63 Horatio Street, Mudgee

Transport Impact Assessment

250059TIA001A-F

3 March 2025

onemile**grid**

ABN: 79 168 115 679

(03) 9939 8250
Wurundjeri Woiworung Country
56 Down Street
COLLINGWOOD, VIC 3066
www.onemilegrid.com.au

DOCUMENT INFORMATION

Prepared for	Hayes Construction Co		
File Name	250059TIA001A-F	**Report Date**	3 March 2025
Prepared by	MG	**Reviewed by**	VPG

one*mile****grid*** *operates from Wurundjeri Woiworung Country of the Kulin nation. We acknowledge and extend our appreciation to the Wurundjeri People, the Traditional Owners of the land. We pay our respects to leaders and Elders past, present and emerging for they hold the memories, the traditions, the culture, and the hopes of all Wurundjeri Peoples.*

CONTENTS

TABLES

FIGURES

APPENDICES

1 INTRODUCTION

onemile**grid** has been requested by Hayes Construction Co to undertake a Transport Impact Assessment of the proposed convenience restaurant development at 63 Horatio Street, Mudgee.

It is understood a pre-application meeting was undertaken with Council on 16 December 2024, where the following traffic and car parking items were raised:

Issues Discussed

4. *A detailed Traffic Impact Assessment, including traffic counts is required to be submitted with the application. This will need to detail all works to Horatio and Lewis Streets, including any required intersection treatments and new signage, e.g. No stopping signage along Horatio Street. Road works and new signage will also need to be considered by the Local Traffic Authority.*

12. *The car parking dimension for the parking spaces at the front of the site is shown as 4.9m. This should be amended to 5.4m.*

Information to be Submitted with the Development Application

2. *A site plan of the development, including cut and fill details, parking arrangements, loading and unloading area/s, drive thru facilities with swept paths shown, and works onsite proposed to support the development including tree removal, fencing and signage.*

13. *A Traffic Assessment Report including traffic counts and detailing all road upgrades and new street signage.*

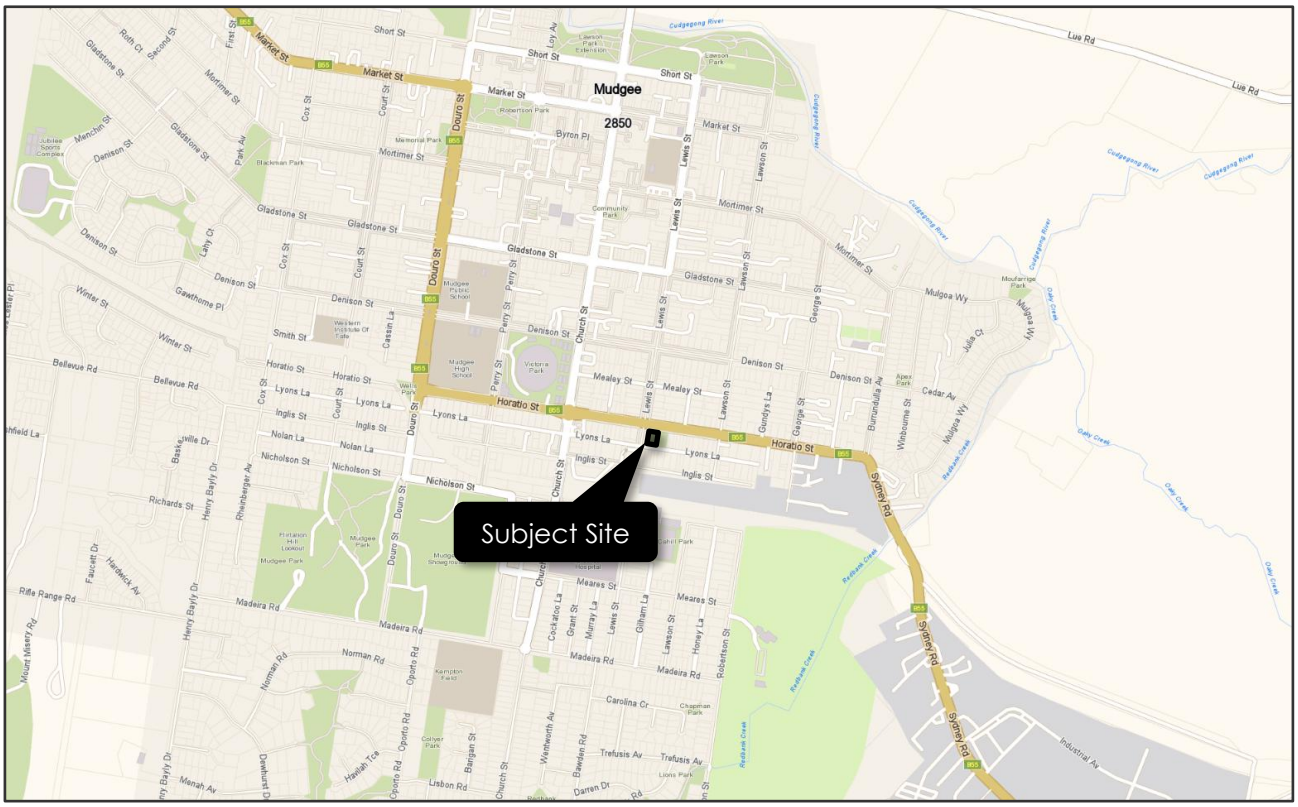
As part of this assessment the subject site has been reviewed with due consideration of the development proposal, pre-application meeting notes , traffic data has been sourced, and relevant background information has been reviewed.

2 EXISTING CONDITIONS

2.1 Site Location

The subject site is addressed as 63 Horatio Street, Mudgee, and is located to the south of the centre of the Mudgee township, as shown in Figure 1.

Figure 1 Site Location



Copyright Whereis

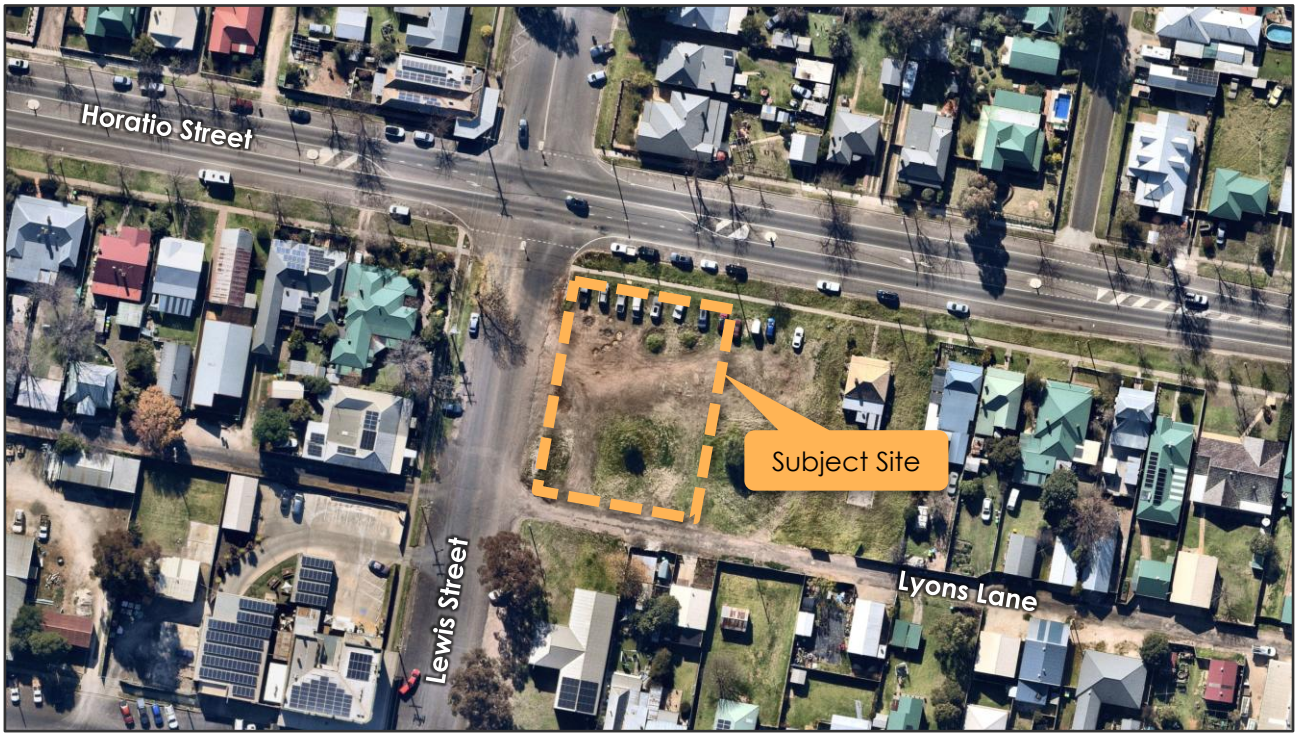
The subject site is rectangular in shape, provides road frontages to Horatio Street, Lewis Street, and Lyons Lane for 40 m, 50 m, and 40 m respectively, and occupies a total site area of approximately 2,023 m².

The site is currently vacant and provides various informal vehicle accesses to Lewis Street and Lyons Lane.

Land use in the immediate vicinity of the site is primarily residential in nature, and includes various retail tenancies, restaurants, and recreational land uses further afield.

An aerial view of the subject site is provided in Figure 2.

Figure 2 Site Context (27 June 2024)

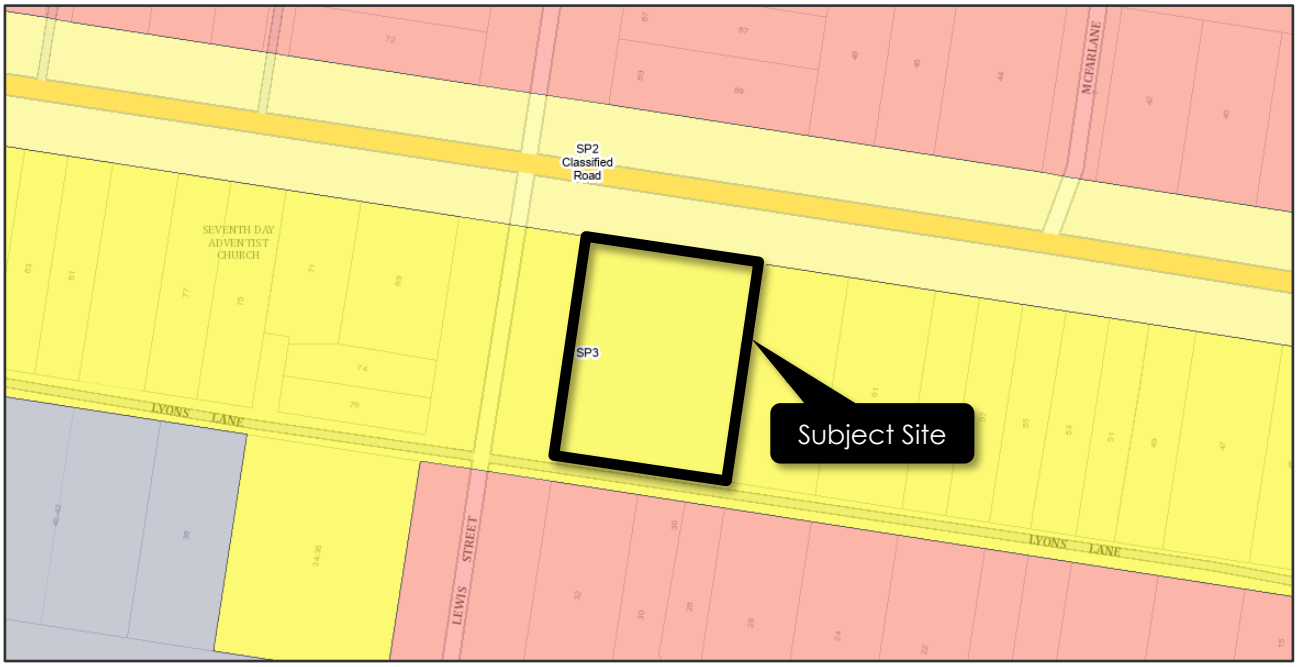


Copyright Nearmap

2.2 Planning Zones

It is shown in Figure 3 that the site is located within a SP3 – Tourist zone, and abuts Horatio Street which is within a SP2 Classified Road zone.

Figure 3 Planning Zones



2.3 Road Network

2.3.1 Horatio Street

Horatio Street is a part state (classified road identified as Gazetted Road Number 18: Castlereagh Highway) and local road, with the state-road portion aligned east-west running from Douro Street in the west, and transitioning into Sydney Road to the west. The local-road portion of Horatio Street to the west generally runs between Cox Street and Douro Street.

Horatio Street adjacent to the site provides an 18 m wide carriageway comprising a single traffic lane and a kerbside parking lane in each direction, separated by a central painted median (and in sections small traffic islands with signage) comprising intermitted channelised right-tun lanes and centre lane turn treatments.

A signed 50 km/h speed limit applies to Horatio Street in the vicinity of the site.

The cross-section of Horatio Street at the frontage of the site is shown in Figure 4.

Figure 4 Horatio Street, looking east adjacent to the subject site

Copyright Google (Image date: May 2024)

2.3.2 Lewis Street

Lewis Street is a local road generally aligned north-south, running between Short Street in the north, and Inglis Street in the south.

Lewis Street provides a 15.5 m wide sealed carriageway providing vehicle movements in each directions adjacent the site, with a combination of sealed and grass shoulders on both sides of the road accommodated informal parking.

The cross-section of Lewis Street at the frontage of the site is shown in Figure 5.

Figure 5 Lewis Street, looking north adjacent to the subject site

Copyright Google (Image date: August 2023)

2.3.3 Lyons Lane

Lyons Lane is a laneway generally aligned east-west, running between Cox Street in west, and Lawson Street to the east.

Lyons Lane adjacent to the site has a 3.0 m wide carriageway.

The cross-section of Lyons Lane at the frontage of the site is shown in Figure 6.

Figure 6 Lyons Lane, looking west adjacent to the subject site

Copyright Google (Image date: August 2023)

2.3.4 Horatio Street / Lewis Street Intersection

The Horatio Street / Lewis Street intersection is an uncontrolled cross-intersection, with Horatio Street operating as the major road in the E-W direction, whilst Lewis Street is controlled by 'Give-Way' treatments on both legs in the N-S direction.

Short channelised right turns lanes are located centrally within the Horatio Street median to allow for right turn movements into Lewis Street clear from east and westbound vehicle movements.

Each leg of the intersection allows for fully-directional movements (left-in / left-out / right-in / right-out / through).

An aerial view of the Horatio Street / Lewis Street intersection is shown in Figure 7.

Figure 7 Horatio Street / Lewis Street Intersection

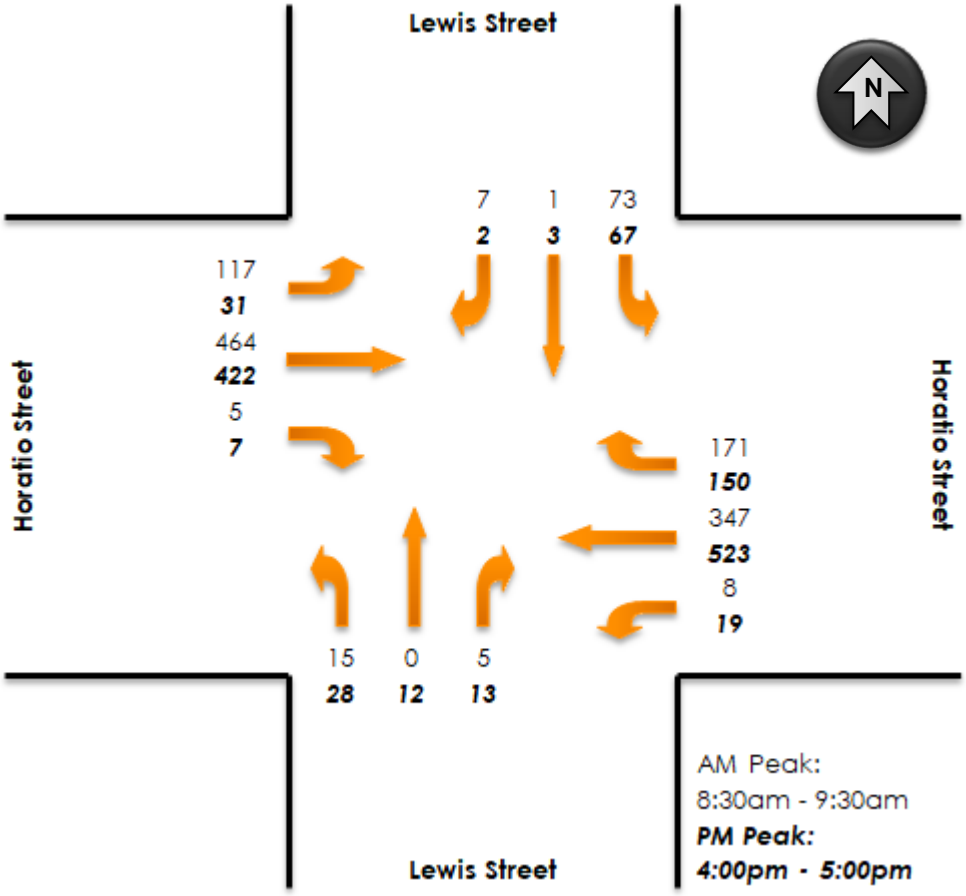
Copyright Nearmap

2.4 Traffic Volumes

Traffic volume surveys were undertaken by Trans Traffic Survey on behalf of **one**mile**grid** at the intersection of Horatio Street / Lewis Street, on Wednesday 12th February 2025, between 7am – 10am and 3pm – 7pm.

The peak hour results of the survey is shown in Figure 8.

Figure 8 Existing Traffic Volumes – Wednesday 12 February 2024



As shown above, relatively low traffic volumes are currently experienced the Horatio Street / Lewis Street intersection, with traffic volumes of 523 vehicles per hour for any one movement on Horatio Street, and 73 vehicles per hour for any one movement via Lewis Street.

To assess the existing operation of the Horatio Street / Lewis Street intersection, the traffic volumes collected have been input into SIDRA Intersection, a traffic modelling software package.

The SIDRA Intersection software package has been developed to provide information on the capacity of an intersection with regard to a number of parameters. Those parameters considered relevant are, Degree of Saturation (DoS), 95th Percentile Queue, and Average Delay, and Level of Service (LoS), as described in Table 1.

Table 1 SIDRA Intersection Parameters

Parameter	Description
Degree of Saturation (DoS)	The DoS represents the ratio of the traffic volume making a particular movement compared to the maximum capacity for that particular movement. The value of the DoS has a corresponding rating depending on the ratio as shown below. **Degree of Saturation** / **Rating** Up to 0.60 – Excellent 0.61 – 0.70 – Very Good 0.71 – 0.80 – Good 0.81 – 0.90 – Fair 0.91 – 1.00 – Poor Above 1.00 – Very Poor It is noted that whilst the range of 0.91 – 1.00 is rated as 'poor', it is acceptable for critical movements at an intersection to be operating within this range during high peak periods, reflecting actual conditions in a significant number of suburban signalised intersections.
Average Delay (seconds)	Average delay is the time delay that can be expected for all vehicles undertaking a particular movement in seconds. This includes time taken to accelerate or decelerate, time taken to undertake the manoeuvre, and delay at a hold line or stop line.
95th Percentile (95%ile) Queue	95%ile queue represents the maximum queue length in metres that can be expected in 95% of observed queue lengths in the peak hour.
Level of Service (LoS)	A qualitative measure of sign-controlled intersection performance, based on the average delay experienced by a driver. A LoS of A, B, C or D suggests acceptable intersection performance. A LoS of E or F suggests mitigation measures or upgrades may be warranted.

The value of the average delay and Level of Service for a sign-controlled intersection has a corresponding rating, as shown in Table 2.

Table 2 Rating of Delay and Level of Service

Rating	Delay in seconds (d)	Level of Service
Excellent	$d \leq 10$	A
Very Good	$10 < d \leq 15$	B
Good	$15 < d \leq 25$	C
Fair	$25 < d \leq 35$	D
Poor	$35 < d \leq 50$	E
Very Poor	$50 < d$	F

The results of the existing intersection conditions analysis are provided in Table 3.

Table 3 Horatio Street / Lewis Street – Existing Conditions

Approach	*DoS*	*Avg. Delay (sec)*	*Queue (m)*	*LoS*
AM Peak				
Lewis Street (S)	0.04	9	1	A
Horatio Street (E)	0.20	3	6	A
Lewis Street (N)	0.12	9	3	A
Horatio Street (W)	0.32	1	0	A
PM Peak				
Lewis Street (S)	0.13	12	3	B
Horatio Street (E)	0.30	2	5	A
Lewis Street (N)	0.10	9	3	A
Horatio Street (W)	0.25	1	0	A

As shown above, the Horatio Street / Lewis Street intersection is currently operating under excellent conditions during both the morning and afternoon peak hours, with minimal queues and delays currently experienced by motorists from each leg of the intersection.

The maximum delay occurs to the southern Lewis Street leg during the PM peak period, where motorists are on average required to wait 12 seconds (equates to a Level of Service of B) in order to merge into or cross Horatio Street.

2.5 Sustainable Transport

2.5.1 Public Transport

Public transport in the vicinity of the site is limited to the route 560 Mudgee – Mudgee East bus service, with the closest stop located on the northwestern corner of the Horatio Street / Church Street intersection (270 m walk approx.).

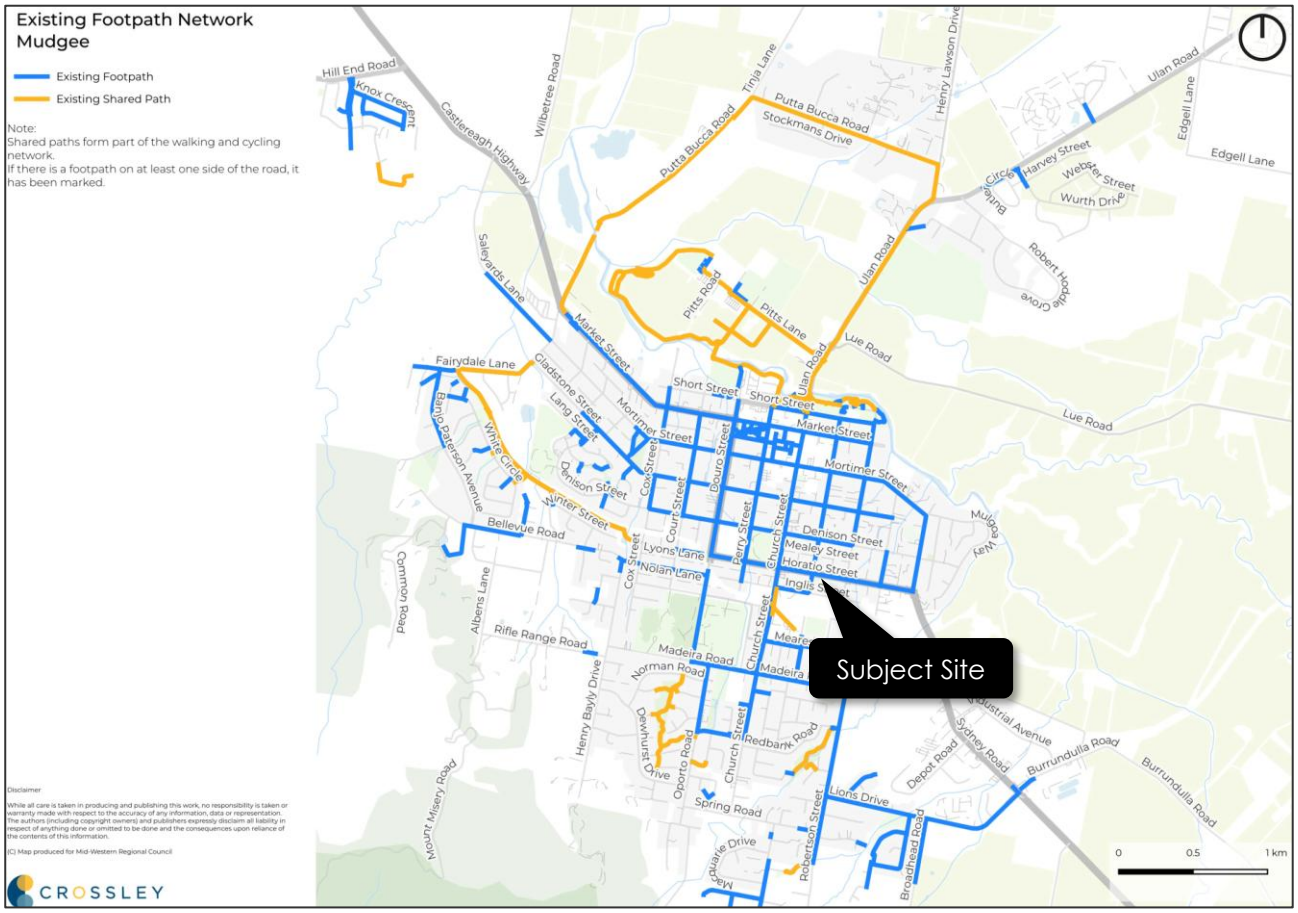
Furthermore, the Mudgee Railway Station is located 230 m to the south, providing regional train and coach services to the broader New South Wales areas.

2.5.2 Walking and Cycling Network Facilities

The Mid-Western Regional Council have prepared the Mid-Western Regional Walking and Cycling Strategic Plan (published 23rd of May 2024) is a document which highlights the existing walking and cycling network, and proposes aims and opportunities, including infrastructure upgrades, in order to promote the uptake of walking and cycling within the Council area.

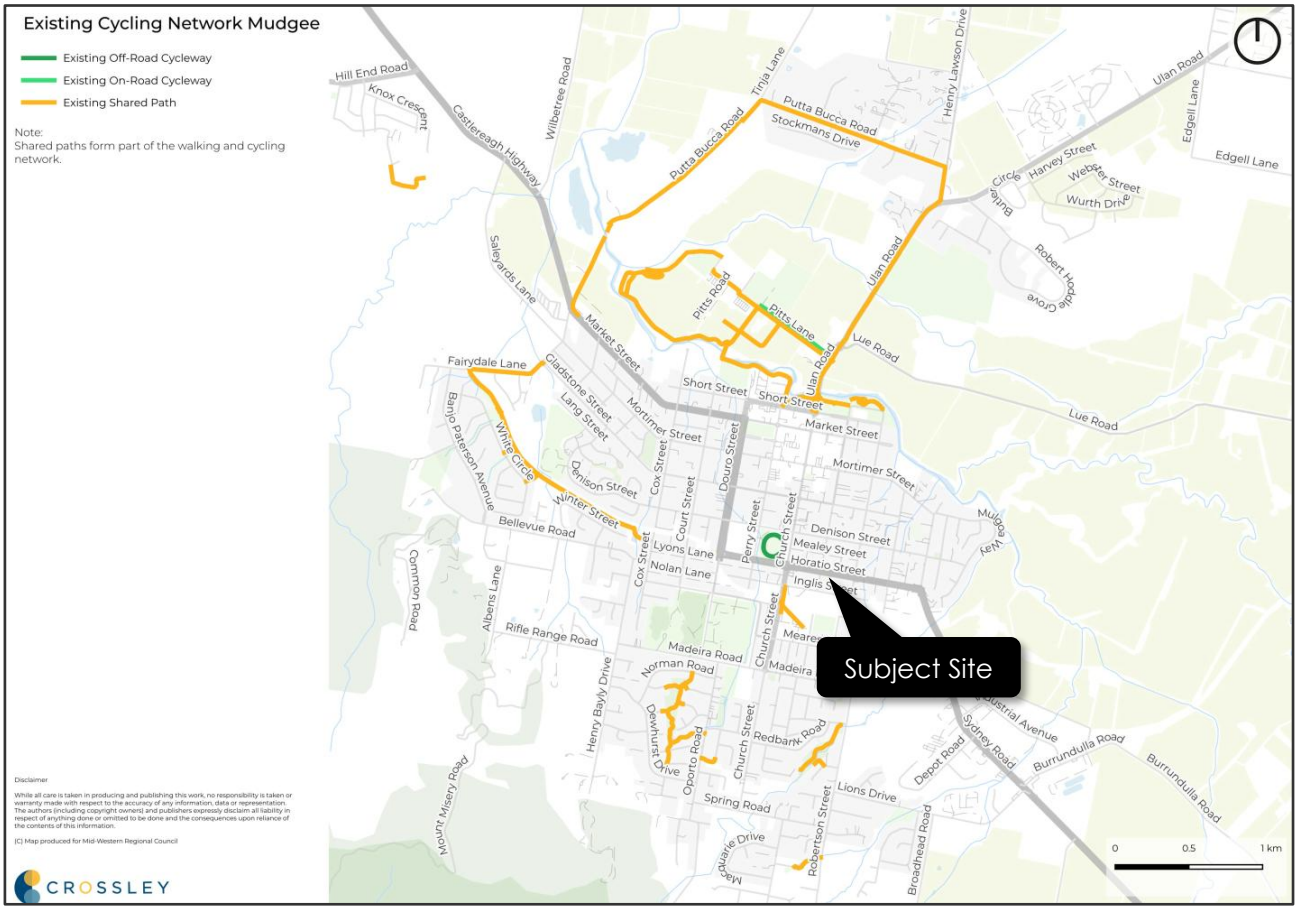
The existing Mudgee footpath and cycling network shown in the documents in reproduced in Figure 9 and Figure 10 respectively.

Figure 9 Existing Footpath Network – Mudgee



Shown above, notable footpath networks in the vicinity of the site include Horatio Street, Lewis Street, Church Street, Mudgee Putta Bucca Shared Pathway, and Mudgee Putta Bucca Shared Pathway.

Figure 10 Existing Cycling Network – Mudgee



Shown above, notable cycling routes and paths in the vicinity of the site includes Church Street, Mudgee Putta Bucca Shared Pathway, and Mudgee Putta Bucca Shared Pathway.

3 DEVELOPMENT PROPOSAL

It is proposed to develop the subject site for the purposes of a convenience restaurant operating as a Hungry Jacks restaurant. The restaurant is proposed to have a gross floor area of 248 m² and permit up to 40 patrons / seats.

Access to the site is provided along the western boundary of the site via Lewis Street in the form of a two-way crossover approximately 25 m south of the Horatio Street / Lewis Street intersection.

A total of 26 car parking spaces, inclusive of one accessible space and one delivery-driver bay is proposed with an at-grade car park. A further two waiting bays are provided the drive-through exit (excluded from total parking provision).

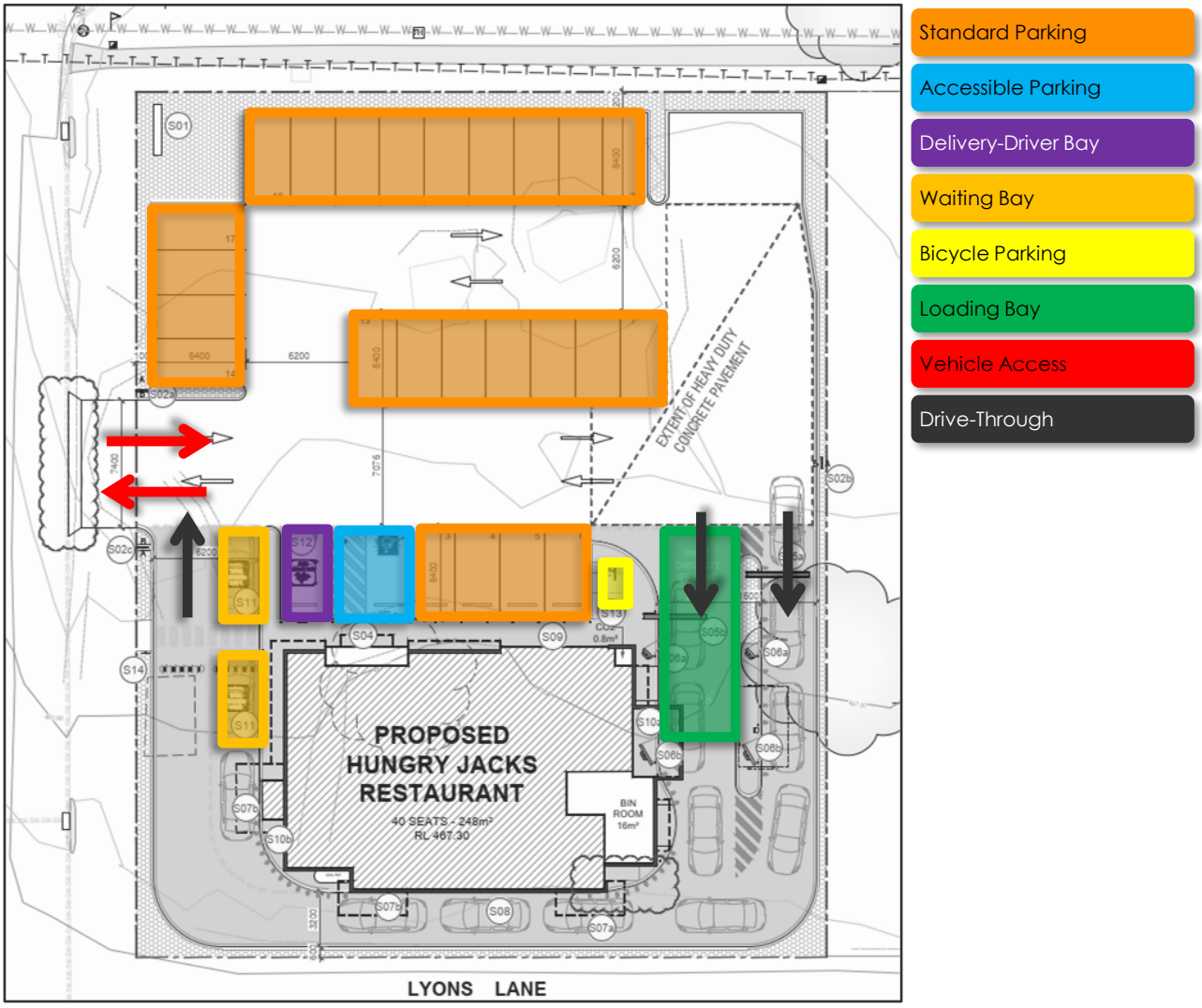
A dual-lane drive-through is proposed on the eastern side of the building, of which the two drive-through lanes converges into a single lanes and circulates clockwise around the building.

The western drive-through lane is to function concurrently as a loading bay (during off-peak periods).

A single bicycle parking rack (capable of accommodating two bicycles) is provided adjacent the building entrance for both staff and visitor use.

A view of the proposed site layout and associated transport elements is shown in Figure 11.

Figure 11 Proposed Site Layout



4 DESIGN ASSESSMENT

4.1 Mid-Western Regional Development Control Plan

4.1.1 General

onemile**grid** has undertaken an assessment of the car parking layout and access for the proposed development with due consideration of the relevant design requirements prescribed within the Mid-Western Regional Development Control Plan.

A review of those relevant design requirements is provided as follows.

4.1.2 Traffic and Access

Section 4.5 of the Mid-Western Regional Development Control Plan prescribes the following in relation to the traffic and access designs specific for commercial developments, as summarised in Table 4.

Table 4 Traffic and Access (Commercial Development)

Requirement	*Comments*
All vehicles must be able to enter and exit the site in a forward direction	Satisfied – vehicles can enter and exit the site in a forward direction.
All vehicle movement paths are to be sealed	Satisfied
Driveways must comply with Australian Standard AS 2890.1 Parking Facilities	Satisfied – the proposed accessway has been designed in accordance with AS2890.1:2004.
For new commercial development all loading facilities are to be located within the site with no loading to occur from the public road system.	Satisfied. Further discussion provided in Section 6.
All loading facilities shall be designed to complying with Australian Standards.	Satisfied – the proposed loading bay has been designed in accordance with Australian Standard for Parking facilities, Part 2: Off-street commercial vehicle facilities (AS 2890.2:2018), where a loading area of 12.5 m x 3.5 m.
Where the truck delivery paths extend through car parking areas due consideration should be given to the separation of truck, pedestrian and car traffic. Where separation cannot be achieved then the application it to address traffic flow and safety issues.	Satisfied

In addition, swept path diagrams have been provided within Appendix A demonstrating access to/from Lewis Street and circulating on-site with a 99th percentile passenger vehicle (B99), including simultaneous passing of an entering/exiting B99 design vehicle.

4.1.3 Car Parking

Section 5.1 of the Mid-Western Regional Development Control Plan states the following in relation to the design of car parking facilities:

> *"Design and layout including manoeuvring, provisions of accessible spaces and access reference should be made to AS 2890.1 Parking Facilities".*

Standard car spaces have been designed with a length of 5.4 m, a minimum width of 2.4 m, and are accessed from aisles of no less than 5.8 m, in accordance with the Australian/New Zealand Standard for Parking facilities, Part 1: Off-street car parking (AS2890.1:2004).

The accessible bay is provided with a length of 5.4 m and a width of 2.4 m, and an adjacent shared area of the same dimensions, in accordance with the Australian Standard for Parking facilities, Part 6: Off-street parking for people with disabilities (AS2890.6:2022).

4.2 Drive-Through Lane

The proposed drive-through design has been checked for circulation using swept paths for the B99 design vehicle, in accordance with AS/NZS 2890.1:2004.

The swept path assessment confirms that the design vehicle can circulate the drive-through as well as position the car appropriately at the ordering, paying and collection points. The swept path assessment is included in Appendix A.

The Transport for NSW "Guide to Transport Impact Assessment" provides guidance on the design of drive-through facilities for food outlets, which includes the following:

> "*An exclusive area for queuing of cars for a drive-through facility should be considered to avoid unreasonably disrupting car parking operations or extending onto the street. A range of five to 12 car lengths from pick-up point may be considered dependant on turnover and four car lengths from ordering point may be considered as a guide*".

In accordance with the above, the drive-through proposed accommodates in excess of 12 vehicles without encroaching on the car parking area.

The proposed provision of queueing within the drive-through facility is therefore considered to be appropriate.

5 SCHEDULE 3 – TRAFFIC GENERATING DEVELOPMENTS (TFNSW)

Schedule 3 of the State Environmental Planning Policy (Transport and Infrastructure) 2021 – Chapter 3 states that if a proposed land use is subject to Column 3 of Chapter 2, which states that the land use of a take-away food (convenience restaurant) shall be referred to the Transport for New South Wales (TfNSW) department given:

> *"Site with access to classified road or to road that connects to classified road (if access within 90m of connection, measured along alignment of connecting road)".*

Acknowledging the proposed site access is approximately 25 m offset from Horatio Street, which is a classified road identified as Gazetted Road Number 18: Castlereagh Highway, the proposal will then be subject to referral to TfNSW for review.

onemile**grid** have undertaken a detailed review of the proposal's impact to the external road network as part of this assessment with a traffic analysis concluding that the traffic generated will not have an adverse impact on the operation of the road network.

6 LOADING

As previously detailed in Section 4.1.2, the Mid-Western Regional Development Control Plan requires the following in relation to loading/unloading for commercial developments:

> *"For new commercial development all loading facilities are to be located within the site with no loading to occur from the public road system".*

The loading area is proposed located along the eastern side of the proposed convenience restaurant within the western drive-through lane, with access provided via the proposed on-site car park. An area measuring 12.5 m in length and 4.5 m in width, not including the access aisle, is provided in front of the loading area to facilitate loading vehicle movements.

The proposed development is to accommodate a loading and servicing for vehicles up to a 12.5 m heavy rigid vehicle, with swept path diagrams, as attached in Appendix A, demonstrating adequate site access, circulation, and access to the loading bay.

The proposed loading is therefore considered acceptable for the proposed use.

7 BICYCLE PARKING

The Mid-Western Regional Development Control Plan does not prescribe minimum bicycle parking rates for developments within the Council area.

Nevertheless, a single bicycle parking rack capable of accommodating two bicycles is provided adjacent the building entrance should a demand for bicycle parking arises for both staff and visitor use as required.

8 CAR PARKING

8.1 Statutory Car Parking Requirement

The car parking requirements for the subject site are identified in Section 5.1 of the Mid-Western Regional Development Control Plan, which specifies the following car parking requirements for the proposed development.

Table 5 Section 5.1 – Car Parking Requirements

Land Use	*No./Area*	*Car Parking Requirement (greater of)*	*Total*
Take away food and drink premises	248 m² 40 seats	1 space per 7 m² GFA; or 1 space per 3 seats whichever is the greater	35 or 13

Based on the above calculations, a total of 35 parking spaces are required for the proposed development.

It is proposed to provide a total of 26 car parking spaces on-site, which equates to a shortfall of nine (9) spaces when compared to the development control plan minimum requirements.

8.2 Variation of Statutory Requirements

Section 5.1 of the Mid-Western Regional Development Control Plan states following relation to a reduction of car parking again the requirements of the DCP:

> *"Where site conditions warrant, Council may vary the above standards by up to 10% provided the applicant lodges a formal objection, including reasons, against the subject standard. This is likely to require a car parking and/or traffic impact assessment as means of justification for the variation".*

An assessment of the proposed car parking and the appropriateness of reducing the proposed parking provision below them is set out as follows.

8.3 Car Parking Assessment

Reference is made to the recently published New South Wales Roads and Traffic Authority (now Transport for NSW) document "Guide to Transport Impact Assessment" dated 2024, which aims to assist with the assessment and preparation of development applications. The guide identifies car parking rates for a variety of land uses based on surveys of existing facilities.

Section 8.5 of the guide suggests the following car parking rates for the land use '*Food and drink premises: Developments with on-site seating and drive-through facilities*':

Table 6 NSW Guide to TIA – Car Parking Rates

Land Use	*No./Area*	*Historic Provisions (greater of)*	*Total*
Food and drink premises[1]	40 int. seats 0 ext. seats	1 space per 2 seats (internal), or 1 space per 3 seats (internal and external) plus queuing area for 5 to 12 cars	20; or 13

1 Developments with on-site seating and drive through facilities

Based on the above car parking rates, a total of 20 parking spaces are required for the proposed development.

This suggested parking rate generally consistent with a number of similar recognised car parking rates for convenience restaurants and take-away premises, as described below:

- Case study data for a number of existing convenience restaurants sourced generally identifies a peak parking rate of 0.35 spaces per seat (equating to 14 spaces for the subject site);
- In June 2016 Bitzios Consulting published their "Trip Generation and Parking Demand Surveys of Fast Food Outlets Analysis Report", commissioned by Roads and Maritime Services NSW, which surveyed the traffic generation and parking demand of various fast food outlets. In relation to Hungry Jack's restaurants, the report identifies a peak parking demand of 0.4 spaces per seat (equating to 14 spaces for the subject site); and
- The alternative parking rate of one space per three seats (equating to 13 spaces for the subject site) prescribed by the Mid-Western Regional DCP.

Based on the above, a car parking requirement generally in the order of one space per 3 seats (13 spaces for the proposed development) is widely accepted for similar convenience restaurants.

Therefore, the proposed provision of 26 on-site parking spaces is anticipated to comfortably accommodate the projected parking demand generated by the proposed convenience restaurant.

8.4 Accessible Car Parking

The National Construction Code specifies the minimum requirements for provision of accessible car parking.

The proposed convenience restaurant, classified as a Class 6 building, requires provision of one accessible car space for every 50 car parking spaces or part thereof for the first 1,000 spaces, and then 1 space per 100 car parking spaces or part thereof in excess of 1,000 spaces.

Noting the proposed provision of 26 car spaces on-site, the National Construction Code (NCC) requires at least one accessible car space on-site.

The proposed provision of one accessible car parking space therefore satisfies the NCC requirements.

9 TRAFFIC

9.1 Traffic Generation

The aforementioned study conducted by Bitzios Consulting identified a number of findings in relation to trip generation by Hungry Jack's restaurants:

- Hungry Jack's had similar trip generation between regional and metropolitan areas;
- The peak site trip generation occurred during the weekend lunch period; and
- Approximately 54% of all trips were from passing trade.

The study recommended baseline PM peak hour trips to be estimated at 61 trips per hour, whilst during the AM peak period, traffic volumes were observed to be considerably lower. For the purposes of a conservative analysis, approximately half of the trip generation used for the PM peak hour will be adopted for the AM peak period.

Based on the above case study data, the anticipated traffic generated by the proposed development is shown in Table 7, of which are to be further split equally between inbound and outbound movements.

Table 7 Anticipated Traffic Generation

Period	*Inbound*	*Outbound*	*Total*
AM Peak	15	15	30
PM Peak	30	31	61

Furthermore, it is commonly acknowledged that a high proportion of vehicle trips to a fast food outlet (convenience restaurant) are as a result of diverted trips; from a vehicle which is already on the road network as part of another trip (i.e., a vehicle diverting to a convenience restaurant on the way from work to home).

As identified above, the Bitzios Consulting "Trip Generation and Parking Demand Surveys of Fast Food Outlets Analysis Report" document detailed that approximately 54% of all Hungry Jacks vehicle trips were passing trade, which conversely equates to 46% of traffic generated volumes are unique to the broader road network i.e. new traffic.

Consequently, the number of unique vehicles trips generated by the proposed development will be much lower than the total traffic generation of the site, as calculated in Table 8.

Table 8 Anticipated Unique Traffic Generation

Period	*Inbound*	*Outbound*	*Total*
AM Peak	7	7	14
PM Peak	14	14	28

Reviewing the volumes above, it is noted that a maximum of 28 additional vehicle movements per hour are expected, equivalent to one vehicle trip two minutes. Even when focussed into one access point, the traffic volumes generated by the proposed development are very low, and are expected to be easily absorbed into the surrounding road network.

Regardless, a further comprehensive review of the resultant traffic impact to the adjacent road network, notable at the adjoining Horatio Street / Lewis Street intersection has been undertaken as follows.

9.2 Traffic Distribution

Considering the location of the site in relation to the arterial road network, and based on the existing traffic volumes detailed in Section 2.4, the following directional distribution is anticipated to/from the subject site.

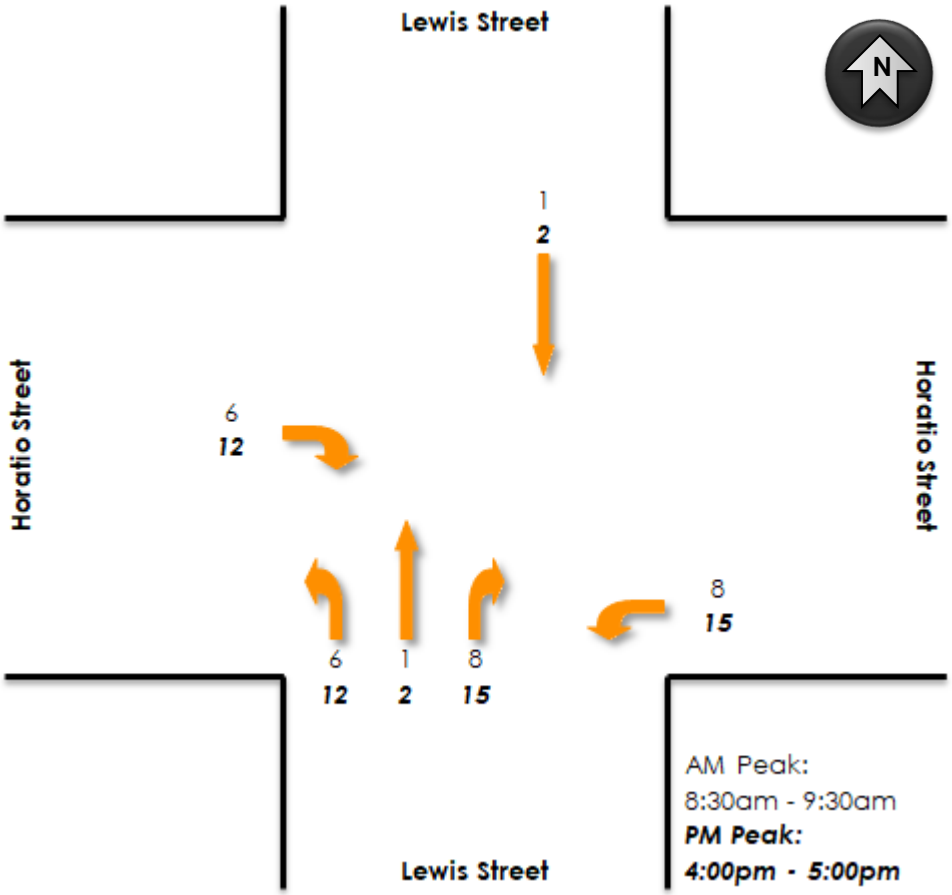
Table 9 Adopted Directional Traffic Distribution

Origin/Destination	*Percentage*
Horatio Street – east	50%
Horatio Street – west	40%
Lewis Street – north	5%
Lewis Street - south	5%

9.3 Generated Traffic Volumes

Based on the above, the following traffic volumes are expected to be generated by the proposed development at the intersection of Horatio Street / Lewis Street.

Figure 12 Generated Traffic Volumes

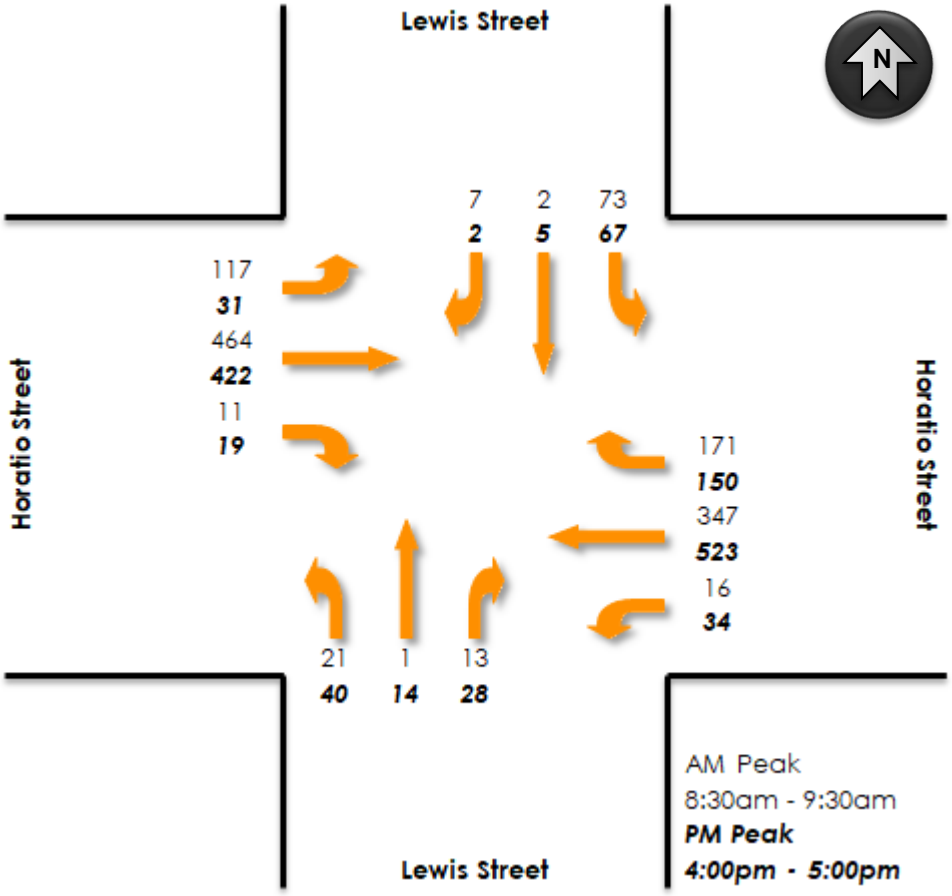


9.4 Future Traffic Volumes

For the purposes of a conservative assessment, the future intersection volumes at Horatio Street / Lewis Street intersection can be calculated by combining the existing volumes and the traffic anticipated total traffic volumes to be generated by the proposed development.

The resultant peak hour traffic volumes are shown in Figure 13.

Figure 13 Resultant Future Traffic Volumes



To assess the future operation of the Horatio Street / Lewis Street intersection, the resultant traffic volumes have been input into SIDRA Intersection, with the results of the future conditions are provided in Table 3.

Table 10 Horatio Street / Lewis Street – Existing & Future Conditions

Approach	DoS		Avg. Delay (sec)		Queue (m)		LoS	
	Existing	Future	Existing	Future	Existing	Future	Existing	Future
AM Peak								
Lewis Street (S)	0.04	0.07	9	10	1	2	A	B
Horatio Street (E)	0.20	0.20	3	3	6	6	A	A
Lewis Street (N)	0.12	0.13	9	9	3	3	A	A
Horatio Street (W)	0.32	0.32	1	1	0	0	A	A
PM Peak								
Lewis Street (S)	0.13	0.22	12	14	3	5	B	B
Horatio Street (E)	0.30	0.31	2	2	5	5	A	A
Lewis Street (N)	0.10	0.11	9	9	3	3	A	A
Horatio Street (W)	0.25	0.25	1	1	0	1	A	A

9.5 Traffic Impact

As shown above, the Horatio Street / Lewis Street intersection will continue to operate under excellent conditions during both the morning and afternoon peak hours with minimal queues and delays experienced by motorists.

9.6 Intersection Review

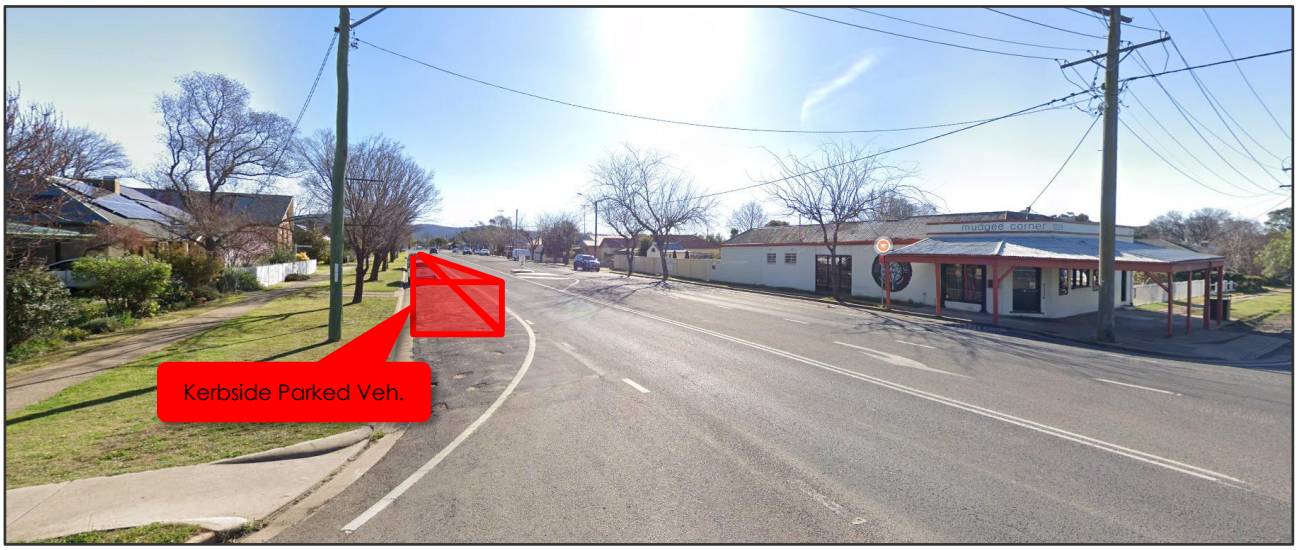
The proposed development will naturally result in an intensification of the existing traffic volumes when compared to the existing conditions. In this regard an intersection review in terms of road safety has been undertaken noting the above traffic capacity analysis determined the intersection would operate satisfactorily post development.

Based on a desktop review of the intersection, it is noted that the current intersection provides adequate sightlines from the southern Lewis Street intersection (where the bulk of the generated traffic will travel to/from).

Unimpeded sightlines are present to both the east and west, including the location of vehicles parked along the southern side of Horatio Street, as demonstrated in Figure 14 and Figure 15.

Figure 14 Drivers Perspective, looking Eastbound

Figure 15 Drivers Perspective, looking Westbound



An aerial view of the available site distance for vehicles exiting the southern Lewis Street is shown in Figure 16.

Figure 16 Sight Distances at Lewis Street

As shown above, sight distances in both directions are in excess of 123 m – the Austroads SISD for 60 km/h design speed (2 second reaction time). Therefore, based on the assessment above, it is considered there is satisfactory sight distance for vehicles at the Horatio Street / Lewis Street intersection.

The current intersection arrangement is therefore considered satisfactory with no upgrades or additional signage warranted at the intersection, and motorists post-development will continue to utilise the intersection under safe conditions with adequate sight lines present via Lewis Street.

In view of the foregoing, the intersection analysis suggest that the generated traffic will not impose a materialistic impact to the operation the Horatio Street / Lewis Street intersection.

10 RESPONSE TO COUNCIL

onemile**grid** has reviewed the pre-application meeting items provided by Council dated 16 December 2024, and provide a direct response to the traffic engineering related matters below in Table 11.

Table 11 Council's Pre-Application Comments

Item	*Response*
Issues Discussed	
4. A detailed Traffic Impact Assessment, including traffic counts is required to be submitted with the application. This will need to detail all works to Horatio and Lewis Streets, including any required intersection treatments and new signage, e.g. No stopping signage along Horatio Street. Road works and new signage will also need to be considered by the Local Traffic Authority.	Traffic volume surveys have been undertaken and are included in Section 2.4. Section 9.5 details the current intersection arrangement is considered satisfactory with no upgrades nor additional signage required and motorists post-development will continue to utilise the intersection under safe conditions. This is based on the existing adequate sight lines, and the future traffic volumes conditions of the intersection based on the SIDRA analysis.
12. The car parking dimension for the parking spaces at the front of the site is shown as 4.9m. This should be amended to 5.4m.	Section 4.1.3 details the adequacy of the car parking designed in accordance with the DCP requirements.
Information to be Submitted with the Development Application	
2. A site plan of the development, including cut and fill details, parking arrangements, loading and unloading area/s, drive thru facilities with swept paths shown, and works onsite proposed to support the development including tree removal, fencing and signage.	Swept path diagrams have been prepared are provided in Appendix A demonstrating adequate access, on-site circulation, loading areas, and drive-through with the appropriate design vehicle.
13. A Traffic Assessment Report including traffic counts and detailing all road upgrades and new street signage.	Refer to above response to comment 12.

11 CONCLUSIONS

It is proposed to develop the subject site for the purposes of a convenience restaurant operating as a Hungry Jacks restaurant.

Considering the analysis presented above, it is concluded that:

- The car parking layouts and accesses have been designed generally in accordance with the requirements of the Australian Standard as detailed within the DCP and are considered appropriate;
- The proposed loading arrangements are considered appropriate as per the DCP requirements;
- The proposed design of bicycle parking is generally in accordance with the Australian Standards;
- The proposed bicycle parking provision is in excess with the DCP requirements;
- The proposed car parking provision, whilst seeking a variation to the requirements of the DCP, will comfortably accommodate the projected parking demand generated by the proposed convenience restaurant;
- The site is expected to generate up to 61 vehicles movements during the peak hour and is not expected to have a significant impact on the operation of the surrounding road network beyond that already assessed; and
- There are no traffic engineering reasons which would preclude a permit from being issued for this proposal.

Appendix A Swept Path Diagrams

HORATIO STREET

N

CROSSOVER DESIGNED IN ACCORDANCE WITH
MID-WESTERN REGIONAL COUNCIL
STANDARD DRAWING NO. M526 D

B99 STANDARDS 2004 (AU_NZ)

DRIVE THRU WASTE BAY 1

DELIVERY BAY

DRIVE THRU WASTE BAY 2

SHARED LOADING ZONE

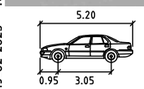
SUBJECT SITE
63 HORATIO STREET

LEWIS STREET

LYONS LANE

CAD File: N:\Projects\2025\250059\Drawings\250059SPA100.dgn

Date Plotted: 19-02-2025 16:05:32



B99	meters
Width	: 1.94
Track	: 1.84
Lock to Lock Time	: 6.0
Steering Angle	: 33.9

SWEPT PATH LEGEND

- — — — — DESIGN VEHICLE SWEPT PATHS SHOWN DASHED
- - - - - - - - - 300mm CLEARANCE ENVELOPE SHOWN DOTTED

onemilegrid operates from Wurundjeri Woiwurung Country of the Kulin nation.
We acknowledge and extend our appreciation to the Wurundjeri People, the Traditional Owners of the land.
We pay our respects to leaders and Elders past, present and emerging for they hold the memories,
the traditions, the culture, and the hopes of all Wurundjeri Peoples.

onemilegrid
Wurundjeri Woiwurung Country
56 Down Street, Collingwood, VIC 3066
Email:info@onemilegrid.com.au Web:www.onemilegrid.com.au
Phone (03) 9939 8250

Scale 1:250 @ A3 (0 1,25 2,5 5)

Drawing Title
63 HORATIO STREET, MUDGEE
VEHICLE SITE ACCESS AND CIRCULATION
SWEPT PATH ANALYSIS

Designed	Approved	Melway Ref
DA	VG	N/A

Project Number	Drawing Number	Revision
250059	SPA100	B

HORATIO STREET

LEWIS STREET

LYONS LANE

N

CROSSOVER DESIGNED IN ACCORDANCE WITH
MID-WESTERN REGIONAL COUNCIL
STANDARD DRAWING NO. M526 D

B99
STANDARDS 2004 (AU_NZ)

SHARED LOADING ZONE

DELIVERY BAY

SUBJECT SITE
63 HORATIO STREET

5.20
0.95 3.05

B99	meters
Width	: 1.94
Track	: 1.84
Lock to Lock Time	: 6.0
Steering Angle	: 33.9

SWEPT PATH LEGEND

- — — — DESIGN VEHICLE SWEPT PATHS SHOWN DASHED
- - - - - - - - 300mm CLEARANCE ENVELOPE SHOWN DOTTED

CAD File: N:\Projects\2025\250059\Drawings\250059SPA101.dgn
Date Plotted: 19-02-2025 16:05:55

onemilegrid operates from Wurundjeri Woiwurung Country of the Kulin nation.
We acknowledge and extend our appreciation to the Wurundjeri People, the Traditional Owners of the land. We pay our respects to leaders and Elders past, present and emerging for they hold the memories, the traditions, the culture, and the hopes of all Wurundjeri Peoples.

onemilegrid
Wurundjeri Woiwurung Country
56 Down Street, Collingwood, VIC 3066
Email:info@onemilegrid.com.au Web:www.onemilegrid.com.au
Phone (03) 9939 8250

Scale
1:250 @ A3
0 1.25 2.5 5

Drawing Title
63 HORATIO STREET, MUDGEE
VEHICLE SITE ACCESS AND CIRCULATION
SWEPT PATH ANALYSIS

Designed	Approved	Melway Ref
DA	VG	N/A

Project Number	Drawing Number	Revision
250059	SPA101	B

HORATIO STREET

LEWIS STREET

LYONS LANE

CROSSOVER DESIGNED IN ACCORDANCE WITH
MID-WESTERN REGIONAL COUNCIL
STANDARD DRAWING NO. M526 D

B99
STANDARDS 2004 (AU_NZ)

SHARED
LOADING
ZONE

DELIVERY
BAY

SUBJECT SITE
63 HORATIO STREET

N

5.20
0.95 3.05

B99 meters
Width : 1.94
Track : 1.84
Lock to Lock Time : 6.0
Steering Angle : 33.9

SWEPT PATH LEGEND
- — — — — DESIGN VEHICLE SWEPT PATHS SHOWN DASHED
- - - - - - - - - 300mm CLEARANCE ENVELOPE SHOWN DOTTED

CAD File: N:\Projects\2025\250059\Drawings\250059SPA102.dgn
Date Plotted: 19-02-2025 16:09:08

*onemilegrid operates from Wurundjeri Woiwurung Country of the Kulin nation.
We acknowledge and extend our appreciation to the Wurundjeri People, the Traditional Owners of the land.
We pay our respects to leaders and Elders past, present and emerging for they hold the memories,
the traditions, the culture, and the hopes of all Wurundjeri Peoples.*

onemilegrid
Wurundjeri Woiwurung Country
56 Down Street, Collingwood, VIC 3066
Email:info@onemilegrid.com.au Web:www.onemilegrid.com.au
Phone (03) 9939 8250

Scale 1:250 @ A3
0 1.25 2.5 5

Drawing Title
63 HORATIO STREET, MUDGEE
VEHICLE SITE ACCESS AND CIRCULATION
SWEPT PATH ANALYSIS

Designed	Approved	Melway Ref
DA	VG	N/A

Project Number	Drawing Number	Revision
250059	SPA102	B

HORATIO STREET

LEWIS STREET

LYONS LANE

CROSSOVER DESIGNED IN ACCORDANCE WITH
MID-WESTERN REGIONAL COUNCIL
STANDARD DRAWING NO. M526 D

HRV
STANDARDS 2018 (AU)

SUBJECT SITE
63 HORATIO STREET

SHARED LOADING ZONE

DELIVERY BAY

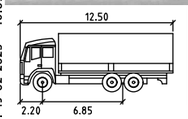
1 VAN RESERVE

2 VAN RESERVE

N

CAD File: N:\Projects\2025\250059\Drawings\250059SPA103.dgn

Date Plotted: 19-02-2025 16:09:38



HRV	meters
Width	: 2.50
Track	: 2.50
Lock to Lock Time	: 6.0
Steering Angle	: 36.7

SWEPT PATH LEGEND

— — — — DESIGN VEHICLE SWEPT PATHS SHOWN DASHED

- - - - - - - - - 300mm CLEARANCE ENVELOPE SHOWN DOTTED

onemilegrid operates from Wurundjeri Woiwurung Country of the Kulin nation.
We acknowledge and extend our appreciation to the Wurundjeri People, the Traditional Owners of the land.
We pay our respects to leaders and Elders past, present and emerging for they hold the memories, the traditions, the culture, and the hopes of all Wurundjeri Peoples.

onemilegrid
Wurundjeri Woiwurung Country
56 Down Street, Collingwood, VIC 3066
Email:info@onemilegrid.com.au Web:www.onemilegrid.com.au
Phone (03) 9939 8250

Scale 1:250 @ A3

0 1.25 2.5 5

Drawing Title
63 HORATIO STREET, MUDGEE
VEHICLE SITE ACCESS AND CIRCULATION
SWEPT PATH ANALYSIS

Designed	Approved	Melway Ref
DA	VG	N/A

Project Number	Drawing Number	Revision
250059	SPA103	B