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Ref: o896

Victoria Woodbridge  
Landmark Lile Limited  
PO Box 343  
**Nelson 7040**

Dear Victoria

**Proposed Industrial Activity – 54 Green Lane – Motueka - Tasman District  
Traffic Assessment Report**

Following on from your instructions, design reviews and site visits, I have now completed my analysis of the proposed development to construct tiny homes at 54 Green Lane in Motueka, Tasman.

The development consists of the construction of tiny homes which are transported from the site as affordable homes.

**1. Site Location and Description**

The 1.3 hectare site is located at 54 Green Lane which has access from Queen Victoria Street to the west and Grey Street to the east. Grey Street connects to Whakarewa Street to the north.

Queen Victoria Street runs parallel to State Highway 60 to the east of the development site. Whakarewa Street provides a connecting road from Queen Victoria Street and State Highway 60.

**Figure 1** shows the site location and the adjacent road network.



**Figure 1: Site Location (Source: Top of the South Maps)**

As shown, the site is located on the northern side of Green Lane around 100 metres from the intersection of Green Lane and Queen Victoria Street.

State Highway 60 can be seen to the east of the development site.

The intersection of Green Lane and Queen Victoria Street is controlled by stop signs. Motorists exiting Green Lane are required to stop and give way to traffic on Queen Victoria Street.

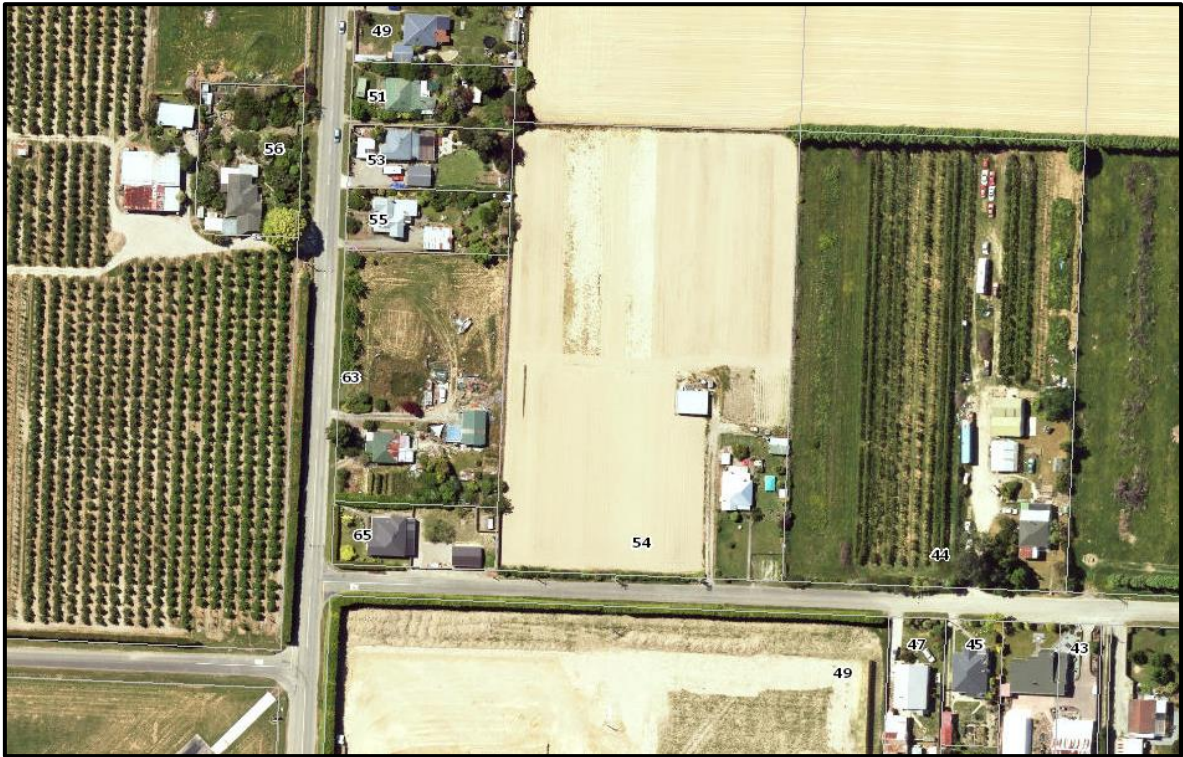
The land uses in the area are mostly rural activities with some smaller lots provided for residential properties. The Motueka Aerodrome is located to the west of the development site and the Motueka Township is around 1.3 kilometres to the east of the development.

Green Lane carries very low traffic volumes due to the level of activity along this road.

The construction of tiny homes is already undertaken on the development site towards the eastern boundary. The site has a frontage of around 90 metres with an existing residential property and some storage sheds. Shipping containers provide additional temporary storage on the site.

**Figure 2** shows the site layout and its relationship to Green Lane.





**Figure 2: Site layout and adjacent road network (Source: Top of the South Maps)**

Green Lane is around 5.5 metres wide with no kerb and channel along either side. Drainage is provided through the use of water tables and soakage to the ground. There are no footpaths along Green Lane or any other roads in the vicinity of the site.

**Figure 3** shows the road environment along Green Lane.



**Figure 3: Road Environment**

As shown Green Lane is a straight rural road with no road markings. There is a shelter belt hedge located on the southern side of the road where a large cool storage is located. There are excellent sight lines along Green Lane.

There are currently three vehicle accesses into the development site. The western access provides access to the construction area for the tiny homes. The central access provides access to the existing rear of the existing residential building and the eastern access provides access to visitor car parking.

It should be noted that the hedge by the road cone will be removed as part of upgrading the access.

There is no parking provided on Green Lane and there is no demand for vehicles to park on the street. Accordingly, the sealed formation of Green Lane is only used for the movement of vehicles.

## 2. Crash History

A detailed search of the NZTA crash database was carried out for the five-year period from 2016 to 2020, along with the part-year of 2021.

The search area included all crashes on Green Lane and its intersection with Queen Victoria Street.

There have been no reported crashes within the search area. This suggests that there are no safety deficiencies on the adjacent road and road users drive with due care travelling through the area.

## 3. Proposed Development

The development consists of a purpose-built construction facility for the building of affordable tiny homes to the public. The construction materials are delivered to the site and then various staff and trades construct the homes. Upon completion of the homes a ute and transporter trailer take the tiny homes off-site to their new locations.

The development, once fully operational, is expected to complete one tiny home per week that will be initially stored on the site and transported soon after completion.

**Figure 2** shows the proposed layout of the development.



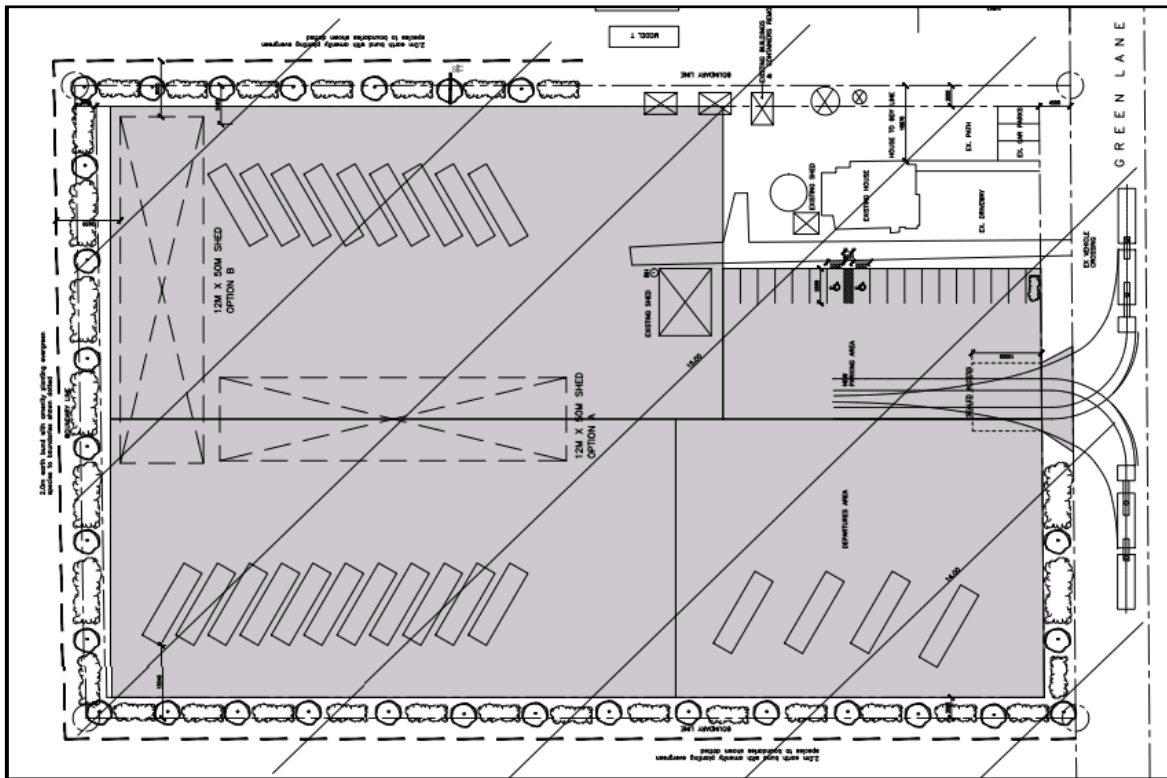


Figure 2: Proposed Site Layout (Source: Contour Architecture)

As shown the main access to the development site is via the western driveway where staff vehicles and heavy vehicles will enter and exit the site. The plans show the tracking curve of the largest vehicle expected to come to the site. This vehicle will deliver goods and materials for the construction of the tiny homes.

Visitor parking is shown on the eastern crossing with three spaces provided.

The central vehicle access provides access to the rear of the residential home/office.

The construction of the tiny homes is located on most of the site, with the homes being completed in stages. There will be a storage shed for materials to be constructed on the site. The final location of the building is yet to be determined. The perimeter of the site will be landscaped.

The main site access will be sealed 10 metres into the development to reduced gravel tracking onto Green Lane. The western vehicle access will be around 10 metres wide. The visitor parking crossing is around eight metres wide. The remaining central crossing is around three metres wide.

Larger scale plans are provided in the consent application. There may be some minor differences in the plans provided in this report and those on the consent application. The differences are immaterial to the assessments provided below.

#### 4. Planning Provisions

The development is located mostly within the Rural 1 Zone (Map 116) as listed within the Tasman Resource Management Plan. As such, the development parking, loading and access is considered against Chapter 16, Section 16.2 Transport.

Section 16.2 provides the rules and standards for the access, parking and traffic requirements for developments. The TRMP also references the Nelson Tasman Land Development Manual 2019 for engineering standards applicable under the TRMP.

Plan Change 69 was approved on 20 June 2020. The Plan Change updates the references and relationships between the old TDC Engineering Standards and the new Nelson Tasman Land Development Manual (NTLDM). It has been noticed that recently Tasman District Council has updated NTLDM 2019 with NTLDM 2020.

It should also be noted that recent central government has provided direction to Councils to remove parking requirements from their respective District Plans. This was done by way of a National Policy Statement for Urban Development (NPS UD).

**Table 2** below provides a statement of compliance against the relevant requirements set out in Section 16.2.

RULE	REQUIREMENT	DISCUSSION	COMPLIANCE
16.2.2.1	<b>Permitted Activities (Land Use – Vehicle Access Considerations)</b> Any land use is a permitted activity that may be undertaken without a resource consent, if it complies with the following conditions:		
<b>16.2.2.1 - Access and Vehicle Crossings</b>			
(a)	<i>The site of the activity is provided with an access and crossing, laid out and constructed in accordance with the matters listed in Figure 16.2A.</i>  <i>Note that Figure 16.2A now refers to the NTLDM 2019.</i>	Figure 16A refers to the NTLDM 2019 and the following:  General 4.10.2.1 (a) – (e), 4.10.2.3 and 4.10.2.4 – 4.10.2.8.  Higher speed environments 4.10.2.2.  Grade and gradient design 4.10.3.2 – 4.10.3.4.  Spacing 4.10.2.3 and 4.10.7.  Tracking and turning 4.10.6.  Sight distances 4.10.4.	<b>Refer to the NTLDM Table (Table 3)</b>
(b)	<i>Visibility from the access and crossing complies with 4.10.4.1 and 4.10.4.2 of the Nelson Tasman Land Development Manual 2019.</i>	Refers to the NTLDM 2019.	<b>Refer to the NTLDM Table (Table 3)</b>

(c)	<i>The design of the access and crossing complies with Figure 4-11 of the Nelson Tasman Land Development Manual 2019.</i>	Figure 4-11 refers to treatments associated with footpaths and public road.  There are no footpaths along Green Lane, so this requirement does not apply.	N/A
(i)	<i>Where a vehicle crossing from an arterial or distributor road gives access to a car parking area containing more than 20 spaces, a queuing area at least 15 metres long is provided for vehicles entering the site.</i>	Access to the development site is from Green Lane which is a local road.	N/A
(j)	<b>On-site Turning</b>  <i>On-site manoeuvring space is provided on any site for the largest class of vehicle likely to need access to the site on a regular, frequent or predictable basis, so that a vehicle does not need to reverse to or from any road.</i>	All vehicle turning will be contained within the new development.	Complies
(i)	<i>Any gate is hung to open into the site, and is set back sufficiently to ensure that the largest class of vehicle likely to need access to the site on a regular, frequent or predictable basis can be stopped off the road carriageway while the gate is being opened or shut.</i>	There are no gates proposed for the development.	Complies

#### 16.2.2.3 - Provision for Parking and Loading

(b)	<b>Frontage to Unformed Legal Roads</b>  <i>Vehicular access to the site of any activity is by formed legal road, or by an existing right-of-way or other legally enduring instrument over another property.</i>	All access will be from Green Lane which is a legal road.	Complies
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#### 16.2.2.3 - Provision for Parking and Loading

(b)	<i>The activity does not use parking spaces on another site, except where the title of the site of the activity and the title of the site on which the parking for that activity is provided, are amalgamated or otherwise encumbered so that one site cannot be disposed of independently of the other.</i>	All parking is located on the site.	Complies
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(c)	<p>Parking spaces, of at least the number specified in Figure 16.2C, are provided at all times within the net area of the site.</p> <p><u>Industry</u></p> <p>One space per 50 m2 GFA</p> <p><u>Office</u></p> <p>One space per 35 m2 GFA</p>	<p>The development consists of an existing residential home, and it is proposed to construct a 600 m<sup>2</sup> storage shed which will have an office in it.</p> <p>The residential home will require two car parks under the current TRMP.</p> <p>Part of the residential home will also be used as an office which would require around two car parks (based on 70 sqm of office area).</p> <p>The construction of new homes is considered to be an industrial activity. The TRMP requirement based on the new storage shed is 12 spaces. Note that there will be a small office in this building which has been included in the industrial calculation.</p> <p>Overall, the TRMP parking requirement is considered to be 16 spaces (2+2+12).</p> <p>The development plan shows 20 spaces on the site. Noting that there are large areas for any overflow parking if required.</p> <p>The development easily meets the TRMP requirements.</p> <p>As noted above the NPS UD has required the removal of parking requirements for the District Plans.</p>	<p><b>Complies</b></p> <p>See Assessment of Effects</p>
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**Size of Parking Spaces**

(e)	<p>Any required parking space and associated manoeuvring area (other than for residential activities) is designed to accommodate a 90 percentile design motor car in accordance Schedule 16.2A.</p>	<p>All parking spaces can easily comply with the design vehicle and manoeuvring requirements of the TRMP and/or the widely accepted parking standard AS/NZS 2890.1.</p>	<p><b>Complies</b></p>
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**Provision for Loading**

(g)	<p>Any non-residential activity contains a loading area for vehicles servicing the activity.</p>	<p>Trucks are able to enter, park and exit the site.</p>	<p><b>Complies</b></p>
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(h)	Any loading area must not be less than 6 metres x 3.5 metres x 2.6 metres.	Loading areas meet the size requirements of the TRMP.	<b>Complies</b>
(i)	Any industrial or commercial activity, where the access frontage road is an arterial, distributor or collector road, contains a loading area with on-site turning for at least a 90-percentile truck as defined in Schedule 16.2A.	Green Lane is a local road and therefore this requirement does not apply.  However, all turning is provided on the site.	<b>N/A</b>
<b>Cycle Parking</b>			
(j)	Cycle parking laid out in accordance with Schedule 16.2B is provided on the site where more than 10 carparking spaces are required to be provided on site. One cycle park is to be provided for every 10 carparking spaces required.	No specific cycle parking has been identified at this stage.  There is room on the site for cycles to be parked should there be a need.	<b>Complies</b>
<b>Parking for People with Disabilities</b>			
(k)	A carparking area must include space for people with disabilities.	There are two accessible spaces proposed for the development.	<b>Complies</b>
(l)	Car parking for people with disabilities is located as close as practicable to the activity or building entrance. Each space should be on a level surface and be clearly signed.	Accessible spaces are on flat land and located next to the existing building.	<b>Complies</b>
<b>Surface of Parking Areas</b>			
(m)	The surface of any parking area for any permitted activity in the Rural 1 zone is formed to an all-weather surface standard and spaces marked out if the number of car parks required for the activity exceeds four.	The car park surface will be formed to an all-weather standard. It is proposed not to mark the car parks but can be if required to do so.	<b>Can Comply</b>  See Assessment of Effects

**Table 1: Tasman Resource Management Plan Standards Compliance Table**

As shown, it has been assessed that there are no areas of non-compliance for the proposed development, noting that the assessment of effects against the NTLDM 2020 is provided below.

**Table 2** below provides a statement of compliance against the relevant requirements referenced in the TRMP Section 16.2 that are set out in the NTLDM. The TRMP specifically references the following sections of the NTLDM.

- Sections 4.10.2.1 (a) to (e)
- Section 4.10.2.3
- Sections 4.10.3.2 to 4.10.3.4
- Section 4.10.4
- Section 4.10.6
- Section 4.10.7

These sections are set out in the table below, along with discussion and compliance.

<b>Private Access - Section 4.10.2</b>			
Section 4.10.2.1	Private access must meet the requirements contained within a) through to e):		
a)	<i>Be Designed in accordance with the minimum specifications in Table 4-13</i>	Table 4-13 does not have a maximum vehicle crossing width.  The proposed vehicle crossings are 10 metres for the western crossing, three metres for the central crossing and eight metres for the eastern crossing.  All provisions of Table 4-13 are met by the development.	<b>Complies</b>
b)	<i>Only serve up to six commercial or industrial units</i>	The industrial activity is served by one vehicle crossing.  The residential/office activity is served by two crossings.	<b>Complies</b>
c)	<i>Give access to the lower ranked road if the site has more than one frontage.</i>	The site only has access to and from Green Lane.	<b>Complies</b>
d)	<i>Not create a shorter through-route alternative.</i>	There is no shorter through route provided by the development.	<b>Complies</b>
e)	<i>Intersect with the carriageway at an angle between 75 and 105 on unclassified roads</i>	Green Lane is a local road and is unclassified. The site accesses for the site are at 90° to the legal road.	<b>Complies</b>
Section 4.10.2.3	<i>Not more than one crossing is provided per site. Except to facilitate on-site turning and a one-way traffic flow in Commercial and Industrial zones through a site fronting a road with a speed limit of 50 kilometres per hour or less, provided there is at least 7.5 metres between accesses on the same road frontage,</i>	The proposed development will have three vehicle crossings providing for the three different parts of the development.  The eastern crossing provides exclusive access to the industrial activity on the site. Staff, delivery of goods and the removal of new tiny homes will use this access.	<b>Does not comply</b>

	<i>and one access is marked "in" and the other "out".</i>	The central crossing provides access to the rear of the residential building and the construction yard.  The eastern crossing is exclusively for visitors to the site.	
Section 4.10.3.2	<i>The maximum gradient of an access ramp for the first 6m from the property boundary line will be 1-in-20 (5%).</i>	The gradients for the accesses will meet these requirements.	<b>Complies</b>
Section 4.10.3.3	<i>On roads where the footpath is located against or close to the kerb and where the target speed environment is 40km/h or lower, vehicle crossings will be designed with a mountable kerb.</i>	There is no footpath along Green Lane.	<b>N/A</b>
4.10.4	<i>The minimum sight distance that must be available from any vehicle access point along the frontage road is shown in Table 4-14.</i>	The site accesses for the development will meet the sight distance requirements for the operating speed.	<b>Complies</b>
4.10.6	Section 4.10.6.2 <i>Tracking paths and turning circles on private land will be provided in accordance with AS/NZS 2890.1 "off-street carparking" 2004.</i>	The turning needs for light vehicles easily meets the requirements set out in the NTLDM.  Tracking needs are also provided for larger vehicles for the main western access.	<b>Complies</b>
	Section 4.10.6.3 <i>Vehicle access points must be located so that no part of the access, nor tracking path crosses any part of another site.</i>	None of the accesses or tracking cross over adjacent properties.	<b>Complies</b>
4.10.7	<i>No part of a vehicle crossing shall be closer to a road intersection than the distances permitted in Table 4-15.</i>	The vehicle crossings easily meet the required 30 metre separation distance from Queen Victoria Street.	<b>Complies</b>

**Table 2: NTLDM 2020 TRMP Reference Compliance Table**

As shown the development can meet all of the referenced requirements from the TRMP to the NTLDM except for the number of vehicle crossings. An assessment of the effects of the development along with analysis of the non-compliance is provided below.

## 5. Assessment of Effects

This section looks at the proposal and the ability of the existing road layout to accommodate the development. The key matters that are likely to generate effects will relate to areas of non-compliance with the TRMP.

### 5.1 Traffic Generation

The traffic generation for the site once fully operational will consist of staff movements, delivery vehicles and the removal of the completed homes.

The construction of the tiny homes will involve around thirty staff that will be on-site at different times depending on the phase of the construction of the homes. Staff will include various trades, builders and office management.

The expected number of movements associated with staff movements is less than 80 per day, with most of the traffic coming in during the morning and leaving in the evening.

It is expected that there will be around three trucks per week delivering goods and material for the construction of the tiny homes.

Around once a week a tiny home will be removed from the site. It should be noted that the building is removed by a ute and trailer and does not require an over dimension permit.

The traffic movements associated with the development can be accommodated on the adjacent road network with no noticeable effects on other road users.

### 5.2 Site Access

As set out in the Compliance Table 2 there is a non-compliance with the TRMP which relates to the number of vehicle crossings for the development. The maximum number of crossings for a site is one and the development will have three crossings.

The development has specifically considered the vehicle access arrangements and seeks to separate functions associated with the construction, residential and office components of the activity. This has led to the three vehicle crossings as proposed.

The effects associated with multiple vehicle crossings usually relates to the loss of on-street parking, the interaction with pedestrians using footpaths and the interaction of vehicles moving along a road.

As noted above there are no footpaths along Green Lane and therefore pedestrians will not be adversely affected by the additional vehicle crossings.



There is also no on-street parking demand along Green Lane and therefore there are no adverse effects on the parking environment. The activity also easily provides for its needs within the development site.

The number of vehicle movements along Green Lane is very low and therefore any conflicts with existing users is low. There are also excellent sight distances from the site access points and along Green Lane that will minimise any effects on road safety and other road users.

### **5.3 Parking Supply and Layout**

The proposed development will meet all of its parking needs within the site. The provision of 17 spaces easily meets the TRMP parking requirements. More car parking is readily available on the large site should there be a need to accommodate more staff vehicles.

The parking layout easily meets the minimum requirements of AS/NZS 2890.1 which is a widely accepted parking standard. The parking layout will also meet the TRMP parking dimensional requirements.

The TRMP requires that the on-site car parks are marked. While this is possible for the all-weather surface of the parking area, due to the large area available is it considered unnecessary to provide this level of control.

However, if Council consider it necessary to mark the car parks, then this can be complied with.

### **5.4 Servicing and Loading**

All servicing and loading vehicles can be accommodated on the site and are able to enter and exit in a forward direction. Any effects of the servicing of the site are considered to be less than minor.

## **6. Conclusion**

The proposed development provides a purpose-built facility for the construction of tiny homes. The development complies with the various TRMP requirements including the NTLDM 2020 provisions, except for the number of vehicle crossings.

The assessment shows that the effects of the proposed three vehicle crossings will have no noticeable impacts on other road users. Any effects are less than minor.

All vehicles can enter and exit the site in a forward direction with on-site parking provided within the development. While the individual spaces are proposed not to be marked, there are large areas available on the site to accommodate the parking needs.

Overall, the proposed development will have no adverse impacts on other road users or the adjacent road network, with any effects being less than minor.

We are happy to provide any further clarification if required.

Regards



Gary Clark

Director

NZCE (Civil), REA, MIPENZ, CPEng