Planning | Surveying | Engineering | Environmental

Kahikatea Drive, Kinloch

Integrated Transportation Assessment

Seven Oaks Kinloch Ltd

Kahikatea Drive, Kinloch

DOCUMENT CONTROL

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1 Introduction

1.1.1 This Broad Integrated Transportation Assessment (ITA) considers the traffic and transportation effects of a proposed 92 lot residential development within the northern extents of Lot 501 DP 569523, Kinloch which will be referred to as 'the site'.

1.1.2 The site is located within the northwest area of Kinloch township, within Taupo District Council (TDC) jurisdiction, approximately 16km northwest of central Taupo.

1.1.3 In summary, it has been concluded that the traffic effects of the proposed development are considered to be less than minor. As such, it is considered that there are no transportation reasons why the development cannot be consented.

2 Site Location

2.1.1 The site is located within appellation Lot 501 DP 569523 which is highlighted in yellow in Figure 1.

Figure 1: Site location

2.1.2 The overall site lies across two zones; Kinloch Residential (highlighted pink) and Kinloch Low Density Residential (highlighted light pink) area as shown in Figure 2 below.

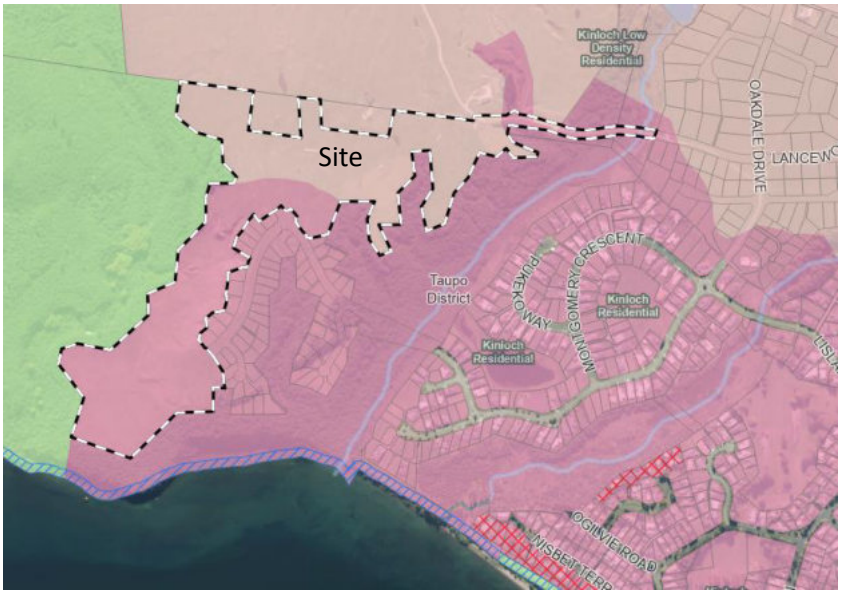


Figure 2: Existing zoning (Source: Taupo District Council)

2.1.3 The lower two thirds of the site zoned Kinloch Residential, is already consented for the development of 160 residential lots as part of the Seven Oaks development project. This area is already under development and is also accessed from Okaia Drive as shown in Figure 3. The subject area of this assessment is the remaining land located in the north of the lot, zoned Kinloch Low Density Residential (refer Figure 2) and as the 'Balance Lot' shown in white in Figure 3. This area has frontage to both Okaia Drive and Kahikatea Drive.

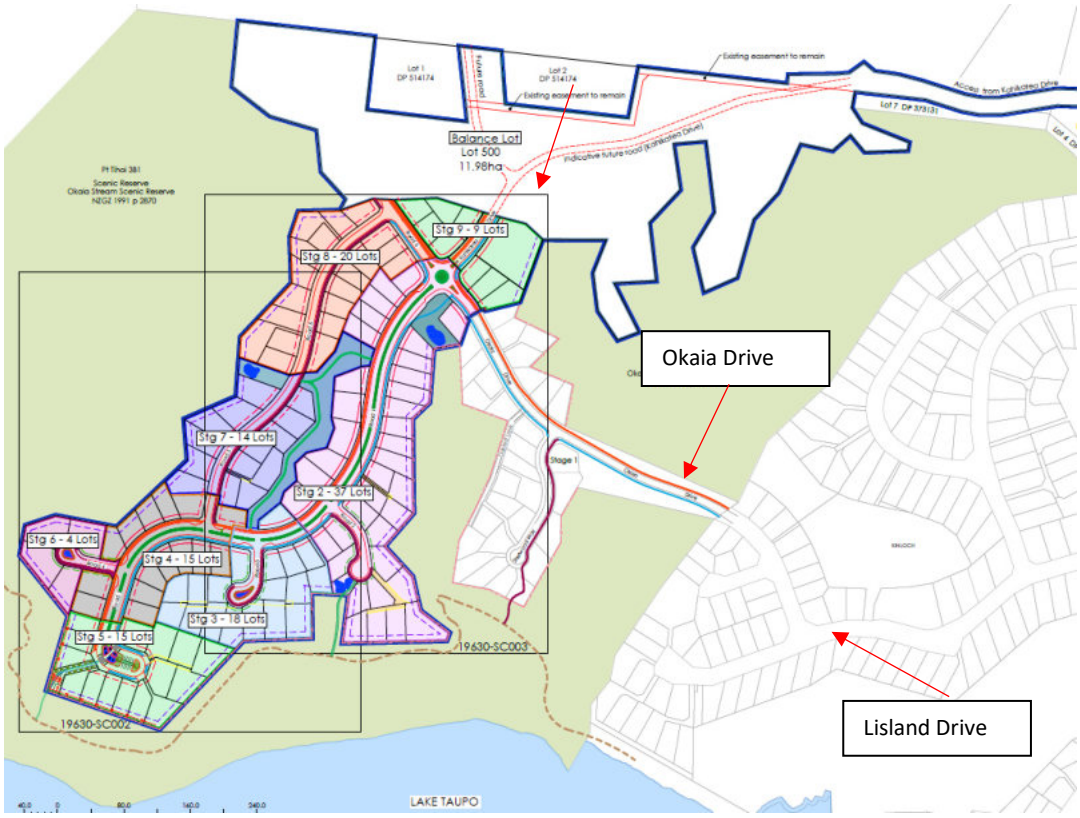


Figure 3 Adjacent Residential Area

3 Existing Road Network

3.1 Physical Environment

3.1.1 The primary road network that the proposed development connects to is outlined in Figure 4 and is primarily defined by a series of six local and collector roads. These six roads are:

- Okaia Drive (shown in green);
- Kahikatea Drive (shown in blue);
- Lisland Drive (shown in purple);
- Oakdale Drive (shown in orange);
- Kinloch Road (shown in yellow); and
- Whangamata Road (shown in red).

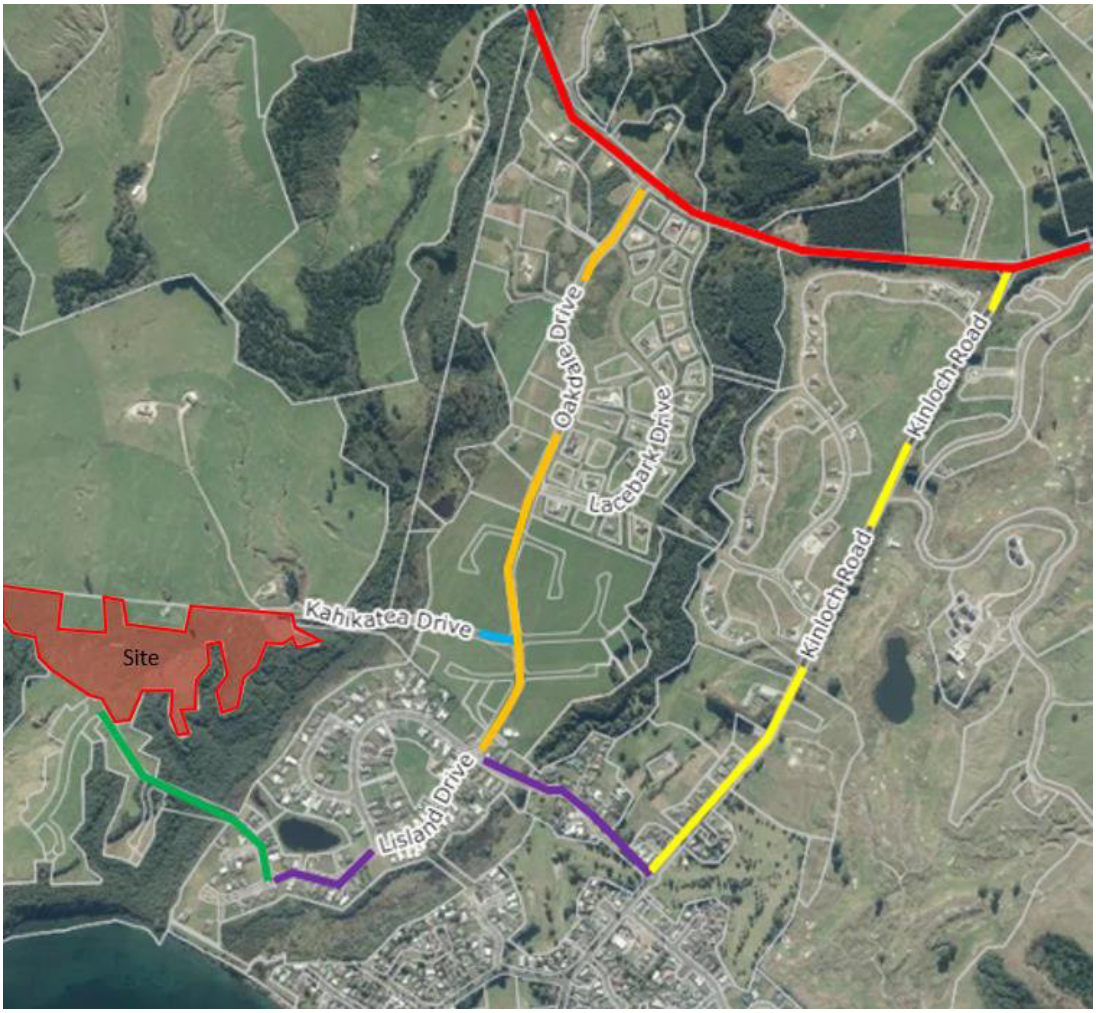


Figure 4 Surrounding Road Network

3.2 Primary Development Access Points

Okaia Drive

3.2.1 As advised by TDC, Okaia Drive is currently classified as a collector road under the One Network Road Classification (ONRC) system however as TDC moves to the One Network Framework (ONF) for classification, it will be reclassified as a local street. Okaia Drive forms one of the primary access points to both the existing 160 lot residential development of Seven Oaks as well as the primary southern access to the proposed development site. Okaia Drive also links to the wider road network and Kinloch township via Lisland Drive as shown in Figure 5.

Figure 5: Okaia Drive (Source: TDC Mapi)

3.2.2 Okaia Drive is shown to have a carriageway of 11m in width containing two 5.5m wide movement lanes as shown in Figure 6. The carriageway is delineated with centrelines only and has no designated carparking spaces. Okaia Drive will operate with a posted speed limit of 50km/h as in keeping with default urban speed limits.

Figure 6: Okaia Drive carriageway

3.2.3 Okaia Drive contains footpaths on both sides of the road as shown in Figure 6 above and is delineated with centreline markings only. Okaia Drive intersects with the future extension of Kahikatea Drive via a newly constructed roundabout as part of the Seven Oaks development and Lisland Drive also via a roundabout intersection as shown below in Figure 7 and Figure 8 below.

Figure 7: Okaia Drive / Kahikatea Drive roundabout intersection (Okaia Drive left to right, Kahikatea Drive straight through)

Figure 8: Okaia Drive / Lisland Drive intersection (view from Oakaia Drive)

3.2.4 Both the Okaia Drive / Kahikatea Drive and Okaia Drive / Lisland Drive intersections have unobstructed visibility in all directions.

Kahikatea Drive

3.2.5 As advised by TDC, Kahikatea Drive is currently classified as a collector road under the ONRC system however as TDC moves to the ONF for classification, it will be reclassified as a local street.

Figure 9: Kahikatea Drive (Source: TDC Mapi)

3.2.6 Kahikatea Drive is shown to have a carriageway of 9m in width containing a 3.8m wide eastbound movement lane and a 5.2m wide westbound movement lane. The carriageway is delineated with centrelines only and has no designated carparking spaces. In keeping with local speed limits it is expected Kahikatea Drive will operate with a posted speed limit of 50km/h.

Figure 10 Cross Section of Kahikatea Drive east of its intersections with Oakdale Drive

3.2.7 Kahikatea Drive has a current formation length of approximately 200m with a footpath present on its southern side only. Currently, there exists a dirt access track for construction equipment as shown in Figure 11 below.

Figure 11: End of the existing Kahikatea Drive carriageway

3.2.8 Kahikatea Drive currently connects with Oakdale Drive via a priority Give Way intersection as shown below in Figure 12. There is unobstructed visibility at the intersection with Oakdale Drive in both directions.

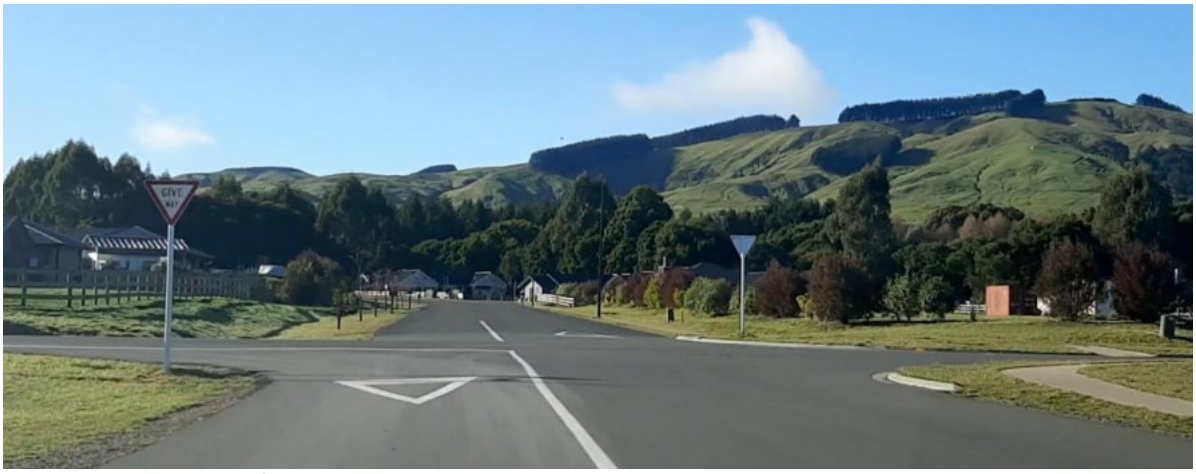


Figure 12: Kahikatea Drive / Oakdale Drive intersection (view from Kahikatea Drive)

Oakdale Drive

3.2.9 As advised by TDC, Oakdale Drive is currently classified as a collector road under the ONRC system however as TDC moves to the ONF for classification, it will be reclassified as a local street. Oakdale Drive primarily provides property connection between Lisland Drive and Whangamata Road and is one of two main routes in and out of Kinloch.

3.2.10 Oakdale Drive has a typical carriageway width of 11m with a single 5.5m wide movement lane in both the northbound and southbound directions. The carriageway is typically delineated with centreline markings only. Oakdale Drive contains footpaths on both sides of the carriageway between the intersections of Lisland Drive and Kahikatea Drive. The footpath then continues on the eastern side of Oakdale Drive from Kahikatea Drive north to the intersection with Whangamata Road.

3.2.11 Oakdale Drive operates with a 50 km/h speed limit and typical cross-sections are shown in Figure 13 and Figure 14.

Figure 13: Oakdale Drive southern end

Figure 14: Oakdale Drive northern end - at the intersection with Whangamata Road

3.2.12 Oakdale Drive is intersected with Lisland Drive at its southern end via a roundabout as shown in Figure 15 below and has unobstructed visibility.

Figure 15: Oakdale Drive / Lisland Drive intersection

3.2.13 At its northern end, Oakdale Drive intersects with Whangamata Road via a Give Way t-intersection as shown in Figure 16 below.

Figure 16: Oakdale Drive / Whangamata Road intersection

3.2.14 The Oakdale Drive / Whangamata Road intersection is located mid-block on a vertical curve and has approximately 250m sight distance to the west and approximately 160m to the east. Visibility to the east is restricted due to both a horizontal and vertical curve.

3.2.15 It is understood that there is a proposed speed change for the section of Whangamata Road between Kinloch Road and Oakdale Drive from its present 100km/h to 60km/h[1].

3.2.16 The minimum Safe Intersection Sight Distance (SISD) therefore required within Austroads Guide to Road Design (AGDR) Part 4A – Unsignalised and Signalised Intersections to the west remains a minimum of 248m to accommodate the approaching 100km/h traffic however to the east, a minimum sight distance of 123m is required. Visibility in both directions is therefore compliant.

Lisland Drive

3.2.17 As advised by TDC, Lisland Drive is currently classified as a collector road under the ONRC system however as TDC moves to the ONF for classification, it will be reclassified as a local street. Lisland Drive connects into Oakdale Drive, providing direct residential access along its frontage.

[1] Confirmed speed limit changes in Priority 1.pdf (taupodc.govt.nz)

3.2.18 Lisland Drive has a typical carriageway width of 11m with a single 5.5m wide movement lane in both directions. The carriageway is typically delineated with centreline markings only.

3.2.19 Lisland Drive operates as a 50km/h speed zone and contains pedestrian footpaths on both sides of the carriageway. Typical cross-sections of Lisland Drive are shown in Figure 17 and Figure 18.

Figure 17 Lisland Drive south of Okaia Drive

Figure 18: Lisland Drive north of Okaia Drive

Kinloch Road

3.2.20 As advised by TDC, north of Lisland Drive, Kinloch Road is designated as a district arterial under the ONRC however this classification will also change under the ONF. Kinloch Road is signposted as a 70km/h speed zone for the initial 1.5km from Whangamata Road before reducing to 50km/h approximately 240m north of the Lisland Drive roundabout. The initial 1.5km is to be reclassified as a rural connector under the ONF, and the last 240m north of the Lisland Drive roundabout is to be reclassified as a local connector. Beyond the Lisland Drive roundabout, Kinloch Road will be reclassified as a local street. Kinloch Road also provides the

primary access point into the township itself for both westbound and eastbound vehicles along Whangamata Road.

3.2.21 Kinloch Road is approximately 2.7kms in total length and has a typical carriageway width of 6m with a single 3m wide lane in each direction and is typically delineated with both edgeline and centreline markings. It is also noted that there is a shared footpath along the entire length of Kinloch Road. A typical cross-section of Kinloch Road is shown in Figure 19 below.

Figure 19 Typical cross-section of Kinloch Road (70 km/h section)

Figure 20: Typical cross-section of Kinloch Road (50km/h section)

3.2.22 Kinloch Road intersects with Whangamata Road in the north via a Give Way t-intersection which contains a 3m wide right turn bay on Whangamata Road as shown below in Figure 21.

Figure 21: Kinloch Road / Whangamata Road intersection (view: looking east from Whangamata Road)

3.2.23 Whangamata Road is currently classified as a collector with a posted speed limit of 100km/h. The intersection meets the minimum SISD visibility requirements of 123m due to the approved speed reduction along Whangamata Road and 248m in both the eastbound and westbound directions demonstrating compliance with AGRD Part 4A.

Whangamata Road

3.2.24 Whangamata Road is approximately 27.5km in length and connects Pohipi Road in the east to State Highway 32 (SH32) in the west as shown below in Figure 22.

Figure 22: Whangamata Road

3.2.25 As advised by TDC, under the current ONRC classification system, Whangamata Road east of Kinloch Road is a district arterial while west of Kinloch Road it is a collector road. As TDC moves to the ONF system, Whangamata Road will be reclassified to a rural connector.

3.2.26 Whangamata Road has a posted speed limit of 100km/h and consists of a 6m wide carriageway with a single 3m wide movement lane in each direction. It is typically delineated

with edgeline and centreline markings with minimal sealed shoulders as shown in Figure 23 below.

3.2.27 It has been confirmed with TDC on 7th October 2022 that a speed reduction between Kinloch Road and Oakdale Drive[1] to 60km/h has been approved.

3.2.28 Although also acting as a major cycle route, there is no dedicated provision for cyclists along its length.

Figure 23: Whangamata Road cross-section approximately 200m east of Kinloch Road intersection

3.2.29 At its eastern end, Whangamata Road intersects with Pohipi Road via a Give Way t-intersection which contains a 3m wide right turn bay with extension and left slip lane from Pohipi Road as shown below in Figure 24.

Figure 24: Whangamata Road / Pohipi Road intersection

3.2.30 The intersection meets the minimum visibility requirements of 248m in both the eastbound and westbound directions demonstrating compliance with AGRD Part 4A.

Pohipi Road

3.2.31 As advised by TDC, Pohipi Road is currently classified as a regional arterial road under the ONRC system however as TDC moves to the ONF for classification, it will be reclassified as a regional collector road.

3.2.32 Pohipi Road has a posted speed limit of 100km/h and a total carriageway width of 6m. There is a single, 3m wide movement lane in each direction and is delineated with centreline and edgeline markings. There are no pedestrian or cycle facilities along its length. A typical cross-section of Pohipi Road is shown in Figure 25.

Figure 25 Typical Cross-Section of Pohipi Road between Wairakei Drive and Whangamata Road

Wairakei Drive

3.2.33 Wairakei Drive was formally part of State Highway 1, however has not been under Waka Kotahi jurisdiction since the construction and opening of the East Taupo Arterial bypass in October 2010. Wairakei Drive is currently classified as a regional arterial road under the ONRC system however as TDC moves to the ONF for classification, it will be reclassified as an urban connector. Wairakei Drive (at the Pohipi Road intersection) has a posted speed limit of 80 km/h.

3.2.34 The Wairakei Drive/Pohipi Intersection is designed as a seagull priority intersection with a right-turn bay for vehicles turning into Pohipi Road, a right-turn merge lane for vehicles turning right out of Pohipi Road, and a left-turn filter for vehicles turning into Pohipi Road as shown in Figure 26.

3.2.35 There are no pedestrian footpaths or formalised crossing facilities on the western side of Wairakei Drive in the immediate vicinity of the Pohipi Road intersection. On the eastern side of Wairakei Drive however, there is a shared path.

Figure 26: Wairakei Road / Pohipi Road Intersection (Source: Google Streetview looking south)

3.2.36 The intersection meets the minimum visibility requirements of 181m in both the northbound and southbound directions demonstrating compliance with AGRD Part 4A for an 80km/h posted speed zone.

3.3 Traffic Volumes

3.3.1 The latest traffic volumes for each of the roads were obtained from TDC on 26th July 2022. These volumes were also double checked against the MobileRoads website and where either the TDC information was not available or the volumes shown in Mobile Roads was greater, a conservative approach was adopted and the volumes from MobileRoads was used as shown in Table 1.

3.3.2 Peak hour volumes were not available through either are assumed to be 10% of daily.

Table 1: Estimated traffic volumes

Road	Location	Average Daily Traffic (vpd)	Estimated Peak Hour (vph)	Percentage HCV's
Okaia Drive	North of Lisland Dr	40	4	6
Kahikatea Road	West of Oakdale Drive	20	2	unknown
Lisland Drive	South of Oakdale Drive Roundabout	100	10	6
	East of Oakdale Drive Roundabout	838	84	12
Oakdale Drive	Nth of Lisland Dr	400	40	unknown
Kinloch Road*	Immediately south of Whangamata Rd	1,637	164	15
Whangamata Road	Between Oakdale Drive and Kinloch Road	3,001	300	9.5
	East of Kinloch Road	2,597	260	9
Pohipi Road	Pohipi Dr to Wairakei Dr	5,359	536	4
Wairakei Drive	Sth of Pohipi Rd	12,761	1,276	Unknown
	Nth of Pohipi Rd	10,235	1,024	Unknown

*data obtained from MobileRoads as conservative approach – TDC data indicated 868vpd and 12%HCV
**Peak hour volumes calculated at 10% of ADT in absence of recorded data

3.3.3 In order to understand the existing traffic volumes and intersection operation with more certainty, a peak hour video survey was conducted on Wednesday 10th August 2022, across four main intersections between the proposed development site and Taupo, as the largest and most likely destination centre. The surveyed intersections were:

- Oakdale Drive / Whangamata Road;
- Kinloch Road / Whangamata Road;
- Whangamata Road / Pohipi Road; and
- Pohipi Road / Wairakei Drive.

3.3.4 Results of the video survey were able to establish existing peak hours, total peak hour traffic and traffic distribution patterns. A summary table of the total peak hour traffic volumes is shown in Table 2 below. The detailed results of the survey are attached as Appendix A and are summarised in Figure 27 to Figure 30 below.

Table 2: Peak hour traffic volumes summary (surveyed)

Road	AM vph	PM vph
Oakdale Drive	91	92
Kinloch Road	170	148
Whangamata Road	275	259
Pohipi Road	412	458
Wairakei Drive	850	1,028

3.3.5 Comparing this to the TDC data shows that although there are slight variances, estimation of the peak hour traffic volumes to be 10% of the vpd is sufficiently accurate for the purpose of this assessment.

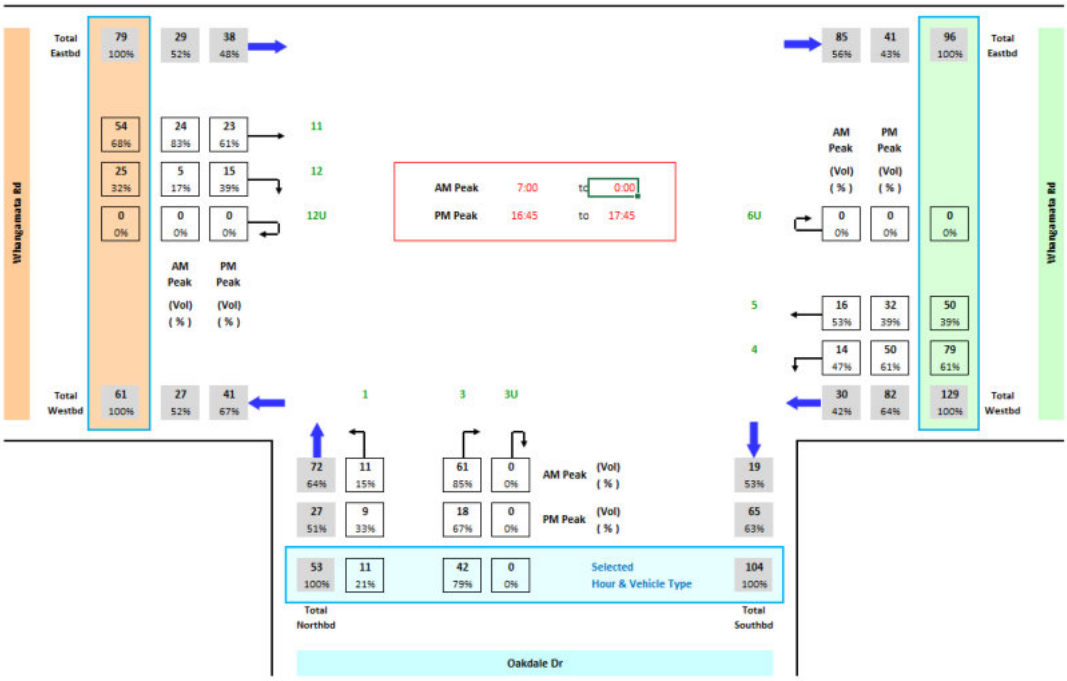


Figure 27: Oakdale Drive / Whangamata Road

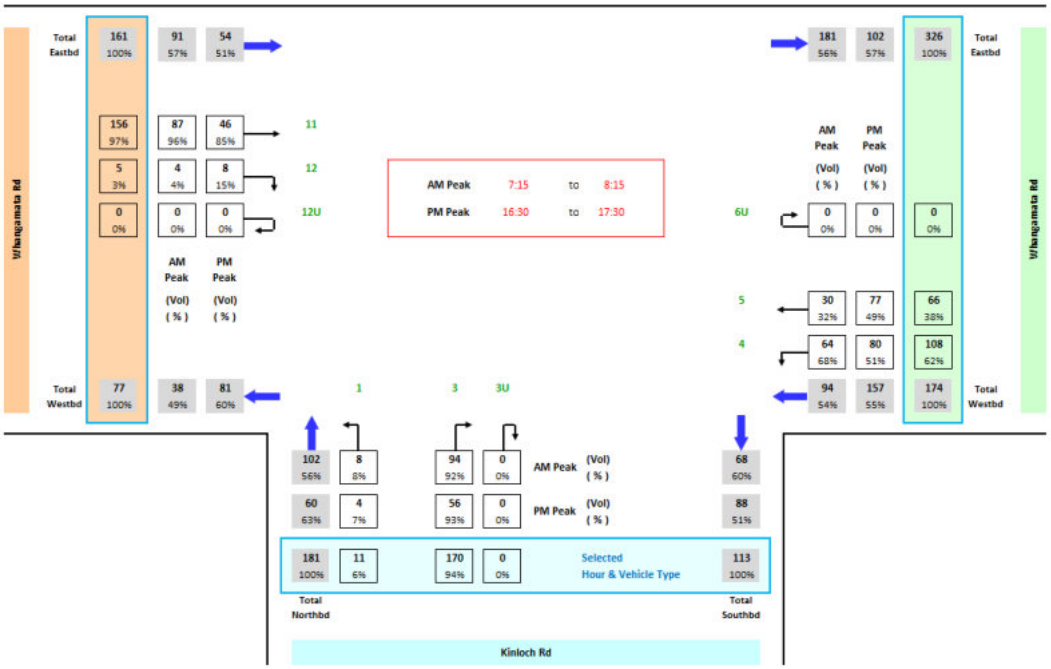


Figure 28: Kinloch Road / Whangamata Road

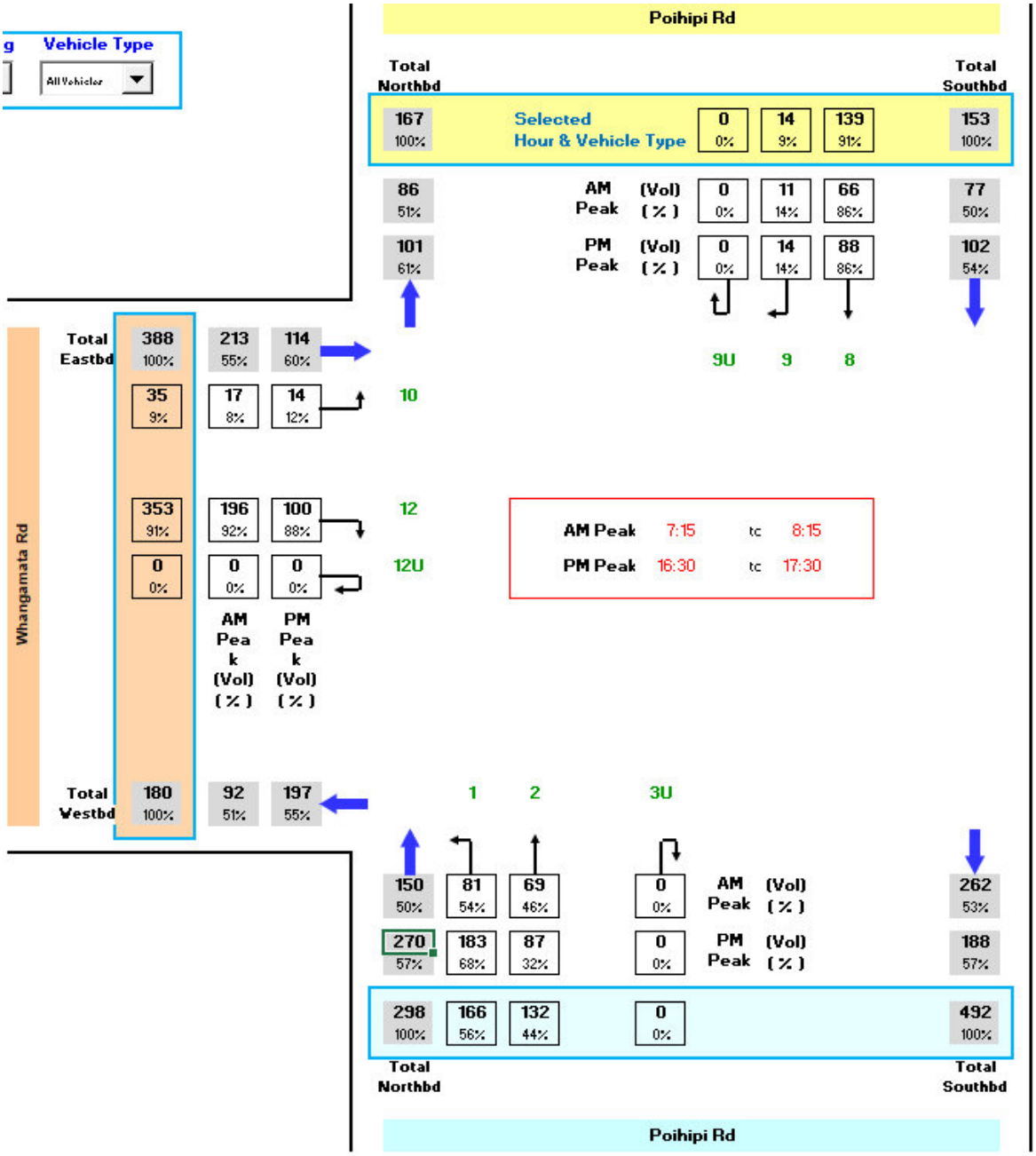


Figure 29: Whangamata Road / Pohipi Road

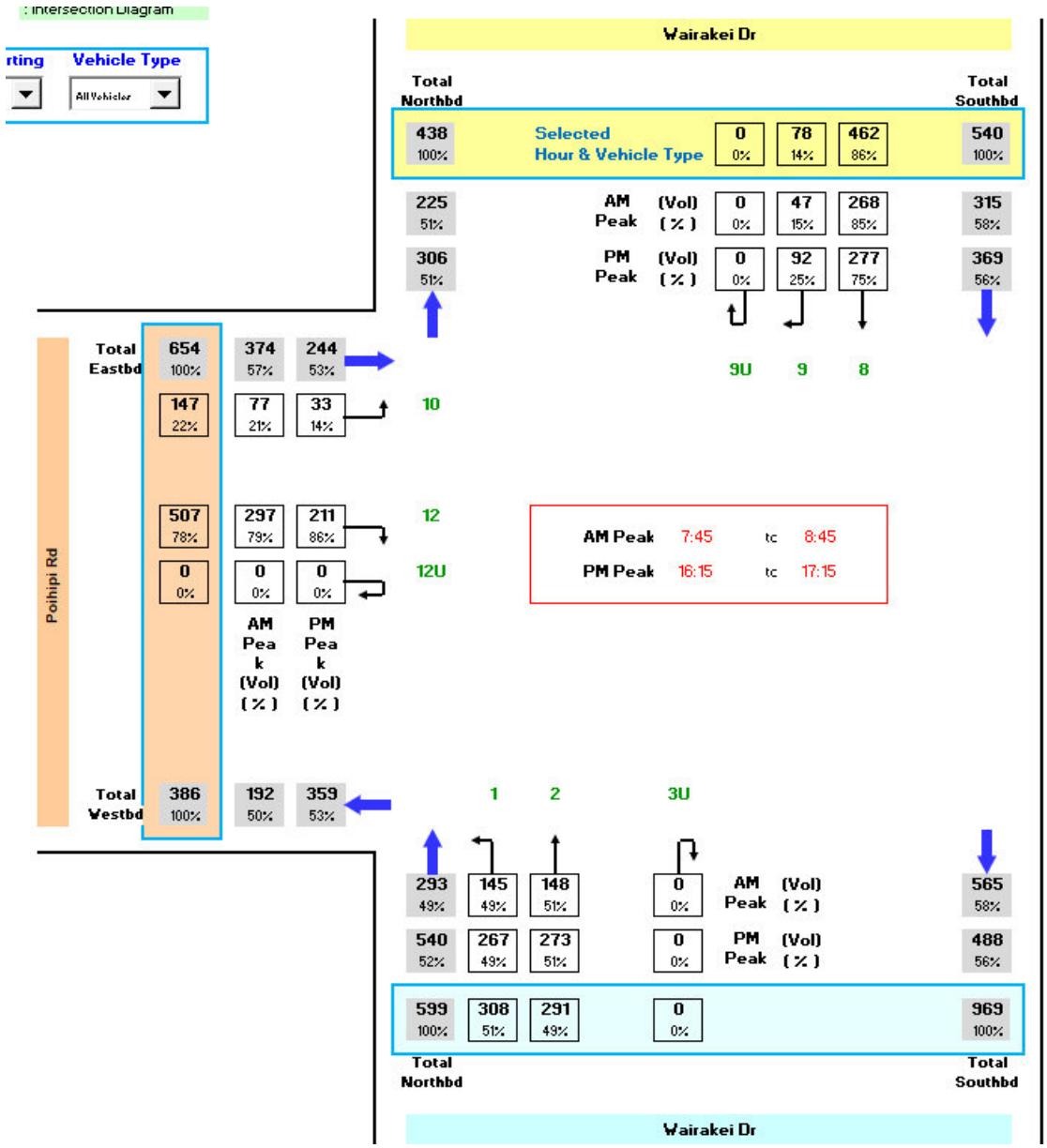


Figure 30: Pohipi Road / Wairakei Drive

3.3.6 As Kinloch township is a tourist destination, it reasonable to expect it experience seasonal traffic increases in traffic volumes associated with tourist movements over the warmer, summer months. The survey was conducted in August, towards the end of winter and therefore represents 'off-seasonal traffic flows'.

3.3.7 In order to assess the potential effects of seasonal variation, the state highway network was chosen as regular count data is available through the Waka Kotahi Traffic Management System (TMS). A first principles calculation has therefore been applied to the surveyed traffic volumes from the closest count locations along State Highways 1 and 5 (SH1 and SH5).

3.3.8 The count sites are shown below in Figure 31.

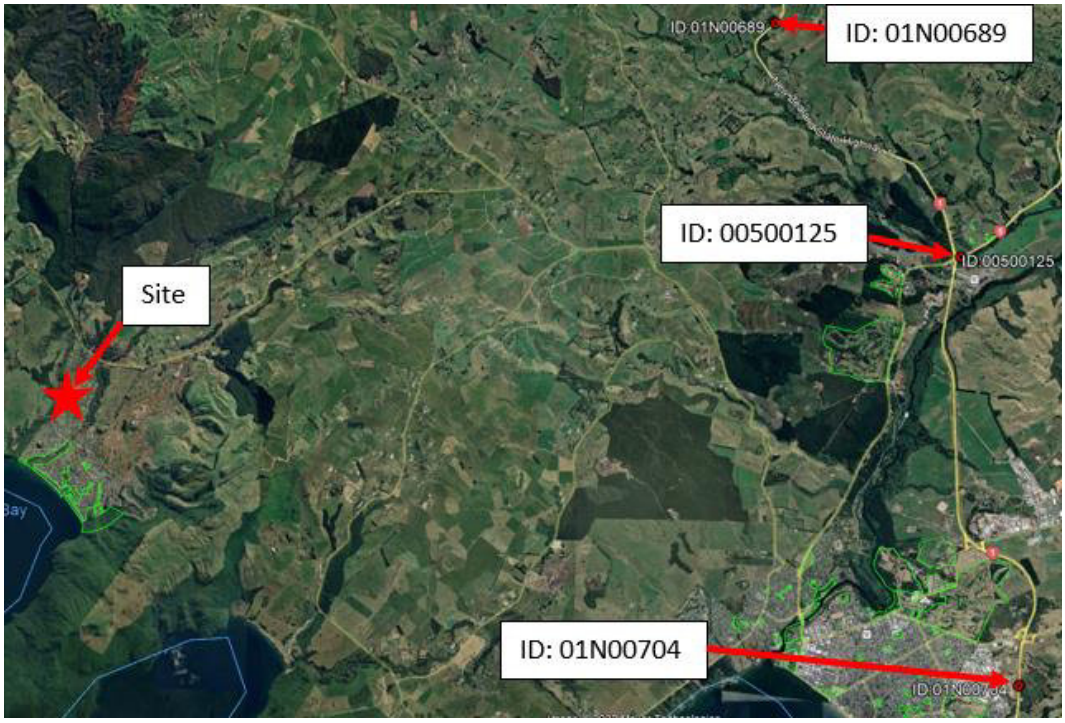


Figure 31: State Highway traffic volume count locations

3.3.9 Due to recent Covid-19 restrictions and lockdowns since March 2020, data after this time period was excluded from the assessment as it was deemed to not be consistent with 'normal' travel patterns. For this reason, traffic count data collected between 1st January 2017 to the closest possible date which was 18th October 2019 along SH1 and 2nd December 2019 along SH5 was used and is summarised in Table 3, Table 4 and Table 5 below. Data highlighted in yellow has been used to represent peak season, with all other data representing off peak season traffic demands.

Table 3: State Highway 1 Traffic Counts North of Wairakei Drive Intersection

Site ID: 01N00689		
Date Range		Weekly Average AADT (vpd)
15-JAN-2017 SUN	21-JAN-2017 SAT	6559
30-JUN-2017 FRI	06-JUL-2017 THU	5161
31-AUG-2017 THU	06-SEP-2017 WED	6029
28-OCT-2017 SAT	03-NOV-2017 FRI	5606
11-MAY-2018 FRI	17-MAY-2018 THU	5735
10-SEP-2018 MON	16-SEP-2018 SUN	6048
29-NOV-2018 THU	05-DEC-2018 WED	6432
27-AUG-2019 TUE	02-SEP-2019 MON	6031
12-OCT-2019 SAT	18-OCT-2019 FRI	5999

Table 4: State Highway 1 Traffic Counts South of Wairakei Drive Intersection

Site ID: 01N00704		
Date Range		Weekly Average AADT (vpd)
26-MAY-2017 FRI	01-JUN-2017 THU	5699
08-NOV-2017 WED	22-SEP-2017 FRI	8235

09-DEC-2017 SAT	15-DEC-2017 FRI	6992
11-MAY-2018 FRI	17-MAY-2018 THU	5892
10-SEP-2018 MON	16-SEP-2018 SUN	6566
20-NOV-2018 TUE	26-NOV-2018 MON	7056
17-AUG-2019 SAT	23-AUG-2019 FRI	6502
12-OCT-2019 SAT	18-OCT-2019 FRI	6739
26-NOV-2019 TUE	02-DEC-2019 MON	8769

Table 5: State Highway 5 at Wairakei Drive Intersection

Site ID: 00500125		
Date Range		Weekly Average AADT (vpd)
26-MAY-2017 FRI	01-JUN-2017 THU	4284
16-SEP-2017 SAT	22-SEP-2017 FRI	4776
09-DEC-2017 SAT	15-DEC-2017 FRI	5701
11-MAY-2018 FRI	17-MAY-2018 THU	4614
10-SEP-2018 MON	16-SEP-2018 SUN	4911
20-NOV-2018 TUE	26-NOV-2018 MON	5879
17-AUG-2019 SAT	23-AUG-2019 FRI	4425
12-OCT-2019 SAT	18-OCT-2019 FRI	4724
26-NOV-2019 TUE	02-DEC-2019 MON	5191

3.3.10 The percentage change across all three sites has been calculated and averaged to provide the final peak season percentage increase to be applied to existing off-season traffic flows. This is demonstrated in Table 6 below.

Table 6: Seasonal traffic variances across SH1 and SH5

	Site ID		
Season	01N00689	01N00704	00500125
Peak season	6,496	5,590	7,763
Off-season	5,801	4,622	6,280
% Change	12	21	24

3.3.11 Overall, Table 6 demonstrates there is an average percentage change of 19% across the three sites. In order to calculate the likely peak season traffic volumes within Kinloch and around the wider road network, 19% can be reasonably added to the existing traffic volumes.

3.4 Road Safety

3.4.1 A search was made of the Waka Kotahi NZTA's Crash Analysis System for all crashes that had been reported between 2017-2022 (to date) at the following intersections:

- Wairakei Drive/Pohipi Road;
- Whangamata Road/Pohipi Road;
- Whangamata Road/Kinloch Road; and

- Whangamata Road/Oakdale Drive

3.4.2 A total of twenty-two crashes have been reported at these intersections, which resulted in 4 serious and 10 minor injuries. No crashes were reported at the Whangamata Road/Oakdale Drive intersection during this 2017-2022 period.

3.4.3 Twelve crashes occurred at the Wairakei Drive/Pohipi Road intersection, which resulted in one serious and five minor injuries. The serious injury occurred in 2019 and resulted from a crash between a vehicle turning right out of Pohipi Road onto Wairakei Drive, travelling towards Taupo Town Centre. Other similar crashes have occurred here, albeit with less severe consequences.

3.4.4 Eight crashes were recorded at the Whangamata Road/Pohipi Road intersection, which resulted in two serious and five minor injuries. The two serious injuries arose from a single crash which occurred in 2018, where a vehicle turning right into Whangamata Road from Pohipi Road was travelling too fast for the wet conditions, failed to execute the right turn and instead went through the intersection and down an adjacent bank. Five of the eight reported crashes indicated excessive speed for the road conditions and occurred between 2017 and 2019.

3.4.5 Two crashes have been reported at the Whangamata Road/Kinloch Road intersection, which resulted in one serious injury. The serious injury crash occurred in 2021 where a vehicle failed to give way. The crash report cited alcohol as being suspected.

3.4.6 No crashes have been reported at the Whangamata Road/ Oakdale Drive intersection during the analysis period. However, it is noted that Oakdale Drive has only recently been fully connected in the last two years. Regardless, the lack of crash history over this time, the complaint visibility to the west and approved speed limit reduction suggest that there are no significant road safety issues at this point on the road network.

3.4.7 Overall, the crash history indicates that there are no significant road safety risks at the two available points of access into and out of Kinloch, off Whangamata Road, although it is noted that there is a significant visibility failure to the west at the Oakdale Drive / Whangamata Road intersection.

3.4.8 An additional crash history search was also made during the same five year time period, 2017 to 2022, of the three likely highest traffic volume intersections within Kinloch township. These intersections were:

- Okaia Drive / Lisland Drive;
- Lisland Drive / Oakdale Drive; and
- Lisland Drive / Kinloch Road.

3.4.9 A radius of 50m was analysed at each intersection and returned no reported crashes at any of these intersections during the analysis time period.

3.4.10 Full crash reports for the intersections that returned crash reports are available in Appendix B.

3.5 Additional Safety Study

3.5.1 A Road Safety Strategy Study of Whangamata Road has been undertaken by Abley on behalf of TDC. It is understood that the report is still under consultation by TDC, and the recommendations of this report have not yet formally been agreed for implementation. The report is understood to have been commissioned due to an increase in crash rates along Whangamata Road and concern that this could continue as traffic volumes grow in and out of an expanding Kinloch.

3.5.2 The Abley report highlights that a speed limit reduction to 80 km/h is under consideration as a separate issue and this reduction has been assumed in the formation of the crash mitigation techniques subsequently recommended.

4 Sustainable Travel Modes

4.1 Walking and Cycling

4.1.1 As shown in Figure 32, a local network of walking and cycling trails is available in Kinloch, and a short distance away from the area of proposed development.

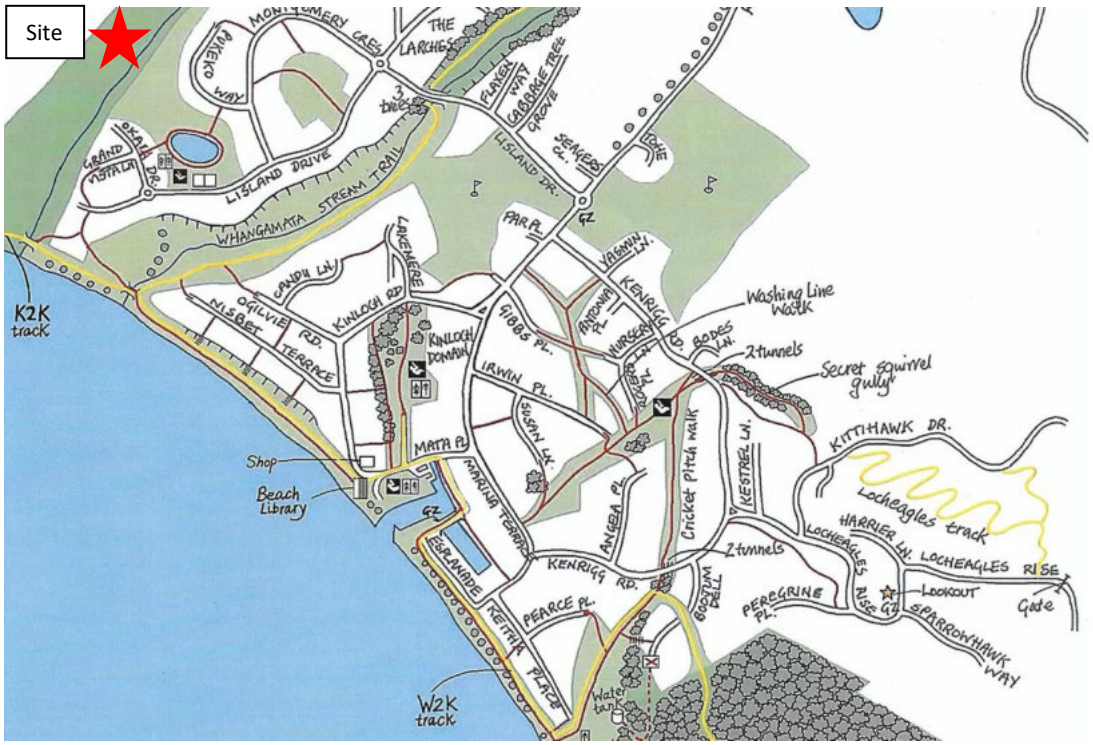


Figure 32 Kinloch network of walk/cycle trails.

4.1.2 This network is complemented by a network of paths running alongside many of the local roads, including Lisland Drive and Oakdale Drive. There are also some separated walk/cycleways along stormwater reserves and between properties that connect neighbourhoods with each other. The roads themselves are also quiet, low speed and therefore appropriate for suitably capable cyclists to use. This includes Lisland Drive, Oakdale Drive and Kinloch Road.

4.2 Public Transport

4.2.1 With the exception of school bus(es) operating between Kinloch and Taupo, there is one public transport service operating within Kinloch. Route 35 Kinloch to Taupo is part of the Connecvt2Taupo service that operates on a Wednesday.

5 Committed Environmental Changes

5.1.1 It is understood that Kinloch is set to expand by some 606 residential dwellings across 13 different developments by 2050. Future development mapping obtained from TDC is attached in Appendix C.

5.1.2 The 606 new residential lots and expected delivery timeframes are summarised in Table 7 below. It is noted that included within these future lots is the existing Seven Oaks development located south of the proposed site which consists of 160 lots.

Table 7: Kinloch Future Developments

Future Development	# Lots	Construction Timing
Te Tuhi	44	2022
Hunt Club Inc	30	2030-2035
The Terraces	55	2025-2035
Oakdale Downs	82	2019
Seven Oaks	160	2020-2026
Oakdale Drive	12	2025-2030
Workshop Site	6	2025
The Poplars	12	2020-2025
The Fairways	54	2020-2040
Kinloch Golf Course	108	2035-2050
The Kinloch Manor	12	2025-2030
Edmund Hillary Outdoor Education	1	2025
Locheagle Developments	30	2020-2035
Total	**606**	

5.1.3 The trip generation effects of these developments are explored further in section 7.

6 Development Proposals

6.1 Development

6.1.1 It is proposed to develop the existing site at Lot 501 DP 569523, Kinloch into a 92 lot residential development within the existing lot boundary as shown in Figure 33 below and Appendix D.

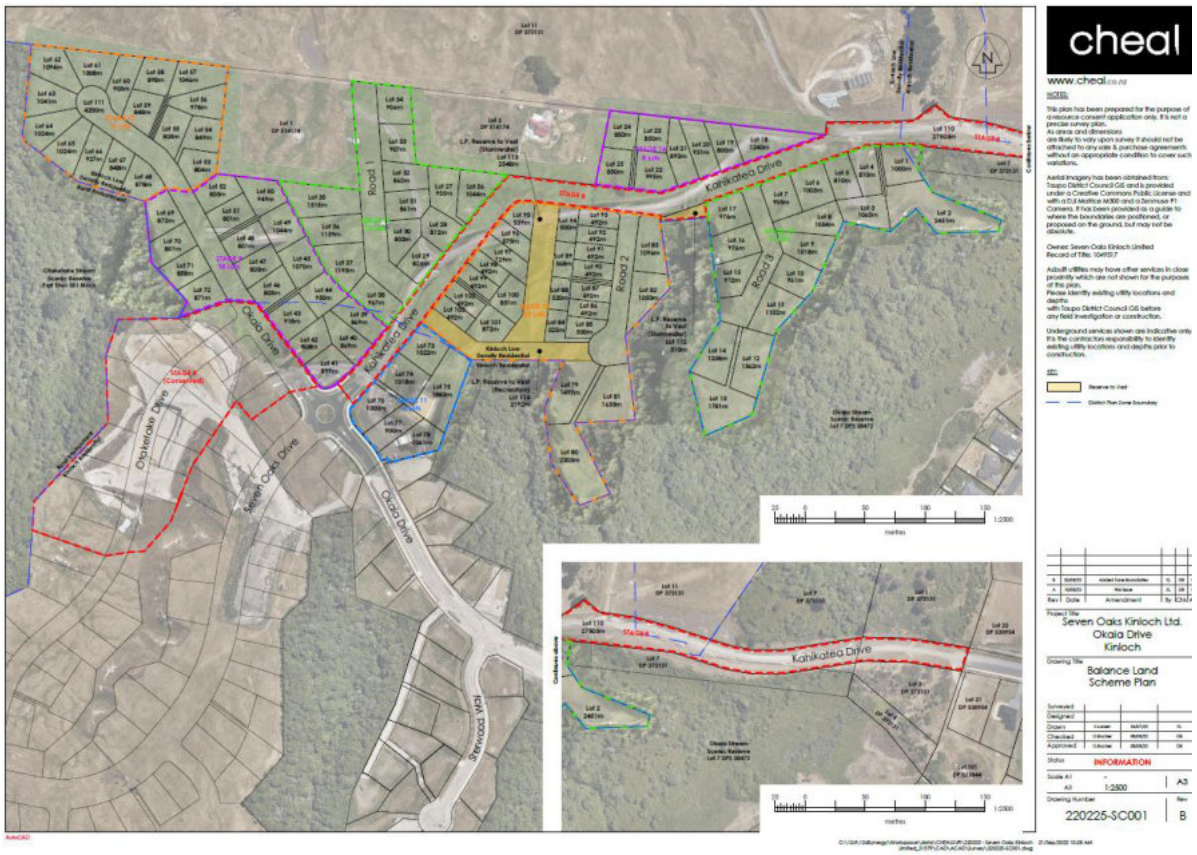


Figure 33: Concept Scheme Plan

6.1.2 The development of the site will also incorporate an internal road network to connect to Okaia Drive in the south and Kahikatea Drive in the east.

6.1.3 The proposed site is largely un-developed and lies to the northwest of Kinloch township. The proposed development is located immediately north of the existing and consented Seven Oaks developments which contains 160 residential lots.

6.1.4 The proposed development will link to both Okaia Drive and Kahikatea Drive as described in above and in section 3.

6.1.5 Okaia Drive is already constructed as far as the roundabout intersection within the development. This intersection is currently providing access for the 160 residential lot development to the south. As the primary road frontage of this 92 lot residential subdivision will be onto a future extension of Kahikatea Drive, it is expected that at minimum, the current formation of Kahikatea Drive will be continued into the development.

6.1.6 During construction of the proposed development, Kahikatea Drive will be extended to meet Okaia Drive, an estimated distance of some 900m. Kahikatea Drive will connect with Okaia Drive at the roundabout shown in Figure 7.

7 Traffic Effects

7.1.1 For the purposes of trip generation assessment, an estimate of the number of dwellings likely to be constructed across all 13 developments within the next five years has been made. This time period was chosen to account for the total development across Kinloch that would occur within the likely construction timeframe of the proposed 92 residential lot extension of the Seven Oaks development. This will allow for a robust assessment of the impact of total development across Kinloch and the surrounding road network.

7.1.2 It is also noted within Table 7 that two of the developments, those of Te Tuhi and Oakdale Downs, have already been completed and are therefore excluded from the trip generation calculations as traffic associated with these activities is already present on the road network. The projections of remaining developments and the projected lot totals are shown in Table 8 below.

Table 8: Remaining developments for trip generation calculation

Future Development	# Total Lots	Timing	Lots developed by 2027	Access Road	% of Dev
Hunt Club Inc	30	2030-2035	0	Other	0%
The Terraces	55	2025-2035	17	Oakdale	30%
Seven Oaks	160	2020-2026	160	Oakdale	100%
Oakdale Drive	12	2025-2030	7	Oakdale	60%
Workshop Site	6	2025	6	Kinloch	100%
The Poplars	12	2020-2025	12	Kinloch	100%
The Fairways	54	2020-2040	8	Kinloch	15%
Kinloch Golf Course	108	2035-2050	0	Kinloch	0%
The Kinloch Manor	12	2025-2030	7	Kinloch	60%
Edmund Hillary Outdoor Education	1	2025	1	Kinloch	100%
Locheagle Developments	30	2020-2035	10	Kinloch	33%
Total	**480**		**228**		**48%**

7.1.3 By 2027 it is expected that in addition to the 92 proposed lots of the Seven Oaks development extension, some 228 (or 48%) of the remaining committed future developments will be expected to be completed as shown in Table 8 which includes the consented 160 lot residential Seven Oaks subdivision to the south of the proposed development.

7.2 Trip Generation

7.2.1 Trip generation figures for the proposed development and the remaining committed developments have been estimated using the Waka Kotahi Research Report 453 (RR453) Trips

and Parking Related to Land Use Table C1. Each of the dwellings has been assessed as land use Residential: Dwelling (Outer Suburban).

Table 9: Calculated Trip Generation

Development	Number of Lots	Peak hour trip rate (vph/dwelling)	Peak Hour Trips (vph)	Daily trip rate (vpd/dwelling)	Daily Trips (vpd)
Proposed	92	0.9	83	6.9	635
Committed	228	0.9	205	6.9	1,573
Total	**320**		**288**		**2,208**

7.2.2 During peak periods, it is expected that the proposed development will generate up to 83vph and 635vpd onto the surrounding network. It is also expected that other developments within the Kinloch township will have generated a further 205vph and 1,573vpd onto the surrounding road network based on the estimate of the number of dwellings likely to be completed in the next 5 years.

7.3 Trip Distribution

7.3.1 As described in section 6, the overall development is proposed to connect to the wider surrounding road network of Kinloch township in two locations; Kahikatea Drive to the north and Okaia Drive in the south as shown below in Figure 34.

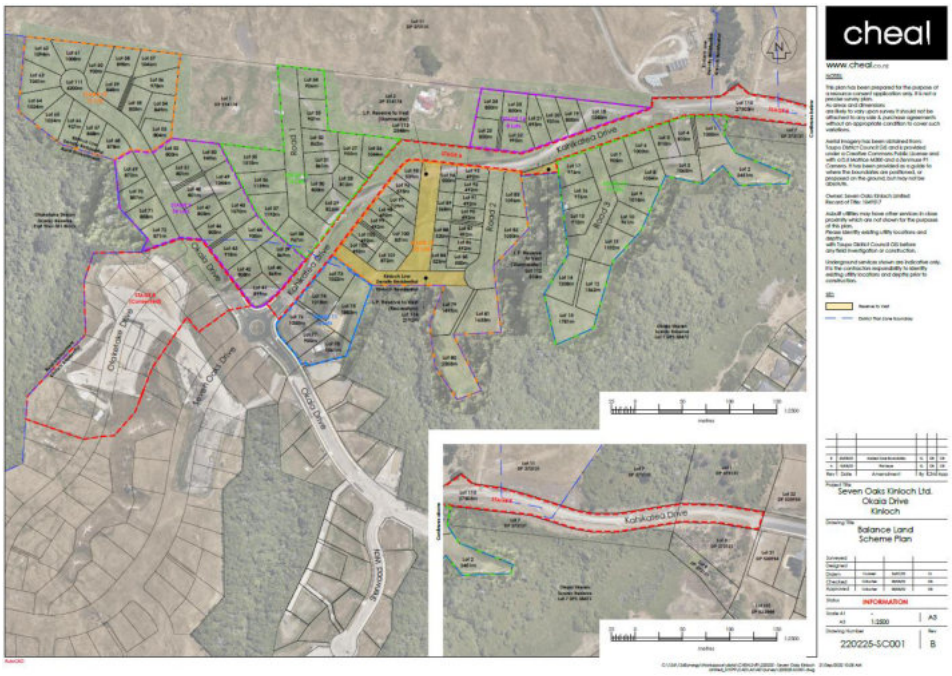


Figure 34: Internal development road network

7.3.2 As shown below in Figure 35, Okaia Drive currently connects to Lisland Drive and Kahikatea Drive intersects with Oakdale Drive. It is reasonable to expect that the majority of

development traffic would utilise Oakdale Drive (shown in red) and its subsequent intersection with Whangamata Road rather than the longer Kinloch Road route (shown in yellow). As such, it has been assumed that 80% of development traffic will use Oakdale Drive and 20% will use Kinloch Road to access Whangamata Road.

Figure 35: Access routes into and out of development

7.3.3 It has also been assumed that the majority of trips to and from site will be towards Taupo, with none being made into the Kinloch town centre. This means that a robust assessment of traffic effects on Whangamata Road and the route to Taupo has been undertaken.

7.3.4 The Institute of Transportation Engineers (ITE) Manual, 10th Edition was used to establish likely inbound and outbound trip percentages for the proposed 92 lots of the Seven Oaks development extension. These same percentages were then applied to the 228 lots expected to be developed as part of the future developments through Kinloch township over the next 5 years as part of a sensitivity analysis.

7.3.5 The ITE Manual Land Use Code 210 – Single Family Detached Housing was used to demonstrate the traffic patterns into and out of the development within the AM and PM peaks. Peak hour distribution rates and indicated in the AM peak hour 75% of trips would be outbound while the remaining 25% would be inbound. In the PM peak hour, the outbound percentage was 37% and inbound was 63%.

7.3.6 In the case of the sensitivity analysis, as a large portion of the future developments are located on the eastern side of Kinloch, these same percentages have been assumed however have been reversed with 80% of traffic generated utilising Kinloch Road and 20% via Oakdale Drive.

7.3.7 When entering the external roading network outside of Kinloch, trip distribution percentages at the four main subject intersections were then modelled based on the existing surveyed percentages to provide a realistic interpretation of network functionality. These percentages are detailed within the surveyed peak hour volumes available in Appendix A.

7.4 Traffic Modelling

7.4.1 As described in section 3, four main intersections were considered to be part of the likely 'key route' between Kinloch and Taupo, where the majority of the development traffic generated within Kinloch would likely navigate on a regular basis. These intersections are:

- Oakdale Drive / Whangamata Road;
- Kinloch Road / Whangamata Road;
- Whangamata Road / Pohipi Road; and
- Pohipi Road / Wairakei Drive.

7.4.2 Baseline traffic volumes were established for each of these intersections using existing (out of peak season) and peak season traffic volumes. Peak season was estimated to account for a 19% increase in traffic growth on existing volumes as described in section 3.

7.4.3 SIDRA models were subsequently developed for each of these intersections for both existing off-season peak and peak season traffic conditions across both the AM and PM peak hours.

7.4.4 To represent the impact of the proposed development, SIDRA models were then presented in the same manner to account for the development traffic as well as accounting for a 10% growth within Kinloch existing off-season and peak season traffic as a sensitivity analysis.

7.4.5 Summaries of the SIDRA outputs are shown in Table 10 to Table 25 below with full results (including baseline traffic modelling) shown in Appendix E. Each intersection has been modelled to show the effects of both proposed development traffic on its own, and then in the context of a wider 10% growth assumed across the network. This 10% assumption has been tested against the effects of adding in specific growth based on assessed future

household numbers discussed in section 7.1. Th results of the analysis shows that the 10% assumption to account for growth is reasonable.

7.4.6 Table 10 to Table 13 below represent the summary of movements across the Oakdale Drive / Whangamata Road intersection in the Future and Growth conditions.

Table 10: Oakdale Drive / Whangamata Road Intersection - Out of Peak Season (AM)

Approach	Movement	Development AM – Off Peak			Development + Growth AM – Off Peak		
		Ave Delay (s)	LOS	95% Q (m)	Ave Delay (s)	LOS	95% Q (m)
Oakdale (south)	Left	4.6	A	0.3	4.6	A	0.4
	Right	4.8	A	2.2	4.8	A	2.3
Whangamata (east)	Left	4.6	A	0.0	4.6	A	0.0
	Through	0.0	A	0.0	0.0	A	0.0
Whangamata (west)	Through	0.1	A	0.5	0.1	A	0.6
	Right	4.7	A	0.5	4.7	A	0.6
All Vehicles		**3.8**	**NA**	**2.2**	**3.8**	**NA**	**2.3**

Table 11: Oakdale Drive / Whangamata Road Intersection - Out of Peak Season (PM)

Approach	Movement	Development PM – Off Peak			Development + Growth PM – Off Peak		
		Ave Delay (s)	LOS	95% Q (m)	Ave Delay (s)	LOS	95% Q (m)
Oakdale (south)	Left	4.6	A	0.3	4.7	A	0.3
	Right	5.0	A	0.7	5.0	A	0.8
Whangamata (east)	Left	4.6	A	0.0	4.6	A	0.0
	Through	0.0	A	0.0	0.0	A	0.0
Whangamata (west)	Through	0.3	A	1.2	0.3	A	1.2
	Right	4.9	A	1.2	4.9	A	1.2
All Vehicles		**3.6**	**NA**	**1.2**	**3.6**	**NA**	**1.2**

Table 12: Oakdale Drive / Whangamata Road Intersection - Peak Season (AM)

Approach	Movement	Development AM – Peak			Development + Growth AM – Peak		
		Ave Delay (s)	LOS	95% Q (m)	Ave Delay (s)	LOS	95% Q (m)
Oakdale (south)	Left	4.6	A	0.4	4.6	A	0.4
	Right	4.8	A	2.5	4.9	A	2.7
Whangamata (east)	Left	4.6	A	0	4.6	A	0
	Through	0	A	0	0	A	0
Whangamata (west)	Through	0.1	A	0.6	0.1	A	0.6

	Right	4.7	A	0.6	4.7	A	0.6
All Vehicles		**3.8**	**NA**	**2.5**	**3.8**	**NA**	**2.7**

Table 13: Oakdale Drive / Whangamata Road Intersection - Peak Season (PM)

Approach	Movement	Development PM – Peak			Development + Growth PM – Peak		
		Ave Delay (s)	LOS	95% Q (m)	Ave Delay (s)	LOS	95% Q (m)
Oakdale (south)	Left	4.7	A	0.4	4.7	A	0.4
	Right	5.1	A	0.8	5.1	A	0.9
Whangamata (east)	Left	4.6	A	0	4.6	A	0
	Through	0	A	0	0	A	0
Whangamata (west)	Through	0.3	A	1.3	0.3	A	1.4
	Right	4.9	A	1.3	5	A	1.4
All Vehicles		**3.6**	**NA**	**1.3**	**3.5**	**NA**	**1.4**

7.4.7 The above results indicate that the Oakdale Drive / Whangamata Road intersection still performs at adequate levels when accommodating both the development traffic and anticipated growth. The movement with the highest delay is the right turn out of Oakdale Drive during peak season in the evening. In the evening peak this has just over 5 seconds average delay and a Level of Service (LOS) rating of A. This represents a high level of service with the development in place and also once future traffic growth has been taken into account.

7.4.8 Table 14 to Table 17 below represent the summary of movements across the Kinloch Road / Whangamata Road intersection in the Future and Growth conditions.

Table 14: Kinloch Road / Whangamata Road Intersection - Off Peak Season (AM)

Approach	Movement	Development AM – Off Peak			Development + Growth AM – Off Peak		
		Ave Delay (s)	LOS	95% Q (m)	Ave Delay (s)	LOS	95% Q (m)
Kinloch (south)	Left	4.7	A	0.2	4.7	A	0.2
	Right	5.4	A	2.5	5.5	A	2.8
Whangamata (east)	Left	4.6	A	0.0	4.6	A	0.0
	Through	0.0	A	0.0	0.0	A	0.0
Whangamata (west)	Through	0.0	A	0.3	0.0	A	0.3
	Right	4.9	A	0.3	4.9	A	0.3
All Vehicles		**2.7**	**NA**	**2.5**	**2.7**	**NA**	**2.8**

Table 15: Kinloch Road / Whangamata Road Intersection - Off Peak Season (PM)

Approach	Movement	Development PM – Off Peak			Development + Growth PM – Off Peak		
		Ave Delay (s)	LOS	95% Q (m)	Ave Delay (s)	LOS	95% Q (m)
Kinloch (south)	Left	4.9	A	0.1	4.9	A	0.1
	Right	5.5	A	1.4	5.5	A	1.6
Whangamata (east)	Left	4.6	A	0.0	4.6	A	0.0
	Through	0.0	A	0.0	0.0	A	0.0
Whangamata (west)	Through	0.2	A	0.7	0.2	A	0.8
	Right	5.2	A	0.7	5.3	A	0.8
All Vehicles		**2.5**	**NA**	**1.4**	**2.5**	**NA**	**1.6**

Table 16: Kinloch Road / Whangamata Road Intersection - Peak Season (AM)

Approach	Movement	Development AM – Peak			Development + Growth AM – Peak		
		Ave Delay (s)	LOS	95% Q (m)	Ave Delay (s)	LOS	95% Q (m)
Kinloch (south)	Left	4.7	A	0.2	4.7	A	0.2
	Right	5.6	A	3	5.6	A	3.4
Whangamata (east)	Left	4.6	A	0	4.6	A	0
	Through	0	A	0	0	A	0
Whangamata (west)	Through	0	A	0.4	0	A	0.4
	Right	5	A	0.4	5	A	0.4
All Vehicles		**2.7**	**NA**	**3.0**	**2.8**	**NA**	**3.4**

Table 17: Kinloch Road / Whangamata Road Intersection - Peak Season (PM)

Approach	Movement	Development PM – Peak			Development + Growth PM – Peak		
		Ave Delay (s)	LOS	95% Q (m)	Ave Delay (s)	LOS	95% Q (m)
Kinloch (south)	Left	4.9	A	0.1	4.9	A	0.1
	Right	5.6	A	1.8	5.7	A	2
Whangamata (east)	Left	4.6	A	0	4.6	A	0
	Through	0	A	0	0	A	0
Whangamata (west)	Through	0.2	A	0.8	0.2	A	0.8
	Right	5.3	A	0.8	5.4	A	0.8
All Vehicles		**2.6**	**NA**	**1.8**	**2.6**	**NA**	**0.8**

7.4.9 The above results indicate that the Kinloch Road / Whangamata Road intersection still performs at adequate levels when accommodating both the development traffic and anticipated growth. The movement with the highest delay is the right turn out of Kinloch Road during peak season in the evening. In the evening peak this has just over 5 seconds average

delay and a LOS rating of A. This represents a high level of service with the development in place and also once future traffic growth has been taken into account.

7.4.10 Table 18 to Table 21 below represent the summary of movements across the Pohipi Road / Whangamata Road intersection in the Future and Growth conditions.

Table 18: Whangamata Road / Pohipi Road intersection - Off Peak Season (AM)

Approach	Movement	Development AM – Off Peak			Development + Growth AM – Off Peak		
		Ave Delay (s)	LOS	95% Q (m)	Ave Delay (s)	LOS	95% Q (m)
Pohipi Rd (south)	Left	4.5	A	0.7	4.5	A	0.8
	Through	0.0	A	0.0	0.0	A	0.0
Pohipi Rd (north)	Right	4.8	A	0.1	4.8	A	0.1
	Through	0.0	A	0.0	0.0	A	0.0
Whangamata (west)	Left	7.7	A	0.2	7.7	A	0.2
	Right	10.1	B	3.1	10.2	B	3.4
All Vehicles		**4.2**	**NA**	-	**4.2**	**NA**	-

Table 19: Whangamata Road / Pohipi Road intersection - Off Peak Season (PM)

Approach	Movement	Development AM – Off Peak			Development + Growth AM – Off Peak		
		Ave Delay (s)	LOS	95% Q (m)	Ave Delay (s)	LOS	95% Q (m)
Pohipi Rd (south)	Left	4.5	A	1.8	4.5	A	2.0
	Through	0.0	A	0.0	0.0	A	0.0
Pohipi Rd (north)	Right	4.8	A	0.1	4.8	A	0.1
	Through	0.0	A	0.0	0.0	A	0.0
Whangamata (west)	Left	7.7	A	0.1	7.8	A	0.2
	Right	10.5	B	1.4	10.8	B	1.6
All Vehicles		**3.7**	**NA**	-	**3.7**	**NA**	-

Table 20: Whangamata Road / Pohipi Road intersection - Peak Season (AM)

Approach	Movement	Development AM – Peak			Development + Growth AM – Peak		
		Ave Delay (s)	LOS	95% Q (m)	Ave Delay (s)	LOS	95% Q (m)
Pohipi Rd (south)	Left	4.5	A	0.8	4.5	A	0.9
	Through	0.0	A	0.0	0.0	A	0.0
Pohipi Rd (north)	Right	4.8	A	0.1	4.8	A	0.1
	Through	0.0	A	0.0	0.0	A	0.0
Whangamata (west)	Left	7.7	A	0.2	7.8	A	0.2
	Right	10.3	B	3.7	10.6	B	4.2

All Vehicles	**4.3**	**NA**	**-**	**4.3**	**NA**	**-**

Table 21: Whangamata Road / Pohipi Road intersection - Peak Season (PM)

Approach	Movement	Development PM – Peak			Development + Growth PM – Peak		
		Ave Delay (s)	LOS	95% Q (m)	Ave Delay (s)	LOS	95% Q (m)
Pohipi Rd (south)	Left	4.6	A	2.2	4.6	A	2.4
	Through	0.0	A	0.0	0.0	A	0.0
Pohipi Rd (north)	Right	4.9	A	0.1	4.9	A	0.1
	Through	0.0	A	0.0	0.0	A	0.0
Whangamata (west)	Left	7.8	A	0.2	7.9	A	0.2
	Right	10.9	B	1.8	11.1	B	2.0
All Vehicles		**3.8**	**NA**	**-**	**3.8**	**NA**	**-**

7.4.11 The above results indicate that the Whangamata Road / Pohipi Road intersection still performs at adequate levels when accommodating both the development traffic and anticipated growth. The movement with the highest delay is the right turn out of Whangamata Road during peak season in the evening. In the evening peak this has an 11 second average delay and a LOS rating of B. This represents a high level of service with the development in place and also once future traffic growth has been taken into account.

7.4.12 Table 22 to Table 25 below represent the summary of movements across the Pohipi Road / Wairakei Drive intersection in the Future and Growth conditions.

Table 22: Pohipi Road / Wairakei Drive intersection - Off Peak Season (AM)

Approach	Movement	Development AM – Off Peak			Development + Growth AM – Off Peak		
		Ave Delay (s)	LOS	95% Q (m)	Ave Delay (s)	LOS	95% Q (m)
Wairakei (south)	Left	4.6	A	1.3	4.7	A	1.4
	Through	0.0	A	0.0	0.0	A	0.0
Wairakei (north)	Right	5.1	A	0.4	5.2	A	0.5
	Through	0.0	A	0.0	0.0	A	0.0
Pohipi Rd (west)	Left	7.7	A	0.8	7.8	A	0.9
	Right	15.6	C	9.7	17.0	C	12.4
All Vehicles		**5.0**	**NA**	**-**	**5.4**	**NA**	**-**

Table 23: Pohipi Road / Wairakei Drive intersection - Off Peak Season (PM)

Approach	Movement	Development AM – Off Peak			Development + Growth AM – Off Peak		
		Ave Delay (s)	LOS	95% Q (m)	Ave Delay (s)	LOS	95% Q (m)
Wairakei (south)	Left	4.8	A	2.8	4.9	A	3.1
	Through	0.1	A	0.0	0.1	A	0.0
Wairakei (north)	Right	5.8	A	1.0	5.9	A	1.1
	Through	0.0	A	0.0	0.0	A	0.0
Pohipi Rd (west)	Left	8.0	A	0.3	8.1	A	0.4
	Right	19.5	C	7.8	21.9	C	10.0
All Vehicles		**6.9**	**NA**	-	**5.1**	**NA**	-

Table 24: Pohipi Road / Wairakei Drive intersection - Peak Season (AM)

Approach	Movement	Development AM – Peak			Development + Growth AM – Peak		
		Ave Delay (s)	LOS	95% Q (m)	Ave Delay (s)	LOS	95% Q (m)
Wairakei (south)	Left	4.7	A	1.5	4.7	A	1.7
	Through	0.0	A	0.0	0.0	A	0.0
Wairakei (north)	Right	5.3	A	0.5	5.4	A	0.6
	Through	0.0	A	0.0	0.1	A	0.0
Pohipi Rd (west)	Left	7.8	A	1.0	7.9	A	1.2
	Right	18.5	C	15.2	21.2	C	20.3
All Vehicles		**5.7**	**NA**	-	**6.3**	**NA**	-

Table 25: Pohipi Road / Wairakei Drive intersection - Peak Season (PM)

Approach	Movement	Development PM – Peak			Development + Growth PM – Peak		
		Ave Delay (s)	LOS	95% Q (m)	Ave Delay (s)	LOS	95% Q (m)
Wairakei (south)	Left	4.9	A	3.4	5.0	A	3.9
	Through	0.1	A	0.0	0.1	A	0.0
Wairakei (north)	Right	6.1	A	1.3	6.3	A	1.5
	Through	0.1	A	0.0	0.1	A	0.0
Pohipi Rd (west)	Left	8.1	A	0.4	8.2	A	0.4
	Right	24.9	C	12.7	31.1	D	18.4
All Vehicles		**5.6**	**NA**	-	**6.6**	**NA**	-

7.4.13 The above results indicate that the Pohipi Road / Wairakei Drive intersection still performs at adequate levels when accommodating both the development traffic and anticipated growth. The movement with the highest delay is the right turn out of Pohipi Road during peak season

in the evening. In the evening peak this has just over 31 seconds average delay and a LOS rating of D. This is considered to be an appropriate level for a priority-controlled intersection under future year growth scenarios.

7.4.14 The above results show that all intersections continue to operate at appropriate levels with no significant increases in delay. It is therefore assessed that existing road users are unlikely to have their travel patterns significantly affected by the proposed subdivision. It is also noted that the increase in queue lengths typically represents one additional car in the worst cases.

7.4.15 As a separate sensitivity analysis SIDRA modelling was also undertaken to account of the projected additional 228 lots directly, rather than applying a blanket 10% growth value.

7.4.16 This modelling showed no change in the levels of service achieved or average delay time at each of the four modelled intersections from this assessment compared to use of a blanket 10% growth factor and is attached within Appendix E.

7.4.17 Overall, the surrounding road network is considered able to accommodate the additional traffic generated by the 92 lot extension of the Seven Oaks residential subdivision.

7.5 Road Safety Effects

7.5.1 As reported within section 3.4, neither the Oakdale Drive / Whangamata Road intersection nor any of the local intersections within Kinloch township have reported any crashes within the last five years.

7.5.2 It is noted that under the existing 100km/h posted speed environment along Whangamata Road, the sightlines from the Oakdale Drive intersection do not currently comply. However, as previously stated in section 3, it is also noted that TDC has assessed and approved a speed reduction to 60km/h for the section of Whangamata Road between Kinloch Road and Oakdale Drive. Although yet to be implemented, the sight line assessment to the east of Oakdale Drive has subsequently utilised this approved speed limit due to the reasonable expectation of lower intersection approach speeds from this direction. This confirms that under the future speed limit, compliant visibility can be achieved. Visibility to the west from the Oakdale Drive / Whangamata Road intersection has still been assessed at 100km/h due to the approach speed of vehicles and the unknown extent of the speed reduction to the west of the intersection.

7.5.3 When accounting for peak season traffic and 10% growth through the Oakdale Drive / Whangamata Road intersection, it is anticipated that there will be approximately 200vph along Whangamata Road with up to 43 turning right. Austroads Guide to Traffic Management (AGTM) Part 6 Intersections, Interchanges and Crossings Management Figure 3.25: Warrants for turn treatments on major roads at unsignalized intersections indicates that a channelised right turn bay under these conditions would be required as shown below in Figure 36.

Figure 3.25: Warrants for turn treatments on major roads at unsignalised intersections

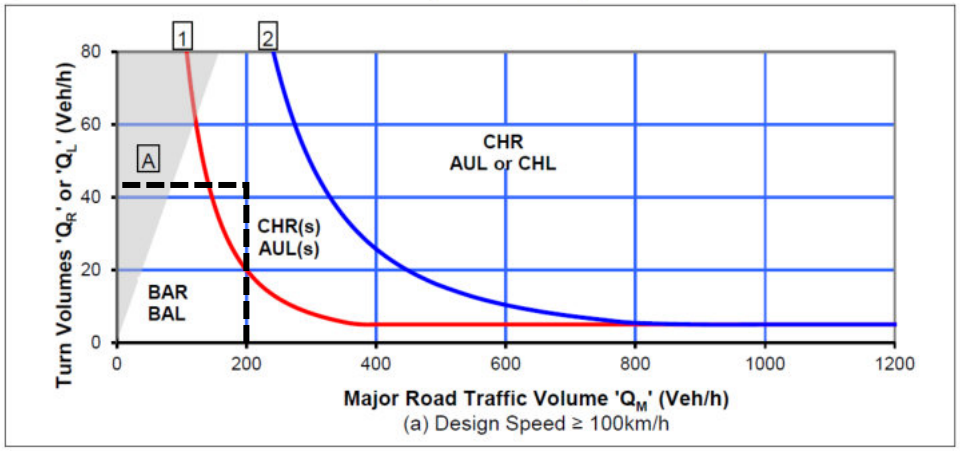


Figure 36: Oakdale Drive / Whangamata Road right turn bay requirement

7.5.4 As such, it is recommended that a right turn bay be established within the Whangamata Road carriageway to provide a safe turning location for right turning vehicles. Some seal widening may be required along Whangamata Road to accommodate its construction.

7.5.5 It is also recommended that a PW11 (Side road junction) permanent warning sign be installed for through traffic approximately 200m prior to the intersection in both directions.

7.5.6 There is unlikely to be any significant safety impact on the Kinloch Road / Whangamata Road intersection as traffic entering the proposed subdivision from the west will likely utilise the Oakdale Road / Whangamata Road intersection. Eastbound traffic would therefore not reach the Kinloch Road intersection. A right turn bay is already present and no safety upgrades are considered necessary.

7.5.7 Whangamata Road / Pohipi Road intersection already incorporates a right turn bay and a left turn slip lane into Whangamata Road. As indicated within the Abley report, this has been identified as a potential safety concern due to visibility of through vehicles on Pohipi Road being restricted by left turning traffic (see below). Recommendations within the Abley report include widening Pohipi Road in the vicinity of this intersection to allow for a more separated left turn. The road safety effects of the proposed development is therefore considered to be less than minor.

7.5.8 Future development of Kinloch is predicted to see an average delay time of approximately 30 seconds for right turning traffic from Pohipi Road onto Wairakei Drive. This is an increase of 7 seconds compared to existing peak season operations. This is a chanelised priority intersection and as such, it is unlikely that there will be any effects on road safety arising from this delay.

7.5.9 It is also noted that the Abley Consultants Whangamata Road Safety Strategy report (currently before TDC) also cites a number of potential road safety upgrades for Whangamata Road. Some of these upgrades include:

- Provide pedestrian / cyclist warning signs;
- Provide edge lines for the section where they are missing (between Kinloch Road and Oakdale Drive) and install consistent edge marker posts;
- Replace non-frangible lamp posts near Oakdale Drive intersection with frangible posts;
- Reduce the radii at the south-eastern corner of Kinloch Road intersection to mitigate the risk of high speed left turns from Whangamata Road;
- Install a shared path between Oakdale Drive and Kinloch Road;
- Install a pedestrian refuge island on Kinloch Road at the Kinloch Road/ Whangamata Road intersection (this will provide a safer continuous connection to school children walking to the area where they wait for the school bus);
- Intersection Speed Zones (RIAWS) at Pohipi Road/ Whangamata Road intersection; and
- Address sight distance obstruction resulting from the left turning lane positioning at the Pohipi Road/ Whangamata Road intersection.

7.5.10 These upgrades to the road network are recommended regardless of the proposed development. The additional of development traffic to the network is unlikely to have a significant effect on road safety, and with these Council led improvements in place, any effect would be further reduced.

7.6 Control Gates Bridge

7.6.1 It is understood that the existing bridge at Tongariro Street is a known point on the road network where congestion can be experienced. The Nukuhau Plan Change also identified that this bridge would need up be upgraded or an alternative provided in order to unlock significant residential development to the northwest of Taupo. Capacity for the Control Gates Bridge, as stated in the Taupo Northern Outlet and CBD Investigations dated 2018, estimates

the capacity of a single bridge lane to be 1,450vph. At the time this report was released, the bridge was already operating at capacity during peak hour.

7.6.2 It is understood that this issue is currently being investigated and potential solutions / mitigation options explored as outlined in the TDC Long Term Plan (LTP). TDC has already taken steps in attempt to reduce the effects of congestion by installing traffic signals at the Norman Street / Wairakei Drive intersection in 2019. As also identified in the 2018-2028 LTP, investigations into the feasibility of a second bridge crossing are underway with a projected total bridge cost of some $12 million. Funding for this is expected to be by some 47% from Development Contributions and 53% by revenue from other sources. Although costs were not discussed in the latest LTP of 2021-2031, the feasibility study is confirmed and it is expected that a decision will be made on the feasibility of a second bridge crossing before the 2032 / 2033 financial year.

7.6.3 As such, it is considered that the effects of the proposed development on the Control Gates Bridge can be appropriately mitigated through the appropriate application of transport related Development Contributions to the project.

8 Access

8.1 Vehicle Access

8.1.1 As demonstrated through the modelling of the four major intersections in section 7 above, neither the Oakdale Drive / Whangamata Road nor the Kinloch Road / Whangamata Road intersections are significantly affected by the development either in or out of peak season. The highest recorded delay at these intersections is 5.1 and 5.7 seconds respectively for the right turns onto Whangamata Road and both occur during peak season maintaining a LoS A.

8.1.2 All of the modelled intersections are able to adequately service the traffic volumes predicted for not only the proposed development but also for the predicted growth of Kinloch township in general.

8.1.3 It is expected that the construction of the Kahikatea Drive extension through the proposed development will be in keeping with the current formation. It is noted however that the current extent of Kahikatea Drive only contains pedestrian footpaths on its southern side. With the number of proposed dwellings on its northern side, it is recommended that a

pedestrian footpath be constructed along the northern side of Kahikatea Drive within the development and a suitable pedestrian crossing be established.

8.1.4 Kahikatea Drive has a road reserve width of approximately 20m and is shown to have a carriageway of 9m in total width containing a 3.8m wide eastbound movement lane and a 5.2m wide westbound movement lane. The carriageway is delineated with centrelines only and has no designated carparking spaces.

8.1.5 It has been assumed that the remainder of Kahikatea Drive will be constructed to a similar cross section. It is considered that this will adequately service the development as it is general accordance with NZS 4404 – 2010 Figure E23 – Urban Live and Play and can accommodate approximately 8,000vpd.

8.1.6 It is noted that while vehicle crossing and separation distances within the subdivision are likely to be largely compliant with the requirements of TDC DP, two lots, those located at the roundabout intersection of Kahikatea Drive and Okaia Drive may need careful consideration regarding access location to achieve compliant separation distance from the intersection. It is also expected that this will be able to be confirmed during detailed design.

8.1.7 Providing that the existing and proposed intersections associated with the proposed development remain free from obstruction by vegetation or structures, it is assessed that compliant visibility and separation distances can be achieved.

8.2 Cycling and Pedestrian Access

8.2.1 The majority of roads within Kinloch township contain pedestrian footpaths and these are a predominant feature of the existing local roads. Although there is currently no provision for footpaths or cycle lanes shown on the concept development plan provided, it is reasonable to expect that in keeping with existing infrastructure, either a shared path or a footpath would be provided on at least one side of the proposed internal road network throughout the proposed development.

8.2.2 No dedicated cycle lanes were observed throughout Kinloch during the site visit, and it is therefore assumed that cyclists share the movement lane of the carriageway. It is also reasonable to expect that this will continue through into the proposed development.

8.2.3 It is therefore reasonable to assume that the subdivision would also be required to provide pedestrian footpaths within the road reserve and cyclists would continue to share the carriageway.

8.2.4 The Waka Kotahi Pedestrian Planning and Design Guide states that the average person will spend approximately 11-12 minutes walking per trip and that the average travel speed of a fit and healthy adult is approximately 1.5m/s. Given Kinloch is a lifestyle destination it can reasonably be expected that pedestrians would expect a slightly longer duration walk, in the order of 10 to 15 minutes. Based on the increased duration and reduced travel speed, a fit and healthy adult will typically walk between 0.9km and 1.35km.

8.2.5 Assuming travel from the centre of the proposed development using footpaths or roadway, the general store located on Mata Street is approximately 3km to the southeast with an expected travel time of approximately 33 minutes. Should a pedestrian or cyclist utilise the Kawakawa Bay Tracks located to the south of the proposed development, this distance reduces to 1.75km and the overall travel time reduces to 19.5 minutes.

8.3 Public Transport Access

8.3.1 With the exception of school bus(es) operating between Kinloch and Taupo, there is no existing public transport facility that operates within Kinloch township, however, the subdivision does not preclude the provision of public transport services in future.

9 Planning Framework

9.1.1 Table 26 below summarises the compliance of the proposed development with the relevant transportation criteria from the ODP.

Table 26: TDC Objectives and Policies

Rule	Requirement	Proposed	Compliance
Objectives and Policies			
Objective 3f.2.1 **The safe and efficient operation of the roading network, and movement of traffic, including cyclists and pedestrians within the District.**			
i.	Ensure activities avoid, remedy or mitigate any adverse effects on the operation and function of the roading network, including the movement of	As stated within section 8 of the report, it is expected that the development will provide pedestrian footpaths in keeping with the local road networks within Kinloch. Cyclists would	

traffic cyclists and pedestrians, as accordance with the Roading Hierarchy. ii. Encourage activities, including the design and location of new vehicle crossings, to provide for the safe and efficient movement of traffic, including cyclists and pedestrians. **iii.** Encourage the use of alternative modes of transport such as cycling and public transport.	likely share the carriageway, also in keeping with local road networks. With the exception of school bus(es) operating between Kinloch and Taupo, there is no existing or proposed public transport service within Kinloch The proposed development is approximately 3km from the general store (by conventional routes) as described in section 8. Given topography and distance, it is unlikely non-motorised transport would be used to access goods and services.

9.1.2 The proposed development area is located within the Taupo District and is required to address the relevant rules of the District Plan.

9.1.3 Table 27 lists the relevant rules and whether the proposed development can comply with the District Plan requirements for the Taupo Low Density Residential zone or where specific assessment criteria governing this site are proposed.

Table 27: Operative District Plan Compliance

Rule	Requirement	Proposed	Compliance
General Requirements			
6.5 Access			
6.5.2 Sight Distances i. Minimum Sight Distances from Vehicle Crossing Points shall be designed in accordance with 6.5.3 and Figure 6 (refer number 1).	Both Okaia Drive and Kahikatea Road are currently classified as Collector Roads which require a minimum sight distance of 50m. However, as TDC moves towards ONF classification both are also proposed to be reclassified to Local Streets which require a minimum of 40m	Expected to comply – vehicle crossing points have not been identified on the plan however there is sufficient space for all lots to comply. Two lots, those on the intersection of Kahikatea Drive and Okaia Drive may result in a potential non-compliance in separation distance to the intersection however this is expected to be confirmed during detailed design.	Can comply
6.5.4 Distance – Road Intersection to Vehicle i. Minimum Distance from Road Intersection to Vehicle Crossing shall be designed in accordance with 6.5.5 and Figure 7 (refer to number 2 in figure 7).	15m required.	Compliance achievable	Can Comply

6.5.6 Vehicle Crossings Vehicle Crossings shall be provided in accordance with 6.5.7	Maximum number of crossings: 1 per allotment Maximum width of crossing at boundary: 6m	Compliance achievable	Can Comply
6.5.8 Minimum Standards for Driveways and Accessways i. Minimum Standards for Driveways and Accessways shall be designed in accordance with 6.5.9 to 6.5.11. ii. In accordance with Rules 4a.3.5, 4b.3.12, and 4d.3.5 any single common driveway or accessway serving more than nine allotments in the Residential and Industrial Environments, and more than twelve allotments in the Rural Environment, is to be vested as legal road. iii. Except for the Rural Environment, and except in the case of a single dwelling and/or allotment, all driveways and accessways shall be formed and sealed with an all-weather surface. (Please note that as required by the stormwater provisions for urban properties, all stormwater must be collected and retained within the site to meet the 10% event, except where there is a community stormwater reticulation system). iv. In the case of a single dwelling and /or allotment in the Residential Environment, all driveways or accessways shall have a stable surface that does not discharge any material off-site. Where the driveway or accessway is steeper than 6% and slopes towards the road, an all-weather surface and stormwater control shall be provided in accordance with iii. above. v. In the Rural Environment accessways shall be sealed where they serve more than 3 allotments or where they are steeper than 6% and service more than 1 allotment. Where the access is onto a sealed public roadway the vehicle crossing shall be sealed. For the purposes of these performance standards, all weather shall mean a durable permanent surfacing such as concrete, seal or pavers.	i. Can comply ii. N/A iii. Can comply iv. Can comply v. N/A	The development can comply with all relevant requirements and will be confirmed during detailed design	Can comply

9.1.4 The development site is generally considered likely to comply with the relevant transportation related standards of the ODP. Some non-compliances may arise in relation to the vehicle crossing separation distance and locations however these non-compliances are unlikely to result in any practical adverse effects and would likely be able to be resolved during detailed design.

9.1.5 In summary, it has been concluded that the traffic effects of the proposed development are less than minor and are in keeping with the overall expected development of Kinloch Township. As such, it is considered that there are no transportation reasons why the development cannot be adopted.

10 Conclusions and Recommendations

10.1.1 The proposed residential development is located within the northern third of Lot 501 DP 569523, Kinloch within the Taupo District Council jurisdiction. The development is to consist of 92 residential dwellings. The site will be accessible via Okaia Drive in the south and Kahikatea Drive in the north.

10.1.2 Based on the assessment of potential traffic and transportation effects associated with the proposed residential development, it is concluded that:

- The site may generate some 83 vehicle movements during peak hour and potentially up to 635 vehicles per day. The surrounding road network is able to accommodate these traffic volumes.
- Sensitivity analysis has also been conducted in two parts;
    - Part One: Addition of 10% growth in relation to both existing and peak season traffic
    - Part Two: Addition of the projected 228 lots anticipated from the known future developments within the next 5 years

  The sensitivity analysis has also shown that the road network is able to accommodate the projected traffic volumes as modelled.
- As discussed in section 7.5, the development of western Kinloch will result in an increased volume of traffic passing through the Oakdale Drive / Whangamata Road intersection.

From a safety perspective it is recommended the following mitigation measures are implemented;

- Installation of a right turn bay and subsequent road widening to allow safe turning and through movements from Whangamata Road into Oakdale Drive; and
- Installation of a PW11 permanent warning sign approximately 200m prior to the intersection on both sides for through traffic to indicate the upcoming intersection.

- The remaining intersections of Whangamata Road / Kinloch Road, Whangamata Road / Pohipi Road and Pohipi Road / Wairakei Drive all demonstrate compliant visibility and already have existing right turn treatments.
- None of the remaining three modelled intersections will likely require upgrade within the next five years based on the projected traffic volumes generated from the proposed development and future lot developments within the Kinloch area.
- It is expected that within the proposed subdivision area, the provision of either shared paths or a pedestrian footpath with cyclists sharing the movement lane will be accommodated to align with existing local Kinloch transport networks.

10.1.3 It is concluded that the transportation effects of the proposed residential development will be less than minor on the surrounding local road network and that there is no traffic or transportation reason why resource consent cannot be granted.

CKL

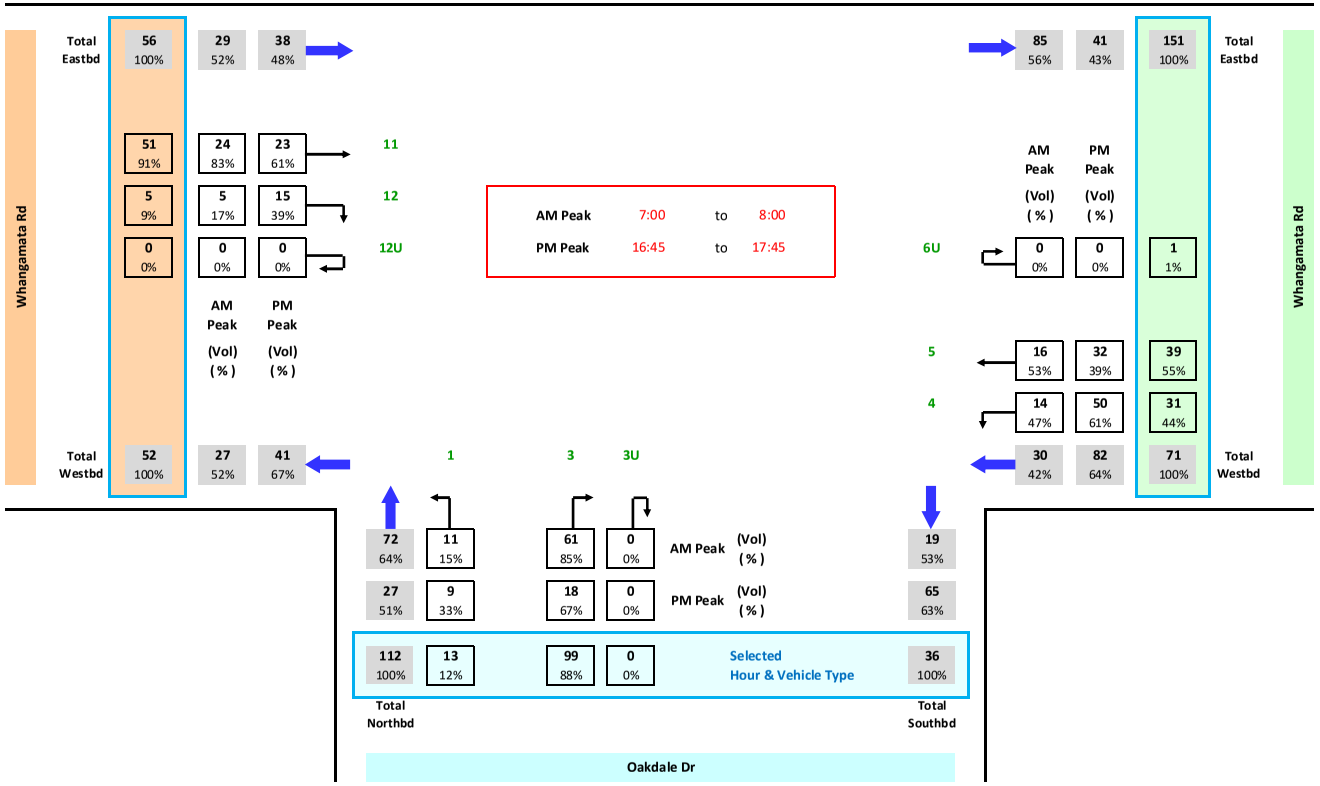
Appendix A – Peak Hour Traffic Video Survey Results

Job No. : NZNth4410
Client : CKL
Suburb : Whangamata Road
Location : 1. Oakdale Dr / Whangamata Rd

Day/Date : Wed, 10th Aug 2022
Weather : Fine
Description : Classified Intersection Count
: Intersection Diagram

MATRIX Traffic and Transport Data

Hour Starting	Vehicle Type
AM Totals	All Vehicles

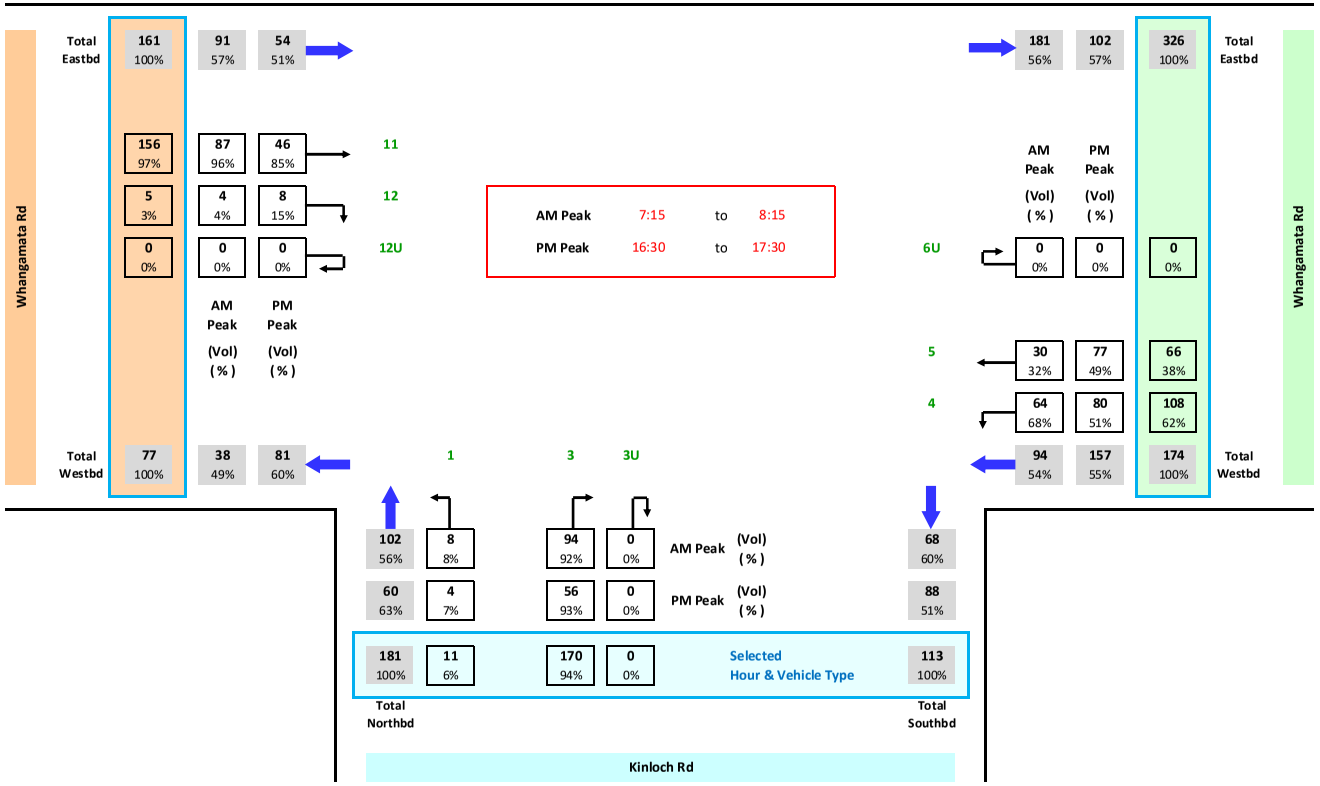


Job No. : NZNth4410
Client : CKL
Suburb : Whangamata Road
Location : 2. Kinloch Rd / Whangamata Rd

Day/Date : Wed, 10th Aug 2022
Weather : Fine
Description : Classified Intersection Count
: Intersection Diagram

MATRIX Traffic and Transport Data

Hour Starting	Vehicle Type
AM Totals	All Vehicles

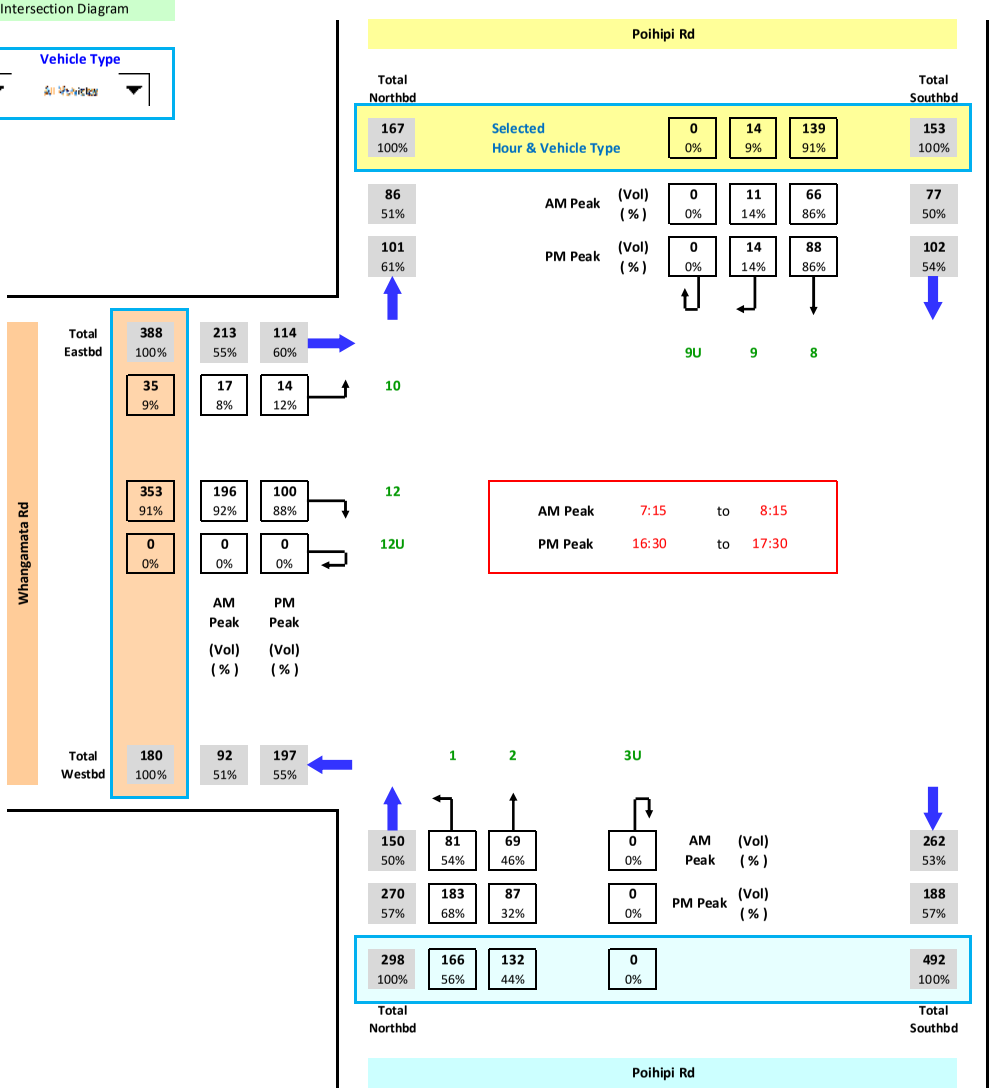


Job No. : NZNth4410
Client : CKL
Suburb : Whangamata Road
Location : 3. Whangamata Rd / Poihipi Rd

Day/Date : Wed, 10th Aug 2022
Weather : Fine
Description : Classified Intersection Count
: Intersection Diagram

MATRIX Traffic and Transport Data

Hour Starting [All Hours] **Vehicle Type** [All Vehicles]



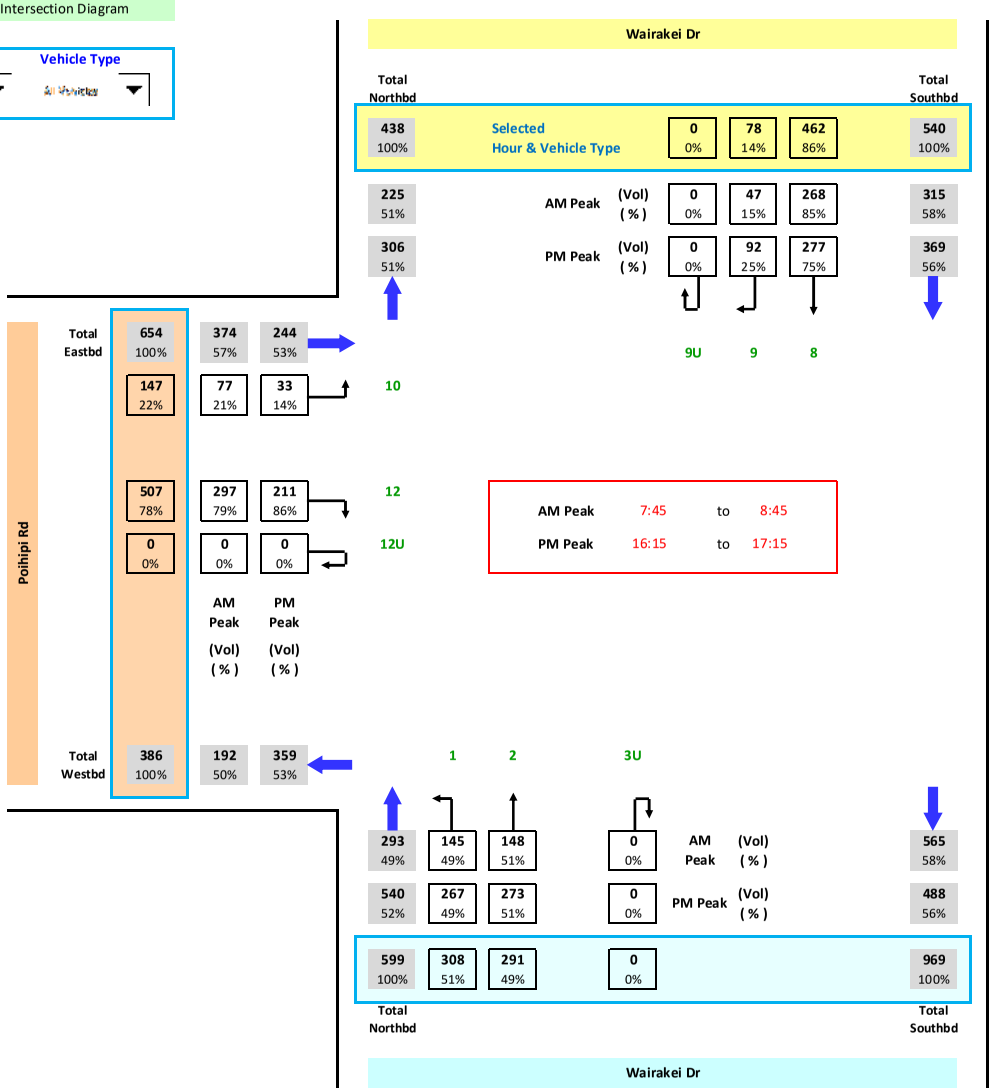
N

Job No. : NZNth4410
Client : CKL
Suburb : Whangamata Road
Location : 4. Poihipi Rd / Wairakei Dr

Day/Date : Wed, 10th Aug 2022
Weather : Fine
Description : Classified Intersection Count
: Intersection Diagram

MATRIX Traffic and Transport Data

Hour Starting [All Hours] **Vehicle Type** [All Vehicles]



N

Appendix B – Waka Kotahi Crash Analysis (2022-2027)

kinloch / whangamata 2017-2022

Saved sites

kinloch / whangamata int

Crash severity

Fatal Crash, Serious Crash, Minor Crash, Non-Injury Crash

Crash year

2017 — 2022

Plain English report

2 results from your query.

1-2 of 2

Crash road	Side road	Feature	Distance from side road/feature	Direction	Reference station	Route position	Easting	Northing	Longitude	Latitude	ID	Date	Day of week	Time	Description of events	Crash factors	Surface condition	Natural light	Weather	Junction	Control	Casualty count fatal	Casualty count serious	Casualty count minor	Social cost $(m)
WHANGAMATA ROAD	KINLOCH ROAD			I			1855505	5718688	175.935732	-38.643546	2021184260	04/04/2021	Sun	17:39	Car/Wagon1 WDB on WHANGAMATA ROAD hit Car/Wagon2 turning right onto AXROAD from the left	CAR/WAGON2, alcohol test below limit, failed to give way at priority traffic control CAR/WAGON1, alcohol suspected	Dry	Bright sun	Fine	T Junction	Give way	0	1	0	0.71
WHANGAMATA ROAD	KINLOCH ROAD			I			1855502	5718688	175.935692	-38.643545	201986144	25/11/2019	Mon	17:19	Car/Wagon1 WDB on WHANGAMATA ROAD hit Ute2 turning right onto AXROAD from the left	UTE2, alcohol test below limit, did not check/notice another party from other dirn, failed to give way at priority traffic control CAR/WAGON1, alcohol test below limit	Dry	Bright sun	Fine	T Junction	Give way	0	0	0	0.04

1-2 of 2

Whangamata Pohipi int

Saved sites

Whangamata Pohipi int

Crash severity

Fatal Crash, Serious Crash, Minor Crash, Non-Injury Crash

Crash year

2017 — 2022

Plain English report

8 results from your query.

1-8 of 8

Crash road	Side road	Feature	Distance from side road/feature	Direction	Reference station	Route position	Easting	Northing	Longitude	Latitude	ID	Date	Day of week	Time	Description of events	Crash factors	Surface condition	Natural light	Weather	Junction	Control	Casualty count fatal	Casualty count serious	Casualty count minor	Social cost $(m)
POIHIPI ROAD	WHANGAMATA ROAD			I			1861969	5721841	176.008713	-38.613289	201810677	05/02/2018	Mon	16:01	Car/Wagon1 SDB on Poihipi rd lost control turning right, Car/Wagon1 hit non specific cliff, non specific guard rail	CAR/WAGON1, alcohol suspected, inappropriate speed for road conditions, other inexperience, too far left	Wet	Overcast	Light rain	T Junction	Nil	0	2	0	0.71
POIHIPI ROAD	WHANGAMATA ROAD			I			1861981	5721835	176.008857	-38.613338	2021206681	02/12/2021	Thu	08:15	Car/Wagon1 NDB on Poihipi Road hit Car/Wagon2 turning right onto AXROAD from the left	CAR/WAGON1, alcohol test below limit CAR/WAGON2, alcohol test below limit, didnt look/notice other party - visibility obstruc, failed to give way at priority traffic control	Dry	Bright sun	Fine	T Junction	Stop	0	0	1	0.11
POIHIPI ROAD	WHANGAMATA ROAD			I			1861980	5721836	176.008851	-38.613330	2021183099	30/03/2021	Tue	09:59	Car/Wagon1 NDB on POIHIPI ROAD hit Car/Wagon2 turning right onto AXROAD from the left, Car/Wagon1 hit drainage	CAR/WAGON2, alcohol test below limit, failed to give way at priority traffic control CAR/WAGON1, alcohol test below limit	Wet	Overcast	Light rain	T Junction	Stop	0	0	2	0.11
POIHIPI ROAD	WHANGAMATA ROAD			I			1861969	5721841	176.008713	-38.613289	201750035	29/09/2017	Fri	21:00	SUV1 EDB on Whangamata Road missed intersection or end of road, SUV1 hit non specific guard rail	SUV1, alcohol test above limit or test refused, speed approaching a traffic control	Dry	Dark	Fine	T Junction	Stop	0	0	0	0.04
POIHIPI ROAD	WHANGAMATA ROAD			I			1861969	5721841	176.008713	-38.613289	201715482	03/07/2017	Mon	12:30	Car/Wagon1 EDB on Whangamata turning right hit Cyclist2 (Age 37) turning right into AXROAD	CAR/WAGON1, did not check/notice another party from other dirn, failed to give way at priority traffic control	Dry	Overcast	Fine	T Junction	Stop	0	0	1	0.11
POIHIPI ROAD	WHANGAMATA ROAD			I			1861969	5721841	176.008713	-38.613289	201839704	25/05/2018	Fri	07:12	Car/Wagon1 EDB on WHANGAMATA ROAD, KINLOCH, TAUPO lost control turning right, Car/Wagon1 hit non specific cliff, non specific fence, non specific pole,	CAR/WAGON1, alcohol test below limit, inappropriate speed for weather conditions, lost control under acceleration	Wet	Overcast	Light rain	T Junction	Stop	0	0	0	0.04
WHANGAMATA ROAD	POIHIPI ROAD	84m		S			1861907	5721788	176.008030	-38.613776	201984021	28/10/2019	Mon	12:25	Ute1 EDB on WHANGAMATA ROAD lost control turning left; went off road to right	UTE1, alcohol test below limit, other inexperience, speed entering corner/curve, swung wide on bend	Wet	Overcast	Light rain	Nil (Default)	Nil	0	0	0	0.04
WHANGAMATA ROAD	POIHIPI ROAD	73m		S			1861921	5721793	176.008179	-38.613731	201972341	01/11/2019	Fri	15:00	Car/Wagon1 EDB on Whangamata Road lost control turning left; went off road to right, Car/Wagon1 hit bank, ditch	CAR/WAGON1, overseas/migrant driver fail to adjust to nz roads, speed entering corner/curve, swung wide on bend	Dry	Overcast	Fine	Nil (Default)	Nil	0	0	1	0.11

1-8 of 8

Pohipi/Wairakei 2017/2022

Saved sites

Pohipi/Wairakei Int

Crash severity

Fatal Crash, Serious Crash, Minor Crash, Non-Injury Crash

Crash year

2017 — 2022

Plain English report

12 results from your query.

1-12 of 12

Crash road	Side road	Feature	Distance from side road/feature	Direction	Reference station	Route position	Easting	Northing	Longitude	Latitude	ID	Date	Day of week	Time	Description of events	Crash factors	Surface condition	Natural light	Weather	Junction	Control	Casualty count fatal	Casualty count serious	Casualty count minor	Social cost $(m)
POIHIPI ROAD	WAIRAKEI DRIVE			I			1867028	5715003	176.069377	-38.673310	2020152472	20/05/2020	Wed	16:45	Van1 EDB on POIHIPI ROAD turning right hit Cyclist2 (Age 19) turning right into AXROAD	VAN1, alcohol suspected, did not check/notice another party from other dirn, failed to give way at priority traffic control	Dry	Bright sun	Fine	T Junction	Give way	0	0	1	0.11
POIHIPI ROAD	WAIRAKEI DRIVE			I			1866999	5715013	176.069041	-38.673231	2021199518	04/09/2021	Sat	13:35	Car/Wagon1 NDB on WAIRAKEI DRIVE lost control turning right but did not leave the road	SUV2, alcohol test below limit CAR/WAGON1, alcohol suspected, attempted suicide, intentional collision	Dry	Bright sun	Fine	T Junction	Give way	0	0	2	0.11
POIHIPI ROAD	WAIRAKEI DRIVE			I			1867015	5715009	176.069226	-38.673265	2021204982	05/03/2021	Fri	15:50	Left scene1 EDB on POIHIPI ROAD hit rear end of Car/Wagon2 stop/slow for cross traffic	LEFT SCENE1, following too closely	Dry	Bright sun	Fine	T Junction	Give way	0	0	0	0.05
POIHIPI ROAD	WAIRAKEI DRIVE			I			1866985	5715016	176.068878	-38.673203	201984744	07/11/2019	Thu	17:53	Car/Wagon2 turning right hit by oncoming Motorcycle1 DIRN on POIHIPI ROAD	CAR/WAGON2, failed to give way turning to non-turning traffic, overseas/migrant driver fail to adjust to nz roads	Dry	Bright sun	Fine	Driveway	Nil	0	0	0	0.04
WAIRAKEI DRIVE	POIHIPI ROAD			I			1867032	5715003	176.069412	-38.673313	201951008	12/02/2019	Tue	09:00	Car/Wagon1 NDB on Wairakei Drive hit Car/Wagon2 turning right onto AXROAD from the left	CAR/WAGON2, did not check/notice another party from other dirn, failed to give way at priority traffic control, other inattentive	Dry	Bright sun	Fine	T Junction	Give way	0	1	0	0.71
WAIRAKEI DRIVE	POIHIPI ROAD			I			1867032	5714997	176.069416	-38.673365	2020177689	08/08/2020	Sat	00:53	Car/Wagon1 SDB on WAIRAKEI DRIVE hit Left scene2 merging from the right	LEFT SCENE2, failed to give way at priority traffic control	Wet	Dark	Light rain	T Junction	Give way	0	0	0	0.05
WAIRAKEI DRIVE	POIHIPI ROAD			I			1867032	5715010	176.069412	-38.673252	201750948	08/10/2017	Sun	13:30	Other1 NDB on Wairakei Drive hit Car/Wagon2 turning right onto AXROAD from the left	CAR/WAGON2, did not check/notice another party from other dirn, failed to give way at priority traffic control	Wet	Overcast	Light rain	T Junction	Give way	0	0	0	0.04
WAIRAKEI DRIVE	POIHIPI ROAD			I			1867032	5715010	176.069412	-38.673252	201755946	10/12/2017	Sun	14:40	Car/Wagon1 NDB on Wairakei drive hit SUV2 turning right onto AXROAD from the left	CAR/WAGON1, alcohol test below limit SUV2, alcohol test below limit, did not check/notice another party from other dirn, failed to give way at priority traffic control	Dry	Overcast	Fine	T Junction	Give way	0	0	0	0.04
WAIRAKEI DRIVE	POIHIPI ROAD			I			1867032	5715010	176.069412	-38.673252	201718944	09/11/2017	Thu	09:45	Car/Wagon1 NDB on Wairakei drive hit turning Car/Wagon2	CAR/WAGON2, failed to give way at priority traffic control	Dry	Bright sun	Fine	T Junction	Give way	0	0	1	0.11
WAIRAKEI DRIVE	POIHIPI ROAD			I			1867003	5715005	176.069090	-38.673302	2022215011	07/02/2022	Mon	09:45	Car/Wagon1 NDB on WAIRAKEI DRIVE lost control on curve and hit Ute2 head on	UTE2, alcohol test below limit CAR/WAGON1, alcohol test below limit, inappropriate speed for road conditions, lost control when turning, new driver/under instruction, ENV: heavy rain, slippery road due to rain	Wet	Overcast	Heavy rain	T Junction	Give way	0	0	1	0.11
WAIRAKEI ROAD	POIHIPI ROAD			I			1867032	5715010	176.069412	-38.673252	201845347	23/07/2018	Mon	12:00	Car/Wagon1 NDB on Wairakei drive hit Car/Wagon2 merging from the left	CAR/WAGON2, failed to give way at priority traffic control	Dry	Overcast	Fine	T Junction	Give way	0	0	0	0.04
WAIRAKEI ROAD	POIHIPI ROAD			I			1867032	5715010	176.069412	-38.673252	201848484	07/09/2018	Fri	11:40	Truck2 turning right hit by oncoming Car/Wagon1 NDB on Wairakei Drive	TRUCK2, alcohol test below limit, failed to give way at priority traffic control	Dry	Overcast	Fine	T Junction	Give way	0	0	0	0.04

1-12 of 12

Appendix C – Kinloch Future Development Maps

Te Tuhi
44 Lots Restricted Flow Residential Demand
Timing: Developed now, but connection likely all by 2035 (after The Terraces)
WSP to import scheme plan provided and prepare concept to supply lots above Kinloch High Zone.

Top end of Kinloch High Pressure Zone (480m Elevation contour)

Hunt Club Inc.
30 Lots Full Residential Demand
Timing: 2030-2035
No Scheme plan provided, connection assumed

The Terraces
55 Lots Full Residential Demand, connected to High Zone
Timing: 2025-2035
Scheme plan provided, recommendations for pipe size will be provided.

Oakdale Downs
Total 82 Lots Full Residential Demand,
Timing: Development completed 2019,
All lots connected by 2025
Refer to latest GIS for customer points

Seven Oaks,
Stage 1-9,
160 Lots Full Residential Demand,
Balance Lot (Stage 10) 30 Lots Full Residential Demand
Stage 1 to 7 connected to Low Zone
Stage 8,9 and Balance Lot to High Zone
Timing: 2020-2026
Scheme plan provided, recommendations for pipe size already provided in development enquiry.

Oakdale Drive,
12 Lots Full Residential Demand,
Timing: 2025-2030

Kinloch Fill In lots (including the Poplars, Locheagles and Fairways) Township
96 Lots Full Residential Demand,
Timing: 2020-2035

Workshop Site
6 Lots Full Residential Demand
Timing: 2025

WHANGAMATA ROAD
OAKDALE DRIVE
LANCEWOOD DRIVE
LISLAND DRIVE
KINLOCH ROAD
Okaia Wildlife Reserve
Kinloch Golf Course

GREAT LAKE TAUPŌ
Taupō District Council

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Kinloch Future Development Maps, Western Site, 'The Terraces', 'Seven Oaks', 'To Tuhi', 'Hunt Club'

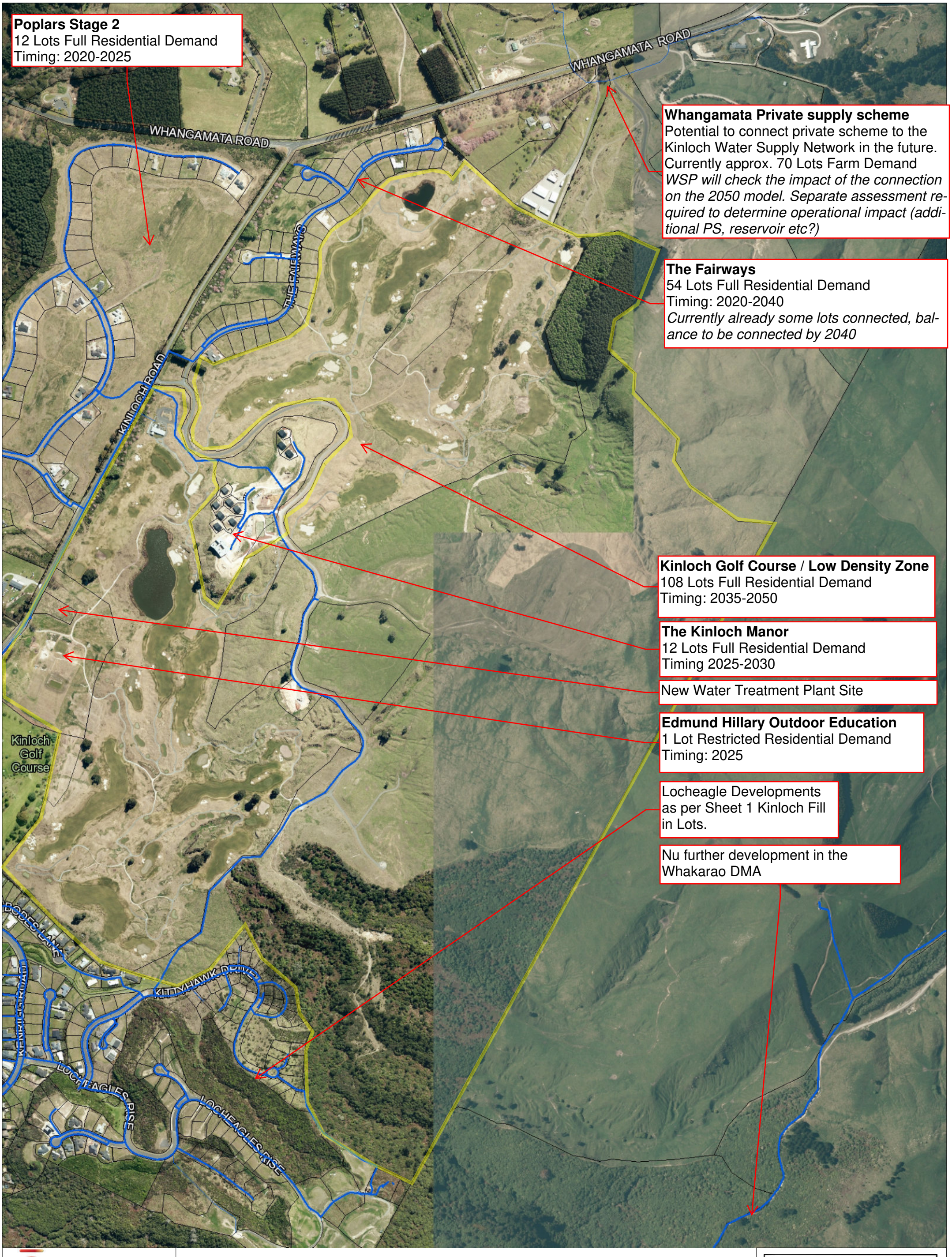
419.100 Meters

Scale = 1: 8,000 (A3)

Date Created: 27 February 2020 4:30 p.m.

Map Produced From Mapi

N



GREAT LAKE TAUPŌ
Taupō District Council

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Kinloch Future Development Maps, Eastern Site, 'Popplers', 'Golf course', 'Locheagles'

419.100 Meters

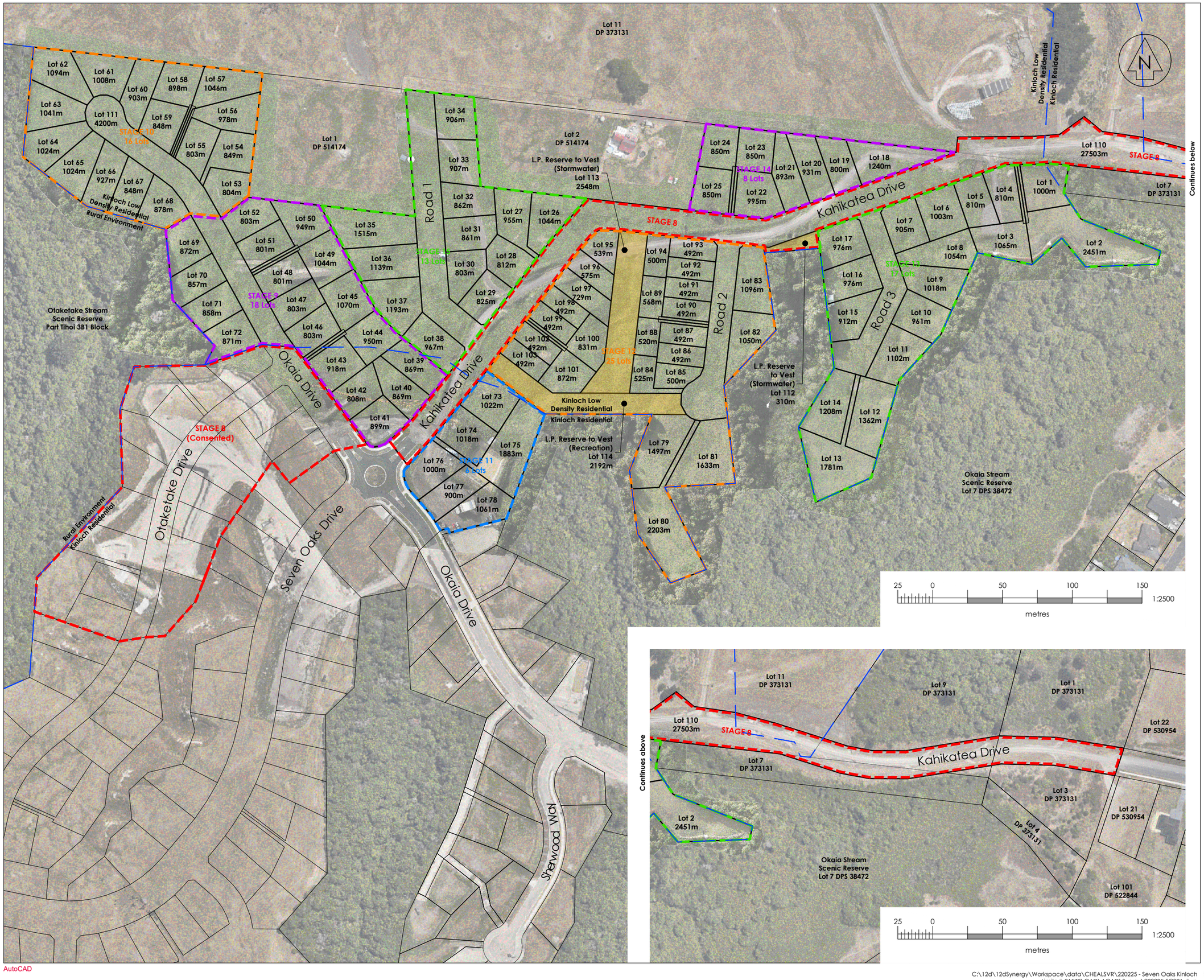
Scale = 1: 8,000 (A3)

Date Created: 27 February 2020 4:33 p.m.

Map Produced From Mapi

N

Appendix D – Concept Scheme Plan



cheal

www.cheal.co.nz

NOTES:

This plan has been prepared for the purpose of a resource consent application only. It is not a precise survey plan.
As areas and dimensions are likely to vary upon survey it should not be attached to any sale & purchase agreements without an appropriate condition to cover such variations.

Aerial Imagery has been obtained from: Taupo District Council GIS and is provided under a Creative Commons Public License and with a DJI Matrice M300 and a Zenmuse P1 Camera. It has been provided as a guide to where the boundaries are positioned, or proposed on the ground, but may not be absolute.

Owner: Seven Oaks Kinloch Limited
Record of Title: 1049517

Asbuilt utilities may have other services in close proximity which are not shown for the purposes of this plan.
Please identify existing utility locations and depths with Taupo District Council GIS before any field investigation or construction.

Underground services shown are indicative only. It is the contractors responsibility to identify existing utility locations and depths prior to construction.

KEY:

Reserve to Vest

District Plan Zone Boundary

Rev	Date	Amendment	By	Chk	App
B	25/08/22	Added Zone Boundaries	KL	OB	OB
A	10/08/22	First Issue	KL	OB	OB

Project Title
Seven Oaks Kinloch Ltd.
Okaia Drive
Kinloch

Drawing Title
Balance Land Scheme Plan

Surveyed			
Designed			
Drawn	K.Larsen	26/07/22	KL
Checked	O.Bucher	08/08/22	OB
Approved	O.Bucher	08/08/22	OB

Status INFORMATION

Scale A1 - | A3
A3 1:2500

Drawing Number 220225-SC001 | Rev B

AutoCAD

C:\12d\12dSynergy\Workspace\data\CHEALSVR\220225 - Seven Oaks Kinloch Limited_31579\CAD\ACAD\Survey\220225-SC001.dwg 21/Sep/2022 10:28 AM

Appendix E – SIDRA Analysis

MOVEMENT SUMMARY

Site: 103 [Future AM - Off Peak (Site Folder: Oakdale Whangamata)]

New Site
Site Category: (None)
Give-Way (Two-Way)

Vehicle Movement Performance

Mov ID	Turn	INPUT VOLUMES [Total veh/h	HV] %	DEMAND FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Oakdale														
1	L2	19	0.0	20	0.0	0.012	4.6	LOS A	0.0	0.3	0.07	0.50	0.07	46.5
3	R2	107	0.0	113	0.0	0.093	4.8	LOS A	0.3	2.2	0.15	0.54	0.15	45.9
Approach		126	0.0	133	0.0	0.093	4.8	LOS A	0.3	2.2	0.13	0.53	0.13	46.0
East: Whangamata														
4	L2	23	0.0	24	0.0	0.022	4.6	LOS A	0.0	0.0	0.00	0.31	0.00	47.8
5	T1	17	0.0	18	0.0	0.022	0.0	LOS A	0.0	0.0	0.00	0.31	0.00	48.3
Approach		40	0.0	42	0.0	0.022	2.6	NA	0.0	0.0	0.00	0.31	0.00	48.0
West: Whangamata														
11	T1	24	0.0	25	0.0	0.022	0.1	LOS A	0.1	0.5	0.09	0.19	0.09	48.6
12	R2	14	0.0	15	0.0	0.022	4.7	LOS A	0.1	0.5	0.09	0.19	0.09	48.0
Approach		38	0.0	40	0.0	0.022	1.8	NA	0.1	0.5	0.09	0.19	0.09	48.4
All Vehicles		204	0.0	215	0.0	0.093	3.8	NA	0.3	2.2	0.10	0.43	0.10	46.8

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
Delay Model: SIDRA Standard (Geometric Delay is included).
Queue Model: SIDRA Standard.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

MOVEMENT SUMMARY

Site: 103 [Future PM - Off Peak (Site Folder: Oakdale Whangamata)]

New Site
Site Category: (None)
Give-Way (Two-Way)

Vehicle Movement Performance

Mov ID	Turn	INPUT VOLUMES [Total veh/h	HV] %	DEMAND FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Oakdale														
1	L2	18	0.0	19	0.0	0.012	4.6	LOS A	0.0	0.3	0.10	0.50	0.10	46.4
3	R2	36	0.0	38	0.0	0.033	5.0	LOS A	0.1	0.7	0.21	0.54	0.21	45.8
Approach		54	0.0	57	0.0	0.033	4.9	LOS A	0.1	0.7	0.17	0.53	0.17	46.0
East: Whangamata														
4	L2	73	0.0	77	0.0	0.059	4.6	LOS A	0.0	0.0	0.00	0.37	0.00	47.5
5	T1	32	0.0	34	0.0	0.059	0.0	LOS A	0.0	0.0	0.00	0.37	0.00	47.9
Approach		105	0.0	111	0.0	0.059	3.2	NA	0.0	0.0	0.00	0.37	0.00	47.6
West: Whangamata														
11	T1	23	0.0	24	0.0	0.037	0.3	LOS A	0.2	1.2	0.20	0.32	0.20	47.6
12	R2	38	0.0	40	0.0	0.037	4.9	LOS A	0.2	1.2	0.20	0.32	0.20	47.0
Approach		61	0.0	64	0.0	0.037	3.1	NA	0.2	1.2	0.20	0.32	0.20	47.2
All Vehicles		220	0.0	232	0.0	0.059	3.6	NA	0.2	1.2	0.10	0.40	0.10	47.1

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
Delay Model: SIDRA Standard (Geometric Delay is included).
Queue Model: SIDRA Standard.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

MOVEMENT SUMMARY

Site: 103 [Future AM - Peak (Site Folder: Oakdale Whangamata)]

New Site
Site Category: (None)
Give-Way (Two-Way)

Vehicle Movement Performance

Mov ID	Turn	INPUT VOLUMES [Total veh/h	HV] %	DEMAND FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Oakdale														
1	L2	21	0.0	22	0.0	0.014	4.6	LOS A	0.1	0.4	0.07	0.50	0.07	46.5
3	R2	119	0.0	125	0.0	0.104	4.8	LOS A	0.4	2.5	0.16	0.54	0.16	45.8
Approach		140	0.0	147	0.0	0.104	4.8	LOS A	0.4	2.5	0.15	0.53	0.15	45.9
East: Whangamata														
4	L2	26	0.0	27	0.0	0.026	4.6	LOS A	0.0	0.0	0.00	0.30	0.00	47.8
5	T1	20	0.0	21	0.0	0.026	0.0	LOS A	0.0	0.0	0.00	0.30	0.00	48.3
Approach		46	0.0	48	0.0	0.026	2.6	NA	0.0	0.0	0.00	0.30	0.00	48.0
West: Whangamata														
11	T1	29	0.0	31	0.0	0.025	0.1	LOS A	0.1	0.6	0.09	0.18	0.09	48.7
12	R2	15	0.0	16	0.0	0.025	4.7	LOS A	0.1	0.6	0.09	0.18	0.09	48.0
Approach		44	0.0	46	0.0	0.025	1.6	NA	0.1	0.6	0.09	0.18	0.09	48.5
All Vehicles		230	0.0	242	0.0	0.104	3.8	NA	0.4	2.5	0.11	0.42	0.11	46.8

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
Delay Model: SIDRA Standard (Geometric Delay is included).
Queue Model: SIDRA Standard.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

MOVEMENT SUMMARY

Site: 103 [Future PM - Peak (Site Folder: Oakdale Whangamata)]

New Site
Site Category: (None)
Give-Way (Two-Way)

Vehicle Movement Performance

Mov ID	Turn	INPUT VOLUMES [Total veh/h	HV] %	DEMAND FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Oakdale														
1	L2	20	0.0	21	0.0	0.013	4.7	LOS A	0.1	0.4	0.11	0.50	0.11	46.4
3	R2	39	0.0	41	0.0	0.036	5.1	LOS A	0.1	0.8	0.22	0.55	0.22	45.7
Approach		59	0.0	62	0.0	0.036	4.9	LOS A	0.1	0.8	0.18	0.53	0.18	45.9
East: Whangamata														
4	L2	82	0.0	86	0.0	0.067	4.6	LOS A	0.0	0.0	0.00	0.37	0.00	47.5
5	T1	38	0.0	40	0.0	0.067	0.0	LOS A	0.0	0.0	0.00	0.37	0.00	47.9
Approach		120	0.0	126	0.0	0.067	3.1	NA	0.0	0.0	0.00	0.37	0.00	47.6
West: Whangamata														
11	T1	27	0.0	28	0.0	0.042	0.3	LOS A	0.2	1.3	0.22	0.31	0.22	47.6
12	R2	41	0.0	43	0.0	0.042	4.9	LOS A	0.2	1.3	0.22	0.31	0.22	47.0
Approach		68	0.0	72	0.0	0.042	3.1	NA	0.2	1.3	0.22	0.31	0.22	47.2
All Vehicles		247	0.0	260	0.0	0.067	3.6	NA	0.2	1.3	0.10	0.39	0.10	47.1

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
Delay Model: SIDRA Standard (Geometric Delay is included).
Queue Model: SIDRA Standard.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

MOVEMENT SUMMARY

Site: 103 [Growth AM - Off Peak (Site Folder: Oakdale Whangamata)]

New Site
Site Category: (None)
Give-Way (Two-Way)

Vehicle Movement Performance

Mov ID	Turn	INPUT VOLUMES [Total veh/h	HV] %	DEMAND FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Oakdale														
1	L2	20	0.0	21	0.0	0.013	4.6	LOS A	0.1	0.4	0.07	0.50	0.07	46.5
3	R2	113	0.0	119	0.0	0.098	4.8	LOS A	0.3	2.3	0.15	0.54	0.15	45.9
Approach		133	0.0	140	0.0	0.098	4.8	LOS A	0.3	2.3	0.14	0.53	0.14	46.0
East: Whangamata														
4	L2	24	0.0	25	0.0	0.024	4.6	LOS A	0.0	0.0	0.00	0.30	0.00	47.9
5	T1	19	0.0	20	0.0	0.024	0.0	LOS A	0.0	0.0	0.00	0.30	0.00	48.3
Approach		43	0.0	45	0.0	0.024	2.6	NA	0.0	0.0	0.00	0.30	0.00	48.1
West: Whangamata														
11	T1	26	0.0	27	0.0	0.023	0.1	LOS A	0.1	0.6	0.09	0.19	0.09	48.6
12	R2	15	0.0	16	0.0	0.023	4.7	LOS A	0.1	0.6	0.09	0.19	0.09	48.0
Approach		41	0.0	43	0.0	0.023	1.8	NA	0.1	0.6	0.09	0.19	0.09	48.4
All Vehicles		217	0.0	228	0.0	0.098	3.8	NA	0.3	2.3	0.10	0.42	0.10	46.8

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
Delay Model: SIDRA Standard (Geometric Delay is included).
Queue Model: SIDRA Standard.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

MOVEMENT SUMMARY

Site: 103 [Growth PM - Off Peak (Site Folder: Oakdale Whangamata)]

New Site
Site Category: (None)
Give-Way (Two-Way)

Vehicle Movement Performance

Mov ID	Turn	INPUT VOLUMES [Total veh/h	HV] %	DEMAND FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Oakdale														
1	L2	19	0.0	20	0.0	0.013	4.7	LOS A	0.0	0.3	0.10	0.50	0.10	46.4
3	R2	38	0.0	40	0.0	0.035	5.0	LOS A	0.1	0.8	0.21	0.54	0.21	45.7
Approach		57	0.0	60	0.0	0.035	4.9	LOS A	0.1	0.8	0.18	0.53	0.18	46.0
East: Whangamata														
4	L2	78	0.0	82	0.0	0.063	4.6	LOS A	0.0	0.0	0.00	0.37	0.00	47.5
5	T1	35	0.0	37	0.0	0.063	0.0	LOS A	0.0	0.0	0.00	0.37	0.00	47.9
Approach		113	0.0	119	0.0	0.063	3.2	NA	0.0	0.0	0.00	0.37	0.00	47.6
West: Whangamata														
11	T1	25	0.0	26	0.0	0.039	0.3	LOS A	0.2	1.2	0.21	0.32	0.21	47.6
12	R2	39	0.0	41	0.0	0.039	4.9	LOS A	0.2	1.2	0.21	0.32	0.21	47.0
Approach		64	0.0	67	0.0	0.039	3.1	NA	0.2	1.2	0.21	0.32	0.21	47.2
All Vehicles		234	0.0	246	0.0	0.063	3.6	NA	0.2	1.2	0.10	0.39	0.10	47.1

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
Delay Model: SIDRA Standard (Geometric Delay is included).
Queue Model: SIDRA Standard.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

MOVEMENT SUMMARY

Site: 103 [Growth AM - Peak (Site Folder: Oakdale Whangamata)]

New Site
Site Category: (None)
Give-Way (Two-Way)

Vehicle Movement Performance

Mov ID	Turn	INPUT VOLUMES [Total veh/h	HV] %	DEMAND FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Oakdale														
1	L2	23	0.0	24	0.0	0.015	4.6	LOS A	0.1	0.4	0.08	0.50	0.08	46.4
3	R2	126	0.0	133	0.0	0.111	4.9	LOS A	0.4	2.7	0.17	0.54	0.17	45.8
Approach		149	0.0	157	0.0	0.111	4.8	LOS A	0.4	2.7	0.15	0.53	0.15	45.9
East: Whangamata														
4	L2	27	0.0	28	0.0	0.027	4.6	LOS A	0.0	0.0	0.00	0.30	0.00	47.9
5	T1	22	0.0	23	0.0	0.027	0.0	LOS A	0.0	0.0	0.00	0.30	0.00	48.3
Approach		49	0.0	52	0.0	0.027	2.5	NA	0.0	0.0	0.00	0.30	0.00	48.1
West: Whangamata														
11	T1	31	0.0	33	0.0	0.027	0.1	LOS A	0.1	0.6	0.09	0.18	0.09	48.7
12	R2	16	0.0	17	0.0	0.027	4.7	LOS A	0.1	0.6	0.09	0.18	0.09	48.0
Approach		47	0.0	49	0.0	0.027	1.6	NA	0.1	0.6	0.09	0.18	0.09	48.5
All Vehicles		245	0.0	258	0.0	0.111	3.8	NA	0.4	2.7	0.11	0.42	0.11	46.8

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
Delay Model: SIDRA Standard (Geometric Delay is included).
Queue Model: SIDRA Standard.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

MOVEMENT SUMMARY

Site: 103 [Growth PM - Peak (Site Folder: Oakdale Whangamata)]

New Site
Site Category: (None)
Give-Way (Two-Way)

Vehicle Movement Performance

Mov ID	Turn	INPUT VOLUMES [Total veh/h	HV] %	DEMAND FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Oakdale														
1	L2	21	0.0	22	0.0	0.014	4.7	LOS A	0.1	0.4	0.11	0.50	0.11	46.4
3	R2	42	0.0	44	0.0	0.040	5.1	LOS A	0.1	0.9	0.23	0.55	0.23	45.7
Approach		63	0.0	66	0.0	0.040	5.0	LOS A	0.1	0.9	0.19	0.53	0.19	45.9
East: Whangamata														
4	L2	88	0.0	93	0.0	0.073	4.6	LOS A	0.0	0.0	0.00	0.36	0.00	47.5
5	T1	42	0.0	44	0.0	0.073	0.0	LOS A	0.0	0.0	0.00	0.36	0.00	47.9
Approach		130	0.0	137	0.0	0.073	3.1	NA	0.0	0.0	0.00	0.36	0.00	47.6
West: Whangamata														
11	T1	30	0.0	32	0.0	0.045	0.3	LOS A	0.2	1.4	0.23	0.31	0.23	47.6
12	R2	43	0.0	45	0.0	0.045	5.0	LOS A	0.2	1.4	0.23	0.31	0.23	47.0
Approach		73	0.0	77	0.0	0.045	3.1	NA	0.2	1.4	0.23	0.31	0.23	47.3
All Vehicles		266	0.0	280	0.0	0.073	3.5	NA	0.2	1.4	0.11	0.39	0.11	47.1

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
Delay Model: SIDRA Standard (Geometric Delay is included).
Queue Model: SIDRA Standard.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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MOVEMENT SUMMARY

Site: 103 [Off Season AM Peak (Site Folder: Oakdale Whangamata - Kinloch + Future)]

New Site
Site Category: (None)
Give-Way (Two-Way)

Vehicle Movement Performance

Mov ID	Turn	INPUT VOLUMES [Total veh/h	HV] %	DEMAND FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Oakdale														
1	L2	24	0.0	25	0.0	0.016	4.6	LOS A	0.1	0.4	0.09	0.50	0.09	46.4
3	R2	134	0.0	141	0.0	0.120	5.0	LOS A	0.4	2.9	0.20	0.55	0.20	45.8
Approach		158	0.0	166	0.0	0.120	4.9	LOS A	0.4	2.9	0.18	0.54	0.18	45.9
East: Whangamata														
4	L2	28	0.0	29	0.0	0.030	4.6	LOS A	0.0	0.0	0.00	0.27	0.00	48.0
5	T1	27	0.0	28	0.0	0.030	0.0	LOS A	0.0	0.0	0.00	0.27	0.00	48.4
Approach		55	0.0	58	0.0	0.030	2.3	NA	0.0	0.0	0.00	0.27	0.00	48.2
West: Whangamata														
11	T1	45	0.0	47	0.0	0.036	0.1	LOS A	0.1	0.8	0.09	0.16	0.09	48.8
12	R2	19	0.0	20	0.0	0.036	4.7	LOS A	0.1	0.8	0.09	0.16	0.09	48.2
Approach		64	0.0	67	0.0	0.036	1.5	NA	0.1	0.8	0.09	0.16	0.09	48.6
All Vehicles		277	0.0	292	0.0	0.120	3.6	NA	0.4	2.9	0.12	0.40	0.12	46.9

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
Delay Model: SIDRA Standard (Geometric Delay is included).
Queue Model: SIDRA Standard.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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MOVEMENT SUMMARY

Site: 103 [Off Season PM Peak (Site Folder: Oakdale Whangamata - Kinloch + Future)]

New Site
Site Category: (None)
Give-Way (Two-Way)

Vehicle Movement Performance

Mov ID	Turn	INPUT VOLUMES [Total veh/h	HV] %	DEMAND FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Oakdale														
1	L2	23	0.0	24	0.0	0.015	4.7	LOS A	0.1	0.4	0.10	0.50	0.10	46.4
3	R2	46	0.0	48	0.0	0.046	5.4	LOS A	0.1	1.0	0.28	0.57	0.28	45.6
Approach		69	0.0	73	0.0	0.046	5.2	LOS A	0.1	1.0	0.22	0.55	0.22	45.9
East: Whangamata														
4	L2	86	0.0	91	0.0	0.068	4.6	LOS A	0.0	0.0	0.00	0.38	0.00	47.4
5	T1	36	0.0	38	0.0	0.068	0.0	LOS A	0.0	0.0	0.00	0.38	0.00	47.9
Approach		122	0.0	128	0.0	0.068	3.2	NA	0.0	0.0	0.00	0.38	0.00	47.6
West: Whangamata														
11	T1	92	0.0	97	0.0	0.084	0.2	LOS A	0.3	2.2	0.17	0.19	0.17	48.4
12	R2	51	0.0	54	0.0	0.084	5.0	LOS A	0.3	2.2	0.17	0.19	0.17	47.8
Approach		143	0.0	151	0.0	0.084	1.9	NA	0.3	2.2	0.17	0.19	0.17	48.2
All Vehicles		334	0.0	352	0.0	0.084	3.1	NA	0.3	2.2	0.12	0.33	0.12	47.5

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
Delay Model: SIDRA Standard (Geometric Delay is included).
Queue Model: SIDRA Standard.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

MOVEMENT SUMMARY

Site: 103 [Peak Season AM Peak (Site Folder: Oakdale Whangamata - Kinloch + Future)]

New Site
Site Category: (None)
Give-Way (Two-Way)

Vehicle Movement Performance

Mov ID	Turn	INPUT VOLUMES [Total veh/h	HV] %	DEMAND FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Oakdale														
1	L2	26	0.0	27	0.0	0.017	4.6	LOS A	0.1	0.5	0.09	0.50	0.09	46.4
3	R2	145	0.0	153	0.0	0.131	5.0	LOS A	0.5	3.2	0.21	0.55	0.21	45.7
Approach		171	0.0	180	0.0	0.131	5.0	LOS A	0.5	3.2	0.19	0.54	0.19	45.8
East: Whangamata														
4	L2	31	0.0	33	0.0	0.034	4.6	LOS A	0.0	0.0	0.00	0.27	0.00	48.0
5	T1	30	0.0	32	0.0	0.034	0.0	LOS A	0.0	0.0	0.00	0.27	0.00	48.5
Approach		61	0.0	64	0.0	0.034	2.3	NA	0.0	0.0	0.00	0.27	0.00	48.2
West: Whangamata														
11	T1	50	0.0	53	0.0	0.040	0.1	LOS A	0.1	0.8	0.09	0.15	0.09	48.9
12	R2	20	0.0	21	0.0	0.040	4.7	LOS A	0.1	0.8	0.09	0.15	0.09	48.2
Approach		70	0.0	74	0.0	0.040	1.4	NA	0.1	0.8	0.09	0.15	0.09	48.7
All Vehicles		302	0.0	318	0.0	0.131	3.6	NA	0.5	3.2	0.13	0.40	0.13	46.9

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
Delay Model: SIDRA Standard (Geometric Delay is included).
Queue Model: SIDRA Standard.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

MOVEMENT SUMMARY

Site: 103 [Peak Season PM Peak (Site Folder: Oakdale Whangamata - Kinloch + Future)]

New Site
Site Category: (None)
Give-Way (Two-Way)

Vehicle Movement Performance

Mov ID	Turn	INPUT VOLUMES [Total veh/h	HV] %	DEMAND FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Oakdale														
1	L2	25	0.0	26	0.0	0.017	4.7	LOS A	0.1	0.5	0.11	0.50	0.11	46.4
3	R2	50	0.0	53	0.0	0.051	5.5	LOS A	0.2	1.2	0.30	0.58	0.30	45.6
Approach		75	0.0	79	0.0	0.051	5.2	LOS A	0.2	1.2	0.24	0.55	0.24	45.8
East: Whangamata														
4	L2	95	0.0	100	0.0	0.077	4.6	LOS A	0.0	0.0	0.00	0.37	0.00	47.5
5	T1	42	0.0	44	0.0	0.077	0.0	LOS A	0.0	0.0	0.00	0.37	0.00	47.9
Approach		137	0.0	144	0.0	0.077	3.2	NA	0.0	0.0	0.00	0.37	0.00	47.6
West: Whangamata														
11	T1	96	0.0	101	0.0	0.089	0.2	LOS A	0.3	2.3	0.19	0.19	0.19	48.4
12	R2	54	0.0	57	0.0	0.089	5.0	LOS A	0.3	2.3	0.19	0.19	0.19	47.7
Approach		150	0.0	158	0.0	0.089	2.0	NA	0.3	2.3	0.19	0.19	0.19	48.2
All Vehicles		362	0.0	381	0.0	0.089	3.1	NA	0.3	2.3	0.13	0.34	0.13	47.4

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
Delay Model: SIDRA Standard (Geometric Delay is included).
Queue Model: SIDRA Standard.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

MOVEMENT SUMMARY

Site: 103 [Future AM - Off Peak (Site Folder: Kinloch Whangamata)]

New Site
Site Category: (None)
Give-Way (Two-Way)

Vehicle Movement Performance

Mov ID	Turn	INPUT VOLUMES [Total veh/h	HV] %	DEMAND FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Kinloch														
1	L2	9	0.0	9	0.0	0.006	4.7	LOS A	0.0	0.2	0.11	0.50	0.11	46.4
3	R2	107	0.0	113	0.0	0.106	5.4	LOS A	0.4	2.5	0.29	0.58	0.29	45.6
Approach		116	0.0	122	0.0	0.106	5.4	LOS A	0.4	2.5	0.28	0.58	0.28	45.6
East: Whangamata														
4	L2	66	0.0	69	0.0	0.058	4.6	LOS A	0.0	0.0	0.00	0.34	0.00	47.6
5	T1	39	0.0	41	0.0	0.058	0.0	LOS A	0.0	0.0	0.00	0.34	0.00	48.1
Approach		105	0.0	111	0.0	0.058	2.9	NA	0.0	0.0	0.00	0.34	0.00	47.8
West: Whangamata														
11	T1	133	0.0	140	0.0	0.076	0.0	LOS A	0.0	0.3	0.02	0.02	0.02	49.8
12	R2	6	0.0	6	0.0	0.076	4.9	LOS A	0.0	0.3	0.02	0.02	0.02	49.1
Approach		139	0.0	146	0.0	0.076	0.2	NA	0.0	0.3	0.02	0.02	0.02	49.8
All Vehicles		360	0.0	379	0.0	0.106	2.7	NA	0.4	2.5	0.10	0.29	0.10	47.8

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
Delay Model: SIDRA Standard (Geometric Delay is included).
Queue Model: SIDRA Standard.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

MOVEMENT SUMMARY

Site: 103 [Future PM - Off Peak (Site Folder: Kinloch Whangamata)]

New Site
Site Category: (None)
Give-Way (Two-Way)

Vehicle Movement Performance

Mov ID	Turn	INPUT VOLUMES [Total veh/h	HV] %	DEMAND FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Kinloch														
1	L2	4	0.0	4	0.0	0.003	4.9	LOS A	0.0	0.1	0.20	0.49	0.20	46.2
3	R2	62	0.0	65	0.0	0.063	5.5	LOS A	0.2	1.4	0.29	0.58	0.29	45.6
Approach		66	0.0	69	0.0	0.063	5.4	LOS A	0.2	1.4	0.29	0.57	0.29	45.6
East: Whangamata														
4	L2	86	0.0	91	0.0	0.108	4.6	LOS A	0.0	0.0	0.00	0.24	0.00	48.2
5	T1	109	0.0	115	0.0	0.108	0.0	LOS A	0.0	0.0	0.00	0.24	0.00	48.6
Approach		195	0.0	205	0.0	0.108	2.0	NA	0.0	0.0	0.00	0.24	0.00	48.4
West: Whangamata														
11	T1	64	0.0	67	0.0	0.045	0.2	LOS A	0.1	0.7	0.12	0.10	0.12	49.1
12	R2	14	0.0	15	0.0	0.045	5.2	LOS A	0.1	0.7	0.12	0.10	0.12	48.4
Approach		78	0.0	82	0.0	0.045	1.1	NA	0.1	0.7	0.12	0.10	0.12	49.0
All Vehicles		339	0.0	357	0.0	0.108	2.5	NA	0.2	1.4	0.08	0.27	0.08	48.0

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
Delay Model: SIDRA Standard (Geometric Delay is included).
Queue Model: SIDRA Standard.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

MOVEMENT SUMMARY

Site: 103 [Future AM - Peak (Site Folder: Kinloch Whangamata)]

New Site
Site Category: (None)
Give-Way (Two-Way)

Vehicle Movement Performance

Mov ID	Turn	INPUT VOLUMES [Total veh/h	HV] %	DEMAND FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Kinloch														
1	L2	11	0.0	12	0.0	0.007	4.7	LOS A	0.0	0.2	0.12	0.49	0.12	46.3
3	R2	124	0.0	131	0.0	0.127	5.6	LOS A	0.4	3.0	0.32	0.60	0.32	45.5
Approach		135	0.0	142	0.0	0.127	5.5	LOS A	0.4	3.0	0.30	0.59	0.30	45.6
East: Whangamata														
4	L2	78	0.0	82	0.0	0.069	4.6	LOS A	0.0	0.0	0.00	0.34	0.00	47.6
5	T1	45	0.0	47	0.0	0.069	0.0	LOS A	0.0	0.0	0.00	0.34	0.00	48.1
Approach		123	0.0	129	0.0	0.069	2.9	NA	0.0	0.0	0.00	0.34	0.00	47.8
West: Whangamata														
11	T1	150	0.0	158	0.0	0.086	0.0	LOS A	0.1	0.4	0.03	0.02	0.03	49.8
12	R2	7	0.0	7	0.0	0.086	5.0	LOS A	0.1	0.4	0.03	0.02	0.03	49.1
Approach		157	0.0	165	0.0	0.086	0.2	NA	0.1	0.4	0.03	0.02	0.03	49.8
All Vehicles		415	0.0	437	0.0	0.127	2.7	NA	0.4	3.0	0.11	0.30	0.11	47.8

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
Delay Model: SIDRA Standard (Geometric Delay is included).
Queue Model: SIDRA Standard.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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MOVEMENT SUMMARY

Site: 103 [Future PM - Peak (Site Folder: Kinloch Whangamata)]

New Site
Site Category: (None)
Give-Way (Two-Way)

Vehicle Movement Performance

Mov ID	Turn	INPUT VOLUMES [Total veh/h	HV] %	DEMAND FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Kinloch														
1	L2	5	0.0	5	0.0	0.004	4.9	LOS A	0.0	0.1	0.22	0.49	0.22	46.1
3	R2	73	0.0	77	0.0	0.076	5.6	LOS A	0.3	1.8	0.32	0.60	0.32	45.5
Approach		78	0.0	82	0.0	0.076	5.6	LOS A	0.3	1.8	0.31	0.59	0.31	45.6
East: Whangamata														
4	L2	101	0.0	106	0.0	0.124	4.6	LOS A	0.0	0.0	0.00	0.24	0.00	48.1
5	T1	124	0.0	131	0.0	0.124	0.0	LOS A	0.0	0.0	0.00	0.24	0.00	48.6
Approach		225	0.0	237	0.0	0.124	2.1	NA	0.0	0.0	0.00	0.24	0.00	48.4
West: Whangamata														
11	T1	73	0.0	77	0.0	0.051	0.2	LOS A	0.1	0.8	0.13	0.09	0.13	49.1
12	R2	15	0.0	16	0.0	0.051	5.3	LOS A	0.1	0.8	0.13	0.09	0.13	48.4
Approach		88	0.0	93	0.0	0.051	1.1	NA	0.1	0.8	0.13	0.09	0.13	49.0
All Vehicles		391	0.0	412	0.0	0.124	2.6	NA	0.3	1.8	0.09	0.28	0.09	47.9

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
Delay Model: SIDRA Standard (Geometric Delay is included).
Queue Model: SIDRA Standard.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

MOVEMENT SUMMARY

Site: 103 [Growth AM - Off Peak (Site Folder: Kinloch Whangamata)]

New Site
Site Category: (None)
Give-Way (Two-Way)

Vehicle Movement Performance

Mov ID	Turn	INPUT VOLUMES [Total veh/h	HV] %	DEMAND FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Kinloch														
1	L2	10	0.0	11	0.0	0.007	4.7	LOS A	0.0	0.2	0.11	0.49	0.11	46.4
3	R2	116	0.0	122	0.0	0.117	5.5	LOS A	0.4	2.8	0.30	0.59	0.30	45.6
Approach		126	0.0	133	0.0	0.117	5.4	LOS A	0.4	2.8	0.29	0.59	0.29	45.6
East: Whangamata														
4	L2	73	0.0	77	0.0	0.064	4.6	LOS A	0.0	0.0	0.00	0.34	0.00	47.6
5	T1	42	0.0	44	0.0	0.064	0.0	LOS A	0.0	0.0	0.00	0.34	0.00	48.1
Approach		115	0.0	121	0.0	0.064	2.9	NA	0.0	0.0	0.00	0.34	0.00	47.8
West: Whangamata														
11	T1	142	0.0	149	0.0	0.081	0.0	LOS A	0.0	0.3	0.03	0.03	0.03	49.8
12	R2	7	0.0	7	0.0	0.081	4.9	LOS A	0.0	0.3	0.03	0.03	0.03	49.1
Approach		149	0.0	157	0.0	0.081	0.3	NA	0.0	0.3	0.03	0.03	0.03	49.7
All Vehicles		390	0.0	411	0.0	0.117	2.7	NA	0.4	2.8	0.10	0.30	0.10	47.8

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
Delay Model: SIDRA Standard (Geometric Delay is included).
Queue Model: SIDRA Standard.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

MOVEMENT SUMMARY

Site: 103 [Growth PM - Off Peak (Site Folder: Kinloch Whangamata)]

New Site
Site Category: (None)
Give-Way (Two-Way)

Vehicle Movement Performance

Mov ID	Turn	INPUT VOLUMES [Total veh/h	HV] %	DEMAND FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Kinloch														
1	L2	5	0.0	5	0.0	0.004	4.9	LOS A	0.0	0.1	0.21	0.49	0.21	46.1
3	R2	68	0.0	72	0.0	0.070	5.5	LOS A	0.2	1.6	0.31	0.59	0.31	45.5
Approach		73	0.0	77	0.0	0.070	5.5	LOS A	0.2	1.6	0.30	0.58	0.30	45.6
East: Whangamata														
4	L2	94	0.0	99	0.0	0.116	4.6	LOS A	0.0	0.0	0.00	0.24	0.00	48.1
5	T1	117	0.0	123	0.0	0.116	0.0	LOS A	0.0	0.0	0.00	0.24	0.00	48.6
Approach		211	0.0	222	0.0	0.116	2.1	NA	0.0	0.0	0.00	0.24	0.00	48.4
West: Whangamata														
11	T1	69	0.0	73	0.0	0.048	0.2	LOS A	0.1	0.8	0.13	0.10	0.13	49.1
12	R2	15	0.0	16	0.0	0.048	5.3	LOS A	0.1	0.8	0.13	0.10	0.13	48.4
Approach		84	0.0	88	0.0	0.048	1.1	NA	0.1	0.8	0.13	0.10	0.13	49.0
All Vehicles		368	0.0	387	0.0	0.116	2.5	NA	0.2	1.6	0.09	0.28	0.09	47.9

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
Delay Model: SIDRA Standard (Geometric Delay is included).
Queue Model: SIDRA Standard.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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MOVEMENT SUMMARY

Site: 103 [Growth AM - Peak (Site Folder: Kinloch Whangamata)]

New Site
Site Category: (None)
Give-Way (Two-Way)

Vehicle Movement Performance

Mov ID	Turn	INPUT VOLUMES [Total veh/h	HV] %	DEMAND FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Kinloch														
1	L2	12	0.0	13	0.0	0.008	4.7	LOS A	0.0	0.2	0.12	0.49	0.12	46.3
3	R2	136	0.0	143	0.0	0.141	5.7	LOS A	0.5	3.4	0.33	0.61	0.33	45.5
Approach		148	0.0	156	0.0	0.141	5.6	LOS A	0.5	3.4	0.32	0.60	0.32	45.6
East: Whangamata														
4	L2	86	0.0	91	0.0	0.075	4.6	LOS A	0.0	0.0	0.00	0.34	0.00	47.6
5	T1	48	0.0	51	0.0	0.075	0.0	LOS A	0.0	0.0	0.00	0.34	0.00	48.0
Approach		134	0.0	141	0.0	0.075	2.9	NA	0.0	0.0	0.00	0.34	0.00	47.8
West: Whangamata														
11	T1	160	0.0	168	0.0	0.092	0.0	LOS A	0.1	0.4	0.03	0.03	0.03	49.8
12	R2	8	0.0	8	0.0	0.092	5.0	LOS A	0.1	0.4	0.03	0.03	0.03	49.1
Approach		168	0.0	177	0.0	0.092	0.3	NA	0.1	0.4	0.03	0.03	0.03	49.7
All Vehicles		450	0.0	474	0.0	0.141	2.8	NA	0.5	3.4	0.11	0.31	0.11	47.7

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
Delay Model: SIDRA Standard (Geometric Delay is included).
Queue Model: SIDRA Standard.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

MOVEMENT SUMMARY

Site: 103 [Growth PM - Peak (Site Folder: Kinloch Whangamata)]

New Site
Site Category: (None)
Give-Way (Two-Way)

Vehicle Movement Performance

Mov ID	Turn	INPUT VOLUMES [Total veh/h	HV] %	DEMAND FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Kinloch														
1	L2	6	0.0	6	0.0	0.004	4.9	LOS A	0.0	0.1	0.22	0.49	0.22	46.1
3	R2	80	0.0	84	0.0	0.085	5.7	LOS A	0.3	2.0	0.34	0.61	0.34	45.5
Approach		86	0.0	91	0.0	0.085	5.7	LOS A	0.3	2.0	0.33	0.60	0.33	45.5
East: Whangamata														
4	L2	110	0.0	116	0.0	0.134	4.6	LOS A	0.0	0.0	0.00	0.24	0.00	48.1
5	T1	133	0.0	140	0.0	0.134	0.0	LOS A	0.0	0.0	0.00	0.24	0.00	48.6
Approach		243	0.0	256	0.0	0.134	2.1	NA	0.0	0.0	0.00	0.24	0.00	48.4
West: Whangamata														
11	T1	78	0.0	82	0.0	0.054	0.2	LOS A	0.1	0.8	0.14	0.10	0.14	49.1
12	R2	16	0.0	17	0.0	0.054	5.4	LOS A	0.1	0.8	0.14	0.10	0.14	48.4
Approach		94	0.0	99	0.0	0.054	1.1	NA	0.1	0.8	0.14	0.10	0.14	49.0
All Vehicles		423	0.0	445	0.0	0.134	2.6	NA	0.3	2.0	0.10	0.28	0.10	47.9

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
Delay Model: SIDRA Standard (Geometric Delay is included).
Queue Model: SIDRA Standard.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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MOVEMENT SUMMARY

Site: 103 [Off Season AM Peak (Site Folder: Kinloch Whangamata - Kinloch + Future)]

New Site
Site Category: (None)
Give-Way (Two-Way)

Vehicle Movement Performance

Mov ID	Turn	INPUT VOLUMES [Total veh/h	HV] %	DEMAND FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Kinloch														
1	L2	19	0.0	20	0.0	0.013	4.7	LOS A	0.1	0.4	0.12	0.50	0.12	46.3
3	R2	220	0.0	232	0.0	0.232	5.9	LOS A	0.9	6.0	0.37	0.64	0.37	45.4
Approach		239	0.0	252	0.0	0.232	5.8	LOS A	0.9	6.0	0.35	0.63	0.35	45.5
East: Whangamata														
4	L2	87	0.0	92	0.0	0.073	4.6	LOS A	0.0	0.0	0.00	0.36	0.00	47.5
5	T1	44	0.0	46	0.0	0.073	0.0	LOS A	0.0	0.0	0.00	0.36	0.00	48.0
Approach		131	0.0	138	0.0	0.073	3.0	NA	0.0	0.0	0.00	0.36	0.00	47.7
West: Whangamata														
11	T1	160	0.0	168	0.0	0.105	0.1	LOS A	0.2	1.3	0.08	0.08	0.08	49.3
12	R2	27	0.0	28	0.0	0.105	5.0	LOS A	0.2	1.3	0.08	0.08	0.08	48.6
Approach		187	0.0	197	0.0	0.105	0.8	NA	0.2	1.3	0.08	0.08	0.08	49.2
All Vehicles		557	0.0	586	0.0	0.232	3.5	NA	0.9	6.0	0.18	0.38	0.18	47.2

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
Delay Model: SIDRA Standard (Geometric Delay is included).
Queue Model: SIDRA Standard.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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MOVEMENT SUMMARY

Site: 103 [Off Season PM Peak (Site Folder: Kinloch Whangamata - Kinloch + Future)]

New Site
Site Category: (None)
Give-Way (Two-Way)

Vehicle Movement Performance

Mov ID	Turn	INPUT VOLUMES [Total veh/h	HV] %	DEMAND FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Kinloch														
1	L2	9	0.0	9	0.0	0.006	4.9	LOS A	0.0	0.2	0.21	0.49	0.21	46.1
3	R2	119	0.0	125	0.0	0.135	6.1	LOS A	0.5	3.2	0.39	0.65	0.39	45.3
Approach		128	0.0	135	0.0	0.135	6.0	LOS A	0.5	3.2	0.38	0.64	0.38	45.3
East: Whangamata														
4	L2	137	0.0	144	0.0	0.144	4.6	LOS A	0.0	0.0	0.00	0.29	0.00	47.9
5	T1	122	0.0	128	0.0	0.144	0.0	LOS A	0.0	0.0	0.00	0.29	0.00	48.4
Approach		259	0.0	273	0.0	0.144	2.5	NA	0.0	0.0	0.00	0.29	0.00	48.1
West: Whangamata														
11	T1	91	0.0	96	0.0	0.099	0.6	LOS A	0.4	3.0	0.30	0.24	0.30	47.9
12	R2	65	0.0	68	0.0	0.099	5.5	LOS A	0.4	3.0	0.30	0.24	0.30	47.3
Approach		156	0.0	164	0.0	0.099	2.7	NA	0.4	3.0	0.30	0.24	0.30	47.7
All Vehicles		543	0.0	572	0.0	0.144	3.4	NA	0.5	3.2	0.18	0.36	0.18	47.3

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
Delay Model: SIDRA Standard (Geometric Delay is included).
Queue Model: SIDRA Standard.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

MOVEMENT SUMMARY

Site: 103 [Peak Season AM Peak (Site Folder: Kinloch Whangamata - Kinloch + Future)]

New Site
Site Category: (None)
Give-Way (Two-Way)

Vehicle Movement Performance

Mov ID	Turn	INPUT VOLUMES [Total veh/h	HV] %	DEMAND FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Kinloch														
1	L2	20	0.0	21	0.0	0.013	4.7	LOS A	0.1	0.4	0.13	0.50	0.13	46.3
3	R2	238	0.0	251	0.0	0.259	6.1	LOS A	1.0	6.8	0.40	0.66	0.40	45.3
Approach		258	0.0	272	0.0	0.259	6.0	LOS A	1.0	6.8	0.38	0.65	0.38	45.4
East: Whangamata														
4	L2	99	0.0	104	0.0	0.083	4.6	LOS A	0.0	0.0	0.00	0.36	0.00	47.5
5	T1	50	0.0	53	0.0	0.083	0.0	LOS A	0.0	0.0	0.00	0.36	0.00	48.0
Approach		149	0.0	157	0.0	0.083	3.1	NA	0.0	0.0	0.00	0.36	0.00	47.7
West: Whangamata														
11	T1	176	0.0	185	0.0	0.114	0.1	LOS A	0.2	1.4	0.09	0.08	0.09	49.3
12	R2	28	0.0	29	0.0	0.114	5.1	LOS A	0.2	1.4	0.09	0.08	0.09	48.6
Approach		204	0.0	215	0.0	0.114	0.8	NA	0.2	1.4	0.09	0.08	0.09	49.2
All Vehicles		611	0.0	643	0.0	0.259	3.5	NA	1.0	6.8	0.19	0.39	0.19	47.2

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
Delay Model: SIDRA Standard (Geometric Delay is included).
Queue Model: SIDRA Standard.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

MOVEMENT SUMMARY

Site: 103 [Peak Season PM Peak (Site Folder: Kinloch Whangamata - Kinloch + Future)]

New Site
Site Category: (None)
Give-Way (Two-Way)

Vehicle Movement Performance

Mov ID	Turn	INPUT VOLUMES [Total veh/h	HV] %	DEMAND FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Kinloch														
1	L2	9	0.0	9	0.0	0.007	5.0	LOS A	0.0	0.2	0.23	0.49	0.23	46.1
3	R2	129	0.0	136	0.0	0.152	6.3	LOS A	0.5	3.7	0.41	0.67	0.41	45.2
Approach		138	0.0	145	0.0	0.152	6.2	LOS A	0.5	3.7	0.40	0.66	0.40	45.2
East: Whangamata														
4	L2	153	0.0	161	0.0	0.161	4.6	LOS A	0.0	0.0	0.00	0.28	0.00	47.9
5	T1	137	0.0	144	0.0	0.161	0.0	LOS A	0.0	0.0	0.00	0.28	0.00	48.3
Approach		290	0.0	305	0.0	0.161	2.5	NA	0.0	0.0	0.00	0.28	0.00	48.1
West: Whangamata														
11	T1	100	0.0	105	0.0	0.107	0.7	LOS A	0.5	3.3	0.32	0.24	0.32	47.9
12	R2	67	0.0	71	0.0	0.107	5.7	LOS A	0.5	3.3	0.32	0.24	0.32	47.3
Approach		167	0.0	176	0.0	0.107	2.7	NA	0.5	3.3	0.32	0.24	0.32	47.7
All Vehicles		595	0.0	626	0.0	0.161	3.4	NA	0.5	3.7	0.18	0.36	0.18	47.3

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
Delay Model: SIDRA Standard (Geometric Delay is included).
Queue Model: SIDRA Standard.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

MOVEMENT SUMMARY

Site: 101 [Future AM - Off Peak Stage 1 (Site Folder: Whangamata Pohipi Int)]

Network: N103 [Future AM - Off Peak (Network Folder: Whangamata Pohipi)]

New Site
Site Category: (None)
Stop (Two-Way)

Vehicle Movement Performance

Mov ID	Turn	DEMAND FLOWS [Total veh/h	HV] %	ARRIVAL FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	AVERAGE BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Pohipi														
1	L2	97	0.0	97	0.0	0.060	4.5	LOS A	0.1	0.7	0.05	0.48	0.05	47.1
2	T1	73	0.0	73	0.0	0.037	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	50.0
Approach		169	0.0	169	0.0	0.060	2.6	LOS A	0.1	0.7	0.03	0.27	0.03	48.3
North: Pohipi														
9	R2	12	0.0	12	0.0	0.007	4.8	LOS A	0.0	0.1	0.16	0.50	0.16	46.1
Approach		12	0.0	12	0.0	0.007	4.8	NA	0.0	0.1	0.16	0.50	0.16	46.1
West: Whangamata														
10	L2	23	0.0	23	0.0	0.017	7.7	LOS A	0.0	0.2	0.16	0.89	0.16	45.0
11	T1	263	0.0	263	0.0	0.251	7.9	LOS A	0.4	3.1	0.28	0.95	0.28	41.7
Approach		286	0.0	286	0.0	0.251	7.9	LOS A	0.4	3.1	0.27	0.95	0.27	42.2
All Vehicles		467	0.0	467	0.0	0.251	5.9	NA	0.4	3.1	0.18	0.69	0.18	45.2

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
Delay Model: SIDRA Standard (Geometric Delay is included).
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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MOVEMENT SUMMARY

Site: 102 [Future AM - Off Peak Stage 2 (Site Folder: Whangamata Pohipi Int)]

Network: N103 [Future AM - Off Peak (Network Folder: Whangamata Pohipi)]

New Site
Site Category: (None)
Give-Way (Two-Way)

Vehicle Movement Performance

Mov ID	Turn	DEMAND FLOWS [Total veh/h	HV] %	ARRIVAL FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	AVERAGE BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
North: Pohipi														
8	T1	69	0.0	69	0.0	0.036	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	50.0
Approach		69	0.0	69	0.0	0.036	0.0	NA	0.0	0.0	0.00	0.00	0.00	50.0
West: Acceleration Lane														
12	R2	263	0.0	263	0.0	0.192	2.2	LOS A	0.3	2.0	0.15	0.50	0.15	45.2
Approach		263	0.0	263	0.0	0.192	2.2	LOS A	0.3	2.0	0.15	0.50	0.15	45.2
All Vehicles		333	0.0	333	0.0	0.192	1.7	NA	0.3	2.0	0.12	0.40	0.12	46.7

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
Delay Model: SIDRA Standard (Geometric Delay is included).
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

MOVEMENT SUMMARY

Site: 101 [Future PM - Off Peak Stage 1 (Site Folder: Whangamata Pohipi Int)]

Network: N103 [Future PM - Off Peak (Network Folder: Whangamata Pohipi)]

New Site
Site Category: (None)
Stop (Two-Way)

Vehicle Movement Performance

Mov ID	Turn	DEMAND FLOWS [Total veh/h	HV] %	ARRIVAL FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	AVERAGE BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Pohipi														
1	L2	233	0.0	233	0.0	0.144	4.5	LOS A	0.3	1.8	0.07	0.48	0.07	47.1
2	T1	92	0.0	92	0.0	0.047	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	50.0
Approach		324	0.0	324	0.0	0.144	3.3	LOS A	0.3	1.8	0.05	0.34	0.05	47.8
North: Pohipi														
9	R2	15	0.0	15	0.0	0.009	4.8	LOS A	0.0	0.1	0.19	0.50	0.19	46.0
Approach		15	0.0	15	0.0	0.009	4.8	NA	0.0	0.1	0.19	0.50	0.19	46.0
West: Whangamata														
10	L2	18	0.0	18	0.0	0.014	7.7	LOS A	0.0	0.1	0.19	0.88	0.19	45.0
11	T1	127	0.0	127	0.0	0.133	8.3	LOS A	0.2	1.4	0.34	0.95	0.34	41.5
Approach		145	0.0	145	0.0	0.133	8.3	LOS A	0.2	1.4	0.32	0.95	0.32	42.2
All Vehicles		484	0.0	484	0.0	0.144	4.8	NA	0.3	1.8	0.13	0.53	0.13	46.6

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
Delay Model: SIDRA Standard (Geometric Delay is included).
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

MOVEMENT SUMMARY

Site: 102 [Future PM - Off Peak Stage 2 (Site Folder: Whangamata Pohipi Int)]

Network: N103 [Future PM - Off Peak (Network Folder: Whangamata Pohipi)]

New Site
Site Category: (None)
Give-Way (Two-Way)

Vehicle Movement Performance

Mov ID	Turn	DEMAND FLOWS [Total veh/h	HV] %	ARRIVAL FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	AVERAGE BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
North: Pohipi														
8	T1	93	0.0	93	0.0	0.048	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	50.0
Approach		93	0.0	93	0.0	0.048	0.0	NA	0.0	0.0	0.00	0.00	0.00	50.0
West: Acceleration Lane														
12	R2	127	0.0	127	0.0	0.095	2.2	LOS A	0.1	0.9	0.16	0.50	0.16	45.2
Approach		127	0.0	127	0.0	0.095	2.2	LOS A	0.1	0.9	0.16	0.50	0.16	45.2
All Vehicles		220	0.0	220	0.0	0.095	1.3	NA	0.1	0.9	0.09	0.29	0.09	47.9

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
Delay Model: SIDRA Standard (Geometric Delay is included).
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

MOVEMENT SUMMARY

Site: 101 [Future AM - Peak Stage 1 (Site Folder: Whangamata Pohipi Int)]

Network: N103 [Future AM - Peak (Network Folder: Whangamata Pohipi)]

New Site
Site Category: (None)
Stop (Two-Way)

Vehicle Movement Performance

Mov ID	Turn	DEMAND FLOWS [Total veh/h	HV] %	ARRIVAL FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	AVERAGE BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Pohipi														
1	L2	113	0.0	113	0.0	0.070	4.5	LOS A	0.1	0.8	0.06	0.48	0.06	47.1
2	T1	86	0.0	86	0.0	0.044	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	50.0
Approach		199	0.0	199	0.0	0.070	2.6	LOS A	0.1	0.8	0.03	0.27	0.03	48.3
North: Pohipi														
9	R2	14	0.0	14	0.0	0.008	4.8	LOS A	0.0	0.1	0.18	0.50	0.18	46.0
Approach		14	0.0	14	0.0	0.008	4.8	NA	0.0	0.1	0.18	0.50	0.18	46.0
West: Whangamata														
10	L2	26	0.0	26	0.0	0.020	7.7	LOS A	0.0	0.2	0.18	0.88	0.18	45.0
11	T1	302	0.0	302	0.0	0.295	8.1	LOS A	0.5	3.7	0.32	0.95	0.32	41.6
Approach		328	0.0	328	0.0	0.295	8.1	LOS A	0.5	3.7	0.31	0.94	0.31	42.1
All Vehicles		541	0.0	541	0.0	0.295	6.0	NA	0.5	3.7	0.21	0.68	0.21	45.2

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
Delay Model: SIDRA Standard (Geometric Delay is included).
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

MOVEMENT SUMMARY

Site: 102 [Future AM - Peak Stage 2 (Site Folder: Whangamata Pohipi Int)]

Network: N103 [Future AM - Peak (Network Folder: Whangamata Pohipi)]

New Site
Site Category: (None)
Give-Way (Two-Way)

Vehicle Movement Performance

Mov ID	Turn	DEMAND FLOWS [Total veh/h	HV] %	ARRIVAL FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	AVERAGE BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
North: Pohipi														
8	T1	83	0.0	83	0.0	0.043	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	50.0
Approach		83	0.0	83	0.0	0.043	0.0	NA	0.0	0.0	0.00	0.00	0.00	50.0
West: Acceleration Lane														
12	R2	302	0.0	302	0.0	0.223	2.2	LOS A	0.3	2.3	0.17	0.51	0.17	45.2
Approach		302	0.0	302	0.0	0.223	2.2	LOS A	0.3	2.3	0.17	0.51	0.17	45.2
All Vehicles		385	0.0	385	0.0	0.223	1.8	NA	0.3	2.3	0.13	0.40	0.13	46.8

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
Delay Model: SIDRA Standard (Geometric Delay is included).
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

MOVEMENT SUMMARY

Site: 101 [Future PM - Peak Stage 1 (Site Folder: Whangamata Pohipi Int)]

Network: N103 [Future PM - Peak (Network Folder: Whangamata Pohipi)]

New Site
Site Category: (None)
Stop (Two-Way)

Vehicle Movement Performance

Mov ID	Turn	DEMAND FLOWS [Total veh/h	HV] %	ARRIVAL FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	AVERAGE BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Pohipi														
1	L2	269	0.0	269	0.0	0.167	4.6	LOS A	0.3	2.2	0.08	0.47	0.08	47.0
2	T1	109	0.0	109	0.0	0.056	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	50.0
Approach		379	0.0	379	0.0	0.167	3.2	LOS A	0.3	2.2	0.05	0.34	0.05	47.8
North: Pohipi														
9	R2	18	0.0	18	0.0	0.011	4.9	LOS A	0.0	0.1	0.21	0.50	0.21	46.0
Approach		18	0.0	18	0.0	0.011	4.9	NA	0.0	0.1	0.21	0.50	0.21	46.0
West: Whangamata														
10	L2	21	0.0	21	0.0	0.016	7.8	LOS A	0.0	0.2	0.21	0.87	0.21	45.0
11	T1	147	0.0	147	0.0	0.161	8.6	LOS A	0.3	1.8	0.38	0.96	0.38	41.3
Approach		168	0.0	168	0.0	0.161	8.5	LOS A	0.3	1.8	0.36	0.95	0.36	42.1
All Vehicles		565	0.0	565	0.0	0.167	4.9	NA	0.3	2.2	0.15	0.52	0.15	46.5

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
Delay Model: SIDRA Standard (Geometric Delay is included).
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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MOVEMENT SUMMARY

Site: 102 [Future PM - Peak Stage 2 (Site Folder: Whangamata Pohipi Int)]

Network: N103 [Future PM - Peak (Network Folder: Whangamata Pohipi)]

New Site
Site Category: (None)
Give-Way (Two-Way)

Vehicle Movement Performance

Mov ID	Turn	DEMAND FLOWS [Total veh/h	HV] %	ARRIVAL FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	AVERAGE BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
North: Pohipi														
8	T1	111	0.0	111	0.0	0.057	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	50.0
Approach		111	0.0	111	0.0	0.057	0.0	NA	0.0	0.0	0.00	0.00	0.00	50.0
West: Acceleration Lane														
12	R2	147	0.0	147	0.0	0.111	2.3	LOS A	0.1	1.0	0.18	0.51	0.18	45.2
Approach		147	0.0	147	0.0	0.111	2.3	LOS A	0.1	1.0	0.18	0.51	0.18	45.2
All Vehicles		258	0.0	258	0.0	0.111	1.3	NA	0.1	1.0	0.10	0.29	0.10	47.9

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
Delay Model: SIDRA Standard (Geometric Delay is included).
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

MOVEMENT SUMMARY

Site: 101 [Growth AM - Off Peak Stage 1 (Site Folder: Whangamata Pohipi Int)]

Network: N103 [Growth AM - Off Peak (Network Folder: Whangamata Pohipi)]

New Site
Site Category: (None)
Stop (Two-Way)

Vehicle Movement Performance

Mov ID	Turn	DEMAND FLOWS [Total veh/h	HV] %	ARRIVAL FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	AVERAGE BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Pohipi														
1	L2	105	0.0	105	0.0	0.065	4.5	LOS A	0.1	0.8	0.06	0.48	0.06	47.1
2	T1	80	0.0	80	0.0	0.041	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	50.0
Approach		185	0.0	185	0.0	0.065	2.6	LOS A	0.1	0.8	0.03	0.27	0.03	48.3
North: Pohipi														
9	R2	13	0.0	13	0.0	0.008	4.8	LOS A	0.0	0.1	0.17	0.50	0.17	46.0
Approach		13	0.0	13	0.0	0.008	4.8	NA	0.0	0.1	0.17	0.50	0.17	46.0
West: Whangamata														
10	L2	24	0.0	24	0.0	0.018	7.7	LOS A	0.0	0.2	0.17	0.89	0.17	45.0
11	T1	284	0.0	284	0.0	0.274	8.0	LOS A	0.5	3.4	0.31	0.95	0.31	41.7
Approach		308	0.0	308	0.0	0.274	8.0	LOS A	0.5	3.4	0.30	0.95	0.30	42.1
All Vehicles		506	0.0	506	0.0	0.274	5.9	NA	0.5	3.4	0.20	0.69	0.20	45.2

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
Delay Model: SIDRA Standard (Geometric Delay is included).
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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MOVEMENT SUMMARY

Site: 102 [Growth AM - Off Peak Stage 2 (Site Folder: Whangamata Pohipi Int)]

Network: N103 [Growth AM - Off Peak (Network Folder: Whangamata Pohipi)]

New Site
Site Category: (None)
Give-Way (Two-Way)

Vehicle Movement Performance

Mov ID	Turn	DEMAND FLOWS [Total veh/h	HV] %	ARRIVAL FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	AVERAGE BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
North: Pohipi														
8	T1	77	0.0	77	0.0	0.039	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	50.0
Approach		77	0.0	77	0.0	0.039	0.0	NA	0.0	0.0	0.00	0.00	0.00	50.0
West: Acceleration Lane														
12	R2	284	0.0	284	0.0	0.209	2.2	LOS A	0.3	2.2	0.16	0.50	0.16	45.2
Approach		284	0.0	284	0.0	0.209	2.2	LOS A	0.3	2.2	0.16	0.50	0.16	45.2
All Vehicles		361	0.0	361	0.0	0.209	1.7	NA	0.3	2.2	0.13	0.40	0.13	46.8

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
Delay Model: SIDRA Standard (Geometric Delay is included).
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

MOVEMENT SUMMARY

Site: 101 [Growth PM - Off Peak Stage 1 (Site Folder: Whangamata Pohipi Int)]

Network: N103 [Growth PM - Off Peak (Network Folder: Whangamata Pohipi)]

New Site
Site Category: (None)
Stop (Two-Way)

Vehicle Movement Performance

Mov ID	Turn	DEMAND FLOWS [Total veh/h	HV] %	ARRIVAL FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	AVERAGE BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Pohipi														
1	L2	252	0.0	252	0.0	0.156	4.5	LOS A	0.3	2.0	0.07	0.48	0.07	47.1
2	T1	101	0.0	101	0.0	0.052	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	50.0
Approach		353	0.0	353	0.0	0.156	3.2	LOS A	0.3	2.0	0.05	0.34	0.05	47.9
North: Pohipi														
9	R2	16	0.0	16	0.0	0.010	4.8	LOS A	0.0	0.1	0.20	0.50	0.20	46.0
Approach		16	0.0	16	0.0	0.010	4.8	NA	0.0	0.1	0.20	0.50	0.20	46.0
West: Whangamata														
10	L2	19	0.0	19	0.0	0.014	7.8	LOS A	0.0	0.2	0.20	0.88	0.20	45.0
11	T1	138	0.0	138	0.0	0.148	8.5	LOS A	0.2	1.6	0.36	0.96	0.36	41.4
Approach		157	0.0	157	0.0	0.148	8.4	LOS A	0.2	1.6	0.34	0.95	0.34	42.1
All Vehicles		525	0.0	525	0.0	0.156	4.8	NA	0.3	2.0	0.14	0.53	0.14	46.6

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
Delay Model: SIDRA Standard (Geometric Delay is included).
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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MOVEMENT SUMMARY

Site: 102 [Growth PM - Off Peak Stage 2 (Site Folder: Whangamata Pohipi Int)]

Network: N103 [Growth PM - Off Peak (Network Folder: Whangamata Pohipi)]

New Site
Site Category: (None)
Give-Way (Two-Way)

Vehicle Movement Performance

Mov ID	Turn	DEMAND FLOWS [Total veh/h	HV] %	ARRIVAL FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	AVERAGE BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
North: Pohipi														
8	T1	102	0.0	102	0.0	0.052	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	50.0
Approach		102	0.0	102	0.0	0.052	0.0	NA	0.0	0.0	0.00	0.00	0.00	50.0
West: Acceleration Lane														
12	R2	138	0.0	138	0.0	0.103	2.3	LOS A	0.1	1.0	0.17	0.51	0.17	45.2
Approach		138	0.0	138	0.0	0.103	2.3	LOS A	0.1	1.0	0.17	0.51	0.17	45.2
All Vehicles		240	0.0	240	0.0	0.103	1.3	NA	0.1	1.0	0.10	0.29	0.10	47.9

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
Delay Model: SIDRA Standard (Geometric Delay is included).
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

MOVEMENT SUMMARY

Site: 101 [Growth AM - Peak Stage 1 (Site Folder: Whangamata Pohipi Int)]

Network: N103 [Growth AM - Peak (Network Folder: Whangamata Pohipi)]

New Site
Site Category: (None)
Stop (Two-Way)

Vehicle Movement Performance

Mov ID	Turn	DEMAND FLOWS [Total veh/h	HV] %	ARRIVAL FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	AVERAGE BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Pohipi														
1	L2	123	0.0	123	0.0	0.076	4.5	LOS A	0.1	0.9	0.06	0.48	0.06	47.1
2	T1	95	0.0	95	0.0	0.049	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	50.0
Approach		218	0.0	218	0.0	0.076	2.6	LOS A	0.1	0.9	0.04	0.27	0.04	48.3
North: Pohipi														
9	R2	15	0.0	15	0.0	0.009	4.8	LOS A	0.0	0.1	0.19	0.50	0.19	46.0
Approach		15	0.0	15	0.0	0.009	4.8	NA	0.0	0.1	0.19	0.50	0.19	46.0
West: Whangamata														
10	L2	28	0.0	28	0.0	0.022	7.8	LOS A	0.0	0.2	0.19	0.88	0.19	45.0
11	T1	327	0.0	327	0.0	0.334	8.3	LOS A	0.6	4.2	0.35	0.95	0.35	41.6
Approach		356	0.0	356	0.0	0.334	8.2	LOS A	0.6	4.2	0.34	0.94	0.34	42.0
All Vehicles		588	0.0	588	0.0	0.334	6.1	NA	0.6	4.2	0.22	0.68	0.22	45.2

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
Delay Model: SIDRA Standard (Geometric Delay is included).
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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MOVEMENT SUMMARY

Site: 102 [Growth AM - Peak Stage 2 (Site Folder: Whangamata Pohipi Int)]

Network: N103 [Growth AM - Peak (Network Folder: Whangamata Pohipi)]

New Site
Site Category: (None)
Give-Way (Two-Way)

Vehicle Movement Performance

Mov ID	Turn	DEMAND FLOWS [Total veh/h	HV] %	ARRIVAL FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	AVERAGE BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
North: Pohipi														
8	T1	91	0.0	91	0.0	0.046	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	50.0
Approach		91	0.0	91	0.0	0.046	0.0	NA	0.0	0.0	0.00	0.00	0.00	50.0
West: Acceleration Lane														
12	R2	327	0.0	327	0.0	0.243	2.3	LOS A	0.4	2.6	0.18	0.51	0.18	45.2
Approach		327	0.0	327	0.0	0.243	2.3	LOS A	0.4	2.6	0.18	0.51	0.18	45.2
All Vehicles		418	0.0	418	0.0	0.243	1.8	NA	0.4	2.6	0.14	0.40	0.14	46.7

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
Delay Model: SIDRA Standard (Geometric Delay is included).
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

MOVEMENT SUMMARY

Site: 101 [Growth PM - Peak Stage 1 (Site Folder: Whangamata Pohipi Int)]

Network: N103 [Growth PM - Peak (Network Folder: Whangamata Pohipi)]

New Site
Site Category: (None)
Stop (Two-Way)

Vehicle Movement Performance

Mov ID	Turn	DEMAND FLOWS [Total veh/h	HV] %	ARRIVAL FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	AVERAGE BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Pohipi														
1	L2	293	0.0	293	0.0	0.182	4.6	LOS A	0.3	2.4	0.08	0.47	0.08	47.0
2	T1	120	0.0	120	0.0	0.062	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	50.0
Approach		413	0.0	413	0.0	0.182	3.2	LOS A	0.3	2.4	0.06	0.34	0.06	47.8
North: Pohipi														
9	R2	19	0.0	19	0.0	0.012	4.9	LOS A	0.0	0.1	0.22	0.50	0.22	45.9
Approach		19	0.0	19	0.0	0.012	4.9	NA	0.0	0.1	0.22	0.50	0.22	45.9
West: Whangamata														
10	L2	22	0.0	22	0.0	0.017	7.9	LOS A	0.0	0.2	0.22	0.87	0.22	45.0
11	T1	160	0.0	160	0.0	0.180	8.8	LOS A	0.3	2.0	0.40	0.96	0.40	41.2
Approach		182	0.0	182	0.0	0.180	8.7	LOS A	0.3	2.0	0.38	0.95	0.38	42.0
All Vehicles		614	0.0	614	0.0	0.182	4.9	NA	0.3	2.4	0.16	0.52	0.16	46.5

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
Delay Model: SIDRA Standard (Geometric Delay is included).
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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MOVEMENT SUMMARY

Site: 102 [Growth PM - Peak Stage 2 (Site Folder: Whangamata Pohipi Int)]

Network: N103 [Growth PM - Peak (Network Folder: Whangamata Pohipi)]

New Site
Site Category: (None)
Give-Way (Two-Way)

Vehicle Movement Performance

Mov ID	Turn	DEMAND FLOWS [Total veh/h	HV] %	ARRIVAL FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	AVERAGE BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
North: Pohipi														
8	T1	121	0.0	121	0.0	0.062	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	50.0
Approach		121	0.0	121	0.0	0.062	0.0	NA	0.0	0.0	0.00	0.00	0.00	50.0
West: Acceleration Lane														
12	R2	160	0.0	160	0.0	0.122	2.3	LOS A	0.2	1.2	0.19	0.51	0.19	45.1
Approach		160	0.0	160	0.0	0.122	2.3	LOS A	0.2	1.2	0.19	0.51	0.19	45.1
All Vehicles		281	0.0	281	0.0	0.122	1.3	NA	0.2	1.2	0.11	0.29	0.11	47.9

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
Delay Model: SIDRA Standard (Geometric Delay is included).
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

MOVEMENT SUMMARY

Site: 101 [Off Season AM Peak - Stage 1 (Site Folder: Whangamata Pohipi Int - Kinloch + Future)]

Network: N103 [Off Season AM Peak (Network Folder: Pohipi Whangamata - Kinloch + Future)]

New Site
Site Category: (None)
Stop (Two-Way)

Vehicle Movement Performance

Mov ID	Turn	DEMAND FLOWS [Total veh/h	HV] %	ARRIVAL FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	AVERAGE BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Pohipi														
1	L2	119	0.0	119	0.0	0.074	4.5	LOS A	0.1	0.9	0.07	0.48	0.07	47.1
2	T1	73	0.0	73	0.0	0.037	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	50.0
Approach		192	0.0	192	0.0	0.074	2.8	LOS A	0.1	0.9	0.04	0.29	0.04	48.1
North: Pohipi														
9	R2	17	0.0	17	0.0	0.010	4.8	LOS A	0.0	0.1	0.16	0.50	0.16	46.1
Approach		17	0.0	17	0.0	0.010	4.8	NA	0.0	0.1	0.16	0.50	0.16	46.1
West: Whangamata														
10	L2	35	0.0	35	0.0	0.026	7.7	LOS A	0.0	0.3	0.16	0.89	0.16	45.0
11	T1	398	0.0	398	0.0	0.428	8.2	LOS A	0.8	5.4	0.35	0.94	0.35	41.6
Approach		433	0.0	433	0.0	0.428	8.2	LOS A	0.8	5.4	0.33	0.94	0.33	42.1
All Vehicles		641	0.0	641	0.0	0.428	6.5	NA	0.8	5.4	0.24	0.73	0.24	44.7

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
Delay Model: SIDRA Standard (Geometric Delay is included).
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

MOVEMENT SUMMARY

Site: 102 [Off Season AM Peak - Stage 2 (Site Folder: Whangamata Pohipi Int - Kinloch + Future)]

Network: N103 [Off Season AM Peak (Network Folder: Pohipi Whangamata - Kinloch + Future)]

New Site
Site Category: (None)
Give-Way (Two-Way)

Vehicle Movement Performance

Mov ID	Turn	DEMAND FLOWS [Total veh/h	HV] %	ARRIVAL FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	AVERAGE BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
North: Pohipi														
8	T1	69	0.0	69	0.0	0.036	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	50.0
Approach		69	0.0	69	0.0	0.036	0.0	NA	0.0	0.0	0.00	0.00	0.00	50.0
West: Acceleration Lane														
12	R2	398	0.0	398	0.0	0.291	2.2	LOS A	0.5	3.3	0.16	0.50	0.16	45.2
Approach		398	0.0	398	0.0	0.291	2.2	LOS A	0.5	3.3	0.16	0.50	0.16	45.2
All Vehicles		467	0.0	467	0.0	0.291	1.9	NA	0.5	3.3	0.14	0.43	0.14	46.3

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
Delay Model: SIDRA Standard (Geometric Delay is included).
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

MOVEMENT SUMMARY

Site: 101 [Off Season PM Peak - Stage 1 (Site Folder: Whangamata Pohipi Int - Kinloch + Future)]

Network: N103 [Off Season PM Peak (Network Folder: Pohipi Whangamata - Kinloch + Future)]

New Site
Site Category: (None)
Stop (Two-Way)

Vehicle Movement Performance

Mov ID	Turn	DEMAND FLOWS [Total veh/h	HV] %	ARRIVAL FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	AVERAGE BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Pohipi														
1	L2	292	0.0	292	0.0	0.182	4.6	LOS A	0.3	2.4	0.09	0.47	0.09	47.0
2	T1	92	0.0	92	0.0	0.047	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	50.0
Approach		383	0.0	383	0.0	0.182	3.5	LOS A	0.3	2.4	0.07	0.36	0.07	47.7
North: Pohipi														
9	R2	24	0.0	24	0.0	0.015	4.8	LOS A	0.0	0.2	0.19	0.50	0.19	46.0
Approach		24	0.0	24	0.0	0.015	4.8	NA	0.0	0.2	0.19	0.50	0.19	46.0
West: Whangamata														
10	L2	28	0.0	28	0.0	0.022	7.8	LOS A	0.0	0.2	0.19	0.88	0.19	45.0
11	T1	205	0.0	205	0.0	0.225	8.7	LOS A	0.4	2.6	0.40	0.96	0.40	41.3
Approach		234	0.0	234	0.0	0.225	8.6	LOS A	0.4	2.6	0.37	0.95	0.37	42.0
All Vehicles		641	0.0	641	0.0	0.225	5.4	NA	0.4	2.6	0.18	0.58	0.18	46.1

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
Delay Model: SIDRA Standard (Geometric Delay is included).
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

MOVEMENT SUMMARY

Site: 102 [Off Season PM Peak - Stage 2 (Site Folder: Whangamata Pohipi Int - Kinloch + Future)]

Network: N103 [Off Season PM Peak (Network Folder: Pohipi Whangamata - Kinloch + Future)]

New Site
Site Category: (None)
Give-Way (Two-Way)

Vehicle Movement Performance

Mov ID	Turn	DEMAND FLOWS [Total veh/h	HV] %	ARRIVAL FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	AVERAGE BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
North: Pohipi														
8	T1	93	0.0	93	0.0	0.048	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	50.0
Approach		93	0.0	93	0.0	0.048	0.0	NA	0.0	0.0	0.00	0.00	0.00	50.0
West: Acceleration Lane														
12	R2	205	0.0	205	0.0	0.153	2.2	LOS A	0.2	1.5	0.17	0.51	0.17	45.2
Approach		205	0.0	205	0.0	0.153	2.2	LOS A	0.2	1.5	0.17	0.51	0.17	45.2
All Vehicles		298	0.0	298	0.0	0.153	1.5	NA	0.2	1.5	0.12	0.35	0.12	47.3

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
Delay Model: SIDRA Standard (Geometric Delay is included).
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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MOVEMENT SUMMARY

Site: 101 [Peak Season AM Peak - Stage 1 (Site Folder: Whangamata Pohipi Int - Kinloch + Future)]

Network: N103 [Peak Season AM Peak (Network Folder: Pohipi Whangamata - Kinloch + Future)]

New Site
Site Category: (None)
Stop (Two-Way)

Vehicle Movement Performance

Mov ID	Turn	DEMAND FLOWS [Total veh/h	HV] %	ARRIVAL FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	AVERAGE BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Pohipi														
1	L2	135	0.0	135	0.0	0.084	4.6	LOS A	0.1	1.0	0.07	0.47	0.07	47.0
2	T1	86	0.0	86	0.0	0.044	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	50.0
Approach		221	0.0	221	0.0	0.084	2.8	LOS A	0.1	1.0	0.04	0.29	0.04	48.1
North: Pohipi														
9	R2	19	0.0	19	0.0	0.011	4.8	LOS A	0.0	0.1	0.18	0.50	0.18	46.0
Approach		19	0.0	19	0.0	0.011	4.8	NA	0.0	0.1	0.18	0.50	0.18	46.0
West: Whangamata														
10	L2	38	0.0	38	0.0	0.029	7.7	LOS A	0.0	0.3	0.18	0.89	0.18	45.0
11	T1	438	0.0	438	0.0	0.509	9.0	LOS A	1.2	8.2	0.40	0.97	0.45	41.0
Approach		476	0.0	476	0.0	0.509	8.9	LOS A	1.2	8.2	0.38	0.96	0.43	41.6
All Vehicles		716	0.0	716	0.0	0.509	6.9	NA	1.2	8.2	0.27	0.74	0.30	44.4

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
Delay Model: SIDRA Standard (Geometric Delay is included).
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

MOVEMENT SUMMARY

Site: 102 [Peak Season AM Peak - Stage 2 (Site Folder: Whangamata Pohipi Int - Kinloch + Future)]

Network: N103 [Peak Season AM Peak (Network Folder: Pohipi Whangamata - Kinloch + Future)]

New Site
Site Category: (None)
Give-Way (Two-Way)

Vehicle Movement Performance

Mov ID	Turn	DEMAND FLOWS [Total veh/h	HV] %	ARRIVAL FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	AVERAGE BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
North: Pohipi														
8	T1	83	0.0	83	0.0	0.043	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	50.0
Approach		83	0.0	83	0.0	0.043	0.0	NA	0.0	0.0	0.00	0.00	0.00	50.0
West: Acceleration Lane														
12	R2	438	0.0	438	0.0	0.323	2.3	LOS A	0.5	3.8	0.19	0.51	0.19	45.1
Approach		438	0.0	438	0.0	0.323	2.3	LOS A	0.5	3.8	0.19	0.51	0.19	45.1
All Vehicles		521	0.0	521	0.0	0.323	1.9	NA	0.5	3.8	0.16	0.43	0.16	46.4

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
Delay Model: SIDRA Standard (Geometric Delay is included).
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

MOVEMENT SUMMARY

Site: 101 [Peak Season PM Peak - Stage 1 (Site Folder: Whangamata Pohipi Int - Kinloch + Future)]

Network: N103 [Peak Season PM Peak (Network Folder: Pohipi Whangamata - Kinloch + Future)]

New Site
Site Category: (None)
Stop (Two-Way)

Vehicle Movement Performance

Mov ID	Turn	DEMAND FLOWS [Total veh/h	HV] %	ARRIVAL FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	AVERAGE BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Pohipi														
1	L2	327	0.0	327	0.0	0.205	4.6	LOS A	0.4	2.7	0.10	0.47	0.10	47.0
2	T1	109	0.0	109	0.0	0.056	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	50.0
Approach		437	0.0	437	0.0	0.205	3.4	LOS A	0.4	2.7	0.08	0.35	0.08	47.7
North: Pohipi														
9	R2	27	0.0	27	0.0	0.017	4.9	LOS A	0.0	0.2	0.21	0.50	0.21	46.0
Approach		27	0.0	27	0.0	0.017	4.9	NA	0.0	0.2	0.21	0.50	0.21	46.0
West: Whangamata														
10	L2	32	0.0	32	0.0	0.024	7.8	LOS A	0.0	0.3	0.21	0.88	0.21	45.0
11	T1	225	0.0	225	0.0	0.257	9.1	LOS A	0.4	3.0	0.44	0.97	0.44	41.0
Approach		257	0.0	257	0.0	0.257	8.9	LOS A	0.4	3.0	0.41	0.96	0.41	41.8
All Vehicles		721	0.0	721	0.0	0.257	5.4	NA	0.4	3.0	0.20	0.58	0.20	46.1

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
Delay Model: SIDRA Standard (Geometric Delay is included).
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

MOVEMENT SUMMARY

Site: 102 [Peak Season PM Peak - Stage 2 (Site Folder: Whangamata Pohipi Int - Kinloch + Future)]

Network: N103 [Peak Season PM Peak (Network Folder: Pohipi Whangamata - Kinloch + Future)]

New Site
Site Category: (None)
Give-Way (Two-Way)

Vehicle Movement Performance

Mov ID	Turn	DEMAND FLOWS [Total veh/h	HV] %	ARRIVAL FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	AVERAGE BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
North: Pohipi														
8	T1	111	0.0	111	0.0	0.057	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	50.0
Approach		111	0.0	111	0.0	0.057	0.0	NA	0.0	0.0	0.00	0.00	0.00	50.0
West: Acceleration Lane														
12	R2	225	0.0	225	0.0	0.170	2.3	LOS A	0.2	1.7	0.19	0.51	0.19	45.1
Approach		225	0.0	225	0.0	0.170	2.3	LOS A	0.2	1.7	0.19	0.51	0.19	45.1
All Vehicles		336	0.0	336	0.0	0.170	1.6	NA	0.2	1.7	0.13	0.34	0.13	47.4

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
Delay Model: SIDRA Standard (Geometric Delay is included).
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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MOVEMENT SUMMARY

Site: 101 [Future AM - Off Peak Stage 1 (Site Folder: Pohipi Wairakei)]

Network: N103 [Future AM - Off Peak (Network Folder: Pohipi Wairakei)]

New Site
Site Category: (None)
Stop (Two-Way)

Vehicle Movement Performance

Mov ID	Turn	DEMAND FLOWS [Total veh/h	HV] %	ARRIVAL FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	AVERAGE BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Wairakei														
1	L2	164	0.0	164	0.0	0.105	4.6	LOS A	0.2	1.3	0.13	0.47	0.13	46.9
2	T1	156	0.0	156	0.0	0.040	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	50.0
Approach		320	0.0	320	0.0	0.105	2.4	LOS A	0.2	1.3	0.07	0.24	0.07	48.3
North: Wairakei														
9	R2	49	0.0	49	0.0	0.040	5.1	LOS A	0.1	0.4	0.26	0.52	0.26	46.0
Approach		49	0.0	49	0.0	0.040	5.1	NA	0.1	0.4	0.26	0.52	0.26	46.0
West: Pohipi Road														
10	L2	93	0.0	93	0.0	0.069	7.7	LOS A	0.1	0.8	0.18	0.89	0.18	45.0
11	T1	358	0.0	358	0.0	0.461	11.3	LOS B	1.4	9.7	0.58	0.99	0.74	39.2
Approach		451	0.0	451	0.0	0.461	10.6	LOS B	1.4	9.7	0.50	0.97	0.63	41.0
All Vehicles		820	0.0	820	0.0	0.461	7.1	NA	1.4	9.7	0.32	0.66	0.39	44.8

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
Delay Model: SIDRA Standard (Geometric Delay is included).
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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MOVEMENT SUMMARY

Site: 102 [Future AM - Off Peak Stage 2 (Site Folder: Pohipi Wairakei)]

Network: N103 [Future AM - Off Peak (Network Folder: Pohipi Wairakei)]

New Site
Site Category: (None)
Give-Way (Two-Way)

Vehicle Movement Performance

Mov ID	Turn	DEMAND FLOWS [Total veh/h	HV] %	ARRIVAL FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	AVERAGE BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
North: Wairakei														
8	T1	282	0.0	282	0.0	0.145	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	49.9
Approach		282	0.0	282	0.0	0.145	0.0	NA	0.0	0.0	0.00	0.00	0.00	49.9
West: Median														
12	R2	358	0.0	358	0.0	0.311	4.3	LOS A	0.5	3.4	0.37	0.64	0.37	43.4
Approach		358	0.0	358	0.0	0.311	4.3	LOS A	0.5	3.4	0.37	0.64	0.37	43.4
All Vehicles		640	0.0	640	0.0	0.311	2.4	NA	0.5	3.4	0.20	0.36	0.20	47.1

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
Delay Model: SIDRA Standard (Geometric Delay is included).
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

MOVEMENT SUMMARY

Site: 101 [Future PM - Off Peak Stage 1 (Site Folder: Pohipi Wairakei)]

Network: N103 [Future PM - Off Peak (Network Folder: Pohipi Wairakei)]

New Site
Site Category: (None)
Stop (Two-Way)

Vehicle Movement Performance

Mov ID	Turn	DEMAND FLOWS [Total veh/h	HV] %	ARRIVAL FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	AVERAGE BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Wairakei														
1	L2	321	0.0	321	0.0	0.213	4.8	LOS A	0.4	2.8	0.22	0.49	0.22	46.7
2	T1	287	0.0	287	0.0	0.074	0.1	LOS A	0.0	0.0	0.00	0.00	0.00	50.0
Approach		608	0.0	608	0.0	0.213	2.6	LOS A	0.4	2.8	0.11	0.26	0.11	48.2
North: Wairakei														
9	R2	97	0.0	97	0.0	0.089	5.8	LOS A	0.1	1.0	0.38	0.58	0.38	45.7
Approach		97	0.0	97	0.0	0.089	5.8	NA	0.1	1.0	0.38	0.58	0.38	45.7
West: Pohipi Road														
10	L2	38	0.0	38	0.0	0.030	8.0	LOS A	0.0	0.3	0.25	0.87	0.25	45.0
11	T1	241	0.0	241	0.0	0.449	15.3	LOS C	1.1	7.8	0.69	1.11	0.99	36.3
Approach		279	0.0	279	0.0	0.449	14.3	LOS B	1.1	7.8	0.63	1.08	0.89	38.1
All Vehicles		984	0.0	984	0.0	0.449	6.2	NA	1.1	7.8	0.29	0.52	0.36	45.7

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
Delay Model: SIDRA Standard (Geometric Delay is included).
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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MOVEMENT SUMMARY

Site: 102 [Future PM - Off Peak Stage 2 (Site Folder: Pohipi Wairakei)]

Network: N103 [Future PM - Off Peak (Network Folder: Pohipi Wairakei)]

New Site
Site Category: (None)
Give-Way (Two-Way)

Vehicle Movement Performance

Mov ID	Turn	DEMAND FLOWS [Total veh/h	HV] %	ARRIVAL FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	AVERAGE BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
North: Wairakei														
8	T1	292	0.0	292	0.0	0.150	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	49.9
Approach		292	0.0	292	0.0	0.150	0.0	NA	0.0	0.0	0.00	0.00	0.00	49.9
West: Median														
12	R2	241	0.0	241	0.0	0.211	4.2	LOS A	0.3	2.1	0.34	0.63	0.34	43.4
Approach		241	0.0	241	0.0	0.211	4.2	LOS A	0.3	2.1	0.34	0.63	0.34	43.4
All Vehicles		533	0.0	533	0.0	0.211	1.9	NA	0.3	2.1	0.15	0.28	0.15	47.8

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
Delay Model: SIDRA Standard (Geometric Delay is included).
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

MOVEMENT SUMMARY

Site: 101 [Future AM - Peak Stage 1 (Site Folder: Pohipi Wairakei)]

Network: N103 [Future AM - Peak (Network Folder: Pohipi Wairakei)]

New Site
Site Category: (None)
Stop (Two-Way)

Vehicle Movement Performance

Mov ID	Turn	DEMAND FLOWS [Total veh/h	HV] %	ARRIVAL FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	AVERAGE BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Wairakei														
1	L2	194	0.0	194	0.0	0.124	4.7	LOS A	0.2	1.5	0.15	0.47	0.15	46.8
2	T1	185	0.0	185	0.0	0.048	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	50.0
Approach		379	0.0	379	0.0	0.124	2.4	LOS A	0.2	1.5	0.08	0.24	0.08	48.3
North: Wairakei														
9	R2	59	0.0	59	0.0	0.049	5.3	LOS A	0.1	0.5	0.29	0.53	0.29	45.9
Approach		59	0.0	59	0.0	0.049	5.3	NA	0.1	0.5	0.29	0.53	0.29	45.9
West: Pohipi Road														
10	L2	108	0.0	108	0.0	0.082	7.8	LOS A	0.1	1.0	0.20	0.89	0.20	45.0
11	T1	417	0.0	417	0.0	0.578	13.7	LOS B	2.2	15.2	0.68	1.12	1.06	37.5
Approach		525	0.0	525	0.0	0.578	12.5	LOS B	2.2	15.2	0.58	1.08	0.88	39.8
All Vehicles		963	0.0	963	0.0	0.578	8.1	NA	2.2	15.2	0.37	0.71	0.53	44.1

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
Delay Model: SIDRA Standard (Geometric Delay is included).
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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MOVEMENT SUMMARY

Site: 102 [Future AM - Peak Stage 2 (Site Folder: Pohipi Wairakei)]

Network: N103 [Future AM - Peak (Network Folder: Pohipi Wairakei)]

New Site
Site Category: (None)
Give-Way (Two-Way)

Vehicle Movement Performance

Mov ID	Turn	DEMAND FLOWS [Total veh/h	HV] %	ARRIVAL FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	AVERAGE BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
North: Wairakei														
8	T1	336	0.0	336	0.0	0.172	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	49.9
Approach		336	0.0	336	0.0	0.172	0.0	NA	0.0	0.0	0.00	0.00	0.00	49.9
West: Median														
12	R2	417	0.0	417	0.0	0.380	4.8	LOS A	0.7	5.0	0.43	0.70	0.48	42.8
Approach		417	0.0	417	0.0	0.380	4.8	LOS A	0.7	5.0	0.43	0.70	0.48	42.8
All Vehicles		753	0.0	753	0.0	0.380	2.7	NA	0.7	5.0	0.24	0.39	0.26	46.8

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
Delay Model: SIDRA Standard (Geometric Delay is included).
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

MOVEMENT SUMMARY

Site: 101 [Future PM - Peak Stage 1 (Site Folder: Pohipi Wairakei)]

Network: N103 [Future PM - Peak (Network Folder: Pohipi Wairakei)]

New Site
Site Category: (None)
Stop (Two-Way)

Vehicle Movement Performance

Mov ID	Turn	DEMAND FLOWS [Total veh/h	HV] %	ARRIVAL FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	AVERAGE BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Wairakei														
1	L2	375	0.0	375	0.0	0.252	4.9	LOS A	0.5	3.4	0.25	0.50	0.25	46.6
2	T1	342	0.0	342	0.0	0.088	0.1	LOS A	0.0	0.0	0.00	0.00	0.00	50.0
Approach		717	0.0	717	0.0	0.252	2.6	LOS A	0.5	3.4	0.13	0.26	0.13	48.1
North: Wairakei														
9	R2	115	0.0	115	0.0	0.112	6.1	LOS A	0.2	1.3	0.42	0.61	0.42	45.6
Approach		115	0.0	115	0.0	0.112	6.1	NA	0.2	1.3	0.42	0.61	0.42	45.6
West: Pohipi Road														
10	L2	44	0.0	44	0.0	0.036	8.1	LOS A	0.1	0.4	0.27	0.86	0.27	44.9
11	T1	283	0.0	283	0.0	0.614	20.4	LOS C	1.8	12.7	0.79	1.24	1.44	33.2
Approach		327	0.0	327	0.0	0.614	18.7	LOS C	1.8	12.7	0.72	1.19	1.28	35.4
All Vehicles		1159	0.0	1159	0.0	0.614	7.5	NA	1.8	12.7	0.32	0.56	0.48	44.9

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
Delay Model: SIDRA Standard (Geometric Delay is included).
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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MOVEMENT SUMMARY

Site: 102 [Future PM - Peak Stage 2 (Site Folder: Pohipi Wairakei)]

Network: N103 [Future PM - Peak (Network Folder: Pohipi Wairakei)]

New Site
Site Category: (None)
Give-Way (Two-Way)

Vehicle Movement Performance

Mov ID	Turn	DEMAND FLOWS [Total veh/h	HV] %	ARRIVAL FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	AVERAGE BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
North: Wairakei														
8	T1	347	0.0	347	0.0	0.178	0.1	LOS A	0.0	0.0	0.00	0.00	0.00	49.9
Approach		347	0.0	347	0.0	0.178	0.1	NA	0.0	0.0	0.00	0.00	0.00	49.9
West: Median														
12	R2	283	0.0	283	0.0	0.261	4.5	LOS A	0.4	2.7	0.39	0.67	0.39	43.2
Approach		283	0.0	283	0.0	0.261	4.5	LOS A	0.4	2.7	0.39	0.67	0.39	43.2
All Vehicles		631	0.0	631	0.0	0.261	2.0	NA	0.4	2.7	0.18	0.30	0.18	47.7

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
Delay Model: SIDRA Standard (Geometric Delay is included).
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

MOVEMENT SUMMARY

Site: 101 [Growth AM - Off Peak Stage 1 (Site Folder: Pohipi Wairakei)]

Network: N103 [Growth AM - Off Peak (Network Folder: Pohipi Wairakei)]

New Site
Site Category: (None)
Stop (Two-Way)

Vehicle Movement Performance

Mov ID	Turn	DEMAND FLOWS [Total veh/h	HV] %	ARRIVAL FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	AVERAGE BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Wairakei														
1	L2	180	0.0	180	0.0	0.115	4.7	LOS A	0.2	1.4	0.14	0.47	0.14	46.9
2	T1	172	0.0	172	0.0	0.044	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	50.0
Approach		352	0.0	352	0.0	0.115	2.4	LOS A	0.2	1.4	0.07	0.24	0.07	48.3
North: Wairakei														
9	R2	55	0.0	55	0.0	0.045	5.2	LOS A	0.1	0.5	0.27	0.52	0.27	46.0
Approach		55	0.0	55	0.0	0.045	5.2	NA	0.1	0.5	0.27	0.52	0.27	46.0
West: Pohipi Road														
10	L2	101	0.0	101	0.0	0.076	7.8	LOS A	0.1	0.9	0.19	0.89	0.19	45.0
11	T1	389	0.0	389	0.0	0.522	12.5	LOS B	1.8	12.4	0.64	1.06	0.90	38.4
Approach		491	0.0	491	0.0	0.522	11.5	LOS B	1.8	12.4	0.54	1.02	0.75	40.4
All Vehicles		897	0.0	897	0.0	0.522	7.6	NA	1.8	12.4	0.34	0.69	0.46	44.5

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
Delay Model: SIDRA Standard (Geometric Delay is included).
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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MOVEMENT SUMMARY

Site: 102 [Growth AM - Off Peak Stage 2 (Site Folder: Pohipi Wairakei)]

Network: N103 [Growth AM - Off Peak (Network Folder: Pohipi Wairakei)]

New Site
Site Category: (None)
Give-Way (Two-Way)

Vehicle Movement Performance

Mov ID	Turn	DEMAND FLOWS [Total veh/h	HV] %	ARRIVAL FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	AVERAGE BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
North: Wairakei														
8	T1	311	0.0	311	0.0	0.159	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	49.9
Approach		311	0.0	311	0.0	0.159	0.0	NA	0.0	0.0	0.00	0.00	0.00	49.9
West: Median														
12	R2	389	0.0	389	0.0	0.347	4.5	LOS A	0.6	4.1	0.40	0.67	0.41	43.1
Approach		389	0.0	389	0.0	0.347	4.5	LOS A	0.6	4.1	0.40	0.67	0.41	43.1
All Vehicles		700	0.0	700	0.0	0.347	2.5	NA	0.6	4.1	0.22	0.37	0.23	47.0

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
Delay Model: SIDRA Standard (Geometric Delay is included).
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

MOVEMENT SUMMARY

Site: 101 [Growth PM - Off Peak Stage 1 (Site Folder: Pohipi Wairakei)]

Network: N103 [Growth PM - Off Peak (Network Folder: Pohipi Wairakei)]

New Site
Site Category: (None)
Stop (Two-Way)

Vehicle Movement Performance

Mov ID	Turn	DEMAND FLOWS [Total veh/h	HV] %	ARRIVAL FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	AVERAGE BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Wairakei														
1	L2	349	0.0	349	0.0	0.233	4.9	LOS A	0.4	3.1	0.23	0.49	0.23	46.6
2	T1	316	0.0	316	0.0	0.081	0.1	LOS A	0.0	0.0	0.00	0.00	0.00	50.0
Approach		665	0.0	665	0.0	0.233	2.6	LOS A	0.4	3.1	0.12	0.26	0.12	48.1
North: Wairakei														
9	R2	106	0.0	106	0.0	0.101	5.9	LOS A	0.2	1.1	0.40	0.60	0.40	45.7
Approach		106	0.0	106	0.0	0.101	5.9	NA	0.2	1.1	0.40	0.60	0.40	45.7
West: Pohipi Road														
10	L2	41	0.0	41	0.0	0.033	8.1	LOS A	0.1	0.4	0.26	0.87	0.26	45.0
11	T1	263	0.0	263	0.0	0.530	17.6	LOS C	1.4	10.0	0.73	1.17	1.19	34.8
Approach		304	0.0	304	0.0	0.530	16.3	LOS C	1.4	10.0	0.67	1.13	1.06	36.8
All Vehicles		1076	0.0	1076	0.0	0.530	6.8	NA	1.4	10.0	0.30	0.54	0.41	45.3

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
Delay Model: SIDRA Standard (Geometric Delay is included).
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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MOVEMENT SUMMARY

Site: 102 [Growth PM - Off Peak Stage 2 (Site Folder: Pohipi Wairakei)]

Network: N103 [Growth PM - Off Peak (Network Folder: Pohipi Wairakei)]

New Site
Site Category: (None)
Give-Way (Two-Way)

Vehicle Movement Performance

Mov ID	Turn	DEMAND FLOWS [Total veh/h	HV] %	ARRIVAL FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	AVERAGE BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
North: Wairakei														
8	T1	321	0.0	321	0.0	0.165	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	49.9
Approach		321	0.0	321	0.0	0.165	0.0	NA	0.0	0.0	0.00	0.00	0.00	49.9
West: Median														
12	R2	263	0.0	263	0.0	0.237	4.3	LOS A	0.3	2.4	0.37	0.65	0.37	43.3
Approach		263	0.0	263	0.0	0.237	4.3	LOS A	0.3	2.4	0.37	0.65	0.37	43.3
All Vehicles		584	0.0	584	0.0	0.237	2.0	NA	0.3	2.4	0.17	0.29	0.17	47.7

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
Delay Model: SIDRA Standard (Geometric Delay is included).
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

MOVEMENT SUMMARY

Site: 101 [Growth AM - Peak Stage 1 (Site Folder: Pohipi Wairakei)]

Network: N103 [Growth AM - Peak (Network Folder: Pohipi Wairakei)]

New Site
Site Category: (None)
Stop (Two-Way)

Vehicle Movement Performance

Mov ID	Turn	DEMAND FLOWS [Total veh/h	HV] %	ARRIVAL FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	AVERAGE BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Wairakei														
1	L2	212	0.0	212	0.0	0.136	4.7	LOS A	0.2	1.7	0.16	0.48	0.16	46.8
2	T1	204	0.0	204	0.0	0.052	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	50.0
Approach		416	0.0	416	0.0	0.136	2.4	LOS A	0.2	1.7	0.08	0.24	0.08	48.3
North: Wairakei														
9	R2	65	0.0	65	0.0	0.055	5.4	LOS A	0.1	0.6	0.30	0.54	0.30	45.9
Approach		65	0.0	65	0.0	0.055	5.4	NA	0.1	0.6	0.30	0.54	0.30	45.9
West: Pohipi Road														
10	L2	118	0.0	118	0.0	0.090	7.9	LOS A	0.1	1.0	0.21	0.88	0.21	45.0
11	T1	455	0.0	455	0.0	0.662	15.9	LOS C	2.9	20.3	0.75	1.25	1.35	36.0
Approach		573	0.0	573	0.0	0.662	14.2	LOS B	2.9	20.3	0.64	1.17	1.11	38.6
All Vehicles		1054	0.0	1054	0.0	0.662	9.0	NA	2.9	20.3	0.40	0.77	0.66	43.6

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
Delay Model: SIDRA Standard (Geometric Delay is included).
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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MOVEMENT SUMMARY

Site: 102 [Growth AM - Peak Stage 2 (Site Folder: Pohipi Wairakei)]

Network: N103 [Growth AM - Peak (Network Folder: Pohipi Wairakei)]

New Site
Site Category: (None)
Give-Way (Two-Way)

Vehicle Movement Performance

Mov ID	Turn	DEMAND FLOWS [Total veh/h	HV] %	ARRIVAL FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	AVERAGE BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
North: Wairakei														
8	T1	369	0.0	369	0.0	0.189	0.1	LOS A	0.0	0.0	0.00	0.00	0.00	49.9
Approach		369	0.0	369	0.0	0.189	0.1	NA	0.0	0.0	0.00	0.00	0.00	49.9
West: Median														
12	R2	455	0.0	455	0.0	0.428	5.3	LOS A	0.9	6.3	0.47	0.75	0.57	42.4
Approach		455	0.0	455	0.0	0.428	5.3	LOS A	0.9	6.3	0.47	0.75	0.57	42.4
All Vehicles		824	0.0	824	0.0	0.428	2.9	NA	0.9	6.3	0.26	0.42	0.31	46.7

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
Delay Model: SIDRA Standard (Geometric Delay is included).
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

MOVEMENT SUMMARY

Site: 101 [Growth PM - Peak Stage 1 (Site Folder: Pohipi Wairakei)]

Network: N103 [Growth PM - Peak (Network Folder: Pohipi Wairakei)]

New Site
Site Category: (None)
Stop (Two-Way)

Vehicle Movement Performance

Mov ID	Turn	DEMAND FLOWS [Total veh/h	HV] %	ARRIVAL FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	AVERAGE BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Wairakei														
1	L2	408	0.0	408	0.0	0.278	5.0	LOS A	0.6	3.9	0.27	0.50	0.27	46.5
2	T1	376	0.0	376	0.0	0.096	0.1	LOS A	0.0	0.0	0.00	0.00	0.00	50.0
Approach		784	0.0	784	0.0	0.278	2.6	LOS A	0.6	3.9	0.14	0.26	0.14	48.1
North: Wairakei														
9	R2	126	0.0	126	0.0	0.127	6.3	LOS A	0.2	1.5	0.44	0.63	0.44	45.6
Approach		126	0.0	126	0.0	0.127	6.3	NA	0.2	1.5	0.44	0.63	0.44	45.6
West: Pohipi Road														
10	L2	48	0.0	48	0.0	0.040	8.2	LOS A	0.1	0.4	0.29	0.86	0.29	44.9
11	T1	311	0.0	311	0.0	0.742	26.4	LOS D	2.6	18.4	0.87	1.40	2.00	30.0
Approach		359	0.0	359	0.0	0.742	24.0	LOS C	2.6	18.4	0.79	1.33	1.77	32.6
All Vehicles		1269	0.0	1269	0.0	0.742	9.0	NA	2.6	18.4	0.35	0.60	0.63	44.0

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
Delay Model: SIDRA Standard (Geometric Delay is included).
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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MOVEMENT SUMMARY

Site: 102 [Growth PM - Peak Stage 2 (Site Folder: Pohipi Wairakei)]

Network: N103 [Growth PM - Peak (Network Folder: Pohipi Wairakei)]

New Site
Site Category: (None)
Give-Way (Two-Way)

Vehicle Movement Performance

Mov ID	Turn	DEMAND FLOWS [Total veh/h	HV] %	ARRIVAL FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	AVERAGE BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
North: Wairakei														
8	T1	382	0.0	382	0.0	0.196	0.1	LOS A	0.0	0.0	0.00	0.00	0.00	49.9
Approach		382	0.0	382	0.0	0.196	0.1	NA	0.0	0.0	0.00	0.00	0.00	49.9
West: Median														
12	R2	311	0.0	311	0.0	0.296	4.7	LOS A	0.4	3.1	0.42	0.69	0.43	42.9
Approach		311	0.0	311	0.0	0.296	4.7	LOS A	0.4	3.1	0.42	0.69	0.43	42.9
All Vehicles		693	0.0	693	0.0	0.296	2.1	NA	0.4	3.1	0.19	0.31	0.19	47.6

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
Delay Model: SIDRA Standard (Geometric Delay is included).
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

MOVEMENT SUMMARY

Site: 101 [Off Season AM Peak - Stage 1 (Site Folder: Pohipi Wairakei - Kinloch + Future)]

Network: N103 [Off Season AM Peak (Network Folder: Pohipi Wairakei - Kinloch + Future)]

New Site
Site Category: (None)
Stop (Two-Way)

Vehicle Movement Performance

Mov ID	Turn	DEMAND FLOWS [Total veh/h	HV] %	ARRIVAL FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	AVERAGE BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Wairakei														
1	L2	175	0.0	175	0.0	0.112	4.7	LOS A	0.2	1.4	0.15	0.47	0.15	46.8
2	T1	156	0.0	156	0.0	0.040	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	50.0
Approach		331	0.0	331	0.0	0.112	2.5	LOS A	0.2	1.4	0.08	0.25	0.08	48.3
North: Wairakei														
9	R2	60	0.0	60	0.0	0.048	5.1	LOS A	0.1	0.5	0.26	0.52	0.26	46.0
Approach		60	0.0	60	0.0	0.048	5.1	NA	0.1	0.5	0.26	0.52	0.26	46.0
West: Pohipi Road														
10	L2	121	0.0	121	0.0	0.090	7.8	LOS A	0.2	1.1	0.18	0.89	0.18	45.0
11	T1	464	0.0	464	0.0	0.611	13.6	LOS B	2.6	18.1	0.69	1.11	1.08	37.6
Approach		585	0.0	585	0.0	0.611	12.4	LOS B	2.6	18.1	0.58	1.07	0.89	39.8
All Vehicles		976	0.0	976	0.0	0.611	8.6	NA	2.6	18.1	0.39	0.76	0.58	43.7

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
Delay Model: SIDRA Standard (Geometric Delay is included).
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

MOVEMENT SUMMARY

Site: 102 [Off Season AM Peak - Stage 2 (Site Folder: Pohipi Wairakei - Kinloch + Future)]

Network: N103 [Off Season AM Peak (Network Folder: Pohipi Wairakei - Kinloch + Future)]

New Site
Site Category: (None)
Give-Way (Two-Way)

Vehicle Movement Performance

Mov ID	Turn	DEMAND FLOWS [Total veh/h	HV] %	ARRIVAL FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	AVERAGE BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
North: Wairakei														
8	T1	282	0.0	282	0.0	0.145	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	49.9
Approach		282	0.0	282	0.0	0.145	0.0	NA	0.0	0.0	0.00	0.00	0.00	49.9
West: Median														
12	R2	464	0.0	464	0.0	0.403	4.6	LOS A	0.8	5.5	0.40	0.67	0.44	43.1
Approach		464	0.0	464	0.0	0.403	4.6	LOS A	0.8	5.5	0.40	0.67	0.44	43.1
All Vehicles		746	0.0	746	0.0	0.403	2.9	NA	0.8	5.5	0.25	0.42	0.27	46.5

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
Delay Model: SIDRA Standard (Geometric Delay is included).
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

MOVEMENT SUMMARY

Site: 101 [Off Season PM Peak - Stage 1 (Site Folder: Pohipi Wairakei - Kinloch + Future)]

Network: N103 [Off Season PM Peak (Network Folder: Pohipi Wairakei - Kinloch + Future)]

New Site
Site Category: (None)
Stop (Two-Way)

Vehicle Movement Performance

Mov ID	Turn	DEMAND FLOWS [Total veh/h	HV] %	ARRIVAL FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	AVERAGE BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Wairakei														
1	L2	372	0.0	372	0.0	0.248	4.9	LOS A	0.5	3.4	0.23	0.49	0.23	46.6
2	T1	287	0.0	287	0.0	0.074	0.1	LOS A	0.0	0.0	0.00	0.00	0.00	50.0
Approach		659	0.0	659	0.0	0.248	2.8	LOS A	0.5	3.4	0.13	0.28	0.13	48.0
North: Wairakei														
9	R2	105	0.0	105	0.0	0.097	5.8	LOS A	0.2	1.1	0.38	0.58	0.38	45.7
Approach		105	0.0	105	0.0	0.097	5.8	NA	0.2	1.1	0.38	0.58	0.38	45.7
West: Pohipi Road														
10	L2	48	0.0	48	0.0	0.039	8.0	LOS A	0.1	0.4	0.25	0.87	0.25	45.0
11	T1	308	0.0	308	0.0	0.607	18.8	LOS C	1.9	13.2	0.76	1.23	1.38	34.1
Approach		357	0.0	357	0.0	0.607	17.3	LOS C	1.9	13.2	0.69	1.18	1.22	36.2
All Vehicles		1121	0.0	1121	0.0	0.607	7.7	NA	1.9	13.2	0.33	0.59	0.50	44.7

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
Delay Model: SIDRA Standard (Geometric Delay is included).
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

MOVEMENT SUMMARY

Site: 102 [Off Season PM Peak - Stage 2 (Site Folder: Pohipi Wairakei - Kinloch + Future)]

Network: N103 [Off Season PM Peak (Network Folder: Pohipi Wairakei - Kinloch + Future)]

New Site
Site Category: (None)
Give-Way (Two-Way)

Vehicle Movement Performance

Mov ID	Turn	DEMAND FLOWS [Total veh/h	HV] %	ARRIVAL FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	AVERAGE BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
North: Wairakei														
8	T1	292	0.0	292	0.0	0.150	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	49.9
Approach		292	0.0	292	0.0	0.150	0.0	NA	0.0	0.0	0.00	0.00	0.00	49.9
West: Median														
12	R2	308	0.0	308	0.0	0.270	4.2	LOS A	0.4	2.8	0.36	0.64	0.36	43.4
Approach		308	0.0	308	0.0	0.270	4.2	LOS A	0.4	2.8	0.36	0.64	0.36	43.4
All Vehicles		600	0.0	600	0.0	0.270	2.2	NA	0.4	2.8	0.18	0.33	0.18	47.4

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
Delay Model: SIDRA Standard (Geometric Delay is included).
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

MOVEMENT SUMMARY

Site: 101 [Peak Season AM Peak - Stage 1 (Site Folder: Pohipi Wairakei - Kinloch + Future)]

Network: N103 [Peak Season AM Peak (Network Folder: Pohipi Wairakei - Kinloch + Future)]

New Site
Site Category: (None)
Stop (Two-Way)

Vehicle Movement Performance

Mov ID	Turn	DEMAND FLOWS [Total veh/h	HV] %	ARRIVAL FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	AVERAGE BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Wairakei														
1	L2	204	0.0	204	0.0	0.132	4.7	LOS A	0.2	1.6	0.17	0.48	0.17	46.8
2	T1	185	0.0	185	0.0	0.048	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	50.0
Approach		389	0.0	389	0.0	0.132	2.5	LOS A	0.2	1.6	0.09	0.25	0.09	48.3
North: Wairakei														
9	R2	69	0.0	69	0.0	0.057	5.3	LOS A	0.1	0.6	0.29	0.53	0.29	45.9
Approach		69	0.0	69	0.0	0.057	5.3	NA	0.1	0.6	0.29	0.53	0.29	45.9
West: Pohipi Road														
10	L2	137	0.0	137	0.0	0.104	7.8	LOS A	0.2	1.2	0.20	0.89	0.20	45.0
11	T1	524	0.0	524	0.0	0.744	17.7	LOS C	4.1	28.9	0.81	1.35	1.65	34.8
Approach		661	0.0	661	0.0	0.744	15.7	LOS C	4.1	28.9	0.68	1.26	1.35	37.7
All Vehicles		1120	0.0	1120	0.0	0.744	10.5	NA	4.1	28.9	0.45	0.86	0.84	42.6

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
Delay Model: SIDRA Standard (Geometric Delay is included).
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

MOVEMENT SUMMARY

Site: 102 [Peak Season AM Peak - Stage 2 (Site Folder: Pohipi Wairakei - Kinloch + Future)]

Network: N103 [Peak Season AM Peak (Network Folder: Pohipi Wairakei - Kinloch + Future)]

New Site
Site Category: (None)
Give-Way (Two-Way)

Vehicle Movement Performance

Mov ID	Turn	DEMAND FLOWS [Total veh/h	HV] %	ARRIVAL FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	AVERAGE BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
North: Wairakei														
8	T1	336	0.0	336	0.0	0.172	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	49.9
Approach		336	0.0	336	0.0	0.172	0.0	NA	0.0	0.0	0.00	0.00	0.00	49.9
West: Median														
12	R2	524	0.0	524	0.0	0.478	5.3	LOS A	1.1	7.9	0.47	0.75	0.59	42.4
Approach		524	0.0	524	0.0	0.478	5.3	LOS A	1.1	7.9	0.47	0.75	0.59	42.4
All Vehicles		860	0.0	860	0.0	0.478	3.2	NA	1.1	7.9	0.28	0.46	0.36	46.2

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
Delay Model: SIDRA Standard (Geometric Delay is included).
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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MOVEMENT SUMMARY

Site: 101 [Peak Season PM Peak - Stage 1 (Site Folder: Pohipi Wairakei - Kinloch + Future)]

Network: N103 [Peak Season PM Peak (Network Folder: Pohipi Wairakei - Kinloch + Future)]

New Site
Site Category: (None)
Stop (Two-Way)

Vehicle Movement Performance

Mov ID	Turn	DEMAND FLOWS [Total veh/h	HV] %	ARRIVAL FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	AVERAGE BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Wairakei														
1	L2	425	0.0	425	0.0	0.288	5.0	LOS A	0.6	4.1	0.27	0.50	0.27	46.5
2	T1	342	0.0	342	0.0	0.088	0.1	LOS A	0.0	0.0	0.00	0.00	0.00	50.0
Approach		767	0.0	767	0.0	0.288	2.8	LOS A	0.6	4.1	0.15	0.28	0.15	48.0
North: Wairakei														
9	R2	123	0.0	123	0.0	0.120	6.1	LOS A	0.2	1.4	0.42	0.62	0.42	45.6
Approach		123	0.0	123	0.0	0.120	6.1	NA	0.2	1.4	0.42	0.62	0.42	45.6
West: Pohipi Road														
10	L2	56	0.0	56	0.0	0.046	8.1	LOS A	0.1	0.5	0.28	0.87	0.28	44.9
11	T1	351	0.0	351	0.0	0.804	29.2	LOS D	3.4	24.1	0.89	1.54	2.40	28.7
Approach		406	0.0	406	0.0	0.804	26.3	LOS D	3.4	24.1	0.81	1.45	2.11	31.4
All Vehicles		1297	0.0	1297	0.0	0.804	10.5	NA	3.4	24.1	0.38	0.68	0.79	43.1

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
Delay Model: SIDRA Standard (Geometric Delay is included).
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

MOVEMENT SUMMARY

Site: 102 [Peak Season PM Peak - Stage 2 (Site Folder: Pohipi Wairakei - Kinloch + Future)]

Network: N103 [Peak Season PM Peak (Network Folder: Pohipi Wairakei - Kinloch + Future)]

New Site
Site Category: (None)
Give-Way (Two-Way)

Vehicle Movement Performance

Mov ID	Turn	DEMAND FLOWS [Total veh/h	HV] %	ARRIVAL FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	AVERAGE BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
North: Wairakei														
8	T1	347	0.0	347	0.0	0.178	0.1	LOS A	0.0	0.0	0.00	0.00	0.00	49.9
Approach		347	0.0	347	0.0	0.178	0.1	NA	0.0	0.0	0.00	0.00	0.00	49.9
West: Median														
12	R2	351	0.0	351	0.0	0.323	4.6	LOS A	0.5	3.6	0.41	0.68	0.43	43.0
Approach		351	0.0	351	0.0	0.323	4.6	LOS A	0.5	3.6	0.41	0.68	0.43	43.0
All Vehicles		698	0.0	698	0.0	0.323	2.4	NA	0.5	3.6	0.21	0.34	0.21	47.3

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
Delay Model: SIDRA Standard (Geometric Delay is included).
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.