirona Urban

# Design Concept Typical Floor

The typical floorplate offers a range of dwelling types from studio to three bed apartments.

On floor lift lobbies visually connect the user to views of the parkland beyond the amenity deck, and southern views into Fremantle and the ocean.

Internal corridors open to each end of the building, drawing natural light and ventilation into each of the accommodation blocks.

A detached 'pavilion' building offers premium units with park frontage, views to the Port and the amenity deck. The pavilion building has its own dedicated lift core.

Pocket balconies offer a sense of privacy and protection from the street frontages, while projecting balconies create a strong connection with the internal amenity courtyard.

The main lift core includes 2 passenger lifts and a goods lift. Area has been allocated within each core for waste chutes and service risers.



8 Point Street, Fremantle Sirona Urban

# Design Concept Level 06

The upper two levels of the development retain a standardised floorplate to the three street frontages and internal courtyard, with larger family units positioned towards the parkland frontage.

These apartments enjoy generous north orientated balconies, set behind a planter zone to soften the building edge.



8 Point Street, Fremantle Sirona Urban 60

# **Apartment Types**

The development will offer a range of dwelling types to cater for the diverse demographic of the area. These will include;

- > Studio Apartments
- > 1 Bed x 1 Bath Apartments
- > 2 Bed x 1 Bath Apartments
- > 2 Bed x 2 Bath Apartments
- > 2 Bed x 2.5 Bath Two Storey Townhouses
- > 3 Bed x 2.5 Bath Apartments

Larger units have been given priority to northern aspect, while the 1 bedroom, studio and 2x1 Bedroom units have been located along the south-west and south east frontages.

Dwelling types typically include a study nook and internal store room accessible from within the apartment. This reduces the amount of resident stores provided within the carparking areas.

Opportunities to broaden the availability of housing choice has been considered through the ability to convert adjoining 1 bedroom apartments to cater for larger households.



Option for converting apartment types







2x1 Bedroom







2x2 Townhouse



3x2 Bedroom

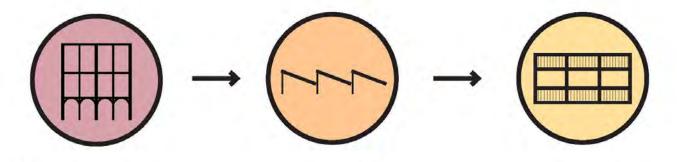
8 Point Street, Fremantle Sirona Urban

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# Design Concept Facade Language

### **Elevations of Fremantle**

The facade language of the proposal takes its cues from the rich tapestry of Fremantle's built character, while addressing the unique duality of the site's contrasting streetscapes.



A Formal Street Frontage

High Street Vernacular



Transition to Sky

Industrial Vernacular



**Transition to Park** 

Townhouse Vernacular



8 Point Street, Fremantle

Sirona Urban

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# Design Concept Facade Language

The design concept for the proposal is to create a confident, formal, well proportioned facade which addresses its 3 street frontages with appropriate solidity, materiality and scale.

The definition of a strong base, middle and top has driven both the architectural language and form.

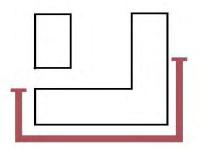
As the building transitions towards the park, the ratio of solidity to openings begins to shift, while maintaining a consistency of proportion and materiality. Generous balcony frontages addressing the park take inspiration from the traditional verandah typologies of Fremantle's colonial architecture.

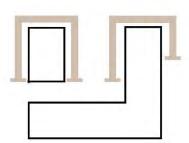


Typology 01: Formal Language



Typology 02: Transition to Park





8 Point Street, Fremantle Sirona Urban

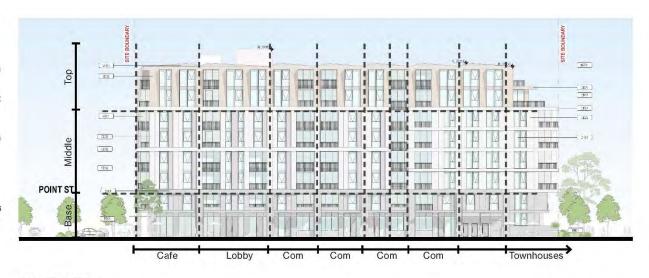
# **Street Frontages**

The elevations addressing the 3 primary streets adopt a formal order establishing a strong base, middle and top to the building.

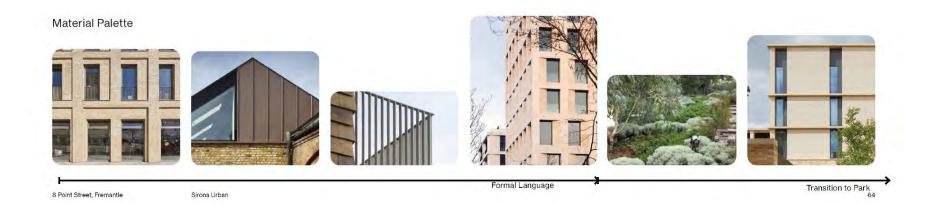
These elements are expressed horizontally as double height groupings of floors, breaking down the perceived scale of the building.

A consistent structural grid aligns with apartment types and commercial tenancies below, creating a strong rhythm along the street. A double bay expression creates a moment of relief which highlights the main building entrance on Adelaide Street. A set back colonnade to the corner of Adelaide and Point Street provides depth and articulation to the retail use on this prominent corner.

A full height vertical recessive 'break' in the building provides relief in the elevation and allows a transition in facade language towards the park.



East Elevation



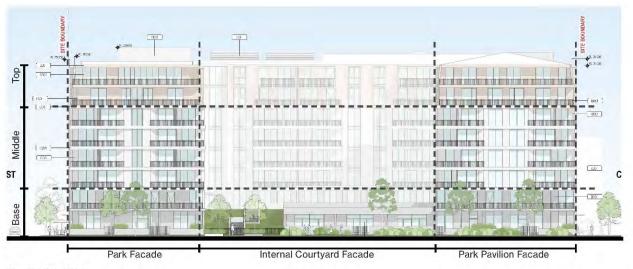
## **Park Frontages**

The northern elevations transition to a finer grain in response to their parkland outlook - progressing to a single height expression of levels.

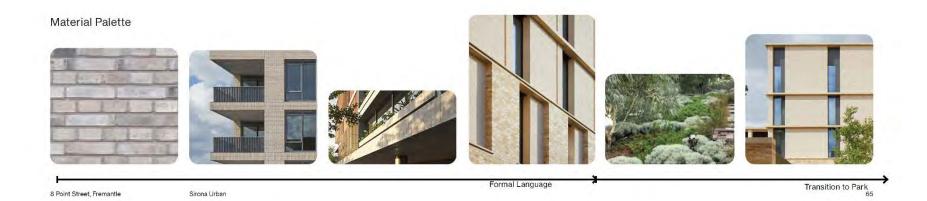
Upper levels have been set back to reduce perception of height to the park and provide generous private terraces to these premium apartments.

The north facing apartments celebrate their park setting outlook through the grander expression of balconies - in contrast to the more protected pocket balconies facing the streets.

The elevation is punctuated by the negative space between the built form - a moment of relief which draws the nature of the park into the site via a landscaped green staircase connecting to the level 1 resident's courtyard. The pool deck activity above animates the edge condition to the park.



North Elevation



# Facade Articulation - Street Frontages

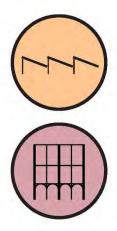
Type 01 - Formal Order and Transition to Sky

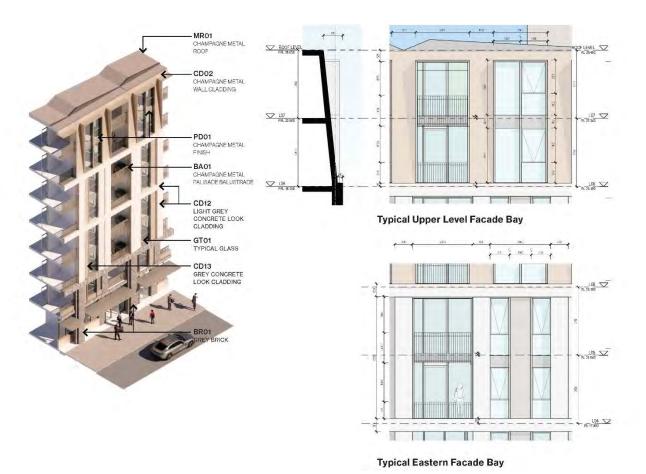
The arrangement of the typical bays enhances the building's formality and delineates the base, middle, and top of the building.

Well-proportioned and generous pocket balconies provide good apartment amenity, depth to the facade and connection to surroundings.

The base of the building is articulated with materials which reflect the rich character and fine grain of the area through examples such as brick. Smoother and less textured materials and metallic finishes define the middle and upper levels and reference Fremantle's industrial heritage.

The recessive upper floors elegantly transition towards the sky, creating a sense of lightness, while also contributing to a sculpted and profiled silhouette reminiscent of the local architectural vernacular in the area.





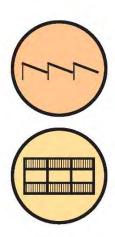
# Facade Articulation - Park Frontages

Type 02 - Transition to Park and Sky

The north facing apartments showcase grand balconies, drawing inspiration from Fremantle's colonial architecture verandah typologies. This contrast celebrates the park setting and architectural diversity responsive to its context.

Upper levels feature smooth, timeless, and contemporary materials, tonally selected to be sympathetic to existing heritage buildings in the

Ground level apartments enjoy direct access to the park via private courtyards with winter garden glazing and crafted brick walls transitioning between public and private realm.





# Facade Articulation - Park and Podium Frontages

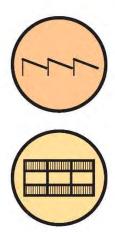
Type 03 - Transition to Podium and Sky

The building's inner north-facing elevations establish a strong connection with the private podium and the park beyond, serving as the precinct's heart.

The façade balances privacy and connectivity with diverse balcony styles and large northfacing windows, inspired by Fremantle's colonial townhouse vernacular.

Materials are carefully proportioned to highlight the core and sanctuary of the podium, while generous balconies visually connect and extend from the middle and upper levels.

At the base level, private courtyards seamlessly transition to apartments, amenities, and surrounding garden spaces. The upper levels harmoniously transition to the sky, responding to orientation and outlook, and complementing the building's overall composition.





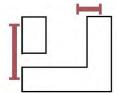


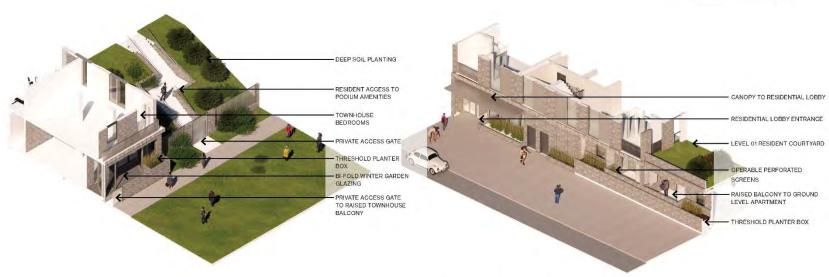
Typical Upper Level Facade



Typical Northern Facade Bay

Design Concept Ground Level Interfaces





### **Typical Townhouse Frontage**

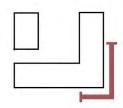
79°7 78

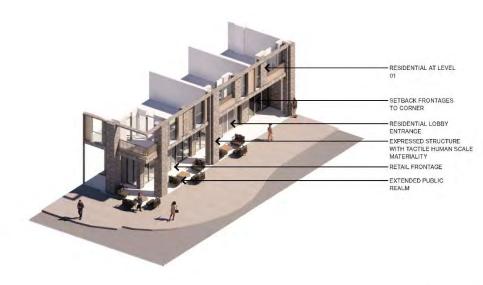
### Typical Street Level Residential

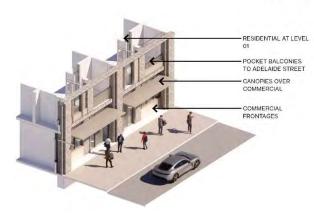


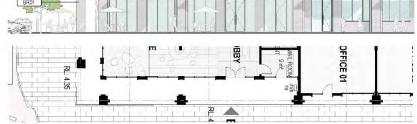
**Lobby Entrance** 

Design Concept Ground Level Interfaces







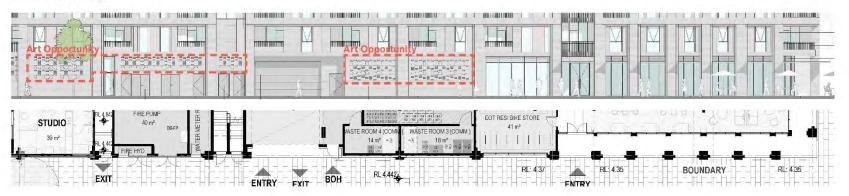




**Commercial Frontage** 

## **Design Concept Ground Level Interfaces** RESIDENTIAL APARTMENT BALCONY FEATURE ART BRICK PATTERNING TO HIGH LEVEL GROUND LEVEL RESIDENTIAL SECONDARY EGRESS FIRE SERVICES ACCESS FIRE EGRESS CAR PARK ENTRANCE ROLLER DOOR LOADING BAY DOG WASH FEATURE ART BRICK PATTERNING TO ELEVATION COMMERCIAL WASTE ROOMS GLAZING TO RESIDENTIAL END OF TRIP BIKE STORE

### **BOH Street Frontage**



# Design Concept Material Palette

The material palette is a contemporary interpretation that reflects the signature architectural language of Fremantle. The robust textured palette celebrates the tones and accents that echo the Fremantle vernacular and are signature to place. Materials are chosen to echo the locality and for their texture and colour to highlight the existing surrounding environment. They reflect the boldness and robustness of the industrial language, and the civic nature of the colonial heritage buildings

### Materials

111111111111111111111111111111111111111	
BR01	Grey Brick
CD12	Light Grey Concrete Look Cladding
CD13	Grey Concrete Look Cladding
BA01	Champagne Metal Palisade Balustrade
PD01	Champagne Metal Finish
MR01	Champagne Metal Roof
CD02	Champagne Metal Wall Cladding
CD22	Champagne Metal Roof
GT01	Typical Glass



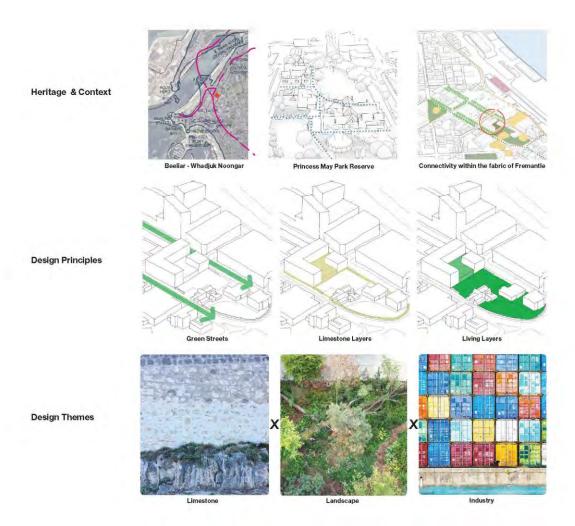
# Design Concept Material Palette



## Design Concept Landscape Response

### Landscape Approach

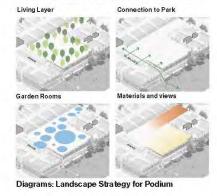
- 8 Point Street is located on Beeliar, one of the land divisions of the Whadjuk Noongar people, at the intersection of the local Bidi (tracks) a location that has long been a manjar (meeting place) in close proximity to Derban Yaragan (Swan River).
- The site is adjacent Princess May Reserve, an open space area that includes important heritage buildings and recreational spaces.
- The landscape design establishes a significant relationship with Princess May Park, fostering a seamless visual connection between the development and this public green open space. The proposal responds to the Draft Masterplan for Princess May Reserve that was released for public comment in 2015.
- The proposal is an extension of the urban fabric of Fremantle and it looks to extend and enhance the Green Boulevards on Adelaide and Cantonment Streets, through supplementary street tree planting.
- The landscape design takes inspiration from the ancient limestone geological formations, pre-settlement landscape and industrial heritage of the adjacent developments and working port that defines the local area.
- The design includes endemic, sensory, and productive plantings that are carefully selected to support local biodiversity, creating habitats for wildlife and contributing to the ecological balance of the area.



# Design Concept Landscape Response

### Landscape Concept

- A podium landscape that physically and symbolically connects to Princess May Reserve.
- A design that responds to the local, being of place, referencing histories and adjacent heritage precincts, the importance of connections, and meeting places and building biodiversity and sustainable landscape systems.
- The landscape celebrates vibrant, textured tones and layered narratives, as is the story of Fremantle.
- Celebration of local endemic plant and tree species and suitable native and productive species.
- Provision of amenity for residents that provides good outdoor comfort through solar and wind management, and supports social interactions and well-being.
- Proposal meets Deep Soil Requirements.
- Proposal meets Canopy Cover Requirements.





## Security

CPTED is a situational crime prevention strategy that focuses on the design, planning and structure of the environment. This process of design consideration aims to identify the potential opportunities of crime created by the proposed development by assessing the development in accordance with design and place management principles of CPTED.

The consideration for a safe and secure public environment requires careful and strategic devices that work within a hollistic design approach. The ground plane becomes an important component to invite and control public access around the site while maintaining constant vigilance and safe activity. This is employed by activating edges with day and night activity such as retall to the corner of Point and Adelaide Streets, Commercial uses along Adelaide Street, residential lobbies off Cantonment and Adelaide Streets, residential units to Cantonment Street and Princess May Reserve, and bicycle and car parking access off Point Street.

Residents can access the site via the two lobbies on Adelaide and Cantonment Streets, as well as the connection to Level 1 courtyard via Princess May Reserve. Access control is provided for residents complemented by proposed after-hours lighting.

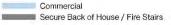
Other initiatives that have been incorporated into the design to optimise safety and security include:

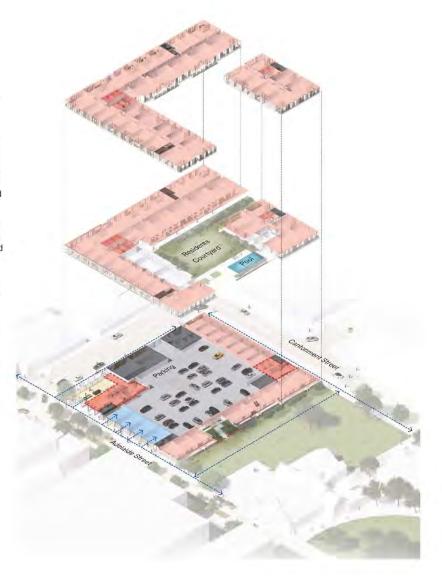
- All entries to the precinct are easily identified in architectural form and well lit.
- After-hours access points like commercial and residential lift lobbies are highly visible and well lit.

- The footpaths and integrated landscape and lighting are designed with comfort and safety of pedestrians and cyclists as a priority.
- Lobbies are easily accessible from the public square and all approaches are clearly defined and face open active spaces.
- The building and precinct have been designed with good visibility through clear sight lines and is well lit with natural daylight during the day and artificially after hours.
- Landscape features have been integrated and arranged to allow adequate sight lines and clear pedestrian access pathways through and around the precinct.
- Security access systems have been carefully considered in the early design progression at all levels of the building.
- Secure and designated at grade and underground parking is provided for residents.
- Landscape design does not provide for any concealment or entrapment areas.

### 

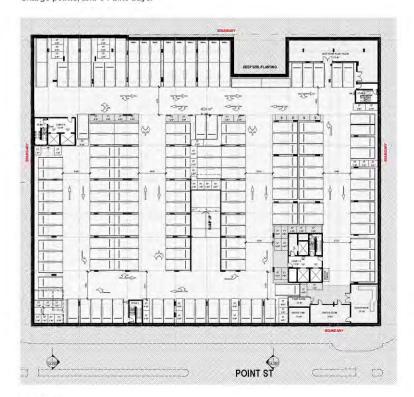
Legend:





# Design Concept Carparking

The ground floor and basement car parking provides 226 parking bays for residential occupiers. The configuration has been developed with traffic consultants to accommodate vehicle parking (226), motor bike parking (4), plant, and storage requirements. The development also provides supply for future EV Charge points, and 64 bike bays.



BASEMENT **GROUND FLOOR** 

PARKING SCHEDI	JLE
PARKING TYPE	Nos
BASEMENT CP	
STANDARD 2400x5400	119
TANDEM 2400x5400	28
BASEMENT CD: 147	-

26



# Design Concept ESD

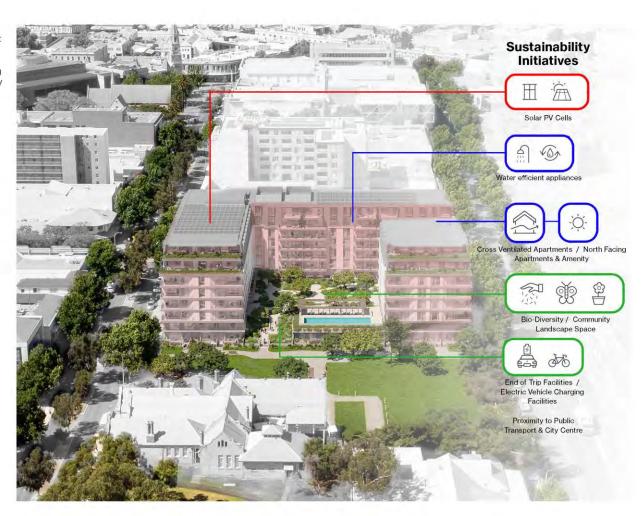
The project is being designed to achieve a self certified 5-star Green Star Design V1 equivalent rating.

The project has a particular focus on well-being and health, both on an individual and community level. The amenity levels provide quality views and connection to context, and a chance to connect to nature through landscaping.

Active transport modes are also being encouraged with close proximity to public transport and provision of End of trip facilities.

The Key Sustainability Features include the following:

- Efficient facades system and appropriate shading devices
- High levels of thermal comfort to occupants
- Low VOC materials for improved indoor air quality
- Efficient mechanical and lighting systems
- Water efficient rated fixtures and fittings
- Solar PV system
- Close to public transport
- Provision of End of trip facilities for the commercial areas
- Electric vehicle charging stations



## Waste Management

A Waste Management Plan and associated swept path analysis has been prepared for the development to inform the waste strategy and bin store design.

The City of Fremantle will service the residential waste, commingled recycling and FOGO bins.

As per The City of Fremantle requirements, residential bins will be presented on the verge for collection. Facilities management will be responsible for presenting the bins for collection and returning them to the bin store.

Dual chutes for waste and recycling will be used for the residential waste and recycling in each building. This will provide efficiencies for the tenants and facilities management.

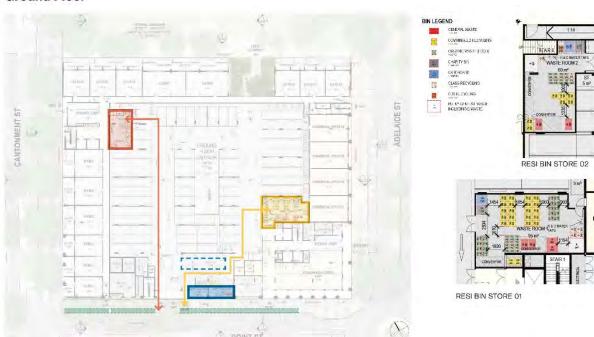
General waste at the base of the chute will be compacted by a factor of approximately 2:1 to provide greater space efficiency. Commingled recyclables cannot be compacted as broken glass will contaminate other recycling streams.

An automated carousel or conveyor system will reduce the need for manual handling of bins from beneath the chutes.

Bin stores will be located at ground floor and accessed by residents via the lifts and internal access corridors.

It is recommended that a private service provider services the full range of commercial bins. Rear-lift vehicles for general waste, recycling and organic waste will enter the ground floor parking area and will stop outside the commercial bin stores on ground level. Private service provider operatives will enter the stores to retrieve and service the bins. The operatives will replace the empty bins back into the bin stores.

### **Ground Floor**

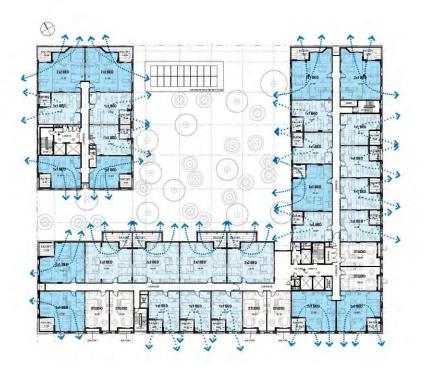


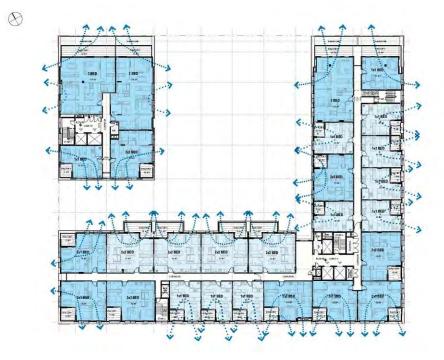


# Design Concept Cross Ventilation

The floor plate configuration allows that 89% of the provided apartments are capable of being cross ventilated - having ventilation openings oriented between 45-90 degrees of the prevailing cooling wind direction.

Of the 89% cross vented apartments, 29% are corner units, and 60% are single aspect aprtments with openings in two facade directions.





# Design Concept Daylight Analysis

The arrangement of the building form on the site allows 72% (158) of apartments to achieve a minimum 2 hours of solar access on 21st June between 9am and 3pm, in excess of the 70% required under planning provisions.





# Design Concept Liveable Housing Design Guidelines

The proposal meets the 20% silver level apartment requirement in accordance with the livable design guidelines. The development achieves at least 44 silver level apartments across mixed typologies on levels 1-7.

Livable Housing Design Guidelines Rating

Achieves Livable Housing - Silver



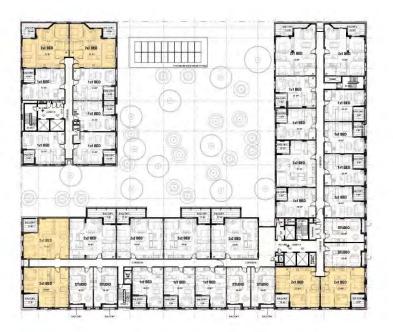
1x1 Bedroom



2x1 Bedroom



3x2 Bedroom





## Summary

The proposed development is comprised of two apartment buildings over a single level podium comprising residential, retail and commercial tenancies. The apartment buildings contain 220 high-quality apartments.

Atop the podium is a north facing pool deck, landscaped communal courtyard and residential amenities, including gym, yoga studio, shared kitchen and dining room, multipurpose space and toilet/change facilities. Level 1 apartments enjoy extended private terraces.

The ground floor delivers retail & commercial, and a unique opportunity for ground level residential with a parkland frontage. A cafe and co-working space connected to the Adelaide Street lobby provides amenity for the community.

Resident car parking, waste rooms and store rooms are provided at grade and a single level basement.

Site Area	5,015sqm
Zoning:	City Centre Zone - Sub Area 1.3.2 (Site 3a & 3b)
No. of Units:	220
Parking	227 bays
No. of Floors:	Ground + 7
Building Use:	Ground Floor Retail (157sqm) & Commercial (288sqm)
	Residential at Ground and above
Residential Offer	Ground Level 2 Bed Townhouses (2%)
	Studios (10%)
	1 Beds (40%)
	2 Beds (46%)
	3 Beds (2%)





# 8 POINT STREET, FREMANTLE

# DEVELOPMENT APPLICATION

	VII OPMENT APPLICATION		
Document No.	Document Name		
DA-MINI - GENER	141		
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DA-8010 - VISUA	ISATIONS		
DA-6011	VISUALISATION - SHEET 01		
DA-6012	VISUALISATION - SHEET 02		
DA-8013	VISUALISATION - SHEET 03		
DA-8014	VISUALISATION - SHEET 04		
DA-6015	VISUALISATION - SHEET 05		
DA-0020 - SOHED	N- F4		
DA-8020 - SCHED DA-6020	DEVELOPMENT SUMMARY		
DH-1020	DESCRIPTION SUBMERTY		
DA-II2ID - SITE			
DA-0201	LOCATION PLAN		
DA-1010	SITE SURVEY PLAN		
DA-0211	SITE PLAN		
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DA-0501	EXISTING CONDITIONS + DEMOLITION		
DA-1000 - FLOOF			
DA-0999	BASEMENT		
DA-1080	GROUND FLOOR		
DA-1081	LEVEL 01		
DA-1082	LEVEL 03-03		
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DA-1083 DA-1087	LEVEL OF		
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DA-8300 - SIGNA	DE .		
DA-8381	SIGNAGE DETAILS		
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DA-8900 - AREA I	PLANS		
DA-9901	AREA PLANS - GBA - SHEET 01		
DA-9902	AREA PLANS - GBA - SHEET 02		
DA-9911	AREA PLANS - GFA - SHEET 01		
DA-8912	AREA PLANS - GPA - SHEET 02		
DA-9990 - SH4CX			
DA-9991	SHADOW ANALYSIS - SUMMER		
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### VISUALISATION - POINT STREET

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8 POINT ST, FREMANTLE



### VISUALISATION - AERIAL VIEW

architectus:	122.04	amendment	date
	A	ESCIPTIFICE SCHEVATIC DESIGN	69.30.5628
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8 POINT ST, FREMANTLE

VISUALISATION - SHEET 04



### VISUALISATION - NORTHERN AERIAL VIEW

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FECA= NSA+CIRC+CORE+LOBBY+NLA+AMENITY

STRATA vs GBA 46.6% NSA vs GBA 49.6% FECA vs NSA 73.3%

Unit Typology	Average Area	No. of Units	%	Car park	Ratio	Total
Studio	45	21	10%	0	10	949
1 Bed	49	88	40%	.66	0.75	4312
Zx1 Bed	76	31	14%	31	1	2356
2x2 Bed	85	69	31%	103.5	1.5	5865
2 Bed Townhouse	102	6	3%	9	1.5	512
3 Bed	118	5	2%	10	2	590
		220		210 E	7.1	14690



GROSS BUILDING AREA				
LEVEL	GRA			
BASEMENT CP	4919.38 m*			
GROUND FLOOR	4751.84 m²			
L01	3134.15 mf			
L02	3189.73 m²			
1.08	3189.73 mf			
L04	3169,73 m²			
1.05	3189 73 m²			
L06	3140.07 m²			
LOT	2985.89 m²			
ROOF LEVEL	255.70 m <sup>4</sup>			
TOTAL GBA	31875.90 m <sup>3</sup>			

AREA TYPE	GF#	
Not Flaced		
UGA	R 00 m²	
BASEMENT OF		
FECA	175.45 #	
UCA	4516.40 m²	
GROUND FLOOR		
FECA	1935:54 m²	
UCA	2831.21 m²	

LOT	
FECA	2870.43 m²
UCA	244.53 te <sup>2</sup>
Lua .	104.42.4
L02	
FFCA	7838 78 m²
LICA	332.50 m²
Los	
FECA	2837.24 == 2
UGA	335.90 m²
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FECA	2819.32 m²
UCA	342.04 m²
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FECA	2929 60 = 2
UGA	343.54 m²
cus	-
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FEOA	2690,68 m²
UCA	352.13 m²

UCA	4516.40 m²	
		DROUND FLO
GROUND FLOOR		STANDARD 2
FECA	1935.54 m²	TANDEM 2400
LICA	2831.21#7	CROUND FLO
	10.00	TOTAL CARPA
L01	The second second	
FECA	2870.43 m²	STORA
UCA	244 53 ra*	EXTERNAL
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UCA	332.50 m²	SWF STORAGE
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UGA	335.80 m²	GROUND FLO
	- December -	3m² STORAGE
1.04		4m² STORAGE
FECA	2819.32 m²	5m° STORAGE
UGA	345 OE m*	TOTAL EXTER
1.06		
FECA	2929 60 = 1	
UCA	343.54 m <sup>4</sup>	
1.06		
FEOA	2690.68 m <sup>4</sup>	
UDA	362.13 m²	
LOZ		
FECA	2554.41 m?	
UGA	272 64 m²	
ROOF LEVEL		
FEOA	101.44 W	
TOTAL GFA	31233.09 m²	

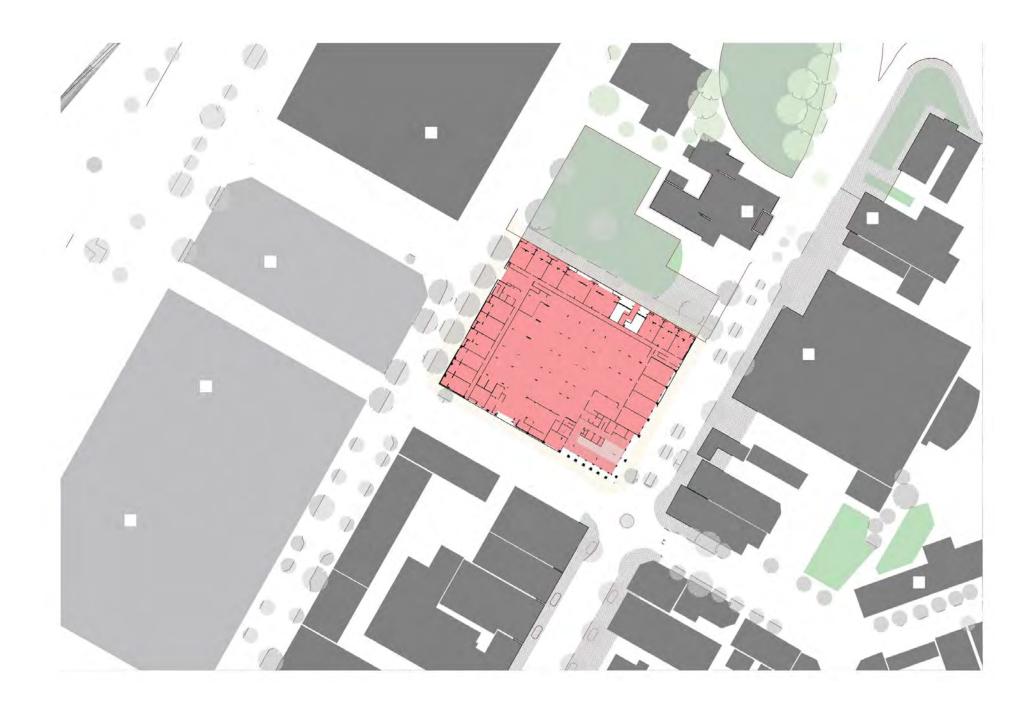
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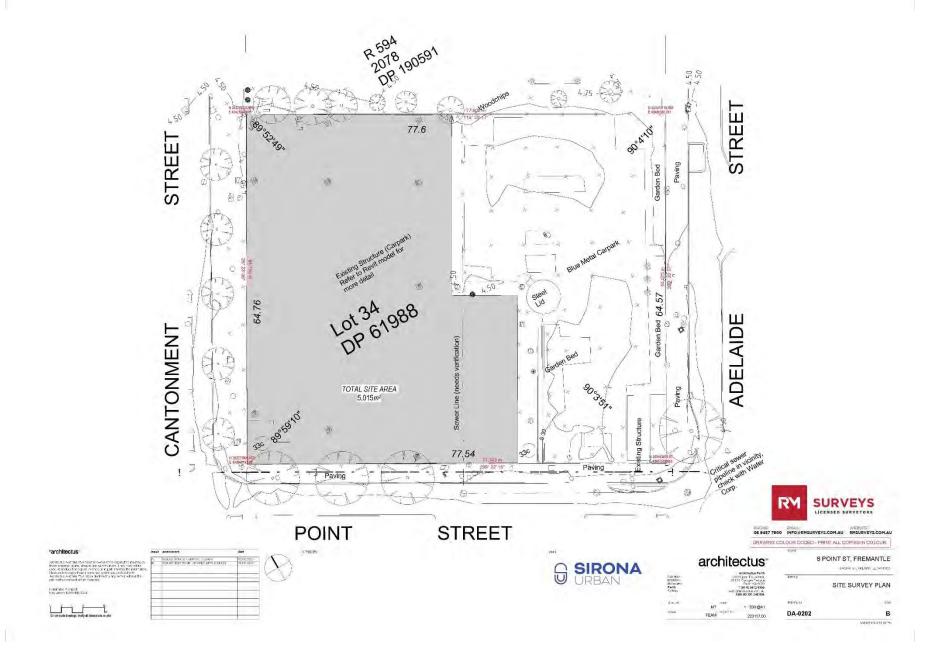
	aphen	HENT ECH	SCHEOLE APARTMENT SCHEDULE						
Apartment Type Building A	Kumbar	Stocage Area Required	Mos oith Internal Sharage	Nos with External Storage	Apartament Type Bulence B	Number	Storage Arms Requires	kriterial	Hos with External Storage
.01					GROUND FLOOR				
to 1 BED	17	3.00 m²	7	0	fxt BED	3	3.00 m²	10	3
Dri BED	3	4.00 mt	3	0	2x28E0	2	4.00 m²	0	12
2x2 BED	5	4.00 m²	5	0	2x2 BED TOWNHOUSE		4.00 107	0	8
STUDIO	8	3.00 m²	10	6	STUDIO	3	3.00 m²	0	3
	21		15	6	-	14		0	14
102					101				
1xt BED	10	300 m²	10	0	Ex18E0	4	S.00 m²	2	12
2xt BED	4	4.00 m²	4	0	Trans.	4		2	2
2x2 BED	7	4.00 m2	6	3					
OIGUTS	8	3.00 m²	0	6	1.02				
	27		20	7	Hx18ED	15	3.00 te2	3	12
					2×2 GED	2	4.00 te <sup>5</sup>	2	la .
1.03					The same	7		5	2
1xt BFD	10	3.00 m²	10	0					
Oxf BED	4	4.00 == 2	4	0	1.05				
2x2 BED	7	4.00 m²	6.	1	fx18E0	5	3.00 m²	3	12
OIGUTS	- 6		/0	6	0x2 BED	2	4.00 m²	2	0
	27		20	7	Lance	7		5	2
.04					104				
txt BED	10	3.00 m²	10	0	TXTBED	2	3,00 16	2	0
2xf. BED	6	4,00 m²	6	0	2x2 8ED	4	4.00 m²	3	4
2x2 BED	8	4,00 m²	4	4	-	8		5	9
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(xt BED)	10	3,00 m²	10	0	2x2 8ED	4	4.00 m²	3	1
2x1 BED	6	4.00m²	8	0	1	8		5	1
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					1x1 BED	5	3.00 m²	11	0
1.06					2x2 BED	1	4.00 m²	0.	1
1x1 BED	10	3.00 m²	10	0	3x2 BED	2	5.00 m²	2	C.
2x1 BED	4	6,00 m²	8	0		4		3	7.
2x2 BED	8	(4,00 m)	4	4					
SX2 BED	15	5.00 m²	1	0	LQ7				
	23		19	4	1x1 BED	2	3.00 m²	1	0
					2x2 BED	2	4.00 m²	0	2
TOS					5x2 BED	3	5.00 mf	1	0
1xf RFD	8	300 €	8	0		4		2	2
Ext BED	4	4,00 m²	4	0	Building B. 52	52		27	25
2x2 BED	5	4.00 m²	4	5	TOTAL: 220	228		156	62
Sx2 BED	1	5,00 m²	1	0					
	22		17	5					
Rob A goldul	168		131	37					

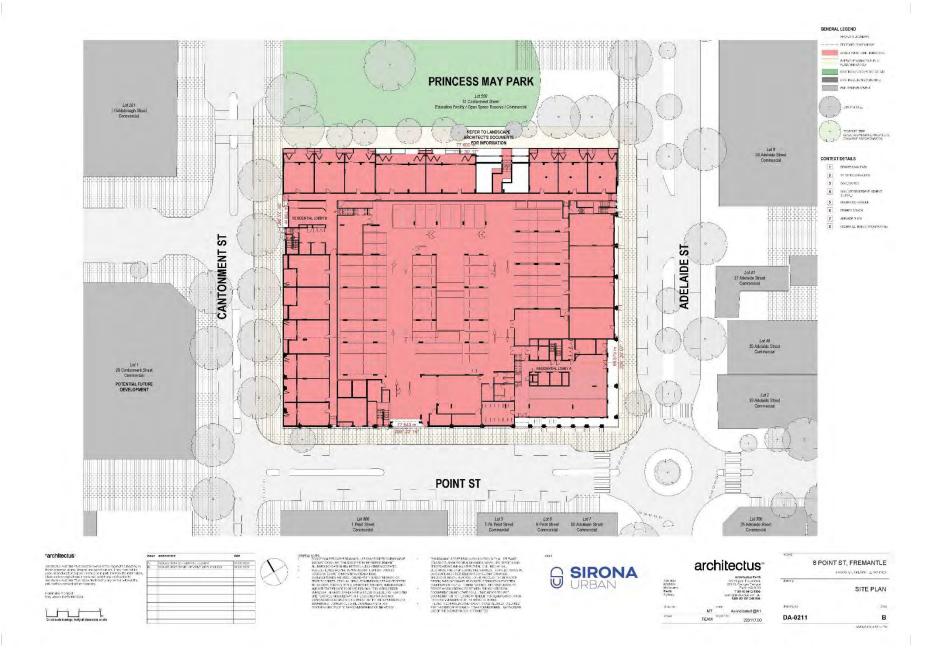


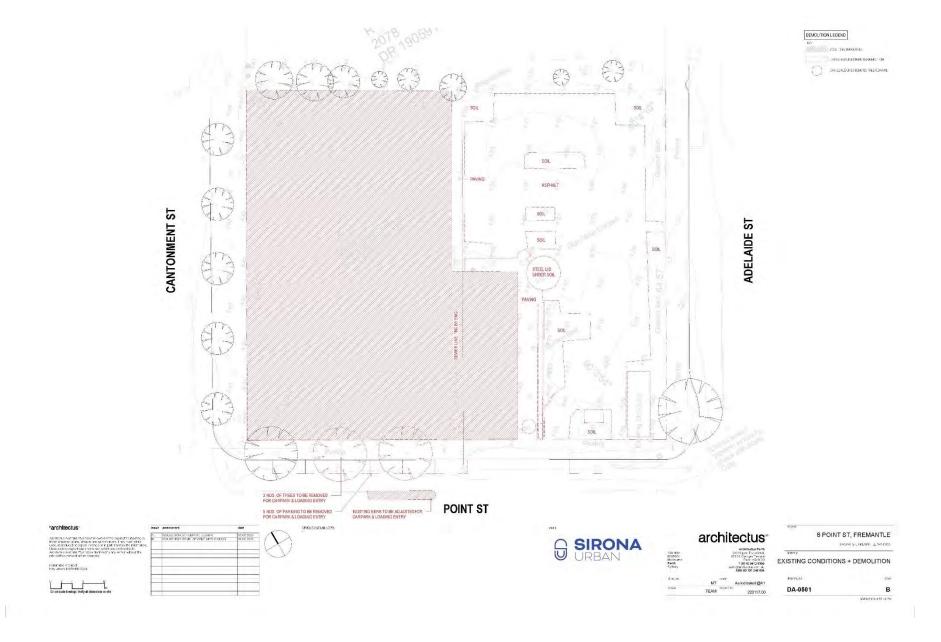
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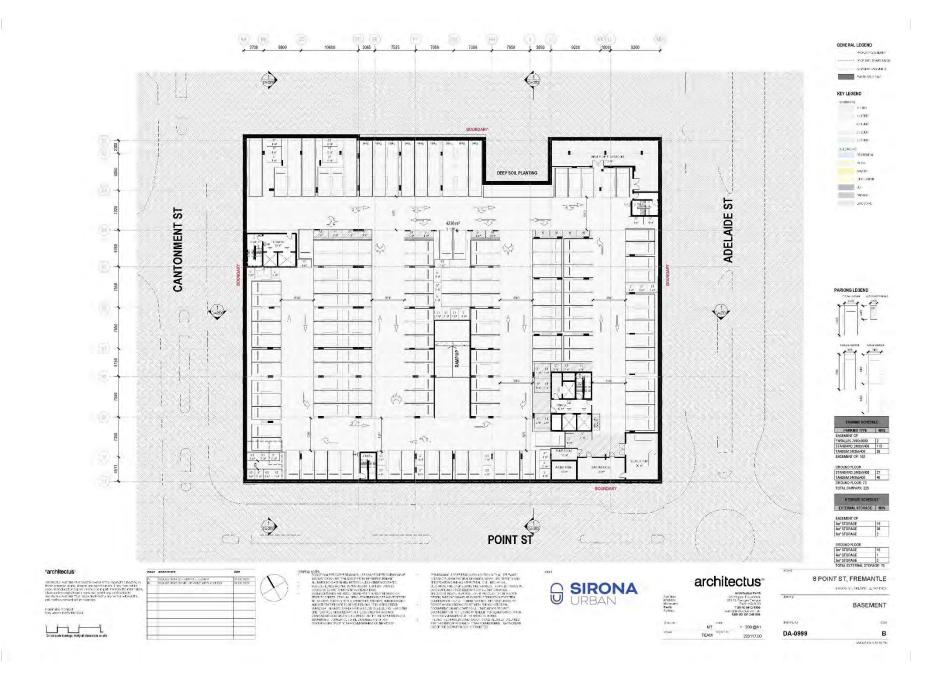


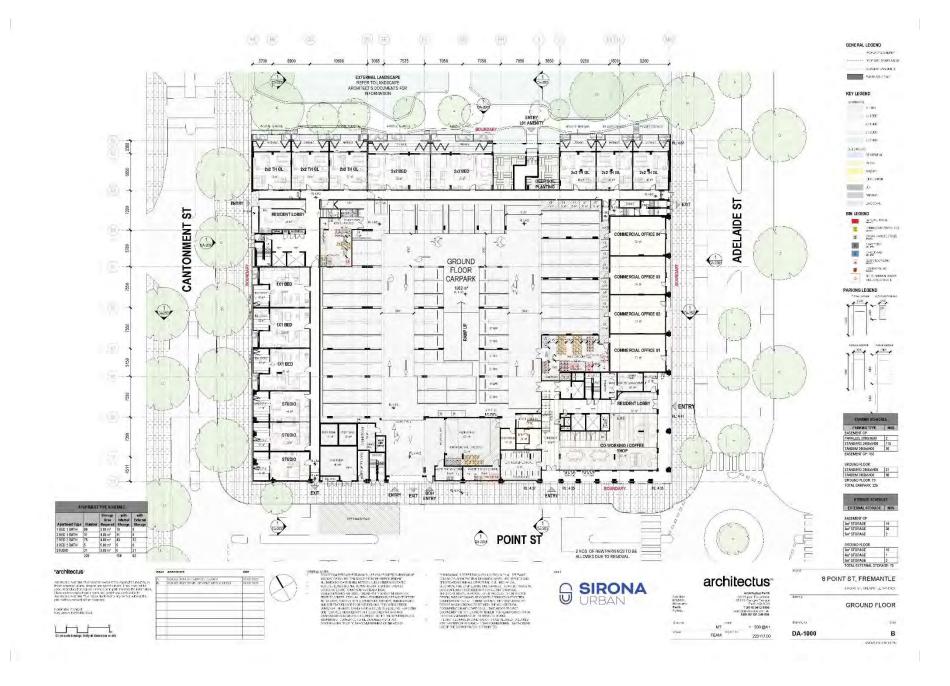




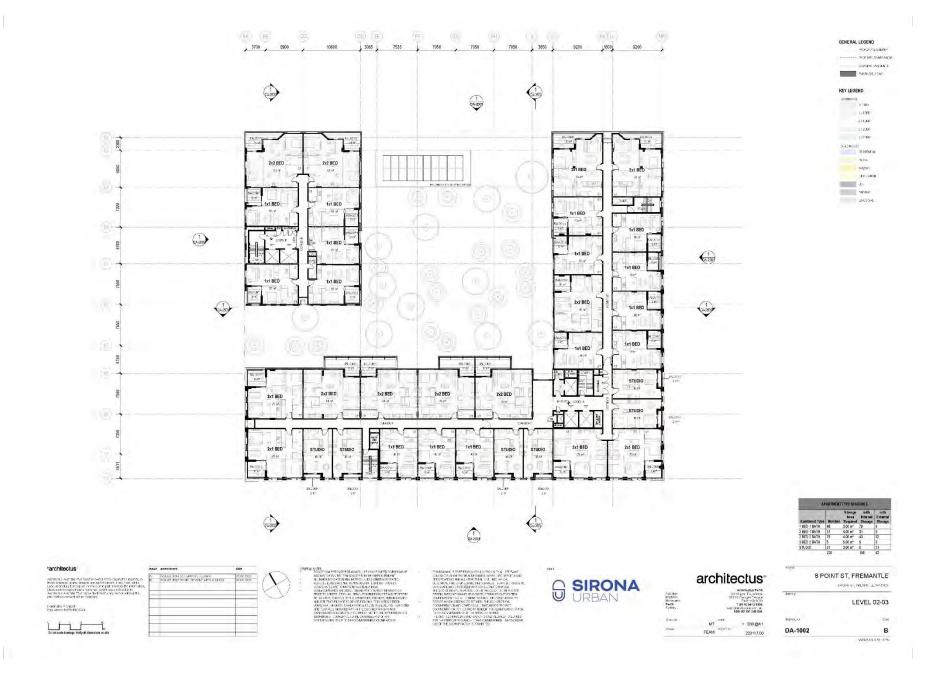


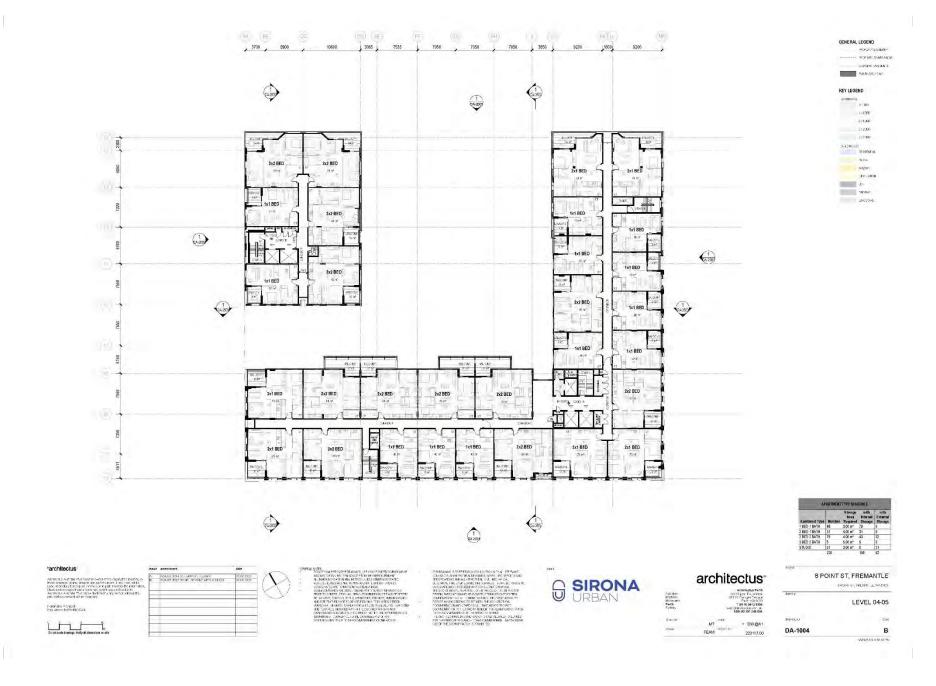


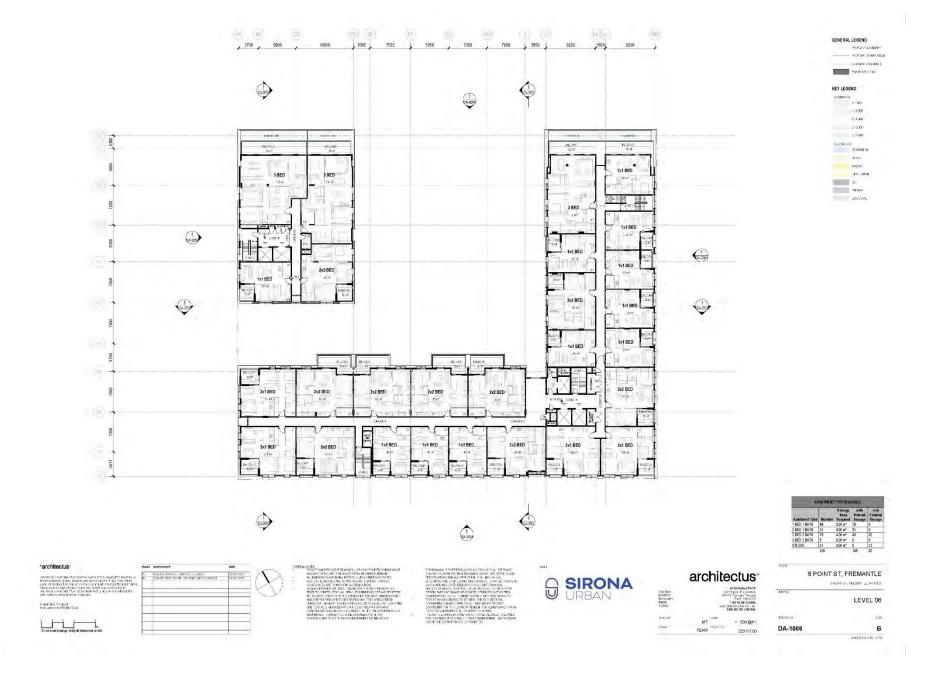


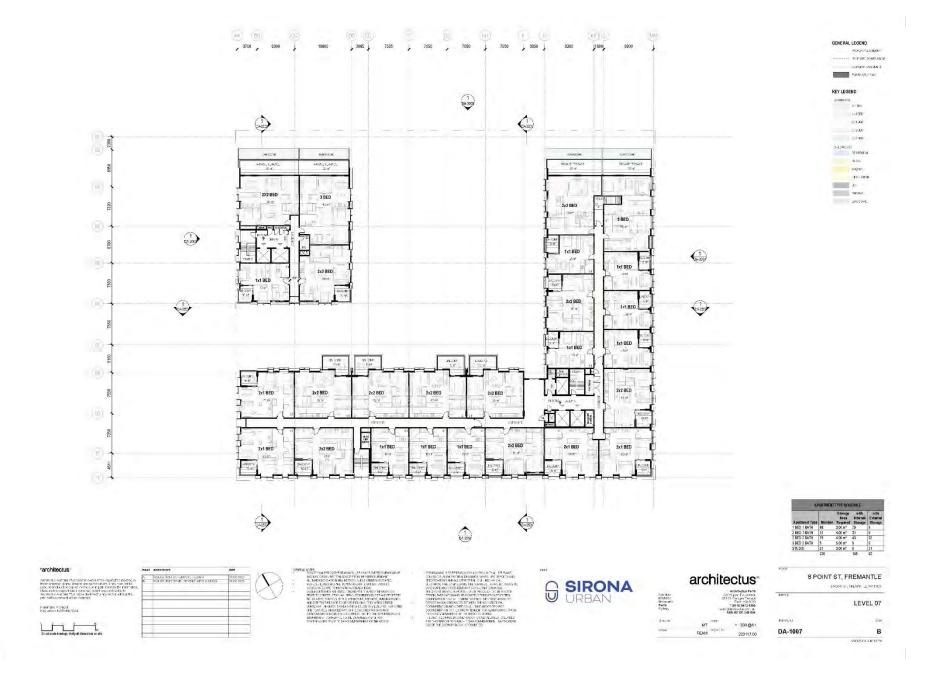


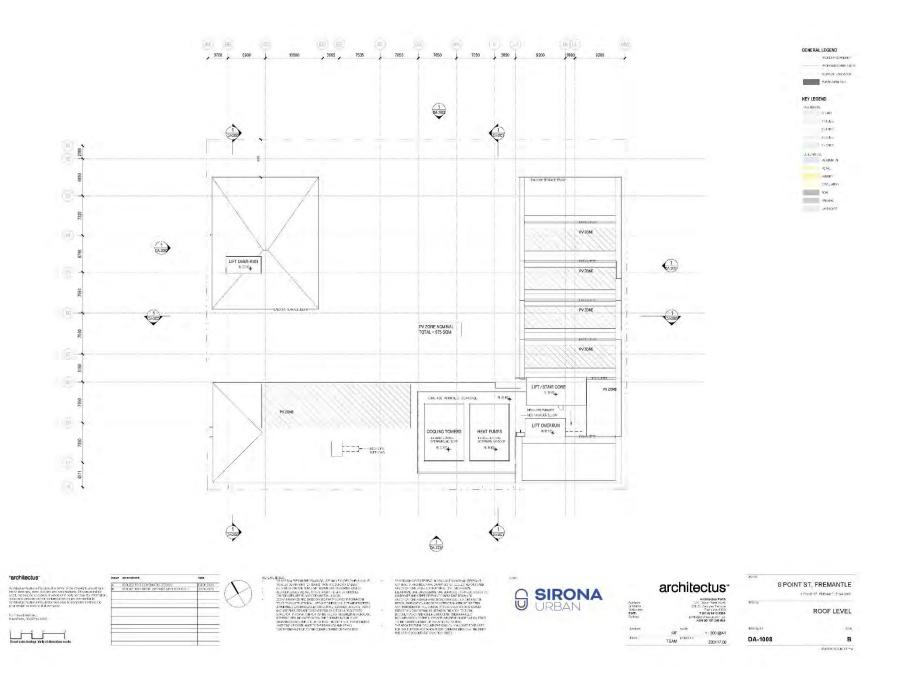


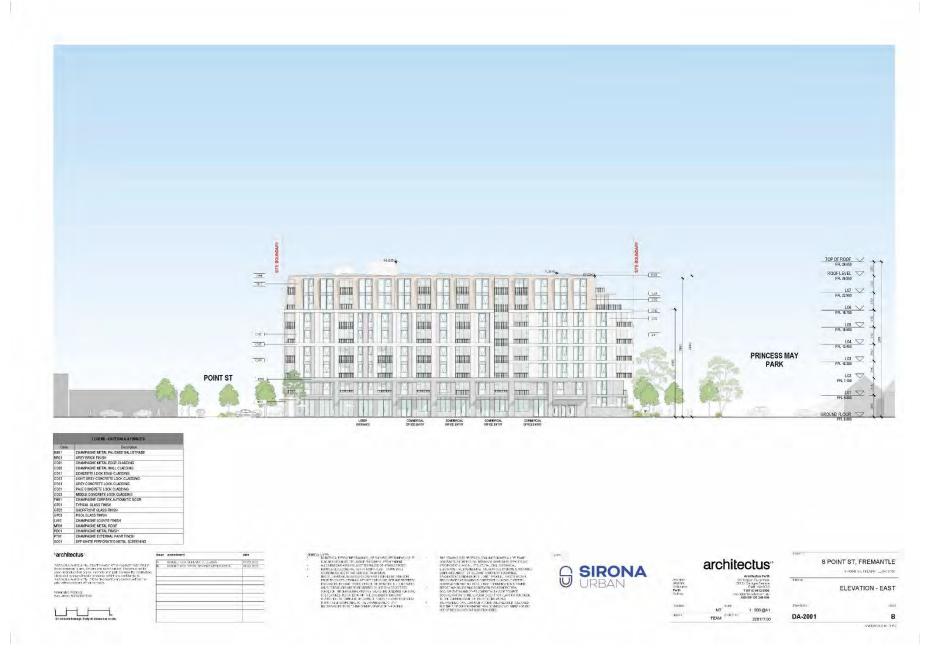












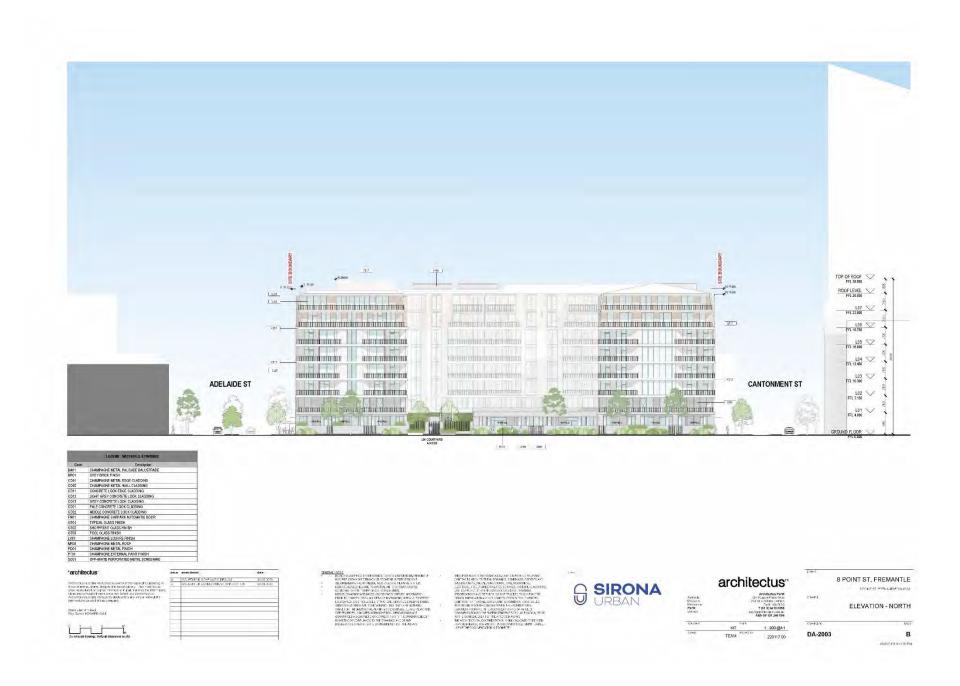


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DD 13	GREY CONCRETE LOOK CLADDING						
0D21	PALE CONGRETE LOOK CLADDING						
OD22	MIDDLE CONCRETE LOOK CLADDING						
FN01	CHAMPAGNE CARPARK AUTOMATIC DOOR						
GTD1	TYPICAL GLASS FINISH						
3102	SHOPFRONT GLASS FINISH						
G103	POUL GLASS FINISH						
LV01	CHAMPAGNE LOUVRE FINISH						
MRD1	CHAMPAGNE METAL ROOF						
PD01	CHAMPAGNE METAL FINISH						
PTO1	CHAMPAGNE EXTERNAL PAINT FINISH						
SC01	OFF-WHITE PERFORATED METAL SCREENING						
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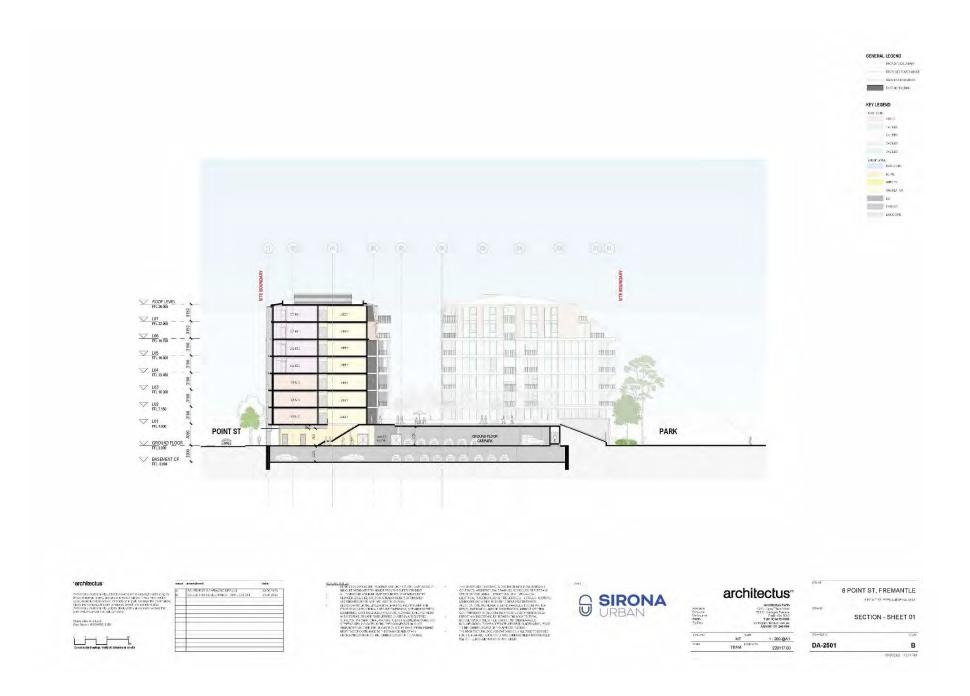


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SIRONA URBAN



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Nominated Activists Ray Securi NSYARB 5350 B 2008/2021 A .13 FB

8 POINT ST, FREMANTLE

DA-2503

SECTION - SHEET 03

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SIRONA URBAN GENERAL LEGEND

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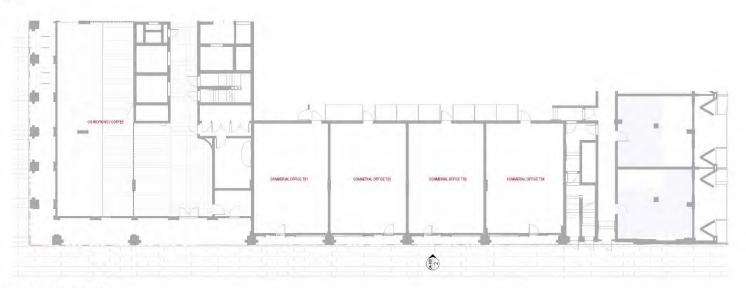
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2 ELEVATION EAST - SIGNAGE SCALE 1: 100

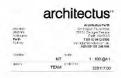


GROUND FLOOR - SIGNAGE

SCALE 1: NO

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2 GBA - GROUND FLOOR
SOULE 1:500









GBA - LEVEL 02

(5) GBA - LEVEL 03

GBA - LEVEL 04

GROSS BL	ILDING AREA
LEVEL	GBA
BASEMENT OF	4909.38 m²
GROUND FLOOR	4759.12 m²
L01	3134.15 m²
L02	3199.73 m²
L03	3189.73 m²
L04	3189.73 m²
L05	3189.73 m²
LOB	3140 07 m²
L07	2985.89 m²
ROOFLEVEL	255.70 m²
TOTAL GRA	31843.24 m²





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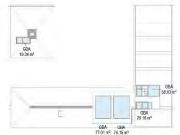




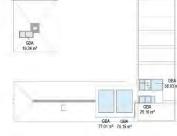
GBA - LEVEL 06
SCALE 1:500



GBA - LEVEL 07
Scale 1:500



(4) GBA - ROOF LEVEL

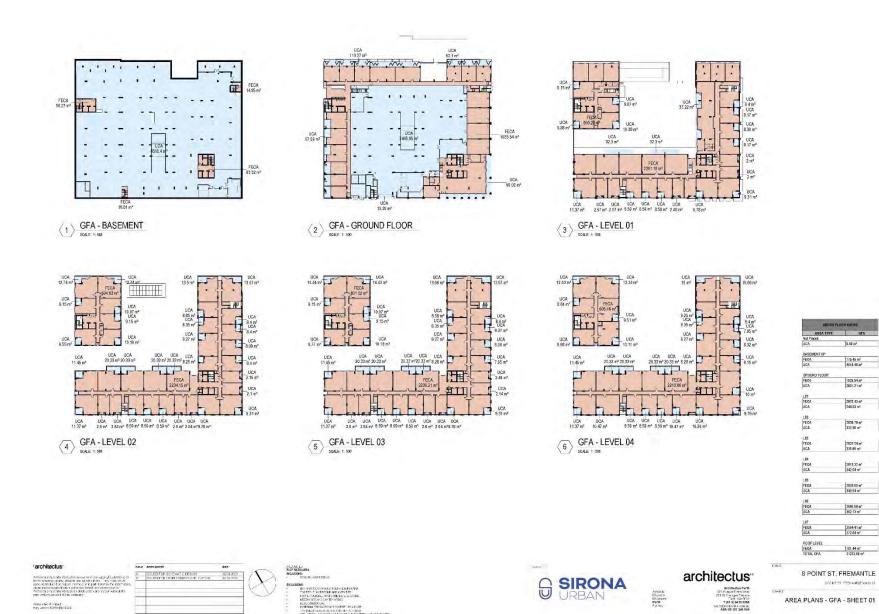


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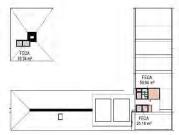
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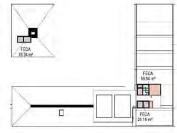




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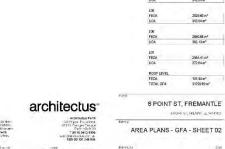


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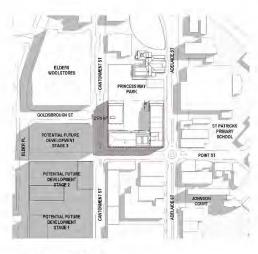


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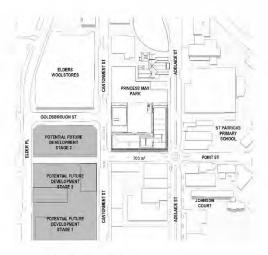
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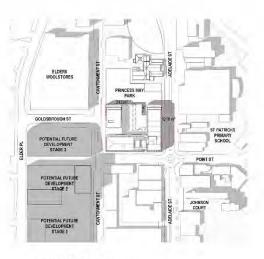
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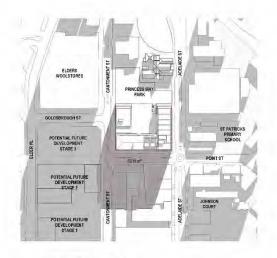


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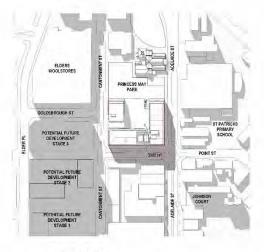
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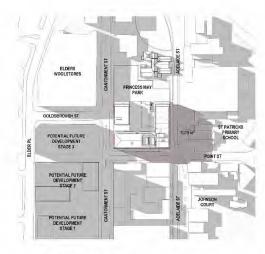
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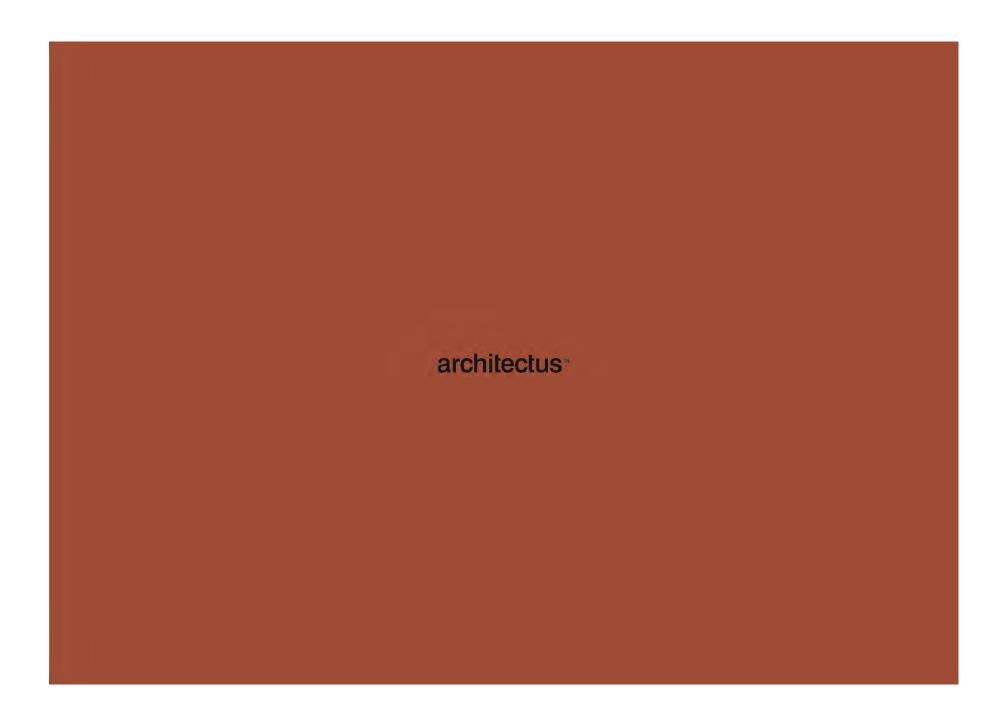
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C2311-11 LOT 34 (NO. 8) POINT STREET, FREMANTLE - EIGHT STOREY
MIXED USE DEVELOPMENT COMPRISING 215 MULTIPLE DWELLINGS AND
RESTAURANT/CAFE AND OFFICE USES (ED DAP006/23)
Attachment 6 - Amended Landscaping Design Report

# **POINT STREET**8 POINT STREET FREMANTLE LANDSCAPE

DEVELOPMENT APPLICATION APPENDIX 1 OCTOBER 2023

**ASPECT Studios** 

# **Revised Landscape Design**

Following advice from the Design Advisory Committee and the City of Fremantle the design of the landscape has been modified to reflect feedback. The following pages reflect the updated changes.



Context Plan (NTS)

**ASPECT Studios** 

22039 8 POINT STREET FREMANTLE

## **Landscape Concept Plan**

Following advice from the City of Fremantle the design has been modified to avoid relying on Princess May Park to access private residence or F&B spaces. Each of these areas can now be accessed from within the property boundary. Should the layout of Princess May Park change the design could be modified to improve the relationship between the park and the development.

EGEND	
0	Suggested supplementary street tree planting opportunities
0	Green Lobby
0	Communal Heart
0	Garden Room
6	Port Overlook
0	Parkside Pool
0	Park View Lounge
8	Ground Level Courtyard
0	Architectural Amenity



22039 9 POINT STREET FREMANTLE

180/652

### **Ground Level Courtyard**

#### **DAC Recommendations**

1. Consider more deep soil areas and trees such as at the interface with the Park

#### Response

Together with the architectural team the north east corner of the project has been further developed to introduce an F&B offering together with an at grade courtyard that opens onto Princess May Park. The park includes an alfresco area, seating and deep soil and tree planting and includes direct access from the park.



Boundary Fence
Alfresco Area
Terraced Planting
Cafe Entrance
Princess May Park (Design by CoF)

ASPECT Studios

ASPECT Studios

181/652

### **Podium Amenity**

#### **DAC Recommendations**

2. Review the podium deck landscape plan for more opportunities for diverse activity and engagement between residential occupants and the public.

#### Response

The podium level landscape has been further developed to create three distinct amenity offerings that each include a range of resident USAS.

- The eastern edge includes alfresco dining and event spaces to support the resident amenities and fitness facilities.
- The northern edge includes the pool and ancillary lounge spaces.
- The central space includes a communal gathering area with shaded BBQ facilities and harvest table.
- The western edge include a series of smaller scaled spaces for individual and small group gatherings to support quiet socialising, work and amenity spaces.



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### **Podium Amenity**

LEGEND

Alfresco Area

Fitness & Events

Park Lookout

O Pool Area

6 Sun Lounges & Table Tennis

Communal Gathering & BBQ

Communal Gardening

Outdoor Work Space

Small Gathering

Port Lookout



Plan: Landscape Quality (NTS)

22039 8 POINT STREET FREMANTLE

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## **Podium Amenity**



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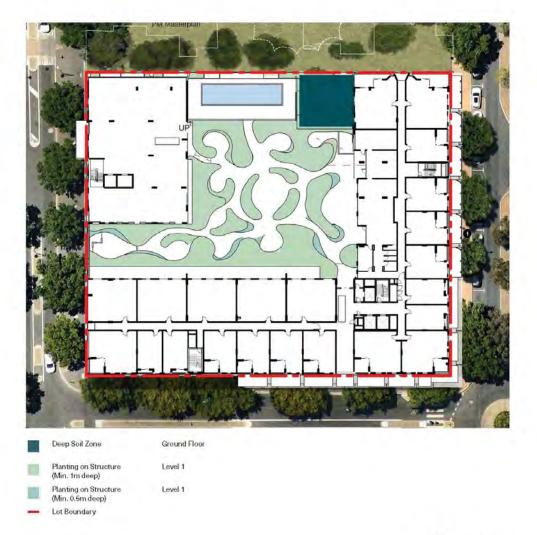
22039 8 POINT STREET FREMANTLE

## **Deep Soil Calculations**

Lot Area: 5015 m² Deep Soil Requirement (10%): 502 m²

		Soil					
Level	Planter	Deep Soil Planting	Planting on structure in lieu of deep soil [m²]	Additional Planting on structure [m²]	Total		
		Counted at 100%	Counted at 50%	Counted at 100%			
Ground Floor Podiums Upper Terraces		140	17 681 54		П		
Sub total Total		140	376	0	516		
1.05%	_				516		
	DSP to be pro-	aded (at 10% of Site Area)	602				
	DSP to be pro-	aged (at 10% of Site Area)  DSP achieved					





22039 9 POINT STREET FREMANTLE

## **Tree Canopy**

Tree Requirement: 1 Large Tree & 10 Medium Trees = 11 Trees
Tree Canopy: 1 Large Tree (64m²) & 10 Medium Trees (38m²) = 444m² canopy coverage

		Trees		
	Large Tree (Requiring 64m²)	Medium Tree (Requiring 38m²)	Small Tree (Requiring 9m²)	Total
Canopy m2	64	38	20	
	1	1	1	
	.0-	11	19	
Total Trees	2	12	20	34
Total Canopy	128	458	400	984
Total Canopy	128	Trees Required Trees Provided Canopy Required	11 34	384
		Canopy Provided		
	Tree D	equirement Archieved	V	



22039 8 POINT STREET FREMANTLE ASPECT Studios

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### **CoF Comments**

A heavy reliance on on-structure planting is proposed to achieve required DSA minimums and tree planting requirements. Although technically compliant from the information provided, opportunities to provide additional true DSA on the site should be explored and further detail on the on-structure planting to ensure it is meeting required depths and planting areas can support intended/required trees, with reference to Table 3.3 of the R-Codes Vol. 2.

#### Response

Increased true deep soil has been possible through the removal of the staired access between the Level 01 Podium and Princess May Park and introduction of an on-grade courtyard area. The proposed courtyard will support a proposed F&B offering on the northeast corner of the development.

The courtyard includes a permeable paved alfresco area, seating and tree planting in deep soil. Direct access between the park and courtyard is provided.

The on-structure planting strategy looks to ensure required soil volumes are achieved for proposed small, medium and large trees. Raised planters will be stepped to enable comfortable edging and walling heights where they interface with amenity areas, stepping up to required min.1m depth volumes for tree planting. Provision of lateral planting areas for tree root systems to access is equally as important and a key strategy for tree planting on structure in this scheme.

Provide additional information on the species selections and suitability for the respective landscape areas.

#### Response

The planting selections are an indicative mix that will be further developed through the design development phases of the project. The mixes seek to suggest proposed planting character and theming and weighting in relation to endemic, native and exotic species. Plant palette locations are listed below.

Four high level planting character palette have been proposed:

- Endemic and Coastal [Park Lookout & larger areas of planting - northern aspect]
- Native Garden Rooms [Small gathering spaces and Groundlevel Courtyard].
- Sensory Orchards [Communal gathering and BBQ areas, Groundlevel Courtyard].
- Industrial Xeriscapes [Port Outlook]

Endemic and Coastal comprise of only plant species endemic to the Fremantle area (Cottesloe and Quindalup Vegetation Complexes). They therefore represent the character of Fremantle. These plant species were suggested on a north facing terraced area and would be suitable for this location. Due to the revised landscape plan now proposing the separation of Level 01 Podium and Groundlevel, we would see this planting character referenced on the Level 01 Podium, with the Groundlevel Courtyard adopting a mix of the Native Garden Rooms and Sensory Orchard palettes.

The Native Gardens Rooms' proposed tree palette references the City of Fremantle's urban forest species selections. The shrub and groundcover palette as a 'garden room' proposes an opportunity to include and celebrate bold seasonal colour. The planting mix does propose a small number of bi-annual/perennial species that will require supplementary planting, i.e. Boronia crenulata, Lechenaultia biloba, Verticordia sp. however, these will be used as a restricted selection of accent planting and supported by a more robust foundation mix, i.e. Acacia. cognata, Banksia petiolaris, Casuraina glauca, Dianella revoluata, Lepidosperma gladiatum, and Westeringia fruiticosa. This plant palette proposes predominately endemic species as well as a selection of suitable native species.

The Sensory Orchard relates to an opportunity to incorporate and showcase edible native plants, productive as well as aromatic species, creating sensory delight for residents. It is an indicative selection, and it is anticipated that residents will have an opportunity to take part-ownership of these areas and contribute to the type of productive and aromatic plants available to the 8 Point Street community.

Industrial Xeriscapes provides an opportunity to respond to the industrial character of Fremantle with views to the port and weave through a selection of suitably robust native and exotic species. This palette provides interest through their form, texture and foliage colour.

Provide additional information on the Feasibility of proposed cascading plants.

#### Response

The intent is not to have cascading plants down the sides of the proposed development's facades, but possibly over some raised planters edges on the Level 01 Podium, which is achievable.

ASPECT Studios

ASPECT Studios



C2311-11 LOT 34 (NO. 8) POINT STREET, FREMANTLE - EIGHT STOREY MIXED USE DEVELOPMENT COMPRISING 215 MULTIPLE DWELLINGS AND RESTAURANT/CAFE AND OFFICE USES (ED DAP006/23)

Attachment 7 - Heritage Impact Statement



# 8 Point Street, Fremantle Heritage Impact Statement

July 2023 | 21-669



We acknowledge the Whedjuk people of the Noongar nation as traditional owners of the land on which we live and work. We acknowledge and respect their enduring culture, their contribution to the life of this city, and Elders, past and present.

Issue Date		Status	Prepared by	Approved by	Approved by		
	100000		Name	Name	Signature		
01	26.06.23	Draft	Kyra Lomas	Flavia Kiperman	FK		
02	28.06.23	Final	Kyra Lomas	Flavia Kiperman	FK		
03	11.07.23	Final	Kyra Lomas	Flavia Kiperman	FK		

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### 1. Introduction

This Heritage Impact Statement (HIS) has been prepared by **element** on behalf of Point Street Partners Pty Ltd to assess the heritage impact of the proposed development at 8 Point Street, Fremantle to adjacent heritage places and provide supplementary information to the determining authorities in relation to the proposed development.

### 1.1 Background

Point Street Partners is proposing a new residential development to 8 Point Street, within the City of Fremantle. The development will be replacing a c1970 carpark and currently underutilised lot with a new 8 storey (plus basement) mixed use development adjoining Princess May reserve. Designed by Architectus, the proposed redevelopment of the subject site represents an exciting opportunity for the Fremantle City Centre. The subject site is surrounded by a number of heritage listed places and is directly adjoining a State Listed property, Princess May Reserve, to the north.

This report seeks support for the project from the Heritage Council of Western Australia (HCWA), recognising the proximity of the redevelopment to several State Registered places, and to assist the City of Fremantle with its consideration of the Development Application in light of the site's interaction with places of identified local and State heritage significance.

element's multi-disciplinary Heritage team is well grounded by a solid understanding and experience of best practice in heritage conservation and Western Australia's heritage planning framework. For State Heritage listed properties, development is guided by the *Heritage Act 2018*. It encourages the conservation, continuing use, development, and adaptive reuse of places of cultural heritage significance, stimulating high standards of heritage conservation and respect of identified cultural heritage values. The team have been involved in the development of the design proposal and have undertaken early engagement with key stakeholders to discuss the potential heritage impacts and mitigation opportunities within the project.

As the project does not directly impact any heritage curtilage of registered heritage places, this report has been prepared to consider the potential for impact as an adjacent development.

### 1.2 Subject Site

The subject site is defined as Lot 34 (No. 8) Point Street, Fremantle, as outlined in Figure 1 below. Currently, a 2 storey concrete carpark occupies the western half of the site, with the eastern half cleared and used as additional outdoor parking.

Located in the City of Fremantle, the site is bound by Cantonment Street to the west, Point Street to the south and Adelaide Street to the east. It directly adjoins the open landscape setting of Princess May reserve to the north and is surrounded by a rich and varied streetscape to its boundaries.



Figure 1: Site Plan indicating the subject site and Heritage Listings (MNG Maps with element overlay, (June 2023)

A number of significant heritage places surround the subject site and contribute to the cultural context of the area. The Fremantle Boys' School (fmr) and Princess May Girls' School (fmr) are places of high aesthetic value. They are constructed of limestone and corrugated iron and represent an early Fremantle construction aesthetic in the cityscape. They remain important elements in the identity of the city in their current form and use.

The Elders Wool Stores to the east is a large and robust brick warehouse and a strong visual element in the streetscape. It is currently in the process of being adapted for alternative uses, which means that it will remain a significant adjacent feature, representative of the warehouse typology in Fremantle.

The landscape setting to the north is eclectic, with three important historic buildings, fragments of historic limestone walling, a small number of Inter-War plantings, bitumen paths, areas of brick paving, and groups of shrubs and lawns. The setting provides a degree of visual and physical amenity to the area and the subject site.

### 1.1 Guiding Documentation

This HIS has been prepared in line with best practice in heritage conservation and the HCWA's publication 'Heritage Impact Statement – A Guide' (September 2020) to address the following questions:

- How will the proposed works affect the heritage significance of the place?
- What measures (if any) are proposed to ameliorate any adverse impacts?
- Will the proposal result in any heritage conservation benefits that may offset any adverse impacts?

The impact has been assessed using 'Guidance on Heritage Impact Assessments for Cultural World Heritage Properties' (ICOMOS, 2011) and with reference to the 'Australia ICOMOS Burra Charter, 2013.'

Additional documents that have been used to inform this HIS are below:

- Register Entry, Princess May Reserve, Heritage Council of Western Australia, 2013.
- Assessment Documentation, Princess May Reserve, Heritage Council of Western Australia, 2010.
- Considine and Griffiths Architects with Lucy Williams, Princess May Reserve Conservation Plan, April 2002

### 1.2 Historic Overview

The Fremantle region has always been a significant place for the Whadjuk Noongar people. The City of Fremantle sits within the Aboriginal cultural region of Beeliar. Its Nyoongar name is Walyalup (the place of walyo) and local people are called Whadjuk. The Beeliar district is bounded by Derbal Yerrigan (mouth of the Swan River), the Dyarlgarro (Canning River), Katamordo (Darling Ranges) on the east, the Wardan (sea) to the west and by the line due east from Mangles Bay on the south. To the local Whadjuk people, Fremantle is a place of ceremonies, significant cultural practices and trading.<sup>1</sup>

Although Fremantle had been settled as a port town since 1829 it was the discovery of gold in the east of the colony in the 1890s that saw Fremantle transform from a modest port to an industrial town. The completion of the Fremantle harbour in 1897 saw Fremantle become the primary port in Western Australia. The railway link to Perth had been completed in 1880 and the establishment of the railway workshops by the Public Works Department saw Fremantle become a major manufacturing centre.<sup>2</sup>

Princess May Reserve, comprises an open park-like setting and the Fremantle Boys' School (fmr) 1854-1915, Princess May Girls' School (fmr) 1901, and the Household Management Centre (fmr) 1912. The buildings are products of the convict period of Western Australia's development, the gold boom period, and World War One. The buildings were replaced with education facilities in alternative locations during the 1950s and 1960s, with the creation and expansion of John Curtin High School and were vacated and fell into disrepair.<sup>3</sup>

During the 1970s, new uses were found for these significant redundant buildings. The reserve was opened for public use, the Film and Television Institute was located within the Boys' School (now DADAA), the Fremantle Education Centre in Princess May Girls' School (fmr), and Clancy's Fish Publin Household Management Centre (fmr).

The subject site has contained a carpark on the western side since c1970 and the eastern side has been cleared and used for parking since 2015. Prior to the current use, the site was occupied by a mix of residential houses, workshops and stores over time.

<sup>&</sup>lt;sup>1</sup> https://www.fremantle.wa.gov.au/council/about-city-fremantle/aboriginal-history

<sup>&</sup>lt;sup>3</sup> Considine and Griffiths Architects with Lucy Williams, Princess May Reserve Conservation Plan, April 2002

### 8 Point Street, Fremantle Heritage Impact Statement



Figure 2: Image Courtesy of the Fremantle City Library, Local History Collection

The Elders Woolstores stretch between Cantonment Street and Elder Place across from the subject site. It was originally built in 1927, with later stages added after World War II. The robust utilitarian brick warehouse has been largely vacant since the 1970s. Plans to develop the Elders Woolstores into a mix of residential and commercial offerings are underway currently and the building remains a landmark in the streetscape.

Prospect House, formerly at 33 Adelaide Street, was built in 1886 for William Dockray Jackson, who arrived in Western Australia c1840. He was a Rottnest Island Pilot Boat Captain, and Superintendent of Rottnest Island from 1867-1885. The place was demolished in 1968.

The site of St Joseph's Convent (demolished c1968) is significant as a site because it was the location from 1863 of Saint Joseph's Convent and College, which stood south of and adjacent to St Patrick's Basilica.

Today Princess May Reserve functions as a public park and is open at all times. With its tall northern building, Princess May Girls' School (fmr), mature trees and limestone walls, the place has a landmark quality.

# 2. Heritage Status and Significance

## 2.1 Heritage Listings

The subject site is not included on any Heritage Lists. Surrounding heritage places are shown in Figure 3 and adjacent places are identified in the table below.



Figure 3: Site Plan indicating the subject site and Heritage Listings (MNG Maps with element overlay, (June 2023)

Adjacent Properties- Statutory Listings

Name	Туре	Responsible Organisation	Status	Date of Listing
Princess May Reserve (P851)	State Register of Heritage Places	Heritage Council (assisted by DPLH)	Registered	23 Nov 2001
	Local Heritage List	City of Fremantle	YES	08 Mar 2007
	Heritage Area	City of Fremantle	YES	08 Mar 2007
Elders Woolstores	State Register of Heritage Places	Heritage Council (assisted by DPLH)	Registered	20 Jul 2004
(P852)	Local Heritage List	City of Fremantle	YES	08 Mar 2007
Film and TV Institute (P842)	State Register of Heritage Places	Heritage Council (assisted by DPLH)	Registered	06 Mar 1992
	Local Heritage List	City of Fremantle	YES	08 Mar 2007

### 2.2 Statement of Significance

The project is sited adjacent to several heritage places. However, it only directly adjoins, on the northern boundary, with the curtilage of the Princess May Reserve (Place No. 851). The statement of significance for this place has been included in full below:

The following statement of significance has been extracted from the Princess May Reserve Assessment Documentation.

Princess May Reserve, consisting of the stone boundary wall on the northeastern perimeter, Princess May Girls' School (fmr), Household Management Centre (fmr), Fremantie Boys School (fmr), and surrounding grounds has cultural heritage significance because:

the place is important for its role in the development of education in Western Australia, for people from Fremantle and its surrounding districts and, in more recent times, for its adaptation for ongoing community uses;

the place contains a very competent, classically derived stone building, with a distinctive belvedere, and a fine example of architecture in the Victorian Tudor manner, with a rich, picturesque roofline and refined details;

Fremantle Boys School (fmr) is rare, being one of a small number of colonial buildings to survive in an urban centre; and one of few in a Victorian Tudor style;

the place is associated with a number of eminent chief architects from the Public Works Department, including the state's earliest architect, James Austin. Others include James Manning, John Grainger, William Hardwick and Hillson Beasley. The place is also associated with George Humble, who taught at the school for its first 25 years;

the reserve, and in particular Fremantle Boys School (fmr) and Princess May Girls' School (fmr), have high aesthetic values in relation to their design and use of construction materials, as well as being places of high artistic achievement from two separate periods, and, collectively with the Household Management Centre (fmr), they constitute a landmark of significant value to the community;

Fremantle Boys School (fmr) was one of the two earliest government built educational institutions in Western Australia, served continually for over a century, and demonstrates, in a physical way, the rapid growth of Fremantle in the late nineteenth and early twentieth centuries, representing over a century of educational architecture; and,

Princess May Girls School (fmr) and Household Management Centre (fmr) reflect the attitudes to infants and girls in the first half of the twentieth century and provide a close examination of gender differences in educational philosophy and the provision of facilities.

## 3. Proposal

### 3.1 Discussion of the Proposal

This works described below are based on the Development Application drawing set by Architectus and Aspect studios in June 2023.

The proposal looks to construct a new 8 storey high quality residential development to 8 Point Street. Fremantle. In addition to the residential offer, the development provides commercial and retail frontage to Adelaide Street. The footprint of the building covers the whole site area and includes basement and ground floor parking levels with access off Point Street.

The ground floor plan contains central carparking and residential dwellings located along the north and west facades, to Cantonment street and Princess May reserve. It includes activation of the Adelaide street elevation and Point street corner through commercial and retail tenancies.

Floors above ground all consist of mixed residential dwellings with a landscaped podium and deck on the first floor facing north toward Princess May reserve. The building massing fronting the park has been developed to present a 19.85m high shoulder to each corner, before setting back at 4m increments at the upper two levels to 26.05m along the southern elevation. The height was designed to step down toward the adjoining heritage site, and has ensured the height at this elevation responds to, and remains below, the adjacent Elders Woolstores building.

The design concept for the proposal is to create a facade which addresses its 3 street frontages with appropriate solidity, materiality and scale in response to their surrounding context. As the building transitions towards the park, the ratio of solidity to openings begins to shift, while maintaining a consistency of proportion and materiality.

The façade treatment to Adelaide /Point / Cantonment street frontages adopt a formal order establishing a strong base, middle and top to the building. The northern elevations transition to a finer grain in response to their outlook to the park and transition down in height towards the heritage buildings.

A key design driver for the project has been creating a connection to the park and celebrating the adjacency to the heritage listed Princess May Reserve. This has resulted in the form of the building being designed to reduce the bulk and scale along the northern boundary. Height has been pulled away from the reserve toward the southern boundary and a central landscape podium is located centrally facing north. The landscape podium creates a visual connection from the development to the park, provides resident amenity and creates a softer transition between the built form and the heritage site. At ground level along the northern boundary are two storey townhouses with terraces facing the park.

The material palette selected is a contemporary interpretation of the architectural language of Fremantle. The robust textured palette celebrates the tones and accents that echo the limestone and brick vernacular of the surrounding context, with lightweight construction setback to the additional height.



Figure 4: View of the development from north east showing Princess May Reserve in the foreground, Architectus



Figure 5: View of the development from north west showing Princess May Reserve in the foreground, Architectus

## element.



Figure 6: View showing scale and massing in the context, Architectus



Figure 7: View of the development from the north showing context and adjoining heritage places, Architectus

## 4. Assessment of Heritage Impact

This section addresses the potential heritage impacts of the development at 8 Point Street to the adjacent heritage place (Princess May Reserve) against the proposed design. This includes an assessment against the following questions, which have been addressed separately in each table within this section:

- How will the proposal affect the significance of the subject site?
- · What measures (if any) are proposed to ameliorate any adverse impacts?
- Will the proposal result in any heritage conservation benefits that might offset any adverse impacts?

To assist in assessing the impact of the proposal the following seven tier system for assessing and evaluating impact has been adopted from the 'Guidance on Heritage Impact Assessments for Cultural World Heritage Properties' (ICOMOS, 2011) and the Heritage Council of Western Australia's 'Impact Matrix' (2009).

Rating	Impact Definition
Major Impact	The proposed action would involve permanent changes to, or destruction of an element of significant fabric or values
	There would be a substantial or long-term adverse effect on the heritage value or integrity of the place.
	There would be a major reduction in the understanding of the heritage value of the place
	This impact of the action could be reduced through appropriate mitigation measures but cannot be fully ameliorated.
Moderate Impact	The proposed action would involve permanent changes to, or destruction of an element of significant fabric or values
	There would be a moderate reduction in the understanding of the heritage value of the place
	The impact of the action could be reduced through appropriate mitigation measures
Minor Impact	The proposal would have a temporary effect on and/or involve minor damage or changes to element of significant fabric or values.
	There would be a minor or temporary reduction in the understanding of the item or place
Negligible or No	The proposed action respects the heritage value and integrily of the items
impact	There is no change or impact as a result of the proposed action
Minor Beneficial	The proposed action would have a minor temporary benefit on the heritage value or integrity of the item or place through conservation of its significant labric or values
	There would be a minor or temporary improvement in understanding the heritage value of the item or place.
Moderate Beneficial	The proposed action would benefit the heritage value or integrity of the item or place through conservation of its significant fabric or values.
	There would be an improvement in understanding the heritage value of the item or place
Major Beneficial	The proposed action would substantially enhance the heritage value or integrity of the item by improved conservation of its important fabric or values
	There would be a major long term improvement in understanding the heritage value of the item of place.

## 4.1 Assessment of Cultural Heritage Significance

The assessment draws on the statement of significance as listed above.

Significance	Potential Impact	Mitigation and Conservation Benefits
the place is important for its role in the development of education in Western Australia, for people from Fremantle and its surrounding districts and, in more recent times, for its adaptation for ongoing community uses;	No impact	No mitigation or conservation outcomes are proposed
the place contains a very competent, classically derived stone building, with a distinctive belvedere, and a fine example of architecture in the Victorian Tudor manner, with a rich, picturesque roofline and refined details;	No impact	No mitigation or conservation outcomes are proposed
Fremantle Boys School (fmr) is rare, being one of a small number of colonial buildings to survive in an urban centre; and one of few in a Victorian Tudor style;	No impact	No mitigation or conservation outcomes are proposed
the place is associated with a number of eminent chief architects from the Public Works Department, including the state's earliest architect, James Austin. Others include James Manning, John Grainger, William Hardwick and Hillson Beasley. The place is also associated with George Humble, who taught at the school for its first 25 years;	No impact	No mitigation or conservation outcomes are proposed
the reserve, and in particular Fremantie Boys School (fmr) and Princess May Girls' School (fmr), have high aesthetic values in relation to their design and use of construction materials, as well as being places of high artistic achievement from two separate periods, and, collectively with the Household Management Centre (fmr), they constitute a landmark of significant value to the community:	Minor Impact	The bulk form and height of the development has been reduced toward the reserve facing elevation to set-back the development from the heritage place and maintain the landmark values of the place.
Fremantle Boys School (fmr) was one of the two earliest government built educational institutions in Western Australia, served continually for over a century, and demonstrates, in a physical way, the rapid growth of Fremantle in the late nineteenth and early twentieth centuries, representing over a century of educational architecture: and,	No impact	No mitigation or conservation outcomes are proposed
Princess May Girls School (fmr) and Household Management Centre (fmr) reflect the attitudes to infants and girls in the first half of the twentieth century and provide a close examination of gender differences in educational philosophy and the provision of facilities.	No impact	No mitigation or conservation outcomes are proposed

### New Development Adjacent to a Heritage Place

The following additional questions have been considered in regard to adjacent State and locally listed places specifically:

- Princess May Reserve (P851)
- Film and TV Institute (P842)
- Elders Woolstores (P852)

Question	Discussion
How is the impact of the new development on the heritage significance of the place or area to be minimised?	The significance of the adjacent heritage place was understood and identified as an opportunity for the design team in the early stages of the project. A key design driver was to connect to the park and celebrate the adjacency to Princess May Reserve. This has been achieved through the provision of secure public spaces and building amenity to the north sections of the site, providing a visual and physical connection between the new development and the park that enhances the connectivity of the residents to the heritage site.  A number of design decisions were made to minimise the impact of the development on the adjacent site, including the reallocation of height toward the southern boundary and the
Why is the new days language sequired to be	finer grain detailing to the park facing elevation.  The new development is located on an underutilised lot
Why is the new development required to be adjacent to a heritage place?	within the City of Fremantle. Currently the lot is used for carparking and does not contribute positively to the streetscape of the area. Redevelopment of this land is required from a client perspective and will be beneficial to the locality. The curtilage of the adjoining heritage place is successful in providing a sufficient buffer zone around the historic buildings and maintaining the setting of the place, enabling surrounding development, as proposed.
How does the new development affect views to, and from, the heritage place? What has been done to minimise negative effects?	The new development will impact views to and from the heritage place. It is located to the south of the development so will have no impact from overshadowing, however the height of the new development will be visible when viewing Princess May Reserve from the north and the street.
	The height of the development has been reduced toward the heritage place and stepped down, with a landscaped podium created along the boundary to reduce the bulk of the proposed facades along the adjoining boundary.
Is the new development sympathetic to the heritage place? In what way (e.g. form, siting, proportions, design, materials)?	The elevation facing the heritage place has been designed to be a finer grain to the remaining elevations. The façade is more open and less solid, ensuring it is read as a lighter structure against the soft materiality of the landscaped park setting and limestone buildings within Princess May Reserve.
	The form has also been designed to step away from the heritage place and use the landscaped podium level to reduce height and bulk along the adjoining edge.
	Materials have been chosen to be textured toward the lower levels to reflect the rich materiality of the area and integrate more with the adjoining site.
Will the new building(s) visually dominate the heritage place? How has this been minimised?	The curtilage of the adjoining heritage place is successful in providing a sufficient buffer zone around the historic buildings. The new development will be a dominant structure in the streetscape, however the massing, form and materiality has all been considered to mitigate this visual impact.
Will the public and users of the place, still be able to view and appreciate its significance?	Yes, the history and open parkland setting of the Princess May reserve will remain and be able to be appreciated by users of the place. Additionally, the place will be appreciated by residents occupying the new development through views toward the significant site and a physical connection to the place through the landscape design.

### 4.2 Analysis of Impact

The degree of positive and negative impact on the place in terms of its heritage significance is outlined below.

The development site does not extend into the adjacent State Registered Princess May Reserve and there are no significant structures located within this zone. As such, there are no conservation works proposed other than an increased connection between the park and the development area.

A number of design decisions were made to minimise the impact of the development on the adjacent site, including the reallocation of height toward the southern boundary and the finer grain detailing to the park facing elevation. These are discussed in additional detail below.

The height of the development will have a visual impact on the adjoining heritage site, primarily due to the new development being built up to the lot boundary. The open space between the new development and the buildings within the heritage site, ameliorates the impact on the views to the place and its understanding as a significant heritage place in the landscape. There is sufficient curtilage around the built fabric, provided by the heritage listing, to largely mitigate the impact of the adjoining development and proposed height.

Key views and vistas to the heritage site are from the north looking south. As the proposed development sits behind this, it does not impede on any views, however it will be visible when viewing the heritage site. The backdrop is softened to some extent by existing plantings, mostly mature trees, being retained at intervals along the southern boundary of the heritage site, in front of the new development. Further, the northern elevation of the building has been designed to be fine grain and open in order to appear lighter against the adjoining heritage site.

Additional landscape improvements, for consideration by the City of Fremantle, have been proposed to the southern section of Princess May reserve and align with the masterplan recommendations for the park. They include increasing connection between the two sites, with a landscaped podium of the new residential development facing the park and providing a physical link for the residents with the adjoining public amenity.

Connections with the surrounding streetscape will be enhanced where possible, through the creation of new pedestrian links across the park and the integration of café/office functions at street level to Adelaide Street.

The large scale and functional aesthetic of the Elders Wool Stores, means that it contributes to the aesthetic qualities of the Cantonment streetscape. The new development has responded to this aesthetic with the Cantonment street elevation interpreting the proportions and materiality through the texture and form of the proposed design

As the development is located to the south of the heritage site, there are no overshadowing concerns related to the development.

## Conclusion

This proposal will see the development of an 8 storey (plus basement) residential building to 8 Point Street, Fremantle. The development is adjacent to the State Heritage listed Princess May Reserve.

The place is situated within a rich and diverse streetscape in Fremantle, with connectivity and activation at the core of the design. While the project forms a significant redevelopment within the locality, it will enhance the current visual presentation of the site and create a more lively neighbourhood within the area.

It has been demonstrated that the proposed development respects the identified values of the surrounding significant heritage places, considering the local context in the design approach and integration. The design approach ensures the setting, form and history of the surrounding sites are maintained while also identifying opportunities to deliver increased connection to the heritage place.

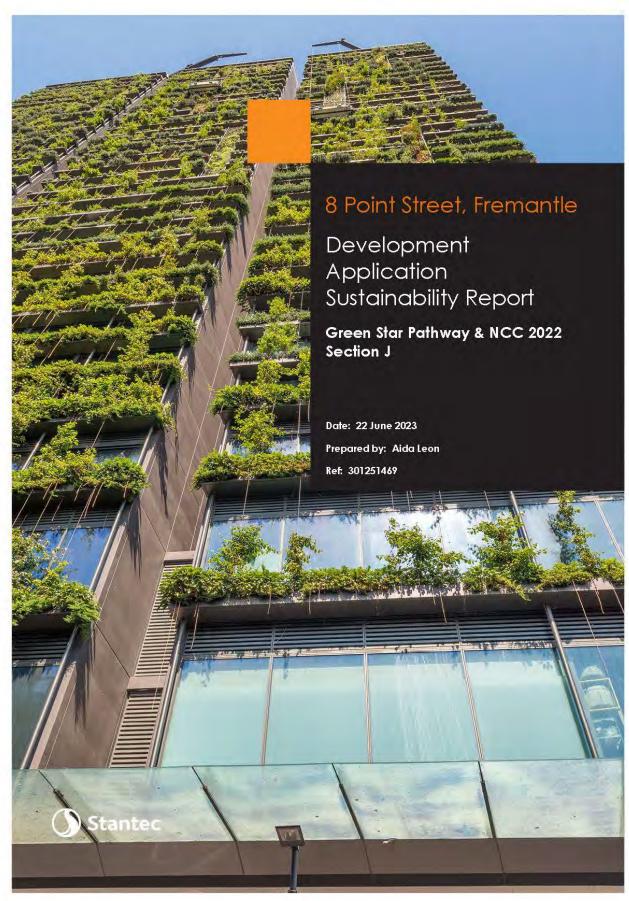
Generally, the proposed development does not physically impact upon the curtilage of any State or locally listed heritage place. Assessment has also demonstrated that the proposal has considered the potential for impact on adjacent sites and taken measured design responses to mitigate potential impacts, in particular relating to the height and bulk scale of the development. The reallocation of height toward the southern boundary and the finer grain detailing to the park facing elevation all assist in mitigation of impact.

As the development is located up to the boundary of the State listed place and involves ground disturbance works, a survey of the Fremantle Boys School building prior to works commencing and vibration monitoring throughout should be undertaken to ensure construction approaches do not affect the structures due to ground disturbance.

The report concludes that the proposal will have a minor impact on the heritage values of the adjacent sites which relate particularly to views and vistas. This minor impact will be ameliorated through improvements to the landscape connection between the proposed development and Princess May Reserve. Overall, this project can be supported on this basis.

C2311-11 LOT 34 (NO. 8) POINT STREET, FREMANTLE - EIGHT STOREY MIXED USE DEVELOPMENT COMPRISING 215 MULTIPLE DWELLINGS AND RESTAURANT/CAFE AND OFFICE USES (ED DAP006/23)

Attachment 8 - Sustainability Report



### Revision

Revision	Date	Comment	Prepared By	Approved By
001	01/06/2023	Schematic Design Issue	MW	PDS
002	22/06/2023	Development Application Issue	AL	PDS

### Disclaimer

The following qualifications apply to this report:

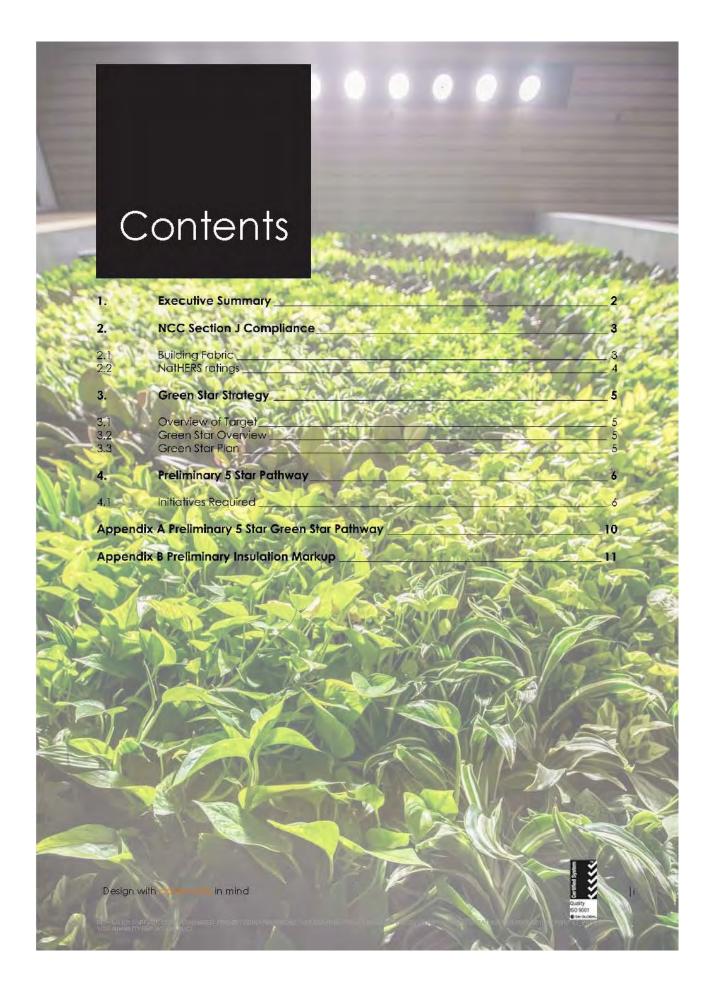
- Information has been based on our understanding of the proposed buildings and documentation provided, as noted.
- This report is preliminary, and no modelling has been completed.
- This report provides high level guidance about feasibility of sustainability initiatives to be included in the project at design stage.
- No guarantee or warrantee of building performance and operational savings in practice can be based on this
  preliminary advice.

The conclusions in the report are Stantec's professional opinion, as of the time of the report, and concerning the scope described in the report. The opinions in the document are based on conditions and information existing at the time the document was published and do not take into account any subsequent changes. The report relates solely to the specific project for which Stantec was retained and the stated purpose for which the report was prepared. The report is not to be used or relied on for any variation or extension of the project, or for any other project or purpose, and any unauthorized use or reliance is at the recipient's own risk.

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This report is intended solely for use by the client in accordance with Stantec's contract with the client. While the report may be provided to applicable authorities having jurisdiction and others for whom the client is responsible, Stantec does not warrant the services to any third party. The report may not be relied upon by any other party without the express written consent of Stantec, which may be withheld at Stantec's discretion.

Revision



## Executive Summary

This Sustainability Report has been prepared in support of an application for Development Approval (DA) for the proposed residential development located at 8 Point Street, Fremantle.

A preliminary assessment of the project's potential to achieve the following has been undertaken:

- NCC 2022 Section J compliance
  - o DTS for Commercial areas
  - o Nathers ratings for Residential areas
- 5 Star Green Star Buildings V1 Rating equivalency
  - o Minimum required 35 points, targeting 41 points (6 point buffer)

A credit pathway that details Green Star "Australian Excellence" requirements has been determined for this project. Points have been selected according to previous experience with similar projects, these will be coordinated with other design team member as the project is progressed during the detailed design stage. This points strategy will be revised as design progresses, additional feedback and details become available. Nevertheless, it is confirmed the project is committed to complying with the performance requirements.



Executive Summary | 2

## NCC Section J Compliance

Preliminary assessment of the proposed development against the NCC (2022) Section J Requirements has been completed. It is planned to utilise the following methodology:

- Part J1 JV3 Performance Engineered Approach
- Part J3 Deemed-to-Satisfy Prescriptive requirements
- Nationwide House Energy Rating Scheme (NatHERS) for Residential Areas

This assessment has been done in a very early stage and building fabric requirements will be coordinated during future detailed design stages. Building performance and compliance will be confirmed once these requirements are coordinated.

### 2.1 Building Fabric

Construction Thermal Performance

Overall thermal performance of the proposed building fabric is shown below.

Table 1: Building fabric thermal performance requirements.

Roof Type	Cavity Type	Total R- value (m²K/W)	Frame Material Allowance	Frame Percentage Allowance (%)	Thermal Break Included	Thermal Break R-value (m²K/W)	Minimum Typical Insulation (m²K/W)	Example insulation requirement
Metal sheeting	Reflective Ventilated	R3.7	Yes	16%	Yes	0.2	R4.8	165mm Anticon Faced Glasswool Blanket
Concrete Slab	Reflective Ventilated	R3.7	NA	N/A	N∕A	0.2	R5.0	240mm Glasswoo Blanket in the ceiling space

External Wall Type	Cavity Type	Total R- value (m²K/W)	Frame Material Allowance	Frame Percentage Allowance (%)	Thermal Break Included	Thermal Break R-value (m²K/W)	Minimum Typical Insulation (m²KAM)	Example insulation requirement
Insulated Concrete panel	Non reflective unventilated	R1.4	Steel	12%	Yes	0.2	R2.5	90mm Glasswool Wall Batts

Internal Wall Type	Cavity Type	Total R- value (m²KAW)	Frame Material Allowance	Frame Percentage Allowance (%)	Thermal Break Included	Thermal Break R-value (m²K/W)	Minimum Typical Insulation (m²KAW)	Example insulation requirement
Lightweight	Non reflective unventilated	R1.0	Steel	12%	Yes	0.2	R2.0	75mm Glasswool Wall Batts



NCC Section J Compliance | 3

Floor Type	In-slab / Screed system	Total Floor R- Value (m2K/W)	Typical Insulation R- value (m2K/W)	Example insulation requirement
Slab on Ground	No in-slab heating or cooling	2.0	N/A	N/A
Suspended Slab	No in-slab heating or cooling	2.0	2.00	45mm Rigid Board

Note: Additional insulation is not required as the soil in contact with the slab has an effective R value greater than R2.0.

When selecting insulation types, the fire properties of the product shall comply with the NCC Deemed-to-Salisfy Provisions for fire hazard properties and a non-combustible material, as required and as nominated by the Building Surveyor.

#### Building Fabric Notes:

- 1. Internal walls refers to walls separating conditioned and non-conditioned internal zones.
- 2. The Total R-value shall be calculated, including allowance for thermal bridging, in accordance with
  - AS/NZS 4859.2 for a roof or floor;
  - AS/NZS 4859.2 for wall components or Specification J1.5b (NCC 2022 Volume One) for spandrel panels.
- The Total R-value calculation must consider individual component layers in a composite element including any building material, insulating material, airspace and associated surface resistances.

Table 3: Glazing thermal performance requirements.

Window Type	Location	U-value (W/m²K)	SHGC
High Performance Double Glazing	All windows	3.30	0.30

### Glazing Notes:

- Performance values states are whole-of-system, inclusive of framing and glass, and in accordance with Australian Fenestration Rating Council (AFRC) requirements.
- Area-weighted average glazing performance must achieve the above values, allowing variation in window types and performance.

### 2.2 NatHERS ratings

Given that this development is targeting a 5-star Green Star equivalency rating the weighted-area average of all sole occupancy units in the building must achieve a NatHERS energy rating of at least 7.0 stars and, each sole-occupancy unit must achieve a NatHERS energy rating of at least 5.5 stars.

Preliminary assessments have been completed to ensure this requirement have been meet at DA stage.



NCC Section J Compliance | 4

## Green Star Strategy

### 3.1 Overview of Target

The client's sustainability targets for the site are:

5 Star Green Star Buildings V1 equivalency rating

### 3.2 Green Star Overview

The Green Star set of ratings tools have been compiled by the Green Building Council of Australia to assess the level of environmentally sustainable design that may be incorporated into a building. This project will be assessed using the Buildings V1 rating tool which can be used to rate any new building or collection of buildings.

Under the Buildings V1 tool, the following ratings can be achieved:

- 15-34 points = 4 Star rating ("Australian Best Practice")
- 35-69 points = 5 Star rating ("Australian Excellence")
- Above 70 points = 6 Star rating ("World Leader").

### 3,3 Green Star Plan

A Green Star feasibility study was undertaken for the project. The objective of the feasibility study was to investigate initiatives for a 5 Star Green Star rating and to create a plan for the most effective points to target.

The total number of points available for each of the categories in the Green Star Buildings V1 Rating tool is:

Table 2: Green Star Category Points

Category	Available Points	Targeted Points 5 Star
Responsible	17	3
Healthy	14	9
Resilient	8	2
Positive	30	16
Places	8	5
People	9	1
Nature	14	4
Leadership	5	1
Total	105	41



Green Star Strategy | 5

## 4. Preliminary 5 Star Pathway

### 4.1 Initiatives Required

The targeted strategies align with the Green Star pathway for a 5 Star rating. Below is a description of the targeted credits.

### 4.1.1 Responsible Category

### Credit 1: Industry Development

- The building owner must;
  - o Appoint a Green Star Accredited Professional.
  - Disclose the cost of sustainable building practices.
  - o Market the buildings sustainability achievements.

### Credit 2: Responsible Construction

- The head contractor must provide the following:
  - o Environmental Management System
  - o Environmental Management Plan
  - Construction and Demolition Waste
  - o Sustainability Training
- At least 90% of construction and demolition waste must be diverted from landfill.

#### Credit 3: Verification and Handover

- · Appropriate metering & monitoring systems are installed.
- Air Permeability design review testing is required.
- Building operations & maintenance information is readily available.
- Involvement of an Independent Commissioning Agent is recommended.

### Credit 4: Responsible Resource Management

- Separate waste and resource streams.
- Dedicated and adequately sized waste and resource storage area.
- Safe and efficient access to waste and resource storage areas.

### 4.1.2 Healthy Category

#### Credit 10: Clean Air

- Levels of indoor pollutants are maintained at acceptable levels.
- The building must provide a 100% improvement of outdoor air and 50% for residential areas.
- · Pollutants entering the building are minimised.



- The building's ventilation systems allow for easy maintenance.
- There may be an additional cost impact for additional fresh air to air-conditioned spaces.

### Credit 11: Light Quality

- Lighting comfort LED lighting, CRI ≥85, best practice illuminance levels, uniformity, MacAdam Ellipse.
- Glare from light sources must be limited within regularly occupied areas.
- Adequate daylight levels are provided.
- 60% of the combined living and bedroom area of each unit must comply with the daylight requirements.

#### Credit 12: Acoustic Comfort

- An acoustic comfort strategy will need to be prepared.
- The building achieves maximum internal noise levels.
- The building provides acoustic separation.

#### Credit 13: Exposure to Toxins

- The building's paints adhesives, sealants, and carpets are low in TVOC or non-toxic.
- The building's engineered wood products are low in TVOC or non-toxic.
- Occupants are not exposed to banned or highly toxic materials in the building.
- On-site tests to verify the building has low Volatile Organic Compounds (VOC) and formaldehyde levels.

#### Credit 15: Connection to Nature

- The building provides views.
- The building includes indoor plants and incorporates nature-inspired design OR
- 5% of the building's floor area or site area (whichever is greater) is allocated to nature in which occupants can
  directly engage with.

### 4.1.3 Resilient Category

### Credit 14: Climate Change Resilience

 The project team develops a project-specific climate change risk and adaptation assessment for the building where extreme and high risks are addressed.

### Credit 19: Heat Resilience

At least 75% of the whole site area comprises of one or a combination of strategies that reduce the heat island
effect

### 4.1.4 Positive Category

### Credit 21: Upfront Carbon Emissions

- Upfront carbon emissions must be reduced through good design and material selection.
- Upfront carbon emissions must be reduced through good design and material selection.



o Indicative allowance for an additional 10% for green concrete and 10% for green steel.

#### Credit 22: Energy Use

- The building has low energy consumption.
- Photovoltaic System on the roof

#### Credit 23: Energy Source

- Zero Carbon Action Plan must be prepared.
- No fossil fuels on site
- 100% of the building's electricity comes from renewable energy.
- 100% of the building's energy comes from renewables.

#### Credit 24: Other Carbon Emissions

The building's emissions from refrigerants, upfront carbon, and remaining carbon sources are eliminated or offset.

#### Credit 25: Water Use

The building installs efficient water fixtures.

### Credit 26: Life Cycle Impacts

The project demonstrates a 30% reduction in life cycle impacts when compared to standard practice.

### 4.1.5 Places Category

#### Credit 27: Movement and Place

- Changing Facilities (Class 2 are exempt).
- Accessible, Inclusive, and Located in a Safe and Protected Place (Class 2 are exempt).
- Bicycle Parking Facilities
- Sustainable Transport Plan.
- EV Chargers for 5% of car bays.
- Infrastructure planning for 100% EV conversion of all car bays.

### Credit 29: Contribution to Place

Design reviews are held at key points in the development of the design.

### 4.1.6 People Category

#### Credit 31: Inclusive Construction Practices

- Provide gender inclusive facilities and PPE.
- Implement policies to address issues of discrimination, racism, and bullying on-site.
- Conduct a Needs Analysis on potential site workers and sub-contractors prior to construction commencing.
- Implement physical and mental health programs.



Conduct an evaluation of the program's effectiveness.

### 4.1.7 Nature Category

### Credit 35: Impacts to Nature

- The building was not built on, or significantly impacted, a site with a high ecological value.
- The building's light pollution has been minimised.
- There is ongoing monitoring, reporting, and management of the site's wetland ecosystem (if applicable).

### Credit 39: Waterway Protection

 Reduction in average annual stormwater discharge (MLJyr) of 80% across the whole site OR all stormwater is infiltrated on site

### 4.1.8 Assessment method for Compliance

The above-mentioned strategies are indicative as this stage. These need to be further coordinated with the design team and integrated in the design. A project sustainability design specification will be produced on a later stage and will be included as part of the contract documents to integrate the above deliverables.

The above-mentioned contractual requirements do allow for minor modifications to the specific strategies but maintain the overall scheme amendment sustainability performance objectives.

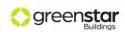


# Appendix A Preliminary 5 Star Green Star Pathway



Preliminary 5 Star Pathway | 10

22/06/2023 8 Point Street, Fremantle



Summery

Targeted Green Stor rating 5 Star

Minimum Core points required 35

Total points TARGETED 41

	Risk Level
Low	Puint's jargeted - current de ago & standard practice
Modium	Poses 1E _ ross a dealer consteaution and/at rosso years need
High	Procedity and a commission of and assumption of

			Condit Total points					-			171111	sible D		1100	
eg	Credit	Credit Description	Credit Targeted	Total points available	TANGETED	Risk Level	Comments	DMG	Arct	Неас	Elec	Hydi	Lanc	SILVID	
Resp	Industry Development	Credit Achievement (1 point): The building where or derektives appoints a Green Star Accredited Professional - discloses the cost of sustainable building protitices to the OBCA, and - market the building's austainability achievements.	Dredit (A) historinant	1	1	1.úw	Stantecfulfil the GSAP role. Owner / dwyleper to complete a Financial Disclosure Template. Project team to complete the Geen Star Case Study Template.								
Nesp	Responsible Construction	Minimum Expectation: - Head Contractor to compay with ISO 14881 8, implement EMS on site - Divers at lease 10% of construction & demolston investe from bandfill - Head Contractor to provide training on sustainability targets of building	Mannum Expectation		Required	Required	Minmum expectation considered standard practice			,					
Resp	Responsible Construction	Credit Achievement († paris)  Divert at least 90% of contraction & itemsition wade from landfill. Waste contractors & facilities to comply with the Green Star Construction and Demolition Waste Reporting Criteria.	Unad I Justice mont	1	r	Law	90% diversion of construction & demolston waste from landful is considered an achievable rarget for this project.								
Roop	Verification and Handover	Minimum Espectation:  - Sub-insetting of major uses, a sceninual monitoring system, validation of maters as per BAGERS  - Sub-insetting of major uses, a sceninual monitoring system, validation of materia sa per BAGERS  - State recommendate parformance barges, carry or a 5-Service & Materiamatishy review,  commissioning inclining plantification stating. Transit the laining a triangle of particular or stating a foreign state or particular stating as a state of the state	American Expectation		Roquired	Required	Mornium say ediation for metaining, muminising, cumminising committeed and uning considered distinction practice. All disciplants accord as an eligibiness diverage reasons for the Prin by deem that might direct an influence out as a change prevailed out. Speaks preventiones, see that are bighous above prim we mulpide follow pleamens, that distinct separations between conditioned and accordinated spaces, and image also of MACA, electrical, commissionation, and planting above in the system. To be considered — Compared with any and constitutioning sequence — Scope of work and necessary constriction to between traditions of sequence.	y.		1 1	×				
Ring	Verification and Handover	Credit Achievement (1 point) An independent level of ventication is provided to the coremismenting and having activities OR- Deal landings systematic his whireig TM team: Path 2 Grigage ICA fairing commissioning & fluxing indexess. For buildings with a sital building succioes value over \$20m, both requirements mind be med,	E-ricks Action/erricks	A)	4	Low	ICA OR Soft Landing Approach required.	,			,	ĺ			
rkos p	Responsible Resource Management / Operational Waste	Alternam Expectation:  (1) Support our Average and Leadill, Inspiring and one allow variety deviation representing at  (1) Support our Average and Leadill, Inspiring and the sample capanics, w-variety, buildings. Any  the leading are set inspiring incredit find veriety ingressing 25% of lead annual importable allowate  by variety ment has accounted for  by variety ment has accounted for  (2) Leading and the strong which have very 6, and a screen by capation, vericine.  (3) Walsia specialist or consistent must open off the designs to transferrative pare adequately sized and  counted for it will 6, comment drouge & collection.	Moreon Erhecanian		Required	Required	Engage a wester specialist to outline an operational wasterplan for the project.	V	þ	,					
"	Clean Air	Minnum Expectation - Suding venilation systems to comply with minimum expantation distances between parhuton sources and endotor air estates, and all dischored to be desired prior to eccupation Cuddon air rates 50% system from ASTERS 27012 OR CO, securit mentationing < 000/pm within the breading syne of abort complete discriber Terror study or instituted air desiration buildings, demonstrate bedre practice induction is wire-centered fromost Excitated or instituted of discharts the synering it, photocopying equipment, cooking and whitches Excitated or instituted of discharts the synering it, photocopying equipment, cooking and whitches	Minimum Expectation	8	Required	Réquired	Microun expectation can be achieved through other DTK increased OA rities (from residential areas) or CO2 amoons at 000ppm subjects.								

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	Clean Air	point Anja-deniel (2 calat) Provide and of in a reason of the air distribution system Provide and of in a reason of the air distribution system - Outbury in rices (10th greater than AS 1062 200 CPF CQs persons standaring < 7.00pcm within the creating pain of each "Xiciative Save. For inturally verified disposes to red insularments of AS 1064-9512	Ordiz Arneveners	2	9).	High	(heat an inverser can be attained fronger 10% CA one (non-retornia) and a recording met waterly year during as a reconstance 0.0% from the property of the pro	
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-	Acoustic Comfort	Monrue Dispetition An Accust Contract strategy to be prepared to describe how the building and accusing design aims to deliver stocks contract to the building occupants.	Minorairi Especiation		Réquired	Required	An Accordic Conflict Shifting must, or organize describing how the facilities altering there another conflicts the excusing prosperies.  The dissipating output only the business of the conflict of the confl	
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	Exposure to Toxins	Moninal Egipelator Las VOC pares, altroles, systems & cripets. Los VOC pares, altroles, systems & cripets. Los formalishes replaceed except policia. Section of the commission makes as sur-sp. Statistic of saley emoved & objects or lay certified sections, lead of FEBs.	Minorain Expectation	4	Requires	Required	The garded must contay with all three of the distancing collects  - Parts. Authorities. Signature. And Companie.  - Parts. Authorities. Signature. And Companie.  - Baywell or Lingshy Trails. Malandas.	
-	Exposure to Toxins	Credit Arthevenient (7 coints) Undertaile stande texting toverly TVOO's U29ppn and formalderyoo's U29ppn Sample desends on building size / no in finds. Teiting when all finishes is furnitue have neen installed.	Great- Autovariant	2	2	Low	Engage ain air quaith; to strig company to uncertable sample teiting it verify the looking has the Yolisale Organic Composition (YCC) and turn addreside levels	
ol	Amerity and Comfort	Code 3, Aprice referred (2, class); The bealing this position on on rowled specialty from the set as perent more is entirely in the bealing this position on one of the control of the con	TEC .	2	b	High	Вена от 11/2 бат 10 окторито	

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	Connection to Nature	Creat Actievement (1 pont) The building growdes views, includes indoor plants OR 5% of the buildings floor area or site area (whitever is greater) is allocated to nature in which occupants can directly engage with.	TBIS	-91-		Magician	Targeting Liviews Interaction with nature	() <u>1</u>		V	
	Climate Change Resilience	Minimum: Expectation: Complete the chinate change pre-screening checklist and communicate building's exposure to climate change risk to Sealin.	Minerum Expectation	8	Required	Required	ESD STN to develop & implement a CCAP				
	Climate Change Resilience	Credit Achievement ( ) partit.  Livewop's project-specific crimate change inix and association assessment for the building arib societies say enterine and right justice through design artifact operational responses.	creat acreement	1	+	Low	ESO-STN to develop & implement a OCAP	1	1		
	Heat Resillence	orest Achievement (1) party. At least 15% of the whole site area comprises of one or a combination of strategies that recuke the next saince effect.	Crear - Crearing	iĝi	ĵ	Low	This creation be beginded frough a combination of Privil (gift coloured creating and bronking an	) ·		8	
	Uptront Carbon Emissions	Moreum Expectation The authory updort carbon emersions are all least 10% less train those of a reference building.	Morman Experience	Þ¥d	Required	Required	LCA Required  If it is never implications of medit bits Green it considers all shutture countries are dream indicating years pit students  London are dream indicating years pit students  London are considered in the consideration of the consideration of the consideration of the water with any being compared in water wat	) t	,		1
u.	Upfront Carbon Emissions	Credit Activisation (2) points). The building support cachon emissions are at least 20% less than trice of a Inference building. Demokras works must be offset.	Great Amesenged	3	3	Medium	Assuming minimum requirement can be met brough the following intelligence of the control of the	,	,		
	Energy Use-Reference building Pathway	Minimum Expectation: The auditing's energy use is at least 10% less than a reference faulting. On-side renewable energy generator cannot be used to meet the Minimum Expectation:	Memor September	1-2	Required	Required	The should be achieved by the selected Building Services	t			
	Energy Use-Reference building Pathway	Creat Activitiement (3 pants). The building's energy use is at least 20% less than a reference building. Cn-site renewable energy generation can be used to exect this CE.	Credit Acresiment	3	3	Low	These credits rely on the provision of at least 100 KW PV System	ŧ	Ī		
	Energy Source	Minimum, Expectation: The earling provides a piece Caption Aston Plan. The earling provides a piece Caption Aston Plan Plan In the business. The gain minist be signed for fight the business of earlings are not earlings and earlings and earlings and earlings and earlings are provided to the earlings and earlings are provided to earlings and earlings are caption to earlings are captions. The caption to earlings are captions are captions are captions are captions are captions are captions. The caption to earlings are captions are captions are captions are captions are captions are captions are captions. The captions are captions are captions are captions are captions are captions are captions. The captions are captions are captions are captions are captions are captions are captions. The captions are captions are captions are captions are captions are captions are captions. The captions are captions. The captions are captions. The captions are captions. The captions are captions. The captions are ca	alumum Expectation	- ŝi	Required	Required	Scattal reports of the Zero Carbon Action Flain need to be coordinated early on the Cleage with Hird, Ext. and Mech.  1719 ESD to develop Zero Carbon Action Plan.				
	Energy Source	Credit Autherement (3 panes) 100s of the bullings electricity comes from renewable electricity, Both on-vitte and off-site renewables are acceptable. For off-site renewables, 5 year renewable energy contract is required.	Craft Ar sames	3	2	(Menum	All electricity under the control of the stationing owner or operator must be accounted for and sourced from renewables. Both on site and off-site renewables are acceptance (off-site requires a renewable energy contact for aim of 5 years).				T

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22/06/2023 8 Point Street, Fremantie

-	Energy Source	Exceptional Performance (2 parts) 100% of the callelings energy connections related these	Ekreptions. Perlamance	3	3	Modium	For exceptional performance this includes all energy under the control of the pulled govern districtions are excluded partitions, but the end demonst behavior, appear handly or configurations, and exception of all pulled governments are supported by the pulled government registering of being adult of the end use a first private free supports government processing or pulled governments and according to the design budget government to be depreted to the pulled government and according to the pulled government to the pulled government and configuration of the pulled government government to the pulled government and configuration of the societies government to the pulled government and configuration of the societies government to the pulled government and configuration of the societies government to the pulled government and the p				
-	Other Camon Emissions	Circliji, Arteverprest (3 Cultida) The Outland genere elementas ar afficiats emissions from intrigeranci, byrough estimations elementation of the Outland generation of the Outland of State of	crent Ay hayemen	2	2	High	Retings on other to be calculated flating united a Constitute Price Proportion to other Mary Number of coal yet to be added and		,		
	Water Use	Montrus Ropectation The building installs observe water recurse or uses 16% less politible water companied to a reference building. For multi-stat residential cualifings (Coos) 2 and 3), 10% less	Menerop Expension		Required	Required	Sarking Failue and Appliance Endiency flags = 5 Stars forms = 5 Stars forms = 5 Stars forms = 5 Stars forms = 5 Stars Colonia Stars Colonia starting michine = 4 fishs Ultimaters = 6 Stars Ultimaters = 6 Stars	í			
_	Life Cycle Impacts	Credit A thinkement (2 points) The project demonstrates a 30% reduction in life cycle impacts when compared to standard practice.	Cieac Achievement	2	2	Low	LCA to be developed by STN ESD.	,		ħ	
Ēlines	Movement and Place	Minimum Expeditation The building includes ancieties and changing facilities for building occupants that are accessible, inclusive and located in a sale and protected space.	Minimum Expectation	13	Requires	Required	Clairs 2 buildings are exempt from this strengther nertic.  Clairs 9 are required to comply for staff chity, not for short or long-term residents or states.	1			
Fines	Movement and Place	Conditional Country of project must comply with all but of the following others:  - Blogde Proleing Families  - Sustainable Trasport  - Substainable Trasport  - Substainab	Credit & neverant	3	3	Low	To be continued with the Architect is Transport Consultant.  EV that give not 5% of any body,  we solve the Special Transport Consultant in all can begin	1			
line	Enjoyable Places	Credit Activement (2) plants) The balling behind in one cape, beautiful, what commans or public places white perceives many and personale in the commanty. The spaces are included, safe, closely and enjoyable. For one of public places in providing a command of the provided of the provid	(80	2	ō	Medium	Diversion in prenent an Activation Strategy to ensure placendaring continues after PC.	,			П
Fisher	Contribution to Place	Oreal Asherement (2 points). The building's design controlles to the livability of the kilder union context and enhances the public realin, excelpting an utilian Context Report Of Independent reviews are half outling the development of the design.	2/Enir Apriovalpura	2	2	Lene	Design reviews to be held at key points in the development of the design.	į		T	
Philes	Culture, Heritage and Identity	Credit Activierement (1 octor) The building's begin reflects and odebrates local demographics and identities. The history of the place, and are indoor a minoring entitles. This consists was similed in rough meaningful programmer for for currently groups easily in the design process.	Thir	4	0	Medium	Undertake community engagement to identity culture, nertiage and identity unique to the site and demonstrate this through community sit / projects, selection of stupples / designers of arborat, building elements that tell states of the past & inertage of the building, etc.	v.			

\*\* (Val. 90 ) Long addishared, projects (0.0125 1 66MP) reject. Documentation Sustainability/Oreen Stark (0.0125 for Master Spreadsheet DAX (0.125 for AGE). Oreen Star Buildings, Master Spreadsheet 0.07 vision

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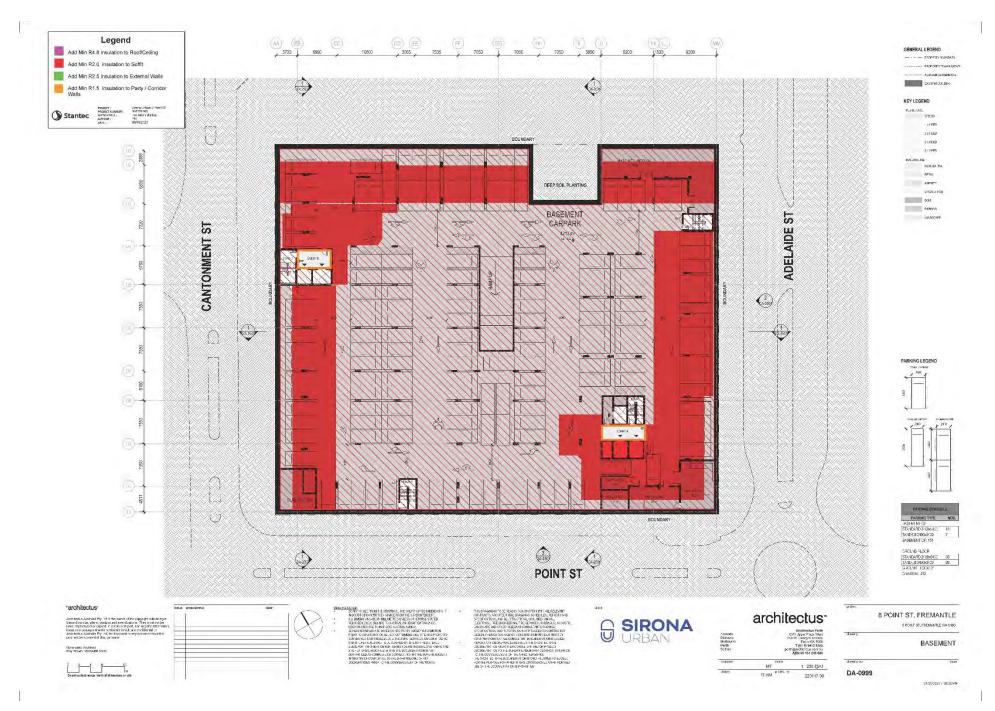
eople	Inclusive Construction Practices	windows by establish that compares genore incurses outhnoon facilities, genore specific PRE explanes position to observe the compared problem to observe the commission release to building and produce prioring for all connections is used contracting. Provide training a provide immension on daugh, second as altereday is mediat routin.	Ministrate Experiment		Required	Required	In the convention must make the two relativity as provided or revisible to what is regard greater in these contracts of the contract of the contra
eoplu	Inclusive Construction Practices	Credit Actionement (1 point) The protect must compy with all three of the following creens **Regional Services** **Injuryal and James Heads Programs **Endedding to Programs & Endodrepass **Endedding to Programs & Endedding to Prog	Circle Afficience	1	*	Low	-Next Analysis to be carried at its outside the reprinct and sub-outsides at total are carried and y days to determine appropriate above.  -Physical and extern repaid in Program a subprogram above. The programs in all one at least time of the workforce that these above and the effect of one table of the time of the above and the sub-outside analysis and the sub-outside and the sub-outside and the program and the sub-outside and the sub-outside and the sub-outside and the program and the sub-outside and the sub-outside and the sub-outside and information or other purposes a relationship to a program and an erver on whether the purposes selections for entire that are the sub-outside and whether the purposes selections for entire that are the sub-outside and decontrolled and sub-outside and the sub-outside and the sub-outside and decontrolled and sub-outside and the sub-outside and the sub-outside and decontrolled and decontrolled and decontrolled and decontrolled and decontrolled and decontrolled and decontrolled and decontrolled and decontrolled and decontrole
-	Impacts to Nature	Minimum Experitors  * The busing wer recover, any or against any moveled, a vide with a high ecological howe.  * There is any origing modeling, impatting, and management of the lights sections accounting.	Managa Tupe (2004)	3	Required	Required	And lest or confirm site has no explagacy value—assume no as correctly fluiding processing and processing and processing and processing and security processing and security and security and security and adjustment of the security and adjustment of
	Biodiversity Enhancement	CreditAprincement (2 colins).  The utility's set includes wherein landscape prontonial or vertical, either sit will set desain to look out the CPA includes or desain of species and profit set the use of damage desainst and the colonial c	Great (Enewenies)	2	ă.	High	TEC.
3	Waterway Protection	Credit Achievement (2 points) The development must demonstrate an annual average filter reduction (ML/yr) of 40% compared to pre-de-velopment levels which neer pollution reduction largets.	TBr	2	2	High	Chil to contine it Stomovater vii be irritinated on site
-	Waterway Protection	Exceptional Performance (2 points). The development invalidementation an annual average flow reduction (MLAr) of 80% compared to pre-development levels AND meet critishon reduction targets.	řĐị.	2	ō	High	Chil to confirm Il Sitomwater will be infiltrated on site.
e sales ettin	Leadership Challenges- Climate Positive Pathway	The Canada Postive Patricay has been achieved	Crems Activement	4		Low	Awarded for achieving Crimate Posteve Patholey

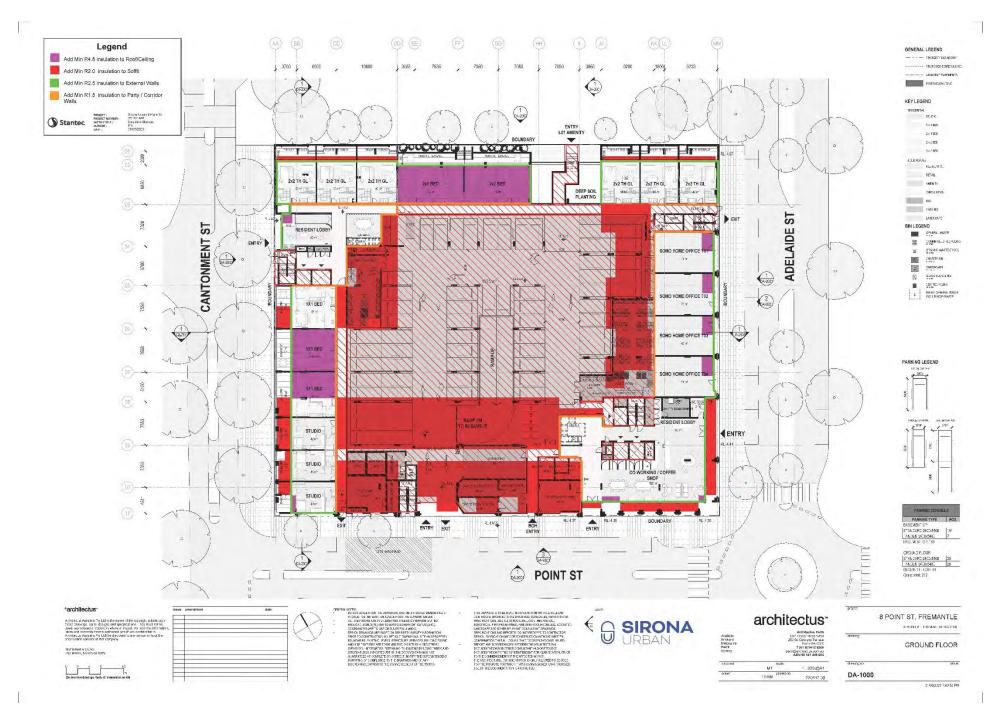
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## Appendix B Preliminary Insulation Markup



Preliminary 5 Star Pathway | 11



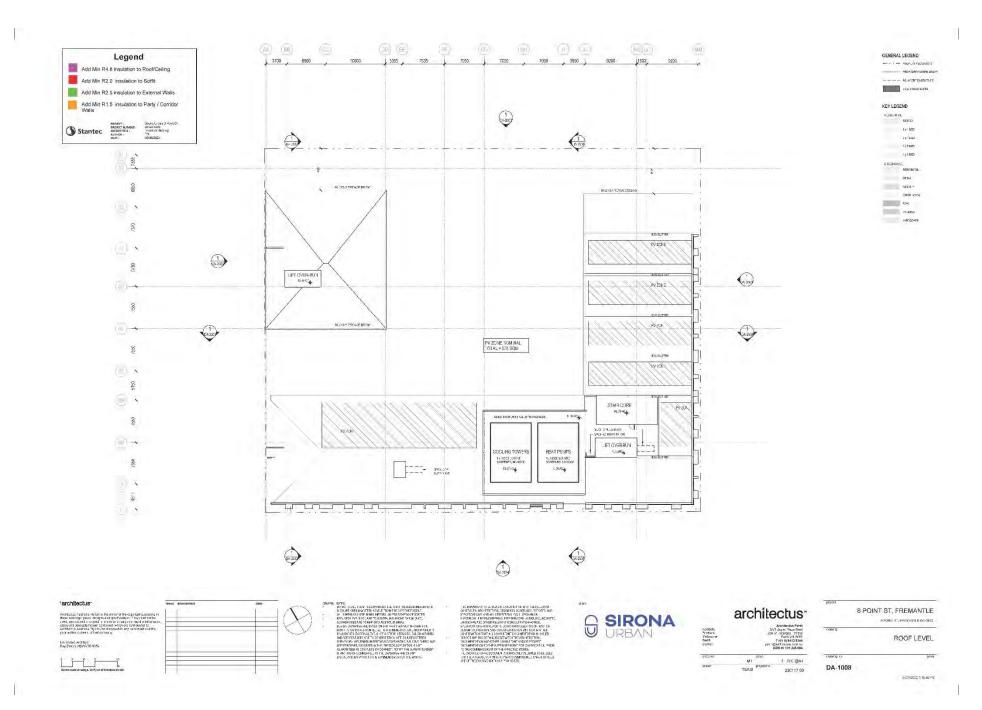














# C2311-11 LOT 34 (NO. 8) POINT STREET, FREMANTLE - EIGHT STOREY MIXED USE DEVELOPMENT COMPRISING 215 MULTIPLE DWELLINGS AND RESTAURANT/CAFE AND OFFICE USES (ED DAP006/23)

Attachment 9 - Additional Sustainability Memo



Memo

To: David Hunt / Architectus

QV1 Upper Plaza West 250 St Georges Terrace

Perth WA 6000 Australia

Project Number: 301251469

8 Point St Fremantle

From: Aida Leon / Stantec

226 Adelaide Terrace Perth WA 6000 Australia

Date: September 18, 2023

Reference: Re: Further Information Request – 8 Point Street – 8 Storey Mixed Use Development CoF (DAP006/23) & DAP (DAP/23/02534)

This memo aims to provide answer to comments received by the City of Fremantle related to the Development Application for the above-mentioned project, regarding the applicable Sustainability requirements and objectives.

The project will not be seeking for a formal Green Star Buildings V1 certification. All the coordination and integration of the required initiatives be carried out as if the project would be pursuing certification. However, it will not be registered with the Green Building Council of Australia and documentation will not be submitted for Design and or As Built review. It is understood by the owner and the design team that the Green Star trademark cannot be used when pursuing equivalency.

The proposed development is targeting a GBCA Green Star 5 Star development of 'Australian Excellence' equivalency, including the required Climate Positive Pathway composed by the following:

- Upfront Carbon Emission:
  - The building's upfront carbon emissions are at least 20% less than those of a reference building.
  - Demolition works are calculated and offset.
- Energy Use:
  - o The building's energy use is at least 20% less than a reference building.
- Energy Source:
  - o 100% of the building's energy comes from renewables (Exceptional Performance).

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September 18, 2023 David Hunt Page 2 of 3

Reference:

Re: Further Information Request – 8 Point Street – 8 Storey Mixed Use Development References: CoF (DAP006/23) & DAP (DAP/23/02534)

- Zero Carbon Plan is not required for fully electric buildings, refer to attached FAQ for clarification
- No battery storage required, off site renewables to be purchased through a Power Purchase Agreement.
- Other Carbon Emission:
  - Refrigerants impacts are calculated and offset.

The Green Star pathway (41 points) provided allows:

- · 6 points buffer, no specific credits defined as buffer,
- · 3 points to be confirmed included in the buffer,
  - Connection to Nature (Credit Achievement)
  - Waterway connection (Credit Achievement)
- 7 additional points still to be confirmed not included in the buffer that are likely to be integrated once the design progresses, allowing for flexibility and development of the strategy.
  - Amenity and Comfort
  - Enjoyable Places
  - Cultural Heritage and Identity
  - Waterway protection (Exceptional Performance)

The project is committed to offset the following impacts:

- · Demolition works, and
- Refrigerants

The impacts will be calculated and offset as per Green Star Guidelines. No further scope will be offset.

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September 18, 2023 David Hunt Page 3 of 3

Reference:

Re: Further Information Request – 8 Point Street – 8 Storey Mixed Use Development References: CoF (DAP006/23) & DAP (DAP/23/02534)

The required coordination of the strategy has already started, and requirements have been raised with the design team. However, it is early stage to provide details such as waste management details, life cycle analysis, modelling calculations, responsible finishes calculator and specifications, these are yet to be developed.

Evidence of coordination and integration of required initiatives would be provided as the design progresses and information is available to complete the required modelling and calculations.

Further clarification can be provided if required.

Regards,

Aida Leon

Project Technical Lead Senior Sustainability Engineer

For Stantec Australia Pty Ltd

Attached FAQ for Zero Carbon Action Plan

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recommended and the second



### FAQ F-00291

#### Do I need to provide a Zero Carbon Action Plan for fully electric buildings?

Buildings comply automatically with the Minimum Expectation "Zero Carbon Action Plan" under Credit 23 Energy Source from Green Star Buildings v1 where the building meets the Exceptional Performance of the same credit, and will not use electricity generated from fossil fuels through cogeneration or trigeneration

#### Rating Tools

This FAQ is related to the following Rating Tools, Categories or Credits:

- · Green Star Buildings v1 / Positive / 23 Energy Source
- Green Star Buildings v1.0 / Positive / 23 Energy Source

#### Disclaimer

#### These FAQs are:

- provided as additional technical assistance for Green Star users.
- · optional and free to use on Green Star projects.

#### When used on Green Star projects, make sure to:

- state the FAQ number on the Submission Template.
   click on "Download" to save the FAQ.
   include the PDF in the submission.

The GBCA reserves the right to add or remove FAQ at our discretion.



C2311-11 LOT 34 (NO. 8) POINT STREET, FREMANTLE - EIGHT STOREY MIXED USE DEVELOPMENT COMPRISING 215 MULTIPLE DWELLINGS AND RESTAURANT/CAFE AND OFFICE USES (ED DAP006/23)

Attachment 10 - Applicant R-Code Vol. 2 Assessment

# SPP7.3 R-CODES VOLUME 2 - APARTMENTS ASSESSMENT TEMPLATE



Us deliner. This essessment templete is not intended to replece H-Codes Volume 2. Applicants and assessors should refer to the H-Codes Volume 2 for information on the relevant provisions that are applicable to a development.

#### **ABOUT THIS TEMPLATE**

State Planning Policy 7.3 Residential Design Codes Volume 2 – Apartments (R-Codes Vol. 2) has brought about changes to the way that multiple dwellings will be designed, assessed, constructed and – ultimately – lived in.

This assessment template is based on work conducted by the Inner City Councils Planning Working Group<sup>1</sup>, and adapted by the Department of Planning, Lands and Heritage for broader distribution.

Responsible Authorities are encouraged to adapt this template to best suit their needs. This template is designed to be used in conjunction with, not as a replacement for, the R Codes Vol. 2.

This template comprises of 2 parts:

- PART 1 Recommended information to be submitted by applicant as part of a development application.
- PART 2 Template for assessment under the R-Codes Vol. 2 (including any local planning framework that amends or replaces the R-Codes Vol. 2). It is recommended that this template is completed by:
  - (a) the applicant and submitted as part of the development application; and
  - (b) the Responsible Authority for the purposes of assessment.

R-Codes Vol. 2 is a <u>performance-based</u> policy. While addressing the Acceptable Outcomes is likely to achieve the relevant Element Objectives, they are not a deemed-to-comply pathway and the proposal will be assessed in context of the entire design solution to ensure the Element Objectives are achieved.

Assessing officers are encouraged to firstly consider the proposal under the Element Objectives, delve into details provided by the applicant (whether these be the Acceptable Outcome or alternate performance solution approach using the relevant Design Guidance) before returning to the principles outlined in the Element Objectives.

The onus is on the Applicant to demonstrate that the Element Objectives have been achieved. Responsible Authorities may consider refusal of an application on the basis that insufficient information/materials have been provided to satisfy an Element Objective to the satisfaction of the Responsible Authority. The burden of proof is not on the Responsible Authority but the applicant to demonstrate – by way of example – adequate solar access is achieved if the applicant has not provided the relevant diagrams and calculations to address this subject matter.

Please be advised that this assessment template is not intended to replace R-Codes Vol. 2 in terms of being a point of reference for both designers and assessors. Amongst other things, the source document contains Design Guidance, diagrams and example images that are not featured within this template.

Inner City Councils Planning Working Group Town of Victoria Park, City of Perth, City of South Perth, City of Subiaco, City of Vincent

#### PART 1 - INFORMATION FOR THE APPLICANT

It is recommended that the following information is provided by the applicant when lodging a development application.

This guidance assists	proponents in formulating the appropriate materials when submitting a development application. Ch talevant local authority if there are any additional materials required.	
Documentation	Required Information	Provide
Developmentdetails	A summary document that provides the key details of the development proposal. It contains information such as the:  — plot ratio of the development  — number, mix, size and accessibility of apartments  — number of car parking spaces for use (residential, retail, accessible, visitor etc.)  — percentage of apartments meeting cross ventilation and daylight requirements.	
Site analysis	[Prepared at earlier stage of design development in A3 Site analysis and design response guidance]	
Design statements	An explanation of how the design relates to the Design Principles in State Planning Policy 7:0 Design of the Built Environment.  An explanation of how the proposed development achieves the relevant objectives of this policy in A6 Objectives summary.	
	For adaptive reuse projects which affect heritage places, provide a Heritage Impact Statement prepared in accordance with the State Heritage Office's Heritage Impact Statement Guide available at <a href="https://www.stateheritage.wa.gov.au">www.stateheritage.wa.gov.au</a> (for state registered places) or the relevant local government guidelines (for other places).	
Site plan	A scale drawing showing:  any proposed site amalgamation or subdivision  location of any proposed buildings or works in relation to setbacks, building envelope controls and building separation dimensions  proposed finished levels of land in relation to existing and proposed buildings and roads pedestrian and vehicular site entries and access  interface of the ground floor plan with the public domain and open spaces within the site areas of communal open space and private open space  indicative locations of planting and deep soil areas including retained or proposed significant trees.  overshadowing over neighbouring sites  location of adjacent solar collectors.	
Landscape plan	A scale drawing showing:  the building footprint of the proposal including pedestrian, vehicle and service access trees to be removed shown dotted  trees to remain with their tree protection areas (relative to the proposed development)  deep soil areas and associated tree planting  areas of planting on structure and soil depth  proposed planting including species and size  details of public space, communal open space and private open space  external ramps, stairs and retaining wall levels  security features and access points  built landscape elements (fences, pergolas, walls, planters and water features)  ground surface treatment with indicative materials and finishes  site lighting	
Other plans and reports	stormwater management and irrigation concept design  Acoustic Report (or equivalent)  Waste Management Plan (or equivalent)	

	A5 – Development application guidance (2/2)
Documentation	Required information Provides
Floor plans	A scale drawing showing:  — all levels of the building including roof plan  — layout of entries, circulation areas, lifts and stairs, communal spaces, and service rooms with key dimensions and Real Level (RL) heights shown  — apartment plans with apartment numbers and areas, all fenestration, typical furniture layouts for each apartment type, room dimensions and intended use and private open space dimensions  — accessibility clearance templates for accessible units and common spaces  — visual privacy separation shown and dimensions where necessary  — vehicle and service access, circulation and parking  — storage areas.
Elevations	A scale drawing showing:
Sections	A scale drawing showing:
Building performance diagrams	A solar diagram (where required) at the winter solstice (21 June) at a minimum of hourly intervals showing:  - number of hours of solar access to the principal communal open space  - number of hours of solar access to units within the proposal and tabulation of results  - overshadowing of existing adjacent properties and overshadowing of future potential development where neighbouring sites are planned for higher density  - elevation shadows if likely to fall on neighbouring windows, openings or solar panels.  A ventilation diagram (where required) showing unobstructed path of air movements through dual aspect apartments and tabulation of results.
Illustrative views	Photomontages or similar rendering or perspective drawings illustrating the proposal in the context of surrounding development. Note: Illustrative views need to be prepared using a perspective that relates to the human eye. Where a photomontage is prepared, it should use a photo taken by a full frame camera with a 50mm tens and 46 degree angle of view.
Models	A three dimensional computer generated model showing views of the development from adjacent streets and buildings.  A physical model for a large or contentious development (if required by the consent authority).

#### PART 2 - TEMPLATE FOR ASSESSMENT UNDER THE R-CODES VOL. 2

It is recommended that the template is used as follows -

#### **Applicants**

- This document is intended to provide a structure to organise and arrange the supporting material
  and documentation for preparing and submitting a Development Application, with the onus being on
  the applicant to demonstrate that an Element Objective has been achieved.
- Applicants are encouraged to complete the 'applicant sections' of this document, outlining how the
  Element Objectives are satisfied. In many (if not most) instances it is expected that written response
  will be supported by associated drawings or documentation provided by the applicant 'e.g. refer to
  Overshadowing Diagrams page 25 of submission package'.
- The template can then be included in the application to the Responsible Authority.

#### Responsible Authority

- This document is intended to provide a structure to systematically and holistically undertake a
  planning assessment against the performance-based approach of R-Codes Vol. 2.
- The Responsible Authority will review the applicant's comments provided in this template and undertake an assessment of the materials provided against the relevant Element Objectives.

Section 1.2 of R-Codes Vol. 2 provides that certain sections of the policy may be amended or replaced by local planning frameworks. Where such local planning frameworks may have effect, this template provides an additional section where the applicable requirements may be stated.

ELEMENT OBJECTIVES	APPLICANT COMMENT	ASSESSOR COMMENT
Development is to achieve the following Element Objectives	Outline the rationale demonstrating that the proposal has met the Element solution or using the Acceptable Outcomes. The Design Guidance provide	
O2.2.1 – The height of development responds to the desired future scale and character of the street and local area, including existing buildings that are unlikely to change.	The overall height and scale of the proposed development has been addressed in detail in the main body of this development application report, and is observed to be an appropriate response to the locational	
O2.2.2 – The height of buildings within a development responds to changes in topography.	characteristics of the subject site, and State level strategic planning documents that support increased residential density within metropolitan activity centres and adjacent to high frequency public transport services.  The subject site is uniquely positioned to accommodate a development of this scale, with minimal impact to surrounding properties, and in a manner that aligns with the City's City Centre revitalisation aims.	
	Objectives satisfied, as detailed in the main body of this development application report.	
O2.2.3 – Development incorporates articulated roof design and/or roof top communal open space where appropriate.	The roofscape seeks to frame the skyline in a manner that is inspired by the industrial vernacular of Fremantle, with the two upper levels clad in a metallic finish that creates a lighter transition to the sky, and framed openings that create a profiled silhouette to the building form.	
	The podium rooftop is also activated with communal open space as discussed throughout the main development application report.	
	Objective satisfied.	
O2.2.4 – The height of development recognises the need for daylight and solar access to adjoining and nearby residential development, communal open space and in some cases, public spaces.	The resultant overshadowing impacts at midday on June 21 are largely contained within the Point Street and Adelaide Street road reserves, with only limited impact to existing commercial properties on the southern side of Point Street, and no impact to other residential developments in the locality, as shown in the accompanying Architectural Design Report.	

The development is also situated to the south of Princess May Reserve and therefore does not result in any overshadowing of this important public space within the Fremantle City Centre.

Objective satisfied.

#### ACCEPTABLE OUTCOMES

Acceptable Outcome pathway may not be applicable where a performance solution is provided

**A2.2.1** – Development complies with the building height limit (storeys) set out in Table 2.1, except where modified by the local planning framework, in which case development complies with the building height limit set out in the applicable local planning instrument.

#### (Excerpt from table 2.1)

Streetscape contexts and character refer A2	Low	-rise	Mediu	m-rise		density ential	Neighbourhood centre	Mid-rise urban centres	0.0000000000000000000000000000000000000	lensity centres	Planned areas
Site R-Coding	R40	R50	R60	R80	R100	R160	R-AC4	R-AC3	R-AC2	R-AC1	R-AC0
Building height (storeys) refer 2.2	2	3	3	4	4	5	3	6	7	9	

LOCAL PLANNING FRAMEWORK	REQUIREMENT
Does the local planning framework amend or replace the above stated controls? If yes, state the applicable	Yes. The requirements of Table 2.1 of the R-Codes do not apply. Building height controls specified in Schedule 7 of LPS4.

ELEMENT OBJECTIVES	APPLICANT COMMENT	ASSESSOR COMMENT					
Development is to achieve the following Element Objectives.	Outline the rationale demonstrating that the proposal has met the Element Objectives, through either a performance based solution or using the Acceptable Outcomes. The Design Guidance provided in the policy may be of assistance.						
<b>O2.3.1</b> – The setback of the development from the street reinforces and/or complements the existing or proposed landscape character of the street.	The development provides a nil setback to all streets, consistent with the requirements of LPS4. This is appropriate in a City Centre environment and assists in						
O2.3.2 – The street setback provides a clear transition between the public and private realm.	providing a sense of enclosure to surrounding streets, and a clear transition between the public and private realm.						
O2.3.3 – The street setback assists in achieving visual privacy to apartments from the street.	It also enables high levels of passive surveillance of						
<b>O2.3.4</b> – The setback of the development enables passive surveillance and outlook to the street.	surrounding streets, through the orientation of apartment balconies and windows at all levels.						
	Objectives satisfied.						

with the street setback set out in the applicable local planning instrument

#### (Excerpt from table 2.1)

Streetscape contexts and character refer A2	Low	/-rise	Mediu	m-rise		density ential	Neighbourhood centre	Mid-rise urban centres		density centres	Planned areas
Site R-Coding	R40	R50	R60	R80	R100	R160	R-AC4	R-AC3	R-AC2	R-AC1	R-AC0
Minimum primary and secondary street setbacks refer 2.3	4m 4	2m	2	m	12	m	2m or Nil <sup>5</sup>	2m or Nil <sup>5</sup>	2m c	r Nil ≸	

- (4) Minimum secondary street setback 1.5m (5) Nil setback applicable if commercial use at ground floor

LOCAL PLANNING FRAMEWORK	REQUIREMENT
Does the local planning framework amend or replace the above stated controls? If yes, state the applicable requirement:	Yes. The requirements of Table 2.1 of the R-Codes do not apply. Building setback controls specified in Schedule 7 of LPS4.

ELEMENT OBJECTIVES	APPLICANT COMMENT ASSESSOR COMMENT				
Development is to achieve the following Element Objectives	Outline the rationale demonstrating that the proposal has met the Element Objectives, through either a performance based solution or using the Acceptable Outcomes. The Design Guidance provided in the policy may be of assistance.				
O2.4.1 – Building boundary setbacks provide for adequate separation between neighbouring properties.	The proposed development site does not directly abut any other privately owned land, being bound by public roads to the east, south and west, and Princess May				
O2.4.2 – Building boundary setbacks are consistent with the existing streetscape pattern or the desired streetscape character.	Reserve to the north.  A nil setback is proposed to Princess May Reserve,				
O2.4.3 – The setback of development from side and rear boundaries enables retention of existing trees and provision of deep soil areas that reinforce the landscape character of the area, support tree canopy and assist with stormwater management.	consistent with the requirements of LPS4, with provision for deep soil planting within the communal and private terrace areas adjacent Princess May Reserve.  Objectives satisfied.				
O2.4.4 –The setback of development from side and rear boundaries provides a transition between sites with different land uses or intensity of development.					

ACCEPTABLE OUTCOMES
Acceptable Outcome pathway may not be applicable where a performance solution is provided

- A2.4.1 Development complies with the side and rear setbacks set out in Table 2.1, except where:
  - a) modified by the local planning framework, in which case development complies with the side and rear setbacks set out in the applicable local planning instrument AND /OR
  - b) a greater setback is required to address 3.5 Visual privacy.

(Excerpt from table 2.1)

Streetscape contexts and character refer A2	Low-rise	Medium-rise	Higher density residential	Neighbourhood centre	Mid-rise urban centres	High density urban centres	Planned
Site R-Coding	R40 R50	R60 R80	R100 R160	R-AC4	R-AC3	R-AC2 R-AC1	R-AC0
Boundary wall height (storeys) <sup>1,2</sup> refer 2.4	1.3	13 23	21	2	3	4	
Minimum side setbacks <sup>6</sup> refer 2.4	2m 3m	3m	3m		Nil		
Minimum rear setback 3m refer 2.4		3m	6m	6m	Nil	Nil	
Average side setback where building length exceeds 16m refer 2.4	2.4m 3.5m	3.5m 3,5m	3.5m 4.0m	NA	NA	NA	

- (1) Wall may be built up to a lot boundary, where it abuts an existing or simultaneously constructed wall of equal or greater proportions
- (2) Where the subject site and an affected adjoining site are subject to different density codes, the length and height of any boundary wall on the boundary between them is determined by reference to the lower density code
- (3) Boundary wall only permitted on one boundary, and shall not exceed 2/3 length.
- (6) Boundary setbacks will also be determined by provisions for building separation and visual privacy within this SPP and building separation provisions of the NCC.

**A2.4.2** – Development is setback from the boundary in order to achieve the Objectives outlined in 2.7 Building separation, 3.3 Tree canopy and deep soil areas, 3.5 Visual privacy and 4.1 Solar and daylight access.

LOCAL PLANNING FRAMEWORK	REQUIREMENT
Does the local planning framework amend or replace the above stated controls? If yes, state the applicable requirement:	Yes. The requirements of Table 2.1 of the R-Codes do not apply. Building setback controls specified in Schedule 7 of LPS4.

ELEMENT OBJECTIVES	APPLICANT COMMENT	ASSESSOR COMMENT		
Development is to achieve the following Element Objectives	Outline the rationale demonstrating that the proposal has met the Element Objectives, through either a performance based solution or using the Acceptable Outcomes. The Design Guidance provided in the policy may be of assistance.			
O2.5.1 – The overall bulk and scale of development is appropriate for the existing or planned character of the area.	The overall bulk and scale of the development is appropriate within the Fremantle City Centre and compatible with existing development in the immediate locality of the subject site, as detailed in the main development application report.  The plot ratio controls in Table 2.1 do not apply, as per Schedule 7 of LPS4.  Objective satisfied.			

#### ACCEPTABLE OUTCOMES

Acceptable Outcome pathway may not be applicable where a performance solution is provided

A2.5.1 — Development complies with the plot ratio requirements set out in Table 2.1, except where modified by the local planning framework, in which case development complies with the plot ratio set out in the applicable local planning instrument.

#### (Excerpt from table 2.1)

Streetscape contexts and character refer A2	Low	/-rise	Mediu	m-rise		density ential	Neighbourhood centre	Mid-rise urban centres		density centres	Planned areas
Site R-Coding	R40	R50	R60	R80	R100	R160	R-AC4	R-AC3	R-AC2	R-AC1	R-AC0
Plot ratio 7 refer 2.5	0.6	0.7	0.8	1.0	1.3	2.0	1.2	2,0	2.5	3.0	

(6) Refer to Definitions for calculation of plot ratio

LOCAL PLANNING FRAMEWORK	REQUIREMENT
Does the local planning framework amend or replace the above stated controls? If yes, state the applicable requirement:	Yes. The requirements of Table 2.1 of the R-Codes do not apply. Building setback controls specified in Schedule 7 of LPS4.

ELEMENT 2.6	BUILDING DEPT	Hui	
ELEMENT OBJECTIVES		APPLICANT COMMENT	ASSESSOR COMMENT
Development is to achieve the		Outline the rationale demonstrating that the proposal has met the Elemen solution or using the Acceptable Outcomes. The Design Guidance provide	
O2.6.1 – Building depth supports apartment layouts that optimise daylight and solar access and natural ventilation.  O2.6.2 – Articulation of building form to allow adequate access to daylight and natural ventilation where greater building depths are proposed.  O2.6.3 – Room depths and / or ceiling heights optimise daylight and solar access and natural ventilation.		The proposed building depths of between 20.2 metres and 21.1 metres allow for high levels of solar access and cross ventilation, in accordance with the requirements of	
		Elements 4.1 and 4.2. This will ensure high levels of amenity for the proposed residential apartments, with the articulated façade design maximising solar access and ventilation opportunities throughout the proposed development.	
		Room depths and ceiling heights also align with the guidance provided by Element 4.3, consistent with the intent of Acceptable Outcome A2.6.1.	
		Objectives satisfied.	
ACCEPTABLE OUTCON Acceptable Outcome pathway		erformance solution is provided	
		ct apartments on each side of a central circulation corridor shall have ticular consideration to 4.1 Solar and daylight access and 4.2 Natural	
LOCAL PLANNING FRA	MEWORK	REQUIREMENT	
Does the local planning fran the above stated controls? requirement:		N/A.	

ELEMENT OBJECTIVES	APPLICANT COMMENT	ASSESSOR COMMENT
Davelopment is to achieve the following Element Objectives	Outline the rationale demonstrating that the proposal has met the Element solution or using the Acceptable Outcomes. The Design Guidance provide	
O2.7.1 – New development supports the desired future streetscape character with spaces between buildings.	The built form and setback response of the proposed development is consistent with the desired future streetscape character for the area as established under	
O2.7.2 – Building separation is in proportion to building height.	LPS4, noting that the subject site does not abut any other privately owned properties, being bound by street frontages to the east, south and west, and Princess May Reserve to the north.  Objective satisfied	
O2.7.3 – Buildings are separated sufficiently to provide for residential amenity including visual and acoustic privacy, natural ventilation, sunlight and daylight access and outlook.	The proposed development does not abut any other privately owned properties, being bound by street frontages to the east, south and west, and Princess May Reserve to the north.  Internally within the subject site, appropriate separation is also provided between windows and balconies, with balconies facing the internal courtyard area being appropriately offset from each other to minimise direct overlooking. This is facilitated by the large central courtyard design, which offers appropriate separation and a desirable outlook for all residential apartments fronting the courtyard area.  Accordingly, all upper-level balconies and living rooms have an external outlook and are entirely unscreened, consistent with Acceptable Outcomes A3.5.2 and A3.5.3.  Objective satisfied.	
O2.7.4 – Suitable areas are provided for communal and private open space, deep soil areas and landscaping between buildings	Building separation within the subject site is delivered in the form of the landscaped communal courtyard at Level 1, which is open to the sky and provides for landscaping and open space within the subject site.  Objective satisfied.	

A2.7.1 – Development complies with the separation requirements set out in Table 2.7	1	A2.7.1 - Developm	ent complies with the se	eparation requirements	set out in Table 2.7.
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Table 2.7 Building separation

		Building height				
	Separation between:	≤ 4 storeys (up to 15m)	5-8 storeys (up to 28m)	≥ 9 storeys (over 28m)		
	Habitable rooms/balconies	- 12m	18m	24m		
Within site boundary	Habitable and non-habitable rooms	7.5m	12m	18m		
	Non-habitable rooms	4.5m	6m	9m		
To adjoining property boundaries	Habitable rooms/balconies and boundary	Refer 2.4 Side and rear setbacks (Table 2.1) and 3.5 Visual privacy (Table 3.5)	9m	12m		

Distances apply from major openings of rooms, or the inside of balustrading of balconies.

Average dimensions may be applied subject to major openings meeting other requirements for privacy, daylight and the like.

#### LOCAL PLANNING FRAMEWORK

#### REQUIREMENT

Does the local planning framework amend or replace the above stated controls? If yes, state the applicable requirement:

N/A.

ELEMENT 3.2 ORIENTATION			
ELEMENT OBJECTIVES	APPLICANT COMMENT	ASSESSOR COMMENT	
Development is to achieve the following Element Objectives	Outline the rationale demonstrating that the proposal has met the Element Objectives, through either a performance based solution or using the Acceptable Outcomes. The Design Guidance provided in the policy may be of assistance.		
O3.2.1 – Building layouts respond to the streetscape, topography and site attributes while optimising solar and daylight access within the development.	The proposed development will greatly enhance the existing streetscapes around the subject site, with high levels of activation and multiple pedestrian access points from the street, in accordance with Acceptable Outcome A4.3.1.  The design also takes full advantage of the desirable northern aspect of the subject site, offering high levels of winter solar access to living areas and balconies, and the Level 1 communal courtyard, in accordance with Acceptable Outcome A3.2.2 and Element 4.1.  Objective satisfied.		
O3.2.2 – Building form and orientation minimises overshadowing of the habitable rooms, open	The subject site and surrounding properties are coded R-AC3 under LPS3, and therefore Acceptable Outcomes A3.2.3 and A3.2.4 do not apply.		

space and solar collectors of neighbouring properties during mid-winter	Notwithstanding the above, it is noted that there are no existing residential properties in the immediate vicinity of the subject site, and therefore no existing residential habitable rooms or open space areas will be affected by overshadowing from the proposed development.  There are also no existing rooftop solar collectors on neighbouring sites that will be affected by overshadowing from the proposed development on 21 June.	
ACCEPTABLE OUTCOMES Acceptable Outcome pathway may not be applicable where	Objective satisfied.	
	tages are oriented to face the public realm and incorporate direct ac	cess from the street.
A3.2.2 – Buildings that do not have frontages to	streets or public realm are oriented to maximise northern solar acce	ess to living areas.
		lune onto any adjoining property does not exceed:

- (1) Where a development sile shares its southern boundary with a lot, and that lot is bound to the north by other lot(s), the limit of shading at A3.2.3 shall be reduced proportionally to the percentage of the affected properties northern boundary that abuts the development site. (Refer to Figure A7.2 in Appendix 7)
- A3.2.4—Where adjoining sites are coded R40 or less, buildings are oriented to maintain 4 hours per day solar access on 21 June for existing solar collectors on neighbouring sites.

- adjoining properties coded R80 or higher - Nil requirements.

LOCAL PLANNING FRAMEWORK	REQUIREMENT
Does the local planning framework amend or replace the above stated controls? If yes, state the applicable requirement:	N/A.

EL EMENT OR LEGITIVES	APPLICANT COMMENT	ASSESSOR COMMENT		
ELEMENT OBJECTIVES Development is to active the following Element Objectives	Outline the rationale demonstrating that the proposal has met the Element Objectives, through either a performance based solution or using the Acceptable Outcomes. The Design Guidance provided in the policy may be of assistance.			
O3.3.1 – Site planning maximises retention of existing healthy and appropriate and protects the viability of adjoining trees.	There are no existing trees at the subject site that are considered worthy of retention. There are also no existing trees on adjacent sites that have the potential to be affected by the proposed basement construction.  Objective satisfied.			
O3.3.2 – Adequate measures are taken to improve tree canopy (long term) or to offset reduction of tree canopy from pre-development condition.	The proposed development provides a mix of small, medium and large trees to improve long term tree canopy at the subject site, as well as provision for new verge trees within Point Street and Adelaide Street, to provide enhanced shade and amenity adjacent the subject site.  A total of one large tree, 11 medium trees and 14 small trees are provided within the boundaries of the subject site, which meets and exceeds the requirements of Acceptable Outcome A3.3.4 based on the site area of 5,015m².  Objective satisfied.			
O3.3.3 – Development includes deep soil areas, or other infrastructure to support planting on structures, with sufficient area and volume to sustain healthy plant and tree growth.	The proposed development provides a 140m² of true deep soil area, interfacing with Princess May Reserve. This is combined with 820m² of appropriately dimensioned on structure planters to accommodate mature plant growth, as an alternative to true deep soil area provision.  The above approach enables all proposed car parking facilities to be contained within the proposed Basement and Ground Levels, whilst still supporting mature plant growth as specified in the accompanying landscape design report.  The use of on-structure planting is also considered appropriate having regard to the locational characteristics of the subject site, which is situated in the Fremantle City Centre, in a location where nil setback development is			

preferred, and immediately adjacent the significant landscape amenity within the Princess May Reserve.

**Objective satisfied,** via a mix of true deep soil area and alternative on structure landscaping provision.

#### ACCEPTABLE OUTCOMES

Acceptable Outcome pathway may not be applicable where a performance solution is provided

A3.3.1 - Retention of existing trees on the site that meet the following criteria:

- healthy specimens with ongoing viability AND
- species is not included on a State or local area weed register AND
- height of at least 4m AND/OR
- trunk diameter of at least 160mm, measured 1m from the ground AND/OR
- average canopy diameter of at least 4m.

A3.3.2 - The removal of existing trees that meet any of the criteria at A3.3.1 is supported by an arboriculture report.

A3.3.3 - The development is sited and planned to have no detrimental impacts on, and to minimise canopy loss of adjoining trees.

A3.3.4 – Deep soil areas are provided in accordance with Table 3.3a. Deep soil areas are to be co-located with existing trees for retention and/or adjoining trees, or alternatively provided in a location that is conducive to tree growth and suitable for communal open space.

Table 3.3a Minimum deep soil area and tree provision requirements

Site Area	Minimum deep soil area	Minimum requirement for trees 1
Less than 700m²		1 medium tree and small trees to suit area
700 – 1,000 m²	10% OR	2 medium trees OR 1 large tree and small trees to suit area
> 1,000m²	7% if existing tree(s) retained on site (% site area)	1 large tree and 1 medium tree for each additional 400m² in excess of 1000m² OR 1 large tree for each additional 900m² in excess of 1000m² and small trees to suit area

<sup>1</sup> Minimum requirement for trees includes retained or new trees Refer Table 3.3b for tree sizes

A3.3.5 - Landscaping includes existing and new trees with shade producing canopies in accordance with Tables 3.3a and 3.3b.

Table	2.26	Tree	cizac
Lanie	3.30	1166	SILCS

Tree size	Indicative canopy diameter at maturity	Nominal height at maturity	Required DSA per tree	Recommended minimum DSA width	Minimum DSA width where additional rootable soil zone (RSZ) width provided¹ (min 1m depth)	Indicative pot size at planting
Small	4-6m	4-8m	9m²	2m	1m (DSA) +1m (RSZ)	100L
Medium	6-9m	8-12m	36m²	3m	2m (DSA) + 1m (RSZ)	200L
Large	>9m	312m	64m²	6m	4.5m (DSA) + 1.5m (RSZ)	500L

A3.3.6 – The extent of permeable paving or decking within a deep soil area does not exceed 20 per cent of its area and does not inhibit the planting and growth of trees.

A3.3.7 – Where the required deep soil areas cannot be provided due to site restrictions, planting on structure with an area equivalent to two times the shortfall in deep soil area provision is provided.

LOCAL PLANNING FRAMEWORK	REQUIREMENT
Does the local planning framework amend or replace the above stated controls? If yes, state the applicable requirement:	N/A.

ELEMENT OBJECTIVES	APPLICANT COMMENT	ASSESSOR COMMENT		
Development is to active the following Element Objectives	Outline the rationale demonstrating that the proposal has met the Element Objectives, through either a performance based solution or using the Acceptable Outcomes. The Design Guidance provided in the policy may be of assistance.			
O3.4.1 – Provision of quality communal open space that enhances resident amenity and provides opportunities for landscaping, tree retention and deep soil areas.	The proposed development incorporates extensive communal open spaces in the form of the Level 1 communal courtyard and associated pool area, which is complemented by indoor amenities including a gym, and a dining and lounge area.  This represents over 1,500m² of communal residential facilities within the development, which far exceeds the requirements of Acceptable Outcome A3.4.1.  Objective satisfied.			
O3.4.2 – Communal open space is safe, universally accessible and provides a high level of amenity for residents.	Communal open space areas are universally accessible via a step free path of travel from the central residential lift cores, consistent with Acceptable Outcome A3.4.2.  The proposed communal open space areas also benefit from a desirable northern aspect, which ensures access to more than 2 hours of direct sunlight between 9am and 3pm on 21 June, consistent with Acceptable Outcome A3.4.3.  Objective satisfied.			
O3.4.3 – Communal open space is designed and oriented to minimise impacts on the habitable rooms and private open space within the site and of neighbouring properties.	Acoustic isolation between apartments and proposed communal residential facilities has been considered in the accompanying Acoustic Report.  The layout of the Level 1 residential apartments has also been carefully considered to avoid the potential for light spill and overlooking from the adjacent Level 1 communal facilities, with landscape buffers provide between private terraces and proposed communal areas.  The use of the Level 1 communal space can also be appropriately controlled through strata by-laws addressing matters such as noise and hours of operation.			

		Objective	satisfied.		
ACCEPTABLE OUTC	OMES ay may not be applicable where a p	redormance solu	tion is provided		
A3.4.1 – Development Table 3.4 Provision of c	s include communal open spommunal open space	pace in accor	dance with Table 3.4		
Development size	Overall communal operation of the community		Minimum accessible / hard landscape area (included in overall area requirement)	Minimum open space dimension	
Up to 10 dwellings	Informal seating associated with other landscaped areas	ndeep soil or	NA	NA	
More than 10 dwellings	Total: 6m² per dwelling up to ma	aximum 300m²	At least 2m² per dwelling up to 100m²	4m	
A3.4.2 – Communal op	en space located on the gro	ound floor or	on floors serviced by lifts must be a	ccessible from the p	orimary street entry of the development.
3.4.3 - There is 50 pe	er cent direct sunlight to at l	east one com	munal open space area for a minim	num of two hours be	tween 9am and 3pm on 21 June.
A3.4.4 Communal op	en space is co-located with	deep soil are	as and/or planting on structure area	as and/ or co-indoor	communal spaces.
<b>A3.4.5 –</b> Communal op areas.	en space is separated or so	creened from	adverse amenity impacts such as t	oins, vents, condens	ser units, noise sources and vehicle circulation
A3.4.6 – Communal op	en space is well-lit, minimis	es places for	concealment and is open to passiv	e surveillance from	adjoining dwellings and/or the public realm.
	en space is designed and cand of neighbouring properti		nimise the impacts of noise, odour,	light-spill and overlo	ooking on the habitable rooms and private oper
LOCAL PLANNING FRAMEWORK REQUIREMENT			ENT		
	ramework amend or replace ? If yes, state the applicable	N/A.			

ELEMENT OBJECTIVES	APPLICANT COMMENT	ASSESSOR COMMENT
Development is to achieve the following Element Objectives	Outline the rationale demonstrating that the proposal has met the Element Objectives, through either a performance based solution or using the Acceptable Outcomes. The Design Guidance provided in the policy may be of assistance.	
O3.5.1 – The orientation and design of buildings, windows and balconies minimises direct overlooking of habitable rooms and private outdoor living areas within the site and of neighbouring properties, while maintaining daylight and solar access, ventilation and the external outlook of habitable rooms.	The proposed development does not abut any other privately owned properties, being bound by street frontages to the east, south and west, and Princess May Reserve to the north.  Internally within the subject site, appropriate separation is also provided between windows and balconies, with balconies facing the internal courtyard area being appropriately offset from each other to minimise direct overlooking.  Accordingly, all upper-level balconies and living rooms have an external outlook and are entirely unscreened, consistent with Acceptable Outcomes A3.5.2 and A3.5.3.  Objective satisfied.	

Acceptable Outcome pathway may not be applicable where a performance solution is provided

A3.5.1 - Visual privacy setbacks to side and rear boundaries are provided in accordance with Table 3.5.

Table 3.5 Required privacy setback to adjoining sites

And the second second	First 4 storeys		
Cone of vision from unscreened:	Adjoining sites coded R50 or lower	Adjoining sites coded higher than R50	5th storey and above
Major opening to bedroom, study and open access walkways	4.5m	3m	
Major openings to habitable rooms other than bedrooms and studies	6m	4.5m	Refer Table 2.7
Unenclosed private outdoor spaces	7.5m	6m	

- A3.5.2 Balconies are unscreened for at least 25 per cent of their perimeter (including edges abutting a building).
- A3.5.3 Living rooms have an external outlook from at least one major opening that is not obscured by a screen.
- A3.5.4 Windows and balconies are sited, oriented, offset or articulated to restrict direct overlooking, without excessive reliance on high sill levels or permanent screening of windows and balconies.

LOCAL PLANNING FRAMEWORK	REQUIREMENT
Does the local planning framework amend or replace the above stated controls? If yes, state the applicable requirement:	N/A.

ELEMENT OBJECTIVES	APPLICANT COMMENT	ASSESSOR COMMENT
Development is to achieve the following Element Objectives	Outline the rationale demonstrating that the proposal has met the Element solution or using the Acceptable Outcomes. The Design Guidance provide	
O3.6.1 – The transition between the private and bublic domain enhances the privacy and safety of residents.	The proposed development provides a clearly defined edge to all public realm interfaces, to present clear definition between the private and public domain.  Ground Level residential apartments and townhouse style dwellings are raised above the level of the adjoining public realm, and are provided with operable and visually permeable screening devices, in order to provide an appropriate balance between activation and passive surveillance of the public realm, and the privacy and safety of building occupants.  All access points are clearly defined and visible from the street, and will be well appropriately lit to ensure safety and security at night time.  Objective satisfied.	
O3.6.2 – Street facing development and andscape design retains and enhances the amenity and safety of the adjoining public domain, including the provision of shade.	The proposed development provides a high quality street interface by:  Locating all on-site car parking facilities within the enclosed Basement and Ground Levels, consistent with Acceptable Outcome A3.6.2;  Providing an active street interface at Ground Floor level, to Adelaide Street, Cantonment Street and Princess May Reserve; and  Enhancing passive surveillance of the surrounding public realm through the orientation of balconies and openings to habitable rooms at all levels, consistent with Acceptable Outcome A3.6.3.  Bin storage areas, servicing infrastructure and resident car parking facilities are also located within the proposed building envelope, to ensure these are not visible from the surrounding public realm, consistent with Acceptable Outcomes A3.6.2 and A3.6.8.	

Where street frontage service cabinets are required, these are oriented towards Point Street and integrated with the façade design with compatible colours and finishes, consistent with Acceptable Outcome A3.6.9.

# Objective satisfied.

## ACCEPTABLE OUTCOMES

Acceptable Outroma palloway may not be emplicable where a performance solution is provided

- A3.6.1 The majority of ground floor dwellings fronting onto a street or public open space have direct access by way of a private terrace, balcony or courtyard.
- A3.6.2 Car-parking is not located within the primary street setback; and where car parking is located at ground level behind the street setback it is designed to integrate with landscaping and the building façade (where part of the building).
- A3.6.3 Upper level balconies and/or windows overlook the street and public domain areas.
- **A3.6.4** Balustrading includes a mix of visually opaque and visually permeable materials to provide residents with privacy while maintaining casual surveillance of adjoining public domain areas.
- A3.6.5 Changes in level between private terraces, front gardens and the ground floor level of the building and the street level average less than 1m and do not exceed 1.2m.
- A3.6.6 Front fencing includes visually permeable materials above 1.2m and the average height of solid walls or fences to the street does not exceed 1.2m.
- A3.6.7 Fencing, landscaping and other elements on the frontage are designed to eliminate opportunities for concealment,
- A3.6.8 Bins are not located within the primary street setback or in locations visible from the primary street.
- A3.6.9 Services and utilities that are located in the primary street setback are integrated into the design of the development and do not detract from the amenity and visual appearance of the street frontage. (
- (1) Fireflighting and access to services such as power and water meters require careful consideration in the design of the front façade. Consult early with relevant authorities to resolve functional requirements in an integrated design solution.

LOCAL PLANNING FRAMEWORK	REQUIREMENT
Does the local planning framework amend or replace the above stated controls? If yes, state the applicable requirement:	N/A.

ELEMENT OBJECTIVES	APPLICANT COMMENT	ASSESSOR COMMENT
Development is to achieve the following Element Objectives	Outline the rationale demonstrating that the proposal has met the Element solution or using the Acceptable Outcomes. The Design Guidance provide	
O3.7.1 – Entries and pathways are universally accessible, easy to identify and safe for residents and visitors.	The proposed residential apartment pedestrian entries are clearly visible and directly accessible from the Adelaide Street and Cantonment Street pedestrian footpaths, consistent with Acceptable Outcomes A3.7.1 and A3.7.3.  The main pedestrian entries are also protected from the weather via projecting canopies, consistent with Acceptable Outcome A3.7.2, and will be appropriately lit to ensure safety and security at night.  Objective satisfied.	
O3.7.2 – Entries to the development connect to and address the public domain with an attractive street presence.	The development provides high-quality, active street frontages, with commercial and residential activation at the Ground Level, and additional passive surveillance from the residential apartments above.  Required servicing infrastructure (including waste storage facilities) has been located within the proposed building envelope where possible, to ensure these functions are appropriately screened from view, consistent with Acceptable Outcomes A3.7.5 and A3.7.6.  Objective satisfied.	

ACCEPTABLE OUTCOMES
Acceptable Outcome pathway may not be applicable where a performance solution is provided

- A3.7.1 Pedestrian entries are connected via a legible, well-defined, continuous path of travel to building access areas such as lift lobbies, stairs, accessways and individual dwelling entries.
- A3.7.2 Pedestrian entries are protected from the weather.
- A3.7.3 Pedestrian entries are well-lit for safety and amenity, visible from the public domain without opportunity for concealment, and designed to enable casual surveillance of the entry from within the site.
- A3.7.4 Where pedestrian access is via a shared zone with vehicles, the pedestrian path is clearly delineated and/or measures are incorporated to prioritise the pedestrian and constrain vehicle speed.
- A3.7.5 Services and utilities that are located at the pedestrian entry are integrated into the design and do not detract from the amenity of the entry.

A3.7.6 – Bins are not located at the primary pedestrian entry.		
LOCAL PLANNING FRAMEWORK	REQUIREMENT	
Does the local planning framework amend or replace the above stated controls? If yes, state the applicable requirement:	N/A.	

ELEMENT OF LEGINES	APPLICANT COMMENT	ASSESSOR COMMENT	
ELEMENT OBJECTIVES Development is to active the following Element Objectives	Outline the rationale demonstrating that the proposal has met the Element Objectives, through either a performance based solution or using the Acceptable Outcomes. The Design Guidance provided in the policy may be of assistance.		
O3.8.1 – Vehicle access points are designed and located to provide safe access and egress for vehicles and to avoid conflict with pedestrians, cyclists and other vehicles.	The proposed crossover to Point Street is located well away from street corners to ensure adequate separation of street intersection points, consistent with Acceptable Outcome A3.8.3.  The width of the driveway has also been minimised as far as is practicable, whilst still allowing for safe and efficient access for vehicles, and all vehicles are able to enter and exit the site in a forward gear. The proposed development therefore satisfies Acceptable Outcomes A3.8.5 and A3.8.6.  Compliant visual sightlines are also provided at the egress point of the proposed vehicle crossover, as shown in the accompanying Architectural Plans, and consistent with Acceptable Outcome A3.8.7.  Objective satisfied.		
O3.8.2 – Vehicle access points are designed and ocated to reduce visual impact on the streetscape.	The development incorporates a single vehicle crossover to Point Street, consistent with Acceptable Outcome A3.8.1.  The lack of any dwellings at the Ground Floor fronting Point Street also prevents any risk of headlights shining into habitable rooms, consistent with Acceptable Outcome A3.8.4.  Objective satisfied.		
ACCEPTABLE OUTCOMES Acceptable Outcome pathway may not be applicable where a p	erformanue solulion is provided		
	per 20m street frontage that is visible from the street.		
	reet, while being integrated with the overall façade design and/ or loc	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	

- A3.8.4 Vehicle circulation areas avoid headlights shining into habitable rooms within the development and adjoining properties.
- A3.8.5 Driveway width is kept to a functional minimum, relative to the traffic volumes and entry/egress requirements.
- A3.8.6 Driveways designed for two way access to allow for vehicles to enter the street in forward gear where:
  - the driveway serves more than 10 dwellings
  - the distance from an on-site car parking to the street is 15m or more OR
  - the public street to which it connects is designated as a primary distributor, distributor or integrated arterial road.

A3.8.7 – Walls, fences and other structures truncated or reduced to no higher than 0.75m within 1.5m of where walls, fences, other structures adjoin vehicle access points where a driveway meets a public street and where two streets intersect (refer Figure 3.8a).

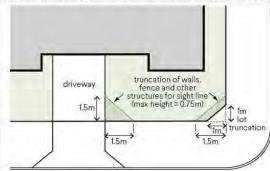


Figure 3.8a Truncation at street corner to provide sightlines (refer A3.8.7).

LOCAL PLANNING FRAMEWORK	REQUIREMENT
Does the local planning framework amend or replace the above stated controls? If yes, state the applicable requirement:	N/A.

ELEMENT OBJECTIVES	APPLICANT COMMENT	ASSESSOR COMMENT	
Development is to achieve the following Element Objectives	Outline the rationale demonstrating that the proposal has met the Element Objectives, through either a performance based solution or using the Acceptable Outcomes. The Design Guidance provided in the policy may be of assistance.		
O3.9.1 – Parking and facilities are provided for cyclists and other modes of transport.	The proposed development provides residential storage areas that are designed to accommodate a wall-mounted bicycle rack for each residential dwelling, as well as 52 separate, secure bicycle parking spaces for residents and visitors at the Ground Level.  This will ensure access to bicycle parking facilities for all proposed residential apartments and anticipated visitor numbers, consistent with Acceptable Outcome A3.9.1.  As noted above, wall mounted bike racks will also be provided within each of the proposed residential stores, to maximise the utility of the residential stores.  Objective satisfied.		
O3.9.2 – Car parking provision is appropriate to the location, with reduced provision possible in areas that are highly walkable and/or have good public transport or cycle networks and/or are close to employment centres.	The proposed development provides a total of 220 resident car parking bays, which meets the minimum requirement for 193 resident bays Acceptable Outcome		
O3.9.3 – Car parking is designed to be safe and accessible.	Car parking areas have been designed to comply with the applicable Australian Standards, as detailed in the supporting Transport Impact Assessment. This is consistent with Acceptable Outcome A3.9.4.  The proposed car parking areas are easily accessible via the proposed Point Street crossover, and are laid out in a		

	legible grid pattern. Car parking areas will also be well lit, for safety and security at night time  Objective satisfied.	
O3.9.4 – The design and location of car parking minimises negative visual and environmental impacts on amenity and the streetscape.	All proposed car parking is located within the building envelope of the Basement and Ground Levels, to ensure these areas are not visible from the surrounding public realm or the proposed residential apartments, consistent with Acceptable Outcomes A3.9.5 and A3.9.6.	
	Objective satisfied.	

Acceptable Outcome pathway may not be applicable where a performance solution is provided

A3.9.1 – Secure, undercover bicycle parking is provided in accordance with Table 3.9 and accessed via a continuous path of travel from the vehicle or cycle entry point.

Table 3.9 Parking ratio

Parking types		Location A	Location B
	1 bedroom dwellings	0.75 bay per dwelling	1 bay per dwelling
Car parking!	2+ bedroom dwellings	1 bay per dwelling	1.25 bays per dwelling
Car parking	Visitor	1 bay per four dwellings up to 12 dwellings 1 bay per eight dwellings for the 13th dwelling and above	
Same many	Resident	0.5 space per dwelling	
Bicycle parking' Visitor		1 space per 10 dwellings	
Motorcycle/ Scooter parking <sup>2</sup>	Developments exceedi	ng 20 dwellings provide 1 mo	torcycle/scooter space for every 10 car bays

Calculations of parking ratios shall be rounded up to the next whole number.

### efinitions:

Location A: within 800m walkable catchment of a train station and/or 250m of a transit stop (bus or light rail) of a high-frequency route and/or within the defined boundaries of an activity centre.

Location B: not within Location A.

- A3.9.2 Parking is provided for cars and motorcycles in accordance with Table 3.9.
- A3.9.3 Maximum parking provision does not exceed double the minimum number of bays specified in Table 3.9
- A3.9.4 Car parking and vehicle circulation areas are designed in accordance with AS2890.1 (as amended) or the requirements of applicable local planning instruments.
- A3.9.5 Car parking areas are not located within the street setback and are not visually prominent from the street.
- A3.9.6 Car parking is designed, landscaped or screened to mitigate visual impacts when viewed from dwellings and private outdoor spaces.
- A3.9.7 Visitor parking is clearly visible from the driveway, is signed 'Visitor Parking' and is accessible from the primary entry or entries.
- A3.9.8 Parking shade structures, where used, integrate with and complement the overall building design and site aesthetics and have a low reflectance to avoid glare into apartments.
- A3.9.9 Uncovered at-grade parking is planted with trees at a minimum rate of one tree per four bays.

For each five motorcycle/scooter parking bays provided in accordance with Table 3.9, car parking bays may be reduced by one bay.

A3.9.10 – Basement parking does not protrude mo impact on the streetscape.	ore than 1m above ground, and where it protrudes above ground is designed or screened to prevent negative visual
OCAL PLANNING FRAMEWORK REQUIREMENT	
Does the local planning framework amend or replace the above stated controls? If yes, state the applicable requirement:	Yes. Residential visitor bays are not required as per Schedule 7 of LPS4.

ELEMENT OR LECTIVES	APPLICANT COMMENT	ASSESSOR COMMENT
ELEMENT OBJECTIVES Development is to achieve the following Element Objectives:	Outline the rationale demonstrating that the proposal has met the Element solution or using the Acceptable Outcomes. The Design Guidance provide	
development is sited and designed to optimise the number of dwellings receiving winter sunlight to	72% of the residential apartments within the development have access to at least two hours of direct sunlight to living rooms and primary balconies on June 21, as shown in the solar access diagrams contained within the accompanying Architectural Design Report. This is consistent with Acceptable Outcome A4.1.1 and satisfies Element Objective O4.1.1.  Objective satisfied.	
	All habitable rooms within the development have at least one clear glazed opening in the external façade, consistent with Acceptable Outcome A4.1.2.  No habitable rooms are reliant on lightwells or skylights for their primary source of daylight, consistent with Acceptable Outcome A4.1.3.  Objective satisfied.	
	Heat gain is minimised by orienting the majority of major openings to the north, east and south.  All western facing windows will also be specified with laminated glass for thermal and acoustic performance, with man major openings set behind inset balconies to minimise heat gain.  The above is consistent with Acceptable Outcome A4.1.4 and meets Element Objective O4.1.3.  Objective satisfied.	

- a) Dwellings with a northern aspect are maximised, with a minimum of 70 per cent of dwellings having living rooms and private open space that obtain at least 2 hours direct sunlight between 9am and 3pm on 21 June AND
- b) A maximum of 15 per cent of dwellings in a building receiving no direct sunlight between 9am and 3pm on 21 June.
- A4.1.2 Every habitable room has at least one window in an external wall, visible from all parts of the room, with a glazed area not less than 10 per cent of the floor area and comprising a minimum of 50 per cent of clear glazing.
- A4.1.3 Lightwells and/or skylights do not form the primary source of daylight to any habitable room.
- A4.1.4 The building is oriented and incorporates external shading devices in order to:
  - minimise direct sunlight to habitable rooms:
    - . between late September and early March in climate zones 4, 5 and 6 only AND
    - in all seasons in climate zones 1 and 3
  - permit winter sun to habitable rooms in accordance with A 4.1.1 (a).

LOCAL PLANNING FRAMEWORK	REQUIREMENT
Does the local planning framework amend or replace the above stated controls? If yes, state the applicable requirement:	N/A.

ELEMENT 4.2 NATURAL VE		
ELEMENT OBJECTIVES	APPLICANT COMMENT	ASSESSOR COMMENT
Development is to achieve the following Element Objective	Outline the rationale demonstrating that the proposal has met the Element Objectives, through either a performance solution or using the Acceptable Outcomes. The Design Guidance provided in the policy may be of assistance.	
O4.2.1 – Development maximises the number apartments with natural ventilation.	89% of the proposed residential apartments are capable of natural cross ventilation, including:  29% corner units with a dual aspect; and 60% single aspect apartments that are oriented between 45° and 90° of the prevailing cooling wind direction.  This meets and exceeds the requirements of Acceptable Outcome A4.2.2 and will provide a high level of residential amenity.  Objective satisfied.	
O4.2.2 – Individual dwellings are designed to optimise natural ventilation of habitable rooms	All habitable rooms within the development have access to natural ventilation via the provision of operable window and door openings in the external façade. This meets the requirements of Acceptable Outcome A4.2.1.	

	Objective satisfied.	
O4.2.3 – Single aspect apartments are designed to maximise and benefit from natural ventilation.	All single aspect apartments are designed with shallow floorplates, with all living areas designed in accordance with Acceptable Outcome A4.3.4 of the R-Codes Volume 2. This ensures appropriate natural ventilation opportunities for single aspect apartments.  Objective satisfied.	
ACCEPTABLE OUTCOMES		
Acceptable Outcome pathway may not be applicable where a p	set two walls with a straight line distance between the centre of the	nnenings of at least 2.1m
Market Committee		P-1000 - 10 - 11 - 12 - 11 - 11 - 11 - 11
<ul> <li>(a) A minimum 60 per cent of dwellings are, o</li> <li>(b) Single aspect apartments included within t</li> <li>ventilation openings oriented between</li> <li>room depth no greater than 3 × ceiling</li> </ul>	or are capable of, being naturally cross ventilated in the first nine stouthe 60 per cent minimum at (a) above must have: $45^{\circ}-90^{\circ} \text{ of the prevailing cooling wind direction AND}$	reys of the building
<ul> <li>(b) Single aspect apartments included within t</li> <li>ventilation openings oriented between</li> <li>room depth no greater than 3 × ceiling</li> <li>(c) For dwellings located at the 10th storey or</li> </ul>	or are capable of, being naturally cross ventilated in the first nine stouthe 60 per cent minimum at (a) above must have: $45^{\circ}-90^{\circ}$ of the prevailing cooling wind direction <b>AND</b> properties the prevail of the	reys of the building
<ul> <li>(a) A minimum 60 per cent of dwellings are, o</li> <li>(b) Single aspect apartments included within t</li> <li>ventilation openings oriented between</li> <li>room depth no greater than 3 × ceiling</li> <li>(c) For dwellings located at the 10th storey or</li> </ul>	or are capable of, being naturally cross ventilated in the first nine sto the 60 per cent minimum at (a) above must have: 45° – 90° of the prevailing cooling wind direction <b>AND</b> pheight above, balconies incorporate high and low level ventilation opening the apartments with openings at either end and no openings on side	reys of the building
<ul> <li>(a) A minimum 60 per cent of dwellings are, o</li> <li>(b) Single aspect apartments included within t</li> <li>ventilation openings oriented between</li> <li>room depth no greater than 3 × ceiling</li> <li>(c) For dwellings located at the 10th storey or</li> <li>A4.2.3 – The depth of cross-over and cross-through</li> </ul>	or are capable of, being naturally cross ventilated in the first nine sto the 60 per cent minimum at (a) above must have: 45° – 90° of the prevailing cooling wind direction <b>AND</b> pheight above, balconies incorporate high and low level ventilation opening the apartments with openings at either end and no openings on side	reys of the building

ELEMENT OBJECTIVES	APPLICANT COMMENT	ASSESSOR COMMENT	
ELEMEN I OBJECTIVES Development is to achieve the following Element Objective:	Outline the rationale demonstrating that the proposal has met the Element solution or using the Acceptable Outcomes. The Design Guidance provide		
O4.3.1 – The internal size and layout of dwellings is functional with the ability to flexibly accommodate furniture settings and personal goods, appropriate to the expected household size.	All of the apartments within the development significantly meet and exceed the minimum internal floor area requirements of Acceptable Outcome A4.3.1, based on:  • A minimum internal floor area of 39m² for the proposed studio apartments;  • A minimum internal floor area of 48m² for each of the proposed one-bedroom apartments;  • A minimum internal floor area of 69m² for the proposed two-bedroom, one-bathroom apartments;  • A minimum internal floor area of 82m² for the proposed two-bedroom, two-bathroom apartments; and  • A minimum internal floor area of 108m² the proposed three-bedroom apartments.  The large, functional floorplates provide flexibility to accommodate residents desired furniture settings and personal goods, including generously sized living rooms, kitchens and laundries.  Objective satisfied.		
O4.3.2 – Ceiling heights and room dimensions provide for well-proportioned spaces that facilitate good natural ventilation and daylight access.	All bedrooms and living areas within the development are of a generous size, that meet and exceed Acceptable Outcome A4.3.2.  The proposed development also provides minimum 2.7 metres ceiling heights, consistent with Acceptable Outcome A4.3.3.  All open plan living areas ether benefit from a dual aspect or have a depth of less than the permitted 8.1 metres, or 9.1 metres including kitchens positioned at the rear of open plan living areas, consistent with Acceptable Outcome A4.3.4.		

Acceptable Outcome pathiray may not be applicable where a performance solution is provided

A4.3.1 - Dwellings have a minimum internal floor area in accordance with Table 4.3a.

Table 4-3a Minimum floor areas for dwelling types

Dwelling type	Minimum internal
Studio	37m²
f bed	47m <sup>1</sup>
2 bed x 1 bath	B7mi
3 bed # 1 bath	90m=

An additional Sm<sup>2</sup> shall be provided for designs that include a second preparate roller, and Sm<sup>2</sup> for designs that include a second partitions.

A4.3.2 - Habitable rooms have minimum floor areas and dimensions in accordance with Table 4.3b.

Table 4.3b Minimum floor greas and dimensions for habitable rooms

Habitable room type	Minimum internal floor area	Minimum internal dimension
Master bedroom	19tn6	эп
Other bedrooms	916	317
Living room – studio and 1 bed apartments	N/A	36m
Living room – other owelling types	N/A	4m

A4.3.3 - Measured from the finished floor level to finished ceiling level, minimum ceiling heights are:

- Habitable rooms 2.7m
- Non-habitable rooms 2.4m
- All other ceilings meet or exceed the requirements of the NCC.

A4.3.4 – The length of a single aspect open plan living area is equal to or less than 3 x the ceiling height. An additional 1.8m length may be provided for a kitchen, where the kitchen is the furthest point from the window in an open plan living area provided that the maximum length does not exceed 9m.

LOCAL PLANNING FRAMEWORK	REQUIREMENT	
Does the local planning framework amend or replace the above stated controls? If yes, state the applicable requirement:	N/A.	

ELEMENT OBJECTIVES	APPLICANT COMMENT	ASSESSOR COMMENT	
Development in to active the following Element Objectives	Outline the rationale demonstrating that the proposal has met the Element Objectives, through either a performance based solution or using the Acceptable Outcomes. The Design Guidance provided in the policy may be of assistance.		
O4.4.1 – Dwellings have good access to appropriately sized private open space that enhances residential amenity.	The development includes fully compliant balconies sizes as specified in Acceptable Outcome A4.4.1 for the one, two and three- bedroom apartments.  However, a variation is sought for the proposed studio apartments, which are specified with a Juliet balcony only, in order to maximise available internal space, whilst maintaining affordability as a key driver behind the provision of the studio apartments. These will offer a point of difference in the Fremantle market, offering affordable living options for singles and couples, whilst still being able to take advantage of the large communal courtyard at Level 1 of the proposed development, and the existing landscaped amenity within the adjacent Princess May Reserve. As such, the provision of Juliet balconies to the proposed studio apartments is considered acceptable in this instance, having regard to the extensive communal amenities offered within the development.		
	Objective satisfied.		
O4.4.2 – Private open space is sited, oriented and designed to enhance liveability for residents.	Proposed balconies are located and designed to capitalise on available views from the subject site and northern solar access, offering high levels of amenity of residents. No screening is proposed to balconies.  Objective satisfied.		
O4.4.3 – Private open space and balconies are integrated into the overall architectural form and detail of the building.	The proposed residential balconies represent an integral component of the overall design solution and contribute to the high aesthetic quality of the development, consistent with Acceptable Outcomes A4.4.3.		
	Objective satisfied.		

Acceptable Outcome pathway may not be applicable where a performance solution is provided

A4.4.1 - Each dwelling has private open space accessed directly from a habitable room with dimensions in accordance with Table 4.4.

Table 4.4 Private open space requirements

Dwelling type	Minimum Area <sup>1</sup>	Minimum Dimension
Studio apartment + 1 bedroom	8m²	2.0m
2 bedroom	10m²	2.4m
3 bedroom	12m²	2.4m
Ground floor / apartment with a terrace	15m <sup>2</sup>	3m

Services and fixtures located within private open space, including but not limited to air-conditioner units and clothes drying, are not visible from the street and/or are integrated into the building design.

A4.4.2 – Where private open space requires screening to achieve visual privacy requirements, the entire open space is not screened and any screening is designed such that it does not obscure the outlook from adjacent living rooms.

A4.4.3 - Design detailing, materiality and landscaping of the private open space is integrated with or complements the overall building design.

A4.4.4 – Services and fixtures located within private open space, including but not limited to air-conditioner units and clothes drying, are not visible from the street and/or are integrated into the building design.

LOCAL PLANNING FRAMEWORK	REQUIREMENT
Does the local planning framework amend or replace the above stated controls? If yes, state the applicable requirement:	N/A.

ELEMENT 4.5	CIRCULATION A	RCULATION AND COMMON SPACES	
ELEMENT OBJECTIVES  Development is to achieve the following Element Objectives		APPLICANT COMMENT	ASSESSOR COMMENT
		Outline the rationale demonstrating that the proposal has met the Element Objectives, through either a performance based solution or using the Acceptable Outcomes. The Design Guidance provided in the policy may be of assistance.	
<b>O4.5.1</b> – Circulation spaces have adequate size and capacity to provide safe and convenient access for all residents and visitors.		Common corridors within the residential component of the development have a minimum width of 1.6 metres, in excess of the minimum requirements of Acceptable Outcome A4.5.1.	
		Access to a step free path of travel from the street is also provided throughout the common areas within the proposed development, to ensure universal access via	

	the residential lift cores in accordance with Acceptable Outcome A4.5.2.  Objective satisfied.
O4.5.2 – Circulation and common spaces are attractive, have good amenity and support opportunities for social interaction between residents.	The proposed development includes a large landscaped communal terrace for residents at Level 1, offering opportunities for social Interaction and a desirable northern aspect.  A landscape buffer is provided between the Level 1 communal space and the adjacent residential apartment terraces, to provide for visual and acoustic privacy to address Acceptable Outcome A4.5.5. However, the Level 1 communal space is still provided with an appropriate level of passive surveillance from upper level residential apartment windows and balconies.  All circulation and common areas will be provided with appropriate lighting to enhance useability at night, whilst maintaining compliance with Australian Standard AS4282: Control of obtrusive effects of outdoor lighting, consistent with Acceptable Outcome A4.5.4.  Objective satisfied.
ACCEPTABLE OUTCOMES Acceptable Outcome pathway may not be applicable where a p	performance solution is provided
A4.5.1 – Circulation corridors are a minimum 1.5m	
A4.5.2 – Circulation and common spaces are desi	gned for universal access.
A4.5.3 – Circulation and common spaces are capa	able of passive surveillance, include good sightlines and avoid opportunities for concealment.
A4.5.4 - Circulation and common spaces can be i	lluminated at night without creating light spill into the habitable rooms of adjacent dwellings.
A4.5.5 – Bedroom windows and major openings to manage noise intrusion.	b living rooms do not open directly onto circulation or common spaces and are designed to ensure visual privacy and
LOCAL PLANNING FRAMEWORK	REQUIREMENT
Does the local planning framework amend or replace the above stated controls? If yes, state the applicable requirement:	N/A.

el buelle on leaguino	APPLICANT COMMENT	ASSESSOR COMMENT
ELEMENT OBJECTIVES Development is to achieve the tollowing Element Objectives	Outline the rationale demonstrating that the proposal has met the Element Objectives, through either a performance based solution or using the Acceptable Outcomes. The Design Guidance provided in the policy may be of assistance.	
O4.6.1 – Well-designed, functional and conveniently located storage is provided for each dwelling.	Each apartment is provided with a weatherproof storage area as required under Acceptable Outcome A4.6.1.  Allocated storage areas are accessible either from within the individual apartment, or within the proposed car parking levels, as permitted under Acceptable Outcome A4.6.1.  Consistent with Acceptable Outcome A4.6.1, residential storage areas have been sized as follows:   3m² for studio and one-bedroom dwellings.  4m² for two-bedroom dwellings.  5m² for three-bedroom dwellings.	

ACCEPTABLE OUTCOMES
Acceptable Outcome pathway may not be applicable where a performance solution is provided.

**A4.6.1** – Each dwelling has exclusive use of a separate, ventilated, weatherproof, bulky goods storage area. This can be located either internally or externally to the dwelling with dimensions in accordance with Table 4.6.

Table 4.6 Storage requirements

Dwelling type	Storage area <sup>1</sup>	Minimum dimension <sup>1</sup>	Minimum height <sup>†</sup>
Studio dwelling	3m²		
1 bedroom dwelling	3m <sup>2</sup>		21-
2 bedroom dwellings	4m <sup>2</sup>	1.5m 2.1n	
3 bedroom dwellings	5m²		

A4.6.2 – Bulky good stores that are not directly accessible from the dwelling/private open space are located in areas that are convenient, safe, well-lit, secure and subject to passive surveillance.

A4.6.3 – Storage provided separately from dwellings or within or adjacent to private open space<sup>1</sup>, is integrated into the design of the building or open space and is not readily visible from the public domain.

(1) Storage on/adjacent to private open space is additional to required open space area and dimensions.

LOCAL PLANNING FRAMEWORK	REQUIREMENT
Does the local planning framework amend or replace the above stated controls? If yes, state the applicable requirement:	N/A.

ELEMENT OBJECTIVES  Development is to active the following Element Objectives		APPLICANT COMMENT	ASSESSOR COMMENT
		Outline the rationale demonstrating that the proposal has met the Element Objectives, through either a performance based solution or using the Acceptable Outcomes. The Design Guidance provided in the policy may be of assistance.	
O4.7.1 – The siting and layout of development minimises the impact of external noise sources and provides appropriate acoustic privacy to dwellings and on-site open space.  O4.7.2 – Acoustic treatments are used to reduce sound transfer within and between dwellings and to reduce noise transmission from external noise sources.		This application is accompanied by an Acoustic Report prepared by Stantec, which details the recommended acoustic treatments that will be implemented to ensure compliance with SPP5.4 and applicable requirements	
		under the NCC. These recommended acoustic treatments will be adopted during detailed design, with an additional Acoustic Report to be provided at the Building Permit stage.  Potential noise sources, including driveways, service areas, mechanical equipment and plant rooms are located within the Basement, Ground and Roof levels, away from habitable rooms of the proposed residential apartments, consistent with Acceptable Outcome A4.7.2.  Objectives satisfied.	
ACCEPTABLE OUTCO			
AND DESCRIPTION OF THE PARTY OF	y máy not be applicable where a p		
<b>A4.7.1</b> – Dwellings exc equivalent).	eed the minimum requireme	ents of the NCC, such as a rating under the AAAC Guideline for Apart	ment and Townhouse Acoustic Rating (or
		oors, driveways, service areas, plant rooms, building services, mecha ernal wall of habitable rooms or within 3m of a window to a bedroom.	anical equipment, active communal open space
AA 7.2 Major opening	rs to babitable rooms are or	ented away or shielded from external noise sources.	

LOCAL PLANNING FRAMEWORK	REQUIREMENT
Does the local planning framework amend or replace the above stated controls? If yes, state the applicable requirement:	N/A.

ELEMENT OBJECTIVES	APPLICANT COMMENT	ASSESSOR COMMENT	
Development is to achieve the following Element Chiectives		Outline the rationale demonstrating that the proposal has met the Element Objectives, through either a performance based solution or using the Acceptable Outcomes. The Design Guidance provided in the policy may be of assistance.	
O4.8.1 – A range of dwelling types, sizes and configurations is provided that caters for diverse nousehold types and changing community demographics.	The proposed development provides a diverse range of dwelling types, sizes and configurations, comprising:  9.5% (21) studio apartments; 40% (88) one-bedroom apartments; 40% (106) two-bedroom apartments; and 2.5% (5) three-bedroom apartments.  This will contribute to housing choice in the locality, including affordable studios and one-bedroom apartments, and opportunities for larger household groups.  Opportunities to further broaden the availability of housing choice have also been considered through the provision of adaptable floorplates, with the ability to convert adjoining one-bedroom apartments to cater for larger households subject to purchaser demand.  The proposed dwelling mix meets the requirements of Acceptable Outcome A4.8.1, with different dwelling types being appropriately distributed throughout the development in accordance with Acceptable Outcome A4.8.2.  Objective satisfied.		
ACCEPTABLE OUTCOMES Acceptable Outcome pathway may not be applicable where	a performance solution is provided		
A4.8.1 –  a) Dwelling mix is provided in accordance	with the objectives, proportions or targets specified in a local housing str , developments of greater than 10 dwellings include at least 20 per cen		
A4.8.2 – Different dwelling types are well distrib	ited throughout the development, including a mix of dwelling types on e	ach floor.	
LOCAL PLANNING FRAMEWORK	REQUIREMENT		

Does the local planning framework amend or replace the above stated controls? If yes, state the applicable requirement:	N/A.
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ELEMENT 4.9 UNIVERSAL DES	SIGN	
ELEMENT OBJECTIVES	APPLICANT COMMENT	ASSESSOR COMMENT
Development is to achieve the following Element Objectives	Outline the rationale demonstrating that the proposal has met the Element Objectives, through either a performance based solution or using the Acceptable Outcomes. The Design Guidance provided in the policy may be of assistance.	
O4.9.1 – Development includes dwellings with universal design features providing dwelling options for people living with disabilities or limited mobility and/or to facilitate ageing in place.	The proposed development includes 44 residential apartments that are designed to meet the Silver Level requirements of the Liveable Housing Design Guidelines. This represents 20% of the total number of residential apartments proposed, which meets and exceeds the requirements of Acceptable Outcome A4.9.1.  The specific units that are designed to meet these requirements are nominated in the accompanying Architectural Design Report.  Objective satisfied.	
ACCEPTABLE OUTCOMES Acceptable Outcome pathway may not be applicable where a p	performance solution is provided	
A4.9.1 –		
Housing Australia) OR	e of dwelling sizes, meet Silver Level requirements as defined in the Latinum Level as defined in the Liveable Housing Design Guidelines (L	
LOCAL PLANNING FRAMEWORK	REQUIREMENT	
Does the local planning framework amend or replace the above stated controls? If yes, state the applicable requirement:	N/A.	

ELEMENT 4.10 FAÇADE DESIGN	,	
ELEMENT OBJECTIVES	APPLICANT COMMENT	ASSESSOR COMMENT
Development is to achieve the following Eliment Objectives	Outline the rationale demonstrating that the proposal has met the Element solution or using the Acceptable Outcomes. The Design Guidance provide	
O4.10.1 – Building façades incorporate proportions, materials and design elements that respect and reference the character of the local area.	As detailed in the main Development Application Report, the proposed façade design is informed by a detailed analysis of the surrounding context. This results in a design that is reflective of the local Fremantle character, whilst providing high levels of articulation and visual interest in accordance with Acceptable Outcome A4.10.1.  The development also provides a clearly defined base, middle and top, as detailed in the main Development Application Report. This is consistent with the intent of Acceptable Outcome A4.10.2.  Objective satisfied.	
O4.10.2 – Building façades express internal functions and provide visual interest when viewed from the public realm.	The building façade design and open balconies provide a distinctly residential aesthetic that is reflective of the primary internal function of the building.  Objective satisfied.	
ACCEPTABLE OUTCOMES Acceptable Quicome pathway may not be applicable where a pe	rformance solution is provided	
	ailing at lower levels that reflect the scale, character and function of a combination of building articulation, the composition of different ele	
A4.10.2 – In buildings with height greater than four	storeys, façades include a defined base, middle and top for the build	ling.
A4.10.3 – The façade includes design elements tha colonnade heights.	t relate to key datum lines of adjacent buildings through upper level	setbacks, parapets, cornices, awnings or
A4.10.4 - Building services fixtures are integrated in	n the design of the façade and are not visually intrusive from the pub	ilic realm.

A4.10.5 – Development with a primary setback of 1m or less to the street includes awnings that:

- define and provide weather protection to entries

are integrated into the façade design
are consistent with the streetscape character.

LOGAL PLANNING FRAMEWORK	REQUIREMENT	
Does the local planning framework amend or replace the above stated controls? If yes, state the applicable requirement:	N/A.	

ELEMENT OBJECTIVES	APPLICANT COMMENT	ASSESSOR COMMENT	
Development is to achieve the following Element Objectives	Outline the rationale demonstrating that the proposal has met the Element Objectives, through either a performance based solution or using the Acceptable Outcomes. The Design Guidance provided in the policy may be of assistance.		
O4.11.1 – Roof forms are well integrated into the building design and respond positively to the street.	The roof form of the proposed development seeks to frame the skyline in a manner that is inspired by the industrial vernacular of Fremantle, with the two upper levels clad in a metallic finish that creates a lighter transition to the sky, and framed openings that create a profiled silhouette to the building form. This will provide a positive contribution to the streetscape and local skyline, consistent with Acceptable Outcome A4.11.1.  All rooftop services will be screened from view from the street and surrounding properties. This can be reinforced via a standard condition of planning approval, to ensure consistency with Acceptable Outcome A4.11.2.  Objective Satisfied.		
O4.11.2 – Where possible, roof spaces are utilised to add open space, amenity, solar energy generation or other benefits to the development.	Podium rooftop communal facilities are provided in the form of the Level 1 courtyard and pool area.  Rooftop solar panels are also proposed on top of both the residential apartment buildings, to provide power for common areas within the development.  Objective satisfied.		
ACCEPTABLE OUTCOMES Acceptable Outcome pathway may not be applicable where a p	adornanca coldica is movidad		
	nents the façade design and desired streetscape character.		
A4.11.2 – Building services located on the roof are	not visually obtrusive when viewed from the street.		
A4.11.3 – Useable roof space is safe for users and adjoining sites.	minimises overlooking and noise impacts on private open space and	d habitable rooms within the development and on	
LOCAL PLANNING FRAMEWORK	REQUIREMENT		
Does the local planning framework amend or replace the above stated controls? If yes, state the applicable requirement:	N/A.		

ELEMENT OBJECTIVES	APPLICANT COMMENT	ASSESSOR COMMENT	
Development is to achieve the following Element Objectives	Outline the rationale demonstrating that the proposal has met the Element Objectives, through either a performance based solution or using the Acceptable Outcomes. The Design Guidance provided in the policy may be of assistance.		
O4.12.1 – Landscape design enhances streetscape and pedestrian amenity; improves the visual appeal and comfort of open space areas; and provides an attractive outlook for habitable rooms.	The proposed landscaping assists in softening the built form interface to Princess May Reserve, offers shaded amenity within the proposed communal courtyard, provides an attractive outlook for habitable rooms and balconies within the development, and will contribute to long-term tree canopy in the area.  Proposed verge tree upgrades within Point Street and Adelaide Street will also enhance pedestrian shade and amenity within the adjacent public realm.  This is consistent with Acceptable Outcome A4.12.2.		
	Objective satisfied.		
O4.12.2 – Plant selection is appropriate to the orientation, exposure and site conditions and is suitable for the adjoining uses.	The landscaping plans and species selections have been undertaken by an experienced landscape architect, to ensure that plant species are appropriate for the subject site and local climatic conditions. This is consistent with Acceptable Outcome A4.12.1.  Areas of on-structure landscaping have also been designed to ensure sufficient soil depth and volume to support healthy plant growth for the nominated species, as detailed in the supporting Landscape Design Report.  Objective satisfied.		
O4.12.3 – Landscape design includes water efficient irrigation systems and where appropriate incorporates water harvesting or water re-use technologies.	Trees and plants will be irrigated by a water efficient irrigation system, as noted in the accompanying Landscape Design report with further details to be provided at the Building Permit stage.  Objective satisfied, with further details to be provided at the Building Permit stage.		
O4.12.4 – Landscape design is integrated with the design intent of the architecture including its built	The proposed landscape design responds to the form and materiality of the proposed development, providing		

form, materiality, key functional areas and sustainability strategies.	areas of landscaping in key zones that assist in managing the built form interface to the adjacent Princess May Reserve.	
	Objective satisfied.	

Acceptable Outcome pathway may not be applicable where a performance solution is provided

- A4.12.1 Submission of a landscape plan prepared by a competent landscape designer. This is to include a species list and irrigation plan demonstrating achievement of Waterwise design principles.
- A4.12.2 Landscaped areas are located and designed to support mature, shade-providing trees to open space and the public realm, and to improve the outlook and amenity to habitable rooms and open space areas.
- A4.12.3 Planting on building structures meets the requirements of Table 4.12.

Table 4.12 Planting on structure: minimum soil standards for plant types and sizes

Plant type	Definition	Soil volume	Soil depth	Soil area
Large tree	Over 12m high, crown spread at maturity	76.8m³	1,200mm	64m² with minimum dimension 7m
Medium tree	8-12m high, crown spread at maturity	36m³	1,000mm	36m² with minimum dimension 5m
Small tree	4-8m high, crown spread at maturity	7,2m³	800mm	3m×3m
Small ornamentals	3-4m high, crown spread at maturity	3.2m³	800mm	2m × 2m
Shrubs	+		500-600mm	12-
Ground cover		F-(	300-450mm	-
Turf	227		200mm	-77

A4.12.4 – Building services fixtures are integrated in the design of the landscaping and are not visually intrusive.

LOCAL PLANNING FRAMEWORK	REQUIREMENT
Does the local planning framework amend or replace the above stated controls? If yes, state the applicable requirement:	N/A.

ELEMENT 4.13 ADAPTIVE REUS	5	
ELEMENT OBJECTIVES	APPLICANT COMMENT	ASSESSOR COMMENT
Development is to achieve the following Element Objectives:	Outline the rationale demonstrating that the proposal has met the Element Objectives, through either a performance based solution or using the Acceptable Outcomes. The Design Guidance provided in the policy may be of assistance.	
O4.13.1 – New additions to existing buildings are contemporary and complementary and do not detract from the character and scale of the existing building.	The proposed development does not involve the adaptive reuse of an existing building.  N/A.	
O4.13.2 – Residential dwellings within an adapted building provide good amenity for residents, generally in accordance with the requirements of this policy.	The proposed development does not involve the adaptive reuse of an existing building.  N/A.	
ACCEPTABLE OUTCOMES Acceptable Outcome pathway may not be applicable where a p	erformance solution is provided	
A4.13.1 - New additions to buildings that have her	itage value do not mimic the existing form and are clearly identifiable	from the original building.
A4.13.2 – New additions complement the existing	ouilding by referencing and interpreting the scale, rhythm and materia	ality of the building.
LOCAL PLANNING FRAMEWORK	REQUIREMENT	
Does the local planning framework amend or replace the above stated controls? If yes, state the applicable requirement:	N/A.	

ELEMENT OBJECTIVES	APPLICANT COMMENT	ASSESSOR COMMENT
Development is to achieve the following Element Objectives:	Outline the rationale demonstrating that the proposal has met the Element Objectives, through either a performance based solution or using the Acceptable Outcomes. The Design Guidance provided in the policy may be of assistance.	
O4.14.1 – Mixed use development enhances the streetscape and activates the street.	The proposed development provides a highly activated street level interface with surrounding streets, with commercial tenancies to the primary Adelaide Street frontages, and residential dwellings fronting Princess May Park and Cantonment Street, consistent with Acceptable Outcome A4.14.2.  Ground floor commercial tenancies are accessed directly from the street frontage, consistent with Acceptable Outcome A4.14.3.  Objective satisfied.	
O4.14.2 – A safe and secure living environment for residents is maintained through the design and management of the impacts of non-residential uses such as noise, light, odour, traffic and waste.	Residential and non-residential uses are provided with appropriate separation through location and orientation, and the provision of separate, secure entry lobbies. This will ensure a safe living environment for residents, consistent with Acceptable Outcome A4.14.5.  Objective satisfied.	

- A4.14.1 Where development is located within a mixed use area designated within the local planning framework, ground floor units are designed for future adaption to non-residential uses.
- A4.14.2 Ground floor uses including non-commercial uses, such as communal open space, habitable rooms, verandahs and courtyards associated with ground floor dwellings, address, enhance and activate the street.
- A4.14.3 Non-residential space in mixed use development is accessed via the street frontage and/or primary entry as applicable.
- A4.14.4 Non-residential floor areas provided in mixed use development has sufficient provision for parking, waste management, and amenities to accommodate a range of retail and commercial uses in accordance with the requirements
- A4.14.5 Mixed use development is designed to mitigate the impacts of non-residential uses on residential dwellings, and to maintain a secure environment for residents.

LOCAL PLANNING FRAMEWORK	REQUIREMENT
Does the local planning framework amend or replace the above stated controls? If yes, state the applicable requirement:	N/A.

el ellette en leamine.	APPLICANT COMMENT	ASSESSOR COMMENT	
ELEMENT OBJECTIVES Development is to achieve the following Element Objectives	Outline the rationale demonstrating that the proposal has met the Element Objectives, through either a performance based solution or using the Acceptable Outcomes. The Design Guidance provided in the policy may be of assistance.		
O4.15.1 – Reduce energy consumption and greenhouse gas emissions from the development.	The proposed residential apartments will achieve an average NatHERS rating of at least 7.0 as part of the 5 Star Green Star equivalency requirements, as detailed in the supporting Sustainability Report.  Rooftop solar panels are also proposed to provide power to common areas within the development, consistent with Acceptable Outcome A4.15.1(a).  Objective satisfied.		
ACCEPTABLE OUTCOMES Accaptable Outcome pathway may not be applicable where a p	erformárice solulion is provided		
<ul> <li>b) All dwellings exceed the minimum NAT Compliance with the NCC requires that development shall achie</li> </ul>	ergy efficiency initiative within the development that exceeds minimun FHERS requirement for apartments by 0.5 stars.   eve an average star-rating across all dwellings that meets or exceeds a nominated ber that each unit exceeds that lower benchmark by at least half a star.		
LOCAL PLANNING FRAMEWORK	REQUIREMENT		
Does the local planning framework amend or replace	N/A.		

ELEMENT OBJECTIVES	APPLICANT COMMENT	ASSESSOR COMMENT	
Development is to achieve the following Element Objectives	Outline the rationale demonstrating that the proposal has met the Element Objectives, through either a performance based solution or using the Acceptable Outcomes. The Design Guidance provided in the policy may be of assistance.		
O4.16.1 – Minimise potable water consumption throughout the development.	The proposed development will include water efficient fixtures and fittings, with each apartment able to be individually metred for water usage, in accordance with Acceptable Outcome A4.16.1.  Waterwise plantings and waterwise irrigation systems are also proposed as part of the landscape design, as discussed in detail in relation to Element 4.12.  Objective satisfied.		
O4.16.2 – Stormwater runoff from small rainfall events is managed on-site, wherever practical.	A preliminary stormwater plan has been prepared to support this application and is enclosed as Appendix K.		
O4.16.3 – Reduce the risk of flooding so that the likely impacts of major rainfall events will be minimal.	The proposed stormwater design will be refined in consultation with the City, with this matter able to be appropriately dealt with via a condition of planning approval.  Objective to be satisfied through requested condition of approval.		
ACCEPTABLE OUTCOMES	or approval.		
Acceptable Outcome pathway may not be applicable where a ρ	erformance solution is provided		
A4.16.1 – Dwellings are individually metered for wa	ater usage.		
A4.16.2 – Stormwater runoff generated from small	rainfall events is managed on-site.		
A4.16.3 – Provision of an overland flow path for sa	fe conveyance of runoff from major rainfall events to the local stormw	rater drainage system.	
LOCAL PLANNING FRAMEWORK	REQUIREMENT		
Does the local planning framework amend or replace the above stated controls? If yes, state the applicable requirement:	N/A.		

ELEMENT OBJECTIVES	APPLICANT COMMENT	ASSESSOR COMMENT	
Development is to achieve the following Element Objectives	Outline the rationale demonstrating that the proposal has met the Element Objectives, through either a performance based solution or using the Acceptable Outcomes. The Design Guidance provided in the policy may be of assistance.		
O4.17.1 – Waste storage facilities minimise negative impacts on the streetscape, building entries and the amenity of residents.	Waste storage facilities are located internally within the Ground Level of the proposed development, such that stored bins will not be visible from the street or any of the dwellings or communal amenity areas within the development. This is consistent with Acceptable Outcome A4.17.4.  Objective satisfied.		
O4.17.2 – Waste to landfill is minimised by providing safe and convenient bins and information for the separation and recycling of waste.	Waste management procedures are addressed in detail in the accompanying Waste Management Plan (WMP), which provides for the separate storage and collection of general waste, recyclables and FOGO materials.  The WMP is consistent with Acceptable Outcomes A4.17.1, A4.17.2 and A4.17.3.  Objective satisfied.		
ACCEPTABLE OUTCOMES Acceptable Outcome pathway may not be applicable witere a p	performance solution is provided		
	accordance with the Better Practice considerations of the WALGA ML	ultiple Dwelling Waste Management Plan	
A4.17.2 – A Level 1 Waste Management Plan (De Appendix 4A (or equivalent local government requ	sign Phase) is provided in accordance with the WALGA Multiple Dwe irements).	lling Waste Management Plan Guidelines -	
	date the required number of bins for the separate storage of green wa ment Plan Guidelines - Level 1 Waste Management Plan (Design Pha		
A4.17.4 - Communal waste storage is sited and d	esigned to be screened from view from the street, open space and pr	ivate dwellings.	
LOCAL PLANNING FRAMEWORK	REQUIREMENT	-	
Does the local planning framework amend or replace the above stated controls? If yes, state the applicable requirement:	N/A.		

ELEMENT OBJECTIVES	APPLICANT COMMENT	ASSESSOR COMMENT
Development is to achieve the following Element Objectives	Outline the rationale demonstrating that the proposal has met the Element solution or using the Acceptable Outcomes. The Design Guidance provide	
O4.18.1 –The site is serviced with power, water, gas (where available), wastewater, fire services and telecommunications/broadband services that are fit for purpose and meet current performance and access requirements of service providers.	All required utilities are available to the subject site, including power, water, gas, wastewater and NBN telecommunications services, consistent with Acceptable Outcome A4.18.2.  Objective satisfied.	
O4.18.2 – All utilities are located such that they are accessible for maintenance and do not restrict safe movement of vehicles or pedestrians.	Required servicing infrastructure (including waste storage facilities) has been located within the proposed building envelope, to ensure these functions are appropriately	
O4.18.3 – Utilities, such as distribution boxes, power and water meters are integrated into design of buildings and landscape so that they are not visually obtrusive from the street or open space within the development.	screened from view, consistent with Acceptable Outcomes A4.18.1.  Where street frontage service cabinets are required, these are oriented towards the secondary Point Street frontage and have been integrated with the façade design. This is also being considered as a public art opportunity to maintain vitality within the streetscape.  Objectives satisfied.	
O4.18.4 – Utilities within individual dwellings are of a functional size and layout and located to minimise noise or air quality impacts on habitable rooms and balconies.	Services and utilities are located and screened so as to reduce visual and acoustic impacts to residents of neighbouring properties, with required utilities located within the building envelope at Ground and Basement Level, or within the screened rooftop service compounds. This is consistent with Acceptable Outcome A4.18.3.  Suitable laundry facilities are also provided within each individual apartment, consistent with Acceptable Outcome A4.18.4.  Objective satisfied.	

Acceptable Outcome pathway may not be applicable where a performance solution is provided

A4.18.1 – Utilities that must be located within the front setback, adjacent to the building entry or on visible parts of the roof are integrated into the design of the building, landscape and/or fencing such that they are accessible for servicing requirements but not visually obtrusive.

A4.18.3 – Hot water units, air-conditioning condenser units and clotheslines are located such that they can be safely maintained, are not visually obtrusive from the street and do not impact on functionality of outdoor living areas or internal storage.

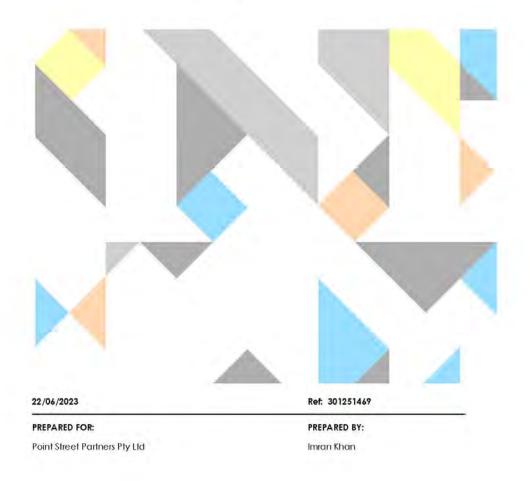
A4.18.4 – Laundries are designed and located to be convenient to use, secure, weather-protected and well-vented; and are of an overall size and dimension that is appropriate to the size of the dwelling.

LOCAL PLANNING FRAMEWORK	REQUIREMENT
Does the local planning framework amend or replace the above stated controls? If yes, state the applicable requirement:	N/A.

C2311-11 LOT 34 (NO. 8) POINT STREET, FREMANTLE - EIGHT STOREY MIXED USE DEVELOPMENT COMPRISING 215 MULTIPLE DWELLINGS AND RESTAURANT/CAFE AND OFFICE USES (ED DAP006/23)

Attachment 11 - Acoustic Report

8 Point Street Fremantle Acoustics Development Application Report





## **Revision Schedule**

Revision No.	Date	Description	Prepared by	Quality Reviewer	Independent Reviewer	Project Manager Final Approval
001	6/06/2023	Development Application Issue	JLM	IK	IK	IK
002	13/06/2023	Development Application Issue	BEM	IK	IK	IK
003	22/06/2023	Development Application Issue	ВЕМ	IK	IK	IK

### Disclaimer

The conclusions in the report are Stantec's professional opinion, as of the time of the report, and concerning the scope described in the report. The opinions in the document are based on conditions and information existing at the time the document was published and do not take into account any subsequent changes. The report relates solely to the specific project for which Stantec was retained and the stated purpose for which the report was prepared. The report is not to be used or relied on for any variation or extension of the project, or for any other project or purpose, and any unauthorized use or reliance is at the recipient's own risk.

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Revision

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## **Executive Summary**

Stantec have been engaged to conduct an acoustic assessment and prepare an acoustic report in support of the development application for a mixed-use development proposed for 8 Point Street, Fremantle.

As part of the development approval process for the mixed-use development, an acoustic assessment has been carried out in order to satisfy the requirements stated in the relevant policies and guidelines applicable to the project. This includes:

- Western Australian Environmental Protection (Noise) Regulations 1997 (EPNR);
- Australian and New Zealand Standard AS/NZS 2107:2016 Acoustics Recommended design sound levels and reverberation times for building interiors (AS2107);
- National Construction Code 2022 Volume 1, Building Code of Australia (NCC 2022);
- WAPC/DPLH, State Planning Policy 5.4 Road and Rail Noise, Sep 2019 (SPP 5.4).
- City of Fremantle, Local Planning Policy 2:18 New Residential Developments in the City Centre Zone Noise From an Existing Source;
- City of Fremantle, Local Planning Policy 2.3 Fremantle Port Buffer Area Development Guidelines; and
- Green Star Buildings Version 1 Revision B.

This acoustic report has been prepared for submission to City of Fremantle and demonstrates that the project is taking into consideration all acoustic aspects pertinent to the project. Recommendations are provided in this report to address and mitigate any acoustic issues identified.

### Freight Rail and Traffic Noise Intrusion

As per the SPP 5.4 requirements, a freight rail noise assessment (Fremantle Inner Harbour) has been carried out and the minimum recommended external façade construction has been provided in the form of glazing and wall configurations. The predicted noise levels at the building façades were obtained through the use of the 3D noise modelling software package SoundPLAN 8.2 and benchmarked against Stantec measured freight rail noise on other projects in Perth. Traffic noise has been assessed through unattended noise logging in order to obtain the ambient noise levels at the project site

The glazing configurations to achieve the design internal noise levels have been summarised below:

Glazing Configuration	Rw
6 /12/ 6mm laminated glazing <sup>1</sup>	36

The nominated glass is required to be a 'toughered safety glass' as per the requirements City of Fremantle – Local Planning Policy 2.3, where
this is not possible the glass needs to be changed to a laminated glass.

The outdoor noise target level of 55 dB(A) is predicted to be achieved in the Level 1 common area, therefore at least one common area is present which provides adequate acoustic amenity to the residents.

The performance requirements outlined in this Report to achieve the design criteria including SPP 5.4 and AS2107:2016, that the intent of Local Planning Policies 2.18 and 2.3 is met or exceeded. In Stantec's professional opinion this demonstrates the alternative design approach of SPP 2.18 Clause 1.3.

### Mechanical Service Noise Emission Assessment

It is expected that the following mechanical services are expected within the development

- Rooftop Plant Deck (Cooling Towers, Heat Pumps)
- FCU's, condensers and fans serving the residential development and commercial tenancies



Executive Summary | 1

Information regarding the cooling towers and heat pumps has been provided by the mechanical engineer. A preliminary acoustic assessment has been conducted based on Stantec's experience on previous projects of similar size and capacity. Treatments have been recommended detailed in this report where necessary.

When the full mechanical equipment schedule has been provided a detailed noise assessment will be conducted prior to the issue of Building Permit. Specific acoustic treatments will be provided to achieve compliance to the relevant EPNR assigned noise levels at nearest noise sensitive receivers.

#### Noise Emission Assessment

#### Ground Floor Co-working/Coffee shop tenancy

It is noted that the area surrounding the project development is generally comprised of commercial tenancies, which have a much less stringent assigned noise level criteria than noise sensitive developments.

As per the proposed usage intent of the space, predicted noise levels at the closest noise sensitive receivers are expected to comply to the EPNR assigned noise levels.

Additionally, the noise generated from general conversation is expected to be masked by ambient noise levels generated from the surrounding traffic corridors such as Cantonment St, Adelaide St and Point St.

### Level 1 Pool Deck

Noise emissions from the level 1 pool deck have been assessed to comply to EPNR. Assumptions have been made based on Stantec's previous experience with projects with pool deck areas of similar size and capacity. Noise emissions are expected to be compliant to EPNR criteria based on the assumed usage hours and intent of the area. Additionally, the noise generated from general conversation is expected to be masked by ambient noise levels generated from the surrounding traffic corridors such as Cantonment St.

#### Level 1 Gym

Noise emissions from the level 1 gym have been assessed to comply to EPNR at the nearest surrounding receivers.

Façade recommendation has been provided to manage the noise impact from the gym on the nearest sensitive receivers. Amplified music may be present in the gym the noise levels from the speakers shall be limited to a sound pressure level of 60-65 dB(A) at the gym façade internally.

### **Ground Floor Loading Dock**

Noise from the loading bay is expected to be compliant to the EPNR criteria during the relevant time-periods of the day. Therefore no further treatments are required.

It is noted that the loading bay is in an enclosed room with service vehicles expected to use the gazetted road Point St to enter the loading bay. Noise from gazzetted roads is not required to be assessed and therefore has not been assessed for the purposes of this acoustic report. Additionally, the surrounding area around the loading bay and project development is generally comprised of commercial tenancies, which have a much less stringent assigned noise level criteria than noise sensitive developments.

### Ground Floor Fire Pump room

No information has been given regarding the ground floor fire pump room and is typically provided during later design phases of the project. When pumpset information has been provided, specific acoustic treatments will be provided to achieve compliance to the relevant EPNR assigned noise levels at nearest noise sensitive receivers prior to Building Permit issue.



Executive Summary | 2

## 1. Introduction

### 1.1 Overview

Stantec have been engaged to conduct an acoustic assessment and prepare an acoustic report in support of the development application for a mixed-use development proposed for 8 Point Street, Fremantle.

The proposed development will consist of the following major architectural volumes:

- Basement Car parking
- Ground Floor Coffee shop, Home offices, Apartments, Car parking
- Level 1 Amenity, Apartments
- Level 2 to 7 Apartments

This acoustic report has been prepared for submission to as part of the Development Application and demonstrates that the project is taking into consideration all acoustic aspects pertinent to the project. Recommendations are provided in this report to address and mitigate any acoustic issues identified.

### 1.2 Information Sources

As part of the development approval process for the mixed-use development, an acoustic assessment has been carried out in order to satisfy the requirements stated in the relevant policies and guidelines applicable to the project. This includes:

- Western Australian Environmental Protection (Noise) Regulations 1997 (EPNR);
- Australian and New Zealand Standard AS/NZS 2107:2016 Acoustics Recommended design sound levels and reverberation times for building interiors (AS2107);
- National Construction Code 2022 Volume 1, Building Code of Australia (NCC 2022).
- WAPC/DPLH, State Planning Policy 5.4 Road and Rail Noise, Sep 2019 (SPP 5.4);
- City of Fremantle, Local Planning Policy 2.18 New Residential Developments in the City Centre Zone Noise From an Existing Source;
- City of Fremantle, Local Planning Policy 2.3 Fremantle Port Buffer Area Development Guidelines; and
- Green Star Buildings Version 1 Revision B.

## 1.3 Site Description

The surrounding area is largely comprised of commercial development and mixed-use developments. Fremantle Port is approx. 220m West of the project site. The nearest sensitive noise receivers are located roughly 100 meters to the north and south. Figure 1 presents the project location.

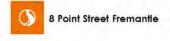


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Source: Nearmap

Figure 1: Project site and surrounding areas



Introduction | 4

## Acoustic Criteria

## Western Australian Environmental Protection (Noise) Regulations 1997

Environmental noise impacts resulting from the noise emissions from the project are addressed through the Environmental Protection Act 1986, with the regulatory requirements detailed in the Environmental Protection (Noise) Regulations 1997 (EPNR).

The EPNR establishes the maximum permissible noise emission levels (assigned levels) to be received at all adjacent noise-sensitive premises during specific periods of the day as a result of the cumulative noise emissions from all sources proposed for the project site. Compliance to relevant noise limits outlined in the EPNR is compulsory.

The EPNR states noise emissions from any premises are considered not to significantly contribute to the noise at a receiver if the noise emissions are 5 dB or below the assigned levels.

In brief, the assigned levels are determined by considering of the amount of commercial and industrial zones, as well as main transport corridors and sporting venues surrounding the noise sensitive premises. The assigned levels apply at premises receiving the noise (noise sensitive receiver) and not to areas within the project site or lot. In addition, the Environmental Protection (Noise) Regulations 1997 identify the following in Schedule 3, clause 2A.

"If the land within either of the circles is categorised on the land use map as land in respect of which mixed uses are permitted, the use of that land that results in the highest influencing factor is to be used in the determination of the influencing factor."

The nearest noise sensitive receivers have been identified as the residential properties located at:

- Apartments approx. 10 storey building at 23 Adelaide St;
- Church at 47 Adelaide St (daytime/Sunday use assumed)
- Primary School at 8 Ellen St (daytime use assumed).

The current local planning scheme (Fremantle LPA 1 City Centre) was accessed via City of Fremantle website. There are no identified major or secondary roads within the 100m and 450m circle areas around the project site.

### 2.1.1 Influencing Factor

The influencing factor results from identifying major roads, commercial and industrial areas for all nearest noise sensitive receivers.

The influencing factor assessment is summarised in Table 1 and the planning maps indicating the land use type (obtained from Intramaps) for the 23 Adelaide Street has been marked up in Source: City of Fremantle Online Mapping System

### Figure 2

Table 1: Influencing factor (IF) at noise sensitive receivers.

Noise Sensitive Premises	Commercial Zones	Industrial Zones	Transport Corridors	Influencing Factor
23 Adelaide	75 % within a 100 m radius	5 % within a 450 m radius	Nil	7 dB
Street, Fremantle	52 % within a 450 m radius	(Fremantle Port)	180	7 00





Source: City of Fremantle Online Mapping System

Figure 2: Zoning Map of Areas Surrounding 23 Adelaide Street, Fremantle

## 2.1.2 Assigned Noise Levels for Nearest Sensitive Receiver

Table 2 summarizes the assigned levels at the nearest noise sensitive premises. It is required that all noise emissions from the development are below the assigned level for all defined periods of the day and at the lot boundary of the receiver or 15m from any associated building. It is noted that the EPNR assigned levels only apply at the premises receiving the noise only and not to noise within the site.

Table 2: Assigned levels for 23 Adelaide Street, Fremantle

Type of premises receiving	Time of day		Assigned Level (dB)		
noise		L <sub>A10</sub>	L <sub>A1</sub>	L <sub>Amax</sub>	
Noise sensitive premises: Highly sensitive area	0700 to 1900 hours Monday to Saturday	52	62	72	
	0900 to 1900 hours Sunday & public holidays	47	57	72	
	1900 to 2200 hours all days	47	57	62	
	2200 hours on any day to 0700 hours Monday to Saturday, and 0900 hours Sunday & public holidays	42	52	62	



Type of premises receiving noise	Time of day	Assigne	ned Level (dB)		
Holse		L <sub>A10</sub>	LAT	L <sub>Amax</sub>	
Noise sensitive premises, any area other than highly sensitive areas	All Hours	60	75	80	
Commercial premises	All Hours	60	75	80	
Industrial and utility premises	All Hours	65	80	90	

### 2.1.3 Noise Character Adjustments

Regulation 7 states that the noise character must be "free" of annoying characteristics, namely -

- Tonality, e.g. whining, droning;
- Modulation, e.g. like a siren; and
- Impulsiveness, e.g. banging, thumping.

Regulation 9 (1) establishes the methodology for determining noise characteristics. If these characteristics cannot be reasonably and practicably removed, a series of adjustments to the measured levels are required, indicated in Table 3.

Table 3: Noise character adjustment

Adjustment where noise emission is not music these adjustments are cumulative to a maximum of 15 dB			Adjustment where noise emission is music		
Where tonality is present	Where modulation is present	Where impulsiveness is present	Where impulsiveness is not present	Where impulsiveness is present	
+ 5 dB	+ 5 dB	+ 10 dB	+ 10 dB	+ 15 dB	

### 2.1.4 Noise Emissions from Mechanical Services

Typically, projects of this type involve noise emissions from mechanical services such as cooling towers, heat pumps, air handling units, condensers and exhaust fans.

It is important that noise emissions from the site do not present any form of tonality, modulation or impulsiveness (as defined by the EPNR).

Given that data from mechanical plant manufacturers is generally limited to broadband data or in 1/1 octave band value, it is not possible to objectively determine tonality, as it is described in the EPNR: 1/3 octave band data is required yet is typically unavailable.

Therefore, a +5 dB correction shall be conservatively assigned when assessing noise emissions from mechanical equipment. In summary, Noise emissions from mechanical equipment shall comply with  $L_{A/\theta}$  42 dB at the nearest noise sensitive receivers.



## 2.2 State Planning Policy 5.4

The project is also required to comply with the State Planning Policy 5.4 - Road and Rail Noise (SPP 5.4).

The SPP 5.4 establishes the indoor and outdoor noise criteria that apply to a noise sensitive land use due to noise emissions from road and rail transport. As indicated in Figure 3, the project location is within the SPP 5.4 trigger zone for the Fremantle Inner Harbour freight rail (200m), but outside of the passenger rail line trigger zone (100m).

The passenger rail is expected to have a less significant impact on the development site and is not required to be assessed per SPP 5.4 trigger distance, therefore has been excluded from assessment.



Source: Department of Planning, Lands and Heritage https://espatial.dplh.wa.gov.au/planwa/Index.html?viewer=planwa

Figure 3: SPP 5.4 Zone (Department of Planning, Lands and Heritage)

The noise criteria provided in Table 4 applies to new noise-sensitive development proposals at 1 m from the most exposed, habitable façade.

Table 4: Noise target criteria for SPP5.4

			<b>Noise Targets</b>	
		Out	door	Indoor
Proposal	New/Upgrade	Day (L <sub>Aeq</sub> (Day) dB) (6am - 10 pm)	Night (L <sub>Aeq</sub> (Night) dB) (10pm - 6am)	L <sub>Aeq</sub> dB
Noise-Sensitive land- use and/or development	New noise-sensitive land- use and/or development within the trigger distance of an existing/proposed transport corridor	55	50	Day: LAeg 40 (living and work areas) Night: LAeg 35 (Bedrooms)



The policy requires outdoor targets are to be met at all outdoor areas as far as is reasonable and practical to do so using the various noise mitigation measures outlined in the guidelines.

## 2.3 City of Fremantle – Local Planning Policy 2.18

1.1 New residential development in the City Centre zone that is, in the view of Council, in close proximity to recognised existing non-residential land use(s) shall be required to be designed and constructed in such a manner that noise levels from activities associated with the existing non-residential land use(s) can be successfully attenuated.

Noise attenuation measures, include internal and external design measures that address sound attenuation and include vibration protection and compliance with the Environmental Protection (Noise) Regulations 1997. The City of Fremantie recommends that any proposed residential development in the City Centre engages an acoustic consultant to consult on effective noise attenuation design measures.

1.2 Any proposed development identified in clause 1.1 above, shall demonstrate it meets the design measure requirements of each of the three design measure categories in appendix one of this policy.

1.3 Variation to the requirements of clause 1.2 may be considered, at Council's discretion, subject to an acoustic engineer's report being submitted as part of the application that demonstrates alternate noise attenuation design measures that achieve the same, or higher, noise attenuation outcome.

The Design Measures are summarised in Appendix 1 of the Local Planning Policy 2.18:

### 1. EXTERNAL OPENINGS (WINDOWS AND DOORS)

1,1 In every instance external window and door frames in a development shall contain airtight rubber seals to provide acoustic protection.

1.2 A proposed development shall also demonstrate compliance with the following design measures, in regards to windows and glazed doors:

- Sliding Windows shall be substituted with awning windows as they are able to achieve a positive compression seal, and
- Standard 6mm glass shall be substituted with sealed thickened laminated glass (no less than 10mm); or
- Standard 6mm glass shall be substituted with acoustic double glazing incorporating a 12mm thick pane of laminated glass set in a sealed metal frame with a 100mm air gap to the other pane of glass.

### 2. EXTERNAL WALLS

- 2.1 A proposed development shall demonstrate compliance with the following design measure, in regards to external walls:
- The external walls achieve a sound rating of Rw 45 dB or greater.

### 3. FLOORS AND CEILINGS

- 3.1 A proposed development shall demonstrate compliance with the following design measures, in regards to floors and ceilings:
- A 150mm thick concrete slab with either carpet or acoustically installed timber flooring or tiles; or
- Installing high density insulation batts into the cavity of a lightweight, suspended and floating ceilings or floors to absorb sound; or
- Building components are isolated using resilient compounds such as rubber, neoprene or silicone for the purpose of reducing the transfer of noise.



## 2.4 City of Fremantle – Local Planning Policy 2.3

City of Fremantle Local planning policy 2.3 indicates the proposed project site is within the Buffer Area 2 of the Fremantle Port Buffer area. As per the buffer area guidelines following considerations are to be made as part of the design.

### Potential Risk and Amenity Considerations

The potential impacts in Area 2 are not as great as in Area 1. Nevertheless, consideration is given to the following potential impacts:

c) Noise transmission emanating from the Port (attenuation in the order of 30dB(A) is required).

### **Built Form Requirements**

The following built form requirements shall apply to the following categories of development:

- a) All residential development other than alterations and additions to existing dwellings.
- b) All non-residential development other than refurbishment / renovations (not involving a nett increase in floor area) to existing buildings and non-residential change of use proposals.

Within Area 2, buildings shall be designed so as to incorporate all of the design and construction features outlined as follows:

### Windows and openings

- a) Any glass used for windows or other openings shall be laminated safety glass of minimum thickness of 6 mm or "double glazed" utilising laminated or toughened safety glass of a minimum thickness of 3 mm.
- b) All safety glass shall be manufactured and installed to an appropriate Australian Standard.

### 2.5 Internal Noise Levels

The Internal noise level criteria detailed in this section are based on the recommendations provided in the Australian / New Zealand Standard AS/NZS 2107:2016 Acoustics – Recommended design sound levels and reverberation times for building interiors' (AS2107).

AS2107 provides recommended internal noise levels (defined as the equivalent continuous A-weighted sound pressure level — L<sub>A=3,1</sub>) for optimising the acoustic amenity in occupied spaces. The level of noise in an enclosed space typically consists of noise from building services and/or noise intrusion due to external sources (e.g., traffic).

The relevant internal noise level criteria and reverberation times have been outlined in Table 5.

Table 5: Recommended internal noise levels from AS2107

Type of occupancy/activity	Recommended design sound level, $L_{\text{vq}}$ dB(A)	Recommended reverberation time (T) "s
RESIDENTIAL BUILDINGS - Houses and apart	tments in Suburban areas or near m	inor roads —
Sleeping areas (night-time)	30 – 35	
Living areas	30 – 40	- 1
Work (study) areas	35 – 40	
Apartment common areas (e.g. foyer, lift lobby)	45 – 50	See note 1
Enclosed Carpark	< 65	



Type of occupancy/activity	Recommended design sound level, $L_{22} \; dB(A)$	Recommended reverberation time (T) ,s 0.4 to 0.6		
Office Areas	40 – 45			
Coffee shop	40 – 50	See note 1		

<sup>1)</sup> Reverberation time should be minimised as far as practicable for noise control.

The internal noise level criteria in AS2107 refer to the continuous equivalent (L<sub>Acci</sub>) levels for background noise. This document is a common reference for establishing satisfactory goals for quasi-static mechanical and external traffic noise ingress.

# 2.6 Sound Transmissions and Insulation — National Construction Code 2022

The acoustic requirements for inter-tenancy walls, floors etc. in residential buildings are outlined in the National Construction Code 2022 Volume 1, Building Code of Australia Class 2, 3 and 9c Buildings (NCC 2022). The acoustic requirements outlined in NCC 2022 are summarised in Table 6.

Table 6: Sound insulation requirements in accordance with NCC 2022

Construction	Condition	Deemed-to-Satisfy Requirements	Verification Requirements				
Walls	Airborne Sound Insulation						
1	Between sole-occupancy units	Minimum R <sub>w</sub> + C <sub>h</sub> 50	Minimum D <sub>m,w</sub> + C <sub>tr</sub> 45				
	Between a sole-occupancy unit and a plant room, lift shaft, stairway corridor, public corridor or the like	Minimum R <sub>*</sub> 50	Minimum D <sub>riT,w</sub> 45				
	Impact Sound Insulation						
	Between a laundry, kitchen, bathroom or sanitary compartment in a sole-occupancy unit, and a habitable room in an adjoining unit	Discontinuous construction 1)	As deemed to satisfy				
	Between a sole-occupancy unit and a plant room or lift shaft	Discontinuous construction (1)	As deemed to satisfy				
Floors	Airborne Sound Insulation						
	Between sole-occupancy units and between sole occupancy unit and lift shaft, stairway or public corridor	Minimum R <sub>w</sub> + C <sub>tr</sub> 50	Minimum DnF,w+ Cir 45				
	Impact Sound Insulation						
	Between sole-occupancy units and between sole occupancy unit and lift shaft, stairway or public corridor Maximum L <sub>RW</sub> 62 Maximum						
Services	Airborne Sound Insulation						
	Between a habitable room (other than a kitchen) in a sole- occupancy unit and a duct, soil, waste or water supply pipe duct (if the duct or pipe is located in a wall or floor cavity and serves or passes through more than one sole-occupancy unit)	Minimum R <sub>vi</sub> + C <sub>ir</sub> 40	N/A				



Construction	Condition	Deemed-to-Satisfy Requirements	Verification Requirements	
		Minimum R <sub>w</sub> + C <sub>tr</sub> 25	N/A	
	If a storm water pipe passes through a sole-occupancy unit (habitable room other than kitchen)	Minimum R <sub>w</sub> + C <sub>tr</sub> 40	N/A	
	If a storm water pipe passes through a sole-occupancy unit (kitchen or non-habitable room)	Minimum R., + Ci/ 25	N/A	

For the purposes of this Part, "discontinuous construction" means a wall having a minimum 20 mm cavity between two separate leaves.



## 2.7 Green Star Requirements

The project sustainability consultant has indicated following requirements are being targeted for this project as part of 5 Star Green Star pathway for the project. This is based on the Green Star Buildings – Version 1 Revision B dated 10 December 2021

Table 7: Targeted Green Star credits - Human Comfort

Credit	Credit Description	Credit Targeted	Total points available	Points TARGETED	Risk Level	Comments
Acoustic Comfort	Minimum Expectation: An Acoustic Comfort Strategy to be prepared to describe how the building and acoustic design aims to deliver acoustic comfort to the building occupants.	Minimum Expectation		Required	Required	An Acoustic Comfort Strategy must be prepared describing how the building design will deliver acoustic comfort to the building occupants. The following requirements are to be addressed: Quiet enjoyment of space Functional use of space Control of intrusive or high levels of noise Privacy Noise transfer Speech intelligibility
Acoustic Comfort	Credit Achievement (2 points) The project must comply with two of the following: maximum internal noise levels, acoustic separation, impact noise transfer through floors.	Credit Achievement	2	2	Low	In addition to the Minimum Expectation, the following are the applicable acoustic criteria assessable under this credit. • Maximum Internal Noise Levels • Acoustic Separation • Impact Noise Transfer Class 2 spaces must achieve 2/3 above options to achieve 2 points.

### 2.7.1 Acoustic credits - Details

A summary of the Green Star targets have been summarised in this section.

### Internal Noise Levels

One (1) point is awarded where project teams demonstrate that Internal ambient noise levels in the regularly occupied areas must be no greater than the upper range value relevant to the activity type in each space as recommended in the current AS/NZS 2107:2016. (i.e. for bedrooms within residential developments, this implies that internal noise levels shall not exceed  $L_{00}$  40 dB(A) during the night-time period).

In buildings with sleeping areas (e.g., Class 2, Class 3, Class 9a) noise levels must not exceed recommended Sleep Disturbance criteria as defined in the NSW EPA Road Noise Policy 2011;

- Up to two noise events per night: maximum internal noise levels below 70 dB LAmia.
- All other events: maximum internal noise levels below 55 dB LAMBER



Noise measurement and documentation must be provided by a qualified acoustic consultant and in accordance with AS/NZS 2107:2016.

Compliance shall be demonstrated through measurement, which must account for all internal and external noise including noise arising from building services equipment. Measurements shall be conducted in at least 10% of the spaces in the nominated area.

### **Acoustic Separation**

One (1) point is awarded where the project addresses noise transmission in enclosed spaces within the nominated area.

The project must address noise transmission between enclosed spaces within the regularly occupied area. Compliance can be demonstrated via either:

#### Privacy

For Class 2 and Class 3:

- All walls and floors (excluding riser walls) separating enclosed spaces must exceed the minimum NCC requirements by 5 points (excluding impact noise – refer impact noise transfer credit)
- Party walls separating open plan kitchens (where joinery units are fixed) from another open plan kitchen/living room shall be discontinuous in construction (discontinuous in accordance with the National Construction Code)
- Entry doors must have perimeter and threshold seals.

### Impact Noise Transfer

One (1) point is awarded for achieving Impact noise transfer measured in accordance with ISO 16283-2 through a floor where:

- Floors are located above regularly occupied areas
- Adjacent spaces belonging to different tenancies which share a floor must not exceed dB L<sub>nT po</sub>
  - 55 for floors above Class 2 and Class 3 buildings accommodation spaces
  - 60 for all other spaces



## 3. Noise Survey

### 3.1 Overview

Typically, the two main sources of noise considered in noise intrusion assessments are transportation (i.e. road, rail or aircraft noise) and mechanical services noise from within the same or adjoining developments.

Unattended noise survey was undertaken at the project site to ascertain the typical noise levels at the proposed development. This section provides discussion of the measurement methodology and summary of measured noise levels.

A noise logger was placed at the project location on the roof top of the existing car park at the project site, 8 Point Street, Fremantle as shown in Figure 4.



Figure 4: Unattended Noise Logger

## 3.2 Measurement Methodology

### 3.2.1 Equipment Details

Measurements have been conducted using instrumentation equivalent to an integrating sound level meter equipped with one octave and one-third octave band filters, and an omni-directional condenser microphone. All instrumentation meets Type 1 specifications as per ANSI S1.4 and ANSI S1.43.

All sound level meters were calibrated by an authorised NATA (National Association of Testing Authorities) laboratory less than 2 years ago and have successfully passed all IEC 61672- 2019, IEC 61260-2019, DIN 45657-2005, and ISO/IEC 17025-2018 standards and specifications.



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The time constant for the RMS detector were set to a slow response (1 sec) for all measurements. The sound level meter was calibrated before and after each measurement session using a Type 1 acoustic calibrator. The calibrator was also calibrated less than 2 years ago and is in compliance with AS IEC 60942-2004.

A complete schedule of equipment used during for acoustic measurements is provided in Table 8. A copy of calibration certificates for the relevant instrumentation may be provided upon request.

Table 8: Equipment and calibration details

Manufacturer / Model	Serial Number
Brüel & Kjær 4231 – Calibrator	3005155
Bruel & Kjaer 3538 – Environmental Noise logger	3010645

## 3.3 Unattended Noise Survey Results

Long term unattended noise measurements were undertaken to establish the surrounding acoustic environment at position shown in Figure 4.

Weather data from Bureau of Meteorology from Perth was obtained in order to ascertain periods of bad weather during the measurement period. The data impacted due to adverse meteorological conditions has been excluded in the calculation of any relevant noise parameters used for the purposes of this acoustic assessment.

The noise levels obtained from the unattended noise measurements have been provided in Figure 5.

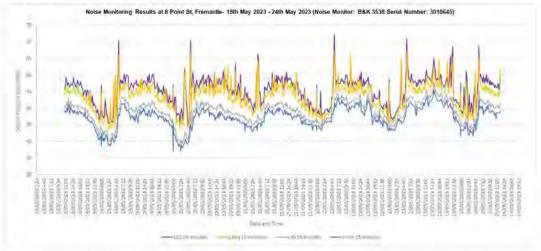


Figure 5: Unattended Noise Logging Measurement Data

Based on the measured data obtained, the following noise characteristics have been determined:

- Day-time (0600 2200 hours) LAeq-15min: 57dB(A)
- Night-time (2200 0600 hours) LARG-15min: 54dB(A)



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## Noise Intrusion Assessment

## 4.1 Assessment Methodology

The noise environment surrounding the proposed development was assessed using Sound PLAN v8.2 to determine the predicted noise effects on the receivers within the development. The noise assessment takes into consideration the current and future freight rail volumes that the receivers will be exposed to. The results from the assessment were then used to determine the noise intrusion into apartments.

Noise levels for the proposed redevelopment were modelled at a distance of 1 m from the building façade at 1.4m above each floor level. Receiver noise levels predicted at the building façade also include a +2.5 dB façade correction as per the SPP 5.4 requirements. The relevant sections of the SPP5.4 Noise Modelling Checklist has been complied with and provided in Appendix C.

### 4.1.1 Noise Modelling Inputs

### Topography and Ground Condition

Terrain contours were sourced from Geoscience Australia, Digital Elevation Model (DEM) 5 Metre Grid of Australia derived from LiDAR, 2015.

To suit the current conditions of the project location, a ground condition of 0 has generally been used in the model, which is a reflective ground condition. Vegetated areas east of the project site were modelled as 0.6, between hard (0) and soft (1) ground condition.

#### Freight Rail Traffic

The freight rail noise assessment has been conducted based on the methodology described by the Nordic Noise Prediction Method (NORD2000:2006).

This algorithm considers the following parameters:

- Volume of rail traffic, 16hr day and 8hr night, in line with SPP 5.4 requirements;
- Length and speed of trains;
- Source Sound Power Levels for diesel freight locomotives and goods carriages in 1/3 Octave centre frequency bands from 25 Hz to 10 kHz;
- Height of each individual noise source (wheels, rail and exhaust);
- Weather conditions (down-wind 3m/s was used for worst-case propagation).

Freight rail noise source heights were incorporated into the noise model in accordance to the description detailed by NORD2000. The modelled heights of vehicle "strings" are provided below:

- Wheels/rail at 0.01m above rail
- Wheels/rail at 0.35m above rail
- Wheel/rail at 0.7m above rail
- Engine/exhaust at 2.5m above rail

The predicted average daily traffic volumes for 2023 were obtained from the Fremantle Ports website (accessed 12 June 2023) <a href="https://www.fremantleports.com.au/landside/rail">https://www.fremantleports.com.au/landside/rail</a>, which states that 6-7 freight trains per day transit Fremantle Harbour, being up to 700m long.



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The freight rail volumes through Fremantle Inner Harbour are expected to triple by the year 2050 (Freight and Logistics Council of WA Freight Rail Working Group). As a worst-case assumption, 1 freight train per hour (24 per day) has been used in the assessment.

### 4.2 Noise Modelling Results

The results of the SoundPLAN noise model show that the noise levels are the highest for the for future rail scenario (2043) at the façade. Refer to Appendix B for detailed façade noise maps which show the varying noise levels across the façade of the development.

The predicted noise levels at the Level 01 common outdoor area comply with the outdoor 'noise target' values in SPP 5.4

As it would not be reasonable and practical to design the building to achieve compliance to the outdoor noise levels at each balcony (including those facing the rail line), internal noise levels have been targeted for the residential elements. Details of recommended façade configurations have been provided in the sections below.

## 4.3 External Envelope

Noise intrusion calculations were undertaken following the methodology described in British Standard BS EN 12354:2000 and by utilising the worst case (i.e. highest predicted) noise levels predicted at each façade to determine suitable glazing to achieve the required internal noise levels. Appropriate corrections were applied to the linear spectral noise levels to compensate for potential losses due to flanking paths and façade correction.

### 4.3.1 External Wall

The noise intrusion has been calculated for all facade elements, which is relative to their surface area.

It is noted in the latest architectural drawings that the majority of the façade will be comprised of glazed elements.

Stantec recommends solid wall elements have a minimum performance of R<sub>W</sub> + C<sub>tr</sub> 40-45. Typically, with masonry elements this can be achieved by 110mm concrete wall.

Where <u>lightweight construction</u> is proposed, this will result in <u>reduced acoustic performance</u> specifically in the lower frequencies.

The following construction detailed in Table 9 is recommended if lightweight walls are to be used, to ensure compliance with the recommended internal noise levels for residential units.

Table 9: Façade wall element configuration

	Configuration				
One	row of 92mm studs (0.55BMT) at 600mm centres with –				
•	Min. 100mm thick glasswool insulation (min. density $14 kg/m^2$ ) positioned between row of studs;	> 40			
	One layer 6mm thick fibre cement sheet (min. surface mass 9.4kg/m²) to outside face, and	> 40			
	One layer 13mm thick standard plasterboard (min. surface mass $8.4 kg/m^2)$ fixed to the other side of the row of studs				

### 4.3.2 Glazina

Glazing systems and entryway elements typically provide lower airborne sound insulation performance than external walls, forming weak acoustic links in the building envelope.



Noise Intrusion Assessment | 18

To satisfy internal noise level design targets, glazed elements located at the façades are determined based on the composite sound reduction index (i.e. the combined sound insulation performance of all façade elements relative to their surface area).

Glazing types for each noise sensitive space located at each façade of the proposed development have been comparatively assessed against the noise levels detailed in this report. The table below provides the glazing performance and proposed locations required to satisfy internal noise level design targets.

The performance ratings outlined in Table 10 are required for compliance to internal noise level design targets and apply to the glazing system as a whole (i.e. frame, seals and window hardware), with a maximum allowable deviation of 2-3dB only.

Table 10: Façade Glazing configuration

			S	ectrum	Sound	Transn	nission	Loss (d	B)
Location	Glazing Configuration	Rwr	63 Hz	125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz
All Bedrooms and Living Rooms	6 /12/ 6mm laminated glazing	36	25	. 27	28	32	38	38	43

### Note:

- The nominated glass is required to be a 'toughened safety glass' as per the requirements City of Fremantie Local Planning Policy 2.3, where
  this is not possible the glass needs to be changed to a laminated glass.
- Glazing performance provided for glass only. Overall performance of the glazing system including the frames and seals shall not degrade by more than 3 dB as per the performance requirement stated.

### 4.3.3 Roof Construction

Whilst it is not a mandatory requirement of the NCC, rain noise intrusion shall be considered with a view of ensuring an adequate level of amenity for occupants.

Additionally, roof construction should be adequately designed to control external noise intrusion from noise sources identified in this report, to satisfactorily provide internal noise levels which are compliant with the criteria established in section 2.5. The following construction is adequate to fulfil the requirements.

One layer of Colorbond sheet metal or similar (0.42 mm); and

- 75 mm thick high-density Anticon insulation hard fixed to the underside of roof and over steel purlins;
- Suspended light weight steel framing system; and
- Min, 50 mm thick glass wool insulation (min, 14kg/m²) one layer of 13 mm standard plasterboard.



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## 5. Noise Emission Assessment

The proposed development is expected to incorporate the following noise sources as shown on the latest backgrounds:

- Mechanical services
  - o Rooftop Plant Deck (Cooling towers, heat pumps)
  - o FCU's, condensers and fans serving the residential development and commercial tenancies
- Ground Floor Loading Bay
- Ground Floor Co-Working/Coffee Shop
- Level 1 Pool Deck
- Level 1 Gym
- Ground Floor Fire Pump Room

The identified noise sources above are required to comply with the WA Environmental Protection (Noise) Regulations 1997 at the nearest noise sensitive receivers.

## 5.1 Rooftop Mechanical Plant Deck

Information from the architect indicates that the rooftop plant deck servicing the development is proposed to incorporate cooling towers and heat pumps as illustrated in Figure 6 with louvres enclosing the plant.

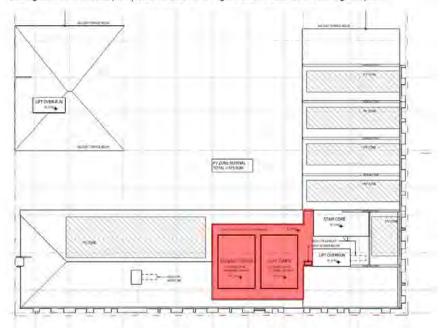


Figure 6: Rooftop Mechanical Services Deck



Information regarding the cooling towers and heat pumps has been provided by the mechanical engineer. A preliminary acoustic assessment has been conducted based on Stantec's experience on previous projects of similar size and capacity. Treatments have been recommended detailed in this report where necessary.

When the full mechanical equipment schedule has been provided a detailed noise assessment will be conducted prior to the issue of Building Permit. Specific acoustic treatments will be provided to achieve compliance to the relevant EPNR assigned noise levels at nearest noise sensitive receivers.

### 5.1.1 Noise Modelling Assessment

Sound PLAN v8.2 (3D noise modelling software) was used to simulate noise emissions expected from the rooftop plant deck and other model inputs are detailed in the following sections.

### Sound Power Levels

The equipment selection for the proposed cooling towers and heat pumps has been provided by the mechanical engineer. The sound data is presented in Table 11.

Table 11: Rooftop Mechanical Plant Sound Data

Location Units		Model	Number of Units	Sound Power Level pe Unit dB(A)	
Roof Plant	Cooling Towers	Baltimore PCT1010-P3-K	2	87	
Deck	Heat Pump	Revere AHG130HT	4	80	

#### Assumptions

The following assumptions have been made regarding the above mechanical units:

- Heat pump technical data sheets indicates "Noise level in dB(A)", which has been assumed to be Sound Pressure Level at 1m;
- It is assumed that cooling towers operate at a much lower duty at night between 2200 0600 hours
- A noise wall extending 0.5m above the top height of the cooling towers has been incorporated into the model as shown in Figure 7.



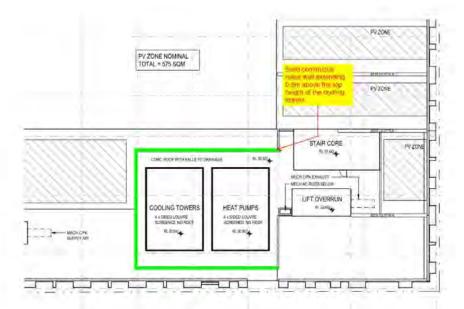


Figure 7: Rooftop Plant Deck Noise Wall location

The noise barrier shall extend minimum 0.5m above the top height of the tallest cooling tower and be without air gaps or features that would allow sound to be transmitted through the material. Typical barrier shall be constructed using materials having a surface density of 15kg/m<sup>2</sup>. Example materials include cement sheet or Perspex.

### Noise Propagation Standard

The ISO 9613-1:1998 industry noise propagation standard was used for the noise model predictions with a reflection order of 3. The noise model has taken into account noise source levels, distance from the source to receivers, and screening effects due to existing, proposed buildings and ground topology.

### **Ground Condition**

To suit the current conditions of the project location, a ground condition of 0.6 has been used in the model, which is in between a soft ground condition (1) and a reflective ground condition (0).

### Noise Receptor Heights

Noise receptor heights have been assessed at 1.5 meters above ground or floor level.

### 5.1.2 Results and Recommendations

Based on the 3D noise model, the predicted noise levels at the nearest sensitive receivers due to the rooftop plant deck have been summarized in the table below and noise contours have been provided in Appendix B.



Table 12: Predicted Noise Levels Due to the Rooftop Plant Deck

Location	Predicted Noise Level (1) dB(A)	EPNR Criteria <sup>(2)</sup> L <sub>A10</sub> dB(A)	Compliance to the EPNR Criteria (Y/N)
23 Adelaide St (Apartment Building)	47	47	Y
47 Adelaide St (Church)	43	47	Y
8 Ellen St (Primary School)	37	52	Ý

<sup>1)</sup> Includes tonality correction of +5dB

Based on the predicted noise levels in the table above, noise from the rooftop Plant deck is expected to achieve compliance to the relevant EPNR assigned noise level criteria at each respective receiver.

Note that it is assumed that cooling towers operate at a much lower duty at night between 2200 – 0600 hours and is expected to be compliant to the EPNR noise levels during night-time periods at all receivers and that the noise wall as shown in Figure 7 will be incorporated.

Should unit selection change, the acoustic engineer to be provided with the latest information and acoustic treatments will be updated to achieve compliance to EPNR criteria.

## 5.2 Ground Floor Loading Bay

According to the current architectural drawings, a loading area is proposed on the ground floor. It is assumed this will be used to accommodate trucks servicing the proposed residential and commercial tenancies, including waste collection.

The layout of the loading bay is shown in Figure 8.



Day: 0700 to 1900 hours Monday to Saturday. Evening: 1900 to 2200 hours all days. Night: 2200 hours on any day to 0700 hours Manday to Saturday, and 0900 hours Sunday & public helidays



Figure 8: Ground Floor loading bay Location

The noise impact from loading bay trucks on the nearest sensitive receivers were assessed to the WA Environmental Protection (Noise) Regulations 1997.

It is noted that the loading bay is in an enclosed room with service vehicles expected to use the gazetted road Point St to enter the loading bay. Noise from gazetted roads is not required to be assessed and therefore has not been assessed for the purposes of this acoustic report. Additionally, the surrounding area around the loading bay and project development is generally comprised of commercial tenancies, which have a much less stringent assigned noise level criteria than noise sensitive developments (refer Section 2.1.2 Table 2).

Noise from the loading bay is expected to be compliant to the EPNR criteria during the relevant time-periods of the day. Therefore no further treatments are required.

## 5.3 Ground Floor Co-working/Coffee Shop

As per the latest architectural drawings a Co-working/Coffee Shop is expected to be located on ground floor as shown in Figure 9.



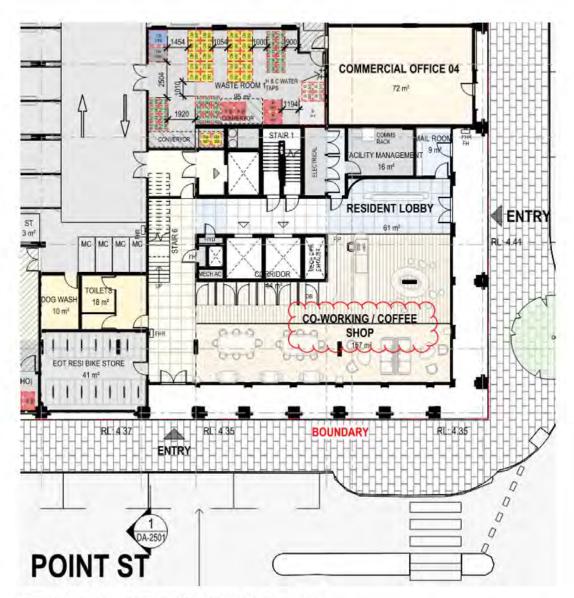


Figure 9: Ground floor Co-working/Coffee Shop tenancy location

Noise levels from the tenancy are required to comply with relevant EPNR criteria at the closest noise sensitive receivers.

It is noted that the area surrounding the project development is generally comprised of commercial tenancies, which have a much less stringent assigned noise level criteria than noise sensitive developments (refer Section 2.1.2 Table 2).

As per the proposed usage intent of the space, predicted noise levels at the closest noise sensitive receivers are expected to comply to the EPNR assigned noise levels at the nearest noise sensitive receivers.

Compliance is to be managed by respective tenants under the provision of a noise management plan where identified as a noise emitting tenancy.



### 5.3.1 Level 1 Pool Deck

As per the latest architectural drawings there is expected to be an outdoor pool deck located on level 1 as shown in Figure 10.

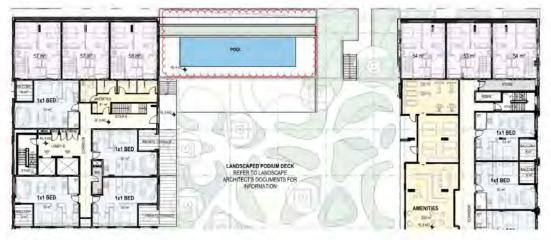


Figure 10: Level 1 pool deck

It is assumed that the pool deck will only be used between 0700 - 2200 hours for all days.

It is expected that the pool deck may typically have 10-20 patrons at any give-time and is not expected to have loud music playing. Any PA system proposed at the outdoor area to play music should be primarily for background/ambient purposes and must be limited so it is not be audible at nearby receivers. The use of sub-woofers has not been designed for in this acoustic assessment and is not to be incorporated into the proposed development.

Noise emissions from the pool deck are expected to be compliant to EPNR criteria based on the assumed operating hours and intent of usage of the area. Additionally, the noise generated from general conversation is expected to be masked by ambient noise levels generated from surrounding transport corridors such as Cantonment St. The Pool deck area is not to be used during night-time periods (2200 - 0700).

### 5.3.2 Level 1 Gym

Based on the latest architectural drawings, an amenities/gym for the development may be located on level 1. Noise impact from the gym on the nearest sensitive receivers will also be required to comply to the WA Environmental Protection (Noise) Regulations 1997. The location of the gym can be seen in Figure 11.





Figure 11: Level 1 Amenities (Gym)

It is assumed that the gym will only be used between 0700 - 2200 hours for all days.

At this stage the following equipment is assumed to be housed within the gym:

- Treadmill;
- Cross trainer;
- exercise bike; and
- Weights and rack.

### 5.3.2.1 Speakers

Amplified music may be present in the gym. At this stage details regarding the speakers as well as location has not been provided, the noise levels from the speakers shall be limited to a <u>sound pressure level of 60-65 dB(A)</u> at the gym façade internally. The use of sub-woofers has not been designed for in this acoustic assessment and is not to be incorporated into the proposed development.

### 5.3.2.2 Glazing Recommendation

Considering that the gym will be enclosed with mainly glazed elements, it is expected that the noise levels impacting the internal noise sensitive receivers will be compliant to the EPNR regulations criteria as well as the AS2107 with the glazing configurations as per Table 13.

Table 13: Gym External Glazing Requirements



			Spectrum Sound Transmission Loss (dB)							
Location	Glazing Configuration	Rw + Ct	63 Hz	125 Hz	250 Hz	500 Hz	1k Hz	2kHz	4k Hz	
Level 1 Amenities/Gym	6.38mm laminated glass	29 (32; -3)	15	19	24	29	33	35	41	

Note: Glazing performance provided for glass only. Overall performance of the glazing system including the frames and seals shall not degrade by more than 3 dB as per the performance requirement stated.

Noise levels transmitted to the adjacent apartments both horizontally and vertically is to be confirmed once the architectural details become available. Treatments will be provided where necessary to achieve the design internal noise levels.

### 5.3.3 Ground Floor Fire Pump Room

As per the latest architectural drawings, it is expected that a fire pump room will be located on Ground Floor as shown in Figure 12.



Figure 12: Ground Floor fire pump room

No information regarding the pump model has been provided at the time of assessment. As a preliminary measure, fire pump rooms should typically be provided with walls rated to a minimum  $R_{\rm w}$  55 with a  $R_{\rm w}$  35 fire rated door.

Once details become available for the pump selection a full detailed assessment will be conducted by Stantec and treatments will be adjusted accordingly where required



## Conclusion

Stantec have been engaged to conduct an acoustic assessment and prepare an acoustic report in support of the development application for a mixed-use development proposed for 8 Point Street, Fremantle.

This acoustic report has been prepared for submission to City of Fremantle and demonstrates that the project is taking into consideration all acoustic aspects pertinent to the project. Recommendations are provided in this report to address and mitigate any acoustic issues identified.

Traffic noise assessment has been carried out and the minimum recommended external façade construction has been provided in the form of glazing, roof and wall configurations. The predicted noise levels at the building façades were obtained through the use of the 3D noise modelling software Package, SoundPLAN 8.2. Unattended noise logging was conducted in order to obtain the ambient noise levels at the project site.

Information regarding the cooling towers and heat pumps has been provided by the mechanical engineer. A preliminary acoustic assessment has been conducted based on Stantec's experience on previous projects of similar size and capacity. Treatments have been recommended detailed in this report where necessary.

When the full mechanical equipment schedule has been provided a detailed noise assessment will be conducted prior to the issue of Building Permit, Specific acoustic treatments will be provided to achieve compliance to the relevant EPNR assigned noise levels at nearest noise sensitive receivers.

Additionally, the following noise sources have been identified within the project development:

- Ground Floor Loading Bay
- Ground Floor Co-Working/Coffee Shop
- Level 1 Pool Deck
- Level 1 Gym

All identified noise sources above are expected to comply to the EPNR assigned noise levels at all nearby noise sensitive receivers.



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# Appendix A Glossary of Acoustic Terms

NOISE	
Acceptable Noise Level:	The acceptable LAeq noise level from industrial sources, recommended by the EPA (Table 2.1, INP). Note that this noise level refers to all industrial sources at the receiver location, and not only noise due to a specific project under consideration.
Adverse Weather	Weather conditions that affect noise (wind and temperature inversions) that occur at a particular site for a significant period of time. The previous conditions are for wind occurring more than 30% of the time in any assessment period in any season and/or for temperature inversions occurring more than 30% of the nights in winter).
Acoustic Barrier	Solid walls or partitions, solid fences, earth mounds, earth berms, buildings, etc. used to reduce noise.
Ambient Noise:	The all-encompassing noise associated within a given environment at a given time, usually composed of sound from all sources near and far.
Assessment Period:	The period in a day over which assessments are made.
Assessment Location	The position at which noise measurements are undertaken or estimated.
Background Noise:	Background noise is the term used to describe the underlying level of noise present in the ambient noise, measured in the absence of the noise under investigation, when extraneous noise is removed. It is described as the average of the minimum noise levels measured on a sound level meter and is measured statistically as the A-weighted noise level exceeded for ninety percent of a sample period. This is represented as the L90 noise level.
Decibel [dB]:	The units of sound pressure level.
dB(A):	A-weighted decibels. Noise measured using the A filter.
Extraneous Noise:	Noise resulting from activities that are not typical of the area. Atypical activities include construction, and traffic generated by holidays period and by special events such as concert or sporting events. Normal daily traffic is not considered to be extraneous.
Free Field:	An environment in which there are no acoustic reflective surfaces. Free field noise measurements are carried out outdoors at least 3.5m from any acoustic reflecting structures other than the ground
Frequency:	Frequency is synonymous to pitch. Frequency or pitch can be measured on a scale in units of Hertz (Hz).
Impulsive Noise:	Noise having a high peak of short duration or a sequence of such peaks. A sequence of impulses in rapid succession is termed repetitive impulsive noise.
Intermittent Noise;	Level that drops to the background noise level several times during the period of observation.
LAmax	The maximum A-weighted sound pressure level measured over a period.
LAmin	The minimum A-weighted sound pressure level measured over a period.
LA1	The A-weighted sound pressure level that is exceeded for 1% of the time for which the sound is measured.
LA10	The A-weighted sound pressure level that is exceeded for 10% of the time for which the sound is measured.
LA90	The A-weighted level of noise exceeded for 90% of the time. The bottom 10% of the sample is the L90 noise level expressed in units of dB(A).
LAeq	The A-weighted "equivalent noise level" is the summation of noise events and integrated over a selected period of time.



Glossary of Acoustic Terms | 31

LAeqT	The constant A-weighted sound which has the same energy as the fluctuating sound of the traffic, averaged over time T.
Reflection:	Sound wave changed in direction of propagation due to a solid object met on its path.
R-w:	The Sound Insulation Rating R-w is a measure of the noise reduction performance of the partition.
SEL:	Sound Exposure Level is the constant sound level which, if maintained for a period of 1 second would have the same acoustic energy as the measured noise event. SEL noise measurements are useful as they can be converted to obtain Leq sound levels over any period of time and can be used for predicting noise at various locations.
Sound Absorption:	The ability of a material to absorb sound energy through its conversion into thermal energy.
Sound Level Meter:	An instrument consisting of a microphone, amplifier and indicating device, having a declared performance and designed to measure sound pressure levels.
Sound Pressure Level:	The level of noise, usually expressed in decibels, as measured by a standard sound level meter with a microphone.
Sound Power Level:	Ten times the logarithm to the base 10 of the ratio of the sound power of the source to the reference sound power.
Tonal noise:	Containing a prominent frequency and characterised by a definite pitch.



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# Appendix B Noise Contours



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# Appendix C SPP 5.4 Noise Modelling Checklist

Checklist item			Action
Noise prediction corr	ections		
Train noise emissions	Has the assessment described how the following have been calibrated in the rail noise calculations?		
	The various train classes in use on the rail line		Freight
	Train speed		max. 80 km/h
	Train length		max. 700m
Track features	Based on the localised track features have the following emission corrections been appropriately considered?	noise	
	Mechanical/uneven joints	+3 dB	NA
	Curve radius less than 600 m	+3 dB	NA.
	Turnout	+6 dB	NA
	Curve radius less than 300 m	+8 dB	NA.
	Diamond crossing	+10 dB	NA.
	If appropriate has the assessment described how other n sources such as bridges, brake noise, car bunching, blov compressors been accounted for?	oise Vers and air	ÑA
Receptor façade	Has a +2.5 dB building façade correction been applied?		Y
Checklist item			Action
Rail traffic input data			
Rail line name	[insert rail line name]		Fremantle Inner Harbour - Freight
	16-hr daytime passenger rail movements		NA
	16-hr daytime freight rail movements		16
	8-hr daytime passenger rail movements		NA.
	8-hr daytime freight rail movements		8
Rail traffic heights	Have the rail noise sources been modelled at the approp heights?	riate	Y
Rail line speed	What is the modelled rail traffic speed?		80 km/h
Accuracy / calibration	How does the proposal account for variation in actual noi from that predicted?	se levels	Noise model has been benchmarked against Stantec measurements of freight rail in Perth
Rail noise barriers			
Noise barriers	Have noise barriers been modelled as being fully reflective	7-7-1	NA
	If noise barriers have not been modelled as being fully re have absorptive barrier designs been considered?	flective,	NA
Environmental inputs			
Receivers	Were receiver heights modelled at 1.4 m above floor leve		Y
	Have noise levels been predicted at the most affected fac-	cade/s?	Υ.
Rail noise predictions			
Predicted noise	Have noise levels been predicted at all floors of the deve		Υ
levels	Have the noise predictions considered the 20-year plann horizon?	ing	A



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C2311-11 LOT 34 (NO. 8) POINT STREET, FREMANTLE - EIGHT STOREY MIXED USE DEVELOPMENT COMPRISING 215 MULTIPLE DWELLINGS AND RESTAURANT/CAFE AND OFFICE USES (ED DAP006/23)

Attachment 12 - Transport Impact Statement

# Proposed Mixed-Use Residential Development Lot 34 (No. 8) Point Street, Fremantle

TRANSPORT IMPACT STATEMENT



3 July 2023

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#### 1. INTRODUCTION AND BACKGROUND

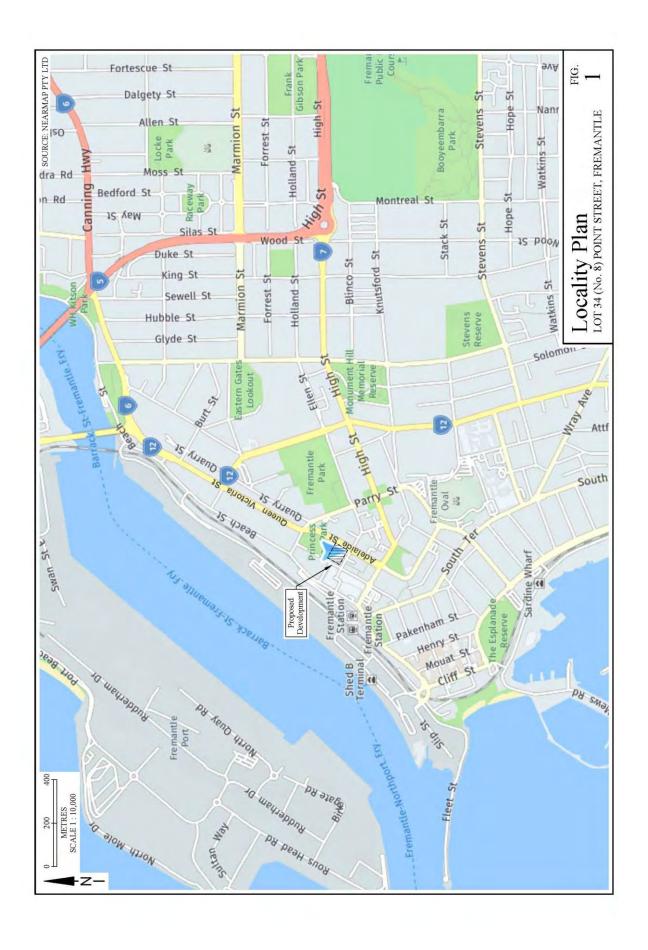
Sirona Urban is proposing a mixed-use residential development at Lot 34 (No. 8) Point Street, in Fremantle, which is located on the western side of Adelaide Street within the Fremantle CBD, as shown in the Locality Plan in Figure 1.

Development plans have been prepared by Architectus, and Uloth and Associates has been commissioned to prepare a Transport Impact Statement in support of the proposed Development Application.

It is important to note that an alternative mixed use development was previously approved for the same site in March 2020, comprising a hotel, residential apartments and a number of street-level commercial tenancies.

#### 1.1 STUDY OBJECTIVES

The overall study objectives are to identify the existing situation in the vicinity of the proposed development site, and to then assess the proposed development, including future traffic demands and parking requirements, proposed parking provision, access requirements, car park layouts, swept paths for service vehicles accessing the proposed loading dock, and rubbish collection.



#### 2. STUDY FINDINGS AND CONCLUSIONS

The study findings and conclusions regarding the existing situation and the proposed Development Application are presented and discussed in this chapter, with reference to more detailed information documented in the Technical Appendix.

#### 2.1 EXISTING SITUATION

The existing roads and intersections in the vicinity of the proposed development site are shown in the aerial photograph in Figure A.1 in Chapter A.1 in the Technical Appendix, while the existing situation is shown in more detail in Figure A.2.

- It can be seen in Figures A.1 and A.2 that the proposed development site is located on the northern site of Point Street, extending from Adelaide Street to Cantonment Street, and bounded on the northern side by Princess May Park, with access in and out of Fremantle via Adelaide Street and Parry Street to Queen Victoria Street (north), High Street (east) and South Terrace (south).
- Adelaide Street, Point Street and Cantonment Street are all identified as Access Roads under the Main Roads WA Functional Road Hierarchy, and are all located within the Fremantle CBD 40 kilometre per hour speed limit area.
- It can be seen in Figure A.2 that Adelaide Street and Point Street are both 2-lane divided roads adjacent
  to the proposed development site, with predominantly raised medians, but with breaks in the median
  to allow right-turns in and out of key access driveways. Restricted on-street parking and footpaths
  are provided along both sides of both Adelaide Street and Point Street, together with zebra crossings
  across each leg of the roundabout at their intersection.
- Cantonment Street is also a 2-lane divided road, but with a predominantly painted median (with raised pedestrian-refuge islands at key locations). There is a raised pedestrian crossing location in Cantonment Street, just north of the proposed development, but no formal zebra crossings, and no onstreet parking.
- The proposed development site currently contains an old 3-level multi-storey car park on the western
  part of the site and an at-grade parking area on the eastern part of the site, with interim arrangements
  providing access to ground-level parking via the eastern access driveways off Point Street.
- The site is well serviced by public transport, with Bus Stops in Adelaide Street and Queen Street (in close proximity of the site) providing access to Routes to/from Claremont, Como, Perth, East Perth, and Bull Creek, as well as the Circle Route. Fremantle Station is also just a short walk (approximately 450 metres) from the site.
- Traffic data obtained from the Main Roads WA Trafficmap website shows that Adelaide Street south
  of Parry Street currently carries approximately 4,310 vehicles per average weekday (2021/22), while
  Cantonment Street north of Point Street carries approximately 2,010 vehicles per average weekday
  (2021/22); however, there are no traffic counts readily available on Point Street.
- Historical crash data was also obtained from Main Roads WA, for the roads immediately adjacent to the proposed development site. A total of 19 crashes were recorded over the past 5 years to December 2021, with 11 incidents along Adelaide Street (including 5 incidents at the Point Street intersection), 5 incidents on Point Street, and 3 incidents on Cantonment Street. I crash was 'Medical' in severity, involving a right-angle incident at the Point Street Cantonment Street intersection, while all other incidents were Property Damage Only incidents, of which 10 were parking related.

#### 2.2 PROPOSED DEVELOPMENT

The proposed development plans, as prepared by Architectus, are presented in Figures A.3 to A.5 in Chapter A.2 in the Technical Appendix (insofar as they relate to traffic and access issues), while the proposed land use and floorspace is detailed in Table A.1.

- The proposed development comprises 4 'Commercial Office' tenancies plus a 'Co-Working/Coffee Shop' at Ground Level (fronting Adelaide Street), and then a range of Studios, 1- to 3-bedroom residential apartments and 2-storey Townhouses from Ground Level (along Cantonment Street and the Princess May Park frontage) up to Level 7, with 2 separate buildings for Levels 1 through 7.
- Figure A.3 shows the detailed development plan for the proposed Ground Floor, while Figure A.4 shows the proposed Basement level. Figure A.5 then shows the Ground Floor plan overlaid on an aerial photograph to show the proposal in the context of the surrounding area.
- It can be seen in Figure A.5 that while pedestrian access for the commercial tenancies is provided
  directly off Adelaide Street, access to the residential apartments is via 2 separate residential lobbies,
  with one off Cantonment Street at the north-west corner of the site and the second off Adelaide Street
  at the south-east corner. There is also a pedestrian access for the 'Level 1 Amenities' directly off
  Princess May Park.
- Vehicular access is then proposed via a single driveway off Point Street, slightly west of centre, for
  access to both the car park and the proposed internal loading bay. Modifications within Point Street
  are also proposed, however this is discussed below in Section 2.6 (with regard to the proposed rubbish
  collection strategy).
- Table A.1 in the Technical Appendix shows that the overall development includes 220 residential
  units (including 21 studios, 88 1-bedroom apartments, 100 2-bedroom apartments, 6 2-bedroom
  townhouses and 5 3-bedroom apartments), together with 288 square metres of 'Commercial Office'
  floorspace (in 4 tenancies) plus 157 square metres of 'Co-Working/Coffee Shop' floorspace.
- A total of 235 parking spaces are also proposed, including 226 car parking spaces and 8 motorcycle spaces. There is also a secure Bike Store for residents (with 52 bicycle spaces) located at ground level, with access off Point Street, plus 4 bicycle spaces for commercial staff within the car park and 8 bicycle spaces for visitors accessed off the Point Street footpath. A total of 220 storage areas are also provided for residents, comprising 70 stores throughout the proposed car park and 150 stores on the upper levels.

#### 2.3 TRIP GENERATION AND TRAFFIC IMPACTS

Trip generation for the proposed development has been calculated based on industry standard trip generation rates within the NSW RMS 'Guide to Traffic Generating Developments' handbook and the ITE 'Trip Generation Manual – 11th Edition', as shown in Table A.2 in Chapter A.3 in the Technical Appendix.

- It can be seen in Table A.2 that the proposed development is expected to generate a total of 78 vehicle trips and 77 vehicle trips, respectively, during the Weekday AM and PM peak hours, with 1,160 vehicle trips per day.
- With less than 100 vehicle trips during the critical peak hours, the proposed development will only
  have a 'Moderate Impact' based on the criteria specified within the WAPC Transport Assessment
  Guidelines, and therefore does not require a full transport impact assessment.
- It is also important to note that this anticipated trip generation equates to a reduction of 490 vehicle trips per day compared to the previously approved Development Application which is estimated to have generated 1,650 vehicle trips per day, with 106 vehicle trips and 131 vehicle trips, respectively,

during the AM and PM peak hours (based on the approved 168 hotel rooms, 45 residential apartments and 933 square metres of commercial tenancies).

#### 2.4 PARKING REQUIREMENTS AND PARKING PROVISION

Parking requirements for the proposed development are calculated in Tables A.3 and A.4 in Chapter A.4 in the Technical Appendix.

- Table A.3 shows the 'Planning Scheme Car Parking Requirements' for the proposed development, based on the 'Shop' rate of 1 space per 20 square metres and the 'Office' rate of 1 space per 30 square metres GLA (as specified in City of Fremantle Local Planning Scheme No. 4), with residential rates of 0.75 spaces per 1-bedroom apartment and 1.0 spaces per 2- or 3-bedroom apartments for residents (in accordance with State Planning Policy SPP 7.3), noting that under Schedule 7 of the Local Planning Scheme, residential visitor parking is not required.
- It can be seen in Table A.3 that the overall parking requirement is for a total of 211 spaces, comprising 193 spaces for the proposed apartments plus 18 spaces for the various non-residential tenancies.
- Table A.4 then shows that a total of 19 motorcycle parking spaces should also be provided, based on a requirement for 1 per 10 car spaces under SPP 7.3.
- It is important to note that a reduction in car spaces can be applied (as also specified under SPP 7.3) allowing 1 car bay to be reduced for each five motorcycle bays provided. The provision of 19 motorcycle bays would therefore allow a reduction of 4 car spaces, reducing the total requirement to 207 car spaces.
- As noted above in Section 2.2, the proposed development plans currently provide a total of 226 car
  parking spaces and 8 motorcycle spaces (that is, a surplus of 19 car spaces, and a shortfall of 11
  motorcycle spaces).
- It is also necessary to provide a total of 132 bicycle parking spaces for the proposed residential
  apartments (including 110 spaces for residents and 22 spaces for visitors), plus 3 staff bicycle spaces
  and 2 visitor bicycle spaces for the coffee shop and office tenancies, as also calculated in Table A.4.
- The proposed plan currently provides a total of 52 bicycle spaces within the secure Residential Bike
  Store accessed off Point Street, plus 4 spaces for staff of the commercial tenancies (within the car
  park) and 8 spaces for visitors (accessed off the Point Street footpath). Noting that residents will be
  able to park a bike within their individual Store Room, the plan therefore provides a significant overall
  surplus of 147 bicycle spaces.

#### 2.5 VEHICULAR ACCESS, SERVICING AND CAR PARK LAYOUT

As noted above in Section 2.2, vehicular access for the proposed development is via a single driveway off Point Street, providing access to the proposed Loading Bay and Ground Level car park.

- The proposed access driveway requires a minimum width of 6.1 metres, with a sightline truncation of 2.5 metres x 2.0 metres on the left-hand side for exiting vehicles, as shown in Figure A.6 in Chapter A.5 in the Technical Appendix.
- Figures A.7 in Chapter A.5 then shows the swept paths for a Medium Rigid Vehicle (8.8 metres) accessing the proposed Loading Bay, suitable for furniture delivery vehicles and other service vehicles accessing the site.
- The proposed car park includes a combination of single and tandem parking spaces, all accessed via a network of 2-way parking aisles, with an internal ramp providing access from Ground Level to the Basement.

- Car parking spaces are currently 2.4 metres x 5.4 metres, with typical parking aisle widths of 6.0 metres, which is suitable for resident and employee parking under User Class 1A (as specified in Australian Standard AS 2890.1).
- The proposed car park structure will need to be further refined at the detailed design stage to ensure
  that columns and other obstructions do not encroach into the required 'design envelope' around parked
  vehicles and to also ensure that sufficient clearances are provided to all obstructions.

#### 2.6 PROPOSED POINT STREET MODIFICATIONS (FOR RUBBISH COLLECTION)

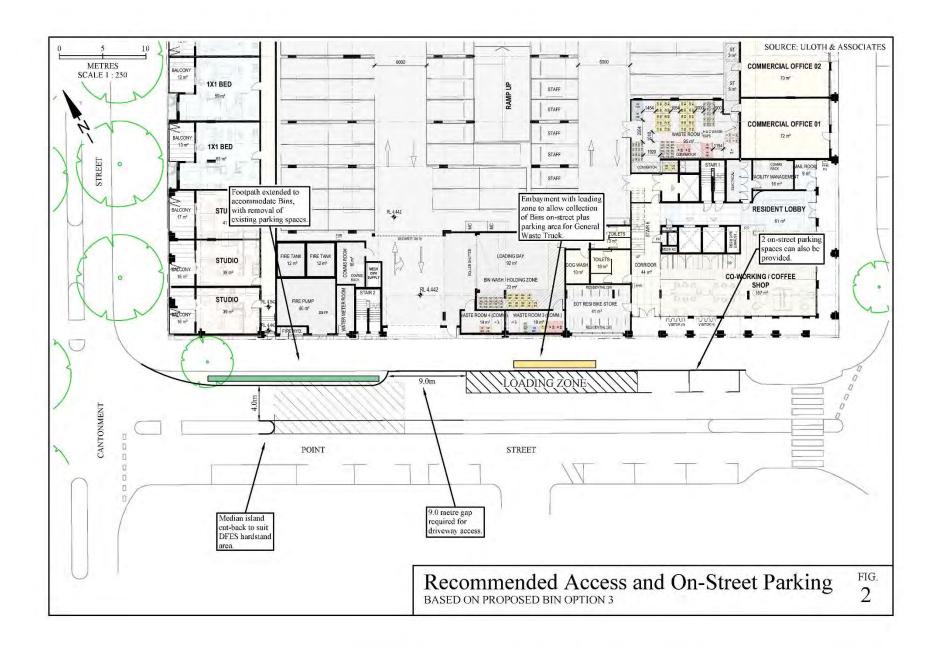
As noted above in Section 2.1, Point Street currently provides 7 on-street parking spaces along the frontage of the proposed development, with a gap at the eastern end of the existing access driveways. However, modifications are required, not only to accommodate the proposed new access driveway (and DFES emergency vehicle access requirements), but also to ensure that rubbish bins for the proposed development can be presented at the kerb for on-street collection by City of Fremantle rubbish trucks.

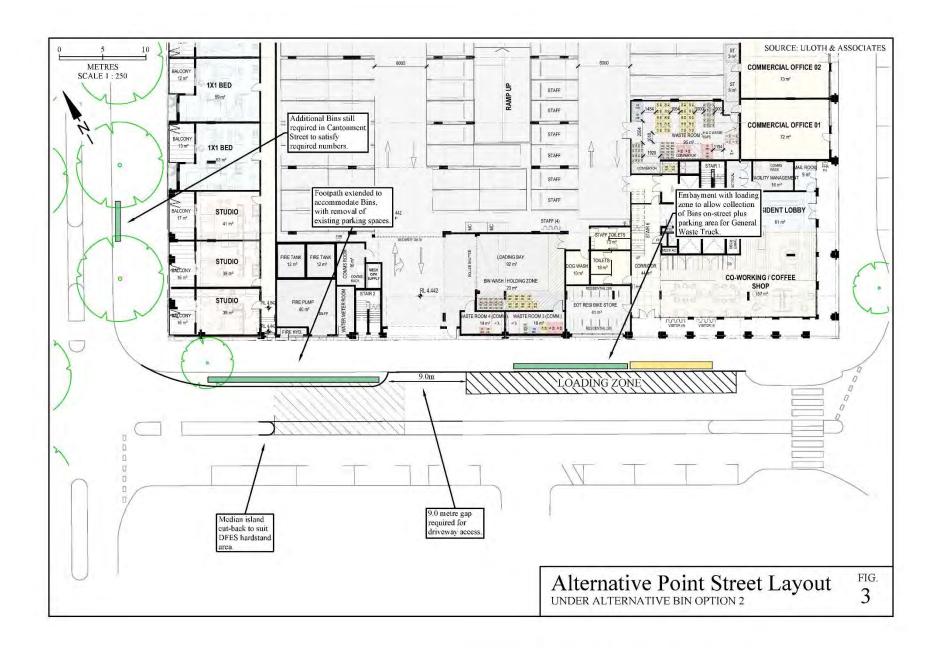
- Encycle (Waste Consultant) has identified 3 possible Bin Options based on alternative frequencies of
  collection for the different types of waste, resulting in 3 different scenarios for the number of bins to
  be presented at the kerb for roadside collection by a side-loading mechanical-lift truck, as follows:
  - Bin Option 1, based on City of Fremantle's current collection frequencies, would require a line of
    up to 82 bins, which would extend all the way along both the Cantonment Street and Point Street
    frontages of the site, which is not acceptable.
  - Bin Option 2 assumes an increased frequency of collection for comingled recycling, and hence a
    reduced maximum of 56 bins for presentation at the kerb.
  - Bin Option 3 assumes an increased collection frequency also for food and organic waste, and hence
    a further reduction to a maximum of 34 bins at any one time.
- In each of the above cases, it is also recommended to provide an embayed parking area (or loading zone) for a 10-metre truck to park, for manual collection and loading of 'general waste' bins into a rear-loading truck.
- Figure 2 in Chapter 3 Overall Conclusions and Recommendations shows the recommended
  modifications for the northern side of Point Street, to accommodate the required access arrangements
  and rubbish collection processes under the preferred Bin Option 3, while the resulting swept paths for
  a 10-metre Rubbish Truck are shown in Figure A.8 in Chapter A.6 in the Technical Appendix.
- It can be seen in Figure 2 (and Figure A.8) that a build-out of the footpath at the western end of Point
  Street allows some bins to be collected directly from the traffic lane, prior to the truck moving into a
  proposed loading zone for the remaining bins at the eastern end. It can also be seen that Bin Option
  3 would allow the retention of 2 on-street parking spaces at the eastern end of the loading zone.
- Figure 3 in Chapter 3 then shows the alternative layout for Point Street under Bin Option 2, with the same physical layout of the street, but with some bins now also needing to be presented in Cantonment Street, and with the removal of the 2 on-street parking spaces at the eastern end of Point Street (to allow an increased length for the loading zone). The modified swept paths for the 10-metre Rubbish Truck under Bin Option 2 are shown in Figure A.9 in Chapter A.6.
- It is also important to note that the proposed access driveway and internal loading dock have been
  designed to also accommodate a 10-metre Rubbish Truck, as shown in Figure A.10 in Chapter A.6 in
  the Technical Appendix, in case on-site rubbish collection becomes an acceptable option in the future.

#### 3. OVERALL CONCLUSIONS AND RECOMMENDATIONS

The overall conclusions and recommendations regarding the proposed development at Lot 34 (No.8) Point Street are drawn from the study findings and conclusions presented above in Chapter 2, and the additional information documented in the Technical Appendix, as follows:

- The proposed mixed-use development comprises 220 residential apartments over 8 levels, together
  with 4 home office tenancies (288 square metres), a co-working office area with coffee shop (157
  square metres), and 2 levels of parking.
- It is estimated that the development could generate up to 1,160 vehicle trips per day, with 78 trips and 77 vehicle trips respectively, during the AM and PM peak hours. With less than 100 vehicle trips per hour during the critical peak hours, the proposed development will only have a 'moderate impact' on the surrounding road network. The traffic impact is also a reduction compared to the previously approved Development Application.
- The overall parking requirement for the proposed development is for a total of 207 car spaces plus 19
  motorcycle spaces. The current plan therefore provides a surplus of 19 car spaces and a shortfall of
  11 motorcycle spaces.
- It is also necessary to provide a total of 137 bicycle parking spaces, comprising 132 spaces for the apartments (including 110 spaces for residents and 22 spaces for visitors) plus 5 spaces for the non-residential tenancies. Noting that all residents will be able to park a bicycle in their individual store room, the proposed plan provides a significant overall surplus of 147 bicycle spaces.
- The recommended modifications within Point Street are shown in Figure 2, based on rubbish bin collection under Bin Option 3 (as discussed in Section 2.6), and taking into account the sightline analysis and swept path requirements discussed in Section 2.5, with swept paths for rubbish bin collection as shown in Figure A.8 in Chapter A.6 in the Technical Appendix.
- The alternative layout for Point Street under the alternative Bin Option 2 is as shown in Figure 3, with resulting swept paths for rubbish collection as shown in Figure A.9 in Chapter A.6.
- It is also important to note that the proposed access driveway and internal loading bay have also been
  designed to accommodate a 10-metre Rubbish Truck, with swept paths as shown in Figure A.10 in
  Chapter A.6, to future-proof the site for possible future on-site rubbish collection.



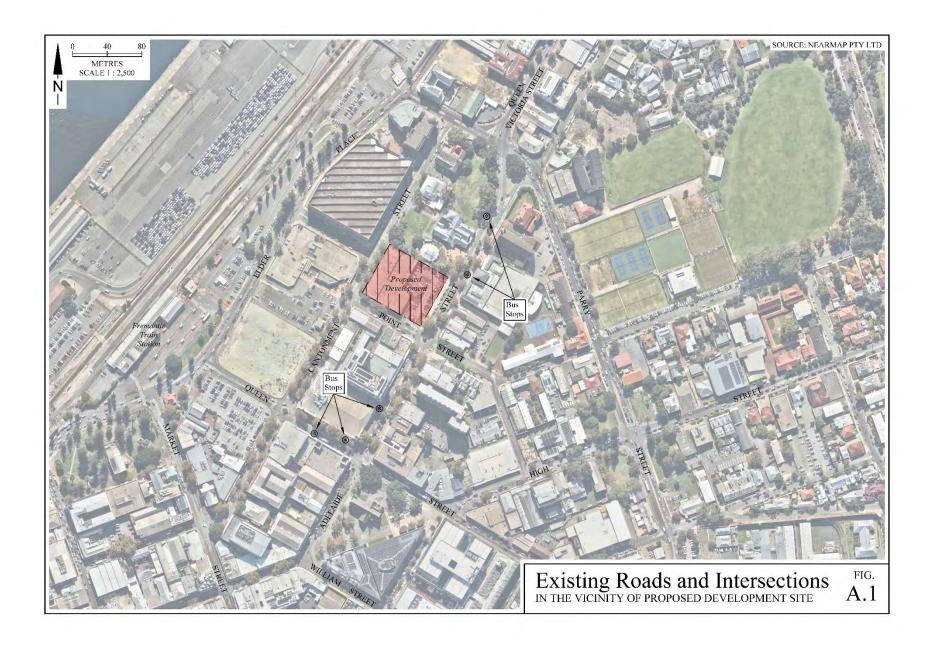


## TECHNICAL APPENDIX

The Technical Appendix documents the existing situation and the proposed development plan, together with future traffic generation, parking requirements, car park access and swept paths for service vehicles.

#### A.1 EXISTING SITUATION

Figures A.1 shows the existing roads and intersections in the vicinity of the proposed development site, while the existing situation within and immediately adjacent to the site is shown in more detail in Figure A.2.





#### A.2 PROPOSED DEVELOPMENT

Figure A.3 and A.4 shows the proposed Ground Floor and Basement Level development plan, with the proposed land use as shown in Table A.1, while Figure A.5 shows the Ground Floor plan overlaid on an aerial photograph to show the proposal in the context of the surrounding area.

288 m<sup>2</sup>

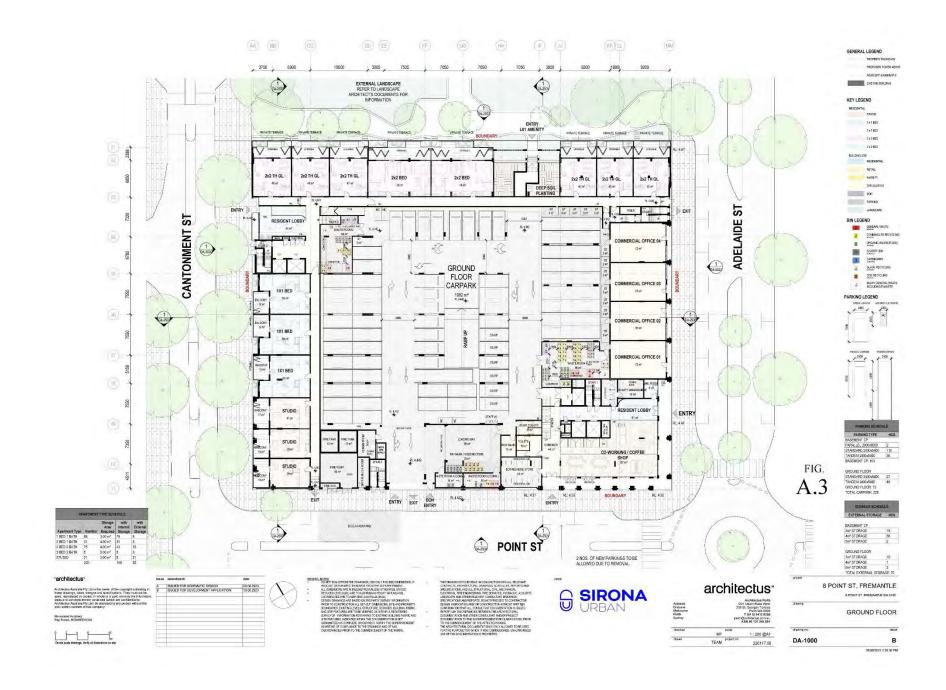
TABLE A.1 PROPOSED MIXED-USE DEVELOPMENT LOT 34 (No. 8) POINT STREET, FREMANTLE

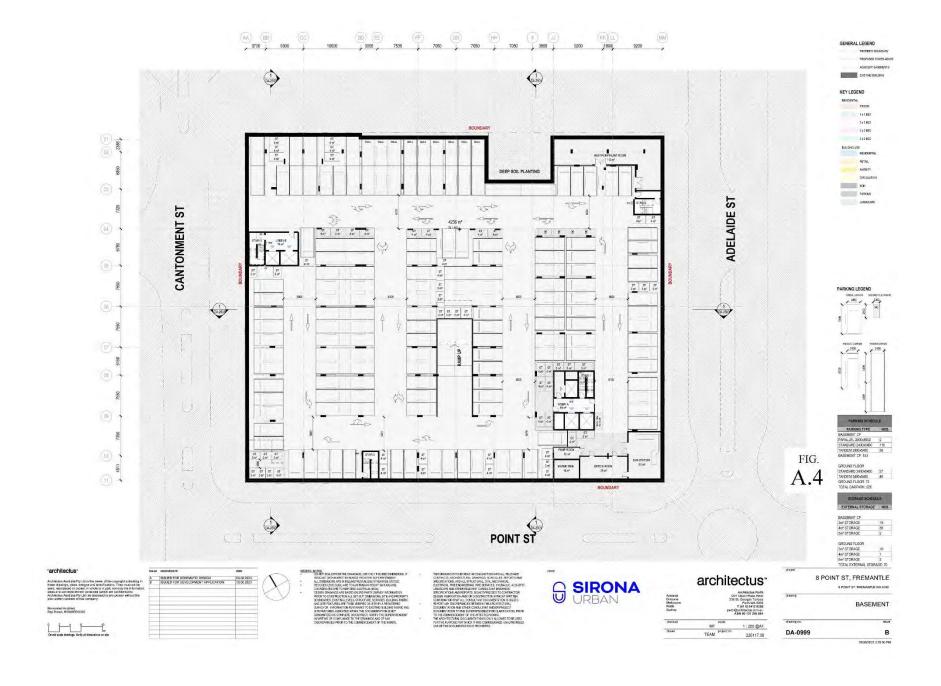
TENANCY AND LAND USE	AMOUNT
Residential	
<ul> <li>Apartments (Ground Floor to level 7)</li> <li>Studio</li> <li>1 Bedroom</li> <li>2 Bedrooms</li> <li>3 Bedrooms</li> <li>Total</li> </ul>	21 units 88 units 106 units 5 units 220 units
Non-Residential  Retail/Cafe	157 m²

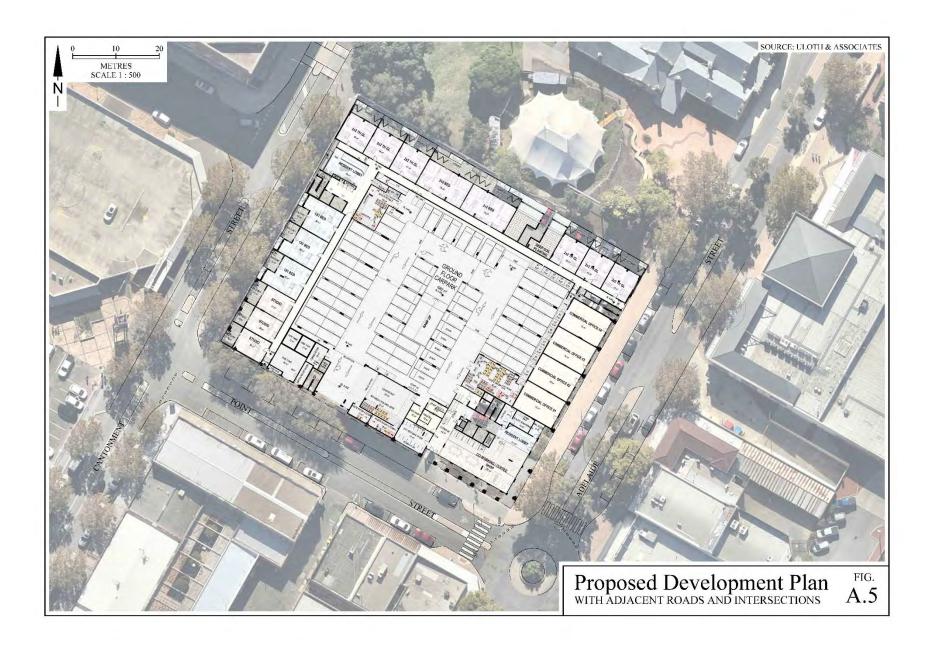
Notes: 1) Includes 6 Town Houses.

· Commercial/Office (4 Tenancies)

Source: Architectus







#### A.3 FUTURE TRIP GENERATION

Table A.2 shows the calculation of anticipated weekday traffic generation for the proposed mixed-use development, based on industry-standard trip generation rates from the NSW RMS 'Guide to Traffic Generating Development' manual, and the ITE 'Trip Generation Manual – 11th Edition'.

TABLE A.2 FUTURE WEEKDAY TRIP GENERATION PROPOSED MIXED-USE DEVELOPMENT

	TRIP GENERATION		
LAND USE	AM Peak	PM Peak	Daily
	(vehs/hour)	(vehs/hour)	(vehs/day)
<ul> <li>Residential Apartments <sup>1)</sup> (220 units)</li> </ul>	70	64	1,040
	(0.32/unit)	(0.29/unit)	(4.75/unit)
<ul> <li>Retail/Café<sup>2)</sup> (157m<sup>2</sup>)</li> </ul>	3	7	90
	(1.8/100m²)	(4.6/100m²)	(55.5/100m²)
<ul> <li>Commercial/Office <sup>3)</sup></li></ul>	5	6	30
(288m²)	(1.6/100m²)	(2/100m²)	(10/100m²)
Total	78	77	1,160

Notes:

- Based on ITE 'Trip Generation Manual 11th Edition' for 'Multi-family Housing (Mid-Rise) - Close to Rail Transit (#221)'.
- PM peak hour and Daily trip rates based on 'Specialty Shops' rate for shopping centres in NSW RMS 'Guide to Trip Generating Developments'. AM peak hour equals 39 percent of PM peak, based on comparison in ITE 'Trip generation Manual - 11th Edition' for 'Strip Retail Plaza (#822)'.
- 3) PM peak hour and Daily trip rates based on 'Office and Commercial' rate in NSW RMS 'Guide to Trip Generating Developments' AM peak hour equals 77 percent of PM peak, based on comparison in ITE 'Trip Generation Manual 11th Edition' for 'Small Office Building (#712)'.

Source: Uloth and Associates

## A.4 PARKING REQUIREMENTS FOR PROPOSED DEVELOPMENT

Table A.3 shows the initial planning scheme car parking requirements for the proposed development, while Table A.4 shows the corresponding motorcycle and bicycle parking requirements, as discussed above in Section 2.4.

TABLE A.3
PLANNING SCHEME CAR PARKING REQUIREMENTS
PROPOSED MIXED-USE DEVELOPMENT

A TANAL STATE OF THE STATE OF T		CAR PARKING	REQUIREMENTS
LAND USE	AMOUNT 1)	Rate	Number
<ul> <li>Apartment Residents</li> <li>1 Bedroom<sup>2)</sup></li> <li>2+ Bedrooms</li> <li>Total</li> </ul>	109 units 111 units 220 units	0.75/unit 1.0/unit	82 spaces 111 spaces 193 spaces
Retail/Café     Commercial/Office	157 m <sup>2</sup> 288 m <sup>2</sup>	1/20 m <sup>2</sup> 1/30 m <sup>2</sup>	8 spaces 10 spaces

Overall Planning Scheme Car Parking Requirement	
- Residential	193 spaces
- Non-Residential	18 spaces
- Total	211 spaces

Notes: 1) From Table A.1 in Chapter A.2.

2) Includes Studio Apartments.

Source: Uloth and Associates

TABLE A.4 MOTORCYCLE AND BICYCLE PARKING REQUIREMENTS PROPOSED MIXED-USE DEVELOPMENT

	PARKING REQUIREMENT		
PARKING TYPE BY LAND USE	Rate	Number	
Motorcycle Parking     Residential Tenants	1/10 car bays	19 spaces 1)	
Bicycle Parking			
- Residential Tenants	0.5/unit	110 spaces 2)	
- Residential Visitors	1/10 units	22 spaces 2)	
- Commercial/Office Tenants	1/200m <sup>2</sup>	1 space 3)	
- Retail/Café Tenants	1/100m <sup>2</sup>	2 spaces 4)	
- Retail/Café Visitors	2 spaces	2 spaces 4)	
- Total	199	137 spaces	

Notes:

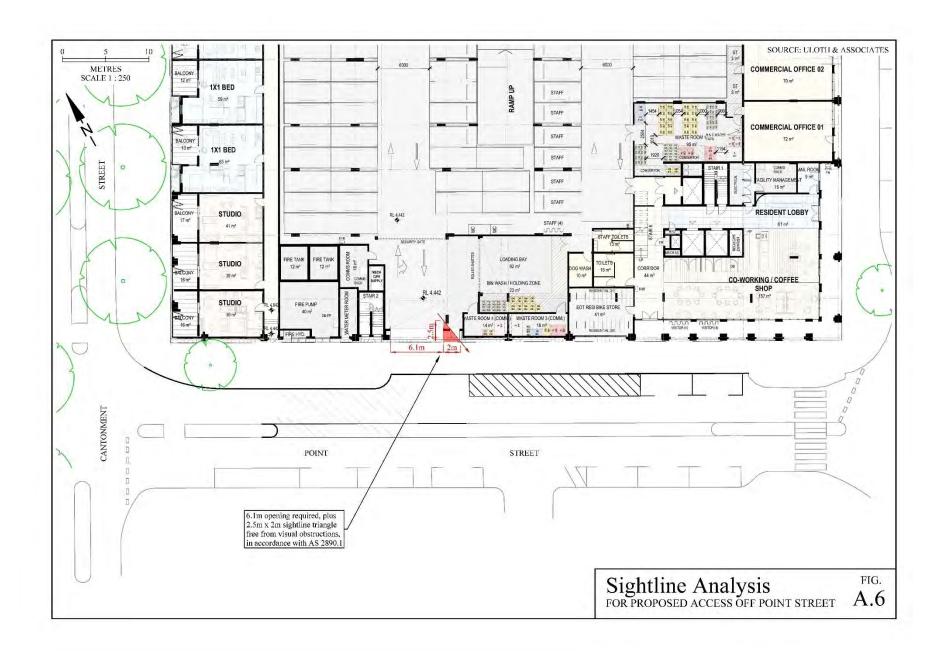
- 1) Based on 193 car spaces, as calculated in Table A.3.
- 2) For 220 residential units.
- 3) For 288m<sup>2</sup> of Office floorspace, based on City of Fremantle planning scheme requirements.
- 4) For 157m<sup>2</sup> of Cafe floorspace, based on City of Fremantle planning scheme requirements.

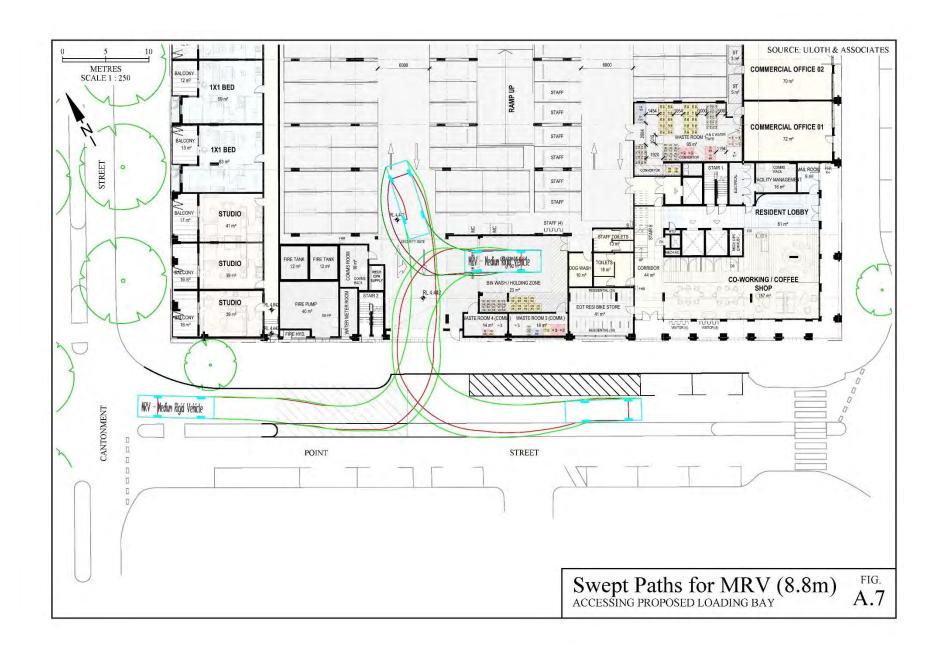
Source: Uloth and Associates

## A.5 VEHICULAR ACCESS AND CAR PARK LAYOUT

Figure A.6 shows the proposed access driveway off Point Street and the required sightline truncation area to satisfy the sightline requirements for car park access driveways, as specified in Australian Standard AS 2890.1.

Figure A.7 shows the swept path for an 8.8-metre Medium Rigid Vehicle accessing the proposed Loading Bay (based on the recommended road layout for Point Street as shown in Figure 2 in Chapter 3).





#### A.6 RUBBISH TRUCK SWEPT PATHS

Figure A.8 shows the swept paths for a 10-metre Rubbish Truck accessing the kerb-presented bins along Point Street, based on the recommended road layout identified in Figure 2 in Chapter 3 (under recommended Bin Option 3).

Figure A.9 shows the corresponding Rubbish Truck swept paths based on the alternative layout presented in Figure 3 in Chapter 3 (if the alternative Bin Option 2 is selected).

Figure A.10 shows an additional swept path to confirm that a 10-metre Rubbish Truck will also be able to access the proposed internal Loading Dock, if on-site rubbish collection becomes an acceptable option in the future.

