Bayside City Council

Planning Enquiries
Phone: 03 9599 4444
Web: http://www.bayside.vic.gov.au

Office Use Only

Application No.: Date Lodged: / /

Application for
Planning Permit

If you need help to complete this form, read How to complete the Application for Planning Permit form.

⚠ Any material submitted with this application, including plans and personal information, will be made available for public viewing, including electronically, and copies may be made for interested parties for the purpose of enabling consideration and review as part of a planning process under the *Planning and Environment Act 1987*. If you have any concerns, please contact Council's planning department.

⚠ **Questions marked with an asterisk (*) are mandatory and must be completed.**

⚠ **If the space provided on the form is insufficient, attach a separate sheet.**

Clear Form

The Land i

1 Address of the land. Complete the Street Address and one of the Formal Land Descriptions.

Street Address *

Unit No.: | St. No.: 10 | St. Name: Linacre Road

Suburb/Locality: Brighton | Postcode:3188

Formal Land Description *
Complete either A or B.

⚠ This information can be found on the certificate of title.

A [redacted] ○ Lodged Plan ◉ Title Plan ○ Plan of Subdivision [redacted]

OR

B Crown Allotment No.: | Section No.:

Parish/Township Name:

If this application relates to more than one address, please click this button and enter relevant details. Add Address

The Proposal

⚠ You must give full details of your proposal and attach the information required to assess the application. Insufficient or unclear information will delay your application.

2 i **For what use, development or other matter do you require a permit? ***

If you need help about the proposal, read: *How to Complete the Application for Planning Permit Form*

Construction of a three storey mixed use building containing a medical centre and residential apartments over basement car parking.

Provide additional information on the proposal, including: plans and elevations; any information required by the planning scheme, requested by Council or outlined in a Council planning permit checklist; and if required, a description of the likely effect of the proposal.

3 i **Estimated cost of development for which the permit is required ***

Cost $20,000,000.00 ⚠ You may be required to verify this estimate.

Insert '0' if no development is proposed (eg. change of use, subdivision, removal of covenant, liquor licence)

Existing Conditions i

4 **Describe how the land is used and developed now ***

eg. vacant, three dwellings, medical centre with two practitioners, licensed restaurant with 80 seats, grazing.

Single dwelling

Provide a plan of the existing conditions. Photos are also helpful.

Bayside City Council
Planning and Environment Act 1987
ADVERTISED PLAN
Planning Application No.: 5/2021/331/1
Date: 29/11/2021

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⚠ **Questions marked with an asterisk (*) are mandatory and must be completed.**

⚠ **If the space provided on the form is insufficient, attach a separate sheet.**

Clear Form

The Land i

1 Address of the land. Complete the Street Address and one of the Formal Land Descriptions.

Street Address *

Unit No.: | St. No.: 8 | St. Name: Linacre Road

Suburb/Locality: Hampton | Postcode:

Formal Land Description *
Complete either A or B.

⚠ This information can be found on the certificate of title.

A [redacted] ○ Lodged Plan ◉ Title Plan ○ Plan of Subdivision [redacted]

OR

B Crown Allotment No.: | Section No.:

Parish/Township Name:

If this application relates to more than one address, please click this button and enter relevant details. Add Address

The Proposal

⚠ You must give full details of your proposal and attach the information required to assess the application. Insufficient or unclear information will delay your application.

2 i **For what use, development or other matter do you require a permit? ***

If you need help about the proposal, read: *How to Complete the Application for Planning Permit Form*

As above.

Provide additional information on the proposal, including: plans and elevations; any information required by the planning scheme, requested by Council or outlined in a Council planning permit checklist; and if required, a description of the likely effect of the proposal.

Bayside City Council
Planning and Environment Act 1987
ADVERTISED PLAN
Planning Application No.: 5/2021/331/1
Date: 29/11/2021

3 i **Estimated cost of development for which the permit is required ***

Cost $As above ⚠ You may be required to verify this estimate.

Insert '0' if no development is proposed (eg. change of use, subdivision, removal of covenant, liquor licence)

Existing Conditions i

4 **Describe how the land is used and developed now ***

eg. vacant, three dwellings, medical centre with two practitioners, licensed restaurant with 80 seats, grazing.

As above.

Provide a plan of the existing conditions. Photos are also helpful.

Title Information

5 **Encumbrances on title** *

If you need help about the title, read: How to complete the Application for Planning Permit form

Does the proposal breach, in any way, an encumbrance on title such as a restrictrive covenant, section 173 agreement or other obligation such as an easement or building envelope?

- ○ Yes. (If 'yes' contact Council for advice on how to proceed before continuing with this application.)
- ◉ No
- ○ Not applicable (no such encumbrance applies).

Provide a full, current copy of the title for each individual parcel of land forming the subject site. (The title includes: the covering 'register search statement', the title diagram and the associated title documents, known as 'instruments', eg. restrictive covenants.)

Applicant and Owner Details

6 Provide details of the applicant and the owner of the land.

Applicant *

The person who wants the permit.

Name:
Title: | First Name: | Surname:
Organisation (if applicable): [redacted]
Postal Address: C/o Legacy Project Management | If it is a P.O. Box, enter the details here:
Unit No.: [redacted] | St. No.: [redacted] | St. Name: [redacted]
Suburb/Locality: [redacted] | State: VIC | Postcode: [redacted]

Where the preferred contact person for the application is different from the applicant, provide the details of that person.

Contact person's details * — Same as applicant (if so, go to 'contact information') ☐
Name:
Title: | First Name: Paul | Surname: Little
Organisation (if applicable): Planning & Property Partners Pty Ltd
Postal Address: | If it is a P.O. Box, enter the details here:
Unit No.: L13 | St. No.: 1 | St. Name: Collins Street
Suburb/Locality: Melbourne | State: VIC | Postcode: 3000

Please provide at least one contact phone number *

Contact information
Business Phone: 8626 9070 | Email: little@pppartners.com.au
Mobile Phone: | Fax:

Owner *

The person or organisation who owns the land

Where the owner is different from the applicant, provide the details of that person or organisation.

Same as applicant ☐
Name:
Title: | First Name [redacted] | Surname [redacted]
Organisation (if applicable): [redacted]
Postal Address: | If it is a P.O. Box, enter the details here:
Unit No.: | St. No.: [redacted] | St. Name [redacted]
Suburb/Locality: Hampton | State: VIC | Postcode [redacted]
Owner's Signature (Optional): | Date: day / month / year

Declaration

7 **This form must be signed by the applicant** *

Remember it is against the law to provide false or misleading information, which could result in a heavy fine and cancellation of the permit.

I declare that I am the applicant; and that all the information in this application is true and correct; and the owner (if not myself) has been notified of the permit application.

Signature: [redacted] | Date: 26/11/2021 day / month / year

Need help with the Application?

If you need help to complete this form, read How to complete the Application for Planning Permit form
General information about the planning process is available at www.dpcd.vic.gov.au/planning

Contact Council's planning department to discuss the specific requirements for this application and obtain a planning permit checklist. Insufficient or unclear information may delay your application.

8 **Has there been a pre-application meeting with a Council planning officer?**

(•) No ( ) Yes

Checklist

9 **Have you:**

- [✓] Filled in the form completely?
- [✓] Paid or included the application fee?

  ⚠ Most applications require a fee to be paid. Contact Council to determine the appropriate fee.
- [✓] Provided all necessary supporting information and documents?
  - [✓] A full, current copy of title information for each individual parcel of land forming the subject site
  - [✓] A plan of existing conditions.
  - [✓] Plans showing the layout and details of the proposal
  - [✓] Any information required by the planning scheme, requested by council or outlined in a council planning permit checklist.
  - [✓] If required, a description of the likely effect of the proposal (eg traffic, noise, environmental impacts).

- [✓] Completed the relevant Council planning permit checklist?
- [✓] Signed the declaration (section 7)?

Lodgement

Lodge the completed and signed form, the fee payment and all documents with:

Bayside City Council
PO Box 27 Sandringham VIC 3191

Cnr Bluff Road & Royal Avenue Sandringham VIC 3191

Contact information:
Telephone: 61 03 9599 4444
Email: enquiries@bayside.vic.gov.au

Deliver application in person, by fax, or by post:

Print Form

Make sure you deliver any required supporting information and necessary payment when you deliver this form to the above mentioned address. This is usually your local council but can sometimes be the Minister for Planning or another body.

Save Form:

Save Form To Your Computer

You can save this application form to your computer to complete or review later or email it to others to complete relevant sections.

Bayside City Council
Planning and Environment Act 1987

ADVERTISED PLAN

Planning Application No.: 5/2021/331/1

Date: 29/11/2021

The Victorian Government acknowledges the Traditional Owners of Victoria and pays respects to their ongoing connection to their Country, History and Culture. The Victorian Government extends this respect to their Elders, past, present and emerging.

REGISTER SEARCH STATEMENT (Title Search) Transfer of Land Act 1958

[redacted]

REGISTERED PROPRIETOR

[redacted]

ENCUMBRANCES, CAVEATS AND NOTICES

[redacted]

ACTIVITY IN THE LAST 125 DAYS

[redacted]

----------END OF REGISTER SEARCH STATEMENT----------

Additional information: (not part of the Register Search Statement)

Street Address: 10 LINACRE ROAD HAMPTON VIC 3188

ADMINISTRATIVE NOTICES

NIL

[redacted]

DOCUMENT END

Delivered from the LANDATA® System by InfoTrack Pty Ltd.

TITLE PLAN		EDITION 1	TP 137146T

[redacted]

Notations

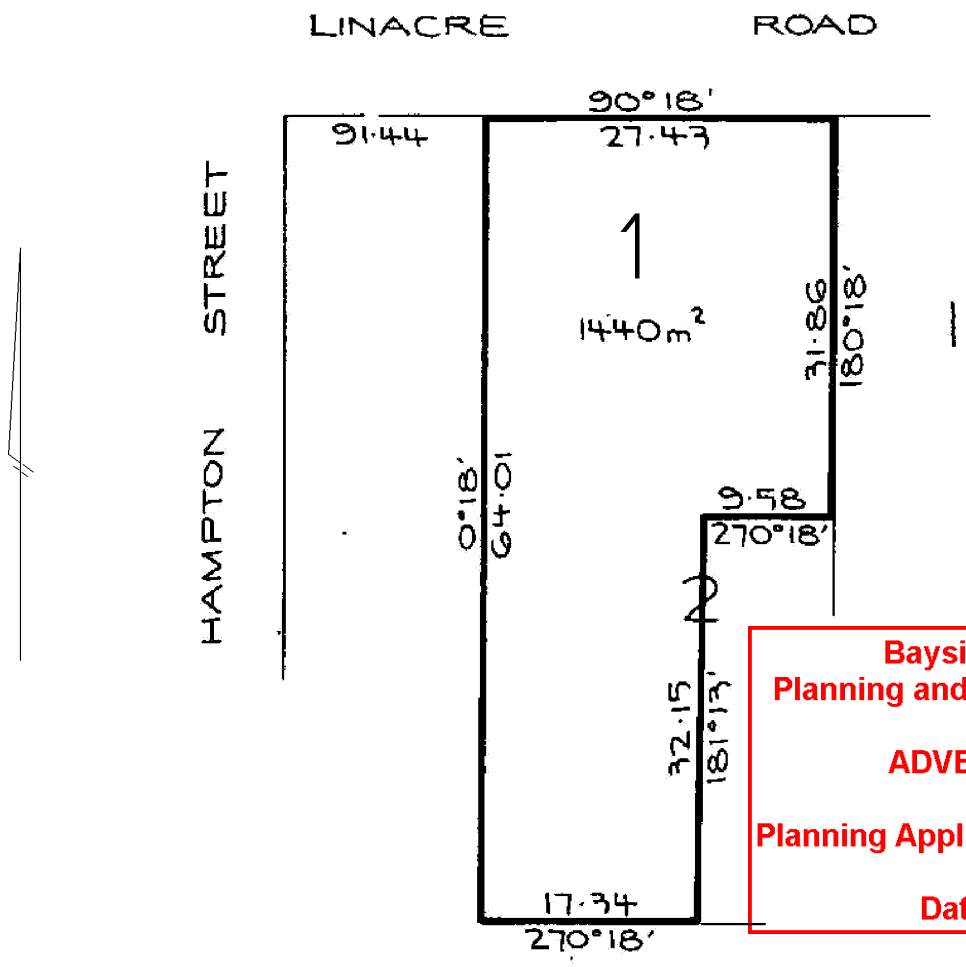
ANY REFERENCE TO MAP IN THE TEXT MEANS THE DIAGRAM SHOWN ON THIS TITLE PLAN

Description of Land / Easement Information

THIS PLAN HAS BEEN PREPARED FOR THE LAND REGISTRY, LAND VICTORIA, FOR TITLE DIAGRAM PURPOSES AS PART OF THE LAND TITLES AUTOMATION PROJECT

COMPILED: 10/09/1999

VERIFIED: BH



Bayside City Council
Planning and Environment Act 1987

ADVERTISED PLAN

Planning Application No.: 5/2021/331/1

Date: 29/11/2021

TABLE OF PARCEL IDENTIFIERS
WARNING: Where multiple parcels are referred to or shown on this Title Plan this does not imply separately disposable parcels under Section 8A of the Sale of Land Act 1962
PARCEL 1 = LOT 2 (PT) ON LP91380

LENGTHS ARE IN METRES	Metres = 0.3048 x Feet Metres = 0.201168 x Links		Sheet 1 of 1 sheets

The Victorian Government acknowledges the Traditional Owners of Victoria and pays respects to their ongoing connection to their Country, History and Culture. The Victorian Government extends this respect to their Elders, past, present and emerging.

REGISTER SEARCH STATEMENT (Title Search) Transfer of Land Act 1958

[redacted]

REGISTERED PROPRIETOR

[redacted]

ENCUMBRANCES, CAVEATS AND NOTICES

[redacted]

ACTIVITY IN THE LAST 125 DAYS

NIL

----------END OF REGISTER SEARCH STATEMENT----------

Additional information: (not part of the Register Search Statement)

Street Address: 8 LINACRE ROAD HAMPTON VIC 3188

ADMINISTRATIVE NOTICES

NIL

[redacted]

DOCUMENT END

TITLE PLAN		EDITION 1	TP 747777D

[redacted]

Notations

ANY REFERENCE TO MAP IN THE TEXT MEANS THE DIAGRAM SHOWN ON THIS TITLE PLAN

Description of Land / Easement Information

THIS PLAN HAS BEEN PREPARED FOR THE LAND REGISTRY, LAND VICTORIA, FOR TITLE DIAGRAM PURPOSES AS PART OF THE LAND TITLES AUTOMATION PROJECT

COMPILED: 19/01/2004

VERIFIED: CL

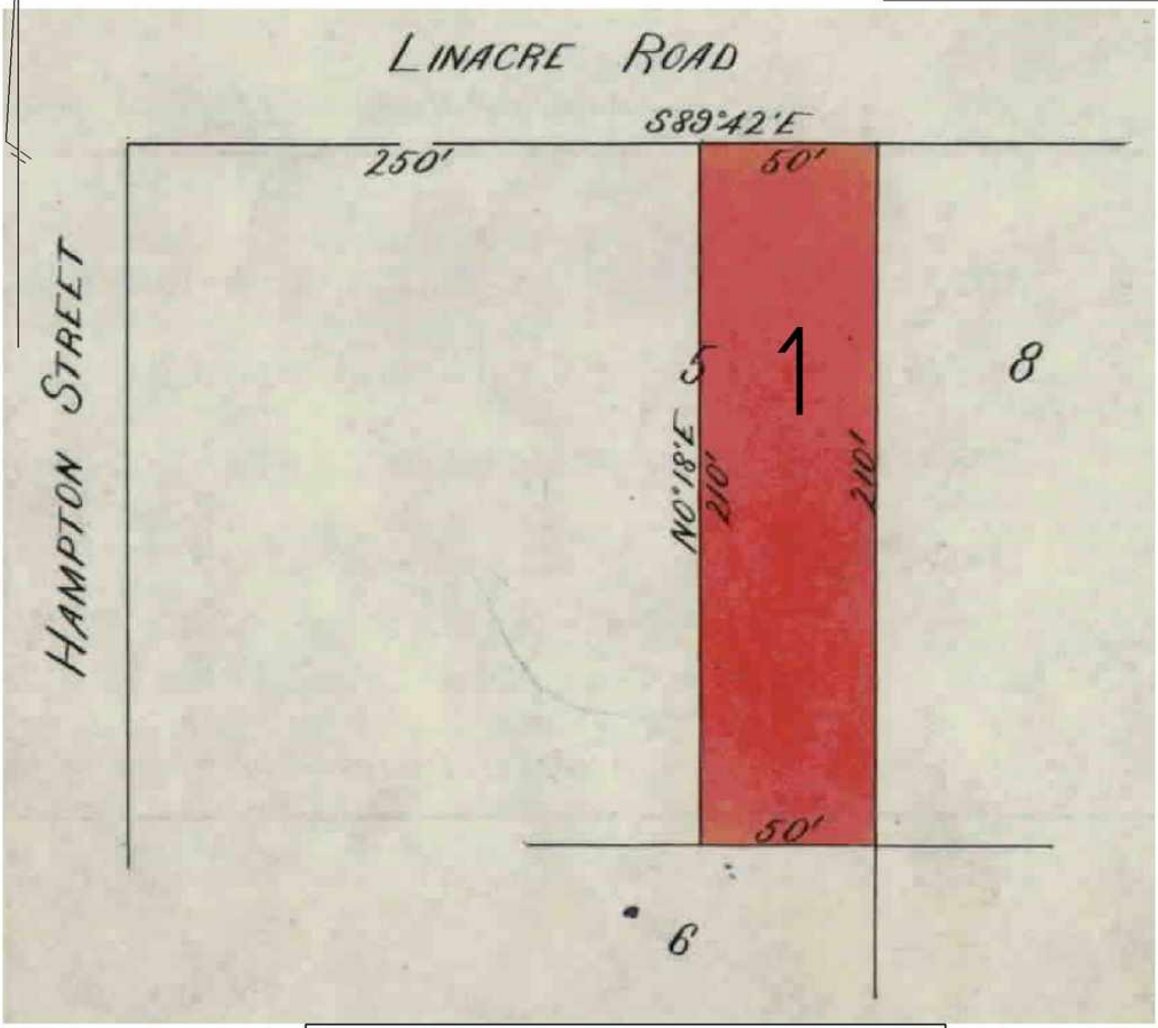


TABLE OF PARCEL IDENTIFIERS
WARNING: Where multiple parcels are referred to or shown on this Title Plan this does not imply separately disposable parcels under Section 8A of the Sale of Land Act 1962
PARCEL 1 = LOT 5 (PT) ON LP4541

LENGTHS ARE IN FEET & INCHES	Metres = 0.3048 x Feet Metres = 0.201168 x Links		Sheet 1 of 1 sheets

PLANNING & PROPERTY | **PARTNERS**

TOWN PLANNING REPORT

8 & 10 Linacre Road, Hampton
November 2021

Prepared for: [redacted]

Bayside City Council
Planning and Environment Act 1987

ADVERTISED PLAN

Planning Application No.: 5/2021/331/1

Date: 29/11/2021

Table of Contents

1 Introduction

1.1 Proposal Overview

This report accompanies a planning permit application for a three-storey building on land located at 8 and 10 Linacre Road, Hampton (the 'Site') for the purposes of a mixed-use development comprising a medical centre and residential apartments. Planning & Property Partners Pty Ltd are engaged as town planning consultants on behalf of [redacted] The proposal comprises:

- A medical centre accommodating 8 practitioners,
- 35 apartments,
- 104 car parking spaces over two (2) levels of basement including staff, resident and visitor car parking and,
- On-site bicycle parking spaces comprising 20 spaces.

The Site is located within the General Residential Zone – Schedule 2 (GRZ2) and is affected by the Design and Development Overlay – Schedule 12 pursuant to the provisions of the Bayside Planning Scheme ('the Planning Scheme').

The permit requirements relate to use of part of the building as a Medical Centre, buildings and works associated with a 'Section 2 Use' and 35 dwellings pursuant to the GRZ2.

Ewert Leaf Pty Ltd has designed a well-articulated and highly resolved architectural and urban design outcome that is responsive to the Site's strategic and physical context. The proposal is responsive to the policy, objectives and strategies of the Planning Policy Framework and the Local Planning Policy Framework.

This town planning assessment addresses the planning merits of the proposal and its consistency with the planning controls and relevant policies of the Bayside Planning Scheme.

A detailed assessment of the proposal is set out in this report and should be read in conjunction with the following accompanying information:

- Architectural Plans prepared by *Ewert Leaf Pty Ltd,*
- Traffic and Transport Assessment prepared by *Impact Traffic Engineering Pty Ltd,*
- Sustainability Management Plan prepared by *Low Impact Development Consulting,*
- Waste Management Plan prepared by *Leigh Design,*
- Landscape Plans prepared by *John Patrick Landscape Architects,*
- Cultural Heritage Management Plan prepared by *Jem Archaeology Pty Ltd* and,
- Arboricultural Impact Assessment Report prepared by *TMC Reports.*

2 Urban Context

2.1 The Site

The Site is generally referred to as 8 and 10 Linacre Road, Hampton. It comprises two parcels of land located on the south side of Linacre Road measuring 2,415m^2. It is generally an inverted 'L' shape and maintains a principal frontage with Linacre Road of approximately 27.43 metres.

The Site is formally known as [redacted] A copy of the Certificates of Title is included in **Appendix A** to this report.

The Site is strategically located within Hampton Street Major Activity Centre and by virtue of this, is nominated as being within a housing growth area within the Residential Strategic Framework Plan at Clause 21.02 of the Bayside Planning Scheme,

The Site is currently improved with a detached two storey dwelling. The Site is accessed via a single width vehicle crossing from Linacre Road.

The Site presents an excellent opportunity for an urban renewal project, including a higher diversity of residential living, by virtue of its composition, strategic location, minimal site constraints and proximity to public transport services and public amenities.

The Site's physical attributes dictate it is capable of accommodating an appropriately scaled mixed use development, which offers a high level of internal amenity for future occupants without unreasonably impacting on existing adjacent land uses or compromising the redevelopment potential of other nearby allotments.

Figure 1: The Site (source: nearmap.com – November 2021)

2.3 Easements/restrictions

There are no easements or restrictive covenants which encumber the land.

2.4 Surrounding context

The Site is located on Linacre Road, which forms part of a predominantly residential area which is identified to support moderate housing growth within the Hampton Street Major Activity Centre.

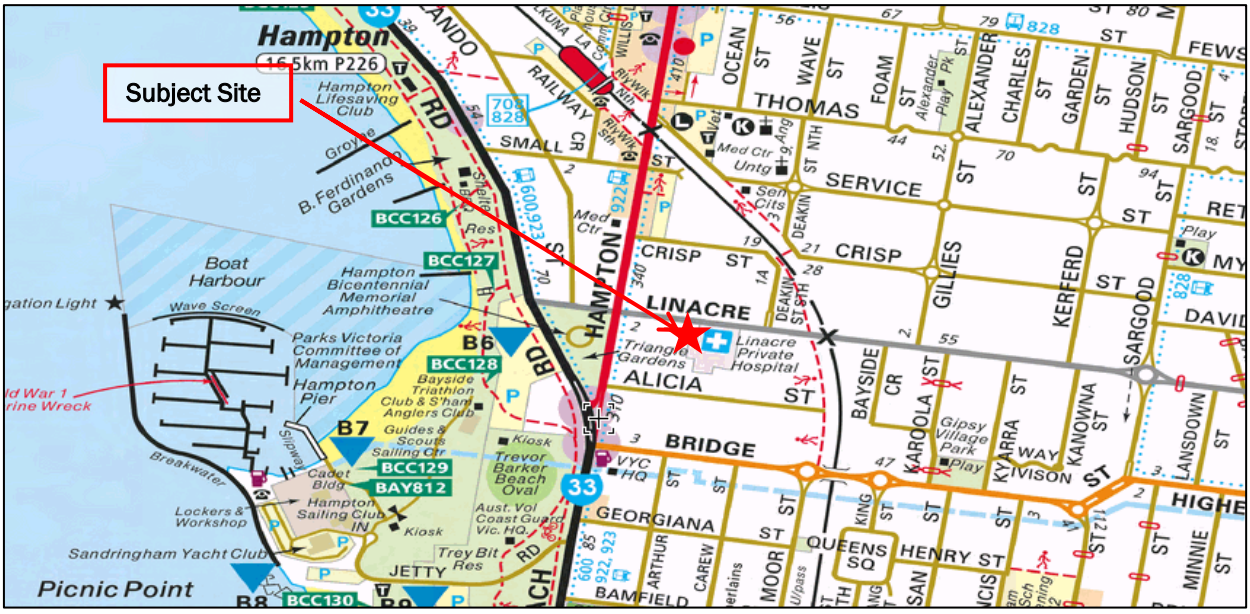


Figure 2 – Site Context *(Source: street-directory.com.au)*

The Site is very well located in relation to public transport, shops, services, public open space and schools. This includes:

- Hampton Railway Station (~550m)
- Hampton Street shops (~168m)
- Sandringham Primary School (~0.75km)
- Hampton Primary School (~0.99km)
- Linacre Private Hospital (~0.08km)
- Triangle Gardens (~0.17km)
- Trevor Baker Oval (~0.38km)
- Foreshore and beach (~0.25km)

Linacre Road is classified as a local road of an east-west orientation with a single lane of traffic in each direction. Footpaths and nature strips are provided to both sides of the road together with roadside parking opportunities.

Linacre Road comprises buildings of varying forms ranging between one and three storeys in height, including detached dwellings on large blocks, townhouses and apartment developments with basement car parking.

Traditional housing stock includes pre-WW2 dwellings within established garden settings as well as inter-war Californian Bungalows, many of which have been subject to alterations and additions over the years. Others benefit from individual heritage overlays. These include and

are not limited to the dwelling at 6 Linacre Road which is subject to HO212 and 330-332 Hampton Street which is subject to H0507. Many of them have been subject to alteration and additions.

Multi-dwelling developments that have occurred within the surrounds include the three-storey apartment development at 28-30 Linacre Road.

Recent approvals for three storey apartment developments have also been realised for land comprising 24 Linacre Road (BCC Ref: 5/2015/538) farther to the east of the Site and at 23-25 Linacre Road and 1A Deakin Street (BCC Ref: 5/2020/113/1) to the northeast of the Site. Those planning permits are yet to be implemented.

A number of “as of right” single dwellings have also been constructed along Linacre Road and surrounding streets.

The immediate surrounding context is characterised as follows:

East
Land to the east of the Site at 12-16 Linacre Road is developed by the Linacre Private Hospital which is a complex of two storey buildings. Part of the land is also occupied by a single storey heritage building “Emohirio” which is the subject of HO216.

West
The to the west of the Site is the traditional single storey detached heritage dwelling of 6 Linacre Road with its pan-tiled roof and weatherboard exterior. The dwelling is the subject of HO212 and is listed as being known as ‘Myora’ within the Schedule to the Heritage Overlay.

South
To the south of the Site are the single storey detached dwellings of 2/3 Alicia Street, 7A Alicia Street and 9 Alicia Street and their associated curtilage. They both have tiled pitched roofs and a brick or rendered exterior.

North
Beyond Linacre Road to the north of the Site are the single storey dwellings of 15-15A and 17-19 Linacre Road each displaying traditional pitched pan-tiled roofs and weatherboard exterior.

3 Proposal

3.1 Proposal summary

The application proposes the construction a mixed use development comprising a medical centre and thirty-five (35) apartments within a three (3) storey building. Two levels of basement are proposed, which will comprise a total of 104 car spaces, 14 bicycle spaces, storage and services. Vehicle and pedestrian access to the Site are proposed via Linacre Road, with additional visitor bicycle parking being provided at the building entry for 6 bicycles.

The proposed medical centre will comprise a total of 1,379m^2 of practitioner floor space to accommodate a total of 8 practitioners.

The proposed residential component of the building will comprise 24 two (2) bedroom dwellings and 11 three (3) bedroom dwellings. The proposed building will have a maximum height of 10.716 metres. Setbacks are provided to the Site boundaries at ground and upper floor levels to create a recessive and articulated built form, while a landscaped setback is provided to Linacre Road.

3.2 Proposal details

Floor plans are provided within the accompany architectural drawings prepared by *Ewert Leaf Pty Ltd.* These plans include:

Level	Description
Basement 2 (TP-151-A)	▪ 57 residential car parking spaces, ▪ 24 storage cages, ▪ Circulation, stair and lift access to upper levels, ▪ Vehicular ramp access to upper level.
Basement 1 (TP-150-A)	▪ 47 car parking spaces (26 Medical Centre, 1 visitor and 20 residential car parking spaces), ▪ 14 bicycle parking spaces, ▪ 12 storage cages, ▪ Circulation, stair and lift access to upper and lower levels, ▪ Vehicular ramp access to upper and lower levels, ▪ Associated services, ▪ Residential and commercial bin rooms,
Lower Ground Floor Plan (TP-100-A)	▪ Pedestrian entry to medical centre, ▪ 1,379m^2 of medical consulting suites, ▪ Pedestrian entry to residential apartments, ▪ Circulation, stair and lift access to upper and lower levels, ▪ Services, ▪ Vehicular access, ▪ 6 horizontal bicycle parking spaces.

Upper Ground Floor Plan (TP101-A)	▪ Thirteen (13) apartments comprising: ○ Eleven (11) two-bedroom apartment ○ Two (2) three-bedroom apartments ▪ Circulation, stair and lift access to upper and lower levels ▪ Services
First Floor Plan (TP102-A)	▪ Thirteen (13) apartments comprising: ○ Eleven (11) two-bedroom apartments, ○ Two (2) three-bedroom apartments, ▪ Circulation, stair and lift access to upper and lower levels, ▪ Services.
Second Floor Plan (TP103 -A)	▪ Nine (9) apartments comprising: ○ Two (2) two-bedroom apartments ○ Seven (7) three-bedroom apartments ▪ Circulation, stair and lift access to upper and lower levels ▪ Services

3.3 Design detail

The proposal has been designed in response to the attributes and characteristics of the Site and surrounds discussed earlier in this submission, including:

- The location of the Site within the Hampton Street Activity Centre
- The proximity of the Site to public transport, shops, schools and public transport
- Its overall size of 2,415m^2
- Existing built form characteristics of the streetscape

These characteristics and attributes in combination with applicable policy provisions of the Bayside Planning Scheme support uses which are compatible with the residential zoning of the land and encourage a higher residential density residential product for the Site and have informed the proposed building height and form, as will be discussed later in this submission.

While achieving a mixed-use product that is commensurate to these attributes and characteristics, considerations have also been made to ensure that the proposal appropriately responds to the character of the area and the neighbouring residential interfaces of the Site. As a result of these considerations, the building has been designed to incorporate the following features:

- Lower and Upper Ground floor building setbacks to all Site boundaries, including:
  - Minimum building street setback from Linacre Road of 6 metres.
  - Minimum building setback of 3.6 metres to the Site's eastern boundary.
  - Minimum building setback of 3.7 metres to the Site's western boundary.
  - Minimum building setback of 5.52 metres to the Site's southern boundary.
  - The provision of landscape beds to Linacre Road including side and rear curtilage.

- First Floor building setbacks to all Site boundaries, including:
  - Minimum building street setback from Linacre Road of 6 metres to balcony and 7 metres to wall.
  - Minimum building setback of 3.6 metres to the Site's eastern boundary.
  - Minimum building setback of 3.7 metres to the Site's western boundary.
  - Minimum building setback of 4.097 metres to the Site's southern boundary.
- Second floor street setback is recessed from First and Upper Ground Floor levels, articulating the facade and providing visual recession of the building mass.
- Incorporation of private open spaces fronting the Site's public interfaces to allow passive surveillance of local roads and a good level of activation.
- Incorporation of high-quality materials, including concrete and metal cladding.

4 Planning Scheme Controls

4.1 Clause 32.08 General Residential Zone – Schedule 2

The purpose of the GRZ at Clause 32.08 is:

- *To implement the Municipal Planning Strategy and the Planning Policy Framework.*
- *To encourage development that respects the neighbourhood character of the area.*
- *To encourage a diversity of housing types and housing growth particularly in locations offering good access to services and transport.*
- *To allow educational, recreational, religious, community and a limited range of other non-residential uses to serve local community needs in appropriate locations.*

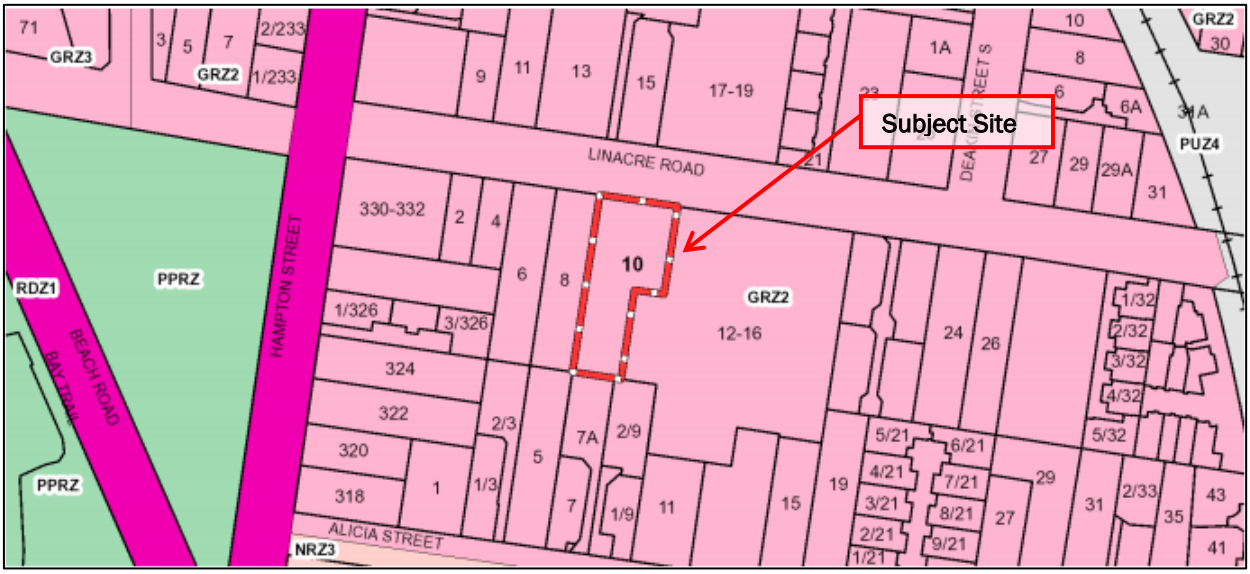


Figure 4 – Planning Zones (Source: DELWP)

Use of part of the land for the purpose of a 'medical centre' is a 'Section 2' use by virtue of the gross floor area of the medical centre exceeding 250m^2 and the site not having an abuttal or access to a road in a Road Zone. A planning permit is therefore required for use of the lower ground floor of the building as a medical centre, pursuant to Clause 32.08-2 of the GRZ. A planning permit is also required for buildings and works associated with that 'Section 2' use pursuant to Clause 32.08-9.

Use of the land for the purposes of a 'dwelling' is 'as of right' under the GRZ. A planning permit is however required 'to construct two or more dwellings on a lot' pursuant to Clause 32.08-6 of the Planning Scheme.

Pursuant to the GRZ2 two mandatory controls apply to the proposal, as follows:

- Minimum Garden Area Requirement (MGAR): 35% (site area above 650sqm)
- Maximum Building Height Requirement (varied by Schedule 2 to the zone): 12 metres as the slope of the natural ground level at any cross section wider than 8 metre of the site is 2.5 degrees or more.

The development plans demonstrate compliance with the mandatory minimum garden area and the maximum building height of the GRZ,

The proposal is also required to meet the requirements of *Clause 55 –Two or more dwellings on a lot and residential buildings*. A comprehensive assessment against the Objectives and Standards of Clause 55 is located at **Appendix C** of this report and discussed in further detail at Section 6.

4.2 Overlays

4.2.1 Clause 43.02 - Design and Development Overlay – Schedule 12

The subject Site is affected by the Design and Development Overlay – Schedule 12 pursuant to Clause 43.02 of the Planning Scheme.

The purpose of the overlay is:

- *To implement the Municipal Planning Strategy and the Planning Policy Framework.*
- *To identify areas which are affected by specific requirements relating to the design and built form of new development*.

A planning permit is required to construct a building and to construct and carry out works pursuant to Clause 43.02-2 of the Planning Scheme. The schedule to the overlay does not exempt the development that is the subject of this application.

Schedule 12 of the DDO provides built form standards for the Hampton Street Major Activity Centre.

Design objectives of DDO12 are:

- *To ensure that the height of new development is compatible with the preferred future role and character of the Hampton Street Major Activity Centre.*
- *To develop the centre in a way that conserves and enhances its valued urban character and heritage places.*
- *To ensure that new development contributes to safe and active streets.*
- *To maintain a strong landscape character with residential buildings set within vegetated front gardens and streetscapes in the residential precincts.*
- *To recognise* the redevelopment potential of the Willis Street Precinct.

With regard to building height, DDO12 specifies the following:

- *A building should not exceed the Preferred Building Heights (in metres and storeys) specified in the built form precinct provisions of this schedule.*
- *A building must not exceed the Maximum Building Heights (in metres and storeys) specified in the built form precinct provisions of this schedule.*

- *The height of buildings within the Special Building Overlay is to be measured from the applicable flood level (to Australian Height Datum) for the site as advised by the relevant floodplain management authority.*
- *Development on land in a Commercial Zone or Public Use Zone that is adjacent to a Residential Zone should be designed* to achieve a transition in height and building form.

Within Residential Precincts, DDO12 encourages design responses to include recessed upper most levels and attic style development.

Buildings should be setback in accordance with the relevant Clause 55 standards except that the second floor should be set back a minimum of 4 metres behind the front wall of the floor immediately below, unless the second floor is an attic.

For the purposes of defining terms, the second floor is taken to be the third storey.

The Site is identified as being within Precinct E on the Built Form Precinct Map at page 7 of DDO12.

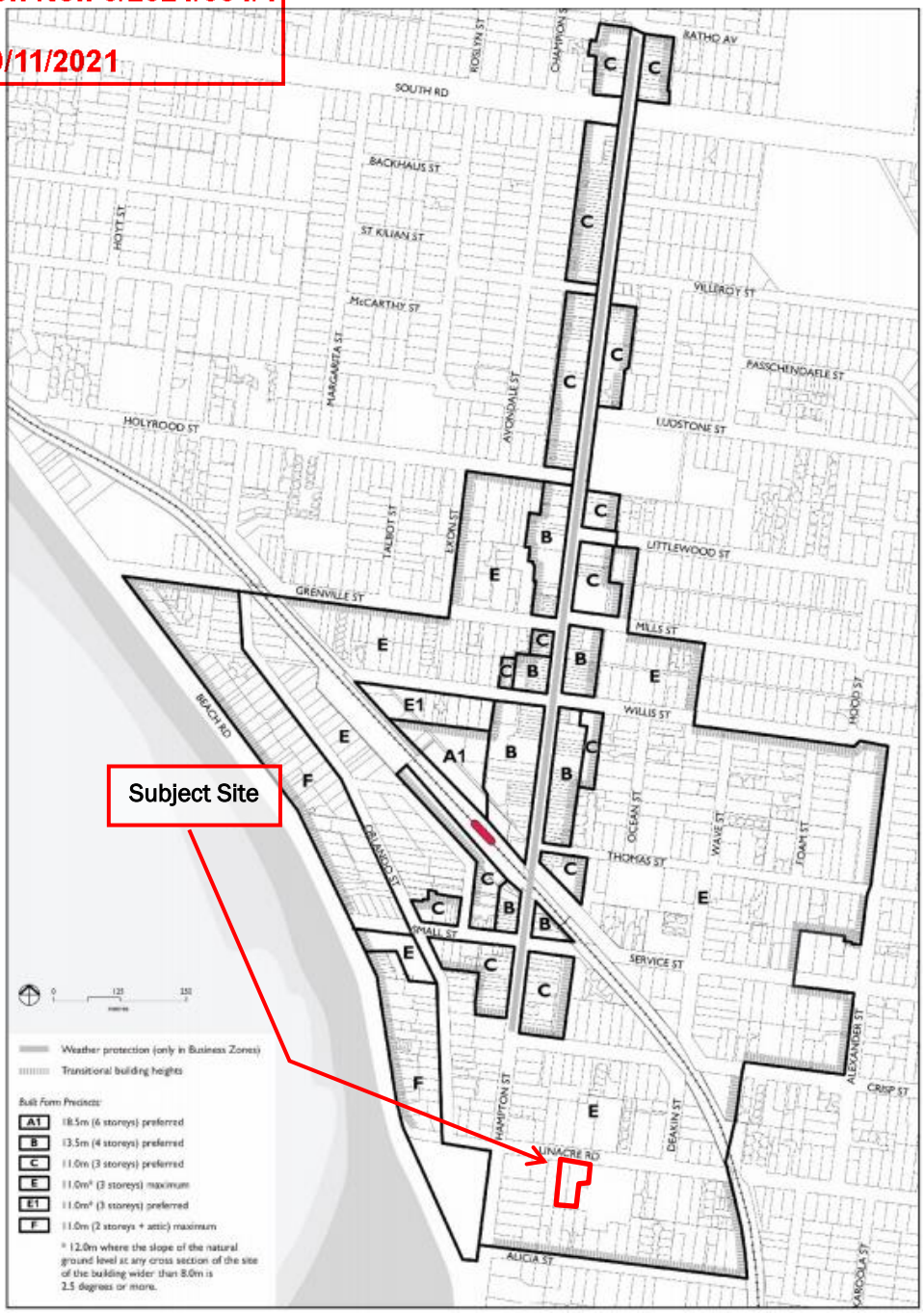


Figure 5: Hampton Street Major Activity Centre p7 of DDO12

The maximum building height for development within Precinct E is 12 metres (3 storeys) where the slope of the natural ground level at any cross section of the site of the building wider than 8 metres is 2.5 degrees or more.

The proposed development does not exceed the mandatory maximum building height prescribed by the DDO.

Variations to the built form requirements of DDO12 are contemplated provided the proposal responds and achieves the design objectives, design requirements and outcomes of the Schedule and demonstrates:

- *A high standard of architectural design,*

- *Innovative environmental design,*
- *Minimal overshadowing of adjoining streets, public spaces and residential properties,*
- *Minimal impact on the amenity of adjoining residential precincts.*
- *Respect for places subject to the Heritage Overlay,*
- *Transitions in scale to lower building forms,* as appropriate and responds to the particular characteristics or features that warrant a variation and alternative design response.

4.2.2 Clause 45.06 – Development Contributions Plan Overlay

The purpose of the overlay is:

- *To implement the Municipal Planning Strategy and the Planning Policy Framework.*
- *To identify areas which require the preparation of a development contributions plan for the purpose of levying contributions for the provision of works, services and facilities before development can commence.*

Schedule 1 of the overlay relates to the "Bayside drainage development contribution plan."

The schedule specifies contribution rates required per dwelling and square metre of commercial floor area. It is anticipated that this requirement will be addressed as a condition of any permit that may be issued.

4.3 Particular Provisions

4.3.1 Clause 52.06 Car Parking

The purpose of Clause 52.06 Car Parking is:

- *To ensure that car parking is provided in accordance with the Municipal Planning Strategy and the Planning Policy Framework.*
- *To ensure the provision of an appropriate number of car parking spaces having regard to the demand likely to be generated, the activities on the land and the nature of the locality.*
- *To support sustainable transport alternatives to the motor car.*
- *To promote the efficient use of car parking spaces through the consolidation of car parking facilities.*
- *To ensure that car parking does not adversely affect the amenity of the locality.*
- *To ensure that the design and location of car parking is of a high standard, creates a safe environment for users and enables easy and efficient use.*

Clause 52.06 requires that prior to a new use or an increase in an existing use commences, the car parking provisions required under Clause 52.06-5 must be provided to the satisfaction of the Responsible Authority.

Pursuant to Clause 52.06-5 of the Planning Scheme, the following car parking rates apply:

- Five (5) car parking spaces are required to the first person providing health services plus 3 to every person providing health services.
- One (1) car parking space is required to each one- or two- bedroom dwelling.
- Two (2) car parking spaces are required to each three- or more bedroom dwelling.

The table below details the car parking requirements for the proposal:

Land Use	Applied Rate	Parking Measure	Required Parking	Provided Parking
Medical Centre	5 to the first person providing health services plus 3 to every other person providing health services.	8	26	26
Dwelling	1 space to each one or two bedroom dwellings	24	24	48
	2 spaces to each three or more bedroom dwelling	11	22	23
	1 visitor space to very 5 dwellings for development of 5 or more dwellings	35/5	7	7
	Total		**79**	**104**

A total of 79 car parking spaces are required and 104 are proposed to be provided on site.

The proposal provides car parking in excess of the standard car parking requirements for the dwellings on Site and meets the car parking rate required for the proposed medical centre use.

Clause 52.06-8 provides design standards for a car parking plan and includes standards relating to, *inter alia*, car parking spaces, accessways and gradients. The plans submitted with the application demonstrate that the car parking plan complies with these standards.

We refer to the Transport and Transport Assessment prepared by *Impact Traffic Engineering Pty Ltd* which considers the car parking reduction being sought and the arrangements for car parking design and access.

4.3.2 Clause 52.34 Bicycle Facilities

Clause 52.34 requires that prior to a new use commencing or the increase of the floor area of an existing, the required bicycle facilities under Clause 52.34-5 must be provided.

Whilst the development is three storeys in height it nevertheless provides development over four levels. Therefore, rates have been applied as of for a residential development of four storeys or more. Further, the applicable rates for a Medical Centre have also been applied.

The table below details the bicycle parking requirements for the proposal:

Land Use	Applied Rate	Parking Measure	Required Parking	Provided Parking
Medical Centre	One (1) bicycle space to each 8 practitioners	8	1	1
	One (1) visitor bicycle space to each 4 practitioners		2	2
Dwelling	One (1) bicycle space for each five (5) dwellings	35	7	11
	One (1) visitor bicycle space to each 10 dwelling		4	6
	Total		**14**	**20**

The proposal provides for a total of 20 bicycle spaces overall. As such, the proposal provides for bicycle parking in accordance with the standard bicycle parking requirements within the provisions of Clause 52.34 of the Planning Scheme.

We refer to the Traffic and Transport Assessment prepared by *Impact Traffic Engineering Pty Ltd* which considers the provisions for bicycle parking and gives further commentary on this.

4.3.3 Clause 55 – Two or More Dwellings on a Lot and Residential Buildings

The purpose of Clause 55 (Two or More Dwellings on a Lot and Residential Buildings) of the Bayside Planning Scheme is:

- *To implement the Municipal Planning Strategy and the Planning Policy Framework.*
- *To achieve residential development that respects the existing neighbourhood character or which contributes to a preferred neighbourhood character.*
- *To encourage residential development that provides reasonable standards of amenity for existing and new residents.*
- *To encourage residential development that is responsive to the site and the neighbourhood*

The Clause details a series of objectives and standards related to multi-dwelling developments. An objective describes the desired outcome to be achieved in the completed development and a standard contains the requirements to meet the objective.

A detailed assessment of the proposed development against the relevant standards and objectives is provided at **Appendix C**.

4.3.4 Clause 53.18 – Stormwater Management in Urban Development

The purpose of Clause 53.18 is:

To ensure that stormwater in urban development, including retention and reuse, is managed to mitigate the impacts of stormwater on the environment, property and public safety, and to provide cooling, local habitat and amenity benefits.

Further, it seeks to reduce the impact of stormwater on the drainage system and filter sediment and waste from stormwater, maximise the retention and re-use of stormwater and encourage stormwater management that contributes to cooling, local habitat improvements and provision of attractive and enjoyable spaces.

The design response to the purpose of Clause 53.18 is provided in the Sustainable Management Plan prepared by Sustainable Development Consultants which includes as STORM assessment and WSUD's report.

4.3.5 Clause 65 - Decision guidelines

Clause 65 sets out Decision Guidelines and Clause 65.01 sets out issues that the Responsible Authority must consider when making a decision. Those relevant to this application include:

- *The matters set out in Section 60 of the Act.*
- *The State Planning Policy Framework and the Local Planning Policy Framework, including the Municipal Strategic Statement and local planning policies.*
- *The purpose of the zone, overlay or other provision.*
- *Any matter required to be considered in the zone, overlay or other provision.*
- *The orderly planning of the area.*
- *The effect on the amenity of the area.*
- *Whether the proposed development is designed to maintain or improve the quality of stormwater within and exiting the site.*
- *The adequacy of loading and unloading facilities and any associated amenity, traffic flow and road safety impacts.*

The requirements of Clause 65 have been covered throughout this report and further analysis of key considerations is detailed in the following sections.

5 Planning and Policy Assessment

5.1 Plan Melbourne

Plan Melbourne 2017-2050 ('Plan Melbourne') outlines the key strategic policies with regard to the provision of housing in Melbourne's urban areas. The strategic outcomes outlined in the document are required to be considered as a part of Council's decision-making process and include (inter-alia):

Direction 1.2 of Plan Melbourne is to *improve access to jobs across Melbourne and closer to where people live and is supported by Policy 1.2.1 which seeks to facilitate investment in Melbourne's outer areas to increase local access to employment.*

Direction 2.2 of Plan Melbourne is to '*Deliver more housing closer to jobs and public transport'* and is supported by policies including Policy 2.2.2 which directs new housing and mixed-use developments to urban renewal precincts. Further, Policy 2.2.3 '*supports new housing in activity centres and other places that offer good access to jobs, services and public transport'.*

Direction 2.5 of Plan Melbourne is to *'Provide greater choice and diversity of housing'* and is supported by policies including Policy 2.5.1 that aims to *'facilitate housing that offers choice and meets changing household needs.'*

Direction 5.1 outlines the ambition of creating a city of 20-minute neighbourhoods by encouraging the development of vibrant, mixed-use neighbourhoods linked by a network of activity centres. 'Walkability', 'housing diversity', 'ability to age in place' are identified here as key characteristics of 20-minute neighbourhoods.

Direction 5.3 notes the importance of social infrastructure in supporting strong communities. Delivery and co-location of social infrastructure in accessible locations near public transport is a key policy under this direction.

It is submitted that the proposed development provides an appropriate response to the recognised need to provide employment opportunities close to where people live whilst seeking also to accommodate Melbourne's increased housing demand within existing well-serviced areas. The development provides an excellent opportunity for a high level of amenity for future occupants, taking advantage of the Site's proximity to existing public transport and nearby services.

5.2 Urban Design Guidelines for Victoria

The Urban Design Guidelines for Victoria were introduced in August 2017. The guidelines consolidate the former Design Guidelines for Higher Density Residential Development (2004), Activity Centre Design Guidelines (2005) and Safer Design Guidelines for Victoria (2005).

The guidelines provide advice on:

- The design of public spaces;
- Building design in relation to a building's interface with public spaces; and
- The layout of cities, towns and neighbourhoods.

5.3 Planning Policy Framework

The Planning Policy Framework of the Bayside Planning Scheme provide the state-wide provisions of the Planning Scheme. They implement the metropolitan planning strategy *Plan Melbourne 2017-2050*.

In relation to residential development, the polices encourage additional housing opportunities to locate within existing urban areas that have access to a variety of services. This development should address its surrounding context to provide appropriately residential amenity and neighbourhood character outcomes.

Policies of the Planning Policy Framework of relevance to the application comprise the following:

- ***Clause 11 Settlement***
  - *11.01-1S Settlement.*
  - *11.01-1R Settlement – Metropolitan Melbourne*
- ***Clause 15 Built Environment and Heritage***
  - *15.01-1S Urban design*
  - *15.01-1R Urban design - Metropolitan Melbourne*
  - *15.01-2S Building design*
  - *15.01-4S Healthy neighbourhoods*
  - *15.01-4R Healthy neighbourhoods - Metropolitan Melbourne*
  - *15.01-5S Neighbourhood character*
  - *15.02-1S Energy and resource efficiency*
- ***Clause 16 Housing***
  - *16.01-1S Integrated housing*
  - *16.01-1R Integrated housing - Metropolitan Melbourne*
  - *16.01-2S Location of residential development*
  - *16.01-3S Housing diversity*
  - *16.01-3R Housing diversity - Metropolitan Melbourne*
  - *16.01-4S Housing affordability*
- ***Clause 18 Transport***
  - *18.01-1S Land use and transport planning*
  - *18.02-1R Sustainable personal transport - Metropolitan Melbourne*
  - *18.02-4S Car parking*
- ***Clause 19 – Infrastructure***
  - *Clause 19.01 – Energy*

- *Clause 19.02 – Community Infrastructure*
- *Clause 19.03 – Development Infrastructure*

The development's response to strategic policies of the Planning Policy Framework is considered at Section 7 of the report below. The abovementioned policies relate to general State-wide and regional provisions of the Planning Scheme and are relevant to the proposal. The principles of land use and development have been adhered to and the proposed development for mixed-use and higher-density living meets the strategic direction of the PPF.

Clause 15.01-5S – Neighbourhood Character Policy applies to development and works in the Neighbourhood Residential, General Residential and Mixed-Use Zone.

The objective of Clause 15.01-5S is to recognise, support and protect neighbourhood character, cultural identity and sense of place.

Strategies are to:

- *Support development that respects the existing neighbourhood character or contributes to a preferred neighbourhood character.*
- *Ensure the preferred neighbourhood character is consistent with medium and higher density housing outcomes in areas identified for increased housing.*
- *Ensure development responds to its context and reinforces a sense of place and the valued features and characteristics of the local environment and place by respecting the:*
  - *Pattern of local urban structure and subdivision.*
  - *Underlying natural landscape character and significant vegetation.*
  - *Neighbourhood character values and built form that reflect community identity.*

Clause 16.01-2S of the Planning Scheme is considered relevant to the assessment of this application which has regard to '*Location of Residential Development*' and maintains the following objective:

- *To locate new housing in designated locations that offer good access to jobs, services and transport.*

With its strategy to:

- *Increase the proportion of new housing in designated locations within established urban areas and reduce the share of new dwellings in greenfield and dispersed development areas.*
- *Encourage higher density housing development on sites that are well located in relation to jobs, services and public transport.*
- *Ensure an adequate supply of redevelopment opportunities within established urban areas to reduce the pressure for fringe development.*
- *Facilitate residential development that is cost-effective in infrastructure provision and use, energy efficient, incorporates water efficient design principles and encourages public transport use.*

- *Identify opportunities for increased residential densities to help consolidate urban areas.*

For the Metropolitan Melbourne region, the following strategies at clause 16.01-2R are also of particular relevance (emphasis added):

- *Identify areas that offer opportunities for more medium and high-density housing near employment and transport in Metropolitan Melbourne.*
- *Manage the supply of new housing to meet population growth and create a sustainable city by developing housing and mixed-use development opportunities in locations that are:*
    - *Areas for residential growth.*
    - *Neighbourhood activity centres - especially those with good public transport connections.*
    - *Areas near existing and proposed railway stations that can support transit-orientated development.*
- *Facilitate increased housing in established areas to create a city of 20 minute neighbourhoods close to existing services, jobs and public transport.*
- *Direct new housing to areas with appropriate infrastructure.*

Clause 16.01-03S is in regard to *'Housing Diversity'* and states:

- *'To provide for a range of housing types to meet increasingly diverse needs.'*

And has strategy to (*inter-alia*):

> *'Ensure housing stock matches changing demand by widening housing choice.*
> *Facilitate diverse housing that offers choice and meets changing household needs through:*
>
> - *A mix of housing types.*
> - *Adaptable internal dwelling design.*
> - *Universal design.*
>
> *Encourage the development of well-designed medium-density housing which:*
>
> - *Respects the neighbourhood character.*
> - *Improves housing choice.*
> - *Makes better use of existing infrastructure.*
> - *Improves energy efficiency of housing.'*

The proposed development of the Site for a mixed-use development comprising a medical centre coupled with a residential offering of a mix of two and three-bedroom dwellings is entirely responsive to the Site's contextual setting and the above strategic principles for urban renewal and density in established areas proximate to existing and planned future amenities, infrastructure and services.

The Site is strategically located within the Hampton Street Activity Centre, which has been identified, not only as an area for a focus of community life and thus where competitive retail

outlets are viable, lively and contribute to interesting strip shopping centres but, one for increased residential density. This is supported within the current zoning of the land.

The proposed built form is of a high architectural and urban design merit which has responded to the identified opportunities and constraints of the Site, drawing reference to noted nearby characteristics of the immediate area through materials, massing and design details. In doing so, the development provides a high level of amenity for future occupants with the siting and scale of the proposal not unreasonably impacting on adjoining or nearby residential neighbours.

5.4 Local Planning Policy Framework

The Local Planning Policy of the Bayside Planning Scheme builds on the overarching strategic directions of the State Planning Policy Framework and applies these at a local level. It includes the Municipal Strategic Statement and Local Planning Policies. The following are of relevance to the application:

- *Clause 02.02 - Vision*
- *Clause 02.03 – Strategic Directions*
- *Clause 11.03-1L-04 – Hampton Street*
- *Clause 13.07-1L-02 – Discretionary Uses in residential areas*
- *Clause 15.01-1L – Urban Design*
- *Clause 15.01-5L – Bayside Preferred Neighbourhood Character*
- *Clause 19.02-4L – Community Infrastructure*

5.4.1 Clause 02.02 – Vision

The strategic vision for the Municipality at Clause 02.02 of the Planning Scheme asserts:

'Bayside will be a city which protects and enhances the quality and character of the natural and built environment through environmentally sustainable development and management of land. Bayside will be an environmentally focussed city in which its natural resources are valued by all the community, present needs are met and development is responsibly managed for the benefit of this and future generations.'

5.4.2 Clause 02.03 – Strategic Directions

Clause 02-03 recognises that '*Bayside's activity centres are well positioned to capitalise on the shift in the economy towards the professional services as many Bayside residents possess the skills and qualifications to find employment in these sectors. The challenge is to ensure there is sufficient commercial floor space available in activity centres and the Bayside Business District to accommodate these services and provide more local employment opportunities.*

The Major Activity Centres and Large Neighbourhood Activity Centres will play an increasingly important role in accommodating residential growth within the municipality and it is important to ensure there is sufficient capacity and an appropriate range of commercial services to meet the needs of residents. Redevelopment in activity centres should not occur at the expense of commercial floor space. An emphasis on sustainability principles and the net community benefits of the urban village style of development is required for the survival and vitality of local

shopping centres. To this end activity centres need to maintain a mix of uses and vital core retail areas.'

The Bayside Business District (BBD) is recognised as '*the major focal point for business development and employment in Bayside*' and it is a desire of Council to '*retain existing businesses, attract and encourage new businesses and foster increased employment opportunities, especially for local residents*.'

With regard discretionary uses in residential areas Clause 02.03 recognises that there '*a number of important uses that should be located within residential areas of the municipality, including child care centres, recreation centres, medical centres, schools, churches, retirement villages and other similar uses*.'

Further, that forecast population increases and a trend towards smaller household sizes and an ageing population is increasing the demand for a greater variety of housing types and more affordable housing. To meet the forecast population increases and demographic changes, additional dwellings will be required.

It is therefore an objective to direct new medium density housing towards Major Activity Centres.

5.4.3 Clause 11.03-1L-04 – Hampton Street

Clause 11.03-1L-04 provides the strategic vision for Hampton Street Activity Centre.

Strategies for 'Residential Areas' are:

- *Provide for increased housing densities and diversity of housing types within the centre and direct larger developments to larger sites within or immediately adjoining the business precincts.*
- *Provide* adequate off-street parking for all new dwellings.

The subject Site is identified as being within Residential Area and thus 'Precinct 4' on the Hampton Street Activity Centre Map to Clause 11.03-1L-04.

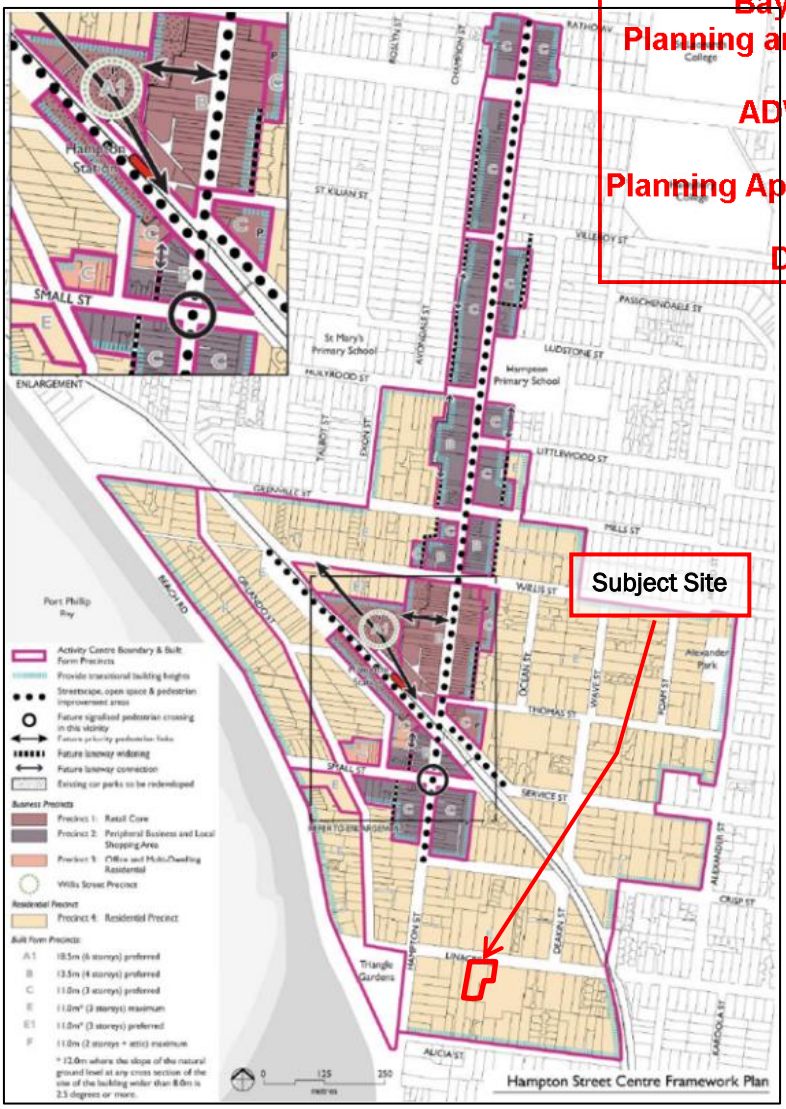


Figure 6: Hampton Street Activity Centre Map – Clause 11.03-1L-04

The proposed mixed -use development is inclusive of a medical centre at its lower ground floor that will provide an important community infrastructure asset to contribute to existing facilities within the surrounds. It can be safely and conveniently accessed by the community, including those with limited mobility. Located with Hampton Activity Centre it is proximate to other complementary services and public transport options.

Further, the residential component of the development provides a range of housing types including a mix of two and three-bedroom dwellings. The layouts provide options for residents at various stages of their lives, with floor plan variety and a mix of private open space options including ground floor space, balconies and terraces.

The building has been designed to appropriately provide a transition in scale from its more sensitive interfaces to the west and south. The three (3) storey form of the building is set from the respective boundaries of the Site with setbacks having been applied broadly consistent with the design objectives of Rescode and street setback requirements of the DDO. The provision of balconies and landscape planting areas to these boundaries soften the building's mass, while the use of the metal cladding on the upper level (Second Level) contrast with the lower levels enabling it to be a recessive element.

Modulation of the north, east and south elevations is achieved with recessive cuts in the building and otherwise balcony protrusions. The subtle contrast in external finishes highlights this articulation further and emphasises the horizontal lines of the building.

There are encroachments of the third storey into the side setbacks prescribed by Standard B17 however these are predominantly to the less sensitive interface of Linacre Private Hospital to the east and are otherwise attributed to small sections of balcony balustrade to the west. Overall, setbacks meet the objectives of Standards B6 and B17 of Clause 55, as appropriate.

Building setbacks and deep soil volume allow and enable appropriate canopy tree cover along the perimeter of the Site. As detailed in the accompanying 'Landscape Plans' prepared by *John Patrick Landscape Architects*. This curtilage landscaping combined with upper level planter boxes will provide a setting to the development complementing the architectural design response and contribute to the garden character of the area.

The development in the format proposed, ensures it will have a high level of amenity for future occupants while maintaining the residential amenity of adjoining properties as demonstrated through the proposal's overall compliance with the Objectives and Standards of Clause 55, with an assessment to these provided at **Appendix C.**

5.4.4 Clause 13.07-1L-02 –Discretionary uses in residential areas

Clause 13.07-1L-02 applies to discretionary uses within a residential area including the General Residential Zone amongst others.

Policy objectives are:

- *To ensure that development responds to the preferred neighbourhood character.*
- *To support discretionary uses in residential areas that serve a local need and do not adversely affect residential amenity.*

Clause 13.07-1L-02 provides guidance on the preferred locations for discretionary uses in residential areas as well as built form, amenity and traffic and car parking outcomes is seeks a proposed development to align with. A response to these 'criteria' is provided below:

Design Response	Assessment
Location, siting, built form and design	
▪ ***The discretionary use abuts a Road Zone or collector road.*** ▪ ***Are on a corner.*** ▪ ***Are located on the periphery of commercial areas or adjacent to other discretionary uses to provide a transition between commercial and***	Whilst the proposed Medical Centre is proposed as a lower ground floor component to a mixed-use building that does not occupy a corner location, nor an abuttal or direct access from a road zone, it nevertheless is proximate to existing community infrastructure and services in the form of the Linacre Private Hospital to the east of it, itself a discretionary use within this residential area. It is considered the Medical Centre would complement this

Design Response	Assessment
residential areas. ▪ ***Are located near similar community and support facilities.*** ▪ ***Are located within walking distance of public transport and promotes safe and convenient pedestrian access.*** ▪ ***Encourage site consolidation where needed to provide adequate on-site parking, landscaping and setbacks.*** ▪ ***Encourage use and development that respects the prevailing built form, scale and materials and finishes of surrounding buildings and response to the preferred neighbourhood character.*** ▪ ***Encourage the retention of an existing dwelling.*** ▪ ***Design vehicle parking and access areas so they do not form a dominant streetscape.*** ▪ ***Locate car parking at the rear of the premises where possible.*** ▪ ***Retain existing trees and garden areas on site.*** ▪ ***Front setbacks consistent with the prevailing setbacks in the area and meet requirements at Clause 54.03, Standard A3.*** ▪ ***Setbacks from side and rear boundaries in accordance with the setback provisions contained in Clause 54.04, Standard A10.*** ▪ ***Any increase in building height is transitional and represents a height increase of no more than one storey above the prevailing building height.*** ▪ ***Front fencing is a maximum of 1.2 metres in height.***	health care offering within the area. Access would be from a local road that is only some 90 metres from the Road Zone that is Hampton Street. This is indicative of the Site's location within the Hampton Activity Centre and emphasises the Site excellent access to complementary services within the Activity Centre as well as existing transport infrastructure. This includes bus services on Hampton Street and Hampton Railway Station. As a use operated with only 8 practitioners, it is not anticipated that the Medical Centre will impose any greater amenity conflicts over and above what would reasonably occur from the existing adjacent hospital facility. Car parking associated with the Medical Centre is provided within Basement Level 1 and thus is not readily visible within the streetscape. The proposed Medical Centre forms a component of a building containing residential uses. Considerations relating to siting, built form and design are discussed above in response to Clause 15.01-5L – preferred neighbourhood character and in response to the relevant standards of **Clause 55** at **Appendix C** to this submission. Front fencing is provided to landscaped and a terraced area within the front setback and measures a maximum height of 1.42 metres. Landscaping is provided on land intervening the fence and roadside boundary to soften the street edge. The height of the proposed front fence allows visual permeability of the development from the street and is sympathetic in form and scale to that found elsewhere within the streetscape of Linacre Road. Accordingly, it would not appear incongruous within its streetscape setting or be harmful to the preferred or existing neighbourhood character. All car parking associated with the Medical Centre and development overall is subterranean and will not compromise the ability to provide deep soil planting zones throughout the Site to provide a landscape buffer to the development. The proposal includes an integrated landscape

Design Response	Assessment
▪ ***A minimum landscape buffer of 2.0 metres from the side and rear boundaries where car parking abuts adjoining residential property.*** ▪ ***A minimum landscape buffer of 3.0 metres from the front boundary where car parking is located in the front setback unless a narrower can achieve the same density, height and width of screen planting as the minimum buffer.***	strategy that includes indigenous and native species to respect the garden setting of the area. This is considered an appropriate response to existing vegetation to be removed from the Site **Bayside City Council** **Planning and Environment Act 1987** **ADVERTISED PLAN** **Planning Application No.: 5/2021/331/1** **Date: 29/11/2021**
Traffic and Car parking	
▪ ***Off street parking is designed to allow for entry and exit to the site in a forward direction.*** ▪ ***Provide 5 car parking spaces per practitioner.*** ▪ ***Provide at least one disabled car space, with a minimum width of at least 3.2 metres.*** ▪ ***Restricting the number of vehicle access points to one unless two access points are required for the safe, convenient and efficient movement of vehicles.***	Vehicular access to the Site is maintained from Linacre Road via an altered crossover and access and this the status quo would be maintained. Arrangements for access and turning within the basement will allow vehicles to exit the Site in a forward direction and have been designed in accordance with Design Standards at Clause 52.06-9 of the Planning Scheme. A total of 26 car parking spaces are provided to serve the proposed Medical Centre and are inclusive of a DDA car parking space. This is consistent with the rate required for this land use under the provisions of Clause 52.06-5 Whilst this is short of the car parking rate anticipated by Policy the car parking reduction is considered appropriate taking into account the likely demand likely to arise from the proposed use, the location of site proximate to existing on-street car parking capacity and public transport. Please refer to the Traffic and Transport Assessment prepared by *Impact Traffic Engineering Pty Ltd* for comprehensive car parking assessment of the proposal.
Advertising signage	
▪ ***Limit signs to what is required for identification purposes.*** ▪ ***Minimise sign lighting and only use when it is required during business***	No signage is proposed as part of this application. Should it be in the future, it will be designed for business identification purposes only and to respect the amenity and

Design Response	Assessment
hours.	neighbourhood character of the area.
General Amenity	
▪ ***Locate, manage or design uses so that nearby residential properties are not subjected to unreasonable levels of noise.*** ▪ ***Design and site waste storage and collection areas in a way that does not prejudice the amenity of the existing residential area including the timing of waste collection.*** ▪ ***Limit hours of operation so the use does not have an adverse impact on the amenity of the existing residential area including the timing of waste collection.***	It is proposed that the Medical Centre operate Monday to Saturday inclusive as follows: Monday – Wednesday 8am – 7pm Thursday – Friday 8am – 9pm Saturday 8am – 1pm Sunday and public holidays – closed. This is consistent with the hours of operation anticipated in Policy. Waste collection will occur within the basement via a private contractor and will accord with EPA regulations. Please refer to the Waste Management Plan prepared by Leigh Design for further detail.

5.4.5 Clause 15.01-1L – Urban Design

General Urban Design Strategies are:

- *Design access to meet the mobility needs of all community members including motorised scooters, wheel chairs and prams.*
- *Design development to maintain safety and security for all users through lighting of pedestrian areas used at night, the location and height of planting, the orientation of buildings and type of fencing.*
- *Retain significant trees including designing and locating buildings and works to protect them. Promote the incorporation of art in public places.*
- *Encourage permeable fencing on street frontages for private and commercial developments to improve the pedestrian experience and perception of safety.*
- *Maintain and enhance the traditional, fine grain streetscape rhythm and building scale of activity centres.*
- *Ensure development responds to the spacious, low scale landscaped character of residential precincts, with residential buildings set back within vegetated front gardens and streetscapes. Enhance safety, accessibility and appearance of laneway connections and off-street car parks by improving view lines and lighting.*

The proposed design response has been developed to response to its surrounding built form context in a respectful but contemporary manner. Setbacks from respective site boundaries

allow visual separation between built form within the streetscape and opportunity for landscaping and deep soil planting within the setbacks provided. This is consistent with the composition of built form relative to its lot.

Trees removed from the Site are mitigated with large and medium canopy trees throughout the development and landscaping in the form of ground cover and planters is otherwise provided within garden areas and within private open space associated with apartments. This enhances the setting of the development and allows it to integrate within the established landscaped and built form character in the area.

Low front fencing allows visual permeability of the Site and opportunities for natural surveillance of the public realm.

Pedestrian access to apartments and to the ground floor medical centre are legible within the streetscape and are easily accessible to meet the mobility needs of residents, visitors, and wider community.

Section 5.4.6 below with respect to the proposed development's response to neighbourhood character objectives.

5.4.6 Clause 15.01-5L – Preferred Neighbourhood Character

Clause 15.01-5L provides local context to state policies at Clause 15 (Built Environment and Heritage) and applied to development in Residential Zones including inter alia the General Residential Zone.

General Objectives of this policy are:

- *To retain and enhance the identified elements that contribute to the character of the area.*
- *To ensure that development is responsive both to the site and the preferred future character of the area.*
- *To encourage development that accommodates the need for change around activity centres while respecting the desired future character of the area.*
- *To encourage the retention of dwellings that contribute to the valued character of the Precinct.*
- *To maintain and enhance the garden settings of the dwellings.*
- *To maintain and enhance the bayside vegetation character of the area.*
- *To provide space for front gardens.*
- *To maintain the rhythm of spacing between buildings.*
- *To minimise loss of front garden space and the dominance of car parking facilities, driveways and crossovers.*
- *To respect the dominant building forms and scale of buildings in a precinct.*
- *To ensure that development does not visually dominate the streetscape or adjacent identified heritage buildings.*
- *To ensure that new buildings provide an articulated and interesting façade to the street.*

- *To respect the identified heritage qualities of adjoining buildings.*
- *To use building materials and finishes that complement the dominant pattern within the streetscape or reflect the building materials in locations where there is particular consistency.*
- *To use a variety of building materials and finishes that provide visual interest in the streetscape.*
- *To use building materials and finishes that complement the natural setting in coastal locations.*
- *To maintain and improve the openness of streetscapes and the visual connection between buildings and the street.*
- *To encourage views of front gardens.*

General Strategies for all Precincts are to:

- *Encourage development to provide innovative architectural responses in responding to the preferred character of a precinct.*
- *Where adjoining an identified heritage building, design development to respect the height, building form, siting, materials and massing of the heritage buildings.*
- *Avoid imitating or reproducing historic building styles and detailing.*
- *Design and site car parking facilities so that they do not dominate the façade or view of the dwelling.*
- *Articulate the form of buildings and elevations, particularly where viewed from the public realm. Discourage the planting of environmental weeds.*

Clause 15.01-5L of the Planning Scheme locates the subject site within "Precinct F1" for which the following preferred character strategies are identified:

Preferred Character Statement

Design Response	Assessment
▪ ***Retain wherever possible pre-World War 2 era dwellings and inter-war Californian Bungalows that are intact and good condition and contribute to the valued character of the Precinct.*** ▪ ***Retain the front of valued existing dwellings in alterations and extensions and design them to be complementary to the building era.***	Whilst the existing dwelling is of some architectural merit and is distinct from other dwellings within the streetscape of Linacre Road, it is a modern infill development that is not part of the existing more traditional housing stock of the area. It does not make a significant contribution to the valued character of the area. The building which would replace it, would instead make a positive contribution to the existing and preferred character of the area.
▪ ***Retain established trees and vegetation.*** ▪ ***Replace any trees removed with species that will grow to a similar***	Existing vegetation on the Site is relatively modest and is predominantly within the front setback of the property. It takes the form of semi-mature trees with other plantings being of

Design Response	Assessment
height. ▪ ***Encourage replanting of indigenous sandbelt vegetation.*** ▪ ***Siting buildings to create the appearance of space between buildings and accommodate substantial vegetation.*** ▪ ***Minimise loss of front garden space.*** ▪ ***Locate garages and car ports at or behind the line of the dwelling.***	an exotic nature in and around the periphery of the Site, The proposed building footprint has been arranged to facilitate new plantings within the front/ rear setbacks of the development and to the perimeter of the site. This includes indigenous/ native canopy tree species and shrub and ground covers. Plantings are also accommodated on upper level planters to balconies. Please refer to the landscape plans prepared by John Patrick Landscape Architects which nominate the indigenous and native species to be planted across the Site.
Bayside City Council **Planning and Environment Act 1987** **ADVERTISED PLAN** **Planning Application No.: 5/2021/331/1** **Date: 29/11/2021**	The existing dwelling on Site almost occupies the width of its plot. This arrangement as well as dwellings built to one side boundary, occurs elsewhere within this part of Linacre Road. Therefore, plantings generally occur within front setbacks with more modest planting occurring along the site boundaries. The proposed development respects this existing character however seeks to provide visual separation between existing adjacent built form by providing greater opportunities for canopy tree and other plantings within the side and rear setbacks of the development than can reasonably occur at present. Given the topography of the Site, it lends itself to basement carparking and this is included in the proposal. This and the extent of vehicle entry, being only 3 metres wide, will limit the visual impact of car parking within the streetscape. No retractable doors are proposed to enclose the car park entry. The arrangements for access and car parking therefore allow a setback to accommodate garden area and plantings to enhance the development.
▪ ***Recess second storey elements from the front façade.***	The proposed building includes a flat roof form which is a similar design response to the dwelling it would replace and to other recently

Design Response	Assessment
▪ ***Avoid high pitched mansard roof forms with dormer windows.***	approved medium density developments in the surrounds.
Bayside City Council Planning and Environment Act 1987 ADVERTISED PLAN Planning Application No.: 5/2021/331/1 Date: 29/11/2021	The street setback provides in increased transition east -west across the Site which modulates the façade when viewed from Linacre Road. The Second Level of the development is setback from the floors immediately below and this coupled with the transition in materiality to a metal clad finish assist with the visual recession of the built form.
▪ **Reflect the lightness of the streetscape created through the use of a mix of appropriate building materials and finishes such as a variety of timber or non-masonry wall materials where possible.** ▪ ***Avoid heavy design detailing (e.g. large masonry columns and piers).***	The development incorporates a mix light coloured, concrete which is relieved by metal clad soffits and second floor. This form of materiality is not considered a departure from the form or materiality of other recent developments within the surrounds.
▪ ***Provide low open style front fences, other than along heavily trafficked roads.*** ▪ ***Design front fences style to be consistent with the building era.***	Front fencing is provided to landscaped and a terraced area within the front setback and measures a maximum height of 1.42 metres. Landscaping is provided on land intervening the fence and roadside boundary to soften the street edge. The height of the proposed front fence allows visual permeability of the development from the street and is sympathetic in form and scale to that found elsewhere within the streetscape of Linacre Road. Accordingly, it would not appear incongruous within its streetscape setting or be harmful to the preferred or existing neighbourhood character.
▪ **Create a visually interesting and attractive built form interface with the foreshore reserve by:** *Articulate the form buildings and elements, particularly front facades, and include elements that lighten the building form such as balconies, verandahs, non-reflective glazing and*	N/A as the site does not interface with the foreshore reserve

Design Response	Assessment
light-transparent balustrading. ***Use a mix of contemporary and traditional coastal materials, textures and finishes, including render, timber non-masonry sheeting, glazing, stone and brick and avoiding highly reflective materials or glazing.*** ***Providing articulated roof forms to create an interesting skyline when viewed from the beach.***	**Bayside City Council** **Planning and Environment Act 1987** **ADVERTISED PLAN** **Planning Application No.: 5/2021/331/1** **Date: 29/11/2021**

5.4.7 Clause 19.02-4L – Community Infrastructure

Clause 19.02-4L – Community Infrastructure, encourages the provision of high-quality public and private community facilities and services based on the needs and expectations of all age groups, including those with limited mobility and special needs. It is therefore strategy to:

- *Locate new community facilities near public transport interchanges and on pedestrian and cycle priority networks, that is, the Principal Bicycle Network, Municipal Bicycle Network or the Principal Pedestrian Network.*
- *Maintain the appearance and local function of community facilities and their effectiveness in servicing a growing and diverse population.*
- *Facilitate the development and use of private facilities for community uses where they are compatible.*
- *Maximise the use of existing public facilities and promote the collaborative use of private facilities.*
- *Minimise the impact on residential amenity and the surrounding environment in the development and operation of community facilities.*
- *Encourage the potential for the CSIRO site to include community purposes to service local needs as part of any redevelopment.*

Policies of the Bayside Planning Scheme encourage the development of well-designed buildings which make effective use of existing infrastructure. This development is required to facilitate housing diversity and meet the community's needs for a variety of services.

Locations with ready access to public transport, employment, commercial development and community uses are preferred locations for this development as the provide opportunities to easily service the requirements of future residents.

6 Rescode Assessment Response

6.1 Clause 55– Two or more dwellings on a lot and residential buildings

As highlighted earlier in this submission, the construction of two or more dwellings on a lot, if in a General Residential Zone is required to meet the requirements of Clause 55 - two or more dwellings on a lot and residential buildings.

Although the Standards of Clause 55 provide a suitable assessment framework for new development, it is acknowledged that compliance is not a mandatory requirement given that the operation of Clause 55 states that a development 'must meet all of the objectives of this clause and should meet all of the standards of this clause.'

Following our assessment of the application plans, it is acknowledged that the following variations to the standards of Clause 55 are sought as part of this proposal:

Standard B6 – Street Setback

The Standard requires the street setback of the proposed building to assume the average of the setbacks of the built from on the abutting allotments or 9.0 metres whichever is the lesser.

The Linacre Private Hospital to the east of the Site has a street setback of approximately 5.62 metres. The carport of 6 Linacre Road to the west of the Site has a setback of approximately 3.55 metres. Therefore, an average street setback of 4.585 metres is required.

The proposed building has transitionary street setbacks of 6.0 metres to 9.096 metres (wall) at Lower Ground, and 6.0 metres (balcony) to 9.15 metres (wall) to 6.0 metres (balcony) to 7.0 metres (wall) to 8.35 metres (balcony) to 11.35 metres (wall) (east to west) at from Upper Ground Level to First Floor.

Setbacks of Second Floor similarly transition from Linacre Road to balcony from 6.0 metres to 8.25 metres however to wall, the street setbacks increase to 10.0 metres and 12.20 metres (east to west).

DDO12 seeks to vary the street setback requirement for the second level of development and seeks it to a achieve a minimum setback of 4 metres behind the front wall of the floor immediately below.

The DDO therefore requires a setback of 11.0 metres to 15.35 metres (east to west) of the Second Floor from Linacre Road as opposed to 10.0 metres to 12.20 metres and therefore a variation of 1.0 metre to 3.15 metres is sought.

The area is characterised by moderate to large sized lots with dwellings of various architectural styles occupying a significant proportion of them. In this, there is no uniformity of defined street setback to Linacre Road, with this varying greatly within this part of Hampton.

The proposed street setbacks of the front walls of the development transition to an increasing extent from east to west across the Site and respond to the built form conditions on adjacent lots. Whilst the LG floor would have a lesser street setback to the floors above it, this is considered appropriate when taking into account the varied topography of the Site and the modulated recession of the upper levels.

In the context of the built form below it, the Second Floor Level setbacks of between 10 and 15.35 metres are considered an appropriate response which will achieve visual recession of the uppermost level.

Accordingly, the proposed development complies with the street setback objectives of Clause 55.03-1 and does not conflict with the built form objectives of the DDO12.

Standard B8 – Site Coverage

The proposal will result in a total site coverage of 61%.

In this circumstance, the proposed development is consistent with and responsive to its built form context. The minor variation being sought would not be intelligible in the round would not casus the development to appear incongruous in its setting or have a deleterious impact on the streetscapes of Linacre Road or the neighbourhood character of the area.

Accordingly, the proposal responds appropriately to the objective of Clause 55.03-3 of the Planning Scheme.

Standard B17 – Side and Rear Setbacks

The following side and rear setbacks are required:

South (Rear)

- First storey (ground level): 1 metre
- Second storey (first level): 1.14 metres
- Third storey (second level): 1.618 metres to balcony, 3.07 metres to wall

Re-entrant South (Rear)

- First storey (ground level): 1 metre
- Second storey (first level): 1 metre
- Third storey (second level): 1.216 metres to balcony, 1.87 metres to wall

East (Side)

- First storey (ground level): 1.41 metre
- Second storey (first level): 3.33m
- Third storey (second level): 4.27 metres to balcony, 6.76 metres to wall

Re-entrant East (Side)

- First storey (ground level): 1 metre
- Second storey (first level): 1.35m
- Third storey (second level): 3.72m

West (Side) (north to south)

- First storey (ground level): 1.25m to wall & 1 m to balcony, 1.126m to wall & 1.86m to balcony, 1.048m wall
- Second storey (first level): 2.7m to wall & 1.58m to balcony, 2.26m to wall & 1.45m to balcony and 2.07m to wall & 1.35m to balcony
- Third storey (second level): 5.718m to wall & 3.48m to balcony, 5.62m to wall & 3.25m to balcony, 5.39m to wall & 3.06m to balcony.

The proposed setbacks are as follows with those where a variation is sought being underlined.

South (Rear)

- First storey (ground level): 4.273 metres to 5.52 metres
- Second storey (first level): 4.097metres to 5.521 metres
- Third storey (second level): 4.275m to balcony, 6.551m to wall

Re-entrant South (Rear)

- First storey (ground level): 3.5 metres
- Second storey (first level): 3.5 metres
- Third storey (second level): 3.5 metres to balcony, 4.55 metres to wall

East (Side)

- First storey (ground level): 3.6 metres
- Second storey (first level): 3.6 metres
- Third storey (second level): 3.6 metres to balcony, 5.4 metres to wall

Re-entrant East (Side)

- First storey (ground level): 3.42 metre to balcony, 5.58 metres to wall
- Second storey (first level): 3.705 metres to balcony, 5.57 metres to wall
- Third storey (second level): 3.5 metres to 4.3 metres

West (Side) (north to south)

- First storey (ground level): 3.7 metre.
- Second storey (first level): 3.7m to balcony and 4.255m to wall.
- Third storey (second level): 3.7m to balcony and 6.1m to wall

The proposed variations are considered appropriate for the following reasons:

The majority of setback variations are sought to the east and thus to the less sensitive interface with the Linacre Private Hospital.

- The variations are at points where there is a steep drop in NGL on the mutual boundary and are not representative of the otherwise fully compliant east and west elevations.
- The variations sought to the west are only for a small section of the balustrades to balconies associated with Apartments 2.01, 2.07 and 2.09 with this being attributed to the slope in natural ground level of the land at these points. The variations are minor in the context of the overall compliance of the development with the western setback requirements.
- The architectural approach to the design of the building has responded to the varied topography of the land, with the building being set into the site and below natural ground level in part. The effect of this presents the building as a three-storey form to opposing interfaces thus minimising the perception of visual bulk from that interface.
- The Second Floor Level is visually recessive from the three-storey form below it, being articulated with materials to assist this. This serves to minimise the bulk of the building and reduce its scale as it interfaces with the neighbouring residential properties to the south and west and otherwise that form the Linacre Private Hospital.

- The reduced setbacks would not result in overlooking or overshadowing of neighbouring residential properties as demonstrated in the section diagrams and shadow analysis prepared by Ewart Leaf Pty Ltd in support of this application.

Accordingly, the proposed development is responsive to its built form context and is respectful to its residential interfaces without detriment to the amenity of any adjacent residential property or the area. Accordingly, it complies with the objectives of Clause 55.04-1. Furthermore, it is responsive to local policy objectives of Clause 21.11 of the planning scheme.

Standard B29 – Solar Access to Open Space

The Site is orientated north to south and where practicable, the secluded private open space areas associated with each apartment are orientated to receive access to sunlight throughout the day.

Whilst there are apartments with secluded private open space areas with a southerly aspect, they also have access to westerly and easterly sun where appliable and are considered to benefit from sufficient solar access throughout the day to meet the amenity needs of residents. These areas are further enhanced by their generous proportionality which will afford residents usable and practicable outdoor amenity space.

Accordingly, the proposal complies with the objective of Clause 55.05-5 of the planning scheme.

Standard B46 – Functional Layout

The bedrooms of each of the apartments satisfy the requirements of the Standard as noted in Table B10.

Whilst the living areas of each apartment comfortably meet the minimum area required, they do not all meet the minimum dimension in both directions. However, the open concept living/ kitchen/ dining arrangements are well proportioned to accommodate an adaptable furniture layout and thus meet the reasonable amenity need of residents.

Please refer to the architectural drawings prepared by *Ewart Leaf Pty Ltd* for further detail.

Standard B49 – Natural Ventilation

As identified within the SMP prepared by Sustainable Development Consultants, 37.14% of apartments (13 out of 35) have effective cross-ventilation with the breeze path through the apartments not exceeding 18 metres.

Whilst this is less than anticipated by the Standard all apartments are provided with openable windows and doors with access to private open space and thus opportunities for natural ventilation within apartments have been maximised.

7 Planning Merits

This section of the report provides an assessment of the planning merits of the proposal.

Clause 71.02-3 Decision Making of the Planning Scheme states that *"Planning and responsible authorities should endeavour to integrate the range of planning policies relevant to the issues to be determined and balance conflicting objectives in favour of net community benefit and sustainable development for the benefit of present and future generations."*

Ultimately, when considering applications, as set out at Clause 65*, "the responsible authority must decide whether the proposal will produce acceptable outcomes in terms of the decision guidelines of this clause*" (emphasis added).

Based on a comprehensive review of the urban / physical context and the statutory planning context and framed in light of the decision-maker's role and duty described above, the key planning considerations for this proposal are set out and addressed in turn below.

1. *The planning context*
2. *Amenity impacts*
3. *Internal amenity*
4. *Car parking*
5. *Waste Management*
6. *Environmentally Sustainable Design*
7. *Cultural Heritage*

7.1 The Planning Context

The design response is informed by a building design that is derived from the preferred and existing built form and scale in the locality. It offers a contemporary architectural proposition which responds appropriately to its context within 'Hampton Activity Centre'.

More specifically, we consider the proposal is appropriate and responds to the planning policies relevant to the site for the following reasons:

- The Site is identified as a preferred location for increase housing density within Council's Municipal Strategic Statement and Local Planning Policy Framework, being located within Hampton Street Activity Centre'.
- It is proximate to existing health care services within the surrounds and has excellent access to public transport including trains, buses, shops and other commercial premises, community services including schools and recreational facilities including parks to support both land uses proposed, as appropriate.
- A diverse range of housing is proposed that will integrate within the broader community to provide options to existing and future residents of Hampton and the Bayside municipality. This includes a mix of two and three-bedroom apartments with multiple layout options.
- A range of private open space is provided, with a range of balconies and terrace sizes at the ground and upper levels. In addition, the Site's location to the nearby foreshore, ovals and parks and offers residents options and the ability to enjoy an active lifestyle.

- The internal layouts include open plan kitchen, living and dining areas within the diverse apartment layout configurations.
- The proposed development is in keeping with the density, mass and scale of development arising in its built form context.
- The proposed development takes into account its interfaces with existing lower scale residential development by responding to the typography of the site and recessing the upper third storey.
- The proposal meets the relevant objectives in relation to site layout and building massing of Clause 55 of the planning scheme including those relating to responsive street setback and building height, private open space and internal amenity.
- An integrated landscape strategy ensures indigenous plantings predominate and respect the valued character of the area,
- Car and bicycle parking and access is provided to an acceptable rate and standard for both land uses.
- The excellent response to ESD which meets best practice.

7.2 Amenity Impacts

Overshadowing

The application plans include accurate shadow diagram which demonstrate the extent of overshadowing that occurs as a result of the existing and proposed development on the Site between the hours of 9am and 3pm on 22 September, the Equinox.

The application plans include accurate shadow diagrams which demonstrate the extent of overshadowing that occurs as a result of the existing and proposed development on the Site between the hours of 9am and 3pm on 22 September, the Equinox.

The shadow analysis demonstrates that the proposed development would overshadow the secluded private open space associated with 6 Linacre Road to the west of the Site at 9am and 10am beyond what could reasonably occur at present. At 11am the shadow cast by the proposed development would fractionally extend beyond the shadow cast from the boundary fence however this would be to the side curtilage of that neighbouring dwelling. Notwithstanding, the extent of overshadowing would be to a decreasing extent between 9am and 11am and overall would allow for 5 hours of sunlight access to more than 40 square metres of the SPOS of that neighbouring property.

Additional shadow would be cast to the neighbouring residential property of 2/3 Alicia Street to the southwest of the Site from 9am to 12pm. The extent of shadow cast during this time would be marginally beyond what could reasonably occur from existing mutual boundary fencing and a shed associated with 6 Linacre Road. It is to a diminishing extent and will maintain solar access to more than 40 square metres of the SPOS of that neighbouring property.

The property of 5 Alicia Street to the south of the Site would receive shadow over and above what could reasonably occur at present between the hours of 9am and 3pm however, this would be to a varying and diminishing extent during this time and would maintain solar access to more than 40 square metres of SPOS associated with that neighbouring dwelling for a minimum of 5 hours.

The shadow cast by the proposed development would extend beyond that which could reasonably occur to the SPOS of 7A Alicia Street to the south, from the mutual fence with that neighbouring residential property. However, this would be to a similar and easterly shifting extent between the hours of 9am and 3pm and would occur only fractionally beyond the fence shadow. It would not limit the ability of more than 40 square metres of the SPOS associated with that neighbouring property to receive 5 hours of sunlight throughout the day.

Shadow is otherwise cast to the heavily vegetated side curtilage of the Linacre Hospital to the east and would not deleteriously impact the amenity of that space as a result of overshadowing.

Overlooking

It is submitted that nearby dwellings will not be unreasonably impacted by the proposed development. This is further detailed within the assessment against Clause 55 of the Planning Scheme, included in **Appendix C** of this report. It is considered that no unreasonable overlooking of adjacent and nearby dwellings will occur as a result of the proposal and this is supported by the detailed overlooking analysis and architectural plans prepared by Ewart Leaf Pty Ltd submitted with this application.

The upper levels of the development have carefully considered habitable room windows and neighbouring private open space. The upper levels are recessed and comply with the objectives related to off-site amenity, in particular where directly adjacent to secluded private open space or habitable room windows.

Dwellings with the potential to look into the rear secluded private open space areas of neighbouring residential properties to the west and south of the Site are provided with sufficient screening to limit unreasonable overlooking of those properties.

Visual Bulk

- The scale of the building at three (3) storeys responds to the maximum building height contained within the Schedule 2 to the General Residential Zone.
- The building has been designed to comply with the objectives of the setback standards of Rescode.
- The proposal appropriately transitions the scale of built form away from abutting neighbouring residential properties to the west and south. This is achieved through the Second Level building setbacks which vary from a minimum of 3.7 metres to balcony and 6.1 metres to wall from the west and 4.275 metres to balcony and 6.553 metres to wall from the south.
- The provision of balconies with associated planters; and the material change on the uppermost level with metal cladding enabling the uppermost level to be recessive.
- The provided setbacks around the perimeter of the Site at ground level enable appropriate opportunities for landscaping to soften the built form presentation on each of the Site's interfaces. The provision of landscape planter boxes on the upper levels further softens the built form perception and continues to the landscape theme, ensuring the building is built 'in the round' to offer visual interest.
- The proposal presents a contemporary design response that uses robust materials and finishes which are appropriate to their setting. The careful positioning of windows,

balconies and the composition of external materials modulates the building into different components when observed from neighbouring interfaces.

7.3 Internal Amenity

The proposal has been carefully designed to provide for high-quality internal amenity for residents and visitors. This is demonstrated by compliance with the objectives of Clause 55, as detailed in **Appendix C.**

The internal layouts of the dwellings provide for a high level of amenity with open-plan living areas and convenient access to outdoor private open space. The generous floor plans and private open spaces allow for a diverse resident base with two and three-bedroom apartments provided with layouts carefully considered in terms of access and liveability.

The proposed basement design provides secure on-site parking for residents and convenient access to the upper level apartments. It also allows convenient access for attendees to the medical centre.

Secure storage is provided at basement level, with ample bicycle storage for 20 bicycles provided within the basement and at the ground floor entry.

The pedestrian entry is clearly recognisable and the design of the proposed dwellings provide ample opportunities for passive surveillance in order to promote the safety of future occupants and provide a sense of observation to the street and abutting laneway.

7.4 Car/ Bicycle Parking

The access and servicing arrangements are entirely acceptable for this site. The minimum statutory on-site car parking requirements for the residential component are exceeded, with each apartment being provided with two (2) car parking spaces and car parking provided for the medical centre to satisfy the statutory requirements of Clause 52.06 of the Planning Scheme.

Whilst car parking provision relative to the Medical Centre use meets the statutory requirements under Clause 52.06-5 it does not meet the discretionary requirements of local policy at Clause 13.07-1L-02, i.e. that a total of 5 car parking spaces be provided per practitioner. In this instance, the State standard provisions of the Planning Scheme prevail over local provisions and accordingly, there is no statutory obligation to observe the car parking rate prescribed by Policy 13.07-1L-02.

As detailed in this 'Traffic and Transport Assessment' ('TTA) prepared by *Impact Traffic Engineering Pty Ltd*, the location and design of the proposed car parking is appropriate and provides safe and convenient access to all car spaces. The provision of car parking within a basement ensures that the location of such facilities will not impact upon the general amenity of the streetscape or residents.

Dedicated bicycle storage for residents and visitors are provided in accordance with statutory requirements.

We refer you to the detailed assessment of the matters pertaining to car parking and traffic and the provision of bicycle parking within the TTA prepared by *Impact Traffic Engineering Pty Ltd* which accompanies this submission.

7.5 Waste Management

With regard to proposed waste management on the Site, the application relies upon the 'Waste Management Plan', prepared by *Leigh Design Pty Ltd* which accompanies and forms part of this planning permit application.

The size of the proposed bin storage area within the building's basement and ground floor levels provides sufficient opportunity for recycling and garbage disposal for future residents.

The proposed bin storage locations shown on the application plans will minimise the impact of these waste facilities on the amenity of residents, further detail in regard to the collection and management of waste is detailed in the accompanying 'Waste Management Plan' prepared by *Leigh Design Pty Ltd.*

7.6 Environmentally Sustainable Design

With regard to the ESD performance of the proposed development, we rely upon the 'Sustainability Management Plan' prepared by *Sustainable Development Consultants* which accompanies this application.

The Sustainability Management Plan states that the development will achieve an 8.3 star average energy rating system through a number of initiatives such as the adoption of low volatile organic compounds type for all interior finishes, large reductions in greenhouse gas emissions, reuse of rainwater on-site and Water Sustainable Urban Design initiatives.

The façade design and internal room layouts will promote natural ventilation and will maximise daylight to living areas. This passive solar design is intended to limit reliance on mechanical heating and cooling throughout the year. High performance glazing to windows will ensure a reduction in thermal loads.

Sustainable transport modes such as walking, and cycling will be encouraged through the incorporation of 8 bicycle spaces at basement and ground level. The development also achieves a Walk Score of 91 out of a possible 100 points, placing it in a 'walkers paradise' area. The Site's location within Hampton Street Activity Centre and close proximity to excellent public transport encourages future occupants to choose active transport modes.

Energy efficiency will also be promoted where possible through the robust construction materials and ESD measures. Combined, the abovementioned design features will result in a building which displays a high level of ESD performance which is intended to be a feature attraction of the completed development; enhancing user comfort levels and reducing living costs over the lifetime of the building.

7.7 Aboriginal Cultural Heritage Sensitivity

The Site is identified as being affected by an area of Aboriginal Cultural Heritage Sensitivity and is located within a dune or source bordering dune. The activity ('the development') is considered a high impact activity as it involves the construction of three or more dwellings on a lot or allotment and will result in the subdivision of the land. (Please note subdivision of the land is not ought through this application but will instead be sought should a planning permit issue for the proposed development).

The Cultural Heritage Management Plan prepared by Jem Archaeology confirms desk top assessment did not identify any previously recorded Aboriginal places within the subject site however the results of the assessment suggest that it is likely that Aboriginal cultural heritage

may be present within the activity area given its proximity to Port Phillip Bay. Given the absence of Aboriginal cultural heritage or areas of Aboriginal Archaeological sensitivity located within the subject site, there are no specific cultural heritage management conditions required.

8 Conclusion

As outlined in this submission, the proposed development of the land at Linacre Road, Hampton generally meets the requirements and policy direction of the Planning Scheme.

The location of the Site with excellent access to nearby amenities including Hampton Street Activity Centre and proximity to public transport infrastructure encourages the Site's redevelopment in the form and scale proposed. By being within a housing diversity area the built form in the area is likely to evolve in response to clear planning policy requirements for urban consolidation and dwelling diversity.

The contemporary design response has considered the built form character and the design objectives for building in the Activity Centre including neighbourhood character. It achieves a considered balance, breaking up the built form mass to maintain the streetscape rhythm and responding to the composition of neighbouring land uses.

The design response is complimented by a modern internal layout which provides an extremely high level of residential amenity and lifestyle choice for future occupants as evident in its response to objectives of clause 55 requirements. Generous room proportions; open plan living areas with direct connections to private open space areas; outlook to the public realm are all features of the proposed development.

This report and the accompanying technical assessments have identified the issues relevant to considering and approving the proposed development and have logically addressed the requirements of the Planning Scheme. The application material has also addressed the key issues that affect the development and has demonstrated the positive contribution that this development will have on the immediate and broader Hampton area. On this basis, we respectfully request that this development be approved in the form envisaged.

Appendix A – Copy of Title

The Victorian Government acknowledges the Traditional Owners of Victoria and pays respects to their ongoing connection to their Country, History and Culture. The Victorian Government extends this respect to their Elders, past, present and emerging.

REGISTER SEARCH STATEMENT (Title Search) Transfer of Land Act 1958

[redacted]

REGISTERED PROPRIETOR

[redacted]

ENCUMBRANCES, CAVEATS AND NOTICES

[redacted]

ACTIVITY IN THE LAST 125 DAYS

[redacted]

---END OF REGISTER SEARCH STATEMENT---

Additional information: (not part of the Register Search Statement)

Street Address: 10 LINACRE ROAD HAMPTON VIC 3188

ADMINISTRATIVE NOTICES

NIL

[redacted]

DOCUMENT END

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TITLE PLAN		EDITION 1	TP 137146T

[redacted]

Notations

ANY REFERENCE TO MAP IN THE TEXT MEANS THE DIAGRAM SHOWN ON THIS TITLE PLAN

Description of Land / Easement Information

THIS PLAN HAS BEEN PREPARED FOR THE LAND REGISTRY, LAND VICTORIA, FOR TITLE DIAGRAM PURPOSES AS PART OF THE LAND TITLES AUTOMATION PROJECT

COMPILED: 10/09/1999

VERIFIED: BH

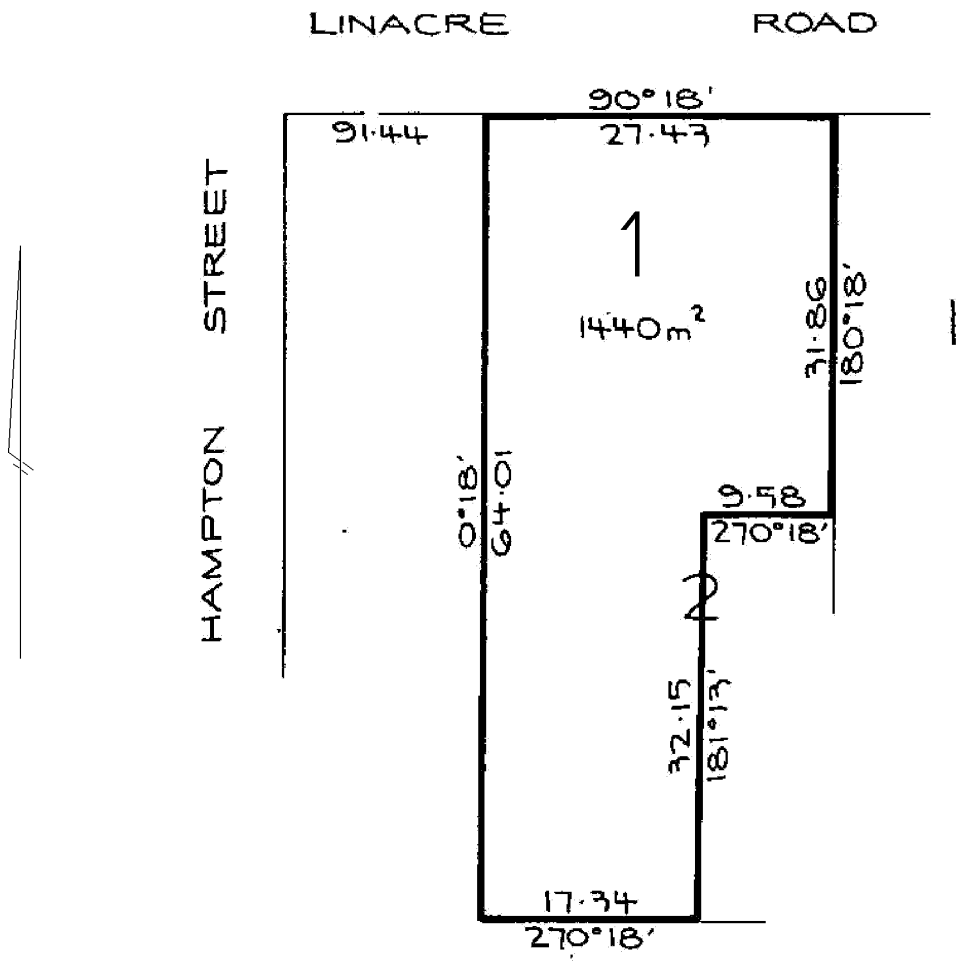

TABLE OF PARCEL IDENTIFIERS
WARNING: Where multiple parcels are referred to or shown on this Title Plan this does not imply separately disposable parcels under Section 8A of the Sale of Land Act 1962
PARCEL 1 = LOT 2 (PT) ON LP91380

LENGTHS ARE IN METRES	Metres = 0.3048 x Feet Metres = 0.201168 x Links		Sheet 1 of 1 sheets

The Victorian Government acknowledges the Traditional Owners of Victoria and pays respects to their ongoing connection to their Country, History and Culture. The Victorian Government extends this respect to their Elders, past, present and emerging.

REGISTER SEARCH STATEMENT (Title Search) Transfer of Land Act 1958

[redacted]

REGISTERED PROPRIETOR

[redacted]

ENCUMBRANCES, CAVEATS AND NOTICES

[redacted]

ACTIVITY IN THE LAST 125 DAYS

NIL

----------END OF REGISTER SEARCH STATEMENT----------

Additional information: (not part of the Register Search Statement)

Street Address: 8 LINACRE ROAD HAMPTON VIC 3188

ADMINISTRATIVE NOTICES

NIL

[redacted]

DOCUMENT END

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TITLE PLAN		EDITION 1	TP 747777D

[redacted]

Notations

ANY REFERENCE TO MAP IN THE TEXT MEANS THE DIAGRAM SHOWN ON THIS TITLE PLAN

Description of Land / Easement Information

THIS PLAN HAS BEEN PREPARED FOR THE LAND REGISTRY, LAND VICTORIA, FOR TITLE DIAGRAM PURPOSES AS PART OF THE LAND TITLES AUTOMATION PROJECT
COMPILED: 19/01/2004
VERIFIED: CL

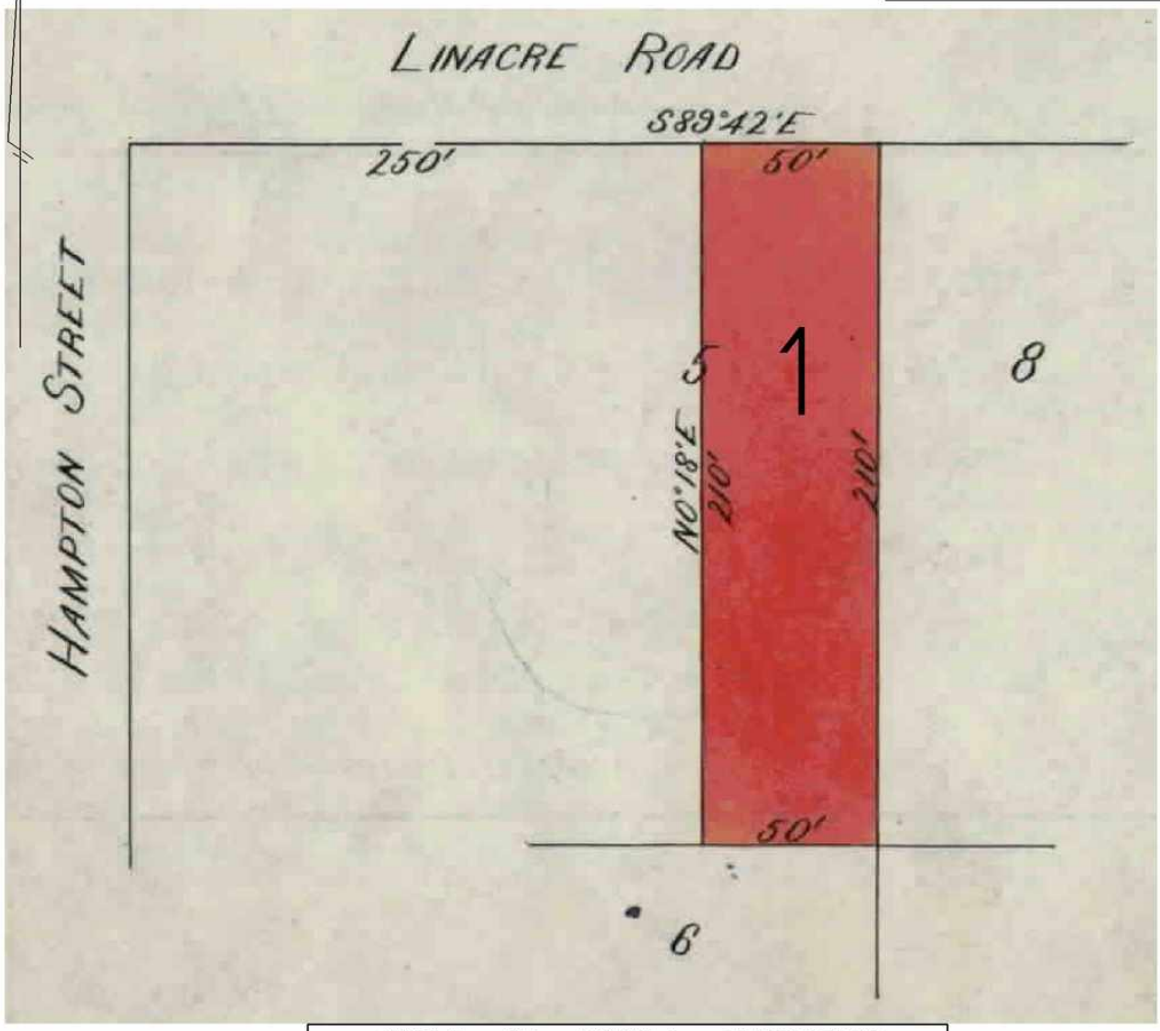


TABLE OF PARCEL IDENTIFIERS
WARNING: Where multiple parcels are referred to or shown on this Title Plan this does not imply separately disposable parcels under Section 8A of the Sale of Land Act 1962
PARCEL 1 = LOT 5 (PT) ON LP4541

LENGTHS ARE IN FEET & INCHES	Metres = 0.3048 x Feet Metres = 0.201168 x Links		Sheet 1 of 1 sheets

Appendix B - DELWP Planning Report

PLANNING PROPERTY REPORT

From www.planning.vic.gov.au at 25 November 2021 04:43 PM

PROPERTY DETAILS

Address: **8 LINACRE ROAD HAMPTON 3188**

Lot and Plan Number: [redacted]

Standard Parcel Identifier (SPI): [redacted]

Local Government Area (Council): **BAYSIDE** www.bayside.vic.gov.au

Council Property Number: **226109**

Planning Scheme: **Bayside** Planning Scheme - Bayside

Directory Reference: **Melway 76 G7**

UTILITIES

Rural Water Corporation: **Southern Rural Water**

Melbourne Water Retailer: **South East Water**

Melbourne Water: **Inside drainage boundary**

Power Distributor: **UNITED ENERGY**

STATE ELECTORATES

Legislative Council: **SOUTHERN METROPOLITAN**

Legislative Assembly: **SANDRINGHAM**

OTHER

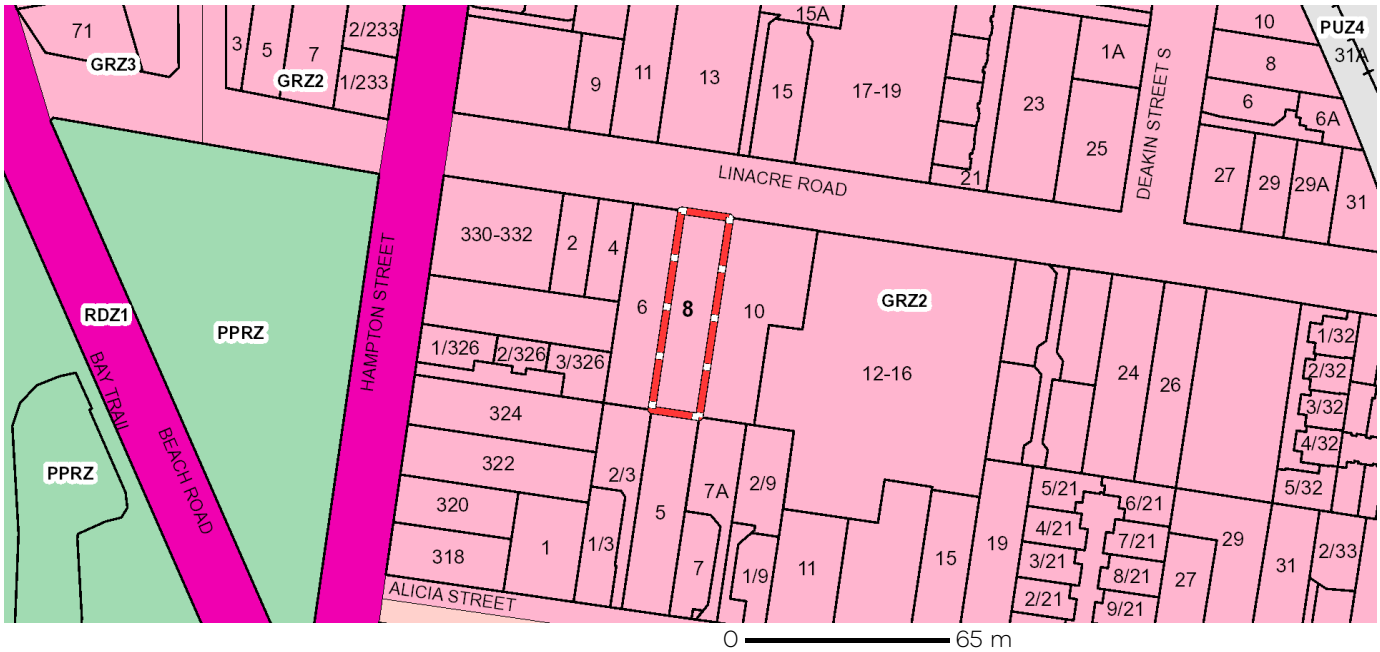
Registered Aboriginal Party: **Bunurong Land Council Aboriginal Corporation**

View location in VicPlan

Planning Zones

GENERAL RESIDENTIAL ZONE (GRZ)

GENERAL RESIDENTIAL ZONE - SCHEDULE 2 (GRZ2)



GRZ - General Residential
NRZ - Neighbourhood Residential
PPRZ - Public Park and Recreation
PUZ4 - Public Use-Transport
RDZ1 - Road-Category 1
Railway line

Note: labels for zones may appear outside the actual zone - please compare the labels with the legend.

PLANNING PROPERTY REPORT

From www.planning.vic.gov.au at 25 November 2021 04:44 PM

PROPERTY DETAILS

Address: **10 LINACRE ROAD HAMPTON 3188**

Lot and Plan Number: [redacted]

Standard Parcel Identifier (SPI): [redacted]

Local Government Area (Council): **BAYSIDE** www.bayside.vic.gov.au

Council Property Number: **226091**

Planning Scheme: **Bayside** Planning Scheme - Bayside

Directory Reference: **Melway 76 G7**

UTILITIES

Rural Water Corporation: **Southern Rural Water**

Melbourne Water Retailer: **South East Water**

Melbourne Water: **Inside drainage boundary**

Power Distributor: **UNITED ENERGY**

STATE ELECTORATES

Legislative Council: **SOUTHERN METROPOLITAN**

Legislative Assembly: **SANDRINGHAM**

OTHER

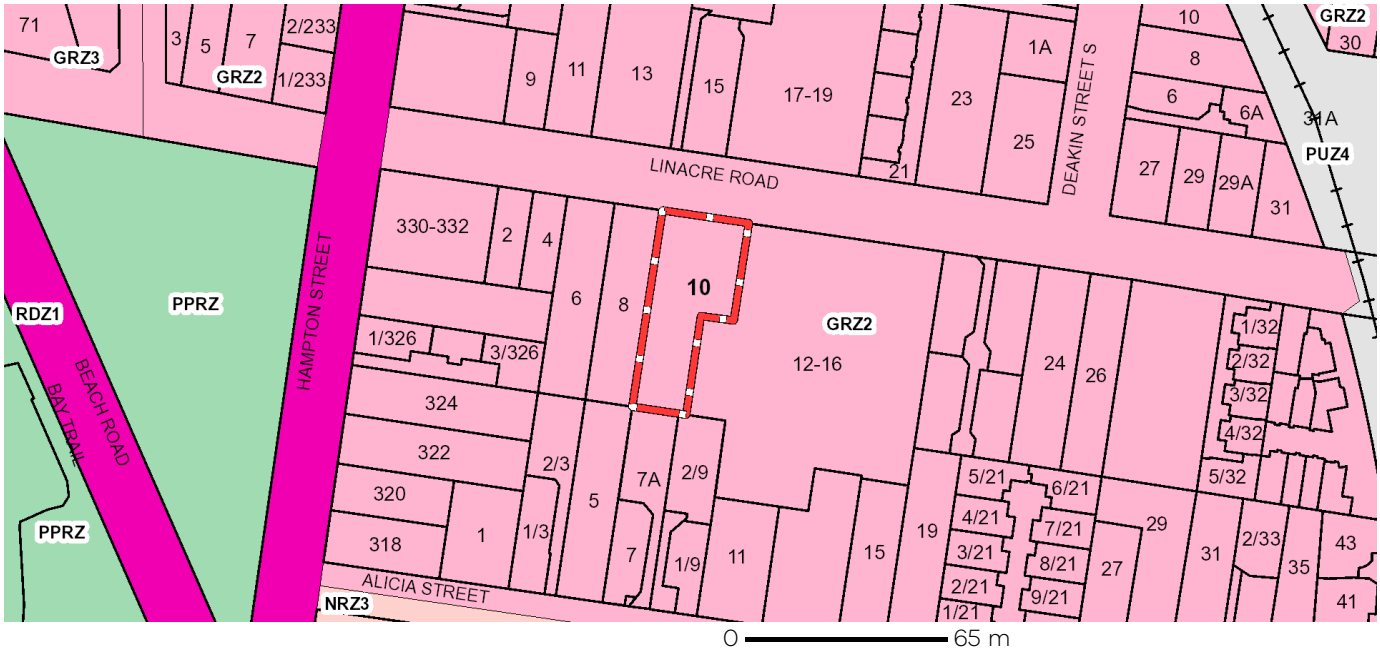
Registered Aboriginal Party: **Bunurong Land Council Aboriginal Corporation**

View location in VicPlan

Planning Zones

GENERAL RESIDENTIAL ZONE (GRZ)

GENERAL RESIDENTIAL ZONE - SCHEDULE 2 (GRZ2)



GRZ - General Residential

NRZ - Neighbourhood Residential

PPRZ - Public Park and Recreation

PUZ4 - Public Use-Transport

RDZ1 - Road-Category 1

Railway line

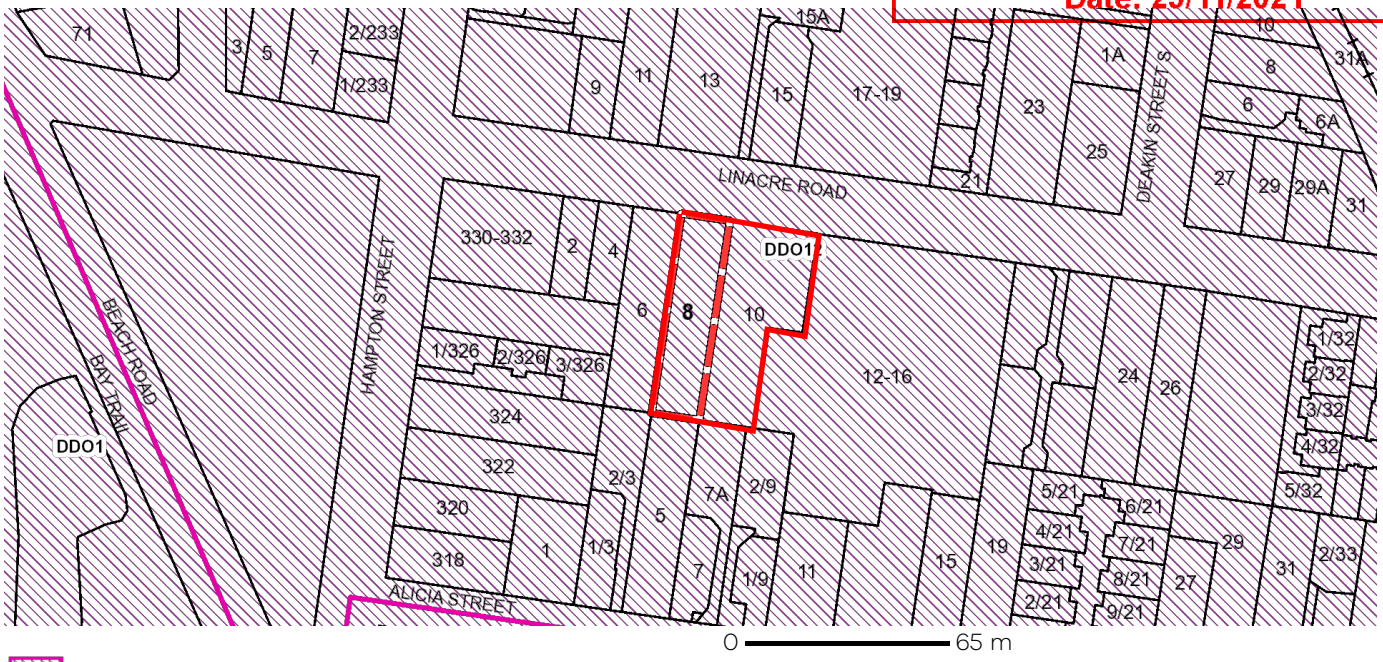
Note: labels for zones may appear outside the actual zone - please compare the labels with the legend.

PLANNING PROPERTY REPORT

Planning Overlays

DESIGN AND DEVELOPMENT OVERLAY (DDO)

DESIGN AND DEVELOPMENT OVERLAY - SCHEDULE 12 (DDO12)

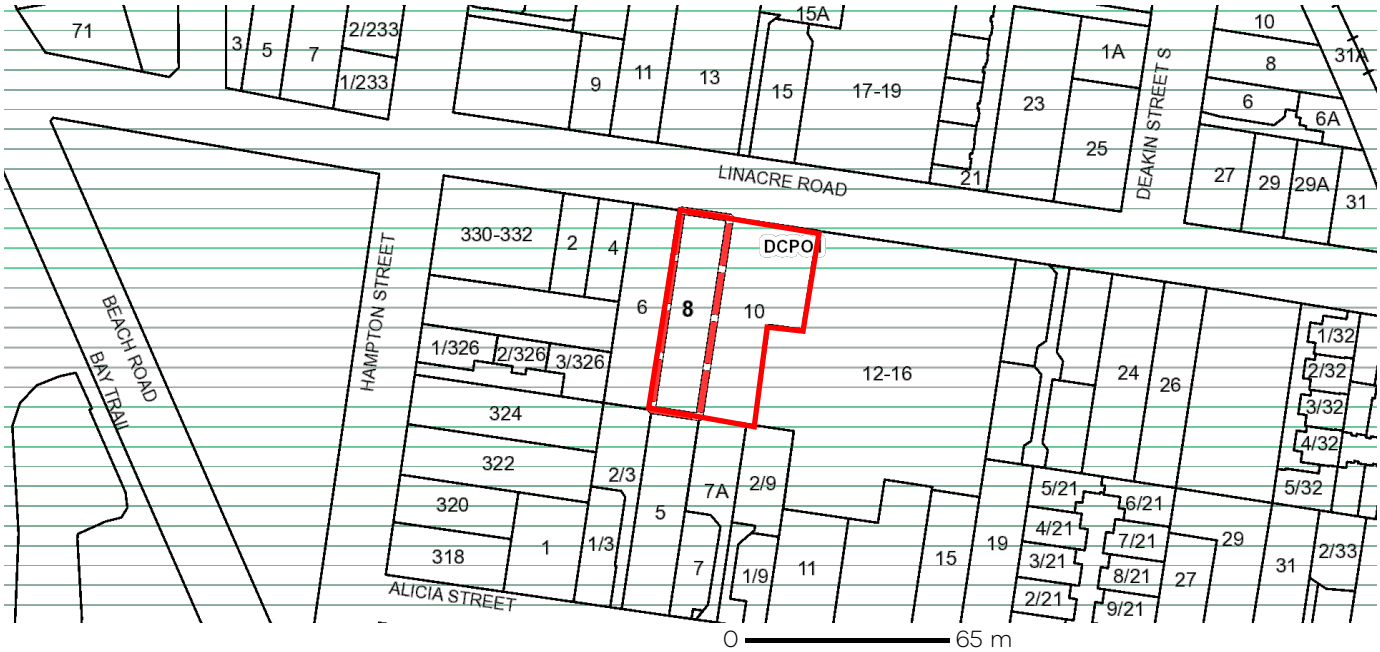


DDO - Design and Development Railway line

Note: due to overlaps, some overlays may not be visible, and some colours may not match those in the legend

DEVELOPMENT CONTRIBUTIONS PLAN OVERLAY (DCPO)

DEVELOPMENT CONTRIBUTIONS PLAN OVERLAY - SCHEDULE 1 (DCPO1)



DCPO - Development Contributions Plan Railway line

Note: due to overlaps, some overlays may not be visible, and some colours may not match those in the legend

PLANNING PROPERTY REPORT

Planning Overlays

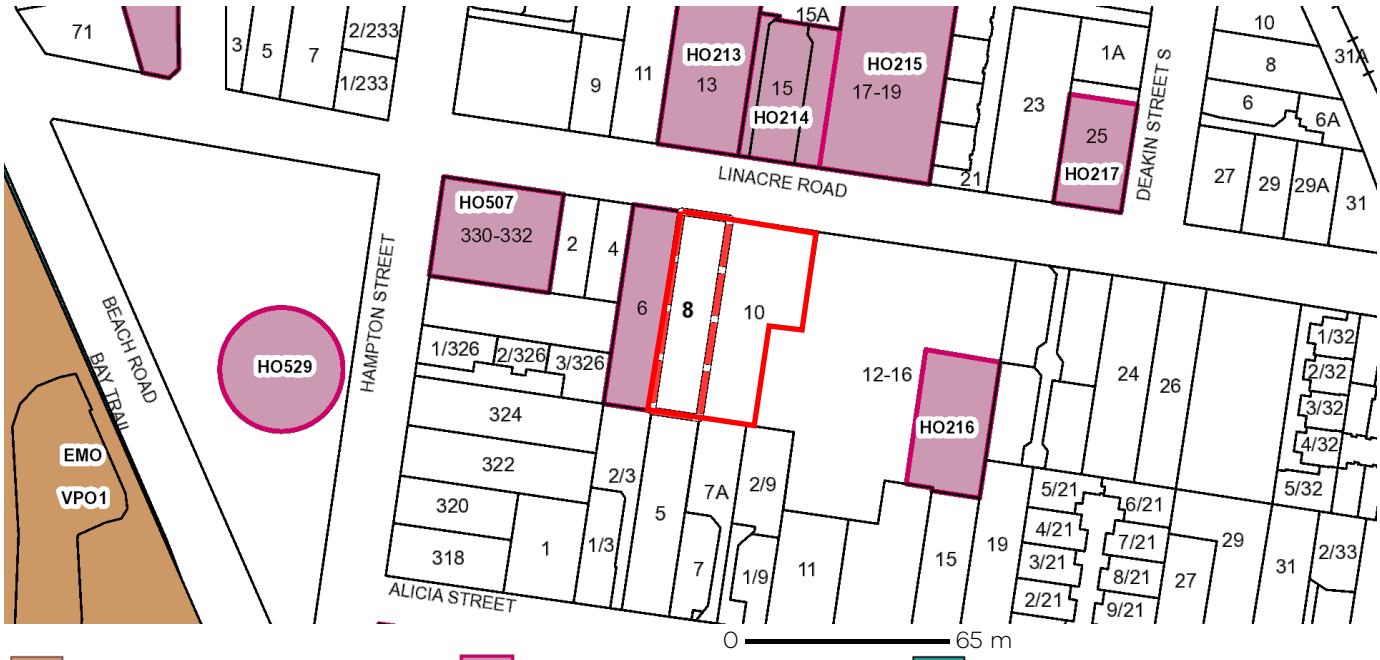
OTHER OVERLAYS

Other overlays in the vicinity not directly affecting this land

EROSION MANAGEMENT OVERLAY (EMO)

HERITAGE OVERLAY (HO)

VEGETATION PROTECTION OVERLAY (VPO)



Note: due to overlaps, some overlays may not be visible, and some colours may not match those in the legend

PLANNING PROPERTY REPORT

Areas of Aboriginal Cultural Heritage Sensitivity

All or part of this property is an 'area of cultural heritage sensitivity'.

'Areas of cultural heritage sensitivity' are defined under the Aboriginal Heritage Regulations 2018, and include registered Aboriginal cultural heritage places and land form types that are generally regarded as more likely to contain Aboriginal cultural heritage.

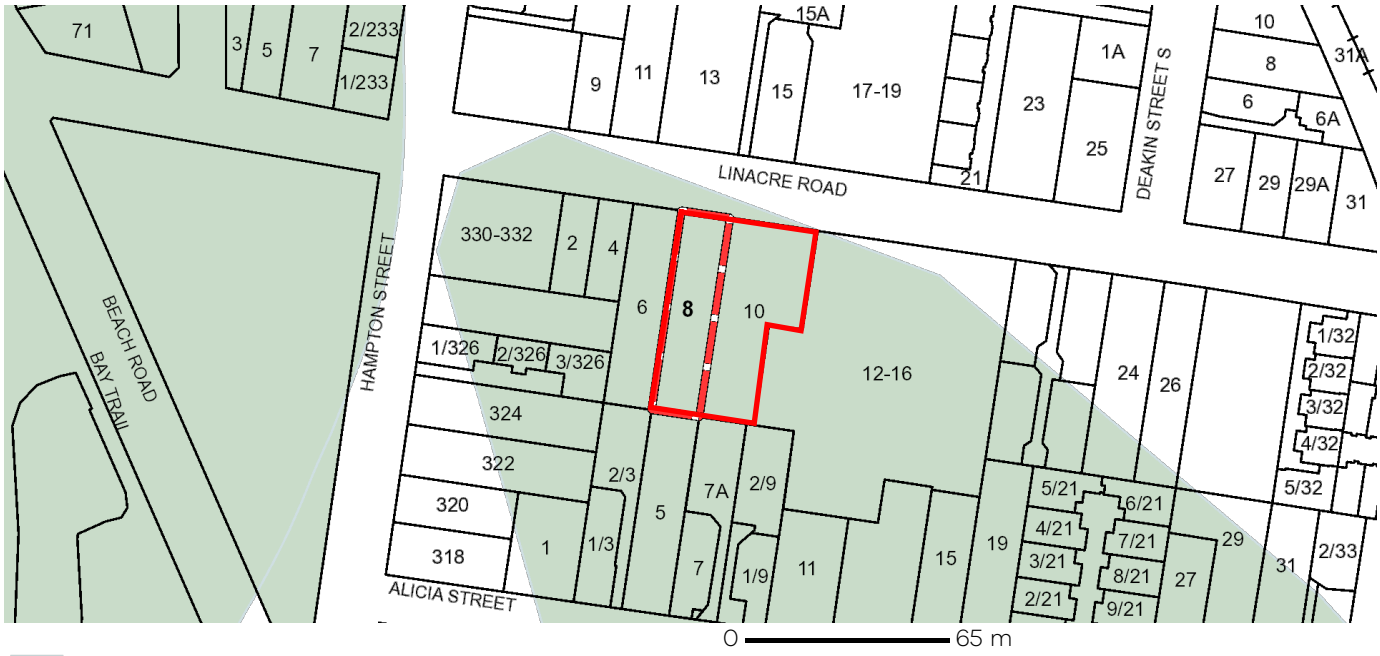
Under the Aboriginal Heritage Regulations 2018, 'areas of cultural heritage sensitivity' are one part of a two part trigger which require a 'cultural heritage management plan' be prepared where a listed 'high impact activity' is proposed.

If a significant land use change is proposed (for example, a subdivision into 3 or more lots), a cultural heritage management plan may be triggered. One or two dwellings, works ancillary to a dwelling, services to a dwelling, alteration of buildings and minor works are examples of works exempt from this requirement.

Under the Aboriginal Heritage Act 2006, where a cultural heritage management plan is required, planning permits, licences and work authorities cannot be issued unless the cultural heritage management plan has been approved for the activity.

For further information about whether a Cultural Heritage Management Plan is required go to
http://www.aav.nrms.net.au/aavQuestion1.aspx

More information, including links to both the Aboriginal Heritage Act 2006 and the Aboriginal Heritage Regulations 2018, can also be found here - https://www.aboriginalvictoria.vic.gov.au/aboriginal-heritage-legislation



PLANNING PROPERTY REPORT

Further Planning Information

Planning scheme data last updated on 16 November 2021.

A **planning scheme** sets out policies and requirements for the use, development and protection of land. This report provides information about the zone and overlay provisions that apply to the selected land. Information about the State and local policy, particular, general and operational provisions of the local planning scheme that may affect the use of this land can be obtained by contacting the local council or by visiting https://www.planning.vic.gov.au

This report is NOT a **Planning Certificate** issued pursuant to Section 199 of the ***Planning and Environment Act 1987.*** It does not include information about exhibited planning scheme amendments, or zonings that may abut the land. To obtain a Planning Certificate go to Titles and Property Certificates at Landata - https://www.landata.vic.gov.au

For details of surrounding properties, use this service to get the Reports for properties of interest.

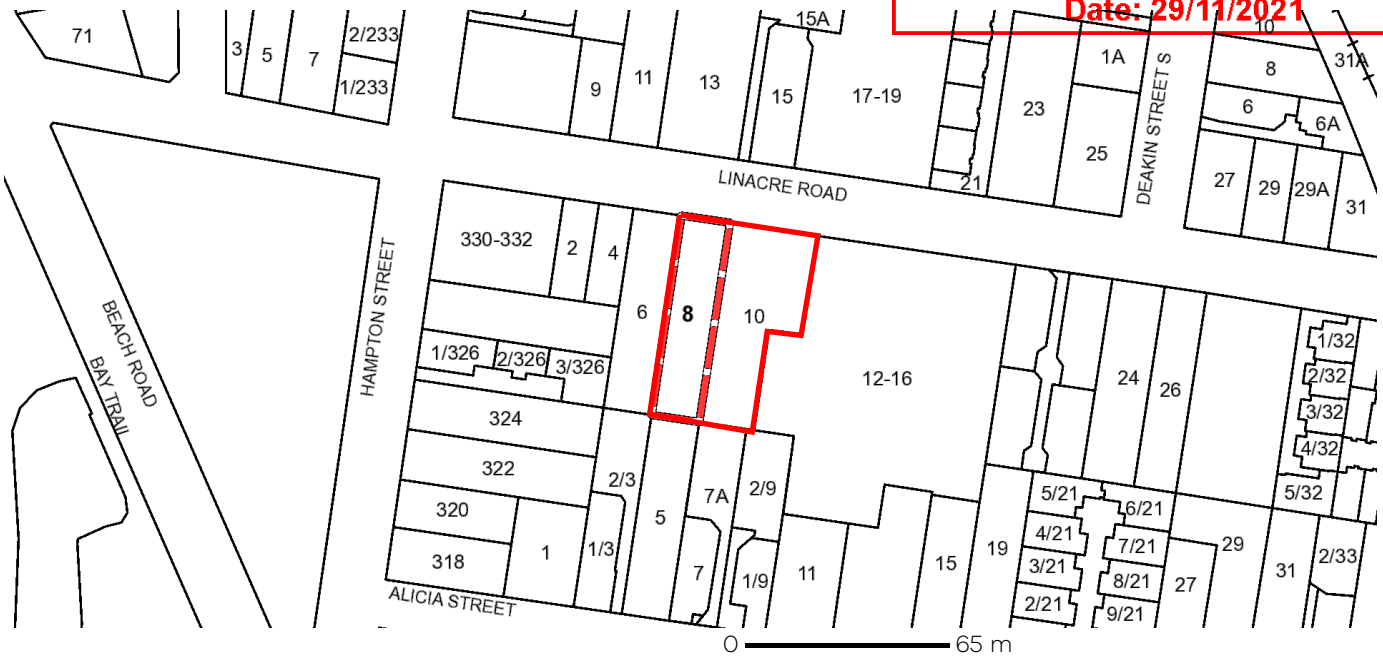
To view planning zones, overlay and heritage information in an interactive format visit https://mapshare.maps.vic.gov.au/vicplan

For other information about planning in Victoria visit https://www.planning.vic.gov.au

PLANNING PROPERTY REPORT

Designated Bushfire Prone Areas

This property is not in a designated bushfire prone area.
No special bushfire construction requirements apply. Planning provisions may apply.



Designated bushfire prone areas as determined by the Minister for Planning are in effect from 8 September 2011 and amended from time to time.

The Building Regulations 2018 through application of the Building Code of Australia, apply bushfire protection standards for building works in designated bushfire prone areas.

Designated bushfire prone areas maps can be viewed on VicPlan at https://mapshare.maps.vic.gov.au/vicplan or at the relevant local council.

Note: prior to 8 September 2011, the whole of Victoria was designated as bushfire prone area for the purposes of the building control system.

Further information about the building control system and building in bushfire prone areas can be found on the Victorian Building Authority website https://www.vba.vic.gov.au

Copies of the Building Act and Building Regulations are available from http://www.legislation.vic.gov.au

For Planning Scheme Provisions in bushfire areas visit https://www.planning.vic.gov.au

Native Vegetation

Native plants that are indigenous to the region and important for biodiversity might be present on this property. This could include trees, shrubs, herbs, grasses or aquatic plants. There are a range of regulations that may apply including need to obtain a planning permit under Clause 52.17 of the local planning scheme. For more information see Native Vegetation (Clause 52.17) with local variations in Native Vegetation (Clause 52.17) Schedule

To help identify native vegetation on his property and the application of Clause 52.17 please visit the Native Vegetation Information Management system https://nvim.delwp.vic.gov.au/ and Native vegetation (environment.vic.gov.au) or please contact your relevant council.

You can find out more about the natural values on your property through NatureKit NatureKit (environment.vic.gov.au)

Appendix C - Clause 55 Assessment

Clause 55 – ResCode Assessment

8 & 10 Linacre Road, Hampton

Application Type

To construct a mixed use building comprising a medical centre with three levels of residential apartments above

Clause 55.01: **Neighbourhood and site description** The neighbourhood and site description may use a site plan, photographs or other techniques and must accurately describe: • **In relation to the neighbourhood**: ▫ *The built form, scale and character of surrounding development including front fencing.* ▫ *Architectural and roof styles.* ▫ *Any other notable features or characteristics of the neighbourhood.* • **In relation to the site:** ▫ *Site shape, size, orientation and easements.* ▫ *Levels of the site and the difference in levels between the site and surrounding properties.* ▫ *Location of existing buildings on the site and on surrounding properties, including the location and height of walls built to the boundary of the site.* ▫ *The use of surrounding buildings.* ▫ *The location of secluded private open space and habitable room windows of surrounding properties which have an outlook to the site within 9 metres.* ▫ *Solar access to the site and to surrounding properties.* ▫ *Location of significant trees existing on the site and any significant trees removed from the site in the 12 months prior to the application being made, where known.* ▫ *Any contaminated soils and filled areas, where known.* ▫ *Views to and from the site.* ▫ *Street frontage features such as poles, street trees and kerb crossovers.* ▫ *Any other notable features or characteristics of the site.*	**Complies** With regard to the neighbourhood, the following aspects are described by this report and the accompanying application plans: ▪ The built form, scale and character of development on surrounding properties; and ▪ The architecture of surrounding buildings. With regard to the site, the following descriptions are provided by this report or are illustrated by the submitted plans: ▪ Site shape, size, orientation and easements; ▪ Levels of the site and surrounding properties; ▪ *Location of existing buildings on the site and on surrounding properties and their uses;* ▪ The location of private open space; ▪ Solar access; and ▪ Vegetation at the site. ▪ Street frontage features An analysis of the above site and surrounding area characteristics demonstrates that the proposed development is well suited and is of a scale and form that is compatible with the existing character and streetscape of the area.
Clause 55.01-2: Design Response The design response must explain how the proposed design: • Derives from and responds to the neighbourhood and site description. • Meets the objectives of Clause 55. • Responds to any neighbourhood character features for the area identified in a local planning policy or a Neighbourhood Character Overlay. The design response must include correctly proportioned street elevations or photographs showing the development in the context of adjacent buildings.	**Complies** The architectural material prepared by Ewart Leaf *Architects* and the assessment provided in this report clearly articulate how the proposed development derives from, and responds to, the existing and preferred character of the area. The scale of the proposal at a maximum of three storey's and 10.716 metres not including the lift overrun is further consistent with the emerging built form context and provides a site responsive design that appropriately respond to the surrounding context. The material palette and finishes of the proposal further assist in the design response integrating with Linacre Road and complementing the existing and preferred character of the immediate environs.
Clause 55.02-1 – Neighbourhood Character Objectives • To ensure that the design respects the existing neighbourhood character	**Complies** As detailed throughout the planning report, the design

or contributes to a preferred neighbourhood character. • To ensure the development responds to the features of the site and surrounding area. **Standard B1 (cannot be varied)** • The design response must be appropriate to the neighbourhood and the site. • The proposed design must respect the existing or preferred neighbourhood character and respond to the features of the site. ***Decision Guidelines*** *Before deciding on an application, the responsible authority must consider:* • *Any relevant neighbourhood character objective, policy or statement set out in this scheme.* • *The neighbourhood and site description.* • *The design response.*	response is considered appropriate within its immediate built form context. This is further supported by the materiality of the development which is reflective and sympathetic of its surrounding context and which assists with integrating the development within its streetscape setting. The proposal satisfies the standard and objective of Clause 55.02-1 of the Planning Scheme. **Bayside City Council** **Planning and Environment Act 1987** **ADVERTISED PLAN** **Planning Application No.: 5/2021/331/1** **Date: 29/11/2021**
Clause 55.02-2 – Residential Policy Objectives • To ensure that residential development is provided in accordance with any policy for housing in the State Planning Policy Framework and the Local Planning Policy Framework including the Municipal Strategic Statement and local planning policies. • To support medium densities in areas where development can take advantage of public transport and community infrastructure and services. **Standard B2 (cannot be varied)** An application must be accompanied by a written statement to the satisfaction of the responsible authority that describes how the development is consistent with any relevant policy for housing in the State Planning Policy Framework and the Local Planning Policy Framework, including the Municipal Strategic Statement and local planning policies. ***Decision Guidelines*** *Before deciding on an application, the responsible authority must consider:* • *The State Planning Policy Framework and the Local Planning Policy Framework including the Municipal Strategic Statement and local planning policies.* • *The design response.*	**Complies** As detailed in the body of this report, the design and siting of this proposal is appropriate in its built form and strategic context. The architectural material and consultant reports which supplement this submission detail surrounding land uses and development, including its location, scale and intensity. The proposal envisages an appropriate medium-density development that is extremely well located to take advantage of the Sites location in the Hampton Street Activity Centre where a higher density is envisaged proximate to amenities and public transport infrastructure. The development provides community infrastructure as well as housing diversity in an area well equipped with access to local services, employment and public transport. The high-quality architectural design ensures the development will make a positive contribution in its setting and surrounding area whilst being responsive to the amenity of neighbouring residential properties. This is entirely consistent with the directives of the Municipal Planning Strategy and the Planning Policy Framework. The proposal satisfies the standard and objective of Clause 55.02-2.
Clause 55.02-3 – Dwelling Diversity Objective • To encourage a range of dwelling sizes and types in development of ten or more dwellings. **Standard B3 (can be varied)** Developments of 10 or more dwellings should provide a range of dwelling sizes and types including: • dwellings with a different number of bedrooms; and	**Complies** The development comprises a number of two and three bedroom dwellings of various types, sizes and configurations. The proposal satisfies the standard and objective of Clause 55.02-3.

• at least one dwelling with a kitchen, bath or shower, and toilet and wash basin at ground floor level. *There are no decision guidelines for this objective and standard.*	
Clause 55.02-4 – Infrastructure Objectives • To ensure development is provided with appropriate utility services and infrastructure. • To ensure development does not unreasonably overload the capacity of utility services and infrastructure. **Standard B4 (can be varied)** • Development should be connected to reticulated services including reticulated sewerage, drainage, electricity and gas if available. • Developments should not unreasonably exceed the capacity of utility services and infrastructure, including reticulated services and roads. • In areas where utility services or infrastructure have little or no space capacity, developments should provide for the upgrading or mitigation of the impact on services or infrastructure. ***Decision Guidelines*** *Before deciding on an application, the responsible authority must consider:* • *The capacity of the existing infrastructure.* • *In the absence of reticulated sewerage, the capacity of the development to treat and retain all wastewater in accordance with the State Environment Protection Policy (Waters of Victoria) under the Environment Protection Act 1970.* • *If the drainage system has little or no spare capacity, the capacity of the development to provide for stormwater drainage mitigation or upgrading of the local drainage system.*	**Complies** The proposed development is capable of connection to reticulated services appropriate for the residential use of the land. A rainwater tank with a capacity of 35,000L is proposed to collect run-off from the roof and terraces. Stored water will be used for toilet flushing of all toilets reducing main water demands and potable water use for the development. The proposal will not result in unsustainable demands upon existing and planned infrastructure and satisfies the standard and objective of Clause 55.02-4. **Bayside City Council** **Planning and Environment Act 1987** **ADVERTISED PLAN** **Planning Application No.: 5/2021/331/1** **Date: 29/11/2021**
Clause 55.02-5 – Integration with the Street Objective • To integrate the layout of development with the street. **Standard B5** • Developments should provide adequate vehicle and pedestrian links that maintain or enhance local accessibility. • Development should be orientated to front existing and proposed streets. • High fencing in front of dwellings should be avoided if practicable. • Development next to existing public open space should be laid out to complement the open space. ***Decision Guidelines*** *Before deciding on an application, the responsible authority must consider:* • *Any relevant neighbourhood character objective, policy or statement set out in this scheme.* • *The design response.*	**Complies** The proposed development is orientated to present its frontage to Linacre Road. A centralised pedestrian entry to apartments is punctuated by a pergola structure and a dedicated entry to the Medical Centre is included within the street frontage. This connects the development with the public realm and is clearly legible within the streetscape. Vehicular access to basement car parking is maintained from Linacre Road. Front fencing is provided to landscaped and a terraced area within the front setback and measures a maximum height of 1.42 metres. Landscaping is provided on land intervening the fence and roadside boundary to soften the street edge. The height of the proposed front fence allows visual permeability of the development from the street and is sympathetic in form and scale to that found elsewhere within the streetscape of Linacre Road. Accordingly, it would not appear incongruous within its streetscape setting or be harmful to the preferred or existing neighbourhood character.

Clause 55.03-1 – Street Setback Objective

- To ensure that the setbacks of buildings from a street respect the existing or preferred neighbourhood character and make efficient use of the site.

Standard B6 (Can be varied)

Walls of buildings should be setback from streets the distance specified in Table B1 as follows:

- **Where there are existing buildings on both abutting lots facing the same street, and the site is not on a corner, the average distance of front walls of existing adjacent buildings facing the same street or 9m, whichever is lesser**.
- Where there is an existing building on one abutting lot facing the same street, and no existing building on the other abutting lot facing the same street and the site is not on a corner, the same distance as the front wall of the existing adjacent building or 9m, whichever is lesser.
- Where there are no existing buildings on either abutting lot facing the same street and the site is not on a corner, 6m for streets in a Road Zone Category 1, and 4m for other streets.
- Where the site is on a corner, and there is a building on the abutting lot facing the front street, the same distance as the setback of the front wall of the existing abutting building facing the front street, or 9m whichever is lesser.
- Where the site is on a corner and there is no building on the abutting lot facing the front street, 6m for streets in a Road Zone Category 1, and 4m for other streets.
- Front walls of new development fronting a side street of a corner lot should be setback at least the same distance as the setback of the front wall of any existing building on the abutting allotment facing the side street, or 3m, whichever is the lesser.
- Side walls of new development on a corner site should be setback the same distance as the setback of the front wall of any existing building on the abutting allotment facing the side street, or 2m, whichever is the lesser.

Decision Guidelines

Before deciding on an application, the responsible authority must consider:

- *Any relevant neighbourhood character objective, policy or statement set out in this scheme.*
- *The design response.*
- *Whether a different setback would be more appropriate taking into account the prevailing setbacks of existing buildings on nearby lots.*
- *The visual impact of the building when viewed from the street and from adjoining properties.*
- *The value of retaining vegetation within the front setback.*

Complies with Objective

The Standard requires the street setback of the proposed building to assume the average of the setbacks of the built form on the abutting allotments or 9 metres whichever is the lesser.

The Linacre Private Hospital to the east of the Site has a street setback of approximately 5.62 metres. The car port of 6 Linacre Road to the west of the Site has a setback of approximately 3.55 metres.

Therefore, an average street setback of 4.585 metres is required.

The proposed building has transitionary street setbacks of 6.0 metres to 9.096 metres (wall) at Lower Ground, and 6.0 metres (balcony) to 9.15 metres (wall) to 6.0 metres (balcony) to 7.0 metres (wall) to 8.35 metres (balcony) to 11.35 metres (wall) (east to west) at from Upper Ground Level to First Floor.

Setbacks of Second Floor similarly transition from Linacre Road to balcony from 6.0 metres to 8.25 metres however to wall, the street setbacks increase to 10.0 metres to 12.20 metres (east to west).

DDO12 seeks to vary the street setback requirement for the second level of development and seeks it to a achieve a minimum setback of 4 metres behind the front wall of the floor immediately below.

The DDO therefore requires a setback of 11.0 metres to 15.35 metres (east to west) of the Second Floor from Linacre Road as opposed to 10.0 metres to 12.20 metres and therefore a variation of 1.0 metre to 3.15 metres is sought.

The area is characterised by moderate to large sized lots with dwellings of various architectural styles occupying a significant proportion of them. In this, there is no uniformity of defined street setback to Linacre Road, with this varying greatly within this part of Hampton.

The proposed street setbacks of the front walls of the development transition to an increasing extent from east to west across the Site and respond to the built form conditions on adjacent lots. Whilst the LG floor would have a lesser street setback to the floors above it, this is considered appropriate when taking into account the varied topography of the Site and the modulated recession of the upper levels.

In the context of the built form below it, the Second Floor Level setbacks of between 10 and 15.35 metres are considered an appropriate response which will achieve visual recession of the uppermost level.

Accordingly, the proposed development complies with the street setback objectives of Clause 55.03-1 and

	does not conflict with the built form objectives of the DDO12.
Clause 55.03-2 – Building Height Objective • To ensure that the height of buildings respects the existing or preferred neighbourhood character. **Standard B7 (Can be varied)** • The maximum building height should not exceed the maximum height specified in the zone, schedule to the zone or an overlay that applies to the land. • If no maximum height is specified in the zone, schedule to the zone or an overlay, the maximum building height should not exceed 9m, unless the slope of the natural ground level at any cross section wider than 8m of the site of the building is 2.5 degrees or more, in which case the maximum building height should not exceed 10m. • Change of building height between existing buildings and new buildings should be graduated. ***Decision Guidelines*** *Before deciding on an application, the responsible authority must consider:* • *Any relevant neighbourhood character objective, policy or statement set out in this scheme.* • *The design response.* • *The effect of the slope of the site on the height of the building.* • *The relationship between the proposed building height and the height of existing adjacent buildings.* • *The visual impact of the building when viewed from the street and from adjoining properties.*	**Complies** The GRZ2 prescribes a mandatory maximum building height of 12 metres where the slope of the natural ground level at any cross section wider than 8 metre of the site is 2.5 degrees or more. The maximum building height measured from natural ground level is 10.716 metres and thus the proposed development does not exceed the mandatory height control applied by the schedule to the zone. Please refer to architectural drawings prepared by Ewart Leaf Pty Ltd for further detail. **Bayside City Council** **Planning and Environment Act 1987** **ADVERTISED PLAN** **Planning Application No.: 5/2021/331/1** **Date: 29/11/2021**
Clause 55.03-3 – Site Coverage Objective • To ensure that the site coverage respects the existing or preferred neighbourhood character and responds to the features of the site. **Standard B8 (Can be varied)** • The site area covered by buildings should not exceed 60%. ***Decision Guidelines*** *Before deciding on an application, the responsible authority must consider:* • *Any relevant neighbourhood character objective, policy or statement set out in this scheme.* • *The design response.* • *The existing site coverage and any constraints imposed by existing developments or the features of the site.* • *The site coverage of adjacent properties.* • *The effect of the visual impact of the building and whether this is acceptable in the neighbourhood.*	**Complies with objective** The proposal will result in a total site coverage of 61%. In this circumstance, the proposed development is consistent with and responsive to its built form context. The minor variation being sought would not be intelligible in the round would not casus the development to appear incongruous in its setting or have a deleterious impact on the streetscapes of Linacre Road or the neighbourhood character of the area. Accordingly, the proposal responds appropriately to the objective of Clause 55.03-3 of the Planning Scheme.
Clause 55.03-4 – Permeability Objectives • To reduce the impact of increased stormwater run-off on the drainage system. • To facilitate on-site stormwater infiltration. • To encourage stormwater management that maximises the retention and	**Complies** Site permeability is 21.36%. As is detailed in the Sustainable Management Plan, prepared by *Sustainable Development Consultants*, which accompanies this submission, the proposed

reuse of stormwater **Standard B9 (Can be varied)** The site area covered by the pervious surfaces should be at least: • The minimum area specified in a schedule to the zone, or • If no minimum is specified in a schedule to the zone, 20 percent of the site. The stormwater management system should be designed to: • Meet the current best practice performance objectives for stormwater quality as contained in the Urban Stormwater - Best Practice Environmental Management Guidelines (Victorian Stormwater Committee, 1999). • Contribute to cooling, improving local habitat and providing attractive and enjoyable spaces. ***Decision Guidelines*** *Before deciding on an application, the responsible authority must consider:* • *The design response.* • *The capacity of the site to incorporate stormwater retention and reuse.* • *The existing site coverage and any constraints imposed by existing development. The capacity of the drainage network to accommodate additional stormwater.* • *The capacity of the site to absorb run-off.* • *The practicality of achieving the minimum site coverage of pervious surfaces, particularly on lots of less than 300 square metres.* • *Whether the owner has entered into an agreement to contribute to off-site stormwater management in lieu of providing an on-site stormwater management system.*	development meets best practice performance objectives for storm water quality by achieving a stormwater rating of 101%. This is satisfied by implementing measures to ensure rainwater collection from roof and balcony surfaces for connections to toilets for flushing and for irrigation purposes, with a rainwater tank with a combined capacity of 35,000 litres being provided on site. Accordingly, the proposal responds appropriately to the objectives and standards of Clause 55.03-4 of the Planning Scheme and through the SMP, appropriately addresses the collection and treatment of stormwater. **Bayside City Council** **Planning and Environment Act 1987** **ADVERTISED PLAN** **Planning Application No.: 5/2021/331/1** **Date: 29/11/2021**
Clause 55.03-5 – Energy Efficiency Objectives • To achieve and protect energy efficient dwellings and residential buildings. • To ensure the orientation and layout of development reduce fossil fuel energy use and make appropriate use of daylight and solar energy. Standard B10 Buildings should be: • Oriented to make appropriate use of solar energy. • Sited and designed to ensure that the energy efficiency of existing dwellings on adjoining lots is not unreasonably reduced. • Sited and designed to ensure that the performance of existing rooftop solar energy systems on dwellings on adjoining lots in a General Residential Zone, Neighbourhood Residential Zone or Township Zone are not unreasonably reduced. The existing rooftop solar energy system must exist at the date the application is lodged. Living areas and private open space should be located on the north side of the development, if practicable. Developments should be designed so that solar access to north-facing windows is maximised. ***Decision guidelines*** • *Before deciding on an application, the responsible authority*	**Complies** The apartments within the development are appropriately orientated to maximise solar access to living and private open space areas, with extensive areas of glazing provided. As outlined in the 'Sustainable Management Plan' prepared by *Sustainable Development Consultants* the proposal meets Best Practice and achieves an average 8.3-star rating for the apartments. Further information with regards the proposals energy efficiency is contained in the accompanying 'Sustainable Management Plan' prepared by *Sustainable Development Consultants*. The proposal satisfies the standard and objective of Clause 55.03-5.

must consider: The design response. • *The size, orientation and slope of the lot.* • *The existing amount of solar access to abutting properties. The availability of solar access to north-facing windows on the site.* • *The extent to which an existing rooftop solar energy system on an adjoining lot is overshadowed by existing buildings or other permanent structures.* • *Whether the existing rooftop solar energy system on an adjoining lot is appropriately located.* • *The effect of overshadowing on an existing rooftop solar energy system on an adjoining lot.*	
Clause 55.03-6 – Open Space Objective • To integrate the layout of development with any public and communal open space provided in or adjacent to the development. Standard B11 If any public or communal open space is provided on site, it should: • Be substantially fronted by dwellings, where appropriate. • Provide outlook for as many dwellings as practicable. Be designed to protect any natural features on the site. • Be accessible *and useable.* **Decision guidelines** *Before deciding on an application, the responsible authority must consider:* • *Any relevant plan or policy for open space in the Municipal Planning Strategy and the Planning Policy Framework.* • *The design response.*	**N/A** **Bayside City Council** **Planning and Environment Act 1987** **ADVERTISED PLAN** **Planning Application No.: 5/2021/331/1** **Date: 29/11/2021**
Clause 55.03-7 – Safety Objective • To ensure the layout of development provides for the safety and security of residents and property. **Standard B12 (Can be varied)** • Entrances to dwellings and residential buildings should not be obscured or isolated from the street and internal accessways. • Planting which creates unsafe spaces along streets and accessways should be avoided. • Developments should be designed to provide good lighting, visibility and surveillance of car parks and internal accessways. • Private spaces within developments should be protected from inappropriate use as public thoroughfares. ***Decision Guideline*** *Before deciding on an application, the responsible authority must consider the design response.*	**Complies** Pedestrian access is clearly identifiable and taken from Linacre Road. Vehicular access is taken from Linacre Road and maintains a status quo and avoids conflict with traffic movements on Linacre Road, a local road. Pedestrian access is clearly distinguished by dedicated paths and pergola structures as appropriate and the expression of roadside fencing and landscaping. Both pedestrian and vehicular entrances will be adequately lit at night to ensure an appropriate level of safety, while providing a sense of place and identity to the development. The proposal satisfies the standard and objective of Clause 55.03-7.
Clause 55.03-8 – Landscaping Objectives • To encourage development that respects the landscape character of the neighbourhood. • To encourage development that maintains and enhances habitat for plants	**Complies** The proposal would occupy only 61% of the Site, with 21.63% of it being permeable. This allows increased opportunity for deep soil planting on the periphery of

and animals in locations of habitat importance. • To provide appropriate landscaping. • To encourage the retention of mature vegetation on the site. **Standard B13 (Can be varied)** Landscape layout and design should: • Protect any predominant landscape features of the neighbourhood. • Take into account the soil type and drainage patterns of the site. • Allow for intended vegetation growth and structural protection of buildings. • In locations of habitat importance, maintain existing habitat and provide for new habitat for plants and animals. • Provide a safe, attractive and functional environment for residents. Developments should provide for the retention or planting of trees, where these are part of the character of the neighbourhood. Development should provide for the replacement of any significant trees that have been removed in the 12 months prior to the application being made. The landscape design should specify landscape themes, vegetation (location and species), paving and lighting. ***Decision Guidelines*** *Before deciding on an application, the responsible authority must consider:* • *Any relevant neighbourhood character objective, policy or statement set out in this scheme.* • *Any relevant plan or policy for landscape design in the State Planning Policy Framework and Local Planning Policy Framework, including the Municipal Strategic Statement and local planning policies.* • *The design response.* • *The location and design of gardens and the predominant plant types in the neighbourhood.* • *The health of any trees to be removed.* • *Whether a tree was removed to gain a development advantage.*	the Site in the form of mature tree planting and low-lying shrub coverage as indicated on the landscape plan prepared by *John Patrick Landscape Architects.* Ground cover and canopy tree planting is also supplemented by planter boxes at upper levels of the development, integrating the development with its garden and wider streetscape setting. Accordingly, the proposal satisfies the standard and meets the objective of Clause 55.03-8. **Bayside City Council** **Planning and Environment Act 1987** **ADVERTISED PLAN** **Planning Application No.: 5/2021/331/1** **Date: 29/11/2021**
Clause 55.03-9 – Access Objectives • To ensure vehicle access to and from a development is safe, manageable and convenient. • To ensure the number and design of vehicle crossovers respects the neighbourhood character. **Standard B14 (Can be varied)** Accessways should: • Be designed to allow convenient, safe and efficient vehicle movements and connections within the development and to the street network. • Be designed to ensure vehicles can exit a development in a forwards direction if the accessway serves 5 or more car spaces, 3 or more dwellings, or connects to a road in a Road Zone. • Be at least 3m wide. • Have an internal radius of at least 4m at changes of direction. • Provide a passing area at the entrance that is at least 5m wide and 7m long if the accessway serves 10 or more spaces and connects to a road in	**Complies** Vehicular access would be maintained from Linacre Road via a modified crossover. As illustrated on the architectural drawings prepared by *Ewart Leaf Pty Ltd* in support of this application, the street frontage has a width of 42.72 metres. The width of the accessway to Linacre Road should not exceed 33% of that street frontage. The proposed vehicular access from Linacre Road measures 5.5m wide and would occupy only 12.87% of the street frontage with that interface. Accordingly, the accessway width does not exceed that prescribed by the standard. By virtue of this and otherwise by its locational circumstance, assuming a similar interface to an existing access serving the site and otherwise its contextual relationship with other neighbouring vehicular accesses, the proposed

a road zone. The width of accessways or car spaces should not exceed: • 33% of the street frontage if the width of the street frontage is more than 20m; or • 40% of the street frontage if the width of the street frontage is less than 20m. ***Decision Guidelines*** *Before deciding on an application, the responsible authority must consider:* *The design response.* • *The impact on the neighbourhood character* • *The practicality of providing car parking on the site, particularly for lots of less than 300 square metres.* • *The reduction of on-street car parking spaces.* • *Traffic flows in the street and the safety of motorists and pedestrians.* • *The effect on any significant vegetation on the site and footpath.* • *The efficient use of the site.* • *For developments with accessways longer than 60 metres or serving more than 40 dwellings, the relevant standards of Clause 56.*	vehicular accessway is appropriate in its streetscape setting and would not be harmful to the existing or evolving neighbouring character. Furthermore, its location would not result in the loss of on-street parking spaces or compromise the safety of motorists of pedestrians. Please refer to the architectural drawings prepared by *Ewart Leaf Pty Ltd* and the Traffic and Transport Assessment Prepared by Impact Traffic Engineering Pty Ltd for further detail on vehicular access arrangements on site. The proposal satisfies the standard and objective of Clause 55.03-9.
Clause 55.03-10 – Parking Location Objectives • To provide for convenient parking for residents and visitor vehicles. • To avoid parking and traffic difficulties in the development and the neighbourhood. • To protect residents from vehicular noise within developments. **Standard B15 (Can be varied)** Car parking facilities should: • Be reasonably close and convenient to dwellings and residential buildings; • Be secure; • Be designed to allow safe and efficient movements within the development; and • Be well ventilated if enclosed. Large parking areas should be broken up with trees, buildings or different surface treatments. Shared accessways or car parks of other dwellings and residential buildings should be located at least 1.5m from habitable room windows. This setback may be reduced to 1m where there is a fence at least 1.5m high or where window sills are at least 1.4m above the accessway. ***Decision Guidelines*** *Before deciding on an application, the responsible authority must consider the design response.*	**Complies** Carparking is provided within two basement levels which provides convenient and safe access to internal areas of the building through lift and stair circulation spaces and facilities limiting potential adverse noise impacts to residents by virtue of its locational circumstance relative to each dwelling. The proposal satisfies the standard and objective of Clause 55.03-10. **Bayside City Council** **Planning and Environment Act 1987** **ADVERTISED PLAN** **Planning Application No.: 5/2021/331/1** **Date: 29/11/2021**
Clause 55.04-1 – Side and Rear Setbacks Objective • To ensure that the height and setback of a building from a boundary respects the existing or preferred neighbourhood character and limits the impact on the amenity of existing dwellings. **Standard B17 (Can be varied)**	**Complies with objective** The following side and rear setbacks are required: **South (Rear)** ▪ First storey (ground level): 1 metre

New buildings not on, or within 200mm of boundary <u>should</u> be setback from side or rear boundaries:

- 1m, plus 0.3m for every metre height over 3.6m up to 6.9m, plus 1m for every metre height over 6.9m.

Decision Guidelines

Before deciding on an application, the responsible authority must consider:

- *Any relevant neighbourhood character objective, policy or statement set out in this scheme.*
- *The design response.*
- *The impact on the amenity of the habitable room windows and secluded private open space of existing dwellings.*
- *Whether the wall is opposite an existing or simultaneously constructed wall built to the boundary.*
- *Whether the wall abuts a side or rear lane.*

- Second storey (first level): 1.14 metres
- Third storey (second level): 1.618 metres to balcony, 3.07 metres to wall

Re-entrant South (Rear)
- First storey (ground level): 1 metre
- Second storey (first level): 1 metre
- Third storey (second level): 1.216 metres to balcony, 1.87 metres to wall

East (Side)

- First storey (ground level): 1.41 metre
- Second storey (first level): 3.33m
- Third storey (second level): 4.27 metres to balcony, 6.76 metres to wall

Re-entrant East (Side)

- First storey (ground level): 1 metre
- Second storey (first level): 1.35m
- Third storey (second level): 3.72m

West (Side) (north to south)

- First storey (ground level): 1.25m to wall & 1 m to balcony, 1.126m to wall & 1.86m to balcony, 1.048m wall
- Second storey (first level): 2.7m to wall & 1.58m to balcony, 2.26m to wall & 1.45m to balcony and 2.07m to wall & 1.35m to balcony
- Third storey (second level): 5.718m to wall & 3.48m to balcony, 5.62m to wall & 3.25m to balcony, 5.39m to wall & 3.06m to balcony.

The proposed setbacks are as follows with those where a variation is sought being underlined.

South (Rear)

- First storey (ground level): 4.273 metres to 5.52 metres
- Second storey (first level): 4.097metres to 5.521 metres
- Third storey (second level): 4.275m to balcony, 6.551m to wall

Re-entrant South (Rear)

- First storey (ground level): 3.5 metres
- Second storey (first level): 3.5 metres
- Third storey (second level): 3.5 metres to balcony, 4.55 metres to wall

East (Side)

- First storey (ground level): 3.6 metres
- Second storey (first level): 3.6 metres
- Third storey (second level): <u>3.6 metres to balcony, 5.4 metres to wall</u>

Re-entrant East (Side)

- First storey (ground level): 3.42 metre to balcony, 5.58 metres to wall
- Second storey (first level): 3.705 metres to balcony, 5.57 metres to wall

	▪ Third storey (second level): 3.5 metres to 4.3 metres **West (Side) (north to south)** ▪ First storey (ground level): 3.7 metre. ▪ Second storey (first level): 3.7m to balcony and 4.255m to wall. ▪ Third storey (second level): 3.7m to balcony and 6.1m to wall The proposed variations are considered appropriate for the following reasons: ▪ The majority of setback variations are sought to the east and thus to the less sensitive interface with the Linacre Private Hospital. ▪ The variations are at points where there is a steep drop in NGL on the mutual boundary and are not representative of the otherwise fully compliant east and west elevations. ▪ The variations sought to the west are only for a small section of the balustrades to balconies associated with Apartments 2.01, 2.07 and 2.09 with this being attributed to the slope in natural ground level of the land at these points. The variations are minor in the context of the overall compliance of the development with the western setback requirements. ▪ The architectural approach to the design of the building has responded to the varied topography of the land, with the building being set into the site and below natural ground level in part. The effect of this presents the building as a three-storey form to opposing interfaces thus minimising the perception of visual bulk from that interface. ▪ The Second Floor Level is visually recessive from the three-storey form below it, being articulated with materials to assist this. This serves to minimise the bulk of the building and reduce its scale as it interfaces with the neighbouring residential properties to the south and west and otherwise that form the Linacre Private Hospital. ▪ The reduced setbacks would not result in overlooking or overshadowing of neighbouring residential properties as demonstrated in the section diagrams and shadow analysis prepared by Ewart Leaf Pty Ltd in support of this application. Accordingly, the proposed development is responsive to its built form context and is respectful to its residential interfaces without detriment to the amenity of any adjacent residential property or the area. Accordingly, it complies with the objectives of Clause 55.04-1. Furthermore, it is responsive to local policy objectives of Clause 15.01-5L of the planning scheme.
Clause 55.04-2 – Walls on Boundaries Objective	N/A.

• To ensure that the location, length and height of a wall on a boundary respects the existing or preferred neighbourhood character and limits the impact on the amenity of existing dwellings. **Standard B18 (can be varied)** New wall on or within 200mm of a side or rear boundary of a lot, or a carport on or within 1m of a side or rear boundary should not abut the boundary for a length of more than: • 10m plus 25% of the remaining length of the boundary of an adjoining lot; or • the length of an existing or simultaneously constructed wall or carport, whichever is the greater. A new wall or carport may fully abut a side or rear boundary where the slope and retaining walls would result in the effective height of the wall or carport being less than 2m on the abutting property boundary. A building on a boundary includes a building up to 200mm from a boundary. The height of a new wall constructed on or within 200mm of a side or rear boundary or a carport constructed on or within 1 metre of a side or rear boundary should not exceed an average of 3.2 metres with no part higher than 3.6 metres unless abutting a higher existing or simultaneously constructed wall. ***Decision Guidelines*** *Before deciding on an application, the responsible authority must consider:* • *Any relevant neighbourhood character objective, policy or statement set out in this scheme.* • *The design response.* • *The extent to which walls on boundaries are part of the neighbourhood character.* • *The impact on the amenity of existing dwellings.* • *The opportunity to minimise the length of walls on boundaries by aligning a new wall on a boundary with an existing wall on a lot of an adjoining property.* • *The orientation of the boundary that the wall is being built on.* • *The width of the lot.* • *The extent to which the slope and retaining walls or fences reduce the effective height of the wall.* • *Whether the wall abuts a side or rear lane.* • *The need to increase the wall height to screen a box gutter.*	No walls are proposed on boundary, **Bayside City Council** **Planning and Environment Act 1987** **ADVERTISED PLAN** **Planning Application No.: 5/2021/331/1** **Date: 29/11/2021**
Clause 55.04-3 – Daylight to Existing Windows Objective • To allow adequate daylight into existing habitable room windows. **Standard B19 (Can be varied)** • Buildings opposite an existing habitable room window should provide for a light court to the existing window, of at least 3m2 and 1m clear to the sky. The area may include land on the abutting lot. • Walls or carports more than 3m height opposite an existing habitable room window should be setback from the window at least 50% of the height of the new wall if the wall is within a 55 degree arc from the centre of the existing window. The arc may be swung to within 35 degrees of the plane of the wall containing the existing window. ***Note:*** *Where the existing window is above ground level, the wall height is*	**Complies** Habitable room windows exist in the east elevation of the neighbouring dwelling at 6 Linacre Road to the west of the site. They are in a continuous plane, with them having a consistent setback from the mutual boundary. The average overall height of the wall of the building which would be opposite them is 8.09 metres measured to the solid balustrade of the second floor apartments and 10.15 metres measured to the top of the west wall of the building behind the balustrade.

measured from the floor level of the room containing the window. ***Decision Guidelines*** *Before deciding on an application, the responsible authority must consider:* • *The design response.* • *The extent to which the existing dwelling has provided for reasonable daylight access to its habitable rooms through the siting and orientation of its habitable room windows.* • *The impact on the amenity of existing dwellings.* **Bayside City Council** **Planning and Environment Act 1987** **ADVERTISED PLAN** **Planning Application No.: 5/2021/331/1** **Date: 29/11/2021**	The setback of that wall from the closest of the habitable room windows of 6 Linacre is 5.67 metres to balustrade and 7.292 metres to the west wall. Both the balustrade and west wall of the development is thus setback more than 50% of its height at that point and therefore sufficiently distant from the closest window of that property to allow a generous light-court to be maintained to them clear to the sky. It therefore follows that if the closest of the windows would be afforced a sufficient lightcourt that those that are set further from the mutual boundary would also benefit from the same amenity. A number of windows exist in the west elevation of the neighbouring Linacre Private hospital to the east. The overall building height of the wall of the building which would be opposite them is 9.195metres. The setback of the wall from the closest of the habitable room windows of Linacre Private hospital is 7.19 metres. The east wall of the development is thus setback more than 50% of its height at that point and therefore sufficiently distant from the closest window of that property to allow a generous light-court to be maintained to them clear to the sky. It therefore follows that if the closest of the windows would be afforced a sufficient lightcourt that those that are set further from the mutual boundary would also benefit from the same amenity. Accordingly, the development complies with the Objective and Standard of Clause 55.04-3.
Clause 55.04-4 – North-facing Windows Objective • To allow adequate solar access to existing north-facing habitable room windows. **Standard B20 (can be varied)** If a north-facing habitable room window of an existing dwelling is within 3m of a boundary of an abutting lot, a building <u>should</u> be setback: • 1m, plus 0.6m for every metre height over 3.6m up to 6.9m, plus 1m for every metre height over 6.9m, for a distance of 3m from the edge of each side of the window. **Note:** A north facing window is a window with an axis perpendicular to its surface orientated north 20 degrees west to north 30 degrees east. ***Decision Guidelines*** *Before deciding on an application, the responsible authority must consider:* • *The design response.* • *Existing sunlight to the north-facing habitable room window of the existing dwelling.* • *The impact on the amenity of existing dwellings.*	**Complies** The development would have an interface with two north facing windows of the neighbouring residential property of 7A Alicia Street to the south. Whilst those windows are not within 3 metres of the mutual boundary the building is nevertheless setback in accordance with the standard. Whilst the site has an interface with the residential property of 5 Alicia Street to the south, the dwelling on that neighbouring lot is set towards Alicia Street and thus north facing windows of that property are far removed from the development that their amenity would not be impacted. The proposal satisfies the standard and objective of Clause 55.04-4.

Clause 55.04-5 – Overshadowing Open Space Objective

- To ensure buildings do not significantly overshadow existing secluded private open space.

Standard B21 (can be varied)

- Where sunlight to the secluded private open space of an existing dwelling is reduced, at least 75%, or 40m2 with a minimum dimension of 3m, whichever is the lesser area, or the secluded open space should receive a minimum of 5 hours sunlight between 9am and 3pm at 22 September.
- If existing sunlight to the secluded private open space of a dwelling is less than the requirements of this standard, the amount of sunlight should not be further reduced.

Decision Guidelines

Before deciding on an application, the responsible authority must consider:

- *The design response.*
- *The impact on the amenity of existing dwellings.*
- *Existing sunlight penetration to the secluded private open space of the existing dwelling.*
- *The time of day that sunlight will be available to the secluded private open space of the existing dwelling.*
- *The effect of a reduction in sunlight on the existing use of the existing secluded private open space.*

Complies

The application plans include accurate shadow diagram which demonstrate the extent of overshadowing that occurs as a result of the existing and proposed development on the Site between the hours of 9am and 3pm on 22 September, the Equinox.

The application plans include accurate shadow diagrams which demonstrate the extent of overshadowing that occurs as a result of the existing and proposed development on the Site between the hours of 9am and 3pm on 22 September, the Equinox.

The shadow analysis demonstrates that the proposed development would overshadow the secluded private open space associated with 6 Linacre Road to the west of the Site at 9am and 10am beyond what could reasonably occur at present. At 11am the shadow cast by the proposed development would fractionally extend beyond the shadow cast from the boundary fence however this would be to the side curtilage of that neighbouring dwelling. Notwithstanding, the extent of overshadowing would be to a decreasing extent between 9am and 11am and overall would allow for 5 hours of sunlight access to more than 40 square metres of the SPOS of that neighbouring property.

Additional shadow would be cast to the neighbouring residential property of 2/3 Alicia Street to the southwest of the Site from 9am to 12pm. The extent of shadow cast during this time would be marginally beyond what could reasonably occur from existing mutual boundary fencing and a shed associated with 6 Linacre Road. It is to a diminishing extent and will maintain solar access to more than 40 square metres of the SPOS of that neighbouring property.

The property of 5 Alicia Street to the south of the Site would receive shadow over and above what could reasonably occur at present between the hours of 9am and 3pm however, this would be to a varying and diminishing extent during this time and would maintain solar access to more than 40 square metres of SPOS associated with that neighbouring dwelling for a minimum of 5 hours.

The shadow cast by the proposed development would extend beyond that which could reasonably occur to the SPOS of 7A Alicia Street to the south, from the mutual fence with that neighbouring residential property. However, this would be to a similar and easterly shifting extent between the hours of 9am and 3pm and would occur only fractionally beyond the fence shadow. It would not limit the ability of more than 40 square metres of the SPOS associated with that neighbouring property to receive 5 hours of

	sunlight throughout the day. Shadow is otherwise cast to the heavily vegetated side curtilage of the Linacre Hospital to the east and would not deleteriously impact the amenity of that space as a result of overshadowing. Accordingly, the proposal satisfies the standard and objective of Clause 55.04-5 of the Planning Scheme.
Clause 55.04-6 – Overlooking Objective • To limit views into existing secluded private open space and habitable room windows. **Standard B22 (Can be varied)** Habitable room windows, balconies, terraces etc should be located and designed to avoid direct view to secluded private open space and habitable room windows of an existing dwelling within 9m distance, and a 45 degree arc from the window, balcony etc. The window, balcony etc may: • Be offset at least 1.5m form the edge of one window to the edge of the other; or • Have sill heights, obscure glazing or permanent screens of at least 1.7m above floor level. • Obscure glazing may be openable provided it does not allow direct views. **Note:** This standard does not apply to a new habitable room window, balcony, terrace etc which faces a property boundary where there is a visual barrier at least 1.8m high and the floor level of the habitable room, balcony, terrace etc is less than 0.8m above ground level at the boundary. ***Decision Guidelines*** *Before deciding on an application, the responsible authority must consider:* • *The design response.* • *The impact on the amenity of the secluded private open space or habitable room window.* • *The existing extent of overlooking into the secluded private open space and habitable room windows of existing dwellings.* • *The internal daylight to and amenity of the proposed dwelling or residential building.*	**Complies** It is not considered that any unreasonable overlooking will arise as a result of the design response, to habitable windows or secluded private open space areas of adjoining neighbouring properties. Screening is provided, where necessary on all windows and balconies facing adjoining lots to a height of 1.7 metres in accordance with Standard B22. Accordingly, as no direct views are anticipated to arise, the proposal satisfies the standard and objective of Clause 55.04-6. **Bayside City Council** **Planning and Environment Act 1987** **ADVERTISED PLAN** **Planning Application No.: 5/2021/331/1** **Date: 29/11/2021**
Clause 55.04-7 – Internal Views Objective • To limit views into the secluded private open space and habitable room windows of dwellings and residential buildings with a development. **Standard B23 (can be varied)** Windows and balconies should be designed to prevent overlooking of more than 50% of the secluded private open space of a lower-level dwelling or residential building directly below and in the same development. ***Decision Guidelines*** *Before deciding on an application, the responsible authority must consider the design response.*	**Complies** Screening is provided to all balconies to limit any direct views to lower levels of SPOS where applicable. The proposal satisfies the standard and objective of Clause 55.04-7.
Clause 55.04-8 – Noise Impacts Objectives	**N/A**

Not applicable to development: To construct or extend an apartment development, or To construct or extend a dwelling in or forming part of an apartment development.	
55.05-1 Accessibility objective Not applicable to development: To construct or extend an apartment development, or To construct or extend a dwelling in or forming part of an apartment development.	**N/A**
55.05-2 Dwelling entry objective Not applicable to development: To construct or extend an apartment development, or To construct or extend a dwelling in or forming part of an apartment development.	**N/A**
Clause 55.05-3 – Daylight to New Windows Objective • To allow adequate daylight into new habitable room windows. **Standard B27 (can be varied)** A window in a habitable room <u>should</u> be located to face: • an outdoor space clear to the sky or a light court with a minimum area of 3m2 and minimum dimension of 1m, not including land on an abutting lot, or • a verandah provided it is open for at least 1/3rd of its perimeter, or • a carport provided it has two or more open sides and is open for at least 1/3rd of its perimeter. ***Decision Guidelines*** *Before deciding on an application, the responsible authority must consider:* • *the design response.* • *Whether there are other windows in the habitable room which have access to daylight.*	**N/A** **Bayside City Council** **Planning and Environment Act 1987** **ADVERTISED PLAN** **Planning Application No.: 5/2021/331/1** **Date: 29/11/2021**
Clause 55.05-4 – Private Open Space Objective • To provide for adequate private open space for the reasonable recreation and service needs of residents. **Standard B28 (can be varied)** A dwelling or residential building <u>should</u> have private open space of: • **40m2 with one part to be secluded private open space at the side or rear with a minimum area of 25m2 and convenient access from a living room;** or • A balcony of 8m2 with a minimum width of 1.6m and convenient access from a living room; or • A roof top area of 10m2 with a minimum width of 2m and convenient access from a living room. <u>Note: The balcony requirements in Clause 55.05-4 do not apply to an apartment</u>	**Complies** All ground floor apartments are afforded with terraces exceeding 40m^2 in area and accessible from a living room. Accordingly, the provision of private open space to each ground floor apartment complies with standard and Objective of Clause 55.04-3 of the Planning Scheme.

development. ***Decision Guidelines*** *Before deciding on an application, the responsible authority must consider:* • *The design response.* • *The useability of the private open space, including its size and accessibility.* • *The availability of and access to public or communal open space.* • *The orientation of the lot to the street and the sun.*	**Bayside City Council** **Planning and Environment Act 1987** **ADVERTISED PLAN** **Planning Application No.: 5/2021/331/1** **Date: 29/11/2021**
Clause 55.05-5 – Solar Access to Open Space Objective • To allow solar access into the secluded private open space of new dwellings and residential buildings. **Standard B29 (can be varied)** • The private open space should be located on the north side of the dwelling, or residential building if appropriate. • The southern boundary of secluded private open space should be setback from any wall on the north of the space at least (2 +0.9h), where 'h' is the height of the wall. ***Decision Guidelines*** *Before deciding on an application, the responsible authority must consider:* • *The design response.* • *The useability and amenity of the secluded private open space based on the sunlight it will receive.*	**Complies with objective** The site is orientated north to south and where practicable, the secluded private open space areas associated with each apartment are orientated to receive access to sunlight throughout the day. Whilst there are apartments with secluded private open space areas with a southerly aspect, they also have access to west and easterly sun where appliable and are considered to benefit from sufficient solar access throughout the day to meet the amenity needs of residents. The proposal satisfies the objective of Clause 55.05-5.
Clause 55.05-6 – Storage Objective Not applicable to development: To construct or extend an apartment development, or To construct or extend a dwelling in or forming part of an apartment development.	**N/A**
Clause 55.06-1 – Detail Design Objective • To encourage design detail that respects the existing or preferred neighbourhood character. **Standard B31 (Can be varied)** The design of buildings should respect the existing or preferred neighbourhood character, including: • Facade articulation and detailing; • Window and door proportions; • Roof form; and • Verandahs, eaves and parapets. Garages and carports should be visually compatible with the development and the existing or preferred neighbourhood character. ***Decision Guidelines*** *Before deciding on an application, the responsible authority must consider:* • *Any relevant neighbourhood character objective, policy or statement set out in this scheme.*	**Complies** Material included within the accompanying architectural package and this planning report articulate how the proposed development derives from and responds to the existing and emerging character of the area including the purpose and decision guidelines of the zone. The proposal satisfies the standard and objective of Clause 55.06-1.

• *The design response.* • *The effect on the visual bulk of the building and whether this is acceptable in the neighbourhood setting.* • *Whether the design is innovative and of a high architectural standard.*	
Clause 55.06-2- Front Fences Objective • To encourage front fence design that respects the existing or preferred neighbourhood character. **Standard B32 (Can be varied)** The design of front fences should complement the design of the dwelling or residential building and any front fences on adjoining properties. A front fence within 3m of a street should not exceed: • 2m height for streets in a Road Zone, Category 1; or • 1.5m height for any other street. ***Decision Guidelines*** *Before deciding on an application, the responsible authority must consider:* • *Any relevant neighbourhood character objective, policy or statement set out in this scheme.* • *The design response.* • *The setback, height and appearance of front fences on adjacent properties.* • *The extent to which slope and retaining walls reduce the effective height of the front fence.* • *Whether the fence is needed to minimise noise intrusion.*	**Complies** The proposed front fence which enclose landscaped or terraced areas within the front setback would have a maximum height of 1.42 metres. It would not have direct abuttal to the north roadside boundary but would instead have a landscape buffer intervening. The form of fence and its height will allow an appreciation of the landscaped front setback of the development and is an appropriate architectural response in the Site context. The proposal satisfies the standard and objective of Clause 55.06-2. **Bayside City Council** **Planning and Environment Act 1987** **ADVERTISED PLAN** **Planning Application No.: 5/2021/331/1** **Date: 29/11/2021**
Clause 55.06-3 – Common Property Objectives • To ensure that communal open space, car parking, access areas and site facilities are practical, attractive and easily maintained. • To avoid future management difficulties in areas of common ownership. **Standard B33 (Can be varied)** • Developments should clearly delineate public, communal and private areas. • Common property where provided, should be functional and capable of efficient management. *There are no decision guidelines for this objective and standard.*	**Complies** The areas of common property including the communal access and basement car parking are clearly defined areas and separated from any private open space. Accordingly, the proposed design response positively responds to the standard and objective of Clause 55.06-3.
Clause 55.06-4 – Site Services Objectives • To ensure that site services can be installed and easily maintained. • To ensure that site facilities are accessible, adequate and attractive. **Standard B34 (Can be varied)** • The design and layout of dwellings and residential buildings should provide sufficient space (including easements where required) and facilities for services to be installed and maintained efficiently and economically. • Bin and recycling enclosures, mailboxes and other site facilities should be adequate in size, durable, waterproof and blend in with the development. • Bin and recycling enclosures should be located for convenient access by residents. • Mailboxes should be provided and located for convenient access as	**Complies** The location of services including mailboxes and bin storage is easily accessible at the building entry and is otherwise located internally resulting in no impact to the overall design of the building when viewed from the street frontages. Other sites services have been integrated with the design of the front fence and are easily accessible from the street. The proposal satisfies the standard and objective of Clause 55.06-4.

required by Australia Post.

Decision Guideline

Before deciding on an application, the responsible authority must consider the design response.

Clause 55.07-1 – Energy Efficency Objective

- To achieve and protect energy efficient dwellings and buildings.
- To ensure the orientation and layout of development reduce fossil fuel energy use and make appropriate use of daylight and solar energy.
- To ensure dwellings achieve adequate thermal efficiency.

Standard B35 (Can be varied)

- Buildings should be:
  - *Oriented to make appropriate use of solar energy.*
  - *Sited and designed to ensure that the energy efficiency of existing dwellings on adjoining lots is not unreasonably reduced.*
- Living areas and private open space should be located on the north side of the development, if practicable.
- Developments should be designed so that solar access to north-facing windows is optimised.
- Dwellings located in a climate zone identified in Table B4 should not exceed the maximum NatHERS annual cooling load specified in Table B4:

Table B4 – Cooling Load

NatHERS climate zone	**NatHERS maximum cooling load MJ/M2 per annum**
Climate zone 21 Melbourne	30
Climate zone 22 East Sale	22
Climate zone 27 Mildura	69
Climate zone 60 Tullamarine	22
Climate zone 62 Moorabbin	21
Climate zone 63 Warrnambool	21
Climate zone 64 Cape Otway	19
Climate zone 66 Ballarat	23
Refer to NatHERS zone map, Nationwide House Energy Rating Scheme (Commonwealth Department of Environment and Energy).	

Decision Guidelines

Before deciding on an application, the responsible authority must consider:

- *The design response.*
- *The size, orientation and layout of the site.*
- *The existing amount of solar access to abutting properties.*
- *The availability of solar access to north-facing windows on the site.*
- *The annual cooling load for each dwelling.*

Complies

The apartments within the development are appropriately orientated to maximise solar access to living and private open space areas, with extensive areas of glazing provided.

Overall, the proposal achieves an average 8.3 star energy rating based on the sample taken of apartments.

Further information with regards to the proposal's energy efficiency is contained in the accompanying 'Sustainability Management Plan' prepared by *Low Impact Development Consulting.*

The proposal satisfies the standard and objective of Clause 55.07-1.

Clause 55.07-2 – Communal Open Space Objective • To ensure that communal open space is accessible, practical, attractive, easily maintained and integrated with the layout of the development. **Standard B36 (Can be varied)** Developments with 40 or more dwellings should provide a minimum area of communal open space of 2.5 square metres per dwelling or 250 square metres, which ever is lesser. Communal open space should: • Be located to: ▫ *Provide passive surveillance opportunities, where appropriate.* ▫ *Provide outlook for as many dwellings as practicable.* ▫ *Avoid overlooking into habitable rooms and private open space of new dwellings.* ▫ *Minimise noise impacts to new and existing dwellings.* • Be designed to protect any natural features on the site. • Maximise landscaping opportunities. • Be accessible, useable and capable of efficient management. ***Decision Guidelines*** *Before deciding on an application, the responsible authority must consider:* • *Any relevant design objective, policy or statement set out in this scheme.* • *The design response.* • *The useability and amenity of the communal open space based on its size, location, accessibility and reasonable recreation needs of residents.* • *The availability of and access to public open space.*	**N/A** **Bayside City Council** **Planning and Environment Act 1987** **ADVERTISED PLAN** **Planning Application No.: 5/2021/331/1** **Date: 29/11/2021**
Clause 55.07-3 – Solar access to communal outdoor open space objective • To allow solar access into communal outdoor open space. **Standard B37 (Can be varied)** • The communal outdoor open space should be located on the north side of a building, if appropriate. • At least 50 per cent or 125 square metres, whichever is the lesser, of the primary communal outdoor open space should receive a minimum of two hours of sunlight between 9am and 3pm on 21 June. ***Decision Guidelines*** *Before deciding on an application, the responsible authority must consider:* • *The design response.* • *The useability and amenity of the primary communal outdoor open space areas based on the urban context, the orientation of the building, the layout of dwellings and the sunlight it will receive.*	**N/A**
Clause 55.07-4 - Deep soil areas and canopy trees objective • To promote climate responsive landscape design and water management in developments to support thermal comfort and reduce the urban heat island effect. **Standard B38 (Can be varied)** The landscape layout and design should:	**Complies** The Site's land size area is approximately 2,415sqm. Accordingly, as specified within Table 5B, there is a requirement to provide a deep soil area of 10% of the site area and 1 large tree (at least 12 metres) per 90 square metres of deep soil or 2 medium trees per 90 square metres of deep soil.

- Be responsive to the site context.
- Consider landscaping opportunities to reduce heat absorption such as green walls, green roofs and roof top gardens and improve on-site storm water infiltration.
- Maximise deep soil areas for planting of canopy trees.
- Integrate planting and water management.

Developments should provide the deep soil areas and canopy trees specified in Table B5.

If the development cannot provide the deep soil areas and canopy trees specified in Table B5, an equivalent canopy cover should be achieved by providing either:

- Canopy trees or climbers (over a pergola) with planter pits sized appropriately for the mature tree soil volume requirements.
- Vegetated planters, green roofs or green facades.

Table – B5 Deep soil areas and canopy trees

Site Area	Deep Soil Area	Minimum tree provision
750 - 1000 square metres	5% of site area (minimum dimension of 3 metres)	1 small tree (6-8 metres) per 30 square metres of deep soil
1001 - 1500 square metres	7.5% of site area (minimum dimension of 3 metres)	1 medium tree (8-12 metres) per 50 square metres of deep soil or 1 large tree per 90 square metres of deep soil
1501 - 2500 square metres	10% of site area (minimum dimension of 6 metres)	1 large tree (at least 12 metres) per 90 square metres of deep soil Or 2 medium trees per 90 square metres of deep soil
>2500 square metres	15% of site area (minimum dimension of 6 metres)	1 large tree (at least 12 metres) per 90 square metres of deep soil Or 2 medium trees per 90 square metres of deep soil
Where an existing canopy tree over 8 metres can be retained on a lot greater than 1000 square metres without damage during the construction period, the		

The Site provides 428.64m^2 (17.74%) of deep soil capable of accommodating a total of 16 canopy trees. This includes 2 *Dwarf Snow Gum* and 1 native Frangipani each species capable of reaching 10 metres in height at maturity, 8 Pink Flowering Blueberry Ash at a height of 5-8 metres at maturity, 8 Firewheel Trees capable of reaching 8 metres at maturity and 1 Whisper Weeping Lilly Pilly at a height of 8 metres at maturity.

It is considered the extent of canopy tree, shrub and ground cover planting is appropriate in the context of the Site when considering the location of adjacent canopy tree cover close to and on, Site boundaries.

Further, the landscape strategy includes upper level plantings on balconies which along with other ground level planters will benefit from an integrated irrigation supply system is also proposed providing a connection to the stormwater drainage system on Site.

Overall, the landscape strategy will appropriately integrate the development into its streetscape setting.

Accordingly, the proposal satisfies the objective of Clause 55.07-4.

minimum deep soil requirement is 7% of the site area. ***Decision Guidelines*** *Before deciding on an application, the responsible authority must consider:* • *Any relevant plan or policy for environmental sustainability in the State Planning Policy Framework and Local Planning Policy Framework, including the Municipal Strategic Statement and local planning policies.* • *The design response.* • *The suitability of the proposed location and soil volume for canopy trees.* • *The ongoing management of landscaping within a development.* • *The soil type and drainage patterns of the site.*	**Bayside City Council** **Planning and Environment Act 1987** **ADVERTISED PLAN** **Planning Application No.: 5/2021/331/1** **Date: 29/11/2021**
Clause 55.07-5 – Integrated Water And Stormwater Management Objective • To encourage the use of alternative water sources such as rainwater, stormwater and recycled water. • To facilitate stormwater collection, utilisation and infiltration within the development. • To encourage development that reduces the impact of stormwater run-off on the drainage system and filters sediment and waste from stormwater prior to discharge from the site. **Standard B39 (Can be varied)** Buildings should be designed to collect rainwater for non-drinking purposes such as flushing toilets, laundry appliances and garden use. Buildings should be connected to a non-potable dual pipe reticulated water supply, where available from the water authority. The stormwater management system should be: • Designed to meet the current best practice performance objectives for stormwater quality as contained in the Urban Stormwater – Best Practice Environmental Management Guidelines (Victorian Stormwater Committee 1999) as amended. • Designed to maximise infiltration of stormwater, water and drainage of residual flows into permeable surfaces, tree pits and treatment areas. ***Decision Guidelines*** *Before deciding on an application, the responsible authority must consider:* • *Any relevant water and stormwater management objective, policy or statement set out in this scheme.* • *The design response.* • *Whether the development has utilised alternative water sources and/or incorporated water sensitive urban design.* • *Whether discharge from the site to the stormwater will adversely affect water quality entering the drainage system.* • *The capacity of the drainage network to accommodate additional stormwater.* • *Whether the stormwater treatment areas can be effectively maintained.*	**Complies** As outlined in the 'Sustainability Management Plan' prepared by *Low Impact Development Consulting,* the proposed development achieves a STORM rating of 101%. Rainwater tanks with a capacity of 35,000L will retain water for toilet flushing throughout the development. Please refer to the arrangements for stormwater treatments detailed in the accompanying 'Sustainability Management Plan' for further information. The proposal satisfies the standard and objective of Clause 55.07-5.
Clause 55.07-6 – Noise Impacts Objective • To contain noise sources in developments that may affect existing dwellings. • To protect residents from external and internal noise sources.	**Complies** The proposed development includes services provided in the core of the building and otherwise integrated in the building's roof.

Standard B40 (Can be varied)

Noise sources, such as mechanical plants should not be located near bedrooms of immediately adjacent existing dwellings.

The layout of new dwellings and buildings should minimise noise transmission within the site.

Noise sensitive rooms (such as living areas and bedrooms) should be located to avoid noise impacts from mechanical plants, lifts, building services, non-residential uses, car parking, communal areas and other dwellings.

New dwellings should be designed and constructed to include acoustic attenuation measures to reduce noise levels from off-site noise sources.

Buildings within a noise influence area specified in Table B6 should be designed and constructed to achieve the following noise levels:

- Not greater than 35dB(A) for bedrooms, assessed as an LAeq,8h from 10pm to 6am.
- Not greater than 40dB(A) for living areas, assessed LAeq,16h from 6am to 10pm.

Buildings, or part of a building screened from a noise source by an existing solid structure, or the natural topography of the land, do not need to meet the specified noise level requirements.

Noise levels should be assessed in unfurnished rooms with a finished floor and the windows closed.

Table B6 Noise influence area	
Noise Source	**Noise Influence Area**
Zone Interface	
Industry	300 metres from the Industrial 1, 2 and 3 zone boundary.
Roads	
Freeways, tollways and other roads carrying 40,000 Annual Average Daily Traffic Volume	300 metres from the nearest trafficable lane
Railways	
Railway servicing passengers in Victoria	80 metres from the centre of the nearest track
Railway servicing freight outside Metropolitan Melbourne	80 metres from the centre of the nearest track
Railway servicing freight in Metropolitan Melbourne	135 metres from the centre of the nearest track
Note: The noise influence area should be measured from the closest part of the building to the noise source.	

The internal layout of apartments has been managed to minimise the location noise sensitive rooms relative to the lift core. Party walls adjacent to corridors and lifts/stairwells will be treated with added insulation.

Double glazing systems will improve not only thermal performance of each apartment but assist with reducing noise levels from off-site noise sources.

The proposal satisfies the standard and objective of Clause 55.07-6.

Decision Guidelines

Before deciding on an application, the responsible authority must consider:

- *The design response.*
- *Whether it can be demonstrated that the design treatment incorporated into the development meets the specified noise levels or an acoustic report by a suitably qualified consultant submitted with the application.*
- *Whether the impact of potential noise sources within a development have been mitigated through design, location and siting.*
- *Whether the layout of rooms within a dwelling mitigates noise transfer within and between dwellings.*
- *Whether an alternative design meets the relevant objectives having regard to the amenity of the dwelling and the site context.*

Clause 55.07-7 Accessibility objective

- To ensure the design of dwellings meets the needs of people with limited mobility.

Standard B41

At least 50 per cent of dwellings should have:

- A clear opening width of at least 850mm at the entrance to the dwelling and main bedroom.
- A clear path with a minimum width of 1.2 metres that connects the dwelling entrance to the main bedroom, an adaptable bathroom and the living area.
- A main bedroom with access to an adaptable bathroom.
- At least one adaptable bathroom that meets all of the requirements of either Design A or Design B specified in Table B7.

Table B7 - Bathroom Design

	Design Option A	Design Option B
Door Opening	A clear 850mm wide door opening.	A clear 820mm wide door opening located opposite the shower.
Door Design	Either: • A slide door, or • A door that opens outwards, or • A door that opens inwards that is clear of the circulation area and has readily removable hinges.	Either: • A slide door, or • A door that opens outwards, or • A door that opens inwards and has readily removable hinges.
Circulation area	A clear circulation area that is: • A minimum area of 1.2 metres by 1.2 metres. • Located in front of	A clear circulation area that is: • A minimum width of 1 metre. • The full length of the bathroom and a

Complies

The building has been designed to allow flexibility in the internal spaces with a range of accessible apartments types proposed.

Each apartment is designed in an open plan layout with bedrooms and en-suites connected to dwelling entries.

In total, 23 apartments are DDA compliant which is 65.7% of all dwellings. Accordingly, the proposal complies with the Standard and meets the objective of the Clause.

Please refer to the architectural drawings prepared by *Ewart Leaf Pty Ltd* for further detail.

Accordingly, the proposal satisfies the Standard and Objective of clause 55.07-7.

	the shower and the toilet. • Clear of the toilet, basin and the door swing. The circulation area for the toilet and shower can overlap.	minimum length of 2.7 metres. • Clear of the toilet and basin. The circulation area can include a shower area.
Path to circulation area	A clear path with a minimum width of 900mm from the door opening to the circulation area.	Not applicable.
Shower	A hobless (step-free) shower.	A hobless (step-free) shower that has a removable shower screen and is located on the furthest wall from the door opening.
Toilet	A toilet located in the corner of the room.	A toilet located closest to the door opening and clear of the circulation area.

There are no decision guidelines for this objective and standard.

55.07-8 Building entry and circulation objective

- To provide each dwelling and building with its own sense of identity.
- To ensure the internal layout of buildings provide for the safe, functional and efficient movement of residents.
- To ensure internal communal areas provide adequate access to daylight and natural ventilation.

Standard B42 (can be varied)

Entries to dwellings and residential buildings should:

- Be visible and easily identifiable.
- Provide shelter, a sense of personal address and a transitional space around the entry.

The layout and design of buildings should:

- Clearly distinguish entrances to residential and non-residential areas.
- Provide windows to building entrances and lift areas.
- Provide visible, safe and attractive stairs from the entry level to encourage use by residents.
- Provide common areas and corridors that:
  - *Include at least one source of natural light and natural ventilation.*
  - *Avoid obstruction from building services.*
  - *Maintain clear sight lines.*

Decision Guidelines

Complies

The proposed development maintains its residential entrance from Linacre Road. The entrance is clearly defined through its recession from Linacre Road punctuated by a pergola structure at ground floor.

The glazing at and above the entry provides natural light and ventilation to these common areas in accordance with Standard B42.

These spaces will be adequately lit at night to ensure entrance is recognisable both day and night.

The proposal satisfies the standard and objective of Clause 55.07-8.

Before deciding on an application, the responsible authority must consider:

- *The design response.*
- *The useability and amenity of internal communal areas based on daylight access and the natural ventilation it will receive.*

Clause 55.07-9 – Private Open Space Above Ground Floor Objective

- To provide adequate private open space for the reasonable recreation and service needs of residents.

Standard B43 (can be varied)

A dwelling should have private open space consisting of:

- An area of 15 square metres, with a minimum dimension of 3 metres at a podium or other similar base and convenient access from a living room, or
- A balcony with an area and dimensions specified in Table B8 and convenient access from a living room.

If a cooling or heating unit is located on a balcony, the balcony should provide an additional area of 1.5 square metres.

Table B8 Balcony Size		
Dwelling Type	**Minimum Area**	**Minimum Dimension**
Studio or 1 bedroom dwelling	8 square metres	1.8 metres
2 bedroom dwelling	8 square metres	2 metres
3 or more bedroom dwelling	12 square metres	2.4 metres

Decision Guidelines

Before deciding on an application, the responsible authority must consider:

- *The design response.*
- *The useability and functionality of the private open space, including its size and accessibility.*
- *The amenity of the private open space based on the orientation of the lot, the wind conditions and the sunlight it will receive.*
- *The availability of and access to public or communal open space.*

Complies

All upper level apartments have a balcony or terrace located conveniently from a living room with dimensions that accord with the standard. Please refer to the architectural package prepared by *Ewart Leaf Pty Ltd*.

Accordingly, each private open space area above ground complies with the relevant standard and objective of Clause 55.07-9.

Clause 55.07-10 – Storage Objective

- To provide adequate storage facilities for each dwelling

Standard B44 (can be varied)

- Each dwelling should have convenient access to usable and secure storage space.
- The total minimum storage space (including kitchen, bathroom and bedroom storage) should meet the requirements specified in Table B9.

Table B9 - Storage		
Dwelling Type	**Total minimum storage volume**	**Minimum storage volume within the**

Complies

Each dwelling is provided with secure storage within the basement with this being supplemented with additional storage throughout each dwelling as identified in the accompanying architectural plans prepared by *Ewart Leaf Pty Ltd.*

		dwelling
Studio	8 cubic metres	5 cubic metres
1 bedroom dwelling	10 cubic metres	6 cubic metres
2 or more bedroom dwelling	14 cubic metres	9 cubic metres
3 or more bedroom dwelling	18 cubic metres	12 cubic metres

Decision Guidelines

Before deciding on an application, the responsible authority must consider:

- *The design response.*
- *The useability, functionality and location of storage facilities provided for the dwelling.*

Clause 55.07-11 – Waste and Recycling Objective

- To ensure dwellings are designed to encourage waste recycling.
- To ensure that waste and recycling facilities are accessible, adequate and attractive.
- To ensure that waste and recycling facilities are designed and managed to minimise impacts on residential amenity, health and the public realm.

Standard B45 (Can be varied)

Developments should include dedicated areas for:

- Waste and recycling enclosures which are:
  - *Adequate in size, durable, waterproof and blend in with the development.*
  - *Adequately ventilated.*
  - *Located and designed for convenient access by residents and made easily accessible to people with limited mobility.*
- Adequate facilities for bin washing. These areas should be adequately ventilated.
- Collection, separation and storage of waste and recyclables, including where appropriate opportunities for on-site management of food waste through composting or other waste recovery as appropriate.
- Collection, storage and reuse of garden waste, including opportunities for on-site treatment, where appropriate, or off-site removal for reprocessing.
- Adequate circulation to allow waste and recycling collection vehicles to enter and leave the site without reversing.
- Adequate internal storage space within each dwelling to enable the separation of waste, recyclables and food waste where appropriate.

Waste and recycling management facilities should be designed and managed in accordance with a Waste Management Plan approved by the responsible authority and:

- Be designed to meet the best practice waste and recycling management guidelines for residential development adopted by Sustainability Victoria.
- Protect public health and amenity of residents and adjoining premises from the impacts of odour, noise and hazards associated with waste collection

Complies

The bin storage area and space are appropriate for the residential use as detailed in the accompanying 'Waste Management Plan' prepared by *Leigh Design Pty Ltd.* Please refer to the Waste Management Plan for further detail on waste management arrangements for the site.

vehicle movements.

Decision Guidelines

Before deciding on an application, the responsible authority must consider:

- *The design response.*
- *Any relevant waste and recycling objective, policy or statement set out in this scheme.*

Clause 55.07-12- Functional Layout Objective

- To ensure dwellings provide functional areas that meet the needs of residents.

Standard B46 (Can be varied)

Bedrooms should:

- Meet the minimum internal room dimensions specified in Table B10.
- Provide an area in addition to the minimum internal room dimensions to accommodate a wardrobe.

Table B10 Bedroom Dimension		
Bedroom Type	**Minimum Width**	**Minimum Depth**
Main bedroom	3 metres	3.4 metres
All other bedrooms	3 metres	3 metres

Living areas (excluding dining and kitchen areas) should meet the minimum internal room dimensions specified in Table B11.

Table B11 Living Area Dimension		
Bedroom Type	**Minimum Width**	**Minimum Area**
Studio and 1 bedroom dwelling	3.3 metres	10 sqm
2 or more bedroom dwelling	3.6 metres	12 sqm

Decision Guidelines

Before deciding on an application, the responsible authority must consider:

- *The design response.*
- *The useability, functionality and amenity of habitable rooms.*

Complies with objective

The bedrooms of each of the apartments satisfy the requirements of the Standard as noted in Table B10.

Whilst the living areas of each apartment comfortably meet the minimum area required, they do not all meet the minimum dimension in both directions. However, the open concept living/ kitchen/ dining arrangements are well proportioned to accommodate an adaptable furniture layout and thus meet the reasonable amenity need of residents.

Please refer to the architectural drawings prepared by *Ewart Leaf Pty Ltd* for further detail.

Clause 55.07-13 – Room Depth Objectives

- To allow adequate daylight into single aspect habitable rooms.

Complies

All single aspect habitable rooms include an open

Standard B47 (Can be varied) Single aspect habitable rooms should not exceed a room depth of 2.5 times the ceiling height. The depth of a single aspect, open plan, habitable room may be increased to 9 metres if all the following requirements are met: • The room combines the living area, dining area and kitchen. • The kitchen is located furthest from the window. • The ceiling height is at least 2.7 metres measured from finished floor level to finished ceiling level. • This excludes where services are provided above the kitchen. The room depth should be measured from the external surface of the habitable room window to the rear wall of the room. ***Decision Guideline*** *Before deciding on an application, the responsible authority must consider:* • *The design response.* • *The extent to which the habitable room is provided with reasonable daylight access through the number, size, location and orientation of windows.* • *The useability, functionality and amenity of the dwelling based on layout, siting, size and orientation of habitable rooms.* • *Any overhang above habitable room windows that limits daylight access.*	plan living/ dining area, kitchens are located the furthest from the window, ceiling heights are at least 2.7 metres high and are otherwise provided with a layout compliant with Standard B47 requirements when measuring the depth from the external surface of the habitable room window. Please refer to the architectural plans prepared by Ewart Leaf Pty Ltd for further detail. **Bayside City Council** **Planning and Environment Act 1987** **ADVERTISED PLAN** **Planning Application No.: 5/2021/331/1** **Date: 29/11/2021**
Clause 55.07-14 – Windows Objectives • To allow adequate daylight into new habitable room windows. **Standard B48 (Can be varied)** Habitable rooms should have a window in an external wall of the building. A window may provide daylight to a bedroom from a smaller secondary area within the bedroom where the window is clear to the sky. The secondary area should be: • A minimum width of 1.2 metres. • A maximum depth of 1.5 times the width, measured from the external surface of the window. ***Decision Guideline*** *Before deciding on an application, the responsible authority must consider:* • *The design response.* • *The extent to which the habitable room is provided with reasonable daylight access through the number, size, location and orientation of windows.* • *The useability and amenity of the dwelling based on the layout, siting, size and orientation of habitable rooms.*	**Complies** All habitable rooms have a window in an external wall of the building or a floor to ceiling door leading to a balcony or terrace from the principal living area. There are windows in the west and east elevations of the building which are recessed from that elevation which serve a secondary area of bedroom. The windows either meet or exceed the 1.2 metre minimum width and minimum depth requirements of this standard. Accordingly, the proposal meets the standard and objective of Clause 55.07-14.
Clause 55.07-15 – Natural Ventilation Objectives • To encourage natural ventilation of dwellings. • To allow occupants to effectively manage natural ventilation of dwellings. **Standard B49 (Can be varied)** The design and layout of dwellings should maximise openable windows, doors or other ventilation devices in external walls of the building, where appropriate.	**Complies with objective** As identified within the SMP prepared by Sustainable Development Consultants, 37.14% of apartments (13 out of 35) have effective cross-ventilation with the breeze path through the apartments not exceeding 18 metres. Whilst this is less than anticipated by the Standard all

At least 40 per cent of dwellings should provide effective cross ventilation that has: • A maximum breeze path through the dwelling of 18 metres. • A minimum breeze path through the dwelling of 5 metres. • Ventilation openings with approximately the same area. The breeze path is measured between the ventilation openings on different orientations of the dwelling. ***Decision Guideline*** *Before deciding on an application, the responsible authority must consider:* • *The design response.* • *The size, orientation, slope and wind exposure of the site.* • *The extent to which the orientation of the building and the layout of dwellings maximises opportunities for cross ventilation.* • *Whether an alternative design meets the relevant objectives having regard to the amenity of the dwelling and the site context.*	apartments are provided with openable windows and doors with access to private open space and thus opportunities for natural ventilation within apartments have been maximised. **Bayside City Council** **Planning and Environment Act 1987** **ADVERTISED PLAN** **Planning Application No.: 5/2021/331/1** **Date: 29/11/2021**

SUSTAINABLE DEVELOPMENT
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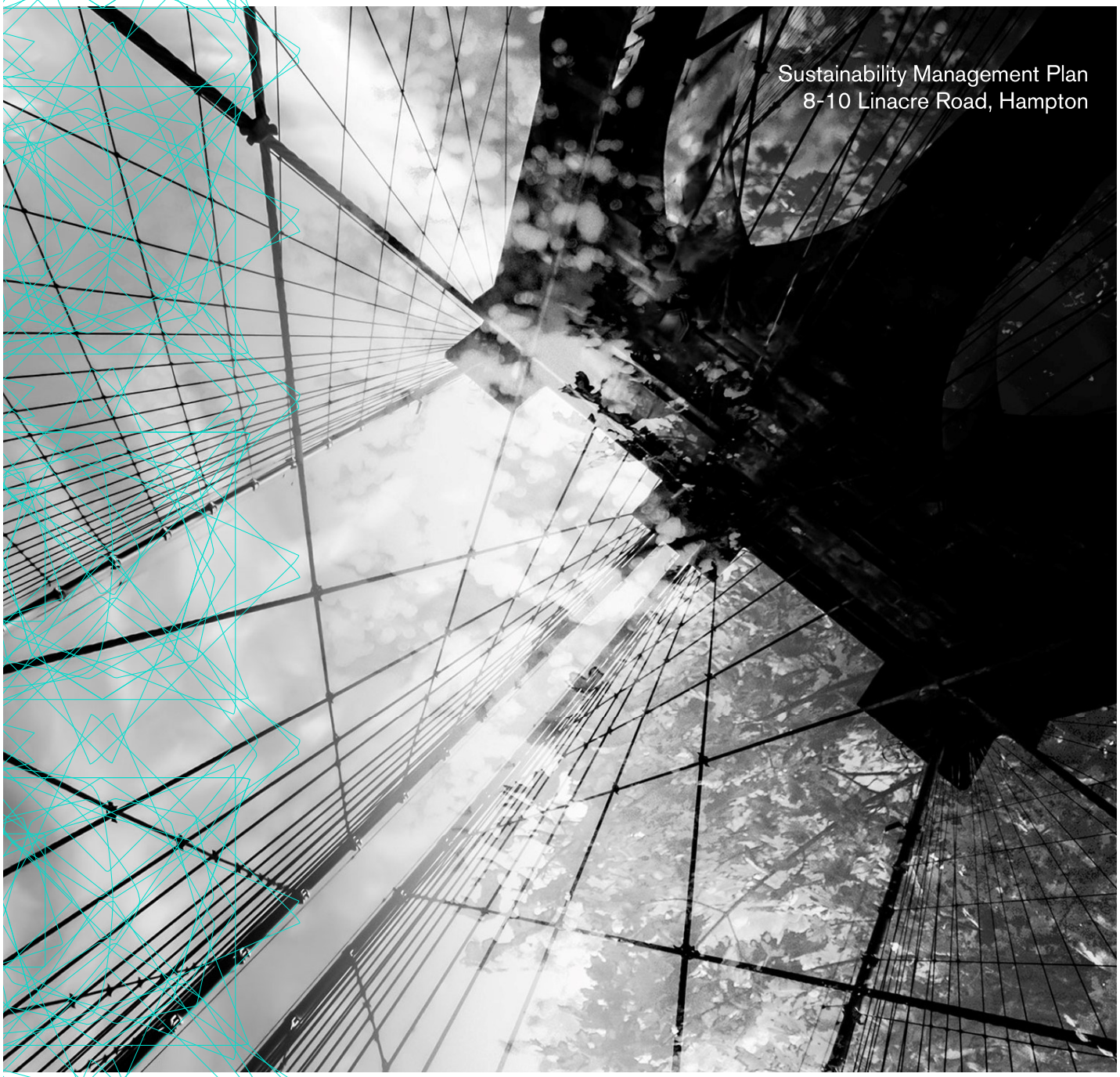

Sustainability Management Plan
8-10 Linacre Road, Hampton

Bayside City Council
Planning and Environment Act 1987

ADVERTISED PLAN

Planning Application No.: 5/2021/331/1

Date: 29/11/2021

SUSTAINABLE DEVELOPMENT
_CONSULTANTS

Proposed Mixed Use Development
8-10 Linacre Road, Hampton

Sustainability Management Plan

November 2021

S4426 SMP.V2

PREPARED BY:

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Table of Contents

Version	Date of Issue	Description	Author	Approved
V1	14-06-2021	For Council Submission	LS	BdW
V2	19-11-2021	For Council Submission	LC	BdW

1. Introduction

This Sustainability Management Plan (SMP) has been prepared to assist the design, construction and operation of the proposed mixed-use development at 8-10 Linacre Road, Hampton, which is to be a four level development comprising a medical centre tenancy on the lower ground floor with residential apartments above and basement carparking.

Sustainable Development Consultants have assessed the proposed development and provided input to the design team. This SMP captures initiatives necessary to ensure that the development meets the sustainability requirements of the City of Bayside, as outlined in Section 1.3 of this report.

This document has been prepared by Sustainable Development Consultants with reference to the architectural drawings prepared by Ewert Leaf.

1.1 Site Description

The site at 8-10 Linacre Road, Hampton is located in a well-established residential area, approximately 250m from the beach foreshore. It is approximately 15km south of the Melbourne CBD and 500m from Hampton railway station. The site currently comprises two lots. 8 Linacre Road is currently occupied by a double-storey dwelling, associated swimming pool, garden, and shed. 10 Linacre Road is currently occupied by a double-storey dwelling, associated tennis court, and garden. These will be demolished prior to construction of the proposed development.

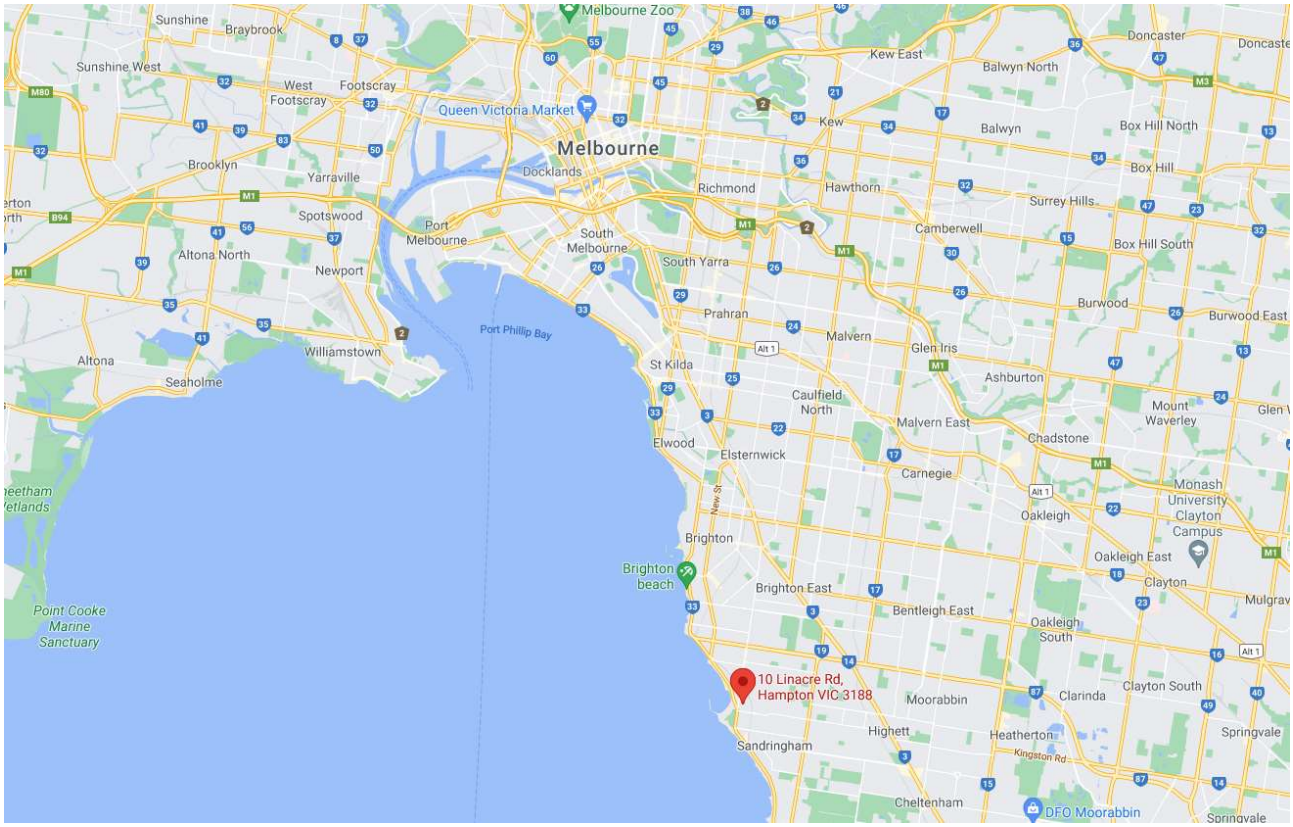


Figure 1: Location of 8-10 Linacre Road, Hampton in relation to the Melbourne CBD (Source: Google Maps)

Figure 2: Aerial image of the development site at 8-10 Linacre Road, Hampton (Source: Google Maps, mark-up by SDC)

1.2 Development Summary

Set out in Table 1 below is a development summary for this project.

Table 1: Development Summary

Development Information	
Total Site Area	Approximately 2,415m^2
Basement Levels 1 & 2	71 residential car parking spaces, 7 residential visitor car parking spaces, 26 medical suite car parking spaces. 14 bicycle parking spaces.
Lower Ground Level	Medical Suite (1,379m^2) 6 outdoor bicycle parking spaces.
Upper Ground Level to Second Floor	35 apartments (24 x two-bedroom and 11 x three bedroom)

1.3 Bayside City Council Requirements

Bayside City Council seeks to make Bayside a city which protects and enhances the quality and character of the natural and built environment through environmentally sustainable development and management of land. Critical to achieving this commitment is for development to meet appropriate environmental design standards.

The City of Bayside expects that this project should achieve best practice in environmentally sustainable development from the design stage through to construction and operation. To comply with the Local Planning Scheme including Clause 15.02-1L *Energy and resource efficiency*, this project is required to satisfy the objectives as set out within the following categories, where applicable:

- Energy Efficiency
- Water Resources
- Indoor Environment Quality
- Stormwater Management
- Transport
- Waste Management
- Urban Ecology

This requires a Sustainability Management Plan (SMP) which demonstrates how the project will achieve the relevant policy objectives.

The City of Bayside also requires that this project addresses the following planning scheme provisions:

- Clause 19.03-3L-01 *Integrated water management*
- Clause 19.03-3L-02 *Water sensitive urban design*
- Clause 52.34 *Bicycle Facilities*
- Clause 53.18 *Stormwater Management in Urban Development*
- Clause 55.07 *Apartment Developments*

In December 2019, the City of Bayside declared a climate emergency and as part of this, are committed to enhanced Environmentally Sustainable Design.

1.4 ESD Assessment Tools

There are several calculators and modelling programs available in Victoria to assess proposed developments against benchmarks for ESD, as set by the Victorian government, local councils and the Building Code of Australia.

For this project, set out below are the assessment tools that have been adopted for this project.

1.4.1 BUILT ENVIRONMENT SUSTAINABILITY SCORECARD (BESS)

BESS was developed by the Council Alliance for Sustainability in the Built Environment (CASBE). This tool assesses the energy and water efficiency, thermal comfort and overall environmental sustainability performance of new buildings or alterations. It was created to demonstrate that new development meets sustainability requirements as part of a planning permit application.

A BESS assessment has been conducted for the proposed development. This provides a guide as to the level of sustainability achieved by the proposed development in line with the Council's ESD requirements.

Each target area within the BESS tool generally receives a score of between 1% and 100%. A minimum score of 50% is required for the energy, water, stormwater and Indoor Environment Quality (IEQ) areas. An overall score of 50% for the project represents 'Best Practice' while a score over 70% represents 'Excellence'.

1.4.2 FIRSTRATE 5

FirstRate 5 is a house energy rating software that is accredited under the Nationwide House Energy Rating Scheme (NaTHERS) Software Protocol to generate energy ratings for the purpose of demonstrating compliance of residential dwellings under the National Construction Code of Australia (NCC).

The software is used to assess the thermal performance of dwellings based on climate zone, materials used in a structure, positioning, orientation and building sealing. Higher scores are achieved through adoption of passive design principles such as improved building fabric elements (e.g. glazing and insulation), effective shading and promoting natural ventilation, among others.

A representative sample of dwellings have been modelled to determine the predicted heating and cooling loads and subsequent NatHERS ratings to provide an overview of how the development design is likely to perform. The results of these assessment can be found in Appendix 2 of this report.

1.4.3 MELBOURNE WATER STORM CALCULATOR

Melbourne Water has developed the STORM calculator to simplify the analysis of stormwater treatment methods. The calculator is designed to enable a simple assessment of Water Sensitive Urban Design (WSUD) measures. The STORM Calculator determines the amount of treatment that typical WSUD measures will provide in relation to best practice targets.

The results of the STORM assessment can be found in Appendix 3 of this SDA.

2. Sustainability Initiatives

The following sections outline the initiatives that will be incorporated into the development throughout its design, construction and operation. Initiatives that are included to contribute towards the BESS benchmark have a reference next to them, e.g. (BESS Management 4.1). Some initiatives without the BESS reference have also been included as they also contribute to the overall sustainability of the development.

The following sections, as well as nominating the sustainability initiatives, also identify the party/parties responsible for implementation of the initiative, and the stage at which implementation will be demonstrated.

The following are the broad project stages:

1	Design Development	• Consultants develop conceptual design drawing to a detailed stage suitable as a basis for preparing working drawings - Integration of architectural, services, structure and site attributes • Checking compliance with all statutory requirements, codes and standards • Arranging special surveys or reports as required
2	Construction Documentation	• Architectural and services drawing sets completed • All specialist reports completed • All necessary planning and building consents obtained as required by authorities
3	Construction	• All work carried out onsite – site preparation, construction, alteration, extension, demolition • Purchase of all materials / certification • Evidence gathering from subcontractors • Commissioning
4	Post Occupancy	• Operation and Maintenance • Education – Building Users Guides

2.1 Energy Efficiency

Energy usage of each apartment and the medical centre will be minimised by the installation of an efficient hot water system, heating and cooling systems, lighting, and incorporating best practice building envelopes.

Design Requirements	Responsibility & Implementation	Project Stage
Building Envelope (BESS Management 2.2; BESS Energy 1.1, 1.2, 2.1, 2.2 & 2.3)		
Preliminary energy ratings have been undertaken for the apartments in the development to identify the building fabric requirement to achieve a minimum average energy rating of 8.0 Stars across the development. These results will be achieved with the nomination of appropriate building fabric elements including insulation and double-glazed fenestration outlined in the energy report in Appendix 2. The commercial part of the building will demonstrate a minimum 10% improvement on the required floor and ceiling insulation, and a NCC2019 façade calculator will be completed for the project.	Architect	Construction Documentation
Heating and Cooling Systems (BESS Energy 2.1, 2.2 & 2.3)		
Heating and cooling for all spaces within the development will be provided by energy efficient air conditioners (within one energy rating star of the best available with a minimum of 5 stars, or if no star rating applies, achieve an EER/COP at least 10% more efficient than minimum allowed under MEPS for an equivalent sized unit).	Mechanical Engineer	Design Development
Domestic Hot Water (BESS Energy 2.3 & 3.2)		
Domestic hot water will be provided via a high efficiency electric heat pump system(s) with a COP≥3.5. All pipework will be insulated to minimise distribution heat losses.	Services Consultant	Design Development
Indoor Lighting (BESS Energy 3.6 & 3.7)		
Energy consumption from artificial lighting within the apartments will be reduced by using LED lighting and by optimising the daylight diffusion. A lighting level of 4.0 W/m² will not be exceeded. It is recommended that lighting levels will not exceed the maximum wattages listed in Table J6.2a of the 2019 BCA without the use of any adjustment factor for the commercial and common areas component of the development.	Electrical Engineer	Design Development
External Lighting		
External lighting will be LED and will have controls (e.g. motion detectors, and timers) to minimise consumption during off-peak times (e.g. 11pm-5am).	Electrical Engineer	Design Development
Energy Efficient Appliances		
All appliances provided in the development as part of the base building works will be selected within one energy efficient star of the best available.	Developer	Construction Documentation
Metering and Monitoring (BESS 3.1, 3.2 & 3.3)		
Separate utility meters (water and electricity) will be provided for all individual apartment dwellings and the medical clinic tenancy. All common area services (e.g. common lighting and lifts) will also be separately sub metered.	Services Consultant	Construction Documentation

Design Requirements	Responsibility & Implementation	Project Stage
Lift		
An energy efficient lift will be specified that includes: • Measures to specifically reduce stand-by consumption such as: o Switching off control devices when the lift is not in motion & using more efficient power supply unit; o LED lights and display; and o Suspension specifically designed to reduce friction.	Service Consultant	Design Development
Building Sealing		
All windows, doors, exhaust fans and pipe penetrations will be constructed to minimise air leakage as required by the provisions outlined in Section J3 of the 2019 BCA. This will include the use of seals around operable windows and doors as well as caulking to pipe penetrations, and the addition of self-closing louvers or dampers to exhaust fans.	Architect	Design Development
Car Park Ventilation (BESS Energy 3.1)		
The basement carpark levels will be fully naturally ventilated or will utilise Carbon Monoxide (CO) monitoring to control the operation and speed of the ventilation fans.	Service Consultant	Design Development
Solar PV System (BESS Energy 4.2)		
A 5kW minimum solar PV system will be provided for the development. The system may be comprised of 16 x 330W panels (typically measuring 1.7m x 1m each) facing north with a tilt of 30 degrees, or a smaller number of higher wattage panels that meet the 5kW overall minimum capacity. See Figure 3 below for an indicative location of the system. The solar PV system will provide an estimated 7,715kWh of renewable electricity per year, connected to the medical centre and offsetting some of the common area electricity demand for the residential component of the development.	Service Consultant	Design Development

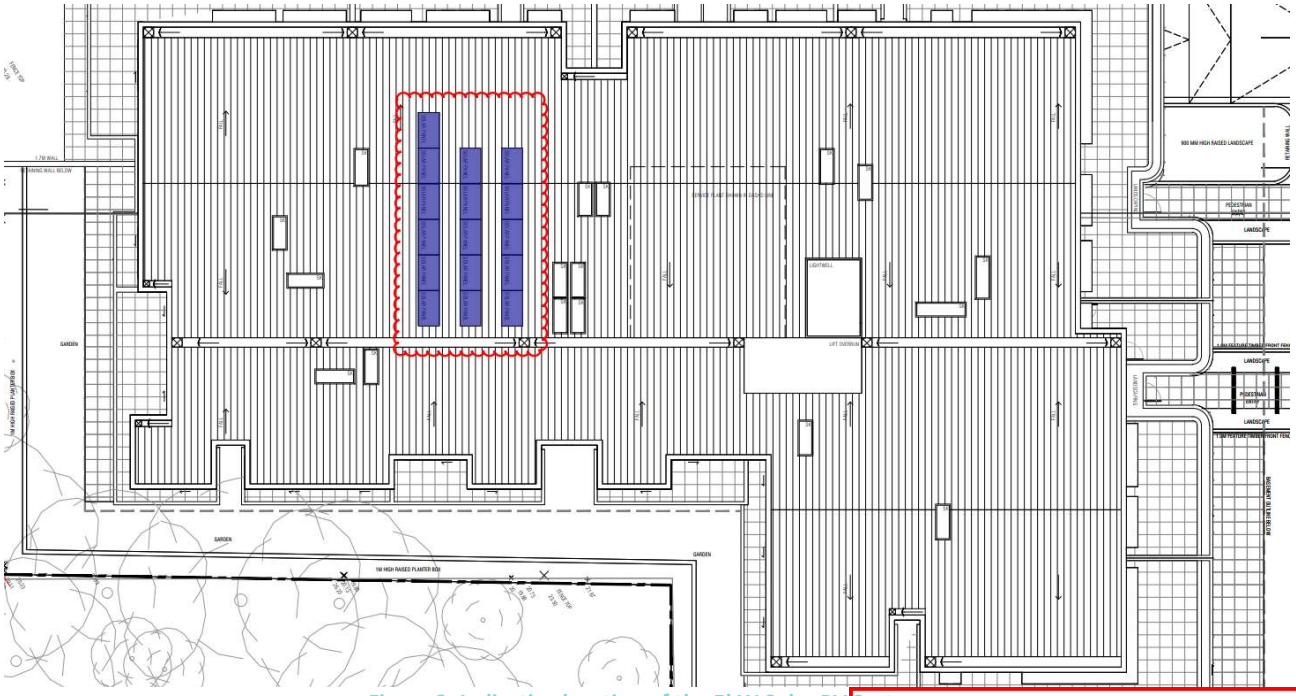


Figure 3: Indicative location of the 5kW Solar PV System

2.2 Water Resources & Stormwater Treatment

Water will be used efficiently in the development through efficient fixtures and fittings, and collection and use of rainwater which helps to reduce mains water requirements and diverts stormwater.

Design Requirements	Responsibility & Implementation	Project Stage
Water Fixtures and Fittings (BESS Water 1.1)		
Efficient water fittings and fixtures will be installed to reduce the volume of mains water used. The following Water Efficiency Labelling Scheme (WELS) star ratings will be specified: • Showerheads – 4 Star (>6.0 but ≤7.5L/min). • Kitchen and Bathroom Taps – 5 Star. • Toilet – 4 Star. • Urinals – 6 Star (if provided). Bathtubs (where provided) will be specified as medium sized contemporary.	Architect / Services Consultant	Design Development
Water Efficient Appliances (BESS Water 1.1)		
Dishwashers will be installed by the developer and will be a minimum of 5-star WELS rated.	Developer	Construction Documentation
Rainwater Collection and Reuse (BESS Water 1.1 & Stormwater 1.1)		
A total effective roof catchment area of 1,146m² will harvest stormwater into a rainwater tank(s) with an effective storage capacity of 35,000L across the development. Collected water will be used for toilet flushing in all apartment toilets throughout the development. Please refer to Appendix 3 for detailed STORM assessment results.	Civil / Hydraulic Engineer	Design Development
Water Efficient Landscaping (BESS Water 3.1)		
Landscaping in garden beds and planter boxes will be drought tolerant and will include mulch and soil wetting agents to reduce the potable water which will be required to water these garden areas in future.	Developer	Construction Documentation
Building Systems Water Use Reduction (BESS Water 4.1)		
The development will utilise waterless HVAC systems. In addition, any required fire testing systems installed in the development will not expel water for testing or will collect at least 80% of test water for re-use.	Services Consultant	Construction Documentation

2.3 Indoor Environment Quality

Indoor Environment Quality (IEQ) within the development will be improved through various initiatives which help to create a healthy indoor environment free from toxins with ample supply of daylight and outside air.

Design Requirements	Responsibility & Implementation	Project Stage
Volatile Organic Compounds (VOCs) (BESS IEQ 4.1)		
All paints, adhesives and sealants and flooring will not exceed limits outlined in Appendix 4. Alternatively, products with no VOCs will be selected. Paints such as eColour, or equivalent, should be considered.	Architect	Construction Documentation

Design Requirements	Responsibility & Implementation	Project Stage
Formaldehyde Minimisation (BESS IEQ 4.1)		
All engineered wood products will have 'low' formaldehyde emissions, certified as E0 or better. Alternatively, products with no formaldehyde will be specified. Emissions limits are listed in Appendix 4. Products such as Ecological Panel – 100% post-consumer recycled wood (or similar) will be considered for use within the development.	Architect	Construction Documentation
Acoustic Comfort		
Acoustic comfort will be achieved in the development by limiting the internal ambient noise levels. Apartments will be constructed to ensure good acoustic separation between spaces.	Acoustic/ Mechanical Engineer	Construction Documentation
Daylight Access and Improvement (BESS IEQ 1.1, 1.2, 1.4 & 1.5)		
Daylight access has been assessed using the BESS built in calculation tools. All bedrooms and 80% of living areas achieve the required daylight factors through the provision of large windows and will provide occupants with good access to daylight. At least 33% of the primary floor areas of the medical centre will achieve a minimum daylight factor of 2% through the provision of large windows to external facing walls, and a floor plan which optimises the allocation of floor areas with good daylight access to regular use areas. Daylight penetration through windows/openings will be enhanced with the use of light internal colours, allowing for a better internal reflection of daylight. See Appendix 5 for daylight access mark-ups.	Architect	Construction Documentation
Mechanical Ventilation		
All kitchens will have a separate dedicated exhaust fan (range hood) which will not be recycled to any enclosed space within the building; they will be ducted directly outside.	Mechanical Engineer	Design Development
Effective Natural Ventilation (BESS IEQ 2.1)		
The habitable rooms are designed to achieve natural cross flow ventilation through openable windows / sliding doors. This will enhance the occupants' thermal comfort by providing fresh air and passive cooling opportunities. Fly screens, window locks, and magnetic door catches will be included in breeze paths (to prevent openings slamming shut) to further encourage natural ventilation. At least 13 of the dwellings are effectively naturally ventilated. See Appendix 6 for natural ventilation mark-ups.	Architect	Construction Documentation
Non-Residential Ventilation (BESS IEQ 2.3)		
A 50% increase in outdoor air (in L/s) above AS 1668.2:2012 will be provided for all regular use floor areas of the medical centre. This will provide fresh air to building occupants. In addition, the ventilation system will be designed and monitored to maintain a maximum CO_2 concentration of 800ppm to all regular use floor areas.	Mechanical Engineer	Design Development

Design Requirements	Responsibility & Implementation	Project Stage
Double Glazing		
The dwellings will be fitted with double glazed windows which can bring multiple benefits to the residents such as better acoustic protection from external noise sources[1], better thermal performance and reduced condensation forming on the inside of the glass which will in turn help prevent the formation of mould.	Architect	Construction Documentation

2.4 Building, Construction and Waste Management

Initiatives included in building, construction and waste management promote adoption of environmental initiatives at different stages of the project – not just in the project design stage.

Design Requirements	Responsibility & Implementation	Project Stage
Operational Waste (BESS Waste 2.1 & 2.2)		
Dedicated bin spaces will be provided for each apartment and for the medical centre for general waste (landfill waste), organic & green waste, glass and commingled recyclables. Facilities for recycling will be at least as convenient for occupants to access as facilities for general waste. This will assist to minimise the risk of food and garden waste, glass and commingled recyclables ending up in landfill.	Architect/ Building Owner	Design Development/ Post Occupancy
Construction Waste Management		
The builder will develop a construction waste management plan (CWMP) for the construction phase. This will include the following: • Waste generation; • Any waste systems; • Minimisation Strategy; • Performance / Reduction targets; • Bin quantity and size; • Collection frequency; • Signage; and • Monitoring and reporting including frequency and method. The CWMP will include a requirement for not less than 80% of all civil works and built form construction waste to be recycled or re-used. The CWMP will require that all hazardous substances, pollutants and contaminants must be managed and disposed of in accordance with all state regulatory requirements. Where these materials are treated, or used on site, they must be in accordance with a sanctioned remediation process. The CWMP may form part of a broader Construction Environmental Management Plan (CEMP).	Builder	Construction Documentation

[1] Window and glass specifications should be reviewed by an acoustic consultant to ensure that specifications will meet acoustic objectives while maintaining thermal performance requirements.

Design Requirements	Responsibility & Implementation	Project Stage
Building Users Guide (BESS Management 4.1)		
A Building Users Guide (BUG) will be developed and made available to all owners/residents/occupants. It will be comprehensive and will include descriptions of the systems installed in the apartments and medical centre, sustainable transport in the area, and will include relevant sustainable living suggestions.	Architect/ ESD Consultant	Construction Documentation

Figure 4: Examples of kitchen waste management bins incorporated into joinery

2.5 Building Materials

Materials initiatives help reduce the use of virgin materials and generating waste and promote the use of materials with lower embodied energy and environmental impacts.

Design Requirements	Responsibility & Implementation	Project Stage
Building Fabric Frames & Finishes		
Where possible, components of roofing, ceiling, wall, flooring and framing materials, classed as "environmentally innovative", will be specified. All relevant materials will be low VOC and be durable so as to not require frequent replacement. Sourcing these from Ecospecifier (or equivalent) will assist in reducing the environmental impact of materials.	Architect	Construction Documentation
Concrete		
A minimum of 50% of the concrete mix will contain non-potable mains water (rainwater or purchased recycled water).	Builder / Structural Engineer	Construction Documentation
Steel		
Wherever possible, steel for the development will be sourced from a Responsible Steel Maker[2]. Reinforcing steel for the project will be manufactured using energy reducing processes.	Builder / Structural Engineer	Construction Documentation
Timber		
All timber used in the development will be Forest Stewardship Council (FSC) or Program for the Endorsement of Forest Certification (PEFC) certified or recycled / reused.	Architect	Construction Documentation

[2] A Responsible Steel Maker must have facilities with a currently valid and certified ISO 14001 Environmental Management System (EMS) in place and be a member of the World Steel Association's (WSA) Climate Action Program (CAP).

Design Requirements	Responsibility & Implementation	Project Stage
Cables, pipes, floors and blinds		
All standard uses of cables, pipes, flooring and blinds within the development will either not contain any PVC or will be sourced from a manufacturer/supplier that adheres to the Green Building Council of Australia's *Best Practice Guidelines for PVC in the Built Environment*.	Services Consultant	Construction Documentation
Flooring		
All flooring will be manufactured from materials/products certified under any of the following: • Carpet Institute of Australia Limited, Environmental Certification Scheme (ECS) v1.2; • Ecospecifier GreenTag GreenRate V3.1; • Good Environmental Choice (GECA); and/or • The Institute for Market Transformation to Sustainability (MTS) Sustainable Materials Rating Technology Standard Version 4.0 – SmaRT 4.0. Alternatively, floor coverings must be durable, include some eco-preferred content, be modular and/or come from a manufacturer with a product stewardship program and ISO 14001certification.	Builder/ Architect	Construction Documentation

Figure 5: Examples of approved environmental labels for products which may be incorporated for the development.

2.6 Transport

The 8-10 Linacre Road, Hampton site has been assessed using the "Walk Score" locational performance tool. The tool was developed in 2007 by Front Seat using the Google Maps tools. This tool takes into account the number of facilities within close proximity, and public transit based on distance and type of nearby transit lines. Numerical scores of between 0 and 100 for the following 2 aspects are provided:

- Walk Score: 0 being heavily car dependent with access to community facilities that are located some distance away, and 100 reflecting a location that is easily accessible to abundant facilities by foot.
- Transit Score: 0 being the location only provides minimal transit while 100 reflecting a location that is well served by public transport.

The proposed development in Hampton achieves a Walk score of 91 out of 100 – "Walker's Paradise" and a Transit Score of 56 out of 100 – "Good Transit", which indicate that daily errands do not require a car and that there are many nearby public transportation options.

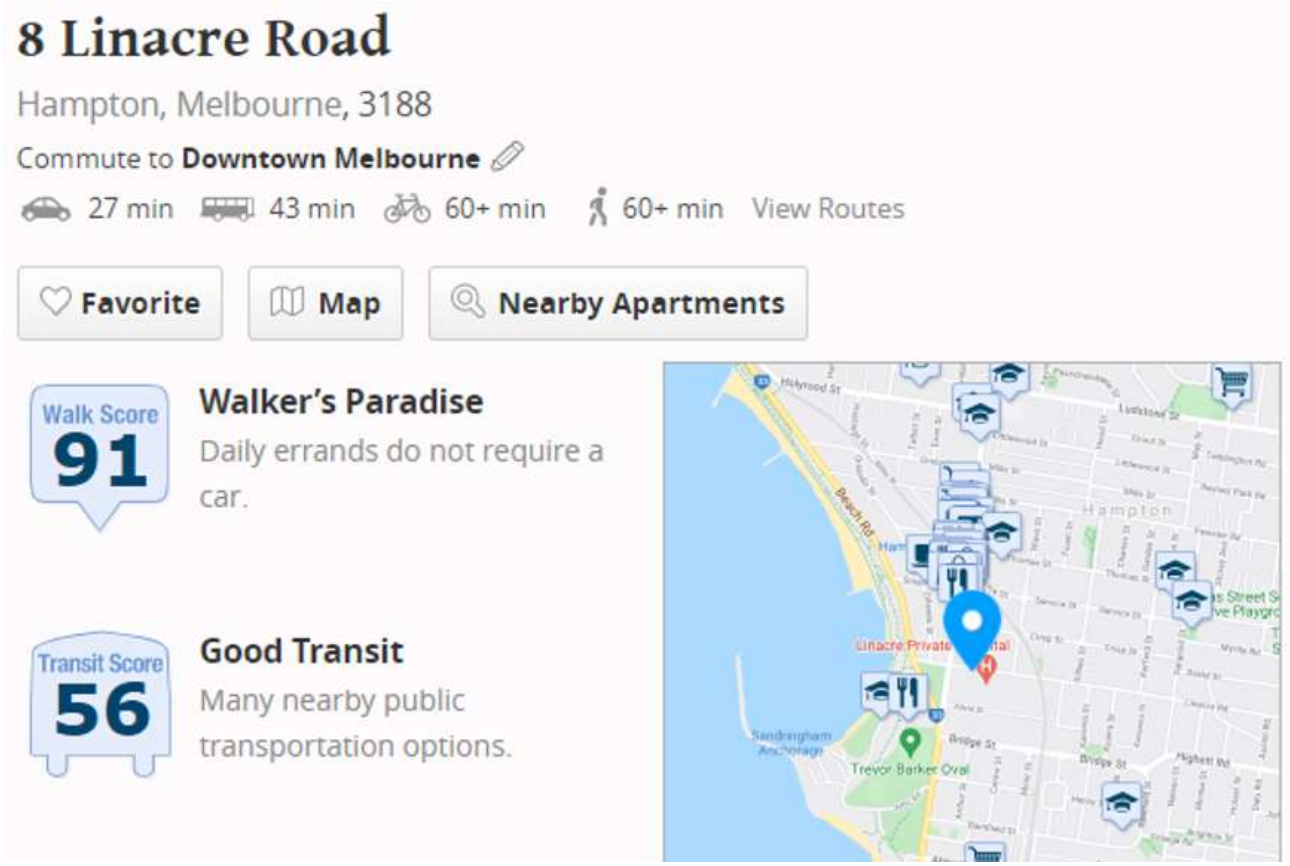


Figure 6: Walk Score results and map showing amenities surrounding 8-10 Linacre Road, Hampton (Source: walkscore.com)

Design Requirements	Responsibility & Implementation	Project Stage
Public Transport		
The proposed development has direct access within 1km walking distance to the following public transport options: Train Line: • Sandringham Line: Hampton Station, Sandringham Station Bus Routes: • 708: Hampton Station to Carrum Station via Highett & Southland & Chelsea Heights • 822: Chadstone SC – Sandringham via Murrumbeena & Southland SC • 828: Hampton – Berwick Station via Southland SC & Dandenong • 600/922/923: Southland SC – St Kilda Station	Inherent in Location	

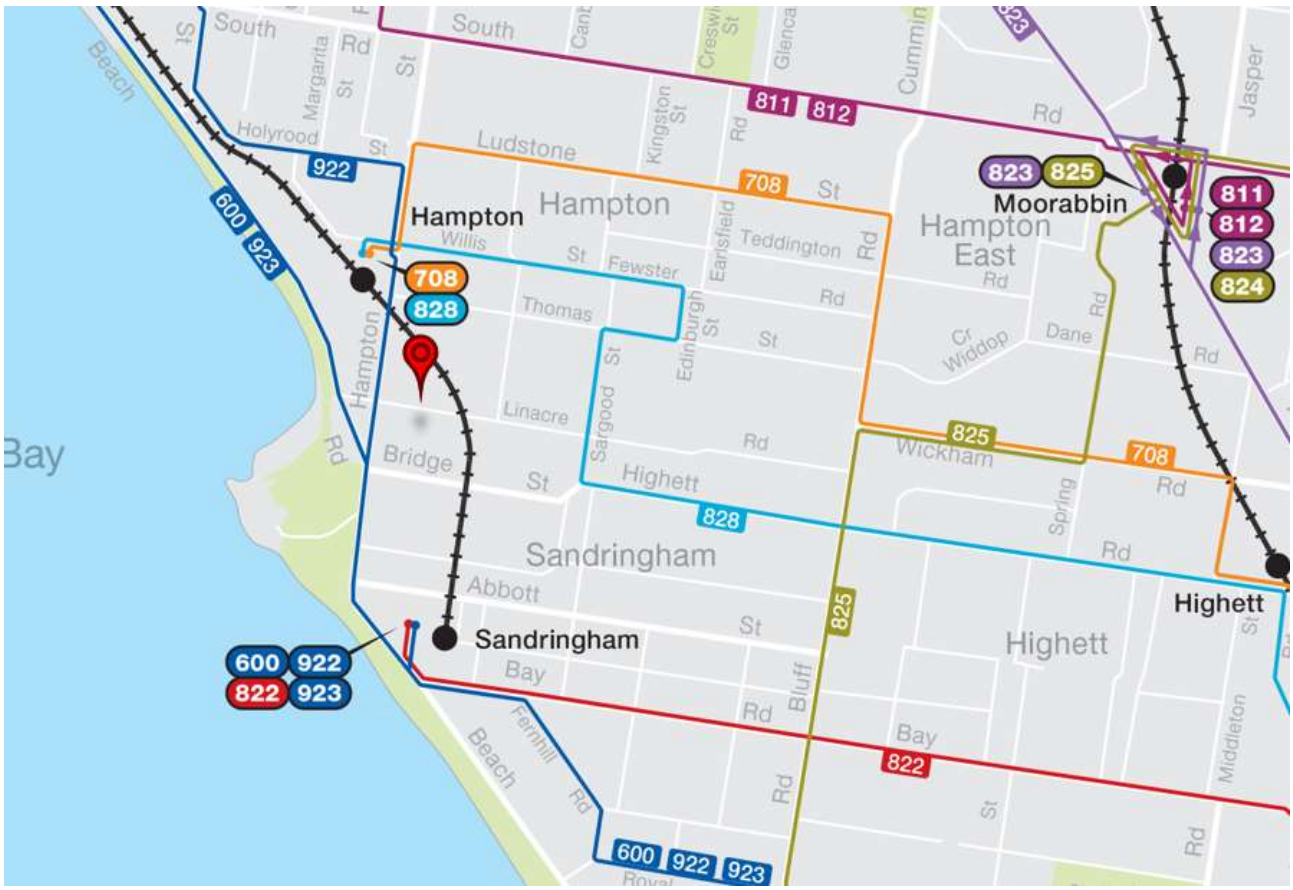


Figure 7: PTV Local Area Map indicating the public transport options surrounding 8-10 Linacre Road, Hampton (red balloon)

2.7 Urban Ecology

Design Requirements	Responsibility & Implementation	Project Stage
Vegetation (BESS Urban Ecology 2.1)		
At least 26% of the site is covered with vegetation through the inclusion of landscape areas and planters across the development. It is recommended that a variety of native species be included in the landscaping of the site. This will help maintain/enhance local biodiversity and encourage native birds to visit the space.	Architect / Landscape Architect	Design Development
Balcony / Courtyard Ecology (BESS Urban Ecology 2.4)		
A tap and floor waste will be provided within the open spaces/balconies of each apartment to encourage plants to be grown by residents.	Architect	Construction Documentation
Communal Spaces (BESS Urban Ecology 1.1)		
Courtyard and garden areas will be provided adjacent to the medical centre, and this will provide a space which facilitates social interaction for staff.	Architect	Design Development
Insulation Ozone Depleting Potential		
All thermal insulation used in the development will not contain any ozone-depleting substances and will not use any in its manufacturing.	Architect	Construction Documentation
Light Pollution		
No external luminaire on the project will have an Upward light Output Ratio (ULOR) exceeding 5%, relative to its mounted orientation. External lighting will be designed to avoid light spill off the site or into the night sky.	Architect/ Electrical Engineer	Schematic Design

3. Conclusion

As set out in this SMP the proposed development at 8-10 Linacre Road, Hampton, will meet best practice requirements through the initiatives outlined in this report including the use of energy efficient systems, rainwater tank(s) and the use of low to zero VOC content materials, as well as reduced environmental impacts during the construction stage.

The initiatives that have been included within this SMP all have a proven track record of serving their individual purpose and can be easily maintained with any failures obvious to the occupants of the development. This helps to ensure the ongoing sustainability of the building, as the systems installed in the beginning are maintained for purpose throughout the life of the building.

The implementation of this SMP requires a clear process that will include:

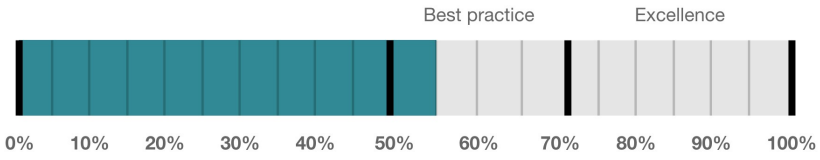
- Full integration with architectural and building services plans and specifications;
- Endorsement of the SMP Report with town planning drawings; and
- SMP Report initiatives to be included in plans and specifications for building approval.

Appendix 1 – BESS Assessment

This BESS report outlines the sustainable design commitments of the proposed development at 8-10 Linacre Rd Hampton VIC 3188. The BESS report and accompanying documents and evidence are submitted in response to the requirement for a Sustainable Design Assessment or Sustainability Management Plan at Bayside City Council.

Note that where a Sustainability Management Plan is required, the BESS report must be accompanied by a report that further demonstrates the development's potential to achieve the relevant environmental performance outcomes and documents the means by which the performance outcomes can be achieved.

Your BESS Score

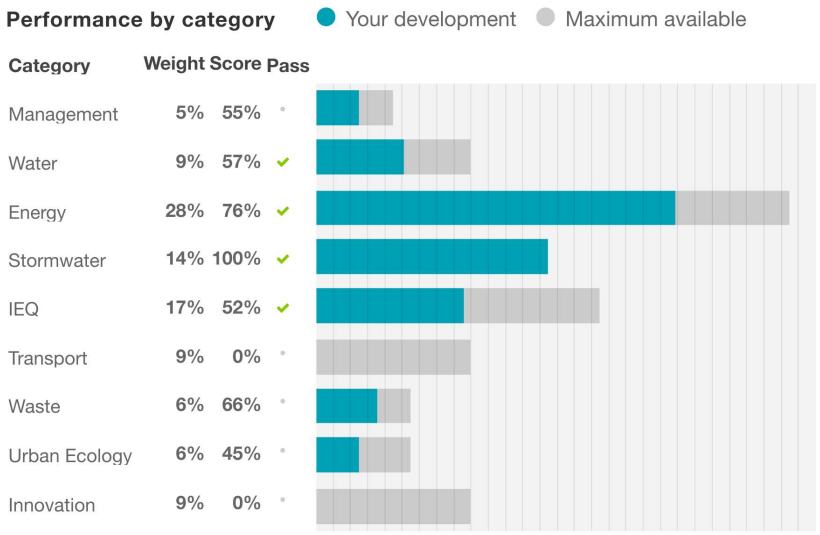


56%

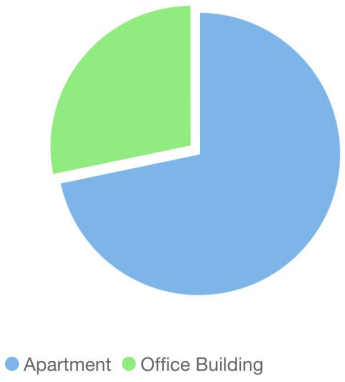
Project details

Address	8-10 Linacre Rd Hampton VIC 3188
Project no	C5074315-R3
BESS Version	BESS-6
Site type	Mixed use development
Account	[redacted]
Application no.	
Site area	2,415 m²
Building floor area	4,880.0 m²
Date	19 November 2021
Software version	1.7.0-B.375

Performance by category



Building Type composition



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Planning Application No.: 5/2021/331/1

Date: 29/11/2021

Appendix 2 – FirstRate5 Assessment Results, Assumptions & Recommendations

The FirstRate5 energy rating program is the primary modelling method used in Victoria to indicate the required energy for heating and cooling based on the building's thermal envelope. It does not take into account any heating or cooling systems installed; it only assesses walls, roof and floor materials, insulation, building orientation, glazing and the area layout.

The 8-10 Linacre Road, Hampton, development is located in Climate Zone 62 (Moorabbin) and is required by the 2019 Building Code of Australia (BCA) to achieve a minimum average energy rating of 6 Stars with no dwelling achieving less than 5 Stars. A BCA 2019 heating load limit of 147MJ/m^2, and a Clause 55.07 cooling load limit of 21MJ/m^2 will also apply to the development.

To facilitate the energy rating assessment, the development has been grouped into 16 thermal groups as shown in the following table:

Table 2: Thermal groups and justification

Sample Dwelling	Thermally Similar	Justification	Star Rating
G01	101	Same Orientation and exposed sides	6.8
G02	G03,102,103	Same Orientation and exposed sides	9.5
G08	G06, G07,106,107,108	Same Orientation and exposed sides	8.8
G10	110	Same Orientation and exposed sides	8.4
G12	G11, G13	Same Orientation and exposed sides	8.8
104	G04	Same Orientation and exposed sides	8.6
105	G05	Same Orientation and exposed sides	8.3
109	G09	Same Orientation and exposed sides	8.2
112	111,113	Same Orientation and exposed sides	8.8
201	-	Thermally unique	7.4
202	-	Thermally unique	8.7
203	-	Thermally unique	6.8
204	205	Same Orientation and exposed sides	7.7
206	-	Thermally unique	6.8
207	-	Thermally unique	7.8
209	208	Same Orientation and exposed sides	7.9
Area Weighted Average			**8.3**

Table 3: The following are the scores achieved by the sample apartments.

	Star Rating	Energy Usage (MJ/m²)	Heating Energy (MJ/m²)	Cooling Energy (MJ/m²)	Net Conditioned Floor Area (m²)
G01	6.8	99.2	82.4	16.8	94.5
G02	9.5	12.5	8.6	3.9	88.9
G08	8.8	33.6	26.1	7.5	72.0
G10	8.4	46.6	32.3	14.3	96.9
G12	8.8	34.2	17.5	16.7	80.0
104	8.6	39.3	27.0	12.3	68.5
105	8.3	50.2	43.3	6.9	82.4
109	8.2	51.5	41.2	10.3	71.4
112	8.8	34.7	23.3	11.4	70.4
201	7.4	76.0	56.1	19.9	123.6
202	8.7	35.4	25.3	10.1	104.3
203	6.8	99.0	79.2	19.8	128.3
204	7.7	67.2	46.9	20.3	69.9
206	6.8	96.8	77.7	19.1	89.6
207	7.8	66.1	50.9	15.2	112.2
209	7.9	60.8	40.9	19.9	90.0
Average	8.08	56.44	42.42	14.03	90.18

It is assumed that the energy ratings will be completed with the following building fabric elements for all dwellings:

<table>
<tr><th>Building Fabric Element</th><th>Description</th></tr>
<tr><td>External Walls</td><td>All external walls are modelled as concrete construction to Ground and Level 1 and lightweight construction to Level 2 and all walls will be insulated with added R2.5 thermal insulation.
Insulation material with minimum 20% recycled material content will be selected. The options recommended above go beyond this requirement[3].</td></tr>
<tr><td>Party Walls</td><td>Party walls between apartments are modelled as double stud with R4.0 insulation added. (R2.0 to both sides)
Party walls to corridors and lifts/stairwells were modelled with added R2.0 insulation.</td></tr>
<tr><td>Internal Walls</td><td>Internal walls require no added insulation.</td></tr>
<tr><td>Floors</td><td>Floors are modelled as 200mm concrete slab throughout.</td></tr>
<tr><td>Floor Coverings</td><td>Floor coverings are modelled timber to kitchen/living/halls, tiles to bathrooms and laundries and carpet to bedrooms.</td></tr>
<tr><td>Roof Insulation</td><td>Level 2 roofs were modelled as flat framed metal deck with R5.0 added insulation and one antiglare foil layer.
All other roofs were modelled as 200mm concrete slab. R2.0 added insulation is required to areas with balcony or roof above.</td></tr>
<tr><td>Windows and Glazing</td><td>Windows / glazed doors are required to achieve the following glass-and-frame combined thermal performance value:
<table>
<tr><th>Glazing Type</th><th>U-Value</th><th>SHGC</th></tr>
<tr><td>Awning</td><td>4.4</td><td>0.4</td></tr>
<tr><td>Sliding Door</td><td>3.1</td><td>0.48</td></tr>
<tr><td>Fixed</td><td>2.7</td><td>0.58</td></tr>
<tr><td>Hinged Door</td><td>3.55</td><td>0.42</td></tr>
</table>
Fenestration systems that can achieve these values can be found in argon-filled low-E double glazed glass in Capral aluminium frame.
Other glazing system is considered in compliance only where the supplied ‘Total System’ performances (Glass & Frame) meet each of the following criteria:
• Less than or equal to the U-Value specified, and
Within +5% of the SHGC value specified.</td></tr>
<tr><td>Window Reductions</td><td>Apt 2.03 requires study window to be reduced to only the awning portion.</td></tr>
<tr><td>Window Operability</td><td>In addition to those marked as operable on plans and elevations, the following windows have been modelled as operable awning windows:
• Pantry window of 2.01</td></tr>
<tr><td>Shading</td><td>External Blinds are required for the following apartments to achieve cooling load requirements:
• All west-facing sliding doors of G.10 to G.13</td></tr>
</table>

[3] Specified by the manufacturers as containing up to 80% recycled material.

Building Fabric Element	Description
	• All west-facing glazing to 2.01, 2.08 and 2.09 that open onto balcony
Skylights	Skylights are to be Velux Manual Openable Skylights (or equivalent) with the following thermal performance values: U=2.9, SHGC=0.24 Skylights dimensions are 665mm x 1275mm
Building Sealing	All doors, windows, exhaust fans and openings will be sealed so to not allow for air infiltration in the townhouses. Exhaust fans have been assumed in all kitchens, bathrooms & ensuites.
Downlights	All recessed down light fittings that have openings allowing air to pass through to a ceiling cavity (e.g. Adjustable down lights) shall be fitted with a cover that allows for ceiling insulation to closely enclose the sides and top of the down light.

Note: The above building elements may vary as the plans are refined for building approval, however the average energy rating performance for the apartments will not be less than 8.0 stars in order to continue to comply with the points claimed in the BESS tool.

Appendix 3 – STORM Assessment & WSUD Report

Objectives

The quality and quantity of stormwater leaving a site can have a significant impact on the surrounding infrastructure and waterways. Impervious surfaces move water quickly and efficiently out of built-up areas straight into stormwater infrastructure, which in turn quickly moves the untreated water into natural watercourses. This process does not treat the stormwater and as the water flows into natural water courses, it causes erosion and pollution of those waterways with the rubbish, sediments, pathogens, and other pollutants that run off the impervious surfaces into the stormwater drains.

New developments in the City of Bayside must comply with *Clause 19.03-3L-01* and *Clause 19.03-3L-02* and the best practice performance targets for suspended solids, total phosphorous and total nitrogen, as set out in the Urban Stormwater Best Practice Environmental Management Guidelines, Victoria Stormwater Committee 1999. Currently, these water quality performance targets require:

- Suspended Solids – 80% retention of typical urban annual load.
- Total Nitrogen – 45% retention of typical urban annual load.
- Total Phosphorus – 45% retention of typical urban annual load.
- Litter – 70% reduction of typical urban annual load.

New developments must also incorporate treatment measures that improve the quality of water and reduce flow of water discharged into waterways (such as collection and use of rainwater/stormwater on site) and encourage the use of measures to prevent litter being carried off-site in stormwater flows. The proposed development has addressed these requirements by identifying the impervious surfaces within the site and implementing treatments to mitigate the impacts of stormwater leaving the site. To assess these initiatives, the STORM tool – which is an industry accepted tool – was used to determine the treatment effectiveness of these initiatives.

Site Characteristics

For the purposes of the stormwater assessment, the development has been delineated into basic surface types listed below and highlighted in mark-up plans following:

- Total site area: 2,415 m²
- Roof catchment area (blue): 1,146 m²
- Permeable landscaping (green): 516 m²
- Remaining impervious surfaces (unshaded): 753 m²

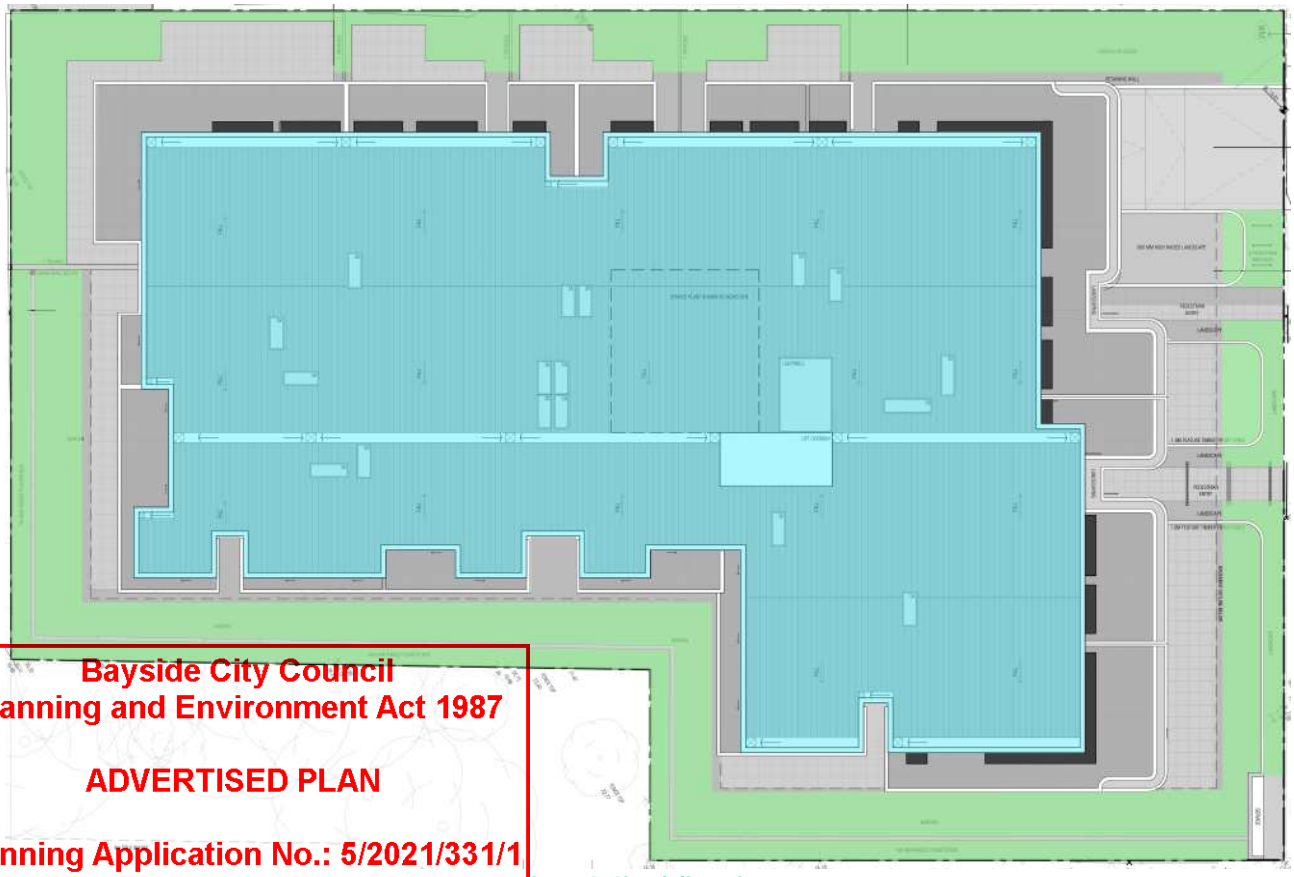

Figure 8: Site delineation.

Stormwater Management Initiatives

Stormwater treatment initiatives will need to be implemented. The following section presents the different surfaces that have been identified for treatment, and the required treatment. The initiatives to manage stormwater flows for the building area will underpin the overall performance of the building and its ability to meet stormwater management objectives.

Table 4: List of areas and their stormwater treatment measures.

Surfaces	Topographic Area (m^2)	Required Treatment
Effective Roof Catchment Area (Blue)	1,146 m^2	Runoff from the roof catchment area of 1,146m^2 will be diverted to a rainwater tank(s) with a total effective storage capacity of 35,000L. The stored water will be used for toilet flushing for residential toilets in the development (all toilets on Upper Ground Floor, First Floor, and Second Floor). Overflow from the tank(s) will be diverted to the Legal Point of Discharge (LPD) on site.
Permeable Landscaping (Green)	516 m^2	The landscaped area not above the basement is assumed to be permeable, with no additional treatment required.
Remaining Impervious Area (Unshaded)	753 m^2	All remaining impervious area runoff will be diverted directly to the LPD onsite.

Rainwater Reuse

For the purpose of water consumption calculations within the STORM tool, occupancy has been input as 80 which allows for the 81 apartment bedrooms included in the development.

Results

The recommended treatments have been applied to the STORM tool and as a result, the proposed development has achieved a score of 101%. With the proposed stormwater treatment measures incorporated into the development, the design will meet the minimum performance standards required by BESS and Bayside City Council.

Melbourne Water **STORM Rating Report**

TransactionID:	1265400	
Municipality:	BAYSIDE	
Rainfall Station:	BAYSIDE	
Address:	8-10 Linacre Road	
	Hampton	
	VIC	3188
Assessor:	SDC	
Development Type:	Residential - Mixed Use	
Allotment Site (m2):	2,415.00	
STORM Rating %:	101	

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Description	Impervious Area (m2)	Treatment Type	Treatment Area/Volume (m2 or L)	Occupants / Number Of Bedrooms	Treatment %	Tank Water Supply Reliability (%)
Roof Catchment	1,146.00	Rainwater Tank	35,000.00	80	166.80	82.00
Remaining Impervious	753.00	None	0.00	0	0.00	0.00

Figure 9: Stormwater calculator result.

Management and Maintenance Guidelines

Inspections and maintenance of the proposed stormwater treatment systems should occur regularly to ensure their ongoing performance. It is the responsibility of the Owners Corporation to ensure the appropriate measures are undertaken for the rainwater tank maintenance. Some general maintenance requirements are provided in the table below. However, any specific maintenance requirements nominated by the product's manufacturer may also apply and would supersede those outlined below. The proposed system will be nominated at the detailed design stage.

<u>Rainwater Tank</u>

Task	When?	Requirement
Inspect rainwater tanks	Every 6 months	- Check for any damage/compression - Check any blockage of first flush diverter - Correct operation of potable mains back up switch - Check that mesh covers have not deteriorated and intact. - Check that supporting base is free of cracks and movement. - Mosquito infestation
	Every 3-5 years	- Sludge Build up – if sludge build up occurs a vacuum tank needs to be called out to site
Inspect pumps	Every 2 years	- Serviced to prolong the pump life
Inspect roofs & gutters	Every 6 months	- Clean out of leaves / debris - Remove any overhanging branches onsite

Stormwater Runoff Treatment during the Construction Stage

Treatment – Various

Stormwater management in the construction stage will include measures which will be put in place to minimise the likelihood of contaminating stormwater discharge from the site as well as reduce the velocity of the flows generated from the building as it is being constructed. This will mean ensuring buffer strips are in place, and the site will be kept clean from any loose rubbish. More information is available from "*Keeping Our Stormwater Clean – A Builder's Guide*" by Melbourne Water[4]. The diagram below is an illustration of the various objectives which assist in minimising the impacts of stormwater runoff typical during the construction phase. Typical pollutants that are generated from a construction site during a rainfall event include:

- Dust
- Silt
- Mud
- Gravel
- Stockpiled materials
- Spills/oils
- Debris/litter

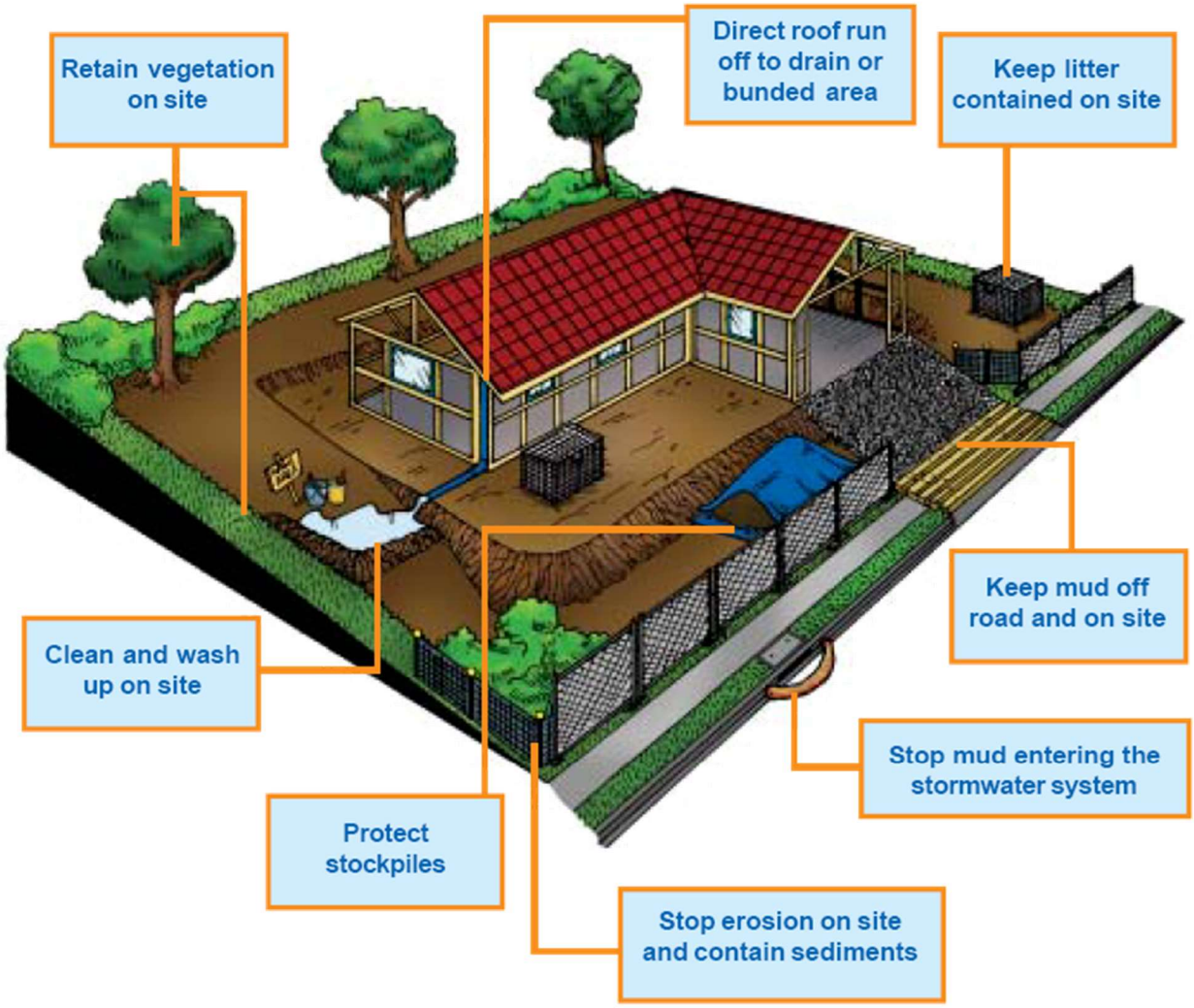
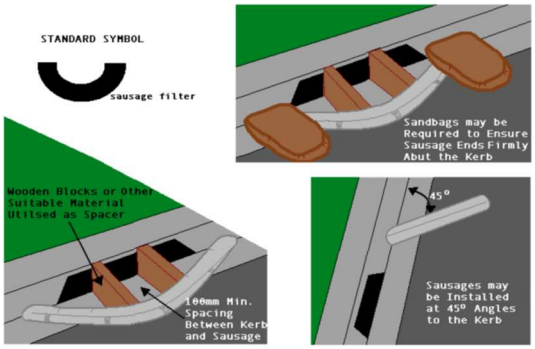


Figure 10: Stormwater will be effectively managed during construction phase according to the requirements listed in "Keeping Our Stormwater Clean – A Builder's Guide".

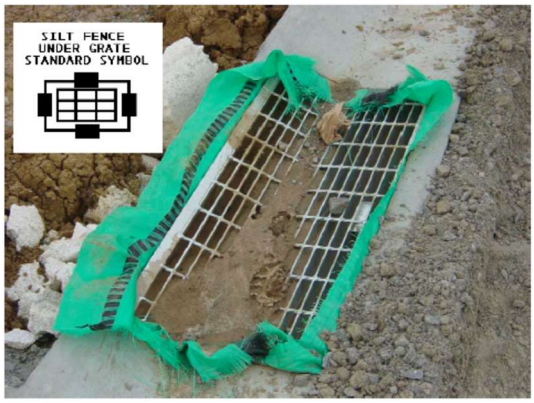
[4] For copies please contact Melbourne Water on 131 722.

To reduce the impacts and minimise the generation of these pollutants the following measures are proposed. The symbols embedded within each image are typically used for Construction Environmental Management Plans.

Gravel Sausage filters – to be placed at the entrance of pits/side stormwater inlets. These permeable sacks will filter the suspended soils and sediments and any other litter carried by the stormwater to prevent the pollutants entering the system.



Silt Fences Under Grates – Silt fence material may be placed under the grate of surface-entry inlets to prevent sediment from entering the stormwater system.



Temporary Rumble Grids – these are designed to open the tread on tires and vibrate mud and dirt off the vehicle (in particular the chassis). This will heavily minimise the amount of soil/dirt deposited on local roads where it can be washed (by rainfall or other means) into the stormwater drains.

Appendix 4 – Green Star VOC and Formaldehyde Limits

Table 5: Maximum Volatile Organic Compound Levels for construction materials (Source: Green Building Council Australia – Green Star Design and As Built v1.3 2019 Manual)

Product Type/Subcategory	Max TVOC Content (g/L of ready-to-use-product)
Paints, Adhesives and Sealants	
General purpose adhesives and sealants	50
Interior wall and ceiling paint, all sheen levels	16
Trim, varnishes and wood stains	75
Primers, sealers and prep coats	65
One and two pack performance coatings for floors	140
Acoustic sealants, architectural sealant, waterproofing membranes and sealant, fire retardant sealants and adhesives	250
Structural glazing adhesive, wood flooring and laminate adhesives and sealants	100
Carpets	
Total VOC limit	0.5 mg/m^2 per hour
4-PC (4-Phenylcyclohexene)	0.05mg/m^2 per hour
ISO 16000 / EN 13419 – TVOC at three days	0.5 mg/m^2 per hour
ISO 10580 / ISO/TC 219 (Document N238) – TVOC at 24 hours	0.5 mg/m^2 per hour

Table 6: Maximum Formaldehyde levels for processed wood products. (Source: Green Building Council Australia – Green Star Design and As Built v1.3 2019 Manual)

Formaldehyde emission limit values for different testing methods	
Test Method	Emission Limit/ Unit of Measurement
AS/NZS 2269:2004, testing procedure AS/NZS 2098.11:2005 method 10 for Plywood	≤1mg/ L
AS/NZS 1859.1:2004 – Particle Board, with use of testing procedure AS/NZS 4266.16:2004 method 16	≤1.5 mg/L
AS/NZS 1859.2:2004 – MDF, with use of testing procedure AS/NZS 4266.16:2004 method 16	≤1mg/ L
AS/NZS 4357.4 – Laminated Veneer Lumber (LVL)	≤1mg/ L
Japanese Agricultural Standard MAFF Notification No.701 Appendix Clause 3 (11) – LVL	≤1mg/ L
JIS A 5908:2003- Particle Board and Plywood, with use of testing procedure JIS A 1460	≤1mg/ L
JIS A 5905:2003 – MDF, with use of testing procedure JIS A 1460	≤1mg/ L
JIS A1901 (not applicable to Plywood, applicable to high pressure laminates and compact laminates)	≤0.1 mg/m^{2}hr
ASTM D5116 (applicable to high pressure laminates and compact laminates)	≤0.1 mg/m^{2}hr
ISO 16000 part 9, 10 and 11 (also known as EN 13419), applicable to high pressure laminates and compact laminates	≤0.1 mg/m^{2}hr (at 3 days)
ASTM D6007	≤0.12mg/m^3
ASTM E1333	≤0.12mg/m^3
EN 717-1 (also known as DIN EN 717-1)	≤0.12mg/m^3
EN 717-2 (also known as DIN EN 717-2)	≤3.5mg/m^{2}hr

Appendix 5 – Daylight Assessment

Medical Suite

At least 33% of the primary floor spaces of the medical suite will achieve the required minimum 2% daylight factor. This will ensure that the daylight access requirements for non-residential spaces are able to be achieved.

The following mark-up shows the green star daylight hand calculation zone of compliance (red) and the nominated area (purple). Areas which are not required to meet minimum daylight requirements (e.g. back of house areas) will be located wherever possible in areas where windows are not able to be installed (such as adjacent to the retaining walls) in order to ensure that regular use areas are prioritised for the most effective daylight access and best outcomes for occupant wellbeing, health, and artificial lighting requirements.

Nominated Floor Area	Area achieving min. 2% DF	% of area achieving min. 2% DF
1,013.5m^2	334.6m^2	33.0%

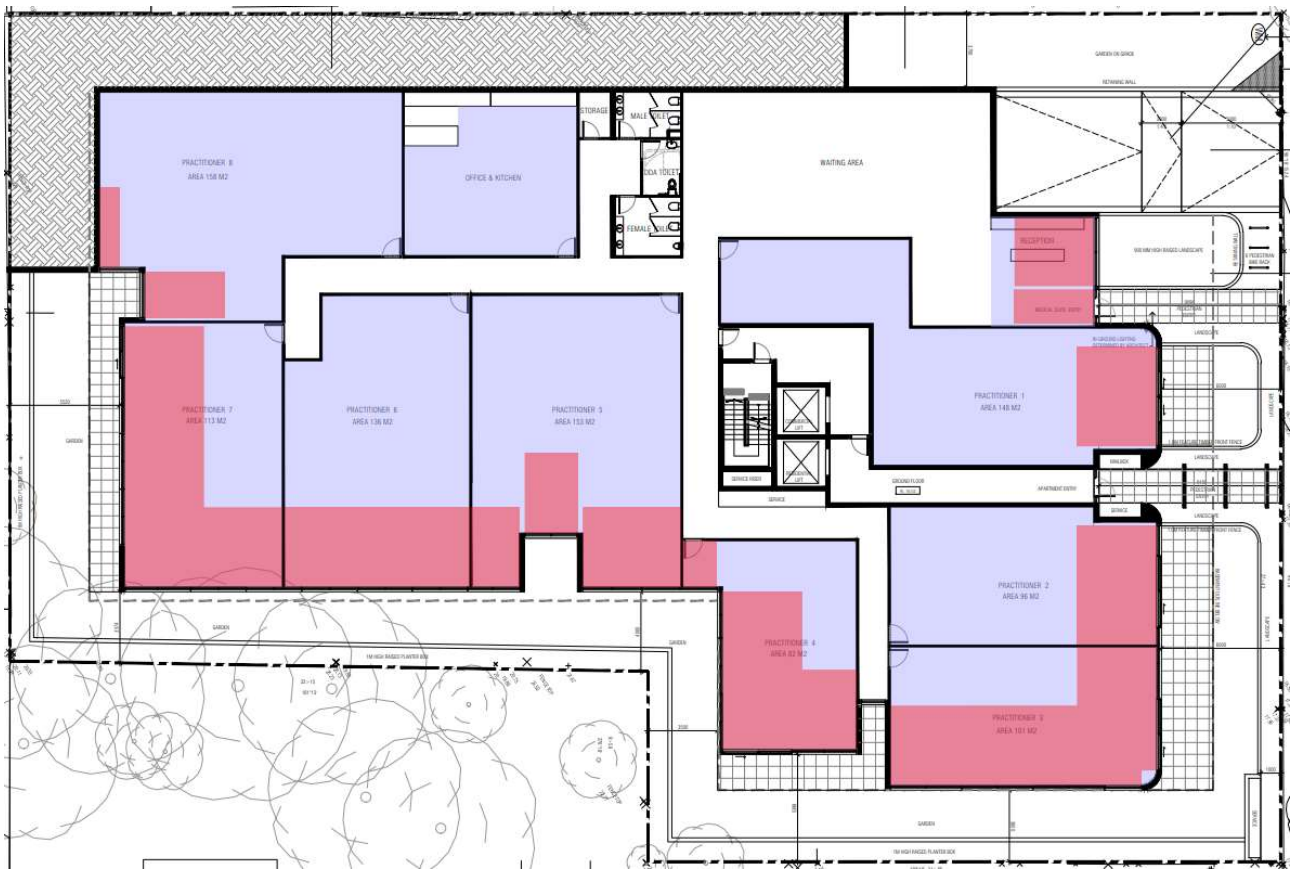


Figure 11: Daylight zone of compliance for the Medical Centre

Residential

The BESS in-built daylight calculation tool has been utilised to determine the level of daylight achieved in bedrooms and living areas for the apartments. It has been determined that 80% of living areas and 100% of bedrooms are expected to achieve best practice daylight levels. Note that these calculations are based on the inclusion of glazing with a minimum Visible Light Transmittance (VLT) of 60%, which will be required to ensure compliance. This should be readily achieved with the inclusion of double-glazed low-e windows as specified in the energy assessments in Appendix 2.

The following figures show the bedrooms which have been assigned to 'autopass' in the BESS tool (blue), living areas assigned to 'autopass' (pink), and living areas where details have been input manually (orange). Horizontal and vertical sky angles are shown in yellow.

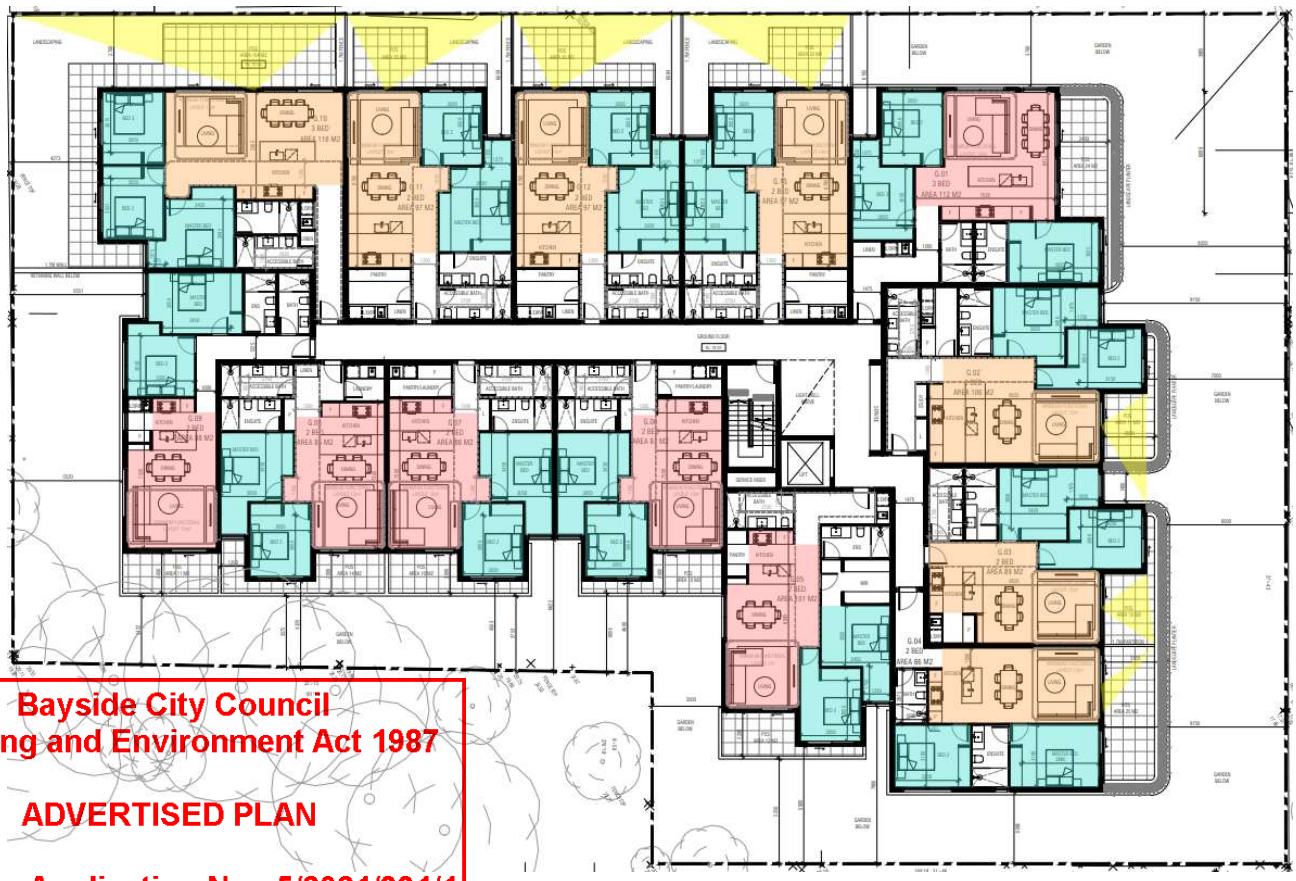


Figure 12: Upper Ground Floor daylight access

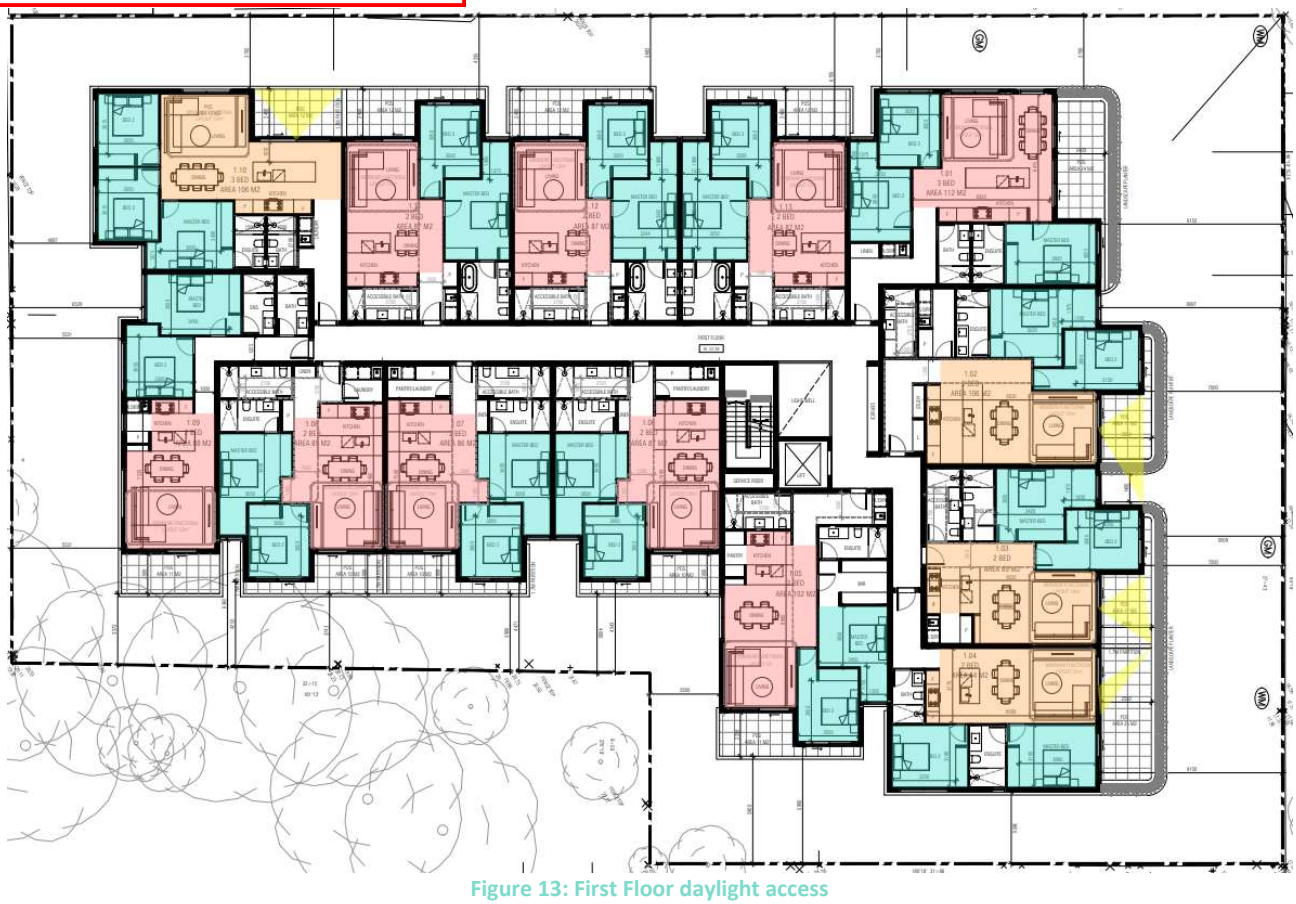


Figure 13: First Floor daylight access

Figure 14: Second Floor daylight access

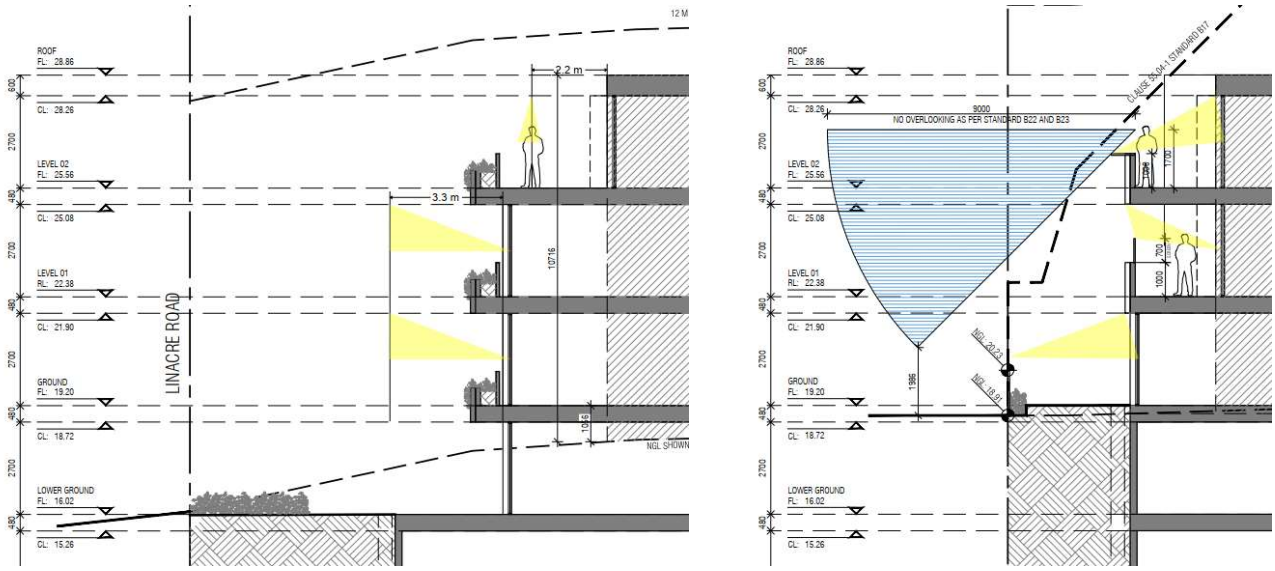


Figure 15: Vertical sky angle measurements for north (left) and west (right) facing apartments

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Appendix 6 – Residential Natural Ventilation

The following figures show breeze paths for the apartments which meet the criteria for effective natural ventilation. A total of 37% of the apartments (13) achieve effective natural ventilation, while the remaining apartments make use of large operable sliding doors and windows to assist in lowering the demand of cooling throughout the development.

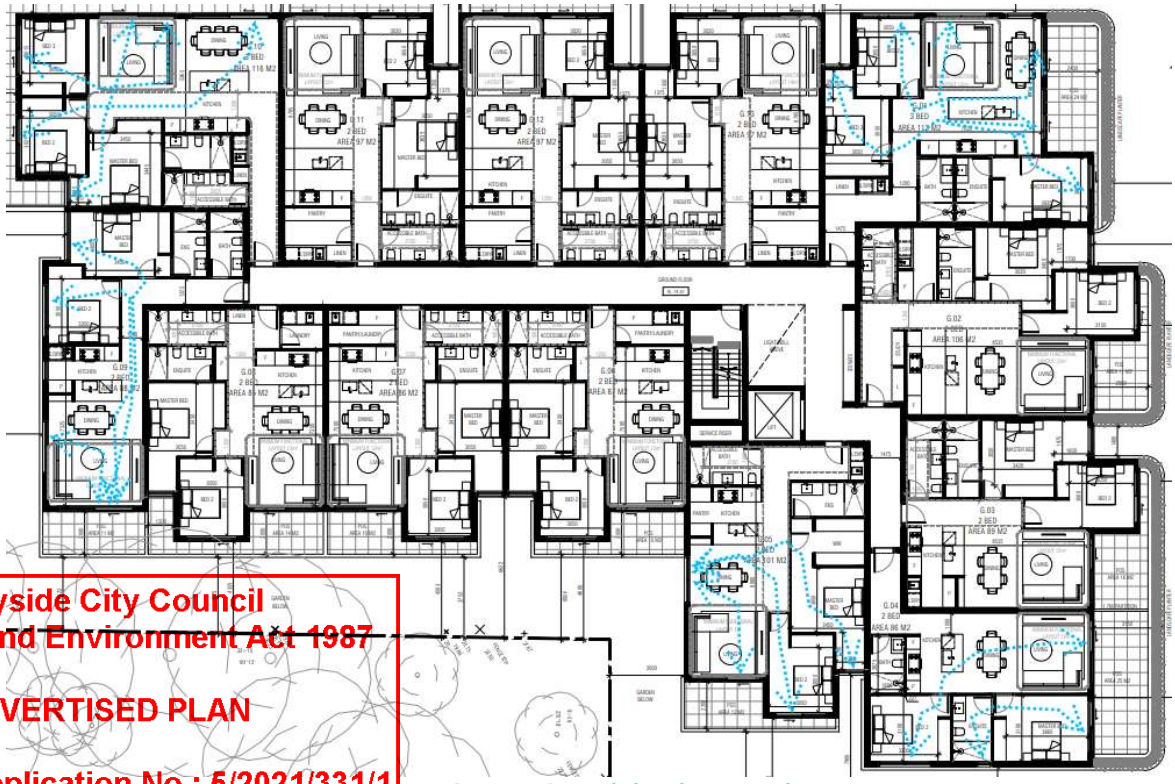


Figure 16: Upper Ground Floor breeze paths

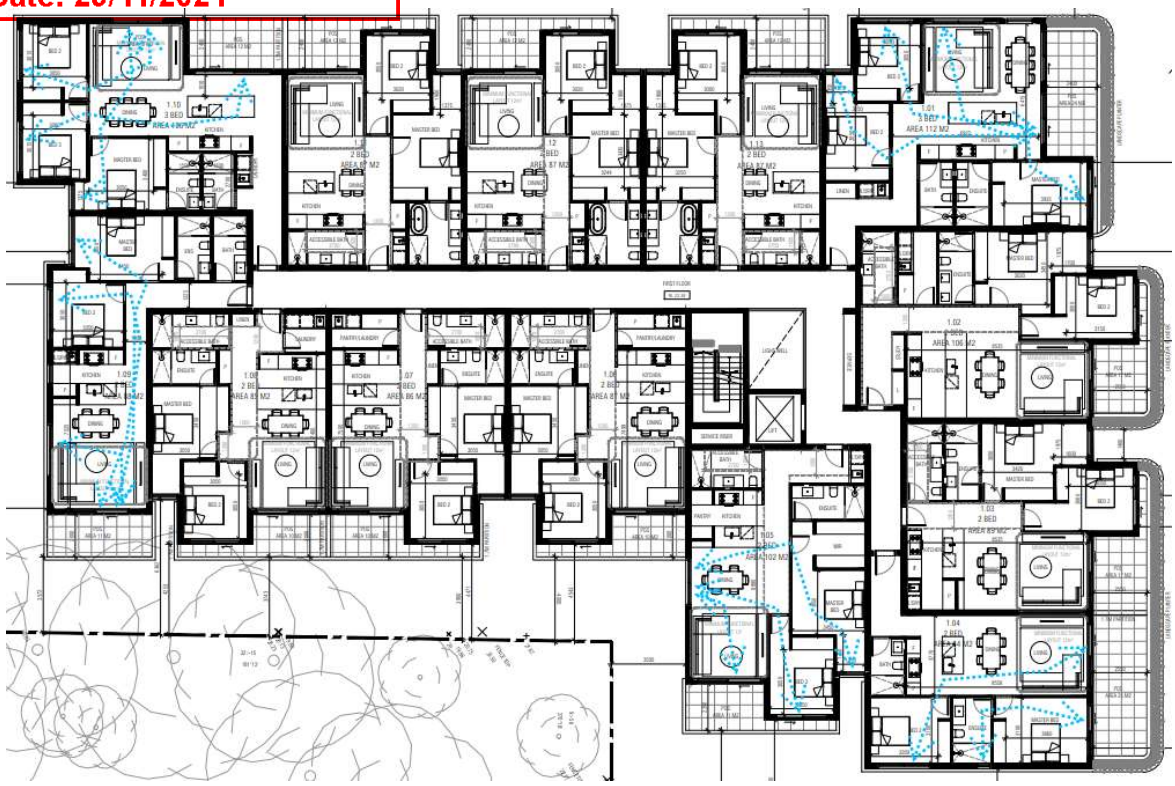


Figure 17: First Floor breeze paths

Figure 18: Second Floor breeze paths

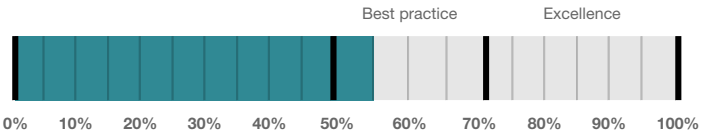
BESS Report

Built Environment Sustainability Scorecard

This BESS report outlines the sustainable design commitments of the proposed development at 8-10 Linacre Rd Hampton VIC 3188. The BESS report and accompanying documents and evidence are submitted in response to the requirement for a Sustainable Design Assessment or Sustainability Management Plan at Bayside City Council.

Note that where a Sustainability Management Plan is required, the BESS report must be accompanied by a report that further demonstrates the development's potential to achieve the relevant environmental performance outcomes and documents the means by which the performance outcomes can be achieved.

Your BESS Score



56%

Project details

Address	8-10 Linacre Rd Hampton VIC 3188
Project no	C5074315-R3
BESS Version	BESS-6
Site type	Mixed use development
Account	[redacted]
Application no.	
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Building floor area	4,880.0 m²
Date	19 November 2021
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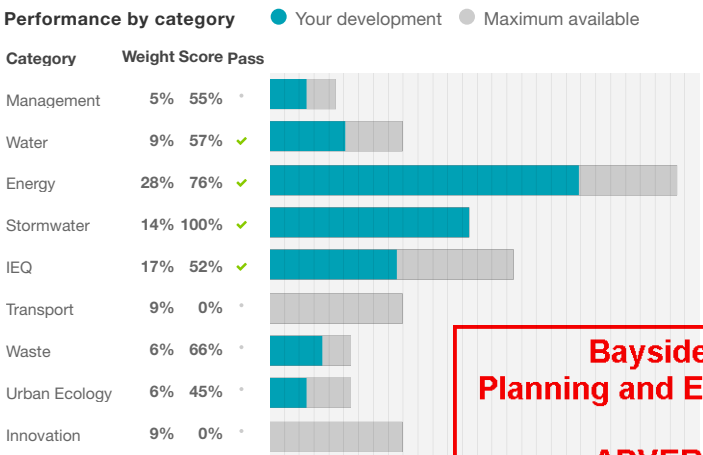
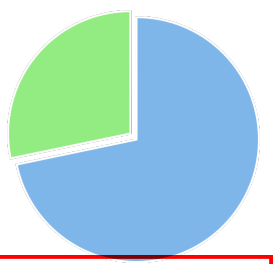


Building Type composition



Buildings

Name	Height	Footprint	% of total footprint
Building	4	1,533 m²	100%

Dwellings & Non Res Spaces

Dwellings

Name	Quantity	Area	Building	% of total area
Apartment				
G.08 (G.06, G.07, 1.06, 1.07, 1.08)	6	86.0 m²	Building	10%
G.02 (G.03, 1.02, 1.03)	4	97.5 m²	Building	7%
1.12 (1.11, 1.13)	3	87.0 m²	Building	5%
G.12 (G.11, G.13)	3	97.0 m²	Building	5%
2.09 (2.08)	2	107 m²	Building	4%
1.05 (G.05)	2	102 m²	Building	4%
G.10 (1.10)	2	111 m²	Building	4%
G.01 (1.01)	2	112 m²	Building	4%
2.04 (2.05)	2	87.0 m²	Building	3%
2.03	1	151 m²	Building	3%
1.09 (G.09)	2	88.0 m²	Building	3%
1.04 (G.04)	2	85.0 m²	Building	3%
2.07	1	132 m²	Building	2%
2.06	1	110 m²	Building	2%
2.02	1	124 m²	Building	2%
2.01	1	143 m²	Building	2%
Total	**35**	**3,501 m²**	**71%**	

Non-Res Spaces

Name	Quantity	Area	Building	% of total area
Office Building				
Medical Suite	1	1,379 m²	Building	28%
Total	**1**	**1,379 m²**	**28%**	

Supporting information

Floorplans & elevation notes

Credit	Requirement	Response	Status
Management 3.1	Individual utility meters annotated	To be printed Annotations will be shown on plans	✔
Management 3.2	Individual utility meters annotated	To be printed Annotations will be shown on plans	✔
Management 3.3	Common area submeters annotated	To be printed Annotations will be shown on plans	✔

Credit	Requirement	Response	Status
Water 3.1	Water efficient garden annotated	To be printed Annotations will be shown on plans	✔
Energy 3.1	Carpark with natural ventilation or CO monitoring system	To be printed Annotations will be shown on plans	✔
Energy 4.2	Floor plans showing location of photovoltaic panels as per calculator	To be printed Annotations will be shown on plans	✔
Stormwater 1.1	Location of any stormwater management systems used in STORM or MUSIC modelling (e.g. Rainwater tanks, raingarden, buffer strips)	To be printed Annotations will be shown on plans	✔
IEQ 1.1	If using BESS daylight calculator, references to floorplans and elevations showing window sizes and sky angles.	To be printed See 'Appendix 5 - Daylight Assessment' of the SMP prepared by Sustainable Development Consultants.	✔
IEQ 1.2	If using BESS daylight calculator, references to floorplans and elevations showing window sizes and sky angles.	To be printed See 'Appendix 5 - Daylight Assessment' of the SMP prepared by Sustainable Development Consultants.	✔
IEQ 1.5	Floor plans with compliant bedrooms marked	To be printed See 'Appendix 5 - Daylight Assessment' of the SMP prepared by Sustainable Development Consultants.	✔
Waste 2.1	Location of food and garden waste facilities	To be printed See floor plans	✔
Waste 2.2	Location of recycling facilities	To be printed See floor plans	✔
Urban Ecology 1.1	Size and location of communal spaces	To be printed See floor plans	✔
Urban Ecology 2.1	Vegetated areas	To be printed See floor plans	✔
Urban Ecology 2.4	Taps and floor waste on balconies / courtyards	To be printed Annotations will be shown on plans	✔

Supporting evidence

Credit	Requirement	Response	Status
Management 2.2	Preliminary NatHERS assessments	To be printed SMP See Appendix 2 of SMP	✔
Energy 1.1	Energy Report showing calculations of reference case and proposed buildings	To be printed SMP Facade calculator to be completed at Building Approval stage.	✔
Energy 3.1	Provide a written explanation of either the fully natural carpark ventilation or carbon monxide monitoring, describing how these systems will work, what systems are required for them to be fully integrated and who will be responsible for their implementation throughout the design, procurement and operational phases of the building life.	To be printed SMP To be provided by services consultant in design development stage.	✔
Energy 3.6	Provide a written description of the average lighting power density to be installed in the development and specify the lighting type(s) to be used.	To be printed SMP To be provided by electrical/lighting engineer in design development stage.	✔
Energy 3.7	Provide a written description of the average lighting power density to be installed in the development and specify the lighting type(s) to be used.	To be printed SMP To be provided by electrical/lighting engineer in design development stage.	✔

Credit	Requirement	Response	Status
Energy 4.2	Specifications of the solar photovoltaic system(s).	To be printed SMP To be provided by services consultant in design development stage.	✔
Stormwater 1.1	STORM report or MUSIC model	To be printed SMP See Appendix 3 of SMP	✔
IEQ 1.1	If using an alternative daylight modelling program, a short report detailing assumptions used and results achieved.	To be printed SMP See Appendix 5 of SMP	✔
IEQ 1.2	If using an alternative daylight modelling program, a short report detailing assumptions used and results achieved.	To be printed SMP See Appendix 5 of SMP	✔
IEQ 1.4	A short report detailing assumptions used and results achieved.	To be printed SMP See Appendix 5 of SMP	✔
IEQ 1.5	A list of compliant bedrooms	To be printed SMP See Appendix 5 of SMP	✔

Credit summary

Management Overall contribution 4.5%

55%

1.1 Pre-Application Meeting	0%
2.2 Thermal Performance Modelling - Multi-Dwelling Residential	100%
2.3 Thermal Performance Modelling - Non-Residential	0%
3.1 Metering	100%
3.2 Metering	100%
3.3 Metering	100%
4.1 Building Users Guide	100%

Water Overall contribution 9.0%

Minimum required 50% **57%** ✔ **Pass**

1.1 Potable water use reduction	40%
3.1 Water Efficient Landscaping	100%
4.1 Building Systems Water Use Reduction	100%

Energy Overall contribution 27.5%

	Minimum required 50%	76%	Pass
1.1 Thermal Performance Rating - Non-Residential		37%	
1.2 Thermal Performance Rating - Residential		83%	
2.1 Greenhouse Gas Emissions		100%	
2.2 Peak Demand		28%	
2.3 Electricity Consumption		100%	
2.4 Gas Consumption		N/A	Scoped Out
			No gas connection in use
3.1 Carpark Ventilation		100%	
3.2 Hot Water		100%	
3.4 Clothes Drying		0%	
3.6 Internal Lighting - Residential Multiple Dwellings		100%	
3.7 Internal Lighting - Non-Residential		100%	
4.1 Combined Heat and Power (cogeneration / trigeneration)		N/A	Scoped Out
			No cogeneration or trigeneration system in use.
4.2 Renewable Energy Systems - Solar		100%	
4.4 Renewable Energy Systems - Other		N/A	Disabled
			No other (non-solar PV) renewable energy is in use.

Stormwater Overall contribution 13.5%

	Minimum required 100%	100%	Pass
1.1 Stormwater Treatment		100%	

IEQ Overall contribution 16.5%

	Minimum required 50%	52%	Pass
1.1 Daylight Access - Living Areas		66%	
1.2 Daylight Access - Bedrooms		100%	
1.3 Winter Sunlight		0%	
1.4 Daylight Access - Non-Residential		33%	Achieved
1.5 Daylight Access - Minimal Internal Bedrooms		100%	
2.1 Effective Natural Ventilation		0%	
2.3 Ventilation - Non-Residential		66%	Achieved
3.4 Thermal comfort - Shading - Non-residential		0%	
3.5 Thermal Comfort - Ceiling Fans - Non-Residential		0%	
4.1 Air Quality - Non-Residential		100%	

Transport Overall contribution 9.0%

	0%
1.1 Bicycle Parking - Residential	0%
1.2 Bicycle Parking - Residential Visitor	0%
1.3 Bicycle Parking - Convenience Residential	N/A ⊘ Disabled
	Credit 1.1 must be achieved first.
1.4 Bicycle Parking - Non-Residential	0%
1.5 Bicycle Parking - Non-Residential Visitor	0%
1.6 End of Trip Facilities - Non-Residential	N/A ⊘ Disabled
	Credit 1.4 must be complete first.
2.1 Electric Vehicle Infrastructure	0%
2.2 Car Share Scheme	0%
2.3 Motorbikes / Mopeds	0%

Waste Overall contribution 5.5%

	66%
1.1 - Construction Waste - Building Re-Use	0%
2.1 - Operational Waste - Food & Garden Waste	100%
2.2 - Operational Waste - Convenience of Recycling	100%

Urban Ecology Overall contribution 5.5%

	45%
1.1 Communal Spaces	28%
2.1 Vegetation	75%
2.2 Green Roofs	0%
2.3 Green Walls and Facades	0%
2.4 Private Open Space - Balcony / Courtyard Ecology	100%
3.1 Food Production - Residential	0%
3.2 Food Production - Non-Residential	0%

Innovation Overall contribution 9.0%

	0%
1.1 Innovation	0%

Credit breakdown

Management Overall contribution 2%

1.1 Pre-Application Meeting		0%
Score Contribution	This credit contributes 37.5% towards the category score.	
Criteria	Has an ESD professional been engaged to provide sustainability advice from schematic design to construction? AND Has the ESD professional been involved in a pre-application meeting with Council?	
Question	Criteria Achieved ?	
Project	No	
2.2 Thermal Performance Modelling - Multi-Dwelling Residential		100%
Score Contribution	This credit contributes 17.9% towards the category score.	
Criteria	Have preliminary NatHERS ratings been undertaken for all thermally unique dwellings?	
Question	Criteria Achieved ?	
Apartment	Yes	
2.3 Thermal Performance Modelling - Non-Residential		0%
Score Contribution	This credit contributes 7.1% towards the category score.	
Criteria	Has a preliminary facade assessment been undertaken in accordance with NCC2019 Section J1.5?	
Question	Criteria Achieved ?	
Office Building	No	
Criteria	Has preliminary modelling been undertaken in accordance with either NCC2019 Section J (Energy Efficiency), NABERS or Green Star?	
Question	Criteria Achieved ?	
Office Building	No	
3.1 Metering		100%
Score Contribution	This credit contributes 9.0% towards the category score.	
Criteria	Have utility meters been provided for all individual dwellings?	
Question	Criteria Achieved ?	
Apartment	Yes	
3.2 Metering		100%
Score Contribution	This credit contributes 3.5% towards the category score.	
Criteria	Have utility meters been provided for all individual commercial tenants?	
Question	Criteria Achieved ?	
Office Building	Yes	

3.3 Metering	100%
Score Contribution	This credit contributes 12.5% towards the category score.
Criteria	Have all major common area services been separately submetered?
Question	Criteria Achieved ?
Apartment	Yes
Office Building	Yes

4.1 Building Users Guide	100%
Score Contribution	This credit contributes 12.5% towards the category score.
Criteria	Will a building users guide be produced and issued to occupants?
Question	Criteria Achieved ?
Project	Yes

Water

Overall contribution 5% Minimum required 50%

Water Approach	
What approach do you want to use for Water?:	Use the built in calculation tools

Project Water Profile Question	
Do you have a reticulated third pipe or an on-site water recycling system?:	No
Are you installing a swimming pool?:	No
Are you installing a rainwater tank?:	Yes

Water fixtures, fittings and connections	
Building: All	Building
Showerhead: All	4 Star WELS (>= 6.0 but <= 7.5)
Bath:	
G.01 (1.01) G.02 (G.03, 1.02, 1.03) G.08 (G.06, G.07, 1.06, 1.07, 1.08) G.10 (1.10) G.12 (G.11, G.13) 1.04 (G.04) 1.05 (G.05) 1.09 (G.09) 2.04 (2.05) 2.06 Medical Suite	Scope out
1.12 (1.11, 1.13) 2.01 2.02 2.03 2.07 2.09 (2.08)	Medium Sized Contemporary Bath
Kitchen Taps: All	>= 5 Star WELS rating
Bathroom Taps: All	>= 5 Star WELS rating
Dishwashers: All	>= 5 Star WELS rating
WC: All	>= 4 Star WELS rating

Urinals:	
G.01 (1.01) G.02 (G.03, 1.02, 1.03) G.08 (G.06, G.07, 1.06, 1.07, 1.08) G.10 (1.10) G.12 (G.11, G.13) 1.04 (G.04) 1.05 (G.05) 1.09 (G.09) 1.12 (1.11, 1.13) 2.01 2.02 2.03 2.04 (2.05) 2.06 2.07 2.09 (2.08)	Scope out
Medical Suite	>= 6 Star WELS rating
Washing Machine Water Efficiency: All	Occupant to Install
Which non-potable water source is the dwelling/space connected to?:	
G.01 (1.01) G.02 (G.03, 1.02, 1.03) G.08 (G.06, G.07, 1.06, 1.07, 1.08) G.10 (1.10) G.12 (G.11, G.13) 1.04 (G.04) 1.05 (G.05) 1.09 (G.09) 1.12 (1.11, 1.13) 2.01 2.02 2.03 2.04 (2.05) 2.06 2.07 2.09 (2.08)	Rainwater Tank
Medical Suite	-1

Non-potable water source connected to Toilets:	
G.01 (1.01) G.02 (G.03, 1.02, 1.03) G.08 (G.06, G.07, 1.06, 1.07, 1.08) G.10 (1.10) G.12 (G.11, G.13) 1.04 (G.04) 1.05 (G.05) 1.09 (G.09) 1.12 (1.11, 1.13) 2.01 2.02 2.03 2.04 (2.05) 2.06 2.07 2.09 (2.08)	Yes
Medical Suite	No
Non-potable water source connected to Laundry (washing machine): All	No
Non-potable water source connected to Hot Water System: All	No

Rainwater Tank	
What is the total roof area connected to the rainwater tank?: Rainwater Tank	1,146 m²
Tank Size: Rainwater Tank	35,000 Litres
Irrigation area connected to tank: Rainwater Tank	-
Is connected irrigation area a water efficient garden?: Rainwater Tank	No
Other external water demand connected to tank?: Rainwater Tank	-

1.1 Potable water use reduction		40%
Score Contribution	This credit contributes 71.4% towards the category score.	
Criteria	What is the reduction in total potable water use due to efficient fixtures, appliances, rainwater use and recycled water use? To achieve points in this credit there must be >25% potable water reduction.	
Output	Reference	
Project	8685 kL	
Output	Proposed (excluding rainwater and recycled water use)	
Project	7010 kL	
Output	Proposed (including rainwater and recycled water use)	
Project	6508 kL	
Output	% Reduction in Potable Water Consumption	
Project	25 %	
Output	% of connected demand met by rainwater	
Project	100 %	
Output	How often does the tank overflow?	
Project	Very Often	
Output	Opportunity for additional rainwater connection	
Project	4285 kL	

3.1 Water Efficient Landscaping		100%
Score Contribution	This credit contributes 14.3% towards the category score.	
Criteria	Will water efficient landscaping be installed?	
Question	Criteria Achieved ?	
Project	Yes	

4.1 Building Systems Water Use Reduction		100%
Score Contribution	This credit contributes 14.3% towards the category score.	
Criteria	Where applicable, have measures been taken to reduce potable water consumption by >80% in the buildings air-conditioning chillers and when testing fire safety systems?	
Question	Criteria Achieved ?	
Project	Yes	

Energy

Overall contribution 21% Minimum required 50%

Use the BESS Deem to Satisfy (DtS) method for Energy?:	Yes
Do all exposed floors and ceilings (forming part of the envelope) demonstrate a minimum 10% improvement in required NCC2019 insulation levels (total R-value upwards and downwards)?:	Yes
Does all wall and glazing demonstrate meeting the required NCC2019 facade calculator (or better than the total allowance)?:	Yes
Are heating and cooling systems within one Star of the most efficient equivalent capacity unit available, or Coefficient of Performance (CoP) & Energy Efficiency Ratios (EER) not less than 85% of the CoP & EER of the most efficient equivalent capacity unit available?:	Yes
Are water heating systems within one star of the best available, or 85% or better than the most efficient equivalent capacity unit?:	Yes

Dwellings Energy Approach

What approach do you want to use for Energy?:	Use the built in calculation tools

Project Energy Profile Question

Are you installing any solar photovoltaic (PV) system(s)?:	Yes
Are you installing any other renewable energy system(s)?:	No
Gas supplied into building:	No gas connection

Dwelling Energy Profiles

Building: All	Building
Below the floor is: All	Another Occupancy
Above the ceiling is:	
G.01 (1.01) G.02 (G.03, 1.02, 1.03) G.08 (G.06, G.07, 1.06, 1.07, 1.08) G.10 (1.10) G.12 (G.11, G.13) 1.04 (G.04) 1.05 (G.05) 1.09 (G.09) 1.12 (1.11, 1.13)	Another Occupancy
2.01 2.02 2.03 2.04 (2.05) 2.06 2.07 2.09 (2.08)	Outside

Exposed sides:	
G.01 (1.01) G.02 (G.03, 1.02, 1.03) G.10 (1.10) 1.04 (G.04) 1.05 (G.05) 1.09 (G.09) 2.01 2.02 2.06 2.07	2
G.08 (G.06, G.07, 1.06, 1.07, 1.08) G.12 (G.11, G.13) 1.12 (1.11, 1.13) 2.04 (2.05) 2.09 (2.08)	1
2.03	3

NatHERS Annual Energy Loads - Heat:	
G.01 (1.01)	82.4 MJ/sqm
G.02 (G.03, 1.02, 1.03)	8.6 MJ/sqm
G.08 (G.06, G.07, 1.06, 1.07, 1.08)	26.1 MJ/sqm
G.10 (1.10)	32.3 MJ/sqm
G.12 (G.11, G.13)	17.5 MJ/sqm
1.04 (G.04)	27.0 MJ/sqm
1.05 (G.05)	43.3 MJ/sqm
1.09 (G.09)	41.2 MJ/sqm
1.12 (1.11, 1.13)	23.3 MJ/sqm
2.01	56.1 MJ/sqm
2.02	25.3 MJ/sqm
2.03	79.2 MJ/sqm
2.04 (2.05)	46.9 MJ/sqm
2.06	77.7 MJ/sqm
2.07	50.9 MJ/sqm
2.09 (2.08)	40.9 MJ/sqm

NatHERS Annual Energy Loads - Cool:	
G.01 (1.01)	16.8 MJ/sqm
G.02 (G.03, 1.02, 1.03)	3.9 MJ/sqm
G.08 (G.06, G.07, 1.06, 1.07, 1.08)	7.5 MJ/sqm
G.10 (1.10)	14.3 MJ/sqm
G.12 (G.11, G.13)	16.7 MJ/sqm
1.04 (G.04)	12.3 MJ/sqm
1.05 (G.05)	6.9 MJ/sqm
1.09 (G.09)	10.3 MJ/sqm
1.12 (1.11, 1.13)	11.4 MJ/sqm
2.01 2.09 (2.08)	19.9 MJ/sqm
2.02	10.1 MJ/sqm
2.03	19.8 MJ/sqm
2.04 (2.05)	20.3 MJ/sqm
2.06	19.1 MJ/sqm
2.07	15.2 MJ/sqm
NatHERS star rating:	
G.01 (1.01) 2.03 2.06	6.8
G.02 (G.03, 1.02, 1.03)	9.5
G.08 (G.06, G.07, 1.06, 1.07, 1.08) G.12 (G.11, G.13) 1.12 (1.11, 1.13)	8.8
G.10 (1.10)	8.4
1.04 (G.04)	8.6
1.05 (G.05)	8.3
1.09 (G.09)	8.2
2.01	7.4
2.02	8.7
2.04 (2.05)	7.7
2.07	7.8
2.09 (2.08)	7.9
Type of Heating System: All	D Reverse cycle space
Heating System Efficiency: All	5 Star
Type of Cooling System: All	Refrigerative space
Cooling System Efficiency: All	5 Stars
Type of Hot Water System: All	C Electric Heat Pump
Is the hot water system shared by multiple dwellings?: All	Yes
% Contribution from solar hot water system: All	0 %
Clothes Line: All	A No drying facilities
Clothes Dryer: All	Occupant to Install

Non-Residential Building Energy Profile

Heating, Cooling & Comfort Ventilation - Electricity - reference fabric and reference services:	-
Heating, Cooling & Comfort Ventilation - Electricity - proposed fabric and reference services:	-
Heating, Cooling & Comfort Ventilation - Electricity - proposed fabric and proposed services:	-
Heating - Wood - reference fabric and reference services:	-
Heating - Wood - proposed fabric and reference services:	-
Heating - Wood - proposed fabric and proposed services:	-
Hot Water - Electricity - Baseline:	-
Hot Water - Electricity - Proposed:	-
Lighting - Baseline:	-
Lighting - Proposed:	-
Peak Thermal Cooling Load - Baseline:	-
Peak Thermal Cooling Load - Proposed:	-

Solar Photovoltaic systems

System Size (lesser of inverter and panel capacity):	
Medical Solar PV System	1.7 kW peak
Residential Solar PV System	3.3 kW peak
Orientation (which way is the system facing)?:	
Medical Solar PV System	North
Residential Solar PV System	North
Inclination (angle from horizontal):	
Medical Solar PV System	30.0 Angle (degrees)
Residential Solar PV System	30.0 Angle (degrees)
Which Building Class does this apply to?:	
Medical Solar PV System	Office Building
Residential Solar PV System	Apartment

1.1 Thermal Performance Rating - Non-Residential 37%

Score Contribution	This credit contributes 11.7% towards the category score.
Criteria	What is the % reduction in heating and cooling energy consumption against the reference case (NCC 2019 Section J)?

1.2 Thermal Performance Rating - Residential	83%
Score Contribution	This credit contributes 22.3% towards the category score.
Criteria	What is the average NatHERS rating?
Annotation	Note that the average NATHERS rating of 8.3 input here is based on the preliminary energy ratings completed for the development. As plans are refined for building approval, some changes to the ratings of individual apartments are to be expected and may alter the average rating, however a minimum average rating of 8.0 will be maintained. Although a 8.0 star average is lower than the 8.3 star average included in this BESS assessment at this stage, the points achieved for this credit are equal for both average ratings and as such the BESS score will still apply.
Output	Average NATHERS Rating (Weighted)
Apartment	8.3 Stars

2.1 Greenhouse Gas Emissions	100%
Score Contribution	This credit contributes 10.4% towards the category score.
Criteria	What is the % reduction in annual greenhouse gas emissions against the benchmark?
Output	Reference Building with Reference Services (BCA only)
Apartment	276,064 kg CO2
Output	Proposed Building with Proposed Services (Actual Building)
Apartment	86,008 kg CO2
Output	% Reduction in GHG Emissions
Apartment	68 %

2.2 Peak Demand	28%
Score Contribution	This credit contributes 5.2% towards the category score.
Criteria	What is the % reduction in instantaneous (peak-hour) demand against the benchmark?
Output	Peak Thermal Cooling Load - Baseline
Apartment	536 kW
Output	Peak Thermal Cooling Load - Proposed
Apartment	434 kW
Output	Peak Thermal Cooling Load - % Reduction
Apartment	19 %

2.3 Electricity Consumption	100%
Score Contribution	This credit contributes 10.4% towards the category score.
Criteria	What is the % reduction in annual electricity consumption against the benchmark?
Output	Reference
Apartment	270,651 kWh
Output	Proposed
Apartment	84,321 kWh
Output	Improvement
Apartment	68 %

2.4 Gas Consumption	N/A Scoped Out
This credit was scoped out	No gas connection in use

3.1 Carpark Ventilation	100%
Score Contribution	This credit contributes 10.4% towards the category score.
Criteria	If you have an enclosed carpark, is it: (a) fully naturally ventilated (no mechanical ventilation system) or (b) 40 car spaces or less with Carbon Monoxide monitoring to control the operation and speed of the ventilation fans?
Question	Criteria Achieved ?
Project	Yes

3.2 Hot Water	100%
Score Contribution	This credit contributes 5.2% towards the category score.
Criteria	What is the % reduction in annual energy consumption (gas and electricity) of the hot water system against the benchmark?
Output	Reference
Apartment	110,840 kWh
Output	Proposed
Apartment	43,796 kWh
Output	Improvement
Apartment	60 %

3.4 Clothes Drying	0%
Score Contribution	This credit contributes 3.7% towards the category score.
Criteria	What is the % reduction in annual energy consumption (gas and electricity) from a combination of clothes lines and efficient driers against the benchmark?
Output	Reference
Apartment	19,307 kWh
Output	Proposed
Apartment	19,307 kWh
Output	Improvement
Apartment	0 %

3.6 Internal Lighting - Residential Multiple Dwellings	100%
Score Contribution	This credit contributes 7.4% towards the category score.
Criteria	Is the maximum illumination power density (W/m2) in at least 90% of the relevant building class at least 20% lower than required by Table J6.2a of the NCC 2019 Vol 1 (Class 2-9) and Clause 3.12.5.5 NCC 2019 Vol 2 (Class 1 & 10)?
Question	Criteria Achieved ?
Apartment	Yes

3.7 Internal Lighting - Non-Residential	100%
Score Contribution	This credit contributes 2.9% towards the category score.
Criteria	Does the maximum illumination power density (W/m2) in at least 90% of the area of the relevant building class meet the requirements in Table J6.2a of the NCC 2019 Vol 1?
Question	Criteria Achieved ?
Office Building	Yes

4.1 Combined Heat and Power (cogeneration / trigeneration)		N/A	Scoped Out
This credit was scoped out	No cogeneration or trigeneration system in use.		
4.2 Renewable Energy Systems - Solar		100%	
Score Contribution	This credit contributes 5.2% towards the category score.		
Criteria	What % of the estimated energy consumption of the building class it supplies does the solar power system provide?		
Output	Solar Power - Energy Generation per year		
Apartment	4,300 kWh		
Office Building	2,215 kWh		
Output	% of Building's Energy		
Apartment	5 %		
Office Building	5 %		
4.4 Renewable Energy Systems - Other		N/A	Disabled
This credit is disabled	No other (non-solar PV) renewable energy is in use.		

Stormwater

Overall contribution 14% Minimum required 100%

Which stormwater modelling are you using?:	Melbourne Water STORM tool	
1.1 Stormwater Treatment		100%
Score Contribution	This credit contributes 100.0% towards the category score.	
Criteria	Has best practice stormwater management been demonstrated?	
Question	STORM score achieved	
Project	101	
Output	Min STORM Score	
Project	100	

IEQ

Overall contribution 9% Minimum required 50%

IEQ DTS	
Use the BESS Deemed to Satisfy (DtS) method for IEQ?:	No
Dwellings IEQ Approach	
What approach do you want to use for dwellings?:	Use the built in calculation tools
Dwelling Daylight Room Profile Questions	
Room Designation:	
Living Autopass Living North-Facing Living West-Facing	Living
Bedroom Autopass	Bedroom
Quantity:	
Living Autopass	20
Bedroom Autopass	81
Living North-Facing	7
Living West-Facing	8
Auto-Pass:	
Living Autopass Bedroom Autopass	Yes
Living North-Facing Living West-Facing	No
Room Floor Area:	
Living Autopass Bedroom Autopass	-
Living North-Facing	36.6 m²
Living West-Facing	39.5 m²
Vertical Angle:	
Living Autopass Bedroom Autopass	-
Living North-Facing	28.4 Angle (degrees)
Living West-Facing	70.1 Angle (degrees)
Horizontal Angle:	
Living Autopass Bedroom Autopass	-
Living North-Facing	96.4 Angle (degrees)
Living West-Facing	106 Angle (degrees)
Window Area:	
Living Autopass Bedroom Autopass	-
Living North-Facing	7.9 m²
Living West-Facing	11.5 m²

Window Orientation:	
Living Autopass Bedroom Autopass	-
Living North-Facing Living West-Facing	North
Glass Type:	
Living Autopass Bedroom Autopass	-
Living North-Facing Living West-Facing	Clear Low-E Double (VLT 0.73)
Daylight Criteria Achieved?:	
Living Autopass Bedroom Autopass Living West-Facing	Yes
Living North-Facing	No

1.1 Daylight Access - Living Areas		66%	
Score Contribution	This credit contributes 16.0% towards the category score.		
Criteria	What % of living areas achieve a daylight factor greater than 1%		
Output	Calculated percentage		
Apartment	80 %		

1.2 Daylight Access - Bedrooms		100%	
Score Contribution	This credit contributes 16.0% towards the category score.		
Criteria	What % of bedrooms achieve a daylight factor greater than 0.5%		
Output	Calculated percentage		
Apartment	100 %		

1.3 Winter Sunlight		0%	
Score Contribution	This credit contributes 5.3% towards the category score.		
Criteria	Do 70% of dwellings receive at least 3 hours of direct sunlight in all Living areas between 9am and 3pm in mid-winter?		
Question	Criteria Achieved ?		
Apartment	No		

1.4 Daylight Access - Non-Residential		33%	✔ Achieved
Score Contribution	This credit contributes 12.6% towards the category score.		
Criteria	What % of the regular use floor areas have at least 2% daylight factor?		
Question	Percentage Achieved?		
Office Building	33 %		

1.5 Daylight Access - Minimal Internal Bedrooms		100%	
Score Contribution	This credit contributes 5.3% towards the category score.		
Criteria	Do at least 90% of dwellings have an external window in all bedrooms?		
Question	Criteria Achieved ?		
Apartment	Yes		

2.1 Effective Natural Ventilation		0%	
Score Contribution	This credit contributes 16.0% towards the category score.		
Criteria	What % of dwellings are effectively naturally ventilated?		
Question	Percentage Achieved?		
Apartment	37 %		
2.3 Ventilation - Non-Residential		66%	✔ Achieved
Score Contribution	This credit contributes 12.6% towards the category score.		
Criteria	What % of the regular use areas are effectively naturally ventilated?		
Question	Percentage Achieved?		
Office Building	0 %		
Criteria	What increase in outdoor air is available to regular use areas compared to the minimum required by AS 1668.2:2012?		
Question	What increase in outdoor air is available to regular use areas compared to the minimum required by AS 1668:2012?		
Office Building	50 %		
Criteria	What CO2 concentrations are the ventilation systems designed to achieve, to monitor and to maintain?		
Question	Value		
Office Building	800 ppm		
3.4 Thermal comfort - Shading - Non-residential		0%	
Score Contribution	This credit contributes 6.3% towards the category score.		
Criteria	What percentage of east, north and west glazing to regular use areas is effectively shaded?		
Question	Percentage Achieved?		
Office Building	0 %		
3.5 Thermal Comfort - Ceiling Fans - Non-Residential		0%	
Score Contribution	This credit contributes 2.1% towards the category score.		
Criteria	What percentage of regular use areas have ceiling fans?		
Question	Percentage Achieved?		
Office Building	0 %		
4.1 Air Quality - Non-Residential		100%	
Score Contribution	This credit contributes 7.5% towards the category score.		
Criteria	Do all paints, sealants and adhesives meet the maximum total indoor pollutant emission limits?		
Question	Criteria Achieved ?		
Project	Yes		
Criteria	Does all carpet meet the maximum total indoor pollutant emission limits?		
Question	Criteria Achieved ?		
Project	Yes		

Criteria	Does all engineered wood meet the maximum total indoor pollutant emission limits?
Question	Criteria Achieved ?
Project	Yes

Transport Overall contribution 0%

1.1 Bicycle Parking - Residential		0%	
Score Contribution	This credit contributes 16.5% towards the category score.		
Criteria	How many secure and undercover bicycle spaces are there per dwelling for residents?		
Question	Bicycle Spaces Provided ?		
Apartment	0		

1.2 Bicycle Parking - Residential Visitor		0%	
Score Contribution	This credit contributes 16.5% towards the category score.		
Criteria	How many secure bicycle spaces are there per 5 dwellings for visitors?		
Question	Visitor Bicycle Spaces Provided ?		
Apartment	0		

1.3 Bicycle Parking - Convenience Residential		N/A	⊘ Disabled
This credit is disabled	Credit 1.1 must be achieved first.		

1.4 Bicycle Parking - Non-Residential		0%	
Score Contribution	This credit contributes 6.5% towards the category score.		
Criteria	Have the planning scheme requirements for employee bicycle parking been exceeded by at least 50% (or a minimum of 2 where there is no planning scheme requirement)?		
Question	Criteria Achieved ?		
Office Building	No		
Question	Bicycle Spaces Provided ?		
Office Building	0		

1.5 Bicycle Parking - Non-Residential Visitor		0%	
Score Contribution	This credit contributes 3.2% towards the category score.		
Criteria	Have the planning scheme requirements for visitor bicycle parking been exceeded by at least 50% (or a minimum of 1 where there is no planning scheme requirement)?		
Question	Criteria Achieved ?		
Office Building	No		
Question	Bicycle Spaces Provided ?		
Office Building	-		

1.6 End of Trip Facilities - Non-Residential		N/A	⊘ Disabled
This credit is disabled	Credit 1.4 must be complete first.		

2.1 Electric Vehicle Infrastructure		0%	
Score Contribution	This credit contributes 22.9% towards the category score.		
Criteria	Are facilities provided for the charging of electric vehicles?		
Question	Criteria Achieved ?		
Project	No		

2.2 Car Share Scheme	0%
Score Contribution	This credit contributes 11.5% towards the category score.
Criteria	Has a formal car sharing scheme been integrated into the development?
Question	Criteria Achieved ?
Project	No

2.3 Motorbikes / Mopeds	0%
Score Contribution	This credit contributes 11.5% towards the category score.
Criteria	Are a minimum of 5% of vehicle parking spaces designed and labelled for motorbikes (must be at least 5 motorbike spaces)?
Question	Criteria Achieved ?
Project	No

Waste

Overall contribution 4%

1.1 - Construction Waste - Building Re-Use	0%
Score Contribution	This credit contributes 33.3% towards the category score.
Criteria	If the development is on a site that has been previously developed, has at least 30% of the existing building been re-used?
Question	Criteria Achieved ?
Project	No

2.1 - Operational Waste - Food & Garden Waste	100%
Score Contribution	This credit contributes 33.3% towards the category score.
Criteria	Are facilities provided for on-site management of food and garden waste?
Question	Criteria Achieved ?
Project	Yes

2.2 - Operational Waste - Convenience of Recycling	100%
Score Contribution	This credit contributes 33.3% towards the category score.
Criteria	Are the recycling facilities at least as convenient for occupants as facilities for general waste?
Question	Criteria Achieved ?
Project	Yes

Urban Ecology Overall contribution 3%

1.1 Communal Spaces		28%
Score Contribution	This credit contributes 11.5% towards the category score.	
Criteria	Is there at least the following amount of common space measured in square meters : * 1m² for each of the first 50 occupants * Additional 0.5m² for each occupant between 51 and 250 * Additional 0.25m² for each occupant above 251?	
Question	Common space provided	
Apartment	0.0 m²	
Office Building	92.0 m²	
Output	Minimum Common Space Required	
Apartment	66 m²	
Office Building	80 m²	
2.1 Vegetation		75%
Score Contribution	This credit contributes 45.9% towards the category score.	
Criteria	How much of the site is covered with vegetation, expressed as a percentage of the total site area?	
Question	Percentage Achieved ?	
Project	26 %	
2.2 Green Roofs		0%
Score Contribution	This credit contributes 11.5% towards the category score.	
Criteria	Does the development incorporate a green roof?	
Question	Criteria Achieved ?	
Project	No	
2.3 Green Walls and Facades		0%
Score Contribution	This credit contributes 11.5% towards the category score.	
Criteria	Does the development incorporate a green wall or green façade?	
Question	Criteria Achieved ?	
Project	No	
2.4 Private Open Space - Balcony / Courtyard Ecology		100%
Score Contribution	This credit contributes 8.2% towards the category score.	
Criteria	Is there a tap and floor waste on every balcony / in every courtyard?	
Question	Criteria Achieved ?	
Apartment	Yes	

3.1 Food Production - Residential		0%
Score Contribution	This credit contributes 8.2% towards the category score.	
Criteria	What area of space per resident is dedicated to food production?	
Question	Food Production Area	
Apartment	0.0 m²	
Output	Min Food Production Area	
Apartment	21 m²	

3.2 Food Production - Non-Residential		0%
Score Contribution	This credit contributes 3.2% towards the category score.	
Criteria	What area of space per occupant is dedicated to food production?	
Question	Food Production Area	
Office Building	0.0 m²	
Output	Min Food Production Area	
Office Building	28 m²	

Innovation

Overall contribution 0%

1.1 Innovation		0%
Score Contribution	This credit contributes 100.0% towards the category score.	
Criteria	What percentage of the Innovation points have been claimed (10 points maximum)?	

Disclaimer

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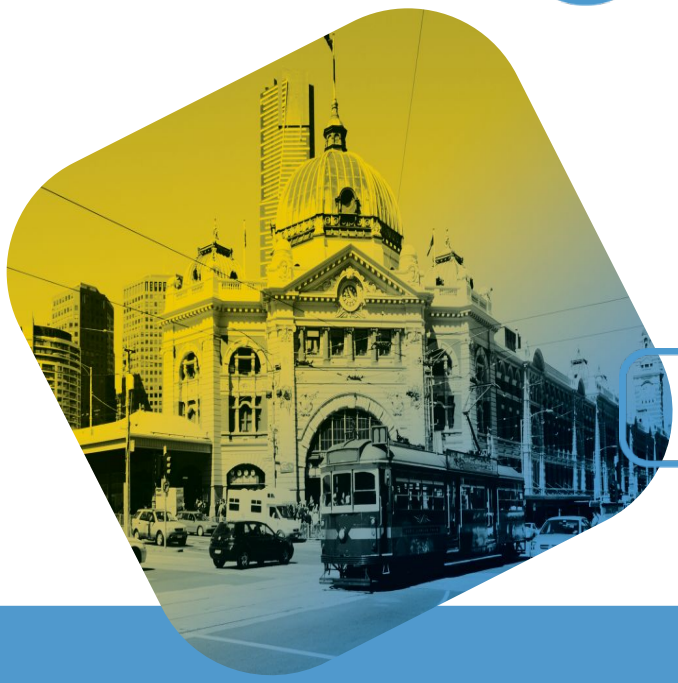
37°56'33.7"S
145°00'10.1"E

Mixed-use Development: 8-10 Linacre Road, Hampton VIC



Traffic and Transport Assessment

4 November 2021

[redacted]

IMP2109009TTA01F01

Impact

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Appendices

1 IMPACT® Snap Shot

Development Proposition

Location	37°56'33.7"S 145°00'10.1"E	8-10 Linacre Road, Hampton
Use		Mixed-use Development
Yield		A Medical Clinic - 1,379 sq.m & Eight (8) specialists 35 residential dwellings (24 x 2-bed dwellings and 11 x 3-bed dwellings)
Car Parking		104 Spaces Provided
Bicycle Parking		20 spaces provided

Statutory Controls

Particular Provisions

Clause 52.06 - Car Parking

Requirement vs Provision	26 spaces for medical component required. 26 spaces provided. 46 resident and seven (7) visitor spaces required for residential component. 71 resident and seven (7) visitor spaces provided.
Adequacy of Provision	Provision meets statutory requirement and is considered appropriate.
Design	The proposed car park design has been assessed and determined to have satisfied relevant design guidelines.

Clause 52.34 - Bicycle Facilities

Requirement vs Provision	14 spaces required. 20 spaces provided.
Adequacy of Provision	This provision exceeds the statutory requirement and is therefore considered satisfactory.
Design	Assessed against Clause 52.34 and AS2890.3:2015 and determined to have satisfied the relevant design guidelines.

Traffic Considerations

Traffic Impact	The proposal is conservatively estimated to generate up to 98 vehicle movements during the peak periods. As a collector road (with an environmental capacity for up to 700 vehicles per hour) this level of additional traffic can be comfortably absorbed by Linacre Road, with minimal impact to operation or amenity.

Conclusion

- The proposed development satisfies relevant statutory requirements and where the statutory requirements are not explicitly met, the development is deemed to satisfy decision guidelines that allow for a reduction or waiver of the said requirement.
- There are no traffic and transport grounds that should prohibit the issue of a permit.

2 Introduction

2.1 Engagement

An application was previously lodged to develop the site at 10 Linacre Road, Hampton as a mixed-use medical centre / residential apartment building. A Request for Further Information (RFI) - 5/2021/331/1 was issued in response to this application, seeking additional clarity and details on various items.

Since this application was lodged however, the applicant has also purchased the land at 8 Linacre Road (adjacent the previous site).

Accordingly, an amendment to this application is now being proposed to also include this land, i.e. an application for 8-10 Linacre Road, Hampton VIC.

IMPACT® have been engaged by Legacy Project Management (on behalf of the applicant) to undertake a Traffic and Transport Impact Assessment for the amended application.

2.2 Scope of Engagement

This Traffic and Transport Impact Assessment has been prepared to accompany town planning submission for the amendment as well as respond to the previous Council RFI.

This RFI flagged concerns and requested additional details / clarity on a number of different items, including several relevant to the traffic design and parking provisions. This assessment intends to respond to / address the items contained within that RFI response as relevant.

In preparing this assessment we have referenced the following:

- Development plans prepared by Ewert Leaf;
- Bayside City Council Scheme, specifically:
  - Clause 52.06 - Car Parking
  - Clause 52.34 - Bicycle Facilities
- Australian Standard AS2890.1:2004, AS2890.2:2018 and AS2890.6:2009; and
- Council RFI 5/2021/331/1 - 10 Linacre Road, Hampton.

3 Existing Conditions

3.1 Location

The subject site is located south of Linacre Road as shown in Figure 1 and Figure 2 respectively.

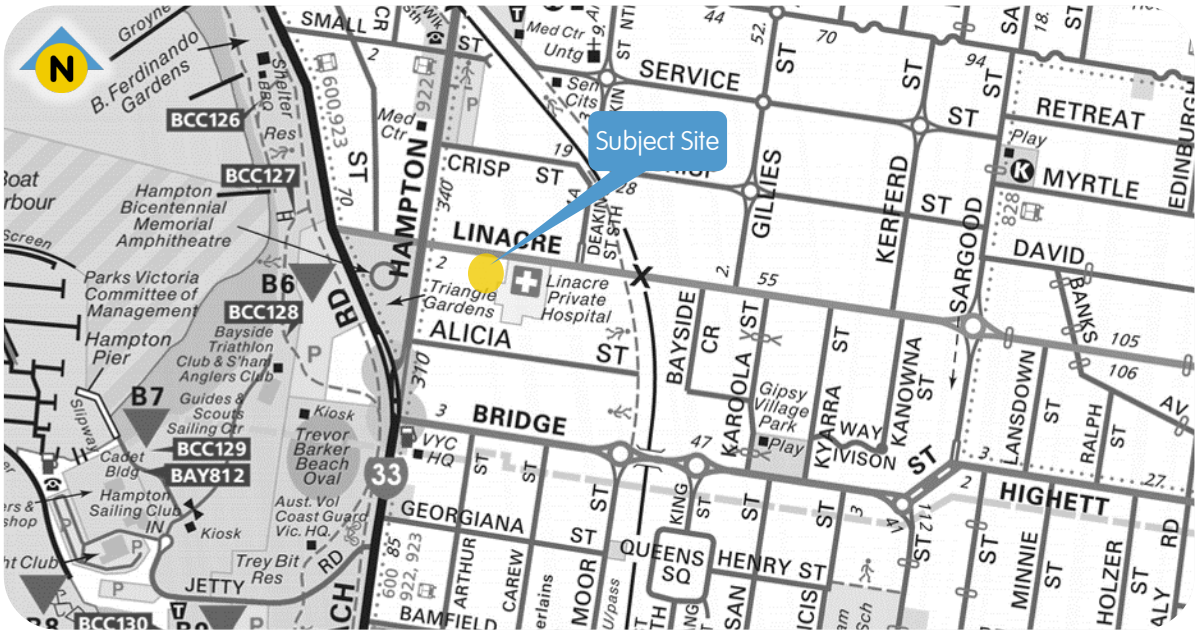


Figure 1 Location of Subject Site

Figure 2 Aerial Photography (Nearmap Aerial dated 10 March 2021)

The site is irregular in shape with a frontage of approximately 43 metres provided to Linacre Road.

Land use in the area is predominately residential with Public Park and Recreation Zone (PPRZ) located approximately 115m west of the site.

3.2 Planning Zone

The subject site is located within the General Residential Zone 2 (GRZ2) as illustrated in Figure 3.

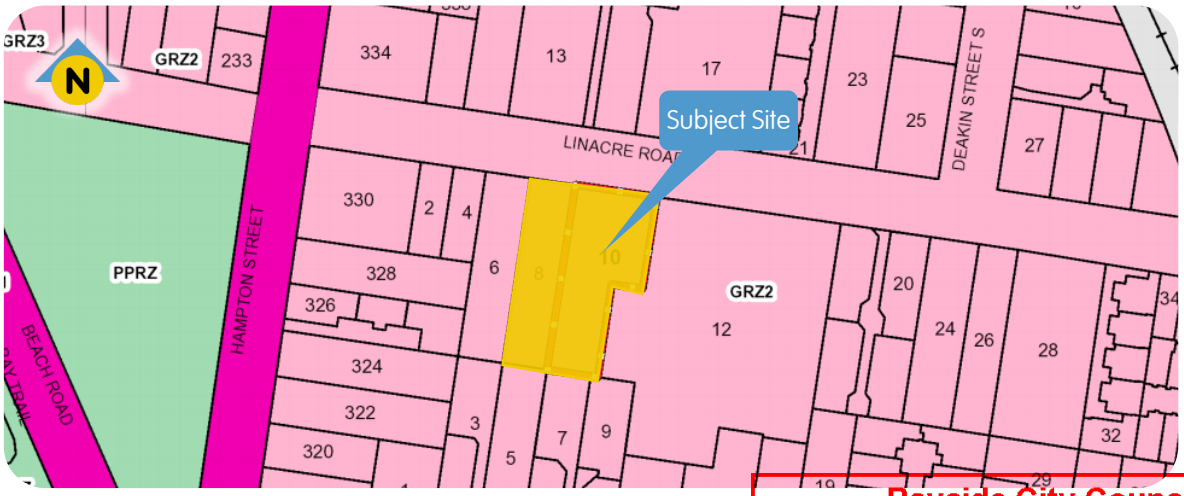


Figure 3 Land Use Planning Zone

The purpose of this zone is to encourage a diversity of housing types and housing growth particularly in locations offering good access to services and transport.

3.3 Road Network

3.3.1 Linacre Road

Classified as a Local Road, Linacre Road is aligned in an east-west direction and is bounded to the east by Bluff Road and to the west by Beach Road.

Along the site frontage, Linacre Road comprises of an approximate 9.0 metre wide road pavement that provides for 1 lane of traffic in each direction with kerb side parallel parking along southern side restricted to '4P 8am-4pm' and a 90-degree parking on northern side restricted to '2P 8am-5pm'.

A posted speed limit of 50 km/h applies to Linacre Road along the site frontage with paved footpaths for pedestrian connectivity provided on both sides.

A typical cross-section of Linacre Road is illustrated in Figure 4.

Figure 4 Views of Linacre Road facing east adjacent the subject site

Notably, Linacre Road is listed within the Bayside City Council Road Register as a Local Collector Road, which has an environmental capacity to cater for 3,000 - 7,000 vehicle per day.

3.4 Public Transport

The site has good access to public transport options. Specifically, the site is located only 550 metres walking distance from Hampton Station, and less than 150 metres to the nearest bus stop, as summarised in Table 1 and shown diagrammatically in Figure 5

Table 1 Public Transport Options

Service	Station / Route	Description	Walking Distance (from subject site)
Train	Hampton Station	Sandringham Line	550m
Bus	922	Southland SC - St Kilda Station	140m
	923 / 600	Southland SC - St Kilda Station	400m
	708	Hampton Station - Carrum Station via Southland	650m
	828	Hampton - Berwick Station via Southland SC	650m

3.5 Bicycle Network

The site has excellent access to the Melbourne's extensive bicycle network with the off-road shared path accessible along Beach Road only a short distance west of the site. Additionally, various on-road bike lanes and informal bike routes located proximate to the site provide connection to extensive bicycle network in all directions as illustrated in Figure 5.

Figure 5 City of Bayside - TravelSmart Map

4 Development Proposition

4.1 Use and Yield

It is planned to develop the site into a mixed-use Medical Clinic and residential apartment building. Specifically, the proposal contemplates 11 x 3-bed dwellings & 24 x 2-bed dwellings and a Medical Clinic Centre with eight (8) practitioners operating within total NLA of 1,379 sq.m.

4.2 Parking

Parking for the proposed development is provided within two (2) basement level car parks, with a total of 104 spaces provided.

4.3 Access Arrangements

Access to the basement car park is proposed via a double width crossover from Linacre Road, as illustrated in Figure 6.

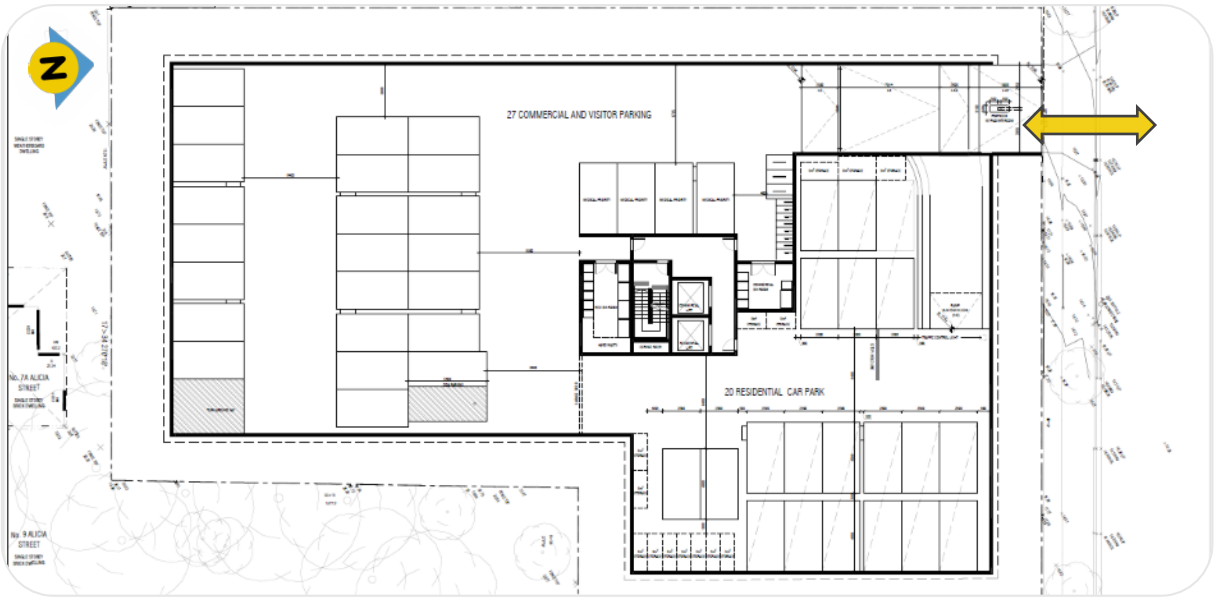


Figure 6 Proposed Access Locations

4.4 Bicycle Facilities

A total of 14 bicycle parking spaces are provided within the basement for both residents and staff of the medical clinic. An additional six (6) spaces are proposed at ground level for use by visitors of the development.

4.5 Waste Collection

A separate and secured waste rooms are provided for both Residential and Medical component at basement level 1. These enclosures will be utilised for storage of all development-generated landfill garbage, food organics and recyclable waste.

A private waste collection will be utilised to service the proposed development.

5 Statutory Controls

The relevant traffic and transportation Statutory Controls are:

- Clause 52.06 - Car Parking
- Clause 52.34 - Bicycle Facilities

5.1 Clause 52.06 - Car Parking

5.1.1 Purpose

The purpose of Clause 52.06 is:

- To ensure that car parking is provided in accordance with the Municipal Planning Strategy and Planning Policy Framework.
- To ensure the provision of an appropriate number of car parking spaces having regard to the demand likely to be generated, the activities on the land and the nature of the locality.
- To support sustainable transport alternatives to the motor car.
- To promote the efficient use of car parking spaces through the consolidation of car parking facilities.
- To ensure that car parking does not adversely affect the amenity of the locality.
- To ensure that the design and location of car parking is of a high standard, creates a safe environment for users and enables easy and efficient use.

5.1.2 Provision and Design Requirements

To satisfy the above purpose, Clause 52.06 of the Bayside City Council Planning Scheme specifies requirements relating to the provision and design of car parking as follows:

5.1.3 Car Parking Provision Requirements - Clause 52.06-5

Table 1 to Clause 52.06-05 of the Bayside City Council Planning Scheme provides rates for various land uses. The site is not located within the PPTN area and hence Column A rates from Table 1 apply.

The following rates are therefore applicable to the various uses contemplated on the site:

- **Residents** — One (1) space to each two (2) bedroom dwelling, plus Two (2) spaces to each three (3) or more bedroom dwellings
- **Residents Visitors** — One (1) space for every five (5) dwellings
- **Medical Clinic** — Five (5) spaces for the first specialist / practitioner; and Three (3) spaces for every specialist thereafter.

Application of the above rates reveals a requirement for **46 resident spaces** and **seven (7) visitor spaces** for the residential component, while the medical clinic component (with eight (8) practitioners operating out of the medical clinic) will trigger a requirement for **26 spaces.** Therefore, a total of **79 spaces** are required on site.

5.1.4 Adequacy of Proposed Provision

The development provides **104 car spaces** on-site distributed as follows:

- Resident parking — 71 spaces (at least two per dwelling);
- Medical Clinic — 26 spaces
- Residential Visitors — 7 spaces.

Based on the foregoing, the proposed provision satisfies the Planning Scheme requirements and is considered appropriate.

5.1.5 Design Standard for Car Parking - Clause 52.06 - 9

We have assessed the proposed car parking design and access arrangements against the requirements of Clause 52.06-9 of the Bayside City Council Planning Scheme. Our findings are as follows:

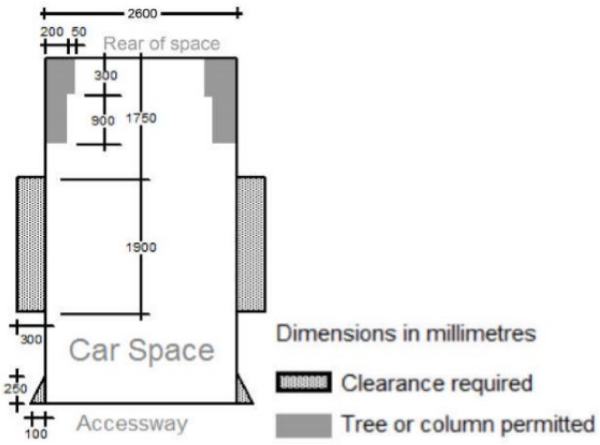
5.1.5.1 Design Standard 1 - Accessways

Requirements		Design Response	Status
Accessways Must:			
1	Be at least 3 metres wide.	Accessway is at least 3 metres wide.	**Comply**
2	Have an internal radius of at least 4 metres at changes of direction or intersection or be at least 4.2 metres wide.	The accessway is at least 4.2m at changes of direction.	**Comply**
3	Allow vehicles parked in the last space of a dead-end accessway in public car parks to exit in a forward direction with one manoeuvre.	Not a public car space.	**N/A**
4	Provide at least 2.1 metres headroom beneath overhead obstructions, calculated for a vehicle with a wheel base of 2.8 metres.	A minimum clearance height of at least 2.1 metres will be available throughout the car park areas and along the accessways in accordance with Council design standards.	**Comply**
5	If the accessway serves four or more car spaces or connects to a road in a Road Zone, the accessway must be designed so that cars can exit the site in a forward direction.	The accessway is designed so that the cars can exit the site in a forward direction.	**Comply**
6	Provide a passing area at the entrance at least 6.1 metres wide and 7 metres long if the accessway serves ten or more car parking spaces and is either more than 50 metres long or connects to a road in a Road Zone.	An inbound and outbound lane has been provided at the site boundary - swept paths attached demonstrate concurrent access.	**N/A - Comply**
7	Have a corner splay or area at least 50 percent clear of visual obstructions extending at least 2 metres along the frontage road from the edge of an exit lane and 2.5 metres along the exit lane from the frontage, to provide a clear view of pedestrians on the footpath of the frontage road. The area clear of visual obstructions may include an adjacent entry or exit lane where more than one lane is provided, or adjacent landscaped areas, provided the landscaping in those areas is less than 900mm in height.	Structures and landscaping within the visual site splay areas to be kept below 900mm in height or at least be 50% permeable.	**Comply**
8	If an accessway to four or more car parking spaces is from land in a Road Zone, the access to the car spaces must be at least 6 metres from the road carriageway.	Access is not from a road zone.	**N/A**
9	If entry to the car spaces is from a road, the width of the accessway may include the road.	N/A	**N/A**

5.1.5.2 Design Standard 2 - Car Parking Spaces

	Requirements	Design Response	Status
1	Car parking spaces and accessways must have the minimum dimensions in Table 2 of Clause 52.06-9.	All standard car parking spaces are designed with minimum dimensions as outlined in Table 2 of Clause 52.06-9.	**Comply**
2	A wall, fence, column, tree, tree guard or any other structure that abuts a car space must not encroach into the area marked 'clearance required' on Diagram 1 other than: A column, tree or tree guard, which may project into a space if it is within the area marked 'tree or column permitted' on Diagram 1 of the design standard. A structure, which may project into the space if it is at least 2.1 metres above the space.	Adequate clearance to adjacent obstructions is provided. Specifically, all columns immediately adjacent car spaces will be located between 0.25m - 1.25m from the access aisle, in accordance with Design Standard 2.	**Comply**
3	Car spaces in garages or carports must be at least 6 metres long and 3.5 metres wide for a single space and 5.5 metres wide for a double space measured inside the garage or carport.	No garages proposed.	**N/A**
4	Where parking spaces are provided in tandem (one space behind another) an additional 500mm in length must be provided between each space.	An additional 500mm in length is provided between tandem spaces.	**Comply**
5	Where two or more car parking spaces are provided for a dwelling, at least one space must be under cover.	All car parking spaces are undercover.	**Comply**
6	Disabled car parking spaces must be designed in accordance with AS 2890.6-2009 (disabled) and the Building Code of Australia. Disabled car parking spaces may encroach into an accessway width specified in Table 2 by 500mm.	Disabled car parking spaces are designed in accordance with AS289.6-2009 (Disabled) and the Building Code of Australia.	**Comply**

Angle of car parking spaces to access way	Accessway width	Car space width	Car space length
Parallel	3.6 m	2.3 m	6.7 m
45°	3.5 m	2.6 m	4.9 m
60°	4.9 m	2.6 m	4.9 m
90°	6.4 m	2.6 m	4.9 m
	5.8 m	2.8 m	4.9 m
	5.2 m	3.0 m	4.9 m
	4.8 m	3.2 m	4.9 m



Bayside City Council
Planning and Environment Act 1987

ADVERTISED PLAN

Planning Application No.: 5/2021/331/1

Date: 29/11/2021

5.1.5.3 Design Standard 3 - Gradients

	Requirements	Design Response	Status
1	Accessway grades must not be steeper than 1:10 (10 per cent) within 5 metres of the frontage to ensure safety for pedestrians and vehicles. The design must have regard to the wheelbase of the vehicle being designed for; pedestrian and vehicular traffic volumes; the nature of the car park; and the slope and configuration of the vehicle crossover at the site frontage. This does not apply to accessways serving three dwellings or less.	A grade of 1:10 is proposed for the first five metres into the subject site.	**Comply**
2	Ramps (except within 5 metres of the frontage) must have the maximum grades as outlined in Table 3 and be designed for vehicles travelling in a forward direction.	Ramp is designed with grades as outlined in Table 3 with a maximum grade of 1:4 - measured along the inside radius of the ramp	**Comply**
3	Where the difference in grade between two sections of ramp or floor is greater than 1:8 (12.5 per cent) for a summit grade change, or greater than 1:6.7 (15 per cent) for a sag grade change, the ramp must include a transition section of at least 2 metres to prevent vehicles scraping or bottoming.	An appropriate 1:8 transition is proposed at the bottom of the ramp to ensure vehicles do not scrape.	**Comply**
4	Plans must include an assessment of grade changes of greater than 1:5.6 (18 per cent) or less than 3 metres apart for clearances, to the satisfaction of the responsible authority.	No grade changes greater than 1:5.6 or less than 3 metres apart are proposed.	**Comply**

Type of car park	Length of ramp	Maximum grade
Public car parks	20 metres or less	1:5 (20%)
	longer than 20 metres	1:6 (16.7%)
Private or residential car parks	20 metres or less	1:4 (25%)
	longer than 20 metres	1:5 (20%)

5.1.6 Additional Design Comments

5.1.6.1 Keypad / Intercom for Visitor Access

A keypad / intercom has been provided on the 1:10 ramp section at ground floor to allow access to visitor spaces located within the basement 1 car park. A protective low kerb around the Keypad has been proposed while allowing at least 3 metre wide clearance to the wall on both side. Notwithstanding, swept path analysis attached as an Appendix A demonstrates that both B99 car and 6.4m waste truck can pass / circulate conveniently.

5.1.6.2 Blind Aisle Access

The proposal contemplates a long blind aisle within the medical centre / visitor component of the basement 1 car park.

The Australian Standard requires that where a blind aisle exceeds five bays in length, that a provision for turning be made to ensure that any vehicles unable to find a space are able to turn around and exit in a forward direction.

A turning bay has been provided at the end of this blind aisle and allows for vehicles up to B99 to turn around and exit the site.

5.1.6.3 Interbasement Access

It is proposed to utilise a single width access ramp between basement levels 1 and 2.

Accordingly, to assist in circulation, a red light / green light system with supplementary stop / hold lines is proposed on each level.

This system will alert vehicles when a car is travelling up / down from the other direction, and provide them guidance on where to prop whilst waiting for this car.

Swept paths attached as Appendix A demonstrate vehicles circulating past one another at the top and bottom of this ramp at the proposed hold lines.

5.1.6.4 Ramp Gradients

As described above, the proposed ramp sections (between Ground / B1 & B1 / B2) are proposed in accordance with the relevant standards outlined in Design Standard 3.

We note that the RFI provided for the previous application expressed concern with the proposed ramp gradients, and expressed that they must be measured along the critical inner path of the ramp.

We confirm that this is the case and that the gradients proposed are in accordance with the relevant standards. The plans attached within Appendix A demonstrate the proposed ramp grades along both the inside and outside of each of the ramp sections contemplated.

5.1.6.5 Height Clearances

A minimum height of 2.2 metres is available throughout the car park areas.

This is in accordance with the Australian Standard for Off-Street Parking for People with Disabilities (AS2890.6) and exceeds the minimum 2.1 metres clearance required by Council's Design Standard 1 (Clause 52.06-09).

Further to the above, we note that a clearance height of at least 2.5 metres will be provided above the DDA space (in accordance with AS2890.6) and 2.3 metres above the anticipated waste collection point.

5.1.7 Conclusion - Car Park Design

The proposed car park and accessways have been assessed and determined to have satisfied the relevant design guidelines.

Accordingly, the proposal satisfies the purpose of Clause 52.06, specifically:

- To ensure that the design and location of car parking is of a high standard, creates a safe environment for users and enables easy and efficient use.

5.2 Clause 52.34 - Bicycle Facilities

5.2.1 Purpose

The purpose of Clause 52.34 is to encourage cycling as a mode of transport, and provide secure, accessible and convenient bicycle parking spaces and associated shower and change facilities.

5.2.2 Provision Requirements - Clause 52.34.3

To satisfy the above purpose, Clause 52.34-3 of the Bayside City Council Planning Scheme specifies the bicycle parking provision requirements for a variety of different uses within Table 1.

Rates applicable to the proposed uses are:

Dwelling;	Resident:	1 to each 5 dwellings in developments of four (4) or more storeys
	Visitors:	1 to each 10 dwellings in developments of four (4) or more storeys
Medical Clinic	1 staff space to each 8 practitioners and 1 visitor spaces to each 4 practitioners.	

Accordingly, the site triggers a requirement to provide at least **14** bicycle parking spaces on-site (comprised of seven (7) resident spaces, one (1) staff space and six (6) visitor spaces).

5.2.3 Design Requirements

Bicycle spaces should:

- Provide a space for a bicycle of minimum dimensions of 1.7 metres in length, 1.2 metres in height and 0.7 metres in width at the handlebars.
- Be located to allow a bicycle to be ridden to within 30 metres of the bicycle parking space.
- Be located to provide convenient access from surrounding bicycle routes and main building entrances.
- Not interfere with reasonable access to doorways, loading areas, access covers, furniture, services and infrastructure.
- Not cause a hazard.
- Be adequately lit during periods of use.

An example of possible bicycle parking products designed to meet these requirements is provided attached as Appendix B.

5.2.4 Proposed Provision

The development plans show a total provision of 20 bicycle parking spaces on-site, including 14 bike spaces for residents and / or staff within basement level 1, and an additional six (6) for visitors at ground level.

This provision meets the statutory requirements and is therefore adequate.

5.2.4.1 Conclusion - Bicycle Parking

We can conclude that bicycle parking provided as part of this development satisfies the purpose of Clause 52.34, specifically:

- To encourage cycling as a mode of transport, and provide secure, accessible and convenient bicycle parking spaces.

6 Traffic Considerations

6.1 Traffic Generation

The Roads and Maritime Services of New South Wales (RMS) publication 'Guide to Traffic Generating Developments' (October 2002) suggest that medium density residential developments generate vehicle movements at the following rates:

Residential component

a. Small units and flats (up to 2 bedrooms)
   i. Daily vehicle trips: 4.0 - 5.0 per dwelling
   ii. Weekday peak hour vehicle trips 0.4 - 0.5 per dwelling
b. Larger Units and Townhouses (3 or more bedrooms):
   i. Daily vehicle trips 5.0 - 6.5 per dwelling
   ii. Weekday peak hour vehicle trips: 0.5 - 0.65 per dwelling

Conservatively adopting the higher rate for all dwellings proposed (0.65 / 6.5 per dwelling), the residential component of the development is projected to generate up to **23** vehicle trips during the peak period (and 228 per day).

Further, the following peak hour traffic movement splits were identified from the surveys:

- Am Peak
  - 20% inbound and 80% outbound
- PM Peak
  - 60% inbound and 40% outbound

On the above basis, the estimated peak hour traffic generation of the residential component of the proposed development is expected to generate:

- AM
  - 5 inbound and 18 outbound movements; and
- PM
  - 14 inbound and 9 outbound movements.

Medical Clinic

Traffic for the medical centre component is typically split into two portions, being staff and patient movements; For a medical clinic with eight (8) specialists, we could reasonably expect up to 11 staff driving to the subject site.

For the purposes of this assessment, we will assume that all the staff that drive, arrive during the AM peak period, and depart during the PM peak period, i.e.:

- 11 inbound movements (AM) and 11 outbound movements (PM).

The vehicle movements for the patient component of the site can vary greatly (depending on the type of medical centre). For the purposes of a conservative assessment, we estimate:

- Each specialist can see a maximum of 4 patients per hour (i.e., 15-minute consultations).
  - This is deemed conservative, as it includes the consultation time, wait time and time required to settle any bills;
  - Realistically, turn around times would likely exceed 15 minutes on average.

Accordingly, this translates to a traffic generation of **4 inbound** and **4 outbound** movements per practitioner (per hour).

Adopting the above rates to a medical centre with eight (8) practitioners, yields:

- 32 inbound movements per hour; and
- 32 outbound movements per hour

Combined Traffic Volumes

The site could therefore be expected a peak of up to generate 98 total combined movements during the peak periods including:

- 48 inbound and 50 outbound during AM peak; and
- 46 inbound and 52 outbound during PM peak.

Note: This conservatively assumes that all staff traffic generate movements to/from the site during the same peak as the final patient movements (and the same time as residential vehicle movements.

6.2 Traffic Impact

As above, Bayside Council Road Register lists Linacre Road as a collector road, which has an environmental capacity to cater to 3000-7000 vehicles per day (or 300-700 vehicles during peak hours).

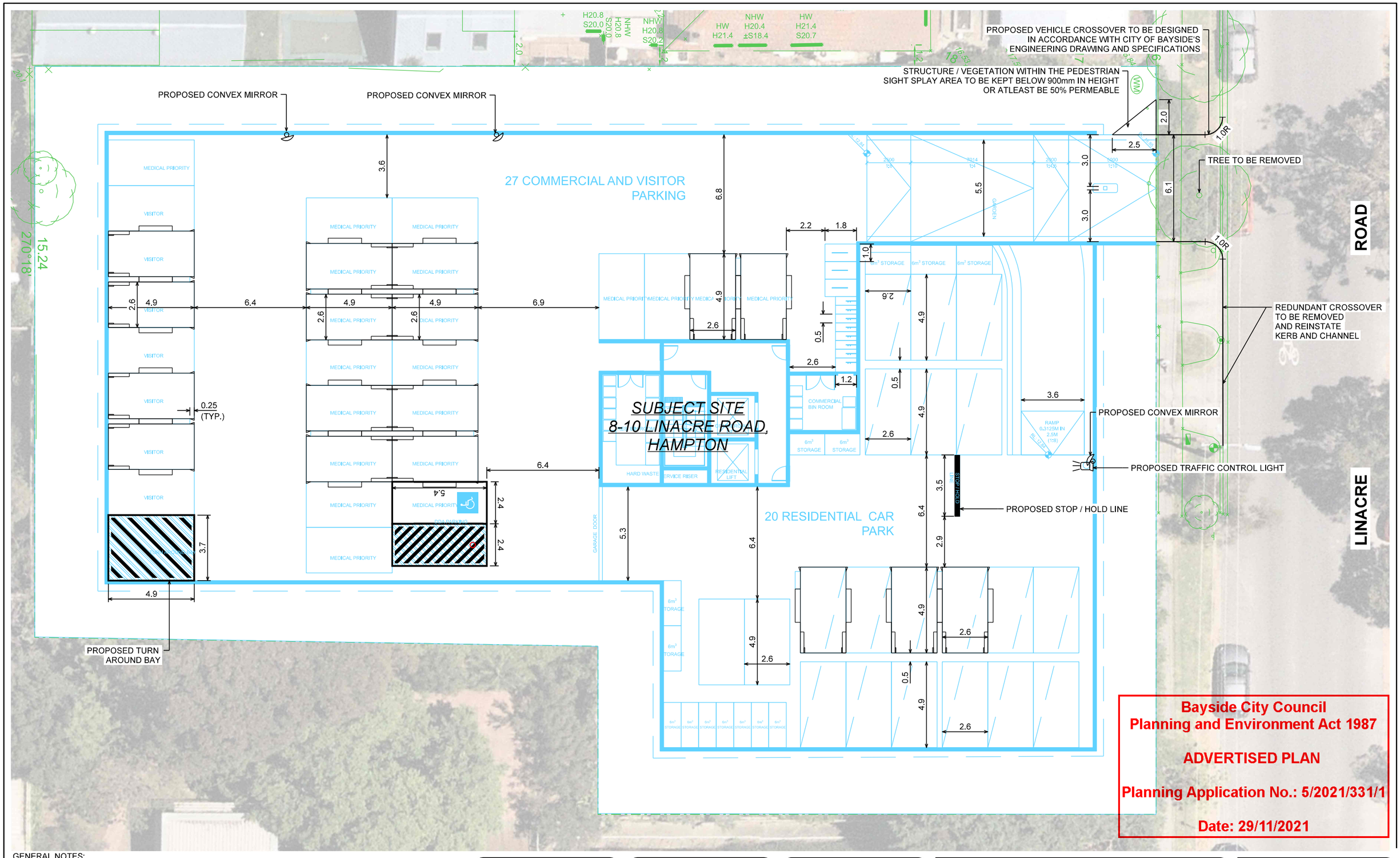
The proposed mixed-use development is expected to result in up to no more than 98 additional movements during peak periods which is less than 14% of the maximum capacity of a collector road.

It is therefore expected that Linacre Road can comfortably absorb traffic generated post development without adverse impacts to its performance, safety or local amenity.

APPENDIX A
Swept Path Analysis

Design Vehicle:

- B99 & B85 Car; and
- 6.4m Mini Rear Loader



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ADVERTISED PLAN

Planning Application No.: 5/2021/331/1

Date: 29/11/2021

GENERAL NOTES:
1. ALL DIMENSIONS ARE TO FACE OF KERB AND CHANNEL UNLESS NOTED OTHERWISE.
2. LOCAL ROADS - LINACRE ROAD (SPEED ZONE 50KM/H).
3. BASE INFORMATION FROM NEARMAP AERIAL PHOTOGRAPHY DATED 08.11.2020 AND EWART LEAF 21133-TP-BASE-PLN-B1-BASEMENT 01.dwg DATED 29.10.2021

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MELWAY ONLINE REF: MAP 76 G7

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Client
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Project
MEDICAL CLINIC AND RESIDENTIAL DEVELOPMENT
8-10 LINACRE ROAD, HAMPTON
CITY OF BAYSIDE

Date
2021-11-03

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Revision Description
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Title
SITE LAYOUT PLAN
BASEMENT 1

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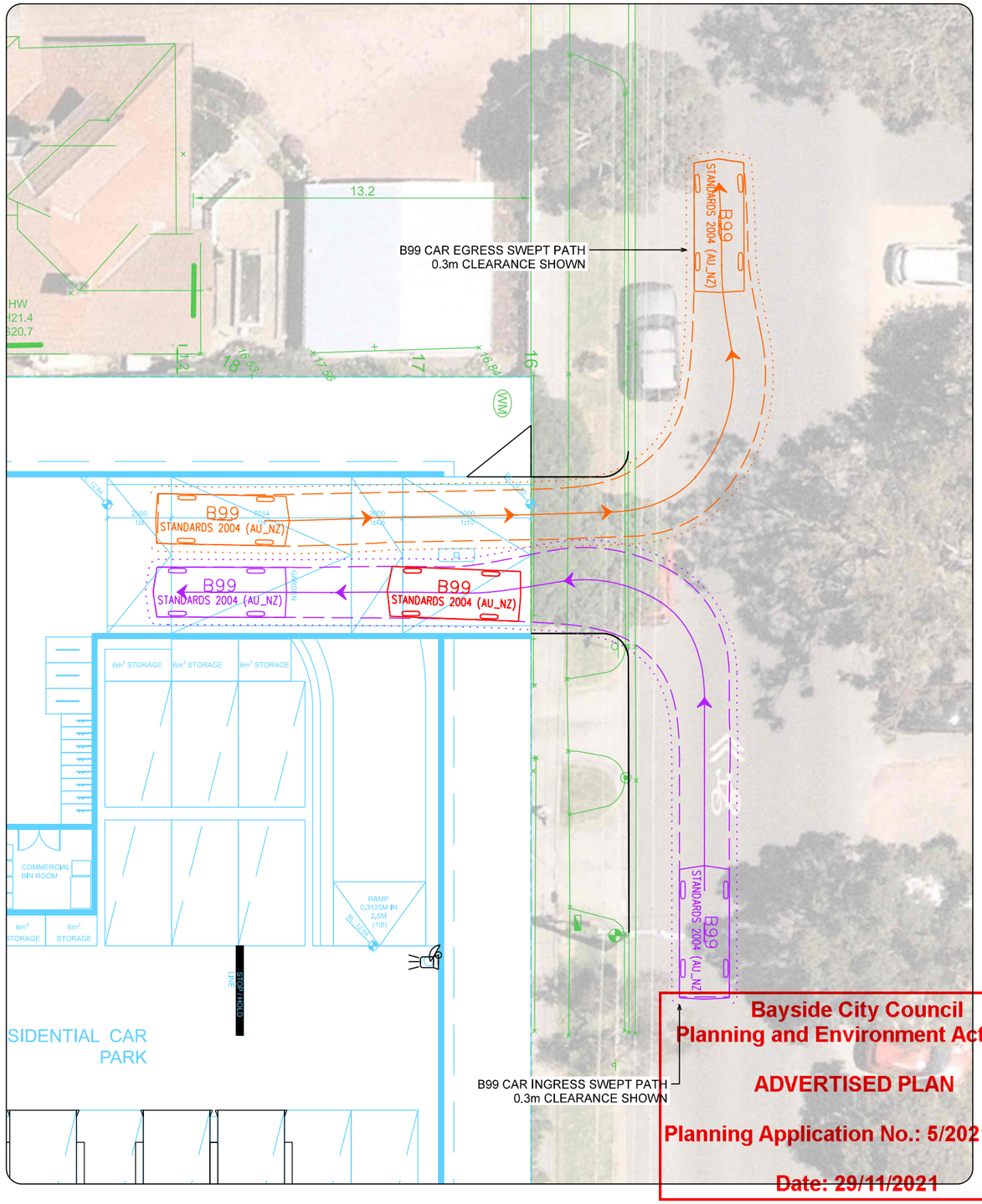

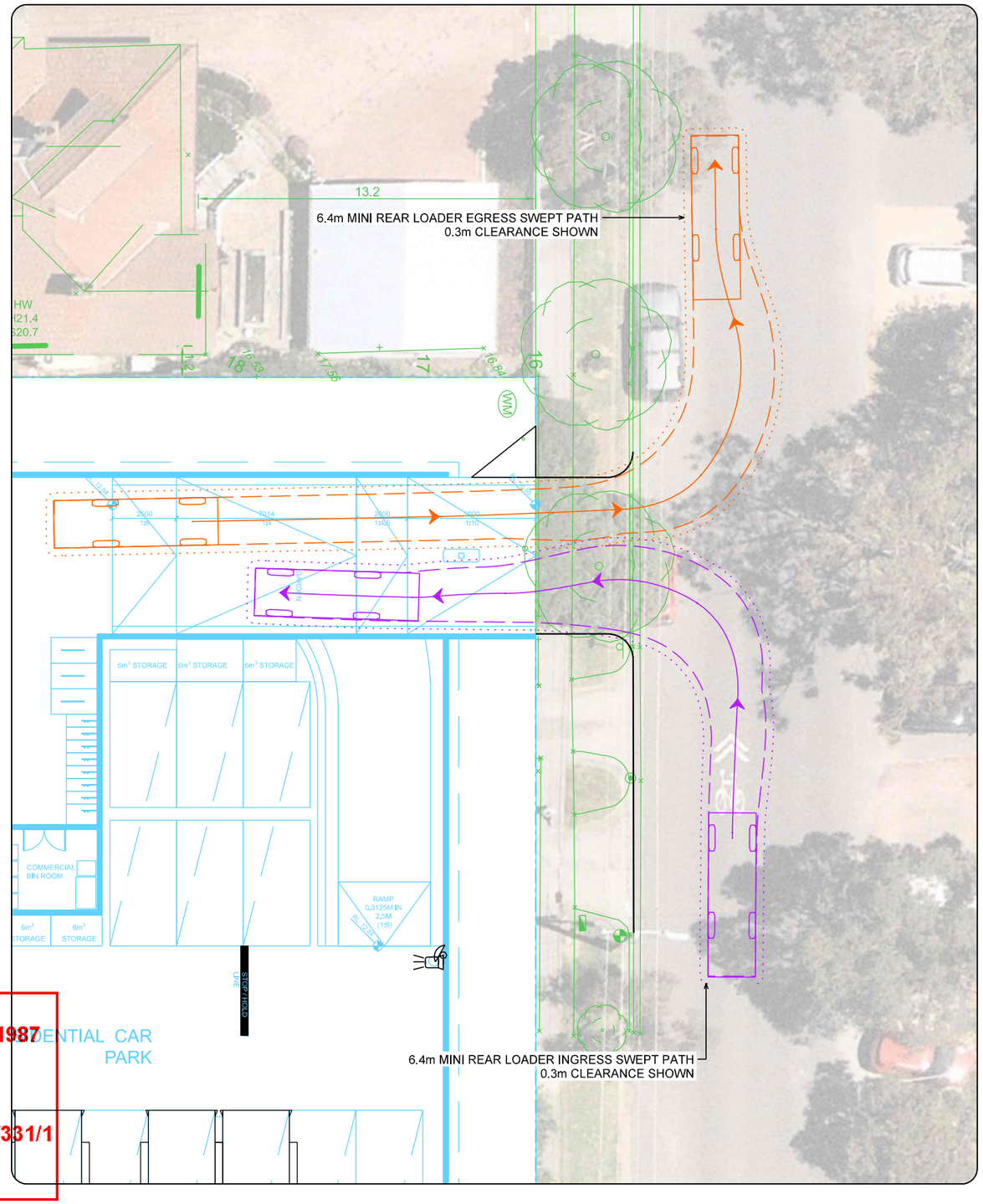

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Planning Application No.: 5/2021/331/1

Date: 29/11/2021

6.4m WASTE COLLECTION MINI REAR LOADER

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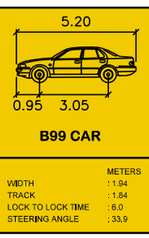
STEERING ANGLE	: 38.0



B99 CAR

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TRACK	: 1.84
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Title
SWEPT PATH ANALYSIS
B99 CAR & 6.4m MINI REAR LOADER
BASEMENT 1

Drawing Number
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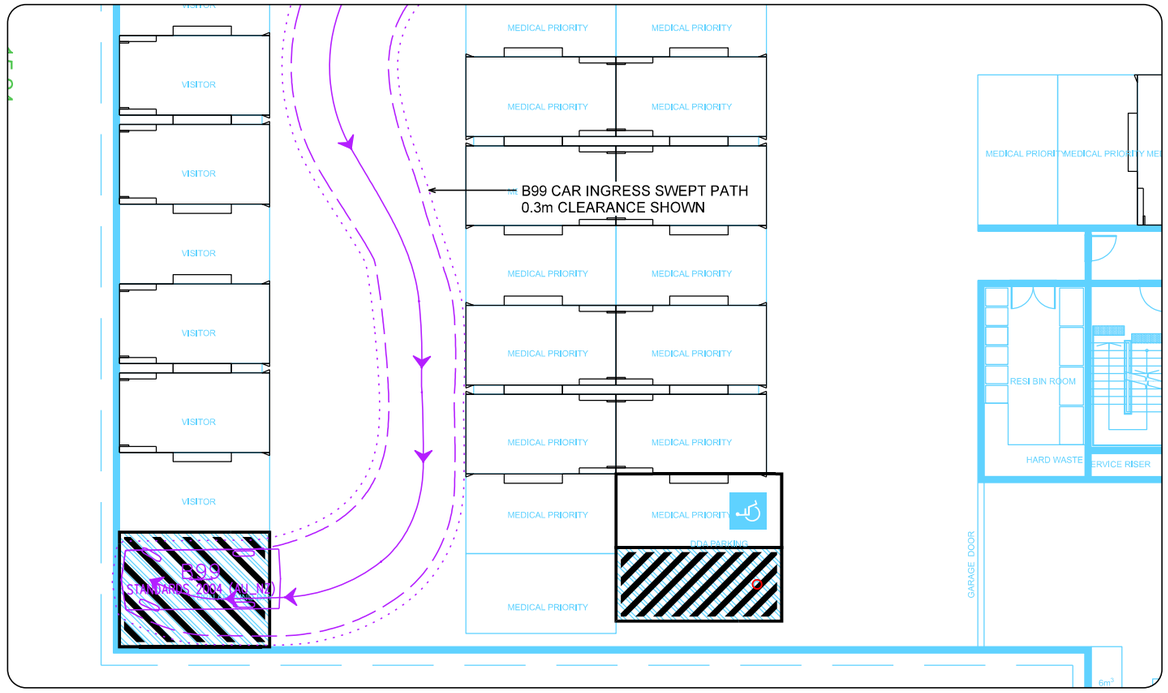

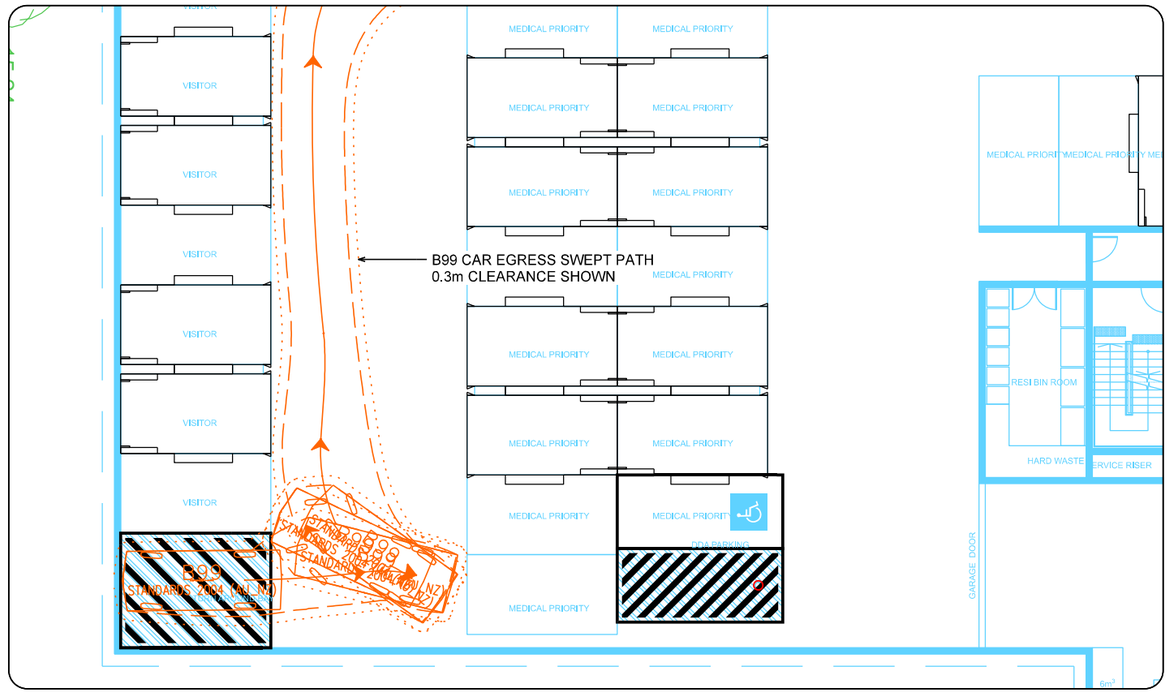

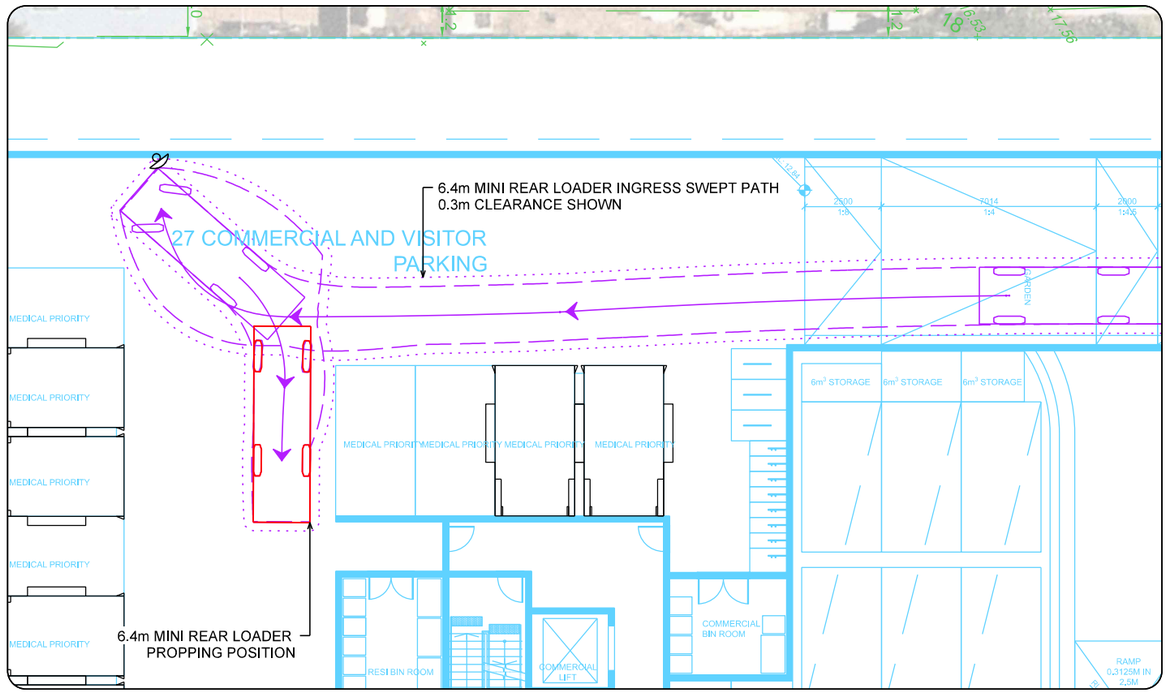

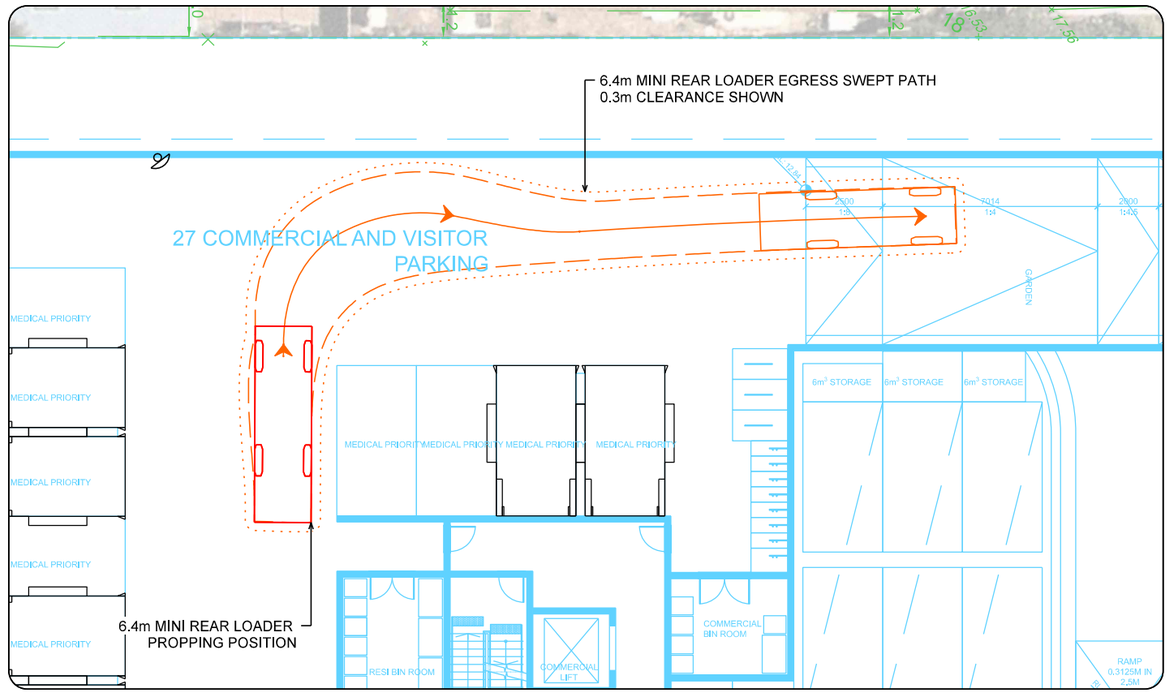

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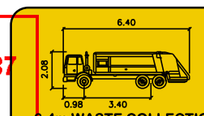

6.4m WASTE COLLECTION MINI REAR LOADER

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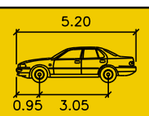

B99 CAR

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TRACK	: 1.84
LOCK TO LOCK TIME	: 6.0
STEERING ANGLE	: 33.9

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B99 CAR & 6.4m MINI REAR LOADER
BASEMENT 1

Drawing Number
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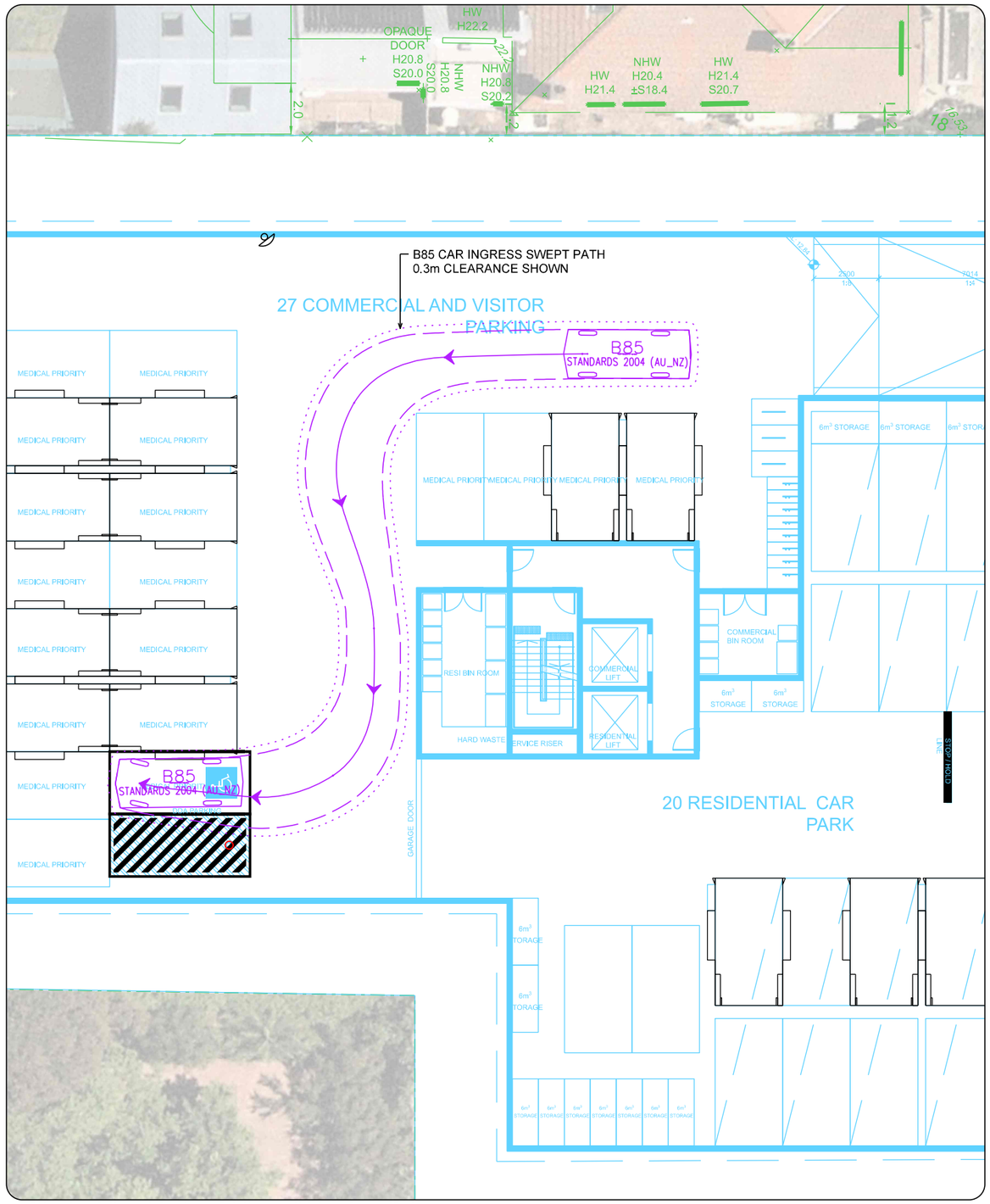

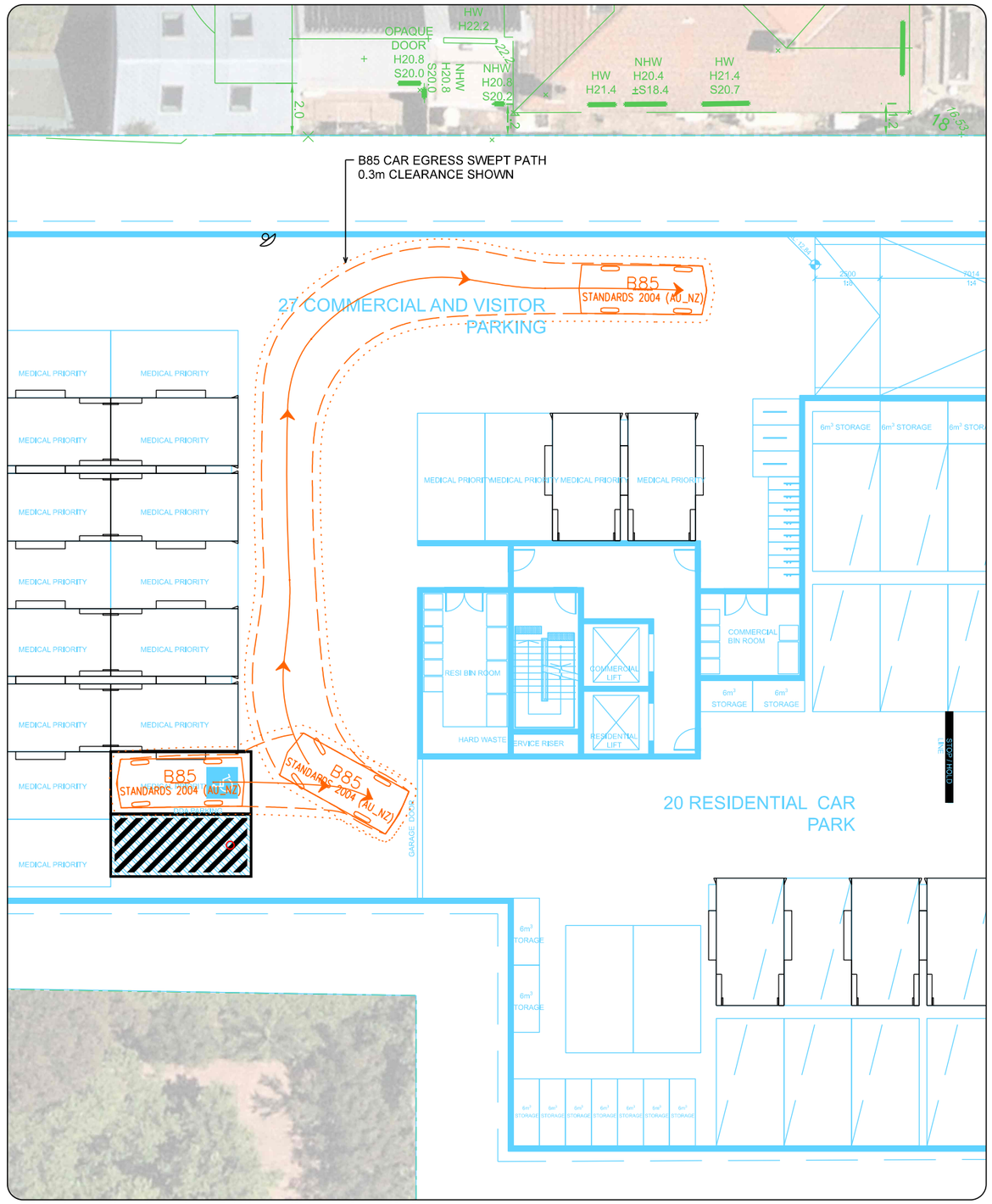

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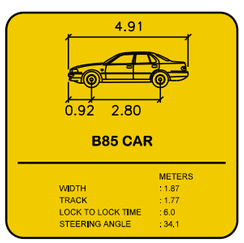

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8-10 LINACRE ROAD, HAMPTON
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Title
SWEPT PATH ANALYSIS
B85 CAR
BASEMENT 1

Drawing Number
IMP2109009 - DG-01-04

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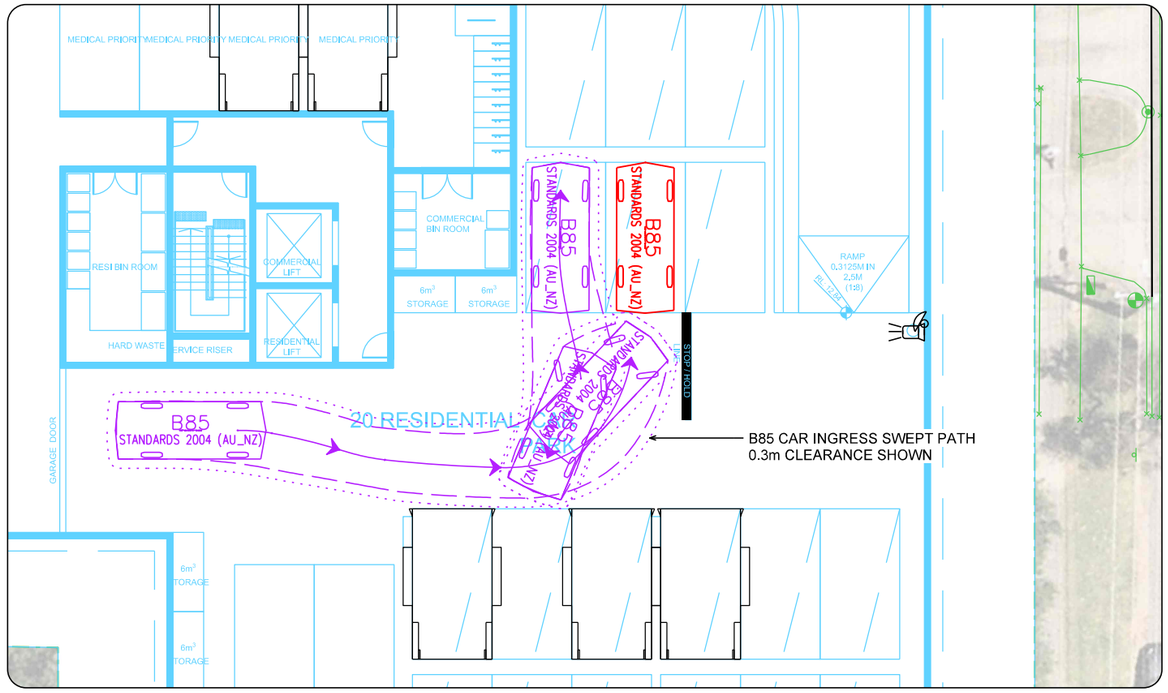

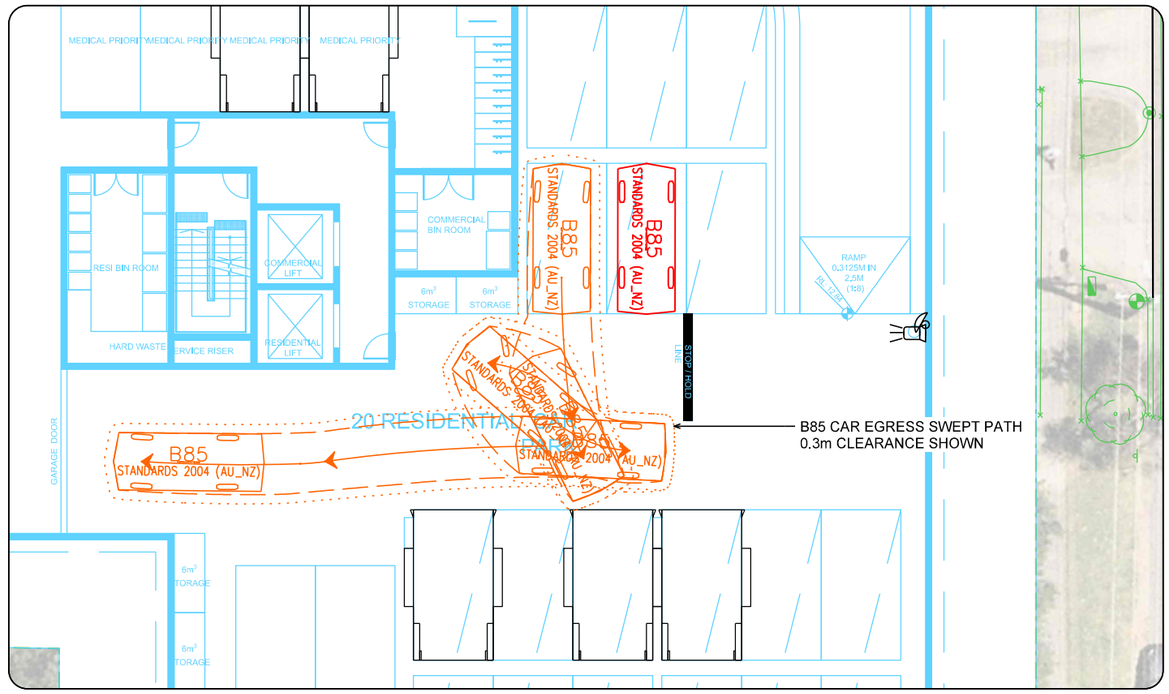

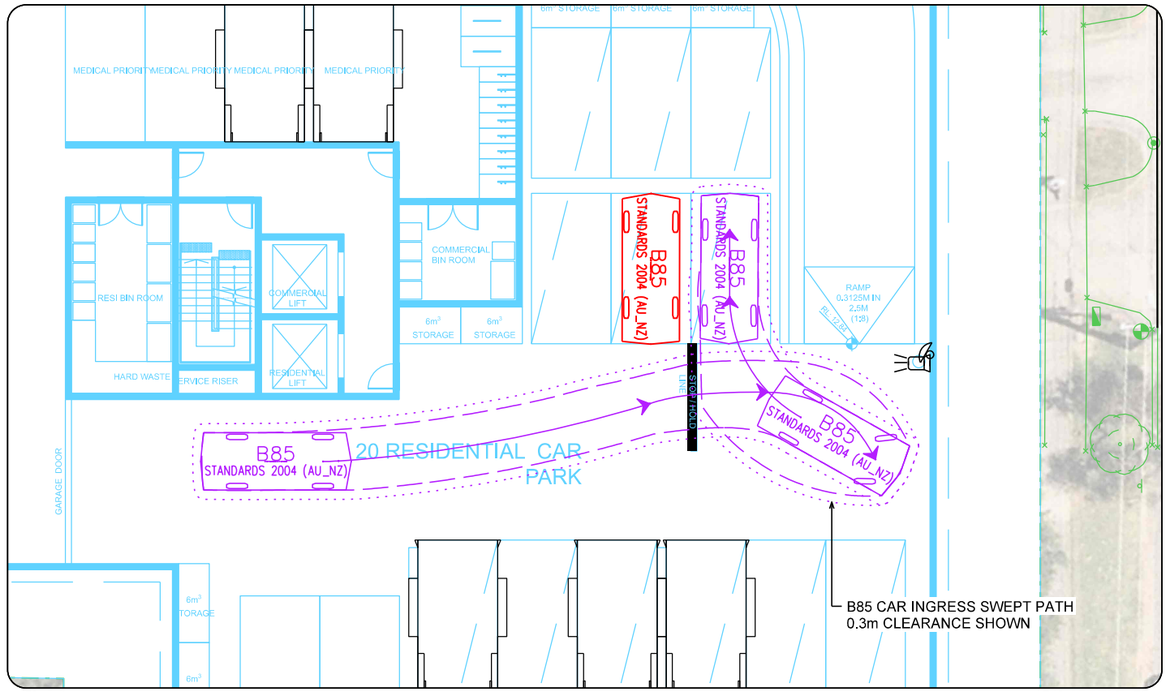

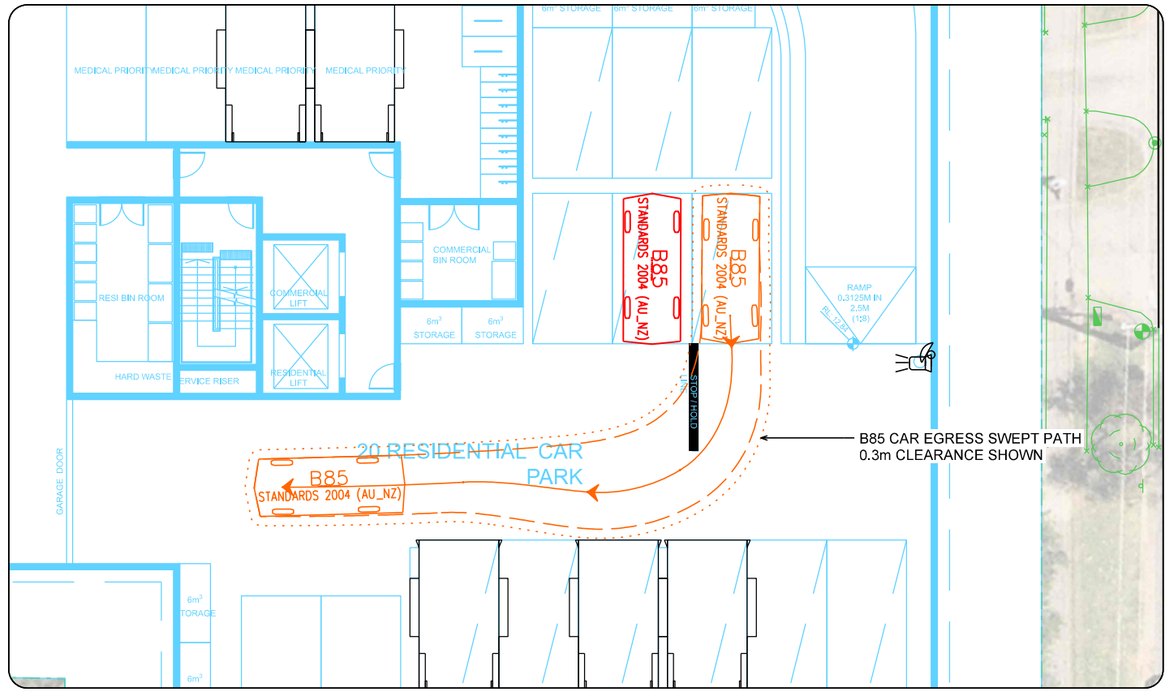

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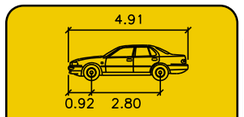

B85 CAR

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TRACK	: 1.77
LOCK TO LOCK TIME	: 6.0
STEERING ANGLE	: 34.1

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8-10 LINACRE ROAD, HAMPTON
CITY OF BAYSIDE

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Title
SWEPT PATH ANALYSIS
B85 CAR
BASEMENT 1

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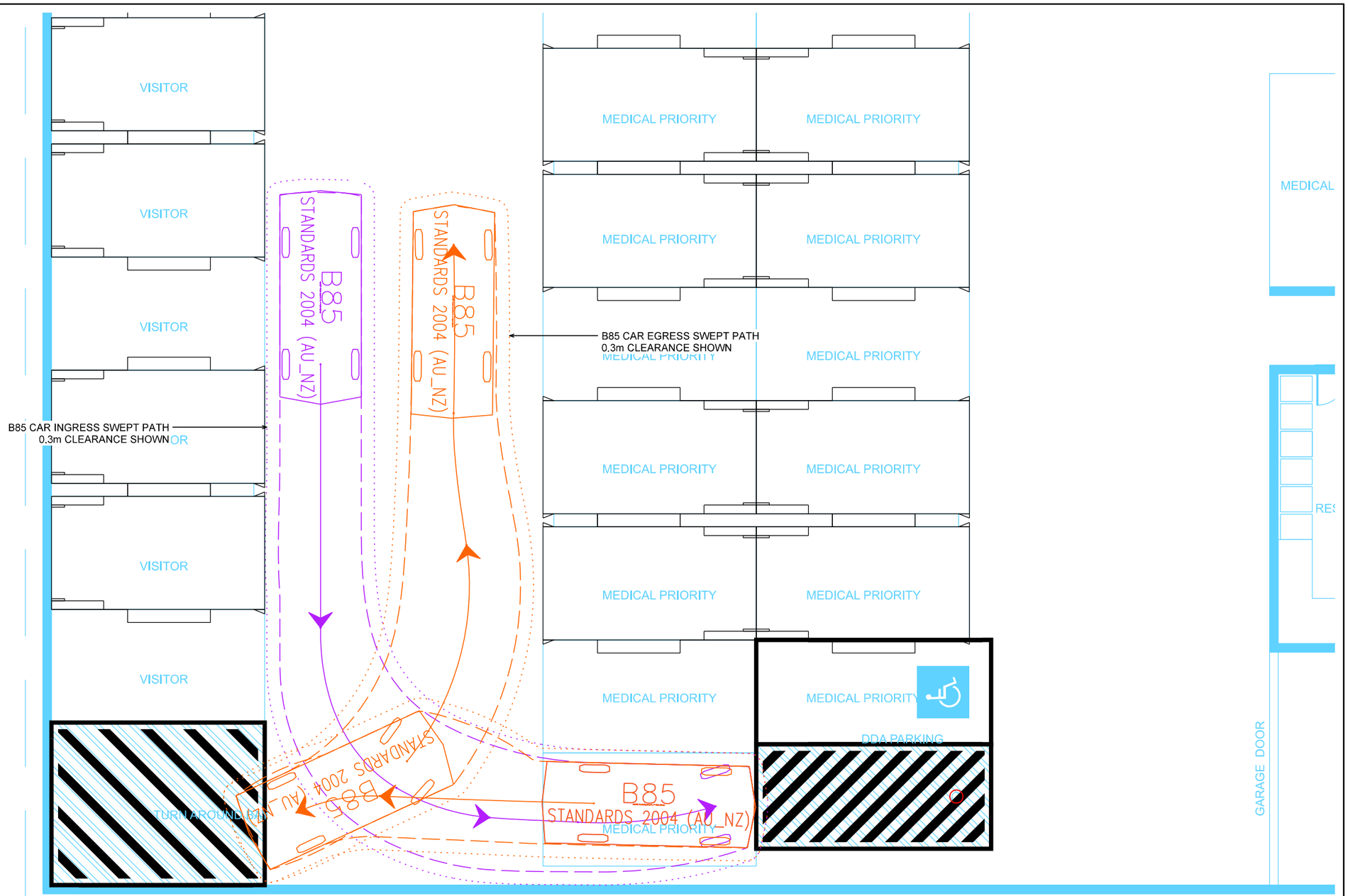

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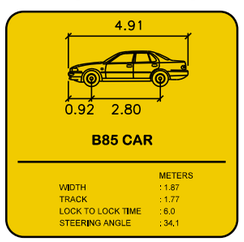

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CITY OF BAYSIDE

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SWEPT PATH ANALYSIS
B85 CAR
BASEMENT 1

Drawing Number
IMP2109009 - DG-01-06

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D

MEDICAL PRIORITY
MEDICAL PRIORITY
MEDICAL PRIORITY
MEDICAL PRIORITY
RESI BIN ROOM
COMMERCIAL LIFT
RESIDENTIAL LIFT
HARD WASTE
ERVICE RISER
COMMERCIAL BIN ROOM
6m³ STORAGE
6m³ STORAGE
6m³ STORAGE
6m³ STORAGE
6m³ STORAGE
6m³ STORAGE
6m³ STORAGE
6m³ STORAGE
6m³ TORAGE
6m³
B85 CAR INGRESS SWEPT PATH
0.3m CLEARANCE SHOWN
B85 CAR HOLD POSITION
B85 CAR EGRESS SWEPT PATH
0.3m CLEARANCE SHOWN
STANDARDS 2004 (AU_NZ)
B85
B85
STANDARDS 2004 (AU_NZ)
B85
STANDARDS 2004 (AU_NZ)
B85
STANDARDS 2004 (AU_NZ)
RAMP
0.3125M IN
2.5M
(1:8)
RL 12.84
STOP / HOLD LINE
20 RESIDENTIAL CAR PARK
GARAGE DOOR

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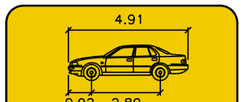

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TRACK	: 1.77
LOCK TO LOCK TIME	: 6.0
STEERING ANGLE	: 34.1

[redacted]

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MEDICAL CLINIC AND RESIDENTIAL DEVELOPMENT
8-10 LINACRE ROAD, HAMPTON
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Date
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Title
SWEPT PATH ANALYSIS
B85 CAR
BASEMENT 1

Drawing Number
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Revision
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PROPOSED CONVEX MIRROR

PROPOSED TRAFFIC CONTROL LIGHT

PROPOSED STOP / HOLD LINE

PROPOSED CONVEX MIRROR

PROPOSED CONVEX MIRROR

57 RESIDENTIAL AND VISITOR CAR PARKS *SUBJECT SITE*

8-10 LINACRE ROAD, HAMPTON

LINACRE ROAD

Bayside City Council
Planning and Environment Act 1987

ADVERTISED PLAN

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3. BASE INFORMATION FROM NEARMAP AERIAL PHOTOGRAPHY DATED 08.11.2020 AND EWART LEAF 21133-TP-BASE-PLN-B1-BASEMENT 02.dwg DATED 26.10.2021

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8-10 LINACRE ROAD, HAMPTON
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Revision Description
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Title
SITE LAYOUT PLAN
BASEMENT 2

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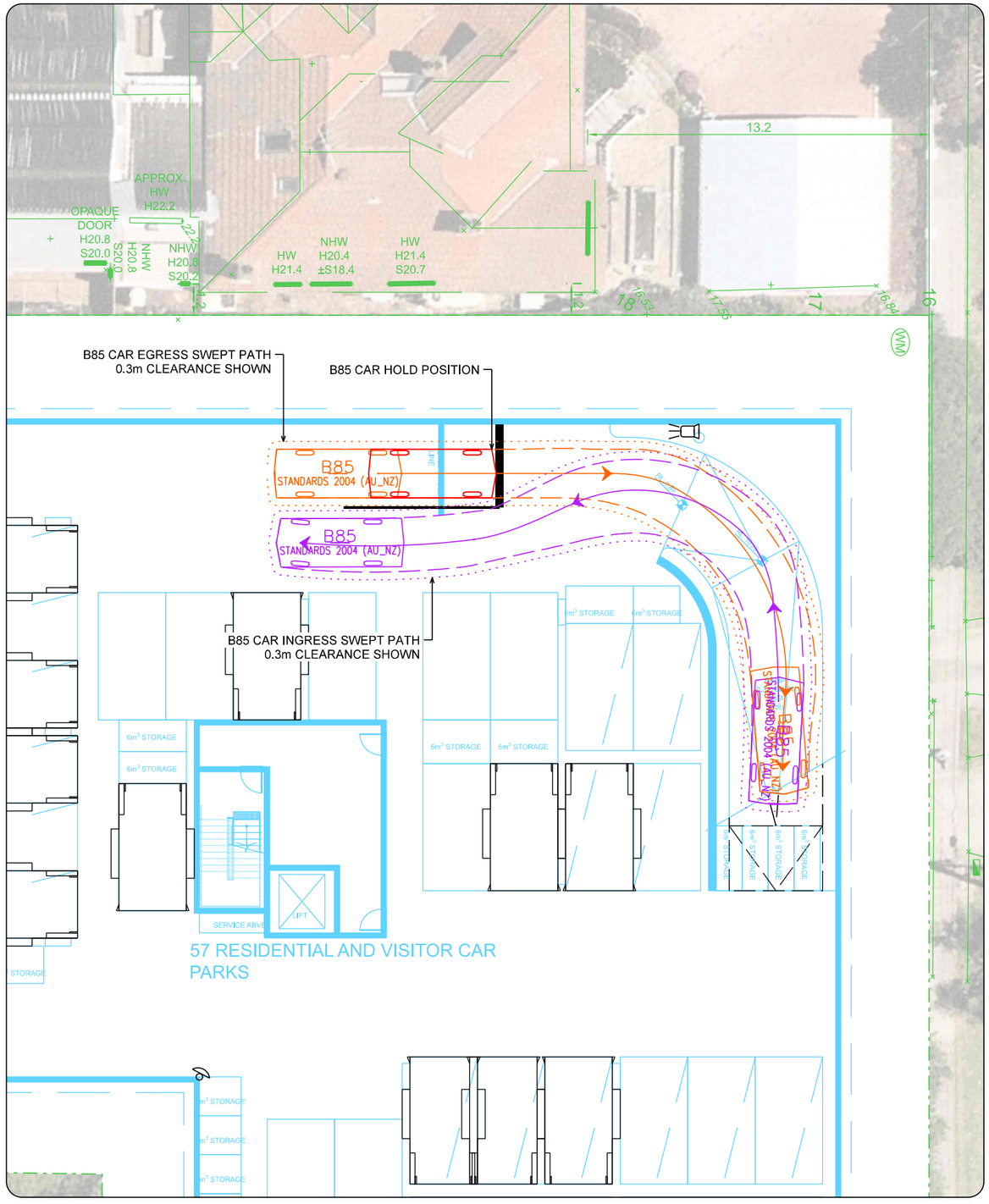

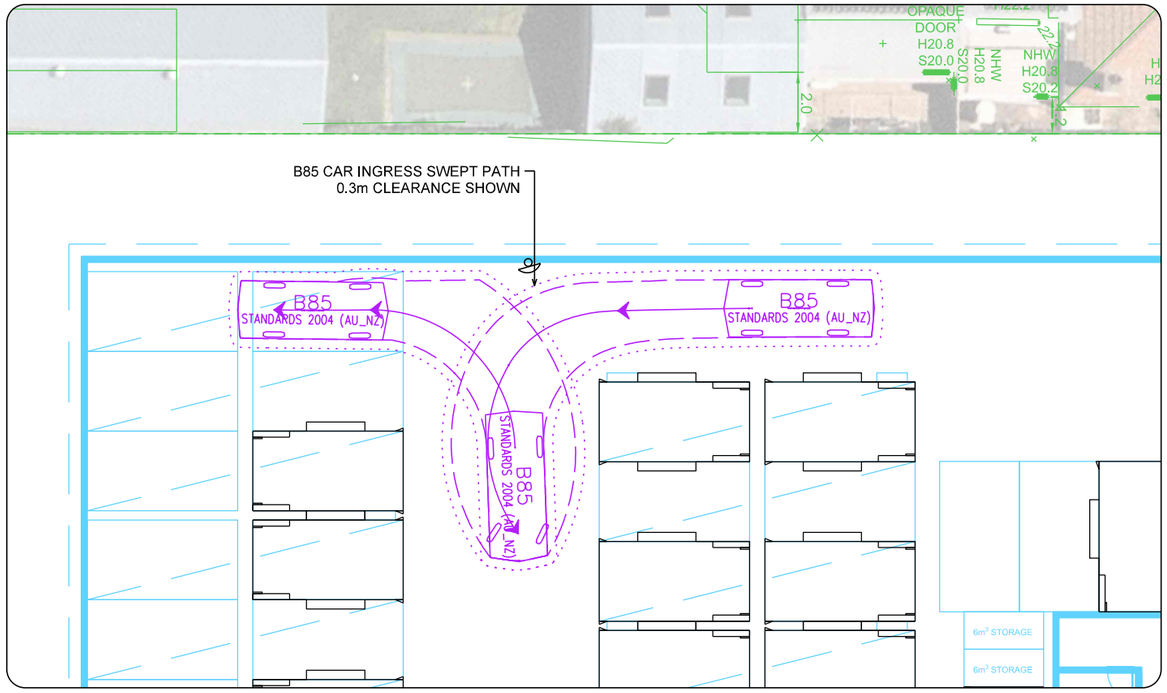

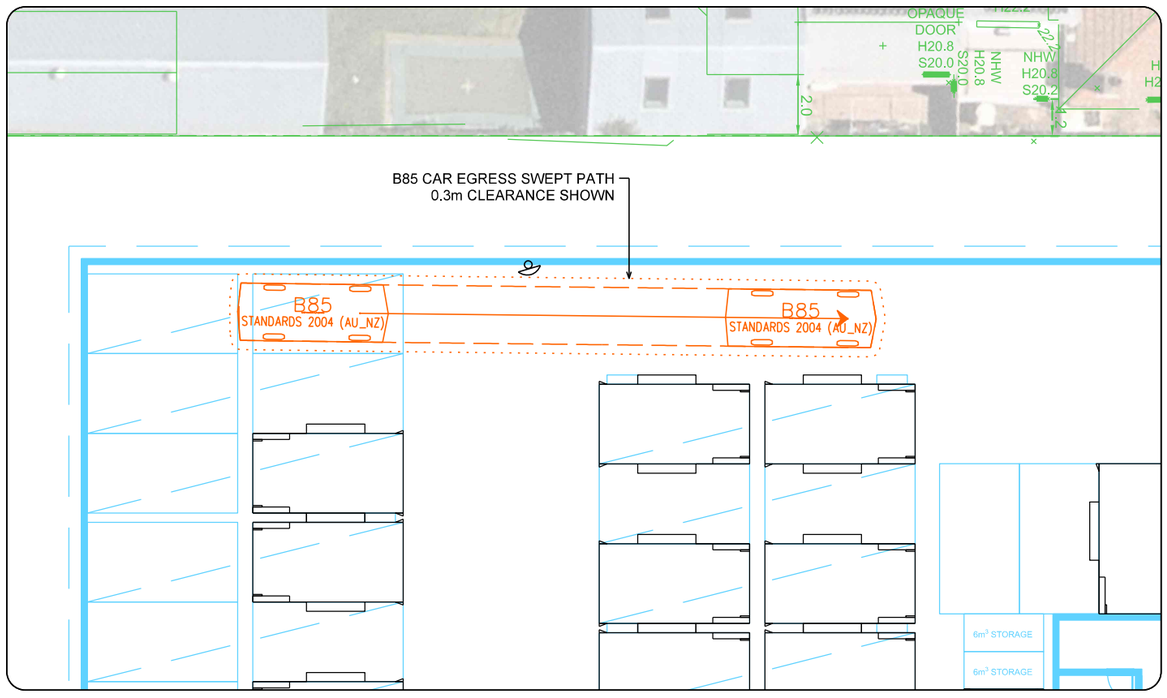

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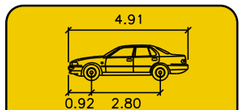

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Impactaustralia.com.au

MELWAY ONLINE REF: MAP 76 G7

SCALE
1:200 @ A3

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Project
MEDICAL CLINIC AND RESIDENTIAL DEVELOPMENT
8-10 LINACRE ROAD, HAMPTON
CITY OF BAYSIDE

Date
2021-11-03
Drawn / Approved
SGM / WD

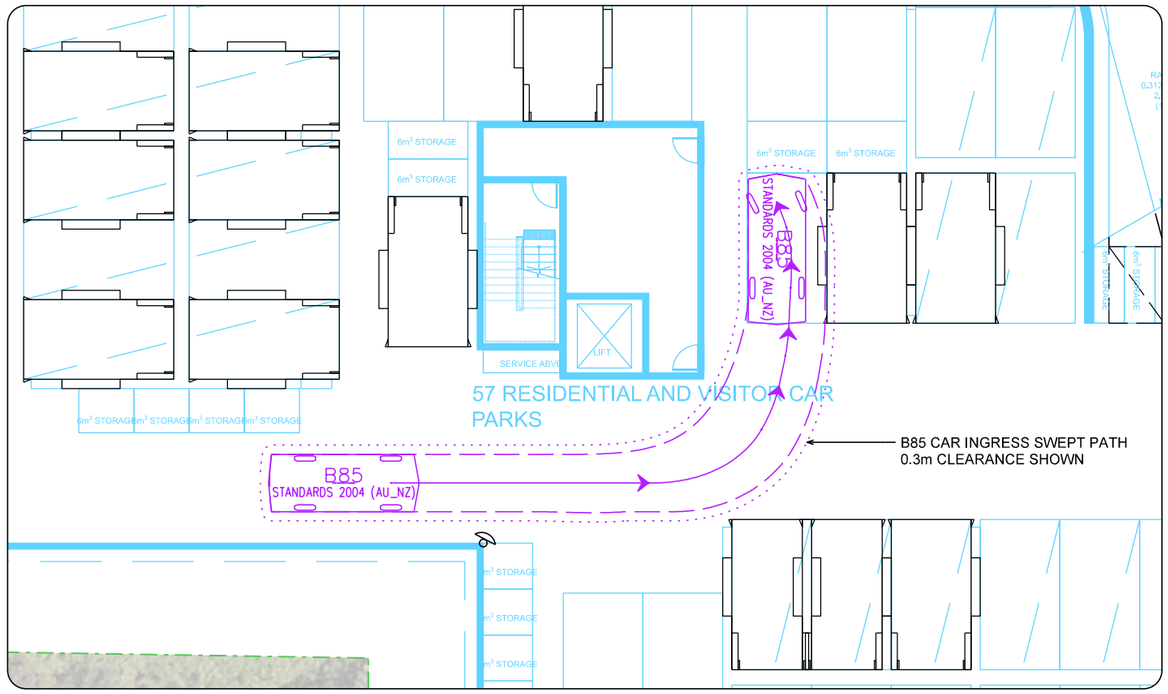
Status
PRELIMINARY

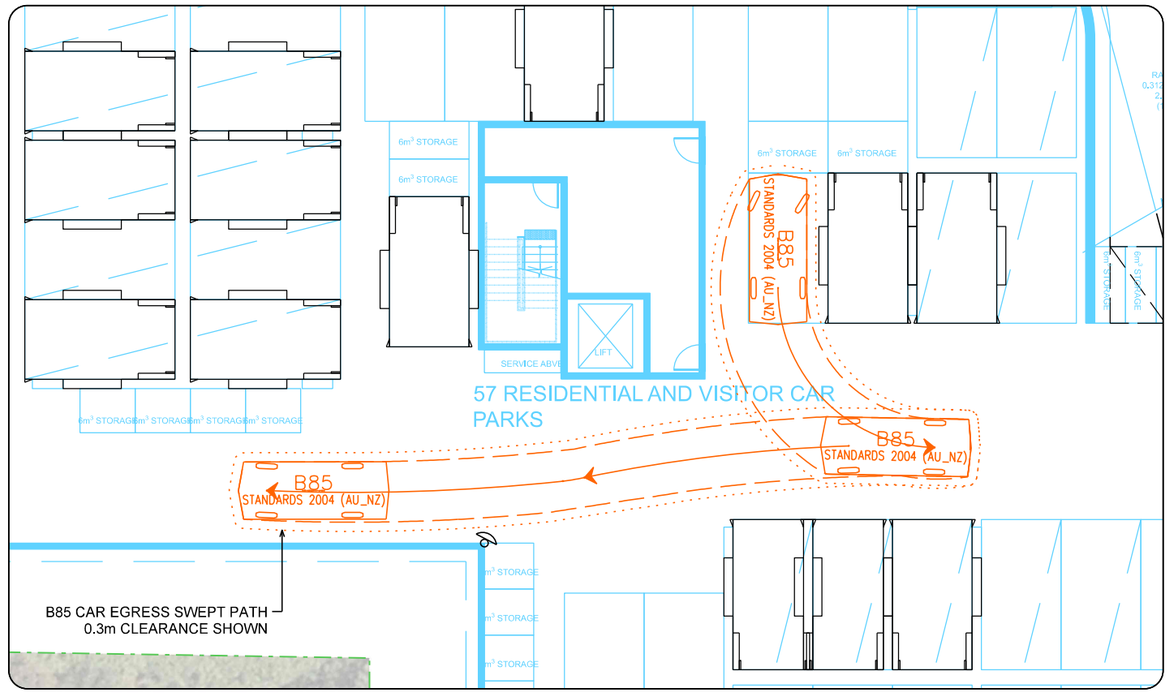
Revision Description
ISSUED FOR INFORMATION

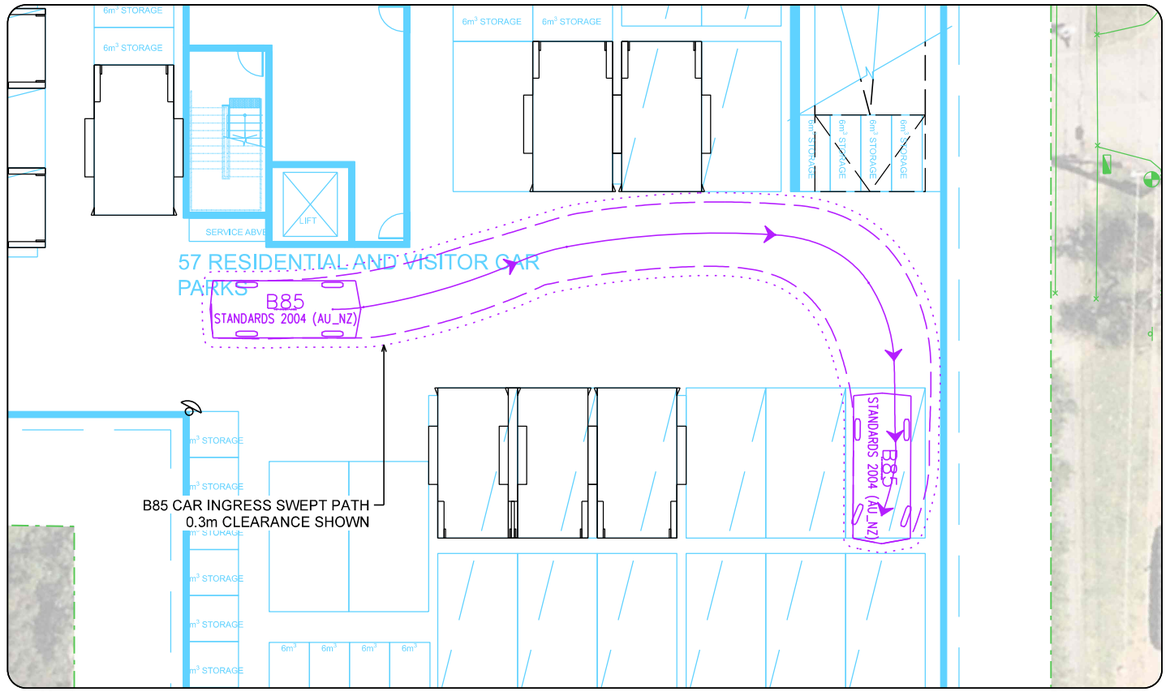
Title
SITE LAYOUT PLAN
BASEMENT 2

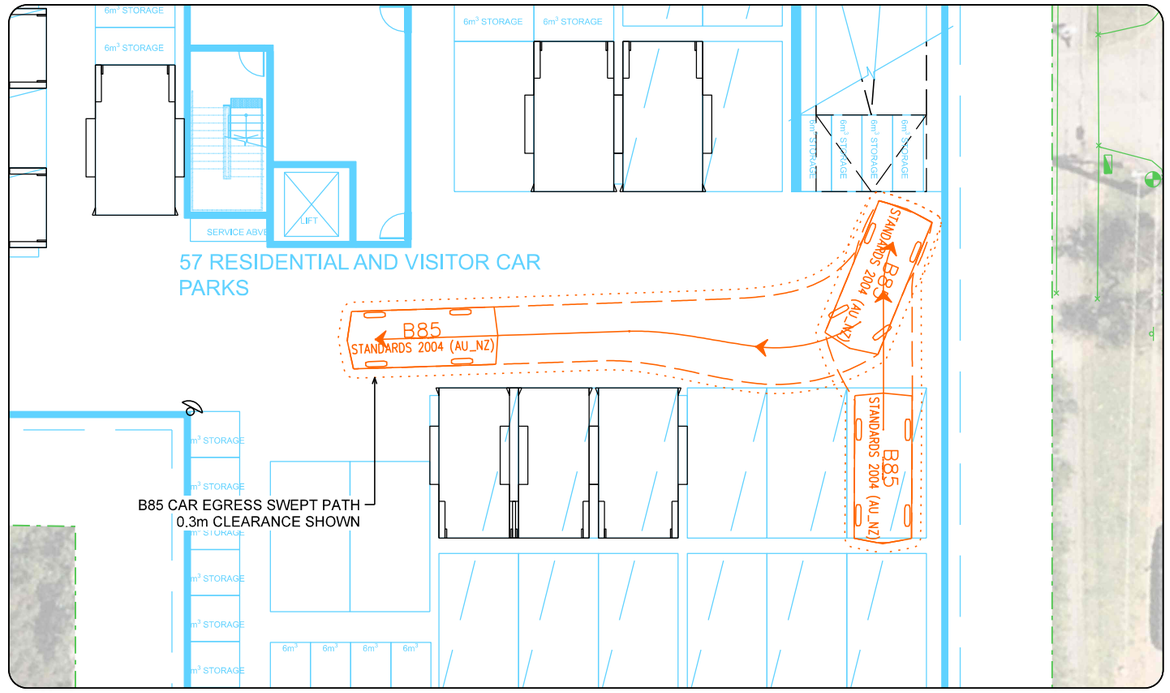
Drawing Number
IMP2109009 - DG-01-09

Revision
D









Bayside City Council
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Planning Application No.: 5/2021/331/1

Date: 29/11/2021

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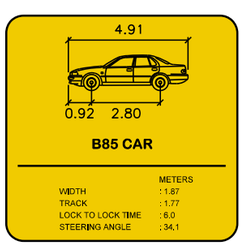

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MELWAY ONLINE REF: MAP 76 G7

SCALE
1:200 @ A3

[redacted]

Status
PRELIMINARY

Project
MEDICAL CLINIC AND RESIDENTIAL DEVELOPMENT
8-10 LINACRE ROAD, HAMPTON
CITY OF BAYSIDE

Date
2021-11-03
Drawn / Approved
SGM / WD

Revision Description
ISSUED FOR INFORMATION

Title
SITE LAYOUT PLAN
BASEMENT 2

Drawing Number
IMP2109009 - DG-01-10

Revision
D

APPENDIX B
Bicycle Parking Specifications

Ned Kelly Bike Racks

Arc de Triomphe Horizontal Bike Hoops

Ned Kelly®

Bayside City Council
Planning and Environment Act 1987

ADVERTISED PLAN

Planning Application No.: 5/2021/331/1

Date: 29/11/2021

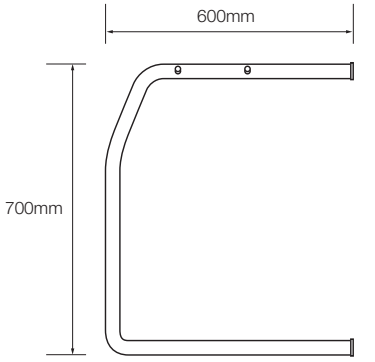
Zinc finish

Black powder coat finish

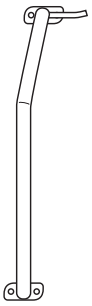
Features

- Each rail provides storage for a single bike
- Suits bikes with full length mud guards
- Available in Zinc finish or Black powder coat over mild steel
- Provides the ability to lock the main frame and one wheel
- Support prongs with protective coating prevent damage to rim
- Can be used with custom framing – no wall needed

Dimensions



SIDE



FRONT

Specifications

Material options

- Zinc finish
- Black powder coat over mild steel
- Stainless steel - *Pre-order only*

Fixing options

- Bolt on to wall
- Fixed to support framing

Recommended fasteners – wall

- Dynabolts (M8 x 40mm)
- Shear Nut security fasteners

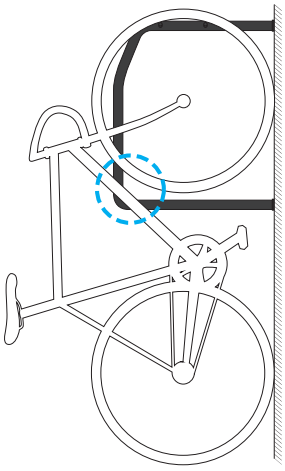
Recommended fasteners – framing

- Bolt and nut (M10 x 60mm)
- Tek screws

Dimensions

125mm [w] x 700mm [h] x 600mm [d]

Locking Points



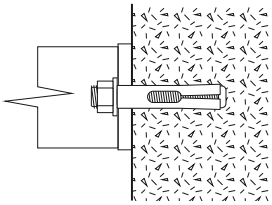
BICYCLE NETWORK BIKE PARKING

DESIGN. SUPPLY. INSTALL.

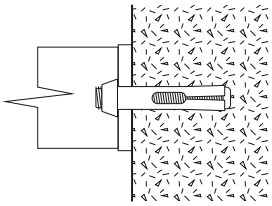
Bicycle Network ABN 41 026 835 903
p. 1300 727 563 e. parking@bicyclenetwork.com.au bikeparking.com.au
VIC Level 4, 246 Bourke Street, Melbourne VIC 3000 NSW 234 Crown Street, Darlinghurst NSW 2010
TAS 210 Collins Street, Hobart TAS 7000 NT Suite 5, 18-20 Cavenagh Street, Darwin 0800

Fixing options

Fix to a wall using 4x fasteners or Shear Nuts

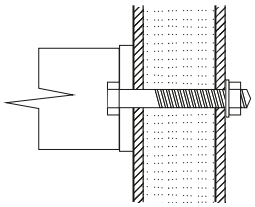


Shown with M8 x 40mm fastener

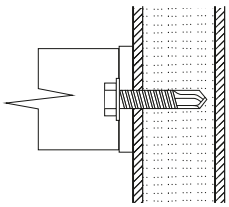


Shown with M8 x 40mm Shear Nuts

Fix to a frame using 4x bolts or Tek Screws



Shown with M10 x 60mm Bolt, Washer & Nut

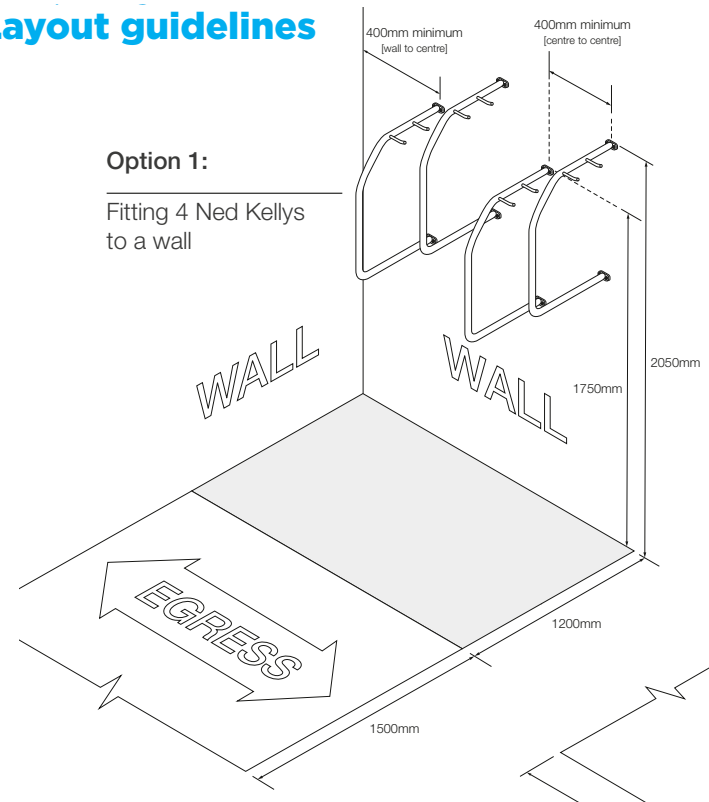


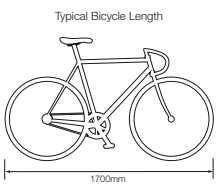
Shown with Tek Screw

Layout guidelines

Option 1:

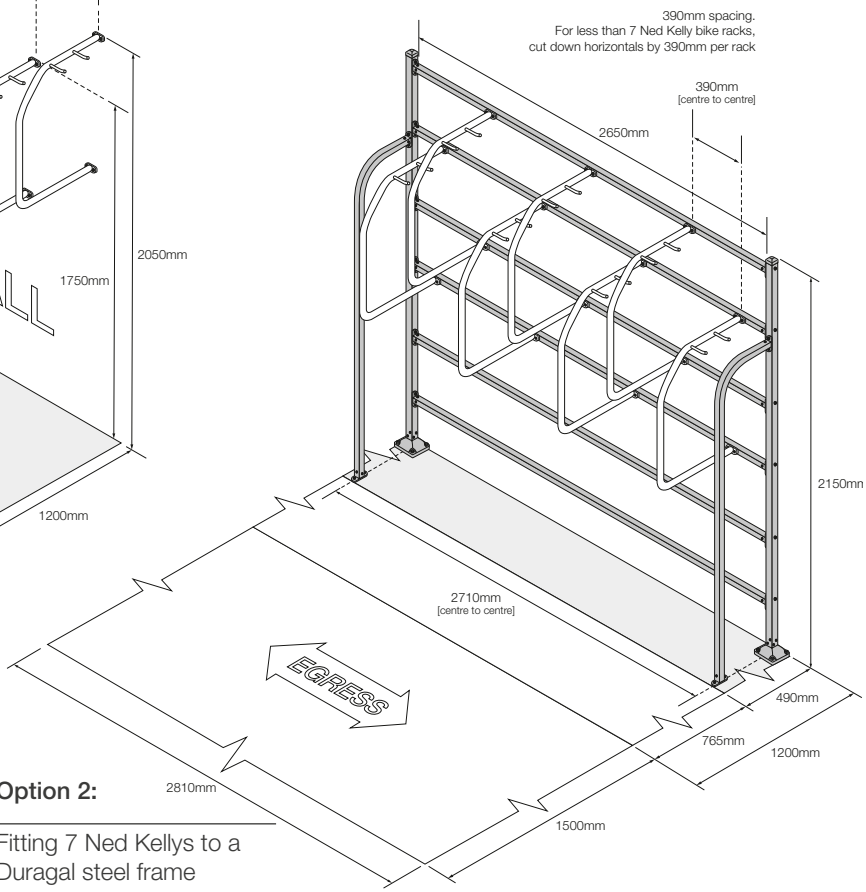
Fitting 4 Ned Kellys to a wall





Option 2:

Fitting 7 Ned Kellys to a Duragal steel frame



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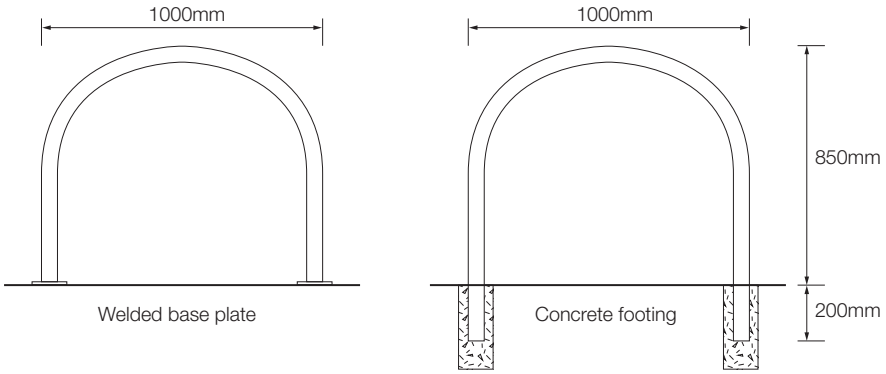
Arc de Triomphe™

Galvanised finish / Stainless Steel finish

Features

- Each rail supports two adult bikes in an upright position
- Can be either bolted to a concrete slab or concreted in situ
- Available in stainless steel or galvanised steel
- Provides the ability to lock both wheels and frame
- Suitable for foyers and entry areas

Dimensions



Specifications

Material options

- Galvanised (Duragal)
- 316 Marine grade stainless steel

Fixing options

- Welded flange - Bolt on
- In situ

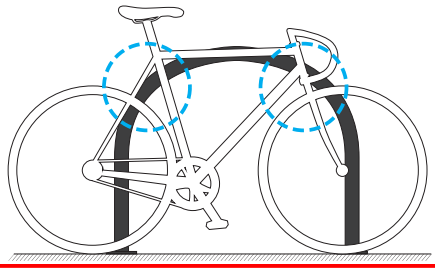
Recommended fasteners

- Galvanised Dynabolts (M10 x 65mm)
- Stainless Dynabolts (M10 x 65mm)
- Shear Nut security fasteners

Dimensions

1000mm [w] x 850mm [h]

Locking Points



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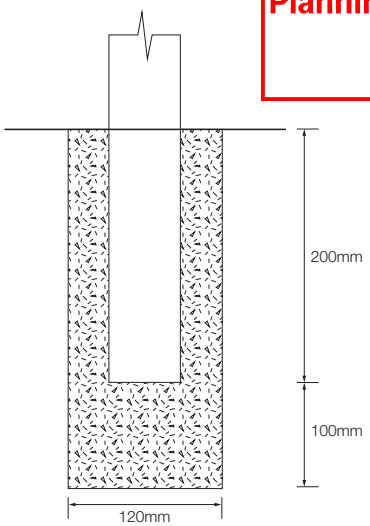
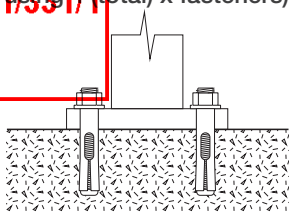
Fixing options

In situ (Concrete footing)

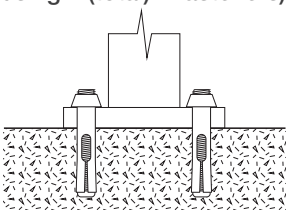


Welded flange (Bolt on)
using 4 (total) x fasteners)



Shown with M10 x 65mm fastener

Welded flange (Security heads)
using 4 (total) x fasteners)

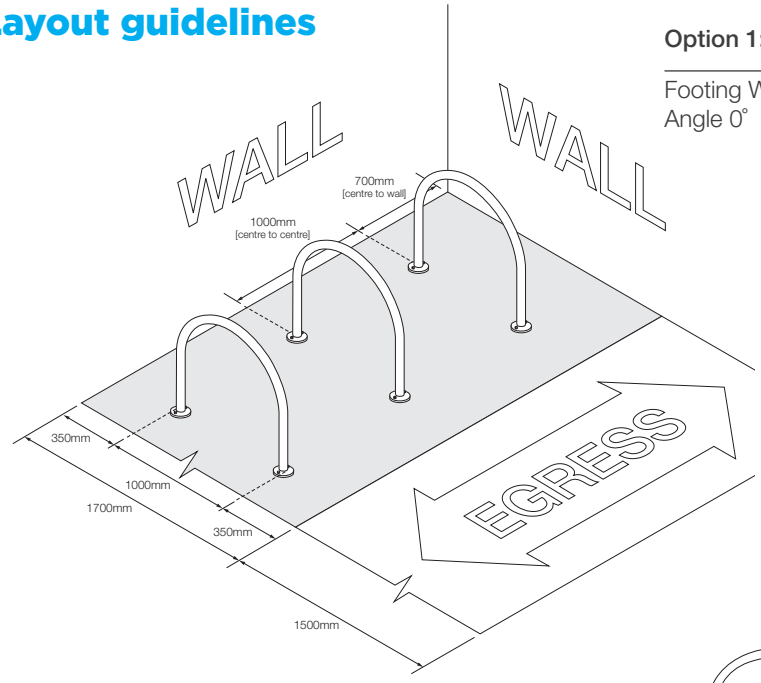


Shown with M10 x 65mm Shear Nuts

Layout guidelines

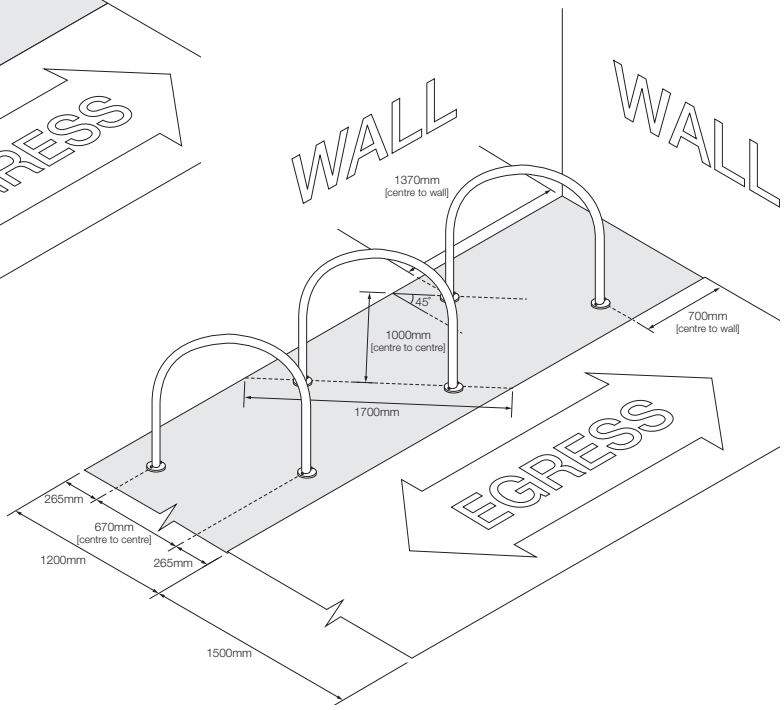
Option 1:

Footing Width 1700mm
Angle 0˚

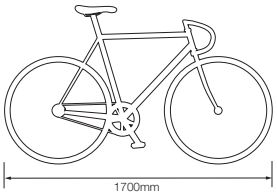


Option 2:

Footing Width 1200mm
Angle 45˚



Typical Bicycle Length



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Bayside City Council
Planning and Environment Act 1987

ADVERTISED PLAN

Planning Application No.: 5/2021/331/1

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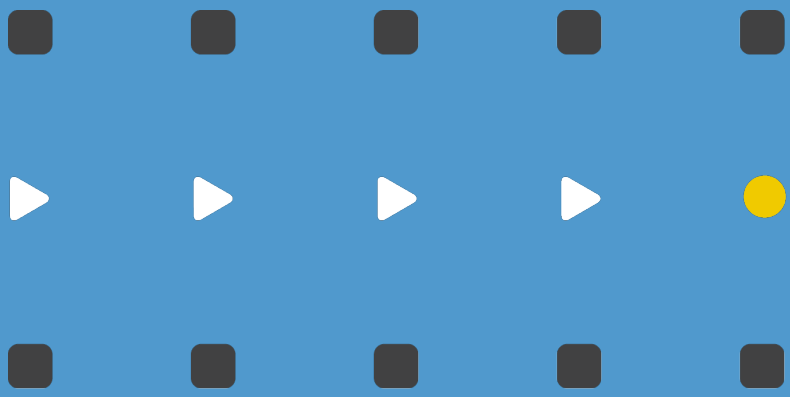

Simplexity

Leigh Design

waste management plans for all urban developments

Leigh Design Pty Ltd
ABN 37 139 522 437
PO Box 115
Carnegie VIC 3163

P +61 3 9958 0800

[redacted]

Waste Management Plan

Proposed Development:

8-10 Linacre Road, Hampton, Victoria

Bayside City Council
Planning and Environment Act 1987

ADVERTISED PLAN

Planning Application No.: 5/2021/331/1

Date: 29/11/2021

Prepared for:

[redacted]

Document Control

Report Date: 19 November 2021

[redacted]

TABLE OF CONTENTS

WASTE MANAGEMENT SUMMARY

- The Operator, as defined below, shall be responsible for managing the waste system and for developing and implementing adequate safe operating procedures.
- Waste shall be stored within the development (hidden from external view).
- Users shall place sorted waste into designated collection bins.
- Waste shall be collected within the development. The collection contractor shall transfer bins between the waste areas and the truck.
- A private contractor shall provide waste collection services.

GLOSSARY

Operator: refers to the Owners Corporation, who shall manage site operations (via staff and contractors, if required).

User: refers to residents and commercial tenants, who shall utilise the waste system.

1 SPACE AND SYSTEM FOR WASTE MANAGEMENT

1.1 Development Description and Use

This development shall consist of residential apartments and a commercial tenancy (refer to Table 1).

1.2 Estimated Garbage and Recycling Generation

The following table summarises the waste estimate (m^3/week):

Table 1: Waste Estimate

Waste Source	Base Qty (est.)	Garbage	Commingled Recycling
Apartments (2 bed)	No. of units = 23	2.30	2.30
Apartments (3 bed)	No. of units = 12	1.44	1.44
Medical	Area (m^2) = 1452	2.18	0.80
TOTAL (m^3/wk)		**5.92**	**4.54**

Note: Waste figures are based on adjusted Sustainability Victoria Guidelines and on information from similar facilities.

1.3 Collection Services

Based on the anticipated waste volume, a private contractor shall be engaged to collect waste. The Operator shall choose a waste collection provider, negotiate a service agreement, and pay for these services.

Note: Every rateable tenement is liable to pay for municipal charges irrespective of the level of collection services provided by Council.

1.4 Location, Equipment, and System Used for Managing Waste

The waste management system is summarised as follows:

- Apartment receptacles for garbage, recycling, organics and (future) glass.
- Tenancy receptacles at internal areas.
- Residential and Commercial Bin Stores located at Basement Level 1.
- Collection bins (kept within the above Bin Stores - refer to Table 2).

The various collection waste-streams are summarised as follows:

Garbage: General waste shall be placed in tied plastic bags and stored within bins.

Recycling: Two types of bins shall be provided. One type of bin for glass and a second type for all other recyclables (paper, cardboard, aluminium, steel, and plastics). However, all recyclables shall be commingled into a single type of collection bin until a glass-only service becomes available (for paper, cardboard, glass, aluminium, steel, and plastic codes 1-7). Plastic bags not allowed in recycling. Also, bulk cardboard could be collected in dedicated bins (privately). The operator shall provide instructions and signage concerning recycling items as noted in Section 4.4.

Organics: Users shall place organic waste into Organics bins. Only certified compostable liners may be considered for bins and caddies, to home standard AS5810-2010 (alternatively, the industrial standard AS4736-2006 could be considered if approved by the waste collector). Garden waste shall be collected and disposed by the landscape maintenance contractor.

Clinical Waste: Clinical waste (medical, infectious, cytotoxic, sharps, chemical, pharmaceutical, radioactive, etc) shall be managed in accordance with the Industry Code of Practice for the Management of Biohazardous Waste (including Clinical & Related wastes, 7th edition, 2014). A specialist clinical waste contractor shall be engaged to implement the code, provide facility design and operational details (incl. a Clinical WMP) for the safe handling and disposal of clinical waste, and for waste collection and treatment (refer to suggested contacts in Sect. 6). Collections shall be organised by the relevant user.

A suitable Clinical Waste Store shall be provided (store size/design and all clinical waste streams/bins shall be specified by a specialist consultant).

Other Waste Streams: Users shall take waste items such as e-waste, white goods, domestic volumes of household paints, household batteries, florescent tubes and mixed globes to Waste Transfer and Recycling Centre at 144 Talinga Road, Cheltenham (fees and charges may apply), or collections shall be organised by the operator through a private contractor's collection.

Hard Waste disposal shall be organised by the operator through a private contractor. No waste will be placed on the kerbside for collection.

The following table summarises bin quantity/capacity, collection frequency, and area requirements (based on Table 1):

Table 2: Bin Schedule and Collection Frequency

Waste Source	Waste Stream	Bin Qty	Bin Litres	Collections per Week	Net Area m²
Residential (shared bins)	Garbage	2	660	2	2.4
	Organics	3	240	2	1.5
	Recycling	2	660	2	2.4
	Recycling - future glass	3	240	2	1.5
Commercial (shared bins)	Garbage	1	660	2	1.2
	Organics	2	240	2	1.0
	Recycling	2	240	2	1.0
	Recycling - future glass	1	240	2	0.5
Whole Development	Hard/E-Waste/Other	-	-	At Call	3.0
Net Waste Storage Area (excludes circulation), m²:					**14.5**

Note: Bins shall be sourced by the Operator (either purchased from a supplier or leased from the collection contractor).

1.5 Planning Drawings, Waste Areas, and Management of the Waste System

The enclosed drawing illustrates sufficient space for onsite bin storage, as required by the above schedule.

Notwithstanding the above, collection days shall be staged appropriately and the Operator shall stipulate procedures for effective management of the available space.

1.6 Collection Bin Information

The following bins shall be utilised (see Sect. 4.4 for signage requirements):

Table 3: Bin Details

Capacity (litres)	Height (mm)	Width (across front, mm)	Depth (side on, mm)	Empty Weight (kg)	Average* Gross Weight (kg)
240	1060	585	730	13	45
660	1250	1240	780	43	130

Notes:

- * = Average Gross Weight is based on domestic waste studies (which vary subject to locality and waste-type). Expect greater weight for wet or compacted waste.
- Use the above details as a guide only – variations will occur. The above is based on Sulo plastic (HDPE) flat-lid bins.

Table 4: Bayside Colour Coding

Bin	Garbage	Commingled Recycling	Food & Green Waste
Lid	Green	Blue	Lime
Body	Green	Blue	Green

Note: For private bins, AS4123.7 bin colours can be adopted. Private bins shall be labelled to identify the waste generator and site address. For glass, Victorian publications illustrate bins with purple lids. For Food Waste / Organics bins, AS 4123.7 bins have a Burgundy lid and a Dark Green or Black body.

2 ACCESS FOR USERS, COLLECTORS, AND COLLECTION VEHICLES

2.1 User Access to Waste Facilities

Residents and the commercial tenant shall dispose sorted waste into collection bins located within their designated Bin Store (access via lift/stairs).

Note: The Operator shall have access to the Bin Stores to rotate the bins, ensuring that empty bins are available along the circulation area so that users are able to reach the bins.

2.2 Collection Arrangements and Access to Waste Facilities

- A private contractor shall collect waste within the onsite carpark at Basement Level 1.
- Collection staff (driver and assistant) shall have access to the Bin Stores and transfer bins to the truck and back to the stores.
- The waste collection shall be carried-out by rear-lift vehicles (nom. 6.4m long, 2.1m high, and 6.4 tonnes gross vehicle mass, needing a 2.3m height clearance when lifting 660L bins).

Note: The enclosed plans illustrate the waste system. Also, the enclosed Swept Paths illustrate truck access.

3 AMENITY, LOCAL ENVIRONMENT, AND FACILITY DESIGN

3.1 Noise Minimisation Initiatives

- Collection bins shall feature rubber wheels for quiet rolling during transfers.
- Waste areas shall meet BCA and AS2107 acoustic requirements.
- Local laws shall be observed for all operations in public areas and roads (in particular, Schedule 1 of Bayside City Council Local Law No. 2 Environment Section 15).
- For private services, the hours of waste collections shall be as specified in Council's local laws. Also, Section 5 of the Victorian EPA Noise Control Guideline Publication 1254 (see below) shall be observed to protect the acoustic amenity of the development and surroundings.

Victorian EPA Noise Control Guideline Publication 1254 October 2008 (excerpt)

[Section] 5. Domestic [and Commercial] Refuse Collection

The main annoyance produced by domestic refuse collections occurs in the early morning (i.e. before 7:00am). Therefore, if possible, routes should be selected to provide the least impact on residential areas during that time.

Collection of refuse should be restricted to the following criteria:

- Collection occurring once a week should be restricted to the hours: 6am to 6pm Monday to Saturday.
- Collections occurring more than once a week should be restricted to the hours: 7am to 6pm Monday to Saturday.
- Compaction should only be carried out while on the move.
- Bottles should not be broken up at the point of collection.
- Routes which service entirely residential areas should be altered regularly to reduce early morning disturbance.
- Noisy verbal communication between operators should be avoided where possible.

3.2 Litter Reduction and Prevention of Stormwater Pollution

The operator shall be responsible for:

- Promoting adequate waste disposal into the bins (to avoid waste-dumping).
- Securing the waste areas (whilst affording access to users/staff/contractors).
- Preventing overfilled bins, keeping lids closed and bungs leak-free.
- Abating any site litter and taking action to prevent dumping and/or unauthorised use of waste areas.
- Requiring the collection contractor to clean-up any spillage that might occur when clearing bins.

Also, any stormwater drains in waste storage areas shall be fitted with a litter trap.

The above will minimise the dispersion of site litter and prevent stormwater pollution (thus avoiding impact to the local amenity and environment).

3.3 Ventilation, Washing, and Vermin-Prevention Arrangements

Waste areas shall feature:

- Ventilation in accordance with Australian Standard AS1668.
- Tight-fitting doors (all other openings shall have vermin-proof mesh or similar).
- Impervious flooring (also, smooth, slip-resistant, and appropriately drained).
- A graded bin wash area, hosecock, hose, and a suitable floor-waste connected in accordance with relevant authority requirements (alternatively, the Operator shall engage a suitable contractor to wash bins in a mobile bin-wash vehicle). The bin and wash areas may overlap, as stored bins can be moved so that a bin can be washed.

The Operator shall regularly clean waste areas/equipment. Also, access doors and bin-lids shall be kept closed.

3.4 Design and Aesthetics of Waste Storage Areas and Equipment

Waste shall be placed within collection bins and stored in designated onsite areas (hidden from external view). Following waste collection activities, bins shall be returned to the storage areas as soon as practicable.

Waste facilities shall be constructed of durable materials and finishes, and maintained to ensure that the aesthetics of the development are not compromised. These facilities and associated passages shall be suitably illuminated (this provides comfort, safety, and security to users, staff, and contractors). Access doors shall feature keyless opening from within.

The design and construction of waste facilities and equipment shall conform to the Building Code of Australia, Australian Standards, and local laws.

4 MANAGEMENT AND SUSTAINABILITY

4.1 Waste Sorting, Transfer, and Collection Responsibilities

Garbage shall be placed within tied plastic bags prior to transferring into the collection bins. Cardboard shall be flattened and recycling containers un-capped, drained, and rinsed prior to disposal into the appropriate bin. Bagged recycling is not permitted.

Refer to Section 2 for waste transfer requirements and collection arrangements.

4.2 Facility Management Provisions to Maintain & Improve the Waste System

The Operator shall manage site operations (refer to the glossary in page 2).

It shall be the responsibility of the Operator to maintain all waste areas and components, to the satisfaction of users, staff, and the relevant authority (users shall maintain their internal waste receptacles).

The Operator shall ensure that maintenance and upgrades are carried-out on the facility and components of the waste system. When required, the Operator shall engage an appropriate contractor to conduct services, replacements, or upgrades.

4.3 Arrangements for Protecting Waste Equipment from Theft and Vandalism

It shall be the responsibility of the Operator to protect the equipment from theft and vandalism. This shall include the following initiatives:

- Secure the waste areas.
- Label the bins according to property address.
- Waste shall be collected within the subject site.

4.4 Arrangements for Bins/Equipment Labelling and Ensuring Users and Staff are Aware of How to Use the Waste System Correctly

- The Operator shall provide appropriate signage for the bins. Signage is available at the following internet address: www.sustainability.vic.gov.au.
- The Operator shall publish/distribute “house rules” and educational material to:
  - Inform users/staff about the waste management system and the use/location of the associated equipment (provide the summary in page 2 of this report).
  - Improve facility management results (lessen equipment damage, reduce littering, and achieve cleanliness).
  - Advise users/staff to sort and recycle waste with care to reduce contamination of recyclables.

4.5 Sustainability and Waste Avoidance/Reuse/Reduction Initiatives

The *Environment Protection Act 1970* includes principles of environment protection and guidance for waste management decision making. Also, the *Sustainability Victoria Act 2005* established Sustainability Victoria as the statutory authority for delivering programs on integrated waste management and resource efficiency.

From a design perspective, the development shall support the acts by providing an adequate waste system with ability to sort waste.

The Operator shall promote the observance of the acts (where relevant and practicable) and encourage users and staff to participate in minimising the impact of waste on the environment. For improved sustainability, the Operator shall consider the following:

- Observe the waste hierarchy in the *Environment Protection Act 1970* (in order of preference): a) waste avoidance, b) reuse, c) recycle, d) recovery of energy, e) treatment, f) containment, and g) disposal.
- Peruse the Sustainability Victoria website: www.sustainability.vic.gov.au.
- Participate in Council and in-house programs for waste minimisation.
- Establish waste reduction and recycling targets; including periodic waste audits, keeping records, and monitoring of the quantity of recyclables found in landfill-bound bins (sharing results with users/staff).

4.6 Waste Management Plan Revisions

For any future appropriate Council request, changes in legal requirements, changes in the development's needs and/or waste patterns (waste composition, volume, or distribution), or to address unforeseen operational issues, the Operator shall be responsible for coordinating the necessary Waste Management Plan revisions, including (if required):

- A waste audit and new waste strategy.
- Revision of the waste system (bin size/quantity/streams/collection frequency).
- Re-education of users/staff.
- Revision of the services provided by the waste collector(s).
- Any necessary statutory approval(s).

5 SUPPLEMENTARY INFORMATION

- The Operator shall observe local laws and ensure that bins aren't overfilled or overloaded.
- Waste incineration devices are not permitted, and offsite waste treatment and disposal shall be carried-out in accordance with regulatory requirements.
- For bin traffic areas, either level surfaces (smooth and without steps) or gentle ramps are recommended, including a roll-over kerb or ramp. Should ramp gradients, bin weight, and/or distance affect the ease/safety of bin transfers, the Operator shall consider the use of a suitable tug.
- The Operator and waste collector shall observe all relevant OH&S legislation, regulations, and guidelines. The relevant entity shall define their tasks and:
  - Comply with Worksafe Victoria's Occupational Health and Safety Guidelines for the Collection, Transport and Unloading of Non-hazardous Waste and Recyclable Materials (June 2003).
  - Assess the Manual Handling Risk and prepare a Manual Handling Control Plan for waste and bin transfers (as per regulatory requirements and Victorian COP for Manual Handling).
  - Obtain and provide to staff/contractors equipment manuals, training, health and safety procedures, risk assessments, and adequate personal protective equipment (PPE) to control/minimise risks/hazards associated with all waste management activities. As a starting point, these documents and procedures shall address the following:

Task (to be confirmed)	Hazard (TBC)	Control Measures (TBC)
Sorting waste and cleaning the waste system	Bodily puncture. Biological & electrical hazards	Personal protective equipment (PPE). Develop a waste-sorting procedure
Bin manual handling	Sprain, strain, crush	PPE, staff training. Maintain bin wheel-hubs. Limit bin weight. Provide mechanical assistance to transfer bins
Bin transfers and emptying into truck	Vehicular strike, run-over	PPE. Develop a Hazard Control Plan for transfers and collections. Maintain visibility. Use a mechanical bin-tipper
Truck access (reversing & manoeuvring)	Vehicular incident, strike, run-over	PPE. Use a trained spotter. Develop a truck-manoeuvring and traffic-control procedure

Note: The above shall be confirmed by a qualified OH&S professional who shall also prepare site-specific assessments, procedures, and controls (refer to Section 6).

6 CONTACT INFORMATION

Bayside City Council (local Council), ph 03 9599 4444

Waste Wise Environmental (private waste collector), ph 1300 550 408

Kartaway (private waste collector), ph 1300 362 362

Cleanaway Medi-Waste (clinical waste collector), ph 9551 3833

SteriCorp Limited (clinical waste collector), ph 1300 667 787

FJP Safety Advisors (OH&S consultant), ph 03 9255 3660

Warequip (tug supplier – for bin transfers), ph 1800 337 711

Sulo MGB Australia (bin supplier), ph 1300 364 388

One Stop Garbage Shop (bin supplier), ph 03 9338 1411

Note: The above includes a complimentary listing of contractors and equipment suppliers. The stakeholders shall not be obligated to procure goods/services from these companies. Leigh Design does not warrant (or make representations for) the goods/services provided by these suppliers.

7 LIMITATIONS

The purpose of this report is to document a Waste Management Plan, as part of a Planning Permit Application.

This report is based on the following conditions:

- Operational use of the development (excludes demolition/construction stages).
- Drawings and information supplied by the project architect.
- The figures presented in this report are estimates only. The actual amount of waste will depend on the development's occupancy rate and waste generation intensity, the user's disposition toward waste and recycling, and the Operator's approach to waste management. The Operator shall make adjustments, as required, based on actual waste volumes (if the actual waste volume is greater than estimated, then the number of bins and/or the number of collections per week shall be increased, STCA).
- This report shall not be used to determine/forecast operational costs, or to prepare feasibility studies, or to document operational/safety procedures.

EWERT LEAF

LEVEL 1, 87-91 PALMERSTON CRESCENT, SOUTH MELBOURNE 3205, VICTORIA AUSTRALIA
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1. DO NOT SCALE, USE FIGURED DIMENSIONS ONLY. ALL DIMENSIONS ARE TO BE CONFIRMED ON SITE PRIOR TO COMMENCEMENT OR FABRICATION OF ANY WORK.
2. ANY DIMENSIONAL DISCREPANCY TO BE BROUGHT TO THE ATTENTION OF EWERT LEAF IN WRITING.
3. ALL WORK IS TO BE CARRIED OUT IN ACCORDANCE WITH THE CURRENT BUILDING CODE OF AUSTRALIA AND ANY RELEVANT AUSTRALIAN STANDARD, AND ALSO ANY LOCAL AUTHORITY BY-LAW'S.

REV	DATE	DESCRIPTION	CHECKED	REV	DATE	DESCRIPTION	CHECKED
A	29/10/21	ISSUE FOR PLANNING	JA				

PROJECT

8-10 LINACRE ROAD

8-10 LINACRE ROAD
HAMPTON
VIC 3188

TOWN PLANNING DRAWINGS

DRAWING TITLE
PROPOSED BASEMENT LEVEL 1

SCALE: 1:100
PAGE: A1
DRAWN:
DATE: AUGUST 2021
PROJECT NO: 21133

DRAWING ISSUE
TOWN PLANNING

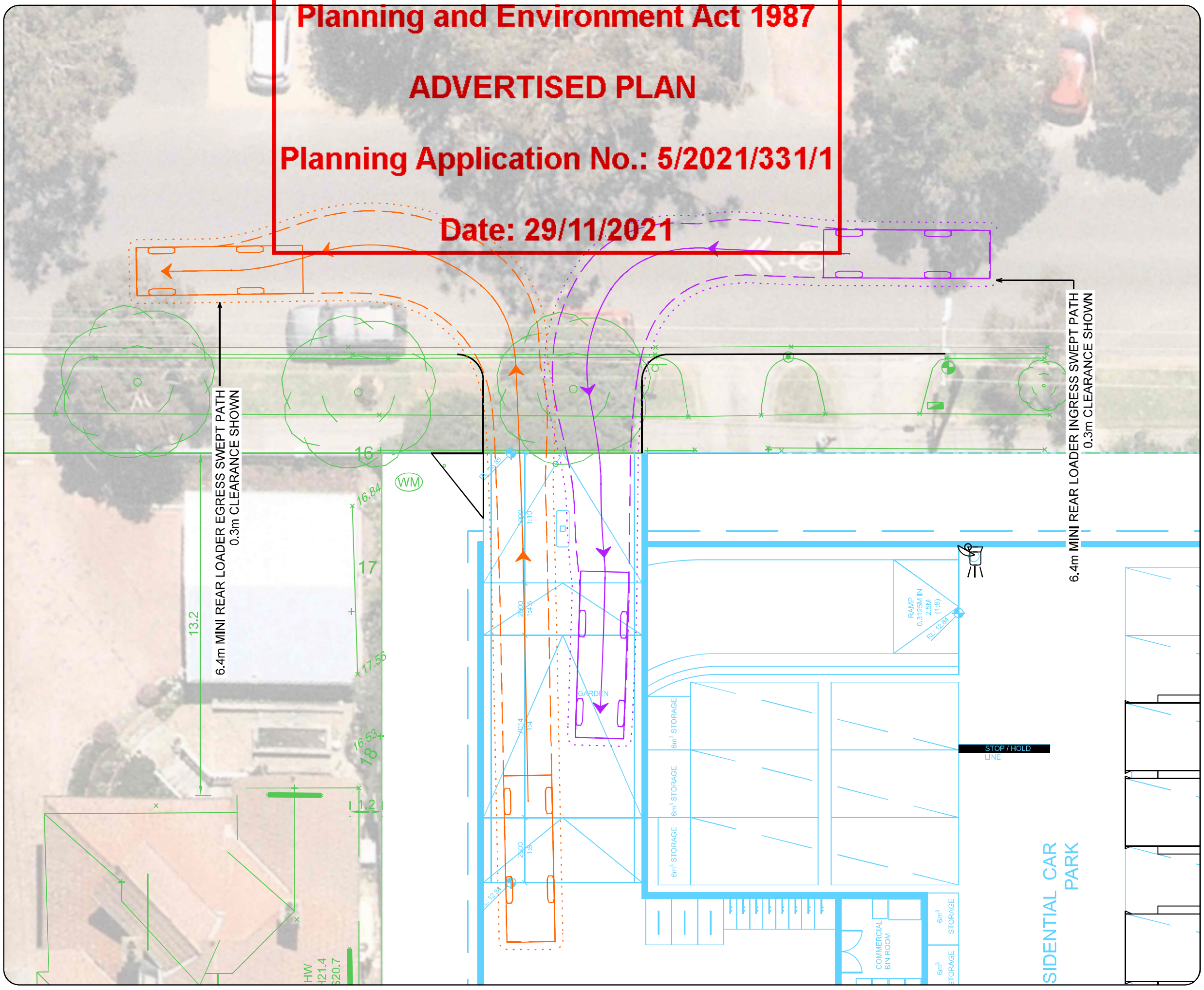
DRAWING No TP-150 REV A

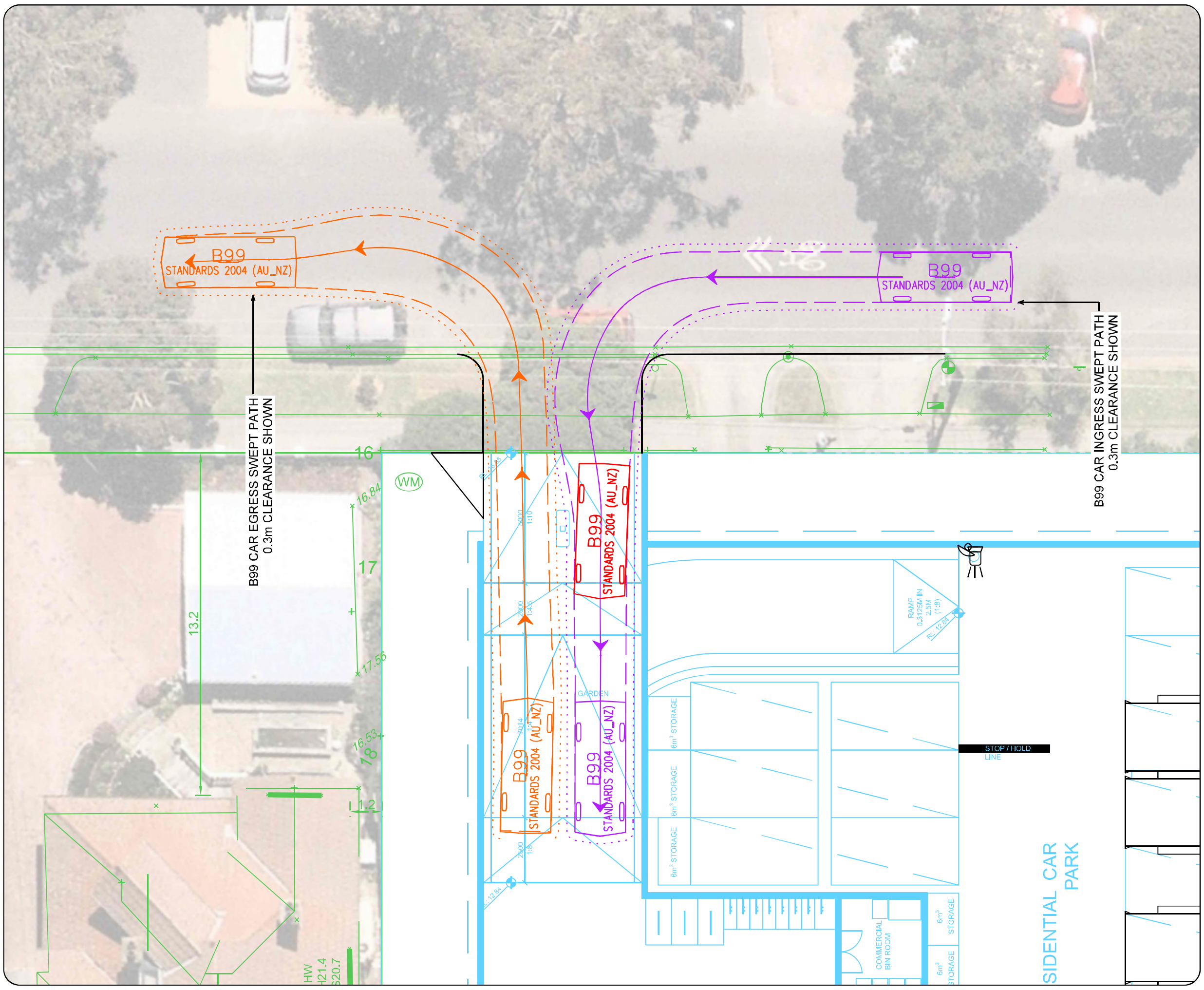
Bayside City Council
Planning and Environment Act 1987

ADVERTISED PLAN

Planning Application No.: 5/2021/331/1

Date: 29/11/2021





Status
PRELIMINARY

Revision Description
ISSUED FOR INFORMATION

Revision
D

[redacted]

Date
2021-11-03

Drawn / Approved
SGM / WD

Drawing Number
IMP2109009 - DG-01-02

Project
MEDICAL CLINIC AND RESIDENTIAL DEVELOPMENT
8-10 LINACRE ROAD, HAMPTON
CITY OF BAYSIDE

Title
SWEPT PATH ANALYSIS
B99 CAR & 6.4m MINI REAR LOADER
BASEMENT 1

MELWAY ONLINE REF: MAP 76 G7

SCALE
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impact

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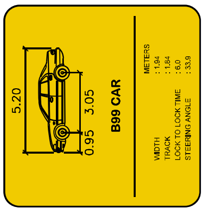

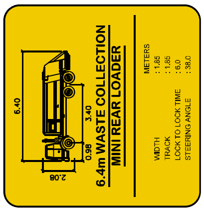

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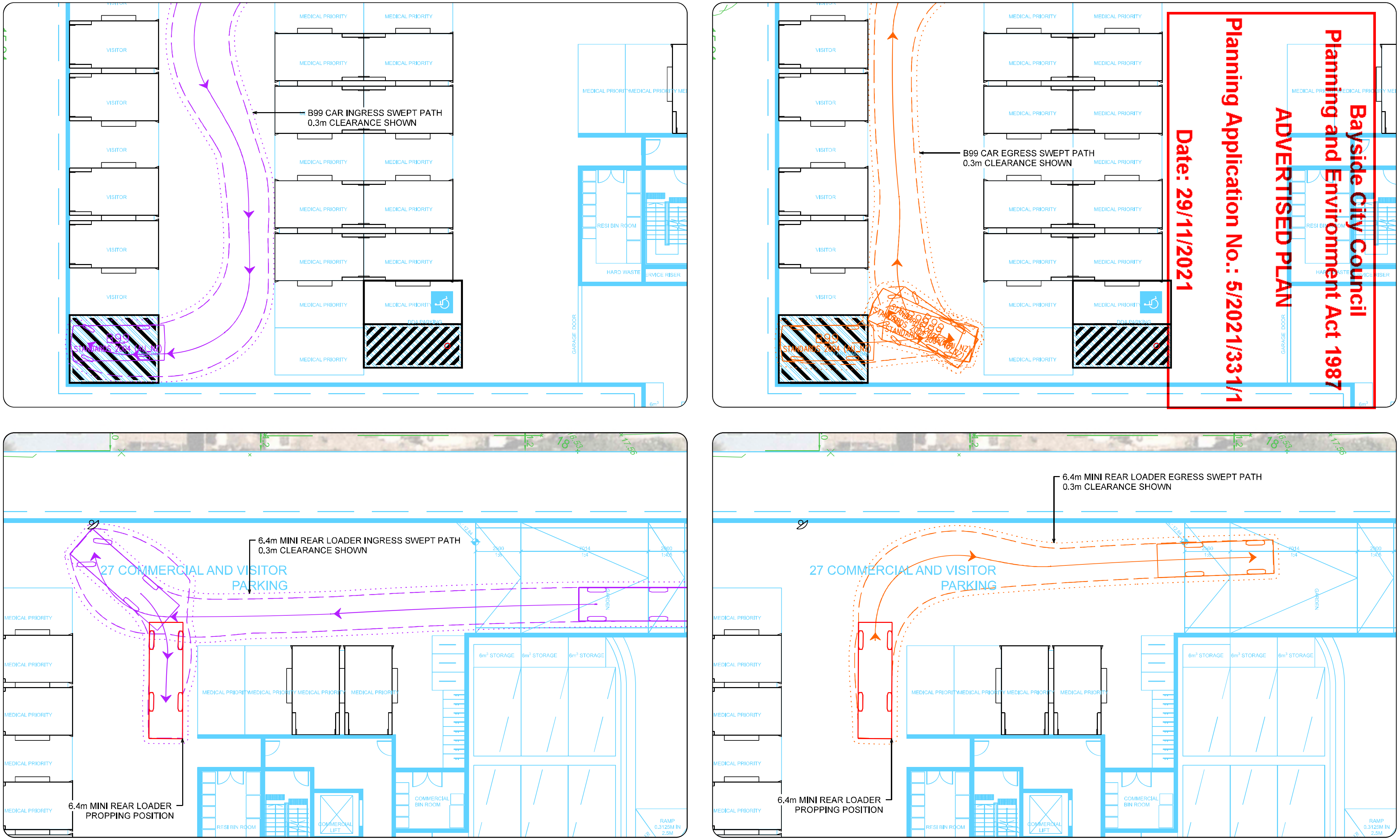

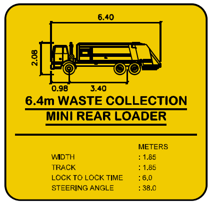

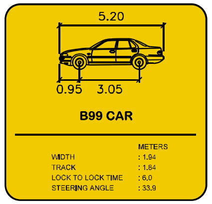

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Impact

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MELWAY ONLINE REF: MAP 76 G7

SCALE
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Project	MEDICAL CLINIC AND RESIDENTIAL DEVELOPMENT 8-10 LINACRE ROAD, HAMPTON CITY OF BAYSIDE
Title	SWEPT PATH ANALYSIS B99 CAR & 6.4m MINI REAR LOADER BASEMENT 1
Status	PRELIMINARY
Revision Description	ISSUED FOR INFORMATION
Date	2021-11-03
Drawn / Approved	SGM / WD
Drawing Number	IMP2109009 - DG-01-03
Revision	D

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Arboricultural Impact Assessment

REPORT COMMISSIONED BY:
[redacted]

DATE OF ASSESSMENT:
Monday, April 12, 2021

SUBJECT SITE:
8-10 Linacre Rd,
Hampton VIC 3188

DATE OF REPORT:
Wednesday, November 24, 2021

REPORT PREPARED BY:
[redacted]

VERSION 4

TMC REPORTS **ARBORICULTURAL CONSULTING SERVICES**

ABN	PHONE	EMAIL	WEBSITE
13 601 685 223	[redacted]	[redacted]	www.tmcreports.com.au

Contents

1 Assignment

1.1 Author / Consulting Arborist

[redacted]

1.2 Client

[redacted]

1.3 Brief

The purpose of this report is to provide an independent arboricultural assessment of prominent trees that are located within the subject site and within five metres of the site boundary lines.

Detail has been requested in relation to the following instructions:

- To provide an objective assessment of the overall condition of the subject trees.
- To provide an objective assessment of the retention value of the subject trees.
- To determine the Tree Protection Zones (TPZ) and Structural Root Zones (SRZ) of the subject trees.
- To determine if the subject trees are expected to remain viable as a result of the proposed development.
- To propose recommendations that are expected to ensure that the subject trees would remain viable post construction.

2 Data collection

2.1 Site visit

- Ben Thomas, of TMC Reports, visited the site for an arboricultural assessment of trees 1-33 on Monday the 12th of April 2021 at 9:15am.
- Ira Francis, of TMC Reports, visited the site for an arboricultural assessment of trees 34-44 on Tuesday the 23rd of November 2021 at 12:30pm.

2.2 Method of data collection

- The subject trees were assessed from observations made as viewed from ground level.
- Access to neighbouring properties was not permitted. Assessment was therefore limited only to parts of the trees that were visible from within the subject site.
- A digital camera was used at ground level to obtain photographs within this report.
- The height of the trees was measured by using a Nikon Forestry Pro 2 Laser Range Finder.
- A circumference tape measure was used to determine the trunk dimensions of Trees 1, 2, 5 – 17, 27 – 31, 32, & 34 – 42.
- Trunk dimensions of neighbouring trees (Trees 3, 4, 18 – 26, 33, 43, & 44) were estimated due to restricted access.
- Encroachment percentages have been calculated via ArborCAD.

2.2.1 Documents viewed

- Proposed plans (August 2021)
- Bayside City Council Planning Scheme
- Australian Standard AS4970 – 2009 ‘Protection of Trees on Development Sites’
- Australian Standard AS4373 – 2007 ‘Pruning of Amenity Trees’

3 Site description

- The subject site is located in a General Residential Zone – Schedule 2 (GRZ2) within the Bayside City Council.
- An existing residential dwelling is located within each of the subject sites.
- The terrain of the site presented with a northerly aspect at the front and generally flat elsewhere.
- The subject trees are all located within the subject sites, council nature strip and adjoining properties (12 Linacre Rd, 2/3, 5, & 9 Alicia St).
- No additional prominent vegetation was observed within five metres of the site boundary lines.

4 Tree data

Tree No.	Botanical Name & Common Name	Age	Origin	Height	Canopy Spread N-S E-W	DBH CA1 DAB	Health	Structure	ULE	Amenity Value	Retention Value	TPZ Radius	SRZ Radius	Comments
1	*Eucalyptus leucoxylon* Yellow Gum	Semi Mature	Native SA VIC	5.0 m	N-S 5.0 m E-W 5.0 m	0.17 m 0.53 m 0.20 m	Good	Fair	20+ years	Low	Council Owned Tree	2.0 m	1.7 m	Council owned tree located within the front nature strip.
2	*Tristaniopsis laurina* Kanooka	Semi Mature	Native QLD NSW VIC	4.4 m	N-S 3.0 m E-W 3.0 m	0.10 m 0.08 m 0.07 m (0.14 m) 0.53 m 0.22 m	Fair	Fair	20+ years	Low	Council Owned Tree	2.0 m	1.8 m	Council owned tree located within the front nature strip. Comprises of 3 stems at 1.2m above ground level.
3	*Eucalyptus botryoides* Southern Mahogany	Semi Mature	Native NSW VIC	8.8 m	N-S 7.0 m E-W 7.0 m	0.13 m 0.13 m (0.18 m) 0.44 m 0.44 m (0.88 m) 0.28 m	Fair	Fair	20+ years	Low	Neighbouring Tree	2.2 m	1.9 m	Neighbouring tree located within the eastern adjoining property (12 Linacre Rd. Comprises of 2 stems at the base.
4	*Callistemon viminalis* Weeping Bottlebrush	Semi Mature	Native QLD NSW	3.0 m	N-S 2.0 m E-W 2.0 m	0.10 m 0.31 m 0.13 m	Good	Good	20+ years	Low	Neighbouring Tree	2.0 m	1.5 m	Neighbouring tree located within the eastern adjoining property (12 Linacre Rd.
5	*Opuntia* sp. Prickly Pear	Semi Mature	Exotic	3.0 m	N-S 2.0 m E-W 2.0 m	N/A	Good	Good	10-20 years	Low	Low	2.0 m	N/A	TPZ adjusted in accordance with section 3.2 of AS4970-2009. SRZ not required in accordance with section 3.3.5 of AS4970-2009.

Tree No.	Botanical Name & Common Name	Age	Origin	Height	Canopy Spread N-S E-W	DBH CA1 DAB	Health	Structure	ULE	Amenity Value	Retention Value	TPZ Radius	SRZ Radius	Comments
6	*Archontophoenix cunninghamiana* Bungalow Palm	Semi Mature	Native QLD NSW	10.0 m	N-S 2.5 m E-W 2.5 m	0.23 m 0.85 m 0.38 m	Good	Good	20+ years	Low	Low	2.3 m	N/A	TPZ adjusted in accordance with section 3.2 of AS4970-2009. SRZ not required in accordance with section 3.3.5 of AS4970-2009.
7	*Archontophoenix cunninghamiana* Bungalow Palm	Semi Mature	Native QLD NSW	10.5 m	N-S 2.5 m E-W 2.5 m	0.23 m 0.82 m 0.33 m	Good	Good	20+ years	Low	Low	2.3 m	N/A	TPZ adjusted in accordance with section 3.2 of AS4970-2009. SRZ not required in accordance with section 3.3.5 of AS4970-2009.
8	*Archontophoenix cunninghamiana* Bungalow Palm	Semi Mature	Native QLD NSW	11.0 m	N-S 2.5 m E-W 2.5 m	0.24 m 0.85 m 0.38 m	Good	Good	20+ years	Low	Low	2.3 m	N/A	TPZ adjusted in accordance with section 3.2 of AS4970-2009. SRZ not required in accordance with section 3.3.5 of AS4970-2009.
9	*Ulmus parvifolia* Chinese Elm	Semi Mature	Exotic	6.0 m	N-S 6.0 m E-W 6.0 m	0.27 m 0.85 m 0.36 m	Good	Good	20+ years	Low	Low	3.2 m	2.2 m	
10	*Yucca* sp. Yucca	Semi Mature	Exotic	4.0 m	N-S 2.0 m E-W 2.0 m	0.13 m 0.13 m 0.13 m (0.22 m) 0.47 m 0.47 m 0.47 m (1.41 m) 0.50 m	Good	Good	10-20 years	Low	Low	2.0 m	N/A	3 trees of the same species; dimensions have been averaged. TPZ adjusted in accordance with section 3.2 of AS4970-2009. SRZ not required in accordance with section 3.3.5 of AS4970-2009.

Tree No.	Botanical Name & Common Name	Age	Origin	Height	Canopy Spread N-S E-W	DBH CA1 DAB	Health	Structure	ULE	Amenity Value	Retention Value	TPZ Radius	SRZ Radius	Comments
11	*Ulmus glabra* 'Lutescens'	Semi Mature	Exotic	8.2 m	N-S 10.0 m	0.33 m 0.26 m 0.23 m 0.42 m 0.16 m (0.65 m)	Fair	Good	20+ years	Moderate	Moderate	7.8 m	2.9 m	Some decay within old wounds.
						2.10 m 1.16 m (3.27 m)								
	Golden Elm				E-W 10.0 m	0.75 m								
12	*Duranta erecta*	Mature	Exotic	4.0 m	N-S 4.0 m	0.10 m 0.10 m (0.14 m)	Good	Good	20+ years	Low	Low	2.0 m	1.6 m	Comprises of 2 stems to 3 stems at the base. 8 trees of the same species forming a hedge; dimensions have been averaged.
						0.35 m 0.35 m (0.69 m)								
	Pigeon Berry				E-W 4.0 m	0.18 m								
13	*Cupressus × leylandii*	Semi Mature	Exotic	10.0 m	N-S 5.0 m	0.23 m	Good	Fair	10-20 years	Low	Low	2.8 m	2.0 m	12 trees of the same species along the boundary wall; dimensions have been averaged.
						0.75 m								
	Leyland Cypress				E-W 5.0 m	0.30 m								
14	*Waterhousea floribunda*	Semi Mature	Native QLD NSW	3.5 m	N-S 2.0 m	0.07 m	Good	Good	20+ years	Low	Low	2.0 m	1.5 m	Hedge consisting of several trees; dimensions have been averaged.
						0.25 m								
	Weeping Lilly Pilly				E-W 2.0 m	0.10 m								
15	*Magnolia x soulangeana*	Semi Mature	Exotic	3.0 m	N-S 3.0 m	0.07 m 0.08 m 0.08 m (0.13 m)	Good	Good	20+ years	Low	Low	2.1 m	2.1 m	Comprises of 3 stems at the base.
						0.25 m 0.28 m 0.28 m (0.82 m)								
	Chinese Magnolia				E-W 3.0 m	0.34 m								

Tree No.	Botanical Name & Common Name	Age	Origin	Height	Canopy Spread N-S E-W	DBH CA1 DAB	Health	Structure	ULE	Amenity Value	Retention Value	TPZ Radius	SRZ Radius	Comments
16	*Olea europaea*	Semi Mature	Exotic	5.0 m	N-S 2.0 m	0.14 m	Good	Good	20+ years	Low	Low	2.0 m	1.7 m	5 trees of the same species; dimensions have been averaged. Trees located in a narrow planting area 1m from the inground pool.
						0.44 m								
	Olive				E-W 2.0 m	0.21 m								
17	*Olea europaea*	Semi Mature	Exotic	5.0 m	N-S 2.0 m	0.10 m	Good	Good	20+ years	Low	Low	2.0 m	1.6 m	7 trees of the same species; dimensions have been averaged. Trees located in a narrow planting area 1m from the inground pool.
						0.31 m								
	Olive				E-W 2.0 m	0.18 m								
18	Unknown sp.	Semi Mature	Unknown	4.0 m	N-S 3.0 m	0.13 m	Good	Fair	20+ years	Low	Neighbouring Tree	2.0 m	1.5 m	Neighbouring trees located within the eastern adjoining property (12 Linacre Rd). Multi-stemmed at ground level. DBH & CA1 measured at ground level. Tree may therefore tolerate a slightly greater than 10% encroachment into the TPZ. 4 trees of the same species; dimensions have been averaged. Boundary brick wall within TPZ.
						0.41 m								
	Unknown				E-W 3.0 m	0.13 m								
19	*Paraserianthes lophantha*	Semi Mature	Native WA	4.2 m	N-S 4.0 m	0.10 m	Good	Good	10-20 years	Low	Neighbouring Tree	2.0 m	1.5 m	Neighbouring tree located within the eastern adjoining property (12 Linacre Rd). Boundary brick retaining wall within TPZ. Subject site appears to be 0.5 - 1m lower than tree location.
						0.35 m								
	Plume Albizia				E-W 4.0 m	0.15 m								

Tree No.	Botanical Name & Common Name	Age	Origin	Height	Canopy Spread N-S E-W	DBH CA1 DAB	Health	Structure	ULE	Amenity Value	Retention Value	TPZ Radius	SRZ Radius	Comments
20	*Corymbia maculata* Spotted Gum	Semi Mature	Native NSW VIC	13.0 m	N-S 10.0 m E-W 10.0 m	0.30 m 1.01 m 0.40 m	Good	Good	20+ years	Moderate	Neighbouring Tree	3.6 m	2.3 m	Neighbouring tree located within the eastern adjoining property (12 Linacre Rd). Boundary brick retaining wall within TPZ. Subject site appears to be 0.5 - 1m lower than tree location.
21	*Corymbia maculata* Spotted Gum	Semi Mature	Native NSW VIC	13.8 m	N-S 12.0 m E-W 12.0 m	0.45 m 1.48 m 0.52 m	Good	Good	20+ years	Moderate	Neighbouring Tree	5.4 m	2.5 m	Neighbouring tree located within the eastern adjoining property (12 Linacre Rd). Boundary brick retaining wall within TPZ. Subject site appears to be 0.5 - 1m lower than tree location.
22	*Grevillea robusta* Silky Oak	Semi Mature	Native QLD NSW	11.6 m	N-S 8.0 m E-W 8.0 m	0.22 m 0.72 m 0.30 m	fair	Fair	20+ years	Low	Neighbouring Tree	2.6 m	2.0 m	Neighbouring tree located within the eastern adjoining property (12 Linacre Rd). Boundary brick retaining wall within TPZ. Subject site appears to be 0.5 - 1m lower than tree location. Ivy on much of the main stem.
23	*Phoenix canariensis* Canary Island Date Palm	Young	Exotic	4.0 m	N-S 3.0 m E-W 3.0 m	0.30 m 0.94 m 0.30 m	Good	Fair	20+ years	Low	Neighbouring Tree	2.5 m	N/A	Neighbouring tree located within the eastern adjoining property (12 Linacre Rd). Boundary brick retaining wall within TPZ. Subject site appears to be 0.5 - 1m lower than tree location. TPZ adjusted in accordance with section 3.2 of AS4970-2009. SRZ not required in accordance with section 3.3.5 of AS4970-2009.

Tree No.	Botanical Name & Common Name	Age	Origin	Height	Canopy Spread N-S E-W	DBH CA1 DAB	Health	Structure	ULE	Amenity Value	Retention Value	TPZ Radius	SRZ Radius	Comments
24	*Corymbia citriodora* Lemon-scented Gum	Semi Mature	Native QLD NSW	11.2 m	N-S 8.0 m E-W 8.0 m	0.30 m 1.01 m 0.35 m	Poor	Fair	5-10 years	Low	Neighbouring Tree	3.6 m	2.1 m	Neighbouring tree located within the southern adjoining property (9 Alicia St). Sparse foliage throughout canopy due to possum grazing.
25	*Syzygium smithii* Lilly Pilly	Semi Mature	Native QLD NSW	10.0 m	N-S 7.0 m E-W 7.0 m	0.30 m 1.01 m 0.40 m	Good	Good	20+ years	Moderate	Neighbouring Tree	3.6 m	2.3 m	Neighbouring tree located within the eastern adjoining property (12 Linacre Rd).
26	*Melaleuca styphelioides* Prickly Paperbark	Semi Mature	Native QLD NSW VIC	4.4 m	N-S 2.0 m E-W 2.0 m	0.10 m 0.35 m 0.14 m	Good	Good	20+ years	Low	Neighbouring Tree	2.0 m	1.5 m	Neighbouring tree located within the southern adjoining property (9 Alicia St).
27	*Citrus x limon* Lemon	Mature	Exotic	4.8 m	N-S 5.0 m E-W 5.0 m	0.30 m 0.94 m 0.30 m	Good	Good	20+ years	Low	Low	3.6 m	2.0 m	Multi-stemmed at ground level. DBH & CA1 measured at ground level. Tree may therefore tolerate a slightly greater than 10% encroachment into the TPZ.
28	*Camellia japonica* Japanese Camellia	Mature	Exotic	4.0 m	N-S 4.0 m E-W 4.0 m	0.30 m 0.94 m 0.30 m	Good	Good	20+ years	Low	Low	3.6 m	2.0 m	Multi-stemmed at ground level. DBH & CA1 measured at ground level. Tree may therefore tolerate a slightly greater than 10% encroachment into the TPZ.
29	*Archontophoenix cunninghamiana* Bungalow Palm	Semi Mature	Native QLD NSW	4 to 6 m	N-S 3.0 m E-W 3.0 m	0.14 m 0.47 m 0.20 m	Good	Good	20+ years	Low	Low	2.5 m	N/A	6 trees of the same species; dimensions have been averaged. TPZ adjusted in accordance with section 3.2 of AS4970-2009. SRZ not required in accordance with section 3.3.5 of AS4970-2009.

Tree No.	Botanical Name & Common Name	Age	Origin	Height	Canopy Spread N-S E-W	DBH CA1 DAB	Health	Structure	ULE	Amenity Value	Retention Value	TPZ Radius	SRZ Radius	Comments
30	Mixed sp.	Semi Mature	Mixed	6 to 8 m	N-S 3.0 m	0.16 m	Good	Good	20+ years	Low	Low	2.5 m	N/A	Group of 4 trees: - x3 *Trachycarpus fortunei* - x1 *Archontophoenix cunninghamiana* Tree dimensions have been averaged. TPZ adjusted in accordance with section 3.2 of AS4970-2009. SRZ not required in accordance with section 3.3.5 of AS4970-2009. Existing dwelling and driveway within TPZ.
						0.53 m								
	Mixed vegetation				E-W 3.0 m	0.20 m								
31	*Pyrus calleryana* 'Capital'	Semi Mature	Exotic	4 to 5 m	N-S 2.0 m	0.09 m	Good	Good	20+ years	Low	Low	2.0 m	1.5 m	19 trees of the same species; dimensions have been averaged.
						0.31 m								
	Ornamental Pear				E-W 2.0 m	0.11 m								
32	*Pyrus calleryana* 'Capital'	Semi Mature	Exotic	3 to 4 m	N-S 2.0 m	0.07 m	Good	Good	20+ years	Low	Low	2.0 m	1.5 m	9 trees of the same species; dimensions have been averaged.
						0.25 m								
	Ornamental Pear				E-W 2.0 m	0.09 m								
33	Unknown sp.	Semi Mature	Unknown	3.0 m	N-S 2.0 m	0.10 m	Dead	Poor	0 years	Low	Neighbouring Tree	2.0 m	1.5 m	Neighbouring tree located within the eastern adjoining property (12 Linacre Rd). Multi-stemmed at ground level. DBH & CA1 measured at ground level. Tree may therefore tolerate a slightly greater than 10% encroachment into the TPZ. Boundary brick retaining wall within TPZ. Subject site appears to be 0.5 - 1m lower than tree location.
						0.31 m								
	Unknown				E-W 2.0 m	0.10 m								

Tree No.	Botanical Name & Common Name	Age	Origin	Height	Canopy Spread N-S E-W	DBH CA1 DAB	Health	Structure	ULE	Amenity Value	Retention Value	TPZ Radius	SRZ Radius	Comments
34	*Corymbia ficifolia*	Mature	Native WA	4.5 m	N-S 5.0 m	0.21 m 0.18 m 0.17 m (0.32 m)	Good	Good	20 + years	Moderate	Council Owned Tree	3.9 m	2.1 m	Council owned tree located within the front nature strip.
						0.72 m 0.79 m (1.51 m)								
	Flowering Gum				E-W 5.0 m	0.34 m								
35	*Corymbia ficifolia*	Young	Native WA	1.3 m	N-S 1.0 m	0.03 m	Good	Good	20 + years	Low	Council Owned Tree	2.0 m	1.5 m	Council owned tree located within the nature strip in front of the western adjoining property (6 Linacre Road). Young tree not yet established.
						0.09 m								
	Flowering Gum				E-W 1.0 m	0.05 m								
36	*Eucalyptus* sp.	Young	Native	2.0 m	N-S 1.0 m	0.03 m	Good	Good	20 + years	Low	Council Owned Tree	2.0 m	1.5 m	Council owned tree located within the front nature strip. Young tree planted since original assessment at 10 Linacre Rd.
						0.09 m								
	Gum tree				E-W 1.0 m	0.05 m								
37	*Ligustrum lucidum*	Mature	Exotic	6.0 m	N-S 5.0 m	0.13 m 0.09 m 0.16 m (0.22 m)	Good	Good	20 + years	Low	Low	2.7 m	2.0 m	Multi-stemmed at ground level. DAB has been estimated.
						0.41 m 0.28 m 0.50 m (1.19 m)								
	Broad-leaf privet				E-W 5.0 m	0.30 m								
38	*Ligustrum lucidum*	Mature	Exotic	6.0 m	N-S 5.0 m	0.18 m	Good	Good	20 + years	Low	Low	2.2 m	1.8 m	
						0.57 m								
	Broad-leaf privet				E-W 5.0 m	0.22 m								

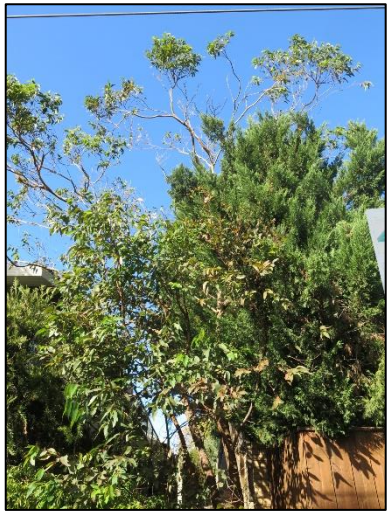
Tree No.	Botanical Name & Common Name	Age	Origin	Height	Canopy Spread N-S E-W	DBH CA1 DAB	Health	Structure	ULE	Amenity Value	Retention Value	TPZ Radius	SRZ Radius	Comments
39	*Viburnum tinus*	Mature	Exotic	4.0 m	N-S 3.0 m	N/A	Good	Good	20 + years	Low	Low	2.0 m	1.5 m	Too many stems to practically measure or estimate. TPZ & SRZ have therefore been estimated.
						N/A								
	Laurustinus				E-W 3.0 m	N/A								
40	*Phoenix canariensis*	Mature	Exotic	13.0 m	N-S 7.0 m	0.59 m	Good	Good	20 + years	Moderate	Moderate	4.5 m	N/A	
						1.85 m								
	Canary Island date palm				E-W 7.0 m	0.64 m								
41	*Jacaranda mimosifolia*	Mature	Exotic	7.5 m	N-S 4.5 m	0.16 m 0.20 m (0.25 m)	Fair	Good	20 + years	Low	Low	3.1 m	1.9 m	
						0.75 m								
	Jacaranda				E-W 4.5 m	0.26 m								
42	*Waterhousea floribunda*	Mature	Native NSW QLD	6.5 m	N-S 5.0 m	0.17 m 0.23 m (0.28 m)	Good	Good	20 + years	Low	Low	3.4 m	2.0 m	2 trees of the same species. Tree dimensions taken from largest. Existing shed within TPZ. Canopy distributed predominantly towards site.
						0.82 m								
	Weeping lilli pilli				E-W 5.0 m	0.31 m								
43	*Laurus nobilis*	Semi Mature	Exotic	5.0 m	N-S 2.0 m	0.10 m	Good	Good	20 + years	Low	Neighbouring Tree	2.0 m	1.5 m	Neighbouring tree located within the southern adjoining property (5 Alicia Street).
						0.31 m								
	Bay laurel				E-W 2.0 m	0.10 m								
44	*Pyrus calleryana*	Mature	Exotic	3.5 m	N-S 2.2 m	0.15 m	Good	Fair	20 + years	Low	Neighbouring Tree	2.0 m	1.5 m	Row of neighbouring trees located within the southern adjoining property (2/3 Alicia Street). Restricted visibility of tree.
						0.47 m								
	Ornamental pear				E-W 2.7 m	0.16 m								

4.1 Photographic evidence

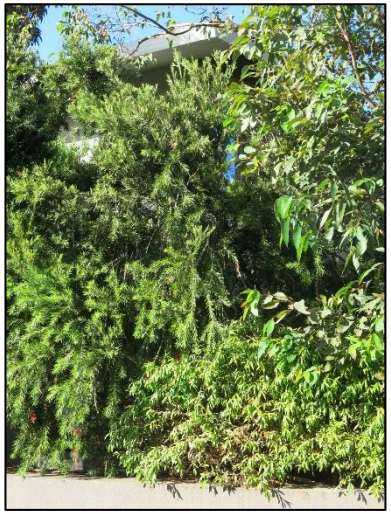
The following photographs were obtained during the site visit:

Tree 1

Tree 2



Tree 3

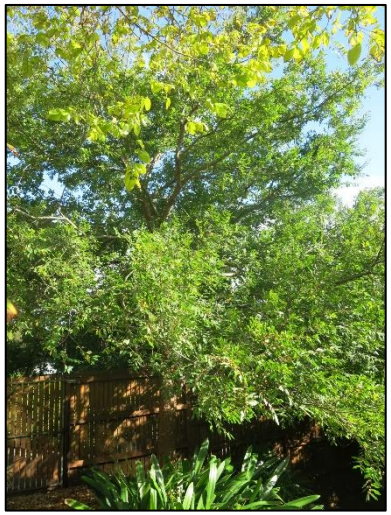


Tree 4

Tree 5

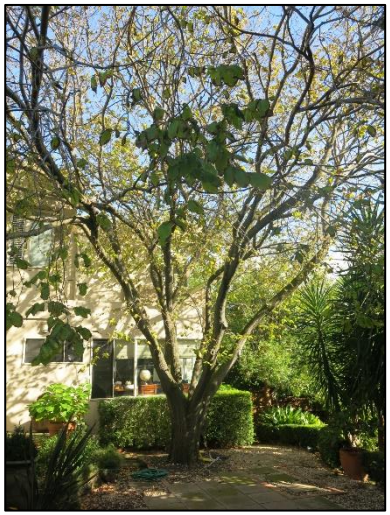
Tree 6

Tree 7 & 8



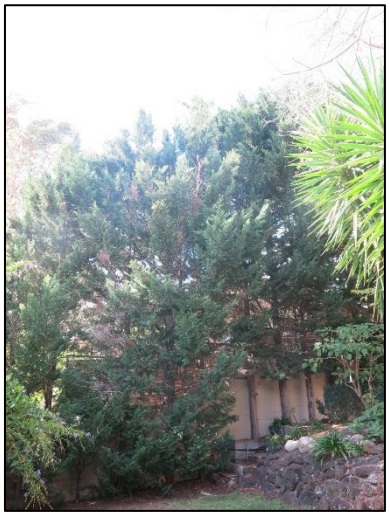
Tree 9

Tree 10



Tree 11

Tree 12



Tree 13

Tree 14

Tree 15

Tree 16

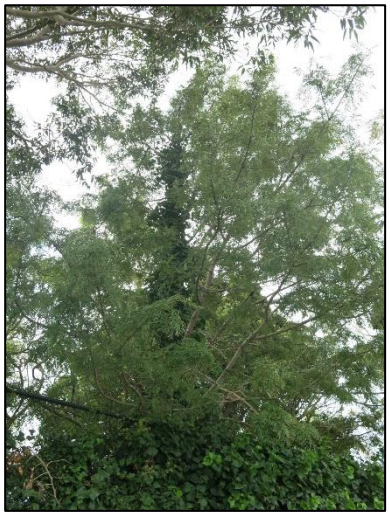
Tree 17

Tree 18

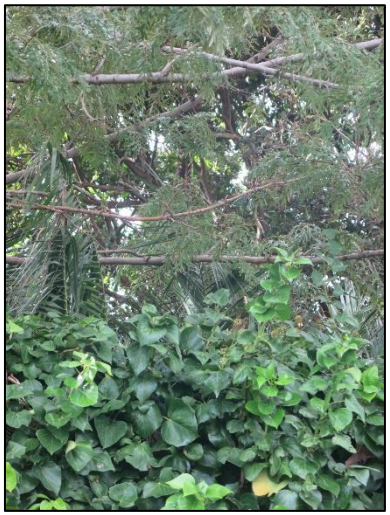
Tree 19

Tree 20

Tree 21



Tree 22

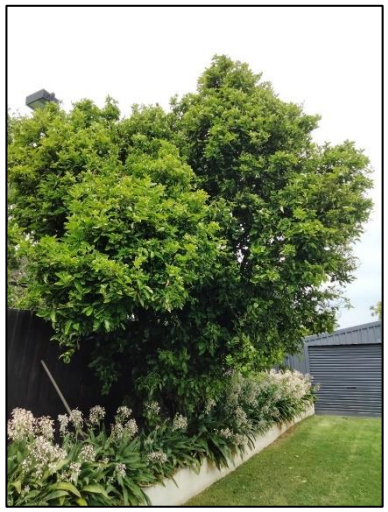


Tree 23

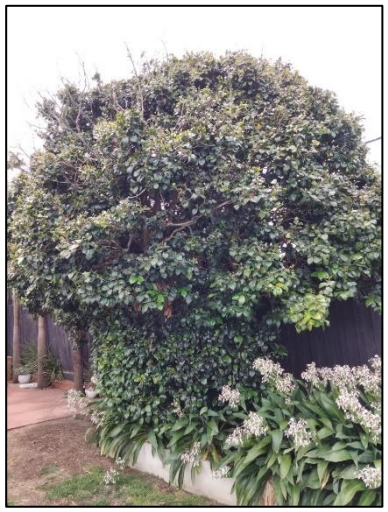
Tree 24

Tree 25

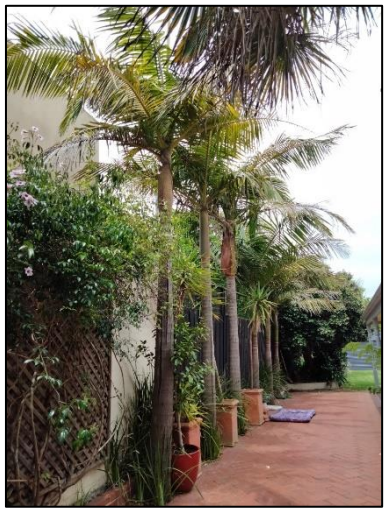
Tree 26



Tree 27



Tree 28

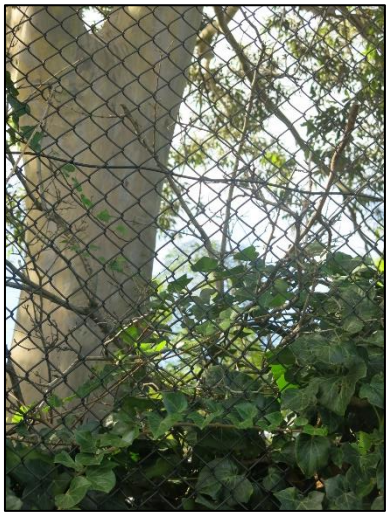


Tree 29

Tree 30

Tree 31

Tree 32



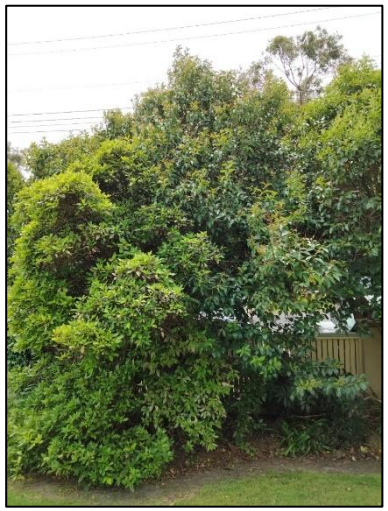
Tree 33

Tree 34

Tree 35

Tree 36

Tree 37

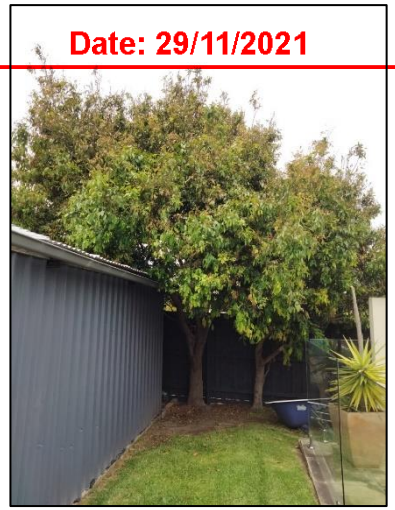


Tree 38

Tree 39

Tree 40

Tree 41



Tree 42

Tree 43

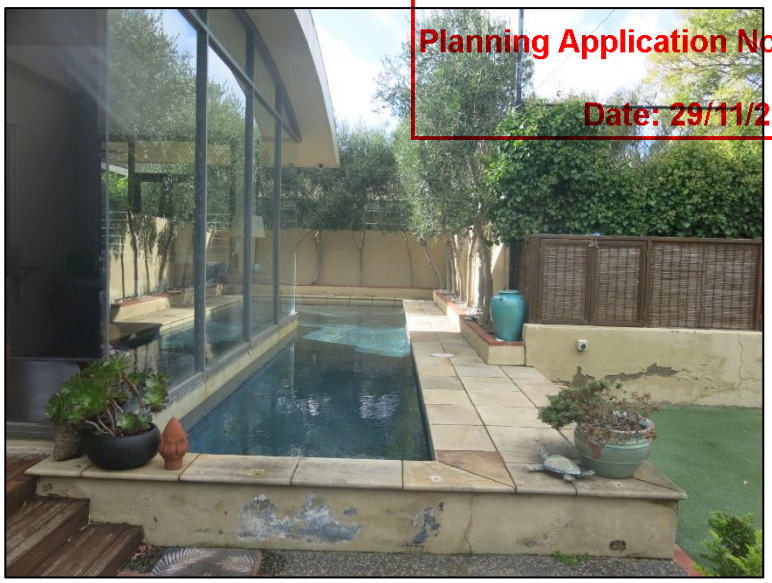
Tree 44

Neighbouring location of Trees 20 & 21, approx. 0.5 – 1m higher than subject site.

10 Linacre front yard viewed from the north

10 Linacre front yard viewed from the east

10 Linacre driveway viewed from the north



10 Linacre pool area viewed from the west

10 Linacre rear yard viewed from the north

10 Linacre rear yard viewed from the south

8 Linacre Rd viewed from Linacre Rd

8 Linacre front yard viewed from the east

8 Linacre Rd eastern boundary viewed from south

8 Linacre Rd rear yard viewed from the south

8 Linacre Rd northern boundary viewed from east

8 Linacre Rd western boundary viewed from north

Bayside City Council
Planning and Environment Act 1987

ADVERTISED PLAN

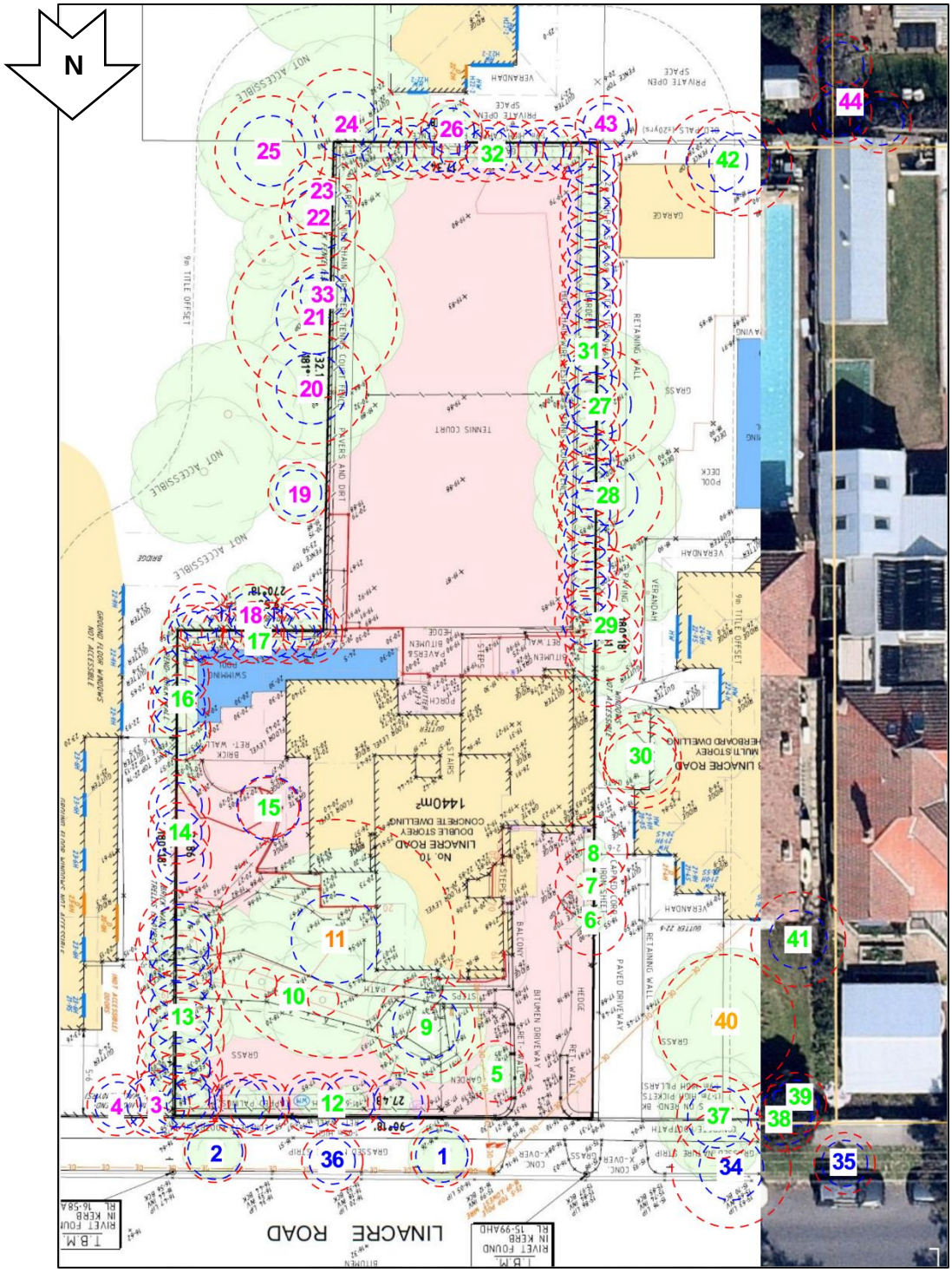
Planning Application No.: 5/2021/331/1

Date: 29/11/2021

5 Site maps

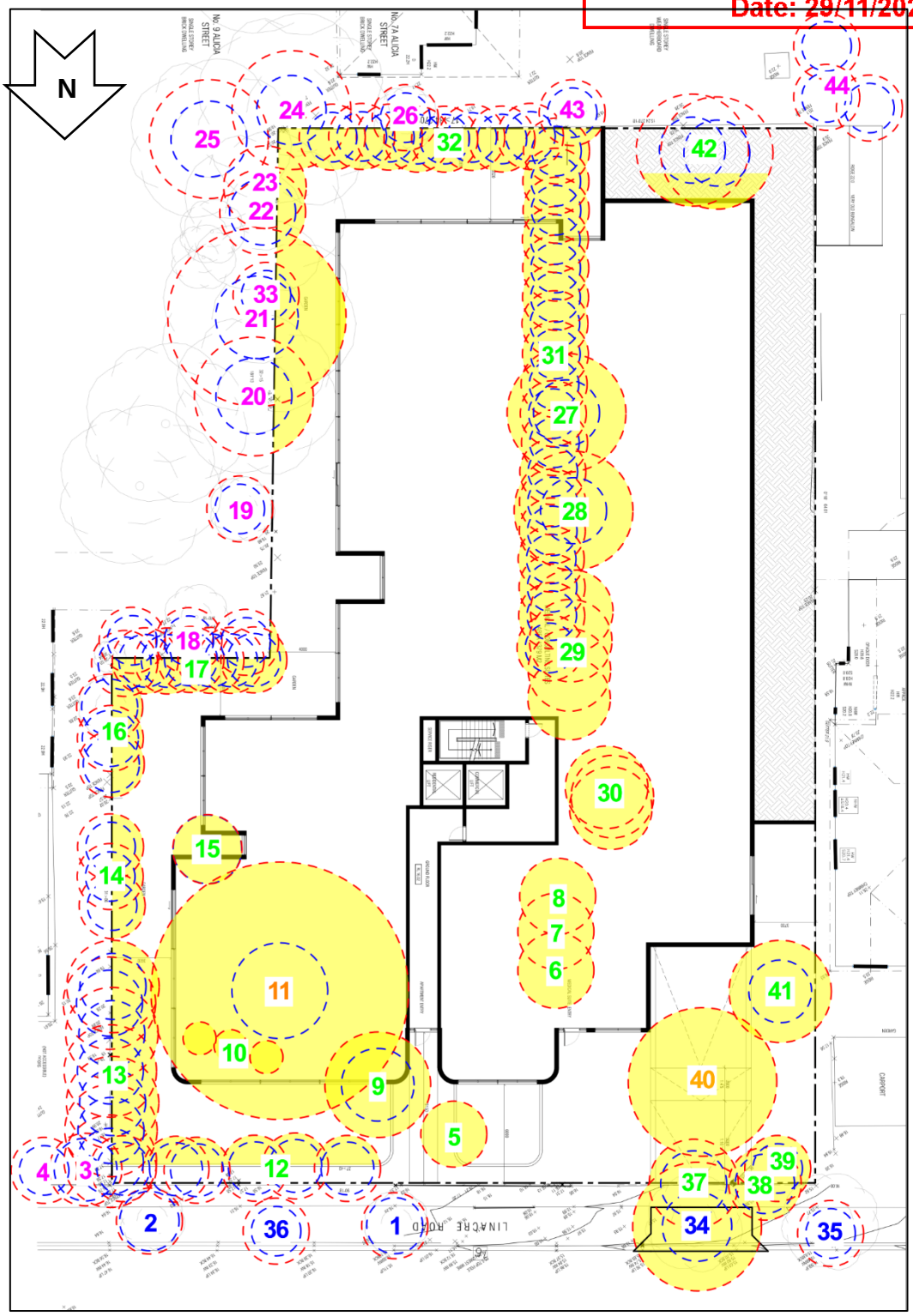
5.1 Existing conditions

The following map indicates the tree locations in relation to the existing conditions:



5.2 Proposed plan

The following map indicates the tree locations in relation to the proposed plans:



Note: Lower ground plans shown; encroachments are mapped from both lower ground and upper ground plans.

LEGEND

- LOW RETENTION VALUE
- MODERATE RETENTION VALUE
- HIGH RETENTION VALUE
- OTHER PERSON'S TREE
- COUNCIL OWNED TREE
- PROPOSED ENCROACHMENT
- TREE PROTECTION ZONE
- STRUCTURAL ROOT ZONE

6 Discussion

6.1 Tree protection zone

The tree protection zone (TPZ) is determined by multiplying the trunk diameter of the tree at breast height, 1.4m from ground level, by 12. A 10% encroachment on one side of this zone is acceptable without investigation into root distribution or offset of the lost area.

Section 3.2 of the Australian Standard AS4970 – 2009 Protection of Trees on Development Sites states that the TPZ of Palms, other monocots, cycads and tree ferns should not be less than 1 m outside the crown projection.

6.2 Structural root zone

The structural root zone (SRZ) is the setback required to avoid damage to stabilising structural roots. The loss of roots within the SRZ must be avoided. The SRZ is determined by applying the following formula: (D X 50) 0.42 X 0.64 where D = trunk diameter in metres.

6.3 Designing around trees

It may be possible to encroach into or make variations to the TPZ of the trees that must be retained. Encroachment includes excavation, compacted fill and machine trenching.

The following is referenced from section 3.3.3 of the Australian Standards AS4970 – 2009 Protection of Trees on Development Sites:

6.3.1 Minor encroachment

If the proposed encroachment is less than 10% of the area of the TPZ and is outside the SRZ, detailed root investigations should not be required. The area lost to this encroachment should be compensated for elsewhere and contiguous with the TPZ.

6.3.2 Major encroachment

If the proposed encroachment is greater than 10% of the TPZ or inside the SRZ the project arborist must demonstrate that the trees would remain viable. The area lost to this encroachment should be compensated for elsewhere and contiguous with the TPZ. This may require root investigation by non-destructive methods.

7 Conclusion

7.1 Tree retention value

7.1.1 Council owned trees

The following trees belong to Bayside City Council:

- Tree 1
- Tree 2
- Tree 34
- Tree 35
- Tree 36

7.1.2 Neighbouring trees

The following trees do not belong to the property owner:

- Tree 3
- Tree 4
- Tree 18
- Tree 19
- Tree 20
- Tree 21
- Tree 22
- Tree 23
- Tree 24
- Tree 25
- Tree 26
- Tree 33
- Tree 43
- Tree 44

7.1.3 Low retention value

The following trees are considered to be of low retention value as they are relatively small specimens that are insignificant to the landscape:

- Tree 5
- Tree 6
- Tree 7
- Tree 8
- Tree 9
- Tree 10
- Tree 12
- Tree 13
- Tree 14
- Tree 15
- Tree 16
- Tree 17
- Tree 27
- Tree 28
- Tree 29
- Tree 30
- Tree 31
- Tree 32
- Tree 37
- Tree 38
- Tree 39
- Tree 41
- Tree 42

7.1.4 Moderate retention value

The following trees are considered to be of moderate retention value as they are moderate sized specimens that are growing in suitable locations:

- Tree 11
- Tree 40

7.2 Permit requirements

7.2.1 Local law

The site is subject to Bayside City Council local law which states the following:

A Person must not, without a Permit:

- destroy, damage or remove or allow to be destroyed, damaged or removed on any Private Property; or
- cut, trim, lop or prune or allow to be cut, trimmed, lopped or pruned on any Private Property any Significant Tree or any other protected Tree.

For the purposes of sub-clause (1) a protected Tree is a Tree with a Single Trunk Circumference or Combined Trunk Circumference greater than 155 centimetres measured at 1 metre above ground level but excluding species which are declared Noxious Weeds.

If a Permit has been granted and contains a condition requiring the planting of one or more replacement Trees, a Person must not, except in accordance with another Permit granted by the Council or an Authorised or Delegated Officer:

- destroy, damage or remove or allow to be destroyed, damaged or removed; or
- cut, trim, lop or prune or allow to be cut, trimmed, lopped or pruned, any Tree planted under that condition.

Palms, ferns and non-woody plants.

- Please note that palms, ferns and non-woody plants do not meet the definition of 'tree' in Council's local law and do not need a local law permit to remove.

A permit is not required to prune a tree protected by the Local Law in special circumstances, these are:

- The removal or pruning of that part of the tree that poses an immediate risk to persons or property. Only that part of the tree that poses the immediate risk may be removed under this exemption.
- When the work is to be carried out by an arborist trained to AQF Level 3 in Arboriculture, or above, or equivalent recognised and relevant experience. The work needs to conform to the Australian Standard No. 4373, 2007 Pruning of Amenity Trees. The contractor must certify their work, including photographs of before and after work.
- Trees declared as noxious weeds under the Catchment and Land Protections Act 1994.

7.2.2 Street trees

7.2.2.1 Working around Council trees

Basic information regarding Council trees

Maintenance – Requests for pruning will be undertaken by Council's authorised tree-care contractors**.**

Tree removal – For permission to remove a tree to facilitate development, see *Street and Park Tree Management Policy* on the Bayside City Council website: https://www.bayside.vic.gov.au/sites/default/files/council/street_and_park_tree_management_policy_2016.pdf

Root Pruning

TREE ROOTS GREATER THAN 50mm MUST NOT BE CUT unless authorised. A penalty applies for damage to Council assets under Local Law s70(2).

Bayside City Council Open Space Arborists must be contacted to approve any proposed cutting of roots greater than 50mm in diameter.

Mechanical excavation or trenching must not be undertaken within the Exclusion Zone.

Exclusion Zone – Restrictions in this Zone are based on AS 4970-2009 3.3.4 Tree Protection Zone (TPZ) encroachment considerations.

EXCLUSION ZONE distances for different tree sizes	
Trunk diameter measured at 1.4 m above ground level	**EXCLUSION ZONE** distances from trunk for no excavation
Up to 25 cm	2.0 m
25–50 cm	3.0 m
≥51 cm	3.5 m

INSTALLATION OF INFRASTRUCTURE

1. **Utilities/Services** Council's Open Space Arborist must be contacted with a plan of the proposed works and include the address, tree location and proposed service location.

Send plans to: enquiries@bayside.vic.gov.au attention: Open Space Arborist. Please allow at least 10 ten working days from date received at Council for response.

Proposed site of excavation should be identified in the plans for installation of services and vehicles crossings must be identified in plans – see above.

Boring must be used for installation of services within this zone unless otherwise approved in writing by the Open Space Arborist.

2. **Vehicle Crossings (including Planning and Building permit referrals) –** The location of a vehicle crossing inside a Council tree's TPZ will be determined by non-destructive root investigation along the proposed line of excavation adjacent to the tree. Mature size and future growth of the tree must be taken into consideration. The Open Space Arborist will assess each application for final approval.

3. **Civil works –** careful excavation must be undertaken where there is obvious conflict with tree roots. All pruning of roots <50mm in diameter must be undertaken with a clean and sharp hand-saw.

Nature Strip Planting Policy provides guidance for undertaking works on nature strips. Removal of soil around street trees should not be undertaken without prior approval by the Open Space Arborists.
https://www.bayside.vic.gov.au/sites/default/files/council/doc_14_169724_nature_strip_planting_policy_2014.pdf

7.2.2.2 Working Near Council Trees

Conditions for the protection of Council trees are issued to developers of land via Asset Protection, Hoarding, Planning and/or Vehicle Crossing Permits obtained prior to commencing works near Council trees.

Any other works, such as routine road openings by authorities or utilities installers that require excavation within three metres of a tree must comply with the Working Near Council Trees Guideline.

Failure to comply with tree protection conditions will result in the permit holder being liable for penalties under the Local Law.

7.2.2.3 Tree removal to facilitate development

In circumstances where the development of a site can reasonably be achieved with the retention of a council tree, the tree will be retained. However, in circumstances where this is not possible and removal is approved under the policy, the applicant will be required to compensate the community for the removal of the tree.

7.2.2.4 Removal criteria

The Council may agree to the removal or replacement of a street tree to facilitate development when the following criteria are met:

- The tree has a Safe Useful Life Expectancy (SULE) of less than 10 years (as determined by an appropriate Council officer).
- The tree has a value of less than $30,000 (as determined by Council's approved valuation method).
- It will be impractical to incorporate the tree into the design of the development.
- The applicant agrees to pay the cost of removing the tree/s.
- The applicant agrees to pay planting costs for replacement tree/s (including any applicable tree gain).
- The applicant agrees to pay compensation for loss of amenity in the amount of the current value of the tree (as determined by Bayside's agreed valuation system).

7.2.3 Trees subject to permit requirements

The following tree requires a permit to destroy, damage, remove or prune in accordance with local law:

- Tree 11

The following trees belong to Bayside Council and must only be maintained by Council staff or contractors:

- Tree 1
- Tree 2
- Tree 34
- Tree 35
- Tree 36

7.3 Impact assessment

The following table represents the encroachments of the proposed development:

Tree No.	Encroachment	TPZ encroachment	SRZ encroachment	Encroachment category	Proposed retention
1	N/A	0%	0%	N/A	Retain
2	N/A	0%	0%	N/A	Retain
3	Site cut	7.9%	3.3%	Major	Retain
4	N/A	0%	0%	N/A	Retain
5	Front path	Entire tree	Entire tree	Major	Remove
6	Building	Entire tree	Entire tree	Major	Remove
7	Building	Entire tree	Entire tree	Major	Remove
8	Building	Entire tree	Entire tree	Major	Remove
9	Building	Entire tree	Entire tree	Major	Remove
10	Building	Entire tree	Entire tree	Major	Remove
11	Building	Entire tree	Entire tree	Major	Remove
12	LG garden/site cut	Entire tree	Entire tree	Major	Remove
13	LG garden/site cut	Entire tree	Entire tree	Major	Remove
14	LG garden/site cut	Entire tree	Entire tree	Major	Remove
15	Building	Entire tree	Entire tree	Major	Remove
16	LG garden/site cut	Entire tree	Entire tree	Major	Remove
17	LG garden/site cut	Entire tree	Entire tree	Major	Remove
18	LG garden/site cut	26.8%	10.9%	Major	Retain
19	N/A	0%	0%	N/A	Retain
20	LG garden/site cut	28.7%	17.6%	Major	Retain
21	LG garden/site cut	36.8%	22.3%	Major	
	Building	2.4%	0%	Minor	
	TOTAL	**36.8%**	**22.3%**	**Major**	Retain
22	LG garden/site cut	28.9%	22.8%	Major	Retain
23	LG garden/site cut	30.7%	N/A	Major	Retain
24	LG garden/site cut	20.3%	14.9%	Major	Retain
25	N/A	0%	0%	N/A	Retain
26	LG garden/site cut	30.5%	23.8%	Major	Retain
27	Building	Entire tree	Entire tree	Major	Remove
28	Building	Entire tree	Entire tree	Major	Remove
29	Building	Entire tree	Entire tree	Major	Remove
30	Building	Entire tree	Entire tree	Major	Remove
31	Building & LG garden/site cut	Entire tree	Entire tree	Major	Remove
32	LG garden/site cut	Entire tree	Entire tree	Major	Remove
33	LG garden/site cut	31.3%	25.5%	Major	Retain
34	Crossover	Entire tree	Entire tree	Major	Remove
35	N/A	0%	0%	N/A	Retain
36	N/A	0%	0%	N/A	Retain
37	Driveway	Entire tree	Entire tree	Major	Remove
38	Site cut	Entire tree	Entire tree	Major	Remove
39	Site cut	Entire tree	Entire tree	Major	Remove
40	Driveway	Entire tree	Entire tree	Major	Remove
41	Site cut	Entire tree	Entire tree	Major	Remove
42	Paving	27.6%	13.6%	Major	
	Building	5.4%	0%	Minor	
	TOTAL	**27.6%**	**13.6%**	**Major**	Remove
43	LG garden/site cut	21.7%	13.4%	Major	Retain
44	N/A	0%	0%	N/A	Retain

Note: Encroachment calculations are approximate and do not consider over excavation.

7.3.1 No encroachment

Development is not proposed to encroach into the TPZ or SRZ of the following trees:

- Tree 1
- Tree 2
- Tree 4
- Tree 19
- Tree 25
- Tree 35
- Tree 36
- Tree 44

The proposed development is not expected to compromise the long-term viability of the above-mentioned trees.

Less invasive construction measures or development redesign is therefore not required to ensure that these trees would remain viable post construction.

7.3.2 Major encroachment

The proposed development is considered to be a major encroachment according to section 3.3.3 of the Australian Standard AS4970 – 2009 'Protection of Trees on Development Sites' of the following trees:

- Tree 3
- Tree 5
- Tree 6
- Tree 7
- Tree 8
- Tree 9
- Tree 10
- Tree 11
- Tree 12
- Tree 13
- Tree 14
- Tree 15
- Tree 16
- Tree 17
- Tree 18
- Tree 20
- Tree 21
- Tree 22
- Tree 23
- Tree 24
- Tree 26
- Tree 27
- Tree 28
- Tree 29
- Tree 30
- Tree 31
- Tree 32
- Tree 33
- Tree 34
- Tree 37
- Tree 38
- Tree 39
- Tree 40
- Tree 41
- Tree 42
- Tree 43

Tree 3

- The encroachment of the site cut is 7.9% of the TPZ and 3.3% of the SRZ, which is considered to be major (6.3.2).
- This tree is a neighbouring tree which is proposed to be retained.
- Although this is considered to be a major encroachment, the tree is expected to remain viable due to the following factors:
  - The encroachment only slightly falls into the major category.
  - The tree is of a hardy species that generally tolerates root disturbance well.
- Less invasive construction measures are not required to ensure that this tree would remain viable post construction.

Tree 5

- The tree is located within the proposed footprint of the front path.
- The tree is required to be removed in order to construct the proposed development.
- This tree is of low retention value.
- A permit is not required to destroy, damage, remove or prune this tree in accordance with local law.
- In the event of removal, less invasive construction measures or development redesign are not required.

Tree 6

- The tree is located within the proposed footprint of the building.
- The tree is required to be removed in order to construct the proposed development.
- This tree is of low retention value.
- A permit is not required to destroy, damage, remove or prune this tree in accordance with local law.
- In the event of removal, less invasive construction measures or development redesign are not required.

Tree 7

- The tree is located within the proposed footprint of the building.
- The tree is required to be removed in order to construct the proposed development.
- This tree is of low retention value.
- A permit is not required to destroy, damage, remove or prune this tree in accordance with local law.
- In the event of removal, less invasive construction measures or development redesign are not required.

Tree 8

- The tree is located within the proposed footprint of the building.
- The tree is required to be removed in order to construct the proposed development.
- This tree is of low retention value.
- A permit is not required to destroy, damage, remove or prune this tree in accordance with local law.
- In the event of removal, less invasive construction measures or development redesign are not required.

Tree 9

- The tree is located within the proposed footprint of the building.
- The tree is required to be removed in order to construct the proposed development.

- This tree is of low retention value.
- A permit is not required to destroy, damage, remove or prune this tree in accordance with local law.
- In the event of removal, less invasive construction measures or development redesign are not required.

Tree 10

- The tree is located within the proposed footprint of the building.
- The tree is required to be removed in order to construct the proposed development.
- This tree is of low retention value.
- A permit is not required to destroy, damage, remove or prune this tree in accordance with local law.
- In the event of removal, less invasive construction measures or development redesign are not required.

Tree 11

- The tree is located within the proposed footprint of the building.
- The tree is required to be removed in order to construct the proposed development.
- This tree is of moderate retention value.
- A permit is required to destroy, damage, remove or prune this tree in accordance with local law.
- In the event of removal, less invasive construction measures or development redesign are not required.

Tree 12

- The tree is located within the proposed footprint of the lower ground garden/site cut.
- The tree is required to be removed in order to construct the proposed development.
- This tree is of low retention value.
- A permit is not required to destroy, damage, remove or prune this tree in accordance with local law.
- In the event of removal, less invasive construction measures or development redesign are not required.

Tree 13

- The tree is located within the proposed footprint of the lower ground garden/site cut.
- The tree is required to be removed in order to construct the proposed development.
- This tree is of low retention value.

- A permit is not required to destroy, damage, remove or prune this tree in accordance with local law.
- In the event of removal, less invasive construction measures or development redesign are not required.

Tree 14

- The tree is located within the proposed footprint of the lower ground garden/site cut.
- The tree is required to be removed in order to construct the proposed development.
- This tree is of low retention value.
- A permit is not required to destroy, damage, remove or prune this tree in accordance with local law.
- In the event of removal, less invasive construction measures or development redesign are not required.

Tree 15

- The tree is located within the proposed footprint of the building.
- The tree is required to be removed in order to construct the proposed development.
- This tree is of low retention value.
- A permit is not required to destroy, damage, remove or prune this tree in accordance with local law.
- In the event of removal, less invasive construction measures or development redesign are not required.

Tree 16

- The tree is located within the proposed footprint of the lower ground garden/site cut.
- The tree is required to be removed in order to construct the proposed development.
- This tree is of low retention value.
- A permit is not required to destroy, damage, remove or prune this tree in accordance with local law.
- In the event of removal, less invasive construction measures or development redesign are not required.

Tree 17

- The tree is located within the proposed footprint of the lower ground garden/site cut.
- The tree is required to be removed in order to construct the proposed development.
- This tree is of low retention value.

- A permit is not required to destroy, damage, remove or prune this tree in accordance with local law.
- In the event of removal, less invasive construction measures or development redesign are not required.

Tree 18

- The lower ground garden/site cut is considered to be a major encroachment (6.3.2) of 26.8% of the TPZ and 10.9% of the SRZ.
- The subject site is approx. 0.5 – 1m lower than the location of the tree and an existing boundary retaining wall is situated within the footprint of the proposed encroachment.
- Although this is considered to be a major encroachment, the tree is expected to remain viable due to the following factors:
  - The boundary retaining wall is expected to have restricted root growth to within the area of the proposed encroachment.
  - The tree is of good health and vigour.
- This tree is a neighbouring tree that is proposed to be retained.
- A permit is not required to destroy, damage, remove or prune this tree in accordance with local law.
- Less invasive construction measures are not required to ensure that this tree would remain viable post construction.

Tree 20

- The lower ground garden and site cut is considered to be a major encroachment (6.3.2) of 28.7% of the TPZ and 17.6% of the SRZ.
- The subject site is approx. 0.5 – 1m lower than the location of the tree and an existing boundary retaining wall is situated within the footprint of the proposed encroachment.
- Although this is considered to be a major encroachment, the tree is expected to remain viable due to the following factors:
  - The boundary retaining wall is expected to have restricted root growth to within the area of the proposed encroachment.
  - The tree is of good health and vigour.
- This tree is a neighbouring tree that is proposed to be retained.
- A permit is not required to destroy, damage, remove or prune this tree in accordance with local law.
- Less invasive construction measures are not required to ensure that this tree would remain viable post construction.

Tree 21

Lower ground garden/site cut

- The footprint of the lower ground garden/site cut is considered to be a major encroachment (6.3.2) of 36.8% of the TPZ and 22.3% of the SRZ.
- The subject site is approx. 0.5 – 1m lower than the location of the tree and

an existing boundary retaining wall is situated within the footprint of the proposed encroachment.
- Although this is considered to be a major encroachment, the tree is expected to remain viable due to the following factors:
  - The boundary retaining wall is expected to have restricted root growth to within the area of the proposed encroachment.
  - The tree is of good health and vigour.

Building
- The building is considered to be a minor encroachment (6.3.1) of 2.4% of the TPZ and 0% of the SRZ.
- Individually, the construction of the building is not expected to compromise the tree's long-term viability.

Overview
- The total encroachment of the lower ground garden/site cut and the building is 36.8% of the TPZ and 22.3% of the SRZ which is considered to be major (6.3.2).
- The subject site is approx. 0.5 – 1m lower than the location of the tree and an existing boundary retaining wall is situated within the footprint of the proposed encroachment.
- Although this is considered to be a major encroachment, the tree is expected to remain viable due to the following factors:
  - The boundary retaining wall is expected to have restricted root growth to within the area of the proposed encroachment.
  - The tree is of good health and vigour.
- This tree is a neighbouring tree that is proposed to be retained.
- A permit is not required to destroy, damage, remove or prune this tree in accordance with local law.
- Less invasive construction measures are not required to ensure that this tree would remain viable post construction.

Tree 22
- The lower ground garden/site cut is considered to be a major encroachment (6.3.2) of 28.9% of the TPZ and 22.8% of the SRZ.
- The subject site is approx. 0.5 – 1m lower than the location of the tree and an existing boundary retaining wall is situated within the footprint of the proposed encroachment.
- Although this is considered to be a major encroachment, the tree is expected to remain viable due to the following factors:
  - The boundary retaining wall is expected to have restricted root growth to within the area of the proposed encroachment.
  - The tree is of good health and vigour.
- This tree is a neighbouring tree that is proposed to be retained.

- A permit is not required to destroy, damage, remove or prune this tree in accordance with local law.
- Less invasive construction measures are not required to ensure that this tree would remain viable post construction.

Tree 23

- The lower ground garden/site cut is considered to be a major encroachment (6.3.2) of 30.7% of the TPZ. No SRZ applies to this tree in accordance with section 3.3.5 of AS4970-2009.
- The subject site is approx. 0.5 – 1m lower than the location of the tree and an existing boundary retaining wall is situated within the footprint of the proposed encroachment.
- Although this is considered to be a major encroachment, the tree is expected to remain viable due to the following factors:
  - The boundary retaining wall is expected to have restricted root growth to within the area of the proposed encroachment.
  - The tree is of good health and vigour.
- This tree is a neighbouring tree that is proposed to be retained.
- A permit is not required to destroy, damage, remove or prune this tree in accordance with local law.
- Less invasive construction measures are not required to ensure that this tree would remain viable post construction.

Tree 24

- The lower ground garden/site cut is considered to be a major encroachment (6.3.2) of 20.3% of the TPZ and 14.9% of the SRZ.
- The subject site is approx. 0.5 – 1m lower than the location of the tree and an existing boundary retaining wall is situated within the footprint of the proposed encroachment.
- Although this is considered to be a major encroachment, the tree is expected to remain viable due to the following factors:
  - The boundary retaining wall is expected to have restricted root growth to within the area of the proposed encroachment.
  - The tree is of good health and vigour.
- This tree is a neighbouring tree that is proposed to be retained.
- A permit is not required to destroy, damage, remove or prune this tree in accordance with local law.
- Less invasive construction measures are not required to ensure that this tree would remain viable post construction.

Tree 26

- The lower ground garden/site cut is considered to be a major encroachment (6.3.2) of 30.5% of the TPZ and 23.8% of the SRZ.
- The subject site is approx. 0.5 – 1m lower than the location of the tree and

an existing boundary retaining wall is situated within the footprint of the proposed encroachment.
- Although this is considered to be a major encroachment, the tree is expected to remain viable due to the following factors:
  - The boundary retaining wall is expected to have restricted root growth to within the area of the proposed encroachment.
  - The tree is of good health and vigour.
- This tree is a neighbouring tree that is proposed to be retained.
- A permit is not required to destroy, damage, remove or prune this tree in accordance with local law.
- Less invasive construction measures are not required to ensure that this tree would remain viable post construction.

Tree 27

- The tree is located within the proposed footprint of the building.
- The tree is required to be removed in order to construct the proposed development.
- This tree is of low retention value.
- A permit is not required to destroy, damage, remove or prune this tree in accordance with local law.
- In the event of removal, less invasive construction measures or development redesign are not required.

Tree 28

- The tree is located within the proposed footprint of the building.
- The tree is required to be removed in order to construct the proposed development.
- This tree is of low retention value.
- A permit is not required to destroy, damage, remove or prune this tree in accordance with local law.
- In the event of removal, less invasive construction measures or development redesign are not required.

Tree 29

- The tree is located within the proposed footprint of the building.
- The tree is required to be removed in order to construct the proposed development.
- This tree is of low retention value.
- A permit is not required to destroy, damage, remove or prune this tree in accordance with local law.
- In the event of removal, less invasive construction measures or development redesign are not required.

Tree 30

- The tree is located within the proposed footprint of the building.
- The tree is required to be removed in order to construct the proposed development.
- This tree is of low retention value.
- A permit is not required to destroy, damage, remove or prune this tree in accordance with local law.
- In the event of removal, less invasive construction measures or development redesign are not required.

Tree 31

- The tree is located within the proposed footprint of the building and the lower ground garden/site cut.
- The tree is required to be removed in order to construct the proposed development.
- This tree is of low retention value.
- A permit is not required to destroy, damage, remove or prune this tree in accordance with local law.
- In the event of removal, less invasive construction measures or development redesign are not required.

Tree 32

- The tree is located within the proposed footprint of the lower ground garden/site cut.
- The tree is required to be removed in order to construct the proposed development.
- This tree is of low retention value.
- A permit is not required to destroy, damage, remove or prune this tree in accordance with local law.
- In the event of removal, less invasive construction measures or development redesign are not required.

Tree 33

- The lower ground courtyard is considered to be a major encroachment (6.3.2) of 31.3% of the TPZ and 25.5% of the SRZ.
- The subject site is approx. 0.5 – 1m lower than the location of the tree and an existing boundary retaining wall is situated within the footprint of the proposed encroachment.
- Although this is considered to be a major encroachment, the tree is expected to remain viable due to the following factors:
  - The boundary retaining wall is expected to have restricted root growth to within the area of the proposed encroachment.
  - The tree is of good health and vigour.
- This tree is a neighbouring tree that is proposed to be retained.

- A permit is not required to destroy, damage, remove or prune this tree in accordance with local law.
- Less invasive construction measures are not required to ensure that this tree would remain viable post construction.

Tree 34

- The tree is located within the estimated footprint of the proposed crossover.
- The proposed design requires the removal of this tree.
- This is a Council owned tree and must only be maintained by Council staff or contractors.
- Written permission from Council must be obtained prior to tree removal (conditions may apply).
- In the event of removal, less invasive construction measures or development redesign are not required.

Tree 37

- The tree is located within the proposed footprint of the driveway.
- The tree is required to be removed in order to construct the proposed development.
- This tree is of low retention value.
- A permit is not required to destroy, damage, remove or prune this tree in accordance with local law.
- In the event of removal, less invasive construction measures or development redesign are not required.

Tree 38

- The tree is located within the proposed footprint of the site cut.
- The tree is required to be removed in order to construct the proposed development.
- This tree is of low retention value.
- A permit is not required to destroy, damage, remove or prune this tree in accordance with local law.
- In the event of removal, less invasive construction measures or development redesign are not required.

Tree 39

- The tree is located within the proposed footprint of the site cut.
- The tree is required to be removed in order to construct the proposed development.
- This tree is of low retention value.
- A permit is not required to destroy, damage, remove or prune this tree in accordance with local law.

- In the event of removal, less invasive construction measures or development redesign are not required.

Tree 40

- The tree is located within the proposed footprint of the driveway.
- The tree is required to be removed in order to construct the proposed development.
- This tree is of moderate retention value.
- A permit is not required to destroy, damage, remove or prune this tree in accordance with local law.
- In the event of removal, less invasive construction measures or development redesign are not required.

Tree 41

- The tree is located within the proposed footprint of the site cut.
- The tree is required to be removed in order to construct the proposed development.
- This tree is of low retention value.
- A permit is not required to destroy, damage, remove or prune this tree in accordance with local law.
- In the event of removal, less invasive construction measures or development redesign are not required.

Tree 42

Paving

- The footprint of the paving is considered to be a major encroachment (6.3.2) of 27.6% of the TPZ and 13.6% of the SRZ.
- Individually, the proposed paving has the potential to compromise the tree's long-term viability.

Building

- The building is considered to be a minor encroachment (6.3.1) of 5.4% of the TPZ and 0% of the SRZ.
- Individually, the construction of the building is not expected to compromise the tree's long-term viability.

Overview

- The total encroachment of the paving and the building is 27.6% of the TPZ and 13.6% of the SRZ which is considered to be major (6.3.2).
- This tree is of low retention value.
- This tree is proposed to be removed.
- A permit is not required to destroy, damage, remove or prune this tree in accordance with local law.
- In the event of removal, less invasive construction measures are not

required to ensure that this tree would remain viable post construction.

Tree 43

- The lower ground garden/site cut is considered to be a major encroachment (6.3.2) of 21.7% of the TPZ and 13.4% of the SRZ.
- This is a neighbouring tree that is proposed to be retained.
- A permit is not required to destroy, damage, remove or prune this tree in accordance with local law.
- Although this is considered to be a major encroachment, the tree is expected to remain viable due to the following factors:
  - The tree is of a hardy species that generally tolerates root disturbance well.
  - This is a small tree that is expected to have a small and vigorous root system.
- Less invasive construction measures are not required to ensure that this tree would remain viable post construction.

8 Recommendations

8.1 Tree retention

The following Council owned trees are proposed to be retained:

- Tree 1
- Tree 2
- Tree 35
- Tree 36

The following neighbouring trees are proposed to be retained:

- Tree 3
- Tree 4
- Tree 18
- Tree 19
- Tree 20
- Tree 21
- Tree 22
- Tree 23
- Tree 24
- Tree 25
- Tree 26
- Tree 33
- Tree 43
- Tree 44

The following is recommended in order to ensure that trees that are proposed to be retained would remain viable post construction:

- Comply with tree protection measures (8.4)

8.2 Tree removal

The following Council owned tree is proposed to be removed:

- Tree 34

The following trees of moderate retention value are proposed to be removed:

- Tree 11
- Tree 40

The following trees of low retention value are proposed to be removed:

- Tree 5
- Tree 6
- Tree 7
- Tree 8
- Tree 9
- Tree 10
- Tree 12
- Tree 13
- Tree 14
- Tree 15
- Tree 16
- Tree 17
- Tree 27
- Tree 28
- Tree 29
- Tree 30
- Tree 31
- Tree 32
- Tree 37
- Tree 38
- Tree 39
- Tree 41
- Tree 42

In the event of tree removal, the following is recommended:

- Tree removal should be undertaken prior to construction commencing (including demolition).
- Written consent from the responsible authority must be obtained prior to tree removal (if required).

8.2.1 Permit requirements for trees that are proposed to be removed

The following tree that is proposed to be removed requires a permit in accordance with local law:

- Tree 11

The following tree that is proposed to be removed belongs to Bayside Council:

- Tree 34

Written permission is required from Council prior to removal of this tree. Conditions apply; see 7.2.2; further conditions may apply.

8.3 Less invasive construction measures

Less invasive construction measures or development redesign are not required to ensure that trees which are proposed to be retained (8.1) would remain viable post construction.

8.4 Tree protection measures

8.4.1 Pruning

- Pruning of trees that are proposed to be retained (8.1) is not required for clearance purposes and should therefore not be undertaken.

8.4.2 Tree protection fencing

- Tree protection fencing (TPF) should be installed for Trees 1, 2, 35, & 36.
- TPF should be installed as close to the TPZ as practically possible provided that it does not encroach onto the road, footpath, crossover or proposed works.
- The existing site perimeter fencing may be used as TPF for neighbouring trees.
- TPF should be installed prior to machinery being brought onsite for the demolition of the existing dwelling.
- TPF should be a minimum 1.8m high and comprised of wire mesh (or similar) supported by concrete feet (or similar).
- TPF should remain intact for the duration of the project.
- TPF should only be removed or shifted with the approval of the Project Arborist and the Responsible Authority.

8.4.3 Tree protection signage

- The signage on the TPF should be placed on TPZ fencing at regular intervals so that it is visible from any angle outside the TPZ.
- Signage should state 'Tree Protection Zone, No Access' or similar.
- Signage should be greater than 600mm X 400mm in size.
- The contact details of the project arborist and site manager should be written clearly on the sign.

8.4.4 Scaffolding

- When scaffolding must be erected within Tree Protection Zones, cover the ground with a 10cm layer of mulch, and then cover this with boards and plywood to prevent soil compaction.

8.4.5 Site storage

- A designated storage area where building materials, chemicals etc. can be stored should be located outside the TPZ of retained trees.

8.4.6 Prohibitions within the TPZ

The following activities are prohibited within the TPZ:

- Machine excavation including trenching (unless approved by the Project Arborist, Arborist supervision may be required)
- Cultivation
- Storage
- Preparation of chemicals, including cement products
- Parking of vehicles
- Refuelling
- Dumping of waste
- Wash down and cleaning of equipment
- Placement of fill
- Lighting of fires
- Physical damage to the tree
- Pruning or damaging of roots greater than 30mm in diameter

8.4.7 Drains and services

In the event that any drains or services are included in a greater than 10% encroachment into the TPZ or encroach into the SRZ of trees that are proposed to be retained, the following should be undertaken:

- Drains or services should be installed by non-root destructive means such as horizontal boring at greater than 1100mm in depth **or** by low pressure hydro-excavation to ensure that the bark of the roots remain intact, unless a root investigation determines that the tree(s) would remain viable.

***Note:* Encroachment calculations must consider additional encroachments e.g. site cuts, retaining walls, building footprint.**

9 Limitation of liability

TMC Reports and their employees are tree specialists who use their qualifications, education, knowledge, training, diagnostic tools and experience to examine trees, recommend measures to enhance the beauty and health of trees, and attempt to reduce the risk of living near trees. Clients may choose to accept or disregard the recommendations of this assessment and report.

Trees are living organisms that fail in ways the arboriculture industry does not fully understand. Conditions are often hidden within trees and below ground. Unless otherwise stated, observations have been made from ground level and limited to accessible components without dissection, excavation or probing. There is no guarantee that a tree will be healthy or safe under all circumstances, or for a specified period of time. Likewise, remedial treatments cannot be guaranteed.

Treatment, pruning and removal of trees may involve considerations beyond the scope of this report, such as property boundaries and ownership, disputes between neighbours, sight lines, landlord-tenant matters, and related incidents. Such issues cannot be taken into account unless complete and accurate information is given prior to or at the time of site inspection.

Information contained in this report covers those items that were examined and reflect the condition of those items at the time of inspection. There is no warranty or guarantee expressed or implied that the problems or deficiencies of the trees or property in question may not arise in the future. Trees can be managed, but they cannot be controlled. To live or work near a tree involves a degree of risk. The only way to eliminate all risks involved with a tree is to eliminate the tree.

All written reports must be read in their entirety, at no time shall part of the written assessment be referred to unless taken in full context of the whole written report.

10 Definition of terms

10.1 Tree health

- Good
- Fair
- Poor
- Very poor
- Dead

Good: The tree is demonstrating good or exceptional growth for the species. The tree should exhibit a full canopy of foliage and have only minor pest or disease problems. Foliage colour size and density should be typical of a health specimen of that species.

Fair: The tree is in reasonable condition and growing well for the species. The tree should exhibit an adequate canopy of foliage. There may be some dead wood in the crown, some grazing by insect or animals may be evident, and/or foliage colour, size or density may be atypical for a healthy specimen of that species.

Poor: The tree is not growing to its full capacity. Extension growth of the laterals may be minimal. The canopy may be thinning or sparse. Large amounts of dead wood may be evident throughout the crown, as well as significant pest and disease problems. Other symptoms of stress indicating tree decline may be present.

Very poor: The tree appears to be in a state of decline, and the canopy may be very thin and sparse. A significant volume of dead wood may be present in the canopy, or pest and disease problems may be causing a severe decline in tree health.

Dead: The tree is no longer alive.

10.2 Structure

- Good
- Fair
- Poor
- Very poor
- Failed

The definition of structure is the likelihood of the tree to fail under normal condition. A tree with good structure is highly unlikely to suffer any significant failure, while a tree with poor to very poor structure is likely or very likely to fail.

Good: The tree has a well-defined and balanced crown. Branch unions appear to be strong, with no defects evident in the trunks or the branches. Major limbs are well defined. The tree would be considered a good example for the species. Probability of significant failure is highly unlikely.

Fair: The tree has some minor problems in the structure of the crown. The crown may be slightly out of balance at some branch unions or branches may be exhibiting minor structural faults. If the tree has a single trunk, this may be on a slight lean, or be exhibiting minor defects. Probability of significant failure is low.

Poor: The tree may have a poorly structured crown, the crown may be unbalanced, or exhibit large gaps. Major limbs may not be well defined; branches may be rubbing or crossing over. Branch unions may be poor or faulty at the point of attachment. The tree may have suffered major root damage. Probability of significant failure is moderate.

Very poor: The tree has a poorly structured crown. The crown is unbalanced, or exhibits large gaps. Major limbs are not well defined. Branch unions may be poor or faulty at the point of attachment. A section of the tree has failed, or is in imminent danger of failure. Active failure may be present, or failure is probably in the immediate future.

Failed: A significant section of the tree or the whole tree has failed.

10.3 Useful life expectancy (ULE)

- Unsafe or 0 years
- Less than 5 years
- 5 to 10 years
- 10 to 20 years
- 20 +

Useful life expectancy is approximately how long a tree can be retained safely and usefully in the landscape providing site conditions remain unchanged and the recommended works are completed.
It is based on the principals of safety and usefulness in the landscape and should not reflect personal opinions on species suitability.

Unsafe or 0 years: The tree is considered dangerous in the location and/or no longer provides any amenity value.

Less Than 5 years: The tree under normal circumstances and without extra stress should be safe and have value of maximum of 5 years. The tree will need to be replaced in the short term. Replacement plants should be established as soon as possible if there is efficient space, or consideration should be given to the removal of the tree to facilitate replanting.

5 to 10 Years: The tree under normal circumstances and without extra stress should be safe and have value of maximum of 10 years. Trees in this category may require regular inspections and maintenance particularly if they are large specimens. Replacement plants should be established in the short term if there is sufficient space, or consideration should be given to the removal of the tree to facilitate replanting.

10 to 20 Years: The tree under normal circumstances and without extra stress should be safe and of value of up to 20 years. During this period, regular inspections and maintenance will be required.

20 + Years: The tree under normal circumstances and without extra stress should be safe and of value of more than years. During this period, regular inspections and maintenance will be required.

10.4 Tree retention value

- High
- Moderate
- Low
- Neighbouring tree
- Council Owned Tree

High: The tree may be significant in the landscape, offer shade and other amenities such as screening. The tree may assist with erosion control, offer a windbreak or perform a vital function in the location (e.g. habitat, shade, flowers or fruit). The tree is free from structural defects and is vigorous. Consider the retention of the tree and designing the development to accommodate the tree.

Moderate: The tree may offer some screening in the landscape or serve a particular function in the location and have minor structural defects. The tree may entering the mature stage of its life cycle. The tree may be retained if it does not hamper the design intent.

Low: The tree offers very little in the way of screening or amenity and may have significant structural defects. The tree may also be mature and entering the senescent stage of its life cycle. The tree may be removed if necessary.

Neighbouring tree: The tree is located within an adjoining private property/land. The tree is to be protected unless written consent from the tree owner(s) and/or responsible authority is obtained. Consider the retention of the tree unless written consent is obtained from the tree owner and/or responsible authority.

Council Owned Tree: The tree is located within Council owned land. The tree is to be protected unless written consent from the responsible authority is obtained. Consider the retention of the tree unless written consent is obtained from the tree owner and/or responsible authority.

10.5 Age

- Young
- Semi Mature
- Mature
- Senescent

Young:	Juvenile or recently planted approximately 1-7 years.
Semi Mature:	Tree actively growing.
Mature:	Tree has reached expected size in situation.
Senescent:	Tree is over mature and has started to decline.

10.6 Amenity value

- Very low
- Low
- Moderate
- High

Very Low:	Tree makes little or no amenity value to the site or surrounding areas. In some cases the tree might be detrimental to the areas amenity value (e.g. unsightly, risk of weed spread)
Low:	Tree makes some contribution of amenity value to the site but makes no contribution to the amenity value of surrounding areas. The removal of the tree may result in little loss of amenity. Juvenile trees, including street trees are generally included in this category. However, they may have the potential to supply increased amenity in the future.
Moderate:	The tree makes a moderate contribution to the amenity of the site and/or may contribute to the amenity of the surrounding area.
High:	The tree makes a significant contribution to the amenity value of the site, or the tree makes a moderate contribution to the amenity value of the larger landscape. The amenity value rating considered the impact that the tree has on any neighbouring sites as being equally important to that supplied to the subject site. However, trees that contribute to the general area (e.g. streetscape) are given a greater weight.

10.7 Terms within tree data table

- DBH
- DAB
- CA1
- TPZ
- SRZ

DBH: Diameter at breast height (1.4m from ground level)
DAB: Diameter at base of tree
CA1: Circumference of trunk at 1m from ground level
TPZ: Tree Protection Zone
SRZ: Structural Root Zone