

PO Box 3737 Richmond 7050 Tasman District M +64 (0) 21 243 1233 E: gary@tcl.kiwi

17 June 2024

Ref:1055

Jason Jones Principal Consultant Resource Management Group Ltd Wellington

Dear Jason

Frank Kitts Park Redevelopment – 29 Jervois Quay - Wellington City Traffic Impact Report

Following on from our discussions, design advice and my site visits, I have completed my assessment of the traffic matters relating to the proposed redevelopment of Frank Kitts Park and the concurrent construction of a new building for the proposed National Fale. The application site is located on the Wellington Waterfront with access from Jervois Quay.

The redevelopment project consists of two distinct but integrated parts as follows:

- the construction of the new Fale building,
- the wider redevelopment of Frank Kitts Park, which modifies a previous scheme consented in 2018.

This assessment considers these two components separately as the potential effects are different. This Transportation Impact Assessment ("TIA") will form part of the Resource Consent application for the redevelopment outlined above. The TIA sets out and describes:

- The existing transport environment in the vicinity of the site
- The crash history
- The development proposal

- Assessment of the development against the provisions of the Wellington City District Plan, and
- An assessment of the proposed layout, parking and servicing provisions of the proposed development.

The assessment provided below provides an analysis of the matters as set out above.

1. Site Location and Description

The site is located at 29 Jervois Quay that is on the Wellington Waterfront. Number 29 Jervois Quay includes land that goes from the Queens Wharf Event Centre to the edge of Te Papa. The site for the proposed works is known as Frank Kitts Park which is at the northern end of 29 Jervois Quay.

Figure 1 shows the site location and the surrounding road network.

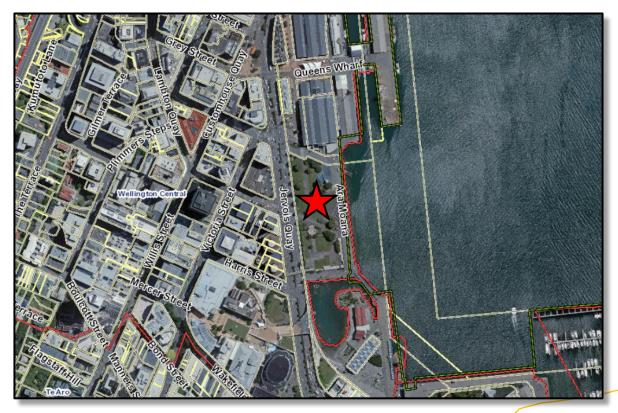


Figure 1: Site Location and Road Network (Source: Wellington Webmap)

As shown, the redevelopment site is located on the eastern side of Jervois Quay between the Queen Wharf Events Centre and the Whairepo Lagoon. On the eastern side of the redevelopment site is the Ara Moana Promenade and the water's edge.

Jervois Quay is listed as an Arterial Road in the Wellington City District Plan. Jervois Quay is well connected to the wider road network via Cable Street and Waterloo Quay. State Highway 1 is to the north and west of the redevelopment site. There are three through traffic lanes on each side of Jervois Quay. There is a right turn bay provided at the traffic signals at Willeston Street. There are no right turn facilities from Jervois Quay onto Harris Street.

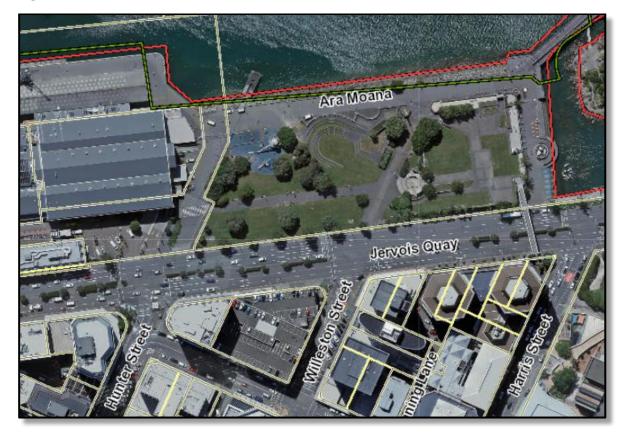


Figure 2 shows the road layout in front of the redevelopment site.

Figure 2: Road Layout (Source: Wellington Maps)

The southbound traffic lanes vary in width with the inside traffic lane being around 3.7 metres wide, the middle lane being around three metres wide and the kerb side lane varying in width from 4.0 metres to 7.5 metres.

Figure 3 shows the road environment along the front of the site.



Figure 3: Jervois Quay looking north.

There is a footpath along the frontage of the site. No stopping restrictions have been installed along Jervois Quay for most of the frontage of the site. There are two metered car parks and a bus stop on Jervois Quay at the southern end of the site.

The nearby intersections are controlled by traffic signals. There are pedestrian facilities on the northern approach to the traffic signals for Hunter Street and Willeston Street. There is a pedestrian overbridge connecting the city centre with Frank Kitts Park at Harris Street.

A new signalised crossing facility has been installed across Jervois Quay on the northern side of Harris Street in preparation of the removal of the pedestrian overbridge. There is a car park building in the southern portion of Frank Kitts Park which is closed due to its earthquake-prone status. There is a slip lane for the car park building. Both the pedestrian overbridge and car park building will be demolished to make way for the Fale building and redevelopment of the public space.

2. Crash History

A detailed search of the NZ Transport Agency crash database was carried out for the five-year period from 2019 to 2023 and for the part-year of 2024. The crash search area included crashes within 30 metres of the development site from Hunter Street to Harris Street.

There have been 15 reported non-injury crashes, four minor injury and two serious crashes along this part of Jervois Quay. It should be noted that most of the reported crashes are northbound on Jervois Quay.

Table 1 provides details of the injury crashes.

Road	Location	Date	Collision Reference	Accident Description	Severity
Jervois Quay	20 metres north of Willeston Street.	08/10/2022	2022237401	A car southbound on Jervois Quay has driven into the back of a vehicle in front. The driver was intoxicated.	Minor
	At Willeston Street	09/06/2023	2020155061	A motorist driving northbound on Jervois Quay has crashed into the traffic lights. Driver was suspected to be intoxicated.	Serious
	20 metres north of Willeston Street	11/08/2023	2023268172	Pedestrian crossing from the city centre to Frank Kitts Park has been struck by a car. The pedestrian was crossing mid-block and not on a crossing point.	Minor
	At Harris Street	26/01/2020	2020144284	A motorcyclist travelling southbound on Jervois Quay has crashed into the back of another motorcycle.	Minor
	At Harris Street	30/04/2019	201955017	A motorcyclist travelling northbound on Jervois Quay has changed lanes and struck a vehicle coming from behind.	Serious
	At Harris Street	14/01/2023	2023245770	A driver turning right out of Harris Street has failed to stop at the red light and collided with a vehicle traveling north on Jervois Quay.	Minor

Table 1: Crash Data (Source: NZ Transport Agency)

The reported crashes do not highlight any road deficiencies. The movement types and cause factors are typical of a busy arterial road like Jervois Quay.

3. Proposed Development

As noted above the redevelopment proposal consists of two main components. The northern part of the site will be reshaped to provide a large green space for public enjoyment and special events along with hard and soft landscaping, artwork and water-sensitive design elements. The central part will include the reconfiguration of the Chinese Garden. All of the elements in the northern and central parts of the site were authorised in the 2018 consent, though adaptations to these features are proposed in the current applications.

The southern part of the site will see the construction of the following:

- a Fale building, which also includes a café, dragon boat storage and public toilet,
- A Paepae around the Fale building,
- A new at-grade lawn and associated landscaping which will also function as a malae.

The development will see the demolition of the existing car park building and associated pedestrian overbridge. The site will be recontoured with unsuitable material being removed from the site and new fill material will be bought onto the site to enable the redevelopment of the waterfront facility.

The proposed park redevelopment and Fale building will provide no on-site car parking or vehicle access. All vehicle access will be via the existing approved crossing opposite Hunter Street. This crossing is only used for servicing and loading within the Waterfront precinct and is controlled by bollards.

The existing activities such as the Homegrown Music Event that occurs on Frank Kitts Park will be able to continue once the redevelopment has been completed with the Fale building being a new activity. The events on Frank Kitts Park are managed by Wellington City Council. There are special procedures in place for the different sized events which include temporary traffic management on Jervois Quay. Depending on the nature and scale of future events which might be proposed for the site, additional resource consents may be required. Such matters are beyond the scope of the current application and are not contemplated in this report.

Figure 4 shows the layout of the proposed redevelopment of Frank Kitts Park and the new Fale building. Larger scaled plans are available in the consent application.

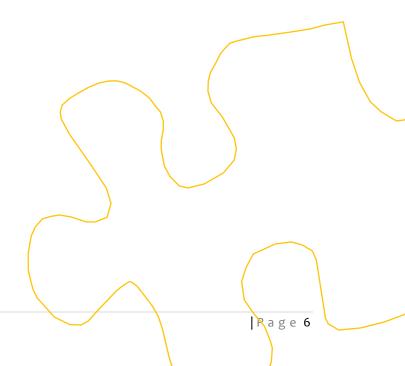




Figure 4: Proposed Development (Source: Wraight + Associates)

As shown the Fale and Malae lawn are located towards the southern part of the site over the area that was the underground car park. The redevelopment of the wider park area will see the Chinese Gardens and the main harbour lawn reformed. The key change is the reduced height of the Garden and adjacent lawns allowing better pedestrian access – particularly from Te Ara Moana.

In line with the Wellington Waterfront Framework the proposed development has no vehicle access or parking. The servicing of the site is towards the seaside of Frank Kitts Park via the existing Queens Wharf Event Centre vehicle access that is opposite Hunter Street.

It is proposed to service the Fale building from Jervois Quay. It is also proposed to implement a short term drop off and pick-up area. The design of this area was changed as part of pre-application feedback from Wellington Council staff.

The amended design is an improvement of the original design with a wider pedestrian footpath provided along the Jervois Quay frontage. There is also a layby that is clear of the moving traffic lanes that provides a proposed loading zone and short term on-street parking.

Figure 4 shows the area in front of the Fale and proposed road changes.

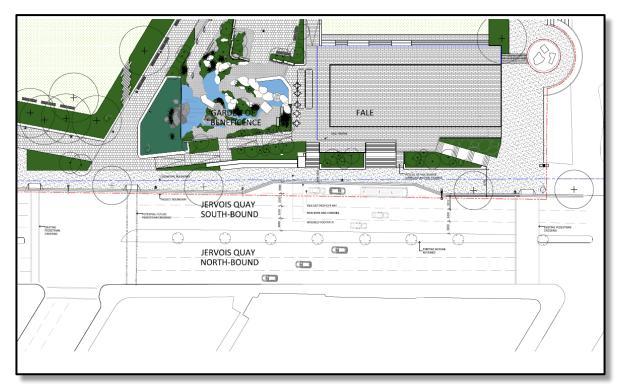


Figure 4. On-street Loading and Parking Area. (Source: Wraight + Associates)

As shown above, the three vehicle lanes remain on both sides of Jervois Quay with a new layby proposed where the left-hand slip lane for the demolished Frank Kitts car park building was. This has also allowed the footpath to be widened to at least 3500mm providing a better level of service for pedestrians and cyclists who currently use this area and those that will in the future.

To achieve this the traffic lanes are proposed to be reduced in width to 3200mm wide which is sufficient in this urban environment. It is expected to have an overall positive impact as the reduced width should also reduce the operating speeds along this section of Jervois Quay.

4. Council Meetings

Draft layout plans were presented to Wellington City Council's Traffic Team which showed loading and parking on the site and on Jervois Quay. The design included a footpath which was of similar width to the existing footpath along this frontage. Following that meeting changes were made to the design to pick up on the matters raised by the Council's Transport Team.

A pre-application meeting was also held with Council staff which included the amended plans that addressed concerns raised by the Transportation Team.

5. Planning Framework

The proposed development is located within the Centre Area Zone under the Operative Wellington City District Plan (2000) and in the Waterfront Zone in the partially Operative

Wellington District Plan (2024). For completeness a compliance table against the Rules of the Operative District Plan has been provided below, noting that the transport rules in the Partially Operative Plan do not have legal effect at the time of writing. The compliance table for both of the development components has been provided below.

Chandand	Poquiroment	Dramagel	Comp	liance
Standard	Requirement	Proposal	Frank Kitts	Fale
Standard 13.6.1.3	Parking, Servicing and Site Access			
Vehicle Parking				
Standard 13.6.1.3.1.	Activities in the Central Area are not required to provide on- site vehicle parking, but where parking is provided, it must not exceed a maximum of one space per 100m2 gross floor area	Complies	Complies	
Standard 13.6.1.3.2.	All parking must be provided and maintained in accordance with section 1, 2, and 5 of AS/NZS 2890.1. Note: Developments providing more than 70 parking spaces or have unsatisfactory car parking provision are provided for as Discretionary Activities (Restricted) whereby a Transport Assessment will be required.	No parking is being provided on the site.	N/A	N/A
Standard 13.6.1.3.3.	Open vehicle parking areas or parking at ground level within a building must not be situated at ground level at the front of sites where standard 7.6.2.7 (Primary and Secondary Street Frontages) applies.	No parking is being provided on the site.	N/A	N/A
Servicing				
Standard 13.6.1.3.4.	On each site in the Central Area at least one loading area must be provided.	On-site loading is available through the existing vehicle crossing at Hunter Street.	Complies	Complies

Table 2 provides an assessment of compliance along with a brief assessment.

Standard 13.6.1.3.5.	Turning paths shall be based on the standard for a medium rigid truck as illustrated.	Trucks are able to turn on the large site.	Complies	Complies
Standard 13.6.1.3.6.	For loading areas located outdoors, the minimum width shall be 3 metres and the minimum length 9 metres.	All loading is outdoor and meets this requirement.	Complies	Complies
Standard 13.6.1.3.7.	For loading areas located within a building, the minimum width shall be 4 metres and the minimum length 9 metres.	No internal on-site loading is proposed.	N/A	N/A
Standard 13.6.1.3.8.	Where loading areas are located within a building, a minimum height clearance of 4.6 metres is required.	No internal on-site loading is proposed.	N/A	N/A
Standard 13.6.1.3.9.	For buildings serviced by lifts, all levels shall have access to a loading area by way of a lift.	There are no lifts for the Franks Kitts redevelopment.	N/A	Does not comply.
		The Fale Malae will have an internal service lift. There are stairs to access the lift from the loading area.		
Standard 13.6.1.3.10.	The loading area shall be located no further than 15 metres from a lift and there shall be level access between them.	There are no lifts for the Franks Kitts redevelopment. The lift for the Fale Malae is more than 15 metres from the loading area.	N/A	Does not comply.
Site Access for Vehic	les			
Standard 13.6.1.3.11.	Site access shall be provided and maintained in accordance with Section 3 of the joint Australian and New Zealand Standard 2890.1 – 2004, Parking Facilities, Part 1: Off- Street Car Parking (or its successor).	Vehicle access is via the existing approved vehicle crossing at Hunter Street.	Complies	Complies
Standard 13.6.1.3.12.	No new vehicle access is permitted to a site across a primary frontage, as identified on Planning Maps 34.	Vehicle access is via the existing approved vehicle crossing at Hunter Street.	Complies Approved vehicle crossing	Complies Approved vehicle crossing

Standard 13.6.1.3.13.	There shall be a maximum of one vehicle access to any site except that sites with more than one frontage may have one access across each frontage.	Vehicle access is via the existing approved vehicle crossing at Hunter Street.	Complies Approved vehicle crossing	Complies Approved vehicle crossing
Standard 13.6.1.3.14.	Both the entry and exit of vehicles onto the carriageway of the most adjacent street shall be in a forward direction.	All vehicles can enter and exit in a forward direction.	Complies	Complies
Standard 13.6.1.3.15.	The width of any vehicle crossing to a site shall not exceed 6 metres.	Vehicle access is via the existing approved vehicle crossing at Hunter Street.	Complies Approved vehicle crossing	Complies Approved vehicle crossing
Standard 13.6.1.3.16.	Where vehicular access can be provided from a service lane or right-of-way registered in favour of the site or other private road or private right-of- way, no vehicle access shall be from a street.	Vehicle access is via the existing approved vehicle crossing at Hunter Street.	Complies	Complies
Standard 13.6.1.3.17.	Subject to standard 13.6.1.3.12 no vehicular access shall be situated closer to an intersection than 15 metres.	Vehicle access is via the existing approved vehicle crossing at Hunter Street.	Complies Approved vehicle crossing	Complies Approved vehicle crossing
Standard 13.6.1.3.18.	No access shall be provided to a primary street on a site that also has frontage to a secondary street.	Vehicle access is via the existing approved vehicle crossing at Hunter Street.	Complies Approved vehicle crossing	Complies Approved vehicle crossing

Table 2: Compliance Table

As shown, the non-compliances that are identified relate to the Fale building which does not have level access to the lift and the lift is more than 15 metres away from the proposed loading area. The effects of this non-compliance and other potential traffic related effects are provided below.

While the Transport Rules in the Partially Operative District Plan haven't been confirmed, an assessment against these new standards has also been undertaken for completeness.

Table 3 provides an assessment against the proposed new rules and assessment of the proposed redevelopment and new Fale building.

Standard	Requirement	Assessment	Compliance
TR-S1	Vehicle trip generation.		
1.	Light vehicles – 200 per day Heavy vehicles – 8 per day	No parking is being provided on the site. The site will generate vehicle trips associated with the different activities that will occur. There is no parking on the site so there is no traffic generation from the proposed development.	Does not comply
TR-S2	Micromobility device parking		
1.	Cycling and micromobility parking must be provided in accordance with Table TR-7.	It is difficult to determine the area required to meet the requirements of Table 7 for this development. The area is a public space where cycling and micromobility are provided for. No specific parking areas are provided but informally are available.	Can Comply
TR-S3	Micromobility parking design		
1.	 Where short stay cycling and micromobility parking spaces are required to be provided by TR-S2 they must meet the following minimum specifications: a. Stands must be sized and spaced to accommodate cycle dimensions of 1200mm high, 1800mm long and 600mm wide; b. Stands must be securely anchored to an immovable object; c. Stands must allow the cycling or micromobility device frame and, in the case of cycles, at least one wheel to be secured; and d. Cycling and Micromobility parking facilities must be located: So they are easily accessible for users, within 20m of the primary entrance; So they do not impede pedestrian thoroughfares 	The location of on-site cycling and micromobility spaces has not been confirmed as part of the consent application. This will be completed as part of the detailed design for the Fale Malae. Spaces in the Frank Kitts Park area is informal as users of this space are likely to have their cycles or scooters with them. There is enough room on the site to provide stands for these users if required.	Can Comply.

TR-S5	Classification of driveways	Vehicle access is via the existing approved vehicle crossing at Hunter Street.	Complies Approved vehicle crossing
	 a. Provide pedestrian access from the road to each residential unit on the site; b. Provide cycling and micromobility access from the road to each building on the site that provides cycle and micromobility device storage; c. Connect to minimum width of 1.8m at the road boundary; d. Have a minimum formed width of 1.2m or, for paths accessing more than 1 residential unit, 1.5m; and e. If stairs are necessary between cycling and micromobility storage and the legal road, a ramp at least 300mm wide on one side of the stairs must be provided. 	These requirements appear to be more relevant to residential and commercial developments.	
	On-site pedestrian, cycling and micromobility paths must achieve the following:	The proposed development is able to meet all the requirements of TR-S4.	Complies
2. TR-S4	 manoeuvring areas; and iv. Short stay cycling and micromobility parking facilities must be available during the activity's hours of operation and must not be impeded by any structure, storage of goods, landscape planting or other use. Where long stay cycling and micromobility parking spaces are required to be provided by TR-S2, they must be located: a. In a covered area where access by the general public is excluded, and at least one wheel is able to be secured. 	The site is not expected to have long stay needs.	N/A
	including areas used by people whose mobility or vision is restricted; iii. To be clear of vehicle parking or		

TR-S6	Design of driveways				
		Vehicle access is via the existing approved vehicle crossing at Hunter Street.	Complies Approved vehicle crossing		
TR-S7	Design requirements for on-site vehicle p	arking, circulation and manoeuv	vring		
		No on-site parking is proposed on the site.	N/A		
TR-S8	Provision of on-site loading areas				
	 At least one on-site loading area must be provided for buildings with a building footprint of 450m2 or more; and 	On-site loading is provided.	Complies		
TR-S9	Design requirements for on-site loading,	Design requirements for on-site loading, circulation and manoeuvring			
		On site loading areas include circulation and manoeuvring.	Complies		

Table 3: Assessment Table – Proposed District Plan

As noted in the table above, there is potential areas of non-compliance with the Partially Operative District Plan standards. This is owing to the number of trips the redevelopment will generate.

The matter relating to the calculation of the trip generation is unclear as the site will not provide any on-site car parking. The activities on the site will generate traffic and will depend on what events and activities have been planned. Most of the events that will occur for the redevelopment already occur as part of the existing park activities. The new activity is only related to the Fale.

The redevelopment of Frank Kitts Park is also located within the Waterfront Zone as set out in the Proposed District Plan.

Table 4 provides an assessment against the	e Waterfront Zone Rule WFZ R 10.	

Standard	Requirement	Assessment	Compliance
TR-S1	Vehicle trip generation.		
1.	Car parking activities 1. Permitted where: a. The activity is providing:	No car parking activities are proposed within the site. There will be temporary service vehicle loading areas.	N/A

	i.	Car parking for people with mobility issues, or	It is proposed to provide pick- up and drop off	
	ii.	Pick-up/drop-off parking of 10 minutes or less, or	facilities along with a loading zone within the road reserve of Jervois Quay.	
	iii.	For service vehicles; or		
b.	buil	activity is located within a ding below ground floor or er public open space; or		
c.		activity involves the vision of carparks on a road.		

Table 4: Assessment Table – Waterfront Zone – Proposed District Plan

As noted in the table above the development of the site does not provide on-site parking and there are no non-compliances.

6. Assessment of Effects

6.1. General

This section considers the areas of non-compliance and provides an assessment of the potential traffic effects of these matters on other road users. The areas of non-compliance relate to the non-provision of an on-site loading area.

For the purpose of this assessment, the Council's new proposed transport rules and standards have been used as a guiding document. These rules and standards are set out in Part 2 of the Partially Operative District Plan under Transport. As noted above the area of assessment relates to the trip generation of the activities associated with the redevelopment, noting that there is no parking on the site.

One of the key changes is the reconfiguration of the Jervois Quay frontage as a result of the demolition of the Frank Kitts car park building and the construction of a new building (Fale). The changes on Jervois Quay will see the existing narrow foot path widened to at least 3500mm along with a drop off and pick-up area and a loading zone. The pick-up and drop off area as well as the loading zone are located on road reserve.

The site is also influenced by the Wellington Waterfront Framework. Being a guiding document with one of its key objectives to gradually remove parking and vehicle travel along the waterfront area. The development of the site will see no parking provided and limited loading and servicing access based on a combination of existing restricted-use facilities and proposed kerbside solutions. Most of the loading activities for the site will be associated with managed special events.

6.2. Site layout

With the focus on the redevelopment to create improved public spaces and provide a meeting place, the aim of the changes is to enhance and develop people spaces. The

redevelopment creates and enhances new connections across the site and better integrates the different spaces that will be formed.

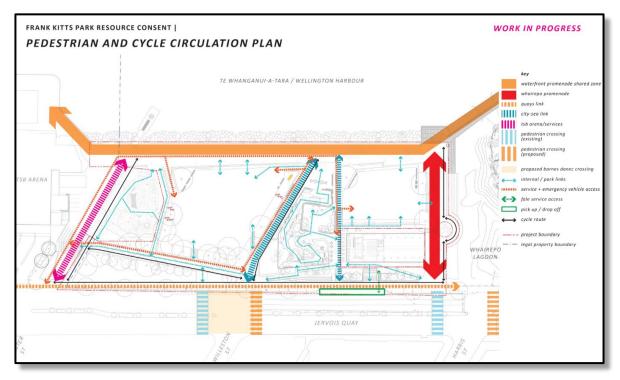


Figure 5 shows the pedestrian/cycle connections and overall design philosophy.

As shown the new layout enhances and strengthens the existing connections along and through Frank Kitts Park. In particular the changes along the Jervois Quay frontage will be a significant improvement to the pedestrian cycle function along this frontage and how it connects to each end of the site. The widening of the existing footpath to a minimum of 3500mm will improve the level of service for this side of Frank Kitts Park. The increased width will allow greater separation from the moving traffic lanes of Jervois Quay.

6.3. Event Management Activity

One of the key activities of the Frank Kitts Park space is the holding of special events for the Wellington region. These events range in size with the Homegrown Event being its largest currently. These events are specifically managed with individually tailored event plans that include traffic management plans.

It should be noted that this is an existing activity and no changes to how this currently occurs is planned. The effects of existing events are already managed as part of the existing day to day management of Frank Kitts Park.

Event vehicles access the site from the existing vehicle crossing at Hunter Street and unloading and load where required. This is carefully considered to ensure conflicts with vehicles and promenade users are safely managed.

Figure 5: Transport Design Philosophy. (Source: Wraight + Associates)

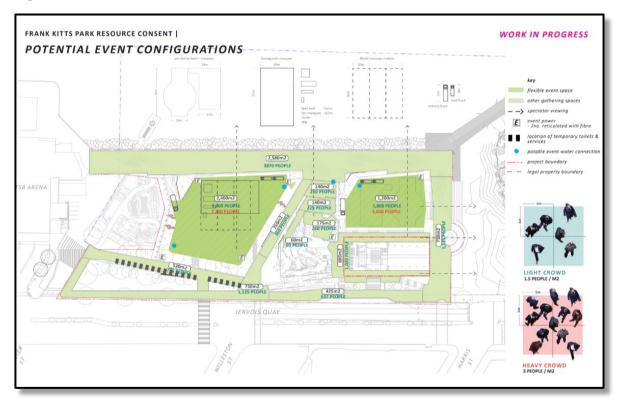


Figure 6 shows some of the possible event layouts in this multi-purpose space.

Figure 6: Indicative Event Management. (Source: Wraight + Associates)

As shown there are different parts of Frank Kitts Park that can be used for different special events. The current proposal does not seek to authorise any new events specifically. Any such future activities can be considered on a case-by-case basis as to potential compliance obligations and associated effects.

6.4. Fale Activity

As noted above it is proposed to construct a new building on the southern part of Frank Kitts Park. As part of the changes at this end of the park, it is proposed to modify the kerb line of Jerious Quay. With the demolition of the car park building, the need for a slip lane and other associated features is no longer required.

Figure 7 shows the new Fale building and associated adjacent spaces.

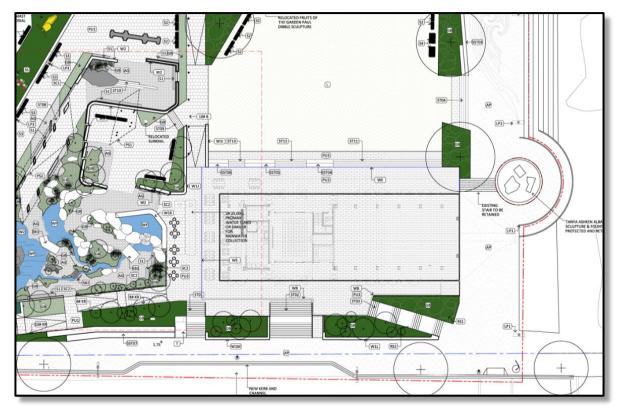


Figure 7: Fale and Malae. (Source: Wraight + Associates)

As shown the new building includes a café on its northern edge facing the redeveloped Chinese Gardens. The new building is higher than Jervois Quay and stairs and ramps are provided to access the podium levels. Underneath the main floor are on-site services including a kitchen, dragon boat storage area and toilets respectively for public and Fale use. A ramp from Jerious Quay provides access for goods to be delivered to the lower floor of the building. To the east the building opens out to a large green space which doubles as a Malae, and then the promenade.

6.5. Jervois Quay Improvements.

As part of the demolition and redevelopment activities it is proposed to modify the road frontage along the new Fale building. The purpose of changing the layout along this edge is to provide the opportunity to enable short term parking for the dropping off and picking up of people going to the new building as well as enabling a more convenient loading area to the ramp into the Fale (and café). This is preferred instead of using the waterfront pedestrian promenade for these vehicles. While the latter may be a viable option, it would not align with the Waterfront Framework which seeks to make this a non-vehicular area to the extent possible.

Figure 8 shows the proposed changes along the Jervois Quay frontage in greater detail compared to Figure 4 above.

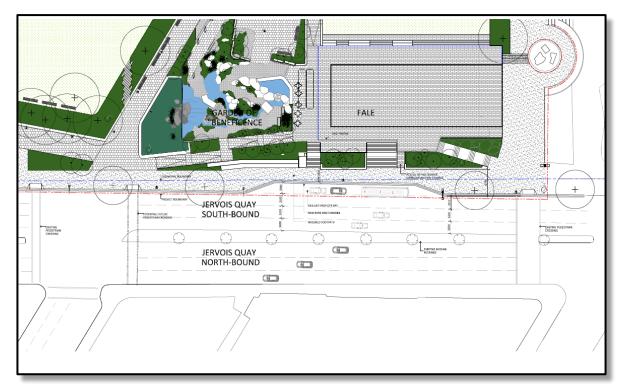


Figure 8. Jervois Quay Road Changes. (Source: Wraight + Associates)

As shown, it is proposed to rationalise the traffic lanes and road markings due to the removal of the slip lane into the existing car park building. Currently the individual traffic lanes have different widths, and the existing footpath is narrow and provides a poor level of service.

The traffic lanes will be set at a standard width of 3200mm with the footpath being at least 3500mm wide. It should be noted that Cable Street traffic lanes which is south of the site on Jervois Quay are around 2500mm wide. The footpath will be significantly wider either side of the inset parking and loading area. The inset parking and loading zone are 3000mm wide which will allow vehicles to be parked well clear of the traffic lane.

It is suggested that the drop off/pick-up area is time limited to two minutes, but no more than five minutes to ensure it is not used as a general parking area. This area will be managed by the Fale when there are events on at the new building.

These changes are considered to be an overall positive impact on the current situation.

As noted in the compliance table there are two areas where the redevelopment does not meet the Operative District Plan Standard. These relate to the Fale building, the location of the possible loading area, lifts and level access.

Due to the location of the café to the northern side of the Fale building it is not possible to have the loading (if on site) within 15 metres of the lift. Due to the existing various structures to the south of the Fale it is not possible to have a level access to the service area. While these particular standards cannot be met, the effect of the proposed solution is less than minor. Having loading vehicles for the Fale use the promenade for service access is not preferred and would have some effect on the users of the Waterfront area. The proposed short-term parking and loading area on Jervois Quay will prevent those effects arising.

6.6. Construction

A component of the redevelopment of the site will be the removal of unsuitable and demolition material from the site. There is also a significant amount of new fill needed. The imported fill material will consist of soil and hardfill.

Table 5 shows the estimated waste and fill volumes for the redevelopment of the site.

Description	Approx. Volume (m3)
Cut to waste	1,400
Fill Imported	9,750

 Table 5: Earthwork Volumes for Transport. (Source: Tonkin and Talyor)

On the assumption that truck and trailers can be used to remove the suitable fill and bring new material onto the site, the expected traffic movements would be a total of around 1000 truck movements. This also assumes that unsuitable material is backloaded with part of the filling operation.

The trucks are expected to use the Hunter Street intersection access to and from the site. These vehicles are able to enter and exit this access relatively safely. There may be time limits for truck operations to avoid peak times, however this will be determined as part of submitting the final CMP (Construction Management Plan).

The details of how the trucks are managed will be an information requirement for the CMP required by volunteered conditions of consent. The final CMP may propose different access arrangements and will depend on the engagement of the contractor to carry out the work.

A CMP is required to manage the effects of the construction traffic noting that the site has access from Jervois Quay. The effects of construction traffic can be managed effectively within the CMP, with any residual impacts being less than minor.

7. Conclusion

The proposed redevelopment of Frank Kitts Park will see the demolition of the existing car park building and associated structures. The northern and central parts of the site will be reconfigured to provide large green spaces and a reconfigured Chinese Garden. The southern part consists of a new Fale building and adjacent lawn which doubles as a Malae.

Changes are proposed to the road frontage along Jervois Quay to provide a wider footpath along with a short-term parking area and loading zone. The changes will provide a positive effect to the redevelopment of Frank Kitts Park.

Generally, all of the District Plan requirements are met. The Fale cannot meet the distance to lift and level grade requirements of the District Plan due to existing structures that will remain. While loading could occur within the site, the vehicle use of the waterfront promenade is not consistent with the Waterfront Framework. It is proposed to provide this loading from Jervois Quay. The effects of this are less than minor. The balance of the redevelopment can comply with relevant operative rules for transportation matters.

Construction effects will need to be managed through a Construction Management Plan (CMP). Conditions of consent should be volunteered to require the preparation and certification of the CMP after the granting of consent.

Overall the effects of the redevelopment proposal on the safety and efficiency of the transport network are considered to be positive.

We are happy to provide any further clarification if required.

Regards

Gary Clark Director NZCE (Civil), REA, CMEngNZ Certified Safe System and Road Safety Auditor

Page 21