

12.1.8 Application Documents



DESIGN
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Building Design Services - Port Sorell, Tasmania
M: 0435 090 758 E: darren@designresidential@gmail.com
ABN: 66 825 523 617 TAS: 220983406/VBA DP-AD 64131/QBCC: 15042468

CLIENT SIGNATURE
..... DATE,

CLIENT SIGNATURE
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REV	AMENDMENTS	DATE	INT
A	DEVELOPMENT APPLICATION	27.09.23	DM
B	ADDRESSED PLANNING RFI #1	14.12.23	DM
C	CHANGED ENTRY FENCES TO 1.2M HIGH	25.01.24	DM
D	ADDED SW GRATES & NEIGHBOURING ADDRESSES	27.03.24	DM
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PROJECT: DEVELOPMENT APPLICATION

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CLIENT: WYKEHAM DEVELOPMENTS PTY LTD

SITE ADDRESS: 111A MEANDER VALLEY ROAD, WESTBURY, TAS, 7303

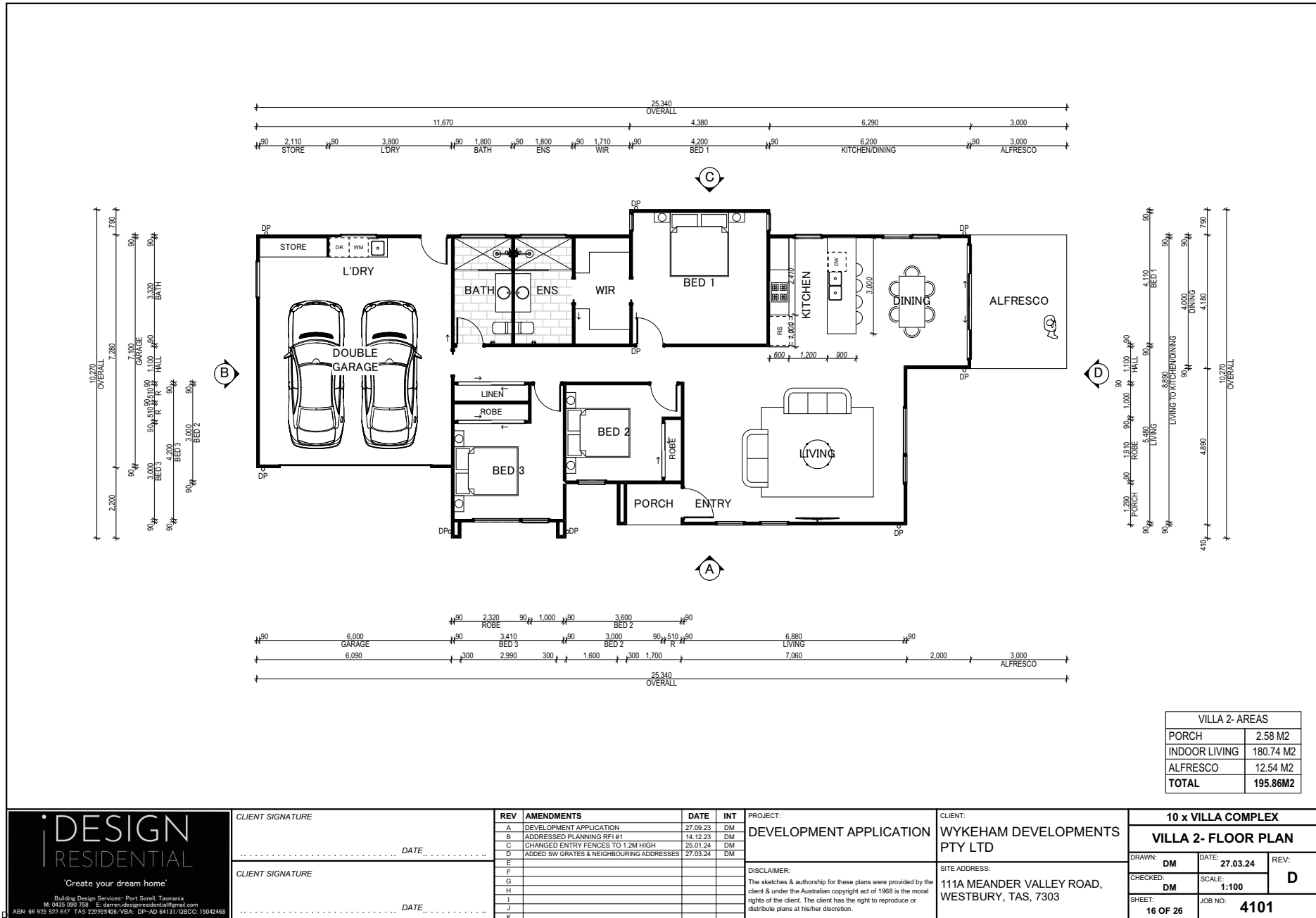
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VILLA 2- 3D PERSPECTIVES

DRAWN: DM	DATE: 27.03.24	REV: D
CHECKED: DM	SCALE:	
SHEET: 15 OF 26	JOB NO: 4101	

Version: 1, Version Date: 26/04/2024

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10 x VILLA COMPLEX

VILLA 2 - FLOOR PLAN

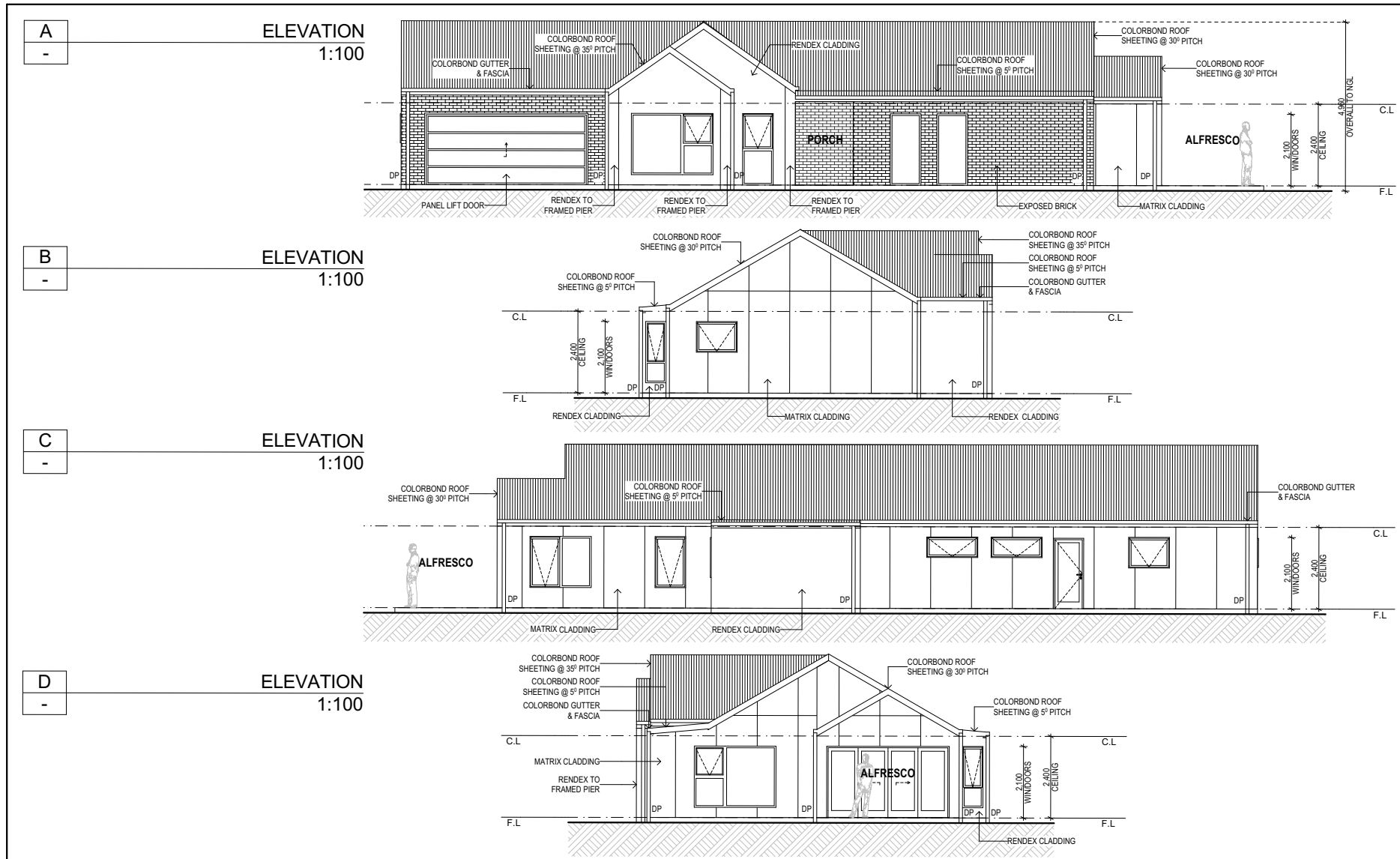
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CHECKED: DM SCALE: 1:100

SHEET: 16 OF 26 JOB NO: 4101

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<p style="font-size: small;">Building Design Services - Port Sorell, Tasmania M: 0435 090 758 E: darren.ide@designresidential@gmail.com ABN 66 825 923 617 TAS 220789406/VBA DP-AD 64131/QBCC 15042468</p>	CLIENT SIGNATURE		REV	AMENDMENTS	DATE	INT	PROJECT:	CLIENT:	10 x VILLA COMPLEX
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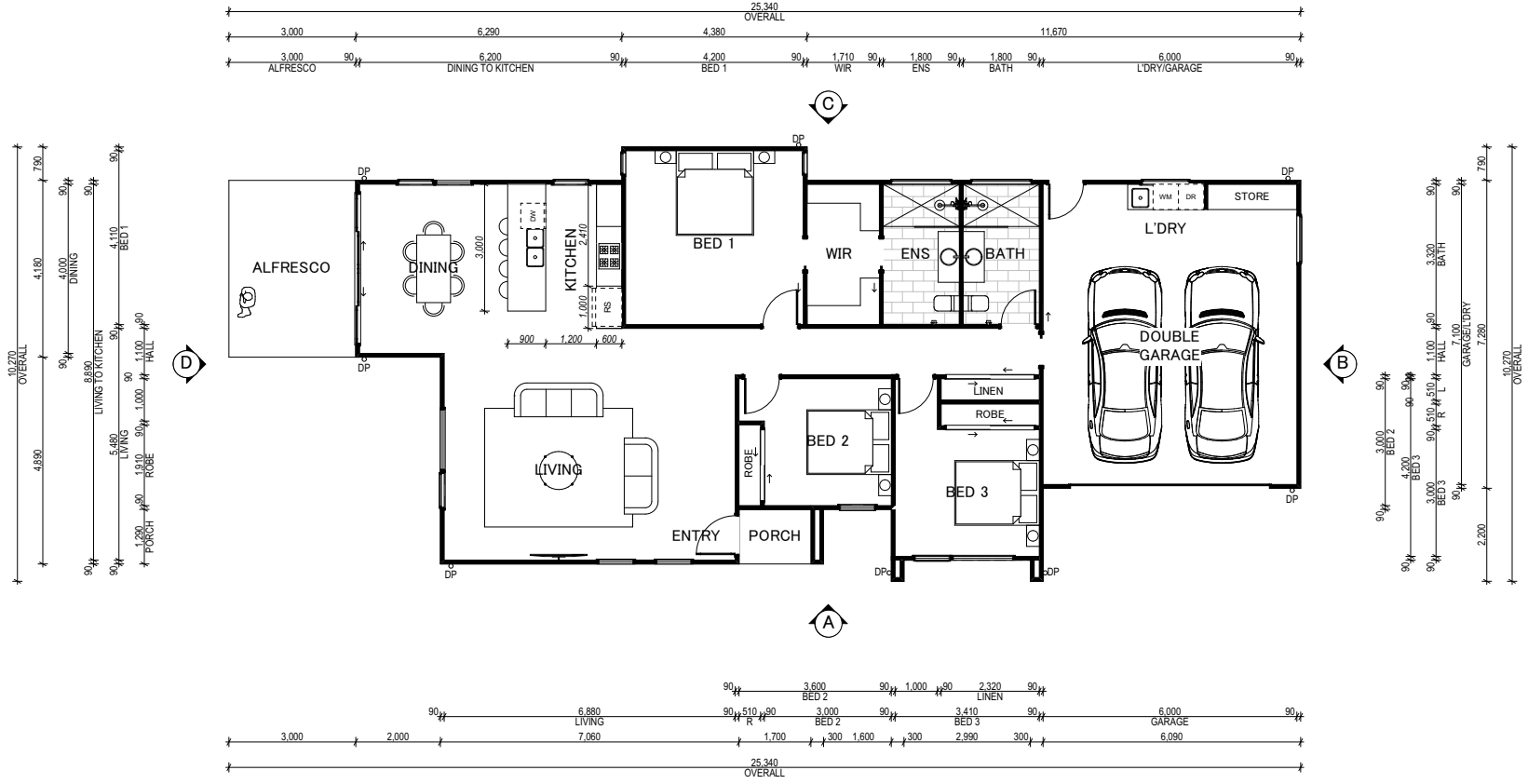
10 x VILLA COMPLEX

VILLA 3- 3D PERSPECTIVES

DRAWN: DM	DATE: 27.03.24	REV: D
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SHEET: 18 OF 26	JOB NO: 4101	

Version: 1, Version Date: 26/04/2024

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VILLA 3- AREAS	
PORCH	2.58 M2
INDOOR LIVING	180.74 M2
ALFRESCO	12.54 M2
TOTAL	195.86M2

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10 x VILLA COMPLEX

VILLA 3- FLOOR PLAN

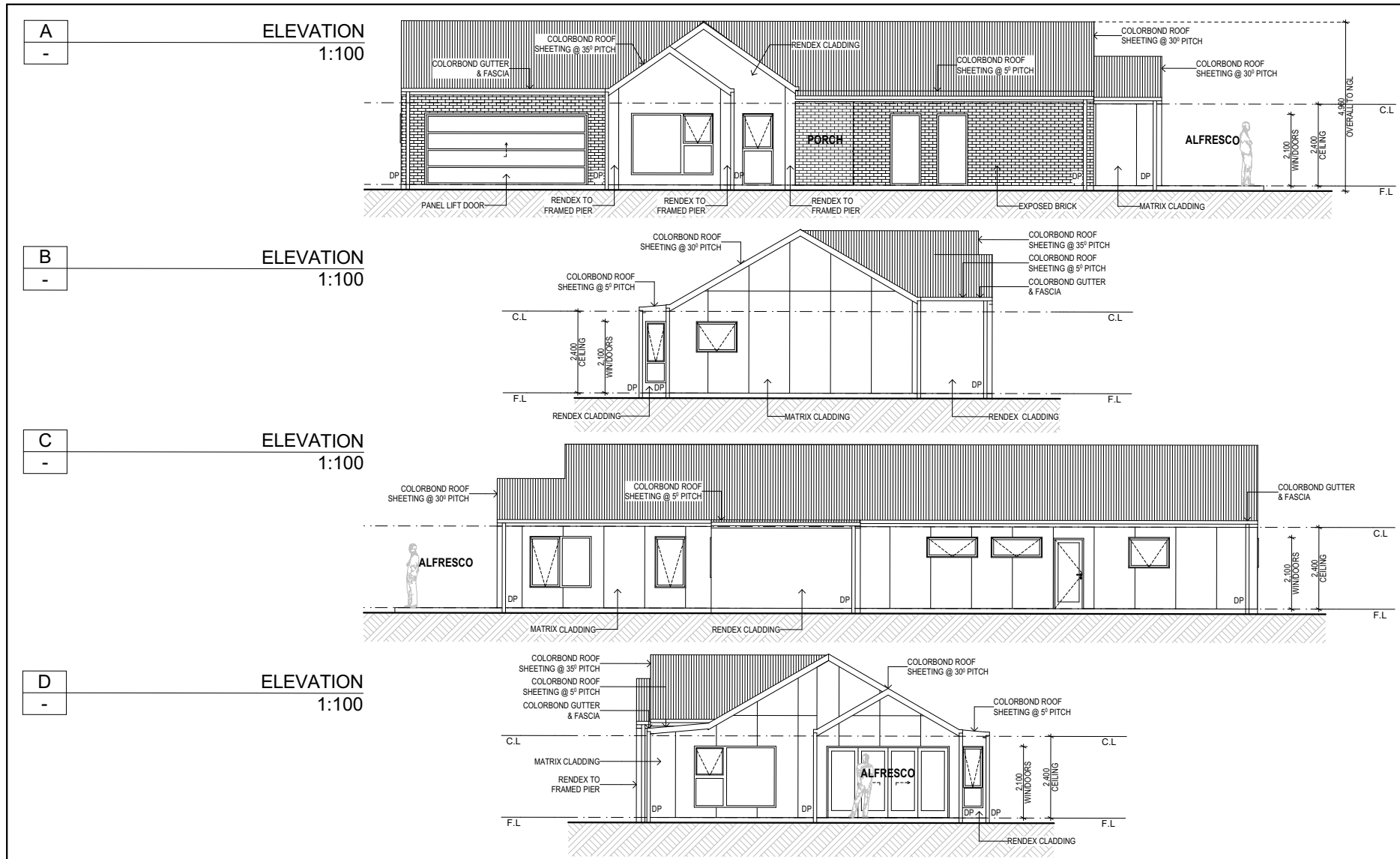
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SHEET: 19 OF 26 JOB NO: 4101

Version: 1, Version Date: 26/04/2024

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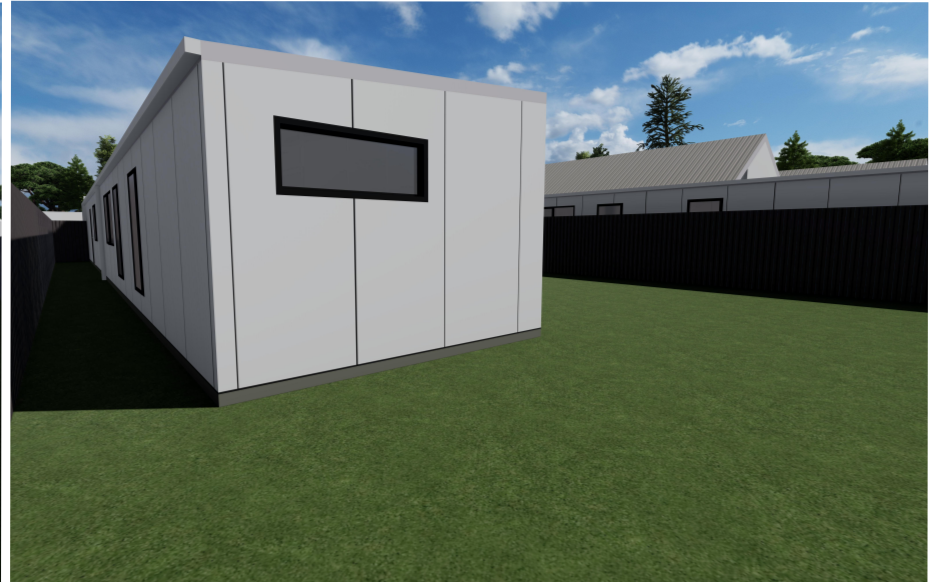
<div style="text-align: center;"> <h3>DESIGN RESIDENTIAL</h3> <p>'Create your dream home'</p> <p><small>Building Design Services - Port Sorell, Tasmania M: 0435 090 758 E: darren.ide@designresidential@gmail.com ABN: 66 825 923 617 TAS: 220989406/VBA DP-AD 64131/QBCC: 15042468</small></p> </div>	CLIENT SIGNATURE		REV	AMENDMENTS	DATE	INT	PROJECT:	CLIENT:	10 x VILLA COMPLEX
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VILLA 1

COLORS TO BE CONFIRMED



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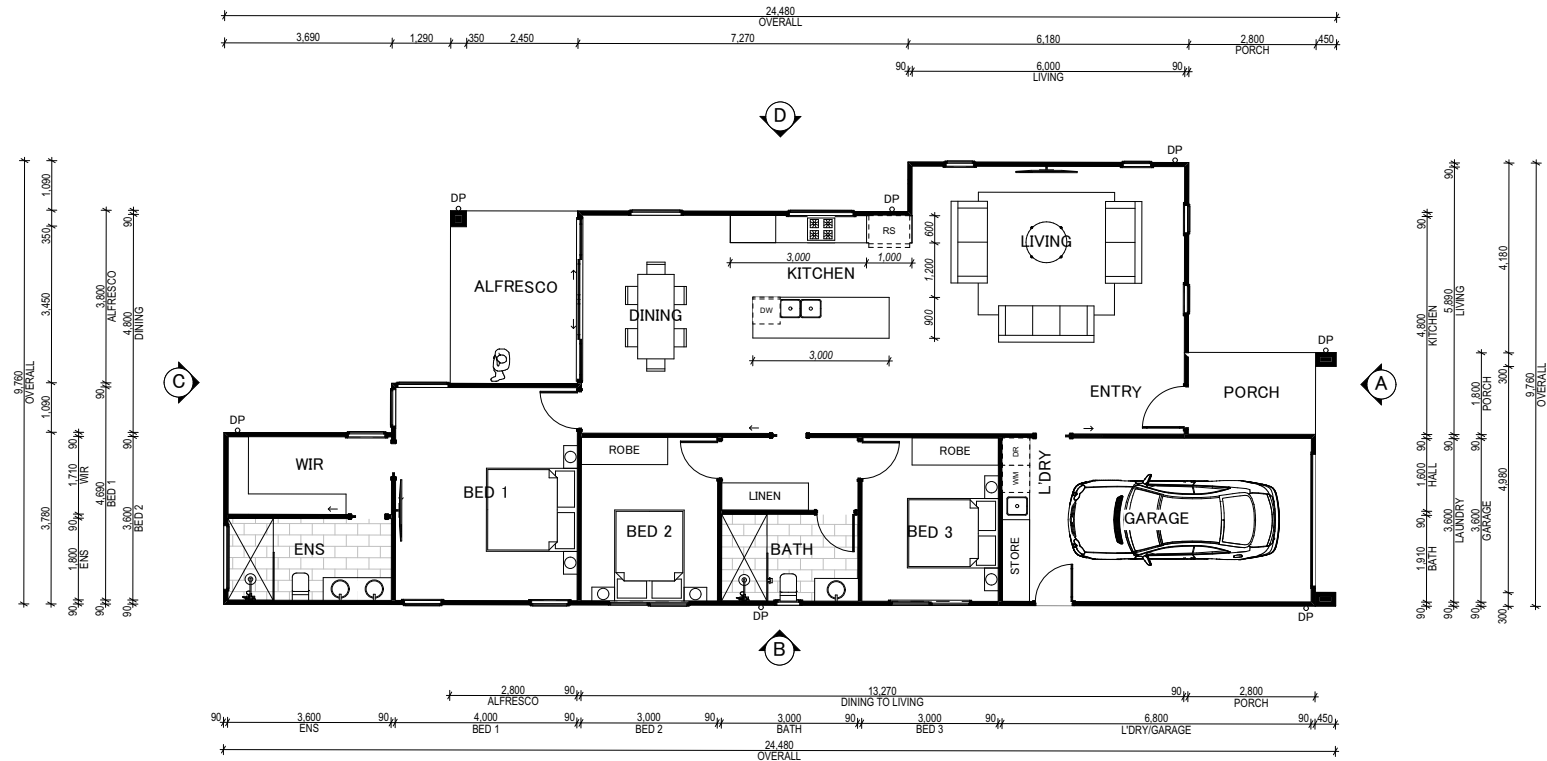
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SITE ADDRESS: 111A MEANDER VALLEY ROAD, WESTBURY, TAS, 7303

10 x VILLA COMPLEX		
VILLA 1- 3D PERSPECTIVES		
DRAWN: DM	DATE: 27.03.24	REV: D
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VILLA 4- AREAS	
PORCH	5.18 M2
INDOOR LIVING	167.93 M2
ALFRESCO	10.64 M2
TOTAL	183.75 M2

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10 x VILLA COMPLEX			
VILLA 4- FLOOR PLAN			
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SHEET: 22 OF 26	JOB NO: 4101		

Version: 1, Version Date: 26/04/2024

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B

ELEVATION
1:100

C

ELEVATION
1:100

D

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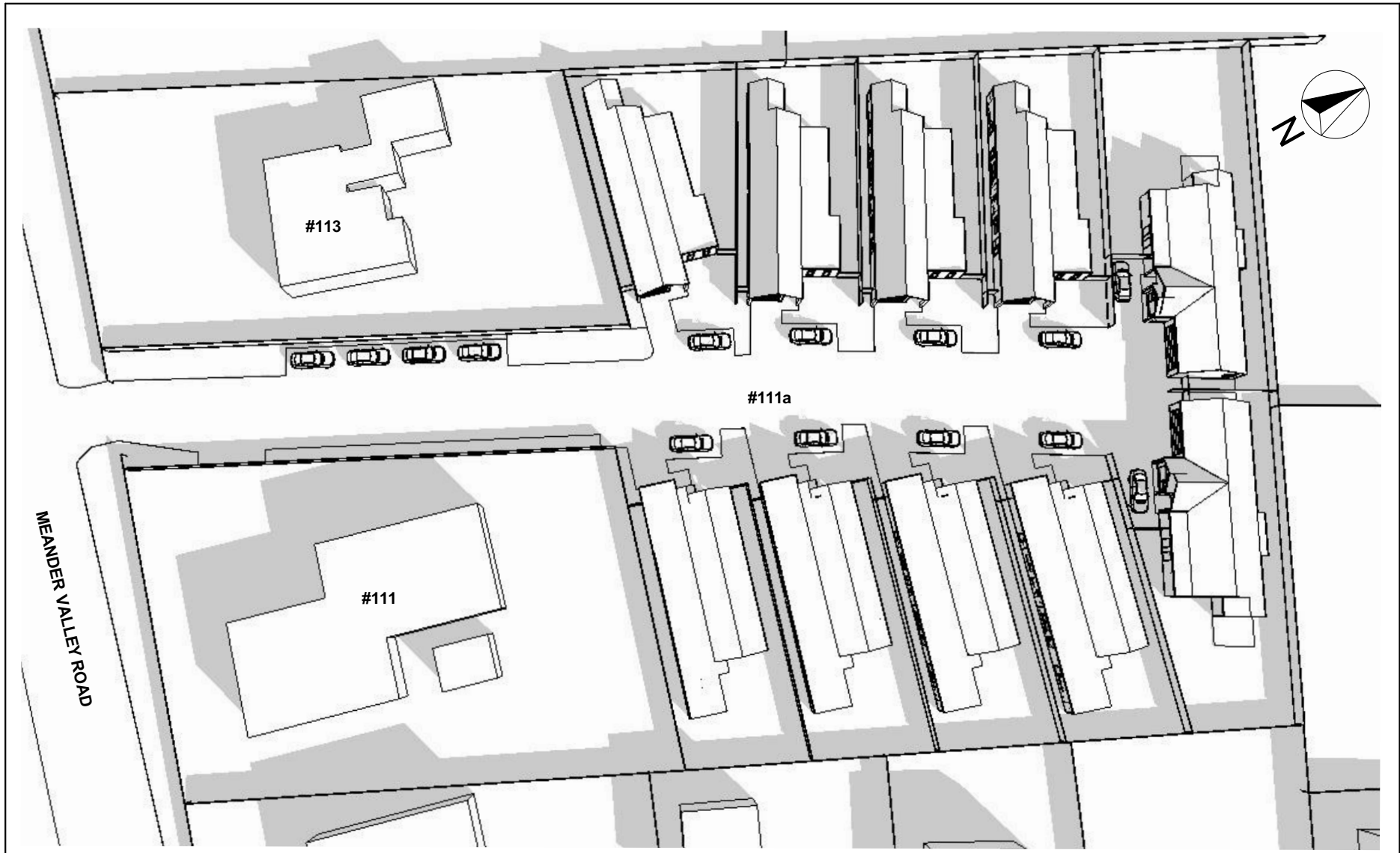
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VILLA 4- ELEVATIONS

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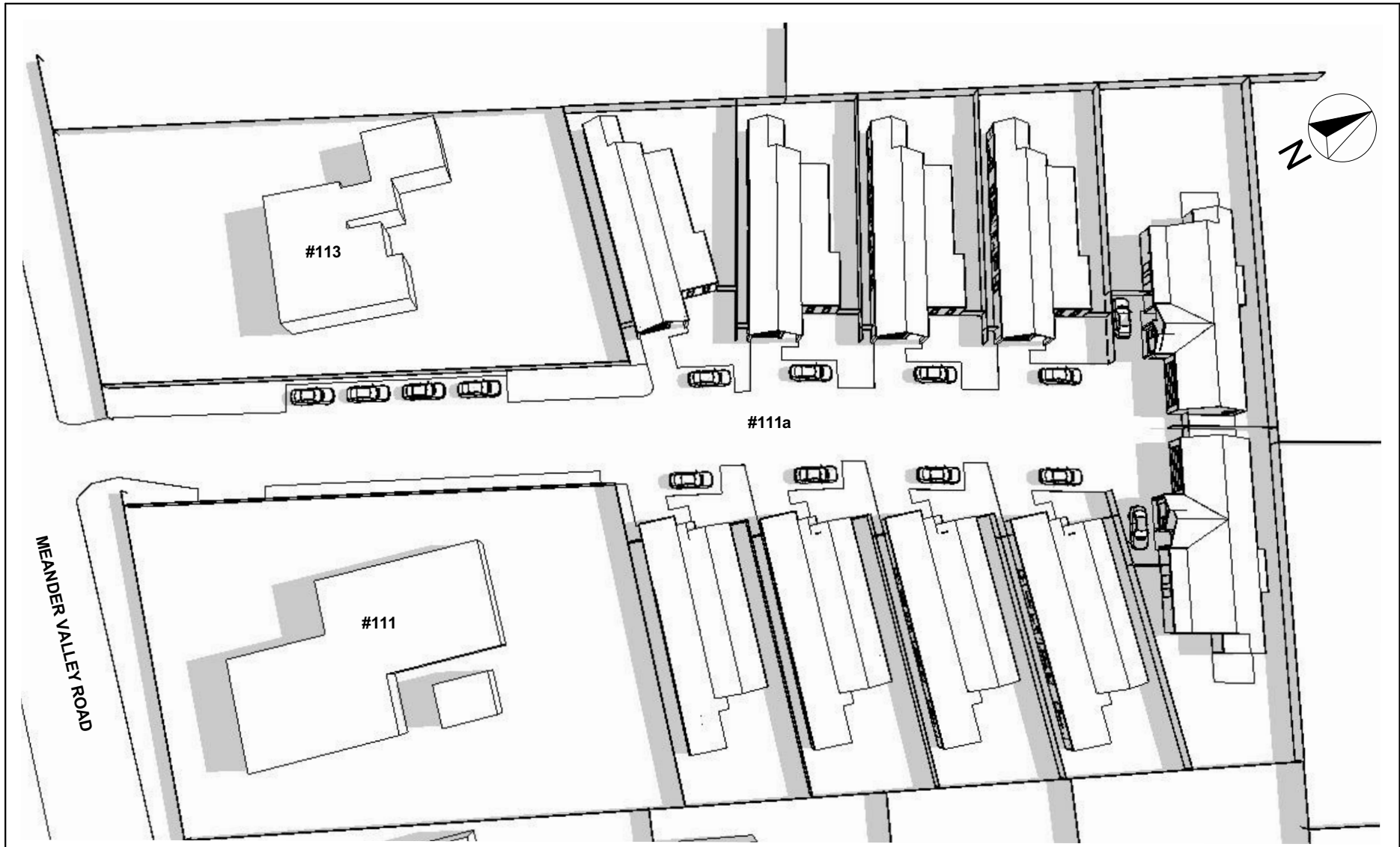
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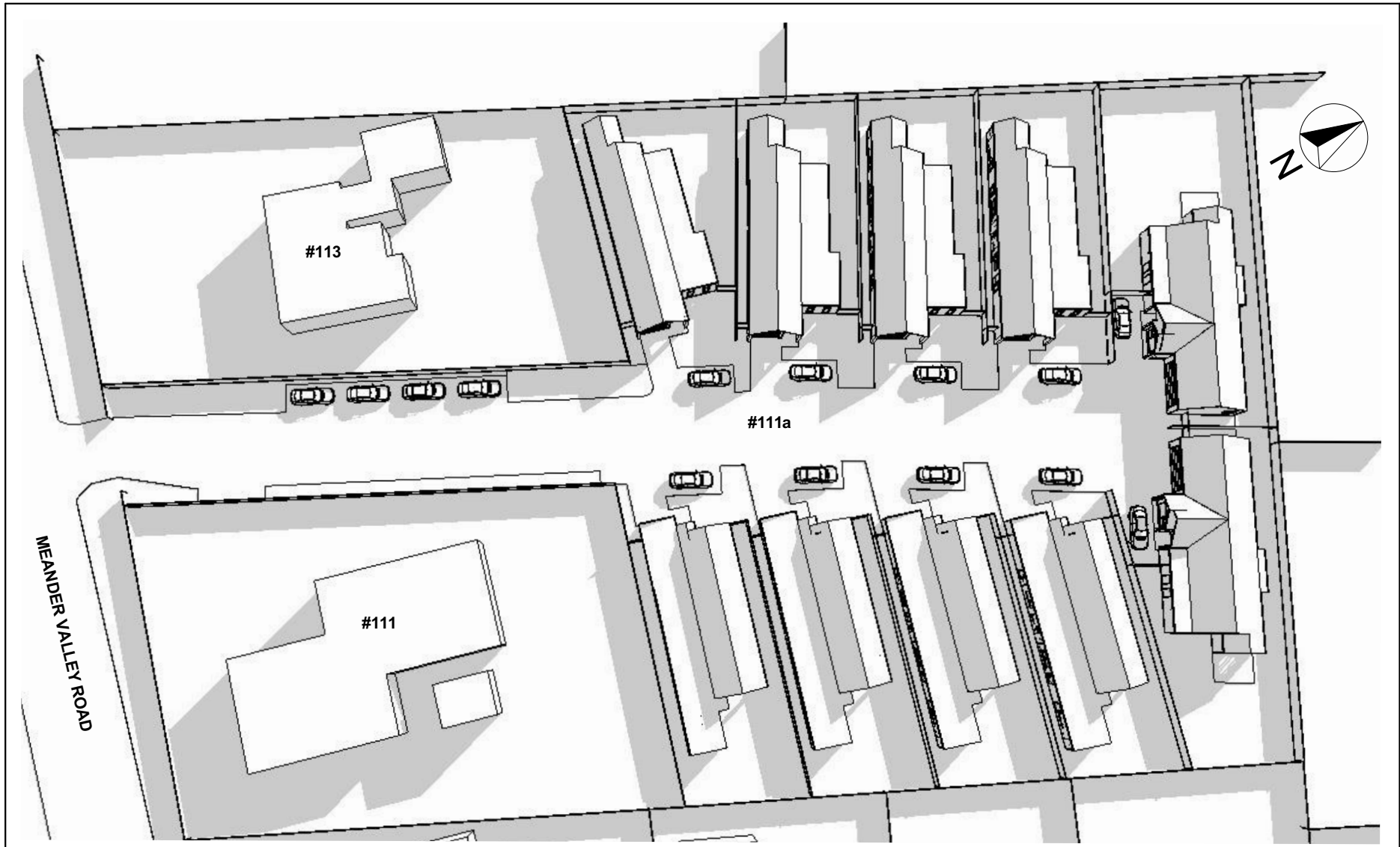
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SUN DIAGRAM- JUNE 12PM

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10 x VILLA COMPLEX

SUN DIAGRAM- JUNE 3PM

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12.1.8 Application Documents

Planning Report
10 x Multiple Dwelling proposal
111a Meander Valley Road
Westbury

Prepared by:
Town Planning Solutions Pty Ltd



12.1.8 Application Documents

Planning Report – 10 x Units
111a Meander Valley Road, Westbury



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Document Issue Status

Ver.	Issue Date	Description	Originator		Checked		Approved	
1	24/10/23	Planning Application	MP		MP		MP	
2	13/3/24	Response to MVC FIR	MP		MP		MP	
3	9/4/24	Revised Attenuation Code response	MP		MP		MP	

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PO BOX 7688
Launceston TAS

V3 Planning Application FIR

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Planning Report – 10 x Units
111a Meander Valley Road, Westbury



Introduction

This report provides an assessment of a proposed 10-unit multiple dwelling proposal at 111A Meander Valley Road, Westbury against the *Tasmanian Planning Scheme – meander Valley*.

This report was prepared by Mick Purves, Principal and Director of Town Planning Solutions Pty Ltd.

Mick is a qualified and practising Town Planner with a Bachelor of Environmental Design and a Master of Town Planning from the University of Tasmania. Mick is a member of the Planning Institute of Australia, a Certified Practising Planner and current President of the Tasmanian Division of the Institute.

Mick has 29 years' experience in the development industry and 24 years post-graduate experience working as a town planner and development manager in Local Government and consultancy.

Proposal documents

The drawings used for this assessment were prepared by iDesign Residential, Job no 4101, issue: Development application, dated 08.12.2023, sheets 01 to 24 inclusive.

PLEASE NOTE: sheets 22, 23 and 24 suggest an entry wall will be constructed between the access strip and the body of the site. This is incorrect, with the correct location of the entry wall shown on sheets 5 through 8 inclusive.

The Traffic Impact Assessment was prepared by Traffic & Civil Services, 111A Meander Valley Road, Westbury, Multiple Dwelling Development, Traffic Impact Assessment, dated October 2023.

The Odour Assessment prepared to assess potential impacts from the Westbury Sewerage Treatment Plant was prepared by Royce Aldred of ES&D Consulting, Odour Risk Assessment, 111A Meander Valley Road, Westbury, FINAL for Wykeham Developments Pty Ltd, dated 5/1/2024.

The written advice from the EPA for the proposal was issued by the Director, dated 20 September 2023.

Abbreviations

Scheme	Tasmanian Planning Scheme – Meander Valley
Site	CT 184301.1, 111A Meander Valley Road, Westbury
Proposal	10 x multiple dwellings, Job no 4101 by iDesign Residential
TIA	111A Meander Valley Road, Westbury, Multiple Dwelling Development, Traffic Impact Assessment, October 2023 by Traffic & Civil Services
ES&D Report	ES&D Consulting, Odour Risk Assessment, 111A Meander Valley Road, Westbury, FINAL v3 for Wykeham Developments Pty Ltd.
D1 Report	Stormwater Management Report, 111A Meander Valley Road, Westbury. D1 Consulting Engineers

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V3 Planning Application FIR

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The Site and Proposal

The project is located on land contained in Certificate of Title CT 184301.1, and known as 111A Meander Valley Road, Westbury (Site).

The site is described as follows:

- it is generally a rectangular shaped internal lot on the northern side of the road that forms the change from a suburban style development pattern to a rural character adjoining Quamby Brook and agricultural lands further west of the area;
- it is surrounded by existing suburban style development to the south, east and further north, with large lots and established gardens to the north;
- the area is generally flat;
- it contains an existing driveway that serves an adjoining property, a 4-bay garage, green houses, outbuildings, established lawns and garden shrubs and trees;
- it has frontage to Meander Valley Road to the south;
- it is accessed via Meander Valley Road, a bitumen road with kerb and channel;
- the title identifies the site has an area of 6105 m²;
- it has connections to reticulated water, stormwater and sewer services; and
- the adjoining titles contain the following:
 - 113 Meander Valley Road, an established single story house and gardens over two titles;
 - 115 Meander Valley Road contains a substantial heritage listed house and gardens;
 - 26-30 William Street contain a mix of single and multiple dwellings and gardens;
 - 22 William Street is a vacant residential title;
 - 6 Quamby Street contains a house near the road and substantial gardens on an internal lot; and
 - 12 Quamby Street contains what appears to be a shed on a substantial lot with established gardens.

The existing site conditions are shown in the aerial photography shown in Figure 1, with the site outlined in red and unit sites within the area bordered in cyan.



Figure 1 - site and context
Source: adapted from LISTmap

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Proposal

The proposal is described in the plans prepared by iDesign Residential, and includes the following:

- demolition of the existing structures, removal of the existing vegetation, internal fencing and driveways;
- construction of the proposed 10 dwelling units on the site, services, ground works, landscaping and fencing.

The plans provide full details of the proposal, with the layout and typical elevations are reproduced in Figures 2 through to 6.



Figure 2 - Proposed site layout plan

Source: iDesign proposal plans

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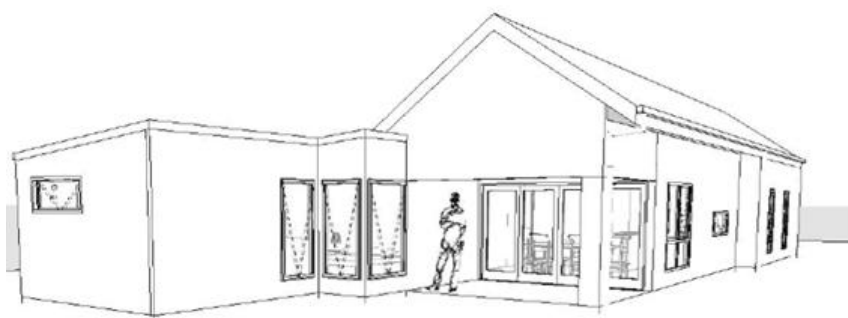
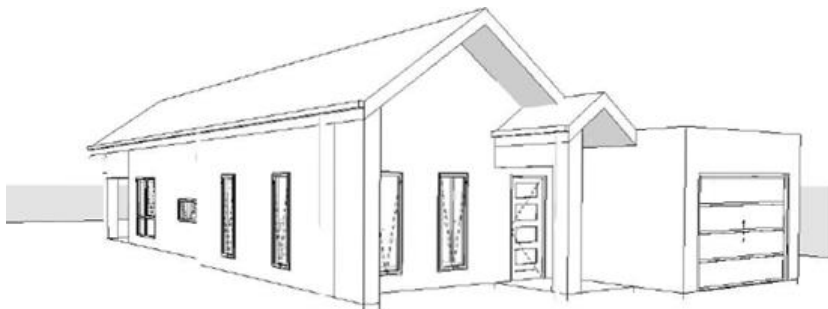


Figure 3 - Villa type 1 perspectives
Source: iDesign proposal plans

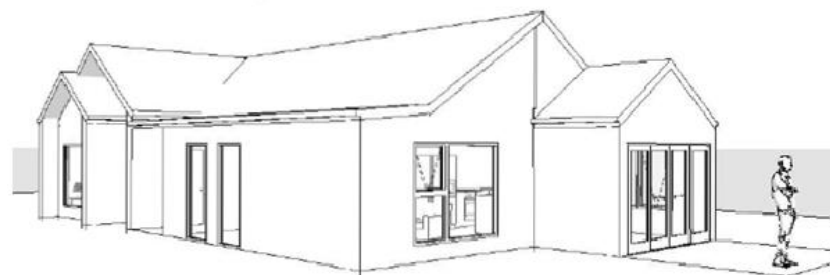
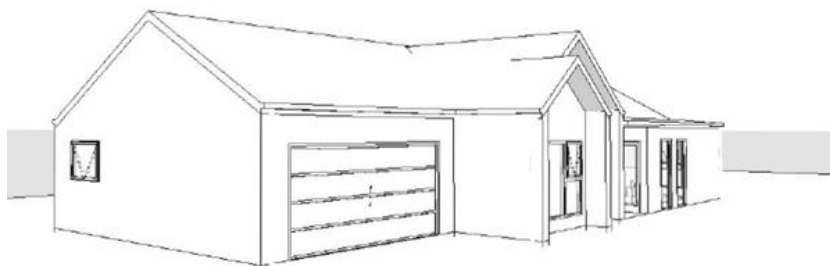


Figure 4 - Villa type 2 perspectives
Source: iDesign proposal plans

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Figure 5 - Villa type 4 perspectives

Source: iDesign proposal plans

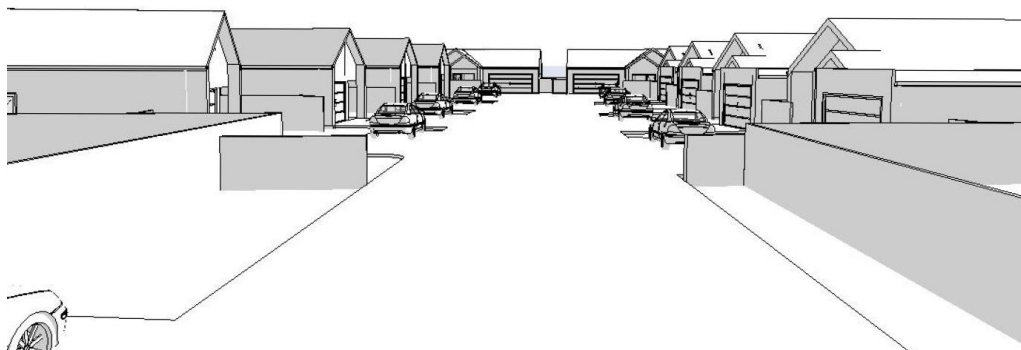


Figure 6 – Perspective from driveway

Source: iDesign proposal plans

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Planning Scheme

The site is located within the Meander Valley Council and therefore subject to the *Tasmanian Planning Scheme – Meander Valley* (Scheme).

Zoning and overlay information was obtained from TheLIST, which identified 111a Meander Valley Road as:

- within the Village zone;
- subject to the Bushfire Hazard overlay; and
- is not identified as subject to any hazards under the LPS.

The Scheme and LPS documents were obtained from the Tasmanian Planning Commission website in October 2023.

Review of aerial photography identified that the site is within 200 metres of the Westbury Wastewater Treatment Plant and therefore partly subject to the attenuation buffers established under the Attenuation Code. This was confirmed by email advice from Council staff on 28 July. This advice requested the written advice of the EPA, which was provided with the application documents and addressed in the response to the Attenuation Code later in this report.

The existing use of the property complies with the defined use of residential at Table 6.2 of the Scheme, as follows:

use of land for self-contained or shared accommodation. Examples include a secondary residence, boarding house, communal residence, home-based business, home-based child care, residential care facility, residential college, respite centre, assisted housing, retirement village and single or multiple dwellings.

The proposal complies with the term Multiple dwellings (*2 or more dwellings on a site*), which is part of a residential use and defined at Table 3.1 of the Scheme, as follows:

The site is an internal lot and does not require any other detailed consideration.:

The exemption for fencing at 4.6.3 (a) applies to fencing on the Meander Valley Road frontage.

The exemption provided at clause 4.6.18 of Table 4.6 of the Scheme provides for strata division of the proposal under the *Strata Titles Act 1998* without requiring planning approval, provided it is completed in accordance with a planning permit.

The proposal includes some demolition of existing improvements on the site, which is permitted pursuant to clause the General Provision at clause 7.9.1 of the Scheme.

Clause 6.10.2 of the Scheme identifies that the zone purpose statements at clause 12.1 are relevant to the consideration applications for discretionary use and not development issues.

12 Village zone

Clause 12.2 of the Scheme establishes the use table for the zone and defines Residential use for multiple dwellings as a permitted use within the zone. The use is therefore permitted and the zone purpose statements at clause 12.1 are not relevant to considerations of development issues. .

The application does not include non-residential or visitor accommodation uses. Use standards at clause 12.3 do not apply to the proposal.

Development standards at clause 12.4 apply to the proposal, as follows.

12.4.1 Residential density for multiple dwellings	
P1.1 For a site that has a connection to or is capable of being connected to, a reticulated sewerage, stormwater and full water supply service, multiple dwellings must only have a site area per dwelling that is less than 600m ² if the number of dwellings:	Site area per dwelling (SPD) is a term defined at Table 2.1 of the Scheme and means: <i>the area of a site, excluding any access strip, divided by the number of dwellings on that site.</i> LISTmap identifies that the main body of the site has an area of 5290 m ² .

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<p>(a) have a site area per dwelling that does not exceed the capacity of the reticulated infrastructure services; and</p> <p>(b) are consistent with the density existing on established properties in the area; or</p> <p>(c) the development provides a specific accommodation need with significant social or community benefit.</p> <p>P1.2</p> <p>For a site that is not capable of being connected to a reticulated sewerage, stormwater and full water supply service, multiple dwellings must have a site area that:</p> <p>(a) is sufficient for on-site wastewater and stormwater disposal and water supply; and</p> <p>(b) a regulated entity has provided written advice stating that the site is unable to be connected to a full water supply service or a reticulated sewerage system.</p>	<p>10 units result in a site area per dwelling (SPD) of 529m² per unit. Assessment against P1 is required.</p> <p>Meander Valley Road is a main road that provides access to and from Westbury. The TIA by Traffic & Civil Services identified that Meander Valley Road had capacity to accommodate the subject proposal without additional improvements to the road.</p> <p>Information about the capacity of reticulated stormwater services was provided by D1 Consulting Engineers following a request from Council. The D1 Report identified upgrades to the existing 300mm section of stormwater line was required to accommodate the development. It is understood that these conclusions were review and supported by Council's engineers. The proponent with work with Council to provide the required upgrades.</p> <p>Taswater did not advise of any service limitations to the title. Telecommunications and electricity reticulation are not considered through the Tasmanian Planning Scheme.</p> <p>The proposal is therefore not expected to exceed the capacity of reticulated services available to the site (with the recommended improvements) and complies with criterion (a).</p> <p>The area for assessment of <i>established properties</i> under this standard was limited to urban zones in land bounded by Meander Valley Road, William Street and the Western railway line to the north (shown within the dark blue border in Figure 1). Rural zoned lands to the west were not considered as they have a fundamentally different purpose and character.</p> <p>The area contains a mix of suburban style development including single and multiple dwellings and some remaining houses with substantial established gardens. The SPD for existing dwellings within this area was detailed in Table 1 and identified the following:</p> <table border="1" style="margin-left: 20px;"> <thead> <tr> <th style="text-align: left;">Dwelling Type</th> <th style="text-align: left;">SPD range</th> </tr> </thead> <tbody> <tr> <td>Single dwellings:</td> <td>349 m² and 5740 m²; and</td> </tr> <tr> <td>Multiple dwellings:</td> <td>405 m² to 792 m².</td> </tr> </tbody> </table> <p>Table 1 identifies that the proposal is in the range of the SPD of established properties for single and multiple dwellings within the area, and is within the higher range of SPD for multiple dwelling sites. The proposal is consistent with the SPD of established single and multiple dwelling sites and the number of dwellings in the area.</p> <p>More unit sites are located east of William Street and south of Meander Valley Road, which were not considered for this assessment.</p>	Dwelling Type	SPD range	Single dwellings:	349 m ² and 5740 m ² ; and	Multiple dwellings:	405 m ² to 792 m ² .
Dwelling Type	SPD range						
Single dwellings:	349 m ² and 5740 m ² ; and						
Multiple dwellings:	405 m ² to 792 m ² .						

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	<p>This analysis demonstrated that the density of the proposed units is consistent with established properties in the area in terms of:</p> <ul style="list-style-type: none"> • the general pattern of development; • the location of unit sites in relation to each other and single dwellings; and • the SPD on established sites. <p>Complies with P1.1 (a) and (b).</p>
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Address	Development	Site area m ²	Site area per dwelling m ²	Notes
2A William St ^	House	709	709	
4 William St	4 units	3137	792	area excludes access strip
2 William St	House	1370	1370	area excludes access strip
6 William St	House	2548	2548	area excludes access strip
8 William St	House	828	828	
10 William St	House	841	841	
12 William St	House	876	876	
16 William St	House	611	611	
18 William St	House	763	763	
20 William St	House	732	732	
22 William St*	Vacant	1008	0	area excludes access strip
24 William St,	2 units	917	458	
26 William St	House	959	959	
28 William St,	2 units,	830	415	
30 William St	House	968	968	
30A William St	House	712	712	
109 Meander Valley Rd	House	917	917	
111 Meander Valley Rd	House	1811	1811	
113 Meander Valley Rd	House	1673	1673	over two titles
1 Quamby St	House	1363	1363	
1A Quamby St	2 units	866	433	
2 Quamby St	House	624	624	
4 Quamby St	House	642	642	
5 Quamby St	8 units	3200	405	area excludes access strip
6 Quamby St*	House	5740	5740	area excludes access strip
7 Quamby St	House	1405	1405	
8 Quamby St	House	634	634	
8 Qamby St	Sheds	624	624	
2C William St ^	House	722	722	separate CT reference
2/2B William St ^	House	349	349	separate CT reference
1/2B William St ^	House	364	364	separate CT reference

Table 1 – Site Area per Dwelling within the existing area
Source: compiled from LISTmap data and property information, as noted

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12.4.2 Building height	
A1 Building height must be not more than 8.5m.	The plans identify a maximum height of less than 5.1 metres above ground level. Complies with A1.
12.4.3 Setback	
A1 Buildings must have a setback from a frontage of: (a) not less than 4.5m; (b) not less than existing buildings on the site; or (c) not more or less than the maximum and minimum setbacks of the buildings on adjoining properties.	The plans show that the proposed units will be set into the main body of the site and provide a setback to the frontage with Meander Valley Road of much more than 4.5 metres. Complies with A1(a).
A2 Buildings must have a setback from side and rear boundaries of not less than: (a) 3m; or (b) half the wall height of the building, whichever is the greater.	The plans show varying setbacks to side and rear boundaries. Units 2, 3, 4, 8 & 9 comply with the 3-metre minimum setback requirement under A2.
P2 Buildings must be sited so that there is no unreasonable loss of amenity to adjoining properties, having regard to: (a) the topography of the site; (b) the size, shape and orientation of the site; (c) the setbacks of surrounding buildings; (d) the height, bulk and form of existing and proposed buildings; (e) the existing buildings and private open space areas on the site; (f) sunlight to private open space and windows of habitable rooms on adjoining properties; and (g) the character of development existing on established properties in the area.	The plans show that the following units do not comply with the 3-metre minimum setback requirement: 1 to south and west; 5 & 6 to north; 7 to east; and 10 to east and south. In response to P2: (a) the site has a very gentle slope, with the single storey construction of all units on the site minimising potential amenity impacts to adjoining properties through overshadowing, overlooking and the general use of the subject units; (b) the size, shape and orientation of the site allows the subject units to be located on the site to minimise potential impacts to amenity on adjoining sites; (c) the setbacks of surrounding buildings on adjoining sites are not likely to create any adverse impacts through the proposed setbacks. The setbacks to existing dwellings are substantial to the south, east and north, and mixed to the east; (d) the height, bulk and form of the proposed units is consistent with the single storey construction of existing buildings on adjoining properties;

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	<p>(e) there are no existing buildings or private open space areas on the subject site that will remain and therefore be impacted as part of the proposal;</p> <p>(f) the diagrams provided with the drawings show that sunlight to private open space and windows of habitable rooms on adjoining properties will be largely unaffected to 111 and 113 Meander Valley Road, with shading limited to the rear yards; and</p> <p>(g) the character of development existing on established properties in the area is: East – urban scale residential with rear yards to the subject site that are unlikely to experience any unreasonable loss of amenity from the proposal; North - vacant land and large gardens, which cannot reasonable experience any loss of amenity from the proposal; West – large established heritage listed house and substantive gardens and large lot (approx. 2ha), both with structures near but not close to the common boundary with the site.</p> <p>As a result of these considerations, the proposal is not expected to result in any unreasonable loss of amenity to adjoining properties.</p> <p>Complies with A2 for units 2, 3, 4, 8 & 9 and P2 for units 1, 5, 6, 7, and 10.</p>
A3 Air extraction, pumping, refrigeration systems, compressors or generators, excluding Residential, Visitor Accommodation, Natural and Cultural Values Management, Passive Recreation and Utilities,	<p>The proposal is for residential.</p> <p>A3/P3 not applicable.</p>
12.4.4 Site coverage	
A1 Site coverage must be not more than 50%.	<p>The site plans identify a site coverage of 1840 m² of the 5924 m² site.</p> <p>Complies with A1.</p>
12.4.5 Fencing	
A1 No Acceptable Solution. ²	<p>The proposed fencing identified on the plans complies with the exemption at clause 4.6.4.</p> <p>Not applicable/complies with A1.</p>
12.4.6 Outdoor storage areas	
A1 Outdoor storage areas for non-residential uses, excluding for the display of goods for sale, must not be visible from any road or public open space adjoining the site.	<p>The proposal is for residential.</p> <p>Not applicable/complies with A1.</p>
8.6 Development Standards for Subdivision	
The proposal does not include subdivision.	Not applicable.

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The proposal complies with the relevant acceptable solutions and performance criteria and is therefore eligible for approval based on the zone standards.

C2 Car Parking and Sustainable Transport Code

C2.2.1 This code applies to all use and development of land.	The Code applies to the proposal and is not exempt under C2.4.
C2.2.2 Clause C2.5.3 applies to use and development for Residential (multiple dwellings).	The code applies to the proposal.
C2.5.1 Car Parking Numbers	
A1 The number of car parking spaces must be no less than the number specified in Table C2.1, excluding if: ...	<p>Table C2.1 requires: 2 spaces per 2+ bedrooms/dwelling; and 1 visitor space per 4 dwellings.</p> <p>The proposal requires 20 spaces for units and 3 visitor space.</p> <p>The Plans show 22 sealed and formed parking spaces are provided for residents, with another 4 visitor parking spaces.</p> <p>Complies with A1.</p>
C2.5.2 Bicycle parking numbers C2.5.3 Motorcycle parking numbers C2.5.4 Loading Bays	Not applicable as no requirement is set under Table C2.1.
C2.6.1 Construction of car parking spaces	
<p>A1 All parking, access ways, manoeuvring and circulation spaces must:</p> <p>(a) be constructed with a durable all weather pavement;</p> <p>(b) be drained to the public stormwater system, or contain stormwater on the site; and</p> <p>(c) excluding all uses in the Rural Zone, Agriculture Zone, Landscape Conservation Zone, Environmental Management Zone, Recreation Zone and Open Space Zone, be surfaced by a spray seal, asphalt, concrete, pavers or equivalent material to restrict abrasion from traffic and minimise entry of water to the pavement.</p>	<p>The Site Plans note a sealed driveway provided to all units and manoeuvring areas. Visitor spaces and passing bays will be clearly marked as such.</p> <p>Drainage will be connected to the public stormwater system in accordance with the <i>Building Act 2016</i>.</p> <p>The TIA by Traffic & Civil Services confirmed that the requirements of A1 were met.</p> <p>Complies with A1.</p>
C2.6.2 Design and layout of parking areas	
<p>A1.1 Parking, access ways, manoeuvring and circulation spaces must either:</p> <p>(a) comply with the following:</p>	<p>The Plans show the requirements of A1.1(a) are met. This is confirmed in the TIA by Traffic & Civil Services, which provides qualified advice that the application was assessed against the relevant sections of the Code and AS/NZS 2890.1:2004,</p>

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<ul style="list-style-type: none"> (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 <p>(b) comply with Australian Standard AS 2890- Parking facilities, Parts 1-6.</p>	<p>Parking facilities, Part 1: Off-street car parking and determined to comply.</p> <p>Complies with A1.1.</p>
<p>A1.2 Parking spaces provided for use by persons with a disability must satisfy the following:</p> <ul style="list-style-type: none"> (a) be located as close as practicable to the main entry point to the building; (b) be incorporated into the overall car park design; and (c) be designed and constructed in accordance with Australian/New Zealand Standard AS/NZS 2890.6:2009 Parking facilities, Off-street parking for people with disabilities.1 	<p>The TIA by Traffic & Civil Services identified that no disabled parking was required for the proposal.</p> <p>Disabled car parking may be provided at the discretion of the Building Surveyor, through the assessment under the National Construction Code.</p> <p>Complies with A1.2.</p>
<p>C2.6.3 Number of accesses for vehicles</p>	
<p>A1 The number of accesses provided for each frontage must:</p> <ul style="list-style-type: none"> (a) be no more than 1; or (b) no more than the existing number of accesses, <p>whichever is the greater.</p>	<p>The proposal includes a single, tow way access point.</p> <p>Complies with A1.</p>
<p>A2 Within the Central Business Zone or in a pedestrian priority street no new access is provided unless an existing access is removed.</p>	<p>Not applicable.</p>

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C2.6.4 Lighting of parking areas within the General Business Zone and Central Business Zone	Not applicable.
C2.6.5 Pedestrian access	
P1 Safe and convenient pedestrian access must be provided within parking areas, having regard to: (a) the characteristics of the site; (b) the nature of the use; (c) the number of parking spaces; (d) the frequency of vehicle movements; (e) the needs of persons with a disability; (f) the location and number of footpath crossings; (g) vehicle and pedestrian traffic safety; (h) the location of any access ways or parking aisles; and (i) any protective devices proposed for pedestrian safety.	The proposal requires 23 parking spaces, and does not provide dedicated pedestrian access. P1 therefore applies. P1 was assessed at page 31 of the TIA by Traffic & Civil Services and determined to comply. Complies with P1.
A1.2 In parking areas containing accessible car parking spaces for use by persons with a disability, a footpath having a width not less than 1.5m and a gradient not steeper than 1 in 14 is required from those spaces to the main entry point to the building.	Not applicable.
C2.6.8 Siting of parking and turning areas	
A1 Within an Inner Residential Zone, Village Zone, Urban Mixed Use Zone, Local Business Zone or General Business Zone, parking spaces and vehicle turning areas, including garages or covered parking areas must be located behind the building line of buildings, excluding if a parking area is already provided in front of the building line.	The proposal includes a 1.5m high block wall fence and mail box structure between the road and parking spaces. The proposed visitor parking spaces are located behind this structure. The proposed parking is setback from the road frontage to match the existing dwelling at 111 Meander Valley Road. The parking spaces are therefore behind the building line. Complies with A1.

The following standards were not applicable to the proposal:

- C2.6.6 Loading bays;
- C2.6.7 Bicycle parking and storage facilities within the General Business Zone and Central Business Zone;
- C2.6.8 Siting of parking and turning areas;
- C2.7 Parking Precinct Plan

The application complies with the relevant acceptable solutions for the Car Parking and Sustainable Transport Code and was supported by the Traffic Impact Assessment.

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C3 Road and Rail Asset code

<p>C3.2.1 This code applies to a use or development that:</p> <p>(b) will require a new vehicle crossing, junction or level crossing; or ...</p>	<p>The Code applies to the proposal and is not exempt at C3.4.</p>
<p>C3.5.1 Traffic generation at a vehicle crossing, level crossing or new junction</p>	
<p>P1 Vehicular traffic to and from the site must minimise any adverse effects on the safety of a junction, vehicle crossing or level crossing or safety or efficiency of the road or rail network, having regard to:</p> <p>(a) any increase in traffic caused by the use;</p> <p>(b) the nature of the traffic generated by the use;</p> <p>(c) the nature of the road;</p> <p>(d) the speed limit and traffic flow of the road;</p> <p>(e) any alternative access to a road;</p> <p>(f) the need for the use;</p> <p>(g) any traffic impact assessment; and</p> <p>(h) any advice received from the rail or road authority.</p>	<p>The proposal exceeds the traffic generation rates set in Table C3.1 and does not comply with A1.4.</p> <p>An expert assessment against P1 was provided at pages 33-34 of the TIA by Traffic & Civil Services, which concluded the proposal complies with P1.</p> <p>Complies with P1.</p>
<p>C3.6.1 Habitable buildings for sensitive uses within a road or railway attenuation area</p> <p>Not applicable.</p>	
<p>A1 Unless within a building area on a sealed plan approved under this planning scheme, habitable buildings for a sensitive use within a road or railway attenuation area, must be:</p>	<p>The site is not within an attenuation area.</p> <p>Not applicable.</p>
<p>C3.7.1 Subdivision for sensitive uses within a road or railway attenuation area</p> <p>Not applicable.</p>	

The application complies with the relevant performance criteria for the Road and Rail Assets Code.
The assessment against the standards supports approval of the application.

C9.0 Attenuation Code

<p>C9.2.1 This code applies to:</p> <p>(a) activities listed in Tables C9.1 and C9.2; ...</p>	<p>The ES&D Report and EPA advice confirm the site is within the attenuation buffer for the Westbury Wastewater Treatment Plant. The Code applies to the proposal and is not exempt at C3.4.</p>
<p>C9.5.1 Activities with potential to cause emissions</p> <p>Not applicable.</p>	

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C9.5.2 Sensitive use within an attenuation area	
<p>P1 Sensitive use within an attenuation area, must not interfere with or constrain an existing activity listed in Tables C9.1 or C9.2, having regard to:</p> <p>(a) the nature of the activity with potential to cause emissions including:</p> <p>(i) operational characteristics of the activity;</p> <p>(ii) scale and intensity of the activity; and</p> <p>(iii) degree of hazard or pollution that may be emitted from the activity;</p> <p>(b) the nature of the sensitive use;</p> <p>(c) the extent of encroachment by the sensitive use into the attenuation area;</p> <p>(d) measures in the design, layout and construction of the development for the sensitive use to eliminate, mitigate or manage effects of emissions of the activity;</p> <p>(e) any advice from the Director, Environment Protection Authority; and</p> <p>(f) any advice from the Director of Mines.</p>	<p>Listmap identifies the Westbury Sewerage Treatment Plant (STP) as an EPA regulated site with approval to process up to 600 KL per day (EPA Permit ref 2589).</p> <p>Table C9.2 of the Scheme identifies a 550m attenuation distance for a wastewater treatment plant with a capacity of up to 1375 KI per day. This was confirmed in the Odour Risk Assessment Report prepared by ES&D Consultants (ES&D Report), following the advice of Taswater.</p> <p>ES&D note that the buffer from Taswater information does not reflect the requirement to calculate attenuation distances from title boundaries (shown at Figure 1 in that report based on Taswater GIS data and partially reproduced in this report as Figure 8 in this report).</p> <p>An approximation of the buffer area was developed from LISTmap was provided at Figure 7, with the subject site shown in red and the attenuation buffer shown in cyan. Figure 7 identifies that there are over 200 properties that either zoned as suitable for or accommodate existing residential uses, within the approximated attenuation buffer under the Code.</p> <p>This clearly shows that a substantial portion of the existing residential areas at Westbury are within the Attenuation Area, including many recent sites for multiple dwellings. Taswater data identifies:</p> <ul style="list-style-type: none"> • there are 133 dwellings within the existing buffer area; • there are 6 existing dwellings that are closer to the plant than the proposed dwellings; and • there were 44 complaints in the 29 months between March 2021 and August 2023 from the operation of the site. <p>The proposal does not reduce the distance between existing sensitive use and the treatment plan site or infrastructure. It is understood that the increase of residential use that does not reduce the established buffer to sensitive uses differs from previous cases such as Cooper & Clayton v Meander Valley Council and does not increase encroachment.</p> <p>On this basis alone, there is no reasonable argument that the additional 10 dwellings proposed will interfere with or further constrain operation of the wastewater treatment plant.</p> <p>Council may take a different interpretation of this situation. The following is provided against P1 in this event:</p> <p>(a) The plant operates with existing sensitive uses located inside the attenuation buffer under the Scheme. Operation of the site must comply with existing planning and environmental conditions for the plant, which includes condition A1 Odorous</p>

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	<p>gasses of the Permit Part B Permit Conditions (PCE 7018 R3), as follows:</p> <p><i>A1 Odorous Gases</i></p> <p><i>Odorous gases arising from the activity must be managed so that they do not cause environmental nuisance beyond the boundary of the land.</i></p> <p>The operational requirements of the plant prevent odour emissions that cause environmental nuisance beyond the boundary of the land.</p> <p>The ES&D Report identifies that the existing activity creates odour emissions that impact existing residential areas at Westbury and this situation is unlikely to change in the foreseeable future based on the advice of the operator.</p> <p>The operating requirements and characteristics of the plant provide significant constraint on the operation of the plant, and that the proposed dwellings will not reduce the existing attenuation area or further constrain operation of the STP;</p> <p>(b) the proposal is consistent with the nature and density of existing residential use and development within the buffer, zoning for residential use and does not seek to reduce the established buffers provided by existing sensitive uses. The ES&D Report identified that the proposal was unlikely to further constrain operation of the STP;</p> <p>(c) the number and proximity of existing residential uses within the Scheme buffer area establish a significant constraint on the STP to operate the plant in a way that minimises opportunity for complaints and issues. The attenuation area under the Scheme must also be considered in light of the existing permit conditions for the plant;</p> <p>(d) the ES&D Report did not identify that any specific responses were required within the proposal to eliminate, mitigate or manage effects of emissions of the activity. The proponent is willing to plant a hedge along the closest boundary if the Council considers this will assist;</p> <p>(e) advice was provided from the Director, Environment Protection Authority dated 20 September 2023, which recognised the existing opportunity for land use conflict but deferred to Council for consideration of additional uses. This advice is noted, but does not appear to recognise:</p> <ul style="list-style-type: none"> • the scale of existing residential development within the attenuation area (133 dwellings by Taswater advice, in excess of 200 dwellings based on attenuation requirements under the Scheme); • that the opportunity for complaint is not a limitation or constraint on the operation of the plant, unless any such complaints result in an
--	--

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	<p>environmental nuisance under condition A1 for the operation of the plant or the relevant action under the <i>Environmental management and Pollution Control Act 1993</i>; or</p> <ul style="list-style-type: none"> the existing permit conditions and constraints that prevent odour emissions from the site. <p>(f) advice from the Director of Mines is not relevant to the proposal.</p> <p>The ES& D Report provided an expert assessment of the potential impact of the proposal to the STP and concluded the proposal will not further constrain operation of the STP.</p> <p>This demonstrates that the proposal can be established without creating any further constraint for operation of the Westbury STP.</p> <p>The proposal complies with the requirements of P1.</p>
<p>C9.6.1 Lot design for subdivision</p> <p style="text-align: center;">Not applicable.</p>	

The application complies with the relevant performance criteria for the Attenuation Code.



Figure 7 - approximation of STP buffer (shown in cyan)
(source: modified from LISTmap)



Figure 8 – Westbury STP buffer (Taswater GIS system)
(source: extract from ES&D Report)

C13 Bushfire Prone Areas Code

<p>C13.2.1 This code applies to:</p> <p>(a) subdivision of land that is located within, or partially within, a bushfire-prone area; and</p> <p>(b) a use, on land that is located within, or partially within, a bushfire-prone area, that is a vulnerable use or hazardous use.</p>	<p>The site is located within the Bushfire Prone Areas Overlay under the Code.</p> <p>The application does not include subdivision, nor hazardous or vulnerable uses.</p>
--	---

Clause 7.2.1 establishes that the Code does not apply to the proposal.

Remaining Scheme Codes

The following codes were determined as not applicable to the application:

- C1.0 Signs Code
- C4.0 Electricity Transmission Infrastructure Protection Code
- C5.0 Telecommunications Code
- C6.0 Local Historic Heritage Code
- C8.0 Scenic Protection Code
- C9.0 Attenuation Code
- C10.0 Coastal Erosion Hazard Code
- C11.0 Coastal Inundation Hazard Code
- C12.0 Flood-Prone Areas Hazard Code
- C13.0 Bushfire-Prone Areas Code
- C14.0 Potentially Contaminated Land Code
- C15.0 Landslip Code, and
- C16.0 Safeguarding of Airports Code.

12.1.8 Application Documents

Planning Report – 10 x Units
111a Meander Valley Road, Westbury



Conclusion

The proposal seeks approval for 10 multiple dwellings on an existing title within an established residential area.

The site is not affected by any natural hazards and both the use and development were able to demonstrate compliance with all relevant standards from the Scheme.

Discretions were assessed against and determined to comply with the relevant performance criteria for the following standards:

12.4.1 P1 for dwelling site area requirements

12.4.3 P2 for setbacks to side and rear boundaries for units 1, 5, 6, 7, and 10;

C2.6.5 P1 for Pedestrian Access to the site;

C3.5.1 P1 for traffic movements to and from the site; and

C9.5.1 P1 for proposing sensitive use (residential) within the attenuation area to the Westbury Sewerage Treatment plant.

Expert advice was provided to support assessment against standards within the codes, from Traffic & Civil Services and ES&D respectively. .

The application has demonstrated compliance with the requirements of the Scheme.

Pursuant to clauses 6.7, 6.8 and 6.10 of the Scheme, the application can be considered for approval.

We request the application be notified and that a permit is issued in due course.



111A MEANDER VALLEY ROAD, WESTBURY

MULTIPLE DWELLING DEVELOPMENT

TRAFFIC IMPACT ASSESSMENT

MARCH 2024

Traffic Impact Assessment



111a Meander Valley Road, Westbury Multiple Dwelling Development

TRAFFIC IMPACT ASSESSMENT

- Final #4
- March 2024

Traffic & Civil Services
ABN 72617648601
1 Cooper Crescent
RIVERSIDE
Launceston TAS 7250 Australia
P: +61 3 634 8168
M: 0456 535 746
E: Richard.burk@trafficandcivil.com.au
W: www.trafficandcivil.com.au



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1. Introduction

1.1 Background

A 10*3-bedroom multiple dwelling development is proposed at the rear of 111a MVR , Westbury. A Traffic Impact Assessment (TIA) has been prepared that considers the existing roads and traffic affected, current and future traffic generation due to the proposal and the impact this will have on the adjacent road network.

This Traffic Impact Assessment (TIA) should be submitted with the development application for the proposal and has been prepared based on Department of State Growth guidelines and provide details as follows:

- Anticipated additional traffic and pedestrian movements.
- The significance of the impact of these movements on the existing road network
- Any changes required to accommodate the additional traffic.

1.2 Objectives

A Traffic Impact Assessment is a means for assisting in the planning and design of sustainable development proposals that consider:

- Safety and capacity
- Equity and social justice
- Economic efficiency and the environment and
- future development with traffic projections for 10 years

1.3 Scope of Traffic Impact Assessment (TIA)

This TIA considers in detail the impact of the proposal on MVR, Westbury.

1.4 References

- AS /NZS 2890.1- 2004 – Off-street parking
- AS /NZS 2890.6 - 2004 – Off-street parking for people with disabilities
- RTA Guide to Traffic Generating Developments – 2002
- Tasmanian Planning Scheme – Meander Valley
- Austroads Guidelines
 - Road Design Part 4A: Unsignalised & Signalised Intersections 2021
 - Traffic Management Part 6: Intersections, Interchanges & Crossings 2020.

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Traffic Impact Assessment



1.5 Statement of Qualifications and Experience

This TIA has been prepared by Richard Burk, an experienced and qualified traffic engineer in accordance with the requirements of the Department of State Growth's guidelines and Council's requirements. Richard's experience and qualifications include:

- 36 years professional experience in road and traffic engineering industry
 - Manager Traffic Engineering at the Department of State Growth until May 2017.
 - Previous National committee membership with Austroads Traffic Management Working Group and State Road Authorities Pavement Marking Working Group
- Master of Traffic, Monash University, 2004
- Post Graduate Diploma in Management, Deakin University, 1995
- Bachelor of Civil Engineering, University of Tasmania, 1987

A handwritten signature in blue ink, appearing to read 'R Burk', is positioned above the printed name.

Richard Burk

BE (Civil) M Traffic Dip Man. MIE Aust CPEng

Director Traffic and Civil Services Pty Ltd

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Traffic Impact Assessment



1.6 Glossary of Terms

AADT	Annual Average Daily Traffic - The total number of vehicles travelling in both directions passing a point in a year divided by the number of days in a year.
Acceleration Lane	An auxiliary lane used to allow vehicles to increase speed without interfering with the main traffic stream. It is often used on the departure side of intersections.
Access	The driveway by which vehicles and/or pedestrians enter and/or leave the property adjacent to a road.
ADT	Average Daily Traffic – The average 24-hour volume being the total number of vehicles travelling in both directions passing a point in a stated period divided by the stated number of days in that period.
Austrroads	The Association of Australian and New Zealand road transport and traffic authorities and includes the Australian Local Government Association.
Delay	The additional travel time experienced by a vehicle or pedestrian with reference to a base travel time (e.g. the free flow travel time).
DSG	Department of State Growth – The Tasmanian Government Department which manages the State Road Network.
GFA	Gross Floor Area
Intersection Kerb	The place at which two or more roads meet or cross. A raised border of rigid material formed at the edge of a carriageway, pavement or bridge.
km/h	Kilometres per hour
Level of Service	An index of the operational performance of traffic on a given traffic lane, carriageway or road when accommodating various traffic volumes under different combinations of operating conditions. It is usually defined in terms of the convenience of travel and safety performance.
m	Metres
Median	A strip of road, not normally intended for use by traffic, which separates carriageways for traffic in opposite directions. Usually formed by painted lines, kerbed and paved areas grassed areas, etc.
Movement	A stream of vehicles that enters from the same approach and departs from the same exit (i.e. with the same origin and destination).
Phase	The part of a signal cycle during which one or more movements receive right-of-way subject to resolution of any vehicle or pedestrian conflicts by priority rules. A phase is identified by at least one movement gaining right-of-way at the start of it and at least one movement losing right-of-way at the end of it.

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Sight Distance	The distance, measured along the road over which visibility occurs between a driver and an object or between two drivers at specific heights above the carriageway in their lane of travel.
Signal Phasing	Sequential arrangement of separately controlled groups of vehicle and pedestrian movements within a signal cycle to allow all vehicle and pedestrian movements to proceed.
SISD	Safe Intersection Sight Distance – The sight distance provides sufficient distance for a driver of a vehicle on the major road to observe a vehicle on a minor road approach moving into a collision situation and to decelerate to a stop before reaching the collision point.
Speed	Distance travelled per unit time.
85th Percentile	The speed at which 85% of car drivers will travel slower and 15% will travel faster. A control method that allows a variable sequence and variable duration of signal displays depending on vehicle and pedestrian traffic demands.
Traffic-actuated Control	A control method that allows a variable sequence and variable duration of signal displays depending on vehicle and pedestrian traffic demands.
Traffic Growth Factor	A factor used to estimate the percentage annual increase in traffic volume.
Trip	A one-way vehicular movement from one point to another excluding the return journey. Therefore, a vehicle entering and leaving a land use is counted as two trips. (RTA Guide to Traffic generating Developments).
Turning Movement	The number of vehicles observed to make a particular turning movement (left or right turn, or through movement) at an intersection over a specified period.
Turning Movement Count	A traffic count at an intersection during which all turning movements are recorded.
Vehicle Actuated Traffic Signals	Traffic signals in which the phasing varies in accordance with the detected presence of vehicles on the signal approaches.
vpd	vehicles per day – The number of vehicles travelling in both directions passing a point during a day from midnight to midnight.
vph	vehicles per hour – The number of vehicles travelling in both directions passing a point during an hour.

1.7 Site specific glossary of Terms

MVR	Meander Valley Road
-----	---------------------

Traffic Impact Assessment



2. Site Description

The development site at #111a MVR is shown highlighted in Figure 1. The property is some 5,900m² in area. The existing access to 111a MVR is within the Westbury 50km/h zone.

The property is some 1.2km South of the Bass Hwy / Birralee Road interchange by road.

The development site is flat and cleared land suitable for residential use. Figures 1 and 2 show the site location and access.

Figure 1 - Location of proposed development



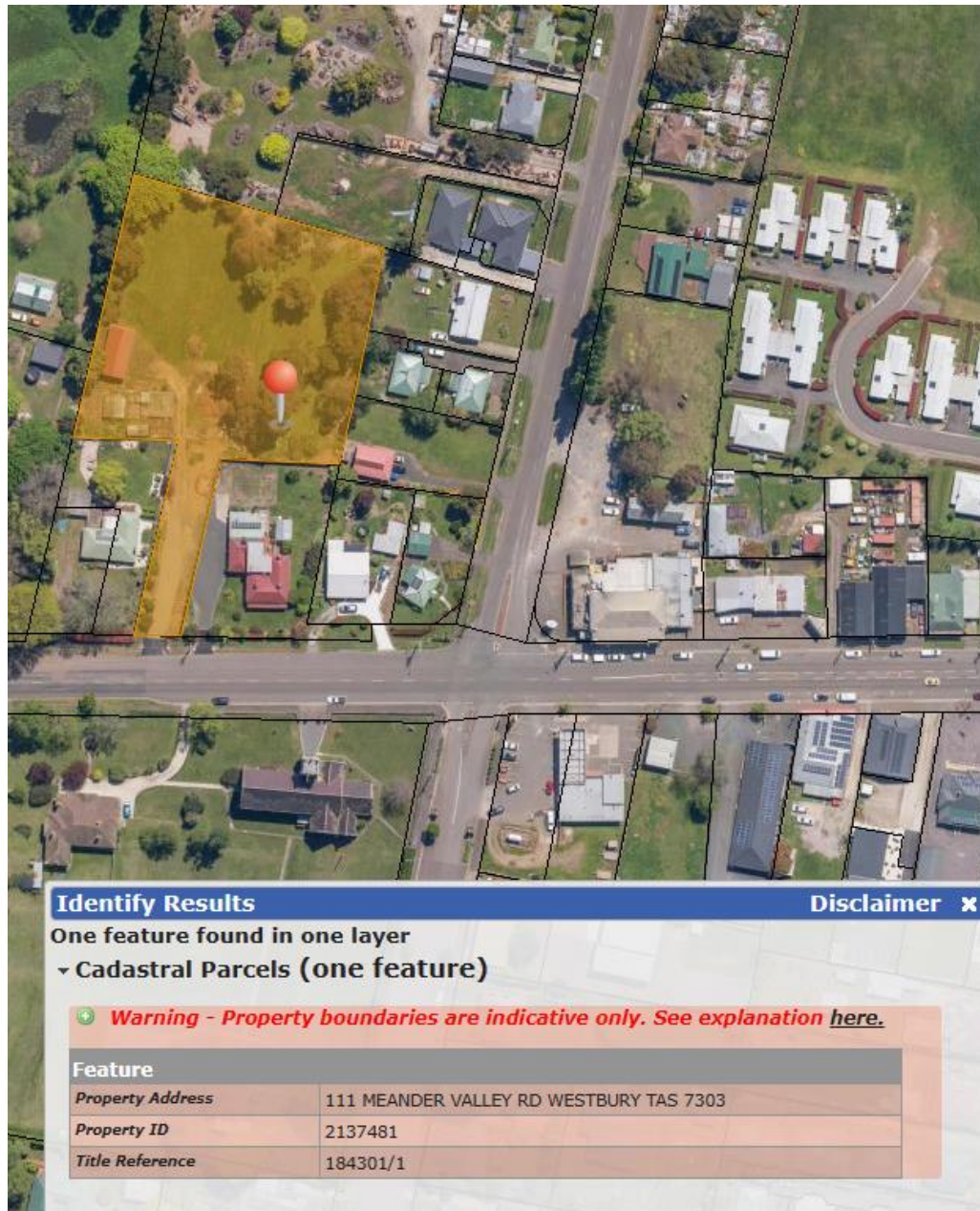
Source: LISTmap, DPIPW

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Traffic Impact Assessment



Figure 2 - Location of proposed development



Source: LISTmap, DPIPWE

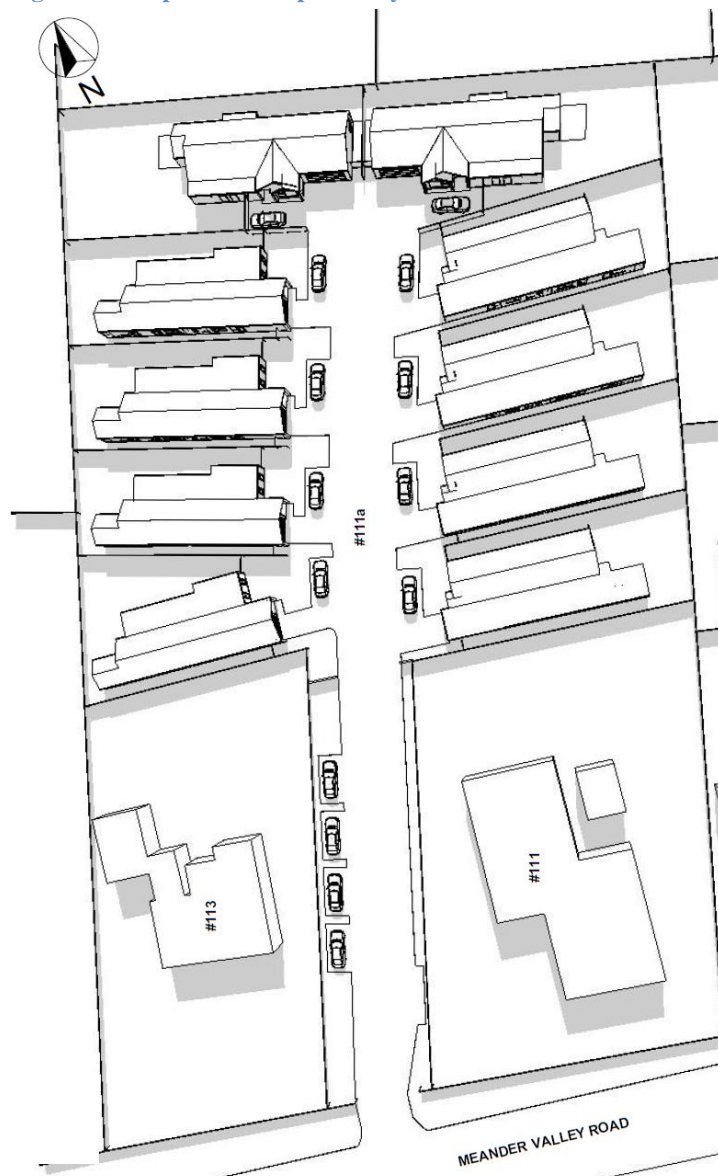


3. Proposed Development

3.1 Description of Proposed Development

The proposal is to develop 111a MVR with 10*3-bedroom dwellings. For each dwelling 2 resident parking spaces are proposed. 4 visitor parking spaces are included including a space for motorcycle parking, see Figure 3. See Appendix C for design plans.

Figure 3 – Proposed development layout at 111a MVR



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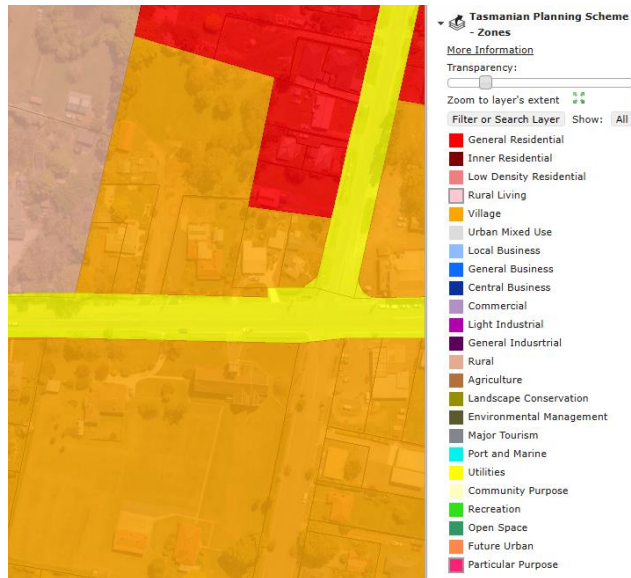
Traffic Impact Assessment



3.2 Council Planning Scheme

The development involves land currently zoned in accordance with the Tasmanian Planning Scheme - Meander Valley as shown in Figure 4.

Figure 4 – 111a Meander Valley Road is zoned Village.



Source: LISTmap, DPIPWE

3.3 Local Road Network Objectives

The Meander Valley Community Strategic Plan 2014-2024 is a ten-year plan that outlines the future strategic directions for the Meander Valley Council including future direction for planned infrastructure services. Strategic infrastructure and transport network outcomes contained in the plan include:

- The future of Meander Valley infrastructure assets is assured through affordable planned maintenance and renewal strategies.
- The Meander Valley transport network meets the present and future needs of the community and business.

3.4 State Road Network Objectives

DSG manage the state road network and current objectives are:

- Maintain traffic safety and transport efficiency.



4. Existing Conditions

4.1 Transport Network

The local transport system consists of the MVR, William Street and nearby Council Roads. William Street connects MVR with the Bass Hwy via the Birrale Interchange.

4.1.1 Meander Valley Road

MVR is a Category 5 Other Road in the state road hierarchy and carries some 1,730 vpd (2022) West of William Street at Westbury. MVR in the vicinity of the development site is not classified as *Limited Access* and is not part of the Tasmanian 26m B Double Network West of William Street, see Appendix A.

MVR is a two-lane two-way road with parking lanes and footpaths either side through the Westbury Township which has a 50km/h speed limit encompassing the access to 111a MVR. The road width is typically 14.2m wide from face to face of kerb, which narrows at the access to 111a MVR.

4.1.2 William Street

William Street is a Collector Road in the Council Road Hierarchy and is part of the Tasmanian 26m B Double Network, see Appendix A. The road has a posted 50km/h Speed Limit within Westbury.

The road has a typical sealed width of 7.5m within Westbury with footpath along the West side of the road.

4.1.3 Meander Valley Road / William Street Intersection

MVR is the priority road through this at grade intersection and is unchannelised, see Figure 5.

The intersection is part of the Tasman 26m B Double network and within the posted Westbury 50km/h zone.

This intersection operates at LOS A as traffic activity on all approaches is low i.e. < 2,000 vpd.

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Traffic Impact Assessment



Figure 5 – Aerial view of MVR / William Street Intersection



Source: LISTmap, DPIPWE

4.1.4 111a Meander Valley Road Access

The access to 111a MVR caters for all turning movements with layout shown in Figure 6. Figures 7 to 14 show the access layout in more detail.

Figure 6 – Aerial view of 111a MVR Access



Source: LISTmap, DPIPWE

12.1.8 Application Documents

Traffic Impact Assessment



Figure 7 – Elevation view of access to 111a MVR



Figure 8 – Looking right along MVR from existing access



Sight distance
right is > 150m.

Figure 9 – Looking left along MVR from existing access



Sight distance
left is 250m.

12.1.8 Application Documents

Traffic Impact Assessment



Figure 10 – MVR Eastern approach to 111a MVR access



**MVR Westbound Lane
narrows from 6.8m
to 5.0m opposite the
entrance to 111a MVR.**

Figure 11 – MVR Eastern approach at 111a MVR access



Figure 12 – MVR Western approach to 111a MVR



12.1.8 Application Documents

Traffic Impact Assessment



Figure 13 – 111a MVR driveway approach to MVR



Figure 14 – Side elevation of 111a MVR driveway



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4.2 Traffic Activity

4.2.1 Meander Valley Road

Interpolation of historic traffic data from the DSG count site 370 West of Lonsdale Promenade provides evidence of a 1.0% compound annual growth rate West of Westbury in the vicinity of 111a MVR, see Appendix A. Further development from rezoning and subdivision development is expected to continue over the next 10 years which will see the 1.0% growth rate at least maintained.

Average annual daily traffic (AADT) on the MVR at the western edge of Westbury is estimated by interpolation as follows:

- 1,592 vpd (2014)
- 1,730 vpd (2022)
- 1,930 vpd (2033)

4.2.2 William Street

Average annual daily traffic (AADT) on William Street at Westbury is estimated at 1,280 vpd (2020) from TCS traffic count data.

4.2.3 # 111 MVR

The existing property is undeveloped and generates 0 vpd.

4.3 Sight Distance (Figure 15)

Figure 15 – Sight Distance Compliance

Junction Major Rd - Minor Rd	Speed Limit (km/h)	Speed Environment (km/h)	Road frontage sight distance			
			Austroads SISD (m)	Available		AS/NZS 2890.1 SSD (m)
				Left (m)	Right (m)	
111a MVR	50	50	97	250	> 150	45

Austroads Compliant

AS/NZS 2890.1 Compliant

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Traffic Impact Assessment



4.4 Crash History

The DSG is supplied with reported crashes by Tasmania Police. DSG maintains a database from the crash reports which is used to monitor road safety, identify problem areas and develop improvement schemes.

The 5-year reported crash history for MVR(William St to Lonsdale Pr.) is summarised in Figures 16 and 17. The crash history shows no crash propensity on MVR in the vicinity of the proposal.

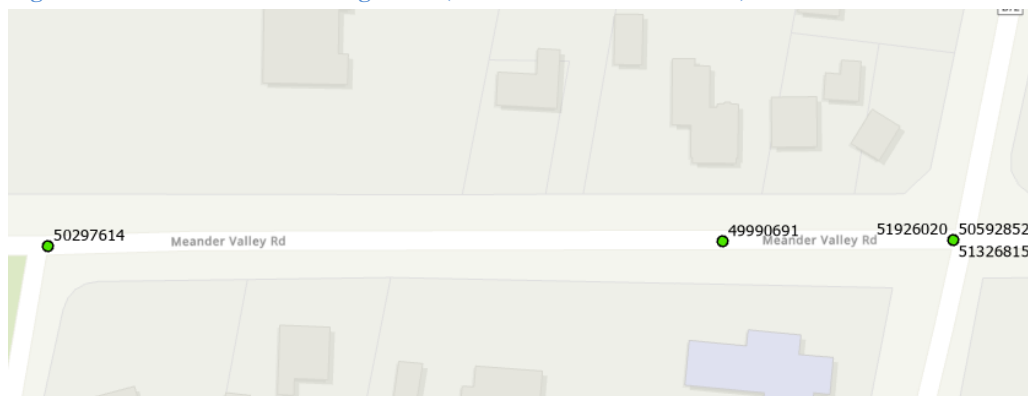
Figure 16 – 5 Year Reported Crash History on MVR (William St to Lonsdale Pr.)

Crash Id	Crash Type	Description	Date	Time	Severity	Light	Location
49990691	LV	167 - Animal (not ridden)	07-MAY-2019	22:30	PDO	Night	MVR
50297614	LV; HV	132 - Veh. in same lane/ right rear	18-OCT-2019	15:45	PDO	Day	MVR / Lonsdale Pr. Jcn.
50592852	MC	184 - Out of control on c/way	08-JAN-2020	09:00	Serious	Day	MVR / William St.
51326815	LV; LV	110 - Cross traffic	27-JUL-2021	09:20	First Aid	Day	MVR / William St.
51926020	LV	189 - Other curve	12-MAR-2023	16:40	First Aid	Day	MVR / William St.

LV | Light Vehicle
 HV | Heavy Vehicle
 MC | Motorcycle

PDO | Property Damage Only

Figure 17 - Crash Locations along MVR (William St to Lonsdale Pr.)



4.5 Road Safety

4.5.1 Road Safety Review

It was observed that the West bound lane of MVR narrows from 6.8m to 5m opposite 111a MVR access, see Figure 10. There is risk of through traffic conflict with the kerb or propped right turner to 111a MVR.

12.1.8 Application Documents

Traffic Impact Assessment



4.5.2 Safe Systems Assessment

MVR at 111a MVR has been assessed in accordance with the Austroads Safe System assessment framework. This framework involves consideration of exposure, likelihood and severity to yield a risk framework score. High risk crash types and vulnerable road user crash types are assessed and aggregated to provide an overall crash risk. Crash risk is considered in terms of three components:

- Exposure (is low where low numbers of through and turning traffic) i.e. 1 out of 4
- Likelihood (is low where the infrastructure standard is high) i.e. 1 out of 4
- Severity (is low where the speed environment is low) i.e. 1 out of 4

The Austroads Safe System Assessment process enables the relative crash risk of an intersection or road link to be assessed. Vulnerable Road users are considered along with the most common crash types.

The crash risk score indicates how well the infrastructure satisfies the *safe system objective which is for a forgiving road system where crashes do not result in death or serious injury.*

From safe system assessment the overall situation has been determined to be well aligned with the safe system objective with a crash risk score of 27/448 which is a very low crash risk, see Figure 18 and Appendix B for details.

Figure 18 – Austroads Safe System Assessment alignment between crash score and risk





5. Traffic Generation and Assignment

This section of the report describes how traffic generated by the proposal is distributed within the adjacent road network now and in ten years (2033).

5.1 Traffic Growth

Highway traffic growth is projected to increase at 1.0 % compound annual growth.

5.2 Trip Generation

The applicable traffic generation rates for the proposal are as follows for medium density residential dwelling development:

- For 2 or 3-bedroom town houses 5-6.5 trips /day and 0.5 – 0.65 trips / peak hour

This suggests the proposal which involves 10 *3-bedroom dwellings will contribute 66 trips per day with peak hour traffic contribution of up to 6 trips per hour.

This is consistent with Traffic Generation Rates for Key Land Uses sourced from the RTA Guide to Traffic Generating Developments under section 1.4 References.

5.3 Trip Assignment

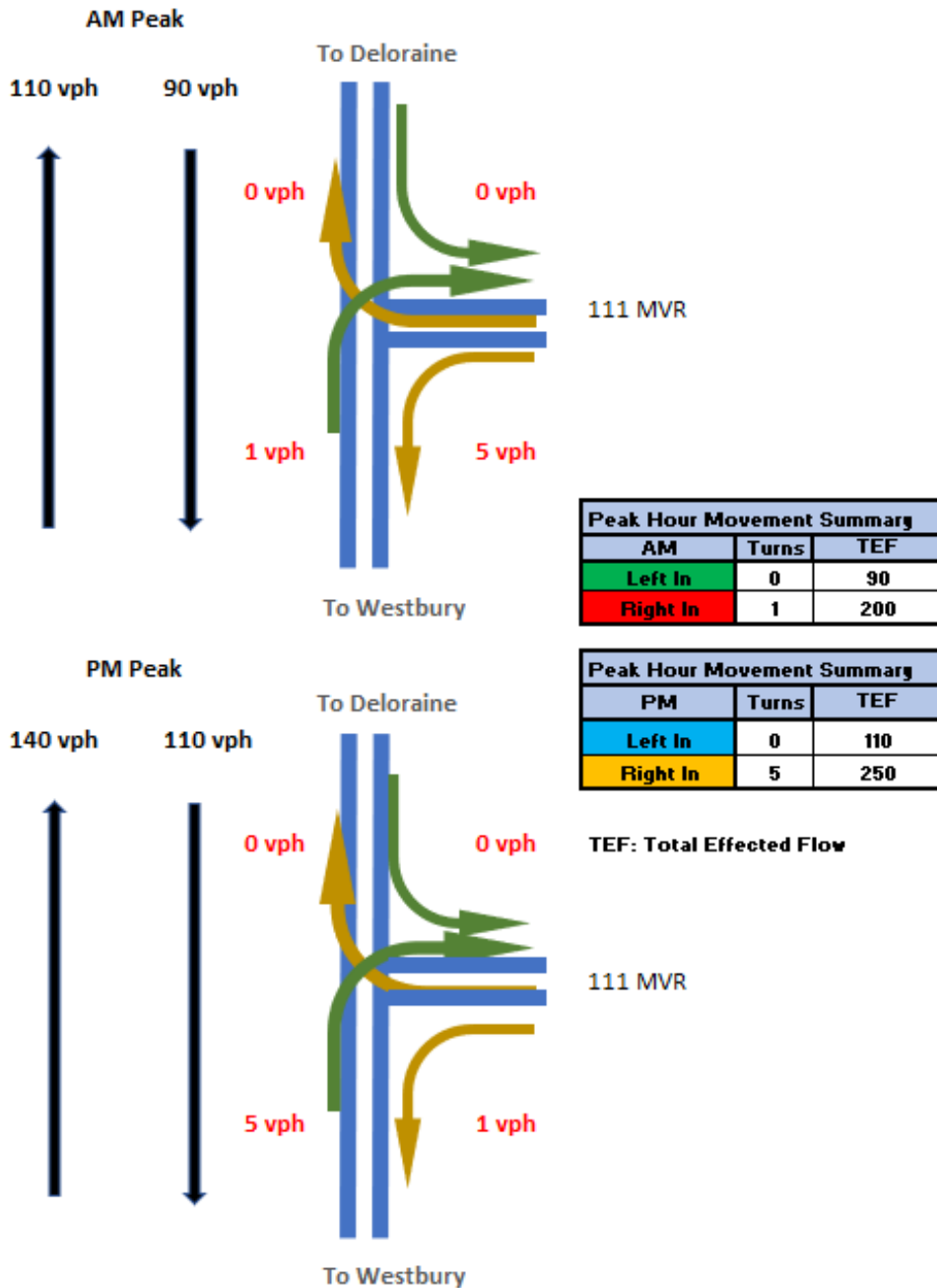
Figure 19 shows the projected traffic at the 111a MVR access in 2033.

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Traffic Impact Assessment



Figure 19 – 2033 Peak traffic activity at 111a MVR access





6. Impact on Road Network

6.1 Traffic impact

6.1.1 Meander Valley Road

By 2033 the MVR is estimated to have an AADT of 1,930 vpd with peak hour traffic:

- AM Peak 200vph in total with 90 vph East bound.
- PM Peak 250 vph in total with 110 vph West bound.

The increased traffic due to the proposal is estimated at 66 vpd is minimal and can be easily absorbed by MVR. The proposal has negligible impact on the operation of the MVR.

6.1.2 Meander Valley Road / William Street Intersection

This intersection has a simple at grade layout with no delineation of turn lanes on MVR. The traffic activity at the intersection is very low i.e less than 2,000vpd on MVR and less than 2,000vpd on William St.

The existing intersection is estimated to be operating at LOSA and the increase in traffic due to the proposal will have negligible impact on operation of the intersection which is estimated to operate at LOSA with the proposal by 2033.

6.1.3 111a MVR access

Currently the property is undeveloped and is not generating any traffic. The existing access is estimated to operate at LOS A with the proposal.

6.2 Junction Warrant

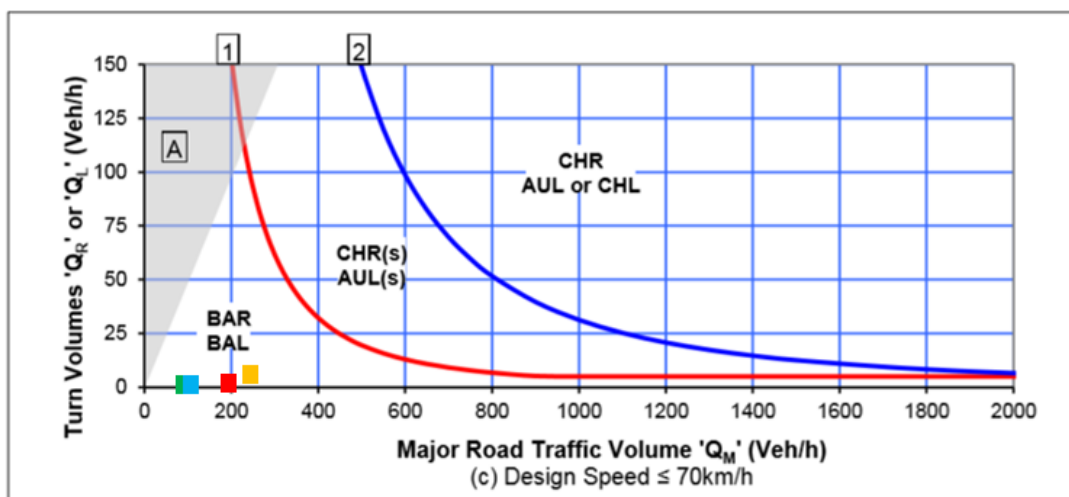
Junction layout requirements are based on Austroads Guidelines which take into account the road standard, speed limit and volume of through & turning traffic. Figure 20 demonstrates that technically a BAR right run facility is warranted for the right turn into 111a MVR.

12.1.8 Application Documents

Traffic Impact Assessment



Figure 20 – Austroads junction warrant for 111a MVR access 2033



Peak Hour Movement Summary		
AM	Turns	TEF
Left In	0	90
Right In	1	200

Peak Hour Movement Summary		
PM	Turns	TEF
Left In	0	110
Right In	5	250

TEF: Total Effected Flow

Technically the existing access to 111a MVR does not meet the BAR requirement for 6.5m of trafficable road width in the MVR West bound direction opposite the access.

The current West bound lane narrows from 6.8m to 5m just West of the access with the West bound lane some 6m wide opposite the access which leaves some 3m to the left of a propped right turner for a west bound through vehicle to pass.

Accordingly the current layout is partially BAR with provision of No Stopping signs on the West Bound kerb to maintain uninterrupted West bound through flow, see Figure 21. A partial BAR is considered acceptable as through and turning traffic volumes are low and the speed environment is low.

12.1.8 Application Documents

Traffic Impact Assessment



Figure 21 – Proposed access to 111a MVR



The proposed No Stopping zone is 38m in length and reduces on street parking by 5 car parking spaces however these parking spaces are narrow and exposed to side swipes from through traffic due to the narrowed road width.

The on-street parking East of the No Stopping zone can accommodate some 10 car parking spaces and is not affected.

The nearby church also has access to on street parking in William Street.

Accordingly, the reduced on-street parking is considered reasonable and does not unreasonably disadvantage the church or neighbouring properties.

The proposed No Stopping sign installation may be installed by Meander Valley Council having delegation from the Transport Commissioner to install parking control signage on State Roads where the speed limit is 60km/h.

12.1.8 Application Documents

Traffic Impact Assessment



6.3 Impacts on road users.

The proposal will impact road users as follows:

- Cars – negligible impact
- Trucks - negligible impact
- Public transport - negligible impact
- Pedestrians - negligible impact
- Cyclists - negligible impact
- Motorcyclists - negligible impact

6.4 Other impacts

6.4.1 Services

Traffic generated by the proposal will not affect above ground services.

6.4.2 Environmental

No applicable environmental impacts were identified in relation to:

- Noise, Vibration and Visual Impact
- Community Severance and Pedestrian Amenity
- Hazardous Loads
- Air Pollution, Dust and Dirt and Ecological Impacts
- Heritage and Conservation values

6.4.3 Street Lighting and Furniture

MVR has street lighting and does not require more roadside furniture such a bus shelters, seats, direction signs, cycle racks, landscaping, and fencing.



7. Tas. Planning Scheme – Meander Valley

Parking and Sustainable Transport Code C2

C2.5.1 Car parking numbers

Acceptable Solution A1: 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 onsite 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 onsite car parking is required; or
 - ii. The number of onsite 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:

Table C2.1 requires for Residential use:

- 2 spaces per 2 or more-bedroom dwelling
- 1 dedicated space per 4 dwellings

The proposal is for 10 *3-bedroom dwellings so Table C2.1 requires:

- 20 resident car parking spaces, 22 are proposed.
- 3 visitor car parking space, 4 are proposed.

Proposal meets the Table C2.1 requirement, see Figure 3. **A1 is satisfied.**

C2.5.2 Bicycle parking numbers

Acceptable Solution A1: Bicycle parking spaces must:

- (a) Be provided on the site or within 50m of the site, and
- (b) Be no less than the number specified in Table C2.1.

Table C2.1 has no requirement for residential use.



C2.5.3 Motorcycle parking numbers

Acceptable Solution A1: *The number of on-site motorcycle parking spaces for all uses must:*

- (a) Be no less than the number specified in Table C2.4. and*
- (b) if an existing use or development is extended or intensified, the number of on-site motorcycle parking spaces must be based on the proposed extension or intensification, provided the existing number of motorcycle parking spaces is maintained.*

Table C2.4 has no requirement where the number of car parking spaces required is 0-20. A total of 23 car parking spaces are proposed so 1 motorcycle parking space is required.

Proposal includes a motorcycling parking space. **A1 is satisfied.**

C2.5.4 Loading bays

Acceptable Solution A1: *A loading bay must be provided for uses with a floor area of more than 1,000m² in a single occupancy.*

A1 is not applicable. The proposed dwellings have floor area < 1,000m².

C2.6.1 Construction of parking areas

Acceptable Solution A1: *All parking, access ways, manoeuvring and circulation spaces must:*

- (a) be constructed with a durable all-weather pavement,*
- (b) be drained to the public stormwater system, or contain stormwater on the site; and*
- (c) excluding all uses in the Rural Zone, Agricultural Zone, Landscape Conservation Zone, Environmental Management Zone, Recreation Zone and Public Open Space Zone, be surfaced by a spray seal, asphalt, concrete, pavers or equivalent material to restrict abrasion from traffic and minimise entry of water to the pavement.*

The proposal involves a combination of asphalted pavement and concrete road surfaces with drainage to the public stormwater system, see separate stormwater report prepared for the development.

A1 is satisfied.

12.1.8 Application Documents

Traffic Impact Assessment



C2.6.2 Design and layout of parking areas

Acceptable Solution A1.1: *Parking, accessways, manoeuvring and circulation spaces must All parking, access ways, manoeuvring and circulation spaces must either:*

(a) *comply with the following:*

- i. *have a gradient in accordance with AS 2890 Parking facilities, Parts 1-6. Satisfied.*
- ii. *Provide for vehicles to enter and exit the site in a forward direction where providing for more than 4 parking spaces. Satisfied*
- iii. *Have an access width not less than the requirements in Table C2.2. For 23 car parking spaces the Table C2.2 requirement for driveway width us 5.5m. The proposed driveway width is 7m at the access culvert and throughout the property and therefore compliant.*
- iv. *Have car parking space dimensions which satisfy the requirements in Table C2.3.*
Proposed parking dimensions are as follows:
 - Single Garage – Units 1- 4 & 7 -10 have 2.8m wide spaces by 6.2 m long.
 - Double Garage – Units 5 & 6 have 2.8m wide spaces by 6.2 m long.
 - Driveway parallel parking – 3.0m wide spaces by effectively 6.7m long
 - Visitor parallel parking – 3.0m wide spaces by 7.0m long

Satisfied, Table C2.3 requires minimum 2.6m wide by 5.4m long spaces for 90-degree parking and 2.3m wide by 6.7m long spaces for parallel parking.

- 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.*

The following manoeuvre spaces are required:

- 90-degree parking spaces 2.6m wide require 6.4m of manoeuvre space.
- 90-degree parking spaces 3.4m wide require 4.8m of manoeuvre space.

Available manoeuvre space between parking space and the driveway is > 8m and the outdoor parking spaces have width 3m and length 6m.

Appendix F shows various parking entry and exit paths for an Austroads B 99 car demonstrating adequate manoeuvre space is available for the most demanding movements and as such there is no need to every movement for each unit. Note that the two-way driveway is 8m wide with separate indented parallel parking.

Table C2.3 is satisfied.

- vi. *Have a vertical clearance of not less than 2.1 metres above the parking surface level, Satisfied.*
- vii. *Excluding a single dwelling, be delineated by line marking or other clear physical means. Satisfied with garage and carport parking spaces.*

12.1.8 Application Documents

Traffic Impact Assessment



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

A1.1 is satisfied.

Acceptable Solution A1.2: Parking spaces provided for use by persons with a disability must satisfy the following:

- (a) Be located as close as practical to the main entry point to the building.
- (b) be incorporated into the overall car park design.
- (c) be designed and constructed in accordance with Australian/ New Zealand Standard AS/NZS 2890.6-2009 Parking facilities - Off-street parking for people with disabilities.

No requirement for residential use.

C2.6.3 Number of accesses for vehicles

Acceptable Solution A1: The number of accesses provided for each frontage must:

- (a) be no more than 1; or
 - (b) no more than the existing number of accesses
- whichever is the greater.

A single two-way access is proposed. **A1 is satisfied.**

C2.6.5 Pedestrian access

Acceptable Solution A1.1

Applies to uses that require 10 or more car parking space must:

- (a) have a 1m wide footpath that is separated from the access ways or parking aisles, excluding where crossing access ways or parking aisles, by:
- i. a horizontal distance of 2.5m between the edge of the footpath and the access way or parking aisle; or
 - ii. protective devices such as bollards, guard rails or planters between the footpath and the access way or parking aisle; and
- (b) be signed & line marked at points where pedestrians cross access ways or parking aisles.

26 car parking spaces are proposed without footpaths. **A1.1 is not satisfied.**

12.1.8 Application Documents

Traffic Impact Assessment



Performance Criteria P1

Safe and convenient pedestrian access must be provided within parking areas, regarding:

- (a) the characteristics of the site.*
- (b) the nature of the use*
- (c) the number of parking spaces*
- (d) the frequency of vehicle movements*
- (e) the needs of persons with a disability*
- (f) the location and number of footpath crossings*
- (g) vehicle and pedestrian traffic safety*
- (h) the location of any access ways or parking aisles*
- (i) any protective devices proposed for pedestrian safety.*

The use is residential in a low-speed environment < 30km/h.

Adequate off-street parking is proposed.

Vehicle activity is low with peak vehicle movements at some 6 vph at the MVR access.

Sealed surfaces are provided in all areas conducive to safe pedestrian use.

From Austroads Safe System Assessment crash risk is considered very low:

- Crash exposure is low as traffic activity levels are low and pedestrian activity in the vicinity of vehicles is low i.e low crash exposure.
- Crash likelihood is low as Australian Standard off street parking is provided, sight lines are open and pedestrian activity and parking areas are reasonable separate and at low activity levels.
- Crash severity is low as the vehicle speed environment is low < 30km/h.

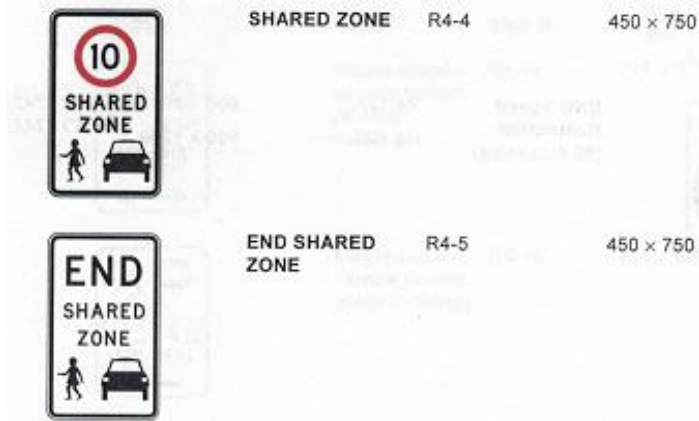
Formal signage of shared zones is a recognised pedestrian safety improvement where there is a mix of pedestrian, local access traffic only and situation where this is no kerb separation between pedestrians and vehicles. This is because Shared Zone signage includes provision of a regulator speed limit to keep speed to an appropriate level. In the case of the proposed driveway a 10 km/hr speed limit is considered normal. The proposed development is in keeping with this kind of situation. Figure 22 shows Shared Zone signage standards.

12.1.8 Application Documents

Traffic Impact Assessment



Figure 22– Shared Zone signage standards, AS1742.1-2014



Accordingly, TCS recommends acceptance of the proposal with provision of 10km/hr Shared and End Shared Zone signage at the entry and exit to the development to limit speeds to a safe level. **P1 is satisfied.**

C2.6.6 Loading bays

Acceptable Solution A1: The area and dimensions of loading bays and access way areas must be designed in accordance with Australian Standard AS 2890.2-2002, Parking facilities, Part 2: Offstreet commercial vehicle facilities, for the type of vehicles likely to use the site.

A1 is not applicable.

Acceptable Solution A2: The type of commercial vehicles likely to use the site must be able to enter, park and exit the site in a forward direction in accordance with Australian Standard AS 2890.2-2002, Parking facilities, Part 2: Offstreet commercial vehicle facilities.

An 8.8m medium rigid truck (Garbage or Firefighting truck) can reverse into the driveway and exit onto Meander Valley Road in a forward direction, see Appendix E. **A2 is satisfied.**

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Traffic Impact Assessment



Road and Railway Assets Code C3

C3.5.1 Traffic generation at a vehicle crossing, level crossing or new junction

Acceptable Solution A1.1 – For a category 1 road or a limited access road, vehicular traffic to and from the site will not require:

- (a) A new junction
- (b) A new vehicle crossing.
- (c) A new level crossing.

Not applicable as the roads are not Category 1.

Acceptable Solution A1.2 – For a road, excluding a Category 1 road or a limited access road, written consent for a new junction, vehicle crossing, or level crossing to serve the use and development has been issued by the road authority.

A1.2 is not satisfied as no written consent has been issued by the road authority, see response to Performance Criteria P1.

Acceptable Solution A1.3 – For rail network, written consent for a new private level crossing to serve the use & development has been issued by the rail authority. **Not Applicable.**

Acceptable solution A1.4: Vehicular traffic to and from the site, using and existing vehicle crossing or private level crossing will not increase by more than:

- (a) The amounts in Table C3.1
- (b) Allowed by a licence issued under Part IVA of the Roads and Jetties Act 1935 in respect to a limited access road; and

Currently the property generates no traffic. The proposal is estimated to generate 66 vpd i.e a 66 vpd increase i.e more than 10vpd on a major road (Meander Valley Road) for vehicles up to 5.5m in length as per Table C3.1. **A1.4 is not satisfied.**

Performance Criteria P1: Vehicular traffic to and from the site must minimise any adverse effects on the safety of a junction, vehicle crossing or level crossing or safety or efficiency of the road or rail network, having regard to:

- (a) any increase in traffic caused by the use.
- (b) the nature of the traffic generated by the use.
- (c) the nature of the road.
- (d) the speed limit and traffic flow of the road.
- (e) any alternative access to a road.
- (f) the need for the use.
- (g) any traffic impact assessment; and
- (h) any advice received from the rail or road authority.

12.1.8 Application Documents

Traffic Impact Assessment



- (a) The increase in traffic due to the proposal is 66vpd and the MVR has an estimated AADT of 1,930 vpd (2033). The traffic activity on the MVR is low and the road is easily able to cope with the increase and estimated to continue to operate at LOS A.
- (b) The nature of the traffic generated by the use will be light vehicles.
- (c) The MVR is a Category 5 Other Road in the State Road Hierarchy so the proposed increase in traffic activity is feasible and well within the capacity of the road.
- (d) The existing access to 111a MVR is within the 50km/h zone encompassing Westbury CBD and the speed environment is assessed as similar and suitable for the proposal.
- (e) The existing access to 111a MVR is considered suitable in terms of width, layout, drainage and standard for the proposal.
- (f) The need for the use is based on commercial rationale.
- (g) This assessment identifies no reason to disallow the proposal due to traffic impacts.
- (h) No rail or road infrastructure is disaffected by the proposal, see Appendix D.

In summary there are no traffic safety or capacity issues due to the proposal. **P1 is satisfied.**

Acceptable solution A1.5: Vehicular traffic must be able to enter and leave a major road in a forward direction. A1.5 is satisfied.

C3.6.1 Habitable buildings for sensitive uses within a road or railway attenuation area

Not applicable as the proposal does not involve sensitive uses within a road or railway attenuation area.

C3.7.1 Subdivision for sensitive uses within a road or railway attenuation area

Not applicable as no subdivision is proposed within a road or railway attenuation area.



8. Department of State Growth requirements

Proposals involving accesses within a State Road reservation require DSG consideration as the road owner. The following DSG involvements may be required:

8.1 DSG review of TIAs

These reviews are required to:

- consider proposals and whether the TIA prepared satisfies DSG requirements.
- resolve any issues so the TIA can be finalised.
- enable the TIA endorsement provided by DSG to be communicated to Council as part of the Development application process.

These reviews are usually arranged by the TIA author. The email address for submissions is:

Development@stategrowth.tas.gov.au

8.2 Crown Landowner Consent

This is to provide DSG to opportunity to check alignment of proposals with DSG objectives for the road. If the proposal aligns with DSG objectives Crown Land Consent is issued by DSG. Crown Landowner Consent is required where there is a proposed change in use of property adjacent to a state road. The website for Crown Landowner Consent is:

https://www.transport.tas.gov.au/road/permits/crown_landowner_consent/

8.3 Access Works Permits

Developers must obtain an access works permit from DSG for proposed work within a state road reservation. Applications need to include:

- suitably design plans detailing the proposal and any services affected.
- relevant design calculations for stormwater management and pavement design
- a traffic impact assessment

The website for access works permit applications is:

<https://www.transport.tas.gov.au/road/permits/road-access>

For the proposal considered in this TIA DSG requirements are:

- Crown Land Consent
- Access Works Permit to install No Stopping signs , see Figure 21.
- Apply for Access Licence update to reflect change in use, see Appendix D.

DSG advice of acceptance of this TIA is attached in Appendix D.



9. Recommendations and Conclusions

This traffic impact assessment has been prepared to assess the proposed development of 10* 3-bedroom dwellings at 111a MVR, Westbury. The assessment has reviewed the existing road conditions, road safety, reported crash history, Austroads junction guidelines and compliance with the Tasmanian Planning Scheme.

The traffic volume on the MVR is currently in the order of 1,730 vpd (2023) and projected to increase to 1,930 vpd by 2033 assuming continued growth continues at the historic rate of 1.0% pa at this location over the last 18 years. It is estimated the proposal will increase traffic generated at the property from 0 to 66 vpd once fully developed. This increase in traffic is moderate and will have a negligible impact on the traffic safety and transport efficiency of MVR.

Evidence and justification are provided to demonstrate that the proposal satisfies Parking & Sustainable Transport Code C2 and Road & Railway Assets Code C3 requirements of the Tasmanian Planning Scheme – Meander Valley.

Advice of DSG acceptance of this TIA is attached in Appendix D.

DSG requirements:

- Crown Landowner Consent, see the following link.
https://www.transport.tas.gov.au/road/permits/crown_landowner_consent
- A DSG Access Works Permit is necessary to install No Stopping (R5-35) signs, see Figure 21.
- Apply for Access Licence update to reflect change in use, see Appendix D.

Recommendations

- *Install No Stopping (R5-35) signs along the West side of MVR opposite the driveway to 111a MVR, see Figure 21.*
- *Install 10km/h Shared zone signs on the driveway for traffic entering 111a MVR with End Shared Zone signs on the back side for traffic exiting #111a MVR, see Figure 22 for sign details.*

Overall, it has been concluded that the proposed development will not create any traffic issues and MVR traffic safety and transport efficiency will not be disaffected.

Based on the finding of this report the proposed development is supported on traffic grounds.

12.1.8 Application Documents

Traffic Impact Assessment

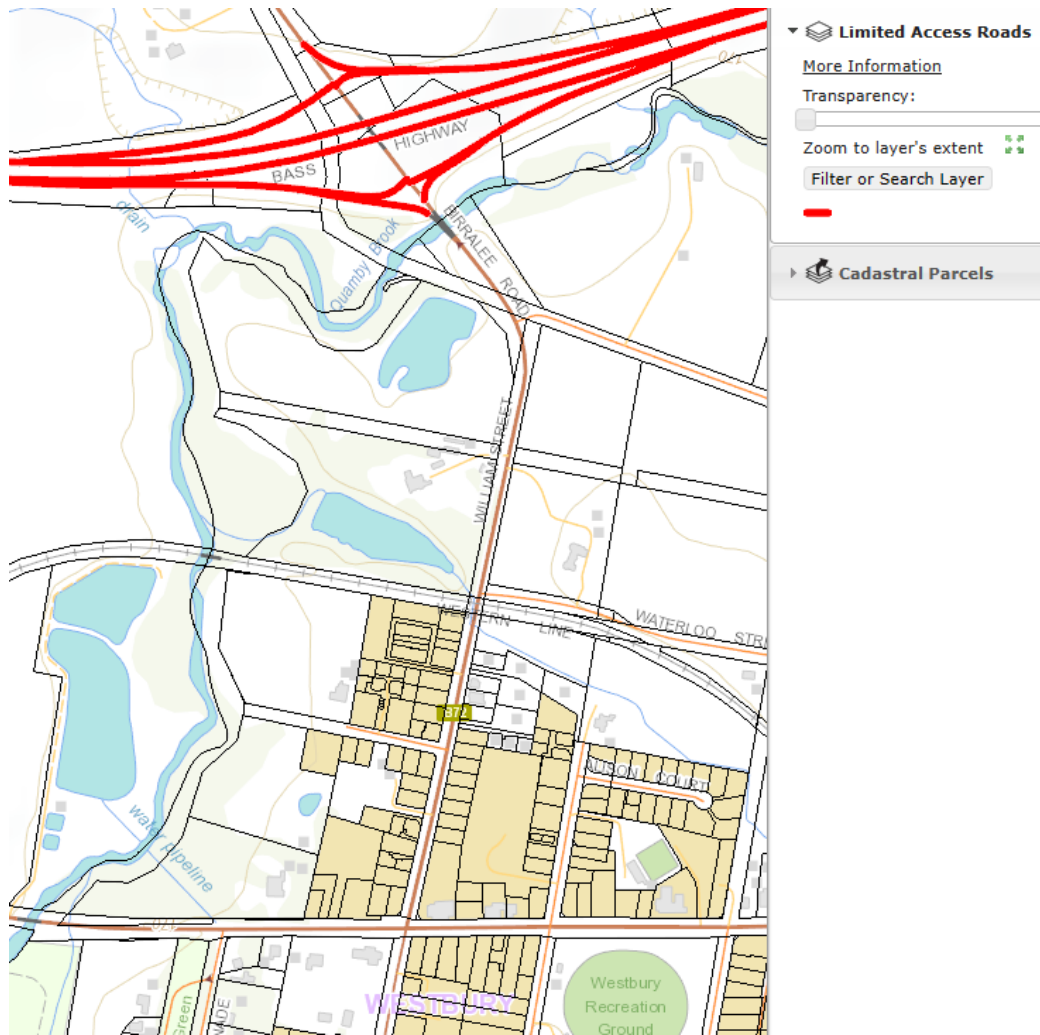


Appendices

Traffic Impact Assessment



Appendix A – Meander Valley Road Information Limited Access Restrictions

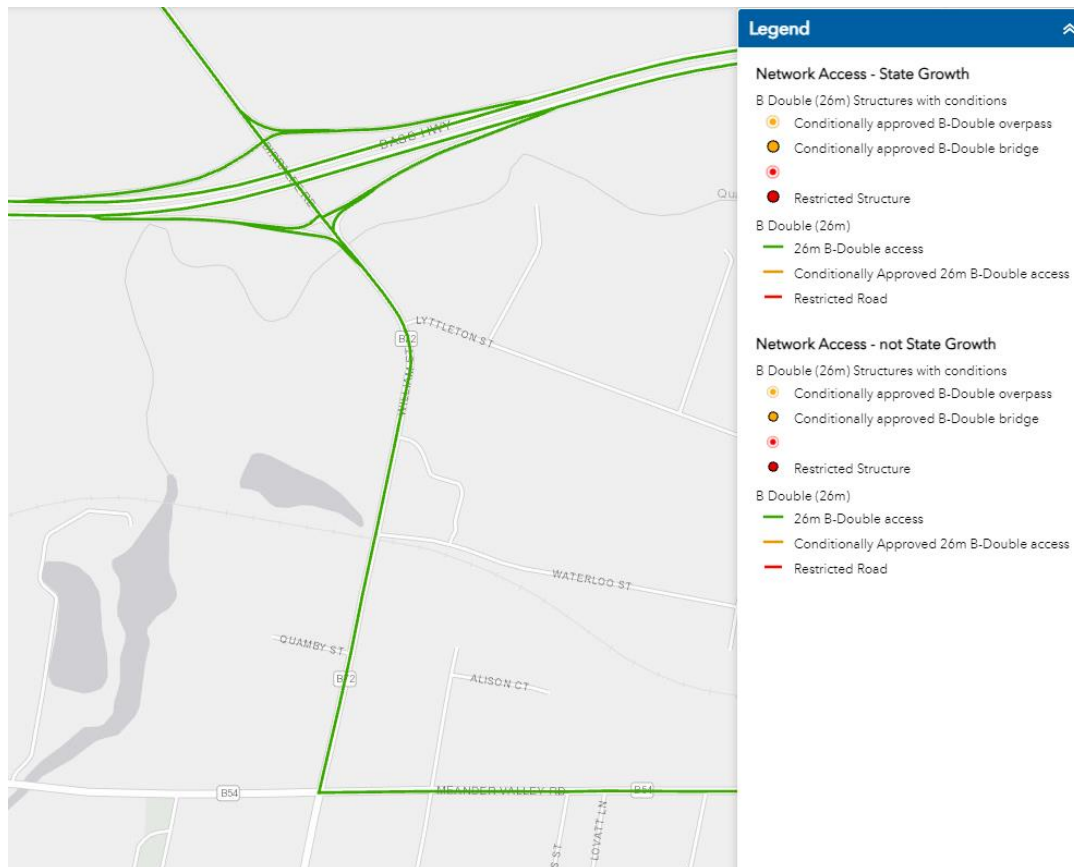


12.1.8 Application Documents

Traffic Impact Assessment



26m B Double Access



Traffic Impact Assessment



Meander Valley Road Traffic Data

370 m West of Lonsdale Promenade, Westbury

🌀 Site 0000A2025200

A2025200

Description: Meander Valley Secondary Road 370m W Of Lonsdale Promenade
City: Westbury
Route number: A2025

Site Data

100 km/h

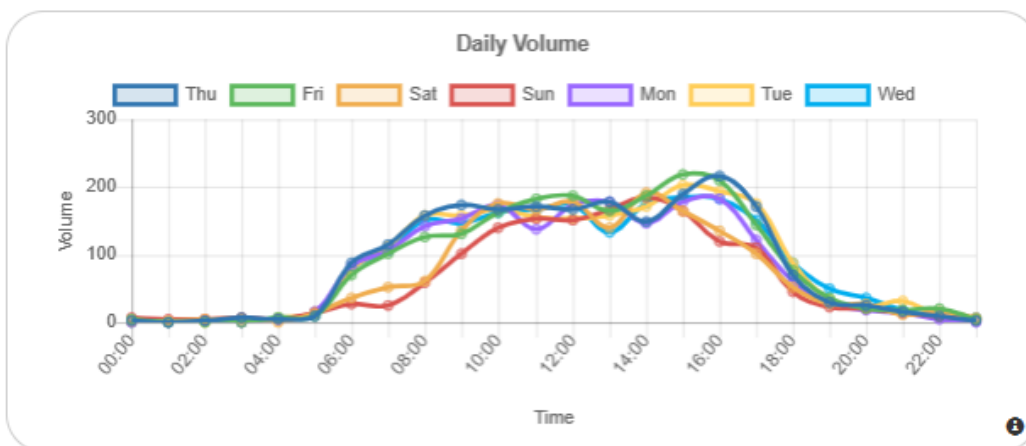
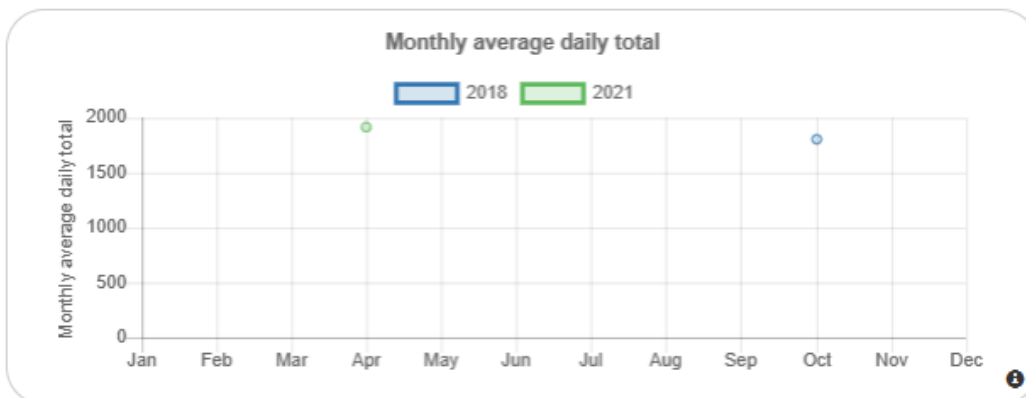
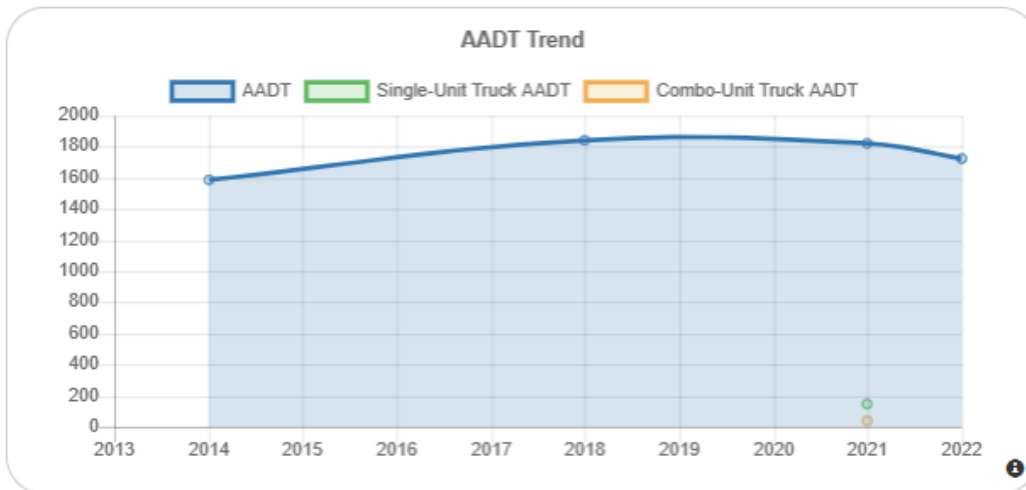
Traffic Statistics by Direction

Direction	Weekday average total traffic	7-day average traffic	Weekly traffic total
East	778	770	5,388
West	960	938	6,564
Total	1,738	1,708	11,952

Annual Statistics

12.1.8 Application Documents

Traffic Impact Assessment





Appendix B – Safe System Assessment

Safe System Assessment							
Meander Valley Road approaches to 111a MVR							
	Run-off-road	Head-on	Intersection	Other	Pedestrian	Cyclist	Motorcyclist
Exposure	Low traffic volume, no reported crashes.	Low traffic volume, no reported crashes.	William Street has estimated AADT of 1,280 vph at William Street intersection and 3 casualty crashes (1 serious & 2 first aid).	Low heavy vehicle traffic volume, no reported crashes.	Low pedestrian activity, no reported crashes	Low cyclist activity, no reported crashes.	Low motorcycle activity, 1 serious motorcycle crash at William St intersection
Likelihood	Score / 4	Score / 4	Score / 4	Score / 4	Score / 4	Score / 4	Score / 4
Justification	High road standard with straight alignment, good sight distance & good delineation	High road standard with straight alignment, good sight distance & good delineation	Unchannelised at grade intersection with MVR priority road	High road standard with straight alignment, good sight distance & good delineation	Footpaths both side of the road, no pedestrian refuge island for crossing MVR or appropriate warning signage	High road standard with straight alignment, good sight distance & good delineation, no cyclist facilities	High road standard with straight alignment, good sight distance & good delineation
Severity	Score / 4	Score / 4	Score / 4	Score / 4	Score / 4	Score / 4	Score / 4
Justification	Low speed environment	Low speed environment	Low speed environment	Low speed environment	Moderate to High speed environment for pedestrians	Moderate to High speed environment for cyclists	Moderate speed environment for motorcyclists
Product	Score / 4	Score / 4	Score / 4	Score / 4	Score / 4	Score / 4	Score / 4
Total Score	1	1	9	1	6	3	3
Total	1	1	9	1	6	3	3
Total / 448							
							27

Traffic Impact Assessment



Appendix C – Proposal design plans

DEVELOPMENT APPLICATION

PROPOSED 10 x VILLA COMPLEX
 CLIENT: WYKEHAM DEVELOPMENTS PTY LTD
 ADDRESS: 111A MEANDER VALLEY ROAD, WESTBURY, TAS, 7803
 TITLE REFERENCE: 19430/1/1 PROPERTY 19-21/37461

REV	AMENDMENTS	DATE	INT
1	DEVELOPMENT APPLICATION	27/09/23	DM
2			
3			
4			
5			
6			
7			
8			

PAGE	TITLE
01	COVER PAGE
02	COMPLEX 3D PERSPECTIVE
03	3D RENO SITE PLAN
04	SITE PLAN (1:100)
05	SITE PLAN (STAGE 1)
06	SITE PLAN (STAGE 2)
07	SITE PLAN (ENTRY ACCESS)
08	VILLA 1-3D PERSPECTIVES
09	VILLA 1-FLOOR PLAN
10	VILLA 1-ELEVATIONS
11	VILLA 2-3D PERSPECTIVES
12	VILLA 2-FLOOR PLAN
13	VILLA 2-ELEVATIONS
14	VILLA 3-3D PERSPECTIVES
15	VILLA 3-FLOOR PLAN
16	VILLA 3-ELEVATIONS
17	VILLA 4-3D PERSPECTIVES
18	VILLA 4-FLOOR PLAN
19	VILLA 4-ELEVATIONS
20	SUN DIAGRAM- JUNE 9AM
21	SUN DIAGRAM- JUNE 12PM
22	SUN DIAGRAM- JUNE 3PM

CLIENT SIGNATURE	DATE
CLIENT SIGNATURE	DATE

10 x VILLA COMPLEX COVER PAGE	
DATE: 27/09/23	REV: A
SCALE: DM	
PAGE: 1 OF 22	DRAW NO: 4101

CLIENT: WYKEHAM DEVELOPMENTS PTY LTD
 SITE ADDRESS: 111A MEANDER VALLEY ROAD, WESTBURY, TAS, 7803

PROJECT: DEVELOPMENT APPLICATION

CO-COMPLAINT: This is a design & landscape plan for these plans was provided by the client. I have made the necessary changes as of 20/09/23 to the plan. I have also made the necessary changes to the site plan as of 20/09/23 to the plan. I have also made the necessary changes to the site plan as of 20/09/23 to the plan.

iDESIGN RESIDENTIAL
 "Create Your Dream Home"
 111A Meander Valley Road, Westbury, TAS 7803
 Phone: 081 471 7222 Email: info@idesign.com.au Website: www.idesign.com.au

12.1.8 Application Documents

Traffic Impact Assessment



111A MEANDER VALLEY ROAD
PROPOSED 10 x VILLA COMPLEX

10 x VILLA COMPLEX COMPLEX- 3D PERSPECTIVE	
DRAWN: DM	DATE: 27.09.23
CHECKED: DM	REV: A
SHEET: 2 OF 22	JOB NO: 4101

CLIENT: WYKEHAM DEVELOPMENTS PTY LTD	SUBJECT: DEVELOPMENT APPLICATION
111A MEANDER VALLEY ROAD, WESTBURY, TAS, 7303	DISCLAIMER: This sketch & artwork for these plans were provided by the client. The client warrants that the information is true and correct to the best of their knowledge and belief. The client warrants that the information is true and correct to the best of their knowledge and belief. The client warrants that the information is true and correct to the best of their knowledge and belief.

REV: A	DATE: 27.09.23	BY: DM

CLIENT SIGNATURE	DATE:
CLIENT SIGNATURE	DATE:

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 "Create your dream home"
 111A Meander Valley Road, Westbury, TAS 7303
 Phone: 081 332 2222 | Email: info@designresidential.com.au

12.1.8 Application Documents

Traffic Impact Assessment



SHIPPING CONTAINER

4 BAY GARAGE

GREEN HOUSE (ROOF OUTLINE)

CHICKEN COOP (ROOF OUTLINE)

GREEN HOUSE (ROOF OUTLINE)

10 x VILLA COMPLEX	
DEMO SITE PLAN	
DRAWN: DM	DATE: 27.09.23
DESIGNED: DM	SCALE: 1:400
CHECKED: DM	JOB NO: 4101
REV: A	3 OF 22

CLIENT:	WYKEHAM DEVELOPMENTS PTY LTD
SITE ADDRESS:	111A MEANDER VALLEY ROAD, WES TBURY, TAS, 7303

PROJECT:	DEVELOPMENT APPLICATION
DATE:	27.09.23
REV:	A
DRAWN:	DM
CHECKED:	DM
DATE:	
REV:	
DRAWN:	
CHECKED:	
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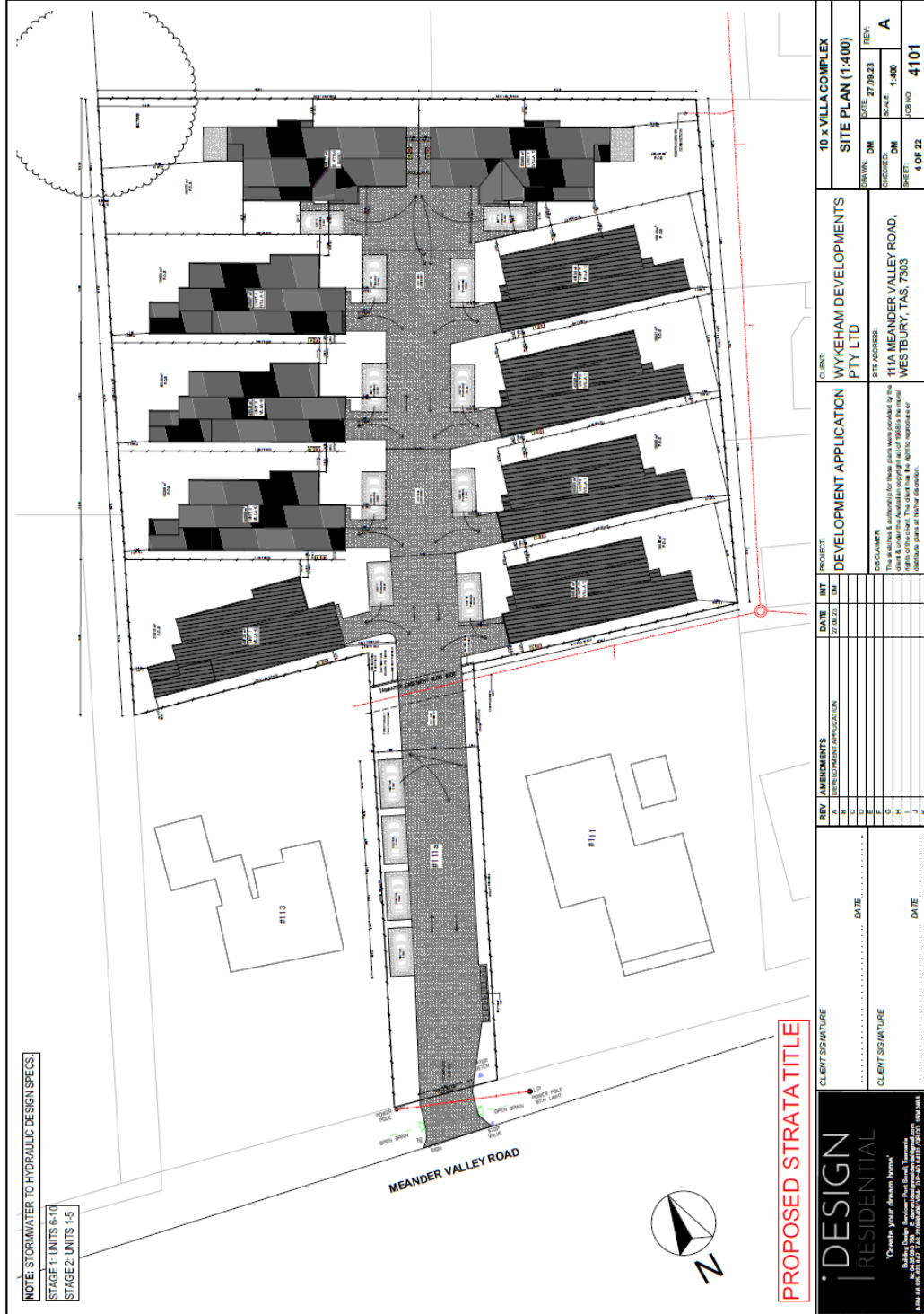
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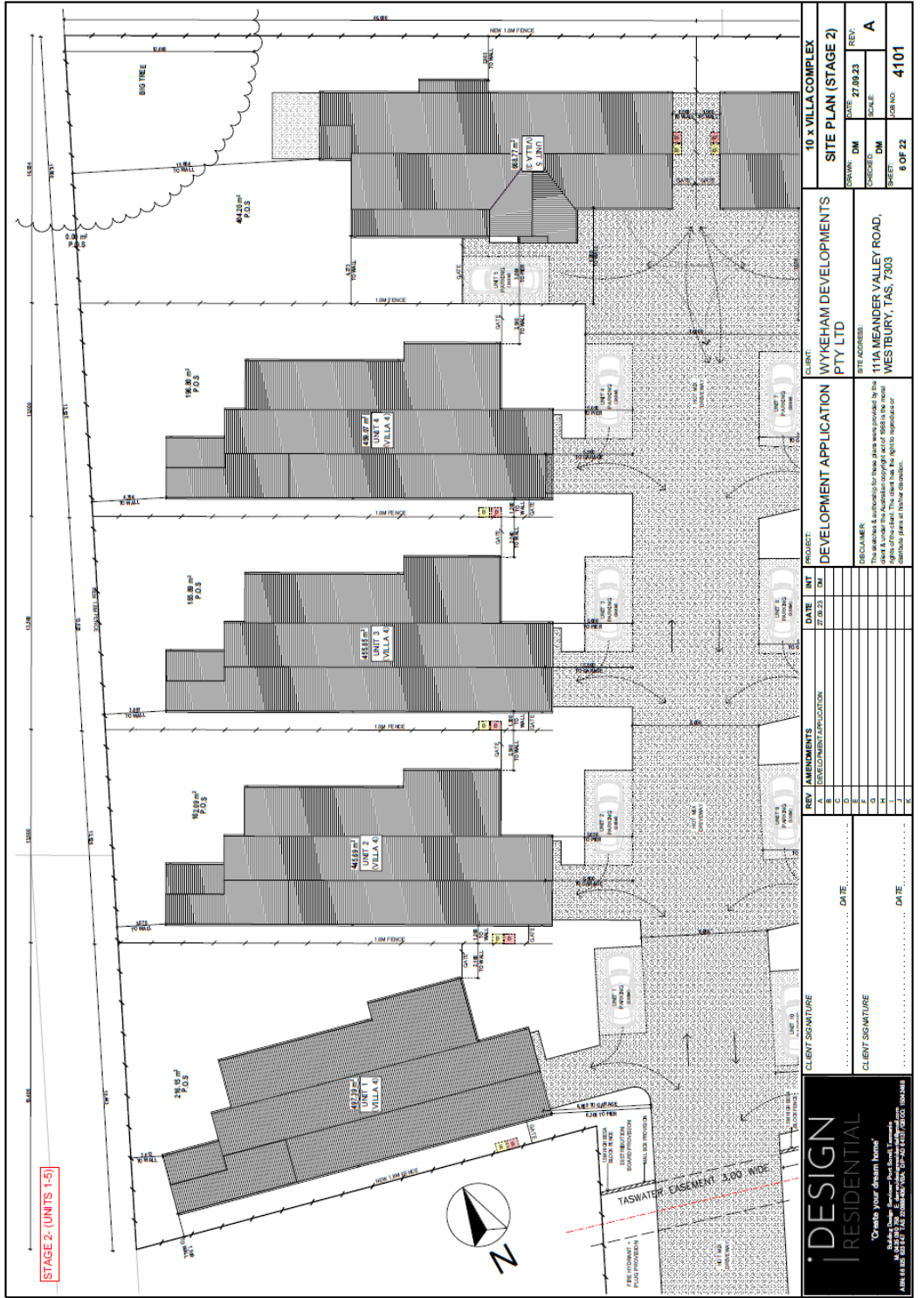
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DATE: 27.03.23 INT: DM		SCALE: A	
REVISIONS: A: DEVELOPMENT APPLICATION B: ... C: ... D: ... E: ... F: ... G: ... H: ... I: ... J: ... K: ...		CHECKED: DM DATE: 27.03.23 DRAWN: DM DATE: 27.03.23 SHEET: 9 OF 22 JOB NO: 4101	
CLIENT SIGNATURE _____ DATE: _____ CLIENT SIGNATURE _____ DATE: _____		DECLARATION: I, the undersigned, certify that these plans were prepared by the undersigned or under their supervision and that they are true and correct copies of the original plans as shown to the relevant authority. The undersigned is a duly qualified professional person in the relevant field of their discipline.	
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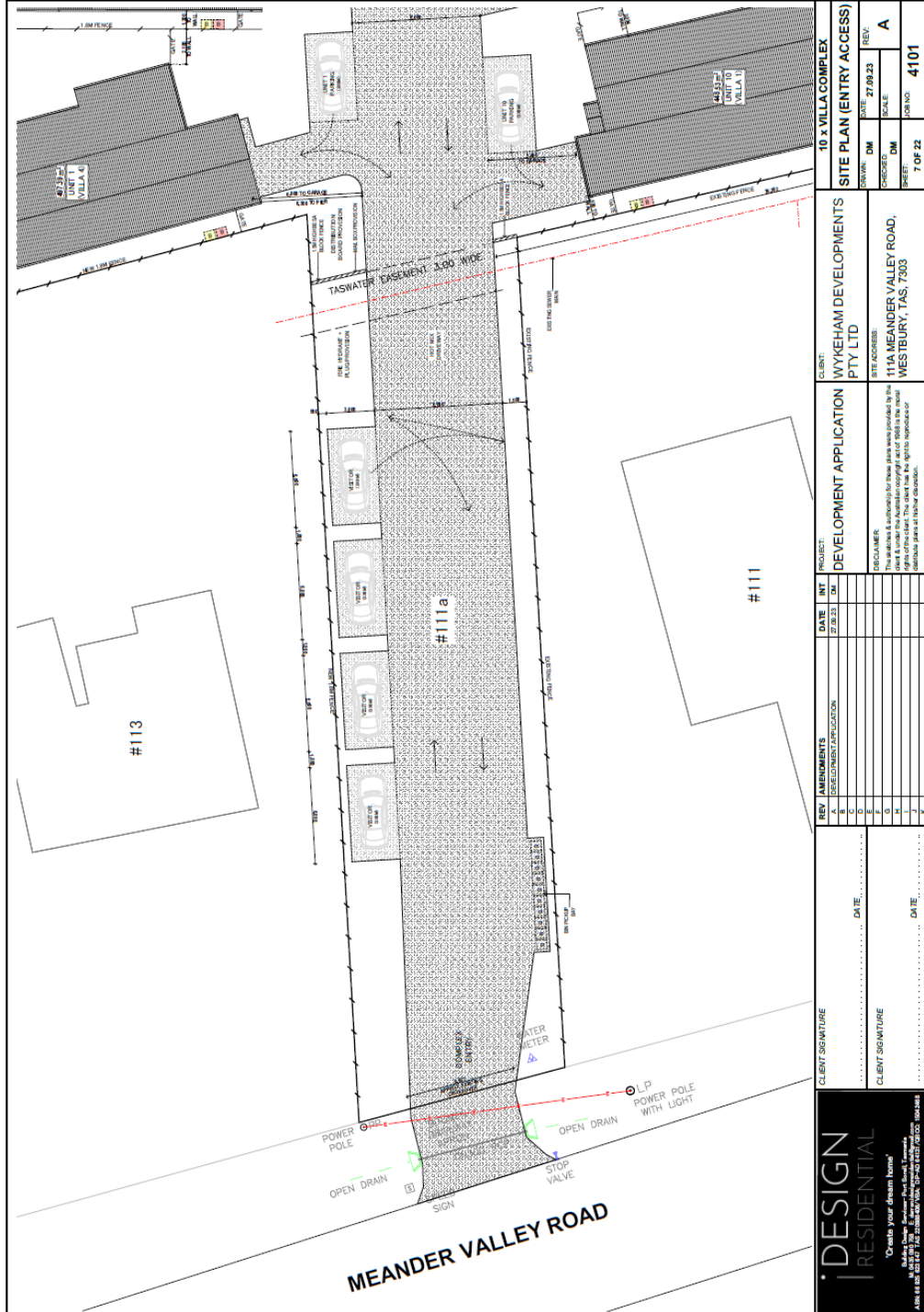
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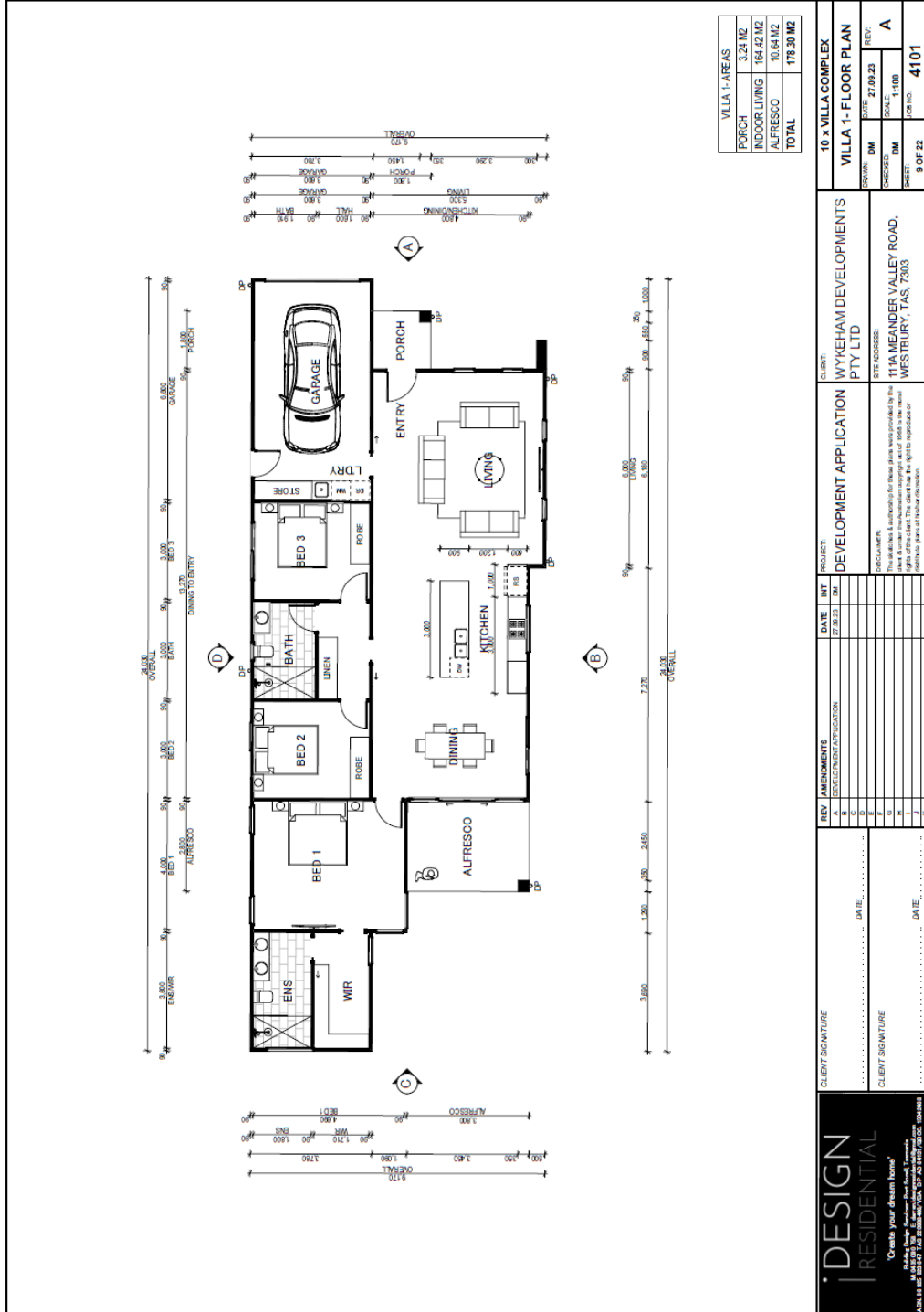
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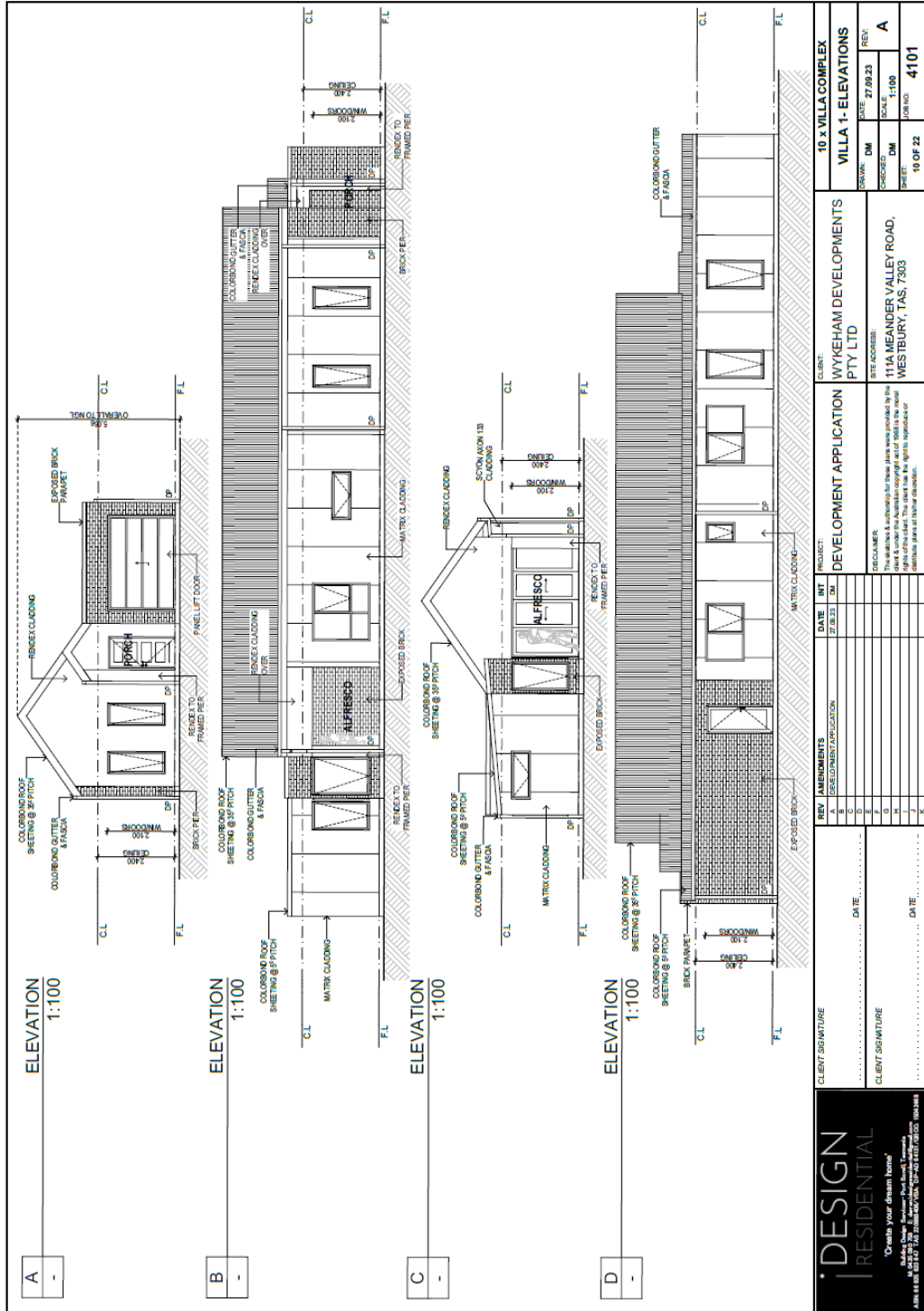


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VILLA 2

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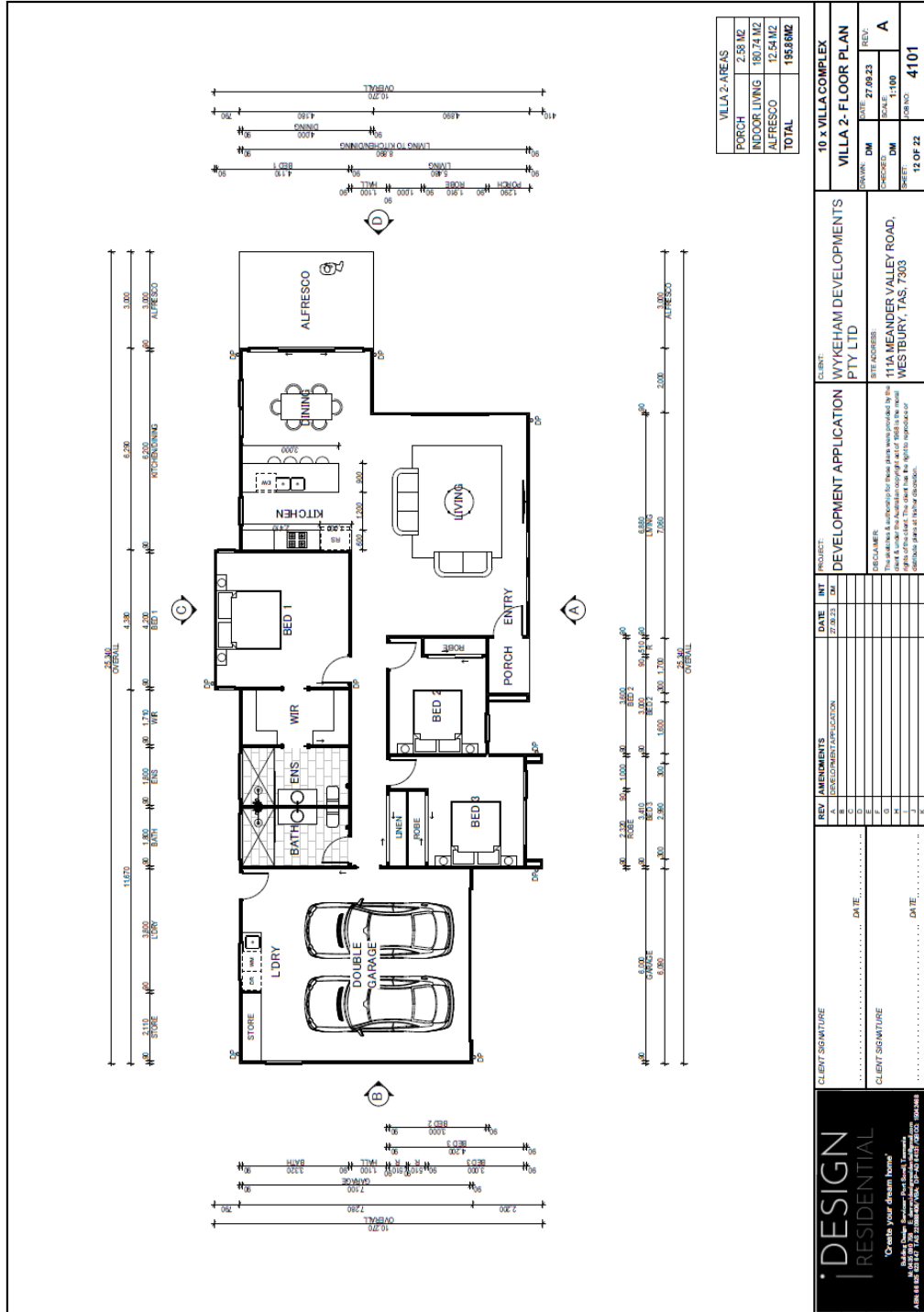
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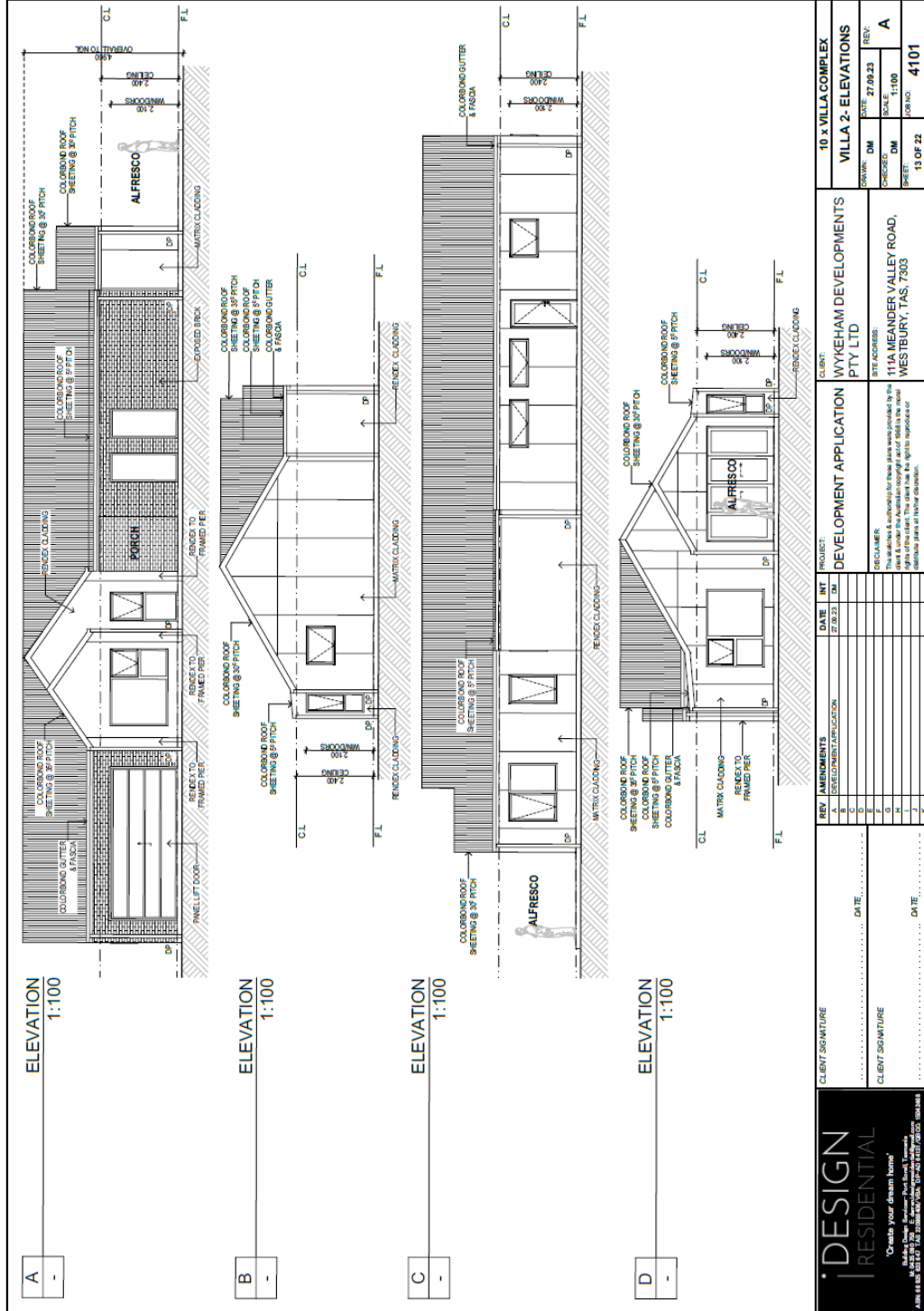
12.1.8 Application Documents

Traffic Impact Assessment



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	CLIENT SIGNATURE	27/03/23	DM	DEVELOPMENT APPLICATION	WYKEHAM DEVELOPMENTS PTY LTD
					111A MEANDER VALLEY ROAD, WESTBURY, TAS, 7303
					10 x VILLA COMPLEX
					VILLA 2- FLOOR PLAN
					DATE: 27/09/23
					SCALE: 1:100
					JOB NO: 4101
					12 OF 22

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CLIENT SIGNATURE		DATE	DATE
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Traffic Impact Assessment



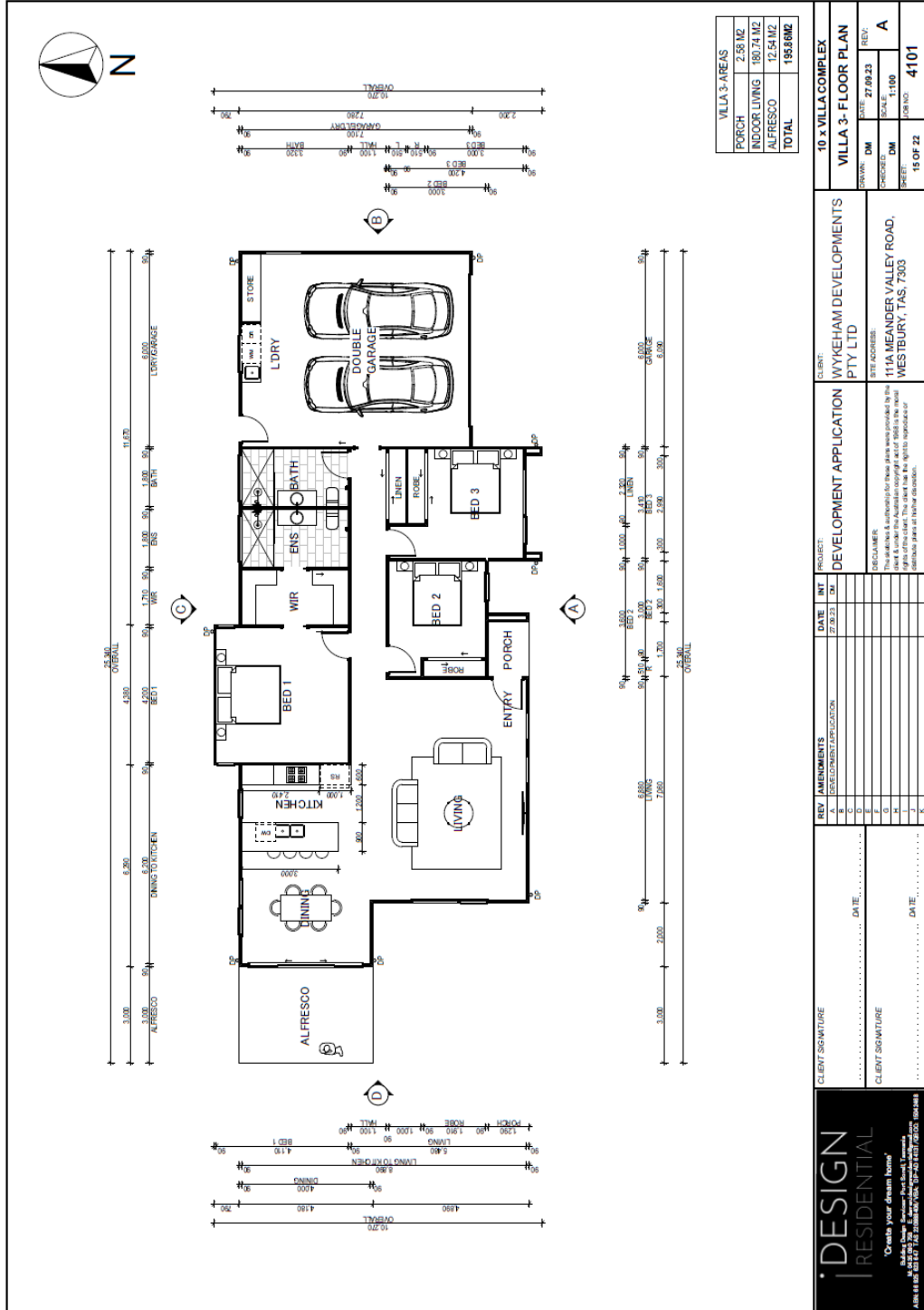
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		DISCLAIMER: This document is prepared for the client and is not to be used for any other purpose. It is the client's responsibility to ensure that all information provided is accurate and complete. The client warrants that the information provided is true and correct to the best of their knowledge and belief.	SITE ADDRESS: 111A MEANDER VALLEY ROAD, WESTBURY, TAS, 7303	DATE: 27/09/23 SCALE: A JOB NO.: 4101

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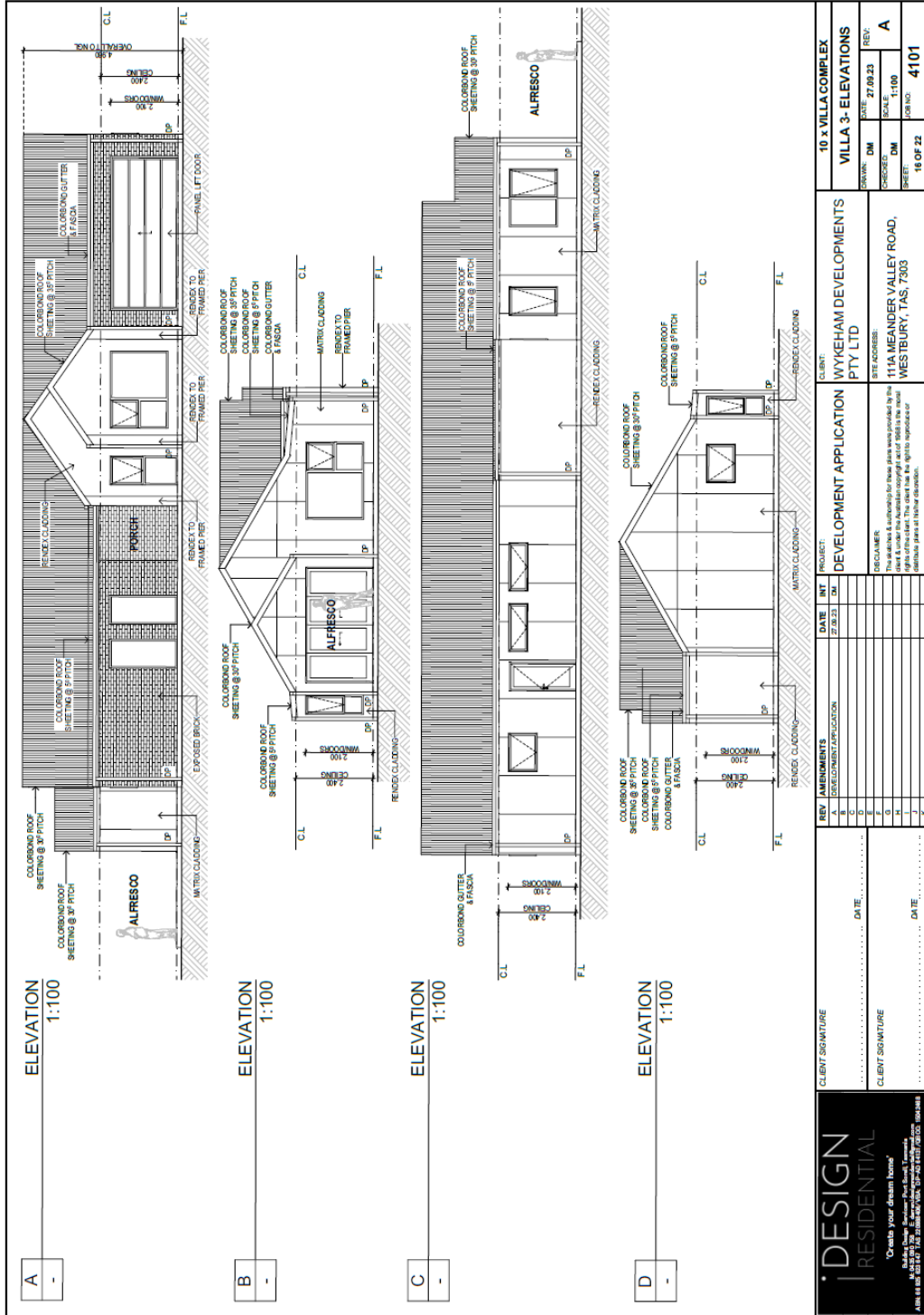
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		PROJECT	4101

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VILLA 4

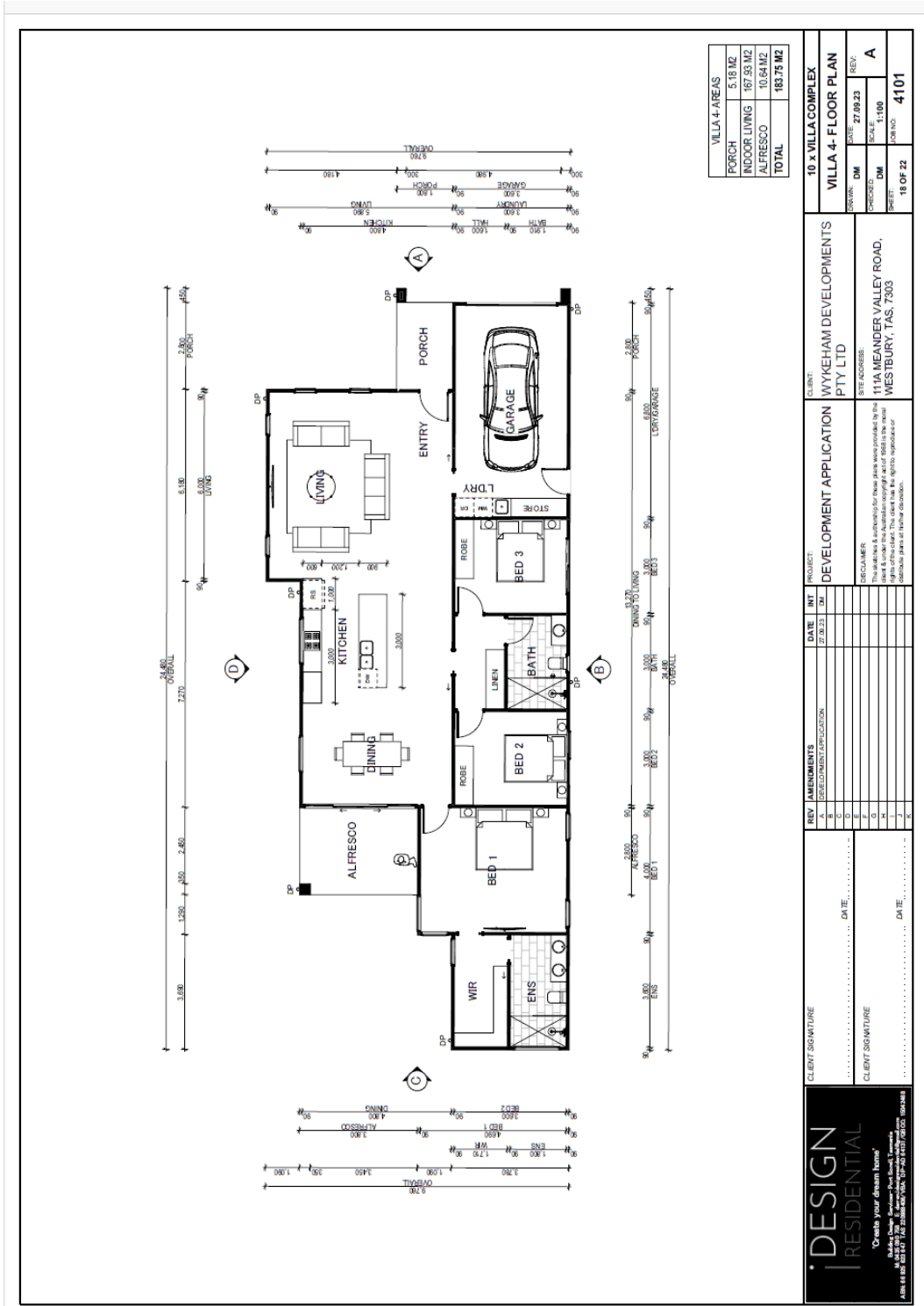
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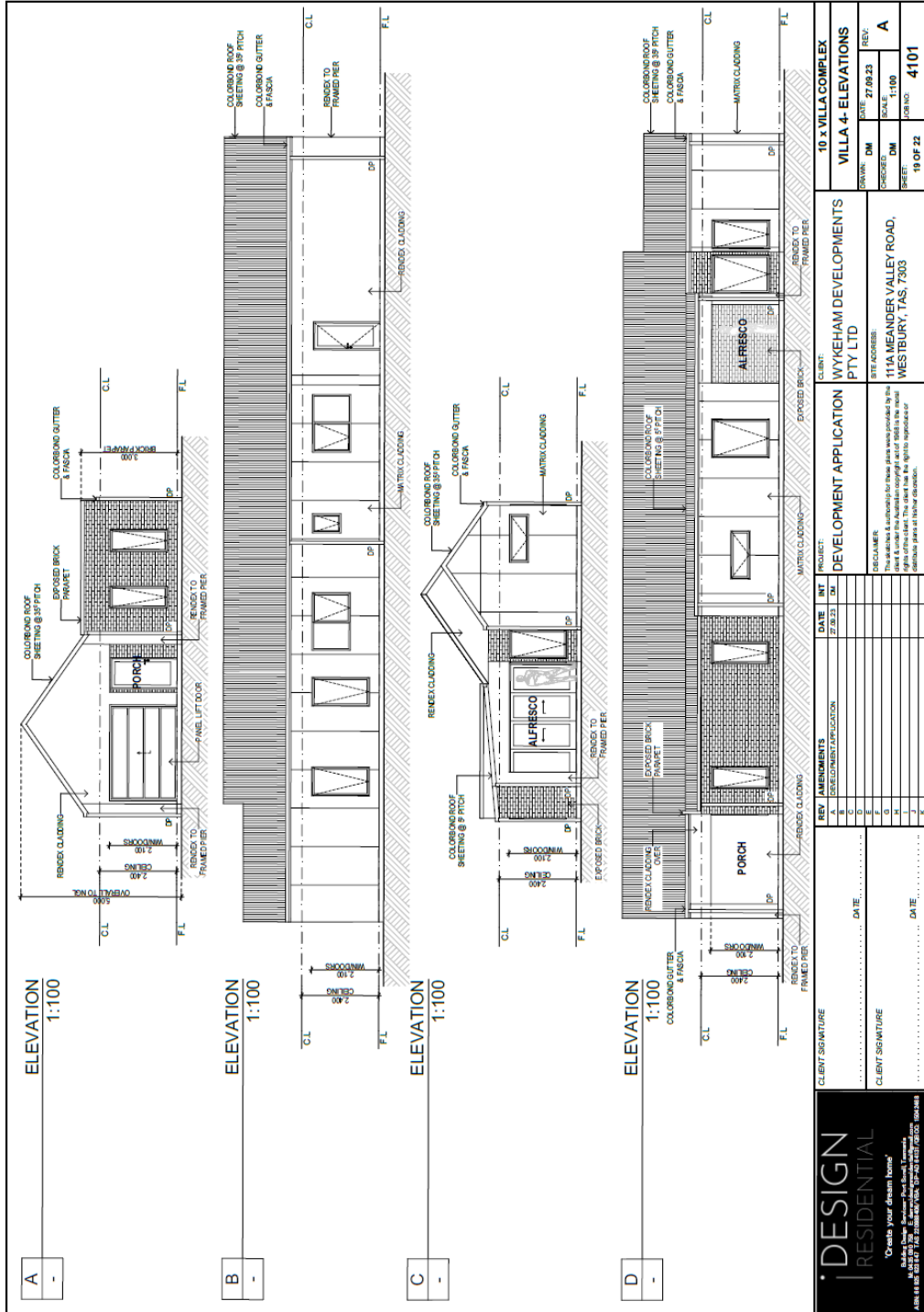
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VILLA 4 FLOOR PLAN	
DATE	27.09.23
SCALE	1:100
JOB NO.	4101

CLIENT: WYKEHAM DEVELOPMENTS PTY LTD
 PROJECT: DEVELOPMENT APPLICATION
 SITE ADDRESS: 111A MEANDER VALLEY ROAD, WESTBURT, TAS, 7303

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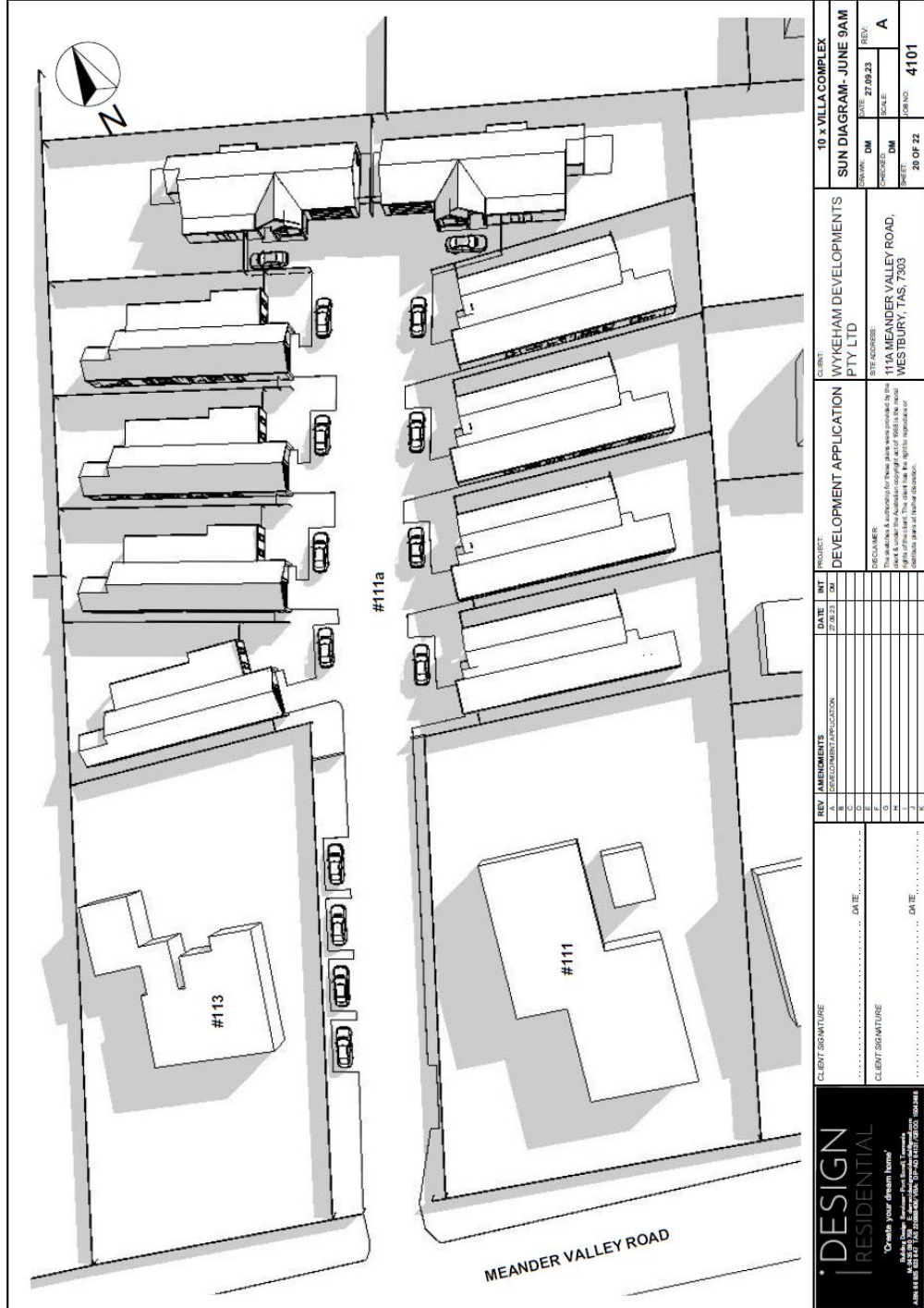
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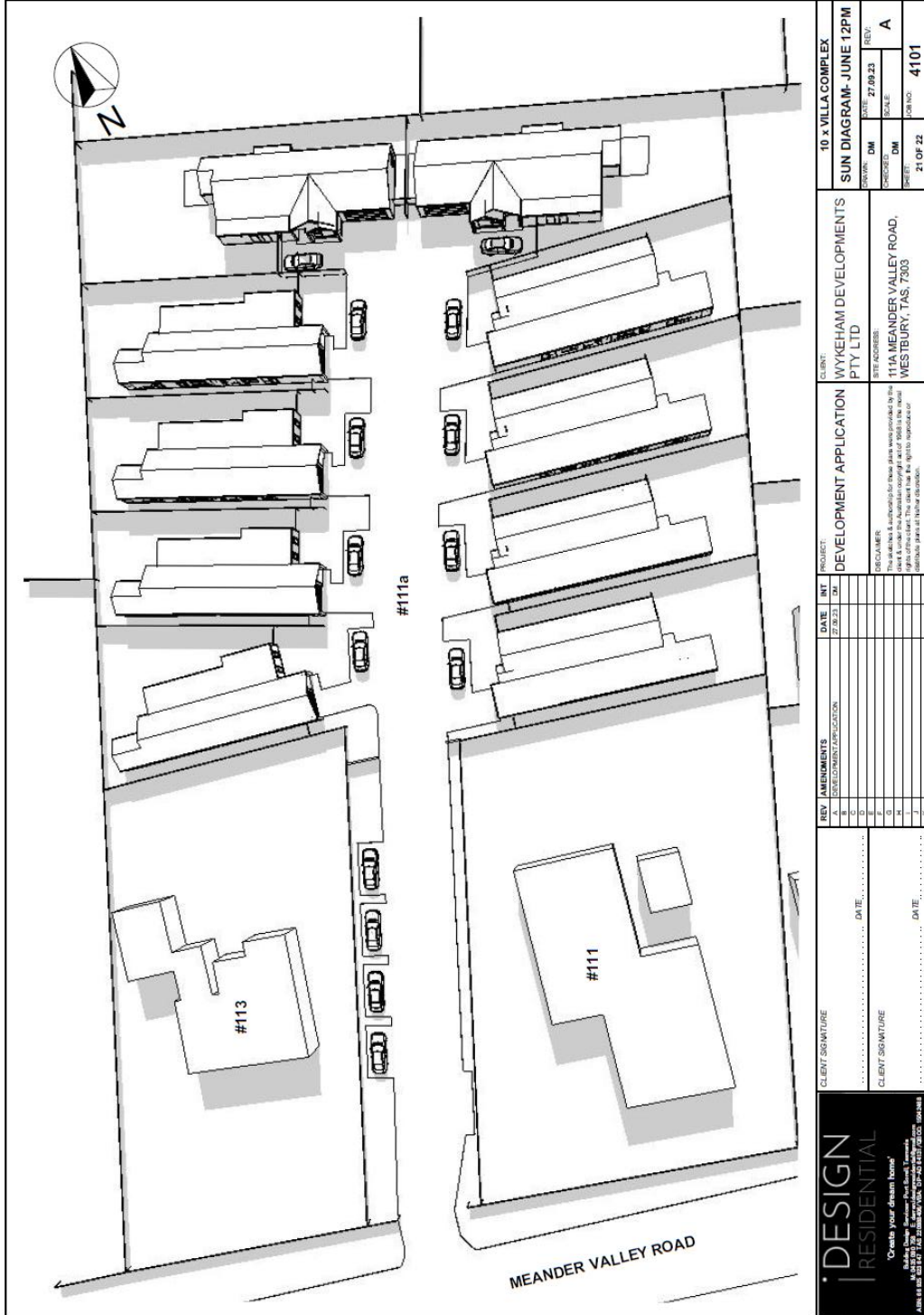
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12.1.8 Application Documents

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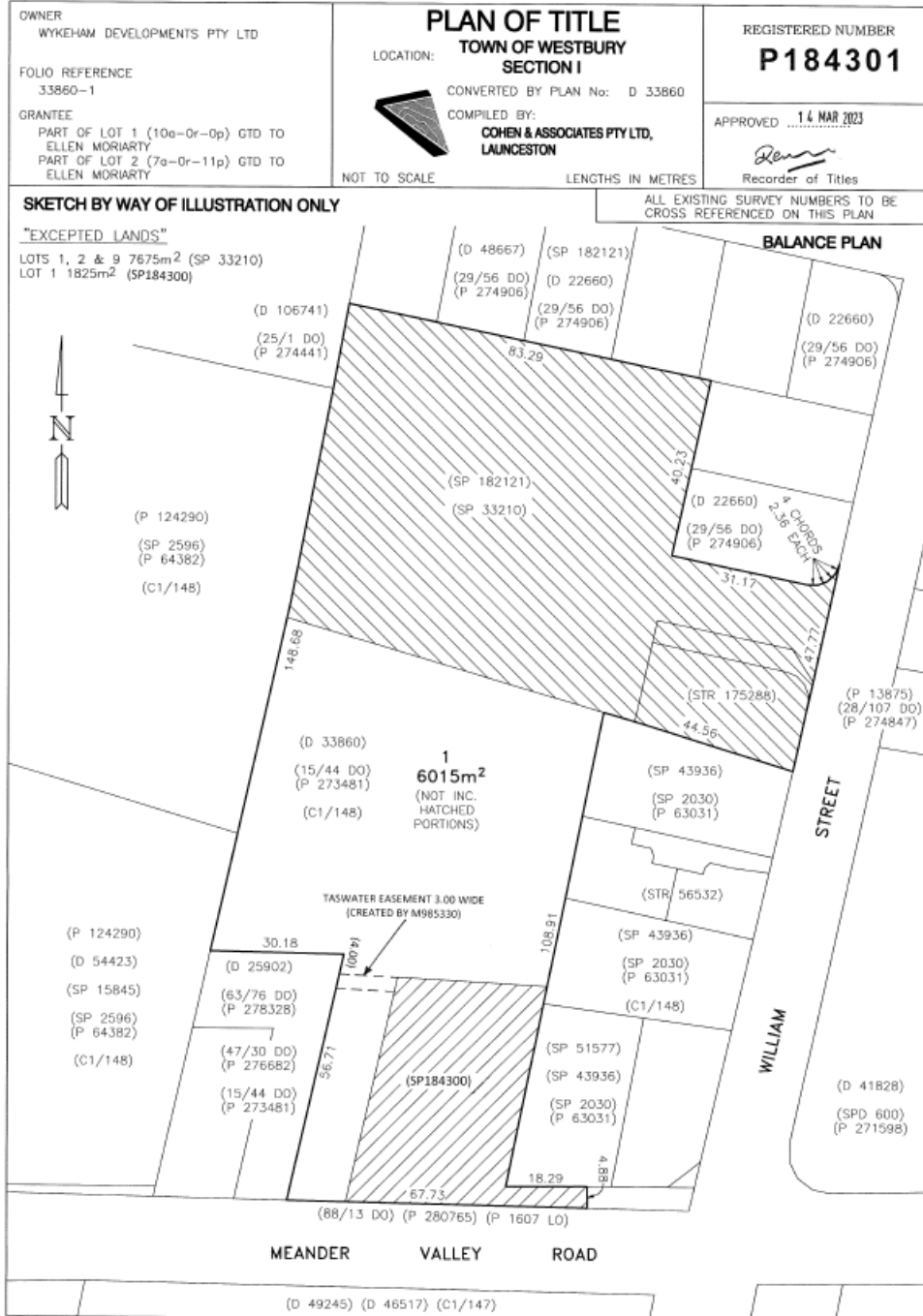
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CLIENT: WYKEHAM DEVELOPMENTS PTY LTD SITE ADDRESS: 111A MEANDER VALLEY ROAD, WES TBURY, TAS, 7303		PROJECT: 10 x VILLA COMPLEX SUN DIAGRAM - JUNE 3PM	
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PROJECT: DEVELOPMENT APPLICATION		TITLE: SUN DIAGRAM	
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12.1.8 Application Documents

Traffic Impact Assessment



Traffic Impact Assessment



Appendix D – DSG Advice of Acceptance

RE: TIA for 111a Meander Valley Road, Westbury

Siale, Vili

To: Richard Burk

Attachments:  image001.jpg

Sent: 30/08/2023 12:23 PM

Our Reference: D23/213688

Hi Richard,

Thank you for your email and TIA.

Following a review, your TIA is accepted.

If you have any further queries regarding this mater, please let me know.

Regards,

Vili.

Vili Siale | Traffic Engineering Liaison Officer

Traffic Engineering | Network Performance

Infrastructure Tasmania | Department of State Growth

11A Goodman Court, INVERMAY TAS 7248 | GPO Box 536, Hobart TAS 7001

Ph. (03) 6777 1951 | Mb. 0439 101 614

www.stategrowth.tas.gov.au

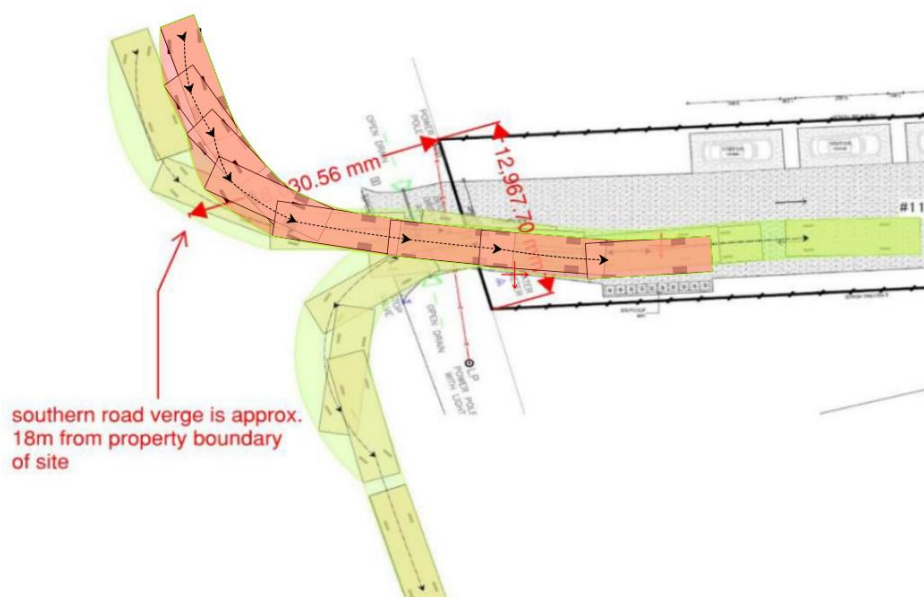
Courage to make a difference through

TEAMWORK | INTEGRITY | RESPECT | EXCELLENCE



Appendix E – 8.8m Service Vehicle Access

Swept path for 8.8m truck reversing in and driving forward out of 111a Meander Valley Road to empty wheelie bins.



3. Road and Railway Assets Code

a) C3.5.1 P1 – Traffic generation at a vehicle crossing, level crossing or a new junction

Please provide an amended Traffic Impact Assessment report that responds and addresses the following:

- i) Amend 'Appendix E – 8.8m Service Vehicle Access' to show the road reserve and the extent of the Meander Valley Road therein to ensure that there is sufficient space within the roadway to accommodate the reversing manoeuvre plus clearance.

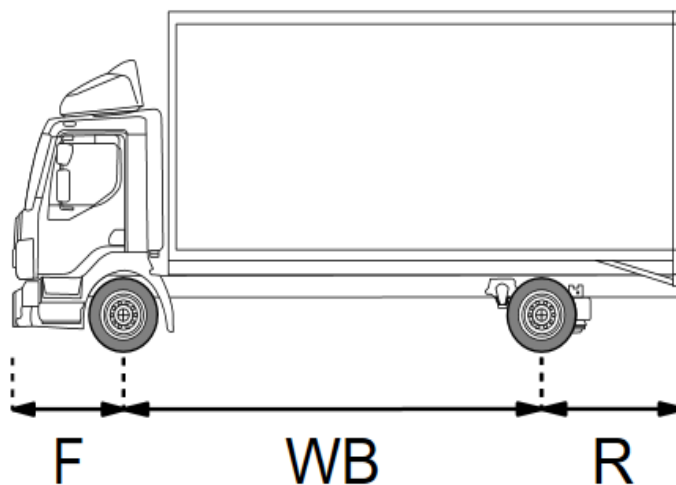
NOTE: The nearest part of the southern road verge is 18m from the frontage of the site and appears to be intersected by the swept path shown in Appendix E

In response to item 3 of the Council RFI of the 22nd March, see above, an additional tracked path shown in red has been added. This demonstrates there is ample space for the required reverse turning movement for access to the wheelie bin area. Please note that the proposed driveway is very wide and easily accommodates access.

For the record, item 3 of the RFI should refer to C2.6.6 A2, not C3.5.1 P1 (i) as there is no such item in the TPS – Meander Valley.

12.1.8 Application Documents

Traffic Impact Assessment



Overall values of Medium Rigid Vehicle

Length: 8.80 m

Steering angle: 34.01 °

Max width: 2.50 m

Turn radius (curb to curb): 10 m

Lock to lock: 4 s

Turn radius (wall to wall): 10.83 m

Dimensions

Front: 1.5 m

Width: 2.5 m

Wheel base: 5 m

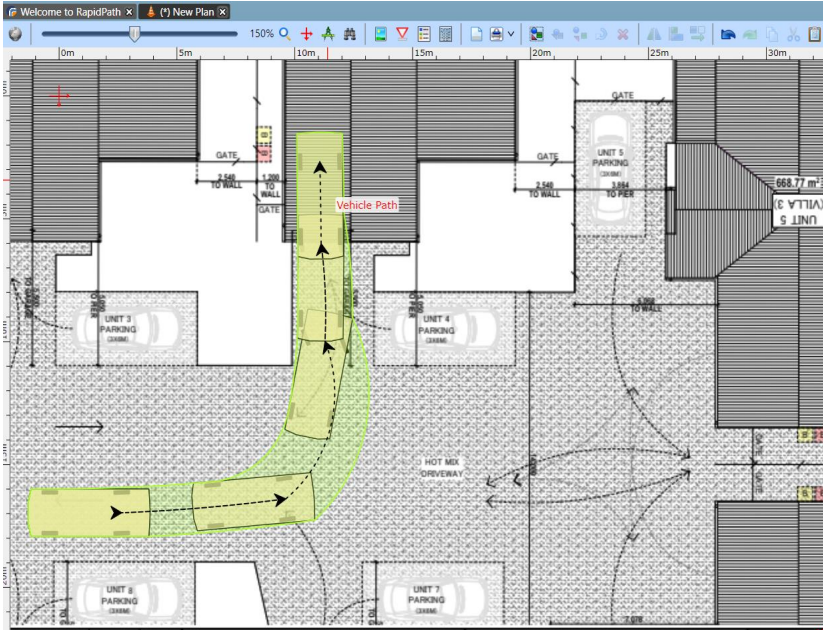
Rear: 2.3 m

Traffic Impact Assessment

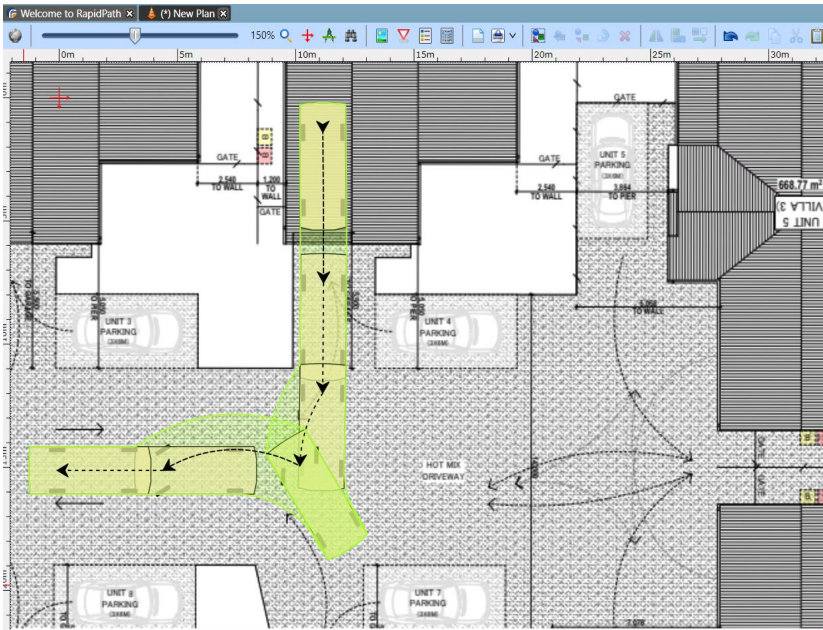


Appendix F – Unit turning path checks.

Entering typical unit garage – Austroads B99 Car



Exiting typical unit garage – Austroads B99 Car

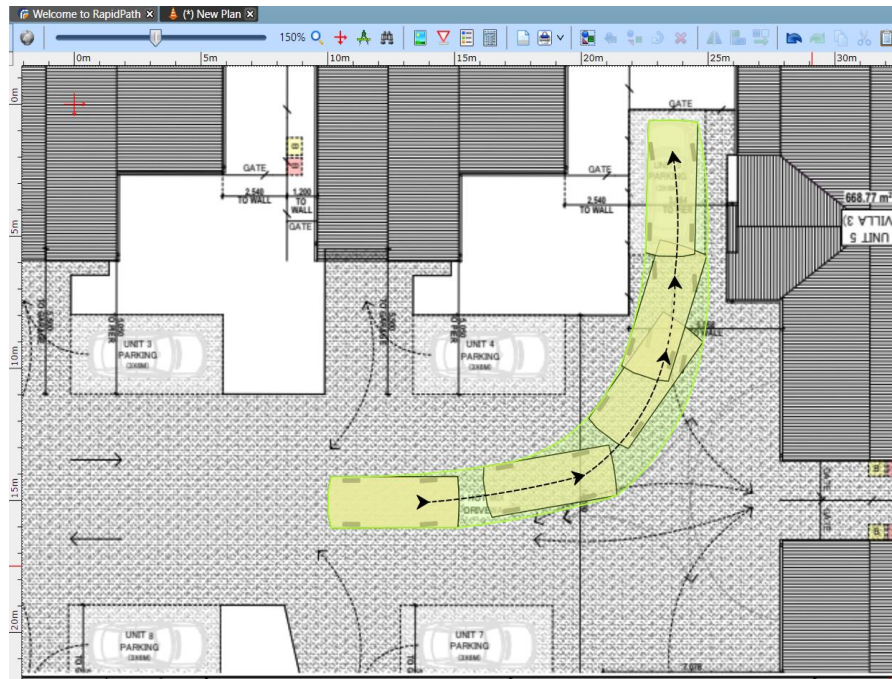


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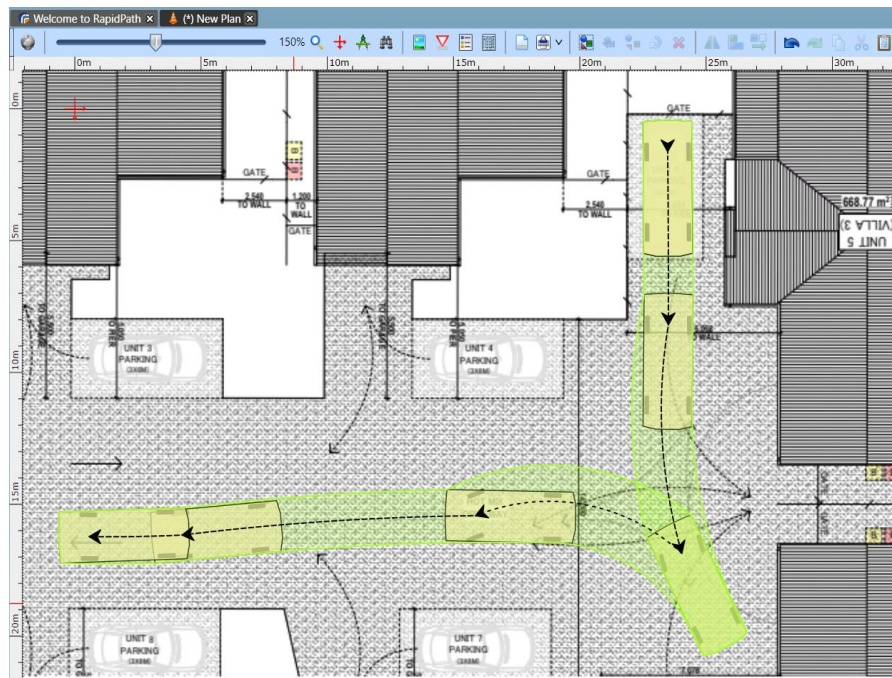
Traffic Impact Assessment



Entering unit 5 parking space – Austrroads B99 Car



Exiting unit 5 parking space – Austrroads B99 Car

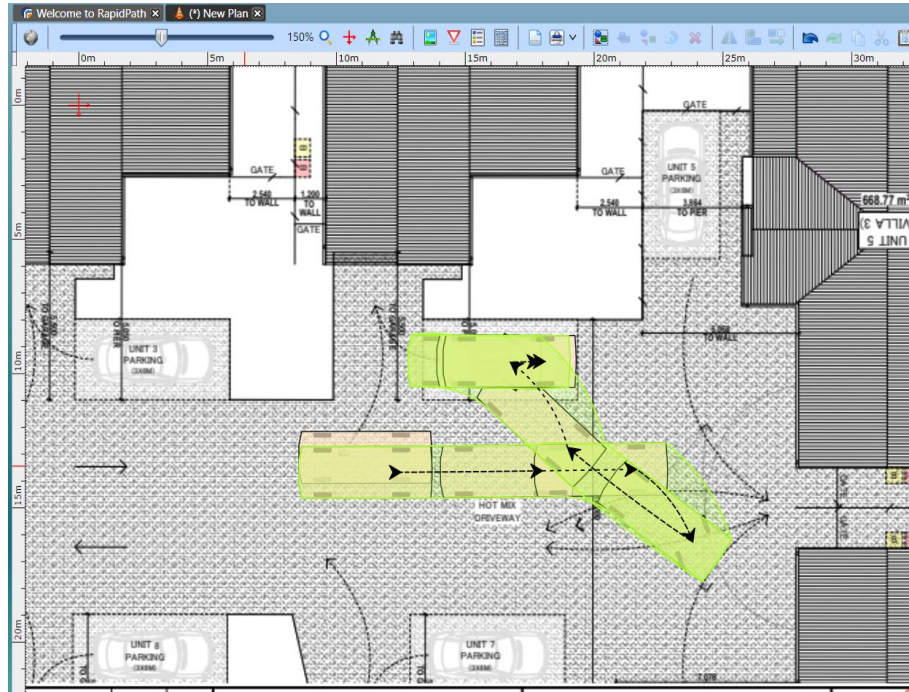


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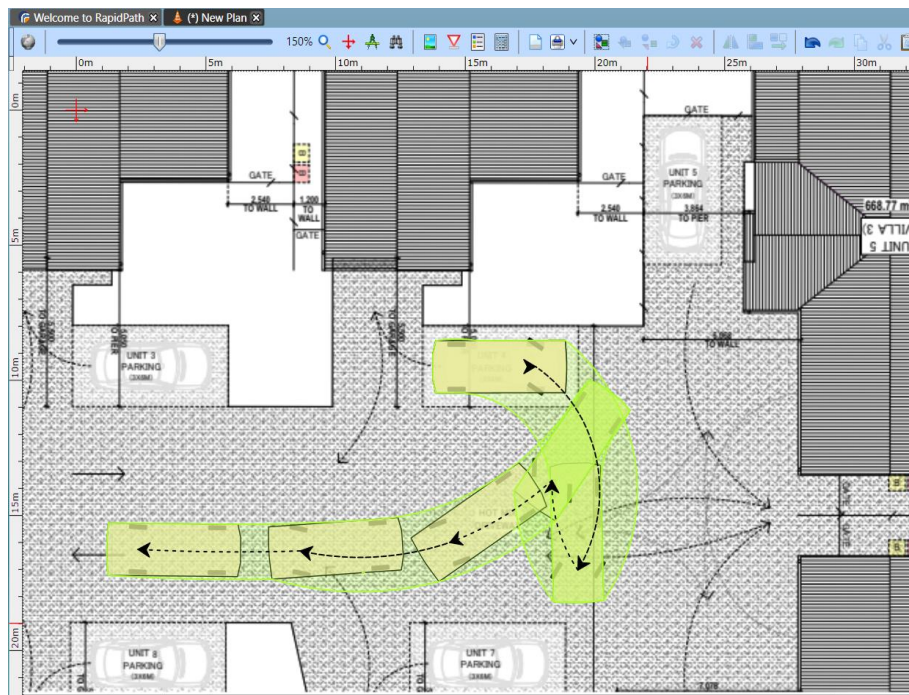
Traffic Impact Assessment



Entering typical unit parking space – Austroads B99 Car



Exiting typical unit parking space – Austroads B99 Car

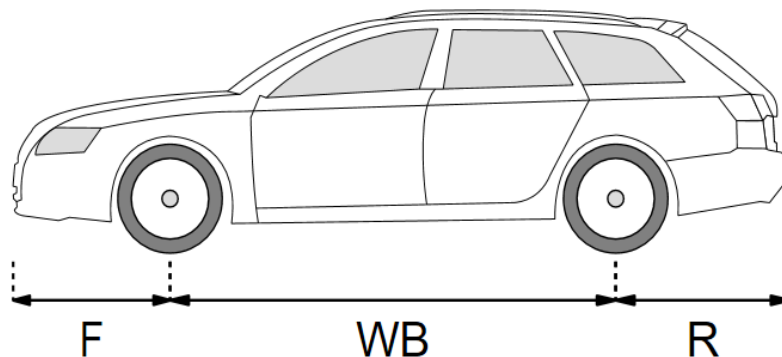


70 | Page

Document Set ID: 1916271
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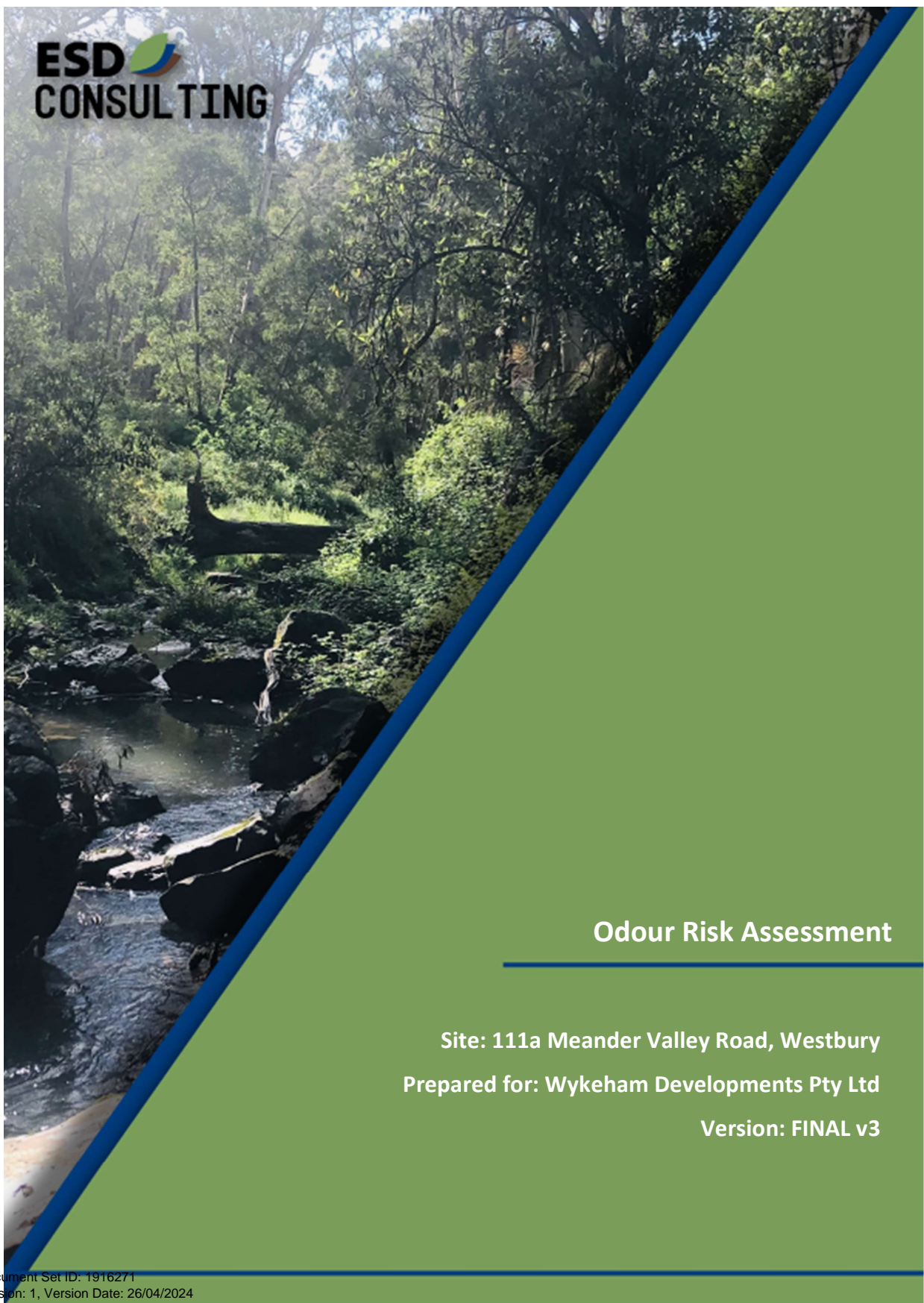


Overall values of B99 Vehicle

Length: 5.16 m	Steering angle: 33.59 °
Max width: 1.94 m	Turn radius (curb to curb): 6.3 m
Lock to lock: 4 s	Turn radius (wall to wall): 7 m

Dimensions

Front: 1.2 m	Width: 1.94 m
Wheel base: 3.05 m	
Rear: 0.95 m	



Odour Risk Assessment

Site: 111a Meander Valley Road, Westbury
Prepared for: Wykeham Developments Pty Ltd
Version: FINAL v3

Document Set ID: 1916271
Version: 1, Version Date: 26/04/2024



Document Control

Prepared & published by: ES&D Consulting
Version: FINAL v3
File: 8939
Contact name: Royce Aldred
Contact number: 0429 335 664
Prepared for: Wykeham Developments

Version:	Author:	Company:	Date:
FINAL	Royce Aldred	ES&D	15/8/2023
FINAL v2	Royce Aldred	ES&D	5/1/2024
FINAL v3	Royce Aldred	ES&D	9/4/2024

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1 Background and Scope

ES&D are assisting their client with the planning aspects for a development at the subject site. The development will be within the theoretical buffer zone of the Westbury Sewage Treatment Plant (STP) which is owned and operated by TasWater.

As part of their assessment, Meander Valley Council (Council) requires a site-specific environmental assessment from a suitably qualified person addressing the relevant environmental emissions associated with the attenuation area. This assessment has been undertaken by ES&D to meet Council's requirements.

1.1 Scope of assessment

The scope of the assessment will include the following:

- Review of site-specific odour related permit conditions for the STP.
- Review of odour complaints history relating to the STP.
- Assessment of meteorological conditions for the locality, including wind rose information.
- Obtain and review and odour assessments undertaken by TasWater including odour modelling, surveying, and field assessments.
- Risk assessment relating to the likelihood of odour related nuisance within the development.



1.2 Planning Scheme Requirements

The relevant section of the *Tasmanian Planning Scheme – State Planning Provisions* is:

- C9.0 Attenuation Code: C9.5.2 Sensitive use within an attenuation area,

with the objective “That sensitive use located within an attenuation area does not interfere with or constrain the operation of an existing activity”

There being no acceptable solutions, Performance Criteria P1 applies, with relevant details as follows:

“Sensitive use within an attenuation area, must not interfere with or constrain an existing activity listed in Tables C9.1 or C9.2, having regard to:

- (a) the nature of the activity with potential to cause emissions including:
 - (i) operational characteristics of the activity;
 - (ii) scale and intensity of the activity; and
 - (iii) degree of hazard or pollution that may be emitted from the activity;
- (b) the nature of the sensitive use;
- (c) the extent of encroachment by the sensitive use into the attenuation area;
- (d) measures in the design, layout and construction of the development for the sensitive use to eliminate, mitigate or manage effects of emissions of the activity;
- (e) any advice from the Director, Environment Protection Authority.”

12.1.8 Application Documents

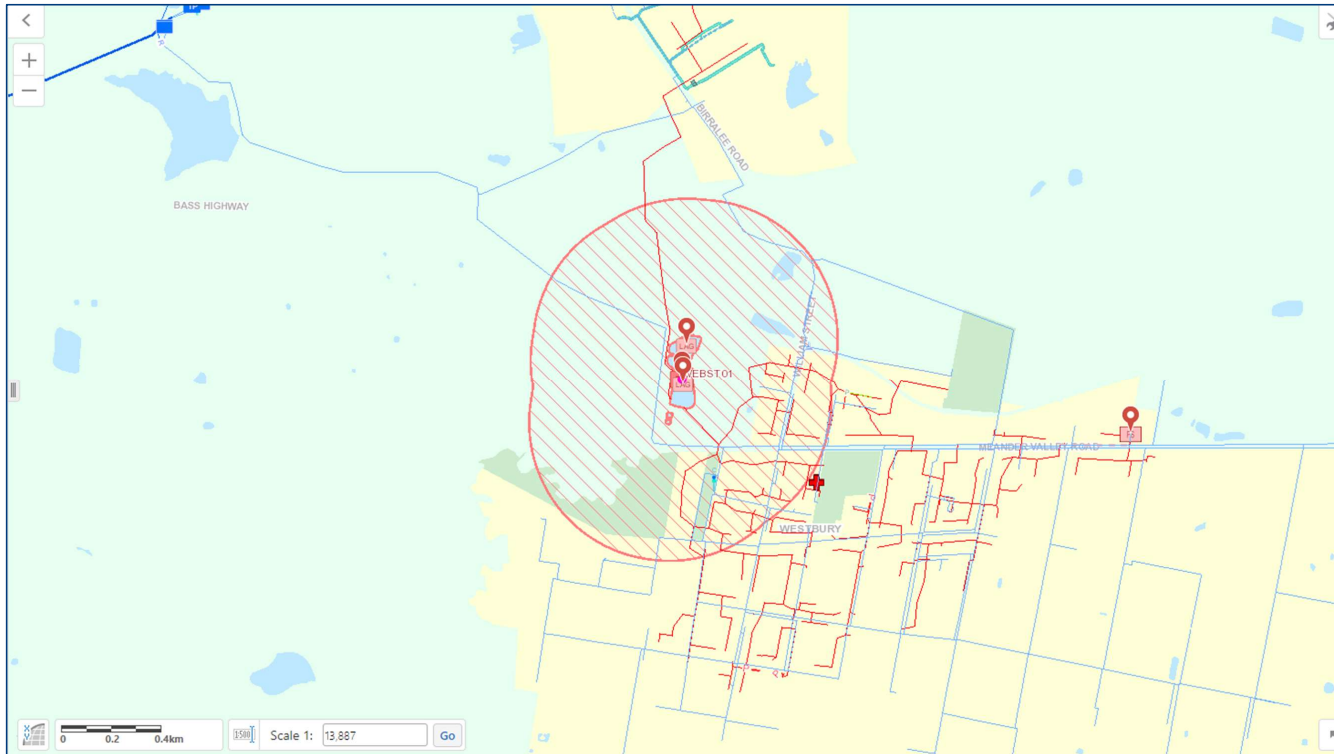


Figure 1: Buffer distance – Westbury STP (TasWater GIS system)

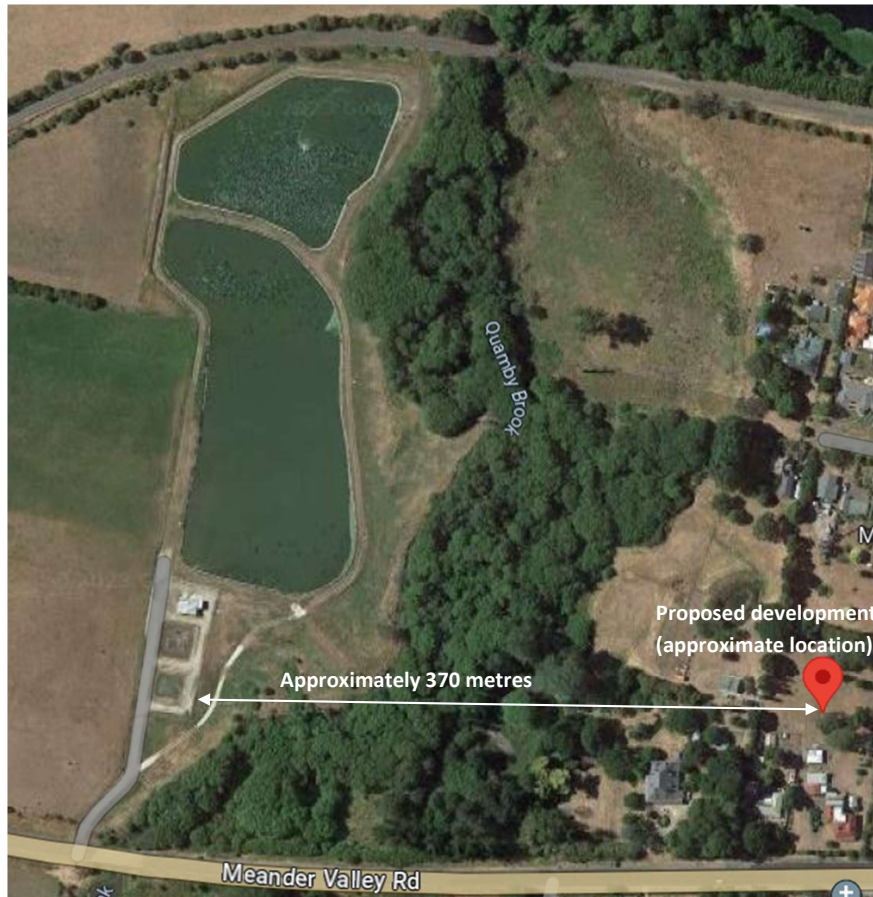


Figure 2: Distance to development from STP



1.3 Basic Information – Westbury STP

The nature of the activity being protected by the attenuation area or buffer area is sewage treatment. Table 1 provides further details about the STP.

Table 1: Details – Westbury STP

<i>Item</i>	<i>Details</i>
Odour Modelling or Survey done?	No
EPN Condition Letter	Supplied (PCE 7018 r3)
Treatment Type	Facultative lagoon
ADWF (KL/d) (average dry weather flow)	600
Design Flow (KL/d)	1,375
Average daily flow (KL/d)	996
Attenuation distance (m)	550
<i>Sensitive receptors (based on latest data)</i>	
- Residents	133
- Public Service	3
- Commercial	10
- Sporting facility	2

The degree of encroachment of the development on the 550m theoretical buffer zone is significant, with the development being wholly within the buffer distance. However, as per the information provided by TasWater, there are already at least 148 sensitive receptors within the buffer distance.



1.4 Permit odour conditions for the STP

The Westbury STP is permitted by the EPA under Permit Conditions – Environmental (PCE) 7018 r3, issued on 2 June 2009. The relevant odour related conditions of the Permit are as follows:

Atmospheric (A1) – Odorous gases

Odorous gases arising from the activity must be managed so that they do not cause environmental nuisance beyond the boundary of The Land, which is defined in the Permit as follows:

“The Land means the land on which the activity to which this document relates may be carried out, and includes: buildings and other structures permanently fixed to the land, any part of the land covered with water, and any water covering the land. The land falls within the area defined by: 1 Certificate of Title 8622/1”

An approximate outline of the Land is provided in Figure 3 below.



Figure 3: Approximate outline of The Land as per the Permit

12.1.8 Application Documents



EPA Tasmania has also released the *Environment Protection Policy (Air Quality) 2004*, also known as the Air Quality EPP, which provides a framework for the management of odour and other air emissions with the potential to cause environmental nuisance or harm.

Section 13 of the Air Quality EPP states the following:

Odour

13. (1) If a regulatory authority is satisfied that an odour from an activity is causing or is likely to cause an environmental nuisance or environmental harm, the authority should require that the odour emission from the source not exceed the odour criteria specified in Schedule 3, at or beyond the boundary of the land on which the source is located.

(2) If the activity that is the source of the odour is being carried out at the time that this Policy is made, the time frame for compliance with sub-clause (1) should be determined on a case-specific basis having regard to:

- (a) the environmental impact associated with the pollutant being emitted;
- (b) the economic cost of upgrading and the capacity of the relevant activity to support this cost; and
- (c) the practicability of reducing emissions.

Contemporary requirements usually refer to ensuring that odour at either the boundary or the nearest sensitive receptor is reduced to less than 2 odour units, which applies to mixed gases of unknown make-up. As per the Air Quality SPP, "Odour unit" has the same meaning as in Australian Standard AS/NZS 4323.3 *Stationary source emissions – Determination of odour concentration by dynamic olfactometry*.

The potential to cause nuisance already exists and may need future management by TasWater, due to there being several sensitive receptors already within the buffer distance. The Permit also requires there to be no nuisance caused by odour beyond the boundary of the Land as defined in the Permit.

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1.5 Review of odour complaints history relating to the STP

Odour complaints history has been provided by TasWater for the area surrounding the STP. The complaints system is listed against the address of the complainant, and then linked to the relevant sewerage catchment. From the 29-month period March 2021 to August 2023, there were 44 complaints recorded in TasWater's records relating to odour from the STP.

The complaints seem to come in defined periods, for instance:

- There were 8 complaints in December 2021,
- There were 19 complaints between 31 January 2022 and 2 March 2022, and
- There were 13 complaints between 13 February 2023 and 30 March 2023.

So, 40 of the 44 complaints (91%) happened in three different periods of about one month to six weeks. This may correlate to upset process conditions at the STP. There appears to be one month per year in summer when complaints are made. Complaints appear to have started in 2021 - TasWater advised that there are only three odour related complaints on record for 2016, 2017 & 2020 which did not include details on the source of the odour.

The bulk of residents are to the south and east of the STP, to the west and north there is mainly cleared land, presumed to be farmland.

1.6 Assessment of meteorological conditions for the locality, including wind rose information

Wind rose information has been obtained from the Bureau of Meteorology website (http://www.bom.gov.au/clim_data/cdio/tables/pdf/windrose), and is included in Figure 4 and Figure 5.

12.1.8 Application Documents



At 9am, the annual wind rose indicates that:

- Prevailing winds are from the north and northwest about 40% of the time.
- Winds from the southeast occur about 15% of the time.
- Still conditions occur for about 19% of the time.

At 3pm, the annual wind rose indicates that:

- Prevailing winds are from the north and northwest almost 70% of the time.
- Still conditions occur for about 3% of the time.

Weather conditions that might lead to odour nuisance in the direction of the proposed development occur about two thirds of the time in the mornings and about 70% of the time in the afternoon.

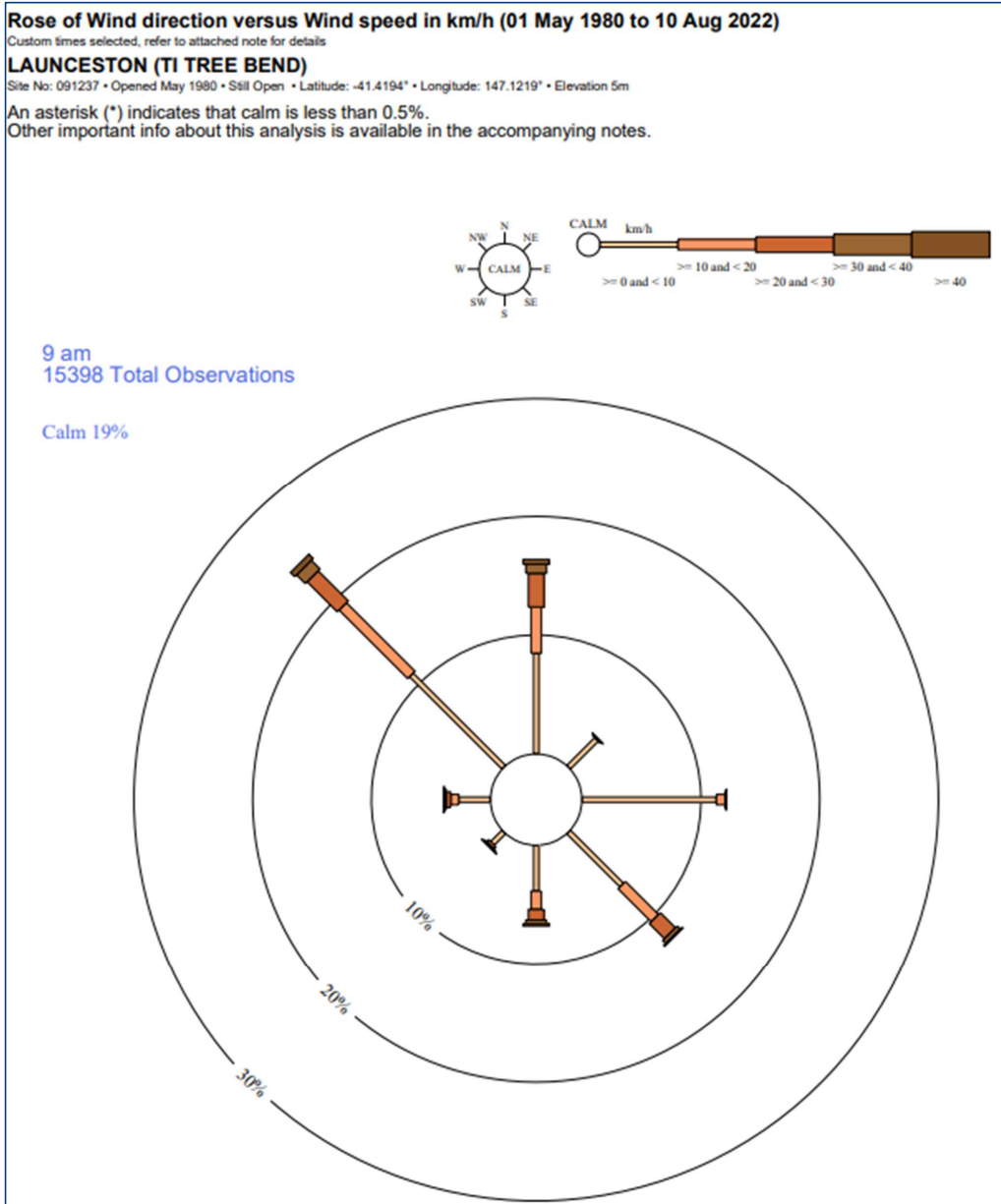


Figure 4: Annual Windrose for Ti Tree Bend weather station (Site No: 091237) – 9am

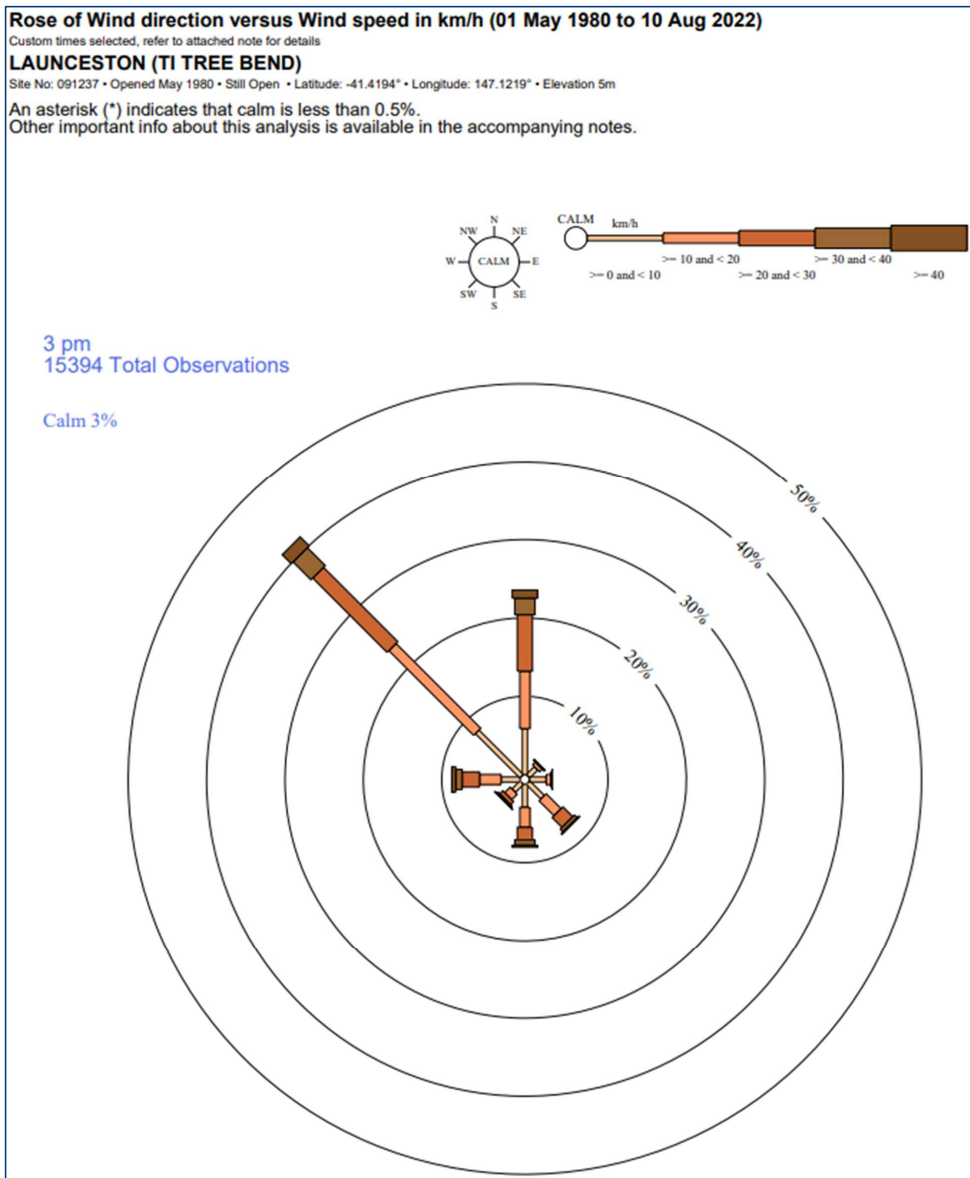


Figure 5: Annual Windrose for Ti Tree Bend weather station (Site No: 091237) – 3pm

1.7 Review of site and surrounding conditions

A review of the development site and surrounding conditions demonstrates the following:

Odour Risk Assessment

12.1.8 Application Documents



- The TasWater GIS data showing the attenuation distance appears to be indicative only, as the formal attenuation distance should be 550 metres from the title boundary, as required under the code.
- It would then follow that the TasWater data on sensitive use within the buffer may also be incorrect.
- The attenuation area already contains extensive land zoned for residential, commercial and other uses, that provide opportunity for conflict and establishment of sensitive use (see Figure 6 below).
- The proposed site is located within the footprint of sensitive use, established by both zoning and existing sensitive use.

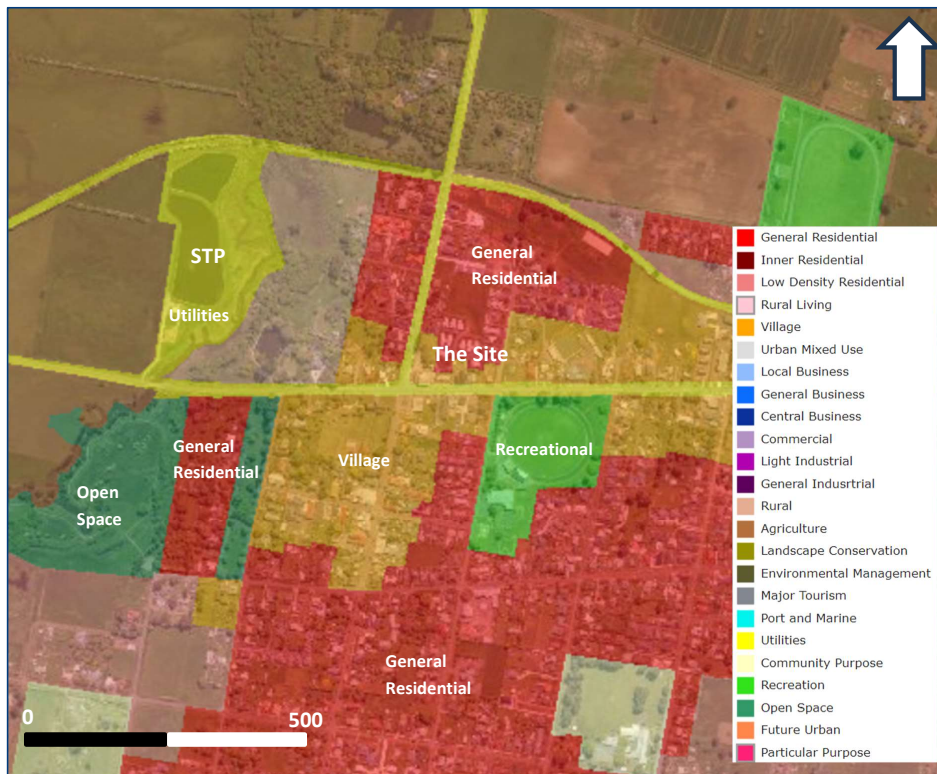


Figure 6: Zoning around the development site and STP

1.8 Review of any odour assessments

TasWater has indicated that they have not undertaken odour modelling, surveying, and field assessments in relation to the STP.

Odour Risk Assessment

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1.9 Risk assessment relating to the likelihood of odour related nuisance within the development

A qualitative risk assessment has been undertaken based on the site-specific information contained in the above, shown in Table 2.

Table 2: Risk assessment

<i>Element</i>	<i>Comment</i>	<i>Value</i>
Distance to source	Distance is 370 m versus buffer distance of 550m, and the proposal is within the recommended buffer distance	Moderate
Likely source strength	Medium sized STP with limited trade waste, and moderate size catchment	Low
Meteorological conditions	Conditions are such that odour dispersion could be towards the development most of the time	High
Evidence of complaints	Complaints appear to be bunched in events, and only for 3 months out of 29 in recent history. This may be caused by upset STP process conditions.	Moderate
Likelihood of nuisance	Due to distance and mostly favourable conditions	Moderate
Severity	Due to distance, odour is likely to be diluted at receptors	Moderate
Overall risk of nuisance		Moderate

2 Conclusion

The relevant section of the *Tasmanian Planning Scheme – State Planning Provisions* is:

- C9.0 Attenuation Code: C9.5.2 Sensitive use within an attenuation area,

with the objective “That sensitive use located within an attenuation area does not interfere with or constrain the operation of an existing activity”

There being no acceptable solutions, Performance Criteria P1 applies, with relevant details as follows:

“Sensitive use within an attenuation area, must not interfere with or constrain an existing activity listed in Tables C9.1 or C9.2, having regard to:

- (a) the nature of the activity with potential to cause emissions including:
 - (i) operational characteristics of the activity;

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- (ii) scale and intensity of the activity; and
- (iii) degree of hazard or pollution that may be emitted from the activity;
- (b) the nature of the sensitive use;
- (c) the extent of encroachment by the sensitive use into the attenuation area;
- (d) measures in the design, layout and construction of the development for the sensitive use to eliminate, mitigate or manage effects of emissions of the activity;
- (e) any advice from the Director, Environment Protection Authority.”

With reference to a i), ii) and iii) above it is imposed on the operator of the STP (TasWater) that the emissions from the activity be managed to avoid periods of complaints as noted in Section 1.5 above. The permit condition must be met so that they “do not cause environmental nuisance beyond the boundary of The Land”. This is also required so that they meet their obligations under the *Environment Protection Policy (Air Quality) 2004* which is a policy made under the *Environmental Management and Pollution Control Act 1994*. The addition of sensitive receptors does not further constrain the activity, because if the operator meets their permit condition as outlined, the risk of complaints will be mitigated. The operator can meet the condition by reducing the “*degree of hazard or pollution that may be emitted from the activity*” as mentioned in a iii) above and in the planning scheme.

Given there are already approximately 150 sensitive receptors within the theoretical buffer distance, as well as extensive areas of land zoned *General Residential* and *Village*, the development does not increase the risk of complaints and will not further constrain the STP. Thus, the development should be allowed to proceed.

12.1.8 Application Documents



References

Tasmanian Planning Scheme – State Planning Provisions

Permit Conditions – Environmental (PCE) 7018 r3, issued on 2 June 2009

https://epa.tas.gov.au/Documents/EPP_Air_Quality_2004.pdf

http://www.bom.gov.au/clim_data/cdio/tables/pdf/windrose/IDCJCM0021.091237.3pm.pdf

Australian Standard AS/NZS 4323.3 *Stationary source emissions – Determination of odour concentration by dynamic olfactometry*

<https://maps.thelist.tas.gov.au/listmap/app/list/map>

12.1.8 Application Documents

Environment Protection Authority

GPO Box 1550 HOBART TAS 7001 Australia

Enquiries: Callum Lanagan-Jonas
Phone: +61 3 6777 2063
Email: Callum.Lanagan-Jonas@epa.tas.gov.au
Web: www.epa.tas.gov.au
Our Ref: D23-272880



20 September 2023

Mick Purves
Town Planning Solutions Pty Ltd

Email: purvesmickl@gmail.com

Dear Mick Purves

REQUEST FOR DIRECTOR'S ADVICE REGARDING PROPOSED DEVELOPMENT AT 111A MEANDER VALLEY ROAD, WESTBURY

I acknowledge receipt of Town Planning Solutions Pty Ltd's email dated 18 September 2023 requesting comment from the Director of the Environment Protection Authority (EPA) about a planning application for the establishment of 10 units at 111a Meander Valley Road, Westbury. I also acknowledge receipt of the following documents:

- Odour Risk Assessment by ES&D Consulting; and
- Site and folio plan.

The Tasmanian Water and Sewerage Corporation ('TasWater') is authorised to operate a Wastewater Treatment Plant (WWTP) off Meander Valley Road, Westbury. It is noted that the proposed units at 111a Meander Valley Road, depending on site plans and layout, may be approximately 270 metres from the lagoons of the WWTP (despite the Odour Risk Assessment stating the distance to the WWTP as 370 metres), which is less than the attenuation distance for a WWTP of this type and capacity.

While environmental conditions for the WWTP require that odorous gases arising from the activity must be managed so that they do not cause environmental nuisance beyond the boundary of The Land, odour issues that negatively impact sensitive uses within the attenuation zone can, and do, occur. The Odour Risk Assessment states that between March 2021 and August 2023, 44 odour complaints associated with this WWTP were received by TasWater. Odours can occur due to various factors including essential maintenance activities at the WWTP, unforeseen equipment failures, and process upsets due to unapproved liquid waste types being deposited into the sewer system. Due consideration should also be given to local conditions like terrain and meteorology, including the direction and strength of prevailing winds between the treatment lagoons and the proposed development, and potential for odours to occur during warm and humid weather.

Given these factors, the EPA considers that there is potential for land use conflict to occur, and therefore does not recommend that sensitive land use developments occur within the attenuation distances for WWTPs, particularly due to the risk of nuisance odour being experienced at the sensitive land uses. Where new sensitive uses are developed within these attenuation distances, pre-existing permit conditions for the WWTP are not likely to be enforceable. It will be up to Council to consider existing uses and rights associated with those uses.

Yours sincerely

A handwritten signature in black ink, appearing to read 'Wes Ford', written in a cursive style.

Wes Ford
DIRECTOR ENVIRONMENT PROTECTION AUTHORITY

Cc: Development and Regulatory Services, Meander Valley Council, mail@mvc.tas.gov.au

Document Set ID: 1916271
Version: 1, Version Date: 26/04/2024

D1 Consulting Engineers



STORM WATER MANAGEMENT REPORT

STORMWATER DESIGN

In accordance with AS3500.3-2021 *Plumbing and Drainage Part 3: Stormwater Drainage* and *Australian Rainfall and Runoff 2019*

Project Address: 111a Meander Valley Road, Westbury
Document Title: STORMWATER MANAGEMENT REPORT
Reference Number: 21924
Date of Report: 12th March 2024
Client: Wykeham Developments Pty Ltd
Report Author: Marcus Salonen, MIEAust CPEng NER CC7347 REPO
Version: Rev 0

Directors: Marcus Salonen, MIEAust CPEng NER CC7347 REPO
Mr Christopher Mclean, Adv Dip Civil Engineering
224A Invermay Road, Mowbray 7248 | Phone (+61) 0400 347 100 | Email marcus.salonend1ce@gmail.com
D1 Consulting Engineers Pty Ltd | ABN 33 629 191 368

Document Set ID: 1916271
Version: 1, Version Date: 26/04/2024

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1. INTRODUCTION AND SCOPE OF ENGAGEMENT

D1 Consulting Engineers have been engaged to design a storm water system for the proposed unit development at 111a Meander Valley Road, Westbury. It has been indicated that the Local Authority will require that the site's post-development peak discharge does not exceed the pre-development peak discharge for storm water in the case of a 1% Annual Exceedance Probability (AEP) storm event of 60mins durations with a 50% impervious rate. This discharge rate is to not exceed 18.13% AEP as stated above. The detention system will require enough storage volume to meet these requirements and prevent any downstream worsening in such an event will be significant because of this.

The following report outlines the methodology and assumptions used to ensure the proposed development complies with this condition.

This document has been prepared in accordance with the scope of services agreed upon between D1 Consulting Engineers (D1CE) and the Client. To the best of D1CE understanding, this document represents the Client's intentions at the time of printing of the document. In preparing this document D1CE has relied upon data, surveys, analysis, designs, plans and other information provided by the client, and other individuals and organisations referenced herein. Except as otherwise stated in this document, D1CE has not verified the accuracy or completeness of such data, surveys, analysis, designs, plans and other information.

No responsibility is accepted for use of any part of this document in any other context or for any other purpose by third parties.

2. Existing Site

111a Meander Valley Road is located at the western end of Westbury close to the outer limits of the township. Currently, the site has one shed and two glass house buildings with driveway access, the rest of the site is grassed with some established trees to the east side of the property, shown below in Figure 1.



Figure 1: 111a Meander Valley Road Locality Plan (<https://maps.thelist.tas.gov.au>, 2024)

The development site falls gently to the North and features an existing 150mm diameter storm water discharge point located behind the unit 5 of the unit proposal situated along this downhill boundary of the property where it enters an underground public drainage system.

The existing council infrastructure that running along the northern property boundary has been identified as the following:

- The storm water line running along the northern property boundary from William Street to 111a Meander Valley Road is a 450mm diameter Black max which stops approximately 25-30 from the western property boundary.
- The storm water water line from the western property boundary to the end of the 450mm diameter black max line to a 300mm diameter concrete line.

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3. Proposed Development

The proposal features a 10 unit development and a large driveway from Meander Valley Road to the north end of the block. The layout is shown below in Figure 2.



Figure 2: Unit Development Plan

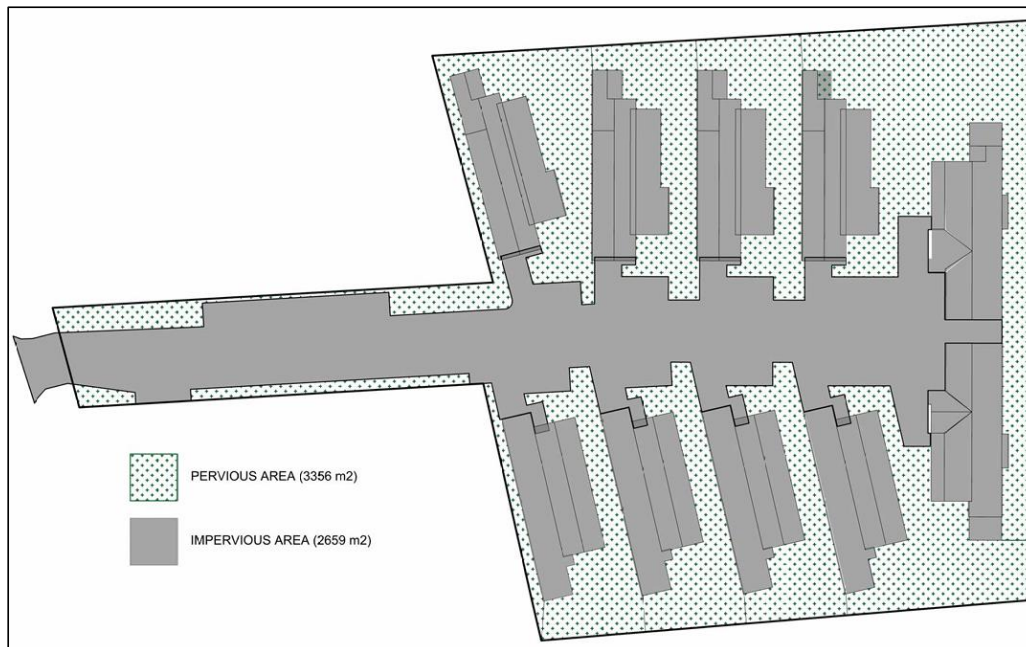


Figure 3: Pervious/Impervious Mapping

4. STORMWATER DISCHARGE MODEL

DRAINS Model Parameters

DRAINS software was utilised to run an IL-CL model of the development site before the proposed development. Ensembles of storms were modelled as per ARR 2019 procedures.

Design rainfall and losses were imported from ARR 2019 data hub and BOM 2016 IFD design rainfalls for Westbury. The losses used for the IL-CL model are summarised in Table 1.

Table 1: Initial and continuing losses for IL-CL model

		Data Source
Impervious Area Initial Loss (mm)	1	ARR 2019 Book 5 Chapter 3 Section 3.5.3.1.2
Impervious Area Continuing Loss (mm/h)	0	ARR 2019 Book 5 Chapter 3 Section 3.5.3.1.2
Pervious Area Initial Loss (mm)	18.0	Storm initial losses from ARR 2019 data hub for Westbury, as per ARR 2019 Book 5 Chapter 3 Section 3.5.3.2.1
Pervious Area Continuing Loss (mm/h)	4.5	Storm continuing losses from ARR 2019 data hub for Westbury, as per ARR 2019 Book 5 Chapter 3 Section 3.5.3.2.2

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DRAINS Ensemble Storm Method

Ensembles of storms are modelled in DRAINS, as recommended in ARR 2019, to model the runoff from a catchment.

An ensemble of 10 temporal patterns for each storm event is modelled, with the results based on the median of the outputs. This accounts for the hydrologic variability of the temporal patterns (e.g. a storm may be front, middle, or back loaded).

The inundation rates are imported to DRAINS from Bureau of Meteorology (BOM) 2016 Intensity Frequency-Duration (IFD) data. Temporal patterns, storm losses and pre-burst rainfall depths are imported from ARR data hub.

System Configuration

- Interim Climate Change Factor (CC RCP8.5 2090) 1.163x;

Assumptions of the development

- The development is assumed to be above the 1% AEP CC events;
- The development maximum discharge rate is to not exceed 18.13% for a 1% AEP

DRAINS Model Site Pre-development Conditions

Sub-catchment name: Pre-dev Catchment Sub-catchment area (ha): 0.6015

Hydrological Model: Default model You specify

Use: abbreviated data more detailed data

	EIA	RIA	PA
Percentage of area	50	0	50
Time of concentration (mins)	5	2	15

where EIA = Effective Impervious Area
RIA = Remaining Impervious Area
PA = Pervious Area

OK

Figure 4: DRAINS pre-development model conditions

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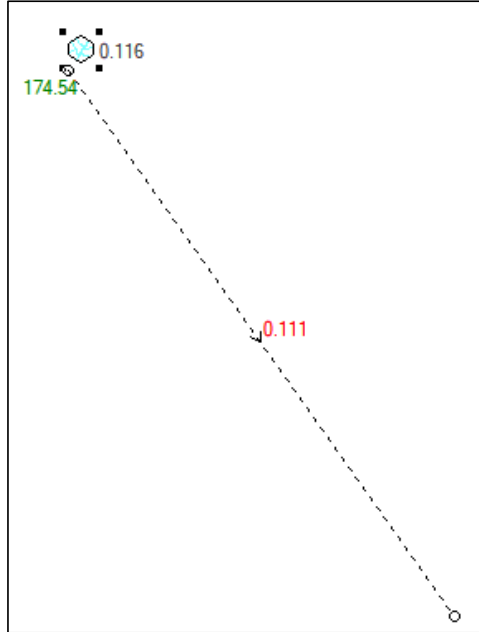


Figure 5: DRAINS pre-development 1% AEP model catchment rates

Maximum flow in Overland for each storm

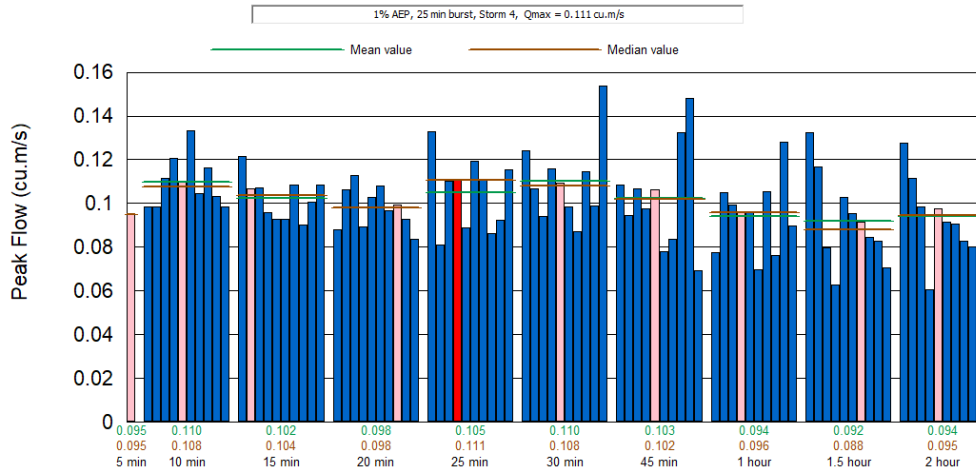


Figure 6: DRAINS pre-development 1% AEP peak flow chart

Summary of peak flows from post-development catchment in 1% AEP. Pink bars represent the flow closest to the median for each burst duration group. The red bar represents the critical burst duration for this catchment, and per ARR2019 procedures becomes the basis for the design.

The maximum peak discharge from the pre-developed model for a 1% AEP storm event using the conditions in Figure 3 is **0.111cu.m/s** or **111L/s**.

5. Storm water Design Criteria

To meet the criteria set by the Meander Valley Council, it is necessary to restrict the post-development storm water flow rate to match the pre-development flow rate during the highest 1% AEP event (18.13%). As outlined the storm water discharge is planned to discharge at the existing storm water outlet of the within the northern boundary of the site via a detention system.

The maximum 1% AEP flow from the pre-developed site is 111L/s which need to be reduced to 18.13% to meet the design criteria set by the Meander Valley Council.

Maximum Flow (1% AEP) 111L/s x 18.13% ≈ 20.12L/s maximum discharge for post development.

Doing this will remove any impacts that may worsen the downstream storm water network's ability to convey flows.

6. Detention Model

The following areas were determined from the supplied architectural drawings on the new development outlines and hardstands areas:

Post-development

Detention model site area:	≈ 6015 m ²
Post-developed Impervious areas (Units):	≈ 1840 m ²
Post-development Impervious areas (Driveway, roof and footpaths):	≈ 1516 m ²
Post-developed pervious areas (lawn/gardens):	≈ 2659 m ²

Coefficients of run-off adopted for design are as follows:

Roofed areas:	C = 1.00
Impervious areas:	C = 0.90
Pervious areas:	C = 0.11

Where: ${}^{100}I_{60}$ = Rainfall intensity for a 60-minute duration storm with a 1% AEP (if less than 25 adopt 25, if greater than 85 adopt 85).

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Design Rainfall Intensities:

60-minute duration – 1:100 year storm event, (Westbury): I = 34.7 mm/hr (BOM IFD)

This 1% AEP 1 hour ‘permissible flow’ is calculated as using the Rational Method as follows:

Table 1: Post-development conditions

Stormwater Flow For All Intensities		For 1 in 100 year ARI
Residential area =	6015 m ²	
Catchment Area =	3356 m ²	
with fraction impervious <i>f</i> =	0.557	
Time of Concentration =	60 Min	
The 1% AEP, 60min Rainfall Intensity =	34.7 mm/hr	
Total area is 6015 square metres with a runoff coefficient 'C' of		0.52
Stormwater Flow =	30.06 L/s	

Boy'd Formula has been used to determine the detention volume:

$$S_{\max} = V_1 (1 - Q_p/I_p), \text{ where}$$

S_{\max} = Maximum Volume of temporary Storage (m³)

V_1 = Volume of inflow flood (m³)

I_p = Peak discharge of inflow hydrograph (m³/s)

Q_p = Peak discharge of outflow hydrograph (m³/s)

The peak outflow has been set to 20.12 L/s as per the pre-development assessment above.

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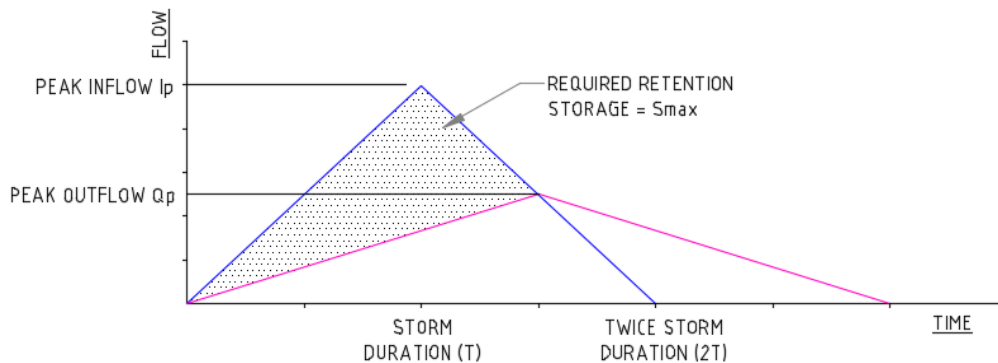


Figure 7: Boyd's Formula Hydrographs and Storage Diagram

Table 2: Boyd's Formula inputs

Catchment Area =	0.6015	ha
Volumetric Runoff Coefficient (100 Yrs) =	0.85	
Frequency Factor (100 Yrs) =	1.2	AR&R
100 Yrs Effective Catchment Area (Total CA) =	0.0445	ha
Restricted Outflow Requirements =	0.02012	m ³ /s
Restricted Outflow Requirements =	20.12	L/s

The 100 year runoff coefficient (C_{100}) is calculated using the AR&R formula $C_{10} = 0.7 + 0.8f$ where 'f' is the fraction impervious 85% (required by TasWater)

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Table 3: Boyd's Formula storage calculations

Storm Duration (min)	20 Years (mm/hr)	I_p (m ³ /s)	Q_p (m ³ /s)	V_1 (m ³)	S_{max} (m ³)
0	0	0	0	0	0
1	215	0.2658	0.02	15.950	14.743
2	166	0.2052	0.02	24.629	22.215
3	151	0.1867	0.02	33.606	29.984
4	140	0.1731	0.02	41.544	36.715
5	131	0.1620	0.02	48.591	42.555
10	101	0.1249	0.02	74.927	62.855
15	82.9	0.1025	0.02	92.249	74.141
20	70.5	0.0872	0.02	104.601	80.457
25	61.6	0.0762	0.02	114.245	84.065
30	54.9	0.0679	0.02	122.183	85.967
45	42.1	0.0521	0.02	140.543	86.219
60	34.7	0.0429	0.02	154.453	82.021

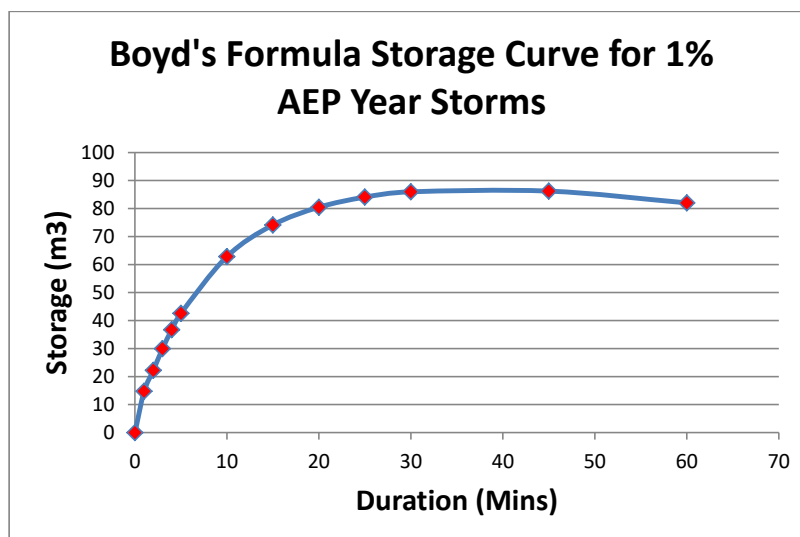


Figure 8: Boyd's Formula storage curve for 1% AEP storms of varying durations

As seen in Table 3 and Figure 8 that the peak storage of **86.22cu.m** occurs during the 45mins storm event.

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This volume can be achieved through the installation of a 4x600 diameter pipes 20m long located under the proposed driveway or behind unit 5 & unit 6 with a 100mm diameter flow restrictor installed 100mm from the base of the storm water detention system or equivalent system.

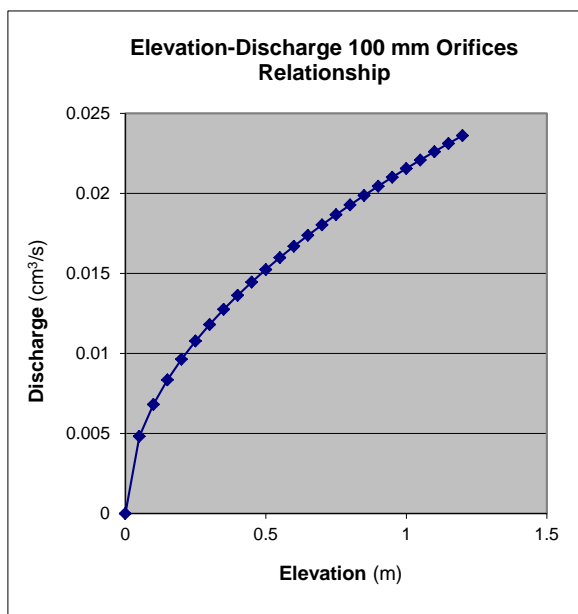


Figure 9: Elevation/Discharge Relationship for 100mm orifice with a 900mm storage head

7. CONCLUSION

As demonstrated in this report, the proposed unit development at 111a Meander Valley Road, Westbury is able to fully detain the peak 1% AEP storm event on-site, without exceeding the permissible site discharge. We trust that the above letter provides the information you require.

Note:

- No assessment has been undertaken of the storm water infrastructure within the Local Authority Road Reservation and its capacity.
- This report assumes the Road Reservation storm water infrastructure has capacity for the pre-development peak discharge.
- It is the responsibility of the Local Authorities to assess their infrastructure and determine the impact (if any) of altered inflows into their storm water network.

8. RECOMMENDATION

The existing 300mm diameter concrete storm water main line on the northern property is currently undersized, damaged from root intrusion. It would be recommended that the existing 300mm diameter concrete storm water main line on the northern property boundary be upgraded to a 450mm diameter storm water line and a new reinforced concrete headwall with scour protection be installed.

If you require any further information or clarification on any aspect of the above, please don't hesitate to contact me 0400 347 100.





Marcus Salonen
B.E. (Civil/Structural), MIE Aust, CP Eng, NER.
Accreditation No. CC7347, RPEQ. No 20174

Prepared By D1 Consulting Engineers
224A Invermay Road, Mowbray TAS 7250
Ref: 21924, Dated 12/03/2024

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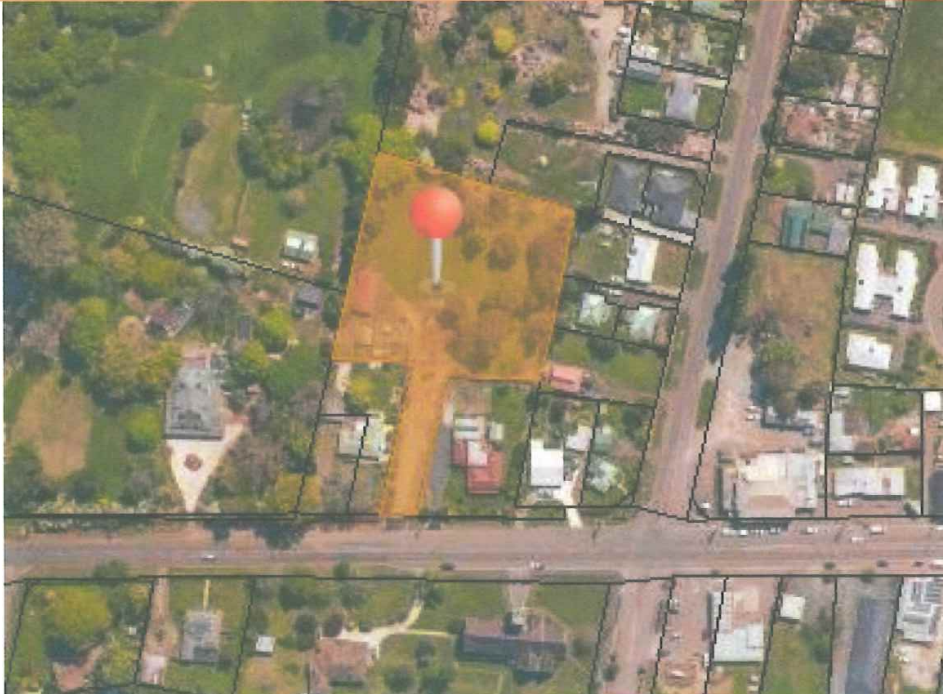
-  BUSHFIRE SITE ASSESSMENTS
-  BUSHFIRE REPORTS
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www.reddogbushfire.com.au

VZ Designs Pty Ltd ABN 50 110 377 421 e: info@reddogbushfire.com.au PO Box 7647, Launceston

BUSHFIRE ASSESSMENT

Client	Wykeham Development Pty Ltd	Volume/Folio Number	184301/1
Site	111a Meander Valley Road Westbury, Tas, 7303	PID	2137481
Report By	Jason Van Zetten	Accreditation	BFP113
Date	6 th September, 2023	Job Reference	7896



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12.1.8 Application Documents

Proposal

This report is for a ten-unit development to be constructed on a lot known as 111a Meander Valley Road at Westbury.

Site Description

The lot itself is an internal lot located at the north west end of Westbury around 300m north of the Westbury council chambers. At the time of inspection, the site itself was in a managed state. The lot is predominantly surrounded by residential uses with larger grass and scrub lots to the north west, extending down to Quamby Brook.

To the north of the site are neighbouring sites, varying from smaller managed unit sites through to the immediate neighbour at 6 Quamby Street, which is a larger managed 0.6ha lot with manicured gardens. Predominantly managed uses extend past Quamby Street around 120m from the site through to the train line to the north, around 300m from the site.

To the east of the site are residential uses that are predominantly managed and associated with William Street, extending through to the Westbury Hotel rear yard/parking area around 60m from the site. Predominantly managed commercial and residential uses extend along each side of Meander Valley Road as predominantly managed for around 1.2km from the site.

To the south of the building area/site is the driveway to the site itself and neighbouring dwellings which extend around 60m through to Meander Valley Road. Beyond Meander Valley Road is the Holy Trinity Church and associated buildings which is located on a larger managed lot of approx. 1.6ha. Beyond this is a mix of residential and commercial uses associated with William Street, Lonsdale Promenade and Lyall Street which extend as managed through to King Street, around 450m from the site.

To the west of the site are 2 neighbouring lots known as 115 Meander Valley Road and 12 Quamby Street. Number 115 Meander Valley Road was predominantly managed with manicured gardens. Number 12 Quamby Street had a mix of managed areas surrounding the existing buildings, unmanaged grassland extending to around 110m from the works. Beyond this was scrub associated with the banks of Quamby Brook with Quamby Brook itself around 200m from the site. Beyond Quamby Brook was the Tas Water treatment plant with grassland paddocks associated with farmland extending to the west to around 200m from the site, for at least several kilometres.



12.1.8 Application Documents

Access

Access is via an existing wide crossover and 13m wide accessway. As the access is greater than 30 metres in length it will need to comply with the following;

The following design and construction requirements apply to property access greater than 30m in length or for access to a fire appliance to a firefighting water point as per Directors Determination - Bushfire Hazard Areas.:

- (a) All-weather construction;
- (b) Load capacity of at least 20 tonnes, including for bridges and culverts;
- (c) Minimum carriageway width of 4 metres;
- (d) Minimum vertical clearance of 4 metres;
- (e) Minimum horizontal clearance of 0.5 metres from the edge of the carriageway;
- (f) Cross falls of less than 3° (1:20 or 5%);
- (g) Dips less than 7° (1:8 or 12.5%) entry and exit angle;
- (h) Curves with a minimum inner radius of 10 metres;
- (i) Maximum gradient of 15° (1:3.5 or 28%) for sealed roads, and 10° (1:5.5 or 18%) for unsealed roads; and
- (j) Terminate with a turning area for fire appliances provided by one of the following: (i) A turning circle with a minimum outer radius of 10 metres; (ii) A property access encircling the building; or (iii) A hammerhead "T" or "Y" turning head 4 metres wide and 8 metres long.

Water Supply

The building area on the site itself is not within 120m hose lay from nearby fire hydrants. The owner has indicated that as part of the design for this number of units, a fire hydrant is required to be installed centrally on the site. This fire hydrant is to be installed in a location that allows a hose lay of less than 100m to the rear of the furthest unit.

Bushfire Hazard Management Plan

The attached Bushfire Hazard Management Plan must be implemented prior to occupation of the new works.

Failure to meet the requirements of this report may invalidate your insurance policy in the event of a bushfire.

The entire site is required to be maintained as per the plan and in line with AS3959/2018.



Opportunities & Constraints

1. It is likely that the units that are in the BAL Low area are managed anyway due to the small nature of the units. Therefore the hazard management area is recommended for the entire site.
2. The slopes are undulating and have been based on a 0-5 degree downslope in all directions, this does not affect the overall outcome.
3. It is deemed a distance of 18 metres be adopted for the grassland to the north west, from the north western corner of the site. This results in a triangular corner of the site with a minimal distance of 40x40m, based on Table 2.6 Determination of BAL FDI 50 being the extent of the BAL 12.5 area, where classifiable grassland within 16-50m is deemed BAL 12.5
4. Number 6 Quamby Street is a managed garden associated with collectors vehicles and machinery and it is believed the owner has regular open gardens.
5. residential dwellings and roads in all directions other than the north west have been deemed excluded to AS3959/2018 2.2.3.2 (e) and (f) based on minimal fuel load.
6. The BAL Low result for part of the site does not delete the requirements for access and water supply, these must be adopted when a site is mapped as being in a bushfire prone area, based on the Directors Determination.
7. The water supply shown on the hazard management plan is based on the requirements setout in the Directors Determination. It is believe that the fire hydrant associated with the development will meet this determination, however this is required to be approved by the building surveyor.

Conclusion

As the site is within 100m of bushfire prone vegetation and is mapped as being in a bushfire prone area, a BAL assessment is required for the purpose of these works.

After consideration of the vegetations to the north, east and south of the proposed unit development, it is deemed that most of the gardens and yards of adjacent dwellings are in a managed state and therefore a BAL Low can be adopted in these directions. An area of grassland exists on the neighbouring lot known as 12 Quamby Street to the north west of the north western side corner at a distance of 18m from the site. A clear line of managed and unmanaged vegetation exists across the neighbouring site and based on this the following classifications can be adopted; BAL 12.5 for a distance of 40 metres across both the north and west boundaries from the north western site corner and a BAL Low classification can be adopted for the remainder of the site where unmanaged vegetations are greater than 50 metres from the site. This calculation of BAL is based on AS3959/2018 2.2.3.2 (e) and (f), tables 2.3 and 2.6.

Note the 40m distance shown on the plan is a rounded up arbitrary figure based on the distances shown on the plan provided. It is recommended that once the final unit design is available that the author or this report is provided with a copy to check the outcome.

Important, each units within the BAL 12.5 area must be wholly constructed on this basis. Units outside of this defined area can be deemed BAL Low.

BAL LOW & BAL 12.5 (north western portion) to AS3959-2018



Limitations

This report only deals with potential bushfire risk and all other statutory assessments are outside this report. All information provided was as at the time of inspection of the site, and this report is not to be used for further or future development of the site other than what has been provided by the plans attached. This report and/or management plan does not guarantee that the building will survive a bushfire.

Arial Photo

