



Assessment of Transport Effects

Onehunga Wharf

Prepared for Eke Panuku Development Auckland

Prepared by Beca Limited

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1 Introduction

1.1 Background

Beca Ltd (Beca) has been commissioned by Eke Panuku Development Auckland (Eke Panuku) to undertake an assessment of the transport effects of all the existing activities and uses at Onehunga Wharf, shown in **Figure 1-1**. This assessment is to support an application by Eke Panuku for a new coastal occupation permit for exclusive occupation of the waterscape currently occupied under Port of Auckland’s s384A permit and for these activities to continue as they currently do.

This report will cover a description of the area and existing activities/uses, identification of typical traffic, pedestrian and cycle movements, assessment of the likely effects of the activities on the transport environment and consider how existing effects are currently managed. The activities will be assessed against the relevant objectives and policies of the Auckland Unitary Plan (AUP). The activities discussed will include those within the coastal permit area and those adjacent where there is an overlap of activities.

For the purpose of this assessment, it is assumed the existing vehicle, pedestrian and cycling access arrangements will remain unchanged and will continue to operate as it currently does.



Figure 1-1: Site Location. Image Source: Auckland Council GeoMaps

The coastal permit area Eke Panuku is applying for is shown in **Figure 1-2**.



Figure 1-2: Proposed Coastal Permit Area. Source: Eke Panuku.

1.2 Report Structure

The report is divided into the following chapters following this introduction:

- Section 2 – Existing transport environment
- Section 3 – Proposed activities and infrastructure
- Section 4 – Assessment of transport effects and mitigation
- Section 5 – AUP assessment
- Section 6 – Conclusions

2 Existing Transport Environment

2.1 Site Description

The proposed coastal permit area includes the coastal waters around Onehunga Wharf, situated on the Manukau Harbour in the suburb of Onehunga, a section of Onehunga Wharf, breakwater and boat ramp, refer to **Figure 2-1**. Onehunga Wharf is Auckland's only west coast port and serves the fishing industry. Onehunga Wharf provides for vessels to berth that have entered the Manukau Harbour across the Manukau Bar. Onehunga Wharf is almost entirely comprised of reclaimed land along with the wharf structure.

Currently, the coastal permit area is occupied by Sanford (fishing), Holcim and Marlin Transport warehouse buildings. Adjacent to the coastal permit area are various warehouse buildings, shipping containers and cement storage silos. Onehunga Wharf was purchased by Auckland Council in 2018. Eke Panuku High Level Project Plan (HLPP) identifies potential mixed-use activities on the Onehunga Wharf in the next 8-10 years which includes marine and fishing industries, restaurants and improved public access to the water and a quality public realm.

The site is subject to Coastal – Minor Port Zone and Coastal – General Coastal Marine Zone under the AUP. Adjacent locations of note include Brass Monkey Ice Business (lease expired and in the process of removing buildings/structures from Onehunga Wharf), Te Hopua a Rangihua (Gloucester Park), Ngā Hau Māngere Bridge, the Airport Harbour Motel and the Landing Restaurant & Bar. Further to the east along Onehunga Harbour Road and beyond Māngere Bridge is the light industrial fringe of Onehunga, which becomes a heavier industrial area further east. North of the Onehunga Wharf is primarily a commercial area surrounding Onehunga town area.









Figure 2-1: Detailed Site Layout. Image Source: Auckland Council GeoMaps.

2.2 Existing Activities and Infrastructure

Table 2-1 provides a description of the existing activities and infrastructure at the proposed coastal permit area. A site visit was not conducted to observe the existing activities and infrastructure at the proposed coastal permit area.

Table 2-1: Existing Activities / infrastructure at the coastal permit area.

Activity / Infrastructure	Description	
Wharf / Wharf Activities	<p>The Onehunga Wharf is included within the proposed coastal permit area and includes various buildings used for activities including:</p> <ul style="list-style-type: none"> • Carparking. • Cement operator. • Fishing activities. • Transport operation. <p>These are shown in Figure 2-2.</p>	
Berthing for Fishing (and marine) Industry	<p>Within the coastal permit area there are 13 berths of varying length, depth and width. These include:</p> <ul style="list-style-type: none"> • 10 berths including the Ramp which small vessels (around 15m on average) use. • 3 berths for larger vessels (around 26m on average). <p>The vessels that berth at the Onehunga Wharf include those used for fishing and dredging.</p> <p>Typical activities undertaken in relation to the berthed vessels include loading/unloading, re-fitting and repair / maintenance.</p>	
Waterspace	<p>The water space within the coastal permit area allows for berth access and the ability for vessels to manoeuvre.</p>	

Activity / Infrastructure	Description	
Breakwater	The breakwater located off the coastline on the north-western corner of the coastal permit area. This protects the coastline from erosion and act as a sand trap.	 <p>Image Source: Auckland Council GeoMaps.</p>
Boat Ramp	A boat ramp located in the north-western side of the proposed coastal permit area is used to launch and retrieve vessels.	 <p>Image Source: Auckland Council GeoMaps.</p>
Pipe Bridge	This pipe bridge used by Holcim to transport cement product from the wharf to vessels. The pipe bridge is currently not under operation as the section across the roadway has been removed.	 <p>Image Source: Auckland Council GeoMaps.</p>

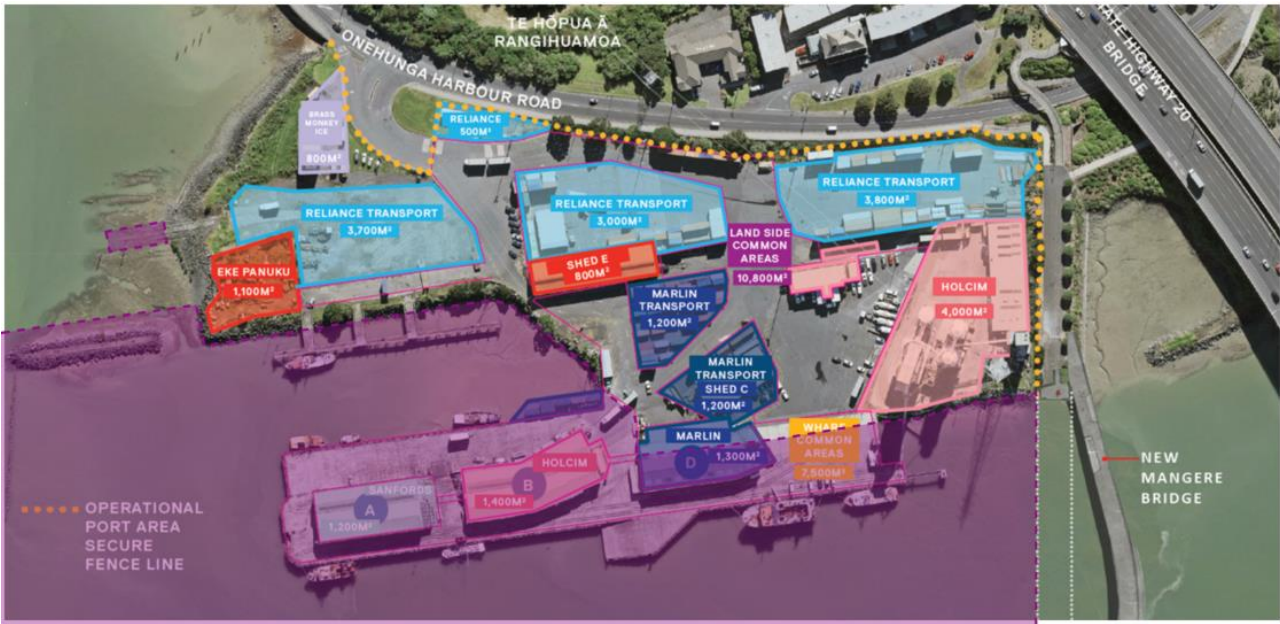


Figure 2-2: Map of Activities. Supplied by Eke Panuku. Modified by Beca.

2.3 Existing Transport Environment

2.3.1 Vehicle / Pedestrian and Cyclist Access

There is currently no public vehicle, pedestrian or cyclist access to the proposed coastal permit area. Vehicle access to Onehunga Wharf is controlled and restricted.

2.4 Adjacent Transport Network

2.4.1 Roding Network

The road network adjacent to the proposed costal permit area is shown in **Figure 2-3**.

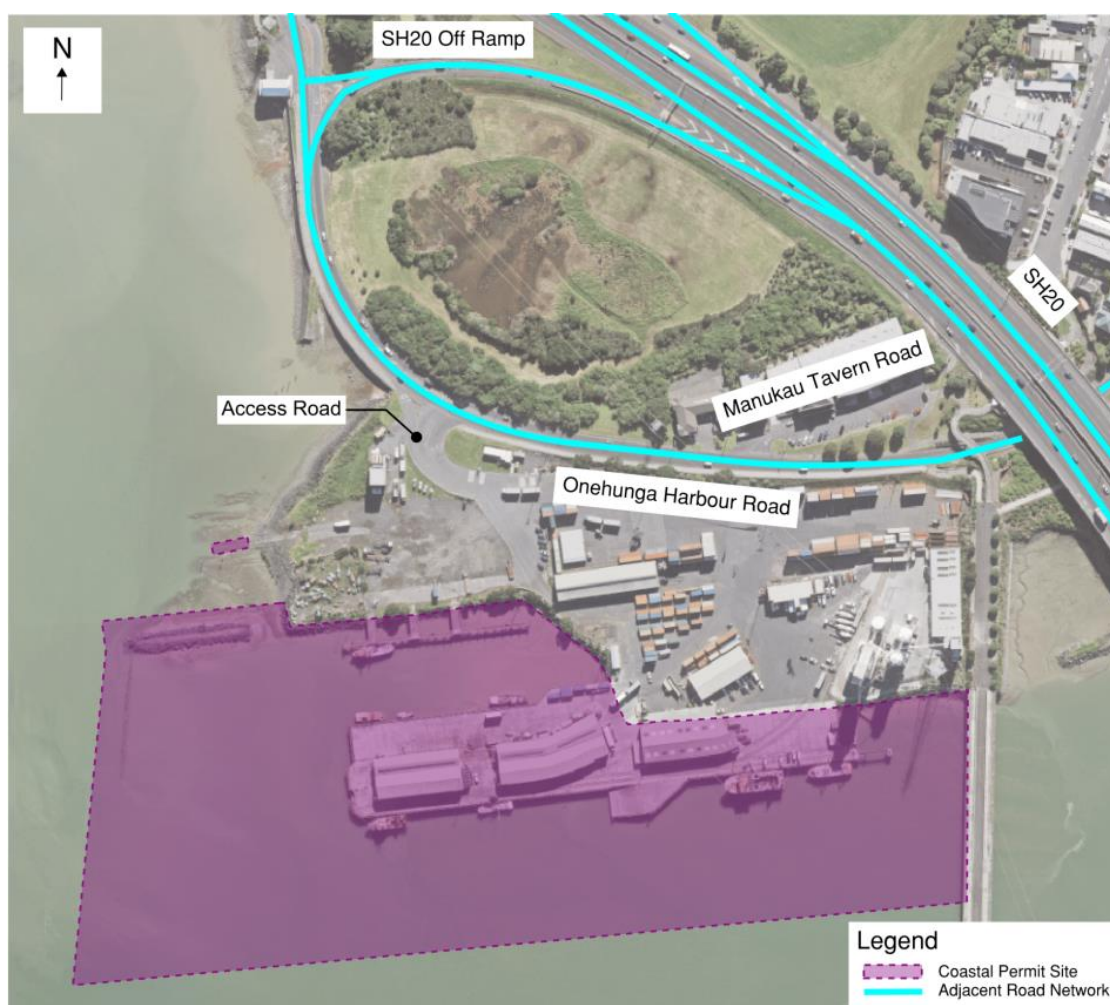


Figure 2-3: Adjacent Road Network.

The proposed coastal permit area is accessed through Onehunga Wharf, located off Onehunga Harbour Road. This access forms a priority-controlled intersection with raised traffic islands. The access road, provided off a horizontal compound curve, is wide to allow trucks to manoeuvre and provides a left and right give way onto Onehunga Harbour Road, refer to **Figure 2-4**.



Figure 2-4: Vehicle Entrances to Onehunga Wharf (2021). Source: Beca.

On this access road is an entrance to Brass Monkey Ice Business (lease expired and in the process of removing their structures/buildings) and the main vehicle access into Onehunga Wharf, refer to **Figure 2-5**. Access into Onehunga Wharf is restricted with entry controlled by security.



Figure 2-5: Vehicle Entrances to the Onehunga Wharf (2021). Source: Beca.

Onehunga Harbour Road is classified as a Strategic Arterial Road as per Auckland Transport Future Connect and provides connection onto the Southern Motorway, Stage Highway 20 (SH20), and Orpheus Drive. The typical width of this road is approximately 7.5m with the cross-section width increasing adjacent to Onehunga Wharf for the development of a right turn lane. The traffic volume of Onehunga Harbour Road is 19,930 vehicles per day¹.

Manukau Tavern Road is located off Onehunga Harbour Road and provides on street parking and access to The Landing Restaurant & Bar. The intersection between these two roads is a priority-controlled intersection. Additionally, there is a priority-controlled intersection north of Onehunga Wharf between the Onehunga Harbour Road Off Ramp and Onehunga Harbour Road. These roads have a legal speed limit of 50km/h except for the off ramp from SH20 which is 100km/h.

Onehunga Harbour Road serves as a Level 1A freight network and overweight route, refer to **Figure 2-6**.

¹ https://data-atgis.opendata.arcgis.com/datasets/a204ffd92f7546e898402e064bda6609_0/explore

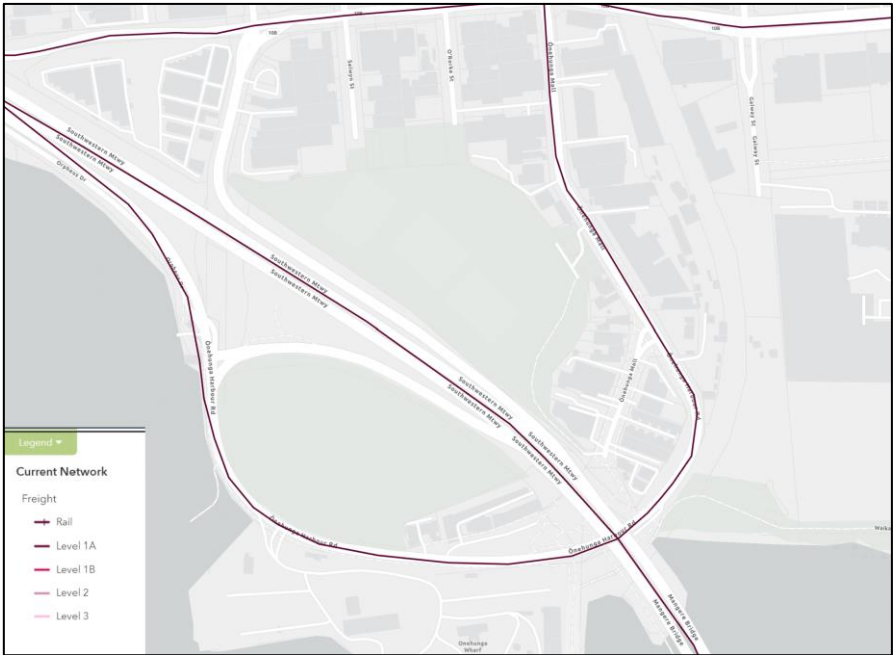


Figure 2-6: Adjacent Freight Route. Image Source: Auckland Transport Future Connect.

Traffic counts were undertaken by Team Traffic at the entrance to the wharf between Monday 8th March 2021 and Sunday 14th March 2021 at the locations shown in **Figure 2-7**. Gate 1 is the main entrance to the wharf and Gate 2 is for Brass Monkey. These results in **Table 2-2** indicate that most of the traffic enters and exits through Gate 1. With a large percentage of these vehicles being heavy commercial vehicles (HCVs).

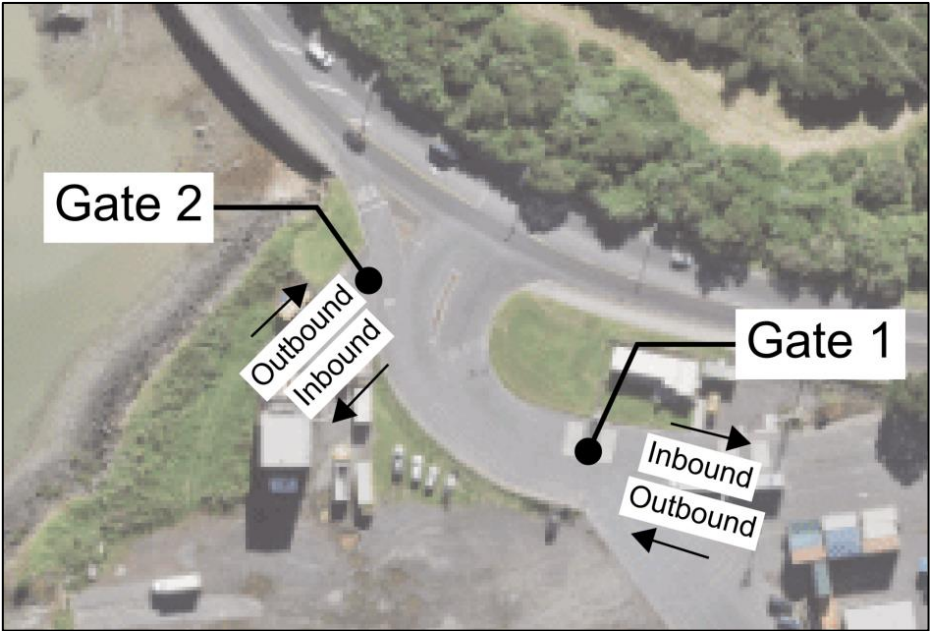


Figure 2-7: Traffic Counts. Image Source: Auckland Council GeoMaps.

Table 2-2: Traffic survey results from the Onehunga Wharf entrance sites March 2021(7 days).

Road	Average Daily Traffic Northbound	Average Daily Traffic Southbound	Total	Total HCV%	Data Source
Onehunga Wharf Entrance Gate site 1	250	241	491	46%	Team Traffic on-site (March 2021)
Onehunga Wharf Entrance Gate site 2	14	14	28	28%	Team Traffic on-site (March 2021)
Total	264	255	519		

2.4.2 Pedestrian and Cycling Facilities

Onehunga Wharf is well connected to adjacent pedestrian and cycling facilities. This existing network is shown in **Figure 2-8**. Onehunga Harbour Road, Onehunga Mall and Ngā Hua Māngere Bridge are classified as primary and regional walking and cycling networks respectively, connecting to local and leisure routes in the area.

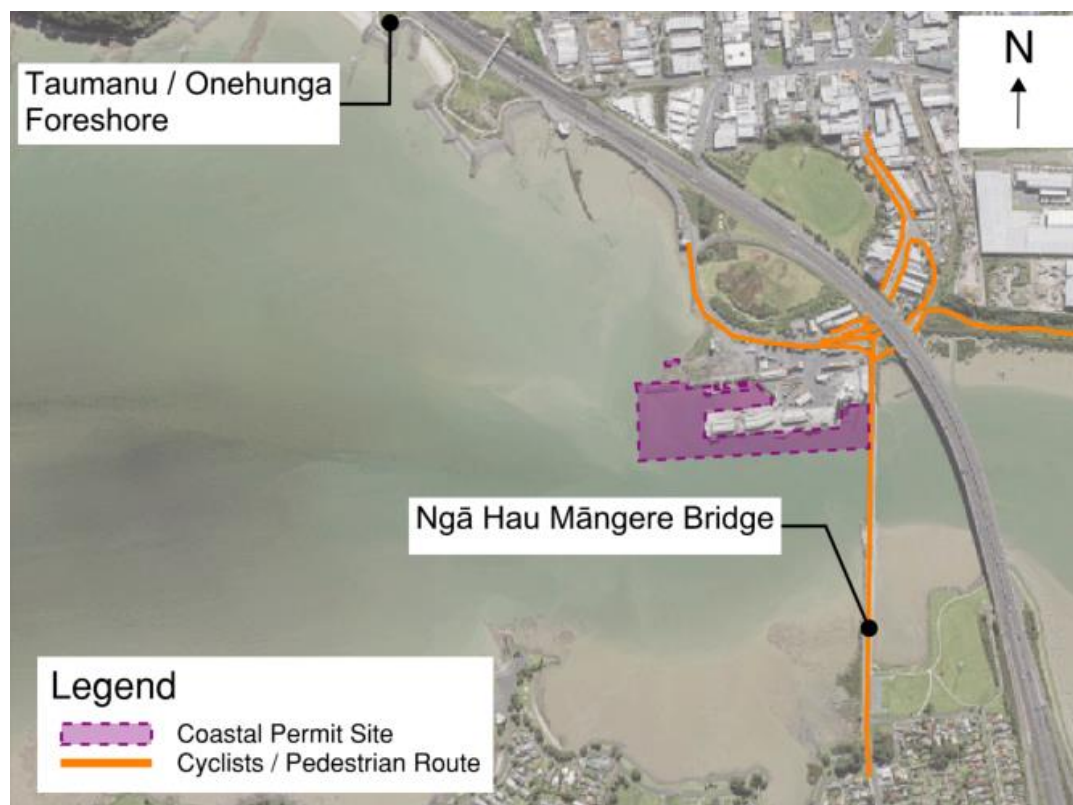


Figure 2-8: Cyclist/Pedestrian Routes.

Onehunga Harbour Road has a shared path on the southern side adjacent to Onehunga Port, approximately 3.0m wide, utilised by both pedestrians and cyclists. The northern side this path terminates at the turn off to Orpheus Drive where cyclists can continue onto Orpheus Drive, which provides connection into the shared paths adjacent to the Taumanu-Onehunga foreshore west of the wharf. There is no footpath provided for this section (Refer to **Figure 2-8**). Cyclists hold bars are provided at the intersection between Onehunga Harbour Road and the access road into Onehunga Port.



Figure 2-9: Onehunga Harbour Road Walking and Cycling Facilities (2021). Source: Beca.

On the southern side, this path connects into the Ngā Hua Bridge, a 4.0m wide shared path overbridge over Onehunga Harbour Road and the SH20 on Onehunga Harbour Road underpass. Refer to **Figure 2-10**. These provide connection across the Manukau Harbour to Māngere, to the Manukau Foreshore Walkway, the Onehunga Town Centre and Train Station. Additionally, there is an access for cyclists and pedestrians at the cul-de-sac on Onehunga Mall that provides connection onto Onehunga Harbour Road, the overbridge and the footpaths on either side of Manukau Tavern Road.



Figure 2-10: Walking and Cycling Facilities (2021). Source: Beca.

2.4.3 Public Transport Accessibility

Onehunga Port is a restricted area and therefore restricts public access, however, parking is provided for staff and visitors and there are several transport services that operate within the vicinity.

These include the 38 bus service, which provides a connection between the Onehunga Town Centre and the Auckland Airport with a stop at Gloucester Park North, a 6-minute walk from Onehunga Wharf. Additionally, the 36 bus service provides a connection between Onehunga Town Centre and Manukau with a stop on Rimu Street, which is a 17-minute walk from Onehunga Wharf via the Ngā Hau Bridge. Several buses including the 298, 309 and 68 services have stops at Onehunga Town Centre, a 17-minute walk from Onehunga Wharf.



Figure 2-11: Onehunga Bus Services: Source².

The Onehunga Train Station is located a 13-minute walk from Onehunga Wharf. This station provides connection to on the Onehunga line between Onehunga and Newmarket. The station operates seven days a week between Monday and Friday trains operate every 30-minutes between 5:57am and 10:27pm. Later night services run on Friday and Saturday nights until after midnight. There are similar frequencies on Saturday, Sunday and Public holidays.

² <https://at.govt.nz/media/lwbsj3q/auckland-transport-central-guide-map.pdf>

2.4.4 Safety

A five-year high-level crash analysis was undertaken based on the data provided by the New Zealand Transport Agency Waka Kotahi Crash Analysis System (CAS). The extents of the analysis include the intersection leaving Onehunga Wharf, refer to **Figure 2-12**, to understand how vehicles that may be performing activities related to the coastal permit area impact the wider transport network.

There were no crashes reported within this extent.

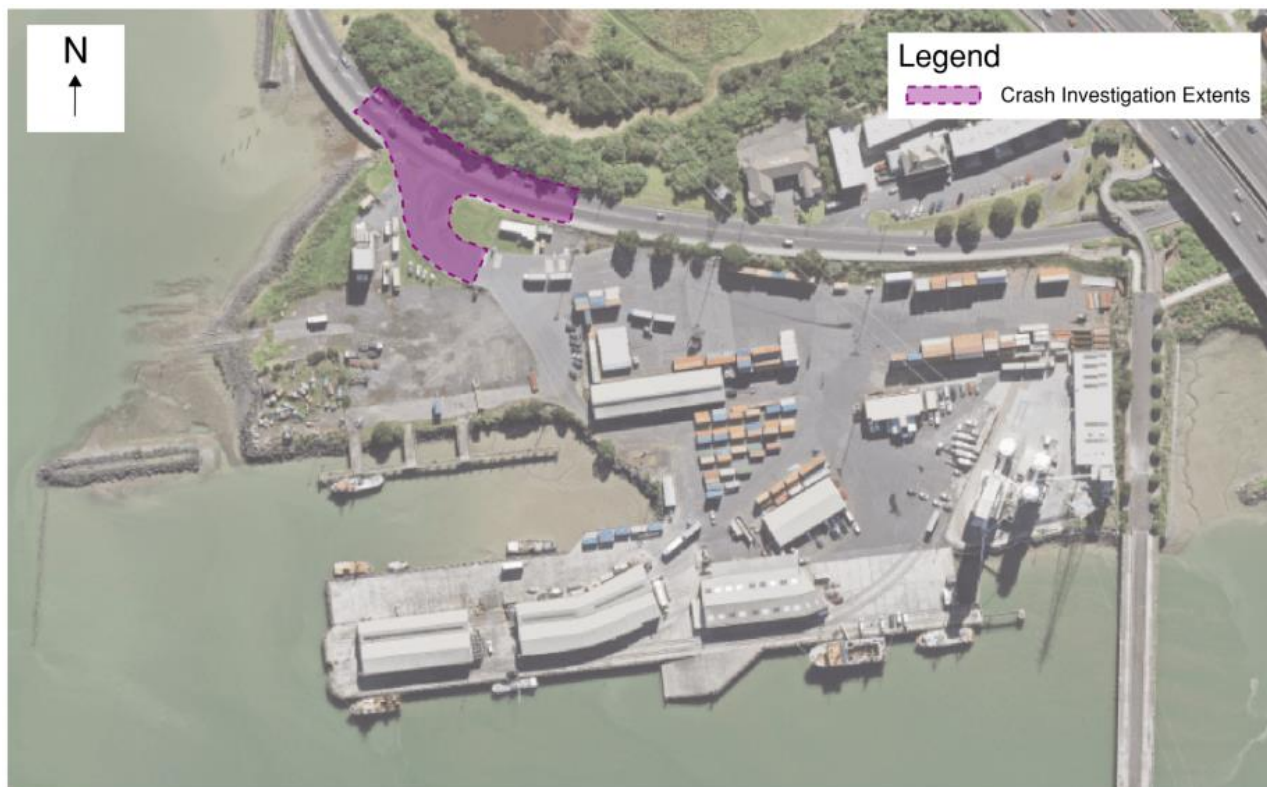


Figure 2-12: Crash Investigation Extents. Image Source: Auckland Council GeoMaps.

3 Proposed Activities / Infrastructure

3.1 Introduction

This application is seeking consent for the continuation of the current activities and infrastructure at Onehunga Wharf, which can be termed as the proposed future activities and infrastructure. These activities and infrastructure have been previously described in Section 2. It is not anticipated there will be any changes to the nature of the activities or the infrastructure, until such time mixed use activities and enhancement of access to the water and public realm under the HLPP take place.

3.2 Trip Generation

3.2.1 Wharf / Wharf Activities

Vehicles accessing Onehunga Wharf are expected to be related to parking, fishing and transportation operations (within the coastal permit area). Based on traffic data collected at Onehunga Wharf, these activities attract 70 vehicles trips a day, refer to **Table 2-2**, which may fluctuate depending on the time of year.

3.2.2 Berthing for Fishing Industry

It is considered the berthed fishing vessels generate a low number of daily trips. The trips associated with these vessels could include vehicle trips related to loading / unloading, re-fitting and repair / maintenance. Vehicles trips servicing these vessels are expected to be limited and access to Onehunga Wharf is managed through being restricted. While the Wharf attracts approximately on average 70 vehicles trips a day, which includes those that service fishing boats³, it is expected not all of these trips will service activities within the coastal permit area.

As shown in **Figure 3-1**, Onehunga Wharf attracts a relatively low number of vessels. This number is shown to increase during January to June, which may increase the vehicles trips during these months. These statistics are impacted by events, such as severe weather events, which prevent crossings of the Manukau Bar and the movement of fish species⁴.

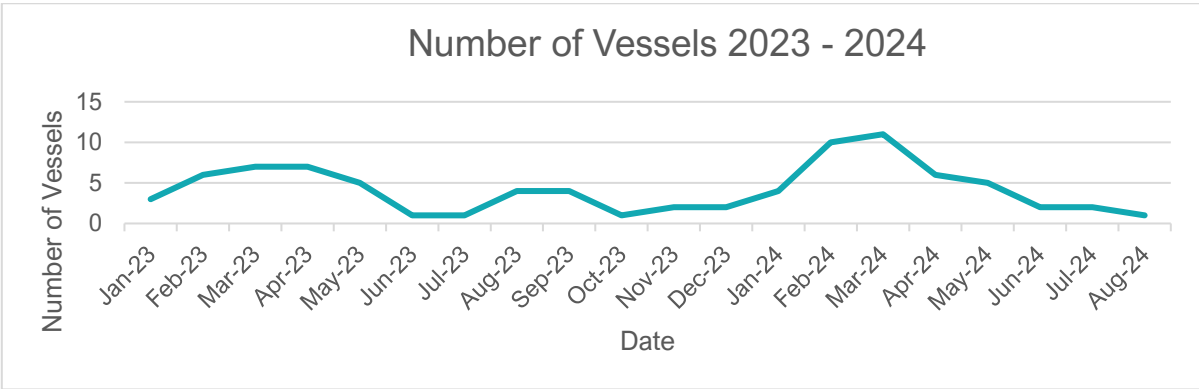


Figure 3-1: Number of Vessels Berthed at Onehunga Wharf⁵.

³ Onehunga Wharf Gate 2 Site 2 Team Traffic count 2021

⁴ Berthing Stats 2018 – 2024, information provided by Port of Onehunga.

⁵ ibid

3.2.3 Waterspace

Vessels accessing the waterspace are likely to be those berthing at Onehunga Wharf. As shown in **Figure 3-1**, there is a relatively low number of vessels using Onehunga Wharf, which can fluctuate depending on the month. 11 vessels berthed in the busiest month of March in 2024.

3.2.4 Breakwater

The breakwaters are unlikely to generate specific trips unless maintenance is required. This is assumed to be low, while the breakwaters are within their design lifetime.

3.2.5 Boat Ramp

Most of the vessels using Onehunga Wharf are too large to use the boat ramp. Instead, these vessels berth at the Onehunga Wharf which is accessed through the Manukau Harbour and across the Manukau Bar.

3.2.6 Pipe Bridge

This pipe is not currently operational as the section of pipe over the roadway has been removed and placed in storage. The pipe bridge is unlikely to generate specific trips, unless maintenance is required. When or if, it becomes operational in the future, it is assumed to be low, while the pipe bridge is within its design lifetime.

4 Potential Transport Effects and Management

4.1 Introduction

This section describes each of the activities potential transport effects and how these are mitigated or managed. It is assumed that there is no change to the nature of the transport infrastructure e.g., vehicle and pedestrian and cycling access points, width of footpaths, parking and access arrangements.

4.2 Wharf / Wharf Activities

There is no direct access to Onehunga Wharf for members of public with access restricted to tenants and bone-fide visitors. Any visitors wanting to access Onehunga Wharf, part of which is included in the coastal permit area, must complete and pass a mandatory online health and safety induction. This includes obeying 20km/h speed limits, wearing personal protective equipment (PPE), no cycling and keeping to designated pedestrian walkways indicated by yellow markings, refer to **Figure 4-1**. Further inductions on site may be required depending on the nature of the visit.



Figure 4-1: Pedestrian Walkway Marking⁶.

Parking on Onehunga Wharf is restricted to vehicles servicing alongside berthed vessels and fishing boat crew parking on the North Side of Shed A, refer to **Figure 2-2**.

Onehunga Wharf is estimated to attract 70 vehicles per day, not all which would service activities within the coastal permit area. This is less than 0.5% of the total daily traffic volume on the adjacent Onehunga Harbour Road, which provides access to the site. As such, any minor changes in traffic demand for the current and proposed activities within the coastal permit area will have no discernible impact on the adjacent network.

4.3 Berthing for Fishing Industry / Water Space

The main purpose for Onehunga Wharf currently is to support the West Coast fishing fleet that access Onehunga Wharf over the Manukau Bar. There is no manned signal and bar monitoring station at the Manukau Heads, with the determination as to whether it is safe to cross the bar, enter the Manukau Harbour and therefore berth at Onehunga Wharf lying solely with the vessels Master, with reference to the Harbour Master if required.

⁶https://docs.google.com/forms/d/e/1FAIpQLSekIsYpQvcloQTp4OfGc0rp9jjxQEN4H5d8Kggs7qhOivd_pw/viewform

The following restrictions are in place by the Regional Harbourmaster for crossing the Manukau Bar:

- Vessels greater than 500 gross register tonnage (GRT) shall not transit the bar without relevant up-to-date information.
- No vessel greater than 500 GRT shall transit the bar when the estimated swell height is 4.0m or more.
- No vessel greater than 500 GRT shall transit the bar during hours of darkness without permission from the Regional Harbourmaster.

Additionally, unless the Master holds a current pilotage exemption, exempted by the Harbourmaster or is subject to exemption by law, pilotage is compulsory in the Manukau Pilotage Area for:

- All vessels greater than 500 GRT.
- All vessels designed for or carrying hazardous cargo.
- Any vessels exceeding 6.0m draft.
- When visibility is less than 0.5m.

However, as there are currently no registered pilots for the Manukau Harbour, these rules are currently not applicable, albeit this may change in the future.

There is no direct access to Onehunga Wharf for members of the public. Onehunga Wharf manages vehicles through restrictions on access and is a low-speed environment. Parking is provided on site for staff members and Onehunga Wharf is within proximity to a range of walking, cycling and public transport connections.

4.4 Breakwater

Maintenance / inspections of the breakwater is assumed to occur via the waterspace and are assumed to happen on an infrequent basis.

4.5 Boat Ramp

Access to the boat ramp is allowed through Onehunga Wharf which manages vehicles through restrictions on access and is a low-speed environment.

4.6 Pipe Bridge

The pipe bridge is part of Holcim's infrastructure and is their responsibility to complete required inspections and maintenance of the pipe bridge.

5 AUP Review

5.1 Introduction

A review of the proposed activities against the relevant objectives and policies of E27: Transport and F5: Coastal of the AUP has been undertaken and discussed below.

5.1.1 E27 – Transport

- **E27.2 (4) – Parking, loading and access is safe and efficient and, where parking is provided, it is commensurate with the character, scale and intensity and alternative transport options of the location.**
 - Parking, loading and access to the berths is provided in a safe and efficient manner. Parking is provided within the Onehunga Wharf for staff members and visitors. Visitors are required to complete, and pass, mandatory health and safety modules before entry to Onehunga Wharf. Alternative public transport options are available, and Onehunga Wharf is within proximity to the strategic walking and cycling network. No adverse safety effects have been identified with the current access arrangements.
- **E27.3 Loading (15) – Require access to loading facilities to support activities and minimise disruption on the adjacent transport network.**
 - Parking areas are provided within the Onehunga Wharf. Impact is minimised on adjacent transport network through management of vehicles accessing the Onehunga Wharf. Visitors are required to complete, and pass, mandatory health and safety modules before entry to Onehunga Wharf.
- **E27.3 Design of parking and loading (17) – Require parking and loading areas to be designed and located to avoid or mitigate effects on amenity of the streetscape and adjacent sites, provide safe access / egress, avoid conflicts, provide of separation in loading areas.**
 - Parking and loading areas are controlled through sole access / egress, supplemented with signage. No reported accidents at the intersection with Onehunga Harbour Road.
 - Conflicts avoided between vehicles and pedestrians / cyclists through health and safety protocols, which restrict cyclists on site and designate pedestrian walk areas.
 - Parking / loading areas are provided on the north side of Shed A within the coastal permit area, refer to **Figure 2-2**.
- **E27.3 Access (20) – Require vehicle crossings and associated access to be designed and located to provide for safe, effective and efficient movement to and from sites and minimise potential conflicts between vehicles, pedestrians, and cyclists on the adjacent road network.**
 - Internal: Visitors are required to complete, and pass, mandatory health and safety modules before entry to Onehunga Wharf. No cycling is allowed on the Wharf.
 - External: Provisions of cycle paths and footpaths at access road to Onehunga Wharf with no reported accidents.

5.1.2 F2 – General Coastal Marine Zone

- **F2 General Coastal Marine Zone F2.21.9.4** – *Parking on coastal marine area structures for loading and unloading passengers and cargo to vessels to be located so it does not obstruct pedestrian and vehicle access and allows for passenger and cargo unloading/loading.*
 - Wide areas provided adjacent to berths for loading and unloading to facilitate pedestrian and vehicle access during these activities. Parking and loading areas are controlled through sole access / egress, supplemented with signage.

5.1.3 F5 – Coastal Minor Port Zone

- **F5.3 (4)** - *Require activities within the zone to avoid, remedy or mitigate adverse effects on the land and coastal environment, particularly noise, lighting and amenity effects and effects on coastal processes, water quality, biosecurity, historic heritage and the surrounding road network.*
 - The wharf is estimated to attract 70 vehicles per day, not all which would service activities within the coastal permit area. This is less than 0.5% of the total daily traffic volume on the adjacent Onehunga Harbour Road, which provides access to the site. As such, and minor changes in traffic demand for the current and proposed activities within the coastal permit area will have no discernible impact on the surrounding road network. The other activities are either undertaken from the waterspace or from the wharf which restricts vehicle access and is a low-speed environment and will therefore not have an impact on the surrounding road network.

6 Conclusion

Based on the assessment completed, the following conclusions can be made regarding the continued use of the existing activities and infrastructure in the Onehunga Harbour.

- Onehunga Wharf is well located to the public, cycling and walking network.
- The trips generated by the typical activities are low and can be managed on the existing transport network (less than 0.5% of daily Onehunga Harbour Road volume). Any minor changes in traffic demands would have no discernible impact on the adjacent transport network.
- There is no adverse crash history at the intersection with Onehunga Harbour Road and there are marked pedestrian walking area, hence safe access is provided
- No public access is provided to Onehunga Wharf and vehicle access is managed through restrictions and low speed (20km/h). Visitors are required to complete, and pass, mandatory health and safety inductions before entry to Onehunga Wharf.
- Parking on Onehunga Wharf is provided and managed through restrictions on where vehicles can park on Onehunga Wharf and restrictions on vehicles entering Onehunga Wharf.
- Activities and infrastructure are sufficiently managed:
 - Wharf / Wharf Activities: No direct public access to Onehunga Wharf. Vehicles managed through restriction access and low-speed environment. Parking provided on site. Mandatory health and safety inductions.
 - Berthing: Likely to generate a low number of daily trips and can be accommodated on Onehunga Harbour Road. Access to Onehunga Wharf is managed through restrictions.
 - Water space: Requirement on vessels berthing at Onehunga Wharf.
 - Breakwater / Pipe Bridge: Not in operation. Unlikely to generate specific trips unless maintenance required.
 - Boat Ramp: Majority of vessels too large to use boat ramp. Boat ramp accessed from Onehunga Wharf is managed through restrictions.
- The activities and infrastructure are consistent with the objectives and policies in the AUP for transport and Coastal – General Coastal Marine and Minor Port Zones.
- The management of these activities does not have any identified adverse effects on the safe and efficient operation of the adjacent transport network.

It is considered that the activities and infrastructure can continue and are considered acceptable from a transport perspective.