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To: Todd Whittaker, Matamata-Piako District Council

Copy: Ally van Kuijk

From: Naomi McMinn

Date: 31 January 2024

Job Number: 13\_91

**SUBJECT: Plan Change 58: Technical Memorandum – Transportation**

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## TECHNICAL MEMORANDUM WITH REGARD TO PLAN CHANGE 58

This memo is a technical memorandum regarding the transportation aspects of the proposed Avenue Industrial Private Plan Change in Morrinsville. The proposed Private Plan Change ("PC 58") seeks to rezone 13.4ha of land north of State Highway 26 and Avenue Road North from rural to industrial.

The purpose of this technical memo is to outline the transportation effects of the proposed plan change and provide recommendations on the proposed planning provisions. My assessment includes:

= My qualifications and experience	Page 1
= A summary	Page 2
= A description of the review process and basis of assessment	Page 3
= Assessment, describing key issues the review conclusions	Page 4
= Summary of Effects	Page 12
= Planning provisions, comments	Page 12
= Conclusions and recommendations	Page 16

## 1. INTRODUCTION

### 1.1. Qualifications and Experience

My name is Naomi Claire McMinn. I hold a Bachelor of Engineering degree (Civil, 2002) from the University of Canterbury. I am a Member of Engineering New Zealand. I have worked in the civil and transportation field since 2002. I am based in Hamilton and have worked for Gray Matter Ltd as a civil/transportation engineer since 2011. I have also worked for the London Borough of Richmond upon Thames and for the City of Melville, Western Australia. Prior to this, I was a civil engineer with Opus International Consultants Ltd in Hamilton and Whakatane for six years.

I am familiar with the transport issues arising in and around Waikato, having provided advice to Matamata-Piako District Council ("Council") and other local authorities, Waka Kotahi NZ Transport Agency ("NZTA") and developers on a range of transport related projects in the area.

I have the following specific experience relevant to the matters within the scope and purpose of this plan change:

- a. Consultant civil/transportation engineer for Road Controlling Authorities ("RCA"), including the Council and Hamilton City Council, assisting in the review of consent applications including industrial, commercial and residential developments within the wider Waikato region;
- b. Consultant civil/transportation engineer for developers, landowners and local authorities preparing and reviewing integrated transport assessments for development proposals including quarries, rest homes, and industrial and commercial developments;

- c. Consultant transportation engineer for Waikato District Council for the Ohinewai Rezoning (“Sleepyhead”) of the Proposed Waikato District Plan;
- d. Consultant transportation engineer for the Builtsmart Property Partnership Private Plan Change (PPC 22) to the Waikato District Plan; and
- e. I have completed Safe System Assessments and Safe System Audits training and attended the Waka Kotahi Road Safety Engineering Workshop. I have been team leader and team member for safety audits on urban and rural improvement projects for local roads and state highways.

## 1.2. Technical assessment area

My technical assessment area is transportation. I was engaged by Council to provide traffic engineering and transportation planning advice relating to the proposed Avenue Industrial Private Plan Change (“PC 58”).

I have considered the potential transport effects including safety and efficiency, for all transport network users, within the proposal area and on the surrounding transport network.

## 1.3. Code of Conduct statement

Although these proceedings are not before the Environment Court, I confirm that I have read and am familiar with the Code of Conduct for Expert Witnesses in the Environment Court Practice Note (2023), and I agree to comply with that Code of Conduct. My qualifications as an expert are set out above. This memorandum is within my area of expertise, except where I state that I am relying upon the specified evidence of another person. I have not omitted to consider material facts known to me that might alter or detract from the opinions expressed.

## 2. SUMMARY

From a transport planning perspective, the proposed industrial zone plan change area is located appropriately contiguous with existing industrial land use and provides connections to the wider arterial transport network.

However, with the current planning provisions proposed, I do not consider that the potential safety effects are acceptable. I consider that the planning provisions need to be amended to adequately provide for pedestrians and cyclists and to ensure safety for all users at the intersection with Avenue Road North.

In my view, the following matters need to be addressed:

- = The proposed planning provisions do not adequately provide for walking and cycling along the internal roads or connections to the wider network. The planning provisions should specifically include:
  - A typical road cross-section that includes a 3m wide shared path on one side and 1.8m wide footpath on the other, and provision for stormwater and services in the berm.
  - The need for a safe pedestrian crossing facility of Avenue Road North with a connection to the existing footpath.
  - A 3m wide shared path along the newly constructed east-west road connecting between the PC 58 area and Avenue Road North.
  - The walking and cycling network indicated on the Development Area Plan.
- = I have some safety and operational concerns about the recently constructed intersection with Avenue Road North. I consider that the:
  - 2m wide right turn bay is insufficient.
  - 1.6m wide median refuge is insufficient.

To address my concerns, I recommend that the planning provisions and wording outlined in Table 2 on pages 13-15 of this memorandum are adopted.

Other matters including internal intersection form, pedestrian crossings, cul-de-sac heads, vehicle tracking and vehicle crossings will need to be resolved as part of the detailed design at the time of subdivision.

### 3. REVIEW METHOD AND BASIS

#### 3.1. PC58 Review Process

The following table outlines the review process:

Table 1 Outline of review process

Review Step	Date	Description
Engagement	November 2022, updated February 2023	Gray Matter was engaged by Council to provide traffic engineering and transportation planning advice relating to PC 58.
Section 92 review	9th December 2022	I reviewed the relevant information provided by the applicant in 'Plan Change 58, Avenue Business Park, Integrated Transport Assessment, Direction Traffic Design, October 2022'. I provided an Initial Transportation Review and requested further information – 'Proposed Private Plan Change 58 Avenue Road Industrial: Initial Transportation Review, Gray Matter, 9 December 2022'.
Further information received	22 December 2022	The Applicant provided further information in response to our Section 92 review in a letter from Direction Traffic Design to MPDC – 'Plan Change 58: Avenue Business Park. Response to Council Traffic Feedback, 22 December 2022'
Review of further information	16 March 2023	I considered the additional information in my letter 'Proposed Private Plan Change 58 Avenue Road Industrial: Review of Further Information, Gray Matter, 16 March 2023'.
Meeting with Applicant	18 April 2023	I attended a meeting on 18 April 2023 with the Applicant and MPDC to discuss outstanding matters.
Further information received	1 May 2023	The Applicant provided further information in a letter 'Response to Further Information Request, 1 May 2023'.
Review update	10 May 2023	I updated my initial review following receipt of additional information. This was delivered to MDPC as a letter 'Proposed Private Plan change 58 Avenue Road industrial: Transportation Review Update – Draft for Comment'. <b>Note that this was a draft only.</b>
Submission received from Waka Kotahi	17 July 2023	Waka Kotahi submitted a letter dated 17 July 2023, to MPDC with a submission (NZTA Reference 2023-0821). The submission supported the proposal in part, on the basis that all access is from Avenue Road North and there is no direct vehicle connection to SH26.
Site visit	7 January 2024	I visited the site and noted that the constructed intersection does not adequately accommodate heavy vehicle tracking or safe pedestrian crossing movements.

#### 3.2. Basis of Review

My assessment is based on the following information:

- = Plan Change 58, Avenue Business Park, Integrated Transport Assessment (Direction Traffic Design, dated October 2022).
- = Plan Change 58: Avenue Business Park Response to Council Traffic Feedback, (Direction Traffic Design, dated 22 December 2022).
- = Project: Plan Change 58-Avenue Business Park. Location: 2581 State Highway 26, Morrinsville. Response to Further Information Request (Monocle letter to MPDC dated 1 May 2023) including Attachment 1: Updated Proposed Amendments to Operative Matamata- Piako District Plan and Attachment 2: Traffic Engineering Response to Gray Matter Peer Review (Direction Traffic Design letter to Monocle dated 1 May 2023).
- = Meetings and discussions held with the Applicant and with Council.

## 4. ASSESSMENT OF EFFECTS

Attachment A includes our initial review, delivered 16 March 2023. This considered the Applicant's initial assessment and additional information provided. As outlined in Section 3.1 of this memo, since then the Applicant provided more information. Attachment B includes an assessment of additional information provided by the Applicant (1 May 2023).

The following sections outline my outstanding concerns, including:

- = New Avenue Road North intersection. The plan change area accesses the network via a recently constructed intersection on Avenue Road North. This intersection is part of a previously consented industrial subdivision. I have some concerns related to safety and operation of the intersection.
- = Transport corridor cross-sections. I prefer that cross-sections, including adequate facilities for pedestrians and cyclists, are included in the planning provisions.
- = Pedestrian / cyclist connection to Avenue Road North. This has been constructed as part of the previous consent however does not adequately accommodate cyclists, meet desired footpath standards or provide a safe crossing facility at Avenue Road North.
- = A lack of walking and cycling connections to the wider network, including crossing Avenue Road North. Protection of a parcel for a future connection to SH26 that was previously considered has been removed following a submission from Waka Kotahi.

In Section 4.6 I summarise the transportation effects, considering efficiency, safety and pavement impacts.

### 4.1. New Avenue Road North intersection

#### 4.1.1. Overview

The PC58 area gains access through a recently consented 19-lot industrial subdivision including a new intersection with Avenue Road North. I was provided with final design plans for the intersection after my initial review.

The figure below is an extract of the new intersection from the approved drawing set (reference Consent No. 101.2021.12429). The drawings require the pedestrian island to comply with RITS standards and the right turn bay to be 3m wide.

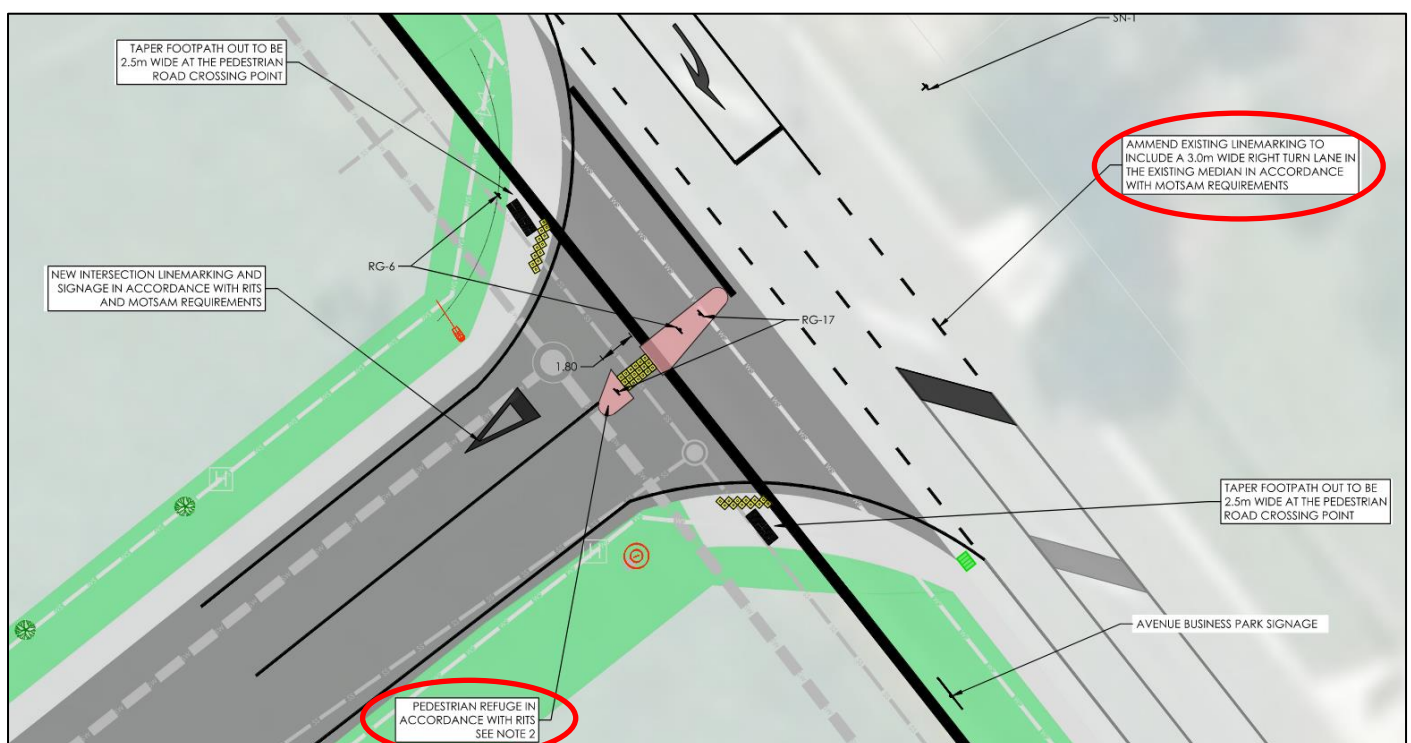


Figure 1 Extract from drawing set for Consent 101.2021.12429

I raised concerns with the intersection layout drawings, including:

- = Heavy vehicle tracking encroaching into oncoming lanes, right turn bay and flush median.
- = Lack of detail on the drawings, including survey information, lane widths, farside kerbs and tie ins at the extents, meaning that it was not clear how the proposed 3m wide right turn bay would fit within the existing carriageway or required extent of pavement widening and new kerb lines.
- = Issues with the drawing scale not matching the dimensions annotated on the drawings.

The intersection has recently been constructed, as shown below.



Figure 2 New intersection on Avenue Road north (photos from site visit 7 January 2024)

I visited the site on 7 January 2024, and I am concerned that the intersection does not adequately provide for heavy vehicle tracking and does not safely accommodate pedestrian crossing movements. This is discussed below.

#### 4.1.2. Pedestrian Refuge

The constructed pedestrian island is 1.6m wide. This does not meet the RITS standards<sup>1</sup> which are a desirable width of 2m or minimum width of 1.8m. There is a potential safety effects associated with a narrow pedestrian island. Pedestrians pushing prams / strollers, or bicycles may not be able to stop in the refuge area without protruding into the vehicle lanes.



Figure 3 Constructed island

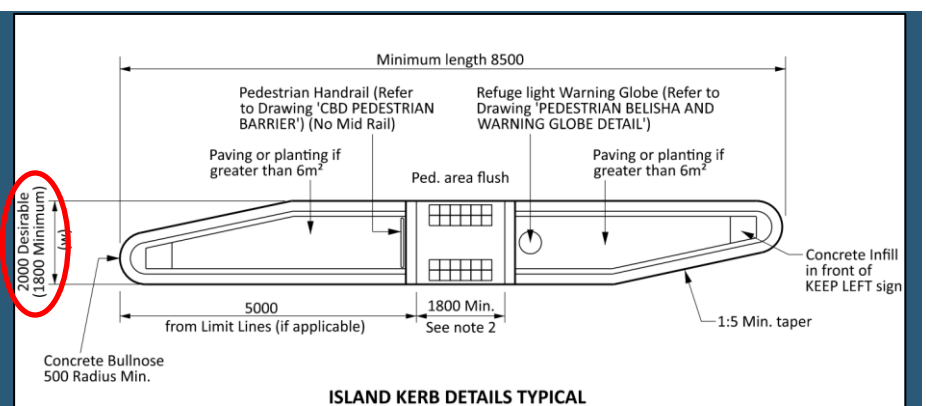


Figure 4 Extract from RITS D3.6.4 Island kerb details

The consequence is an increased risk of conflict between pedestrians/cyclists and vehicles. The refuge should be widened to meet the standards specified in RITS (shown above).

<sup>1</sup> <https://www.colabsolutions.govt.nz/wp-content/uploads/2022/10/D3.6.4-FOOTPATHS-PEDS.pdf>

#### 4.1.3. Right turn bay and tracking

The current right turn bay is 2.1m wide. This is not consistent with the approved drawings which required a 3m width. The provided 2.1m width is consistent with the existing flush median width (around 1.9m) on Avenue Road North, however is not wide enough for heavy vehicles and does not meet the requirements of TCD Part 4<sup>2</sup>. It appears that no changes have been made to the kerb line or lane on the opposite side of the road as part of the recent intersection construction.



Figure 5 New intersection, showing flush median and space for right turning vehicles

The narrow right turn bay means that right turning heavy vehicles will straddle the through lane and obstruct following through vehicles. There are also risks that larger vehicles and heavy vehicles will:

- = Track over the island when turning, damaging the island and signage.
- = Swing wide before turning. This increases the potential for conflict between turning vehicles, through vehicles and on-road cyclists. There is already a lack of space for cyclists with the narrow shoulders on Avenue Road North.

#### 4.1.4. Recommendations

I recommend that a 3m wide right turn bay is provided on Avenue Road North. This will require widening of the carriageway to provide a cross section that adequately provides for the turning movements and meets arterial road standards.

## 4.2. Internal Layout and Transport Corridor Cross-sections

### 4.2.1. Overview

The proposal includes the following layout and indicative local road network.

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<sup>2</sup> Minimum width of a right turn bay is 2.5m.

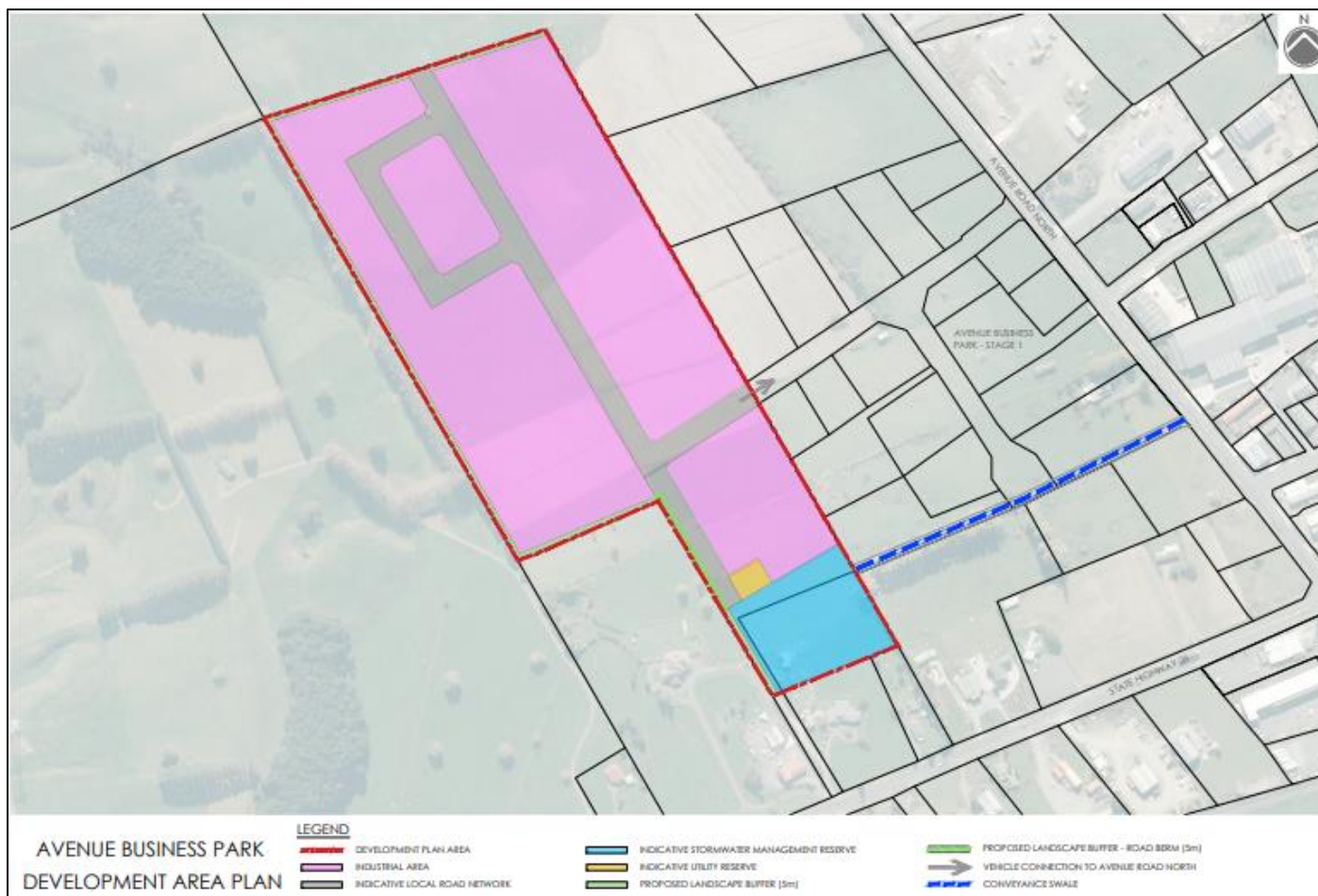


Figure 6 Plan Change 58: Development Area Plan and Local Road Network

The Applicant proposes cross sections to a local road standard with a minimum 20m wide road reserve width, 10m wide carriageway and 1.5m footpath on one side. The proposed cross sections do not allow for drainage features e.g. swales or raingardens and do not specifically accommodate cyclists. I prefer that typical cross-sections are provided in the District Plan provisions to avoid doubt and to ensure appropriate footpath and shared path widths are provided at the time of subdivision.

I agree that the local road standard without specific provision for cyclists is satisfactory for the short loop road as they will be carrying fewer traffic movements. However, it is undesirable to expect cyclists to share the lane with heavy vehicles on the north-south and east-west roads. In my view a 3m shared path is required to minimise the risk of cyclist and heavy vehicle conflict.

#### 4.2.2. North-South Road

The cross-section needs to accommodate pedestrians on both sides, with a 3m shared path on one side and a 1.8m wide footpath on the other side. The Waka Kotahi Pedestrian Network Guidance<sup>3</sup> states that in industrial/commercial areas outside the CBD, 1.8m is the minimum width for a footpath.

It would be desirable to provide for parking on both sides, however the carriageway would need to be around 11m to accommodate parking on both sides. So long as cyclists are accommodated by a shared path separate to the carriageway, I consider a 10m carriageway adequate for a local road to accommodate two traffic lanes (each 3.5-4m wide) and parking on one side.

<sup>3</sup> <https://nzta.govt.nz/walking-cycling-and-public-transport/walking/walking-standards-and-guidelines/pedestrian-network-guidance/design/paths/footpath-design-geometry/footpath-width/>

The east-west road connection will extend from the consented road within the industrial subdivision east of the PC58 area and needs to provide a continuous footpath for pedestrians from the plan change area to Avenue Road North. In my view, connections to the wider network and pedestrian crossing facilities on the north-south road and the east-west road should be provided to encourage trips by walking and cycling.

#### 4.2.3. Recommendations

I recommend that the planning provisions include the cross section shown below as a requirement for the north-south corridor within the plan change area. The east-west corridor is discussed in more detail at Section 4.3.

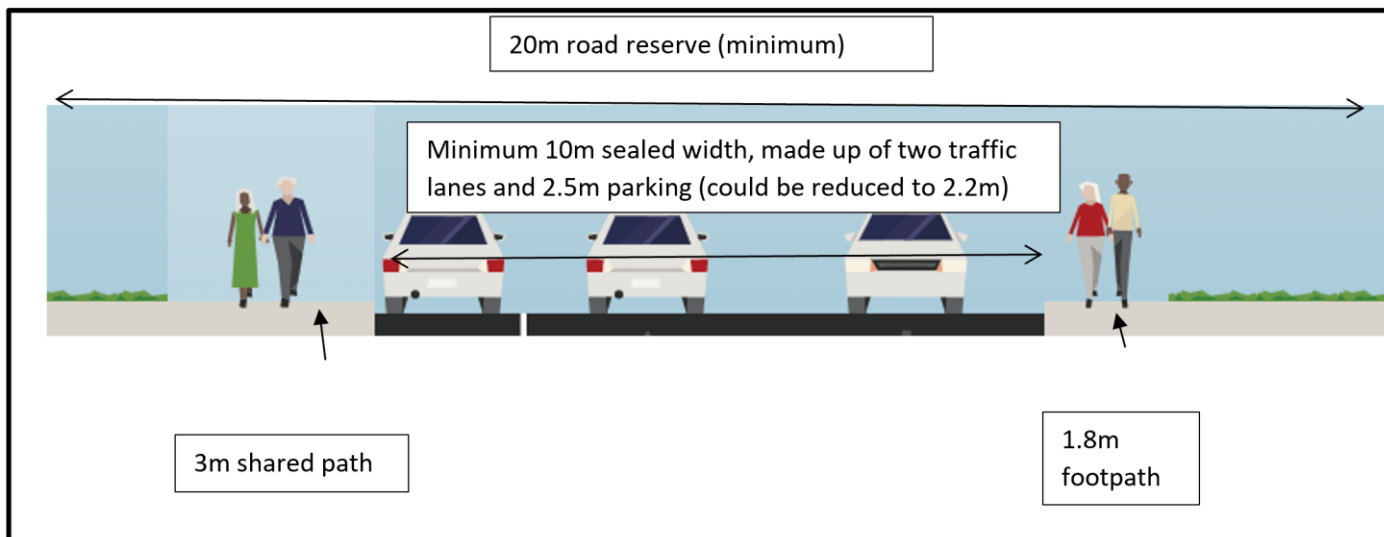


Figure 7 Preferred cross-section for north-south road corridor

### 4.3. Pedestrian / cycle connection to Avenue Road North

#### 4.3.1. Overview

A section of east-west road off Avenue Road North was constructed as part of the consented industrial subdivision and is pictured below. There are no cycling facilities provided, with cyclists expected to share the traffic lane. Pedestrian facilities are limited to a 1.5m wide footpath on one side of the road and there are no crossing facilities.





Figure 8 New section of east-west road between Avenue Road North and PC58 area

Given that this is the only transport connection between the PC58 area and the wider network, I consider that better facilities are needed to provide for active modes. As stated earlier, the Waka Kotahi Pedestrian Network Guidance<sup>4</sup> states that in industrial/commercial areas outside the CBD, 1.8m is the minimum width for a footpath.

#### 4.3.2. Recommendation

I recommend that the existing footpath is widened to be a 3m wide shared path, for use by both pedestrians, cyclists and micro-mobility users. This will provide a safe way for pedestrians and cyclists to access the PC58 area, minimising potential conflict with vehicles.

There is sufficient berm width to widen the path. However, I note there is some street lighting that may be affected.

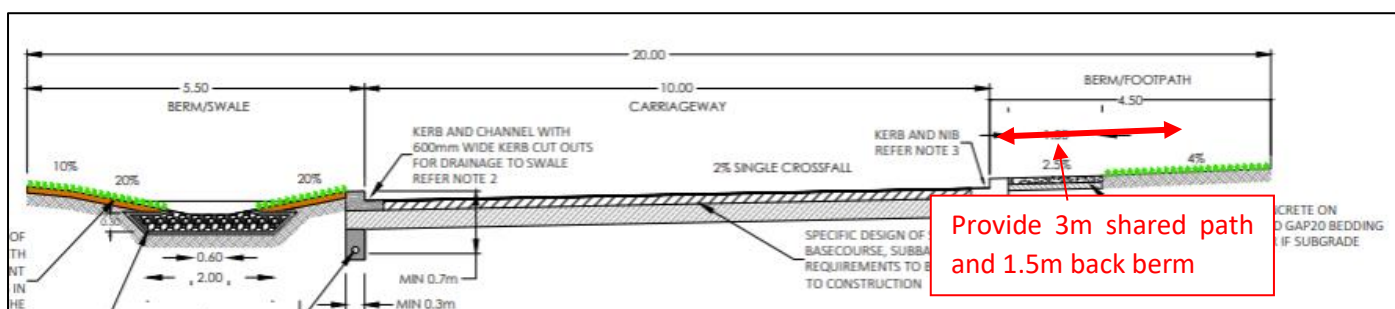


Figure 9 New east-west road cross-section, extract from approved roading plans

This east-west road corridor will be extended in to the PC58 area. It would be appropriate for the east-west road extension cross section to match the recently constructed road, with the addition of the 3m shared path along the northern berm as annotated on the cross section in Figure 9.

#### 4.4. Connection to SH26

<sup>4</sup> <https://nzta.govt.nz/walking-cycling-and-public-transport/walking/walking-standards-and-guidelines/pedestrian-network-guidance/design/paths/footpath-design-geometry/footpath-width/>

#### 4.4.1. Overview

Waka Kotahi have provided a submission supporting the proposal in part; however, they do not support a future road connection to State Highway 26.

SH26 is a regionally significant corridor (Waikato Regional Policy Statement, Map 25). There are no existing shared paths or footpaths on the northern side of SH26. In the future if a shared path is provided on SH26 it would be desirable for a walking and cycling link to the PC 58 area.

#### 4.4.2. Recommendation

Although protecting a 5m wide corridor to SH26 would allow for a future connection to be provided, I understand that there are no current plans for a shared path on the state highway. This reinforces the need for provision for pedestrians and cyclists on the main connection from the network to the plan change area (from Avenue Road North), as described in Section 4.3 of this memorandum.

### 4.5. Walking and cycling connections

#### 4.5.1. Overview

Some discussion on pedestrian facilities has already been provided:

- = Pedestrian refuge at Avenue Road North – Section 4.1
- = Footpaths and shared paths – Section 4.2
- = Pedestrian and cycle facilities between PC58 and Avenue Road North – Section 4.3
- = Possible connection to SH26 – Section 4.4

As development occurs there will be an increase in people walking and cycling in the area, such as between residential areas and employment in the PC58. The ITA<sup>5</sup> states that ideally a pedestrian crossing facility, such as a refuge island would be provided on Avenue Road North, linking the site to Morrinsville. I consider that the requirement for a pedestrian crossing facility of Avenue Road North should be specifically addressed by the planning provisions and indicated on the Development Area Plan.

The current SH26 roundabout does not provide any crossing facilities on Avenue Road North at the intersection. There are no raised safety platforms, and the existing and proposed footpaths along Avenue Road North do not extend all the way south to the roundabout. I understand that an upgrade to the roundabout layout was proposed by Waka Kotahi, however this has not been constructed.

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<sup>5</sup> Section 10



Figure 10 Existing footpaths shown in red (approx)

The figure above shows a gap in the footpath network on the Avenue Road North leg. A pedestrian crossing facility on Avenue Road North is needed to provide a safe and connected link from the industrial area to the town centre and residential areas of Morrinsville.

Further information provided by the Applicant identified possible locations along Avenue Road North for a pedestrian crossing. The further information response stated that:

- = *“The sites will be investigated further to see if crossings can be provided in this location” and*
- = *“The appropriate form for any pedestrian crossing facilities is a pedestrian refuge. This facility is a good compromise between improving pedestrian safety and minimising effects to traffic. The installation of a pedestrian crossing facility is only recommended in areas with a 50 km/h posted speed. Both recommended crossing locations are in 70 km/h areas, with the 50 km/h posted speed limit located just north of Anderson Street, extending to the south. It is therefore recommended that Council consider lowering the speed limit along all of Avenue Road North and Snell Street to 50 km/h prior to the construction of these crossing facilities. If the speed is reduced and if locations 1 and 2 are confirmed to be suitably clear of swept paths then it is expected that pedestrian refuges can be easily installed on the 2m wide flush median on Avenue Road North.*

The Applicant states that footpath along the site frontage which will make the road look and feel more like an urban environment which is likely to be more appropriate for a 50km/h speed limit. I agree that providing a lower speed limit will result in a safer outcome for pedestrians and is consistent with the consented land use and increase in direct property access. However, this will require Council to change the speed limit bylaw. The development of the consented industrial subdivision and the new footpath along Avenue Road North will assist with urbanisation and reducing the speed environment.

In my view, the most appropriate location for a pedestrian crossing is on the desire line between the new intersection and Anderson Street close to the location indicated on Figure 17 of the Direction Traffic Design Response (22/12/2022). Provision of the crossing should be subject to detailed design, including confirming the type of crossing facility and may require additional footpath be constructed on the western side to ensure a continuous and connected link to the existing footpath network.

As noted above in section 4.1, the new intersection needs to be upgraded to appropriately and safely provide for pedestrians to cross in a north-south direction.

#### 4.5.2. Recommendations

I recommend that the planning provisions specifically include a new pedestrian crossing on Avenue Road North, between the new intersection and Anderson Street. The walking and cyclist network should be indicated on the Development Area Plan.

## 5. SUMMARY OF EFFECTS

### 5.1.1. Efficiency

The Applicant's assessment included the need for a 3m wide right turn bay at the new intersection. I agree with the Applicant's assessment that the additional traffic can be accommodated by the transport network and efficiency effects are expected to be acceptable.

### 5.1.2. Safety

The Applicant's assessment concludes that the safety effects are acceptable. I consider that the potential safety effects at the new intersection are unacceptable in its current form.

I am concerned that the current proposal does not safely provide for pedestrians and cyclists. In my view, the potential transport safety effects can be considered acceptable provided that the planning provisions incorporate my recommendations for changes at the intersection and to provide shared paths for cyclists and pedestrians as outlined in this memo.

### 5.1.3. Pavement

The east-west road has recently been constructed and we understand the pavement design specifically excluded considerations for future traffic loading from the plan change area.

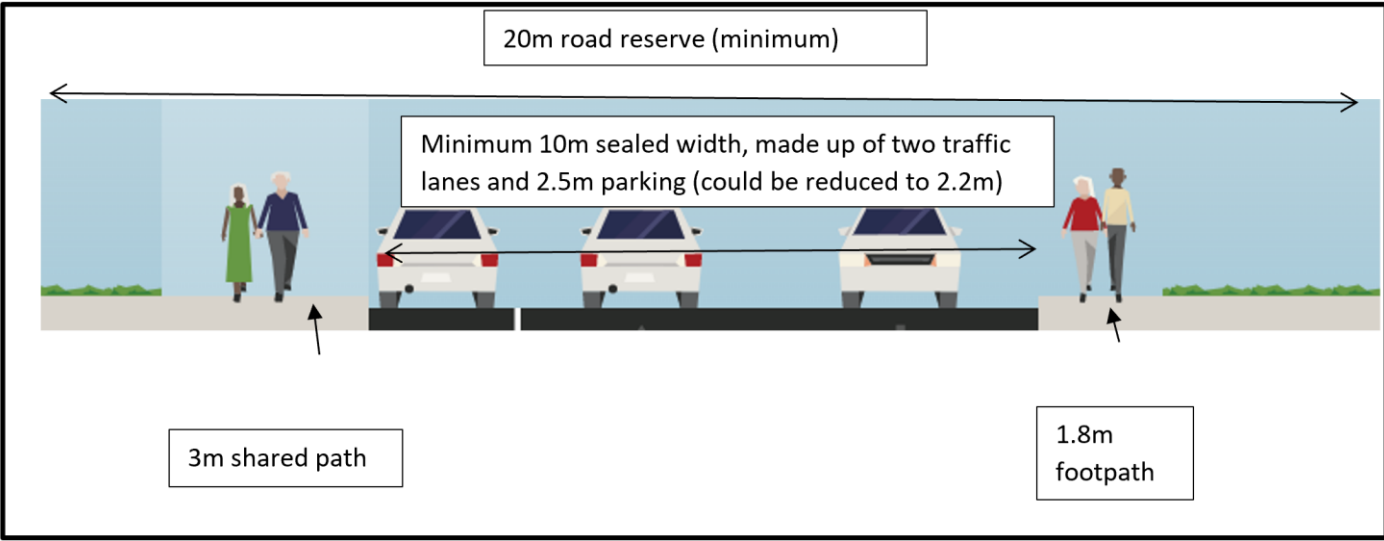
The development of the industrial plan change area will add traffic and heavy vehicles to the consented east-west road connection to Avenue Road North. Pavements are typically designed for a nominal 25 year life accommodating the expected heavy vehicle loading. The plan change will increase the load on the pavement by adding more heavy vehicles, which accelerates the deterioration of the pavement so that it needs renewing earlier. In addition, a thicker pavement is needed to accommodate the additional load.

## 6. PLANNING PROVISIONS

The provisions do not include specific triggers for the development of the internal layout. I expect that the road network will be gradually constructed as development progresses. The provisions also include additional controls in the rural and rural-residential zone that apply to the indicative future road corridor including 8m rural yard setbacks and restricted the ability to build within the corridor.

I have reviewed the provisions and recommend some amendments to the wording to address my concerns outlined above. The provisions, along with my suggested wording (strike through indicates deletions and underline indicates additional text) for your consideration in the table below.

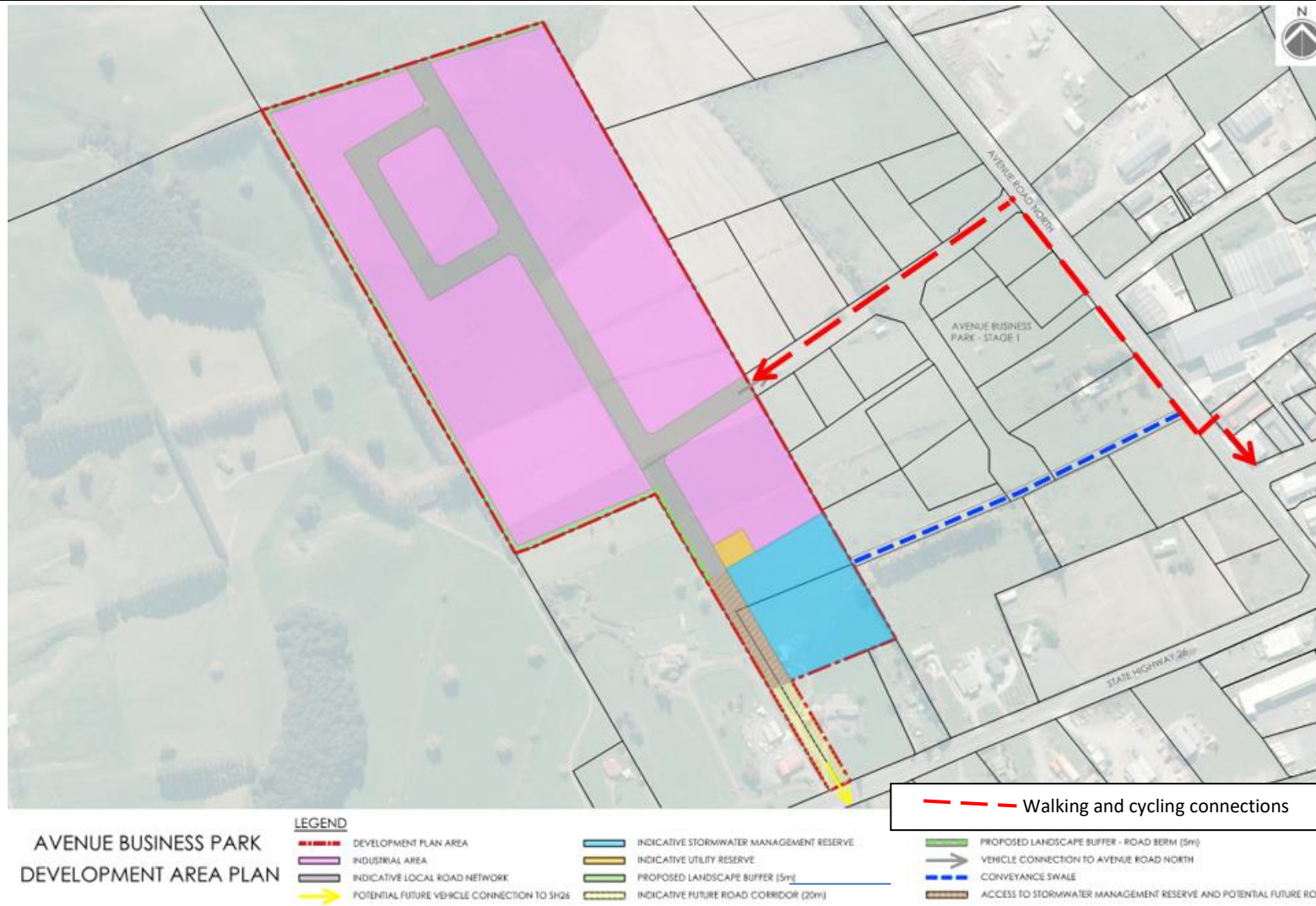
Table 2 Planning provisions and suggestions

Proposed Provision	Comment
<p>9.6.1 Transportation Works Subdivision and development within the Avenue Business Park Development area (ADAP) shall provide:</p>	
<p>(a) A public road connection to Avenue Road North, <u>and improvements to the intersection with Avenue Road North</u>, as indicatively shown on the ADAP. Detailed design drawings of the intersection upgrade should be subject to detailed design approval by MPDC and include: -Provision of a 3m wide right turn bay, 3.5m lanes and 1.5m shoulders on Avenue Road North, -Provision of a 2m wide pedestrian refuge in accordance with RITS D3.6.4 on the new road, and -Provision of vehicle swept paths to confirm the layout is adequate to accommodate heavy vehicles.</p>	<p>Additional specifications to ensure the intersection upgrade adequately provides for turning and for pedestrians.</p>
<p>(b) A north-south aligned road through the site extending to the northern and southern boundaries and adjoining the boundary of Lot 1 DPS 64677, as indicatively shown on the ADAP;</p>	<p>Provision is adequate.</p>
<p>(c) <del>All public roads within the ADAP shall be constructed to</del> Unless Council confirms that the north-south road is to be constructed to a collector standard, the north-south road shall be constructed to local road standard with a minimum 20m wide road reserve width, <u>a minimum of 10m wide carriageway made up of two traffic lanes and parking on one side, 3m wide shared path on one side and 1.8m wide 1.5m footpath on the other one side as indicated on the cross section below,</u> <del>unless the north-south aligned road is required to be constructed to a collector standard and:</del></p>  <p>The diagram illustrates a cross-section of a road within a 20m road reserve. The central sealed area is 10m wide, consisting of two traffic lanes and 2.5m of parking. To the left of the sealed area is a 3m wide shared path, and to the right is a 1.8m wide footpath. Pedestrians are shown walking on both paths, and cars are shown in the traffic lanes and parking area.</p> <p>Advice Notes: If MPDC <del>has</del> confirms that it is required to be constructed to collector road standard to provide a wider connectivity function and/or to service growth in the wider area <u>then Council will confirm funding</u> <del>has been confirmed</del> to meet the costs of the necessary upgrading from local road to collector road standard.</p>	<p>Additional specifications to provide for a shared path to avoid cyclists needing to share the lane with heavy vehicles. I recommend the typical cross section is included in the plan provisions.</p>

Proposed Provision	Comment
<p><u>The road reserve width should provide for stormwater provision. Swales may need additional berm space.</u></p>	
<p><del>(d) Any existing pavement for public roads between the ADAP and Avenue Road North shall be assessed to ensure it is adequate for the proposed development.</del></p>	<p>I recommend this clause is standalone- refer 9.6.X below.</p>
<p><u>(d) The east-west road is to be constructed to match the cross section of the existing Road 1 within the Avenue Business Park Subdivision with a minimum 20m wide road reserve width, a minimum of 10m wide carriageway made up of two traffic lanes and parking on one side and a 3m wide shared path on the northern side. The existing footpath along the northern side of the existing Road 1 within the Avenue Business Park Subdivision is to be upgraded and widened to provide a continuous 3m wide shared path between Avenue Road North and the PC58 area.</u></p>	<p>New clause.</p>
<p><u>(e) The loop road is to be constructed to local road standard with a minimum 20m wide road reserve width, 10m wide carriageway and 1.8m wide footpath on one side.</u></p>	<p>New clause.</p>
<p><u>(e)-(f) No vehicle access shall be provided directly from the ADAP to State Highway 26.</u></p>	<p>Provision is adequate.</p>
<p>9.6.2 Walking and Cycling  <u>(a) Subdivision and development within the ADAP shall provide a continuous footpath connection between the ADAP and the existing footpath network on Anderson Street including a pedestrian crossing facility on Avenue Road North. The pedestrian crossing facility shall be subject to detailed design approval by MPDC.</u>  <del>access for pedestrians and cyclists to Avenue Road North via public roads. The requirement for pedestrian crossing places (such as a refuge) on Avenue Road North which are connected to public footpaths shall be investigated and provided if required and feasible.</del>            Opportunities for access to State Highway 26 shall only be required to be considered as part of subdivision and development within the ADAP if the posted speed limit on State Highway 26 west of Avenue Road North intersection has been reduced to 50 km/h by Waka Kotahi or if a public footpath has been provided by Waka Kotahi or Council along the northern side of State Highway 26 to reduce the need for pedestrians and cyclists to cross State Highway 26.</p>	<p>Add the walking and cycling connections between the ADAP and Anderson Road to the Area Development Plan</p>

Proposed Provision

Comment



(d) 9.6.X Pavement:

At the time of subdivision:

(a) Any existing pavement for public roads between the ADAP and Avenue Road North shall be assessed to ensure it is adequate for the proposed development. The pavement assessment shall be completed by a suitably qualified professional to assess the increased heavy vehicle loading on the existing pavement and the equivalent financial contribution required to cover the cost of the additional pavement loading shall be paid to Council by the Applicant.

We recommend a financial contribution as a practical solution. I discuss this further below.

### 6.1.1. Pavement

Currently the proposed provision does not outline what needs to be done if the existing pavement is not adequate for the proposed development. There is a risk of incremental effects not being adequately mitigated if subdivision and development occurs gradually as pavement assessment on a case-by-case basis may result in minimal changes to pavement thickness. Digging up and rebuilding the pavement is not an economic or practical solution. I consider that a more practical method would be to require a financial contribution be paid to Council to compensate for the increased traffic loading of the pavement. The financial contribution can be used by Council for more meaningful improvements, upgrading the road such as providing a shared path or renewing the pavement.

## 7. CONCLUSIONS

From a transport planning perspective, the proposed industrial zone plan change area is located appropriately contiguous with existing industrial land use and provides connections to the wider arterial transport network.

However, with the current planning provisions proposed, I do not consider that the potential safety effects are acceptable. I consider that the planning provisions need to be amended to adequately provide for pedestrians and cyclists and ensure safety for all users at the new intersection with Avenue Road North. To address my concerns, I recommend that the planning provisions and wording outlined in Table 2 above are adopted.



## Attachment A: Initial ITA Review (16 March 2023)

16 March 2023

Ally van Kuijk  
Matamata Piako District Council  
PO Box 266  
Te Aroha



13\_91

Dear Ally,

## **PROPOSED PRIVATE PLAN CHANGE 58 AVENUE ROAD INDUSTRIAL: REVIEW OF FURTHER INFORMATION**

### **1. INTRODUCTION**

Matamata-Piako District Council (MPDC) has engaged Gray Matter to provide transport advice for the proposed Avenue Industrial Private Plan Change. The proposed Private Plan Change ("PC58") seeks to rezone 13.4ha of land north of State Highway 26 and Avenue Road North from rural to industrial.

We previously reviewed the relevant information provided by the applicant and provided an Initial Transportation Review – 'Proposed Private Plan Change 58 Avenue Road Industrial: Initial Transportation Review, Gray Matter, 9 December 2022'. Since this review the applicant has provided further information which we have reviewed. This letter sets out our transportation review based on the additional information provided by the applicant.

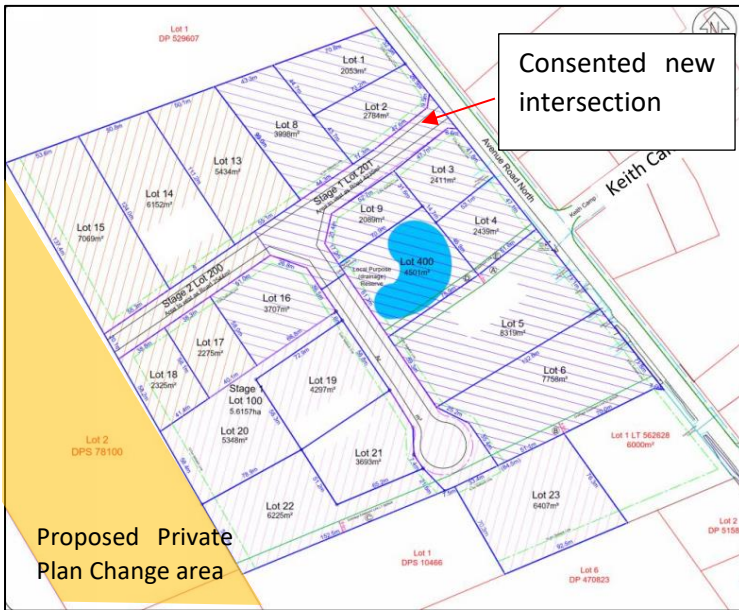
We have reviewed the following information:

- = Plan Change 58, Avenue Business Park, Integrated Transport Assessment (Direction Traffic Design, dated October 2022),
- = Proposed Amendments to Operative Matamata-Piako District Plan Provisions (dated 28 October 2022), and
- = Plan Change 58: Avenue Business Park Response to Council Traffic Feedback, (Direction Traffic Design, dated 22 December 2022).

### **2. CONSENTED SUBDIVISION**

An industrial subdivision has been consented to the east of the PC58 area. The consented layout includes 19 industrial lots which range between 1874m<sup>2</sup> and 8,319m<sup>2</sup> as shown in the Figure below. The land area of the consented layout is 72,615 m<sup>2</sup>. The consented layout (Stage 1 Avenue Business Park) includes a new road intersection on Avenue Road North.

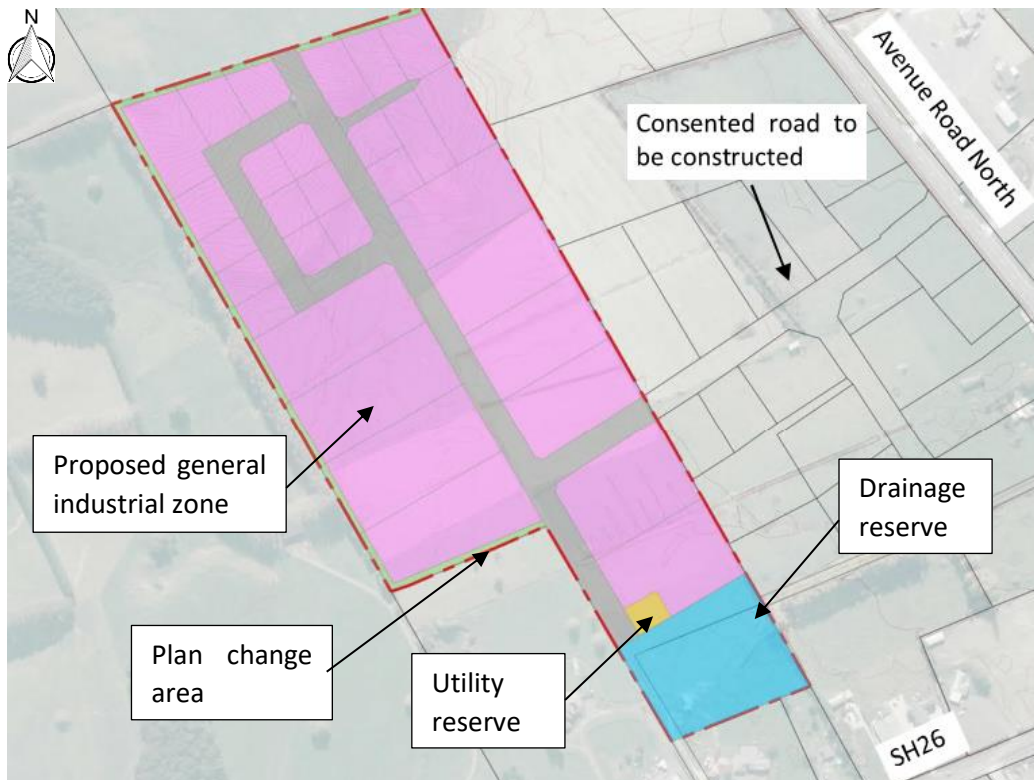
The new road intersection and internal road will also provide access to the proposed plan change PC58 area. The intersection on Avenue Road North has not been constructed yet.



**Figure 1: Consented industrial Subdivision**

### 3. THE PROPOSAL

The PC58 includes a concept layout for the Structure Plan (Figure 2 below). The gross area is approximately 13.4ha with the net developable area being 10.3ha.



**Figure 2: Proposed Concept PC 58 Structure Plan Layout**

#### 3.1. Access

Access to the PC58 area is proposed from Avenue Road North via the consented Stage 1 Avenue Business Park internal roading network and consented intersection on Avenue Road North. No direct access to State Highway 26 (SH26) from the PC58 area is proposed.

### 3.2. Trip Generation

Section 4.0 of the ITA provides a summary of the expected trip generation. The predicted trip generation in the ITA is 256 veh/hr with an expected maximum of 534 veh/hr. This is based on trip generation rates of 0.7 trips/100m<sup>2</sup> and 1.48 trips/100m<sup>2</sup>. The rate of 0.7 trips/100m<sup>2</sup> is based on traffic count data at Keith Camp Place while the ITA states that the 1.48 trips/100m<sup>2</sup> rate is based on an average peak hour trip generation rate for industrial activities from the New Zealand Trips and Parking database. It is unclear which activities from the New Zealand Trips and Parking Database have been included in this trip generation rate.

A recent industrial plan change application in Matamata has applied a trip generation rate of 15.4 trips/ha/gross hectare<sup>1</sup>. If this trip generation rate is applied to the proposed plan change then the expected trip generation is approximately 206 veh/hr which results in a slightly lower trip generation assessment when compared to the trip generation assessment in the ITA.

We note that the proposed provisions allow for ancillary retail activity and there may be additional trips associated with these activities. Therefore, we consider the expected trip generation (256 veh/hr) in the ITA to be reasonable.

The ITA has not assessed the daily trip generation. Based on the peak hour being around 12-13% of daily, we expect the PC58 to generate around 2,100vpd.

We understand the consented subdivision is expected to generate around 3,000vpd<sup>2</sup>.

### 3.3. Trip Distribution

Section 4 of the ITA states that the trip distribution is likely to be 25% (north):75% (south). The trip distribution is based on traffic counts at Keith Camp Place. The trip distribution split has also been used for future traffic scenarios.

As part of our further information request we considered that the ITA may underestimate trips to the north in the future. There will be more residential activity north (Lockerbie) of the site which may be attractive for employees working within the proposed plan change area.

The applicant has provided sensitivity testing for a 35% (north): 65% (south) directional split. The modelling indicates that at the proposed access has sufficient capacity to accommodate increased turning movements to and from the north.

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<sup>1</sup><https://www.mpdc.govt.nz/component/fileman/file/CouncilDocuments/Plans/DistrictPlan/ProposedPlanChanges/PPC57/Appendix%20E%20-%20Integrated%20Transport%20Assessment.PDF?routed=1&container=fileman-files>

<sup>2</sup> The ITA includes 315 vph at the new intersection from the consented subdivision. The subdivision also generates trips direct to Avenue Road. Daily trip generation is based on the peak hour being around 10-15% of daily.

#### 4. FURTHER INFORMATION RESPONSE REVIEW SUMMARY

We have reviewed the ITA and considered that further information is required before we can complete the review. The Applicant has since provided further information to respond to our information requests. The table below provides a summary of the information we requested and our comments following review of the information provided.

Information Requested (Gray Matter letter dated 9 December 2022)	Response Satisfies Request?	Discussion
Provide an assessment of safety and efficiency effects at the Snell Street/Avenue Road intersection as a result of the private plan change.	No	Refer Section 4.1.3
Provide an updated layout of the consented intersection (Stage 1 Avenue Business Park) which ensures that there is sufficient space for heavy vehicle manoeuvring. The layout needs to ensure that swept paths and clearances for a semi-trailer can be accommodated at the intersection without encroaching kerbs or opposing traffic lanes. The pedestrian refuge island should be a minimum 2m wide to accommodate pedestrians safely.	Yes, in part.	We support the intent of the provision for amendment to the intersection layout. However, it is unclear how this will be achieved as no revised plans have been provided nor is the requirement included in the proposed planning provisions. We understand the consented subdivision is in the design stages of the intersection upgrade. We recommend that the Applicant provide an updated plan which clearly demonstrates that the intersection can be designed to achieve appropriate swept path clearances to kerbs/islands and opposing vehicles. The planning provisions need to be updated to include the requirement for the intersection upgrade.
Provide an assessment of effects of additional traffic using the right turn bay within the flush median on Avenue Road North. The assessment needs to consider effects on the vehicle crossings located on the opposite side of the road.	Yes	We agree that the separation is less than ideal to the existing residential property and that that the movements at the residential vehicles crossing will be low and agree that the provision of a flush median will minimise the risk of adverse safety effects at the residential vehicle crossing as a result to of the PC 58.
Provide a detailed assessment of effects at the SH26/Avenue Road roundabout which assesses the scale of change in safety and efficiency at the roundabout as a result of the proposed plan change. This should include proposed directional splits from the plan change at the SH26/Avenue Road North Intersection.	No	Initial feedback from Waka Kotahi states that Waka Kotahi has no initial concerns with the proposed plan change. No information has been provided in regard to the potential effects on SH 26. We are unable to comment on the potential effects on the state highway network. Refer Section 4.5.1

Information Requested (Gray Matter letter dated 9 December 2022)	Response Satisfies Request?	Discussion
Provide an assessment of how direct access to SH 26 could be provided in the future including consideration of appropriate intersection form on SH 26.	No	<p>We agree that at this point in time a secondary access to SH 26 is not required as part of this plan change. However, we consider it important to ensure that future access to SH 26 is not precluded in particular if growth to the north or west occurs.</p> <p>The amended plan indicates a narrow corridor for access to SH 26 (in Figure 5 of the Direct Traffic Design Response dated 22 December 2022) , however it is not included on the Structure Plan or the planning provisions so it is uncertain how this corridor would be protected. This does not provide sufficient comfort that a future access could be achieved at this location.</p> <p>We recommend that a corridor is protected so that future access to SH26 is not precluded. The corridor width should be sufficient to accommodate the collector road cross-section. Further discussed in Section 4.1.</p> <p>We recommend that the Applicant provide a plan indicating how the road corridor could extend to SH 26 as well as confirm how much additional land will be required to protect this corridor.</p>
Provide a sensitivity assessment of the proposed trip distribution to capture future trips to and from the north once residential activities are further established (i.e. Lockerbie Plan Change).	Yes	<p>The information provided indicates that there is sufficient capacity at the intersection with additional movements to and from the north (i.e. vehicles from the Lockerbie Plan Change area).</p> <p>No further action required.</p>
Provide a detailed assessment of the effects on the surrounding road network including but not limited to Avenue Road North, Snell Street, Snell Street/Studholme Street intersection. The assessment should identify any potential safety or efficiency effects including effects as a result of additional heavy traffic on the surrounding road network and if mitigation is required to ensure that the network operates safely.	No	<p>Refer Section 4.1.1, 4.1.2 and 4.1.3. The Direction Traffic Design Response (22/12/22) states that pedestrian crossing facilities will be provided where possible (and discusses possible locations on Avenue Road) to mitigate safety concerns for pedestrians but is not included in the planning provisions so it is unclear how these would be implemented.</p>
Provide updated cross sections which include provisions for cyclists, pedestrians and safe turning facilities within the plan change area. The cross-sections should also be appropriate for the current and future form and function of the road.	No	<p>Further information required. Refer Section 4.4.</p>

Information Requested (Gray Matter letter dated 9 December 2022)	Response Satisfies Request?	Discussion
Provide an updated Structure Plan that does not preclude access to the west and SH 26 and shows walking and cycling facilities within the proposed PC58 area.	Yes, in part	Further confirmation of the ability to provide future access to SH 26 is required. While the Direction Traffic Design Response includes an updated Structure Plan (Figure 13) with a yellow arrow indicating a potential future vehicle connection to SH26 , it is not shown on the current structure plan. The Structure Plan should be updated to include the length and width of land needed to protect for a future corridor. Refer Section 4.4.
Provide evidence of consultation with WRC related to PT access to the proposed development.	Yes	No further information required.
Provide an assessment of the development against the Waikato Regional Land Transport Plan and the Regional Policy Statement. Provide an assessment of the proposal against Regional Public Transport Plan.	Yes	No further information required.
Update plan provisions to include proposed cross-sections, future road connections (i.e. to the west) .	No	Proposed cross-sections do not match desirable cross sections. No updated plan provisions have been provided. Further information is required. In the future if the area to the west is developed, it would be desirable for access to be through the Plan Change area.
Provide an assessment of where a safe pedestrian crossing could be provided on Avenue Road North including an assessment of the appropriate crossing facility at this location including what environmental changes are required to support a safe crossing facility i.e. safer posted speed (noting that changes to speed will need to be implemented by the RCA).	No	Refer Section 4.1.1, and 4.3.
Provide clarity regarding the traffic count table at Appendix B of the ITA i.e. what are the two sets of data titled Keith Camp Place representing.	Yes	No further information required.
Clarify the existing and planned footpath network in the wider area i.e. footpath along the east side of Avenue Road and at the SH 26/Avenue Road roundabout	Yes	No further information required.

Information Requested (Gray Matter letter dated 9 December 2022)	Response Satisfies Request?	Discussion
Provide an assessment of the potential effects of the consented road cross-section to accommodate the additional trips generated by the PC58 and any mitigation required.	No	<p>We consider that there may be scope in the future to expand to the north and east and we are concerned that the PC58 road cross-section will not be suitable for additional trips. We consider it important that adequate corridor width is protected to ensure that the roads are fit for purpose and future proofed for the future form and function of the road.</p> <p>We consider that road cross sections should be designed to ensure that they provide sufficient access for the proposed plan change area as well as ensure that they are fit for future purpose as well. We have discussed this further in section 4.4.</p>

**Table 1: Further Information response review**



#### 4.1. Assessment of Wider Network Provided with the Further Information Response

As part of our further information request we requested further analysis of the surrounding road network and likely effects that may arise from the proposed plan change. The further information request included efficiency assessments using Adams formula for mid-block sections of the wider network.

From our research of Adams formula we understand that this used primarily to identify delays to pedestrians rather than to determine efficiency effects of mid-block sections of road. In our opinion we consider that the efficiency effects have not appropriately been assessed as part of this further information provided.

We consider that the safety effects of the proposal have not adequately been assessed.

##### 4.1.1. Avenue Road North

The key findings from the assessment completed by the Applicant’s traffic engineer for Avenue Road North is summarised in the table below with our comments relating to the assessment.

Effect	Summary of Applicants response	Comments	Recommendation
Safety Effects	<ul style="list-style-type: none"> <li>CAS search indicates four crashes on Avenue Road North.</li> <li>Crash rates are expected to increase with exposure on this road with a slight increase in severity due to HCV percentage.</li> <li>The increased exposure and severity is expected to be no worse on this road compared to other roads.</li> <li>Increase in traffic will make it difficult for pedestrians to cross this road.</li> <li>Pedestrian crossing facilities will be provided where possible to mitigate safety concerns for pedestrians.</li> </ul>	<ul style="list-style-type: none"> <li>The further information response does not quantify the potential increase in safety risk.</li> <li>If there is an increase in safety risk then we consider that this needs to be appropriately mitigated. No mitigation has been proposed.</li> <li>Accepting an increased exposure and likely increased severity is not well aligned with Vision Zero or the Safe System Approach.</li> </ul>	<ul style="list-style-type: none"> <li>We recommend further analysis is undertaken to understand and quantify the increase in safety risk.</li> <li>We consider the most appropriate tool would be Waka Kotahi crash prediction models.</li> <li>Confirm if any further mitigation is required.</li> <li>Update planning provisions to include for pedestrian crossing.</li> </ul>
Efficiency Effects	<ul style="list-style-type: none"> <li>Efficiency effects are expected to be minimal on this road.</li> <li>Peak hour flow expected to add 192 vph to Avenue Rd (south of the new intersection) and a total predicted flow of 780 veh/hr (includes the consented subdivision traffic). This equates to an average of one vehicle every 4.6 seconds.</li> <li>The proposal results in an increase of 25% traffic on Avenue Road<sup>3</sup>. Average delays</li> </ul>	<ul style="list-style-type: none"> <li>The consented subdivision appears to add around 3,000vpd to the surrounding network, approximately doubling the existing traffic on Avenue Road north. The additional traffic from the PC58 will add around another 2,100vpd<sup>4</sup>. The Avenue Road north traffic volume south of the new intersection will be around</li> </ul>	<ul style="list-style-type: none"> <li>No further information is required.</li> </ul>

<sup>3</sup> Note that this is compared to the consented environment.

<sup>4</sup> Based on the peak hour traffic assessed by the ITA , 256vph, being around 12-13% of daily trip generation.

Effect	Summary of Applicants response	Comments	Recommendation
	for light vehicles turning right of side accesses is expected to be 4 seconds with maximum delays of 26 second for a truck and trailer unit required a 10 seconds critical gap.	7,000vpd, a significant increase. However, we consider that there is likely to be sufficient capacity on Avenue Road North, a two lane road with flush median to accommodate the development, although we do not consider the methodology used to be pertinent to determine efficiency effects.	

**Table 2: Summary of the Section 92 response relating to safety and efficiency effects on Avenue Road north**

The assessment provided by the Applicant does not address our concerns related to the additional traffic on Avenue Road North in particular the safety concerns as a result of additional traffic on Avenue Road North and at the new intersection. We recommend that the applicant quantify the increase in safety risk based on Waka Kotahi crash prediction models to confirm if mitigation is required.

4.1.2. Snell Street

The key findings from the assessment completed by the Applicant’s traffic engineer for Snell Street is summarised in the table below with our comments relating to the assessment.

Effect	Summary of Applicants response	Comments	Recommendation
Safety Effects	<ul style="list-style-type: none"> <li>• CAS search indicates four crashes on Snell Street. <ul style="list-style-type: none"> <li>○ Two crashes occurred at the Young Street intersection</li> <li>○ Two occurred at the west end of Snell Street.</li> </ul> </li> <li>• Crash history indicates a pattern of loss of control crashes in the 70km/h length of Snell Street.</li> <li>• Making all of Avenue Road North and Snell Street 50km/h would help address this matter. This change in the posted speed limit is matter for council to consider.</li> <li>• The lack of pedestrian crossing facilities on Snell Street is also considered to be an existing matter to be considered by Council.</li> </ul>	<ul style="list-style-type: none"> <li>• Given the increase in traffic and potential mix of additional heavy vehicles there is a potential for an increase in safety effects.</li> <li>• The further information response does not quantify the potential increase in safety risk.</li> <li>• Review of google streetview (dated 2019) shows the cross-section at the north of Avenue Road north, around the curve and for around 350m along Snell Street has two lanes, narrow (if any) shoulder and does not have kerb and channel. There appears to be edge break and ponding on the inside of the bend. We also note deep open drain on the north side with very little clearance to the traffic lane. Refer figure below.</li> </ul>	<ul style="list-style-type: none"> <li>• We recommend further analysis is undertaken to understand and quantify the increase in safety risk, including considering the cross-section of Snell Street to accommodate additional traffic and heavy vehicles.</li> <li>• We consider the most appropriate tool would be the Waka Kotahi crash prediction models.</li> <li>• Confirm if any further mitigation is required, such as the need for upgrades to accommodate the additional truck traffic.</li> </ul>

Effect	Summary of Applicants response	Comments	Recommendation
Efficiency Effects	<ul style="list-style-type: none"> <li>Efficiency effects are expected to be minimal on this road.</li> <li>The predicted flow of 471 veh/hr equates to an average of one vehicle every 4.6 seconds.</li> <li>Average delays for light vehicles turning right of side accesses is expected to be 2.1 seconds.</li> </ul>	<ul style="list-style-type: none"> <li>We consider that there is likely to be sufficient capacity on Snell Street to accommodate the development, although we do not consider the methodology used to be pertinent to determine efficiency effects.</li> </ul>	<ul style="list-style-type: none"> <li>No further information is required.</li> </ul>

**Table 3: Summary of the Section 92 response relating to safety and efficiency effects on Snell Street**

Further assessment is required to understand the effects on Snell Street in particular the potential scale of increase in heavy vehicle traffic using this road and whether mitigation is required to address effects related to the increase in traffic on Snell Street.



**Figure 3: Existing cross section of Snell Street (google Streetview)**

4.1.3. Snell Street/Studholme Street Intersection

The key findings from the assessment completed by the Applicant’s traffic engineer for the Snell Street/Studholme Street intersection is summarised in the table below with our comments relating to the assessment.

Effect	Summary of Applicant’s response	Comments	Recommendation
Safety Effects	<ul style="list-style-type: none"> <li>CAS search indicates three crashes at the intersection. <ul style="list-style-type: none"> <li>One crash involved a vehicle entering/leaving a driveway hitting a pedestrian on the footpath.</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>Given the increase in traffic and potential mix of additional heavy vehicles there is a potential for an increase in safety effects.</li> <li>The further information response does not quantify</li> </ul>	<ul style="list-style-type: none"> <li>We recommend further analysis is undertaken to understand and quantify the increase in safety risk.</li> </ul>

Effect	Summary of Applicant’s response	Comments	Recommendation
	<ul style="list-style-type: none"> <li>○ One crash involved a southbound vehicle colliding with a vehicle at a driveway.</li> <li>○ One crash involved a southbound vehicle which lost control.</li> <li>• None of these crash types are expected to be affected by the proposal traffic.</li> <li>• Truck and trailer units turning left out of Snell Street were observed to cross into the right turn bay on Studholme Street.</li> <li>• Conflicts are expected to occasionally occur due to the relatively high volume of right turn traffic at this intersection</li> </ul>	<p>the potential increase in safety risk or risk of increased crashes.</p> <ul style="list-style-type: none"> <li>• If there is an increase in safety risk then we consider that this needs to be appropriately mitigated. No mitigation has been proposed.</li> <li>• Accepting that there will be conflicts associated with the turning movements at the intersection is not well aligned with Vision Zero or the safe system approach.</li> <li>• Studholme Street is an arterial transport corridor carrying around 7,500vpd and is expected to increase with the development of the Lockerbie Plan change area.</li> <li>• The plan change will add traffic including heavy vehicles turning at the intersection. Trucks turning out of Snell Street and needing to track over the right turn bay on Studholme Street is not acceptable.</li> </ul>	<ul style="list-style-type: none"> <li>• We consider the most appropriate tool would be Waka Kotahi crash prediction models.</li> <li>• Confirm swept paths for heavy vehicle can turn left in and out without crossing the centreline or into the right turn bay.</li> <li>• Confirm if any further mitigation is required.</li> </ul>
Efficiency Effects	<ul style="list-style-type: none"> <li>• A 10-year capacity assessment based on traffic counts completed on 13<sup>th</sup> December 2022 plus 3% growth has been undertaken.</li> <li>• For the predicted flows delays for the right turn out movement in the peak period is expected to be about 12.9 seconds with a worst Level of service (LOS) of LOS B.</li> <li>• This demonstrates that this intersection will operate well with the PC58 traffic.</li> </ul>	<ul style="list-style-type: none"> <li>• We are concerned that the assessment does not adequately incorporate potential traffic on Studholme Street from the proposed future subdivision within Lockerbie as well as the Lockerbie Plan Change area.</li> <li>• There is a risk that the intersection may operate worse than anticipated in particular if there is increased traffic from the Lockerbie subdivision on Studholme Street.</li> </ul>	<ul style="list-style-type: none"> <li>• We recommend that sensitivity testing be completed to include additional traffic expected by the Lockerbie Plan change.</li> </ul>

**Table 4: Summary of the Section 92 response relating to safety and efficiency effects on Snell Street/Studholme Street intersection**

We recommend further detailed assessment of efficiency and safety effects at the Snell Street/Studholme Street intersection is completed to provide an understanding of the level of traffic increase, the potential safety or efficiency risks arising from the additional traffic at the intersection and if any mitigation is required to address the increase in

traffic. The assessment should account for traffic likely at the intersection as a result of the Lockerbie Estate Subdivision, the consented subdivision and plan change area.

## 4.2. Proposed Cross-Sections

Section 5.0 of the ITA states that “The new roads associated with the proposed plan change are expected to be able to comply with the District Plan requirements as follows:

- = A road reserve of 20 m,
- = A 9 to 11 m wide carriageway (10 m proposed),
- = A 1.5 m wide footpath/cycleway on one side,
- = 4 to 6 m wide traffic lanes (5 m proposed),
- = Parking of 2.5 m width on both sides of the road (informally provided by 10m carriageway), and
- = Street lighting is intended to be provided.

The ITA also states that “It is expected that the new roads will function as local roads with a posted speed limit of 50 km/h”. The ITA states that parking will be provided both sides. However, this will be provided informally within the 10m carriageway. Within a 10m carriageway, parking on both sides would leave around 5m for traffic lanes, insufficient for two-way traffic movements.

The further information responses states that “ The proposed cross-section for the PC58 roads matches the approved cross-section for the Stage 1 development. Cycling is provided for on-road, as is usual for a local road. A footpath is provided on one side of the road only due to stormwater constraints in this area.

*The north/south road within the PC58 area will be constructed as a local road, with the same cross-section as the east/west road. A local road standard is all that is required to service the PC58 area. If Council intend for this road to be constructed to a collector standard, and for it to service a greater area, then this increase in standard could be accommodated at Council’s cost.”*

The further information responses also states that “Specific cross sections are not considered to be necessary given the design of roads will need to be in accordance with the Regional Infrastructure Specifications (RITS) or any other relevant standards applying at the time.”

The RITS states that typical road widths are provided in the relevant district plan. Typical road cross-sections should be included in the planning provisions for PC58.

The PC58 will introduce additional traffic to the consented subdivision road. We consider that in order to safely accommodate the plan change traffic further infrastructure is to ensure that safe turning can be accommodated, pedestrians and cyclists are safely accommodated and adequate parking provision is provided for.

We also consider there to be a need to ensure consistency across the District and the cross sections proposed and discussed below have been proposed as part of Plan Change 57 (ongoing).

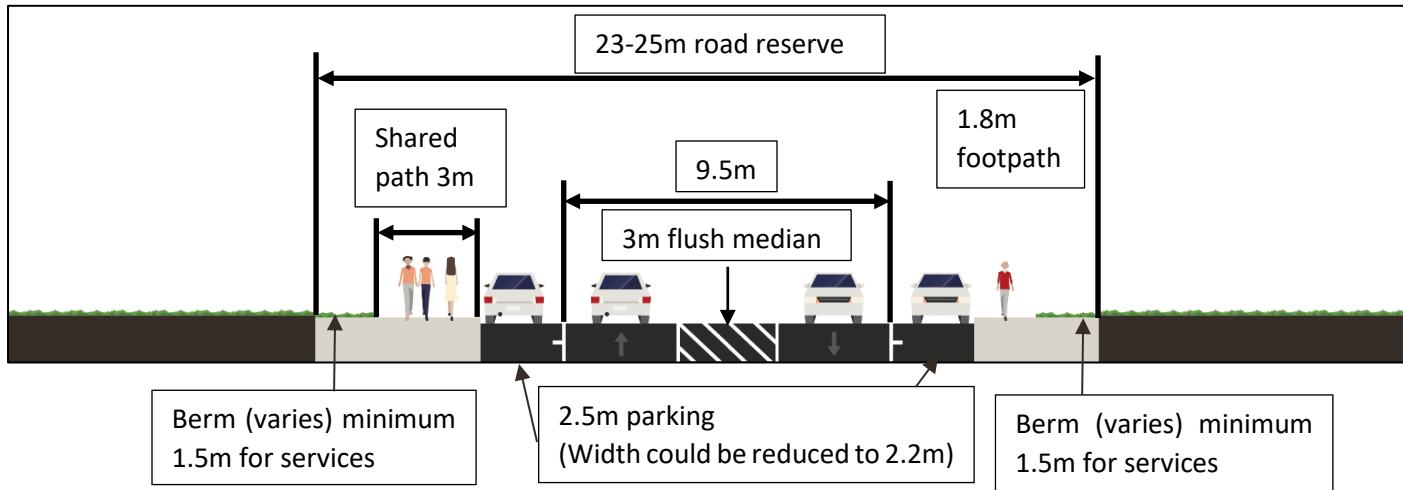
### 4.2.1. North -South Road

Subject to future growth north of the PC58 area there may be opportunities to extend the proposed road to Hangawera Road and provide a north-south connection from SH26 consistent with the intent of the indicative link illustrated by Figure 10 of the ITA. The future function of the north-south road is more likely to operate as a collector road and therefore, the cross-section should be protected to ensure that it is appropriate for the future function of the road.

The Applicant’s proposed cross-section with 10m wide carriageway and 1.5m wide footpath on one side is insufficient. The proposed cross-section could allow on street parking on one side. However, it does not accommodate cyclists or

provide safe turning facilities. With the removal of parking minimums from the District Plan, it is expected parking demand within the Industrial zone will remain and it is prudent that this can be accommodated safely in the corridor.

Our desired cross-section is shown in the figure below including two traffic lanes and a marked flush median to facilitate property access and heavy vehicle turning paths. Facilities for pedestrians are provided on both sides, including a desirable shared path on one side to also facilitate cyclist movements. To accommodate the desirable cross-section a minimum 23m wide road reserve should be protected. Protecting a corridor width of 25m would also accommodate the 5.5m wide berm/swale treatment proposed in the Figure 14 of the S92 further information response.



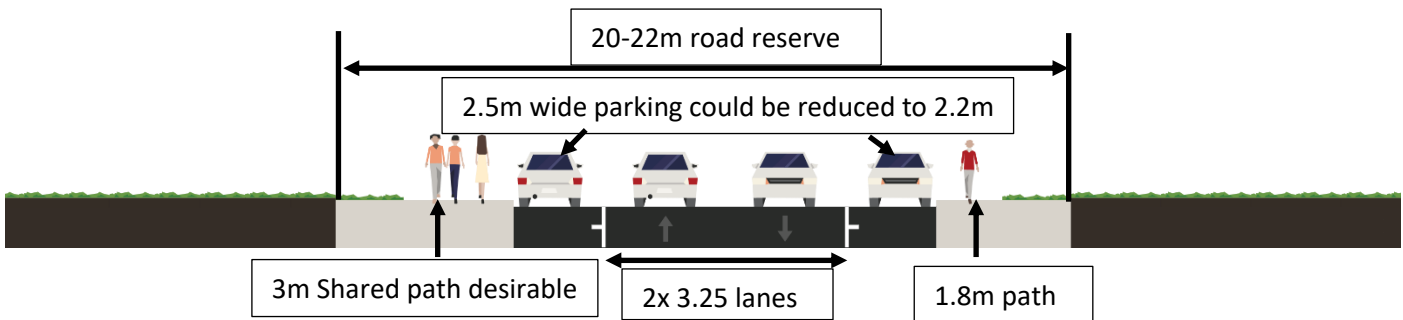
**Figure 4: Recommended Collector Road Cross-Section**

4.2.2. East West Road

The east- west road will provide access from Avenue Road to the PC58 area. The cross section provides sufficient width for two way movement. However, there are no cycling facilities or turning facilities proposed. We recommend that the east-west road cross-section aligns with Figure 4 and is consistent with the North-South Road as described in Section 4.2.1.

4.2.3. Local Roads

We recommend that the PC58 is updated to ensure that the local roads are formed so that they are appropriate for the form and function of the road. The local road cross-section is similar to the collector road but does not include a flush median. The shared path is desirable on the local road but could be converted to a 1.8m path with cyclists in the lane.



**Figure 5: Recommended Local Road Cross-Section**

### 4.3. Walking and Cycling Connectivity

The ITA states that the PC58 includes a 1.5m wide footpath/cycleway on one side of the proposed road connection to Stage 1. It is unclear whether this is intended to be a shared space or not. A 1.5m wide path width is insufficient for use as a shared path. For shared use a 3m path is required and for pedestrians a 1.8m wide path.

It is unclear how cyclists are expected to cycle within the proposed plan change area. Given the industrial land use it is undesirable to expect cyclist to share the lane with heavy vehicles. A form of separated path is desirable to minimise the risk of cyclist and heavy vehicle conflict.

The PC58 cross-section does not safely accommodate cyclists and the potential risk to cyclists traveling within the lane has not adequately been considered. We recommend that the cross sections are updated to accommodate pedestrians and cyclists.

We recommend that the PC58 include a plan of the walking and cycling facilities within the PC58 area including protecting future connections to the wider network (SH26, future to the north).

The further information request considered two location for providing crossing facilities on Avenue Road. the locations were:

- = 40m north of the Stage 1 intersection; and
- = 70m north of Anderson Street.

The further information response provided by the applicant states that:

*“The sites will be investigated further to see if crossings can be provided in this location”. and*  
*“The appropriate form for any pedestrian crossing facilities is a pedestrian refuge. This facility is a good compromise between improving pedestrian safety and minimising effects to traffic. The installation of a pedestrian crossing facility is only recommended in areas with a 50 km/h posted speed. Both recommended crossing locations are in 70 km/h areas, with the 50 km/h posted speed limit located just north of Anderson Street, extending to the south. It is therefore recommended that Council consider lowering the speed limit along all of Avenue Road North and Snell Street to 50 km/h prior to the construction of these crossing facilities. If the speed is reduced and if locations 1 and 2 are confirmed to be suitably clear of swept paths then it is expected that pedestrian refuges can be easily installed on the 2m wide flush median on Avenue Road North.*

The further information response indicates that footpath along the site frontage which will make the road look and feel more like an urban environment which is likely to be more appropriate for a 50km/h speed limit.

We agree that providing a lower speed limit will result in a safer outcome for pedestrians. However, this will require a change to the speed limit bylaw. We consider that urbanisation through the implementation of kerb and channel, footpath and line marking is likely to be required to ensure that the look and feel of the road supports a 50km/h speed environment. We understand that there is currently no funding allocated to the urbanisation of Avenue Road North or Snell Street.

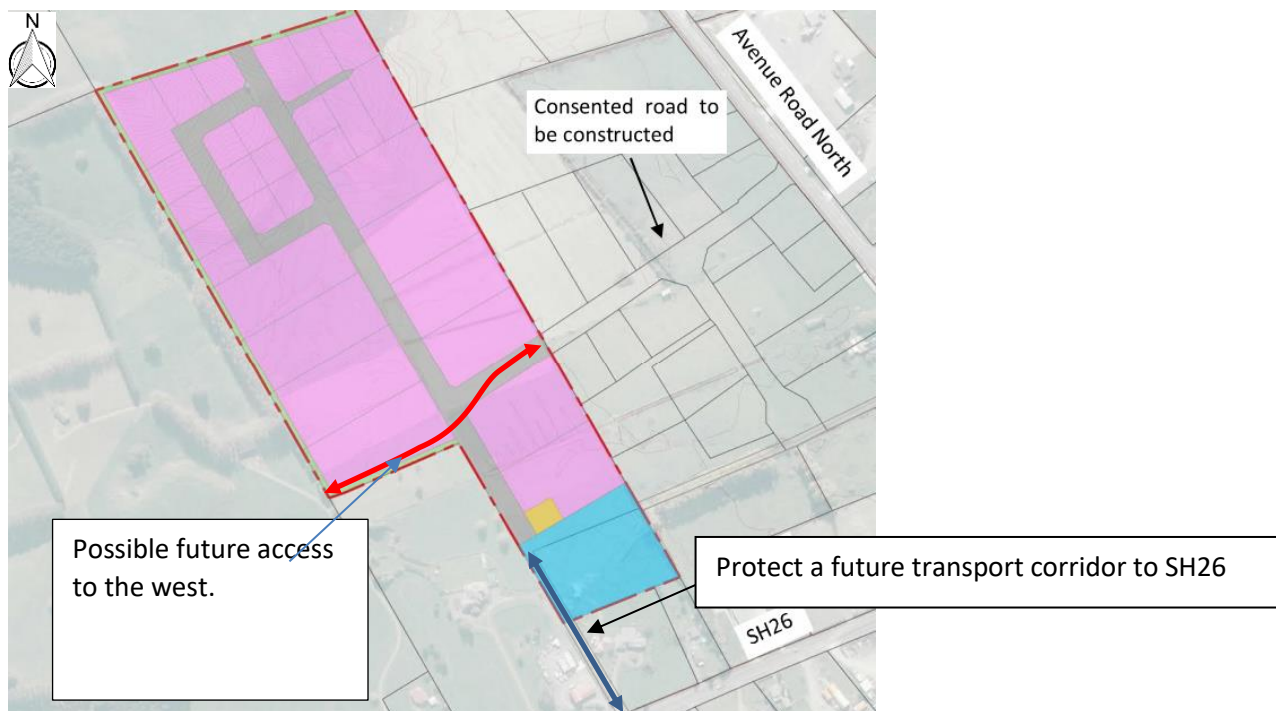
If a safe pedestrian crossing facility is not provided then we are concerned that the proposed does not provide adequate pedestrian access to the site. We consider that providing an appropriate crossing facility is included in the plan provisions to ensure that the proposed plan change adequately addresses pedestrian connectivity concerns.

### 4.4. Future Connection to the West and SH 26

The Morrinsville Town Strategy has identified the potential for a road link between SH26 and Hangawera Road. The area to the west and north of the PC 58 site are currently rural and there may be potential for future development.

We consider that access to the west and to SH26 should not be precluded by the PC58. It would be desirable for the PC58 to protect a future connection to the west as well as to SH26. We recommend that a corridor is protected to SH26 so that future access to SH26 is not precluded. The corridor width should be sufficient to accommodate the collector road cross-section.

Should the area to the west of PC 58 be developed in the future, it would be desirable for access through the PC58 area.



**Figure 6: Potential access to the west and SH26**

## 4.5. Consultation

### 4.5.1. Waka Kotahi

Section 11 of the ITA states “Waka Kotahi will be consulted with regarding this proposal, and their feedback included in the final report provided with the Plan Change application”.

Since then Waka Kotahi have provided preliminary responses to the proposed plan change (email dated 7 November from Tayla Cowper to Tara Hills). The Waka Kotahi network and safety engineers provided the following comments:

- = It is noted that only a concept plan was provided and site layouts may change when this is developed into the final scheme plan.
- = It is good to see that the proposed site layout is in line with the Morrinsville Town Strategy for the future road link.
- = Considering the traffic on site will get access via Avenue Road North and a new roundabout will be constructed at the Avenue Road North/SH 26 intersection in the near future, Waka Kotahi consider that the plan change will not adversely affect the safety of the state highway network.
- = Waka Kotahi has no initial objection with the proposed plan change.

We have not seen the proposed roundabout designs for the SH26/Avenue Road roundabout and therefore, have not been able to comment on the layout. No further feedback from Waka Kotahi has been provided since the initial preliminary feedback in November 2022.



The information provided by the applicant is not sufficient and we have not assessed the effects on SH 26 or at the Avenue Road/SH 26 intersection. However, Waka Kotahi have not raised any particular issues and we are unable to provide any further comments in relation to potential effects of the proposed plan change on SH 26 or the Avenue Road/SH 26 intersection. We understand the construction of the intersection upgrade is planned for October 2024.

4.5.2. Waikato Regional Council

The applicant has provided a summary of Consultation with WRC. No further actions are required.

**4.6. Proposed Plan Change Provisions**

The proposed plan provisions are not specific and do not specify cross section widths or triggers for development within the structure plan area. The plan provisions need to be updated to include the proposed cross sections including appropriate walking and cycling facilities and protection of future connections to wider network. It is unclear how the infrastructure upgrades (intersection and pedestrian crossing) offered by the further information will be implemented as they are not specifically included in the proposed planning provisions. Given that we consider further information and assessment is required, there may be other infrastructure upgrades required as mitigation that will need to be included in the planning rules and provisions.

**5. PLANNING POLICY PROVISIONS IN RELATION TO TRANSPORT**

The site zoned rural with land to the east already zoned industrial. Land to the west and north are zoned as rural. The proposal is largely consistent with national, regional and local transport objectives and policies.

From a transport planning perspective, the site currently has only one access which is via the consented Stage 1 industrial subdivision. An alternative access or protection of future alternative access would result in better connectivity to the wider network, potential reduced vehicle kilometres travelled supporting wider outcomes (climate change) and overall a better transport outcome.

The S92 further information response has included an assessment against objectives of the Waikato Regional Land Transport Plan and the Regional Public Transport Plan. Our letter dated 9 December 2022 included Attachment A and an outline of our assessment of the proposed plan change against the Waikato Regional Policy Statement and the policies and objectives of the Matamata Piako Operative District Plan.

Policy, Objective and Strategy	ITA Assessment	Comments
Government Policy Statement on Housing and Urban Development 2021	The Government Policy Statement on Housing and Urban Development directs local authorities to plan and enable a greater level of development. It encourages well-functioning, liveable urban environments, and requires councils to remove overly restrictive planning rules. The proposed plan change aligns with the objectives and policies of the Policy Statement, as the plan change area is located adjacent to an industrial area.	The ITA does not clearly describe how the plan change aligns with the objectives and policies except that it is located adjacent to an industrial area.

Policy, Objective and Strategy	ITA Assessment	Comments
Government Policy Statement on Land Transport 2021	<p>The proposed plan change is aligned with this policy statement for the following reasons:</p> <ul style="list-style-type: none"> <li>= Safe access to the site will be provided.</li> <li>= Good travel options to the site are available through the site's location within Morrinsville. Pedestrian and cycle access through the site will also be provided.</li> <li>= Climate change effects will be minimised through reduced emissions resulting from the location of this site within Morrinsville. This location will allow staff from Morrinsville to use either active travel modes or to undertake short vehicle trips only compared to a site located distant to Morrinsville.</li> </ul>	<p>The proposal provides one point of access to the proposed plan change area.</p> <p>The engineering plans for the intersection on Avenue Road (Stage 1) indicate that a semi-trailer encroaches onto the pedestrian refuge island, and it also appears that a left turning semi-trailer out of the site crosses into the opposing traffic lane. We are concerned that the proposal results in unsafe access.</p> <p>A detailed assessment of the safety effects of the proposed new road network has not been provided.</p>
Safety Strategy 2020-2030 – Road to Zero	<p>The proposed plan change complies with the vision of this strategy by providing a safe and well-designed site access.</p>	<p>In our opinion, the proposed site access (new intersection at Avenue Road) does not accommodate heavy vehicles appropriately or consider other road users to ensure that they are safely accommodated within the road reserve i.e. no cycling facilities are provided.</p> <p>An updated structure plan is required.</p>

Policy, Objective and Strategy	ITA Assessment	Comments
MPDC District Plan Objectives and Policies	<p>The Matamata-Piako District Plan has the following objectives:</p> <ul style="list-style-type: none"> <li>= The strategic importance of significant transport infrastructure is recognised.</li> <li>= A safe, efficient, integrated, and environmentally sustainable transport network that ensures our social, economic, and cultural wellbeing.</li> <li>= The avoidance, remediation or mitigation of the adverse effects of transportation.</li> <li>= To ensure that those activities that place demands on the roading network contribute fairly to any works considered necessary to meet those demands.</li> <li>= To protect residential amenity from the effects of excessive traffic generation and on-street parking on residential streets.</li> <li>= To maximise safety and convenience for pedestrians and vehicular traffic on all sites.</li> <li>= Provision for parking and loading is adequate to ensure the safety and efficiency of the road network, without stifling development or leading to inefficient use of land.</li> <li>= To encourage the provision of alternative transportation networks where it is clearly demonstrated that the provision of such networks will positively benefit and enhance the environment and community which they serve.</li> </ul> <p>The proposed plan change site is considered to meet these objectives as the site ties in with adjacent industrial land, it will have efficient and safe access, and allows for the use of alternative transport modes.</p>	Further information is required to satisfy the MPDC District Plan Objectives and Policies.. Refer to Attachment A
District Plan Rules	“Compliance with most District Plan rules cannot yet be demonstrated, as this site is currently at the concept stage only. However, it is anticipated that all District Plan and Development Manual requirements can be met at this site”	Further information is required. Refer Attachment A.
Regional Land Transport Strategy	No comments provided in the ITA Table 3 of the S92 response dated 22 December 2022 has provided commentary.	The further information provided has included an assessment against the objectives of the RLTP.

**TABLE 5: Summary of ITA Strategic Alignment (refer Section 12 of ITA)**

## 6. CONCLUSIONS

### 6.1. Key Comments

The consented subdivision adds around 315 vph at the new intersection and around 3,000 vpd<sup>5</sup> to Avenue Road. The PC58 will add around 256 vph and around 2,100 vpd<sup>6</sup>. Avenue Road currently carries around 3,000vpd. Compared to the existing environment, the PC58 increases the traffic on Avenue Road by two thirds. Compared to the consented environment, the increase is less but is still a considerable increase around 35% increase.

We have concerns relating to transport safety that have not adequately been assessed, including the suitability of the consented subdivision road to accommodate the additional traffic generated by the industrial PC58 area and the proposed and existing surrounding intersections and roads to accommodate the additional traffic. There is a risk of cumulative effects not adequately being addressed since the subdivision is consented but not developed and we understand the new intersection is in the design stages and the information provided is not sufficient to properly assess the adequacy of the consented intersection form (right turn bay) from a traffic safety perspective.

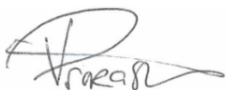
While we do not have enough information to assess the potential effects on SH26 or the Avenue Road/SH26 intersection, we understand that Waka Kotahi does not have any initial concerns.

The proposal does not adequately accommodate pedestrians and cyclists within the proposed cross-section. The corridor widths need to be protected to ensure certainty that adequate and safe provision for all users is provided and future growth is not precluded. The proposed structure plan indicates a drainage reserve south of the plan change area. There appears to be a 9-10m wide strip included in the existing title that extends to SH26 and an existing vehicle crossing. We recommend that this area is designed and included in the planning provisions so that access to SH 26 in the future is not precluded i.e. there is sufficient road reserve width to accommodate a future connection. The structure plan should be updated to demonstrate this. The ITA and further information include recommendations that are not included in the plan provisions. We consider that the proposed planning provisions are not sufficient in their current form.

### 6.2. Summary

From a transport planning perspective we consider that more information is required in order to properly assess the transport effects of the proposed private plan change, including effects within the PC58 area and on the wider local transport network outside of the PC58 area.

Yours sincerely



Vinish Prakash  
Transportation Engineer



Naomi McMinn  
Senior Transportation Engineer

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<sup>5</sup> Based on peak hour traffic being around 12% of daily

<sup>6</sup> The ITA does not state the daily traffic expected. Our assumption of daily traffic is based on peak hour traffic being around 12% of daily.

## ATTACHMENT A: TRANSPORT PLANNING POLICY ASSESSMENT

### National

The Government Policy Statement on Land Transport (GPS) 2021 has four strategic priorities:

- = A transport system where no-one is killed or seriously injured;
- = Improving freight connections for economic development;
- = Providing people with better transport options; and
- = Developing a low carbon transport system that support emissions reductions while improving safety and inclusive access.

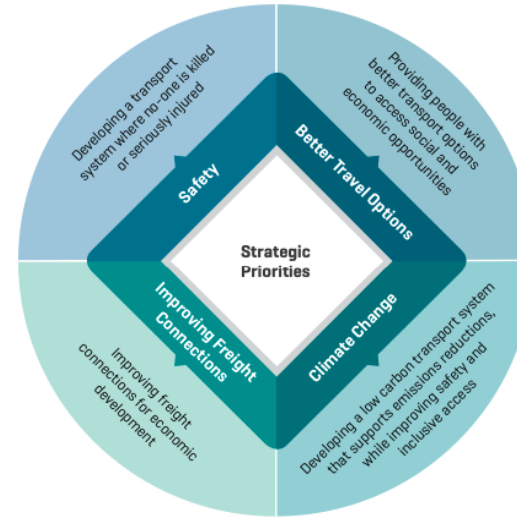
These strategic priorities are supported by the Transport Outcomes Framework which has five key outcomes:

- = Inclusive Access;
- = Healthy and safe people;
- = Environmental sustainability;
- = Resilience and security; and
- = Economic prosperity.

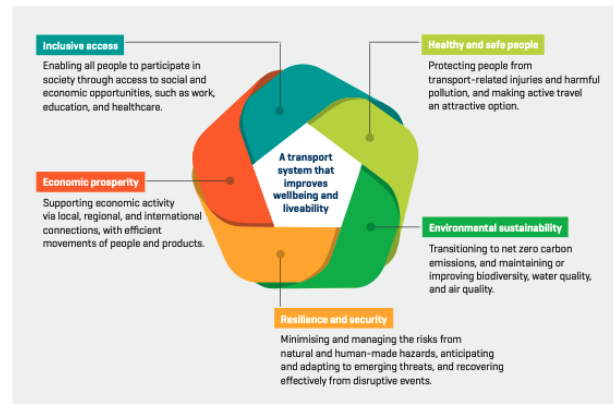
The proposed plan change is generally consistent with the GPS as it:

- = Lies within an area identified for urban development.
- = Provides access to key strategic corridors.
- = Includes provision for walking, cycling, although more detail is required on facilities provided.
- = Provides more than one link to the network, supporting resilience.

6. Considering the 10 year context (2021/22-2030/31), the Government has identified four strategic priorities for land transport investment to best contribute to improving our communities' wellbeing and liveability:



Transport Outcomes Framework



## Regional

The Waikato Regional Policy Statement has a strong focus on integrated management, including the integrated relationship between land use and development, and the transport infrastructure network<sup>7</sup>.

Objective/Policy	Extract	Comment/relevance
Objectives for development of the built environment	3.12 e) include recognising and protecting the value and long-term benefits of regionally significant infrastructure.	Provides links to the arterial road network. further information required regarding form of intersection. No direct access to SH26 provided.
Policy 6.1 Planned and co-ordinated subdivision, use and development	Information requirement: 6.1.8 (c) multi-modal transport links and connectivity, both within the area of new urban development, and to neighbouring areas and existing transport infrastructure; and how the safe and efficient functioning of existing and planned transport and other regionally significant infrastructure will be protected and enhanced.	Better walking and cycling facilities are required to encourage mode shift. Surrounding area is still relatively rural in nature and therefore development unlikely to support multi-modal links to external areas – there is likely to be reliance on private car in the short-medium term.
Policy 6.3 Co-ordinating growth and infrastructure	Management of the built environment ensures: a) the nature, timing and sequencing of new development is co-ordinated with the development, funding, implementation and operation of transport and other infrastructure, in order to: i) optimise the efficient and affordable provision of both the development and the infrastructure; ii) maintain or enhance the operational effectiveness, viability and safety of existing and planned infrastructure; iii) protect investment in existing infrastructure; and iv) ensure new development does not occur until provision for appropriate infrastructure necessary to service the development is in place;	Relatively consistent Further improvements required to consented intersection layout on Avenue Road north.
6.3.1 Plan provisions	Regional and district plans shall include provisions that provide for a long-term strategic approach to the integration of land use and infrastructure and that give effect to Policy 6.3, including by ensuring as appropriate that: a) roading patterns and design support the use of public transport; b) walking and cycling facilities are integrated with developments; c) the different transport modes are well connected; d) industry is located where there is good access to strategic transport networks and road, rail or freight hubs;.....	Support for active mode could be enhanced to encourage mode shift. Further information required regarding single point of access.

<sup>7</sup> Issue 1.4 (i)

Objective/Policy	Extract	Comment/relevance
Policy 6.6 Significant infrastructure and energy resources	<p>Management of the built environment ensures particular regard is given to:</p> <ul style="list-style-type: none"> <li>a. that the effectiveness and efficiency of existing and planned regionally significant infrastructure is protected;</li> <li>b. the benefits that can be gained from the development and use of regionally significant infrastructure and energy resources, recognising and providing for the particular benefits of renewable electricity generation, electricity transmission, and municipal water supply; and</li> <li>c. the locational and technical practicalities associated with renewable electricity generation and the technical and operational requirements of the electricity transmission network.</li> </ul>	More clarity required regarding pedestrian and cyclist safety and effects on the wider transport network.
6.6.1 Implementation Methods	<p>Regional and district plans shall include provisions that give effect to Policy 6.6, and in particular, that management of the built environment:</p> <ul style="list-style-type: none"> <li>a. avoids, as far as practicable, adverse effects on the function of significant transport corridors as defined in Maps 6.1 and 6.1A (Section 6B), and otherwise remedies or mitigates any adverse effects that cannot be practicably be avoided;</li> <li>b. avoids, as far as practicable, the adverse effects of ribbon development along the defined significant transport corridors, and otherwise remedies or mitigates any adverse effects that cannot practicably be avoided;</li> <li>c. avoids as far as practicable, the need for additional access points onto the defined significant transport corridors, and otherwise remedies or mitigates the adverse effects of any additional access points that cannot practicably be avoided;</li> <li>d. avoids as far as is practicable, the exacerbation of community severance caused by defined significant transport corridors, and otherwise remedies or mitigates the adverse effects of any exacerbated community severance that cannot practicably be avoided;</li> </ul>	Updated plan provisions required
Policy 6.15 Density targets for Future Proof area	..." seek to achieve compact urban environments that support existing commercial centres, multi-modal transport options, and allow people to live, work and play within their local area."	Industrial development remote from existing residential development and likely to rely on private motor vehicle

Objective/Policy	Extract	Comment/relevance
6A Development principles	<p>New development should:</p> <ul style="list-style-type: none"> <li>a) support existing urban areas in preference to creating new ones;</li> <li>b) occur in a manner that provides clear delineation between urban areas and rural areas;</li> <li>c) make use of opportunities for urban intensification and redevelopment to minimise the need for urban development in greenfield areas;</li> <li>d) not compromise the safe, efficient and effective operation and use of existing and planned infrastructure, including transport infrastructure, and should allow for future infrastructure needs, including maintenance and upgrading, where these can be anticipated;</li> <li>e) connect well with existing and planned development and infrastructure;</li> </ul>	More clarity required regarding pedestrian and cyclist safety and effects on the wider transport network.

### Local

The proposal is broadly consistent with the policies and objectives of the Matamata Piako Operative District Plan (as summarised in the table below). Details of the required further information are provided in Section 6.

Outcome Sought (Objectives)		Solutions (Policies)		Comment
<b>Transportation</b>				
O1	The strategic importance of significant transport infrastructure is recognised.	P1	<p>Subdivision, use and development shall be managed to recognise, enable, and protect:</p> <ul style="list-style-type: none"> <li>• The primary function of significant transport infrastructure as inter-regional connectors; and</li> <li>• The local, regional, and national benefits of significant transport infrastructure</li> </ul>	Provides access to MPDC arterial road which forms an intersection with SH 26.
O2	A safe, efficient, integrated, and environmentally sustainable transport network that ensures our social, economic, and cultural wellbeing	P2	The District's road hierarchy shall recognise and manage significant road corridors as the highest order of road	Further information is required regarding intersections and cross-sections.



Outcome Sought (Objectives)		Solutions (Policies)		Comment
<b>Transportation</b>				
O3	The avoidance, remediation or mitigation of the adverse effects of transportation	P3	<p>Subdivision, use and development shall enable a safe, integrated, efficient, and well-connected transport network that provides for all modes of passenger and freight transport in a manner that:</p> <ul style="list-style-type: none"> <li>• Ensures land-use and transportation successfully interface with each other;</li> <li>• Manages the adverse environmental effects of the network, and the effects of other activities on the network (i.e. reverse-sensitivity effects);</li> <li>• Considers the transport needs of an ageing population; and:</li> <li>• Ensures route security across all modes of travel.</li> </ul>	Further information is required regarding intersections and cross-sections.
O4	To ensure that those activities that place demands on the roading network contribute fairly to any works considered necessary to meet those demands	P4	The road network shall be hierarchical, differentiating between roads according to their primary function thereby assisting in the planning and management of the network and surrounding land-uses.	The form and function of the internal roads may operate as a collector road rather than a local road in particular in the future.
O5	To protect residential amenity from the effects of excessive traffic generation and on-street parking on residential streets	P5	To ensure that access points and intersections meet safe sightline and spacing standards for the class of road within the hierarchy and are formed to appropriate design standards	Cross-sections need to be updated to accommodate cyclist and pedestrians better.
O6	To maximise safety and convenience for pedestrians and vehicular traffic on all sites	P6	To manage the location of subdivision and land use activities to avoid compromising road intersection and railway level crossing safety sightlines	Further information is required regarding intersections and cross-sections.
O7	Provision for parking and loading is adequate to ensure the safety and efficiency of the road network, without stifling development or leading to inefficient use of land	P7	To ensure that the safety and efficiency of the state highways and district road networks are not compromised by proposed subdivision and/or development and the cumulative effect of subdivision and/or development.	Further information required.
8	To encourage the provision of alternative transportation networks where it is clearly demonstrated that the provision of such networks will positively benefit and enhance the environment and community which they serve	P8	To promote appropriate roading connections within and between land being subdivided to ensure our towns are well connected.	Only provides single point of access to structure plan.
		P9	To implement measures to avoid, or mitigate reverse-sensitivity effects on land near significant transport infrastructure, and at the Matamata airport.	Further information required.

Outcome Sought (Objectives)		Solutions (Policies)		Comment
<b>Transportation</b>				
		P10	To ensure that traffic safety is maintained by carefully managing the location and design of any signs visible from state highway and District roads.	Further information required.
		P11	Subdivision, use and development shall be managed in a way that takes into account the planning and availability of funding for transport infrastructure.	Further information required.
		P12	To ensure that subdivision and development takes into account the existing and proposed capacity and design of the transportation networks and that any adverse effects are avoided, remedied or mitigated	Further information required.
		P13	To manage unrelated through traffic on local roads to maintain and enhance the amenity values of the locality.	Further information required.
		P14	To require landscaping within the transportation facilities or corridors where appropriate.	Is likely to be consistent.
		P15	To avoid dust and noise nuisance by requiring formation, sealing and screening of parking and loading areas and access ways in residential, business and Industrial zones and Kaitiaki (Conservation) zones that adjoin an urban area	Consistent
		P16	Parking and loading facilities must be designed to ensure safe manoeuvring of vehicles and safe movement of pedestrians and cyclists	Can align. Careful consideration of pedestrian/cyclist and vehicle interactions at vehicle crossings is required
		P17	Outside “shopping frontage” areas, development shall provide adequate parking and loading facilities on-site, for foreseeable future needs	N/A - no shopping frontage area proposed in plan change area.

Outcome Sought (Objectives)		Solutions (Policies)		Comment
<b>Transportation</b>				
		P18	Within “shopping frontage” areas in the town centres: <ul style="list-style-type: none"> <li>• Provision for parking and loading shall avoid adverse effects on the safety and efficiency of the road network; while:</li> <li>• The requirement for on-site parking and loading must not unnecessarily constrain development, or result in development that is not in keeping with the character of the town centre</li> </ul>	N/A
		P19	To enhance the amenity value of the central business area of Te Aroha, Matamata, and Morrinsville by ensuring that such areas are not congested by service delivery activities and a lack of adequate parking	N/A
		P20	To establish and maintain service lanes and public carparks which assist in reducing traffic congestion on surrounding streets.	Can align. Review as part of future consents
		P21	To encourage alternative transport modes by making provision for cycleways and walkways	Further information required.
		P22	To provide for the transportation needs of an ageing population and the mobility impaired	Can align, although limited impact for proposed industrial land use
		P23	To require the retention of all roads, including paper roads, where alternative public access to the District’s rivers is not available	N/A

## Attachment B: Review of additional information provided (May 2023)

Information Requested (Gray Matter, 9/12/2022)	Direction Traffic Design Response (22/12/2022) /Satisfies?	Gray Matter Comment (16/3/2022)	Direction Traffic Design reference	Direction Traffic Design Comments	Direction Traffic Design Summary of discussion/outcome (included in 1 May 2023 letter)	Gray Matter (9/5/2023)
Provide an assessment of safety and efficiency effects at the Snell Street/Avenue Road intersection as a result of the private plan change.	No	Further information required.	4.1.2	It is noted that the curve at the west end of Snell Street has been recently upgraded by Council to resolve the edgebreak issue. To quantify the increase in safety risk is only beneficial if there is an alternative option available	Direction Traffic Design advised that very few trucks travel along Snell Street, with most trucks from the existing industrial area traveling to/from the south. Gray Matter was satisfied with this, and no further information is required. It was also noted that upgrading this road could result in additional truck movements on this predominantly residential road	<b>Satisfied.</b> There will be additional traffic traveling along Snell Street as a result of the PC area. The traffic is expected to be of similar nature to the existing and the route is already used as alternative route to avoid traveling through town centre.
Provide an updated layout of the consented intersection (Stage 1 Avenue Business Park) which ensures that there is sufficient space for heavy vehicle manoeuvring. The layout needs to ensure that swept paths and clearances for a semi-trailer can be accommodated at the intersection without encroaching kerbs or opposing traffic lanes.	Yes, in part.	We support the provision for amendment to the Stage 1 intersection layout. However, it is unclear how this will be achieved as no revised plans have been provided. We recommend that the Applicant provide an updated plan which clearly demonstrates that the intersection can be designed to achieve appropriate swept path clearances to kerbs/islands and opposing vehicles.	4	Engineering plans for the intersection have been amended and resubmitted to MPDC. The intersection will be built well ahead of development occurring within the PC58 site	The engineering drawings which have been approved by MPDC for the Stage 1 subdivision (which is consented and under construction) are attached to this letter.	<b>Information Needed.</b> Drawings are missing. Evidence to show that intersection adequately accommodates heavy vehicle swept paths as well as provision for pedestrians crossing is needed.
The pedestrian refuge island should be a minimum 2m wide to accommodate pedestrians safely.						
Provide an assessment of effects of additional traffic using the right turn bay within the flush median on Avenue Road North. The assessment needs to consider effects on the vehicle crossings located on the opposite side of the road.	Yes	We agree that the separation is less than ideal to the existing residential property and that that the movements at the residential vehicles crossing will be low and agree that the provision of a flush median will minimise the risk of adverse safety effects at the residential vehicle crossing as a result to of the PC 58.				<b>Satisfied.</b>
Provide a detailed assessment of effects at the SH26/Avenue Road roundabout which assesses the scale of change in safety and efficiency at the roundabout as a result of the proposed plan change. This should include proposed directional splits from the plan change at the SH26/Avenue Road North Intersection.	No	No detailed assessment of the SH26 roundabout has been provided.	4.5	Waka Kotahi has confirmed they are constructing a roundabout at SH26/Avenue Road and they are comfortable with the plan change proposal. They will have an opportunity to make a submission should they wish to do so. The Applicant will check with Waka Kotahi where this upgrade is at and if intersection assessment data is available.	Waka Kotahi's design plan for this roundabout is attached to this letter. Waka Kotahi has advised that no intersection assessment data is available	<b>Satisfied.</b> Detailed design drawings have been provided including RSPs and courtesy pedestrian crossings of all roundabout legs which will reduce speed and improve safety.
Provide an assessment of how direct access to SH 26 could be provided in the future including consideration of appropriate intersection form on SH 26.	No	We agree that at this point in time a secondary access to SH 26 is not required as part of this plan change. However, we consider it important to ensure that future access to SH 26 is not precluded in particular if growth to the north or west occurs.	refer 4.4			
		The amended pan indicates a narrow corridor for access to SH 26. This does not provide sufficient comfort that a future access could be achieved at this location.	refer 4.4			
		We require further information which shows the road corridor extending to SH 26. Further discussed in Section 4.1	refer 4.4			

Information Requested (Gray Matter, 9/12/2022)	Direction Traffic Design Response (22/12/2022) /Satisfies?	Gray Matter Comment (16/3/2022)	Direction Traffic Design reference	Direction Traffic Design Comments	Direction Traffic Design Summary of discussion/outcome (included in 1 May 2023 letter)	Gray Matter (9/5/2023)
		We recommend that the Applicant provide a plan indicating how the road corridor could extend to SH 26 as well as confirm how much additional land will be required to protect this corridor.	refer 4.4			
Provide a sensitivity assessment of the proposed trip distribution to capture future trips to and from the north once residential activities are further established (i.e. Lockerbie Plan Change).	Yes	The information provided indicates that there is sufficient capacity at the intersection with additional movements to and from the north (i.e. vehicles from the Lockerbie Plan Change area).				<b>Satisfied.</b>
		<b>No further action required.</b>				
Provide a detailed assessment of the effects on the surrounding road network including but not limited to Avenue Road North, Snell Street, Snell Street/Studholme Street intersection. The assessment should identify any potential safety or efficiency effects including effects as a result of additional heavy traffic on the surrounding road network and if mitigation is required to ensure that the network operates safely.	No	Refer Section 4.3.1, 4.3.2 and 4.3.3	4.1.1	The crash risk will increase with the proposal, as it would if this development was located elsewhere. Calculating the crash risk for an intersection is useful if the crash risk can be compared with an alternative site/proposal. As there is only one proposal being put forward no such comparison can be made.	It was agreed that crash risk calculations were not required. Pedestrian safety was noted by Gray Matter to be the greatest safety concern. This matter is addressed in item 4.3	<b>Satisfied.</b> Providing safe pedestrian and cyclist links within the plan change area and to the wider network aligns with wider transport objectives and policies.
			4.1.3	To quantify the increase in safety risk is only beneficial if there is an alternative option available. The swept path for a left turn movement for a 20m B-train with 0.5m clearance is provided below. It is noted that this is an existing intersection which has been operating safely and there is very limited ability to provide widening. Appropriate mitigation of this issue could include the provision of a sign at the north end of Avenue Road North advising truck drivers that they are entering a residential area	The Applicant's preliminary comments were accepted. The traffic engineers agreed that signage discouraging truck access is not required	<b>Satisfied.</b> The issue is existing.
Provide updated cross sections which include provisions for cyclists, pedestrians and safe turning facilities within the plan change area. The cross-sections should also be appropriate for the current and future form and function of the road.	No	Further information required. refer Section 4.4	4.2	A local road standard is all that is required for the north-south road to service development of the PC58 site. If MPDC requires a collector road standard to future proof a connection between SH26 and Hangawera Road then we require confirmation that the additional costs (land and construction) would be met by Council. Recognising there has been very limited consideration to date by MPDC to a bypass, the PC58 provisions should be flexible enough to allow a local road to be built if MPDC subsequently determines that is all that is required. 2. The width and design of the east-west road through the Stage 1 site has been fixed through the approved consent and cannot be changed. Construction is well progressed and adjoining lots have been sold. There is no opportunity to change this now. The PC58 east-west road will match the Stage 1 east-west road to provide consistency. 3. Subject to MPDC's feedback on (1) above, we will consider the suggestion of including cross sections in the district plan.	The Applicant's position for all roads is a 20m road reserve with provision for this width to be increased for the north-south road to a wider collector road standard at a later date prior to any subdivision if it is required. Council advised they will consider this. The updated provision is Appendix 9.6.1(c): 9.6.1 (c) All public roads within the ADAP shall be constructed to local road standard with a minimum 20m wide road reserve width, 10m wide carriageway and 1.5m footpath on one side, unless the north-south aligned road is required to be constructed to a collector standard and: i. MPDC has confirmed it is required to be constructed to collector road standard to provide a wider connectivity function and/or to service growth in the wider area; and ii. Council funding has been confirmed to meet the costs of the necessary upgrading from local road to collector road standard. Gray Matter would still like cross sections to be included in the provisions for the district plan. The Applicant would rather not include cross sections due to concerns that this would be too prescriptive, and that drainage requirements have not been determined creating uncertainties in the layout. The Applicant would prefer to describe minimum outcomes for the road reserve width, carriageway width and footpaths in the district plan provisions instead. This has been addressed in proposed changes to Appendix 9.6.1(c).	<b>Not satisfied.</b> We would prefer that typical cross sections are provided in the district plan provisions to avoid doubt and to ensure appropriate footpath and shared path widths are achieved. This is common in other Plan Changes we have been involved with. In particular, the cross section needs to accommodate pedestrians on both sides and cyclists through a 1.8m wide footpath and a 3m wide shared path.

Information Requested (Gray Matter, 9/12/2022)	Direction Traffic Design Response (22/12/2022) /Satisfies?	Gray Matter Comment (16/3/2022)	Direction Traffic Design reference	Direction Traffic Design Comments	Direction Traffic Design Summary of discussion/outcome (included in 1 May 2023 letter)	Gray Matter (9/5/2023)
Provide an updated Structure Plan that does not preclude access to the west and SH 26 and shows walking and cycling facilities within the proposed PC58 area.	Yes, in part	Further confirmation of the ability to provide future access to SH 26 is required. the current scheme plan does not indicate how much additional land is required to ensure access can be provided. Refer Section 4.1	4.4	A connection to the west is appropriately provided for through the location of the north-south road adjoining the neighbouring site. The Applicant will amend the ADAP to show an "indicative corridor" and include rules restricting buildings within/near that area	Gray Matter is comfortable with what is proposed to enable a connection to the west in future if it is required. In terms of a north-south connection, the ADAP has been amended to include an 'Indicative Future Road Corridor (20m)' between the 'Indicative Local Road Network' and State Highway 26. Additional rules are proposed to prevent buildings within the 'Indicative Future Road Corridor' and to require 8m building setbacks from it for Lot 1 DPS 78100 (which is to the east). The typical setback requirement to a road in the GIZ is proposed to be 5m. The 20m wide road corridor and 8m wide setback will therefore protect a corridor of at least 23m which would be suitable for a collector road if such a connection is required to State Highway 26 in the future. .2.1 iii) Rural yard for Lot 1 DPS 78100 to the indicative Future Road Corridor in the Avenue Business Park Development Area Plan - 8m. 3.2.1 v) Additional controls for the Indicative Future Road Corridor No new buildings or accessory buildings shall be erected within the Indicative Future Road Corridor in the Avenue Business Park Development Area Plan	<b>Satisfied.</b> Protecting a link to SH26 does not preclude the ability for a north-south road in the future as envisaged by the Morrinsville Town Strategy 2013-2033. We would expect a walking and cycling link in the near future if a footpath or shared path is constructed along SH26 on the north side supporting multi-modal travel.
Provide evidence of consultation with WRC related to PT access to the proposed development.	Yes	No further information required				<b>Satisfied.</b>
Provide an assessment of the development against the Waikato Regional Land Transport Plan and the Regional Policy Statement.	Yes	No further information required.				<b>Satisfied</b>
Provide an assessment of the proposal against Regional Public Transport Plan.						<b>Satisfied</b>
Update plan provisions to include proposed cross-sections, future road connections (i.e. to the west)	No	Proposed cross-sections do not match desirable cross sections. No updated plan provisions have been provided. further information is required.				Refer above

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Provide an assessment of where a safe pedestrian crossing could be provided on Avenue Road North including an assessment of the appropriate crossing facility at this location including what environmental changes are required to support a safe crossing facility i.e. safer posted speed (noting that changes to speed will need to be implemented by the RCA).	No	Refer Section 4.3.1	4.3	Reduced provision of pedestrian and cycle facilities is considered to be appropriate in this industrial area where there will be significantly less pedestrian/cyclist trips compared with a residential or commercial area. The Applicant will consider amendments to Appendix 9.6.2 to include the investigation of crossing facilities on Avenue Road North as a matter to be considered at consenting stage.	Gray Matter would like the district plan provisions to require a pedestrian crossing facility on Avenue Road North, south of the site access. The Applicant has updated the provisions to require that pedestrian crossing facilities on Avenue Road North which are connected to public footpaths are to be investigated at the time of subdivision. This wording has been used as facilities could be constrained by access locations and swept paths, so requiring crossing facilities is not possible. It is noted that the proposed SH26/Avenue Road roundabout includes pedestrian crossing provision (drawing attached to this letter). The roundabout design also includes the construction of footpaths in the vicinity of the roundabout. It is also understood from discussion at the meeting that MPDC is aware of the possible need for Council to also provide additional public footpaths in this area. The proposed requirement in Appendix 9.6.2 is: .6.2 Subdivision and development within the ADAP shall provide access for pedestrians and cyclists to Avenue Road North via public roads. The requirement for pedestrian crossing places (such as a refuge) on Avenue Road North which are connected to public footpaths shall be investigated and provided if required and feasible.	<b>Not satisfied.</b> A 1.8m wide footpath and 3m wide shared path should be provided on internal roads to support walking and cycling. Connections to the existing footpath network east of Avenue Road north require crossing Avenue Road north.
Provide clarity regarding the traffic count table at Appendix B of the ITA i.e. what are the two sets of data titled Keith Camp Place representing.	Yes	No further information required.				Satisfied
Clarify the existing and planned footpath network in the wider area i.e. footpath along the east side of Avenue Road and at the SH 26/Avenue Road roundabout	Yes	No further information required.				Satisfied



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Provide an assessment of the potential effects of the consented road cross-section to accommodate the additional trips generated by the PC58 and any mitigation required.	No	We are concerned that there is scope to expand to the north and east. Alternative access to the future development to the north could be via the PC 58 roads. We consider it important to ensure that the roads are future proofed to ensure that the road is fit for purpose for the future form and function of the road. We are concerned that there is scope to expand to the north and east. Alternative access to the future development to the north could be via the PC 58 roads. We consider it important to ensure that the roads are future proofed to ensure that the road is fit for purpose for the future form and function of the road.	refer 4.4			<b>Not satisfied.</b> The proposed plan provisions include need for assessing the pavement of the consented east-west road for the additional PC58 area. We recommend that the provision includes for the cost of the additional pavement needed to be provided to Council as financial contribution. This would allow council to make meaningful improvements. On the consented road, footpath is proposed on the northern side. Pedestrian crossing facilities will be needed to ensure the network is continuous and connected from the PC58 area to the existing footpath on Anderson Street.
				The daily trip generation is expected to be in the order of 1,500 vpd. This figure is derived from the area of 125,000m <sup>2</sup> x 35% GFA x 4 trips/100m <sup>2</sup> = 1500 vpd. The trip rate of 4 trips/100m <sup>2</sup> is from the Australian RTA Guide to Traffic Generating Developments for warehouses. As discussed in the Direction Traffic Design pavement design email of the 28th March 2023, a sensibility check using the Riverlea Industrial area in Hamilton gives a close match for the predicted daily flow. The Riverlea Industrial area generates approximately 1,900 vpd (Mobile Road data) for 17.4 gross ha (1.115 trips/100m <sup>2</sup> , giving a daily flow of 1393 for the PC58 area of 12.5 ha)	This matter was not discussed in detail as agreement on this matter is not required for the PC58 application to proceed.	<b>Satisfied.</b> We consider the 1,500vpd is likely to be an AADT.

