

# Evenden Road Energy Centre - Transportation Assessment Report

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Prepared for:  
Hamachek Holdings Limited

5<sup>th</sup> September 2025

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Project/File:  
310204299



## Revision Schedule

Revision No.	Date	Description	Prepared by	Quality Reviewer	Independent Reviewer	Project Manager Final Approval
0	28.08.2020	Draft	AH	MG	MG	MG
1	04.03.2025	Final Draft	NJ	JW	MG	MG
2	17.03.2025	Final for RC	NJ	JW	MG	MG
3	05.09.2025	Final	NJ	MG	MG	MG

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# Evenden Road Energy Centre - Transportation Assessment Report

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# 1 Introduction

Stantec has been commissioned by Hamachek Holdings Limited to examine and describe the transportation effects associated with a proposed energy centre (“Site”) located at 160 Evenden Road, in the Hastings district.

The proposed plans provide for a full-service energy centre, with eight fuel pump islands to accommodate light vehicles and two fuel pump islands for trucks. In addition, the Site will include a hydrogen fuelling compound, a cafeteria, service station shop, outdoor seating space, truck parking areas, seasonal fruit courtyard, and an effluent dump.

A total of 62 on-site parking spaces will be provided for light vehicles, inclusive of four electric vehicle charging stations. Twelve dedicated truck parking spaces and three long vehicle/camper parking spaces will also be provided.

This Transportation Assessment Report (“TAR”) forms part of the resource consent application for the development of the Site and has been progressed with due regard to the rules and standards of the Hastings District Plan<sup>1</sup> (“District Plan”) and other relevant industry standards. The TAR sets out and describes the following:

- the Site location and the existing transportation environment near the Site;
- existing road safety records near the Site;
- the development proposal;
- an assessment of the relevant transportation and signage provisions in the District Plan;
- an assessment of effects resulting from the proposal, including in relation to traffic movements and distribution; and
- recommendations regarding mitigation.

The report concludes with a summary of the assessments. It is demonstrated that with the adoption of the proposed mitigation measures, the proposal is appropriate from a transport perspective.

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<sup>1</sup> Hastings District Plan (Fully Operative as of 12<sup>th</sup> July 2024)



## 2 Existing Transport Environment

### 2.1 Site Location and Access

The Site is located at 160 Evenden Road and has frontage to both Evenden Road and the Hawke's Bay Expressway ("SH2"), as illustrated in Figure 1. The Site is zoned as 'Plains Production' under the District Plan.



Figure 1: Site Location

The Site is positioned on the northern corner of the Evenden Road / SH2 roundabout. Existing vehicle access to the Site is via Evenden Road, which currently serves a residential dwelling to the rear of the property and horticultural uses on the front part of the Site. Existing buildings will be removed from the Site to enable development to proceed. No vehicle access is provided from SH2.

Relative to the Site, Napier city is located in the north-east direction, Hastings is in the south-west direction, with SH2 providing access between the cities, as part of a longer strategic regional route serving travel to, from and within the Hawke's Bay.

As shown in Figure 1, the Delegat Wine Estate is located opposite the Site. Access to the winery for staff and visitors is located off Evenden Road, primarily involving light vehicle movements. A separate access on Ormond Road accommodates heavy vehicle movements to and from Delegat Wine Estate.



## 2.2 Local Road Network

The location of the Site within the local road hierarchy context, as defined by the District Plan, is shown in Figure 2 below.

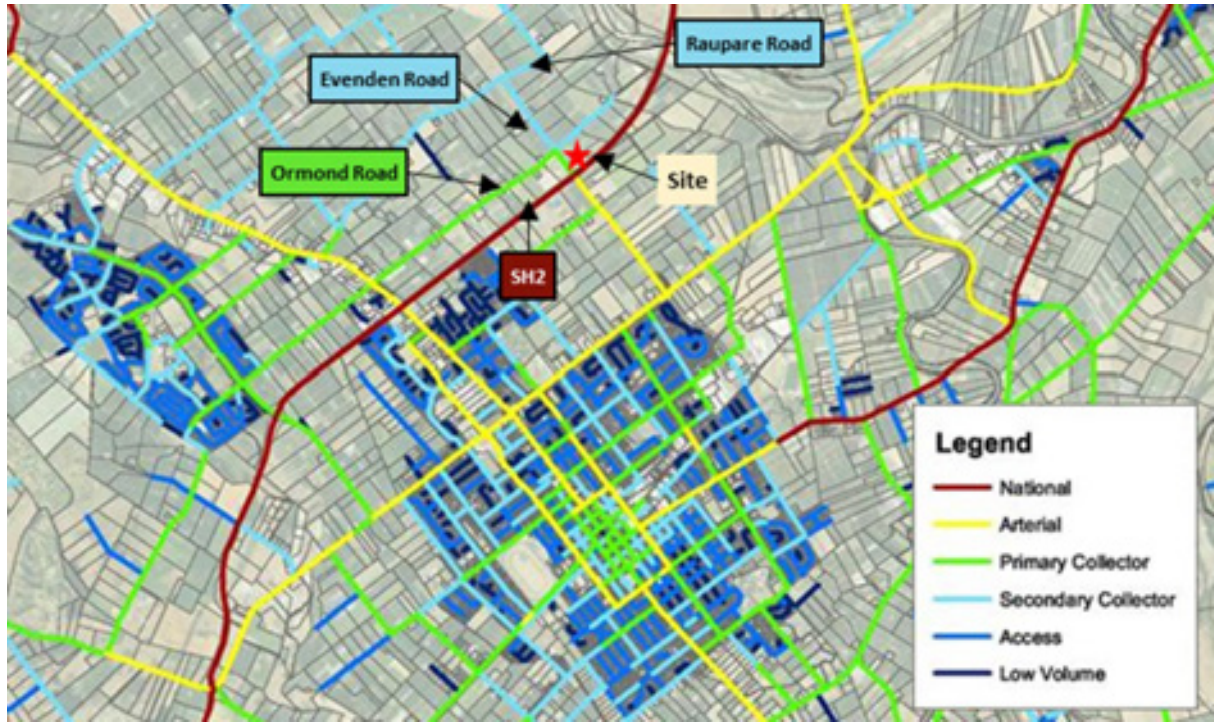


Figure 2: Road Hierarchy (Hastings District Council)

SH2 is classified as a 'National Route' and operates with a posted speed limit of 100km/h. It is a limited access route, providing no direct access to private property along its length. The road is formed with a traffic lane in each direction, expanding to dual lanes at the Evenden Road roundabout.

Evenden Road is classified as a 'Primary Collector' adjacent to the Site and is subject to an 80km/h speed limit.

In the vicinity of the Site, Evenden Road has a straight and level alignment. It has a rural form with an average sealed carriageway width of 7.3m within a legal road reserve of 20m. There are grassed berms each side leading to shallow roadside drains and power transmission lines along the Site side of the road (positioned some 1.5m from the Site boundary). The road carriageway has two single traffic lanes, with a marked centreline and edge-lines.

The intersection of Evenden Road and SH2 is formed as a roundabout. All approaches (aside from the Evenden Road north approach) and departures at the roundabout have two lanes each as shown in Figure 3. The roundabout has two circulating lanes. As set out later in this report, it is proposed that some modifications be made to these existing lane arrangements to complement the proposed Site access arrangements, and which themselves are considered to bring safety benefits.





Figure 3: Evenden Road / SH2 Roundabout layout

## 2.3 Existing Traffic Volumes

Traffic counts for SH2 were sourced from Waka Kotahi NZ Transport Agency’s (“NZTA”) traffic data website TMS, in a position east of Evenden Road. Traffic data for a typical week in February 2024 (the most recent available data) was analysed to produce the average weekday and Saturday traffic profiles shown in Figure 4 below.

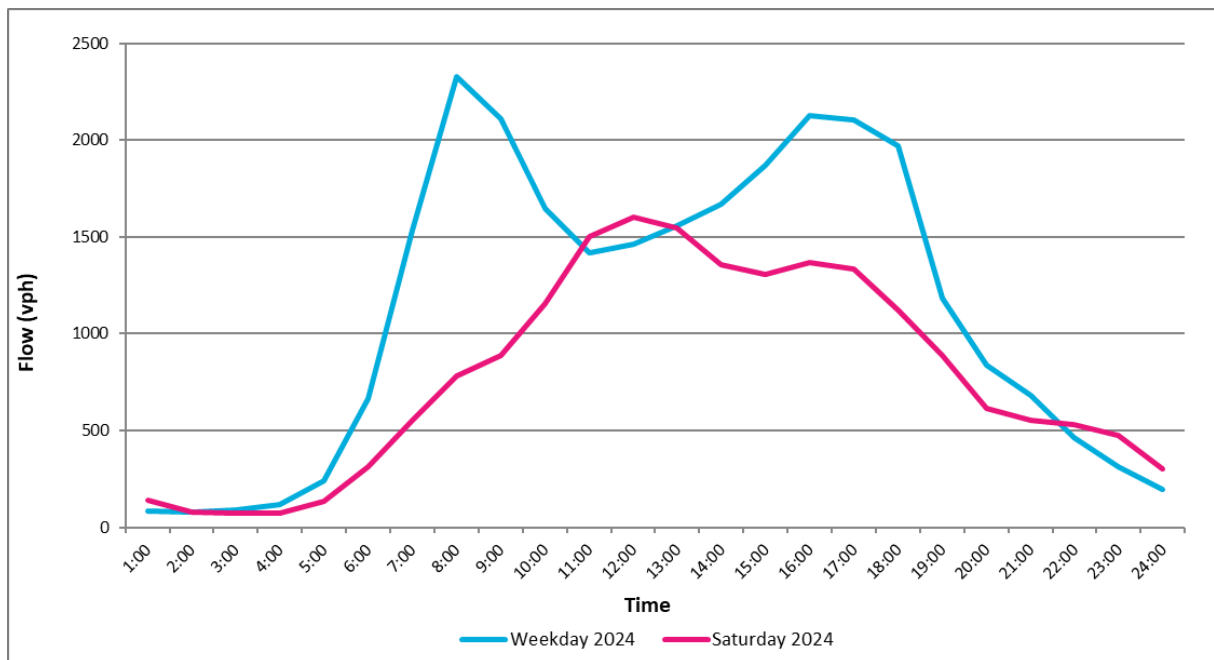


Figure 4: Hourly flow distribution on SH2 (south of Links Road) – February 2024



**Evenden Road Energy Centre - Transportation Assessment Report**  
 2 Existing Transport Environment

These records show that weekday daily two-way volumes on SH2 involve around 24,000 vehicles per day (“vpd”), with peak hour volumes of about 2,300 vehicles per hour (“vph”) at 8.00am and about 2,100 vph at 5.00pm, representing typical weekday commuter journeys. On weekends, a peak volume of about 1,600 vph was recorded at 1.00pm on a Saturday.

By comparison, Evenden Road carries about 4,400 vpd along the section of this road fronting the Site between Ormond Road and SH2.

These flows are consistent with the status of these roads in the defined road hierarchy.

A turn count survey at the Evenden Road / SH2 Roundabout was commissioned by NZTA on Thursday 27<sup>th</sup> February 2025. This traffic count data has been made available by NZTA, and records peak hour volumes as summarised in Table 1.

*Table 1: Surveyed peak hour intersection volumes at Evenden Road / SH2 – February 2025*

Approach	Movement	AM			IP			PM		
		Car	Truck	Total	Car	Truck	Total	Cars	Truck	Total
Evenden Road North	<i>Left</i>	36	1	37	33	5	38	60	1	61
	<i>Through</i>	79	5	84	52	6	58	134	5	139
	<i>Right</i>	8	2	10	5	2	7	17	0	17
	<b>Total</b>	<b>123</b>	<b>8</b>	<b>131</b>	<b>90</b>	<b>13</b>	<b>103</b>	<b>211</b>	<b>6</b>	<b>217</b>
SH2 East	<i>Left</i>	407	9	416	239	15	254	442	12	454
	<i>Through</i>	696	77	773	385	89	474	488	68	556
	<i>Right</i>	50	3	53	30	1	31	27	4	31
	<b>Total</b>	<b>1153</b>	<b>89</b>	<b>1242</b>	<b>654</b>	<b>105</b>	<b>759</b>	<b>957</b>	<b>84</b>	<b>1041</b>
Evenden Road South	<i>Left</i>	187	34	221	73	28	101	146	17	163
	<i>Through</i>	99	13	112	45	5	50	58	3	61
	<i>Right</i>	341	18	359	212	16	228	338	5	343
	<b>Total</b>	<b>627</b>	<b>65</b>	<b>692</b>	<b>330</b>	<b>49</b>	<b>379</b>	<b>542</b>	<b>25</b>	<b>567</b>
SH2 West	<i>Left</i>	15	4	19	14	1	15	7	0	7
	<i>Through</i>	516	108	624	416	84	500	593	43	636
	<i>Right</i>	147	27	174	92	27	119	241	26	267
	<b>Total</b>	<b>678</b>	<b>139</b>	<b>817</b>	<b>522</b>	<b>112</b>	<b>634</b>	<b>841</b>	<b>69</b>	<b>910</b>

This data indicates that two-way traffic volumes on SH2 east of Evenden Road is around 2,300 vph in the morning peak, 2,100 vph in the evening peak, and 1,500 vph during the midday peak. This is consistent with the TMS data from 2024. Two way traffic volumes on Evenden Road adjacent the Site are around 315 vph in the morning and evening peak, and 200vph during the midday peak

These volumes have been used to develop a base year traffic model, and to test the effects of the proposed roundabout lane modifications and Site traffic, as detailed later in Chapter 6.



## 2.4 Safety History

A crash history search has been completed using the NZTA Crash Analysis System (“CAS”) for the most recent full five-year period, between (and including) 2020-2024. This search was undertaken to understand road safety patterns in the area and to determine whether there are any underlying safety concerns that need to be considered in relation to the proposal.

The search area included the section of Evenden Road adjacent to the Site, and extended 250m from the development site along Evenden Road and SH2, and at the roundabout itself. This search area is illustrated in Figure 5.

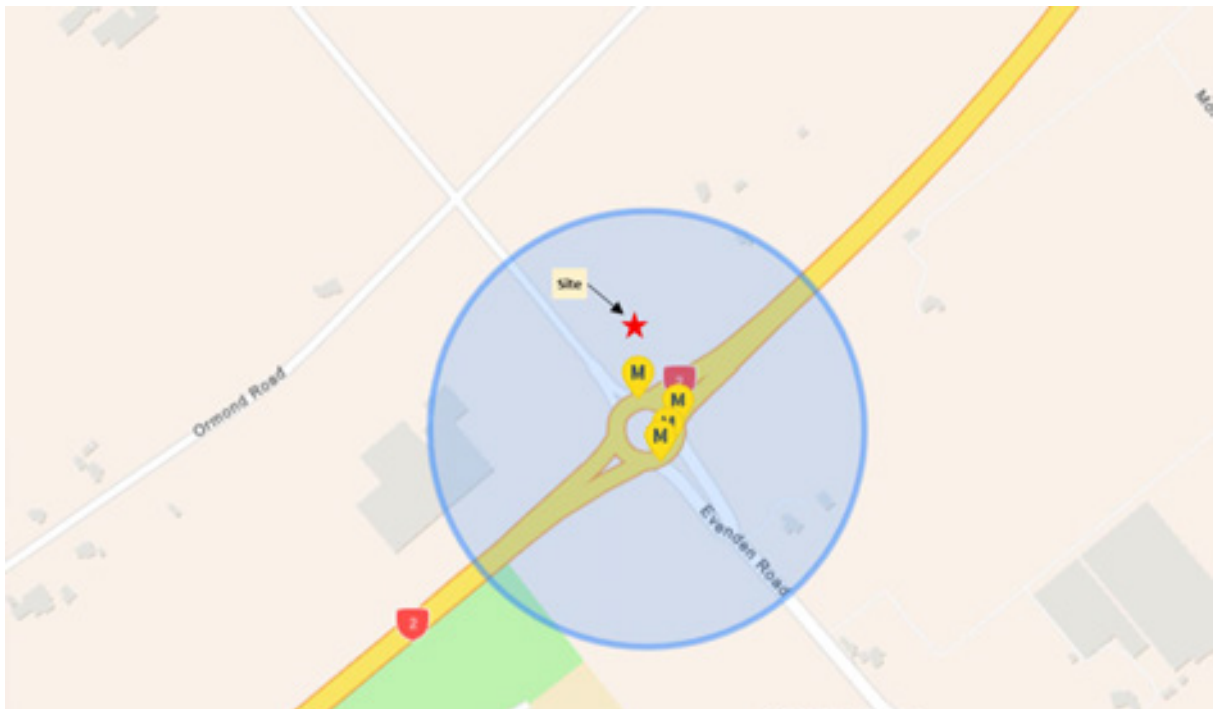


Figure 5: Crash History 2020-2024

There is no record of any crashes having occurred along the Site frontage of Evenden Road nor the Delegat Winery access on the opposite side of the road.

A total of four minor injury crashes have been recorded within this search extent and period. These crashes have involved an inexperienced driver losing control, illegal speeding and lane changing, an unlicensed driver rear-ending a waiting vehicle, and a truck losing control due to high speed.

Accordingly, the crash record does not indicate any existing safety concerns that may be exacerbated by the Site.



## 3 Development Plans

### 3.1 Existing Site Use

The Site currently accommodates a residential dwelling at its rear. The larger land balance is currently being used for horticultural purposes.

### 3.2 Proposed Development

The proposal seeks to develop the Site to provide for a full-service energy station, as illustrated in Figure 6; a copy of the development plans is included in Appendix A.

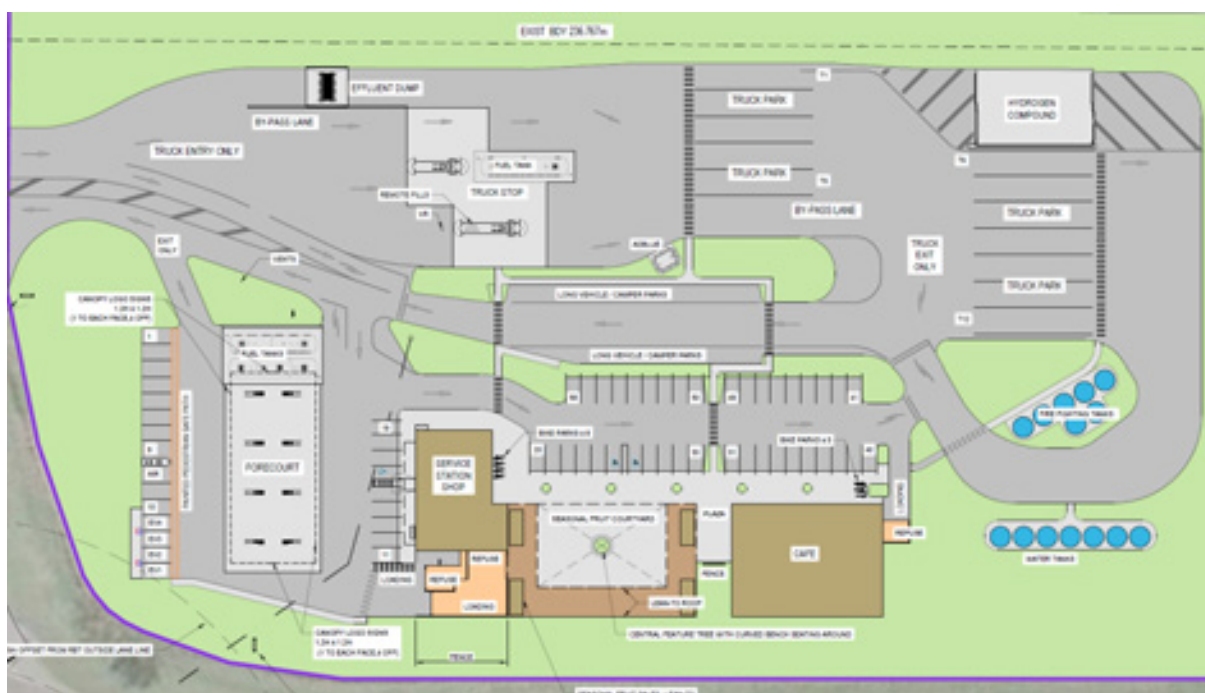


Figure 6: Proposed Site Plan (plans provided by Technitrades Architecture, dated 13.03.2025)

These plans show the following:

- Four pump islands (i.e. eight fuelling lanes) to accommodate light vehicles;
- Two pump islands (i.e. four fuelling lanes) to accommodate trucks;
- A truck bypass lane, to provide for trucks to move through the Site;
- An effluent dumping station;
- A hydrogen fuelling compound;
- Stormwater detention pond;
- Cafeteria and outdoor seating spaces;
- A seasonal fruit courtyard;
- Service station shop; and
- On-site parking spaces for cars, trucks and bicycles.



The cafeteria and shop will be ancillary to the main refuelling activity of the Site, serving customers arriving for that purpose, and as such will not be destination activities in their own right. The proposed seasonal fruit courtyard has been modelled on the existing 'The Fruit Shop' in Hastings. It is anticipated that trips to this activity will comprise a combination of users of the main refuelling activity, as well as specific destination customers. Further assessment of this activity is provided in Section 6.

Vehicle access to the Site will be provided through a single point of access on Evenden Road via an approximately 28m wide vehicle crossing. This width has been designed to accommodate inbound and outbound turning movements clear of each other, discussed further in Section 3.3 below.

Internal circulation within the Site is available through a mixture of one-way and two-way accessways. Circulation roadway widths are between 3.5m and 7.5m, with widening in some locations to accommodate turning truck movements.

Pedestrian footpaths and marked crossing points are included throughout the Site between parking and fuelling spaces, and the service station shop / cafeteria, to provide safe walking routes for pedestrians.

A total of 62 on-site parking spaces will be provided for light vehicles, of which three spaces will be marked as accessible spaces, and four for electric vehicles supplemented with charging stations. Some of the on-site parking spaces will be utilised by staff, and these will be marked accordingly. A total of 13 bicycle parking spaces will also be provided.

The light vehicle parking spaces have a width of 2.6m and length of 5.0m (noting that some spaces have a marked length of 4.4m but provide an unobstructed 600mm end overhang). The electric vehicle parking spaces are marked at a length of 5.0m as vehicle end overhang will be restricted due to the presence of charging stations. Parking aisle widths serving light vehicle and electric vehicle parking spaces are at least 7.1m wide.

Twelve dedicated truck parking spaces and three long vehicle/camper parking space will also be provided. These spaces will have a width of at least 3m and a length of at least 20m.

Two refuse storage areas are located on-site, one adjacent to the service station shop and the second next to the cafeteria. These storage areas have an adjacent loading space, at least 3.5m in width, and lengths greater than 12.5m.

The Site has been purposefully designed to allow good separation between the pump islands and Evenden Road, to mitigate any potential for queue back during busier periods, and includes a dedicated internal circulation arrangement and 'relief' routes to ensure vehicles can circulate within the Site clear of vehicles queuing at the pumps.

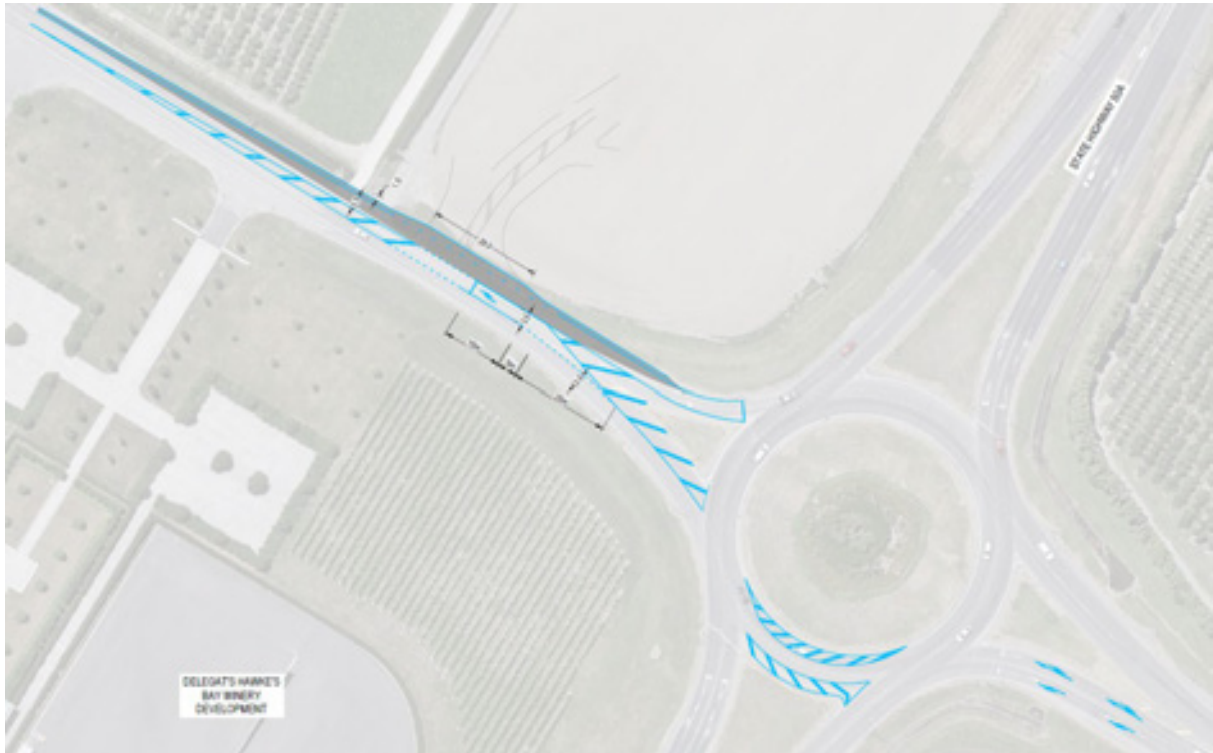
### **3.3 Access Arrangements**

Access to and from the Site is proposed on Evenden Road, approximately 75m from the limit line at the Evenden Road / SH2 roundabout. The proposed access will also be about 60m from the Delegat Wine Estate access on the opposite side of the road.

This proposed Site access is shown alongside a series of improvements, widenings and markings in Figure 7, with a larger scale plan also attached as Appendix B.

Appendix C includes a series of vehicle tracking plans that demonstrate the parameters for the Site access point on Evenden Road and internal circulation design.





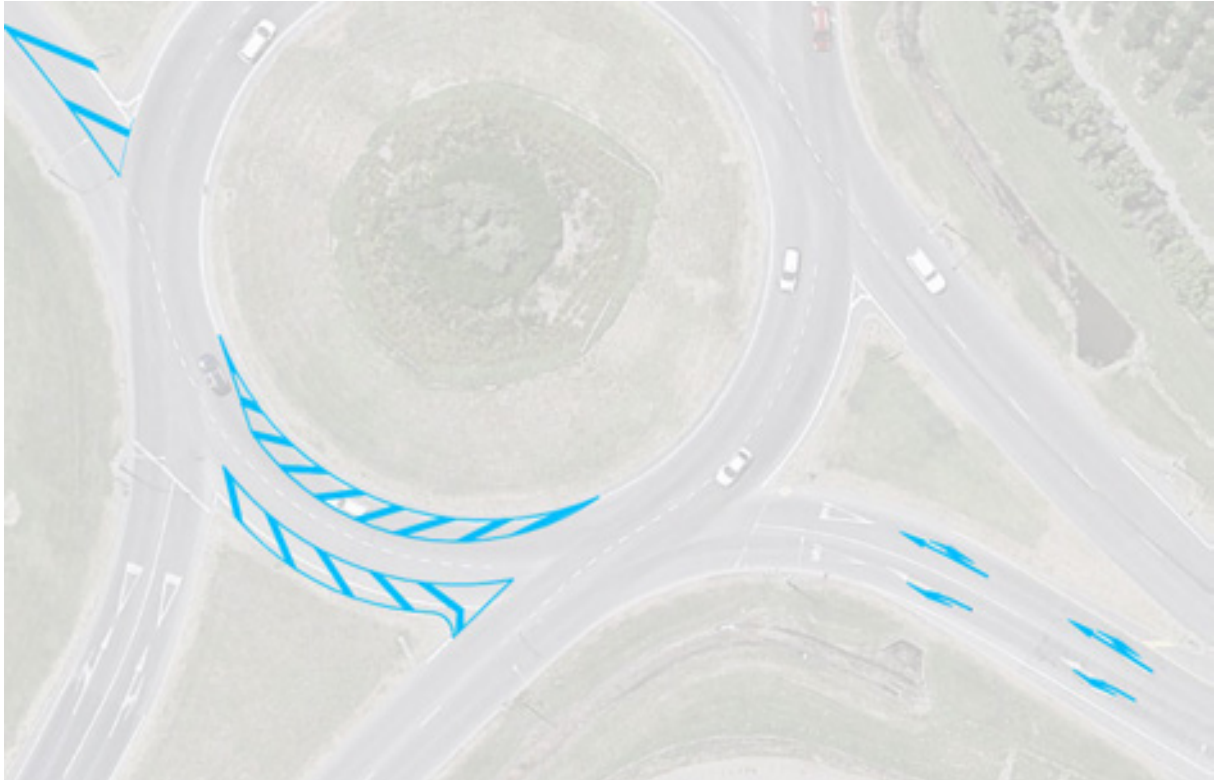
*Figure 7: Proposed Layout of Evenden Road and Site Access*

The proposed access and related improvements to Evenden Road have been designed based on Austroads Guide to Road Design Part 3: Geometric Design, with all widening achieved on the Site side of Evenden Road. The access form, location and width has been designed to accommodate the largest articulated truck, entering and exiting the Site simultaneously, as shown by the vehicle tracking plans included in Appendix C.

The section of Evenden Road adjacent to the Site has been redesigned with widening towards the Site, to accommodate a 3.5m wide painted median and right-turn bay and a 3.5m wide nearside traffic lane. The access is configured with a vehicle crossing width of around 28m at the boundary, to accommodate vehicle tracking in the manner shown in Appendix C, specifically to ensure that the largest trucks can make their turns without encroaching in to the opposing traffic lane on Evenden Road.

As part of the overall improvements proposed, and in order to provide for the safe arrival of vehicles towards the Site from SH2, it is proposed that the existing short 2-1 merge from the roundabout be removed. This can be achieved by way of line marking changes on Evenden Road and through the circulation area, as shown in Figure 7 and Figure 8.





*Figure 8: Proposed Lane Configuration Changes on South-east approach to SH2/Evenden roundabout*

The improvements involve a change from the current lane arrangement on the south-east approach to the roundabout from a left lane (left / through) and right lane (right turn only) configuration, to the proposed arrangement of left lane (left turn only) and right lane (through / right turn). This change in lane arrangement would then allow a single circulation lane through the roundabout and single exit lane on Evenden Road towards the Site, with anticipated safety improvements.

A traffic modelling assessment of these changes is included in Section 6.5 and shows that it presents a good solution for Evenden Road and the roundabout.

## 4 Regional Context

### 4.1 Hawke's Bay Regional Land Transport Plan

The Hawke's Bay Regional Land Transport Plan 2024-2034 ("RLTP") sets out how future investment is planned to be made to improve the land transport system, and how this may affect people, place and environment.

Within the RLTP, four-laning of the Hawke's Bay Expressway is proposed and ranked highly in terms of project prioritisation. The plan mentions the need to strengthen the connection between Hastings and Napier, with the Expressway forming the key transport spine for the region between these two cities as well as to the north and south. The RLTP states that four-laning the Expressway would provide necessary capacity improvements to accommodate for future growth, and increases the resilience of this corridor. It would also enable greater movement of people, freight, and emergency services, enabling regional economic development.

The RLTP highlights heavy freight as a key enabler and supporting service for the Hawke's Bay regional economy. It states the importance of new and emerging fuels, such as hydrogen, to support growth in this industry, and the opportunity to reduce carbon emissions.

It is clear that SH2 plays a key role within Hawke's Bay in terms of connectivity, resilience, freight movement and economic growth. This proposal supports these regional outcomes of future growth and efficient freight movements, by offering an energy centre and truck stop facility that is immediately adjacent to SH2 and in a location that is otherwise under-served by refuelling options and endorsed by the heavy transport industry, as set out in the application. Development of the Site in the manner proposed also encourages sustainability through provision of a truck hydrogen compound and electric vehicle charging options.

### 4.2 2024 Government Policy Statement on Land Transport

As part of the Government Policy Statement on land transport 2024 ("GPS 2024"), the Hawke's Bay Expressway was confirmed a part of the Government's Roads of National Significance ("RoNS") programme. This project is being delivered through a staged approach, with planning of Stage 1 (north of the Site between Taradale Road and Pākowhai / Links Road) underway and delivery anticipated by 2028. Planning for Stage 2 of the project (which covers the section of SH2 adjacent to the Site) is expected to begin later in 2025, with construction anticipated to be completed in the 2027-2030 National Land Transport Programme period. A summary of the various stages of the project is illustrated in Figure 9.

Again, the GPS 2024 and RoNS programme highlight the importance of SH2, with this proposal for an energy centre aligning well to support the functional needs of Expressway users.

An existing NZTA designation to provide for grade separation at Ormond Road / Morely Road of the Hawke's Bay Expressway works, crosses a small part of the Site near its northeastern boundary. The proposed development will not constrain this designation.



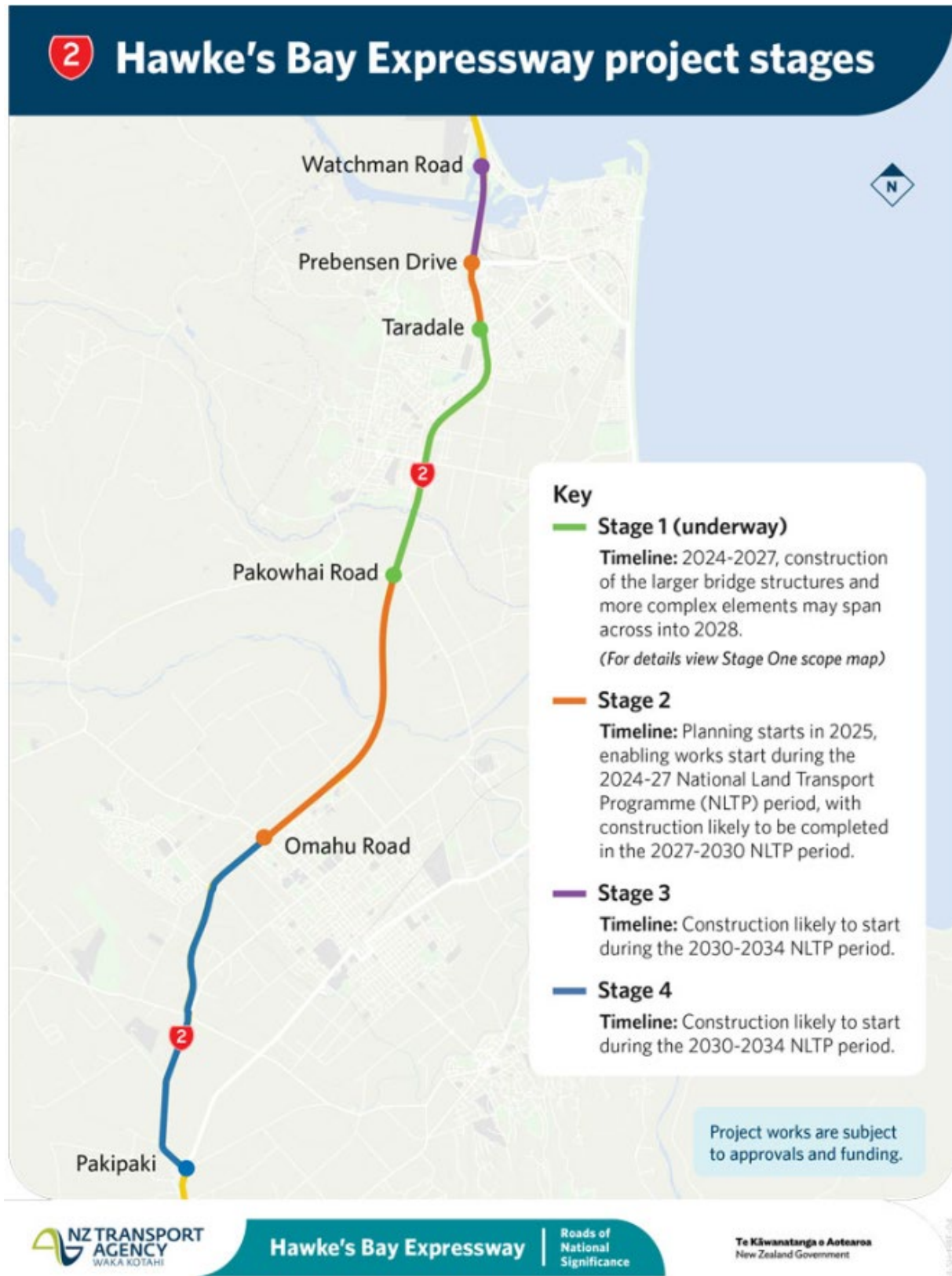


Figure 9: Hawke's Bay Expressway project stages (source: NZTA website)



## 5 District Plan Provisions

### 5.1 Transport Rules

The Site is zoned 'Plains Production' within the provisions of the District Plan. Section 6.2 - Plains Production Zone points to the provisions of Section 26.1 which relate to the requirements for Permitted Activities in respect of parking, servicing and site access. The proposed development is assessed against each of these relevant rules as set out in Table 2.

Table 2: District Plan Compliance Assessment – Transport and Parking

Rule	Description	Response
<b>Section 6.2 Plains Production</b>		
<b>6.2.5F – Traffic Sightlines, Parking, Access and Loading</b>		
6.2.5F	Activities shall comply with the provisions of <i>Section 26.1</i> of the District Plan on Transport and Parking.	Refer to below assessment of the rules and standards within <i>Section 26.1</i> .
<b>Section 26.1 Transport and Parking</b>		
<b>26.1.5 Rules</b>		
TP1	The Parking, Loading, and Access associated with an activity that meets the General Standards and Terms in <i>Section 26.1.6</i> and the Specific Standards and Terms in <i>Section 26.1.7</i> .	Activity Status – Permitted. Refer to the assessment below of <i>Sections 26.1.6</i> and <i>26.1.7</i> .
TP2	The Parking, Loading and Access associated with an activity that does not meet one or more of the General or Specific Performance Standards and Terms in <i>Section 26.1.6</i> and <i>26.1.7</i> .	Activity Status – Restricted Discretionary. Refer to the assessment below of <i>Sections 26.1.6</i> and <i>26.1.7</i> . The proposal is considered a 'Restricted Discretionary' activity.
<b>26.1.6 General Performance Standards and Terms</b>		
<b>26.1.6A Access</b>		
26.1.6A 1 Access to Property		
26.1.6A 1 (a)	Every owner or occupier shall provide a legal, safe and effective vehicular access to any activity undertaken on a site, and required parking or loading areas from an existing, formed legal road, to enable vehicles to enter the site, except where the site has Designated Retail Frontage (see <i>Appendix 30</i> ) or where the site is within the Flaxmere Commercial Zone.	<b>Complies.</b>
26.1.6A 1 (b)	There shall be a maximum of one vehicle crossing per property within the Residential Zone. Where a property is bordered by 2 or more the vehicle access to the property shall	<b>Complies.</b> Only one vehicle crossing is proposed to the Site, and this is from the lower category road (i.e. no access provided from SH2).



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	be from the lower category road. The category of the road will be determined by its Road Hierarchy status in <i>Appendix 69</i> or traffic volumes when hierarchy status is equal.	
26.1.6A 1 (c)	<p>The minimum legal widths for private access are contained in <i>Table 26.1.6.1-1</i> below. Private access to properties shall allow the safe passage from the edge of the road to the legal boundary of the lot for a single site or household unit. For two or more sites or household units or for any Right of Way, formation of the access to the activity undertaken on the site is required in compliance with <i>Table 26.1.6.1-1</i>.</p> <p><i>Table 26.1.6.1-2</i> sets out requirements for commercial, industrial and other activities. Minimum formed movement lane width for a Commercial activity in a Rural zone (incorporating the Plains Production Zone) is 2 x 2.75m lanes.</p> <p>Council's Engineering Code of Practice indicates a minimum formed lane width of between 2 x 2.75 and 2 x 3.5m for a rural area, noting that target operating speeds for roads with daily volumes greater than 1000 vpd are 70-100km/h.</p>	<p><b>Complies.</b> The minimum road width requirements within the District Plan <i>Table 26.1.6.1-1</i>, <i>Table 26.1.6.1-2</i>, and Council's Engineering Code of Practice do not provide a directly relatable land use as proposed in this energy centre development. However, the proposed internal circulation roads within the Site are at least 3.5m wide, and therefore meet both <i>Table 26.1.6.1-2</i> in the District Plan, and the Council's Engineering Code of Practice for a rural area (i.e. 3.5m wide formed lanes). Truck circulation roadways have been designed to accommodate the associated tracking of these vehicles, as shown in Appendix C.</p>
26.1.6A 1 (d)	<p>A property access which crosses the rail network does not constitute legal access. Sites which adjoin the railway line or designation shall provide an alternative access to a legal road which does not require a crossing of the railway line or designation</p>	N/A
<b>26.1.6A 2 Distance of Vehicle Accesses from Road Intersections</b>		
26.1.6A 2 (a)	<p><u>Residential, Industrial and Commercial Zones</u></p> <p>The distance that a vehicle access to any property may be sited from any Access Road intersection as defined in the Roding Hierarchy in <i>Appendix 69</i>, shall be a minimum of 15m or the extent of the property boundary whichever is the least.</p> <p>Where there are two adjacent accesses, vehicle crossings shall be offset from the legal property boundary (side boundary) by 1.5 metres.</p> <p>Vehicle access to any property shall not be sited within 30 metres of an intersection of a State Highway.</p>	N/A
26.1.6A 2 (b)	<p><u>Rural Residential, Rural, Plains Production and Special Character Zones</u></p> <p>Vehicle access to any property shall be sited a minimum of 100 metres from an intersection of a State Highway.</p>	<p><b>Does not comply.</b> The proposed vehicle access is positioned around 75m away from Evenden Road/SH2 roundabout. Refer to Section 6.3 for further assessment.</p> <p>(Restricted Discretionary Activity under Rule 26.1.5)</p>



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<b>26.1.6B Safe Sightline Distances</b>		
26.1.6B 1	<p>Intersections shall be located to ensure that Safe Sightline Distances are maintained.</p> <p>Note: For vehicle accesses fronting an Access, Collector or Arterial Route (as defined in the Rooding Hierarchy in Appendix 69) compliance with Austroads Standards is deemed an acceptable means of compliance.</p> <p>Austroads Part 4A Unsignalised and Signalised Intersections suggests an approach sight distance of 165m (100km/h and reaction time of 2 seconds), safe intersection sight distance of 248m (100km/h and reaction time of 2 seconds) and minimum gap sight distance of 97m (right-hand turn from minor road, critical acceptance gap - 5 seconds).</p>	<p><b>Does not comply.</b> Refer to Section 6.4 for further assessment.</p> <p>(Restricted Discretionary Activity under Rule 26.1.5)</p>
<b>26.1.6C Loading</b>		
26.1.6C 1 (a)(i)	<p><u>Provision of Loading Spaces</u></p> <p>Every owner or occupier who proposes to construct or substantially alter, reconstruct or add to a building on any site, or change the activity carried out on the site shall provide a Loading Space. The Loading Space shall provide for the suitable or efficient accommodation of any loading or fuelling of vehicles which are likely to arise from the use of any building or activity carried out on the site, except where a service lane is designated or provided, or where the site has Designated Retail Frontage (see <i>Appendix 30</i>). Separate Loading Spaces shall be provided for each occupier of the site if there are more than one. The Loading Space shall be additional to the parking required in <i>Table 26.1.6.1-4</i>.</p>	<p><b>Complies.</b> The proposed Site includes two dedicated loading spaces, one adjacent to the service station shop, and another next to the cafeteria.</p>
26.1.6C 1 (a)(ii)	<p>Every Loading Space, together with access, shall be designed so that it is not necessary to reverse vehicles either on to or off the street. The Loading Space shall not be stacked or located within vehicle manoeuvring areas.</p>	<p><b>Complies.</b> The proposed loading spaces are positioned so that vehicles do not need to reverse on to or off Evenden Road.</p>
26.1.6C 1 (a)(iii)	<p>The provision of a Loading Space in respect of any site may be made as part of the side and/or rear yard space, but not as part of the front yard space of that site.</p>	<p><b>Complies.</b> The proposed loading spaces are not located as part of the front yard space of the Site.</p>
26.1.6C 1 (a)(iv)	<p>The method of loading shall ensure that the footpath or access to adjacent properties shall remain clear at all times and ensure traffic safety is maintained on the roads.</p>	<p><b>Complies.</b> The proposed loading spaces are away from footpaths, and therefore these will remain clear at all times.</p>
26.1.6C 1 (b)	<p><u>Design of Loading Spaces</u></p>	<p><b>Complies.</b> Refer to assessment of 26.1.6C 1 (b)(i-iii).</p>



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	The design of Loading Spaces and the layout adopted will depend on the area and shape of the land available, the purpose for which loading is required, and the functional design of the building. The layout shall be of sufficient size to accommodate the following design vehicles:					
26.1.6C 1 (b)(i)	Activities requiring loading facilities or servicing from heavy vehicles: A "Single Unit Bus / Truck" as defined in the "Austroads Design Vehicles and Turning Path Templates Guide" AP-G34-13, Austroads, 2013 - refer to <i>Appendix 72</i> for the dimensions of this vehicle.  The dimensions of this vehicle are 2.5m wide and 12.5m long.	<b>Complies.</b> There is sufficient space in the loading space adjacent to the service station shop to accommodate a truck of this size (2.5m x 12.5m). It is anticipated that trucks no larger than an 8m medium rigid truck will be used for loading / waste collection at the smaller loading space adjacent to the café. Vehicle tracking included in Appendix C demonstrates that there is sufficient space for truck manoeuvring.				
26.1.6C 1 (b)(ii)	Where articulated vehicles or trucks and trailers are anticipated: A "Prime Mover and Semi-Trailer" as defined in the "Austroads Design Vehicles and Turning Path Templates Guide" AP-G34-13, Austroads, 2013 - refer to <i>Appendix 72</i> for the dimensions of this vehicle.  The dimensions of this vehicle are 2.5m wide and 19m long.	<b>Complies.</b> Vehicle tracking included in Appendix C demonstrates that a truck of at least this size (19.5m semi-trailer) can manoeuvre around the truck stop portion of the Site, which accommodates the requirement for re-fuel tankers.				
26.1.6C 1 (b)(iii)	The following minimum dimensions are provided as a means of compliance:  Warehouses, Transport depots, bulk stores and similar must have a minimum length of 20 metres and a minimum width of 3 metres.  Retail activities, offices, manufacturing premises and similar must have a minimum length of 8.5 metres and a minimum width of 3 metres.  Non-residential activities such as day care centres and similar must have a minimum length of 5.5 metres and a minimum width of 3 metres.	<b>Complies.</b> The proposed loading spaces serve retail activities and are at least 3.5m wide and 12.5m long.				
<b>26.1.6D Parking</b>						
<b>26.1.6D 1 Provision of On-Site Parking</b>						
26.1.6D 1	The District Plan no longer contains provisions that require on-site vehicle parking, with exception to those included in the general and specific performance standards of this section of the Plan.	<b>N/A</b>				
<b>26.1.6D 3 Parking Spaces for People with Disabilities</b>						
26.1.6D 3 (a)	A minimum of accessible car parking spaces shall be provided according to the table below: <table border="1" data-bbox="319 1921 813 2004"> <thead> <tr> <th>Total number of car parks</th> <th>Number of accessible spaces</th> </tr> </thead> <tbody> <tr> <td>1-20</td> <td>Not less than 1</td> </tr> </tbody> </table>	Total number of car parks	Number of accessible spaces	1-20	Not less than 1	<b>Complies.</b> The proposed development provides 62 on-site parking spaces, of which three are marked as accessible car parking spaces.
Total number of car parks	Number of accessible spaces					
1-20	Not less than 1					



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	<table border="1"> <tr> <td>21-50</td> <td>Not less than 2</td> </tr> <tr> <td>For every additional 50 car park spaces</td> <td>Not less than 1</td> </tr> </table> <p><i>It is noted that Appendix 71 states that 2 disabled parking spaces shall be provided for up to 100 total spaces provided. However, the District Plan rules on parking do not make reference to this Appendix anymore.</i></p>	21-50	Not less than 2	For every additional 50 car park spaces	Not less than 1	
21-50	Not less than 2					
For every additional 50 car park spaces	Not less than 1					
<b>26.1.6D 5 Design and Construction of Parking Areas</b>						
26.1.6D 5 (a)	<p><u>Vehicle Dimensions</u></p> <p>All parking spaces and access and manoeuvring areas, including ramps shall be of a sufficient size and suitable layout to accommodate a passenger vehicle" as defined in the "Austroads Design Vehicles and Turning Path Templates Guide" AP-G34-13, Austroads, 2013 - refer to Appendix 72 for the dimensions of this vehicle (5.2m in length).</p>	<b>Complies.</b> The proposed light vehicle parking spaces have a width of 2.6m, length of 5.0m (includes a 600mm overhang), and aisle width of at least 7.1m. This meets the industry recognised standard AS/NZS 2890.1 Off-street car parking, as well as <i>Appendix 71</i> in the District Plan.				
26.1.6D 5 (c)	<p><u>General Design and Construction Details</u></p> <p>All public and required parking areas, and any outdoor display areas (such as car, caravan or boat sales yards) shall comply with the following general requirements:</p>	<b>Complies.</b> Refer to assessment of 26.1.6D 5 (c)(i-vii).				
26.1.6D 5 (c)(i)	Parking areas in any Commercial or Industrial Zone shall be formed and sealed with an all-weather surface.	<b>Will comply.</b> Parking areas will be formed and sealed with an all-weather surface.				
26.1.6D 5 (c)(ii)	Parking areas shall be designed and constructed to ensure that stormwater runoff from the parking area does not adversely affect adjoining properties.	<b>Will comply.</b> A proposed stormwater detention pond will ensure that runoff is appropriately managed.				
26.1.6D 5 (c)(iii)	Parking areas, together with access and turning space, shall be designed to ensure that vehicles negotiate the parking area at a safe speed and are not required to reverse either on to or off a street, provided that this requirement shall not apply in any Residential Zone where a single accessway serves not more than two residential buildings. Vehicles using the parking area shall only enter or leave the site by the accessway.	<b>Complies.</b> Parking areas have been designed to ensure vehicles are not required to reverse either on or off Evenden Road.				
26.1.6D 5 (c)(iv)	Where a public or non-residential parking area is within or adjoins a Residential Zone, a 1.8 metre high, fully enclosed screen shall be erected or a landscape strip of a minimum width of 5 metres adjoining the boundary, or the Residential Zone shall be provided. These requirements may be reduced or waived with the consent of the adjoining neighbor.	<b>N/A</b>				



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26.1.6D 5 (c)(v)	A reservoir space shall be provided within public car parks to prevent vehicles queuing on the street.	<b>Complies.</b> There is sufficient space on Site to prevent vehicles queuing on Evenden Road.
26.1.6D 5 (c)(vi)	Provision shall be made for the illumination of access drives and pedestrian areas within public car parks. Such illumination is to be directed away from adjoining residentially zoned sites.	<b>Will comply.</b> The car parks and pedestrian areas will be appropriately illuminated.
26.1.6D 5 (c)(vii)	Non-residential parking spaces required to be sealed by standard 26.1.6.D.5(c)(i) shall be marked out and where there is a separate requirement for staff parking such spaces shall be clearly identified.	<b>Will comply.</b> Staff parking will be marked accordingly.
<b>26.1.7B Infrastructure to Support Alternative Transport Modes</b>		
26.1.7B 1	<p><u>Bicycle Spaces</u></p> <p>Where on-site car parking is required, provision shall also be made for purpose built bicycle stands on site. These shall be provided at a rate of 1 bicycle stand per 5 carpark spaces that are required except for supermarket where the ratio shall be 1 bicycle stand per 20 carpark spaces that are required.</p> <p>The bicycle stands shall meet the following requirements:</p>	<p><b>Will comply.</b> As a total of 62 on-site car parking spaces are proposed, the proposal will include provision for 13 parked bicycles.</p> <p>These parking spaces will be designed in accordance to Rules 26.1.7B 1 (a-d) of the District Plan.</p>
26.1.7B 1 (a)	They shall be securely attached to a wall or the ground and shall support the bicycle frame.	
26.1.7B 1 (b)	Each cycle stand shall be adequately spaced to allow a cyclist to manoeuvre and attach a bicycle to the stand.	
26.1.7B 1 (c)	They shall allow the bicycle to be secured.	
26.1.7B 1 (d)	They shall be visible and signposted.	
26.1.7B 2	<p><u>Bicycle End of Journey Facilities</u></p> <p>Commercial or Industrial Activities which employ more than 15 FTE staff members shall provide one male and one female shower and changing facilities for staff to encourage the use of alternative transport modes.</p>	<b>N/A.</b> The proposed service station shop and café will employ less than 15 FTE staff.
26.1.7B 3	<p><u>Exemptions</u></p> <p>Renewable Energy Generation Activities are exempt from the provisions of standard 26.1.7B</p>	<b>N/A</b>

As assessed in Table 2, it is demonstrated that the proposed development aligns well with the majority of the rules and standard as set out in the Transport and Parking Section of the District Plan, with the exception of the following:



- Driveway separation from the SH2 intersection; and
- Safe sightline distance.

These two non-compliances, as well as other potential transport effects arising from this proposed development, are addressed further in Section 6.

## 5.2 Signage Rules

An assessment of the proposed development against the relevant District Plan rules regarding signage is set out in Table 3.

Table 3: District Plan Compliance Assessment – Advertising Devices and Signs

Rule	Description	Response
<b>Section 28.1 Advertising Devices &amp; Signs</b>		
<b>28.1.5 Rules</b>		
ADS5	Any Permitted or Controlled activity not meeting one or more of the General or relevant Specific Performance Standards and Terms in Sections 28.1.6 and 28.1.7.	Activity Status – Restricted Discretionary. Refer to the assessment below of Sections 28.1.6 and 28.1.7.
ADS6	Internal Illuminated Advertising Devices or Signs located within any Zone, other than a Commercial or Industrial Zone or the Special Purpose Zone: Regional Sports Park; this exemption excludes suburban commercially zoned sites.	Activity Status – Restricted Discretionary. Refer to below assessment of Sections 28.1.6 and 28.1.7. The proposal is considered a 'Restricted Discretionary' activity.
<b>28.1.6 General Performance Standards and Terms</b>		
<b>28.1.6A Total Area of Advertising Device(s)</b>		
28.1.6A	The maximum total area of Advertising Devices, per site, in any Zone is as shown in Table 28.1.6A.  Plains Production – 2.5m <sup>2</sup>	<b>Does not comply.</b> Refer to the assessment below in Section 5.2 for further assessment. (Restricted Discretionary Activity under Rule 28.1.6A).
<b>28.1.7 Specific Performance Standards and Terms</b>		
28.1.7A Purpose and Placement of Advertising Devices		
28.1.7A 1 (a)	Advertising Devices (except Temporary Devices, Electoral Devices, or devices located in the Special Purpose Zone: Regional Sports Park) shall be limited to the purposes of stating the occupant's name, occupation or property name.	<b>N/A.</b>
28.1.7A 1 (b)	Advertising Devices (except Temporary Devices and Electoral Devices) shall be located on the site to which they relate and must be contained solely within site boundaries.	<b>Complies.</b> Proposed advertising devices will be contained solely within site boundaries.



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28.1.7A 1 (c)	There must be no advertising devices (excluding official signs and advertising devices permitted by any Hastings District Council Bylaw) located on or over a road or land vested as reserve under the Reserves Act 1977.	<b>N/A.</b>
28.1.7A 1 (d)	No advertising device shall project above the highest point of the building.	<b>Does not comply.</b> Refer to the assessment below in Section 5.2 for further assessment. (Restricted Discretionary Activity under Rule 28.1.7A).
28.1.7A 1 (e)	Advertising Devices will be restricted in colours that do not replicate official signs.	<b>Complies.</b> Advertising signs will not use colours replicating official signs.
28.1.7A 1 (f)	Advertising Devices shall be located in a position where they will comply with the RTS6 Guidelines for visibility at driveways (1993).	<b>Complies.</b> The proposed advertising sign locations will comply with RTS 6, and sight lines to Evenden Road will not be obscured from the proposed Site access.
<b>28.1.7B Illumination</b>		
28.1.7B (a)	External illumination of signs by spotlights or floodlights shall be focused only on the Device to be illuminated, and shall be directed away from Residential Zoned sites and roads.	<b>N/A.</b> All lit signs will be backlit, with no external illumination proposed.
28.1.7B (b)	Shall not use Devices that are flashing, animated or involve revolving lights.	<b>Complies.</b> The proposed signage is site specific, and will not include flashing, animated or revolving lights.
28.1.7B (c)	The illuminated sign must comply with the Standards relating to lux spill for the respective Zone.	Refer to lighting assessment.
28.1.7B (d)	No illuminated Advertising Device shall be located within 25m of a road intersection.	<b>Complies.</b> The proposed Site identifier and prime signage will be located at least 25m away from the Evenden Road/SH2 roundabout.
28.1.7B (e)	Dwelling time is a minimum of 8 seconds for static images only.	<b>N/A.</b> The proposed signage will not involve digital advertising with refreshed images and will therefore not have dwell times between images.
28.1.7B (f)	Transition between advertisements less than 0.5 seconds.	<b>N/A.</b> The proposed signage is site specific, and not for generic advertising purposes. The signs will not include transitions between advertisements.
28.1.7B (g)	No message sequencing between 2 or more advertisements.	<b>N/A.</b> The proposed signage is site specific, and not for generic advertising purposes. The signs will not include message sequencing between advertisements.
28.1.7B (h)	Contains a default mechanism whereby the screen freezes in the case of a malfunction.	<b>N/A</b> The proposed signage will not involve digital advertisements that would otherwise require these mechanisms.
28.1.7B (i)	Uses photocell technology that ensures automatic dimming capacity.	<b>N/A.</b> The proposed signage will not involve digital advertisements that require dimming capacity.
28.1.7B (j)	Avoids the use of flashing, scrolling, intermittent, animated or full video clips.	<b>N/A.</b> The proposed signage is site specific, and not for generic advertising purposes. These signs will



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		not include flashing, scrolling, intermittent, animated or full video clips
28.1.7B (k)	That the maximum luminance of 5000 cd/m <sup>2</sup> between sunrise and sunset and 500 cd/m <sup>2</sup> between sunset and sunrise if it is lit by LED or similar technology.	Refer to lighting assessment.
28.1.7B (l)	Will not use the colours red, green and yellow in combination as the dominant colours	<b>Complies.</b> The proposed signage will not use red, green and yellow in combination as the dominant colours.
<b>28.1.7D Advertising Devices Projecting From Buildings Associated With Commercial Activities</b>		
28.1.7D (a)	Where an Advertising Device is affixed to the face of any building, the Device shall not: Project more than 1.0m from the face where the Device is at right angles to the building; and/or	<b>Complies.</b> Advertising devices affixed to the face of the service station shop and café will comply with these rules.
28.1.7D (b)	Project forward of a vertical line drawn 0.5m inside the face of a kerb or edge of the road carriageway (including parking areas); and/or	
28.1.7D (c)	Have a depth of more than 1.0m; and/or	
28.1.7D (d)	Have its lower edge less than 2.5m above the footpath/ground.	
28.1.7D (e)	Obscure any architectural features on the front façade of buildings in the Flaxmere and Havelock North Village Centres or in the commercial nodes of the Iona Special Character Zone.	<b>N/A.</b>
<b>28.1.7.E Advertising Devices Located on Land Adjoining a State Highway In The Plains Production Zone</b>		
28.1.7E (a)	Advertising Devices shall have a minimum lettering height of 120mm in areas of up to 70km/hr speed limit and of 160mm in areas above 70km per hour speed limit.	<b>Complies.</b> Advertising devices will have a lettering height of at least 160mm.
28.1.7E (b)	Advertising Devices shall not be located within 15 metres of an existing official sign or traffic signal.	<b>Complies.</b> Advertising devices will not be located within 15m of an existing official sign.
28.1.7E (c)	The message area should cover no more than 60% of the Advertising Device.	<b>Complies.</b> Lettering on advertising devices will be less than 60% of the total panel area.

The proposal includes two signs fronting SH2 and Evenden Road; a 9m high site identifier sign facing the Evenden Road/SH2 roundabout on the SH2 Site boundary; and a 9m high prime sign on the Evenden Road Site boundary. Four 1.2m x 1.2m logo signs are proposed at the Site forecourt by the light vehicle pump islands (i.e. one along each face of the canopy), two 6.6m x 1.1m brand signs at the service station shop and café buildings, and one 4.55m x 2.28m seasonal fruit sales sign facing the car park. All these signs are to be site specific (i.e. not for general advertising purposes) and will be backlit with no external lighting proposed. An elevation view of the Site with the proposed signs is included in Appendix A.

For Restricted Discretionary Activities determined in the table above, matters which Council has restricted its discretion over are indicated in *italics* below, with an assessment against each matter provided.



The size, location, design, colour, orientation, and illumination of advertising devices shall be assessed in terms of:

a) *The effects on amenity and character of the area where it is proposed to be located, and:*

i) *whether the Device is in keeping with the built and natural features existing in the area, and whether it is visually appropriate in the vicinity or detracts from these features;*

Signage is proposed to be site specific. The types of signage proposed to front Evenden Road and SH2 are typical at energy centres and fuel stations, and have been positioned and sized in a manner as to provide adequate advance notice for customers, whilst not detracting from surrounding features. There is a need to provide backlit signage to meet the night time needs of users.

ii) *whether it will create an effect of clutter in its vicinity because of poor relationship or proximity to other Devices;*

The proposed Site signage will not create a clutter effect. Given the nature of the vicinity, there is not an abundance of other signage which could add to an effect of clutter., and the signs will also be positioned at least 15m from any official sign.

iii) *whether the Device will detract from important or visual aspects of the District such as views, or buildings of civic, architectural or historical interest;*

Addressed by others.

iv) *for Devices located in Commercial or Industrial Zones or the Special Purpose Zone: Regional Sports Park whether the Device will be visible from any Residential, Plains Production or Rural Zones.*

Not applicable.

v) *whether the Device promotes the wellbeing of its community through advertising of non-profit events or information.*

The proposed signage is site specific, and will not be used to advertise non-profit events or information. The intention of the signage in this instance is to advertise the Site to passing motorists, both local and regional.

b) *The effects on the movement and safety of traffic, in terms of:*

i) *whether it will obstruct drivers' vision;*

All proposed signage is within the site boundary and positioned clear of drivers sightlines.

ii) *whether it will cause confusion or distraction for drivers; and*

The proposed signage is site specific, and will not be used for generic advertising purposes or include transitions and video / animated clips. Accordingly, the signs will remain static. The only sign which will change from time to time is the fuel price sign.

iii) *whether it will create a situation hazardous to the safe movement or direction of traffic.*



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The positioning of Site signage is proposed to be completely within the Site, and will not encroach on to traffic lanes. Signage will be site specific and static, with no advertising or video / animated images.

- c) *The effects on the movement and safety of people, in terms of whether it will cause any obstruction, nuisance or hazard to people (on footpaths) or other public areas.*

There is no footpath on Evenden Road or SH2 adjacent to the Site, so the proposed 9m signs at the Site boundaries will not cause any obstruction, nuisance or hazard to people . Logo signs within the Site proposed on the canopy, service station and café buildings will be well above internal footpaths, and again, will not affect the movement and safety of people.



## 6 Assessment of Effects

### 6.1 Traffic Generation

Published industry data and field work previously undertaken by Stantec and others shows that the traffic generation of an energy centre/fuel station has a strong relationship with passing traffic volumes. It has been determined that the traffic generation represents between 2% to 4% of the passing traffic volume, with the type of facility, its access arrangements, and the mix of passing traffic being influencing factors.

By the very nature of the strategic function of SH2, the majority of traffic generated at the energy centre will be already passing on the highway, rather than as new trips attracted to the location specifically to visit the energy centre. As such, the existing volumes of traffic will not change materially as a result of the proposed development Site activity. Rather, existing traffic movements at the Evenden Road/SH2 roundabout will instead divert to / from the Site via Evenden Road.

For the purposes of quantifying the traffic generation levels of the proposed energy centre, a range of 2% to 4% has been adopted as the capture rate, to provide a lower and upper bound of expected traffic.

As described previously, the available traffic data shows that SH2 carries about 24,000 vpd and about 2,300 vph during the weekday peak periods. On this basis, the Site is expected to attract between 480 and 960 vpd and between 50 and 100 vehicles per hour from SH2 associated with the refuelling, and ancillary cafeteria and shop activities during the commuter peak hours. Traffic volumes on Evenden Road are about 315 vph during the weekday peak period, and the Site is expected to attract between 10 to 15 vehicles per hour from Evenden Road.

Data from 'The Fruit Shop' in Hastings has been used to estimate likely traffic generation associated with the proposed seasonal fruit courtyard, with this data indicating peak usage by around 300 customers per day. It is expected that trips to this activity will comprise of both users of the main refuelling activity, as well as specific destinations customers. Accordingly, it is estimated that during peak hours there will be 20-30 vehicles associated with trips specifically related to the fruit courtyard, in addition to the above 60-115 vehicles associated with refuelling and ancillary activity.

### 6.2 Traffic Distribution and Analysis

Given the predominant attraction to and from SH2, the dominant traffic movements at the Site access will likely be right-turn-in and left-turn-out movements.

It is important to assess the performance of the Site driveway in proximity to the Evenden Road/SH2 roundabout, which has in turn informed the design improvements for Evenden Road.

For this purpose, the proposed vehicle crossing to the Site on Evenden Road was modelled using the industry-recognised SIDRA (Version 9.0) traffic model, with the higher range of peak hour vehicle movements estimated above (290 movements associated with 145 vehicles), and base volumes using traffic count data from February 2025 (as previously described in Section 2.3). The assumed layout is shown in Figure 10 below.



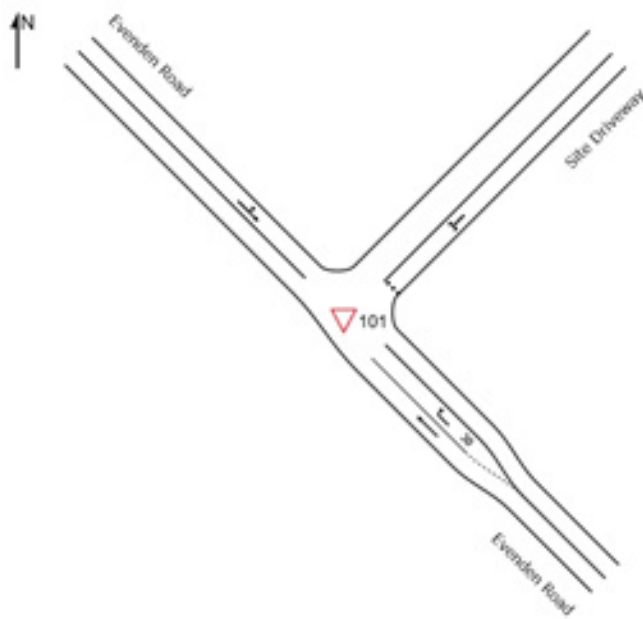


Figure 10: Modelled Layout of the Site Access on Evenden Road

The SIDRA model produces a range of output statistics, including Level of Service (“LoS”), delay and queues, for each movement. These outputs are summarised in Table 4 below.

Table 4: SIDRA Outputs – 2025 Weekday Peak Hour LoS by Approach

Approach	Movement	With Energy Centre Traffic		
		Level of Service	Average Delay (seconds)	95% Back of Queue (veh)
Evenden Road West	Through	A	0	0
	Left	A	4.7	0
Evenden Road East	Through	A	0	0
	Right	A	5.1	1
Site Access	Left	A	5.1	1
	Right	A	8.7	1

Overall, the results show that the Site driveway can be expected to operate with a high level of service and only minor delays and queuing for turning traffic. This is not surprising given the comparatively small volumes of traffic carried by the fronting length of Evenden Road.

A sensitivity analysis was also completed to understand the operation of the proposed access based on possible future traffic changes along Evenden Road and SH2. For this purpose, an annual growth rate of 3% was applied to estimate a future 2035 scenario. The corresponding SIDRA model outputs are as summarised in Table 5 below.



Table 5: SIDRA Outputs – 2035 Sensitivity Analysis - Weekday Peak Hour LoS by Approach

Approach	Movement	With Energy Centre Traffic		
		Level of Service	Average Delay (seconds)	95% Back of Queue (veh)
Evenden Road West	<i>Through</i>	A	0	0
	<i>Left</i>	A	4.7	0
Evenden Road East	<i>Through</i>	A	0	0
	<i>Right</i>	A	5.8	1
Site Access	<i>Left</i>	A	5.8	1
	<i>Right</i>	C	16.7	1

This analysis indicates that with 10 years of anticipated growth, there is minimal impact on the operation of the vehicle crossing. On this basis, it is assessed that the proposed driveway can perform at an acceptable level of service, with no consequential effects on the adjacent roundabout.

That said, the position of the driveway relative to the roundabout and configuration of the Evenden Road improvements has been developed to ensure that at least two articulated trucks can queue turning right into the site, clear of the roundabout.

### 6.3 Intersection Separation

As a permitted standard, the District Plan requires a vehicle crossing to have a minimum separation of 100m from an intersection of a state highway. However, the location of the Site in relation to the Evenden Road / SH2 roundabout and the existing Delegat Winery Estate driveway on the opposite side of Evenden Road, preclude compliance with this minimum standard.

The proposed access will be approximately 75m from the nearest stop-line of the Evenden Road / SH2 roundabout. While this does not meet the District Plan requirement, the vehicle crossing has been positioned with a view to being offset from the existing Delegat Winery Estate driveway, effectively being a mid-position between the Delegat Winery Estate driveway and the roundabout.

Through volumes on Evenden Road are modest, and travel speeds on the fronting section of Evenden Road are moderated by the approach and departure to the Evenden Road/SH2 roundabout, such that there is good gap selection for vehicles turning to and from the Site.

Furthermore, as mentioned earlier, the SIDRA modelling indicates that for the critical right-turn-in movement, vehicle queues will be small and are able to be fully accommodated within Evenden Road, clear of the roundabout. Therefore, the proposed location of the vehicle access and the expected traffic generated from the activities on the property will have no significant effect on the safety or efficient operation of Evenden Road or the roundabout.



## **6.4 Sight Distance**

The District Plan requires new accesses to meet sight distance requirements set out in Austroads Guide to Road Design Part 4A: Unsignalised and Signalised Intersections.

Evenden Road has a posted speed limit of 80km/h. As expected, speeds across the frontage of the Site are slower given the proximity of the roundabout. At the critical point for sightline assessment, where vehicles exiting the roundabout into Evenden Road, speeds are about 50km/h.

The Austroads Guide indicates that it is desirable for property entrances to meet approach sight distance ("ASD"), safe intersection sight distance ("SISD") and minimum gap sight distance ("MGSD"). These sight distance requirements are summarised below:

- ASD
  - » 114m, at 80km/h design speed and 2 second reaction time.
  - » 55m, at 50km/h design speed and 2 second reaction time.
- SISD
  - » 181m, at 80km/h design speed and 2 second reaction time.
  - » 97m, at 50km/h design speed and 2 second reaction time.
- MGSD, Left-hand turn critical acceptance gap - 5 seconds, Right-hand turn from minor road critical acceptance gap - 5 seconds. For an assumed 85<sup>th</sup> percentile speed of between 50km/h and 80km/h, the MGSD is between 69m and 111m respectively.

Sight distance to the west is not an issue given the straight and level alignment of Evenden Road. The sight line to the east extends approximately 110m towards, and through, the Evenden Road/SH2 roundabout.

While the sight distance requirements of the District Plan are not met, entry and exit speeds to and from the roundabout are such that shorter sight distances can be considered appropriate, with the above interpretations indicating that safe entries and exits can be achieved.

In regard to matters of discretion:

- the proposal will not increase conflict points with vehicles and pedestrians as there will only be one point of access to the Site (similarly to historical site use) and there are no public footpaths adjoining the Site on SH2 or Evenden Road; and;
- will not have a negative impact on street car parking as there is no existing provision on Evenden Road and the Site will have ample off-street parking to meet its needs.

As such, this proposal will maintain visibility and safety at vehicle accesses, along roads and at the intersections of roads.

## **6.5 Roundabout Lane Modifications**

Modifications are proposed to the line markings at the Evenden Road/SH2 roundabout to facilitate the form and position of the development access.

This involves a change from the current lane arrangement on the Evenden Road south-east approach to the roundabout from a left lane (left turn / through), and right lane (right turn only) configuration, to the



proposed arrangement of left lane (left turn only) and right lane (through / right turn), as shown in Figure 8. This adjustment to the lane configuration will result in a single circulation lane through the roundabout.

To assist in assessing the potential operational impact of this change, 2025 traffic volumes for the Evenden Road south-east approach of the roundabout have been analysed, with the pattern of all movements summarised in Figure 11.

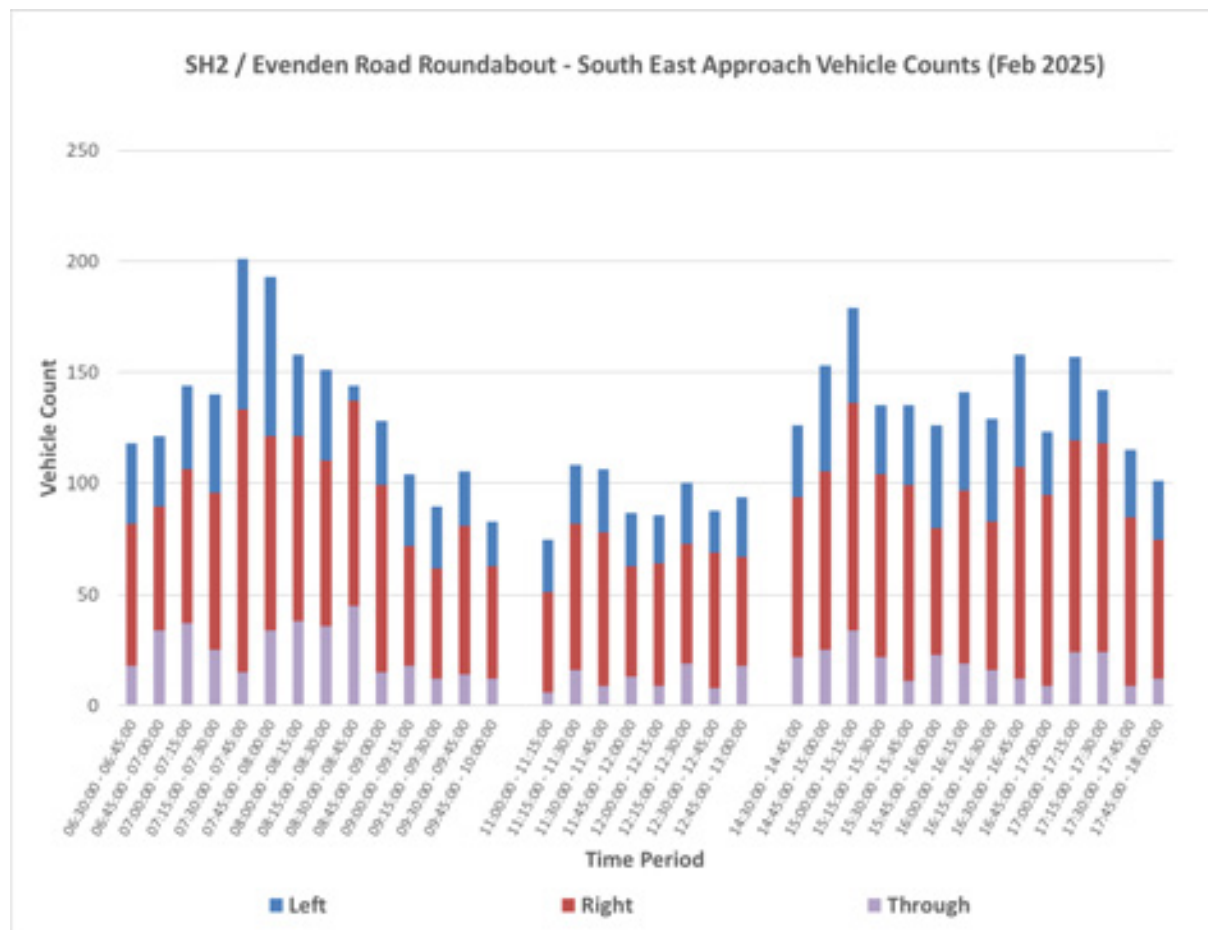


Figure 11: SH2/Evenden Road Roundabout – South East Approach Vehicle Counts

The straight through movement of interest in this instance is shown by the light purple bars in Figure 11. Analysis of the counts in terms of vehicles travelling straight through shows the following total movements:

- morning peak period (7:15am - 8:15am) - 112vph;
- midday peak (11:30am - 12:30pm) - 50vph; and
- afternoon peak (4:15pm - 5:15pm) - 61vph.

These flows represent around one or two vehicle movements a minute. Drawing from the intersection count data collected and on-site observations, a SIDRA model has been produced to analyse its current performance, and how these characteristics might change in response to the proposed modifications.

A summary of outputs for the existing layout with all through movement in the left lane, and the proposed layout with all through movements in the right lane is provided in Table 6 below, for each of



the modelled peaks. The additional traffic and adjusted traffic patterns to take account of trips diverting to / from the development Site, have also been assessed and summarised in Table 6.

Table 6: SIDRA Model Output - Performance of East Approach of the SH2/Evenden Roundabout

<b>Scenario and Peak</b>	<b>Left Lane</b>			<b>Right Lane</b>		
<b>Existing - Through movement on left lane</b>	<b>95<sup>th</sup> Percentile Queue (veh)</b>	<b>Delay (sec)</b>	<b>Level of Service</b>	<b>95<sup>th</sup> Percentile Queue (veh)</b>	<b>Delay (sec)</b>	<b>Level of Service</b>
AM Peak (7:15-8:15am)	3	9	A	2	16	B
Interpeak (11:30-12:30pm)	1	9	A	1	17	B
PM Peak (4:15-5:15pm)	1	9	A	2	18	B
<b>Existing - Through movement on left lane (with Site traffic)</b>	<b>95<sup>th</sup> Percentile Queue (veh)</b>	<b>Delay (sec)</b>	<b>Level of Service</b>	<b>95<sup>th</sup> Percentile Queue (veh)</b>	<b>Delay (sec)</b>	<b>Level of Service</b>
AM Peak (7:15-8:15am)	2	8	A	3	18	B
Interpeak (11:30-12:30pm)	1	10	A	1	17	B
PM Peak (4:15-5:15pm)	2	10	A	2	18	B
<b>Proposed - Through movement on right lane (with Site traffic)</b>	<b>95<sup>th</sup> Percentile Queue (veh)</b>	<b>Delay (sec)</b>	<b>Level of Service</b>	<b>95<sup>th</sup> Percentile Queue (veh)</b>	<b>Delay (sec)</b>	<b>Level of Service</b>
AM Peak (7:15-8:15am)	2	9	A	4	15	B
Interpeak (11:30-12:30pm)	1	8	A	1	13	B
PM Peak (4:15-5:15pm)	1	8	A	2	14	B

Table 6 indicates that on average, the traffic lanes currently operate with a LoS A or LoS B. This is a very acceptable level of performance for a roundabout of this nature during peak periods. The outputs show that the proposed change in lane configuration, would have no more than a minor effect, with the movement lanes shown to continue operating at a LoS A or LoS B following the proposed remarking.

## 6.6 Safety

The section of Evenden Road adjacent to the Site has been redesigned with widening, to accommodate a 3.5m wide right-turn bay and a 3.5m wide nearside traffic lane. To support this new arrangement and in order to provide for the safe arrival of vehicles towards the Site from SH2, it is proposed that the existing short 2-1 merge northbound from the Evenden Road/SH2 roundabout is removed. This could be achieved by way of line marking changes on Evenden Road and through the circulation area, as shown earlier in Figure 8.

As assessed in the previous section, the proposal includes a change from the current lane arrangement from a left lane (left / through) and right lane (right turn only) configuration, to the proposed arrangement of left lane (left turn only) and right lane (through / right turn). This change in lane arrangement would then allow a single circulation lane through the roundabout (westbound).

It is assessed that the proposed arrangement results in a safer environment than compared to the existing layout. This is due to the reduction from two to one circulating lanes through the roundabout (westbound) and removal of the 2-1 northbound merge on Evenden Road.

The reduction in circulating lanes has negligible effect on roundabout performance, as indicated in Section 6.5, but reduces the number of potential conflict points, resulting in a safer road environment.



## **Evenden Road Energy Centre - Transportation Assessment Report**

### **6 Assessment of Effects**

To further supplement this change, spiral line marking is proposed along the inside and outside of the westbound circulating lane to reposition vehicles to the centre of the lane, as shown earlier in Figure 8. This line marking provides a clearer indication of priorities between traffic travelling westbound through the roundabout to Evenden Road and traffic turning left on to Evenden Road from SH2.

The existing 2-1 northbound merge on Evenden Road is short and there are existing safety risks associated with traffic merging. Accordingly, the proposal offers a safer solution by removing this merge, and by widening Evenden Road towards the Site to provide a 3.5m wide right-turn bay and flush median.



## 7 Conclusion

Stantec has been commissioned to examine and describe the transportation requirements and impacts associated with redeveloping the Site at 160 Evenden Road to accommodate a proposed energy centre.

It is expected that trips to the proposed energy centre will mostly be attracted from traffic already passing the Site on SH2 and Evenden Road. The Site could attract around 145 vehicles per hour, and the analysis undertaken demonstrates that such volumes can be readily accommodated as new turning movements at the Site access and the adjacent Evenden Road/SH2 roundabout.

In order to achieve safe access to the Site, the location and form of the Site access intersection has been carefully considered. A series of improvements are proposed to the fronting length of Evenden Road and to the SH2 roundabout, that are intended to help avoid spillback effects to the roundabout and achieve a desired separation from the Delegat Winery Estate access located opposite the Site. With these proposed design mitigations, it is assessed that traffic can be safely accommodated.

An assessment of the proposed development against the District Plan has highlighted two areas of non-compliance against the permitted transport standards of Chapter 26:

- Driveway proximity to nearby SH2 intersection. The access to the proposed Site is located less than 100m (District Plan minimum requirement) from the roundabout. In order to ensure a safe access design and to mitigate any perceived risk of the access being closer to the roundabout, a suite of improvements have been proposed, as illustrated by the accessway plan in Appendix B; and
- Sight Distance. Vehicle speeds along the fronting length of Evenden Road, as vehicles approach and exit from the roundabout, are slower than the posted 80km/h speed limit. An appropriate Minimum Gap Sight Distance can be achieved.

An assessment against the relevant advertising and signage sections of the District Plan has also been undertaken, which indicates that the proposed signage is suitable for the proposed energy centre.

Overall, it is assessed that with the proposed access and safety improvements set out in this report, the proposed development of an energy centre on the Site at 160 Evenden Road can be achieved safely from a transport perspective.

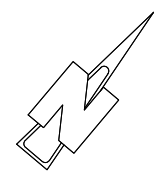
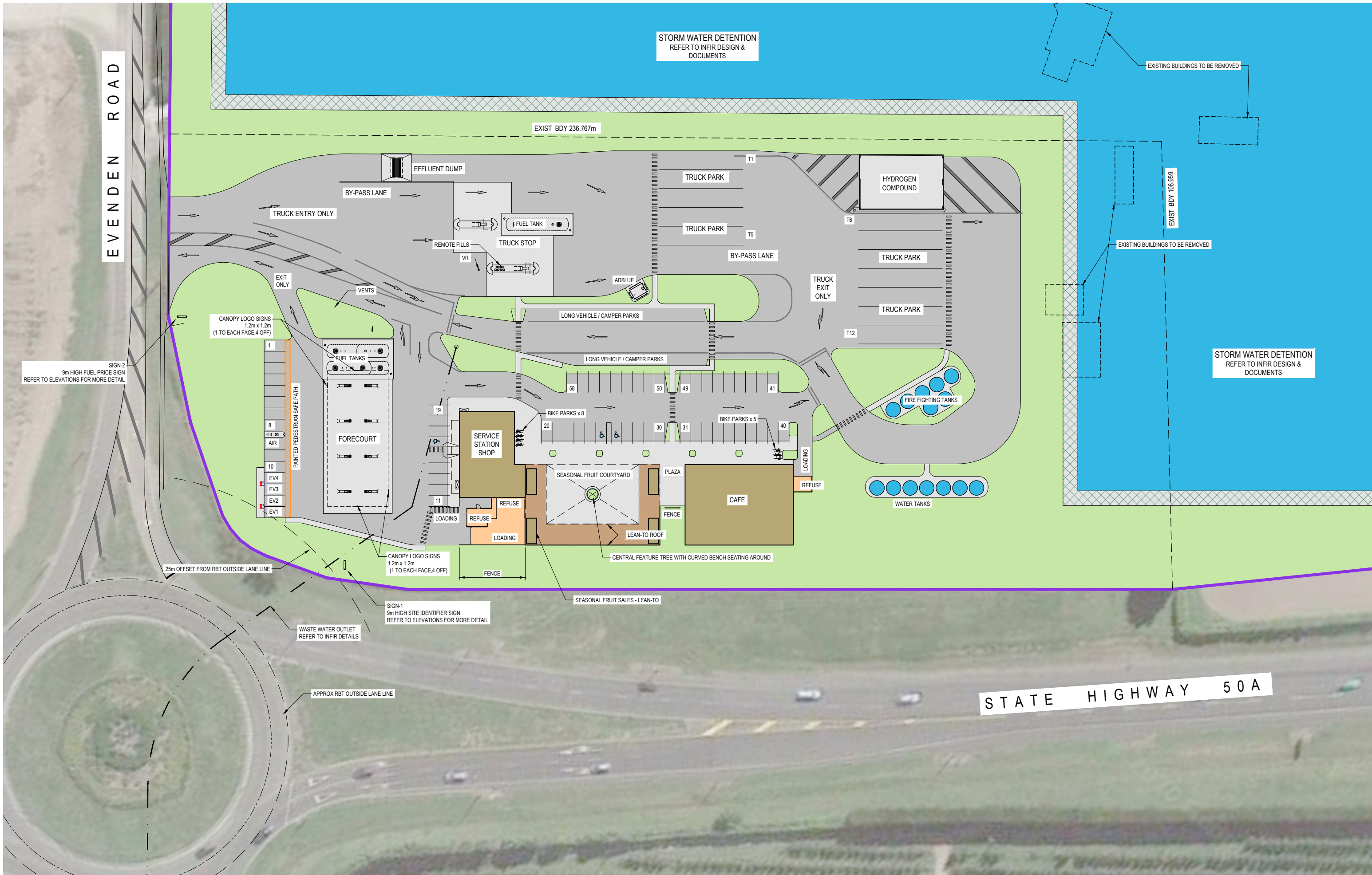


# Appendices



# Appendix A Development Plans





**TECHNTRADES ARCHITECTURE**  
 12 Ben Lomond Crescent, Pakuranga, Auckland 2010  
 Phone (09) 5767166 | design@techntrades.co.nz

				A1 Scale:	1:400
				A3 Scale:	1:800
				Designed:	L.MEIKLEJOHN
				Drawn:	B.MILLWARD
P3	SIGN-1 RELOCATED, 25m OFFSET TO RBT ADDED	MK	13-03-25	A1 Plot Scale:	1:1
P2	SIGNS ADDED	MK	12-03-25	A3 Plot Scale:	1:2
REV.	DESCRIPTION	BY	DATE		

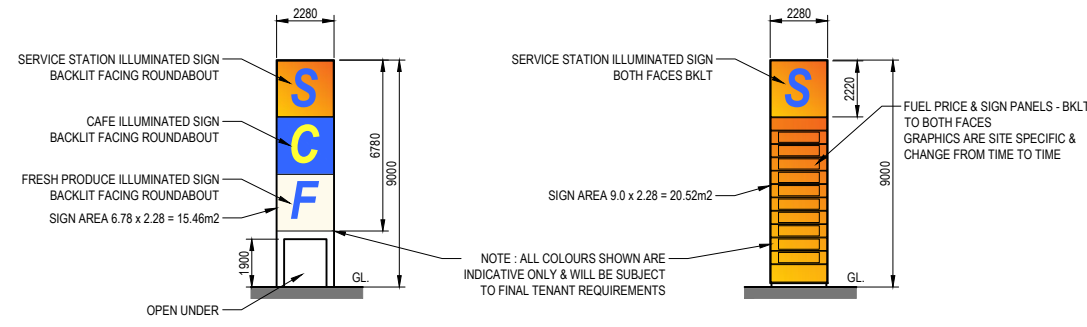
**NOTES.**  
 DO NOT SCALE.  
 DIMENSIONS IN MILLIMETERS UNLESS NOTED OTHERWISE.  
 IF IN DOUBT ON ANY ISSUE SEEK VERIFICATION PRIOR TO PROCEEDING.  
 READ THESE DRAWINGS IN CONJUNCTION WITH ALL OTHER CONSULTANTS DRAWINGS AND SPECIFICATIONS.

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**HAMACHEK HOLDINGS LIMITED**  
 Evenden Energy Centre  
 160 Evenden Road, Hastings

Site Plan

Drawing No. 3139-I-01 Rev. P3



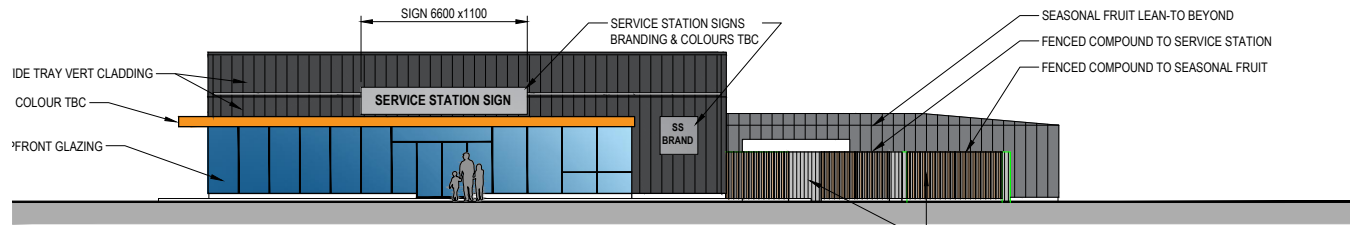
**SITE IDENTIFIER 9.0m SIGN**

(SIGN 1 - TO ROUND A BOUT S.H. 50A)  
SCALE 1:150 (A1) 1:300 (A3)

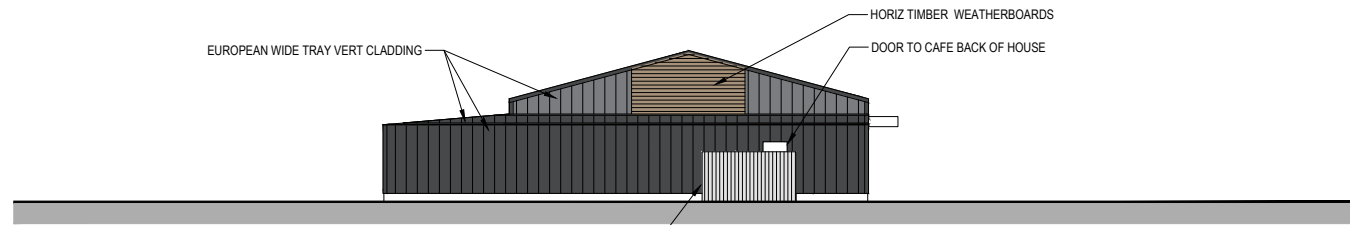
**SERVICE STATION 9.0m PRICE SIGN**

(SIGN 2 - EVENDEN ROAD BOUNDARY)  
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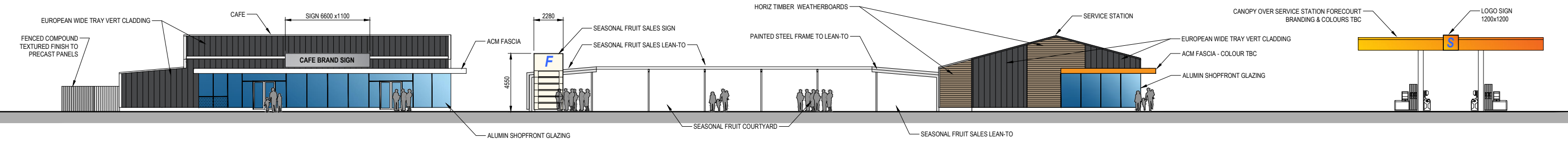
NOTE: ALL COLOURS SHOWN ARE INDICATIVE ONLY & WILL BE SUBJECT TO FINAL TENANT REQUIREMENTS



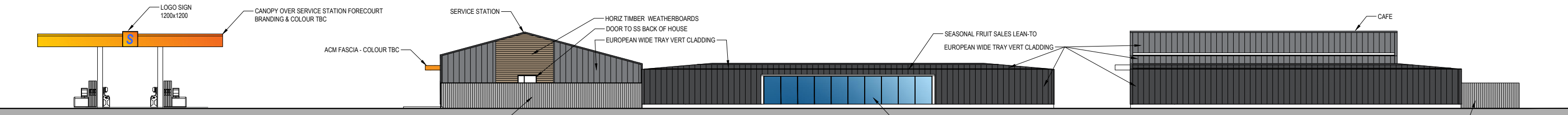
**SOUTH WEST ELEVATION - (FACING FORECOURT & EVENDEN ROAD)**



**NORTH EAST ELEVATION**



**NORTH WEST ELEVATION - (FACING CAR PARK)**



**SOUTH EAST ELEVATION (FACING STATE HIGHWAY)**

**TECHNITRADES ARCHITECTURE**  
12 Ben Lomond Crescent, Pakuranga, Auckland 2010  
Phone (09) 5767166 | design@technitrades.co.nz

				A1 Scale:	1:150
				A3 Scale:	1:300
				Designed:	L.MEIKLEJOHN
				Drawn:	B.MILLWARD
P3	FRESH PRODUCE SIGN ADDED	MK	13-03-25	A1 Plot Scale:	1:1
P2	SIGNS ADDED	MK	12-03-25	A3 Plot Scale:	1:2
REV.	DESCRIPTION	BY	DATE		

**NOTES.**  
DO NOT SCALE.  
DIMENSIONS IN MILLIMETERS UNLESS NOTED OTHERWISE.  
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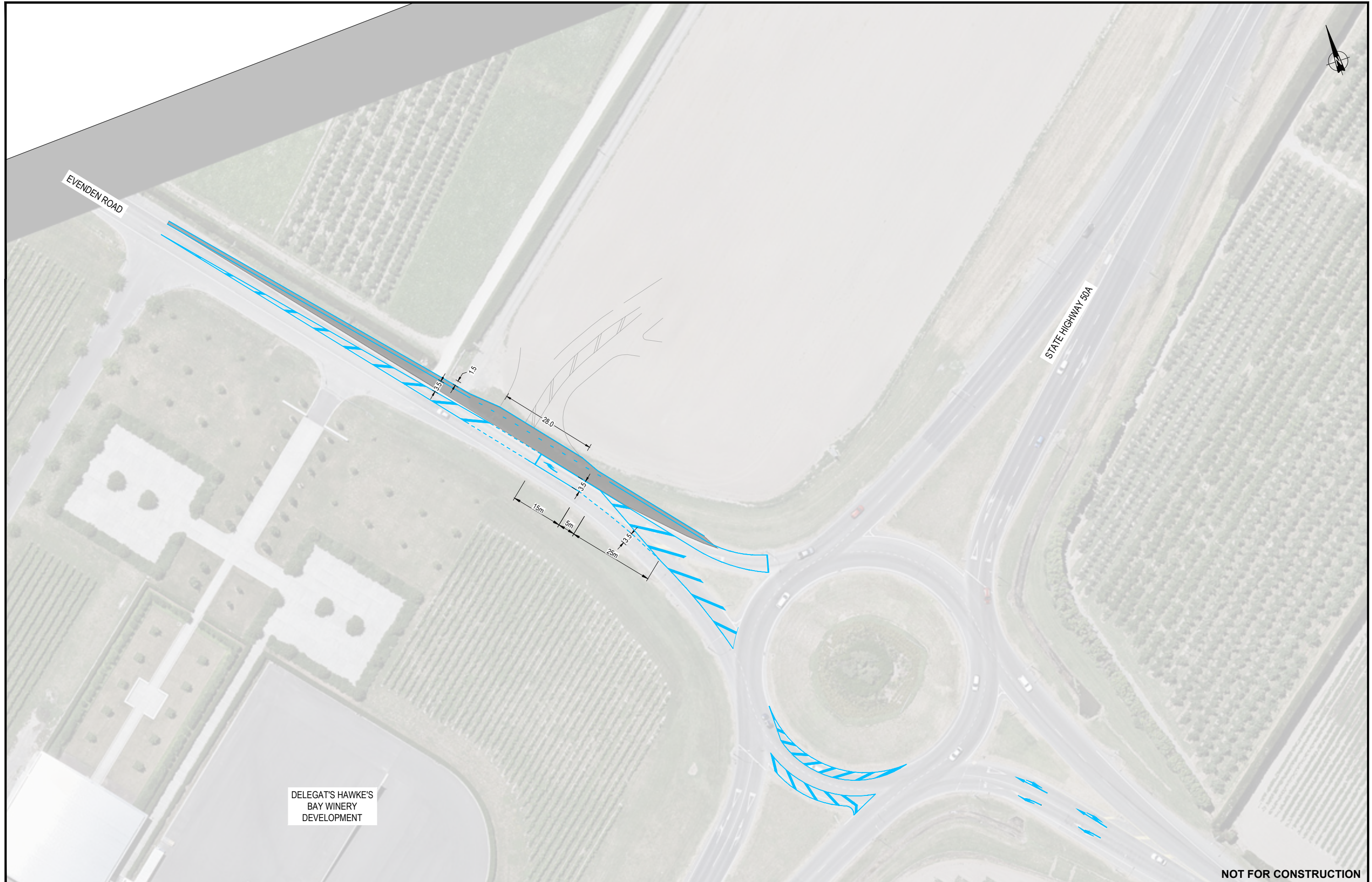
**HAMACHEK HOLDINGS LIMITED**  
Evenden Energy Centre  
160 Evenden Road, Hastings

**Elevations**

Drawing No. **3139-I-03** Rev: **P3**

## Appendix B Evenden Road Accessway





DELEGAT'S HAWKE'S  
BAY WINERY  
DEVELOPMENT

NOT FOR CONSTRUCTION

REV	REVISIONS	DRN	CHK	APP	DATE
H	UPDATED CONCEPT PLAN	SS	NJ		28.08.25
G	UPDATED BASE : 3139-F1-PROPOSED SITE PLAN (27/11/2023)	CTM	MG		29.11.23
F	ADDITIONAL VEHICLE TRACKING	MS	-	-	18.12.20
E	REVISED VEHICLE TRACKING, ADDITIONAL LINEWORK IN SITE	MS	-	-	08.12.20
D	INCLUDE BASE PLAN FOR DEVELOPMENT	MS	-	-	02.12.20
C	REDUCE TAPER LENGTH, REDUCE DEVELOPMENT ACCESS WIDTH AT BOUNDARY, REVISED TRACKING	MS	-	-	22.08.19
B	MOVE NEW ACCESS 50m FROM DELEGATS, REMOVE RIGHT TURN BAY MARKING, REVISE TRACKING	MS	-	-	10.06.19
A	DRAWING CREATED	MS	-	-	04.06.19

SURVEYED	DESIGNED	DRAWN	CAD REVIEW	DESIGN CHECK	DESIGN REVIEW	APPROVED	PROF REGISTRATION
	Niro Jayanathan	Shivneel Sen	Niro Jayanathan	Niro Jayanathan			



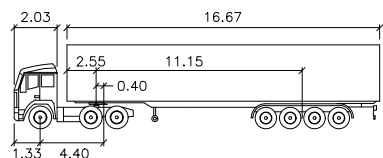
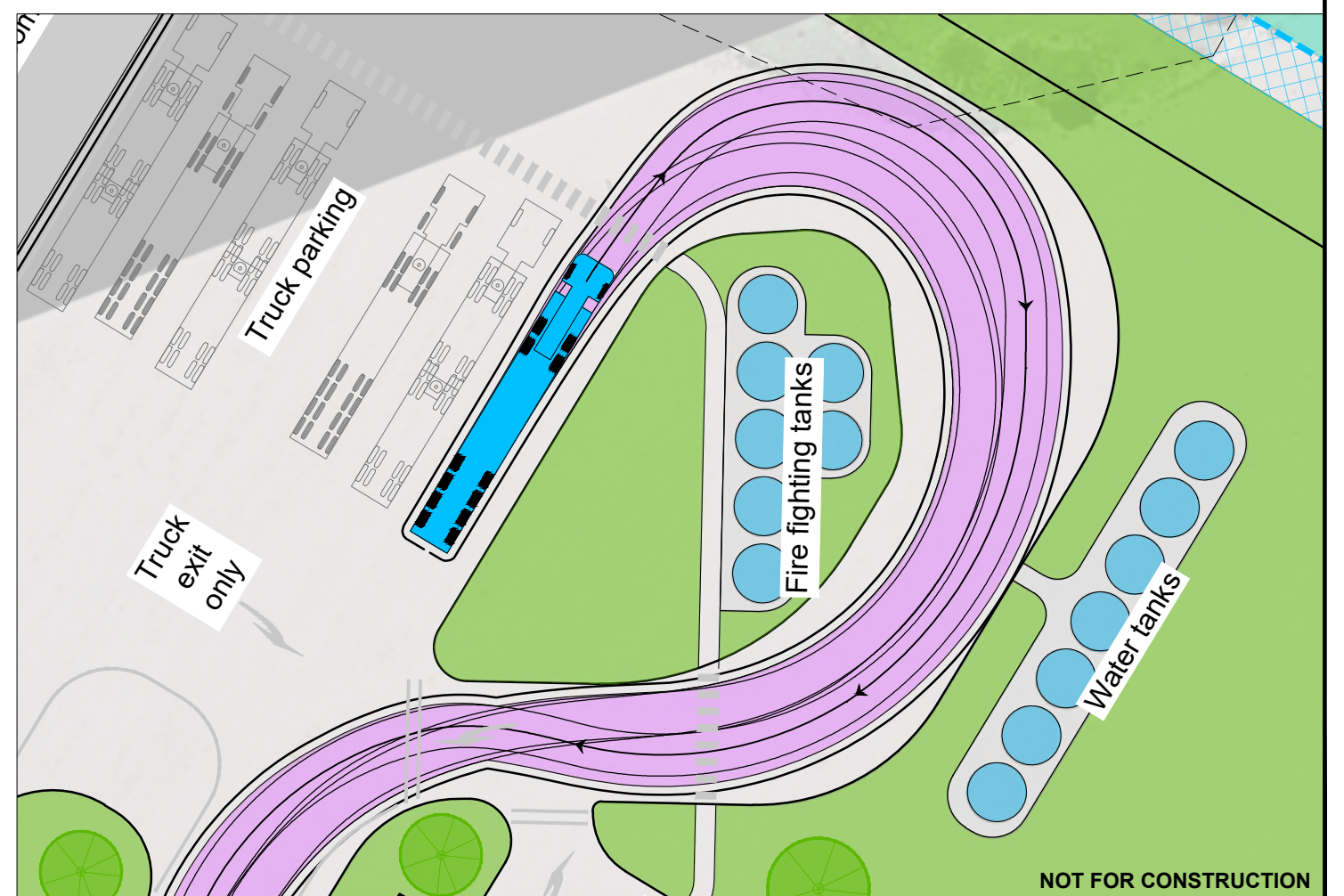
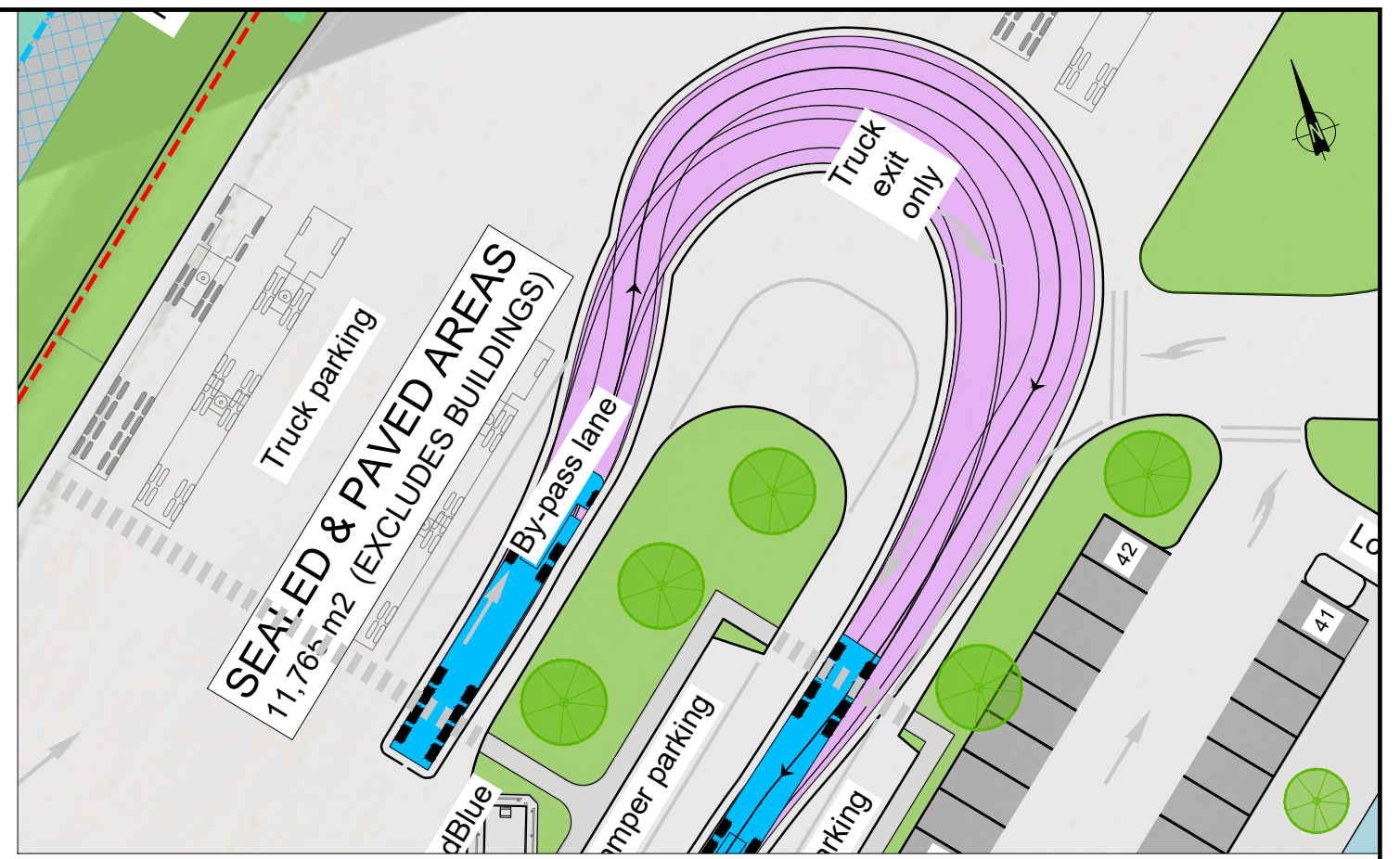
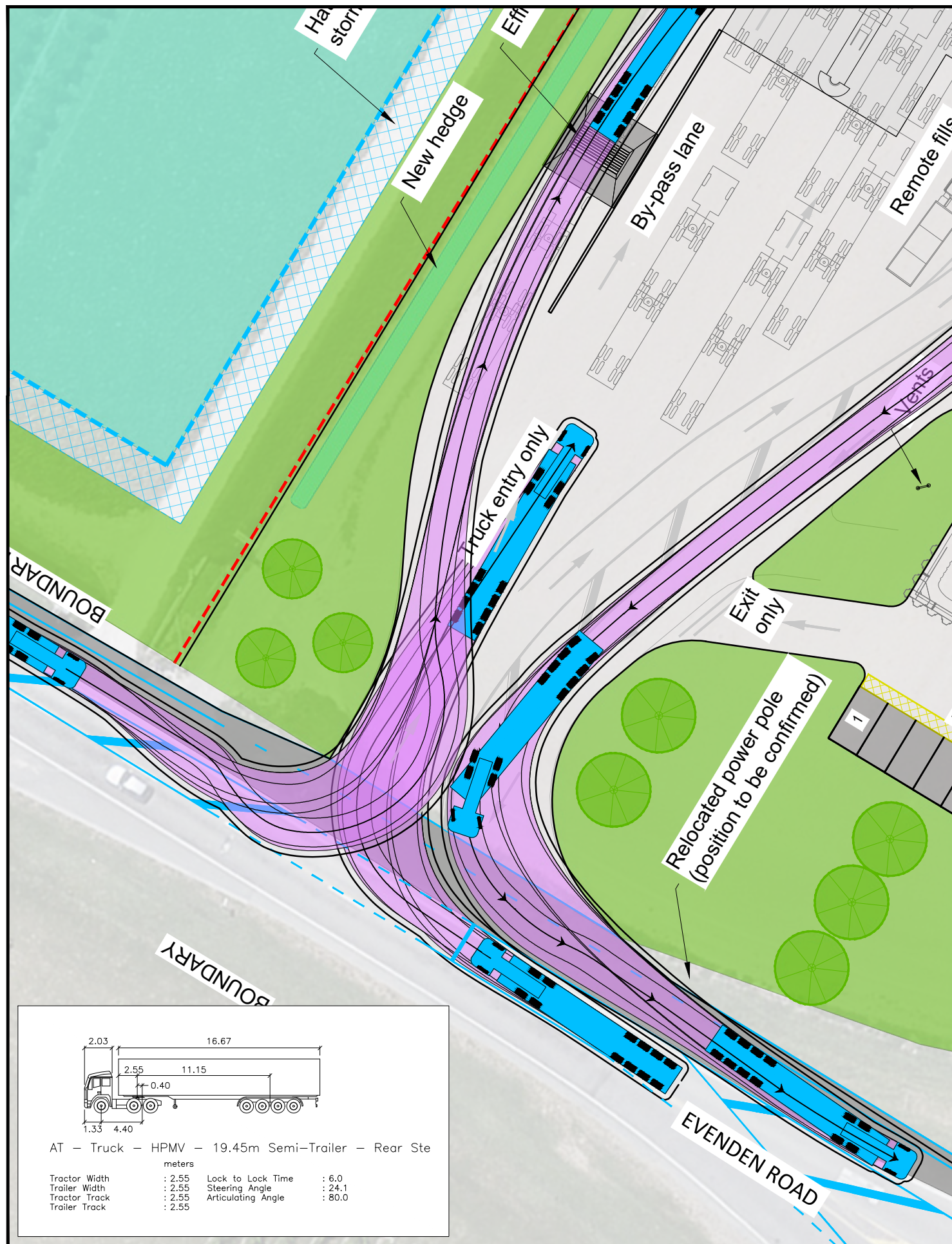
Client:	
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EVENDEN ROAD ACCESSWAY
-
CONCEPT PLAN
-

Status Stamp	<b>WORKING PLOT</b>
Date Stamp	<b>29.08.25</b>
Scale	1 : 500 (A1)
Drawing No.	310204299-01-H-0
Rev.	H

## Appendix C Vehicle tracking





AT - Truck - HPMV - 19.45m Semi-Trailer - Rear Steer

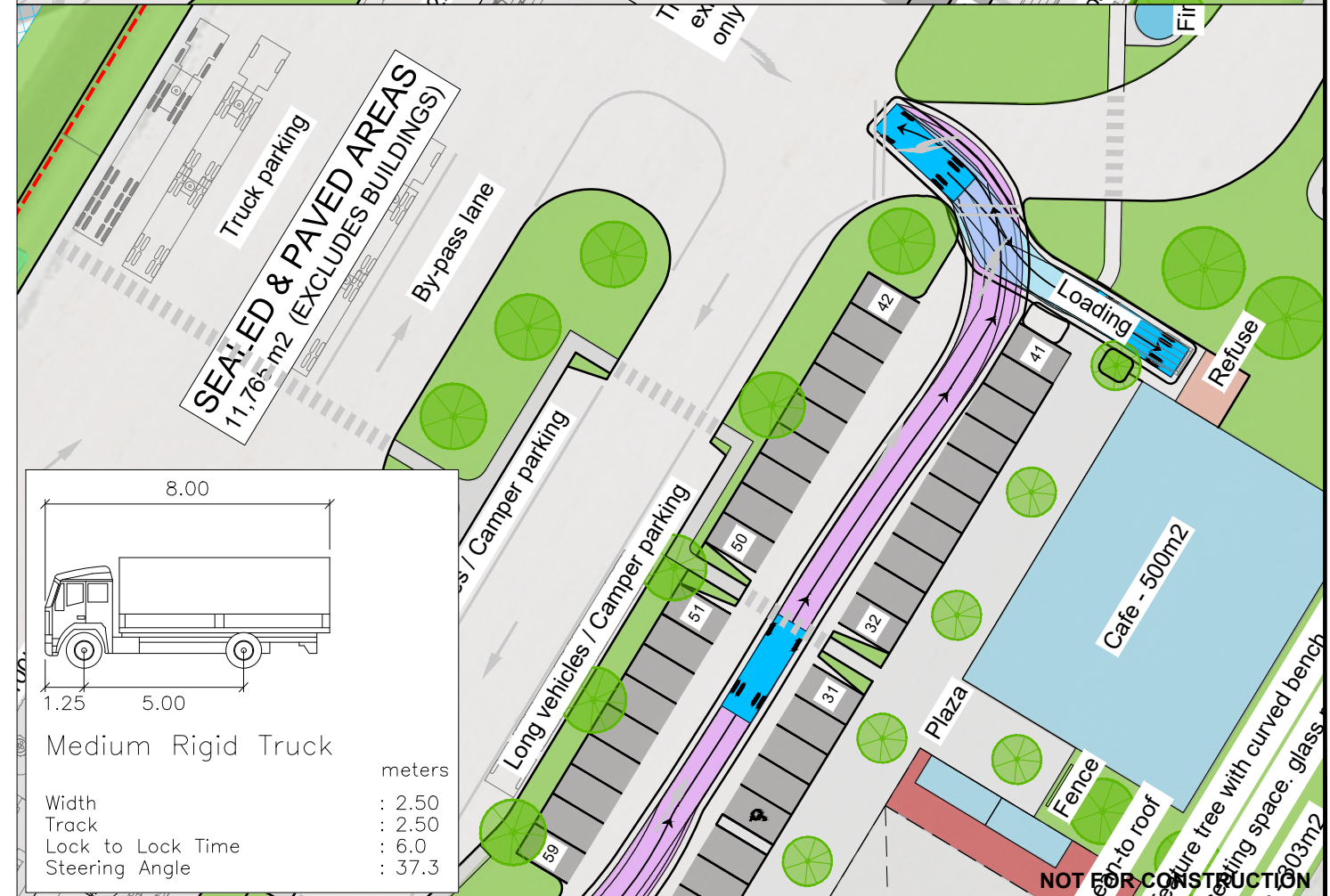
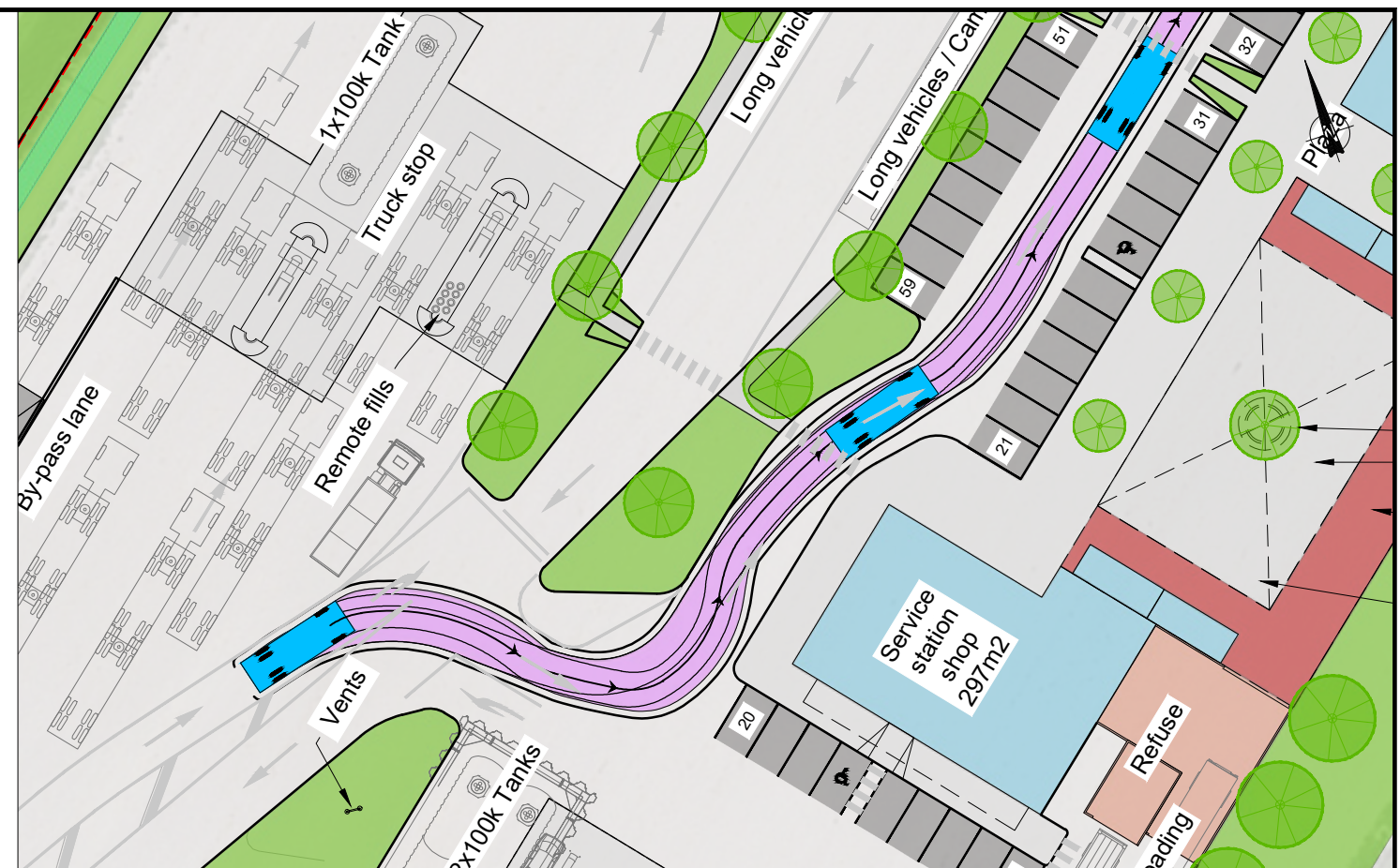
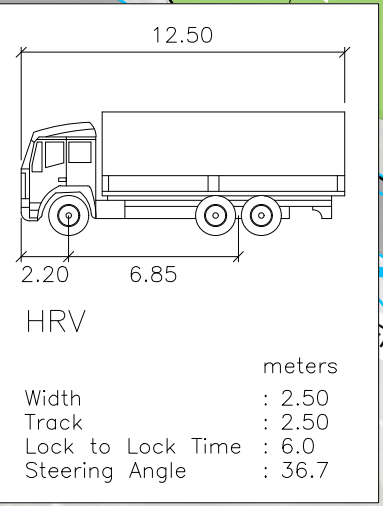
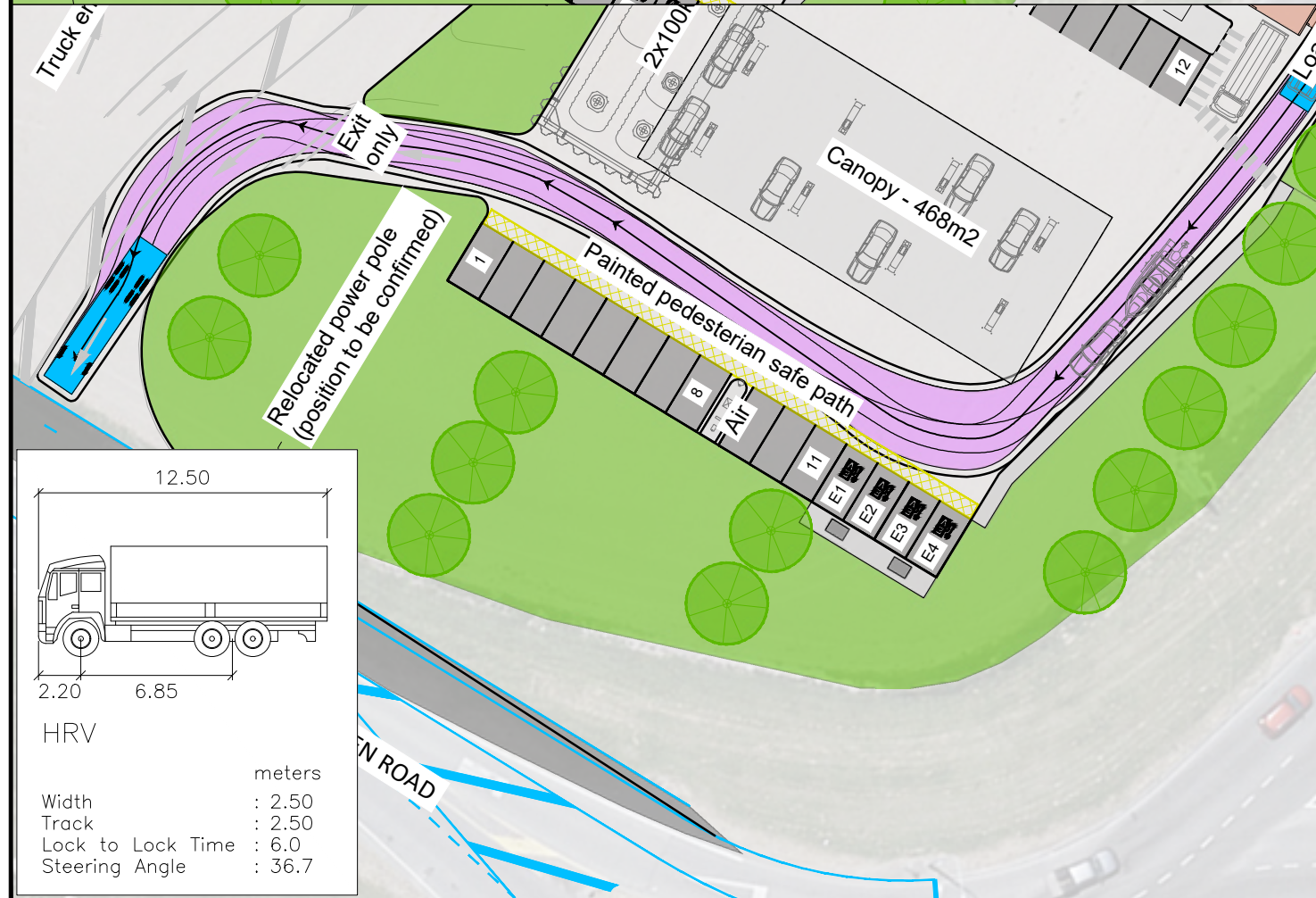
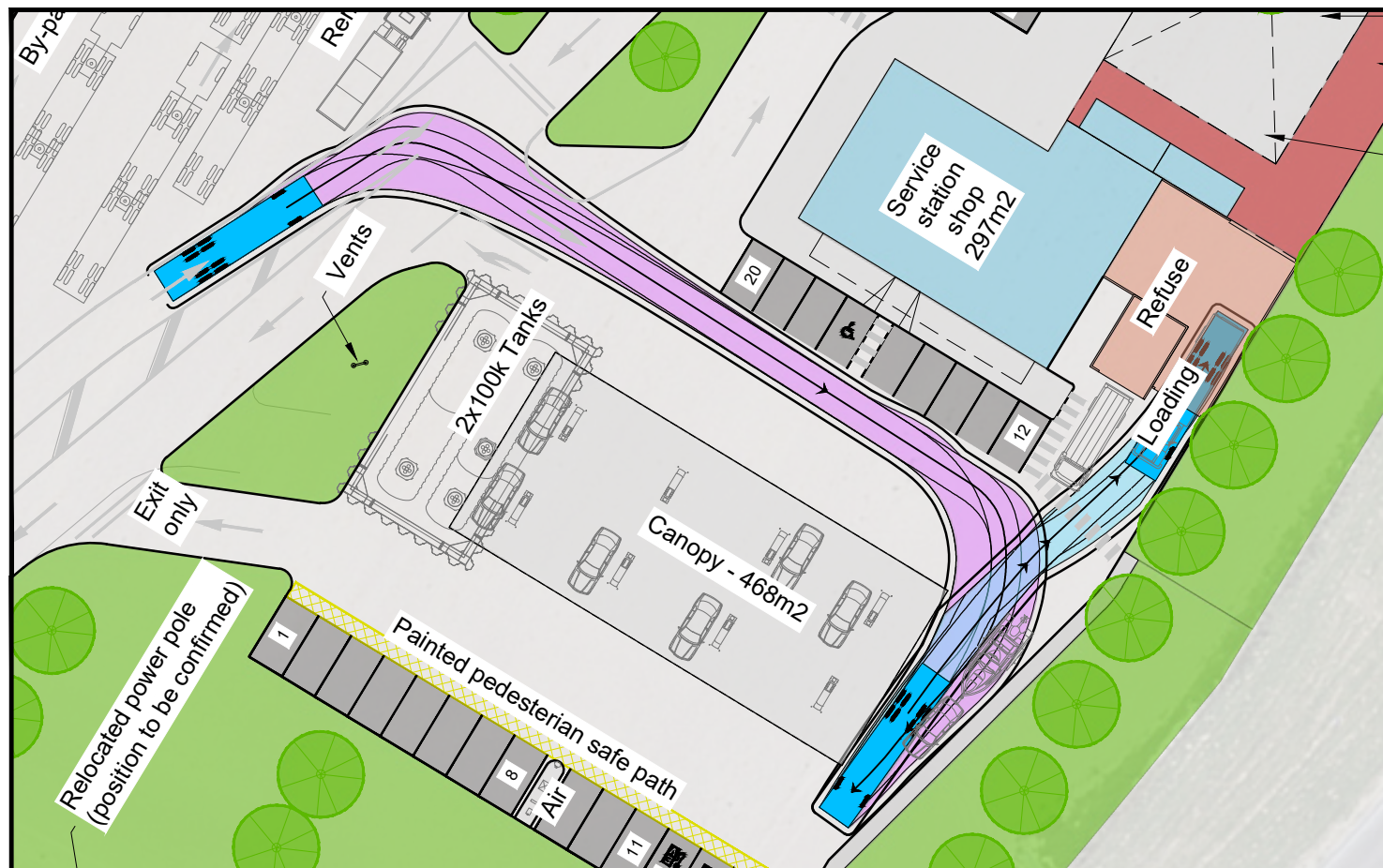
meters			
Tractor Width	: 2.55	Lock to Lock Time	: 6.0
Trailer Width	: 2.55	Steering Angle	: 24.1
Tractor Track	: 2.55	Articulating Angle	: 80.0
Trailer Track	: 2.55		

REV	DESCRIPTION	DATE	BY	CHK	APP	DATE	PROF REGISTRATION
I	PROPOSED SITE PLAN 01.09.2025	01.09.25	NJ	MG	MG	01.09.25	SURVEYED
H	PROPOSED SITE PLAN 25.02.2025	26.02.25	NJ	MG	MG	26.02.25	DESIGNED
G	UPDATED BASE: 3139-F1-PROPOSED SITE PLAN (27/11/2023)	29.11.23	CTM	MG	MG	29.11.23	DRAWN
F	ADDITIONAL VEHICLE TRACKING	18.12.20	MS	-	-	18.12.20	CAD REVIEW
E	REVISED VEHICLE TRACKING, ADDITIONAL LINEWORK IN SITE	08.12.20	MS	-	-	08.12.20	DESIGN CHECK
D	INCLUDE BASE PLAN FOR DEVELOPMENT	02.12.20	MS	-	-	02.12.20	DESIGN CHECK
C	REDUCE TAPER LENGTH, REDUCE DEVELOPMENT ACCESS WIDTH AT BOUNDARY, REVISED TRACKING	22.08.19	MS	-	-	22.08.19	DESIGN CHECK
B	MOVE NEW ACCESS 50m FROM DELEGATS, REMOVE RIGHT TURN BAY MARKING, REVISE TRACKING	10.06.19	MS	-	-	10.06.19	APPROVED
A	DRAWING CREATED	04.06.19	MS	-	-	04.06.19	APPROVED



Client:	EVENDEN ROAD ACCESSWAY
	VEHICLE TRACKING - 19.5m SEMI-TRAILER

Status Stamp	<b>WORKING PLOT</b>
Date Stamp	<b>26.02.2025</b>
Scales	1:200 (A1) 1:400 (A3)
Drawing No.	310204299-01-H-1
Rev.	1



REV	DESCRIPTION	DATE	DRN	CHK	APP	DATE	PROF REGISTRATION
H	PROPOSED SITE PLAN 25.02.2025	26.02.25	NJ	MG			
G	UPDATED BASE : 3139-F1-PROPOSED SITE PLAN (27/11/2023)	29.11.23	CTM	MG			
F	ADDITIONAL VEHICLE TRACKING	18.12.20	MS	-	-	08.12.20	
E	REVISED VEHICLE TRACKING, ADDITIONAL LINWORK IN SITE	08.12.20	MS	-	-	08.12.20	
D	INCLUDE BASE PLAN FOR DEVELOPMENT	02.12.20	MS	-	-	02.12.20	
C	REDUCE TAPER LENGTH, REDUCE DEVELOPMENT ACCESS WIDTH AT BOUNDARY, REVISED TRACKING	22.08.19	MS	-	-	22.08.19	
B	MOVE NEW ACCESS 50m FROM DELEGATS, REMOVE RIGHT TURN BAY MARKING, REVISE TRACKING	10.06.19	MS	-	-	10.06.19	
A	DRAWING CREATED	04.06.19	MS	-	-	04.06.19	

Client: **Stantec**

**EVENDEN ROAD ACCESSWAY**

**VEHICLE TRACKING - LOADING ZONES**

12.5M LARGE RIGID TRUCK AND 8M MEDIUM RIGID TRUCK

**WORKING PLOT**

Date Stamp: **26.02.2025**

Scales: 1:250 (A1) 1:500 (A3)

Drawing No: **310204299-01-H-2**

Rev: **H**



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**Stantec New Zealand**

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Wellington 6011

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Mail to: PO Box 13052, Christchurch 8140

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