

Planning | Surveying | Engineering | Environmental B21204 – 54 Aerodrome Road

Transportation Assessment Report



1.1 Document Control

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1 Introduction

CKL has been engaged by Alllied Asphalt Ltd to provide a transportation assessment for a proposed asphalt plant upgrade located at 54 Aerodrome Road in Tauranga. The site is currently used as asphalt plant and the proposed upgrades seek to improve the environmental outcomes associated with the site. In general, there are no significant changes to the site's operation from a transportation perspective.

This report addresses the transportation matters of the proposal and includes the following:

- Levels of vehicular traffic likely to be generated by the proposed asphalt plant;
- Associated effects on the performance and safety of the surrounding road network;
- Adequacy and function of the parking and access provisions; and
- Consideration of the transportation related provisions within the Tauranga City Plan (City Plan).

These and other matters will be addressed in the detail of the report that follows. By way of summary, it is concluded that the proposed development can be established such that there will be less than minor effects to the function, capacity and safety of the surrounding transportation network.

2 Existing Environment

2.1 Site Location

Figure 1 is an aerial photograph with the subject site at 54 Aerodrome Road highlighted in red. The aerial image is sourced from the Tauranga City Council Mapi Service.



FIGURE 1: AERIAL PHOTOGRAPH OF SITE



The site is currently used by Allied Asphalt Ltd as an asphalt plant with access provided along the northern property boundary which accommodates two-way flow. There are four existing vehicle crossings to the site. Of these, the northernmost vehicle crossing serves the asphalt plant, the second vehicle crossing from the north provides access to a parking area but is not currently in use while the two southernmost vehicle crossings currently serve the Fulton Hogan office.

The site is within the Industrial Zone as stipulated in the City Plan. The surrounding area is also within the Industrial Zone and used for industrial activities.

2.2 Transportation Environment

The surrounding road network is shown in Figure 2 below with the site highlighted in red.



FIGURE 2: SURROUNDING ROAD NETWORK

Aerodrome Road is classified in the City Plan as a Local Road. It is a two-way, two-lane road with a flush median. On-street parking is permitted on both sides of the road and the posted speed limit is 50km/h within the vicinity of the site. This increases to 70km/h north of the site in advance of the intersection with Hewletts Road.

Hewletts Road (State Highway 2) is classified as a Primary Arterial in the City Plan. It is a two-way, two-lane road with a marked carriageway and bus lanes. No on-street parking is permitted on Hewletts Road and it has a posted speed limit of 70km/h.



The Aerodrome Road / Hewletts Road intersection takes the form of a signalised crossroads intersection. The Hewletts Flyover commences just east of the Aerodrome Road intersection. It is not possible to turn left directly into Aerodrome Road from the flyover however the at-grade route does permit left turns. The at-grade route and flyover are parallel to each with the flyover having the benefit of being grade-separated from other intersections and level crossings.

2.3 Public Transport

A pair of bus stops is located approximately 300m north or a four-minute walk from the site on State Highway 2. These bus stops are served by the 2B and 2W bus services. The 2B service travels between Tauranga CBD and The Boulevard via Bayfair and Papamoa Plaza. The 2W service travels between Tauranga CBD and Wairakei Avenue via Bayfair and Papamoa Plaza. These bus services have a combined 15-minute operating frequency.

2.4 Walking and Cycling

No footpaths are provided on Aerodrome Road within the vicinity of the site or surrounding roads. Pedestrians are therefore expected to use the berm. No dedicated cycling infrastructure is provided within the vicinity of the site. Cyclists are therefore expected to share the road with motorists.

2.5 Traffic Volumes

The Waka Kotahi Traffic Monitoring System (TMS) has been used to obtain the peak hour and daily traffic volumes on Hewletts Road. The TMS reported that Hewletts Road just west of Aerodrome Road carries 3,863 vehicles per hour (vph) and 39,105 vehicles per day (vpd).

The latest traffic count data for Aerodrome Road has been obtained from the MobileRoads database which is based on Council RAMM data. MobileRoads reported 4,900vpd on Aerodrome Road between Cherokee Place and Aviation Avenue

The peak hour ratio of 9.9% of daily traffic volumes calculated for Hewletts Road has been adopted as MobileRoads does not provide any peak hour volumes. This equates to an estimated 484vph on Aerodrome Road.

2.6 Road Safety

A search was made of the Waka Kotahi Crash Analysis System for all reported crashes that had occurred on Aerodrome Road within 50m across the frontage of the site including the intersection with Cherokee Place over the last full five year period. The search found that two crashes has been reported in the study area.

Of these two crashes, one resulted in minor injuries and the other resulted in property damage only. The minor injury crashed was caused by an inexperienced motorcycle rider hitting a parked vehicle. The non-injury crash was caused by a driver checking their mobile phone and hitting a parked vehicle.

No crashes were reported that involved the subject site, pedestrians or cyclists. As such, no specific road safety issues have been identified in relation to the subject site.



3 Proposal

It is proposed to upgrade the existing asphalt plant at 54 Aerodrome Road to meet the environmental policies of Fulton Hogan. The amount of asphalt manufactured is based on market demands and is unlikely to change as a result of the plant upgrade. However, the new facility does have a higher theoretical manufacturing capacity. The proposed site layout is shown in Figure 3 below.



FIGURE 3: PROPOSED SITE LAYOUT

The vehicular access to the asphalt plant will be provided via a single access along the northern side of the site. At the same time as upgrading the asphalt plant, it is proposed to improve access to the plant by providing a second access along the site's southern boundary. This will enable trucks to be able to circulate one-way through the site. The existing building along the southern boundary will be removed as part of the project.

The proposed southern access will integrate with the existing entrance to the parking spaces in front of the office. As such, the number of vehicle crossings onto the road network will not increase however this vehicle crossing will be widened in order to accommodate the larger vehicles associated with the asphalt plant.



4 Traffic Volumes

The number of vehicular movements generated by an asphalt plant is related to the amount of material processed. The likely number of trips generated by the site has been calculated based on the likely demand for asphalt product as well as the theoretical maximum output of the plant. It is expected that on average, the plant will manufacture 250 tonnes of material per day. The maximum expected output of the site equates to 1,000 tonnes of material over a 24-hour period.

4.1 Raw Materials

Raw material being delivered to the site is undertaken by truck and trailer units. On an average day where 250 tonnes of asphalt are manufactured, up to seven raw material deliveries will be required, resulting in 14 truck movements to and from the site. These deliveries would be distributed throughout the day therefore resulting in up to one truck delivery per hour (two truck movements).

For the theoretical maximum scenario of 1,000 tonnes of asphalt being manufactured over a 24-hour period, up to 28 raw material deliveries would be required resulting in 56 truck movements. These would also be distributed throughout the time with up to two trucks arriving within an hour generating four movements.

4.2 Asphalt Delivery

Asphalt produced from the site will be picked up by 10 and 12 tonne capacity trucks. On an average day where 250 tonnes of asphalt are manufactured, up to 25 asphalt trucks with a carrying capacity of 10-tonnes will be required, resulting in 50 truck movements per day to and from the site. It is noted that up to five asphalt trucks can be filled and depart the site within an hour as this represents the maximum hourly manufacturing capacity of the plant. Hence up to ten asphalt truck movements can be generated by the site within an hour. For days with higher product demands, this would result in the truck movements spreading across the day during off-peak hours rather than being focussed within a short time period.

For the theoretical maximum scenario of 1,000 tonnes of asphalt being manufactured over a 24-hour period, up to 80 asphalt trucks (12-tonne) would be required resulting in 160 truck movements per day. These would also be distributed throughout the time with up to two trucks arriving within an hour generating four movements. It should be noted that asphalt production cannot be maintained for 24 hours if the plant were to operate at maximum hourly capacity.

4.3 Staff

In addition to truck movements, up to four staff are expected to operate from the site. Staff have been assessed as driving themselves to the site and would all arrive within the typical morning peak hour and depart within the evening peak hour. This equates to eight staff movements within an hour during shift changeovers.

Commented [JM1]: This seems to be saying that max plant capacity is $5 \times x10$ tonne trucks per hour = 50 tonnes per hour but max daily capacity is = 1000 tonnes @ $= 2 \times 12$ tonne truckes per hour i.e = 24 tonnes? If so, might be worth explaining that if they run the plant at the max hourly capacity, they can't do that all day



4.4 Summary

Table 1 below summarises the total number of vehicle movements associated with the site.

TABLE 1: TOTAL TRIP GENERATION SUMMARY

Daily Output	Peak Hour (vph)	Daily (vpd)
	2 raw material trucks	14 raw materials trucks
250T	10 asphalt trucks	50 asphalt trucks
2501	8 staff cars	16 staff cars
	20 Total	80 Total
	4 raw materials	56 raw materials trucks
1000T	10 asphalt trucks	160 asphalt trucks
	8 staff cars	16 staff cars
	22 Total	232 Total

It is reiterated that the site is currently used as an asphalt plant that manufactures approximately 250 tonnes of material per day. As such, the typical peak hour and daily traffic volumes are unlikely to change from what is currently generated. The theoretical scenario of 1,000 tonnes being generated over a 24-hour period represents a potential increase of up to 152vpd with hourly increases of up to 22vph during off-peak times and up to 2vph during peak times.

A single traffic lane typically supports up to 1,000vph to 1,400vph. Given that the existing peak hour volume on Aerodrome Road is less than 500vph, the addition of up to 22vph is not expected to result in any adverse material effects on the surrounding road network given that an increase of this magnitude would occur outside of peak times and that the increase during peak times is only 2vph.



5 Access

Access to the site will be provided via four vehicles crossings onto Aerodrome Road with two vehicle crossings serving the asphalt plant, one along the northern property boundary and the other along the southern property boundary. Figure 4 below shows the vehicle crossing provision for the site.

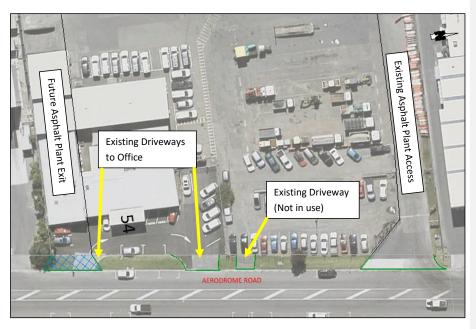


FIGURE 4: VEHICLE CROSSINGS

The internal access to the asphalt plant at the rear of the site is proposed to have a one-way operation with the northern access being entry only and the southern access being exit only. The southern vehicle crossing will be widened to 10m to match the existing northern access as part of the development. Although the southern access is an exit-only that serves the asphalt plant, the southern vehicle crossing can still be used as an entry for the Fulton Hogan office building. It is expected that inbound cars will give-way to trucks exiting the asphalt plant.

The minimum separation required between vehicle crossings and intersections as stipulated in the City Plan is 9m for an access that fronts a local road. The access has at least 12m of separation to an adjacent intersection which complies with this rule.

The City Plan states that a minimum sight distance of 55m is required for an access that fronts a local road with an operating speed of 60km/hr. An operating speed of 60km/hr has been adopted which is 10km/hr higher than the posted speed limit to ensure a robust assessment is undertaken. There is at least 100m of visibility available when measured in accordance with Appendix 4H of the City Plan which satisfies this rule.

The minimum vehicle crossing width required as stipulated in the City Plan is 3m one-way and there is no maximum width requirement. The City Plan requires accesses to accommodate the expected articulated



truck and trailer units that serve the site. Figure 5 and Figure 6 below show a 23m truck and trailer for aggregate entering and exiting the site.



FIGURE 5: 23M LEFT IN LEFT OUT TRACKING



FIGURE 6: 23M RIGHT IN RIGHT OUT



The proposed one-way accesses are approximately 10m wide and accommodate the expected design vehicle which satisfies this rule. Furthermore, trucks are able to access the site without affecting existing on-street parking spaces.

The maximum change in gradient stated in the City Plan is 1 in 8 (12.5%). The site is relatively flat and gradients do not exceed a 1 in 8 grade.

Overall, the access arrangements are assessed as being suitable for the proposed plant upgrade.

6 Parking

There are no minimum or maximum parking requirements for Industrial activities in the City Plan. As such, the parking provision complies by default. No other changes are proposed for the on-site parking arrangements and staff numbers. Therefore there are no changes to the parking demands of the site.

Six parking spaces are proposed within the upgraded asphalt plant which is similar to the existing parking provision. The City Plan requires 2.5m parking spaces to be 4.8m long and have at least 5.8m of manoeuvring space. The proposed parking spaces are 2.5m wide, 5.0m long, and have at least 5.8m of manoeuvring space which satisfies this rule.

Three 90-degree parking spaces along the southern property boundary will be removed to make way for the new exit from the asphalt plant. Given the size of the site as a whole, there is sufficient space within the yard area for additional cars to park if required. It is therefore assessed that the removal of three parking spaces is unlikely to result in an increased demand for on-street parking.

The City Plan requires one Heavy Goods Vehicle bay for industrial activities. A loading bay included within asphalt plant where trucks can park underneath the barrel/hopper which satisfies this rule.

The City Plan states that loading spaces must be 3.5m wide and 8m long. The proposed loading space is 5m wide and 36m long which complies with this rule.

Overall, the parking provisions within the site are expected to be suitable for the asphalt plant upgrade.



7 Statutory Assessment

The proposed plant upgrade has been assessed against the transportation rules within chapter 4 of the City Plan which includes consideration for Plan Change 26. This assessment is summarised in Table 2 below.

TABLE 2: CITY PLAN RULES ASSESSMENT

Criteria	Compliance	Comment
4B.2.1 Parking, Manoeuvring and Loading in the Port Industr	y Zone	
On-site parking, on-site manoeuvring and vehicle loading requirements shall not apply to any activity within the Port Industry Zone provided that all parking, manoeuvring and loading areas provided to meet the demand or operational requirement for that activity are contained wholly within the Port Industry Zone.	N/A	Site is not in Port Industry Zone
4B.2.2 On-Site Parking Requirements – City Centre Zone		
No on-site car parking minimums apply to activities within the City Centre Zone.	N/A	Site is not in City Centre Zone
4B.2.3 On-Site Parking Requirements - General		
a) The minimum on-site parking requirements in Appendix 4A: General Minimum Loading Requirements shall apply to all activities not otherwise provided for by Rule 4B.2.2 – On-Site Parking Requirements – City Centre Zone and Rule 4B.2.11 – On-Site Parking – Extensions and Alterations to a Lawfully Established Activity;	Complies	Activity is listed in Appendix 4A and is expected to accommodate at least 1 HGV
b) All on-site parking shall be located within the site;	Complies	All parking will be contained within the site.
c) For any residential independent dwelling unit on a site, stacked on-site parking space shall be permitted provided the stacking area is exclusive of the on-site manoeuvring area;	N/A	No residential activities proposed
d) Any activity (excluding activities in Rural Zones) required to provide parking and loading spaces in accordance with Rule 4B.2.3 a) and b) On-Site Parking requirements — General shall ensure that all areas on the site used for vehicle parking, access, manoeuvring and loading/unloading shall be formed and sealed with an all weather surface prior to the activity commencing.	Complies	All areas used for vehicles are formed and sealed
4B.2.4 On-Site Parking Design		
a) Maximum gradient of 1 in 5 with break-over angles eased by a short transition slope; $ \\$	Complies	Gradients do not exceed 1 in 5.
b) Individual space dimensions in accordance with Appendix 4B: Parking Stall Dimensions. For the purposes of this rule, the dimensions shall apply in all situations even when no building is involved;	Complies	Parking spaces satisfy City Plan standards
c) For parking and manoeuvring areas adjoining a primary arterial or secondary arterial road a kerb or similar barrier shall separate the parking area from the road boundary with the following dimensions:	N/A	No parking proposed adjoining arterial road



Criteria	Compliance	Comment
i) For angled parking not less than 0.15 metres high and 0.6 metres wide;		
ii) For parallel parking not less than 0.15 metres high and at least 0.15 metres wide. $ \\$		
4B.2.5 On-Site Manoeuvring		
a) All activities with vehicle access to the strategic road network or collector roads as shown on the City Road Hierarchy Plan (see Diagram 1, Section 5, Plan Maps Part B) and not otherwise listed in Rule 4B.6 – Non-complying Activities, shall provide on-site manoeuvring such that all vehicles can enter and exit the site without reversing on to the road. Such manoeuvring shall be able to be executed in no more than a three-point turn;	Complies	No reverse manoeuvring onto the adjacent road network is required
b) All activities shall provide on-site manoeuvring for a 90 percentile car in accordance with Appendix 4D: 90 Percentile Tracking Curve for a Car provided that reversing may be permitted only on to a local road where less than five carparks are provided on-site;	Complies	Sufficient on -site manoeuvring available.
c) Every activity in a Commercial Zone or Industrial Zone shall provide on-site manoeuvring for:	Complies	All vehicles expected to frequent the site can
i) A 90 percentile two-axle truck in accordance with Appendix 4E: 90 Percentile Tracking Curve for an 8 metre Rigid Two Axle Truck;		manoeuvre efficiently and can exit the site in a forwards direction
ii) Articulated trucks and trailers or buses where they are likely to visit the site in accordance with Appendix 4F: 90 Percentile Tracking Curve for a 19 metre Truck;		
in such a way that all vehicles can enter and exit the site without reversing. Such manoeuvring shall be able to be executed in no more than a three-point turn;		
d) Notwithstanding Rule 4B.2.5 c) – On-site Manoeuvring, any activity that has a vehicle access to a State Highway and is required to provide a heavy goods vehicle loading space shall provide on-site manoeuvring for a 90 percentile 19-metre long semi-trailer combination 4-axle truck in accordance with Appendix 4F: 90 Percentile Tracking Curve for a 19 metre Truck;	N/A	Site does not front the state highway network
e) On-site manoeuvring shall not be required where the activity has access to a formed service lane;	N/A	No service lanes
f) Minimum aisle and accessway widths shall be 3 metres for a one-way flow and 5.5 metres for a two-way flow.	Complies	Internal accesses are over 3m wide to accommodate design vehicles and have a one- way operation
4B.2.6 Vehicle Loading Requirements		
a) All activities, except those located within the City Centre Zone, shall provide loading spaces in accordance with Appendix 4A: General Minimum On-Site Parking & Loading Requirements. Where loading spaces are required they shall be located:	Complies	One loading space required and one loading space provided.



Criteria	Compliance	Comment
i) On the same site as the activity; ii) Exclusive of any vehicle parking space or manoeuvring area required by the Plan; iii) Where the loading/unloading space directly faces a road, it shall be set back at least 5 metres from the road boundary;		
b) Vehicle loading spaces shall not be required where the activity has access to a formed service lane;	N/A	Site does not have access to a formed service lane
c) Vehicle loading spaces shall be designed to accommodate a 90 percentile two-axle truck in accordance with Appendix 4E: 90 Percentile Tracking Curve for an 8 m Rigid Two-Axle Truck, and where articulated trucks and trailers or buses are to be used, loading spaces shall also be designed to accommodate these vehicles;	Complies	Design vehicles are able to navigate in a forwards direction through the site
d) Every vehicle loading space shall be of useable shape of the following dimensions: i) Minimum width of 3.5 metres; ii) Minimum depth of 8 metres; iii) Minimum height of 3.8 metres above ground or floor	Complies	Loading space is 5m wide and 36m long.
level.		
4B.2.7 Site Access and Vehicle Crossings		
a) The location of vehicle access points from an intersection shall be in accordance with Appendix 4G: Location of Access Points from Intersections;	Complies	At least 9m of separation required and 12m of separation achieved
b) Vehicle crossing points serving a business activity site shall be a minimum width of 4 metres, and a maximum width of 9 metres on the site boundary;	N/A	Does not apply as articulated truck and trailer units frequent the site. See rule below.
c) Vehicle crossing points serving a business activity site where articulated trucks and trailers or buses are likely to be used shall be designed to accommodate these vehicles;	Complies	Vehicle crossings accommodate design vehicles. See section 5 of this report.
d) Vehicle crossing-point widths for other activities shall be a minimum width of 2.7 metres on the site boundary;	Complies	Vehicle crossings are over 2.7m wide
e) Where vehicle entrance locations are altered, the crossing area no longer required shall be reinstated as verge and/or footpath and kerbs replaced. The cost of such work shall be borne by the owner of the property served by the former crossing;	N/A	No vehicle crossings are being removed
f) The minimum sight distance from vehicle access points shall be in accordance with Appendix 4H: Calculating Sight Distances;	Complies	At least 55m required and over 100m available
g) Access points on to Taurikura Drive where Rule 18A.14.3.2 Traffic Management, Safety and Convenience does not apply are permitted subject to compliance with Rule 4B.2.7 Site Access and Vehicle Crossings a), b), c), e) and f).	N/A	Site does not front Taurikura Drive



Criteria	Compliance	Comment
4B.2.8 Points of Service for Developments with Direct Access	onto the Stra	tegic Road Network
a) Any activity involving the retail dispensing of vehicle fuels shall locate the fuel pumps a minimum of 10 metres from the mid-point on the boundary of any vehicle crossing onto the strategic road network. For truck stops this distance must be at least 18 metres;	N/A	Site does not involve fuel dispensing
b) All other drive-in facility activities with direct access onto the strategic road network shall have the first point of service activities set back a minimum distance of 20 metres from the edge of the road carriageway in accordance with Appendix 4I: Location of Points of Service where there is direct access onto the Strategic Road Network.	N/A	Site does not include any drive-in facilities.
4B.2.9 Sight-Lines at Uncontrolled Railway Crossings		
a) Where a railway and road intersect on the same level, no building or other physical obstruction which might block the sight-lines shall be permitted within an area shown as the shaded areas on Appendix 4J: Sight Lines at Uncontrolled Railway Crossings for 100km/h Train Speeds;	N/A	No nearby level crossings
b) Other sight-lines (other than specified in Rule 4B.2.9 – Sight Lines at Uncontrolled Railway Crossings) shall be permitted when the written consent of New Zealand Railway Corporation has been obtained before a building consent is issued.	N/A	No nearby level crossings
4B.2.10 On-Site Parking and Integrated Transport Assessmen Urban Growth Area	nt – Tauriko Bu	isiness Estate or Wairakei
Where an activity within the Tauriko Business Estate or the Wairakei Urban Growth Area is required to provide more than 25 on-site car parks, calculated in accordance with Appendix 4A: General Minimum OnSite Parking and Loading Requirements, Rule 4B.4 b) – Restricted Discretionary Activity Rules shall not apply. a) Where an activity within the Tauriko Business Estate or the Wairakei Neighbourhood Centre Zone, Papamoa East Employment Zone, and Wairakei Town Centre (Core and Fringe) is required to provide more than 25 on-site car parks, calculated in accordance with Appendix 4A: General Minimum On-Site Parking and Loading Requirements, Rule 4B.4 b) – Restricted Discretionary Activity Rules shall not apply; or b) Where an activity is a Comprehensively Designed Development Wairakei Residential Zone Medium Rise Plan Area and is required to provide more than 25 on-site car parks, calculated in accordance with Appendix 4A: General Minimum On-Site Parking and Loading Requirements, Rule 4B.4 b) – Restricted Discretionary Activity Rules shall not apply. For the avoidance of doubt Rule 4B.4 b) shall apply to the Wairakei Residential Zone and any activity within Medium Rise Plan Area that is not a comprehensively designed development.	N/A	Site is not within these areas



Criteria	Compliance	Comment
Where alterations and extensions to a lawfully established activity or building occur that take the total number of onsite parking spaces lawfully provided on-site beyond 25 or any number specified by a resource consent granted for the activity on the site, Rule 4B.4 b) – Restricted Discretionary Activity Rules shall not apply: a) Provided the greater of the following is not exceeded: i) 5 additional carpark spaces; ii) An additional 10% of the total carparking spaces lawfully provided, up to a maximum of 15 additional spaces. For the avoidance of doubt, Rule 4B.4(b) – Restricted Discretionary Activity Rules shall not apply where the number of additional parking spaces provided (if any) in association with alterations or extension does not exceed this number of spaces, regardless of the number of spaces required to be provided as calculated in accordance with Appendix 4A: General Minimum On-Site Parking and Loading Requirements; iii) For the avoidance of doubt, this rule can be used by any lawful or consented activity up to the limits in (i) and (ii) above, with any exceedance over those limits requiring a resource consent under Rule 4B.4(b) – Restricted Discretionary Activity Rules. b) The parking required to be provided is within the number of car parks previously consented for the activity on the site but not yet physically constructed.	Complies	Proposed plant upgrade does not increase car parking capacity
4B.2.12 Service Lanes		
Where a site is affected by a designation for a proposed service lane, any activity on the land shall be in accordance with the service lane widths and dimensions specified in the service lane diagrams contained in Section 4 (Plan Maps, Part B) (Service Land Diagrams).	N/A	Site does not have access to a service lane
4B.2.13 Zoning of Stopped or Closed Road		
Land which is a stopped or closed road shall cease to be zoned Road Zone and shall acquire the zoning of the adjoining land up to and including the centre line of the road. The rules of that zone shall then apply accordingly.	N/A	No Stopped or Closed Roads proposed
4B.2.14 Bicycle Parking Requirements		
a) The minimum bicycle parking requirements in Appendix 4S General Minimum On-Site Bicycle Parking Requirements shall apply to comprehensively designed development (Suburban Residential Zone – outside of urban growth areas), comprehensively designed development (Te Papa Housing Overlay), comprehensively designed development (City Living Zone) and residential activities in a Commercial Zone.	N/A	Site not in these zones
b) Where the calculation of the number of bicycle parks results in a fractional number, that fraction shall be rounded up to the nearest whole number.	N/A	No rounding required



Criteria	Compliance	Comment
c) All required on-site bicycle parking shall be located within the site.	N/A	No bicycle parking required
d) Bicycle parking shall meet the requirements of Appendix 4C - Bicycle Parking Dimensions and Design Requirements.	N/A	No bicycle parking required

The assessment above has identified that the proposed plant upgrade complies or is expected to comply with the objectives, policies and rules of the City Plan

8 Conclusion

It is proposed to upgrade the existing asphalt plant at 54 Aerodrome Road to meet the environmental policies of Fulton Hogan. The amount of asphalt manufactured is based on market demands and is unlikely to change as a result of the plant upgrade. Similarly, the number of staff and vehicle movements associated with the site are unlikely to change. Therefore, the associated parking demand and number of trips generated is unlikely to change from what are currently generated.

The new plant has a higher theoretical capacity. If the plant is operating at capacity, an additional up to 22vph and 152vpd are expected. This increase is not expected to result in any adverse material effects on the surrounding road network.

There are four existing vehicle crossings to the site on Aerodrome Road, with two vehicle crossings serving the asphalt plant being 10m wide. Sufficient sight distance is available at each vehicle crossing location and one-way operation of the access ensures that reverse manoeuvres are not necessary, including allowing for trucks to drive through the site in a forward's direction. The access arrangements are considered to be suitable for the proposed asphalt plant upgrade and comply with the City Plan requirements.

An assessment of the proposed asphalt plant upgrade against the transportation rules of the City has not identified any areas for non-compliance. As such, it is concluded that there are no traffic engineering or transport planning reasons to preclude approval of the proposed development.

CKL