

Ref: 21327  
25 January, 2023

Harrison Grierson Consultants Ltd  
P.O. Box 276-121  
MANUKAU 2241

Attention: Bryce Powell

Dear Bryce,

**PROPOSED PRIVATE PLAN CHANGE  
80 MCLARIN ROAD, GLENBROOK  
CLAUSE 23 RMA FURTHER TRAFFIC INFORMATION REQUEST – ITEM T4: SPEED SURVEYS AT  
POTENTIAL INTERSECTION LOCATIONS**

Further to Auckland Council’s follow-up response of 10 November 2022 to our Clause 23 Response and follow-up email correspondence, we have undertaken speed surveys on site to address the outstanding concern in relation to item T4, namely:

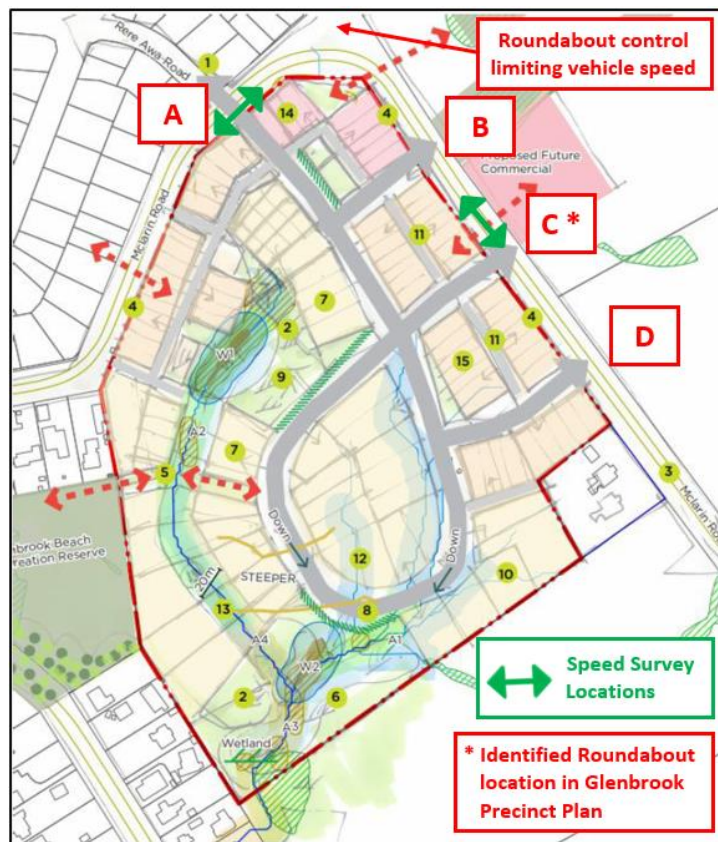
#	Category of information	Specific Request	Reasons for request	CI23 Response 21/10/22	CI 23 Further information requested:
<b>Transport matters – Wes Edwards, Arrive Ltd</b>					
T4	Potential Intersections	Please describe the speed measurement methodology and provide the speed data used to inform the sight distance assessments, along with the locations of the measurements.	The ITA notes operating speeds of 20km/h and 30km/h have been adopted based on observations made at the site. These speeds are unusually low for this type of environment. The observation methodology, the number of observations made, the location the observations were made, and the range of speeds observed have not been stated.	The speed measurement technology used to provide speed data to inform the sight distance assessments was by means of a floating vehicle driving appropriately for the environment. Speed data was also influenced by the location of the roundabout intersection with Okoreka Road and the curved alignment and newly urbanised frontage of McLarin Road bordering the north-western	T4.1 Please either: <b>a) Provide actual operating (85th percentile) speeds on the approaches to each intersection location based on a robust methodology such as automated tube counters, or observations of at least 30 vehicles for each approach using equipment such as a radar;</b>  <b>or</b> <b>b) Provide an assessment of available sight distances based on default operating speeds 15% above the posted speed</b>

Auckland Office:  
P O Box 60-255, Titirangi, Auckland 0642  
Level 1, 400 Titirangi Road, Titirangi Village  
Tel: (09) 817 2500  
Fax: (09) 817 2504  
www.trafficplanning.co.nz

#	Category of information	Specific Request	Reasons for request	CI23 Response 21/10/22	CI 23 Further information requested:
				boundary of the subject site.	<p><b>limit (as recommended by the WK RTS 6 Guideline)</b></p> <p><b>Please also provide an updated assessment of the available or achievable sight distances based on the above operating speeds.</b></p>

As confirmed in the extract below from our Integrated Transport Assessment (ITA), principal access points to the future residential development were considered along two sections of frontage, namely:

- McLarin Road Northern frontage (Location A)
- McLarin Road Eastern frontage (Location B/C/D)



80 McLarin Road PPC – Potential Intersection Locations

Speed surveys were undertaken using a radar speed gun on 20 December 2022 on McLarin Road along the northern and eastern frontages to the subject site, at locations aligning with where a driver would see a potential conflict situation on the approach to one of the proposed intersections, as shown above.

At both of the locations in question for proposed future intersections, speeds of 30 vehicles were surveyed in either direction and the average and 85<sup>th</sup> percentile speeds of each sample of 30 speeds are summarised in Table 1 below.

Table 1 – Average and 85<sup>th</sup> percentile speeds recorded on McLarin Road

Direction	Average Speed recorded	85 <sup>th</sup> Percentile Speed
<b>McLarin Road Eastern Frontage</b>		
To the north (southbound)	51.6 km/hr	59.7 km/hr
To the south (northbound)	57.4 km/hr	64 km/hr
<b>McLarin Road Northern Frontage</b>		
To the east (westbound)	40.6 km/hr	48 km/hr
To the west (eastbound)	40.2 km/hr	45.7 km/hr

Based on the recorded 85<sup>th</sup> percentile speeds from the above surveys, the ITA’s sight distance assessment has been revised below, according to sight distance standards indicated in the AUSTROADS publication “Guide to Road Design” Part 4A “Unsignalised and Signalised Intersections”.

*McLarin Road Northern frontage (Location A, opposite Rere Awa Road)*

Safe Intersection Sight Distance			
Direction	85 <sup>th</sup> Percentile Surveyed Speed	Recommended Sight Distance	Minimum Available Sight Distance on McLarin Road Frontage
To the east (westbound)	48 km/hr	92 metres *	> 100 metres (including circulatory & approach to Okoreka Road roundabout)
To the west (eastbound)	46 km/hr	87 metres*	87 metres achievable, subject to removal of vegetation at site frontage, to ensure visual permeability
Minimum Gap Sight Distance			
Direction	85 <sup>th</sup> Percentile Surveyed Speed	Recommended Sight Distance	Minimum Available Sight Distance on McLarin Road Frontage
To the east (westbound)	48 km/hr	66 metres *	75 metres
To the west (eastbound)	46 km/hr	63 metres *	> 63 metres achievable, subject to removal of vegetation at site frontage, to ensure visual permeability

\* *Interpolated value*

*McLarin Road Eastern Frontage*

*Location B*

Safe Intersection Sight Distance			
Direction	85 <sup>th</sup> Percentile Surveyed Speed	Recommended Sight Distance	Minimum Available Sight Distance on McLarin Road Frontage
To the north (southbound)	60 km/hr	123 metres	110 metres (including circulatory & approach to Okoreka Road roundabout)
To the south (northbound)	64 km/hr	134 metres *	> 400 metres
Minimum Gap Sight Distance			
Direction	85 <sup>th</sup> Percentile Surveyed Speed	Recommended Sight Distance	Minimum Available Sight Distance on McLarin Road Frontage
To the north (southbound)	60 km/hr	83 metres	83 metres
To the south (northbound)	64 km/hr	89 metres	> 200 metres

\* *Interpolated value*

*Location C*

Safe Intersection Sight Distance			
Direction	85 <sup>th</sup> Percentile Surveyed Speed	Recommended Sight Distance	Minimum Available Sight Distance on McLarin Road Frontage
To the north (southbound)	60 km/hr	123 metres	175 metres (Location C to Okoreka Road roundabout)
To the south (northbound)	64 km/hr	134 metres *	> 300 metres
Minimum Gap Sight Distance			
Direction	85 <sup>th</sup> Percentile Surveyed Speed	Recommended Sight Distance	Minimum Available Sight Distance on McLarin Road Frontage
To the north (southbound)	60 km/hr	83 metres	83 metres
To the south (northbound)	64 km/hr	89 metres *	> 200 metres

\* *Interpolated value*

*Location D*

Safe Intersection Sight Distance			
Direction	85 <sup>th</sup> Percentile Surveyed Speed	Recommended Sight Distance	Minimum Available Sight Distance on McLarin Road Frontage
To the north (southbound)	60 km/hr	123 metres	> 200 metres
To the south (northbound)	64 km/hr	134 metres *	> 200 metres
Minimum Gap Sight Distance			
Direction	85 <sup>th</sup> Percentile Surveyed Speed	Recommended Sight Distance	Minimum Available Sight Distance on McLarin Road Frontage
To the north (southbound)	60 km/hr	83 metres	83 metres
To the south (northbound)	64 km/hr	89 metres *	> 200 metres

\* *Interpolated value*

Key observations in relation to recorded speeds and available sight distances are summarised below:

*McLarin Road Northern Frontage*

Based on the surveyed 85<sup>th</sup> percentile speeds, all sight distances are noted to technically comply, or be capable of technically complying with the Austroads Standard, thus the proposed intersection location A is deemed to be acceptable.

*McLarin Road Eastern Frontage*

All potential intersection locations identified for the site's eastern frontage are noted to exceed the required Austroads sight distances, with the exception of the sight distance to the northwest of location B, due to proximity with the Okoreka Road roundabout. However, the surveyed speeds on site will not be representative of circulatory speeds around the roundabout with Okoreka Road, which would be notably lower. On this basis, the shortfall in sight distance based on the 60km/hr surveyed speed is considered to be acceptable and not likely to result in adverse safety outcomes.

As previously noted, current vehicle operating speeds on McLarin Road are not representative of those that would be expected under a future scenario, under which newly provided access intersections for the subject site would, in and of themselves, serve to influence lower speeds, particularly the proposed new roundabout at Location C, as recognised in the Precinct Plan. Increased urbanisation in proximity to McLarin Road would similarly contribute to influencing lower speeds.

We trust that the above provides sufficient information to respond to council's outstanding query. However, should there be further queries in relation to the above, we would be happy to discuss these with you.

Yours sincerely

**TRAFFIC PLANNING CONSULTANTS LTD**



Bryce Hall



Andrew Temperley

