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1041 CENTRE ROAD, OAKLEIGH SOUTH

Section 87A Town Planning Report

Prepared for
PELLICANO
June 2025

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Project Code	P0031179
Report Number	Report V1

SUBMISSION DOCUMENTS

This report is to be read in conjunction with:

- Architectural Plans
- Landscape Report
- Wind Report
- Traffic Engineering Assessment
- Waste Management Plan
- Sustainability Management Plan

Urbis acknowledges the important contribution that Aboriginal and Torres Strait Islander people make in creating a strong and vibrant Australian society. We acknowledge, in each of our offices, the Traditional Owners on whose land we stand.

CONTENTS

EXECUTIVE SUMMARY

This Section 87A Planning Report has been prepared by Urbis Ltd on behalf of Pellicano in support of an amendment application for the development of the land at 1041 Centre Road Oakleigh South (the subject site) for a multi-storey (mixed-use development).

This report is prepared in support of an application to amend the existing Planning Permit TPA/53095 (the permit) via Section 87A of the *Planning and Environment Act 1987* (the Act).

Currently, Planning Permit TPA/53095 allows for the:

> *Construction of a multi-storey building to be used for accommodation, food and drinks premises, supermarket and shop, display of signage, reduction in car parking requirements and alteration of access to a road in a Transport Zone 2.*

This amendment seeks to amend (amongst other things) the following:

- Introduction of a mix of residential apartments and short-stay hotel accommodation options.
- Reduction in total dwellings from 171 to 157, resulting in a minor corresponding decrease in car parking provision.
- The ground floor layout is proposed to be reconfigured however continues to support a mix of uses, including supermarket and retail tenancies, maintaining active frontages and public realm engagement.
- A total of 208 car parking spaces are proposed across the site, including at-grade spaces—representing a slight reduction from the previously endorsed figure however a reflection of a reduction in dwellings.
- Basement car parking has been relocated to podium Level 01, comprising 154 residential car spaces (including accessible parking). Level 1 now accommodates storage areas, 35 bicycle parking spaces, and resident amenities (e.g. car and pet wash facilities).
- Apartment floor-to-floor heights have increased by 150mm to 3200mm, resulting in a revised overall building height increase.
- Communal facilities have decreased from 2,419sqm to 1,191sqm, reflective of the reduction in dwelling numbers and the mixture of short stay hotel and residential apartment mix.
- A full suite of updated consultant reports will accompany this amendment submission.

Please refer to the revised architectural package and associated statement of changes document to review the proposed revised scheme in full

MONASH PLANNING SCHEME

The following planning controls continue to be applicable to the site:

CONTROLS/PROVISIONS
Clause 34.01 – Commercial 1 Zone
Clause 43.02 – Design and Development Overlay – Schedule 1

Table 1 – Applicable Controls

ASSESSMENT SUMMARY

The amended proposal is consistent with the objectives of the State and Local Planning Policy Framework and is considered to offer the following benefits. On balance, the amendment will result in a positive urban and economic outcome for the site, specifically:

- Providing a high-quality and site-responsive amended design, will be achieved by continued activation of the mixed use.
- Improving on the previously approved scheme by providing a built form that protects the amenity of the area and improving the interface to Centre Road.
- Improved Ground Floor activation with a range of retail tenancies along the refined public walkway to entice visitors to the site, improved amenity of the users of the building and improved loading and waste facilities for the site.
- Greatly improved internal amenity for future occupants.
- Continue to be highly compliant with the Monash Planning Scheme.

1. SITE CONTEXT

1.1. SUBJECT SITE

Key details of the site are as follows:

CATEGORY	DESCRIPTION
Existing Conditions	The subject site is overall 'L' shaped in nature, with the larger lot supporting the use and developed Bunnings's Warehouse site to the north boundary. The proposal site area, as detailed within this report, refers to the southernmost section of the 'L' shaped lot relevant to this application, with a Centre Road frontage of 95.55 metres.
Location	The subject site is located to the north of Centre Road, and the east of Warrigal Road. The site, located near the prominent intersection of Centre Road and Warrigal Road is surrounded by a mix of uses including commercial, retail, open spaces and surrounding residential interfaces.
Area	There is an overall site area of 6.010 ha. The proposal refers to the southernmost section of the overall site area, with a site area of 11,272 square metres.
Frontages	The site area has a frontage of 95.55 metres at the south to Centre Road.
Title	The subject site, formally known as Lot 1 on Plan of Subdivision 726393E.
Vehicle Access	Vehicle access to the site area is provided via Centre Road at the southern boundary.
Vegetation	There is existing vegetation located in the 20-metre setback to Centre Road to the south of the site. In addition, there is vegetation present at the eastern boundary of the site and scattered throughout.

Table 2 – Details of Subject Site

1.2. IMMEDIATE SURROUNDS

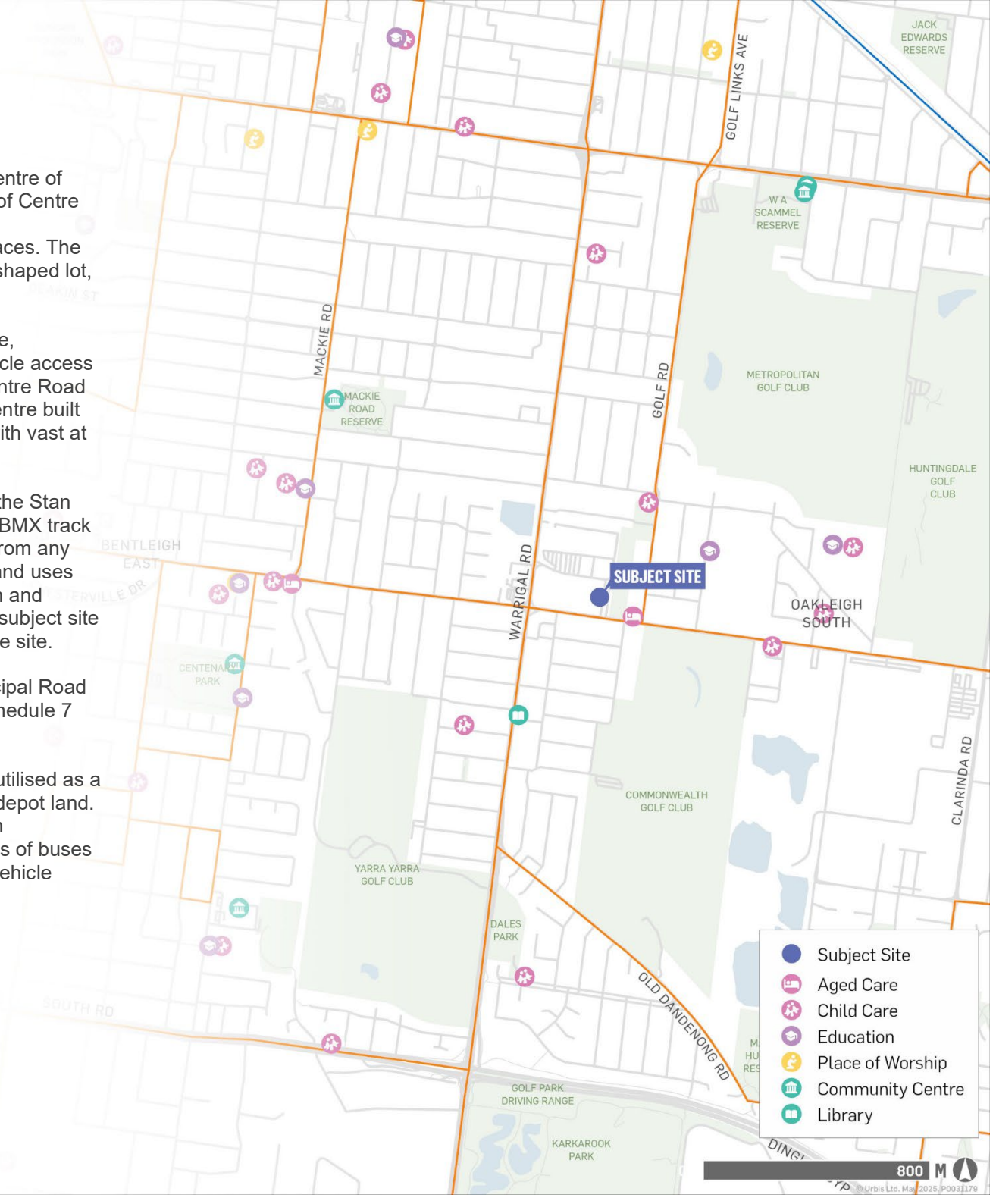
The site is located within the established neighbourhood activity centre of Oakleigh South. The site, located near the prominent intersection of Centre Road and Warrigal Road is surrounded by a mix of uses including commercial, retail, open spaces and surrounding residential interfaces. The subject site is known as the southernmost section of the wider 'L' shaped lot, interfacing Centre Road

A **To** the **north** of the subject site is the Links Shopping Centre, comprising a Woolworths and a Bunnings Warehouse. Vehicle access to The Links site is gained from both Warrigal Road and Centre Road via signalised intersections. The existing Links Shopping Centre built form is located lengthways across the northern boundary, with vast at grade car parking in front of the Centre.

A **To the east** of the subject site, further across Links Ave, is the Stan Riley Reserve and Oakleigh BMX Track. This Reserve and BMX track provides a permeable setback of approximately 50 metres from any sensitive interfaces and the adjoining General Residential land uses further east of the subject site. There is scattered vegetation and roadside reserve vegetation present, further separating the subject site from the immediate BMX track car parking area and Reserve site.

A **To the south** is Centre Road (Transport Road Zone 2 Principal Road network) and further Neighbourhood Residential Zone – Schedule 7 south of Centre Road.

A **To the west** of the subject site is a separate parcel of land utilised as a Caltex petrol station and the Ventura Coach Company bus depot land. The site is fenced using high wire fencing, allowing optimum surveillance through the vast depot site with various volumes of buses stored here at any one time. The bus depot site has many vehicle crossovers available to the site.



2. PROPOSED AMENDMENT

2.1. EXISTING PLANNING PERMIT TPA/53095 (VCAT DIRECTED)

Planning Permit TPA/53095 was approved on 28 December 2022 and allowed for the "*Construction of a multi-storey building to be used for accommodation, food and drinks premises, supermarket and shop, display of signage, reduction in car parking requirements and alteration of access to a road in a Transport Zone 2*".

2.2. OVERVIEW OF AMENDED PROPOSAL

Pursuant to Section 87A of the *Planning and Environment Act 1987*, it is proposed to amend the planning permit and endorsed plans approved under Planning Permit TPA/53095. Key details of the revised proposal are as follows.

ELEMENT	PROPOSAL
Gross Floor Area	26,347sqm
Building Heights	North elevation: RL89.000 (lift overrun RL90.200) East elevation: RL88.400 (lift overrun RL90.200) South elevation: RL89.000 (lift overrun RL90.200) West elevation: RL89.000 (lift overrun RL90.200)
Apartments	133 apartments in total: 74 x 1 bedroom apartments 54 x 2 bedroom apartments 5 x 3 bedroom apartments
Short Stay Hotel	24 short stay hotels in total: 1 x 1 bedroom short stay hotel 19 x 2 bedroom short stay hotels 4 x 3 bedroom short stay hotels
Ground Floor Mixed Use	Retail (supermarket) - 1,505sqm Retail (F&B) - 1,452sqm (plus 584sqm BOH)
Communal Space	1,191sqm (podium Level)
Car Parking	A total of 208 car parking spaces: Residential – 138 spaces Hotel + Disabled – 16 spaces Commercial – 54 spaces
Bicycle Parking	A total of 76 bicycle spaces: (37 bicycle spaces provided within the podium level car parking area and a further 44 spaces provided at ground level for visitors)

Table 3 – Details of Proposal

2.3. PROPOSED ARCHITECTURAL CHANGES

The proposed revision to the existing approved scheme seeks to further enhance the design of the proposal and respond to the ongoing requirements of the detailed design phase.

Key amendments to the approved scheme are summarised below and should be read in conjunction with the architectural package prepared by i2C Architects. The key revision to this approval is summarised as follows:

- Ground Floor layout reconfiguration
  - Loading dock to align with supermarket requirements
  - Secure bicycle parking provisions updated
  - End of trip (EoT) shower and changing facilities updated
  - Residential and Short Stay bin store relocated to Ground Floor and waste route paths have been updated
  - Eastern car park entry relocated north of the pedestrian canopy to align with the cross over
  - Redesign of the external pedestrian canopies to the east and north
- Level 01 layout reconfiguration
  - Basement car parking has been relocated to level 01
  - Residential storage has been relocated to level 01
  - Allocation of disabled car parking relocated to level 01
- Level 02 layout reconfiguration
  - Outdoor communal space redesigned to include indoor amenity including co working, residents lounge and wellness area (spa and sauna)
- Levels 02-07 layout reconfiguration
  - Apartment typology updated to include a mixture of short stay accommodation with dwelling apartments, refer to development schedule for the complete development typology breakdown.
- Level 06 – outdoor communal spaces (rooftop) removed
- Level 07 (formerly Roof Plan)
  - Apartment typology updated to included short stay accommodation with dwelling apartments.
  - PV array re located to level 06
- Elevation Plans re designed and material schedule (materials and finishes) updated as a result of the proposed revisions
- Overall Floor to Floor levels increased by 150mm to 3200mm (resulting in the overall building height increase)
- Apartment typology and detailed plans have been updated
- Shadow diagrams have been updated to reflect the revised proposal
- Signage has been updated to reflect the revised proposal

Figure 1 Proposal (render)

Source: [i2C Architects]

2.4. CAR AND BICYCLE PARKING

Car Parking - The amended proposal comprises of the following car parking breakdown (and comparison with the previously endorsed scheme):

USE		ENDORSED PLANS	AMENDED PROPOSAL
Dwelling	1 bedroom	102 Units	74 Units
	2 bedroom	63 Units	54 Units
	3 bedroom	6 Units	5 Units
	TOTAL	**171 spaces**	**133 spaces**
Short Stay Hotel	1 bedroom		1 Unit
	2 bedroom		19 Units
	3 bedroom		4 Units
	TOTAL		**24 spaces**
Retail		2,940sqm	2,957sqm 54 spaces
Car Parking Spaces		230 spaces	**208 spaces** **(54 at grade spaces and 154 podium level spaces)**

Bicycle Parking - The revised proposal comprises of 37 bicycle parking spaces provided within the podium level car parking in a secured room, adjacent to the core, for residents and staff and a further 22 horizontal hoops (44 spaces) at ground level for visitors.

2.5. PROPOSED PLANNING PERMIT CONDITION AMENDMENTS

As part of the Section 87A amendment application process, we understand consequential permit condition amendments will be required.

As part of this application, please find enclosed a copy of the marked up Planning Permit at Appendix B of this submission, noting the subsequent amendments to the Planning Permit and conditions proposed.

We respectfully request that during these considerations the applicant may have the opportunity to review comment on any finalised amendment conditions prior to a determination.

3. MONASH PLANNING SCHEME

A detailed overview of the relevant planning controls and policies is provided in the Appendix A summary of the key controls and policies is provided below.

CHANGE OF PLANNING POLICY AND CONTROLS

Since the lodgement of the original application, a number of policy changes have been incorporated into the Monash Planning Scheme. Of note:

Amendment C166

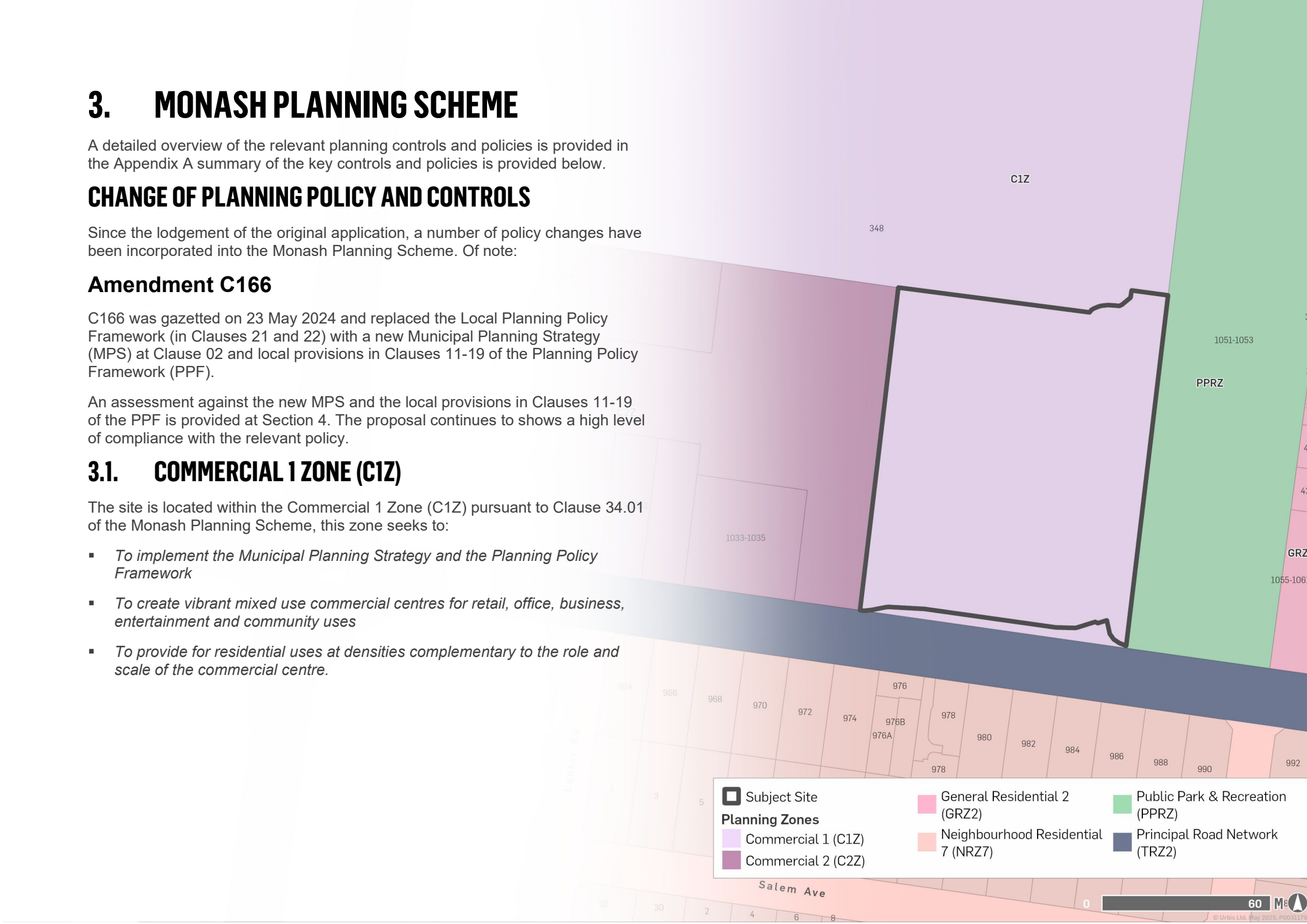
C166 was gazetted on 23 May 2024 and replaced the Local Planning Policy Framework (in Clauses 21 and 22) with a new Municipal Planning Strategy (MPS) at Clause 02 and local provisions in Clauses 11-19 of the Planning Policy Framework (PPF).

An assessment against the new MPS and the local provisions in Clauses 11-19 of the PPF is provided at Section 4. The proposal continues to shows a high level of compliance with the relevant policy.

3.1. COMMERCIAL 1 ZONE (C1Z)

The site is located within the Commercial 1 Zone (C1Z) pursuant to Clause 34.01 of the Monash Planning Scheme, this zone seeks to:

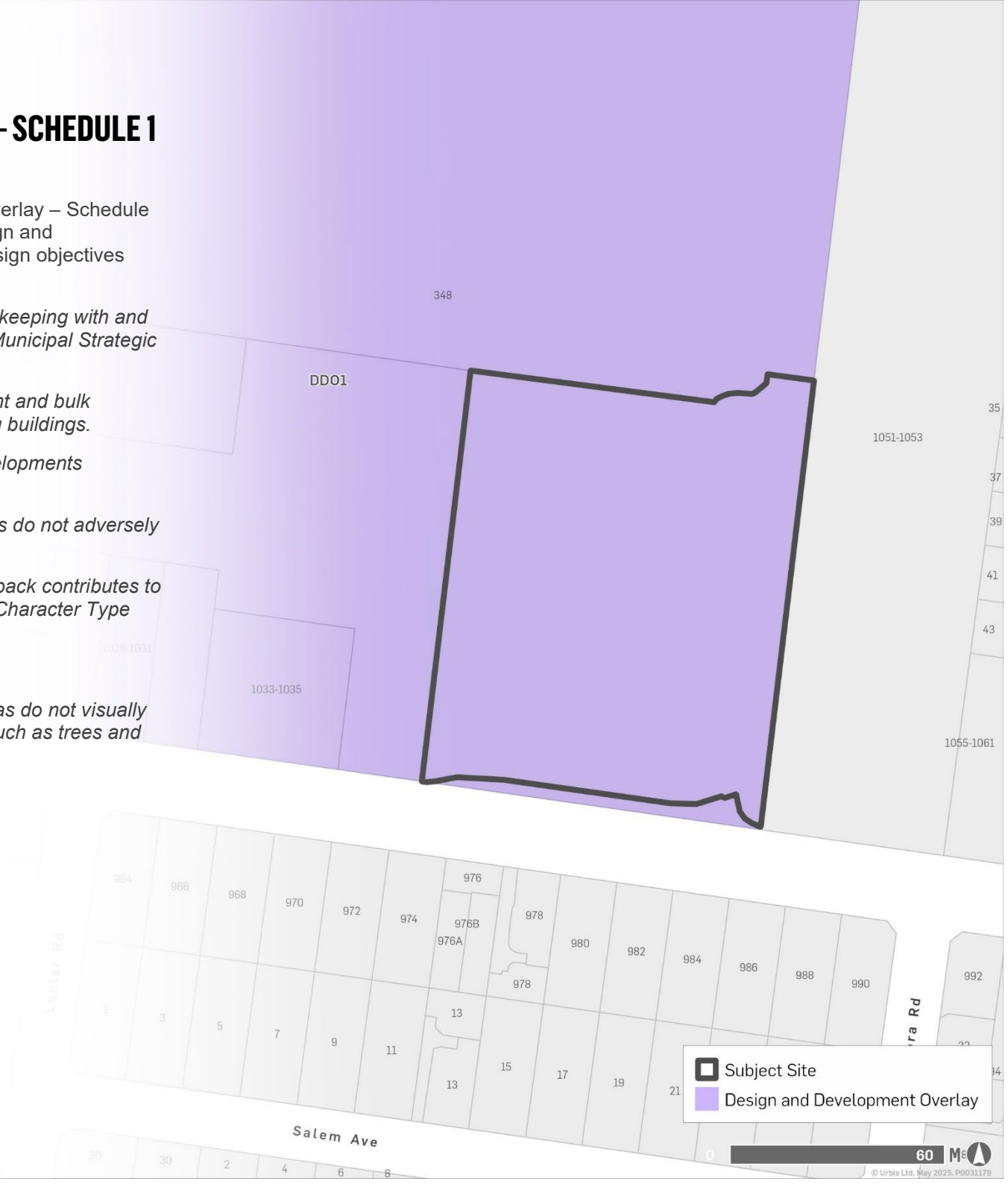
- *To implement the Municipal Planning Strategy and the Planning Policy Framework*
- *To create vibrant mixed use commercial centres for retail, office, business, entertainment and community uses*
- *To provide for residential uses at densities complementary to the role and scale of the commercial centre.*



3.2. DESIGN AND DEVELOPMENT OVERLAY – SCHEDULE 1 (DDO1)

The subject site is affected by the Design and Development Overlay – Schedule 1 (DDO1) and it relates to the 'Industrial and Commercial Design and Development Area'. Pursuant to Clause 43.02 the following design objectives apply:

- *To ensure that development, including front setbacks, is in keeping with and contributes to the Garden City Character as set out in the Municipal Strategic Statement.*
- *To ensure that the building scale and form in terms of height and bulk complements and does not visually overwhelm surrounding buildings.*
- *To ensure that streetscape engineering details of new developments integrate with the existing streetscape.*
- *To ensure that fences or planting along property boundaries do not adversely affect urban character or adjacent open space.*
- *To ensure that the landscape treatment within the front setback contributes to the positive aspects of the applicable industry or business Character Type identified in Clause 22.03.*
- *To retain existing on-site vegetation if possible.*
- *To ensure that car parking, vehicle access and service areas do not visually impinge on front setbacks or affect streetscape elements such as trees and nature strips.*
- *To minimise visual clutter.*



3.3. GENERAL AND PARTICULAR PROVISIONS

The following general and particular provisions are related to the proposal:

- Clause 52.05 – Signs
- Clause 52.06 – Car Parking
- Clause 52.34 – Bicycle Facilities
- Clause 58 – Apartment Developments

3.4. MUNICIPAL PLANNING STRATEGY

- Clause 02.01 – Context
- Clause 02.02 – Vision
- Clause 02.03-4 – Built environment and heritage
- Clause 02.03-5 – Housing
- Clause 02.06-6 – Economic Development
- Clause 02.04-1 – Strategic Framework Plan
- Clause 02.04-3 – Residential Framework Plan

3.5. PLANNING POLICY FRAMEWORK (PPF)

The following Clauses of the PPF are relevant to the proposal:

- Clause 11 – Settlement
- Clause 11.02-1S – Supply of urban land
- Clause 11.03-1S – Activity Centres
- Clause 11.03-1L-01 – Activity centres – Monash
- Clause 15 – Built Environment and Heritage
- Clause 15.01-1S – Urban Design
- Clause 15.01-1L-01 – Signs
- Clause 15.01-1L-02 – Tree conservation for a Garden City
- Clause 15.01-2S – Building Design
- Clause 15.01-2L-01 – Industry and business built form character
- Clause 15.01-2L-02 – Environmentally sustainable design
- Clause 15.01-5S – Neighbourhood Character
- Clause 16.01-1S – Housing supply
- Clause 16.01-1R – Housing supply – Metropolitan Melbourne
- Clause 16.01-1L-01 – Housing supply – Monash
- Clause 16.01-2S – Housing affordability
- Clause 17.02-1S – Business
- Clause 18.01-1S Land use and transport integration
- Clause 18.02-3R Principal Public Transport Network

Broadly speaking, these Clauses aim to:

- Achieve building design and siting outcomes that contribute positively to the local context, enhance the public realm and support environmentally sustainable development.
- Facilitate well-located, integrated and diverse housing that meets community needs and increase the proportion of housing in designated locations in established urban areas.
- Enhance the garden city character of Monash by preserving and enhancing its treed landscape.
- Focus higher scale development in well-serviced areas.
- Ensure new residential development achieves architectural and urban design outcomes that positively contribute to neighbourhood character.
- Promote residential development above ground floor development and carparks. Aboriginal Cultural Heritage Sensitivity (ACHS):

4. AMENDMENT ASSESSMENT

The following sections of this report provide an assessment of the proposal against the relevant statutory and strategic provisions of the Planning Scheme having regard to the site's physical context.

This assessment focuses on the appropriateness of the following key matters:

1. Consistency with the relevant Planning Policy in accordance with the Monash Planning Scheme
2. Consistency with the Commercial 1 Zone (C1Z) and Design and Development Overlay (DDO1)
3. Consistency with the design in response to its urban context
4. Consistency with the relevant consultant inputs (traffic, waste, landscape and wind)

Each of these matters is dealt with in turn below.

CONSISTENCY WITH THE PLANNING POLICY

The revised proposal continues to support the key objectives for Monash through contributing to Council's and Victorias aim to facilitate greater housing opportunities in suitable locations and in close proximity to services and transport. The revised proposal continues to provide high quality residential and mixed use amenity for the area and continuing to meet the objectives of the Commercial 1 Zone. The proposal continues to be well supported by the relevant policies within the Planning Scheme which call for higher density development within proximity to infrastructure, services and public transport. Specifically:

- The supply of additional residential stock (and dwelling diversity) is encouraged within areas which are supported by existing amenities, access to public transport and key road networks, all considered in keeping with this development sites and surrounds.
- The revised scheme continues to be a considerable improvement on the existing underutilised site within an existing Urban area, for the purposes of mixed use and residential accommodation.
- The proposal significantly improves the activation through the ground floor mixed use area, activating and better connecting the ground floor plan and streetscape for users in a landscaped setting
- The proposal incorporates high quality architecture and design which positively continues to the sites urban setting and character of surrounding development
- The proposal does not result in the unreasonable amenity impacts to nearby properties, noting the site is significantly setback from any sensitive interfaces.
- The proposal provides a high level of internal amenity for future residents and occupants, specifically the Level 02 podium area proposing a vast space of indoor and outdoor amenity
- The proposal provides for 208 car parking spaces providing users, residents and occupants with adequate off street car parking facilities, alleviating traffic and car parking for the community.
- The proposal provides for 81 bicycle spaces (37 spaces located in Level 01 podium and 44 spaces at grade for visitors), an appropriate response to the site and promotes higher bicycle visitor spaces and increased ownership of this sustainable transport option.

Consistency with the Commercial 1 Zone

The amended scheme is considered to be generally complaint with the objectives and policy direction of the Commercial 1 Zone as outlined under Clause 34.01. The revised proposal continues to comply with the policy and objectives under Clause 34.01(C1Z), specifically Clause 34.01-8 Decision Guidelines when assessing the revised scheme:

- The approved uses continue to comply with the Commercial 1 Zone which is encouraged at this location
- Pedestrian access and wayfinding is prevalent throughout the ground floor area, ensuring safe and effective movement through the missed use and retail spaces.
- The proposed provision of car parking and bicycle parking spaces have been assessed as appropriate for this development, mix of uses and site location.
- The amended scheme continues to propose an activated retail streetscape, enhancing the overall public realm to Centre Road and Links Avenue. The built form, largely unchanged from that previously approved will continue to provide human scale articulation within podium levels with recessive upper level built form located in the U shape to break up the massing and provide a landscaped open communal space for occupants. The Level 02 podium communal amenity provides opportunity for increased landscaping for the development.
- The supporting Waste Management Plan details the proposed waste and collection arrangement. Rubbish and waste will be stored and collected away from public view and access.
- The built form remains largely unchanged by the proposal, it's considered its effects of overlooking and overshadowing are already dealt with via the previous approved planning permit. The revised scheme does not propose any additional bulk or amenity impact.
- The proposal has been designed to optimise solar access for internal occupants of spaces. The building will continue to provide solar amenity for users and occupants, as previously approved.

Consistency with the Design and Development Overlay

The revised proposal continues to comply with the policy and objectives under Clause 43.02 (DDO1) “Industrial and Commercial Design and Development Area”.

The proposed revised architectural design continues to respond to the policy and objectives under the DDO and provide the required setbacks to align with the requirements under the DDO1, specifically the 20-metre setback to Centre Road.

DESIGN RESPONSE TO THE URBAN CONTEXT

Building Height

The revised architectural design has been refined with further detailed design changes ultimately resulting in this proposed revised scheme. Whilst the overall envelope has not deviated substantially from the previously approved built form, it is considered the refinement of the articulated façade elements will contribute a visually appealing mixed use form to the streetscape. The revised proposal

Due to the proposed increase in floor to floor levels of the apartments by 150mm to 3200mm the following building heights are now proposed:

- North elevation: RL89.000 (lift overrun RL90.200)
- East elevation: RL88.400 (lift overrun RL90.200)
- South elevation: RL89.000 (lift overrun RL90.200)
- West elevation: RL89.000 (lift overrun RL90.200)

Built Form

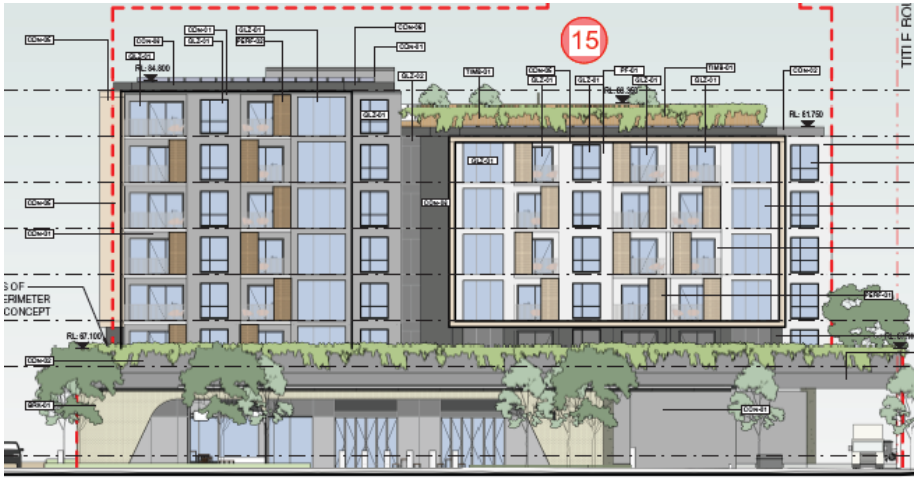
The built form envelope from the previous approval remains largely unchanged therefore its overlooking and visual bulk impacts remain mitigated. The revised scheme has been developed in response to the ongoing detailed design changes as detailed in this report. Where the built form of the development has been amended is largely a result of the internal reconfigurations and ongoing detailed design changes proposed. Of note the car parking has been re located to the Podium level largely due to site contamination. We are of the opinion the refined podium design should be supported for the following reasons:

- The podium carpark is aesthetically screened with louvers, making it appear as part of the building's facade rather than a traditional open car park. This ensures the building maintains its visual appeal while still providing the necessary parking space as required under the Monash Planning Scheme.
- Relocating the car parking to above ground (podium) benefits from the opportunity to access to the natural ventilation and provide natural light to the car parking area, improving air quality and the need for artificial lighting. As a result, the car parking areas will broadly reduce its reliance on mechanical ventilation and artificial lighting making the overall development more energy efficient and supports the objectives outlined within the Sustainability Management Plan.
- The podium design allows for acoustic separation between the ground-floor retail spaces and the residential units on the second level and above. This ensures minimal noise transfer from commercial activities to the residential area, improving the quality of life for residents and maintaining a more peaceful living environment above the intended mixed use activities located on the Ground Level.
- We note the subject site has been identified as having ground contamination issues making a basement carpark unfeasible. It is considered the proposed podium car park solution (adjoining the vast existing car park located within the immediate vicinity) an ideal alternative. We note this is also at the recommendation of the environmental auditor.
- The podium level is more accessible and secure for residents, with fewer ramps and elevators required. This can make it more convenient for drivers to enter and exit the carpark and residents to access their car parking spaces.

Please refer to the side by side comparison below (comparing the endorsed architectural plans dated 1 February 2024 and the revised proposal architectural plans dated 12 May 2025):

Figure 2 Architectural Plan Scheme comparison proposed versus approved

Picture 1 Proposed North Elevation

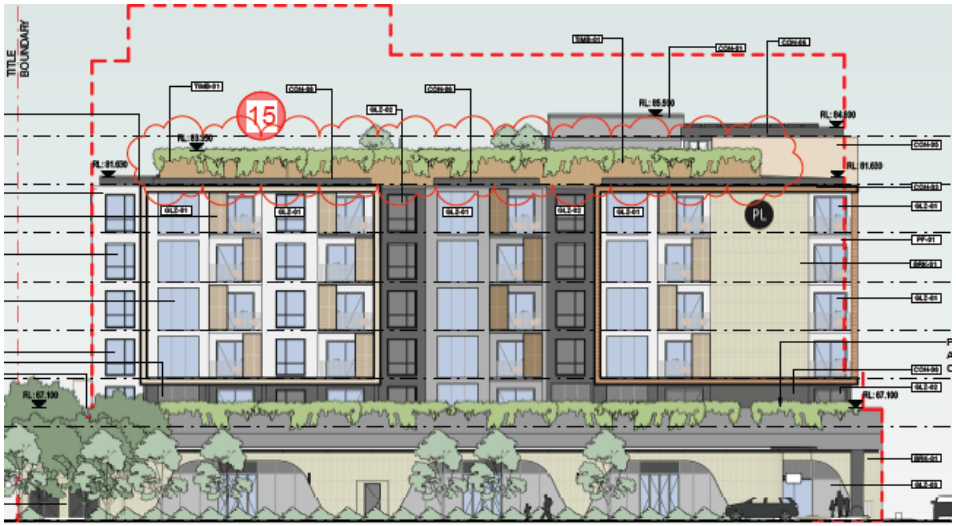


Picture 2 Approved North Elevation

Picture 3 Proposed East Elevation

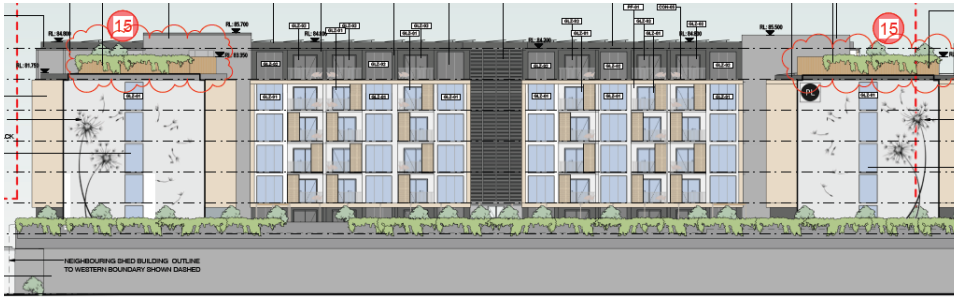
Picture 4 Approved East Elevation

Picture 5 Proposed South Elevation



Picture 6 Approved South Elevation

Picture 7 Proposed West Elevation



Picture 8 Approved West Elevation

TRAFFIC ASSESSMENT

Statutory Car Parking Requirement

Pursuant to Clause 52.06 of the Monash Planning Scheme, the car parking rate applicable to this revised proposal application is as follows:

LAND USE	AREA	STATUTORY REQUIREMENT	TOTAL
Dwelling	133 apartments	▪ For each 1 or 2-bedroom dwelling is 1 car parking space is required; and ▪ For each 3 or more-bedroom dwelling 2 car parking spaces are required.	128 spaces 10 spaces
Short Stay Hotel	24 apartments	See below.	
Supermarket	1,505m²	5 spaces to each 100m² of leasable floor area	75
Shop (Retail)	1,452m²	3.5 spaces to each 100m² of leasable floor area	50
		Total spaces required under the statutory rate	**263**

It is noted that the site is located with the Principal Public Transport Network (PPTN) and is therefore not required to provide any visitor spaces.

There is no enforced car parking rate under the Planning Scheme for 'residential hotel' use and must be provided to the satisfaction of the Responsible Authority. Therefore, the proposed development has a statutory requirement for 263 car parking spaces plus parking to the satisfaction of the Responsible Authority for the hotel use.

The provision of 138 car parking spaces associated with the residential use meets the statutory car parking requirement for one and two-bedroom dwellings. However, the provision of 54 spaces falls short of the commercial statutory requirement for the supermarket and shop.

Car Parking Demand

- **Residential:** For this development, the statutory car parking requirement for the residential component is expected to be reflective of the expected car parking demand and meets the statutory requirement.
- **Supermarket:** In shopping centres, where there is a major full-line supermarket, the inclusion of a smaller secondary supermarket serves to supplement shoppers with further choices and does not generate car parking at the full statutory rate.

  In our experience, supermarkets of a similar size typically generate parking at a rate of 3.5 spaces per 100 m² of leasable floor area. Accordingly, the 1,505 m² supermarket is expected to generate a parking demand for 52 spaces.
- **Shop:** Staff parking demands equate to approximately 30% of retail shop parking demands or 15 spaces for staff. Customers represent the balance of parking demands or 35 spaces.

  We note that there are efficiencies gained with the sharing of parking for the shop and supermarket uses due to varying times of peak demands and therefore we expect car parking demand in the order of 50% of the customer demand, or 18 spaces.

As detailed within the Traffic Engineering Report, the effect of traffic is considered to be to be managed appropriately given the vast car parking proposed for the uses within the development. The proposed reduction in car parking is a reflection on the reduction of apartments proposed and is therefore supported by the Traffic Engineering Assessment.

Please refer to the Transport Engineering Report, prepared by Traffix Group (dated 27 May 2025) is located as an appendix to this report.

Bicycle Parking

Pursuant to Clause 52.34 Bicycle Parking of the Monash Planning Scheme, the following bicycle parking rates apply:

LAND USE	AREA	STATUTORY REQUIREMENT	TOTAL
Dwelling (resident)	133 units	1 space to every 5 dwellings	27 spaces
Dwelling (visitor)	133 units	1 space to every 10 dwellings	13 spaces
Shop (employee)	1,505m²	1 space to each 600 m² of LFA if the LFA exceeds 1,000 m²	3 spaces
Shop (customer)	1,505m²	1 space to each 600 m² of LFA if the LFA exceeds 1,000 m²	3 spaces
Retail (employee)	1,452 m²	1 space per 300m² of LFA	5 spaces
Retail (customer)	1,452 m²	1 space per 500m² of LFA	3 spaces
Residential Building (resident)	24 rooms	1 to each 10 lodging rooms	2 spaces
Residential Building (employee)	24 rooms	1 to each 10 lodging rooms	2 spaces
Total spaces required under the statutory rate			58 spaces

The proposed development has a statutory requirement for 58 bicycle spaces comprising 27 resident spaces, 10 employee spaces, and 21 visitor spaces.

There are 37 bicycle parking spaces provided within the podium level car parking in a secured room, adjacent to the core, for residents and staff and a further 22 horizontal hoops (44 spaces) at ground level for visitors.

Clause 52.34 requires that all resident and staff spaces be provided within a secure location. The bicycle storage room will be provided for residents and staff within the podium level carpark. This room includes 37 spaces which meets the resident and employee requirement.

We note that this storage room has enough space to accommodate additional bicycles if required and there is a surplus of bicycle parking opportunities at the ground floor.

In accordance with the statutory requirement, the revised proposal is considered to satisfy the requirement.

Please refer to the Transport Engineering Report, prepared by Traffix Group located as an appendix to this report.

LANDSCAPE ASSESSMENT

A revised Landscape Plan has been prepared by Form Landscape Architecture. The landscape plan has been prepared to further articulate the design response regarding the proposed pedestrian interface along Centre Road, Links Avenue and in relation to the communal podium terrace area.

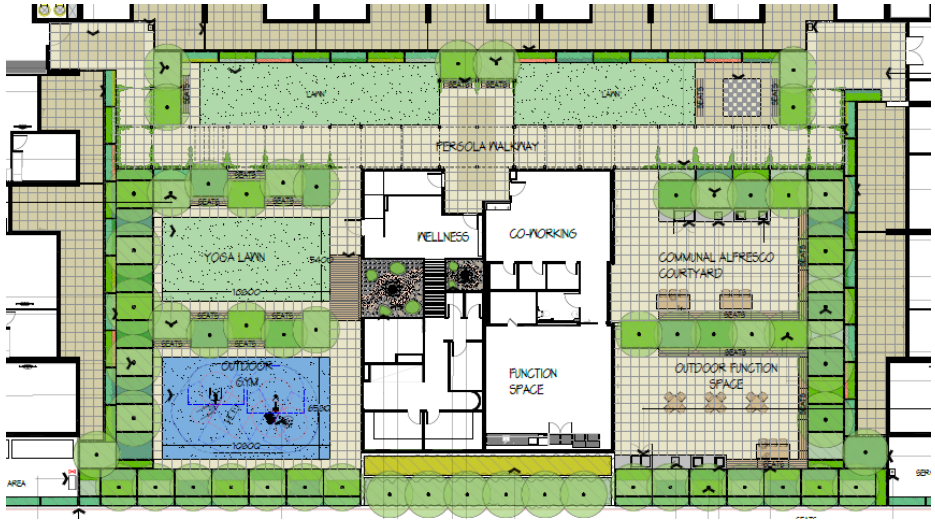
Generous landscaping is proposed throughout the site as a fundamental component of the design evolution, noting the revised development presents an amended communal landscaped area for consideration.

Landscaping continues to be integrated into the architectural design and layout, with a generous front landscaped setback to Centre Road, landscaped public realm interfaces and a landscaped communal open space. The overall landscape design seeks to activate the public realm, soften the development into its surrounds and provide vegetation for visual interest, shading, screening and interest to create a more useable public realm.

The podium terrace level (Level 2) will host the communal amenities and terrace area providing for co working spaces, residents lounge and wellness

area as well as large outdoor amenities such as yoga lawn, outdoor gym and outdoor alfresco areas The layout seeks to maximise the relationship between indoor and outdoor use, providing spaces for a range of interactions to be utilised by the future occupants and users of the development.

Figure 3 Level 02 Central Courtyard Landscape Plan



Source: [Form Landscape Architecture LDD08E]

Please refer to the Landscape Plan Report, prepared by Form Landscape Architecture located as an appendix to this report.

WASTE ASSESSMENT

A revised Waste Management Plan, by Leigh Designs has been prepared as part of the application.

The proposed development seeks to adopt appropriate operation and management of waste throughout the development. A summary of how waste will be managed is outlined as follows:

- The Operator, as defined below, shall be responsible for managing the waste system and for developing and implementing safe operating procedures.
- Waste shall be stored within the development (hidden from external view).
- Users shall deposit sorted waste into chutes and/or into designated collection bins (trained supermarket staff shall dispose waste into the cardboard compactor).
- 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.

Please refer to the Waste Management Plan, prepared by Leigh Design (dated 19 May 2025) is located as an appendix to this report.

WIND ASSESSMENT

The revised proposal is support by an updated Environmental Wind Assessment Report, prepared by MEL Consultants dated 24th March 2025.

With consideration to the previous Wind Assessment report (Reference: MEL Consultants Report 101-21-WT-ENV-01 dated 11th November 2022), an review of the proposed revised scheme was undertaken to confirm the likely effects (if any) of the wind outcomes as they relate to the site.

The report has noted the following for consideration:

- *The northern and eastern wing's increase of height by 1 level is not likely to make a significant difference to the wind conditions.*
- *With the removal of the L6 communal spaces, the wind conditions on these areas are now not relevant.*
- *The relocation of the function and co-working spaces to Level 2 should not be expected to have any significant impact on the wind conditions. The presence of the function/working space building may create some minor local wind effects at its edges, but overall, conditions are likely to be similar to the original scheme.*

In summary, the data presented in the wind tunnel Report (2022) would still be valid for the latest 2025 revised design. The wind consultants are of the opinion that this design does not require any additional analysis or wind tunnel modelling testing for an environmental wind conditions perspective.

Please refer to the enclosed Wind Report, prepared by MEL Consultants (dated 24 March 2025) is located as an Appendix to this report.

SUSTAINABILITY ASSESSMENT

The revised proposal has been designed to respond to policy objectives relating the sustainable design (ESD) which seek to encourage environmentally sustainable residential and commercial development.

The proposal is supported by a Sustainability Management Plan, prepared by GIW Environmental Solutions Pty Ltd.

The revised proposal achieves a Built Environment Sustainability Scorecard (BESS) score 64 out of 100 which places the proposal within the 'Best Practice' response category. The score of the derivative of the assessment is marked against management, water, energy, stormwater, indoor environment quality, transport, waste, urban ecology, material and innovation. Moreover, a STORM rating of 101% and a 7.5 NatHERS Energy Rating result is achieved for the revised proposal.

Please refer to the attached Sustainability Management Plan, prepared by GIW Environmental Solutions Pty Ltd (dated 6 May 2025) is located as an Appendix to this report.

Other Considerations:

This site is located within an Area of Cultural heritage Significance (ACHS). As part of the original application a Heritage Due Diligence Assessment was considered, assessed and approved under TPA/53095.

SIGNAGE ASSESSMENT

Clause 52.05 of the Monash Planning Scheme also provides guidance with respect to business identification signage and advertising signage, with signage to be assessed against Category 1 – Commercial Areas. The purpose is to provide for identification and promotion signs and signs that add vitality and colour to commercial areas.

We note that the revised proposal includes fewer signs than what was previously approved. The proposed signage zones will continue to provide suitable wayfinding throughout the site, clearly identifying key building entries and assisting with pedestrian linkages with the existing shopping centre to the north.

The proposed 'Pellicano Living' and 'Fieldworks House' signs are of a suitable size, siting and illumination to provide for acceptable identification for the building and suitable within the commercial zoning context of the site, while not resulting in adverse visual clutter to the surrounding area.

Sign Reference	Description	Dimensions	Details	Type	Total
MA-01	Business identification signage	1000mm x 4360mm	Internally illuminated	Tenancy blade signage	3
TS-01	Business identification signage	300mm x 1800mm - 3000mm	Internally illuminated	Tenancy blade signage	11
TS-02	Business identification signage	1000mm x 640mm	Internally illuminated	Tenancy blade signage (wall fixed double sided under awning sign)	7
CS-01	Building identification signage	600mm x 6800mm	Externally illuminated	Centre signage	2
PS-01	Pylon Sign	8950mm x 2100mm	Existing - Externally illuminated	Pylon Signage	1
RS-01	Residential Entry Signage	5700mm x 1375mm	Internally Illuminated	Entry Signage	1
				Total	**25**

At this stage, some of the proposed signage detail is subject to further detailed design with signage content to be submitted for approval at a later date (content to be determined by future tenancy agreements). It is requested this aspect is dealt with via a permit condition, if required.

5. CONCLUSION

The proposal continues to be worthy of support for the following reasons:

- The proposal is generally consistent with the existing Planning Permit TPA/53095 (VCAT directed).
- The proposal continues to be consistent with the statutory and strategic frameworks of the Monash Planning Scheme Planning Scheme.
- The proposal continues to revitalise an underutilised site in Oakleigh South, providing for a mixed use development at a designated Neighbourhood Activity Centre
- The proposal continues to contribute to the mixed use opportunities of the site comprising of a mix of retail and supermarket amenity in close proximity to additional services, transport and a wider residential catchment.
- The proposal continues to provide appropriate transition in building height and scale that responds to the Activity Centre locality within proximity to a major intersection whilst allowing for a suitable separation and scale for a transition to the surrounding residential area.
- The proposal continues to contribute to the residential amenity of the area proposing a mixology of apartment and short stay apartments.
- The proposed apartment and short stay layouts continue to provide for a variety of apartment typologies and afford a high level of internal amenity for future occupants.
- The front landscaped setback and communal open space throughout the development continues to enhance the landscaped amenity for future occupants and provides a generous landscaped visual buffer to the surrounding streetscape.
- No unreasonable streetscape or neighbourhood character impacts are a result of this revised proposal.

For the reasons discussed above, we consider the revised proposal represents an appropriate planning and design outcome for the site and should therefore be supported.

6. DISCLAIMER

This report is dated May 2025 and incorporates information and events up to that date only and excludes any information arising, or event occurring, after that date which may affect the validity of Urbis Ltd **(Urbis)** opinion in this report. Urbis prepared this report on the instructions, and for the benefit only, Pellicano **(Instructing Party)** for the purpose of Section 87A Town Planning Report **(Purpose)** and not for any other purpose or use. To the extent permitted by applicable law, Urbis expressly disclaims all liability, whether direct or indirect, to the Instructing Party which relies or purports to rely on this report for any purpose other than the Purpose, and to any other person which relies or purports to rely on this report for any purpose whatsoever (including the Purpose).

In preparing this report, Urbis was required to make judgements which may be affected by unforeseen future events, the likelihood and effects of which are not capable of precise assessment.

All surveys, forecasts, projections and recommendations contained in or associated with this report are made in good faith and on the basis of information supplied to Urbis at the date of this report, and upon which Urbis relied. Achievement of the projections and budgets set out in this report will depend, among other things, on the actions of others over which Urbis has no control.

In preparing this report, Urbis may rely on or refer to documents in a language other than English, which Urbis may arrange to be translated. Urbis is not responsible for the accuracy or completeness of such translations and disclaims any liability for any statement or opinion made in this report being inaccurate or incomplete arising from such translations.

Whilst Urbis has made all reasonable inquiries it believes necessary in preparing this report, it is not responsible for determining the completeness or accuracy of information provided to it. Urbis (including its officers and personnel) is not liable for any errors or omissions, including in information provided by the Instructing Party or another person or upon which Urbis relies, provided that such errors or omissions are not made by Urbis recklessly or in bad faith.

This report has been prepared with due care and diligence by Urbis and the statements and opinions given by Urbis in this report are given in good faith and in the reasonable belief that they are correct and not misleading, subject to the limitations above.

APPENDIX A MONASH PLANNING SCHEME

A.1 COMMERCIAL 1 ZONE

The site is located within the Commercial 1 Zone (C1Z) pursuant to Clause 34.01 of the Monash Planning Scheme, this zone seeks to:

- *To implement the Municipal Planning Strategy and the Planning Policy Framework*
- *To create vibrant mixed use commercial centres for retail, office, business, entertainment and community uses*
- *To provide for residential uses at densities complementary to the role and scale of the commercial centre.*

A planning permit is required for the following:

- Pursuant to Clause 34.01-1, a permit is required for the use of a dwelling under the Zone.
- Pursuant to Clause 34.01-4, a permit is required to construct a building or construct or carry out works and an apartment development must meet the requirements of Clause 58.

A permit continues to be required under this amendment for the use of a dwelling and to construct and building and carry out works within the C1Z.

A.2 DESIGN AND DEVELOPMENT OVERLAY – SCHEDULE 1

The subject site is affected by the Design and Development Overlay – Schedule 1 (DDO1) and it relates to the 'Industrial and Commercial Design and Development Area'. The following design objectives apply:

- *To ensure that development, including front setbacks, is in keeping with and contributes to the Garden City Character as set out in the Municipal Strategic Statement.*
- *To ensure that the building scale and form in terms of height and bulk complements and does not visually overwhelm surrounding buildings.*
- *To ensure that streetscape engineering details of new developments integrate with the existing streetscape.*
- *To ensure that fences or planting along property boundaries do not adversely affect urban character or adjacent open space.*
- *To ensure that the landscape treatment within the front setback contributes to the positive aspects of the applicable industry or business Character Type identified in Clause 22.03.*
- *To retain existing on-site vegetation if possible.*
- *To ensure that car parking, vehicle access and service areas do not visually impinge on front setbacks or affect streetscape elements such as trees and nature strips.*
- *To minimise visual clutter.*

Building and car park setbacks

- Buildings and car park areas must be set back from the front boundary of a site at least 20 metres from the Road frontages of Centre Road and Warrigal Road.
- Buildings and car park areas must be set back from the boundary of a site at least 6 metres from the boundary of 1041-1049 Centre Road Oakleigh South – north boundary abutting land zoned R1Z. The setback area is to be landscaped under the policy.
- Buildings must be set back from land in a residential zone or land used for a hospital or school at least the distance calculated Distance = H/2 + 1.5 metres (H = height of building nearest the boundary in metres)

Fences and front setback areas

A fence must be set back from the front boundary of the site at least the distance as specified above. A front fence must be no higher than 2 metres and screened by trees or landscaping to ensure materiality is similar to common characteristics of fences in the neighbourhood.

Engineering design

New accessways and streets must be designed so that they fit in with existing streetscape details. In particular:

- The accessway or street must be no wider than other accessways or streets within the neighbourhood that perform a similar function.

- Kerb details and corner radii of accessways and streets must be consistent with those in similar locations in the street.

Services

All services are to be located underground. Rubbish areas must be screened and at the rear of buildings, not to be viable from the street.

Pursuant to Clause 43.02-2 a permit continues to be required to construct a building or construct or carry out works within DDO1.

A.3 GENERAL AND PARTICULAR PROVISIONS

CLAUSE 52.05 – SIGNS

Clause 52.05 seeks to regulate to the development of land for signs and associated structures. Pursuant to Clause 34.01-9 the site falls within Category 1. Category 1 relates to Commercial Area (Minimum Limitation). The purpose of this Category 1 is *"To provide for identification and promotion signs and signs that add vitality and colour to commercial areas."*

Business identification signage is a Section 1 (permit not required signs) provided the total display area of all signs to each premises does not exceed 8 sqm and does not include a direction sign. One separate Direction sign is allowed to each premises. Internally illuminated signage must not exceed 1.5sqm. The sign must be more then 30m from a residential zone or pedestrian or traffic lights.

Anything larger falls into Section 2 (permit required signs) and requires a planning permit.

CLAUSE 52.06 – CAR PARKING

Clause 52.06 applies to a new use and seeks to ensure the provision of an appropriate number of car parking spaces. Pursuant to Clause 52.06-5, the statutory parking requirement is:

- Dwelling – 1 to each one or two bedroom dwelling plus 2 to each three of more bedroom dwelling.
- Shop – 3.5 spaces to each 100sqm of leasable floor area.
- Food and drink premises – 3.5 to each 100sqm of leasable floor area.

A permit may be granted to reduce or waive this car parking requirement.

CLAUSE 52.17 – NATIVE VEGETATION

Clause 52.17 applies to any proposal to remove native vegetation. The purpose of Clause 52.17 is *to ensure that there is no net loss to biodiversity as a result of the removal, destruction or lopping of native vegetation. This is achieved by applying the following three step approach in accordance with the Guidelines for the removal, destruction or lopping of native vegetation (Department of Environment, Land, Water and Planning, 2017) (the Guidelines):*

1. *Avoid the removal, destruction or lopping of native vegetation.*
2. *Minimise impacts from the removal, destruction or lopping of native vegetation that cannot be avoided.*
3. *Provide an offset to compensate for the biodiversity impact if a permit is granted to remove, destroy or lop native vegetation. To manage the removal, destruction or lopping of native vegetation to minimise land and water degradation.*

As part of the original application, assessed by Galbraith and Associates, the trees proposed to be removed were not considered to be of any Arboriculture value and therefore the proposed tree removal did not trigger a planning permit under Clause 52.17.

CLAUSE 52.34 – BICYCLE FACILITIES

Clause 52.34 Bicycle parking seeks to encourage cycling as a mode of transport and to provide secure and accessible bicycle parking spaces and facilities. Pursuant to Clause 52.34-3, the statutory bicycle space requirement is:

- Dwelling – in developments of four or more storeys, 1 to each 5 dwellings for residents and in developments of four or more storeys and 1 to each 10 dwellings for visitors.
- Shop – 1 to each 600sqm of leasable floor area if the leasable floor area exceeds 1000sqm for employees and 1 to each 500sqm of leasable floor area if the leasable floor area exceeds 1000sqm for visitors.

A permit may be granted to vary, reduce or waiver any requirement of Clause 52.34-5 and Clause 52.34-6.

CLAUSE 58 – APARTMENT DEVELOPMENTS

Clause 58 applies to an apartment development within the Commercial Zone and seeks to encourage apartment development that provides reasonable standards of amenity for existing and new residents and to encourage apartment development that is responsive to the site and the surrounding area.

The development **must** meet all of the objectives of this clause and **should** meet all of the standards of this clause. As part of the original application, a detailed Clause 58 – Apartment Development Assessment was provided.

CULTURAL HERITAGE SENSITIVITY

This site is located within an area of Aboriginal Cultural heritage Sensitive, as part of the original application a Heritage Due Diligence Assessment was provided and assessed.

A.4 MUNICIPAL PLANNING STRATEGY

The Municipal Planning Strategy sets out the following vision and strategic directions to guide land use and development in the City of Monash within the Monash Planning Scheme.

- **Clause 02.01 – Context** acknowledges that Monash is characterised by its suburban environment, heritage areas, and urban garden character. It is home to key regional assets such as Monash University, Monash Medical Centre, and the Monash National Employment and Innovation Cluster, with major land uses including residential, commercial, industrial, and open spaces, supported by a well-maintained road network, two rail lines, and the Monash Freeway.
- **Clause 02.02 –** Vision expresses that the vision for the City of Monash focuses on sustainability, inclusive services, enhanced places, and good governance, aiming to address climate change, increase vegetation coverage, and prioritize sustainable transport options. Additionally, council seeks to improve open spaces, revitalise employment hubs and activity centres, and prioritise pedestrians and active transport over vehicles.
- **Clause 02.03-4 – Built environment and heritage** acknowledges that

Monash is known for its garden city character, featuring leafy, low-rise suburbs with well-vegetated gardens, wide streets, and tall canopy trees, which are particularly prominent in the eastern part of the municipality. It specifies that the retention of this garden city neighbourhood character is crucial to the community, and that Council has worked extensively to identify and preserve Monash's preferred neighbourhood character to ensure development does not erode it.

Under this policy, Council seeks to:

- *Maintain and enhance the garden city character by ensuring that development contributes to the garden city character including through the conservation of existing trees and the planting of canopy trees.*
- *Ensure that development enhances the character of the neighbourhood, consistent with the identified preferred future character*
- **Clause 02.03-5 – Housing** seeks to accommodate predicted population growth, and to satisfy diverse housing needs to facilitate different types of housing development. The residential development framework plan at Clause 02.04-3 comprises eight categories, classified according to their development potential. The site is located in an area categorised as an 'Accessible Area' and is located within the Oakleigh South neighbourhood activity centre.
- **Clause 02.06-6 – Economic Development** acknowledges that Monash is the largest employment destination in Melbourne's south-east. Council seeks to facilitate greater diversity in economic investment in the municipality by supporting land use and development that fosters business growth.

A.5 PLANNING POLICY FRAMEWORK (PPF)

The Planning Policy Framework (PPF) seeks to develop the objectives for planning in Victoria (as set out in the Planning and Environment Act 1987) to foster appropriate land-use and development planning that encompasses relevant environmental, social and economic factors. local policies within the PPF provide objectives and strategies specifically for land use and development with the Monash municipality. Planning Policies that are applicable to this proposal are discussed below.

- **Clause 11 – Settlement** identifies that planning is to anticipate and respond to the needs of the existing and future communities through provision of zoned and serviced land for housing, employment, recreation and open space, commercial and community facilities and infrastructure.

Planning is to prevent environmental and amenity problems created by siting incompatible land uses close together.

- **Clause 11.02-1S – Supply of urban land** seeks to ensure a sufficient supply of land is available to support the ongoing provision of sustainable development, and to meet forecast demand.
- **Clause 11.03-1S – Activity Centres** seeks to ensure a sufficient supply of land is available to support the ongoing provision of sustainable development, and to meet forecast demand.
- **Clause 11.03-1L-01 – Activity centres – Monash** seeks to encourage a variety of service based facilities to meet local needs and broaden community activities within neighbourhood activity centres.
- **Clause 15 – Built Environment and Heritage** recognises the role of planning in delivering liveable and sustainable cities, towns and neighbourhoods through good urban design, building design, energy and resource efficiency.
- **Clause 15.01-1S – Urban Design** seeks development to respond to its site context, its needs and promote good design through facilitating accessibility, safety, and high standard design outcomes.
- **Clause 15.01-1L-01 – Signs** seeks to facilitate signs that provide effective identification of businesses and other land uses, as well as support signs that are complementary to the character of the locality.
- **Clause 15.01-1L-02 – Tree conservation for a Garden City** aims to design and site development to retain and conserve existing semi-mature and mature canopy trees, wherever possible and incorporate landscaping that reinforces the garden city character of the area.
- **Clause 15.01-2S – Building Design** promotes development to respond to its site context, needs and minimise any detrimental impacts to the public realm and the environment. The policy seeks to ensure development provides safe access, form, scale and function are highly values when considering new development.
- **Clause 15.01-2L-01 – Industry and business built form character** aims to ensure that development creates or enhances a high-amenity built form environment and contributes to the garden city character. Under this policy, there are a number of strategies relating to setbacks, building height, car parking and access, fences, landscaping, engineering design and services.
- **Clause 15.01-2L-02 – Environmentally sustainable design** aims to achieve best practice in sustainable development from design through to construction and operation.
- **Clause 15.01-5S – Neighbourhood Character** seeks to recognise, support and protect neighbourhood character, cultural identity and sense of place.
- **Clause 16 – Housing** recognises that planning should provide for a diversity of housing within walking distance to activity centres and good access to services, public transport, schools and open space.
- **Clause 16.01-1S – Housing supply** seeks to facilitate well-located, integrated and diverse housing that meets community needs and increase the proportion of housing in designated locations in established urban areas.
- **Clause 16.01-1R – Housing supply – Metropolitan Melbourne** seeks to facilitate well-located, integrated and diverse housing that meets the needs of the community. This policy seeks to identity areas that offer opportunities for more medium and high density housing near employment and transport offerings in Metropolitan Melbourne.
- **Clause 16.01-1L-01 – Housing supply – Monash** directs hosing growth to neighbourhood and activity centres that includes a range of dwelling sizes and types. More intensive, higher-scale development is focused on major and neighbourhood activity centres that are well-serviced by public transport, commercial, recreational, community and educational facilities.
- **Clause 16.01-2S – Housing affordability** seeks to deliver more affordable housing closer to jobs, transport and services. Ways to improve housing affordability include increasing choice in housing, ensuring suitable land supply in areas which can accommodate higher density development and encourage high quality development for future needs of residents.
- **Clause 17.02-1S – Business** promotes development that meets the community's needs for retail, entertainment, office and other commercial services. It ensures that commercial facilities are grouped together to maximise community benefit, viability, accessibility and efficient use of infrastructure.

- **Clause 18.01-1S Land use and transport integration** seeks to integrate land use and the transportation system in a more holistic manner.
- **Clause 18.02-3R Principal Public Transport Network** seeks to maximise the use of existing infrastructure and increase the diversity and density of development along the Principal Public Transport Network, particularly at interchanges, activity centres and where principal public transport routes intersect.

APPENDIX B MARKED UP COPY OF PLANNING PERMIT

PLANNING PERMIT

No. TPA/53095 VCAT Directed

Section 63, 64, 64A and 86 Reg 22
Form 4

PLANNING PERMIT	Permit No.:	**TPA/53095 VCAT Directed**
	Planning Scheme:	**Monash Planning Scheme**
	Responsible Authority:	***Monash City Council***

ADDRESS OF THE LAND

1041 Centre Road OAKLEIGH SOUTH VIC 3167

THE PERMIT ALLOWS

Construction of a multi-storey building to be used for accommodation, food and drinks premises, supermarket and shop, display of signage, reduction in car parking requirements and alteration of access to a road in a TRZ2 – Principal Road Network

THE FOLLOWING CONDITIONS APPLY TO THIS PERMIT

Amended Plans Required

1. Before the development and use starts, excluding demolition works, amended plans drawn to scale and correctly dimensioned must be submitted to the satisfaction of and approved by the Responsible Authority. When approved, the plans will be endorsed and then form part of the Permit. The plans must be generally in accordance with the VCAT amended plans prepared by i2C Ryder Architects drawing numbers DA01; DA02, DA10; DA11; DA12; DA13, DA20; DA21; DA30; DA31; DA32; DA33; DA34; DA35; DA36; DA37; DA40; DA41; DA42; DA43; DA44; DA48; DA49; DA50; DA51; DA60; DA61; DA62; DA63; DA64; DA65; DA77; DA78; DA80; DA81; DA82; DA100; DA101; DA102; DA130 dated 19 May 2025 but modified to show:

    a) An amended landscape plan prepared in accordance with Condition 4;
    b) An amended Waste Management Plan prepared in accordance with Condition 6;
    c) An amended Sustainable Management Plan prepared in accordance with Condition 7;
    d) Changes as a result of Condition 17;
    e) Changes as required by the Wind Report in accordance with Condition 18;

Date issued: **28 December 2022**

Signature for the Responsible Authority:

f) Bicycle parking facilities designed in accordance with Condition 30;

g) Any changes as set out in the Signage Plan prepared by i2C Ryder Architects drawing number DA 80, DA81, DA82 dated 19 May 2025.

All to the satisfaction of the Responsible Authority.

Layout not to be Altered

2. The development and use as shown on the endorsed plans must not be altered without the prior written consent of the Responsible Authority.

3. Once the development has started it must be continued and completed to the satisfaction of the Responsible Authority.

Landscaping Plan

4. Concurrent with the endorsement of any plans requested pursuant to Condition 1, a landscape plan prepared by a Landscape Architect or a suitably qualified or experienced landscape designer, drawn to scale and dimensioned must be submitted to and approved by the Responsible Authority. When endorsed, the plan will form part of the Permit. The plans must be generally in accordance with the plans submitted to Council prepared by Form Landscape Architecture (dated May 2025).

but modified to show:

a) Changes required under Condition 1;

b) A survey and location of all existing trees, using botanical names of those existing trees to be retained and of those to be removed. The intended status of the trees shown on the landscape plan must be consistent with that depicted on the development layout plan;

c) A planting schedule of all proposed trees, shrubs and ground cover, which will include the size of all plants (at planting and at maturity), pot / planting size, location, botanical names and quantities;

d) The location of any fencing internal to the site;

e) Planting to soften the appearance of hard surface areas such as driveways and other paved areas;

f) The location of any retaining walls associated with the landscape treatment

of the site;

g) Details of all proposed surface finishes including pathways, accessways, and driveways;

h) The location of external lighting; and

i) Details of the raised planters, such as planter box materials and dimensions, mulch layer, growing media, filter media, and root barrier / water proofing layer; and

j) Details of the proposed method for irrigation and drainage.

k) Details of maintenance (including during and regime).

When approved the plan will be endorsed and will then form part of the permit.

5. Before the occupation of any of the buildings allowed by this permit, landscaping works as shown on the endorsed plans must be completed to the satisfaction of the Responsible Authority and thereafter maintained to the satisfaction of the Responsible Authority.

Management Plans

Waste Management Plan

6. Concurrent with the endorsement of plans required pursuant to Condition 1, a Waste Management Plan must be submitted to and approved by the Responsible Authority. The plan must be substantially in accordance with the Waste Management Plan prepared by Leigh Design dated 19 May 2025 but revised to show:

   a. Changes required under condition 1 of this permit.

   b. Provision of a detail description of the development including the TPA number, proposed uses and the number of levels in the introductory or similar early section of the report;

   c. Provision for food organics recycling in accordance with the Sustainability Victoria Better Practice Guide for Waste Management and Recycling;

   d. An improved waste system to increase the accessibility and convenience of recycling of food waste, e-waste, and the future separated glass waste;

   e. All waste streams indicated for bins in each waste room;

f. Details of bin collection process;

g. Details of bin storage areas including the location of cleaning/ washing bin, drainage to sewer and indication of all waste streams supported by scale plans;

h. Details of responsibility for the operation of the waste management system outlines; and

i. Waste Management communications strategy for occupiers.

When approved, the plan will be endorsed and will then form part of the permit. Waste collection from the development must be in accordance with the plan, to the satisfaction of the Responsible Authority.

Sustainable Management Plan

7. Concurrent with the endorsement of plans requested pursuant to Condition 1, a Sustainable Management Plan must be submitted to and approved by the Responsible Authority. The plan must be generally in accordance with the Sustainability Management Plan prepared by GIW Environmental Solutions Pty Ltd dated 6 May 2025, except that the plans must be modified to show the amended proposal in accordance with the plans prepared by i2C Ryder Architects (dated 19 May 2025) and changes required under condition 1 of this permit.

Construction Management Plan

8. Prior to the commencement of any site works (including any demolition and excavation), a Construction Management Plan (CMP) must be submitted and approved by the Responsible Authority. No works are permitted to occur until the CMP has been approved and endorsed by the Responsible Authority. Once endorsed, the CMP will form part of the permit and must be implemented to the satisfaction of the Responsible Authority. The CMP must address the following issues:

a) Hours for construction activity in accordance with any other condition of this permit;

b) Appropriate measures to control noise, dust and water and sediment laden runoff;

c) Appropriate measures for the prevention of silt or other pollutants from entering into the Council's underground drainage system or road network;

d) Appropriate measures relating to removal of hazardous or dangerous material

from the site, where applicable;

e) A plan showing the location and design of a vehicle wash-down bay for construction vehicles on the site so as to prevent material leaving the site and being deposited on Council's road network;

f) A program for the cleaning and maintaining surrounding road surfaces;

g) A site plan showing the location of any site sheds, on-site amenities, building waste storage and the like, noting that Council does not support the siting of site sheds within Council road reserves;

h) Measures to provide for public safety and site security;

i) A plan showing the location of parking areas for construction and sub-contractors' vehicles on and surrounding the site, to ensure that vehicles associated with construction activity cause minimum disruption to surrounding premises.

j) A Traffic Management Plan showing truck routes to and from the site;

k) A swept path analysis demonstrating the ability for trucks to enter and exit the site in a safe manner for the largest anticipated truck associated with the construction;

l) Appropriate measures to ensure that sub-contractors/tradespersons operating on the site are aware of and adhere to the requirements of the CMP;

m) The provision of contact details of key construction site staff; and

n) Include a requirement that except with the prior written consent of the Responsible Authority, a requirement that demolition, excavation or construction works must only be carried out during the following hours:

- Monday to Friday (inclusive) – 7.00am to 6.00pm;
- Saturday – 9.00am to 1.00pm;
- Saturday – 1.00pm to 5.00pm (Only activities associated with the erection of buildings that does not exceed the EPA guidelines);
- No works are permitted on Sundays or Public Holidays.

The provisions, recommendations and requirements of the endorsed CMP must be implemented and complied with by all contractors to the satisfaction of the Responsible Authority.

Green Travel Plan

9. Before the development is occupied, a Green Travel Plan must be prepared to the satisfaction of the Responsible Authority following consultation with the Department of Transport. The Plan must be prepared by a suitably qualified person and must encourage the use of non-private vehicle transport modes by the occupiers of the land. The Green Travel Plan must include, but not be limited to, the following:

   a) A description of the location in the context of alternative modes of transport;

   b) Details of end of trip facilities provided;

   c) Education and awareness initiatives and incentives for residents and visitors to encourage more sustainable modes of travel to/from the site;

   d) Management practices identifying sustainable transport alternatives;

   e) Provision of electric vehicle charging facilities;

   f) Lobby areas of building to include real time information of train, tram and bus services;

   g) Details of bicycle spaces for staff;

   h) Employee and resident packs (such as myki cards for new workers);

   i) An obligation to update the plan not less than every 5 years;

   j) Details of when and how this travel plan will be available for new staff and residents; and

   k) Any other relevant matters.

   Once approved, the Green Travel Plan must form part of the permit and any ongoing Management Plan for the land to ensure the Green Travel Plan continues to be implemented by residents or owners to the satisfaction of the Responsible Authority.

10. The Green Travel Plan must not be amended without the written consent of the Responsible Authority, following consultation with the Department of Transport.

Environmental Site Assessment Report

11. Prior to the commencement of the development, excluding demolition works which may be required to finalise any environmental reports and site remediation works,

the owner/developer must submit to the Responsible Authority:

a. A preliminary risk screen assessment statement in accordance with the *Environment Protection Act 2017* stating that an environmental audit is not required for proposed use and development; or

b. An environmental audit statement under Part 8.3 of the *Environment Protection Act 2017* stating that the land is suitable for the proposed use and development.

12. Where a Statement of Environmental Audit is issued for the land pursuant to Condition 11 above, the use and development of the land must comply with all directions and conditions contained within the Statement.

13. Where a Statement of Environmental Audit is issued for the land pursuant to Condition 11 above, prior to the occupation of the development, a letter prepared by a suitably qualified environmental consultant or other suitable person acceptable to the responsible authority, must be submitted to the Responsible Authority to verify that the directions and conditions contained within the Statement have been satisfied. Compliance sign off must be in accordance with any requirements in the environmental audit statement recommendations regarding verification of works.

14. Where a Statement of Environmental Audit is issued for the land pursuant to Condition 11 above, and any condition of that Statement requires any maintenance or monitoring of an ongoing nature, the owner must enter into an Agreement with Council pursuant to Section 173 of the *Planning and Environment Act 1987*. Where a Section 173 Agreement is required, the Agreement must be executed prior to the occupation of the development and prior to Statement of Compliance of the Plan of Subdivision. All expenses involved in drafting, negotiating, lodging, registering, executing and enforcing the Agreement, including those incurred by the Responsible Authority, must be met by the owner.

<u>Landfill Gas Risk Assessment</u>

15. Prior to the commencement of the development authorised under this permit, excluding demolition works (and excluding works reasonably required to conduct the landfill gas assessment), the permit holder must to the satisfaction of the Responsible Authority:

a) Engage an appropriately qualified site assessor with demonstrated experience in the assessment of landfill gas in the subsurface environment, to conduct an

assessment of any methane within the land, subsurface services and buildings and structures on the land adopting the methane gas action levels prescribed at items 6 and 7 of schedule 3 of the Environment Protection Regulations 2021 as set out below.

Item	*Location for assessing methane gas concentration action levels*	*Methane gas concentration action level*
6	Subsurface services on, and adjacent to, the waste	10,000 parts per million
7	Buildings and structures on, and adjacent to, the waste	5000 parts per million

b) Ensure that the site assessor prepares a report to be submitted to the Responsible Authority. The landfill gas risk assessment (LGRA) should be based on guidance prepared by the Environment Protection Authority from time to time and incorporated under the Environment Protection Act 2017 and subordinate legislation.

c) If the landfill gas assessment identifies methane at concentrations exceeding the methane gas concentration action levels, the permit holder must engage the services of an EPA-appointed environmental auditor to complete an environmental audit with a scope limited to:

(i) assessment of the nature and extent of the risk of harm to human health from waste;

(ii) recommending measures to manage the risk of harm to human health from waste;

(iii) making recommendations to manage any waste, where the landfill extends onto or beneath the land.

d) The permit holder must provide the Responsible Authority with a scope and supporting documents endorsed or determined by the Environment Protection Authority pursuant to section 208(5) of the Environment Protection Act 2017 and a copy of the environmental audit statement and environmental audit report issued pursuant to sections 210(1) of the Environment Protection Act 2017.

Peer Review

16. Prior to the commencement of the development authorised under this permit, excluding demolition works, the permit holder must:
    a) provide to Council a copy of the LGRA undertaken in accordance with Condition 11 within 14 days of receiving the LGRA;
    b) pay Council's costs and expenses associated with a Council-arranged peer review of the LGRA. The peer review will be undertaken by an independent and suitably qualified environmental consultant nominated by Council;
    c) obtain a copy of the peer review obtained by Council.

17. The recommendations of the LGRA including any requirements arising from the peer review are to be implemented by the permit holder.

Wind Report

18. Before the commencement of the development, excluding demolition works, an amended Wind Assessment to the satisfaction of the Responsible Authority must be submitted to and approved by the Responsible Authority. When approved, the amended Wind Assessment will be endorsed and will form part of this permit. The amended Wind Assessment must be generally in accordance with the Wind Assessment prepared by MEL Consultants and dated 24 March 2025 but modified to include or show:

    (a) Assess the proposal as amended pursuant to Condition 1.

    (b) Wind tunnel model measurements undertaken to verify the findings of the desktop study.

    (c) Achievement of the following wind conditions:

        (i) "walking" criterion along the proposed pedestrian footpaths adjacent to the proposed development;

        (ii) "sitting" criterion within all areas containing proposed seating (such as the outdoor seating areas for the cafes, the seating/landscaped areas within the communal open space on Level 1); and

        (iii) "walking" criterion for the building entrances;

    d) Any necessary mitigation measures to achieve the above wind conditions.

19. The provisions, recommendations and requirements of the endorsed Wind Assessment Report (including wind tunnel modelling) must be implemented and complied with to the satisfaction of the Responsible Authority.

General Conditions

20. No equipment, services, architectural features or structures of any kind, including telecommunication facilities, other than those shown on the endorsed plans shall be permitted above the roof level of the building unless otherwise agreed to in writing by the Responsible Authority.

21. Air-conditioning and other plant and equipment installed on or within the buildings must be so positioned and baffled that any noise emitted complies with the appropriate Australian Standards and EPA requirements.

22. As part of the ongoing consultant team, i2C Ryder Architects or an architectural firm which is acknowledged to have comparable skill and expertise to the satisfaction of the Responsible Authority must be engaged to:
    a) Oversee design and construction of the development; and
    b) Ensure the design quality and appearance of the development is realised as shown in the endorsed plans or otherwise to the satisfaction of the Responsible Authority.
    c) Ensure an appropriate repair, reconstruction, paint removal and painting scheme is developed for the existing heritage building. This scheme is to carry out repairs to the awning, timber and render, tiles and other materials and authorised by a qualified heritage architect.

23. Noise levels must not exceed the permissible noise levels stipulated in the Environment Protection Regulations under the *Environment Protection Act 2017* and the Incorporated Noise Protocol (Publication 1826.4, Environment Protection Authority, May 2021) as may be amended from time to time to the satisfaction of the Responsible Authority.

24. Amplified music (including background music) is not permitted to be played other than through a sound system calibrated to ensure compliance with the Environment Protection Regulations under the *Environment Protection Act 2017* and the Incorporated Noise Protocol (Publication 1826.4, Environment Protection Authority, May 2021) as may be amended from time to time, with details submitted demonstrating how compliance will be achieved to the satisfaction of the Responsible Authority.

25. The use and development must be managed so that the amenity of the area is not detrimentally affected through the:

    (a) Transport of materials, goods or commodities to or from the land

    (b) Appearance of any building, works or materials

    (c) Emission of noise, artificial light, vibration, smell, fumes, smoke, vapour, steam, soot, ash, dust, waste water, waste products, grit or oil

    (d) Presence of vermin.

Car Parking Conditions

26. Unless with the agreement of the Responsible Authority, prior to the use starts or any building is occupied, the developer is required to fully fund the design and construction of a pedestrian connection at least 1.5 metre wide, from the Links Avenue T-intersection at the north end of the development (at the existing zebra crossing) to the eastern property boundary south of the existing water tank. Unless otherwise agreed to the satisfaction of the Responsible Authority, this pedestrian connection is to include a DDA compliant access ramp through to Stan Riley Reserve to join with the proposed Council-constructed footpath within the Reserve. Any changes to the existing retaining wall/embankment on the eastern boundary are to be included in the works, at the full cost of the developer. The existing zebra crossing at the Links Avenue T-intersection is to be modified to meet current standards. A detailed design plan of the proposed pedestrian connection must be submitted to the Council's Engineering Department for approval. The works are to be designed and constructed to the satisfaction of the Responsible Authority.

27. Before the use starts or any building is occupied, areas set aside for parked vehicles and access lanes as shown on the endorsed plans must be:

    a) constructed to the satisfaction of the Responsible Authority;

    b) properly formed to such levels that they can be used in accordance with the plans;

    c) surfaced with an all-weather sealcoat to the satisfaction of the Responsible Authority;

    d) drained, maintained and not used for any other purpose to the satisfaction of the Responsible Authority;

    e) line-marked to indicate each car space and all access lanes to the satisfaction of the Responsible Authority.

Parking areas and access lanes must be kept available for these purposes at all times.

28. The layout of the development must comply with the Design Standards for car parking set out in Clause 52.06-8 of the Monash Planning Scheme as detailed below unless with the written consent of the Responsible Authority

    a. Driveway to provide at least 2.1m headroom beneath overhead obstructions.

    b. Driveway gradient to be no steeper than 1 in 10 (10%) within 5 metres of the frontage to ensure safety for pedestrians and vehicles.

    c. Ramp grades (except within 5 metres of the frontage) to be designed as follows:

        i. Maximum grade of 1 in 4.

        ii. Provision of minimum 2.0 metre grade transitions between different section of ramp or floor for changes in grade in excess of 12.5% (summit grade change) or 15% (sag grade change).

    d. Minimum requirements for car park dimensions to be in accordance with Table 2.

    e. Clearance to car parking spaces to be in accordance with Diagram 1 in relation to the placement of a wall, fence, column, tree, tree guard or any other structure that abuts a car space.

29. The accessible parking space should be designed in accordance with the Australian Standard for Off-Street Parking for people with disabilities, AS/NZS 2890.6.

30. Unless otherwise agreed to the satisfaction of the Responsible Authority, bicycle parking facilities must comply with the design and signage requirements set out in Clause 52.34 of the Monash Planning Scheme or AS2890.3:2015. Minimum 20% ground level (horizontal) parking spaces as per AS2890.3:2015 are required.

31. The proposed vehicle crossing is to be constructed in accordance with the City of Monash standards.

32. Any works within the road reserve must ensure the footpath and kerb and channel are reinstated to Council standards.

Signage Conditions

33. The location and details of the signs shown on the endorsed plans must not be altered without the written consent of the responsible Authority.

34. The signs must be constructed and maintained to the satisfaction of the Responsible Authority

35. The signs must not contain any flashing or moving light.

36. The signs must not be illuminated by external lights without the written consent of the Responsible Authority.

37. Lighting of the signs must be designed, baffled and located to the satisfaction of the Responsible Authority.

38. The intensity of the light to the signs must be limited so as not to cause glare or distraction to motorists, or loss of amenity in the surrounding area, to the satisfaction of the Responsible Authority.

Drainage Conditions

39. All stormwater collected on the site from all hard surface areas must not be allowed to flow uncontrolled into adjoining properties or the road reserve.

Expiry Conditions

40. This permit as it relates to use and development will expire if one of the following circumstances applies:

    (a) The development is not started within three (3) years of the issue date of this permit;
    (b) The development is not completed within five (5) years of the issue date of this permit.;

    (c) The use does not start within one (1) year after the completion of the development; or

    (d) The use is discontinued for a period of two (2) years.

In accordance with section 69 of the *Planning and Environment Act 1987*, the responsible authority may extend the periods referred to if a request is made in writing before the permit expires, or:

(i) within six (6) months afterwards if the development has not commenced; or

(ii) within twelve (12) months afterwards if the development has not been completed.

Council and the Victorian Civil and Administrative Tribunal are unable to approve requests outside of the relevant time frame.

IMPORTANT INFORMATION ABOUT THIS PERMIT

WHAT HAS BEEN DECIDED?

The Responsible Authority has issued a permit at the direction of the Victorian Civil and Administrative Tribunal.
(Note: This is not a permit granted under Division 5 or 6 of Part 4 of the **Planning and Environment Act 1987**.)

CAN THE RESPONSIBLE AUTHORITY AMEND THIS PERMIT?

The Responsible Authority may amend this permit under Division 1A of Part 4 of the **Planning and Environment Act 1987**.

WHEN DOES A PERMIT BEGIN?

A permit operates:

- from the date specified in the permit, or
- if no date is specified, from:
  (i) the date of the decision of the Victorian Civil and Administrative Tribunal, if the permit was issued at the direction of the Tribunal, or
  (ii) the date on which it was issued, in any other case.

WHEN DOES A PERMIT EXPIRE?

1. A permit for the development of land expires if-
   - the development or any stage of it does not start within the time specified in the permit, or
   - the development requires the certification of a plan of subdivision or consolidation under the **Subdivision Act 1988** and the plan is not certified within two years of the issue of the permit, unless the permit contains a different provision; or
   - the development or any stage is not completed within the time specified in the permit, or, if no time is specified, within two years after the issue of the permit or in the case of a subdivision or consolidation within 5 years of the certification of the plan of subdivision or consolidation under the **Subdivision Act 1988**.
2. A permit for the use of land expires if-
   - the use does not start within the time specified in the permit, or if no time is specified, within two years after the issue of the permit, or
   - the use is discontinued for a period of two years.
3. A permit for the development and use of land expires if-
   - the development or any stage of it does not start within the time specified in the permit; or
   - the development or any stage of it is not completed within the time specified in the permit, or if no time is specified, within two years after the issue of the permit; or
   - the use does not start within the time specified in the permit, or, if no time is specified, within two years after the completion of the development; or
   - the use is discontinued for a period of two years.
4. If a permit for the use of land or the development and use of land or relating to any of the circumstances mentioned in section 6A(2) of the **Planning and Environment Act 1987**, or to any combination of use, development or any of those circumstances requires the certification of a plan under the **Subdivision Act 1988**, unless the permit contains a different provision -
   - the use or development of any stage is to be taken to have started when the plan is certified; and
   - the permit expires if the plan is not certified within two years of the issue of the permit.
5. The expiry of a permit does not affect the validity of anything done under that permit before the expiry.

WHAT ABOUT REVIEWS?

- The person who applied for the permit may apply for a review of any condition in the permit unless it was granted at the direction of the Victorian Civil and Administrative Tribunal, in which case no right of review exists.
- An application for review must be lodged within 60 days after the permit was issued, unless a notice of decision to grant a permit has been issued previously, in which case the application for review must be lodged within 60 days after the giving of that notice.
- An application for review is lodged with the Victorian Civil and Administrative Tribunal.
- An application for review must be made on an application for review form which can be obtained from the Victorian Civil and Administrative Tribunal, and be accompanied by the applicable fee.
- An application for review must state the grounds upon which it is based.
- A copy of an application for review must also be served on the responsible authority.
- Details about applications for review and the fees payable can be obtained from the Victorian Civil and Administrative Tribunal.

PLANNING PERMIT

Permit No.: **TPA/53095 VCAT Directed**

Planning Scheme: **Monash Planning Scheme**

Responsible Authority: ***Monash City Council***

ADDRESS OF THE LAND

1041 Centre Road OAKLEIGH SOUTH VIC 3167

THE PERMIT ALLOWS

Construction of a multi-storey building to be used for accommodation, food and drinks premises, supermarket and shop, display of signage, reduction in car parking requirements and alteration of access to a road in a TRZ2 – Principal Road Network

THE FOLLOWING CONDITIONS APPLY TO THIS PERMIT

Amended Plans Required

1. Before the development and use starts, excluding demolition works, amended plans drawn to scale and correctly dimensioned must be submitted to the satisfaction of and approved by the Responsible Authority. When approved, the plans will be endorsed and then form part of the Permit. The plans must be generally in accordance with the VCAT amended plans prepared by i2C Ryder Architects drawing numbers DA01; DA02, DA10; DA11; DA12; DA13, DA20; DA21; DA30; DA31; DA32; DA33; DA34; DA35; DA36; DA37; DA40; DA41; DA42; DA43; DA44; DA48; DA49; DA50; DA51; DA60; DA61; DA62; DA63; DA64; DA65; DA77; DA78; DA80; DA81; DA82; DA100; DA101; DA102; DA130 dated 19 May 2025 but modified to show:

Date issued:
28 December 2022

Signature for the Responsible Authority:

a) An amended landscape plan prepared in accordance with Condition 4;

b) An amended Waste Management Plan prepared in accordance with Condition 6;

c) An amended Sustainable Management Plan prepared in accordance with Condition 7;

d) Changes as a result of Condition 17;

e) Changes as required by the Wind Report in accordance with Condition 18;

f) Bicycle parking facilities designed in accordance with Condition 30;

g) Any changes as set out in the Signage Plan prepared by i2C Ryder Architects

drawing number DA 80; DA81; DA82 dated 19 May 2025 including dimensions of signs proposed for glazing.
All to the satisfaction of the Responsible Authority.

Layout not to be Altered

2. The development and use as shown on the endorsed plans must not be altered without the prior written consent of the Responsible Authority.

3. Once the development has started it must be continued and completed to the satisfaction of the Responsible Authority.

Landscaping Plan

4. Concurrent with the endorsement of any plans requested pursuant to Condition 1, a landscape plan prepared by a Landscape Architect or a suitably qualified or experienced landscape designer, drawn to scale and dimensioned must be submitted to and approved by the Responsible Authority. When endorsed, the plan will form part of the Permit. The plans must be generally in accordance with the plans submitted to Council prepared by Form Landscape Architecture (dated May 2025)

   but modified to show:

   a) Changes required under Condition 1;

   b) A survey and location of all existing trees, using botanical names of those existing trees to be retained and of those to be removed. The intended status of the trees shown on the landscape plan must be consistent with that depicted on the development layout plan;

   c) A planting schedule of all proposed trees, shrubs and ground cover, which will include the size of all plants (at planting and at maturity), pot / planting size, location, botanical names and quantities;

   d) The location of any fencing internal to the site;

   e) Planting to soften the appearance of hard surface areas such as driveways and other paved areas;

   f) The location of any retaining walls associated with the landscape treatment of the site;

   g) Details of all proposed surface finishes including pathways, accessways, and

driveways;

h) The location of external lighting; and

i) Details of the raised planters, such as planter box materials and dimensions, mulch layer, growing media, filter media, and root barrier / water proofing layer; and

j) Details of the proposed method for irrigation and drainage.

k) Details of maintenance (including during and regime).

When approved the plan will be endorsed and will then form part of the permit.

5. Before the occupation of any of the buildings allowed by this permit, landscaping works as shown on the endorsed plans must be completed to the satisfaction of the Responsible Authority and thereafter maintained to the satisfaction of the Responsible Authority.

Management Plans

Waste Management Plan

6. Concurrent with the endorsement of plans required pursuant to Condition 1, a Waste Management Plan must be submitted to and approved by the Responsible Authority. The plan must be substantially in accordance with the Waste Management Plan prepared by Leigh Design dated 19 May 2025 but revised to show:

   a. Changes required under condition 1 of this permit.

   b. Provision of a detail description of the development including the TPA number, proposed uses and the number of levels in the introductory or similar early section of the report;

   c. Provision for food organics recycling in accordance with the Sustainability Victoria Better Practice Guide for Waste Management and Recycling;

   d. An improved waste system to increase the accessibility and convenience of recycling of food waste, e-waste, and the future separated glass waste;

   e. All waste streams indicated for bins in each waste room;

f. Details of bin collection process;

g. Details of bin storage areas including the location of cleaning/ washing bin, drainage to sewer and indication of all waste streams supported by scale plans;

h. Details of responsibility for the operation of the waste management system outlines; and

i. Waste Management communications strategy for occupiers.

When approved, the plan will be endorsed and will then form part of the permit. Waste collection from the development must be in accordance with the plan, to the satisfaction of the Responsible Authority.

Sustainable Management Plan

7. Concurrent with the endorsement of plans requested pursuant to Condition 1, a Sustainable Management Plan must be submitted to and approved by the Responsible Authority. The plan must be generally in accordance with the Sustainability Management Plan prepared by GIW Environmental Solutions Pty Ltd dated 6 May 2025, except that the plan must be modified to show the amended proposal in accordance with the plans prepared by i2C Ryder Architects (dated 19 May 2025) and changes required under condition 1 of this permit.

Construction Management Plan

8. Prior to the commencement of any site works (including any demolition and excavation), a Construction Management Plan (CMP) must be submitted and approved by the Responsible Authority. No works are permitted to occur until the CMP has been approved and endorsed by the Responsible Authority. Once endorsed, the CMP will form part of the permit and must be implemented to the satisfaction of the Responsible Authority. The CMP must address the following issues:

a) Hours for construction activity in accordance with any other condition of this permit;

b) Appropriate measures to control noise, dust and water and sediment laden runoff;

c) Appropriate measures for the prevention of silt or other pollutants from entering into the Council's underground drainage system or road network;

d) Appropriate measures relating to removal of hazardous or dangerous material

from the site, where applicable;

e) A plan showing the location and design of a vehicle wash-down bay for construction vehicles on the site so as to prevent material leaving the site and being deposited on Council's road network;

f) A program for the cleaning and maintaining surrounding road surfaces;

g) A site plan showing the location of any site sheds, on-site amenities, building waste storage and the like, noting that Council does not support the siting of site sheds within Council road reserves;

h) Measures to provide for public safety and site security;

i) A plan showing the location of parking areas for construction and sub-contractors' vehicles on and surrounding the site, to ensure that vehicles associated with construction activity cause minimum disruption to surrounding premises.

j) A Traffic Management Plan showing truck routes to and from the site;

k) A swept path analysis demonstrating the ability for trucks to enter and exit the site in a safe manner for the largest anticipated truck associated with the construction;

l) Appropriate measures to ensure that sub-contractors/tradespersons operating on the site are aware of and adhere to the requirements of the CMP;

m) The provision of contact details of key construction site staff; and

n) Include a requirement that except with the prior written consent of the Responsible Authority, a requirement that demolition, excavation or construction works must only be carried out during the following hours:

- Monday to Friday (inclusive) – 7.00am to 6.00pm;
- Saturday – 9.00am to 1.00pm;
- Saturday – 1.00pm to 5.00pm (Only activities associated with the erection of buildings that does not exceed the EPA guidelines);
- No works are permitted on Sundays or Public Holidays.

The provisions, recommendations and requirements of the endorsed CMP must be implemented and complied with by all contractors to the satisfaction of the Responsible Authority.

Green Travel Plan

9. Before the development is occupied, a Green Travel Plan must be prepared to the satisfaction of the Responsible Authority following consultation with the Department of Transport. The Plan must be prepared by a suitably qualified person and must encourage the use of non-private vehicle transport modes by the occupiers of the land. The Green Travel Plan must include, but not be limited to, the following:

   a) A description of the location in the context of alternative modes of transport;

   b) Details of end of trip facilities provided;

   c) Education and awareness initiatives and incentives for residents and visitors to encourage more sustainable modes of travel to/from the site;

   d) Management practices identifying sustainable transport alternatives;

   e) Provision of electric vehicle charging facilities;

   f) Lobby areas of building to include real time information of train, tram and bus services;

   g) Details of bicycle spaces for staff;

   h) Employee and resident packs (such as myki cards for new workers);

   i) An obligation to update the plan not less than every 5 years;

   j) Details of when and how this travel plan will be available for new staff and residents; and

   k) Any other relevant matters.

   Once approved, the Green Travel Plan must form part of the permit and any ongoing Management Plan for the land to ensure the Green Travel Plan continues to be implemented by residents or owners to the satisfaction of the Responsible Authority.

10. The Green Travel Plan must not be amended without the written consent of the Responsible Authority, following consultation with the Department of Transport.

Environmental Site Assessment Report

11. Prior to the commencement of the development, excluding demolition works which may be required to finalise any environmental reports and site remediation works,

the owner/developer must submit to the Responsible Authority:

a. A preliminary risk screen assessment statement in accordance with the *Environment Protection Act 2017* stating that an environmental audit is not required for proposed use and development; or

b. An environmental audit statement under Part 8.3 of the *Environment Protection Act 2017* stating that the land is suitable for the proposed use and development.

12. Where a Statement of Environmental Audit is issued for the land pursuant to Condition 11 above, the use and development of the land must comply with all directions and conditions contained within the Statement.

13. Where a Statement of Environmental Audit is issued for the land pursuant to Condition 11 above, prior to the occupation of the development, a letter prepared by a suitably qualified environmental consultant or other suitable person acceptable to the responsible authority, must be submitted to the Responsible Authority to verify that the directions and conditions contained within the Statement have been satisfied. Compliance sign off must be in accordance with any requirements in the environmental audit statement recommendations regarding verification of works.

14. Where a Statement of Environmental Audit is issued for the land pursuant to Condition 11 above, and any condition of that Statement requires any maintenance or monitoring of an ongoing nature, the owner must enter into an Agreement with Council pursuant to Section 173 of the *Planning and Environment Act 1987*. Where a Section 173 Agreement is required, the Agreement must be executed prior to the occupation of the development and prior to Statement of Compliance of the Plan of Subdivision. All expenses involved in drafting, negotiating, lodging, registering, executing and enforcing the Agreement, including those incurred by the Responsible Authority, must be met by the owner.

<u>Landfill Gas Risk Assessment</u>

15. Prior to the commencement of the development authorised under this permit, excluding demolition works (and excluding works reasonably required to conduct the landfill gas assessment), the permit holder must to the satisfaction of the Responsible Authority:

a) Engage an appropriately qualified site assessor with demonstrated experience in the assessment of landfill gas in the subsurface environment, to conduct an

assessment of any methane within the land, subsurface services and buildings and structures on the land adopting the methane gas action levels prescribed at items 6 and 7 of schedule 3 of the Environment Protection Regulations 2021 as set out below.

Item	*Location for assessing methane gas concentration action levels*	*Methane gas concentration action level*
6	Subsurface services on, and adjacent to, the waste	10,000 parts per million
7	Buildings and structures on, and adjacent to, the waste	5000 parts per million

b) Ensure that the site assessor prepares a report to be submitted to the Responsible Authority. The landfill gas risk assessment (LGRA) should be based on guidance prepared by the Environment Protection Authority from time to time and incorporated under the Environment Protection Act 2017 and subordinate legislation.

c) If the landfill gas assessment identifies methane at concentrations exceeding the methane gas concentration action levels, the permit holder must engage the services of an EPA-appointed environmental auditor to complete an environmental audit with a scope limited to:

(i) assessment of the nature and extent of the risk of harm to human health from waste;

(ii) recommending measures to manage the risk of harm to human health from waste;

(iii) making recommendations to manage any waste, where the landfill extends onto or beneath the land.

d) The permit holder must provide the Responsible Authority with a scope and supporting documents endorsed or determined by the Environment Protection Authority pursuant to section 208(5) of the Environment Protection Act 2017 and a copy of the environmental audit statement and environmental audit report issued pursuant to sections 210(1) of the Environment Protection Act 2017.

Peer Review

16. Prior to the commencement of the development authorised under this permit, excluding demolition works, the permit holder must:
    a) provide to Council a copy of the LGRA undertaken in accordance with Condition 11 within 14 days of receiving the LGRA;
    b) pay Council's costs and expenses associated with a Council-arranged peer review of the LGRA. The peer review will be undertaken by an independent and suitably qualified environmental consultant nominated by Council;
    c) obtain a copy of the peer review obtained by Council.

17. The recommendations of the LGRA including any requirements arising from the peer review are to be implemented by the permit holder.

Wind Report

18. Before the commencement of the development, excluding demolition works, an amended Wind Assessment to the satisfaction of the Responsible Authority must be submitted to and approved by the Responsible Authority. When approved, the amended Wind Assessment will be endorsed and will form part of this permit. The amended Wind Assessment must be generally in accordance with the Wind Assessment prepared by MEL Consultants and dated 24 March 2025 but modified to include or show:

    (a) Assess the proposal as amended pursuant to Condition 1.

    (b) Wind tunnel model measurements undertaken to verify the findings of the desktop study.

    (c) Achievement of the following wind conditions:

        (i) "walking" criterion along the proposed pedestrian footpaths adjacent to the proposed development;

        (ii) "sitting" criterion within all areas containing proposed seating (such as the outdoor seating areas for the cafes, the seating/landscaped areas within the communal open space on Level 1); and

        (iii) "walking" criterion for the building entrances;

    d) Any necessary mitigation measures to achieve the above wind conditions.

19. The provisions, recommendations and requirements of the endorsed Wind Assessment Report (including wind tunnel modelling) must be implemented and complied with to the satisfaction of the Responsible Authority.

General Conditions

20. No equipment, services, architectural features or structures of any kind, including telecommunication facilities, other than those shown on the endorsed plans shall be permitted above the roof level of the building unless otherwise agreed to in writing by the Responsible Authority.

21. Air-conditioning and other plant and equipment installed on or within the buildings must be so positioned and baffled that any noise emitted complies with the appropriate Australian Standards and EPA requirements.

22. As part of the ongoing consultant team, i2C Ryder Architects or an architectural firm which is acknowledged to have comparable skill and expertise to the satisfaction of the Responsible Authority must be engaged to:
    a) Oversee design and construction of the development; and
    b) Ensure the design quality and appearance of the development is realised as shown in the endorsed plans or otherwise to the satisfaction of the Responsible Authority.
    c) Ensure an appropriate repair, reconstruction, paint removal and painting scheme is developed for the existing heritage building. This scheme is to carry out repairs to the awning, timber and render, tiles and other materials and authorised by a qualified heritage architect.

23. Noise levels must not exceed the permissible noise levels stipulated in the Environment Protection Regulations under the *Environment Protection Act 2017* and the Incorporated Noise Protocol (Publication 1826.4, Environment Protection Authority, May 2021) as may be amended from time to time to the satisfaction of the Responsible Authority.

24. Amplified music (including background music) is not permitted to be played other than through a sound system calibrated to ensure compliance with the Environment Protection Regulations under the *Environment Protection Act 2017* and the Incorporated Noise Protocol (Publication 1826.4, Environment Protection Authority, May 2021) as may be amended from time to time, with details submitted demonstrating how compliance will be achieved to the satisfaction of the Responsible Authority.

25. The use and development must be managed so that the amenity of the area is not detrimentally affected through the:

    (a) Transport of materials, goods or commodities to or from the land

    (b) Appearance of any building, works or materials

    (c) Emission of noise, artificial light, vibration, smell, fumes, smoke, vapour, steam, soot, ash, dust, waste water, waste products, grit or oil

    (d) Presence of vermin.

Car Parking Conditions

26. Unless with the agreement of the Responsible Authority, prior to the use starts or any building is occupied, the developer is required to fully fund the design and construction of a pedestrian connection at least 1.5 metre wide, from the Links Avenue T-intersection at the north end of the development (at the existing zebra crossing) to the eastern property boundary south of the existing water tank. Unless otherwise agreed to the satisfaction of the Responsible Authority, this pedestrian connection is to include a DDA compliant access ramp through to Stan Riley Reserve to join with the proposed Council-constructed footpath within the Reserve. Any changes to the existing retaining wall/embankment on the eastern boundary are to be included in the works, at the full cost of the developer. The existing zebra crossing at the Links Avenue T-intersection is to be modified to meet current standards. A detailed design plan of the proposed pedestrian connection must be submitted to the Council's Engineering Department for approval. The works are to be designed and constructed to the satisfaction of the Responsible Authority.

27. Before the use starts or any building is occupied, areas set aside for parked vehicles and access lanes as shown on the endorsed plans must be:

    a) constructed to the satisfaction of the Responsible Authority;

    b) properly formed to such levels that they can be used in accordance with the plans;

    c) surfaced with an all-weather sealcoat to the satisfaction of the Responsible Authority;

    d) drained, maintained and not used for any other purpose to the satisfaction of the Responsible Authority;

    e) line-marked to indicate each car space and all access lanes to the satisfaction of the Responsible Authority.

Parking areas and access lanes must be kept available for these purposes at all times.

28. The layout of the development must comply with the Design Standards for car parking set out in Clause 52.06-8 of the Monash Planning Scheme as detailed below unless with the written consent of the Responsible Authority

    a. Driveway to provide at least 2.1m headroom beneath overhead obstructions.

    b. Driveway gradient to be no steeper than 1 in 10 (10%) within 5 metres of the frontage to ensure safety for pedestrians and vehicles.

    c. Ramp grades (except within 5 metres of the frontage) to be designed as follows:

        i. Maximum grade of 1 in 4.

        ii. Provision of minimum 2.0 metre grade transitions between different section of ramp or floor for changes in grade in excess of 12.5% (summit grade change) or 15% (sag grade change).

    d. Minimum requirements for car park dimensions to be in accordance with Table 2.

    e. Clearance to car parking spaces to be in accordance with Diagram 1 in relation to the placement of a wall, fence, column, tree, tree guard or any other structure that abuts a car space.

29. The accessible parking space should be designed in accordance with the Australian Standard for Off-Street Parking for people with disabilities, AS/NZS 2890.6.

30. Unless otherwise agreed to the satisfaction of the Responsible Authority, bicycle parking facilities must comply with the design and signage requirements set out in Clause 52.34 of the Monash Planning Scheme or AS2890.3:2015. Minimum 20% ground level (horizontal) parking spaces as per AS2890.3:2015 are required.

31. The proposed vehicle crossing is to be constructed in accordance with the City of Monash standards.

32. Any works within the road reserve must ensure the footpath and kerb and channel are reinstated to Council standards.

Signage Conditions

33. The location and details of the signs shown on the endorsed plans must not be altered without the written consent of the responsible Authority.

34. The signs must be constructed and maintained to the satisfaction of the Responsible Authority

35. The signs must not contain any flashing or moving light.

36. The signs must not be illuminated by external lights without the written consent of the Responsible Authority.

37. Lighting of the signs must be designed, baffled and located to the satisfaction of the Responsible Authority.

38. The intensity of the light to the signs must be limited so as not to cause glare or distraction to motorists, or loss of amenity in the surrounding area, to the satisfaction of the Responsible Authority.

Drainage Conditions

39. All stormwater collected on the site from all hard surface areas must not be allowed to flow uncontrolled into adjoining properties or the road reserve.

Expiry Conditions

40. This permit as it relates to use and development will expire if one of the following circumstances applies:

    (a) The development is not started within three (3) years of the issue date of this permit;
    (b) The development is not completed within five (5) years of the issue date of this permit.;

    (c) The use does not start within one (1) year after the completion of the development; or

    (d) The use is discontinued for a period of two (2) years.

In accordance with section 69 of the *Planning and Environment Act 1987*, the responsible authority may extend the periods referred to if a request is made in writing before the permit expires, or:

(i) within six (6) months afterwards if the development has not commenced; or

(ii) within twelve (12) months afterwards if the development has not been completed.

Council and the Victorian Civil and Administrative Tribunal are unable to approve requests outside of the relevant time frame.

IMPORTANT INFORMATION ABOUT THIS PERMIT

WHAT HAS BEEN DECIDED?

The Responsible Authority has issued a permit at the direction of the Victorian Civil and Administrative Tribunal.
(Note: This is not a permit granted under Division 5 or 6 of Part 4 of the **Planning and Environment Act 1987**.)

CAN THE RESPONSIBLE AUTHORITY AMEND THIS PERMIT?

The Responsible Authority may amend this permit under Division 1A of Part 4 of the **Planning and Environment Act 1987**.

WHEN DOES A PERMIT BEGIN?

A permit operates:

- from the date specified in the permit, or
- if no date is specified, from:
  (i) the date of the decision of the Victorian Civil and Administrative Tribunal, if the permit was issued at the direction of the Tribunal, or
  (ii) the date on which it was issued, in any other case.

WHEN DOES A PERMIT EXPIRE?

1. A permit for the development of land expires if-
   - the development or any stage of it does not start within the time specified in the permit, or
   - the development requires the certification of a plan of subdivision or consolidation under the **Subdivision Act 1988** and the plan is not certified within two years of the issue of the permit, unless the permit contains a different provision; or
   - the development or any stage is not completed within the time specified in the permit, or, if no time is specified, within two years after the issue of the permit or in the case of a subdivision or consolidation within 5 years of the certification of the plan of subdivision or consolidation under the **Subdivision Act 1988**.
2. A permit for the use of land expires if-
   - the use does not start within the time specified in the permit, or if no time is specified, within two years after the issue of the permit, or
   - the use is discontinued for a period of two years.
3. A permit for the development and use of land expires if-
   - the development or any stage of it does not start within the time specified in the permit; or
   - the development or any stage of it is not completed within the time specified in the permit, or if no time is specified, within two years after the issue of the permit; or
   - the use does not start within the time specified in the permit, or, if no time is specified, within two years after the completion of the development; or
   - the use is discontinued for a period of two years.
4. If a permit for the use of land or the development and use of land or relating to any of the circumstances mentioned in section 6A(2) of the **Planning and Environment Act 1987**, or to any combination of use, development or any of those circumstances requires the certification of a plan under the **Subdivision Act 1988**, unless the permit contains a different provision -
   - the use or development of any stage is to be taken to have started when the plan is certified; and
   - the permit expires if the plan is not certified within two years of the issue of the permit.
5. The expiry of a permit does not affect the validity of anything done under that permit before the expiry.

WHAT ABOUT REVIEWS?

- The person who applied for the permit may apply for a review of any condition in the permit unless it was granted at the direction of the Victorian Civil and Administrative Tribunal, in which case no right of review exists.
- An application for review must be lodged within 60 days after the permit was issued, unless a notice of decision to grant a permit has been issued previously, in which case the application for review must be lodged within 60 days after the giving of that notice.
- An application for review is lodged with the Victorian Civil and Administrative Tribunal.
- An application for review must be made on an application for review form which can be obtained from the Victorian Civil and Administrative Tribunal, and be accompanied by the applicable fee.
- An application for review must state the grounds upon which it is based.
- A copy of an application for review must also be served on the responsible authority.
- Details about applications for review and the fees payable can be obtained from the Victorian Civil and Administrative Tribunal.

APPENDIX C CONSULTANT REPORTS

REV NO.	ISSUE	DATE
A	FOR REVIEW	MAR. 2025
B	FOR REVIEW	APR. 2025
C	FOR PLANNING	MAY. 2025

SOURCE: NEARMAP MAR. 2023

SITE LOCATION PLAN, AIR PHOTO

SCALE 1:600 @ B1 SIZE

DRAWING LIST

Pellicano

i2C

FORMium LANDSCAPE ARCHITECTS URBAN DESIGNERS

Project

FIELDWORX HOUSE

Drawing Title

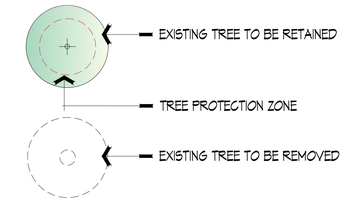
SITE LOCATION PLAN AIR PHOTO

Scale	Date
1:600 @ B1	MAY 2025

Project Number	File/Drawing Number	Revision
2194	LDD 01	C

REV NO.	ISSUE	DATE
A	FOR REVIEW	MAR. 2025
B	FOR REVIEW	APR. 2025
C	FOR PLANNING	MAY. 2025

KEY



EXISTING TREE LIST

NO.	BOTANICAL NAME	COMMON NAME	SIZE	CONDITION	COMMENTS
1	*Acacia implexa*	Lightwood	5 x 3 m	Poor	Remove
2	*Acacia implexa*	Lightwood	4 x 4 m	Poor	Remove
3	*Acacia implexa*	Lightwood	7 x 7 m	Poor	Remove
4	*Acacia implexa*	Lightwood	7 x 5 m	Poor	Remove
5	*Eucalyptus leucoxylon 'Rosea'*	Yellow Gum	9 x 9 m	Good	Juvenile Tree, Retain
6	*Eucalyptus leucoxylon 'Rosea'*	Yellow Gum	6 x 7 m	Good	Juvenile Tree, Retain
7	*Acacia implexa*	Lightwood	10 x 10 m	Good	Adjacent Site
8	*Eucalyptus leucoxylon 'Rosea'*	Yellow Gum	7 x 8 m	Good	Juvenile Tree, Remove
10	*Eucalyptus pulchella*	White Peppermint	5 x 5 m	Good	Juvenile Tree, Remove
11	*Eucalyptus leucoxylon 'Rosea'*	Yellow Gum	6 x 6 m	Fair	Remove
12	*Acacia implexa*	Lightwood	4 x 2 m	Poor	Juvenile Tree, Remove
13	*Genista linifolia*	Flax Leaf Broom	< 3m Tall	Weeds	Remove
14	*Genista linifolia*	Flax Leaf Broom	< 3m Tall	Weeds	Remove
15	*Cytisus proliferus*	Tagasaste	< 5m Tall	Weeds	Remove
16	*Leptospermum petersonii*	Lemon Scented Tea-tree	4 x 4 m	Fair	Juvenile Tree, Retain
17	*Eucalyptus pulchella*	White Peppermint	10 x 10 m	Fair - Poor	Retain, Tidy Dead Wood

NOTE: REFER TO GALBRAITH & ASSOCIATES TREE ARBORIST REPORT FOR DETAILS.

EXISTING TREES NO. 6 AND NO. 5

EXISTING TREE PLAN AND LIST

SCALE 1:200 @ B1 SIZE

Pellicano

i2C

FORMium LANDSCAPE ARCHITECTS URBAN DESIGNERS

Project

FIELDWORX HOUSE

Drawing Title

EXISTING TREE PLAN AND LIST

Scale	Date
1:200 @ B1	MAY 2025

Project Number	File/Drawing Number	Revision
2194	LDD 02	C

NORTH

SEE LAND 05

NEW BOUNDARY FENCE
1.8M Ht Black Woven Wire Mesh Fence
Black Dashed Line

GRAVEL TOPPINGS FOOTPATH
See Detail D3 / LDD 12

ROCK BOULDER ENBANKMENT RETAINERS

EXISTING CONC RETAINING WALL

MAKE GOOD + TIDY RESERVE INTERFACE + EMBANKMENT
Provide Jute Mat and stabalise any exposed embankments at 1 in 3 maximum grade
Plant out with indigenous tubestock ground cover plants
Details to comply with Condition 26 to the Approval of the Responsible Authority

ADJACENT BMX PARK

CONCRETE RAMP UP 1 IN 14 Nom
1.5m Wide
Galv. Mild Steel Handrail to DDA Requirements
See Architects + Engineers Detail

NEW CONCRETE RETAINING WALLS
See Engineers Detail

FOOTPATH LINK TO BIKE PARK

EXISTING BIKE PARK CARPARK

NEW BOUNDARY FENCE
1.8m Ht Black Woven Wire Mesh Fence
As Specified
Black Dashed Line

LOW CONCRETE RETAINING WALL
See Engineers Detail

2M
1.5M
2M

EXISTING SPRINKLER PUMP HOUSE

EXISTING TANK

NEW FIRE HYDRANT PUMP ROOM

EXISTING CROSSOVER

BOOSTER CABINET

DDA RAMP ACCESS TO EXISTING BMX PARK
2.3m Wide
1:40

BIKE HOOPS
6 NO SS HOOPS (12 No spaces)
See Detail D04 / LDD 12

BIOSWALE RAIN GARDEN
19m² Raingarden
Capture Runoff from Carpark
See Detail D01 / LDD 15

CARPARK
(54 No Spaces)

NO. 17

NO. 16

EXISTING CONC. FOOTPATH

EXISTING YELLOW GUMS
TO BE RETAINED + PROTECTED
REMOVE DEAD WOOD + PRUNE TIDY
As Specified

CENTRE ROAD

NEW GARDEN BED
With Low Massed Ground Cover

EXISTING WATER GUMS CARPARK TREES

CARPARK SIGN

PEDESTRIAN CANOPY
See Architects Detail

BIOSWALE RAIN GARDEN
15m², Capture Runoff from Carpark
See Detail D01 / LDD 15

EXISTING TRAFFIC SIGNALS

PEDESTRIAN CROSSING
PORPHYRY STONE SET
RUMBLE STRIP
See Detail D02 / LDD 13
See Civil Engineers Detail

BIKE HOOPS
6 NO SS HOOPS (12 No spaces)
See Detail D04 / LDD 12

BIKE HOOPS 6 NO SS HOOPS (12 No spaces), See Detail D04 / LDD 12

SOUTH ENTRY ROAD

EXISTING LIGHT POLE

RAINGARDEN PLANTER
Capture Rainwater from Hotel Suites Roof Area, 15m² Raingarden
See Detail DWG LDD 21

EXISTING TRAFFIC SIGNALS

PEDESTRIAN CROSSINGS
Insitu R. Conc. Paving Strips
and Edge Bands
See Civil Drawings

CARPARK

DROP OFF BAY

SS BOLLARDS
See Detail D04 / LDD 13

NEW FIRE HYDRANT
BOOSTER CUPBORAD

EXISTING LIGHT POLE

3750

PEDESTRIAN CANOPY
See Architects Detail

GRANITE SEAT BENCHES
See Detail DWG LDD 14

EXISTING AUTHORITY WATER MAIN ASSEMBLY

EXISTING PYLON SIGN

SS BOLLARDS
See Detail D04 / LDD 13

PEDESTRIAN CROSSING

6700 Nom

GRANITE SEAT BENCHES
See Detail DWG LDD 14

1500

OUTDOOR SITTING AREA
EXPOSED AGGREGATE
CONCRETE PAVING

12000

RAINGARDEN
30m² Raingarden
Capture Runoff from Level 2 Podium and Terraces Area
See Detail Section D3/ LDD 21

4000 Nom

3000

EXISTING CONCRETE FOOTPATH

EXISTING STORMWATER
DETENTION TANK BELOW

PORPHYRY STONE SET
RUMBLE STRIP
See Detail D02 / LDD 13
See Civil Engineers Detail

PEDESTRIAN CONCOURSE WITH SAWN STONE PAVING
Mix of Sawn Bluestone +
Granite Large Format Pavers
See Detail D01 / LDD 13

RECYCLE + LITTER BIN
See Detail D03 / LDD 13

NATURE STRIP GRASS
Make Good as Specified

EXISTING YELLOW GUMS
TO BE RETAINED + PROTECTED
AND PRUNE TIDY As Specified

GRANITE SEAT BENCHES
See Detail DWG LDD 14

HEAVY DUTY CONCRETE PATH
4M WIDE
See Engineers Details

4000mm

1715mm

COLD WATER GATE VALVE TAP
IN IN-GROUND VALVE BOX
12mm Supply
See Hydraulic Drawings

2.5m WIDE REINFORCED
CONCRETE TRANSFORMER LANDING AREA
MAX FALL 1 IN 100
See Engineers Details

LOCATION FOR AUTOMATIC IRRIGATION
CONTROLLER CABINET
10amp Elec. GPO by Builder

F+B 103.2 m²
F+B 77.2 m²
F+B 102.6 m²
F+B 68.8 m²
F+B 64.8 m²
F+B 151.2 m²
F+B 167.8 m²
F+B 82.8 m²
RETAIL 148.9 m²
RETAIL 80.1 m²
RETAIL 124.2 m²
RETAIL 179.6 m²
ENTRANCE 130.6 m²
KIOSK 16.0 m²
STAIRS
LIFT LOBBY 20.2 m²
CORRIDOR 43.9 m²
CORRIDOR 31.9 m²
RESIDENT BIN ROOM 64.5 m²
CLR'S ROOM 5.4 m²
UNI-SEX WC 5.9 m²
END OF TRIP FACILITY
FEMALE WC
MALE WC
RETAIL BIN ROOM 49.6 m²
BIN ROOM
CONCIERGE
OFFICE
MAIL ROOM
SUPERMARKET 1924.7 m²
RESIDENTIAL LOADING DOCK
SUPERMARKET COMPACTOR DOCK
BINS
SUPERMARKET LOADING DOCK
SWITCH ROOM 102.7 m²
SUBSTATION 17.5 m²

GROUND LEVEL LANDSCAPE LAYOUT PLAN

SCALE 1:200 @ B1 SIZE

REV NO.	ISSUE	DATE
A	FOR REVIEW	MAR. 2025
B	FOR REVIEW	APR. 2025
C	FOR PLANNING	MAY. 2025

KEY

- EXISTING TREE To Be Retained + Protected
- EXISTING TREE To Be Removed
- PROPOSED TREE See Tree Planting Detail D01 / LDD 12
- GARDEN BED Remove Weeds, Cultivate to 100mm 200mm Imported Topsoil, 75mm Mulch See Detail D02/LDD 12
- BIOSWALE See Detail DWG LDD 15, LDD 21
- TURF Remove Weeds, Cultivate to 100mm 200mm Imported Topsoil, Install Turf
- GRAVEL TOPPINGS PAVING Compacted Subgrade 75mm Compacted Toppings Cement Stabalised
- EXPOSED AGGREGATE PAVING 100mm Reinforced Concrete Integral Dye Colour Saw Cut Pattern, Selected Aggregate
- SAWN STONE PAVING See Detail 01 / LDD 13
- PORPHYRY STONE SETS 90 x 90 x 40 mm Nom Size Sets on Concrete See Detail 02 / LDD 13
- GRANITE SEAT BLOCK See Detail DWG LDD 14
- BIKE HOOP SS Bicycle Hoops See Detail D04/LDD 12
- SS BOLLARDS See Detail D04 / LDD 13
- PAVEMENT SLEEVE 100mm Dia PVC For Automatic Irrigation

Pellicano

i2C

FORMium LANDSCAPE ARCHITECTS URBAN DESIGNERS

Project
FIELDWORX HOUSE

Drawing Title
GROUND LEVEL LANDSCAPE LAYOUT PLAN

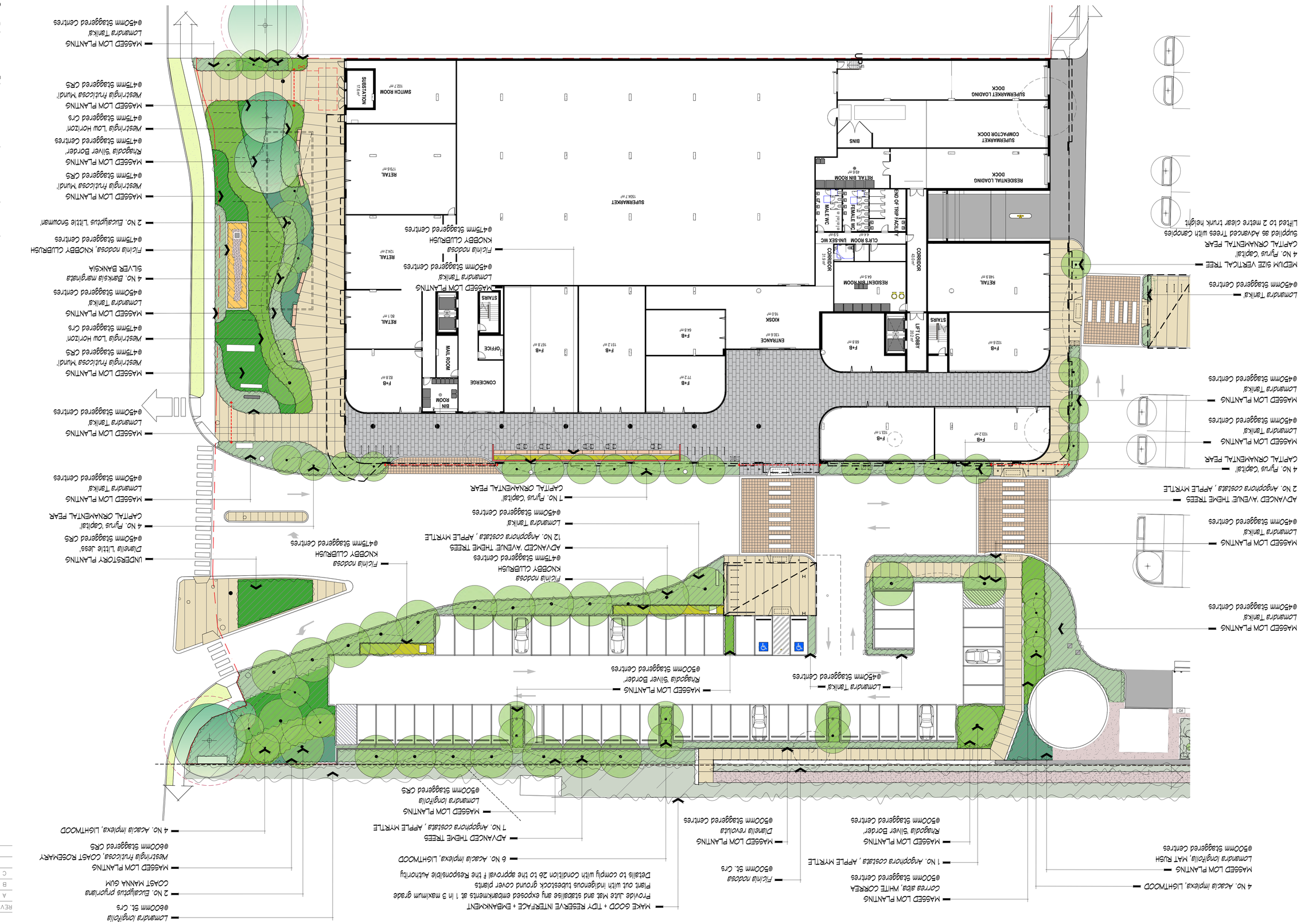
Scale	Date
1:200 @ B1	MAY 2025

Project Number	File/Drawing Number	Revision
2194	LDD 03	C

NORTH

GROUND LEVEL PLANTING LAYOUT

SCALE 1:200 @ B1 SIZE



FIELDWORX HOUSE

Project

Drawing Title

GROUND LEVEL PLANTING LAYOUT

Scale	Date
1:200 @ B1	MAY 2025

Project Number	File/Drawing Number	Revision
2144	LDD 04	C

REV NO.	ISSUE	DATE
A	FOR REVIEW	MAR. 2025
B	FOR REVIEW	APR. 2025
C	FOR PLANNING	MAY. 2025

REV NO.	ISSUE	DATE
A	FOR REVIEW	MAR. 2025
B	FOR REVIEW	APR. 2025
C	FOR PLANNING	MAY. 2025

Myoporum parvifolium
@500mm St. Crs

MAKE GOOD BATTER
Regrade to 1 in 3 Maximum Batter
Remove Existing Weeds + Vegetation
with 600mm Wide Level Bench at Top of Retaining Wall
100mm Imported Topsoil
75mm Deep Euca Mulch

3 No. *Allocasuarina verticillata*

Westringia fruticosa

Myoporum parvifolium
@500mm St. Crs

NEW FENCE
To Join Existing Fence

Correa alba

Eucalyptus 'Little Snowman'

Myoporum insulare 'Prostrate'

Lomandra longifolia
@600mm St. Crs

Myoporum parvifolium
@500mm St. Crs

Ficinia nodosa
@500mm St. Crs

Correa alba

LANDSCAPE ROCKS
Place Securely to Stabalise Batter
8 No. Boulders 750mm Nom. Diameter

Lomandra longifolia
@600mm St. Crs

EXISTING CONCRETE
RETAINING WALL

A

A'

HTE

1200

EXISTING
SPRINKLER
PUMP ROOM

EXISTING TANK

I/O

I/O

NEW FIRE
HYDRANT
PUMP ROOM

EXISTING
CROSSOVER

SEE BELOW

1 2 3 4 5 6

Ficinia nodosa
@500mm St. Crs
Myoporum insulare 'Prostrate'

2 No. *Eucalyptus* 'Little Snowman'

LANDSCAPE ROCKS
To Terminate Sleeper Retainer
Place Securely to Stablise Batter
3 No. Boulders 750mm Nom. Diameter

NEW LINEMARKING
To Engineers Detail

Ficinia nodosa
@500mm St. Crs

LOW RETAINING WALL
350mm Maximum Height
Concrete Sleeper 2000 x 200 x 75mm Nom. Size
With Integral Charcoal Colour
Galvanised Mild Steel Stainchions
To Engineers Details

3 No. *Allocasuarina verticillata*

Ficinia nodosa
@500mm St. Crs

Westringia fruticosa

BOOSTER
CABINET

Ficinia nodosa
@500mm St. Crs

2 No. *Eucalyptus* 'Little Snowman'

GRAVEL VERGE + PAVING
75mm Compacted Gravel Toppings
Flush with Top of Kerb

LOW RETAINING WALL
800mm Maximum Height
Concrete Sleeper 2000 x 200 x 100mm Nom. Size
With Integral Charcoal Colour
Galvanised Mild Steel Stainchions
To Engineers Details

GARDEN BED
Regrade 1 in 3 Nom Maximum Grade
Remove Existing Weeds + Vegetation
with 600mm Level Bench at Top of Retaining Wall
150mm Imported Topsoil
75mm Deep Euca Mulch

NEW FENCE
1.8m Height
Black Woven Wire Mesh

3000 NOM

725

AG. PIPE
With Aggregate Over, 12mm Size Aggregate
To Engineers Detail

900 6000 NOM 300 300

SECTION A-A'
SCALE 1:50 in B1 Size

NEW BOUNDARY FENCE
1.8M Ht Black Woven Wire
Mesh Fence As Specified
Black Dashed Line

MAKE GOOD + TIDY RESERVE INTERFACE + EMBANKMENT
Provide Jute Mat and stabalise any exposed embankments at 1 in 3 maximum grade
Plant out with indigenous tubestock ground cover plants
Details to comply with Condition 26 to the approval f the Responsible Authority

ADJACENT BMX PARK

CONCRETE RAMP UP 1 IN 14 Nom
1.5m Wide
Galv. Mild Steel Handrail to DDA Requirements
See Architects + Engineers Detail

NEW CONCRETE RETAINING WALLS
See Engineers Detail

SEE ABOVE

LANDING
1.5 x 1.5 m

HANDRAIL

2M

1.5M

FOOTPATH LINK TO BIKE PARK

1:14 RL: 60.29 1:14 RL: 60.93 1:14 RL: 61.57 1:14 RL: 62.00

RL: 59.65

9000 9000 9000 6021

DDA RAMP ACCESS
TO EXSITING STAN RILEY
RESERVE PATH
2.3m Wide

1:40

RL: 59.20

CARPARK (54 No Spaces)

BIKE HOOPS 6 NO. SS HOOPS
(12 No. spaces)
See Detail D04 / LDD12

BIOSWALE RAIN GARDEN
19m² Raingarden
Capture Runoff from Carpark
See Detail D01 / LDD 15

H

H

CARPARK SIGN

BIOSWALE RAIN GARDEN
15m², Capture Runoff from Carpark
See Detail D01 / LDD 15

PEDESTRIAN CANOPY
See Architects Detail

SOUTH ENTRY ROAD

PEDESTRIAN CROSSINGS
Insitu R. Conc. Paving Strips
and Edge Bands
See Civil Drawings

PEDESTRIAN CROSSING
PORPHYRY STONE SET
RUMBLE STRIP
See Detail D02 / LDD 13
See Civil Engineers Detail

SS BOLLARDS
See Detail D04 / LDD 13

EXISTING TRAFFIC SIGNALS
To Civil Engineers Detail

EXISTING BMX FENCE

EXISTING BIKE PARK CARPARK

NEW BOUNDARY FENCE
1.8m Ht Black Woven Wire Mesh Fence
As Specified
Black Dashed Line

LOW CONCRETE RETAINING WALL
See Engineers Detail

2M

DROP OFF BAY
PORPHYRY STONE SET PAVING
See Detail D02 / LDD 13
See Civil Engineers Detail

GROUND LEVEL CARPARK LAYOUT
SCALE 1:150 @ B1 SIZE

NORTH

Pellicano

i2C

FORMium LANDSCAPE ARCHITECTS URBAN DESIGNERS

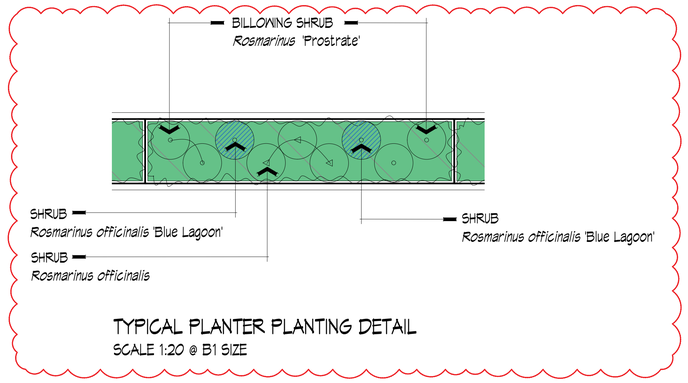
Project
FIELDWORX
HOUSE

Drawing Title
GROUND LEVEL CARPARK
LAYOUT PLAN

Scale	Date
1:150 @ B1	MAY 2025

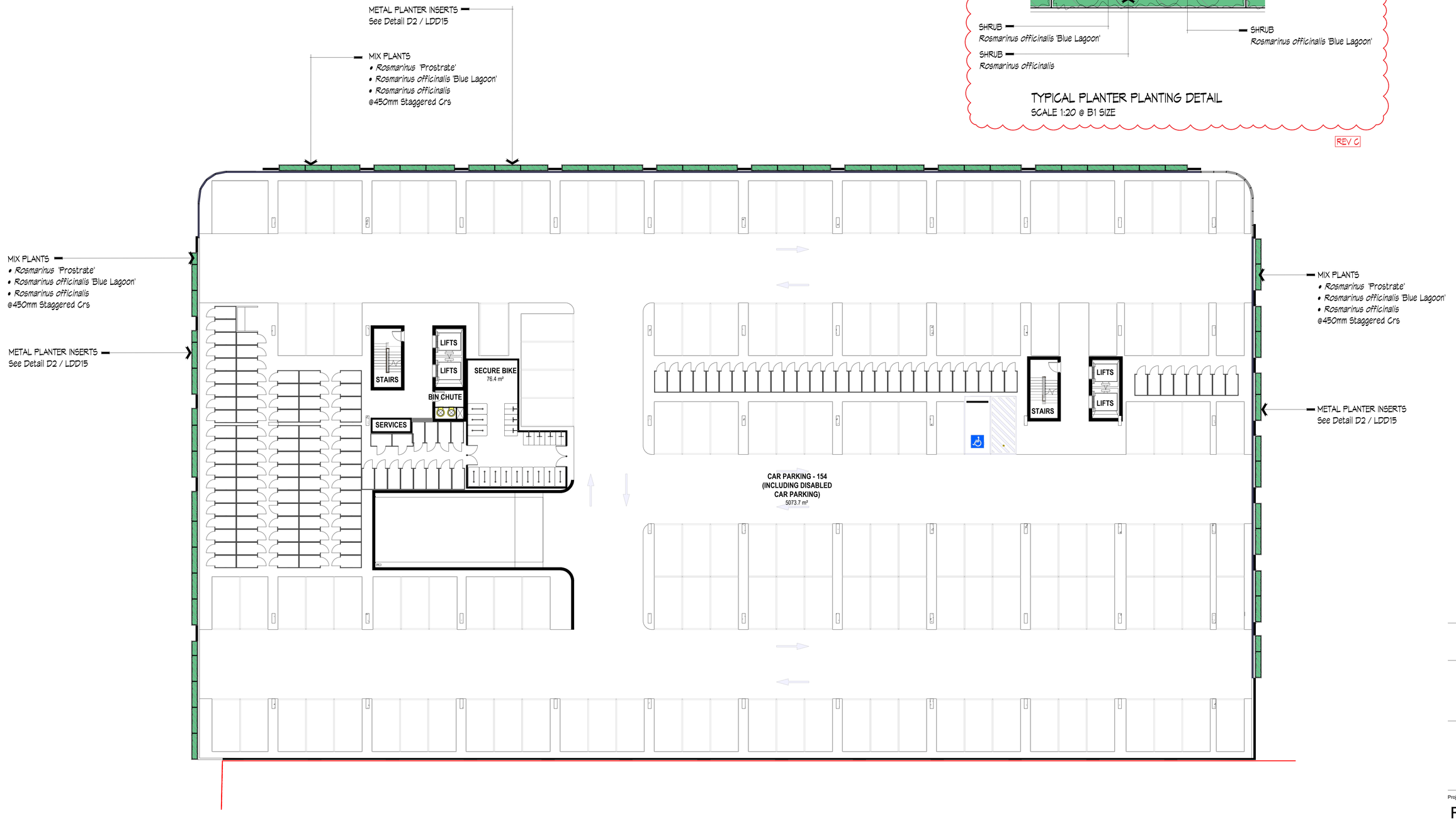
Project Number	File/Drawing Number	Revision
2194	LDD 05	C

REV NO.	ISSUE	DATE
A	FOR REVIEW	MAR. 2025
B	FOR REVIEW	APR. 2025
C	FOR PLANNING	MAY. 2025



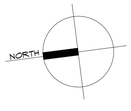
TYPICAL PLANTER PLANTING DETAIL
SCALE 1:20 @ B1 SIZE

REV C



LEVEL 1 CARPARK FACADE PLANTING LAYOUT

SCALE 1:150 @ B1 SIZE



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FORMium LANDSCAPE ARCHITECTS URBAN DESIGNERS

Project

FIELDWORX HOUSE

Drawing Title

LEVEL 2 LANDSCAPE BALCONY PLANTING LAYOUT, KEY PLAN

Scale	Date
1:150 @ B1	MAY 2025

Project Number	File/Drawing Number	Revision
2194	LDD 07	C

REV NO.	ISSUE	DATE
A	FOR REVIEW	MAR. 2025
B	FOR REVIEW	APR. 2025
C	FOR PLANNING	MAY. 2025

Rosmarinus officinalis 'Prostratus'
CREEPING ROSEMARY
@450mm Centres

Trachelospermum jasminoides
STAR JASMINE
@350mm Staggered Centres

Correa glabra 'Nana'
DWARF ROCK CORREA
@450mm Centres

Myoporum insulare 'Prostrate'
CREEPING COASTAL BOOBIALLA
@450mm Centres

Trachelospermum jasminoides
STAR JASMINE
@350mm Staggered Centres

Correa glabra 'Nana'
DWARF ROCK CORREA
@450mm Centres

Myoporum insulare 'Prostrate'
CREEPING COASTAL BOOBIALLA
@450mm Centres

Rosmarinus officinalis 'Prostratus'
CREEPING ROSEMARY
@450mm Centres

Myoporum insulare 'Prostrate'
CREEPING COASTAL BOOBIALLA
@450mm Centres

Correa glabra 'Nana'
DWARF ROCK CORREA
@450mm Centres

Trachelospermum jasminoides
STAR JASMINE
@350mm Staggered Centres

Correa glabra 'Nana'
DWARF ROCK CORREA
@450mm Centres

Myoporum insulare 'Prostrate'
CREEPING COASTAL BOOBIALLA
@450mm Centres

Trachelospermum jasminoides
STAR JASMINE
@350mm Staggered Centres

Rosmarinus officinalis 'Prostratus'
CREEPING ROSEMARY
@450mm Centres

BALCONY EDGE METAL PLANTER
See Detail D01 / LDD 18

Trachelospermum jasminoides
STAR JASMINE
@350mm Staggered Centres

SCREEN HEDGE
Ficus hillii 'Flash',
HILLS FLASH FIG @500 CRS
Clipped at 1.5m Height
Above Top of Terrace Level

AUTOMATIC IRRIGATION WATER SUPPLY
LEVEL 1 including Balconys
40mm Cold Water Supply with
Back Flow Check Valve

LOCATION FOR AUTOMATIC IRRIGATION
CONTROLLER CABINET
LEVEL 1 including Balconys
With 10amp Double GPO in Cabinet

SEE DRAWING LDD 09

SEE DRAWING LDD 10

SEE DRAWING LDD 08

Trachelospermum jasminoides
STAR JASMINE
@350mm Staggered Centres

Rosmarinus officinalis 'Prostratus'
CREEPING ROSEMARY
@450mm Centres

BALCONY EDGE METAL PLANTER
See Detail D01 / LDD 18

Myoporum insulare 'Prostrate'
CREEPING COASTAL BOOBIALLA
@450mm Centres

Trachelospermum jasminoides
STAR JASMINE
@350mm Staggered Centres

SCREEN HEDGE
Ficus hillii 'Flash',
HILLS FLASH FIG @500 CRS
Clipped at 1.5m Height
Above Top of Terrace Level

NOTE: 2 NO. 10,000 LITRE RAIN WATER TANKS LOCATED IN LEVEL 2 TERRACE WITH 40MM COLD WATER SUPPLY TOP UP + POWER SUPPLY FOR PUMP LANDSCAPE IRRIGATION DEMAND WILL BE PRIMARILY CONNECTED TO THE RAINWATER TANK, TOPPED UP BY MAINS AS REQUIRED.

NOTE: SEPARATE AUTOMATIC IRRIGATION SYSTEM TO BE PROVIDED TO COVER ALL OF LEVEL 2, INCLUDING THE MAIN COURTYARD, AND ALL OF THE APARTMENT BALCONY PLANTERS. SEE LANDSCAPE SPECIFICATION, PART 16

LEVEL 2 LANDSCAPE BALCONY PLANTING LAYOUT / KEY PLAN

SCALE 1:150 @ B1 SIZE

NORTH

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FORMium LANDSCAPE ARCHITECTS URBAN DESIGNERS

Project
FIELDWORX HOUSE

Drawing Title
LEVEL 2 LANDSCAPE BALCONY PLANTING LAYOUT, KEY PLAN

Scale	Date
1:150 @ B1	MAY 2025

Project Number	File/Drawing Number	Revision
2194	LDD 07	C

REV NO.	ISSUE	DATE
A	FOR REVIEW	MAR. 2025
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KEY

- ADVANCED TREE — See Tree Planting Detail
- MODULAR METAL PLANTER 2400 x 1800 x 1000mm Ht — See Detail D1 / LDD 16
- MODULAR METAL PLANTER 2400 x 600 x 1200mm Ht
- MODULAR METAL PLANTER 2400 x 750 x 750mm Ht
- SYNTHETIC GRASS
- CERAMIC PAVING 600x600x20mm On Pedestal Support
- TIMBER DECK — See Detail DWG LDD 19
- SEAT — See Detail DWG LDD 14
- SCREEN FENCE WALL 1.8m Height
- METAL PICKET FENCE 1.8m Height — See Detail D04 / LDD 18

LAWN AREAS
Synthetic Grass with Cushion Layer
For Sitting, Lounging, Playing, Lawn Bowls etc.

SCREEN DIVIDING WALL
1.8m Height

COLD WATER TAP
With Anti-Vandal Spindle

CONTRASTING PAVER COLOURS
TO HIGHLIGHT ENTRY NOTES

PRIVACY PLANTER
Metal Picket / Blade Fence to Apartment Side
1.8m Height
See Detail D04 / LDD 18

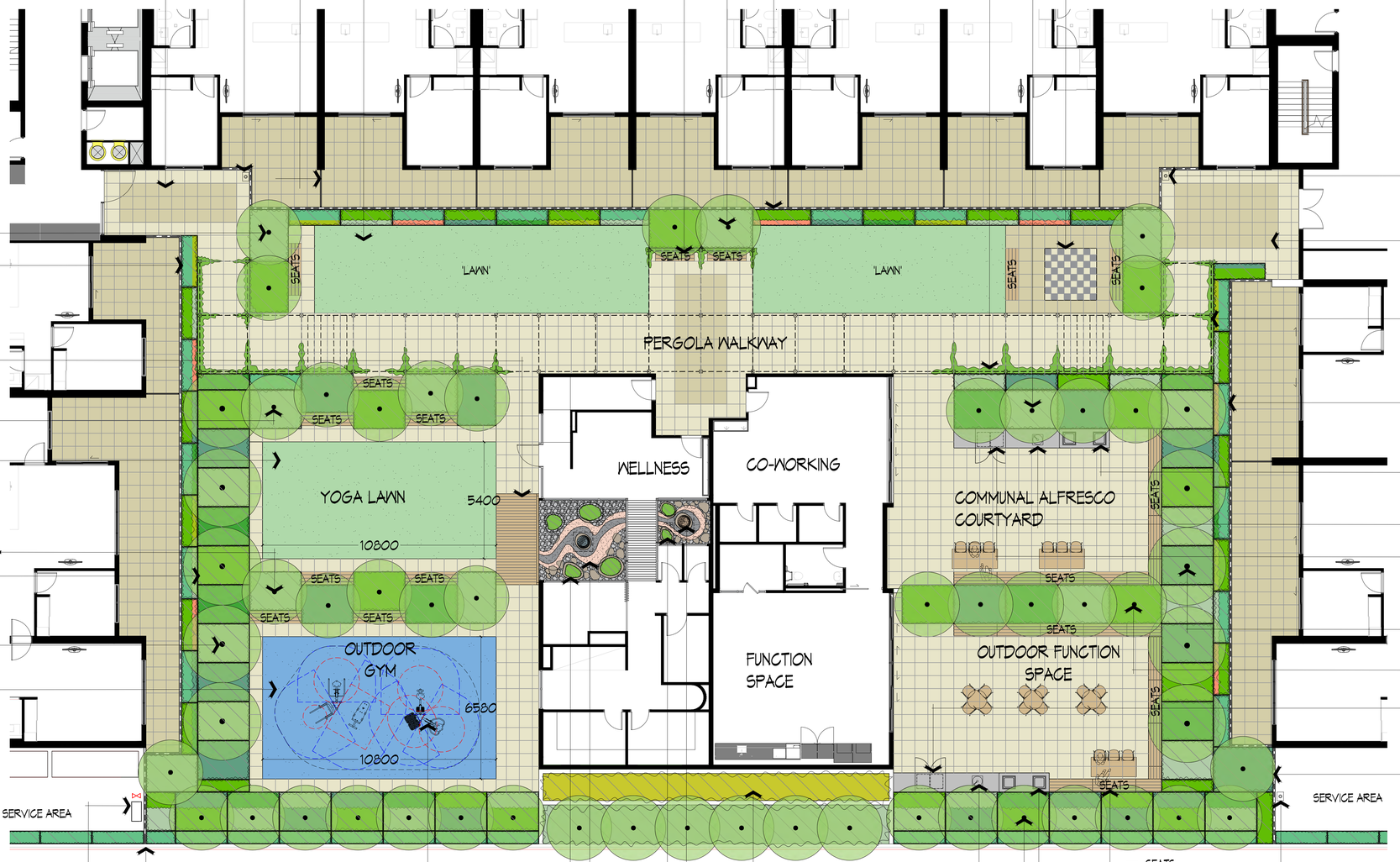
SMALL DECIDUOUS TREES

SEATS
See Detail DWG LDD 20

SMALL DECIDUOUS TREES

CLIMBING PLANTS ON PERGOLA
Wisteria sinensis

OUTDOOR 'CHESS BOARD' + CHESS PIECES
See Detail D3 / LDD 15



SMALL DECIDUOUS TREES

PRIVACY PLANTER
Metal Picket / Blade Fence to Apartment Side
1.8m Height
See Detail D04 / LDD 18

TIMBER 'BRIDGE' DECK
WITH HANDRAIL
See Detail DWG LDD 19

SMALL DECIDUOUS TREES

YOGA LAWN
SYNTHETIC GRASS (GREEN)
On Pedastal Support System
See Detail D2 / LDD 18

SMALL EVERGREEN BUFFER TREES

METAL PLANTER
See Detail D01 / LDD 16

MEDIUM SIZED DECIDUOUS BUFFER TREES

OUTDOOR GYM
SYNTHETIC GRASS
Blue Sports Field Colour
On Pedastal Support System
Sub-Base Detail for Gym Equipment
To Suppliers Instructions

COLD WATER TAP
With Anti-Vandal Spindle

MODULAR PAVING
600 x 600 x 20 mm
Ceramic Tiles on Pedestal System
To Architects Detail

PERGOLA
Black Mild Steel Posts and Fascia Lintols
With Woven SS. Plant Support Cables
See Detail D02 / LDD 16

PRIVACY PLANTER
Metal Picket / Blade Fence to Apartment Side
See Detail D04 / LDD 18

ELEC. OUTDOOR BBQ
2 No BBQ Plates
Set in SS Bench

SINK SINK BOWL
And Cold Water Tap

SS BIN ENCLOUSURE
With T5 Litre Wheelie Bins
With Lids Removed
For Litter + Recycled Bins

MEDIUM SIZED DECIDUOUS BUFFER TREES

SMALL EVERGREEN SCREEN TREES

SS BIN ENCLOUSURE
With T5 Litre Wheelie Bins
With Lids Removed
For Litter + Recycled Bins

SCREEN FENCE BARRIER
1.5m Ht Above Planter

SEATS
See Detail DWG LDD 20

COLD WATER TAP
With Anti-Vandal Spindle

SCREEN FENCE BARRIER
1.5 m Height Above Top of Planter

OUTDOOR GYM EQUIPMENT
To be Installed to Suppliers Instructions

NATURAL STONE PLANTER
See Detail D3 / LDD 18

EXTERNAL ZEN GARDEN
WITH STONE WATER FEATURE
See Detail Enlargement Plan Drawing

RAINGARDEN
20m² Raingarden
To Filter Communal Building Roof Rainwater
See Detail DWG

FOCAL SCULPTURE B

INTERNAL ZEN GARDEN
See Detail Enlargement Plan Drawing

ELEC. OUTDOOR BBQ
2 No BBQ Plates
Set in SS Bench

SMALL EVERGREEN SCREEN TREES

SINK SINK BOWL
And Cold Water Tap

AUTOMATIC IRRIGATION WATER SUPPLY
LEVEL 2 including Balconys
40mm Cold Water Supply with
Back Flow Check Valve

LEVEL 2 CENTRAL COURTYARD LANDSCAPE LAYOUT PLAN

SCALE 1:100 @ B1 SIZE

NORTH

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FORMium LANDSCAPE ARCHITECTS URBAN DESIGNERS

Project
FIELDWORX HOUSE

Drawing Title
LEVEL 2
CENTRAL COURTYARD
LANDSCAPE PLAN

Scale	Date
1:100 @ B1	MAY 2025

Project Number	File/Drawing Number	Revision
2194	LDD 08	C

REV NO.	ISSUE	DATE
A	FOR REVIEW	MAR. 2025
B	FOR REVIEW	APR. 2025
C	FOR PLANNING	MAY. 2025

Abelia grandiflora 'Nana' @450mm Centres

HEDGE
Viburnum 'tinus', Laurustinus @600mm CRS

Azalea alba 'Magna', @450mm Centres

2 No. *Lagerstroemia* 'Sioux'

Azalea alba 'Magna', @450mm Centres

HEDGE
Viburnum odoratissimum 'Awabuki', SWEET VIBURNUM
@600mm CRS

Westringia 'Flat+Fruity', @450mm Centres

Correa reflexa, @450mm Centres

Correa alba 'Prostrate', @450mm Centres

Liriope muscari, @450mm Staggered Centres

HEDGE
Camelia sasanqua 'Yuletide', Yuletide Camelia
@600mm CRS

Abelia grandiflora 'Nana' @450mm Centres

Myoporum insulare 'Prostrate', @450mm Centres

Correa reflexa @450mm Centres

Westringia 'Low Horizon' @450mm Staggered Centres

Liriope gigantea, @450mm Staggered Centres

Correa alba 'Prostrate' @450mm Centres

Liriope muscari, @450mm Staggered Centres

Correa glabra 'Prostrate', @450mm Staggered Centres

Westringia 'Flat+Fruity', @450mm Centres

Westringia 'Low Horizon' @450mm Staggered Centres

5 No. *Acer rubrum* 'October Glory'

Azalea alba 'Magna', @450mm Centres

Liriope gigantea, @450mm Staggered Centres

Westringia 'Low Horizon' @450mm Staggered Centres

Abelia grandiflora 'Nana' @450mm Centres

Liriope muscari, @450mm Staggered Centres

Liriope gigantea, @450mm Staggered Centres

Correa reflexa @450mm Centres

Westringia 'Low Horizon' @450mm Staggered Centres

Lomandra 'Tanika', @450mm Staggered Crs

Correa alba 'Prostrate' @450mm Centres

Correa glabra 'Prostrate', @450mm Staggered Centres

Westringia 'Low Horizon', @450mm Staggered Centres

Dietes grandiflora 'Variegata', @450mm Staggered Crs

Correa glabra 'Prostrate', @450mm Staggered Centres

Westringia 'Flat+Fruity', @450mm Centres

Westringia 'Low Horizon' @450mm Staggered Centres

Correa glabra 'Prostrate', @450mm Staggered Centres

Liriope muscari @450mm Staggered Crs

Correa glabra 'Prostrate', @450mm Staggered Centres

Westringia 'Flat+Fruity', @450mm Centres

1 No. *Elaeocarpus eumundii*

Liriope muscari @450mm Staggered Crs

Dietes grandiflora 'Variegata', @450mm Staggered Crs

Liriope muscari @450mm Staggered Crs

SCREEN HEDGE
Ficus hillii 'Flash',
HILLS FLASH FIG @500 CRS
Clipped at 1.5m Height
Above Top of Terrace Level

7 No. *Magnolia* 'Teddy Bear'

YOGA LAWN

WELLNESS

HEDGE
Murraya paniculata
Orange Jasmine, 600mm CRS

1 No. *Elaeocarpus reticulatus*, 'Prima Donna'

Liriope muscari, @450mm Staggered Crs

CLIMBING PLANT OVER
Wisteria sinensis 'Alba

SEE DWG LDD 10

Abelia grandiflora 'Nana' @450mm Centres

Azalea alba 'Magna', @450mm Centres

Westringia 'Flat+Fruity', @450mm Centres

Westringia 'Low Horizon' @450mm Staggered Centres

CLIMBING PLANT OVER
Wisteria sinensis 'Blue'

Correa glabra 'Prostrate', @450mm Staggered Centres

5 No. *Lagerstroemia* 'Biloxi'

Liriope muscari, @450mm Staggered Centres

Correa glabra 'Prostrate', @450mm Staggered Centres

MASSED LOW PLANTER PLANTING
Ophiopogon japonica 'Nana'

MASSED LOW PLANTER PLANTING
Ophiopogon japonica 'Nigrescens Nana'

Correa glabra 'Prostrate'
@450mm Staggered Centres

5 No. *Tristaniopsis* 'Luscious'

Westringia 'Low Horizon'
@450mm Staggered Centres

Liriope gigantea,
@450mm Staggered Centres

Liriope muscari
@450mm Staggered Centres

Liriope muscari,
@450mm Staggered Crs

Liriope gigantea,
@450mm Staggered Centres

Dietes grandiflora 'Variegata'
@450mm Staggered Crs

Correa glabra 'Prostrate'
@450mm Staggered Centres

Liriope muscari,
@450mm Staggered Crs

Lomandra 'Tanika',
@450mm Staggered Crs

Westringia 'Low Horizon'
@450mm Staggered Centres

Ficinia nodosa
KNOBBY CLUBRUSH
@500mm Staggered Centres

Dietes grandiflora 'Variegata'
@450mm Staggered Crs

Lomandra 'Tanika',
@450mm Staggered Crs

3 No. *Laurus nobilis*

NORTH

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FORMium LANDSCAPE ARCHITECTS URBAN DESIGNERS

Project
FIELDWORX HOUSE

Drawing Title
LEVEL 2 CENTRAL COURTYARD NORTH PLANTING LAYOUT

Scale	Date
1:100 @ B1	MAY 2025

Project Number	File/Drawing Number	Revision
2194	LDD 09	C

REV NO.	ISSUE	DATE
A	FOR REVIEW	MAR. 2025
B	FOR REVIEW	APR. 2025
C	FOR PLANNING	MAY. 2025

HEDGE
Viburnum 'tinus', Laurustinus @600mm CRS

Correa reflexa, @450mm Centres

HEDGE
Murraya paniculata, Orange Jasmine, 600mm CRS

Westringia 'Low Horizon' @450mm Staggered Centres

1 No. *Elaeocarpus reticulatus*, 'Prima Donna'

CLIMBING PLANT OVER
Wisteria sinensis 'Alba'

Correa alba 'Prostrate', @450mm Centre

Westringia 'Flat+Fruity', @450mm Centres

Azalea alba 'Magna', @450mm Centres

Westringia 'Low Horizon', @450mm Staggered Centres

Lirope muscari, @450mm Staggered Crs

Correa glabra 'Prostrate', @450mm Centres

CLIMBING PLANT OVER
Wisteria sinensis 'Blue'

Westringia 'Low Horizon' @450mm Centres

Liriope gigantea, @450mm Staggered Centres

4 No. *Lagerstroemia* 'Natchez'

Westringia 'Low Horizon' @450mm Centres

Correa glabra 'Prostrate', @450mm Centres

Lirope muscari, @450mm Staggered Centres

Lirope muscari, @450mm Staggered Crs

Westringia 'Low Horizon' @450mm Centres

Lirope muscari, @450mm Staggered Centres

Correa glabra 'Prostrate', @450mm Centres

Lirope muscari, @450mm Staggered Crs

5 No. *Tristaniopsis* 'Luscious'

Lomandra 'Tanika', @450mm Staggered Crs

Lirope muscari, @450mm Staggered Crs

Liriope gigantea, @450mm Staggered Centres

Lomandra 'Tanika', @450mm Staggered Crs

Westringia 'Low Horizon', @450mm Staggered Centres

Westringia 'Low Horizon', @450mm Staggered Centres

7 No. *Magnolia* 'Teddy Bear'

Lirope muscari,
@450mm Staggered Crs

Ficinia nodosa
KNOBBY CLUBRUSH
@500mm Staggered Centres

Dietes grandiflora 'Variegata'
@450mm Staggered Crs

3 No. *Laurus nobilis*

SEE DWG LDD 10

CO-WORKING

FUNCTION
SPACE

COMMUNAL ALFRESCO
COURTYARD

OUTDOOR FUNCTION
SPACE

Abelia grandiflora 'Nana'
@450mm Centres

Correa reflexa, @450mm Centres

Correa alba 'Prostrate', @450mm Centres

Westringia 'Low Horizon', @450mm Staggered Centres

2 No. *Tristaniopsis* 'Luscious'

Lirope muscari, @450mm Staggered Centres

Correa alba 'Prostrate', @450mm Centres

HEDGE
Prunus lusitanica, PORTUGUESE LAUREL
@600mm CRS

Azalea alba 'Magna', @450mm Centres

HEDGE
Viburnum 'Awabuki', SWEET VIBURNUM
@600mm CRS

Abelia grandiflora 'Nana' @450mm Centres

Liriope gigantea, @450mm Staggered Crs

Correa reflexa @450mm Centres

Westringia 'Low Horizon', @450mm Staggered Centres

Correa glabra 'Prostrate', @450mm Staggered Centres

Correa alba 'Prostrate', @450mm Centres

5 No. *Acer freemanii* 'Autumn Blaze'

Lirope muscari, @450mm Staggered Centres

Westringia 'Flat+Fruity', @450mm Centres

Westringia 'Low Horizon', @450mm Staggered Centres

Westringia 'Low Horizon', @450mm Staggered Centres

Azalea alba 'Magna', @450mm Centres

Correa glabra 'Prostrate', @450mm Staggered Centres

Abelia grandiflora 'Nana' @450mm Centres

Westringia 'Low Horizon', @450mm Staggered Centres

Correa glabra 'Prostrate', @450mm Staggered Centres

Correa reflexa @450mm Centres

Lirope muscari, @450mm Staggered Centres

Correa alba 'Prostrate', @450mm Centres

Liriope gigantea, @450mm Staggered Centres

Lirope muscari, @450mm Staggered Crs

Lirope muscari, @450mm Staggered Centres

Westringia 'Low Horizon', @450mm Staggered Crs

1 No. *Elaeocarpus eumundii*

Correa glabra 'Prostrate', @450mm Staggered Crs

Lomandra 'Tanika', @450mm Staggered Crs

Lirope muscari, @450mm Staggered Centres

Westringia 'Low Horizon',
@450mm Staggered Centres

Lirope muscari, @450mm Staggered Centres

SCREEN HEDGE
Ficus hillii 'Flash',
HILLS FLASH FIG @500 CRS
Clipped at 1.8m Height
Above Top of Terrace Level

Westringia 'Low Horizon', @450mm Staggered Centres

Lomandra 'Tanika', @450mm Staggered Crs

Lirope muscari, @450mm Staggered Crs

SCREEN HEDGE
Ficus hillii 'Flash', HILLS FLASH FIG @500 CRS
Clipped at 1.8m Height Above Top of Terrace Level

NORTH

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FORMium LANDSCAPE ARCHITECTS URBAN DESIGNERS

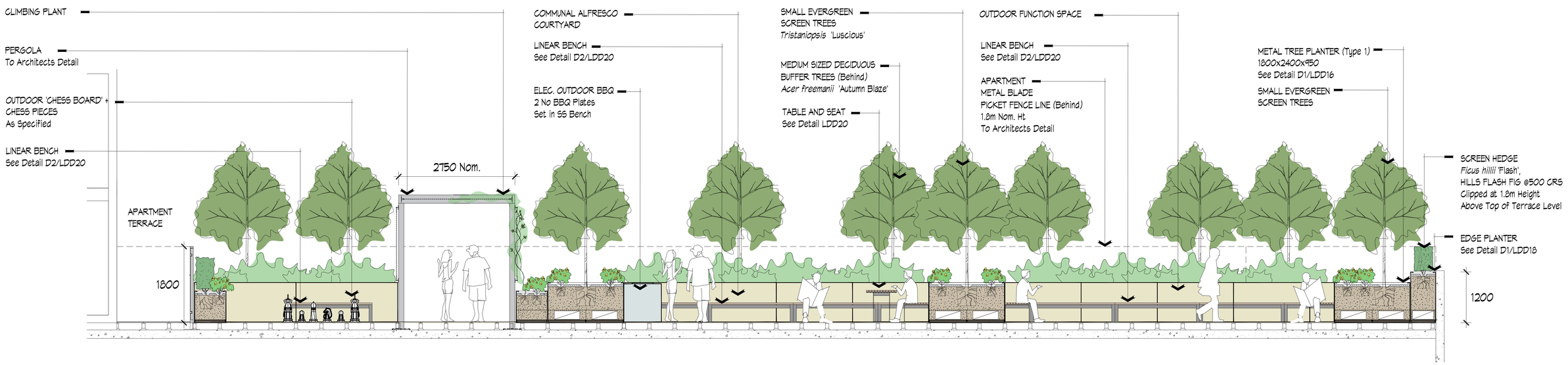
Project
FIELDWORX
HOUSE

Drawing Title
LEVEL 2 CENTRAL
COURTYARD SOUTH
PLANTING LAYOUT

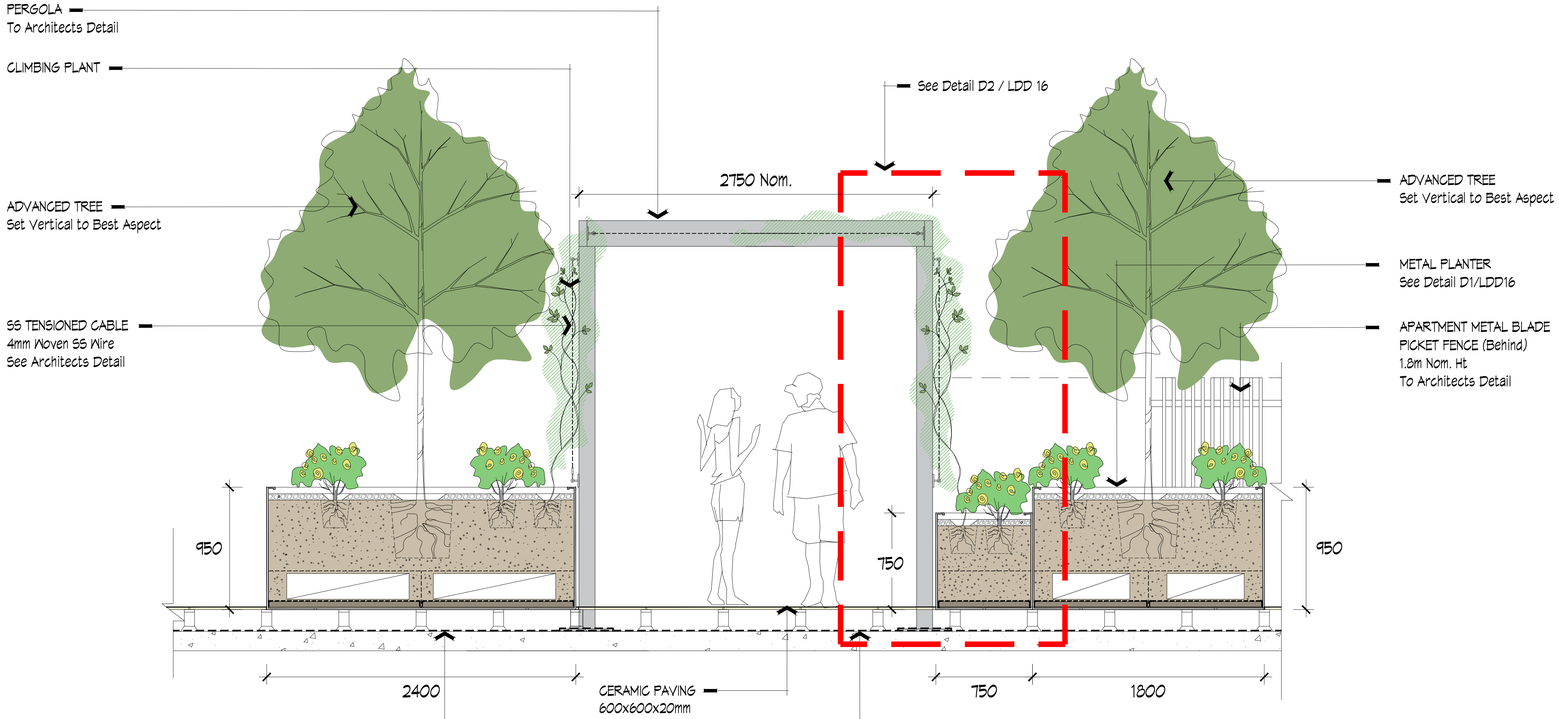
Scale	Date
1:100 @ B1	MAY 2025

Project Number	File/Drawing Number	Revision
2194	LDD 10	C

REV NO.	ISSUE	DATE
A	FOR REVIEW	MAR. 2025
B	FOR REVIEW	APR. 2025
C	FOR PLANNING	MAY. 2025



D01 LEVEL 2 SECTONAL ELEVATION AA
Scale 1:40 @ B1 Size



D02 LEVEL 2 SECTONAL BB
Scale 1:20 @ B1 Size

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FORMium LANDSCAPE ARCHITECTS URBAN DESIGNERS

Project
FIELDWORX HOUSE

Drawing Title
LEVEL 2 SECTION AA AND SECTION BB

Scale	Date
1:150 @ B1	MAY 2025

Project Number	File/Drawing Number	Revision
2194	LDD 11	C

REV NO.	ISSUE	DATE
A	FOR REVIEW	MAR. 2025
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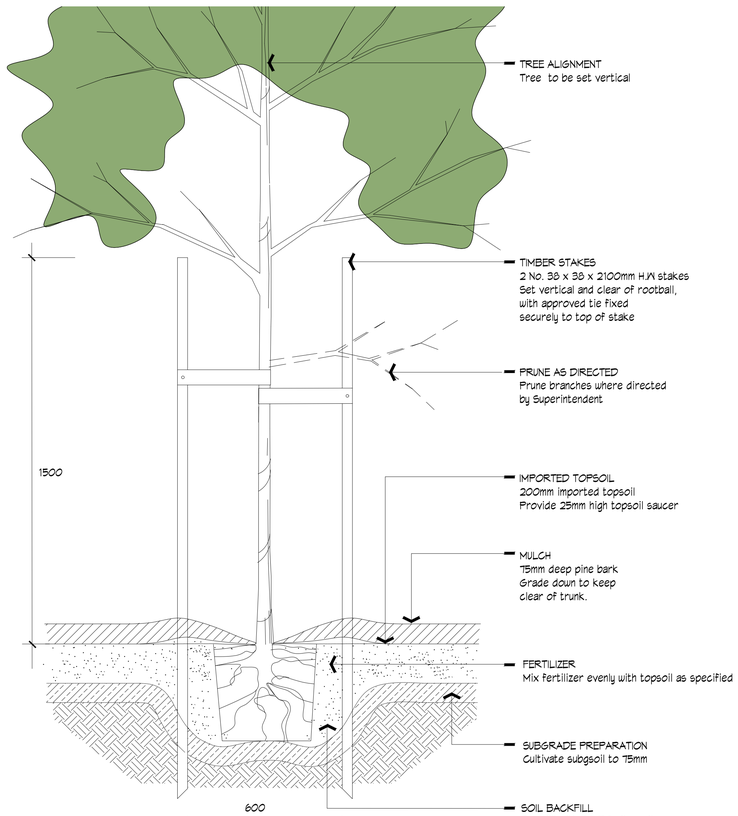
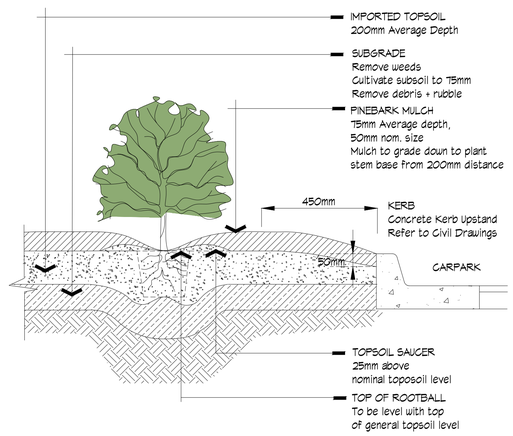
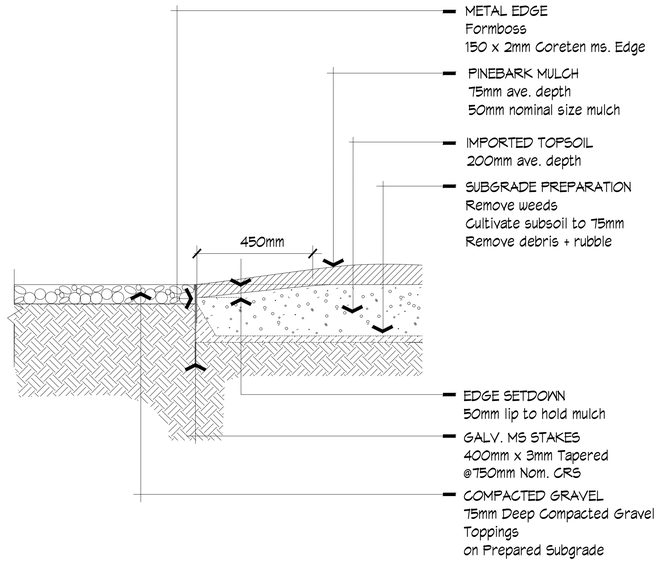
C	FOR PLANNING	MAY. 2025



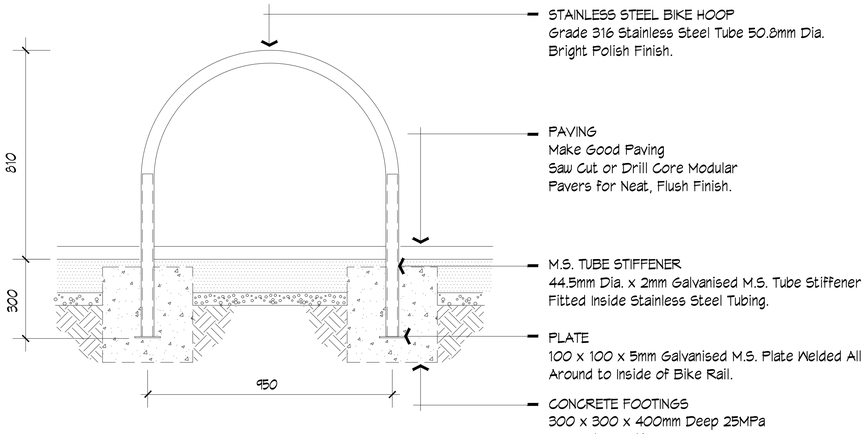
D01 ADVANCED TREE IN GARDENBED
Scale 1:10 @ B1 Size



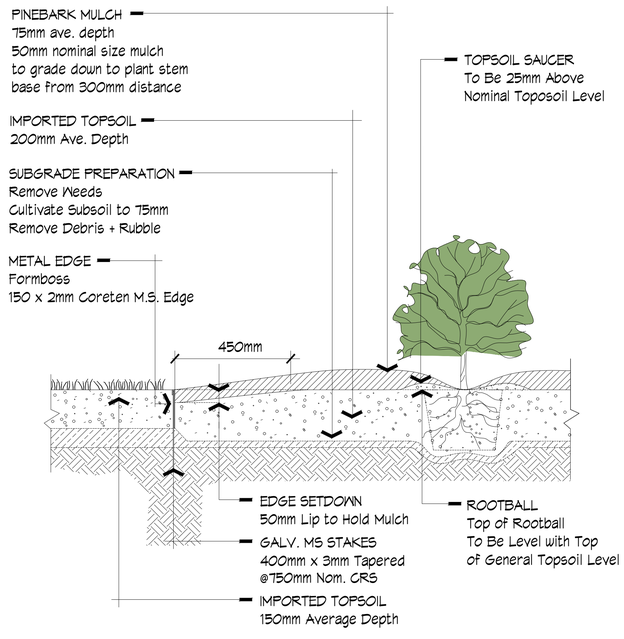
D02 GARDENBED KERB INTERFACE
Scale 1:10 @ B1 Size



D03 GARDENBED / GRAVEL PATH DETAIL SECTION
Scale 1:10 @ B1 Size



D04 BIKE HOOP DETAIL
Scale 1:10 @ B1 Size



D05 GARDENBED / METAL EDGE DETAIL SECTION
Scale 1:10 @ B1 Size

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FORMium LANDSCAPE ARCHITECTS URBAN DESIGNERS

Project
FIELDWORX HOUSE

Drawing Title
LANDSCAPE DETAIL SHEET 1 - TREE, GARDEN BED, BIKE HOOPS

Scale	Date
As Shown @ B1	MAY 2025

Project Number	File/Drawing Number	Revision
2194	LDD 12	C

REV NO.	ISSUE	DATE
A	FOR REVIEW	MAR. 2025
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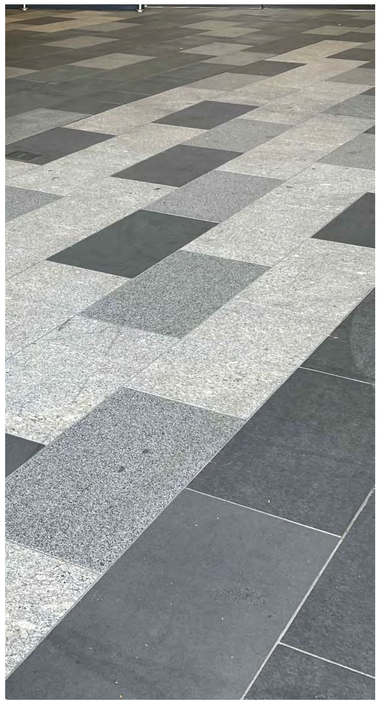
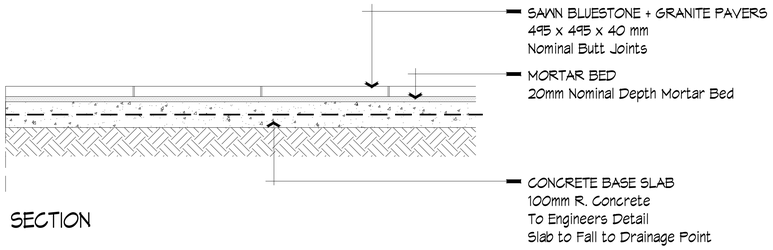
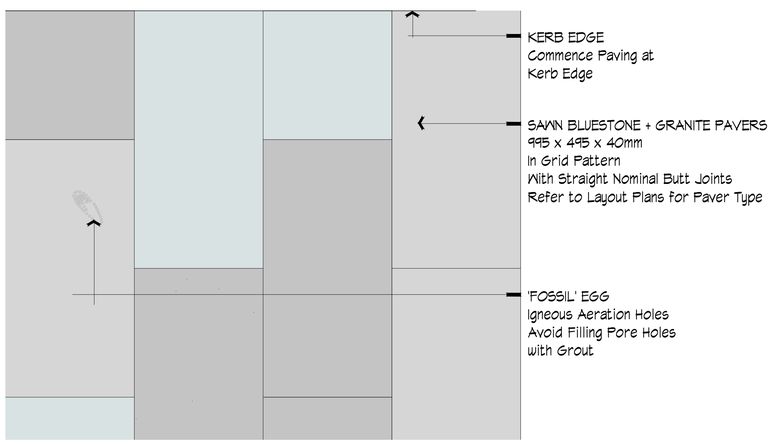
C	FOR PLANNING	MAY. 2025



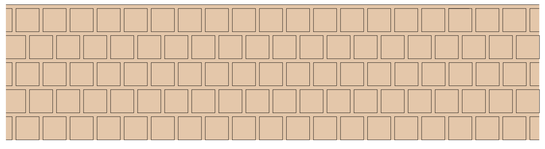


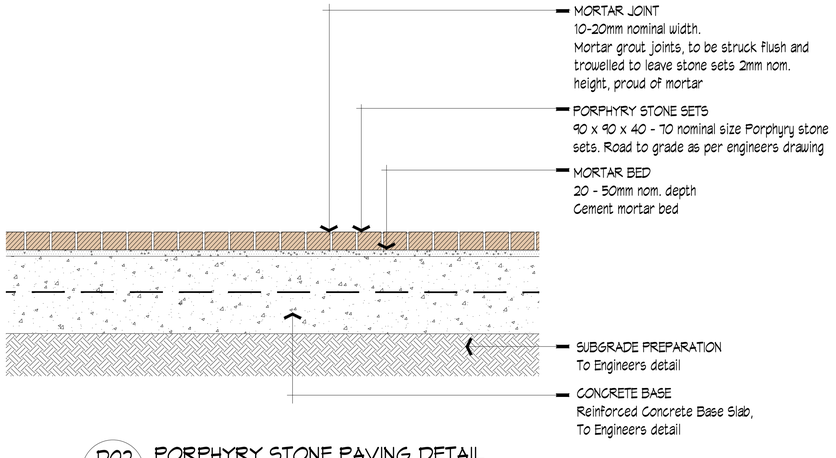
SECTION



PLAN

D01 BLUESTONE PAVING DETAIL
Scale 1:10 @ B1 Size

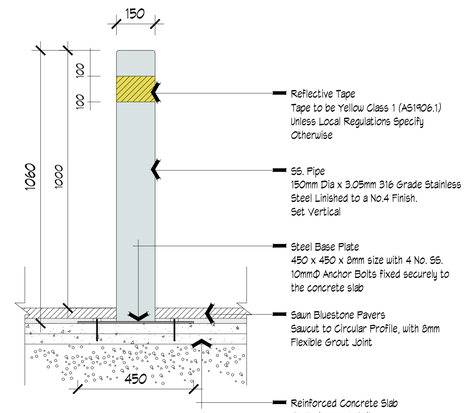




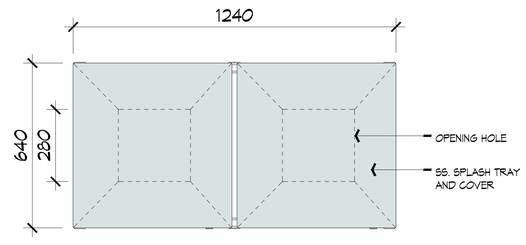
D02 PORPHYRY STONE PAVING DETAIL
Scale 1:10 @ B1 Size

Sawn Bluestone 'Ash Grey' Granite 'Black Pearl' Granite

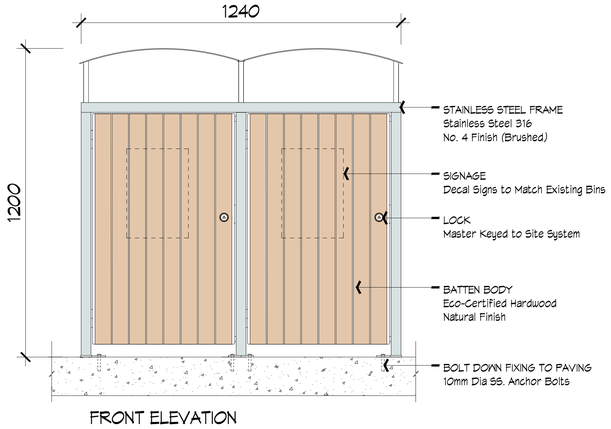
MIX OF PAVER TYPES AND COLOURS:
- Sawn Bluestone, Sawn Grit Blast Finish, 40% x Area
- 'Ash Grey' Granite, Exfoliated Flamed Finish, 30% x Area
- 'Black Pearl' Granite, Exfoliated Flamed Finish, 30% x Area



D04 BOLLARD DETAIL
Scale 1:10 @ B1 Size



PLAN



FRONT ELEVATION

D03 LITTER & RECYCLE BINS DETAIL
Scale 1:10 @ B1 Size

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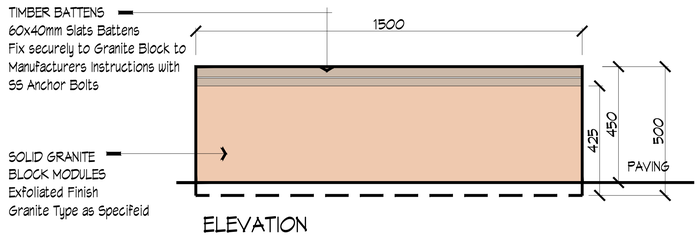
FORMium LANDSCAPE ARCHITECTS URBAN DESIGNERS

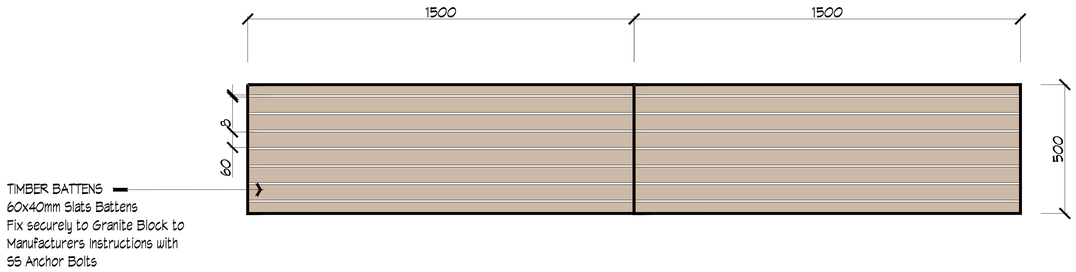
Project
FIELDWORX HOUSE

Drawing Title
LANDSCAPE DETAIL SHEET 2 - PAVING, BOLLARD, BINS

Scale: As Shown @ B1
Date: MAY 2025
Project Number: 2194
File/Drawing Number: LDD 13
Revision: C

REV NO.	ISSUE	DATE
A	FOR REVIEW	MAR. 2025
B	FOR REVIEW	APR. 2025
C	FOR PLANNING	MAY. 2025





D02 TYPICAL SAWN STONE SEAT BLOCK WITH TIMBER SEAT BENCH INSET DETAIL PLAN

Scale 1:10 @ B1 Size

D01 SAWN STONE SEAT BLOCK WITH TIMBER SEAT BENCH INSET

Scale 1:10 @ B1 Size

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FORMium LANDSCAPE ARCHITECTS URBAN DESIGNERS

Project

FIELDWORX HOUSE

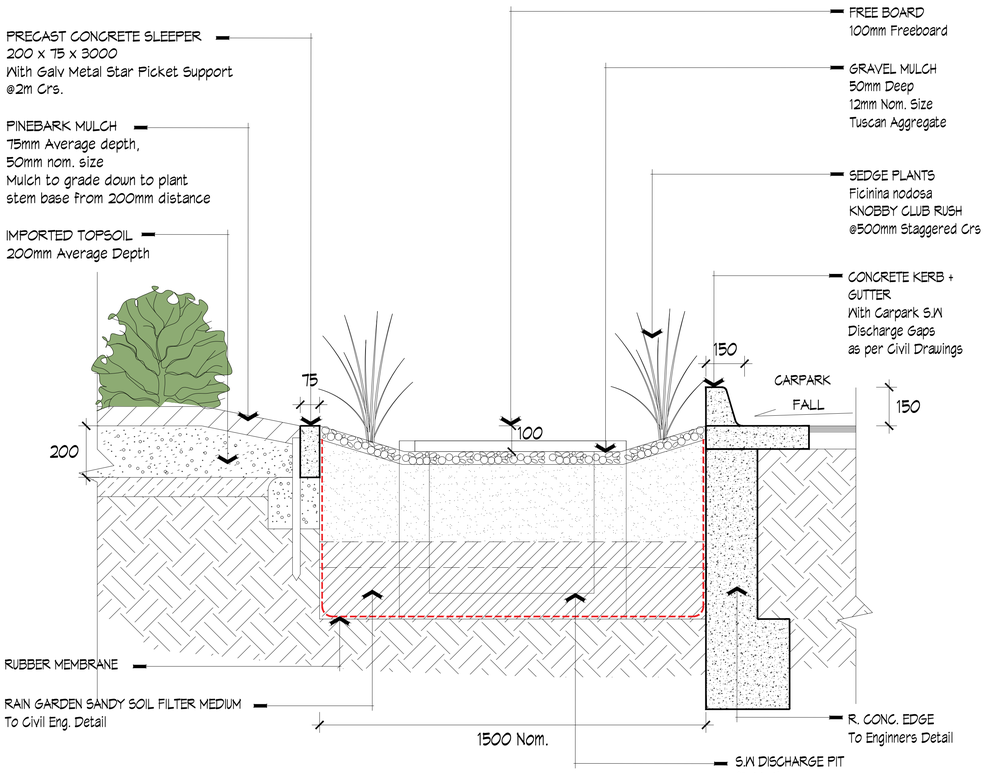
Drawing Title

LANDSCAPE DETAIL SHEET 3 - SAWN STONE SEAT

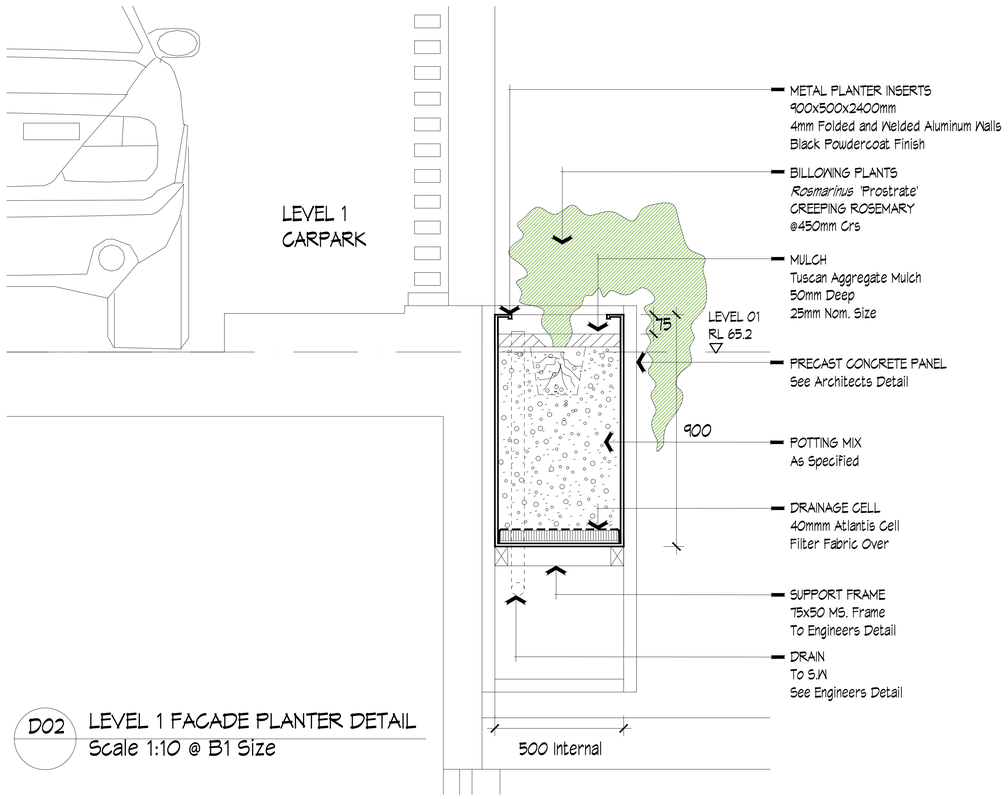
Scale	Date
As Shown @ B1	MAY 2025

Project Number	File/Drawing Number	Revision
2194	LDD 14	C

REV NO.	ISSUE	DATE
A	FOR REVIEW	MAR. 2025
B	FOR REVIEW	APR. 2025
C	FOR PLANNING	MAY. 2025

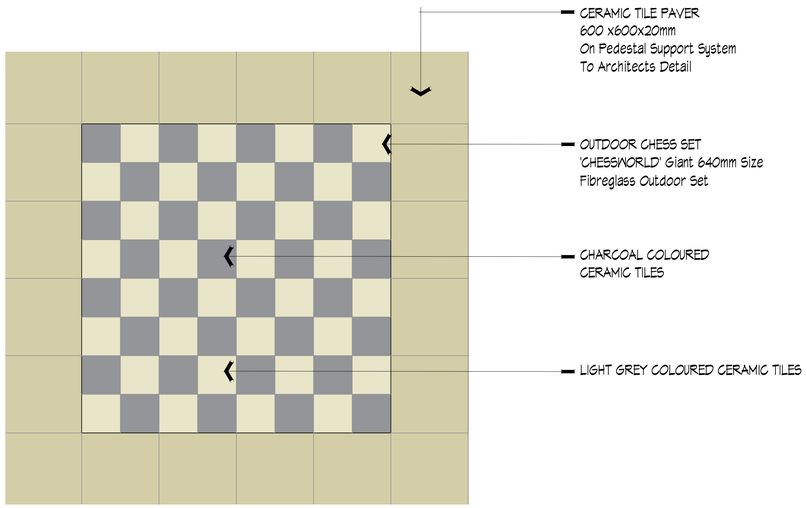


D01 TYPICAL CARPARK BIOSWALE LANDSCAPE DETAIL SECTION
Scale 1:10 @ B1 Size



D02 LEVEL 1 FACADE PLANTER DETAIL
Scale 1:10 @ B1 Size

NOTE: REFER TO CIVIL DRAWINGS FOR BIO-RETENTION MEDIA SPECIFICATION AND DETAILS



OUTDOOR CHESS GAME PIECES
'CHESS WORLD' 640mm GIANT FIBREGLASS SET

D03 LEVEL 2 OUTDOOR CHESS SET DETAIL
Scale 1:20 @ B1 Size

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FORMium LANDSCAPE ARCHITECTS URBAN DESIGNERS

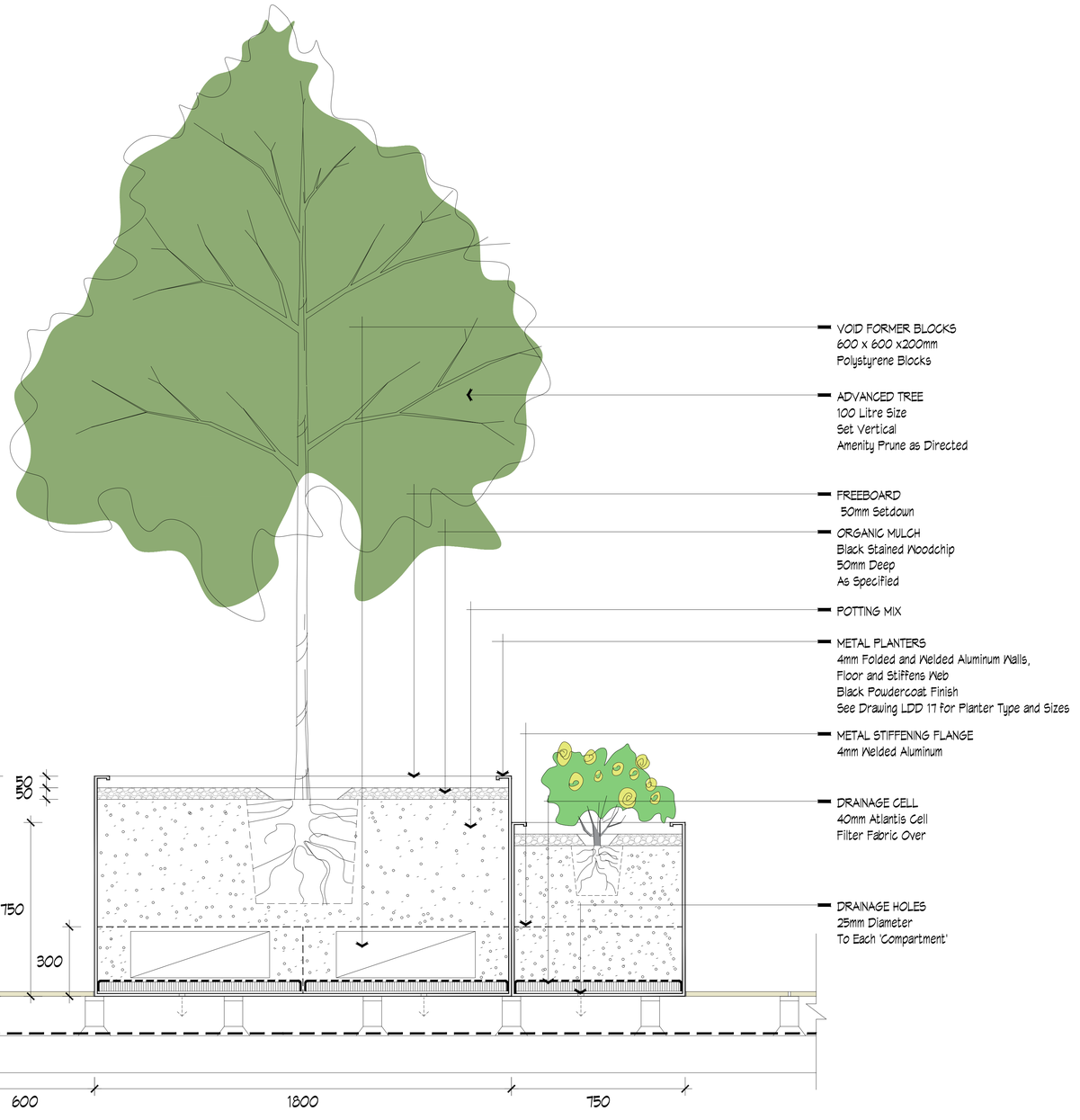
Project
FIELDWORX HOUSE

Drawing Title
LANDSCAPE DETAIL SHEET 4

Scale	Date
As Shown @ B1	MAY 2025

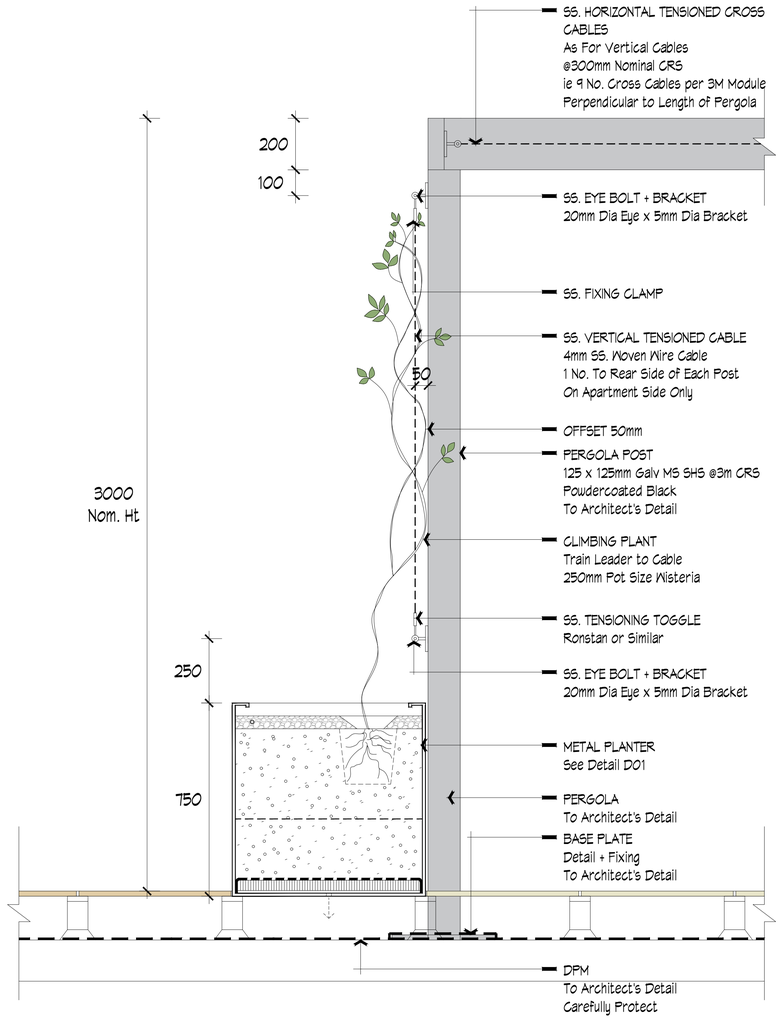
Project Number	File/Drawing Number	Revision
2194	LDD 15	C

REV NO.	ISSUE	DATE
A	FOR REVIEW	MAR. 2025
B	FOR REVIEW	APR. 2025
C	FOR PLANNING	MAY. 2025



D01 LEVEL 2 APARTMENT TERRACE - TREE PLANTER DETAIL
Scale 1:10 @ B1 Size

NOTE: CONTRACTOR TO PROVIDE SHOP DRAWINGS FOR ALL METAL PLANTERS, FOR THE REVIEW AND APPROVAL OF THE SUPERINTENDENT, AT LEAST EIGHT WEEKS (8 NO.) PRIOR TO THE INTENDED TIME OF SUPPLY AND INSTALLATION.



D02 PERGOLA POST / SS TENSIONED CABLE DETAILS
Scale 1:10 @ B1 Size

Pellicano

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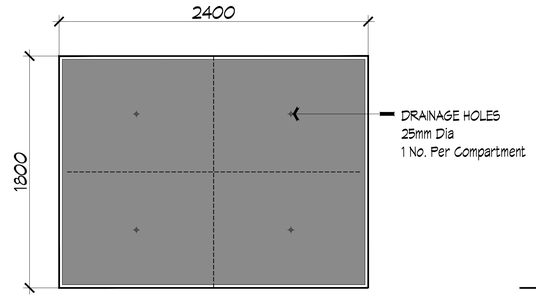
FORMium LANDSCAPE ARCHITECTS URBAN DESIGNERS

Project
FIELDWORX HOUSE

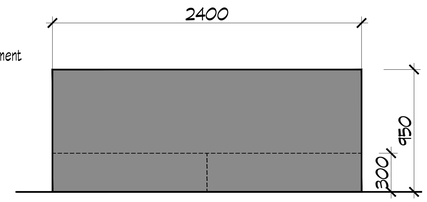
Drawing Title
LANDSCAPE DETAIL SHEET 5 - LEVEL 2 PLANTERS

Scale: 1:10 @ B1
Date: MAY 2025
Project Number: 2194
File/Drawing Number: LDD 16
Revision: C

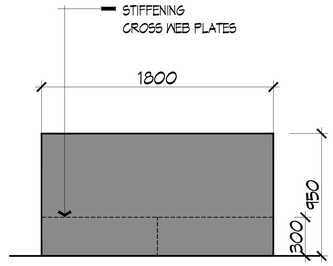
REV NO.	ISSUE	DATE
A	FOR REVIEW	MAR. 2025
B	FOR REVIEW	APR. 2025
C	FOR PLANNING	MAY. 2025



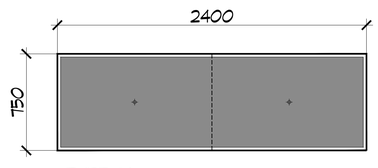
TYPE 1
PLAN



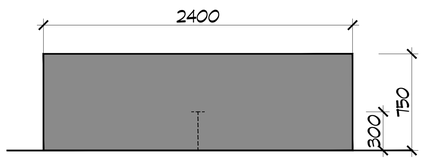
SIDE ELEVATION



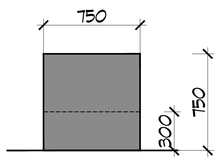
END ELEVATION



TYPE 2A
PLAN

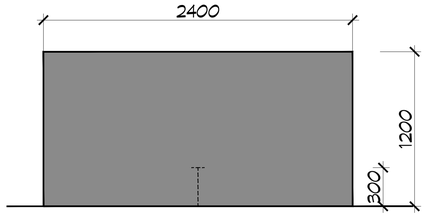


SIDE ELEVATION

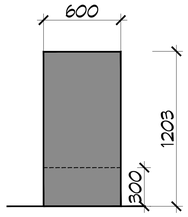


END ELEVATION

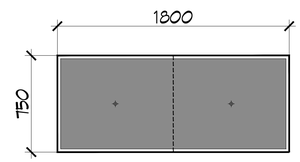
TYPE 2B
PLAN



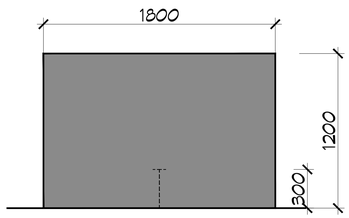
SIDE ELEVATION



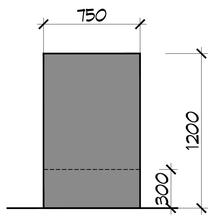
END ELEVATION



TYPE 3
PLAN



SIDE ELEVATION



END ELEVATION

LEVEL 2 MODULAR PLANTER DETAILS
Scale 1:20 @ B1 Size

NOTE: CONTRACTOR TO PROVIDE SHOP DRAWINGS FOR ALL METAL PLANTERS, FOR THE REVIEW, AND APPROVAL OF THE SUPERINTENDENT, AT LEAST EIGHT (8 NO.) WEEKS PRIOR TO THE INTENDED TIME OF SUPPLY AND INSTALLATION.

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FORMium LANDSCAPE ARCHITECTS URBAN DESIGNERS

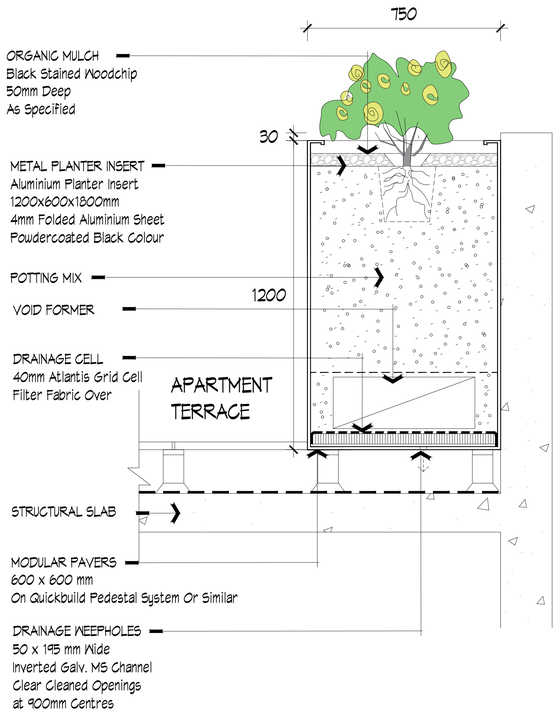
Project
FIELDWORX HOUSE

Drawing Title
LANDSCAPE DETAIL
SHEET 6 - LEVEL 2 METAL PLANTERS

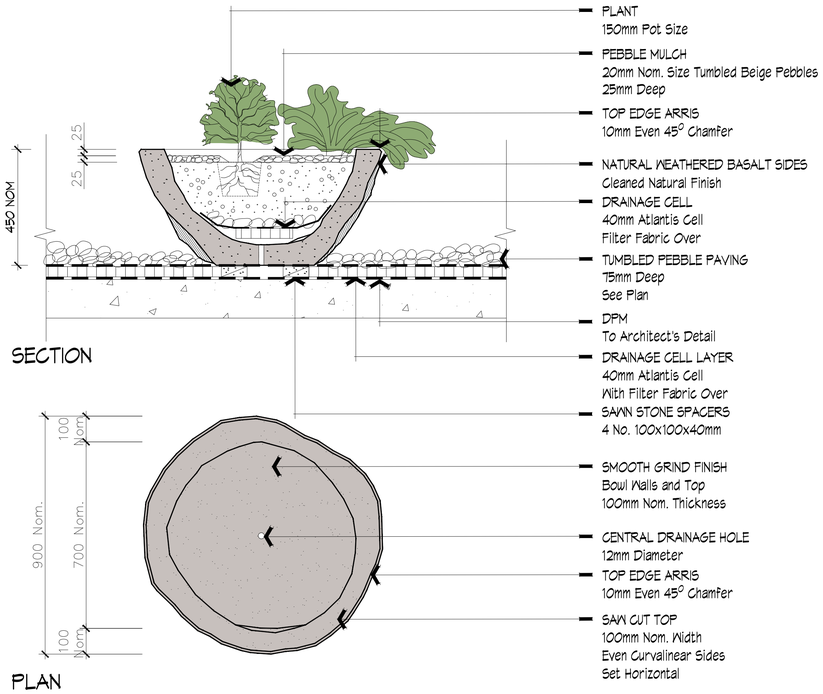
Scale	Date
As Shown @ B1	MAY 2025

Project Number	File/Drawing Number	Revision
2194	LDD 17	C

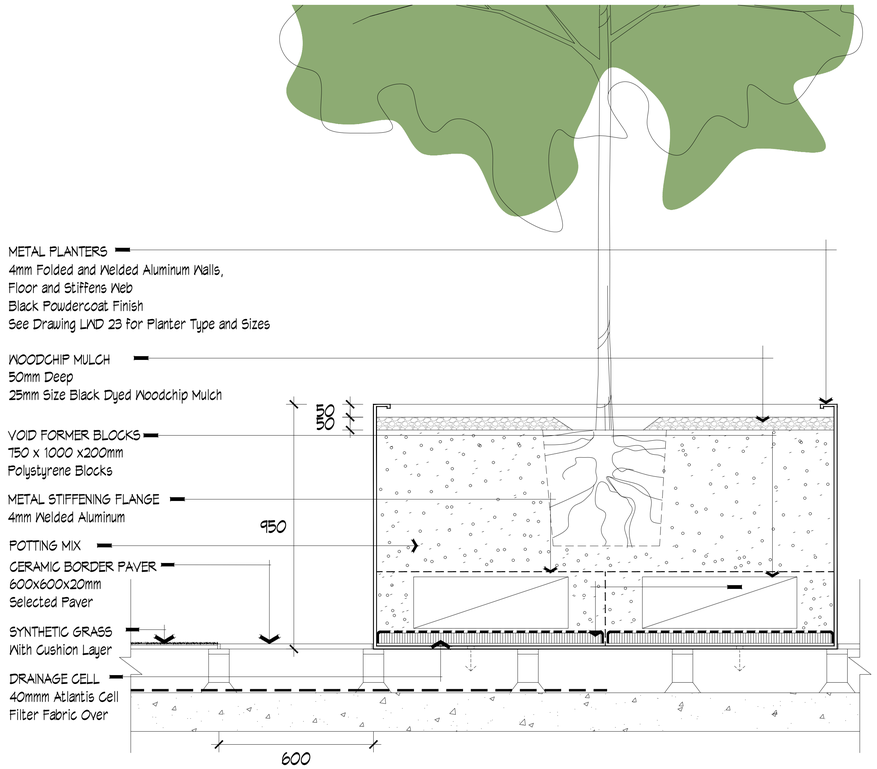
REV NO.	ISSUE	DATE
A	FOR REVIEW	MAR. 2025
B	FOR REVIEW	APR. 2025
C	FOR PLANNING	MAY. 2025



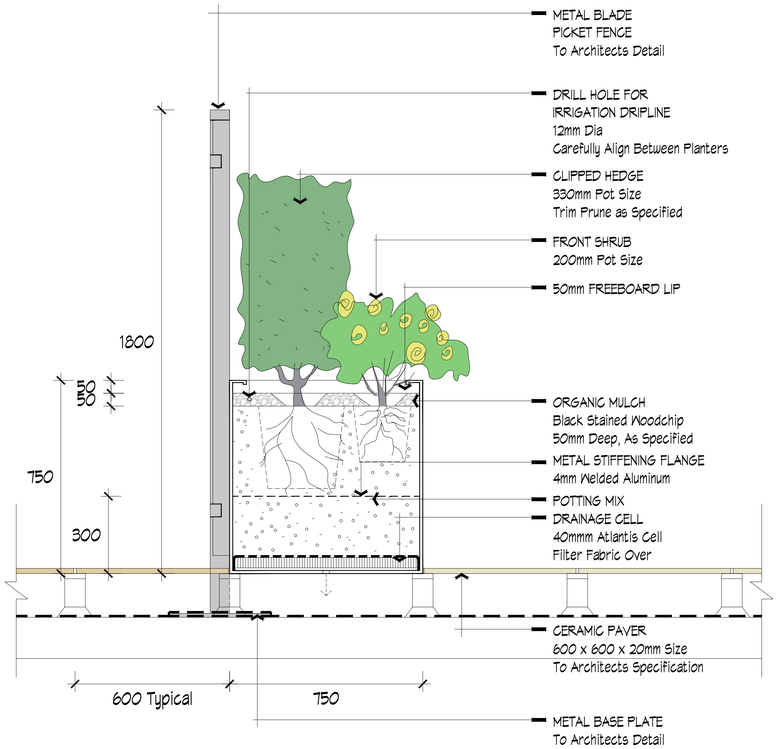
D01 TYPICAL LEVEL 2 BALCONY EDGE PLANTER DETAIL
Scale 1:10 @ B1 Size



D03 NATURAL STONE PLANTER AND WATER FEATURE BOWL DETAIL
Scale 1:10 @ B1 Size



D02 'LAWN' SYNTHETIC GRASS DETAIL
Scale 1:10 @ B1 Size



D04 LEVEL 2 APARTMENT 'FRONT' TERRACE PLANTER + FENCE DETAIL SECTION
Scale 1:10 @ B1 Size

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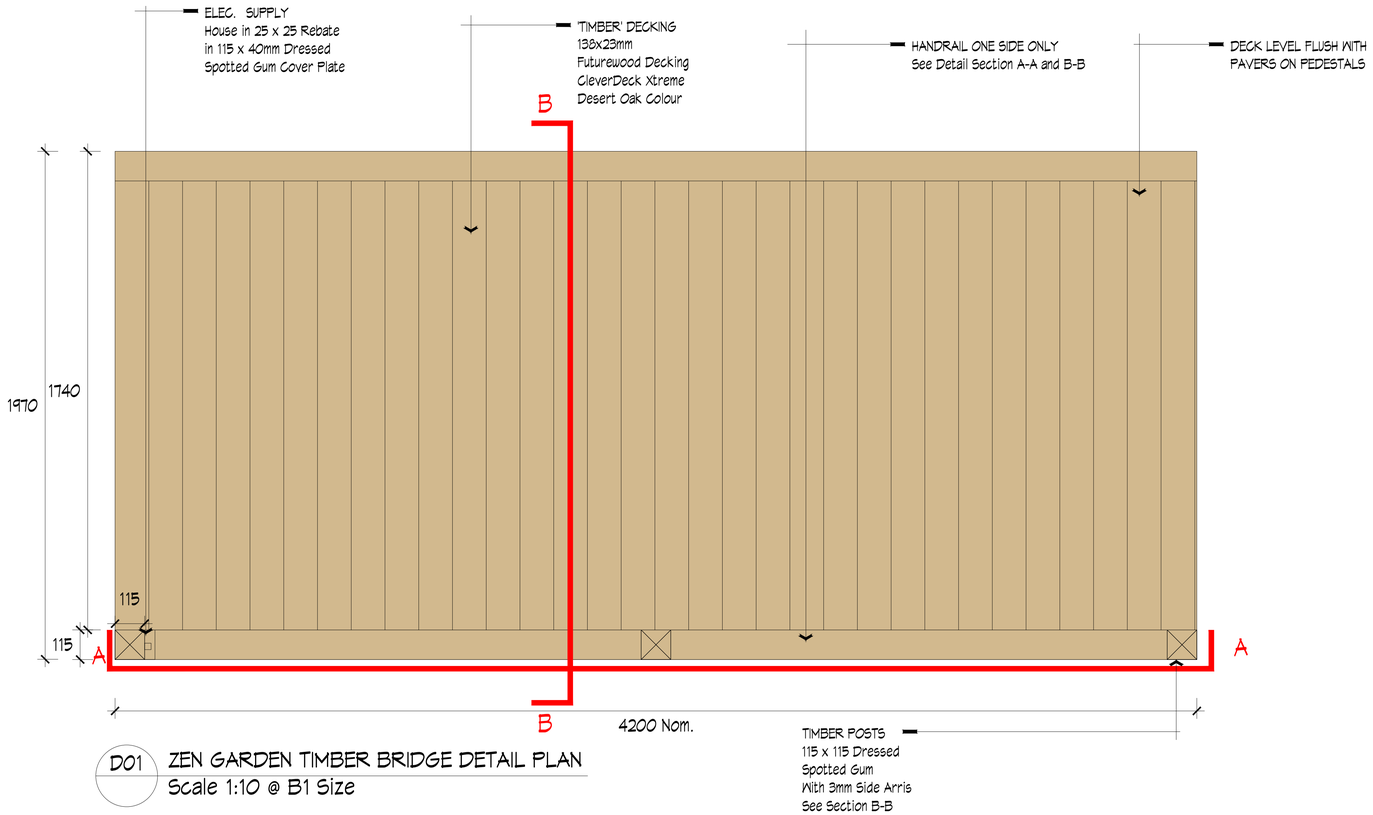
FORMium LANDSCAPE ARCHITECTS URBAN DESIGNERS

Project
FIELDWORX HOUSE

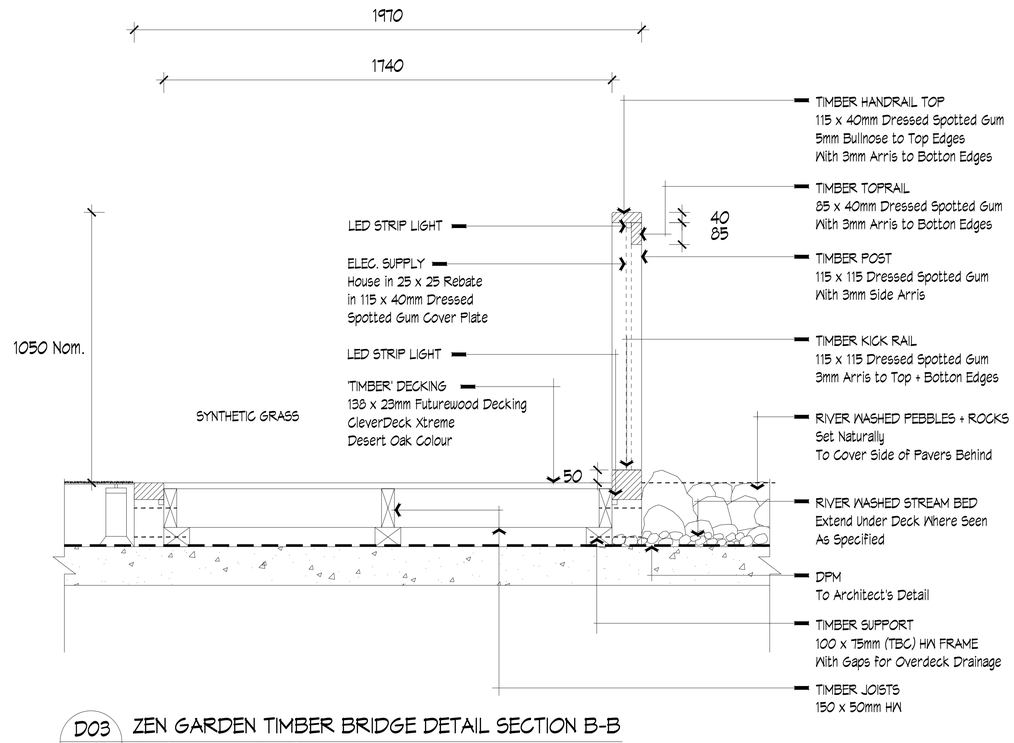
Drawing Title
LANDSCAPE DETAIL SHEET 7 - LEVEL 2 DETAILS

Scale	Date
As Shown @ B1	MAY 2025

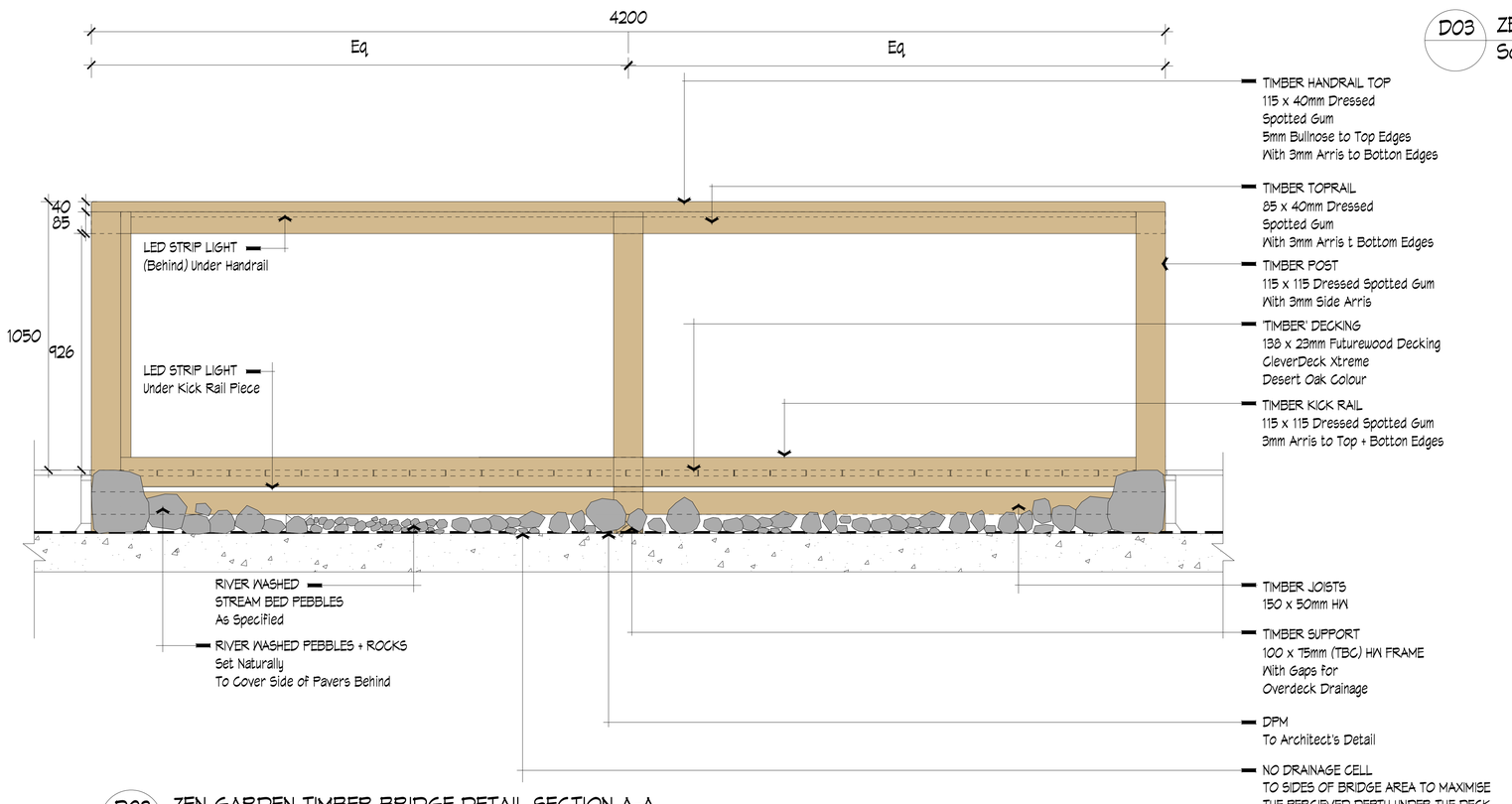
Project Number	File/Drawing Number	Revision
2194	LDD 18	C



D01 ZEN GARDEN TIMBER BRIDGE DETAIL PLAN
Scale 1:10 @ B1 Size



D03 ZEN GARDEN TIMBER BRIDGE DETAIL SECTION B-B
Scale 1:10 @ B1 Size



D02 ZEN GARDEN TIMBER BRIDGE DETAIL SECTION A-A
Scale 1:10 @ B1 Size

REV NO.	ISSUE	DATE
A	FOR REVIEW	MAR. 2025
B	FOR REVIEW	APR. 2025
C	FOR PLANNING	MAY. 2025

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FORMium LANDSCAPE ARCHITECTS URBAN DESIGNERS

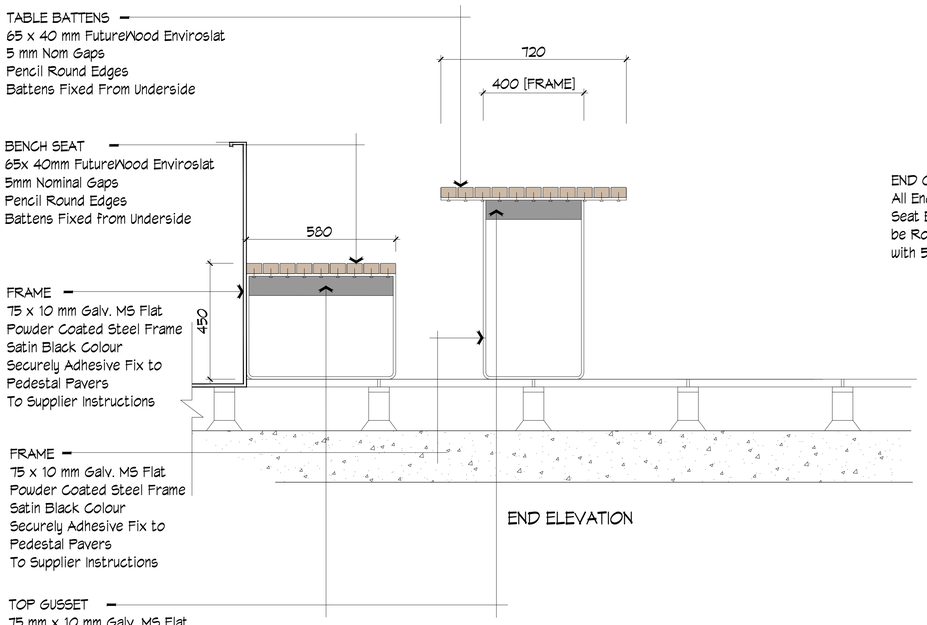
Project
FIELDWORX HOUSE

Drawing Title
LANDSCAPE DETAIL
SHEET 8 - LEVEL 2
TIMBER BRIDGE

Scale	Date
As Shown @ B1	MAY 2025

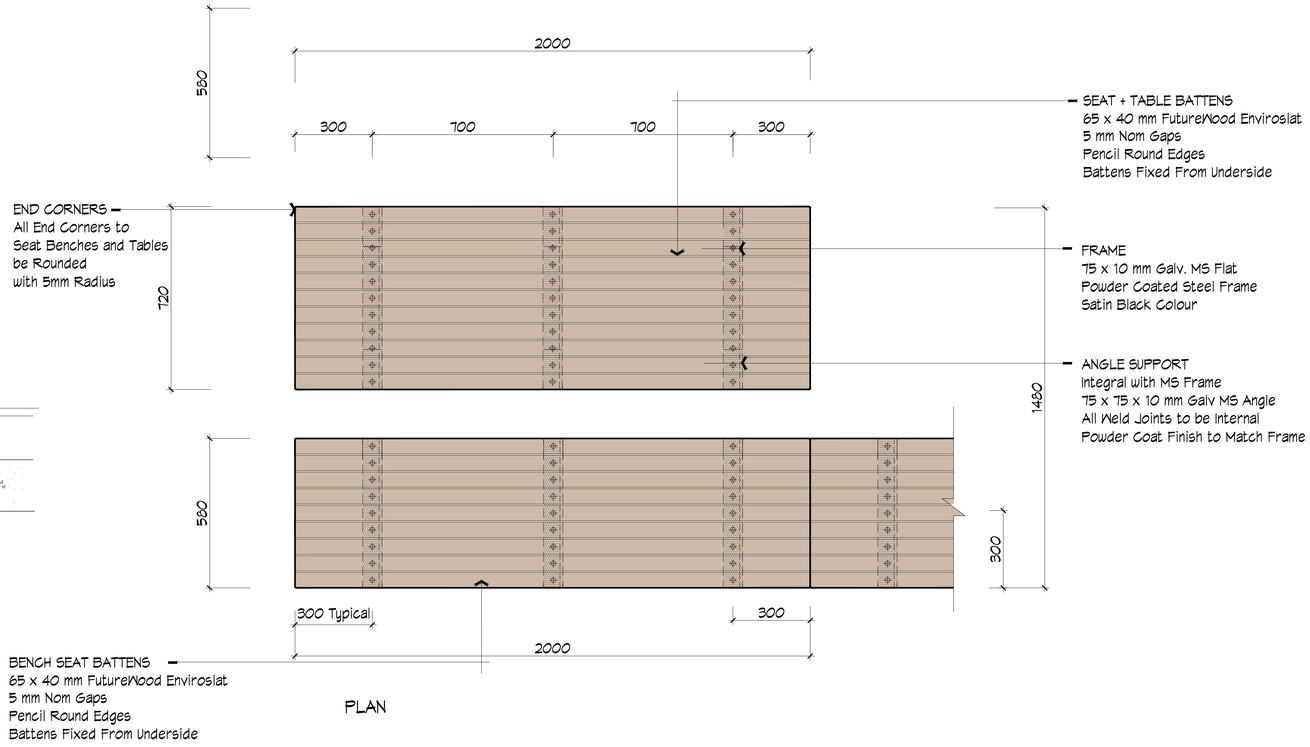
Project Number	File/Drawing Number	Revision
2194	LDD 19	C

REV NO.	ISSUE	DATE
A	FOR REVIEW	MAR. 2025
B	FOR REVIEW	APR. 2025
C	FOR PLANNING	MAY. 2025



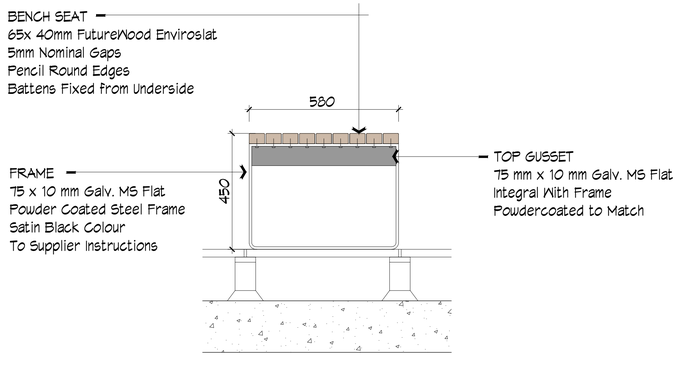
END ELEVATION

D01 LEVEL 2 TABLE AND SEAT DETAIL
Scale 1:10 @ B1 Size



PLAN

NOTE: CONTRACTOR TO PROVIDE SHOP DRAWINGS
FOR ALL SITE FURNITURE FOR THE APPROVAL OF
THE SUPERINTENDENT, AT LEAST 8 WEEKS PRIOR TO DELIVERY



D02 TYPICAL BENCH DETAIL
Scale 1:10 @ B1 Size

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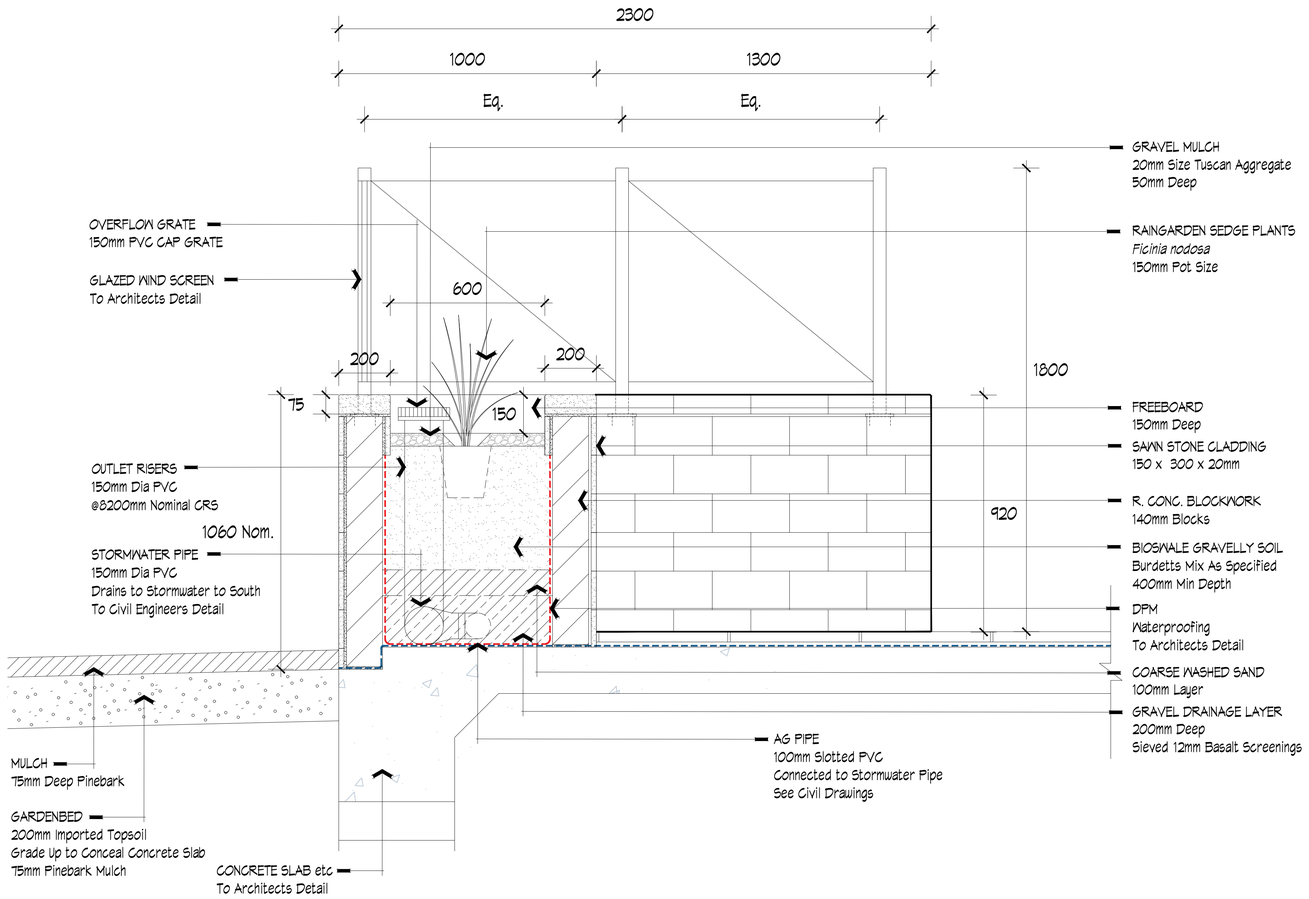
FORMium LANDSCAPE ARCHITECTS URBAN DESIGNERS

Project
FIELDWORX HOUSE

Drawing Title
LANDSCAPE DETAIL
SHEET 9 - LEVEL 2
TABLE + BENCH

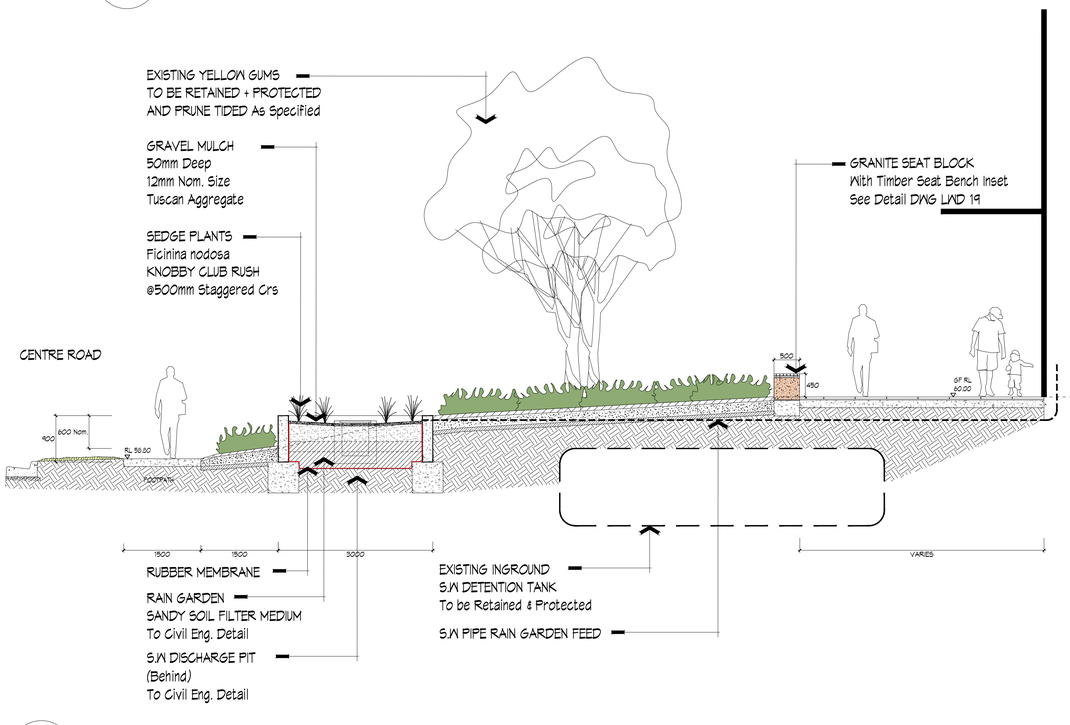
Scale	Date
As Shown @ B1	MAY 2025

Project Number	File/Drawing Number	Revision
2194	LDD 20	C

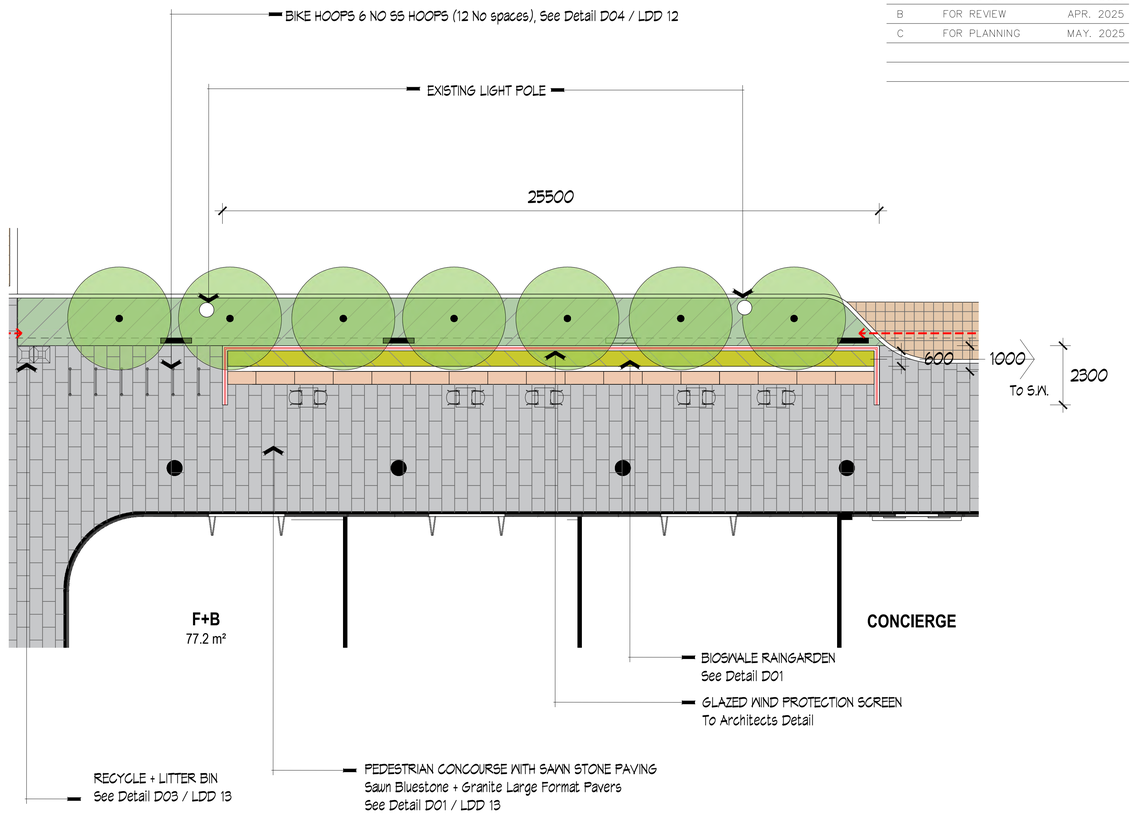


D01 TYPICAL RAINGARDEN PLANTER DETAIL SECTION
Scale 1:10 @ B1 Size

NOTE: REFER TO CIVIL DRAWINGS FOR BIO-RETENTION MEDIA SPECIFICATION AND DETAILS



D03 SOUTHERN RAINGARDEN PLANTER DETAIL SECTION
Scale 1:50 @ B1 Size



D02 RAINGARDEN PLANTER DETAIL SECTION
Scale 1:100 @ B1 Size

REV NO.	ISSUE	DATE
A	FOR REVIEW	MAR. 2025
B	FOR REVIEW	APR. 2025
C	FOR PLANNING	MAY. 2025

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FORMium LANDSCAPE ARCHITECTS URBAN DESIGNERS

Project
FIELDWORX HOUSE

Drawing Title
LANDSCAPE DETAIL
SHEET 10 GROUND LEVEL
RAIN GARDEN

Scale: As Shown @ B1
Date: MAY 2025
Project Number: 2194
File/Drawing Number: LDD 21
Revision: C

REV NO.	ISSUE	DATE
A	FOR REVIEW	MAR. 2025
B	FOR REVIEW	APR. 2025
C	FOR PLANNING	MAY. 2025

PLANT SCHEDULE

BOTANICAL NAME	COMMON NAME	SUPPLY SIZE	APPROXIMATE MATURE SIZE (HxW) (25 yrs)
TREES			
Allocasuarina verticillata	Drooping She-oak	45 litre, 2.0m ht	8 x 6m
Acer freemanii 'Autumn Blaze'	Autumn Blaze Maple	100 litre, 3.6m ht	9 x 6m
Acer rubrum 'October Glory'	October Glory Maple	100 litre, 3.6m ht	9 x 6m
Angophora costata	Smooth Barked Apple	100 litre, 3.6m ht	12 x 6m
Eucalyptus pryoriana	Coast Manna Gum	200mm pot size	8 x 6m
Laurus nobilis	Bay Tree	100 litre, 2.1 m ht	6 x 4m
Pyrus calleryana 'Capital'	Capital Ornamental Pear	75 litre, 2.4 m ht	7 x 4m
Tristaniopsis laurina 'Luscious'	Luscious kanuka	100 litre, 3.0 m ht	6 x 4m
SMALL TREES			
Acacia implexa	Lightwood	200mm pot size	6 x 3m
Banksia marginata	Sliver Banksia	200mm pot size	5 x 4m
Elaeocarpus eumundi	Bronze Leaf Quandong	75 litre, 2.0m ht	4 x 2m
Elaeocarpus reticulatus 'Prima Donna'	Pink Blueberry Ash	100 litre, 2.0m ht	4 x 2m
Eucalyptus pauciflora 'Little Snowman'	Little Snowman Snow Gum	75 litre, 2.1m ht	6 x 4m
Lagerstroemia indica 'Biloxi'	Pink Crepe Myrtle	100 litre, 2.1m ht	5 x 4m
Lagerstroemia indica 'Natchez'	White Crepe Myrtle	100 litre, 2.1m ht	5 x 4m
Lagerstroemia indica 'Sioux'	Hot Pink Crepe Myrtle	100 litre, 2.1m ht	5 x 4m
Magnolia 'Teddy Bear'	Teddy Bear Magnolia	100 litre, 2.0m ht	4 x 2m
HEDGE AND SCREEN PLANTS (CLIPPED)			
Camelia sasanqua 'Yuletide'	Yuletide Camellia	300mm pot size	1 x 1m
Ficus hillii 'Flash'	Ficus Flash (Clipped Hedge)	300mm pot size	1m x 0.7m
Murraya paniculata	Orange Jasmine	300mm pot size	1m x 0.7m
Prunus lusitanica	Portugal Laurel (Clipped Hedge)	300mm pot size	1.5 x 0.7m
Viburnum 'Tinus'	Laurustinus	300mm pot size	1 x 1 m
Viburnum odoratissimum 'Awabuki'	Sweet Viburnum	300mm pot size	1 x 0.7m
SHRUBS			
Abelia grandiflora 'Nana'	Dwarf Showy Abelia	200mm pot size	1 x 1m
Azalea 'Alba Magna'	White Flowering Azalea	200mm pot size	0.6 x 0.7m
Correa alba	White Correa	200mm pot size	1.2 x 1.5m
Correa reflexa	Native Fuchsia	200mm pot size	1 x 1m
Rosmarinus officinalis	Rosemary	150mm pot size	0.7 x 0.7m
Rosmarinus officinalis 'Blue Lagoon' REV C	Blue Lagoon Rosemary	200mm pot size	0.7 x 0.7m
Rosmarinus officinalis 'Prostratus'	Creeping Rosemary	200mm pot size	0.4 x 0.9m
Westringia fruticosa	Native Rosemary	200mm pot size	1.8 x 1.8m
Westringia fruticosa 'Mundi'	Mundi Westringia	200mm pot size	1.2 x 1.2m
TUFT LEAF PLANTS			
Dianella caerulea 'Little Jess'	Little Jess Dianella	150mm pot size	0.4m tuft
Dianella revoluta	Dianella	150mm pot size	0.6m tuft
Dietes grandiflora 'Variegata'	Variegated Dietes	150mm pot size	0.5m tuft
Ficinia nodosa	Knobby Club Rush	150mm pot size	0.3m tuft
Liriope gigantea	Giant Liriope	150mm pot size	0.6m tuft
Liriope muscari	Liriope	150mm pot size	0.6m tuft
Lomandra longifolia	Mat Rush	150mm pot size	0.9m tuft
Lomandra 'Tanika'	Tanika Lomandra	150mm pot size	0.6m tuft
GROUND COVERS			
Correa alba (Prostrate Form)	Prostrate White Correa	200mm pot size	0.6 x 1.0m
Correa glabra (Prostrate Form)	Dwarf Rock Correa	200mm pot size	0.6 x 0.8m
Myoporum insulare 'Prostrate'	Creeping Coastal Boobialla	200mm pot size	0.6 x 1.0m
Ophiopogon japonica 'Nana'	Dwarf Mondo Grass	150mm pot size	0.1m Tuft
Ophiopogon planiscapus 'Nigressens Nana'	Dwarf Black Mondo	150mm pot size	0.1m Tuft
Rhagodia spinescens 'Silver Border'	Silver Border Saltbush	150mm pot size	0.6 x 0.9m
Westringia 'Flat & Fruity'	Flat n Fruity Rosemary	200mm pot size	1.2 x 1.2m
Westringia 'Low Horizon'	Low Horizon Westringia	200mm pot size	0.3 x 0.7m

BOTANICAL NAME	COMMON NAME	SUPPLY SIZE	APPROXIMATE MATURE SIZE (HxW) (25 yrs)
RAMBLERS + CLIMBERS			
Wisteria sinensis 'Alba'	Japanese Wisteria	200mm pot size	3m ht
Wisteria sinensis 'Blue'	Chinese Wisteria	200mm pot size	3m ht
Trachelospermum jasminoides	Star Jasmine	200mm pot size	6m ht
TUBESTOCK PLANTS			
Myoporum parvifolium	Creeping Boobialla	50mm Tubestock	0.3 x 1.5m
Ficinia nodosa	Knobby Club Rush	50mm Tubestock	0.3m tuft
Lomandra longifolia	Mat Rush	50mm Tubestock	0.9m tuft

Rosmarinus officinalis 'Prostratus'
CREEPING ROSEMARY

Pellicano

i2C

FORMium LANDSCAPE ARCHITECTS URBAN DESIGNERS

Project
FIELDWORX HOUSE

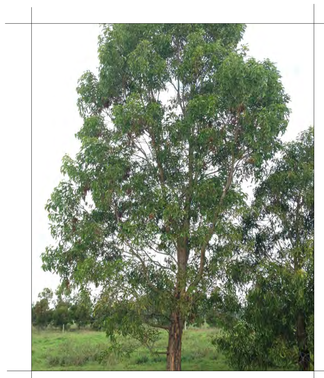
Drawing Title
PLANT SCHEDULE

Scale
Date
MAY 2025

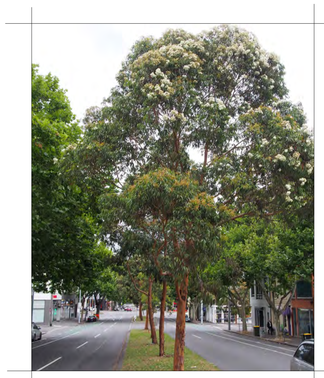
Project Number | File/Drawing Number | Revision
2194 | LDD 30 | C

REV NO.	ISSUE	DATE
A	FOR REVIEW	MAR. 2025
B	FOR REVIEW	APR. 2025
C	FOR PLANNING	MAY. 2025

Acer freemanii 'Autumn Blaze'
AUTUMN BLAZE MAPLE



Acacia melanoxylon
BLACKWOOD



Angophora costata
SMOOTH BARKED APPLE

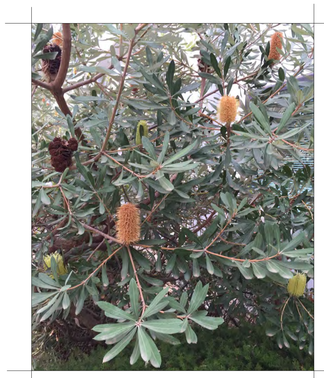
Eucalyptus pryoriana
COAST MANNA GUM

Pyrus calleryana 'Capital'
CAPITAL ORNAMENTAL PEAR

Tristaniopsis laurina 'Luscious'
LUSCIOUS KANUKA

TREES

Acacia implexa
LIGHTWOOD



Banksia marginata
SILVER BANKSIA

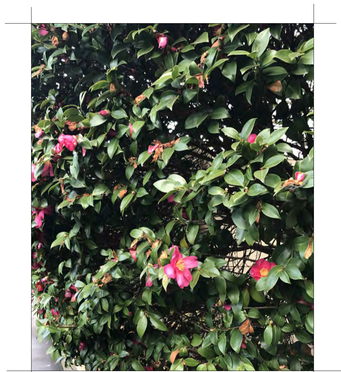
Elaeocarpus reticulatus 'Prima Donna'
PINK BLUEBERRY ASH

Eucalyptus pauciflora 'Little Snowman'
LITTLE SNOWMAN GUM

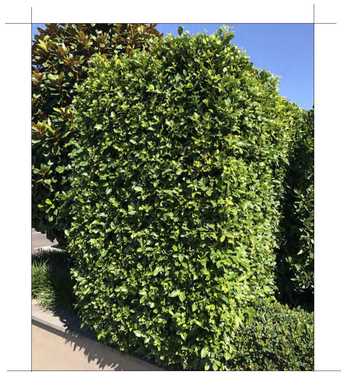
Lagerstroemia indica 'Natchez'
WHITE CREPE MYRTLE

Magnolia 'Teddy Bear'
TEDDY BEAR MAGNOLIA

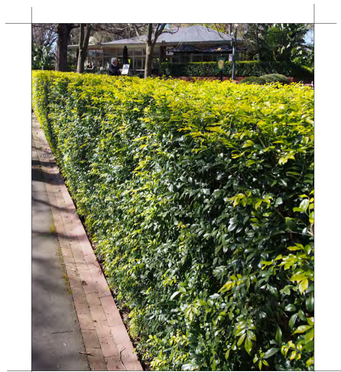
SMALL TREES



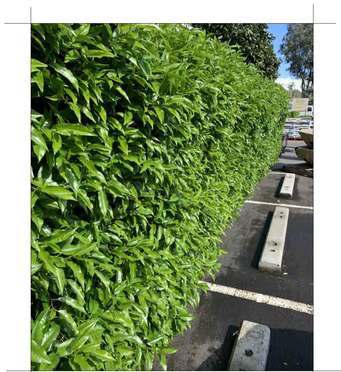
Camellia sasanqua 'Yuletide'
YULETIDE CAMELLIA



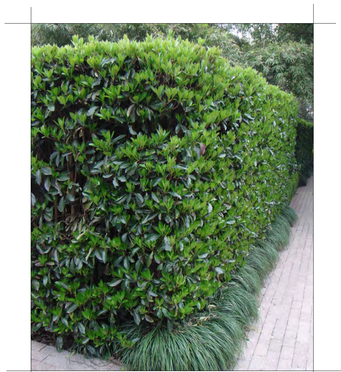
Ficus hillii 'Flash'
FICUS FLASH (CLIPPED HEDGES)



Murraya paniculata
ORANGE JASMINE



Prunus lusitanica
PORTUGAL LAUREL (CLIPPED HEDGES)



Viburnum 'Awabuki'
CHINDO VIBURNUM

Viburnum 'Tinus'
LAURUSTINUS

LARGE SHRUBS + HEDGE AND SCREEN PLANTS (CLIPPED)

PLANT PHOTO SHEET 1

Pellicano

i2C

FORMium LANDSCAPE ARCHITECTS URBAN DESIGNERS

Project
FIELDWORX HOUSE

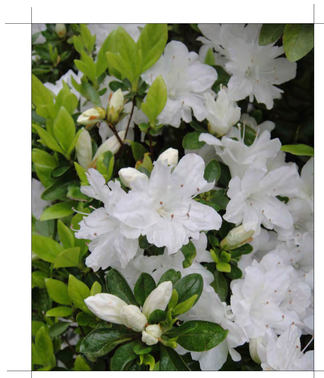
Drawing Title
PLANT PHOTOSHEET 1

Scale	Date
NTS	MAY 2025

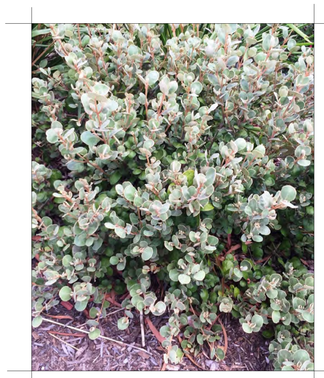
Project Number	File/Drawing Number	Revision
2194	LDD 31	C

REV NO.	ISSUE	DATE
A	FOR REVIEW	MAR. 2025
B	FOR REVIEW	APR. 2025
C	FOR PLANNING	MAY. 2025

Abelia grandiflora 'Nana'
DWARF SHOWY ABELIA



Azalea 'Alba Magna'
WHITE FLOWERING AZALEA



Correa alba
WHITE CORREA

Correa reflexa
NATIVE FUCHSIA

Westringia fruticosa
NATIVE ROSEMARY

Westringia fruticosa 'Mundi'
MUNDI WESTRINGIA

SHRUBS

Dianella caerulea 'Little Jess'
LITTLE JESS DIANELLA

Dietes grandiflora 'variegata'
VARIEGATED DIETES

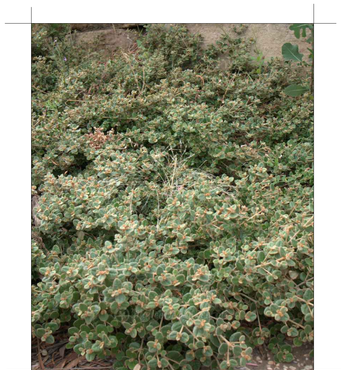
Ficinia nodosa
KNOBBY CLUB RUSH

Liriope gigantea
GIANT LIRIOPE

Liriope muscari
LIRIOPE

Lomandra 'Tanika'
TANIKA LOMANDRA

TUFT LEAF PLANTS



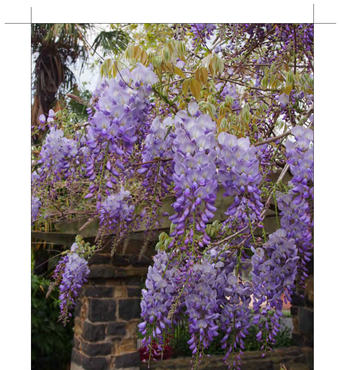
Correa alba (Prostrate Form)
PROSTRATE WHITE CORREA

Rhagodia spinescens 'Silver Border'
SILVER BORDER SALTBUSH

Rosmarinus officinalis 'Prostratus'
CREEPING ROSEMARY

Westringia 'Low Horizon'
LOW HORIZON WESTRINGIA

Wisteria sinensis 'Alba'
Japanese Wisteria



Wisteria sinensis 'Blue'
Chinese Wisteria

GROUND COVERS + CLIMBERS

PLANT PHOTO SHEET 2

Pellicano

i2C

FORMium LANDSCAPE ARCHITECTS URBAN DESIGNERS

Project
FIELDWORX HOUSE

Drawing Title
PLANT PHOTOSHEET 2

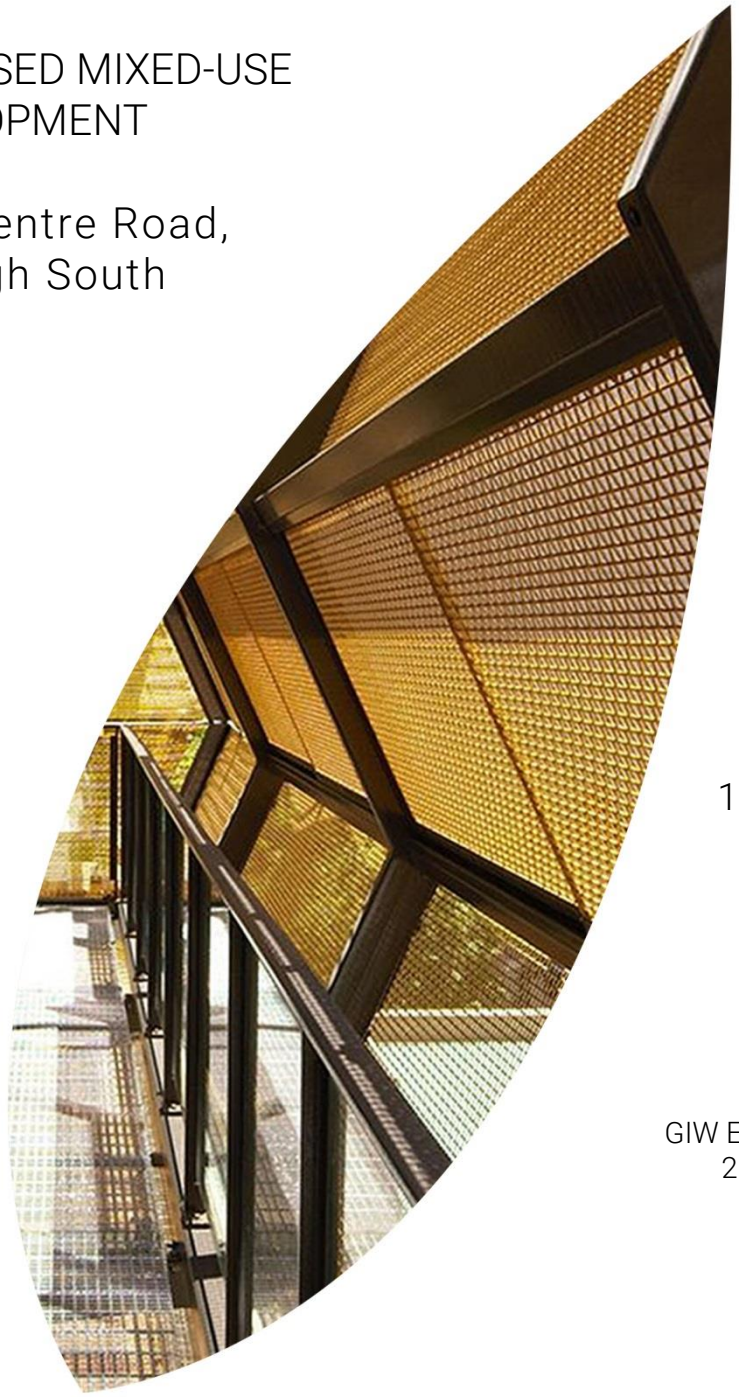
Scale	Date
NTS	MAY 2025

Project Number	File/Drawing Number	Revision
2194	LDD 32	C

SUSTAINABLE MANAGEMENT PLAN

PROPOSED MIXED-USE DEVELOPMENT

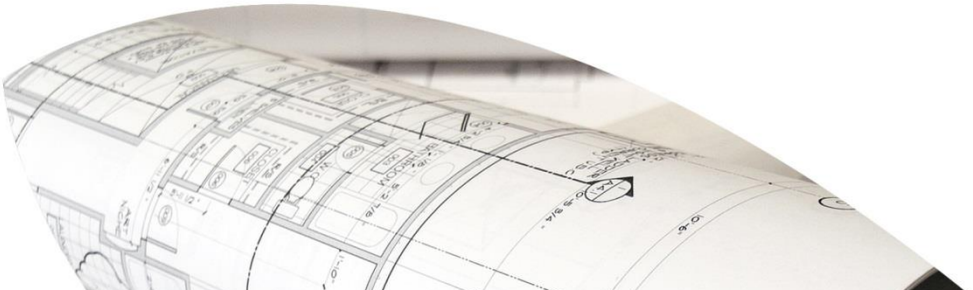
1041 Centre Road,
Oakleigh South



GIW20113
Revision H

Prepared for:
1041 Centre Road Pty Ltd

6 May 2025



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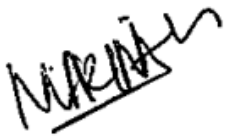
Revision History

Revision Number	Date Issued	Author	Approved	Comments
A	14/07/2021	IB	GW	Draft
B	22/07/2021	IB	GW	Final
C	27/07/2021	IB	GW	Final
D	20/10/2022	MS	IB	Draft - VCAT
E	31/10/2022	MS	IB	VCAT
F	28/6/2023	MS	IB	For Endorsement
G	25/3/2025	MS	IB	Draft - Secondary Consent
H	6/5/2025	MS	IB	Secondary Consent

Prepared by:
Project Consultant:



Mareena Saleem
ESD engineer
B.Eng (Mechanical)
M. (Energy Efficient and Sustainable Building)

Approved by:
Project Team Leader:

Ines Buskermolen
ESD Consultant
B.Sc. (Science, Business and Innovation)
M.Sc. (Sustainable Development)

Contents

1. Introduction

Project Information

GIW Environmental Solutions Pty Ltd ("GIW") has been engaged by 1041 Centre Road Pty Ltd to provide Environmentally Sustainable Design (ESD) consulting services for the proposed mixed use development at 1041 Centre Road, Oakleigh South.

The proposed development will include 133 apartments, 24 hotel suites, 4 retail tenancies, 9 F&B tenancies and a supermarket constructed over 8 levels plus level 1 carpark and outdoor carpark and will consist of the following:

- 74 x 1-bedroom apartments
- 54 x 2-bedroom apartments
- 5 x 3-bedroom apartments
- 1 x 1-bedroom hotel suite
- 19 x 2-bedroom hotel suites
- 4 x 3-bedroom hotel suites
- 1,452m^2 retail and F&B
- 1,505m^2 supermarket

The site located at 1041 Centre Road, Oakleigh South has an approximate surface area of 11,272m^2 and is currently the location of a commercial building and outdoor carpark. Distance from the site to Melbourne CBD is approximately 18km.

Figure 1 - Pre-existing sites at 1041 Centre Road, Oakleigh South.

Statutory Requirements

This Sustainable Management Plan (SMP) has been prepared to inform City of Monash of the proposed development's sustainability credentials and performance targets. The project team is committed to achieving a building solution which responds to City of Monash Planning Scheme - Clause 15.01-2L-02 Environmentally Sustainable Development Policy.

Development Type	Application Requirement	Example Tools
Development of 10 or more dwellings.	Sustainability Management Plan (SMP)	BESS Green Star MUSIC STORM

Built Environment Sustainability Scorecard (BESS)

The proposed mixed-use development will be assessed against the Built Environment Sustainability Scorecard (BESS) guidelines. The BESS tool addresses nine key environmental categories as follows:

Figure 2 - BESS Environmental Categories (www.bess.net.au)

All ESD measures described under the nine key environmental categories are to be suitably incorporated into relevant project documentation at the appropriate project phase.

Responsibilities & Implementation

1041 Centre Road Pty Ltd will be responsible for the suitable implementation of the requirements of this report throughout the design and development phases. Should the development be sold the responsibility will pass to the new owner. At such time as a builder is novated or a building contract is put in place the builder will be responsible for implementation during the construction phase. At occupancy, the Owners Corporation and individual lot owners and or tenants will be responsible for the correct use of installed equipment and building systems in line with the provided Building User's Guide.

Sources of Information

The following 'Sources of Information' have been used to guide the design solutions:

- i2C | Ryder – Project No. 2020-506 – Drawing No. DA02 Rev TP8; DA10-DA11 Rev TP6; DA12 Rev TP8; DA13 Rev TP9; DA20 TP4; DA21 Rev TP5; DA30 Rev TP13; DA31 Rev TP0; DA32-DA37 Rev TP0; DA40 Rev TP10; DA41 Rev TP9; DA42 Rev TP6; DA43-DA44 Rev TP5; DA48-DA49 Rev TP3; DA50-DA51 Rev TP6; DA60-DA61 Rev TP6; DA62 Rev TP0; DA63-DA65 Rev TP1; DA77-DA78 Rev TP3; DA80-DA81 Rev TP7; DA82 Rev TP8; DA100-DA102 Rev TP2; DA130 Rev TP5.
- Formium – Project No. 2194 – LDD Rev B (dated 30/04/2025)
- Municipal Association of Victoria - SDAPP Explained; Building Design for a Sustainable Future
- Built Environment Sustainability Scorecard (BESS)
- CSIRO 1999, Urban Stormwater – Best Practise Environmental Management Guidelines

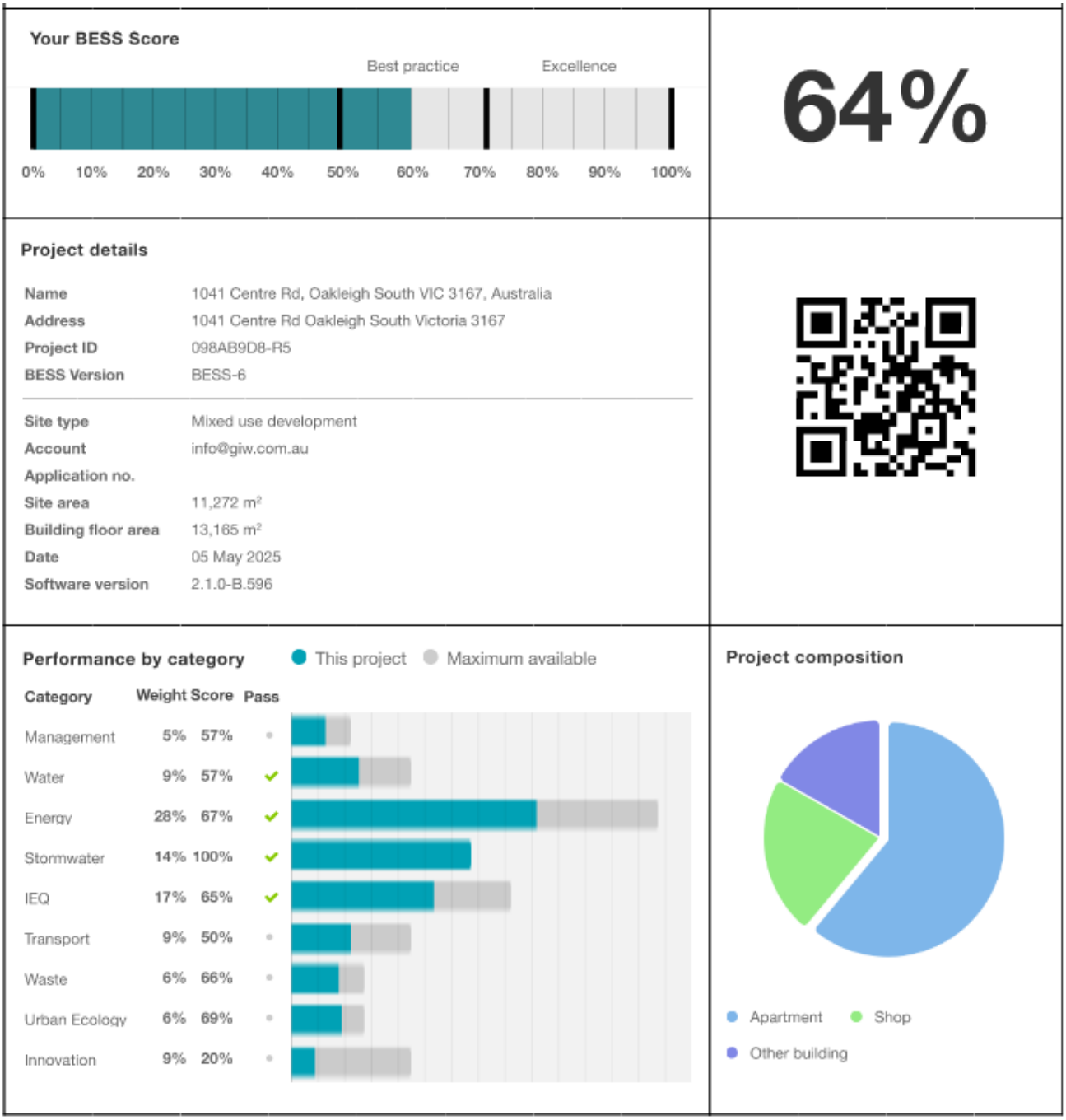
2. ESD Summary

The proposed mixed-use development at 1041 Centre Road, Oakleigh South will implement the following ESD initiatives:

1. The project achieves a total BESS score of 64% with no mandatory category (IEQ, Energy, Water, Stormwater) below 50%.
2. 64% (85 out of 133) of the development's apartments are effectively naturally ventilated via cross ventilation or mechanically assisted natural ventilation.
3. The BESS Built-in Daylight Calculator has been used to demonstrate compliance.
4. Hotel areas are targeting a 2% DF to 40% of the nominated area. Remaining non-residential areas are targeting a 2% DF to 33% of the nominated area.
5. 24% (32 out of 133) of apartments achieve at least 3 hours of sunlight.
6. The development is provided with a comprehensive shading strategy.
7. The development is to achieve a 7.5 Star average NatHERS Energy Rating result.
8. The non-residential areas aim to reduce heating and cooling energy consumption below the reference case (BCA Section J 2019).
9. The development is to utilise a heat pump hot water system.
10. A 99kW Solar PV system is to be located on the roof of the proposed development.
11. Individual cold water and electricity meters will be provided to the apartments, hotel component and communal areas.
12. Water efficient fittings and fixtures are applied throughout.
13. A 20,000-litre rainwater tank will harvest rainwater from the upper roof areas. This tank will be connected to all commercial WC's and landscape irrigation.
14. A Melbourne STORM rating of 101% is achieved.
15. Landscape irrigation demand will be connected to the rainwater tank.
16. In total 27 bicycle spaces and a bicycle workshop are to be provided for residents.
17. In total 32 bicycle spaces are to be provided for residential visitors at ground level.
18. In total 8 bicycle spaces are to be provided for employees.
19. 12 bicycle spaces are to be provided for non-residential visitors.
20. Min. 132m2 of communal space will be provided for the apartments at level 2 podium and northwest corner.
21. Min. 210m^2 communal space will be provided for the F&B/retail areas at ground level.

3. BESS Performance

The project achieves a total BESS score of 64% with no mandatory category (IEQ, Energy, Water, Stormwater) below 50%. This figure represents a percentage improvement over a benchmark project. A score of 50% and higher equates to 'best practice' and is an effective pass of the BESS tool. A score of 70% and higher equates to BESS 'excellence' and exists as a higher benchmark in the tool.



4. ESD Assessment

Management

Council ESD objectives:

- To encourage a holistic and integrated design and construction process and ongoing high performance.

Council Best Practice Standard

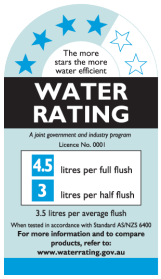
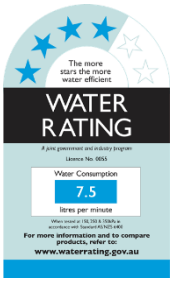
Criteria		Construction and Building Management Actions
Pre-Application Meeting	To ensure appropriate sustainable design principles and strategies are considered from the preliminary design stage of each development.	GIW has been actively involved in the preliminary design stage, but has not been involved in a pre-application meeting with Council.
Metering	To provide building users with information that allows monitoring of energy and water consumption	Electricity and cold-water metering is to be provided to each individual apartment, hotel component and commercial tenancies. Lighting and general power to common areas is to be separately metered to quantify energy used for common areas spaces.
Building User's Guide	To encourage and recognise initiatives that will help building users to use the building more efficiently.	A Building User's Guide will be provided to all occupants explaining the correct use of installed equipment and building systems. This shall cover at a minimum: • Energy and Environmental Strategy • Options for purchasing a ≥3 Star Washing Machine • Monitoring and Targeting • Building Services • Transport Facilities • Materials and Waste Policy • Expansion/Re-fit Considerations • References and Further Information

Water

Council ESD objectives:

- To ensure the efficient use of water
- To reduce total operating potable water use
- To encourage the collection and reuse of stormwater
- To encourage the appropriate use of alternative water sources (e.g. grey water)
- To minimize associated water costs

Council Best Practice Standard

Criteria		Development Provision
Potable Water Reduction	To reduce total potable water use due through the use of efficient fixtures, appliances, and the use of rainwater.	WELS 4 Star - Toilets  WELS 5 Star - Taps  WELS 4 Star - Showerhead  WELS 5 Star - Dishwasher 
Rainwater Collection & Reuse		A 20,000-litre rainwater tank will harvest rainwater from the upper roof areas. This tank will be connected to all commercial WC's and landscape irrigation. It is estimated that this will save more than 448kL of potable water every year and meet 18.1% of the demand in these areas. Stormwater drainage mechanism is to be determined by the hydraulics services engineer at the design development phase. Refer Appendix A – WSUD Response
Landscape Irrigation	To ensure the efficient use of water and to reduce total operating potable water use through encouraging water efficient landscape design.	Landscape irrigation demand will be connected to the rainwater tank.

Council Best Practice Standard

Criteria		Development Provision
Building System Water Use Reduction	Ensure the efficient use of water, to reduce total operating potable water use and to encourage the appropriate use of alternative water sources for cooling and fire testing systems.	>80% of fire test water is to be reused on site. Sprinkler drain downs are to be connected to the rainwater tank and reused for toilet flushing. The proposed development is to incorporate air-cooled HVAC systems for both the residential and non-residential areas within the development.

Energy

Council ESD objectives:

- To ensure the efficient use of energy
- To reduce total operating greenhouse emissions
- To reduce energy peak demand
- To reduce associated energy costs

Council Best Practice Standard

Criteria		Development Provision
Thermal Performance Rating - Residential	To reduce energy needed to achieve thermal comfort in summer and winter - improving comfort, reducing greenhouse gas emissions, energy consumption, and maintenance costs.	The National Construction Code (NCC) Class 2 – Sole Occupancy Unit(s) residential building component is to be designed in accordance with NCC Section J (2019) NatHERS requirements. The residential units must achieve an average 7.5 Star rating, with no unit achieving below 5 Stars. Further to this no dwelling is to exceed the maximum allowed cooling load of 21 MJ/m2 (Climate Zone 62 Moorabbin) In accordance with BADS Standard B35. The apartments are currently achieving a 7.7 Star average. This represents > 10% reduction compared to minimum NCC compliance benchmarks. The below sample ratings demonstrate the developments' ability to achieve this average. Refer Appendix B for Preliminary FirstRate5 Certificates.

Apartment No.	ACE Total MJ/M2	ACE Heating	ACE Cooling	ACE NCFA	Star Rating
2.01	108.2	103	5.2	41.2	6.4
3.14	44.1	36.7	7.4	64.5	8.4
4.02	64.4	56.7	7.7	97.2	7.8
5.26	33.3	21.2	12.1	43.7	8.8
6.04	60	48.9	11.1	41.2	7.9
7.11	89.2	79.4	9.8	64.5	7.1
Average	**66.5**	**57.7**	**8.9**	**58.7**	**7.7**

*Apartments are assessed using FirstRate5 v5.3.2

Construction assumptions for preliminary FirstRate5 ratings are listed below. Note, these assumptions are based on the sample of apartments assessed and may vary throughout the

Council Best Practice Standard

<table>
<tr><th>Criteria</th><th></th><th>Development Provision</th></tr>
<tr><td></td><td></td><td>development. These assumptions are not to be relied upon for any other purpose beyond Town Planning assessment.

<table>
<tr><th>Element</th><th>Material</th><th>Insulation Value</th></tr>
<tr><td>Floor</td><td>Concrete</td><td>R1.1</td></tr>
<tr><td>External Walls</td><td>Concrete</td><td>R2.7</td></tr>
<tr><td>Internal Walls</td><td>Plasterboard</td><td>R2.7</td></tr>
<tr><td>Roof</td><td>Concrete</td><td>R2.3</td></tr>
<tr><td>Fixed Windows</td><td>Aluminium framed, Double glazed, Argon filled, Low-E, Clear</td><td>Total System:
• U-value: 2.71
• SHGC: 0.58</td></tr>
<tr><td>Sliding Doors</td><td>Aluminium framed, Double glazed, Argon filled, Low-E, Clear</td><td>Total System:
• U-value: 3.19
• SHGC: 0.48</td></tr>
<tr><td>Awning Windows</td><td>Aluminium framed, Double glazed, Argon filled, Low-E, Clear</td><td>Total System:
• U-value: 4.42
• SHGC: 0.41</td></tr>
</table></td></tr>
<tr><td>Thermal Performance Rating – Non-Residential</td><td>To reduce energy needed to achieve thermal comfort in summer and winter - improving comfort, reducing greenhouse gas emissions, energy consumption, and maintenance costs.</td><td>The non-residential areas aim to reduce heating and cooling energy consumption below the reference case (BCA Section J 2019).</td></tr>
<tr><td>Electrification</td><td>To support the transition to renewable energy sources.</td><td>The development will be all-electric with provision of gas for F&B commercial cooking only.</td></tr>
</table>

Council Best Practice Standard

Criteria		Development Provision
HVAC System	To ensure the efficient use of energy and to reduce consumption of electricity.	Inverter split systems are to be installed and sized to maintain conditions of the main living space of each apartment. The efficiency of the air conditioning system is to be within 1 star rating of best available under MEPS Post-October 2012 measurement standard. VRV / VRF systems with a COP of 3.4 are to be installed to the non-residential areas.
Hot Water System	To ensure the efficient use of energy and to reduce consumption and greenhouse emissions from water heating.	The development is to utilise a heat pump hot water system.
Car Park Ventilation	To ensure the efficient use of energy, reduce total operating greenhouse gas emissions and to reduce energy peak demand.	Carpark ventilation fans are driven by a VSD motor connected to CO sensors within the carpark. The inclusion of CO sensor control will allow the ventilation fans to ramp down when the car park is unoccupied. The system is to be designed in accordance with AS1668.2. The mechanical services engineer is responsible for the design and specification of the system. The contractor is to procure and install the specified system. Maintenance requirements of the CO sensor system are to be included in the O&M manual.
Clothes Drying	Ensure the efficient use of energy and to reduce energy consumption and greenhouse emissions associated with clothes drying	Communal clothes drying facilities will be provided at rooftop terrace.
Internal Lighting - Residential	To ensure the efficient use of energy, to reduce energy	The maximum illumination power density (W/sqm) is at least 20% lower than NCC 2019 requirements. Lighting power density shall be as follows:

Council Best Practice Standard

Criteria		Development Provision
	consumption, greenhouse emissions associated with artificial lighting, and to reduce energy peak demand.	• Dwellings: No greater than average 4W/m^2 • POS: No greater than average 3.2W/m^2 • Back of house and indoor car parks: No greater than average 1.6W/m^2 All common area, external and carpark lighting is to be controlled with daylight, motion sensors or timers (whichever is deemed appropriate).
Internal Lighting – Non-Residential	To ensure the efficient use of energy, to reduce energy consumption, greenhouse emissions associated with artificial lighting, and to reduce energy peak demand.	The maximum illumination power density (W/m2) in the non-residential areas meets the requirements of Table J6.2a of the NCC 2019 Section J. Lighting power density shall be as follows: • Retail: No greater than average 14W/m^2 • Office: No greater than average 4.5W/m^2 • Hotel Rooms: No greater than average 5W/m^2
Renewable Energy Systems - Solar	To encourage on-site renewable energy generation and reduce greenhouse emissions.	A 99kW Solar PV system is to be located on the roof of the proposed development. The system is expected to generate approximately 133,881kWh and will be connected to an embedded network serving the development.  Location Solar PV System Refer Appendix C – Renewable Energy

Stormwater

Council ESD objectives:

- To reduce the impact of stormwater run-off
- To improve the water quality of stormwater run-off
- To achieve best practice stormwater quality outcomes
- To incorporate water sensitive urban design principles

Council Best Practice Standard

Criteria		Development Provision
		The Melbourne Water - Stormwater Treatment Objective Relative Measure (STORM) tool has been applied to determine performance relative to Best Practice Environmental Management Guidelines (Victoria Stormwater Committee, 1999). As per City of Monash Planning Scheme - Clause 53.18 Stormwater Management in Urban Development, the development is required to achieve a STORM rating of 100% or greater.
Stormwater Treatment	To minimise negative environmental impacts of stormwater runoff and maximise onsite re-use of stormwater.	A Melbourne STORM rating of 101% is achieved via the following: • Rainwater is to be collected from the upper roof areas and directed into the 20,000-litre rainwater tank. All commercial WC's and landscape irrigation are to be connected to the rainwater tank. • Rainwater is to be collected from hotel suites roof and directed into a 15m^2, minimum 950mm deep raingarden with 100mm of extended detention. • Rainwater is to be collected from the outdoor carpark and directed into a total 2.75m^2 x 12 (total 33m^2), minimum 950mm deep raingardens with 100mm of extended detention. • Rainwater is to be collected from level 2 podium and terraces including communal area roof and directed into a 16.3m^2 x 3 (total 49m^2), minimum 950mm deep raingardens with 100mm of extended detention. Refer Appendix A – WSUD Response.

Indoor Environment Quality

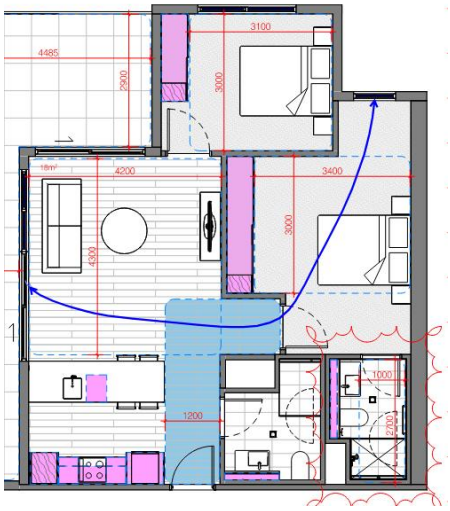
Council ESD objectives:

- to achieve a healthy indoor environment quality for the wellbeing of building occupants.
- to provide a naturally comfortable indoor environment will lower the need for building services, such as artificial lighting, mechanical ventilation and cooling and heating devices.

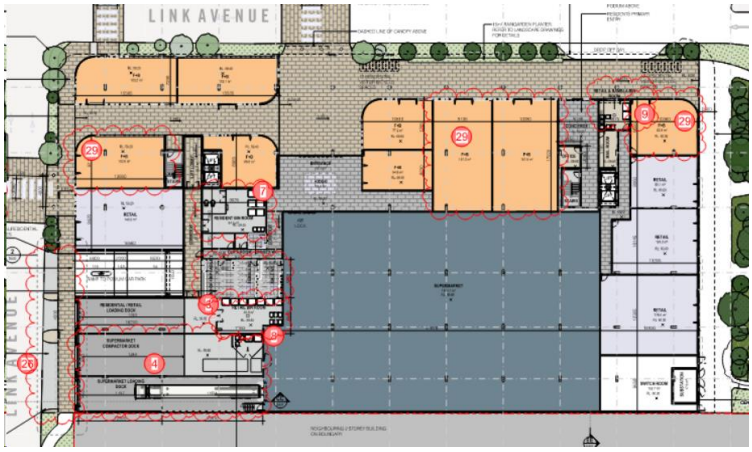
Council Best Practice Standard

Criteria		Development Provision
Daylight Access - Residential	To provide a high level of amenity and energy efficiency through design for natural light.	The BESS Built-in Daylight Calculator has been used to demonstrate compliance.
Winter Sunlight	To provide a high level of amenity and reduce need for artificial heating in winter.	24% (32 out of 133) of apartments achieve at least 3 hours of sunlight.
Daylight Access – Non-Residential	To provide a high level of amenity and energy efficiency through design for natural light.	Hotel areas are targeting a 2% DF to 40% of the nominated area. Remaining non-residential areas are targeting a 2% DF to 33% of the nominated area.
Minimal Internal Bedrooms	90% of bedrooms have an external window.	NIL internal bedrooms.
Effective Natural Ventilation	To provide fresh air and passive cooling opportunities.	<u>Type 2B and Type 3A</u> 8% (10 out of 133) of the development's apartments are cross-ventilated Apartments are provided with windows on opposite or adjacent facades. <u>Single Aspect 1-Bedroom Apartments</u> 56% (75 out of 133) of the development's apartments are provided with mechanically assisted natural ventilation Overall, 64% (85 out of 133) are effectively naturally ventilated.

Council Best Practice Standard

Criteria		Development Provision
		 Typical natural cross-ventilated apartment
Ventilation – Non-Residential	To provide fresh air and passive cooling opportunities.	Outdoor air rate for the hotel suites, supermarket, F&B and retail tenancies is to be increased 50% compared to AS 1668:2012. This is to be included in the mechanical design and specifications.
Thermal Comfort	To provide comfortable indoor spaces and reduce energy needed for heating and cooling.	The development is provided with a comprehensive shading strategy:  Recessed north, west and east windows at level 1-7 are shaded by feature moveable perforated panels and the overhanging balcony of the floor above.

Council Best Practice Standard

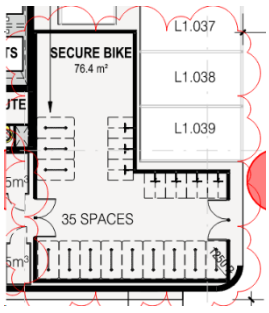
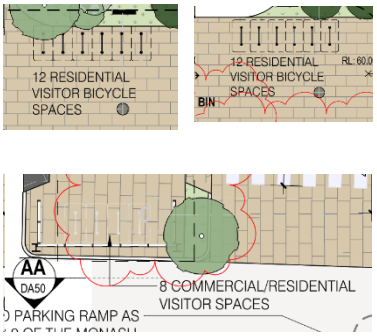
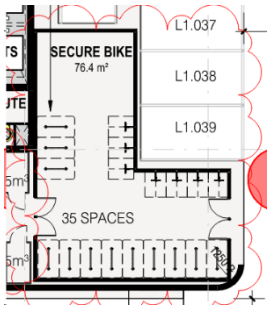
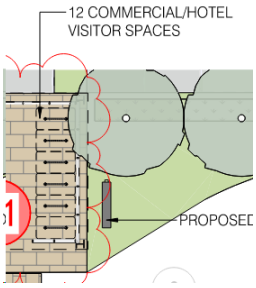
Criteria		Development Provision
Thermal Comfort – Non-Residential	To provide comfortable indoor spaces and reduce energy needed for heating and cooling.	The development is provided with a comprehensive shading strategy:  Majority of the retail areas, F&B areas, supermarket and hotel rooms are shaded by the overhanging slab of the floor above
		None of the regular use areas of the non-residential areas are provided with ceiling fans.
Air Quality – Non-Residential	All paints and adhesives meet the maximum total indoor pollutant emission limits.	All internally applied paints adhesives and sealants are to have a low or ultra-low VOC content in line with Green Star Buildings V1Credit 13.
	All carpet meets the maximum total indoor pollutant emission limits.	All internally applied carpets are to have a low VOC content in line with Green Star Buildings V1Credit 13.
	All engineered wood meets the maximum total indoor pollutant emission limits.	All internally applied engineered wood products are to have low formaldehyde levels in line with Green Star Buildings V1Credit 13.

Transport

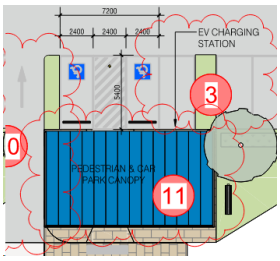
Council ESD objectives:

- To minimise car dependency.
- To ensure that the built environment is designed to promote the use of public transport, walking and cycling.

Council Best Practice Standard

Criteria		Development Provision	
Bicycle Parking – Residential & Residential Visitors	To encourage and recognise initiatives that facilitate cycling.	 In total 27 bicycle spaces and a bicycle workshop are to be provided for residents.	 In total 32 bicycle spaces are to be provided for residential visitors at ground level. This will provide a ratio of approximately 1 visitor bicycle space for every 5 apartments.
Bicycle Parking – Non-Residential & Non-Residential Visitors	To encourage and recognise initiatives that facilitate cycling.	 In total 8 bicycle spaces are to be provided for employees.	 In total 12 bicycle spaces are to be provided for non-residential visitors. This represents a 50% increase over the planning scheme requirements.

Council Best Practice Standard

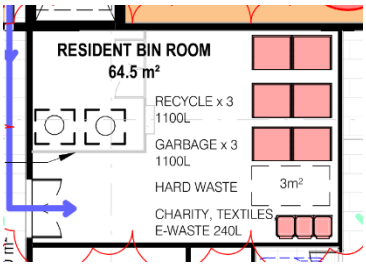
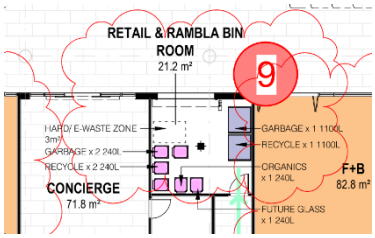
Criteria		Development Provision
End of Trip Facilities – Non-Residential	To minimise car dependency and to ensure that the built environment is designed to promote the use of public transport, walking and cycling.	The development is provided with an end of trip facility including 2 showers, 20 lockers and changing facilities.
Electric Vehicle Infrastructure	To minimise car dependency and to ensure that the built environment is designed to promote the use of public transport, walking and cycling.	One charging point for electrical vehicles is integrated in the proposed development.  Location of electric charging point.
Car Share Scheme	To minimise car dependency and to ensure that the built environment is designed to promote the use of public transport, walking and cycling.	NIL
Motorbikes / Mopeds	To minimise car dependency and to ensure that the built environment is designed to promote the use of public transport, walking and cycling.	NIL

Waste Management

Council ESD objectives:

- To ensure waste avoidance, reuse and recycling during the design, construction and operation stages of development.
- To ensure long term reusability of building materials.
- To meet Councils' requirement that all multi-unit developments must provide a Waste Management Plan in accordance with the *Guide to Best Practice for Waste Management in Multi-unit Developments 2010*, published by Sustainability Victoria.

Council Best Practice Standard

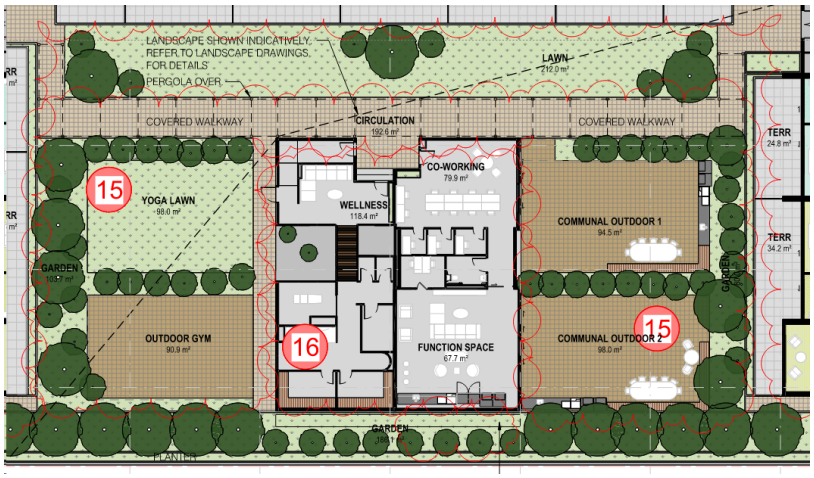
Criteria		Development Provision
Building Re-use	To ensure waste avoidance, reuse and recycling during the design.	None of the existing structure is re-used.
Construction and Demolition Waste	To reduce construction waste going to landfill	At least 90% of the waste generated during construction and demolition has been diverted from landfill.
Food & Garden Waste	To ensure waste avoidance, reuse and recycling during the operational life of the building.	Green waste storage is provided at the ground floor bin rooms.
Convenience of Recycling	To ensure waste avoidance, reuse and recycling during the operational life of the building.	  Separate general and recycling waste storage will be provided at the ground floor bin rooms.

Urban Ecology

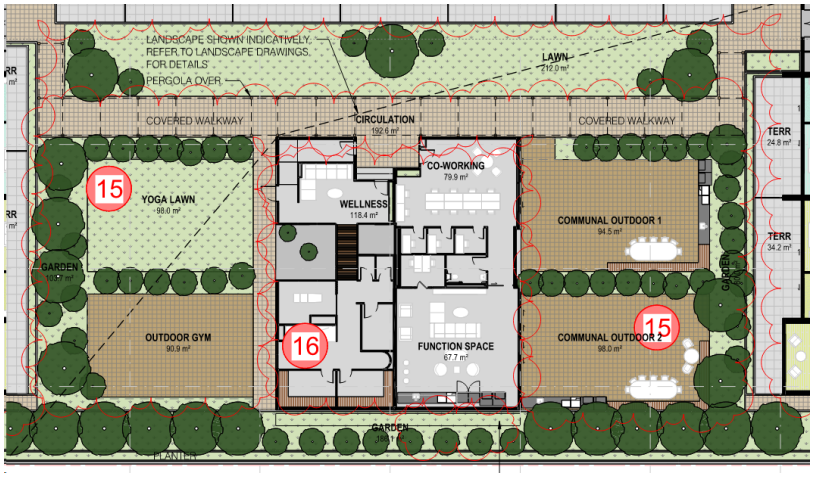
Council ESD objectives:

- To protect and enhance biodiversity.
- To provide sustainable landscaping.
- To protect and manage all remnant indigenous plant communities.
- To encourage the planting of indigenous vegetation.

Council Best Practice Standard

Criteria		Development Provision
Communal Space	To encourage and recognise initiatives that facilitate interaction between building occupants.	Min. 132m^2 of communal space will be provided for the apartments at level 2 podium and northwest corner. Communal space will include the following amenities: landscaped lawn areas including a yoga lawn, wellness space, function space, co-working space and outdoor spaces. Additionally, min. 210m^2 communal space will be provided for the retail and F&B areas and min. 80m^2 will be provided for the hotel suites at ground level.  Communal space will be provided at level 2 podium.
Vegetation	To encourage and recognise the use of vegetation and landscaping within and around developments.	Planter boxes are to be located at ground floor, along L1 perimeter and level 2 terraces. Landscaped area is to be located adjacent to the outdoor carpark and at level 2 podium. The total area of vegetation is 30% of the site area.

Council Best Practice Standard

Criteria		Development Provision
Green Walls / Roof	To encourage the appropriate use of green roofs, walls and facades to mitigate the impact of the urban heat island effect.	The proposed development will incorporate a partial green roof at level 2.  Green roof location.
Private Open Space - Balcony / Courtyard Ecology	To encourage plants in a healthy ecological context to be grown on balconies and in courtyards.	NIL
Food Production - Residential	To encourage the production of fresh food on-site.	NIL

Innovation

Council ESD objectives:

- To encourage innovative technology, design and processes in all development, which positively influence the sustainability of buildings.

Council Best Practice Standard

Criteria		Development Provision
99kW Solar PV system	To encourage on-site renewable energy generation and reduce greenhouse emissions.	A 99kW Solar PV system is to be located on the roof of the proposed development. The system is expected to generate approximately 133,881kWh and will be connected to an embedded network serving the development.

Appendices

Appendix A: WSUD Response

Site layout Plan

The following architectural mark-up illustrates the rainwater collection and impervious areas of the proposed development site.

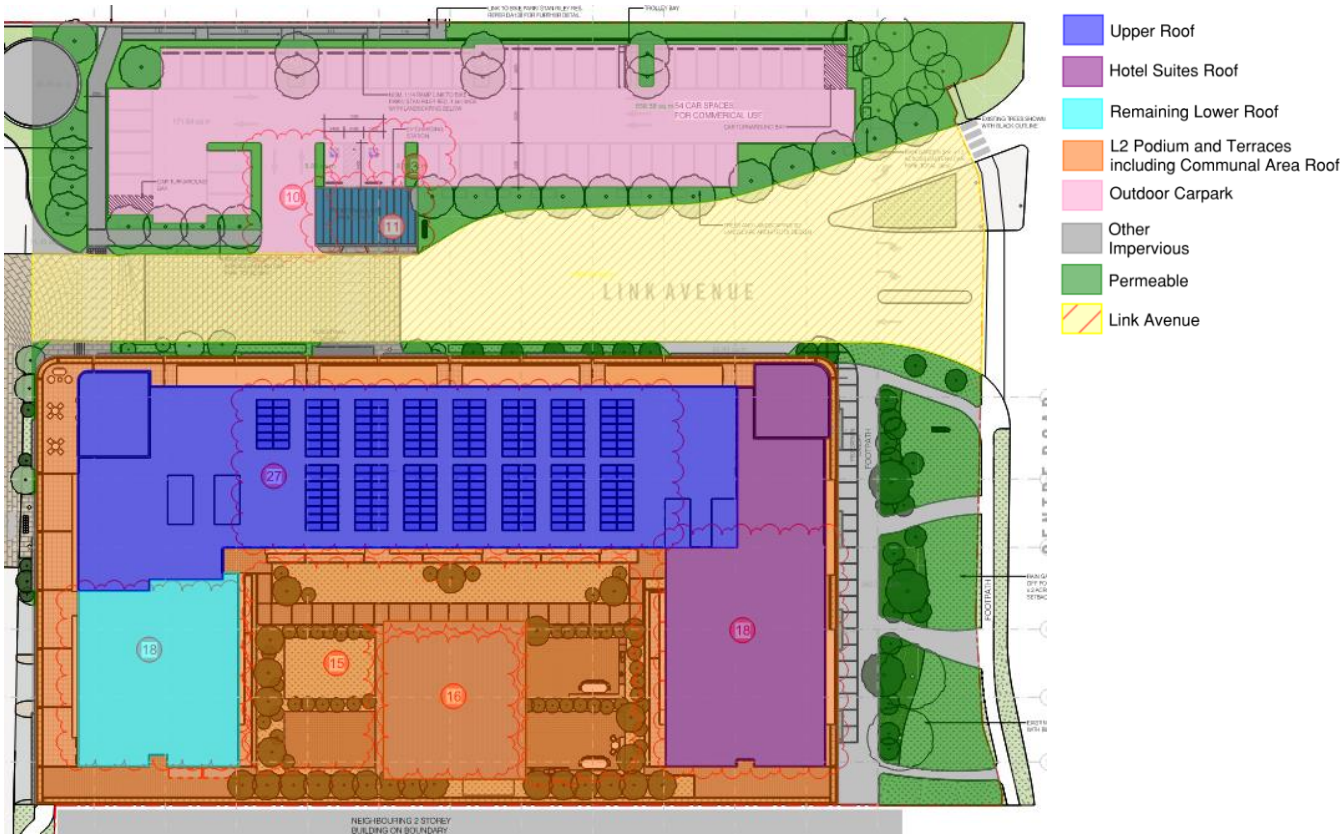


Figure 1 - Mark-up of water catchment and impervious areas

STORM Rating Report

A STORM rating of ≥100% can be achieved by implementing the following initiatives:

- Rainwater is to be collected from the upper roof areas and directed into the 20,000-litre rainwater tank. All commercial WC's and landscape irrigation are to be connected to the rainwater tank.
- Rainwater is to be collected from hotel suites roof and directed into a 15m^2, minimum 950mm deep raingarden with 100mm of extended detention.
- Rainwater is to be collected from the outdoor carpark and directed into a total 2.75m^2 x 12 (total 33m^2), minimum 950mm deep raingardens with 100mm of extended detention.
- Rainwater is to be collected from level 2 podium and terraces including communal area roof and directed into a 16.3m^2 x 3 (total 49m^2), minimum 950mm deep raingardens with 100mm of extended detention.

Melbourne Water has developed the Stormwater Treatment Objective- Relative Measure (STORM) Calculator as a method of simplifying the analysis of stormwater treatment methods. The STORM Calculator displays the amount of treatment that is required to meet best practice targets, using WSUD treatment measures.

The best practice standards have been set out in the Urban Stormwater Best Practice Environmental Management Guidelines (Victoria Stormwater Committee, 1999) for reduction in total suspended solids (TSS), total phosphorus (TP) and total nitrogen (TN) loads.

The STORM Result is provided below:

Melbourne Water

STORM Rating Report

TransactionID:	0	
Municipality:	MONASH	
Rainfall Station:	MONASH	
Address:	1041 Centre Rd	
	Oakleigh South	
	VIC	3167
Assessor:	GIW	
Development Type:	Residential - Mixed Use	
Allotment Site (m2):	9,496.00	
STORM Rating %:	101	

Description	Impervious Area (m2)	Treatment Type	Treatment Area/Volume (m2 or L)	Occupants / Number Of Bedrooms	Treatment %	Tank Water Supply Reliability (%)
Upper Roof	1,688.00	Rainwater Tank	20,000.00	60	100.00	64.30
Hotel Suites Roof	765.00	Raingarden 100mm	15.00	0	127.80	0.00
L2 Podium and Terraces including Communal Area Roof	2,480.00	Raingarden 100mm	49.00	0	128.00	0.00
Outdoor Carpark	1,545.00	Raingarden 100mm	33.00	0	128.70	0.00
Other Impervious	821.00	None	0.00	0	0.00	0.00
Remaining Lower Roof	435.00	None	0.00	0	0.00	0.00

WSUD Strategy

The development will include the provision of a 20,000-litre rainwater tank and associated pump at L2. The rainwater tank is to be connected to all commercial WC's and landscape irrigation.

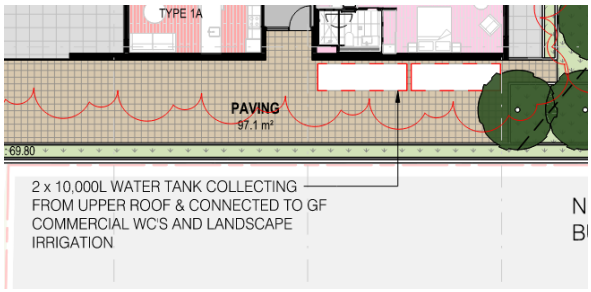


Figure 2 – Location Rainwater Tank

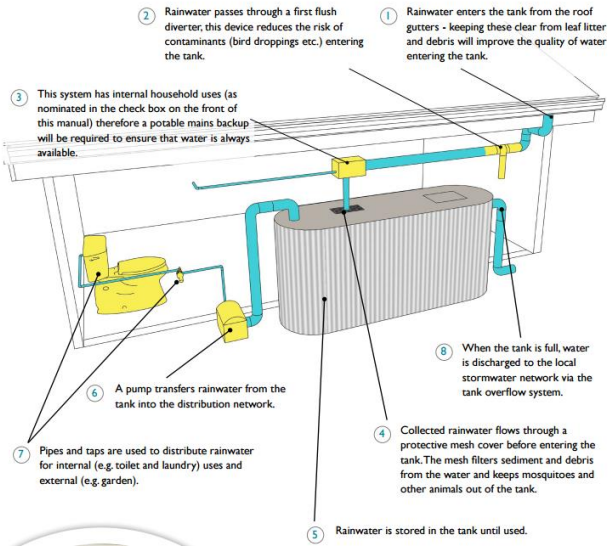


Figure 3 – Cross-section Tank
(City of Port Phillip)

Furthermore, a total of ≥15m^2, ≥49m^2 and ≥33m^2 minimum 950mm deep raingarden with 100mm of extended detention is to be provided. Rainwater collected from respectively the hotel suites roof, level 2 podium and terraces including communal area roof, plus the outdoor carpark is to be directed into the raingardens for treatment prior to discharge into the stormwater system.

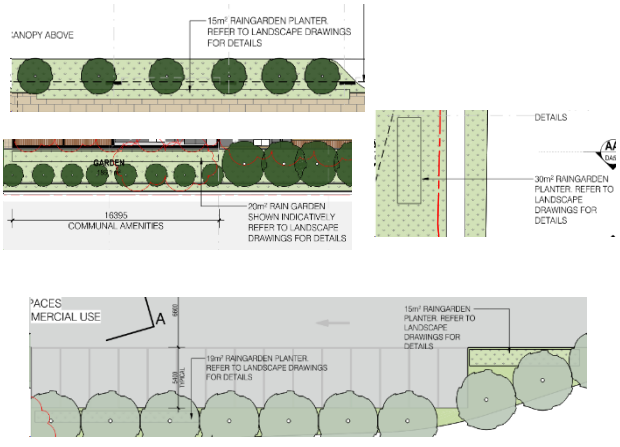


Figure 4 – Location Raingarden(s)

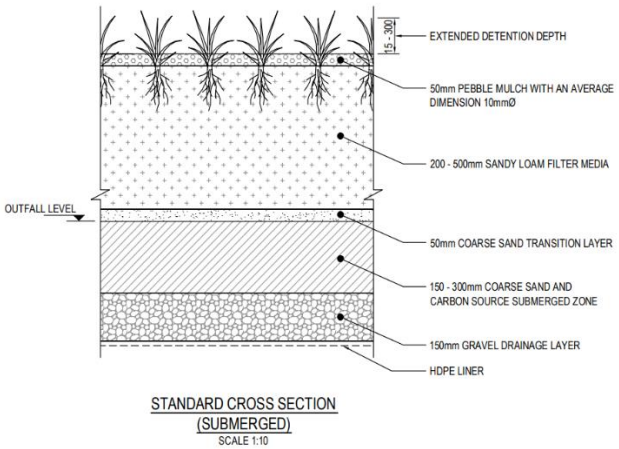


Figure 5 – Cross-section Raingarden
(City of Moreland)

Rainwater Reuse

Inputs

Catchment Area	1688 sqm
Number of Occupants	60
Bin Washout	No
Irrigation Area	2433 sqm
Tank Capacity	20,000 Litre

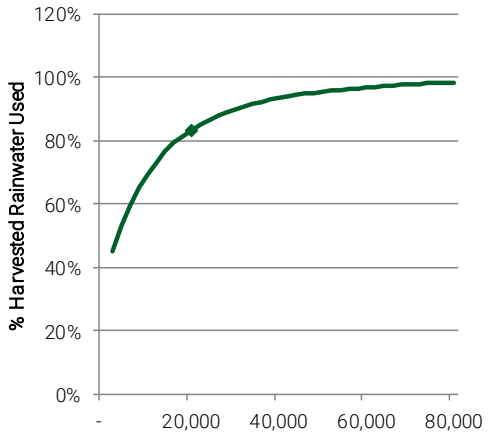
Outputs

% Served by Rainwater	18.1%
% Harvested Rainwater Used	83.4%
Total Potable Water Saved	448,994 Litre

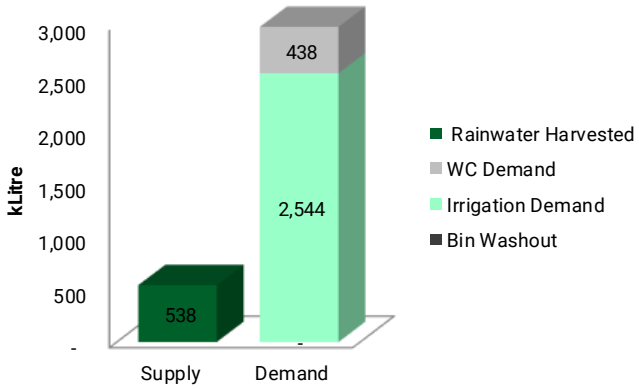
Rainwater Balance (Monthly Averages)

Month	Rainwater Harvested (L)	Irrigation Demand (L)	WC Demand (L)	Bin Washout (L)
Jan	34,013	376,429	37,200	0
Feb	41,733	340,999	33,600	0
Mar	38,223	174,920	37,200	0
Apr	47,277	167,454	36,000	0
May	41,978	172,787	37,200	0
Jun	43,785	78,737	36,000	0
Jul	35,134	80,223	37,200	0
Aug	45,302	80,223	37,200	0
Sep	49,230	230,154	36,000	0
Oct	49,902	234,497	37,200	0
Nov	66,074	228,707	36,000	0
Dec	45,843	379,343	37,200	0
Total	538,494	2,544,474	438,000	0
Equivalent STORM tool		349		0

Tank Sizing



Supply-Demand



Site Management Statement

Prevention of litter, sediments and pollution entering the stormwater system in the construction phase is to be addressed through introduction of the following initiatives:

- Buffer strips to pervert stormwater runoff.
- Gravel sausage filters at stormwater inlets to prevent silt, mud or any other site contaminant from entering the stormwater system.
- Silt fences under grates at surface entry inlets to prevent sediment from entering the stormwater system.
- Temporary rumble grids to vibrate mud and dirt off vehicles prior to leaving the site.
- The site is to be kept clean from any loose rubbish or rubble.
- Introduction of offsite construction for building elements where deemed appropriate.

The builder is to include these initiatives in the construction management plan and address these during site induction of relevant contractors.

Maintenance Program

The following maintenance requirements are to be programmed to ensure the rainwater tank operates effectively:

Item	Description	Maintenance Interval
Gutters and downpipes	Eave and box gutters are to be inspected and cleaned to prevent large debris from being washed into rainwater tank.	3 monthly
First flush system (as applicable)	Inspect and clean excess sediment from diverter chamber to prevent blockages.	3 monthly
Tank contents	Siphon the tank to inspect contents. If sludge is present, a plumber will be required to drain tank contents and clean the tank.	2 to 3 years
Tank structure	Inspect tank externally for leaks	Yearly
Pump system	Inspect pump wiring, plumbing and check for smooth operation.	6 monthly
Plumbing	Plumbing and fixtures connected to the rainwater tank is to be inspected for leaks.	Yearly

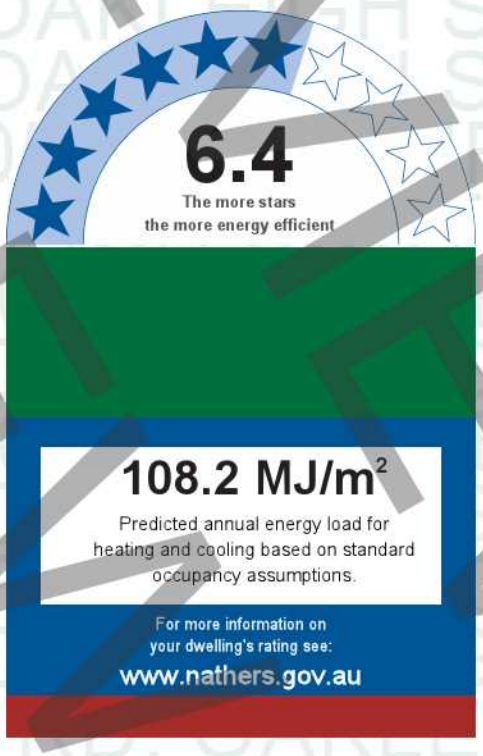
The following maintenance requirements are to be programmed to ensure the raingarden operates effectively:

Item	Description	Maintenance Interval
Kerbing and paved area	Remove rubbish, leaves and other debris from the surrounding drainage area.	3 monthly
Ponding area	Clear inflow points of built up sediment, rubbish and leaves. Check for erosion or gouging – repair if necessary.	3 monthly
Mulch layer (bark, pebbles, etc.)	Remove rubbish, leaves and other debris. After storm events mulch may need to be redistributed or added around inflow points.	3 monthly
Plants	Water establishing plants monthly during extended dry periods. Check plant health and replace dead plants as necessary. Use native species to suit garden conditions (e.g. full sun or shaded). Remove weeds – do not use herbicides, pesticides and fertilisers as these chemicals will pollute the stormwater runoff.	3 monthly
Rain garden soil mix	Check soil level is below surrounding hard surface level and overflow grate. Use drainage test to check soil is free draining.	Annually
Underdrain system	Use inspection well (if present) to check underdrain is working properly. Check rain garden draining freely using drainage test.	Annually

Appendix B: Preliminary FirstRate5 Certificates

Nationwide House Energy Rating Scheme
NatHERS Certificate

Generated on 5 May 2025 using FirstRate5: 5.3.2b (3.21)



Property

Address	2.01, 1041 Centre Rd, Oakleigh South, Oakleigh South, VIC, 3167
Lot/DP	-
NCC Class*	Class 2
Type	New Home

Plans

Main plan	-
Prepared by	-

Construction and environment

Assessed floor area (m²)*	
Conditioned*	41.2
Unconditioned*	5.4
Total	46.6
Garage	-

Exposure type
suburban

NatHERS climate zone
62 Moorabbin Airport

Thermal performance

Heating	Cooling
103 MJ/m²	5.2 MJ/m²

About the rating
NatHERS software models the expected thermal energy loads using information about the design and construction, climate and common patterns of household use. The software does not take into account appliances, apart from the airflow impacts from ceiling fans.

Accredited assessor

Name	Gary Wertheimer
Business name	GIW Environmental Solutions
Email	gary@giw.com.au
Phone	0390445111
Accreditation No.	DMN/10/2024
Assessor Accrediting Organisation	Design Matters National
Declaration of interest	Declaration completed: no conflicts

Verification

To verify this certificate, scan the QR code or visit When using either link, ensure you are visiting www.FR5.com.au.

National Construction Code (NCC) requirements

The NCC's requirements for NatHERS-rated houses are detailed in 3.12.0(a)(i) and 3.12.5 of the NCC Volume Two. For apartments the requirements are detailed in J0.2 and J5 to J8 of the NCC Volume One.

In NCC 2019, these requirements include minimum star ratings and separate heating and cooling load limits that need to be met by buildings and apartments through the NatHERS assessment. Requirements additional to the NatHERS assessment that must also be satisfied include, but are not limited to: insulation installation methods, thermal breaks, building sealing, water heating and pumping, and artificial lighting requirements. The NCC and NatHERS Heating and Cooling Load Limits (Australian Building Codes Board Standard) are available at www.abcb.gov.au.

State and territory variations and additions to the NCC may also apply.

Certificate Check

Ensure the dwelling is designed and then built as per the NatHERS Certificate. While you need to check the accuracy of the whole Certificate, the following spot check covers some important items impacting the dwelling's rating.

Genuine certificate

Does this Certificate match the one available at the web address or QR code in the verification box on the front page? Does the set of NatHERS-stamped plans for the dwelling have a Certificate number on the stamp that matches this Certificate?

Ceiling penetrations*

Does the 'number' and 'type' of ceiling penetrations (e.g. downlights, exhaust fans, etc) shown on the stamped plans or installed, match what is shown in this Certificate?

Windows

Does the installed window meet the substitution tolerances (SHGC and U-value) and window type, of the window shown on this Certificate? Substituted values must be based on the Australian Fenestration Rating Council (AFRC) protocol.

Apartment entrance doors

Does the 'External Door Schedule' show apartment entrance doors? Please note that an "external door" between the modelled dwelling and a shared space, such as an enclosed corridor or foyer, should not be included in the assessment (because it overstates the possible ventilation) and would invalidate the Certificate.

Exposure*

Has the appropriate exposure level (terrain) been applied? For example, it is unlikely that a ground-floor apartment is "exposed" or a top floor high-rise apartment is "protected".

Provisional* values

Have provisional values been used in the assessment and, if so, noted in "additional notes" below?

Additional Notes

Window and glazed door *type and performance*

Default* windows

Window ID	Window description	Maximum U-value*	SHGC*	Substitution tolerance ranges	
				SHGC lower limit	SHGC upper limit
No Data Available					

Custom* windows

Window ID	Window description	Maximum U-value*	SHGC*	Substitution tolerance ranges	
				SHGC lower limit	SHGC upper limit
CAP-061-06 A	Capral 50 Series Awning in 400 Series DG 6EA-12Ar-6	4.42	0.4	0.38	0.42
CAP-041-52 A	Capral 425 Fixed Window DG 6/12Ar/6EA	2.71	0.58	0.55	0.61
CAP-057-13 A	Capral 900 Sliding Door DG 6EA/12Ar/6	3.19	0.48	0.46	0.5

Window and glazed door *Schedule*

Location	Window ID	Window no.	Height (mm)	Width (mm)	Window type	Opening %	Orientation	Window shading device*
Bedroom 1	CAP-061-06 A	Opening 7	2500	800	awning	60.0	S	No
Bedroom 1	CAP-041-52 A	Opening 12	2500	1000	fixed	0.0	S	No

* Refer to glossary.

Kitchen/Living	CAP-057-13 A	Opening 9	2400	2400	sliding	45.0	S	No

Roof window *type and performance value*

Default* roof windows

Window ID	Window description	Maximum U-value*	SHGC*	Substitution tolerance ranges	
				SHGC lower limit	SHGC upper limit
No Data Available					

Custom* roof windows

Window ID	Window description	Maximum U-value*	SHGC*	Substitution tolerance ranges	
				SHGC lower limit	SHGC upper limit
No Data Available					

Roof window *schedule*

Location	Window ID	Window no.	Opening %	Area (m²)	Orientation	Outdoor shade	Indoor shade
No Data Available							

Skylight *type and performance*

Skylight ID	Skylight description
No Data Available	

Skylight *schedule*

Location	Skylight ID	Skylight No.	Skylight shaft length (mm)	Area (m²)	Orient-ation	Outdoor shade	Diffuser	Skylight shaft reflectance
No Data Available								

External door *schedule*

Location	Height (mm)	Width (mm)	Opening %	Orientation
No Data Available				

External wall *type*

Wall ID	Wall type	Solar absorptance	Wall shade (colour)	Bulk insulation (R-value)	Reflective wall wrap*
1	1041 Centre Road - WT2B+6D	0.5	Medium	Glass fibre batt (k = 0.044 density = 12 kg/m3) (R1.5)	No
2	1041 Centre Road - WT02B+06C	0.5	Medium	Glass fibre batt (k = 0.044 density = 12 kg/m3) (R2.7)	No
3	1041 Centre Road - WT10F+6C	0.5	Medium	Glass fibre batt (k = 0.044 density = 12 kg/m3) (R2.7)	No
4	1041 Centre Road - WT7F-Apartment/Corridor	0.5	Medium	Glass fibre batt (k = 0.044 density = 12 kg/m3) (R2.7)	No

* Refer to glossary.

5	1041 Centre Road - WT08A-Apartment/Apartment		0.5	Medium	Glass fibre batt (k = 0.044 density = 12 kg/m3) (R1.5);Glass fibre batt (k = 0.044 density = 12 kg/m3) (R1.5)	No

External wall *schedule*

Location	Wall ID	Height (mm)	Width (mm)	Orientation	Horizontal shading feature* maximum projection (mm)	Vertical shading feature (yes/no)
Bedroom 1	1	2700	4043	W	3531	Yes
Bedroom 1	2	2700	3071	S	0	Yes
Bedroom 1	3	2700	2408	E	3591	Yes
Ensuite	4	2700	1913	N	0	No
Ensuite	5	2700	2858	W	0	No
Kitchen/Living	4	2700	4766	N	0	No
Kitchen/Living	5	2700	1273	W	0	No
Kitchen/Living	3	2700	3569	S	2376	Yes
Kitchen/Living	5	2700	5967	E	0	No

Internal wall *type*

Wall ID	Wall type	Area (m²)	Bulk insulation
1	FR5 - Internal Plasterboard Stud Wall	25.3	

Floor *type*

Location	Construction	Area (m²)	Sub-floor ventilation	Added insulation (R-value)	Covering
Bedroom 1	FR5 - 250mm concrete slab	12.4	Elevated	R1.1	Carpet
Ensuite	FR5 - 250mm concrete slab	5.4	Elevated	R1.1	Tiles
Kitchen/Living	FR5 - 250mm concrete slab	17.9	Elevated	R1.1	Timber
Kitchen/Living	FR5 - 250mm concrete slab	10.9	Elevated	R1.1	Timber

Ceiling *type*

Location	Construction material/type	Bulk insulation R-value (may include edge batt values)	Reflective wrap*
No Data Available			

Ceiling *penetrations**

Location	Quantity	Type	Diameter (mm)	Sealed/unsealed
Bedroom 1	5	Downlights	80	Sealed
Ensuite	1	Exhaust Fans	200	Sealed
Ensuite	2	Downlights	80	Sealed
Kitchen/Living	1	Exhaust Fans	200	Sealed
Kitchen/Living	11	Downlights	80	Sealed

* Refer to glossary.

Ceiling *fans*

Location	Quantity	Diameter (mm)
No Data Available		

Roof *type*

Construction	Added insulation (R-value)	Solar absorptance	Roof shade
Slab:Slab - Suspended Slab : 250mm: 250mm Suspended Slab	0.0	0.5	Medium

Explanatory Notes

About this report

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Ratings are based on a unique climate zone where the home is located and are generated using standard assumptions, including occupancy patterns and thermostat settings. The actual energy consumption of a home may vary significantly from the predicted energy load, as the assumptions used in the rating will not match actual usage patterns. For example, the number of occupants and personal heating or cooling preferences will vary.

While the figures are an indicative guide to energy use, they can be used as a reliable guide for comparing different dwelling designs and to demonstrate that the design meets the energy efficiency requirements in the National Construction Code. Homes that are energy efficient use less energy, are warmer on cool days, cooler on hot days and cost less to run. The higher the star rating the more thermally efficient the dwelling is.

Accredited assessors

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Not all assumptions that may have been made by the assessor while using the NatHERS accredited software tool are presented in this report and further details or data files may be available from the assessor.

Glossary

Annual energy load	the predicted amount of energy required for heating and cooling, based on standard occupancy assumptions.
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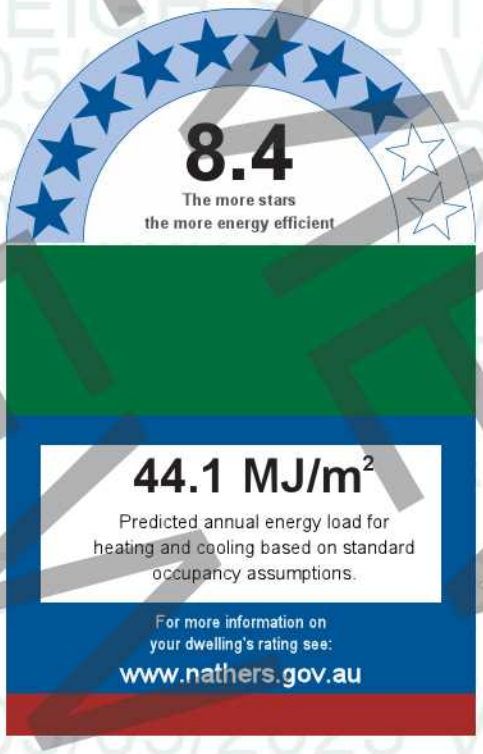
Ceiling penetrations	features that require a penetration to the ceiling, including downlights, vents, exhaust fans, rangehoods, chimneys and flues. Excludes fixtures attached to the ceiling with small holes through the ceiling for wiring, e.g. ceiling fans; pendant lights, and heating and cooling ducts.
Conditioned	a zone within a dwelling that is expected to require heating and cooling based on standard occupancy assumptions. In some circumstances it will include garages.
Custom windows	windows listed in NatHERS software that are available on the market in Australia and have a WERS (Window Energy Rating Scheme) rating.
Default windows	windows that are representative of a specific type of window product and whose properties have been derived by statistical methods.
Entrance door	these signify ventilation benefits in the modelling software and must not be modelled as a door when opening to a minimally ventilated corridor in a Class 2 building.
Exposure category - exposed	terrain with no obstructions e.g. flat grazing land, ocean-frontage, desert, exposed high-rise unit (usually above 10 floors).
Exposure category - open	terrain with few obstructions at a similar height e.g. grasslands with few well scattered obstructions below 10m, farmland with scattered sheds, lightly vegetated bush blocks, elevated units (e.g. above 3 floors).
Exposure category - suburban	terrain with numerous, closely spaced obstructions below 10m e.g. suburban housing, heavily vegetated bushland areas.
Exposure category - protected	terrain with numerous, closely spaced obstructions over 10 m e.g. city and industrial areas.
Horizontal shading feature	provides shading to the building in the horizontal plane, e.g. eaves, verandahs, pergolas, carports, or overhangs or balconies from upper levels.

National Construction Code (NCC) Class	the NCC groups buildings by their function and use, and assigns a classification code. NatHERS software models NCC Class 1, 2 or 4 buildings and attached Class 10a buildings. Definitions can be found at www.abcb.gov.au.
Opening Percentage	the openability percentage or operable (moveable) area of doors or windows that is used in ventilation calculations.
Provisional value	an assumed value that does not represent an actual value. For example, if the wall colour is unspecified in the documentation, a provisional value of 'medium' must be modelled. Acceptable provisional values are outlined in the NatHERS Technical Note and can be found at www.nathers.gov.au
Reflective wrap (also known as foil)	can be applied to walls, roofs and ceilings. When combined with an appropriate airgap and emissivity value, it provides insulative properties.
Roof window	for NatHERS this is typically an operable window (i.e. can be opened), will have a plaster or similar light well if there is an attic space, and generally does not have a diffuser.
Shading device	a device fixed to windows that provides shading e.g. window awnings or screens but excludes eaves.
Shading features	includes neighbouring buildings, fences, and wing walls, but excludes eaves.
Solar heat gain coefficient (SHGC)	the fraction of incident solar radiation admitted through a window, both directly transmitted as well as absorbed and subsequently released inward. SHGC is expressed as a number between 0 and 1. The lower a window's SHGC, the less solar heat it transmits.
Skylight (also known as roof lights)	for NatHERS this is typically a moulded unit with flexible reflective tubing (light well) and a diffuser at ceiling level.
U-value	the rate of heat transfer through a window. The lower the U-value, the better the insulating ability.
Unconditioned	a zone within a dwelling that is assumed to not require heating and cooling based on standard occupancy assumptions.
Vertical shading features	provides shading to the building in the vertical plane and can be parallel or perpendicular to the subject wall/window. Includes privacy screens, other walls in the building (wing walls), fences, other buildings, vegetation (protected or listed heritage trees).

Nationwide House Energy Rating Scheme
NatHERS Certificate

Generated on 5 May 2025 using FirstRate5: 5.3.2b (3.21)



Property

Address	3.14, 1041 Centre Rd, Oakleigh South, Oakleigh South, VIC, 3167
Lot/DP	-
NCC Class*	Class 2
Type	New Home

Plans

Main plan	-
Prepared by	-

Construction and environment

Assessed floor area (m²)*	
Conditioned*	64.5
Unconditioned*	4.3
Total	68.8
Garage	-

Exposure type
open

NatHERS climate zone
62 Moorabbin Airport

Thermal performance

Heating	Cooling
36.7 MJ/m²	7.4 MJ/m²

About the rating
NatHERS software models the expected thermal energy loads using information about the design and construction, climate and common patterns of household use. The software does not take into account appliances, apart from the airflow impacts from ceiling fans.

Accredited assessor

Name	Gary Wertheimer
Business name	GIW Environmental Solutions
Email	gary@giw.com.au
Phone	0390445111
Accreditation No.	DMN/10/2024
Assessor Accrediting Organisation	Design Matters National
Declaration of interest	Declaration completed: no conflicts

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National Construction Code (NCC) requirements

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Does the 'number' and 'type' of ceiling penetrations (e.g. downlights, exhaust fans, etc) shown on the stamped plans or installed, match what is shown in this Certificate?

Windows

Does the installed window meet the substitution tolerances (SHGC and U-value) and window type, of the window shown on this Certificate? Substituted values must be based on the Australian Fenestration Rating Council (AFRC) protocol.

Apartment entrance doors

Does the 'External Door Schedule' show apartment entrance doors? Please note that an "external door" between the modelled dwelling and a shared space, such as an enclosed corridor or foyer, should not be included in the assessment (because it overstates the possible ventilation) and would invalidate the Certificate.

Exposure*

Has the appropriate exposure level (terrain) been applied? For example, it is unlikely that a ground-floor apartment is "exposed" or a top floor high-rise apartment is "protected".

Provisional* values

Have provisional values been used in the assessment and, if so, noted in "additional notes" below?

Additional Notes

Window and glazed door *type and performance*

Default* windows

Window ID	Window description	Maximum U-value*	SHGC*	Substitution tolerance ranges	
				SHGC lower limit	SHGC upper limit
No Data Available					

Custom* windows

Window ID	Window description	Maximum U-value*	SHGC*	Substitution tolerance ranges	
				SHGC lower limit	SHGC upper limit
CAP-057-13 A	Capral 900 Sliding Door DG 6EA/12Ar/6	3.19	0.48	0.46	0.5
CAP-051-06 A	Capral 35 Awning in 400 Frame DG 6EA/12Ar/6	4.42	0.41	0.39	0.43
CAP-055-52 A	Capral 419 Flushline Fixed Window DG 6/12Ar/6EA	2.71	0.58	0.55	0.61

Window and glazed door *Schedule*

Location	Window ID	Window no.	Height (mm)	Width (mm)	Window type	Opening %	Orientation	Window shading device*
Kitchen/Living 4	CAP-057-13 A	Opening 12	2400	2400	sliding	45.0	E	No
Bedroom 5	CAP-051-06 A	Opening 13	2500	1100	awning	60.0	E	No

* Refer to glossary.

Bedroom 5	CAP-055-52 A	Opening 14	2500	1100	fixed	0.0	E	No
Bedroom 6	CAP-051-06 A	Opening 15	2100	1000	awning	60.0	E	No

Roof window *type and performance value*

Default* roof windows

Window ID	Window description	Maximum U-value*	SHGC*	Substitution tolerance ranges	
				SHGC lower limit	SHGC upper limit
No Data Available					

Custom* roof windows

Window ID	Window description	Maximum U-value*	SHGC*	Substitution tolerance ranges	
				SHGC lower limit	SHGC upper limit
No Data Available					

Roof window *schedule*

Location	Window ID	Window no.	Opening %	Area (m²)	Orientation	Outdoor shade	Indoor shade
No Data Available							

Skylight *type and performance*

Skylight ID	Skylight description
No Data Available	

Skylight *schedule*

Location	Skylight ID	Skylight No.	Skylight shaft length (mm)	Area (m²)	Orient-ation	Outdoor shade	Diffuser	Skylight shaft reflectance
No Data Available								

External door *schedule*

Location	Height (mm)	Width (mm)	Opening %	Orientation
No Data Available				

External wall *type*

Wall ID	Wall type	Solar absorptance	Wall shade (colour)	Bulk insulation (R-value)	Reflective wall wrap*
1	1041 Centre Road - WT08A-Apartment/Apartment	0.5	Medium	Glass fibre batt (k = 0.044 density = 12 kg/m3) (R1.5);Glass fibre batt (k = 0.044 density = 12 kg/m3) (R1.5)	No
2	1041 Centre Road - WT7F-Apartment/Corridor	0.5	Medium	Glass fibre batt (k = 0.044 density = 12 kg/m3) (R2.7)	No
3	1041 Centre Road - WT02B+06C	0.5	Medium	Glass fibre batt (k = 0.044 density = 12 kg/m3) (R2.7)	No

External wall *schedule*

* Refer to glossary.

Location	Wall ID	Height (mm)	Width (mm)	Orientation	Horizontal shading feature* maximum projection (mm)	Vertical shading feature (yes/no)
Kitchen/Living 4	1	2700	6903	N	0	No
Kitchen/Living 4	2	2700	4214	W	0	No
Kitchen/Living 4	3	2700	2980	E	3242	Yes
Bedroom 5	3	2700	3190	N	2655	Yes
Bedroom 5	3	2700	1932	S	0	Yes
Bedroom 5	3	2700	3672	E	0	No
Bedroom 6	1	2700	5523	S	0	No
Bedroom 6	3	2700	1557	E	0	Yes
Bathroom	2	2700	2076	W	0	No
Ensuite	2	2700	1640	W	0	No
Ensuite	1	2700	2640	S	0	No

Internal wall *type*

Wall ID	Wall type	Area (m²)	Bulk insulation
1	FR5 - Internal Plasterboard Stud Wall	52.8	

Floor *type*

Location	Construction	Area (m²)	Sub-floor ventilation	Added insulation (R-value)	Covering
Kitchen/Living 4	FR5 - 200mm concrete slab	29.1	Enclosed	R0.0	Timber
Bedroom 5	FR5 - 200mm concrete slab	11.7	Enclosed	R0.0	Carpet
Bedroom 6	FR5 - 200mm concrete slab	17	Enclosed	R0.0	Carpet
Corridor	FR5 - 200mm concrete slab	1.2	Enclosed	R0.0	Timber
Bathroom	FR5 - 200mm concrete slab	5.4	Enclosed	R0.0	Tiles
Ensuite	FR5 - 200mm concrete slab	4.3	Enclosed	R0.0	Tiles

Ceiling *type*

Location	Construction material/type	Bulk insulation R-value (may include edge batt values)	Reflective wrap*
No Data Available			

Ceiling *penetrations**

Location	Quantity	Type	Diameter (mm)	Sealed/unsealed
Kitchen/Living 4	1	Exhaust Fans	250	Sealed
Kitchen/Living 4	12	Downlights	80	Sealed
Bedroom 5	4	Downlights	80	Sealed
Bedroom 6	7	Downlights	80	Sealed
Corridor	1	Downlights	80	Sealed
Bathroom	1	Exhaust Fans	250	Sealed
Bathroom	1	Downlights	80	Sealed
Ensuite	1	Exhaust Fans	250	Sealed

* Refer to glossary.

Ensuite	1	Downlights	80	Sealed

Ceiling *fans*

Location	Quantity	Diameter (mm)
No Data Available		

Roof *type*

Construction	Added insulation (R-value)	Solar absorptance	Roof shade
Slab:Slab - Suspended Slab : 200mm: 200mm Suspended Slab	0.0	0.5	Medium

Explanatory Notes

About this report

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Entrance door	these signify ventilation benefits in the modelling software and must not be modelled as a door when opening to a minimally ventilated corridor in a Class 2 building.
Exposure category - exposed	terrain with no obstructions e.g. flat grazing land, ocean-frontage, desert, exposed high-rise unit (usually above 10 floors).
Exposure category - open	terrain with few obstructions at a similar height e.g. grasslands with few well scattered obstructions below 10m, farmland with scattered sheds, lightly vegetated bush blocks, elevated units (e.g. above 3 floors).
Exposure category - suburban	terrain with numerous, closely spaced obstructions below 10m e.g. suburban housing, heavily vegetated bushland areas.
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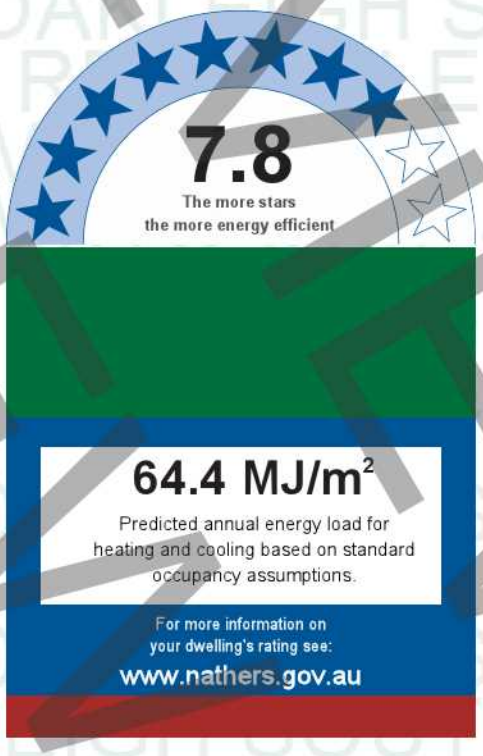
National Construction Code (NCC) Class	the NCC groups buildings by their function and use, and assigns a classification code. NatHERS software models NCC Class 1, 2 or 4 buildings and attached Class 10a buildings. Definitions can be found at www.abcb.gov.au.
Opening Percentage	the openability percentage or operable (moveable) area of doors or windows that is used in ventilation calculations.
Provisional value	an assumed value that does not represent an actual value. For example, if the wall colour is unspecified in the documentation, a provisional value of 'medium' must be modelled. Acceptable provisional values are outlined in the NatHERS Technical Note and can be found at www.nathers.gov.au
Reflective wrap (also known as foil)	can be applied to walls, roofs and ceilings. When combined with an appropriate airgap and emissivity value, it provides insulative properties.
Roof window	for NatHERS this is typically an operable window (i.e. can be opened), will have a plaster or similar light well if there is an attic space, and generally does not have a diffuser.
Shading device	a device fixed to windows that provides shading e.g. window awnings or screens but excludes eaves.
Shading features	includes neighbouring buildings, fences, and wing walls, but excludes eaves.
Solar heat gain coefficient (SHGC)	the fraction of incident solar radiation admitted through a window, both directly transmitted as well as absorbed and subsequently released inward. SHGC is expressed as a number between 0 and 1. The lower a window's SHGC, the less solar heat it transmits.
Skylight (also known as roof lights)	for NatHERS this is typically a moulded unit with flexible reflective tubing (light well) and a diffuser at ceiling level.
U-value	the rate of heat transfer through a window. The lower the U-value, the better the insulating ability.
Unconditioned	a zone within a dwelling that is assumed to not require heating and cooling based on standard occupancy assumptions.
Vertical shading features	provides shading to the building in the vertical plane and can be parallel or perpendicular to the subject wall/window. Includes privacy screens, other walls in the building (wing walls), fences, other buildings, vegetation (protected or listed heritage trees).

Nationwide House Energy Rating Scheme
NatHERS Certificate

Generated on 5 May 2025 using FirstRate5: 5.3.2b (3.21)



Property

Address	4.02, 1041 Centre Rd, Oakleigh South, Oakleigh South, VIC, 3167
Lot/DP	-
NCC Class*	Class 2
Type	New Home

Plans

Main plan	-
Prepared by	-

Construction and environment

Assessed floor area (m²)*	
Conditioned*	97.2
Unconditioned*	6.2
Total	103.4
Garage	-

Exposure type
open

NatHERS climate zone
62 Moorabbin Airport

Thermal performance

Heating	Cooling
56.7 MJ/m²	7.7 MJ/m²

About the rating
NatHERS software models the expected thermal energy loads using information about the design and construction, climate and common patterns of household use. The software does not take into account appliances, apart from the airflow impacts from ceiling fans.

Accredited assessor

Name	Gary Wertheimer
Business name	GIW Environmental Solutions
Email	gary@giw.com.au
Phone	0390445111
Accreditation No.	DMN/10/2024
Assessor Accrediting Organisation	Design Matters National
Declaration of interest	Declaration completed: no conflicts

Verification

To verify this certificate, scan the QR code or visit When using either link, ensure you are visiting www.FR5.com.au.

National Construction Code (NCC) requirements

The NCC's requirements for NatHERS-rated houses are detailed in 3.12.0(a)(i) and 3.12.5 of the NCC Volume Two. For apartments the requirements are detailed in J0.2 and J5 to J8 of the NCC Volume One.

In NCC 2019, these requirements include minimum star ratings and separate heating and cooling load limits that need to be met by buildings and apartments through the NatHERS assessment. Requirements additional to the NatHERS assessment that must also be satisfied include, but are not limited to: insulation installation methods, thermal breaks, building sealing, water heating and pumping, and artificial lighting requirements. The NCC and NatHERS Heating and Cooling Load Limits (Australian Building Codes Board Standard) are available at www.abcb.gov.au.

State and territory variations and additions to the NCC may also apply.

Certificate Check

Ensure the dwelling is designed and then built as per the NatHERS Certificate. While you need to check the accuracy of the whole Certificate, the following spot check covers some important items impacting the dwelling's rating.

Genuine certificate

Does this Certificate match the one available at the web address or QR code in the verification box on the front page? Does the set of NatHERS-stamped plans for the dwelling have a Certificate number on the stamp that matches this Certificate?

Ceiling penetrations*

Does the 'number' and 'type' of ceiling penetrations (e.g. downlights, exhaust fans, etc) shown on the stamped plans or installed, match what is shown in this Certificate?

Windows

Does the installed window meet the substitution tolerances (SHGC and U-value) and window type, of the window shown on this Certificate? Substituted values must be based on the Australian Fenestration Rating Council (AFRC) protocol.

Apartment entrance doors

Does the 'External Door Schedule' show apartment entrance doors? Please note that an "external door" between the modelled dwelling and a shared space, such as an enclosed corridor or foyer, should not be included in the assessment (because it overstates the possible ventilation) and would invalidate the Certificate.

Exposure*

Has the appropriate exposure level (terrain) been applied? For example, it is unlikely that a ground-floor apartment is "exposed" or a top floor high-rise apartment is "protected".

Provisional* values

Have provisional values been used in the assessment and, if so, noted in "additional notes" below?

Additional Notes

Window and glazed door *type and performance*

Default* windows

Window ID	Window description	Maximum U-value*	SHGC*	Substitution tolerance ranges	
				SHGC lower limit	SHGC upper limit
No Data Available					

Custom* windows

Window ID	Window description	Maximum U-value*	SHGC*	Substitution tolerance ranges	
				SHGC lower limit	SHGC upper limit
CAP-057-13 A	Capral 900 Sliding Door DG 6EA/12Ar/6	3.19	0.48	0.46	0.5
CAP-055-52 A	Capral 419 Flushline Fixed Window DG 6/12Ar/6EA	2.71	0.58	0.55	0.61
CAP-051-06 A	Capral 35 Awning in 400 Frame DG 6EA/12Ar/6	4.42	0.41	0.39	0.43

Window and glazed door *Schedule*

Location	Window ID	Window no.	Height (mm)	Width (mm)	Window type	Opening %	Orientation	Window shading device*
Bedroom 4	CAP-057-13 A	Opening 12	2400	1800	sliding	45.0	S	No
Kitchen/Living 5	CAP-055-52 A	Opening 13	2500	2400	fixed	0.0	S	No

* Refer to glossary.

Kitchen/Living 5	CAP-051-06 A	Opening 17	2500	600	awning	60.0	S	No
Kitchen/Living 5	CAP-057-13 A	Opening 14	2400	2400	sliding	45.0	E	No
Bedroom 7	CAP-055-52 A	Opening 15	2500	1000	fixed	0.0	S	No
Bedroom 7	CAP-051-06 A	Opening 18	2500	800	awning	60.0	S	No
Bedroom 9	CAP-055-52 A	Opening 16	2500	2400	fixed	0.0	S	No
Bedroom 9	CAP-051-06 A	Opening 19	2500	600	awning	60.0	S	No

Roof window *type and performance value*

Default* roof windows

Window ID	Window description	Maximum U-value*	SHGC*	Substitution tolerance ranges	
				SHGC lower limit	SHGC upper limit
No Data Available					

Custom* roof windows

Window ID	Window description	Maximum U-value*	SHGC*	Substitution tolerance ranges	
				SHGC lower limit	SHGC upper limit
No Data Available					

Roof window *schedule*

Location	Window ID	Window no.	Opening %	Area (m²)	Orientation	Outdoor shade	Indoor shade
No Data Available							

Skylight *type and performance*

Skylight ID	Skylight description
No Data Available	

Skylight *schedule*

Location	Skylight ID	Skylight No.	Skylight shaft length (mm)	Area (m²)	Orient-ation	Outdoor shade	Diffuser	Skylight shaft reflectance
No Data Available								

External door *schedule*

Location	Height (mm)	Width (mm)	Opening %	Orientation
No Data Available				

External wall *type*

Wall ID	Wall type	Solar absorptance	Wall shade (colour)	Bulk insulation (R-value)	Reflective wall wrap*
1	1041 Centre Road - WT7F-Apartment/Corridor	0.5	Medium	Glass fibre batt (k = 0.044 density = 12 kg/m3) (R2.7)	No
2	1041 Centre Road - WT02B+06C	0.5	Medium	Glass fibre batt (k = 0.044 density = 12 kg/m3) (R2.7)	No

* Refer to glossary.

3	1041 Centre Road - WT08A-Apartment/Apartment	0.5	Medium	Glass fibre batt (k = 0.044 density = 12 kg/m3) (R1.5);Glass fibre batt (k = 0.044 density = 12 kg/m3) (R1.5)	No	

External wall *schedule*

Location	Wall ID	Height (mm)	Width (mm)	Orientation	Horizontal shading feature* maximum projection (mm)	Vertical shading feature (yes/no)
Bedroom 4	1	2700	3024	N	0	No
Bedroom 4	2	2700	3024	S	4319	Yes
Bedroom 4	3	2700	4002	E	0	No
Kitchen/Living 5	1	2700	4841	N	0	No
Kitchen/Living 5	2	2700	4669	S	0	Yes
Kitchen/Living 5	2	2700	3105	E	3004	Yes
Bedroom 7	2	2700	3112	S	0	Yes
Bathroom	1	2700	2942	N	0	No
Bedroom 9	2	2700	5295	W	0	No
Bedroom 9	2	2700	4532	S	0	Yes
Bedroom 9	2	2700	1147	E	0	Yes
Studio Living	1	2700	2550	N	0	No
Ensuite	1	2700	923	N	0	No
Ensuite	2	2700	948	N	0	Yes
Ensuite	2	2700	2788	W	0	No

Internal wall *type*

Wall ID	Wall type	Area (m²)	Bulk insulation
1	FR5 - Internal Plasterboard Stud Wall	83.3	

Floor *type*

Location	Construction	Area (m²)	Sub-floor ventilation	Added insulation (R-value)	Covering
Bedroom 4	FR5 - 200mm concrete slab	12.1	Enclosed	R0.0	Carpet
Kitchen/Living 5	FR5 - 200mm concrete slab	33.5	Enclosed	R0.0	Timber
Corridor	FR5 - 200mm concrete slab	3.6	Enclosed	R0.0	Timber
Bedroom 7	FR5 - 200mm concrete slab	11.3	Enclosed	R0.0	Carpet
Bathroom	FR5 - 200mm concrete slab	6.2	Enclosed	R0.0	Tiles
Bedroom 9	FR5 - 200mm concrete slab	24.2	Enclosed	R0.0	Carpet
Studio Living	FR5 - 200mm concrete slab	7.3	Enclosed	R0.0	Carpet
Ensuite	FR5 - 200mm concrete slab	5.2	Enclosed	R0.0	Tiles

Ceiling *type*

Location	Construction material/type	Bulk insulation R-value (may include edge batt values)	Reflective wrap*

* Refer to glossary.

No Data Available

Ceiling *penetrations**

Location	Quantity	Type	Diameter (mm)	Sealed/unsealed
Bedroom 4	5	Downlights	80	Sealed
Kitchen/Living 5	1	Exhaust Fans	250	Sealed
Kitchen/Living 5	13	Downlights	80	Sealed
Corridor	1	Downlights	80	Sealed
Bedroom 7	4	Downlights	80	Sealed
Bathroom	1	Exhaust Fans	250	Sealed
Bathroom	2	Downlights	80	Sealed
Bedroom 9	10	Downlights	80	Sealed
Studio Living	1	Exhaust Fans	250	Sealed
Studio Living	3	Downlights	80	Sealed
Ensuite	1	Exhaust Fans	250	Sealed
Ensuite	2	Downlights	80	Sealed

Ceiling *fans*

Location	Quantity	Diameter (mm)
No Data Available		

Roof *type*

Construction	Added insulation (R-value)	Solar absorptance	Roof shade
Slab:Slab - Suspended Slab : 200mm: 200mm Suspended Slab	0.0	0.5	Medium

* Refer to glossary.

Explanatory Notes

About this report

A NatHERS rating is a comprehensive, dynamic computer modelling evaluation of a home, using the floorplans, elevations and specifications to estimate an energy load. It addresses the building layout, orientation and fabric (i.e. walls, windows, floors, roofs and ceilings), but does not cover the water or energy use of appliances or energy production of solar panels.

Ratings are based on a unique climate zone where the home is located and are generated using standard assumptions, including occupancy patterns and thermostat settings. The actual energy consumption of a home may vary significantly from the predicted energy load, as the assumptions used in the rating will not match actual usage patterns. For example, the number of occupants and personal heating or cooling preferences will vary.

While the figures are an indicative guide to energy use, they can be used as a reliable guide for comparing different dwelling designs and to demonstrate that the design meets the energy efficiency requirements in the National Construction Code. Homes that are energy efficient use less energy, are warmer on cool days, cooler on hot days and cost less to run. The higher the star rating the more thermally efficient the dwelling is.

Accredited assessors

To ensure the NatHERS Certificate is of a high quality, always use an accredited or licenced assessor. NatHERS accredited assessors are members of a professional body called an Assessor Accrediting Organisation (AAO).

Australian Capital Territory (ACT) licensed assessors may only produce assessments for regulatory purposes using software for which they have a licence endorsement. Licence endorsements can be confirmed on the ACT licensing register

AAOs have specific quality assurance processes in place, and continuing professional development requirements, to maintain a high and consistent standard of assessments across the country. Non-accredited assessors do not have this level of quality assurance or any ongoing training requirements.

Any questions or concerns about this report should be directed to the assessor in the first instance. If the assessor is unable to address these questions or concerns, the AAO specified on the front of this certificate should be contacted.

Disclaimer

The format of the NatHERS Certificate was developed by the NatHERSAdministrator. However the content of each individual certificate is entered and created by the assessor to create a NatHERS Certificate. It is the responsibility of the assessor who prepared this certificate to use NatHERS accredited software correctly and follow the NatHERS Technical Notes to produce a NatHERS Certificate.

The predicted annual energy load in this NatHERS Certificate is an estimate based on an assessment of the building by the assessor. It is not a prediction of actual energy use, but may be used to compare how other buildings are likely to perform when used in a similar way. Information presented in this report relies on a range of standard assumptions (both embedded in NatHERS accredited software and made by the assessor who prepared this report), including assumptions about occupancy, indoor air temperature and local climate.

Not all assumptions that may have been made by the assessor while using the NatHERS accredited software tool are presented in this report and further details or data files may be available from the assessor.

Glossary

Annual energy load	the predicted amount of energy required for heating and cooling, based on standard occupancy assumptions.
Assessed floor area	the floor area modelled in the software for the purpose of the NatHERS assessment. Note, this may not be consistent with the floor area in the design documents.
Ceiling penetrations	features that require a penetration to the ceiling, including downlights, vents, exhaust fans, rangehoods, chimneys and flues. Excludes fixtures attached to the ceiling with small holes through the ceiling for wiring, e.g. ceiling fans; pendant lights, and heating and cooling ducts.
Conditioned	a zone within a dwelling that is expected to require heating and cooling based on standard occupancy assumptions. In some circumstances it will include garages.
Custom windows	windows listed in NatHERS software that are available on the market in Australia and have a WERS (Window Energy Rating Scheme) rating.
Default windows	windows that are representative of a specific type of window product and whose properties have been derived by statistical methods.
Entrance door	these signify ventilation benefits in the modelling software and must not be modelled as a door when opening to a minimally ventilated corridor in a Class 2 building.
Exposure category - exposed	terrain with no obstructions e.g. flat grazing land, ocean-frontage, desert, exposed high-rise unit (usually above 10 floors).
Exposure category - open	terrain with few obstructions at a similar height e.g. grasslands with few well scattered obstructions below 10m, farmland with scattered sheds, lightly vegetated bush blocks, elevated units (e.g. above 3 floors).
Exposure category - suburban	terrain with numerous, closely spaced obstructions below 10m e.g. suburban housing, heavily vegetated bushland areas.
Exposure category - protected	terrain with numerous, closely spaced obstructions over 10 m e.g. city and industrial areas.
Horizontal shading feature	provides shading to the building in the horizontal plane, e.g. eaves, verandahs, pergolas, carports, or overhangs or balconies from upper levels.

National Construction Code (NCC) Class	the NCC groups buildings by their function and use, and assigns a classification code. NatHERS software models NCC Class 1, 2 or 4 buildings and attached Class 10a buildings. Definitions can be found at www.abcb.gov.au.
Opening Percentage	the openability percentage or operable (moveable) area of doors or windows that is used in ventilation calculations.
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Reflective wrap (also known as foil)	can be applied to walls, roofs and ceilings. When combined with an appropriate airgap and emissivity value, it provides insulative properties.
Roof window	for NatHERS this is typically an operable window (i.e. can be opened), will have a plaster or similar light well if there is an attic space, and generally does not have a diffuser.
Shading device	a device fixed to windows that provides shading e.g. window awnings or screens but excludes eaves.
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Solar heat gain coefficient (SHGC)	the fraction of incident solar radiation admitted through a window, both directly transmitted as well as absorbed and subsequently released inward. SHGC is expressed as a number between 0 and 1. The lower a window's SHGC, the less solar heat it transmits.
Skylight (also known as roof lights)	for NatHERS this is typically a moulded unit with flexible reflective tubing (light well) and a diffuser at ceiling level.
U-value	the rate of heat transfer through a window. The lower the U-value, the better the insulating ability.
Unconditioned	a zone within a dwelling that is assumed to not require heating and cooling based on standard occupancy assumptions.
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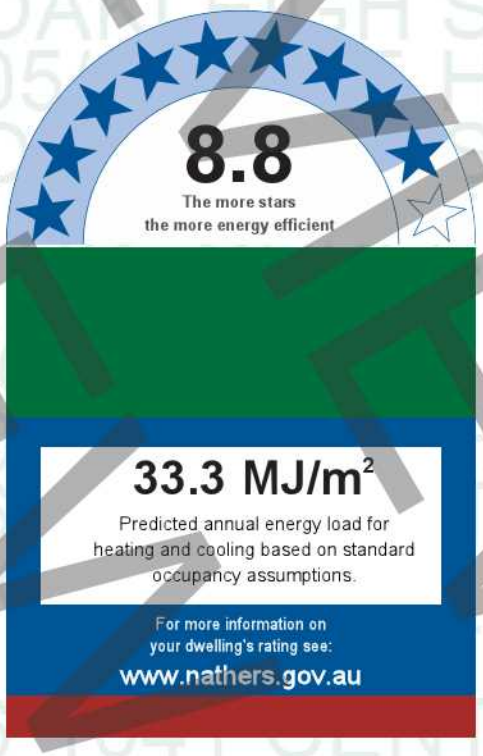
Nationwide House Energy Rating Scheme
NatHERS Certificate

Generated on 5 May 2025 using FirstRate5: 5.3.2b (3.21)



Property

Address	5.26, 1041 Centre Rd, Oakleigh South, Oakleigh South, VIC, 3167
Lot/DP	-
NCC Class*	Class 2
Type	New Home

Plans

Main plan	-
Prepared by	-

Construction and environment

Assessed floor area (m²)*	
Conditioned*	43.7
Unconditioned*	2.3
Total	46
Garage	-

Exposure type
open

NatHERS climate zone
62 Moorabbin Airport

Thermal performance

Heating	Cooling
21.2 MJ/m²	12.1 MJ/m²

About the rating
NatHERS software models the expected thermal energy loads using information about the design and construction, climate and common patterns of household use. The software does not take into account appliances, apart from the airflow impacts from ceiling fans.

Accredited assessor

Name	Gary Wertheimer
Business name	GIW Environmental Solutions
Email	gary@giw.com.au
Phone	0390445111
Accreditation No.	DMN/10/2024
Assessor Accrediting Organisation	Design Matters National
Declaration of interest	Declaration completed: no conflicts

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Does this Certificate match the one available at the web address or QR code in the verification box on the front page? Does the set of NatHERS-stamped plans for the dwelling have a Certificate number on the stamp that matches this Certificate?

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Does the 'number' and 'type' of ceiling penetrations (e.g. downlights, exhaust fans, etc) shown on the stamped plans or installed, match what is shown in this Certificate?

Windows

Does the installed window meet the substitution tolerances (SHGC and U-value) and window type, of the window shown on this Certificate? Substituted values must be based on the Australian Fenestration Rating Council (AFRC) protocol.

Apartment entrance doors

Does the 'External Door Schedule' show apartment entrance doors? Please note that an "external door" between the modelled dwelling and a shared space, such as an enclosed corridor or foyer, should not be included in the assessment (because it overstates the possible ventilation) and would invalidate the Certificate.

Exposure*

Has the appropriate exposure level (terrain) been applied? For example, it is unlikely that a ground-floor apartment is "exposed" or a top floor high-rise apartment is "protected".

Provisional* values

Have provisional values been used in the assessment and, if so, noted in "additional notes" below?

Additional Notes

Window and glazed door *type and performance*

Default* windows

Window ID	Window description	Maximum U-value*	SHGC*	Substitution tolerance ranges	
				SHGC lower limit	SHGC upper limit
No Data Available					

Custom* windows

Window ID	Window description	Maximum U-value*	SHGC*	Substitution tolerance ranges	
				SHGC lower limit	SHGC upper limit
CAP-057-13 A	Capral 900 Sliding Door DG 6EA/12Ar/6	3.19	0.48	0.46	0.5
CAP-055-52 A	Capral 419 Flushline Fixed Window DG 6/12Ar/6EA	2.71	0.58	0.55	0.61
CAP-051-06 A	Capral 35 Awning in 400 Frame DG 6EA/12Ar/6	4.42	0.41	0.39	0.43

Window and glazed door *Schedule*

Location	Window ID	Window no.	Height (mm)	Width (mm)	Window type	Opening %	Orientation	Window shading device*
Kitchen/Living 4	CAP-057-13 A	Opening 12	2400	2400	sliding	45.0	W	No
Bedroom 7	CAP-055-52 A	Opening 13	2500	1000	fixed	0.0	W	No

* Refer to glossary.

Bedroom 7	CAP-051-06 A	Opening 14	2500	800	awning	60.0	W	No

Roof window *type and performance value*

Default* roof windows

Window ID	Window description	Maximum U-value*	SHGC*	Substitution tolerance ranges	
				SHGC lower limit	SHGC upper limit
No Data Available					

Custom* roof windows

Window ID	Window description	Maximum U-value*	SHGC*	Substitution tolerance ranges	
				SHGC lower limit	SHGC upper limit
No Data Available					

Roof window *schedule*

Location	Window ID	Window no.	Opening %	Area (m²)	Orientation	Outdoor shade	Indoor shade
No Data Available							

Skylight *type and performance*

Skylight ID	Skylight description
No Data Available	

Skylight *schedule*

Location	Skylight ID	Skylight No.	Skylight shaft length (mm)	Area (m²)	Orient-ation	Outdoor shade	Diffuser	Skylight shaft reflectance
No Data Available								

External door *schedule*

Location	Height (mm)	Width (mm)	Opening %	Orientation
No Data Available				

External wall *type*

Wall ID	Wall type	Solar absorptance	Wall shade (colour)	Bulk insulation (R-value)	Reflective wall wrap*
1	1041 Centre Road - WT08A-Apartment/Apartment	0.5	Medium	Glass fibre batt (k = 0.044 density = 12 kg/m3) (R1.5);Glass fibre batt (k = 0.044 density = 12 kg/m3) (R1.5)	No
2	1041 Centre Road - WT02B+06C	0.5	Medium	Glass fibre batt (k = 0.044 density = 12 kg/m3) (R2.7)	No
3	1041 Centre Road - WT7F-Apartment/Corridor	0.5	Medium	Glass fibre batt (k = 0.044 density = 12 kg/m3) (R2.7)	No

External wall *schedule*

Location	Wall ID	Height (mm)	Width (mm)	Orientation	Horizontal shading feature* maximum projection (mm)	Vertical shading feature (yes/no)
Kitchen/Living 4	1	2700	5992	N	0	No
Kitchen/Living 4	2	2700	3517	W	2260	Yes
Kitchen/Living 4	3	2700	4714	E	0	No
Bathroom	1	2700	2844	S	0	No
Bathroom	3	2700	1836	E	0	No
Corridor / Laundry	1	2700	1189	S	0	No
Bedroom 7	2	2700	2477	N	3411	Yes
Bedroom 7	2	2700	2994	W	0	Yes
Bedroom 7	1	2700	4157	S	0	No

Internal wall *type*

Wall ID	Wall type	Area (m²)	Bulk insulation
1	FR5 - Internal Plasterboard Stud Wall	28.5	

Floor *type*

Location	Construction	Area (m²)	Sub-floor ventilation	Added insulation (R-value)	Covering
Kitchen/Living 4	FR5 - 200mm concrete slab	26	Enclosed	R0.0	Timber
Bathroom	FR5 - 200mm concrete slab	5.2	Enclosed	R0.0	Tiles
Corridor / Laundry	FR5 - 200mm concrete slab	2.3	Enclosed	R0.0	Timber
Bedroom 7	FR5 - 200mm concrete slab	12.5	Enclosed	R0.0	Carpet

Ceiling *type*

Location	Construction material/type	Bulk insulation R-value (may include edge batt values)	Reflective wrap*
No Data Available			

Ceiling *penetrations**

Location	Quantity	Type	Diameter (mm)	Sealed/unsealed
Kitchen/Living 4	1	Exhaust Fans	250	Sealed
Kitchen/Living 4	10	Downlights	80	Sealed
Bathroom	1	Exhaust Fans	250	Sealed
Bathroom	2	Downlights	80	Sealed
Corridor / Laundry	1	Exhaust Fans	250	Sealed
Corridor / Laundry	1	Downlights	80	Sealed
Bedroom 7	5	Downlights	80	Sealed

Ceiling *fans*

Location	Quantity	Diameter (mm)
No Data Available		

* Refer to glossary.

Roof *type*

Construction	Added insulation (R-value)	Solar absorptance	Roof shade
Slab:Slab - Suspended Slab : 200mm: 200mm Suspended Slab	0.0	0.5	Medium

Explanatory Notes

About this report

A NatHERS rating is a comprehensive, dynamic computer modelling evaluation of a home, using the floorplans, elevations and specifications to estimate an energy load. It addresses the building layout, orientation and fabric (i.e. walls, windows, floors, roofs and ceilings), but does not cover the water or energy use of appliances or energy production of solar panels.

Ratings are based on a unique climate zone where the home is located and are generated using standard assumptions, including occupancy patterns and thermostat settings. The actual energy consumption of a home may vary significantly from the predicted energy load, as the assumptions used in the rating will not match actual usage patterns. For example, the number of occupants and personal heating or cooling preferences will vary.

While the figures are an indicative guide to energy use, they can be used as a reliable guide for comparing different dwelling designs and to demonstrate that the design meets the energy efficiency requirements in the National Construction Code. Homes that are energy efficient use less energy, are warmer on cool days, cooler on hot days and cost less to run. The higher the star rating the more thermally efficient the dwelling is.

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The predicted annual energy load in this NatHERS Certificate is an estimate based on an assessment of the building by the assessor. It is not a prediction of actual energy use, but may be used to compare how other buildings are likely to perform when used in a similar way. Information presented in this report relies on a range of standard assumptions (both embedded in NatHERS accredited software and made by the assessor who prepared this report), including assumptions about occupancy, indoor air temperature and local climate.

Not all assumptions that may have been made by the assessor while using the NatHERS accredited software tool are presented in this report and further details or data files may be available from the assessor.

Glossary

Annual energy load	the predicted amount of energy required for heating and cooling, based on standard occupancy assumptions.
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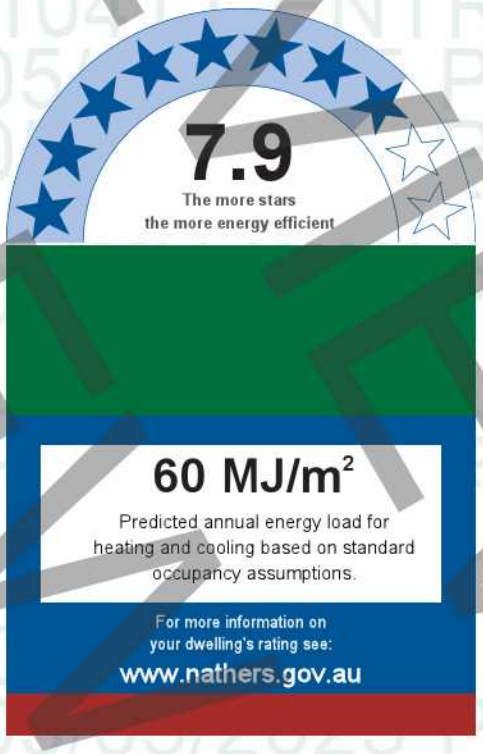
Conditioned	a zone within a dwelling that is expected to require heating and cooling based on standard occupancy assumptions. In some circumstances it will include garages.
Custom windows	windows listed in NatHERS software that are available on the market in Australia and have a WERS (Window Energy Rating Scheme) rating.
Default windows	windows that are representative of a specific type of window product and whose properties have been derived by statistical methods.
Entrance door	these signify ventilation benefits in the modelling software and must not be modelled as a door when opening to a minimally ventilated corridor in a Class 2 building.
Exposure category - exposed	terrain with no obstructions e.g. flat grazing land, ocean-frontage, desert, exposed high-rise unit (usually above 10 floors).
Exposure category - open	terrain with few obstructions at a similar height e.g. grasslands with few well scattered obstructions below 10m, farmland with scattered sheds, lightly vegetated bush blocks, elevated units (e.g. above 3 floors).
Exposure category - suburban	terrain with numerous, closely spaced obstructions below 10m e.g. suburban housing, heavily vegetated bushland areas.
Exposure category - protected	terrain with numerous, closely spaced obstructions over 10 m e.g. city and industrial areas.
Horizontal shading feature	provides shading to the building in the horizontal plane, e.g. eaves, verandahs, pergolas, carports, or overhangs or balconies from upper levels.

National Construction Code (NCC) Class	the NCC groups buildings by their function and use, and assigns a classification code. NatHERS software models NCC Class 1, 2 or 4 buildings and attached Class 10a buildings. Definitions can be found at www.abcb.gov.au.
Opening Percentage	the openability percentage or operable (moveable) area of doors or windows that is used in ventilation calculations.
Provisional value	an assumed value that does not represent an actual value. For example, if the wall colour is unspecified in the documentation, a provisional value of 'medium' must be modelled. Acceptable provisional values are outlined in the NatHERS Technical Note and can be found at www.nathers.gov.au
Reflective wrap (also known as foil)	can be applied to walls, roofs and ceilings. When combined with an appropriate airgap and emissivity value, it provides insulative properties.
Roof window	for NatHERS this is typically an operable window (i.e. can be opened), will have a plaster or similar light well if there is an attic space, and generally does not have a diffuser.
Shading device	a device fixed to windows that provides shading e.g. window awnings or screens but excludes eaves.
Shading features	includes neighbouring buildings, fences, and wing walls, but excludes eaves.
Solar heat gain coefficient (SHGC)	the fraction of incident solar radiation admitted through a window, both directly transmitted as well as absorbed and subsequently released inward. SHGC is expressed as a number between 0 and 1. The lower a window's SHGC, the less solar heat it transmits.
Skylight (also known as roof lights)	for NatHERS this is typically a moulded unit with flexible reflective tubing (light well) and a diffuser at ceiling level.
U-value	the rate of heat transfer through a window. The lower the U-value, the better the insulating ability.
Unconditioned	a zone within a dwelling that is assumed to not require heating and cooling based on standard occupancy assumptions.
Vertical shading features	provides shading to the building in the vertical plane and can be parallel or perpendicular to the subject wall/window. Includes privacy screens, other walls in the building (wing walls), fences, other buildings, vegetation (protected or listed heritage trees).

Nationwide House Energy Rating Scheme
NatHERS Certificate

Generated on 5 May 2025 using FirstRate5: 5.3.2b (3.21)



Property

Address	6.04, 1041 Centre Rd, Oakleigh South, Oakleigh South, VIC, 3167
Lot/DP	-
NCC Class*	Class 2
Type	New Home

Plans

Main plan	-
Prepared by	-

Construction and environment

Assessed floor area (m²)*	
Conditioned*	41.2
Unconditioned*	5.4
Total	46.6
Garage	-

Exposure type
open

NatHERS climate zone
62 Moorabbin Airport

Thermal performance

Heating	Cooling
48.9 MJ/m²	11.1 MJ/m²

About the rating
NatHERS software models the expected thermal energy loads using information about the design and construction, climate and common patterns of household use. The software does not take into account appliances, apart from the airflow impacts from ceiling fans.

Accredited assessor

Name	Gary Wertheimer
Business name	GIW Environmental Solutions
Email	gary@giw.com.au
Phone	0390445111
Accreditation No.	DMN/10/2024
Assessor Accrediting Organisation	Design Matters National
Declaration of interest	Declaration completed: no conflicts

Verification

To verify this certificate, scan the QR code or visit When using either link, ensure you are visiting www.FR5.com.au.

National Construction Code (NCC) requirements

The NCC's requirements for NatHERS-rated houses are detailed in 3.12.0(a)(i) and 3.12.5 of the NCC Volume Two. For apartments the requirements are detailed in J0.2 and J5 to J8 of the NCC Volume One.

In NCC 2019, these requirements include minimum star ratings and separate heating and cooling load limits that need to be met by buildings and apartments through the NatHERS assessment. Requirements additional to the NatHERS assessment that must also be satisfied include, but are not limited to: insulation installation methods, thermal breaks, building sealing, water heating and pumping, and artificial lighting requirements. The NCC and NatHERS Heating and Cooling Load Limits (Australian Building Codes Board Standard) are available at www.abcb.gov.au.

State and territory variations and additions to the NCC may also apply.

Certificate Check

Ensure the dwelling is designed and then built as per the NatHERS Certificate. While you need to check the accuracy of the whole Certificate, the following spot check covers some important items impacting the dwelling's rating.

Genuine certificate

Does this Certificate match the one available at the web address or QR code in the verification box on the front page? Does the set of NatHERS-stamped plans for the dwelling have a Certificate number on the stamp that matches this Certificate?

Ceiling penetrations*

Does the 'number' and 'type' of ceiling penetrations (e.g. downlights, exhaust fans, etc) shown on the stamped plans or installed, match what is shown in this Certificate?

Windows

Does the installed window meet the substitution tolerances (SHGC and U-value) and window type, of the window shown on this Certificate? Substituted values must be based on the Australian Fenestration Rating Council (AFRC) protocol.

Apartment entrance doors

Does the 'External Door Schedule' show apartment entrance doors? Please note that an "external door" between the modelled dwelling and a shared space, such as an enclosed corridor or foyer, should not be included in the assessment (because it overstates the possible ventilation) and would invalidate the Certificate.

Exposure*

Has the appropriate exposure level (terrain) been applied? For example, it is unlikely that a ground-floor apartment is "exposed" or a top floor high-rise apartment is "protected".

Provisional* values

Have provisional values been used in the assessment and, if so, noted in "additional notes" below?

Additional Notes

Window and glazed door *type and performance*

Default* windows

Window ID	Window description	Maximum U-value*	SHGC*	Substitution tolerance ranges	
				SHGC lower limit	SHGC upper limit
No Data Available					

Custom* windows

Window ID	Window description	Maximum U-value*	SHGC*	Substitution tolerance ranges	
				SHGC lower limit	SHGC upper limit
CAP-061-06 A	Capral 50 Series Awning in 400 Series DG 6EA-12Ar-6	4.42	0.4	0.38	0.42
CAP-041-52 A	Capral 425 Fixed Window DG 6/12Ar/6EA	2.71	0.58	0.55	0.61
CAP-057-13 A	Capral 900 Sliding Door DG 6EA/12Ar/6	3.19	0.48	0.46	0.5

Window and glazed door *Schedule*

Location	Window ID	Window no.	Height (mm)	Width (mm)	Window type	Opening %	Orientation	Window shading device*
Bedroom 1	CAP-061-06 A	Opening 7	2500	800	awning	60.0	N	No
Bedroom 1	CAP-041-52 A	Opening 12	2500	1000	fixed	0.0	N	No

* Refer to glossary.

Kitchen/Living	CAP-057-13 A	Opening 9	2400	2400	sliding	45.0	N	No

Roof window *type and performance value*

Default* roof windows

Window ID	Window description	Maximum U-value*	SHGC*	Substitution tolerance ranges	
				SHGC lower limit	SHGC upper limit
No Data Available					

Custom* roof windows

Window ID	Window description	Maximum U-value*	SHGC*	Substitution tolerance ranges	
				SHGC lower limit	SHGC upper limit
No Data Available					

Roof window *schedule*

Location	Window ID	Window no.	Opening %	Area (m²)	Orientation	Outdoor shade	Indoor shade
No Data Available							

Skylight *type and performance*

Skylight ID	Skylight description
No Data Available	

Skylight *schedule*

Location	Skylight ID	Skylight No.	Skylight shaft length (mm)	Area (m²)	Orient-ation	Outdoor shade	Diffuser	Skylight shaft reflectance
No Data Available								

External door *schedule*

Location	Height (mm)	Width (mm)	Opening %	Orientation
No Data Available				

External wall *type*

Wall ID	Wall type	Solar absorptance	Wall shade (colour)	Bulk insulation (R-value)	Reflective wall wrap*
1	1041 Centre Road - WT10F+6C	0.5	Medium	Glass fibre batt (k = 0.044 density = 12 kg/m3) (R2.7)	No
2	1041 Centre Road - WT02B+06C	0.5	Medium	Glass fibre batt (k = 0.044 density = 12 kg/m3) (R2.7)	No
3	1041 Centre Road - WT08A-Apartment/Apartment	0.5	Medium	Glass fibre batt (k = 0.044 density = 12 kg/m3) (R1.5);Glass fibre batt (k = 0.044 density = 12 kg/m3) (R1.5)	No
4	1041 Centre Road - WT7F-Apartment/Corridor	0.5	Medium	Glass fibre batt (k = 0.044 density = 12 kg/m3) (R2.7)	No

* Refer to glossary.

External wall *schedule*

Location	Wall ID	Height (mm)	Width (mm)	Orientation	Horizontal shading feature* maximum projection (mm)	Vertical shading feature (yes/no)
Bedroom 1	1	2700	2408	E	3591	Yes
Bedroom 1	2	2700	3071	N	0	Yes
Bedroom 1	3	2700	4043	W	0	No
Ensuite	3	2700	2858	W	0	No
Ensuite	4	2700	1913	S	0	No
Kitchen/Living	3	2700	5967	E	0	No
Kitchen/Living	1	2700	3569	N	2376	Yes
Kitchen/Living	3	2700	1273	W	0	No
Kitchen/Living	4	2700	4766	S	0	No

Internal wall *type*

Wall ID	Wall type	Area (m²)	Bulk insulation
1	FR5 - Internal Plasterboard Stud Wall	25.3	

Floor *type*

Location	Construction	Area (m²)	Sub-floor ventilation	Added insulation (R-value)	Covering
Bedroom 1	FR5 - 250mm concrete slab	12.4	Enclosed	R0.0	Carpet
Ensuite	FR5 - 250mm concrete slab	5.4	Enclosed	R0.0	Tiles
Kitchen/Living	FR5 - 250mm concrete slab	17.9	Enclosed	R0.0	Timber
Kitchen/Living	FR5 - 250mm concrete slab	10.9	Enclosed	R0.0	Timber

Ceiling *type*

Location	Construction material/type	Bulk insulation R-value (may include edge batt values)	Reflective wrap*
Bedroom 1	Plasterboard	R2.3	No
Ensuite	Plasterboard	R2.3	No
Kitchen/Living	Plasterboard	R2.3	No
Kitchen/Living	Plasterboard	R2.3	No

Ceiling *penetrations**

Location	Quantity	Type	Diameter (mm)	Sealed/unsealed
Bedroom 1	5	Downlights	80	Sealed
Ensuite	1	Exhaust Fans	200	Sealed
Ensuite	2	Downlights	80	Sealed
Kitchen/Living	1	Exhaust Fans	200	Sealed
Kitchen/Living	11	Downlights	80	Sealed

Ceiling *fans*

* Refer to glossary.

Location	Quantity	Diameter (mm)
No Data Available		

Roof *type*

Construction	Added insulation (R-value)	Solar absorptance	Roof shade
Slab:Slab - Suspended Slab : 200mm: 200mm Suspended Slab	0.0	0.5	Medium

Explanatory Notes

About this report

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Roof window	for NatHERS this is typically an operable window (i.e. can be opened), will have a plaster or similar light well if there is an attic space, and generally does not have a diffuser.
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U-value	the rate of heat transfer through a window. The lower the U-value, the better the insulating ability.
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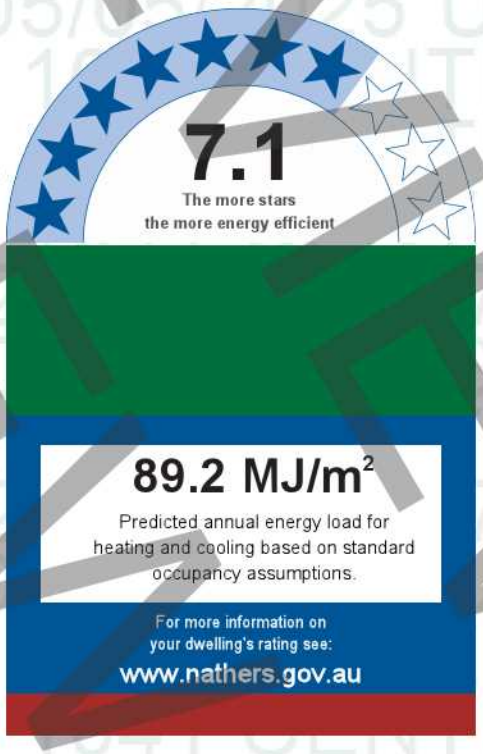
Nationwide House Energy Rating Scheme
NatHERS Certificate

Generated on 5 May 2025 using FirstRate5: 5.3.2b (3.21)



Property

Address	7.11, 1041 Centre Rd, Oakleigh South, Oakleigh South, VIC, 3167
Lot/DP	-
NCC Class*	Class 2
Type	New Home

Plans

Main plan	-
Prepared by	-

Construction and environment

Assessed floor area (m²)*	
Conditioned*	64.5
Unconditioned*	4.3
Total	68.8
Garage	-

Exposure type
open

NatHERS climate zone
62 Moorabbin Airport

Thermal performance

Heating	Cooling
79.4 MJ/m²	9.8 MJ/m²

About the rating
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Accredited assessor

Name	Gary Wertheimer
Business name	GIW Environmental Solutions
Email	gary@giw.com.au
Phone	0390445111
Accreditation No.	DMN/10/2024
Assessor Accrediting Organisation	Design Matters National
Declaration of interest	Declaration completed: no conflicts

Verification

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Does this Certificate match the one available at the web address or QR code in the verification box on the front page? Does the set of NatHERS-stamped plans for the dwelling have a Certificate number on the stamp that matches this Certificate?

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Does the 'number' and 'type' of ceiling penetrations (e.g. downlights, exhaust fans, etc) shown on the stamped plans or installed, match what is shown in this Certificate?

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Does the installed window meet the substitution tolerances (SHGC and U-value) and window type, of the window shown on this Certificate? Substituted values must be based on the Australian Fenestration Rating Council (AFRC) protocol.

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Does the 'External Door Schedule' show apartment entrance doors? Please note that an "external door" between the modelled dwelling and a shared space, such as an enclosed corridor or foyer, should not be included in the assessment (because it overstates the possible ventilation) and would invalidate the Certificate.

Exposure*

Has the appropriate exposure level (terrain) been applied? For example, it is unlikely that a ground-floor apartment is "exposed" or a top floor high-rise apartment is "protected".

Provisional* values

Have provisional values been used in the assessment and, if so, noted in "additional notes" below?

Additional Notes

Window and glazed door *type and performance*

Default* windows

Window ID	Window description	Maximum U-value*	SHGC*	Substitution tolerance ranges	
				SHGC lower limit	SHGC upper limit
No Data Available					

Custom* windows

Window ID	Window description	Maximum U-value*	SHGC*	Substitution tolerance ranges	
				SHGC lower limit	SHGC upper limit
CAP-057-13 A	Capral 900 Sliding Door DG 6EA/12Ar/6	3.19	0.48	0.46	0.5
CAP-051-06 A	Capral 35 Awning in 400 Frame DG 6EA/12Ar/6	4.42	0.41	0.39	0.43
CAP-055-52 A	Capral 419 Flushline Fixed Window DG 6/12Ar/6EA	2.71	0.58	0.55	0.61

Window and glazed door *Schedule*

Location	Window ID	Window no.	Height (mm)	Width (mm)	Window type	Opening %	Orientation	Window shading device*
Kitchen/Living 4	CAP-057-13 A	Opening 12	2400	2400	sliding	45.0	E	No
Bedroom 5	CAP-051-06 A	Opening 13	2500	1100	awning	60.0	E	No

* Refer to glossary.

Bedroom 5	CAP-055-52 A	Opening 14	2500	1100	fixed	0.0	E	No
Bedroom 6	CAP-051-06 A	Opening 15	2100	1000	awning	60.0	E	No

Roof window *type and performance value*

Default* roof windows

Window ID	Window description	Maximum U-value*	SHGC*	Substitution tolerance ranges	
				SHGC lower limit	SHGC upper limit
No Data Available					

Custom* roof windows

Window ID	Window description	Maximum U-value*	SHGC*	Substitution tolerance ranges	
				SHGC lower limit	SHGC upper limit
No Data Available					

Roof window *schedule*

Location	Window ID	Window no.	Opening %	Area (m²)	Orientation	Outdoor shade	Indoor shade
No Data Available							

Skylight *type and performance*

Skylight ID	Skylight description
No Data Available	

Skylight *schedule*

Location	Skylight ID	Skylight No.	Skylight shaft length (mm)	Area (m²)	Orient-ation	Outdoor shade	Diffuser	Skylight shaft reflectance
No Data Available								

External door *schedule*

Location	Height (mm)	Width (mm)	Opening %	Orientation
No Data Available				

External wall *type*

Wall ID	Wall type	Solar absorptance	Wall shade (colour)	Bulk insulation (R-value)	Reflective wall wrap*
1	1041 Centre Road - WT08A-Apartment/Apartment	0.5	Medium	Glass fibre batt (k = 0.044 density = 12 kg/m3) (R1.5);Glass fibre batt (k = 0.044 density = 12 kg/m3) (R1.5)	No
2	1041 Centre Road - WT7F-Apartment/Corridor	0.5	Medium	Glass fibre batt (k = 0.044 density = 12 kg/m3) (R2.7)	No
3	1041 Centre Road - WT02B+06C	0.5	Medium	Glass fibre batt (k = 0.044 density = 12 kg/m3) (R2.7)	No

External wall *schedule*

* Refer to glossary.

Location	Wall ID	Height (mm)	Width (mm)	Orientation	Horizontal shading feature* maximum projection (mm)	Vertical shading feature (yes/no)
Kitchen/Living 4	1	2700	6903	N	0	No
Kitchen/Living 4	2	2700	4214	W	0	No
Kitchen/Living 4	3	2700	2980	E	3242	Yes
Bedroom 5	3	2700	3190	N	2655	Yes
Bedroom 5	3	2700	1932	S	0	Yes
Bedroom 5	3	2700	3672	E	0	No
Bedroom 6	3	2700	5523	S	0	No
Bedroom 6	3	2700	1557	E	0	Yes
Bathroom	2	2700	2076	W	0	No
Ensuite	2	2700	1640	W	0	No
Ensuite	3	2700	2640	S	0	No

Internal wall *type*

Wall ID	Wall type	Area (m²)	Bulk insulation
1	FR5 - Internal Plasterboard Stud Wall	52.8	

Floor *type*

Location	Construction	Area (m²)	Sub-floor ventilation	Added insulation (R-value)	Covering
Kitchen/Living 4	FR5 - 200mm concrete slab	29.1	Enclosed	R0.0	Timber
Bedroom 5	FR5 - 200mm concrete slab	11.7	Enclosed	R0.0	Carpet
Bedroom 6	FR5 - 200mm concrete slab	17	Enclosed	R0.0	Carpet
Corridor	FR5 - 200mm concrete slab	1.2	Enclosed	R0.0	Timber
Bathroom	FR5 - 200mm concrete slab	5.4	Enclosed	R0.0	Tiles
Ensuite	FR5 - 200mm concrete slab	4.3	Enclosed	R0.0	Tiles

Ceiling *type*

Location	Construction material/type	Bulk insulation R-value (may include edge batt values)	Reflective wrap*
Kitchen/Living 4	Plasterboard	R2.3	No
Bedroom 5	Plasterboard	R2.3	No
Bedroom 6	Plasterboard	R2.3	No
Corridor	Plasterboard	R2.3	No
Bathroom	Plasterboard	R2.3	No
Ensuite	Plasterboard	R2.3	No

Ceiling *penetrations**

Location	Quantity	Type	Diameter (mm)	Sealed/unsealed
Kitchen/Living 4	1	Exhaust Fans	250	Sealed
Kitchen/Living 4	12	Downlights	80	Sealed
Bedroom 5	4	Downlights	80	Sealed

* Refer to glossary.

Bedroom 6	7	Downlights	80	Sealed
Corridor	1	Downlights	80	Sealed
Bathroom	1	Exhaust Fans	250	Sealed
Bathroom	1	Downlights	80	Sealed
Ensuite	1	Exhaust Fans	250	Sealed
Ensuite	1	Downlights	80	Sealed

Ceiling *fans*

Location	Quantity	Diameter (mm)
No Data Available		

Roof *type*

Construction	Added insulation (R-value)	Solar absorptance	Roof shade
Slab:Slab - Suspended Slab : 200mm: 200mm Suspended Slab	0.0	0.5	Medium

Explanatory Notes

About this report

A NatHERS rating is a comprehensive, dynamic computer modelling evaluation of a home, using the floorplans, elevations and specifications to estimate an energy load. It addresses the building layout, orientation and fabric (i.e. walls, windows, floors, roofs and ceilings), but does not cover the water or energy use of appliances or energy production of solar panels.

Ratings are based on a unique climate zone where the home is located and are generated using standard assumptions, including occupancy patterns and thermostat settings. The actual energy consumption of a home may vary significantly from the predicted energy load, as the assumptions used in the rating will not match actual usage patterns. For example, the number of occupants and personal heating or cooling preferences will vary.

While the figures are an indicative guide to energy use, they can be used as a reliable guide for comparing different dwelling designs and to demonstrate that the design meets the energy efficiency requirements in the National Construction Code. Homes that are energy efficient use less energy, are warmer on cool days, cooler on hot days and cost less to run. The higher the star rating the more thermally efficient the dwelling is.

Accredited assessors

To ensure the NatHERS Certificate is of a high quality, always use an accredited or licenced assessor. NatHERS accredited assessors are members of a professional body called an Assessor Accrediting Organisation (AAO).

Australian Capital Territory (ACT) licensed assessors may only produce assessments for regulatory purposes using software for which they have a licence endorsement. Licence endorsements can be confirmed on the ACT licensing register

AAOs have specific quality assurance processes in place, and continuing professional development requirements, to maintain a high and consistent standard of assessments across the country. Non-accredited assessors do not have this level of quality assurance or any ongoing training requirements.

Any questions or concerns about this report should be directed to the assessor in the first instance. If the assessor is unable to address these questions or concerns, the AAO specified on the front of this certificate should be contacted.

Disclaimer

The format of the NatHERS Certificate was developed by the NatHERSAdministrator. However the content of each individual certificate is entered and created by the assessor to create a NatHERS Certificate. It is the responsibility of the assessor who prepared this certificate to use NatHERS accredited software correctly and follow the NatHERS Technical Notes to produce a NatHERS Certificate.

The predicted annual energy load in this NatHERS Certificate is an estimate based on an assessment of the building by the assessor. It is not a prediction of actual energy use, but may be used to compare how other buildings are likely to perform when used in a similar way. Information presented in this report relies on a range of standard assumptions (both embedded in NatHERS accredited software and made by the assessor who prepared this report), including assumptions about occupancy, indoor air temperature and local climate.

Not all assumptions that may have been made by the assessor while using the NatHERS accredited software tool are presented in this report and further details or data files may be available from the assessor.

Glossary

Annual energy load	the predicted amount of energy required for heating and cooling, based on standard occupancy assumptions.
Assessed floor area	the floor area modelled in the software for the purpose of the NatHERS assessment. Note, this may not be consistent with the floor area in the design documents.
Ceiling penetrations	features that require a penetration to the ceiling, including downlights, vents, exhaust fans, rangehoods, chimneys and flues. Excludes fixtures attached to the ceiling with small holes through the ceiling for wiring, e.g. ceiling fans; pendant lights, and heating and cooling ducts.
Conditioned	a zone within a dwelling that is expected to require heating and cooling based on standard occupancy assumptions. In some circumstances it will include garages.
Custom windows	windows listed in NatHERS software that are available on the market in Australia and have a WERS (Window Energy Rating Scheme) rating.
Default windows	windows that are representative of a specific type of window product and whose properties have been derived by statistical methods.
Entrance door	these signify ventilation benefits in the modelling software and must not be modelled as a door when opening to a minimally ventilated corridor in a Class 2 building.
Exposure category - exposed	terrain with no obstructions e.g. flat grazing land, ocean-frontage, desert, exposed high-rise unit (usually above 10 floors).
Exposure category - open	terrain with few obstructions at a similar height e.g. grasslands with few well scattered obstructions below 10m, farmland with scattered sheds, lightly vegetated bush blocks, elevated units (e.g. above 3 floors).
Exposure category - suburban	terrain with numerous, closely spaced obstructions below 10m e.g. suburban housing, heavily vegetated bushland areas.
Exposure category - protected	terrain with numerous, closely spaced obstructions over 10 m e.g. city and industrial areas.
Horizontal shading feature	provides shading to the building in the horizontal plane, e.g. eaves, verandahs, pergolas, carports, or overhangs or balconies from upper levels.

National Construction Code (NCC) Class	the NCC groups buildings by their function and use, and assigns a classification code. NatHERS software models NCC Class 1, 2 or 4 buildings and attached Class 10a buildings. Definitions can be found at www.abcb.gov.au.
Opening Percentage	the openability percentage or operable (moveable) area of doors or windows that is used in ventilation calculations.
Provisional value	an assumed value that does not represent an actual value. For example, if the wall colour is unspecified in the documentation, a provisional value of 'medium' must be modelled. Acceptable provisional values are outlined in the NatHERS Technical Note and can be found at www.nathers.gov.au
Reflective wrap (also known as foil)	can be applied to walls, roofs and ceilings. When combined with an appropriate airgap and emissivity value, it provides insulative properties.
Roof window	for NatHERS this is typically an operable window (i.e. can be opened), will have a plaster or similar light well if there is an attic space, and generally does not have a diffuser.
Shading device	a device fixed to windows that provides shading e.g. window awnings or screens but excludes eaves.
Shading features	includes neighbouring buildings, fences, and wing walls, but excludes eaves.
Solar heat gain coefficient (SHGC)	the fraction of incident solar radiation admitted through a window, both directly transmitted as well as absorbed and subsequently released inward. SHGC is expressed as a number between 0 and 1. The lower a window's SHGC, the less solar heat it transmits.
Skylight (also known as roof lights)	for NatHERS this is typically a moulded unit with flexible reflective tubing (light well) and a diffuser at ceiling level.
U-value	the rate of heat transfer through a window. The lower the U-value, the better the insulating ability.
Unconditioned	a zone within a dwelling that is assumed to not require heating and cooling based on standard occupancy assumptions.
Vertical shading features	provides shading to the building in the vertical plane and can be parallel or perpendicular to the subject wall/window. Includes privacy screens, other walls in the building (wing walls), fences, other buildings, vegetation (protected or listed heritage trees).

Appendix C: Renewable Energy

Inputs Solar PV

Peak Wattage of System	99.9	kWp
Azimuth	0	degrees
Inclination	10	degrees

Outputs Solar PV

Electricity Produced per Year	133,881	kWh
No. Panels Required	222	
Total Roof Area Required	528	sqm
Annual Carbon Savings	149,946	kg CO2

Economic Output

Cost of System	149,850	$
Annual Savings	26,776	$
Simple Payback	6	Years

Appendix D: BESS Assessment

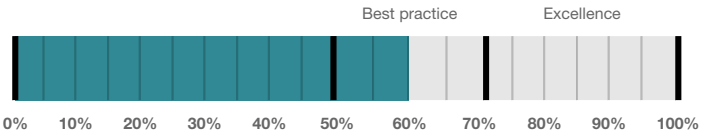
BESS Report

Built Environment Sustainability Scorecard

This BESS report outlines the sustainable design commitments of the proposed development at 1041 Centre Rd Oakleigh South Victoria 3167. 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 Monash 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

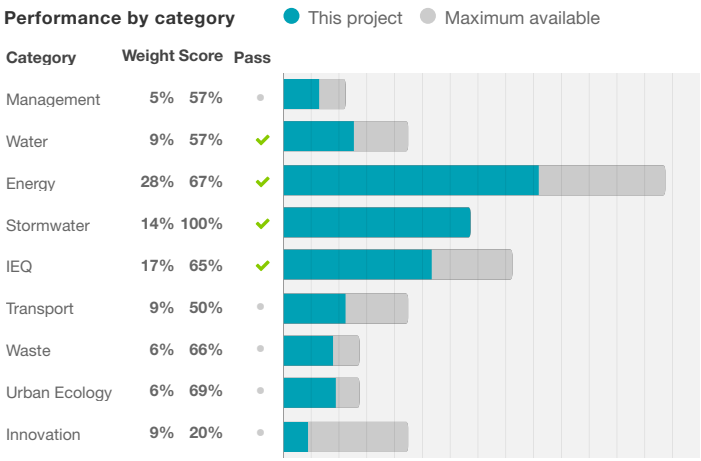


64%

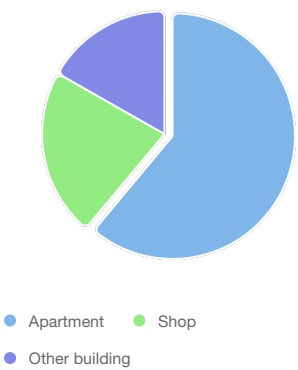
Project details

Name	1041 Centre Rd, Oakleigh South VIC 3167, Australia
Address	1041 Centre Rd Oakleigh South Victoria 3167
Project ID	098AB9D8-R5
BESS Version	BESS-6
Site type	Mixed use development
Account	info@giw.com.au
Application no.	
Site area	11,272 m²
Building floor area	13,165 m²
Date	05 May 2025
Software version	2.1.0-B.596

Performance by category



Project composition



Buildings

Name	Height	Footprint	% of total footprint
1041 Centre Rd	8	24,131 m²	100%

Dwellings & Non Res Spaces

Dwellings

Name	Quantity	Area	Building	% of total area
Apartment				
U2.08-U2.16, U3.08-U3.16, U4.08-U4.16, U5.08-U5.16, U6.08-U6.16, U7.03-U7.11	54	73.0 m²	1041 Centre Rd	29%
U2.23-U2.29, U3.23-U3.29, U4.23-U4.29, U5.23-U5.29, U6.17-U6.23, U7.12-U7.18	42	48.0 m²	1041 Centre Rd	15%
U2.03-U2.07, U3.03-U3.07, U4.03-U4.07, U5.03-U5.07, U6.03-U6.07, U7.01, U7.02	27	48.0 m²	1041 Centre Rd	9%
U2.02, U3.02, U4.02, U5.02, U6.02	5	110 m²	1041 Centre Rd	4%
U2.01, U3.01, U4.01, U5.01, U6.01	5	48.0 m²	1041 Centre Rd	1%
Total	**133**	**8,044 m²**	**61%**	

Non-Res Spaces

Name	Quantity	Area	Building	% of total area
Shop				
Supermarket	1	1,505 m²	1041 Centre Rd	11%
Retail	1	1,200 m²	1041 Centre Rd	9%
F&B	1	206 m²	1041 Centre Rd	1%
Total	**3**	**2,910 m²**	**22%**	
Other building				
Hotel	1	2,211 m²	1041 Centre Rd	16%
Total	**1**	**2,211 m²**	**16%**	

Supporting Evidence

Shown on Floor Plans

Credit	Requirement	Response	Status
Management 3.1	Individual utility meters annotated		-
Management 3.2	Individual utility meters annotated		-
Management 3.3	Common area submeters annotated		-
Water 3.1	Water efficient garden annotated		-
Energy 3.1	Carpark with natural ventilation or CO monitoring system		-
Energy 3.4	Clothes line annotated (if proposed)		-
Energy 4.2	Floor plans showing location of photovoltaic panels as described.		-

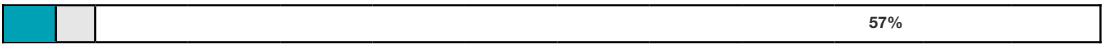
Credit	Requirement	Response	Status
Stormwater 1.1	Location of any stormwater management systems used in STORM or MUSIC modelling (e.g. Rainwater tanks, raingarden, buffer strips)		-
IEQ 1.1	If using BESS daylight calculator, references to floorplans and elevations showing window sizes and sky angles.		-
IEQ 1.2	If using BESS daylight calculator, references to floorplans and elevations showing window sizes and sky angles.		-
IEQ 1.5	Floor plans with compliant bedrooms marked		-
IEQ 2.1	Dwellings meeting the requirements for being 'naturally ventilated'		-
Transport 1.2	All nominated residential visitor bicycle parking spaces		-
Transport 1.4	All nominated non-residential bicycle parking spaces		-
Transport 1.5	All nominated non-residential visitor bicycle parking spaces		-
Transport 2.1	Location of electric vehicle charging infrastructure		-
Waste 2.1	Location of food and garden waste facilities		-
Waste 2.2	Location of recycling facilities		-
Urban Ecology 1.1	Size and location of communal spaces		-
Urban Ecology 2.1	Vegetated areas		-
Urban Ecology 2.2	Green roof		-

Supporting Documentation

Credit	Requirement	Response	Status
Management 2.2	Preliminary NatHERS assessments		-
Management 2.3a	Section J glazing assessment		-
Energy 1.1	Energy Report showing calculations of reference case and proposed buildings		-
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.		-
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.		-
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.		-
Energy 4.2	Specifications of the solar photovoltaic system(s).		-
Stormwater 1.1	STORM report or MUSIC model		-
IEQ 1.1	If using an alternative daylight modelling program, a short report detailing assumptions used and results achieved.		-
IEQ 1.2	If using an alternative daylight modelling program, a short report detailing assumptions used and results achieved.		-
IEQ 1.4	A short report detailing assumptions used and results achieved.		-
IEQ 1.5	A list of compliant bedrooms		-
IEQ 2.1	A list of naturally ventilated dwellings		-

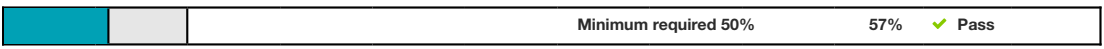
Credit summary

Management Overall contribution 4.5%



1.1 Pre-Application Meeting	0%
2.2 Thermal Performance Modelling - Multi-Dwelling Residential	100%
2.3 Thermal Performance Modelling - Non-Residential	50%
3.1 Metering - Residential	100%
3.2 Metering - Non-Residential	100%
3.3 Metering - Common Areas	100%
4.1 Building Users Guide	100%

Water Overall contribution 9.0%



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%	67%	Pass
1.1 Thermal Performance Rating - Non-Residential		12%	
1.2 Thermal Performance Rating - Residential		66%	
2.1 Greenhouse Gas Emissions		100%	
2.2 Peak Demand		0%	
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		61%	
3.4 Clothes Drying		100%	
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		0%	Disabled
			No other (non-solar PV) renewable energy is in use.

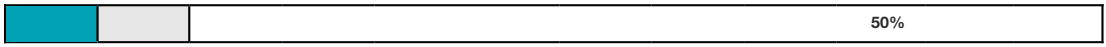
Stormwater Overall contribution 13.5%

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

IEQ Overall contribution 16.5%

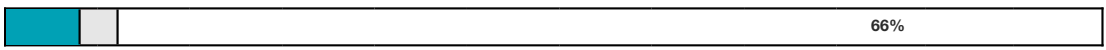
	Minimum required 50%	65%	Pass
1.1 Daylight Access - Living Areas		100%	
1.2 Daylight Access - Bedrooms		100%	
1.3 Winter Sunlight		0%	
1.4 Daylight Access - Non-Residential		36%	Achieved
1.5 Daylight Access - Minimal Internal Bedrooms		100%	
2.1 Effective Natural Ventilation		66%	
2.3 Ventilation - Non-Residential		33%	Achieved
3.4 Thermal comfort - Shading - Non-residential		85%	
3.5 Thermal Comfort - Ceiling Fans - Non-Residential		0%	
4.1 Air Quality - Non-Residential		100%	

Transport Overall contribution 9.0%



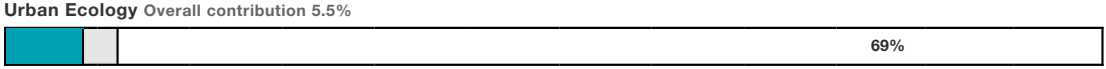
1.1 Bicycle Parking - Residential	0%
1.2 Bicycle Parking - Residential Visitor	100%
1.3 Bicycle Parking - Convenience Residential	0% ⊘ Disabled
	Credit 1.1 must be achieved first.
1.4 Bicycle Parking - Non-Residential	100%
1.5 Bicycle Parking - Non-Residential Visitor	100%
1.6 End of Trip Facilities - Non-Residential	0%
2.1 Electric Vehicle Infrastructure	100%
2.2 Car Share Scheme	0%
2.3 Motorbikes / Mopeds	0%

Waste Overall contribution 5.5%



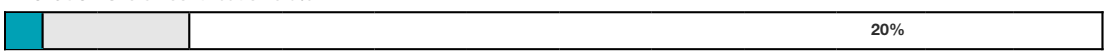
1.1 - Construction Waste - Building Re-Use	0%
2.1 - Operational Waste - Food & Garden Waste	100%
2.2 - Operational Waste - Convenience of Recycling	100%

Urban Ecology Overall contribution 5.5%



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

Innovation Overall contribution 9.0%



1.1 Innovation	20%

Credit breakdown

Management Overall contribution 4.5%

57%

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 15.3% 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	50%
Score Contribution	This credit contributes 9.7% towards the category score.
Criteria	Has a preliminary facade assessment been undertaken in accordance with NCC2019 Section J1.5?
Question	Criteria Achieved ?
Shop	Yes
Other building	Yes
Criteria	Has preliminary modelling been undertaken in accordance with either NCC2019 Section J (Energy Efficiency), NABERS or Green Star?
Question	Criteria Achieved ?
Shop	No
Other building	No
3.1 Metering - Residential	100%
Score Contribution	This credit contributes 7.6% towards the category score.
Criteria	Have utility meters been provided for all individual dwellings?
Question	Criteria Achieved ?
Apartment	Yes
3.2 Metering - Non-Residential	100%

Score Contribution	This credit contributes 4.9% towards the category score.
Criteria	Have utility meters been provided for all individual commercial tenants?
Question	Criteria Achieved ?
Shop	Yes
Other building	Yes

3.3 Metering - Common Areas 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
Shop	Yes
Other 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 9.0%

			Minimum required 50%	57%	✔ Pass

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

Fixtures, fittings & connections profile	
Showerhead:	
U2.01, U3.01, U4.01, U5.01, U6.01 U2.02, U3.02, U4.02, U5.02, U6.02 U2.03-U2.07, U3.03-U3.07, U4.03-U4.07, U5.03-U5.07, U6.03-U6.07, U7.01, U7.02 U2.08-U2.16, U3.08-U3.16, U4.08-U4.16, U5.08-U5.16, U6.08-U6.16, U7.03-U7.11 U2.23-U2.29, U3.23-U3.29, U4.23-U4.29, U5.23-U5.29, U6.17-U6.23, U7.12-U7.18 Hotel	4 Star WELS (>= 6.0 but <= 7.5)
Supermarket Retail F&B	Scope out
Bath: All	Scope out
Kitchen Taps: All	>= 5 Star WELS rating
Bathroom Taps: All	>= 5 Star WELS rating
Dishwashers:	
U2.01, U3.01, U4.01, U5.01, U6.01 U2.02, U3.02, U4.02, U5.02, U6.02 U2.03-U2.07, U3.03-U3.07, U4.03-U4.07, U5.03-U5.07, U6.03-U6.07, U7.01, U7.02 U2.08-U2.16, U3.08-U3.16, U4.08-U4.16, U5.08-U5.16, U6.08-U6.16, U7.03-U7.11 U2.23-U2.29, U3.23-U3.29, U4.23-U4.29, U5.23-U5.29, U6.17-U6.23, U7.12-U7.18 Hotel F&B	>= 5 Star WELS rating
Supermarket Retail	Scope out
WC: All	>= 4 Star WELS rating
Urinals: All	Scope out

Washing Machine Water Efficiency:	
U2.01, U3.01, U4.01, U5.01, U6.01 U2.02, U3.02, U4.02, U5.02, U6.02 U2.03-U2.07, U3.03-U3.07, U4.03-U4.07, U5.03-U5.07, U6.03-U6.07, U7.01, U7.02 U2.08-U2.16, U3.08-U3.16, U4.08-U4.16, U5.08-U5.16, U6.08-U6.16, U7.03-U7.11 U2.23-U2.29, U3.23-U3.29, U4.23-U4.29, U5.23-U5.29, U6.17-U6.23, U7.12-U7.18	Occupant to Install
Supermarket Retail Hotel F&B	Scope out
Which non-potable water source is the dwelling/space connected to?:	
U2.01, U3.01, U4.01, U5.01, U6.01 U2.02, U3.02, U4.02, U5.02, U6.02 U2.03-U2.07, U3.03-U3.07, U4.03-U4.07, U5.03-U5.07, U6.03-U6.07, U7.01, U7.02 U2.08-U2.16, U3.08-U3.16, U4.08-U4.16, U5.08-U5.16, U6.08-U6.16, U7.03-U7.11 U2.23-U2.29, U3.23-U3.29, U4.23-U4.29, U5.23-U5.29, U6.17-U6.23, U7.12-U7.18 Hotel	-1
Supermarket Retail F&B	Tank 1
Non-potable water source connected to Toilets:	
U2.01, U3.01, U4.01, U5.01, U6.01 U2.02, U3.02, U4.02, U5.02, U6.02 U2.03-U2.07, U3.03-U3.07, U4.03-U4.07, U5.03-U5.07, U6.03-U6.07, U7.01, U7.02 U2.08-U2.16, U3.08-U3.16, U4.08-U4.16, U5.08-U5.16, U6.08-U6.16, U7.03-U7.11 U2.23-U2.29, U3.23-U3.29, U4.23-U4.29, U5.23-U5.29, U6.17-U6.23, U7.12-U7.18 Hotel	No
Supermarket Retail F&B	Yes
Non-potable water source connected to Laundry (washing machine): All	No
Non-potable water source connected to Hot Water System: All	No

Rainwater tank profile	
What is the total roof area connected to the rainwater tank?: Tank 1	1,688 m²
Tank Size: Tank 1	20,000 Litres
Irrigation area connected to tank: Tank 1	2,433 m²
Is connected irrigation area a water efficient garden?: Tank 1	Yes

Other external water demand connected to tank?: Tank 1	0.0 Litres/Day

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	22153 kL
Output	Proposed (excluding rainwater and recycled water use)
Project	17520 kL
Output	Proposed (including rainwater and recycled water use)
Project	16545 kL
Output	% Reduction in Potable Water Consumption
Project	25 %
Output	% of connected demand met by rainwater
Project	49 %
Output	How often does the tank overflow?
Project	Very Often
Output	Opportunity for additional rainwater connection
Project	8203 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 27.5%

		Minimum required 50%	67%	✔ Pass

Use the BESS Deem to Satisfy (DtS) method for Non-residential spaces?:	No
Dwellings Energy Approach	
What approach do you want to use for Dwellings?:	Use the built in calculation tools
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	1041 Centre Rd
Below the floor is: All	Another Occupancy
Above the ceiling is: All	Another Occupancy
Exposed sides:	
U2.01, U3.01, U4.01, U5.01, U6.01 U2.03-U2.07, U3.03-U3.07, U4.03-U4.07, U5.03-U5.07, U6.03-U6.07, U7.01, U7.02 U2.08-U2.16, U3.08-U3.16, U4.08-U4.16, U5.08-U5.16, U6.08-U6.16, U7.03-U7.11 U2.23-U2.29, U3.23-U3.29, U4.23-U4.29, U5.23-U5.29, U6.17-U6.23, U7.12-U7.18	1
U2.02, U3.02, U4.02, U5.02, U6.02	2
NatHERS Annual Energy Loads - Heat: All	57.7 MJ/sqm
NatHERS Annual Energy Loads - Cool: All	8.9 MJ/sqm
NatHERS star rating: All	7.5
Type of Heating System: All	D Reverse cycle space
Heating System Efficiency: All	3 Star
Type of Cooling System: All	Refrigerative space
Cooling System Efficiency: All	3 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:	
U2.01, U3.01, U4.01, U5.01, U6.01 U2.02, U3.02, U4.02, U5.02, U6.02 U2.03-U2.07, U3.03-U3.07, U4.03-U4.07, U5.03-U5.07, U6.03-U6.07, U7.01, U7.02	0 %
U2.08-U2.16, U3.08-U3.16, U4.08-U4.16, U5.08-U5.16, U6.08-U6.16, U7.03-U7.11 U2.23-U2.29, U3.23-U3.29, U4.23-U4.29, U5.23-U5.29, U6.17-U6.23, U7.12-U7.18	-
Clothes Line: All	B Shared clothesline
Clothes Dryer: All	Occupant to Install
Non-residential buildings profile	

Heating, Cooling & Comfort Ventilation - Electricity - reference fabric and reference services:	10,000 kWh
Heating, Cooling & Comfort Ventilation - Electricity - proposed fabric and reference services:	10,000 kWh
Heating, Cooling & Comfort Ventilation - Electricity - proposed fabric and proposed services:	10,000 kWh
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:	0.0 kWh
Hot Water - Electricity - Proposed:	0.0 kWh
Lighting - Baseline:	1,000 kWh
Lighting - Proposed:	1,000 kWh
Peak Thermal Cooling Load - Baseline:	-
Peak Thermal Cooling Load - Proposed:	-

Solar Photovoltaic system profile

System Size (lesser of inverter and panel capacity):	
PV 1	50.0 kW peak
PV 2	25.0 kW peak
PV3	24.0 kW peak
Orientation (which way is the system facing)?:	
PV 1	North
PV 2	North
PV3	North
Inclination (angle from horizontal):	
PV 1	10.0 Angle (degrees)
PV 2	10.0 Angle (degrees)
PV3	10.0 Angle (degrees)
Which Building Class does this apply to?:	
PV 1	Apartment
PV 2	Shop
PV3	Other building

1.1 Thermal Performance Rating - Non-Residential 12%

Score Contribution	This credit contributes 16% towards the category score.
Criteria	What is the % reduction in heating and cooling energy consumption against the reference case (NCC 2019 Section J)?
Output	Total Improvement
Shop	0 %
Other building	0 %

1.2 Thermal Performance Rating - Residential 66%

Score Contribution	This credit contributes 18.9% towards the category score.
Criteria	What is the average NatHERS rating?
Output	Average NATHERS Rating (Weighted)
Apartment	7.5 Stars

2.1 Greenhouse Gas Emissions	100%

Score Contribution	This credit contributes 10.3% 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	711,206 kg CO2
Shop	2,255 kg CO2
Other building	1,713 kg CO2
Output	Proposed Building with Proposed Services (Actual Building)
Apartment	248,565 kg CO2
Shop	2,255 kg CO2
Other building	1,713 kg CO2
Output	% Reduction in GHG Emissions
Apartment	65 %
Shop	0 %
Other building	0 %

2.2 Peak Demand	0%

Score Contribution	This credit contributes 5.2% towards the category score.
Criteria	What is the % reduction in the instantaneous (peak-hour) demand against the benchmark?
Output	Peak Thermal Cooling Load - Baseline
Apartment	1,720 kW
Output	Peak Thermal Cooling Load - Proposed
Apartment	1,526 kW
Output	Peak Thermal Cooling Load - % Reduction
Apartment	11 %

2.3 Electricity Consumption	100%

Score Contribution	This credit contributes 10.3% towards the category score.
Criteria	What is the % reduction in annual electricity consumption against the benchmark?
Output	Reference
Apartment	697,260 kWh
Shop	2,211 kWh
Other building	1,679 kWh
Output	Proposed
Apartment	243,691 kWh
Shop	2,211 kWh
Other building	1,679 kWh
Output	Improvement
Apartment	65 %
Shop	0 %
Other building	0 %

2.4 Gas Consumption — N/A — Scoped Out

No gas connection in use

This credit was scoped out	No gas connection in use

3.1 Carpark Ventilation — 100%

Score Contribution	This credit contributes 10.3% 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 — 61%

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	1,143,710 MJ
Output	Proposed
Apartment	482,876 MJ
Output	Improvement
Apartment	57 %

3.4 Clothes Drying — 100%

Score Contribution	This credit contributes 3.2% 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	53,167 kWh
Output	Proposed
Apartment	37,217 kWh
Output	Improvement
Apartment	29 %

3.6 Internal Lighting - Residential Multiple Dwellings 100%

Score Contribution	This credit contributes 6.3% 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 4% 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 ?
Shop	Yes
Other building	Yes

4.1 Combined Heat and Power (cogeneration / trigeneration) N/A Scoped Out

No cogeneration or trigeneration system in use.

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	60,592 kWh
Shop	30,296 kWh
Other building	29,084 kWh
Output	% of Building's Energy
Apartment	24 %
Shop	1245 %
Other building	1574 %

4.4 Renewable Energy Systems - Other 0% Disabled

No other (non-solar PV) renewable energy is in use.

This credit is disabled	No other (non-solar PV) renewable energy is in use.

Stormwater **Overall contribution 13.5%**

	Minimum required 100%	**100%**	✔ **Pass**

Which stormwater modelling are you using?:	Melbourne Water STORM tool
1.1 Stormwater Treatment	100%
Score Contribution	This credit contributes 100% 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 16.5%**

		Minimum required 50%	**65%**	✔ **Pass**

Use the BESS Deemed to Satisfy (DtS) method for daylight to Dwellings?:	No
What approach do you want to use for daylight to Dwellings?:	Use the built in calculation tools
Room Designation:	
North oriented Living Rooms L5-7 All other living areas	Living
All bedrooms	Bedroom
Quantity:	
North oriented Living Rooms L5-7	12
All other living areas	121
All bedrooms	197
Auto-Pass:	
North oriented Living Rooms L5-7	No
All other living areas All bedrooms	Yes
Room Floor Area:	
North oriented Living Rooms L5-7	21.5 m^2
All other living areas All bedrooms	-
Vertical Angle:	
North oriented Living Rooms L5-7	32.0 Angle (degrees)
All other living areas All bedrooms	-
Horizontal Angle:	
North oriented Living Rooms L5-7	72.0 Angle (degrees)
All other living areas All bedrooms	-
Window Area:	
North oriented Living Rooms L5-7	6.0 m^2
All other living areas All bedrooms	-
Window Orientation:	
North oriented Living Rooms L5-7	North
All other living areas All bedrooms	-
Glass Type:	
North oriented Living Rooms L5-7	Clear Low-E Double (VLT 0.73)
All other living areas All bedrooms	-
Daylight Criteria Achieved?: All	Yes
1.1 Daylight Access - Living Areas	100%

Score Contribution	This credit contributes 13.1% towards the category score.
Criteria	What % of living areas achieve a daylight factor greater than 1%
Output	Calculated percentage
Apartment	100 %

1.2 Daylight Access - Bedrooms 100%

Score Contribution	This credit contributes 13.1% 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 4.4% 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 36% ✔ Achieved

Score Contribution	This credit contributes 16.7% towards the category score.
Criteria	What % of the nominated floor area has at least 2% daylight factor?
Question	Percentage Achieved?
Shop	33 %
Other building	40 %

1.5 Daylight Access - Minimal Internal Bedrooms 100%

Score Contribution	This credit contributes 4.4% 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 66%

Score Contribution	This credit contributes 13.1% towards the category score.
Criteria	What % of dwellings are effectively naturally ventilated?
Question	Percentage Achieved?
Apartment	64 %

2.3 Ventilation - Non-Residential 33% ✔ Achieved

Score Contribution	This credit contributes 16.7% towards the category score.

Criteria	What % of the regular use areas are effectively naturally ventilated?
Question	Percentage Achieved?
Shop	0 %
Other 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	Percentage Achieved?
Shop	50 %
Other building	50 %

Criteria	What CO2 concentrations are the ventilation systems designed to achieve, to monitor and to maintain?
Question	Value
Shop	-
Other building	-

3.4 Thermal comfort - Shading - Non-residential 85%

Score Contribution	This credit contributes 8.4% towards the category score.

Criteria	What percentage of east, north and west glazing to regular use areas is effectively shaded?
Question	Percentage Achieved?
Shop	100 %
Other building	50 %

3.5 Thermal Comfort - Ceiling Fans - Non-Residential 0%

Score Contribution	This credit contributes 2.8% towards the category score.
Criteria	What percentage of regular use areas in tenancies have ceiling fans?
Question	Percentage Achieved?
Shop	0 %
Other building	-

4.1 Air Quality - Non-Residential 100%

Score Contribution	This credit contributes 7.2% 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 9.0%

50%

1.1 Bicycle Parking - Residential	0%
Score Contribution	This credit contributes 14.2% towards the category score.
Criteria	How many secure and undercover bicycle spaces are there per dwelling for residents?
Question	Bicycle Spaces Provided ?
Apartment	27
Output	Min Bicycle Spaces Required
Apartment	133

1.2 Bicycle Parking - Residential Visitor	100%
Score Contribution	This credit contributes 14.2% towards the category score.
Criteria	How many secure bicycle spaces are there per 5 dwellings for visitors?
Question	Visitor Bicycle Spaces Provided ?
Apartment	32
Output	Min Visitor Bicycle Spaces Required
Apartment	27

1.3 Bicycle Parking - Convenience Residential	0% ⊘ Disabled
	Credit 1.1 must be achieved first.
This credit is disabled	Credit 1.1 must be achieved first.

1.4 Bicycle Parking - Non-Residential	100%
Score Contribution	This credit contributes 9% 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 ?
Shop	Yes
Other building	Yes
Question	Bicycle Spaces Provided ?
Shop	4
Other building	4

1.5 Bicycle Parking - Non-Residential Visitor	100%
Score Contribution	This credit contributes 4.5% 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 ?
Shop	Yes
Other building	Yes
Question	Bicycle Spaces Provided ?
Shop	9
Other building	3

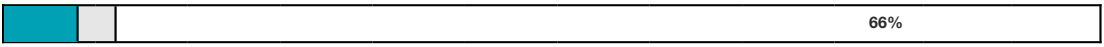
1.6 End of Trip Facilities - Non-Residential	0%
Score Contribution	This credit contributes 4.5% towards the category score.
Criteria	Where adequate bicycle parking has been provided. Is there also: * 1 shower for the first 5 employee bicycle spaces plus 1 to each 10 employee bicycles spaces thereafter, * changing facilities adjacent to showers, and * one secure locker per employee bicycle space in the vicinity of the changing / shower facilities?
Question	Number of showers provided ?
Shop	0
Other building	1
Question	Number of lockers provided ?
Shop	0
Other building	3
Output	Min Showers Required
Shop	1
Other building	1
Output	Min Lockers Required
Shop	4
Other building	4

2.1 Electric Vehicle Infrastructure	100%
Score Contribution	This credit contributes 23.2% towards the category score.
Criteria	Are facilities provided for the charging of electric vehicles?
Question	Criteria Achieved ?
Project	Yes

2.2 Car Share Scheme	0%
Score Contribution	This credit contributes 11.6% 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 11.6% 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 5.5%**



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 5.5%**

69%

1.1 Communal Spaces		100%
Score Contribution	This credit contributes 11.6% 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	132 m²	
Shop	210 m²	
Other building	80.0 m²	
Output	Minimum Common Space Required	
Apartment	132 m²	
Shop	210 m²	
Other building	80 m²	
2.1 Vegetation		100%
Score Contribution	This credit contributes 46.5% 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	30 %	
2.2 Green Roofs		100%
Score Contribution	This credit contributes 11.6% towards the category score.	
Criteria	Does the development incorporate a green roof?	
Question	Criteria Achieved ?	
Project	Yes	
2.3 Green Walls and Facades		0%
Score Contribution	This credit contributes 11.6% 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		0%
Score Contribution	This credit contributes 7.1% towards the category score.	
Criteria	Is there a tap and floor waste on every balcony / in every courtyard?	
Question	Criteria Achieved ?	
Apartment	No	
3.1 Food Production - Residential		0%

Score Contribution	This credit contributes 7.1% 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	54 m²

3.2 Food Production - Non-Residential 0%

Score Contribution	This credit contributes 4.5% towards the category score.
Criteria	What area of space per occupant is dedicated to food production?
Question	Food Production Area
Shop	0.0 m²
Other building	-
Output	Min Food Production Area
Shop	73 m²
Other building	28 m²

Innovation **Overall contribution 9.0%**

20%

Innovations	
Description:	
99kW Solar PV system	A 99kW Solar PV system is to be located on the roof of the proposed development. The system is expected to generate approximately 133,881kWh and will be connected to an embedded network serving the development.
Construction Waste	At least 90% of the waste generated during construction and demolition has been diverted from landfill.
Points Targeted:	
99kW Solar PV system	1
Construction Waste	1

1.1 Innovation 20%

Score Contribution	This credit contributes 100% towards the category score.
Criteria	What percentage of the Innovation points have been claimed (10 points maximum)?

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Traffix Group

Traffic Engineering Assessment

Proposed Mixed Use Development

1041 Centre Road, Oakleigh South (Links Shopping Centre)

Prepared for
1041 Centre Road Pty Ltd

May 2025

G29458R-01E

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Issue No.	Type	Date	Prepared By	Approved By
A	Initial Issue	17/08/2021	Daniel Milder	Jodie Place
B	Second Issue	22/03/2022	Daniel Milder	Jodie Place
C	Third Issue	08/04/2022	Daniel Milder	Jodie Place
D	Amended Plans for VCAT	14/10/2022	Daniel Milder	Jodie Place
E	Amended Application	15/05/2025	D. Milder (RPE 7838)	H. Turnbull (RPE No. 6312)
F	Amended Application	27/05/2025	D. Milder (RPE 7838)	H. Turnbull (RPE No. 6312)

AS/NZS ISO 45001-2018 Occupational Health & Safety Management Systems
AS/NZS ISO 14001 Environmental Management Systems
AS/NZS ISO 9001-2016 Quality Management Systems

Table of Contents

List of Appendices

1. Introduction

Traffix Group has been engaged by 1041 Centre Road Pty Ltd to prepare a traffic engineering assessment for a proposed mixed-use development at 1041 Centre Road, Oakleigh (Links Shopping Centre).

This report provides our traffic engineering assessment of the parking and traffic issues associated with the proposed development.

2. Existing Conditions

2.1. Site Locality

The development site is located on the north side of Centre Road, approximately 200m east of Warrigal Road in Oakleigh, and is part of the larger subject site known as the Links Shopping Centre, as presented in the locality plan at Figure 1 below.

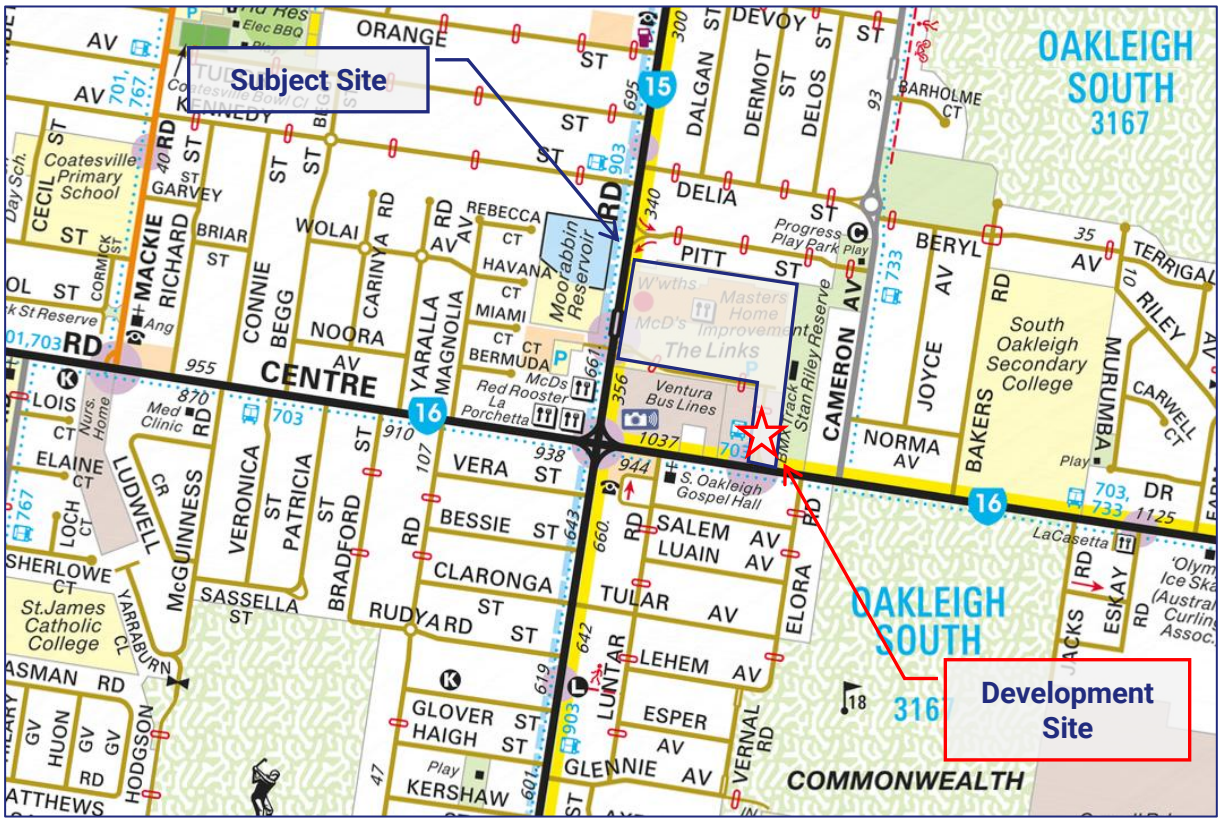


Figure 1: Locality Map (Source: Melway Publishing)

The development site is occupied by a warehouse building comprising approximately 3,300m^2 of floor area and is used by Harvey Norman as a product pickup/storage location.

It has an area of approximately 5,000m^2 and frontages to Centre Road and Links Avenue (two frontages) of approximately 47.5m, 109m(north-south) and 50m (east-west) respectively. Vehicle access is taken from the north-south section of Links Avenue at the northern

boundary to the site. The subject site is provided access via two signalised access points (one via Centre Road and one via Warrigal Road).

An aerial view of the site is shown in Figure 2 below.

Figure 2: Aerial Photograph (Source :Nearmap, December 2024)

2.2. Land Use

The site is zoned Commercial Zone – Schedule 1 (C1Z) as shown in Figure 3 below.

It is affected by a Design and Development Overlay – Schedule 1 (DDO1).

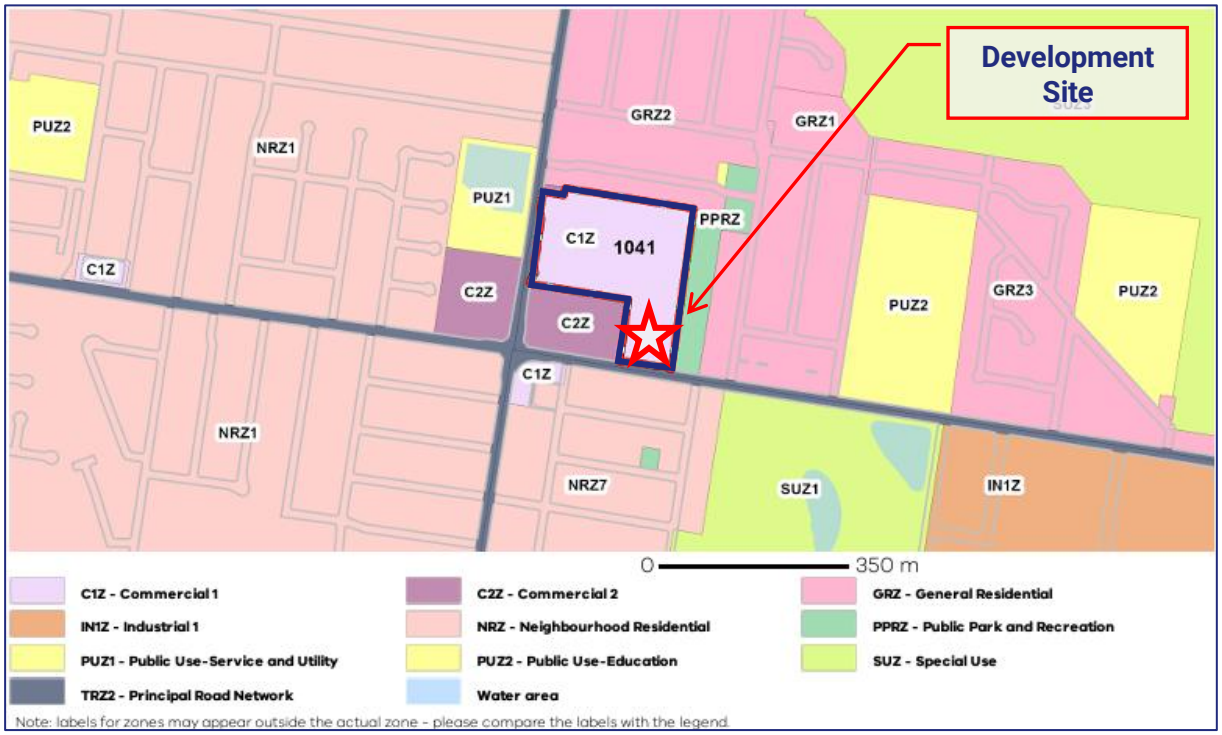


Figure 3: Land Use Zoning Map (Source: Vicplan)

The development site is located within the Links Shopping Centre which provides a range of commercial uses including Woolworths Supermarket and Bunnings Warehouse. Land beyond the commercial uses fronting Centre Road and Warrigal Road is generally zoned as residential.

2.3. Road Network

Centre Road is an arterial road under the control of the Department of Transport and Planning (DTP) and is within a Principal Road Network (TRZ2).

It extends approximately 13.2km in an east-west direction between Springvale Road to the east (where it continues as Police Road) and Hampton Street to the west.

In the vicinity of the development site, Centre Road is constructed with a 12.5m wide carriageway comprising two through traffic lanes in each direction.

Kerbside parking is not permitted on either side of the road.

A posted speed limit of 60km/h applies.

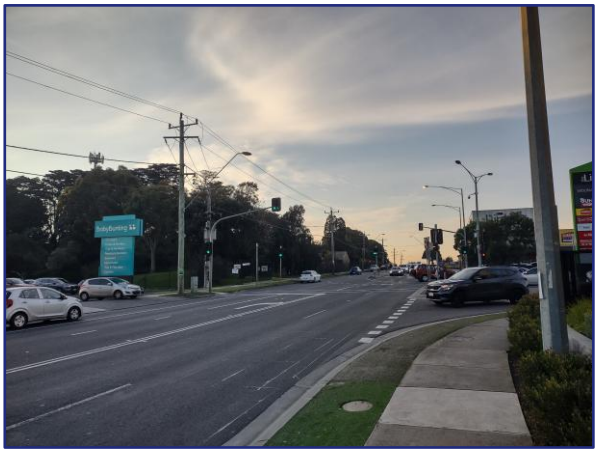


Figure 4: Centre Road view West

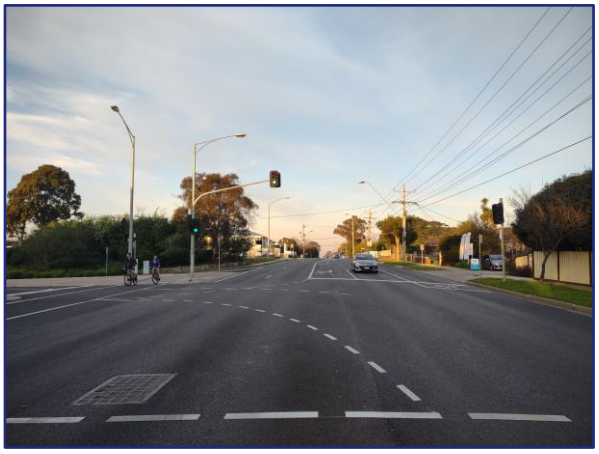


Figure 5: Centre Road view East

Warrigal Road is state arterial road located within a Principal Road Network (TRZ2) and under the control of the DTP. It extends approximately 19km in a north-south direction between Canterbury Road to the north and Beach Road to the south.

In the vicinity of the development site, Warrigal Road is constructed as an undivided carriageway with two lanes in each direction with flaring and merging at the major intersection with Centre Road.

Parking is prohibited along Warrigal Road.

A posted speed limit of 60km/h applies.

Links Avenue is private road within the Links Shopping Centre precinct. It extends east from Warrigal Road for approximately 240m and then turns south to Centre Road (approximately 125m).

Both of its intersections with the arterial roads are controlled by signals.

Links Avenue is generally constructed with a 7.3m wide carriageway which flares at the signalised intersections. A footpath is provided along the south and west sides.

Kerbside parking is not permitted along Links Avenue.

A posted speed limit of 20km/h applies.

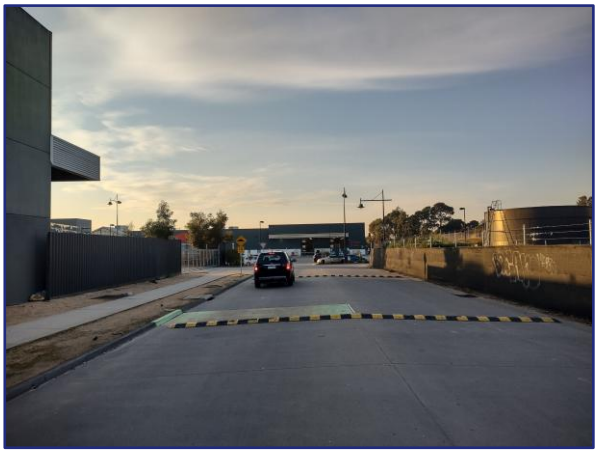


Figure 6: Links Avenue view North

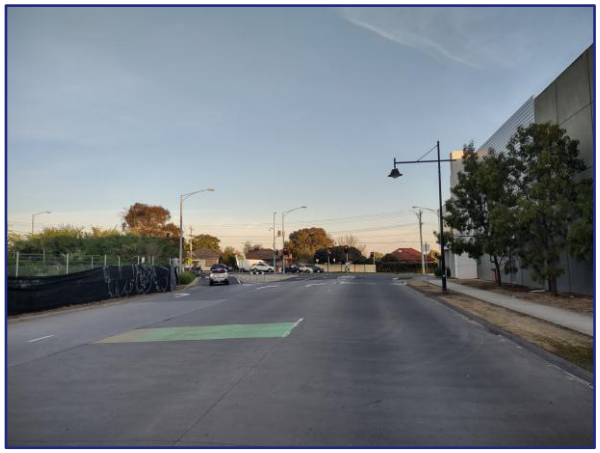


Figure 7: Links Avenue view South

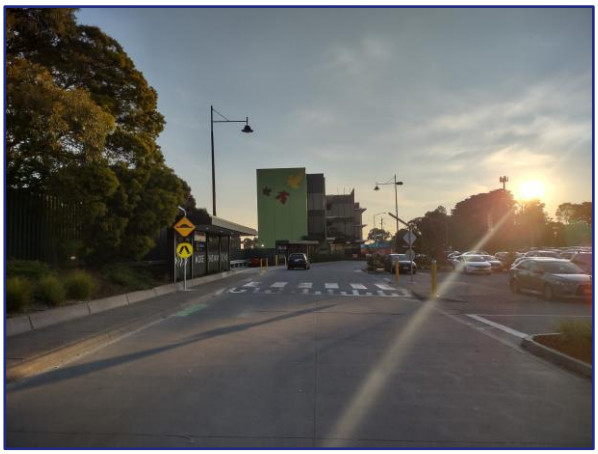


Figure 8: Links Avenue view West

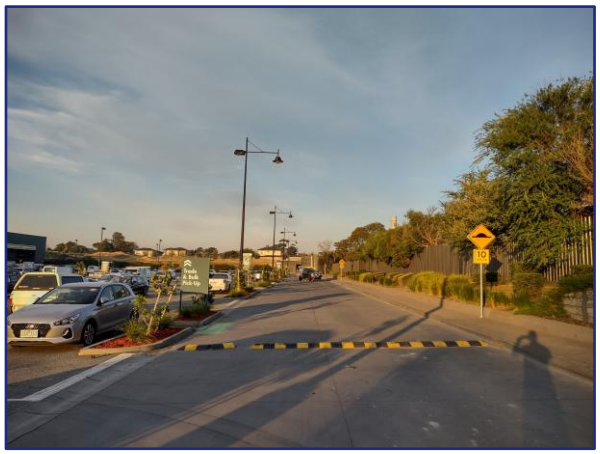


Figure 9: Links Avenue view East

2.4. Principal Public Transport Network

The subject site is located within the Principal Public Transport Network (PPTN) area as shown in Figure 10 below.

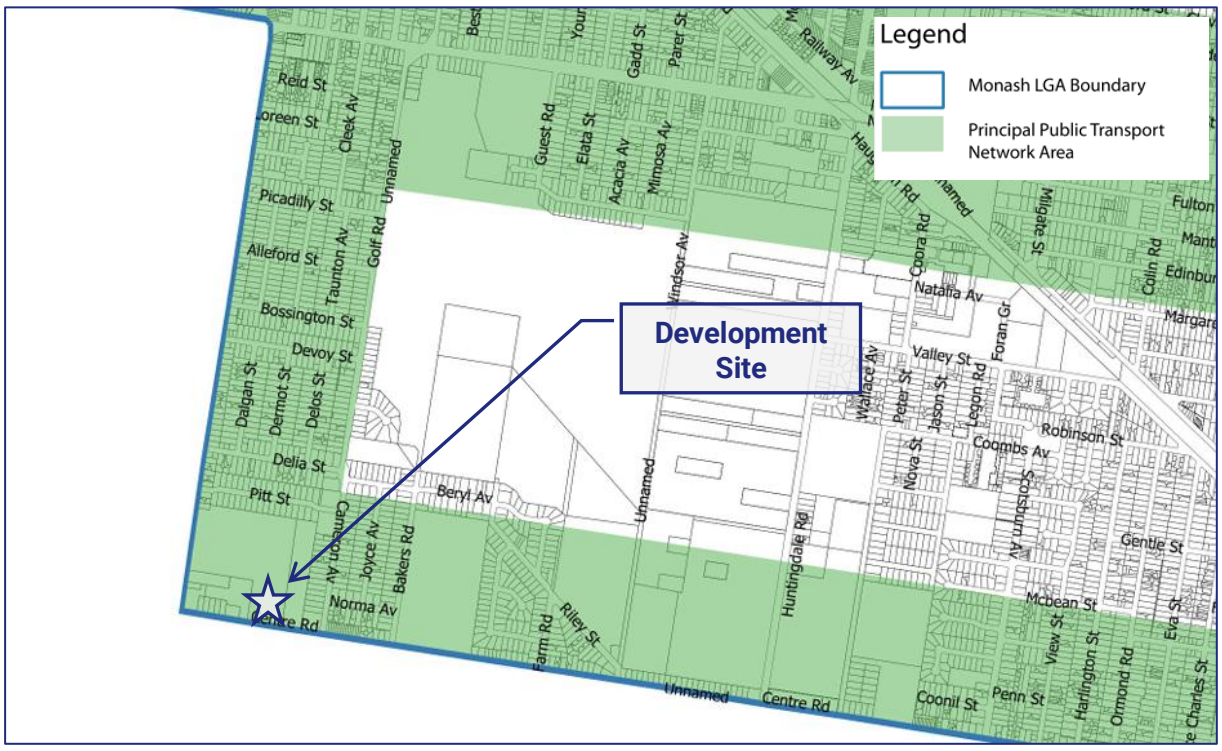


Figure 10: Excerpt of Principal Public Transport Network Area (Monash Council)

2.5. Public Transport

The development site is well located with regard to public transport. The following public transport services operate within 500m of the subject site.

- Bus route 703 operates along Centre Road directly past the subject site. It provides a connection between Middle Brighton and Blackburn via Bentleigh, Clayton and Monash University.
- Bus route 733 operates along Centre Road and Cameron Avenue with the nearest stop approximately 400m east of the site on Centre Road. It provides a connection between Oakleigh and Box Hill via Clayton, Monash University and Mt Waverley.
- Bus route 903 is a SMARTBUS route which operates along Warrigal Road directly past the subject site. It provides a connection between Altona and Mordialloc via Sunshine, Heidelberg, Burwood, and Mentone.

The above services also provide connection to other public transport routes and services providing greater connectivity to the greater metropolitan area.

Figure 11 shows the nearby public transport services.

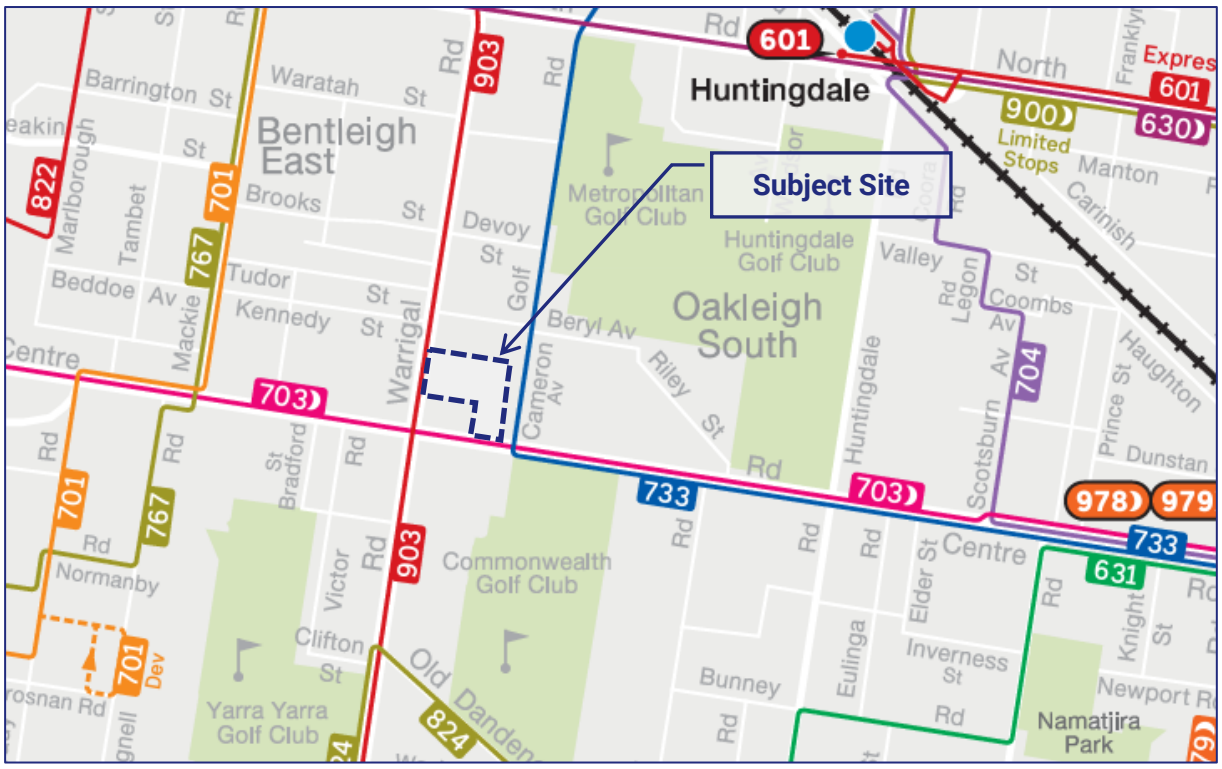


Figure 11: Excerpt of Monash Public Transport Map (Source: PTV)

3. Proposal

The proposal is for multi-storey mixed-use buildings comprising the uses specified in Table 1 below.

Table 1: Schedule of Uses

Use		Endorsed Plans	Amended Scheme
Dwellings	*One-Bedroom*	102 units	74 units
	Two-bedroom	63 units	54 units
	Three-bedroom	6 units	5 units
	TOTAL	171 units	133 units
Apartment Hotel	*One-bedroom*	-	1 unit
	Two-bedroom	-	19 units
	Three-bedroom	-	4 units
	TOTAL	-	24 units
Retail		2,940m^2	2,957m^2
Car Parking		230 spaces	208 spaces

Car parking for the residential dwellings and apartment hotel will be provided at level 1 (podium) accessed via Links Avenue by a dual width ramp. The at-grade parking will be provided on the east side of Links Avenue for use of the proposed retail tenancies. A pedestrian crossing will be provided to facilitate safe movements between the at-grade parking and the proposed uses.

A designated loading area is provided near the north-west corner of the development with three separate loading docks accessible via Links Avenue, described as follows:

- two supermarket loading docks provided with a shared double width industrial crossover, and
  - one for supermarket loading activities suitable for vehicles up to 19m semi-trailer, and
  - one for supermarket waste collection suitable for vehicles up to 12.5m long.
- one residential/retail loading dock which can accommodate vehicles up to 12.5m long.

A copy of the proposed development plans prepared by i2C Architects (dated May 2025) is attached at Appendix A.

4. Car Parking Assessment

4.1. Statutory Car Parking Requirement

The proposed uses fall under the land-use categories of 'dwelling' for residential apartments, 'supermarket', 'shop' for retail uses and 'residential hotel' for apartment hotel.

Clause 52.06 of the Planning Scheme sets out the statutory requirements for car parking. The purposes of Clause 52.06 are:

- *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.*

The statutory car parking requirement for dwellings, supermarket and retail are provided in Table 2 below.

Table 2: Statutory Car Parking Requirement

Use		Measure	Rate	Requirement(1)
Dwelling	2-bed	128 apartments	1 space to each one- or two-bedroom unit	128 spaces
	3-bed	5 apartments	2 spaces to each three-bedroom unit	10 spaces
Supermarket		1,505m^2	5 spaces to each 100m^2 of leasable floor area	75 spaces
Shop		1,452m^2	3.5 spaces to each 100m^2 of leasable floor area	50 spaces
TOTAL				**263 spaces**

(1) Rounded down in accordance with the Planning Scheme.

There is no specified car parking rate under Table 1 of Clause 52.06-5 of the Planning Scheme for a 'residential hotel' use and accordingly, as described at Clause 52.06-6 of the Planning Scheme, parking must be provided for that use to the satisfaction of the Responsible Authority.

Accordingly, the proposal has a statutory car parking requirement for 263 spaces plus parking to the satisfaction of the Responsible Authority for the hotel use.

The provision of 138 car parking spaces associated with the residential use meets the statutory car parking requirement for one and two-bedroom dwellings.

The provision of 54 spaces falls short of the commercial statutory requirement for the supermarket and shop.

4.2. Innominate Use – Residential Hotel

Traffix Group has reviewed case study data of peak parking rates associated with residential hotels throughout metropolitan Melbourne. The data indicates a peak parking rate of 0.loading

spaces per room (inclusive of staff demands).

Given the site's location, it is expected that a higher percentage of guests will travel to/from the site by car than the typical peak rate which is for sites with better access to public transport.

It is anticipated that the majority of staff will drive to the site with some staff opting to use public transport. The provision of bicycle parking on the site may also encourage some staff to cycle to work.

Having regard to the above, we consider it appropriate to adopt a peak car parking rate of 0.6 car spaces per room, inclusive of staff and guest car parking demands.

On this basis, the residential hotel component of the development is expected to generate a demand for up to 14 car spaces which is met by the on-site provision of 16 spaces (including one DDA space).

4.3. Reducing the Car Parking Requirement

Practice Note 22 (June 2022) specifies that the provisions draw a distinction between the assessment of likely demand for parking spaces, and whether it is appropriate to allow the supply of fewer spaces. These are two separate considerations, one technical while the other is more strategic. Different factors are taken into account in each consideration.

Accordingly, the applicant must satisfy the responsible authority that the provision of car parking is appropriate on the basis of a two-step process, which has regard to:

- The car parking demand likely to be generated by the use.
- Whether it is appropriate to allow fewer spaces to be provided.

An assessment of the appropriateness of reducing the car parking provision below the statutory requirement is set out below.

4.4. Car Parking Demand

Supermarket

In shopping centres, where there is a major full-line supermarket, the inclusion of a smaller secondary supermarket serves to supplement shoppers with further choices and does not generate car parking at the full statutory rate.

In our experience, supermarkets of a similar size typically generate parking at a rate of 3.5 spaces per 100m^2 of leasable floor area. Accordingly, the 1,505m^2 supermarket is expected to generate a parking demand for 52 spaces.

Shop

Staff parking demands equate to approximately 30% of retail shop parking demands or 15 spaces for staff. Customers represent the balance of parking demands or 35 spaces.

We note that there are efficiencies gained with the sharing of parking for the shop and supermarket uses due to varying times of peak demands and therefore we expect car parking demand in the order of 50% of the customer demand, or 18 spaces.

Summary

The expected car parking demand for the proposed development is summarised in Table 3 below.

Table 3: Expected Car Parking Demand

Use	Parking Demand
Supermarket	52 spaces
Shop	33 spaces
TOTAL	**85 spaces**

4.5. Providing Fewer Car Parking Spaces

The second step in determining whether it is appropriate to reduce the statutory car parking requirement is to consider whether it is appropriate to allow fewer spaces to be provided than the number likely to be generated by the site. Traffix Group has undertaken assessments based on the relevant decision guidelines specified at Clause 52.06-7 of the Planning Scheme below.

Car Parking Demand Assessment

The proposed development is expected to generate a maximum car parking demand for 85 commercial spaces. The provision of 54 commercial spaces falls short of the expected demand by 31 spaces.

Availability of Alternative Car Parking

The existing Links Shopping Centre has a surplus of approximately 52 car parking spaces which are not leased as part of the existing buildings. The surplus of 52 spaces is more than sufficient to meet the proposed car parking shortfall associated with the commercial component of the development.

Future Growth and Development of Activity Centre

The proposed development represents the growth and development of the Links Shopping Centre activity centre. The former approvals included surplus car parking which was to be made available to facilitate the growth of the centre.

Accordingly, there will be no adverse impacts to the viability of the overall shopping precinct as a result of the proposed car parking shortfall.

Car Park Deficiency

The approved development scheme included a commercial statutory car parking deficiency of 76 spaces. The current scheme has a reduced shortfall of 71 spaces. Accordingly, the proposed shortfall will result in a lesser reliance on the existing car parking provided for the overall centre.

There will be no adverse off-site impacts as a result of the proposed car parking deficiency.

Conclusion

Having regard to the decision guidelines above, there is sufficient justification to warrant a reduction in the statutory car parking requirement for this development.

4.6. Car Park Layout and Access

The proposed car parking layout and access arrangements have been assessed under the relevant sections of the Planning Scheme and the relevant Australian Standards.

Key elements of the design include:

- All vehicles can enter and exit the site in a forwards direction.
- All accessways are designed to accommodate simultaneous two-way traffic.
- A minimum headroom clearance of at least 2.1m is provided throughout the car parking areas.
- All 90-degree parking spaces are provided in accordance with the minimum dimensions set out at Clause 52.06-9 Design Standard 2.
- Columns are located in accordance with the Clearance Diagram at Clause 52.06-9 Design Standard 2.
- A turnaround bay should be provided at both ends of the blind-aisle for the commercial carparking area.
- A DDA space is provided within the new at-grade car park for the retail uses in accordance with AS/NZS 2890.6:2022.
- A maximum ramp grade of 1:10 is provided for the first 5 metres from the property boundary.
- A maximum ramp grade of 1:4 is provided on the site (residential parking).
- Appropriate ramp transitions are provided to prevent scrapping and bottoming out of vehicles.

We are satisfied that the proposed car parking layout meets the relevant requirements of the Planning Scheme and Australian Standard and importantly, will work well.

5. Traffic Assessment

5.1. Traffic Generation

Residential

The RTA Guide to Traffic Generating Developments (2024) (RTA Guide) sets out traffic generation rates based on survey data collected in New South Wales for a range of land uses. This guide is referred to in the Austroads Guide which is used by DTP and is generally regarded as the standard for metropolitan development characteristics.

The RTA Guide sets out the following relevant traffic generation rates for medium density residential development:

Smaller Units (one and two bedrooms):

- *Daily vehicle trips = 4 – 5 per dwelling per day*
- *Weekday peak hour vehicle trips = 0.4 – 0.5 per dwelling per day*

Larger Units (Three or more bedrooms):

- *Daily vehicle trips = 5 – 6.5 per dwelling per day*
- *Weekday peak hour vehicle trips = 0.5 – 0.65 per dwelling per day*

Having regard to the locality of the site, the congested nature of the surrounding arterial roads, the availability of alternative transport modes and the limited supply of car parking at nearby railways stations, we believe that an appropriate peak hour traffic generation rate is 0.3 per dwelling. Accordingly, the proposed development (133 dwellings) will generate in the order of 40 vehicle trip ends during each peak hour. This corresponds to one vehicle movement every 90 seconds on average.

Residential Hotel

For the purposes of a robust assessment, we have assumed that the traffic generation rate for the hotel apartments is equivalent to that of standard residential apartments. Accordingly, the 16 units that are provided with a car space are expected to generate traffic during the peak periods at a rate of 0.3 per dwelling, i.e. five vehicle trips in each of the commuter peak hours.

Commercial

The commercial component of the new development will not generate traffic at the same rate as a single standalone full line supermarket and will result in a longer duration of stay on average as customers look to take advantage of the second supermarket and additional retail space.

The relationship between duration of stay, car parking and traffic generation are all interlinked with traffic generation inversely proportional to duration of stay.

Based on the above, we expect that the traffic generated by the new commercial component will be approximately 50% of the RTA rate for supermarkets/shopping centres.

Accordingly, the commercial component will generate a PM peak of 182 movements.

In our experience, significantly less traffic is generated to a shopping centre during the AM peak period, i.e. in the order of 35% of the PM peak. There will be 64 vehicle movements during the AM peak.

5.2. Comparison with Approved Scheme

As detailed in the proposal section, this application when compared with the approved scheme has a reduction in the number of residential dwellings, no material change to the commercial net floor area and 20 fewer car parking spaces. A comparison of the approved scheme's traffic generation rate during the critical PM peak against the amended scheme is provided in Table 4 below.

Table 4: Comparison of Traffic Generation Endorsed Scheme vs Amended Scheme

	Endorsed Plans		Amended Scheme	
Dwellings	171 units	51 vph	133 units	40 vph
Apartment Hotel	-	-	24 apartments	5 vph
Retail	2,940m^2	181 vph	2,957m^2	182 vph
TOTAL		**232 vph**		**227 vph**

Having regard to the above, it is evident that the proposed traffic generation is similar to that accepted as part of the approved scheme. Accordingly, there is no warrant for further or repeated detailed analysis.

6. Bicycle Assessment

Statutory bicycle parking requirements are set out at Clause 52.34 of the Planning Scheme. Table 7 below sets out the statutory bicycle parking requirements for the proposed on-site uses.

Table 5: Statutory Bicycle Parking Requirement

Use	Measure/No.	Rate	Requirement
Employee/Resident			
Dwelling	133 units	1 space to every 5 dwellings	27 spaces
Shop	1,505m^2	1 space to each 600m^2 of leasable floor area (LFA) if the LFA exceeds 1,000m^2	3 spaces
Retail	1,452m^2	1 space to each 300m^2 of LFA	5 spaces
Residential building	24 rooms	1 to each 10 lodging rooms	2 spaces
Visitor/Customer			
Dwelling	133 units	1 space to every 10 dwellings	13 spaces
Shop	1,505m^2	1 space to each 500m^2 of LFA if the LFA exceeds 1,000m^2	3 spaces
Retail	1,452m^2	1 space to each 500m^2 of LFA	3 spaces
Residential building	24 rooms	1 to each 10 lodging rooms	2 spaces
TOTAL			**58 spaces**

The proposed development has a statutory requirement for 58 bicycle spaces comprising 27 resident spaces, 10 employee spaces, and 21 visitor spaces.

There are 37 bicycle parking spaces provided within the podium level car parking in a secured room, adjacent to the core, for residents and staff and a further 22 horizontal hoops (44 spaces) at ground level for visitors.

Clause 52.34 requires that all resident and staff spaces be provided within a secure location. The bicycle storage room will be provided for residents and staff within the podium level carpark. This room includes 37 spaces which meets the resident and employee requirement.

We note that this storage room has enough space to accommodate additional bicycles if required and there is a surplus of bicycle parking opportunities at the ground floor.

Accordingly, we are satisfied that the bicycle parking demands for the site can be accommodated and the requirements set out at Clause 52.34 of the Planning Scheme are satisfied.

7. Loading

There are multiple loading areas provided as part of the proposal which are detailed below. these loading areas facilitate both loading activity, as well as waste collection.

The supermarket loading dock is located at the western boundary, accessed via a roller shutter door from Links Avenue. The supermarket loading dock is designed in accordance with AS2890.2:2018, allowing for a semi-trailer.

Immediately adjacent to the supermarket loading dock is a second roller door which is provided for supermarket waste collection. This area is designed to cater for a 12.5m HRV which is larger than a typical hook lift waste collection vehicle.

A 2m pedestrian refuge separates the supermarket compactor dock access from the residential loading dock to the east. The residential loading dock has been designed for vehicles up to and including a 12.5m HRV. The loading dock will also facilitate the residential and retail waste collection.

A small parallel loading area is nominated on the east side of the development via Links Avenue. This area allows for small trucks/vans to undertake deliveries to the small retail tenancies provided at ground level.

Traffix Group has prepared swept path diagrams for each loading area to demonstrate suitable access by the nominated design vehicle. A copy of these swept paths is attached at Appendix B.

It is significant to note that the removal of a small number of existing at-grade car parking spaces is required in order to facilitate semi-trailer and HRV movements.

Subject to the above, the proposed loading arrangements are appropriate and will not adversely impact traffic flow or road safety and importantly, will work well.

We note that the loading arrangements are generally consistent with the previous approval.

8. Conclusion

Having undertaken a traffic engineering assessment of the proposed mixed-use development at 1041 Centre Road (Links Shopping Centre), Oakleigh, we are of the opinion that:

a) the proposed development has a statutory car parking requirement for 263 spaces,

b) car parking for the proposed hotel apartment use must be provided to the satisfaction of the Responsible Authority,

c) the car parking demand for the hotel apartments is for 14 spaces,

d) the provision of residential parking within the building meets the statutory car parking requirement for the residential use, as well as the expected demand of the hotel apartment use,

e) the provision of 54 commercial spaces falls short of the commercial car parking requirement and accordingly, a permit to reduce the car parking requirement is being sought as part of this application,

f) there is sufficient justification to warrant a reduction in the statutory car parking requirement having regard to:

   a. the supermarket use will be a secondary supermarket on the site and based on our experience will generate car parking at a rate of 3.5 spaces per 100m^2,

   b. retail parking demands will be 15 staff spaces and due to the efficiencies of the 50% of the customer requirement, i.e. 18 spaces,

   c. there are approximately 52 parking spaces available on nearby land (existing centre carpark), and

   d. the provision of 54 new spaces in addition to the existing surplus spaces will meet the commercial car parking demand,

g) the carpark layout is provided in accordance with the requirement of the Planning Scheme and Australian Standard (where necessary) and importantly, will work well,

h) the quantum of traffic generated by the proposal is less than that considered as part of the previous approval which is evident by fewer dwellings and fewer overall car parking spaces,

i) the traffic generation for this application falls within the approval for the previous scheme and does not warrant any further traffic assessment,

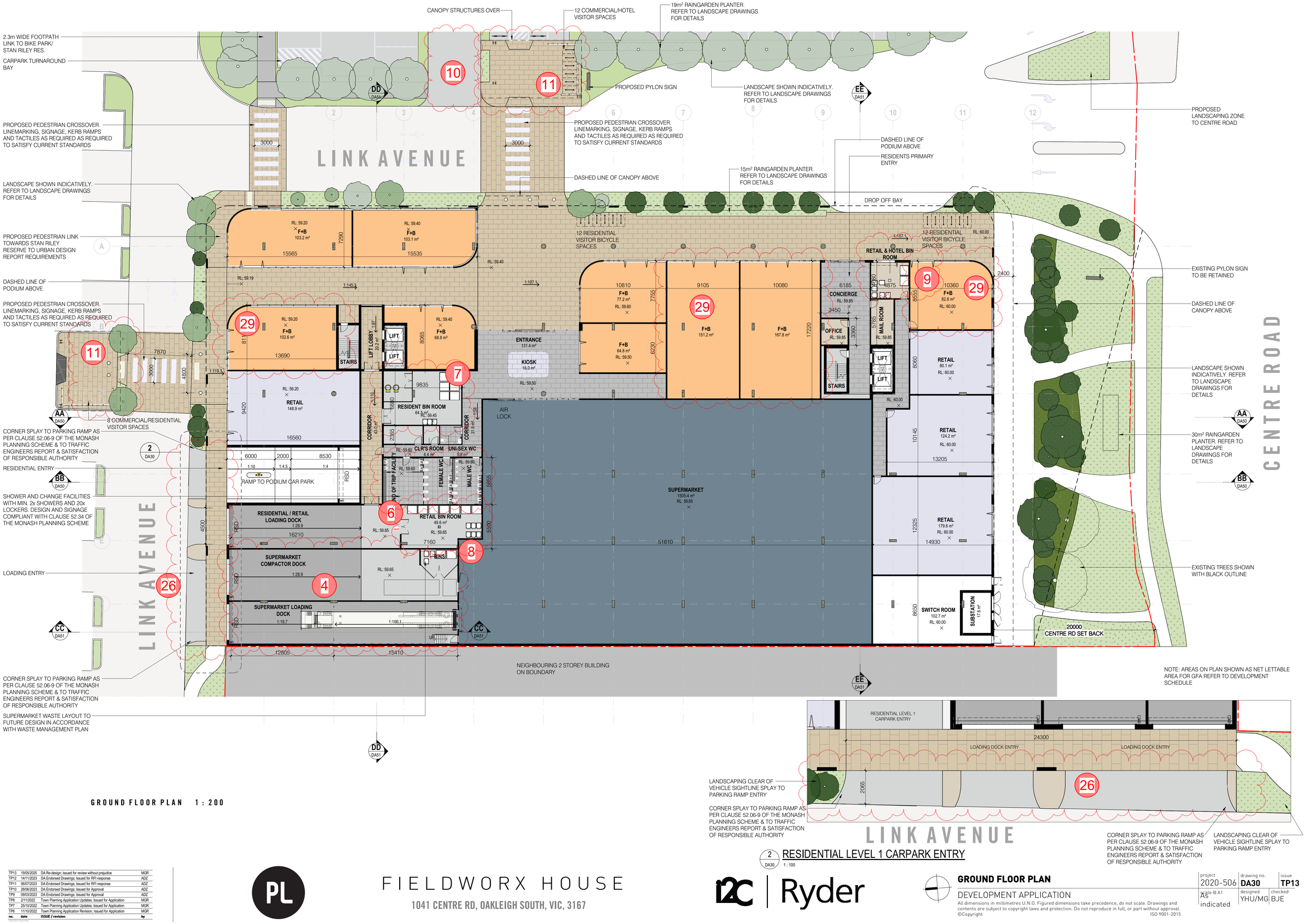
j) the provision of bicycle parking is sufficient to meet the statutory requirement set out in Clause 52.34 of the Planning Scheme,

k) loading services can be suitably provided on-site without adversely impacting traffic flow or road safety, and

l) there are no traffic engineering reasons why a planning permit for the proposed mixed-use development at 1041 Centre Road (Links Shopping Centre), Oakleigh should not be granted.

Appendix A

Proposed Development Plan



GROUND FLOOR PLAN 1 : 200

2 DA30 RESIDENTIAL LEVEL 1 CARPARK ENTRY 1 : 100

no.	date	ISSUE / revision	by
TP13	19/05/2025	DA Re-design: issued for review without prejudice	MGR
TP12	14/11/2023	DA Endorsed Drawings; Issued for RFI response	ADZ
TP11	06/07/2023	DA Endorsed Drawings; Issued for RFI response	ADZ
TP10	28/06/2023	DA Endorsed Drawings; Issued for Approval	ADZ
TP9	09/03/2023	DA Endorsed Drawings; Issued for Approval	ADZ
TP8	2/11/2022	Town Planning Application Updates; Issued for Application	MGR
TP7	25/10/2022	Town Planning Application Updates; Issued for Application	MGR
TP6	11/10/2022	Town Planning Application Revision; Issued for Application	MGR

PL

FIELDWORX HOUSE

1041 CENTRE RD, OAKLEIGH SOUTH, VIC, 3167

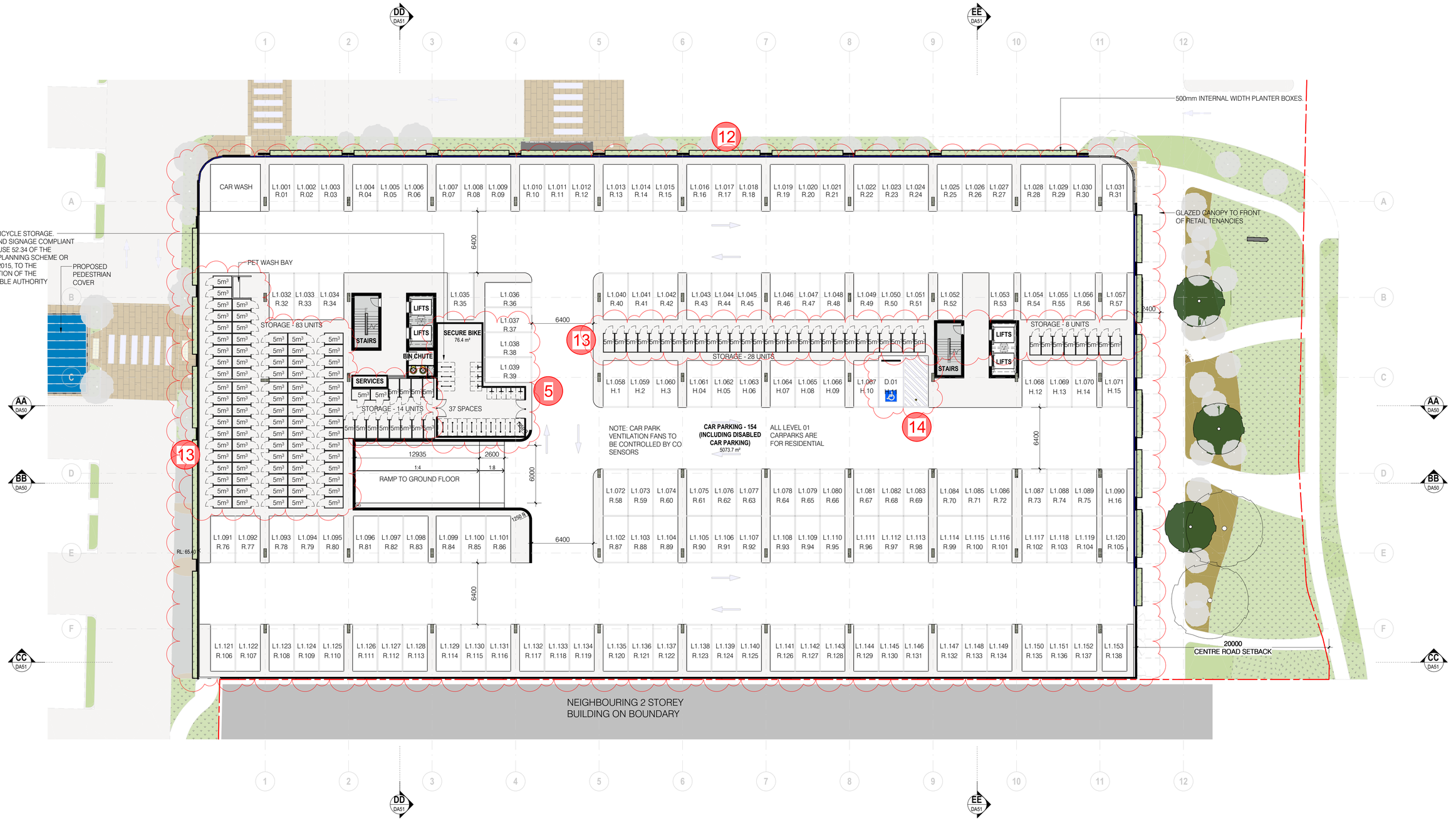
i2C | Ryder

GROUND FLOOR PLAN

DEVELOPMENT APPLICATION

project 2020-506 | drawing no. DA30 | issue TP13

scale @ A1 AS indicated | designed YHU/MG | checked BJE



LEVEL 01 FLOOR PLAN 1 : 200

no.	date	ISSUE / revision	by
TP0	19/05/2025	DA Re-design; issued for review without prejudice	MGR

FIELDWORX HOUSE

1041 CENTRE RD, OAKLEIGH SOUTH, VIC, 3167

t2c | Ryder

LEVEL 01

DEVELOPMENT APPLICATION

project	drawing no.	issue
2020-506	DA31	TP0
scale @ A1	designed	checked
1 : 200	YHU/MG	BJE

Development Schedule

Town Planning Revision

Proposed Mixed Use Development
Town Planning - without prejudice
Revision Date 19/05/2025

Car Parking | **Retail** | **Residential Apartments & Short Stay Hotel**

Levels	GFA sqm	Car Parking: Area sqm	Car Parking: Car Spaces	Retail: Supermarket	Retail: Retail/F&B	Retail: Retail BoH	Retail: Amenity	Retail: Outdoor Dining	Retail: Circulation	Total Apt Number	Total RPA sqm	
Ground Floor **(Retail, Supermarket, Parking)**	4516	1516	54	1505	1452	584	81	153	430.5	0	0	
First Floor **(Residential and Terrace)**	5330	4554	154	0	0	0	0	0	0	0	0	1
SecondFloor **(Residential Inc. Balcony)**	3506	0	0	0	0	0	0	0	0	29	2857.3	2
Third Floor **(Residential Inc. Balcony)**	2992	0	0	0	0	0	0	0	0	29	2442.9	3
Fourth Floor **(Residential Inc. Balcony)**	2992	0	0	0	0	0	0	0	0	29	2442.9	4
Fifth Floor **(Residential Inc. Balcony)**	2992	0	0	0	0	0	0	0	0	29	2442.9	5
Sixth Floor **(Residential Inc. Balcony)**	2226	0	0	0	0	0	0	0	0	23	1785.6	6
Seventh Floor **(Residential Inc. Balcony)**	1793	0	0	0	0	0	0	0	0	18	1396.9	6
Rooftop	0	0	0	0	0	0	0	0	0			
Totals	**26347**	**6070**	**208**	**1505**	**1452**	**584**	**81**	**153**	**430.5**	**157**	**13,369**	

1 BEDROOM

Levels	APARTMENT Type 1A Number	SQM	Balcony/ Terrace	Total Apt Area	APARTMENT Type 1A1 Number	SQM	Balcony/ Terrace	Total Apt Area	SHORT STAY HOTEL Type 1B Number	SQM	Balcony/ Terrace	Total Apt Area
Ground Floor												
First Floor												
SecondFloor	11	53.7	21	821.7	2	57.3	19.8	154.2	1	62.1	24.8	86.9
Third Floor	11	53.7	8.7	686.4	2	57.3	11.5	137.6				
Fourth Floor	11	53.7	8.7	686.4	2	57.3	11.5	137.6				
Fifth Floor	11	53.7	8.7	686.4	2	57.3	11.5	137.6				
Sixth Floor	11	53.7	8.7	686.4	2	56.5	11.5	136				
Seventh Floor	7	53.7	8.7	436.8	2	58.6	10.8	138.8				
Rooftop												
Totals	**62**	**322**	**65**		**12**	**344**			**1**	**62.1**		

2 BEDROOM

Levels	APARTMENT Type 2A Number	SQM	Balcony/ Terrace	Total Apt Area	APARTMENT 2B Number	SQM	Balcony/ Terrace	Total Apt Area	SHORT STAY HOTEL 2C Number	SQM	Balcony/ Terrace	Total Apt Area	SHORT STAY HOTEL 2D Number	SQM	Balcony/ Terrace	Total Apt Area
Ground Floor																
First Floor																
SecondFloor	9	81	27.6	977.4					1	104.7	33.2	137.9	1	105.3	46.6	151.9
Third Floor	8	81	8.4	715.2	1	80.7	25.4	106.1	2	104.3	9.8	228.2	1	105.3	13.7	119
Fourth Floor	8	81	8.4	715.2	1	80.7	25.4	106.1	2	104.3	9.8	228.2	1	105.3	13.7	119
Fifth Floor	8	81	8.4	715.2	1	80.7	25.4	106.1	2	104.3	9.8	228.2	1	105.3	13.7	119
Sixth Floor	8	81	8.4	715.2	1	80.7	25.4	106.1								
Seventh Floor	8	81	8.4	715.2	1	80.7	25.4	106.1								
Rooftop																
Totals	**49**	**486**			**5**	**403.5**			**7**	**417.6**			**4**	**421.2**		

2 BEDROOM (cont.) / 3 BEDROOM

Levels	SHORT STAY HOTEL 2E Number	SQM	Balcony/ Terrace	Total Apt Area	SHORT STAY HOTEL 2F Number	SQM	Balcony/ Terrace	Total Apt Area	APARTMENT Type 3A Number	SQM	Balcony/ Terrace	Total Apt Area	SHORT STAY HOTEL Type 3B Number	SQM	Balcony/ Terrace	Total Apt Area	Circulation	Utilities	Indoor Res Amenity	Outdoor Res Amenity
Ground Floor																		408		
First Floor																	15.6	120	-	
SecondFloor	1	93.7	25.9	119.6	1	63.1		63.1	1	119.1	53.2	172.3	1	119.1	53.2	172.3	366	196	-	
Third Floor	1	93.7	9.8	103.5	1	63.1		63.1	1	119.1	22.8	141.9	1	119.1	22.8	141.9	366	160	-	
Fourth Floor	1	93.7	9.8	103.5	1	63.1		63.1	1	119.1	22.8	141.9	1	119.1	22.8	141.9	366	160	-	
Fifth Floor	1	93.7	9.8	103.5	1	63.1		63.1	1	119.1	22.8	141.9	1	119.1	22.8	141.9	366	160	-	
Sixth Floor									1	119.1	22.8	141.9					269	160	-	756
Seventh Floor																	224	160	-	435
Rooftop																				
Totals	**4**	**374.8**			**4**	**252**			**5**	**596**			**4**	**476**			**1,973**	**1,524**		**1,191**

	1A	1A1	1B	2A	2B	2C	2D	2E	2F	3A	3B
Apartment Number	62	12	1	49	5	7	4	4	4	5	4
Apartment Mix (by number)	39.5%	7.6%	0.6%	31.2%	3.2%	4.5%	2.5%	2.5%	2.5%	3.2%	2.5%
Apartment Mix (by area)	2.4%	2.6%	0.5%	3.6%	3.0%	3.1%	3.2%	2.8%	1.9%	4.5%	4%

Development Breakdown	
Site Area	**11,272**
GFA	**26,347**
Total Residential Apartments	**157**
Total Residential GFA	**16,501**
Total Car Parking Spaces	**208**

Notes and Disclaimer

Areas calculated used Property Council of Australia Method of Measurement

These areas and room numbers are approximate. They relate to areas of the building at the current stage of design and are reliant upon the information available.
All areas in sqm. All areas subject to survey.

Parking Totals	
Car Parking (Residents)	**138**
Car Parking (Hotel) + disabled	**16**
Car Parking (Commercial)	**54**
Car Parking Total	**208**
Bike Parking (Residential Secured)	**27**
Bike Parking (Employee Secured)	**10**
Bike Parking (Commercial Visitors)	**6**
Bike Parking (Hotel Visitors)	**6**
Bike Parking (Residential Visitors)	**27**
Bike Parking Total	**76**

2

no.	date	ISSUE / revision	by
TP8	19/05/2025	DA Re-design; issued for review without prejudice	MGR
TP7	28/06/2023	DA Endorsed Drawings; Issued for Approval	ADZ
TP6	09/03/2023	DA Endorsed Drawings; Issued for Approval	ADZ
TP5	4/11/2022	Town Planning Application Updates; Issued for application	MGR
TP4	2/11/2022	Town Planning Application Updates; Issued for Application	MGR
TP3	11/10/2022	Town Planning Application Revision; Issued for Application	MGR
TP2	24/02/2022	Town Planning RFI issued for application	YHU
TP1	17/01/2022	Town Planning RFI response; Issued for application	CLY

19/05/2025 9:59:17 AM

FIELDWORX HOUSE
1041 CENTRE RD, OAKLEIGH SOUTH, VIC, 3167

DEVELOPMENT SCHEDULE
DEVELOPMENT APPLICATION

project 2020-506 | drawing no. **DA02** | issue **TP8**
scale @ A1 | designed YHU | checked MGR

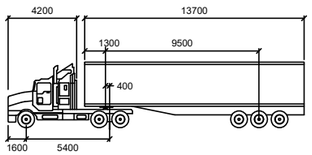
Appendix B

Swept Path Diagrams

VEHICLE PROFILE

VEHICLE USED IN SIMULATION

(VEHICLE SPEED - 5KM/H)



AV (AS 2890.2)

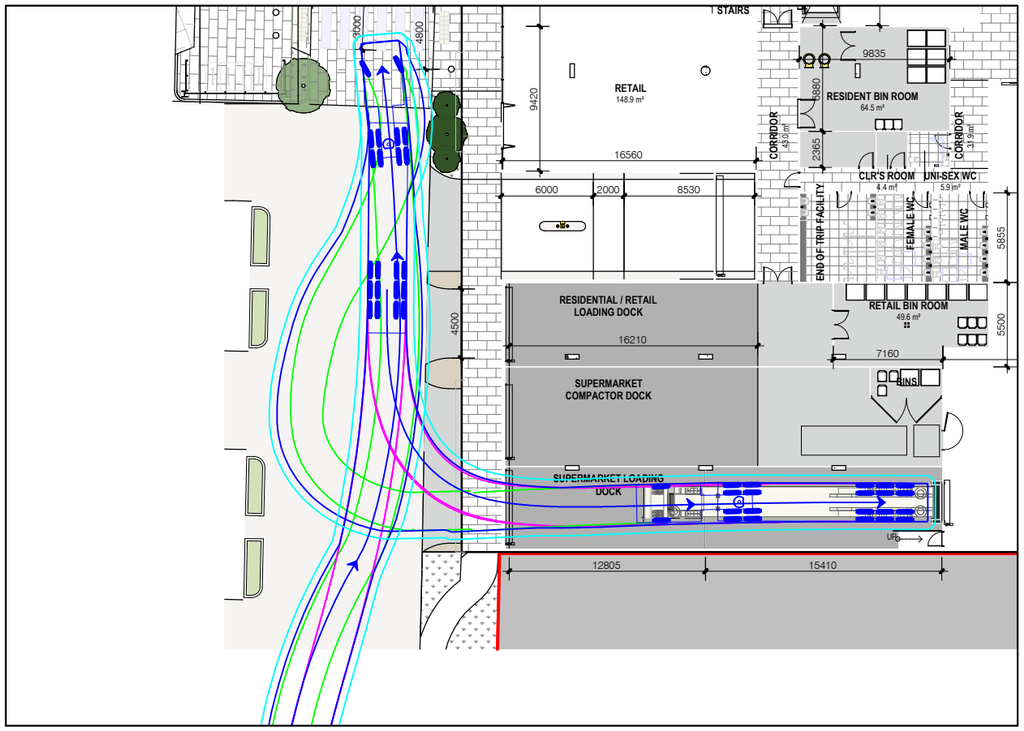
	mm		mm
Tractor Width :	2500	Lock to Lock Time :	6.0
Trailer Width :	2500	Steering Angle :	28.3
Tractor Track :	2500	Articulating Angle :	70.0
Trailer Track :	2500		

LEGEND

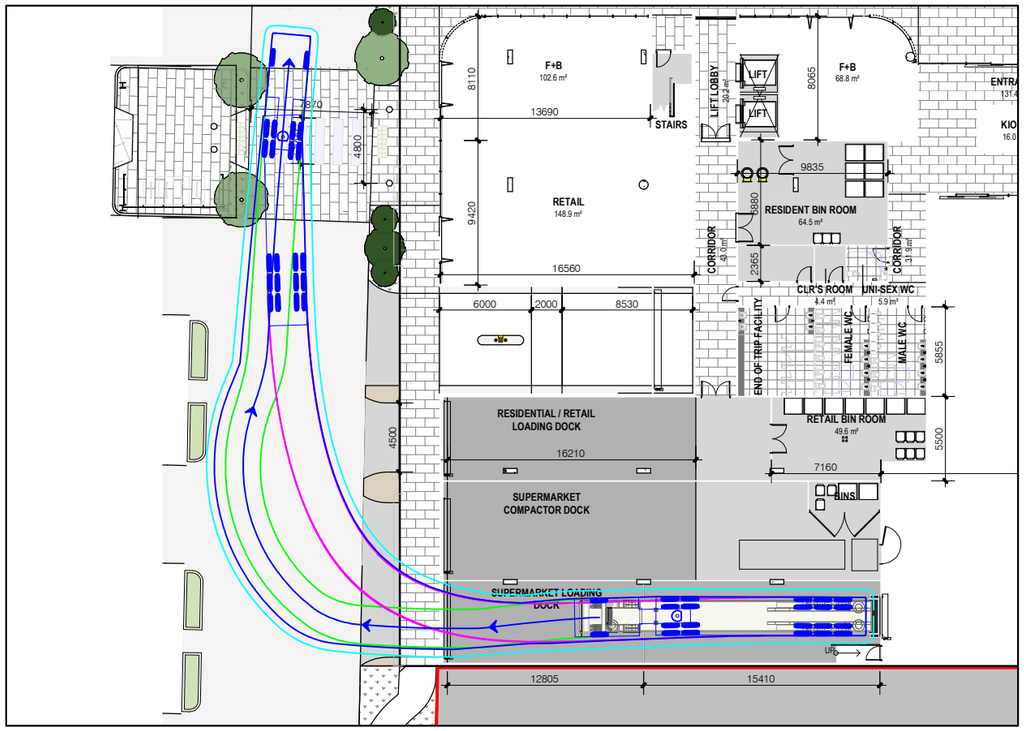
REAR WHEELS — VEHICLE BODY

FRONT WHEELS — BODY CLEARANCE

LOADING BAY - SEMI TRAILER ENTRY



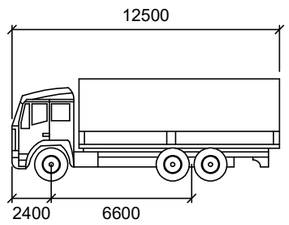
LOADING BAY - SEMI TRAILER EXIT



LOADING - COMPACTOR - ENTRY

VEHICLE USED IN SIMULATION

(VEHICLE SPEED - 5KM/H)



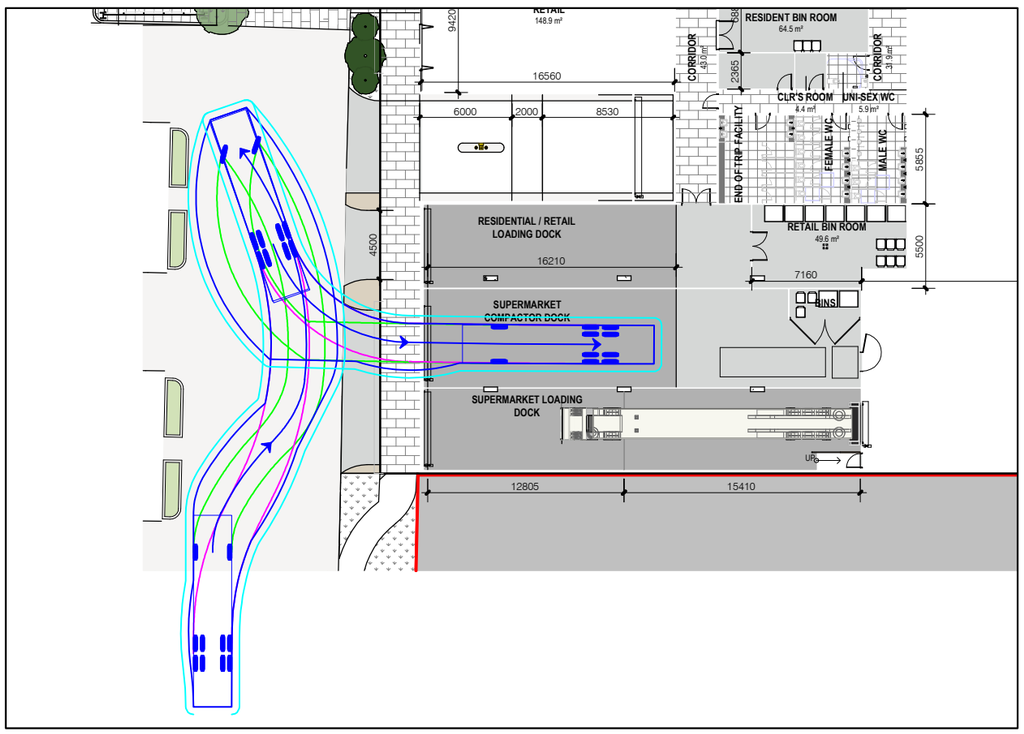
HRV (AS 2890.2) mm

Width	:	2500
Track	:	2500
Lock to Lock Time	:	6.0
Steering Angle	:	35.2

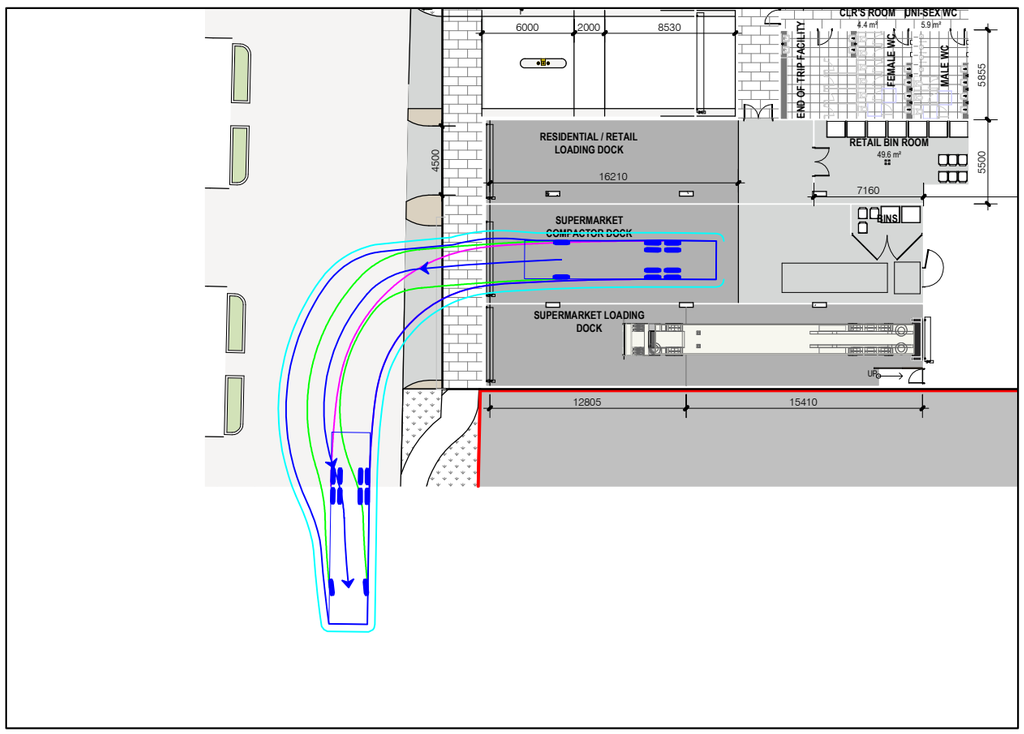
LEGEND

REAR WHEELS — VEHICLE BODY

FRONT WHEELS — BODY CLEARANCE



LOADING - COMPACTOR - EXIT



REV	DATE	NOTES	DESIGNED BY	CHECKED BY
A	16/05/2025		E. O'FARRELL	H. TURNBULL

THE LINKS SHOPPING CENTRE, OAKLEIGH SOUTH

PROPOSED MIXED USE DEVELOPMENT

GENERAL NOTES:

BASE PLAN 'DA30 - GROUND FLOOR PLAN_TP13' RECEIVED MAY 2025

FILE NAME: G29458-09

SHEET NO.: 01

SCALE: 1:400 (A3)

0 4 8

Traffix Group

Level 28, 459 Collins St, MELBOURNE VIC 3000

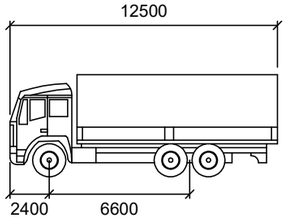
T: (03) 9822 2888

www.traffixgroup.com.au

VEHICLE PROFILE

VEHICLE USED IN SIMULATION

(VEHICLE SPEED - 5KM/H)



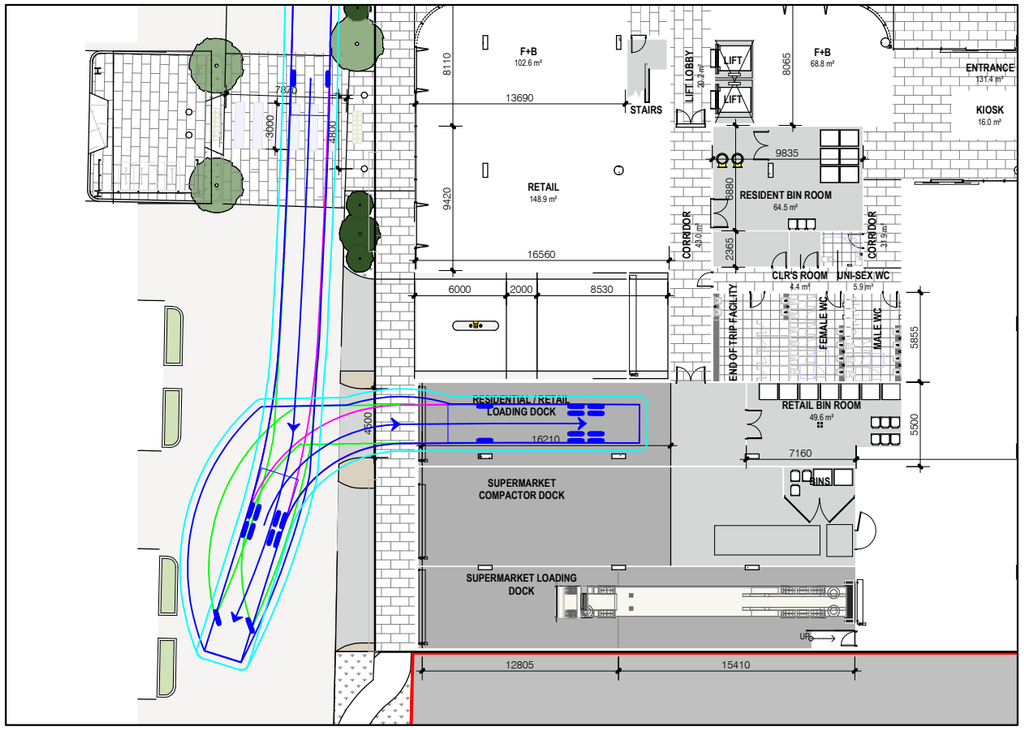
HRV (AS 2890.2)		mm
Width	:	2500
Track	:	2500
Lock to Lock Time	:	6.0
Steering Angle	:	35.2

LEGEND

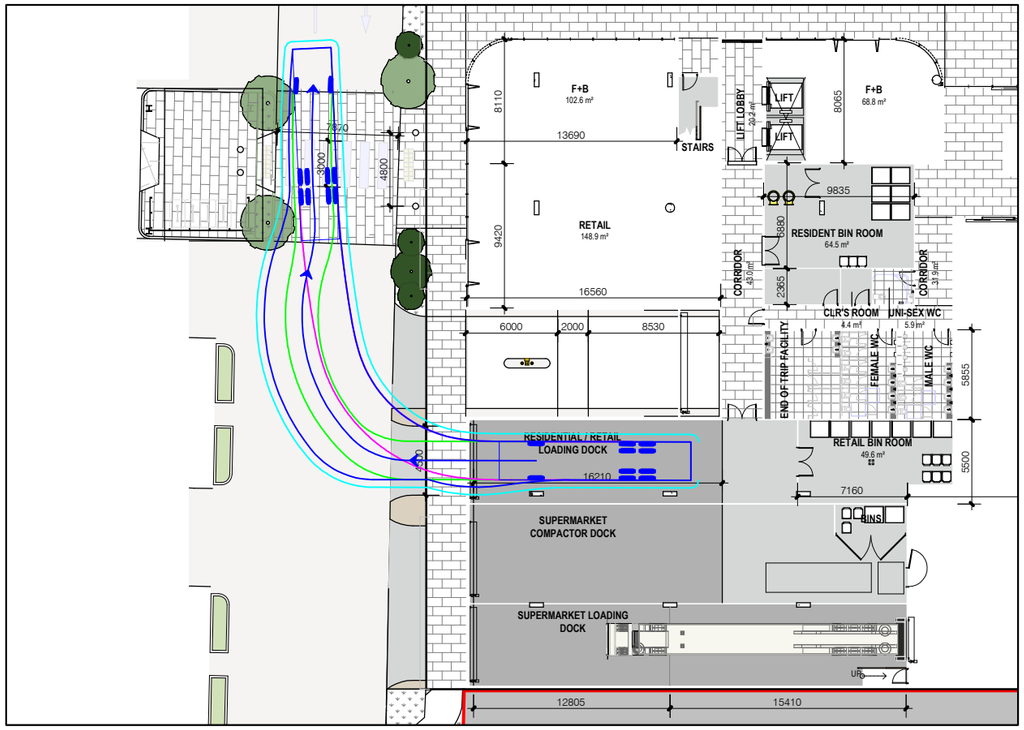
REAR WHEELS — VEHICLE BODY

FRONT WHEELS — BODY CLEARANCE

RESIDENTIAL/RETAIL LOADING - ENTRY



RESIDENTIAL/RETAIL LOADING - EXIT



REV	DATE	NOTES	DESIGNED BY	CHECKED BY
A	16/05/2025		E. O'FARRELL	H. TURNBULL

THE LINKS SHOPPING CENTRE, OAKLEIGH SOUTH

PROPOSED MIXED USE DEVELOPMENT

GENERAL NOTES:

BASE PLAN 'DA30 - GROUND FLOOR PLAN_TP13' RECEIVED MAY 2025

FILE NAME: G29458-09

SHEET NO.: 02

SCALE: 1:400 (A3)

0 4 8

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22 CLEELAND ROAD
SOUTH OAKLEIGH VIC 3167
AUSTRALIA

MEL
CONSULTANTS

(ACN 004 230 013)

Ref: 101-21-DE-LET-00

24th March 2025

Pellicano Group
Level 2, 395 Ferntree Gully Road
Mount Waverly VIC 3149

Attn : Os Kong

1041 Centre Road, Oakleigh South : Fieldworx House
Environmental Wind Considerations

We have reviewed the revised town planning drawings for Fieldworx House prepared by i2C Architects dated 18th March 2025 and will comment with respect to the expected effects on the environmental wind conditions below.

The development was wind tunnel tested for the environmental wind effects and reported in MEL Consultants Report 101-21-WT-ENV-01 dated 11th November, 2022 using a model constructed from digital information provided by i2C Architects dated 13th August 2022.

The main design changes likely to affect wind impacts are :

- North and east wing increase in height of 1 level
- Removal of Level 6 communal space
- Level 1 is now occupied by a car park
- Outdoor communal and wellness spaces now re-located to Level 2
- Minor layout changes to ground floor

For completeness, a detailed list of changes has been provided in Appendix A.

The northern and eastern wing's increase of height by 1 level is not likely to make a significant difference to the wind conditions.

With the removal of the L6 communal spaces, the wind conditions on these areas are now not relevant.

The relocation of the function and co-working spaces to Level 2 should not be expected to have any significant impact on the wind conditions. The presence of the function/working space building may create some minor local wind effects at its edges, but overall, conditions are likely to be similar to the original scheme.

Therefore, the data presented in the wind tunnel Report 101-21-WT-ENV-01 would still be valid for the latest (18th March, 2025) design. We are of the opinion that this design does not require any additional analysis or wind tunnel model testing from an environmental wind conditions perspective.

Yours sincerely,

J. Kostas
MEL Consultants Pty Ltd

APPENDIX A : DESIGN CHANGE SUMMARY

DRAWING CHANGE SUMMARY

2020-506 Fieldworx House Mixed Use

Date:	19 May 2025
Phase:	Development Application: issued for review

Drawing Marker: 

Change Summary:

Reference	Description
1	Update to contents page
2	Update to development schedule
3	Site Plan: EV charging station provided as per ESD Report
4	Ground floor layout update: loading dock update to align with supermarket loading requirements.
5	Ground floor layout update: secure bicycle parking provisions updated
6	Ground floor layout update: EoT shower and changing facilities updated
7	Ground floor layout update: Residential bin store re-located to ground floor and update to bin requirements (refer to waste management report). Waste route paths updated.
8	Ground floor layout update: Retail bin store on ground floor and waste route paths updated.
9	Ground floor layout update: Hotel bin store located to ground floor
10	Ground floor layout update: Eastern car park entry re-located to north of pedestrian canopy to align crossover with covered retail area.
11	Re-design external pedestrian canopies to east and north of proposed development
12	Level 01 layout update: basement car parking re-located to level 01.
13	Level 01 layout update: resident's storage re-located to level 01
14	Level 01 layout update: allocation of 1 disabled parking space adjacent to south core.
15	Level 02 layout update: outdoor podium space re-designed to include yoga lawn, recreation space, outdoor BBQ areas.
16	Level 02 layout update: outdoor podium space re-designed to include indoor amenity, including co-working, resident's lounge and wellness area (spa, sauna).
17	Level 02-07 layout update: apartment mix update to include serviced apartment hotel, refer to development schedule and apartment layouts.
18	Level 06 layout update: outdoor communal spaces removed.
19	Level 07 layout update (formerly Roof Plan): apartment mix update to include serviced apartment hotel, refer to development schedule and apartment layouts. PV Array re-located to Level 06.
20	Elevational Re-design: Podium façade form and material change
21	Elevational Re-design: Residential building form updated. Materials kept consistent with previous approved scheme.
22	Update to materials and finishes
23	Internal plaza façade treatments updated

DRAWING CHANGE SUMMARY

2020-506 Fieldworx House Mixed Use

24	Façade elevations updated to reflect new form and materiality
25	Elevational Re-design: Built form comparison updated to reflect new proposed scheme.
26	Ground floor layout update: loading / parking street interface condition changed
27	PV Array re-located to rooftop as per updated ESD report.
28	Communal clothes drying lines to L7 rooftop as per ESD report.
29	Ground floor layout update: retail tenancies re-allocated to Food & Beverage
30	Apartment type update
31	Hotel Apartment type added to typologies
32	BADS compliance schedule introduced to pack.
33	Apartment floor to floor levels increased by 150mm to 3200mm.
40	Shadow diagrams updated to show new proposed scheme
50	Updates to proposed signage

Drawing Change Reference

Drawing No	Revision	Drawing Name	References
DA01		CONTENTS	1
DA02		DEVELOPMENT SCHEDULE	2
DA10		CONTEXT PLAN	
DA11		EXISTING CONDITIONS PLAN	
DA12		PROPOSED SITE PLAN	
DA13		PROPOSED SUBJECT SITE	3, 10, 11, 15, 16, 18, 27
DA20		GROUND FLOOR WASTE ROUTE	7, 8, 9, 10, 11, 29
DA21		TYPICAL LEVEL WASTE ROUTE	7
DA30		GROUND FLOOR PLAN	4, 6, 7, 8, 9, 10, 11, 26, 29
DA31		LEVEL 01	5, 12, 13, 14
DA32		LEVEL 02	15, 16, 17
DA33		LEVEL 03-05	17
DA34		LEVEL 06	17, 18
DA35		LEVEL 07	17,19, 28
DA36		ROOF PLAN	27
DA37		UPPER ROOFTOP	
DA40		ELEVATIONS	20, 21, 22, 33
DA41		ELEVATIONS	20, 21, 22, 33
DA42		ELEVATIONS	20, 22
DA43		ELEVATIONS - INTERNAL PLAZA	11, 22, 23
DA44		ELEVATIONS - FACADE	22, 24
DA48		ELEVATION COMPARISON NORTH & EAST	25, 33
DA49		ELEVATION COMPARISON SOUTH & WEST	25, 33
DA50		SECTIONS	12, 13, 15, 16, 17, 18, 26, 33
DA51		SECTIONS	4, 12, 17, 18, 26, 33
DA60		APARTMENT TYPES - 1 BED 1A & 1B	30, 31
DA61		APARTMENT TYPES - 2 BED 2A & 2B	30
DA62		APARTMENT TYPES - 2 BED 2C & 2D	31

DRAWING CHANGE SUMMARY

2020-506 Fieldworx House Mixed Use

DA63		APARTMENT TYPES - 2 BED 2E & 2F	31
DA64		APARTMENT TYPES - 3 BED 3A & 3B	30, 31
DA65		APARTMENT COMPLIANCE SCHEDULE	32
DA77		SHADOW DIAGRAMS	40
DA78		SHADOW DIAGRAMS	40
DA80		SIGNAGE LOCATION PLAN	50
DA81		SIGNAGE ELEVATIONS	50
DA82		SIGNAGE ELEVATIONS	50
DA100		ARTWORK OBJECTIVES	
DA101		ARTWORK CONCEPTS	
DA102		ARTIST OPTIONS	
DA130		STAN RILEY RESERVE LINK	10, 11

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
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I www.leighdesign.com.au

Waste Management Plan

Proposed Development:

1041 Centre Road, Oakleigh South, Victoria

Prepared for:

1041 Centre Road Pty Ltd

Document Control

Report Date: 19 May 2025 (supersedes all prior reports)

Prepared By: Carlos Leigh, MIEAust

TABLE OF CONTENTS

WASTE MANAGEMENT SUMMARY

- The Operator, as defined below, shall be responsible for managing the waste system and for developing and implementing safe operating procedures.
- Waste shall be stored within the development (hidden from external view).
- Users shall deposit sorted waste into chutes and/or into designated collection bins (trained supermarket staff shall dispose waste into the cardboard compactor).
- 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 and/or Facility Management, who shall manage site operations with the aid of cleaners and contractors (and if required, delegating waste management responsibilities to commercial tenants).

User: refers to residents, site staff and commercial tenants, who shall utilise the waste system.

1 SPACE AND SYSTEM FOR WASTE MANAGEMENT

1.1 Development Description and Use

This 8-storey development shall consist of residential apartments and commercial tenancies (refer to Table 1). The Planning Permit number is TPA/53095.

The site has frontages to Centre Road and Link Avenue. For waste services, access shall be from Link Avenue. Current use is understood to be commercial.

In general, this report complies with Council's 2021 guidelines for preparing a Waste Management Plan. Refer to the enclosed City of Monash WMP purpose, which states the following points:

- Demonstrate the development of an effective waste management system that is compatible with the design of the multi-unit development (MUD) and the adjacent built environment. An effective waste management system is hygienic, clean and tidy, minimises waste going to landfill, and maximise recycling.
- Provide a waste management system for a MUD that is supported by scaled drawings to ensure the final design and construction of the MUD is compliant with the WMP, and is verifiable.
- Form a document that achieves effective communication of the waste management system so that all stakeholders can be properly informed of its design, and the roles and responsibilities involved in its implementation. Stakeholders are defined (but not limited to): owners, occupiers, body corporate, property managers/real estate agents, Council, neighbours and collection contractors.
- Ensure residents of MUDs are not disadvantaged in their access to recycling and other responsible waste management options.
- Avoid existing legacy issues that plague many MUDs due to poor design and insufficient consideration for waste management.
- Improve outcomes for compliance with regulatory tools and the State Planning Strategies, such as:
  - Town Planning Permits.
  - Monash Planning Scheme.
  - Clause 19.03-5 of the State Planning Policy Framework.
  - Direction 6.7 of Plan Melbourne.
  - Clause 55 Standard B34 of the Planning Scheme.
  - Clause 55.07 and Clause 58.06 of the Planning Scheme.

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	Food	Recyc.	Glass
Apartments (1 bed)	No. of units =	74	3,552	888	3,774	666
Apartments (2 bed)	No. of units =	54	4,320	1,080	4,590	810
Apartments (3 bed)	No. of units =	5	480	120	510	90
Sub-Total Residential			**8,352**	**2,088**	**8,874**	**1,566**
Hotel Apartments	No. of units =	24	756	84	756	84
Hotel Ancillary	area (m^2) =	150	120	0	60	0
F&B (restaurant)	area (m^2) =	103	4,045	714	1,154	288
F&B (cafe) x2	area (m^2) =	206	3,677	649	2,307	577
F&B (take-away) x6	area (m^2) =	613	5,793	644	5,793	644
Retail (shop) x4	area (m^2) =	534	1,869	0	1,869	0
Retail (kiosk)	area (m^2) =	16	56	0	56	0
Supermarket	area (m^2) =	1505	4,003	211	50,568	0
Sub-Total Commercial			**20,319**	**2,301**	**62,563**	**1,593**
TOTAL (Litres/Week)			**28,671**	**4,389**	**71,437**	**3,159**

Notes:

- Residential and retail waste figures are based on Council's volumetric requirements.
- Supermarket figures are based on information from similar facilities provided by a major supermarket brand.
- Discretionary rates have been adopted for hotel ancillary areas
- Residential recoverable food organics are estimated at 20% of the garbage stream. For recycling, it is understood that private contractors shall continue collecting this stream in a commingled format for the time being (once available, glass shall be disposed into dedicated bins which is anticipated to represent 15% of the recycling stream – see glass provisions in Table 2).

1.3 Collection Services

Based on the anticipated waste volume, a private contractor shall be required to collect waste. The Operator shall choose a waste collection provider, negotiate a service agreement, and pay for these services.

1.4 Location, Equipment, and System Used for Managing Waste

The waste management system is summarised as follows:

- Apartment receptacles for garbage, recycling, and glass, plus an organics caddy.
- Apartment under-bench kitchen receptacles for garbage, recycling, and glass (min. 3x15L each). Also,1x7L organics benchtop caddy shall be adopted.
- Tenancy receptacles at internal areas.
- One garbage chute and tone recycling chute, each with residential level intakes and Residential Bin Store discharge.
- Residential Alcoves for glass and organics bins at all residential levels.
- Residential Bin Store at Ground Level.
- Hotel and Retail Bin Stores at Ground Level.
- Supermarket Bin Store and cardboard compactor at Ground Level.
- Collection bins (kept within the above waste storage areas - 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). All recyclables shall be commingled until a glass-only service becomes available. Also, the supermarket shall feature a cardboard compactor.

Organics: Users shall place organic waste into Organics bins. Only certified compostable liners may be used for bins and caddies, to AS4736 (bags shall be provided by the Operator to ensure compliance). Garden waste from communal areas shall be collected and disposed by the landscape maintenance contractor.

Charity and Textiles: Textiles must be placed in the allocated bins and not in recycling/Organics bins (similarly, charity items shall be placed in the charity bin). The Operator shall organise charity and textile collections.

Hard, Bulky and Other Waste Streams: Hard/electronic/liquid and other wastes (polystyrene, batteries, paint, chemicals, detox items, etc) shall be kept at designated areas. These items shall remain within the development until the Operator arranges a private collection from the subject land in accordance with requirements from the relevant authority. E-waste must not be disposed in landfill.

Food and Drink tenants shall arrange the storage of used cooking oil and its collection by a recycler. The operator shall organise Grease Interceptor Trap servicing.

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	Collection Frequency	Net Area m^2
Apartments (shared bins)	Garbage	3	1,100	3/week	4.8
	Organics	6	120	3/week	3.0
	Recycling	3	1,100	3/week	4.8
	Future Glass	6	120	3/week	3.0
	Charity	1	240	At Call	0.5
	Textiles	1	240	At Call	0.5
	E-Waste	1	240	At Call	0.5
	Hard Waste	-	-	At Call	3.0
Hotel (dedicated bins)	Garbage	2	240	3/week	1.0
	Organics	1	120	3/week	0.5
	Recycling	2	240	3/week	1.0
	Future Glass	1	120	3/week	0.5
	Hard/E-Waste/Other	-	-	At Call	1.5
Retail (shared bins)	Garbage	5	1,100	3/week	8.0
	Organics	3	240	3/week	1.5
	Recycling	4	1,100	3/week	6.4
	Future Glass	3	240	3/week	1.5
	Hard/E-Waste/Other	-	-	At Call	3.0
Supermarket (dedicated system)	Garbage	2	1,100	3/week	3.2
	Organics	1	240	3/week	0.5
	Cardboard (3:1)	$38m^3$ Compactor		1/week	40.0
	Recycling	1	240	3/week	0.5
	Opt. Future Glass	1	240	3/week	0.5
	Hard/E-Waste/Other	-	-	At Call	2.0
Net Waste Storage Area (excludes circulation), m^2:					**91.7**

Notes:

- (3:1) denotes the nominal compaction ratio. The compactor shall be sourced and specified by the supermarket. Compactor selection shall take into consideration height clearances at the collection point and along truck travel zones. The supermarket shall be responsible for ongoing maintenance, cleaning, and replacements.
- Bins shall be sourced by the Operator (either purchased from a supplier or leased from the collection contractor).
- Subject to stakeholders' preference/capability (and as built constraints), bin sizes and quantities can be changed.

1.5 Planning Drawings, Waste Areas, and Management of the Waste System

The enclosed drawings illustrate 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)
120	930	480	545	10	26
240	1060	585	730	13	45
660	1250	1240	780	43	130
1100	1330	1240	1070	65	210

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) bins.
- Bins that receive waste under the chutes shall be reinforced to withstand loads from waste falling at high speed.

Table 4: Monash Colour Coding

Bin	Garbage	Food & Garden	Recycling	Glass (TBC)
Lid	Red	Lime	Yellow	Purple
Body	Dark Grey	Dark Grey	Dark Grey	Dark Grey

Note: Private bins shall be labelled to identify the waste generator and site address.

2 ACCESS FOR USERS, COLLECTORS, AND COLLECTION VEHICLES

2.1 User Access to Waste Facilities

Residents shall dispose sorted garbage and recyclables via dedicated chutes (available at each apartment level), in accordance with instructions from the chute supplier. Glass and Organics shall also be disposed into bins provided at residential levels. For other wastes unsuitable for chute disposal (e-waste, bulky waste, charity, etc), residents shall transfer sorted waste directly to their Bin Store (access via lift).

The hotel housekeepers shall transfer sorted waste from hotel apartments and from work/amenity areas to the hotel collection bins (using a suitable trolley and the lift).

Commercial tenants shall dispose sorted waste into retail collection bins located within designated Bin Stores (if required, using suitable trolleys).

Trained supermarket staff shall load cardboard into the compactor and operate this unit.

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. Also, the Operator shall monitor the filling of the bins under the chutes and change these when full. In coordination with the collection, the Operator shall transfer glass and organics bins between residential levels and the Residential Bin Store.

2.2 Collection Arrangements and Access to Waste Facilities

- Residential and retail wastes shall be collected at the residential and retail Loading Bay.
- Hotel waste shall be collected at the Rambla Loading Bay.
- Supermarket waste shall be collected at the supermarket Loading Bay.
- Collection staff (driver and assistant) shall have access to the Bin Stores and transfer bins to the truck and back to the stores.
- Plastic wheelie bins (120-100L) shall be collected by rear-lift vehicles (nom. 8.8m long, 4m operational height, and 24 tonnes gross vehicle mass).
- The compactor (and/or associated container) shall be collected by a matching hook-lift vehicle (nom. 9.8m long, approx. 4.5m operational height for articulated hooks and chamfered compactors, approx. 4.0m driving height, and 30 tonnes gross vehicle mass). The truck needs to be aligned with the longitudinal axis of each compactor and prop 1m in front.
- The enclosed drawings 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.
- The waste system and collections shall meet relevant acoustic requirements.
- Local laws shall be observed for all operations in public and private areas.
- For private collections, Council's Community Local Law No. 3 requires wastes collections between the following hours: 7am to 8pm Monday to Saturday, and 9am to 8pm Sundays. Also, the waste collector shall protect the acoustic amenity by minimising noise during the collection.

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.

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.
- Adequate vermin-proofing and tight-fitting doors
- Impervious flooring (also, smooth, slip-resistant, and appropriately drained). Also, impervious walls shall be provided near each chute discharge.
- 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.
- A water-flushing nozzle with accessible water cock shall be provided at the head of each chute. Include a floor waste and hosecock near each chute outlet.

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). Any 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.

Chutes, associated shafts, and discharge areas shall be sized and designed as recommended by a reputable chute manufacturer (chutes and associated equipment are proprietary items). The chute supplier shall fix safe-operating instructions to each intake-door and place a warning sign on each chute outlet.

For improved safety, each chute outlet shall be shrouded with a suitable rubber skirt and designed to minimise the effect of falling waste into the associated bin (and to stop dispersion of debris). Also, access to each chute outlet shall be restricted to trained personnel only (this area shall be suitably fenced and kept locked. The Operator shall train staff and waste collectors concerning hazards associated with the chute discharge area.

The compactor shall be designed as recommended by a reputable manufacturer (these units are proprietary items). The supplier shall provide training to all users and include appropriate safety features, operating instructions, and signage to ensure safe operation and prevent unauthorised use. Access to the supermarket waste storage, collection and compaction areas shall be restricted to trained personnel only (these areas shall be monitored and kept locked).

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 or chute. Cardboard shall be flattened and recycling containers un-capped, drained, and rinsed prior to disposal into the appropriate bin/chute. 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 development's owner/applicant shall appoint an Operator whilst providing the planning permit, this report, and any other relevant documentation associated with the waste system.

The Operator shall be responsible for managing the waste system and for developing and implementing safe operating procedures (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.
- The private collection contractor shall transfer bins between the waste areas and the truck (bins shall not be left unattended outside the site boundary at any time).

4.4 Communication Strategy - Arrangements for System Labelling and Ensuring Users and Staff are Aware of How to Use the System Correctly

- The developer is responsible for providing a copy of the Endorsed Waste Management Plan to the Operator the subject site. The Operator is responsible for requesting a copy of the Endorsed Waste Management Plan from Council if the developer has failed to provide the WMP to the Operator.
- To ensure all residents are aware of their responsibilities with regard to waste and bin management, an information package should be provided to all residents, including a copy of this WMP.

- The Operator shall ensure continuous communication with users in relation to the waste system, including an induction to new users and changes regarding any new waste streams as additional waste separation is implemented.
- The Operator shall provide appropriate signage for the bins. Signage is available at the following internet address: www.sustainability.vic.gov.au. Also, the materials available as part of the Metropolitan Waste and Resource Recovery Group's Multi-unit Development's Toolkit shall be considered. Refer to the following internet address: https://www.mwrrg.vic.gov.au/planning/multi-unit-developments-toolkit/
- 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 and chute blockages, reduce littering, and achieve cleanliness).
  - Advise users/staff to sort and recycle waste with care to reduce contamination of recyclables and with special attention to organics and future glass diversion.
- For safety when disposing waste and shifting bins, the Operator shall develop and provide safety instructions.

4.5 Sustainability and Waste Avoidance/Reuse/Reduction Initiatives

The *Environment Protection Amendment Act 2018* (and the principal EPA Act of 2017) with the *Circular Economy (Waste Reduction and Recycling) Act 2021* include fundamentals 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 adhere to the Acts (where relevant and practicable) in order to minimise the impact of waste on the environment. For improved sustainability, the Operator shall consider the following:

- Observe the *Environment Protection Amendment Act 2018* principle of waste management hierarchy, which states that waste should be managed in accordance with the following order of preference, so far as reasonably practicable: a) avoidance, b) reuse, c) recycling, d) recovery of energy, e) containment, and f) waste disposal.
- Peruse the Sustainability Victoria website: www.sustainability.vic.gov.au.
- Adopt waste practices outlined in the Circular Economy (Waste Reduction and Recycling) Act 2021.
- 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
Chute discharge	Strike & debris from falling waste	PPE, staff training, and signage, maintain access restrictions. Include a suitable curtain/skirt and a locked mesh fence around the discharge zone of the chute
Compactor operation	Crush/strike/cut and shear points	Staff training, signage and warning system, maintain access restrictions
Bin transfers and emptying into truck. User access to loading areas	Vehicular strike, run-over	PPE. Develop a Hazard Control Plan for transfers and collections. Maintain visibility. Use a mechanical bin-tipper. Designate all Loading Bays as a Shared Zones
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

Monash City Council (local Council), ph 03 9518 3555

Veolia (private waste collector), ph 132955

Remondis (private waste collector), ph 13 73 73

FJP Safety Advisors (OH&S consultant), ph 03 9255 3660

Electrodrive (tug & trailer supplier – for bin transfers), ph 1300 934 471

Sabco Commercial (supplier of cleaner's trolleys), ph 1800 066 522

Sulo MGB Australia (bin supplier), ph 1300 364 388

One Stop Garbage Shop (bin supplier), ph 03 9338 1411

Wastedrive Equipment (steel bin supplier), ph 02 9630 9333

Elephant's Foot (baler and chute supplier), ph 02 9780 3500

Wastech Engineering (steel bin, baler and chute supplier), ph 1800 465 465

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.

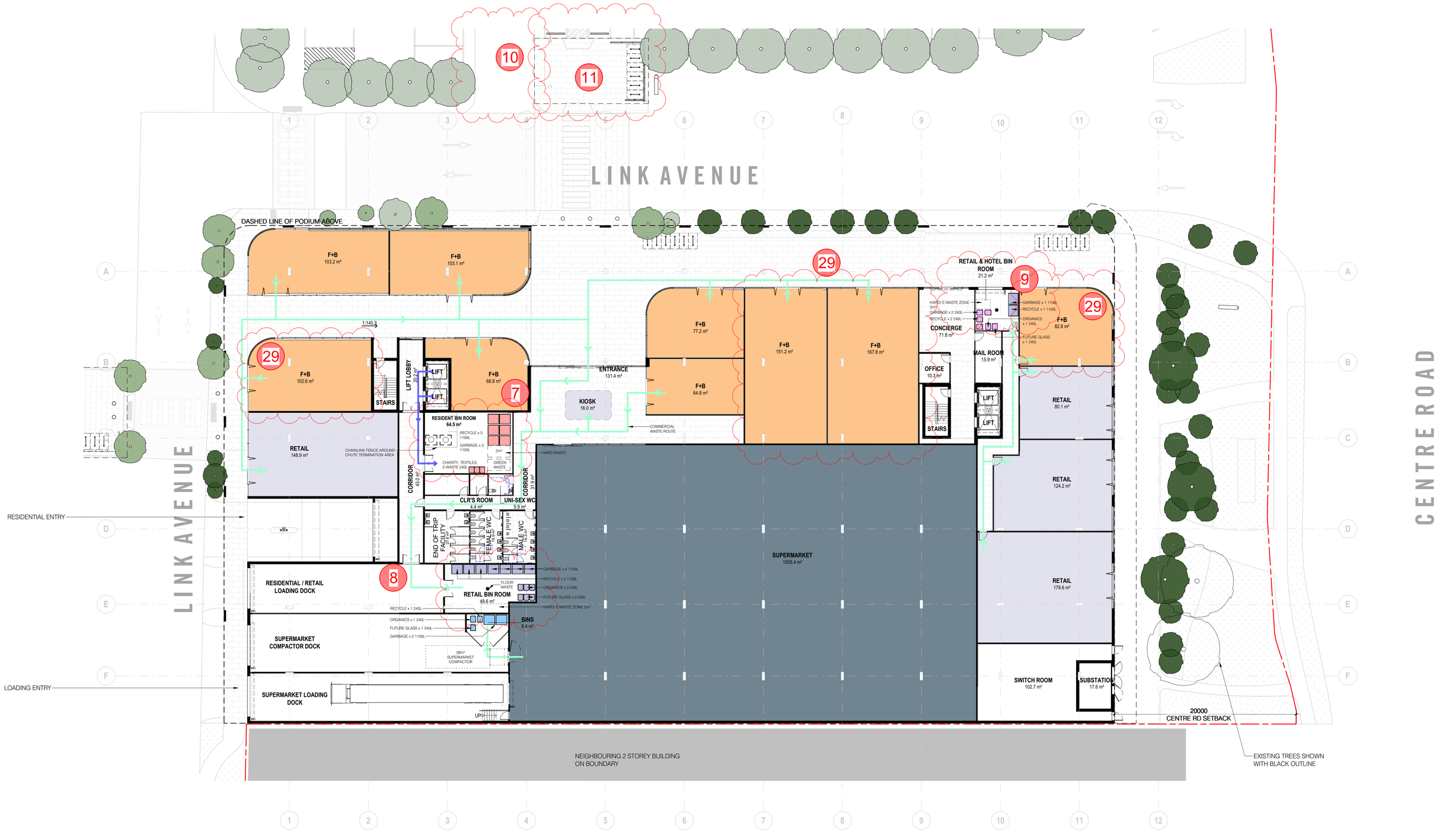
What is a Waste Management Plan?

A Waste Management Plan is a document which outlines the waste management system, and the assumptions and building design elements that have driven the design of the waste management system. A WMP can be updated and endorsed as the requirements of the development change.

The Purpose of the Waste Management Plan (WMP) is to:

- Demonstrate the development of an effective waste management system that is compatible with the design of the multi-unit development (MUD) and the adjacent built environment. An effective waste management system is hygienic, clean and tidy, minimises waste going to landfill, and maximises recycling
- Provide a waste management system for a MUD that is supported by scaled drawings to ensure the final design and construction of the MUD is compliant with the WMP, and is verifiable
- Form a document that achieves effective communication of the waste management system so that all stakeholders can be properly informed of its design, and the roles and responsibilities involved in its implementation. Stakeholders are defined (but not limited to): owners, occupiers, body corporate, property managers/real estate agents, Council, neighbours and collection contractors
- Ensure residents of MUD's are not disadvantaged in their access to recycling and other responsible waste management options
- Avoid existing legacy issues that plague many MUD's due to poor design and insufficient consideration for waste management
  - Improve outcomes for compliance with regulatory tools and the State Planning Strategies, such as:
    - Town Planning Permits
    - Monash Planning scheme
    - Clause 19.03-5 of the State Planning Policy Framework
    - Direction 6.7 of Plan Melbourne
    - Clause 55 Standard B34 of the Planning Scheme
    - Clause 55.07 and Clause 58.06 of the Planning Scheme.

Applicants and site operators should note that failure to comply with the endorsed Waste Management Plan can attracted a fine of 10 Penalty Units under the City of Monash Local Law No.3 Clause 164.



GROUND FLOOR PLAN 1 : 200

LEGEND:

- RESIDENT WASTE ROUTE
- WASTE COLLECTION DROP OFF/ PICK UP ROUTE
- COMMERCIAL WASTE ROUTE
- RESIDENT BINS
- RETAIL / F&B BINS
- HOTEL BINS
- SUPERMARKET BINS

no.	date	ISSUE / revision	by
TP4	19/05/2025	DA Re-design; issued for review without prejudice	MGR
TP3	28/06/2023	DA Endorsed Drawings; Issued for Approval	ADZ
TP2	09/03/2023	DA Endorsed Drawings; Issued for Approval	ADZ
TP1	24/02/2022	Town Planning RFI issued for application	YHU
TP0	17/01/2022	Town Planning RFI response; Issued for application	CLY

PL

FIELDWORX HOUSE

1041 CENTRE RD, OAKLEIGH SOUTH, VIC, 3167

t2c | Ryder

GROUND FLOOR WASTE ROUTE

DEVELOPMENT APPLICATION

project	drawing no.	issue
2020-506	DA20	TP4
scale @ A1	designed	checked
AS indicated	YHU/MG	BJE

LEVEL 03 FLOOR PLAN 1 : 200

LEGEND:

- RESIDENT WASTE ROUTE
- WASTE COLLECTION DROP OFF/ PICK UP ROUTE
- COMMERCIAL WASTE ROUTE
- RESIDENT BINS
- RETAIL / F&B BINS
- HOTEL BINS
- SUPERMARKET BINS

no.	date	ISSUE / revision	by
TP5	19/05/2025	DA Re-design; issued for review without prejudice	MGR
TP4	28/09/2023	DA ENDORSED DRAWINGS UPDATE; ISSUED FOR APPROVAL	
TP3	28/06/2023	DA Endorsed Drawings; Issued for Approval	ADZ
TP2	09/03/2023	DA Endorsed Drawings; Issued for Approval	ADZ
TP1	24/02/2022	Town Planning RFI issued for application	YHU
TP0	14/02/2022	Issued for Coordination	YHU

PL

FIELDWORX HOUSE

1041 CENTRE RD, OAKLEIGH SOUTH, VIC, 3167

f2c | Ryder

TYPICAL LEVEL WASTE ROUTE

DEVELOPMENT APPLICATION

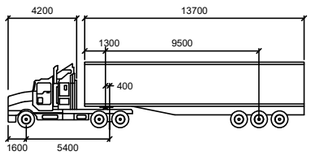
project	drawing no.	issue
2020-506	DA21	TP5

scale @ A1	designed	checked
AS indicated	YHU/MG	BJE

VEHICLE PROFILE

VEHICLE USED IN SIMULATION

(VEHICLE SPEED - 5KM/H)



AV (AS 2890.2)

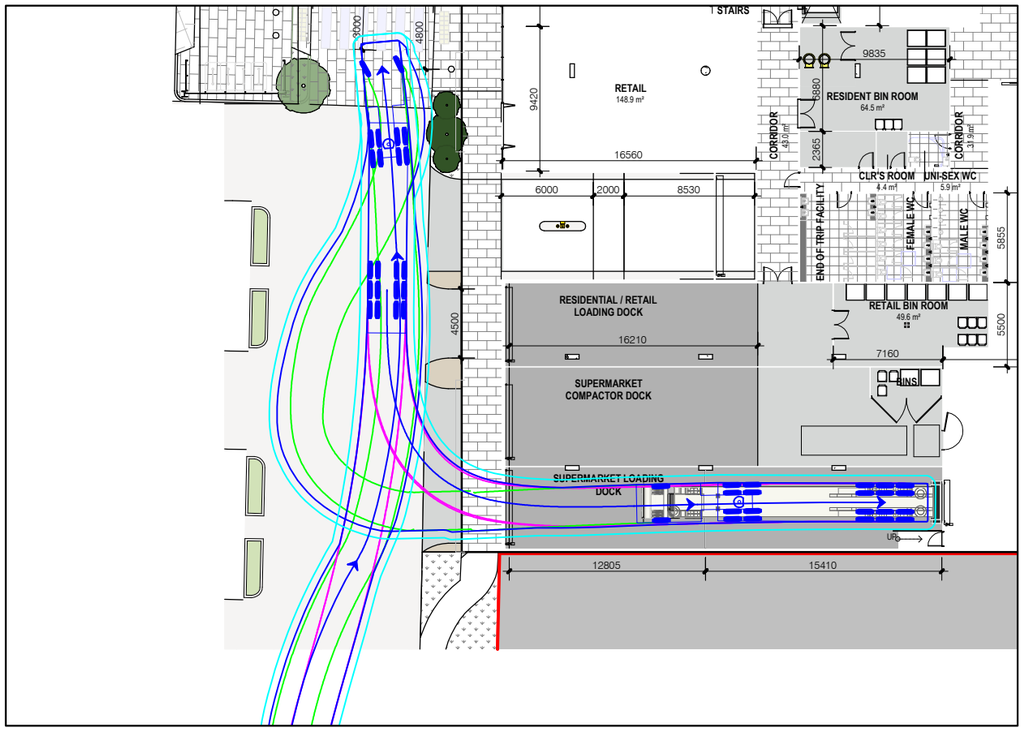
	mm		mm
Tractor Width :	2500	Lock to Lock Time :	6.0
Trailer Width :	2500	Steering Angle :	28.3
Tractor Track :	2500	Articulating Angle :	70.0
Trailer Track :	2500		

LEGEND

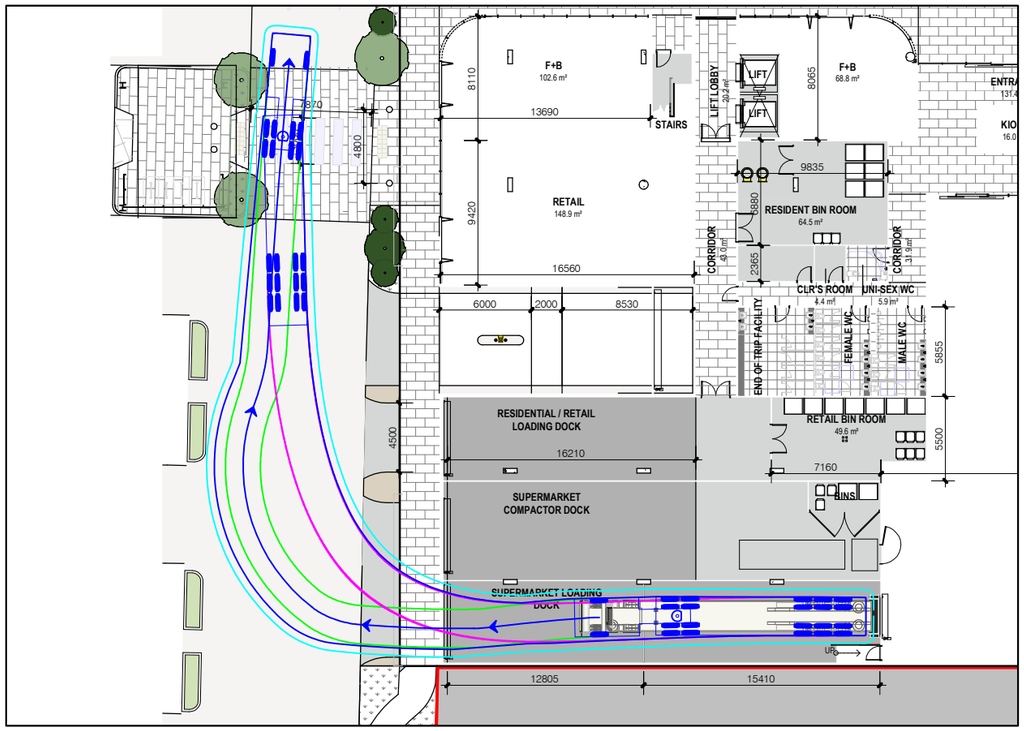
REAR WHEELS — VEHICLE BODY

FRONT WHEELS — BODY CLEARANCE

LOADING BAY - SEMI TRAILER ENTRY



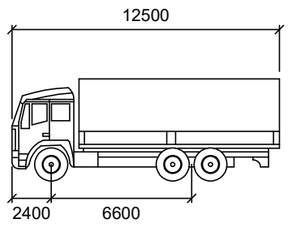
LOADING BAY - SEMI TRAILER EXIT



LOADING - COMPACTOR - ENTRY

VEHICLE USED IN SIMULATION

(VEHICLE SPEED - 5KM/H)



HRV (AS 2890.2) mm

Width	:	2500
Track	:	2500
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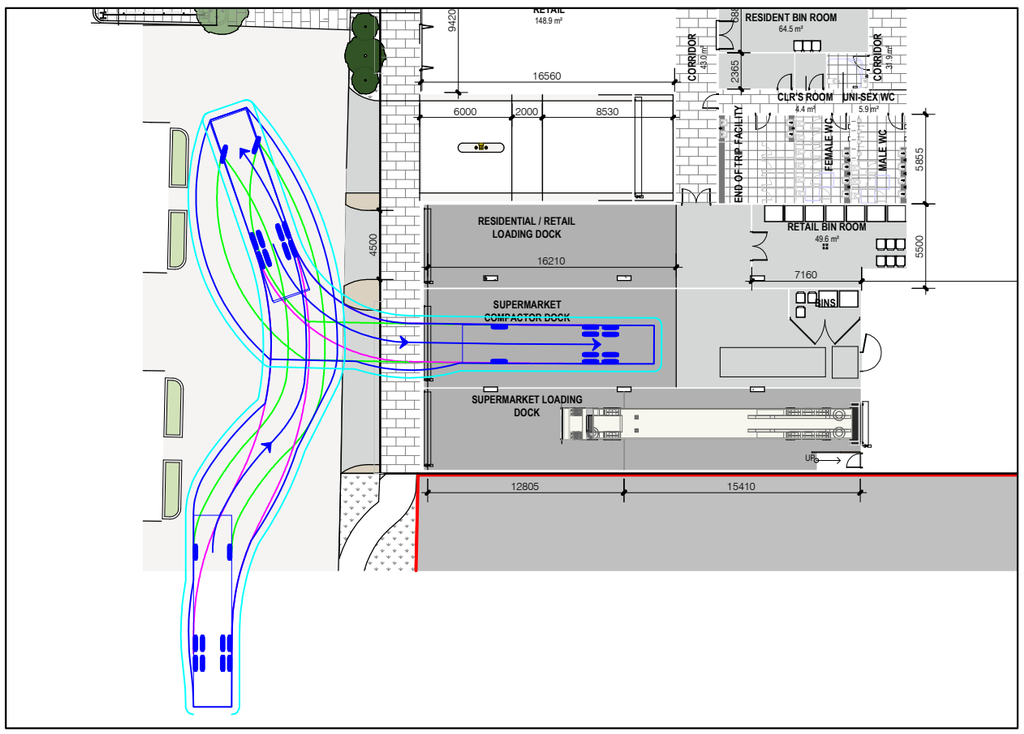
Steering Angle	:	35.2

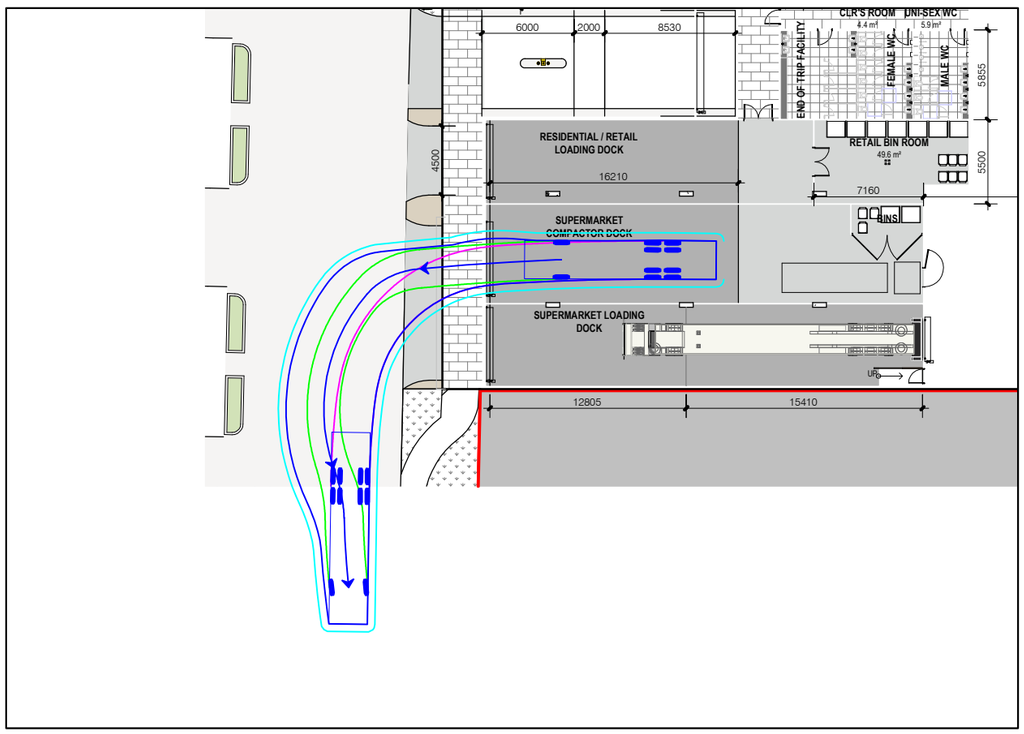
LEGEND

REAR WHEELS — VEHICLE BODY

FRONT WHEELS — BODY CLEARANCE



LOADING - COMPACTOR - EXIT



REV	DATE	NOTES	DESIGNED BY	CHECKED BY
A	16/05/2025		E. O'FARRELL	H. TURNBULL

THE LINKS SHOPPING CENTRE, OAKLEIGH SOUTH

PROPOSED MIXED USE DEVELOPMENT

GENERAL NOTES:

BASE PLAN 'DA30 - GROUND FLOOR PLAN_TP13' RECEIVED MAY 2025

FILE NAME: G29458-09

SHEET NO.: 01

SCALE: 1:400 (A3)

0 4 8

Traffix Group

Level 28, 459 Collins St, MELBOURNE VIC 3000

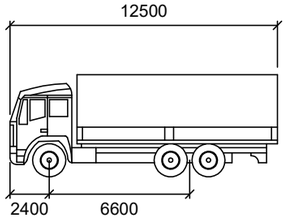
T: (03) 9822 2888

www.traffixgroup.com.au

VEHICLE PROFILE

VEHICLE USED IN SIMULATION

(VEHICLE SPEED - 5KM/H)



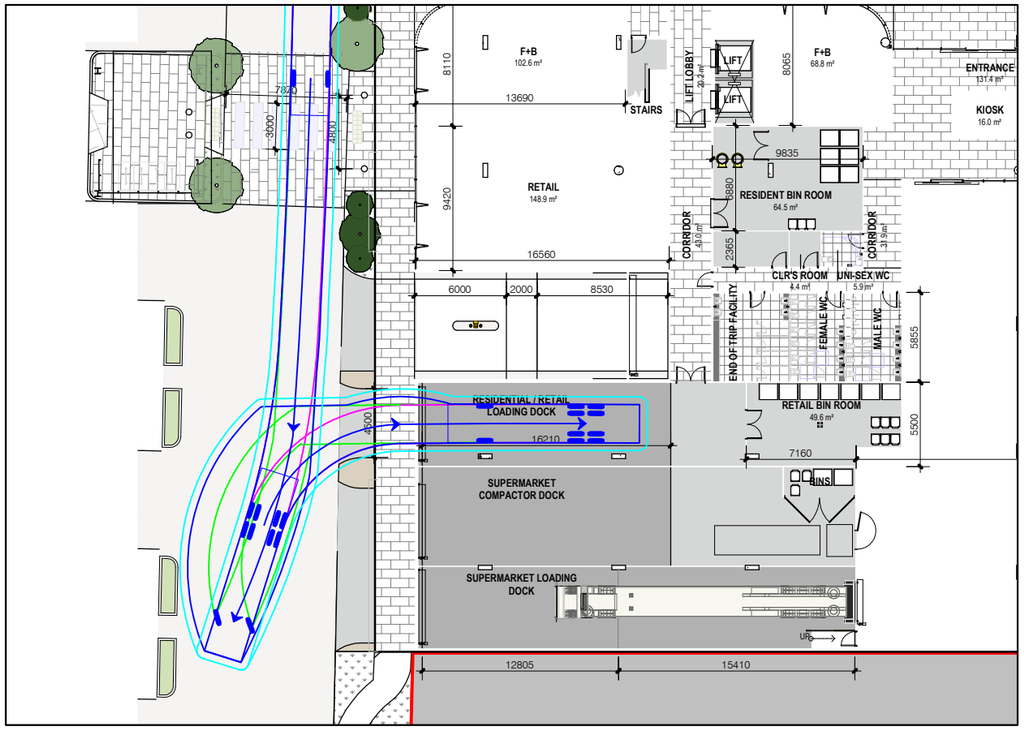
HRV (AS 2890.2)		mm
Width	:	2500
Track	:	2500
Lock to Lock Time	:	6.0
Steering Angle	:	35.2

LEGEND

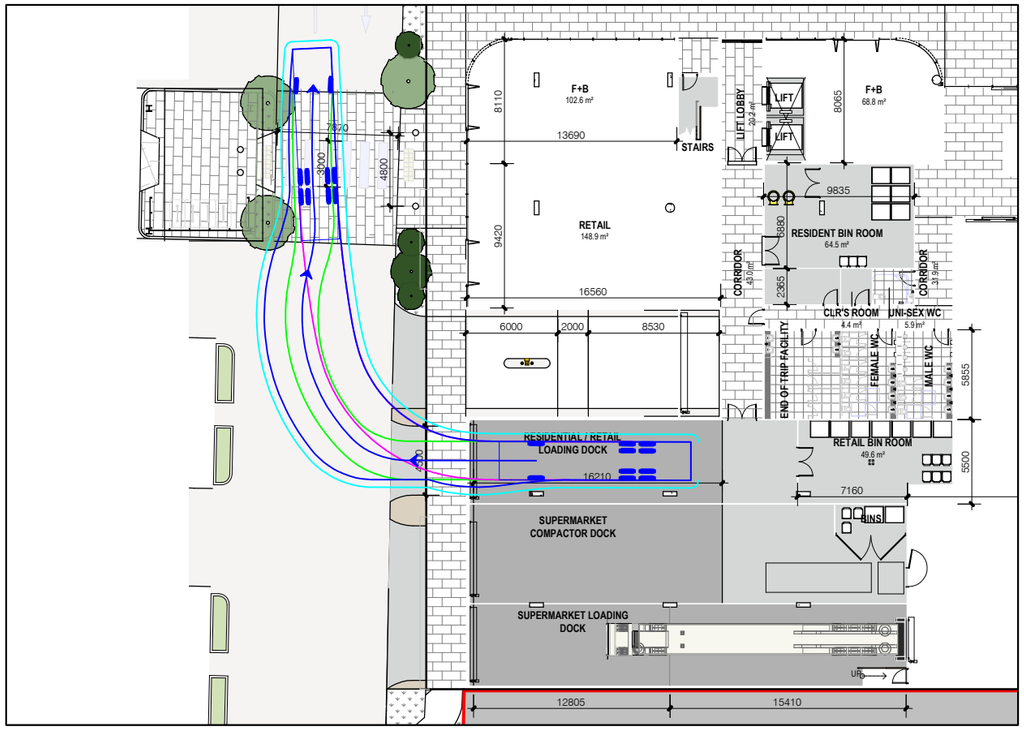
REAR WHEELS — VEHICLE BODY

FRONT WHEELS — BODY CLEARANCE

RESIDENTIAL/RETAIL LOADING - ENTRY



RESIDENTIAL/RETAIL LOADING - EXIT



REV	DATE	NOTES	DESIGNED BY	CHECKED BY
A	16/05/2025		E. O'FARRELL	H. TURNBULL

THE LINKS SHOPPING CENTRE, OAKLEIGH SOUTH

PROPOSED MIXED USE DEVELOPMENT

GENERAL NOTES:

BASE PLAN 'DA30 - GROUND FLOOR PLAN_TP13' RECEIVED MAY 2025

FILE NAME: G29458-09

SHEET NO.: 02

SCALE: 1:400 (A3)

0 4 8

Traffix Group

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URBIS