

**BEFORE INDEPENDENT HEARING COMMISSIONERS APPOINTED BY THE
WAIMAKARIRI DISTRICT COUNCIL**

IN THE MATTER OF

The Resource Management Act 1991 (**RMA** or
the Act)

AND

IN THE MATTER OF

Hearing of Submissions and Further
Submissions on the Proposed Waimakariri
District Plan (**PWDP** or **the Proposed Plan**)

AND

IN THE MATTER OF

Hearing of Submissions and Further
Submissions on Variations 1 and 2 to the
Proposed Waimakariri District Plan

AND

IN THE MATTER OF

Submissions and Further Submissions on the
Proposed Waimakariri District Plan by **Mike
Greer Homes NZ Limited**

**EVIDENCE OF MATHEW (MAT) COLLINS
ON BEHALF OF MIKE GREER HOMES NZ LIMITED REGARDING HEARING
STREAM 12E**

DATED: 5 March 2024

Presented for filing by:
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INTRODUCTION

- 1 My name is Mathew (Mat) Ross Collins.
- 2 I hold a Bachelor of Engineering (Hons) from the University of Auckland and have a post-graduate certificate in transportation and land use planning from Simon Fraser University in Vancouver, Canada.
- 3 I have been employed by Abley Ltd since September 2023, where I hold the position of Associate Transport Planner.
- 4 I have over 8 years of experience as a transportation planner and engineer in public and private sector land development projects, which includes experience with strategic land use and transport planning, plan changes, Integrated Transport Assessments, development consenting, and notices of requirement.
- 5 My experience includes acting for NZ Transport Agency Waka Kotahi (Waka Kotahi), Auckland Transport and Auckland Council, Kāinga Ora, Whangārei District Council, Kaipara District Council, and various private developers throughout New Zealand. This work has involved:
 - (a) Plan change applications including multiple Selwyn District Private Plan Changes, Drury East, Drury West, Warkworth North, the Whangarei District Plan Changes for Urban and Services, Mangawhai Central, Avondale Jockey Club, and Pukekohe Raceway
 - (b) Resource consent applications including large precincts: Drury South Industrial, Drury Residential, Redhills, Silverdale 3, Drury 1, Waiata Shores, and Crown Lynn Yards
 - (c) Designation, Outline Plan of Works, and resource consent applications and reviews for major infrastructure including Supporting Growth Alliance Drury Arterials NoR Package and North Auckland Package, Healthy Waters St Marys Bay Stormwater Water Quality Programme, Watercare Huia Water Treatment Plant replacement, Watercare Huia 1 Watermain replacement, and several Ministry of Education Schools.

6 My role in relation to the Waimakariri Proposed District Plan and Variation 1 is as an independent expert witness to Mike Greer Homes NZ Limited (**Mike Greer Homes**) on traffic and transportation matters.

7 Although this is not an Environment Court proceeding, I have read the Environment Court's Code of Conduct and agree to comply with it. My qualifications as an expert are set out above. The matters addressed in my evidence are within my area of expertise, however where I make statements on issues that are not in my area of expertise, I will state whose evidence I have relied upon. I have not omitted to consider material facts known to me that might alter or detract from the opinions expressed in my evidence.

SCOPE OF EVIDENCE

8 In my evidence I address the following issues:

- (a) I present my assessment of the traffic and transportation effects of Mike Greer Homes' rezoning submission under the PWDP, applying to Pt RS 37428 (CB701/7) limited to the land to the west of the Main Trunk Railway Line, RS 39673, and Lot 1 DP 19366 (the Site).
- (b) My evidence is consistent with the scope of an Integrated Transport Assessment to support a land use rezoning proposal, with content that has been prepared by Albey staff under my direction.

SUMMARY OF MY EVIDENCE

9 Given this is a rezoning request, my evidence has been focused on whether any insurmountable transport or traffic effects might arise from the increased demand on the transport network as a result of the proposed rezoning in the Mike Greer Homes' submission.

10 In summary, I conclude that:

- (a) The existing transport network, including improvements to the Tram Road/SH1 interchange that are currently being undertaken by Waka Kotahi, can accommodate the travel demand generated by the Site.
- (b) The Site has excellent transport accessibility, and the urbanisation of the Site is consistent with or achieves the purpose of transport

objectives and policies contained in national, regional and local government statements and plans.

- 11 Overall, I consider the requested rezoning is appropriate from a traffic and transport perspective and my view is that there are no transport related reasons why the rezoning should not be adopted as proposed.

CONTEXT

- 12 The land proposed for rezoning through the submission comprises 144 Main North Road and 170 Main North Road (PT RS 37428 (CB701/7) limited to the land to the west of the Main Trunk Railway Line, RS 39673 and Lot 1 DP 19366), referred to from hereon in as "the Site", with a total of around 14.9ha.
- 13 The Site is currently used for pastoral farming with some cropping and on the southwestern side of the Site there is a single dwelling accompanied by a few small farming buildings.
- 14 The Site is zoned as Rural in the Operative Waimakariri District Plan (WDP) and Rural Lifestyle Zone in the PWDP.
- 15 Mike Greer Homes proposes for the Site to be rezoned as Medium Density Residential Zone and add a new Residential Development Area (SK – South Kaiapoi Development Area).

THE PROPOSAL

- 16 Mike Greer Homes is seeking to create a new Residential Development Area (South Kaiapoi Development Area) over Pt RS 37428 (CB701/7) limited to the land to the west of the Main Trunk Railway Line, RS 39673, and Lot 1 DP 19366, to Medium Density Residential Zone, with an outline development plan (OPD) applied to the Site as shown in Figure 1.
- 17 I understand from Ms Harte (Consultant Planner for Mike Green Homes) that it is estimated that the rezoning would enable approximately 200 residential dwellings.
- 18 The Site will gain access via a new public roading network connecting to Main North Road. The access points to the wider network through Main North Road and over the Kaikainui Stream provide safe and legible connections to the wider transport network.

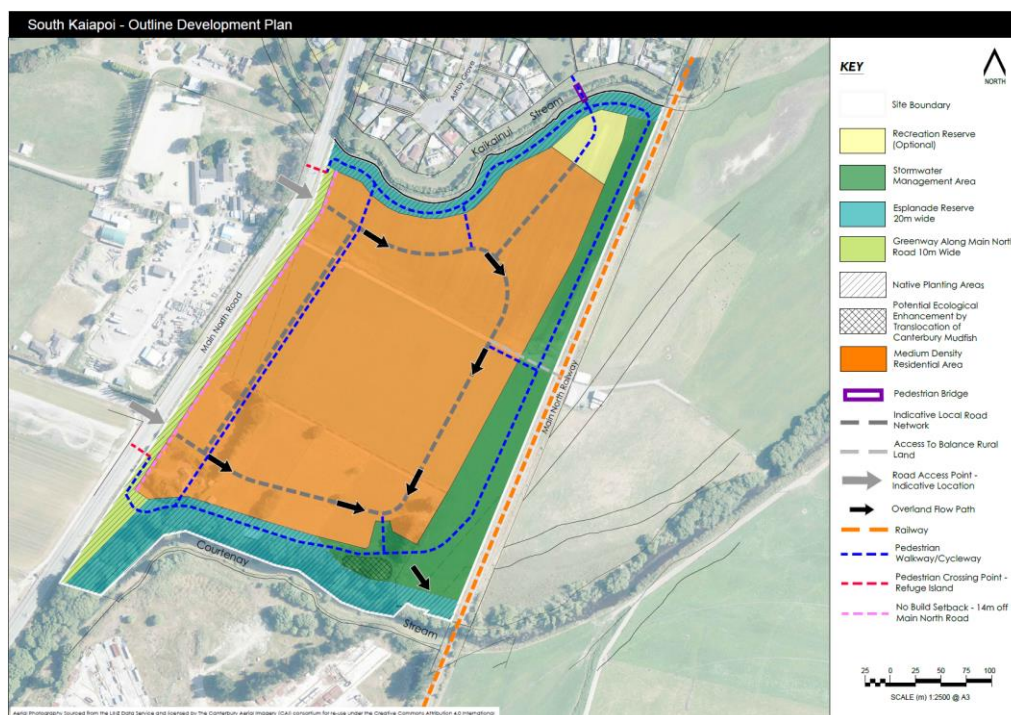


Figure 1: Outline Development Plan.

THE RECEIVING ENVIRONMENT

Existing Land Use and Transport Environment

- 19 The Site is shown below in Figure 2. It is located immediately south of the existing Kaiapoi urban area, less than 2km from the Kaiapoi Town Centre and General Industrial Zone, and approximately 15km from Christchurch City Centre.
- 20 The Kaiapoi Town Centre and General Industrial Zones contain multiple supermarkets, restaurants, fuel stations, employment opportunities, service activities and shopping facilities. Within the wider Kaiapoi urban area, there are multiple schools and day care centres.
- 21 The Site has frontage to Main North Road, which provides ready access to the Kaiapoi urban area and the Christchurch urban area.
- 22 The Site is currently farmland, as is the land to the south, east and west of the Site. Low density residential housing is located to the north of the Site.



Figure 2: Site Location.

- 23 The Site has frontage to Main North Road along its north-western boundary.
- 24 Main North Road is classified as an Arterial Road in the PWDP and an Arterial Road in the One Network Framework. It has a legal width of 20m, with 7.0m of sealed carriageway and 1.5m sealed shoulders which enables two-way vehicle movement. There are utility poles on the eastern side of the road. A shared path is located on the western side of Main North Road, connecting to the Christchurch Northern Corridor Cycleway Network and Kaiapoi Town Centre.
- 25 The speed limit of Main North Road is 60km/h and has an estimated average annual daily traffic volume (AADT) of 7300 vehicles¹, with 6.7% of vehicles classified as heavy vehicles. There are two existing accessways from the Site with frontage. Figure 3 shows the typical cross section of Main North Road, with the Site located on the right-hand side.
- 26 The eastern side of the Site has frontage to the Main North Line. It is a regional rail line run by KiwiRail. The line is used for both tourism and freight purposes. It is not considered to be a part of the public transport network.

¹ Source: Mobile Roads



Figure 3: Main North Road looking north².

Road Safety

27 The Waka Kotahi Crash Analysis System was used to evaluate the existing road safety record on the surrounding network. The scope of the assessment was Main North Road, from the Tram Road intersection and Holland Drive intersection, as shown in Figure 4.

28 Of note, several significant changes occurred on Main North Road in 2020, related to the completion of the Christchurch Northern Corridor (CNC) project:

- (a) A reduction in daily traffic volumes on Main North Road, due to the availability of the Christchurch Northern Corridor as a faster and more direct route for traffic bypassing Kaiapoi.
- (b) Provision of a shared use path, on the western side of Main North Road.
- (c) Reduction in the speed limit on Main North Road, south of Williams Street, from 80km/hr to 60km/hr.

29 Between 2018 and 2020 (year to date) 8 crashes occurred:

- (a) One serious injury crash occurred in 2019 on Main North Road, immediately south of the Site. This occurred during the day, when a

² Image sourced from Google streetview

northbound driver crossed the centreline and hit a southbound driver. Alcohol was suspected for both drivers.

- (b) Four minor injury crashes occurred in the search analysis area. One crash occurred in 2018 (failed to give way to oncoming traffic), 2019 (missed intersection and lost control), one in 2020 (vehicle lost control and went off road to the left) and one in 2022 (lost control turning right, went off road to the left).
- (c) Four non-injury crashes occurred between 2018 and 2020. Common factors included loss of control, suspected drug or alcohol impairment, and failure to give way to oncoming traffic.

30 Between 2021 and 2024 (year to date), 4 crashes occurred:

- (a) One crash occurred in 2022, where a driver lost control turning right and alcohol/drug use was suspected.
- (b) Three non-injury crashes occurred between 2021 and 2024. Common factors included loss of control and suspected drug or alcohol impairment.

31 In summary:

- (a) A common theme on this section of Main North Road related to crashes is drivers losing control of the vehicle and driving off the road.
- (b) Crash frequency and severity may be reduced post 2020 changes to Main North Road, the limited data set means it is too early to draw definitive conclusions however, it is logical to assume that these changes will improve safety along the corridor.
- (c) The crashes resulted in no fatalities, and none involved pedestrians or cyclists.

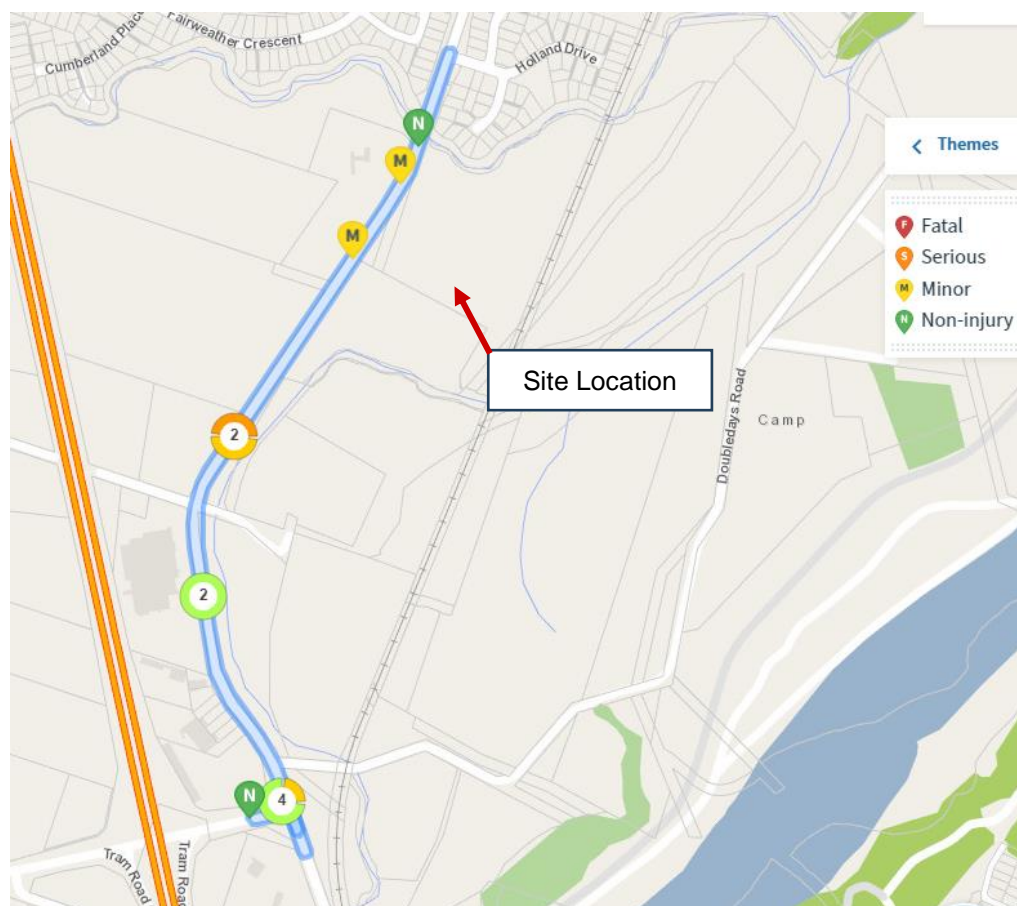


Figure 4: Crash locations and severity, 2018 to 2024.

Walking and cycling

- 32 There is an existing shared use path on the western side of Main North Road along the Site frontage, which connects Kaiapoi Town Centre to the CNC shared path. The CNC shared path provides a high-quality route, with multiple connections to the Christchurch urban area.
- 33 Several cycleways connect at Kaiapoi, including the Passchendaele Memorial Path (to Kaiapoi) and the Pegasus Trail (to Pines/Kairaki Beach, Woodend, and Pegasus). Refer to Figure 54 below.
- 34 There are currently no pedestrian or cyclist facilities on the eastern side of Main North Road. Those wanting to access the shared path from the Site will need to cross Main North Road to access this infrastructure. There are no dedicated pedestrian crossing locations on Main North Road with frontage to the Site. Therefore, I recommend that a safe pedestrian and cyclist crossing is provided on Main North Road, to link the existing shared use path with the Site.

- 35 Travel times to nearby designations are approximately³:
- (a) 22-minute walk or 5-minute cycle to Kaiapoi High School.
 - (b) 29-minute walk or 7-minute cycle to Portobelo Preschool and Kaiapoi Borough School.
 - (c) 24-minute walk or a 5-minute cycle to Kaiapoi Town Centre, which includes medical centres, a supermarket, retail and employment opportunities.
- 36 Overall, the Site has excellent access to the walking and cycling network.



Figure 5: Cycle network⁴

³ 18 km/hr cycle speed, 4.6 km/hr walking speed.

⁴ Waimakariri eastern cycle trails, published by WDC, available online at <https://visitwaimakariri.co.nz/wp-content/uploads/2022/08/A4-Cycling-Maps.pdf>

Public Transport

- 37 There are a range of public transport options that connect Kaiapoi to Rangiora, Christchurch, Woodend, Pegasus and Waikuku. The bus routes vary in frequency and are provided by Metro, run by Environment Canterbury. Some routes service the wider Kaiapoi Township, while others service the key bus stops (13979 & 15873) on Main North Road adjacent to the Site.
- (a) Metro Route 1 (Rangiora/Cashmere) services the key bus stops on Main North Road every 30 minutes (approximately). During peak hours the route frequency increases. There is also an express route version, allowing quicker access between Kaiapoi and Christchurch Central City.
 - (b) Metro Route 92 (Kaiapoi – City Direct) does not service the bus stops on Main North Road, however, does service the Kaiapoi Central Park & Ride and the South Park & Ride. This is located south of the Site, at Main North Road/Wrights Road (stop 54874). Route 92 is a Monday to Friday service, occurring four times in both the morning and evening travel peaks. There are only four stops on the route, allowing for quick and direct transport from Kaiapoi to Christchurch.
 - (c) Metro Route 95 (Waikuku and Pegasus/City) does not service the key bus stops on Main North Road, however, it does service other stops in Kaiapoi. This route connects Waikuku, Pegasus, Woodend, Kaiapoi and Christchurch Central. During the morning travel peak, this service is an Express Route and therefore does not stop at all bus stops on the route. Outside of the morning peak, Route 95 occurs hourly.
 - (d) There are four Metro Routes designated to service Christchurch Schools for students travelling from the Waimakariri District (Metro Routes 721, 722, 723 and 724). There is only one morning and afternoon service for each of these routes, Monday to Friday during the school year.
- 38 Overall, the Site is well serviced by public transport, with bus stops on Main North Road within a 1 – 2 minute walk from the Site accesses, and ready access to Park N Ride facilities.

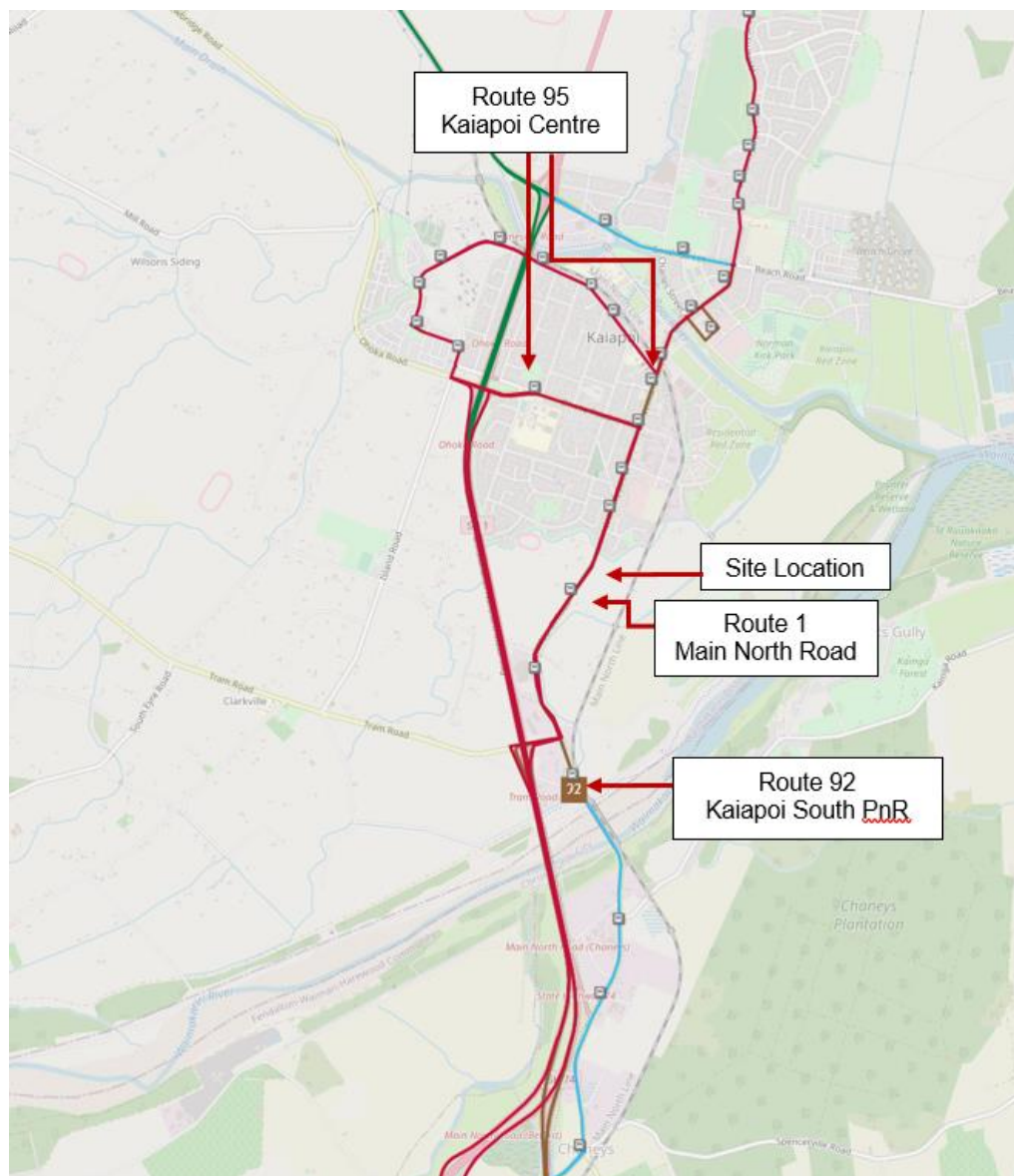


Figure 6: Public transport routes, showing the closest stop locations to the Site⁵

39 General traffic

40 The Site has excellent access to the local and strategic transport network. Main North Road is an arterial road, providing a connection to the wider network, with a speed limit of 60 km/hr. South facing ramps onto SH1 are provided at Tram Road, and both north and south facing ramps are provided at Ohoka Road.

41 The Tram Road onramp has traffic signals, but the offramp is currently priority controlled. Waka Kotahi will be upgrading this intersection in early 2024. Right

⁵ Public transport map, published by Metro Go, available online at <https://go.metroinfo.co.nz/mtbp/en-gb/arrivals/content/routes>

turns at the off ramp will be signalised, and the existing free left turn lane will be extended to make merging safer⁶.

- 42 A T2 Transit lane (for Public Transport, Freight, and private vehicles with 2 or more occupants) is provided westbound on Tram Road, from Main North Road onto SH1. The T2 lane operates at all times and provides incentives for commuters to carpool or use public transport.
- 43 Morning peak hour commute times by vehicle are typically around⁷:
- (a) 16 - 28 minutes to Christchurch City Centre.
 - (b) 12 - 18 minutes to Rangiora.
 - (c) 16 - 28 minutes to Christchurch Airport.
 - (d) 20 - 40 minutes to Hornby.
- 44 Overall, the Site has excellent access to the transport network.

TRANSPORTATION ASSESSMENT

Road Design

- 45 I have reviewed the approximate intersection locations and undertaken a sight distance assessment in accordance with the standards set out in Austroads Guide to Road Design Part 4A: Unsignalised and Signalised Intersections. The exact locations of the proposed intersections are yet to be determined. Based on a design speed of 60km/h, a Safe Intersection Sight Distance of 123m is required in each direction at each new intersection for a two second reaction time. The topography is flat and road alignment is generally straight.
- 46 I can confirm that this distance is available at the proposed intersection locations, and further assessment will be provided as part of future subdivision consents, once exact locations are chosen.
- 47 The two new intersections with Main North Road are proposed to be priority tee intersections, with give way or stop signs installed to manage traffic exiting the development. As discussed later in my evidence, short left and right turn bays may be required for these intersections. Main North Road has

⁶ North Canterbury off-ramp gets revamp in the New Year, Waka Kotahi media release dated 15 December 2023, available online at <https://www.nzta.govt.nz/media-releases/north-canterbury-off-ramp-gets-re-vamp-in-the-new-year/>

⁷ Google maps travel time data, Thursday 0740hrs departure time.

a width of 20m, which is likely to be sufficient to accommodate this. This can be further considered during future resource consent applications, with Mike Greer Homes able to vest Site frontage if required for localised intersection widening.

- 48 The internal roading network will be determined via future subdivision consents, and I assumed that this will generally comply with the Proposed WDP and Waimakariri Engineering Standards.

Walking and Cycling

- 49 The internal walking and cycling network will be determined via future subdivision consents, and it is assumed that this will generally comply with the PWDP and Waimakariri District Council Engineering Standards.
- 50 However, there is currently no pedestrian or cyclist infrastructure on the eastern side of Main North Road. There are also no designated crossing points on Main North Road.
- 51 The provision of walking and cycling infrastructure on the eastern side of Main Road can be determined as part of future subdivision consents, noting that there is an existing pinch point on the Main North Road bridge over the Kaikainui Stream that may preclude a walking and cycling connection on the eastern side. I anticipate that the frontage upgrade will meet PWDP and Waimakariri District Council Engineering Code of Practice.
- 52 Two pedestrian and cyclist are proposed on Main North Road, near the proposed intersections, to connect the Site with the existing walking and cycling path on the western side of Main North Road. These are indicated on the Outline Development Plan.
- 53 A pedestrian and cyclist bridge is proposed over the Kaikainui Stream, enhancing connectivity to the existing urban area to the north.
- 54 An internal walking and cycling network is proposed, connecting the proposed urban areas and stormwater management areas, facilitating access and also providing for recreational activity.

Public Transport

- 55 There are two existing bus stops (13979 & 15873) located on Main North Road, near the proposed southern intersection. It would be beneficial to

provide a bus shelter for the southbound stop, as has been done for other southbound stops within the existing Kaiapoi urban area.

56 To increase connectivity to public transport options, additional bus stops could be installed near the proposed northern intersection.

57 However, any changes to existing bus stops or the provision of new bus stops would require consultation with and approval from Environment Canterbury and Waimakariri District Council. This can be further considered during future resource consent applications.

Safety

58 The rezoning will increase the number of daily vehicle trips to Main North Road. At present, there are no significant safety risks on Main North Road with frontage to the Site.

59 Waka Kotahi is addressing the existing safety risks for right-turns at the Tram Road offramp. Currently, works are underway to signalise the right turn at the end of the offramp, extend the free left-hand turn lane and safe crossing point for cyclists.

Traffic Generation

60 I have calculated the daily trip generation rates using rates provided in the Waimakariri District Council Engineering Code of Practice. That document sets out that a trip generation rate of 10 trips per day for an urban dwelling should be used.

61 Peak hour trip rates are not provided in the Waimakariri District Council Engineering Code of Practice. I have used a peak hour trip rate of 0.85 based on Table C.1 of Waka Kotahi Research Report 453 (RR453). I considered this to be an appropriate peak hour trip rate to apply for this Site.

62 I have calculated that a yield of 200 dwellings would generate 170 vehicle peak hour vehicle trips and approximately 2000 vehicle trips per day. In the peak hour, this equates to approximately less than three vehicles every minute (two-way) which in my view is a low trip rate in the context of urban peak hour travel.

Traffic Distribution

63 In the morning peak hour, I expect that 80% of the traffic will leave the development and 20% will arrive at the development. This trend will

approximately reverse in the evening peak, with 30% of the traffic leaving the development and 70% arriving at the development. This is in line with industry best practice.

64 Statistics New Zealand's Waka Commuter app⁸ presents travel to work and education data from the 2018 census. I have assessed this data to understand where residents in the Kaiapoi South area currently travel to reach workplaces or education institutions on a daily basis. I anticipate that the current travel patterns observed in the census data for Kaiapoi South, are representative of likely future travel patterns on the Site.

65 I have observed from the census data that traffic travelling to/from Kaiapoi South follows four paths as indicated in Figure 7 and as follows:

- (a) 46% to the north via Kaiapoi,
- (b) 48% to the south/south west via SH1,
- (c) 5% to the south east via Main North Road, and
- (d) 1% to the west via Tram Road.

⁸ <https://commuter.waka.app/>



Figure 7: Vehicle trip distribution.

Transport Network Modelling methodology

66 I have instructed Abley modelling staff to assess the following intersections using SIDRA traffic modelling software, using the traffic generation and distribution assumptions discussed in the previous paragraphs:

- (a) Northern and Southern Site access intersections with Main North Road.
- (b) Main North Road/Tram Road signalised intersection.
- (c) Tram Road/SH1 onramp signalised intersection.
- (d) Tram Road/SH1 offramp, as a priority and a signalised intersection⁹.

67 The methodology and assumptions can be summarised as follows:

⁹ Note that at the time of our modelling assessment this intersection was formed as a priority tee. In early February 2024 NZTA Waka Kotahi began construction works to signalise this intersection.

- (a) We sourced automatic traffic counts (SCATS data) from existing signals at Main North Road/Tram Road and Tram Road/SH1 onramp intersections to establish the existing baseline operation of the intersections. This data included vehicle counts from weekdays during March 2023, between 7am – 9am and 4pm – 6pm.
- (b) We sourced traffic volumes and turning proportions at the Tram Road / SH1 offramp based on evidence prepared by Nick Fuller (Novo Group) for Plan Change 31¹⁰.
- (c) We assumed a 10% increase in background traffic over the next 10 years¹¹ to establish the 2033 baseline operation of the intersections. This is the Future Baseline Scenario.
- (d) We added traffic from the Site to assess how growth in traffic as a result of the proposed rezoning of the Site could impact the operation of the intersections by 2034. This is the Future Rezoning Scenario.

Transport Network Modelling results

68 The SIDRA model layouts are provided in **Attachment one**, and the performance and queuing results are provided in **Attachment two**. I summarise the results in the following paragraphs.

69 The performance results indicate that the Northern Site access intersection with Main North Road:

- (a) May require short additional turning lanes of around 15 – 25m, which I consider can be accommodated within the existing Main North Road and future vested road.
- (b) Operates acceptably in 2033 with a low level of delay in the context of urban peak hour traffic. Specifically, the highest delay is 36 seconds for right turns out of the Site in the AM and PM peaks.

¹⁰ Proposed private plan change RCP31 to the Operative Waimakariri District Plan, Evidence of Nicholas Peter Fuller, Para 25.1, available online at https://www.waimakariri.govt.nz/_data/assets/pdf_file/0013/141124/9ced670a50dfe11f65e88e01f641442ebbf6d9d.pdf

¹¹ Canterbury population is expected to grow at 0.8% per year between 2018 and 2048, referenced from Environment Canterbury, available online at <https://www.ecan.govt.nz/your-region/living-here/regional-leadership/population/#:~:text=82%25%20of%20Canterbury's%20estimated%20resident,as%20New%20Zealand's%20total%20population.>

- 70 The performance results indicate that the Southern Site access intersection with Main North Road:
- (a) May require short additional turning lanes of around 15 – 25m, which can be accommodated within the existing Main North Road and future vested road.
 - (b) Operates acceptably in 2033 with a low level of delay in the context of urban peak hour traffic. Specifically, the highest delay is 41- 42 seconds for right turns out of the Site in the AM and PM peaks.
- 71 The performance results indicate that the Main North Road/Tram Road intersection operates acceptably with a negligible change in delay that will not be noticeable to existing road users:
- (a) in the 2033 AM peak with the Site rezoned, the highest delay is 24 seconds for right turns from Tram Road into Main North Road (south), with no increase in delay compared to the future baseline scenario.
 - (b) in the 2033 PM peak with the Site rezoned, the highest delay is 27 seconds for right turns from Main North Road (north) into Tram Road, which is a 1 second increase in delay compared to the future baseline scenario.
- 72 The performance results indicate that the Tram Road/SH1 offramp intersection operates acceptably with a negligible change in delay that will not be noticeable to existing road users:
- (a) in the 2033 AM peak with the Site rezoned, the highest delay is 39 seconds for right turns from the offramp onto Tram Road (east), which is a 7 second increase in delay compared to the future baseline scenario.
 - (b) in the 2033 PM peak with the Site rezoned, the highest delay is 14 seconds for through movements on Tram Road, which is a 2 second increase in delay compared to the future baseline scenario.
- 73 The performance results indicate that the Tram Road/SH1 onramp intersection operates acceptably with a negligible change in delay that will not be noticeable to existing road users:

- (a) in the 2033 AM peak with the Site rezoned, the highest delay is 49 seconds for westbound through movements on Tram Road, which is a 3 second increase in delay compared to the future baseline scenario.
- (b) in the 2033 PM peak with the Site rezoned, the highest delay is 16 seconds for right turns from Tram Road onto the onramp, which is a 4 second increase in delay compared to the future baseline scenario.

74 The 95th percentile queuing results for the SH1/Tram Road interchange during the AM peak indicate that:

- (a) For the future rezoning scenario, there is a 256m eastbound queue on Tram Road, on the approach to the intersection with the SH1 onramp. This represents an increase of around 31m or 6 additional cars in the queue compared to the future baseline scenario, which is a negligible increase and will not be noticeable to existing road users.
- (b) All other approaches to the interchange have negligible queues in the future rezoning scenario.

75 The 95th percentile queuing results for the SH1/Tram Road interchange during the PM peak indicate that:

- (a) For the future rezoning scenario, there is a 132m eastbound queue on Tram Road, on the approach to the intersection with the SH1 onramp. This represents an increase of around 27m or 6 additional cars in the queue compared to the future baseline scenario, which is a negligible increase and will not be noticeable to existing road users.
- (b) All other approaches to the interchange have negligible queues in the future rezoning scenario.

Discussion of Transport Network effects

76 The modelling indicates that short left and right turning lanes may be required at the Site accesses with Main North Road. Main North Road has a width of 20m, which is likely to be sufficient to accommodate this. This can be further considered during future resource consent applications, with Mike Greer Homes able to vest Site frontage if required for localised intersection widening.

- 77 The modelling indicates that the SH1/Tram Road interchange and the Tram Road/Main North Road intersection will operate acceptably in 2033, if the Site is rezoned for development.
- 78 By 2033, the rezoning is indicated to increase the eastbound queue on Tram Road by around 6 car lengths in the AM and PM peaks, which in my view is negligible. Importantly, the queuing will not exceed the queuing space available for the SH1 offramp or the queuing space between the SH1 onramp and SH1 offramp intersections on Tram Road.
- 79 I therefore conclude that any queuing at the SH1/Tram Road interchange attributable to the rezoning will not affect the safe operation of the transport network.

RELEVANT PLANNING PROVISIONS

Strategic Planning Framework

- 80 I have assessed the proposed rezoning against the transport related policies of the following relevant national, regional and district planning instruments:
- (a) National Policy Statement on Urban Development (NPS-UD)
 - (b) Canterbury Regional Policy Statement (CRPS)
 - (c) Canterbury Regional Land Transport Plan (RLTP)
 - (d) Canterbury Regional Public Transport Plan (RPTP)
 - (e) Proposed Waimakariri District Plan.
- 81 I have concluded that the proposed rezoning of the Site is not anticipated to give rise to adverse effects on the strategic transport network. I consider that the rezoning is consistent with and/or not contrary to the transportation-related provisions of the NPS-UD, Canterbury Regional Policy Statement, Canterbury Regional Land Transport Plan 2021-31, Canterbury Regional Public Transport Plan 2018-28, and the objectives and policies of the PWDP.
- 82 Objective 3 of the NPS-UD requires regional policy statements and district plans to enable more people to live in, and more businesses and community services to be located in, areas of urban environment in which one or more of the following apply:
- (a) The area is in or near a centre zone or other area with many employment opportunities.

- (b) The area is well-serviced by existing or planned public transport.
 - (c) There is high demand for housing or business land in the area, relative to other areas within the urban environment.
- 83 The Site is not in or immediately adjacent to a centre zone, however, as discussed in paragraphs 0 to 36 the Site has ready access via walking and cycling to the Kaiapoi Town Centre.
- 84 There are multiple bus stops on Main North Road with frontage to the Site. The key bus stops (13979 & 15873) service Metro Route 1. This route connects to Christchurch Central and Kaiapoi. There are other bus stops, and various Kaiapoi Park & Ride facilities that allow for connection to other routes. The existence of the key bus stops on Main North Road allows for future growth in the public transport network. Should routes change or more are added to the network, the development is well positioned to access these services.
- 85 Policy 1(c) of the NPS-UD requires planning decisions contribute to well-functioning urban environments. These urban environments must have good accessibility for all people between housing, jobs, community services, natural spaces, and open spaces, including by way of public or active transport. The proposed development is situated directly adjacent to the southern extent of the existing Kaiapoi urban area. The development is within walking and cycling distance of many amenities in Kaiapoi, which can be accessed via the shared path on the western side of Main North Road. Existing bus services allow for multi-modal transport options, as there are bike racks on the front of most public buses. This would allow residents to use the shared path to cycle to an alternative bus stop and bring their bicycle on the bus with them. The shared path connects to the Christchurch Northern Corridor Cycleway, allowing easy access to Christchurch's northern suburbs.
- 86 Policy 5.3.7 of the CRPS relates to the "strategic land transport network and arterial roads (entire region)". It seeks to avoid development that:
- (a) Adversely effects the safe, efficient, and effective functioning of the strategic land transport network and arterial roads, including the ability of infrastructure to support freight and passenger transport services, and
 - (b) Forecloses the opportunity for the development of the network to meet future strategic transport requirements.

- 87 In my evidence I have assessed the potential safety and efficiency effects that could be generated by the rezoning:
- (a) In paragraphs 0 to 31, and paragraphs 0 to 59 I summarise my assessment of existing crash records and potential effects from the rezoning, concluding that the rezoning will have a negligible effect on the safety of the transport network.
 - (b) In paragraphs 0 to 79 I discuss the comprehensive modelling assessment that has been undertaken to assess the potential effects from rezoning, concluding that the rezoning will have a negligible effect on the efficiency of the transport network.
- 88 The RLTP 2021-31 is periodically reviewed and updated to reflect the current state of the region's transport network, and the focus for future investment. The objectives of the plan are:
- (a) Share prosperity (environmental, social, economic and cultural);
 - (b) Better freight options;
 - (c) Reduced harm;
 - (d) Improved advocacy;
 - (e) Reliable and consistent journeys;
 - (f) Mode shift;
 - (g) Resilience.
- 89 I do not expect the rezoning to result in increased harm to road users. The Site supports mode shift, by locating development where there are excellent walking, cycling and public transport options.
- 90 Environment Canterbury regularly evaluates the public transport requirements of the wider network. I expect that Metro Services in Kaiapoi and Rangiora will increase to provide further public transport accessibility, as the Waimakariri District population continues to grow. This would give the opportunity for reduction in Greenhouse Gas emissions related to transport in the region (on a per population basis).
- 91 The RPTP 2018-2028 has four key policies. These are as follows:
- (a) The network: service, infrastructure, and supporting measures.

- (b) Customers.
- (c) Funding and fares.
- (d) Standards, procurement, monitoring and review.

92 The rezoning will support the RTP as it makes use of existing services, and supports potential future expansion:

- (a) with the existing bus stops on Main North Road are within a 1 – 2 minute walk from the proposed accesses to the Site
- (b) The rezoning will increase demand for bus services and I expect that the frequency of existing services (such as Metro Route 1) will increase in the future.
- (c) The current public transport routes connect Rangiora, Kaiapoi, Woodend, Pegasus and Christchurch.
- (d) Local school bus services are dedicated to connecting students to these townships. The Kaiapoi South Park & Ride, located south of the proposed development would give opportunity for further development of the public transport network.

93 My review of the relevant objectives and policies contained within the PWDP (TRAN-01-TRAN-05, TRAN-P1-P16) concludes that the proposed rezoning is either consistent or can be consistent with those policies. I consider that the resource consent process will provide the appropriate platform for assessment of the internal road design and Site layout.

94 As requested by Council staff, I have assessed the rezoning against PWDP TRAN-MD-11, and I conclude that my evidence addresses the relevant matters of discretion. Table 1 below shows my commentary against TRAN-MD-11 matters.

Table 1: Assessment of TRAN-MD11

TRAN-MD-11 High Traffic Generators	
Matter of discretion	Comment
1. The findings of an ITA, and the extent to which the ITA addresses the following matters:	
a. Basic ITA and Full ITA:	

<p>i. The estimated number of trips generated by each transport mode to and from the development (public transport, walking, cycling and private vehicles, including heavy vehicles).</p>	<p>Refer to paragraphs 0 to 79.</p>
<p>ii. The extent to which any additional vehicle movements will affect the capacity of the road network.</p>	
<p>iii. The extent of effects on the operation of public transport infrastructure and any vehicle and pedestrian/cyclist conflicts likely to arise from vehicle movements to and from the development.</p>	<p>The rezoning will have a positive effect on public transport due to increase patronage on existing bus services.</p> <p>The rezoning will have a positive effect on walking/cycling by increasing the use of existing walking and cycling infrastructure on Main North Road.</p>
<p>iv. Access and manoeuvring (safety and efficiency):</p> <p>a. The extent to which the provision of access and on site manoeuvring area associated with the activity, including vehicle loading and servicing deliveries, affects the safety, efficiency, accessibility of the site (including for people whose mobility is restricted and for emergency service vehicles) and the transport system (including considering the classification of the frontage road in the District Plan road hierarchy).</p>	<p>Can comply.</p> <p>Access and manoeuvring internal to the Site will be addressed at resource consent stage. There are no fundamental reasons as to why the Site will not comply and will be designed to ensure compliance.</p>
<p>v. Design and layout:</p> <p>a. The extent to which the design and layout of the proposed activity maximises opportunities, to the extent practicable, for travel other than by private vehicle, including providing safe and convenient access for travel by such modes.</p> <p>b. The extent to which the design of the development will encourage public transport use.</p> <p>c. The extent to which the design of the proposed development will encourage walking and cycling to nearby destinations.</p>	<p>Can comply.</p> <p>Design and layout internal to the Site will be addressed at resource consent stage. There are no fundamental reasons as to why the Site will not comply and will be designed to ensure compliance.</p>

<p>vi. Heavy vehicles:</p> <p>a. For activities that will generate 50 or more heavy vehicle movements per day, the extent to which there are any effects from these trips on the roading infrastructure.</p>	<p>Can comply.</p> <p>The Site will generate very few heavy vehicle movements once developed. It is unlikely to generate more than 50 vehicle movements during the construction phase, but if it does this can be addressed through the earthworks consent applications.</p>
<p>vii. Accessibility of the location:</p> <p>a. The extent to which the proposed activity has demonstrated the accessibility of the site by a range of transport modes, and the extent to which the activity's location will minimise or reduce travel to and from the activity by private vehicles and encourage public and active transport use.</p> <p>b. The safety, distance and suitability of pedestrian routes to the nearest bus stop.</p>	<p>The Site has excellent accessibility by all transport modes.</p>
<p>b. Full ITA only (as well as the matters in (a)(i) to (vii) above):</p>	
<p>i. Network effects:</p> <p>a. Having particular regard to the level of additional traffic generated by the activity and the extent to which the activity is permitted by the zone in which it is located, the extent to which measures are proposed to adequately mitigate the actual or potential effects on the transport system arising from the anticipated trip generation (for all transport modes) from the proposed activity, including consideration of cumulative effects with other activities in the vicinity, proposed infrastructure, and construction work associated with the activity.</p> <p>b. The extent to which the design and layout of the proposed development maximises opportunities, to the extent considered reasonably practicable, for travel other than by private car.</p> <p>c. The extent of effects of construction traffic on the transport network.</p> <p>d. The extent of any new or modified infrastructure required for public transport,</p>	<p>a. Refer to paragraphs 0 to 79.</p> <p>b. Refer to paragraphs 0 to 59.</p> <p>c. this will be addressed during future resource consent, and there are no fundamental reasons construction effects can't be adequately managed.</p> <p>d. Refer to paragraphs 0 to 59.</p> <p>e. Refer to paragraphs 0 to 59.</p> <p>f. As this is a residential development, travel demand management plans aren't suitable. However, the Site has excellent access to the walking, cycling, and PT networks, which will result in a reduction in vehicle trips compared to a residential development in a less accessible location.</p> <p>g. Road, walking, and cycling measures are proposed as part of the ODP. The site is well served by public transport, and potential improvements (such as new bus stops on Main North Road) can be considered during future resource consent applications.</p>

<p>pedestrian, cycling, private vehicles and freight.</p> <p>e. The extent of any mitigation required to improve safety issues for pedestrians, cyclists or mobility impaired users and the nature of those measures.</p> <p>f. The extent to which travel demand management tools such as travel plans are proposed to reduce vehicle trips and associated effects, influence travel mode share and offer travel choice.</p> <p>g. The extent to which there are road, public transport, walking or cycling measures to be funded by the proposed development.</p>	
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MATTERS RAISED BY SUBMITTERS

95 There are no matters raised by submitters that are relevant to my evidence.

CONCLUSION

96 My evidence is consistent with Waka Kotahi guidelines for preparing an Integrated Transport Assessment and addresses matters relating to TRAN-MD11.

97 I consider that the Site has excellent transport accessibility, and that the urbanisation of the Site is consistent with or achieves the purpose of transport objectives and policies contained in national, regional and local government statements and plans.

98 The ODP provides for a safe and efficient transport network for walking, cycling and general traffic.

99 If the Site is rezoning, by 2033 the following matters are indicated by the traffic modelling assessment:

- (a) Short turning lanes may be required at the Site accesses with Main North Road. Main North Road has a width of 20m, which is likely to be sufficient to accommodate this. This can be further considered during future resource consent applications, with Mike Greer Homes

able to vest Site frontage if required for localised intersection widening.

- (b) The SH1/Tram Road interchange and the Tram Road/Main North Road intersection will operate acceptably. There is sufficient capacity at the Tram Road/Main North Road intersection and SH1/Tram Road interchange to comfortably accommodate the increase in traffic flows without any adverse effects.

100 In my view the proposed rezoning in the submission made by Mike Greers Homes can be supported from a traffic and transport perspective.

101 Thank you for the opportunity to present my evidence.



Mathew Ross Collins
5 March 2024