

4 August 2025

P3247 BC 127 New England Highway Lochinvar Mixed Use

Brown Commercial Building
2 Elwell Close,
Beresfield NSW 2322

Attention: Caitlin Brown

Dear Caitlin,

Proposed Mixed Use Development, 127 New England Highway, Lochinvar, NSW.

We have now completed our site work and review of the documentation provided for the proposed mixed use development including four medium-density dwellings and a childcare centre at 127 New England Highway, Lochinvar and provide the following assessment of parking demands, traffic generation and access arrangements for the development. This assessment has been completed with regard to the relevant requirements outlined in the Maitland Development Control Plan 2011 (MDCP), with reference to the Guide to Transport Impact Assessments (GtTIA) and Australian Standard AS2890.1: Off-street Car Parking Facilities.

Background and Existing Situation

The subject site is located at 127 New England Highway, Lochinvar as shown below in **Error! Reference source not found.**

The site currently consists of a single lot with a single dwelling. The site was previously assessed in a traffic impact report prepared by Amber Traffic and Transportation Direction (January 2025) to provide for a 1 into 3 lot residential subdivision allowing up to four dwellings.

The site is on the southern side of the New England Highway with a single domestic access to this road only.

Road Hierarchy

The **New England Highway** is the main arterial road through the locality, which forms part of the state road network (HW9) connecting Lochinvar with Greater Newcastle (via Maitland) to the east and the Upper Hunter (via Muswellbrook) to the west. Through Lochinvar, it provides a single lane of travel in each direction (7 metres), with sealed shoulders (7 metres) to both sides. The posted speed limit on the New England Highway is 60 km/hr in this location, with a 40 km/hr school zone operating through the centre of Lochinvar.

Since the opening of the Hunter Expressway in 2014, there has been a significant decrease in the demands for regional traffic passing through the village of Lochinvar.



Figure 1 – Site location within context of local road network

Except for the highway, other roads in the vicinity are local streets under the care and control of Maitland City Council. These typically connect with the highway at various T-intersections with the highway having priority.

Current Road Network Operation

Seca Solution commissioned traffic surveys to the west of the site at the intersection of the New England Highway and Windemere Street on Thursday 5th June 2025 (**Attachment B**). Based on these the two-way movements in the morning peak (7.30-8.30) were in the order of 1530 vehicles per hour (vph) being 957 vph eastbound / 573 vph westbound and in the afternoon peak (16.00-17.00) in the order of 1901 vph (893 eastbound / 1008 westbound)

The New England Highway would therefore be operating beyond Level of Service E with peak directional flows between 900 and 1400 vph. This is described to “occur when traffic volumes are at or close to capacity and there is virtually no freedom to select desired speeds or to manoeuvre within the traffic stream. Flow is unstable and minor disturbances within the traffic stream will cause a traffic-jam”.

Allowing peak hour travel to be typically 10% of daily flows, the daily traffic demands in this location could be in the order of 17,155 vehicles per day.

Allowing for the single dwellings on the subject site, the existing site flows would be less than 1 trip in the peak periods and less than 8 trips per day.

A review of the Interactive Crash Statistics (www.roadsafety.transport.nsw.gov.au) for the five years 2019-2023 indicates there have been two accidents along the corridor with one to the east in 2022 being a right near resulting in minor injury and one to the west (2021) resulting in serious injury associated with leaving parking. These do not reflect inherent safety concerns and confirms observations on site which is that the roads in this location are well laid out with good visibility.

Car Parking

Kerbside parking is generally available in the vicinity of the subject site, with the usual restrictions at driveways and intersections. Demands for this parking is low with most lots providing on-site parking.

Public Transport and Active Transport

Lochinvar railway station is located 3.1km to the south of the site. It is on the Hunter Line with services east to Maitland and Newcastle and west to Muswellbrook and on Scone.

Bus stops are to the north-east and south-west of the site with the area serviced by bus route 179 (North Rothbury to Green Hills via Maitland) and 180 (Singleton to Green Hills via Maitland) as well a school services.

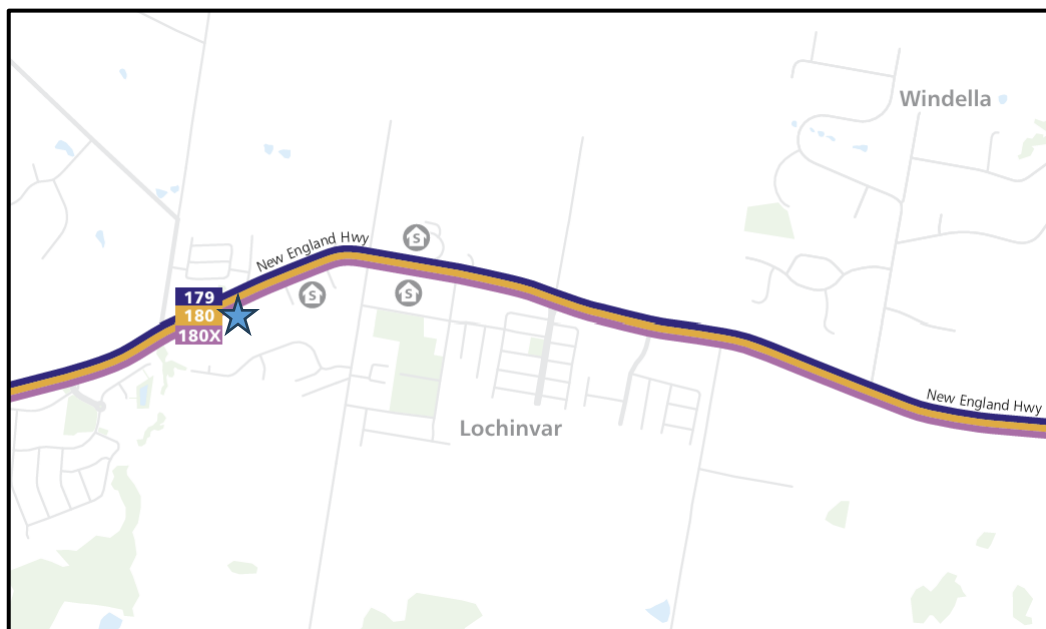


Figure 1 Bus routes in vicinity of subject site (★)

There are no dedicated pedestrian or cycling facilities within the vicinity of the site with grass verges.

A signalised pedestrian crossing over the New England Highway is provided to the north-east of the site (approx. 280 metres).

Other Developments

There is ongoing residential development in the area with urban release areas to both the east and west of the Lochinvar town centre.

Proposed Development

Mixed Use Development including a 108 places long daycare centre with 20 staff and 4 x medium density dwellings (2 bedroom townhouses) to rear of site.

As a long day care centre the childcare centre will provide a wide spread of drop off and pick up times for parents and carers. The plans for the development show provision the for 27 parking spaces across two parking modules with single garages for the town-houses.

A concept plan for the proposed site is included in **Attachment A**.

Access

The mixed-use site generates demands for residential and staff parking (User Class 1/1A) and visitor parking associated with the childcare centre (User Class 3).

The site has a single entry with a width between 6-9.5 metres consistent with a Category 2 access driveway per AS 2890.1 Table 3.2. This is considered appropriate given that of the 31 spaces (27 childcare + 4 residential) the extent of User Class 3 parking represents less than half being less than 25 User Class 3 spaces on an arterial road.

This is consistent with the Maitland DCP which nominates separate driveways for sites with more than 50 parking spaces or sites with high turn over traffic such as service station or drive in retail.

The access to the carpark will allow for adequate space for entering vehicles with free flow into the site given vehicles will turn left into the carpark with no requirement to give way to exiting motorists. Staff parking can be located within the first parking spaces to reduce manoeuvring and delays for entering vehicles.

Sight Lines

Sight distance requirements for an access driveway are prescribed by Australian Standard AS2890.1:2004 Parking Facilities (Off-street Car Parking), which requires a minimum sight distance of 65 metres, for the posted speed limit of 60 km/hr, with a desirable sight distance of 83 metres.

Sight visibility has been reviewed on site. The New England Highway provides a straight alignment supporting good visibility to the east and west.

Parked cars can impact sight lines from the proposed access however the width of the shoulder/parking lane (7m) can allow motorists to pull out and use this width to confirm visibility

Visibility exceeds 250 metres in each direction which allowing for the 60km/hr frontage speed is in excess of the desirable distance requirement of 83 metres per AS2890.1.



Photo 1 Looking east (right) in the vicinity of the proposed exit



Photo 2 Looking left (west) in vicinity of the proposed access showing sight line to the left



Photo 3 View west having edged forward within the shoulder

Given the volume of opposing traffic, particularly westbound in the PM, there may be some delays for vehicles to turn right into the site. The width however of the road with a shoulder/parking lane of 7.5 metres on the northern side allows a vehicle to safely pass a propped car turning right into the site without the need for dedicated turn lanes. This is consistent with other commercial sites to the east of the site (eg hotel and motel or café) where driver can pass a vehicle propped to turn right into a site by safely passing to the left utilising the existing 7.5 m wide parking lane.

Parking

27 parking spaces are to be provided for the childcare centre across two parking modules, the front one for staff and parents/carers and the one to the rear for staff only.

One of the spaces in the front module is accessible.

MDCP specifies a carparking requirement:

- Childcare centre of 1 space for every 4 children in attendance.
- Multi dwelling Housing - 1 space for each one- or two-bedroom dwelling or 2 spaces for each dwelling containing more than two bedrooms plus 1 visitor space for the first three dwellings and 1 space for every five thereafter or part thereof

Allowing for 108 places and 20 staff this would see a parking requirement of 27 spaces which is consistent with the number provided.

The parking shall be designed in accordance with AS2890.1 with accessible parking in accordance with AS2890.6.

A turning bay is provided to allow for the blind aisle configuration. One of these shall also allow for the movement of service vehicles outside peak drop off and pick up times.

Single garages provide for the four medium-density (two-bedroom townhouses) proposed for the site. Per the Amber report visitor parking shall be accommodated within the unrestricted kerbside parking along the New England Highway.

Servicing

Servicing for the site will be minimal with the main requirements being associated with waste collection.

The majority of materials are brought to the childcare centre by staff. Occasional deliveries will otherwise be during the day, outside of peak pick up and drop off times with such deliveries typically in a small van which can park within the site carpark using a visitor parking space.

Waste collection for the centre can occur on site outside operating hours which will enable the waste truck to enter and exit the site in a forward direction and manoeuvre within the available carpark as required.

For the residential units, bins will be transferred to the road for Council kerb-side collection.

If waste is to be collected on site the Amber report found that the internal carriageway can comply with the grade requirements set out in AS 2890.2:2018 for a Small or Medium Rigid Vehicle (SRV/MRV) which would allow a waste collection vehicle to service this lot if required.

Traffic Analysis

Traffic Generation

The Guide to Transport Impact Assessments nominates the following indicative traffic generation rates:

Long day care centre:

- AM Network peak hour trips - 0.64 trips per licensed child place
- PM Network peak hour trips - 0.39 trips per licensed child place
- 2.97 vehicle trips per day

Allowing for 108 children attending the childcare centre, the proposal could generate up to:

- 70 trips (35 inbound/35 outbound) during the AM network peak period
- 43 trips (21 inbound/22 outbound) during the PM network peak period.
- 321 trips per day (160 inbound and 160 outbound)

Low-density residential

- AM Network peak hour trips - 0.83 trips per dwelling
- PM Network peak hour trips - 0.84 trips per dwelling
- 7.53 vehicle trips per day

Cumulative Traffic

- Long Day Care Network AM peak hour - $108 \times 0.64 = 70$ vph (35 inbound/35 outbound)
Network PM peak hour - 43 trips (21 inbound/22 outbound)
- Dwellings $4 \times 0.83 = 4$ vph in AM (1 inbound / 3 outbound) PM (3 inbound / 1 outbound)
- Total vehicle movements:
AM Peak 36 vph inbound / 38 vph outbound. PM Peak (24 inbound / 23 outbound)

Traffic Distribution and Impacts

Split equally eastbound and westbound to allow for detoured trips as well as those passing the site. Whilst the centre would attract local traffic already passing the site it is also likely that some traffic will detour to the centre and then return in the direction of their initial travel.

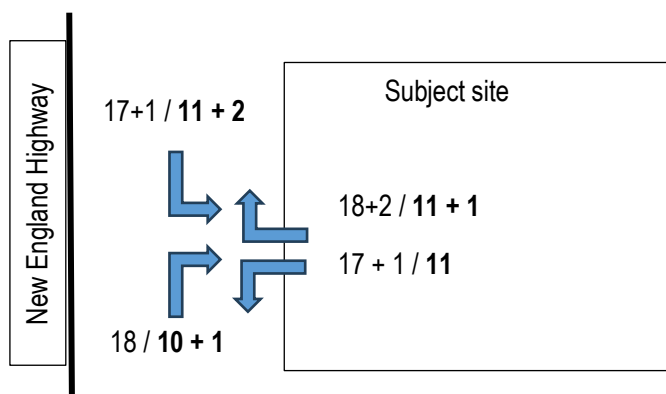


Figure 2 Distribution of traffic at site access AM / PM

A significant volume of the childcare centre's trips is anticipated to be passing traffic (assumed to be 45%) with a further 30% assumed to be diverted trips with motorists otherwise on the highway to the east or west of the site diverting to approach and depart the site to resume their travel to work etc.

Whilst the GtTIA does not provide a rate for pass-by or diverted trips for childcare centres, the Institute of Transport Engineers (ITE) nominates a rate for primary trips of 24% with pass-by trips being 44% and diverted trips 32%.

The balance of 25% is assumed to be new trips on the road network. This would see up to 10 **additional** trips two-way to the east or west of the site. This would see no change to the level of service with the New England Highway continuing to operate in a manner consistent with the existing situation.

Conclusion

- Traffic demands will consist mostly of diverted trips and passing traffic. Additional traffic will have an acceptable impact on the operation of the New England Highway
- Parking can be accommodated on site with visitor parking for residential units proposed on-street per the Traffic Impact Assessment (Amber) for the 1 into 3 lot subdivision
- The sight lines can be achieved with the wide shoulder/parking lane allowing motorists to edge forward past parked cars if necessary
- The site access can be provided with a combined driveway allowing two-way movements per User Class 2 (6m-9m wide) which is acceptable given the number of employee and residential parking provided on site.
- The width of the road and the wide shoulder provides sufficient space to enable a motorist to safely pass a vehicle propped to turn right into the site.

There is therefore no impediment for approval on traffic and access grounds.

Please feel free to contact our office on 4032 7979 should you require any additional information.

Yours sincerely,

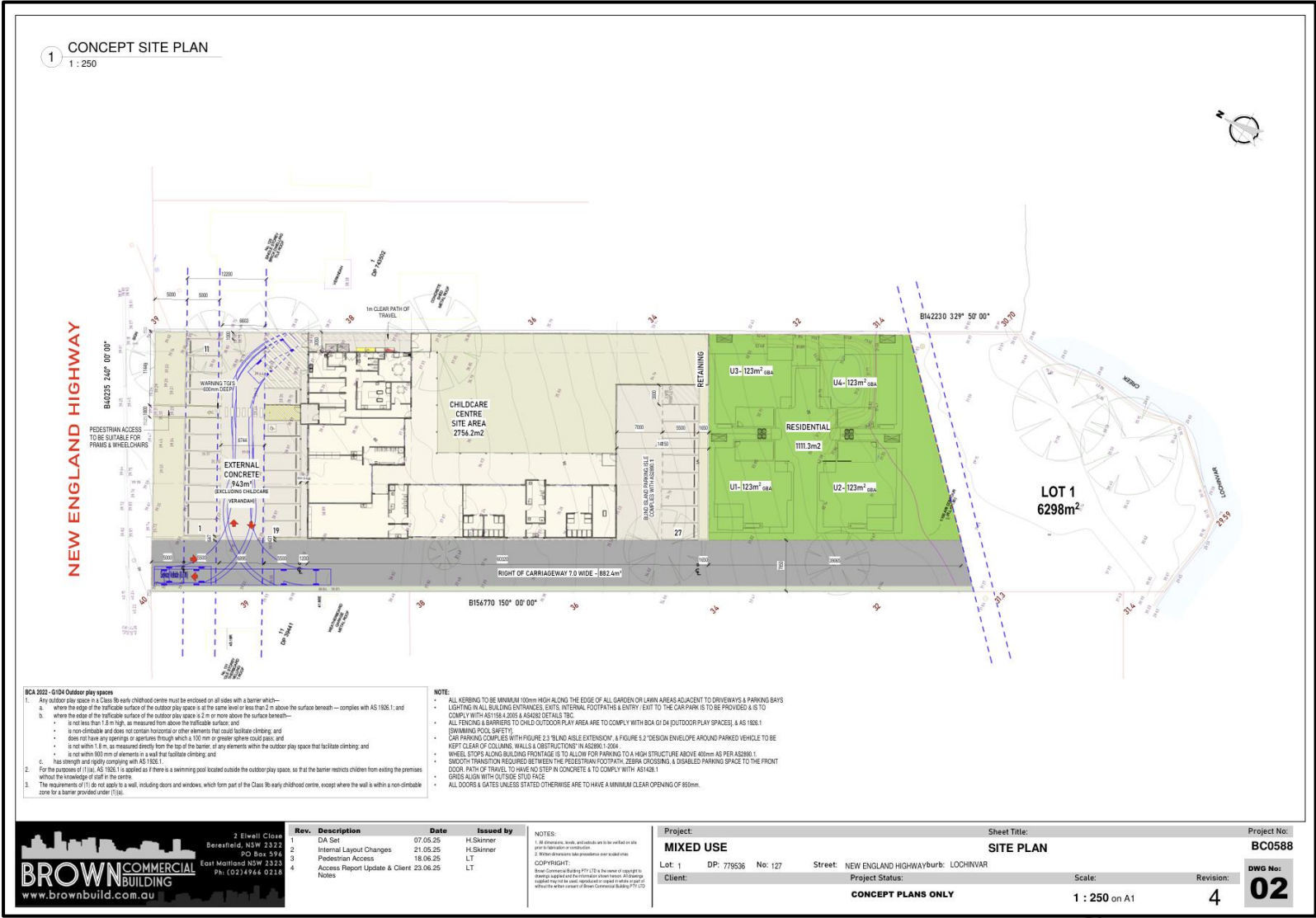


Cathy Thomas

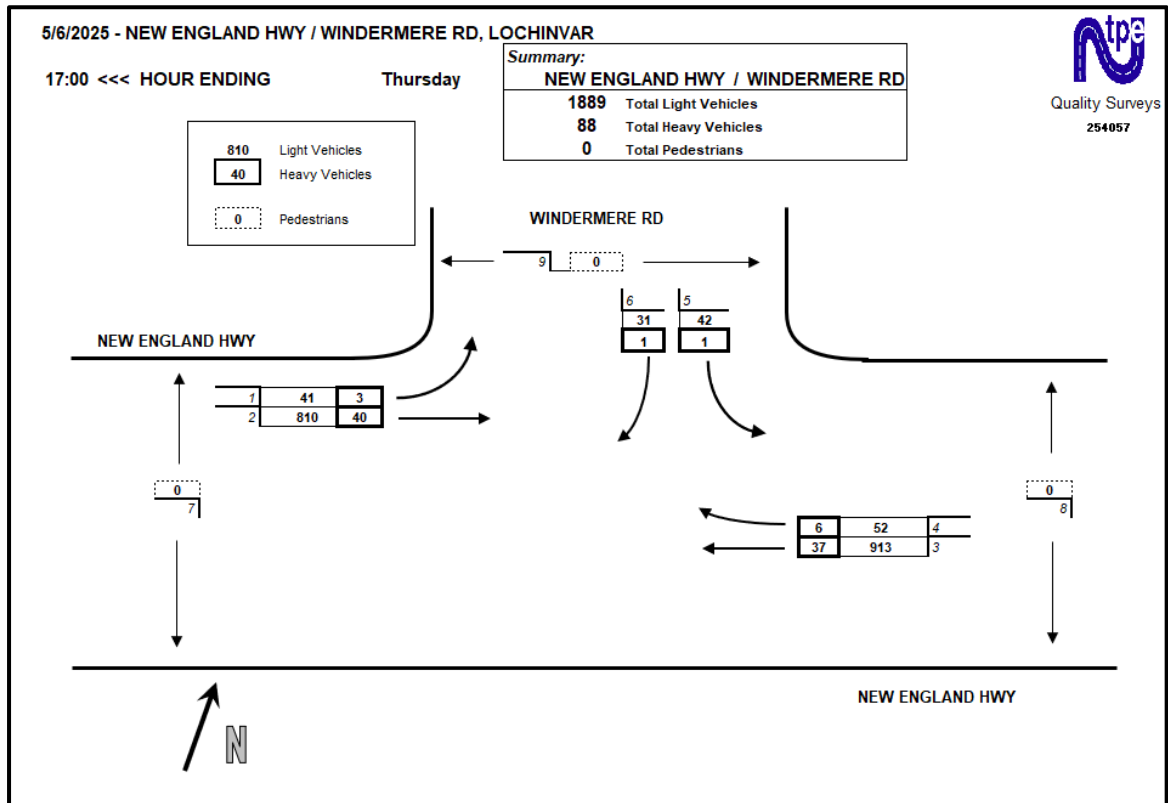
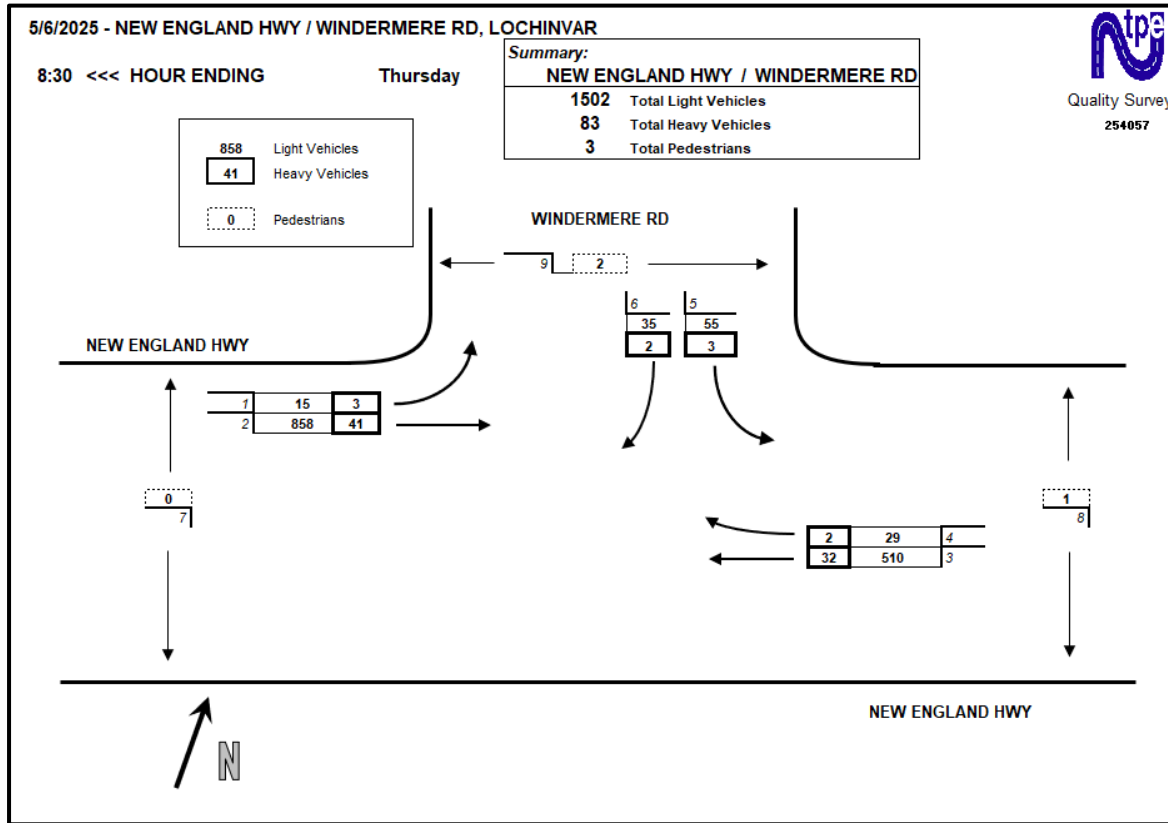
Director

Version	Date	Description	Prepared by	Reviewed and Approved for Issue
Ver01	13/7/25	Draft	C. Thomas	S. Morgan 
Ver02	4/8/25	Final	C. Thomas	S. Morgan 

Attachment A: Concept Plan



Attachment B – Traffic Data



Attachment C – Crash Data

LGA view - crashes map

Select your LGA

Maitland

Reporting year

All

Degree of crash

All

Type of crash

All

Speed limit

All

RUM code group

All

Type of location group

All

Speeding involved in crash

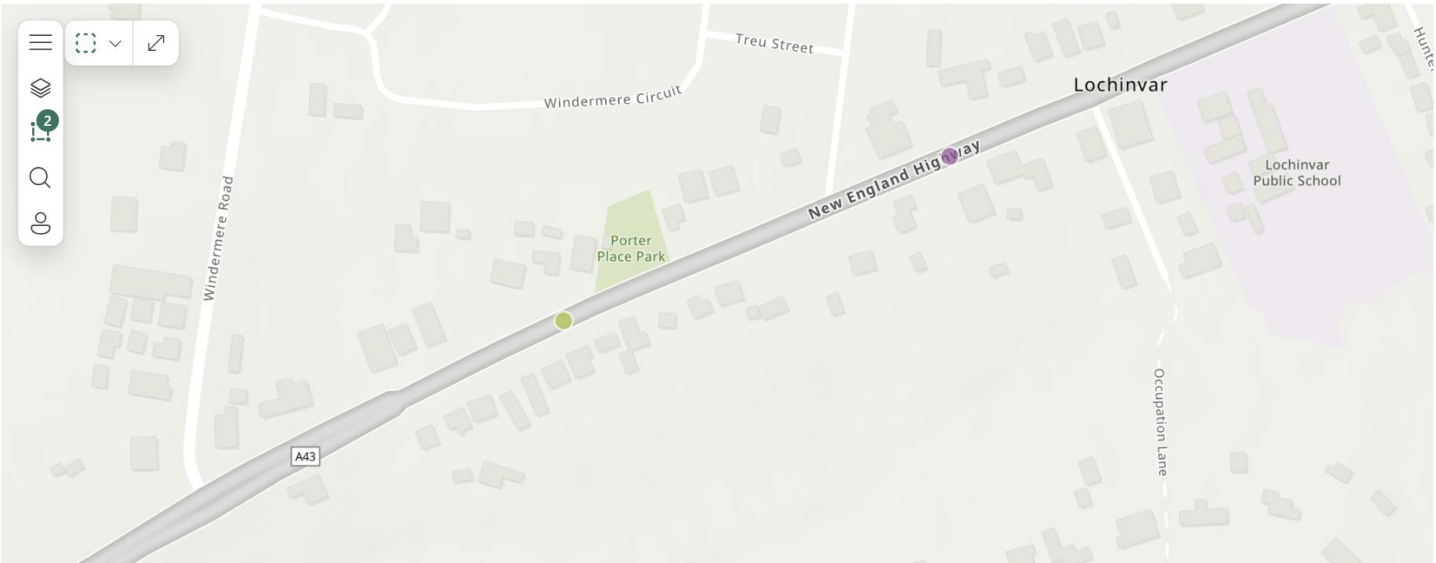
All

Fatigue involved in crash

All

Road classification

All



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Reporting year	Crash Id	Degree of crash	RUM - code	RUM - description	Type of location	Natural lighting	Longitude	Latitude	Number killed	Number injured
2021	1270412	Minor/Other Injury	32	Right rear	2-way undivided	Daylight	151.449638	-32.700189		1
2022	1301029	Serious Injury	42	Leaving parking	2-way undivided	Daylight	151.447086	-32.701107		2