



Metro Inner-South Joint Development Assessment Panel Agenda

Meeting Date and Time: Monday, 30 January 2023; 9.30am
Meeting Number: MISJDAP/127
Meeting Venue: City of Fremantle
151 High Street, Fremantle

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Attendance

DAP Members

Mr Clayton Higham (Presiding Member)
Ms Gabriela Poezyn (Deputy Presiding Member)
Mr John Syme (A/Third Specialist Member)
Cr Andrew Sullivan (Local Government Member, City of Fremantle)
Cr Rachel Pemberton (Local Government Member, City of Fremantle)

Officers in attendance

Mr Justin Lawrence (City of Fremantle)
Ms Chloe Johnston (City of Fremantle)

Minute Secretary

Ms Kayla Goodchild (City of Fremantle)

Applicants and Submitters

Mr Peter Simpson (PTS Planning)
Mr Robert O'Brien (Silverleaf Investments Pty Ltd)
Mr Dominic Snellgrove (CCN)
Mr Robert Kidd

Members of the Public / Media

Nil

1. Opening of Meeting, Welcome and Acknowledgement

The Presiding Member declares the meeting open and acknowledges the traditional owners and pay respects to Elders past and present of the land on which the meeting is being held.

2. Apologies

Ms Rachel Chapman (Deputy Presiding Member)
Mr Peter Lee (Specialist Member)

3. Members on Leave of Absence

DAP Member, Mr Peter Lee has been granted leave of absence by the Director General for the period of 25 January 2023 to 8 February 2023 inclusive.

4. Noting of Minutes

Signed minutes of previous meetings are available on the [DAP website](#).

5. Declarations of Due Consideration

Any member who is not familiar with the substance of any report or other information provided for consideration at the DAP meeting must declare that fact before the meeting considers the matter.



The Presiding Member notes an addendum to the agenda was published to include details of a DAP request for further information and responsible authority response in relation to Item 8.1, received on 25 January 2023 and 27 January 2023.

6. Disclosure of Interests

Nil

7. Deputations and Presentations

- 7.1** Mr Robert Kidd presenting against the recommendation for the application at Item 8.1. The presentation will address a professional archaeological survey is needed prior to excavation.
- 7.2** Mr Robert O'Brien (Silverleaf Investments Pty Ltd) presenting in support of the recommendation for the application at Item 8.1. The presentation will address in support of the proposed development and request deletion or amendment of Condition 9.
- 7.3** Mr Dominic Snellgrove (CCN) presenting in support of the recommendation for the application at Item 8.1. The presentation will address in support of the proposed development and request deletion or amendment of Condition 9.
- 7.4** Mr Peter Simpson (PTS Town Planning) presenting in support of the recommendation for the application at Item 8.1. The presentation will address in support of the proposed development and request deletion or amendment of Condition 9.
- 7.5** WRITTEN SUBMISSION - Mr John Dowson against the development at Item 8.1

The City of Fremantle may be provided with the opportunity to respond to questions of the panel, as invited by the Presiding Member.

8. Form 1 – Responsible Authority Reports – DAP Applications

8.1 Lot 1 (28) Cantonment Street & No. 1-6/20 Elder Place, Fremantle

Development Description:	Construction of a three (3) storey mixed use (shop, office, liquor store-small and child care premises) development
Applicant:	PTS Planning
Owner:	Silverleaf Investments Pty Ltd
Responsible Authority:	City of Fremantle
DAP File No:	DAP/22/02352

9. Form 2 – Responsible Authority Reports – DAP Amendment or Cancellation of Approval

Nil



10. State Administrative Tribunal Applications and Supreme Court Appeals

Current SAT Applications				
File No. & SAT DR No.	LG Name	Property Location	Application Description	Date Lodged
DAP/21/01936 DR168/2021	Town of Victoria Park	No. 176 (Lot 40) Burswood Road, Burswood	Proposed Officer Tower	09/08/2021
DAP/22/02244 DR121/2022	City of Fremantle	Nos. 34-38 (Lots 1823, 1209, 1212 and 1217) Amherst Street and Nos. 2-4 (Lots 1223 and 1222) Stack Street, Fremantle	56 Grouped Dwellings	30/11/2022
DAP/22/02290 DR234/2022	Town of Victoria Park	No.384 (Lot 3) Berwick Street, East Victoria Park	Proposed 13 Grouped Dwellings	23/12/2022

11. General Business

In accordance with Section 7.3 of the DAP Standing Orders 2020 only the Presiding Member may publicly comment on the operations or determinations of a DAP and other DAP members should not be approached to make comment.

12. Meeting Closure



Direction for Further Services from the Responsible Authority

Regulation 13(1) and DAP Standing Orders 2020 cl. 3.3

Guidelines

A DAP Member who wishes to request further services (e.g. technical information or alternate recommendations) from the Responsible Authority must complete this form and submit to daps@dplh.wa.gov.au.

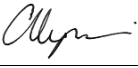
The request will be considered by the Presiding Member and if approved, the Responsible Authority will be directed to provide a response to DAP Secretariat within the form.

It is important to note that **the completed form containing the query, response and any accompanying documentation will be published on the DAP website** as an addendum to the meeting agenda.

DAP Application Details

DAP Name	Metro Inner-South JDAP
DAP Application Number	DAP/22/02352
Responsible Authority	City of Fremantle
Property Location	Lot 1 (28) Cantonment Street & No. 1-6/20 Elder Place, Fremantle

Presiding Member Authorisation

Presiding Member Name	Mr Clayton Higham
Signature	
Date	24 January 2023
Response Due	26 January 2023; COB

Nature of technical advice or information required*

1	DAP query	This was raised concern in Council Meeting by Cr Rachel Pemberton as follows: I raised concern about the location of the secure bike parking. It is not in the basement as stated in the officer comments on page 18, but rather on the second floor. I raised this in debate during the council meeting, and the applicant has subsequently told me they will get their architects to look at putting them in a more accessible location. They may do this before the meeting, or it may be necessary to move an amendment to add this as a condition. Could a suitable amendment be drafted requiring the bike parking to be relocated to the ground floor or basement, or a suitable and safe access plan for bikes is developed?
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* Any alternate recommendation sought does not infer a pre-determined position of the panel.

		My reasons are: As per advice from the DAC, access to the bike storage should be safe, legible and easy. All effort should be taken to minimise risk and conflict points, particularly between cars and bikes on the parking access ramps, or in the lifts that are shared with child care customers or office users. I note that if one of the lifts is a goods or service lift that can be used for bikes, that could work, but bikes sharing a lift with office workers and children may be unnecessarily difficult for future users of the building.
	Response	Additional condition – <i>Prior to the issue of a building permit, a safe access plan for bicycles shall be submitted to the satisfaction of the City of Fremantle. This may include a proposal to relocate the bicycle racks shown on the second floor to a suitable location at ground level.</i>



Dear Presiding Member,

28 Cantonment Street, Fremantle

As advised in the Responsible Authority Report, this application was considered at the Ordinary Council Meeting of the City of Fremantle on 18 January 2023. Council resolved to support the Officers Recommendation, subject to the following amendments as detailed in the Minutes (excerpt below) -

SUPPORT the Officer's Recommendation to APPROVE, under the Metropolitan Region Scheme and Local Planning Scheme No. 4, the three storey mixed use development at No. 28 (Lot 1), Cantonment Street, Fremantle and 1-6/20 Elder Place, Fremantle, subject to the conditions outlined in the responsible authority report, as amended below:

Additional Advice Note:

The City of Fremantle notes the indicative plans provided for future stages are shown for context only and do not form part of this application. These future stages appear to seek significant discretion against the local planning scheme and have not been assessed or supported as part of this approval.

Additional Condition 28:

Prior to the issue of a building permit, revised drawings shall be provided to ensure access to sunlight and natural ventilation for the carpark on Level 1 to the satisfaction of the City of Fremantle.

Kind regards

A handwritten signature in blue ink, appearing to be "Chloe Johnston", with a long horizontal line extending to the right.

Chloe Johnston

Manager Development Approvals



Presentation Request Form

[Regulation 40\(3\)](#) and [DAP Standing Orders 2020](#) cl. 3.5

Must be submitted at least 72 hours (3 ordinary days) before the meeting

Presentation Request Guidelines

Persons interested in presenting to a DAP must first consider whether their concern has been adequately addressed in the responsible authority report or other submissions. Your request will be determined by the Presiding Member based on individual merit and likely contribution to assist the DAP's consideration and determination of the application.

Presentations are not to exceed **5 minutes**. It is important to note that the presentation content will be **published on the DAP website** as part of the meeting agenda.

Please complete a separate form for each presenter and submit to daps@dplh.wa.gov.au

Presenter Details

Name	Robert Neil Kidd
Company (if applicable)	Click or tap here to enter text.
Please identify if you have any special requirements:	YES ☐ NO ☒ If yes, please state any accessibility or special requirements: Click or tap here to enter text.

Meeting Details

DAP Name	Click or tap here to enter text.
Meeting Date	30 th January 2023
DAP Application Number	DAP/005/22
Property Location	28 Cantonment Street & 20 Elder Place, Fremantle
Agenda Item Number	Click or tap here to enter text.

Presentation Details

I have read the contents of the report contained in the Agenda and note that my presentation content will be published as part of the Agenda:	YES ☒
Is the presentation in support of or against the <u>report recommendation</u> ? (<i>contained within the Agenda</i>)	SUPPORT ☐ AGAINST ☒
Is the presentation in support of or against the <u>proposed development</u> ?	SUPPORT ☐ AGAINST ☐
Will the presentation require power-point facilities?	YES ☐ NO ☒ If yes, please attach



Presentation Content*

These details may be circulated to the local government and applicant if deemed necessary by the Presiding Member. Handouts or power points will not be accepted on the day.

Brief sentence summary for inclusion on the Agenda	<i>The presentation will address:</i> A professional archaeological survey is needed prior to excavation.
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In accordance with Clause 3.5.2 of the [DAP Standing Orders](#), your presentation request must also be accompanied with a written document detailing the content of your presentation.

Please attach detailed content of presentation or provide below:

Previously I sent this message "Still working on my presentation which will be submitted Friday 27th/2023" It is now ready;

**23.01.27 Submission to the Joint Development Assessment Panel Robert KIDD
Submission to the Joint Development Assessment Panel (JDAP) on DAP005/22
Redevelopment of the Woolstores Shopping Centre, City of Fremantle.**

I think it essential that a thorough archaeological assessment be done of the [DAP005/22] site prior to the commencement of earthworks. This site may contain artefacts from Elders Woolstore, previous buildings and land beneath them.

I refer to the Heritage Council WA publication Archaeological Management Plans (June 2019).

- An Archaeological Management Plan (AMP) is applicable for sites where archaeological potential has been recognised in the Heritage assessment, conservation management plan (CMP) and/or in consultation with an archaeologist.

The developer and the City of Fremantle may have failed in their duty in the development application process not only by omitting to require and produce a Heritage assessment and/or to consult with an archaeologist but also ask the question of archaeological potential. In these circumstances, I submit that the JDAP should consider the best available evidence of archaeological potential available to it – not just rely on a keen observer such as me.

I have no formal qualifications in archaeology however I was a registered teacher with a strong interest and practice in conservation and archaeology over many years.

I loved old buildings and rubbish dumps as a child! I researched housing near Canning Bridge in the 1960s and learned about lath and plaster. I taught my students to look for any anomalies. I researched Group Settlement schools and the Pemberton Hydro Electricity scheme and made a display for the local museum. I discovered things about pioneers in Pemberton, Bridgetown and Geraldton by searching. I discovered a cave possibly lived in by a well-known Aboriginal identity at D'Entrecasteaux National Park. I photograph the built environment every day. I have documented the development of South Beach Village [North Coogee] with thousands of photographs; especially Wesfarmer's woolstore!



I documented the remnants of the Robb Jetty standard gauge railway yards, the Fremantle sewerage scheme's ocean outfall at Robb Jetty and I continue to find artefacts washed up on Fremantle's beaches every morning. I am in contact with a well-known local archaeologist to whom I show things that are beyond my layman's abilities. I care about our history and hate seeing it destroyed. We have an obligation to preserve our history in our heritage city!

*The Heritage Council's publication points to the value of an AMP to all concerned including the developer**. From a community point of view, artefacts can be brought to light and placed in the public domain when an AMP requires this.

I have seen what can happen in the worst case scenario. I worry about what could happen if no survey is done once details of this are in the public domain. Mt Lawley SHS oval was dug up one night in the 1970s! People dig up our old dump sites. East Fremantle's oval redevelopment had people cutting through fences and digging holes in the night! I am sure none of those 'finds' ended up in the public domain.

The destruction of the archaeological value of the Woolstores site has already started. I had written to the builders and demolishers about getting some fake plastic windows and a ram's head design sign to create an art piece that could be a reminder of the Woolstores Shopping Centre but I was told I was "too late". Then they dug up the old sewer pipes and cess pools and scattered them all over the site and I wondered what would be revealed?

Evidence of the old wool store, slate rooves and the Swan River became quickly apparent. Hundreds of interesting things were exposed and I used online sources to help identify the rostral portion of a Pilot Whale skull, military buttons, scrimshaw, a U.S. padlock and lesser known woolstore things like wool bale 'dogs'.

Coins, bones, nails, teeth, tools, bottles, wool staples, pottery, wood, buckles, bricks, jewellery, hooks, glass stoppers, shells (as this was once part of the Swan River bed), buttons, leather, wire, ceramic pipes & ink bottles, charcoal & "slag", square 'washers' and horseshoes!

This could be a treasure trove if it is ever excavated properly! Imagine a display of items that were uncovered in the entrance of the new building for the public to see!

It is not too late to recognise and protect the archaeological potential of the Woolstores site provided the JDAP requires an Archaeological Management Plan as part of the development process.



- Archaeology is so often about what is left underground as we have seen at Peel Town[#] and Pompei! {[#] Shane Bourke; Archaeology coordinator at Notre Dame University}

I am a responsible citizen; council staff know me as the guy who picks up rubbish every morning at the beach and the guy who reports things that are wrong. I am also a citizen scientist and I am concerned the opportunity of a lifetime may be missed if the developer is not made to do a proper archeological assessment. *Thank you* [time 4:48 <5 5:14 19/34/43 secs]

**"In the absence of an AMP, work would need to stop while notification was made, possible actions were discussed, and necessary approvals sought from consent authorities." AMP*



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Presenter Details

Name	Robert O'Brien
Company (if applicable)	Silverleaf Investments Pty Ltd
Please identify if you have any special requirements:	YES ☐ NO ☒ If yes, please state any accessibility or special requirements: Click or tap here to enter text.

Meeting Details

DAP Name	Metro Inner-South JDAP
Meeting Date	30 January 2023
DAP Application Number	DAP/22/02352
Property Location	28 Cantonment Street and 20 Elder Place, Fremantle
Agenda Item Number	8.1

Presentation Details

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Brief sentence summary for inclusion on the Agenda	<i>The presentation will address:</i> Speaking in support of the proposed development and request deletion or amendment of Condition 9
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In accordance with Clause 3.5.2 of the [DAP Standing Orders](#), your presentation request must also be accompanied with a written document detailing the content of your presentation.

Please attach detailed content of presentation or provide below:

- a. This has been an extremely challenging project on a large site. We went to full tender on the previous design, however, the cost was significantly above the budget and was not viable to progress.
- b. We have sought to amend the design to separate the land uses and remove the basement as these were some of the factors that resulted in the price escalation.
- c. The 3.65 metre setback was also a contributory factor to the project viability and there is no return on this land.
- d. The proposed development is extremely vital for Fremantle as the entrance to the centre from the train station and to support the current residential & future increase in inner city residents as the City does require a full line supermarket.
- e. We did acquire the adjoining Strata complex facing onto Queen Street at significant capital cost to ourselves. We did not need to acquire the land to progress our development, however, in consultation with the previous Mayor it was identified as critical to the success of Queen Street.
- f. We now feel that we are simply giving this area, and the cost to acquire the land, back to the City.
- g. The 3.65 metre setback to Queen Street has a significant impact on the project viability. As stated above we purchased the existing strata shops at considerable expense with no return to the development as this similar area is required as setback.
- h. The 3.65 metre setback has a significant impact on the ability to deliver the tenancies to Queen Street and the office tenancies above.
- i. If the 3.65 metre set back is required as part of the Development Approval we will not start the project.



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Presenter Details

Name	Dominic Snellgrove
Company (if applicable)	CCN
Please identify if you have any special requirements:	YES ☐ NO ☒ If yes, please state any accessibility or special requirements: Click or tap here to enter text.

Meeting Details

DAP Name	Metro Inner-South JDAP
Meeting Date	30 January 2023
DAP Application Number	DAP/22/02352
Property Location	28 Cantonment Street and 20 Elder Place, Fremantle
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In accordance with Clause 3.5.2 of the [DAP Standing Orders](#), your presentation request must also be accompanied with a written document detailing the content of your presentation.

Please attach detailed content of presentation or provide below:

Refer to attached presentation.

WOOLSTORES

STAGE 1A

COLES SUPERMARKET / OFFICE / CHILDCARE



CAMERON
CHISHOLM
NICOL



23.01.2023

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INCREASED SETBACK
DESIGN OUTCOME IMPACT STUDY

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DESIGN REVIEW PANEL COMMENDATION

Strengths of the Proposal (DR 1)

- Overall sense of urban morphology is positive.
- Presentation of entire street block for context is useful to the panel and helps to see the likely expression of stage 1.
- While not part of this review, the approach to a podium with slender towers is good planning.
- Supportive of changes from approved design.
- Approach has the potential to be a great City block with a full range of activity.
- Development now addressing Elder Place, with sleeving of servicing areas, which is an important frontage that helps create a gateway into the City Centre.
- Reduction of loading area.
- Childcare centre has the potential to have good amenity with a number of externally facing rooms.
- Open to sky children's play area is supported
- Office depths are improved.
- Masonry language of future stages is appealing and provides a clear direction for Stage 1, including the treatment of the two street corners.

Strengths of the Proposal (DR 2)

- Continued improvement of the concept plans presented at DR1 for the broad scale planning, design and amenity of the development and context.
- Elegant proportion system for the built form.
- While not part of this review, the indicative concept designs for the next three stages 1B to 3, provide confidence in the contextual and integrated design approach for this significant city block.
- The member [Heritage Consultant] noted that this Applicant's current iteration has improved significantly upon the current approval (by others) and since DR1, as many recommendations have been addressed. It's acknowledged that the heritage consideration for the design is contextual, particularly with the repetition and verticality of bays and use of red brickwork
- A positive is that all car parking is concealed within the development
- The Committee supports the broad scale planning, design and amenity afforded to the building users and to the context.

DESIGN REVIEW RECOMMENDATIONS

PRINCIPLE 1 CONTEXT & CHARACTER

RECOMMENDATIONS

- *Provide a statement on the link between the former south Woolstores building on the site, that is referenced in the presentation, and how this former building has inspired the new design.*

RESPONSE

This proposal has been carefully designed to reference the historical and urban context of this site as the location of the Elder Smith & Co. Ltd. Southern Woolstore (demolished in 1985) as well as those other woolstores that remain as its neighbours.

It does this by adopting some of the typical architectural characteristics of these woolstores, namely:

- The dominant use of red brick.
- Simple rectilinear built forms
- Facades that feature strong repetitive patterns of fenestration.
- Windows of a particular proportion and with relatively deep reveals.
- Large scale signage located on high parapets

Whilst this is a proposal for a contemporary and vibrant mixed-use development that will inevitably be very different to a large wool storage facility, it will have an unmistakeable connection to its past and present urban context.

PRINCIPLE 2 LANDSCAPE QUALITY

RECOMMENDATIONS

- *Use of more natural materials and incorporation of larger sized trees in the Childcare Centre’s outdoor play area*

RESPONSE

There is currently a large amount of timber/ composite timber products used in the Outdoor childcare space, across decking; arbours; sandpit; play structure & planters. The use of synthetic turf has been minimised where possible but is required to provide open flexible use spaces for movable equipment etc, (the alternative surfacing material to this is wetpour rubber softfall which is less natural in appearance), the synthetic turf specified will be a Cool variety, cooling infill for synthetic turf are also available which reduce heat by 30%. Shade structures are to be specified over synthetic turf areas to reduce heat.

Softfall mulch has not been used in the flexible play space as it is not liked by Childcare operators as it can provide a hazard to children, this will also require a large section of the outdoor play space to be built up 300-400m which would not provide an accessible play space.

Trees will be up to 4mH, larger trees are not appropriate due to structural weight, the number planters have been maximised with 59m2 of planters, 756m2 is required for the unencumbered space requirements of 7m2/per child, planters cannot be included in the unencumbered space.

PRINCIPLE 4 FUNCTIONALITY + BUILD QUALITY

RECOMMENDATIONS

- *Openings at L2 deck for natural daylight and ventilation to enter the L1 car park below*

RESPONSE

While the applicant appreciates the advantages of providing openings to the level 1 car park, this also presents itself with a number of disadvantages. Planning of the upper level car parking would become inefficient, there would be water ingress considerations which would present themselves with a high risk of slips and falls.

From the perspective of ventilation, natural air is provided to the car park through a combination of mechanical system and natural air from ramp.

While naturally ventilating a car park has its benefits, these are outweighed by lining of the street with active uses, as a result a fully sleeved car park does not lend itself to natural ventilation.



DESIGN REVIEW RECOMMENDATIONS

PRINCIPLE 5 SUSTAINABILITY

RECOMMENDATIONS

- Relocate the L2 bike stores to a more accessible and legible location on the ground floor

RESPONSE

The bicyce parking bays have been adjusted to locate all the bicycle bays together with the end of trip facilities and close to the lift at Level 2, as a more legible location. These are intended for Office and staff use. Public visitor bicycle bays are provided along the footpath at ground level 20 bays.

PRINCIPLE 6 AMENITY

- Provide spatial generosity for the lobby/waiting areas of the CCC
- Provide diagrams to illustrate the potential impacts of proposed future taller development stages on the amenity of the Childcare Centre; in particular, concerns of overshadowing and overlooking should be addressed.

RESPONSE

- Lobby & Waiting areas for the CCC have been adjusted to remove the dog leg and arrive directly at the reception of the child-care, and given more generous space.
- The Adina Stage 1B development is far from the child-care outdoor space and will not overlook it.
- The Stage 2 has 1 balcony with potential to overlook the CCC area, however this will be dealt with in stage 2 by screening the balcony.
- Overshadowing is not a concern, as the stage two podium open space is adjacent to the Childcare outdoor open space. Diagrams provided for information

PRINCIPLE 9 COMMUNITY

- In consultation with the City, consider interpretative artwork on the exposed walls of Stage 1 that connects to the story telling of the locale, its history, landscape and culture.

RESPONSE

- An artwork consultant to be engaged to prepare a brief, consult with the city and prepare an artwork proposal for the walls

PRINCIPLE 10 AESTHETICS

- Refine the canopy design to reduce its bulk and provide the design approach for draining rainwater

RESPONSE

- Canopy design has been refined to provide a more slim-line aesthetic and simplify rainwater drainage.

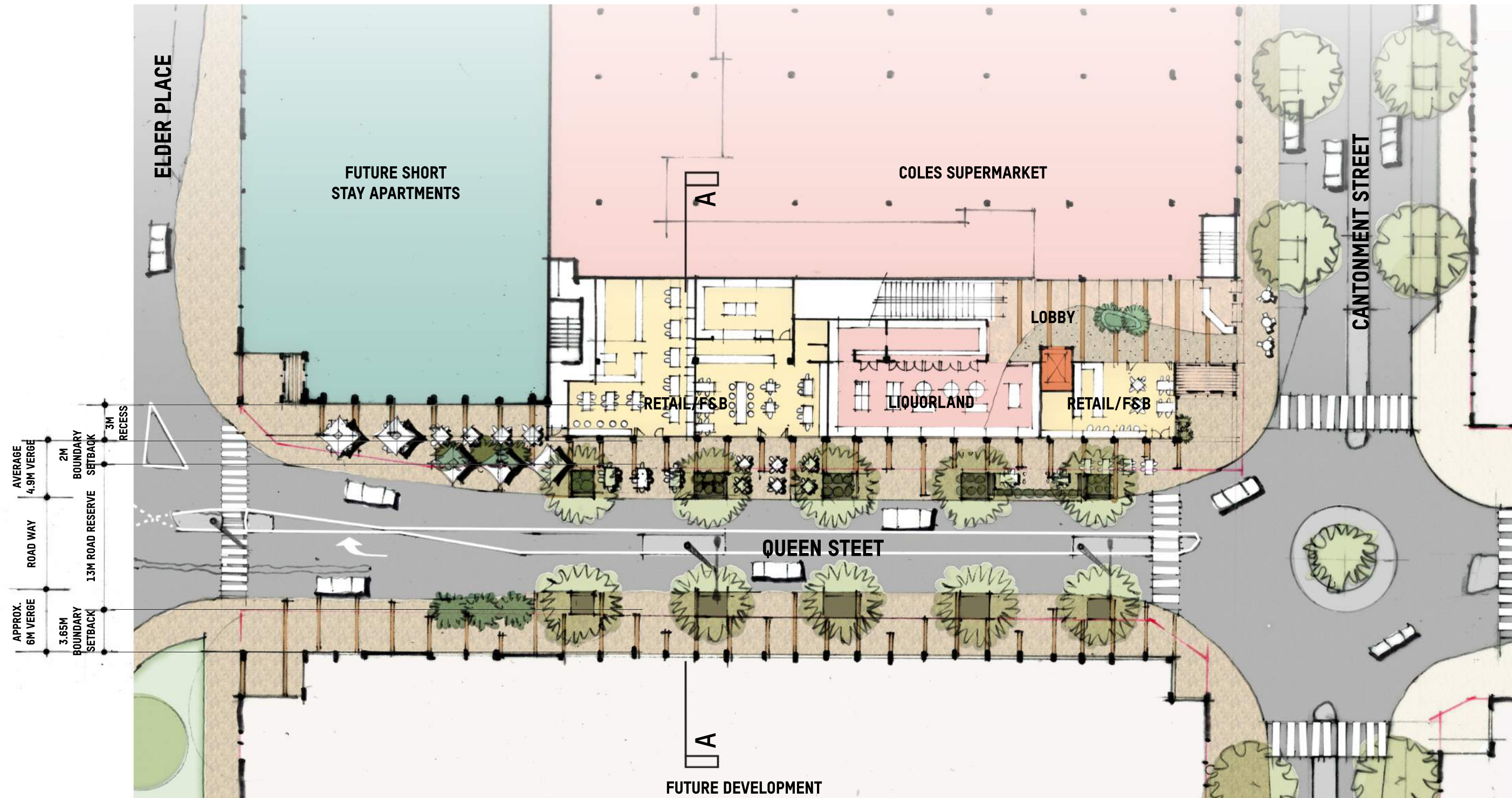
STREETSCAPE ACTIVATION

EXTENDED GROUND PLANE DRAWING



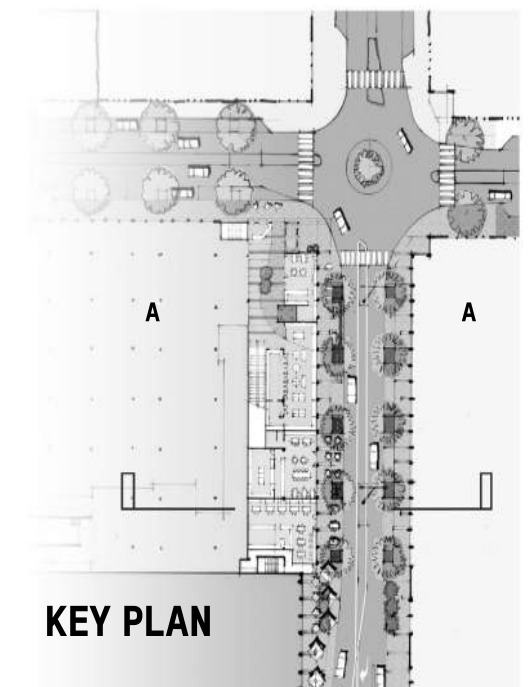
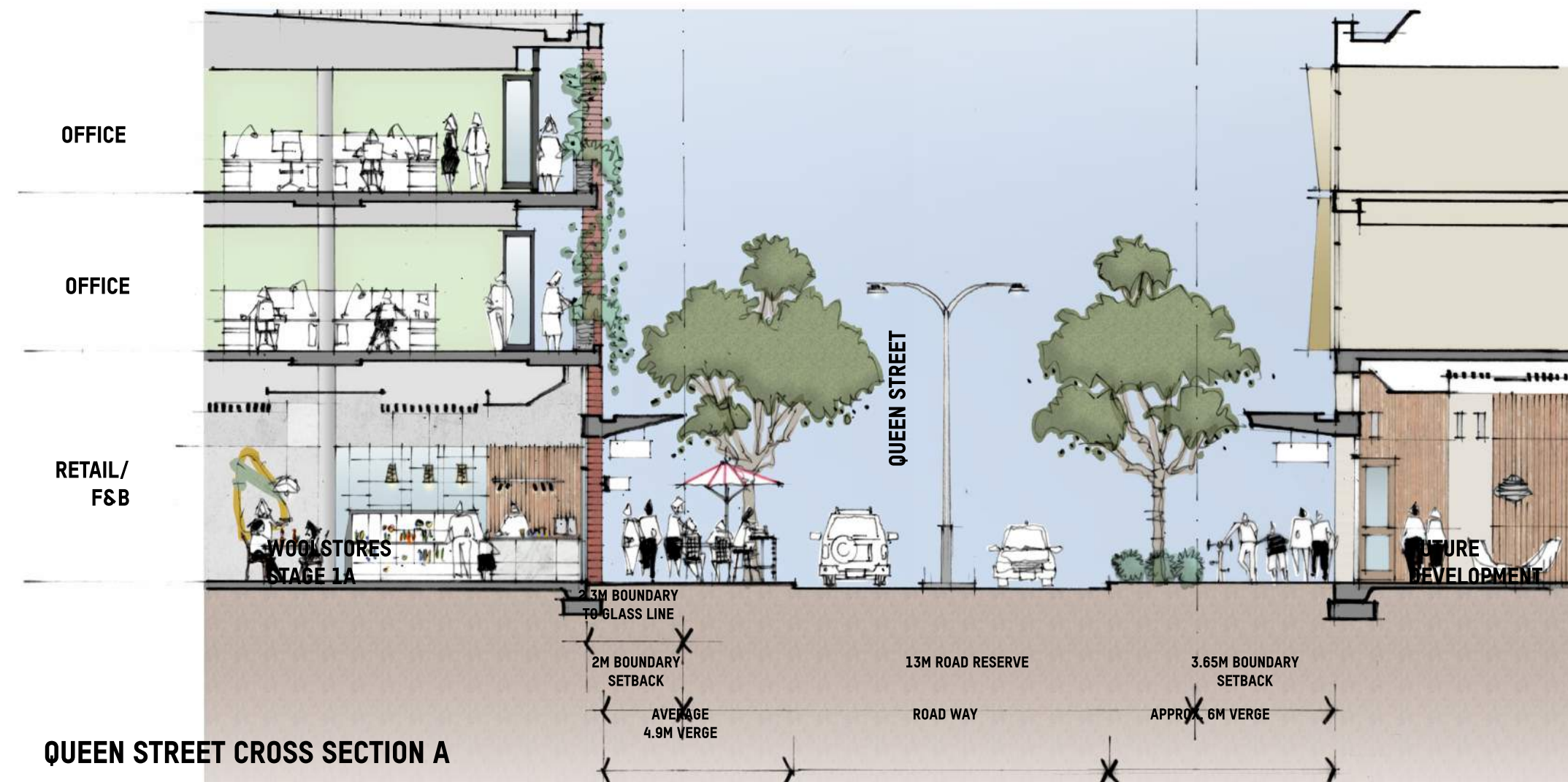
STREETSCAPE ACTIVATION

QUEEN STREET PROPOSED GROUND PLANE



STREETSCAPE ACTIVATION

QUEEN STREET PROPOSED GROUND PLANE



STREETSCAPE ACTIVATION

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



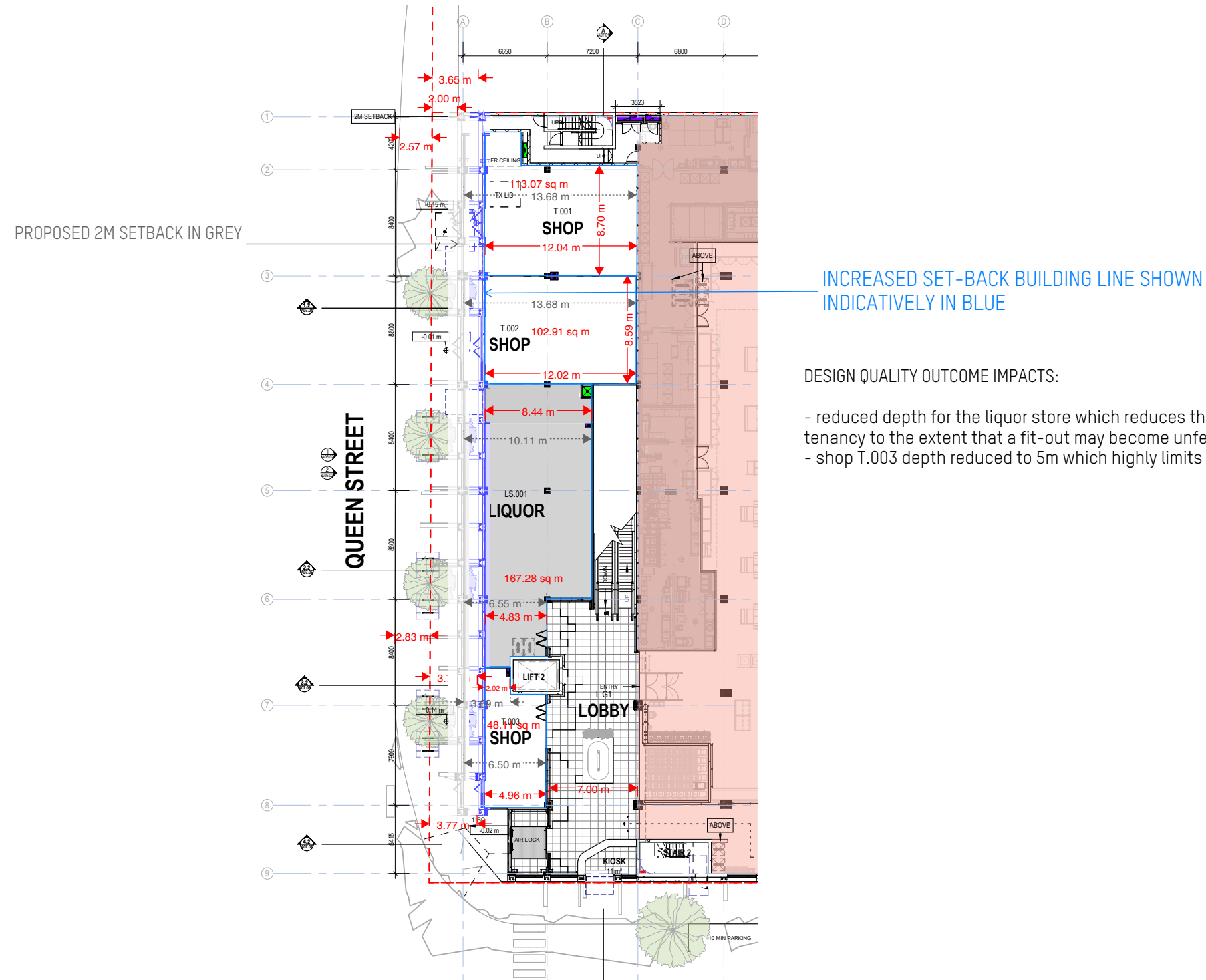
WOOLSTORES

STAGE 1A

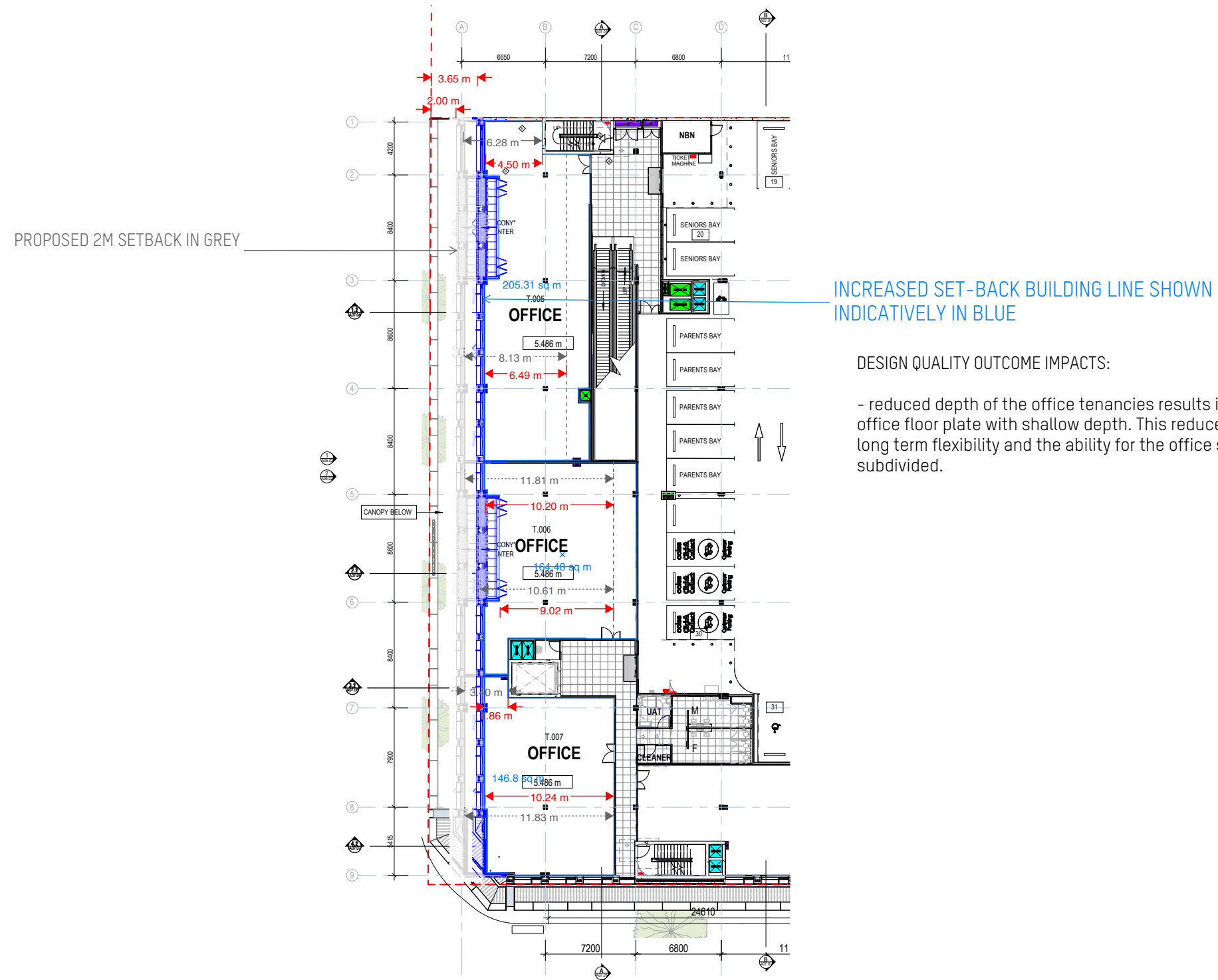
DESIGN OUTCOME IMPACT STUDY



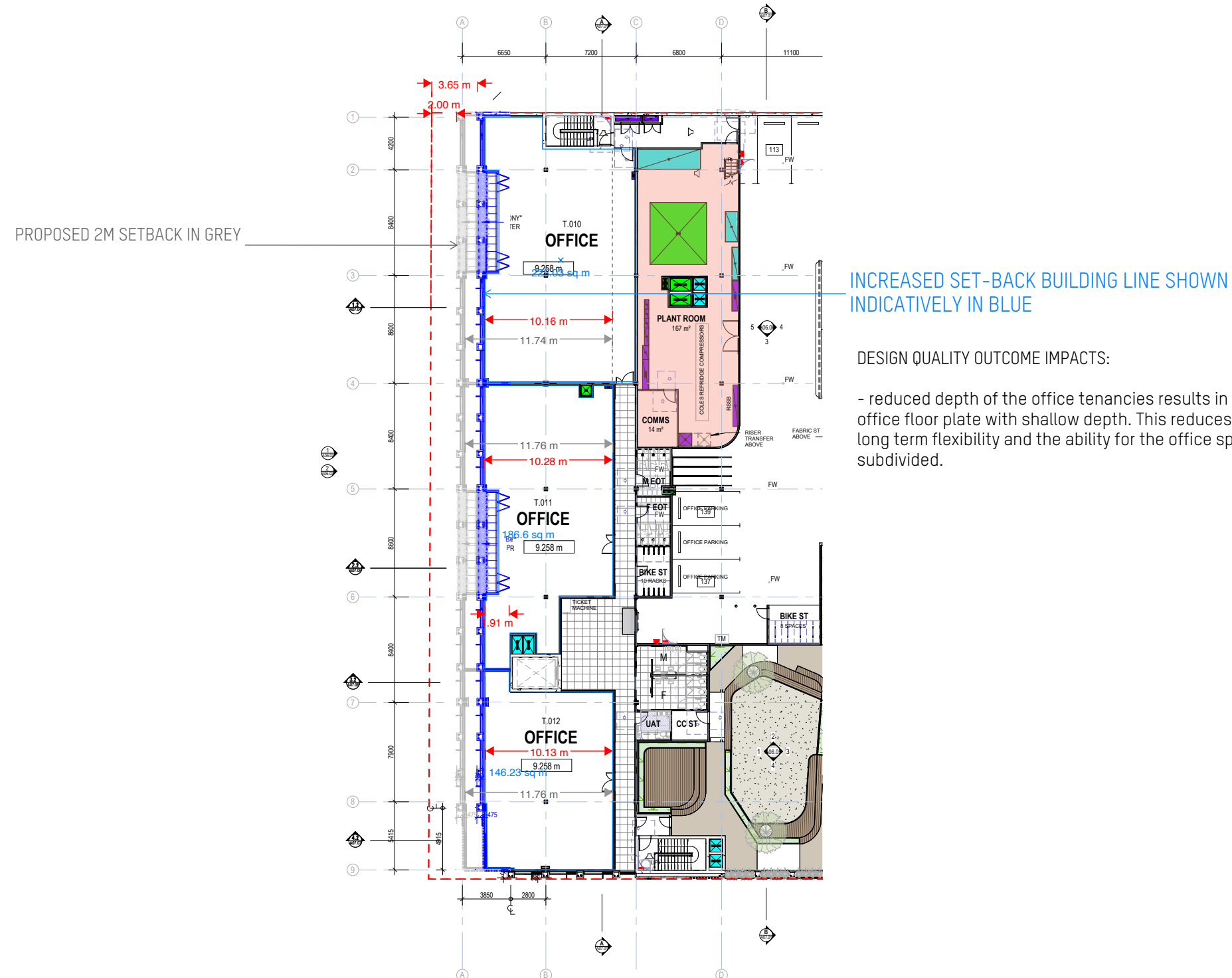
CAMERON
CHISHOLM
NICOL



GROUND LEVEL
INCREASED 3.65 SETBACK



FIRST FLOOR
INCREASED 3.65 SETBACK



WOOLSTORES

STAGE 1A



CAMERON
CHISHOLM
NICOL



THANK YOU



Presentation Request Form

[Regulation 40\(3\)](#) and [DAP Standing Orders 2020](#) cl. 3.5

Must be submitted at least 72 hours (3 ordinary days) before the meeting

Presentation Request Guidelines

Persons interested in presenting to a DAP must first consider whether their concern has been adequately addressed in the responsible authority report or other submissions. Your request will be determined by the Presiding Member based on individual merit and likely contribution to assist the DAP's consideration and determination of the application.

Presentations are not to exceed **5 minutes**. It is important to note that the presentation content will be **published on the DAP website** as part of the meeting agenda.

Please complete a separate form for each presenter and submit to daps@dplh.wa.gov.au

Presenter Details

Name	Peter Simpson
Company (if applicable)	PTS Town Planning Pty Ltd
Please identify if you have any special requirements:	YES ☐ NO ☒ If yes, please state any accessibility or special requirements: Click or tap here to enter text.

Meeting Details

DAP Name	Metro Inner-South JDAP
Meeting Date	30 January 2023
DAP Application Number	DAP/22/02352
Property Location	28 Cantonment Street and 20 Elder Place, Fremantle
Agenda Item Number	8.1

Presentation Details

I have read the contents of the report contained in the Agenda and note that my presentation content will be published as part of the Agenda: —	YES ☒
Is the presentation in support of or against the <u>report recommendation</u> ? (<i>contained within the Agenda</i>)	SUPPORT ☒ AGAINST ☐
Is the presentation in support of or against the <u>proposed development</u> ?	SUPPORT ☒ AGAINST ☐
Will the presentation require power-point facilities?	YES ☐ NO ☒ If yes, please attach



Presentation Content*

These details may be circulated to the local government and applicant if deemed necessary by the Presiding Member. Handouts or power points will not be accepted on the day.

Brief sentence summary for inclusion on the Agenda	<i>The presentation will address:</i> Speaking in support of the proposed development and request amendment of Condition 9
--	---

In accordance with Clause 3.5.2 of the [DAP Standing Orders](#), your presentation request must also be accompanied with a written document detailing the content of your presentation.

Please attach detailed content of presentation or provide below:

Refer to attached letter

Our Ref: J000292
LG Ref: DAP005/22
DAP Ref: DAP/22/02352



25 January 2023

Presiding Member
Metro Inner-South JDAP
Locked Bag 2506
PERTH WA 6000

PO Box 538, Inglewood
Western Australia 6932

0411 445 031
peter@ptsplanning.com.au

www.ptsplanning.com.au

Dear Presiding Member

ABN - 32 603 168 850

28 (LOT 1) CANTONMENT STREET AND 20 (LOT 800) ELDER PLACE, FREMANTLE

We refer to the Agenda and Responsible Authority Report to be considered by the JDAP at its meeting to be held on 30 January 2023. This letter provides the detail of our presentation request to the LDAP.

Mr Robert O'Brien from Silverleaf Investments Pty Ltd has lodged a separate presentation request to discuss the landowner's position.

Mr Dominic Snellgrove from CCN has lodged a separate presentation request to discuss the architectural merits of the proposed development.

We support the recommendation to approve the application, however, unusually and of significant concern is that the RAR does not provide the final recommendation at the time of writing this presentation request. We understand that an additional advice note and a new condition are proposed.

- We understand that the additional advice note relates to future stages not being part of this application and we have no issue with the advice note.
- We understand that the additional condition relates to access to sunlight and natural ventilation to the car park on Level 1. While we maintain our position that the condition is not required, we can accommodate the requirement.

Background

The site background is a very important part of the consideration of this application in terms of the understanding of the challenges faced on the site and also the additional costs Silverleaf Investments has incurred as part of the site development.

The Metro South-West JDAP at its meeting held on 7 April 2020 approved the construction of a six (6) storey with basement mixed use development. As indicated in the DA report, the cost of the development made the project not viable largely as a result of the provision of a basement, the 3.65 metre setback, the unknown impacts of the contamination, the scale of the project and the design with the hotel located over the podium. Consequently, it was determined to redesign the project to limit any basement works, reduce the Queen Street setback, to reduce the scale of the development and to separate the uses between the supermarket and the hotel.

As indicated in the aerial below the site contains two parts being the main portion of the site and the previous 6

28 (LOT 1) CANTONMENT STREET AND 20 (LOT 800) ELDER PLACE, FREMANTLE

strata shops located on Queen Street represented as Lot 800 (red dotted rectangle). When Silverleaf purchased the Woolstores Shopping Centre Lot 800 was not part of the site. Silverleaf Investments did not need to include the 6 strata shops in its site as it offered no beneficial outcome or need for the redevelopment of the Woolstores Shopping Centre.

The 6 strata shops were a significant obstacle to the City ever achieving any works to Queen Street and the shops were of a low standard. At the time there were discussions with between Silverleaf and the previous Mayor about how to address the strata shops with the Mayor considering the compulsory acquisition of the shops, albeit that there was no money or political will to undertake this process. Silverleaf addressed this obstacle by purchasing the 6 strata shops for a significant capital cost. As identified above, there was no need for Silverleaf to purchase the shops as the land does not add to the development ability of the site. In fact the opposite is the more likely outcome. The land was purchased given the desire to work with the City and to overcome this significant obstacle for the betterment of the city. The land area of the strata ships is 388m² and the 3.65 metre setback land area requirement is approximately 321m². Therefore, the land purchased is largely being given over as setback.



Key Issue

Mr Dominic Snellgrove has provided a presentation on the design and we note that the City and the DRP supports the proposed development. I would like to address the key issue facing the development and its ability to proceed.

The key issue is the setback to Queen Street. The application is proposing a 2 metre setback while Condition 9 requires the plans to be amended to be setback 3.65 metres.

As you will hear from Mr Robert O'Brien the requirement for a 3.65 metre setback would mean that they do not proceed with the development. This has several significant implications including the future of the vacant site at the entrance to Fremantle from the Train Station and also that a full-line supermarket will not be available in Fremantle, which is quite astonishing for a strategic centre.

As Mr Dominic Snellgrove has identified in his presentation the required setback would have a significant impact on the shops and offices within the development as Coles is a fixed area. This would mean that those tenancies are not a viable proposition.

We also raise the validity of the condition as it will involve significant design changes to the plans. It is not as simple as setting the whole building back or slicing area off the Queen Street frontage as there are a number of design implications for the whole site which will need to be further investigated. Any design change may also involve a reduced level of car parking which would be a further variation which would not have been approved by the JDAP.

It is also important to identify, as it seems to have been lost in the discussion, that this is a setback of the building from the property boundary. It is not land to be provided or given up to the City to form part of the road reserve. LPS 5 provides for the land to be given up only if a development proceeds with a height greater than 24.5 metres. Given the current state of the economy and building costs a height above 24.5 metres is difficult to deliver and therefore the land may never form part of the Queen Street road reserve.

The arial below seeks to explain the proposed setbacks and our request for the JDAP to support the reduced 2 metre setback.

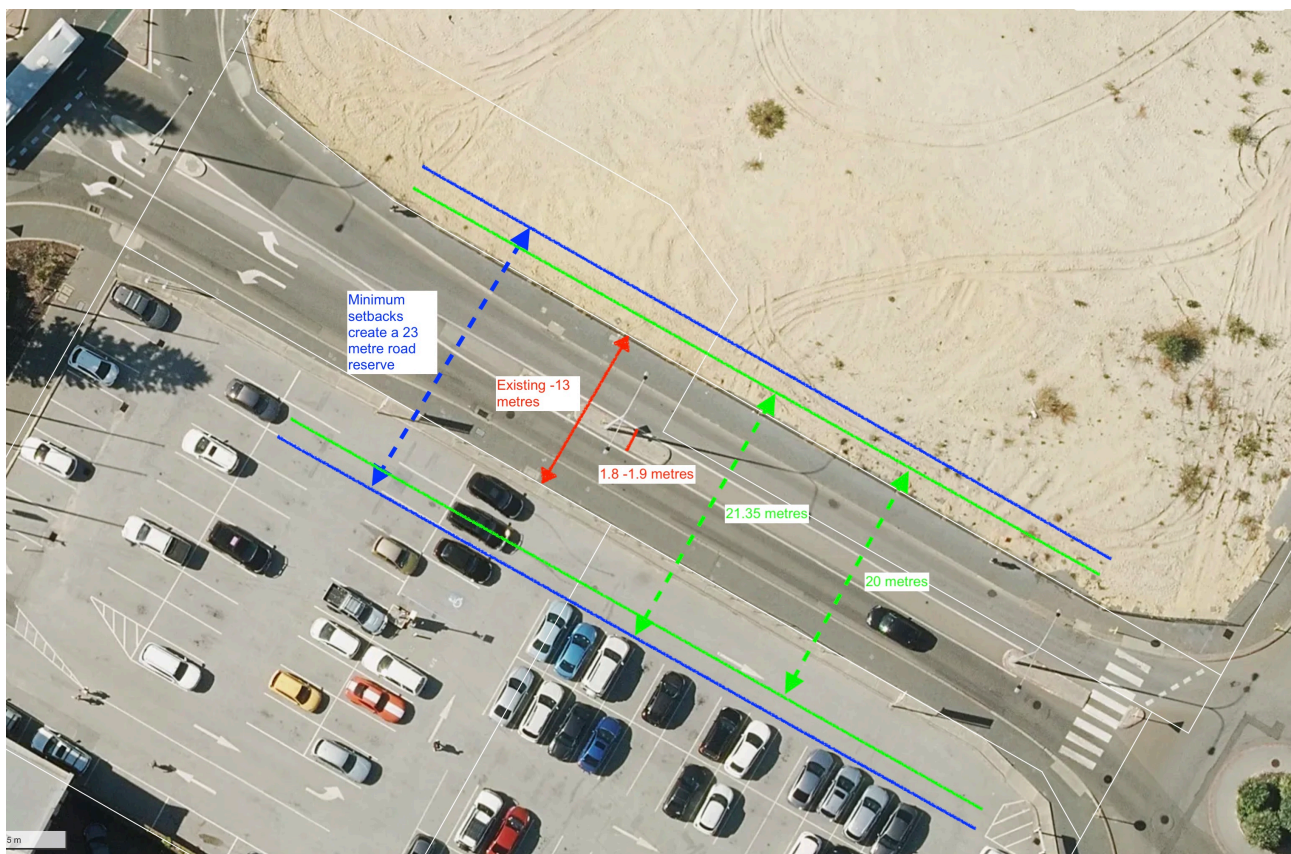
Queen Street currently has a 13 metre road reserve, which includes a lane in each direction, a 1.8 to 1.9 metre median strip and footpaths on each side (indicated in red).

Under LPS5, the road reserve would be 23 metres (indicated in blue)

We are seeking a variation to the setback to 2 metres. Based on our reduced setback the road reserve would be 21.35 metres if the full setback is provided on the southern side of Queen Street. Even if a reduced setback were support on the southern side, in a similar way to our proposed setback variation, this would still deliver a road reserve of 20 metres.

As identified in the DA report and RAR, a road reserve of 20 metres is consistent with the other main pedestrian streets in the city including South Terrace (20 metres), Market Street, William Street etc. Other examples of pedestrian streets such as Hay Street and Murray Streets in the City of Perth are less than 20 metres in width. A 20 metre road reserve width will be able to accommodate any required landscaping, footpaths, on street car parking, without impacting the ability of the subject site to proceed with its development.

CCN has provided a setback study to show that the road reserve and footpath will be able to deliver a high quality pedestrian domain.



There have been a number of comments raised regarding the setback and we provided the following:

- Any future hotel would have pick-up and set-down on Elder Place. There is no need for car parking on Queen Street and we understand that street car parking is not something that the City would likely want to include in this area of Queen Street.
- PTA were consulted on the application as referenced in the RAR and they did not raise any matters in relation to the setback and public transport along Queen Street. PTA is the authority on public transport and therefore any discussion regarding some future public transport requirement for this area of Queen Street has been considered.
- The existing road reserve includes a 1.8-1.9 metre median strip in the centre of the road reserve. If this needed to be increased marginally it could with minimum impact of the footpath widths.

Therefore the matters for consideration of the setback have been considered and the proposed road reserve width will result in a high quality pedestrian domain.

We note that Amendment 49 was gazetted 10 years ago, however, since that time we have not seen detailed designs for Queen Street, other than the images in the RAR which were also prepared 10 years ago. We do not consider it appropriate to base a planning decision on providing the City flexibility in the future for some unknown outcome for Queen Street, when it has not undertaken the design work since the amendment 10 years ago.

In considering the 2 metre setback, Silverleaf has committed to undertaking the works to Queen Street. The design will need to be agreed with the City, however, the works will be undertaken and funded by Silverleaf. Therefore, we propose to amend condition 9 as follows:

28 (LOT 1) CANTONMENT STREET AND 20 (LOT 800) ELDER PLACE, FREMANTLE

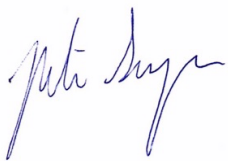
Condition 9 - Prior to the issue of a building permit, ~~the plans shall be amended to include a building setback of a minimum of 3.65m from the Queen Street boundary~~ the applicant/owner is to prepare detailed plans for the improvements to the Queen Street verge, which is to include street trees, paving, street furniture etc. The plans are to be approved by the City of Fremantle with the works undertaken by the applicant/owner, at the applicant/owner's expense, prior to occupation of the development.

We are seeking approval of the application subject to the proposed amendment to Condition 9.

Should you have any questions or require any additional information, please do not hesitate to contact the undersigned on 0411 445 031 or peter@ptsplanning.com.au.

Yours sincerely

PTS Town Planning Pty Ltd



Peter Simpson
Director

Subject: JDAP Monday 30 January, 2022 9.30am Cantonment Street Coles Development application from Silverleaf
Date: Friday, 27 January 2023 4:23:33 PM

Dear JDAP

It would be much appreciated if JDAP members would consider the attached letter published in the *Fremantle Herald* on 28 January 2022 regarding the Queen Street setback issue for the Cantonment Street Silverleaf application headed "Shaky start."

While the Fremantle Society have concerns as mentioned in the letter regarding the lack of an archaeological study for the site despite it being in an historic area (see evidence of historic artefacts to be presented by Mr Robert Kidd at JDAP), along with the issue of why heritage elements from the original woolstores installed in the previous Coles building on the site which were required to be retained are not conditioned to be reused in the new development, the key issue for the Fremantle Society is the need to retain the set back fought for when the town planning scheme was put together for this site in 2011.

The attached letter sums up some key issues as to why the setback is essential for the future of Queen Street. Two pages from the 2011 July council meeting also attached give reasons for the setback.

Thanking you,
John

City of Fremantle Agenda - Ordinary Meeting of Council 27 July 2011		City of Fremantle Comparison of recommended development principles with current LPS4 PLANNING COMMENT Comparison of recommended development principles with current LPS4 provisions The recommended development principles address land use, built form, design and parking issues. In a similar way to the recently gazetted Amendment No.38 for the East End, the principles generally address planning and urban design issues in more detail than is currently considered in LPS4. This is probably a reflection of the fact that the working group on the implications of development of the various strategic sites and an indication of importance that the working group placed on good urban design. At present this level of detail is sometimes addressed in site specific planning policies which will need to be reviewed accordingly if the principles are incorporated into a scheme amendment. The following table provides planning comment on each of the proposed development principles and in particular identifies where changes would be required to current LPS4 provisions:		City of Fremantle Comparison of recommended development principles with current LPS4 PLANNING COMMENT Comparison of recommended development principles with current LPS4 provisions The recommended development principles address land use, built form, design and parking issues. In a similar way to the recently gazetted Amendment No.38 for the East End, the principles generally address planning and urban design issues in more detail than is currently considered in LPS4. This is probably a reflection of the fact that the working group on the implications of development of the various strategic sites and an indication of importance that the working group placed on good urban design. At present this level of detail is sometimes addressed in site specific planning policies which will need to be reviewed accordingly if the principles are incorporated into a scheme amendment. The following table provides planning comment on each of the proposed development principles and in particular identifies where changes would be required to current LPS4 provisions:	
approach to the cash-in-lieu provision.		approach to the cash-in-lieu provision.		approach to the cash-in-lieu provision.	
No change required to LPS4.		No change required to LPS4.		No change required to LPS4.	
Queen St is currently 12m wide between Cantonment St and Elder Place. The proposed setback will align new buildings with existing boundaries in Queen St between Cantonment St and Adelaide St, and provide improved conditions for pedestrians and open up views to and from the railway station.		Queen St is currently 12m wide between Cantonment St and Elder Place. The proposed setback will align new buildings with existing boundaries in Queen St between Cantonment St and Adelaide St, and provide improved conditions for pedestrians and open up views to and from the railway station.		Queen St is currently 12m wide between Cantonment St and Elder Place. The proposed setback will align new buildings with existing boundaries in Queen St between Cantonment St and Adelaide St, and provide improved conditions for pedestrians and open up views to and from the railway station.	
A generally zero setback would maintain a consistent street edge and containment to public space, and encourage a better relationship between ground floor activities in buildings and the adjacent street space. Not currently addressed by LPS4.		A generally zero setback would maintain a consistent street edge and containment to public space, and encourage a better relationship between ground floor activities in buildings and the adjacent street space. Not currently addressed by LPS4.		A generally zero setback would maintain a consistent street edge and containment to public space, and encourage a better relationship between ground floor activities in buildings and the adjacent street space. Not currently addressed by LPS4.	
Some flexibility will enable improved outcomes such as increased pedestrian space, enhancement of views, etc. where applicable.		Some flexibility will enable improved outcomes such as increased pedestrian space, enhancement of views, etc. where applicable.		Some flexibility will enable improved outcomes such as increased pedestrian space, enhancement of views, etc. where applicable.	
This would ensure continuity of interest and protection for pedestrians.		This would ensure continuity of interest and protection for pedestrians.		This would ensure continuity of interest and protection for pedestrians.	
The working group recommendations increase frontage heights by one storey (from 4 to 5 storeys) over all or parts of 6 of the strategic sites (D, G, F, H, I and J), reduce the maximum frontage height by one storey on part of one site (I) and propose no change to the maximum frontage height on the remaining 9 sites.		The working group recommendations increase frontage heights by one storey (from 4 to 5 storeys) over all or parts of 6 of the strategic sites (D, G, F, H, I and J), reduce the maximum frontage height by one storey on part of one site (I) and propose no change to the maximum frontage height on the remaining 9 sites.		The working group recommendations increase frontage heights by one storey (from 4 to 5 storeys) over all or parts of 6 of the strategic sites (D, G, F, H, I and J), reduce the maximum frontage height by one storey on part of one site (I) and propose no change to the maximum frontage height on the remaining 9 sites.	
A significant change however is that these maximum frontage heights become as-of-right in order to give owners and developers some certainty on the development potential of each property. In the current provisions of LPS4 all heights above 2 storeys are discretionary.		A significant change however is that these maximum frontage heights become as-of-right in order to give owners and developers some certainty on the development potential of each property. In the current provisions of LPS4 all heights above 2 storeys are discretionary.		A significant change however is that these maximum frontage heights become as-of-right in order to give owners and developers some certainty on the development potential of each property. In the current provisions of LPS4 all heights above 2 storeys are discretionary.	
Another major change is that the allowance for floor to floor heights is proposed to be increased compared to those in the current scheme which are considered insufficient for city centre standards of development. It is anticipated that frontage heights would be		Another major change is that the allowance for floor to floor heights is proposed to be increased compared to those in the current scheme which are considered insufficient for city centre standards of development. It is anticipated that frontage heights would be		Another major change is that the allowance for floor to floor heights is proposed to be increased compared to those in the current scheme which are considered insufficient for city centre standards of development. It is anticipated that frontage heights would be	

John Dowson
President
The Fremantle Society

Fremantle
Western Australia 6160
Australia

tel (61 8) 9335 2113

0409 22 36 22

Onya Sid

I AGREE with the article quoting Sid Breeden ("Older Nashos feel left behind," Voice, January 14 2023) as I was one of these Nashos, and now in my 80s.

We had basic training in the arms (the .303 Enfield, Bren machine gun, mortars etc and all explosives) by the returned regulars from the Korean conflict who were hard but fair, always saying if conflict did break out again in Asia we would be first in line to be deployed.

We were regular army, paid and on call 24 hours a day, no different than those that went overseas.

Healthwise now the Gold card would be greatly appreciated for all of us surviving Nashos.

Don Clatworthy
Mandurah

Shaky start

GOOD quality planning got off to a shaky start in 2023 in Fremantle when mayor Hannah Fitzhardinge tried to sabotage an officer recommendation for a setback of a new proposed Coles development on Cantonment and Queens Streets.

She wanted it deleted, and put forward an amendment to that effect.

Despite commercial considerations not being an allowable planning consideration for councillors voting on planning matters, she said just that - that the "commercial reality needed to be taken into account."

It was shocking to hear the Labor mayor and her Labor deputy Frank Mofflin try to undo what was part of the highly controversial scheme amendment 49 changes for that site where council, despite community opposition and promises of a 7-storey height limit for the site, actually passed a height limit of up to 12-storeys - and given those heights, required a wider road reserve for Queen Street.

There are plenty of other good reasons for the prescribed setback as well.

Greens councillors, and sensible ones, voted the amendment down, but it was disappointing to see Mayor Fitzhardinge, and Crs Mofflin, Graham, Camarda, and Jones try to undo the orderly planning for Queen Street which will in the future not only be a new bus route, but is intended to be a boulevard from the railway



station to the centre of town.

Again, council showed that heritage does not matter much any longer in Fremantle.

There was no requirement for an archaeological investigation of the site, and no mention of the heritage artefacts that had to be kept from the recent demolition of the Woolstores shopping centre.

Developer Silverleaf state that they have a high rise application of at least 14 storeys, higher than any building in Fremantle, for another part of the site already lodged with the state government.

But no-one at council has even seen the plans. Extraordinary.

Onward into the dark we go.

John Dowson

President, Fremantle Society

Timber...

THE report that the visible asbestos/cement slate tile roof of the Fremantle Arts Centre building is to be replaced with galvanised iron or "tin" ("*Fear tin will take shine off heritage*," Herald, January 13, 2023) is horrifying on a number of counts.

First, as Fremantle Society president John Dowson says, it would kill off any dream to have the building World Heritage listed.

Second, it would be sacrilege to spoil Fremantle's arguably most important and imposing historical building by replacing the existing tiles with galvanised iron.

Third, and perhaps most important, there is no reason why the roof could not be refitted with WA sheoak (*Allocasuarina fraseriana*) roofing shingles.

Many historical and heritage listed buildings in WA have sheoak shingle roofs (with appropriate waterproofing), mostly supplied over the past 50 years by Whiteland Milling, a native timber sawmill at Busselton.

But our government has decreed that sustainable timber harvesting in our regrowth native forests must cease for

ideological and political reasons.

Whiteland Milling sold their last lot of sheoak shingles just a few weeks ago and will be dismantling their mill within three months.

WA sheoak is a common timber species in our south-west forests that regenerates easily after harvesting and burning.

There is no logical or scientific reason why a modest quantity of sheoak timber cannot continue to be harvested sustainably, ad infinitum, from our forests.

The unavailability of locally grown sheoak shingles to reroof the Fremantle Arts Centre - and other heritage buildings from time to time - due to the native timber 'logging ban' imposed by our premier is another tragic 'unintended consequence' of that awful decision.

Can you imagine the thatched roof on Anne Hathaway's cottage in Stratford Upon Avon being replaced with galvanised iron!

John Clarke

JC Forestry

(Forestry and timber consultant)
Floreat

It was war

THANK you for publishing my article describing our 1951-59 Nashos at Swanbourne and Rottnest followed by compulsory CMF and Army Reserve list for five years ("The Silent Generation's Nashos," Herald Reflections, January 20, 2023).

For readers clarification there is a correction for your covering article "Older Nashos feel deserted". Cedric Bell is quoted saying although they were held in reserve, Australia was not at war.

Australia was indeed at war - namely the Korean War from September 28, 1950 to 1953.

The National Service Act 1951 was in response to global tensions leading to that war.

It required compulsory call-up of males turning 18 on or after November 1, 1950.

After hostilities ceased on July 27, 1953 the Australian military remained in Korea for a further four years during which time the Reserve could have been deployed.

Notably, the ANZUS Treaty came into force on April 29, 1952.

Even today, as part of Operation Linesman, Australia deploys four ADF members twice a year to Korea to ensure tasks conducted within the DMZ are in accordance with the terms laid out in the Korean Armistice Agreement of 1953.

Sid Breeden

CANTONMENT STREET, NO.28 (LOT 1), FREMANTLE AND ELDER PLACE, NO. 1-6/20, FREMANTLE - CONSTRUCTION OF A THREE (3) STOREY MIXED USE (SHOP, OFFICE, LIQUOR STORE-SMALL AND CHILD CARE PREMISES) DEVELOPMENT

Form 1 – Responsible Authority Report
(Regulation 12)

DAP Name:	Metro Inner-South JDAP	
Local Government Area:	City of Fremantle	
Applicant:	PTS Town Planning	
Owner:	Silverleaf Pty Ltd	
Value of Development:	\$14 million ☒ Mandatory (Regulation 5) ☐ Opt In (Regulation 6)	
Responsible Authority:	City of Fremantle	
Authorising Officer:	Chloe Johnston, Manager Development Approvals	
LG Reference:	DAP005/22	
DAP File No:	DAP/22/02352	
Application Received Date:	7 October 2022	
Report Due Date:	18 January 2023	
Application Statutory Process Timeframe:	90 Days	
Attachment(s):	1. Amended Development Plans 2. Site Photos 3. Planning Report (PTS Planning Consultants) 4. Schedule of Submissions including applicant's responses 5. PTS response to DAC 6. Traffic Impact statement 7. Acoustic Report 8. Sustainability Report 9. Waste Management Plan 10. Applicant setback study 11. CoF Queen Street diagrams	
Is the Responsible Authority Recommendation the same as the Officer Recommendation?	☐ Yes	Complete Responsible Authority Recommendation section (Note: Pending review by PC)
	☒ No	Complete Responsible Authority and Officer Recommendation sections

Responsible Authority Recommendation

Please note this application and Responsible Authority Report were discussed at the City of Fremantle Ordinary Meeting of Council on 18 January 2023 and amendments were made to the Officer Recommendation (see alternative recommendation at the end of this report). Details of these amendments and the Responsible Authority Recommendation are to be confirmed and provided as additional information when the minutes of the Ordinary Meeting of Council become available.

Reasons for Responsible Authority Recommendation

To be advised once minutes of the Ordinary Meeting of Council on 18 January 2023 become available.

Details: outline of development application

Region Scheme	Metropolitan Region Scheme
Region Scheme - Zone/Reserve	Central City Zone
Local Planning Scheme	Local Planning Scheme No.4
Local Planning Scheme - Zone/Reserve	City Centre Zone
Use Class and permissibility:	Shop – P Office – P Liquor Store (small) – A Child Care centre - A
Lot Size:	16100m ²
Existing Land Use:	Vacant Land
State Heritage Register	No
Local Heritage	☒ N/A ☐ Heritage List ☐ Heritage Area
Design Review	☐ N/A ☒ Local Design Review Panel ☐ State Design Review Panel ☐ Other
Bushfire Prone Area	No
Swan River Trust Area	No

Proposal:

Approval is sought for the construction of a three (3) storey Mixed use development including Shop, Liquor Store - small, Office and Childcare premises uses. Specifically, the three (3) storey building to the south eastern corner of the site includes:

Ground floor

- The Shop (Supermarket) is to be 3,594 m².
- The development of a 172m² Liquor Store adjacent to the Coles Supermarket.
- Ground level lobby, retail tenancies (351m²), and a child care lift lobby.

First and second floor

- The inclusion of 147 car parking bays, 17 motor bike bays.
 - A Childcare premises to the first floor accessed via Cantonment Street (786m² building with 816m² yard).
 - First level office tenancies (1151m² in total) and
 - Second floor office tenancies (660m² in total)

On 22 November 2022 the applicant provided amended development plans to address some of the recommendations of the City's Design Advisory Committee.

These revised development plans are included as **Attachment 1**.

Background:

The subject site is bound by Elder Place (west), Queen Street (south), Goldsbrough Street (north) and Cantonment Street (east). The site is 16,100m² and is zoned City Centre under Local Planning Scheme No. 4 (LPS4). The site is not heritage listed, nor is it located within a prescribed heritage area. However, the site is located directly adjacent to state registered properties including the Elders Woolstores at No.1 Goldsbrough Street and the Fremantle Train Station building.

The subject site is identified as a key strategic site in the City Centre zone, due to its size and its proximity to Victoria Quay, Fremantle Train Station and the Queen Street axis leading to Kings Square. The site is also subject to the provisions of Scheme Amendment No. 49 which modified the development standards relating to 12 strategic sites within the inner east end of the City Centre.

On 7 April 2020 the Metro South-West Joint Development Assessment Panel (JDAP) approved DAP003/19 which was for the partial demolition of the existing Shopping Centre building and the construction of a six (6) storey with basement Mixed use development including Shop, Liquor Store, Office, Childcare Premises, Public Car Park Restaurant, Civic Use (Police Station) and Hotel uses. The demolition component of the approval has been acted upon and the majority of the subject site is currently vacant, with a two storey Public Carpark remaining on the north of the site.

There is also currently a State Development Assessment Unit (SDAU) application lodged for the middle portion of the site. This represents Stage 2 of the complete redevelopment of 28 Cantonment Street, Fremantle. At the time of writing this report, the application remains on hold with the SDAU and the plans for other stages in the package submitted should be treated as indicative only.

Legislation and Policy:

The legislative framework and policy base providing for the assessment and determination of the subject application is as follows:

1. Metropolitan Region Scheme (MRS);
2. *Planning and Development (Local Planning Schemes) Regulations 2015 (WA)*;
3. City of Fremantle Local Planning Scheme No.4 (LPS4).

Planning and Development (Local Planning Schemes) Regulations 2015 (WA):

- CI 3.(5) Local planning policies
- CI 60. Requirement for development approval
- CI64. Advertising applications
- CI66. Consultation with other authorities
- CI67. Matters to be considered by local government

Local Planning Scheme No. 4

The following Scheme provisions are considered the most relevant in the consideration of the planning application:

- CI 3.2.1 (b) – Objectives of City Centre zone
- Table 1 - Zoning

- Table 2 - Vehicle parking Parking
- CI 4.7.3.1 – Variation to parking requirements
- CI4.8.2 – Variation to other requirements
- Schedule 7 – Local Planning Area 1 City Centre – Sub Area 1.3.2;
- Schedule 1 – Dictionary of defined words and expressions;
- Schedule A
 - Clause 61 - Supplemental provisions to the deemed provisions
 - Clause 78B – Advisory Committee

State Government Policies

- SPP7.0 Design of the Built Environment
- SPP5.4 Road and Rail Noise policy

Local Policies

The site is subject to the following relevant Local Planning Policies:

- Local Planning policy 1.10 – Construction Sites policy;
- Local Planning Policy 1.3 – Public Notification of Planning Proposals
- Local Planning Policy 1.9 – Design Advisory Committee and Principles of Design
- Local Planning Policy 2.3 – Fremantle Port Buffer Area Development Guidelines
- Local Planning Policy 2.12 - Planning Applications Impacting on Verge Infrastructure And Verge Trees
- Local Planning Policy 2.13 – Sustainable Buildings Design Requirements
- Local Planning Policy 2.19 – Contribution for Public Art and/or Heritage Works
- Local Planning Policy 3.1.5 – Precinct 5

Consultation:

Public Consultation

The application was advertised in accordance with Schedule 2, clause 64 of the *Planning and Development (Local Planning Schemes) Regulations 2015*.

The planning application was identified as a standard application as set out in Council's LPP1.3 Public Notification of Planning Proposals. The application was advertised for a period of 14 days and included the following actions:

- Sign notices being placed on the development site.
- Letters to owners and occupiers abutting the site.
- Advertising of the application occurred on the City's website.
- Two (2) newspaper notices.

In response to the public advertising, a total of 7 submissions were received with 1 submission supporting the proposal, 6 submission raising objections. A table of the submissions is included as **Attachment 3**, however a summary of the key planning concerns raised are outlined in the table below.

Issue Raised	Officer's comments
Development setting, materiality and context of the locality.	See Officer comment section below for 'Design Advisory Committee Comments
Lack of Design quality	See Officer comment section below for 'Design Advisory Committee Comments
Character	See Officer comment section below for 'Design Advisory Committee Comments
Heritage	See Officer comments below – 'Community Consultation matters'

Urban design

The City's Freo 2029 Transformational Moves document includes the discussion of the importance of Queen Street in connecting the train station and Walyalup Koort (civic centre). The strategic intent for this space, was to create a grand shopping boulevard.

The streetscape presence of the design has been reviewed from an urban design perspective, considering the greater strategic objectives for Queen Street and the Train Station/Bus Station forecourts. In principle, the design as shown with a reduced setback creates a reasonable pedestrian environment, with work to be undertaken with the City regarding placement and species of trees. While the current design is workable, it may not be capable of also accommodating set down/pick up bays for future proposed uses like a hotel.

Analysis diagrams have been included as attachments to this report, which detail the current setback and general indications of how the scheme setbacks would change the streetscape.

The setback to Queen Street is discussed further in the report below.

Infrastructure

No significant objections have been raised from a traffic or engineering perspective. General advice regarding crossover works and construction management which has been recommended as conditions of approval or advice notes where relevant.

Waste Management

Officers are satisfied that the proposed waste management regime has been detailed sufficiently at this stage. Once tenancies are occupied with specific tenants more detail about waste generation and tenancy requirements will need to be detailed. A condition of approval is recommended to ensure this is provided prior to the lodgement of a building permit to ensure that any design changes that may be needed can be factored in and waste management can be dealt with appropriately.

Environmental Health

General comments have been provided regarding Environmental Health legislation but no significant objections have been raised. Advice notes are recommended accordingly to remind the applicant of their obligations under other legislation which may be relevant to their construction works and ongoing operations.

Parks and Landscape

Advice has been provided regarding works near existing street trees and regarding the preliminary landscape concepts. It was recommended that a landscape architect was engaged to provide a detailed plan, specifically due to the level of on structure planting which can be difficult to establish and maintain. A condition of approval is recommended to ensure landscaping is detailed further to ensure its ongoing success.

Heritage Council of Western Australia (HCWA)

Whilst the site is neither on the City of Fremantle Heritage List nor on the State Heritage Register, in accordance with Section 73 of the *Heritage Act 2018*, the application was referred to the State Heritage Office (SHO) as the proposal may affect the following nearby State Registered Heritage Places:

- No. 1 Goldsbrough Street, Fremantle (Elders Woolstores);
- No. 92 Adelaide Street, Fremantle (Film and Television Institute);
- Princess May Reserve;

- Pioneer Reserve; and
- No. 28 Phillimore Street, Fremantle (Fremantle Railway Station).

On 14 November 2022, the Department of Planning, Lands and Heritage, Heritage Services team advised that they have considered the proposed development in the context of the Elders Wool Stores and advise that they do not object to the development.

Fremantle Port Authority

The site is located within Area 2 of the Fremantle Port buffer area. In accordance with LPP2.3, the Fremantle Port Authority (FPA) was advised of the development proposal. The FPA requested that the requirements of Area 2 are considered in the building design.

In response, relevant conditions of approval are recommended.

Department of Water and Environmental Regulation (DWER)

The application was referred to DWER as the Site was classified as '*possible contaminated – investigation required*'. On 22 November 2022 DWER required that the following conditions and advice note of approval be provided on any decision:

Conditions

- a) *Prior to commencement of development works, investigation for soil and groundwater contamination is to be carried out at Lot 1 and 800 to determine if remediation is required.*
- b) *If required, remediation, including validation of remediation, of any contamination identified shall be completed prior to completion of construction works at Lot 1 and Lot 800 to the satisfaction of the City of Fremantle, on advice from the Department of Water and Environmental Regulation, to ensure that the site is suitable for the proposed use. Investigations and remediation are to be carried out in compliance with the Contaminated Sites Act 2003 and current Department of Water and Environmental Regulation contaminated sites guidelines. (Department of Water and Environmental Regulation).*

Advice

In relation to Condition [X] and in accordance with regulation 31(1)(c) of the Contaminated Sites Regulations 2006, a mandatory auditor's report, prepared by an accredited contaminated sites auditor, will need to be submitted to the Department of Water and Environmental Regulation as evidence of compliance with Condition [X]. A current list of accredited auditors is available from www.dwer.wa.gov.au.

Public Transport Authority (PTA)

Given the site is located directly adjacent to the Fremantle bus terminal, the application was referred to PTA for comment.

In summary, the PTA does not object to the proposal, however does request that the applicant engage with them on the Elder Place access point due to future upgrades to the bus terminal being contemplated. Advice notes to the applicant as requested have been included in the recommendation.

The agency also advise of Queen Street as a key strategic bus corridor, and that they are supportive of no parking in this location. Additionally, PTA are supportive of the parking shortfall due to the alternative transport options near the development site.

PTA also provided the following recommendations on the proposal, in addition to some other advice notes which have been included regarding working around rail lines:

- 1) *Prior to commencement of the development the applicant/owner must obtain approval from the PTA for works in and around the operating Fremantle Railway Corridor in accordance with the PTA's 8103-400-004 - Procedure - Working In and around the PTA Rail Corridor, Assets and Infrastructure, to the satisfaction of the PTA.*
- 2) *The noise sensitive development (childcare centre) adjacent to the Fremantle Railway must implement measures to ameliorate the impact of transport noise. The development must comply with WAPC State Planning Policy - 5.4 Road and Rail Noise (SPP 5.4).*
- 3) Prior to the occupation of the childcare centre a notification, pursuant to Section 70A of the Transfer of Land Act 1893 is to be placed on the certificate of title of the lot. The notification is to state as follows:

"The lot is situated in the vicinity of a transport corridor and is currently affected or may in future be affected by transport noise."

The above recommendations have been included in the recommended conditions and/or advice accordingly.

Design Advisory Committee (DAC)

The proposal was presented to the City's Design Advisory Committee (DAC) on:

- 11 July 2022
- 10 October 2022

The following comments were provided in the most recent review.

Strengths of the proposal

- *Continued improvement of the concept plans presented at DR1 for the broad scale planning, design and amenity of the development and context.*
- *Elegant proportion system for the built form.*
- *While not part of this review, the indicative concept designs for the next three stages 1B to 3, provide confidence in the contextual and integrated design approach for this significant city block.*

Design Quality Evaluation Against Design Principles – DAC Meeting 4	
Principle 1 - Context and Character: <i>Good design responds to and enhances the distinctive characteristics of a local area, contributing to a sense of place.</i>	DAC Comments: The DAC now includes a Heritage Consultant. The member noted that this Applicant's current iteration has improved significantly upon the current approval (by others) and since DR1, as many recommendations have been addressed. It's acknowledged that the heritage consideration for the design is contextual, particularly with the repetition and verticality of bays and use of red brickwork. A query is how the reference in the presentation to the former south Woolstores on the site, that was a larger scale building with a significant parapet, has inspired the new design? DAC Recommendations: Provide a statement on the link between the former south Woolstores building on the site, that is referenced in the

	presentation, and how this former building has inspired the new design.
Principle 2 - Landscape Quality <i>Good design recognises that together landscape and buildings operate as an integrated and sustainable system, within a broader ecological context.</i>	DAC Comments: The Childcare Centre's outdoor play area should be developed using more natural materials and potentially incorporating some larger sized trees DAC Recommendations: Use of more natural materials and incorporation of larger sized trees in the Childcare Centre's outdoor play area.
Principle 3 - Built Form and Scale <i>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.</i>	DAC Comments: Nil DAC Recommendations: Nil
Principle 4 - Functionality and Build Quality <i>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.</i>	DAC Comments: A positive is that all carparking is concealed within the development, however, to improve user amenity and energy efficiency, consider new openings for natural light and air to enter the L1 carpark from the L2 deck. DAC Recommendations: Openings at L2 deck for natural daylight and ventilation to enter the L1 carpark below
Principle 5 – Sustainability <i>Good design optimises the sustainability of the built environment, delivering positive environmental, social and economic outcomes.</i>	DAC Comments: The bike stores are located on L2 and accessed partly via a steep 1:6 ramp or the lifts. Greater use of bikes by users of this development should be encouraged by locating stores for convenience of access and ideally at ground level for legibility. DAC Recommendations: Relocate the L2 bike stores to a more accessible and legible location on the ground floor
Principle 6 - Amenity <i>Good design optimises internal and external amenity for occupants, visitors and neighbours, providing environments that are comfortable, productive and healthy</i>	DAC Comments: a) For the proposed capacity of the Childcare Centre, the L2 lobby/waiting area is a small and very narrow area. b) Overshadowing by the proposed taller buildings in the next stages of development is likely to have an impact on the Childcare Centre's outdoor play area and performance of photovoltaic cells on the roof. c) Likewise, consider the impact of any potential overlooking from the future development on the Childcare Centre outdoor play area DAC Recommendations: 1. Provide spatial generosity for the lobby/waiting areas of the CCC 2. Provide diagrams to illustrate the potential impacts of proposed future taller development stages on the amenity of the Childcare Centre; in particular,

	concerns of overshadowing and overlooking should be addressed.
Principle 7 – Legibility <i>Good design results in buildings and places that are legible, with clear connections and easily identifiable elements to help people find their way around.</i>	DAC Comments: Nil DAC Recommendations: Nil
Principle 8 – Safety <i>Good design optimises safety and security, minimising the risk of personal harm and supporting safe behaviour and use.</i>	DAC Comments: Nil DAC Recommendations: Nil
Principle 9 – Community <i>Good design responds to local community needs as well as the wider social context, providing environments that support a diverse range of people and facilitate social interaction.</i>	DAC Comments: The interim proposal for ‘barcode’ patterns and ‘street art’ on the exposed north-western and north-eastern walls of Stage 1 that face future Stage 1B (Adina) and Stage 2 (BTR) will be highly visible from the public realm for a long period of time. Consider meaningful artwork by an artist that references and tells a story of the locale, its history, landscape and culture. DAC Recommendations: In consultation with the City, consider interpretative artwork on the exposed walls of Stage 1 that connects to the story telling of the locale, its history, landscape and culture.
Principle 10 – Aesthetics <i>Good design is the product of a skilled, judicious design process that results in attractive and inviting buildings and places that engage the senses.</i>	DAC Comments: Whilst acknowledging the fascia of the canopy will be widened to accommodate signage in some locations, in general the “hit and miss” canopy appears bulky; consider refining the design and providing further detail on the integration of drainage for rainwater. DAC Recommendations: 1. Refine the canopy design to reduce its bulk and provide the design approach for draining rainwater
Concluding Remarks: The Committee supports the changes as recommended in the minutes from DR1. The Committee supports the broad scale planning, design and amenity afforded to the building users and to the context. The current micro-level comments focus on the Applicant providing a statement on the link between the former south Woolstores building as referenced in the presentation and the current design; further detail on the Childcare Centre’s landscape for outdoor play area and internal amenity, and how the impact of future proposed development will be managed to maintain the amenity of the Centre; suggested improvements to the L1 carpark amenity and current L2 bike store locations; a more refined canopy design, and greater consideration of the proposed interim artwork on exposed walls that should carefully interpret the site within its historical context.	

As noted in the concluding remarks above, the DAC have endorsed the design of the proposal and consider it to be of a quality, satisfying all of the design principles of SPP7

(Design of the Built Environment). The DAC do outline some minor additional recommendations on design improvement that the applicant could consider but were not considered necessary to address for DAC endorsement of the proposal.

Notwithstanding, the applicant has considered the final recommendations of the DAC and provided further information and written responses to each of these as part of **Attachment 5** of this report. The responses acknowledge that some of the recommendations will be considered in the detailed design phase of the proposal (as part of the building permit submission) and/or justification has been provided as to why some of the recommendations cannot or will not be addressed. This justification is accepted by officers.

Planning Assessment:

The proposal has been assessed against all relevant legislative requirements of the Scheme, State and Local Planning Policies outlined in the Legislation and Policy Section of this report. The following matters have been identified as key considerations for the determination of this application:

- Zone objectives and Land Use
- Car and Bicycle Parking
- Sub area 1.3.2 - Provisions

These and any other relevant matters are discussed below.

Zone Objectives and Land Use

Land Use	Permissibility
Liquor Store- Small	A
Shop	P
Office	P
Child Care Premise	A

Clause 3.2.1 of LPS4 provides objectives for each zone, with Clause 3.2.1(b) stating that the objectives of the 'City Centre' zone are:

Development within the city centre zone shall—

- (i) 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 8,*
- (iii) conserve places of heritage significance the subject of or affected by development.*

As will be discussed throughout the remaining 'Officers Comment' section, the proposed development is consistent with the objectives of the City Centre zone, specifically in relation to (i) above as the development provides for a mix of desirable land uses including Retail, Office and Child Care Premises. In relation to (ii) above, it is noted that there are no 'objectives' specified for local planning area 1 of Schedule 8 of LPS4. With regards to (iii) above, the proposal is not considered to adversely impact on the identified cultural significance of either Elders Wool store or Fremantle Railway Station.

Sub Area 1.3.2 – Specific Design Requirements

The application has been assessed against the provisions of sub area 1.3.2 of Schedule 8, and except for a), g) and h), the development is considered to be compliant with these provisions.

	Provision	Assessment
a)	Notwithstanding the provisions of Table 1–Zoning– (i) Residential uses will not be permitted in new buildings at ground level adjacent to Queen Street, Adelaide Street and Kings Square; (ii) Land uses at ground level adjacent to Queen Street, Adelaide Street and Kings Square shall contribute to generating interest and activity within the adjacent public realm; and (iii) A minimum of 15% of the net lettable area within all new development on sites with a development site area greater than 3000 m² shall be provided for Office use.	No Residential land uses are proposed at ground level adjacent to Queen Street. Queen Street ground floor uses consists of Office lobby, Shop and a liquor store - small tenancies. It is considered that the proposed mix of uses will generate interest and activity with the Queen Street public realm during and after business hours. 1811m² of Office floor area is provided which equates to 20% of the total net lettable area (NLA) of the new development
b)	New development fronting Queen Street, Adelaide Street and Kings Square shall incorporate design measures to – Provide continuous weather protection at ground level for pedestrians along these streets and public spaces; and Generate interest and activity within the adjacent public realm.	Continuous weather protection is provided in the form of awnings along Queen Street. Some weather protection is also provided to Cantonment Street. The proposed full height glazing to the ground floor facing Queen Street will promote interaction between various Shop tenancies and the public realm.
c)	New development at ground level adjacent to other streets and public areas not identified in a) and b) above may incorporate a mix of land uses and shall incorporate design measures to contribute to an interesting and diverse public realm.	Overall, the proposed mix of uses located within the ground floor perimeter of the building is well considered, and these uses are considered to create activity and interest to the public realm.
d)	Clause 1.2 'Matters to be considered in applying general and specific height controls' does not apply to Sub Area 1.3.2.	Noted

The subject site is located within Local Planning Area 1 – City Centre (sub area 1.3.2) of Schedule 8 of the City's LPS4. Within sub area 1.3.2, the subject site is nominated as 'Site 1'. There are 18 sites within sub area 1.3.2, all of which have unique development standards, specifically in relation to building height. Sub area 1.3.2 effectively provides for (1) 'permitted building heights'; (2) 'discretionary building heights' (which have to satisfy two specific criteria); and (3) 'maximum building heights' (which have to meet a number of specific criteria and require discretionary judgement to be exercised by the decision-making authority). In this instance, the application only seeks consideration against (1) and does not require consideration against the discretionary criteria applicable to the maximum building heights.

The following building heights are prescribed in LPS4 for Site 1:

e)	Permitted Building Height (Metres)	Building Height (Metres) which may be permitted subject to the development	Maximum Building Height (Metres) which may be permitted in	Minimum Façade Height (Metres) that
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		satisfying both of the following criteria– (i) The portion of building exceeding the Permitted Building Height being sufficiently set back from the street facade so as to not be visible from the street(s) and/or public open space(s) adjoining the site; and (ii) The design of the portion of building exceeding the Permitted Building Height being integrated with the design of the overall building.	accordance with clause (f)	fronts a public street(s) and/or public open space(s)
Permitted	21m	24.5m	38.9m	10m
Proposed	-	13m	N/A – the application does not seek assessment against the discretionary criteria relevant to this maximum height.	13m

g)	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.					The proposed development complies with this requirement.
h)	Building Setbacks					See 'Officer comment' section below.
	Frontage		Required	Proposed	Variation	
	Queen Street	Minimum street setbacks	3.65m	2m	1.65m	
		Maximum street setback up to building heights 10m	5.65m	6m	0.35m	
	All other streets	Minimum street setbacks	Nil	Nil	Nil	
		Maximum street setback up to building heights 10m	2m	Nil	Nil	
i)	The maximum aggregate width of spaces between buildings at ground floor level at street frontage may be no more than 8 metres at any one location.					Complies.

l)	The provisions of clauses 4.7.1 to 4.7.4 (Car Parking and Cash in Lieu) inclusive do not apply for Office land uses where located above ground floor level.	Noted.
m)	The provisions of clause 4.7.3 (a) (i) and (ii) (Car parking relaxation subject to availability of parking in the locality and access to public transport) of the Scheme do not apply in Sub Area 1.3.2.	Noted.
n)	The provisions of clauses 4.7.1 to 4.7.4 (Car Parking and Cash in Lieu) inclusive do not apply for visitor parking for residential land uses.	Noted.
o)	The Council may impose a condition on planning approval for any new development in Sub Area 1.3.2 requiring a memorial to be placed on the property title advising of the potential for future development on adjoining land to be constructed in accordance with the building height and setback requirements applicable to Sub Area 1.3.2, which include zero minimum side and rear setbacks.	As the subject site comprises a street block, no memorial is considered to be required.

1.4) Car Parking

	Provisions	Required Bays	Proposed Bays	Variation
Office	Nil for Offices above ground floor – cl(l) of sub area 1.3.2	0 bays	Nil	Complies
Shop (Shopping centre plus retail tenancies) Calculation includes Liquor Store as this requirement is considered applicable to this use.	1:16m ² nla – 5000m ²	3766m ² nla area = 235 bays	147	88
Child care	1: 1 employee plus 1: 10 children allowed under maximum occupancy	Employees – 18 staff And 108 children bays = 29 bays	Nil	29
Total		264 bays	147 bays	117 bays

1.5) Delivery Bays

	Requirement	Proposal	Discretion
Office	1 per 500m ² = 1	1	Complies
Shop (Shopping centre plus retail tenancies)	1 per 1000m ² gla = 4	1 loading dock provided for Coles supermarket	3 (for the remainder of the retail tenancies).

As above, the Liquor Store is included in this calculation.			
Child care	N/A	N/A	N/A
Total bays	5 delivery bays	2 delivery bays –Coles and Office	3 delivery bays

Bicycle parking

	Requirement	Proposal	Discretion
Office	Class 1 or 2: 1 per 200m ² gla = 1 Class 3: 1 per 750 ² gla over 1000m ² nla Note: upper floor offices excluded from calculation.	Nil	Complies
Shop (Shopping centre)	Class 1 – per 300m ² gla = 13 Class 3 - per 500m ² gla = 8	Shared bike store provided in basement – 53 racks	13 (Class 1) 8 (Class 3)
Child care	N/A	N/A	N/A
Total for development	Class 1– 13 Class 3 - 8	Class 1- Nil Class 2: 20 class 2 Floor 2 Class 3 - nil	Class 1: 13 racks Class 3: 8 racks Discussed in officer comment section below

End of trip facilities

Provision	Requirement	Proposed	Discretion
Showers	2 male and 2 female or 4 unisex	2 UAT facilities on level 2	2 unisex
Lockers	13	Indicative locker locations are shown in the basement carpark and the ground floor of the police station.	A condition of development approval is recommended to ensure that sufficient lockers are provided across the development.

Local planning policies

The following policies also require assessment.

- Local Planning Policy 1.3 – Community Consultation on Planning proposals
- Local Planning Policy 1.9 – Design Advisory Committee and Principles of Design
- Local Planning policy 1.10 – Construction Sites policy
- Local Planning Policy 2.3 – Fremantle Port Buffer Area Development Guidelines

- Local Planning Policy 2.12 – Planning Applications Impacting on Verge Infrastructure and Verge Trees
- Local Planning Policy 2.13 – Sustainable Buildings Design Requirements
- Local Planning Policy 2.19 – Contribution for Public Art and/or Heritage Works

Appropriate conditions and advice notes are included to ensure compliance with these relevant policy provisions. Where further explanation is required, it is detailed in the Officer Comment section below.

Officer Comments

Land use

Use	Permissibility
Shop	P
Office	P
Liquor Store- small	A
Child care premises	A

The proposed land uses are considered to be consistent with the objectives of the City Centre zone and appropriate within the proposed development for the following reasons:

- In the vicinity of the proposed development site, there is a mix of land uses including Tavern, Shops, Restaurants, Multiple dwellings, Convenience Stores, Consulting Rooms, Public Car parking etc. Overall, the mix of the proposed uses is considered to be complementary to the land uses already existing in the City Centre.
- There are no objectives provided in Schedule 7 for local planning area 1.
- The development is not considered to have a detrimental impact on the cultural significance of either the Elders Woolstores or the Fremantle Railway Station buildings from a heritage conservation perspective, rather the design reflects the influences of the area.
- With respect to the proposed Liquor Store use, this is not considered to introduce any additional social impact as a liquor store was provided in the previous Woolstores Shopping Centre.
- It is noted that the subject site already accommodates public car parking, therefore this is not a new land use, rather it simply expands the bays as required by the introduction of additional commercial floor space.

Sub Area 1.3.2 – Specific Design Requirements

Building Height

The proposal complies with the requirements of LPS4 in terms of height, as it has a maximum height of 13m with a minimum façade height of 13m. The proposed screens to the exterior of the building on the corner of the development, are considered to be architectural features.

Clause 4.8.1.3 of the LPS4 states as follows;

Excluding development within the Residential zone, Council may permit a minor projection above the highest part of a development, subject to the development satisfying both of the following criteria;

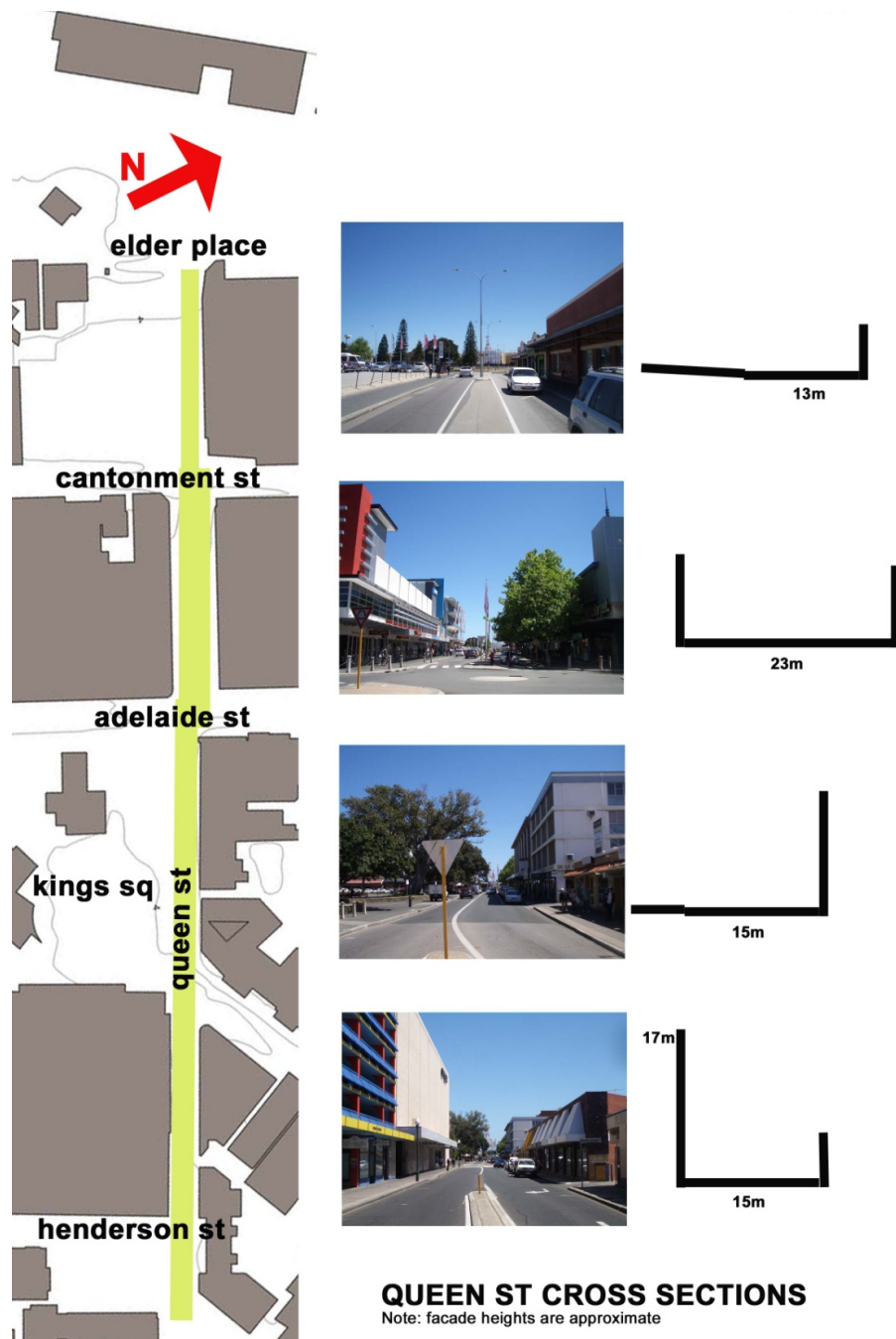
- (a) *The minor projection being no more than 4 metres above the highest part of the main building structure;*
- (b) *The cumulative area of the minor projection being no more than 10 per cent of the total roof area of the building.*

The proposed plant room represents less than 10% of the total roof area of the proposal and projects 3.5m above the highest part of the development.

Setbacks

The proposal doesn't meet the minimum provisions outlined in sub section (h) of Schedule 7 LPS4 including the ground level setback to Queen Street. The proposed setback of the development to the Queen Street is 2 metres rather than the minimum of 3.65m required.

Queen Street is 12m wide between Elder Place and Cantonment Street, however expands to be 22m wide between Cantonment Street and Adelaide Street. In order to provide for a consistent building alignment, facilitate future desired road widening and improve pedestrian movement and experience along Queen Street, the building setback requirements were introduced into the scheme as part of Amendment 49. A retail study was also undertaken through the amendment process, that identified Queen Street as the priority retail strip in the City Centre, which formed part of the rationale for large setbacks in the area. The following streetscape diagram was prepared as part of the amendment process to demonstrate the changing widths along the length of Queen Street.



Schedule 7 of LPS4 states that, 'Council may vary the prescribed setbacks where it is satisfied that the design outcome will be improved.'

The applicant states that,

The current Queen Street road reserve width is 13 metres, which includes a 2.5 metre wide footpath on the northern side of Queen Street. The planning requirements through the proposed setbacks on the northern and southern sides of Queen Street is seeking to increase the road reserve width to 23 metres.

The proposed 3.65 metre setback has a significant impact on the viability of the proposed development in terms of the floor space that can be achieved for the supermarket and other specialities at ground level taking into account service

provision and the other proposed uses of the site. This has the potential to create a negative impact to the streetscape activation of Queen Street.

The proposed development seeks to provide a 2 metre setback. When combined with the existing Queen Street width and the setback on Site 2 provides a width for Queen Street of 21.35 metres. Even if the setback to Site 2 was reduced proportionally with the proposed 2 metre setback for Site 1, this would still provide a street width of 20 metres.

At a width of 20 metres this is consistent with the other main pedestrian streets in the city including South Terrace (20 metres), Market Street, William Street etc. Other examples of pedestrian streets such as Hay Street and Murray Streets in the City of Perth are less than 20 metres in width.

A 20 metre road reserve width should be able to accommodate any required landscaping, footpaths, on street car parking, without impacting the ability of the subject site to proceed with its development. We are therefore seeking a variation to the minimum setback requirement to Queen Street.

The applicant has also provided a setback study for consideration, which is included as Attachment 10.

In consideration of the above, the City is still not satisfied that by reducing the setback from 3.65m to 2m (resulting in a future Queen Street road width of 20m instead of 23m), the design outcome will be improved.

It is also worth noting that the prescribed 3.65m setback and potential increase in footpath width, may allow a future kerbside embayment on the northern side of Queen Street (between Elder and Cantonment) to service the future development needs in Stage 2, for example, a set-down/pick-up bay for a hotel foyer. A reduced street setback of 2m will not accommodate this option in the future without severe negative impact on pedestrian and/or vehicle movements.

Notwithstanding this, while the 3.65m (or greater) setback is the optimum solution from an urban design perspective that ensures set down bays can be provided if required, the proposed setback can accommodate a quality pedestrian environment in front of this development. The setback may be able to space for footpaths, street furniture and tree planting, noting detailed design work has not been undertaken for this section of Queen Street. The decision maker, should they be of the position that the setback is sufficient in it's current format, has the ability to vary the requirement in accordance with clause 4.8.2 of LPS4.

Major Off Street pedestrian routes

The application has been assessed against cl5.3.1 - 5.3.8. The following comments are provided:

- LPP3.1.5 requires two east west pedestrian links across the site. Given the application only includes the substantial redevelopment of the southern eastern quarter of site and these required pedestrian links could easily be accommodated for in the future redevelopment works to the middle and northern portion of site.
- Universal access is provided for the south-eastern corner access point.

Car parking

The development proposes an onsite car parking bay shortfall of 117 bays across the site and as such discretion is sought under clause 4.7.3 of LPS4. This clause provides the ability to waive car parking requirements subject to criteria. It is noted that Scheme sub area 1.3.2

excludes the consideration of parking in the locality such as street parking and the availability of public transport in the locality. In relation to this proposal the most relevant provision of cl 4.7.3 is as follows:

- (iii) *any reduction in car parking demand due to the sharing of car spaces by multiple uses, either because of variation of car parking demand over time or because of efficiencies gained from the consolidation of shared car parking spaces,*

It is considered that the proposed on-site car parking shortfall could be supported against Clause 4.7.3 (iii) above, as the likelihood that the proposed uses are capable of sharing the proposed 147 proposed bays. It is considered that the peak operating times for the Office and the Shops onsite will have limited conflict with the peak operating times for surrounding Office, and Shop (Coles) uses reducing the competition between uses for the provided onsite car bays.

The shortfall in parking for the Childcare premise is also considered appropriate given the likely hood of a drop off and collection arrangement being the more appropriate collection method for its cliental. Existing street parking within Cantonment Street will be readily available at the entrance of the childcare premise. The applicant has also dedicated parking internally for this purpose. Accordingly, it is considered that this portion of the development has provided parking specifically in accordance with the demand of this use and is therefore considered appropriate.

Having regard to the above, the proposed parking shortfall across the site is not considered to result in an adverse impact upon the amenity of the immediate locality and can be supported. The reduction in parking available for individual developments in the City Centre is considered consistent with the objective of the City's parking strategy which is to relocate large scale parking areas to the fringes of the City centre and make use of public and active transport options.

Delivery Bays

The dedicated service areas and new delivery facility for stage 1 is considered to provide adequate and consolidated servicing needs for the entire Stage 1 of the redevelopment of this suite. A range of vehicles sizes (vans, light trucks and semi-trailer vehicles) that typically deliver to such complexes can continue to service the site adequately.

Notwithstanding the above a condition of approval is recommended requiring the provision of a delivery management plan for the development, to the satisfaction of the City.

Bicycle parking and End of Trip facilities

Appropriate conditions are recommended to be imposed ensuring compliance with Scheme provisions for some of these requirements. While the development does not comply with the LPS 4 requirement to provide class 1 (individually enclosed) bicycle racks, it is considered that the provision of large lockable enclosures consistent with class 2 requirements is sufficient to service the development. The provision of class 3 racks is recommended as a condition of approval.

Local Planning Policy 3.1.5 – Precinct 5 (LPP3.1.5)

- *Primary and Secondary Streets*

The application has been assessed against cl 5.1.1 – 5.2.5 of LPP3.1.5 and the following comments are provided:

- The development is considered to provide an appropriate scale at ground level to reinforce the significance of the primary street entrance to the development.
- The ground level of the proposed building incorporates appropriate uses which have the potential to provide activation during hours beyond traditional business hours and provide entry directly from the street.
- Multiple new ground floor tenancies are provided to Queen Street and the corner (Queen Street and Cantonment Street).
- The development includes a portion of new on-site vehicle parking at first and second floor level which is sleeved with active office and child care premise uses.
- The development is considered to provide an appropriate scale at ground level to reinforce the significance of the primary street entrance to the development.
- Ground floor frontages are predominantly glazed and are considered to incorporate design features such as awnings contributing to a safe public realm.
- The development has minimised blank walls and service areas fronting primary streets. The development proposes some consolidation of vehicle access for the development.
- The development provides weather protection in the form of awnings along Queen Street and Cantonment Street which are integrated into the building design and appropriately scaled.
- Overall, the proposal includes an active interface for the new Cantonment Street / Queen Street, and the middle section of the ground floor Queen Street interface includes what will be high pedestrian traffic areas.

- *Built Form and Legibility*

The application has been assessed against cl 6.1 - 6.8 and the following comments are provided:

- The proposed brick and glass building is considered to provide a consistent edge of development which is continuous and generally consistent with the existing massing and scale of the established pattern to the north of site (Elders Site).
- With regards to legibility, the Stage 1a redesign does not including any required links, but clear legibility to the ground floor shop entrance and their tenancies on the Cantonment and Queen Street frontages are appropriately designed and laid out.

LPP2.19 – Contribution for Public Art/and or Heritage Works

The proposed development is required to adhere to the provisions contained within the Councils LPP2.19 Contributions for Public Art and/or Heritage Works which require the proponent to contribute a monetary amount equal in value to one per cent of the estimated total development cost, for the development of public art works and/or heritage works to enhance the public realm.

The applicant has advised that they intend to develop artwork for the site, however no details have been provided at this stage. A condition of approval is recommended to ensure this requirement is met.

Matters to be considered

Through the assessment above, the following matters have been given due regard in reviewing this application in accordance with clause 67 of the Regulations.

- (a) *The aims and provisions of this Scheme and any other local planning scheme operating within the Scheme area;*

See 'Planning Assessment' and 'Officers Comment' sections above.

- (b) *Any approved State planning policy*

See 'Planning Assessment' and 'Officers Comment' sections above.

- (g) *any local planning policy for the Scheme area*

See 'Planning Assessment' and 'Officers Comment' sections above.

- (l) *the effect of the proposal on the cultural heritage significance of the area in which the development is located*

The site is not heritage listed nor is it within a prescribed heritage area. The State Heritage Office considered the proposal in regard to the cultural heritage significance of nearby state registered places (Elders Woolstores and Fremantle Train Station) and raised no objection.

- (m) *the compatibility of the development with its setting including the relationship of the development to development on adjoining land or on other land in the locality including, but not limited to, the likely effect of the height, bulk, scale, orientation and appearance of the development*

See 'Planning Assessment' and 'Officers Comment' sections above.

- (n) *the amenity of the locality including the following –*
(i) environmental impacts of the development
(ii) the character of the locality
(iii) social impact of the development

See 'Planning Assessment' and 'Officers Comment' sections above.

- (s) *the adequacy of –*
(i) the proposed means of access to and egress from the site; and
(ii) arrangements for the loading, unloading, manoeuvring and parking of vehicles

- (t) *the amount of traffic likely to be generated by the development, particularly in relation to the capacity of the road system in the locality and the probable effect on traffic flow and safety*

The application included a traffic impact assessment which has been reviewed by the City and the development is considered acceptable in terms of proposed vehicle access points, manoeuvrability, onsite parking and the likely traffic movements to and from site.

- (u) *the availability and adequacy for the development of the following –*
i. public transport services
ii. public utility services
iii. storage, management and collection of waste
iv. access for pedestrians and cyclists (including end of trip storage, toilet and shower facilities)
v. access by older people and people with disability

See 'Officers Comment' section above relating to car parking matters however it is noted that:

- The site is within close proximity to public transport stations (taxi, bus and train).
- The submitted waste management plan has been reviewed by the City and is considered acceptable subject to conditions.

- The site has multiple universal accessibility points for easy safe pedestrian movements over the site and adjoining public spaces.

(x) *the impact of the development on the community as a whole notwithstanding the impact of the development on particular individuals*

See 'Planning Assessment' and 'Officers Comment' sections above.

(y) *any submissions received on the application*

See 'Planning Assessment' and 'Officers Comment' sections above.

CITY OF FREMANTLE STRATEGIC IMPLICATIONS

The proposal is considered to comply with the following strategic plans:

Strategic Community Plan 2015-2025

- Increase the number of people working in Fremantle
- Increase the number of visitors to Fremantle
- Character culture and heritage focus area – addresses outcome 'Fremantle celebrates its history and heritage through active renewal'

Fremantle's Economic Development Strategy 2015-2020

- Place activation to increase commercial and social vibrancy
- Attraction of business and investment

Conclusion:

The assessment of the application is summarised as follows:

- The application includes the development of a three storey Mixed use building containing Shops, Office space, a liquor store – small and a Childcare premise building.
- The proposal seeks the exercise of discretion relating to land use, setbacks and onsite car parking. In respect to these elements, the proposal is considered to satisfy the relevant merit-based criteria with the exception of the setback to Queen Street.
- The City's Design Advisory Committee have reviewed the proposed design and generally support the design subject to final detail being provided in relation to various matters.
- The current revised proposal is of satisfactory design and would secure much-needed investment and revitalisation of this important site and delivers additional hotel accommodation and office space in central Fremantle which is a welcome addition to the city's retail and business facilities.

The application is recommended for approval subject to relevant conditions.

Alternative Recommendation

Officer Recommendation

That the Metro Inner South JDAP resolves to:

1. **Accept** that the DAP Application reference DAP/22/02352 is appropriate for consideration as a Shop, Office, Child Care Premises and Liquor Store -Small land uses are compatible with the objectives of the zoning table in City of Fremantle Local Planning Scheme No.4;
2. **Approve** DAP Application reference DAP/22/02352 and accompanying plans dated 22 November 2022 (Drawing DA-00 , DA-01, DA-02, DA-03, DA-04, DA-05, DA-06, DA-07, DA-08, DA-09, DA-10, DA-11, DA-12, DA-13 and DA-14 in accordance with Clause 68 of Schedule 2 (Deemed Provisions) of the *Planning and Development (Local Planning Schemes) Regulations 2015*, and the provisions of City of Fremantle Local Planning Scheme No.4 subject to the following conditions:

Conditions

1. Pursuant to clause 26 of the Metropolitan Region Scheme, this approval is deemed to be an approval under clause 24(1) of the Metropolitan Region Scheme.
2. This decision constitutes planning approval only and is valid for a period of 4 years from the date of approval. If the subject development is not substantially commenced within the specified period, the approval shall lapse and be of no further effect.
3. All storm water discharge shall be contained and disposed of on site or otherwise approved by the City of Fremantle.
4. The works indicated on the approved plans, including any footings, shall be wholly located within the cadastral boundaries of the subject site.
5. This approval does not relate to any works within the road reserves, with the exception of the proposed awnings. Any such works will be the subject of a separate agreement between the applicant/owner and the City of Fremantle.
6. All car parking and vehicle access and circulation areas shall be maintained and available for car parking/loading, and vehicle access and circulation on an ongoing basis to the satisfaction of the City of Fremantle.
7. Prior to commencement of development works, investigation for soil and groundwater contamination is to be carried out at Lot 1 and 800 to determine if remediation is required on the advice of the Department of Water and Environment Regulation, to the satisfaction of the City of Fremantle.

If required, remediation, including validation of remediation, of any contamination identified shall be completed prior to completion of construction works at Lot 1 and Lot 800 to the satisfaction of the City of Fremantle, on advice from the Department of Water and Environmental Regulation, to ensure that the site is suitable for the proposed use. Investigations and remediation are to be carried out in compliance with the *Contaminated Sites Act 2003* and current Department of Water and Environmental Regulation contaminated sites guidelines.

8. Prior to lodging an application for a building permit, storm water disposal plans, details and calculations must be submitted for approval by the City of Fremantle and thereafter implemented, constructed and maintained to the satisfaction of the City of Fremantle.

9. Prior to the issue of a building permit, the plans shall be amended to include a building setback of a minimum of 3.65m from the Queen Street boundary to the satisfaction of the City of Fremantle.
10. Prior to issue of a Building Permit for the development hereby approved, No. 28 Cantonment Street (Lot 1) and 1-6/20 Elder Place are to be legally amalgamated into one lot on the Certificate of Title. Alternatively, the owner may enter into a legal agreement with the City of Fremantle, drafted by the City's solicitors at the expense of the owner and be executed by all parties concerned. The legal agreement will specify measures to allow the development approval to operate having regard to the subject site consisting of two separate lots, to the satisfaction of the City of Fremantle.
11. Prior to the issue of a building permit, an external signage strategy shall be submitted to the satisfaction of the City of Fremantle.
12. Prior to the issue of a building permit for the development hereby approved, an outdoor lighting plan must be submitted and approved by the City of Fremantle. The outdoor lighting is to be designed, baffled and located to prevent any increase in light spill onto the adjoining properties.
13. Prior to the issue of a building permit, the applicant/owner is to submit a copy of documentation from the Green Building Council of Australia or a suitably qualified professional stating how the development will achieve a Green Star rating of at least 4 Stars or equivalent, to the satisfaction of the City of Fremantle.
14. Prior to the issue of the building permit, a detailed landscaping scheme shall be provided and be approved by the City of Fremantle. Prior to the occupation of the development, the approved landscaping plans shall be completed in accordance with the approved plans to the satisfaction of the City of Fremantle. All landscaped areas are to be maintained on an ongoing basis for the life of the development, to the satisfaction of the City of Fremantle.
15. Prior to the issue of a building permit for the development hereby approved, final details of the external materials, colours and finishes of the proposed development, including a physical sample board or materials is to be submitted and approved to the satisfaction of the City of Fremantle, on the advice of the City's Design Advisory Committee.
16. Prior to the issue of a building permit for the development hereby approved, all piped, ducted and wired services, air conditioners, hot water systems, water storage tanks, service meters and bin storage areas must be located to minimise any visual and noise impact on the occupants of nearby properties and screened from view from the street. Design plans for the location, materials and construction for screening of any proposed external building plant must be submitted to and approved by the City of Fremantle.

17. Prior to the issue of a building permit a Construction Management Plan shall be submitted and approved, to the satisfaction of the City of Fremantle addressing, but not limited to, the following matters:

- a) Use of City car parking bays for construction related activities;
- b) Protection of infrastructure and street trees within the road reserve;
- c) Security fencing around construction sites;
- d) Gantries;
- e) Access to site by construction vehicles;
- f) Contact details;
- g) Site offices;
- h) Noise - Construction work and deliveries;
- i) Sand drift and dust management;
- j) Waste management;
- k) Dewatering management plan;
- l) Traffic management;
- m) Works affecting pedestrian areas; and
- n) existing tree(s) within the road reserve(s), protected through the implementation of a Tree Protection Zone for protection during construction

Dewatering application must include:-

- Written approval from department of Water and Department of Park and Wildlife
- Dewatering impact report
- Demonstrated compliance with Swan Trust Policy SRT/DE6
- Before discharge in to the City's storm water system, they need to have a sediment control and weekly monitoring plan.

The approved Construction Management Plan shall be adhered to throughout the demolition of the existing building on site and construction of the new development.

18. Prior to issue of a building permit of the development hereby approved, the owner is to submit a waste management plan for approval by the City, detailing at a minimum the following:

- Estimated waste generation
- Proposed storage of receptacles
- Collection methodology for waste including collection time
- Additional management requirements to be implemented and maintained for the life of the development.

The waste management plan should give consideration to the fact the City is required to manage residential waste. As a result, the waste management plan will need to align with the waste services available to residents. The Waste Management Plan must be implemented at all times to the satisfaction of the City of Fremantle.

19. Prior to the issue of a Building Permit for the development hereby approved, the design and materials of the development shall adhere to the requirements set out within City of Fremantle policy L.P.P2.3 - Fremantle Port Buffer Area Development Guidelines for properties contained within Area 2. Specifically, the development shall provide the following:
 - i) Glazing to windows and other openings shall be laminated safety glass of minimum thickness of 6mm or "double glazed" utilising laminated or toughened safety glass of a minimum thickness of 3mm.
 - ii) Air conditioners shall provide internal centrally located 'shut down' points and associated procedures for emergency use.
 - iii) Roof insulation in accordance with the requirements of the Building Codes of Australia.
20. Prior to the issue of a building permit, the plans hereby approved being modified to include 8 class 3 bicycle parking bays and associated end-of-trip facilities consisting of 13 lockers in accordance with clause 4.15.1 and 4.15.2 of Local Planning Scheme No.4. The bays and end-of-trip facilities shall be provided and thereafter maintained to the satisfaction of the City of Fremantle.
21. Prior to the issue of a building permit, the noise sensitive development (childcare centre) adjacent to the Fremantle Railway must implement measures to ameliorate the impact of transport noise. The development must comply with WAPC State Planning Policy - 5.4 Road and Rail Noise (SPP 5.4) on advice from the Public Transport Authority, to the satisfaction of the City of Fremantle.
22. Prior to the occupation of the childcare centre a notification, pursuant to Section 70A of the Transfer of Land Act 1893 is to be placed on the certificate of title of the lot to the satisfaction of the City of Fremantle. The notification is to state as follows:

"The lot is situated in the vicinity of a transport corridor and is currently affected or may in future be affected by transport noise."
23. Prior to occupation of the development, a Delivery Management Plan is to be submitted and approved to the satisfaction of the City of Fremantle. The management plan is to include specific details as to how deliveries for the development will be managed, including timing, access and frequency of deliveries. The approved management plan is to be implemented, thereafter to the satisfaction of the City of Fremantle.
24. Prior to occupation of the development, the car parking and loading area(s), and vehicle access and circulation areas shown on the approved site plan, including the provision of disabled car parking, shall be constructed, drained, and line marked in accordance with the Australian Standard for parking facilities and off-street car parking the satisfaction of the City of Fremantle.
25. Prior to the occupation of the development, any redundant crossovers and kerbs shall be removed, and the verge reinstated at the expense of the applicant and to the satisfaction of the City of Fremantle.

26. Prior to occupation of the development, the owner shall contribute a monetary amount equal in value to one percent of the estimated development cost, as indicated on the Form of Application for Planning Approval, to the City of Fremantle for development of public art works and/or heritage works to enhance the public realm consistent with the City's LPP 2.19 and to the satisfaction of the City of Fremantle. Based on the estimated cost of the development being \$14 million the contribution to be made is \$140,000.
27. Where any of the preceding conditions has a time limitation for compliance, if any condition is not met by the time requirement within that condition, then the obligation to comply with the requirements of any such condition (other than the time limitation for compliance specified in that condition), continues whilst the approved development continues.

Advice Notes

- i. A Building permit is required for the proposed Building Works. A certified BA1 application form must be submitted and a Certificate of Design Compliance (issued by a Registered Building Surveyor Contractor in the private sector) must be submitted with the BA1.
- ii. In relation to the public art contribution, the applicant is advised that Council may waive the requirement for the public art/heritage work contribution in accordance with clause 6 of LPP 2.19 where the development incorporates public art in the development to the same value as that specified in the condition that is located in a position clearly visible to the general public on the site of the development. In determining the appropriateness and artistic merit of the public art, council shall seek relevant professional advice.
- iii. Street Tree species shall be consistent with the rest of Queen Street / streetscape or as in consultation with the City of Fremantle.
- iv. The overall number and spacing of the proposed street trees shall provide a consistent shade and comfort over the footpath.
- v. Street furniture type, location and number shall be approved by City.
- vi. New crossover(s) shall comply with the City's standard for standard crossovers, which are available on the City of Fremantle's web site. Prior to commencing construction of the crossover(s), the developer is to contact the Engineering Project Officer on 9432 9999 to arrange an inspection or alternatively via info@fremantle.wa.gov.au.
- vii. Local Planning Policy 1.10 Construction Sites can be found on the City's web site via <http://www.fremantle.wa.gov.au/development/policies>. The Infrastructure Engineering department can be contacted via info@fremantle.wa.gov.au or 9432 9999.
- viii. The proponent must make application during the Building License application stage to Environmental Health Services via Form 1 - Application to construct, alter or extend a public building as a requirement of the *Health (Public Buildings) Regulations 1992*. For further information and a copy of the application form contact Environmental Health Services on 9432 9856 or via health@fremantle.wa.gov.au.
- ix. The premises must comply with the *Food Act 2008*, regulations and the Food Safety Standards incorporating AS 4674-2004 *Design, construction and fit-out of food*

premises. Detailed architectural plans and elevations must be submitted to Environmental Health Services for approval prior to construction. The food business is required to be registered under the Food Act 2008. For further information contact Environmental Health Services on 9432 9856 or via health@fremantle.wa.gov.au.

- x. Work on construction sites shall be limited to between 7am and 7pm on any day which is not a Sunday or Public Holiday. If work is to be done outside these hours a noise management plan must be submitted and approved by the City of Fremantle prior to work commencing.
- xi. Design and install all mechanical service systems, including air-conditioners, pool filter motors, gym weight equipment, amplified music, kitchen exhaust ducts and refrigeration motors, etc. to prevent noise levels from exceeding the relevant assigned levels as set out in the *Environmental Protection (Noise) Regulations 1997* (as amended). It is advised to seek the services of a competent acoustic consultant to assist the applicant to address the potential noise impacts on noise sensitive receivers.
- xii. In relation to Condition above and in accordance with regulation 31(1)(c) of the *Contaminated Sites Regulations 2006*, a mandatory auditor's report, prepared by an accredited contaminated sites auditor, will need to be submitted to the Department of Water and Environmental Regulation as evidence of compliance with the above Condition. A current list of accredited auditors is available from www.dwer.wa.gov.au.
- xiii. The PTA is currently undertaking investigations to determine future access arrangements, infrastructure upgrades and future expansions to Fremantle Train Station and Bus Interchange. This includes relocating and expanding the Fremantle Bus Interchange further north which will create alterations to points of ingress and egress from the bus interchange for bus movements. The Transport Impact Assessment prepared by Shawmac (Version B, dated 4th October 2022), should consider traffic modelling along Elder Place and the existing and future impact on the proposed service and delivery vehicle ingress/egress onto Elder Place to ensure the proposal does not cause disruptions to bus services arriving/departing from the Fremantle Bus Interchange in its current and future arrangement.
- xiv. Safe, efficient and reliable access for buses into and out of the bus interchange are critical requirements for PTA's operations. If Elder Place is a key access point for the proposed development, the PTA requests further discussions with the owner/applicant to identify opportunities to install bus priority measures, such as bus lanes, as part of the development to ensure bus services are not delayed by general traffic and service vehicles.
- xv. Prior to commencement of the development the applicant/owner must obtain approval from the PTA for works in and around the operating Fremantle Railway Corridor in accordance with the PTA's 8103-400-004 - Procedure - Working In and around the PTA Rail Corridor, Assets and Infrastructure, to the satisfaction of the City of Fremantle and advice from Public transport Authority.

- xvi. An application for third party access is required prior to the commencement of any development/construction works within the PTA Protection Zone. The developer must therefore seek PTA's approval for working in and around the operating railway in accordance with PTA's 8103-400-004 - Procedure - Working in and around the PTA Rail Corridor, Assets and Infrastructure. The request is to be submitted a minimum of 6 months (emailed to PTAThirdPartyAccess@pta.wa.gov.au) prior to the development/construction works commencement date. The submission must include the following documents:
- xvii. A complete checklist of the PTA's requirements within Appendix 2 and 3 of the PTA procedure 8103-400-004 - Working in and around the PTA Rail Corridor, Assets and Infrastructure. Where checklist items are ticked "Yes", the project generally affects the PTA railway reserve, infrastructure and assets, therefore the applicant must comply with the requirements to the satisfaction of the PTA.
- xviii. Scope of works, design drawings, plans, schedules, proposed construction methodology and engineering reports addressing potential impacts to nearby PTA assets and infrastructure. Plant and equipment to be used including cranes and their locations within the worksite.
- xix. Any proposed future loading constraints, access to exclusion zones that may affect the future operation or maintenance of the PTA's infrastructure and assets. All PTA Specifications and Procedures can be obtained on the PTA Vendor Portal <https://www.pta.wa.gov.au/vendor/>

DEVELOPMENT APPLICATION SUBMISSION

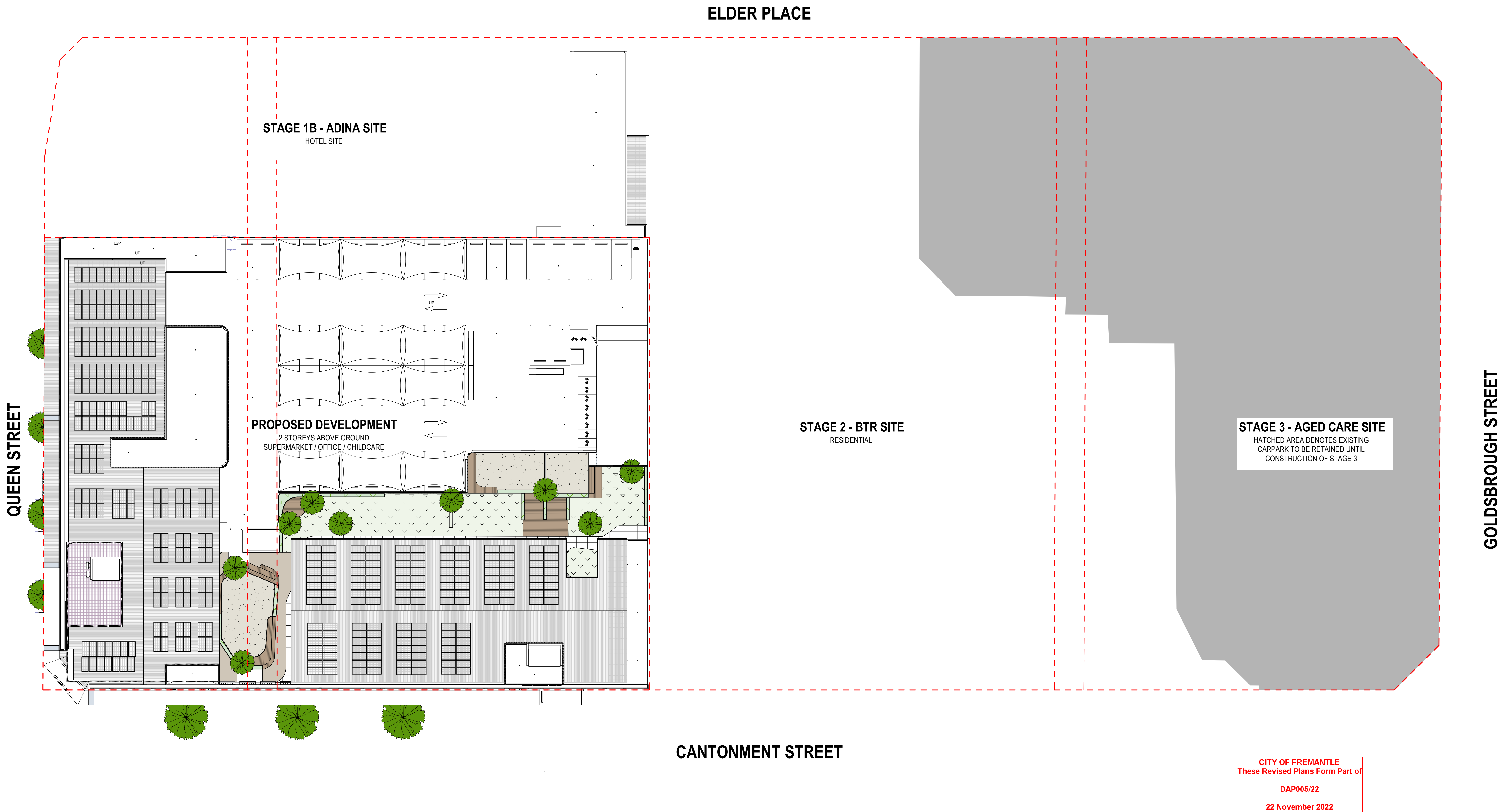
FREMANTLE WOOLSTORES STAGE 1 A
28 CANTONMENT STREET, FREMANTLE

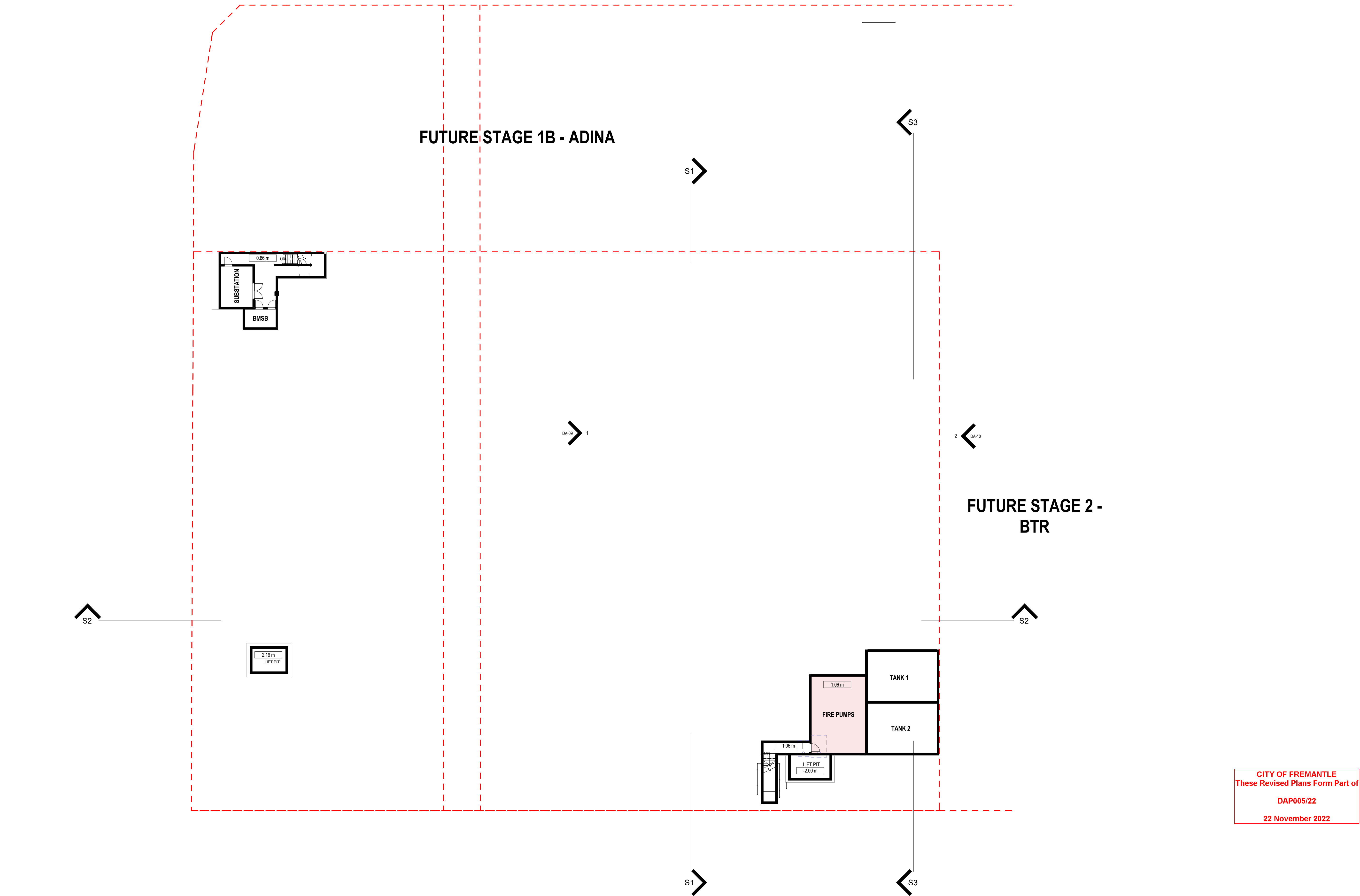


DRAWING LIST	
Sheet Number	Sheet Name

DA-00	COVER SHEET
DA-01	SITE PLAN
DA-02	BASEMENT PLAN
DA-03	GROUND
DA-04	LEVEL 01
DA-05	LEVEL 02
DA-06	ROOF PLAN
DA-07	SECTIONS A+B
DA-08	RAMP SECTION
DA-09	ELEVATIONS
DA-10	ELEVATIONS
DA-11	OVERSHADOWING DIAGRAMS
DA-12	PERSPECTIVES
DA-13	PERSPECTIVES
DA-14	FEATURE SURVEY PLAN

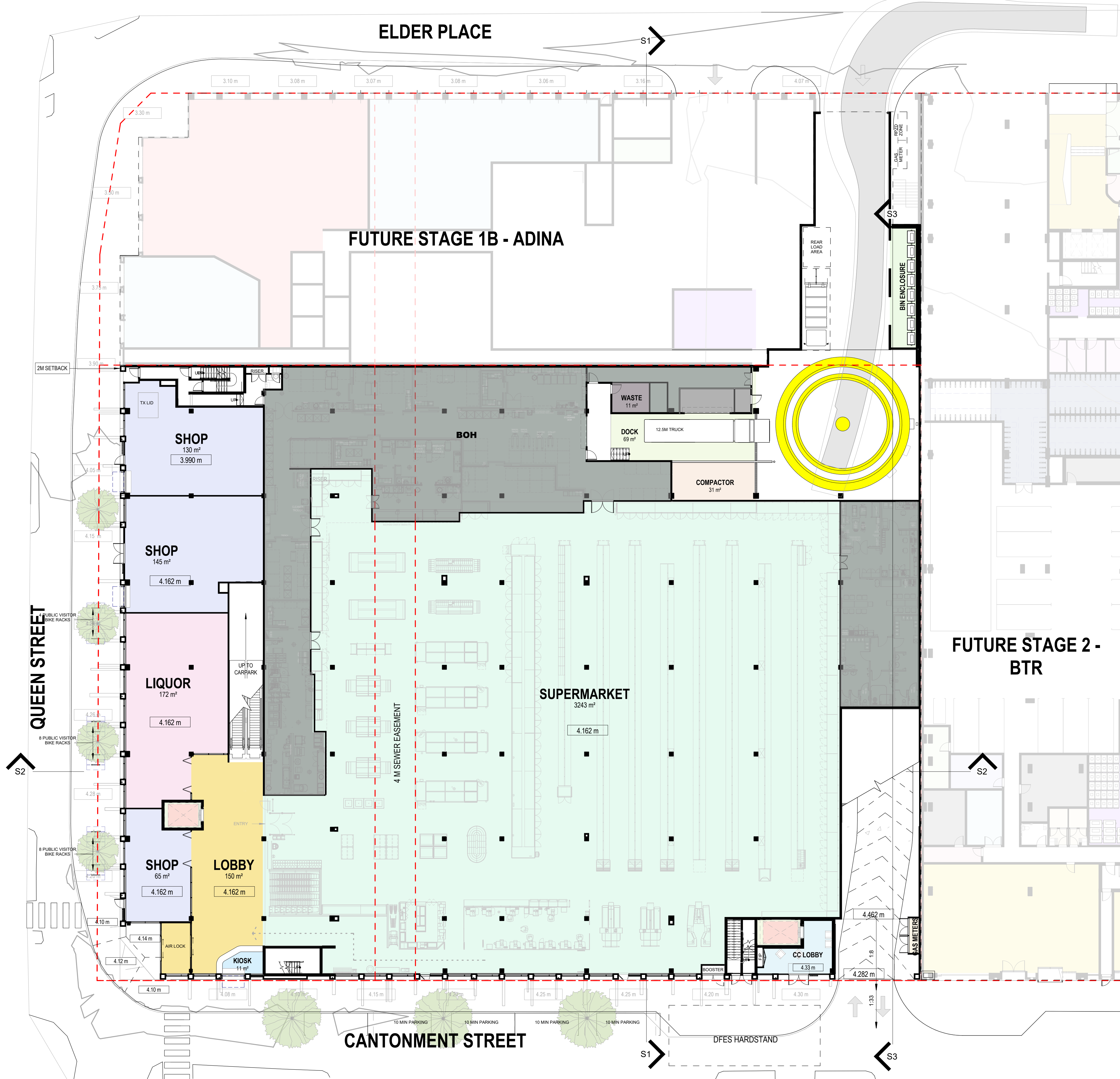
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22 November 2022





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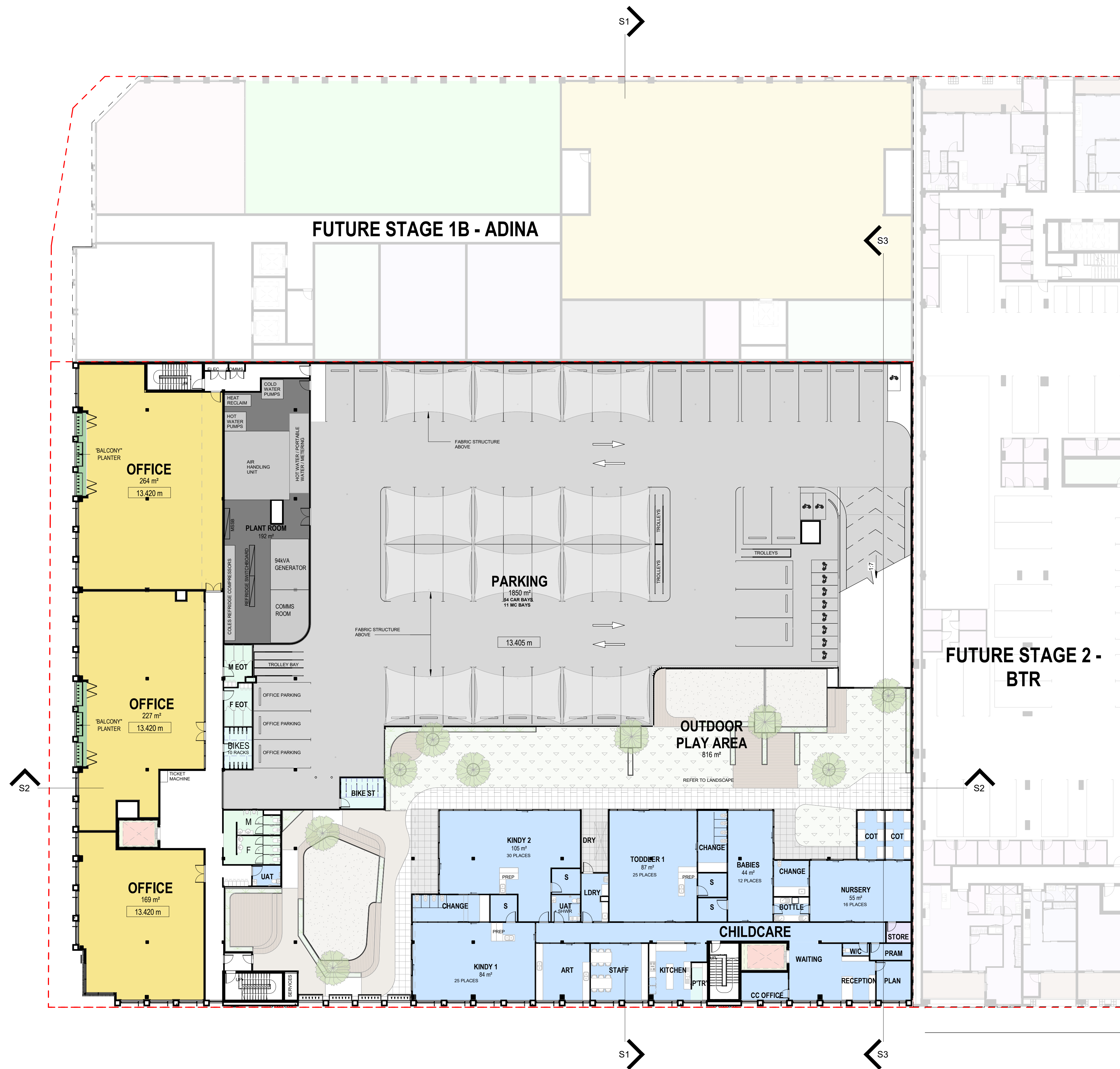


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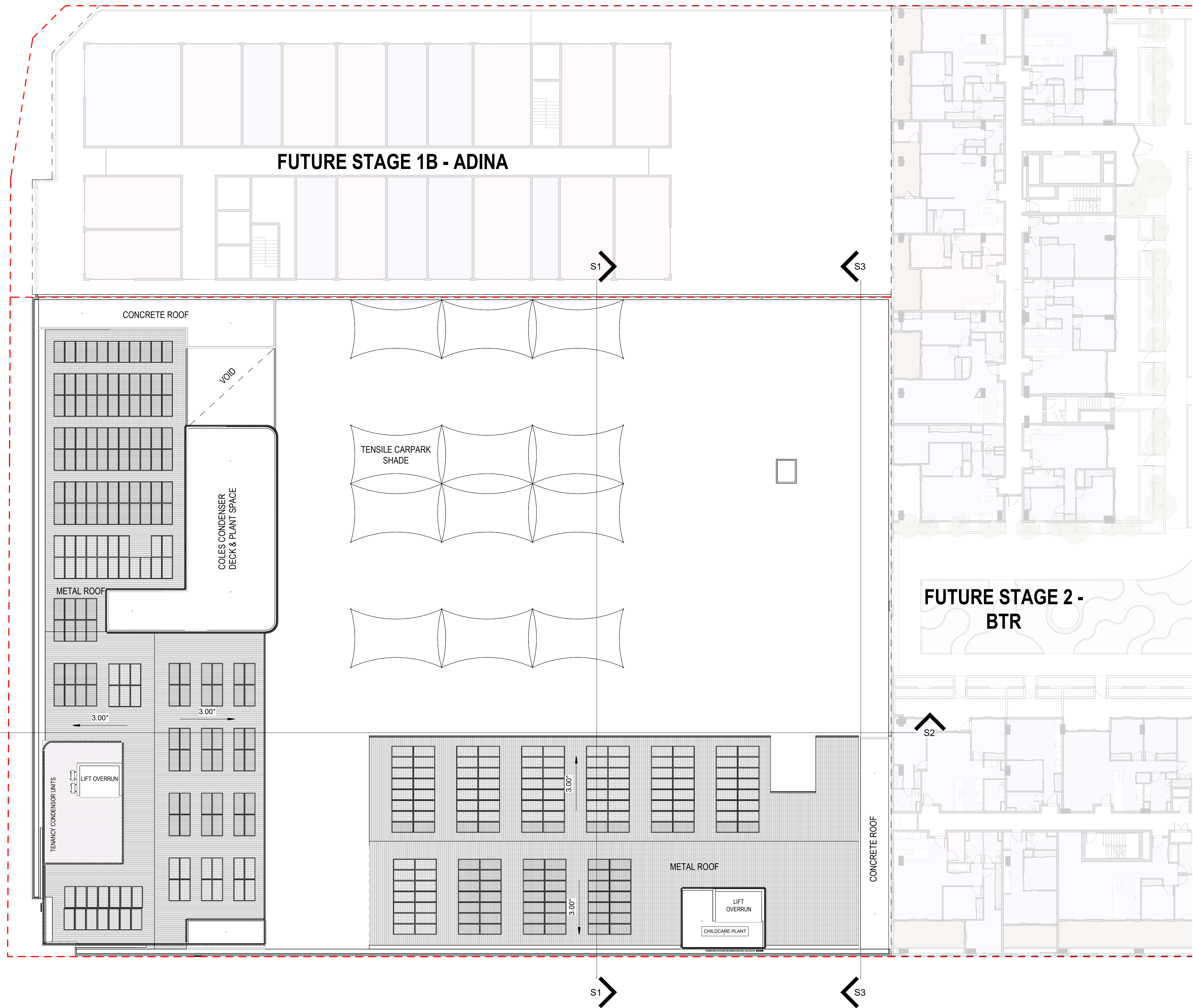




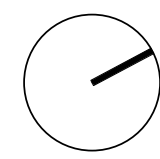
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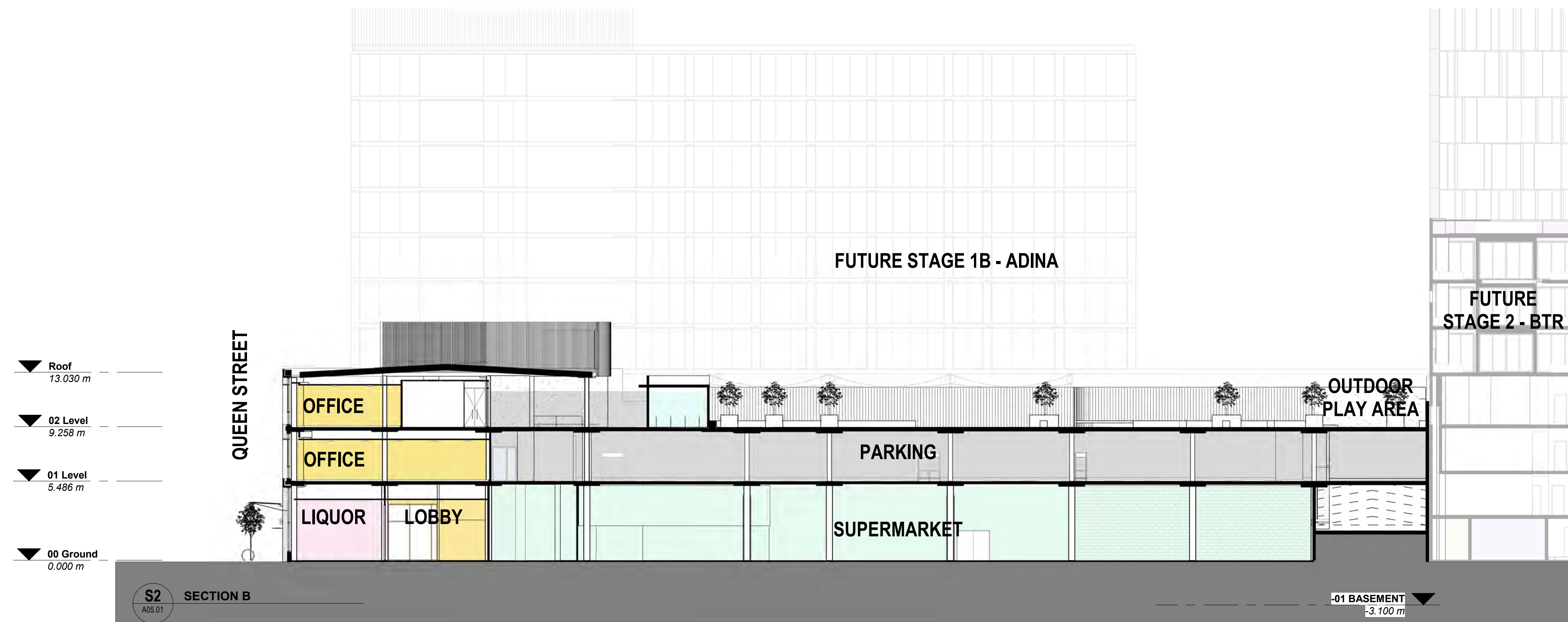
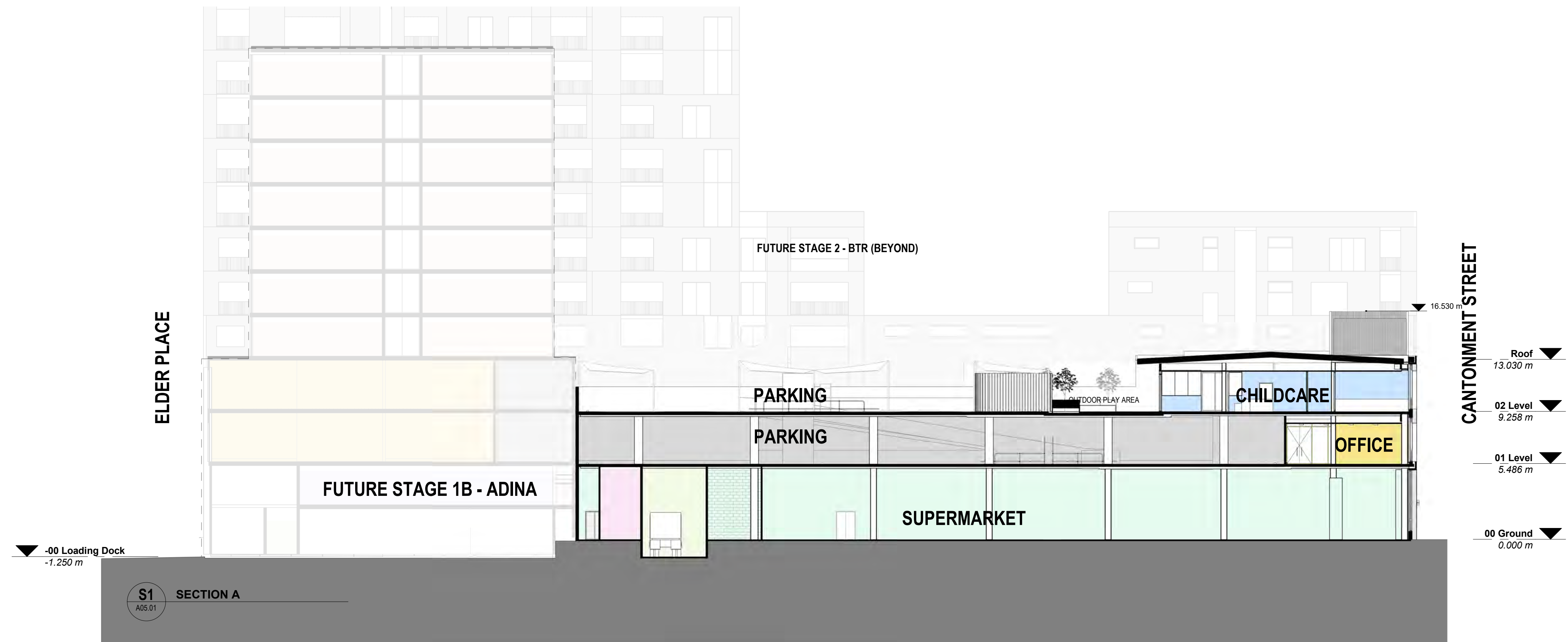
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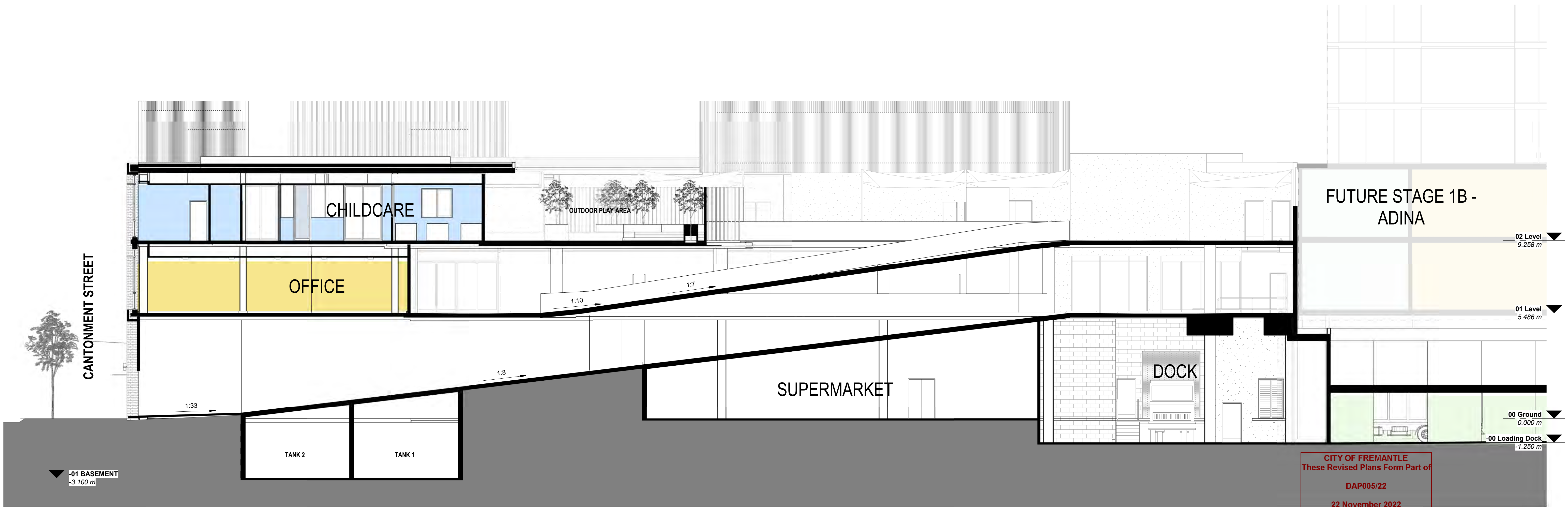




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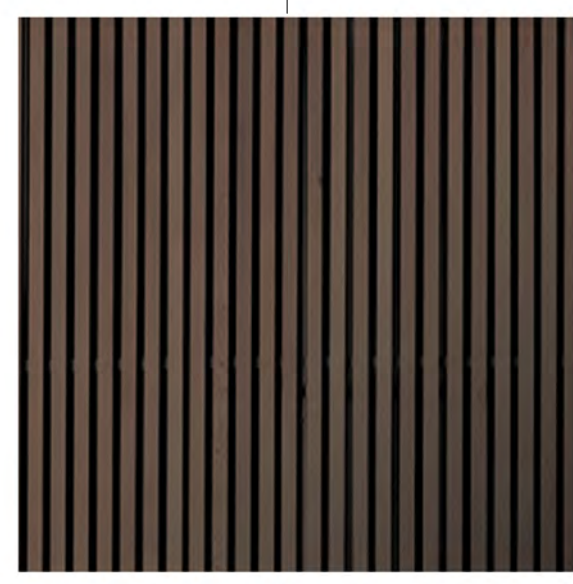
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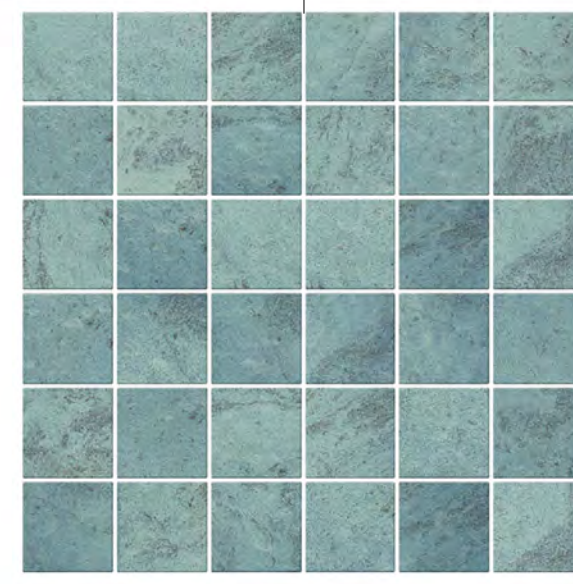


1
DA-02

QUEEN STREET



DARK BRONZE
ALUMINUM BATTENS



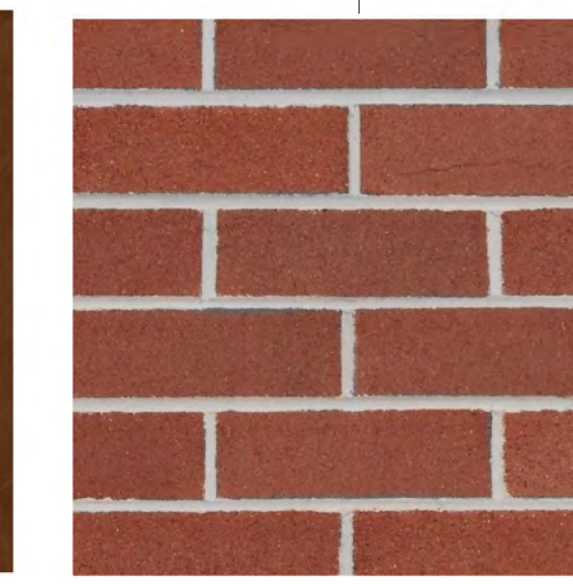
CERAMIC TILES



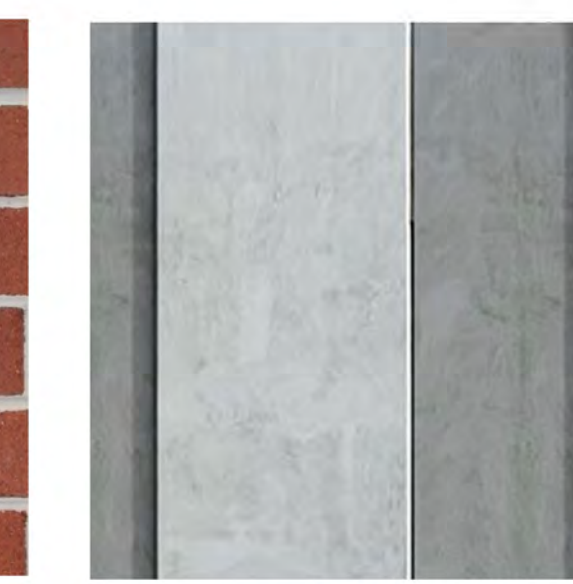
PAVING



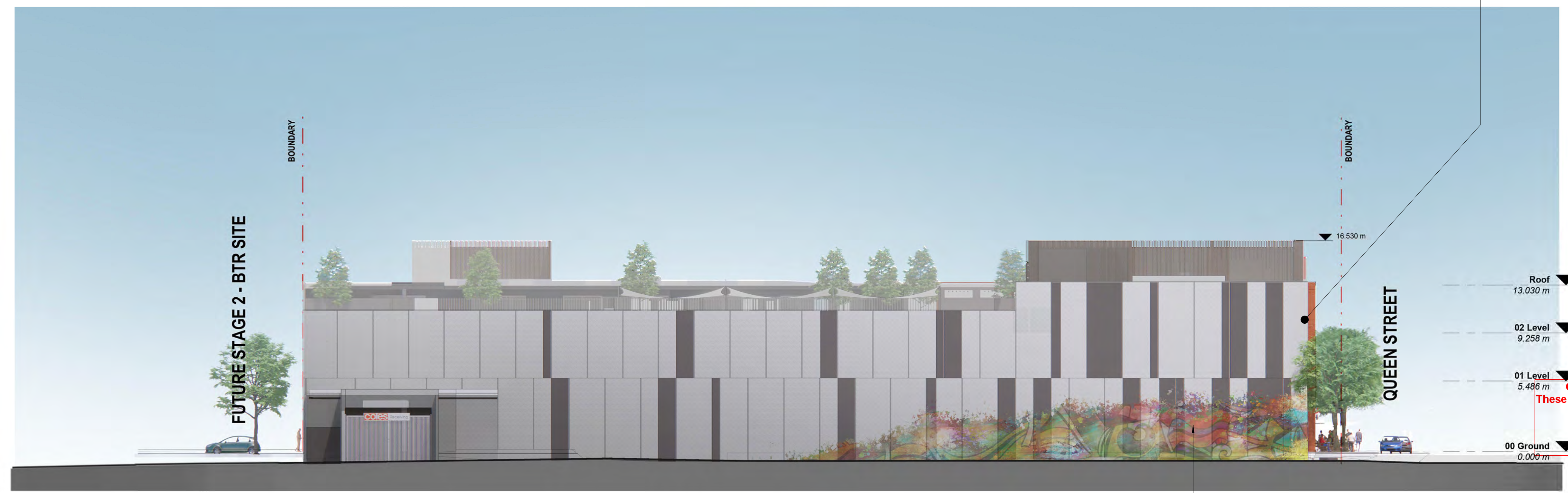
DARK BRONZE



BRICK



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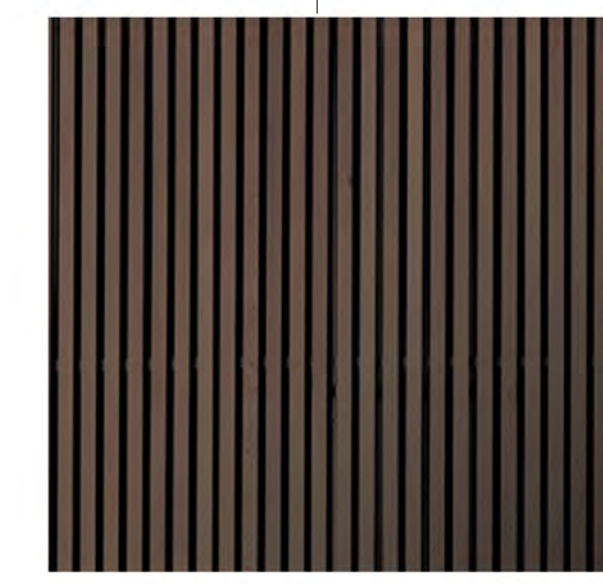


2

ELDER PLACE



1 CANTONMENT STREET



DARK BRONZE ALUMINIUM BATTENS



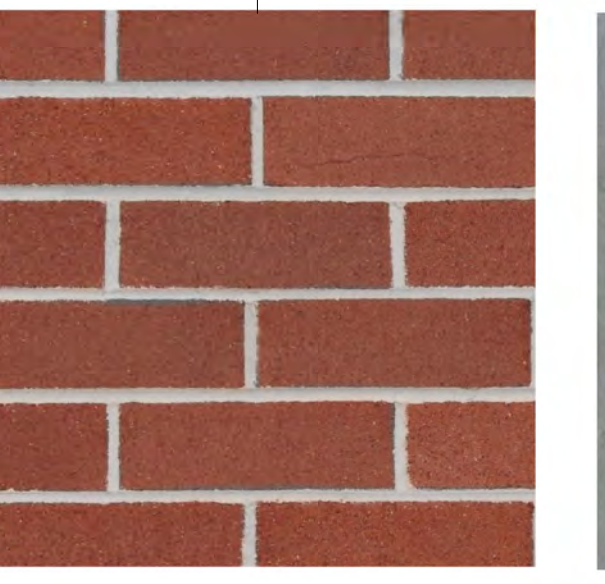
CERAMIC TILES



DARK BRONZE



PAVING



BRICK



OFF-FORM PRECAST

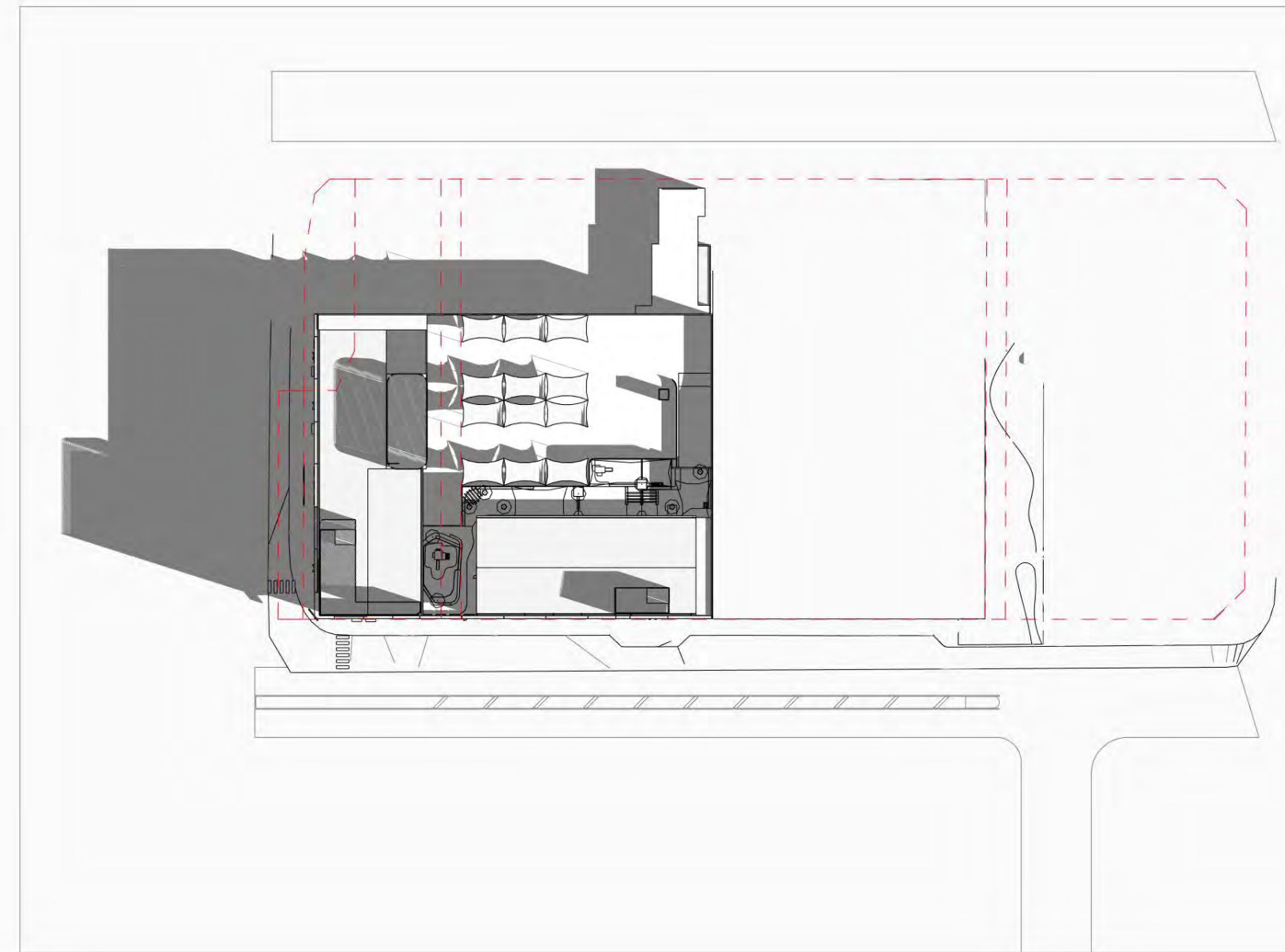


2 BTR BOUNDARY

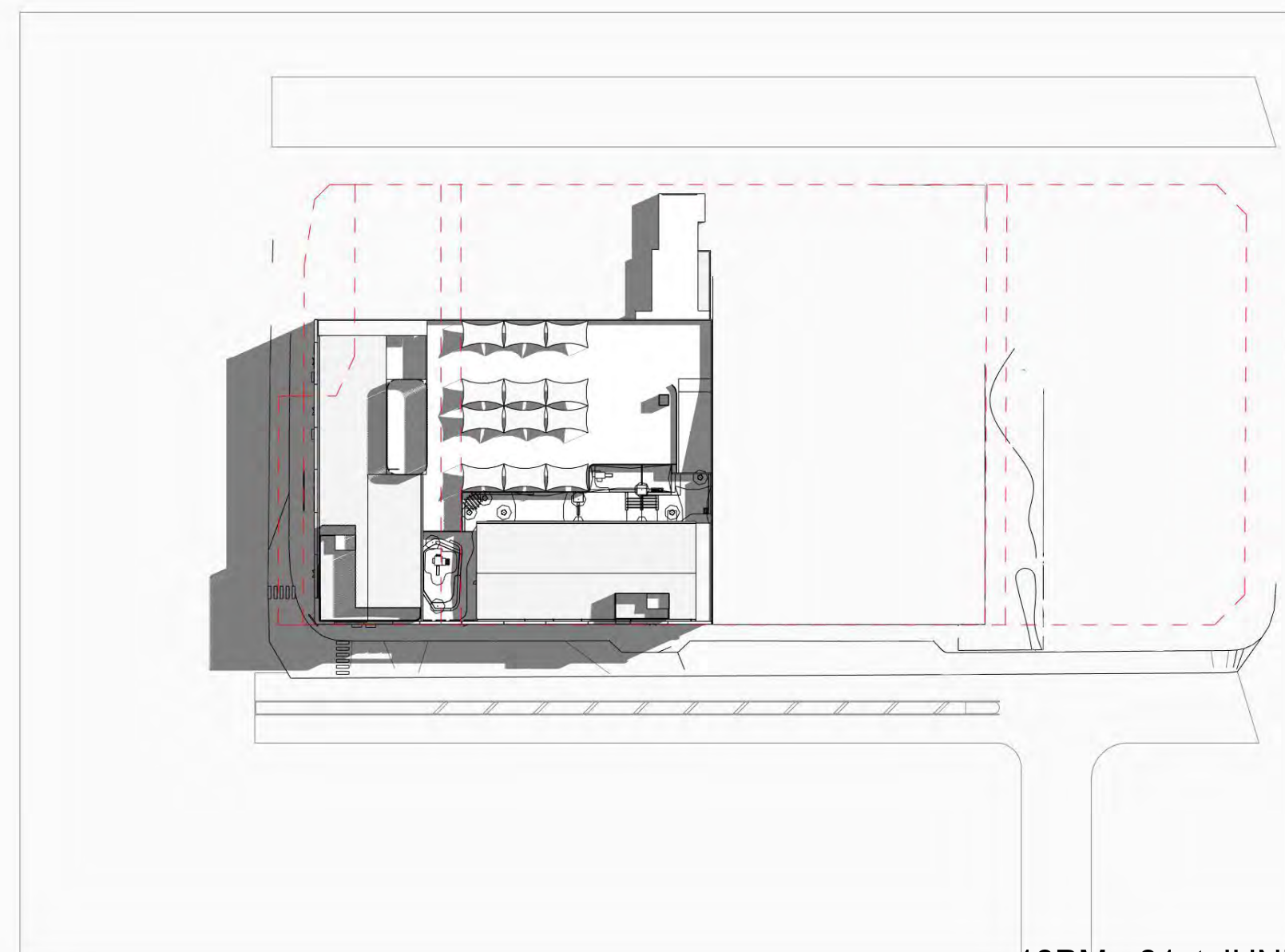
TEMPORARY STREET ART

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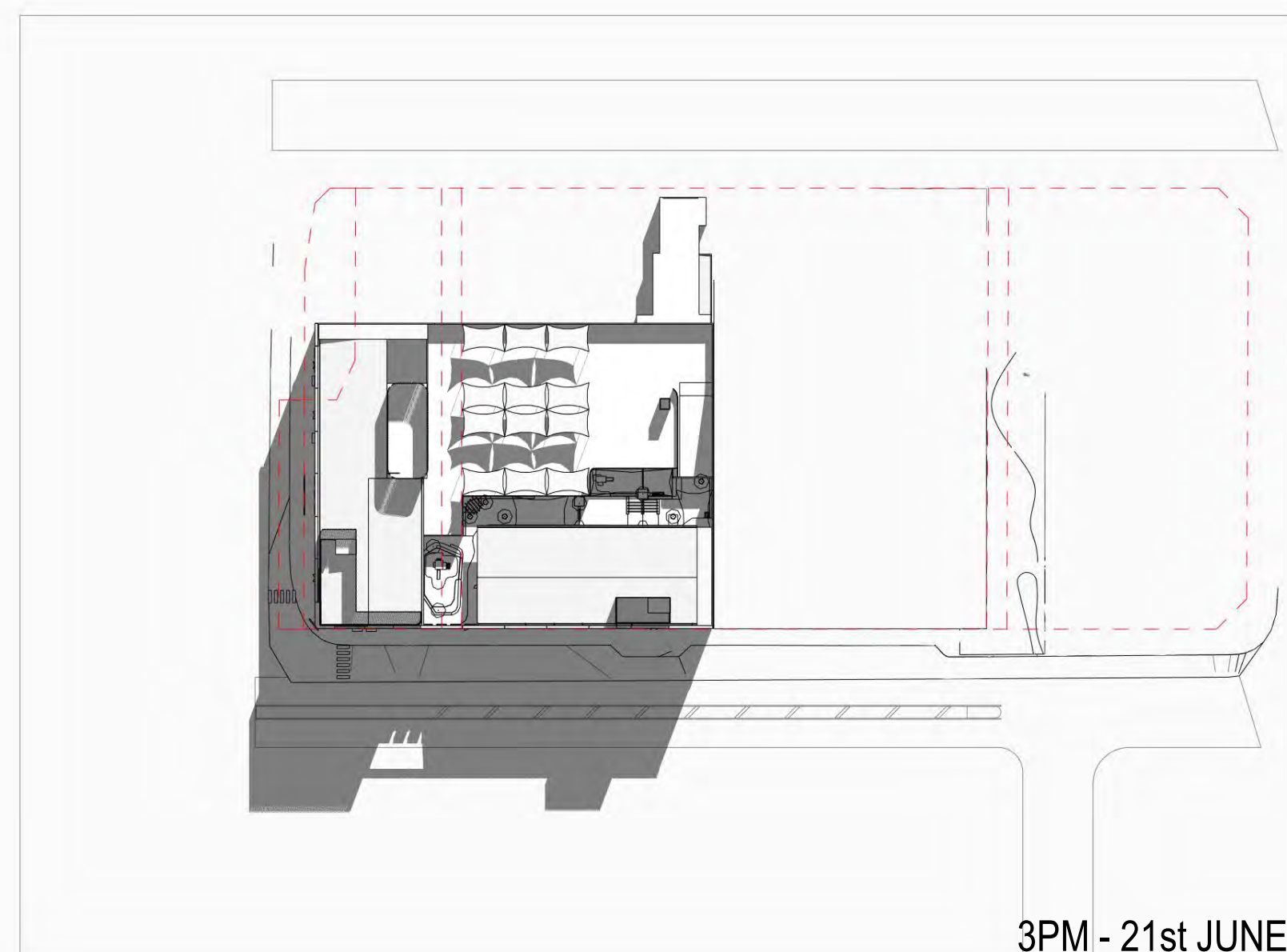
WINTER SOLSTICE



9AM - 21st JUNE

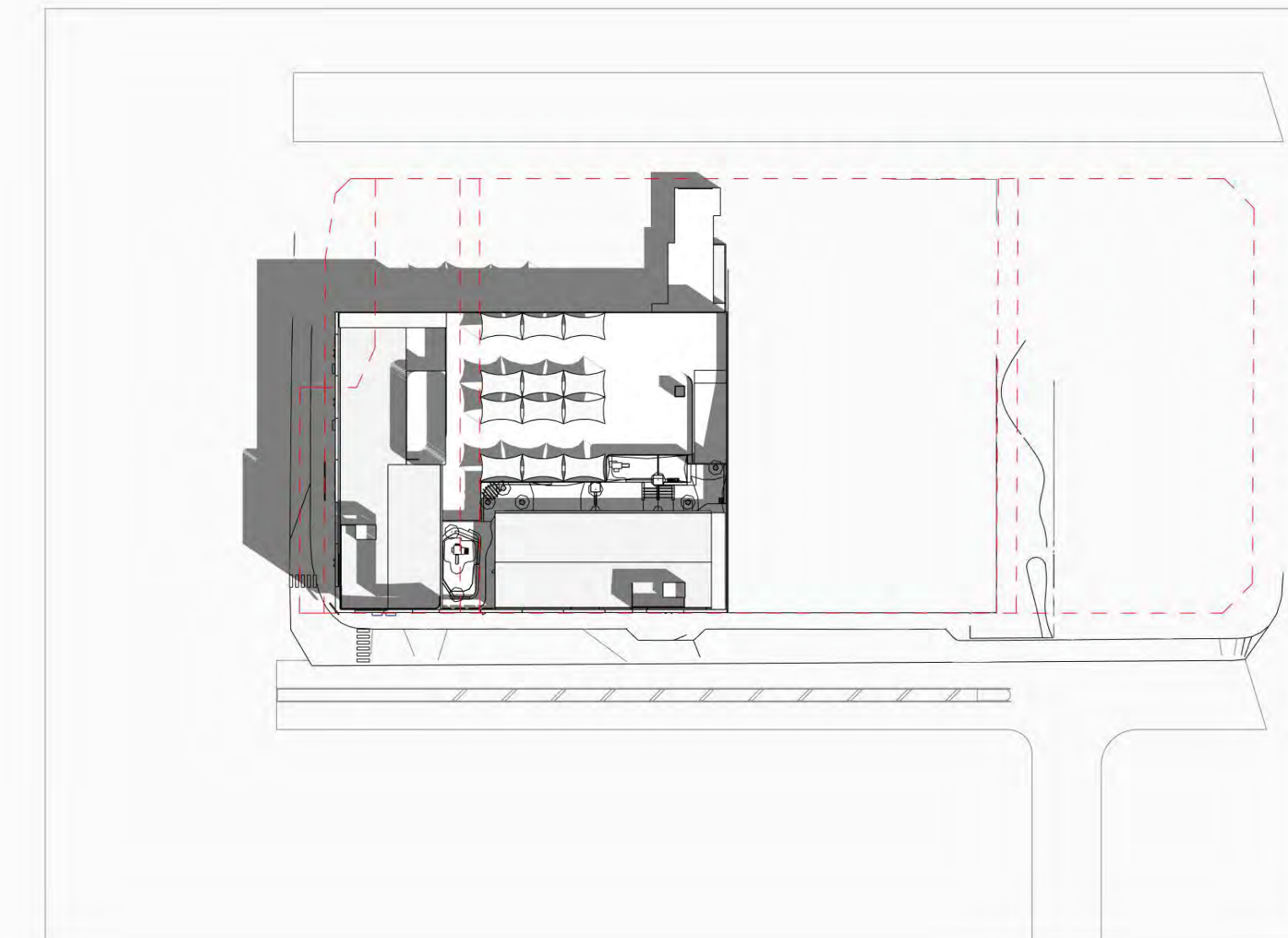


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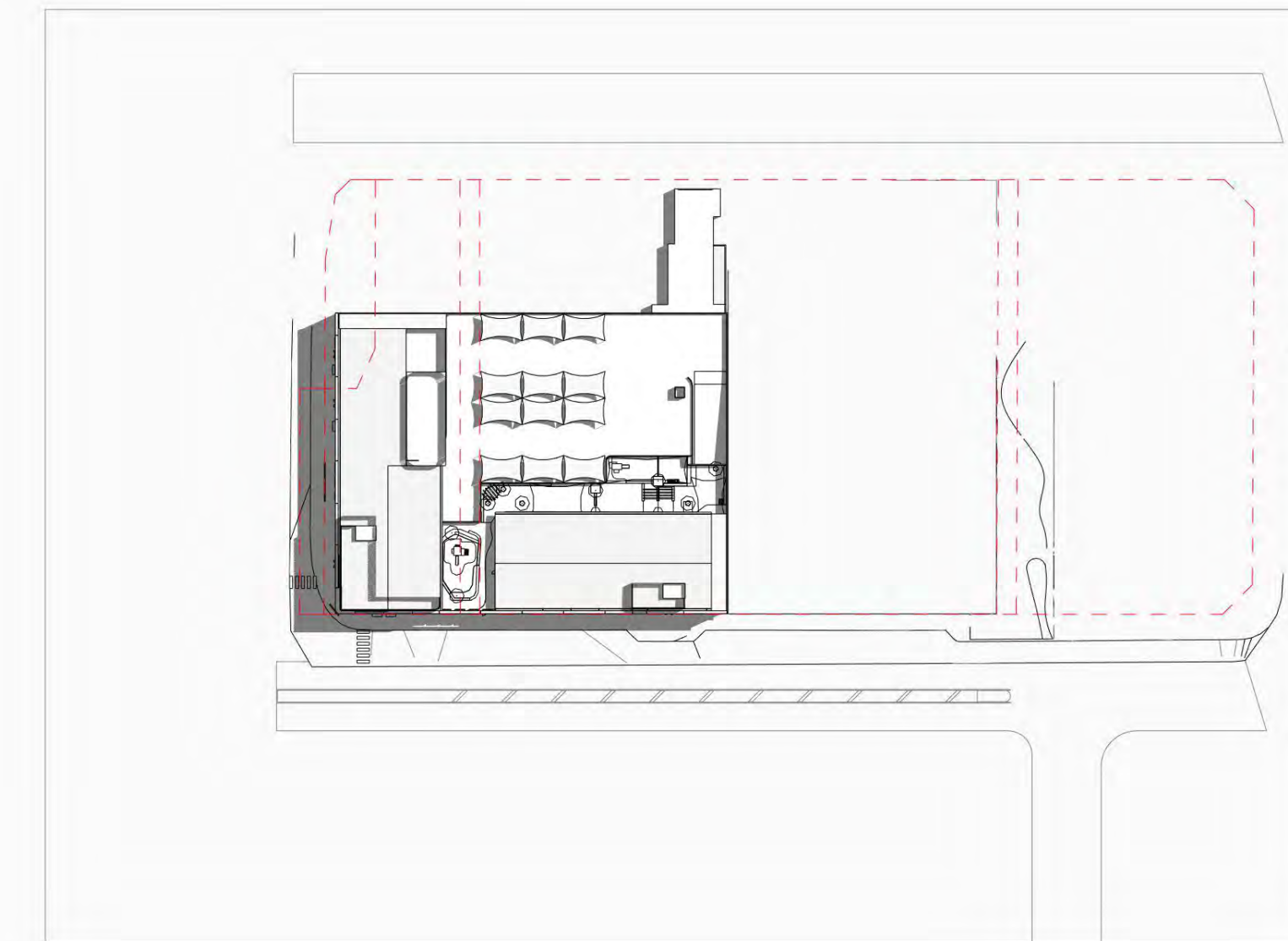


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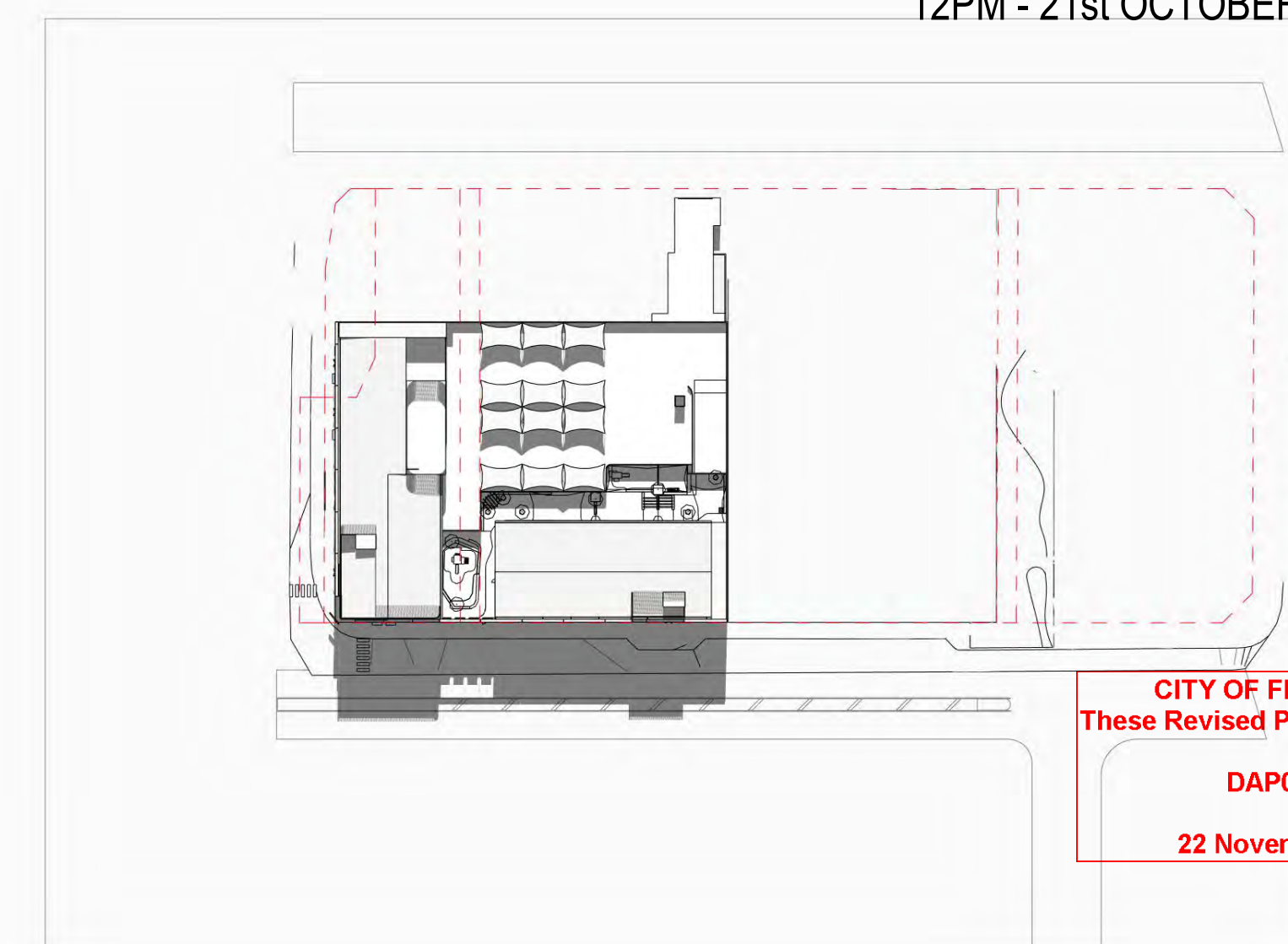
EQUINOX



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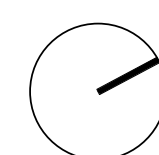


12PM - 21st OCTOBER



3PM - 21st OCTOBER

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CORNER CANTONMENT / QUEEN STREET PERSPECTIVE



QUEEN STREET PERSPECTIVE

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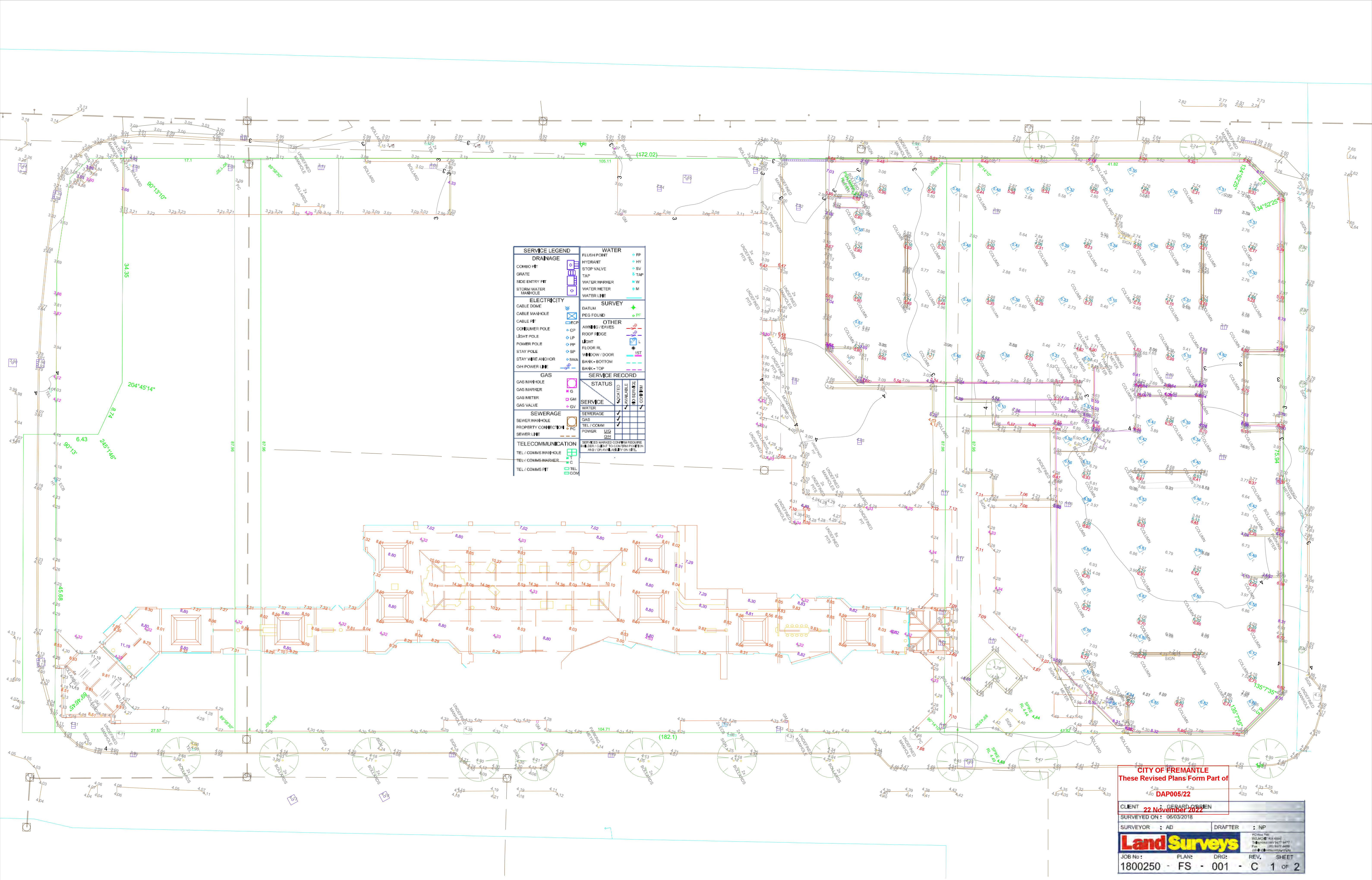


CANTONMENT STREET PERSPECTIVE



CORNER CANTONMENT / QUEEN STREET PERSPECTIVE

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22 November 2022



Additional Information 1 – Site Photos



Photo 1: Subject site (Cantonment Street south west view)



Photo 2: Subject site (Cantonment Street view north west)



Photo 3: Subject site (Corner of Queen Street and Elder Place)

28 (LOT 1) CANTONMENT STREET AND 20 (LOT 800) ELDER PLACE,
FREMANTLE

THREE STOREY COMMERCIAL DEVELOPMENT

4 October 2022



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Introduction

This report has been prepared on behalf of Silverleaf Investments Pty Ltd in support of an Application for Development Approval to construct a three level commercial building at 28 (Lot 1) Cantonment Street and 20 (Lot 800) Elder Place, Fremantle (subject site).

The proposed development includes a supermarket, liquor store and shops at Ground Level, offices and car parking at Level 1 and offices, car parking and a child care centre at Level 2.

This development application forms Stage 1 of the four stage redevelopment of the Woolstores Shopping Centre site.

- Stage 1A is this application.
- Stage 1B includes the proposed Adina Hotel located in the south-western corner of the site.
- Stage 2 is the build-to-rent multiple dwellings and ground level commercial tenancies located centrally on the site (SDAU Application).
- Stage 3 is a proposed aged care facility accommodating approximately 120 rooms (future stage).

This report will address:

- The site details
- The proposed development
- The planning framework
- An assessment under the planning framework
- Consideration of other factors including, but not limited to, wind, acoustic, landscaping, ESD, traffic, public art, waste etc.

We are seeking the support of the relevant referral authorities and the approval of the Metro Inner-South JDAP.

Project Team

Discipline	Company
Landowner	Silverleaf Investments Pty Ltd
Architect	Cameron Chisholm Nicol (CCN)
Landscape Architect	Plan E
Town Planning	PTS Town Planning
Traffic	Shawmac
Acoustic	Herring Storer
ESD	Full Circle Design Services
Waste Management	Urbii

Subject Site

Site Location and Property Description

The subject site is 28 (Lot 1) Cantonment Street and 20 (Lot 800) Elder Place, Fremantle. The site has a total land area of approximately 1.65 hectares with frontages to Queen Street, Cantonment Street, Goldsbrough Street and Elder Place.

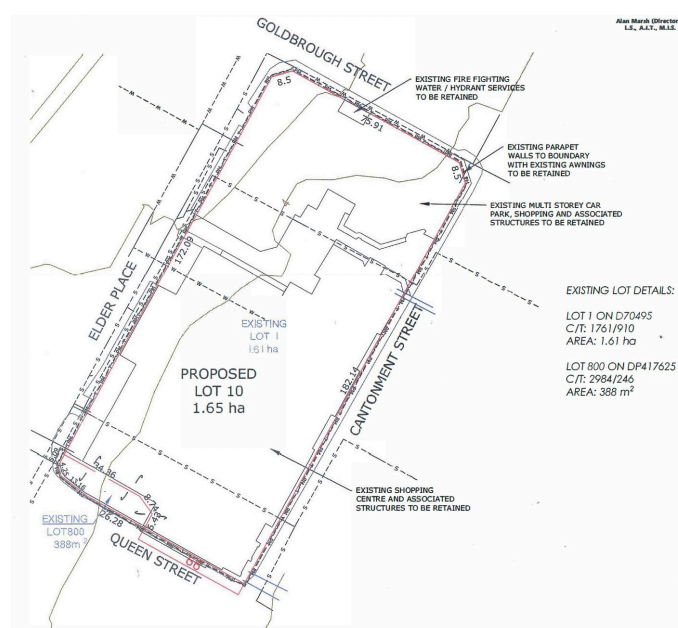
Lot	Address	Volume /Folio	Plan	Landowner
1	28 Cantonment Street	1761/910	70495	Silverleaf Investments Pty Ltd
800	20 Elder Place	2984/246	417625	Silverleaf Investments Pty Ltd

The subject site includes the whole street block. The site is subject to the following limitations, interests, encumbrances or notifications.

Limitation/Encumbrances	Type	
Easement burden (Lot 1)	Sewer Easement	Two 4 metre wide easements located towards the Goldsbrough Street end of the site and the Queens Street end of the site.
Memorial (Lots 1 and 800)	Contaminated site	This is currently being investigated, however, the proposed development now does not include a basement.

Refer to Appendix A – Certificates of Title

Lot 1 and Lot 800 are subject to an Amalgamation Approval (WAPC Ref: 160687) and Silverleaf Investments Pty Ltd is currently undertaking the works to clear the conditions to amalgamate the lots.



Site Improvements

The majority of the site has been cleared with service provision retained centrally along Cantonment Street and the car parking in the northern portion of the site. The aerial below shows a shop on the corner of Queen Street and Elder Place, however, this has also been demolished.

Site Context

To the south of the site on the southern side of Queen Street is an at grade car park and retail/commercial buildings. To the south-west of the site is the Fremantle Train Station and Forecourt.

To the west of the site is at grade car parking, the train line and further west is Victoria Quay.

To the north of the site is the vacant heritage listed Woolstores Building.

To the east of the site are low level, commercial, retail and car park buildings.



Heritage

The site is not listed as a heritage place or within a heritage area under Local Planning Scheme No.4 nor listed on the State Register of Heritage Places. The site to the north is listed on the State Register of Heritage Places.

Bushfire Prone Area

The site is not located within a bushfire prone area.

Contamination

As indicated above, the site is subject to a memorial and the contamination is currently being investigated.

Background

The Metro South-West JDAP at its meeting held on 7 April 2020 approved the construction of a six (6) storey with basement mixed use development including shops, a liquor store, offices, restaurants, civic use (Police Station), public car park, child care premises and a hotel. The approved development was subject to a number of amendments.

The Woolstores Shopping Centre closed in 2021 with demolition undertaken in early 2022.

A tender was undertaken to appoint a builder to the development in 2021. The tender response was significantly above the budget for the project and therefore no contractor was appointed. The landowner worked with the preferred contractor over a period of 6-9 months to reduce the costs and when the project was retendered the price increased. This has been a result of the impacts of material and labour costs which has been evident in the construction industry over the last two years. The cost of the development makes the project not viable to progress based on the current design.

It was evident during the tender process, that the provision of a basement and the unknown impacts of the contamination had a significant adverse impact on the cost. Additionally, the scale of the project and the design with the hotel located over the podium increased the project complexity and limited the number of builders that could undertake the work. Consequently, it was determined to redesign the project to limit any basement works, to reduce the scale of the contract to encourage more builders and to separate the uses between the supermarket and the hotel.

Additionally, while the first stages of the development were being considered, an application was lodged with the SDAU for the built to rent development. This is located on the central part of the site and therefore separate from this application.

It is proposed to stage the site as follows:

- Stage 1A is this application. It is important to note that the redesign and smaller scale project needs to be viable to enable this and future stages to proceed.
- Stage 1B includes the Adina Hotel located in the south-western corner of the site. It is anticipated that this application will be lodged once this application is approved and the tender for Stage 1 confirmed to construction.
- Stage 2 is the build-to-rent multiple dwellings and ground level commercial tenancies development (SDAU Application). This is still being progressed through the SDAU, however, it is noted that amendments will need to be made to reflect the changes resulting from this application.
- Stage 3 is a proposed aged care facility accommodating approximately 120 rooms (future stage).

The architectural plans include the additional stages to provide a guide to the future development of the site.

Planning Framework

Planning and Development (Local Planning Schemes) Regulations 2015 (Regs)

Clause 67 of Schedule 2 of the Planning Regulations outlines the matters to which the determining authority is to have due regard when considering an application for development approval.

Metropolitan Region Scheme (MRS)

The subject site is zoned 'Central City Area' under the Metropolitan Region Scheme.

State Planning Policy 4.2 Activity Centres for Perth and Peel

Fremantle is identified as a Strategic Metropolitan Centre under SPP 4.2. A strategic metropolitan centre is the third highest centre in the Activity Centres hierarchy under the current SPP, noting that there are currently no Primary Regional Centres.

State Planning Policy 5.4 Road and Rail Noise

SPP 5.4 seeks to minimise the adverse impact of road and rail noise on noise-sensitive land-uses within the specified trigger distance of strategic freight and major traffic routes and other significant freight and traffic routes.

The site is adjacent the Fremantle Train Line and the proposed child care centre land use is a noise sensitive land use.

State Planning Policy 7.0 Design of the Built Environment

The policy identifies the principles to address design quality and built form outcomes. The principles include: Context and character, Landscape quality, Built form and scale, Functionality and build quality, Sustainability, Amenity, Legibility, Safety, Community and Aesthetics.

City of Fremantle Local Planning Scheme No. 4 (2007)

The subject site is zoned 'City Centre' under the City of Fremantle Local Planning Scheme No. 4 (LPS4) and is located within Local Planning Area No. 1 – City Centre and within Sub Area 1.3.2 – City Centre.

Schedule 7 of LPS4 provides specific development requirements and controls for Local Planning Area No. 1, the specific Sub Area and the subject site.

Local Planning Policies

The following Local Planning Policies are applicable to the consideration of the development application:

- LPP 1.3 Community Consultation on Planning Proposals
- LPP 2.24 Waste Management Plans for New Development
- LPP 2.3 Fremantle Port Buffer Area Development Guidelines
- LPP 2.13 Sustainable Buildings Design Requirements
- LPP 2.19 Contributions for Public Art and/or Heritage Works
- LPP 3.1.5 Precinct 5

Proposed Development

The proposed development involves a three storey commercial development on the south-eastern corner of the site.

The following table provides the development detail. As indicated previously, the plans include the design of the Adina Hotel, the built to rent and the aged care facility, however, the application is not seeking approval for these works.

Level	Description
Ground	• A 3,243m² supermarket • A 159m² liquor store • Three shop tenancies of 102m², 158m² and 77m² • A kiosk shop of 17m² • Lobby to the upper levels on Cantonment Street • Service vehicle access from Elder Place, which includes a service vehicle turntable • Customer car parking access from Cantonment Street.
Level 1	• Office tenancies of 284m², 195m², 189m², 282m² and 143m² • 90 car parking bays • Travelator to supermarket below
Level 2	• A 108 place child care centre • Office tenancies of 278m², 210m² and 171m² • 55 car parking bays • 10 bicycle bays • Plant

The development plans are enclosed as Appendix B.

Architectural Design

An Architectural Design Report considering the principles of SPP7.0 is included in Appendix C.

Landscape Design

A Landscape Design Report is included in Appendix D.

Design Review

Preliminary plans of the proposed development were considered by the City of Fremantle Design Review Panel at its meeting held on 11 July 2022. We provide the following response to the comments of the Panel. We also note that the Panel identified the following strengths of the project:

1. Overall sense of urban morphology is positive.
2. Presentation of entire street block for context is useful to the panel and helps to see the likely expression of stage 1.
3. While not part of this review, the approach to a podium with slender towers is good planning.
4. Supportive of changes from approved design.
5. Approach has the potential to be a great City block with a full range of activity.
6. Development now addressing Elder Place, with sleeving of servicing areas, which is an important frontage that helps create a gateway into the City Centre.
7. Reduction of loading area.
8. Child care centre has the potential to have good amenity with a number of externally facing rooms.

	DRP Comments	Development Response
Context and Character	Appears as one development with four clear stages	Noted
Landscape Quality	1. Open to sky children's play area is supported 2. Consider contributing to public realm upgrades that could create a high quality pedestrian environment. 3. Consider landscaping in carpark to improve outlook for upper floors.	1. Noted 2. Verge improvement includes alfresco seating areas, patterned paving, street furniture and new trees on Queen Street. 3. Increased landscaped play areas in Child care with full access to sunlight and natural ventilation. Tensioned fabric structures to shade and soften impact for the adjacent future development.
Built Form and Scale	1. Provide further detail on the form of the podium and tower component	1. Elevations and built form has been derived from the historic Woolstore aesthetic. 2. Reinterpretation of the existing and previous Woolstores structures with repetition of the verticality of piers and fenestrations. 3. The 3 level podium provides a consistent datum and relates to future developments.
Functionality and Build Quality	1. Provide details on future proofing the office and retail spaces	1. The Ability for the carpark to become office space as reliance on cars is reduced in the future. 2. Floor to floor height of carpark matches the offices for future adaptation. 3. Ground floor has a floor to floor height of a minimum 5.5m providing ample tenancy opportunities and future proofing.
Sustainability	1. Consider seeking industry leading sustainability measures.	1. The development is seeking a 4 star self assessed Green Star sustainability outcome for the development. The Sustainability report is contained in Appendix G. 2. Proposed sustainability initiatives include but not limited to: • 100kW of PV cells • Targeting less than 150 kWhrs p.a. per m² • Utilise drought tolerant and native planting • Durable finishes targeting long life span -Child care to function in air conditioned or naturally ventilated mode

	DRP Comments	Development Response
Amenity	1. Provide a supermarket floor layout concept and ground floor elevation in future reviews, with the expectation that internal activity will be visible and that pedestrian cover is provided 2. Provide further detail on improving the vista downwards to the internal carpark 3. Consider reintroducing balcony amenity for the offices	1. Coles internal plan has been overlaid on to the ground floor plan, the Cantonment St frontage has been planned with customer checkout to provide continuous activation on the streetfront. 2. Tensioned fabric parking shade structures on the upper deck to improve the vista from future developments. 3. Planters to the edge of offices with full operable glazing provides a flexible indoor/outdoor experience for the office. 4. A continuous canopy provides weather protection and retail signage opportunities.
Legibility	1. Consider how the development will address the corners of Cantonment and Queen Streets. 2. Consider an on street drop off/pick up bay for the Childcare.	1. Clearly defined entrance lobby on the corner of Cantonment and Queen Street has been established for the Supermarket entry with a design feature and signage opportunities. 2. Dedicated pickup/drop off bays have been included on level 1 in addition to short term street parking.
Safety	Consider the interface between L2 uses and improving passive surveillance of the open carpark	Viewing windows to carpark has been added to improve surveillance of the carpark from corridors.
Community	No comments	Noted
Aesthetics	Consider how Plant will look when viewed by higher levels in future stages.	1. The position of plant room has been carefully considered as far away as possible from the future development. 2. Vertical batten screens of sufficient height are provided to obscure plant equipment. The screens also provide signage opportunities above parapet height.

Planning Assessment

Metropolitan Region Scheme (MRS)

The subject site is appropriately zoned under the MRS for the proposed mixed-use development.

State Planning Policy 4.2 Activity Centres for Perth and Peel

Fremantle is identified as a Strategic Metropolitan Centre under SPP4.2. The proposed use are appropriate for the centre.

State Planning Policy 5.4 Road and Rail Noise

The site is adjacent the Fremantle Train Line and the proposed child care centre is a noise sensitive land use. Appendix F includes an Acoustic Report which considers SPP5.4.

State Planning Policy 7.0 Design of the Built Environment (SPP7.0)

An Architectural Design Report considering the principles of SPP7.0 is included in Appendix C.

City of Fremantle Local Planning Scheme No. 4

Land Use

The proposed development includes the following land uses:

- Child Care 'A'
- Liquor Store Small 'A'
- Office 'P'
- Shop 'P'

All of the proposed uses are either permitted or discretionary uses. The land uses are consistent with the objective of the 'City Centre' zone to *'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'*.

City Centre Zone Objectives

The proposed development will provide for a full range of shopping, office, administrative and social/community services, consistent with the region-serving role of the centre.

There are no objectives stated under local planning area 1 of schedule 7.

The site is not heritage listed or located within a heritage area.

Car Parking

The following provides an assessment of the proposed car parking for this development application.

Land Use	LPS4 Provision	Required	Comments
Child care centre	1 per employee and 1 per 10 children	29 bays (18 staff and 108 children)	
Liquor Store Small	1:30m ² NLA	159m ² - 6 bays (5.3)	
Office	1 per 30m ² GLA	0 bays	Clause (I) of Local Planning Sub-Area 1.3.2 does not require office car parking located above ground level
Shops	1:16m ² GLA	3597m ² - 225 bays	
Total Required		260 bays	
Total Proposed		145 bays	
	Existing retained public bays	190 bays	

The proposed development exceeds the car parking provisions by 75 bays when taking into account the proposed level 1 and level 2 car parking and the existing public car parking located on the northern portion of the site. We note that the existing public car parking bays were considered as part of the previous application when determining the car parking compliance.

We also note that under the recent approval, the RAR report dated 28 January 2021 stated that *'the Officers note that the original application effectively waived all car parking for all the proposed land uses with the exception of the Civic (Police Station) use as none of the public car parking bays will be for the exclusive use of tenants or customers to the development.'*

Therefore based on the car parking provided on-site the development meets the minimum. We also note that under the previous application the car parking was granted discretion for all land uses except the Police Station.

Bicycle Parking and End of Trip Facilities

The following provides an assessment of the proposed bicycle parking and end of trip facilities.

Land Use	LPS4 Provision	Required
Child care centre	N/A	N/A
Liquor Store Small	Class 1 - 1 per 300m ² Class 3 - 1 per 300m ²	1 Class 1 1 Class 3
Office	Class 1 - 1 per 200m ² Class 3 - 1 per 750m ² over 1000m ²	Clause (I) of Local Planning Sub-Area 1.3.2 states that Clause 4.7.1 to 4.7.4 does not apply to office bicycle parking located above ground level
Shops	Class 1 - 1 per 300m ² Class 3 - 1 per 500m ² over 1000m ²	12 Class 1 5 Class 3
Total Required		Class 1 - 13 bays Class 3 - 6 bays

The proposed development includes 20 Class 2 bicycle bays located on Level 2. The 6 class 3 bays can be located within the adjacent road reserves as the Class 3 bays are provided for visitors. We are seeking a variation to the Class 1 bicycle parking to provide 20 Class 2 bays within two enclosed bike stores at Level 2. The level of bicycle parking for staff is based on Silverleaf's extensive experience with similar developments and land uses and is based on the use and demand for staff bicycle parking from the retail tenancies.

LPS4 requires the provision of end of trip facilities for Class 1 bicycle bays. The development requires 13 class 1 bays (20 Class 2 bays provided) and therefore 2 male and 2 female (or 4 unisex) facilities are required. The proposed development includes 2 showers (staff and UAT) at Level 2 for staff of the tenancies other than Coles. The Coles Supermarket fitout will provide shower facilities for its staff.

Fremantle Port Buffer

The subject site is located within Area 2. The proposed development includes a sensitive land use being the child care centre. The application is required to be referred to the Fremantle Ports for comment.

Refer to following sections for consideration of the Fremantle Port Buffer Area Development Guidelines.

Local Planning Area 1 - Sub Area 1.3.2

Land Use and Location Specific Design Requirements – Clauses (a), (b) and (c)

- No Residential uses are located at ground level to Queen Street - Clause (a)(i);
- The proposed land uses at ground level fronting Queen Street includes shops and a liquor store which all provide interest and activity within the public realm - Clause (a)(ii).
- The development provides 1852m² of office floor area and this application proposes a total of 6304m². The proposed development is above the 15% (29% proposed)- Clause (a)(iii).
- The development provides an awning to Queen Street and the uses are active at ground level along Queen Street - Clause (b) (i) and (ii).
- The proposed development includes glazing into the supermarket from Cantonment Street - Clause (c);

Therefore the proposed development complies with the Land Use and Location Specific Design requirements.

Building Height and Setbacks

Building Height – Clauses (d) and (e)

The permitted building height is 21 metres. The proposed development has a height of 13.3-14.52 metres to the top of the parapet (ground level height reduces from Cantonment Street to Elder Place) and 17.82 metres to the top of the plant. Therefore the height complies with the permitted height.

The minimum façade height requirement is 10 metres to public streets and public open spaces. The proposed development includes façade heights greater than 10 metres (13.3-14.52 metres). Therefore the facade height complies with the minimum facade height.

Clause (f)

Clause (f) is not applicable as the proposed development is not seeking height above 21 metres.

Ground and First floor Level Height - Clause (g)

The proposed development has a ground floor height of less than 600mm to the footpath to Cantonment Street and Queen Street. The proposed floor levels and existing footpath levels are included on the plans.

The provisions require the floor level of level 1 to be a minimum 4.5 metres above the level of the footpath. The proposed development exceeds this requirement to Queen Street and Cantonment Street (5.5 metres).

Therefore the ground and first floor level height complies with the requirements.

Setbacks - Clause (h)

The table under Clause (h) identifies a minimum setback to Queen Street of 3.65 metres with a maximum of 5.65 metres and a setback to Cantonment Street and Elder Place of a minimum of nil and maximum of 2 metres.

The proposed setback to Queen Street is 2 metres. Clause (h) provides that the Council may vary the prescribed setbacks where it is satisfied that the design outcome will be improved.

The current Queen Street road reserve width is 13 metres, which includes a 2.5 metre wide footpath on the northern side of Queen Street. The planning requirements through the proposed setbacks on the northern and southern sides of Queen Street is seeking to increase the road reserve width to 23 metres.

The proposed 3.65 metre setback has a significant impact on the viability of the proposed development in terms of the floor space that can be achieved for the supermarket and other specialities at ground level taking into account service provision and the other proposed uses of the site. This has the potential to create a negative impact to the streetscape activation of Queen Street.

The proposed development seeks to provide a 2 metre setback. When combined with the existing Queen Street width and the setback on Site 2 provides a width for Queen Street of 21.35 metres. Even if the setback to Site 2 was reduced proportionally with the proposed 2 metre setback for Site 1, this would still provide a street width of 20 metres.

At a width of 20 metres this is consistent with the other main pedestrian streets in the city including South Terrace (20 metres), Market Street, William Street etc. Other examples of pedestrian streets such as Hay Street and Murray Streets in the City of Perth are less than 20 metres in width.

A 20 metre road reserve width should be able to accommodate any required landscaping, footpaths, on street car parking, without impacting the ability of the subject site to proceed with its development. We are therefore seeking a variation to the minimum setback requirement to Queen Street.

The setback to Cantonment Street is nil and the setback to Elder Place is 1.75 metres, which complies with the minimum and maximum setback requirement (note the setback to Elder Place will be nil once Stage 1B is undertaken).

Width of Building Separation – Clause (i)

The provisions identify a maximum aggregate width of spaces between buildings at ground level of no more than 8 metres at any one location. The development consists of one building and therefore complies with the requirement. The access entry from Cantonment Street and Elder Place are 8 metres in width.

Other Development Standards –Clauses (j) to (o)

- (j) - Not applicable as residential development is not proposed.
- (k) - Not applicable to this site.
- (l) - Office floor space is not required to provide car parking at first floor and above.
- (m) - Refer to car parking discussion above, car parking variations for public transport and off-site public car parking cannot be considered.
- (n) - Not applicable as residential development is not proposed.

Local Planning Policies

Local Planning Policy 3.1.5 - Precinct 5

The proposed development meets the requirements and objectives of LPP 3.1.5 as follows:

- The proposed development through its scale and materials reflects the mid century woolstores influence.
- The proposed development provides active frontages to Queen Street and Cantonment Street, which include a high standard of materials and finishes.
- The tenancies to Queen Street are accessed directly from the street.
- The tenancies to both Queen Street and Cantonment Street have a high degree of glazing.
- The car parking and service access has been reviewed since the previous approval to reduce the areas of access and length of access frontage, particularly to the service area.
- Weather protection through awnings are proposed to Queen Street and Cantonment Street.
- The provision of passive surveillance to all street frontages.
- The development includes the future adaptability of the built form through the floor to floor heights of the car parking levels, which enables the future development of these levels for other than car parking, should technological advances support a reduced car parking demand.

Local Planning Policy 2.3 - Fremantle Port Buffer Development Guidelines

The proposed development is located with Area 2 as identified under LPP2.3. There are no restricted uses, however, there are built form requirements for development in Area 2. The proposed development includes:

- Laminated safety glass of a minimum thickness of 6mm.
- All glazing will comply with Australian Standards.
- Multiple air conditioning systems that have an internally centrally located shut down point with associated procedures for emergency use. Preference for split systems.
- Roof insulation will be incorporated in all roof spaces.

Local Planning Policy 2.13 - Sustainable Building Design Requirements

Local Planning Policy 2.13 requires the proposed development to be designed and constructed so as to achieve a rating of not less than 4 star Green Star. Full Circle Design has prepared a summary of the ESD strategies recommended for the proposed development. The proposed development will achieve an equivalent 4 star Green Star Design and As Built outcome. The Full Circle Design Report is included in Appendix G.

Local Planning Policy 2.19 - Contributions for Public Art and/or Heritage Works

The proposed development has opportunities to include public art as part of the building form and also at the key pedestrian entrances to the site. A public art strategy has not prepared for the site, however, it is the owners intent to provide the public art on the site.

We note that a condition of approval will be imposed to develop the public art concepts for the proposed development to ensure that the public art is appropriate for its setting, is clearly visible to the general public and meets the City's requirements.

Transport Impact Assessment

Shawmac were commissioned by Silverleaf to provide traffic engineering advice in relation to the proposed redevelopment. The Transport Impact Statement is contained in Appendix E.

Waste Management

Urbii Consultants were commissioned by Silverleaf to prepare a waste management plan, which is contained in Appendix H.

Conclusion

The proposed development includes a supermarket, liquor store and shops at Ground Level, offices and car parking at Level 1 and offices, car parking and a child care centre at Level 2.

The development is a redesign of the previously approved development to limit any basement works, to reduce the scale of the contract to encourage more builders and to separate the uses between the supermarket and the hotel. The previous design was not viable to proceed to construction.

This development application forms Stage 1 of the four stage redevelopment of the Woolstores Shopping Centre site.

- Stage 1A is this application.
- Stage 1B includes the proposed Adina Hotel located in the south-western corner of the site.
- Stage 2 is the build-to-rent multiple dwellings and ground level commercial tenancies located centrally on the site (SDAU Application).
- Stage 3 is a proposed aged care facility accommodating approximately 120 rooms (future stage).

The proposed development is consistent with the planning framework in terms of the proposed uses, built form, and materials and finishes. The application is seeking discretion with respect to the bicycle parking and Queen Street setback otherwise is in compliance with the planning requirements.

The proposed development will provide significant benefits to the site and local community through the design of the built form, the improvements to the public domain and the provision of a supermarket and child care centre within the city centre.

For the reasons outlined in this report, we respectfully request development approval.

[Appendix A](#) - Certificates of Title

[Appendix B](#) - Development Plans

[Appendix C](#) - Architectural Report (SPP7.0)

[Appendix D](#) - Landscape Plans

[Appendix E](#) - Transport Impact Assessment

[Appendix F](#) - Acoustic Report

[Appendix G](#) - Sustainable Design Report

[Appendix H](#) - Waste Management Plan

	<u>Comments</u>	<u>Applicants response</u>
<u>Submission 1</u>	What on earth are the adjacent images shown as an approximate twelve level building on the corner of Queens St and Elder Place and an approximate 18 to 20 level building on Cantonment St shown as 'future stage 2 BTR'? The submission is obviously one of manipulation of the planning process. When the future stages are formally lodged, at probably even higher levels, the public will have no say - or that is the aim of the sketches in the current submission. Be very careful.	This application relates only to the supermarket, shops, childcare centre and offices identified on the plans. As part of the design review of the site, it was identified as being important to show indicatively the potential context of the site. The Future Stage 2 build to rent application has been lodged with SDAU and is going through its application process. There is no estimated time for a determination or certainty of the outcome. Additionally, the application will be advertised once the SDAU considers it appropriate to do so. The building on the corner of Queens St and Elder Place is indicative of the potential for a hotel. An application has not been lodged for this building. Any future application would be subject to advertising. The aged care facility on the northern portion of the site is also indicative. Any future application would be subject to advertising. The images show indicatively the development of the site and all buildings not forming part of

		this application are subject to separate approvals.
<u>Submission 2</u>	With regard to the Woolstores Shopping Centre & Carpark development, 28 Cantonment St, I feel an amazing heritage opportunity is afforded now that the old Woolstores Shopping Centre has been demolished. From 1985 until just recently an array of heritage items may have been undetected there. About 50 years prior to the building of the original Woolstores Shopping Centre the site had an Elders Woolstore on it. Remnants of that old Elders Woolstore that occupied the entire site, plus the carpark that has been retained, are probably still buried there. Lying under this site since prior to 1935 [see photo 1935] are probably remnants of the previous older buildings; of which very few photographs exist. [See; John Dowson's book "Old Fremantle" opposite page 105 is a photo 'Looking North from the Town Hall' that shows quite a few small buildings that look like houses.] This old Elders Woolstore building probably covered houses and parts of the old river bed that go back to the times of earliest settlement. In those days no attempt was made to record such heritage.	Clause 13B(1) of LPS4 provides that an archaeological investigation may be required where development is on a site within a heritage area or included on the heritage list. The subject site is not on the Heritage List under LPS4 and not located within a heritage area and therefore an archaeological investigation is not required and cannot be imposed under LPS4. It is also noted that the previous approvals on the subject site did not require an archaeological investigation.

	I believe that a time capsule of natural and man-made artifacts would still exist and ask that the Fremantle City Council insist on a thorough archeological assessment by someone such as Dr Shane Burke from Notre Dame University. https://www.notredame.edu.au/about/schools/fremantle/arts-and-sciences/school-staff/Shane-Burke It is important that before the construction commences that reasonable access to the site be afforded to such people.	
<u>Submission 3</u>	The site of Fremantle Woolstores is extremely important : it is situated opposite the two entry points to Fremantle and Perth and, for tourists entering by ship, this is their first view of WA. In addition, the site has enormous indigenous, historical and heritage significance. For this reason, the right decisions need to be made now for the future of Fremantle. My first objection is that despite a long review of architectural designs by a design committee and agreement on a selected design, that the public are now being presented with a watered down design without transparent consultation apart from this development application.	The previous designs on the site were subject to design review by the City's Design Review Panel. The public were not involved in the design review other than through submissions lodged during the advertising of the application. The approved developments are not viable to proceed. This application has also been subject to design review by the City's Design Review Panel, who support the proposed development and built form. Similar to the previous applications, the public were not involved in the design review other than through these submissions lodged during the advertising of the application.

	My second objection is their failure to set the application within broader streetscape and its proximity to the waterfront and port. How do the aesthetics of the design fit with Fremantle waterfront masterplan, the Fremantle port masterplan, and the forthcoming redevelopment of the Elder Woolstores? My third objection is about height and the architectural harmony of the buildings. For Stage 1 b the Adina Hotel should not be any higher than the Elders Woolstore. The design must be in harmony with the warehouse aesthetic. New York City saved its important warehouses in lower East side Manhattan and DUMBO, Brooklyn and generated tremendous tourism. Our council needs to ensure the similar vision and recognition that tourists are drawn to Fremantle because of its heritage look and feel. Tourists won't come if Fremantle develops into a second rate version of Perth city.	The application has been considered in the broader streetscape and context as reflected in the architectural design statement and therefore we do not agree with this submission. Stage 1b is indicative to show the potential context of the whole site. It does not form part of this application.
<u>Submission 4</u>	I object to one feature of this design as depicted: the very dark (perhaps black, perhaps shiny) vertical corner piece, extending horizontally over the top of the upper storey in both directions. The horizontal band over the front of the weather-protective roof at the corner (again with the store name on it) would also be better if <u>not</u> in this material – in my opinion. It looks cheap and 'add-on'.	This proposal has been carefully designed to reference the historical and urban context of this site as the location of the Elder Smith & Co Ltd Southern Woolstore as well as those other Woolstores that remain as its neighbours. It does this by adopting some of the typical architectural characteristics of these Woolstores, namely: • The dominant use of red brick.

	The main exterior walls, apparently in red brick, are at least 'honest', I.e. not pretentious or striving after effect. But this dark expanse in an alien material looks inappropriate and unnecessary, indeed aesthetically offensive. Furthermore, the top section increases the overall height unnecessarily (and perhaps contrarily to height guidelines). The building should stop at the top of the third storey. The store name can be made perfectly obvious at a lower level without being blazoned in the sky.	• Simple rectilinear built forms • Facades that feature strong repetitive patterns of fenestration. • Windows of a particular proportion and with relatively deep reveals. • Large scale signage located on high parapets Whilst this is a proposal for a contemporary and vibrant mixed-use development, it will have an unmistakeable connection to its past and present urban context. The corner feature is a dark bronze aluminium batten screen specifically chosen to provide sun screening to the office spaces behind and extends vertically above the parapet to also provide visual screening to the rooftop plant. The battens provide a level of transparency instead of an opaque backdrop to the signage requirements of the supermarket. It is designed to be integral with the façade aesthetics in a restrained contemporary architectural language that complements the predominantly brick façade and preforms as a wayfinding element. The overall height is within the height limit policy and the supermarket sign at high level is necessary when viewed from a distance. As all of the Cantonment Street trees have been retained and new street trees provided on
--	--	--

		Queen Street, lower-level signs will be obscured by these trees when viewed from a distance.
<u>Submission 5</u>	This revised proposal looks cheap, is extraordinarily uninspiring and a ridiculous throwback to a building that has rightfully been demolished. The earlier proposal had the merit of having some architectural interest. The City of Fremantle is the most interesting and enjoyable urban environment in the state. Is this the way to enhance it? It may well be that in fine detail, the proposal meets strict planning guidelines. But a building should be so much more. How depressing it would be if this was the new building that the City of Fremantle should have to greet residents and visitors as they arrive by train and enter the town. The proposal should be rejected.	The previous designs on the site were subject to design review by the City's Design Review Panel. The approved developments are not viable to proceed. This application has also been subject to design review by the City's Design Review Panel, who support the proposed development and built form.
<u>Submission 6</u>	A few points I want to make: -Do we really need that massive extra hotel and aged care? -Why are we building in front of recently built apartments so they miss out on the views they just paid for? -Who do you think would use the childcare? Do people really want to drive into busy Freo during the rush hour to drop kids at a childcare at the top of a boring old building? - The new aged care and hotel SHOULD NOT be higher than the existing Woolstores. This is because it will make them look less prominent, less historical, and overall take away from the vibe of that area of Freo, where other Woolstores	The hotel and aged care facility are only indicative to show the potential context of the whole site. They do not form part of this application. We are not sure which apartments the submission is referring to, however, residential dwellings built to the east of the site do not have a right to views across other private land of the City. To limit any development on the site as a result of residential dwellings further away from the port is misguided.

	have been neatly converted into apartments. - Where did we get this idea that the beautiful, historical Freo, should be full of expensive skyscrapers, which most residents of the City won't even use? -Why do neither of the 3 new buildings have any historical elements added to the design, resonating with current buildings in the area? - I believe we only need a 2 storey at maximum building for Coles and a couple of NECESSARY shops, and the current carpark can be expanded/refurbished.	The childcare centre will be used by residents that live in Fremantle and workers who work in Fremantle. The hotel and aged care facility are only indicative to show the potential context of the whole site. They do not form part of this application. This application is not proposing skyscrapers. The proposed design incorporates elements of both the historical use of the site and the adjoining Woolstores site in terms of the brick podium. The development of a two-storey building for Coles and a couple of shops would not meet the LPS4 provisions to provide office and would be a viable development. The proposed height is consistent with the LPS4 provisions.
<u>Submission 7</u>	Thank you for the opportunity to comment. This proposal does everything it needs to do. 1. return a key supermarket tenant to Freo, preventing it from being a food desert as it currently is (although temporary.) This will do wonders in bringing further residents to the City centre for a walkable catchment, which currently have to either choose IGA (more expensive), or drive to Sth Freo (Woolies). 2. Retains the	Noted and agreed

	architectural form of the Woolstores and is not overly scaled. 3. Has active frontages at all key street fronts. This previous building was the ONLY building in Freo which turned its back to Fremantle, having a shopping mall style development with a couple of entrances only. This caused issues with the station too. This proposal turns that inside out and is a fantastic use of the land. Thank you for the opportunity, and this is a great site. Can't wait to see this being the nexus for the Freo Station works outlined in Transformational Moves document.	
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No	DRP Recommendations	Applicant response
1	Provide a statement on the link between the former south Woolstores building on the site, that is referenced in the presentation, and how this former building has inspired the new design.	This proposal has been carefully designed to reference the historical and urban context of this site as the location of the Elder Smith & Co. Ltd. Southern Woolstore (demolished in 1985) as well as those other woolstores that remain as its neighbours. It does this by adopting some of the typical architectural characteristics of these woolstores, namely: • The dominant use of red brick. • Simple rectilinear built forms • Facades that feature strong repetitive patterns of fenestration. • Windows of a particular proportion and with relatively deep reveals. • Large scale signage located on high parapets Whilst this is a proposal for a contemporary and vibrant mixed-use development that will inevitably be very different to a large wool storage facility, it will have an unmistakeable connection to its past and present urban context.
2	Use of more natural materials and incorporation of larger sized trees in the Childcare Centre's outdoor play area	There is currently a large amount of timber/ composite timber products used in the Outdoor childcare space, across decking; arbours; sandpit; play structure & planters. The use of synthetic turf has been minimised where possible but is required to provide open flexible use spaces for movable equipment etc, (the alternative surfacing material to this is wetpour rubber softfall which is less natural in appearance), the synthetic turf specified will be a Cool variety, cooling infill for synthetic turf are also available which reduce heat by 30%. Shade structures are to be specified over synthetic turf areas to reduce heat. Softfall mulch has not been used in the flexible play space as it is not liked by Childcare operators as it can provide a hazard to children, this will also require a large section of the outdoor play space to be built up 300-400m which would not provide an accessible play space. Trees will be up to 4mH, larger trees are not appropriate due to structural weight, the number planters have been maximised with 59m2 of planters, 756m2 is required for the unencumbered space requirements of 7m2/per child, planters cannot be included in the unencumbered space.

3	Openings at L2 derck for natural daylight and ventilation to enter the L1 car park below	While the applicant appreciates the advantages of providing openings to the level 1 car park, this also presents itself with a number of disadvantages. Planning of the upper level car parking would become inefficient, there would be water ingress considerations which would present themselves with a higehr risk of slips and falls. From the perspective of ventilation, natural air is provided to the car park through a combination of mechanical system and natural air from ramp. While naturally ventilating a car park has its benefits, these are outweighed by lining of the street with active uses, as a result a fully sleeved car park does not lend itself to natural ventilation.
4	Relocate the L2 bike stores to a more accessible and legible location on the ground floor	The bicyce parking bays have been adjusted to locate all the bicycle bays together with the end of trip facilities and close to the lift at Level 2, as a more legible location. These are intended for Office and staff use. Public visitor bicycle bays are provided along the footpath at ground level 20 bays.
5	Provide Spatial Generocity for the lobby/waiting areas of the CCC	Lobby & Waiting areas for the CCC have been adjusted to remove the dog leg and arrive directly at the reception of the child-care, and given more generous space.
6	Provide diagrams to illustrate the potential impacts of proposed future taller development stages on the amenity of the Childcare Centre; in particular, concerns of overshadowing and overlooking should be addressed.	The Adina Stage 1B development is far from the child-care outdoor space and will not overlook it. The Stage 2 has 1 balcony with potential to overlook the CCC area, however this will be dealt with in stage 2 by screening the balcony. Overshadowing is not a concern, as the stage two podium open space is adjacent to the Childcare outdoor open space. Diagrams provided for information
7	In consultation with the City, consider interpretative artwork on the exposed walls of Stage 1 that connects to the story telling of the locale, its history, landscape and culture.	An artwork consultantwill be engaged to prepare a brief, consult with the city and prepare an artwork proposal for the walls
8	Refine the canopy design to reduce its bulk and provide the design approach for draining rainwater	Canopy design has been refined to provide a more slim-line aesthetic and simplify rainwater drainage.



Transport Impact Assessment

Project: Woolstores Shopping Centre Redevelopment Stage 1A
28 Cantonment Street, Fremantle
Client: Silverleaf Investments c/- Cameron Chisholm Nicol
Author: Paul Nguyen
Date: 4th October 2022
Shawmac Document #: 2208004-TIA-001

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1. Introduction and Background

1.1. Proponent

Shawmac Pty Ltd has been engaged by Cameron Chisholm Nicol on behalf of Silverleaf Investments to prepare a Transport Impact Assessment (TIA) for the proposed Stage 1A redevelopment of the Woolstores Shopping Centre in Fremantle.

1.2. Site Location

The site address is 28 Cantonment Street, Fremantle and the Local Authority is the City of Fremantle. The general site location is shown in **Figure 1**. An aerial view of the existing site is shown in **Figure 2**.

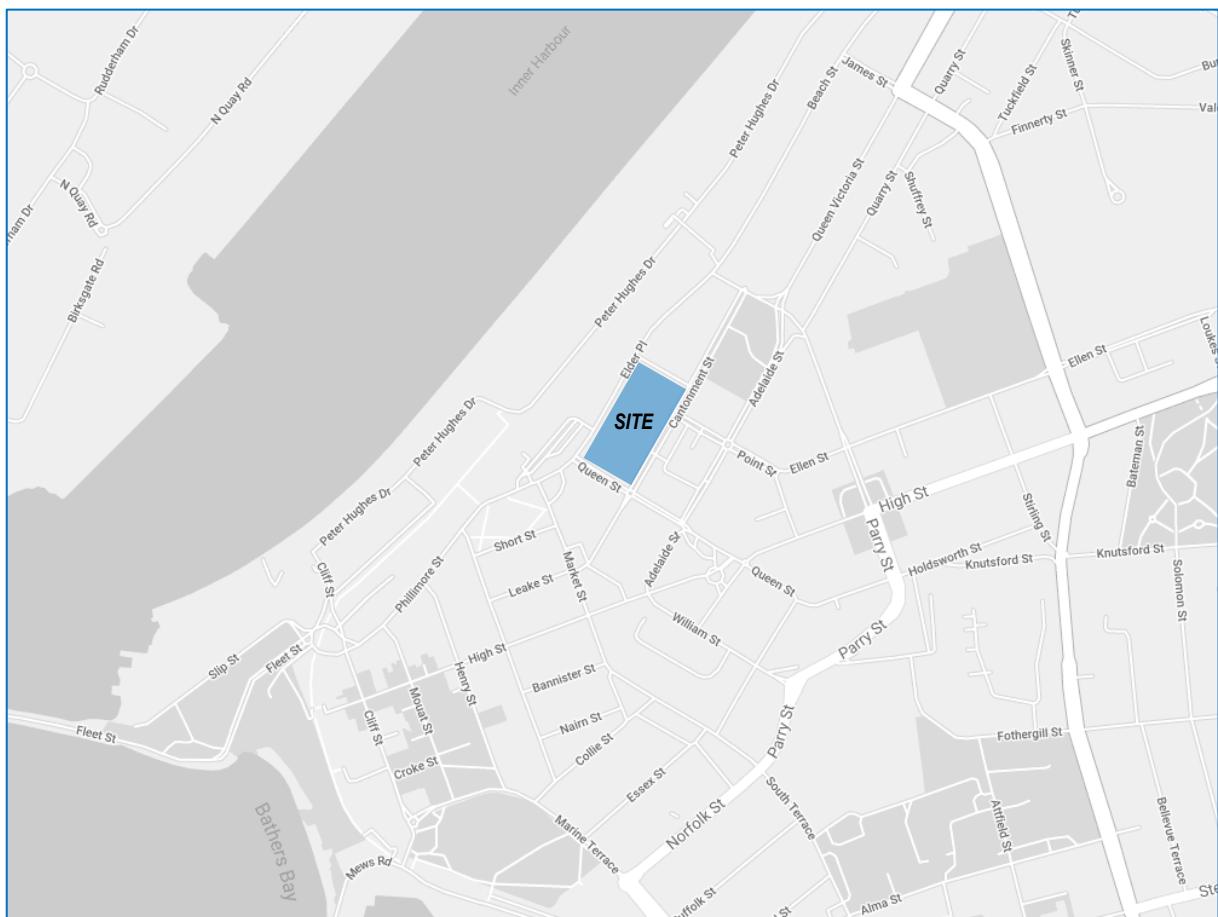


Figure 1: General Site Location



Figure 2: Aerial View of the Site (March 2022)

1.3. Scope

This TIA has been prepared in accordance with the Western Australian Planning Commission's (WAPC) *Transport Impact Assessment Guidelines*. According to the TIA guidelines, the key objectives of a TIA are to:

- assess the proposed internal transport networks with respect to accessibility, circulation and safety for all modes, that is, vehicles, public transport, pedestrians and cyclists;
- assess the level of transport integration between the development and the surrounding land uses;
- determine the impacts of the traffic generated by the development on the surrounding land uses; and
- determine the impacts of the traffic generated by the development on the surrounding transport networks.

1.4. Background Information

A previous iteration of the same development was approved by JDAP in April 2020. The approved development included approximately 4,400m² of retail (including a Coles Supermarket), 1,800m² of office floorspace, a child care centre and a 141-room hotel with associated amenities. The supporting Transport Impact Assessment for the Stage 1 development was prepared by Shawmac in October 2019.

2. Development Proposal

2.1. Land Uses

Stage 1A is located on the southern portion of the site and comprises a Coles supermarket, four smaller retail tenancies, a liquor store, 8 office tenancies (approximately 1,850m² of floor space) and a child care centre accommodating up to 108 children.

2.2. Vehicle Access and Parking

A total of 145 car parking bays are proposed on the first and second floors.

Vehicle access to the development will be limited to a single new crossover on Cantonment Street. A secondary access is proposed on Elder Place for service and delivery vehicle access only.

The proposed access arrangement is shown in **Figure 3**.

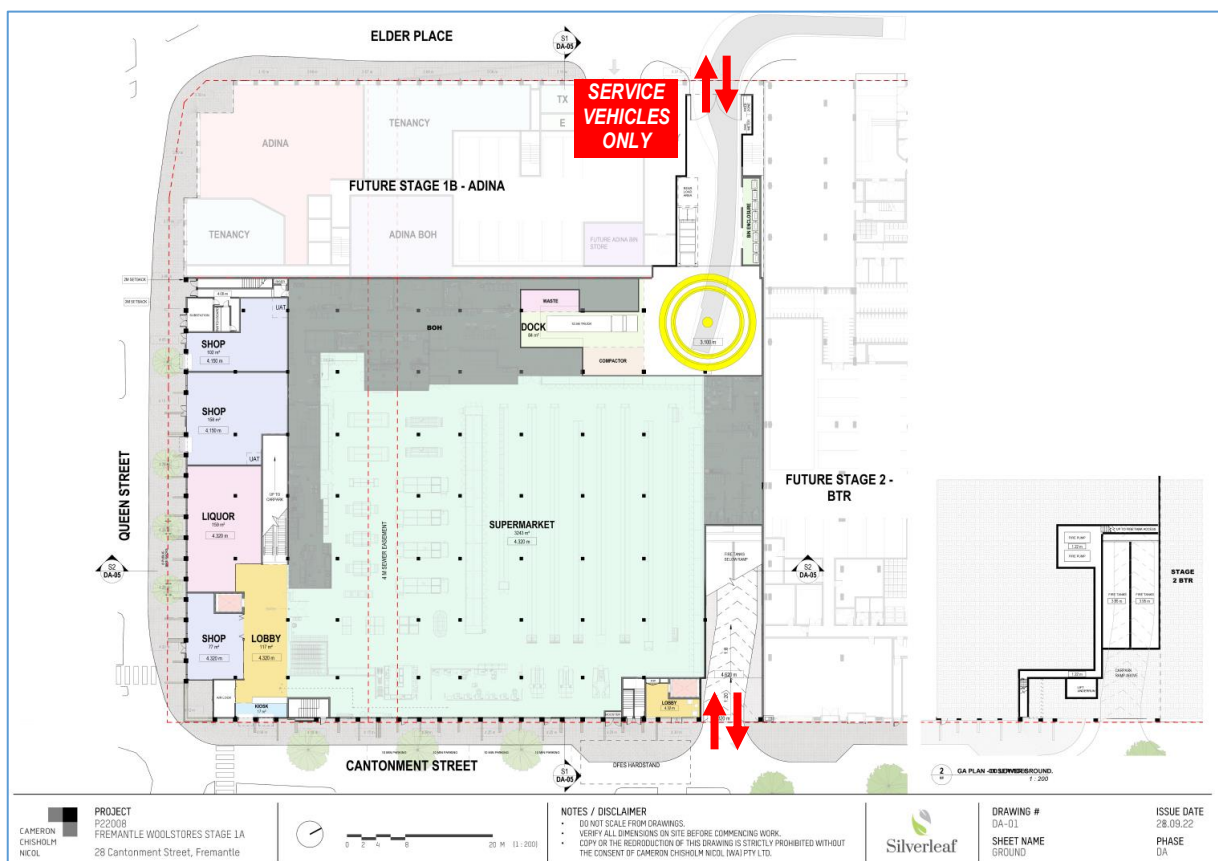


Figure 3: Proposed Vehicle Access Arrangement

3. Existing Situation

3.1. Road Network

3.1.1. Layout and Hierarchy

The layout and hierarchy of the existing local road network according to the Main Roads WA *Road Information Mapping System* is shown in **Figure 4**.

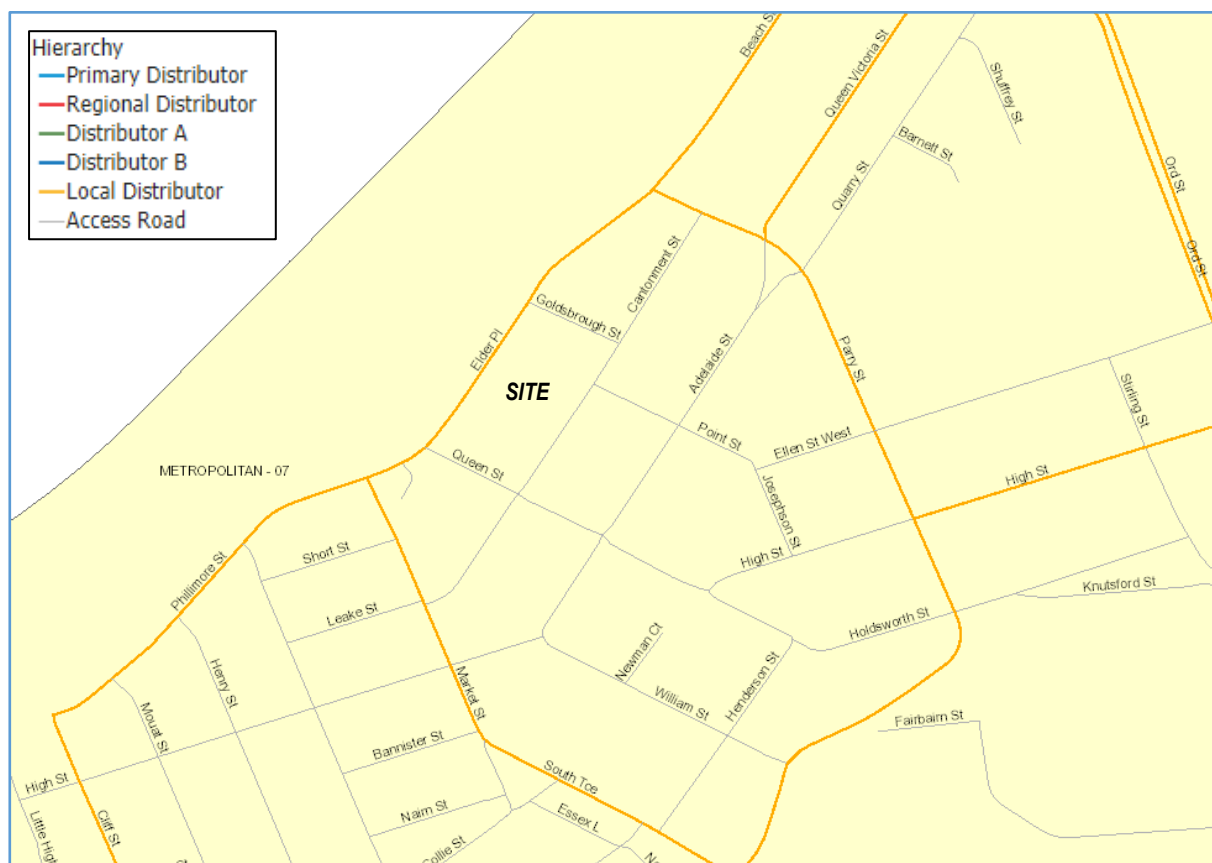


Figure 4: Existing Road Network Hierarchy

The existing speed limits are shown in **Figure 5**.

All roads shown in yellow are under a 40km/h speed limit except for South Terrace between Market Street and Parry Street which has a 30km/h speed limit.

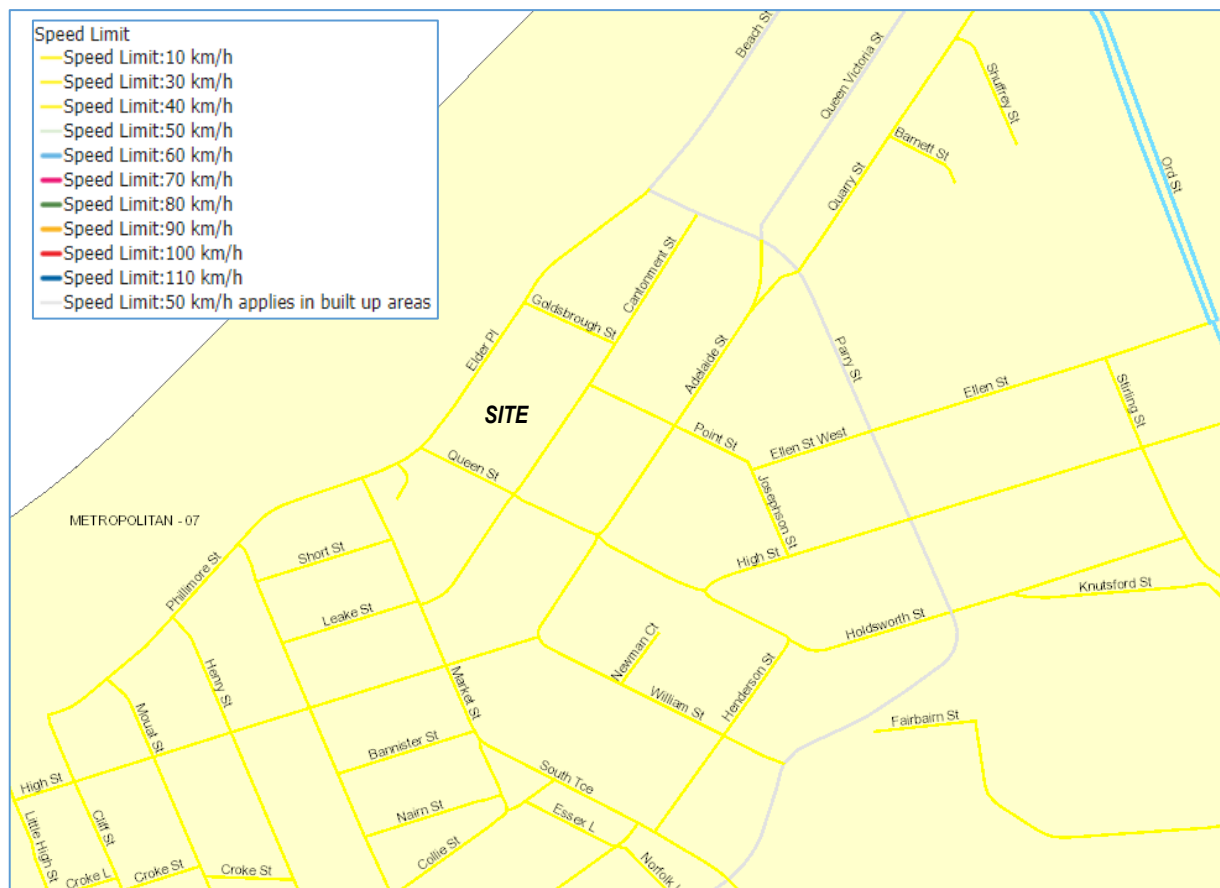


Figure 5: Existing Speed Limits

3.1.2. Traffic Counts

The latest available traffic counts were obtained from the City of Fremantle and from Main Roads WA *Traffic Map*. The peak hour traffic counts along Queen Street, Cantonment Street and Goldsbrough Street were supplemented with peak hour traffic surveys undertaken in November 2021. It was observed that the weekend daily and peak hour traffic volumes were of a relatively similar magnitude as the average weekday volumes.

The Average Weekday Traffic (AWT) is shown in **Figure 6**.

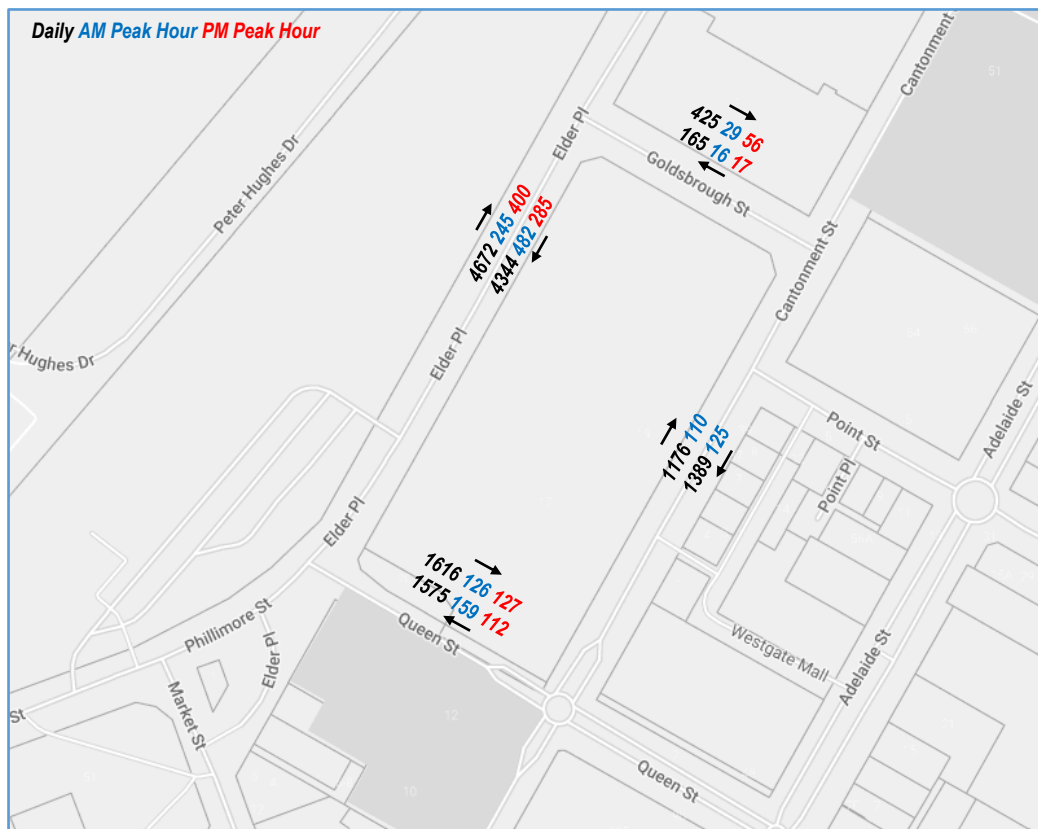


Figure 6: Average Weekday Traffic (AWT) Counts

Queen Street, Elder Place and Goldsbrough Street showed typical morning and afternoon peaks around 8 to 9am and 3 to 4pm. On Cantonment Street, there was a single peak period occurring around mid-day.

3.2. Changes to Surrounding Transport Networks

The surrounding road network is reasonably well established and there are no known major changes planned.

3.3. Integration with Surrounding Area

The development itself is an attractor of traffic with the key generator being the residential development in the surrounding areas.

The main traffic routes to and from the site and the surrounding development are Elder Place, Cantonment Street, Queen Street, High Street, Parry Street and Market Street. The transport network along these routes is well established and no major deficiencies have been identified.

4. Transport Assessment

4.1. Assessment Parameters

Based on the proposed uses, the peak period of traffic generation from the development is likely to coincide with the typical weekday peak periods on the adjacent road network. Therefore, the time periods adopted for assessment are the weekday morning and afternoon peak hours on the adjacent road network which were determined from the background traffic data to be from 8 to 9am and from 3 to 4pm.

4.2. Traffic Generation

The traffic generation potential of the proposed redevelopment has been estimated using trip generation rates from the Institute of Transportation Engineers (ITE) *Trip Generation*.

An overall reduction of 25% has been applied to account for internal trips within the site and neighbouring developments within walking distance (e.g. office workers going to the supermarket) and the accessibility to public transport. The trip generation is detailed in **Table 1** and **Table 2**.

Table 1: Predicted Trip Generation

Land Use	Generation Rate			Unit	Quantum	% Cross Trade	Estimated Generation		
	Daily	AM Peak	PM Peak				Daily	AM Peak	PM Peak
Supermarket	101.0	3.08	9.63	100m ² GFA	32.43	25%	2,457	75	234
Retail	71.47	1.08	4.43	100m ² GFA	3.54	25%	190	3	12
Liquor Store	115.40	0.64	17.89	100m ² GFA	1.59	25%	138	1	21
Office	11.67	1.64	1.55	100m ² GFA	18.50	25%	162	23	22
Child Care Centre	4.09	0.78	0.79	Children	108	25%	331	63	64
						Total	3,278	165	353

Table 2: Predicted Peak Hour Movements

Land Use	AM Peak				PM Peak			
	% In	% Out	Trips In	Trips Out	% In	% Out	Trips In	Trips Out
Supermarket	59%	41%	44	31	50%	50%	117	117
Retail	80%	20%	2	1	51%	49%	6	6
Liquor Store	79%	21%	1	0	50%	50%	11	10
Office	88%	12%	20	3	17%	83%	4	18
Child Care Centre	53%	47%	33	30	47%	53%	30	34
		Total	100	65		Total	168	185

As shown, it is estimated that the proposed Stage 1A development would generate approximately 3,278 vehicle trips per day, including 165 trips during the AM peak hour and 353 trips during the PM peak hour.

4.3. Traffic Distribution

The distribution of site traffic has been assumed based on the layout of the external road network and the most logical routes to and from the site from external locations. A similar distribution has been used in previous transport assessments for the site as follows:

- 50% of trips are generated from north and north-east via Cantonment Street.
- 50% of trips are generated from the east and south-east via Queen.

Based on the above, the estimated increase in peak hour traffic flows on the road network and through the site crossover is shown in **Figure 7**.

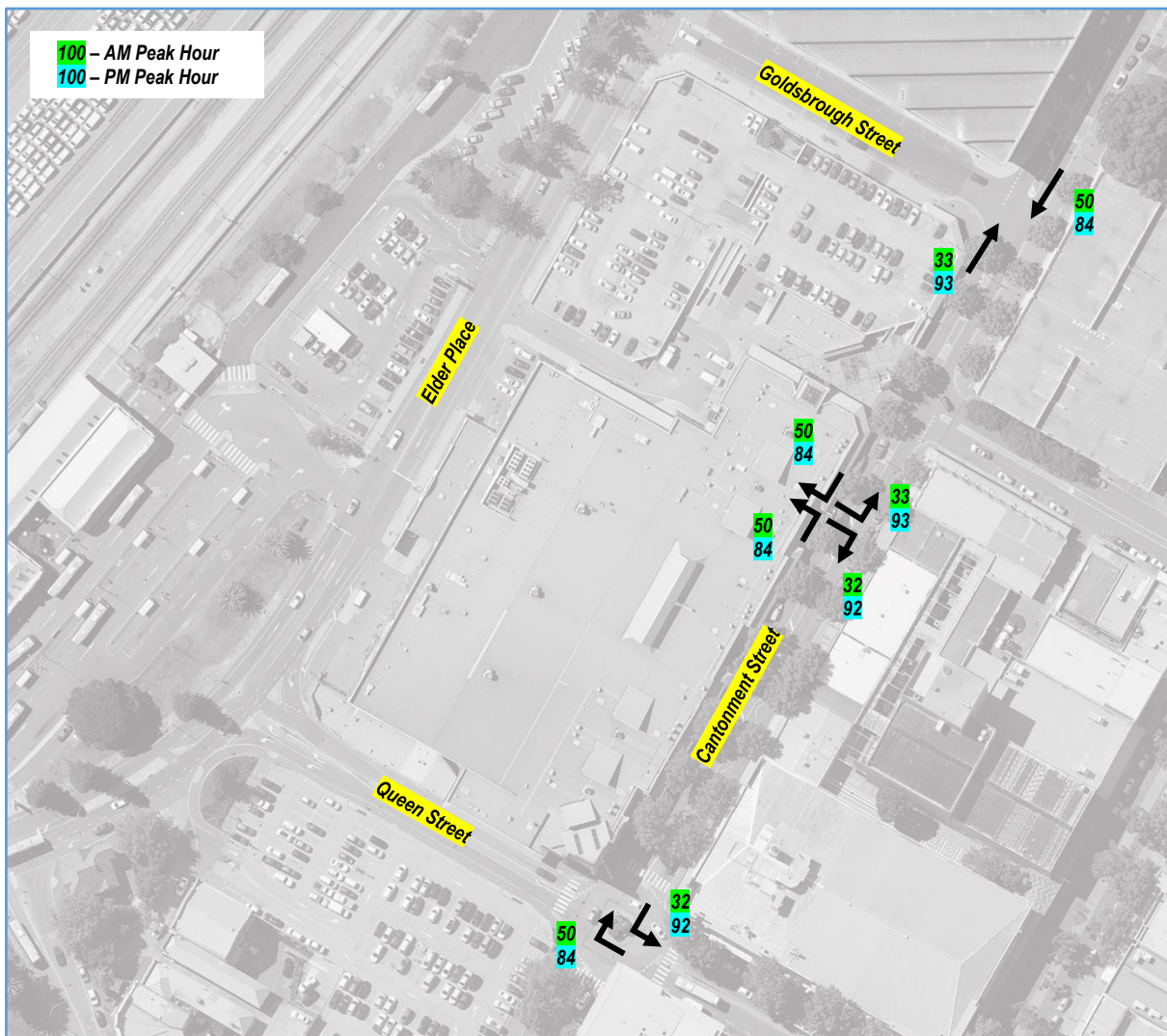


Figure 7: Estimated Peak Hour Development Traffic Flows

4.4. Impact on Road Network

The peak hour capacity of the following locations was assessed in SIDRA intersection 9.0 as a network:

- The Queen Street / Cantonment Street intersection
- The proposed crossover on Cantonment Street
- The Cantonment Street / Goldsbrough Street intersection

The background traffic flows were derived from the traffic surveys undertaken in November 2021.

The modelled layout is shown in **Figure 8**.

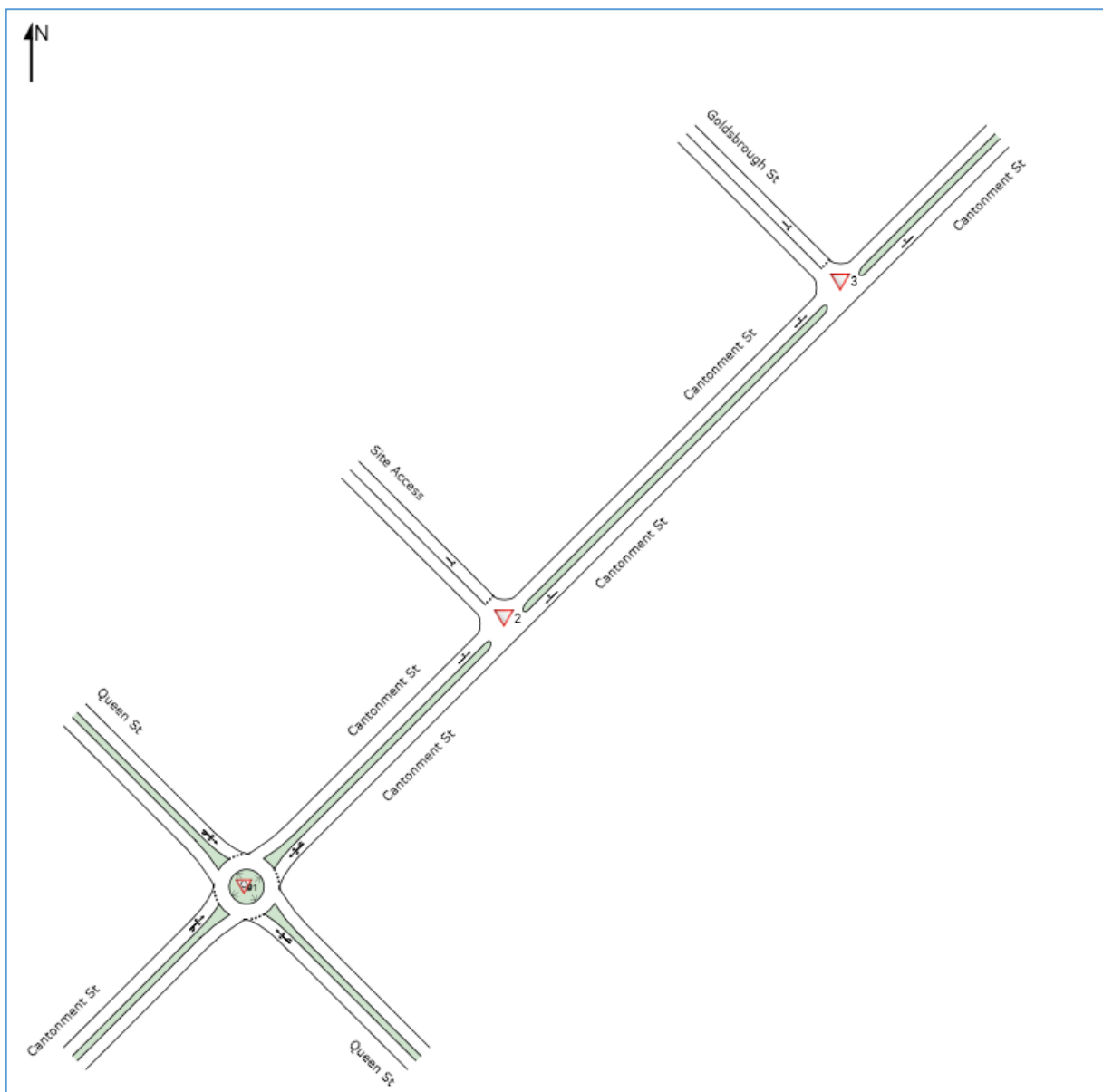


Figure 8: Network Layout

The results of the assessment are included as **Appendix A** and summarised in **Table 3**.

Table 3: SIDRA Intersection and Access Capacity Analysis Results Summary

Intersection	Scenario	DOS	Average Delay	Worst Delay	Maximum Queue	Average LOS	Worst LOS
Queen Street / Cantonment Street	AM Peak - Existing	0.220	4.4s	8.1s	4.3m	A	A
	AM Peak - Future	0.256	4.6s	8.5s	5.1m	A	A
	PM Peak - Existing	0.227	4.2s	8.1s	4.5m	A	A
	PM Peak - Future	0.286	4.5s	8.6s	6.0m	A	A
Cantonment Street Access	AM Peak - Future	0.096	1.9s	7.2s	0.7m	A	A
	PM Peak - Future	0.119	2.2s	7.2s	1.2m	A	A
Cantonment Street / Goldsbrough Street	AM Peak - Existing	0.044	0.9s	4.0s	0.2m	A	A
	AM Peak - Future	0.069	0.6s	4.1s	0.2m	A	A
	PM Peak - Existing	0.052	1.2s	3.7s	0.3m	A	A
	PM Peak - Future	0.099	0.7s	4.0s	0.3m	A	A

As shown, all intersections are currently operating well within capacity. All measures of intersection performance (degree of saturation, average delay, queueing and level of service) are well within acceptable thresholds.

With the addition of Stage 1A traffic, all intersections would continue to operate well within capacity and so it is concluded that there is adequate capacity to accommodate the Stage 1A development.

5. Analysis of Development Access

5.1. Sight Distance – Cantonment Street

Sight distance requirements from exit crossovers is defined in Figure 3.2 of Australian Standard AS2890.1-2004 *Parking facilities Part 1: Off street car parking* (AS2890.1) as shown in **Figure 9**.

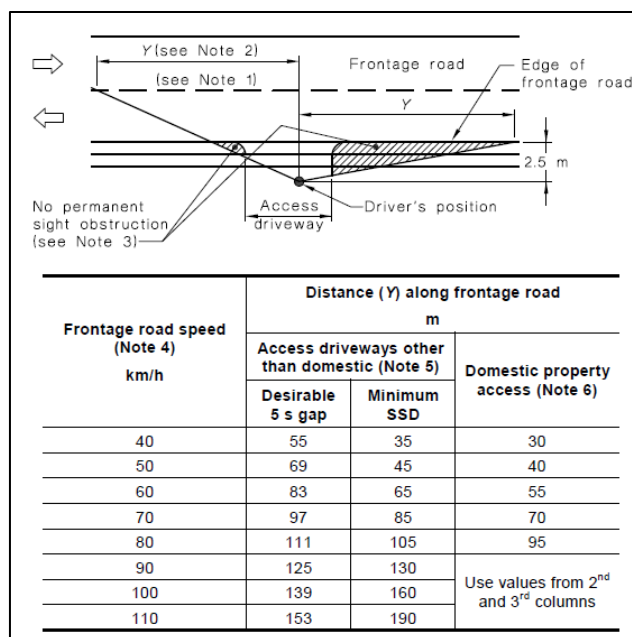


Figure 9: Sight Distance Requirements (AS2890.1)

Based on the 40km/h speed limit along Cantonment Street, the minimum required sight distance is 35 metres. As shown in **Figure 10**, the minimum sight distance is achieved in both directions. Vertically, the geometry of Cantonment Street is relatively flat with no major crests that impede sight distance. It is also noted that the required 2.5m by 2.0m truncation for sight distance to pedestrians has also been provided for this access.

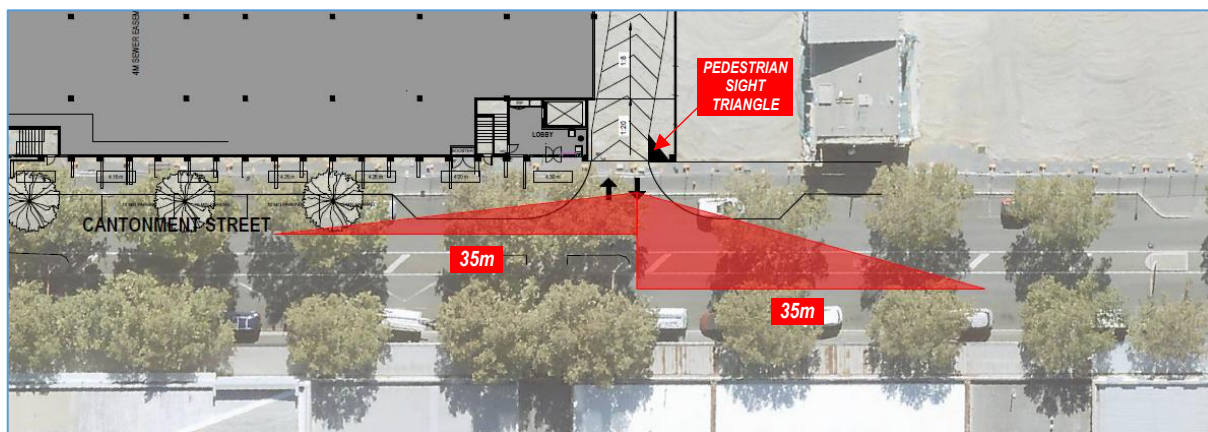


Figure 10: Sight Distance Check – Cantonment Street

5.2. Sight Distance – Elder Place

For the proposed access on Elder Place, sight distance requirements from exit crossovers for service vehicles is defined in Figure 3.3 of Australian Standard AS2890.2-2018 *Parking facilities Part 2: Off street commercial vehicle facilities* (AS2890.2) as shown in **Figure 11**.

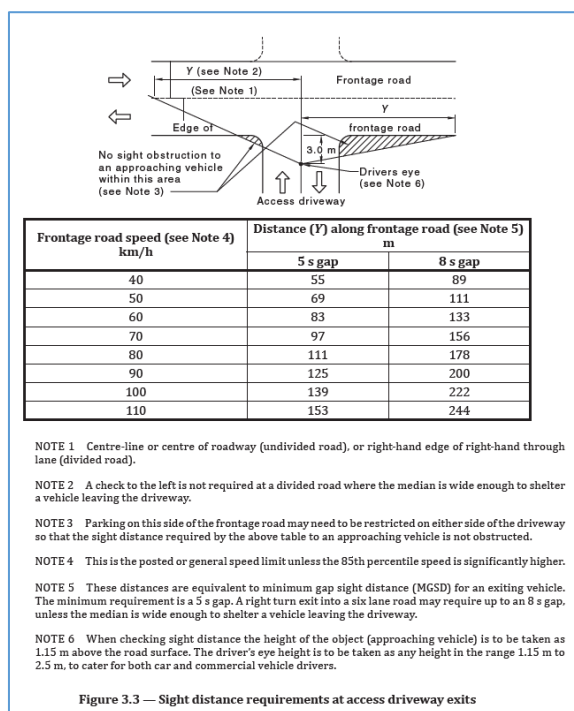


Figure 11: Sight Distance Requirements (AS2890.2)

Based on the 40km/h speed limit along Elder Place, the minimum required sight distance is 55 metres. As shown in **Figure 12**, the minimum sight distance is achieved in both directions.

Vertically, the geometry of Elder Place is also relatively flat with no major crests that impede sight distance.

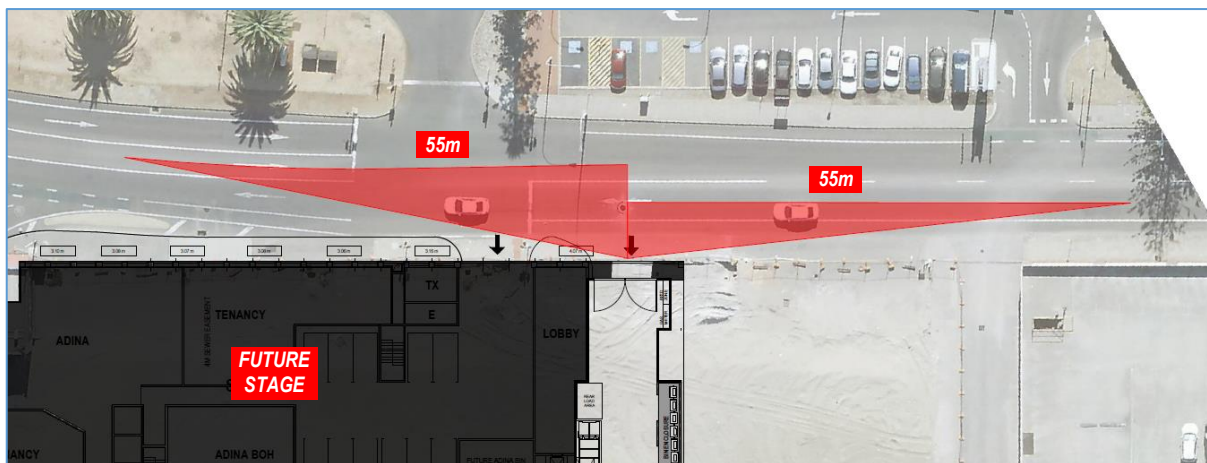


Figure 12: Sight Distance Check – Elder Place

5.3. Provision for Service Vehicles

All service vehicle movements (waste collection and deliveries) will be undertaken via the loading area at the rear of the supermarket which will be accessed via Elder Place. The largest vehicle to be accommodated in this area will be a large rigid truck. A turntable is proposed within the loading area to allow trucks to enter and exit the street in a forward direction.

A vehicle swept path analysis has been undertaken in Autodesk Vehicle Tracking software using the Australian Standard 12.5m Heavy Rigid Vehicle template and the results of the swept path analysis are attached as **Appendix B**. The analysis demonstrates that the site access on Elder Place and the loading area will accommodate the turning movements of the proposed service vehicles.

To minimise impact on adjacent traffic, the following measures are recommended for consideration where possible:

- Scheduling service vehicle movements outside of peak periods of traffic.
- Organising for trucks to enter and exit the site using left turns to avoid crossing multiple lanes of traffic and the road centre line.

6. Road Safety

6.1. Crash History

The crash history of the adjacent road network was obtained from the MRWA Reporting Centre. A summary of the recorded incidents over the five-year period ending December 2021 is shown in **Figure 13**.

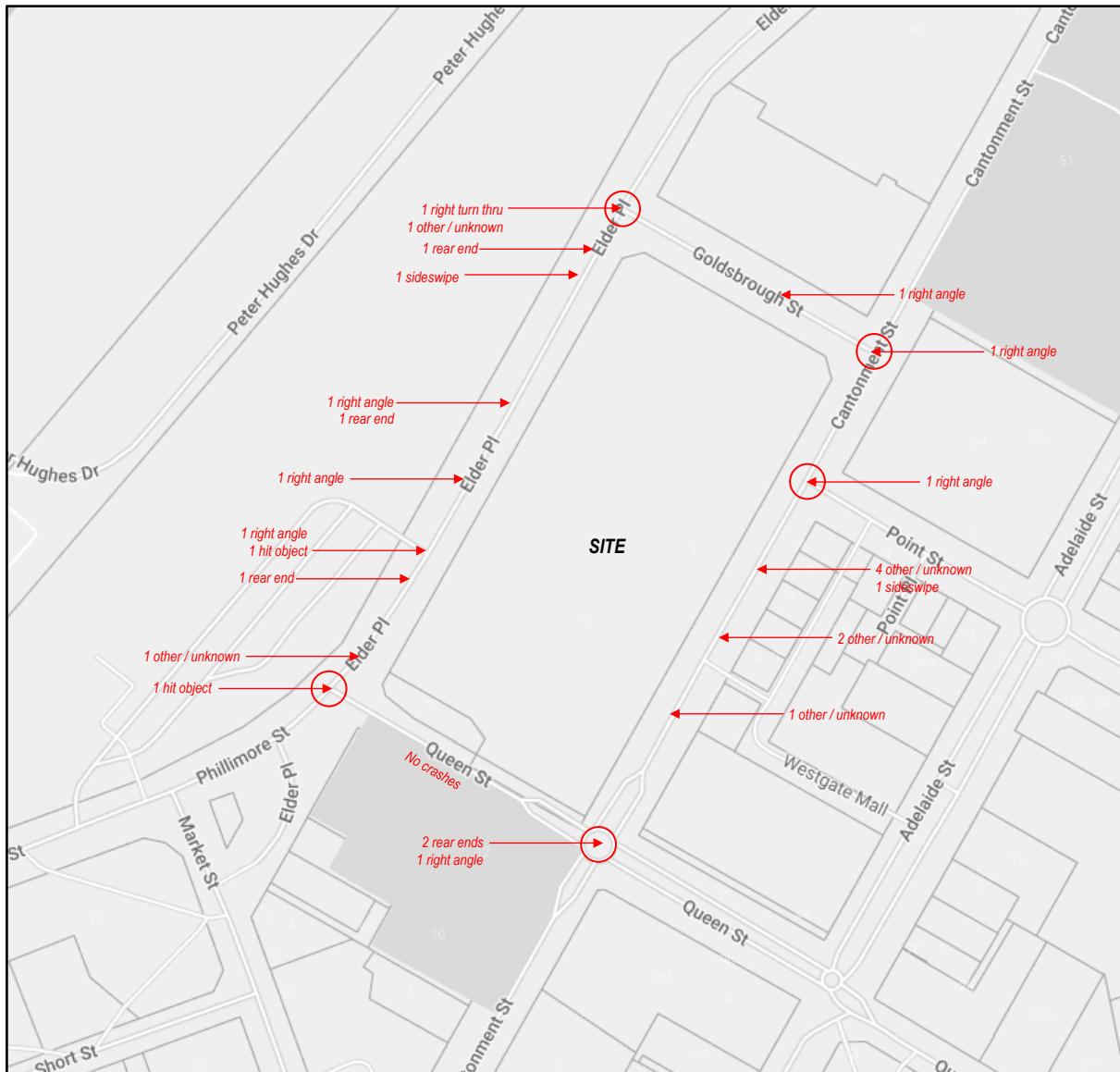


Figure 13: Crash History January 2017 to December 2021

A comparison to the crash history from the previous transport assessments indicates that the occurrence of crashes has generally remained stable.

The detailed crash history along Cantonment Street indicates that most of the “other / unknown” crashes involved vehicles parking along this street. A review of the street parking layout along Cantonment Street did identify that

the street parking bays appear to be shorter than required by current Australian Standards. However, it is not clear whether this is the direct result of the number of crashes along this street and it is recommended that the City consider reviewing the configuration of on-street parking.

7. Public Transport Access

The site has excellent access to public transport services as the Fremantle Bus and Train Station is located adjacent to the site on the opposite side of Elder Place. Many bus services operate from the bus station including several high frequency bus routes and the free Fremantle Cat Bus service which operate every 10 to 15 minutes. The available bus services in the immediate area are shown in **Figure 14**. The Fremantle Cat Bus routes are shown in **Figure 15**.

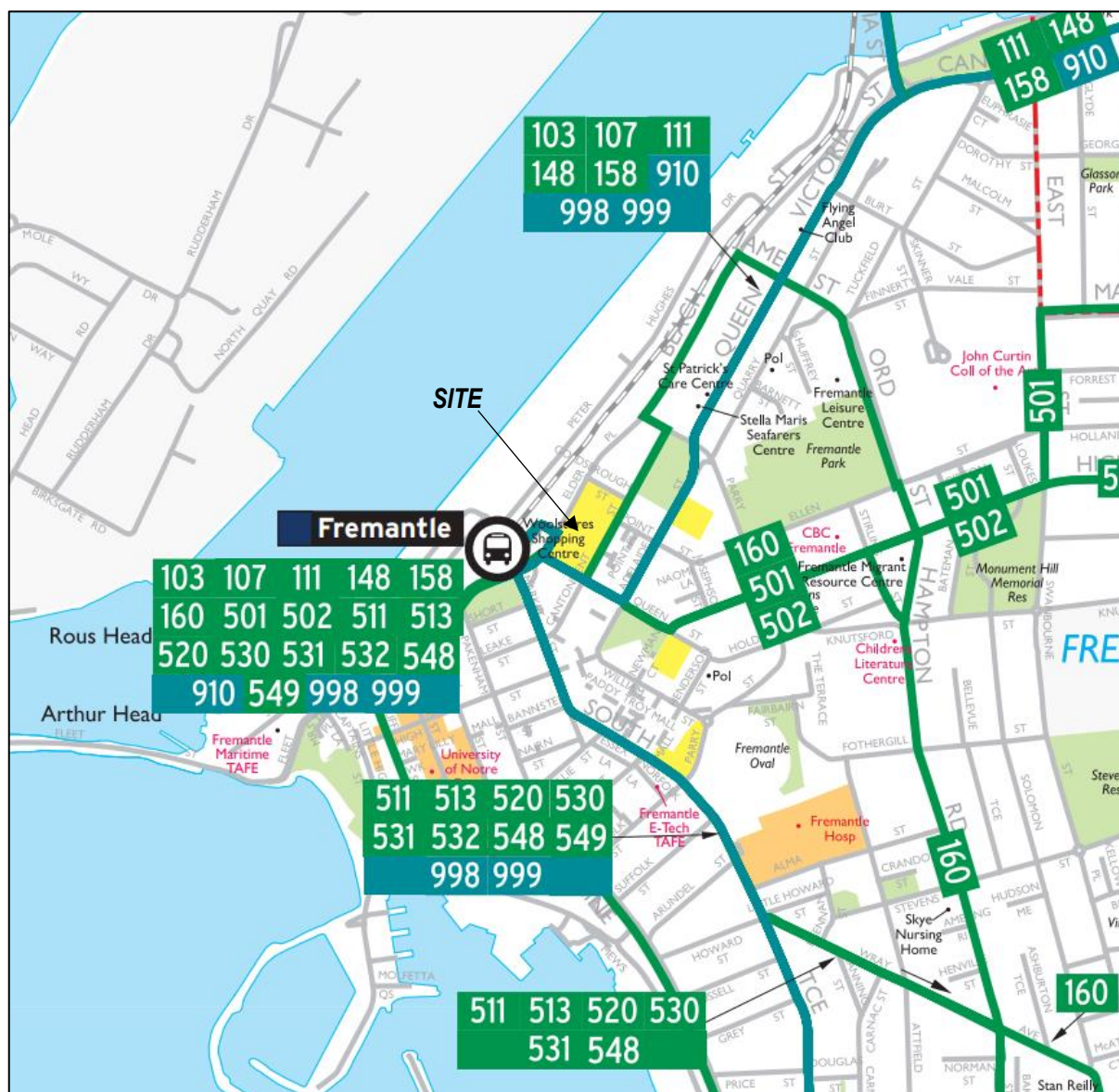


Figure 14: Bus Services



Figure 15: Fremantle Cat Bus Routes

8. Pedestrian / Cycle Access and Amenity

There are footpaths or wide verges along both sides of all four boundary roads and along the majority of other roads surrounding the site. There are existing pedestrian crossings located in areas of significant pedestrian activity adjacent to the site and in the broader area including the following:

- Across Elder Place between the Railway/Bus Station and the Shopping Centre (at the traffic signals).
- Across all approaches of the Queen Street/Cantonment Street roundabout intersection.
- Across Cantonment Street in several locations.

There are on road cycle lanes along Elder Place which are part of the broader Perth Bicycle Network.

The existing pedestrian and cyclist network around the site is considered to be adequate to allow for the safe and efficient movement of pedestrians and cyclists and no deficiencies have been identified.

9. Parking Assessment

9.1. Car Parking

The total proposed on-site car parking provision is 145 bays including 90 bays on the first floor and 55 bays on the second floor.

The minimum car parking requirements for developments within the City of Fremantle are outlined in the City's Local Planning Scheme (LPS4). Schedule 7 of LPS4 also contains additional development controls for specific local planning areas within the City of Fremantle. The site is located within Sub Area 1.3.2 which includes the below specific requirements in relation to parking:

Car Parking –

- (l) 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.

Based on the above, it is understood that the proposed office tenancies above the ground floor do not require the provision of parking.

The parking requirements for the proposed development are calculated in **Table 4**. The supermarket and other retail tenancies on the ground floor have been grouped together and the shopping centre rate has been applied to the group as these uses will ultimately operate as a shopping centre. It has been assumed that there would be 18 employees for the child care centre based on the standard educator to child ratios required under the National Quality Framework.

Table 4: Parking Requirements

Land Use	Criteria	Quantum	Bays
Shopping Centre (supermarket, retail)	1 bay per 16m ² NLA for 0-5000m ² GLA	3,597m ² NLA	225
Liquor Store	1 bay per 30m ² NLA	159m ² NLA	5
Child Care Centre	1 bay per employee plus 1 bay per 10 children	18 employees 108 children	18 11

As shown, the development requires 259 bays. The proposed 145 bays is 114 bays short of the calculated requirements.

In this instance, the shortfall is considered to be justifiable for the following reasons:

- The previous shopping centre (with supermarket) on the site provided little or no parking and relied on the adjacent public parking.
- The site is located adjacent to the Fremantle Station which provides access to high frequency public

transport services.

- The site is located within the Fremantle City Centre and there is likely to be a much higher than standard proportion of walking trips to and from the proposed development.
- There is ample public car parking in the vicinity of the site including the existing car park on the northern portion of the site, on the opposite side of Queen Street and several other sites in the immediate vicinity of the site.
- Car parking demand will be shared between the various uses on the site (i.e. café customers or child care centre parents also visiting the supermarket). There will also be a high proportion of multi-purpose trips between the proposed development and the adjacent developments.
- Approximately 5 motorcycle / scooter parking spaces are also proposed as an alternative to car parking.

9.2. Bicycle Parking

The bicycle parking requirements for non-residential development with the City are also outlined in LPS4.

The bicycle parking requirements for the proposed development are calculated in **Table 5**.

Table 5: Bicycle Parking Requirements

Land Use	Criteria	Quantum	Bays Required
Shopping Centre	1 Class 1 space per 300m ² GLA 1 Class 3 space per 500m ² GLA over 1000m ² GLA	3,597m ² GLA	12 Class 1 spaces 5 Class 3 spaces
Liquor Store (Small)	1 Class 1 space per 300m ² GLA 1 Class 3 space per 300m ² GLA	159m ² GLA	1 Class 1 space 1 Class 3 space
Child Care Centre	Not applicable	-	-
Office	Not applicable	-	-
		Total	13 Class 1 spaces 6 Class 3 spaces

As above, the development requires a minimum of 18 bicycle spaces including, 13 Class 1 spaces (individual bicycle lockers), and 6 Class 3 spaces (bicycle rails or racks).

The development plans indicate the provision of approximately 20 wall-mounted bicycle spaces on the second floor and 4 bicycle racks (8 spaces) on the Queen Street verge for visitors.

The total provision of 28 spaces satisfies the required number of bicycle parking spaces. It is noted that the LPS4 requires 13 spaces to be individual bicycle lockers. However, it is considered that individual lockers may be inconvenient to use and the enclosed bicycle stores on the second floor are likely to provide adequate security. It is also noted that the previous development was approved without requiring individual bicycle lockers.

10. Conclusions

The Transport Impact Assessment of the proposed Stage 1A development for the Woolstores Fremantle Redevelopment project concluded the following:

- Stage 1A development is estimated to generate approximately 3,278 vehicle trips per day, including 165 trips during the AM peak hour and 353 trips during the PM peak hour.
- A capacity analysis of the site access on Cantonment Street and the adjacent intersections indicates that the road network will operate well within capacity during the peak hours.
- The minimum required sight distance is achieved at both proposed site crossovers in both directions.
- A vehicle swept path analysis indicates that the proposed service vehicle access will accommodate the turning movements of the expected trucks.
- The crash history of the road network indicates that the number of yearly crashes has remained stable over the past five years. There are a number of crashes along Cantonment Street that mostly involved vehicles entering and leaving the on-street parking bays. A review of the street parking layout along Cantonment Street did identify that the street parking bays appear to be shorter than required by current Australian Standards. However, it is not clear whether this is the direct result of the number of crashes along this street and it is recommended that the City consider reviewing the configuration of on-street parking.
- The site has excellent access to public transport and the existing services are considered to be adequate.
- The existing pedestrian and cyclist network around the site is considered to be adequate to allow for the safe and efficient movement of pedestrians and cyclists and no deficiencies have been identified.
- Under the requirements of the City's Local Planning Scheme, the development requires 259 car parking bays. The proposed 145 bays is 114 bays short of the calculated requirements. In this instance, the shortfall is considered to be justifiable for the following reasons:
 - The previous shopping centre (with supermarket) on the site provided little or no parking and relied on the adjacent public parking.
 - The site is located adjacent to the Fremantle Station which provides access to high frequency public transport services.
 - The site is located within the Fremantle City Centre and there is likely to be a much higher than standard proportion of walking trips to and from the proposed development.
 - There is ample public car parking in the vicinity of the site including the existing car park on the northern portion of the site, on the opposite side of Queen Street and several other sites in the immediate vicinity of the site.
 - Car parking demand will be shared between the various uses on the site (i.e. café customers

or child care centre parents also visiting the supermarket). There will also be a high proportion of multi-purpose trips between the proposed development and the adjacent developments.

- Approximately 5 motorcycle / scooter parking spaces are also proposed as an alternative to car parking.
- The development requires a minimum of 18 bicycle spaces including, 12 Class 1 spaces and 6 Class 3 spaces. The total provision of 28 spaces satisfies the required number of bicycle parking spaces. It is noted that the LPS4 requires 12 spaces to be individual bicycle lockers. However, it is considered that individual lockers may be inconvenient to use and the enclosed bicycle stores on the second floor are likely to provide adequate security. It is also noted that the previous development was approved without requiring individual bicycle lockers.



Appendix A – SIDRA Intersection Capacity Analysis Results

MOVEMENT SUMMARY

Site: 1 [Queen St / Cantonment St (Site Folder: Existing AM Peak)]

Network: N101 [Existing AM Peak
(Network Folder: General)]

Site Category: -
Roundabout

Vehicle Movement Performance														
Mov ID	Turn	DEMAND FLOWS		ARRIVAL FLOWS		Deg. Satn	Aver. Delay	Level of Service	AVERAGE BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total veh/h	HV] %	[Total veh/h	HV] %				[Veh. veh	Dist] m				
SouthEast: Queen St														
1	L2	82	0.0	82	0.0	0.220	3.1	LOS A	0.6	4.3	0.30	0.45	0.30	38.1
2	T1	101	28.7	101	28.7	0.220	3.1	LOS A	0.6	4.3	0.30	0.45	0.30	38.6
3	R2	67	0.0	67	0.0	0.220	6.0	LOS A	0.6	4.3	0.30	0.45	0.30	36.4
3u	U	13	0.0	13	0.0	0.220	7.3	LOS A	0.6	4.3	0.30	0.45	0.30	39.1
Approach		263	11.0	263	11.0	0.220	4.0	LOS A	0.6	4.3	0.30	0.45	0.30	38.1
NorthEast: Cantonment St														
4	L2	15	0.0	15	0.0	0.071	3.6	LOS A	0.2	1.1	0.38	0.45	0.38	37.0
5	T1	49	0.0	49	0.0	0.071	3.3	LOS A	0.2	1.1	0.38	0.45	0.38	37.9
6	R2	6	0.0	6	0.0	0.071	6.5	LOS A	0.2	1.1	0.38	0.45	0.38	37.9
6u	U	7	0.0	7	0.0	0.071	7.8	LOS A	0.2	1.1	0.38	0.45	0.38	28.8
Approach		77	0.0	77	0.0	0.071	4.0	LOS A	0.2	1.1	0.38	0.45	0.38	37.4
NorthWest: Queen St														
7	L2	7	0.0	7	0.0	0.111	3.8	LOS A	0.2	2.1	0.43	0.48	0.43	36.1
8	T1	77	33.8	77	33.8	0.111	4.1	LOS A	0.2	2.1	0.43	0.48	0.43	38.4
9	R2	9	11.1	9	11.1	0.111	6.9	LOS A	0.2	2.1	0.43	0.48	0.43	38.4
9u	U	8	0.0	8	0.0	0.111	8.0	LOS A	0.2	2.1	0.43	0.48	0.43	38.9
Approach		101	26.7	101	26.7	0.111	4.6	LOS A	0.2	2.1	0.43	0.48	0.43	38.4
SouthWest: Cantonment St														
10	L2	23	0.0	23	0.0	0.125	3.9	LOS A	0.3	2.0	0.44	0.53	0.44	37.8
11	T1	55	3.6	55	3.6	0.125	3.7	LOS A	0.3	2.0	0.44	0.53	0.44	35.9
12	R2	47	2.1	47	2.1	0.125	6.9	LOS A	0.3	2.0	0.44	0.53	0.44	38.3
12u	U	4	0.0	4	0.0	0.125	8.1	LOS A	0.3	2.0	0.44	0.53	0.44	38.8
Approach		129	2.3	129	2.3	0.125	5.0	LOS A	0.3	2.0	0.44	0.53	0.44	37.5
All Vehicles		570	10.4	570	10.4	0.220	4.4	LOS A	0.6	4.3	0.36	0.48	0.36	38.0



MOVEMENT SUMMARY

Site: 1 [Queen St / Cantonment St (Site Folder: Future AM Peak)]

Network: N101 [Future AM Peak
(Network Folder: General)]

Site Category: -
Roundabout

Vehicle Movement Performance														
Mov ID	Turn	DEMAND FLOWS		ARRIVAL FLOWS		Deg. Satn	Aver. Delay	Level of Service	AVERAGE BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total veh/h	HV] %	[Total veh/h	HV] %				[Veh. veh	Dist] m				
SouthEast: Queen St														
1	L2	82	0.0	82	0.0	0.256	3.1	LOS A	0.7	5.1	0.31	0.48	0.31	38.0
2	T1	101	28.7	101	28.7	0.256	3.1	LOS A	0.7	5.1	0.31	0.48	0.31	38.5
3	R2	117	0.0	117	0.0	0.256	6.0	LOS A	0.7	5.1	0.31	0.48	0.31	36.2
3u	U	13	0.0	13	0.0	0.256	7.3	LOS A	0.7	5.1	0.31	0.48	0.31	38.9
Approach		313	9.3	313	9.3	0.256	4.4	LOS A	0.7	5.1	0.31	0.48	0.31	37.8
NorthEast: Cantonment St														
4	L2	47	0.0	47	0.0	0.100	3.6	LOS A	0.2	1.6	0.39	0.46	0.39	37.1
5	T1	49	0.0	49	0.0	0.100	3.3	LOS A	0.2	1.6	0.39	0.46	0.39	37.9
6	R2	6	0.0	6	0.0	0.100	6.5	LOS A	0.2	1.6	0.39	0.46	0.39	37.9
6u	U	7	0.0	7	0.0	0.100	7.8	LOS A	0.2	1.6	0.39	0.46	0.39	28.8
Approach		109	0.0	109	0.0	0.100	3.9	LOS A	0.2	1.6	0.39	0.46	0.39	37.4
NorthWest: Queen St														
7	L2	7	0.0	7	0.0	0.116	4.1	LOS A	0.3	2.2	0.48	0.52	0.48	35.9
8	T1	77	33.8	77	33.8	0.116	4.5	LOS A	0.3	2.2	0.48	0.52	0.48	38.3
9	R2	9	11.1	9	11.1	0.116	7.2	LOS A	0.3	2.2	0.48	0.52	0.48	38.3
9u	U	8	0.0	8	0.0	0.116	8.3	LOS A	0.3	2.2	0.48	0.52	0.48	38.8
Approach		101	26.7	101	26.7	0.116	5.0	LOS A	0.3	2.2	0.48	0.52	0.48	38.2
SouthWest: Cantonment St														
10	L2	23	0.0	23	0.0	0.131	4.3	LOS A	0.3	2.2	0.49	0.56	0.49	37.7
11	T1	55	3.6	55	3.6	0.131	4.1	LOS A	0.3	2.2	0.49	0.56	0.49	35.7
12	R2	47	2.1	47	2.1	0.131	7.2	LOS A	0.3	2.2	0.49	0.56	0.49	38.2
12u	U	4	0.0	4	0.0	0.131	8.5	LOS A	0.3	2.2	0.49	0.56	0.49	38.7
Approach		129	2.3	129	2.3	0.131	5.4	LOS A	0.3	2.2	0.49	0.56	0.49	37.4
All Vehicles		652	9.0	652	9.0	0.256	4.6	LOS A	0.7	5.1	0.38	0.50	0.38	37.7



MOVEMENT SUMMARY

Site: 1 [Queen St / Cantonment St (Site Folder: Existing PM Peak)]

Network: N101 [Existing PM Peak
(Network Folder: General)]

Site Category: -
Roundabout

Vehicle Movement Performance														
Mov ID	Turn	DEMAND FLOWS		ARRIVAL FLOWS		Deg. Satn	Aver. Delay	Level of Service	AVERAGE BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total veh/h	HV] %	[Total veh/h	HV] %				[Veh. veh	Dist] m				
SouthEast: Queen St														
1	L2	104	0.0	104	0.0	0.227	2.9	LOS A	0.6	4.5	0.27	0.45	0.27	38.1
2	T1	92	35.9	92	35.9	0.227	3.0	LOS A	0.6	4.5	0.27	0.45	0.27	38.6
3	R2	66	0.0	66	0.0	0.227	5.9	LOS A	0.6	4.5	0.27	0.45	0.27	36.5
3u	U	18	0.0	18	0.0	0.227	7.2	LOS A	0.6	4.5	0.27	0.45	0.27	39.1
Approach		280	11.8	280	11.8	0.227	3.9	LOS A	0.6	4.5	0.27	0.45	0.27	38.1
NorthEast: Cantonment St														
4	L2	32	0.0	32	0.0	0.076	3.5	LOS A	0.2	1.2	0.37	0.45	0.37	37.1
5	T1	39	0.0	39	0.0	0.076	3.3	LOS A	0.2	1.2	0.37	0.45	0.37	38.0
6	R2	10	0.0	10	0.0	0.076	6.4	LOS A	0.2	1.2	0.37	0.45	0.37	38.0
6u	U	3	0.0	3	0.0	0.076	7.7	LOS A	0.2	1.2	0.37	0.45	0.37	28.9
Approach		84	0.0	84	0.0	0.076	3.9	LOS A	0.2	1.2	0.37	0.45	0.37	37.5
NorthWest: Queen St														
7	L2	10	0.0	10	0.0	0.099	3.8	LOS A	0.2	1.9	0.43	0.47	0.43	36.2
8	T1	68	38.2	68	38.2	0.099	4.1	LOS A	0.2	1.9	0.43	0.47	0.43	38.5
9	R2	9	0.0	9	0.0	0.099	6.7	LOS A	0.2	1.9	0.43	0.47	0.43	38.5
9u	U	2	0.0	2	0.0	0.099	8.0	LOS A	0.2	1.9	0.43	0.47	0.43	39.0
Approach		89	29.2	89	29.2	0.099	4.4	LOS A	0.2	1.9	0.43	0.47	0.43	38.4
SouthWest: Cantonment St														
10	L2	11	0.0	11	0.0	0.115	3.8	LOS A	0.3	1.8	0.42	0.53	0.42	37.8
11	T1	58	0.0	58	0.0	0.115	3.6	LOS A	0.3	1.8	0.42	0.53	0.42	35.9
12	R2	48	0.0	48	0.0	0.115	6.8	LOS A	0.3	1.8	0.42	0.53	0.42	38.3
12u	U	4	0.0	4	0.0	0.115	8.1	LOS A	0.3	1.8	0.42	0.53	0.42	38.8
Approach		121	0.0	121	0.0	0.115	5.0	LOS A	0.3	1.8	0.42	0.53	0.42	37.5
All Vehicles		574	10.3	574	10.3	0.227	4.2	LOS A	0.6	4.5	0.34	0.47	0.34	38.0



MOVEMENT SUMMARY

Site: 1 [Queen St / Cantonment St (Site Folder: Future PM Peak)]

Network: N101 [Future PM Peak
(Network Folder: General)]

Site Category: -
Roundabout

Vehicle Movement Performance														
Mov ID	Turn	DEMAND FLOWS		ARRIVAL FLOWS		Deg. Satn	Aver. Delay	Level of Service	AVERAGE BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total veh/h	HV] %	[Total veh/h	HV] %				[Veh. veh	Dist] m				
SouthEast: Queen St														
1	L2	104	0.0	104	0.0	0.286	3.0	LOS A	0.8	6.0	0.28	0.48	0.28	37.9
2	T1	92	35.9	92	35.9	0.286	3.0	LOS A	0.8	6.0	0.28	0.48	0.28	38.4
3	R2	150	0.0	150	0.0	0.286	5.9	LOS A	0.8	6.0	0.28	0.48	0.28	36.1
3u	U	18	0.0	18	0.0	0.286	7.2	LOS A	0.8	6.0	0.28	0.48	0.28	38.9
Approach		364	9.1	364	9.1	0.286	4.4	LOS A	0.8	6.0	0.28	0.48	0.28	37.6
NorthEast: Cantonment St														
4	L2	124	0.0	124	0.0	0.160	3.6	LOS A	0.4	2.7	0.39	0.47	0.39	37.2
5	T1	39	0.0	39	0.0	0.160	3.4	LOS A	0.4	2.7	0.39	0.47	0.39	38.1
6	R2	10	0.0	10	0.0	0.160	6.5	LOS A	0.4	2.7	0.39	0.47	0.39	38.1
6u	U	3	0.0	3	0.0	0.160	7.8	LOS A	0.4	2.7	0.39	0.47	0.39	29.0
Approach		176	0.0	176	0.0	0.160	3.8	LOS A	0.4	2.7	0.39	0.47	0.39	37.4
NorthWest: Queen St														
7	L2	10	0.0	10	0.0	0.108	4.3	LOS A	0.2	2.0	0.50	0.53	0.50	35.9
8	T1	68	38.2	68	38.2	0.108	4.9	LOS A	0.2	2.0	0.50	0.53	0.50	38.3
9	R2	9	0.0	9	0.0	0.108	7.2	LOS A	0.2	2.0	0.50	0.53	0.50	38.3
9u	U	2	0.0	2	0.0	0.108	8.5	LOS A	0.2	2.0	0.50	0.53	0.50	38.8
Approach		89	29.2	89	29.2	0.108	5.1	LOS A	0.2	2.0	0.50	0.53	0.50	38.1
SouthWest: Cantonment St														
10	L2	11	0.0	11	0.0	0.124	4.4	LOS A	0.3	2.0	0.50	0.57	0.50	37.6
11	T1	58	0.0	58	0.0	0.124	4.2	LOS A	0.3	2.0	0.50	0.57	0.50	35.6
12	R2	48	0.0	48	0.0	0.124	7.3	LOS A	0.3	2.0	0.50	0.57	0.50	38.1
12u	U	4	0.0	4	0.0	0.124	8.6	LOS A	0.3	2.0	0.50	0.57	0.50	38.6
Approach		121	0.0	121	0.0	0.124	5.6	LOS A	0.3	2.0	0.50	0.57	0.50	37.2
All Vehicles		750	7.9	750	7.9	0.286	4.5	LOS A	0.8	6.0	0.37	0.50	0.37	37.6

MOVEMENT SUMMARY

Site: 2 [Cantonment St Access (Site Folder: Future AM Peak)]

Network: N101 [Future AM Peak
(Network Folder: General)]

Site Category: -
Give-Way (Two-Way)

Vehicle Movement Performance														
Mov ID	Turn	DEMAND FLOWS		ARRIVAL FLOWS		Deg. Satn	Aver. Delay	Level of Service	AVERAGE BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total veh/h	HV] %	[Total veh/h	HV] %				[Veh. veh	Dist] m				
NorthEast: Cantonment St														
8	T1	77	0.0	77	0.0	0.064	0.3	LOS A	0.1	0.7	0.23	0.31	0.23	30.0
9	R2	50	0.0	50	0.0	0.064	6.4	LOS A	0.1	0.7	0.23	0.31	0.23	11.3
Approach		127	0.0	127	0.0	0.064	2.7	NA	0.1	0.7	0.23	0.31	0.23	12.9
NorthWest: Site Access														
10	L2	33	0.0	33	0.0	0.041	0.3	LOS A	0.1	0.4	0.20	0.10	0.20	10.0
12	R2	32	0.0	32	0.0	0.041	0.4	LOS A	0.1	0.4	0.20	0.10	0.20	10.0
Approach		65	0.0	65	0.0	0.041	0.4	LOS A	0.1	0.4	0.20	0.10	0.20	10.0
SouthWest: Cantonment St														
1	L2	50	0.0	50	0.0	0.096	7.2	LOS A	0.0	0.0	0.00	0.29	0.00	38.1
2	T1	136	1.5	136	1.5	0.096	0.0	LOS A	0.0	0.0	0.00	0.29	0.00	33.9
Approach		186	1.1	186	1.1	0.096	1.9	NA	0.0	0.0	0.00	0.29	0.00	36.5
All Vehicles		378	0.5	378	0.5	0.096	1.9	NA	0.1	0.7	0.11	0.26	0.11	15.7

MOVEMENT SUMMARY

Site: 2 [Cantonment St Access (Site Folder: Future PM Peak)]

Network: N101 [Future PM Peak
(Network Folder: General)]

Site Category: -
Give-Way (Two-Way)

Vehicle Movement Performance														
Mov ID	Turn	DEMAND FLOWS		ARRIVAL FLOWS		Deg. Satn	Aver. Delay	Level of Service	AVERAGE BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total veh/h	HV] %	[Total veh/h	HV] %				[Veh. veh	Dist] m				
NorthEast: Cantonment St														
8	T1	84	0.0	84	0.0	0.086	0.4	LOS A	0.2	1.1	0.29	0.38	0.29	28.2
9	R2	84	0.0	84	0.0	0.086	6.5	LOS A	0.2	1.1	0.29	0.38	0.29	11.2
Approach		168	0.0	168	0.0	0.086	3.4	NA	0.2	1.1	0.29	0.38	0.29	12.3
NorthWest: Site Access														
10	L2	93	0.0	93	0.0	0.119	0.3	LOS A	0.2	1.2	0.21	0.13	0.21	10.0
12	R2	92	0.0	92	0.0	0.119	0.6	LOS A	0.2	1.2	0.21	0.13	0.21	10.0
Approach		185	0.0	185	0.0	0.119	0.5	LOS A	0.2	1.2	0.21	0.13	0.21	10.0
SouthWest: Cantonment St														
1	L2	84	0.0	84	0.0	0.114	7.2	LOS A	0.0	0.0	0.00	0.39	0.00	37.6
2	T1	137	0.0	137	0.0	0.114	0.0	LOS A	0.0	0.0	0.00	0.39	0.00	32.0
Approach		221	0.0	221	0.0	0.114	2.7	NA	0.0	0.0	0.00	0.39	0.00	36.0
All Vehicles		574	0.0	574	0.0	0.119	2.2	NA	0.2	1.2	0.16	0.30	0.16	13.7

MOVEMENT SUMMARY

Site: 3 [Cantonment St / Goldsbrough St (Site Folder: Existing AM Peak)]

Network: N101 [Existing AM Peak
(Network Folder: General)]

Site Category: -
Give-Way (Two-Way)

Vehicle Movement Performance														
Mov ID	Turn	DEMAND FLOWS		ARRIVAL FLOWS		Deg. Satn	Aver. Delay	Level of Service	AVERAGE BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total veh/h	HV] %	[Total veh/h	HV] %				[Veh. veh	Dist] m				
NorthEast: Cantonment St														
8	T1	79	0.0	79	0.0	0.044	0.0	LOS A	0.0	0.1	0.03	0.03	0.03	39.8
9	R2	5	40.0	5	40.0	0.044	4.0	LOS A	0.0	0.1	0.03	0.03	0.03	39.6
Approach		84	2.4	84	2.4	0.044	0.3	NA	0.0	0.1	0.03	0.03	0.03	39.8
NorthWest: Goldsbrough St														
10	L2	13	15.4	13	15.4	0.018	3.6	LOS A	0.0	0.2	0.12	0.46	0.12	38.4
12	R2	16	0.0	16	0.0	0.018	3.7	LOS A	0.0	0.2	0.12	0.46	0.12	36.9
Approach		29	6.9	29	6.9	0.018	3.7	LOS A	0.0	0.2	0.12	0.46	0.12	37.8
SouthWest: Cantonment St														
1	L2	11	0.0	11	0.0	0.035	3.4	LOS A	0.0	0.0	0.00	0.08	0.00	39.8
2	T1	56	3.6	56	3.6	0.035	0.0	LOS A	0.0	0.0	0.00	0.08	0.00	39.6
Approach		67	3.0	67	3.0	0.035	0.6	NA	0.0	0.0	0.00	0.08	0.00	39.6
All Vehicles		180	3.3	180	3.3	0.044	0.9	NA	0.0	0.2	0.03	0.12	0.03	39.3

MOVEMENT SUMMARY

Site: 3 [Cantonment St / Goldsbrough St (Site Folder: Future AM Peak)]

Network: N101 [Future AM Peak
(Network Folder: General)]

Site Category: -
Give-Way (Two-Way)

Vehicle Movement Performance														
Mov ID	Turn	DEMAND FLOWS		ARRIVAL FLOWS		Deg. Satn	Aver. Delay	Level of Service	AVERAGE BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total veh/h	HV] %	[Total veh/h	HV] %				[Veh. veh	Dist] m				
NorthEast: Cantonment St														
8	T1	129	0.0	129	0.0	0.069	0.0	LOS A	0.0	0.1	0.02	0.02	0.02	39.9
9	R2	5	40.0	5	40.0	0.069	4.1	LOS A	0.0	0.1	0.02	0.02	0.02	39.6
Approach		134	1.5	134	1.5	0.069	0.2	NA	0.0	0.1	0.02	0.02	0.02	39.8
NorthWest: Goldsbrough St														
10	L2	13	15.4	13	15.4	0.019	3.7	LOS A	0.0	0.2	0.16	0.47	0.16	38.4
12	R2	16	0.0	16	0.0	0.019	3.8	LOS A	0.0	0.2	0.16	0.47	0.16	36.7
Approach		29	6.9	29	6.9	0.019	3.8	LOS A	0.0	0.2	0.16	0.47	0.16	37.7
SouthWest: Cantonment St														
1	L2	11	0.0	11	0.0	0.052	3.4	LOS A	0.0	0.0	0.00	0.05	0.00	40.0
2	T1	89	2.2	89	2.2	0.052	0.0	LOS A	0.0	0.0	0.00	0.05	0.00	39.7
Approach		100	2.0	100	2.0	0.052	0.4	NA	0.0	0.0	0.00	0.05	0.00	39.7
All Vehicles		263	2.3	263	2.3	0.069	0.6	NA	0.0	0.2	0.03	0.08	0.03	39.5

MOVEMENT SUMMARY

▼ Site: 3 [Cantonment St / Goldsbrough St (Site Folder: Existing PM Peak)]

■ Network: N101 [Existing PM Peak
(Network Folder: General)]

Site Category: -
Give-Way (Two-Way)

Vehicle Movement Performance														
Mov ID	Turn	DEMAND FLOWS		ARRIVAL FLOWS		Deg. Satn	Aver. Delay	Level of Service	AVERAGE BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total veh/h	HV] %	[Total veh/h	HV] %				[Veh. veh	Dist] m				
NorthEast: Cantonment St														
8	T1	57	0.0	57	0.0	0.030	0.0	LOS A	0.0	0.0	0.02	0.02	0.02	39.8
9	R2	2	0.0	2	0.0	0.030	3.7	LOS A	0.0	0.0	0.02	0.02	0.02	39.8
Approach		59	0.0	59	0.0	0.030	0.1	NA	0.0	0.0	0.02	0.02	0.02	39.8
NorthWest: Goldsbrough St														
10	L2	20	0.0	20	0.0	0.035	3.6	LOS A	0.0	0.3	0.14	0.47	0.14	38.4
12	R2	36	0.0	36	0.0	0.035	3.7	LOS A	0.0	0.3	0.14	0.47	0.14	36.8
Approach		56	0.0	56	0.0	0.035	3.7	LOS A	0.0	0.3	0.14	0.47	0.14	37.6
SouthWest: Cantonment St														
1	L2	15	0.0	15	0.0	0.052	3.4	LOS A	0.0	0.0	0.00	0.07	0.00	39.9
2	T1	87	0.0	87	0.0	0.052	0.0	LOS A	0.0	0.0	0.00	0.07	0.00	39.6
Approach		102	0.0	102	0.0	0.052	0.5	NA	0.0	0.0	0.00	0.07	0.00	39.7
All Vehicles		217	0.0	217	0.0	0.052	1.2	NA	0.0	0.3	0.04	0.16	0.04	39.1

MOVEMENT SUMMARY

▼ Site: 3 [Cantonment St / Goldsbrough St (Site Folder: Future PM Peak)]

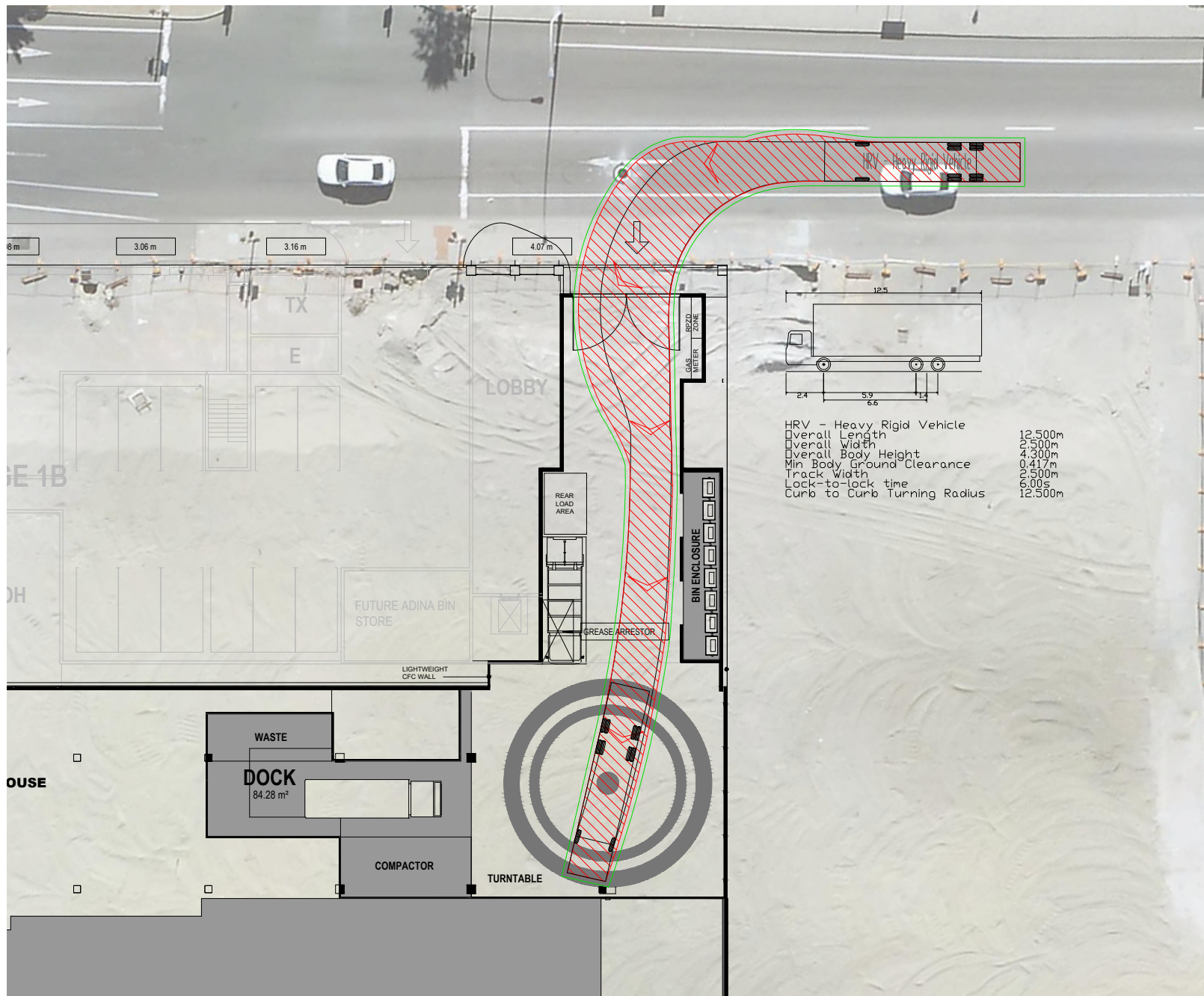
■ Network: N101 [Future PM Peak
(Network Folder: General)]

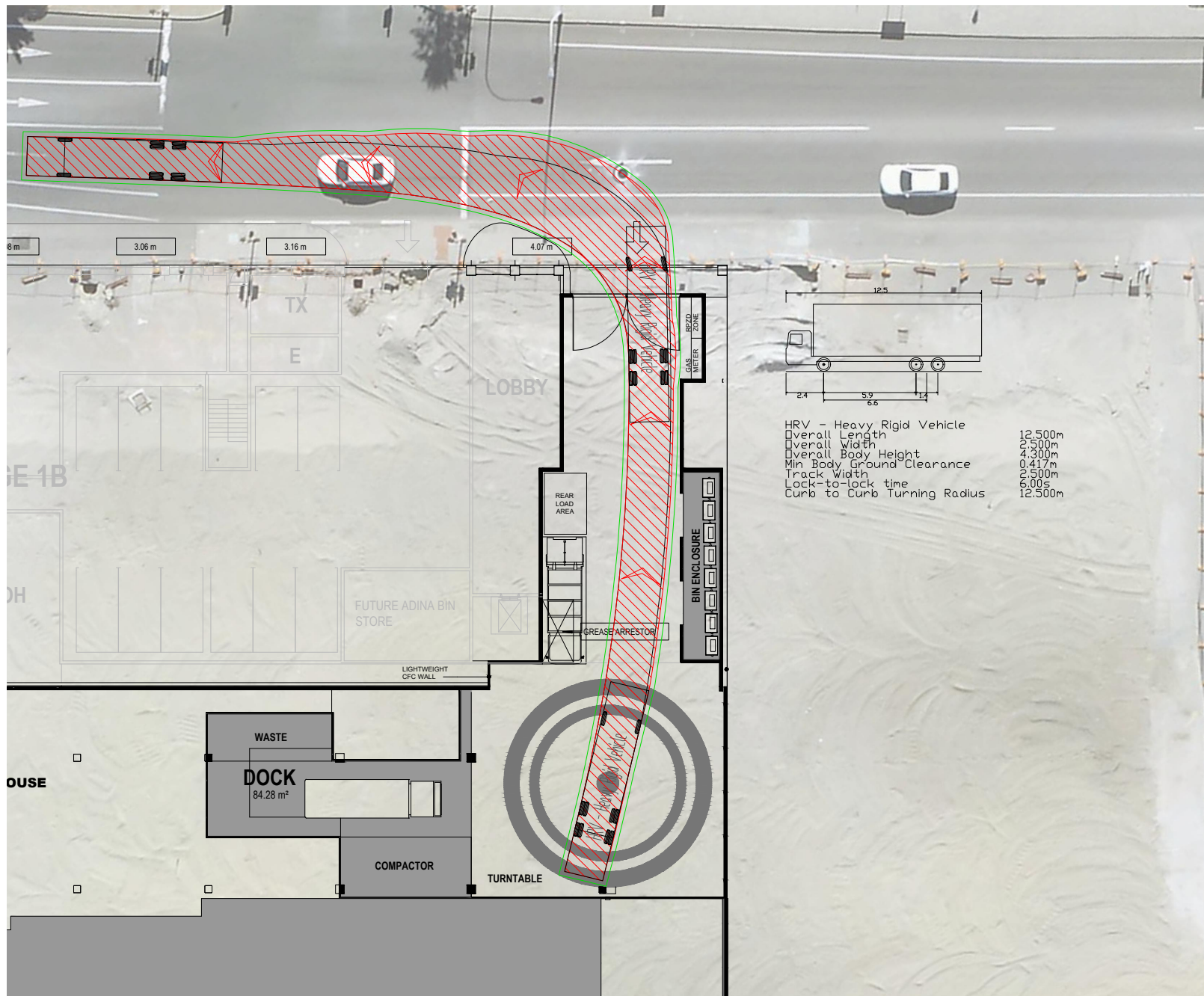
Site Category: -
Give-Way (Two-Way)

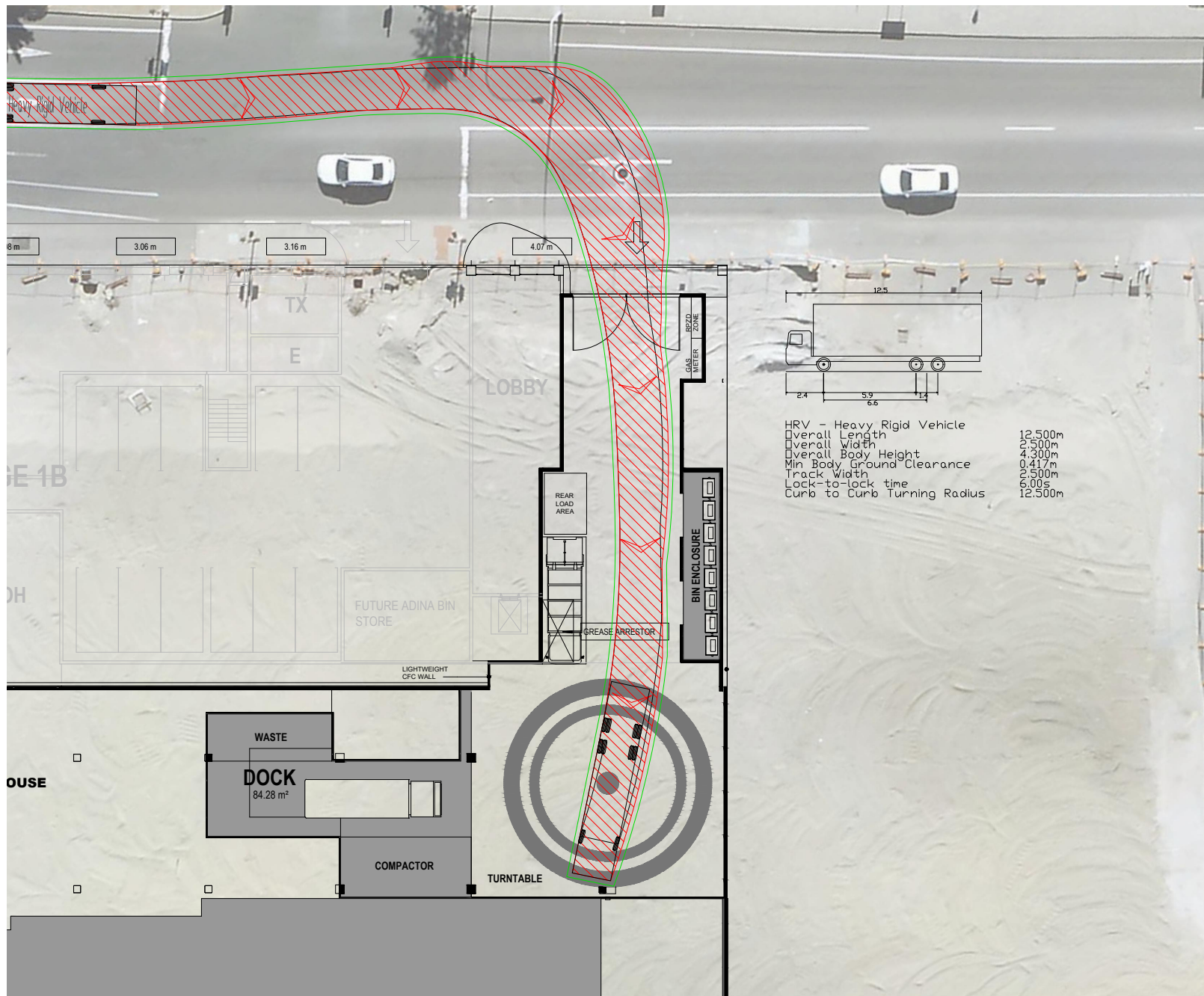
Vehicle Movement Performance														
Mov ID	Turn	DEMAND FLOWS		ARRIVAL FLOWS		Deg. Satn	Aver. Delay	Level of Service	AVERAGE BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total veh/h	HV] %	[Total veh/h	HV] %				[Veh. veh	Dist] m				
NorthEast: Cantonment St														
8	T1	141	0.0	141	0.0	0.073	0.0	LOS A	0.0	0.0	0.01	0.01	0.01	39.9
9	R2	2	0.0	2	0.0	0.073	4.0	LOS A	0.0	0.0	0.01	0.01	0.01	39.8
Approach		143	0.0	143	0.0	0.073	0.1	NA	0.0	0.0	0.01	0.01	0.01	39.9
NorthWest: Goldsbrough St														
10	L2	20	0.0	20	0.0	0.038	3.8	LOS A	0.0	0.3	0.23	0.50	0.23	38.3
12	R2	36	0.0	36	0.0	0.038	4.0	LOS A	0.0	0.3	0.23	0.50	0.23	36.6
Approach		56	0.0	56	0.0	0.038	3.9	LOS A	0.0	0.3	0.23	0.50	0.23	37.5
SouthWest: Cantonment St														
1	L2	15	0.0	15	0.0	0.099	3.4	LOS A	0.0	0.0	0.00	0.04	0.00	40.0
2	T1	180	0.0	180	0.0	0.099	0.0	LOS A	0.0	0.0	0.00	0.04	0.00	39.8
Approach		195	0.0	195	0.0	0.099	0.3	NA	0.0	0.0	0.00	0.04	0.00	39.8
All Vehicles		394	0.0	394	0.0	0.099	0.7	NA	0.0	0.3	0.04	0.09	0.04	39.4

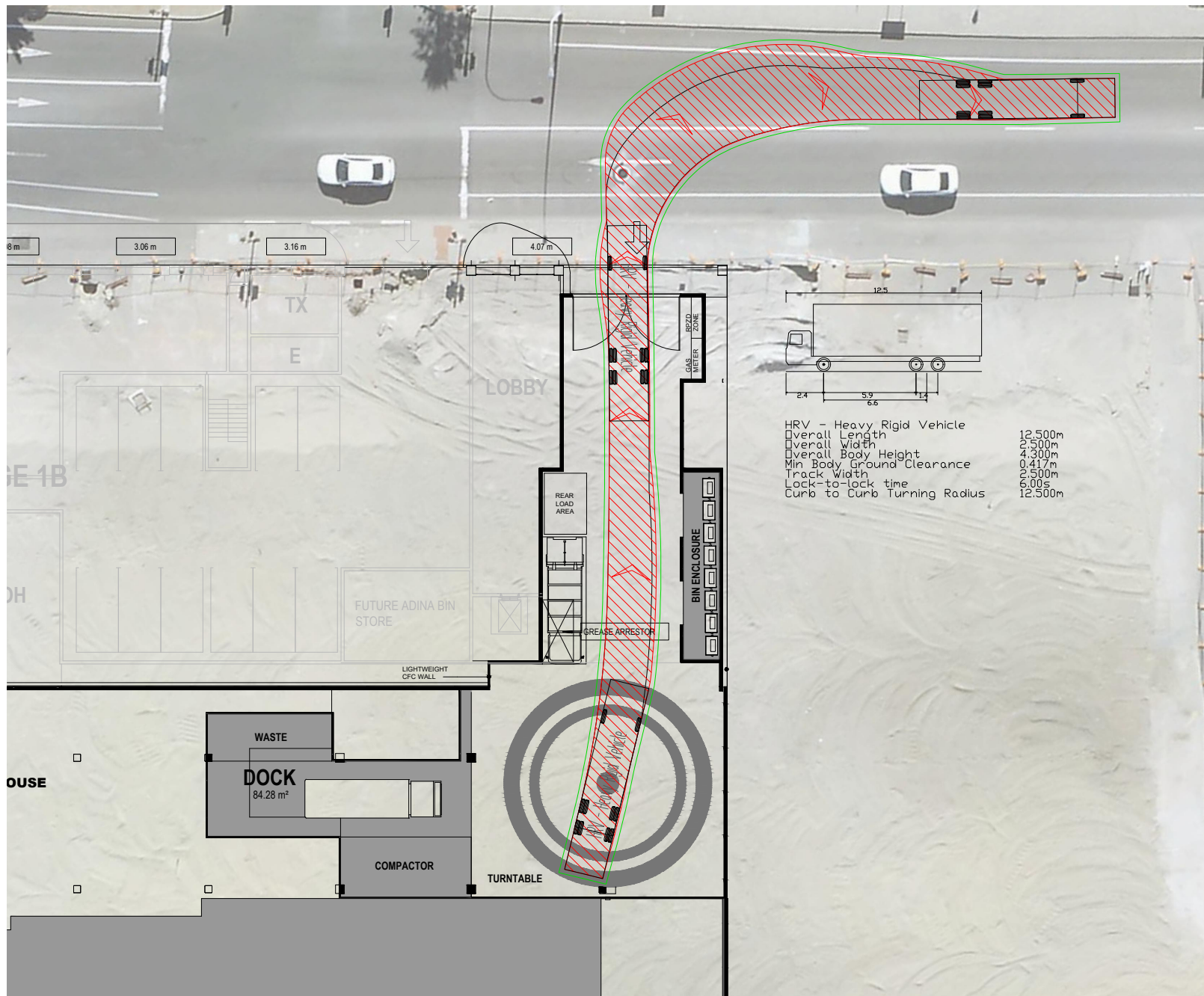


Appendix B – Swept Path Analysis









SILVERLEAF INVESTMENTS Pty Ltd

**WOOLSTORES STAGE 1A
FREMANTLE**

**DEVELOPMENT APPLICATION
ACOUSTIC REPORT**

AUGUST 2022

OUR REFERENCE: 29892-2-22253

DOCUMENT CONTROL PAGE

DA ACOUSTIC REPORT
WOOLSTORES STAGE 1A
FREMANTLE

Job No: 22253

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FOR

SILVERLEAF INVESTMENTS Pty Ltd

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1.0 INTRODUCTION

Herring Storer Acoustics was commissioned by PTS Town Planning, on behalf of Silverleaf Investments Pty Ltd, to conduct a preliminary review of the proposed Stage 1A Woolstores development, located at 28 Cantonment Street, Fremantle to support the development application.

Stage 1A of the development comprises of the following:

- Coles Supermarket and commercial retail tenancies on the ground floor.
- Car parking; office tenancies and child care on the upper levels (ie levels 1 – 3).

This report has been based on the Development Application drawings provided.

2.0 CRITERIA

2.1 ENVIRONMENTAL PROTECTION (NOISE) REGULATIONS 1997

The allowable noise level for noise sensitive premises in the vicinity of the proposed development site is prescribed by the *Environmental Protection (Noise) Regulations 1997*. Regulations 7 and 8 stipulate maximum allowable external noise levels or assigned noise levels that can be received at a premise from another premises. For residential premises, this noise level is determined by the calculation of an influencing factor, which is then added to the base levels shown below. The influencing factor is calculated for the usage of land within two circles, having radii of 100m and 450m from the premises of concern. The base noise levels for residential premises are listed in Table 2.1.

TABLE 2.1 – ASSIGNED NOISE LEVELS

Premises Receiving Noise	Time of Day	Assigned Level (dB)		
		L _A 10	L _A 1	L _A max
Noise sensitive premises within 15 metres of a dwelling (Highly Sensitive Areas)	0700 - 1900 hours Monday to Saturday	45 + IF	55 + IF	65 + IF
	0900 - 1900 hours Sunday and Public Holidays	40 + IF	50 + IF	65 + IF
	1900 - 2200 hours all days	40 + IF	50 + IF	55 + IF
	2200 hours on any day to 0700 hours Monday to Saturday and 0900 hours Sunday and Public Holidays	35 + IF	45 + IF	55 + IF

Note: The L_{A10} noise level is the noise that is exceeded for 10% of the time.
The L_{A1} noise level is the noise that is exceeded for 1% of the time.
The L_{Amax} noise level is the maximum noise level recorded.

Where the above characteristics are present and cannot be practicably removed, the following adjustments are made to the measured or predicted level at other premises.

TABLE 2.2 – ADJUSTMENTS FOR ANNOYING CHARACTERISTICS

Where tonality is present	Where modulation is present	Where impulsiveness is present
+ 5 dB	+ 5 dB	+ 10 dB

For information, an aerial view of the development site is shown below, as Figure 2.1.



FIGURE 2.1 – AERIAL VIEW OF DEVELOPMENT

For this development, technically, the hotel rooms would be the closest neighbouring noise sensitive premises. At this location, the Influencing Factor would be as outlined in below in Table 2.3.

TABLE 2.3 – INFLUENCING FACTOR CALCULATION

Influencing Factor Parameter	Influencing Factor (dB)
Major Road within inner circle	-
Major Road within outer circle	+2
Secondary Road within inner circle	+2
Commercial Premises within inner circle	+3 (60%)
Commercial Premises within outer circle	+2.5 (50%)
Industrial Premises within inner circle	-
Industrial Premises within outer Circle	1.5 (15%)
TOTAL IF	+11 dB

Based on the above Influencing Factor, the Assigned noise level would be as listed in Table 2.4.

TABLE 2.4 - ASSIGNED OUTDOOR NOISE LEVELS

Premises Receiving Noise	Time of Day	Assigned Level (dB)		
		L _{A10}	L _{A1}	L _{Amax}
Noise sensitive premises: Highly sensate area (within 15 metres of a dwelling)	0700 - 1900 hours Monday to Saturday	56	66	76
	0900 - 1900 hours Sunday and Public Holidays	51	61	76
	1900 - 2200 hours all days	51	61	66
	2200 hours on any day to 0700 hours Monday to Saturday and 0900 hours Sunday and Public Holidays	46	56	66
Commercial Premises	All Hours	60	75	80

2.2 NOISE INGRESS

There are several noise ingress policies that may be applicable to this development (ie the child care centre), consisting of:

Fremantle Sound Attenuation Policy
WAPC State Planning Policy 5.4 – Road and Rail Transport Noise
Fremantle Port Buffer Area Development Guidelines.

Both the Fremantle Sound Attenuation Policy and the WAPC State Planning Policy result in the same criteria, as listed below:

- L_{eq} 35 dB(A) in sleeping areas (ie Cot room of child care centre); and
- L_{eq} 40 dB(A) in living/work areas and other habitable rooms.

The Fremantle Port Policy dictates minimum construction requirements based on the proximity to the Fremantle Port.

2.2.1 STATE PLANNING POLICY 5.4

Under the WAPC State Planning Policy 5.4, for this development, the appropriate “Noise Targets” to be achieved under SPP 5.4, external to a residence or noise sensitive premises are:

External	
Day	55 dB(A) L_{Aeq}
Night	50 dB(A) L_{Aeq}

The policy states that the “outdoor targets are to be met at all outdoor areas as far as reasonable and practical to do so using the various noise mitigation measures outlined in the guidelines”. The Policy also states, under Section 6 – Policy Measures that “a reasonable degree of acoustic amenity for living areas on each residential lot”. The policy recognises that “it may not be practicable to meet the outdoor noise targets”.

Under the Policy for non-residential noise sensitive premises, internal noise levels should meet the design sound levels as listed in Table 1 of AS/NZ 2107:2000 “Acoustics – Recommended design sound levels and reverberation times for building interiors”. Under AS 2017, the internal criteria would:

Sleep Rooms	-	$L_{Aeq(Day)}$ of 35 dB(A).
Play/Group Rooms	-	$L_{Aeq(Day)}$ of 40 dB(A).
Staff Room	-	$L_{Aeq(Day)}$ of 45 dB(A).
Office	-	$L_{Aeq(Day)}$ of 40 dB(A).
Reception	-	$L_{Aeq(Day)}$ of 45 dB(A).
Work areas (eg: Laundry)	-	$L_{Aeq(Day)}$ of 50 dB(A).

Figure 2.2 below show that the development is within the Trigger Distance for both the freight and passenger railway lines.



FIGURE 2.2 – STATE PLANNING POLICY 5.4 TRIGGER DISTANCES

2.2.2 FREMANTLE PORT / CITY OF FREMANTLE LOCAL PLANNING POLICY

Under the Fremantle Inner Harbour Buffer Definition Study and City of Fremantle Local Planning Policy 2.3 “Fremantle Port Buffer Area Development Guidelines” the acoustic requirement is the same. This development is within Area 2. For these zoning, with regards to noise, there is a requirement under the policy to minimise the impact of noise transmission emanating from the Port, with attenuation in the order of 30 dB(A) respectively.

It is understood that this requirement is based on the internal areas of sensitive uses, such as Childcare facilities, meeting the requirements listed in AS2107:2000, which be as listed above in Section 2.2.1 – State Planning Policy 5.4.

It is noted that the requirements of both these Policies with relation to noise are consistent and the acoustic requirements states are the same under both policies.

For information, Figure 2.3 below shows the designation of Areas under the policy.

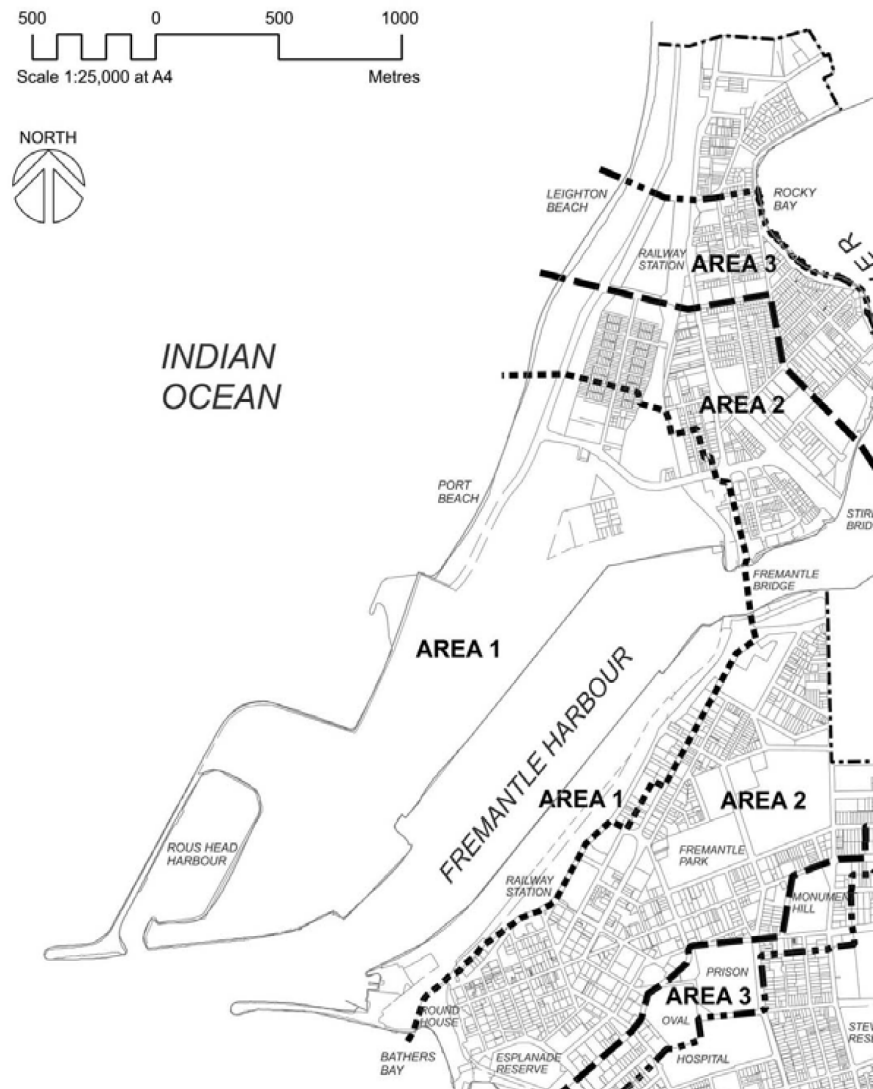


FIGURE 2.3 – FREMANTLE HARBOUR BUFFER AREAS

From the above, this development is within Area 2. We note that the policy, under the Section - Built Form, also states under *Windows and openings* the following for Area 2:

AREA 2

Within Area 2, buildings shall be designed so as to incorporate all of the following design and construction features:

Windows and openings

- a) *Any glass used for windows or other openings shall be laminated safety glass of minimum thickness 6 mm or "double glazed" utilising laminated or toughened safety glass of minimum thickness 3 mm.*
- d) *All safety glass shall be manufactured and installed to an appropriate Australian Standard.*

Air - conditioning systems

- c) *As per Area 1 (f) above.*

Construction

- d) Quiet house design guidelines shall be applied to residential development.*
- e) All developments shall incorporate roof insulation.*

- Note:**
- 1) The City recognises that this requirement may not be possible to achieve in the case of the proposals involving the adaptation / reuse of buildings of conservation and heritage significance.*
 - 2) The City may accept alternative built form treatments subject to the applicant satisfactorily demonstrating fulfilment of the potential risk and amenity considerations outlined above. Alternative treatments shall be justified to the City through submission of professionally prepared and certified reports.*

Notifications on Titles are required for residences / noise sensitive premises within Area 2.

3.0 NOISE INGRESS

A short term noise level measurement was recorded at boundary of the development along Elder Street on the 5th March 2021 during the afternoon peak, with a noise level of 68 dB(A) recorded.

Additional to the above, a noise level on the roof of the existing building, at 10 metres from the façade, was record on 25th March 2021. During these measurements, road / rail noise was recorded at 57 dB(A).

Given the location of the child care centre, being on the south eastern side of the development (ie far side from Port and Railway lines), we believe that compliance with State Planning Policy 5.4 would be achieved with standard constructions. Thus, the required glazing for the child care centre would be the be the 6mm default glazing, as required under the City of Fremantle's Planning Policy 2.3. Thus, the use of the above glazing would be compliant with the Port Buffer Policies.

As part of the design process, a full assessment of noise ingress will be undertaken to ensure compliance with all noise ingress requirements.

4.0 NOISE FROM DEVELOPMENT

The main source of noise from the proposed development will be from mechanical services consisting of air-conditioning plant and perhaps carpark ventilation fans. Noise received at neighbouring premises, and premises within the development, from these items need to comply with the assigned noise levels as determined under the *Environmental Protection (Noise) Regulations 1997*.

4.1 MECHANICAL SERVICES

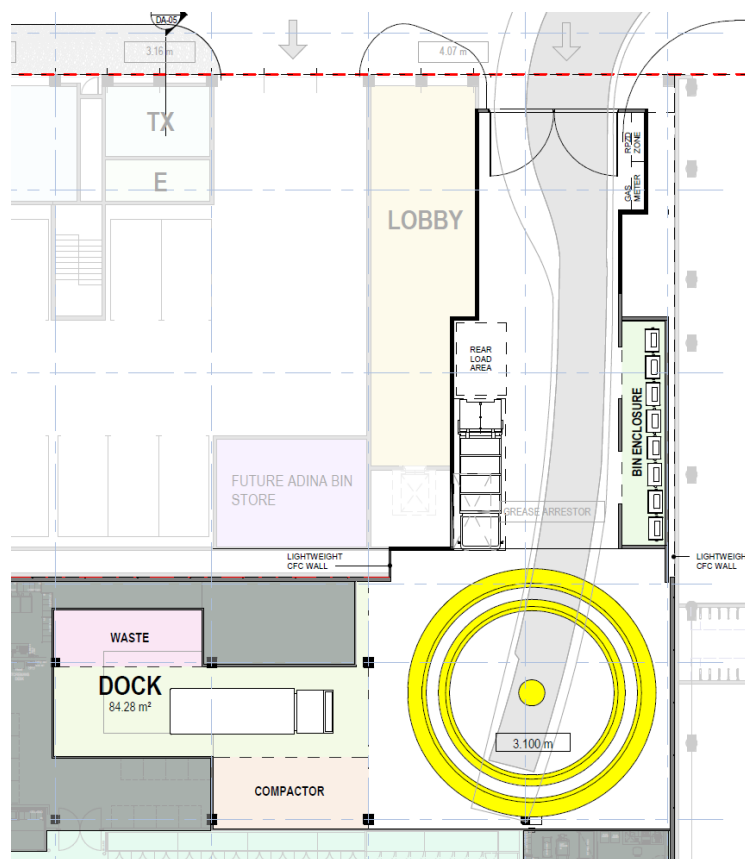
The main source of noise from the proposed development will be from mechanical services consisting of car-park ventilation fans (if needed) and air-conditioning plant. Noise received at residence (neighbours and residence within the development) from these items need to comply with the assigned noise levels as determined under the *Environmental Protection (Noise) Regulations 1997*.

For this development, the critical period for compliance would be the day period on a Sunday or Public Holiday, when the majority of the mechanical services could be running, however, the assigned L_{A10} noise level would be 51 dB(A) at residential premises. Potentially, noise emissions from mechanical services could be tonal, in which case an +5 dB(A) penalty for a tonal component could be applied to the resultant noise levels. Therefore, the design level at the neighbouring residential premises would be 46 L_{A10} dB.

Noting the above, given the reduction in noise emissions for the mechanical services being on part load, we believe that compliance with the night period L_{A10} regulatory noise level of 46 dB(A) would be easily achieved, even with the inclusion of a + 5 dB(A) penalty for a tonal component. However, as part of the design process, acoustical assessment would be undertaken for all time periods, to ensure that compliance with requirements of the Environmental Protection (Noise) regulations 1997 would be achieved at all times.

4.2 LOADING DOCK

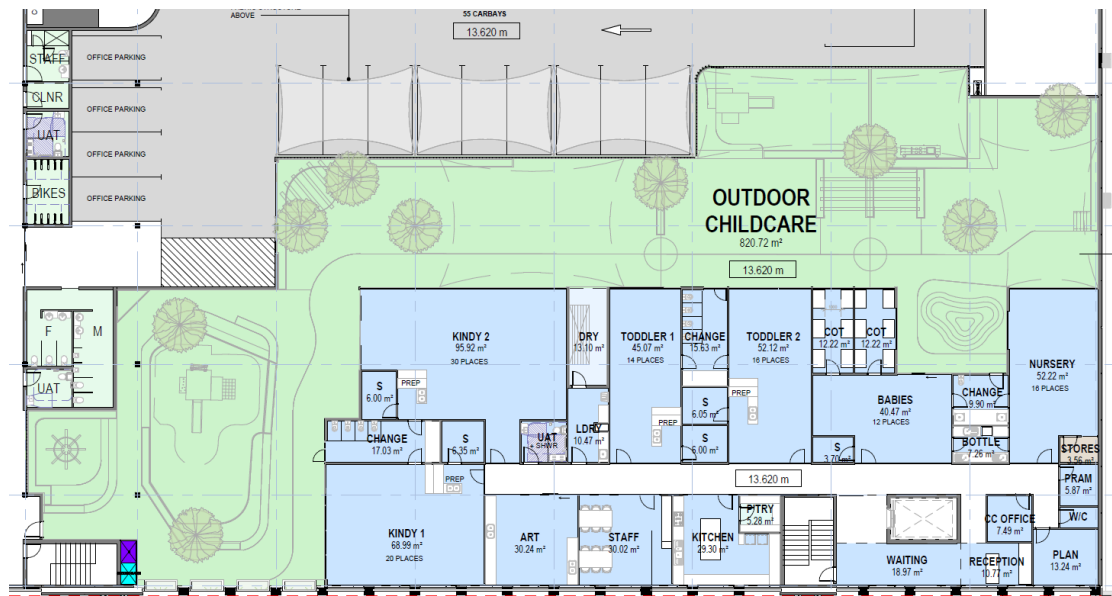
As shown below, it is noted that the Coles loading dock is located internally within the building.



Noting the location, noise received at the neighbouring premises from the loading dock would easily comply with the Regulatory criteria at all times.

4.3 CHILD CARE OUTDOOR PLAY

As shown below, it is noted that the outdoor play area is located internally within the development.



Noting the location, noise received at the neighbouring premises from the outdoor area of the child care centre would easily comply with the assigned day period L_{A10} regulatory noise level of 51 dB(A).

Even so, an assessment of noise emissions from the outdoor play area would be undertaken during the design process, to ensure compliance with the Regulatory requirements; and whether any restrictions of the usage of the outdoor area (ie before 7:00 am) are required.

September 2022

Fremantle Woolstores Redevelopment

Sustainable Design Assessment Report

Graham Agar
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E-mail: graham.agar@fcds.com.au	Original Date of Issue: 11 th September 2022
ACN: 163 742 890	
ABN: 84 163 742 890	

Title:	Fremantle Woolstores Redevelopment – Sustainable Design Assessment Report
Author :	Graham Agar
Client:	CCN / Silverleaf
Contact:	Keat Tan/ Robert O’Brien
Description:	This report provides a brief summary of the proposed sustainable design strategy for the proposed commercial redevelopment of the Woolstores Site, on the corner of Cantonment and Queen Street in Fremantle WA. The report outlines overall intent and sustainable design features to be included within the design, as well as an overall assessment of the expected outcome for the project.

Revision	Date	Checked by	Transmitted by
A	11 th September 2022		GEA
B	18 th September 2022		GEA

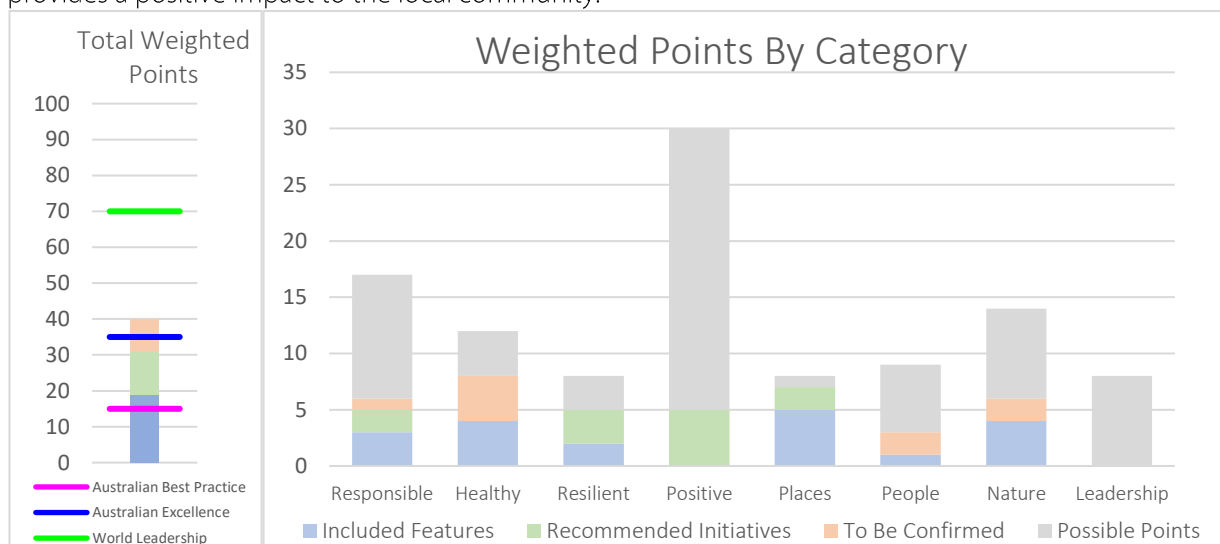
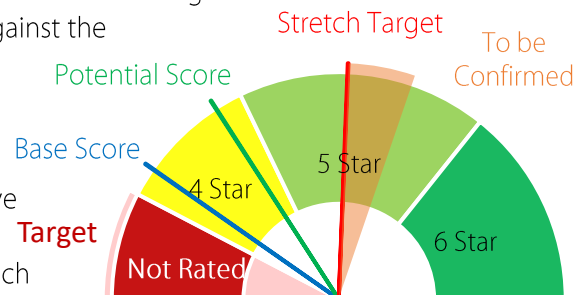
Distribution	Revision							
Receiver	A	B						
Silverleaf	X	X						
CCN	X	X						
City of Fremantle								
Consultant Team	X							

Executive Summary

This report provides a summary of the sustainable design inclusions and intended pathway for the redevelopment of the Fremantle Woolstores, on the corner of Cantonment Street and Queen Street in Fremantle. The development is considered an exciting proposal for the area, revitalising the supermarket offering and, at completion, providing short stay accommodation, office space, child-care services and a range of complementary offerings for the community.

The project has set itself high sustainable design targets, seeking to achieve a minimum 4-star Green Star self-assessed outcome. In addition, the design team are seeking to include health and wellness initiatives, benchmarked against the Fitwel rating tool.

FCDS assessment of the current project documentation indicates an expected Green Star Buildings score of 19%. Recommended features are sufficient to achieve 31% of available credits, with a strong emphasis on delivering a responsible and healthy development which provides a positive impact to the local community:



Some key features to be included are:

- Features to support Carbon Neutral Operations certification under the Climate Active standard
- Sustainable building management practices for the building and tenancies.
- Active building tuning and optimisation– targeted NABERS certification in operation.
- Water efficient landscape and irrigation systems.
- Building envelope pressure testing
- 100kW Peak Output Solar Array (nominal offset of more than 50 tonnes of CO_{2(e)} per annum)
- Best Practice Operation and Maintenance Manuals
- High performance building envelope – targeting 15% improvement over BCA minimum

The project has already included sufficient features to exceed the 4-Star benchmark by ~20%, with recommended features to reach 4.8* Stars and a stretch target well above the 5-Star threshold. FCDS are therefore very confident of easily exceeding the project design targets.

Note, the GBCA does not award partial stars, 4.8 stars indicates features 80% of the way between 4 and 5 stars

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1. Introduction

FCDS are commissioned to assist the design team in meeting the sustainable design reporting to assist Silverleaf in delivering a Best Practice development and also to meet the reporting required by the City of Fremantle.

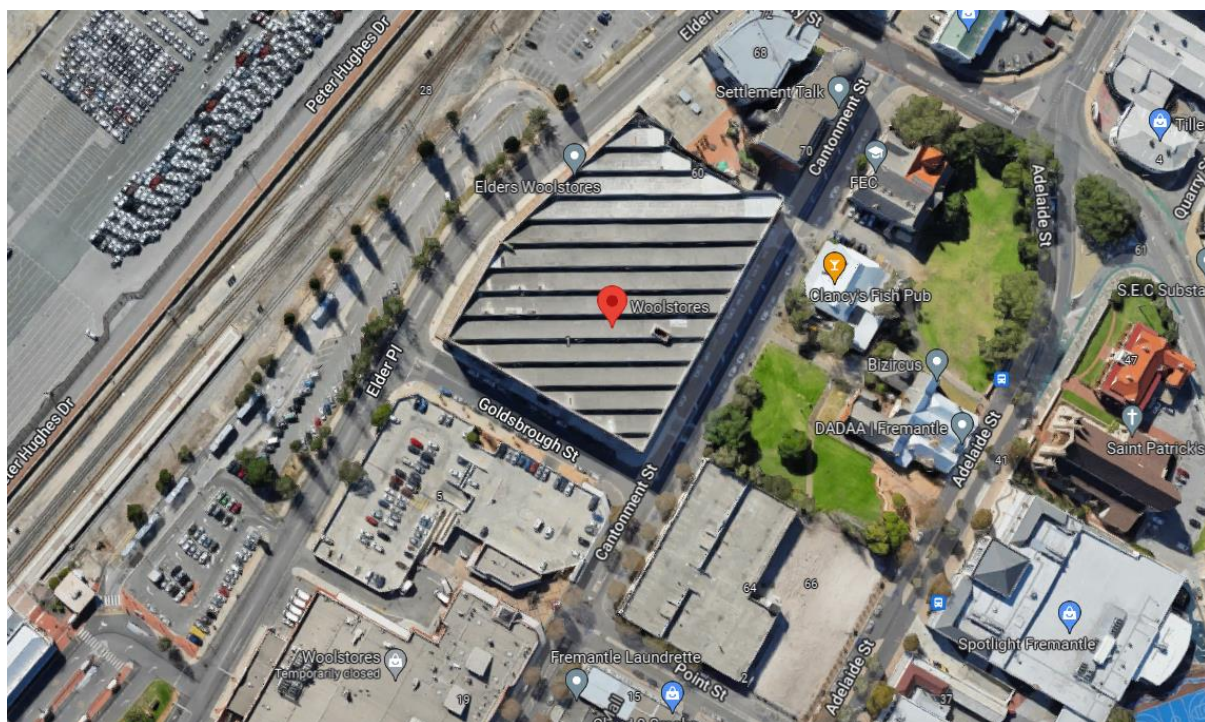
FCDS propose to utilise the Green Star Buildings tool, targeting a self-assessment at >15% - 4 Star / Best Practice level – to benchmark against in meeting these requirements. FCDS assessment of the current project documentation indicates an expected Green Star Buildings score of 19%, with recommended features reaching 31%, approximately 80% of the way between 4 and 5 stars:

1.1 Site Description

The proposed project is a commercial development in Fremantle, on the site of the old Woolstores. The project is to be developed in stages, with this report addressing Stage 1, a supermarket, child care and office / specialty store tenancies.

The proposed development delivers around 165 car bays and more than 6,000m² of occupied area.

The developer – Silverleaf – is committed to a high quality sustainable design outcome and has elected to utilise the new Green Star Buildings tool to demonstrate Best Practice in sustainable design.



1.2 Sustainability Targets

The project is aiming to achieve at least 15% (4 Star / Best Practice level) when self-assessed under the Green Star Buildings rating system.

Design features to prioritise energy efficiency and simplification of operations as well as improving occupant comfort should be prioritised.

Category	Target	Design Team Response
General Sustainability	Best Practice Design	The project is targeting a self-assessment to 15% under the Green Star Buildings rating tool – representative of 4 stars – Best Practice.
	Operational Performance	Monitor and tune building performance in operation – targeting <150 kWhrs p.a. per m ² .
Energy Consumption	10% Improvement over BCA 2019 - Envelope	This will require insulation and glazing performance in excess of minimum standard but will reduce operational costs and improve climate resilience.
	15% Improvement over BCA 2019 Minimum Practice - Overall	• Energy efficient services (lighting and mechanical in particular) to be provided. • Reverse cycle heat pump for domestic hot water with high (>3.5) COP.
	Renewable Energy	The project should include a solar photovoltaic array. Ideally, up to 100kW, but to 30kW where no embedded network is provided.
Water Consumption	Low Flow Tapware	Ensure all taps, showers, WC's, urinals, dishwashers and washing machines (if provided) are within 1 star of the best available WELS rating.
	Waterwise Irrigation	Utilise drought tolerant and native planting where possible. Utilise rain / moisture sensing and sub-soil drip irrigation for all planted areas.
Waste Targets	75%+ Recycling in operation	Design to facilitate capture of recyclable goods and use of comingled recycling. Minimum three waste streams to be collected.
	>90% Recycling in construction	Use of high efficiency resource recovery facility to sort waste in construction.
Durability	>10 Years for Common Area Finishes	Internal finishes should target >10 year life spans, with minimal repair and maintenance rather than regular replacement.
Indoor Environment Quality	Mixed Mode Operation	Childcare to be able to function in air conditioned or naturally ventilated modes.

The project is aiming to undertake a self-assessment only, using the Green Star Buildings tool for benchmarks.

1.3 Green Star Buildings

The Buildings Tool is relatively new, with benchmarks representing an increased level of performance and a change in the focus of the tool.

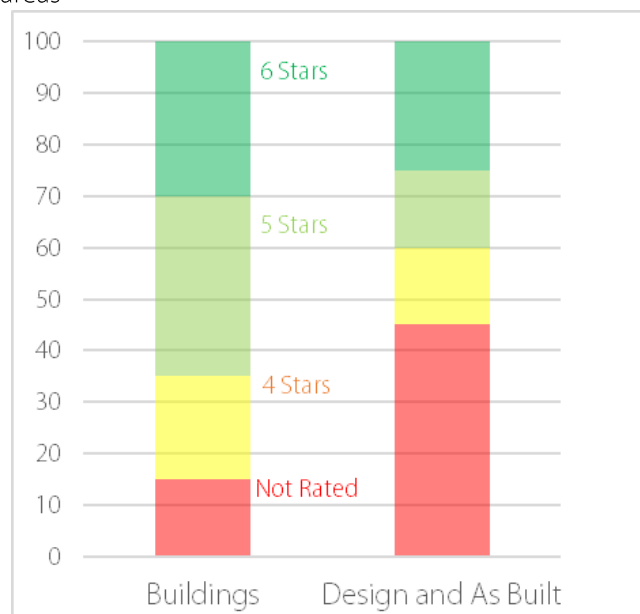
Buildings superseded the Design and As Built tool in late 2021. The tool is a significant change to the current framework, seeking to provide a much stronger line towards addressing key sustainable design issues and challenges, simplifying certification at a 4-Star level and raising the bar significantly for 5-Star and 6-Star projects.

In terms of seeking certification, the required number of additional credits has been decreased significantly:

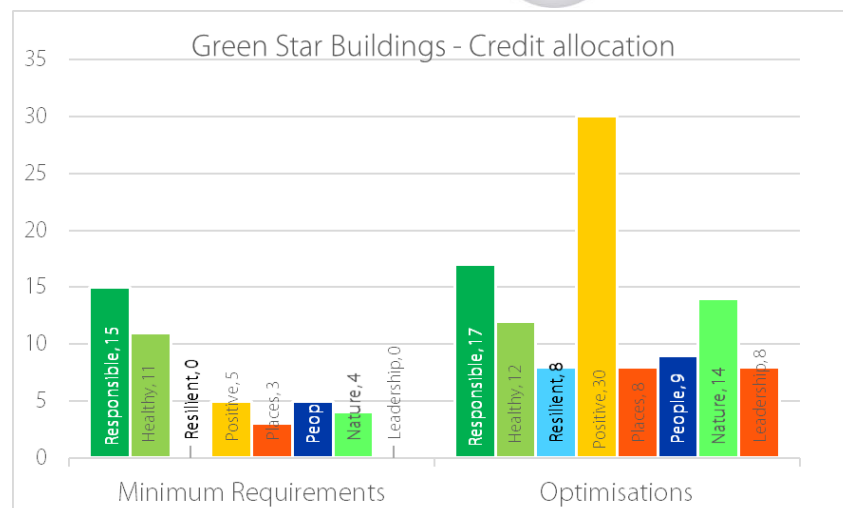
Star Rating	Design and As Built V1.3	Buildings
4 Star – Best Practice	45 Points	15 Points
5 Star – Australian Excellence	60 Points	35 points
6 Star – World Leadership	75 Points	70 Points

However, the minimum expectations – eligibility requirements – have been increased for all buildings, to include:

- Protection of environmentally significant areas
- Reduced carbon emissions in **construction** and operations
- Water efficiency
- Improved indoor environment
- Promotion of physical activity
- Consideration of climate change impacts
- Reduces environmental impacts during construction
- Embraces diversity
- Reduces operational waste
- Undergoes performance verification



The credit categories have also changed, however, the overarching intent of the tool generally remains, albeit with an increased emphasis of planning and consultancy:



Buildings	Sustainable Design Features	Design and As Built Link
Responsible	Features which are intended to minimise ecological footprint by control of the design, construction and commissioning process. The features also include elements to optimise operational performance through design of effective spaces and measuring consumption.	- Management - Materials
Healthy	Features aiming to ensure the building provides a strong response to occupant health and wellbeing.	Indoor Environment Quality (IEQ)
Resilient	Rewards projects preparing and for the imminent impacts of climate change, including provision of support to the surrounding community. Shocks to power infrastructure, ongoing weather pattern adjustment and the urban heat island effect	- Management - Energy - Water - Emissions
Positive	Design elements which contribute positively to the environment. Buildings must minimise harm as a starting point and also act as a restorative force for good to achieve points.	- Energy - Water - Emissions
Places	Features which reflect outcomes that are linked to the location and nature of the development. Points are achieved by reducing the impacts of transport – on the environment and occupant health.	- Transport - Ecology
People	Features which improve social sustainability outcomes within the development and community.	- Transport - Innovation
Nature	Features and design solutions which prioritise and restore the natural environment around prospective developments	- Ecology - Emissions
Leadership	The category for projects to demonstrate leadership beyond the scope of the current Green Star framework, addressing Challenges which have been developed by the GBCA or which break barriers and inspire others to follow.	Innovation

2. Responsible Design Features

The Responsible category refers to credits which are intended to minimise ecological footprint by control of the design, construction and commissioning process. The features also include elements to optimise operational performance through design of effective spaces and measuring consumption.

The following Responsible design elements are intended to be included by the project team:

2.1 Minimum Requirements:

The following elements are part of the minimum requirements to meet best practice design level, they do not form part of the 15% of available optimisations claimed by the team:

2.1.1 Marketing Excellence

The design team will produce documentation to describe sustainable design features of the development for key stakeholders – including prospective occupants of each tenancy.

2.1.2 Environmentally Responsible Construction

The main contractor will be expected to implement an environmental management system, using ISO 14001 practices to monitor its implementation on site.

The plan will include waste management and minimisation, targeting a minimum of 80% of construction and demolition waste diversion from landfill.

Sub-contractors visiting site for more than 3 days will be required to undertake site familiarisation and sustainable design training covering design features for this development, as well as a wider overview of sustainability issues.

2.1.3 Commissioning, Verification and Handover

The design team have been provided clear design targets for environmental performance – refer to Section 2 above.

The designers and contractors will complete a constructability and maintainability review as part of the shop drawing process.

Commissioning will be in accordance with best practice international standards, including CIBSE, ASHRA and Airah. The building envelope will be tested for air leakage prior to practical completion.

Common area services will be closely monitored over the first 12 months of operation to minimise performance issues and optimise operational efficiency against design targets.

The designers will include meters for each tenancy, utilising utility meter reading systems to monitor and report on performance.

Detailed handover documentation will be provided to building stakeholders in electronic format, including As Built drawings and functional control descriptions.

2.1.4 Operational Waste

The design team will be ensuring that the project is effectively designed to manage operational waste across metrics including sizing, segregation of waste streams and accessibility for waste contractors.

Based on the Randwick City Council guide for waste generation rates (referenced GBCA best practice guide), the development would be expected to generate around 10,000 L of waste and 9,000 L of recyclables per day;

Usage			Daily Generation Rate		Weekly Generation Rate	
			Waste	Recycling	Waste	Recycling
Childcare	0	Students	162	54	810	270
Supermarket	3,300	m ²	7,920	7,920	55,440	55,440
Other Retail	410	m ²	1,971	333	13,795	2,333
Office	1,715	m ²	172	429	858	2,144
Total			10,224	8,736	70,902	60,187
240 L Bins			43	37	296	251
660 L Bins			16	14	108	92
Total - Ex Coles			2,304	816	15,462	4,747
240 L Bins			10	4	65	20
660 L Bins			4	2	24	8

The majority of this waste is from the supermarket and will be managed by Coles. The other tenancies are expected to utilise within the loading dock area.

Criteria	Requirement	Comment
Distance of Travel	<10m between waste store and vehicle	
Path of Travel	Free from curbs and grade change.	
Clearance	Maintain >4m clearance for collection vehicles	

FCDS recommend that different types of bins are provided in common areas to facilitate segregation of waste by the general public.

FCDS note that a specialist waste management plan is being formulated as part of the design response.

In addition to the minimum elements above, the design team are targeting the following performance features:

2.2 Sustainable Design Professional

The project team have included sustainable design considerations from schematic design phase and will continue through to practical completion and beyond.

2.3 Waste Minimisation

Beyond the minimum requirement to divert 80% of construction and demolition waste, the contractor will be expected to control materials brought to site and the waste disposal process to achieve a net 90% diversion of all construction and demolition waste, by mass, by practical completion.

2.4 Commissioning Oversight

The design team are expecting to provide a degree of independent commissioning oversight for the project, either through documenting the construction and handover process in keeping with the CIBSE Soft Landings format or utilising an independent commissioning agent.

2.5 Responsible Products

This category review products selected for building structure, envelope, systems and finishes and provides points for projects which can demonstrate performance improvement over standard practice.

Key elements supporting these features are:

- Design and Construction procurement processes to align with ISO 20400 – Sustainable Procurement Guidance
- Mechanical, electrical and hydraulic systems are to include at least 20% (by cost) achieving a Responsible Products Value, greater than 6, as per the table below:
- Finishes to follow similar sustainable requirements, with a net score of at least 9 for more than 20% of products

Metric	Score
• Industry specific environmental product declarations (EPD)	2 Points
• Product specific environmental product declarations (EPD)	4 Points
• ISO14001 certification	3 Points
• Reused Product	15 Points
• FSC Certified	10 Points
• Best Practice PVC certification	5 Points

The compliance pathway for finishes and services will include:

- Product specific EPD's for air conditioning systems, lighting and controls
- ISO 14001 certification for key large plant elements
- Best practice PVC for cables, conduits, pipes etc.
- FSC Certification for timber products
- Certified (GECA or similar) paints and floor coverings



3. Healthy Design Features

The Healthy credit category is about ensuring the building provides a strong response to occupant health and wellbeing. Features supporting air quality, views, access to light and noise contribute to point scoring within this category:

3.1 Minimum Requirements

The following elements are part of the minimum requirements to meet best practice design level, they do not form part of the 15% of available optimisations claimed by the team:

3.1.1 Ventilation System Attributes

Outside air and natural ventilation systems are to comply with the prescriptive requirements of AS 1668.2 (mechanical ventilation) air quantity, intake location and exhaust separation.

The design team are reviewing the potential for outside air rates are to be increased by at least 50% over the minimum requirements of the Australian Standards, **or** are to be controlled by CO₂ detection systems to maintain low concentrations within the breathing zone.

Local exhaust systems are to be provided to isolate occupied spaces from contamination such as kitchenettes, print rooms or bathrooms.

3.1.2 Lighting Systems

Lighting systems are flicker free and provide a minimum Colour Rendering Index (CRI) average R1 to R8 > 85, and a CRI R9 > 50r, with a maximum of 3 MacAdam Ellipses.

The design meets best practice illuminance levels for each task within each space type with a maintained Illuminance values must achieve a uniformity of no less than that specified in Table 3.2 of AS/NZS 1680.1:2006

3.1.3 Glare Control

The project has a high proportion of its glazing fully shaded or south facing, which minimises glare in operation. Commercial spaces have the potential for future blind installation to mitigate any glazing where glare would be problematic.

Lighting systems are intended to be provided with diffusers or other design features which maintain direct glare from the luminaries below the UGR (Unified Glare Rating) limit within AS 1680.1

3.1.4 Access to Daylight

All occupants have excellent access to natural lighting through strong passive design and relatively shallow plan occupied spaces.

3.1.5 Noise Levels

The use of high-quality mechanical plant and good architectural detailing will result in comfortable internal noise levels, generally matching AS 2107.

3.1.6 Connection to Nature

At least 60% (close to 100% for this project) of spaces are within 8m of a view to outside, including nature.

Natural finishes are provided within each dwelling and the surrounding landscape.

3.1.7 Low Toxicity Products

The design team have selected finishes and composite wood products with low Volatile Organic Compound (VOC) and low formaldehyde content. This includes joinery, carpets, adhesives and sealants. Wall and ceiling paints will target a level <5 g/L for VOC content.

The design team are considering undertaking post completion testing to verify performance which would represent a significant improvement over current best practice design.

In addition to the minimum elements above, the design team are targeting the following performance features:

3.2 Access to Daylight

The design is expected to meet more than 40% of the occupied space meeting daylight factor of 2.5.

3.3 Access to Nature

The childcare tenancy is provided with good access to nature, with outdoor play including a bike track, climbing frame and open play space.



4. Resilient Design Features

The Resilient category of credits highlight the need for projects to be ready for the imminent impacts of climate change and to provide a level of support to the surrounding community. Shocks to power infrastructure, ongoing weather pattern adjustment and the urban heat island effect are considered within the category.

4.1 Minimum Requirements

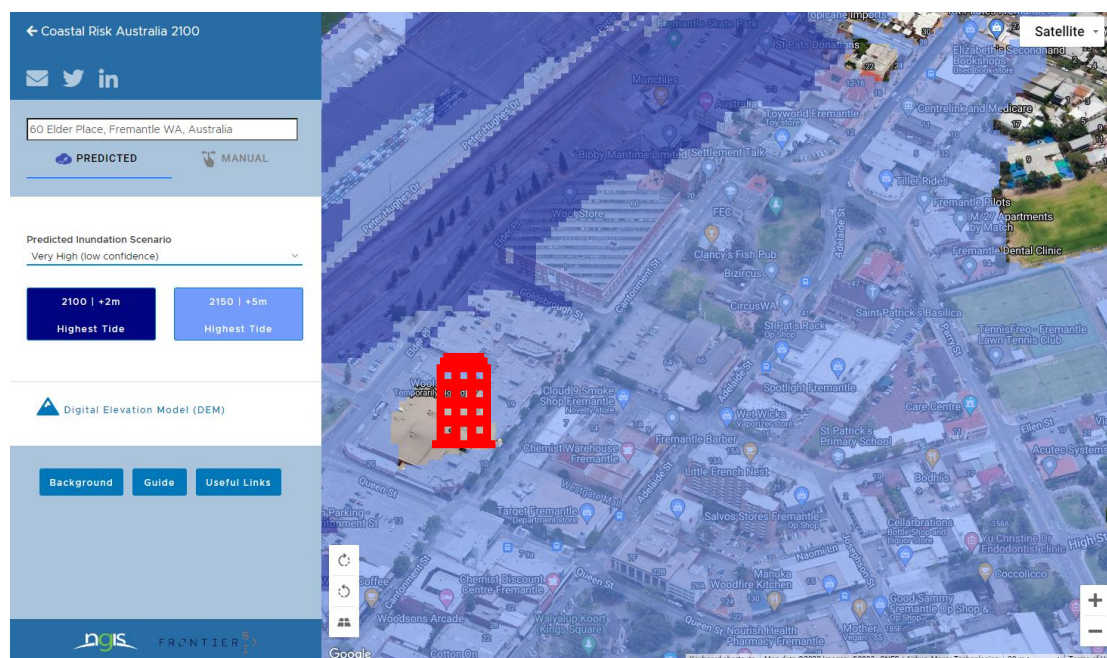
The following elements are part of the minimum requirements to meet best practice design level, they do not form part of the 15% of available optimisations claimed by the team:

4.1.1 Climate Change Resilience

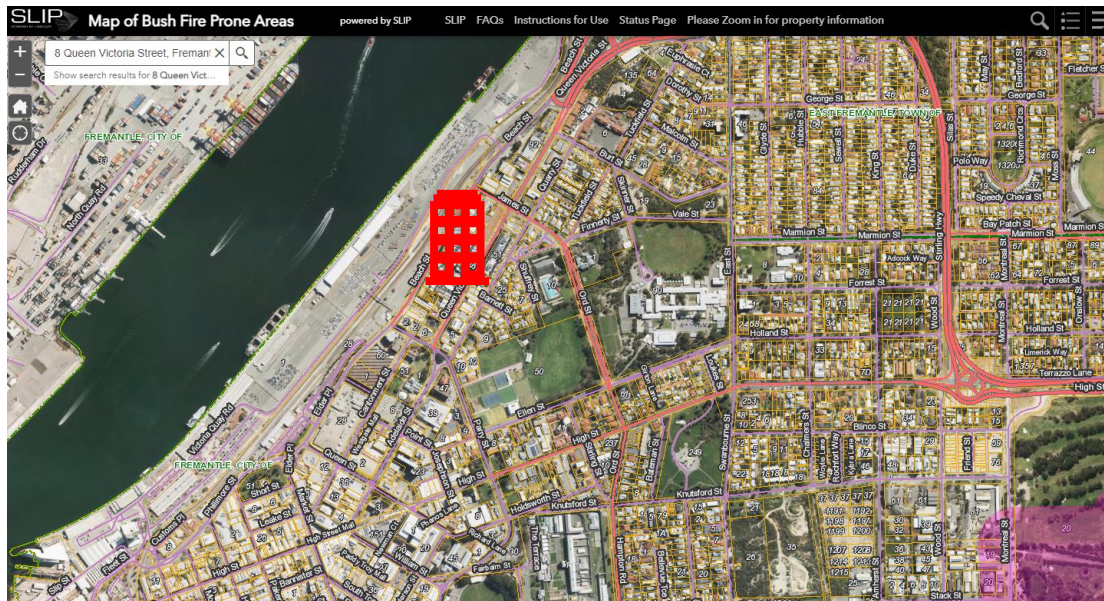
The design team have undertaken a base review of the project and the potential likely impacts of climate change on the site, based on the following likely impacts of climate change in Perth:

Variable	Current	Predicted	Expected Change	Possible Range
Annual Average Temperature (°C)	25.8°C	26.6°C	+0.8°C	26.4 – 27°C
Number of days over 35°C	28	35.3	+7.3	33.1-38.7
Annual Average Rainfall (mm)	835.1mm	785mm	-6%	726.5 – 827mm
Annual Average Potential Evaporation	1800mm	1836mm	+2%	1818-1872mm
Annual Relative Humidity	55%	54.4%	-0.6%	53.7 – 55%

The site is considered susceptible to flooding, with a 2.5m sea rise reaching the site and a 5m sea rise flooding the site and the surrounding areas.



The site is very low risk of bushfire, with no 'prone' areas in proximity:



4.1 Climate Change Risk Management

Following the base risk review above, the design team have included the following features to mitigate risks and provide an improved outcome for occupants and the local community:

Climate Impact	Change	Risk	Proposed Response
Increased temperatures lead to increased bushfire risk and intensity.		Very low due to current classification of site.	Nil
Rising sea levels and increased flood risk.		Moderate, site is at a relatively high point in the local topography but is close to the water line.	Avoid critical infrastructure at or below ground level— install electrical infrastructure on level 1 where possible.
Reduced rainfall		Increasing requirement for irrigation, increased cost of scheme water.	Utilise smart irrigation, including moisture detection and prioritise drought tolerant planting.
Increased temperatures lead to increased reliance on air conditioning.		Building is unable to provide comfortable environment for extended periods.	Provide high efficiency air conditioning systems with automatic controls. Upgrade building envelope in excess of BCA minimum requirements.
Increased temperatures lead to increased power demand.		Operating cost increases as electrical prices increase. Power security becomes questionable.	Good control systems and energy efficient design. Installation of solar photovoltaics for renewable generation.

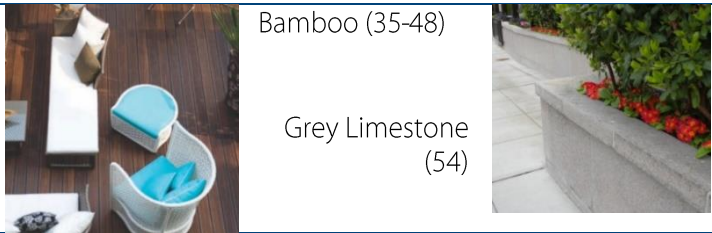
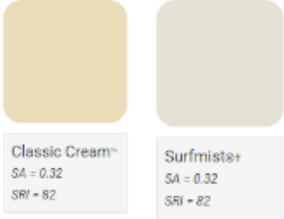
4.2 Operations Resilience

Whilst the project team have identified no significant risks in terms of operation under the loss of power, the design includes features which improve operational resilience under major shocks to electrical infrastructure including:

- Strong solar passive design
- Building envelope upgrade above minimum compliance
- Onsite renewable generation

4.3 Heat Resilience

The project has should include the selection of light colours to external finishes as well as shaded area (from fixed building shading and planting) and landscape integrated into the site to minimise the impacts of urban heat island on the site. The following table shows the recommended colour palettes with respect colours and solar absorbance:

Usage	Initial SRI	3 Year SRI	Sample Product
Metal Roof > 15° Pitch	>34	>39	 Shale Grey[™] SA = 0.43 SRI = 66 Dunes⁺ SA = 0.47 SRI = 61 Windspray⁺ SA = 0.58 SRI = 46 Pale Eucalypt[®] SA = 0.60 SRI = 43
Hardscape			 Bamboo (35-48) Grey Limestone (54)
Metal Roof < 15° Pitch	>82	>64	  Classic Cream[™] SA = 0.32 SRI = 82 Surfmeister⁺ SA = 0.32 SRI = 82 White Concrete (86)

The use of solar panels or light shade sails over upper-level car parking is recommended both for urban heat island influences but also user amenity.

4.4 Grid Resilience:

The building has been designed to reduce its electricity peak demand by 10% of the annual peak electricity demand for at least a one-hour period through the use of roof mounted solar cells which will reduce peak demand in summer by matching (generally) generation to air conditioning demand.

5. Positive Design Features

The Positive category refers to design elements which contribute positively to the environment. Buildings must actively reduce their harm, but also act as a restorative force for good in order to achieve credits. The category assesses energy use, energy source, water consumption and refrigerant emissions, aligning with the National Standard for carbon neutral assessment and certification (Climate Active).

5.1 Minimum Requirements

The following elements are part of the minimum requirements to meet best practice design level, they do not form part of the 15% of available optimisations claimed by the team:

5.1.1 Upfront Carbon Emissions

The design team will target material selections which reduce the embodied energy by a minimum of 10%. Design includes the use of natural finishes, waste diversion and high durability as part of the proposed solution.

5.1.2 Energy Use

The design team will ensure low energy use by improving performance against BCA Section J minimum, aiming for an overall performance around 10% for opaque elements and overall R values.

5.1.3 Energy Source

There are no fossil fuels consumed on site and infrastructure is being provided to facilitate the use of electric vehicles to further reduce embodied energy associated with the site.

5.1.4 Water Use

The development is targeting a minimum 15% reduction in water consumption against benchmarks, including the provision of low flow fixtures are being provided for sanitary uses in accordance with the table below:

Fixture Type	Minimum WELS rating	Maximum Flow Allowable
Taps	5 stars	4.5-6 L/min
Urinals	5 stars	1.0 L / Flush + Smart demand flush device
Toilets	4 stars	<3.5 L average flush <4.7L full flush <3.2 half flush
Showers	3 stars	6.0 – 7.5 L/min
Clothes Washing Machines	4 stars	
Dishwashers	5 stars	

In addition to the minimum elements above, the design team are targeting the following performance features:

5.2 Net Zero Energy and Emissions Reduction

The design team are confident that the proposed energy efficient design features and onsite renewable generation will represent an annual energy consumption reduction of at least 30% against BCA minimum requirements.

5.3 Overall Footprint Reduction

The design team are confident that the proposed design features will result in a net life cycle emissions reduction of at least 30% if assessed by an LCA practitioner.

5.4 Rainwater Reuse

Rainfall reuse generally does not provide good economic returns in Perth. The highly seasonal nature of our rainfall along with potential health risks associated with long-term storage of untreated water makes rainfall reuse outside of domestic applications highly problematic and, generally, uneconomic. Rainwater reuse is not intended for this project.

6. Places Design Features

The places category reflect outcomes that are linked to the location and nature of the development. Design features which reduce the impacts of transport – on the environment and occupant health – are rewarded with credits. In addition, proximity of the development to local amenity and public transport which can promote walking and reduce reliance on vehicles is also recognised.

Within the site, the category considers the provision of communal spaces and their potential beneficial impacts on the occupants. Externally, project teams are encouraged to engage with, consult and justify their design to the local community as well as their shareholders.

6.1 Sustainable Transport

For retail developments, there are two parking options to achieve compliance, as shown below:

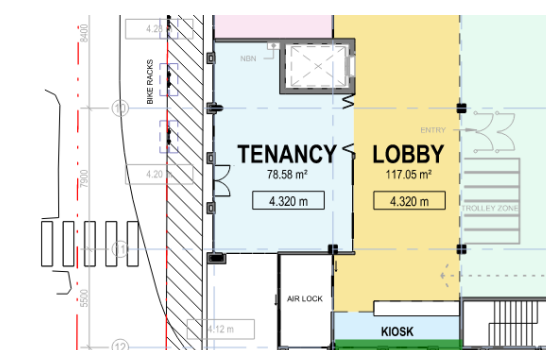
- Fuel Efficient Vehicle Bays
 - These are bays which are dedicated to cars which can achieve <5L/100km or <115gCO₂/100km – motorcycles, hybrid or electric vehicles
- Electric Vehicle Parking Bays
 - Clearly marked electric vehicle bays, complete with charging infrastructure

A combination of parking types can be used, with a maximum of 25 fuel efficient bays (no electric charging) or 9 electric vehicle chargers (no fuel-efficient bays). To minimise cost, FCDS recommend identifying some bays as fuel efficient preferred by signage, with provision for future EV charging – if required – in future.

	Required End of Trip Facilities		
	Bike Bays	Showers	Lockers
Occupant Cyclist Facilities	6	4	8
Visitor Cyclist Facilities	20		
Total	26	4	8

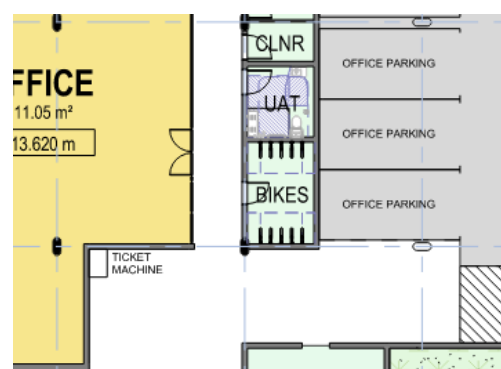
The design is intended to include occupant bike parking and end of trip facilities on the upper levels.

Visitor bike parking is provided at ground level, with good connection to existing pedestrian infrastructure and weather protection (shade).



6.2 Context Analysis

As part of the design process, the team have undergone presentation and review by an independent design review panel at key milestones within the project development. The review has included consideration of the urban context of the site, considering economic, physical, social and cultural factors and planned changes to the local area.



7. People Design Features

The People category of credits provides an increased emphasis on social sustainability outcomes within the Green Star system. Projects are required to consider gender inclusivity and provide staff support around issues such as mental and physical health as part of their impact on the people building the project as well as the people who will use it long term.

The category also rewards projects that deliver strong outcomes for Indigenous or disadvantaged and under-represented social groups.

7.1 Minimum Requirements

The following elements are part of the minimum requirements to meet best practice design level, they do not form part of the 15% of available optimisations claimed by the team:

The main contractor is to provide gender specific bathrooms and PPE on site and provide policies and training on discrimination, racism, bullying, drug and alcohol awareness and mental health. This will include introducing programs and solutions to address at least five current health issues such as suicide prevention, healthy eating and depression.

In addition to the minimum elements above, the design team are targeting the following performance features:

7.2 Needs Analysis

The contractor will be required to complete a needs analysis of site workers and contractors to inform the programs and policies implemented.

7.3 Accessible Navigation

The design team will ensure the building's design and construction must be able to be navigated and enjoyed by stakeholders of diverse ages, genders, and abilities (for example physical, sight, sound, mind, spectrum). The design will provide equal access to the building, diverse wayfinding and inclusive spaces.

8. Nature Design Features

The Nature category is based on providing design solutions which prioritise and restore the natural environment around prospective developments. Features consider biodiversity, previous site usage, site emissions and waterway protection. Projects are required to demonstrate best practice performance across the range of local impact areas considered.

8.1 Minimum Requirements

The following elements are part of the minimum requirements to meet best practice design level, they do not form part of the 15% of available optimisations claimed by the team:

- The site is not an old growth forest, prime agricultural land or within 100m of a nationally significant wetland.
- The external lighting will comply with AS 4282 – Control of the obtrusive effects of Outdoor Lighting
- No external light fitting will have an Upward Light Output Ratio (ULOR) of more than 5%.

In addition to the minimum elements above, the design team are targeting the following performance features:

8.2 Ecological Value

The current and future ecological value of the site will be retained through the use of primarily native planting, with green spaces across the site.

8.3 Stormwater

The design is to infiltrate a proportion of stormwater into local ground water, aiming to minimum outflow and achieve pollution reduction matching the performance below:

Pollutant	Contaminant Reduction
Total Suspended Solids (TSS)	90%
Gross Pollutants	95%
Total Nitrogen	60%
Total Phosphorus	70%

9. Leadership and Other Initiatives

The Green Star Buildings tool includes a category for projects to demonstrate leadership beyond the scope of the current Green Star framework, addressing Challenges which have been developed by the GBCA or which break barriers and inspire others to follow.

There are two challenges identified currently, both around products – either the use of responsible products or the contribution to the development of a circular economy. Both require investigation and reporting to the GBCA as part of ongoing benchmark improvement and tool development.

As this project is not undertaking formal submission, the design team have not claimed any credits under this category. Notwithstanding, The team are intending to demonstrate leadership by facilitating the future certification of the development as carbon neutral in operation, using the Climate Active Carbon Neutral Standard.

9.1 Carbon Neutrality and Net Zero

Despite ongoing media attention and public interest, carbon neutrality is relatively poorly defined in the building design and operation industry. For the purposes of the Australian Standard (Climate Active Carbon Neutral Standard for Buildings) carbon neutral refers to the annual net carbon performance of a building, event, facility etc.

FCDS recommend that the design team provide the school with features and operational support to assist them in pursuing carbon neutral certification in the future, if desired.

Any party seeking to obtain carbon neutrality must follow a process of:

- Defining their scope
- Measuring their carbon production footprint
- Actively minimising – or planning to minimise – carbon footprint
- Offsetting remaining carbon emissions

For schools, their carbon footprint includes:

- Scope 1 Emissions
 - Direct emissions within the geographic boundary of the site, including fuels burnt on site and emissions associated with refrigerants
- Scope 2 Emissions
 - Emissions from the generation of purchased electricity
- Scope 3 Emissions
 - Indirect emissions from the extraction production and transport of fuel burned at generation.
 - Emissions from **waste, water supply and wastewater treatment**

There are a variety of tools to assist schools to calculate their performance and compare to benchmarks using data readily available to school administration.

Tracking overall performance therefore requires:

- Refrigerant type and quantity on site (through operations and maintenance manuals and logs)
- Gas and Electricity consumption (purchased)
- Waste collection (including separation of recycling and land fill)
- Water consumption
- Waste water emissions

Of the above, only the electrical consumption can be brought down to zero – using a large renewable generation system(s) and potentially batteries.

9.1.1 Designing for Low Carbon and Interface with Green Star

As an alternative approach to including design features across the whole range of sustainable design features within the Green Star tool, project teams can elect to pursue a 'carbon neutral' approach, whereby features which facilitate and speed progress towards carbon neutral certification are prioritised. These include the minimum requirements only and the following design features:

Credit	Lead Stakeholder	Action - Self Assessment	Comment
Grid Resilience – Active Generation and Storage (1 Point)	Electrical and Architect	Design the building to have the capacity to reduce its electricity peak demand by 10% of the building's annual peak electricity demand for at least a one-hour period. The peak demand reduction can occur through thermal storage solutions (such as chilled water storage systems), by electricity storage solutions (batteries), or through renewable on-site generation.	Provision of PV arrays, efficient services and envelope is expected to achieve this outcome.
Upfront Carbon Emissions (3 Points)	Owner	Employ an LCA professional to demonstrate the building's upfront carbon emissions are at least 20% less than those of a reference building - including any demolition works.	Performance benchmark of 20% is considered readily achievable for most Green Star buildings.
Energy Use (3 Points)	Full Circle Design Services	Complete building modelling and demonstrate that the building's energy use is at least 20% less than a reference building, including renewable generation on site.	Performance benchmark of 20% is considered readily achievable for most Green Star buildings.
Energy Source (6 Points)	Building Owner and Full Circle Design Services	Develop a zero carbon action plan and have it endorsed by the building owner. The plan is to address all Scope 1 and 2 emissions, including refrigerants on site and provide design requirements, including additional spatial and infrastructure upgrade required. The plan is to include a cost analysis including potential savings to design as net zero from practical completion.	Avoidance of fossil fuels on site is not considered problematic. Will require induction cook tops and heat pump or solar hot water systems.
	Building Owner	The building is to ensure all electricity under the control of the building owner or operator must be accounted for and sourced from renewables.	Requires a 5-Year contract for renewable power procurement.
	Building Owner / Electrical Consultant	Where the building includes infrastructure which can use fossil fuels to power building systems, the applicant must demonstrate how it will not use fossil fuels during the building operation.	Avoidance of fossil fuels on site is not considered problematic. Generally only an issue with emergency generators and diesel fire pumps.

Credit	Lead Stakeholder	Action - Self Assessment	Comment
Other Carbon Emissions	Building Owner and Mechanical	Offset Global Warming Potential for all refrigerants used on site.	Provide carbon offset certification based on calculated refrigerant volume and global warming potential.

Many of the features above are already recommended by FCDS as part of the general ESD approach. Notwithstanding, even with all the above features included, buildings will generally have site generated carbon to be offset by virtue of:

- Economic solar arrays will be constrained to around 100kW peak output a much larger array would be required to offset all operational energy
- Water, wastewater, waste and refrigerant emissions would remain, even if the building did not use any net electricity.

The outcome of the above is that the operation of the building will have a significant effect on overall energy consumption – far more so than the base design decisions.

- Designers therefore should provide facilities and systems which can improve performance as much as possible, including a strong metering and monitoring system to allow tracking and tracing of consumption – to allow optimisation in operation.

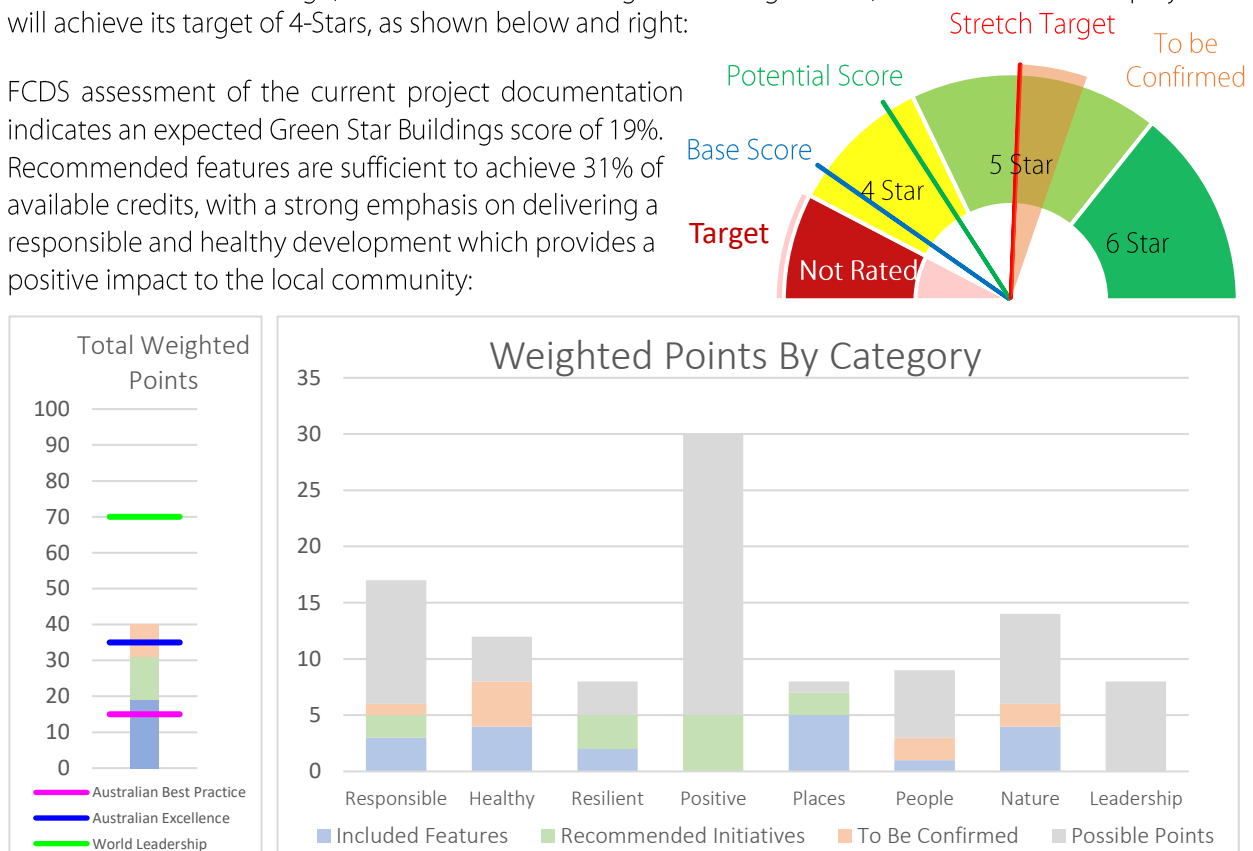
The main carbon emissions areas and the design strategies to address them are shown below.

Emissions Area	Recommendation	Action
Energy Consumption	Solar Passive Design	Design to exceed BCA by 10% or more.
	Efficient Systems	Mechanical and lighting design expected to outperform BCA minimum by 10% or more.
	Renewable Generation	Nominally 100kW peak PV array .
	Tuning and management in operation.	FCDS will complete tuning for the first 12 months of operation.
Waste Management	Waste segregation on site	Provision of multiple, well signed bins across the development.
	Operations	Waste store sized to allow segregation. Occupant education and engagement to be required
Water Use	Low flow tap ware	Included within the hydraulic documentation
	Water metering	Water metering provided to each major use.
	Irrigation	Water efficient irrigation to be used.
	Water in Cooling	No water is used in building cooling.
Waste Water	Low flow tap ware	Included within the hydraulic documentation
	On site stormwater management	On site infiltration.
Refrigerants	Use of low GWP refrigerants	Select low emissions refrigerants, where possible and limit refrigerant pipe runs.

10. Assessment Overview

Based on the current design, and FCDS understanding of the design intent, we are confident the project will achieve its target of 4-Stars, as shown below and right:

FCDS assessment of the current project documentation indicates an expected Green Star Buildings score of 19%. Recommended features are sufficient to achieve 31% of available credits, with a strong emphasis on delivering a responsible and healthy development which provides a positive impact to the local community:



Overall, FCDS assess the base project at ~19%, about 20% of the way between a 4-Star and 5-Star level.

There are an additional 12% of credits identified as recommended for inclusion and 19% which are considered stretch targets and not likely to be included at this stage.

Approximately 9% of credits require further design progression to confirm applicability,

Some key features to be included are:

- Features to support Carbon Neutral Operations certification under the Climate Active standard
- Sustainable building management practices for the building and tenancies.
- Active building tuning and optimisation– targeted NABERS certification in operation.
- Water efficient landscape and irrigation systems.
- Building envelope pressure testing
- 100kW Peak Output Solar Array (nominal offset of more than 50 tonnes of CO_{2(e)} per annum)
- Best Practice Operation and Maintenance Manuals
- High performance building envelope – targeting 15% improvement over BCA minimum

The project has already included sufficient features to exceed the 4-Star benchmark by ~20%, with recommended features to reach 4.8* Stars and a stretch target well above the 5-Star threshold. FCDS are therefore very confident of easily exceeding the project design targets.

Note, the GBCA does not award partial stars, 4.8 stars indicates features 80% of the way between 4 and 5 stars



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Project Name	Woolstores - Stage 1	
Project Number	2022_001	
Version	Buildings V1.1	
Target Rating	4 Stars	15 Points
Buffer	10%	
Client	Silverleaf	
Local Council	City of Fremantle	
Building Owner	Silverleaf	
Building Tenant	Various - Coles	

ESD Consultant	FCDS	GFA	6,135.0
Project Manager	PM	Site Area	5100
Architect	CCN	Type	Class 6 - Retail
Quantity Surveyor	QS	UFA	6,135.0
ICA	ICA	Car Bays	165
Building Surveyor	Comply West	Occupants	115

Project Team		
Main Contractor	Builder / Main Contractor	
Discipline	Consultant	Contractor
Mechanical	Alpha Zeta	Mechanical
Electrical	ETC	Electrical
Fire	Gravity Hydraulics - Wet Fire	Fire Contractor
Hydraulic	Gravity Hydraulics	Plumber
Civil	Arup	Civil
Structural	Arup	Structure
Facade	Arup	Facade
Lift	ETC	Lift
Landscape	Plan E	Landscape
Specialists		
Acoustic Engineer	Herring Storer	
Waste Consultant	CCN - Waste Review	
Transport Planner	Shawmac	
Life Cycle Modeller	FCDS - Life Cycle Review	
Climate Change	FCDS - Climate Change Review	

Potential Additional Design Features		
Credit	Points	Comment
P25.2 - Improved Water Performance	3	Low flow tapware would meet this requirement
P27.6 - Reducing Private Use	1	Transport planning is being undertaken within the design team
R5.1 - Risk and Opportunity Assessment	1	Risk assessment for procurement and purchasing will add value to project delivery and costs.
P27.4 - Cyclist Facilities	1	The design could include visitor cyclist facilities. Compliance would require around 20 bike bays for all tenancies.
R16.2 - Climate Change Risk and Adaptation Assessment	1	Design inclusions, avoiding critical infrastructure in basement and envelope improvement deemed to meet base requirements.
R19.9 - Soft Landings Approach	1	Project budget is expected to require the use of an ICA and the completion of the soft landings approach. FCDS can undertake the ICA Role if needed.
P22.2 - Net Zero Path	2	Requires building energy model and justification. Project would be expected to comply based on passive design and provision of 100kW PV Array.
R20.2 - Demand Response	1	100kW PV array meets these requirements.
R20.1 - Active Generation and Storage Systems	1	100kW PV array would meet this requirement. However, without an embedded network this would not deliver an economically beneficial outcome for the centre.
P21.2 - Net Zero Path	3	Completion of LCA assessment is now considered close to minimum practice for certification but adds limited value for self assessment.
P21.3 - Emissions Reduction	3	Offset of construction costs to be reviewed by LCA professional if appointed.
H13.4 - On Site Toxicity Testing	1	Onsite review of VOC and formaldehyde content would verify performance outcome but at a relatively high cost.
P27.5 - Sustainable Transport	1	Provision of four dual EV chargers would meet this requirement.
P23.3 - 100% Renewable Energy	3	Offset of fossil fuels from minor uses not considered a significant value add for development.
H10.3 - Ventilation System Attributes	1	Ducted fan coil units with MERV filtration and shallow coils can achieve this outcome.

Green Star Credit List

This is FCDS self-assessment of the proposed redevelopment of Woolstores - Stage 1. This scorecard is in no way equivalent to a formal review or certification by the Green Building Council and is intended to demonstrate how the design team intends to meet their target of 'Best Practice' sustainable design.

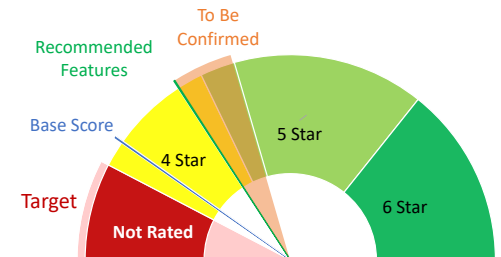
Credits are classified as follows:

Included Features refers to sustainable design initiatives currently documented by the project team.

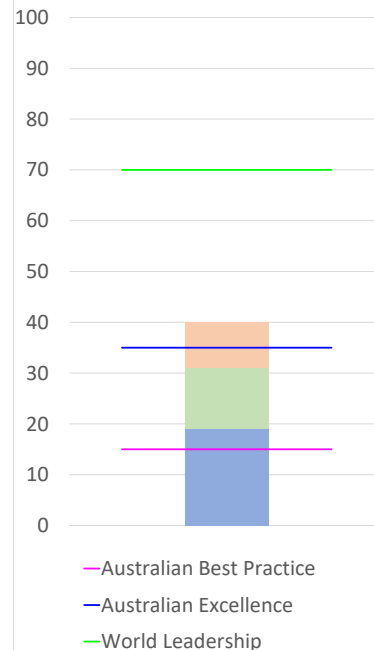
Recommended Initiatives are features which are not fully documented but are expected to be implemented by the project team during the design development phase.

Category	Available Points	Included Features	Recommended Initiatives	To Be Confirmed	Not Achieved
Responsible	17	3	2	1	11
Healthy	12	4	0	4	4
Resilient	8	2	3	0	3
Positive	30	0	5	0	25
Places	8	5	2	0	1
People	9	1	0	2	6
Nature	14	4	0	2	8
Leadership	8	0	0	0	8
	98	19	12	9	58
		19.0	31.0	59.0	

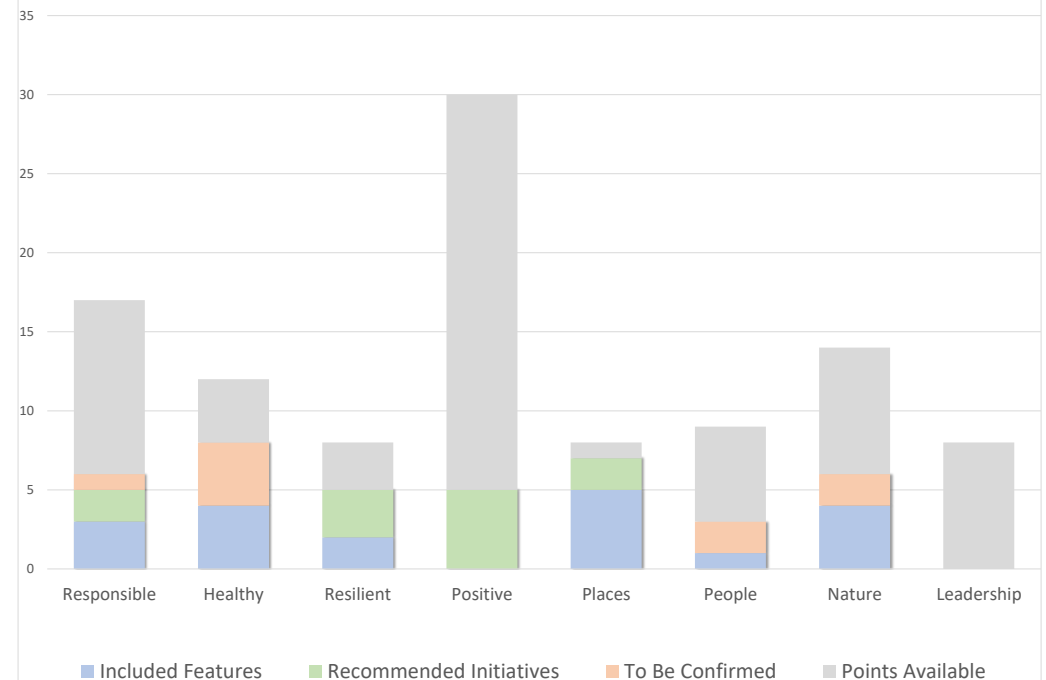
Rating Achieved



Total Weighted Points



Weighted Points By Category



Ref No.	Title	Aim of Credit	Sub-Element	Credit Criteria Summary	Design Team Actions	Key Stakeholder	Points Available	Included Features	Recommended Initiatives	To Be Confirmed	Unlikely Points	Comments
R1.1	Industry Development	The development facilitates industry transformation through partnership, collaboration and data sharin	Green Star Accredited Professional	The building owner or developer appoints a Green Star Accredited Professional, discloses the cost of sustainable building practices to the GBCA, and markets the building's sustainability achievements.	Appoint a GSAP as part of the project team.	FCDS	1	1				FCDS are completing this scope. Sustainable design information will be available through FCDS reporting and development marketing material.
R1.2			Financial Transparency		The project team must complete, and include in the submission, the Green Star Financial Transparency Disclosure Template. The template assists the project team to submit the cost of sustainable building practices of the project including design, construction and documentation to the GBCA	FCDS	Minimum Requirement	Met				FCDS will complete this scope.
R1.3			Marketing Excellence		* Complete Green Star Case Study * Detail Sustainability Achievements to Stakeholders * Display Green Star Certification Prominently	FCDS, CCN, Silverleaf & PM	Minimum Requirement	Met				FCDS will need assistance from project marketing teams and project architect.
R2.1	Responsible Construction	The builder's construction practices promote the reduction of impacts and opportunities for improved environmental outcomes.	Environmental Management System	The builder's construction practices reduce impacts and promote opportunities for improved environmental and social outcomes.	The builder or head contractor (responsible party) must have a formalised systematic and methodical approach to planning, implementing and auditing in place during construction From the start of construction the builder or head contractor must implement an Environmental Management Plan (EMP) which must be project specific and cover the entire project scope including all construction activities.	Builder / Main Contractor	Minimum Requirement	Met				Typical practice for most builders in Perth.
R2.2			Construction and Demolition Waste Diversion		Projects must divert at least 80% of construction and demolition waste from landfill.	Builder / Main Contractor	Minimum Requirement	Met				Low level performance target, achievable through the use of companies such as Instant Waste or Cleanaway.
R2.3			ESD Training		The head contractor must provide the following training to 95% of all contractors and subcontractors present on site for at least three days.	Builder / Main Contractor	Minimum Requirement	Met				Small additional cost for most contractors, can be included as part of site safety inductions.
R2.4			Construction and Demolition Waste Diversion - Exceptional		Projects must divert at least 90% of construction and demolition waste from landfill.	Builder / Main Contractor	1	1				Considered standard practice when specified.
R3.1	Verification and Handover	The building has been optimised and handed over to deliver a high level of performance in operation.	Environmental performance targets	The building has been commissioned and will be tuned. The building was set up for optimum ongoing management due to its appropriate metering and monitoring systems. The project team create and deliver operations and maintenance information to the facilities management team at the time of handover. Information is available to building users on how to best use the building	Set environmental performance targets prior to construction and document them within an OPR (Owners Project Requirements)	FCDS	Minimum Requirement	Met				FCDS would do this as part of our base scope.
R3.2			Services and maintainability review		Complete a services and maintainability review prior to construction.	ICA	Minimum Requirement	Met				FCDS will assist with undertaking this review.
R3.3			Building Commissioning		Commission the building in accordance with recognised best practice international standards, including a building envelope test A specific building envelope pressure test plan and schematic are to be developed.	ICA & Alpha Zeta	Minimum Requirement	Met				FCDS will assist with undertaking this review.
R3.4			Building Systems Tuning		Engage a building tuning service provider and tune the building for at least 12 months.	Silverleaf, FCDS & PM	Minimum Requirement	Met				FCDS can undertake this role as part of building tuning.
R3.5			Metering and Monitoring		Provide accessible energy and water metering for all common uses, major uses, and major sources, connected to a monitoring system capable of capturing and processing the data produced by the meter	FCDS, Alpha Zeta, Gravity Hydraulics & ETC	Minimum Requirement	Met				FCDS can assist with generation of a meter plan and specification.
R3.6			Operation and Maintenance Information		Provide operations and maintenance information for all nominated building systems to the building owner (or designated representative).	FCDS, Alpha Zeta, Gravity Hydraulics & ETC	Minimum Requirement	Met				Provision of O+M's considered standard practice.
R3.7			Building Log Book		Develop a building log book to present to the building owner (or designated representative) before practical completion of the project	FCDS, Alpha Zeta, Gravity Hydraulics & ETC	Minimum Requirement	Met				FCDS can provide a covering log book to assist with interpretation of the O+M's and general user interface.
R3.8			Building User Information		All building user information must be available to the building owner and facilities management team at the time of practical completion.	Builder / Main Contractor, FCDS, Alpha Zeta, Gravity Hydraulics & ETC	Minimum Requirement	Met				Provision of O+M's considered standard practice.
R3.9			Soft Landings Approach		Deliver Soft Landings Approach for the project, including involving the FM team and/or Owners Representative across commissioning and handover, development of the Operations and Maintenance Manuals, Sign off on Operations and Maintenance Manuals and be trained before handover.	Silverleaf, ICA & PM	1		1			Project budget is expected to require the use of an ICA and the completion of the soft landings approach FCDS can undertake the ICA Role if needed.
R3.10			Independent Commissioning Agent		Appoint an independent commissioning agent (ICA) to act an advocate for and reports directly to the project owner.	Silverleaf, ICA & PM						

Ref No.	Title	Aim of Credit	Sub-Element	Credit Criteria Summary	Design Team Actions	Key Stakeholder	Points Available	Included Features	Recommended Initiatives	To Be Confirmed	Unlikely Points	Comments
R4.1	Operational Waste	Operational waste can be separated and recovered in a safe and easy manner.	Separation of Waste Streams	The project team must demonstrate the building is designed to allow effective management of operational waste by: • Separating waste streams; • Providing a dedicated and adequately sized waste storage area; and • Ensuring easy and safe access to waste storage areas for both occupants and waste collection contractors.	The building must provide labelled and accessible bins or storage containers to building occupants to enable them to separate their waste. At least four waste streams are to be collected, each at >1% of annual operational waste, with any waste stream over 5% (other than food) of the annual volume provided with dedicated collection points.	Silverleaf, CCN - Waste Review & CCN	Minimum Requirement	Met				Requires segregation of mixed recycling, organics and general waste and one other stream. Expected to be required for function of retail centre in any event.
R4.2			Dedicated Waste Storage		A dedicated area, or areas, for the storage and collection of the applicable waste streams must be provided. The storage area must be sized to accommodate all bins or containers, for all applicable waste streams, for at least one collection cycle.	CCN - Waste Review & CCN	Minimum Requirement	Met				Waste strategy and segregation space would be provided in Stage 2 only.
R4.3			Access to Waste Storage Area		The storage area(s) must have easy and safe access by collection vehicles and cleaning staff	Silverleaf, CCN - Waste Review & CCN	Minimum Requirement	Met				Waste strategy and segregation space would be provided in Stage 2 only.
R4.4			Qualified Waste Auditor		A waste specialist and/or contractor must sign-off on the designs to confirm they are adequately sized and located for the safe and convenient storage and collection of the waste streams identified	Silverleaf, CCN - Waste Review	Minimum Requirement	Met				Urbil are providing specialist waste consultancy services.
R5.1	Responsible Procurement	The procurement process for all products, materials, and services for the building's design and construction follows best practice environmental and social principles.	Risk and Opportunity Assessment	The building's design and construction procurement process follows ISO 20400 Sustainable Procurement - Guidance and at least one identified supply chain risk and opportunity is addressed.	Undertake a risk and opportunities assessment of its supply chain to identify environmental and social risks and opportunities.	Builder / Main Contractor, FCDS & CCN	1		1			Risk assessment for procurement and purchasing will add value to project delivery and costs.
R5.2			Responsible Procurement Plan		Develop and implement a plan to mitigate and manage identified risks and drive implementation of identified opportunities.	Builder / Main Contractor, FCDS & CCN						
R6.1	Responsible Structure	The building's structure is comprised of responsibly manufactured products.	Responsible Structure	80% of all structural components (by cost) meet a Responsible Products Value score of at least 10 In addition, one of the following is met: • 10% of all products in the structure (by cost) meet a Responsible Products Value score of at least 15; OR • 30% of all products in the structure (by cost) have an average Responsible Products Value score of at least 12.	• Industry specific environmental product declarations (EPD) - 2 Points • Product specific environmental product declarations (EPD) - 4 Points • ISO14001 certification - 3 Points • Reused Product - 15 Points • FSC Certified - 10 Points • Best Practice PVC Certified - 5 Points	Arup & CCN	3					Building is new. Credits are unlikely to be achieved.
R6.2			Responsible Structure - Exceptional			Arup & CCN	2					
R7.1	Responsible Envelope	The building's envelope is comprised of responsibly manufactured products.	Responsible Envelope	60% of all building envelope components (by cost) meet a Responsible Products Value score of at least 10. In addition, one of the following is met: • 10% of all products in building envelope (by cost) meet a Responsible Products Value score of at least 15. OR • 25% of all products in the building envelope (by cost) have an average Responsible Products Value score of at least 12.	• Industry specific environmental product declarations (EPD) - 2 Points • Product specific environmental product declarations (EPD) - 4 Points • ISO14001 certification - 3 Points • Reused Product - 15 Points • FSC Certified - 10 Points • Best Practice PVC Certified - 5 Points	Arup, Arup & CCN	2					Building is new. Credits are unlikely to be achieved.
R7.2			Responsible Envelope - Exceptional			Arup, Arup & CCN	2					
R8.1	Responsible Systems	The building's mechanical, hydraulic, transportation and electrical systems are comprised of responsibly manufactured products.	Responsible Systems	20% of all active building systems (by cost) meet a Responsible Products Value score of at least 6. In addition, one of the following is met: • 5% of all active building systems (by cost) meet a Responsible Products Value score of at least 11. OR • 15% of all active building systems (by cost) have an average Responsible Products Value score of at least 8.	• Industry specific environmental product declarations (EPD) - 2 Points • Product specific environmental product declarations (EPD) - 4 Points • ISO14001 certification - 3 Points • Reused Product - 15 Points • FSC Certified - 10 Points • Best Practice PVC Certified - 5 Points	Alpha Zeta, ETC, Gravity Hydraulics - Wet Fire, Gravity Hydraulics, Arup & ETC	1	1				Air conditioning, lighting and plumbing systems are considered likely to meet product specific EPD, ISO 114001 and Best Practice PVC requirements.
R8.2			Responsible Systems - Exceptional			Alpha Zeta, ETC, Gravity Hydraulics - Wet Fire, Gravity Hydraulics, Arup & ETC	1					
R9.1	Responsible Finishes	The building's internal finishes (flooring, plasterboard, paints, ceilings, partitions, doors, internal windows etc.) are comprised of responsibly manufactured products and materials.	Responsible Finishes	60% of all internal building finishes (by area) meet a Responsible Products Value score of at least 7. In addition, one of the following is met: • 10% of all internal building finishes (by area) meet a Responsible Products Value score of at least 12. OR • 20% of all internal building finishes (by area) have an average Responsible Products Value score of at least 9.	• Industry specific environmental product declarations (EPD) - 2 Points • Product specific environmental product declarations (EPD) - 4 Points • ISO14001 certification - 3 Points • Reused Product - 15 Points • FSC Certified - 10 Points • Best Practice PVC Certified - 5 Points	CCN & FCDS	1			1		To be reviewed as finishes are selected.
R9.2			Responsible Finishes - Exceptional			CCN & FCDS	1					Unlikely to be achieved.

Ref No.	Title	Aim of Credit	Sub-Element	Credit Criteria Summary	Design Team Actions	Key Stakeholder	Points Available	Included Features	Recommended Initiatives	To Be Confirmed	Unlikely Points	Comments
H10.0	Clean Air	Pollutants entering the building are minimised, and a high level of fresh air is provided to ensure levels of indoor pollutants are maintained at acceptable levels.	Ventilation System Attributes	Pollutants entering the building are minimised, and a high level of fresh air is provided to ensure levels of indoor pollutants are maintained at acceptable levels. Compliance is to be demonstrated for > of regularly occupied area	Ventilation systems are to comply with AS 1668.2 2012 and ASHRAE Standard 62.1:2013 for minimum separation between openings, outdoor intakes and sources of pollution. All new and existing ductwork is to be cleaned prior to occupation.	Alpha Zeta	Minimum Requirement	Met				Building is expected to meet ventilation requirements.
H10.1			Provision of Outdoor Air		Provide outdoor air to each space in the nominated area at a rate greater than the minimum required by AS 1668.2:2012 by 50% or Monitor and control CO2 levels <800ppm during design occupancy or Residential Buildings demonstrate best practice approach to outside air and prevention of mould.	Alpha Zeta	Minimum Requirement	Met				Building is expected to meet ventilation requirements. Recommendation of CO2 control for retail and office spaces. Mechanical to consider mixed mode operation.
H10.2			Exhaust or Elimination of pollutants		Select and utilise low emissions equipment; printers, stoves, vehicles etc. and/or Exhaust sources of pollutants directly to outside and physically separate them from occupants.	Silverleaf, PM, CCN & Alpha Zeta	Minimum Requirement	Met				Ducted exhausts will be provided to improve indoor air quality for occupants.
H10.3			Ventilation System Attributes		Provide adequate access to both sides of all moisture and debris-catching components for maintenance within the air distribution system.	Alpha Zeta	1			0.5		Ducted fan coil units with MERV filtration and shallow coils can achieve this outcome.
H10.3			Provision of Outdoor Air		Provide outdoor air to each space in the nominated area at a rate greater than the minimum required by AS 1668.2:2012 by 100% or Monitor and control CO2 levels <700ppm during design occupancy or Meet the requirements of AS 1668.4 2012.	Alpha Zeta				0.5		Design is expected to meet the requirements of AS 1668.2 for all occupied spaces. Additional cost for CO2 detection and control.
H11.1	Light Quality	The building provides good daylight and its lighting is of high quality.	Minimum lighting comfort	The building provides adequate levels of daylight and good lighting levels suitable for the typical tasks in each space.	- All lighting must be flicker-free; - Light sources must have a minimum Colour Rendering Index (CRI) average R1 to R8 > 85, and a CRI R9- 50+; - Light sources must meet best practice illuminance levels for each task within each space type - The maintained illuminance values must achieve a uniformity of no less than that specified in Table 3.2 of AS/NZS 1680.1:2006 - All light sources must have a minimum of 3 MacAdam Ellipses.	ETC	Minimum Requirement	Met				Lighting designers will select good quality fittings with appropriate spacing and diffusion.
H11.2			Glare		Glare from light sources must be limited within the nominated area. Bare light sources must be fitted with baffles, louvers, translucent diffusers, ceiling design, or other means or Unified Glare Rating (UGR), as estimated from the manufacturers data sheets for a standard room, must not exceed the maximum values listed in Table 8.2 of AS/NZS 1680.1:2006. Where the nature of the tasks, layout and surface reflectance in a space are not known (e.g. shell and core) the lighting system must comply with the Luminaires selection system as detailed in Clause 8.3.4 of AS/NZS 1680.1:2006.	CCN & FCDS	Minimum Requirement	Met				Lighting designers will complete modelling of the occupied space for overall performance requirements.
H11.3			Daylight		- Maximise the number of occupants that are in or near daylight areas during their daily activities for all building types; - Ensure regularly occupied spaces are in reasonable proximity to glazed façades, windows or skylights; - Control or mitigates glare in the daylight spaces; - Maximise daylight to spaces that prioritise learning, healing, and living; - Provide building occupants with unrestricted access to daylight indoor common spaces.	CCN & FCDS	Minimum Requirement	1				Compliance is not expected for the super-market, however, most regular occupants do have access to natural light.
H11.4			Daylight - Credit		For non-residential buildings, at least 40% of the principle averaged across the building must receive high levels of daylight with no less than 20% on any floor or tenancy (whichever is smaller). For residential buildings, 60% of the combined living and bedroom area of each apartment unit must comply with the daylight requirements. Kitchens are not included in the calculations. The daylight levels must also be present in at least 20% of the area of each bedroom and living area. Residential buildings and hospitality buildings must provide room blackout blinds or curtains to all bedrooms. If blinds or curtains are part of a packaged décor, all blinds offered for the bedroom décor must be blackout blinds.	CCN & FCDS	2	2				Current design is expected to meet these requirements.
H11.5			Artificial Lighting		- The walls within the field of view of occupants in regularly occupied spaces must have an average surface reflectance value of 0.70 and an average surface illuminance of at least 50% of the horizontal illuminance levels required for task. - Vertical illuminance in workspaces: ensure that 50% of the horizontal task illuminance reaches the average eye height for 90% of primary spaces using vertical illuminance calculation grid.	ETC	2			2		To be reviewed with designer and lighting modeller in due course.
H12.1	Acoustic Comfort	The building provides acoustic comfort for building occupants.	Internal Noise Levels	An Acoustic Comfort Strategy is prepared to describe how the building and acoustic design aims to deliver acoustic comfort to the building occupants.	Internal ambient noise levels in the nominated areas must be no less than 5 dB below the lower range value and no greater than the upper range value relevant to the activity type in each space as recommended in AS/NZS 2107.	Herring Storer, Alpha Zeta & CCN	Minimum Requirement	Met				Credit will require the selection of high efficiency air conditioning units as well as internal lining to ductwork.
H12.2			Acoustic separation		Address noise transmission between enclosed spaces within the nominated area either by sound privacy or insulation.	Herring Storer & CCN	2	1				Building design is expected to meet the requirements of noise separation between spaces with minimal upgrades.
H12.3			Impact Noise Transfer		The building is designed and tested to achieve minimum acoustic performance requirements aligned with the Acoustic Comfort Strategy.	Herring Storer & CCN	Minimum Requirement			0.5		To be confirmed by acoustic designer as project develops.

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H12.4			Reverberation		The reverberation time in the nominated area must be not exceed the maximum for the intended use recommended in AS/NZS2107. This does not apply for residential spaces.	Herring Storer & CO	Minimum Requirement			0.5		Design is likely to meet requirements for the various use types.

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H13.1	Exposure to Toxins	The building's occupants are not directly exposed to toxins in the space they work, play, or live in.	Paints, adhesive, sealants and carpets	The building's paints adhesives, sealants, carpets, and engineered wood products are low or non-toxic. Occupants are not exposed to banned or highly toxic materials in the building.	Use low toxicity paints, adhesives, sealants and floor coverings.	CCN, Alpha Zeta, ETC, Gravity Hydraulics - Wet Fire, Gravity Hydraulics, Arup & ETC	Minimum Requirement	Met				The design team will select products with low VOC content and general toxicity.
H13.2			Engineered wood products		Use low emission formaldehyde composite or engineered wood products	CCN	Minimum Requirement	Met				The design team will review formaldehyde content for all wood products.
H13.3			No lead, asbestos and PCBs		Undertake comprehensive site survey for Lead, PCB's and asbestos. Take appropriate remediation action where relevant.	Silverleaf	Minimum Requirement	Met				The building site is to be surveyed and decontaminated where required.
H13.4			On Site Testing		On-site tests verify the building has low Volatile Organic Compounds (VOC) and formaldehyde levels.	FCDS & Silverleaf	1			1		Onsite review of VOC and formaldehyde content would verify performance outcome but at a relatively high cost.
H14.1	Amenity and Comfort	The building provides internal amenities that improve occupant experience of using the building.	Amenity and Comfort	The building has dedicated amenity rooms to act as parent room, a relaxation room, or an exercise room	Provide m2 dedicated room(s) to promote either inclusivity, mindfulness or exercise for regular occupants. Room must be classified as either parent room, relaxation / meditation / prayer room or exercise room. Room must be at least 10m2 and 1m2 per 10 regular occupants or staff. Room must meet light quality, acoustic comfort and Design for Inclusion (where targeted) credits.	CCN	2					Project includes ample amenity space for some occupants including outdoor play for the childcare. Other spaces - such as the supermarket and offices - do not comply.
H15.1	Connection to Nature	The building fosters connection to nature for building occupants.	Views	The building provides views, includes indoor plants, and incorporates nature-inspired design.	>60% of primary occupied spaces are within 8m of a compliant view.	CCN	1					Primary occupied spaces - offices, retail and child care - achieve this outcome.
H15.2			Plants		Indoor plants must be provided in the nominated spaces. One or more plants in pots with a soil surface area totalling at least 500cm² for every 15m² of the primary spaces is required. Plants are to be supported by an ongoing 2 year maintenance plan.	CCN & Silverleaf						This element is considered very expensive for most projects.
H15.3			Nature-Inspired Design		Five additional nature-inspired design interventions must be provided in alignment with the following principles: • Elements that provide differing natural sensory experiences; • Elements that reflect natural and cultural patterns and forms; • Using natural materials; and • Natural motifs and art.	CCN				1		Integration of nature within the design can be readily accommodated, to be reviewed with CCN as the design progresses.
H15.4			Interaction		Occupants can interact with nature either inside the building, or externally through a green wall or roof garden. At least 5% of the building's floor area/ or site area (whichever is greater) must be allocated to this opportunity. The allocated area must be accessible and have the necessary infrastructure to allow the activity to occur (for example water source/taps for irrigation, storage area for tools and equipment).	Silverleaf & CCN	1					5% represents a significant area to dedicate to nature. Impractical for most projects.

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Resilient	Climate Change Resilience	The building has been built to respond to the direct and indirect impacts of climate change.	Climate Change Resilience	The project team completes the climate change pre-screening checklist. The project team communicates the building's exposure to climate change risks to the applicant.	Complete climate change risk review checklist and issue to the building applicant.	FCDS - Climate Change Review	Minimum Requirement	Met				FCDS will complete the base checklist as part of our base scope.
			Climate Change Risk and Adaptation Assessment	The project team develops a project-specific climate change risk and adaptation assessment for the building. Extreme and high risks are addressed.	Complete a detailed risk assessment and Mitigation strategy using an appropriately qualified professional. Ensure at least two and all Extreme and High risks are addressed.	Whole Design Team	1		1			Design inclusions, avoiding critical infrastructure in basement and envelope improvement deemed to meet base requirements. Detailed assessment and mitigation plan to be undertaken by experts as design develops.
	Operations Resilience	The building can respond to acute shocks and chronic stresses that can affect its operations over time.	Comprehensive Risk Assessment	The project team undertakes a comprehensive review of the acute shocks and chronic stresses likely to influence future building operations.	Appoint a suitably qualified professional to undertake a detailed review of operations resilience including key shocks and stresses, such as infrastructure failure, health pandemic, water security, increasing energy costs and rising cyber dependency	FCDS - Climate Change Review	2	2				FCDS can carry out a base level review to identify these risks.
			Managing Risks	The building's design and future operational plan addresses any high or extreme system-level interdependency risks.	Provide design solutions to address at least two and all high and extreme risks.	FCDS - Climate Change Review supported by Whole Design Team	Minimum Requirement					Project brief includes on site generation to address loss of power to major tenant.
			Addressing Power Loss	The building's design maintains a level of survivability and design purpose in a blackout.	Complete building performance assessment in black out conditions and provide appropriate design solutions to meet building purpose and provide a measure of survivability for occupants.	FCDS - Climate Change Review supported by Whole Design Team	Minimum Requirement					Blackout review not likely to identify any significant issues for most tenancies.
	Community Resilience	The building contributes to improving the resilience of the community.	Community Resilience	The project team undertakes a needs analysis of the community, identifies shocks and stresses that impact the building's ability to service the community, and develops responses to manage these.	Appoint a qualified professional to develop a community resilience plan that identifies local community groups which rely on or interact (directly or indirectly) with the building. The plan must identify and address at least 2 and all high and extreme risks identified. Undertake at least one community capacity building activity prior to or during construction.	FCDS - Climate Change Review supported by Whole Design Team	1					Community resilience is beyond the scope of this project.
	Heat Resilience	The building reduces its impact on heat island effect.	Heat Island	At least 75% of the whole site area comprises of one or a combination of strategies that reduce the heat island effect.	Ensure >75% of site area is covered by materials which reduce heat island effect, including: * Vegetation and Green Roofs * Light Roofs (3 Year SRI>64 (flat roof) >34 (Pitched Roof) * Shaded or Light Hardscaping (3 Year SRI > 34) * Water bodies and/or water courses * Permanently Shaded site area	CCN & Plan E	1					Project has too much hardscape to comply.
	Grid Resilience	The building contributes to the functioning of the grid as it transitions to a higher level of renewable energy capacity.	Active Generation and Storage Systems		Design the building to have the capacity to reduce its electricity peak demand by 10% of the building's annual peak electricity demand for at least a one-hour period. The peak demand reduction can occur through thermal storage solutions (such as chilled water storage systems), by electricity storage solutions (batteries), or through renewable on-site generation.	Alpha Zeta & ETC	1		1			100kW PV array would meet this requirement. However, without an embedded network this would not deliver an economically beneficial outcome for the centre.
			Demand Response	The building meets one or several of the following: • Provides active generation and storage systems; • Has the infrastructure to deliver an appropriate demand response strategy; or • Has reduced its electricity consumption through passive design.	Develop a strategy and systems to automatically shed 10% of a buildings peak electrical demand without affecting occupant amenity for at least 4 hours. Requires the BMS to have predictive capabilities and a demand management dashboard and automatic load shedding, including acceptance of external control signals. Strategy is to be commissioned and demonstrated as functional.	Alpha Zeta & ETC	1		1			100kW PV array meets these requirements.
			Passive Design Solutions		Deliver a naturally ventilated building which exceeds BCA requirements for building envelope performance. Alternatively, discuss options with the GBCA for alternate compliance.	FCDS & CCN	1					Building is provided with air conditioning.

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Positive	P21.1	Upfront Carbon Emissions	Minimum Expectation	Reduce the building's upfront carbon emissions reductions through good design and material selection.	Complete the LCA Calculator and demonstrate that the building's upfront carbon emissions are at least 10% less than those of a reference building.	QL, FCDS - Life Cycle Review & CCN	Minimum Requirement	Met				FCDS can assist with completion of the basic LCA calculator.
	P21.2		Net Zero Path		Employ an LCA professional to demonstrate the building's upfront carbon emissions are at least 20% less than those of a reference building - including any demolition works.	FCDS - Life Cycle Review, Silverleaf&CCN	3			3		Completion of LCA assessment is now considered close to minimum practice for certification but adds limited value for self assessment.
	P21.3		Emissions Reduction		Employ an LCA professional to demonstrate the building's upfront carbon emissions are at least 20% less than those of a reference building - including any demolition works and all remaining emissions from Modules A1 - A5 are offset.	FCDS - Life Cycle Review, Builder / Main Contractor, Silverleaf&CCN	3			3		Offset of construction costs to be reviewed by LCA professional if appointed.
	P22.1	Energy Use	Minimum Expectation	Reduce the building's energy consumption in comparison to BCA Section J minimum requirements. All systems and elements must exceed BCA minimum performance, irrespective of overall performance.	Complete building modelling and demonstrate that the building's energy use is at least 10% less than a reference building, excluding renewable generation on site. For residential buildings, no individual apartment can be less than the larger number of: - The minimum NABERS rating stated in the code, or - 6.5 star NABERS rating.	FCDS	Minimum Requirement	Met				FCDS can confirm energy consumption meets these criteria.
	P22.2		Net Zero Path		Complete building modelling and demonstrate that the building's energy use is at least 20% less than a reference building, including renewable generation on site.	FCDS	3		2			Requires building energy model and justification. Project would be expected to comply based on passive design and provision of 100W PV Array.
	P22.3		Emissions Reduction		Complete building modelling and demonstrate that the building's energy use is at least 30% less than a reference building.	FCDS	3					Project would not be expected to comply unless provided with an uneconomic array.
	P23.1	Energy Source	Zero Carbon Action Plan	Ensure the building does not require fossil fuels to operate and develop a detailed plan to achieve net carbon neutrality in operation.	Develop a zero carbon action plan and have it endorsed by the building owner. The plan is to address all Scope 1 and 2 emissions, including refrigerants on site and provide design requirements, including additional spatial and infrastructure upgrade required. The plan is to include a cost analysis including potential savings to design as net zero from practical completion.	FCDS, Gravity Hydraulics, Gravity Hydraulics - Wet Fire, Alpha Zeta, PM & Silverleaf	Minimum Requirement	Met				Site is not expected to utilise fossil fuels
	P23.2		100% Renewable Electricity		The building is to ensure all electricity under the control of the building owner or operator must be accounted for and sourced from renewables. Tenant electricity can be excluded. Where this is achieved by off-site renewables, a 5 Year contract must be presented.	FCDS, Gravity Hydraulics, Gravity Hydraulics - Wet Fire, Alpha Zeta, PM & Silverleaf	3			3		Cost of offsetting energy consumption considered reasonably high. Budget based on 100kWhrs per m2 per annum at 10c per kWhr offset for 5 years.
	P23.3		100% Renewable Energy		In addition to the above, where the building includes infrastructure which can use fossil fuels to power building systems, the applicant must demonstrate how it will not use fossil fuels during the building operation.	FCDS, Gravity Hydraulics, Gravity Hydraulics - Wet Fire, Alpha Zeta, PM & Silverleaf	3			3		Offset of fossil fuels from minor uses not considered a significant value add for development.
	P24.1	Other Carbon Emissions	Net Zero Path	Ensure the building's emissions from refrigerants and all other categories are eliminated or offset.	Utilise refrigerants with a GWP<10 or offset the GWP. Maintenance access must be provided to access and replace refrigerants.	Alpha Zeta	2					Selection of GWP < 10 is not commercially feasible for this project. Limits product selection. Offset is considered a significant cost.
	P24.2		Emission Elimination		Eliminate all other emissions, including elements above plus: • Life-cycle emissions from modules B and C as calculated in Life Cycle Impacts; • Emissions from construction equipment use, and utilities during construction on site; and • Construction waste emission Alternatively, purchase offsets for 5 years of operational energy use at the current grid emissions coefficient.	Silverleaf	2					

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P25.1a	Water Use	The building has low water use.	Water Reduction - Prescriptive	Ensure the building meets minimum water performance requirements through a simple, prescriptive approach.	Provide low flow fixtures and appliances	FCDS	Minimum Requirement	Met				Selection of WC's and showers can be problematic. Low flow appliances are also potentially contentious for apartments. Budget of \$750 per apartment.
P25.1b			Water Reduction - Performance	Ensure the building meets minimum water performance requirements through a modelled approach.	Demonstrate a 15% performance improvement over minimum compliance using the Green Star Potable Water Calculator	FCDS, Gravity Hydraulics & CCN	Minimum Requirement	Met				FCDS can undertake performance modelling if required.
P25.2			Improved Water Performance	The building uses 45% less potable water compared to a reference building. Multi-unit residential buildings use 40% less potable water compared to a reference building.	Complete water modelling and demonstrate a 40 / 45% performance improvement in water consumption for the proposed development.	FCDS, Gravity Hydraulics & CCN	3		3			Low flow tapware would meet this requirement
P25.3			Exceptional Water Performance	The building uses 75% less potable water compared to a reference building. Multi-unit residential buildings use 60% less potable water compared to a reference building.	Complete water modelling and demonstrate a 60 / 75% performance improvement in water consumption for the proposed development.	FCDS, Gravity Hydraulics & CCN	3					Credits would require water capture and reuse- not recommended for pursuit.
P26.1	Life Cycle Impacts	The building has lower environmental impacts from resource use over its lifespan than a typical building.	Life cycle impacts	The project demonstrates a 30% reduction in life cycle impacts when compared to standard practice.	Appoint an LCA practitioner and demonstrate an overall 30% performance improvement against all categories with no more than 10% increase in any category.	FCDS - Life Cycle Review	2					To be reviewed with LCA practitioner if appointed

	Ref No.	Title	Aim of Credit	Sub-Element	Credit Criteria Summary	Design Team Actions	Key Stakeholder	Points Available	Included Features	Recommended Initiatives	To Be Confirmed	Unlikely Points	Comments
Places	P27.1	Movement and Place	The building's design and location encourages occupants and visitors to use active, low carbon, and mass transport options instead of private vehicles.	Showers	The building includes showers and changing facilities for building occupants that are accessible, inclusive and located in a safe and protected space.	Provide showers at a rate of 1 per 50 occupants (1 per 200 occupants over 200)	CCN	Minimum Requirement	Met				Current design expected to meet these requirements
	P27.2			Lockers		One locker must be provided for every eight staff occupants. The lockers must be secure and located in the changing rooms.	CCN	Minimum Requirement	Met			Current design expected to meet these requirements	
	P27.3			Accessibility and Inclusivity		Upon accessing, pedestrians and cyclists must be protected from the elements and other vehicles. Access must be safe, with consideration given to avoiding steep gradients, surface grip levels and visibility around tight corners. Access to the facilities must be well lit between entryway to bike parking, all amenities and lift lobbies and main access points to the building. All regular building occupants must have easy access to lockers, showers, and building entry. Occupants must be able to find the facilities thanks to clear signage throughout the building and access points.	CCN	Minimum Requirement	Met			Current design expected to meet these requirements	
	P27.4			Cyclist Facilities	The building's access must prioritise walking and cycling options. This means the building's access must be well lit, weather protected, and separated from vehicles. The building must also include access to cyclist facilities that are separated from the primary vehicle entrance to ensure safety.	Provide good access for cyclists and pedestrians: * Well lit * Weather Protected * Separated from Vehicles * Signposted * Secure * Access connected to relevant cyclist storage	Silverleaf & CCN	3	1			The design could include visitor cyclist facilities. Compliance would require around 20 bike bays for all tenancies.	
	P27.5			Sustainable Transport	Prepare a sustainable transport plan which seeks to change the mode of transport away from single use vehicles.	Include: * Car share parking schemes * Infrastructure for future EV chargins and parking * EV load management system	Silverleaf & ETC			1			Provision of four dual EV chargers would meet this requirement.
	P27.6			Reducing Private Use	The building's design and location prioritises walking, cycling, and transport options that reduce the need for private fossil fuel powered vehicles.	Appoint a professional to provide a transport plan to reduce emissions associated with private vehicle use in comparison to a reference building. Includes reduced vehicle emissions, increase active transport and reduction in trip kilometers.	PM & Shawmac			1			Transport planning is being undertaken within the dsign team
				Walkability	Provide at least 10 amenities across at least five categories within 400m of the project site. Prioritise pedestrians over cars with strict speed limits on site.	FCDS	Met				Project is considered highly walkable being close to the centre of the town and the local train station.		
	P28.1	Enjoyable Places	The building provides places that are enjoyable and inclusive.	Publicly Accessible Spaces	The building delivers memorable, beautiful, vibrant communal or public places where people want to gather and participate in the community. The spaces are inclusive, safe, flexible and enjoyable.	For non-residential spaces, provide 0.25m ² / occupant or 2.5% of GFA (whichever is greater). For residential spaces provide 1.75m ² per dwelling, with a minimum of 250m ² .	CCN	2	2				Design is almost entirely public access, place making expected to be part of site strategy.
	P28.2			Activation Strategy		Develop and fund an activation strategy to ensure placemaking continues after practical completion. The strategy must adress target activities, funding, timing of activation, facilitator/suppliers, encouragement, future implementation.	CCN & Silverleaf						
	P29.1	Contribution to Place	The building's design makes a positive contribution to the quality of the public environment.	Urban Context Analysis	The building's design contributes to the liveability of the wider urban context and enhances the public realm.	Provide an urban content report the considers economic, physical, social and cultural factors and considers planned changes to the local area. The plan should identify challenges which the building can contribute to solving and demonstrate appropriate design responses.	CCN	2	2				Design is being undertaken in close collaboration with local council and key stakeholders.
	P29.2			Independent Design Review		Utilise an independent design review panel - such as the OGA - to undertake design reviews at key points in the design. As a minimum this includes at concept / schematic phase, design development phase and at building permit stage.	CCN & Silverleaf						
	P30.1	Culture Heritage and Identity	The building reflects local culture, heritage and identity	Community Led Design Response	The building's design reflects and celebrates local demographics and identities, the history of the place, and any hidden or minority entities. This celebration was arrived through meaningful engagement with community groups early in the design process.	Produce a report detailing the community engagement activities undertaken and resultant design responses through features such as: • Community art or placemaking projects; • Selection of suppliers/designers of artwork or cultural elements; • Building elements that tell stories of the past and heritage; and • Spaces and uses that reflect the local identities.	CCN & Silverleaf	1	1				Expected to be produced as part of design process sufficient for self assessment.
	P30.2			Independent Design Review		Utilise an independent design review panel - such as the OGA - to undertake design reviews at key points in the design. As a minimum this includes at concept / schematic phase, design development phase and at building permit stag	CCN & Silverleaf						

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P31.1	Inclusive Construction Practices	The builder's construction practices promotes diversity and reduces physical and mental health impacts	Minimum Requirement	During the building's construction, the head contractor provides gender inclusive facilities and protective equipment. The head contractor also installs policies on-site to increase awareness and reduces instances of discrimination, racism and bullying.	The main contractor shall provide gender specific bathrooms and PPE on site and provide policies and training on discrimination, racism, bullying, drug and alcohol awareness and mental health.	Builder / Main Contractor	Minimum Requirement	Met				Considered standard practice for a project of this size in Perth.
P31.2			Needs Analysis		The contractor must complete a needs analysis of site workers and contractors to determine appropriate actions. The policies and programs should be relevant to all construction workers on site for the full duration of construction. A mix of programs is acceptable throughout the duration of construction period.	Builder / Main Contractor						
P31.3			Physical and Mental Health Impacts	The head contractor provides high quality staff support on-site to reduce at least five key physical and mental health impacts relevant to construction workers. They must also evaluate the effectiveness of their interventions.	The head contractor must introduce programs and solutions to address at least five of the following: • Suicide prevention; • Healthy eating and active living; • Reduce harmful alcohol and tobacco consumption and avoid drug use; • Increased social cohesion, community and cultural participation; • Understanding depression; • Preventing violence and injury; • Decreased psychological stress; and • Finding fulfillment at work or mindful meditation.	Builder / Main Contractor	1	1				
P31.4			Evaluating Effectiveness		Provide an evaluation report to the client and sub-contractors including programs and initiatives delivered and whether they delivered the intended outcomes.	Builder / Main Contractor						
P32.1	Indigenous Inclusion	The building celebrates Aboriginal and Torres Strait Islander people, culture and heritage.	Reconciliation Action Plan		Ensure that the project team includes a member of the organisation RAP Working Group. In addition, at least 90% of the project RAP targets are to have been met and all implemented actions related to the RAP are publicly reported on the Project's website. Any design element must be informed by consultation undertaken with the local Aboriginal and Torres Strait Islander community or through nominated representatives.	CCN & Silverleaf						Unclear how this site will contribute to an RAP
P32.2			Inclusion of Indigenous Design	The building's design and construction celebrates Aboriginal and Torres Strait Islander people, culture and heritage by undertaking one or both of the following: • Playing an active role in the organisational Reconciliation Action Plan; and • Incorporating design elements using the Indigenous Design and Planning principles.	Demonstrate that the Australian Indigenous Design Charter are incorporated within the design. As a minimum, ensure the following are addressed: • Indigenous Led: Ensure Aboriginal and Torres Strait Islander representation in the creation of the design; • Community Specific: Ensure respect for the diversity of Aboriginal and Torres Strait Islander culture by following community specific cultural protocols; • Impact of Design: Always consider the reception and implications of all designs so that they are respectful to Indigenous culture; and • Shared knowledge (collaboration, co-creation, procurement): Develop and implement respectful methods for all levels of engagement and sharing of Indigenous knowledge (collaboration, co-creation, procurement).	CCN & Silverleaf	2					Unclear if this site will address these requirements.
P33.1	Procurement and Workforce Inclusion	The building's construction facilitates workforce participation and economic development of disadvantaged and under-represented groups.	Social Procurement Strategy	Through the implementation of a social procurement strategy, at least 2% of the building's total contract value has been directed to generate employment opportunities for disadvantaged and under-represented groups.	Create a strategy which includes a description of project objectives, needs and targets, a demographic survey of the local region, description of roles and responsibilities, data collection tools and templates and reporting requirements.	Silverleaf	2					Credit is outside of scope of this project.
P33.2			Employment Opportunities Strategies		Direct 2% of project's contract value to generate employment opportunities for disadvantaged and under-represented groups either directly, through workforce targets; or indirectly, through social procurement.	Silverleaf						
P33.3			Exceptional Performance	Through the implementation of a social procurement strategy, at least 4% of the building's total contract value has been directed to generate employment opportunities for disadvantaged and under-represented groups.	Direct 4% of project's contract value to generate employment opportunities for disadvantaged and under-represented groups either directly, through workforce targets; or indirectly, through social procurement.	Silverleaf	1					
P34.1	Design for Inclusion	The building is welcoming to a diverse population and is welcoming to their needs.	Accessible Navigation	The building is designed and constructed to be inclusive to a diverse range of people with different needs.	Ensure the building's design and construction must be able to be navigated and enjoyed by stakeholders of diverse ages, genders, and abilities (for example physical, sight, sound, mind, spectrum), including: • Equal access to the building: Provide equitable, appealing, safe, and secure access in a manner that does not segregate or stigmatise users through all principal entrance points and main thoroughfares inside and outside the building; • Diverse wayfinding: Introduce visual, physical, olfactory, and auditory solutions to help individuals navigate the site in a safe and enjoyable manner; and • Inclusive spaces: Introduce internal and external spaces for a diverse range of users, including parents, family restrooms, emergency rooms, quiet rooms and social interaction rooms. These rooms must be accessible to all users.	CCN	2	Met		2		To be reviewed as design progresses.
P34.2			Design for Dignity	Engagement with target groups has informed the inclusive design.	Ensure the design aligns with best practice guidelines, such as the Design for Dignity Guidelines: Principles for Beyond Compliance Accessibility in Urban Regeneration. Building solutions that are expected to be included would be assistive technologies, emotional health spaces, acoustic treatments, adaptive strategies, gender, size, and physical appropriate facilities.	CCN	1	Met				Considered too onerous for this project.

Ref No.	Title	Aim of Credit	Sub-Element	Credit Criteria Summary	Design Team Actions	Key Stakeholder	Points Available	Included Features	Recommended Initiatives	To Be Confirmed	Unlikely Points	Comments
Nature	N35.1	Impacts to Nature	Impacts to Nature - Minimum Requirements		Ensure site preparation and construction works do not clear: - Old-growth forest, - Prime agricultural land, - Any area within 100m of a wetland listed as being of 'High National Importance', - Aspects considered 'Matters of National Significance' listed under the Environmental Protection and Biodiversity Conservation Act (1999)	FCDs	Minimum Requirement	Met				Site meets base requirements
	N35.2		Light Pollution to Neighbouring Bodies	The building was not built on, or significantly impacted, a site with a high ecological value.	Demonstrate that all outdoor lighting on the project complies with AS 4282-1997 Control of the obtrusive effects of outdoor lighting.	ETC	Minimum Requirement	Met				Proposed design has minimal light spill.
	N35.3		Light Pollution to Night Sky		Demonstrate that no external luminaire on the project has a ULOR that exceeds 5%, relative to its actual mounted orientation or that the direct illuminance from external luminaires on the project produce a maximum initial point illuminance value no greater than 0.5 Lux to the Site Boundary and 0.1 Lux to 4.5m beyond the site into the night sky.	ETC & Plan E	Minimum Requirement	Met				Proposed design has minimal light spill.
	N35.4		Wetland Management Plan		Where the building is within 100m of a wetland, generate and make public a site-specific Wetland Management Plan. The plan must be prepared by a qualified Ecologist or other qualified professional and include requirements for ongoing quarterly monitoring, annual reporting and management of the wetland ecosystem for a minimum of five years.	Silverleaf & Plan E	Minimum Requirement	Met				Site is not close to a wetland
	N35.5		Ecological Value	- The building's design and construction conserves existing natural soil, hydrological flows and vegetation elements; and - If deemed necessary by an Ecologist, at least 50% of existing site with high biodiversity value is retained.	Demonstrate ho current, future and past ecological values of the site are to be protected including assessment of local and regional threats and mitigation requirements and engaging with the local community.	Silverleaf & Plan E						Project meets this requirement through the use of native planting in the childcare play area and the fully developed nature of the site.
	N35.6		Diversity Protection		Where an ecologist has assessed the area as high ecological value the project must retain at least 50% of the site area and manage impacts of light and noise pollution, habitat connectivity, water quality, migration and two other local issues.	Silverleaf & Plan E	2	2				Project is not considered high ecological value.
	N36.1	Biodiversity Enhancement	Landscape Area		Provide landscaping over 15% of the site area or 0.2% of the GFA - whichever is Greater.	Plan E						Considerable area, exceeds current site allowances significantly.
	N36.2		Diversity of Species	- The building's site includes an appropriate landscape area; - The landscaping includes a diversity of species and prioritises the use of climate-resilient and indigenous plants; and - The project team develops a site-specific Biodiversity Management Plan and provides it to the building owner or building owner representative.	Landscape must be > 60% indigenous and achieve diversity of: * 10% Plant Species * 20% plant genus * 30% plant family. Provide 1 nesting tree per 500m2 of landscaped area.	Plan E	2	Met				
	N36.3		Biodiversity Management Plan		An ecologist must assess and verify that the choice of landscaping and biodiversity is diverse and resilient to climate change impacts, thereby increasing the longevity of the landscape. An Ecologist must provide this narrative.	Plan E						
	N36.4		Increased Landscape Area		Provide landscaping over 30% of the site area or 0.333% of the GFA - whichever is Greater.	Plan E						
	N36.5		Increased Diversity of Species	- A greater area of landscaping is provided; and - The landscaping includes critically endangered and/or endangered plant species native to the bioregion.	Landscape must be > 80% indigenous and achieve diversity of: * 10% Plant Species * 20% plant genus * 30% plant family. Provide 1 nesting tree per 250m2 of landscaped area.	Plan E	2	Met				

Ref No.	Title	Aim of Credit	Sub-Element	Credit Criteria Summary	Design Team Actions	Key Stakeholder	Points Available	Included Features	Recommended Initiatives	To Be Confirmed	Unlikely Points	Comments
Nature	N37.1a	Nature Connectivity	Landscaping	The site must be built to encourage species connectivity through the site, and to adjacent sites - through either landscaping or infrastructure. If the project sits within a blue or green grid strategy it must contribute to the goals of the strategy.	Provide landscape which is contiguous with existing, restored and new habitats. As a minimum requirement for habitat connectedness, the conservation area must make up at least 25% of the total external area within the building's site boundary to a minimum of 182m²	Plan E	2					Not feasible for this site.
	N37.1b		Infrastructure		Include design features such as a canopy bridge, wildlife tunnels, green roofs, amphibian tunnels and green infrastructure are used to connect nature on site to adjacent natural areas	Plan E & Arup						
	N38.1	Nature Stewardship	Offsite Restoration	The building owner, as part of the project's development, undertakes activities that protects or restores biodiversity at scale beyond the development's boundary.	Achieve "Impacts to Nature" credit and restore an area at least equivalent to the GFA of the project.	Silverleaf	2	Met				Could be considered by Silverleaf
	N39.1	Waterway Protection	Run Off Volume	The building demonstrates an annual average flow reduction (ML/yr) of 40% compared to pre-development levels and meets specified pollutants targets.	The development must demonstrate an annual average flow reduction (ML/yr) of 40% compared to pre-development levels.	Arup	2	2				TBC based on civil design. Expected to be achieved based on infiltration to ground.
	N39.2		Water Pollution		Total Suspended Solids (TSS) 85% Gross Pollutants 90% Total Nitrogen 45% Total Phosphorus 65%	Arup						
	N39.3		Run Off Volume	The building demonstrates an annual average flow reduction (ML/yr) of 80% compared to pre-development levels and meets specified pollutants targets.	The development must demonstrate an annual average flow reduction (ML/yr) of 80% compared to pre-development levels.	Arup	2	Met		2		TBC with civil design.
	N39.4		Water Pollution		Total Suspended Solids (TSS) 90% Gross Pollutants 95% Total Nitrogen 60% Total Phosphorus 70%	Arup						

Urbii



Reduce. Reuse. Recycle

28 Cantonment Street, Fremantle Proposed Mixed-Use Development

Waste Management Plan



Prepared for:
Silverleaf

September 2022

28 Cantonment Street, Fremantle

Prepared for: Silverleaf
Prepared by: Paul Ghantous
Date: 29 September 2022
Project number: U22.074

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1 Introduction

This Waste Management Plan has been prepared by **Urbii** on behalf of **Silverleaf** with regards to proposed mixed-use development, located at 28 Cantonment Street, Fremantle.

The subject site is situated on the northern corner of Cantonment Street and Queen Street, as shown in Figure 1.

The site is surrounded by a mix of residential, commercial and community land uses. Fremantle Train Station is located nearby. Stage 1A of the proposed development will deliver a Coles Supermarket, office tenancies, retail and a child care centre.

The key issues that will be addressed in this WMP include calculation of the waste generation of the site, assessment of waste storage provisions and documentation of the waste collection arrangements.



Figure 1: Subject site



2 Objectives

The objectives of this WMP are adapted from WALGA:

- Ensure that the long-term waste management needs for the development are met in an efficient and sustainable manner.
- Minimise the impact of waste services and facilities on the streetscape and surrounds, in relation to both the footpath/public realm and the frontage of the development.
- Reduce the impact of waste collection services and facilities on the amenity of the locality particularly in terms of noise and odour.
- Maximise safety for both waste collection staff and the public.
- Minimise traffic and footpath obstruction.

3 Referenced documents

The documents referenced in preparing this WMP include, but are not limited to:

- City of Melbourne *Guidelines for Waste Management Plans* 2021;
- City of Perth *Waste Guidelines for all Developments* 2019;
- WALGA *Multiple Dwelling Waste Management Plan Guidelines*;
- WALGA *Subdivision Waste Management Plan Guidelines*; and,
- Waste Authority WA *Waste Avoidance and Resource Recovery Strategy for 2030*.



4 Guiding concepts

Urbii adopts the guiding concepts of the State's Waste Strategy and encourages these concepts to be considered in all developments to the furthest extent feasible.

4.1 Waste hierarchy

The *Waste Avoidance and Resource Recovery Strategy 2030* applies the waste hierarchy (Figure 2), which is a widely accepted decision-making tool. The waste hierarchy ranks waste management options in order of their general environmental desirability. Waste avoidance is the most preferred option in the hierarchy.

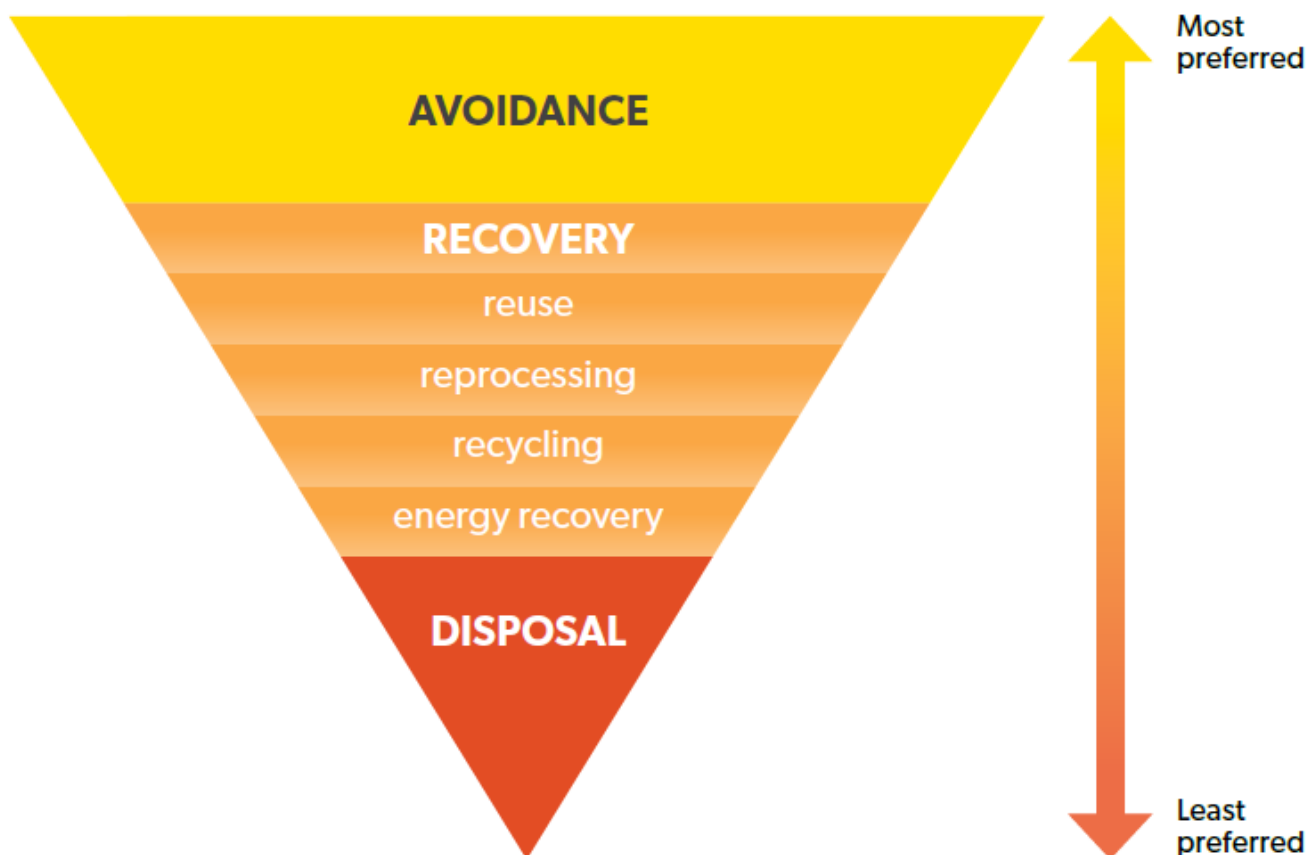


Figure 2: Waste hierarchy

Source: Waste Authority WA *Waste Avoidance and Resource Recovery Strategy for 2030*.

Resource recovery options recover value from materials, thereby offsetting the environmental impacts of extracting and processing raw materials. Energy recovery is the least preferred recovery option. Disposal is the least preferred option. Disposal generally recovers the least value from materials and delivers the least environmental benefit.

4.2 Circular economy

A circular economy (Figure 3) makes use of established sustainability concepts, including life cycle thinking and resource efficiency. A circular economy should consider the flow of both materials and energy. It moves away from the linear ‘take, make, use and dispose’ model, to one which keeps materials and energy circulating in the economy for as long as possible.

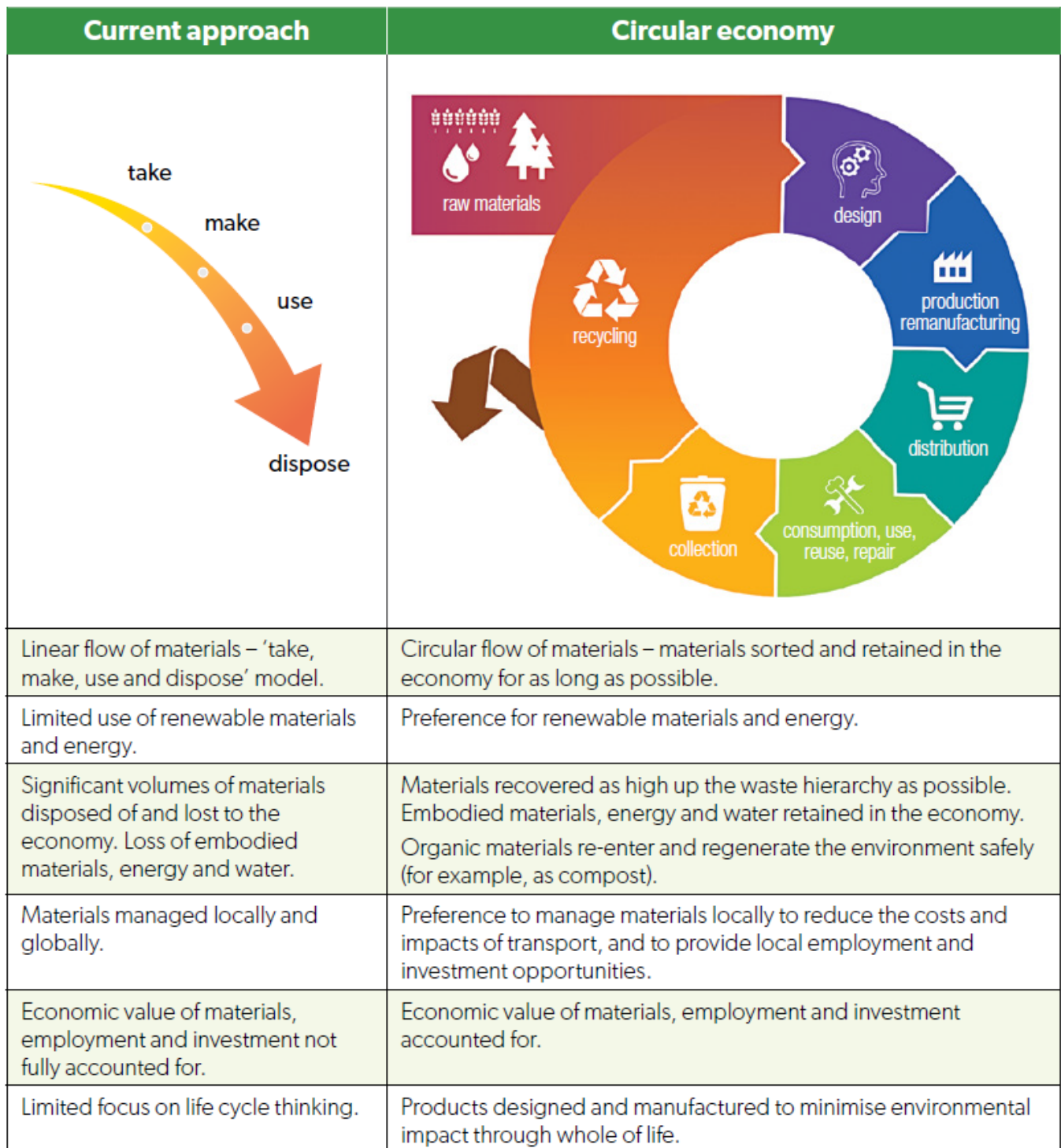


Figure 3: Transitioning to a circular economy



5 Proposed development

The proposal for the subject site is for a mixed-use commercial development, comprising:

- A Coles Supermarket tenancy on the ground level;
- A liquor store and other retail tenancies on ground level;
- Office tenancies on Levels 1 & 2;
- A Child Care Centre on Level 2;
- A shared loading area with vehicle access from Elder Place; and,
- Separate bin storage locations for the Coles Supermarket and other tenancies.

An estimated schedule of floor areas for different land uses is detailed in Table 1.

Table 1: Indicative commercial uses and floor area

Description	Floor area (m2)
Office	1852
Shops < 100m2 floor area	94
Shops > 100m2 floor area	419
Childcare (Melbourne Rate)	650
Supermarket (Coles)	3243

The proposed development considered in this WMP is Stage 1A. Future stages including potential hotel and other uses will be considered in subsequent planning and are not subject to this Development Application.

Waste will be collected internally within the ground level in the designated loading and service area.

The proposed development plans are included for reference in Appendix A.

6 Waste generation

6.1 Waste generation rates

Coles have technical design standards for their back of house, which include provision of adequate waste sorting, compaction and storage facilities based on the tenancy footprint and layout. No waste generation calculations are necessary for this component of the development. Coles will manage all waste from their designated loading bay.

The commercial waste generation rates adopted for the other proposed tenancies are presented in Table 2.

Table 2: Commercial waste generation rates

Description	General waste generation rate	Recyclables generation rate
Office	10L/100m ² floor area/day	10L/100m ² floor area/day
Shops < 100m ² floor area	50L/100m ² floor area/day	25L/100m ² floor area/day
Shops > 100m ² floor area	50L/100m ² floor area/day	50L/100m ² floor area/day
Childcare	50L/100m ² floor area/day	50L/100m ² floor area/day

6.2 Waste generation calculations

The waste generation calculations are detailed in Appendix C. The estimated waste generation for the development (excluding Coles) is:

- General Waste: around 4,090L per week.
- Recyclables: around 3,949L per week.



7 Waste systems

7.1 Internal waste storage

Designers should aim to incorporate sufficient space within each tenancy for the temporary storage of accumulated waste and recycling. Space should be sufficient to allow for the separate storage of recyclables and general waste accumulated for one day of trading.

7.2 External bin storage areas

The proposed development has a shared services zone accessed via a crossover on Elder Place. There is a turntable at the end of the service area for waste collection and other vehicles to turn around. Coles has a separate loading and service dock which also connects to the turntable.

Coles have separate waste storage areas in their back of house to adequately manage their waste. The size of the Coles waste storage areas is dictated by store layout specifications and will satisfy the requirements of the supermarket.

The other commercial tenancies have a separate bin enclosure in the service area.

7.2.1 Bin size, quantity and colour

It is recommended that 660L bins be used for the commercial tenancies. 660L bin size allows for efficient storage of waste while being lighter and easier to move than 1,100L bins. The proposed development is estimated to require the following quantity of bins:

Commercial (excluding Coles) – collection 2 x per week

- General Waste (red lid): 4 x 660L bins.
- Recyclables (yellow lid): 4 x 660L bins.

The bin requirement calculations are detailed in Appendix C.

7.2.2 Bin storage area size

As detailed in Table 3, each 660L bin has a footprint area of 1.16m². A 50mm gap is allowed between the bins to allow easy pull movement.

Storage areas should be out of sight or well screened from the street. Bin storage areas should not detract from the aesthetics of the development and should blend in with surrounding structures and landscaping.

Table 3: Standard Mobile Garbage Bin (MGB) dimensions

Bin capacity	660L	770L	1,100L	1,300L	1,700L
Height (mm)	1250	1425	1470	1408	1470
Depth (mm)	850	1100	1245	1250	1250
Width(mm)	1370	1370	1370	1770	1770
Approximate footprint (m ²)	1.16	1.5	1.7	1.21	1.27

Source: WALGA



7.2.3 Bin storage area design

Urbii has checked the proposed bin storage locations and confirmed that required clearances are provided. A bin storage plan is included in Appendix B.

The following suggestions are offered for consideration at subsequent detailed design stages of the project:

- **Size:** The size of the area set aside for the management of waste is sufficient to accommodate the number of bins required (based on the compaction ratio and the collection regime provided).
- **Ventilation and odour:** The design of the bin stores will provide for adequate natural ventilation through ventilated doors which will be permanent, unobstructed natural ventilation openings direct to the external air, not less than one-twentieth i.e. 5% of the floor area.
- **Lighting:** Artificial light controlled by switches will be located both outside and inside the room.
- **Noise:** Waste and recyclables will be collected from the waste collection point on the ground level.
- **Signage:** Clear and easy to read “NO STANDING” signs and “DANGER” warning signs for children will be fixed to the external face of the bin stores and signage designating the storage of RECYCLABLES will be fixed to the internal wall(s).
- **Aesthetics:** The bin store has been designed within the development and as such will be consistent with the overall aesthetics. The waste collection point is located away from the front or main entrances to the building and avoids setting bins out along the external walls of the building.
- **Protection from Fire, theft and vandalism:** The bin stores are located on the ground level and access will be restricted to only authorised staff and residents.
- **Vermin:** On the ground floor self-closing doors to eliminate access to vermin will be installed.
- **Washing bins and waste storage area:** The bin stores will have bin-washing facilities including an adequate supply of hot and cold water mixed through a centralised mixing valve with hose cock and have floor drainage installed. The site supervisor will be responsible for arranging bin washing (or contracting the waste and recycling service provider to wash bins) and for maintenance of the bin store.
- **Distance from service area & truck access:** Reasonably level ground, with flat trafficable (bin width) access paths from the bin store to the onsite loading bay.

7.3 Access to bins

At the end of each trading day, cleaners will collect waste from the commercial tenancies and transfer it to the bin storage area within the services zone. Some waste may be transferred a short distance via the adjacent footpath. This will be scheduled outside peak times to minimise external impact.

8 Waste collection

8.1 Waste vehicle types

Waste collection will be serviced through a private contractor. A rear-loader waste truck should be used, which are typically around 8.0m in length.

8.2 Waste collection frequency

The suggested waste collection frequency is 2 days per week for general waste and recycling generated by the commercial bin stores.

8.3 Waste collection method and presentation points

Waste trucks will enter the site in forward gear and use the motorised turntable to turn around. Trucks will then stop in the designated service zone for waste collection. Bins will be wheeled directly from the bin storage area to the rear of the truck for emptying. The waste truck will enter and exit the site in forward gear.



9 Additional waste requirements

9.1 Bulk waste

There is sufficient capacity in the service area for the temporary storage of bulk waste.

9.2 E-Waste

Storage space for E-waste will be accommodated in storage areas or individual units and tenancies. E-waste will be disposed in a suitable manner, such as bulk drop-off to the tip or using public battery recycling boxes.

9.3 Garden organics

The site caretaker will manage garden organic waste associated with landscape maintenance. Garden waste can be placed in general waste bins if there is space or can be removed by trailer to be disposed offsite in a suitable location.

9.4 Liquid waste and grease

Some individual tenancies may need grease arrestors to control grease and fat content in wastewater. These requirements are governed by the Water Corporation which provides the following general advice:

“Under the Water Services Act 2012, all businesses involved in the retail food industry must obtain written permission before discharging any waste into our wastewater system. During the trade waste application assessment process our trade waste officers assess if a grease arrestor is required based on the type of activities being undertaken. In general, retail food businesses that prepare and cook on site require a grease arrestor.”

A qualified FOGMan (fats, oils and grease management) contractor should be engaged to remove cooking oils, fats and grease from relevant tenancies. Supporting infrastructure for these tenancies should be considered at detailed design and internal fit-out stages.

10 Waste management

The building caretakers or contracted staff will be responsible for:

- Arranging pick-up times for the bins by the private contractor, including liaising with Coles Managers to avoid scheduling overlaps;
- Arranging for the bins to be cleaned and sanitised;
- Coordinating the cleaning of the bins and bin storage areas every two (2) to three (3) weeks;
- Dealing promptly with any issues or complaints relating to hygiene, noise, odour or other inconvenience; and,
- Providing adequate training for relevant staff regarding waste management.

Tenants should comply with the City's waste sorting requirements and only place permitted waste in each respective bin type. Waste that does not belong in any bin should be disposed of through on-demand services or another appropriate method.

A copy of the Waste Management Plan will be maintained within the premises and strata plan for reference and records.



11 Conclusion

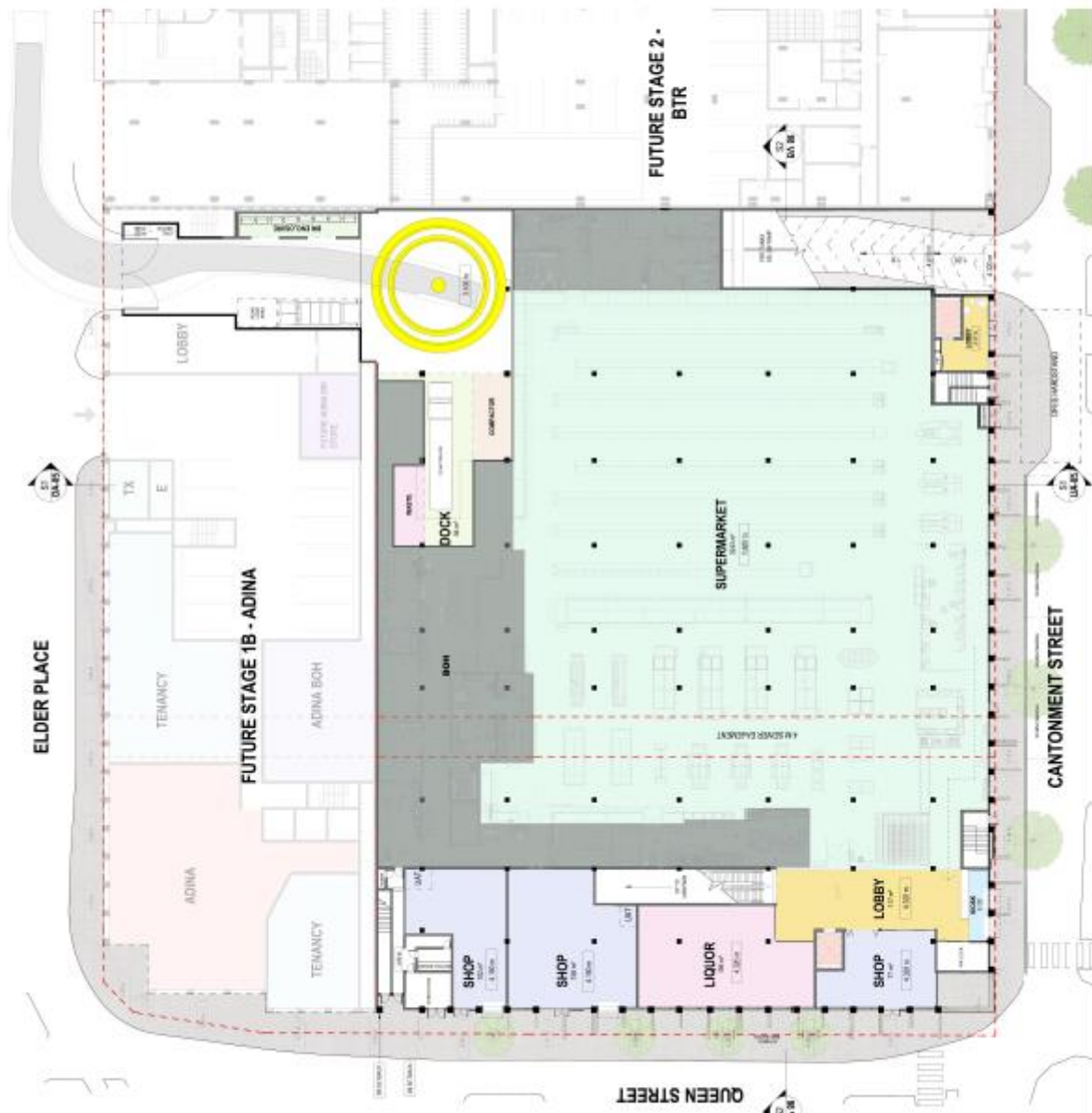
As demonstrated within this Waste Management Plan, the proposed mixed-use development provides sufficient bin storage and adequate bins to service the site.

Furthermore, the servicing of the bins by private collection can be adequately achieved without having an adverse impact on the site and the local street network.

Appendices

Appendix A: Proposed development plans





PROJECT
P22008
FREMANTLE WOODSTORES STAGE 1A
28 Cantonment Street, Fremantle

ISSUE DATE
28.09.22

DRAWING #
DA-01

SHIFT NAME
GROUND

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SCALE
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PROJECT
P22008
FREMANTLE WOOLSTORES STAGE 1A
28 Cantonment Street, Fremantle

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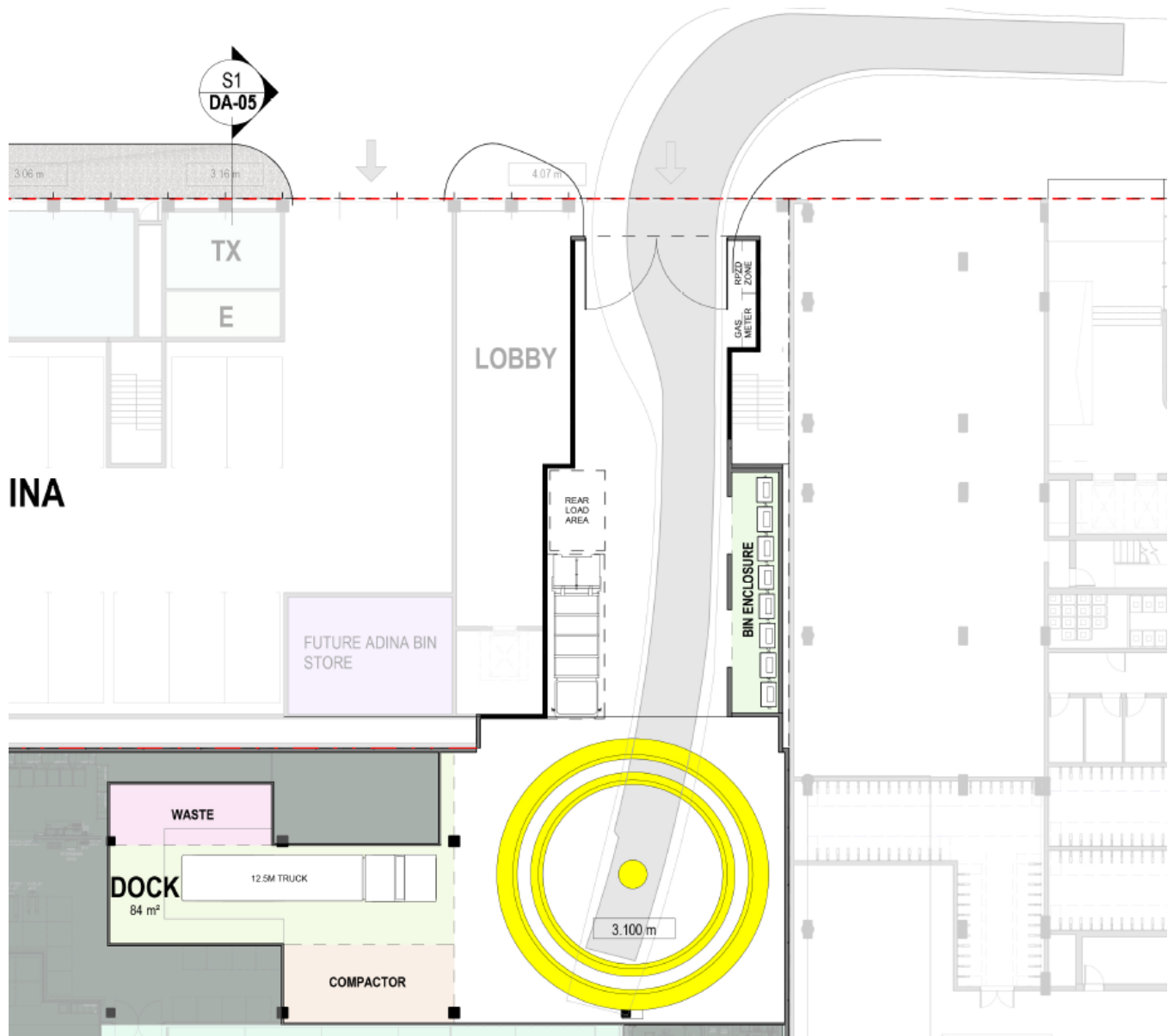
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DA-02
SHEET NAME
LEV EL 01

ISSUE DATE
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PHASE
DA

Appendix B: Bin storage plans



Appendix C: Waste calculations

Table 4: Weekly waste generation and collection – Commercial

Description	Floor area (m2)	General waste generation rate	Recyclables generation rate	Weekly general waste	Weekly recyclables
Office	1852	10L/100m ² floor area/day	10L/100m ² floor area/day	926	926
Shops < 100m2 floor area	94	50L/100m ² floor area/day	25L/100m ² floor area/day	282	141
Shops > 100m2 floor area	419	50L/100m ² floor area/day	50L/100m ² floor area/day	1257	1257
Childcare (Melbourne Rate)	650	50L/100m ² floor area/day	50L/100m ² floor area/day	1625	1625
Total				4090	3949

Waste type	Weekly waste generation (L)	Weekly collection frequency
General waste	4090	2
Recyclables	3949	2

General Waste Bins

Bin Size (L)	Number of bins	Weekly capacity
660	4	5280
Total weekly capacity (L)		5280

Recycle Waste Bins

Bin Size (L)	Number of bins	Weekly capacity
660	4	5280
Total weekly capacity (L)		5280



WOOLSTORES

STAGE 1A

COLES SUPERMARKET / OFFICE / CHILDCARE



DEVELOPMENT APPLICATION
QUEEN STREET GROUND PLANE STUDY

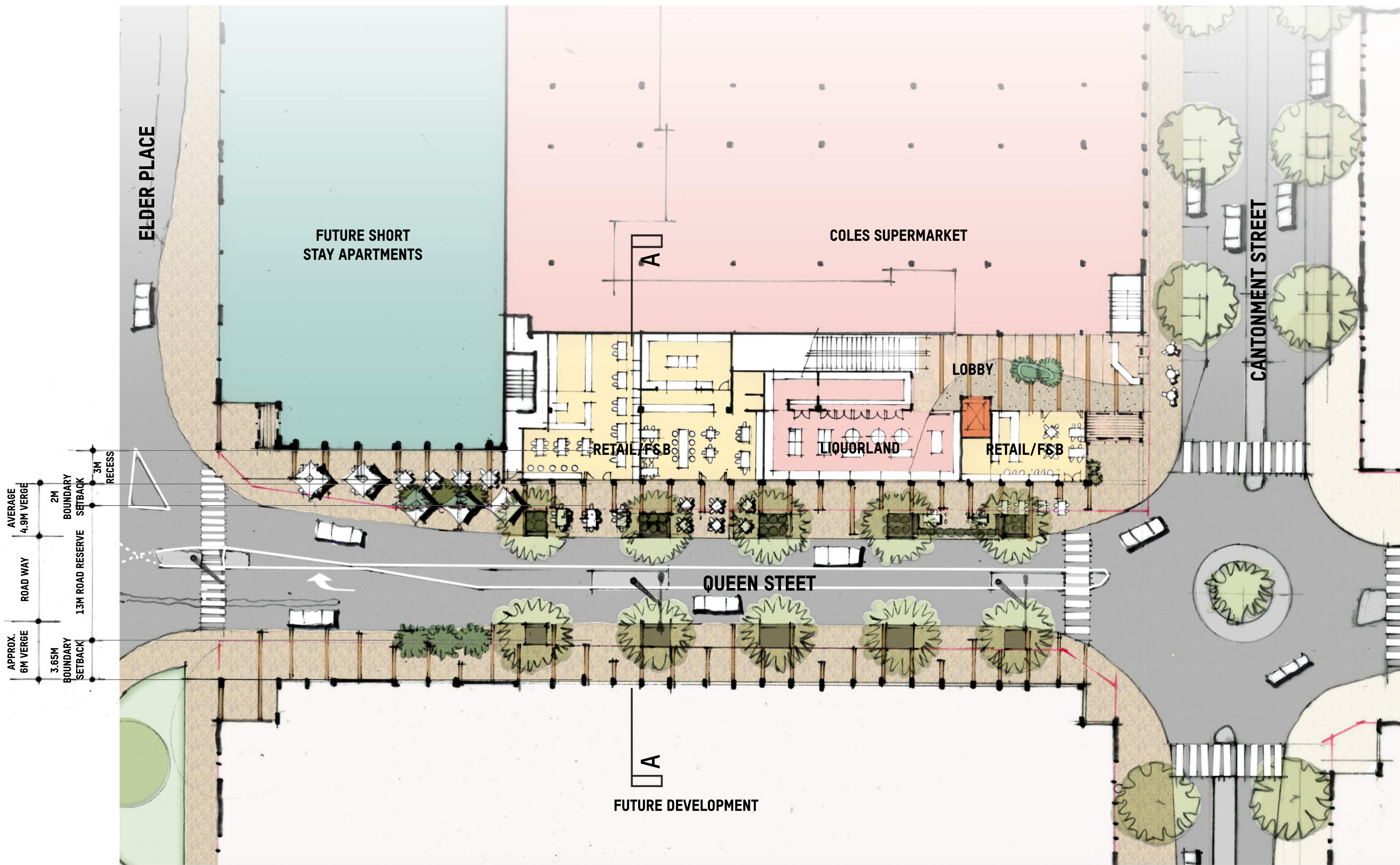
SUPPLEMENTARY INFORMATION

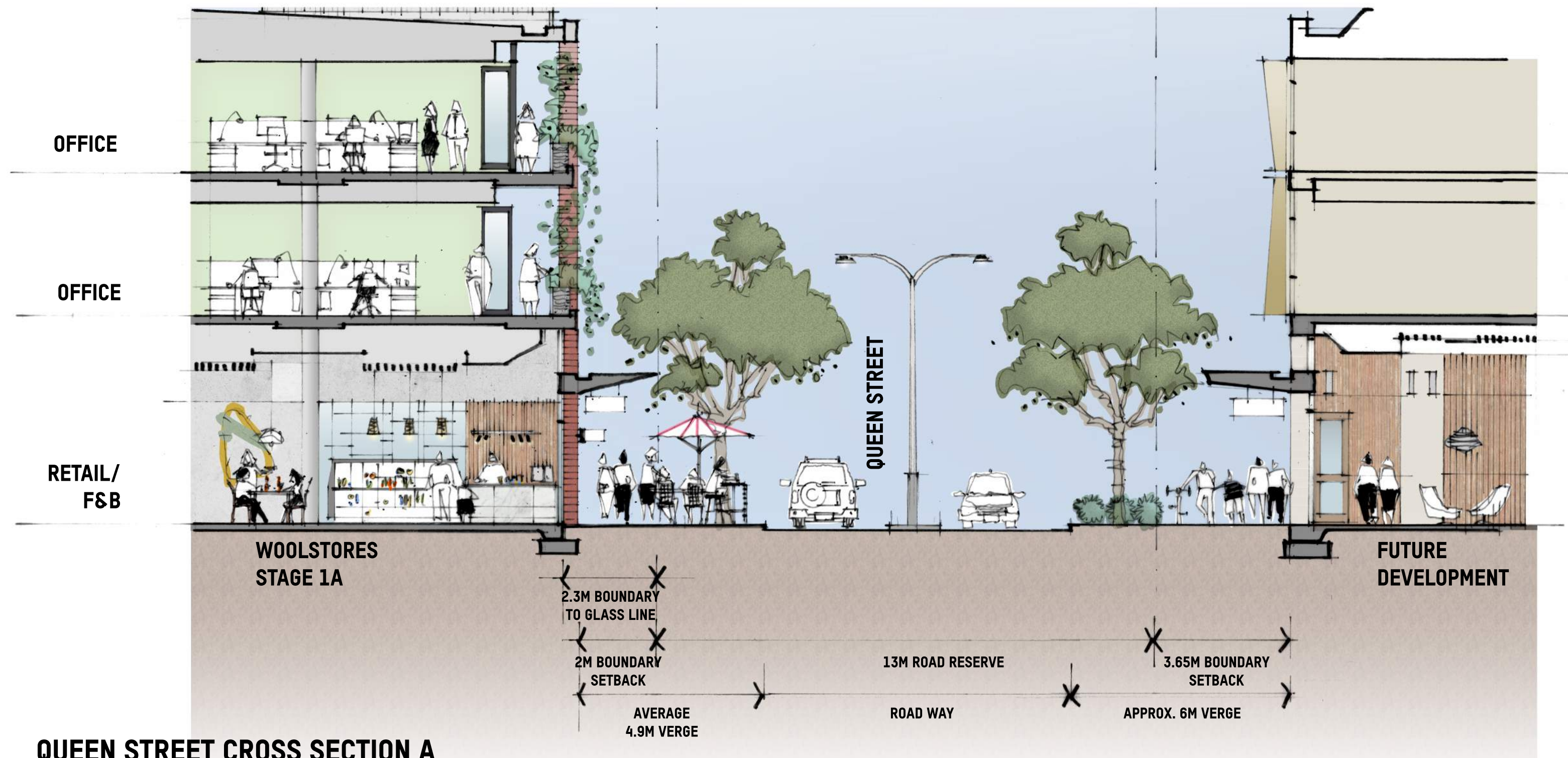
11/01/2023

SITE PLAN GROUND PLANE

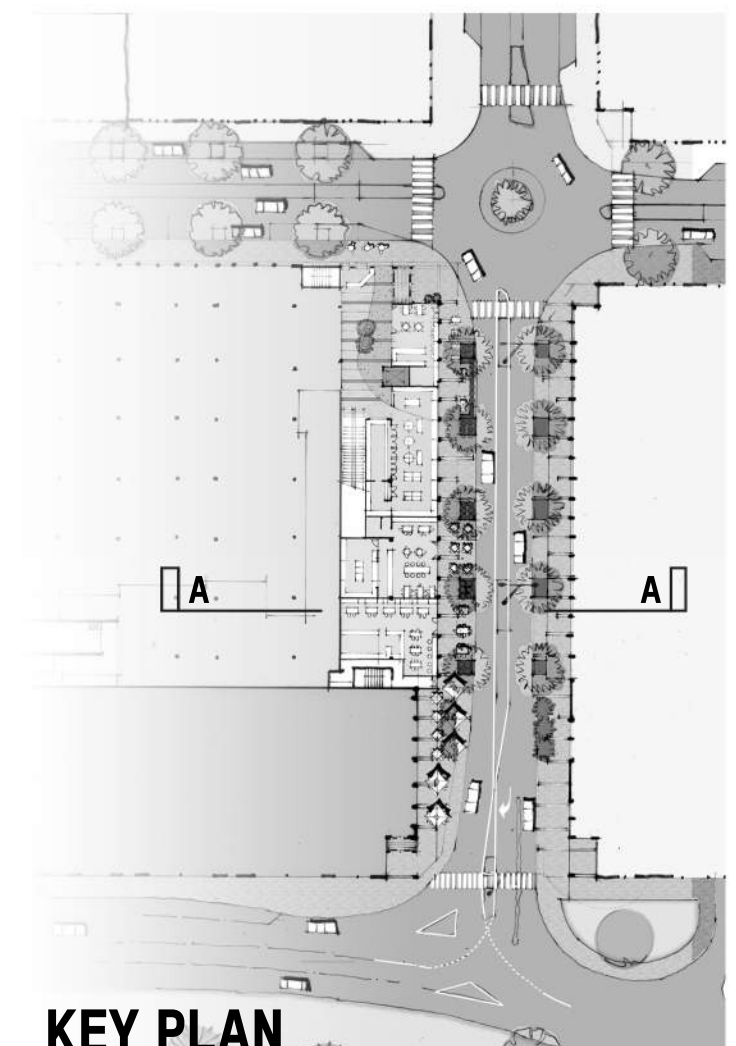


QUEEN STREET GROUND PLANE

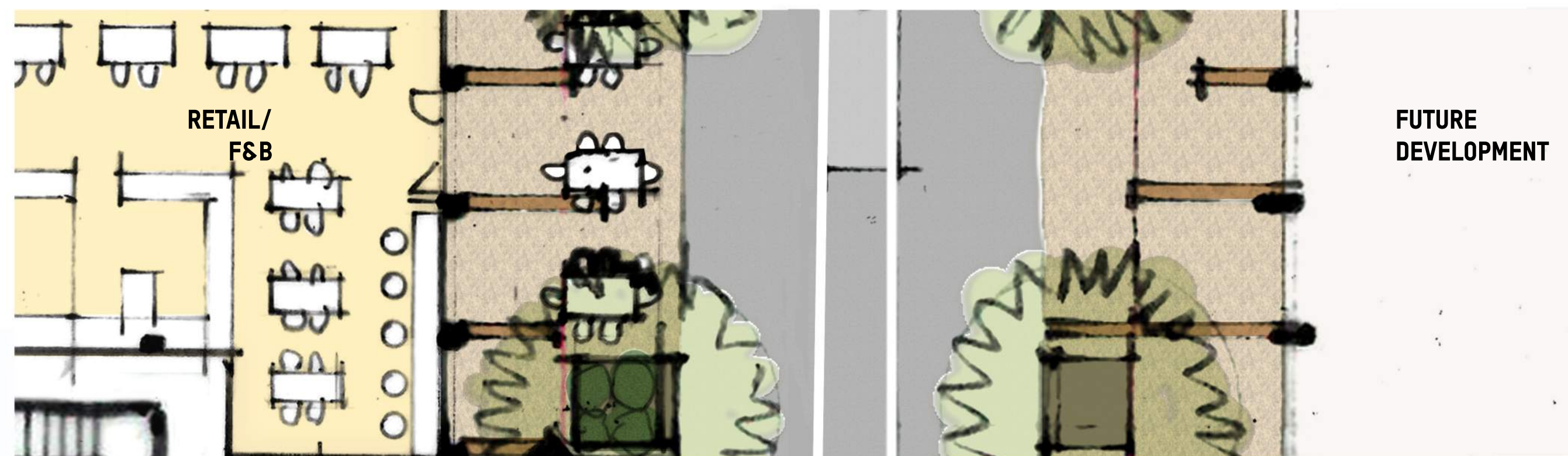




QUEEN STREET CROSS SECTION A



KEY PLAN

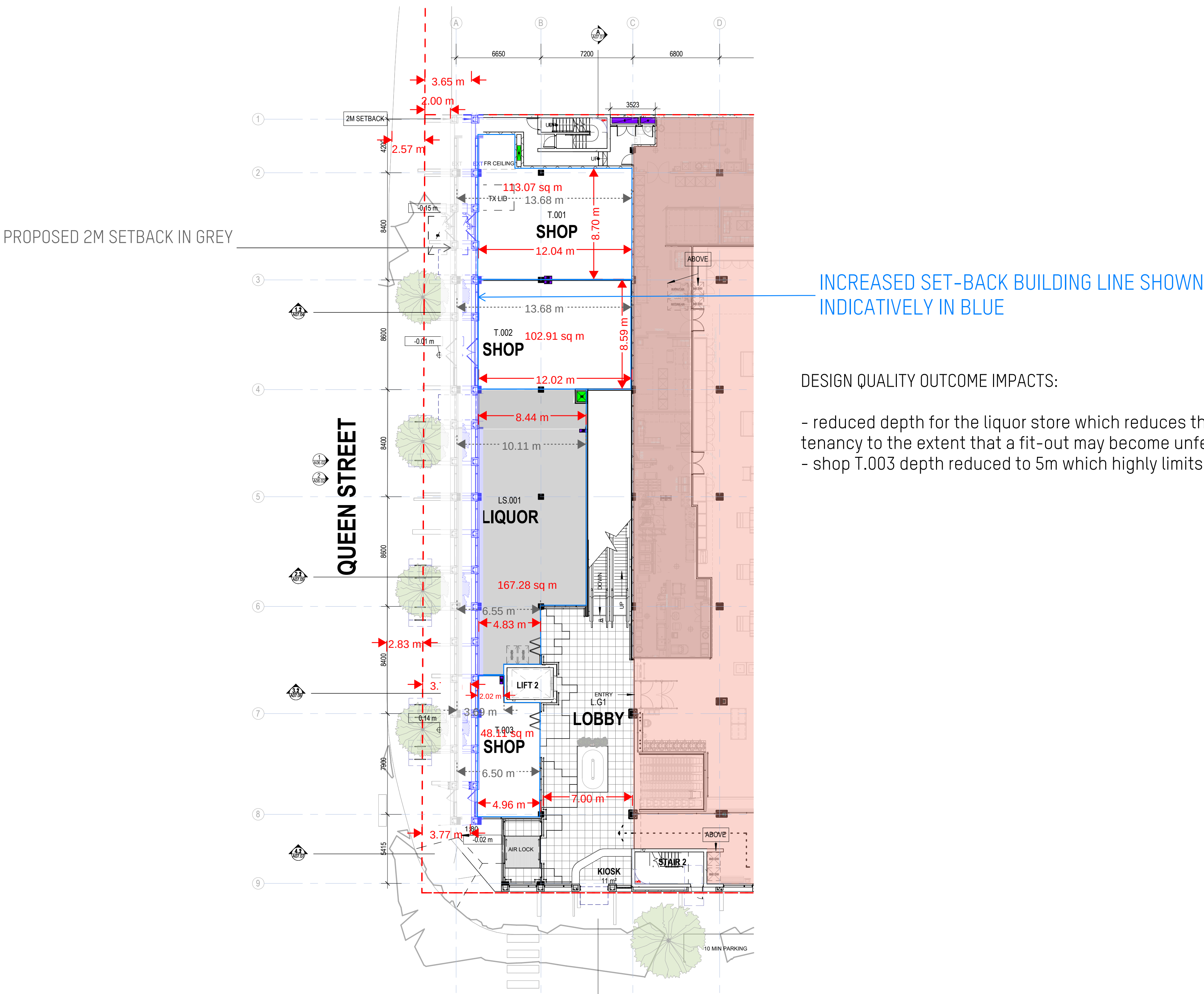


QUEEN STREET PLAN (PART)

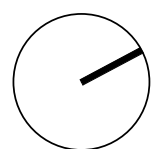
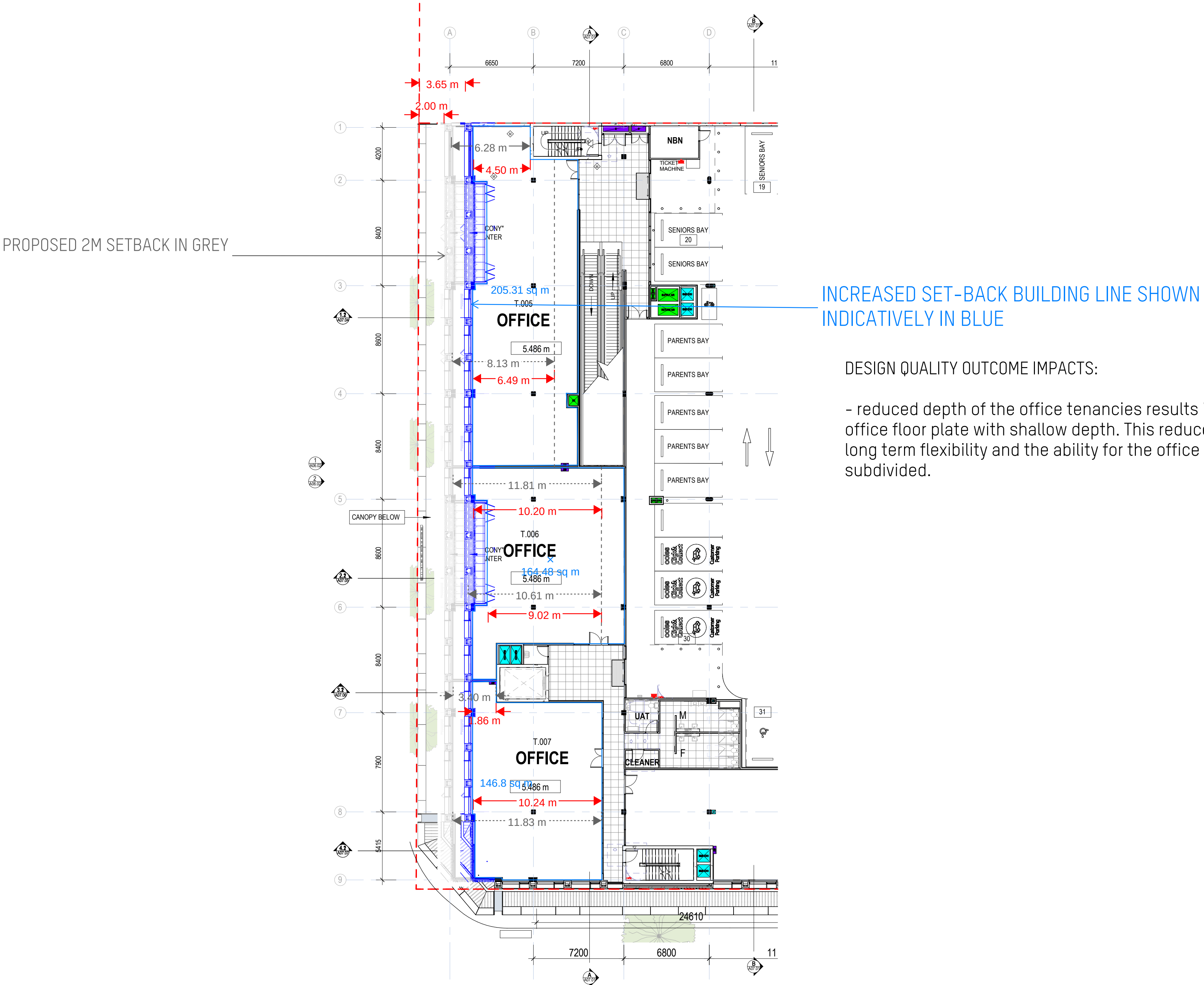


- DO NOT SCALE FROM DRAWINGS.
- VERIFY ALL DIMENSIONS ON SITE BEFORE COMMENCING WORK.
- COPY OR THE REDUCTION OF THIS DRAWING IS STRICTLY PROHIBITED WITHOUT THE CONSENT OF CAMERON CHISHOLM NICOL (WA) PTY LTD.

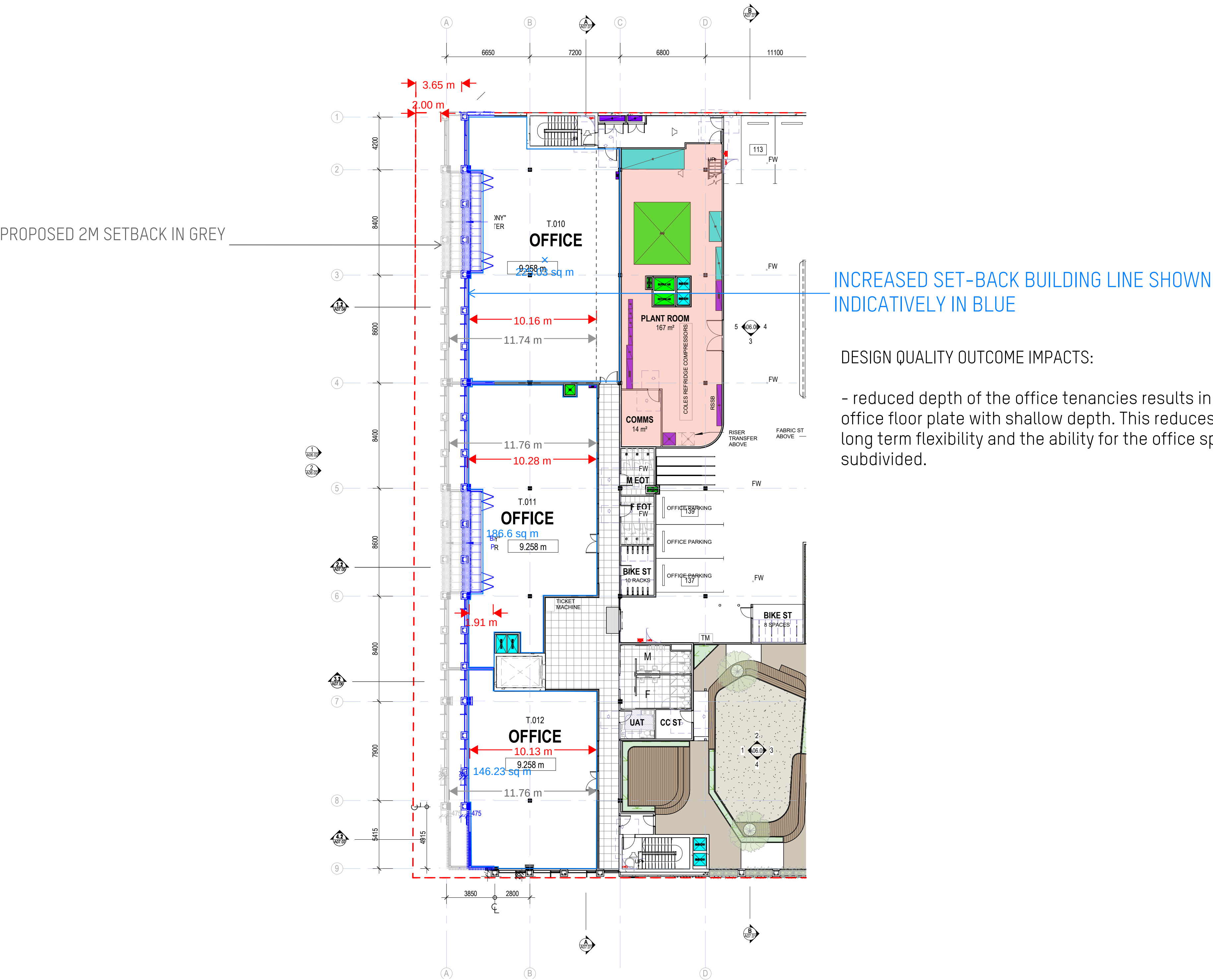
DESIGN OUTCOME IMPACT STUDY - GROUND LEVEL
COMPLIANT 3.65m SETBACK



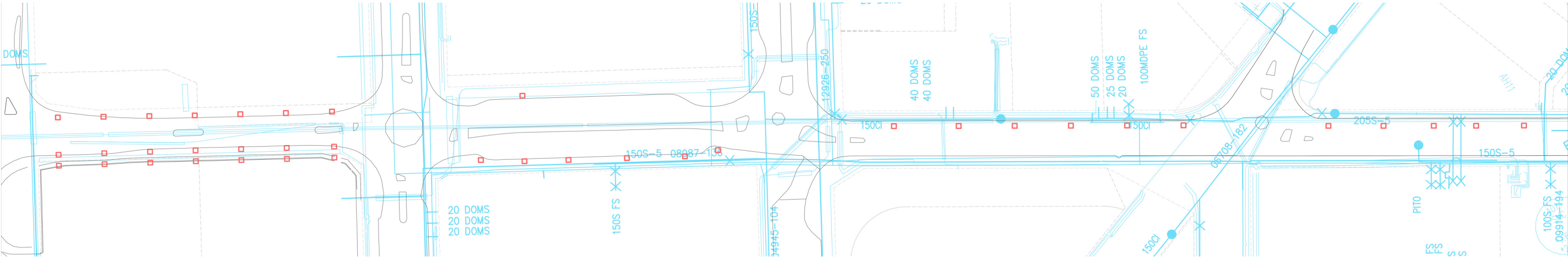
DESIGN OUTCOME IMPACT STUDY - FIRST FLOOR
COMPLIANT 3.65m SETBACK



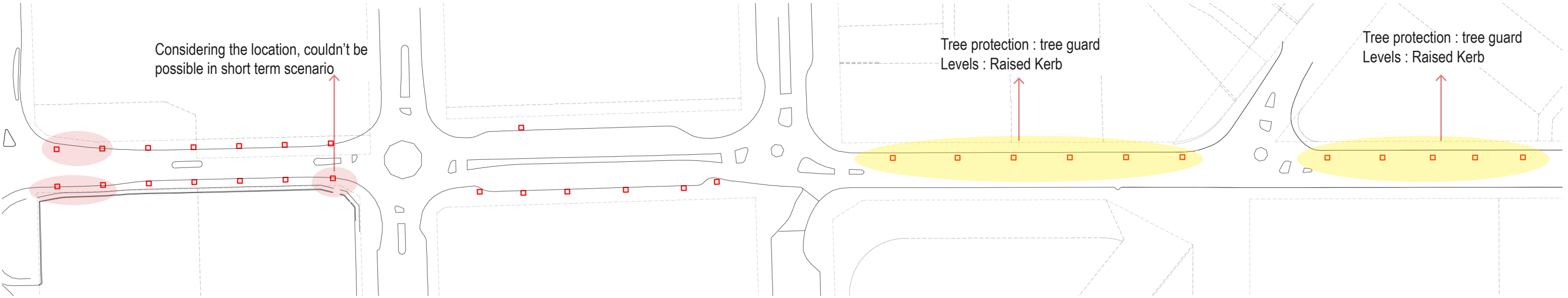
DESIGN OUTCOME IMPACT STUDY - SECOND FLOOR
COMPLIANT 3.65m SETBACK



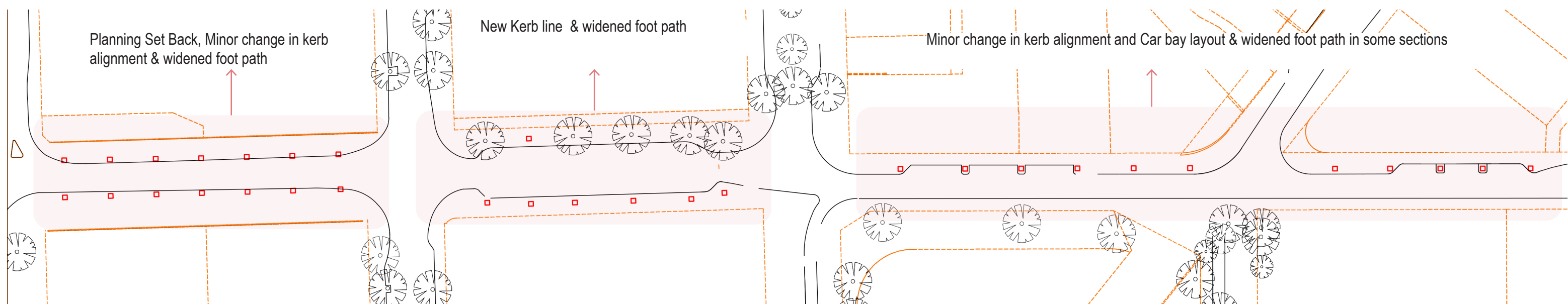
Scenario 1 - Planning Set Back,Minor change in Kerb alignment & widened foot path



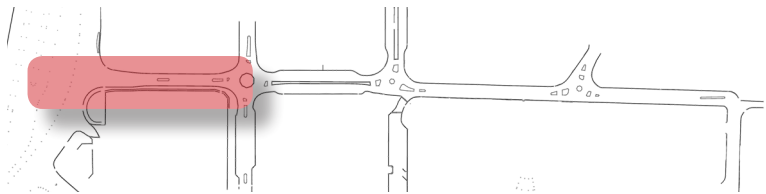
Short term



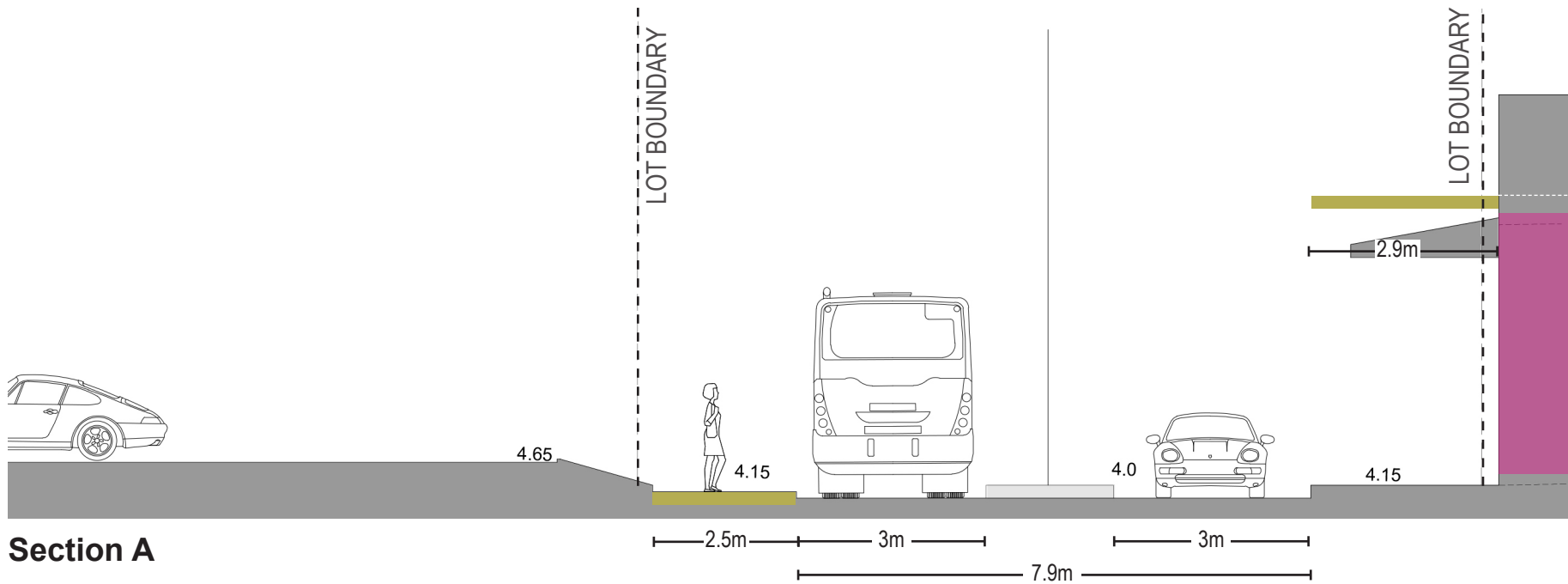
Long term



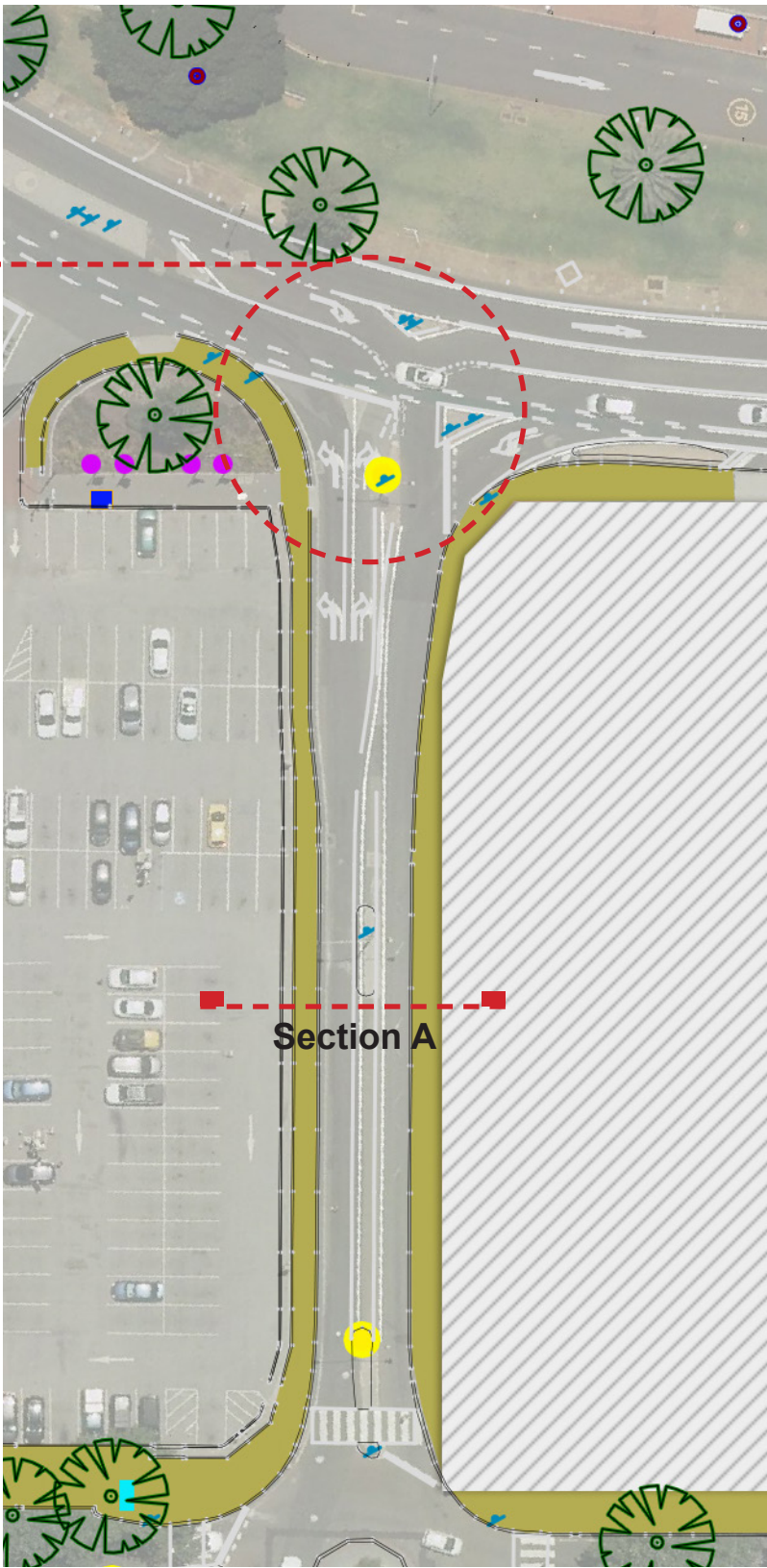
Analysis - Section A



- **Intersection** - Lack of a legible Pedestrian Crossing to Queen Street
- **Foot Path** - Narrow foot path/
- **Street Trees** - Lack of Street Trees, no shade especially in summer
- **Frontages/ Sense of Enclosure** - Lack of Amenity, no active frontages, not enough enclosure on the southern side/ Wilson Carpark
- **Issues** - Contaminated site restrictions



Section A



- | | | | |
|--|----------------|--|------------------|
| | Light Pole | | 1 P - Car Park |
| | Flag Pole | | 1/4 P - Car Park |
| | Bus Stop | | Bus Zone |
| | Main Road Sign | | Loading Zone |
| | Bin | | Existing Trees |
| | Seat | | Scale ??? |

