Project:	Waikanae North Development	Project No. 310206474
To:	Building Block Planning Limited	
From:	Stantec NZ	Date: 10 August 2026

Reference: Waikanae North Development: Section 53 Comments Transport Response

1 Purpose and Scope

This report responds to the comments received under section 53 of the Fast-track Approvals Act 2024 on the Waikanae North Development substantive application (FTAA-2603-1194) that fall within the transport discipline. It forms part of a set of responses comprising a covering report addressing planning, legal and conditions matters, and individual reports for other topic disciplines.

Kāpiti Coast District Council, the NZ Transport Agency, and Wellington Regional Council comments are addressed individually, followed by comments received from other parties. Where multiple commenters have raised similar issues, these have been grouped to avoid repetition. In each case, this report sets out the comments made followed by a response with references to the supporting information contained within the application documentation where relevant.

2 Code of Conduct Statement

While this is not a matter before the Environment Court, the authors of this report have read the Code of Conduct for Expert Witnesses contained in the Environment Court Practice Note 2023 (‘Code’). The authors have complied with the Code in the preparation of this report.

The data, information, facts and assumptions the authors have considered as part of this report are set out in this report. The reasons for the conclusions reached are also set out in this report. Unless stated otherwise, this report is within the author’s expertise and the authors have not omitted to consider material facts known to them that might alter or detract from the opinions expressed.

3 Stakeholder Comments

3.1 Kāpiti Coast District Council

The technical memorandum provided by Kāpiti Coast District Council (Council), dated 20 July 2026, sets out a summary of the review and engagement with the Applicant to date on transport matters, and then identifies a number of outstanding matters. These are addressed below.

By way of summary, a key remaining matter of interest is around the future performance of the Kāpiti Expressway State Highway 1 (SH1) interchange at Te Moana Road, which is located approximately 6km to the south of the Site. Council has raised concerns about the future operation of this interchange in respect of cumulative development across the Waikanae township, both with and without the development Site traffic, and has liaised with the NZ Transport Agency (NZTA) around consistency of how new developments are cumulatively assessed in relation to increased traffic at this point of the network. As described in the Council's memorandum, two recent meetings have been held (on 8 July and 15 July) between the Applicant, Council and NZTA to attempt to resolve this matter, with further detail on this point addressed under Comment 1.3 below, and later at Comments 2.5-2.7.

Comment 1.1

Contrary to GWRC and Council policies, the site does not provide active mode and public transport mode site connectivity. This is a view supported by GWRC. The trip rates used in the ITA are not considered to be worst case.

Response

Section 3.2 of the Integrated Transport Assessment (ITA), dated 24 March 2026, describes the current public transport and active mode infrastructure in the vicinity of the Site. Whilst current bus services operating from Peka Peka Link Road are beyond the normal walking distance of bus passengers, the continued uptake of micromobility (e-scooters etc) supports increased distances for connectivity to bus stops (and rail stations) and is expected to play a role in enabling access to existing public transport services, ahead of any extension of bus services that may be introduced through the Site.

In any event, there is an existing bus route in place that is proximate to the Site (ITA Section 3.3). The site is also a relatively short distance from the Waikanae railway station and park and ride facility, which provides public transport connectivity between Kapiti and Wellington. This is a benefit to the proposal.

The Application does not assert a committed bus service, but rather that the masterplan and roading design provide bus-capable road geometry so that services can be introduced when Metlink and Greater Wellington Regional Council (GWRC) programme them. It is usual for a development of this nature to not immediately be serviced by public transport services. Indeed, the early stages of the proposal would not support a sufficient population to warrant such a service. Rather, the proposal will add further critical mass to the existing Peka Peka urban area to warrant further consideration of public transport services to the area, additional to what already passes by the Site on Peka Peka Link Road.

The identification of bus stop locations at the detailed design stage is provided for under a proposed consent condition (#56 (b)). As described in the GWRC comment 3.3 below, GWRC has confirmed it cannot presently commit to a public transport service to the Site because of funding and timing uncertainty, but it supports the masterplan roading approach of providing suitable connector routes within the Site to accommodate bus services when suitable density supports additional services.

The proximity of the existing Expressway shared path at the eastern end of the Site provides both commuter and recreational opportunities for residents. This is a key active mode spine within the Kāpiti Coast, and the Site provides for direct connections to it. We disagree that the Site does not provide for active mode connection.

The trip generation rates adopted for assessment of the development Site traffic are described in Section 9.1 of the ITA which was submitted as part of the substantive Application. A trip rate of 0.9 vehicles per hour (vph) has been used, drawing from the industry standard Research Report 453 'Trips and Parking Related to Land Use' (RR453), which draws on data which we acknowledge is somewhat dated. As described in the subsequent Stantec 'Traffic Modelling Memorandum' (dated 14 July 2026), which is appended to this memo, trip rate data collected at similar outer suburban subdivisions in the Wellington region indicates peak hour rates of 0.6-0.7vph per dwelling. In our view, this suggests the adopted rate of 0.9vph is generous and leads to an appropriately robust (in our view 'worst case') assessment.

During the most recent discussion between Council, NZTA and the Applicant on 15 July 2026, Council indicated an acceptance of the rates adopted as being those 'most likely to occur', rather than constituting a 'worst case'. We therefore consider that the rate adopted for our assessment remains appropriate, notwithstanding this minor disagreement on terminology.

Sources relied on:

- Integrated Transport Assessment (Appendix 15), section 9.1, pg.37
- Stantec Modelling Memorandum, section 3, pg.5-6
- Discussions during the meetings held between Council, NZTA and the Applicant on 8 and 15 July 2026

Comment 1.2

Council notes a lack of detail and clarity regarding potential future connections to Ngarara Road and Kensington Drive and the potential road links to the south and west of the site, noting that a potential link to the west via Lots 541 or 776 and to the south via Lots 214, 242 or 243 should be investigated.

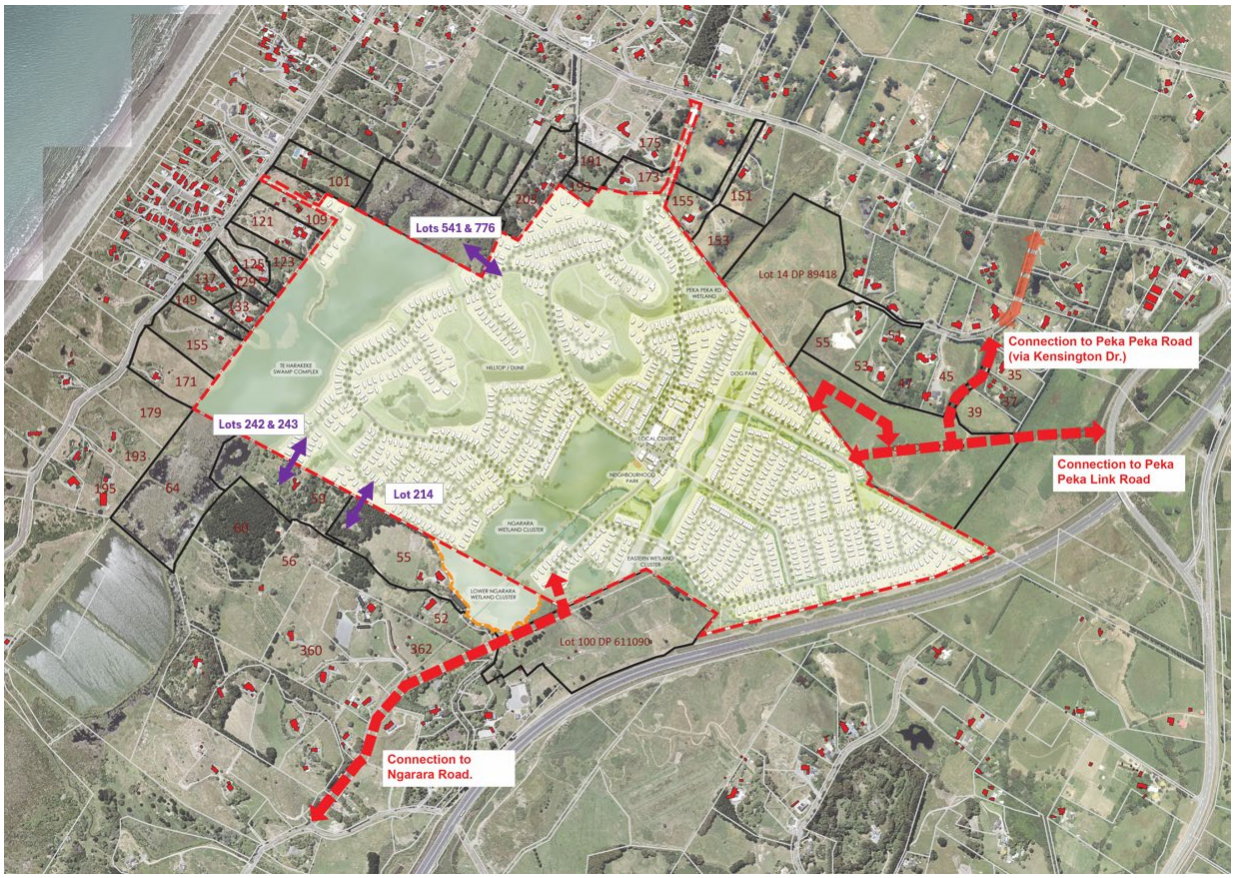
Response

As described in the ITA at Section 7.1, the Site masterplan provides for future eastern and southern road connections to supplement the main Site access at Peka Peka Road. The applicant does not own or control this adjoining land. Responsibility for the eventual delivery of these connections is a matter for Council, in coordination with other land development in adjoining areas. When delivered, such roading links would beneficially provide for increased traffic distribution, including to / from the south via a Ngarara Road connection for Waikanae town centre trips. The connections to the north and east to Peka Peka Road via Kensington Drive and potentially to Peka Peka Link Road, would also provide

further traffic distribution, noting delivery of these connections is dependent on the future development and access arrangements of the adjoining properties.

Ngarara Road extension forms part of the Council's underlying future roading plans, and includes an existing crossing of the Expressway for local access into Waikanae centre, as well as forming part of the Ngarara development Structure Plan included in the District Plan (described later under response to comment 2.5).

These future roading link options are illustrated in the McIndoe Urban image below (red arrows).



Those boundary lots identified by Council as potential future road connection points (identified in the figure above by the purple arrows) are constrained by topography, in particular those along the southern boundary (lots 242, 243 and 214). In addition, Lots 541 and 776 also adjoin the Te Harakeke Swamp, making the feasibility of a future road connection uncertain even in the event provision was made.

Sources relied on:

- Integrated Transport Assessment (Appendix 15), Section 7.1, pg.31-32
- McIndoe Urban Future Roading Connections Plan

Comment 1.3

Kāpiti Coast District Council states that the SIDRA traffic modelling of the Te Moana Road / State Highway 1 Interchange assessment and methodology are not agreed and requires details of a calibrated and validated 2026 base year model, with consequential updates to the 2036 Do Minimum and With Development models if required, and provision of the full SIDRA input and output files. Council records that visibility over the applicant's modelling has been hampered by the consultant traffic modeller being overseas, that this remains a critical issue, and that the results presented in the application - which Council does not consider to be a worst case - appear to result in an unacceptable level of service at the Te Moana Road / SH1 interchange.

Response

The ITA assesses the Te Moana interchange using SIDRA for the 2036 AM and PM peaks at Tables 9-6 and 9-7. The assessment demonstrates that whilst some movements at the interchange are operating with higher delays (without and with development Site traffic), as is common for the operation of signalised intersections, the overall LoS remains within the range regarded as acceptable for signals on arterial routes, at this future year.

As described in the ITA, the methodology adopted for assessing the external transport network effects for the development Site traffic uses the Council's own district-wide 'Kāpiti Transport Model Version 4' (KTM) that accounts for all local and regional trips, and route choice. This model is operated by Council's familiar modeller, Transport Futures Limited, who Council directed the Applicant to engage for this project assessment. The forecast year KTM volumes at the interchange, with and without Site development traffic, were then analysed by us with a local area SIDRA model.

Recent meetings held on 8 and 15 July 2026 with Council and NZTA to discuss the modelling assumptions, inputs and results, have been undertaken with a view to clarifying the assessment described within the ITA and resolving any matters of difference. A modelling memorandum was subsequently prepared and provided to both stakeholders that included calibration and validation details of the base SIDRA model, whilst detailed SIDRA inputs, outputs and model files themselves were also provided. A copy of the modelling memorandum is **attached**.

KTM Model

The KTM was originally developed for NZTA to support forecasting and assessment of future traffic conditions associated with delivery of the Kāpiti Expressway and has subsequently been applied across a wide range of land use and infrastructure projects within the District. As is inherent in any strategic, forward-looking transport model, its operation relies on numerous assumptions relating to future land use patterns, transport network configuration, and route choice behaviour.

While no transport model can perfectly replicate future conditions, the KTM is regarded as the most appropriate and robust tool available for assessing the transport effects of land use and infrastructure changes in the Kāpiti District. Accordingly, Council continues to direct and rely upon its use for development assessments of this nature - which is why Stantec used it.

It is important to recognise that the modelling assumptions adopted for this proposal are both conservative and Council approved. The 2036 'with development' scenario assumes that the proposed development is wholly additional to the land use assumptions already embedded within the future model. In practice, a development of this scale would typically displace a proportion of other future growth assumptions, meaning the modelling approach likely overstates future travel demand.

We further note that a comparison of the 2026 model outputs against available Sydney Coordinated Adaptive Traffic System (SCATS) traffic count data indicates that the model currently predicts traffic volumes at the Te Moana Road interchange that are approximately 15-20% higher than those actually being observed. Collectively, these factors suggest that the assessment is based on a robust, and indeed generous (i.e. conservative) representation of future traffic conditions.

The KTM also incorporates district-wide route choice behaviour and therefore reflects the availability of multiple travel paths, including trips that may choose either old SH1 or the Expressway. Whilst it is acknowledged that the model's allocation of some strategic traffic to old SH1 may not fully reflect recent changes in travel conditions, including the increasingly urban character of old SH1 and the increased Expressway speed limit, this is a characteristic of the accepted model structure.

Sensitivity Test

Notwithstanding the above, in response to matters raised by KCDC (and NZTA in the section to follow), a sensitivity test was undertaken for the PM peak period at the Te Moana Road / Expressway interchange, applying an additional 14% demand to movements travelling from the Expressway. This percentage reflects the proportion of Kāpiti residents who commute by private vehicle to employment destinations south of the District, and has been added on top of the already modelled Site traffic (for the left turn movement from the Northbound Expressway off-ramp onto Te Moana Road). The adjustment is, in our opinion, conservative.

The resulting SIDRA analysis included in the table below demonstrates that for the ‘with development plus sensitivity’ the intersections continue to operate at the same overall LoS D in the more heavily-trafficked PM peak. The sensitivity testing therefore supports the original assessment findings and confirms that the proposed development does not, in itself, trigger a requirement for mitigation or upgrades at the interchange.

Approach	Movement	Development Scenario 2036 PM				Sensitivity Test 2036 PM			
		Volume (vph)	Delay (sec)	LoS	Queue (metres)	Volume (vph)	Delay (sec)	LoS	Queue (metres)
Western Intersection									
SH1 Expressway NB off-ramp (South)	Left	547	20.4	C	100.4	624	29.6	C	152.0
	Through	1	71.2	E	177.5	1	78.8	E	188.3
	Right	406	78.8	E	177.5	406	86.4	F	188.3
Te Moana Road (East)	Through	342	15.1	B	65.5	342	16.7	B	70.7
	Right	27	47.9	D	8.3	27	49.0	D	8.5
Te Moana Road (West)	Left	63	43.6	D	18.1	63	44.8	D	18.6
	Through	577	55.3	E	232.8	577	66.2	E	257.7
All Vehicles	**All**	**1964**	**43.0**	**D**	**232.8**	**2041**	**49.8**	**D**	**257.7**
Eastern Intersection									
Te Moana Road (East)	Left	153	44.5	D	45.7	153	46.0	D	47.2
	Through	314	31.4	C	86.6	314	33.8	C	91.1
SH1 Expressway SB off-ramp (North)	Left	25	25	C	3.9	25	25.4	C	3.9
	Through	1	40.2	D	16.6	1	41.4	D	17.0
	Right	56	47.8	D	16.6	56	49.0	D	17.0
Te Moana Road (West)	Through	672	7.3	A	68.7	672	7.1	A	69.1
	Right	312	17.5	B	43.7	312	17.4	B	44.0
All Vehicles	**All**	**1532**	**19.8**	**B**	**86.6**	**1532**	**20.4**	**C**	**91.1**

Role of the Road Controlling Authorities

Changes in traffic demand on the wider network, including at the Te Moana Road/Expressway interchange approximately 6km from the Site (assuming Site traffic accesses at Peka Peka Road and travels via the coastal route to the Interchange), arise from cumulative growth and many varied developments across the District rather than being attributed to any single development in isolation.

The scale of the proposal's contribution to future traffic demand at the interchange is modest, adding just circa 20 vph per annum as houses are progressively constructed and occupied. Any future capacity constraints at the interchange will be the result of a range of factors, including broader population growth triggering background traffic increases associated with the cumulative effects of multiple developments across the District. In this context, the management and timing of any network improvements are most appropriately considered in the usual manner at a network-wide level by the Council and NZTA.

As such, the Applicant agrees with the position stated in the Council's technical memorandum that the ongoing capacity, operation, and performance of the wider transport network are matters that appropriately sit with Council and NZTA in their roles as road controlling authorities.

Sources relied on:

- Integrated Transport Assessment (Appendix 15), section 9.2.5, pg.42-43
- Stantec Modelling Memorandum, section 1, pg.2-4
- Council Technical Memorandum – Fast Track Application; pdf pg5 – 1st bullet point

Comment 1.4

Access to the 7 lots from 107 Paetawa Road - further details are needed for the access to these Lots including cross section, details of a turnaround facility and clarification of waste collection for the 7 Lots. Our review considered the access to be a ROW however discussions with the Applicant suggests this will be legal road.

Response

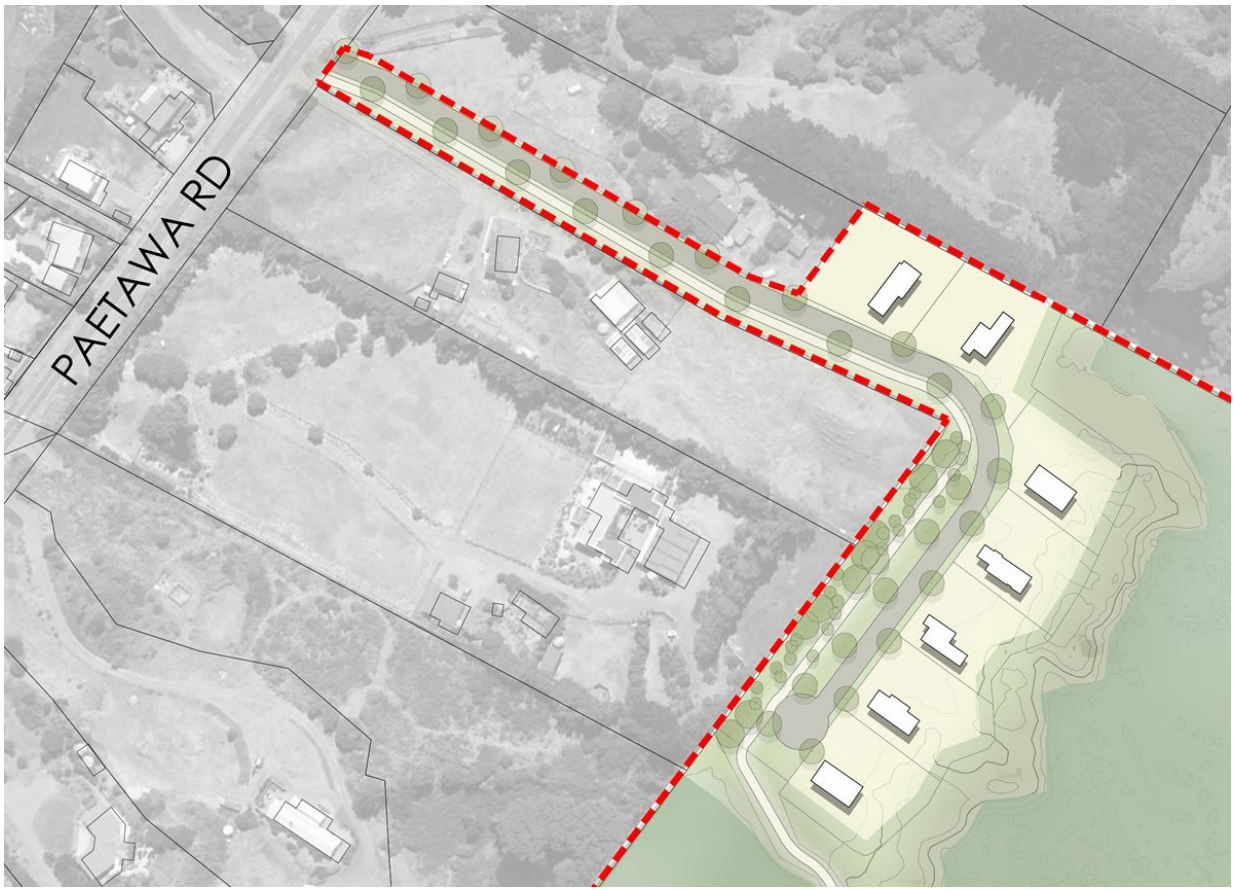
It is acknowledged that in the ITA the road connection at #107 Paetawa Road serving the proposed 7 lots was described as a private Right-of-Way (RoW), whilst in the Landlink Scheme Plans (Sheet 2911-ALL-P-32) it is shown as 'road to vest'. It can be confirmed that the intention is to vest this as a local access road comprising the following features:

- a road that provides vehicle access to only 7 lots. It does not provide vehicle access to the wider Site;
- an overall legal width of ~15.5m (noting the initial section at the Paetawa Road end is slightly narrower at approximately 13.8m, and then widens at the eastern end after the bend to >25m):
- 6m carriageway width;
- 2.5m walkway path on one side; and
- 9.5 radius turning head at its termination.

The proposed roading arrangements described above are illustrated in the plan below. They have been designed to align with the local access road typology described in the ITA and are consistent with the industry standard NZS4404:2010 Land Development and Subdivision Infrastructure (NZS4404), noting the provision of a footpath on just one side of the road is appropriate where less than 20 dwellings are provided (NZS4404:2010 Table 3.2, Typology E2).

A concept design for this roading link including turning head at its termination to accommodate rubbish collection trucks and the like is illustrated in the plan below, noting the detailed roading design will need to be developed and submitted to Council for certification, as per proposed consent condition #56.

'Plan of the proposed new vested local road connection at #107 Paetawa Road'



Sources relied on:

- Integrated Transport Assessment (Appendix 15), section 5.2, pg.14 and Section 7.1, pg. 31
- 'Local' Illustrative Masterplan – Aerial LA1.02 (Rev L)

Comment 1.5

Active mode connections to Paetawa Road: further details are needed on what form the walking and cycling route to Paetawa Road would take both within the site (on the route indicated as a Local Purpose Reserve (walkway) and within the proposed access to the 7 lots.

Response

As described under the response to Comment 1.4 above, the proposed new local access road serving the 7 new lots off Paetawa Road includes a generous 2.5m path along its length. This path will in turn provide access through to the internal path network within the main portion of the Site via a boardwalk that will extend through the adjacent wetlands to the east. Given the ecological sensitivities of providing a path through the wetlands this has been designed as a 3m boardwalk construction, with an exact path width to be confirmed during detailed design post consent. As such, its intention is to serve primarily as a pedestrian link to enable beach access for future residents.

Sources relied on:

- 'Local' Illustrative Masterplan – Aerial LA1.02 (Rev L)

Comment 1.6

Peka Peka Road site access drawing should be updated to correctly take into account the KCDC proposal for cycle lanes on Peka Peka Road so that safety impacts in this regard can be considered.

Response

A concept design for the new Site access road connection to Peka Peka Road is included in the ITA (ITA Appendix C), and as described at Section 3.2 of the ITA this can be developed to take account of Council's proposed carriageway widening to better accommodate cyclists in the road shoulder. Noting that all detailed design roading plans are required under proposed consent condition #56 to be submitted for Council certification, prior to any works commencing, this provides an appropriate mechanism to ensure the intersection design is developed to fit with conditions at the time (including the recently formed cycle shoulders). In addition, proposed consent condition #60 requires a detailed design Safe System Audit to be undertaken of all new roading infrastructure at detailed design stage, which will ensure a suitable safety outcome is delivered.

Sources relied on:

- Integrated Transport Assessment (Appendix 15), section 3.2.1, pg.8-9, and Appendix C

Comment 1.7

Te Moana Road carrying capacity - an explanation of how this has been calculated has been requested, along with details of the traffic flows used.

Response

Section 9.2.3 of the ITA assesses the carrying capacity of Te Moana Road based on forecast 2036 traffic volumes and its classification as a Major Community Connector under the District Plan.

The NZTA One Network Framework (ONF) provides indicative traffic volume ranges for roads classified under the One Network Road Classification (ONRC), with Te Moana Road identified as an Arterial route. The ONF indicates that arterial roads typically accommodate daily traffic volumes in the order of 5,000 to 15,000 vehicles per day (vpd). These values are intended as broad network planning indicators rather than absolute capacity thresholds. In practice, route capacity and operational performance are influenced more by the frequency, form and performance of intersections than by mid-block traffic volumes alone.

Daily traffic volumes on Te Moana Road under the future development scenarios have been estimated by converting forecast peak hour volumes to daily traffic volumes using AM and PM peak hour to daily flow ratios derived from surveyed tube count data. This approach indicates forecast daily traffic volumes at 2036 of approximately 12,000vpd east of the Expressway and 16,000vpd west of the Expressway. While the western section is forecast to operate slightly above the indicative ONF range (<10%), this is not expected to result in a material capacity constraint. This reflects the arterial function of the corridor

and the fact that operational performance is primarily governed by the capacity and efficiency of key intersections along the route, rather than link volumes alone.

Sources relied on:

- Integrated Transport Assessment (Appendix 15), section 9.2.3, pg.40
- One Network Road Classification 'Applying the One Network Road Classification Guidelines' pg.43

3.2 NZ Transport Agency

The memorandum of NZTA provides a summary of the review and engagement with the Applicant to date on transport matters, including recent discussions regarding traffic modelling of the State Highway 1 'Kapiti Expressway' / Te Moana Road Interchange. NZTA states it is not yet able to confirm that the transport effects on the interchange have been adequately assessed or can be appropriately managed, and requests that the following be obtained before the Panel determines the application and made available to NZTA for review:

Comment 2.1

Confirmation that the base SIDRA model has been appropriately calibrated and validated.

Response

Details of the SIDRA model calibration and validation were provided in the Stantec Modelling Memorandum, appended to this response. This describes how a base model was developed of the Interchange using traffic count and signal timing data provided by the Wellington Traffic Operations Centre for July 2025, and validated using queue length surveys undertaken on-site for the critical PM peak, which demonstrates a good correlation between observed on-street operation and modelled performance.

Sources relied on:

- Stantec Modelling memorandum, section 1, pg.2-4

Comment 2.2

Confirmation of the applicant's adopted trip-generation rate based on the 85th percentile rates for the surveyed locations in Upper Hutt.

Response

The trip rates of 0.6-0.7vph per dwelling described in the modelling memorandum represent an average weekday peak hour rate, taken across the total number of dwellings in each residential catchment. Further interrogation of the data to determine an 85th percentile weekday AM and PM peak hour rates for 2023 indicates 0.59vph and 0.76vph respectively for Totara Park, and 0.7vph and 0.68vph for Riverstone Terraces. These rates remain comfortably within the adopted AM and PM trip rate of 0.9vph used for assessment of the Site's effects on the wider transport network, which itself has been accepted by Council as relevant for these assessment purposes.

Sources relied on:

- Stantec Modelling Memorandum, section 3, pg.5-6
- Tube Count data for Totara Park and Riverstone terraces for 2023, provided by Upper Hutt City Council

Comment 2.3

The electronic SIDRA model files, or equivalent material that enables the model to be independently reproduced and tested.

Response

The electronic SIDRA model files along with detailed inputs and outputs were provided to NZTA via email on 17 July 2026.

Comment 2.4

The basis for the saturation-flow, cycle-time and phase-sequence assumptions, supported by sensitivity testing where appropriate.

Response

Details of the saturation flow (left as default), cycle time and phase sequence (adopted from the current signal phasing at the interchange) are provided in the modelling memorandum and SIDRA files provided, and are considered as appropriately replicating the current signal operations and therefore the forecast year scenario as well.

Sources relied on:

- Stantec Modelling memorandum, section 1, pg.2

Comment 2.5

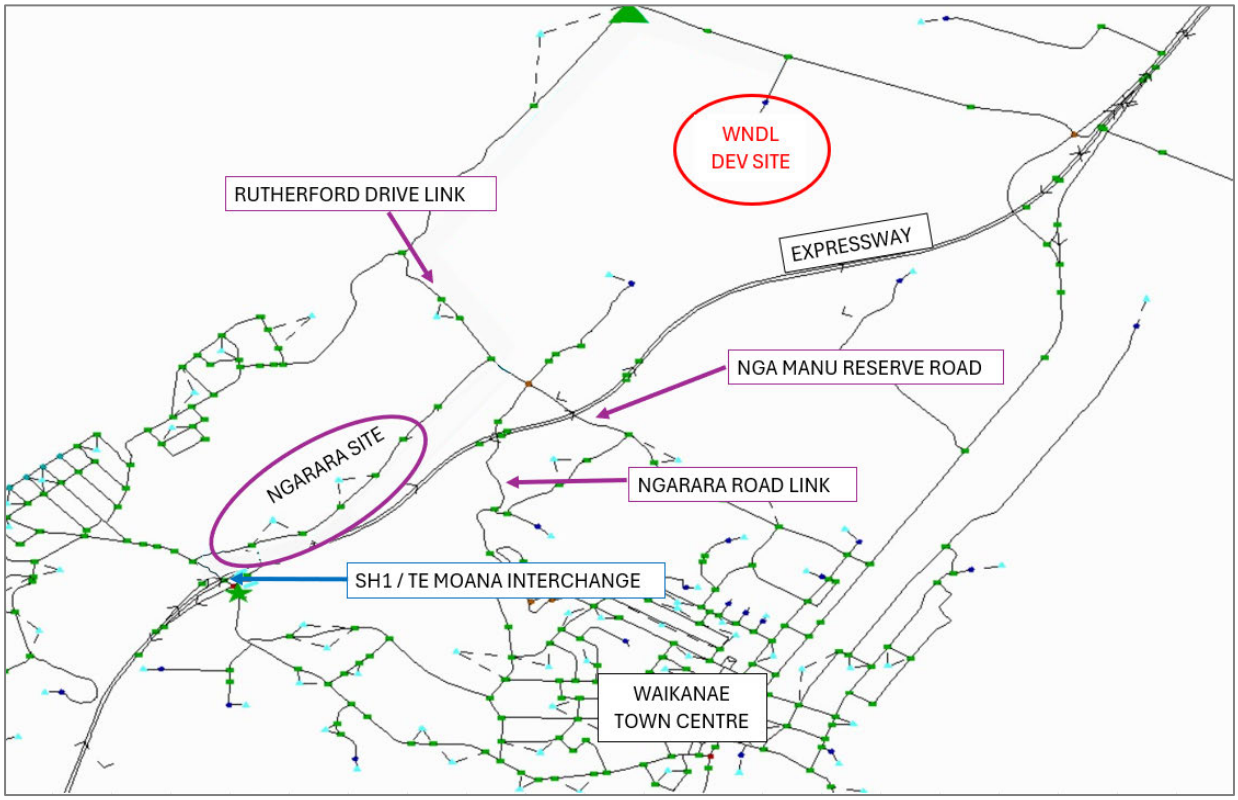
The land-use yield, staging and road-connection assumptions for Ngārara represented in KTM4, including the position assumed by 2036.

Response

The Council contracted traffic modeller who is responsible for operating and applying the Council's KTM District-wide model, and who the Applicant was directed by Council to progress modelling on their behalf, has provided information on the development assumptions within the Ngārara Development Area as follows:

- The forecast 2036 KTM Do Minimum model assumptions (i.e. without any development Site traffic) allow for a total of 518 vehicles per hour generated by new housing in the Ngārara development area by 2036. This represents approximately 575 new households (adopting the Council's accepted trip rate of 0.9vph per dwelling), of which 150 are built;
- Three additional roading connections are included for the Ngārara development, one to the northwest which links with Rutherford Drive, and two to the east which connect over / under the Expressway via Ngarara Road and Nga Manu Reserve Road. These additional roading

connections are illustrated in the model image below and reflect the transport links anticipated in the Structure Plan for the Ngarara Development Area, and in respect to the Rutherford Drive link (which is identified as a notional road in the District Plan).



As referenced in the response to comment 2.7 below, these additional roading links serving the Ngārara development area, provide for some local redistribution of traffic, such that a portion of trips no longer need to route through the Te Moana Road interchange.

Sources relied on:

- Stantec Modelling memorandum, section 2, pg.4-5
- Kapiti Coast District Plan, Appendix 7: Ngārara Development Area Structure Plan; Appendix 8: Ngārara Development Area Management Principles

Comment 2.6

A cumulative scenario applying consistent land-use, trip-generation and route-assignment assumptions across Waikanae North, Proposed Private Plan Change 5, Ngārara and other consented or committed growth.

Response

In accordance with Council's direction for assessment, the KTM Model (being the Council maintained district-wide traffic model) provides the appropriate tool for determining the traffic network operation against which developments such as that proposed by the Application. Further discussion on the traffic

assessment approach is provided in the response to Comment 2.8 below. Comment on the relevance of Proposed Private Plan Change 5 is addressed in the planning memo.

Comment 2.7

An explanation of the counterintuitive changes in traffic demand at the Expressway / Te Moana Road Interchange when Waikanae North development Site traffic is added.

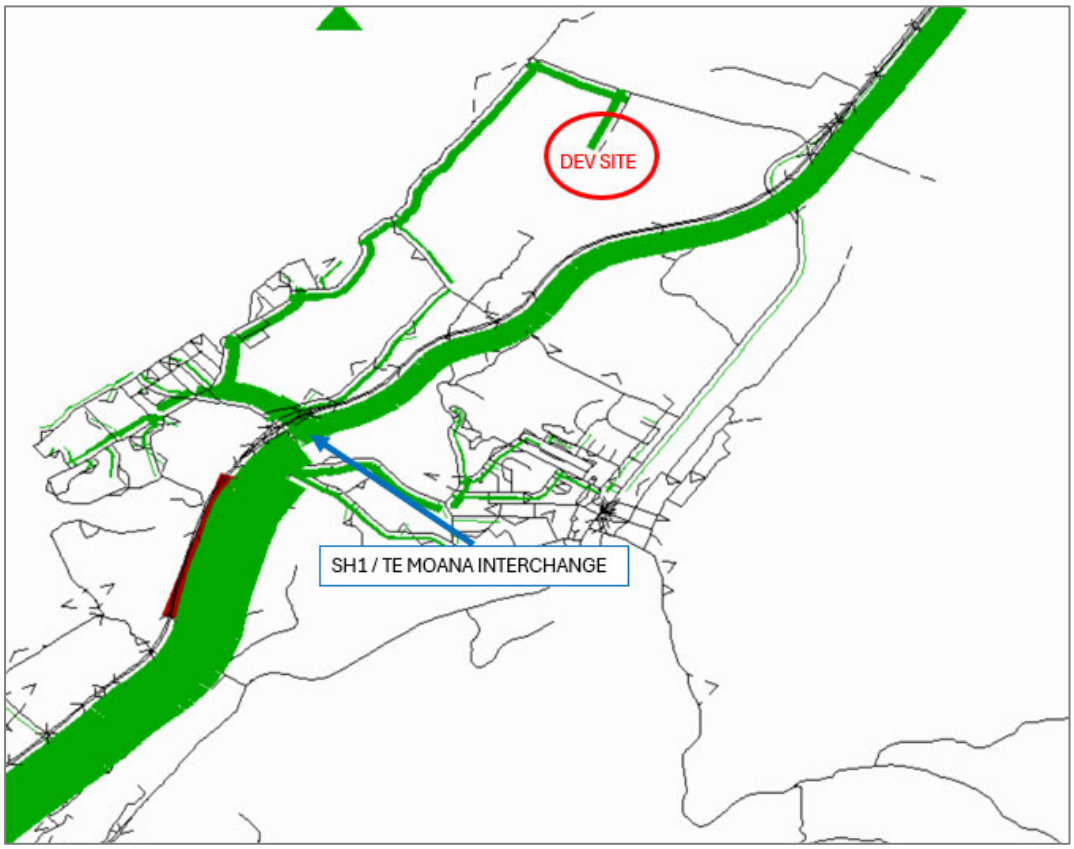
Response

Transport Futures has undertaken a review of the underlying model conditions in and around the Interchange to clarify the 2036 ‘without’ and ‘with’ development Site traffic additions.

Fundamentally, and as you would expect, as traffic demand changes, the model allows vehicles to adjust their route choice in response to changing travel times, with multiple iterations undertaken until a stable and repeatable pattern of movement is reached. Consequently, the model does not simply assign new development traffic to a single route, but instead it reflects how traffic redistributes itself across the broader network. A useful analogy is that over time traffic behaves like water, as it flows - seeking the path of least resistance.

The ‘with development’ traffic scenario creates additional demand on the network, which in turn influences route choice that results in both Site and other non-Site trips being redistributed to alternative routes. In other words, the impact of additional traffic impacts on behavioural choice and in turn, trip distribution. This includes the Te Moana Road interchange, which is located some distance from the proposed development. The relatively small increase in traffic demand at the interchange should therefore not be interpreted as indicating an absence of a causal relationship between the development and the wider network. Rather, it reflects the influence of route choice behaviour, and the availability of alternative travel paths.

The diagram below illustrates the traffic connections between the Site and the Expressway / Te Moana Road Interchange, illustrating a proportion of traffic using this for access to / from the wider network.



The modelling results indicate that development-related trips are, to some extent, displacing or redistributing existing traffic that has alternative route options available. As an example, traffic redistribution is evident for the Ngarara Development Area where vehicles from this development previously connecting via Te Moana Road subsequently choose to route via the new eastern links of Ngarara Road or Nga Manu Reserve Road to access to / from local destinations and the Waikanae town centre.

Notwithstanding the above, a sensitivity test has been undertaken (as described earlier in the response to Council's comment 1.3) that loads more development Site traffic directly onto the critical Northbound off-ramp in the PM peak, to demonstrate a scenario where this route choice may be more attractive in the future than is currently represented in the model. This test shows minimal change to queuing and delay to that reported for the 'with development' scenario, as reported earlier in the response to comment 1.3.

Comment 2.8

Identification of any feasible interchange mitigation and appropriate development triggers.

Response

Whilst the assessment in the ITA concludes that mitigation is not required within the forecast horizon to 2036, Council's submission acknowledges that the longer-term performance of the interchange is an

ongoing matter for consideration by both NZTA and Council in their roles as road controlling authorities responsible for network operation and management, as follows:

> *"We [Council] recommended that NZTA/KCDC identify appropriate mitigation measures, appropriate funding and triggers for when mitigation is required based on a cumulative assessment for all future development (including Waikanae North) and the level of development for which consent is being applied for. It is considered that this should be included as a consent condition."*

This could be a practical solution since there will be many contributors to the future traffic volumes on the network at the interchange that reflects cumulative growth and development across Waikanae, rather than being attributable to any single development in isolation.

To be clear, the Applicant cannot be expected or directed to commit to an unknown contribution outcome (if any), in the face of the modelling assessment (using the Council's directed model) that its proposal will not lead to significant adverse effects on the interchange.

Sources relied on:

- Council Technical Memorandum – Fast Track Application; pdf pg.5 – 1st bullet point

3.3 Greater Wellington Regional Council

The memorandum provided by GWRC identifies a number of matters in relation to the Site's location and connectivity, including that the Site is not served by existing amenities or bus services and is beyond what would be considered a walkable catchment for the existing low frequency bus routes serving Peka Peka. GWRC therefore consider the development is likely to generate increased pressure on park and ride capacity at Waikanae Station and seeks further discussion with the Applicant on impacts on park and ride facilities at Waikanae, effects on existing public transport services in the area, and the creation of an expectation that the development may be serviced by a bus service in the absence of adequate funding for a new service.

The key matters raised by GWRC in their comments are set out below.

Comment 3.1

The proposed development doesn't appropriately integrate land use and transport to be consistent with relevant Regional Land Transport Policy to achieve a compact urban form and efficient land use to maximise access to public transport.

Response

The Site is located to the north of the current Waikanae urban area, and as described in the ITA at Section 4, the proposal aligns with the strategic growth framework established by the Council's growth strategy 'Te Tupu Pai Growing Well', in being located immediately west of a 'Medium-priority greenfield growth area' as well as a 'Longer term greenfield growth/future urban study area' (on the eastern side of the Expressway), and north of the 'High-priority greenfield growth area' around Ngarara Road.

The proposal purposefully incorporates a mixed-use activity framework that enables a local commercial centre to reduce the need for external trips over time by supporting the provision of local services and some employment within the development itself. This centre will also have trip reduction benefits for the existing Peka Peka area.

The nature of urban growth in the Wellington region means that not all future residential development can occur within existing centres or immediately adjacent to high frequency public transport corridors. The proposal represents a masterplanned urban expansion capable of accommodating significant housing supply, whilst incorporating active transport infrastructure connections and future proofing for public bus services as and when they may be feasible.

Earlier pre-lodgement engagement with Metlink is detailed in the substantive application and the supporting Consultation Summary Report. Metlink's advice was that it could not then commit to providing a public transport services due to funding considerations and uncertainty over the timing of the development. Nevertheless, it confirmed that it was satisfied that the design of the subdivision allowed for possible public transport and active travel connections – suggesting further consideration of potential bus stop locations.

The Applicant accepts that bus services will not be available at the outset of the project. It would be very rare for bus services to immediately service a new greenfield development – that is inherent from its nature. The proposal has nevertheless been designed to accommodate such services, is located adjacent to an existing route, and is directly connecting to a key active mode corridor.

Sources relied on:

- Integrated Transport Assessment (Appendix 15), section 4, pg.12-13

Comment 3.2

The development is likely to lead to higher car dependency and associated transport emissions.

Response

It is acknowledged that residents will initially rely on private vehicles for a proportion of their travel, particularly during the early stages of development before local bus services can be established. This characteristic is common to most greenfield growth areas and is certainly not unique to the proposal. However, the provision of a future neighbourhood centre within the development, along with purposefully designed active mode infrastructure to support walking and cycling trips within the development, will support reduced reliance on private vehicles.

Further, the development will also connect directly to the existing shared path network running adjacent to the Expressway, providing high-quality off-road cycling connection between Ōtaki, Waikanae and Paraparaumu for recreational and commuter cycle trips. While some local road travel may be required to access particular destinations, this is a common characteristic of many urban areas and does not diminish the value of the shared path as a strategic active mode corridor. This is a key piece of public infrastructure on the Kāpiti Coast, receives a high level of use, and the application Site directly adjoins this amenity enabling direct connection to it.

In addition, provision for public transport (bus services) is allowed for in the project design if and when it becomes available.

It should also be noted that the traffic generation rate adopted for the assessment has been accepted by Council. Accordingly, the proposal is not expected to result in a greater level of car dependency or traffic demand than is already reflected in the assessment.

Sources relied on:

- Discussions during the meetings held between Council, NZTA and the Applicant on 8 and 15 July 2026.

Comment 3.3

Creating an expectation that the development may be serviced by a bus service, in the absence of adequate infrastructure or funding for a new service.

Response

It is acknowledged that there is no certainty of a public bus service being extended to the Site, given future opportunities for new public transport services typically rely on population thresholds and available funding. The pre-lodgment advice from Metlink, outlined above, is again relevant.

In this respect, the proposed ~1,200 new dwellings at the Site are likely to deliver close to the 2,700 resident threshold within the Regional Public Transport Plan for consideration of new services. In addition, there is an existing urban area at Peka Peka and the proposal adds critical mass to that. It can therefore act as a catalyst for supporting the provision of such a service to the broader area.

Notwithstanding the uncertainty, and as described in the ITA Section 8.1, the masterplan's roading arrangements have been specifically developed to provide bus-capable road geometry, along with a requirement to identify future bus stop locations at the detailed design stage as provided for under a proposed consent condition (#56 (b)). This will ensure the Site delivers the appropriate internal infrastructure to support such a service should it be viable in the future.

Importantly, public transport investment and service delivery decisions are ultimately matters for GWRC and Metlink, and the absence of existing services should not preclude urban development where appropriate mechanisms exist to support future service expansion. The Applicant has therefore sought for the Site to be serviced, noting that the provision of the service is outside of its direct control.

Sources relied on:

- Integrated Transport Assessment (Appendix 15), section 8.1, pg.33

Comment 3.4

Potential effects on the current park and ride facilities at Waikanae and existing public transport services.

Response

With regard to rail services, GWRC acknowledges that the Kāpiti Line has capacity to accommodate future patronage growth (Section 6 of the GWRC memo), particularly with ongoing investment through the Lower North Island Rail Integrated Mobility (LNIRIM) programme.

The potential for some additional demand at Waikanae Station park-and-ride facilities is recognised, noting that:

- future residents will utilise a range of travel modes and destination choices, with these trips added incrementally as the Site is developed; and
- park-and-ride facilities form part of a wider regional transport system that will continue to evolve as growth occurs throughout the Kāpiti Coast.

Accordingly, while park-and-ride demand may increase, this issue is more appropriately considered as part of regional public transport planning and investment rather than as a constraint on this development itself, noting again that there are many contributors to and influences for these future considerations by GWRC.

Sources relied on:

- GWRC Comments on a Substantive Application memo dated 13 June, Section 6, Pg.3

4 Other Party Transport Comments Received

In addition to those submitter comments addressed above, a further 11 submissions included matters related to transport. Where multiple submitters raised similar issues, these comments have been grouped and addressed collectively in the table below.

Comment #	Commenter(s)	Matter Raised	Response
4.1 (T1)	1 Sally & John Killick; 5 Nicholas Brown; 11 Kevin & Karen Baker; 13 Kensington Farm Park Ltd; 16 Glynn & Jennifer Cowley; 19 Gail Inglis / Watutsi Trust; 30	**Capacity and safety of Peka Peka Road and Paetawa Road.** Commenters consider that Peka Peka Road and Paetawa Road already carry increased traffic together with cyclists, horses, walkers and runners, and that the roads could not accommodate development Site traffic. N Brown puts site generation at approximately 9,000-10,000 vpd. G and J Cowley refer to up to approximately 8,000 vpd across the two roads and to the absence of footpaths on Peka Peka Road.	Section 9.1 of the ITA sets out an estimated daily traffic generation once the Site is **fully built out** of approximately 9,700-9,900 vehicles per day. Such traffic additions will be added to the network incrementally over time, with Table 9.2 of the ITA identifying a 10-year development scenario to provide anticipated incremental peak hour traffic additions. Adopting the modelled 35% / 65% split of traffic to/from the west and east respectively, this translates to a total forecast use of Paetawa Road of less than

	Michael Pearson	Kensington Farm Park considers Peka Peka Road appears to be the only access and considers that it could not cope with the traffic additions.	5,000vpd which is well within its traffic carrying capacity. Of note is that, outside of ensuring the new Site access intersection on Peka Peka Road is appropriately designed to take account of Council's roading changes to provide cycling shoulders, the Applicant's traffic modelling has not identified road capacity constraints and Council has not raised any specific road safety concerns associated with the forecast uplift in traffic on this coastal route triggered by the development. It is further noted that as and when a southern roading link from the Site to the Ngarara Road extension comes online, a redistribution of Site traffic would occur such that volumes on Peka Peka Road and Paetawa Road would reduce from those assessed in the ITA, as some development Site traffic would see a benefit in routing to/from the south to access the Waikanae town centre or wider strategic network to the south.
4.2 (T2)	5 Nicholas Brown; 11 Kevin & Karen Baker; 16 Glynn & Jennifer Cowley	**Trip distribution assumptions for the coastal-route split and impacts on Te Moana Road Interchange access**. Commenters disagree with the assumed 35% Paetawa Road / Te Moana Road split for development Site traffic routing to/from the south because the shorter route is via the coastal alignment using Rutherford Drive and Paetawa Road. G & J Cowley submit that effects at Te Moana Road and the Expressway access must be considered.	As described in the ITA at Section 9.2.3 the development Site trip distribution has been derived from the Council's Kapiti Transport Model (KTM4), which takes into account journey origin / destination based on trip type (i.e. commute, school drop-off, connection to public transport etc). This represents the most robust methodology for establishing traffic distribution patterns for new developments such as that proposed here. The modelled outcome is that approximately 35% of site trips use the coastal route including to access the Te Moana interchange; and approximately 65% route along Old SH1, a portion associated with travel on the Expressway to and from the north, and some with the

			Waikanae town centre including its park and ride facility. Assessment of the traffic additions at the Te Moana Road interchange are set out in Section 9.2.5 of the ITA, and demonstrate movements remain within the range regarded as acceptable for a managed arterial interchange, with further information provided in the responses to comments 1.3 and 2.7 above. Assessment of the traffic additions on Te Moana Road itself are set out at Section 9.2.3 of the ITA and within the response to Comment 1.7 above, which concludes the road's designated function as a Major Community Connector is able to accommodate forecast demands.
4.3 (T3)	5 Nicholas Brown; 11 Kevin & Karen Baker; 14 Jo Gilpin & John Urquhart; 16 Glynn & Jennifer Cowley; 19 Gail Inglis / Watutsi Trust	**Requested condition for south-facing ramps at the SH1 Peka Peka interchange**. N Brown seeks a condition requiring construction of south-facing on/off ramps at the SH1 Peka Peka interchange, funded by the developer or with the development delayed pending a co-funding agreement between the developer, NZTA and future developers, noting approximately 95% of generated traffic heads south and that the ramp land appears already designated (ITA Figure 3-1). K & K Baker and G & J Cowley seek the same relief. J Gilpin and J Urquhart ask whether NZTA has considered a long-term southbound on-ramp and northbound off-ramp for growth.	The Peka Peka interchange currently provides north-facing on and off ramps only, with southbound access via the full interchange at Te Moana Road. The ITA at Section 9.2.5 does not identify a capacity or safety deficiency at the Te Moana interchange that requires the construction of south-facing ramps as mitigation for this development. Rather, the need for and appropriateness of south-facing ramps is a matter for NZTA (in combination with KCDC) as the road controlling authorities responsible for the delivery and operation of the highway network and its urban connections.
4.4 (T4)	1 Sally & John Killick; 11 Kevin & Karen Baker;	**Public transport provision**. S & J Killick query whether bus services will be provided through Peka	See responses to Comments 1.1 and 3.3 regarding the feasibility of future bus services. The proposed site roading layout has been intentionally designed to

	16 Glynn & Jennifer Cowley	Peka, whilst K & B Baker submit that the Metlink public transport extension is speculative. G & J Cowley seek a condition requiring public transport provision.	accommodate bus access should GWRC / Metlink elect to introduce a public bus service in the future. As GWRC and Metlink are the entities responsible for planning and delivering scheduled public transport services, it would not be reasonable or practicable to impose a consent condition requiring the provision of a future bus service. This matter sits outside the Applicant's control.
4.5 (T5)	1 Sally & John Killick; 16 Glynn & Jennifer Cowley; 30 Michael Pearson	**Walking and cycling provision**. Submitters query provision of any cycleway upgrades and walkways along Peka Peka Road and enhancements to Paetawa Road. G & J Cowley notes there are no footpaths on Peka Peka Road, that both roads are heavily used by cyclists and horses, and that a walking connection between the Site at Paetawa Road to the beach access will add foot traffic, likely including many children.	As described in Section 3.2.1 of the ITA, Council has very recently undertaken road widening along Peka Peka Road to better accommodate cyclists along this route. It is understood that further shoulder widening works are planned at other sections along the road. With respect to the walking connection between the Site and Paetawa Road, consideration of an appropriate safe crossing design for pedestrians will be considered at the detailed roading design certification stage and associated Safe System Audit, both of which are required under proposed consent conditions #56 and #60.
4.6 (T6, T7, T22, T11, T21)	14 Jo Gilpin & John Urquhart; 13 Kensington Farm Park Ltd; 17 Dean & Miriam Lewin; 30 Michael Pearson; 33 Brett Johnson;	**Design, upgrade and operation of new Site access road connection to Peka Peka Road**. • J Gilpin and J Urquhart seek confirmation that the existing private road can safely carry future volumes, addressing width, an independent road safety audit, width for footpaths and cycle facilities, street lighting and intersection design and safety, given it becomes the primary	As described in the ITA at Section 8.1, the Site access road will be upgraded to a public road standard and vested; it will not remain a private accessway. The new vested road has been designed as a Primary Collector capable of accommodating full development Site traffic. Details of the road cross section are illustrated in the 'Local' Plan reproduced below the table, which includes two-way (one lane in each direction), on-road cycle lanes and an off-road shared path. The

		access to approximately 1,000 dwellings.	road can be accommodated within the existing width available. It is noted detailed roading plans must be prepared and certified prior to construction (Appendix 33, Condition 56) and all road construction undertaken in accordance with them (Condition 57). The intersection with Peka Peka Road is to be upgraded by and at the consent holder's cost (Condition 58), with completion required by a specified trigger (Condition 59). An independent road safety audit is required to be submitted to the Council's Development Engineer (Condition 60). Street lighting is required to be implemented at each stage (Conditions 67-68). The accessway between Peka Peka Road and the main site is separately addressed by Condition 93.
		• M Pearson has asked about traffic volumes on the access road at full development.	Section 9.1 of the ITA sets out an estimated daily traffic generation once the Site is fully built out of approximately 9,700-9,900 vehicles per day, noting that other Site roading connections could provide for some wider redistribution of this development traffic in the future.
		• Submitters have raised concerns that their property changes from adjoining a lightly used private access to bordering the principal public road, and that the application should address traffic noise, intersection works closures and disruption, headlight glare, street lighting,	Operational road-traffic noise is not a matter managed by the District Plan. It is acknowledged that the proposal will change the character of the existing access road. Construction noise has been assessed in the supporting Acoustic Assessment and in respect of construction traffic, is to be managed through a Construction Traffic Management Plan. Street lighting is required to be designed and implemented in accordance with the certified roading plans (Conditions 67-68), and needs to consider light spill effects (Condition 76(g)). Street planting is addressed by separate consent conditions (Conditions 74-80).

			The photograph below illustrates that headlights from vehicles either travelling along the new Site access road, or turning to / from Peka Peka Road are unlikely to introduce any headlight effects on the dwelling at [redacted], which sits well above these two road levels and is offset from the alignment of the access road, noting the second dwelling at #[redacted] is off-set some way from the road boundary and includes existing screening. The proposed upgrade of the access road to a Primary Collector route typology has been specifically designed to be constructed wholly within the available accessway boundary.
		• J Gilpin and J Urquhart seek clarity on whether the new public road creates restrictions on the future use of their property (fencing, landscaping, utilities, easements, vehicle access), whether land is required from adjoining properties for the road reserve given cycle lanes and footpaths may need more room than is available. • M Pearson has submitted that a roundabout should be constructed at the Site access road with Peka Peka Road.	Sections 7.1 and 9.2.4 of the ITA provide an assessment of the appropriate intersection form and capacity, demonstrating a priority tee-intersection can operate safely and efficiently. Subject to appropriate consideration of the Peka Peka Road cycle provision, Council has accepted the proposed tee-intersection form. A roundabout, as suggested by Mr Pearson, is not required.
4.7 (T29)	Transpower New Zealand Ltd	Transpower's lines clearance assessment of the pre-lodgement plans provided to Transpower, found that the ground to conductor clearance of the road located to the south of the dog park (proposed lot 4049) will not comply with the NZECP34: 2001 requirement of 7.5m plus the 0.5m tolerance required by Transpower.	A response to this comment has been provided by Landlink.

		Transpower requested the design of this road was revised to lower the road by at least 0.4 m to meet the NZECP34:2001 clearance requirements. It does not appear that this matter has been addressed in the Substantive Application.	
4.8 (T8)	14 Jo Gilpin & John Urquhart; 12 Bryan & Debbie Edwards; 33 Brett Johnson	**Construction traffic and the Construction Traffic Management Plan**. Submitters seek clarification of daily truck movements per stage, duration, operating hours, weekend and evening restrictions, dust mitigation and maintained resident access, and request that a Construction Traffic Management Plan be prepared in consultation with directly affected neighbours.	Both a Construction and Environmental Management Plan (CEMP) and a Construction Traffic Management Plan (CTMP) are required under proposed Conditions 15-16. No construction or earthworks may commence within a stage until both the CEMP and CTMP have been certified in writing by the Council's Development Engineer (Condition 19), and both must be implemented and maintained throughout construction (Conditions 20-21). Construction worker and heavy vehicle movements are restricted by Condition 94 to specified hours, where heavy vehicle movements on the site shall only take place between the hours of 7:30am and 6:00pm, Monday to Saturday. No noisy work shall be undertaken on Sundays or public holidays. Pre-construction and post-construction condition surveys of Peka Peka Road are provided for by Conditions 17 and 18.

Reference: **Waikanae North Development**

New Site Access Road connection to Peka Peka Road; Local – Street Sections – Primary Collectors Plan 'LA8.02' (Rev E)

Aerial photograph showing the position of the dwellings at [redacted], relative to the Site access road level and alignment.

Reference: Waikanae North Development

Encl: Stantec Traffic Modelling Memorandum (dated 14 July 2026

Stantec

Memo

To:	Mitch Lewandowski Building Block Planning	From:	Jamie Whittaker
Project/File:	310206474	Date:	14 July 2026

Reference: WNDL Peka Peka Farm Subdivision Fast Track Application – Traffic Modelling

This memorandum has been prepared following a meeting with the Kapiti Coast District Council (Council) and the NZ Transport Agency (NZTA) on 8 July. Its purpose is to provide further clarification on the traffic modelling assessment undertaken for the proposed Waikanae North Development Limited (WNDL) Site at 169-171 Peka Peka Road and 107 Paetawa Road. The memorandum should be read in conjunction with the Integrated Transport Assessment (ITA) dated 24 March 2026, submitted as part of the Fast-track Approvals Act 2024 application for resource consent for development of the WNDL Site.

During the meeting it was identified that there are some differences between the traffic analysis undertaken for the State Highway 1 Expressway interchange at Te Moana Road provided in the ITA (for the WNDL Site), versus the traffic assessment supporting the Private Plan Change 5 (PPC5) at 110 Te Moana Road.

By way of summary, the traffic modelling methodology adopted in the ITA uses the Council's own district-wide SATURN 'Kapiti Transport Model 4' (KTM4) to assess the wider network distribution for WNDL Site traffic, and to take account of local vs. district / regional trips and route choice. The forecast year KTM volumes at the interchange with and without WNDL traffic are then analysed with a local area SIDRA model.

It is understood the PPC5 assessment of the Interchange uses a SIDRA model for an undefined 'future' traffic scenario that assumes full PPC5 development traffic and 100% of the Ngarara Development site traffic (associated with the full ~900 dwelling yield) loading directly onto the Te Moana Road. With regard to the Ngarara Development, there are two key matters which need to be considered with regard to its potential effects on the Interchange. Firstly, it is understood the current number of either 'built' or 'consented' lots on the site amounts to approximately 350 dwellings, with any future staged development needing resource consent including in respect of potential effects on the transport network. Secondly, the Ngarara Development Structure Plan includes new external site connections that cross the Expressway (for example via the existing bridge at Ngarara Road) that will provide more direct access for local traffic connecting to the Waikanae town centre and associated public transport nodes, as compared to using Te Moana Road. These development constraints and roading forms are not taken into account by the PPC5 modelling.

Further Information

During the meeting, the following information was requested by Council / NZTA:

1. Further detail on the calibration and validation for the SIDRA base model of the Interchange, along with detailed model inputs and outputs;
2. Confirmation of the KTM4 2036 forecast models with respect to:
    a) assumptions for the DoMin 2036 for the Ngarara Development area, including number of dwellings and associated roading links that are in place (which will influence traffic distribution);
    b) further commentary on the flows at the interchange 'with' and 'without' WNDL Site development traffic; and
3. rationale for the trip generation rates adopted for the WNDL Site traffic.

Each of these are addressed in turn below.

1. SIDRA Calibration and Validation

Section 9.2.5 of the ITA describes the SIDRA model developed to assess the performance of the interchange in the forecast year 2036, with and without WNDL Site traffic.

A base model was first developed of the Interchange using traffic count and signal timing data provided by the Wellington Traffic Operations Centre for July 2025. Queue length surveys were also undertaken on-site for the critical PM peak to validate the modelled queues.

A summary of the modelled vs. observed queues (in vehicles) is included below in Tables 1 and 2. Whilst there are some unders and overs, which isn't unusual where SCATs[1] is more adaptive in operation, the 95th percentile queues generally show good correlation, noting queuing is relatively modest on some of the minor movements. Photographs of on-site recorded queues are also provided for reference.

Model parameters were left at default and optimal cycle times adopted for the forecast years.

Table 1: Queue validation western intersection (vehicles)

	SH1 off-ramp (south)		Te Moana Road (west)		Te Moana Road (east)	
	Left	Through/Right	Left	Through	Through	Right
Observed 95th queue (vehicles)	6.5	7.5	1.0	7.8	2.0	1.0
Modelled 95th queue (vehicles)	5.7	8.1	0.6	10.6	4.3	0.6

[1] Sydney Coordinated Adaptive Traffic System

Table 2: Queue validation eastern intersection (vehicles)

	SH1 off-ramp (north)		Te Moana Road (west)		Te Moana Road (east)	
	Left	Through/Right	Through	Right	Left	Through
Observed 95th queue (vehicles)	2.0	3.2	10.7	4.0	5.0	5.1
Modelled 95th queue (vehicles)	0.4	0.8	7.6	4.8	5.0	5.1

Observed PM peak queueing at SH1 northbound off-ramp

Observed PM peak queueing at Te Moana Road west approach to the western intersection

Observed PM peak queueing at Te Moana Road west approach to the eastern intersection

Detailed inputs and outputs for the Base and Forecast 2036 with and without WNDL traffic are appended to this report.

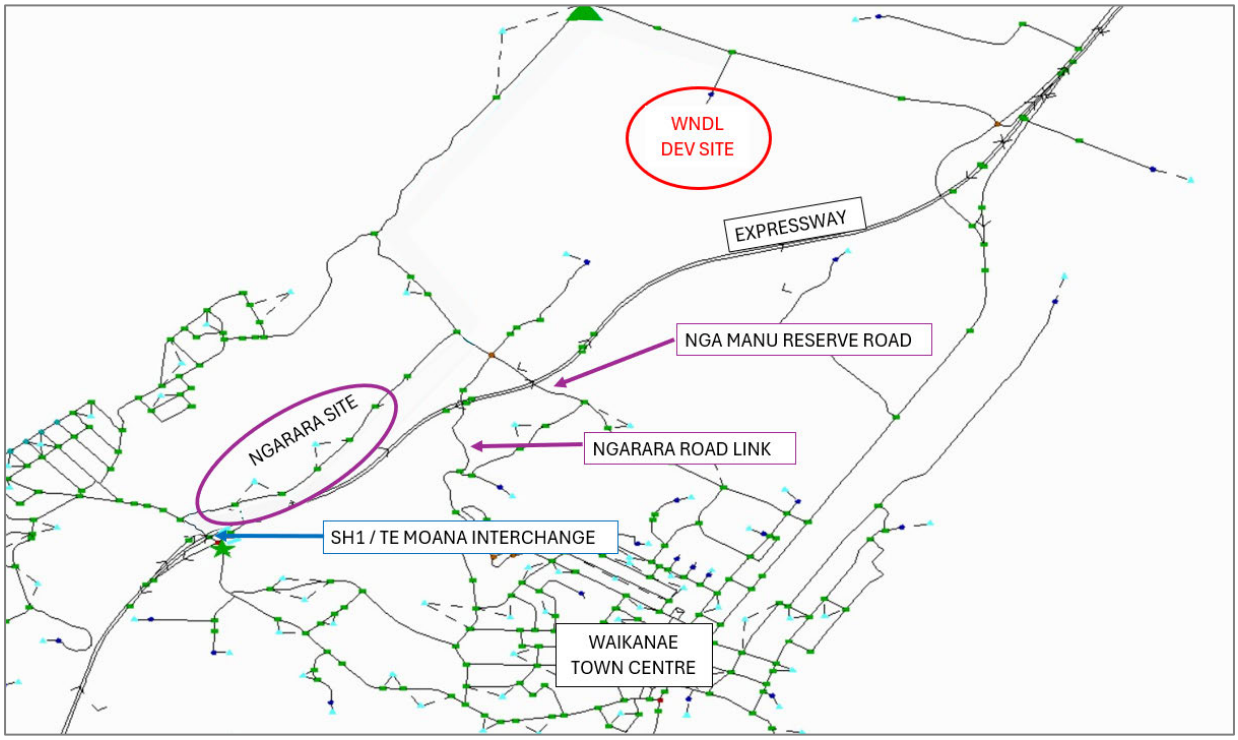
2. KTM Model Details and Assumptions for Forecast Year Assessment

The following detail has been sought on the Council's KTM4 model from Don Wignall (Traffic Futures Ltd), who was commissioned via Council to undertake the WNDL Site modelling using the Council's KTM4 model. Mr Wignall is currently overseas and does not have access to interrogate the models in detail until his return to NZ on 28 July. In the interim, information has been provided where available.

a. Assumptions for the Ngarara Development Site

The modelled network from the 2036 forecast year KTM is illustrated below. This shows the Ngarara Site development external connections across the Expressway are in place along with a new external link to Rutherford Drive and to Ngarara Road (as consistent with the Ngarara Development Structure Plan). Accordingly, Ngarara Development traffic will distribute across these external links rather than all loading via Te Moana Road.

Whilst Mr Wignall has confirmed the KTM model zones representing the Ngarara site include allowance for development at the 2036 forecast year, he has stated he will need to interrogate the model to confirm the level of development-related traffic that has been allowed for.



b. Traffic Flows at the Interchange

Mr Wignall has advised that he will need to further interrogate the modelling to understand the factors contributing to the traffic patterns observed at the interchange under the forecast-year scenarios for 'with' and 'without' WNDL Site traffic.

3. Trip Generation

Section 9.1 of the ITA sets out the adopted trip generation that has been used to assess the off-site impacts of the proposed WNDL development. Drawing on Research Report 453, a rate of 0.9vph has been used to represent the outer suburban nature of the Site. This rate has then been applied 'globally' across all dwelling types across the development, which includes a mixture of standalone, terrace or semi-detached dwellings, and apartments, with the latter typically generating lower trip rates given the smaller unit size and associated lower car ownership rates.

It is noted the RR453 is now very dated, and more recent trip generation analysis undertaken by Stantec for established 'outer suburban' land use across the Wellington region indicates typical peak trip rates of less than 0.9vph. Two such examples include Totara Park and Riverstone Terraces in Upper Hutt, which are similar sized suburbs accessed off a single road connection. Analysis of tube count data for these streets relative to the number of dwellings in each catchment provides the trip generation rates set out in the table below, noting both pre-Covid (2017 / 2018) and post-Covid (2023) volumes are provided for comparison purposes.

Reference: **Peka Peka WNDL**

Location	Census Year	Dwellings	Count Date	Vehicles per hour per Dwelling	
				AM Peak Trip Generation	PM Peak Trip Generation
Riverstone Terraces	2023	582	2023	0.69	0.65
	2018	582	2017	0.67	0.66
Totara Park	2023	1,077	2023	0.58	0.71
	2018	1,041	2018	0.54	0.72

These surveyed trip rates serve to demonstrate that the 0.9vph adopted in the ITA provides a robust assessment. Further, the close correlation of the rates for the pre-covid versus post-covid situations serves to indicate travel patterns and habits were already evolving from those historic rates captured in RR453, which draws from data that is 25+ years old.

Discussions with Council's peer reviewer confirm he accepts the adopted trip generation rates within the ITA as 'appropriate', noting he considers these rates reflective of what will arise at the Site based on anticipated mode share. We remain of the view that the approach taken is conservative.

Pending further detail on the KTM4 from Council's model operator, we trust the above information satisfactorily addresses the matters raised and provides further clarity on the traffic modelling for the Interchange associated with the WNDL development.

Yours sincerely

Stantec New Zealand

Jamie Whittaker
Principal Transportation Planner

Attachment: Detailed SIDRA Inputs and Outputs