

APPROVED DEVELOPMENT PLAN
PLANNING AND ENVIRONMENT ACT 1987
WELLINGTON PLANNING SCHEME
Clause 43.04 Schedule 1

DP NAME: Licola Road East

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(Page: 1 of 18)

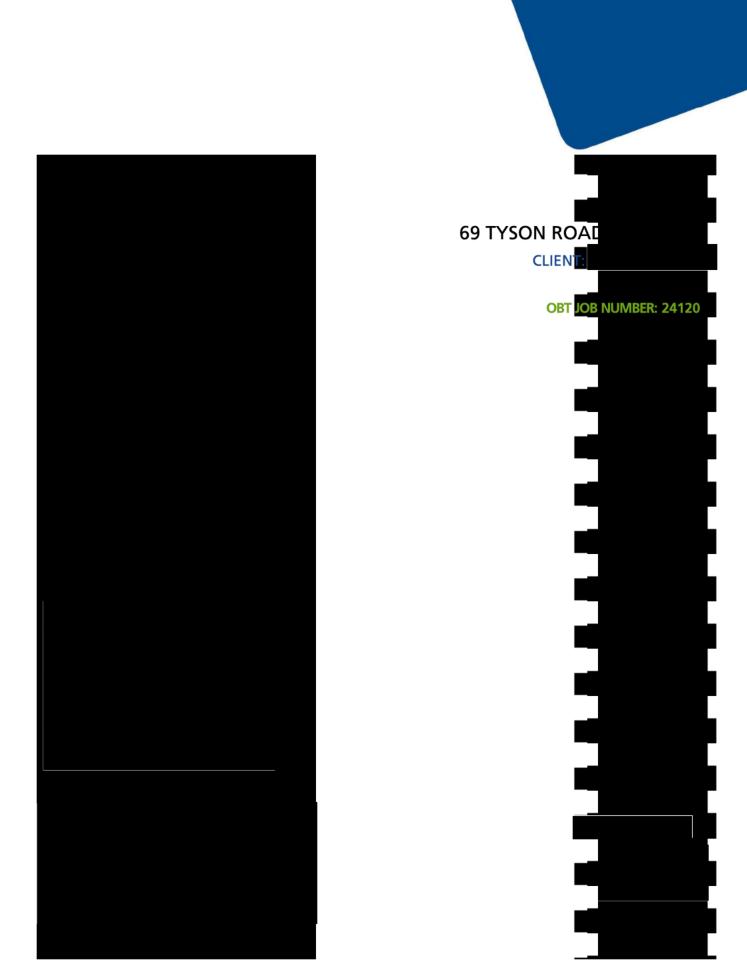


TRAFFIC IMPACT ASSESSMENT

PROPOSED RESIDENTIAL SUBDIVISION

69 TYSON ROAD, HEYFIELD

7 SEPTEMBER 2023



CONTENTS

1	INTRODUCTION	1	ŀ
2	EXISTING CONDITIONS	1	
3	THE PROPOSAL	8	ľ
4	HEYFIELD STRUCTURE PLAN (2011)	9	l
5	TRAFFIC GENERATION, DISTRIBUTION AND IMPACT	9	
6	ACCESS AND MOBILITY MANAGEMENT	12	
7	CONCLUSION	13	l
APPENDI	APPENDIX A		
			l
			l
			L
			ľ
			L
			l

1 INTRODUCTION

has been engaged by to undertake a traffic impact assessment of a proposed development plan for a residential subdivision at 69 Tyson Road, Heyfield.

In the course of preparing this report:

- The Development Plan (27317DP1 -Version 2 dated August 2023) prepared by has been reviewed;
- · The subject site and surrounding area have been inspected; and
- · The traffic implications of the proposal have been assessed.

2 EXISTING CONDITIONS

2.1 LOCATION AND LAND USE

The subject site is located between Tyson Road and Licola Road and south of Mustons Lane on the outskirts of Heyfield. The location of the subject site and the surrounding road network is shown in **Figure 1**.



FIGURE 1: LOCATION OF SUBJECT SITE

A recent aerial photograph of the site and its surrounds is shown in Figure 2.



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FIGURE 2: AERIAL PHOTO OF SUBJECT SITE

The subject site comprises multiple land parcels including: 69 Tyson Road, 50 Licola Road, 70 Licola Road, 19 Mustons Lane and Lot 2 on PS404789Y.

The overall site is zoned *General Residential* in the Wellington Shire Planning Scheme, as shown in **Figure 3**.

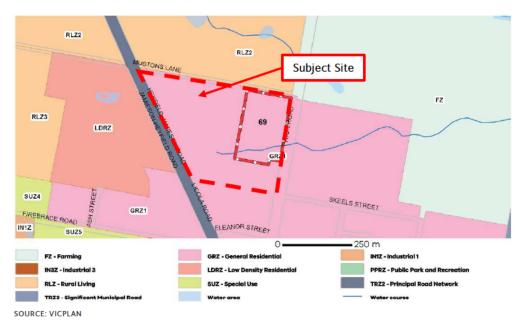


FIGURE 3: ZONING MAP OF SUBJECT SITE AND SURROUNDING AREA



2.2 SURROUNDING LAND USE

The surrounding properties are generally residential in nature, comprising larger lots in the immediate vicinity (particularly north of Mustons Lane, which is zoned Rural Living), and smaller lots further to the south and southeast.

Heyfield town centre is located approximately 1km to the south of the subject site.

Heyfield Hospital is located approximately 300 m south of the site.

St. Michael's Primary School is located approximately 1.2km south of the site.

2.3 ROAD NETWORK

Tyson Road is classified as a Local Access Road under the care and maintenance of Council. It is a two-way road aligned in a north-south orientation from Traralgon-Maffra Road providing direct access to properties. Along the site frontage, Tyson Road provides a 6.3m sealed carriageway with a single lane in each direction. The posted speed limit along the site frontage is 60 km/h along the southern section and 80km/h along the northern section (closer to Mustons Lane).

Licola Road is an Arterial Road under the care and maintenance of Department of Transport and Planning. It is a two-way road aligned in a northwest-southeast orientation from Traralgon-Maffra Road. Along the site frontage, Licola Road provides a 7.0m sealed carriageway with a single lane in each direction. A posted speed limit of 80 km/h applies to Licola Road.

Mustons Lane is classified as a Local Access Road under the care and maintenance of Council. It is a two-way road and runs in a west-east orientation from Tyson Road providing direct access to properties. Along the site frontage, Mustons Lane provides a 4.4m sealed carriageway. The default rural speed limit of 100 km/h applies to Mustons Lane.

Views of Tyson Road, Mustons Lane and Licola Road are provided in Figure 4 through Figure 8.



FIGURE 4: VIEW OF TYSON ROAD FACING NORTH (SUBJECT SITE ON THE LEFT)



FIGURE 5: VIEW OF TYSON ROAD FACING SOUTH (SUBJECT SITE ON THE RIGHT)



FIGURE 6: VIEW OF MUSTONS LANE FACING EAST (SUBJECT SITE ON THE RIGHT)



FIGURE 7: VIEW OF MUSTONS LANE FACING WEST (SUBJECT SITE ON THE LEFT)



FIGURE 8: VIEW OF LICOLA ROAD FACING NORTHWEST (SUBJECT SITE ON THE RIGHT)

The Tyson Road/Mustons Lane intersection is a T-intersection, with Mustons Lane forming the terminating leg (as shown in **Figure 9**). No turn lanes are provided on Tyson Road.

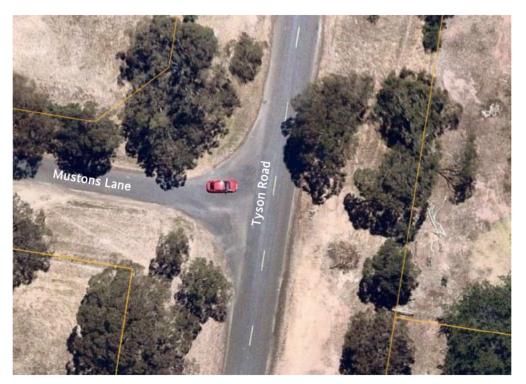


FIGURE 9: TYSON ROAD/MUSTONS LANE INTERSECTION

The Licola Road/Mustons Lane intersection is a four-way intersection with Stop-sign control on the Mustons Lane legs (as shown in **Figure 10**). The western leg of Mustons Lane is an unsealed road. No turn lanes are provided on Licola Road.



FIGURE 10: LICOLA ROAD/MUSTONS LANE INTERSECTION

2.4 TRAFFIC VOLUMES

Department of Transport and Planning (DTP) traffic volume data from 2020 indicates that Licola Road carries a two-way daily traffic volume of 610 vehicles.

Current traffic volumes on Tyson Road are not known; however, it is expected that it would carry less traffic than Licola Road (significantly fewer than 500 vehicles per day).

Mustons Lane is anticipated to carry fewer than 100 vehicles per day, given the limited number of properties which front the road.

2.5 CASUALTY CRASH HISTORY

A review of the Department of Transport and Planning CrashStats database for the last available five-year period (1 July 2015 – 30 June 2020) indicates that no casualty crashes (i.e. crashes resulting in injuries or death) were reported on Tyson Road, Mustons Lane or Licola Road in the vicinity of the site.

2.6 SUSTAINABLE TRANSPORT

There are limited public transport options servicing Heyfield.

V/Line Coach services operate between Traralgon Station and Heyfield, stopping at the corner of Mary Street/Gordon Street and the corner of Temple Street/Harbeck Street.

3 THE PROPOSAL

The proposed development plan seeks to subdivide the site into 78 residential lots with an average lot size of 1,110m². The existing dwellings are proposed to be retained. The proposed subdivision also includes two nature reserves.

Vehicle access is proposed to be provided via a new road connection to Tyson Road and two new connections to Mustons Lane. A total of 11 lots are proposed to have direct access via the existing road network, comprising five lots fronting Tyson Road and six lots fronting Mustons Lane. None of the proposed new lots would be provided with direct access to Licola Road.

The existing dwellings would retain their existing accesses via Tyson Road, Mustons Lane or Licola Road.

An extract of the proposed development plan is shown in **Figure 11** and included in **Appendix A**.



FIGURE 11: PROPOSED SITE DEVELOPMENT PLAN

4 HEYFIELD STRUCTURE PLAN (2011)

The Heyfield Structure Plan dated November 2011 identifies the subject land as a potential future residential area as indicated in **Figure 12**.

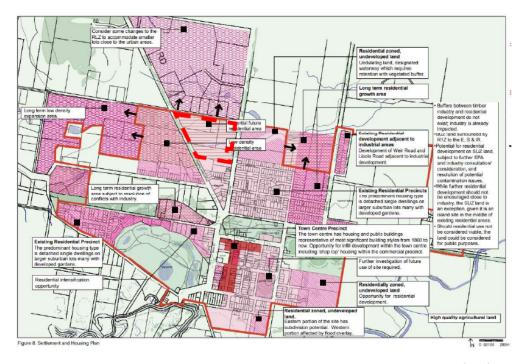


FIGURE 12: EXTRACT OF SETTLEMENT AND HOUSING PLAN FROM HEYFIELD STRUCTURE PLAN (2011)

5 TRAFFIC GENERATION AND DISTRIBUTION IMPACT

5.1 TRAFFIC GENERATION

It is anticipated that each new dwelling would generate up to 10 trips per day, which equates to a total of up to 780 additional daily trips at full development.

It is anticipated that around 10% of the daily traffic would occur in each of the AM and PM peak hours equating to 78 trips in each peak hour.

Typical residential splits between entry and exit trips have been adopted for the sitegenerated traffic generation, which are:

- · Daily: 50% inbound and 50% outbound;
- AM peak hour: 20% inbound and 80% outbound; and
- PM peak hour: 60% inbound and 40% outbound.

The above splits result in the following trips for the proposed development:

- · Daily: up to 390 inbound and 390 outbound;
- AM peak hour: 16 inbound and 62 outbound; and
- PM peak hour: 47 inbound and 31 outbound.

5.2 TRAFFIC DISTRIBUTION

Taking into consideration the subdivision layout and locations of the proposed access points, it is anticipated that 60% of the additional trips generated would utilise the Tyson Road access, while 40% would utilise the accesses on Mustons Lane. The trips using the Mustons Lane accesses are anticipated to be evenly split (50-50) between Tyson Road and Licola Road.

Based on the location of other townships and major facilities in the surrounding area, it is anticipated that most of the trips (90%) generated by the proposal will travel to/from the south along Tyson Road or Licola Road. The remaining 10% is assumed to travel to/from the north along both roads.

A summary of the anticipated traffic generation is shown in **Figure 13**. It should be noted that this figure does not include the trips from the 5 existing dwellings and the 5 lots which would have direct access via Tyson Road.



FIGURE 13: ANTICIPATED PEAK HOUR VEHICLE TRIPS GENERATED BY PROPOSAL

6 TRAFFIC IMPACT

The proposed development is anticipated to generate a total of up to 78 additional peak hour trips. This is equivalent to one trip every 46 seconds on average. These trips will be spread on the road network as discussed above. Such a volume is considered low in traffic engineering terms and therefore unlikely to result in any significant adverse impacts on the surrounding road network as discussed below.

Tyson Road

The proposed development would add up to 630 daily traffic and 63 trips during each of the AM and PM peak hours to Tyson Road. This comprises traffic to/from lots with direct access, traffic entering/exiting the site via the new Tyson Road access, and traffic to/from Mustons Lane via Tyson Road.

As discussed in **Section 2.4**, Tyson Road is estimated to currently carry significantly less than 500 daily vehicles. Based on this, it contains significant residual capacity to readily absorb the additional daily and peak-hour trips that are anticipated to occur, without the need for any remedial works.

As indicated in **Figure 13**, it is estimated that there would be up to 44 peak hour vehicle trips at the new access road intersection with Tyson Road, which equates to an average of one trip every 1 minute 21 seconds. The maximum number of vehicles undertaking a particular turning movement from Tyson Road is 23 vehicles (left turn in during the PM peak). This equates to an average of one vehicle every 2-3 minutes, which is considered low. Therefore, no turning lanes are considered necessary at this intersection.

It is noted that the location of the access road would create an offset-T intersection with Skeels Street on the eastern side of Tyson Road. However, given the low volumes anticipated it is considered that the intersection would be able to operate safely.

There would be up to 14 additional peak hour vehicle trips at the Tyson Road/Mustons Lane intersection, which equates to an average of one trip every 3-4 minutes. The maximum number of vehicles undertaking a particular turning movement from Tyson Road is 7 vehicles (left turn in during the PM peak). This equates to an average of one vehicle every 8-9 minutes, which is considered low. Therefore, no turning lanes are considered necessary at this intersection.

Mustons Lane

The proposed development would add 290 daily traffic and 29 trips during each of the AM and PM peak hours to Mustons Lane. This comprises traffic entering/exiting the site via the two new accesses on Mustons Lane.

As discussed in **Section 2.3**, Mustons Lane is estimated to currently carry less than 100 daily vehicles. Given its narrow pavement width (4.4m) and the proposed increase in traffic, it is recommended that road widening to achieve a pavement width of 6.2m is undertaken as per the requirements of the Infrastructure Design Manual (IDM) for a Low Density or Rural Living Access Road.

Based on this widening, Mustons Lane will provide sufficient capacity to readily absorb the additional daily and peak-hour trips that are anticipated to occur.

Licola Road

The proposed development would add 150 daily traffic and 15 trips during each of the AM and PM peak hours to Licola Road. This comprises traffic to/from Mustons Lane via Licola Road.

As discussed in **Section 2.4**, Licola Road is an arterial road currently carrying 610 daily vehicles. Based on this, it provides significant residual capacity to readily absorb the additional daily and peak-hour trips that are anticipated to occur.

As indicated in **Figure 13**, it is estimated that there would be up to 15 peak hour vehicle trips at the Licola Road/Mustons Lane intersection, which equates to an average of one trip every 4 minutes. The maximum number of vehicles undertaking a particular turning movement from Licola Road is 8 vehicles (right turn in during the PM peak). This equates to an average of one vehicle every 7-8 minutes, which is considered low. Therefore, no turning lanes are considered necessary at this intersection.

7 ACCESS AND MOBILITY MANAGEMENT

The proposed site plan has been reviewed against Clause 56.06 of the Wellington Planning Scheme and Infrastructure Design Manual (IDM) Ver 5.4.

7.1 FUNCTIONAL CLASSIFICATION AND DESIGN

The internal roads are anticipated to carry less than 500 daily trips. Having regard to Clause 56.06 of the Planning Scheme and the IDM requirements, the internal roads are appropriately designed as 'Access Place' with a road reserve width of 16m accommodating a 7.3m wide sealed carriageway with parking permitted on both sides of the carriageway.

7.2 PEDESTRIAN & CYCLIST PROVISION

Footpaths will be provided along both sides of all internal roads with a 16m wide road reserve.

Given the predicted low traffic volumes and the likely low vehicle speeds, it is considered an acceptable practice that cyclists share the road space with vehicles within the site.

7.3 LOCAL AREA TRAFFIC MANAGEMENT

The site plan indicates that all internal junctions created by the proposed development would be T-intersections and not cross-intersections. This is appropriate from a road safety perspective. In accordance with Clause 56.06 of the Planning Scheme, a minimum of $3 \text{ m} \times 3 \text{ m}$ corner splay should be provided at junctions.

7.4 EMERGENCY AND SERVICE VEHICLE ACCESS

Country Fire Authority (CFA) requirements for fire truck access are specified in the document Requirements for Water Supplies and Access for Subdivisions in Residential 1 and 2 and Township Zones. The access requirements outlined in this guide would be met by the proposed site layout.

8 CONCLUSION

Based on the considerations outlined above, it is concluded that there are no traffic-related grounds to prevent the proposed residential subdivision from proceeding.

APPENDIX A

