

Before an Independent Hearings Panel  
Appointed by Waimakariri District Council

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*under:* the Resource Management Act 1991

*in the matter of:* Submissions and further submissions on the Proposed  
Waimakariri District Plan

*and:* Hearing Stream 12D: Ōhoka rezoning request

*and:* **Carter Group Property Limited**  
(Submitter 237)

*and:* **Rolleston Industrial Developments Limited**  
(Submitter 160)

Joint witness statement – transport

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Dated: 23 August 2024

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## JOINT WITNESS STATEMENT – TRANSPORT

- 1 This joint witness statement relates to Hearing Stream 12D: Ōhoka of the proposed Waimakariri District Plan review.
- 2 The conference attendees were:
  - a. Mr Nick Fuller and Mr Simon Milner for Carter Group Property Limited and Rolleston Industrial Developments Limited;
  - b. Mr Shane Binder for Waimakariri District Council; and
  - c. Mr Andrew Metherell for the Oxford Ōhoka Community Board.
- 3 This joint statement has been prepared in accordance with section 9.5 of the Environment Court Practice Note 2023.
- 4 All witnesses have read and agree to comply with the code of conduct for expert witnesses in the Environment Court Practice Note 2023.
- 5 This joint witness statement sets out all matters agreed and not agreed by the relevant experts, with an outline of the reasons for disagreement provided where appropriate.
- 6 The changes to the proposed District Plan provisions being discussed are those provided by the Applicant 26 July 2024, and included as **Attachment 1** to this statement.
- 7 Mr Milner was involved in responding to Questions 8, 9, 10, 11 and 14.
- 8 The experts were made aware late in conferencing that the planners sought some direct reference to whether the site is “well-connected along transport corridors”. Due to time constraints, the experts were unable to explore this as an additional question. They expect the specific question responses provided will inform the planners to consider this much broader question.
 

**1. Is it appropriate for the Outline Development Plan to require upgrades to the following intersections prior to subdivision, or before certain development thresholds are met, in order to accommodate the proposal:**

  - (a) **Tram Road / Bradleys Road;**
  - (b) **Tram Road / Whites Road;**
  - (c) **Flaxton Road / Threlkelds Road (with associated changes in priority at the Mill Road / Threlkelds Road intersection); and**
  - (d) **Tram Road Interchange?**
- 9 It is agreed there is a need to undertake safety and efficiency upgrades at the above intersections to accommodate the development traffic. We note that a specific rule is now included in

the proposed changes to the Proposed District Plan (DEV-O-S4), which carries a requirement for upgrades to be complete before issue of Section 224 completion certificates.

- 10 The proposed Discretionary activity status provides a mechanism to assess staging of development and intersection upgrades.
- 11 Mr Metherell and Mr Binder consider there is a high level of uncertainty whether upgrades 'b' to 'd' can be delivered by the Council, the NZ Transport Agency and / or the developer as they have not been planned for and there has to date been no detailed investigation of design, land, and cost requirements that confirm viability. This uncertainty warrants the specific rule DEV-O-S4 and a suitable level of activity status in the District Plan, which they understand the proposed Discretionary status provides.
- 12 Mr Fuller considers that the proposed rule gives sufficient certainty that the required upgrades will be provided in a timely manner to mitigate the potential effects.

**2. Is it appropriate for the Outline Development Plan to require assessment (at the time of subdivision) of whether upgrades are required on the following roads prior to subdivision, or before certain development thresholds are met, to accommodate the proposal:**

- (a) Whites Road;
- (b) Bradleys Road;
- (c) Mill Road; and
- (d) Threlkelds Road?

- 13 The experts agree that the need to assess and address the safety effects of the proposed development on the above roads is important. This needs to be incorporated into a planning provision, preferably a separate rule rather than reliance upon the ODP text, that provides sufficient certainty and scope of assessment, covering the following matters:
- a. Carriageway suitability, roadside hazards, roadside signage and / or line markings, intersection formations on Whites and Bradleys Roads (on the stretches between Tram Road to Mill Road), Mill Road (where impacted by the development) and Threlkelds Road.

- 14 Mr Binder and Mr Metherell also consider this rule should include the suitability of pedestrian and cycle infrastructure.

**3. Do the experts agree that Council is planning on road safety upgrades to Tram Road, and if approved the development would provide development contributions towards this and would need to be accounted for in terms of the design of the upgrades?**

- 15 It is agreed that Council is planning on road safety upgrades identified by the *Tram Road Safety Improvements: Scheme Route Assessment and Prioritisation Plan* dated August 2020. Some, but

not all, of these improvement projects have been included in the recently approved Long-Term Plan.

- 16 The 2020 study allowed for some moderate traffic growth based on historic patterns on this corridor, but not specifically the proposed development traffic. As the development traffic is not anticipated in the 2020 study, the Safety Improvements Plan would need to be reviewed in the context of all planned growth on the Tram Road corridor once the District Plan review is completed, with locations and magnitudes of growth settled.
- 17 There will remain some uncertainty to the extent that the development would provide development contributions toward these projects because:
- a. Projects need to be identified in the Long-Term Plan to enable collection of development contributions;
  - b. Any new projects are likely to be minority funded by development, based on the policy framework. There is also likely a constrained amount of funding from rate payers and / or central government to make up the funding majority;
  - c. The Long Term Plan was recently approved, so the next LTP is due in 2027 and this would be the earliest opportunity to add new projects such as anything arising from an updated review of Tram Road;
  - d. Identification of the need for a project does not guarantee inclusion in the Long-Term Plan because projects are balanced across the needs of the District, and are subject to consultation processes with elected members and the public.
- 18 Mr Fuller considers that the required upgrades should be included in the Long Term Plan and development contributions collected accordingly from all developments that add to the traffic growth on the Tram Road corridor. Mr Fuller considers that ultimately, the inclusion of these projects in the LTP is controlled by Council.
- 19 Mr Metherell and Mr Binder remain concerned at the uncertainty associated with the need for changes to the Tram Road Safety Improvements Plan as a result of the Ōhoka development, such as changing the safety response from widening an intersection to requiring a roundabout as a result of increased through traffic. Similarly, there is uncertainty with how Long Term Plan processes will be able to achieve a suitable development contribution mechanism. Until there are clear outcomes for the development driven changes required to the Safety Improvements Plan, and the associated funding plan he considers the development is likely adversely affect the safety of Tram Road. Consequently, a suitable planning mechanism related to those matters would be necessary.

**4. What confidence is there currently that the recently confirmed SH1 Road of National Significance (i.e., the Belfast to Pegasus Motorway and Woodend Bypass project) will address traffic congestion / safety matters at the Tram Road intersection?**

- 20 The SH1 RONS Belfast to Pegasus Motorway and Woodend Bypass proposes to provide four lanes of motorway from Lineside Road to the Pegasus Roundabout, including the Woodend bypass (although it is noted that the project map illustrates the project as extending to Tram Road). The NZ Transport Agency has confirmed there are no plans for further improvements to the interchange, although they have advised they will continue to monitor the performance of the State Highway network to identify where and when improvements may be required.
- 21 Mr Fuller considers there are always uncertainties regarding funding of projects from the NZ Transport Agency, who are responsible for the SH1 / Tram Road interchange. That said, his recent general discussions with the NZ Transport Agency indicated that they only plan for upgrades where there is confirmed growth and that they are responsive to growth. If the rezoning is approved, it will feed into that confirmed growth and therefore their funding plans. The NZ Transport Agency also indicated that they have more of a focus on the Roads of National Significance than on other parts of their network.

**5. Is the proposed internal roading, cycling and pedestrian network (as shown indicatively in the Outline Development Plan) suitable for supporting movement within the site, and if not, can this be addressed through the standard considerations at subdivision consent?**

- 22 It is agreed that the indicative road cross-sections in Figure 1 of the ODP Text should be removed, given they have not been agreed with the Council and potentially set an unrealistic expectation of what may be agreed to by the Council at the subdivision stage.
- 23 The experts share a concern that the 'Collector Roads' in the ODP may not be classified as Collectors Road in the District Plan. It is agreed that the naming of the internal roads on the ODP should be altered to:
- a. From 'Collector Road' to 'Primary Road (Potential Public Transport Route)'; and
  - b. From 'Local Road' to 'Secondary Road'.
- 24 It is agreed that the transport network within the ODP is generally suitable for supporting movement within the site. That said, the ODP should be amended to include the 'suggested additional pedestrian network connections across streams' as per Figure 1 of Mr Metherell's evidence.
- 25 Mr Fuller and Mr Metherell note that the ODP transport network is identified as 'indicative' and can be altered through the subdivision

process. In this regard, the proposed District Plan includes the following Matters of Control for subdivision<sup>1</sup>:

- a. The extent to which design and construction of roads, service lanes, and accessways will provide legal and physical access that is safe and efficient;
  - b. The provision and location of walkways and cycleways, the extent to which they are separated from roads and connected to the transport network; and
  - c. The location and design of footpaths and cycleways including their convenience, safety and separation from roads by visual and/or physical means
- 26 There is no Structure Plan for growth in Ōhoka and whilst the experts do not presume there will be future growth to the south if this development is approved, there is no provision for ensuring a long-term well-connected network if growth to the south did occur (through future planning processes). It is suggested that the planners / urban designers consider whether this possibility should be accounted for in the ODP provisions. It is noted that there is a Matter of Control in the subdivision rules to consider the need for future connections, although that is limited to identified future growth areas only (i.e. this could not require a link at this time).
- 6. Does the proposed roading, cycling and pedestrian network (as shown indicatively in the Outline Development Plan) connect well with the existing Ōhoka urban area, and if not, can this be addressed through the standard considerations at subdivision consent?**
- 27 The ODP provides for several development intersections to frontage roads where the ODP text identifies a rural speed limit is likely to be retained.
- 28 Mr Metherell and Mr Binder consider Council would require discretion at the time of Subdivision to review the safety of the intersections, particularly if a rural speed limit is retained. That could influence the number and location of intersections, whereas the draft ODP diagram and text suggest the locations will be acceptable.
- 29 The experts suggest the following changes to provide Council with sufficient flexibility to consider the location and number of local road intersections based on the actual frontage road speed limits the subdivision is designed for:
- a. Specific references to maintaining a rural speed limit (80km/h or more) are removed so that the potential for the road frontage to have a lower speed limit is retained for consideration in subdivision.

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<sup>1</sup> SUB-MCD2 and SUB-MCD3.

- b. The 'Indicative Local Road Connections' are changed to 'Potential Local Road Connections', and the supporting ODP text states that the connections will be subject to assessment based on the design speed environment.
  - c. The ODP discussion of gateway / threshold treatments and pedestrian / cycle crossings on Whites Road and Bradleys Road is given more flexibility to reflect the potential for different locations based on achieving safe transport outcomes consistent with the speed environment.
- 30 The experts agree that the matters of control set out for subdivision (as referenced in paragraph 25) enable connectivity to be assessed at a local level during subdivision, and the level of connectivity shown on the ODP at that level is generally acceptable. The experts agree that a missing element is the need to include the Mill Road frontage in the proposed cycle/pedestrian network on the ODP, and that should be included.
- 31 The experts discussed if there was a need to show connections on the ODP for pedestrians/cyclists beyond the site:
- a. Mr Metherell and Mr Binder consider the ODP should also be amended to include consideration of an upgraded pedestrian/cycle connection along Mill Road from the site to Jacksons Road (to support access to the existing school). This is because they consider the existing standard is insufficient for the additional active mode demand as a result of the proposed development. Whilst subdivision processes may require an upgrade through the standard matters of control, the current ODP suggests that this part of the pedestrian network is not to be addressed.
  - b. Mr Fuller considers the ODP would only need to include consideration of the above link to the existing Ōhoka School, if a new school is not provided in development.

**7. Are the upgrades identified in questions 1 and 2 likely required to occur within the next ten years regardless of the Ōhoka rezoning, and to what extent might the rezoning bring forward the need for improvements?**

- 32 In respect of Question 1, it is agreed that the Tram Road / Bradleys Road upgrade is required and is included in the LTP regardless of the Ōhoka development within the next ten years.
- 33 Mr Fuller considers that the other upgrades set out in Question 1 are required to occur in the next ten-years regardless of the Ōhoka rezoning. This is because the traffic modelling undertaken in the ITA indicates that these intersections would have movements 'at-capacity' in 2028. In addition, Mr Fuller's evidence is that the Whites Road / Tram Road intersection is currently 'high risk', so it warrants safety upgrades. That said, he accepts that the Council

and the NZ Transport Agency may not currently be planning on these upgrades.

- 34 Mr Metherell and Mr Binder consider the Council Long Term Plan infrastructure planning processes have not identified the other intersection upgrades in the next ten years. Existing and projected (without development) side road traffic volumes will not be of a scale to trigger these other projects, regardless of increases in Arterial traffic. They accept that safety management processes may result in some lower cost improvements at other intersections within the next 10 years if inherent safety risks are reviewed in more detail. They consider that it is the step change in traffic generated by the development that will generate the need for the specific projects identified in Question 1 (aside from Tram Road / Bradleys Road).
- 35 Mr Binder further notes that while Council routinely considers traffic operations across the roading network, intersection improvements in the Long-Term Plan are primarily there due to traffic safety issues; addressing traffic operational issues like side road delay/capacity is only a secondary benefit. As such, Council staff would not typically include a project in this area in the LTP to address operational issues (as opposed to safety issues).
- 36 It is agreed that it is unlikely the upgrades set out in Question 2 would be required without the Ōhoka rezoning. This is because despite having some safety related deficiencies, Council's safety management process is unlikely to prioritise road safety improvements with the existing level of traffic and they do not have a reported road safety history exhibiting serious injury crash outcomes.

**8. Does the proposed public transport service provide a functional connection to the Ōhoka site?**

- 37 The experts discussed the degree to which the proposed public transport service in the updated provisions supports connections between Ōhoka and Kaiapoi (noting that service exclusively to or including Rangiora was not discussed). It was agreed that it will provide a connection on the basis that:
- a. The proposed public transport service is seven day per week with a 30-minute frequency linking the site to Kaiapoi via the High School and central Park and Ride site at Charles Street.
  - b. The proposed public transport service provides residents of Ōhoka with access to Kaiapoi, an urban area with a range of services and onward bus connections including a 'Core' route to Christchurch. It is agreed that the proposal represents a 'Cross-Town Link'<sup>2</sup> level of service under the Canterbury Regional Public Transport Plan. These 'Cross

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<sup>2</sup> Policy 1.0 of the RPTP.



Town Link' services link to key activity centres, but require further connections to Christchurch City Centre.

- c. This 30-minute frequency is comparable to the future off-peak frequency of 'Direct Services' from Kaiapoi Park and Ride to Christchurch City, although not the peak period Direct (Routes 91, 92) or Core Services (Route 1) to Kaiapoi and Rangiora.
- d. The functionality of the bus service also relies on the ability for residents within Ōhoka to be able to walk and cycle to the bus stops. This will require the development to provide bus stop infrastructure at various locations within the subdivision. The revised ODP text provides for this.
- e. There is merit in ensuring the proposed bus service is accessible to the wider community by enabling access to this service from other bus stops that may be on this route.
- f. The proposed bus service would need to use a route that is safe on the wider road network. There are concerns that the route proposed (via Butchers Road) by the bus operator may be inappropriate and needs to be assessed. There are two alternate options, depending on the timing of road upgrades (already included in the ODP). This could either be:
  - i. Threlkelds Road – Skewbridge Road; or
  - ii. Mill Road to Ohoka Road.

- 38 Given the above, Mr Fuller and Mr Milner considered that the proposed public transport does provide a functional connection to the site.
- 39 Given the above, Mr Metherell also considers that the proposed public transport route provides a functional connection to Kaiapoi at least for the period that it is to be directly funded by the development/developer. He notes that the service proposed does not connect well to the other main urban area, Rangiora as the site is not located adjacent or near an arterial corridor linking Kaiapoi and Rangiora. To connect to Rangiora requires either an indirect route via Kaiapoi, or the proposed service to be provided at a lesser frequency if it was to also service Rangiora. He considers that represents less coverage than the other main urban areas which connect directly to at least two activity centres.
- 40 Given the above, Mr Binder considers that a public transport service can be established to the site but that it will not be a functional connection in that it is not likely to fulfil the adopted functions of public transport. He notes the vision for the public transport system in the 2018 Regional Public Transport Plan calls for a service that is "accessible and convenient [and] as a result it is well used and

valued by the people of Greater Christchurch” and does not consider that the service proposed here will have these results.

**9. Can the proposed site be integrated with a public transport service connecting further afield (e.g., Mandeville, Oxford)?**

41 The experts consider that a bus service to / from Oxford would not offer an appropriate level of service to support Ōhoka. This is because it would be unaffordable to offer a 30-minute all day service to / from Oxford given:

- a. A public transport service to / from Oxford would currently have a very low demand, given the distance to destinations and ‘self-sufficiency’ of Oxford. We also understand that limited growth is proposed in Oxford;
- b. The low demand for public transport is also split between Rangiora, Kaiapoi and Christchurch;
- c. A route between Oxford and Rangiora would not logically route through Ōhoka; and
- d. A route between Oxford and Christchurch would also not logically route through Ōhoka (to minimise travel times).

42 The proposed Ōhoka service could be extended to Mandeville, although this is unlikely to occur because it would require either:

- a. An additional bus; or
- b. A reduced level of service for Ōhoka (compared to that proposed e.g. an hourly service instead of the proposed 30-frequency).

43 Mandeville also has a much lower residential density which is intrinsically harder and more expensive to serve with public transport. A Mandeville – Ōhoka – Kaiapoi service would provide public transport access to Mandeville residents, although it is unlikely to be attractive.

44 Given the above, whilst the site could physically be integrated with public transport connections further afield, the experts consider this to be unlikely and unattractive.

**10. How significant is the long-term funding uncertainty of the proposed public transport service relative to the inherent uncertainty of funding of all passenger transport?**

45 Currently there is no funding certainty beyond ten-years, but the Regional planning documents focus on the previously anticipated urban growth areas that do not include Ōhoka. As such, long-term funding for Ōhoka has not been considered.

46 If the urban rate for public transport was applied to Ōhoka, it was previously estimated in Evidence by Mr Milner for PC31 this would generate approximately \$200,000 per year, although the operating

costs are anticipated to be in the order of \$300,000 to \$400,000 per year. This would be insufficient to cover the ongoing costs of the proposed public transport service beyond the ten-year developer funding commitment.

- 47 On-going funding and service review would need to be considered through future Long-Term Plan processes, but it could be influenced by the following:
- a. The patronage of the service;
  - b. Overall funding availability from the passenger transport funding authorities; and
  - c. Policy direction as to how and where to provide public services.
- 48 Given the above, the experts are unable to provide a conclusive response to this question.

**11. If the Panel consider the NPS-UD requires growth outside of Rangiora, Kaiapoi and Woodend / Pegasus (for example in the western part of Greater Christchurch within the Waimakariri District), is consolidated growth (i.e. providing for this growth in one area) better than ad hoc development (i.e. the growth is accommodated in multiple disconnected areas) with regard to:**

- (a) Walking and cycling;**
  - (b) Public transport viability; and**
  - (c) Managing rural road safety.**
- 49 The response provided to Question 10 has identified the challenges regarding the provision of public transport.
- 50 Whilst the question relates to two specific areas, Mr Fuller, Mr Metherell and Mr Milner (with respect to public transport) agree there is a wider context to consider in the spatial planning process. The hierarchy of preference for a safe multi-modal and viable public transport system (in order from most to least preferred) is:
- a. Intensification within the existing urban areas, that can most efficiently provide access to multi-modal transport facilities;
  - b. Consolidation and expansion of the main centre urban areas, with existing or new / amended multi-modal networks to support effective access to public transport and active mode use;
  - c. Establishing new areas of sufficient scale and close proximity to existing or proposed public transport multi-modal networks;
  - d. Establishing new areas of sufficient scale within reasonable proximity to existing urban areas that support cycling

between urban areas and enable a new bus service with a level of service comparable to a 'Cross-Town Link' to be established; and

- e. Consolidated growth beyond a reasonable proximity from existing urban areas (i.e. where a 'Cross-Town Link' could not be established) or ad hoc development away from urban areas and away from multi-modal transport corridors.

51 In the context of the question (regarding growth outside of the main centres and in the western part of the district), Mr Fuller, Mr Milner and Mr Metherell consider that consolidated growth is better than ad hoc development. This is because consolidated growth:

- a. Has the ability to support local services, such as shops and schools within that development and therefore better enable localised walking and cycling trips;
- b. Provides a 'node' for passenger transport along with a denser catchment for that service; and
- c. Provides a focal point for the traffic effects, which can then be accounted for and managed through infrastructure planning.

52 Mr Binder accepts that the consolidated development at scale can provide a better outcome for viable public transport service to access the broader bus network. However, he considers that proximity to the district's Key Activity Centres is a more important factor when considering viable walking and cycling, as well as limiting the effects of travel on rural roads. Walking and cycling modes are most viable over shorter distances than public transport, and while density helps support appropriate facilities, he considers that viability is more closely related to the travel distance. Similarly, he considers that the risk from rural road travel is closely related to the distance travelled on those roads, not the density of development on either end of a trip. Finally, he notes that, in order to make walkable local shops, schools, and public transport viable, new development must either be at very large scale or leverage existing urban areas to create sufficient catchments.

**12. Is the transport connectivity of Ōhoka (as proposed, i.e. including the rezoning) comparable to that of West Melton?**

53 Mr Binder has limited knowledge of the West Melton area and lacks context for this question, both for historical and present-day use, of West Melton's development and transport connectivity. However, he understands that the initial urban higher density development was approved two decades ago. He also understands that planning decisions in this era may have used different weights and considerations for issues such as VKT, GHG emissions, and rural road safety risk. Finally, he notes that later additions to West Melton may not be comparable to this submission as a higher density urban development already existed and was simply being expanded.

- 54 Mr Metherell and Mr Fuller consider that there are a range of similarities in the transport connectivity of West Melton (as exists) and Ōhoka (as planned). The development of West Melton indicates it has taken approximately 20 years to provide some of the connections (eg for cycles, arterial road, and intersection upgrades), and full public transport connectivity is not yet a priority for the relevant authorities. This observation is relevant in considering the need to provide for suitable mechanisms to support the assessed level of connectivity required for Ōhoka, where a comparable level of infrastructure and connectivity is planned but not yet in place.
- 55 In making the above statements, Mr Fuller and Mr Metherell agree the following regarding the transport connectivity of Ōhoka and West Melton:

Public transport:

- a. West Melton is serviced by one bus between Darfield and Christchurch in each direction per day and the proposed Ōhoka site will be served by a bus every 30 minutes for at least 10-years. Neither site is specifically referenced in the Canterbury Regional Public Transport Plan 2018 – 2028.

Walking & Cycling:

- b. West Melton has a sealed off-road cycle connection, approximately 2m wide, to Rolleston. For Ōhoka, the Council Walking and Cycling Plan anticipates unsealed cycle connections to Rangiora and Kaiapoi, although these are unfunded.
- c. West Melton has a well connected urban road and pedestrian network with mostly low volume cycle compatible streets, and limited specific cycle infrastructure, except at the SH73 intersection. Ōhoka requires upgrades to the walking and cycling network, as per the answer to Questions 5 and 6.

Roading Network:

- d. Regarding the development location in the context of other urban areas, there are comparable travel distances to other main centres for West Melton and Ōhoka. These are broadly:
- i. Distance to central Christchurch: 23km for West Melton and 25km for Ōhoka. Mr Metherell notes that West Melton has multiple routes into Christchurch, whereas Ōhoka, has to use one of the two Waimakariri River bridges;
  - ii. West Melton to Rolleston – 10km; and
  - iii. Ōhoka to Kaiapoi and Rangiora – 10km and 9km.

- e. The critical intersection at West Melton was access to the State highway, which has been upgraded to traffic signals to support multi-modal connections. The Ōhoka proposal includes provisions to limit development until critical intersections are upgraded.
- f. For West Melton the primary route to Christchurch is a State highway, and there is a direct Arterial connection to Rolleston on a lower volume road which was recently upgraded, and also connects to the Southern Motorway. Ōhoka relies on a rural Collector Road network to access Arterial Roads, which are planned to be upgraded (Tram Road and Skewbridge), which then connects to the Northern Motorway.

Land Use Provision within the Settlement:

- g. Both settlements have limited employment, requiring travel out of the settlement for most residents. Both currently contain a service station, primary school, and recreational facilities. West Melton has a small shopping centre, whereas Ōhoka has provision in the ODP for a small shopping centre – Mandeville is currently closest for a comparable provision. West Melton also has a small indoor stadium/community centre.

Timeline of Development

- 56 Mr Metherell understands most of the existing West Melton urban extent was defined by District Plan changes approximately 20 years ago which built on the small pre-existing settlement (not unlike Ōhoka as it currently exists). Mr Metherell considers that West Melton has a much higher number of existing dwellings in an urban environment than contained in the existing Ōhoka settlement, which is relevant in considering certainty for transport connectivity improvements.

**13. Do non-motorised connections to Kaiapoi and Rangiora require upgrades to improve the safety of those who choose to walk or cycle from the proposed site?**

- 57 The experts agree that improvements would be required to the non-motorised connections for those who choose to cycle from the site.
- 58 The Walking and Cycling Network Plan has planned a network to connect to Ōhoka that has been based on anticipated levels of development in Ōhoka and Mandeville.
- a. The proposed development is of a sufficient scale that Mr Metherell and Mr Binder consider it likely a higher standard of facility than the unsealed path currently included in the Walking and Cycling Network Plan will be necessary to support safe cycling and uptake of cycling for travel to Kaiapoi and Rangiora.

- b. Mr Fuller considers that the low uptake of cycling from the site to these wider destinations would not warrant an improvement of the Grade 2 (unsealed path less than 2.5m wide) and Grade 3 (sealed shoulder widening) routes already proposed.

59 It is agreed that the segments of the Walking and Cycling Network Plan that connect to Ōhoka are not funded in the next ten-years. As per paragraph 17, there will be funding uncertainty until it has been considered through Council funding processes. Those future processes would be the first opportunity to consider the need for these facilities and additional demand generated by the development.

60 Mr Fuller notes that the proposed development would provide the Walking and Cycling Network Plan links along the site boundaries and considers that the development would instigate funding.

**14. How likely is it that the uptake of walking, cycling, or public transport will have any notable effect on private vehicle travel from the proposed site?**

61 The experts agree that (in terms of public transport) it is very unlikely that the proposed service will lead to any notable change in private vehicle travel from the site across the whole day, with a marginal impact on peak period commuting to Christchurch. Similarly, it is very unlikely that the uptake of walking and cycling will lead to any notable change in private vehicle travel from the site.

62 Given this, the experts expect that private vehicle travel will be the dominant travel mode to / from the site.

**15. Does the Ōhoka proposal require higher travel distance on the rural road network than residential development within other urban areas within the Waimakariri District part of Greater Christchurch?**

63 As per paragraph 77 of Mr Metherell's Evidence, the following average trip lengths for a range of residential zones are predicted by the Christchurch Transportation Model:

- a. Ōhoka – 17.1km;
- b. Kaiapoi – 12.5km
- c. Rangiora – 10.1km
- d. Pegasus / Ravenswood / Woodend – 15.5km.

64 The experts agree that most trips from the Ōhoka site would require travel on the rural road network, whereas development within other urban centres (such as Rangiora, Kaiapoi, Woodend / Pegasus, but not Oxford) has the opportunity to access a higher proportion of destinations via the urban road network. Given the above travel distances and the separation of Ōhoka from urban centres, the

Ōhoka development would require higher travel distances on the rural road network.

- 65 The experts agree that the increased use of rural roads will result in a higher, uncalculated, level of safety risk for the overall transport network compared with residential development in the other urban areas within the Waimakariri District part of Greater Christchurch.

**16. What are the vehicle-kilometres travelled (VKT) effects of the proposed location, as opposed to identified urban growth locations in District Plans? How are these VKT effects linked to greenhouse gas emissions (GHG) reductions.**

- 66 The experts agree that the combination of higher trip distance (Question 15) and constrained access to sustainable travel modes (Question 14) will result in higher VKT from Ōhoka than the other identified growth locations in the Waimakariri District.
- 67 In the Waimakariri District context, the experts note that there are complexities in quantifying the range of effects, and at a broad level consider additional VKT could have the following effects on the transport network:
- a. The experts agree that there is a relationship between VKT and road safety outcomes, with increased VKT expected to result in increased crash risk.
  - b. The experts agree that that additional VKT will lead to increased use of the road network, and that is likely to result in increased congestion in some locations.
  - c. Mr Binder and Mr Metherell consider that additional VKT will result in a higher (unquantified) level of private vehicle reliance and ownership. Mr Binder considers that the cost to own and operate a private vehicle adds an economic barrier to accessing the transport system.
- 68 In respect of VKT effects on GHG emissions, the experts:
- a. Agree that the increased VKT has a direct influence on transport related GHG emissions, and that VKT are an important consideration in seeking to reduce GHG emissions.
  - b. Spatial planning processes can contribute to minimising an increase in VKT and GHG emissions, by locating development in a way that minimises travel distance and maximises access to sustainable travel modes.

Dated: 23 August 2024





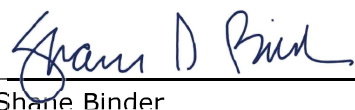
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Nick Fuller



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Simon Milner



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Shane Binder



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Andrew Metherell

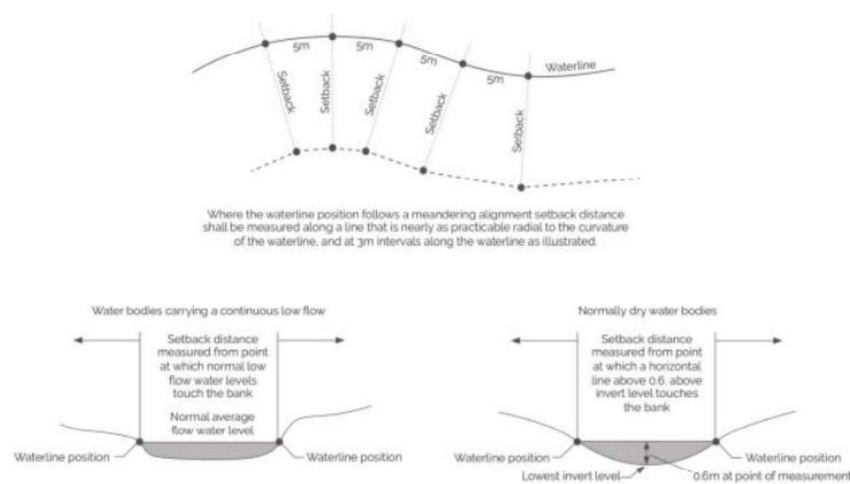
**ATTACHMENT 1: PROPOSED DISTRICT PLAN PROVISIONS  
FOR TRANSPORT CONFERENCING**

The submitter proposes the following changes to the Proposed Plan:

- To amend the Proposed Waimakariri District Plan planning maps by rezoning the site to a combination of SETZ, LLRZ, LCZ and NOSZ with overlays in respect of the SETZ to provide for a polo field and associated facilities and educational facilities.
- To amend the Proposed Waimakariri District Plan by inserting an Outline Development Plan for the site as below (see DEV-O-APP1).
- To amend the Proposed Waimakariri District Plan by including the Development Area within the Urban Flood Assessment Overlay.
- To amend the Proposed Waimakariri District Plan provisions as below (changes underlined or struck through).
- Any other consequential amendments including but not limited to renumbering of clauses.

## Figure NATC-1: Interpretation of banks of water bodies

### AMEND s42A RECOMMENDED INTERPRETATION



Setback distance measured from point at which normal low flow water levels touch the bed.

Normal ~~average~~ low flow water level

## SETZ - Settlement Zone

### Introduction

#### AMEND INTRODUCTORY TEXT

The purpose of the Settlement Zone is to provide for the smaller rural and beach settlements of the District. This is a mix of residential and commercial activities in a manner that provides services to the local rural or beach communities. These include the settlements of Ashley, Sefton, Cust, Ōhoka, Waikuku Beach, Kairaki, The Pines Beach and Woodend Beach.

## Objectives

PROPOSED AMENDMENT TO OBJECTIVE SETZ-O1 DELETED

## Activity Rules

AMEND RULES SETZ-R15, SETZ-17, SETZ-18, SETZ-19, SETZ-20 & SETZ-22

<b>SETZ-R15 Health care facility</b> <i>This rule does not apply within the Ōhoka Settlement Zone</i>	
<b>Activity Status: PER</b>  Where: <ol style="list-style-type: none"><li>1. the activity shall only be located on sites with frontage and the primary entrance to a strategic road, arterial road or collector road;</li><li>2. the maximum GFA of building occupied by the educational facility shall be 200m<sup>2</sup>;</li><li>3. the hours of operation when the site is open to visitors, patients, clients, and deliveries shall be between the hours of 7:00am – 6:00pm Monday to Saturday;</li><li>4. the facility shall not result in more than two non-residential activities within a residential block frontage; and</li><li>5. the facility shall not include the parking or storage of more than one heavy vehicle on the site of the activity.</li></ol>	<b>Activity status where compliance is not achieved: DIS</b>
<b>SETZ-R17 Convenience activity</b> <i>This rule does not apply within the Ōhoka Settlement Zone</i>	
<b>Activity Status: PER</b>  Where: <ol style="list-style-type: none"><li>1. the maximum GFA of building occupied by the neighbourhood convenience retail activity shall be 75m<sup>2</sup>.</li></ol>	<b>Activity status where compliance is not achieved: DIS</b>

**SETZ-R18 Veterinary facility**

*This rule does not apply within the Ōhoka Settlement Zone*

**Activity Status: PER**

Where:

1. the activity shall only be located on sites with frontage and the primary entrance to a strategic road, arterial road or collector road; and
2. the maximum GFA of building occupied by the veterinary facility shall be 200m<sup>2</sup>.

**Activity status where compliance is not achieved: DIS**

**SETZ-R19 Food and beverage outlet**

*This rule does not apply within the Ōhoka Settlement Zone*

**Activity Status: PER**

Where:

1. the activity shall only be located on sites with frontage and the primary entrance to a strategic road, arterial road or collector road; and
2. the maximum GFA of building occupied by the food and beverage outlet shall be 200m<sup>2</sup>.

**Activity status where compliance is not achieved: DIS**

**SETZ-R20 Supermarket**

*This rule does not apply within the Ōhoka Settlement Zone*

**Activity Status: PER**

Where:

1. the activity shall only be located on sites with frontage and the primary entrance to a strategic road, arterial road or collector road; and
2. the maximum GFA of building occupied by the supermarket shall be 400m<sup>2</sup>.

**Activity status where compliance is not achieved: DIS**

**SETZ-R22 Retirement village**

*This rule does not apply within the Ōhoka Settlement Zone.*

<p><b>Activity Status: RDIS</b></p> <p>Where:</p> <ol style="list-style-type: none"> <li>1. the application is supported by a design statement.</li> </ol> <p><b>Matters of discretion are restricted to:</b></p> <p>RES-MD2 - Residential design principles RES-MD7 - Outdoor storage</p> <p><b>Notification</b></p> <p>An application for a restricted discretionary activity under this rule is precluded from being publicly notified, but may be limited notified.</p>	<p><b>Activity status where compliance is not achieved: DIS</b></p>
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**LCZ - Local Centre Zone****Activity Rules**

AMEND RULES LCZ-R4, LCZ-R21 & LCZ-R22

<b>LCZ-R4 Retail activity</b>	
<p><b>Activity Status: PER</b></p> <p>Where:</p> <ol style="list-style-type: none"> <li>1. the floor area of the activity shall be within the following maximum GFA limits: <ol style="list-style-type: none"> <li>a. within Woodend there is no limit;</li> <li>b. for Mandeville <u>and Ōhoka</u>, the maximum gross retail area for all retail activities in <u>each</u> the zone shall be 2700m<sup>2</sup>;</li> <li>c. for all other sites the activity shall be a maximum of 300m<sup>2</sup> GFA.</li> </ol> </li> </ol>	<p><b>Activity status where compliance is not achieved: RDIS</b></p> <p><b>Matters of discretion are restricted to:</b> CMUZ-MD11 - Residential development CMUZ-MD12 - Commercial activity distribution</p>

<b>LCZ-R21 Trade supplier</b>	
<i>This rule does not apply within the Ōhoka Local Centre Zone</i>	
<b>Activity Status: RDIS</b>	<b>Activity status where compliance is not achieved: N/A</b>
<b>Matters of discretion are restricted to:</b>	
CMUZ-MD1 - Trade suppliers and Yard based suppliers	

<b>LCZ-R22 Yard-based activity</b>	
<i>This rule does not apply within the Ōhoka Local Centre Zone</i>	
<b>Activity Status: RDIS</b>	<b>Activity status where compliance is not achieved: N/A</b>
<b>Matters of discretion are restricted to:</b>	
CMUZ-MD1 - Trade suppliers and Yard based suppliers	

## Wāhanga waihanga - Development Areas

### Existing Development Areas

INSERT ŌHOKA DEVELOPMENT AREA

## O – Ōhoka Development Area

### Introduction

The Ōhoka Development Area provides for a comprehensive and carefully considered expansion of Ōhoka. The area covers approximately 156 hectares extending in a southwest direction from Mill Road and bounded on either side by Bradleys Road and Whites Road.

Key features of the Development Area (DEV-O-APP1) include:

- a masterplanned expansion of Ōhoka achieving a high standard of urban design through implementation of the **Ōhoka design guidelines**.
- a village centre providing local convenience goods and services for residents and a small village square for community events/gatherings.
- provision for approximately 850 residential units, a school, and a retirement village (if a school is not developed, additional residential units would be established),
- provision for a polo field and associated facilities.
- a green and blue network providing for movement, recreation, and ecological enhancement of waterways, and
- high amenity streets appropriate for the rural setting.

## **Advisory note**

The following provisions and Ōhoka Outline Development Plan (DEV-O-APP1) apply to the Ōhoka Development Area. All activities are also subject to other relevant District Plan provisions. For the avoidance of doubt, where there are any conflicts between Ōhoka Development Area provisions and other provisions in the District Plan, the Ōhoka Development Area provisions shall substitute the other provision.

## **Objectives**

<b><u>DEV-O-01</u></b>	<p><b><u>Ōhoka Development Area</u></b></p> <p>A development area that provides for a comprehensive masterplanned expansion of Ōhoka that:</p> <ol style="list-style-type: none"><li>1. <u>is sympathetic to, and integrated with, the existing settlement,</u></li><li>2. <u>delivers high quality urban design outcomes that reflect and enhance the characteristics of the existing settlement,</u></li><li>3. <u>enables the establishment of limited commercial activities to provide for day-to-day convenience needs of an expanded local community,</u></li><li>4. <u>supports residents to reduce their greenhouse gas emissions,</u></li><li>5. <u>enables education facilities, a retirement village, and a polo field with associated facilities, and</u></li><li>6. <u>delivers ecological enhancement and recreational amenities.</u></li></ol>
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## **Policies**

<b><u>DEV-O-P1</u></b>	<p><b><u>Development Area character and amenity</u></b></p> <p>Ensure that the Development Area:</p> <ol style="list-style-type: none"><li>1. <u>maintains the characteristics of the settlement with:</u><ol style="list-style-type: none"><li>a. <u>a lower residential density compared to residential zones in the larger urban centres of the district,</u></li><li>b. <u>minimal use of kerb and channelling, and intimate and informal streetscapes,</u></li><li>c. <u>retention, where possible, of established trees and establishment of large-scale trees and native plantings, and the use of rural style fencing, and</u></li><li>d. <u>protection against light pollution at night from outdoor lighting;</u></li></ol></li><li>2. <u>achieves high quality urban form and function with a village centre located adjacent the existing settlement developed in accordance with Ōhoka design guidelines;</u></li><li>3. <u>provides for a pleasant residential environment minimising the adverse effects of noise and outdoor lighting, and maintaining a high level of visual amenity; and</u></li></ol>
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	4. <u>provides for high levels of connectivity throughout the Development Area and with the existing settlement.</u>
<b>DEV-O-P2</b>	<p><b><u>Density of residential development</u></b></p> <p><u>In relation to the density of residential development:</u></p> <ol style="list-style-type: none"> <li>1. <u>provide for a variety of site sizes within the Development Area achieving a minimum net density of at least 12 lots or households per ha measured over the Settlement Zone, unless there are demonstrated constraints;</u></li> <li>2. <u>provide for a single residential unit on each residential site; and</u></li> <li>3. <u>provide for a retirement village.</u></li> </ol>
<b>DEV-O-P3</b>	<p><b><u>Local Centre Zone design and integration</u></b></p> <p><u>Within the Local Centre Zone:</u></p> <ol style="list-style-type: none"> <li>1. <u>Enable commercial, community, convenience and service activities in a manner consistent with LCZ-P1 while:</u> <ol style="list-style-type: none"> <li>a. <u>maintaining the characteristics of the Ōhoka settlement,</u></li> <li>b. <u>ensuring the centre is designed to achieve high quality urban design principles and a high standard of visual character and amenity <b>in accordance with Ōhoka design guidelines,</b></u></li> <li>c. <u>enabling the development of a supermarket, and</u></li> <li>d. <u>limiting retail distribution effects on the nearby Local Centre Zone at Mandeville North.</u></li> </ol> </li> </ol>
<b>DEV-O-P4</b>	<p><b><u>Transport safety and choice</u></b></p> <p><u>Ensure safe multi-modal access between the Development Area and key destinations including by way of:</u></p> <ol style="list-style-type: none"> <li>1. <u>road infrastructure upgrades, and</u></li> <li>2. <u>a public transport service between the Development Area and Kaiapoi and/or Rangiora.</u></li> </ol>
<b>DEV-O-P5</b>	<p><b><u>Supporting reductions in greenhouse gas emissions</u></b></p> <p><u>Encourage and enable residents to reduce and offset their greenhouse gas emissions by:</u></p> <ol style="list-style-type: none"> <li>1. <u>avoiding LPG connections and use within residential zones except for LPG for outdoor barbeque use,</u></li> <li>2. <u>requiring all residential units to be electric vehicle charging ready and include solar power generation, and</u></li> <li>3. <u>requiring tree and native planting on all residential properties.</u></li> </ol>

## **Activity Rules**

<b>DEV-O-R1 Buildings, structures, development, and landscaping within the Local Centre Zone <del>Urban design</del></b>	
<b>Activity Status: CON PER</b>	<b>Activity status where compliance is not achieved: <del>RDIS DIS</del></b>
Where:	

<p>1. <u>the activity is certified by a qualified expert on a Council approved list as being in accordance with the <b>Ōhoka design guidelines</b>. buildings, structures and development, including fencing and walls, that are deemed to be in accordance with any relevant Council approved design guidelines for the Development Area.</u></p> <p><u>Certification shall include sufficient detail to demonstrate how the activity accords with the design guidelines.</u></p>	<p><b>Matters of control or discretion are restricted to:</b>  <u>DEV-O-MCD1 – Design considerations</u></p> <p><b>Notification</b></p> <p><u>An application for a restricted discretionary activity under this rule is precluded from being publicly or limited notified.</u></p>
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<p><b>DEV-O-R2 Parking lot within the Local Centre Zone</b></p>	
<p><b>Activity Status: CON PER</b></p> <p>Where:</p> <p>1. <u>the activity is certified by a qualified expert on a Council approved list as being in accordance with the <b>Ōhoka design guidelines</b>.</u></p> <p><u>Certification shall include sufficient detail to demonstrate how the activity accords with the design guidelines.</u></p>	<p><b>Activity status where compliance is not achieved: RDIS N/A</b></p> <p><b>Matters of control or discretion are restricted to:</b>  <u>DEV-O-MCD1 – Design considerations</u></p> <p><b>Notification</b></p> <p><u>An application for a restricted discretionary activity under this rule is precluded from being publicly or limited notified.</u></p>

<p><b>DEV-O-R3 Educational facility within the Education Overlay</b></p>	
<p><b>Activity Status: CON PER</b></p> <p>Where:</p> <p>1. <u>the activity is certified by a qualified expert on a Council approved list as being in accordance with the <b>Ōhoka design guidelines</b>.</u></p> <p><u>Certification shall include sufficient detail to demonstrate how the activity accords with the design guidelines.</u></p>	<p><b>Activity status where compliance is not achieved: RDIS N/A</b></p> <p><b>Matters of control or discretion are restricted to:</b>  <u>DEV-O-MCD1 – Design considerations</u></p> <p><b>Notification</b></p> <p><u>An application for a restricted discretionary activity under this rule is precluded from being publicly or limited notified.</u></p>

<p><b>DEV-O-R4 Polo ground and associated facilities within the Polo Grounds Overlay</b></p>	
<p><b>Activity Status: CON PER</b></p> <p>Where:</p> <p>1. <u>the activity is certified by a qualified expert on a Council approved list as</u></p>	<p><b>Activity status where compliance is not achieved: RDIS N/A</b></p>

<p><u>being in accordance with the <b>Ōhoka design guidelines.</b></u></p> <p><u>Certification shall include sufficient detail to demonstrate how the activity accords with the design guidelines.</u></p>	<p><b><u>Matters of control or discretion are restricted to:</u></b></p> <p><u>DEV-O-MCD1 – Design considerations</u></p> <p><b><u>Notification</u></b></p> <p><u>An application for a restricted discretionary activity under this rule is precluded from being publicly or limited notified.</u></p>
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<b><u>DEV-O-R5 Retirement village</u></b>	
<p><b>Activity Status: <u>CON PER</u></b></p> <p>Where:</p> <ol style="list-style-type: none"> <li><u>the activity is certified by a qualified expert on a Council approved list as being in accordance with the <b>Ōhoka design guidelines.</b></u></li> </ol> <p><u>Certification shall include sufficient detail to demonstrate how the activity accords with the design guidelines.</u></p>	<p><b>Activity status where compliance is not achieved: <u>RDIS N/A</u></b></p> <p><b><u>Matters of control or discretion are restricted to:</u></b></p> <p><u>DEV-O-MCD1 –Design considerations</u></p> <p><b><u>Notification</u></b></p> <p><u>An application for a restricted discretionary activity under this rule is precluded from being publicly or limited notified.</u></p>

<b><u>DEV-O-R6 Minor residential units</u></b>	
<p><b>Activity Status: <u>NC</u></b></p>	<p><b>Activity status where compliance is not achieved: <u>N/A</u></b></p>

**Development Area Standards**

<b><u>DEV-O-S1 Subdivision in the Development Area</u></b>	
<ol style="list-style-type: none"> <li><u>Any subdivision shall be in accordance with the <b>Ōhoka design guidelines.</b></u></li> </ol>	<p><b>Activity status when compliance not achieved: <u>DIS</u></b></p>

<b><u>DEV-O-S2 Residential yield in the Settlement Zone</u></b>	
<ol style="list-style-type: none"> <li><u>Residential subdivision shall provide for a minimum net density of 12 households per ha, except for areas where there are demonstrated constraints.</u></li> </ol>	<p><b>Activity status when compliance not achieved: <u>DIS</u></b></p>

<b><u>DEV-O-S3 Subdivision in the Large Lot Residential Zone</u></b>	
<ol style="list-style-type: none"> <li><u>All allotments created shall have a minimum area of 2,500m<sup>2</sup> with a maximum average of 3,300m<sup>2</sup> for allotments within the subdivision</u></li> </ol>	<p><b>Activity status when compliance not achieved: <u>DIS</u></b></p>

**DEV-O-S4 Road infrastructure upgrades**

1. The following road infrastructure upgrades shall be completed prior to issue of a completion certificate under section 224 of the RMA (other than for a boundary adjustment or creation of an allotment solely for utility purposes) for any subdivision of the Development Area:
  - a. a roundabout at the Flaxton Road / Threlkelds Road intersection with associated changes in priority at the Mill Road / Threlkelds Road intersection,
  - b. a roundabout at the Whites Road / Tram Road intersection,
  - c. a roundabout at the Bradleys Road / Tram Road intersection,
  - d. improvements at the Tram Road / State Highway 1 interchange, to increase the capacity for right turning traffic onto the south bound on-ramp, and
  - e. road widening of Tram Road between Bradleys Road and Jacksons Road

**Activity status when compliance not achieved: DIS**

**DEV-O-S5 Public transport**

1. Public transport shall be provided connecting the Development Area to Kaiapoi and/or Rangiora in accordance with the service described in DEV-O-APP1 including an appropriate legal mechanism to ensure delivery of the service for a period of not less than 10 years from the occupation of the first new residential unit constructed within the Development Area.
2. Prior to issue of a completion certificate under section 224 of the RMA (other than for a boundary adjustment or creation of an allotment solely for utility purposes) for any subdivision of the Development Area, a bond shall be entered into with

**Activity status when compliance not achieved: NC**

<p><u>Council to the value of 100% of the cost to deliver the service required by DEV-O-S4.1. The bond shall be held for 10 years from commencement of the proposed service with 5% of its value progressively released at six monthly intervals.</u></p> <p><u>This rule shall no longer apply should the Canterbury Regional Council elect to provide a public transport service to Ōhoka.</u></p>	
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<p><b><u>DEV-O-S6 Greenhouse gas reduction in residential zones</u></b></p>	
<p>1. <u>Any subdivision application shall provide that future residential titles are encumbered with an appropriate legal mechanism to require:</u></p> <ul style="list-style-type: none"> <li>a. <u>LPG connections and use is prohibited except for outdoor barbeque use,</u></li> <li>b. <u>all residential units are fitted with electric vehicle charging facilities, and</u></li> <li>c. <u>all residential units include solar power generation.</u></li> </ul>	<p><b><u>Activity status when compliance not achieved: NC</u></b></p>

<p><b><u>DEV-O-S7 Provision of retail activities</u></b></p>	
<p>1. <u>No more than 250 residential allotments shall be created within the Development Area until at least 800m<sup>2</sup> GFA of retail activity is established within the Ōhoka Local Centre Zone.</u></p>	<p><b><u>Activity status when compliance not achieved: DIS</u></b></p>

**Development Area Built Form Standards**

<p><b><u>DEV-O-BFS1 Tree planting in residential zones</u></b></p>	
<p>1. <u>All residential sites shall provide a minimum of:</u></p> <ul style="list-style-type: none"> <li>a. <u>one tree capable of reaching a height of 8 metres at maturity within the road boundary setback for every 15 metres of road frontage (or part thereof) and;</u></li> <li>b. <u>one additional tree capable of reaching a height of 8 metres at maturity elsewhere on the</u></li> </ul>	<p><b><u>Activity status when compliance not achieved: DIS</u></b></p>

<p>property for every 400m<sup>2</sup> of site area (or part thereof).</p> <p>2. <u>All trees required by this rule shall be:</u></p> <p>a. <u>not less than 1.5 metres high at the time of planting; and</u></p> <p>b. <u>maintained and if dead, diseased or damaged, shall be replaced.</u></p>	
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<b>DEV-O-BFS2 Native planting in the Large Lot residential zones</b>	
<p>1. <u>All residential sites shall provide a minimum of 15% of the net site area planted in native vegetation.</u></p> <p>2. <u>All planting required by this rule shall be maintained and if dead, diseased or damaged, shall be replaced.</u></p>	<p><b>Activity status when compliance not achieved: DIS</b></p>

<b>DEV-O-BFS3 Fencing in residential zones</b>	
<p>1. <u>Any fencing on residential sites shall:</u></p> <p>a. <u>be no higher than 1.2m above ground level; and</u></p> <p>b. <u>be a rural-style post and wire or post and rail fence.</u></p>	<p><b>Activity status when compliance not achieved: RDIS</b></p> <p><b>Matters of discretion are restricted to:</b> <u>DEV-O-MCD3 – Fencing</u></p> <p><b>Notification</b></p> <p><u>An application for a restricted discretionary activity under this rule is precluded from being publicly or limited notified.</u></p>

<b>DEV-O-BFS4 Roof colour in residential zones</b>	
<p>1. <u>All roofing shall be coloured in the range of browns, greens, greys or black, with a light reflectivity value below 35%.</u></p>	<p><b>Activity status when compliance not achieved: RDIS</b></p> <p><b>Matters of discretion are restricted to:</b> <u>DEV-O-MCD4 – Roofs</u></p> <p><b>Notification</b></p> <p><u>An application for a restricted discretionary activity under this rule is precluded from being publicly or limited notified.</u></p>

<b>DEV-O-S3 Polo facility in the Polo Grounds Overlay</b>	
<p>1. <u>Any building or structure shall be set back a minimum of 10m from any residential site.</u></p>	<p><b>Activity status when compliance not achieved: RDIS</b></p> <p><b>Matters of discretion are restricted to:</b></p>

	<p><del>RES-MD2 – Residential design principles</del>  <del>RES-MD5 – Impact on neighbouring property</del></p> <p><b>Notification</b>  <del>An application for a restricted discretionary activity under this rule is precluded from being publicly notified, but may be limited notified.</del></p>
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<b>DEV-O-BFS5 Height in the Local Centre Zone</b>	
1. <u>The maximum height of any building, calculated as per the height calculation, shall be 8m above ground level.</u>	<b>Activity status when compliance not achieved: DIS</b>

<b>DEV-O-BFS6 Outdoor lighting in the Development Area</b>	
<p>1. <u>All fixed exterior lighting shall be directed away from any adjacent roads and residential properties.</u></p> <p>2. <u>All outdoor lighting shall be shielded from above such that the edge of the shield shall be below the whole of the light source, so that all the light shines below the horizontal.</u></p> <p>3. <u>The correlated colour temperature of outdoor lighting shall not exceed 2500 K.</u></p>	<p><b>Activity status when compliance not achieved: RDIS</b></p> <p><b>Matters of discretion are restricted to:</b>  <u>DEV-O-MCD2 – Lighting</u></p>

### **Matters of Control and Discretion**

<u>DEV-O-MCD1</u>	<p><u>Design considerations</u></p> <p>1. <u>The extent to which the design of development is in accordance with the relevant parts of the <b>Ohoka design guidelines</b> including:</u></p> <ul style="list-style-type: none"> <li>a. <u>the bulk, scale, location and external appearance of buildings;</u></li> <li>b. <u>the creation of active frontages adjacent to roads and public spaces;</u></li> <li>c. <u>setbacks from roads and neighbours;</u></li> <li>d. <u>landscaping;</u></li> <li>e. <u>application of CPTED principles;</u></li> <li>f. <u>focus on sustainable design to reduce carbon footprint; and</u></li> <li>g. <u>provision for internal walkways, paths, and cycleways.</u></li> </ul>
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DEV-O-MCD2	<u>Lighting</u> <ol style="list-style-type: none"> <li>1. <u>Whether the lighting is necessary for operational or functional purposes.</u></li> <li>2. <u>Adverse effects on the amenity, well-being, health and safety of people.</u></li> <li>3. <u>The extent to which light spill or glare may impact on activities occurring on an adjoining property.</u></li> </ol>
DEV-O-MCD3	<u>Fencing</u> <ol style="list-style-type: none"> <li>1. <u>The extent to which alternative forms of fencing are in accordance with the <b>Ohoka design guidelines</b>.</u></li> </ol>
DEV-O-MCD4	<u>Roofs</u> <ol style="list-style-type: none"> <li>1. <u>The extent to which alternative roof colours adversely affect the visual amenity of the surrounding environment.</u></li> </ol>

## **Appendix**

### **DEV-O-APP1 – Ōhoka Outline Development Plan**

All requirements specified below are to be designed/coordinated to the satisfaction of Council prior to approval of any subdivision consent application. A discretionary resource consent is required for any subdivision application that does not comply with this Outline Development Plan pursuant to Subdivision Standard SUB-S4. The provisions within this Outline Development Plan are supported by the **Ōhoka design guidelines**.

#### **Land Use Plan**

The Development Area shall achieve a minimum net density of 12 households per hectare, averaged over the Settlement zoned land. The zone framework supports a variety of site sizes to achieve this minimum density requirement. Staging is required to ensure the Development Area develops in a logical and appropriate manner in recognition of the current urban form of Ōhoka. In general, staging will proceed from the Mill Road end towards the southwest. Ōhoka Stream forms the first line of containment, the realigned and naturalised spring channel forms the second line, Ōhoka South Branch the third, and Landscape Treatment B the last.

Confirmation at the time of subdivision of each stage, and an assessment as to how the minimum net density of 12 households per hectare for the overall area can be achieved, will be required.

Residential activities are supported by key open spaces, waterbodies, and a small commercial centre which is to become part of the village centre of Ōhoka. This commercial centre will provide good accessibility and help to meet some of the convenience needs of residents in the immediate area. A car parking area within the village centre will can provide a public transportation hub via the provision of park and ride services. It can also provide for ride sharing. The parking area will be of a high amenity standard enabling it to be integrated into a village square to provide additional hard surface area when required for community events, as well as providing for parking for the Ōhoka farmers market at the neighbouring Ōhoka



Domain. Provision is also made to host the Ōhoka farmers market during winter months when ground conditions in the domain are unsuitable.

Provision is made for educational facilities in the area immediately adjoining the Local Centre Zone on Whites Road on the south side of the Ōhoka Stream. The prospect of developing such facilities will be subject to a needs assessment according to the Ministry of Education processes. If the Ministry decides that educational facilities are not required, additional residential properties will be developed at a minimum net density of 12 households per hectare.

Residential. **The Ōhoka design guidelines and development controls specific to the Development Area will ensure the retention of** ~~Development shall retain existing~~ **the green open** characteristics of the Ōhoka settlement, particularly within the street environments and along property boundaries. ~~Development controls and design guidelines specific to the Development Area shall be prepared and submitted to Council for approval.~~ The overarching purpose of the guidelines ~~would be~~ **is** to ensure development is of the quality and character required to ~~main~~**retain the dominant** ~~existing~~ characteristics of Ōhoka. **The guidelines will apply to subdivision and public realm within the Development Area and key activities including the village centre, school, retirement village and polo facility covering matters such as** ~~all development including~~ built form, fencing/walls, ~~landscaping~~ **planting, streetscape, and parking.** ~~The guidelines also provide the basis for built form standards DEV-O-BFS1 to DEV-O-BFS4. , and public spaces~~ **The guidelines have the following design objectives and shall cover (without being limited to) the following matters:**

#### **Context and character:**

Ensuring that design of development (especially landscaping and fencing) is in keeping with the character of development anticipated for the area and relevant natural, heritage and cultural features.

Promote generous planting of trees and native vegetation.

Promote community connectivity in residential areas by creating open property boundaries.

Maintain consistency in landscape treatments between public and private spaces while allowing individuality on a property-by-property basis.

Protect the night-time ambience of the surrounding environment by ensuring that light pollution is kept to a minimum.

#### **Relationship to the street, public open spaces and neighbours:**

Ensuring that development engages with and contributes to adjacent streets and public open spaces to contribute to them being safe and attractive, while avoiding unacceptable loss of privacy.

#### **Residential amenity:**

Ensuring good access to sunlight, privacy, and provision of useable outdoor living areas.

**Built form and appearance:**

Promote a consistency of landscaping that is appropriate for the location.

Ensuring that the design of buildings minimises visual bulk.

**Access, parking and servicing:**

Ensuring good access and integration of space for parking and servicing. and

Ensure outdoor storage and rubbish bins are is appropriately located and screened.

Minimise the prominence of vehicles and maintain pedestrian priority in public spaces.

**Safety:**

Ensuring the incorporation of CPTED principles to achieve a safe, secure environment.

**Stormwater:**

Ensuring that appropriate provision is made for stormwater is appropriately managed recognising the low-lying nature of the Development Area and the high water table and providing for low impact natural drainage.

**Sustainability:**

Ensuring the incorporation of environmental efficiency measures in the design.

Encourage an ecological approach to planting including through use of species endemic to the area.

An independent design approval process will be established, and most likely administered by a professional residents' association, which would appoint suitably qualified experts' professions (such as architects, urban designers and landscape architects) selected from a Council approved list. These experts would to review and certify approve proposals relating to demonstrate compliance with rules DEV-O-R1, DEV-O-R2, DEV-O-R3, DEV-O-R4 and DEV-O-R5.

**Movement Network**

A road network and classification for the Development Area shall be developed that, together with the green network, delivers a range of integrated movement options. A key design principle of the movement network shall be facilitating movement towards the village

centre and within the Development Area, particularly on foot or bicycle. In recognition of the character of the Ōhoka setting, several specific road types within the Development Area shall be developed with varying widths and layouts depending on the function and amenity. These are to be developed in collaboration with Council at subdivision consenting stage. Indicative cross-sections of the street types are shown in Figure 1.

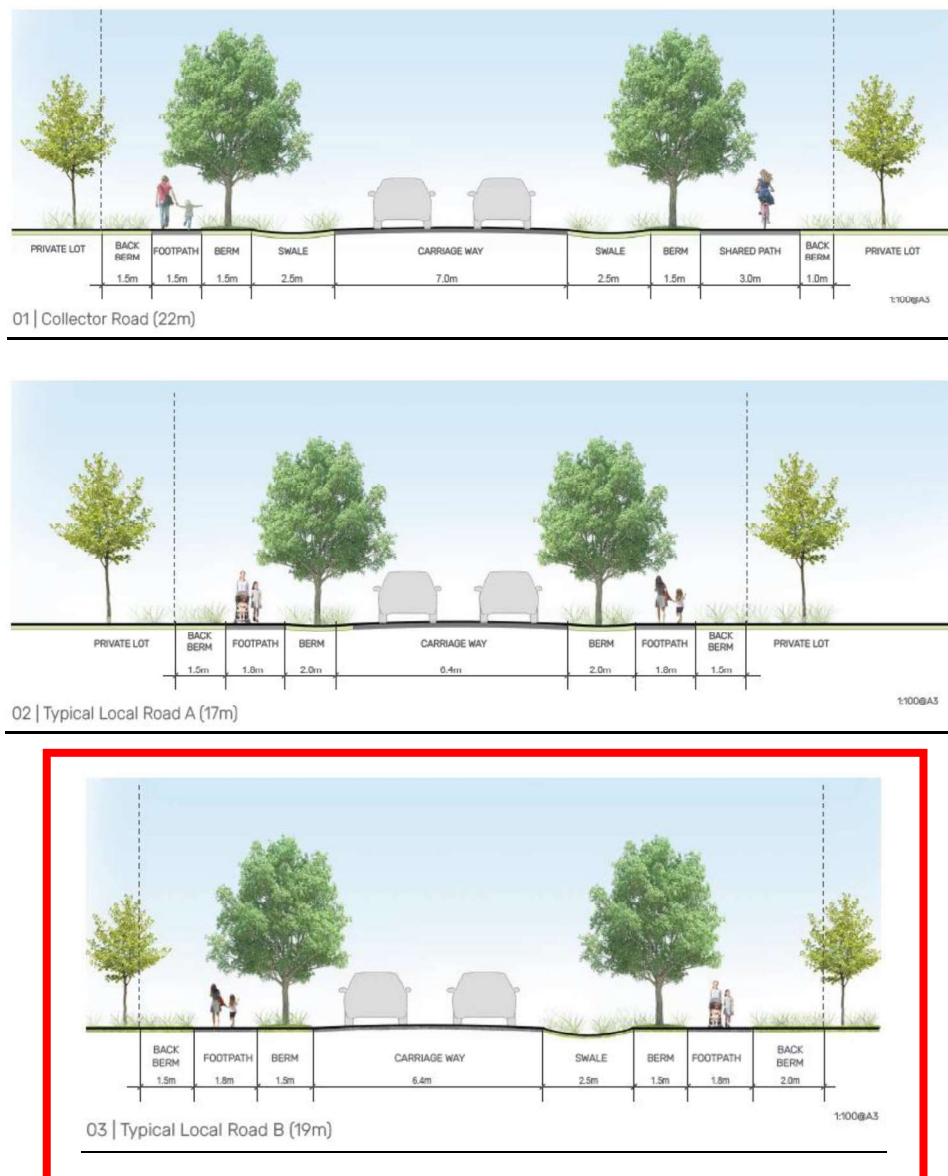


Figure 1: Indicative road cross-sections

Gateway treatments are located at the intersection of Mill Road and Bradleys Road, and on Whites Road at the intersection of Ōhoka Stream. The Mill Road / Bradleys Road gateway is directly at the intersection with a hard contrast from flat open rural land to a built-up edge supported by the verticality of landscape treatment. The Whites Road gateway will use the Ōhoka Stream as a distinct design feature. Combined with specific landscape treatment and bespoke design details, such as lighting and signage, this will create a strong rural gateway. The existing 100km/hr speed limit would ideally reduce to 60km/hr from the Ōhoka Stream gateway. There are potential minor traffic thresholds proposed at the southern boundaries of the Development Area at both Bradleys Road and Whites Road. The speed limit would

ideally reduce to 80km/hr on Bradleys Road and Whites Road alongside the Development Area frontage (outside the gateways). Regardless, two pedestrian/cycle crossings are to be provided across Whites Road, one near the Ōhoka Stream and the other near the commercial area.

The road classification shall deliver an accessible and coherent neighbourhood that provides safe and efficient access to the new development. The movement network for the area shall integrate into the existing and proposed pedestrian and cycle network beyond the Development Area. A 2.5m wide shared path is proposed with the Landscape Treatment Area A along Whites Road and Bradleys Road. Wherever possible, other bicycle and pedestrian routes shall be integrated into the green network within the Development Area. Cycling and walking shall otherwise be provided for within the road reserve and incorporated into the road design of the overall road network where applicable. Adequate space must be provided to accommodate bicycles and to facilitate safe and convenient pedestrian movements. The management, design and/or treatment of roads within the subdivision shall achieve an appropriately low-speed environment, accounting for the safety and efficiency of all road users.

Trees in the road reserve will assist in reducing the perceived width of the road corridors and provide a sense of scale. Further, the street trees will break up the roof lines of the denser areas and provide shade and texture. The trees may be located between carriageway and footpaths on larger roads, and closer to the carriageway on smaller roads. Swales will also assist in softening the road appearance, along with providing stormwater treatment. Aside from the functional aspects, the different street environments will significantly contribute to differentiating the Development Area from the typical suburban character found in the main centres of the District.

The Outline Development Plan provides road links to Mill Road, Bradleys Road and Whites Road. These intersections will be priority-controlled with priority given to the external road network. Direct vehicular access to private properties can be provided to Mill Road. Otherwise, no direct vehicular access to Bradleys Road and Whites Road is provided.

The following transport network upgrades are required to accommodate growth and traffic from the Development Area (noting that the upgrades are required regardless of whether the Development Area is developed):

- Road widening of Tram Road between Bradleys Road and Jacksons Road,
- Flaxton Road / Threlkelds Road intersection roundabout with associated changes in priority at the Mill Road / Threlkelds Road intersection,
- Whites Road / Tram Road roundabout,
- Bradleys Road / Tram Road roundabout, and
- Improvements at the Tram Road / State Highway 1 interchange to increase the capacity for right turning traffic onto the south bound on-ramp capacity upgrade.

In addition to these upgrades, consideration shall be given to whether the development warrants minor works to carriageways and roadside hazards, including roadside signage and/or line markings, on Whites and Bradleys roads (on the stretches between Tram Road to Mill Road), Mill Road (where impacted by the development) and Threlkelds Road. These works would be developer funded.

All works relating to Council road assets will be funded, in part, by development contributions levied at subdivision stage. If any of the upgrades are required earlier than scheduled to respond to growth in the wider network, a developer agreement may be required to enable the works to be implemented without undue delay.

The developer shall consult with Waka Kotahi in respect of the upgrade works required in respect of the Tram Road / State Highway 1 interchange.

### **Public Transport**

A public transport service shall be provided connecting Ōhoka to Kaiapo and/or Rangiora that:

- Connects tightly with Christchurch express services to Christchurch,
- Minimises morning connection times,
- Allows time for delays in afternoon connection times,
- Keeps departure times as consistent through the day as possible, and
- Minimises wait times evenly between arriving and departing all-stop services.

The Ōhoka terminus shall be situated in the Local Centre Zone adjacent the park and ride facility and provide a suitable shelter facility. The terminus location is sufficient to service initial subdivision stages. As the Development Area is developed towards the south, up to two additional bus stops shall be provided within the Settlement Zone in accordance with New Zealand Transport Agency spacing standards. The internal collector road network will allow a bus to perform a clockwise loop from the terminus returning to Mill Road (via Bradleys Road or Mill Road) and onward to Kaiapo or Rangiora.

The location of the termini of the service in Kaiapo and/or Rangiora shall be determined at the time of subdivision in consultation with Council and the Canterbury Regional Council.

The vehicle(s) providing the service shall be electric powered bus with 22-seat plus eight standing capacity, wheelchair access and bicycle racks. Unless fare integration with Canterbury Regional Council contracted services is in place, the service shall be provided without charge.

An appropriate legal mechanism shall be established to ensure the implementation and ongoing delivery of the service shall be provided for a period of not less than 10 years from the occupation of the first new residential unit constructed within the Development Area unless the Canterbury Regional Council elects to provide a similar service. To secure the implementation and ongoing delivery of the service, the developer shall enter into a bond with Council to the value of 100% of the cost to deliver the service. The bond shall be held

for 10 years from commencement of the proposed service with 5% of its value progressively released at six monthly intervals.

Amendments to the proposed service, and agreements securing its delivery, will be able to be made by mutual agreement with Council at any stage.

### **Supporting reductions in greenhouse gas emissions**

In addition to the public transport service detailed above, measures to support reducing greenhouse gas emissions include a requirements (DEV-O-S1) for additional tree planting (DEV-O-BFS1) and for at least 15% of site area to be planted in native vegetation (DEV-O-BFS2) on all residential properties, and a requirement (DEV-O-BFS2) for at least 15% of site area to be planted in native vegetation on larger properties.

Further, LPG use shall be prohibited within the Development Area, except for LPG for outdoor barbeque use, and all residential units shall be required to be electric vehicle charging ready and include solar power generation as required by DEV-O-S6. These requirements shall be enforced by a legal instrument that is binding on all future residential allotment owners such as developer covenants.

### **Water and Wastewater Network**

Water reticulation is to be provided by the establishment of a new community drinking water scheme. A site of approximately 1,000m<sup>2</sup> will be provided within the Development Area for water supply headworks infrastructure including treatment plant, storage reservoirs and reticulation pumps. Fire-fighting flows to FW2 standards will be provided for Settlement and Local Centre zoned properties. Hydrants will be provided for emergency requirements within the Large Lot Residential Zone, in a similar manner to the neighbouring Mandeville and Ohoka areas.

Wastewater will be reticulated to the Rangiora Wastewater Treatment Plant either via gravity reticulation or a local pressure sewer network or a combination of both. A new rising main connecting the development to the treatment plant is likely to be required.

### **Open Space, Recreation and Stormwater Management**

The green network combines the Natural Open Space Zone, recreational reserves including pedestrian connections, and stormwater management throughout the Development Area. The green network largely follows waterways and provides access to open space for all future residents within a short walking distance of their homes. Pedestrian and cycle paths will integrate into the green network to ensure a high level of connectivity is achieved, and to maximise the utility of the public space.

Detailed stormwater solutions shall be determined by the developer at subdivision stage and in accordance with Canterbury Regional Council requirements. Stormwater management facilities shall be designed to integrate into both the movement and open space networks where practicable. Groundwater monitoring will assist in the design of the stormwater management facilities.

The stormwater solutions shall be cognisant of a 26-hectare area adjacent the Whites Road boundary that ~~may~~ cannot be ~~able to be~~ attenuated. The stormwater solutions for development of the site shall demonstrate hydraulic neutrality up to the 50-year event. If neutrality cannot be achieved, the density of development within the 26-hectare area may need to be reduced.

The proposed green and blue network provides an opportunity to create ecological corridors. Plant species in the new reserves and riparian margins shall include native tree and shrub plantings. The plant species selection process shall involve consultation with local rūnanga. The green network will ensure that buildings are setback an appropriate distance from waterbodies.

### **Character and amenity through landscape and design**

The character of Ōhoka is strongly reliant on landscaping, in particular trees, in both public and private environments. The landscape treatment of the waterway margins may include large specimen trees but will mostly be comprised of planted natives. Space for street trees is to be provided on both sides of all road types and are to be placed strategically to create an organic street scene avoiding a typical suburban appearance. Additional tree planting is required on private properties.

An overall planting strategy is to be developed for the Development Area at subdivision consent stage.

Specific measures to protect and enhance landscape values will be addressed at the time of subdivision including:

- a. An assessment by a suitably qualified and experienced arborist, guided by a suitably qualified terrestrial ecologist, that:
  - i. Identifies trees that are to be retained and integrated into the development
  - ii. Specifies protection measures during construction to ensure survival of selected trees

To further support the distinct village character of Ōhoka, street furniture, lighting and all other structures in the public realm are to reflect the rural characteristics with regard to design, type, scale, material and colour. In particular, street lighting shall be specified to minimise light spill and protect the dark night sky. ~~These can be considered as part of the development controls and design guidelines mentioned previously.~~

#### *Landscape Treatment A*

Landscape Treatment A shall be designed to assist in retaining a rural character along Whites and Bradley Roads and to fully screen development from public and private vantage points outside the Development Area. It shall consist of a 1.5-metre-wide grass strip at the site boundary with an adjoining 2.5-metre-wide gravel path and a 10-metre-wide native vegetation strip in the location identified on the Outline Development Plan and include a post and rail fence or post and wire fence on the road side of the vegetation. Solid fencing



within this strip is not permitted. This is combined with a 1520m building setback, consistent with setbacks required in the adjacent Rural Lifestyle Zone.

The planting is to consist of the following species, or similar, planted at 1000mm centres to achieve a minimum height of 5m once established:

- Griselinia littoralis, Broadleaf;
- Cordyline australis, Ti kouka;
- Pittosporum tenuifolium, Kohuhu;
- Podocarpus totara, Totara;
- Phormium tenax, Flax;
- Dacrycarpus dacrydioides, Kahikatea;
- Sophora microphylla, SI Kowhai;
- Korokia species; and
- Cortaderia richardii, SI Toetoe.

### Landscape Treatment B

Landscape Treatment B, as indicated on the Outline Development Plan, shall be designed to provide a visual buffer between the Development Area and adjacent rural land to the southwest. The treatment shall consist of retention of the existing shelter belts running along the southern boundary of the Development Area and planting a 6m wide landscape strip consisting of either (or a mix of) the following trees, or similar, to achieve a minimum height of 5m with trees at a maximum spacing of 2000mm:

- Pinus radiata, Pine;
- Cupressus Arizonia, Arizona cypress;
- Chaemaecyparis lawsoniana, Lawson's Cypress;
- Populus nigra, Lombardy Poplar;
- Podocarpus totara, Totara (native);
- Pittosporum eugenioides, Tarata (native);
- Phormium tenax, Flax;
- Prunus lusitanica, Portuguese laurel; and
- Griselinia littoralis, Kapuka / Broadleaf (native).

### Landscape Treatment C

Landscape Treatment C is proposed to be located toward the northern extent of the Development Area and act as a buffer between the Development Area and the existing Ōhoka Village properties on the southern side of Mill Road. The treatment shall be a planted single row consisting of one of the below species, or similar, along the shared internal boundaries to achieve a minimum established height of 4m and a width of 2m, planted at a maximum spacing of 1500mm (within a 6m wide strip). This relates to the internal boundaries of 290 and 344 Bradleys Road; 507, 531 and 547 Mill Road; and 401 Whites Road.

- Prunus lusitanica (Portuguese Laurel)
- Pittosporum eugenioides (Tarata, Lemonwood)
- Pittosporum tenuifolium (Kohuhu, Black Matipo)



- Griselinia littoralis (Broadleaf)
- Kunzea ericoides (Kanuka)
- Leptospermum scoparium (Maunuka)

### Approval, Implementation and Maintenance

All proposed planting within Landscape Treatments A, B and C and the green and blue networks will be subject to Council approval. A landscape management plan shall be developed to ensure a successful outcome and provided for approval at Engineering Approval Stage. The plan will provide direction on the establishment of planting, weed and pest control, replacement planting, irrigation and maintenance. The landscape maintenance period shall extend for five years following implementation.

### **The National Grid**

The National Grid Islington – Southbrook A (ISL-SBK-A) 66kV transmission line traverses the site. The line starts at the Islington Substation in Christchurch and extends through the Christchurch, Waimakariri and Hurunui districts. The following matters will assist in ensuring the ability for Transpower to operate, maintain, upgrade and develop the National Grid is not compromised by future subdivision and land use.

### Consultation

Transpower shall be consulted as part of any application for subdivision consent affecting the National Grid. Evidence of this consultation shall be provided to Council as part of any subdivision consent application.

### Planting and maintenance of landscaping beneath the National Grid

Any landscaping in the vicinity of the National Grid shall be designed and implemented to achieve compliance with the New Zealand Electrical Code of Practice for Electrical Safe Distances (NZECP 34:2001) and the Electricity (Hazards from Trees) Regulations 2003, including when planting reaches maturity.

### **Water Bodies and Freshwater Ecosystems**

The Development Area contains several waterbodies with varying characteristics. Development of the Development Area provides potential for higher ecological values to be re-established through restoration and enhancement. This could include protected reserve space, native planting, naturalisation, and instream enhancement. Development shall protect and enhance selected water bodies and freshwater ecosystems within the Development Area and incorporate these features into the wider green and blue network of the site.

In terms of specific measures to be addressed at the time of subdivision in order to protect and enhance freshwater values and ecosystems, development within the Development Area shall:

- Include an assessment by a suitably qualified and experienced practitioner that:

- i. Provides the results of groundwater and spring water level and spring flow monitoring across the site to inform the construction methodologies that are applied in different parts of the site; and
  - ii. Specifies construction measures to ensure that shallow groundwater is not diverted away from its natural flow path for those areas where the shallow groundwater (in water bearing seems or layers) is likely to be intercepted by service trenches and hardfill areas.
- b. Be in accordance with an Ecological Management Plan prepared by a suitably qualified and experienced practitioner that, as a minimum, includes:
- i. Plans specifying spring head restoration, riparian management, waterway crossing management, and segregation of spring water and untreated stormwater.
  - ii. Aquatic buffer distances, including minimum waterbody setbacks for earthworks and buildings of:
    - 30 metres from the large central springhead and Northern Spring head identified on the ODP.
    - 20 metres from the Ohoka Stream and Groundwater Seep origin.
    - 15 metres from Northern and Southern Spring Channel and South Ōhoka Branch.
    - 10 metres from the Groundwater Seep channel.
    - 5 metres from the South Boundary Drain along the furthestmost southwest boundary of the ODP area.
- Any additionally identified springs shall be assessed to determine the appropriate aquatic buffer distance.
- iii. Ongoing maintenance and monitoring requirements that are to be implemented, including groundwater level, spring water level and spring flow monitoring.
- c. Maintain the perennial course of the lower Southern Spring Channel.
- d. Possible re-alignment of the Northern Spring Channel baseflow into the Southern Spring Channel downstream of the spring-fed ponds. Both channels are perennial and could be meandered and naturalised.
- e. Possible meandering and naturalisation of the Groundwater Seep.
- f. Riparian planting plans with a focus on promotion of naturalised ecological conditions, including species composition, maintenance schedules, and pest and predator controls.
- g. Stream ecology monitoring (i.e., fish, invertebrates, instream plants and deposited sediment surveys).

The aquatic buffers shall be protected by appropriate instruments (whether that be esplanade reserves/strips, recreation reserves or consent notice condition imposed setbacks) at the subdivision consent stage. Further, landscape design drawings of stream setbacks are to include input and approval from a qualified freshwater ecologist, with a minimum of the

first 7 metres of the spring and stream setbacks to be reserved for riparian vegetation only, with no impervious structures and pathways as far as practicable away from the waterway.

Additional protection shall be afforded to ecological restoration within the Development Area and existing ecosystems in the surrounding area by the prohibition of the keeping and breeding of domestic cats. This requirement shall be enforced through a developer covenant.

### **Cultural**

The importance of natural surface waterbodies and springs to Manawhenua is recognised and provided for by the Outline Development Plan and the specific measures described above in respect of waterbodies and freshwater ecosystems that will support cultural values associated with the Development Area. The Ngāi Tahu Subdivision and Development Guidelines shall be referred to throughout the subdivision design process with guidance adopted where practical/applicable.

For all earthworks across the site, an Accidental Discovery Protocol will be implemented at the time of site development, in addition to appropriate erosion and sediment controls, to assist in mitigating against the potential effects on wahi tapu and wahi taonga values generally.

### **Detailed Site Investigation**

Due to the previous agricultural land use including the storage and spreading of dairy effluent, a Detailed Site Investigation shall be carried out at subdivision consent stage. This investigation will identify what (if any) remediation is required to satisfy the requirements of the Resource Management (National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health) Regulations 2011.

### **DEV-O-APP1**