

BEFORE THE WAIMAKARIRI DISTRICT PLAN REVIEW HEARINGS PANEL

IN THE MATTER OF the Resource Management Act 1991

AND

IN THE MATTER OF the hearing of submissions and further submissions on the Proposed Waimakariri District Plan

AND

hearing of submissions and further submissions on Variations 1 and 2 to the Proposed Waimakariri District Plan

Hearing Stream 12E: Rezoning Requests

**SUMMARY OF EVIDENCE OF LISA MARIE WILLIAMS
(TRANSPORT)
FOR RICHARD AND GEOFF SPARK
(PDP SUBMITTER 183 / VARIATION 1 SUBMITTER 61)**

Dated 19 August 2024

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SUMMARY OF EVIDENCE OF LISA MARIE WILLIAMS

1. My full name is Lisa Marie Williams, I am a Senior Transport Engineer and Planner at Novo Group Limited.
2. I prepared the following statements on behalf of Richard and Geoff Spark (PDP Submitter 183 / Variation 1 Submitter 61):
 - (a) First Statement of Evidence dated 4 March 2024; and
 - (b) Supplementary Statement of Evidence dated 2 August 2024.
3. My First Statement of Evidence provided an Integrated Transport Assessment in terms of Blocks A and B, and a high level transport assessment of the future light industrial zone for Block C. My First Statement of Evidence provides a summary of the key transport related changes for Block A at paragraph [20] and the key transport related matters for Block B in paragraph [22].
4. From a transport perspective there is general agreement between the Council Officers and myself that the residential zoning for Blocks A and B is appropriate. The officers' report included several transport aspects of the ODP and narrative requiring further consideration. Those matters have been responded to in my supplementary statement including, where applicable, proposed changes to address those issues. The key points are summarised below:
 - (a) The second Northbrook Road Bridge (Block A) is shown as a future road connection to allow detailed analysis to determine if this is feasible.
 - (b) Retention of the commercial centre location for a café, with vehicle access via local roads.
 - (c) An option for a separate commercial node in the north-east corner of Block B, which may provide for a wider range of local shops and services, with vehicle access via local roads.
 - (d) Block B road alignment retained as this allows for potential future connections to the west and south.
 - (e) Two road intersections for Block B with the REL road are in my opinion appropriate, subject to intersection designs to ensure priority for traffic on the REL. I agree there should not be any direct property access or additional local road intersections to the REL road, within Block B.

5. In respect of the two road intersections with the REL for Block B, I set out in paragraph 15 of my supplementary statement why I consider that this is the most appropriate option. However, if the panel were to prefer the reporting officer's recommendation that these be removed, a version of the ODP has been tabled to show how the ODP can accommodate this. I consider this does still provide an acceptable transport network for the future residential subdivision. I confirm there is also ample capacity for the two road intersections to Boys Road to service the anticipated traffic¹.
6. In terms of Block A, the Proposed District Plan transport rules include appropriate property access controls to ensure these can be managed safely based on the future classification of the road. While I do not agree that there is a need to avoid residential property access with the REL road within Block A, for the avoidance of doubt, the subdivision could be designed so dwellings fronting the REL road have access from other roads.
7. Overall, if the reporting officer's position is preferred, I consider that this would still allow for a residential subdivision to be designed with a safe and efficient transport network which can meet the travel needs (all modes) of future residents.
8. I understand there is general agreement between the planning experts in relation to extending the development area overlay to allow for a future CMUZ/GIZ zoning, or similar, for Block C. From a transportation perspective, I consider that to be appropriate and will enable a detailed design analysis and appropriate transport network upgrades to be properly addressed at a later date.
9. Overall, I consider the residential zones for Blocks A and B are appropriate from a transportation perspective and will ensure that the anticipated residential development can be integrated into the transport network in a safe, efficient and appropriate manner that provides for the travel needs of future residents. The rezonings are well located for access to destinations and have been designed to encourage active and micro mobility modes. The existing public transport routes and park and ride services offer a viable option for public transport use.

Lisa Williams

19 August 2024

¹ This has been confirmed by revising the SIDRA9 modelling provided with my ITA (Appendix 3 and 4) for half of the peak hour traffic to use each of the two intersections with Boys Road. The revised turning volumes and SIDRA movement summary for the AM and PM peak hour is provided in Attachment 1.

ATTACHMENT 1: SIDRA MODELLING - TWO BOYS ROAD INTERSECTIONS (NO REL ROAD INTERSECTIONS)

Updated Turning Movements:

Proposed Road -Boys Road Intersection (65% loading) Peak Hour Movements	Turning Movement			
	R turn	L turn	L Turn	R turn
AM Arrivals	11	23		
AM Departures			31	65
PM Arrivals	27	55		
PM Departures			16	33

South and North bound traffic (using Boys Road to access REL Road) has been re-allocated to the right turn exit (Subdivision Road turning right onto Boys Road) and the left turn entry (Eastern arm of Boys Road turning left into the Subdivision Road).

Assumed peak hour traffic split evenly between the two intersections with Boys Road (50% each intersection).

Other assumptions remain as set out in the ITA Appendix 3.

The following SIDRA9 movement summaries have been generated using the above turning volumes for the higher Boys Road scenario (2038 scenario where volumes on Boys Road remain at 4,400vpd rather than decreasing to 2,200vpd as indicated by the REL Modelling (Refer to paragraph 23 of ITA for full details).

MOVEMENT SUMMARY

Site: 101 [Boys Road - Proposed PM - Double Boys Rd Vol - (no REL intersections) (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.5.224

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

Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows		Arrival Flows		Deg. Satn	Aver. Delay	Level of Service	95% Back Of Queue		Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed
			[Total HV]	%	[Total HV]	%	v/c	sec		[Veh.]	[Dist]				km/h
			veh/h		veh/h					veh	m				
South: Proposed Road Southern Arm															
1	L2	All MCs	17	0.5	17	0.5	0.072	5.1	LOS A	0.2	1.7	0.46	0.63	0.46	44.2
3	R2	All MCs	35	0.5	35	0.5	0.072	8.9	LOS A	0.2	1.7	0.46	0.63	0.46	44.1
Approach			52	0.5	52	0.5	0.072	7.6	LOS A	0.2	1.7	0.46	0.63	0.46	44.1
East: Boys Road Eastern Arm															
4	L2	All MCs	58	0.5	58	0.5	0.117	4.6	LOS A	0.0	0.0	0.00	0.14	0.00	47.9
5	T1	All MCs	164	2.0	164	2.0	0.117	0.0	LOS A	0.0	0.0	0.00	0.14	0.00	49.1
Approach			222	1.6	222	1.6	0.117	1.2	NA	0.0	0.0	0.00	0.14	0.00	48.8
West: Boys Road Western Arm															
11	T1	All MCs	531	2.0	531	2.0	0.296	0.1	LOS A	0.2	1.8	0.05	0.06	0.05	49.7
12	R2	All MCs	28	0.5	28	0.5	0.296	5.5	LOS A	0.2	1.8	0.05	0.06	0.05	48.2
Approach			559	1.9	559	1.9	0.296	0.3	NA	0.2	1.8	0.05	0.06	0.05	49.6
All Vehicles			833	1.8	833	1.8	0.296	1.0	NA	0.2	1.8	0.06	0.11	0.06	49.0

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
 Vehicle movement LOS values are based on average delay per movement.
 Minor Road Approach LOS values are based on average delay for all vehicle movements.
 NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).
 Two-Way Sign Control Capacity Model: SIDRA Standard.
 Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
 Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
 Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
 HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
 Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

MOVEMENT SUMMARY

Site: 101 [Boys Road - Proposed AM - Double Boys Rd vol. - (no REL Intersections) (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.5.224

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

Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows		Arrival Flows		Deg. Satn	Aver. Delay	Level of Service	95% Back Of Queue		Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed
			[Total HV]	%	[Total HV]	%	v/c	sec		[Veh.]	[Dist]				km/h
			veh/h		veh/h					veh	m				
South: Proposed Road Southern Arm															
1	L2	All MCs	33	0.5	33	0.5	0.148	6.9	LOS A	0.5	3.5	0.54	0.79	0.54	44.0
3	R2	All MCs	68	0.5	68	0.5	0.148	8.7	LOS A	0.5	3.5	0.54	0.79	0.54	43.8
Approach			101	0.5	101	0.5	0.148	8.1	LOS A	0.5	3.5	0.54	0.79	0.54	43.8
East: Boys Road Eastern Arm															
4	L2	All MCs	24	0.5	24	0.5	0.289	4.7	LOS A	0.0	0.0	0.00	0.02	0.00	48.5
5	T1	All MCs	531	2.0	531	2.0	0.289	0.1	LOS A	0.0	0.0	0.00	0.02	0.00	49.7
Approach			555	1.9	555	1.9	0.289	0.3	NA	0.0	0.0	0.00	0.02	0.00	49.7
West: Boys Road Western Arm															
11	T1	All MCs	164	2.0	164	2.0	0.097	0.3	LOS A	0.1	0.9	0.10	0.11	0.10	49.5
12	R2	All MCs	12	0.5	12	0.5	0.097	7.0	LOS A	0.1	0.9	0.10	0.11	0.10	48.1
Approach			176	1.9	176	1.9	0.097	0.7	NA	0.1	0.9	0.10	0.11	0.10	49.4
All Vehicles			832	1.8	832	1.8	0.289	1.3	NA	0.5	3.5	0.09	0.14	0.09	48.8

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
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