

# Oranga Tamariki Weymouth Residence: Change to Designation

## Transportation Assessment Report

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# 1 Introduction

Stantec has been commissioned by Boffa Miskell on behalf of Oranga Tamariki to prepare a Transportation Assessment report for a proposed alteration to the designation for the Care and Protection Residential Centre – Upper North currently known as ‘Whakatakapokai’ located at 398 Weymouth Road in Weymouth, Auckland. The alteration to the Minister for Children’s designation 3800 seeks to increase the maximum number of children and young persons who may reside at the Oranga Tamariki Residence (“**Residence**”) from 20 care and protection children and young people to a maximum of 30 children and young persons, of which no more than six will be under the care and protection service, with the remainder within the youth justice service including those who are placed in the custody of the chief executive of Oranga Tamariki for certain adult jurisdiction reasons, or who are transitioning out of care/custody.

This report addresses the transportation engineering matters related to the proposed alteration to designation, including:

- A description of the site and its surrounding transport environment;
- A description of the key transport-related aspects of the proposed designation change;
- A review of the existing transport operations at the site;
- An assessment of expected volumes of vehicular traffic likely to be generated by the proposed designation change and the effects of this on the surrounding road network; and
- Parking requirements and demand due to the designation change.

These and other matters are addressed in this report.

## 2 Existing Conditions

### 2.1 Site Location

The Residence is located at 398 Weymouth Road in Weymouth, Auckland, as indicated in **Figure 1**. The site is within the Residential – Mixed Housing Suburban Zone as defined in the Auckland Unitary Plan (Operative in Part) (**AUP**). The site is located within a predominantly residential area, with Clendon Shopping Centre located to the north of the site.



Figure 1: Site location

## 2.2 Surrounding Road Network

Weymouth Road is approximately 4.5km in length. The eastern portion of Weymouth Road is a 2.5km long arterial road which runs roughly east-west between Roscommon Road and Alfriston Road / Great South Road. The western portion of Weymouth Road is a 2km long local road and runs southeast from the five-arm roundabout with Roscommon Road, Palmers Road and Mahia Road. Both sides of Weymouth Road provide access to local roads that serve the predominantly residential area.

Weymouth Road has one lane in each direction and allows on-street parking on both sides of the road at various points along the road. The eastern (arterial) portion of Weymouth Road has a flush median along most of its length. Weymouth Road has a posted speed limit of 50km/h.

## 2.3 Traffic Volumes

The latest traffic volumes were obtained from the Auckland Transport (AT) website. The latest counts on Weymouth Road in the vicinity of the site with its respective average daily traffic (ADT), peak hour traffic volumes in vehicles per day (vpd) and vehicles per hour (vph) respectively are summarised in Table 1 below.

Location	Date	Direction	ADT (vpd)		AM Peak		PM Peak	
			5-day	7-day	Volume (vph)	Hour	Volume (vph)	Hour
Weymouth Road (between Damian Way and Taitimu Drive)	March 2018	Both	14,986	14,617	1,094	-	1,129	-
	March 2015	Both	13,455	12,923	1,113	08:00-09:00	1,063	17:30-18:30
	September 2013	Both	11,559	11,275	941	08:00-9:00	1,028	17:15-18:15

Table 1: AT Traffic Counts Taken on Weymouth Road

The AT traffic counts from 2013 to 2018 indicate a steady increase in traffic on Weymouth Road near the site. This is likely to be attributed to the additional residential developments in the area that rely on Weymouth Road to access the wider area. The similar morning and evening traffic volumes are reflective of the residential nature of the area.

## 2.4 Public Transport

The closest pair of bus stops are located at 307 Weymouth Road and 320 Weymouth Road, which are on the frontage of the site. These bus stops serve route 362, which provides access between Weymouth and Manukau Station via Manurewa Interchange and Great South Road. This service operates in both directions at an average frequency of every 20min in the morning and evening peak hour and every 30mins throughout the rest of the day, Monday to Friday. It also operates on an average frequency of 30min on Saturdays and Sundays.

The site is also close to the pair of bus stops at 18 Palmers Road, which are approximately 400m walking distance from the site. These bus stops serve route 361, which provides access between Manurewa Interchange and Otara / Manukau Institute of Technology (MIT) via Clendon and Manukau. Like the 362, this service operates in both directions at an average frequency of every 20min in the morning and evening peak hour and every 30mins throughout the rest of the day, Monday to Friday. It also operates on an average frequency of 30min on Saturdays and Sundays.

Bus Route	Description	Mon-Fri		Sat-Sun	
		Average Frequency	Operating Times	Average Frequency	Operating Times
362 Weymouth to Manukau Station	Via Manurewa Interchange and Great South Road	Every 20min during the morning and evening peak hours, every 30min through the rest of the day	5:20am-11:00pm	Every 30min	6:32am-11:02pm (Sat); 7:02am-10:32pm (Sun)
362 Manukau Station to Weymouth	Via Great South Road and Manurewa Interchange	Every 20min during the morning and evening peak hours, every 30min through the rest of the day	5:55am-11:35pm	Every 30min	6:32am-11:32pm (Sat); 7:32am-11:02pm (Sun)
361 Manurewa Interchange to Otara / MIT	Via Clendon, Browns Road, Manukau and Tui Street	Every 20min during the morning and evening peak hours, every 30min through the rest of the day	5:25am-11:15pm	Every 30min	6:15am-11:15pm (Sat); 6:45am-10:15pm (Sun)
361 MIT / Otara to Manurewa Interchange	Via Tui St, Manukau, Browns Road and Clendon	Every 20min during the morning and evening peak hours, every 30min through the rest of the day	6:15am-11:00pm	Every 30min	6:40am-11:03pm (Sat); 6:40am-10:03pm (Sun)

Table 2: Bus Routes that Serve the Site

Both the 362 and 361 provide access to the site via Manurewa Interchange and Manukau Station. Both Manurewa Interchange and Manukau Station are serviced by the frequent bus route 33, which provides access to Papakura Station and Otahuhu Station via Great South Road. They also provide access to the Auckland Central Business District and Papakura via the Southern and Eastern rail lines.



Overall, the site is well served by public transport, with bus stops located close to the site which are served by bus routes with reasonable frequencies and operating hours. These bus routes connect to key hubs at Manukau Station and Manurewa Interchange, which connect the site to other bus routes and the rail network.

## 2.5 Pedestrian and Cycling Provision

Footpaths are provided on both sides of Weymouth Road, in keeping with the developed urban area. An underpass is provided for pedestrians at the Roscommon Road five-arm roundabout.

No dedicated cycle paths or lanes are provided within the vicinity of the site.

## 3 Proposed Designation Change

Whakatakapokai is established pursuant to the Minister for Children's Designation 3800. The current designation condition relevant to traffic and transportation states *"that the Care and Protection Residential Centre - Upper North shall provide residential care for up to 20 children and young persons at any one time."*

The proposed alterations to the designation will allow the Residence to accommodate tamariki/children and rangatahi/young people for either care and protection or youth justice reasons, including those who are placed in the custody of the chief executive of Oranga Tamariki for certain adult jurisdiction reasons, or who are transitioning out of care/custody. The changes will enable the Residence to accommodate rangatahi who are aged up to and including 19 years old (although most will be under 18).

It is proposed to increase the maximum number of children and young persons under the residential care to 30, of which up to six will be within the Care and Protection service and the remainder will be within the Youth Justice service. In the event that Care and Protection fully vacated the site then the number of children and young people placed with the Youth Justice residence would be up to 30.

## 4 Existing Transport Site Operations

### 4.1 Access

The access to the site is on Weymouth Road, and has an approximate width of 5.5m. This entrance leads into a car park for visitors and a secure gated car park for staff and fleet vehicles. Refuse collection trucks and delivery vehicles also use this access, and load from the area near the kitchen.

While footpaths are not provided from the road to the facility, pedestrian access through the car park is likely to occur for any visitors arriving on foot. The slow speed environment of the car park supports this arrangement.

### 4.2 Servicing

The site is serviced by catering, refuse collection and laundry services. The meal van has a frequency of twice a day and utilises the parking area next to the kitchen to do its loading. The refuse truck services the site twice a week and utilises the formed vehicle access way to collect bins. Laundry is collected three times a week.

### 4.3 Parking Provision

Two car parking areas are provided on site; one directly outside the administration building for visitors and staff, and one secured by a security gate for staff and fleet vehicles only. The number parking spaces by area and allocation are outlined in **Table 3** below.

Area/Allocation	No. Spaces
Staff	23 (including 3 spaces for fleet vehicles)
Visitors and staff	34 (including 1 accessible space)
<b>Total</b>	<b>57</b>

Table 3: Existing Car Park Provision at the Residence

The total number of car park spaces allocated to staff is 20 and the total number of car park spaces available for visitors and staff is 34 (including one accessible space).

The majority of both sides of Weymouth Road near the site are also available to be used as on-street parking with no time restrictions or payment requirement.

## 5 Traffic Effects

### 5.1 Trip Generation

The traffic generated as a result of the designation change will mainly arise from the increased number of staff members, which have been provided by Oranga Tamariki. Staff traffic as well as traffic generated by visitors and other trips is assessed in the sections below.

#### 5.1.1 Staff

##### 5.1.1.1 Current Staff Numbers

The number of staff members for each activity and respective working hours for the operation of the Care and Protection based on full occupancy were provided by Oranga Tamariki. The majority of staff are on site during typical business hours, with the exception of floor staff who are split into three shifts during the day.

The current shift times for floor staff are:

- AM shift: 6:30am-3:00pm
- PM shift: 2:30pm-11:00pm
- Night: 10:30pm-7:00am

The number of staff employed at the site by type is as follows:

- Clinical team: four during business hours on weekdays, one on call during weekends;
- Clinical external facilitators: one to two per week (Monday-Friday) during business hours;
- Domestic / admin support / kitchen: 12 during business hours on weekdays, one on weekends;
- Medical: one nurse during business hours on weekdays, one General Practitioner every Tuesday during business hours, and medical support on call during weekends;
- School: seven during school hours on weekdays;
- School external facilitators: three or four spread across the week (Monday-Friday) during school hours;
- AM shift floor staff: eight to ten staff;
- PM shift floor staff: eight to ten staff; and
- Night shift floor staff: six staff.

Business hours have been assumed to be 9am-5pm.

For the purpose of conservative estimation, the maximum number of staff members are shown and summarised in **Table 4** below, according to their working hours.

Working Hours	Staff Numbers					
	Clinical (including external facilitators)	Domestic / Admin support / Kitchen	Medical	School (including external facilitators)	Floor	Total
Business hours	6	12	2	11	-	31
AM shift	-	-	-	-	10	10
PM shift	-	-	-	-	10	10
Night shift	-	-	-	-	6	6
<b>Total</b>	<b>6</b>	<b>12</b>	<b>2</b>	<b>11</b>	<b>26</b>	<b>57</b>

Table 4: Staff Numbers during Weekdays

During the weekends, only floor staff and one admin staff work on site. Medical support is available on call.

#### 5.1.1.2 Future Staff Numbers

The expected future number of staff members for each activity were provided by Oranga Tamariki. Working hours are expected to remain the same as current operations. **Table 5** below indicates the forecasted maximum staffing numbers provided by Oranga Tamariki, assuming full occupancy at the Residence.

Working hours	Staff Numbers							
	Clinical (including external facilitators)	Domestic / Admin support / Kitchen	Medical	School (including external facilitators)	Escort	Floor	Mobile	Total
Business hours	8	16	3	9	4	-	-	<b>40</b>
AM shift	-	-	-	-	-	12	2	<b>14</b>
PM shift	-	-	-	-	-	12	2	<b>14</b>
Night shift	-	-	-	-	-	11	1	<b>12</b>
<b>Total</b>	<b>8</b>	<b>16</b>	<b>3</b>	<b>9</b>	<b>4</b>	<b>35</b>	<b>5</b>	<b>80</b>

Table 5: Expected Staff Numbers during Weekdays

This sees an increase of nine staff across the various areas during business hours, four additional floor/mobile staff in both the AM and PM shifts, and six additional floor/mobile staff on the night shift; an overall increase of 23 staff spread across the day. This is expected to result in 18 additional vehicle trips during business hours (the majority occurring at the start and end) and eight to 12 additional vehicle trips associated with each shift; a total of 46 additional daily trips.

During the weekends, only the floor staff, one admin, one kitchen and one medical staff work on site, a total increase of 11 staff during the weekends: two during business hours, two during the AM and PM shifts, and five during the night shift. This is expected to result in four additional vehicle trips during business hours and four to ten additional vehicle trips associated with each shift; a total of 22 additional daily trips on the weekend.

#### 5.1.2 Visitors

Two visitation rooms are currently provided, with the following visiting hours:

- 3:00pm-6:00pm on weekdays for family
- 10:00am-6:00pm on weekends for family
- 9:00am-5:00pm on weekdays for professionals

For the purposes of this assessment, it has been assumed that the duration of each family visit is 30 minutes.

It is understood that the future visiting hours for those under Care and Protection will be the same as above and the visiting times for those under Youth Justice services will be:

- 2:30pm-5:00pm on weekdays for family
- 10:00am-1:00pm on weekends for family
- 9:00am-5:00pm on weekdays for professionals

For the future operation of the site, it is understood that the maximum visit duration will be 30 minutes for local visitors and one hour for people from out of town. The intent is to place children and young people close to whanau and their community but at times this may not be possible. It is estimated that approximately 75% of visitors will be local and up to 25% will be from out of town.

For estimation purposes, it is assumed that the two visitation rooms are fully utilised by family every weekday and each visitor group arrive in the same car (therefore generating two vehicle trips), except that residents will have a maximum of one visiting group per day. The ratio of local and out of town visitors is not applied to the future scenario to present a robust scenario.

The estimated vehicle trips generated by family visitors are outlined in **Table 6** below.

	Current Estimate		Future Estimate	
	Weekday	Weekend	Weekday	Weekend
Number of hours available for family visitors	3	8	3.5	8
Potential number of family visitation slots	12	32	14	32
Number of family visits	12	20	14	18
Number of vehicle trips during visitation hours	24	40	28	32
Number of vehicle trips per hour	8	8	8	8

Table 6: Estimated Vehicle trips by Family Visitors

As the visitation hours for those under Youth Justice services fall within the current hours, the change in future visitors will only be an additional visitor per room during the extra half hour slot on weekdays. Visits are limited by the number of Care and Protection residents on weekends. The change in traffic movements associated with visitors is an increase in four vehicles per day during the weekdays and a decrease in eight vehicle trips per day during the weekend (due to the limited visiting hours for the larger number of Youth Justice residents). The average number of vehicle trips per hour remains the same for both weekdays and weekends.

Professional visitor numbers are additional to this estimate. It has been assumed that up to five professional visits are made daily currently based on experience at other youth justice residences. Allowing for an increase to up to six with the change to the designation, this is an additional two trips per day on weekdays.

### 5.1.3 Other Vehicle Trips

Other vehicle trips generated by the Residence include servicing, school trips, court appearances and other appointments.

No increase in servicing frequency is expected as an outcome of the proposed designation change.

It is understood that the facility currently has three fleet vehicles, and that this will increase to four fleet vehicles with the change to the designation. The number of fleet vehicle movements at the site varies daily, and this is expected to continue.

For this assessment it was assumed that each fleet vehicle currently makes four vehicle movements (two external trips) per day during the week, which equates to 12 fleet vehicle movements currently generated by the site on weekdays.

Based on the operation of fleet vehicles at Korowai Manaaki, another youth justice facility, and the ratio of residents there compared to this residence, the following is assumed to be associated with Youth Justice residents:

- Trips associated with school activities will occur three times a week, which will require one fleet vehicle for each trip; and
- Court appearances and other appointments will occur on average twice per day and a typical maximum of four per day.

For the purposes of this assessment, it is assumed that the maximum number of fleet vehicle outings is likely to be four outings in a weekday (assume the maximum of four court appearances and one school activity trip on the same day). This equates to ten fleet vehicle trips per weekday associated with Youth Justice residents.

An additional four fleet vehicle trips per day are assumed to be associated with Care and Protection residents, to give a total of 14 daily trips. This is an increase of two fleet vehicle trips on weekdays.



#### 5.1.4 Summary of Additional Trip Generation

In summary, the estimated additional number of daily vehicle trips during the weekday are outlined in **table 7** below.

Time Period	Additional number of daily vehicle trips			
	Staff	Visitors	Other trips	Total
Business hours (9:00am-5:00pm)	18	2	2	<b>22</b>
AM shift (6:30am-3:00pm)	8	-	-	<b>8</b>
PM shift (2:30pm-11:00pm)	8	-	-	<b>8</b>
Night shift (10:30pm-7:00am)	12	-	-	<b>12</b>
Weekday visitation hours (2:30-6:00pm)	-	4	-	<b>4</b>
<b>Total</b>	<b>46</b>	<b>6</b>	<b>2</b>	<b>54</b>

Table 7: Additional Estimated Weekday Vehicle Trips Generated

A total of 54 additional trips per day is forecast during weekdays and 14 additional trips per day during weekends.

Approximately 10 and 12 additional trips (based on staff and some visitor trips only) will occur during the key morning and evening peak hours respectively, at the start and end of business hours.

## 5.2 Effect of Additional Trips Generated

Additional trips calculated in Section 5.1 Trip Generation above have been used to assess the traffic effects as a result of the change in designation which seeks to increase the number of children under care from 20 to 30.

Given the low level of additional traffic generated by the site during the peak hours, the current access is considered sufficient to cater for the additional traffic generated during peak hours at the beginning and end of business hours and throughout the day.

The traffic volumes outlined in Section 2.3 indicate that the morning peak hour on Weymouth Road is from 8:00am-9:00am and that the evening peak hour is from 5:30pm-6:30pm. For a conservative estimate, it is assumed that the on-road peak hours coincide with trips generated by the site at the beginning and end of business hours, and the end of the visitation hours. The change to the designation is expected to generate up to an additional 10-12vph onto Weymouth Road during the morning and evening peak hours. This level of additional traffic represents less than 1% of the respective peak hour volumes of 1,094vph and 1,129vph, and is unlikely to be noticed on the surrounding road network.

Similarly, the increase of 54 weekday trips also represents less than 1% of the current volume 5-day ADT of 14,986vpd on Weymouth Road is again likely to be unnoticeable.

It is concluded that additional traffic volumes generated as a result of the change in designation can be accommodated on the surrounding road network without adverse effects on safety or efficiency.

## 6 Parking

The site is zoned Residential – Mixed Housing Suburban and therefore the minimum parking requirement is specified in Table E27.6.2.4 Parking rates – area 2 of the AUP. The supported residential care (T50) activity is considered the closest to the activities on-site. This activity requires parking to be provided at a minimum rate of 0.3 parking spaces per bed and no maximum rate is specified. This would equate to a minimum of six spaces for the current designation (20 beds) and a minimum of nine spaces for the proposed designation (30 beds). As described in Section 4.3 Parking Provision, a total of 57 spaces are provided on site. The current provision is consistent with the AUP parking requirements.

## 7 Conclusion

It is proposed to change the designation condition of Whakatakapokai to increase the maximum number of children and young persons who may reside at the Residence from 20 to 30 children and young persons. This would include up to six children and young people within the care and protection facility, with the remainder within the youth justice facility. This changes the nature of the facility from a solely care and protection facility to mainly a youth justice facility, with a small capacity to care and protection.

The traffic generated as a result of the increase of 10 children and young persons and change in nature of the facility will be in the order of 54 daily trips and up to 12 trips in the peak hour. Such low additional traffic generated by the site will be readily accommodated without adverse effects on the safety or efficiency of the surrounding road network.

The current parking provision is consistent with the AUP requirements for the existing situation and proposed change in designation.