Traffic Management Plan

Wellington International Airport Limited (WIAL)

Miramar South Designation(G4)

Corner of Broadway and Kauri Street

Wellington City

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1 INTRODUCTION

WIAL has completed the NOR process to designate the old school site that is on the corner of Broadway and Kauri Street. The designation for airport services includes, but is not limited to flight catering, rental car storage and freight reception.

The designation has a number of traffic related conditions to address any potential adverse effects. Specifically, a Traffic Management Plan (TMP) is required to be prepared three months prior to the first Outline Plan for the site (Condition 1).

It is important to note that the TMP is a living document that provides context to the different stages of the site and provides a map/guidance for requirements at each stage to meet the objectives of the designation. This TMP provides the overarching document for the site and will inform the material provided to Council as part of the Outline Plans that will be prepared for the different stages of the site development.

The requirements of the TMP are contained in Conditions 4 through to 8 of the designation. There are also traffic matters covered in Condition 9 which relate to the site access.

Condition 4 provides the framework for the TMP and what is required. Condition 4 was separated into two parts with the first part being the objectives as set out below:

> *The Traffic Management Plan required by condition 1 shall be prepared following consultation with the owner of the service station at 362 – 368 Broadway, and shall show the general configuration of on-Site and off-Site traffic management measures to be employed to achieve the following objectives:*
>
> *(a) Effectively manage traffic generated during the operation of the Site so that traffic volumes are safely accommodated within the existing road network;*
>
> *(b) So far as is reasonably practicable, avoid congestion or traffic delays on the adjacent local roading network and manage effects on pedestrian access and cycling on this network that are caused by operations at the Site; and*
>
> *(c) Maintain safe and convenient access to the service station located at 362 – 368 Broadway for vehicles travelling in either direction on Broadway, entering the service station from Broadway and tankers exiting the service station onto Broadway.*

This objective is aimed at ensuring safe and efficient access is maintained to the existing service station across the road from the NOR site. This document has been prepared to provide and enable the consultation with the owner of the service station.

The second part of Condition 4 sets out some specific requirements that need to be included in the TMP which are set out below:

The Traffic Management Plan shall describe, where appropriate:

(d) Site access arrangements on Broadway and Kauri Street which meet the requirements of condition 9;

(e) Provision of carparking spaces, loading and manoeuvring areas which meet the requirements of conditions 10 and 11;

(f) How pedestrian and cycle access to and past the Site would be accommodated;

(g) Any off-Site measures required, including, if necessary, an upgrade of the intersection of Kauri Street and Broadway with either a roundabout or traffic signalisation and the likely timing of any necessary upgrade;

(h) Consideration of other modes of transportation and pedestrian access in the design of any off-Site measures required by (g) above;

(i) Details about consultation undertaken with the relevant road controlling authorities to enable any off-Site measures identified in (g) and (h) above to be implemented;

(j) Methods to provide route travel for trucks so as to avoid the need to drive along the Residential zoned parts of Miro Street, Kedah Street or Kauri Street except where there are specific circumstances where this is necessary.

The final part of Condition 4 sets out the following:

No outline plan shall be submitted by the requiring authority until such time as the WCC has certified that the Traffic Management Plan achieves the objectives set out in (a), (b) and (c) of this condition.

Accordingly, the TMP primary focus is to meet the objectives set out in parts (a) through to (c). This document provides the TMP for the designation site in line with the requirements noted in Condition 4.

Condition 4 also refers to Condition 9 which relates to site access. The access site will form an important part of meeting the objectives noted in Condition 4. Condition 9 is set out below for completeness

(a) Site access is to be provided and maintained in accordance with Section 3 of AS/NZ2890.1:2004.

(b) Subject to condition 9(0) below no vehicle access shall be situated closer to an intersection than the following distances: arterial and principal streets (20m), collector streets (15m), other streets (10m).

(c) Only one vehicle access shall be permitted onto Broadway and only one onto Kauri Street. No vehicle access (aside from provision for emergency access if necessary) shall be permitted onto Miro and Kedah Streets.

(d) The width of any vehicle crossing to the Site is not to exceed 6m.

(e) Any access to the Site shall be designed to permit a free flow of traffic so that vehicles are not required to queue on the street.

It should be noted that on 1 June 2022, WCC agreed to the alteration of conditions 9(d) as under SR 514637 as follows:

*(d) The width of any vehicle crossing to the Site is not to exceed **8m**.*

These requirements will need to be included in the design of the site access unless specifically dealt with in the Outline Plan process and accompanying reports.

The key issues from reviewing the Designation Conditions relate to congestion around the Kauri Street intersection, pedestrian and cycle safety as well as the access to the Z Service Station.

It should also be noted that the Conditions provided for the access are to be designed to Section 3 of AS/NZS 2890.1. This standard relates to light vehicles and not the requirements around larger vehicles such as trucks which will use the access points. AS/NZS 2890.2 should be used to develop the access requirements for the site. A site access of six metres is not wide enough to accommodate the movements associated with the car transporter.

2 SITE LOCATION AND DESCRIPTION

The designated site is located at the former Miramar South School site which is bounded by four roads being Broadway (south), Kauri Street (east), Kedah Street (north) and Miro Street (west).

Broadway connects to the wider road network via Calabar Road that forms part of the State Highway 1 road network. Stewart Duff Drive is a private road owned by WIAL and is the primary access to the airport terminals and associated services.

Stewart Duff Drive connects through to Moa Point Road. Moa Point Road forms part of the coastal road around Wellington.

The Wellington Airport Terminal is around 450 metres south of the NOR site. The Z service station is opposite the site on Broadway.

As noted above all access to the site has been restricted to Broadway and Kauri Street except for emergency vehicles, if necessary.

Figure 1 shows the site and the frontage to Broadway and Kauri Street where the site access will be formed. The site is shown with the red outline. The service station is on the other side, opposite Kauri Street.

Figure 1: Site Location (Source: Wellington Webmaps)

As shown, Broadway runs in an east west direction with Kauri Street more to the north and south direction. The intersection of Kauri Street and Broadway is controlled by give way signs which give motorists priority to Broadway.

The intersection of Broadway and Calabar Road is a roundabout with two lane approaches and two-lane departures for Stewart Duff Drive and Calabar Road. The Broadway departure is a single lane.

The service station on the opposite side of the road has four vehicle crossings with two on Broadway and two on Stewart Duff Drive. All have a generous widths allowing easy access to and from the service station.

3 SITE DESIGNATION

As noted above, the site will provide a number of services for the nearby airport. These services include, but are not limited to, the storage of airport related vehicles, inflight catering services and freight facilities. An extract from the Wellington City District Plan is provided below for reference

Appendix AC: Wellington International Airport Ltd. Airport Purposes Designation (Miramar South Area): Conditions and Outline Plans

Designation

The land to which this designation applies ("the Designated Area" or "the Site") may be used for activities for the operation of Wellington International Airport ("the Airport") including:

- Flight catering;
- Rental car storage, maintenance and grooming;
- Freight reception, storage and transfer to/from air;
- Ground Service Equipment (GSE) storage; and
- Associated carparking, signage, service infrastructure and landscaping.

For the avoidance of doubt Aircraft Operations, runways, traffic control structures, aircraft hangars, and Large Format Retail shall not be permitted within the Designated Area.

The Designated Area shall cover the area shown in Attachment 1 and is subject to the conditions set out in the Conditions section below.

Extract from Chapter 24 Wellington City District Plan – Designation Appendices

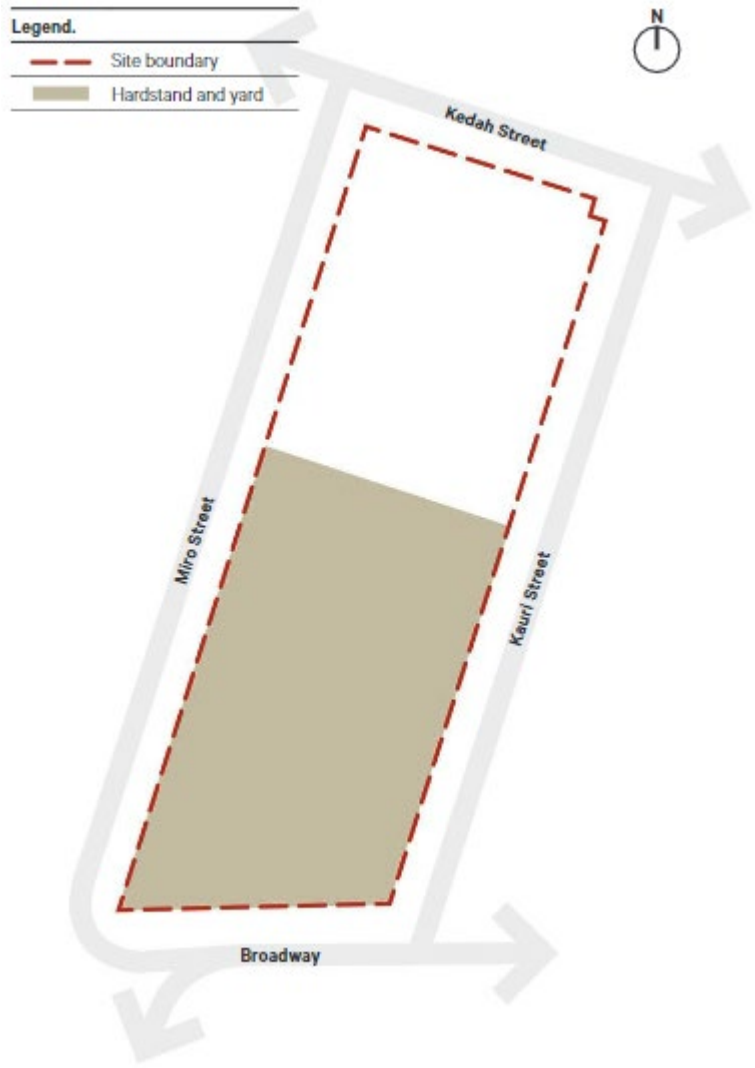
As shown the designation allows for a range of activities.

4 SITE DEVELOPMENT AND STAGING

The development of the site will be carried out in stages

This will see the site develop firstly at the southern end for the storage of rental vehicles and as a bus depot for the new Airport Bus service. As the different stages are completed then the development will progress north within the site.

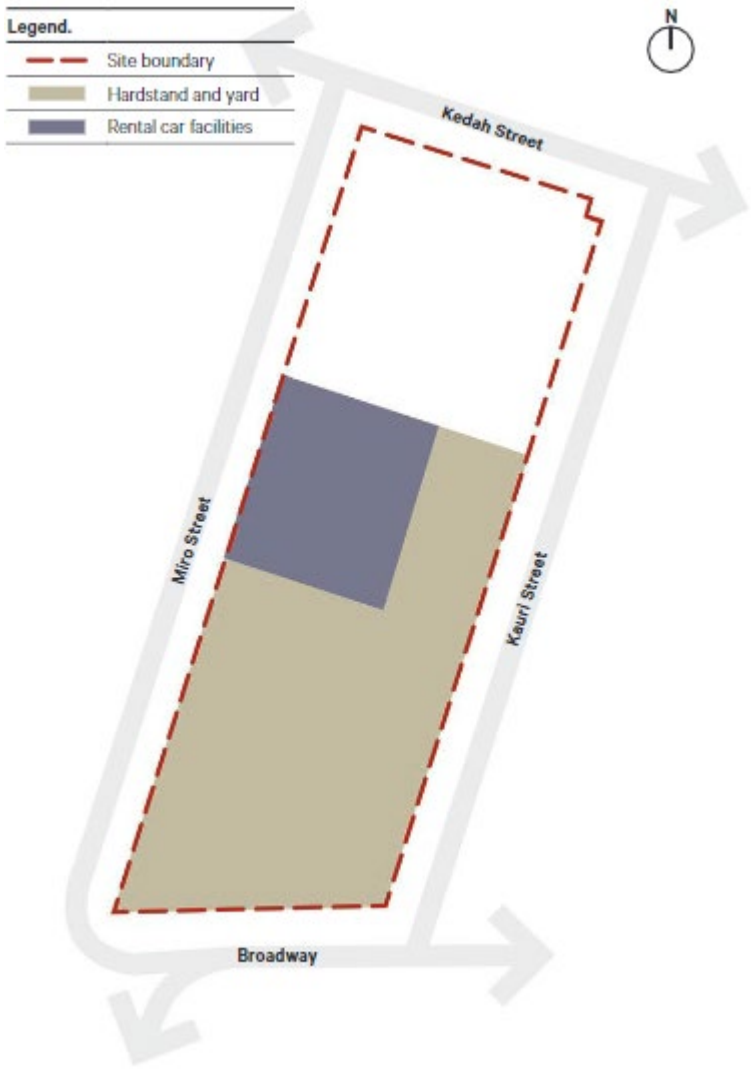
Stage 1 – Vehicle Hardstand



This stage will see the formation of hardstand areas which will accommodate rental vehicles and a small bus depot. The rental car storage area is for cars which are moved to the pickup area at the terminal as required and generally outside the peak times. There will also be more cars stored on-site than will be required on a daily basis.

The bus depot will see the storage facility for 10 electric buses (for the new Metlink Airport Bus route). Typically, the buses will not be in the depot as they will be on the airport routes. This area is more for the overnight storage and off-peak times. As with the rental cars, the number of in and out movements will be small.

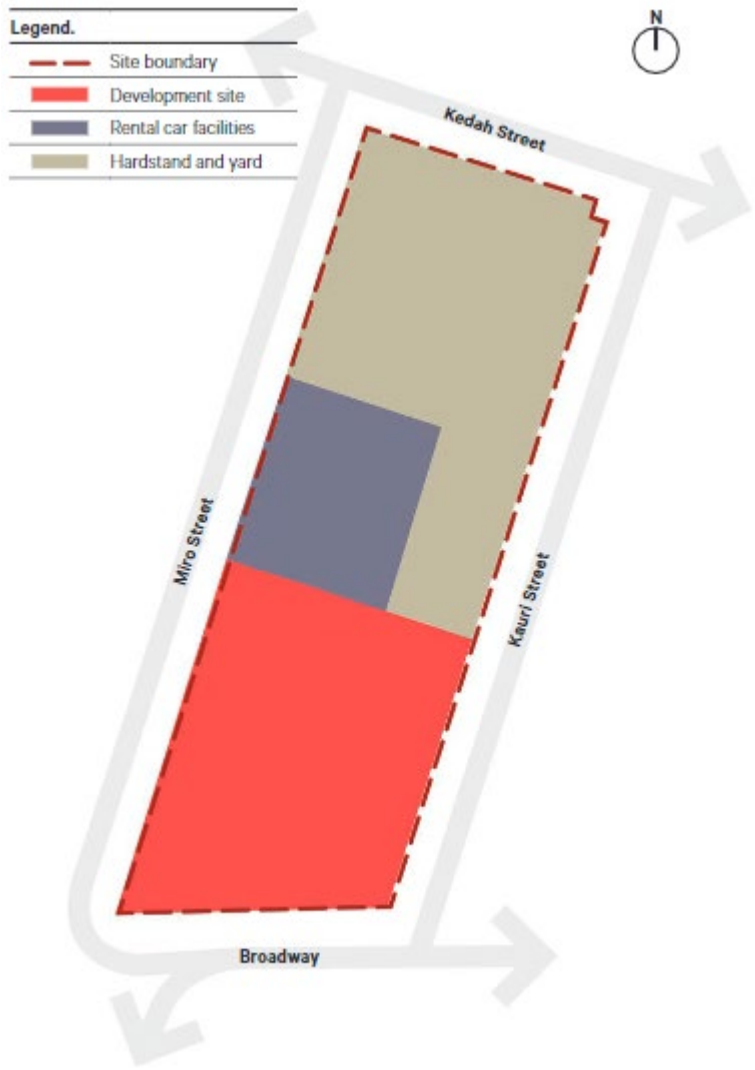
Stage 2 – Rental Facilities



Stage 2 will maintain the bus depot and rental car parking with additional associated rental car facilities to the centre of the site.

This stage sees more administrative and cleaning activities come to the site associated with the rental car business. The main change will be more on-site staff dealing with bookings, vehicle rotation, cleaning and vehicle preparation. These activities will be spread over the day with peak flows being relatively small due to the different start/finish times to peak movements on the adjacent road network.

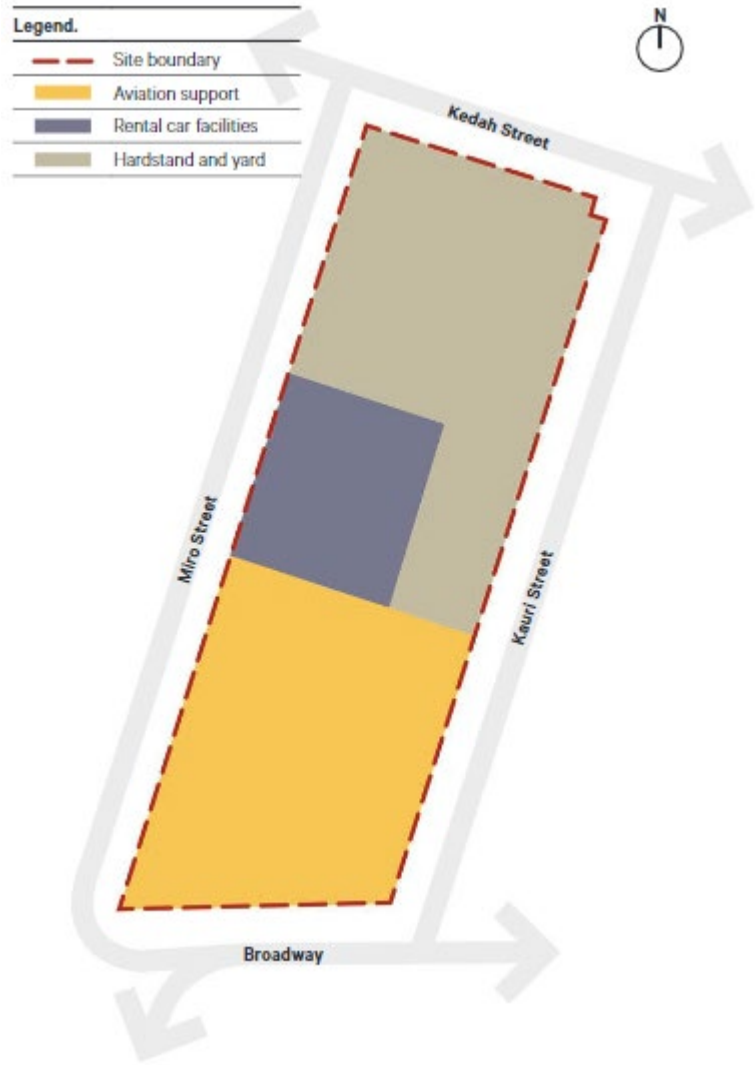
Stage 3– On-site relocation of rental car parking



Stage 3 involves moving the rental car stand from Stage 1 area to the north of the site to accommodate development in the south. The rental car and bus facilities will remain in the same location. The south end of the site will be prepared for further commercial land uses.

This stage is simply a reconfiguration of the activities on the site in preparation for new buildings for airport support services. Only change would be the temporary need for construction traffic associated with buildings etc.

Stage 4 – Aviation Support

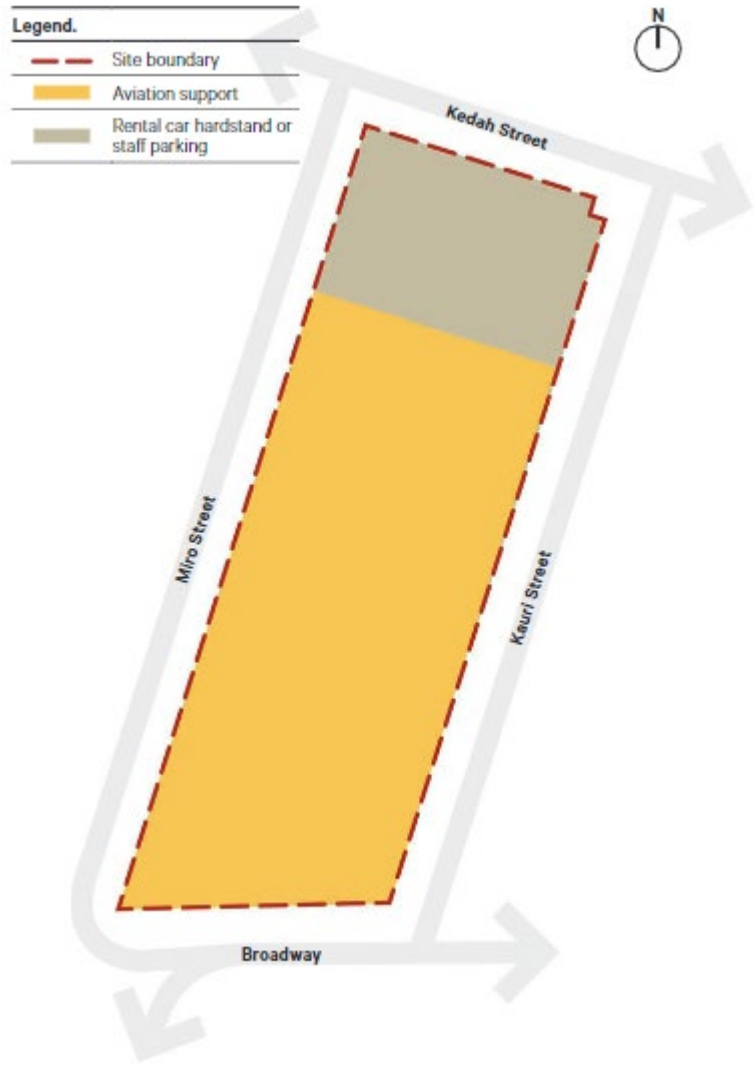


In Stage 4 will develop the south end of the site for aviation support, such as flight catering and logistics warehousing.

These will be located toward the southern end as Broadway has a more commercial context, with the northern context being residential.

These as with other airport activities will typically start early in the day and finish late. The start and finish times would be outside the peak flows on the adjacent road network.

Stage 5 – Increased Aviation Support



This is a long term scenario will ultimately use three quarters of the site for aviation support and the remaining quarter for rental car storage and staff carparking.

Access to the development site will be via a one-way access from Broadway and one-way access exit to Kauri Street, which is consistent with the conditions of the designation.

While there are up to five stages, some of the stages will have little or no effect on the traffic environment. For example, Stage 3 sees the relocation of the rental cars to the rear of the site and preparation of the frontage area for new buildings would see no discernible change in the number of vehicle movements.

The key element of the proposed/indicative activities on the site is that they will begin before the morning peak and finish after the evening peak flows on the adjacent road network. This will result in little change in the level of service on the adjacent road network.

Figure 2 shows the site layout for Stage 1.

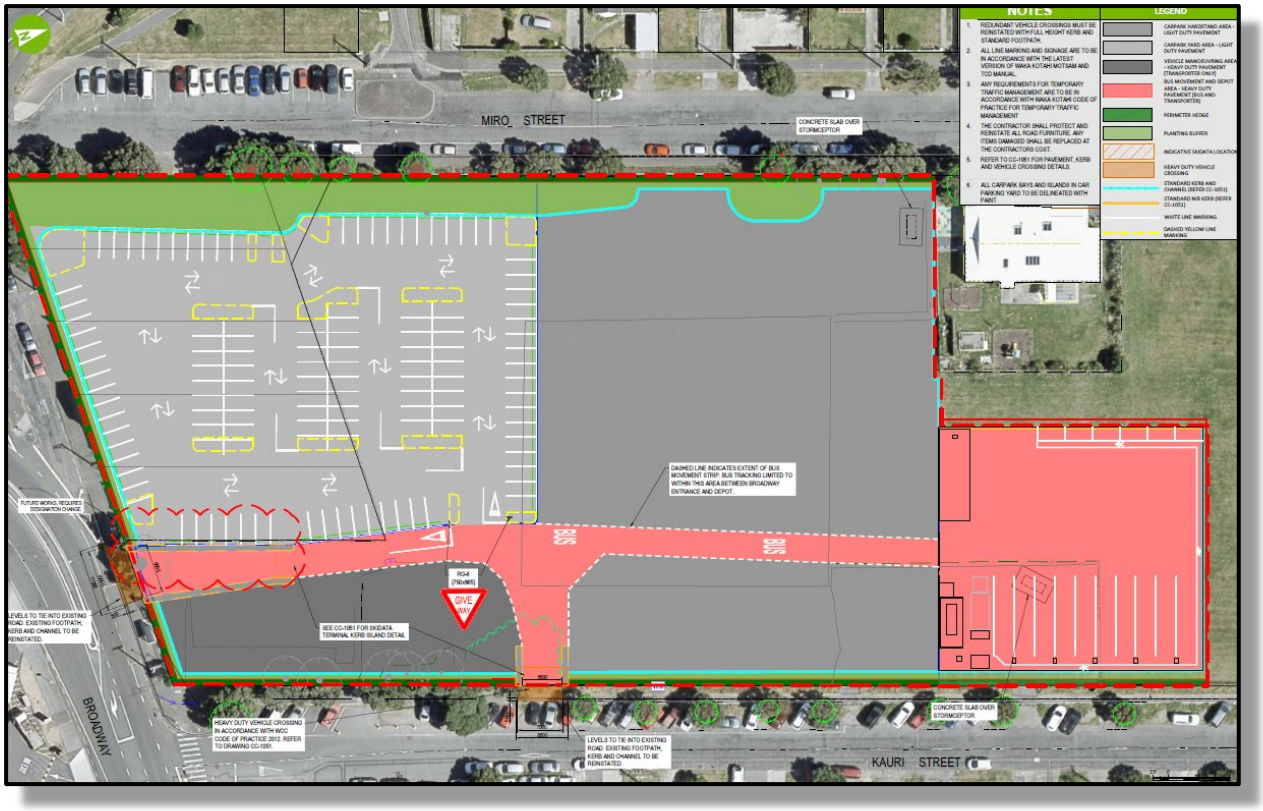


Figure 2: Stage 1 – Rental Car Space and Bus Terminus

The access points will remain in the same place throughout the development of the designated site. Stage 1 includes the development of the two vehicle access points to the site - entry only on Broadway and exit only on Kauri Street.

Due to the type of activities that will be on the site, there will be a need for specialised security controls which will see the introduction of access gates for access.

This will involve Skidata technology similar to what is used to manage the parking within the airport. All vehicles will enter from Broadway to access the different uses. All vehicles will exit via Kauri Street.

Figure 3 shows the proposed site access for the site.

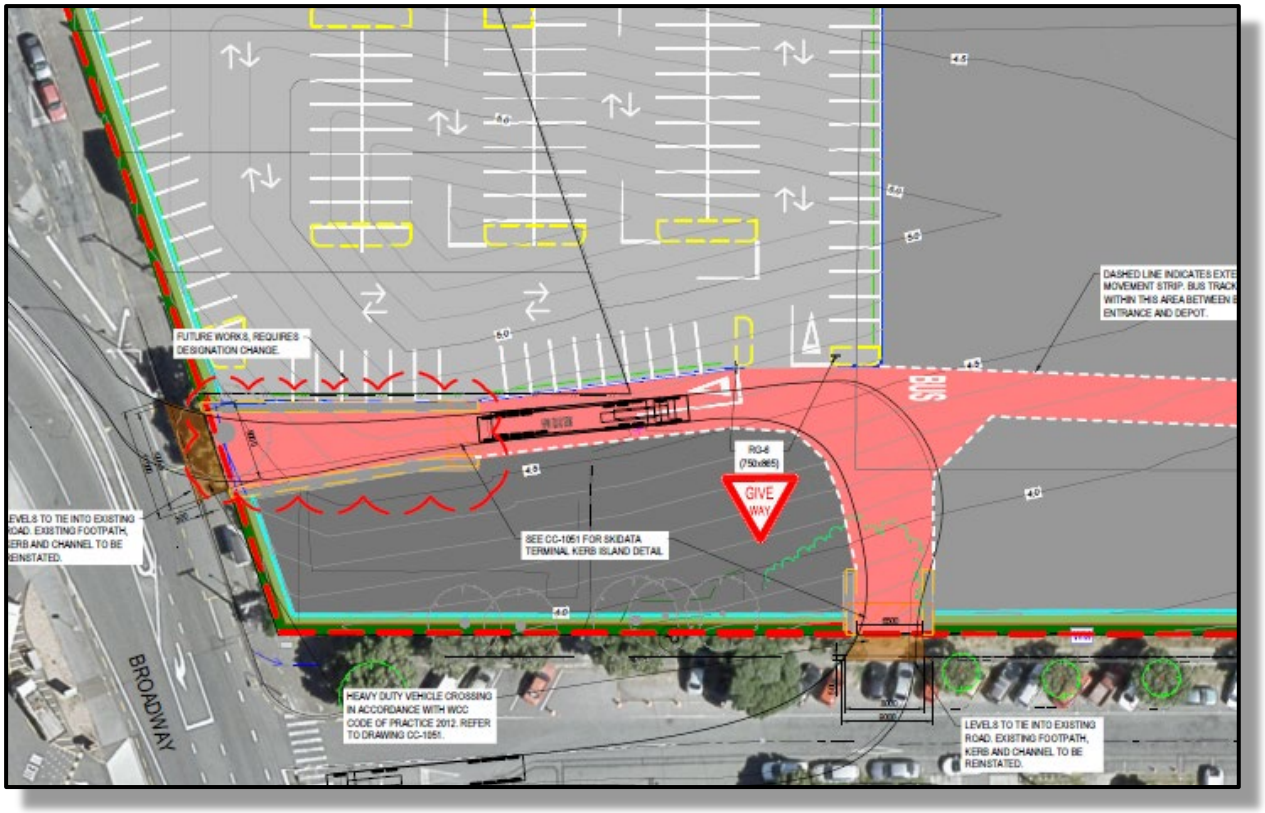


Figure 3: Site Access. (Source: Aurecon)

The site access along with the tracking curves are shown above. The access from Broadway is a single one-way (in) eight metre wide heavy duty vehicle crossing. This driveway is expected to provide for all of the traffic entering the site including long car transporters and buses.

The exit crossing on Kauri Street is 6.5 metres wide and provides for all the vehicle movements that leave the site.

It should be noted that neither of these crossings from Broadway or Kauri Street meet the NOR conditions in terms of their width. Council has however agreed to alter this condition under SR514637 so that these crossings are not exceed 8metres (previously 6m).

5 DESIGNATION CONDITIONS

The Conditions contained within the designation set out three objectives for managing the traffic effects of the designated site. Generally, these Conditions require the safe and efficient management of the traffic generated by the site, management of the traffic effects on cyclists and pedestrians and maintenance of safe and convenient access for the existing service station.

As part of the preliminary design, it has become apparent that the site accesses will not be able to meet the Conditions of the designation due to the need to accommodate long vehicles and the tracking paths that are necessary to accommodate these vehicles through the access points.

The elements that need to be considered in order to meet the objectives within the conditions set out earlier in this report are as follows:

- Traffic generation of the activities on the site.
- The timing of the movements for these activities.
- Location of site access points (and not the width of the access).
- Heavy vehicle movements.
- The design of the pedestrian and cycle facilities planned by Wellington City.

The analysis and assessment below draw on these matters.

6 TRAFFIC MANAGEMENT PLAN

This section sets out the various components of the development of the site for the airport use. This will be done in stages as noted above. The Plan provides the operating framework to the designated site.

There are restrictions on the vehicle access arrangements for the site which are set out in Condition 9 of the designation.

5.1 Traffic – Condition 4

This section provides the information required to be described in the Traffic Management Plan in accordance with Condition 4 of the Designation.

Table 1 sets out the compliance with Condition 4.

	REQUIREMENT	DISCUSSION	COMPLIANCE
(d)	*Site access arrangements on Broadway and Kauri Street which meet the requirements of Condition 9;*	The site access will be designed to meet AS/NZS 2890.1. As noted above, the access widths will need to be wider than six metres due to tracking requirements for the longer vehicles. It should be noted that AS/NZS2890.1 would allow for vehicle crossings up to nine metres.	**Complies**
(e)	*Provision of carparking spaces, loading and manoeuvring areas which meet the requirements of conditions 10 and 11;*	All on-site car parking will meet AS/NZS 2890.1. It should be noted that all heavy vehicle parking will be designed to meet AS/NZS 2890.2. Some of the rental car parking will be stacked which is suitable for the storage activity, which is managed by on-site staff.	**Complies**
(f)	*How pedestrian and cycle access to and past the Site would be accommodated;*	Currently there is a footpath across the two road frontages that will have accesses. The sight lines are good and will allow safety to be maintained. The access from Broadway is in - only which will allow any increased use by alternative transport modes to cross safely. The recommended changes to the width of the crossing will have no noticeable change in the levels of safety for vulnerable road users as noted above.	**Complies**
(g)	*Any off-Site measures required, including, if necessary, an upgrade of the intersection of Kauri Street and Broadway with either a roundabout or traffic signalisation and the likely timing of any necessary upgrade;*	This requirement will be largely based on traffic surveys and congestion for the right turn out of Kauri Street that will need to be undertaken at each stage of development The need for any changes will largely depend on the timing of the new activities and how they relate to the flows on the adjacent road network.	**See assessment below**

(h)	*Consideration of other modes of transportation and pedestrian access in the design of any off-Site measures required by (g) above;*	This will be completed as part of the need for any mitigation works to manage congestion at the appropriate stage and with each Outline Plan submitted for approval. Based on the current stages it is unlikely any changes would be required, if at all, until Stage 4.	**See assessment below**
(i)	*Details about consultation undertaken with the relevant road controlling authorities to enable any off-Site measures identified in (g) and (h) above to be implemented;*	This will be completed as part of the need for any mitigation works to manage congestion and with each Outline Plan submitted for approval. Based on the current stages it is unlikely any off-site changes would be required, if at all, until Stage 4.	**See assessment below.**
(j)	*Methods to provide route travel for trucks so as to avoid the need to drive along the Residential zoned parts of Miro Street, Kedah Street or Kauri Street except where there are specific circumstances where this is necessary.*	The design of the site accesses will encourage and force a one-way route into and out of the site. Trucks will enter the site from Broadway (left turn in) and exit via a right turn out of Kauri Street and onto Broadway. Trucks are unable to use adjacent residential streets as a result of the design of the site accesses.	**Complies**

Table 1: Condition 4 Compliance - Traffic

As noted in the table, the site access widths will need to be wider than required under the Designation Conditions. This matter, along with the treatment of the intersection of Broadway and Kauri Street and Z service station is addressed below.

5.2 Site Access – Condition 9

Condition 9 restricts access to the designated site to one crossing on Broadway and one crossing on Kauri Street. The access points are also only allowed to be a maximum of six metres in width.

Due to the nature of the access from Broadway, this vehicle crossing will be entry only with the Kauri Street vehicle crossing being exit only.

Table 2 provides an assessment of the design against the requirements of Condition 9.

	REQUIREMENT	DISCUSSION	COMPLIANCE
(a)	*Site access is to be provided and maintained in accordance with Section 3 of AS/NZ2890.1:2004.*	The site access will be designed to meet AS/NZS 2890.1 The site access will meet the provisions of AS/NZS 2890.1 with pedestrian splays provided. Sight distances are met for both crossings. The access type allows for vehicle crossing widths of up to 9.0 metres. (Note this is wider than the Designation Condition). Crossing width dealt with separately within the Designation conditions.	**Complies**

		Grades are flat and will comply. The queueing area will provide the expected separation from the back of the footpath and will comply	
(b)	*Subject to condition 9(0) below no vehicle access shall be situated closer to an intersection than the following distances: arterial and principal streets (20m), collector streets (15m), other streets (10m).*	The site access on Broadway (Principal Road) will be around 18 metres from Kauri Street (local road) and more than 40 metres from Calabar Road (Arterial Road). It should be noted that a slip lane for Miro Street is around nine metres from the new vehicle crossing. The crossing was shown in the Designation process and appeared to ignore this unusual intersection arrangement. The site access on Kauri Street will be more than 20 metres from Broadway.	**Complies**
(c)	*Only one vehicle access shall be permitted onto Broadway and only one onto Kauri Street. No vehicle access (aside from provision for emergency access if necessary) shall be permitted onto Miro and Kedah Streets.*	There is one vehicle crossing for the Broadway frontage which will be entry only. There is one vehicle crossing for Kauri Street frontage which will be the exit for all vehicles.	**Complies**
(d)	*The width of any vehicle crossing to the Site is not to exceed 6m. Note this condition has been altered so that vehicle crossings are not to exceed 8 metres (SR514637)*	In reviewing the tracking curves prepared in the design and shown above, it is not possible for larger vehicles to enter and exit the site through a six metre wide crossing. The longer vehicles would have to move over the central median and the slip lane kerbs to access the site from Broadway if the crossing was only six metres wide. The long vehicle leaving the site via Kauri Street would be unable to position correctly as it heads for the intersection with Broadway. This has the potential to have a safety and efficiency effect on the adjacent network. It is recommended wider crossings are provided to better accommodate the vehicles that are likely to use the vehicle accesses. It is now proposed to have an eight metre wide entry crossing from Broadway and a 6.5 metre wide exit crossing on Kauri Street. These are required for vehicle tracking. The effects of the wider crossings are managed with the simple entry and exit one-way flows, the excellent sight lines and on-site circulation. Any effects are less than minor. There is a cycle/pedestrian connection along Broadway linking the eastern suburbs to Rongotai via an underpass underneath the airport runway. The recommended wider entry crossing on Broadway will cross this cycle/pedestrian link. The effects of the wider crossing are mitigated with the low entry speeds controlled by security gates and the excellent intervisibility between the different road users.	**Will comply as amended by SR 514637**
(e)	*Any access to the Site shall be designed to permit a free flow of traffic so that*	It is proposed to install a security gate system to meet airport security requirements. The gate for the entry off Broadway is around 25 metres from the back of the footpath. This will	**Complies**

	vehicles are not required to queue on the street.	allow vehicles to wait off the road and no queuing on the street.	

Table 2: Compliance with Condition 9 -Site Access

As shown, the design can meet the requirements of Condition 9, except for the vehicle access widths. Due to the vehicle sizes that will come to the site, the vehicle access points will need to be wider to ensure no adverse effects occur with longer vehicles having difficulty accessing the site. This will allow the two new access points to operate safely and efficiently which meets the requirements of Condition 9(a) which allows for a crossing width of up to nine metres.

5.3 Access Location – Condition 17

Condition 17 relates to the location of the Kauri Street access which is set out below.

> "Subject to the limitations set out in condition 9C) entry/egress for trucks shall not be located opposite residential zoned areas. Trucks shall not drive along the Residential zoned parts of Miro Street, Kedah Street and Kauri Street except where there are specific circumstances where this is necessary."

The design cannot meet the first part of the condition as the location of the site access onto Kauri Street is to be located opposite No. 10 Kauri Street. This property, although 'zoned' Outer Residential is utilised by Go Rentals for their rental car storage. The reason for the proposed vehicle access being located in the position proposed is because:

- To comply with this condition, the access would have blocked the opposite traffic lane as long vehicles exit the site.
- Any exit closer to the intersection with Broadway would make it more difficult for trucks to manoeuvre safely without hitting the new verges placed by council on the opposite side of the road.
- To avoid having to remove street trees and the new paved verges around these trees on the western side of Kauri Street. These verges etc were placed by Council after the designation was confirmed so were not an impediment to site access arrangements at the time of the NOR hearing.

The proposed location will allow long vehicles to exit the site and move clear of the opposite through traffic lane when waiting at the intersection of Broadway and Kauri Street. The location of the crossing along with the width provides a safe and efficient design solution.

In light of this, WCC have agreed to alter this condition under SR514637 as follows:

"Subject to the limitations set out in condition 9(c) entry/egress for trucks shall not be located opposite residential activities. Trucks shall not drive along the Residential zoned parts of Miro Street, Kedah Street and Kauri Street except where there are specific circumstances where this is necessary.

5.4 Designation Measures

This section considers the measures needed to mitigate any of the effects as noted in the Conditions. The key focus of these measures is to meet the safety and efficiency objectives of the Conditions 4(a) through to 4(c). The mitigation measures below are specifically designed to meet the Designation Conditions to provide a safe and efficient traffic environment for all road users.

In considering the key matters, the following items need to be addressed at each stage of development to ensure the effects are managed. Some of the future effects are difficult to determine at this point in time as the impacts may change with the development and time. Individual traffic impact assessments will be required for each Outline Plan to ensure the objectives are being met (in accordance with condition 6 of the Designation).

Site Access Mitigation

As indicated above the Designation Conditions allow for the one vehicle access per frontage on Broadway and Kauri Street. The crossings are to have a maximum width of six metres.

The tracking has shown that it will be difficult for long vehicles to enter and exit the site in a safe and efficient manner due to the left turn into the site, right turn out. Restricting the vehicle access to six metres will result in difficult and potentially unsafe vehicle movements for longer vehicles, and the possibility of drivers going over the centreline on Broadway or needing more than one movement to exit the site onto Kauri Street.

These restricted movements could have an unintended adverse effect on safety and efficiency of the adjacent road network.

The vehicle crossing (one-way in) on Broadway should be at least eight metres wide to provide a safe and effective entrance to the site. This will mitigate any adverse effects of the access and as noted above has no adverse effects on cyclists or pedestrians.

The crossing onto Kauri Street provides for exit only. The width of the exit crossing is too narrow and forces the driver of a long vehicle to carry out a difficult right turn. This manoeuvre can lead to a poorly located vehicle waiting to turn at the Broadway intersection. It may also require some drivers to carry out a small reverse movement on Kauri Street to exit the site and approach the intersection.

The Kauri Street crossing needs to be a minimum of 6.5 metres wide to provide a safe and effective access point. This will be reviewed as part of the Stage review work noted below.

Traffic Generation Mitigation

The material provided in the NOR Hearing suggested that the proposed uses of the site may lead to congestion which needs to be addressed. This view was based on observations of the existing intersection performance and intersection modelling (SIDRA).

The SIDRA modelling provided a useful prediction of the effects on the intersection of Broadway and Kauri Street following the completion of the development on the site.

The transportation analysis uses various trips for the different activities and makes a number of assumptions. In reviewing these assumptions, the expected peak movements for the site may be noticeably lower than that presented in the Hearing. The different activities on the site are mostly correct, but the timing of the movements may be offset from the peak flows on the adjacent road network. Accordingly, the assessment provided in the Hearing is likely to be very conservative. This is important when assessing the safety and efficiency effects of the fully developed designated site.

Given the uncertainty of the overall impacts of the traffic generation from the site, there is a need to take a measured approach to deal with potential effects and the type of mitigation measures. It was also noted in the transportation assessments that there is a high use of the street by "Uber Drivers" waiting for pick-ups to the airport. With the increased use of the intersection as a result of the proposed development, some of the existing traffic using this intersection may use other less congested routes. Due to the excellent connectivity of the adjacent road network alternative, less busy routes are available.

Accordingly, the future modelled congestion at the intersection of Broadway and Kauri Street may not eventuate due to other network changes and lower than modelled/expected trip movements. Should mitigation be required, then there is the ability to provide measures to mitigate the problems in the future.

Based on this level of change that may occur, it is recommended as part of the TMP, that specific site and street peak traffic assessments and analysis are completed at each stage/Outline Plan to identify any issues that need to be mitigated. This stage review will include the following:

- Provide tracking curves of the critical design vehicle. (i.e. semi trailer) for movement into and out the site as well as at the Broadway/Kauri Street Intersection,
- Provide an assessment of the critical gap for the right turn movement out of Kauri Street
- a survey of the Broadway/Kauri Street intersection three months after the completion of Stages 2 and 4,

- Complete SIDRA analysis along with an assessment, if required (based on survey data and measured queues) for Stages 1, 2 and 4 completion.
- A review of crash records at the same time intervals.
- A review of the operational aspects of the site, the Kauri Street intersection and the interactions with the Z service station. The operational elements will include speed within the site, pedestrian/cycle interactions, bus stop location and safety.
- A review the site access arrangements.

A report would be prepared with the above information along with specific recommendations and if appropriate to mitigate effects. Measures to address effects may include a roundabout.

Consideration at each step will be needed to assess the overall change on the network and those from the designated site as some of the future issues may be the result of other outside changes. For example, large residential growth that uses Broadway as the main access.

Separately a safety audit by independent auditor/s (jointly appointed by WIAL and WCC) is to be completed in accordance with Waka Kotahi Road Safety Audit Procedures for Projects on the existing intersection. A safety audit/s to be completed on the design of the roundabout if required. This will also be completed by independent auditor/s (jointly appointed by WIAL and WCC) is to be completed in accordance with Waka Kotahi Road Safety Audit Procedures for Projects

Consultation – Z Service Station

This Transport Management Plan is intended to provide a clear stepped process to identify and address effects as they may arise (or not) while the designated site is being developed and completed. It provides a pathway for the potential effects (if any) to be identified and addressed as and when required.

At each step noted above, a copy of the traffic impact report would be presented to Z service station and their feedback sought. Any issues raised by the owners of the Z service station will be considered and mitigation measures, if appropriate can be implemented. It should be noted only effects relating to the designated site will trigger the need for mitigation and no other effects from other developments.

7 SUMMARY

The Traffic Management Plan set outs a framework where any effects that may arise from the designated site are identified at key points of the development. Issues as they arise can be considered and mitigation measures provided as and when appropriate.

Overall, the TMP will address any adverse effects as required by the objectives set out in the Designation conditions (4(a) – (c)).

I certify that I have used the available plans and background documentation provided and have examined the design. The Traffic Management Plan has identified features of the design that need changes and provides a framework to manage the effects through a review process at certain stages of the development.

Signed:…… Date: 27 June 2022

Name: Gary Paul Clark

NZCE (Civil), REA, CPEng, MIPENZ

Director – Traffic Concepts Limited