DEVELOPMENT APPLICATION

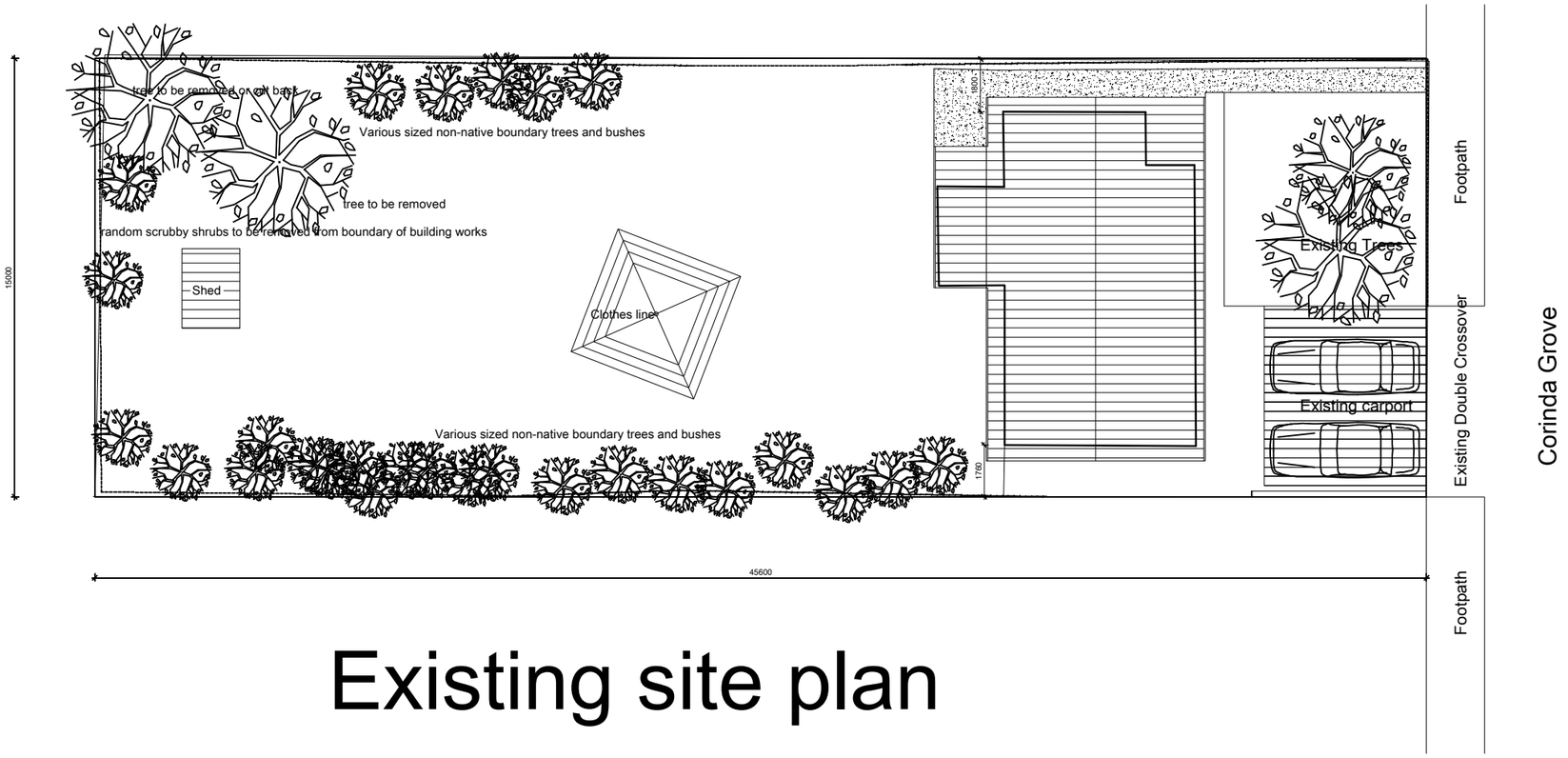
APPLICATION NUMBER:	PLN-25-064
PROPOSED DEVELOPMENT:	Multiple dwellings (One existing, one proposed), Additions and Alterations to existing dwelling, driveway works
LOCATION:	12 Corinda Grove West Moonah
APPLICANT:	K A Davis
ADVERTISING START DATE:	24/06/2025
ADVERTISING EXPIRY DATE:	08/07/2025

Plans and documentation are available for inspection at Council's Offices, located at 374 Main Road, Glenorchy between 8.30 am and 5.00 pm, Monday to Friday (excluding public holidays) and the plans are available on Glenorchy City Council's website (**www.gcc.tas.gov.au**) until **08/07/2025.**

During this time, any person may make representations relating to the applications by letter addressed to the Chief Executive Officer, Glenorchy City Council, PO Box 103, Glenorchy 7010 or by email to gccmail@gcc.tas.gov.au.

Representations must be received by no later than 11.59 pm on **08/07/2025,** or for postal and hand delivered representations, by 5.00 pm on **08/07/2025.**

374 Main Road, Glenorchy
PO Box 103, Glenorchy TAS 7010
(03) 6216 6800 | gccmail@gcc.tas.gov.au
www.gcc.tas.gov.au
ABN 19 753 252 493



Existing site plan

Existing Site Plan

Scale 1:200

SD 01a
2501

Karen·Davis
ARCHITECT
KAREN DAVIS ACCREDITATION # CC141Q
PO BOX 942 PH: (03) 6231 4999
1/30 Fielding Drive
West Hobart TASMANIA 7000

Proposed New Building Works

Existing Site Plan

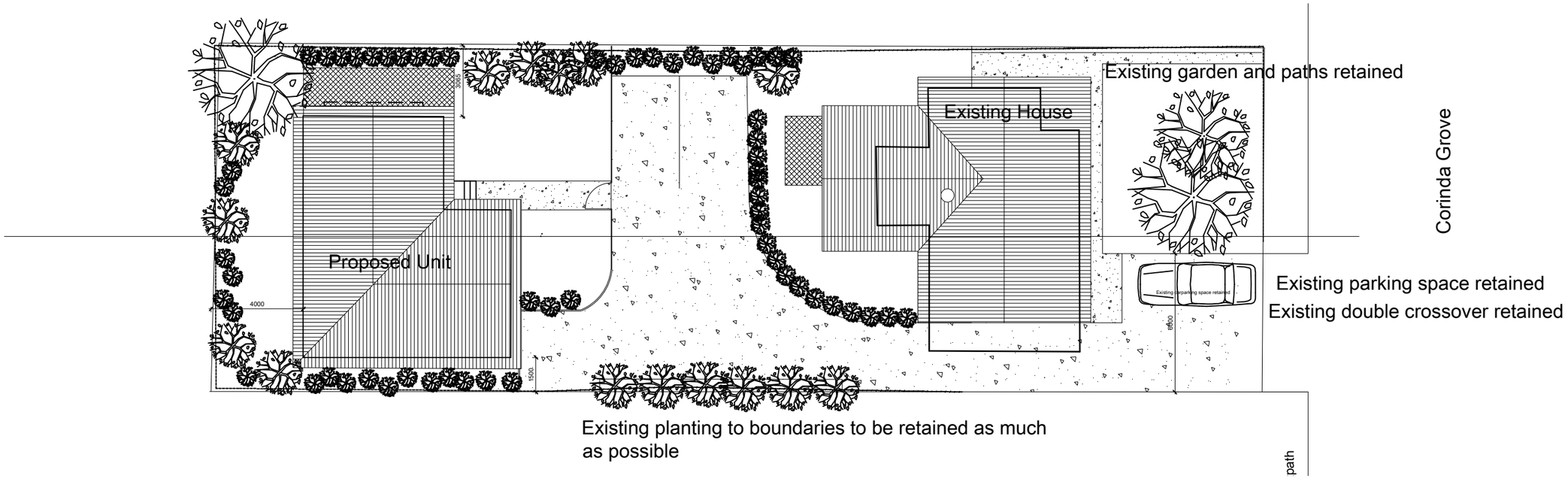
PL & KA Davis

12 Corinda Grove, West Moonah

Scale 1:200
20 March 2025

0 50
SCALE(mm)

north



Proposed Site Plan

Scale 1:200

SD 02b
2501

Karen·Davis
ARCHITECT
KAREN DAVIS ACCREDITATION # CC141Q
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1/30 Fielding Drive
West Hobart TASMANIA 7000

Proposed New Building Works

Proposed Site Plan

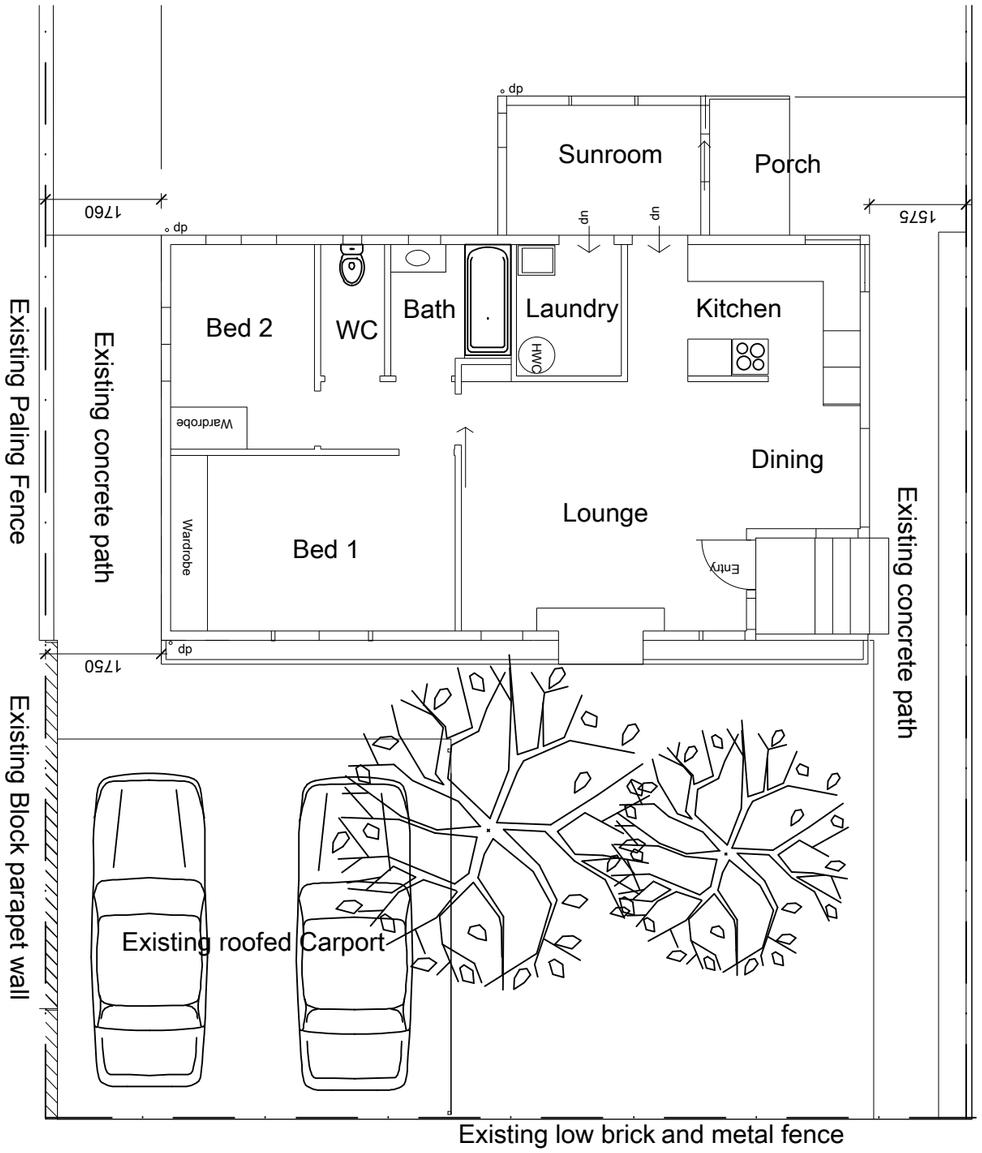
PL & KA Davis

12 Corinda Grove, West Moonah

Scale 1:200
22 March 2025

0 50
SCALE(mm)

north



Existing Floor Plan

Scale 1:100

0 50

SCALE(mm)

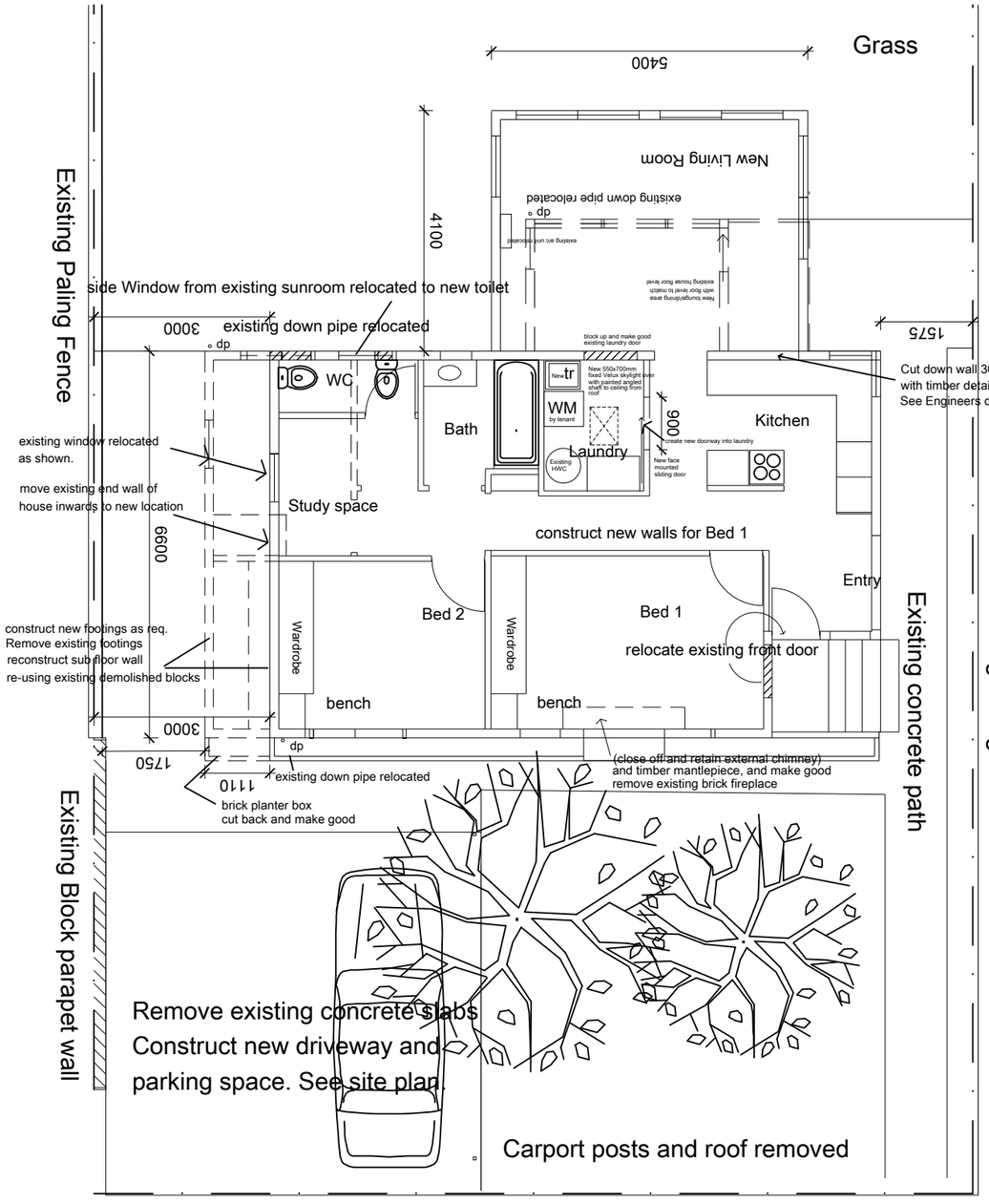
Scale 1:100
14 March 2025

Proposed New Building Works
Existing House Plan
PL & KA Davis
12 Corinda Grove, West Moonah

Karen·Davis ARCHITECT
KAREN DAVIS ACCREDITATION # CC141Q
PO BOX 942 PH: (03) 6231 4999
1/30 Fielding Drive
West Hobart TASMANIA 7000

north

SD 03
2501



Proposed Floor Plan

Scale 1:100

0 50
SCALE(mm)

Scale 1:100
14 March 2025

Proposed New Building Works

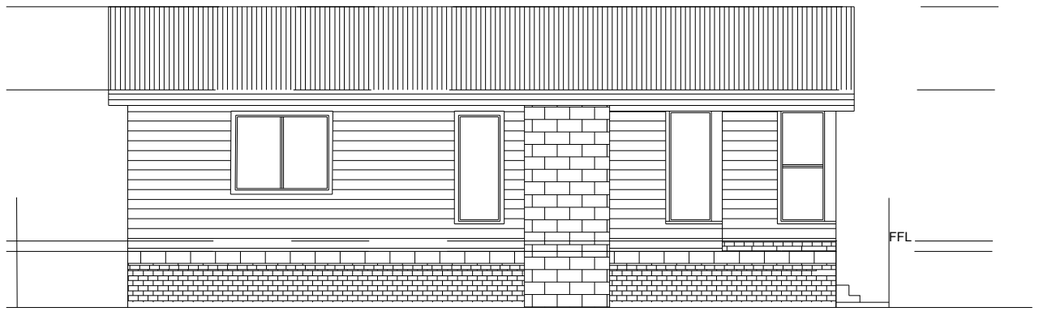
Proposed House Plan

PL & KA Davis
12 Corinda Grove, West Moonah

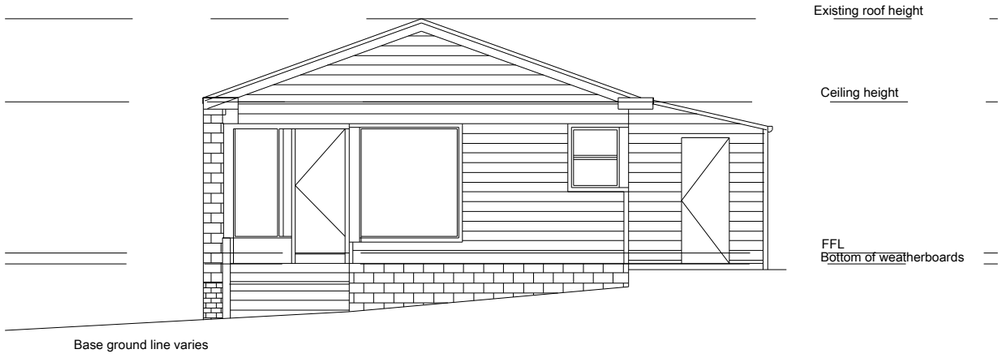
Karen·Davis ARCHITECT
KAREN DAVIS ACCREDITATION # CC141Q
PO BOX 942 PH: (03) 6231 4999
1/30 Fielding Drive
West Hobart TASMANIA 7000

north

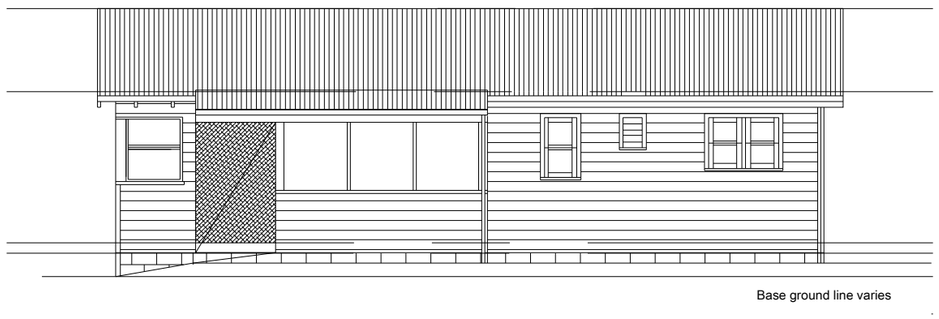
SD 04
2501



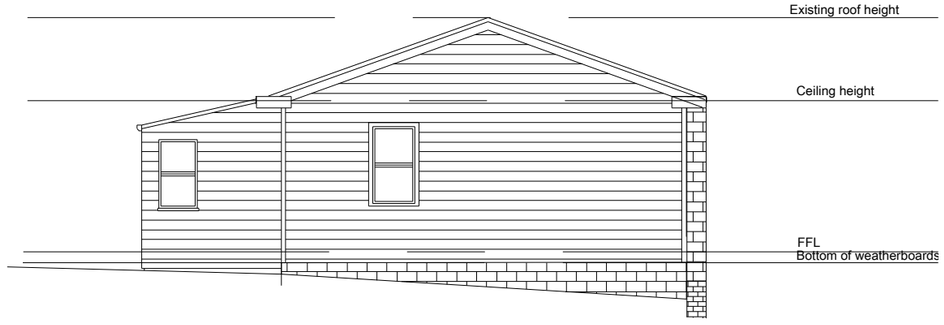
SOUTH ELEVATION



EAST ELEVATION



NORTH ELEVATION



WEST ELEVATION

Existing Elevations

Scale 1:100

0 50

SCALE(mm)

north

Scale 1:100
28 February 2025

Proposed New Building Works
Existing House Elevations
PL & KA Davis
12 Corinda Grove, West Moonah

Karen·Davis ARCHITECT
KAREN DAVIS ACCREDITATION # CC141Q
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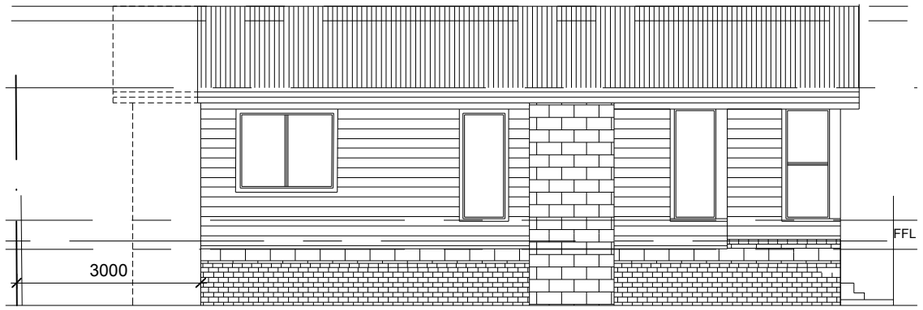
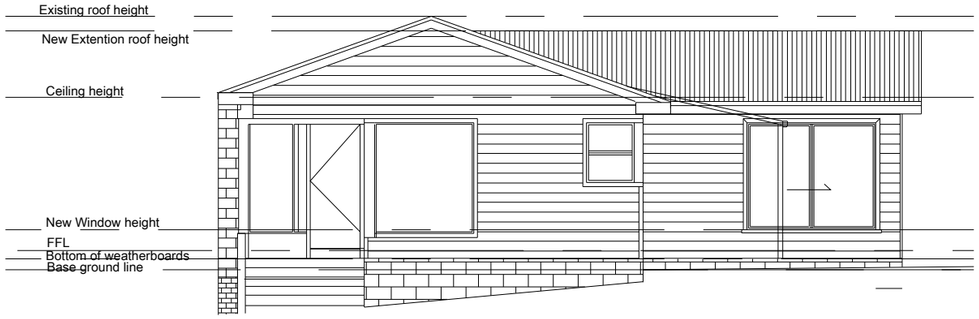
1/30 Fielding Drive
West Hobart TASMANIA 7000

SD 05
2501

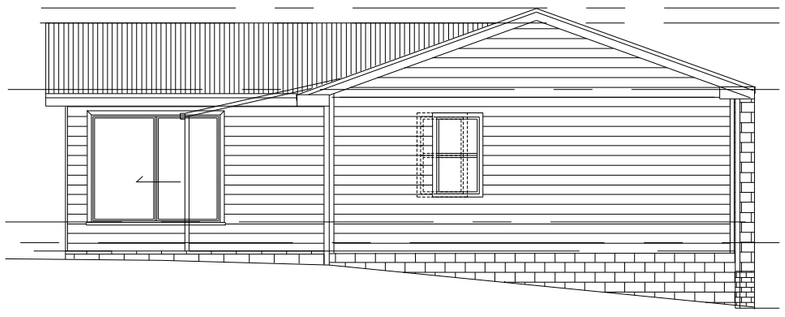


SOUTH ELEVATION



EAST ELEVATION

NORTH ELEVATION



WEST ELEVATION

Proposed Elevations

Scale 1:100

0 50
SCALE(mm)

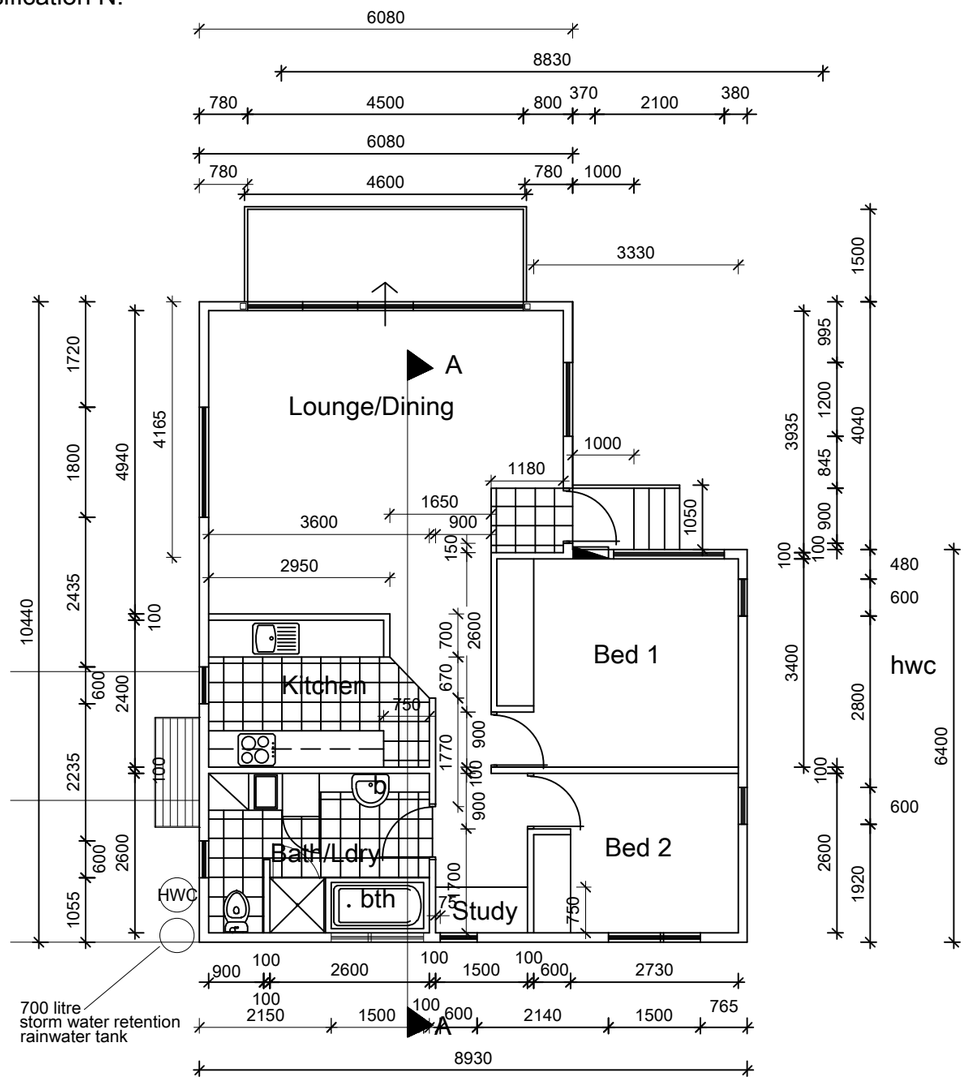
Scale 1:100
28 February 2025

Proposed New Building Works
Proposed House Elevations
PL & KA Davis
12 Corinda Grove, West Moonah

Karen·Davis ARCHITECT
KAREN DAVIS ACCREDITATION # CC141Q
PO BOX 942 PH: (03) 6231 4999
1/30 Fielding Drive
West Hobart TASMANIA 7000

SD 06
2501

BRACING and TIE-DOWN
All bracing and tie-down to be in accordance with the requirements of AS1684.2 Sections 8 & 9.
Bracing to be in accordance with Table 8.18.
H(a) - Ply with tie-down rods at each end of panel
H(b) - Ply
G - Ply
D - double diagonal metal tension strap fixing to be in accordance with Section 9.
Site and Wind Classification N.



Floor Plan

Scale 1:100

0 50
SCALE(mm)

All windows double glazed aluminium powdercoat finish. Glazing to comply with the NCC and AS 1288.2006

All windows to have Flyscreens unless otherwise indicated.Sliding Doors and opening windows to have locks and to be keyed alike

Concrete slab on face brick base.
concrete deck and porch with concrete steps on face brick base.

All walls inside 10 mm plasterboard bathroom 6mm villaboard. All painted with low sheen acrylic.

All Internal doors Corinthian Flush vertical rosewood timber veneer, satin clear finished. Front door to be Corinthian Madison PMAD 111 Exterior ply paint finished both sides. See colour scheme for colour. All windows to have Tas oak liners and 65mm splayed architraves and skirtings - clear finished

Laundry trough to be Clark flushline 30 litre code GWA7510 .
Provide a 160litre exterior electric hot water cylinder.

Exterior clad in 50mm foam board with Dulux Acratex finish in sand texture. Other finishes include Hardies Shadow Clad 130mm profile laid vertically and flashed in matching colour with manufacturers matching fixings and joiners. See details and finishes schedules.

Insulate ceiling with R6.0 bulk insulation and use Proctor Wrap breathable membrane to entire structure including under the roof.
Insulate all external walls with R2.5 wall batts.
Provide 25mm high density polystyrene under slab insulation.

Door furniture to be Lockwood Symphony Round Rose series lever 70 in satin chrome to all doors. Matching Privacy latch to bathroom door and deadbolt to front door.

Provide satin chrome A290 lockwood half moon door stops to all doors.

Supply and install wall mounted Hills 2.2mx1.2m fold-a-line to location as directed.

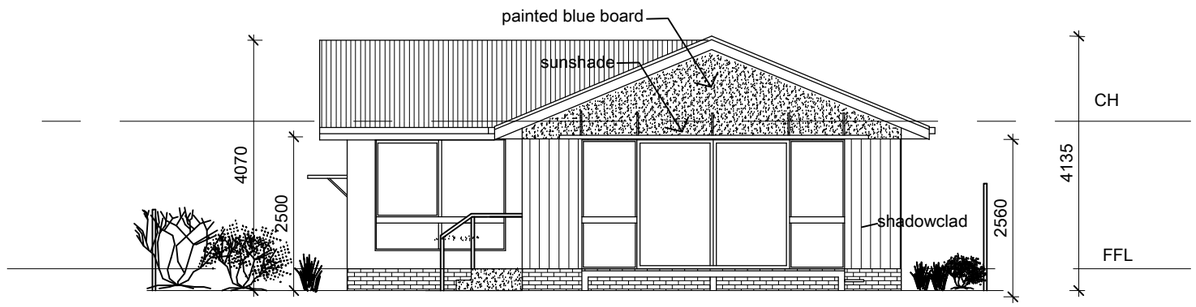
North

Scale 1:100
03 March 2025

Proposed New Building Works
New Unit
PL & KA Davis
12 Corinda Grove, West Moonah

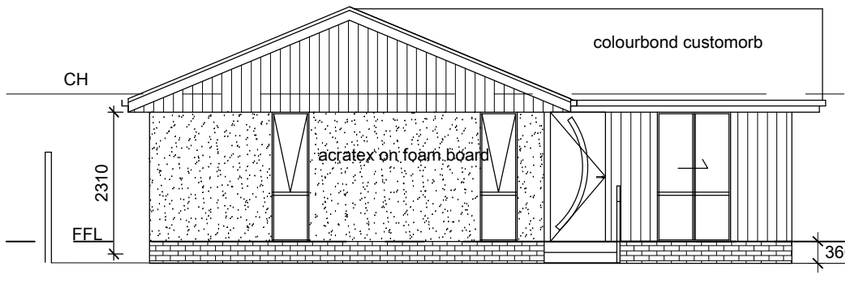
Karen·Davis
ARCHITECT
KAREN DAVIS ACCREDITATION # CC1141Q
PO BOX 942 PH: (03) 6231 4999
1/30 Fielding Drive
West Hobart TASMANIA 7000

SD 07
2501

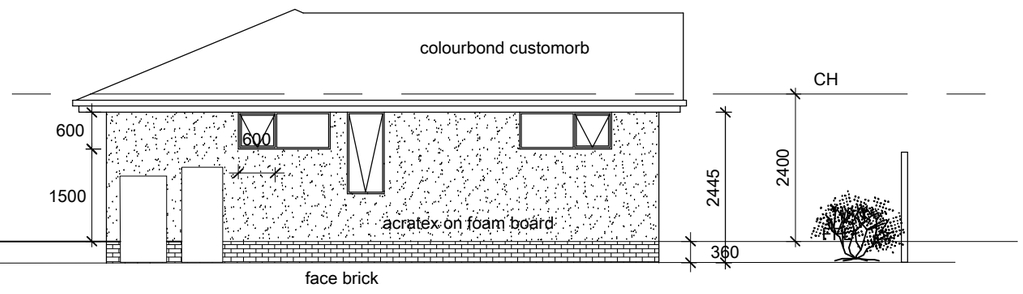


Sunshade to be constructed from 20 x 20 aluminium triangluar frame welded to stud frame behind blue board panels.
frame to be powdercoated preciuos silver pearl.
Sunshade to be constructed from perforated alumium sheet powdercoated to match frame. Sunscreen panels to be welded or riveted onto frame.
Install wall mounted Hills foldaline to wall of bedroom in location shown.
All window frames to be powdercoated "Precious silver Pearl"

North Elevation

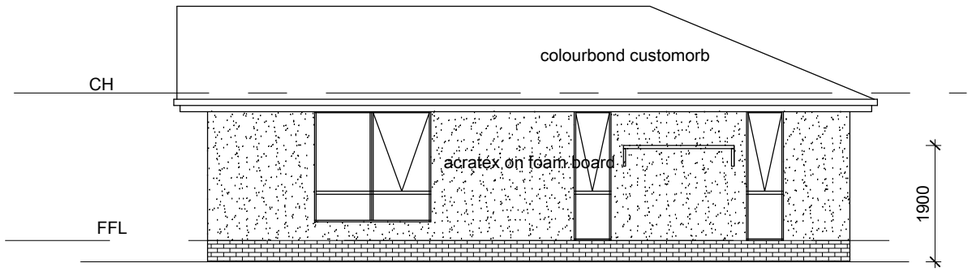


East Elevation



Approximate ground line only

South Elevation



West Elevation

Elevations

Scale 1:100

0 50

SCALE(mm)

Scale 1:100
03 March 2025

Proposed New Building works

New Unit

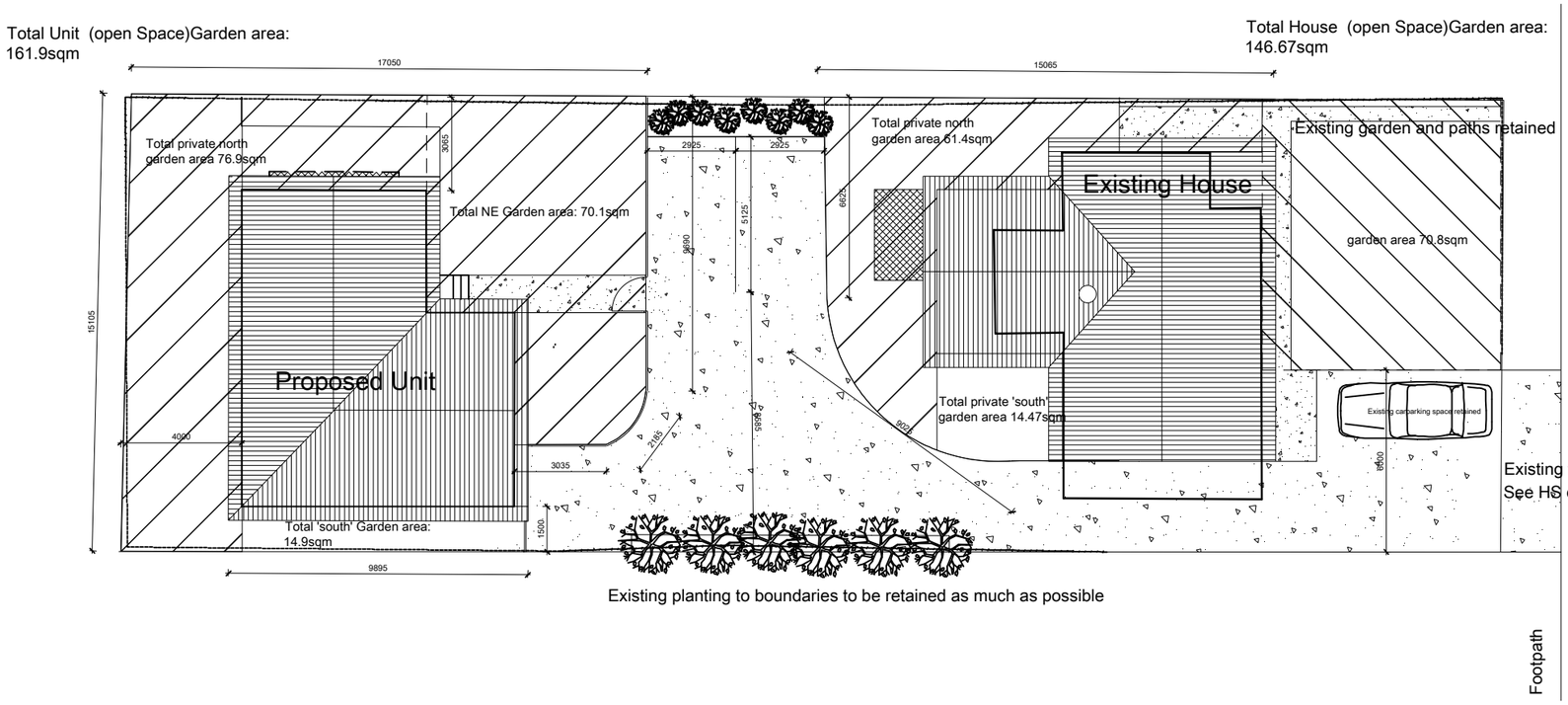
PL & KA Davis

12 Corinda Grove, West Moonah

Karen·Davis
ARCHITECT
KAREN DAVIS ACCREDITATION # CC141Q
PO BOX 942 PH: (03) 6231 4999
1/30 Fielding Drive
West Hobart TASMANIA 7000

north

SD 08
2501



Proposed Site Plan with garden areas defined

Scale 1:200

SD 02D
2501

Karen·Davis
ARCHITECT
KAREN DAVIS ACCREDITATION # CC141Q
PO BOX 942 PH: (03) 6231 4999
1/30 Fielding Drive
West Hobart TASMANIA 7000

Proposed New Building Works

Proposed Site Plan

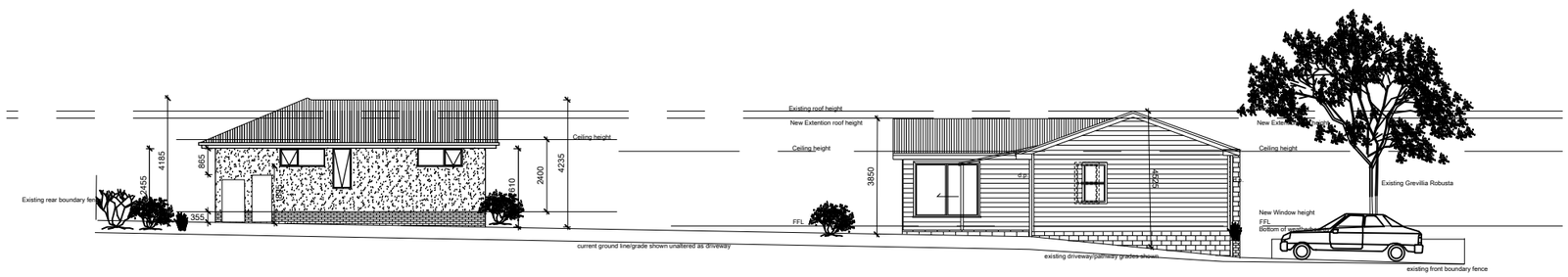
PL & KA Davis

12 Corinda Grove, West Moonah

Scale 1:200
12 June 2025

0 50
SCALE(mm)

north



Long Section

Scale 1:200

BA 02
2501

Karen·Davis
ARCHITECT

KAREN DAVIS ACCREDITATION # CC141Q
PO BOX 942 PH: (03) 6231 4999
1/30 Fielding Drive
West Hobart TASMANIA 7000

Proposed New Building Works

Long Site Section

PL & KA Davis
12 Corinda Grove, West Moonah

Scale 1:200
25 April 2025

0 50
SCALE(mm)

north

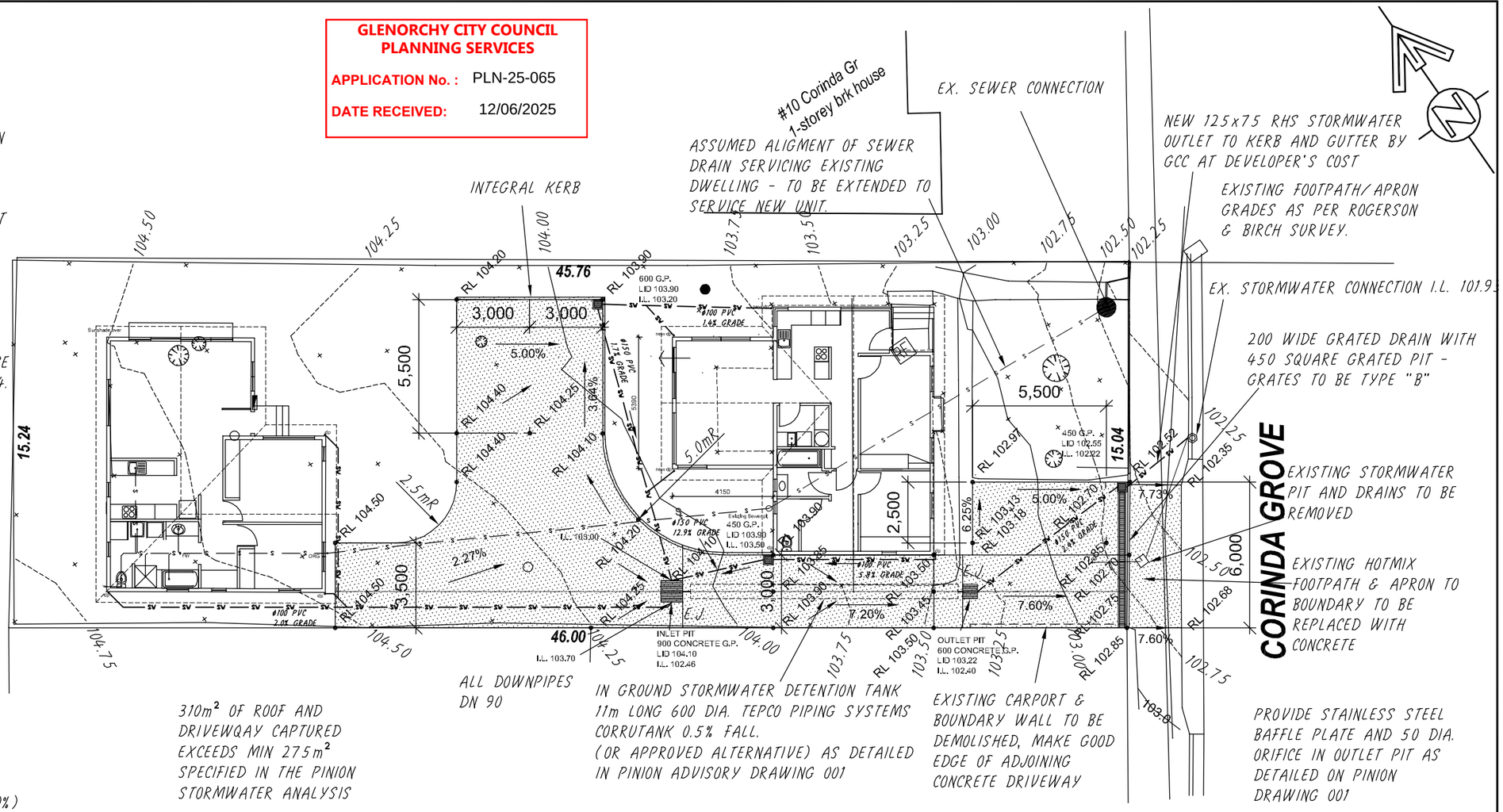
GLENORCHY CITY COUNCIL
PLANNING SERVICES

APPLICATION No. : PLN-25-065

DATE RECEIVED: 12/06/2025

GENERAL NOTES :

1. THE LOCAL BUILDING AUTHORITY SHALL BE THE GLENORCHY CITY COUNCIL.
2. ALL WORK SHALL BE IN ACCORDANCE WITH THE CURRENT EDITION OF THE NATIONAL CONSTRUCTION CODE RELEVANT CURRENT AUSTRALIAN STANDARDS, AND TO THE SATISFACTION OF THE LOCAL BUILDING AUTHORITY.
3. NO WORK IS TO BE STARTED PRIOR TO THE RECEIPT OF FORMAL BUILDING APPROVAL.
4. ALL DIMENSIONS AND LEVELS ARE TO BE CHECKED ON SITE BY THE BUILDER PRIOR TO STARTING ANY EXCAVATION OR CONSTRUCTION.
5. DRIVEWAY, PARKING & MANOEUVRING AREAS TO BE CONSTRUCTED IN ACCORDANCE WITH AS 2890.1 2004.
6. ALL PLUMBING AND DRAINAGE SHALL BE IN ACCORDANCE WITH A.S. 3500, THE TASMANIAN PLUMBING CODE, AND COUNCIL REGULATIONS.
7. MIN. SEWER GRADE 1:60
   MIN. STORMWATER GRADE 1:100
8. FALL AWAY FROM NEW RESIDENCE TO NCC REQUIREMENTS 50mm OVER FIRST 1000mm.
9. SITE SURVEY BY ROGERSON & BIRCH TO AHD, CONTOUR INTERVAL 250mm.



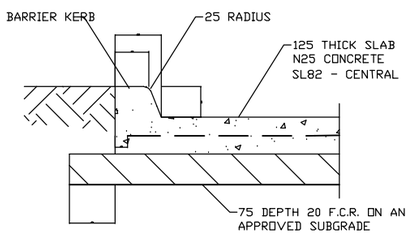
NOTE:-
AS 2890.1 2004 GRADES
MINIMUM DRIVEWAY GRADE 1:100 (1.00%)
MAXIMUM GRADE IN MANOEUVRING AREAS 1:10 (10%)
MAX. LONGITUDINAL GRADE IN PARKING SPACES 1:20 (5%)
MAX. CROSS FALL IN PARKING SPACES 1:16 (6.25%)
MIN. PARKING BAY DIMENSIONS 2.4m x 5.4m

310m² OF ROOF AND DRIVEWQAY CAPTURED EXCEEDS MIN 275m² SPECIFIED IN THE PINION STORMWATER ANALYSIS

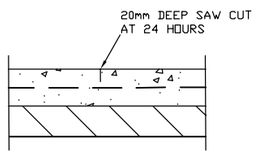
PROPOSED DRIVEWAY & DRAINAGE PLAN

SCALE 1:200

NOTE:
COMBINED CROSSOVER AND APRON ALSO SERVES EX. TWO UNIT DEVELOPMENT ON No. 14 CORINDA GROVE WHICH IS CURRENTLY UNDER CONSTRUCTION. FINAL DESIGN GRADES MAY NEED TO BE REVIEWED ON COMPLETION OF THE ADJOINING DRIVEWAY CONSTRUCTION.

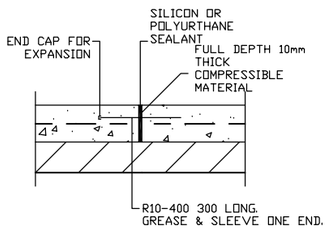


TYPICAL CONCRETE PAVEMENT
SCALE 1:20

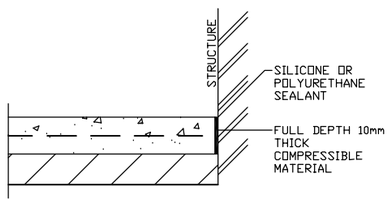


SAWN JOINT 's'
SCALE 1:20
NOTE: 3m CENTRES

ALL CONCRETE TO BE PLACED WITH A MECHANICAL VIBRATOR



TYPICAL EXPANSION JOINT (EJ)
SCALE 1:20
NOTE: 15m CENTRES



TYPICAL ISOLATION JOINT
SCALE 1:20

CONSTRUCT NEW CONCRETE APRON TO BOUNDARY GENERALLY IN ACCORDANCE WITH TSD-R09-v3 & TSD-R16-v3

NOTE:
PROVIDE TRAFFIC CONTROL AND SIGNAGE FOR ALL WORKS WITHIN THE ROAD RESERVATION.

HUTCHINGS SPURR PTY. LTD.
CONSULTING ENGINEERS
23 ANTILL STREET, HOBART, 7000. A.C.N. 009508525
PHONE (03) 6223 5020

^ STRUCTURAL
^ CIVIL
^ MUNICIPAL
^ HYDRAULIC
^ MARINE

PROPOSED UNIT DEVELOPMENT AT 12 CORINDA GROVE, WEST MOONAH
FOR P.L. & K.A. DAVIS
PROPOSED DRIVEWAY & DRAINAGE LAYOUT PLAN

SCALE	AS SHOWN		DRAWING No.
DRAWN P.A.V.H.	DATE	JUNE 2025	25031-01A
APPROVED			No. OF 23 SHEETS

MIDSON traffic pty ltd

PL & KA Davis

12 Corinda Grove, West Moonah
Traffic Impact Statement

April 2025

CELEBRATING 15 YEARS
2008 - 2023

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   - 1.1 Background 4
   - 1.2 Traffic Impact Assessment (TIA) 4
   - 1.3 Statement of Qualification and Experience 4
   - 1.4 Project Scope 5
   - 1.5 Subject Site 5
   - 1.6 Reference Resources 6
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   - 2.2 Public Transport 8
3. Proposed Development 9
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1. Introduction

1.1 Background

Midson Traffic were engaged by Peter and Karen Davis to prepare a traffic impact statement for a proposed residential unit development at 12 Corinda Grove, West Moonah.

1.2 Traffic Impact Assessment (TIA)

A traffic impact assessment (TIA) is a process of compiling and analysing information on the impacts that a specific development proposal is likely to have on the operation of roads and transport networks. A TIA should not only include general impacts relating to traffic management, but should also consider specific impacts on all road users, including on-road public transport, pedestrians, cyclists and heavy vehicles.

This TIA has been prepared in accordance with the Department of State Growth (DSG) publication, *Traffic Impact Assessment Guidelines*, August 2020. This TIA has also been prepared with reference to the Austroads publication, *Guide to Traffic Management,* Part 12: *Integrated Transport Assessments for Developments*, 2020.

Land use developments generate traffic movements as people move to, from and within a development. Without a clear understanding of the type of traffic movements (including cars, pedestrians, trucks, etc), the scale of their movements, timing, duration and location, there is a risk that this traffic movement may contribute to safety issues, unforeseen congestion or other problems where the development connects to the road system or elsewhere on the road network. A TIA attempts to forecast these movements and their impact on the surrounding transport network.

A TIA is not a promotional exercise undertaken on behalf of a developer; a TIA must provide an impartial and objective description of the impacts and traffic effects of a proposed development. A full and detailed assessment of how vehicle and person movements to and from a development site might affect existing road and pedestrian networks is required. An objective consideration of the traffic impact of a proposal is vital to enable planning decisions to be based upon the principles of sustainable development.

This TIA also addresses the relevant clauses of C2.0, *Parking and Sustainable Parking Code*, and C3.0, *Road and Railway Assets Code*, of the Tasmanian Planning Scheme – Glenorchy, 2021.

1.3 Statement of Qualification and Experience

This TIA has been prepared by an experienced and qualified traffic engineer in accordance with the requirements of Council's Planning Scheme and The Department of State Growth's, *Traffic Impact Assessment Guidelines*, August 2020, as well as Council's requirements.

The TIA was prepared by Keith Midson. Keith's experience and qualifications are briefly outlined as follows:

- 29 years professional experience in traffic engineering and transport planning.
- Master of Transport, Monash University, 2006
- Master of Traffic, Monash University, 2004

- Bachelor of Civil Engineering, University of Tasmania, 1995
- Engineers Australia: Fellow (FIEAust); Chartered Professional Engineer (CPEng); Engineering Executive (EngExec); National Engineers Register (NER)

1.4 Project Scope

The project scope of this TIA is outlined as follows:

- Review of the existing road environment in the vicinity of the site and the traffic conditions on the road network.
- Provision of information on the proposed development with regards to traffic movements and activity.
- Identification of the traffic generation potential of the proposal with respect to the surrounding road network in terms of road network capacity.
- Review of the parking requirements of the proposed development. Assessment of this parking supply with Planning Scheme requirements.
- Traffic implications of the proposal with respect to the external road network in terms of traffic efficiency and road safety.

1.5 Subject Site

The subject site is located at 12 Corinda Grove, West Moonah. The site currently contains a single residential dwelling.

The subject site and surrounding road network is shown in Figure 1.

Figure 1 Subject Site & Surrounding Road Network

Image Source: LIST Map, DPIPWE

1.6 Reference Resources

The following references were used in the preparation of this TIA:

- Tasmanian Planning Scheme – Glenorchy, 2021 (Planning Scheme)
- Austroads, *Guide to Traffic Management,* Part 12: *Integrated Transport Assessments for Developments*, 2020
- Austroads, Guide to Road Design, Part 4A: Unsignalised and Signalised Intersections, 2021
- Department of State Growth, *Traffic Impact Assessment Guidelines*, 2020
- Transport NSW, *Guide to Traffic Impact Assessment*, 2024 (TIA Guide)
- Australian Standards, AS2890.1, *Off-Street Parking*, 2004 (AS2890.1)
- De Gruyter et al, *Determinants of zero-car and car-owning apartment households*, 2024

2. Existing Conditions

2.1 Transport Network

For the purposes of this report, the transport network consists of Corinda Grove only.

Corinda Grove is a minor collector road that provides access to a residential catchment area. At its northern end it forms an extension of Second Avenue and connects to Springfield Avenue and Devines Road at its southern end. Adjacent to the subject site, Corinda Grove has a sealed pavement width of approximately 9 metres.

Corinda Grove has a split-level carriageway a short distance to the north of the subject site, with the eastern carriageway providing a one-way southbound service road function for frontage properties. The western carriageway provides two-way flow for normal through traffic. The pavement width of the two-way section of divided carriageway is approximately 6.6 metres.

On-street parking is available on both sides of Corinda Grove near the subject site. Footpaths are also provided on both sides of the road.

The general urban speed limit of 50-km/h is applicable to Corinda Grove. It carries a traffic volume of approximately 1,000 vehicles per day.

Corinda Grove adjacent to the subject site is shown in Figure 2.

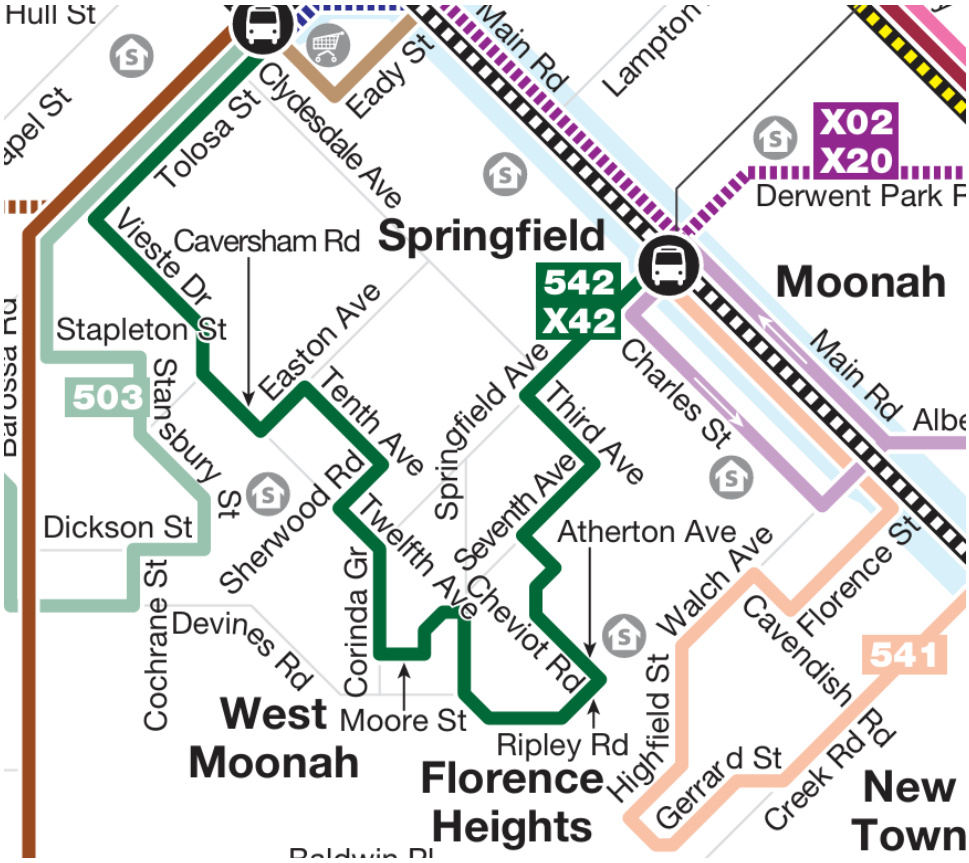
Figure 2 Corinda Grove

2.2 Public Transport

Metro Tasmania operates regular bus services along Corinda Grove. Routes 542 and X42 operate along Corinda Grove as shown in Figure 3.

Bus stops are located almost immediately adjacent to the subject site on both sides of the road.

Figure 3 Metro Bus Routes



3. Proposed Development

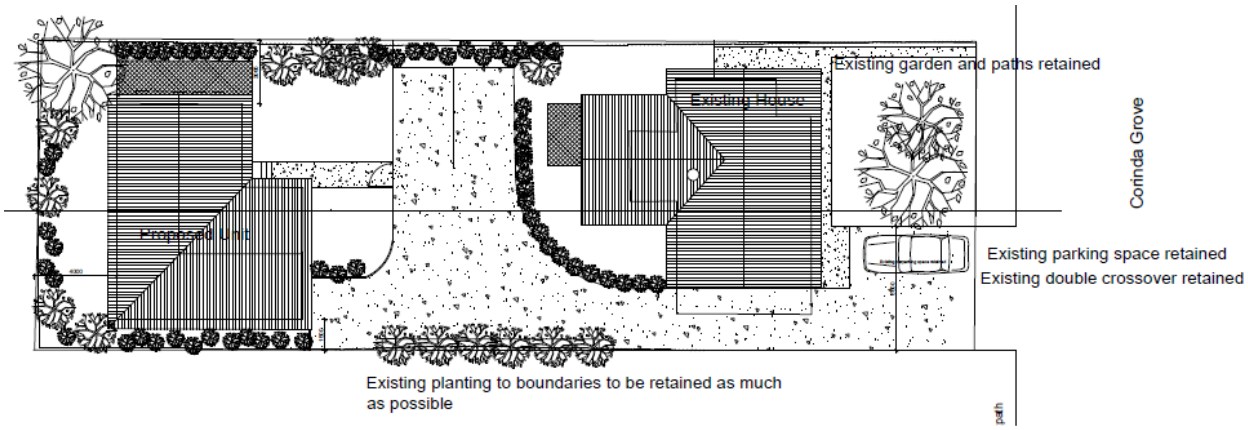
3.1 Development Proposal

The proposed development involves the construction of a residential unit at the rear of the property. The existing dwelling will be modified and retained. Both units have two bedrooms.

A total of 3 on-site car parking spaces are proposed.

The proposed development is shown in Figure 4.

Figure 4 Proposed Development Plans



3.2 Trip Generation

Trip generation rates were sourced from the TIA Guide as follows:

- Residential medium density dwellings. 5 trips per day per unit/ 0.5 trips per hour per unit

This equate to a total traffic generation of 10 vehicles per day, with a peak of 1 vehicle per hour.

4. Parking Assessment

4.1 Parking Provision

The proposed development provides a total of 3 on-site parking spaces. Two spaces are allocated to the proposed new dwelling at the rear of the site, and one space is allocated to the existing dwelling.

4.2 Empirical Parking Demand

The likely parking demands associated with the development can be determined with reference to empirical data from research into medium density residential developments. These are detailed in the following sections.

4.2.1 TIA Guide

Section 8.5.2 of the TIA Guide provides reference rates for medium density residential dwellings. According to Table 8.3, medium density residential parking rates for Category 3 areas (typical of regional areas with low or limited alternative transport options and high car mode share) are:

- Studio/1 bedroom: 1.0 spaces per dwelling
- 2 bedroom: 1.7 spaces per dwelling
- 3+ bedroom: 2.0 spaces per dwelling
- Visitor: 1 space per 5 dwellings

Applying these reference rates to the proposed development of two 2-bedroom dwellings results in the following parking demands:

- 2 × 1.7 = 3.4 resident spaces
- 2 ÷ 5 = 0.4 visitor spaces
- Total: 3.8 spaces (rounded to 4)

The provision of 3 spaces is a shortfall of 1 space using the TIA Guide. The shortfall is a combination of visitor parking (no provision) and a portion of one resident space.

4.2.2 Research

De Gruyter et al. (2024) investigated determinants of car ownership in apartment households and found that reducing off-street residential car parking requirements can play a significant role in supporting lower car ownership levels. The research indicates that factors such as household income, presence of children, and number of workers in a household are positively associated with car ownership, while population density, land use mix, and apartment living tend to reduce car ownership.

The paper also found that off-street car parking provision often dictates the number of cars owned by households. There is a reciprocal relationship where increased off-street parking can lead to higher car ownership and vice versa. Research demonstrates that more parking provision can increase the likelihood of car ownership, even in areas with good public transport access.

The proposed development consists of two medium-density residential dwellings, each with two bedrooms. Research indicates that smaller dwellings with fewer bedrooms typically generate lower parking demand than larger dwellings.

4.2.3 ABS Car Ownership Data

car ownership data was obtained from the Australian Bureau of Statistics (ABS) for West Moonah. The 2021 ABS car ownership data for West Moonah is summarised in Table 1. The breakdown of West Moonah dwellings by number of bedrooms is provided in Table 2.

Table 1 ABS Car Ownership Data West Moonah 2021

Number of Motor Vehicles per Dwelling	Dwellings	Percentage
No motor vehicles	185	8.2%
One motor vehicle	887	39.3%
Two motor vehicles	823	36.5%
Three motor vehicles	248	11.0%
Four or more motor vehicles	113	5.0%
TOTAL	2,256	100.0%

It can be seen that approximately 8.2% of dwellings in West Moonah have no cars registered to their address, while 39.3% have one car, and 36.5% have two cars. On this basis, 47.5% of dwellings in West Moonah have one car or less registered to the address (almost half of all dwellings).

Table 2 ABS Number of Bedrooms West Moonah 2021

Type	One Bedroom	Two Bedrooms	Three Bedrooms	Four or more Bedrooms	TOTAL
Separate house	103	534	1,036	301	1,974
Semi-detached, row or terrace house, etc	41	152	38	6	237

Flat or apartment	35	51	5	0	91
TOTAL	179	737	1,097	307	2,302
Percentage	7.9%	32.6%	47.7%	13.6%	100.0%

It can be seen that 39.3% of dwellings in West Moonah have only one motor vehicle registered to their address. This also correlates with the fact that 32.6% of dwellings in the area have two bedrooms. The proposed development consists of two 2-bedroom units, which is consistent with this housing profile.

The proposed parking arrangement provides two spaces for the new dwelling and one space for the existing dwelling. This represents a shortfall of only one space (for the existing dwelling) against the planning scheme requirement of two spaces per dwelling, not including visitor parking provision. Based on the ABS data, this shortfall is reasonable and consistent with the actual car ownership patterns in West Moonah, where over 47.5% of dwellings have one or fewer cars (8.2% with no cars and 39.3% with one car).

Furthermore, the development is for medium density residential dwellings, which based on the data in Table 2, are more likely to have lower car ownership rates compared to separate houses. Of the 328 medium density dwellings in West Moonah (semi-detached houses and flats/ apartments), a significant proportion are two-bedroom dwellings (203 out of 328, or 61.9%), suggesting that this type of housing stock typically accommodates smaller households with fewer vehicles.

Potential residents of the existing dwelling, with its revised parking provision of one space, would be aware of the parking arrangements and would likely consider their decision making on their own travel needs and available modes of transport. The parking demands of the development are therefore likely to be self-regulating to some extent. This is similar logic to the fact that larger household sizes generally require more bedrooms in a dwelling, and those with multiple vehicles would typically seek accommodation with suitable parking.

4.2.4 On-Street Parking

There is a relatively large supply of nearby on-street parking in Corinda Grove. Within approximately 100 metres of the subject site this consists of:

- 8 spaces on the western side of Corinda Grove.
- 8 spaces on the eastern side of Corinda Grove (not including on-street spaces on the one-way service road section of Corinda Grove).

Parking observations were made on Tuesday 8th April 2025 within these areas. The results are summarised in Table 3.

Table 3 Corinda Grove On-Street Parking Observations

Time	Western Side	Eastern Side	Both Sides Total	Spare Capacity
8:00am	1 car	1 car	2 cars	12 spaces
10:00am	1 car	No cars	1 car	14 spaces
12:00pm	2 cars	No cars	2 cars	12 spaces
3:00pm	2 cars	1 car	3 cars	11 spaces
6:00pm	2 cars	2 cars	4 cars	10 spaces

The surveys indicate that the on-street parking demands are low. There are no competing land use demands for on-street parking other than residential land use.

The surveys demonstrate that there is spare capacity to accommodate occasional visitor parking or an additional vehicle associated with the proposed development if required.

4.3 Planning Scheme Requirements

With regards to parking provision, the Acceptable Solution A1 of Clause C2.5.1 of the Planning Scheme states:

> *"The number of on-site car parking spaces must be no less than the number specified in Table C2.1, excluding if:*
>
> *(a) the site is subject to a parking plan for the area adopted by council, in which case parking provision (spaces or cash-in-lieu) must be in accordance with that plan;*
>
> *(b) the site is contained within a parking precinct plan and subject to Clause C2.7;*
>
> *(c) the site is subject to Clause C2.5.5; or*
>
> *(d) it relates to an intensification of an existing use or development or a change of use where:*
>
> *(i) the number of on-site car parking spaces for the existing use or development specified in Table C2.1 is greater than the number of car parking spaces specified in Table C2.1 for the proposed use or development, in which case no additional on-site car parking is required; or*
>
> *(ii) the number of on-site car parking spaces for the existing use or development specified in Table C2.1 is less than the number of car parking spaces specified in Table C2.1 for the proposed use or development, in which case on-site car parking must be calculated as follows:*
>
> *N = A + (C- B)*

N = Number of on-site car parking spaces required

A = Number of existing on site car parking spaces

B = Number of on-site car parking spaces required for the existing use or development specified in Table C2.1

C= Number of on-site car parking spaces required for the proposed use or development specified in Table C2.1".

In this case (d)(ii) is applicable as the development involves the intensification of an existing use. The parking requirements are set out as follows:

A = 2 spaces (existing on-site parking spaces)

B = 2 spaces (required for a single dwelling)

C = 5 spaces (Table C2.1 requires 2 spaces per dwelling plus 1 visitor space per 4 dwellings)

N = 2 + (5 – 2) = 5 spaces required

The provision of 3 on-site parking spaces therefore does not comply with the requirements of Acceptable Solution A1 of Clause C2.5.1 of the Planning Scheme.

The Performance Criteria P1.2 of Clause C2.5.1 of the Planning Scheme[1] states:

"The number of car parking spaces for dwellings must meet the reasonable needs of the use, having regard to:

(a) the nature and intensity of the use and car parking required;

(b) the size of the dwelling and the number of bedrooms; and

(c) the pattern of parking in the surrounding area".

The following is relevant with respect to the development proposal:

a. Nature and intensity of use. The development is small in scale, comprising of two residential units. The demand for visitor parking for just two dwellings is likely to be lower than the planning scheme assumes, noting that the actual visitor parking requirement is 0.5 spaces (equivalent to 1 space used half of the time). Real-world visitor parking usage for two dwellings would be infrequent and of short duration, making on-street parking a reasonable solution. For a development of this scale (just two dwellings), visitors would likely arrive outside peak residential parking hours and the duration of stay would be temporary, creating turnover in any on-street spaces.

[1] Note that Performance Criteria P1.1 explicitly states "*The number of on-site car parking spaces for uses, excluding dwellings, must meet the reasonable needs of the use, having regard to …*" and therefore is not applicable to this residential development that only includes residential dwellings.

One dwelling has 1 on-site parking space. Reference to available research indicates that this is acceptable and common for multiple dwellings developments. Refer to Section 4.2.

b. Size of dwellings and number of bedrooms. Both units are approximately 100m^2 and have two bedrooms. ABS data for West Moonah indicates that the provision of three spaces is likely to satisfy the likely parking demands for this type of housing. Refer to Section 4.2.3.

c. Pattern of parking in surrounding area. The surrounding land use is almost entirely residential. As a result, there is little demand for on-street parking, other than relatively low residential demands. The on-street parking demands within 100 metres of the site is provided in Section 4.2.4.

The proposed provision of 3 on-site parking spaces is therefore sufficient to meet the reasonable needs of the development's users, taking into account the empirical parking demand data, ABS car ownership patterns in West Moonah, availability of on-street parking, and accessibility to public transport and local services. The proposed development therefore satisfies the requirements of Performance Criteria P1.2 of Clause C2.5.1 of the Planning Scheme.

4.4 Car Parking Layout

The Acceptable Solution A1.1 of Clause C2.6.2 of the Planning Scheme states:

"Parking, access ways, manoeuvring and circulation spaces must either:

(a) comply with the following:

(i) have a gradient in accordance with Australian Standard AS 2890 - Parking facilities, Parts 1-6;

(ii) provide for vehicles to enter and exit the site in a forward direction where providing for more than 4 parking spaces;

(iii) have an access width not less than the requirements in Table C2.2;

(iv) have car parking space dimensions which satisfy the requirements in Table C2.3;

(v) have a combined access and manoeuvring width adjacent to parking spaces not less than the requirements in Table C2.3 where there are 3 or more car parking spaces;

(vi) have a vertical clearance of not less than 2.1m above the parking surface level; and

(vii) excluding a single dwelling, be delineated by line marking or other clear physical means; or

(b) comply with Australian Standard AS 2890- Parking facilities, Parts 1-6".

The car parking was assessed against the requirements of A1.1(b), using AS2890.1 as detailed in the following sections.

4.4.1 Driveway Grade

Section 2.5.3(b) of AS2890.1 states the following regarding the maximum grade of straight ramps:

i. Longer than 20 metres – 1 in 5 (20%) maximum.

ii. Up to 20 metres long – 1 in 4 (25%) maximum. The allowable 20 m maximum length shall include any parts of the grade change transitions at each end that exceed 1 in 5 (20%).

The maximum grade of the access is well below the maximum AS2890.1 requirements.

4.4.2 Parking Grade

Section 2.4.6 of AS2890.1 states that the maximum grades within a car park shall be:

- Measured parallel to the angle of parking 1 in 20 (5%)
- Measured in any other direction 1 in 16 (6.25%)

The grades of the parking spaces are effectively level, thus complying with the AS2890.1 grade requirements.

4.4.3 Parking Dimensions

AS2890.1 define the parking as User Class 1A (residential, domestic and employee parking). User Class 1A requires the following parking dimensions:

- Space width 2.4 metres
- Space length 5.4 metres
- Aisle width 5.8 metres

All three on-site parking spaces comply with AS2890.1 dimensional requirements, noting that the space width exceeds the minimum requirements (3 metres), and the combined space length and aisle width exceeds the minimum requirements (13.4 metres provided, minimum of 11.2 metres required).

4.4.4 Blind Aisle Extension

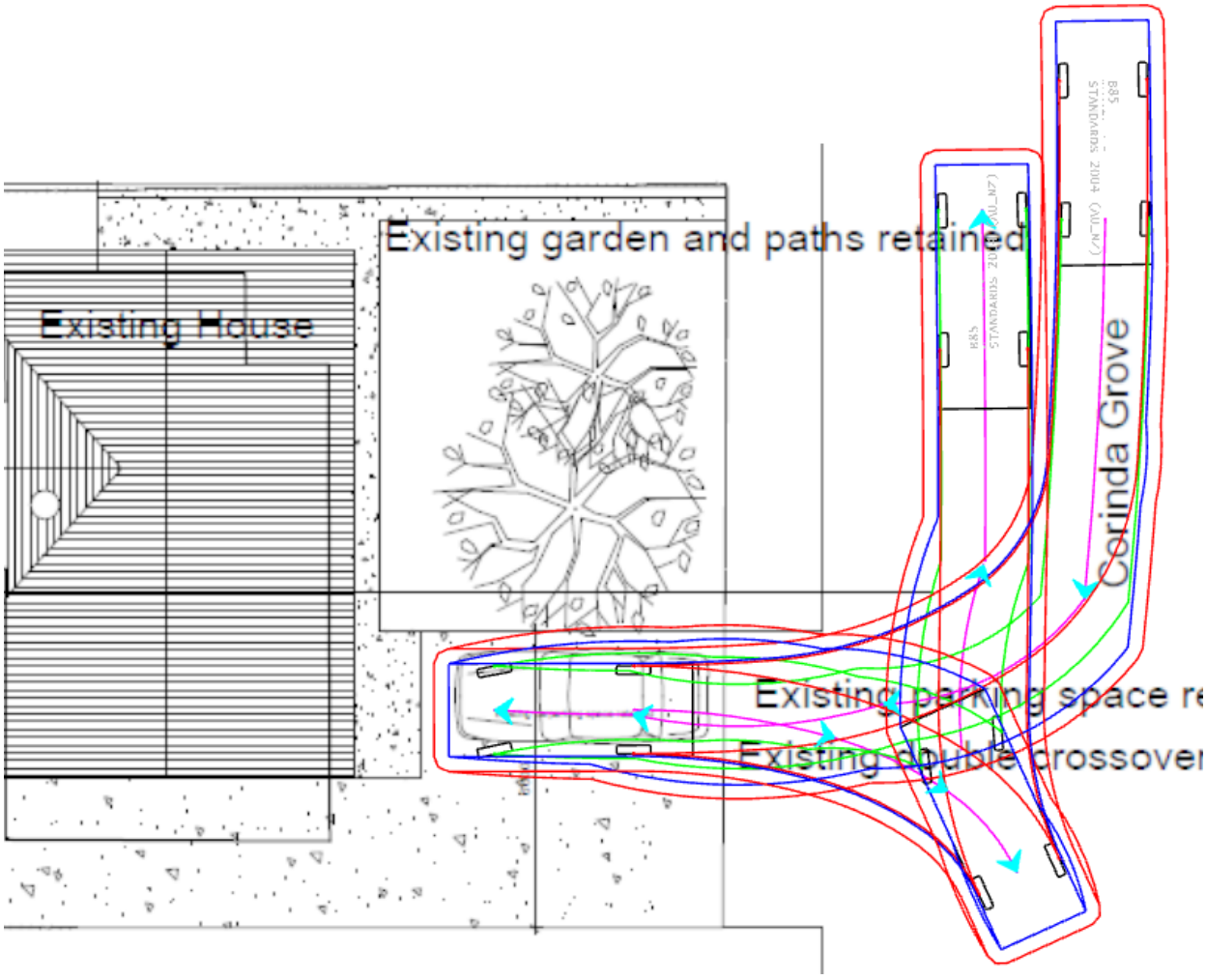
AS2890.1 requires a 1.0 metre extension at the end of a parking aisle. This is provided with an extension of 3.8 metres which can be used for on-site turning. The blind aisle extension provision complies with AS2890.1 requirements.

4.4.5 Vehicle Turning and Manoeuvring Swept Paths

Swept paths of a B85 vehicle were tested for all parking spaces. The swept paths for these spaces are provided in Figure 5, Figure 6, and Figure 7. The turning manoeuvre of a vehicle entering the site when all parking spaces are occupied is provided in Figure 8.

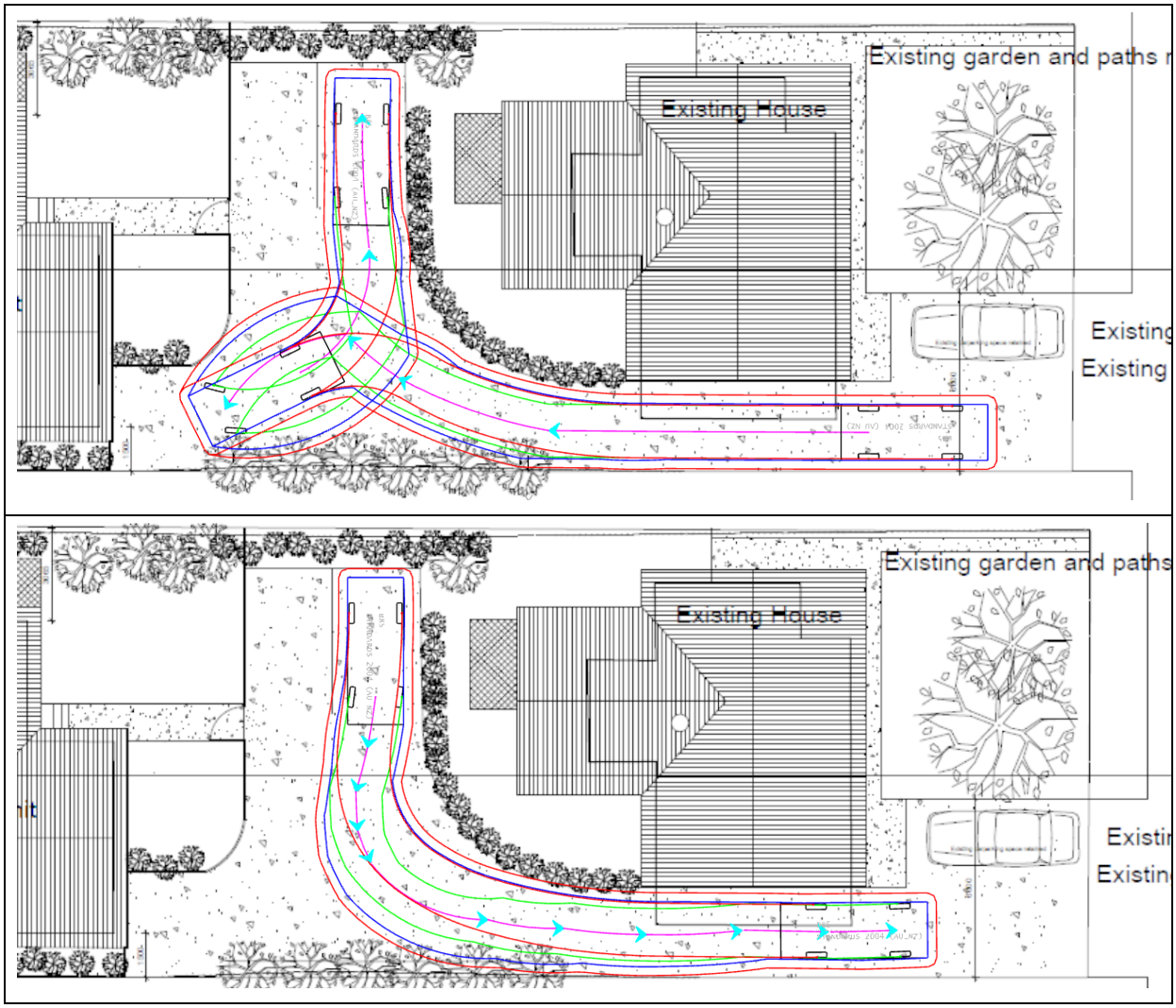
The swept paths clearly demonstrate that the parking spaces associated with the proposed unit at the rear of the site can enter and exit in a forward direction. The parking space associated with the existing dwelling will continue to operate as a standard driveway access, which requires forward entry/ reverse exit, or reverse entry/ forward entry (ie. No on-site turning is provided for this space).

Figure 5 Space 1 – B85 Vehicle Swept Paths



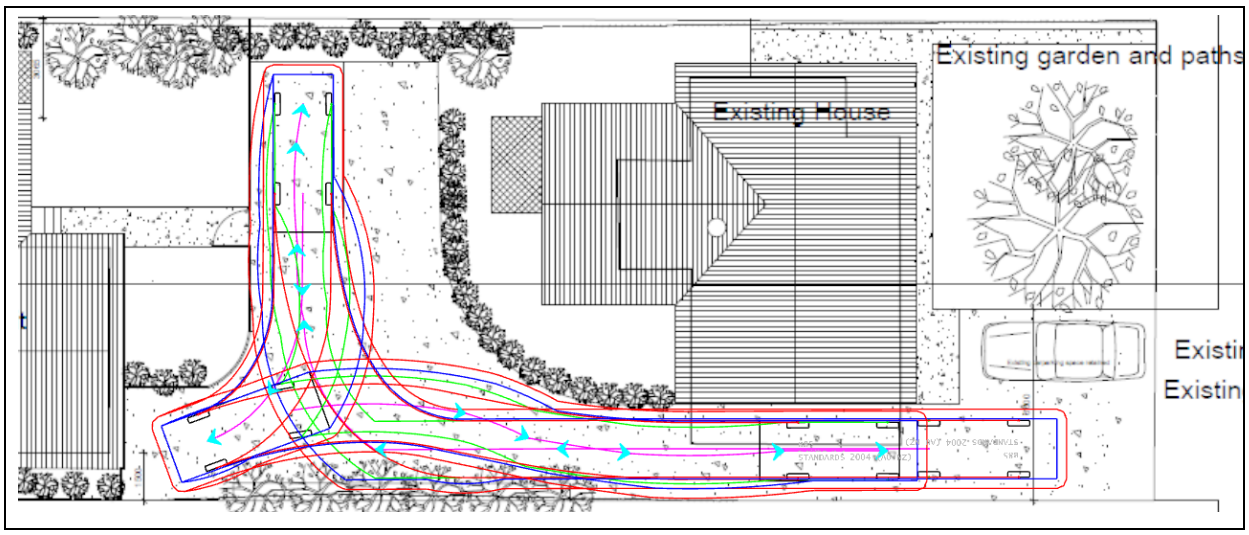
Showing Combined forward entry and reverse exit

Figure 6 Space 2 – B85 Vehicle Swept Paths



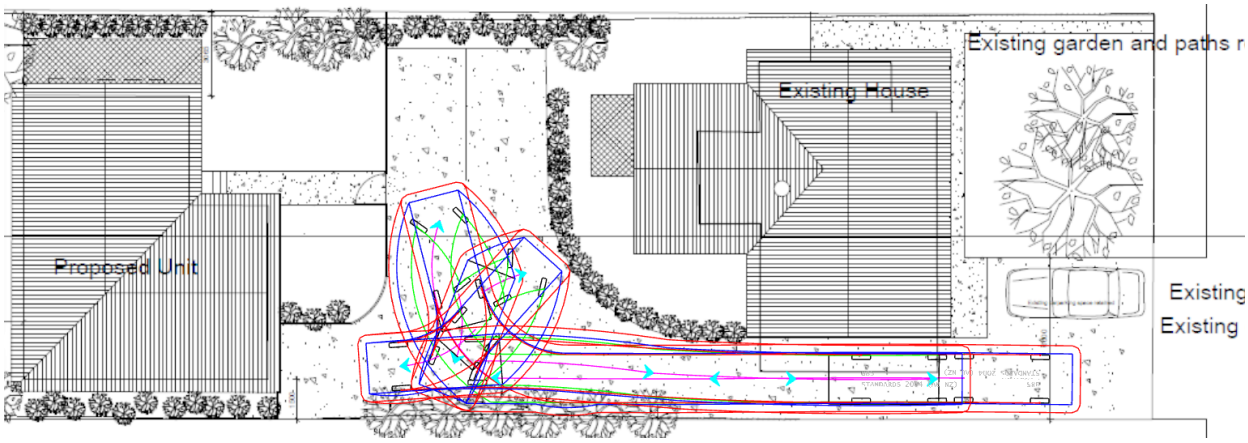
Showing reverse entry and forward exit

Figure 7 Space 3 - B85 Vehicle Swept Paths



Showing combined forward entry and reverse exit

Figure 8 B85 Vehicle Swept Path – All Spaces Occupied



Showing combined forward entry and forward exit

4.4.6 Driveway Width

AS2890.1 defines the access as 'Category 1' access facility (Class 1A parking with less than 25 spaces fronting onto a local road). The AS2890.1 minimum driveway width requirement for a Category 1 access is 3.0 metres. An additional width of 0.3 metres is required where an access is adjacent to a vertical structure. The AS2890.1 minimum driveway width = 3.0m + 0.3m = 3.3m.

The available width of 3.0 metres therefore does not comply with AS2890.1 requirements. In this case the following is noted:

- The physical width of a typical vehicle utilising the access is approximately 1.87m (AS2890.1 B85 vehicle width). This results in a clearance of 1.13m (more than 56cm clearance on each side of a vehicle utilising the driveway).
- The driveway width constraint is due to the physical constraints of the fence and building structure.
- There are many examples of narrow driveways (including widths less than 3.0m) in the Greater Hobart area. Often these narrow driveways are the result of constraints due to building structures and/or fences.
- The access has a straight geometry, with clear sight distance along its full length. The adjacent obstructions (fence and building) are clear and obvious for users of the parking spaces. Vehicle access speeds within the driveway will be very low when entering or leaving these spaces.
- The car parking spaces will be utilised by familiar users (ie. Only residents associated with the proposed new dwelling at the rear of the site) who will have a strong understanding of the constraints of the site.
- No safety issues arise from the narrow access width. If a car cannot physically fit or has difficulties, there are alternatives available such as parking on-street.

4.4.7 AS2890.1 Assessment Summary

The parking space dimensions, parking grades, driveway grade comply with AS2890.1 requirements. The driveway width does not comply with AS2890.1 requirements due to the constrained nature of the site.

The development therefore does not satisfy the requirements of Acceptable Solution A1.1(b) of Clause C2.6.2 of the Planning Scheme.

4.4.8 Performance Criteria Assessment

The Performance Criteria P1 of Clause C2.6.2 of the Planning Scheme states:

"All parking, access ways, manoeuvring and circulation spaces must be designed and readily identifiable to provide convenient, safe and efficient parking, having regard to:

(a) the characteristics of the site;

(b) the proposed slope, dimensions and layout;

(c) useability in all weather conditions;

(d) vehicle and pedestrian traffic safety;

(e) the nature and use of the development;

(f) the expected number and type of vehicles;

(g) the likely use of the parking areas by persons with a disability;

(h) the nature of traffic in the surrounding area;

(i) the proposed means of parking delineation; and

(j) the provisions of Australian Standard AS 2890.1:2004 - Parking facilities, Part 1: Off-street car parking and AS 2890.2 -2002 Parking facilities, Part 2: Off--street commercial vehicle facilities".

The following is relevant with respect to the development proposal:

a. Characteristics of the site. The site is constrained in terms of width for vehicle access, with the existing dwelling and property boundary limiting the available access width to 3.0 metres. Despite this constraint, the site provides sufficient area for three compliant parking spaces, with adequate turning area at the rear of the property allowing vehicles to enter and exit in a forward direction.

b. Slope dimensions and layout. The site has a gentle slope that does not pose any constraints for vehicle access or parking manoeuvring. The layout of the parking spaces and access is logical and functional, with parking spaces exceeding the minimum dimensional requirements of AS2890.1 and providing adequate turning area despite the narrow access.

c. Useability in all weather conditions. The access and parking areas will have a sealed pavement surface suitable for use in all weather conditions.

d. Vehicle and pedestrian safety. The proposed parking layout does not present any significant safety concerns. While the access width is less than the AS2890.1 minimum requirement, the straight alignment provides good sight lines along its full length. The narrow access will naturally slow vehicle speeds, which enhances safety. The users of the parking spaces will be limited to residents who will be familiar with the access constraints, further mitigating any safety concerns.

e. Nature and use of development. The development consists of two residential dwellings (one existing, one proposed), which will generate relatively low traffic volumes as outlined in Section 3.2 (approximately 10 vehicles per day, however only half of which will be generated by traffic that will utilise the access). The parking arrangement is consistent with the residential nature of the development, providing two spaces for the new dwelling and one space for the existing dwelling, which is suitable for the size and scale of the development.

f. Expected number and type of vehicles. The access will only service two parking spaces that are associated with the proposed unit at the rear of the site. This will limit the traffic generation utilising the access. The site will accommodate standard passenger vehicles (B85 vehicles as defined in AS2890.1) which have a typical width of 1.87m. This allows for over 56cm of clearance on either side within the 3.0m wide driveway, which is sufficient for safe passage.

g. Disabled users. The development is for private residential use and does not require specific disabled parking provisions. If residents with mobility needs occupy either dwelling in the future, adjustments can be made to the parking areas as needed.

h. Nature of traffic in surrounding area. As detailed in Section 2.1, Corinda Grove carries approximately 1,000 vehicles per day, which is a relatively low volume. The surrounding area is predominantly residential with low traffic volumes and speeds. On-street parking occupancy is also low as demonstrated in Table 3, with a minimum of 10 spaces (out of 16) available at any time during the day. This provides additional flexibility for visitors or residents if required.

i. Parking delineation. The parking spaces will be clearly defined by line marking.

j. AS2890.1 requirements. Whilst the access width does not comply with AS2890.1 requirements due to site constraints, all other aspects of the parking layout (space dimensions, grades, turning areas) exceed the minimum requirements. The non-compliance with driveway width is offset by the straight alignment of the driveway providing good visibility, the low speed environment, and the fact that the spaces will be used by residents familiar with the constraints of the site.

Based on the above assessment, the proposed parking layout, despite the non-compliance with the driveway width requirement of AS2890.1, provides convenient, safe and efficient parking that is appropriate for the scale and nature of the proposed development. The parking layout therefore satisfies the requirements of Performance Criteria P1 of Clause C2.6.2 of the Planning Scheme.

5. Conclusions

This traffic impact statement (TIS) investigated the traffic and parking impacts of a proposed residential development at 12 Corinda Grove, West Moonah. The proposed development involves the construction of a residential unit at the rear of the property, with the existing dwelling to be modified and retained. Both units have two bedrooms.

The key findings of the TIA are summarised as follows:

- A total of 3 on-site car parking spaces are proposed. Two spaces are located at the rear of the property associated with the new unit and one space will be located at the front for the existing dwelling.
- The proposed development provides 3 spaces, resulting in a shortfall of 2 spaces in accordance with the requirements of Acceptable Solution A1 of Clause C2.5.1 of the Planning Scheme. The development satisfies the requirements of Performance Criteria P1.2 of Clause C2.5.1.
- Based on empirical parking demand data, including the TIA Guide reference rates and ABS car ownership patterns in West Moonah, the provision of 3 parking spaces is considered sufficient to meet the reasonable needs of the development. The ABS data shows that 47.5% of dwellings in West Moonah have one car or less, which supports the proposed parking provision.
- On-street parking surveys demonstrate that there is ample spare capacity (minimum of 10 spaces out of 16) available at all times of the day to accommodate any occasional overflow or visitor parking demands.
- The parking layout complies with AS2890.1 requirements in terms of space dimensions, parking grades, and driveway grade. However, the driveway width of 3.0 metres does not comply with the minimum requirements of 3.6 metres (comprising of 3.0 metres access width plus 2 x 0.3 metre clearance to vertical structures on each side of the access). Despite this, the parking layout is considered to provide convenient, safe and efficient parking that is appropriate for the scale and nature of the proposed development, with adequate clearance for B85 vehicles and good sight lines along the straight alignment of the access and driveway.
- Vehicle swept path analysis demonstrates that the parking spaces can be accessed safely and efficiently, with vehicles able to enter and exit the site in a forward direction from the spaces at the rear of the property.

Based on the findings of this report, the proposed development is supported on traffic grounds. The proposed parking provision is considered sufficient to meet the reasonable needs of the development, taking into account empirical parking demand data, ABS car ownership patterns, and the availability of on-street parking.

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Document Status

Revision	Author	Review	Date
0	Keith Midson	Zara Kacic-Midson	15 April 2025

STORMWATER MANGEMENT REPORT

12 Corinda Grove, West Moonah

Prepared on behalf of Karen Davis

May 2025

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Document status
Rev A

Date	Status/issue	Reason for revision	Reviewed by	Authorised by
13 May 2025	Rev A	For Building Approval	B Nadler	B Nadler

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1 Introduction

Pinion Advisory have been engaged by Karen Davis to provide a stormwater management report for compliance with the Glenorchy City Council (GCC) Stormwater Management Policy Ver 2.1 in relation to a unit development at 12 Corinda Grove, West Moonah.

Figure 1: Locality and site plan

2 Design Standards

The design report is primarily guided by the following documents:

- Glenorchy City Council Stormwater Management Policy Ver 2.1
- Tasmanian Stormwater Policy Guidance and Standards for Development (2021)
- Australian Rainfall & Runoff 2016, Book 9: Runoff in Urban Areas[1]
- AS/NZS 3500.3 – Plumbing and drainage Part 3: Stormwater drainage

The following assumptions and formulae are utilised:

- Stormwater infrastructure and detention systems in residential areas are required to control the 5% AEP. All subsequent calculations are based on 5% AEP rainfall event.

[1] Ball J, Babister M, Nathan R, Weeks W, Weinmann E, Retallick M, Testoni I, (Editors), *Australian Rainfall and Runoff: A Guide to Flood Estimation*, Commonwealth of Australia (Geoscience Australia), 2019.

- Rainfall data was obtained from the Bureau of Meteorology (BOM). Specifically, the Design Data Rainfall System (2016).
- Flow rates were calculated using the Rational Method.
- The permissible site discharge (PSD) was calculated based on an entire site runoff coefficient of 0.55, as defined in GCC Stormwater Management Policy.
- Boyd's Formula was used to determine required storage volumes.
- The 'orifice equation' was used to size outlet orifice sizes.

3 Stormwater Quantity Design

3.1 PREDEVELOPMENT SITE

There is an existing dwelling and associated driveway/carparking on the 12 Corinda Grove, West Moonah site, and excluding some minor auxiliary buildings the remainder of the site is undeveloped backyard. The backyard is pervious – mostly covered with grasses and plantings (Figure 3 & Figure 4).

The existing site has a calculated runoff coefficient of 0.55, which is the same as the minimum predevelopment runoff coefficient defined in the GCC Stormwater Management Policy. As such, this value will be adopted for pre-development calculations.

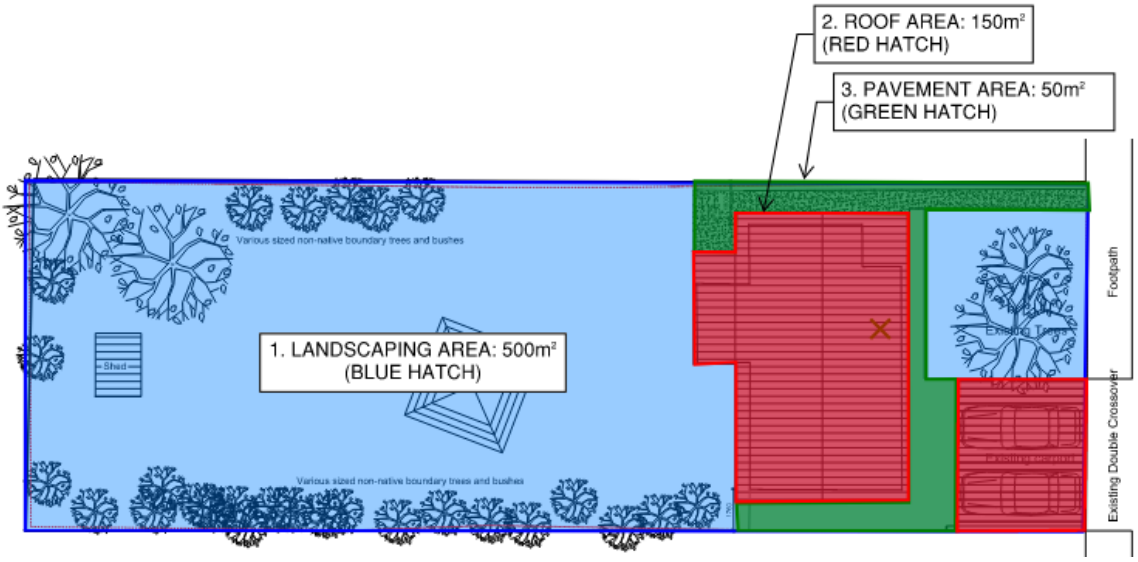


Figure 2: Pre Development Site Surface Properties

Figure 3: Surface Characteristics (Google Street View, May 2024)

Figure 4: Surface Characteristics (LISTmap, State Aerial Photo)

There is no piped stormwater infrastructure within Corinda Grove outside the No. 12 property. The stormwater connection for the existing dwelling is a standard roadside kerb adaptor.

3.2 CRITICAL CATCHMENT TIME OF CONCENTRATION

In determining the storm duration used to calculate the permissible site discharge (PSD), consideration is given to the critical time of concentration (TOC) of the broader catchment. Corinda Grove is not part of a major catchment that is defined by a significant rivulet or watercourse. Instead, it sits at the very top of an entirely urban catchment that follows a piped network through the low-lying areas of Derwent Park.

A catchment TOC of 30-minutes has been adopted.

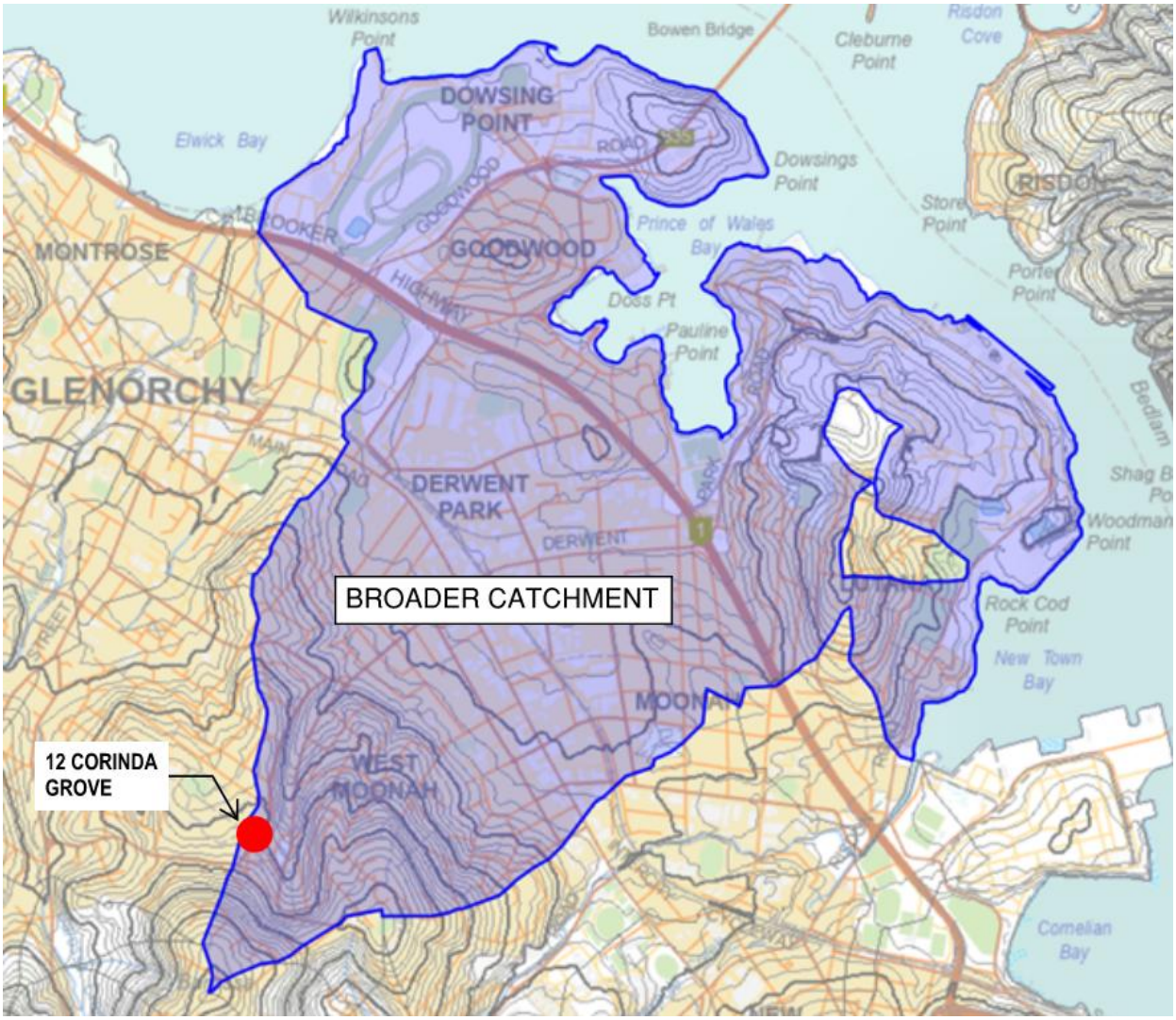


Figure 5: Development site relative to the remainder of the catchment

3.3 POST DEVELOPMENT SITE

The proposed development includes alterations to the existing dwelling and driveway, and construction of a single 1-bedroom unit behind the existing dwelling. This will result

in a large portion of the site being developed into hardstand, in the form of either roof or driveway – in total there will be an additional 275m^2 of hardstand area.

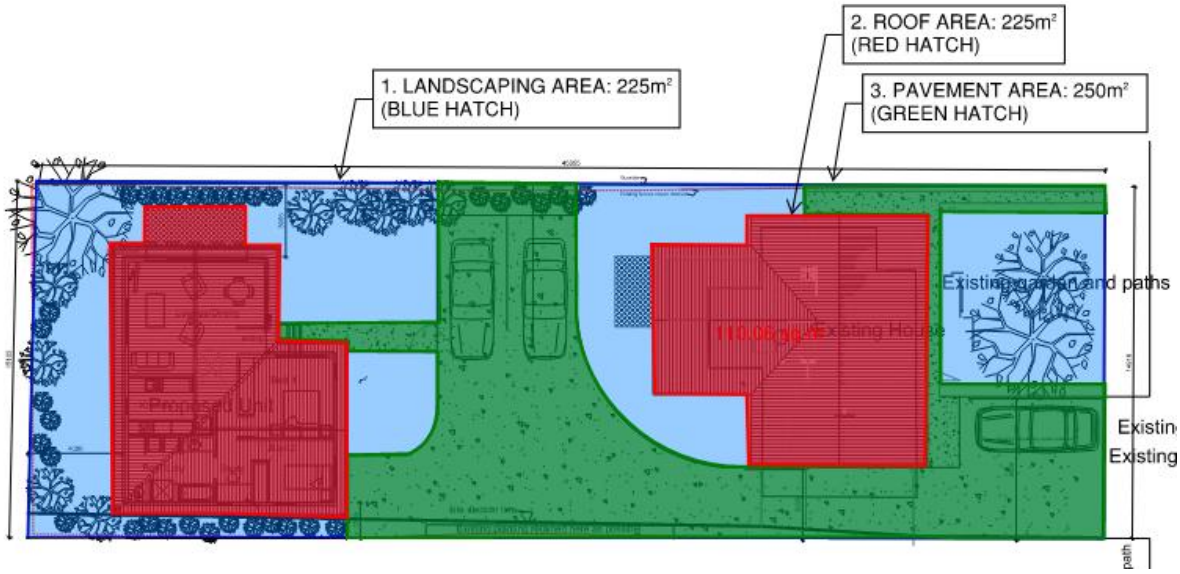


Figure 6: Post Development Site Surface Properties

The internal stormwater network will be detailed by the Architect. However, due to the favourable site contouring, it is assumed that it will be possible to maintain a single point of discharge to the existing kerb connection.

The post development time of concentration was assumed to be 5-minutes, which is standard practice for small, fast response, urban catchments such as this one.

3.4 FLOW AND OSD CALCULATIONS

3.4.1 Modelling and Inputs

Table 1: Predevelopment surface parameters

Surface	Runoff Coefficient	Area
Pre Development Site	Per GCC SW Policy	700m^2
Total	*0.55*	*700m^2*

Table 2: Post development surface parameters

Surface	Runoff Coefficient	Area
Concrete driveway	0.9	250m^2
Roof	0.9	225m^2
Landscaping/open space	0.4	225m^2
Total	*0.75*	*700m^2*

Table 3: Flow rate summary

Development Condition	Storm Event	Flow Rate
Predevelopment, critical storm	5% AEP, 30-min duration	4.0l/s
Post Development, critical storm (as per detention calculations)	5% AEP, 5-min duration	13.1l/s

**The 5% AEP, 30-minute duration predevelopment flow rate of 4.0l/s defines the permissible site discharge (PSD).*

3.4.2 On-site Detention

To restrict the post development flow across all storm durations to the PSD, a detention volume of 3.5m^3 is required. It is proposed that an oversized stormwater pipe is installed in the corner of the site. This will be achieved through 11m of DN600 pipe. Pinion Advisory recommend using the fully customisable Tefco Piping Systems – Corrutank (or equivalent). On top of being of suitable volume, the system requires the following features:

- A 600mm high internal overflow baffle within the downstream pit.
- A 50mm orifice cut into the baffle plate.
- A minimum DN150 outflow pipe.

A detailed design drawing is provided in Appendix 1 – Pinion Design Drawing. Refer Appendix 2 – Pinion Stormwater Calculations for detailed calculations.

3.4.3 Design Assumptions

- Additional runoff from offsite or from non-storm sources are not routed into the OSD.
- Pinion Advisory provide a tank design based on maintaining the existing surface levels of the driveway. If the driveway FSL is to be lowered below that of the existing surface, the architect is responsible for determining that the site surface and drainage levels allow for the construction of the proposed detention systems.
- The architect must ensure that at least 275m^2 of hardstand area drains directly into the proposed stormwater detention system.

4 Installation Requirements

- Outlet orifice must be sized according to Section 3.4.2. The orifice is to be constructed in accordance with Section 7.10 of AS/NZS 3500.3:2021.
- The orifice is to be protected from blockage and debris build up by installing a "trash grate".
- Access to the "trash grate"/orifice to allow cleaning/removal must be included.
- An overflow outlet sized according to Section 3.4.2 must be present on the detention system.
- The detention system must be installed in such a way that the tank can fill to overflow level without any upstream openings surcharging. The principal civil designer is responsible for ensuring compliant design.

5 Maintenance Requirements

The maintenance requirements for the detention system are shown in Table 4.

Table 4: OSD Maintenance Requirements

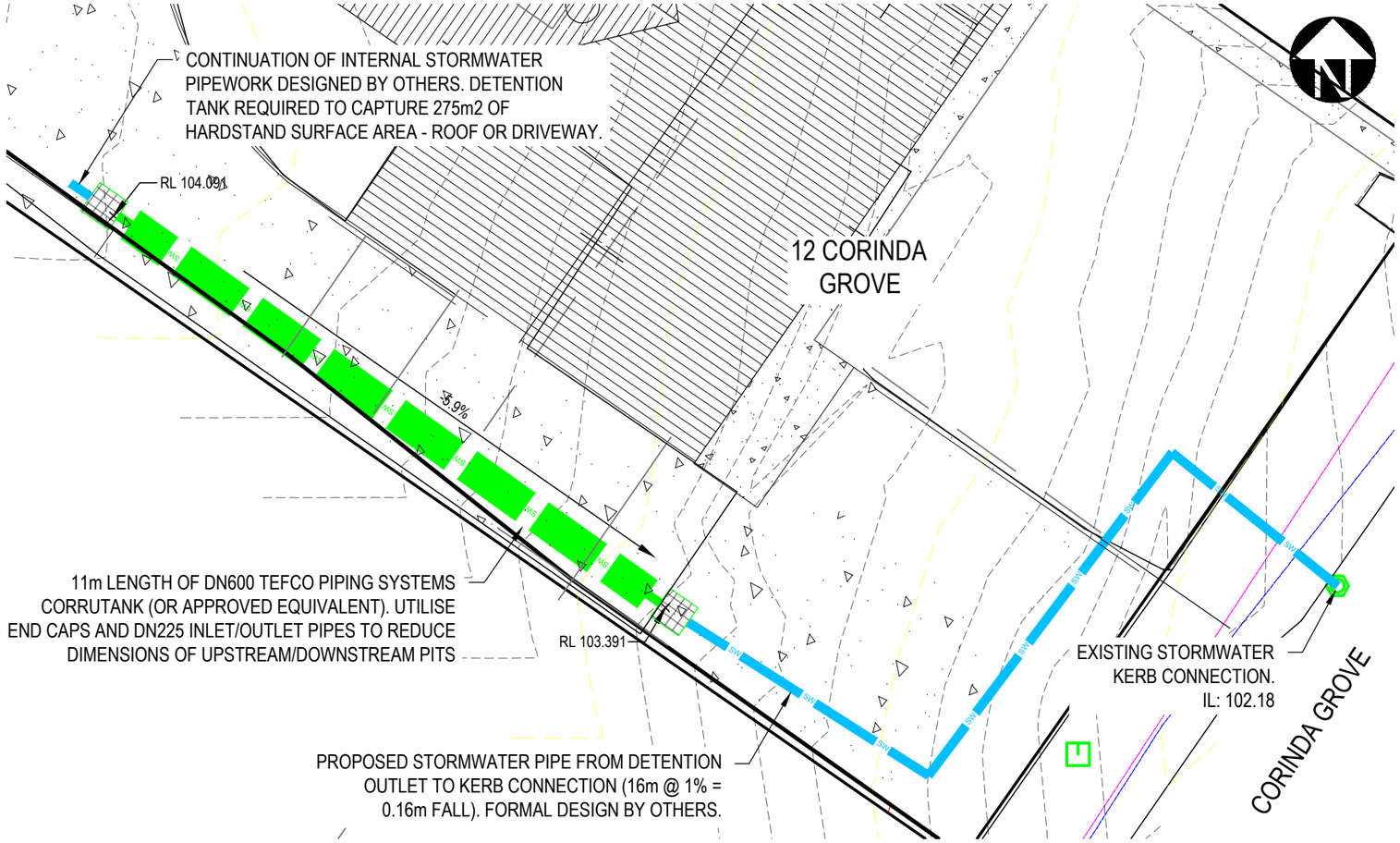
Task	Description	Frequency
General cleaning and inspection	General inspection and cleaning of tank/basin and orifice.	Once every 4 months, or after a significant storm event.

	- Visual inspection of detention system and "trash grate"/orifice condition - Any build-up of silt/debris to be removed - Any blockage of "trash grate"/orifice to be removed	Performed in conjunction of cleaning of other drainage infrastructure such as gutters and drains.

6 Conclusions and Recommendations

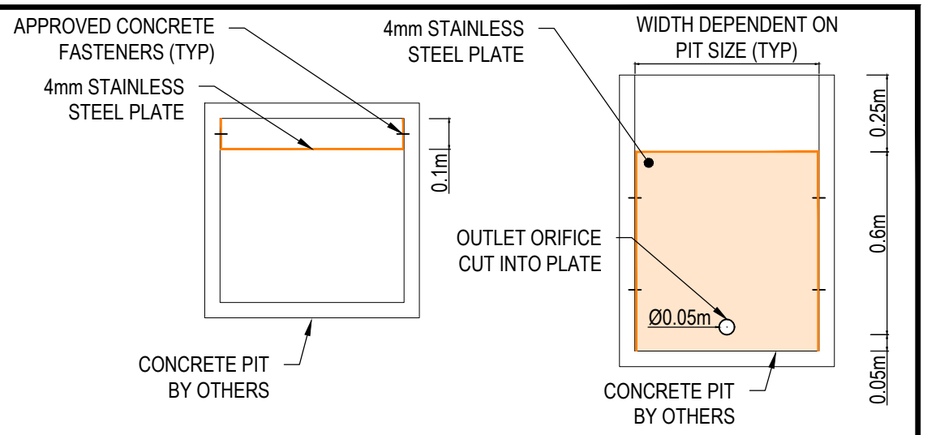
The proposed stormwater system complies with best practices and Glenorchy City Council requirements in all aspects. The proposed stormwater detention system and outlet orifice ensures adequate flow restriction and storage volume to ensure the 5% AEP post development runoff will be restricted to pre-development levels for all storm durations.

Appendix 1 Pinion Advisory Design Drawing



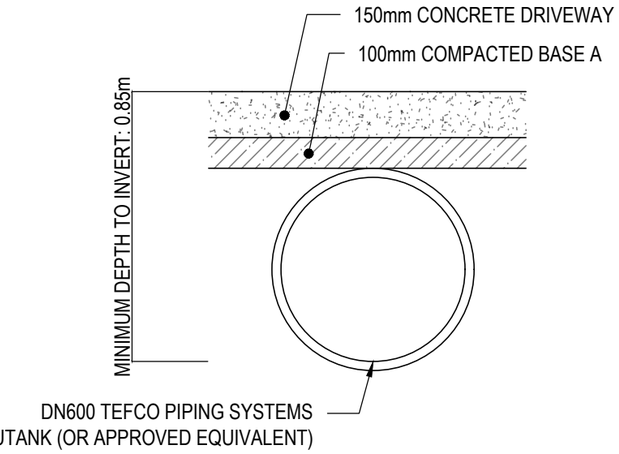
DETENTION TANK PLAN

SCALE 1:100



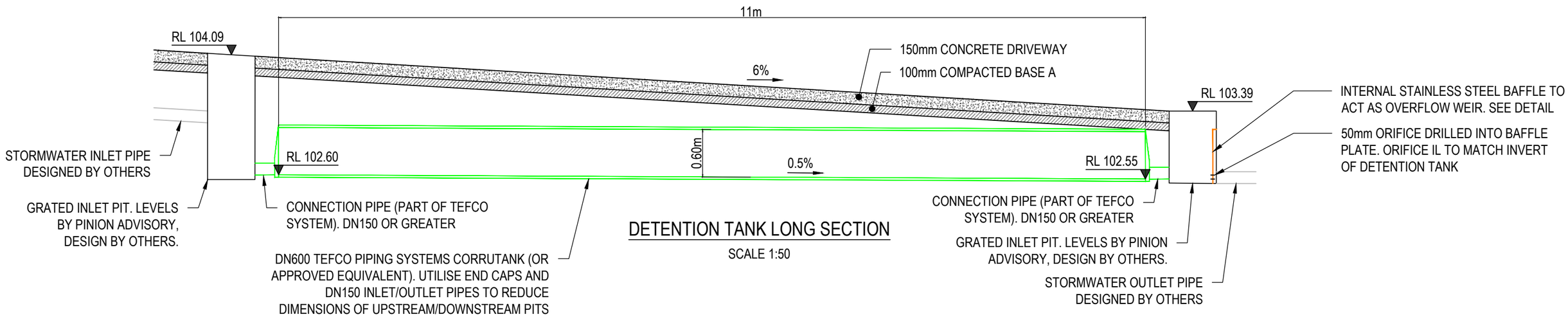
STAINLESS STEEL WEIR DETAILS

SCALE 1:20



DETENTION TANK TYPICAL SECTION

SCALE 1:20



DETENTION TANK LONG SECTION

SCALE 1:50

REV	ISSUED	D.DWN	APRVD	REVISION DESCRIPTION
A	14/05/25	RH	BN	FOR BUILDING APPROVAL

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pinion ADVISORY
agribusiness, water & environment

SURVEY INFORMATION: H: GDA20 V: AHD83
REFERENCED PLANS: -

DES./DRAWN:	R. HUNT
CHECKED:	B. NADLER
APPROVED:	B. NADLER
DATE:	14.05.2025

CLIENT: KAREN DAVIS ARCHITECT

DRAWING TITLE: 12 CORINDA GROVE, WEST MOONAH
STORMWATER DETENTION DESIGN

PROJECT REF. 160DAVIPK-CONNS | DRAWING No. 001 | REVISION A

Appendix 2 Pinion Advisory Stormwater Calculations

STORMWATER CALCULATIONS

PROJECT DESCRIPTION:	ON-SITE DETENTION, NEW UNIT	**DATE:**	13/05/2025
PROJECT ADDRESS:	12 CORINDA GROVE, WEST MOONAH	**DESIGNED:**	*RH*
PROJECT NUMBER:	160DAVIPK-CONS	**REVIEWED:**	*BN*
REVISION:	BA		

pinion ADVISORY

SITE PARAMETERS

	Pre Development		Post Development	
Site Area	700	m^2	700	m^2
Effective Impervious Area	394	m^2	565	m^2
Percentage Impervious	56	%	81	%
Runoff Coefficient	0.55	(-)	0.75	(-)
Time of Concentration	30	mins	5	mins

Note: TOC for Pre Development is the Critical Catchment TOC

PEAK CATCHMENT FLOWS FOR GIVEN AEP AT T.O.C.

	Pre Development			Post Development		
AEP	**$I_{tc,Y}$ (mm/h)**	**Flow (L/s)**	**Flow + 18% CC (L/s)**	**$I_{tc,Y}$ (mm/h)**	**Flow (L/s)**	**Flow + 18% CC (L/s)**
10%	29.3	3.14	3.7	72.2	10.5	12.4
5%	34.7	3.90	4.6	84.8	12.9	15.2
2%	42.3	5.21	6.1	102.0	17.0	20.1
1%	48.7	6.26	7.4	117.0	20.4	24.0

Allowable Site Discharge:	3.9	L/s

DETENTION VOLUME AND ORIFICE SIZING

Detention			
Storm Duration (min)	**Tank Inflow (L/s)**	**Tank Outflow (L/s)**	**Storage (m3)**
10	9.7	3.9	3.5

	Orifice	
Head (Above Orifice):	0.6	m
No. of Orifice:	1	(-)
Total Orifice Flow:	4.0	L/s
Orifice Diameter:	50	mm