

Client
MHE Development Tocumwal

Date
7 February 2025

Planning

Transport

Urban Design

Waste

Waste Management Plan

32 Burma Road,
Tocumwal (NSW)

ratio:

ratio.com.au

Project
32 Burma Road, Tocumwal (NSW)

Prepared for
MHE Development Tocumwal

Our reference
21804W R01F01

Directory path	https://ratioconsultants1.sharepoint.com/sites/21804W/Shared Documents/7. Waste management plans/21804W R01F01.docx
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Version	Date	Issue	Prepared by	Checked by
R01D01	29/01/2025	RFI Response – Draft	W Psiwa	M Fairlie
R01F01	7/02/2025	RFI Response – Final	W Psiwa	M Fairlie

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Acknowledgement of Country

We acknowledge the Traditional Owners of the land we work, live and travel on, and appreciate the rich cultures of the Aboriginal and Torres Strait Islander Peoples and their enduring connection to country.

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Executive Summary

Project Address

32 Burma Road, Tocumwal (NSW)

Local Council

Berrigan Shire Council (Phone: (03) 5888 5100)

Planning Application Number

To be assigned

Bin and Collection Schedule Summary

LLC and Standard Dwellings

Waste Stream	Bin Size	Quantity	Collection Frequency	Service Capacity
General Waste	240 L	1 per dwelling	Fortnightly	120 L/dwelling/week
Organics (FOGO)	240 L	1 per dwelling	Weekly	240 L/dwelling/week
Recycling	240 L	1 per dwelling	Fortnightly	120 L/dwelling/week

LLC Community Clubhouse

Waste Stream	Bin Size	Quantity	Collection Frequency	Service Capacity
General Waste	660	2	Twice weekly	2,640 L/week
Organics (FOGO)	120	1	Twice weekly	240 L/week
Recycling	660	1	Twice weekly	1,320 L/week
Paper & Cardboard	660	1	Twice weekly	1,320 L/week

Refer to Section 4 for further details on bin and collection schedule details.

Waste Collection Summary

LLC Dwellings

Waste collection shall be undertaken by a private waste contractor via an 8.8-metre-long rear loader.

Standard Dwellings

Waste collection shall be undertaken kerbside via Council's local waste collection service.

LLC Community Clubhouse

Waste collection shall be undertaken from the indented loading bay to the east of the bin storage area by a private waste contractor via an 8.8-metre-long rear loader.

Refer to Section 5 for further details on waste collection details.

1. Introduction

1.1. The Proposed Development

Ratio Consultants have been engaged by MHE Development Tocumwal, to assess and prepare a Waste Management Plan for the proposed residential subdivision of subject land located at 32 Burma Road, Tocumwal.

The application proposes to subdivide the land at the subject site to create 28 standard residential lots, a Land Lease Community (LLC) consisting of 324 residential lots, and a community clubhouse.

Refer to Appendix A for a copy of the Architectural Plans used in the preparation of this Waste Management Plan.

1.2. Report Purpose

This Waste Management Plan has been prepared to accompany the Town Planning Application for the proposed development and to address waste related matters as described in Council's RFI below:

- A WMP including full details of private waste collection, including how internal road widths will accommodate collection vehicles and kerbside pickup with vehicles parked on-street.

1.3. Applicable Standards and References

Relevant guidelines and publications considered as part of the preparation of this Waste Management Plan include:

- Australian Government – National Waste Policy: Less Waste, More Resources (2018).
- Australian Standards:
 - AS 4123.1-7 (Mobile Waste Containers).
 - AS 1668.2 (Odour).
 - AS 2890.2 (Parking Facilities).
 - AS 5377:2013 (E-waste).
 - AS 4736-2006 & AS 5810-2010 (Biodegradable plastics).
 - AS 4564-2012 (Composts).
 - AS 1319 (Safety signs).
- Environment Protection Act 2017.
- Environment Protection Regulations 2021.
- Disability Discrimination Act 1992.
- NSW EPA – Better Practice Guidelines for Waste Management and Recycling in Commercial and Industrial facilities (2012).
- NSW EPA – Better Practice Guide for Resource Recovery in Residential Developments (2019).
- Berrigan Shire Council – Waste Collection and Disposal Policy (2022).
- Berrigan Shire Council – Development Control Plan (2014).

1.4. Report Limitations

At the time of preparation of this Waste Management Plan, the waste management arrangements proposed are reflective of the currently available guidelines, in particular, NSW EPA's 'Better Practice Guide for Resource Recovery in Residential Developments'.

Waste management arrangements during the construction and fit-out stages of the development, and on-going operation and monitoring of the waste management arrangements for the development following the occupation of the development, are outside the scope of this Waste Management Plan.

1.5. Waste Management Plan Revisions

From time to time, due to changes in legislative requirements, changes in the development's needs and/or waste patterns (such as waste composition, volume, or distribution), or to address unforeseen operational issues, the Owners Corporation shall be responsible for coordinating the necessary Waste Management Plan revisions, including (on an as-required basis):

- A waste audit and new waste management strategy.
- Revision of the waste system (bin size / quantity / waste streams / collection frequency / update of equipment).
- Revision of the services provided by the waste collection contractor(s).
- Re-education of residents.
- Any necessary statutory / regulatory requirements / approvals.

2. Operational Waste Management Guide

2.1. Guide for Residents

General Waste Disposal

- Each resident shall place general waste into a dedicated general waste receptacle (under-bench recommended).
- Each resident shall empty their full general waste receptacle into the general waste collection bin located within their dwelling's Private Open Space (POS)/carport.
- General waste must be placed within tied bags prior to being placed into the general waste collection bins.

Organics (FOGO) Disposal

- Each resident shall place food scraps into a dedicated organics receptacle (caddy recommended).
- Each resident shall empty their full organics caddies into the organics (FOGO) collection bin located within their dwelling's Private Open Space (POS)/ carport.
- Grass clippings, prunings, weeds, leaves, and other garden waste from private gardens (in small amounts) can also be placed into the organics (FOGO) collection bins (loosely).
- Organics must be unbagged or placed within Council-approved compostable bags prior to being placed into the organics (FOGO) collection bins.

Recycling Disposal

- Each resident shall place recyclables into a dedicated recycling receptacle (under-bench recommended).
- Each resident shall empty their full recycling receptacle into the recycling collection bin located within their dwelling's Private Open Space (POS)/ carport.
- Bottles, cans, and containers must be rinsed, cardboard flattened, and lids/packaging separated, prior to being placed into the recycling collection bins.

Disposal of Other Waste Streams

Soft Plastics:

- residents are encouraged to separate soft plastics from general waste and take soft plastics to a nearby drop-off location.

Bulky waste and E-Waste¹:

- Residents of the standard dwellings shall arrange for bulky waste and e-waste to be collected via Council's bulky waste collection service. Residents shall place bulky waste and e-waste items on the naturestrip as per Council requirements. Residents can take additional bulky waste and e-waste items to a nearby recovery and waste transfer centre (refer to Section 8 for further details).
- Residents of the LLC dwellings shall arrange for bulky waste and e-waste to be collected via a private contractor. Alternatively, Residents can take additional bulky waste and e-waste items to a nearby recovery and waste transfer centre (refer to Section 8 for further details).

¹ Refer to the following link for further details: <https://www.berriganshire.nsw.gov.au/Our-Services/Waste-Recycling/Transfer-Stations-Landfill-Sites>

2.2. Waste Management Responsibilities

Residents

The residents of each dwelling shall be responsible for the following:

- Transfer of bins to and from the kerb for collection.
- Residents of the standard dwellings shall organise for bulky waste and e-waste collection via Council's bulky waste collection service.
- Residents of the LLC dwellings shall arrange for bulky waste and e-waste collection via a private contractor.
- Ensure that recyclables placed into the recycling collection bins are unbagged.
- Ensure that organics placed into the organics (FOGO) collection bins do not contain non-acceptable waste items.
- Ensure that bins are not stored on the kerb for long periods of time.

Owners Corporation

The Owners Corporation shall be responsible for the following:

- Engage and manage the landscaping contractor responsible for the removal and transportation of communal green waste off-site.
- Inform residents of nearby recovery and waste transfer centres.
- Provide the waste contractor with access to the LLC community clubhouse bin storage area on collection days.

3. Waste Volume Details

3.1. Waste Volume Assessment

As Berrigan Shire Council has not published specific waste management guidelines that include waste generation rates, this Waste Management Plan considers NSW EPA's 'Better Practice Guide for Resource Recovery in Residential Developments' which specifies the following waste generation rates applicable to the development:

LLC and Standard Dwellings

Individual Dwellings

Adopted for the LLC and standard dwellings

- General Waste: 120 L/dwelling/week
- Recycling: 120 L/dwelling/week
- Organics: 50 L/dwelling/week

Applying the above waste generation rates, the waste volume estimates for the LLC and standard dwellings are outlined in Tables 3.1 below.

Table 3.1: Table 3.2: LLC community Clubhouse General Waste and Organics Volume Estimates

Waste Source	Quantity	General Waste Generation Rate (L/Apartment/Week)	General Waste Volume (L/Week)	Organics Generation Rate (L/Apartment/Week)	Organics Volume (L/Week)	Recycling Generation Rate (L/Apartment/Week)	Recycling Volume (L/Week)
LLC Dwellings	324	120	38,880	50	16,200	120	38,880
Standard Dwellings	28	120	3,360	50	1,400	120	3,360

LLC Community Clubhouse

Office

Adopted for the library, office and activity room

- General Waste: 10 L/100m² floor area/day
- Recycling: 15 L/100m² floor area/day

Gymnasium

Adopted for the pool/spa and gym

- General Waste: 20 L/100m² floor area/day
- Recycling: 15 L/100m² floor area/day

Cultural and recreational services

Adopted for the cinema

- General Waste: 5 L/100m² floor area/day
- Recycling: 10 L/100m² floor area/day

Licensed clubs (with gaming)

Adopted for the games/ bar

- General Waste: 50 L/100m² floor area/day
- Recycling: 50 L/100m² floor area/day

Note: to allow for the separation of paper and cardboard from the recycling stream, the above rates have been modified to allow for a **50 : 50** split for **recycling : paper and cardboard**.

Café

Adopted for the dining

- General Waste: 100 L/100m² floor area/day
- Recycling: 120 L/100m² floor area/day

Note: to allow for the separation of organics and paper and cardboard from the general waste and recycling streams (respectively), the above rates have been modified to allow for an **80 : 20** split for general waste : organics and a **50 : 50** split for **recycling : paper and cardboard**.

Applying the above modified waste generation rates, the waste volume estimates for the LLC community clubhouse are outlined in Tables 3.3 and 3.4 below.

Table 3.3: LLC community Clubhouse General Waste and Organics Volume Estimates

Waste Source	Floor Area (m ²)	Operational Days (per week)	General Waste Generation Rate (L/100m ² /day)	General Waste Volume (L/Week)	Organics Generation Rate (L/100m ² /day)	Organics Volume (L/Week)
Pool/Spa	173	7	20	242	-	-
Gym	67	7	20	94	-	-
Cinema	43	7	5	15	-	-
Library	44	7	10	31	-	-
Office	34	7	10	24	-	-
Dining	114	7	80	638	20	160
Games/Bar	80	7	50	280	-	-
Activities	53	7	10	37	-	-
Total	608	-	-	1,361	-	160

Table 3.4: LLC community Clubhouse Recycling and Paper and Cardboard Volume Estimates

Waste Source	Floor Area (m ²)	Operational Days (per week)	Recycling Generation Rate (L/100m ² /day)	Recycling Volume (L/Week)	Paper/ Cardboard Generation Rate (L/100m ² /day)	Paper/ Cardboard Volume (L/Week)
Pool/Spa	173	7	7.5	91	7.5	91
Gym	67	7	7.5	35	7.5	35
Cinema	43	7	5	15	5	15
Library	44	7	7.5	23	7.5	23
Office	34	7	7.5	18	7.5	18
Dining	114	7	60	479	60	479
Games/Bar	80	7	25	140	25	140
Activities	53	7	7.5	28	7.5	28
Total	608	-	-	829	-	829

4. Bin and Collection Schedule Details

4.1. Proposed Bin and Collection Schedules

LLC and Standard Dwellings

The proposed bin and collection schedule for the LLC and standard dwellings is outlined in table 4.1 below.

Table 4.1: LLC and Standard Dwellings Bin and Collection Schedule

Waste Stream	Bin Size	Quantity	Collection Frequency	Service Capacity
General Waste	240 L	1 per dwelling	Fortnightly	120 L/dwelling/week
Organics (FOGO)	240 L	1 per dwelling	Weekly	240 L/dwelling/week
Recycling	240 L	1 per dwelling	Fortnightly	120 L/dwelling/week
Bulky waste/ E-waste	0.50 sqm storage area	1 per dwelling	Standard dwellings- 3 collections per year via Council's collection service LLC Dwellings- Collection conducted as required through a private contractor	-

LLC Community Clubhouse

The proposed waste storage and waste collection requirements for the LLC Community clubhouse are outlined in in tables 4.2 and 4.3 below.

Table 4.2: LLC Community Clubhouse Waste Storage Requirements

Waste Stream	Bin Size (L)	Quantity	Height per bin (mm)	Width per bin (mm)	Depth per bin (mm)	Footprint (m²)
General waste	660	2	1200	1260	780	1.97
Organics	120	1	930	480	545	0.26
Recycling	660	1	1200	1260	780	0.98
Paper & cardboard	660	1	1200	1260	780	0.98
Bulky waste/ E-waste	1 sqm storage area					1.00
Total Footprint Required Excluding Circulation (m²):						5.19

Table 4.3: LLC Community Clubhouse Waste Collection Requirements

Waste Stream	Volume (L/week)	Bin Size (L)	Quantity	Collection Frequency (per week)	Capacity (L/week)
General waste	1,361	660	2	2	2,640
Organics	160	120	1	2	240
Recycling	829	660	1	2	1,320
Paper & cardboard	829	660	1	2	1,320
Bulky waste/ E-waste	-	-	1 sqm storage area	As required	-

5. Bin Storage Location Details

5.1. Proposed Bin Storage Locations

LLC Dwellings

It is proposed for each residential dwelling's bins to be stored within each dwelling's Private Open Space (POS)/ carport.

Standard Dwellings

It is proposed for each residential dwelling's bins to be stored within each dwelling's Private Open Space (POS)/ carport.

LLC community Clubhouse

It is proposed that the LLC community clubhouse bins are to be stored in the bin storage area located on ground level.

Refer to Appendix A for a full plan of the proposed bin storage locations.

6. Bin Transfer and Collection Methodology Details

6.1. Proposed Bin Transfer and Collection Methodology

LLC Dwellings

It is proposed for each residential dwelling's bins to be collected kerbside via a private waste contractor. Sufficient kerbside space is available along the site's frontage to store the required number of bins on collection days, with sufficient spacing between bins (50cm), clear of trees, poles, and street furniture.

The residents of each dwelling shall be responsible for transferring their bins from their Private Open Space (POS)/ carport to the kerb prior to collection day.

Refer to Appendix B for the waste vehicle swept path assessment.

Standard Dwellings

It is proposed for each residential dwelling's bins to be collected kerbside via Council's residential waste collection service. Sufficient kerbside space is available along the site's frontage to store the required number of bins on collection days, with sufficient spacing between bins (50cm), clear of trees, poles, and street furniture.

The residents of each dwelling shall be responsible for transferring their bins from their Private Open Space (POS)/ carport. to the kerb prior to collection day, in accordance with Council's bin presentation requirements.

Refer to Appendix A for the kerbside bin presentation locations for each dwelling.

LLC Community Clubhouse

- Waste shall be collected from the indented loading bay to the east of the bin storage area by a private contractor.
- The nominated waste collection vehicle is the 8.8-metre-long rear loader, which has a travel height clearance requirement of 3.50m and an operational height clearance requirement up to 4.0m when collecting bins. There are no identified clearance issues at the proposed waste collection point.
- The waste collection contractor shall wheel bins from the bin storage area to the waste collection vehicle and return the emptied bins to the bin storage area as soon collection is complete. The collection procedure is expected to take no longer a few minutes.
- The waste collection contractor shall be responsible for the development of a Safe Work Method Statement (SWMS) to ensure safety is considered for every aspect of the collection process.
- A swept path assessment has been prepared using Autodesk vehicle tracking software, demonstrating that the nominated waste collection vehicle for private waste collection can access the site, conduct waste collection and exit the site in a suitable manner (Refer to Appendix B for the swept path assessment).
- Bulky waste and e-waste shall be collected on an as-required basis by a private contractor.

7. Design Standards

7.1. Bin Storage Areas Design Requirements

LLC and Standard Dwellings

Bin storage areas shall be provided in accordance with the following requirements:

- Large enough to accommodate the size and quantity of bins required for each dwelling (as outlined in Section 4), with sufficient space available for residents to access and manoeuvre the bins.
- Sufficiently screened from public view.

LLC Community Clubhouse

The bin storage area shall meet the following requirements:

- Comply with Building Code of Australia (BCA) and all relevant Australian Standards.
- Allow storage of all collection bins on site at all times.
- Allow easy access for users of the bins.
- Allow easy, direct, and convenient transfer of bins to the collection point.
- The bin storage area shall be appropriately screened to prevent unsightly impacts on amenity.
- Artificial light shall be provided where necessary outside the bin storage area to enable occupants of the site to always dispose of waste safely and appropriately.
- The bin storage area shall be sized to accommodate all waste arising on the premises together with any associated equipment for handling the generated waste. The area designated for bin storage is based on the number of bins and the physical dimensions of the bins.
- The bin storage area shall be maintained to ensure that the aesthetics of the development are not compromised.
- Each bin shall be accessible and manoeuvrable in and out of the bin storage area with minimum handling of other bins.
- The floor of the bin storage area shall be constructed of concrete (or similar) and shall be finished to a smooth even surface covered at the intersection of walls and plinths.
- The bin storage area shall be ventilated in accordance with the requirements of the Building Code of Australia and AS1668.2.
- Ventilation openings shall be protected against flies and vermin.
- Doors shall be tight fitting.
- A graded bin washing area (connected to wastewater, with a litter trap provided to prevent wastewater pollution) and wall-mounted hosecock shall be provided for washing bins, in accordance with the relevant authority requirements.

7.2. Bin Colour Requirements

LLC Dwellings

The collection bins shall be provided in the following colours, in accordance with AS 4123.1-7:

- **General waste:** dark green or black body with red lid.
- **Organics (FOGO):** dark green or black body with lime green lid.
- **Recycling:** dark green or black body with yellow lid.

Standard Dwellings

The collection bins shall be supplied by Council and will be in the following colours:

- **General waste:** dark green or black body with red lid.
- **Organics (FOGO):** dark green or black body with lime green lid.
- **Recycling:** dark green or black body with yellow lid.

LLC Community Clubhouse

The collection bins shall be provided in the following colours, in accordance with AS 4123.1-7:

- **General waste:** dark green or black body with red lid.
- **Organics (FOGO):** dark green or black body with lime green lid.
- **Recycling:** dark green or black body with yellow lid.
- **Paper and cardboard:** dark green or black body with light blue lid.

7.3. Waste Signage Requirements

The collection bins will be provided in accordance with the NSW EPA's 'Better Practice Guide for Resource Recovery in Residential Developments' standard signage or equivalent.

For standard signage details, please refer to Appendix C.

1.6. Internal Waste Receptacle Requirements

LLC and Standard Dwellings

Internal waste receptacles should meet the following requirements:

- **General waste:** large enough to hold at least 2 days' worth of general waste (~18 litres).
- **Recycling:** large enough to hold at least 2 days' worth of recycling (~30 litres).
- **Organics (FOGO):** large enough to hold at least 1 days' worth of organics (~9 litres).

LLC Community Clubhouse

Internal waste receptacles shall meet the following requirements:

- Suitably sized receptacles no larger than 60 litres for all waste streams to ensure ease of manual handling. Note: If receptacles are larger than 60 litres, a bin lifter may be required in proximity to the communal bin storage area.

8. Contact Information

Table 8.1 below includes a complimentary listing of contractors and equipment suppliers. The Project Principal shall not be obligated to procure goods / services from these companies. Ratio Consultants does not warrant or make representations for the goods / services provided by these contractors and suppliers.

Table 8.1: Contractors and Supplier Details

Service	Contractor / Supplier	Phone	Website
Recovery and Waste Transfer Centres	Tocumwal Transfer Station	03 5888 5100	www.berriganshire.nsw.gov.au
	The Bin Butlers	1300 788 123	www.thebinbutlers.com.au
	Calcorp Services	1800 225 267	www.calcorpservices.com.au
Bin Washing	Kerbside Clean-A-Bin	03 9830 7381	www.kerbsidecleanabin-srp.com.au
	WBCM Environmental Australia	1300 800 621	www.wbcm-aust.com.au
Odour Control	Eco-Safe Technologies	1300 135 039	www.eco-safe.com.au
	WBCM Environmental Australia	1300 800 621	www.wbcm-aust.com.au

Appendix A – Waste Drawings and Kerbside Presentation Plan



Movable Dwelling Yield	Lot Yield	% of Yield
Movable Dwelling Type A (Site = 10.0 x 22.0m)	155	48.0
Movable Dwelling Type B (Site = 12.7 x 22.0m)	49	15.2
Movable Dwelling Type C (Site = 12.7 x 22.0m)	50	15.5
Movable Dwelling Type D (Site = 12.7 x 22.0m)	53	16.4
Movable Dwelling Type E (Site = 15.3 x 22.0m)	16	4.9
Total Yield	323	100

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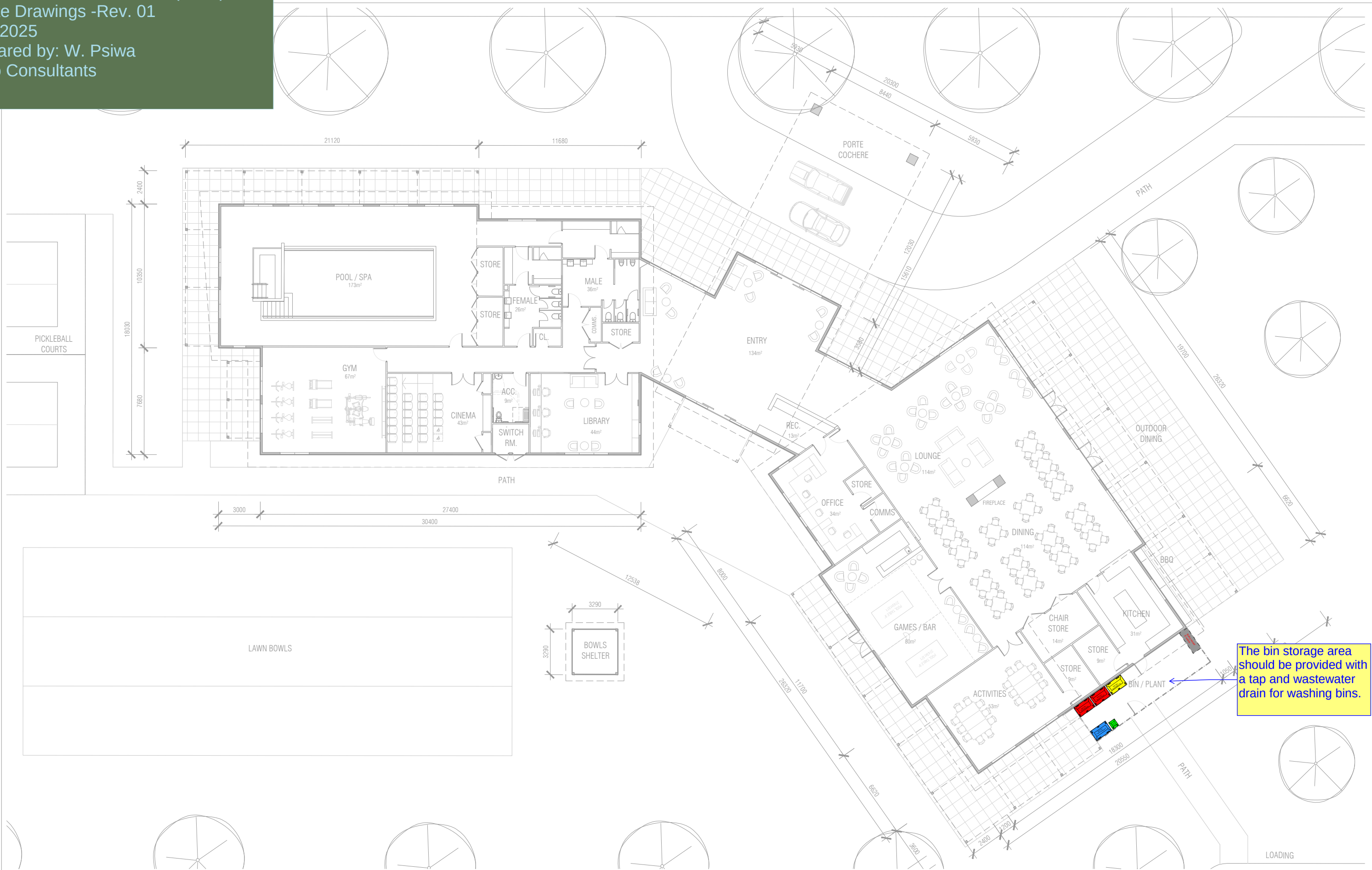
Proposed Seniors Housing Development
32 Burma Road, Tocumwal

Project No 24010
Drawn By CK
Date September 2024

Masterplan

Dwg No

TP.003



TOTAL GROSS FLOOR AREA : 1182 m²

Rev	Description	Date



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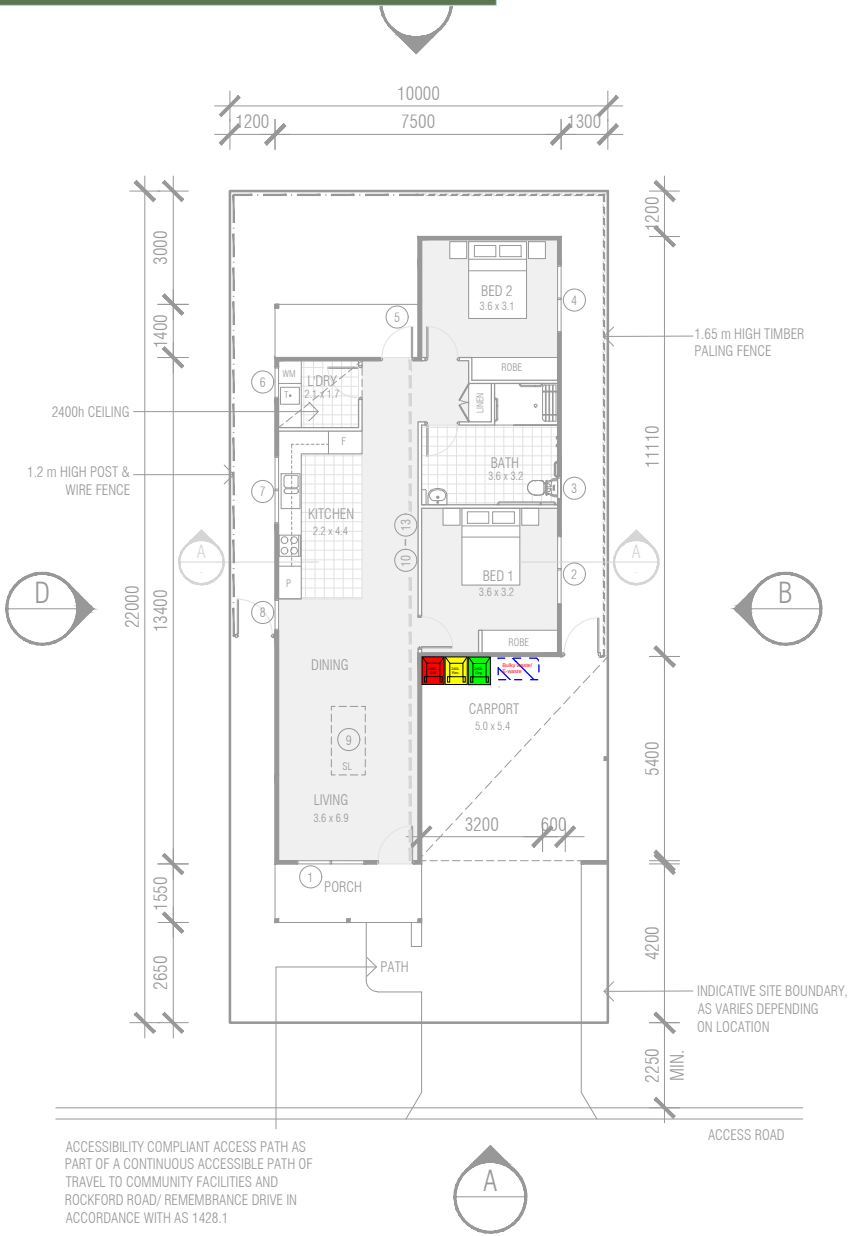
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Proposed Seniors Housing Development
32 Burma Road, Tocumwal

**Proposed Communal Centre
Plan**

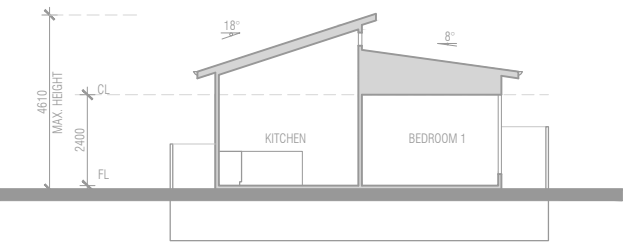
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Project No 24010
Drawn By SL/PF
Date September 2024

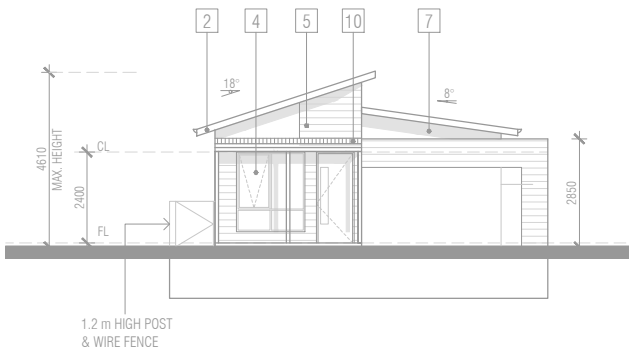


FLOOR PLAN
TWO MODULE MOVABLE DWELLING

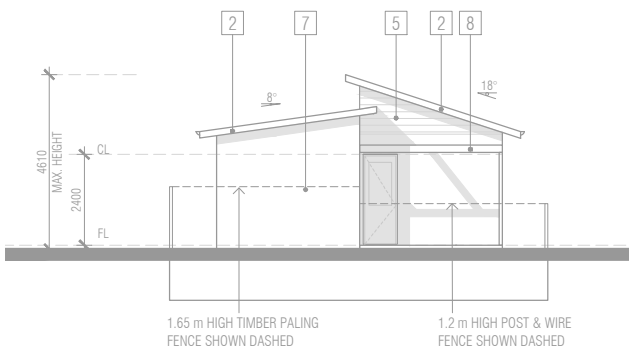
AREAS	
Movable Dwelling	
Enclosed Floor Area	=93.1 m ²
Carport	=27.0 m ²
Porch	=6.0 m ²
Minimum Private Open Space	=73.1 m ²



SECTION AA



ELEVATION A (FRONT)



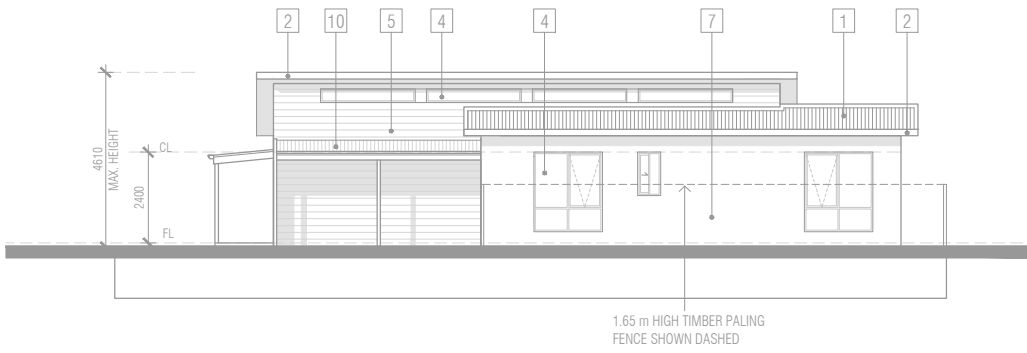
ELEVATION C (REAR)

FINISHES SCHEDULE

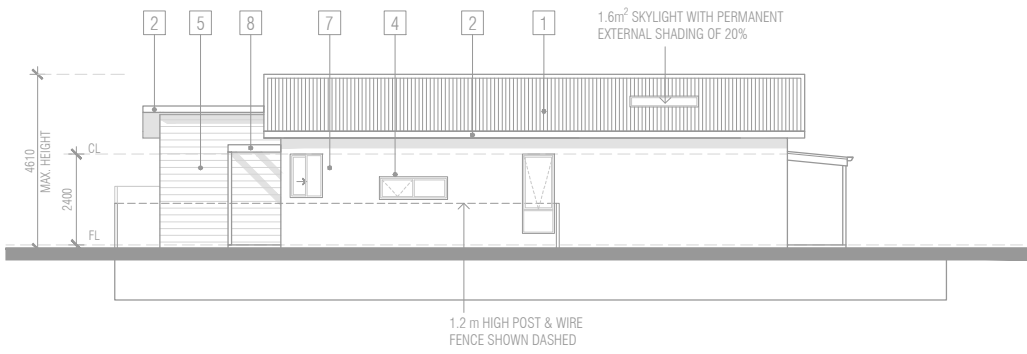
- COLORBOND METAL ROOF
- COLORBOND FASCIA
- PROFILED STEEL GUTTERS & DOWNPIPES
- ALUMINIUM WINDOW FRAMES
- LIGHTWEIGHT CLADDING (HORIZONTAL)
- LIGHTWEIGHT CLADDING (VERTICAL)
- LIGHTWEIGHT CLADDING (SMOOTH)
- TIMBER PERGOLA
-
- POLYCARBONATE ROOF SHEETING WITH SHADING COEFFICIENT OF 20% OR LESS

WINDOW SCHEDULE

- | | |
|-------|---------------------------|
| 1 | 1810w x 2100h |
| 2 | 1810w x 2100h |
| 3 | 610w x 1150h |
| 4 | 1810w x 2100h |
| 5 | 900w x 2400h |
| 6 | 850w x 1150h |
| 7 | 1810w x 600h |
| 8 | 850w x 2100h |
| 9 | 1810w x 900h (Skylight) |
| 10-13 | 2500w x 350h (Clerestory) |



ELEVATION B (SIDE)



ELEVATION D (SIDE)

FLOOR COVERINGS KEY:

- CARPET
- TILED FLOOR SURFACE

Rev	Description	Date

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Proposed Seniors Housing Development
32 Burma Road, Tocumwal

**Typical Movable Dwelling
2 Module -TYPE A**

Dwg No

Project No 24010
Drawn By SL/CK
Date September 2024

TP.200

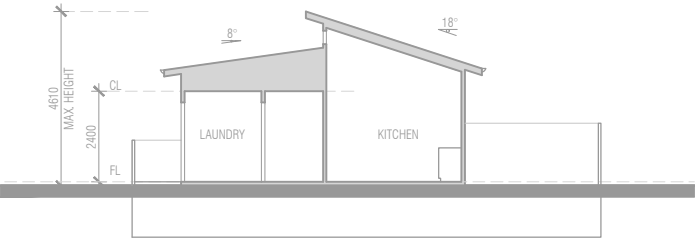
AREAS	
Movable Dwelling	
Enclosed Floor Area	= 106.1 m ²
Carport	= 21.6 m ²
Porch	= 6.0 m ²
Minimum Private Open Space	= 119.7 m ²

FINISHES SCHEDULE

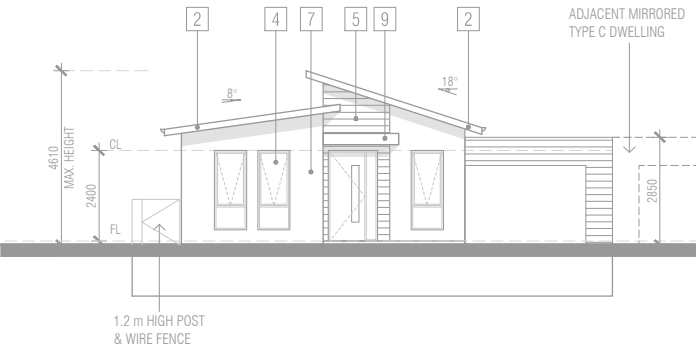
- 1 COLORBOND METAL ROOF
- 2 COLORBOND FASCIA
- 3 PROFILED STEEL GUTTERS & DOWNPIPES
- 4 ALUMINIUM WINDOW FRAMES
- 5 LIGHTWEIGHT CLADDING (HORIZONTAL)
- 6 LIGHTWEIGHT CLADDING (VERTICAL)
- 7 LIGHTWEIGHT CLADDING (SMOOTH)
- 8 TIMBER PERGOLA
- 9 ENTRY CANOPY

WINDOW SCHEDULE

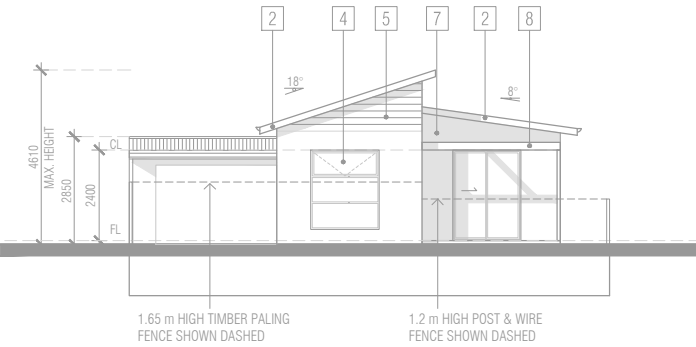
- 1 850w x 2100h
- 2 850w x 2100h
- 3 850w x 2100h
- 4 1810w x 2400h
- 5 1810w x 2100h
- 6 1810w x 2100h
- 7 1810w x 2400h
- 8 900w x 2400h
- 9 610w x 1150h
- 10-14 2500w x 350h (Clerestory)
- 15 350w x 2400h
- 16 1810w x 2400h



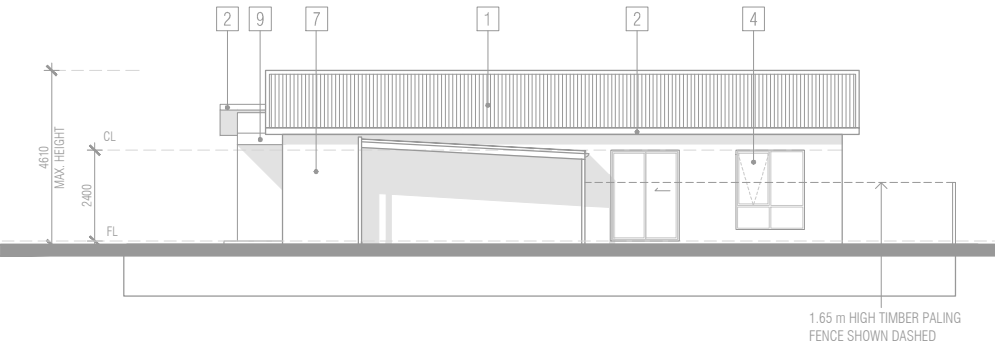
SECTION AA



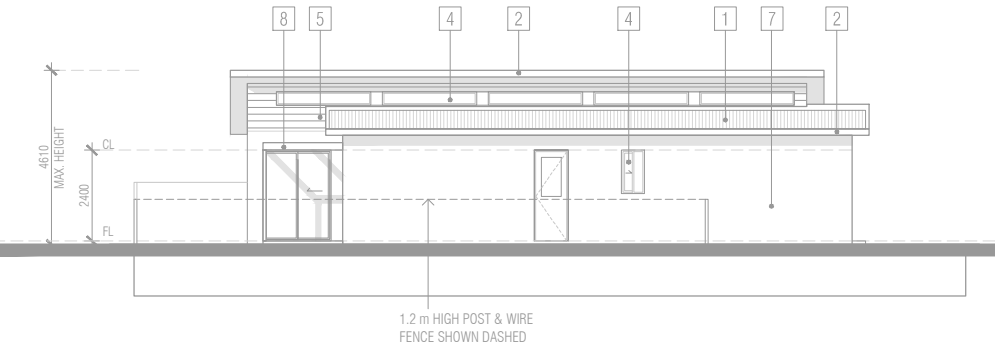
ELEVATION A (FRONT)



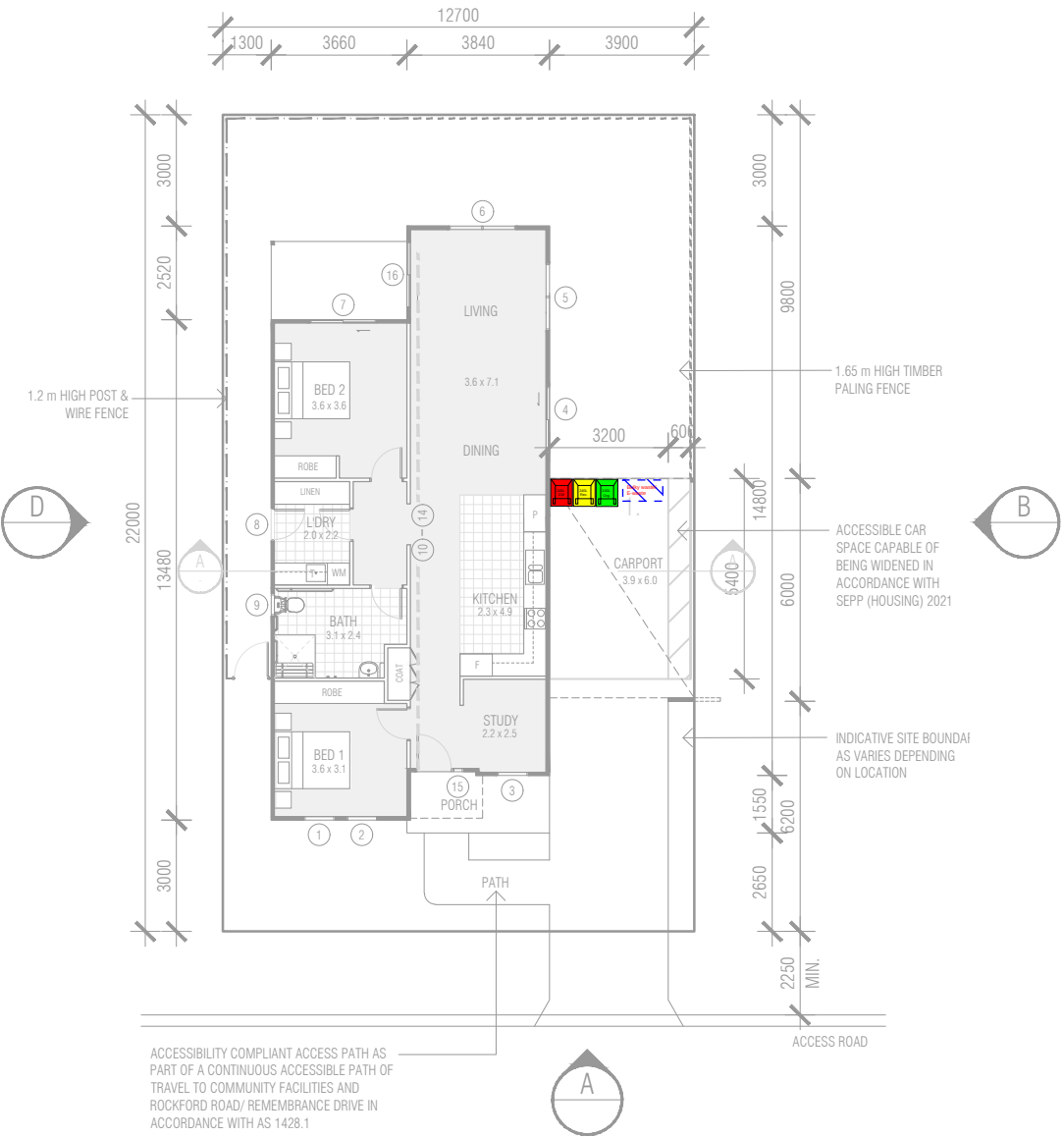
ELEVATION C (REAR)



ELEVATION B (SIDE)



ELEVATION D (SIDE)



FLOOR PLAN
THREE MODULE MOVABLE DWELLING

FLOOR COVERINGS KEY:

- CARPET
- TILED FLOOR SURFACE

Rev	Description	Date

mccabe architects
+61 3 94156377
office@mccabearchitects.com.au
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1:200@A3

Proposed Seniors Housing Development
32 Burma Road, Tocumwal

**Typical Movable Dwelling
3 Module -TYPE B**

Dwg No

Project No 24010
Drawn By SL/CK
Date September 2024

TP.201

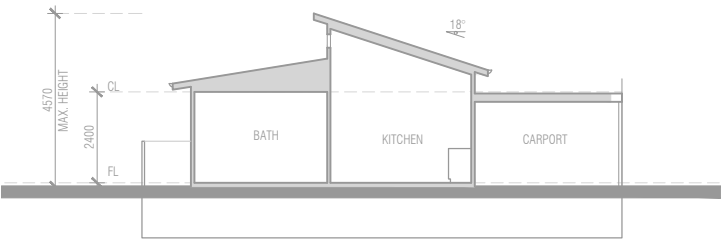
AREAS		
Movable Dwelling		
Enclosed Floor Area	=	91.0 m ²
Carport	=	21.6 m ²
Porch	=	2.6 m ²
Minimum Private Open Space	=	137.9 m ²

FINISHES SCHEDULE

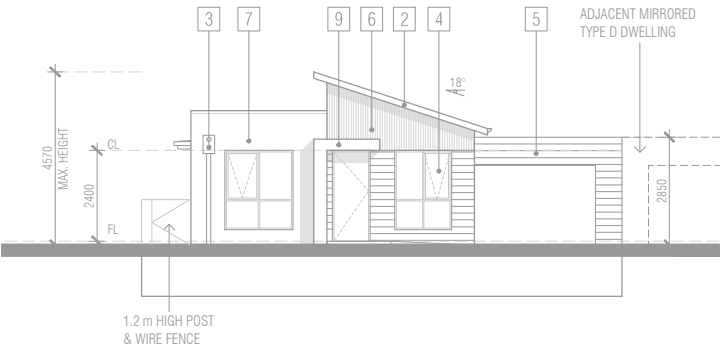
- 1 COLORBOND METAL ROOF
- 2 COLORBOND FASCIA
- 3 PROFILED STEEL GUTTERS & DOWNPIPES
- 4 ALUMINIUM WINDOW FRAMES
- 5 LIGHTWEIGHT CLADDING (HORIZONTAL)
- 6 LIGHTWEIGHT CLADDING (VERTICAL)
- 7 LIGHTWEIGHT CLADDING (SMOOTH)
- 8 TIMBER PERGOLA
- 9 ENTRY CANOPY

WINDOW SCHEDULE

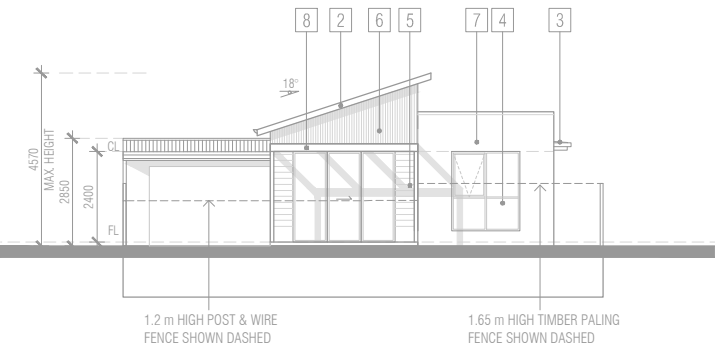
- 1 1800w x 2100h
- 2 1500w x 2100h
- 3 600w x 2100h
- 4 600w x 2100h
- 5 2700w x 2400h
- 6 1800w x 2100h
- 7 900w x 2400h
- 8-11 2500w x 350h (Clerestory)



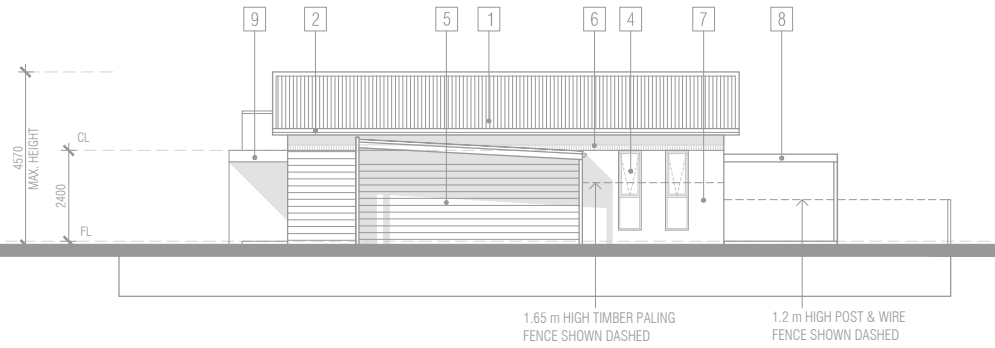
SECTION AA



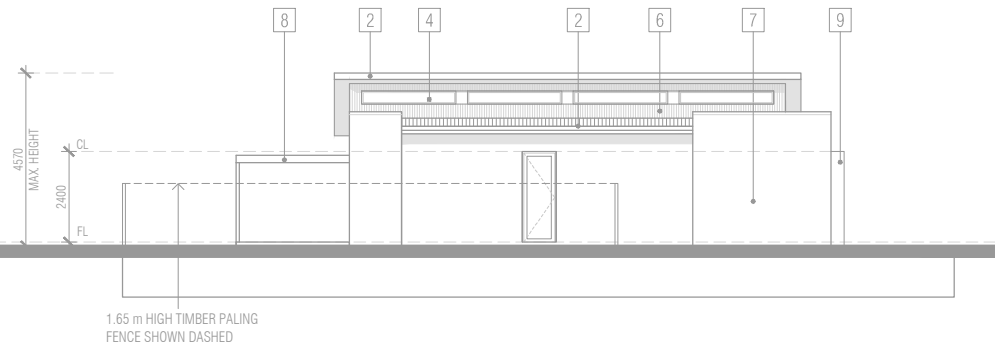
ELEVATION A (FRONT)



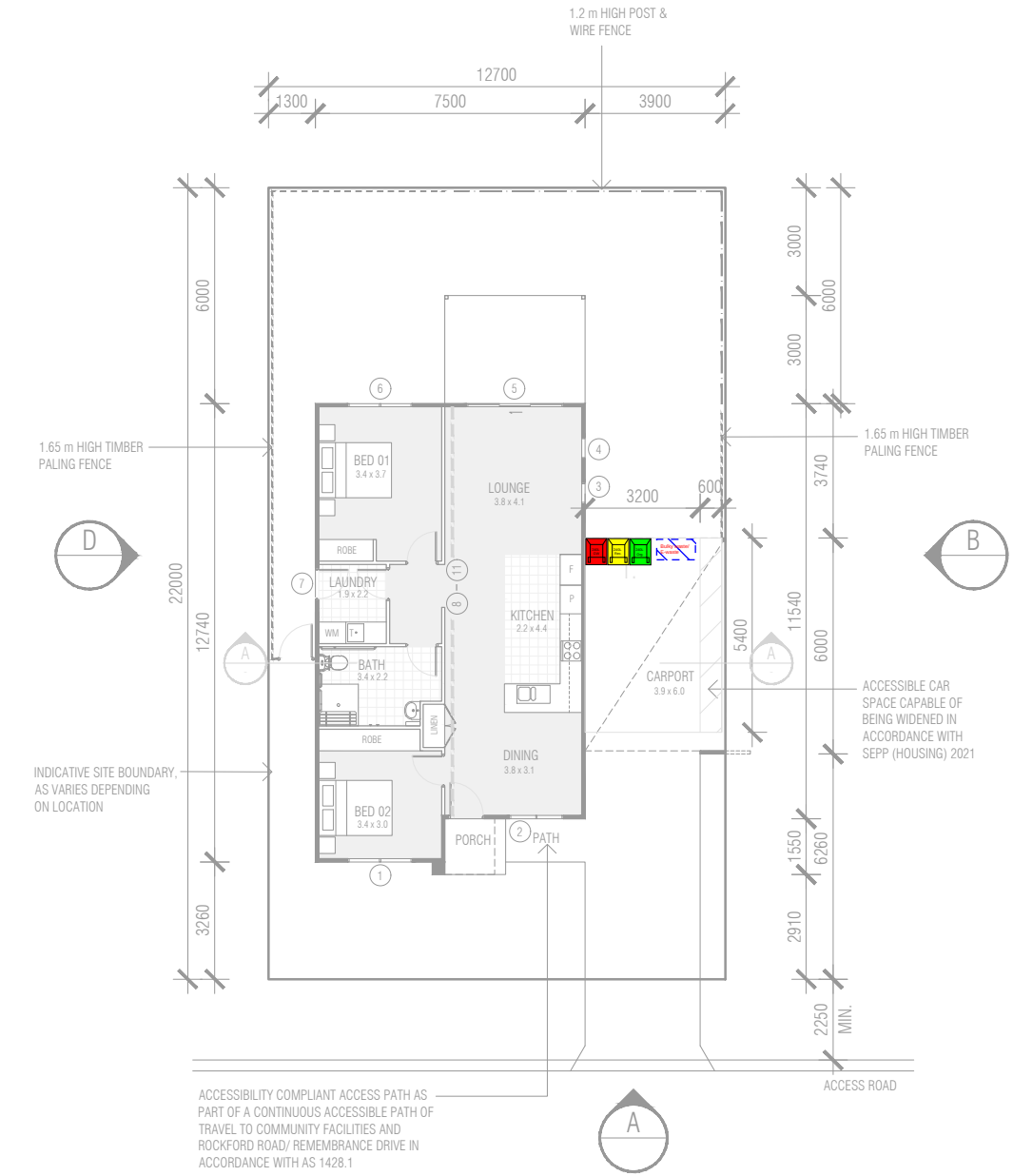
ELEVATION C (REAR)



ELEVATION B (SIDE)



ELEVATION D (SIDE)



FLOOR PLAN
THREE MODULE MOVABLE DWELLING

FLOOR COVERINGS KEY:

- CARPET
- TILED FLOOR SURFACE

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www.mccabearchitects.com.au

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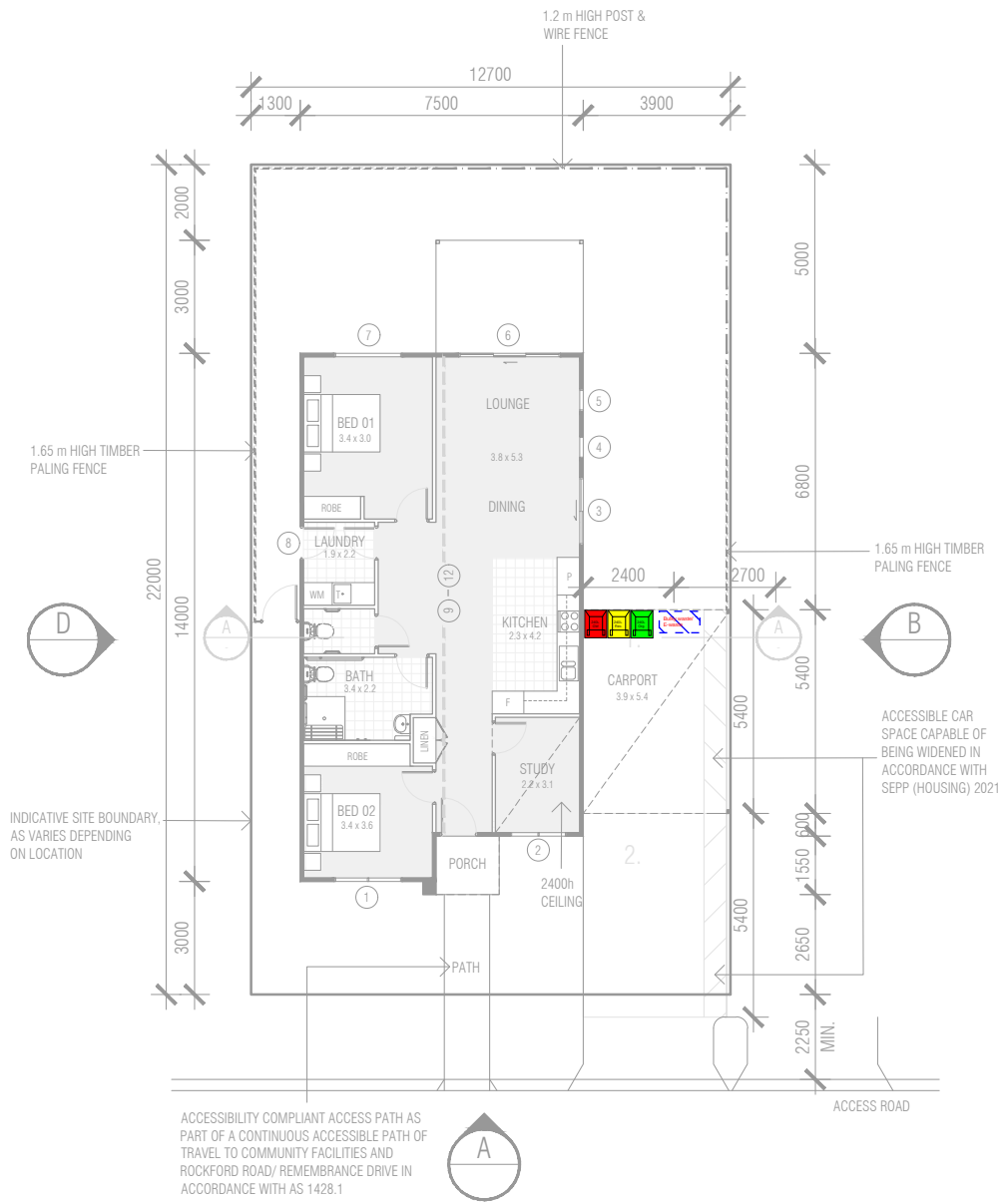
Proposed Seniors Housing Development
32 Burma Road, Tocumwal

**Typical Movable Dwelling
3 Module -TYPE C**

Dwg No

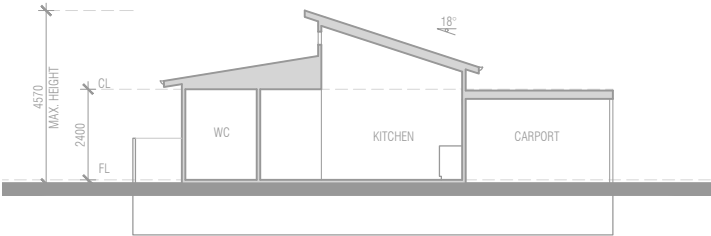
Project No 24010
Drawn By SL/CK
Date September 2024

TP.202

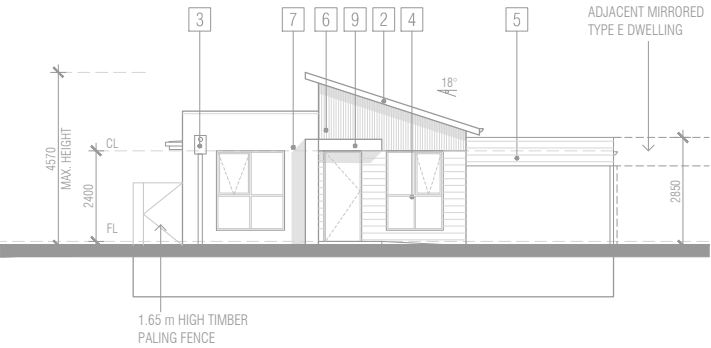


FLOOR PLAN
THREE MODULE MOVABLE DWELLING

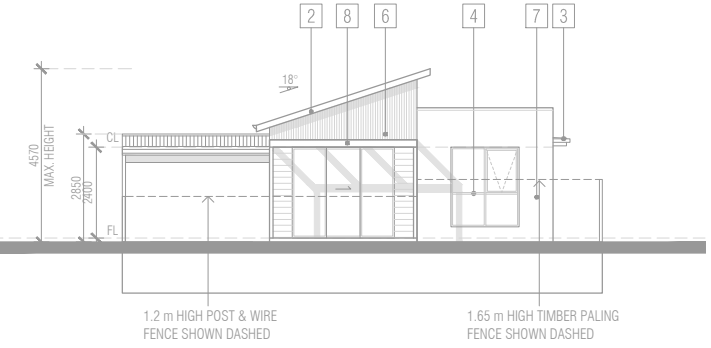
AREAS		
Movable Dwelling		
Enclosed Floor Area	=	100.4 m ²
Carport	=	19.4 m ²
Porch	=	2.6 m ²
Minimum Private Open Space	=	136.5 m ²



SECTION AA



ELEVATION A (FRONT)



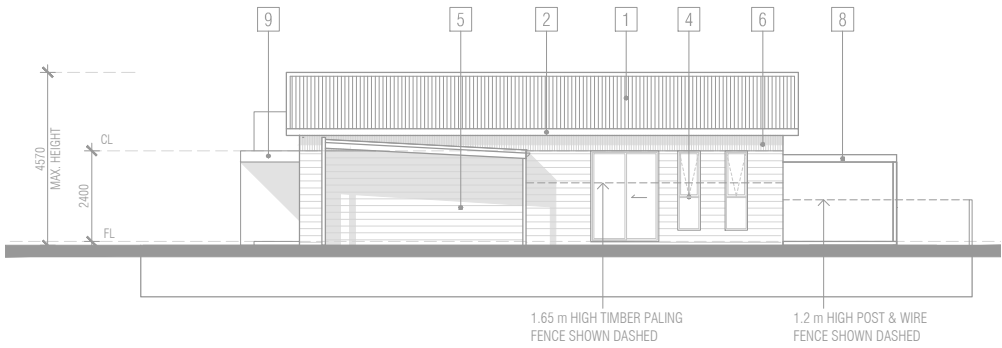
ELEVATION C (REAR)

FINISHES SCHEDULE

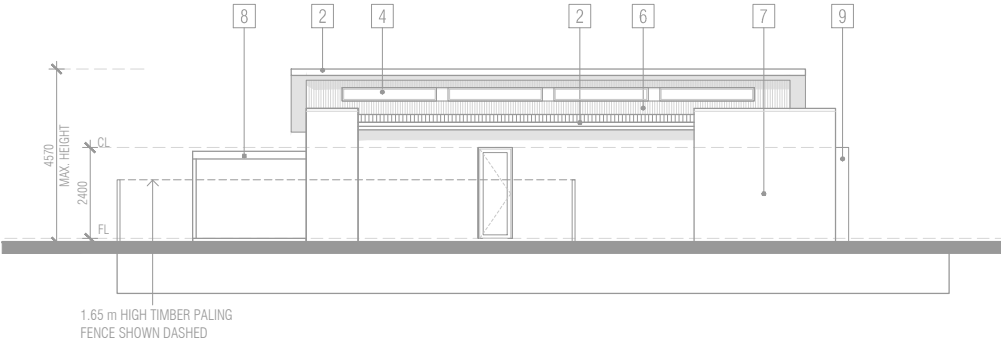
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- 2 COLORBOND FASCIA
- 3 PROFILED STEEL GUTTERS & DOWNPIPES
- 4 ALUMINIUM WINDOW FRAMES
- 5 LIGHTWEIGHT CLADDING (HORIZONTAL)
- 6 LIGHTWEIGHT CLADDING (VERTICAL)
- 7 LIGHTWEIGHT CLADDING (SMOOTH)
- 8 TIMBER PERGOLA
- 9 ENTRY CANOPY

WINDOW SCHEDULE

- 1 1800w x 2100h
- 2 1500w x 2100h
- 3 1800w x 2400h
- 4 600w x 2100h
- 5 600w x 2100h
- 6 2700w x 2400h
- 7 1800w x 2100h
- 8 900w x 2400h
- 9-12 2500w x 350h (Clerestory)



ELEVATION B (SIDE)



ELEVATION D (SIDE)

FLOOR COVERINGS KEY:

- CARPET
- TILED FLOOR SURFACE

Rev	Description	Date

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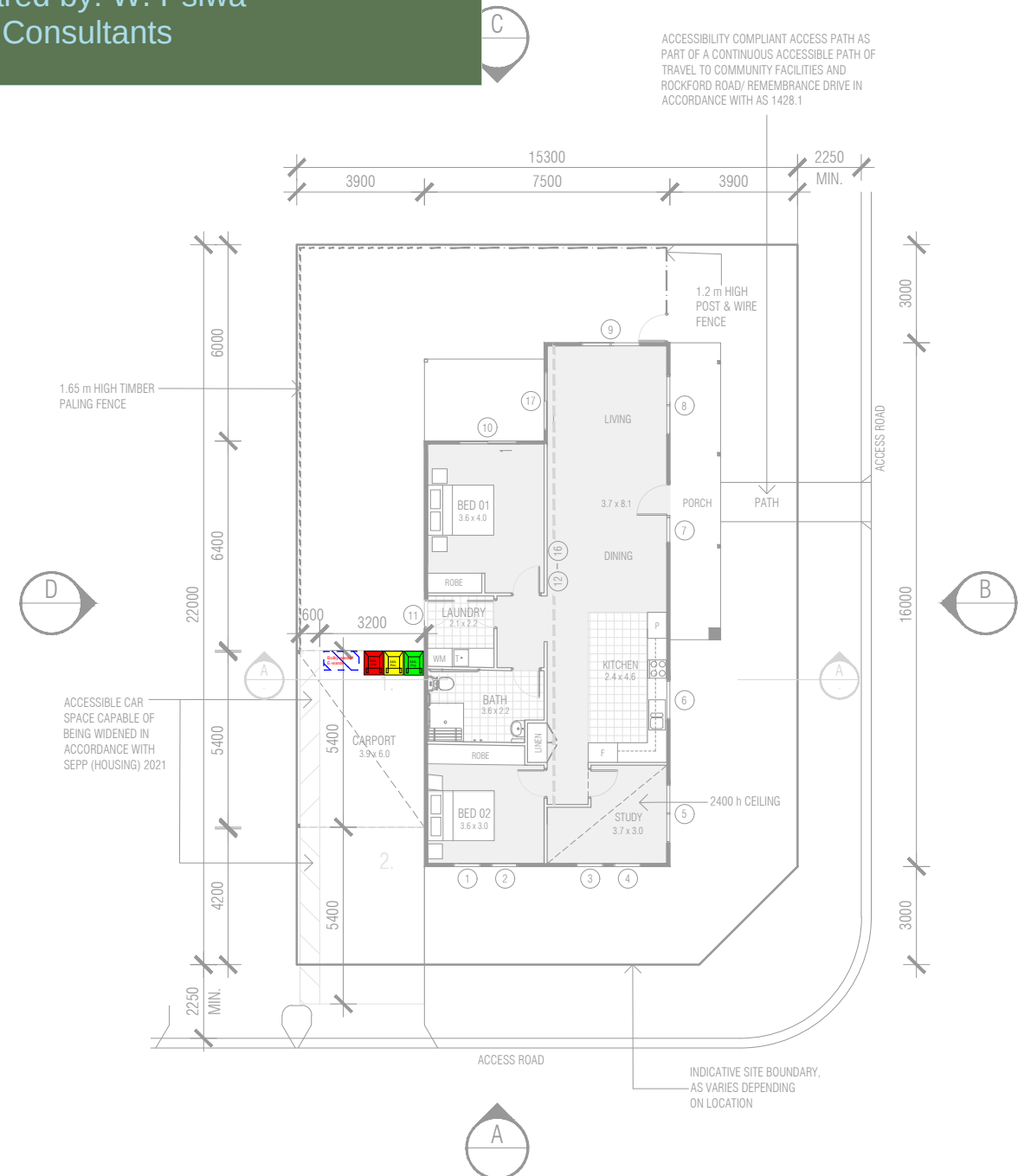
Proposed Seniors Housing Development
32 Burma Road, Tocumwal

**Typical Movable Dwelling
3 Module -TYPE D**

Dwg No

Project No 24010
Drawn By SL/CK
Date September 2024

TP.203



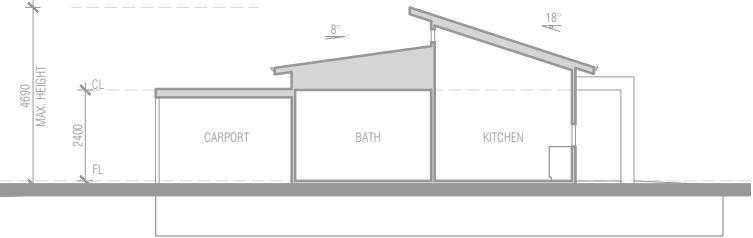
AREAS	
Movable Dwelling	
Enclosed Floor Area	= 109.0 m ²
Carport	= 19.4 m ²
Porch	= 14.1 m ²
Minimum Private Open Space	= 171.0 m ²

FINISHES SCHEDULE

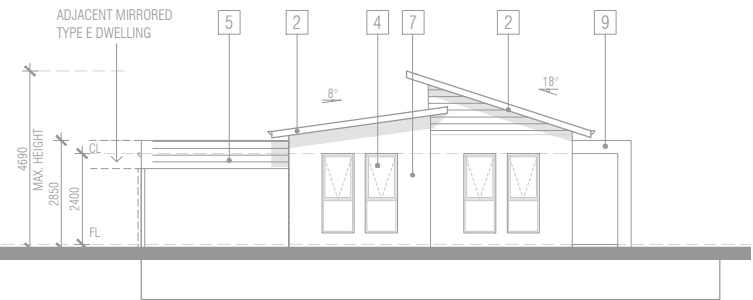
- COLORBOND METAL ROOF
- COLORBOND FASCIA
- PROFILED STEEL GUTTERS & DOWNPIPES
- ALUMINIUM WINDOW FRAMES
- LIGHTWEIGHT CLADDING (HORIZONTAL)
- LIGHTWEIGHT CLADDING (VERTICAL)
- LIGHTWEIGHT CLADDING (SMOOTH)
- TIMBER PERGOLA
- ENTRY CANOPY

WINDOW SCHEDULE

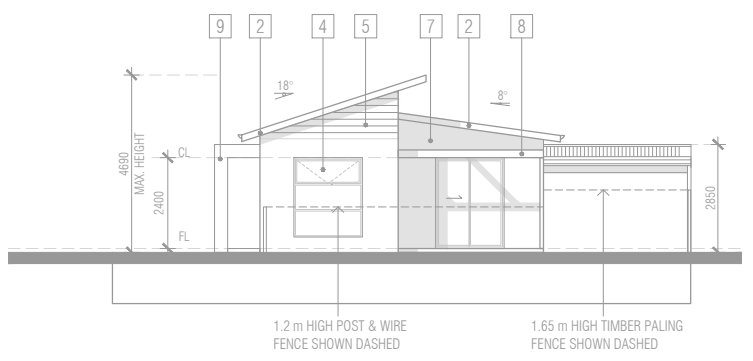
- | | |
|-------|---------------------------|
| 1 | 850w x 2100h |
| 2 | 850w x 2100h |
| 3 | 850w x 2100h |
| 4 | 850w x 2100h |
| 5 | 1810w x 2100h |
| 6 | 1210w x 600h |
| 7 | 810w x 2400h |
| 8 | 1810w x 2100h |
| 9 | 1810w x 2100h |
| 10 | 1810w x 2400h |
| 11 | 900w x 2400h |
| 12-16 | 2500w x 350h (Clerestory) |
| 17 | 1810w x 2400h |



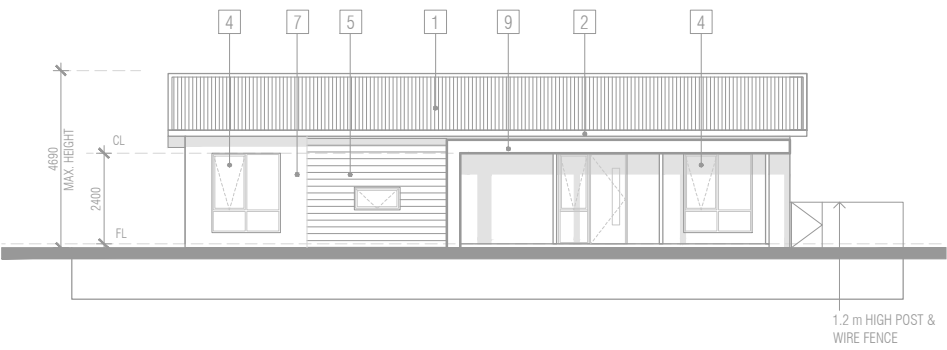
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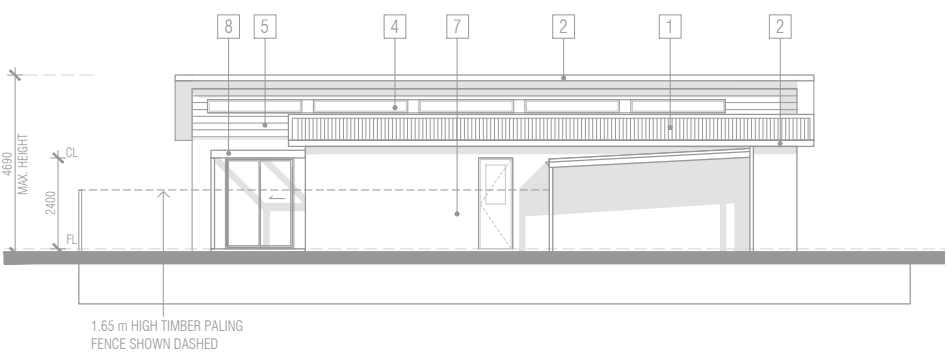
ELEVATION A (FRONT)



ELEVATION C (REAR)



ELEVATION B (SIDE)



ELEVATION D (SIDE)

FLOOR COVERINGS KEY:

- CARPET
- TILED FLOOR SURFACE

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Proposed Seniors Housing Development
32 Burma Road, Tocumwal

**Typical Movable Dwelling
3 Module -TYPE E**

Dwg No **TP.204**

Project No 24010
Drawn By SLICK
Date September 2024

1:200@A3

Appendix B – Swept Path Assessment

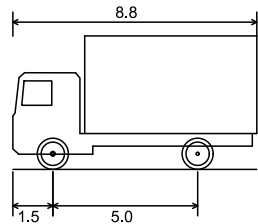


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ratio:

RATIO CONSULTANTS PTY LTD
ABN 005 422 104
LEVEL 5, 65 DOVER STREET
CREMORNE, VICTORIA 3121
TELEPHONE (03)9429 3111
FACSIMILE (03)9429 3011

MRV - Medium Rigid Vehicle (AS/NZS2890.2:2002)



VEHICLE ENVELOPE (FORWARD)
500mm CLEARANCE (FORWARD)
VEHICLE ENVELOPE (REVERSE)
500mm CLEARANCE (REVERSE)

Overall Length
Overall Width
Track Width
Lock to Lock Time
Curb to Curb Turning Radius

8.800m
2.500m
2.500m
4.00 sec
10.000m

Proposed Residential Subdivision Development
Lot 32 Burma Road, Tocumwal
Swept Path Assessment - Clubhouse

NOTE:
1) Base Plan Supplied by Beveridge Williams on 06.02.2025
2) Maximum Design Speed 10km/h

RATIO REFERENCE
21804W-SP01/M.G.

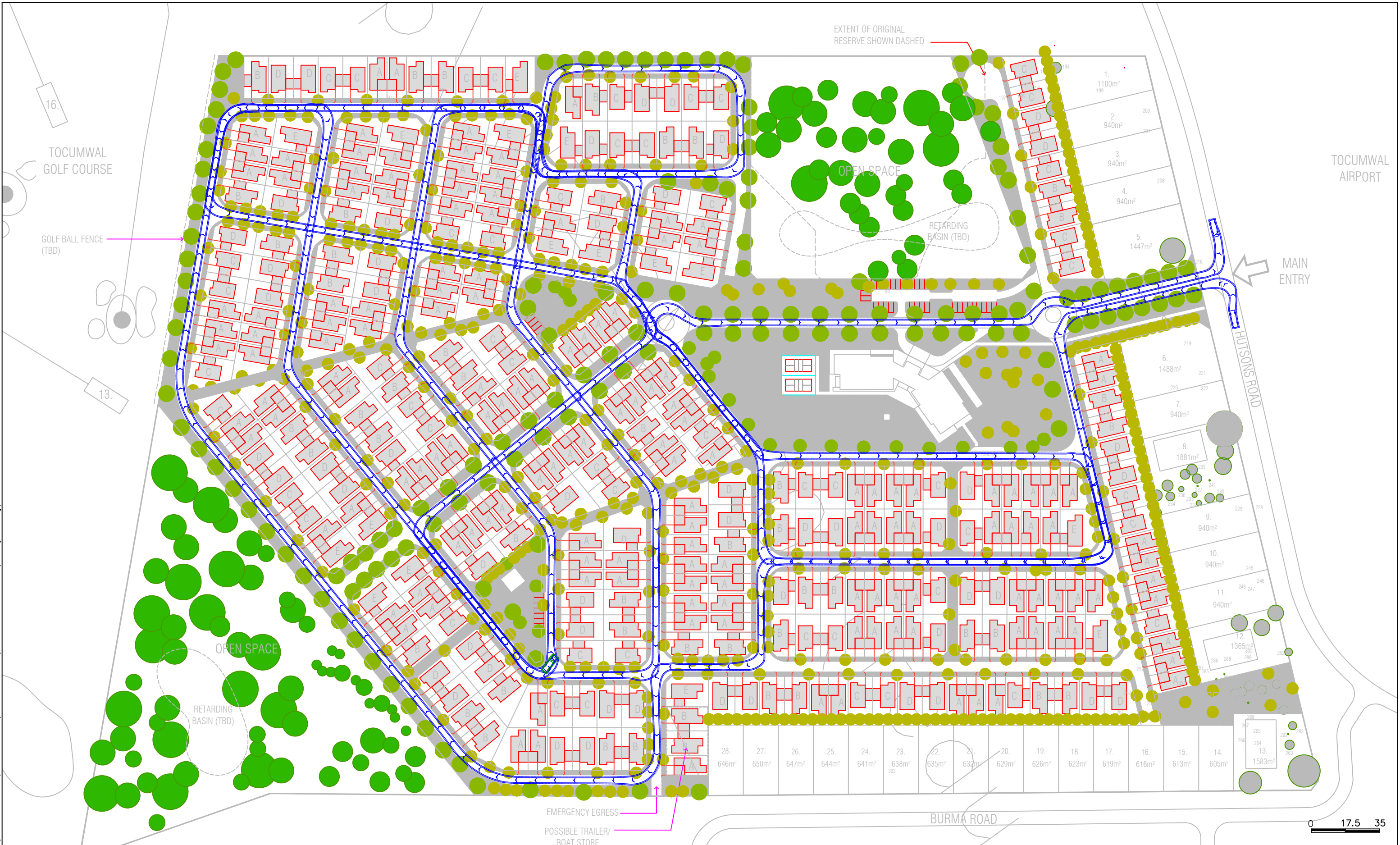
SHEET No.
1 of 6

SCALE
1:750@A3

DATE
02.09.2024



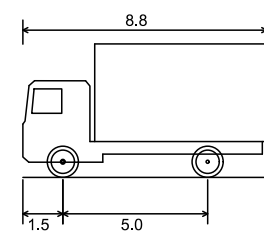
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ratio:

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ABN 005 422 104
LEVEL 5, 65 DOVER STREET
CREMORNE, VICTORIA 3121
TELEPHONE (03)9429 3111
FACSIMILE (03)9429 3011

MRV - Medium Rigid Vehicle (AS/NZS2890.2:2002)



VEHICLE ENVELOPE (FORWARD)
500mm CLEARANCE (FORWARD)
VEHICLE ENVELOPE (REVERSE)
500mm CLEARANCE (REVERSE)

Overall Length 8.800m
Overall Width 2.500m
Track Width 1.500m
Lock to Lock Time 4.00 sec
Curb to Curb Turning Radius 10.000m

Proposed Residential Subdivision Development Lot 32 Burma Road, Tocumwal Swept Path Assessment - Residential Waste Overview

NOTE:
1) Base Plan Supplied by Beveridge Williams on 06.02.2025
2) Maximum Design Speed 10km/h

RATIO REFERENCE
21804W-SP01/M.G.

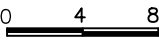
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2 of 6

SCALE
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DATE
02.09.2024



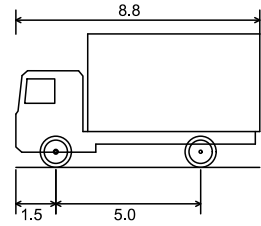
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ratio:

RATIO CONSULTANTS PTY LTD
ABN 005 422 104
LEVEL 5, 65 DOVER STREET
CREMORNE, VICTORIA 3121
TELEPHONE (03)9429 3111
FACSIMILE (03)9429 3011

MRV - Medium Rigid Vehicle (AS/NZS2890.2:2002)



VEHICLE ENVELOPE (FORWARD)
500mm CLEARANCE (FORWARD)
VEHICLE ENVELOPE (REVERSE)
500mm CLEARANCE (REVERSE)

Overall Length 8.800m
Overall Width 2.500m
Track Width 1.500m
Lock to Lock Time 5.00 sec
Curb to Curb Turning Radius 10.000m

Proposed Residential Subdivision Development
Lot 32 Burma Road, Tocumwal
Swept Path Assessment - Residential Waste

NOTE:
1) Base Plan Supplied by Beveridge Williams on 06.02.2025
2) Maximum Design Speed 10km/h

RATIO REFERENCE
21804W-SP01/M.G.

SHEET No.
3 of 6

SCALE
1:400@A3

DATE
02.09.2024



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ratio:

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ABN 005 422 104
LEVEL 5, 65 DOVER STREET
CREMORNE, VICTORIA 3121
TELEPHONE (03)9429 3111
FACSIMILE (03)9429 3011

MRV - Medium Rigid Vehicle (AS/NZS2890.2:2002)

VEHICLE ENVELOPE (FORWARD)

500mm CLEARANCE (FORWARD)

VEHICLE ENVELOPE (REVERSE)

500mm CLEARANCE (REVERSE)

Proposed Residential Subdivision Development
Lot 32 Burma Road, Tocumwal
Swept Path Assessment - Residential Waste

NOTE:

1) Base Plan Supplied by Beveridge Williams on 06.02.2025
2) Maximum Design Speed 10km/h

RATIO REFERENCE

21804W-SP01/M.G.

SHEET No.

4 of 6

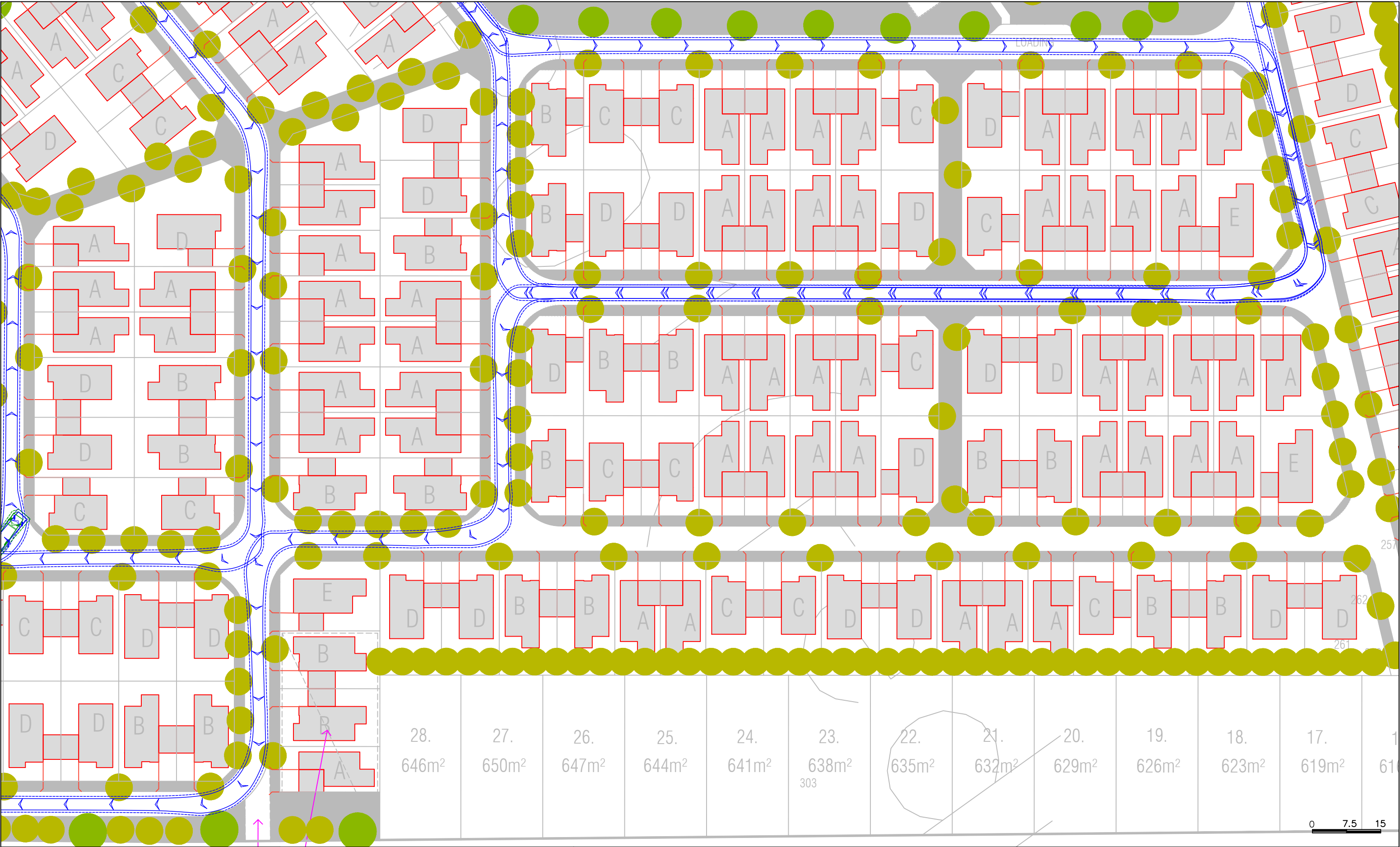
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DATE

02.09.2024

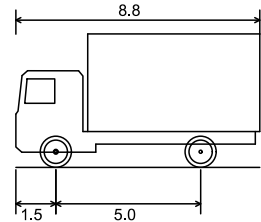
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ratio:

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CREMORNE, VICTORIA 3121
TELEPHONE (03)9429 3111
FACSIMILE (03)9429 3011

MRV - Medium Rigid Vehicle (AS/NZS2890.2:2002)



VEHICLE ENVELOPE (FORWARD)
500mm CLEARANCE (FORWARD)
VEHICLE ENVELOPE (REVERSE)
500mm CLEARANCE (REVERSE)

Overall Length
Overall Width
Track Width
Lock to Lock Time
Curb to Curb Turning Radius

8.800m
2.500m
2.500m
4.00 sec
10.000m

Proposed Residential Subdivision Development
Lot 32 Burma Road, Tocumwal
Swept Path Assessment - Residential Waste

NOTE:
1) Base Plan Supplied by Beveridge Williams on 06.02.2025
2) Maximum Design Speed 10km/h

RATIO REFERENCE
21804W-SP01/M.G.

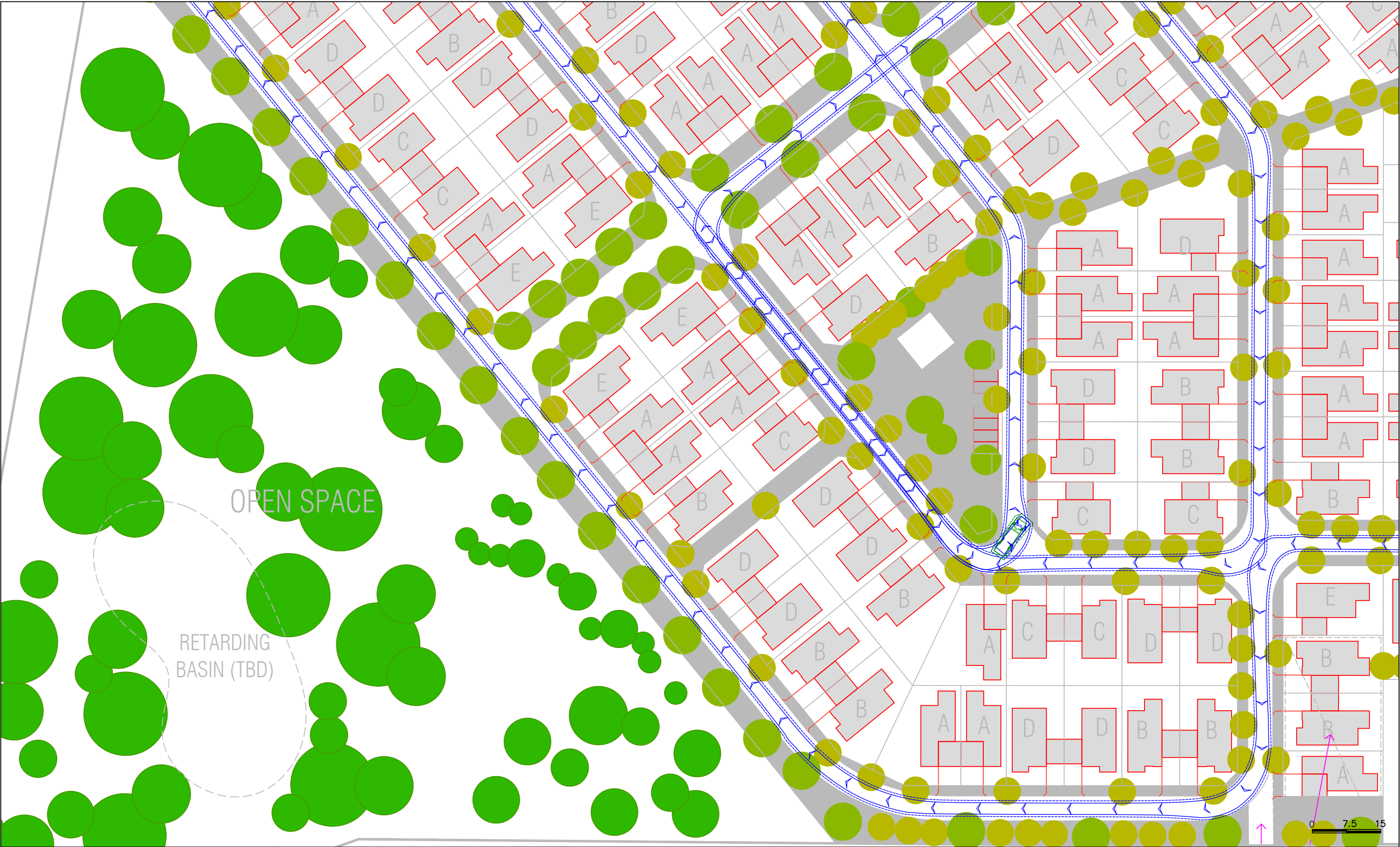
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SCALE
1:750@A3

DATE
02.09.2024



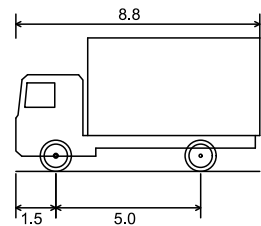
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ratio:

RATIO CONSULTANTS PTY LTD
ABN 005 422 104
LEVEL 5, 65 DOVER STREET
CREMORNE, VICTORIA 3121
TELEPHONE (03)9429 3111
FACSIMILE (03)9429 3011

MRV - Medium Rigid Vehicle (AS/NZS2890.2:2002)



VEHICLE ENVELOPE (FORWARD)
500mm CLEARANCE (FORWARD)
VEHICLE ENVELOPE (REVERSE)
500mm CLEARANCE (REVERSE)

Overall Length
Overall Width
Track Width
Lock to Lock Time
Curb to Curb Turning Radius

8.800m
2.500m
2.500m
4.00 sec
10.000m

Proposed Residential Subdivision Development
Lot 32 Burma Road, Tocumwal
Swept Path Assessment - Residential Waste

NOTE:

- 1) Base Plan Supplied by Beveridge Williams on 06.02.2025
- 2) Maximum Design Speed 10km/h

RATIO REFERENCE
21804W-SP01/M.G.

SHEET No.
6 of 6

SCALE
1:750@A3

DATE
02.09.2024



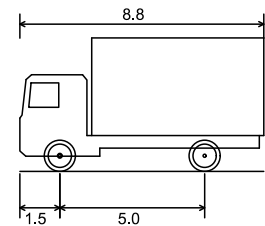
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ratio:

RATIO CONSULTANTS PTY LTD
ABN 005 422 104
LEVEL 5, 65 DOVER STREET
CREMORNE, VICTORIA 3121
TELEPHONE (03)9429 3111
FACSIMILE (03)9429 3011

MRV - Medium Rigid Vehicle (AS/NZS2890.2:2002)



VEHICLE ENVELOPE (FORWARD)
500mm CLEARANCE (FORWARD)
VEHICLE ENVELOPE (REVERSE)
500mm CLEARANCE (REVERSE)

Overall Length
Overall Width
Track Width
Lock to Lock Time
Curb to Curb Turning Radius

8.800m
2.500m
2.500m
4.00 sec
10.000m

Proposed Residential Subdivision Development
Lot 32 Burma Road, Tocumwal
Swept Path Assessment - Residential Waste

NOTE:

- 1) Base Plan Supplied by Beveridge Williams on 06.02.2025
- 2) Maximum Design Speed 10km/h

RATIO REFERENCE
21804W-SP01/M.G.

SHEET No.
7 of 6

SCALE
1:750@A3

DATE
02.09.2024



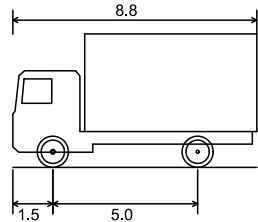
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ratio:

RATIO CONSULTANTS PTY LTD
ABN 005 422 104
LEVEL 5, 65 DOVER STREET
CREMORNE, VICTORIA 3121
TELEPHONE (03)9429 3111
FACSIMILE (03)9429 3011

MRV - Medium Rigid Vehicle (AS/NZS2890.2:2002)



VEHICLE ENVELOPE (FORWARD)
500mm CLEARANCE (FORWARD)
VEHICLE ENVELOPE (REVERSE)
500mm CLEARANCE (REVERSE)

Overall Length
Overall Width
Track Width
Lock to Lock Time
Curb to Curb Turning Radius

8.800m
2.500m
2.500m
4.00 sec
10.000m

Proposed Residential Subdivision Development
Lot 32 Burma Road, Tocumwal
Swept Path Assessment - Residential Waste

NOTE:
1) Base Plan Supplied by Beveridge Williams on 06.02.2025
2) Maximum Design Speed 10km/h

RATIO REFERENCE
21804W-SP01/M.G.

SHEET No.
8 of 6

SCALE
1:750@A3

DATE
02.09.2024



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ratio:

RATIO CONSULTANTS PTY LTD
ABN 005 422 104
LEVEL 5, 65 DOVER STREET
CREMORNE, VICTORIA 3121
TELEPHONE (03)9429 3111
FACSIMILE (03)9429 3011

MRV - Medium Rigid Vehicle (AS/NZS2890.2:2002)

VEHICLE ENVELOPE (FORWARD)

500mm CLEARANCE (FORWARD)

VEHICLE ENVELOPE (REVERSE)

500mm CLEARANCE (REVERSE)

Overall Length
Overall Width
Track Width
Lock to Lock Time
Curb to Curb Turning Radius

8.800m
2.500m
2.500m
4.00 sec
10.000m

Proposed Residential Subdivision Development
Lot 32 Burma Road, Tocumwal
Swept Path Assessment - Residential Waste

NOTE:

1) Base Plan Supplied by Beveridge Williams on 06.02.2025
2) Maximum Design Speed 10km/h

RATIO REFERENCE

21804W-SP01/M.G.

SHEET No.

9 of 6

SCALE

1:750@A3

DATE

02.09.2024

Appendix C -Standard Signage

Appendix I: Standard signage

Waste signs

Signs and educational materials perform several functions including:

- informing residents why it is important to recover resources and protect the environment
- providing clear instructions on how to use the bins and services provided
- alerting people to any dangers or hazards within the bin storage areas.

All waste, recycling and organic bins should be Australian Standard colours and clearly and correctly labelled, such as by a sticker on the lid and/or the body of the bin.

Communal bin storage areas should be clearly signposted with signs outlining how to correctly separate waste into the bins provided. The local council responsible for waste services may be a good source of signs and posters and can advise on what signs are suitable.

Information on who to contact to find out more about the recycling and/or other resource recovery services in the building should also be displayed in communal areas, such as on a noticeboard.

The Planet Ark website also has resources available free of charge for use by businesses and councils. These signs can be found at businessrecycling.com.au/research/signage.cfm

Figure I1.1: Examples of waste wall posters (EPA supplied)



Figure I1.2: Examples of bin lid stickers (EPA supplied)

