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28th April 2020

Selwyn District Council

PO Box 90, Rolleston

Attn: Robert Love

By Email Only: Robert.Love@selwyn.govt.nz

Dear Robert,

Re: PC190063: MERF AG SERVICES LTD & MATTHEW REED PRIVATE PLAN CHANGE: REQUEST FOR FURTHER INFORMATION

Further to your Request for Further Information, dated 29<sup>th</sup> January 202, our response is as follows:

1) Character and Amenity Values

#### i) Zone interface

While the proposed L1/L1 deferred zone for the site is consistent with the development to the south, it is at a significantly higher density than the land zoned L2 deferred to the west.

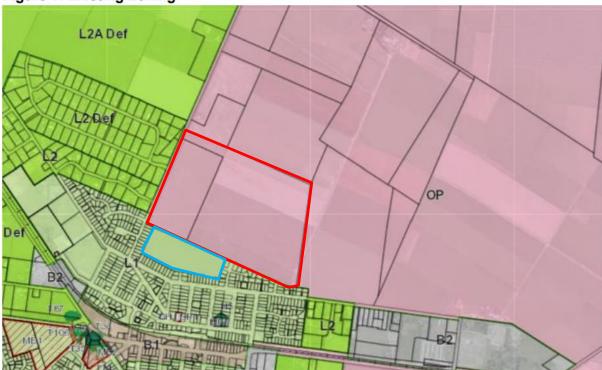
This potentially creates an adverse amenity effect at the interface between the established land use and the proposed land use. Currently the residents of the L2 deferred area have an expectation of wider open areas and larger allotment sizes surrounding their properties, than would be found if they were L1 zoned.

Given this, please

- a) Make an assessment of the actual or potential effects on the landowners of property within this area; and
- b) Provide details of any mitigation measures.
- The Site of proposed Plan Change 63 is opposite land zoned L2 and L2 Deferred see zoning plan below: (the PC63 site to be rezoned L1 is outlined in red and the adjoining existing L1 land included in the PC63 ODP is outlined in blue).

Property Subdivision Industry Community Environment

Figure 1: Existing Zoning



2. Both the L2 and L2 Deferred zones are fully developed (Kowhai Drive and Landsborough Drive) as shown in the aerial photograph below.



3. There are six L2 sized sections along the opposite side of Kimberley Road from the Plan Change site. In each case the dwellings are oriented north/north west away from

Kimberley Road, towards the sun and views of the Alps. They are well setback from Kimberley Road (by between 11 - 30m). The Kimberley Road frontage is in most cases landscaped, and used for vehicle access, manoeuvring and garaging. The main outdoor living areas are also oriented north/north west well away from Kimberley Road.

- 4. The existing high pine hedge along the Kimberley Road frontage of the Site is a farm shelter belt and not appropriate to an L1 zoned environment (or a lower density rural residential environment) due to shading effects and potential blocking of outlook towards the Alps. It will be removed.
- 5. The proposed Outline Development Plan has been amended (see **Appendix A**) by adding a requirement for rural residential style fencing along the Kimberley Road frontage of the proposed Living 1 zone (i.e. within 4m of the Kimberley Road frontage); and specifying a minimum lot size of 1000m². This will retain an open space character along the Kimberley Road frontage, and dominance by open space and landscaping rather than buildings. These will be prime sites, with views towards the Alps. It is reasonable to expect that they will be landscaped to a high standard by future owners.
- 6. The above changes to the ODP are as recommended by Nicole Lauenstein of a+Urban who has undertaken an urban design assessment in response to the RFI (attached as **Appendix B**, in particular Section 6.2.1). She explains the purpose of the above mitigation measures as follows:
  - a. properties in the proposed L1 zone along this street boundary should be on the larger side, no less then 1000m² this will allow houses to be located with generous road setbacks from Kimberly Road and as well as more generous internal boundary setbacks creating a more open feel with better visual permeability and larger gaps between buildings.
  - b. fencing controls should apply with any road side fencing or fencing within a 4m setback from the road to be of a consistent design/type across the entire Kimberley road frontage, to be of a rural type consistent with the fencing typologies for the Living 3 (rural residential) fencing typologies in Appendix 44 of the District Plan i.e. post and wire, post and rail, traditional deer/sheep or solid post and rail.
- 7. With the addition of the above measures, there will be no adverse amenity effects at the interface of the proposed L1 and existing L2 zones.

#### ii) Effect on the neighbourhood/ community

The application received does not include an urban design or landscape assessment report. This report should assess the effect on the immediate neighbourhood and the wider community from the proposed change of open spaced rurally zoned land to higher density living zoned land. More specifically this report should include an:

- a) Contextual analysis of the changing urban boundary, the effect on the visual amenity of the wider community;
- b) Assessment of the key destinations and their connectivity with the rest of the site and Darfield as a whole; and
- c) Provide details of any mitigation measures.

8. An urban design assessment in response to the RFI is attached as **Appendix B.** The assessment describes the existing urban form of Darfield and the surrounding rural residential and rural context, in particular as it relates to the Site, noting also the future preferred growth areas identified in the Malvern Area Plan (Section 4). This provides the context for the response to the RFI.

# a) Contextual analysis of the changing urban boundary, the effect on the visual amenity of the wider community

- 9. The proposed plan change will visually affect part of the existing community along the Kimberley road interface and to some extent properties in proximity to the new entry points to the development properties. Land to the north and east is existing farmland, zoned Rural Outer Plains, also owned by one of the joint applicants, the Reed family.
- 10. The PC63 ODP includes land north of Horndon Street which is already zoned L1, in order to ensure appropriate connectivity from the Site via this land to the existing township. As this land is already zoned L1, any effects at the Horndon Street boundary do not need to be considered, as they are already anticipated under the existing L1 zoning.
- 11. Beyond the above locations, the wider community will not experience any visual effects unless they are travelling along Kimberley Road.
- 12. The proposed design offers the opportunity to create new visual connections to the landscape along key roads and green spaces which can be experienced by the wider community.
- 13. Effects at the Kimberley Road L2 zone interface are outlined in 1a) above.
- 14. The northern Site boundary is with farmland so there will be no effect on the visual amenity of the wider community here. However, minimum 1000m² are proposed along this interface, principally to provide space for future L1 zone lot owners to landscape along the rural boundary is this is their preference.
- 15. The north east Site boundary is with farmland which is a preferred future business development area in the Malvern Area Plan. This adjoining land is also owned by the Reed family. Rezoning for business purposes will be require a separate rezoning request, at which time suitable mitigation within the future business zone can be considered (setbacks, landscape buffers etc).

# b) Assessment of the key destinations and their connectivity with the rest of the site and Darfield as a whole;

- Darfield township has a generally radial roading pattern leading from adjacent areas into a central 'grid pattern' core which straddles the east-west railway and SH73 roading corridors. There is existing residential and commercial development both sides of SH73, with the key community facilities (schools, church, recreational reserves) and important commercial services (supermarket, dairy) clustered around the NW part of the core.
- 17. There are a number of existing vehicle and pedestrian crossing points over the railway line.

- 18. The PC63 site lies generally to the north of the commercial and community core area of Darfield. It is the closest of the Malvern Area Plan Darfield future preferred development areas to the existing town centre.
- 19. The ODP has been amended to ensure that the proposed residential area to be rezoned L1 supports and builds on the existing connections and provides future links creating an interconnected network in particular for pedestrian movement throughout Darfield. How this is to be achieved is summarised in b) below and in described in full in the urban design RFI response (**Appendix B**).

#### Pedestrian connectivity:

- 20. The site has key connection points with the existing pedestrian network in the south-west and south-east corners of the Site linking it with the centre of Darfield. These connections have been carried into and through the Site to provide a good overall connectivity within the Site along future desire-lines.
- 21. A diagonal link from north-east to south-west with a strong focus on pedestrian amenity creates a 'pedestrian axis' internally connecting green spaces and leading foot traffic in a direct manner to the south-west corner where the development naturally connects to the existing pedestrian network.
- 22. Other secondary pedestrian links are available along all vehicular connections to Kimberley Road and Horndon Street.

#### Vehicular connectivity:

- 23. Roads are logically interconnecting the available access points on Kimberley Road with those off Horndon Street and distributing traffic into and through the Site with a clear road hierarchy.
- 24. The main access off Kimberley Road has been shifted opposite Torlesse Street to bring it closer to the centre of Darfield and avoid a direct link via Kowhai Street to the main highway to the west. This also enables a direct pedestrian connection to Kimberley Road closer to the existing pedestrian network. As a result the more rural residential streetscape to the north of Torlesse Street can be maintained.

#### Retirement village, medium density housing, green spaces and reserves:

25. The retirement village and principal area of medium density housing have been colocated together and with adjoining reserves (to the north and southeast). They are in the south west part of the Site, close to and with ready access to the existing town centre. The second medium density housing is to the north east, clustered around a proposed reserve and along the diagonal north-east to south-west 'pedestrian axis' which will internally connect green spaces and lead foot traffic in a direct manner to the south-west corner where the development naturally connects to the existing pedestrian network. This approach ensures that these higher density areas will be well connected internally and externally by all transport modes, and benefit from adjoining open space to 'offset' the denser development typology.

#### c) Mitigation measures

27. Mitigation measures are outlined above. Amendments to the ODP include:-

- a. minimum 1000m² lots sizes at the north, north east and Kimberley Road Site boundaries;
- b. requirement for rural residential style fencing along the interface with the Kimberley Road L2 zone;
- c. amendments to the location of the retirement village, medium density housing and green space/reserves, roading layout and pedestrian routes to maximise connectivity and achieve other additional beneficial urban design outcomes (including providing for open space to offset the effects of higher density housing typologies and maximising viewshafts).

#### 2) Outline Development Plan

The ODP states that the undeveloped land block on the southern extent of the proposed site is already zoned 'Living X'. However, this is not the case in the operative District Plan. Therefore please:

- a) Amend your Outline Development Plan to show this;
- b) Clarify if this block will also be required to use the community wastewater scheme proposed, and if this hasn't been included to date, then provide details of any amendments to the application to allow for this extra loading.
- 28. The ODP has been amended to show the Living X land as Living 1 (see **Appendix A**). This block will not be required to use the proposed community wastewater scheme. It is already zoned L1 so is subject to the servicing requirements as for other existing living zoned areas at Darfield.

#### 3) Transport

No integrated transport assessment (ITA) has been included with the application. Please provide an ITA that includes details regarding:

- a) Traffic volume generation for both the retirement village and the development as a whole;
- b) Connectivity and context to the adjoining networks;
- c) Intersection and infrastructure upgrades that would be required;
- d) How the internal walking and cycling network would operate;
- e) Roading status of the roads within the retirement village;
- f) Indicative cross sections for each of the proposed roading types;
- g) Consideration of the future road connectivity to the North and East;
- h) Size and design of the three non-vehicle links to the surrounding land;
- i) Effect on the safe operation of the level crossings in the area.
- 29. An ITA has been undertaken by Novo which addresses all of the above, except i), given your further advice as below that i) can be disregarded (see **Appendix C**).
- 30. In summary the ITA concludes:

- a. The ODP provides for around 104 lots and a retirement village and for a deferred zone accommodating an additional 337 lots. The ODP road network provides a number of road connections to Kimberley Road (Collector Road) and via existing partially constructed roads to Horndon Street (proposed to be upgraded to a Collector Road) which provide for good vehicular connections to the town centre and key destinations such as Rolleston and Christchurch.
- b. The ODP primary roads, and other connections provides a good structure for development of property access roads at subdivision stage. In terms of road formed width and cross sections, there is no reason at this stage to suggest that there would be any need to deviate from standard formations in accordance with the Selwyn District Plan and Selwyn District Council Code of Practice
- c. Some road upgrades are anticipated and there are no existing restrictions (from a transport perspective) to achieving seven upgrades identified in the ITA.
- d. The ODP also provides for future road connections to the land north and east of the ODP area ensuring the potential for integration of local connections to any future development.
- e. An off-road connection is proposed in the south-western corner of the ODP, which will provide a direct route for walking and cycling trips to the town centre, domain and schools.
- f. The Stantec Report considered upgrades to the wider road network to accommodate growth in Darfield in general and associated with Area 5 (opposite side of Kimberley Road). This assessment assumes that such upgrades would occur by the network controlling authority through general funding (including development contributions) and have been taken into account in the provision of the above assessment.
- g. Accordingly, the proposed ODP is considered to be well connected and supportable from a transport perspective.

Regarding the effect on the safe operation of the level crossings in the area, some work has been carried out on this, with more still underway. Please review the attached report for further details.

31. Response: Email from Robert Love 20 February 2020

On review of the content of the report it does not put any additional requirements on your development. Therefore you can disregard the RFI point regarding level crossing safety and effects, and complete your ITA without this consideration.

In addition to the above, details on the following are also required to be provided:

- j) What road frontage upgrades (roads, footpaths, lighting, landscaping, stormwater, etc) that will be required along Kimberley Road, and who will meet the cost of these;
- 32. The ITA identifies at paras 59 65 a number of roading upgrades:
  - a. Upgrade of Kimberley Road south of the intersection with Landsborough Street to kerb and channel;
  - b. Move the 50km/h speed limit north of the intersection with Landsborough Street (and the 60km/ speed limit an associated distance north);
  - c. Provide a footpath along the eastern side of Kimberley road adjacent to the ODP area;

- d. Consider the need for a right turn lane on Horndon Street at the intersection with Broadmeadows Drive once the deferred zone is developed;
- e. Provision of a crossroads intersection at the existing Kimberley Road Landsborough Street intersection, including a right turn lane as the deferred zone is developed and a possible round-about if there is through traffic demand from Area 5;
- f. Provision of a cross-roads intersection at the existing Kimberley Road Torlesse Crescent intersection; and
- g. Provision of a third road as a 'T' intersection with Kimberley Road near the northern end of the ODP area.
- 33. These upgrades can be developer funded unless there is a wider community benefit from some of the upgrades. The upgrades arise from the effects of increased traffic arising from the development of the ODP land and other land in the vicinity (including L2 land on the west side of Kimberley Road). Some of the upgrades will only be required when the Deferred L1 zone is developed. The upgrades need to be agreed with SDC and timing and funding negotiated accordingly at the time of subdivision consent.
- 34. An option, if necessary, could be that the applicant enter into a Private Developer's Agreement (PDA) with the Council, as provided for under s207A A-F of the Local Government Act 2002.
- k) What development needs to occur on Lot 7 DP 28741 (proposed pedestrian link on the south western extent), who will meet this cost, and how this development will affect the two properties that use this land for road access.
- 35. The Lot is owned by SDC. It needs to be developed to provide for an all-weather standard as required by SDC at the subdivision stage. The footpath needs to be wider to provide for cyclists, and if there is an issue for on-going adjoining property access, then that can be built in to the design at that time when the final lot layout is determined. It just needs to be clearly delineated from the existing vehicle accesses to the two existing dwellings. The design would likely tie in with what is provided through the rest of the ODP area noting the pedestrian connection indicated through the ODP. SDC requested this pedestrian access at the pre-application meetings.
- 36. Landscaping of the lot, if required, can also be determined at the subdivision stage to a standard to be negotiated.
- 37. To the extent that the lot is required to service the land to be rezoned under PC63, then a share of the costs of that development can be developer funded.

#### 4) Freshwater Assets

While the proposed development is seen to be largely fine in regard to water reticulation from the SDC system, this effect is required to be modelled. In order to gauge and assess this effect you will need to contact Sue Harrison (sue.harrison@wsp.com) from Opus, who holds the water supply model for Darfield.

38. This issue remains unresolved as the Council contractor WSP was unable to do the modelling work as explained in the email dated 3 April 2020 below.

Our Water Model team have reviewed your request.

The recently updated Darfield model still have outstanding issues and is currently **not fit for purpose** for developer enquiries (simulated pressures do not match recorded pressures in SCADA). We plan to fix the current peak day model and the growth model as part of the 2020 SDC Master Planning Project.

We are currently working with Selwyn District Council (SDC) to complete updating the model. Unfortunately, this will not be resolved until approximately 5-6 weeks. Please let me know if you have flexibility in your timeframe.

Kind Regards,

Sue

#### Sue Harrison

Team Leader Water - Project Delivery



T: +64 4 499 4045 M: +64 27 280 2826 sue.harrison@wsp.com

39. This is a technical issue and can be dealt with and resolved with evidence presented at any hearing or negotiated through expert conferencing before any hearing.

#### 5) Wastewater Assets

Please either clarify or provide additional information on the following points:

- a) The location of the wastewater treatment system and disposal field, and the ability for this to constrain the future growth of Darfield;
- 40. As outlined in the application, the WWTP and land treatment area are intended to be a short-term solution as there is currently no reticulated network within Darfield. Once SDC have a reticulated network that is within 50 metres of the proposed development's boundary, the WWTP will be decommissioned and parts will be salvaged and sold for use elsewhere. The subsurface drip line will remain and be used for ordinary irrigation. As such, this proposal does not constrain the future growth of Darfield. Whereas, if a centralised scheme is not developed for Darfield, then this will be the major constraint for future expansion of Darfield. As outlined in the WWTP application AEE, any effects of the wastewater treatment plant and disposal area will be less than minor. It will utilise subsurface drip irrigation and treatment plant will also be underground. There will be no spray drift and odour effects will be negligible. This will not constrain future residential development of surrounding land (see extracts from AEE attached as **Appendix E**).

- b) The application contains inconsistencies surrounding if the L1 deferred area would potentially be linked with the community wastewater scheme (proposed Rule 12.1.6.16B v Point 4.4 of the report). Please:
- a. Clarify this aspect;
- b. And if the L1 deferred area will also be linked to the community wastewater scheme, if allowance has been made for this in both treatment capacity, and land discharge area.
- 41. It is not intended to connect the deferred area to this WWTP and land treatment area, so the Rule is correct. The L1 deferred area is deferred until there is a Council scheme.
- c) The report states that the community wastewater scheme is only a short to medium term option out to 20 years, and relies on the Council installing a township scheme for the long term. Currently there are no plans or funding for a township wide wastewater scheme for Darfield. Given this, what is plan in case no Council scheme exists at the end of the 20 year period?
- 42. It is our understanding that a Council scheme will be brought forward into the current LTP process. However, if this does not occur and it remains some 13 15 years out, then the discharge consent being obtained from Environment Canterbury will have sufficient duration. Should the Council scheme be deferred, then the discharge consent will be renewed, as per any other discharge consent. Furthermore, with the life of these types of systems are >50 years with regular maintenance so we do not consider this an issue.
- d) While options as to how the community wastewater scheme could be managed have been included in the application, the application does not state how it will be managed. Certainty as to the long term operation and viability of the scheme needs to be achieved. Council have stated that they are not prepared to take on the community wastewater scheme in any form. Given this, please provide details as to how the scheme will managed, in both operation and ongoing maintenance.
- 43. There are many options for the ownership, operation and maintenance. The ownership is intended to remain with the consent holder and not be vested to SDC. This allows the consent holder to salvage the plant when the District scheme becomes available. As stated in the discharge application to ECAN, there are a number of mechanisms available to Council to ensure the wastewater infrastructure that remains in private ownership, is managed accordingly. At this stage, the ownership will remain with the consent holder who is also the landowner.
- 44. The most likely management entity will be via a Body Corporate structure, as this has legal protocols. This can be easily set up as follows:
  - a. The consent holder can transfer the consent to a body corporate entity which will be responsible for the infrastructure maintenance and operation; or
  - b. The constitution of the body corporate requires all lot owners to be equal shareholders and to transfer the shares to purchasers when they sell; or

- c. Lot owners must pay any money levied on them by the body corporate and grant a covenant on their property title in favour of the Council; those encumbrances are:
  - "...recording the obligations of each lot owner in respect of the operation and maintenance of the Wastewater System in accordance with the conditions of this consent, and charging the owner's land with an annual rent charge to ensure performance of the covenants relating to the Wastewater System, such Encumbrance to be enforceable by the Body Corporate/Company against the Lot owner in case of default."
- 45. Other options exist, such as a Resident's Association, or the Applicant maintaining management as a Responsible Management Entity if it looks like the District Council will have their scheme up and running before all the lots are sold.
- 46. Regardless of the entity, a maintenance contract will be held with the WWTP provider. At this stage, the WWTP is likely to be an Innoflow Packed Bed Reactor and Innoflow have their own Operation's Company S3. This company can monitor the WWTP remotely using their Vericom system and send out local contractors to undertake a system check should a fault alarm be triggered. This is significantly superior to a number of on-site systems with no management and operation and no monitoring.
- 47. The Management and Operations Plan will be developed once the WWTP is selected, following a tender process. The consent conditions offered by the Applicant to ECAN are shown below; Conditions' 15 18. Without knowing the type of treatment plant adopted, further items cannot be added. Section 3.7 of the AEE to ECAN is attached as **Appendix E**.
  - Condition 15. Prior to commissioning the treatment plant and land treatment system, the consent holder shall provide an Operation and Maintenance Plan to the Consent Authority. The system shall operate in accordance with this manual at all times, which shall be updated as appropriate. The manual shall be to the satisfaction of the Consent Authority and include, as a minimum:
  - a. A brief description of the treatment and land treatment system, including a site map that shows the location of the treatment plant, discharge location, WWTP sampling tap;
  - b. Key operational matters including frequency of maintenance checks, including but not limited to flushing the dripper lines, checking and flushing filters (if required), sludge and scum level checks, wasting sludge, topping up dosing chemicals (if required);
  - c. Monitoring requirements and procedures;
  - d. A management plan for the cut and carry operation including procedures for harvesting grass/lucerne from the site and for maximising grass/lucerne growth and nitrogen uptake by grass/lucerne such as soil tests, supplementary nutrient additions and pest and weed control:
  - e. Contingency plans in the event of system malfunctions (including provision for the removal and disposal of effluent by tanker truck should there be prolonged system failure);
  - f. The means of receiving and dealing with any complaints;
  - g. Key personnel and contact details; and
  - h. Emergency contact phone numbers.

Condition 16. A maintenance service contract which provides for the operation of the wastewater treatment and land treatment system shall be maintained with a competent company experienced in operation and maintenance. The contract shall include a requirement to take action to ensure that the wastewater treatment and land treatment systems are operated and maintained in accordance with the designer's instructions. Copies of the field service reports shall be maintained and provided to the Consent Authority on request. The service contract shall require remote monitoring of the operation of the system with at a minimum three-monthly inspection of the wastewater treatment plant and alarm systems.

Condition 17. At all times, the consent holder shall ensure that the Consent Authority has a copy of the most recent version of the Operations and Management Manual.

Condition 18. Records of maintenance, complaints, malfunctions and breakdowns shall be kept in a log and be made available on request.

#### 6) Stormwater

While on-site disposal of stormwater is suitable from a District Council perspective, no detail has been provided regarding the stormwater disposal from the roading system, other than that swales will be provided. Please provide further detail on:

- a) If the expectation that these will be vested with Council, and if so the ongoing cost to maintain them.
- 48. The proposal now does not provide for swales in the road reserve. The SURVUS servicing report at 3.1.2 states that stormwater runoff within the road corridors will be via kerb and channel into appropriately spaced and sized soakpits via sumps.\_All sumps will have trapped and/or inverted outlets.
- 49. The SURVUS Report at 4.4 Maintenance contains a table of the SDC "Standard Stormwater Maintenance Schedule".
- 50. The ongoing costs of maintenance are difficult to estimate as the kerb and channel becomes part of a wider Council maintenance requirement.

#### 7) Retirement Village

Retirement village activities will be treated as a restricted discretionary activity within the plan amendments proposed. On review of the matters of discretion, there is no ability to assess the effects from parking, access, safety, efficiency, and effects of on street parking and the neighbours.

#### Please either:

- a) Amend your application to include this ability to assess these elements; or
- b) Provide an assessment as to why these should not be included within the relevant matters of discretion.
- 51. The ITA attached (**Appendix C**) includes an assessment of the traffic effects of proposed retirement village, based on a maximum of 60 care beds and 50 independent units. The 60 care beds will accommodate high care needs including dementia, home-care and hospital care.

- 52. The ITA estimates traffic generation from the retirement village and residential development enabled by the rezoning and utilising the proposed ODP roading network. No upgrades to the roading network are required for the first stage of development (the proposed L1 zone, not the deferred L1 zone), other than a potential requirement for Kimberley Road to be upgraded with kerb and channel and a footpath along the eastern side, from the existing footpath (south of Torlesse Crescent) north to the intersection with Landsborough Drive. There is adequate width in the road reserve for this upgrade, which can be addressed at subdivision stage.
- 53. In terms of parking effects, the proposed retirement village to be provided for under Rule 14.9 Darfield Retirement Village will be subject to the parking standards and other transport standards in Chapter 5 and Appendix 13 Roads and Transport including E13.1 Parking Requirements. Table E13.1(a) requires a minimum of 1 space per 3 clients for care homes. The independent villas will be subject to the residential parking standards. The closest activity parking standard is residential dwellings in the Living Z Medium Density areas identified on an Outline Development Plan no parking is required.
- 54. Given the above, it is not necessary or appropriate for the restricted discretionary matters under 4.19 to include effects from parking, access, safety, efficiency, and effects of on street parking and the neighbours. It would result in duplication of provisions in different parts of the District Plan, and potential confusion for users.
- 55. However, some consequential amendments to the District Plan rules are required. They should be amended to clarify that a retirement village under Rule 14.9 is not subject to Rule 10.8 Scale of Activities or Rule 10.9 Hours of Operation. An additional Amendment 16 is as below. The District Plan amendments sought have been renumbered from Amendment 9 onwards, as the lodged version included 2 x Amendment 8. The amendments A full revised copy of the Amendments in provided in **Appendix G**.

#### Amendment

Chapter 10 LZ Activities

16

Amend Rule 10.8 Activities and Scale of Activities as follows:-

Add after Note (3):

(4) Rule 10.8 does not apply to a retirement village at Darfield as identified in in Appendix E41B - Living 1, Living X and Living 1 Deferred Zone, Kimberley Road Darfield Outline Plan.

Amend Rule 10.9 Hours of Operation as follows:-

Amend Note as follows:

Rule 10.9.1 does not apply to spiritual and educational activities, or a public car park in Precinct 6 of the Rolleston Key Activity Centre <u>or a retirement village at Darfield</u> <u>as identified in in Appendix E41B - Living 1, Living X and Living 1 Deferred</u> <u>Zone, Kimberley Road Darfield Outline Plan.</u>

The cost benefit analysis as required by Section 32 of Act is incomplete. Please provide the following analysis assessments:

- a) Cost:
- a. Social
- b. Cultural
- c. Environmental
- d. Wider economic effect on the community
- b) Benefit:
- a. Environmental
- b. Cultural
- c. Social

Essentially a brief economic assessment is required comparing the loss of rural production and associated employment with the potential economic growth, and employment opportunities that could be derived from the applied for plan change. Ideally this will be quantified, and if not practicable please state why.

56. See **Appendix D** attached.

#### Iwi Authority Consultation

Consultation between the applicant and the lwi Authority, this being Te Rūnanga o Ngāi Tahu within the Selwyn District, is strongly recommended.

I note you have attempted to consult with the lwi Authority by way of consultation with Mahaanui Kurataiao Ltd, but have yet to receive a response.

Once a response has been provided, please:

- a) Send this response to us; and
- b) Provide a summary of your response to the advice received.
- 57. A Report from Mahaanui Kura Taiao received on 26 March 2020 (copy attached as **Appendix F**).
- 58. The report concluded that:-
  - The absence of surface waterways and distance to groundwater indicate that mahinga kai and other values will likely not be adversely affected through future residential development in this area;
  - While there are no know (as documented on planning maps) wahi tapu or wahi taonga sites in close proximity to the site, there may be unknown cultural materials or sites that could be impacted by development activity as a result of the zoning change.

59. The Report included four recommendations from Taumutu Runanga.

**Recommendation 1**: That any future subdivision plans/consents within the area must be consulted on independently

<u>Response</u>: future subdivision consents and a restricted discretionary consent for the proposed retirement village will be subject to the District Plan consultation and notification rules that apply to those consents.

**Recommendation 2**: Any developments should be undertaken in accordance with Ngai Tahu Subdivision and Development Guidelines, with a particular emphasis on water efficiency measures such as greywater re-use systems, and establishment of indigenous biodiversity. These guidelines could be integrated into the Outline Development Plan through rules and advice notes, For example, subdivision in the areas could be a controlled activity with the integration of these guidelines as a matter of control.

<u>Response</u>: The development will be given effect to by a restricted discretionary subdivision application. The matters of discretion are those in the existing Selwyn District Plan which do not include the Ngai Tahu Subdivision and Development Guidelines. If MKT wish these to added as relevant matters of discretion, they should seek make their own plan change request to the Council for this, or submit on the proposed District Plan Review when notified. The appropriate 'vehicle' is not through a one-off subdivision proposal for the ODP for PC63.

**Recommendation 3**: An Accidental Discovery Protocol consistent with Appendix 3 of the Mahaanui Iwi Management Plan should be followed for all activities.

<u>Response</u>: This is appropriate and is already required under Appendix 6 of the District Plan 'Protocols on Accidental Discovery of Archaeological Sites'. Appendix 5 of the District Plan states:

Iwi have advised that at present they do not wish to have any silent file areas, Wāhi taonga sites or management areas, or mahinga kai sites specifically identified in the Plan for the purposes of Rule 10.4 for Living Zones.

**Recommendation 4**: The applicant should be encouraged to consider planting locally sourced indigenous vegetation to enhance indigenous biodiversity values in the area as part of landscaping (as appropriate).

<u>Response</u>: The applicant notes the preference for locally sourced indigenous vegetation as part of landscaping. To the extent that such plantings assist in achieving visual and amenity outcomes for the development, such vegetation can be used. Stormwater management areas can be appropriate areas for indigenous planting. However no on site stormwater management areas are required for this development.

#### **Policy wording**

You may wish to re-look at the proposed provisions to ensure that they can stand alone, as the approach in the proposed District Plan is not to include any explanations or reasons for rules. Therefore, if the interpretation of any of the proposed provisions relies on the proposed reasons or explanations provided, you may wish to amend these at this stage.

60. We suggest the following revisions to the amended rules package in response to your advice:

Amendment 3

Chapter B4 Growth of Townships – add new policy for Darfield:

#### Policy B4.3.28A

To manage, subdivision, land development and use in the Living 1 and Living 1 Deferred zones at Kimberley Road Darfield (as shown on Appendix E41B) to facilitate residential development, serviced by appropriate reticulated wastewater treatment and disposal systems, including some medium density housing and a retirement village. In the event that there is no Council reticulated system available, the LI zone will be serviced by a consented community wastewater treatment and disposal scheme located on adjoining land to the north. There is flexibility to extend this scheme to service the Stage 2 development area, zoned L1 Deferred.

Properties utilising this community system will be required to connect to Council reticulated system, if and when it becomes available.

#### **Explanation and Reasons**

The Kimberley Road L1 and L1 Deferred zones make provision for some smaller more affordable housing than other living zones in Darfield and a retirement village. This is in recognition of the ageing population and trend towards smaller households. The location, close to and readily accessible from the existing town centre, is ideal.

The LI zone will be serviced by a consented community wastewater treatment and disposal scheme located on adjoining land to the north. There is flexibility to extend this scheme to service the Stage 2 development area, zoned L1 Deferred. However, this will require a further wastewater discharge consent.

Yours sincerely

RICHARD JOHNSON

C. John

**Senior Planner** 

#### **Appendices:**

Appendix A Amended ODP

Appendix B Urban Design Assessment – Response to RFI

**Appendix C** Integrated Traffic Assessment

Appendix D Section 32 Assessment: Addendum

Appendix E Extracts from Proposed Wastewater Treatment Plant ECan Application

**AEE** 

Appendix F Mahaanui Kura Taiao Report

**Appendix G** Revised Table of District Plan Amendments

## Appendix A: Amended Outline Development Plan



## Appendix B: Urban Design Assessment – Response to RFI

# DARFIELD AREA 7 | PLAN CHANGE URBAN DESIGN ASSESSMENT AND COMMENTS in response to RFI





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#### DARFIELD AREA 7 & PLAN CHANGE

#### URBAN DESIGN ASSESSMENT AND COMMENTS

#### 1. INTRODUCTION

My name is Nicole Lauenstein, I am the director of a+urban, a cross-disciplinary practice with a focus on architectural and urban design. I have more than 25 years of experience in both design fields across a variety of urban and architectural projects from urban regeneration and master planning of urban precincts to bespoke architectural solutions for complex and sensitive sites.

I hold the qualification of a Masters in Architecture and a Masters in Urban Design and have been practicing first in Germany, Spain, England and various other European countries followed by 2 years in Australia before settling in New Zealand in 1996. I have lived in Christchurch for nearly 25 years and gained a very good understanding of the unique contextual challenges and opportunities the New Zealand urban environments present.

I have been a member of the Urban Design Panel in Christchurch for more the 8 years (early 2006 to end of 2014) and have been an expert witness for the Environment Court on several occasions. Over the last 10 years have been involved in several urban developments in the south island particularly the Canterbury region and headed the urban design team redesigning the Te Papa o Otacaro/ Avon River North and East Frame post earthquake.

#### 2. BACKGROUND

So far I have not had any involvement with the project.

I am familiar with the indicative layout/scheme plan as well as the proposed ODP forming part of the plan change application and have been briefed by Fiona Aston (planner) on the project in general and the related planning framework in particular the applicable residential zoning rules of the area and adjacent areas. I am familiar with the District Plan and other relevant urban design and regulatory planning documents and quidelines.

I have recently visited Darfield to familiarize myself again with the specific as well as wider context and any recent developments in the area.

To be able to make informed comments I have undertaken my own urban design analysis of the proposal and the immediate and wider Darfield urban and rural context.

#### 3. SCOPE OF THIS URBAN ASSESSMENT AND REPORT

I have been asked by the applicant to assess the proposed design and its effects on the neighbourhood and community with regard to specific urban design matters raised by the Selwyn District Council as part of the RFI.

- Contextual analysis of the changing urban boundary and the effect of these changes on the visual amenity of the wider community
- Assessment of key destinations and their connectivity with the rest of the site and Darfield as a whole.

I have also been asked to suggest potential design improvements or appropriate mitigation measures where these may be required.

#### 4. SUMMARY OF URBAN DESIGN ANALYSIS

#### 4.1. General urban form

Darfield is a typical small settlement located in the western area of the Selwyn District. The original settlement is a result of the early rail link connecting the east coast via an alpine pass to the west coast. This history is clearly visible in and celebrated in the township.

Darfield also has a strong connection with surrounding the rural land supporting the farming community which is clearly evident in the many community facilities, schools, police and fire station, medical centres and the commercial supporting the wider rural community.

Resulting in a generally radial road pattern leading from the adjacent areas into the Darfield and a central, grided core that straddles the east-west travelling rail and highway corridors.

The social /community hub of the earlier Darfield is still visible along the rail and key east west road corridors with the older residential areas flanking this commercial centre to the south and east.

Further residential development has occurred over time along the remaining radial routes connecting to the wider rural community



#### 4.2 The centre / settlement core

Although Darfield has grown and developed over time the older and new development pattern within the centre have remained strongly linear along the movement corridor. Initially following the rail and latter following the parallel located SH73.

Within this core area all commercial and most community function are located with clear separation of older community based facilities located to the north on Horndon Street and all commercial activities flanking the state high way which has literally replaced the railway line in transporting good and people.

4.3 Community facilities, educational, cultural, social and recreational destinations The key community facilities such as schools, church, recreational reserves and important commercial shops that support the community such as supermarket and dairy and other essential services are clustered within the NW part of the core. This makes this part of Darfield the most important destination to which residential areas need to connect and in particular pedestrian/ cyclists need to have easy and safe access to.

#### 4.4 Connectivity

This stereotypical development right from the start has created a disconnect between the northern and southern urban areas of Darfield which has been exacerbated by traffic loads and the ongoing elongation of commercial development along SH73 with larger commercial structures further blocking visual and physical connection across the double corridor.

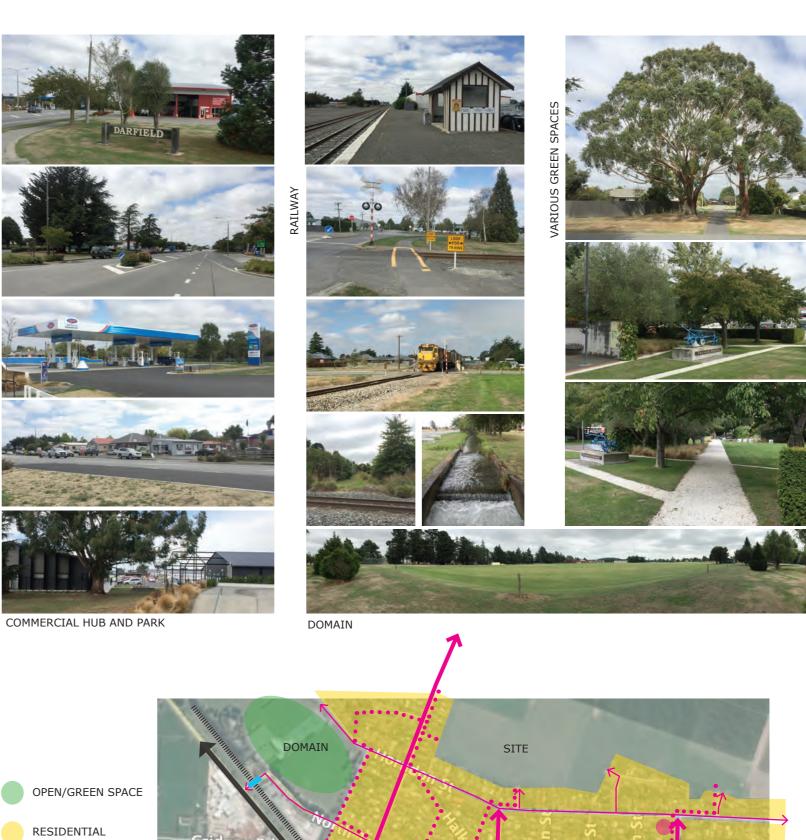
Within the core there are only two north-south rail way crossing points shared by pedestrian and vehicles on Mc Millan and Mathias Street, linking the entire northern residential areas with the commercial centre.

There is one additional official pedestrian rail crossing further west to facilitate movement from NW residential area to the 2 area schools. However, there is one unformed but well used pedestrian crossing point creating a direct link between the Domain through the recreational reserve to the schools, this is most likely used by children as a shortcut.

Two diagonals stand out within the core grid - remnants of older radial routes leading to the centre - that have been overrun by the growing grid. Both are situated in the west of Darfield and provide important links for pedestrians as they cut through the longer blocks creating shortcuts to the domain and the schools.

A third diagonal is evident connecting the northern residential area with the schools along a strong desire line which has only recently been blocked by the new 4 square supermarket

Darfield is still a comparatively small township where walking can be the main mode of movement for locals. Considering the concentration of commercial and community function in the western part of the core it is important that any additional residential development continues to support and build on the existing connections, and provides future links creating an interconnected network in particular for pedestrian movement through out Darfield.





COMMUNITY

COMMERCIAL

**RAILWAY** 

**CROSSING** 

CYCLE ROUTES

KEY VEHICULAR **ROUTES** 

#### 4.5 Existing residential development across Darfield

General residential development has either followed the gridded layout within the centre or followed organically along the radial spokes leading to the centre.

With regard to size/density Residential development can be broken into 3 broad types

- urban residential development located within the grid and the directly adjacent northwest and southwest part of Darfield with lot sizes ranging from 500m2 to 800m2
- rural residential development with larger lifestyle block sized properties located predominantly between the western radial spines
- farms within the rural perimeter in close proximity to Darfield

•

All 3 types have similar characteristics with regard to dwelling types, variety in architectural styles, domestic curtilage, private gardens etc. The key differences are the lot sizes, the extent of openness between dwellings, the size of domestic curtilage and the type and extent landscaping as well the property boundary treatment.

This type and variety of residential development is typical for small towns in the rural Canterbury Plains. However, the distribution pattern in Darfield has been influenced by the radial form with the majority of the more recent rural residential development establishing between the north west and southwest spokes. Larger areas in the north-east and south-east in fairly close proximity to the core have so far remained undeveloped resulting in an unbalanced urban form which is not efficient with regard to connectivity and counterproductive to sustainable urban development principles.

#### 4.6 Future residential development

SDC has identified the current urban limit, preferred future development areas as well as deferred development areas to guide future development to achieve a more balanced and consolidated urban form for Darfield.

The plan identifies 8 development areas across 4 different development categories

- business
- intensified residential DAR 5
- standard residential L1 DAR 3,4 and 7
- low density residential L2 / L2a DAR 1 and 2

The Malvern Area Plan has correctly identified several under and undeveloped area to the immediate north of the core as a standard residential zone L1 due to the following parameters:

- proximity to the core
- efficiency and consolidation of urban form
- opportunities to directly connect to existing residential
- ease of access to the site

Some areas have been deferred but it is my understanding that the technical infrastructure hurdles affecting the deferred status can be resolved.

#### 4.7 Immediate development context

The Proposed site, DAR 7, is identified as a preferred future development area for standard to low density residential development.

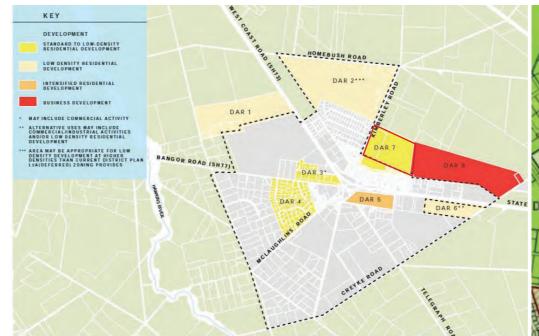
Land to the east, DAR 8, is a preferred future development area for business currently zoned Outer Plains.

Land to the north is and will remain rural. It is currently zoned Outer Plains and is used for low grazing and cropping.

Land to the south is zoned L1 with according lot sizes around 600m2 to 800m2

Land to the west, across Kimberley Road, is zoned L2 with average lot sizes 5000m2 now fully developed.

















a) standard suburban residential street scape



4.8 Kimberly Road interface

Moving out from the centre northwards Kimberly Road transitions through three distinct streetscapes in direct response to the adjacent type of residential development:

- a) standard suburban residential street scape with formed footpath either side, kerb and channel and regular 4m building setbacks, low residential fences and generally small to medium sized, single story dwellings
- b) rural residential street scape with a single footpath, smaller rural residential lots with rural type open style fencing, larger dwellings and larger road setbacks and often generously landscaped gardens
- c) rural street scape with no formed footpath, larger rural residential lots with gated entries, continuous tall hedges dominate the street scene, small glimpses of individual larger dwellings with a generous road setback



4.9 Horndon Street interface

The Horndon street scene and the residential environment surrounding it surrounding it have a distinct suburban village character with wide streets and generous berms planted with intermittent tree cluster, a unique feature of Darfield Although the site has no direct access to Horndon Street there are linking side roads offering links into the site with the opportunity to carry this unique character through into the new development.



Site





Kimberly road shelterbelt





Key views to the Alps



Key views to Cairn Hill



Key views

#### 4.10 The Site

The site is primarily flat pastoral land with no distinctive landscape features apart from the shelterbelt along Kimberly Road.

#### 4.11 Views

Key view shafts from the site are to the north - to the distant Southern Alps and foothills and to the west to Cairn Hill.

Key view shafts into the site are along the access roads off Horndon Street and Kimberly Road and in future, once the shelterbelt is removed, more views from along Kimberly road will be available.

#### 4.12 Rural interface and residential edge

The rural interface along the northern and eastern edge of the site are standard rural fences between open pastoral land with no vegetation or shelter belts. Along the southern boundary and part of the eastern boundary residential L1 properties display a variety of individual edge treatment towards the rural land.

- a) 1m open style rural wire fencing or post and rail fencing, mainly along the southern boundary - to create a physical demarcation keeping stock off private property whilst allowing generous open views into the countryside
- b) 1.8m solid timber fencing, primarily along the eastern boundary most likely in response to wind shelter and achieve privacy.

Both boundary treatment options are individual to each property and address specific parameters such as dwelling and lot orientation, proximity of dwellings to boundaries, orientation of outdoor areas etc.

It also shows that the surrounding rural activity does not have any adverse effects on the adjacent standard living environment.



Rural interface and residential edge

#### 5. THE PROPOSED DEVELOPMENT - REVISED ODP AND INTERNAL LAYOUT

The plan change proposes to rezone land at north Darfield from Rural Outer Plains to Living 1. The L1 zone at Darfield provides for average lot sizes not less than 650m2 and the majority of the site will facilitate the development of such standard L1 allotment.

However, the rezoning also includes provisions for a retirement village and some Small Lot Medium Density Housing (SLMDH) in two selected locations. One flanking the edges of the retirement village and one small area at the eastern end adjacent to a small reserve.

There is currently only a limited provision for Medium Density Housing at Darfield and very view opportunities for retirement living. The location of the proposed retirement village allows it to be well integrated into the L1 zone and would offer additional opportunities appropriately scaled for locals to retire within their community. The land is close to the town centre and therefore well suited for retirement village and SLMDH compared to other preferred future development areas.

The District plan has identified the southern core, an already established area as one that could be intensified as infill development. But there is otherwise very few identified scope for purpose designed Small Lot Medium Density Housing.

The retirement village would undergo an independent resource consent where connectivity, amenity and other relevant urban matters can be resolved assessed and resolved at a more detailed scale. With regard to SLMDH, standards will be in line with MDH in other townships in the district. The suit of rules and guideline for SLMDH (average 500m2, minimum lot size 400m2) has proven to adequately guide development of this density.

To support the residential community a variety of medium and smaller sized reserves / green spaces have been included in strategic location.

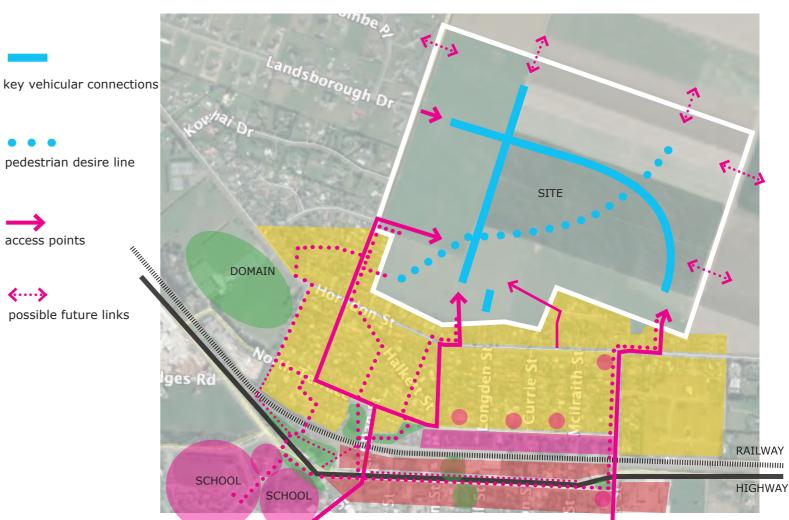
- in proximity to SLMDH and the retirement village to offer open space to the denser environments
- along main pedestrian desire-lines to support amenity and connectivity
- within larger view shafts to break the development pattern and allow views through to the southern alps and the rural landscape
- centrally located to provide recreational space for all residents within walking distance

#### 5.1 Overall layout

The overall layout that underpins the ODP is based around logically interconnecting the available access points on Kimberly Road with those off Horndon street and to create a strong diagonal direction from the north-east corner along a 'desire line' to the south-west corner of the site.

This diagonal desire line has a strong pedestrian focus and enables the development to directly link into key existing pedestrian links along Kimberly Road, Colemen Crescent and Halkett Street leading to the main community and commercial destination in southern part of the core of Darfield.





OVERALL ACCESS AND CONNECTIVITY

#### 6. ASSESSMENT OF EFFECTS IN RESPONSE TO RFI

#### **Character and Amenity Values**

6.1 Contextual analysis of the changing urban boundary and the effect of these changes on the visual amenity of the wider community

The proposed plan change will visually affect part of the existing community along the Kimberly road interface, properties north of Horndon street that share a boundary with the site and to some extent properties in proximity to the new entry points to the development. Beyond these points the wider community will not experience any visual effects unless they are travelling along Kimberly Road. The proposed design offers the opportunity to create new visual connections to the landscape along key roads and green spaces which can be experienced by the wider community.

6.2 Zone interfaces and reverse sensitivity

6.2.1 L2 Kimberly street amenity and expectations

While the proposed L1/ L1 deferred zone for the site is consistent with the development to the south, it is at a significantly higher density than the land zoned L2 deferred to the west.

This potentially creates an adverse amenity effect at the interface between the established land use and the proposed land use. Currently the residents of the L2 deferred area have an expectation of wider open areas and larger allotment sizes surrounding their properties than would be found if they were L1 zoned.

Currently the neighbours across Kimberley street are looking out onto a large well maintained shelterbelt giving the street a strong rural appearance but at the same time preventing views into the rural site.

Proposed changes from rural / OP to L1 will change the current predominantly rural appearance of the street. The shelterbelt will have to be removed as it is not compatible with L1 density of development due to shading effects and its general scale and the visual impact that will be experienced by the L2 residents will twofold -  $\frac{1}{2}$ 

A. This will open up views into the site and expose 6 lots that share a direct boundary with Kimberly road visually to the new L1 zone.

However these L2 dwellings are well set back form the road often behind taller boundary hedges with their outdoor spaces, gardens and private activities mainly oriented towards the North and North West.

B. All residents of the L2 zone will experience a general loss of 'ruralness' of their street address

To address both A and B the following mitigating measures should be included:

- properties in the proposed L1 zone along this street boundary should be on the larger side, no less then 1000m2, this will allow houses to be located with generous road setbacks from Kimberly Road and more generous internal boundary setbacks, creating a more open feel with better visual permeability and larger gaps between buildings.
- fencing controls should apply with any road side fencing or fencing
  within a 4m setback from the road to be of a rural type consistent with
  the Living 3 (rural residential) fencing typologies in Appendix 44 of the
  District Plan i.e. post and rail, post and wire, traditional deer/sheep
  fencing or oen style post and rail.

6.2.2 Properties north of Hordon Street and lower part of Kimberley Road (L1)

The proposed L1/ L1 deferred zone for the site is consistent with the development to the south and the lower part of Kimberly street. Existing L1 planning rules provide adequate controls to manage general effects on the neighbours, as long as property sizes and geometries are carefully considered so that dwellings can be positioned without creating unnecessary negative effects on the existing properties.

Currently, all these properties, but in particular the properties north of Horndon Street, enjoy unobstructed open views across the rural site. Most have responded with low fences and limited vegetation to keep these view open and outdoor spaces are all oriented towards the view.

Although rural outlook cannot reasonably be expected to remain in perpetuity in a L1 zone, the outlook for these properties will change significantly to a completely urban outlook and measures could be considered to soften the impact, such as:

- minimum property size of 800m2
- a southern boundary setback of 5m
- buildings to be single story only

However, as this area is already zoned L1 this are recommendations only that could be included via covenants or design guidelines at a later stage

6.2.3 Rural interface to the north and upper part of the east Towards the north the interface with the rural environment is desirable and is considered a positive aspect. Any mitigation measures will be a result of individual preference of lot owners and as long as lot sizes are large enough (min.1000m2) which will allow sufficient depth for landscaping to be located on the individual properties along the northern boundary if this is the individual future owner's preference.

6.2.4 Interface with the future Business zone to the east

The land to the east is identified as a future business zone and is not expected to be developed for some time. However, as a new business zone this area will undergo its own planning process and at that point depending on type an scale of business activities appropriate mitigation measures such as sound barriers, landscape buffers and development restriction along the boundary need be introduced in direct response to the proposed business activities.

#### Connectivity

6.3 Key destinations and their connectivity with the rest of the site and Darfield as a whole.

Connectivity is a key issue in Darfield with a limited amount of rail crossing points, it is therefore critical that connections between the site and the centre are well integrated into the existing movement patterns and strongly support pedestrian movement.

#### Pedestrian

As the urban analysis shows the site has key connection points with the existing pedestrian network in the south-west and south-east corners of the site linking it with the centre of Darfield. These connections have been carried into and through the site to the provide a good overall connectivity within the site along future desire-lines.

A diagonal link from north-east to south-west with a strong focus on pedestrian amenity creates a 'pedestrian axis' internally connecting green spaces and leading foot traffic in a direct manner to the south-west corner where the development naturally connects to the existing pedestrian network.

Other secondary pedestrian links are available along all vehicular connections to Kimberly Road and Horndon Street

#### Vehicular

Roads are logically interconnecting the available access points on Kimberly Road with those off Horndon street and distributing traffic into and through the site with a clear road hierarchy.

The main access off Kimberly Road has been shifted opposite Torlesse Street to bring it closer to the centre of Darfield and avoid a direct link via Kowhai Street to the main highway to the west. This also enable a direct pedestrian connection to Kimberly Road closer to the existing pedestrian network. As a result the more rural residential streetscape to the north of Torlesse street can be maintained.

#### **Green spaces and reserves**

6.4 Reserves are evenly distributed within the site to ensure that a reserve is within a 500m maximum walking distance additional smaller green spaces are added in strategic places to provide further small break out spaces along key pedestrian routes and to assist with the legibility of the road hierarchy.

Two of the three key reserves have been placed in close proximity to the retirement village to provide open space for this denser development typology.

The same principle of co-locating higher density living areas with open space has been applied to the small lot medium density area in the north west.

All green spaces have also been strategically positioned to

- a) maximise viewshaft for the public realm towards the hills and southern alps
- b) to create visual endpoints to internal views along streets
- c) to enable clustered tree planting to support the unique street character of Darfield
- d) to provide open spaces along entry routes and pedestrian routes to create a high amenity

#### Retirement Village and medium density

6.5 The retirement village and adjacent SLMD have deliberately been co-located as they share similarities in typologies and are of a higher density and are therefore well suited to each other and to ensure that both areas benefit of the proximity to local reserves.

The retirement village is located as close as possible to the south west corner of the site in close proximity to the pedestrian routes linking it to the centre of Darfield, whilst still providing short and direct connections to key access roads into the site.



INDICATIVE LAYOUT





# Appendix C: Integrated Traffic Assessment



Integrated Transport Assessment prepared for

MERF AG SERVICES LTD AND MATTHEW REED

Darfield, Private Plan Change #63

**April 2020** 



# Integrated Transport Assessment prepared for

### Merf Ag Services Ltd and Matthew Reed

Darfield, Private Plan Change #63

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# **Appendices**

Appendix 1 Care Home Traffic Generation Data

#### Introduction

- Merf Ag Services Ltd have commissioned Novo Group to prepare an Integrated Transport Assessment (ITA) to accompany the application for a Private Plan Change on the sites known as Area 7 Kimberley Road (comprising Part Rural Section 27204, Lot 24 DP 366007, and Lot 3-4 DP 524058).
- 2. This report provides an assessment of the transport aspects of the proposed development. It also describes the transport environment in the vicinity of the site, describes the transport related components of the proposal and key transport provisions in the District Plan. It has been prepared broadly in accordance with the Integrated Transportation Assessment Guidelines specified in New Zealand Transport Agency Research report 422, November 2010 and other relevant best practice guides.
- 3. The Plan Change seeks to amend the operative Selwyn District Plan (SDP) to enable development of the 60.5977 ha site ('the ODP Area') for residential purposes, including medium density lots and a retirement village. The proposed change is anticipated to provide for:
  - 14.6ha Living 1 Zone comprising an estimated:
    - o 104 residential lots,
    - o a retirement village (comprising up to 60 beds<sup>1</sup> and 50 independent units).
  - 46ha Living 1 Deferred zone comprising an estimated:
    - 337 residential lots,
- 4. The ODP includes new road and off-road connections as shown in Figure 1.

\_

<sup>&</sup>lt;sup>1</sup> Accommodating high care including dementia, home-care, hospital care



Figure 1: Proposed ODP

# **Transport Environment**

## **Existing Road Network**

## **Kimberley Road**

- 5. Kimberley Road is classified as a Collector Road between North Terrace and Kowhai Drive. Kimberley Road has a 50km/h speed limit from North Terrace until approximately 150m north of the intersection with Kowhai Drive. Beyond the intersection with Kowhai Drive Kimberley road is a Local Road and has a 60km/h speed limit for an approximately 370m before the 100km/h rural speed limit applies.
- 6. Kimberley Road has a variable formation along its length. It has a rural formation generally North of Kowhai Road with a sealed carriageway width of approximately 6.5m and wide grass berms as shown in Figure 2.



Figure 2: Kimberley Road - typical formation north of the intersection with Kowhai Road

7. Between Kowhai Drive and Torlesse Crescent, there is a mixture of flush grass berms and kerb and channel and section with traffic calming where the speed limit changes. South of Torlesse Crescent, kerb and channel is provided on both sides of the carriageway and the width increases to 12.5m. This provides for kerb-side parking on both sides of the road as shown in Figure 3. The carriageway retains kerb and channel, although it reduces in width to 11.5m for the section south of the intersection with Horndon Street.



Figure 3: Kimberley Road - block south of Torlesse Street

- 8. A footpath is provided along the western side of the carriageway between Horndon Street and Landsborough Drive and along the eastern side between Torlesse Crescent and North Terrace.
- 9. The Mobile Road website estimates traffic volumes on Kimberley Road as approximately 1,241 vehicles per day at its southern end, reducing to 601 north of Kowhai Drive and 441 at the northern end, near the intersection with Homebush Road.

## **Horndon Street**

- 10. Horndon Street is classified as a Local Road. Horndon Street has a 50km/h speed limit to a point approximately 570m east of Mathias Street then a 60km/h speed limit west of that point. Near the ODP area, Horndon Street has a sealed carriageway width of approximately 10m with wide grass berms on both sides.
- 11. A footpath is provided along the northern side of the carriageway to the end of the existing residential zone. A short section of footpath is provided along the southern side of the carriageway east of the intersection with Mathias Street, also to the edge of the existing residential zone.
- 12. The Mobile Road website estimates traffic volumes on Horndon Street as varying between 387 and 574 vehicles per day along its length.
- 13. The typical layout of Horndon Street is shown in Figure 4 below.



Figure 4: Horndon Street, near the intersection with Pearson Street (looking east)

## **Broadgate Street**

- 14. Broadgate Street is classified as a Local Road with a 50km/h speed limit. Broadgate Street intersects with Horndon Street and its northern end terminates at the un-developed Living zone at the southern end of the ODP area.
- 15. It has a 12m carriageway with kerb and channel and footpaths provided on both sides. The existing section is shown in Figure 5. This section of road is currently approximately 62m long.



Figure 5: Broadgate Street (looking north)

#### **Broadmeadows Drive**

- 16. Broadmeadows Drive is classified as a Local Road with a 50km/h speed limit. Broadmeadows Drive intersects with Horndon Street and terminates at an area of undeveloped Living zone at the southern end of the ODP area.
- 17. It has a 9.2m wide carriageway, with kerb and channel on both sides and a footpath on the western side. This segment of road is currently approximately 69m long.

#### Pearson Street / Reeds Road / Dundee Close

- 18. Pearson Street connects to Horndon Street and forms a 'T' intersection with Reeds Road to the west and Dundee Close to the east. Dundee Close is a cul-de sac providing access to nine residential dwellings. Reeds Road provides access to three properties terminating at the edge of the un-developed Living zone also at the southern end of the ODP area.
- 19. Pearson Street is classified as a local road with a 50km/h speed limit. Pearson Street has an approximately 8.2m wide carriageway at the northern end and a12.5m wide carriageway at the approach to the intersection with Horndon Street. Footpaths are provided on both sides at the southern end and on the western side on the approach to the intersection with Reeds Road and Dundee Close.
- 20. Reed Road and Dundee Close have a carriageway width of 8.2m and a footpath on the southern side.
- 21. Figure 6 shows the layout of Pearson Street looking towards the intersection with Reeds Road and Dundee Close.



Figure 6: Pearson Street (looking north)

## **Key Routes**

- 22. The predominant travel destinations for day to day trips will be between the ODP area and the Darfield Town Centre and east on the strategic road network towards destination such as Rolleston and Christchurch.
- 23. Vehicle trips to the town centre would likely be via Kimberley Road or Horndon Street to North Terrance and McMillan Street.
- 24. Key road network connections east towards Christchurch / Rolleston from Kimberley Road or Horndon Street would use North Terrace and McMillan Street, or Mathias Street These connections are shown in Figure 7.



Figure 7: Key travel routes to the town centre and east (Rolleston, Christchurch)

25. There may also be some trips to the north and west on SH73 via North Terrace and or Kimberley Road to Home Bush Road.

#### **Future Transport Networks**

26. A report prepared by Stantec (2019) titled "RE322 Residential Deferred, Darfield Deferred Residential Rezoning, Integrated Transport Assessment" considered the existing transport network and its ability to accommodate additional traffic associated with development of several greenfields areas. The report did not include this ODP area, although it does include a number of recommendations that are of relevance to the future transport environment in Darfield, particularly those associated with Area 5 on the opposite side of Kimberley Road (shown below).



Figure 8: Extract showing nearby ODP areas [Source: Stantec, 2019: from Figure 2]

- 27. The report identified the following network upgrades as being already warranted or anticipated which are of relevance to the ODP area:
  - A right turn lane for traffic turning right from SH73 into Horndon Street (East); and
  - Railway level crossing safety assessments for the Homebush Road, Mathias Street, Horndon Street (East) and Creyke Road level crossings.
- 28. The report also recommended consideration of:
  - Classifying Horndon Street as a Collector Road to reduce traffic volumes using intersections closer to the town centre (noting this may require an upgrade of the Horndon Street / Kimberley Road intersection);
  - Giving priority to the McMillan Street Kimberley Road route (requiring alterations at the two intersections with North Terrace); and
  - The intersection forms along SH73 including the Mathias Street crossroad intersection.
- 29. These wider network upgrades are assumed to be developed by the transport network operators (SDC, NZTA, KiwiRail) through general funds (development contributions, network upgrades etc) rather than being matters to be addressed by a single ODP / development.
- 30. In terms of anticipated upgrades required in respect of Area 5 for Kimberley Road, the reporting states: "Kimberley Road Carriageway may not require upgrades along Large lot residential frontage. Footpath will be required. 80km/h speed limit likely appropriate with Large lot residential development on one side of the road only".
- 31. With increased traffic flows from Area 5 and possible re-classification of Horndon Street to a Collector Road, the intersection of Kimberly Road and Horndon Street may require upgrade to a roundabout controlled intersection.

32. It is also understood that a 2017 Level Crossing Safety Impact Assessment of the McMillan Street level crossing recommended an upgrade to half arm barriers. This upgrade is planned for the 2019/20 financial year.

#### Crash Record

33. The aforementioned Stantec Report considered the existing crash record on all roads applicable to the ODP area and concluded there are no locations identified as having safety concerns based on existing crash records. That report was prepared in 2019, so the conclusions drawn are considered to remain relevant. No further consideration of this has therefore been undertaken in this report.

## **Alternative Transport Modes**

## **Passenger Transport**

34. The number 86 bus route (Darfield to Christchurch) operates one service in the morning (to Christchurch) and one in the evening (to Darfield). The closest bus stop is located on South Terrace (Darfield Township Bus Shelter).

#### Walking

- 35. Walking trips are likely to be concentrated between the site and the School, Town Centre and Darfield Domain. There are off road links from Perrin Place (south from Kimberley Road / North Terrace), through the domain with crossing points over the railway line and SH73 that connect to the School and McLaughlins Road.
- 36. There are several off-road path connections between North Terrace and McMillan Street providing access to the town centre.

#### Cycling

37. There are no dedicated cycle routes near the ODP area.

# The Proposal

- 38. The proposed plan change is anticipated to provide for:
  - 14.6ha Living 1 Zone comprising an estimated:
    - o 104 residential lots,
    - o a retirement village (comprising 60 beds<sup>2</sup> and 30-50 independent units).
  - 46ha Living 1 Deferred zone comprising an estimated:
    - o 337 residential lots,
- 39. The proposed ODP plan is provided in **Figure 1** and shows future road connections to Kimberley Road, connection to the existing sections of Broadgate Street, Broadmeadows Drive and Reeds Road.

<sup>&</sup>lt;sup>2</sup> Accommodating high care including dementia, home-care, hospital care

- 40. A pedestrian connection is proposed in the south-western corner providing a direct route to the town centre.
- 41. Future road connections are proposed to the north and east.
- 42. It is envisaged that the future roads and property accesses will be consistent with the District Plan rules and no site-specific standards / cross sections are envisaged.

#### **Traffic Generation**

- 43. The Stantec Report referred to earlier identified traffic generation rates for future residences in Darfield, of 6 vehicle movements per day (vpd) per household. The report noted this is lower than that often used in cities as the rural location of Darfield and the resultant increase in linked trips and the previous use of this rate for other plan change applications in Selwyn District. For consistency, this rate has also been adopted for the purposes of this assessment.
- 44. A peak hour rate for residential activities of 0.85 trips in the peak hour per dwelling has been adopted (RTA Guide to Traffic Generating Developments).
- 45. In respect of the retirement village, the following traffic generation rates have been adopted:
  - Independent living units: 0.2 trips per unit in the peak hour and 2 vehicle trips per unit per day (upper rates of the RTA Guide which also aligns reasonably well with that in the TRICS Database); and
  - Higher level care beds a rate of 0.22 vehicles per hour per bed and 2.37 vehicle per day per bed (based on the ITE Trip Generation Manual – which is in the midrange of other available data – refer to Appendix 1).
- 46. The potential traffic generation arising from the ODP area is therefore set out below:

Table 1: Estimated Peak Periods (winter)

	Daily generation movements	Peak hour generation movements
104 Lots, Living zone	624	88
Retirement Village 50 Independent units	100	10
Retirement Village, 60 Care beds	142	13
Sub-Total	866	111
337 Lots, Deferred zone	2,022	286
Total whole ODP	2,888	397

47. In terms of distribution, the aforementioned Stantec report assumed 50% of movements were work related of which 38% worked in Darfield and 62% outside. For non-work trips it was assumed 66% occurred in Darfield and 33% outside. For consistency these same distribution patterns have been adopted which suggests:

- Living zone (Inc. retirement village)
  - 22 peak hour work trips to Darfield, 34 trips to wider network; and
  - o 37 peak hour non-work trips to Darfield, 19 trips to wider network.
- Deferred zone
  - o 54 peak hour work trips to Darfield, 89 trips to the wider network; and
  - o 94 peak hour non-work trips to Darfield, 49 trips to the wider network.
- 48. These trips would therefore be distributed across the key routes identified in Figure 7.

#### **Assessment**

- 49. Noting that wider network considerations have already been identified in the aforementioned Stantec Report, this assessment considers the specific traffic related effects arising as a result of the ODP area. It is noted that these effects will be disbursed overtime between those in the proposed living zone and those in the deferred living zone. Noting that the solutions / type of upgrade suggested for growth generally and to accommodate Area 5 at this stage it is not anticipated that the additional traffic resulting from the proposed ODP are would change the outcome required.
- 50. The assessment below considered the ODP Connections and Road Priority, and potential road upgrades.

## **ODP Connections and Road Priority**

- 51. The ODP has been designed to provide one main (primary) road connection that links Kimberley Road and Horndon Street. It is envisaged that, following development of the deferred zone, this will provide the main connection to Horndon Street and directions of travel towards the east (Christchurch / Rolleston). Noting the traffic volumes estimated in Table 1, the likely distribution and status of the adjoining road network, it is considered that this could be formed as a Local Major Road (with through-priority at internal intersections) rather than a Collector Road. This connection may also help disburse some traffic from Area 5 that would otherwise have used the Kimberley Road / North Terrace route providing increased dispersion of trips to the town centre versus trips to other locations. This road should therefore have a 20m minimum legal width.
- 52. A primary north-south road link is also proposed from Broadgate Street with a future connection to the land north of the ODP area. This future connection aligns with the two existing land parcels to the north, maximising flexibility. It is envisaged this road would also be a Local Major Road, with a minimum 20m legal width and through traffic priority except where it crosses the other primary road outlined in paragraph 51.
- 53. A lesser road connection with Kimberley Road is proposed near the intersection with Torlesse Crescent. Torlesse Crescent is a cul-de sac and the proposed fourth arm is designed to provide for lower volumes of traffic, by managing priority and design to encourage the majority of traffic to use the main connections described above. Accordingly, through traffic volumes between Torlesse Crescent and this road are anticipated to be low such that a give-way or Stop-controlled intersection would be appropriate. It is envisaged this road would have a 16m legal width, consistent with its lower priority.

- 54. A third road connection to Kimberley Road is proposed near the northern end to provide connectivity to sites at that end of the subdivision. This intersection is anticipated to cater for low turning volumes and the proposed road would form a "T" intersection with Kimberley Road.
- 55. Future road connections (local, low volume connections) are also provided to the north (east of the main connection described above) and to the east (in two locations). These are envisaged to provide for local traffic connectivity with future development of adjoining land rather than key through routes. These are anticipated to be provided with a 16m legal width.
- 56. The remainder of the road network would comprise smaller Local Roads with an entirely property access function.
- 57. An off-road pedestrian connection is also proposed via an existing parcel of land owned by the Council in the south-western corner of the site which will provide the most direct route for access to the town centre, domain and schools. It is understood this parcel of land provides access to two existing lots and consideration of how to manage the off-road route and access provisions would need to be undertaken at subdivision stage. There is ample width to accommodate both property access and an off-road access.
- 58. In terms of road formed width and cross sections, there is no reason at this stage to suggest that there would be any need to deviate from standard formations in accordance with the Selwyn District Plan and Selwyn District Council Code of Practice.

## Potential road network upgrades

- 59. It is envisaged that with the provision of a cross roads intersection at Kimberley Road and Landsborough Drive that the 50km/h speed limit would move north of this intersection with the 60km/h speed limit transition also moving north (being well north of the proposed northern intersection with Kimberley Road). This will improve the safe operation of these intersections. These speed limits would also be consistent with provision of additional vehicle access to properties fronting Kimberley Road (generally consistent with the development on the opposite sides of Kimberley Road).
- 60. The Landsborough Drive intersection would be anticipated to operate sufficiently as a give-way or stop controlled crossroads intersection in the short term. However, this intersection may require provision of a right turn lane on Kimberley Road once the later stages of the deferred zone are developed. Longer term this intersection might require a roundabout, however this would depend to some extent on the development of the Area 5 land north and west of the intersection and whether there is demand for through trips between Landsborough Drive and the ODP area (connecting to Horndon Street to travel towards Darfield and Rolleston).
- 61. It is envisaged that Kimberley Road would be upgraded with kerb and channel and a footpath along the eastern side, from the existing footpath (south of Torlesse Crescent) north to the intersection with Landsborough Drive. Beyond the intersection of Landsborough Drive a the ODP area includes rural-residential lots fronting Kimberley Road and retention of the existing rural formation would be appropriate (i.e., no kerb and channel) however a footpath should be provided along the eastern side adjacent to these properties.
- 62. The intersection of Broadgate Street is existing and has adequate formed width to cater for the anticipated traffic volumes associated with the living 1 zoned area (although some line markings could be provided). It is also considered to be a secondary route once the

- deferred zone is developed such that traffic volumes through this intersection would remain low and would be unlikely to require any additional turning lanes or other upgrades.
- 63. The intersection of Broadmeadows Drive and Horndon Street will likely require a right turn lane to be provided on Horndon Street as this will cater for the majority of right turn traffic entering the ODP area in the PM peak from destinations such as Rolleston and Christchurch.
- 64. The road connection to Reeds Road is anticipated to be low priority providing solely for connectivity and property access rather than encouraging through traffic. This can be achieved through the road design and intersection priority.
- 65. In summary, there are no existing constraints from a transport perspective to achieving the upgrades outlined above. There is ample road reserve width on Kimberley Road to achieve the proposed upgrades. The existing sections of Broadmeadows Drive, Broadgate Street and Reeds Road / Pearson Street are suitable for the design of the proposed connections. Horndon Street has ample space to accommodate the provision of a right turn lane at the intersection, if needed, once the deferred zone is developed.

#### Conclusion

- 66. The ODP provides for around 104 lots and a retirement village and for a deferred zone accommodating an additional 337 lots. The ODP road network provides a number of road connections to Kimberley Road (Collector Road) and via existing partially constructed roads to Horndon Street (proposed to be upgraded to a Collector Road) which provide for good vehicular connections to the town centre and key destinations such as Rolleston and Christchurch.
- 67. The ODP primary roads, and other connections provides a good structure for development of property access roads at subdivision stage. In terms of road formed width and cross sections, there is no reason at this stage to suggest that there would be any need to deviate from standard formations in accordance with the Selwyn District Plan and Selwyn District Council Code of Practice
- 68. Some road upgrades are anticipated and there are no existing restrictions (from a transport perspective) to achieving these upgrades:
  - Upgrade of Kimberley Road south of the intersection with Landsborough Street to kerb and channel;
  - Move the 50km/h speed limit north of the intersection with Landsborough Street (and the 60km/ speed limit an associated distance north);
  - Provide a footpath along the eastern side of Kimberley road adjacent to the ODP area;
  - Consider the need for a right turn lane on Horndon Street at the intersection with Broadmeadows Drive once the deferred zone is developed;
  - Provision of a crossroads intersection at the existing Kimberley Road Landsborough Street intersection, including a right turn lane as the deferred zone is developed and a possible round-about if there is through traffic demand from Area 5;

- Provision of a cross-roads intersection at the existing Kimberley Road Torlesse Crescent intersection; and
- Provision of a third road as a 'T' intersection with Kimberley Road near the northern end of the ODP area.
- 69. The ODP also provides for future road connections to the land north and east of the ODP area ensuring the potential for integration of local connections to any future development.
- 70. An off-road connection is proposed in the south-western corner of the ODP, which will provide a direct route for walking and cycling trips to the town centre, domain and schools.
- 71. The aforementioned Stantec Report considered upgrades to the wider road network to accommodate growth in Darfield in general and associated with Area 5 (opposite side of Kimberley Road). This assessment assumes that such upgrades would occur by the network controlling authority through general funding (including development contributions) and have been taken into account in the provision of the above assessment.
- 72. Accordingly, the proposed ODP is considered to be well connected and supportable from a transport perspective.

Appendix 1

**Care Home Traffic Generation Data** 

Table 2: Care Home Traffic Generation Rates

Source	Peak Hour Rates	Daily Rate
ITE Trip Generation Manual	AM Peak – 0.17 vehicles per bed PM Peak – 0.22 vehicles per bed	2.37 vehicles per bed
Lower Hutt Retirement Village	-	1.3 vehicles per bed
Stokes Wood Retirement Village		1.9 vehicles per bed
Aroha Hospital and Rest home	-	2.06 vehicles per bed
Glenbrook Rest Home	-	1.84 vehicles per bed
Beckenham Courts	-	1.5 vehicles per bed
TRICS Data <sup>3</sup>	AM Peak - 0.202 vehicles per bed PM Peak - 0.247 vehicles per bed	3.233 vehicles per unit

<sup>&</sup>lt;sup>3</sup> UK Trip generation database, excluding Greater London site and excludes Town Centre and Edge of Town Centre site.

#### Appendix D: Section 32 Evaluation: Addendum

- 1. Section 32 of the RMA requires an examination of :
  - a) The extent to which the objectives of the proposal are the most appropriate way to achieve the purpose of the Act; and
  - b) whether the provisions in the proposal are the most appropriate way to achieve the objectives by
    - identifying other reasonably practicable options for achieving the objectives; and
    - assessing the efficiency and effectiveness of the provisions in achieving the objectives.
- 2. Appropriateness is measured by comparing the relative efficiency and effectiveness of the alternatives.
  - a) Efficiency measures the relative net costs and benefits of implementing the proposed provisions.
  - b) Effectiveness measures to what extent the provisions give effect to the relevant Plan objectives and policies, which in turn give effect to Part 2.
  - It requires an assessment of the cost and benefits of the environmental, economic, social, and cultural effects that are anticipated from the implementation of the provisions; including the opportunities for economic growth and employment that are anticipated to be provided or reduced.
- 3. In essence, the key RMA test for the Plan Change is which is the more appropriate outcome for the Site:
  - a) retaining the existing Rural zoning, or
  - b) giving effect to the proposed zoning and rules package as proposed
- 4. A full s32 assessment is included in Annexure 5 of the Plan Change Application.
- 5. It is not possible to quantify most of the costs and benefits in changing from the current rural land use to full urban development. The applicant (Merv Todd) estimates that the 14.6ha Kimberley Road frontage site (proposed L1 zoning) returned in the order of \$200/ha/year i.e. \$2960 for the entire 14.6 ha. It carried approximately 6 stock units/ha. On that basis it is a typical, very low productivity dryland farm operation. A decision was made not to join the Central Plains Irrigation scheme because

- a) the soil types did not suit irrigation<sup>1</sup>, and
- b) it would not have been economic to do so as there was a higher capital cost/ha because of the size of the Site.
- 6. The balance 45.4 ha property (owned by Reed family) is part of the Central Plains Irrigation Scheme, as part of the larger Reed farm. However, the irrigation has been set up so that this land can be excluded at a future date when zoned for residential purposes, without affecting the overall farm operation. The land is cropped for mix of wheat, barley and peas. The average net return is \$1500/ha i.e. \$68 100 for 45.4 ha. The overall Reed farm is 220 ha, so removal of the 45.4ha from farming will not affect the overall viability of the farm. In any case, there will be a net increase of 15.1 ha in the Reed farm irrigated farmland as a result of the rezoning, for the reasons outlined below.
- 7. The Todd Kimberley Road property originally comprised appx 45 ha. 25 ha has recently been sold to Matthew Reed, 14.ha is proposed to be rezoned Living 1 and the balance appx 5.4 ha will contain the Todd dwelling and proposed community wastewater treatment plant to service the 14.6 ha of residential land. The original 45 ha was not large enough to be an economic farm unit.
- 8. Funds generated from the deferred L1 residential development will enable Matthew Reed to irrigate the extra 25 ha purchased from Merf Ag Services Ltd, and the balance 35 ha of his farm which is not currently irrigated. The Merf land is ex-forestry land so needs appx 15 years 'recovery' time before reaching similar productive potential of neighbouring farmland. It is now approaching appx. 15 years since the forestry trees were logged.
- 9. So residential development enabled by the rezoning will result in a net increase in irrigated productive farmland of appx 15.1 ha, and no let loss.
- 10. The proposal is for a 60ha site, so the scale and intensity of the rural activity is orders of magnitude less than that generated by urban development on the same area. The rural productivity from the site on an annualised basis is significantly less than the purchase of goods and services for the urban development in the subdivision and land development phase, and when taken up by new residents. The loss of earning

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<sup>&</sup>lt;sup>1</sup> This relates the previous forestry use which has depleted the soils.

potential from the land in its rural state is simply almost unmeasurable for the rural zone as a whole. In contrast the value add from the development for economic activity in Darfield is proportional to the scale of the development (estimated 1145 additional residents<sup>2</sup>) against a small rural town of about 1200 residents. In any case, the rezoning will enable additional balance Reed farmland to be irrigated (including surplus uneconomic farmland recently purchased from Ag Services Ltd). This will more than compensate for the loss of rural production from the land to be rezoned.

- 11. A May 2019 article by Market Economics examining the relationships of, and drivers for, land value differences rural to urban noted that:

  In Auckland, urban residential land supports 30 to 40 times as many dwellings per hectare as rural residential land, and its value per hectare is correspondingly over 40 times higher than rural lifestyle land, while urban business land supports more than 100 times the economic output per ha of rural production land. Urbanisation also means substantial costs are incurred to enable urban activities, including for infrastructure and land development, for major structural changes in land subdivision and ownership, and for large public and private expenditures. The higher intensity of use possible on urbanised land drives a major shift in property scale from relatively extensive rural and lifestyle activities to intensive urban residential and business activities, financially sustainable and affordable on much smaller land footprints. (http://www.marketeconomics.co.nz/LiteratureRetrieve.aspx?ID=215288)
- 12. This summary analysis examines the costs and benefits of the proposal and is to be read together with the s32 evaluation at Annexure 5 in the plan change application.

Option 1: Status quo: Rural zone

Social Costs	Social Benefits	Effectiveness and Efficiency
Retains an inefficient urban form	Further growth at Darfield is	Low to moderate
between existing urban area and	supported by the Darfield	Rural zone ineffective as Merf Ag
new developments.	community as signalled in the	Services site (proposed L1 zone)
	Malvern Area Plan which was	uneconomic to farm so rural
Does not deliver of Selwyn District	subject to a public consultation	outcomes not achieved.
Council growth strategy outcomes	process under the Local	
	Government Act. The Site	Not an effective option for Merf Ag
Residential land supply diminished	(Preferred Area 7) is the most	Services who sees no future in
with possible flow on effects to	efficient & effective preferred	rural uses on the Site, or for

<sup>&</sup>lt;sup>2</sup> Based on 2.3 persons per household & 110 person retirement village.

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land prices/house prices affecting affordability in Darfield.

Lost opportunity to meet unmet demand for full service retirement village at Darfield, in the most appropriate 'greenfield' site, close to and within walking distance to the town centre. This will enable Darfield residents to 'age in place' and for farmers to retire locally and remain 'connected' to the surrounding farming community.

Lost opportunity to provide for some small lot medium density housing at Darfield in an ideal location close to the town centre, with developer providing required community wastewater treatment plant. To date lack of reticulated wastewater at Darfield has precluded this housing option & there is no medium density housing, with adverse housing supply and affordability flow on effects.

Potential for long term use of the site for residential development as envisaged by the Malvern Area Plan may be lost by permitted rural activity investment, permitted rural subdivision into smaller blocks or ad hoc consents for development. Future urban development will be harder to achieve with multiple land owners.

future development area. It is closest to the town centre, and 'fills in' the inner portion of a gap in the otherwise concentric urban form of Darfield.

Helps retain an extensive rural edge to the township which has some value for the community, including those currently living at the rural/urban boundary (NB Kimberley Road L2 zoned dwellings do not generally face eastwards towards the Site).

Loss of farming returns from land to be rezoned, which are marginal in the case of the proposed L1 block (14.6 ha).

Current benign land use and intensity of land use (cropping and low intensity grazing) for Site as a whole minimises effects of rural activity.

Matthew Reed who intends to utilise funds from residential development of rezoned land to further develop the balance farm including farmland recently purchased from Merf Ag Services.

The present benign land uses effectively maintain a level of amenity and quality of environment for adjoining community, but that is at the discretion of the landowners. Not a long term viable option for the proposed L1 zone (Merf Ag Services land), and only for the proposed L1 zone (Matthew Reed) if the funds generated from rezoning can be used for further farm development including further irrigation investment.

## Cultural costs

None - no effect on cultural sites of significance – there are none at the Site.

## Cultural benefits

None: - no effect on cultural sites of significance – there are none at the Site.

# **Effectiveness and Efficiency**

Neutral

Environmental costs	Environmental Benefits	Effectiveness and Efficiency
Land can potentially be used for a	Retains current open space	Low
range of permitted rural activities	character. However, this is not	Not necessarily effective for
that could create reverse	generally visible to wider	existing community. May not retain
sensitivity effects on existing	community due to existing mature	open outlook/rural amenity they
community.	pine shelterbelt along Kimberlely	desire if permitted rural activities
	Road. The open outlook from	are undertaken on site including
The historical farming activity has	existing residential properties	farm buildings, shelterbelts and
potentially resulted in more	north of Hordon Street will be lost	rural land uses.
pollution of groundwater than	when the adjoining land, already	
proposed urban development.	zoned L1 but not yet developed,	Not effective land use to provide
Farming intensification could	(and included on the PC63 ODP)	for growth and development of
increase the pollution risk but is	is developed i.e. this will happen	Darfield as will push development
restricted by ECAN rules. This in	regardless of PC63.	pressure elsewhere around the
itself limits the productive potential		town. All alternative preferred
of the land for farming. The	Current low intensity, cropping and	development areas are not as
nitrogen discharge rate for the	grazing land use minimises effects	desirable, as they are further from
community wastewater treatment	on receiving environment such as	the town centre.
area will be 14 kg N/ha/yr, less	air/water/soils.	
than the permitted baseline for		
farming to be met by 2022 (15	Site is just paddocks with no built	
kg/ha/year).3	forms/structures to affect	
	visual/landscape amenity.	
Wider economic costs on the community	Wider economic benefits on the community	Effectiveness and Efficiency
Could prove a barrier to options for	Retains low level agricultural	Low
the Council around servicing of	potential for the future, but net	Removes a significant potential
existing development for	agricultural productivity for Sites	contributor to the costs of building
stormwater and wastewater	as a whole will be less than if land	reticulated sewerage systems.
leading to greater per unit costs of	is rezoned.	
reticulation for existing community.		Not effective in contributing to
		growth options for growing Selwyn
Locks in inefficient urban form		population.
being spread out and not		
consolidated on town		Retaining the existing rural zoning
centre/commercial nodes.		will contribute less to the local
II		farming, construction and wider
Lost opportunity for net economic		Darfield and District economy than
Lost opportunity for net economic gain to the local farming economy		
		Darfield and District economy than
gain to the local farming economy		Darfield and District economy than

 $<sup>^3</sup>$  See Lowe Environmental Impact Resource Consent Application for Discharge of Treated Effluent to Land and Air for Merf Ag Services Ltd - Assessment of Environmental Effects

Option 2: Plan Change

Social Costs	Social Benefits	Effectiveness and Efficiency
Costs and risks to applicants of	Enables community and council	High
plan change process.	participation and having views	Most effective and efficient option
	heard on change in land use.	for applicants' objectives for the
		Site.
	Provides housing choice including	
	unmet need for affordable medium	Submissions and hearings
	density housing, currently not	process enables the Plan change
	provided for at all at Darfield, and	provisions to be further refined as
	not feasible until a Darfield wide	appropriate.
	reticulated wastewater scheme is	
	provided (not planned or	Effective and efficient in
	budgetted for at this stage)	contributing to Darfield growth with
	Meets a gap for a demographic	many costs and risks carried by
	favouring serviced retirement	private applicant.
	village type options. Retirement	
	village enables residents to 'age in	Effective – provides for high
	place' contributing to a more	density residential development
	balanced mixed age community.	(retirement village) in close
		proximity to the Darfield town
	Provides an option for long term	centre & current and future urban
	growth of Darfield consistent with	development needs.
	agreed strategic directions.	
	Provides for high quality housing	
	and a retirement village in a	
	desirable location close the town	
	centre which meets unmet	
	demand. An ample supply of land	
	for housing assists housing	
	affordability by limiting increased	
	pricing due to limited supply.	
Cultural costs	Cultural benefits	Effectiveness and Efficiency
None: as for Option 1	None: as for Option 1	Neutral
The proposal to treat effluent to a		
high quality and apply to land		
is an approach consistent with		
Maori resource management and		
is the preferred approach. It		

minimises the impact of pollutants		
on soils and receiving		
groundwater.		
Environmental costs	Environmental Benefits	Effectiveness and Efficiency
Loss of existing rural open space	Consistent with Malvern Area Plan	High
character of Site.	recommendations.	Effective and efficient – continued
		rural zoning not consistent with
Environmental effects of providing	Development will be high quality,	achieving a consolidated urban
urban services, including	in accordance with an ODP, which	form and rural activities are not
community wastewater treatment	ensures a subdivision layout which	viable for proposed L1 land (14.6
and disposal system, are less than	maximises connectivity with the	ha).
minor <sup>4</sup>	existing town centre and	
	community facilities by multiple	The Plan Change provisions will
	transport modes including	ensure delivery of a high amenity
	pedestrian and cycle routes; and	urban environment, resulting in
	mitigates any potential adverse	less than minor adverse
	environmental effects including	environmental effects.
	potential boundary effects with	
	neighbours e.g. larger lots at	
	rural/rural residential boundary.	
Wider economic costs on	Wider economic benefits on	Effectiveness and Efficiency
community	community	
None – developer will fund	Positive impact for local	High
development costs arising from	employment and businesses	Effective – enables people and
rezoning and cost of private plan	during development phase and on	communities of District to meet
change process including Council	an ongoing basis - new residents	their economic needs by providing
change process including Council hearing costs	an ongoing basis - new residents will support local services and	their economic needs by providing additional local employment and
	will support local services and	additional local employment and
	will support local services and	additional local employment and business opportunities.
	will support local services and facilities.	additional local employment and business opportunities.  Efficient - developer provides
	will support local services and facilities.  Rezoning will result in net	additional local employment and business opportunities. Efficient - developer provides privately funded sewerage solution
	will support local services and facilities.  Rezoning will result in net economic gain for farming,	additional local employment and business opportunities. Efficient - developer provides privately funded sewerage solution to a high standard while
	will support local services and facilities.  Rezoning will result in net economic gain for farming, construction and the local Darfield	additional local employment and business opportunities. Efficient - developer provides privately funded sewerage solution to a high standard while contributing to costs of reticulated
	will support local services and facilities.  Rezoning will result in net economic gain for farming, construction and the local Darfield and wider Selwyn District	additional local employment and business opportunities. Efficient - developer provides privately funded sewerage solution to a high standard while contributing to costs of reticulated upgrades for water supply and
	will support local services and facilities.  Rezoning will result in net economic gain for farming, construction and the local Darfield and wider Selwyn District	additional local employment and business opportunities. Efficient - developer provides privately funded sewerage solution to a high standard while contributing to costs of reticulated upgrades for water supply and other services e.g. roading
	will support local services and facilities.  Rezoning will result in net economic gain for farming, construction and the local Darfield and wider Selwyn District	additional local employment and business opportunities. Efficient - developer provides privately funded sewerage solution to a high standard while contributing to costs of reticulated upgrades for water supply and other services e.g. roading upgrades. Maximises economic

 $^4$  See Lowe Environmental Impact Resource Consent Application for Discharge of Treated Effluent to Land and Air for Merf Ag Services Ltd - Assessment of Environmental Effects

Appendix E: Extracts from Proposed Wastewater Treatment Plant ECan Application AEE



## 3.7 Ownership and Operation and Maintenance

The communal scheme is likely only required for short to medium term, as a District sewerage scheme for Darfield will likely occur at some time in the next 15 - 20 years. Ownership is intended to remain with the consent holder at this stage and not be vested to SDC.

Community treatment options for this development, could be made redundant when a District Scheme is available, however, there is likely to be salvage value for it to be reused elsewhere. Portable systems, such as containerised or skid mounted systems can therefore be considered favourably, or systems easily removed from within the ground.

Discussions are being held with SDC regarding community infrastructure design standards and ownership. The commentary below is to show that should the developers decide not to vest to Council, or SDC do not wish to take over the asset, then there are other satisfactory outcomes.

A number of Regional Councils have established model conditions to provide certainty that the systems are going to be managed and maintained with future home ownership, as has been the case at Jacks Point in Otago.

The model conditions require:

- The consent holder to transfer the consent to a body corporate entity which will own and be responsible for the infrastructure maintenance and operation;
- The constitution of the body corporate requires all lot owners to be equal shareholders and to transfer the shares to purchasers when they sell;
- Lot owners must pay any money levied on them by the body corporate and grant a covenant on their property title in favour of the Council; those encumbrances are:

<sup>&</sup>quot;...recording the obligations of each lot owner in respect of the operation and maintenance of the Wastewater System in accordance with the conditions of this consent, and charging the owner's land with an annual rent charge to ensure performance of the covenants relating to the Wastewater System, such Encumbrance to be enforceable by the Body Corporate/Company against the Lot owner in case of default."

At the Jacks Point, near Queenstown, water supply and wastewater remain in private ownership and is managed by the Body Corporate who since installation have engaged the system designers and builders (Innoflow Technologies) to operate the wastewater system. The Jacks Point discharge consents do not require covenants on titles related to management-related failure, but there are two conditions relating to risk:

- The requirement of an Operations and Management (O&M) Manual, outlining a schedule of maintenance, timing, monitoring procedures, contingency plans, dealing with malfunctions and reporting; and
- The consent holder is required to enter into a maintenance service contract with a suitably qualified person, who is required to operate and service in accordance with the O&M Manual.

However, the Jacks Point subdivision consents from QLDC require a consent notice to be lodged against all titles relating to the wastewater system. This requires all owners to install the on-site (STEP) components of the decentralised system when seeking building consent, as per below.

"The consent holder shall provide evidence to the Council of a responsible body (management group) which will undertake responsibility for the maintenance of the infrastructure including the

private roads, water reservoir and associated network, stormwater reticulation, sewage reticulation (including primary sewage treatment tanks located on individual lots) and discharge fields (including regular monitoring and maintenance in accordance with the recommendations of the system designer of the individually owned primary treatment tanks) and open space. The management group shall also be responsible for the ongoing monitoring of the water supply to ensure that it continues to comply with the Drinking Water Standard for New Zealand 2005. Details of maintenance and operation of all infrastructure shall also be provided by the consent holder."

Discussions with SDC will address these options and their preference. In summary, there are a number of mechanisms available to Council to ensure the wastewater infrastructure, if it remains in private ownership, is managed accordingly.

#### 6.6 Effects on Air Quality

Each lot is likely to have a small pumping system, either a STEP system to provide an Effluent Sewer reticulation, or a Grinder Sump system to provide a pressure sewer reticulation. These systems are both small diameter pipes under pressure. It is common to install air relief valves in pressure systems in high points to allow any air build-up to be released to ensure air locks do not occur. The relief valves on a flat site such as at Darfield will be few and far between and seldom used. They are located below ground in a toby box.

The proposed WWTP is likely to be installed below ground to ensure temperature stays within the optimal range for treatment. The likely system utilises low pressure spray onto textiles that are enclosed within fibreglass pods. Odour potential is extremely low, with any venting to air via carbon filters to ensure minimal odour.

The discharge to land is via subsurface drip irrigation. Odour potential from this is negligible. Aerosols will not be produced from the wastewater treatment plant or the subsurface irrigation.

Effects on air will be very infrequent, if at all, and are considered to be less than minor.

## 6.7 Effects on Amenity Values

The LTA will be sited at the rear of the site on Kimberley Road. Both the WWTP and LTA will be buried and constructed to blend in with the surrounding environment to reduce visual effects. Any above ground building, e.g. control shed, will be similar to any garden shed and as such will not stand out as different to other buildings around Darfield.

Therefore, the effects on visual amenity values will be less than minor.

## 6.8 Effects on Public and the Community

It should be noted that currently there is no Darfield community wastewater treatment scheme. Each individual property owner is responsible for the treatment and disposal of their household wastewater. As a result, the effluent treatment and discharge is not always to a high standard from all properties and maintenance is sometimes deficient. With the use of the communal system, a high level of treatment and maintenance and operation can be achieved. Therefore, the proposed treatment scheme is a vast improvement over the existing individual practices occurring in the area.

It is considered that there will be minimal effects on the people in the wider community because the proposed LTA and treatment plant will be located on private property. People will be kept out of the LTA by signage and the private property nature of the site. The high-quality treatment of the wastewater will ensure that there will be no health effects arising from *E. coli* as a result of the application to land.

Aerosols will not be produced from the wastewater treatment discharge as the application to land will be via subsurface irrigation. Vents from the WWTP have carbon filters incorporated into them.

The treatment system will not be odorous when working correctly. The Operations and Maintenance plan will outline the frequency of monitoring and the steps that will be taken if a complaint is received. Furthermore, Environment Canterbury will be notified if any system fails or it performs poorly. For these reasons, adverse effects resulting from the wastewater land application systems are considered to be will be no more than minor.

## 6.9 Effects on Tangata Whenua Values/ Cultural Effects

Ngai Tahu is the iwi or tangata whenua with traditional association in the Canterbury region. Te Runanga o Ngai Tahu is the tribal body which represents the 18 Runanga within the Ngai Tahu tribal area of the South Island. Each Runanga has its own tikawa (area), determined by natural boundaries, such as the mountain ranges and rivers, and defined by the Te Runanga o Ngai Tahu Act 1996. By this Act, the Crown recognises the legal personality of Te Runanga o Ngai Tahu, the governing body of the Te Runanga o Ngai Tahu tribe.

For Maori, water is a living entity, the source of life for all things (waiora). The Maori view of water is that all water begins as a sacred gift from the Atua (deities) to sustain life and that all water have their own mauri or life force. The discharge of wastewater into clean water

(groundwater and surface water) is considered to be of unnatural mixing of mauri. This degrades the water quality and thus pollutes the mauri of water.

Iwi prefer wastewater to be treated (preferably land-based) before discharging into natural waterways or groundwater. Therefore, treatment to a high quality and application to land of treated effluent is an approach consistent with Maori resource management. It is designed based on ecological and energy efficient principles and aims to manage the environment in a sustainable way. Treating wastewater and applying it to land at a sustainable rate minimises the impact of pollutants on soils and receiving groundwater.

A significant cause of concern for Ngai Tahu is the degradation of freshwater sources due to wastewater discharges. The proposed wastewater treatment methodology and discharge to land is considered to be an acceptable method of disposal of wastewater and it has less than minor effect on cultural values.

Of concern to Ngai Tahu is the protection of sites of cultural significance such as Nohoanga sites (traditional camping sites associated with mahinga kai – food gathering), sites of Wahi, Taonga and Tapu (sacred and treasured sites) and "silent files" which are unidentified areas of cultural and spiritual significance. There have been no sites identified as having cultural significance within the vicinity of the proposed wastewater treatment and discharge location.

The proposed wastewater treatment and discharge have been selected on the basis of their ability to minimise effects on the environment while mitigating concerns of Tangata Whenua.

Mahaanui Kurataiao (MKT) have been approached (October and November) regarding a review of the AEE and application and were sent the Wastewater Options Report in support of the Plan Change, but a formal response is yet to be received.

# Appendix F: Mahaanui Kura Taiao Report



March 2020

To Kimberly Road, Darfield – Private Plan Change

ATTN: Merf Ag Services Ltd and Matthew Reed c/o Aston Consultants Ltd

## Kimberly Road, Darfield - Private Plan Change

#### Manawhenua Statement

Ngāi Tahu are tangata whenua of the Canterbury region, and hold ancestral and contemporary relationships with Canterbury. The contemporary structure of Ngāi Tahu is set down through the Te Rūnanga o Ngāi Tahu Act 1996 (TRoNT Act) and, through this structure and this Act, sets the requirements for recognition of tangata whenua in Canterbury.

The following Rūnanga hold manawhenua over the project's location, as it is within their takiwā:

• Te Taumutu Rūnanga

The natural resources – water (waterways, waipuna (springs), groundwater, wetlands); mahinga kai; indigenous flora and fauna; cultural landscapes and land - are taonga to manawhenua and they have concerns for activities potentially adversely affecting these taonga. These taonga are integral to the cultural identity of ngā rūnanga manawhenua and they have a kaitiaki responsibility to protect them. The policies for protection of taonga that are of high cultural significance to ngā rūnanga manawhenua are articulated in the Mahaanui lwi Management Plan (IMP)

## **Assessment of Proposal**

- The client seeks to rezone approximately 60 ha land area (located on the east of Kimberley Road and north of the existing L1 zoned land adjacent to SH3) for residential purposes, including medium density lots and a retirement village.
- The Proposal will provide:
  - o In the 14.6ha L1 Zone (Figure 2) approximately 90 low density lots, approximately 13 medium density lots, and a retirement village, all to be serviced by a local roading network, pedestrian accessways, reserves and off-site wastewater treatment in a privately owned and operated package treatment plant.
  - The balance 46ha L1 Deferred zone will provide about approximately 283 standard residential lots, approximately 56 lower density lots (minimum average density



- 1000m<sup>2</sup>) type lots, and approximately eight medium density lots including reserves, a future road connection to the north and south, and a future connection to the off-site wastewater treatment plant or a reticulated public sewer system if available.
- All subdivision, development and activity standards for the Site will adopt those in the SDC L1 Zone.
- The application states there are no surface water bodies, springs, or wetlands in close proximity to the site.
- A community wastewater plant discharge consent application is being sought for the L1 land (Stage 1 land in Figure 2) only at this stage, as the balance land will be a Stage 2 development (anticipated as being developed over the next 5-15 years, by which time a Council wastewater scheme may be available to service the land.
- Planting Plans and Erosion and Sediment Control are not covered in the material provided and are expected to be dealt with at a later date.
- The applicant states that no planning documents identify any risks from natural hazards such
  as flooding, liquefaction or slippage/subsidence. The site is flat to undulating and is ideally
  suited to residential building.
- A preliminary investigation has confirmed that the subject site has only been used for tree
  plantation and pastoral purposes and has not found any HAIL activities affecting the site

#### Wastewater:

- Darfield is the largest unsewered community in New Zealand (870 households).
- The 14.6ha site to be re-zoned L1 is to be serviced by a privately owned communal package treatment plant and effluent disposal area to be located on adjoining farmland.
- The 40ha site to be zoned L1 Deferred will either be connected to that package treatment plant in an expanded form, or to a Council scheme if one is available at the time that site is to be developed.

#### Stormwater:

There is currently no existing reticulated stormwater network on the Site, or close to the site.
 The proposal is for stormwater to be managed by onsite soakage from buildings. Stormwater run-off within the road corridors will be via swales in to appropriately spaced and sized soakpits via sumps. The road corridor will be used as overland flow paths to direct stormwater runoff when the soakpits are at full capacity (50-year design storm).



## Water supply:

- The Darfield water supply is sourced from two town supply deep wells, and reticulated water mains in Kimberley Road and Broadmeadows Drive can be connected into.
- Selwyn District Council has indicated that there is sufficient supply in the Darfield network to service the proposed development, and there will be sufficient pressure in the system to meet firefighting requirements.

## **Evaluation in relation to Mahaanui lwi Management Plan (MIMP)**

The matters that are relevant to this particular proposal have been identified as:

**WM8.11** To support activities and strategies to improve the efficiency of water use in urban and rural situations, including:

- (a) Water efficiency technology in residential, commercial, industrial and urban environments:
  - (i) rainwater storage tanks;
  - (ii) greywater reuse;
  - (iii) reduced or low flow devices (e.g. low flush toilets and efficient showerheads); and
  - (iv) water efficient appliances.
- **P4.1** To work with local authorities to ensure a consistent approach to the identification and consideration of Ngāi Tahu interests in subdivision and development activities, including:
- (a) Encouraging developers to engage with Papatipu Rūnanga in the early stages of development planning to identify potential cultural issues; including the preparation of Cultural Impact Assessment reports;
- (b) Ensuring engagement with Papatipu Rūnanga at the Plan Change stage, where plan changes are required to enable subdivision;
- (c) Requiring that resource consent applications assess actual and potential effects on tangata whenua values and associations;
- (d) Ensuring that effects on tāngata whenua values are avoided, remedied or mitigated using culturally appropriate methods;
- (e) Ensuring that subdivision consents are applied for and evaluated alongside associated land use and discharge consents; and



- (f) Requiring that 'add ons' to existing subdivisions are assessed against the policies in this section.
- **P4.2** To support the use of the following methods to facilitate engagement with Papatipu Rūnanga where a subdivision, land use or development activity may have actual or potential adverse effects on cultural values and interests:
- (a) Site visit and consultative hui;
- (b) Cultural Impact Assessment (CIA) reports; and
- (c) Tāngata Whenua Advisory Groups.
- **P4.3** To base tāngata whenua assessments and advice for subdivision and residential land development proposals on a series of principles and guidelines associated with key issues of importance concerning such activities, as per Ngāi Tahu subdivision and development guidelines (pages 107-109). <a href="https://www.mkt.co.nz/wp-content/uploads/2016/05/Mahaanui-IMP-web">https://www.mkt.co.nz/wp-content/uploads/2016/05/Mahaanui-IMP-web</a> Part11.pdf
- **P6.1** To require on-site solutions to stormwater management in all new urban, commercial, industrial and rural developments (zero stormwater discharge off site) based on a multitiered approach to stormwater management:
- (a) Education engaging greater general public awareness of stormwater and its interaction with the natural environment, encouraging them to take steps to protect their local environment and perhaps re-use stormwater where appropriate;
- (b) Reducing volume entering system implementing measures that reduce the volume of stormwater requiring treatment (e.g. rainwater collection tanks);
- (c) Reduce contaminants and sediments entering system maximising opportunities to reduce contaminants entering stormwater e.g. oil collection pits in carparks, education of residents, treat the water, methods to improve quality; and
- (d) Discharge to land-based methods, including swales, stormwater basins, retention basins, and constructed wetponds and wetlands (environmental infrastructure), using appropriate native plant species, recognising the ability of particulars species to absorb water and filter waste.
- **P6.5** To encourage the design of stormwater management systems in urban and semi urban environments to provide for multiple uses: for example, stormwater management infrastructure as part of an open space network that provides for recreation, habitat and customary use values.



- **P7.6** To require higher treatment levels for wastewater: 'we should not have to rely on mixing and dilution of wastewater to mitigate effects'
- **P8.1** To require that discharge to land activities in the takiwā:
- (a) Are appropriate to the soil type and slope, and the assimilative capacity of the land on which the discharge activity occurs;
- (b) Avoid over-saturation and therefore the contamination of soil, and/or run off and leaching; and
- (c) Are accompanied by regular testing and monitoring of one or all of the following: soil, foliage, groundwater and surface water in the area.
- **P8.2** In the event that that accumulation of contaminants in the soil is such that the mauri of the soil resource is compromised, then the discharge activity must change or cease as a matter of priority.
- **CL3.3** To ensure that local and central government recognise that:
- (a) Existing schedules and maps of cultural sites are not comprehensive nor exhaustive;
- (b) Many sites and information about sites are held by whānau; and
- (c) Protecting wāhi tapu and wāhi taonga requires effective working relationships with Papatipu Rūnanga.
- **CL3.7** To require appropriate policies and rules in territorial and regional plans to protect sites of cultural significance from inappropriate land use and development, including but not limited to:
- (a) Explicit recognition of the relationship of tangata whenua to wahi tapu and wahi taonga;
- (b) Processes for engagement with Papatipu Rūnanga with regard to wāhi tapu and wāhi taonga;
- (c) Recognition of cultural landscapes as a planning tool to identify and assess sites (see Issue CL1);
- (d) Recognition of silent files (see Issue CL4); and
- (e) Recognition that wāhi tapu and wāhi taonga values may extend beyond the physical boundaries of individual sites;
- (f) Setting aside land from development.



**CL3.8** To require, where a proposal is assessed by tangata whenua as having the potential to affect wahi tapu or wahi taonga, one or more of the following:

- (a) Low risk to sites:
  - (i) Accidental discovery protocol (ADP) See Appendix 3.
- (b) High risk to sites:
  - (i) Cultural Impact Assessment (CIA);
  - (ii) Site visit;
  - (iii) Archaeological assessment, by a person nominated by the Papatipu Rūnanga;
  - (iv) Cultural monitoring to oversee excavation activity, record sites or information that may be revealed, and direct tikanga for handling cultural materials;
  - (v) Inductions for contractors undertaking earthworks;
  - (vi) Accidental discovery protocol agreements (ADP); and/or
  - (vii) Archaeological Authority from the New Zealand Historic Places Trust.

#### Conclusion

- The proposed zoning change is consistent with expected township growth in the district, and the site appears to be suitable for residential development.
- The plan change could be an opportunity to create provisions that reflect some of the Ngāi Tahu subdivision and development guidelines.
- The absence of surface waterways and distance to groundwater indicate that mahinga kai and other values will likely not be adversely affected through future residential development in this area.
- While there are no known (as documented in the planning maps) wani tapu or wani taonga sites in close proximity to the site, there may be unknown cultural materials or sites that could be impacted by development activity as a result of the zoning change.

The application was taken to Taumutu Rūnanga who provided the following recommendations.

#### Recommendations

#### **Recommendation 1**

That any future subdivision plans/consents within the area must be consulted on independently.



#### **Recommendation 2**

Any developments should be undertaken in accordance with the Ngāi Tahu Subdivision and Development Guidelines, with a particular emphasis on water efficiency measures such as greywater re-use systems, and establishment of indigenous biodiversity. These guidelines could be integrated into the Outline Development Plan through rules and advice notes. For example, subdivision in the area could be a controlled activity with the integration of these guidelines as a matter of control.

#### **Recommendation 3**

An Accidental Discovery Protocol consistent with Appendix 3 of the Mahaanui lwi Management Plan should be followed for all activities.

#### **Recommendation 4**

The applicant should be encouraged to consider planting locally sourced indigenous vegetation to enhance indigenous biodiversity values on the area as part of landscaping (as appropriate).

Mahaanui Kurataiao and its staff are available to discuss this report further or assist in direct engagement with rūnanga if desired.

#### Report Prepared by:

Jason Eden

Environmental Advisor / Team Leader

## Peer Reviewed By:

Helen Matunga

**Environmental Advisor** 

# Appendix G: Plan Change 63 Revised Table of District Plan Amendments in Response to RFI

Note: RFI revisions are highlighted in yellow

Amendment	Include the Living 1, Living X and Living 1 Deferred - Kimberley Road Outline		
1	Development Plan as attached to this document (Annexure 3) as a new Appendix		
	E41B to the District Plan.		
A			
Amendment	Amend zoning of the Site from Rural Outer Plains to Living 1 Zone (14.6 ha) and		
2	Living 1 Deferred (45.9977 ha) as shown on the Living 1, Living X and Living 1		
	Deferred Darfield - Kimberley Road ODP - District Plan Map in Selwyn District Plan		
	(e-Plan).		
Amendment	Chapter B4 Growth of Townships – add new policy for Darfield:		
3	Policy B4.3.28A		
	To manage, subdivision, land development and use in the Living 1 and Living 1		
	Deferred zones at Kimberley Road Darfield (as shown on Appendix E41B) to		
	facilitate residential development, serviced by appropriate reticulated		
	wastewater treatment and disposal systems, including some medium density		
	housing and a retirement village. In the event that there is no Council		
	reticulated system available, the LI zone will be serviced by a consented		
	community wastewater treatment and disposal scheme located on adjoining		
	land to the north. There is flexibility to extend this scheme to service the Stage		
	2 development area, zoned L1 Deferred. Properties utilising this community		
	system will be required to connect to Council reticulated system, if and when it		
	becomes available.		
	Explanation and Reasons		
	The Kimberley Road L1 and L1 Deferred zones make provision for some		
	smaller more affordable housing than other living zones in Darfield and a		
	retirement village. This is in recognition of the ageing population and trend		
	towards smaller households. The location, close to and readily accessible from		
	the existing town centre, is ideal.		
	The LI zone will be serviced by a consented community wastewater treatment		
	and disposal scheme located on adjoining land to the north. There is flexibility		
	to extend this scheme to service the Stage 2 development area, zoned L1		
	Deferred. However, this will require a further wastewater discharge consent.		
Amendment 4	Chapter 4.5 Buildings and Sewerage Disposal		
4	Add new rule as follows:		
	4.5.1C In the case of the Living 1 and Living 1 Deferred zones as identified on		
	the Outline Development Plan at Appendix E41B, the erection of any dwelling		
	or principal building or a retirement village shall be a permitted activity		
	provided that it is connected to a communal 'off site' wastewater treatment		
	plant and land treatment disposal system which is subject to an approved and		
	current wastewater discharge consent. If and when a Selwyn District Council		
	reticulated wastewater treatment and disposal system becomes available to		
	service this area, all existing and new dwellings, principal buildings and the		
	retirement village will be required to connect, pursuant to provisions in the Local Government Act 1974/2002		
	Local Government Act 1314/2002		

Amendment	Chapter 4.5 Buildings and Sewerage Disposal		
5	Amend Rule 4.5.3:		
	4.5.3		
	Any activity which does not comply with Rule 4.5.1, Rule 4.5.1A, 4.5.1C, 4.5.1D or Rule 4.5.2 shall be a non-complying activity		
Amendment	Chapter 4.5 Buildings and Sewerage Disposal		
6	Add to Note 2 as follows:		
	2. If the Council and the community decide to install a reticulated sewage treatment and disposal system, the Council may require existing dwellings and principal buildings to connect, pursuant to provisions in the Local Government Act 1974. In the case of the Living 1 Zone as identified on the Outline Development Plan at Appendix E41B, this will be compulsory as the proposed community treatment and disposal system which will service this area has been designed to facilitate reticulation to a Council system if and when this becomes available.		
Amendment	Chapter 4.7 Living Zone – Buildings	and Site Coverage	
7	Amend Table C4.1 Site Coverage A	Illowances as follows:	
	Living 1	Including garage	40%
		Excluding garage	40% mi
		Emergency Services only	50%
		Retirement village as identified in ODP at Appendix E41B. Site coverage will be calculated over the entire retirement village site.	45%
Amandraat			
Amendment 8	Chapter 4 Living Zone – Reasons fo	or Rules	
	Amend as follows:-		
	Higher levels of site coverage have also been provided for emergency services <u>and</u> <u>retirement villages</u> recognising their importance to the community <u>and that</u> <u>retirement villages are comprehensively designed, including with regard to open space, and retirement housing requires less open space than standard <u>housing</u>. Their general one-off locations <u>of emergency services</u> throughout the district's townships will ensure any impact of increased density on the overall character of an area is minimal.</u>		
Amendment 89	Chapter 4 Living Zone – Buildings		
<del>0</del> 0	Add new Rule 4.19 as follows:-		
	4.19 Darfield – Retirement Village		

Within the L1 Zone at Darfield a retirement village shall be a restricted discretionary activity in the location shown on the Appendix E41B Outline Development Plan. Council shall restrict the exercise of its discretion to the following: 14.19.1 incorporation of Crime Prevention Through Environmental Design (CPTED) principles, including effective lighting, passive surveillance, management of common areas and clear demarcation of boundaries and legible entranceways; 14.19.2 residential amenity for neighbours, in respect of outlook, scale, privacy, light spill, and access to sunlight, through site design, building, outdoor living space and service/storage space location and orientation, internal layouts, landscaping and use of screening; 14.19.3 creation of visual quality and interest through the separation of buildings, variety in building form, distribution of walls and openings, and in the use of architectural detailing, glazing, materials, and colour Amendment Chapter 12.1 Subdivision – General <del>9</del>10 Add Rules 12.1.3.4A and 12.1.3.4B as follows:-12.1.3.4A In the case of the Living 1 zone as identified on the Outline Development Plan at Appendix E41B, any lot shall be connected to a communal 'off site' wastewater treatment plant and land treatment disposal system which is subject to an approved and current wastewater discharge consent. 12.1.3.4B In the case of the Living 1 Deferred zone as identified on the Outline Development Plan at Appendix E41B, any lot shall be connected to a Council reticulated wastewater treatment and disposal system Chapter 12.1 Subdivision – Size and Shape Amendment <del>101</del> Amend Rule 12.1.3.6 as follows:-12.1.3.6 Any allotment created, including a balance allotment, contains a building area of not less than 15m x 15m, except for sites greater than 400m<sup>2</sup> in area in a medium density area shown on an Outline Development Plan where the minimum building area shall be not less than 8m x 15m. For sites that form part of a comprehensive Medium Density development in a Medium Density Area covered by an Outline Development Plan and Retirement Villages, there shall be no minimum building area requirement; and Amendment Chapter 12 Subdivision – Darfield <del>11</del>2 Add Rule 12.1.3.16A as follows:-12.1.3.16A

	Any subdivision of land within the area shown in Appendix E41B - Living 1, Living X and Living 1 Deferred Zone, Kimberley Road Darfield Outline Development Plan, shall comply with the layout and contents of that Outline Development Plan and shall comply with any standards referred to in the Outline Development Plan.  12.1.3.16B  No subdivision of land in the Living 1 Deferred Zone shown in Appendix E41B shall occur until a Council reticulated wastewater treatment and disposal system is available to service this area and any lots created are connected to this system.		
Amendment 123	Chapter 12 Subdivision – Table C12.1 Allotment Sizes  Amend Table C12.1 as follows:-		
	Township	Zone	Average Allotment Size Not Less Than
	Darfield	Living 1	650m <sup>2</sup>
		Living 1 Zone at	650m², except for Medium Density
		Kimberley Road  Darfield as identified	(Small-lots): Maximum average allotment
		in Appendix E41B	size of 500m², with a minimum individual
			allotment size of 400m <sup>2</sup>
		Living 1 Zone at Kimberley Road Darfield as identified in Appendix E41B	Retirement Village: no minimum lot size
		Living 2	5,000m <sup>2</sup>
		Living 2 (Deferred)	Refer to Subdivision - General Rules. 5,000m2 if crite
Amendment	Chapter D Def	initions	
<mark>1<del>3</del>4</mark>	Add definition	of Retirement Village as fo	llows:-
	Retirement Village means a managed comprehensive residential complex or facilities used to provide residential accommodation for people who may be retired, and any spouses or partners of such people. It may also include any of the following facilities for residents within the complex: recreation, leisure, supported residential care, welfare and medical facilities (inclusive of hospital care) and other non-residential activities.		
Amendment 15	Chapter D Definitions		
10	Amend definition of Residential Activity as follows:-		
	Residential Activity: means the use of land and buildings for the purpose of living accommodation and ancillary activities. For the purpose of this definition, residential activity shall include:		

- a) Accommodation offered to not more than five guests for reward or payment where the registered proprietor resides on-site
- b) Emergency and/or refuge accommodation
- c) Supervised living accommodation and any associated caregivers where the residents are not detained on the site

## d) Retirement villages...

# Amendment 16

Add after Note (3):

(4) Rule 10.8 does not apply to a retirement village at Darfield as identified in in Appendix E41B - Living 1, Living X and Living 1 Deferred Zone, Kimberley Road Darfield Outline Plan.

Amend Rule 10.9 Hours of Operation as follows:-

Amend Note as follows:

Rule 10.9.1 does not apply to spiritual and educational activities, or a public car park in Precinct 6 of the Rolleston Key Activity Centre <u>or a retirement village at Darfield as identified in in Appendix E41B - Living 1, Living X and Living 1 Deferred Zone, Kimberley Road Darfield Outline Plan.</u>