Resource Management Act 1991

Proposed Plan Change 8 and 9 to the Selwyn District Plan

Holmes and Skellerup Block, Rolleston

Technical Report on Transportation

To:	Hearings Panel
From:	Andrew Mazey, Selwyn District Council
Date:	April 2011

Note: ***The recommendations contained within this report do not constitute Council decisions until accepted.***

This report has been prepared under Section 42A of the Resource Management Act 1991. The purpose of the report is to assist Selwyn District Council's Hearing Commissioners to evaluate and decide on submissions on provisions in Proposed Plan Change 8 and 9 to the partially operative Selwyn District Plan by providing expert advice on technical matters. The report does not make recommendations on submissions but the information and conclusions contained within it may be used by planning officers as a basis for making recommendations on submissions. This report should be read in conjunction with the planning officer's report and any other relevant reports identified.

1. Introduction

1.1. My name is Andrew Mazey. I am Selwyn District Council's Transportation Asset Manager. I have been asked to prepare a report commenting on transport-related matters and associated submissions on Proposed Plan Change 8 and 9 (PC8, PC9) to the partially operative District Plan (District Plan). This is to rezone 92ha and 73ha of Outer Plain sites to a proposed new L3 zone for rural residential use along Dunns Crossing Road at Rolleston. These are known as the Holmes and Skellerup Blocks owned by the Applicant, The Selwyn Plantation Board.

I hold the following qualifications:

(i) NZCE (Civil)

(ii) B.E Hons (Civil)

1.2. I have worked for the Selwyn District Council for over 20 years in various positions associated with the provision of roading and transport services and infrastructure, of which I have held the position of Transportation Asset Manager for approximately 5 years and a equivalent position before this.

2. Report Content

2.1. The following Background Information listed below maybe referred to directly in this report, or at least provides supporting information relevant to Councils transportation and related infrastructure activities and aspects associated with the Plan Changes requested.

<u>Background Information</u>

- Selwyn Transportation Activity
- Council Transportation Studies and Strategies
- Draft Plan Change 7 – Growth of Townships

- Draft Plan Change 12 – Integrated Transport Management
- Subdivision Design Guide and Engineering Code of Practice
- Rolleston Structure Plan

Commentary and Assessment of Plan Change Proposals

Conclusions

3. Background Information

3.1. This evidence is principally hinged on Councils strategic transport related studies and strategies, the Rolleston Structure Plan, previous roading and transportation related assessments relating to other Council and private plan changes, local knowledge and experience with the roading and transportation network. Where relevant these are explained in more detail as follows.

Selwyn Transportation Activity

3.2. The Selwyn Council is responsible for providing land based transport system across the District. Central to this is a 2400km urban and rural local roading network that includes associated bridges, signage and other related infrastructure. The 29 individual townships in the district contain over 130km of footpaths and cycleways, and comprehensive street light and road drainage systems. Council also provides bus facilities and bus capable roading networks in support of the public transport services provided by Environment Canterbury (ECan) in the district.

3.3. Further information relating to the activity is detailed in the Selwyn Community Plan 2009-2019 (Volume 1, Page 58) including the activities contribution to Councils Community Outcomes, legislative frameworks, asset management practises, capital projects, service targets, and financial forecasts. This is derived from a much more detailed analysis and comprehensive representation of all the facets of the activity contained in Councils 2009 Land Transport Activity Management Plan.

Council Transportation Studies and Strategies

3.4. The Council is a major partner to the Christchurch, Rolleston and Environs

Transportation Study (CRETS) along with New Zealand Transport Agency (NZTA), Christchurch City Council, Environment Canterbury (ECan) and the Christchurch International Airport Ltd. This study forms the basis of the strategic transport response to deal with the increase in traffic and trips generated by the growth expected over the Greater Christchurch area, including those within Selwyn, to 2021 and beyond. The final report detailing the strategy was adopted by Council in November 2007.

3.5. The report details a transport strategy that is robust and flexible so it can accommodate a number of future urban and rural residential growth possibilities over the Greater Christchurch study area. This includes the townships of Prebbleton, Lincoln, Rolleston and West Melton within Selwyn District and provides an overall transport response that considers all modes of land transport that will contribute to an integrated, safe, responsive sustainable and affordable land transport system in the future as required by the Land Transport Management Act 2003[1].

3.6. In addition to this, further strategies such as the Councils 2009 Walking and Cycling Strategy, the 2009 Greater Christchurch Travel Demand Management (TDM) Strategy, and the 2010 Metro Strategy provides an integrated transport response that can cater for the increase in demand for transport services across all transport modes.

3.7. Specific land transport details associated with Rolleston can be found in the 2009 Rolleston Township Structure Plan. This includes details on how localised networks of walking and cycling routes and public transport services are planned to integrate with emerging land use patterns and existing urban areas and how travel demands can be accommodated and managed.

Subdivision Design Guide and Engineering Code of Practice

3.8. The Design Guide for Residential Subdivision in the Urban Living Zones outlines ways to design attractive subdivisions which make the best use of their surroundings and context. It provides guidance for developers on how the Council will use its discretion in the assessment of planning applications and approval of subdivision designs. The Engineering Code of Practice is a

[1] CRETS Final Report – Executive Study (page 4)

technical document that translates the higher objectives detailed in the District Plan and Design guides to more specific engineering details that need to be part of the design process over all transport modes.

Draft Plan Change 7 - Growth of Townships, Urban Development and Rezoning of Land for Urban Purposes

3.9. PC 7 rezones land identified in Proposed Change 1 (PC1) to the Canterbury Regional Policy Statement (RPS) and the Lincoln and Rolleston Structure Plans to provide for the future urban growth of both townships in accordance with the Greater Christchurch Urban Development Strategy (UDS). This includes the putting in place rules, policies and objectives to achieve the consolidation of townships through higher densities while achieving good urban design outcomes, including the rezoning of approximately 600 ha of land in Lincoln and Rolleston. The spatial planning of new developments utilize Outline Development Plans (ODPs) as part of plan change process, and if adopted are included into the District Plan to guide development in the agreed manner depicted.

3.10. ODPs are critical to ensure that the necessary transportation routes and connections are provided in a logical and seamless way with certainty over time. They can also show how they integrate with existing township networks and the wider district arterial network. The ODPs generally depict the “major” and “secondary” roads over the area and adjoining connections, with the finer grained tertiary networks shown at the time of subdivision consent. Walking and cycling linkages are sometimes shown separately to avoid confusion.

Draft Plan Change 12 – Integrated Transport Management

PC12 aims to encourage a more sustainable approach to providing transport systems and networks within improved urban forms that can cater for future growth demands. Transport standards have a strong influence on the urban environment and PC12 enables a variety of different living environments to be created through changes to the transport related polices, rules and standards. This will be achieved in accordance with the concepts, standards and specifications established by Council’s Subdivision Design Guide and Engineering Code of Practice. PC12 also introduces changes to roading

standards and the districts road hierarchy.

Rolleston Structure Plan

3.11. The Rolleston Structure Plan (RSP) shows how the township will grow and develop in a staged and controlled manner. Rolleston is predicted to be the largest township in the District with a population of over 20,000 by 2041. The RSP enables both Developers and Council to plan and provide key infrastructure in a progressive and effective manner. This then avoids "pocket" or isolated urban areas from occurring that are not contiguous both in form and function with the other more established township urban areas.

3.12. Due to the location of State Highway 1 (SH1) and the main railway line alongside, core development principles for Rolleston continue to support the fundamental planning objective that residential areas will be located to the south of these constraints, and industrial areas to the north. From a transport perspective at least, this serves to reduce or mitigate issues with traffic from a mixture of vehicle types needing to continually cross the state highway and railway lines and also reduces the need for heavy vehicles to navigate through higher amenity urban areas. A large amount of cross traffic can be a safety issue, while also interfering with the efficient operation of the state highway.

3.13. A clear distinction on the respective roles of the local roading networks north and south of SH1 allows roading and intersection improvements to be planned and undertaken in the most effective manner to cater for the specific use intended.

3.14. The main or primary roading network shown by RSP consists of a series of arterial and collector routes in the existing and planned urban development areas south of SH1. The predominate features of the existing network in this area are an established radial pattern around the existing town centre, with strong linearity outwards that links to the adjoining residential areas. This pattern is sought to be expanded and replicated as growth occurs.

3.15. However the linear and rural nature of the adjoining road network can create issues where "pocket" or isolated urban development doesn't coexist

comfortably in these rural and correspondingly higher vehicle speed environments. Because of these types of issues it is more effective that growth is planned or staged to progressively radiate out from established urban centres to enable the necessary rural to urban transitions to be more safely and effectively managed.

3.16. CRETS identifies the expansion of a ring road pattern for Rolleston, to reduce through traffic volumes in the town centre, and maintain efficient access routes around and throughout the township as it grows. There are several levels at which this will operate. To facilitate the use of these routes, intersection improvements will be required, in particular the utilisation of roundabout or priority controls. These have been identified in Councils 2009 Land Transport Activity Management Plan, together with other improvements to roads and streets to provide the roading network necessary to support the growth planned.

3.17. A series of collector ring road routes is planned to radiate southeast from the existing town centre to service the new greenfield urban areas of Rolleston. An inner ring road is already in place through the town centre utilising Rolleston Drive with direct connections to SH1 north and south of the town centre. Moving outwards, a route using Weedons, Levis, Lowes and Dunns Crossing Road will form another ring route. Such is the importance of this route, it is will be classified as an arterial route in conjunction with a corresponding one to north (as discussed below) providing access to the Izone Industrial Park.

3.18. Based on the development growth patterns expected at Rolleston, CRETS identified that a further collector road (referred to loosely as the “CRETS Road”) was necessary that connected between Weedons and Dunns Crossing Road. Generally positioned parallel to, and midway between Lowes and Selwyn Road, it is expected that this urban collector road will progressively eventuate through urban development as it occurs in the area. Its final alignment will be determined through the more specific needs of the proposed development it will service, for example coinciding with the location of existing intersections, proposed neighbourhood centres whilst avoiding existing houses and structures.

3.19. In addition to the series of ring routes extending southeast as described above, using the existing intersections with the SH1 at Weedons and Dunns Crossing Roads, a northern arterial ring road will extend northwards off these creating a route comprising of Walkers Road, Two Chain Road, Jones Road and Weedons Ross Road (as referenced above). This route will provide the main northern and southern access from SH1 to the Izone Industrial Park in the future. Combined with the arterial ring road route to the south along Lowes Road as described above, this will create a central arterial ring road route connecting the main residential and industrial areas of Rolleston to SH1. The main arterial and collector routes around Rolleston are shown in Appendix A as it relates to the Councils roading hierarchy.

3.20. Arterial roads operate at an enhanced level of service compared to collector roads in the networks hierarchy in terms of design and function. This ensures that they are safe and efficient and that their performance is not unduly compromised by the adjoining development. Like collector roads, urban arterials include the provision for bus services and walking and cycling facilities.

3.21. Finally an outer perimeter ring road route will essentially follow the Urban Limit boundary established for Rolleston using Weedons, Selwyn, and Dunns Crossing Roads. This will then encapsulate the southern urban growth areas of Rolleston whilst providing direct arterial connections to Lincoln and Christchurch via Springston Rolleston Road and Shands Road respectively.

3.22. The continued development of a well connected urban road network is well catered for by the interaction of existing roads like Lincoln Rolleston, Springston Rolleston, Goulds and East Maddisons Road that radiate out from the existing town centre. However there will be challenges to manage the new and existing intersections that will occur together with the progressive development of the ring road routes.

3.23. CRETS has recommended intersection upgrades across the study area. Typically roundabouts and signed priority controls are envisaged in urban areas, and intersections will need to be upgraded or constructed as the township grows or safety issues become of concern. The current speed environment of 100km/hr on the rural network will require careful

management, particularly at urban and rural interfaces.

3.24. The management of access to the main roading network is important for safety and efficiency reasons. The number of access points onto the outer perimeter ring route (namely, Dunns Crossing, Selwyn and Weedons Roads) needs to be managed to enhance mobility relative to their wider district functions as arterial and collector roads, while still being safe, efficient and sympathetic to the amenity values of the adjoining rural areas.

3.25. The future growth and development of Rolleston will be well served by proposed improvements to the main state highway system in and around Christchurch as part of the Roads of National Significance (RoNs) initiative by the NZTA. More specifically for Selwyn District this includes improving the capacity, safety and alignment of the Christchurch Southern Corridor. This will improve access to the central Christchurch, Lyttelton Port, and the Airport. This will benefit Selwyn residents, businesses and industries now and in the future.

3.26. The NZTA is planning to upgrade the Christchurch Southern Corridor in three stages. The first of these is the Christchurch Southern Motorway Extension (CSME) Stage 1 that will provide a 4 lane motorway from SH73 at Brougham Street to north of Prebbleton. This will then link to SH1 in the short term using Halswell Junction Road. This is currently under construction with completion due in 2013.

3.27. Stage 2 of the CSME will extend the motorway from north of Prebbleton to SH1 south of Templeton. From here SH1 will be widened and upgraded to a 4 lane highway to Rolleston as part of the Main South Road Four Laning (MSRFL) project stage of the Christchurch Southern Corridor upgrade. It is expected that the construction of these projects will not commence before 2015 and will be subject to planning approvals and funding confirmation.

3.28. CRETS also identified the need to integrate these strategic state highway improvements with the local roading network. For Rolleston this will mean a rationalisation of existing intersections with the SH1. A key component of the MSRFL project will be the establishment of a motorway interchange positioned at the SH1/Weedons/Weedons Ross Road intersection. This will

become the principal connection between SH1 and Rolleston. This will be achieved by its connection to the core Rolleston arterial ring road route discussed above comprising (in a clockwise direction) of Weedons, Levi, Lowes, Dunns Crossing, Walkers, Two Chain, Jones, and Weedons Ross Roads. The interchange will efficiently separate and distribute residential traffic south to the urban areas of Rolleston, and industrial traffic north to the Izone Industrial Park.

3.29. The consolidation of the interchange as the primary access point to Rolleston will require either the removal or rationalisation of the existing intersections of Hoskyns Road, Rolleston Drive, Tennyson Street and Brookside Road, as number of these will have safety and performance issues as the traffic volumes grow on the state highway, and local demands from the growth of Rolleston.

3.30. Council and the NZTA are working through what this may involve based on options identified by CRETS, but needless to say there are likely to be comprehensive changes to how connections to the state highway will be made that will need to be accommodated by both road controlling authorities. This will be with the express intent to ensure that safe and efficient access to the state highway can be maintained well into the future as Rolleston and SH1 traffic volumes grow.

3.31. Public Transport options will capitalise on the new “Selwyn Star” Metro Service while the RSP identifies the intention for a “Park N Ride” facility to be established as explained in Section 4.33.

3.32. The RSP details a comprehensive network of linked walking and cycling facilities throughout Rolleston. This Includes off road pathways that will connect Rolleston to Lincoln and also to Templeton, an off road pathway along Lowes Road with connections to adjoining schools and recreational areas, and linkages between the Izone Industrial Park to the north and residential areas to the south across SH1 and the railway line.

4. Commentary and Assessment of Plan Change Proposals

4.1. For the purposes of this report, PC8 and PC9 will be discussed together. This is because they are very similar in nature, in the same general location and have been lodged by the same Applicant. The background information presented in Section 3 above is directly relevant to both the proposed plan changes.

Dunns Crossing Road Access

4.2. Both of the proposed developments have frontage and roading access to Dunns Crossing Road, while the more northern of these the Holmes Block also utilises Burnham School Road. Both these roads can be currently described as lower volume rural roads. Traffic counts undertaken between 2010 and 2011 show that the highest volume of 604 ADT (Annual Daily Traffic) on Dunns Crossing Road occurred between Brookside and Lowes Road, while on Burnham School Road 317 ADT was recorded in the section nearest to Dunns Crossing Road. The Traffic volumes in the TAR are out of date, but still generally represent the general quantum of what currently exists on the surrounding network.

4.3. As detailed in Section 3.18, Dunns Crossing Road is planned to be part of a series main ring road routes to serve the future growth of Rolleston under PC7. The first section that is required to cater for this role is between Lowes Road and SH1. Under Proposed PC12 this set to be classified as an arterial road, and as such would be expected to have a carriageway width of 13-14m, footpaths on both sides and a higher standard of street lighting. The intersection of Brookside and Dunns Crossing Road would be required to be upgraded to enable the priority controls to be reversed so that Dunns Crossing Road would have priority over Brookside Road to reinforce the arterial route sought to be created.

4.4. In the Applicants April 2009 Final Transport Assessment Reports (TARs), it detailed that lots adjoining Dunns Crossing Road for both developments would have direct access to Dunns Crossing Road. In letters dated 2 March 2010 the Applicant provided updated ODPs that showed that individual lots

would not have direct access from Dunns Crossing Road. Instead lots would be internally accessed and that a "countryside area" strip would be created to supposedly improve issues associated with the visual integration of the proposed development into the adjoining rural area.

4.5. I have no specific issue with this however this will likely also be a significant factor in determining the appropriate standard of the upgrade of Dunns Crossing Road to support the level of development proposed, and the likely speed limits able to be justified along Dunns Crossing Road in conjunction with this.

4.6. It will be a requirement that the Applicant contribute to the upgrade of Dunns Crossing Road through Councils Development Contribution Policy under any subsequent resource consent(s) if the Plan Changes are successful. As no lots will have direct access to Dunns Crossing Road, and a more rural character is sought to be encouraged, then carriageway widths could be reduced from the arterial standard detailed above. In addition the need to provide kerb and channel could be dispensed with so that road stormwater runoff could be directly dealt within the "countryside area" strip. The strip could also provide a route for a walking and cycling pathways.

4.7. However I do consider it a disadvantage that the respective development areas are not joined, or ever likely to be, so road corridor upgrades and the provision of infrastructure may not be contiguous along the western side of Dunns Crossing Road leading to disjoined standards. The Applicant would also be expected to contribute to the upgrade of Dunns Crossing Road relating to widening and the provision of related transport infrastructure on the east side of Dunns Crossing Road. This is because it serves as the interface between the proposed development areas and the higher density urban areas and facilities envisaged by PC7 within Rolleston's proposed urban limits.

4.8. Any upgrading would also include sealing the 1.1km long unsealed section of Dunns Crossing Road over the frontage of the Skellerup Block and its extension to Selwyn Road, because as correctly stated by the TAR, this proposed development area will generate trips that will utilise this route to connect to Lincoln and Christchurch and beyond using the nearby district arterial routes as explained in Section 3.18.

4.9. There would also be the requirement to provide localised improvements on both Dunns Crossing Road and Burnham School Road to cater for the new road intersections from the proposed development areas. These would be undertaken by the developer through details approved by Council at subdivision consent stage associated with the construction of new and upgraded roading infrastructure.

4.10. The Applicant has identified an issue regarding the positioning of the future CRETS Road (described in Section 3.19) and how its intersection on the eastern side of Dunns Crossing Road will relate to the new road intersections from the Skellerup Block on the west side. Options for this interaction can range from creating a cross roads or staggering the intersections. The degree of stagger, or separation of the intersections, is determined by the classification of the roads and the speed limit.

4.11. PC12 has introduced changes to intersection spacing requirements in the District Plan. Table E13.9 of the Township Volume specifies that the minimum intersection spacing along an arterial route for a 50km/hr posted speed limit is 160m, this would increase to 400m for 80km/hr. Recent discussions relating to PC7 and the development of ODPs in the general area have confirmed that the general alignment of the CRETS Road would be essentially parallel to Lowes Road and Selwyn Road between Dunns Crossing Road and Weedons Road, intersecting with the existing East Maddisons Road and Goulds Road intersection.

4.12. This is depicted in Appendix B together with the proposed roading layout of the Skellerup Block. This shows that the southern road entrance to the Block is difficult place to meet the 160m separation distance from the CRETS Road under a 50km/hr speed limit, and essentially impossible under the 400m and 80km/hr set of parameters. I would conclude that significant changes could be likely to the placement of either intersection to comply with the proposed changes under Table E13.9, and correspondingly this would be reflected in the Blocks overall internal roading design.

4.13. As the CRETS Road is more important to the safe and efficient development of the local roading network than any proposal associated with the Skellerup Block, this highlights that there is likely to be significant issues in being able to

provide a southern road entrance to the Block in an appropriate way to comply with the necessary standards in relation to the more important CRETS Collector Road.

4.14. Furthermore it cannot be predetermined that a 50km/hr speed limit can be justified along this section of Dunns Crossing Road, as the criteria associated with this is largely dependent on higher levels of side property access and development densities. As no direct lot access is proposed along the west side of Dunns Crossing Road then this may play a significant part in not achieving substantially lower speed limits that can achieve closer intersection spacing's.

4.15. I have similar concerns relating to the Holmes Block and the adjoining "Stonebrook" Development Area proposed to be rezoned to Living 1 type densities under PC7 and depicted on the ODP attached as Appendix C. Superimposing the Holmes Block main road and intersection on the ODP layout as shown, it becomes apparent that the estimated separation distance between the two proposed roads is only 120m which does not comply with the 160m distance for a 50km/hr speed limit.

SH1/Dunns Crossing/Walkers Road Intersection

4.16. The SH1/Dunns Crossing/Walkers Road Intersection is part of the state highway network that is managed by the New Zealand Transport Agency (NZTA). As such any discussion that follows is predicated on the basis the operation, form and function of the intersection is the responsibility of the Agency. The NZTA has recently expressed concerns with the row of pine trees along SH1 on the south east quadrant on the intersection that is partially obscuring the view of SH1 traffic to those on the Dunns Crossing Approach.

4.17. The TAR for the Holmes Block includes an assessment of the level of service (LOS) of the intersection. It is of some concern that the results show for the Dunns Crossing approach in 2026 that the LOS reduces from E to F in the PM period as a result of the proposed developments. A LOS of F is categorised to represent "heavily congested conditions" as described in the TAR, while a LOS no less than C is seen as desirable. The LOS also decreases in the AM peak, and also on the Walkers Road approach, to a LOS

of D. However this is considered less of a concern.

4.18. While an obvious LOS issue has been identified in the TAR any specific safety issues, for example those associated with the increase in the number of right hand turns from Dunns Crossing Road onto SH1, has not been canvassed. As experienced at similar intersections along SH1 where traffic from the residential areas of Rolleston attempt to access the highway in the most direct way possible, increasing numbers of right hand turns from local roads onto SH1 in these situations can be a safety issue that can lead to crashes. This occurs at the intersection of Tennyson St and SH1, and until recently at Rolleston Dr until the traffic signals were installed.

4.19. Due to the proximity of the development to the SH1 intersection, the Applicant is correct to assume that there will be a greater demand to utilise it compared to the local roads. However if the LOS reduces to the extent indicated, then traffic may more than likely find alternative routes using the adjoining local roading network such as Brookside Road to avoid the intersection.

4.20. Equally the development of the adjoining “Stonebrook” Plan Change area discussed previously will provide roading connections that could be utilised. However the acceptability of generating additional “through” traffic from the development area beyond what was envisaged associated with this Plan change area is questioned. Issues with intersection proximity and alignment onto Dunns Crossing Road between the two areas have been highlighted above.

4.21. However this should not be viewed as a way to avoid mitigating issues with the existing SH1 intersection. It is noted that the Applicant has been in discussions with NZTA regarding the intersection that could include limiting some movements (e.g. right hand turns) in the future. Also included are other improvements on the state highway approaches such as providing separated left hand turning lanes, which appear to be necessary “within the near future”, as stated by the TAR.

4.22. It is further stated in TAR that the NZTA have no funds available to accommodate any upgrading work in their current forecasts up to 2017. CRETS did not specifically identify any significant issues to warrant an

upgrade either. This may be due to the fact that the proposed development areas were not part of any traffic modelling scenario as they were outside what was considered to be Rolleston's urban limit.

4.23. I consider it is the responsibility of the Applicant to mitigate any specific adverse traffic effects generated by the activity, and on this basis the Applicant would be responsible for funding any necessary upgrades so both NZTA and Council have the confidence that this will occur at the appropriate time to cater for the demands expected. Any upgrading needs to reflect the safe and efficient operation of the intersection to accommodate both state highway traffic and that associated with the wider arterial ring road route sought to be established by Council. The upgrading necessary will require the prior approval of the NZTA relating to the state highway, and Council associated with its interaction with the local roading network.

Internal Roading

4.24. The TARs describe the standard of the roading to be provided, and this is shown on cross sectional and other details shown on each of the Blocks respective ODPs (as updated by the Applicant in March 2010). Carriageway widths range between 6-7m within a 19–20m wide road reserve. Also shown is a footpath along one side which is I believe is appropriate to support walking and cycling and wider connections opportunities to residential areas of Rolleston to the east.

4.25. The TARs reference the necessity to make specific changes to District Plan Rules to accommodate the proposed developments, in particular Table E13.9 and Roading Standards by introducing a Living 3 Zone set of standards. I don't believe this is appropriate or necessary as PC12 has included revised standards for Living 2 zones, of which this development equates to, that encapsulates the standards sought by the Applicant within the bounds considered appropriate by Council for this type of development rural residential development.

Extract Table E13.9, Plan Change 12

Type of Road	**Legal Width (m)**		**Formed Width (m)**		**Traffic lanes**	**Parking lanes**	**Specific provision for cycles (on road or off road)**	**Pedestrian Provision**
	Min	**Max**	**Min**	**Max**	Min. No. of	Min No. Of		Minimum
Local – Living 2 zone only	18	20	6	6.5	2		NA	Optional but no more than one side
Cycle/Pedestrian Accessway	6	10	2.5	3.0	NA	NA	Yes	Yes

4.26. It is appreciated that there is an advantage to widen further the more immediate sections of main road directly off Dunns Crossing Road up to 8m were condensed traffic volumes occur near to Dunns Crossing Road. This is generally accepted, and the departure to the standards above can be accommodated with specific subdivision consent conditions rather than a further change to standards proposed under PC12.

4.27. I have no particular concerns with the proposed internal roading layouts shown on the proposed ODPs however how these maybe influenced by a changes to the positioning of the intersections with Dunns Crossing Road as discussed in Sections 4.10 to 4.15. However as this remains an unknown variable at this stage my opinion on the suitability of the internal network could change.

4.28. I do question the rationale in providing two public walkways from the Holmes Block to Dunns Crossing Road compared to none for the Skellerup Block. It would be my opinion that these are unnecessary based on the central location of the main access roads and the opportunity to use the "countryside" areas both internally and externally to locate pathways within to gain access to Dunns Crossing Road.

State Highway Setback

4.29. Attention is drawn to Appendix 5D – Reverse Sensitivity, Transit (aka NZTA) Planning Policy Manual Version 1 relating to noise performance standards

along state highways. This is in coordination with Submission No.11 by the New Zealand Transport Agency.

Public Transport

4.30. The TARs reference the old public transport bus system that served Rolleston. In late 2010 a new service was introduced. Branded the "Selwyn Star", this is the principle metro bus service that will be utilised in the district for the foreseeable future. Currently the Selwyn Star includes three routes centred on Lincoln and Rolleston:

- An improved 81 Lincoln service.
- A new 88 Rolleston service will travel all the way to the city.
- A new 820 Burnham to Lincoln service that connects Burnham, Rolleston, Springston and Lincoln.

4.31. Currently the main routes that are closest to the proposed developments are along Lowes and East Maddisons Road. The distances from the nearest intersection into the respective development areas on Dunns Crossing Road to the nearest bus route are 950m for the Holmes Block, and 1200m for the Skellerup Block. This is well outside the usual range of 400-500m for properties to be within walking distance to a public transport service to both encourage and enable its use.

4.32. There may be a time in the future when bus routes would extend further north, but this would only occur if substantial urban development occurred that justified this, for example in the "Stonebrook" Development Area. It would be my opinion that rural residential developments of the nature proposed and positioned, are not ideally suited to utilise more sustainable transport modes like public transport as an alternative to private motor vehicle use.

4.33. A "Park N Ride" site at the north end of Rolleston Dr has been identified to facilitate public transport use by Rolleston Residents, and the wider local area, in the future. The timing of when this may occur is becoming more uncertain based on how this will integrate with wider regional initiatives to develop an integrated series of sites as part of a Greater Christchurch Travel Demand Management Response.

CRETS and Strategic Transport Works

4.34. The TARs make numerous references to roading and other works expected to occur through initiatives such as the Christchurch, Rolleston and Environs Transport Study (CRETS) that is relied upon to accommodate the additional traffic growth from developments such as this. It seems, as written in the TARs, that this is a foregone conclusion and on the basis that these are also referenced in the Canterbury Transportation Regional Implementation Programme (CTRIP). While Council has an ongoing commitment to cater for traffic growth in a safe and efficient manner, this also has to be affordable. For this to occur works that can be funded through the National Land Transport Programme (NLTP) and/or through Development contributions will in most part take precedence.

4.35. Therefore it needs to be made clear that new developments must contribute

to the development of transport systems and networks that they will utilise. More localised examples relating to these proposed Plan Changes include the upgrading of the SH1/Dunns Crossing/Walkers Road Intersection and the upgrade of Dunns Crossing Road and related intersections. Wider network works will be funded through developments contributions or through the NLTP if achievable.

4.36. The effects of the 22nd February Earthquake has created major issues and effects on all of Greater Christchurch's transport systems, ranging from shorter term operational problems to the impact on longer term strategic planning. As such the reliability of previous transport programmes and strategic planning assumptions is questionable; including the ongoing role of central government transport and other funding that may need to support recovery initiatives.

5. Conclusions

5.1. The developments proposed by the Applicant, to create two rural residential type developments of 73 and 102 lots on the west side of Dunns Crossing Road, have not been specifically included in any previous transportation modelling or strategic assessments relating to the wider Rolleston network. This is because no development west of Dunns Crossing Road had been envisaged as it was outside what has been established as Rolleston's Urban Limit.

5.2. Under Draft Plan Change 12, Dunns Crossing Road is set to become part of an arterial ring road route around Rolleston. It will become important how any new developments access and interact with Dunns Crossing Road to ensure this wider function can be achieved in a safe and efficient manner. I have concerns that the intended placement of intersections from the two developments will adversely impact on currently identified and accepted intersections and new roads from developments planned on the east side of Dunns Crossing Road. In particular that related to Plan Change 7 ODP1 "Stonebrook" Development area to the north, and those relating to the future provision of CRETS Collector Road to the south. Changes to the intersection locations and roading connections from the proposed development areas may cause changes to the internal roading layouts that cannot be determined at this time or its acceptability.

5.3. Dunns Crossing Road will be required to be upgraded to accommodate any residential type of activity alongside, and in a manner to serve its intended wider arterial function. While the proposed developments have no direct lot access to Dunns Crossing Road, the level of traffic generated will require works to accommodate the traffic generated, estimated to be approx 2,000 vehicles per day. This would include carriageway sealing, widening, footpaths, street lighting and intersection upgrades (e.g. Brookside Road and Dunns Crossing Road) to enable the necessary interaction between the proposed development areas and those within the adjoining urban limits to occur in an effective way.

5.4. The primary area of concern is the SH1/Dunns Crossing/Walkers Road

Intersection where it has shown that by 2026 (with the developments in place) that the Level of Service on the Dunns Crossing Road leg will decrease to an unacceptable level. The Applicant is suggesting that improvement works need to occur "within the near future". It is my opinion that this is a significant issue, in particular relating to the Holmes Block, which will require the Applicant to mitigate any adverse effects at its cost to the satisfaction of both the NZ Transport Agency and Council.

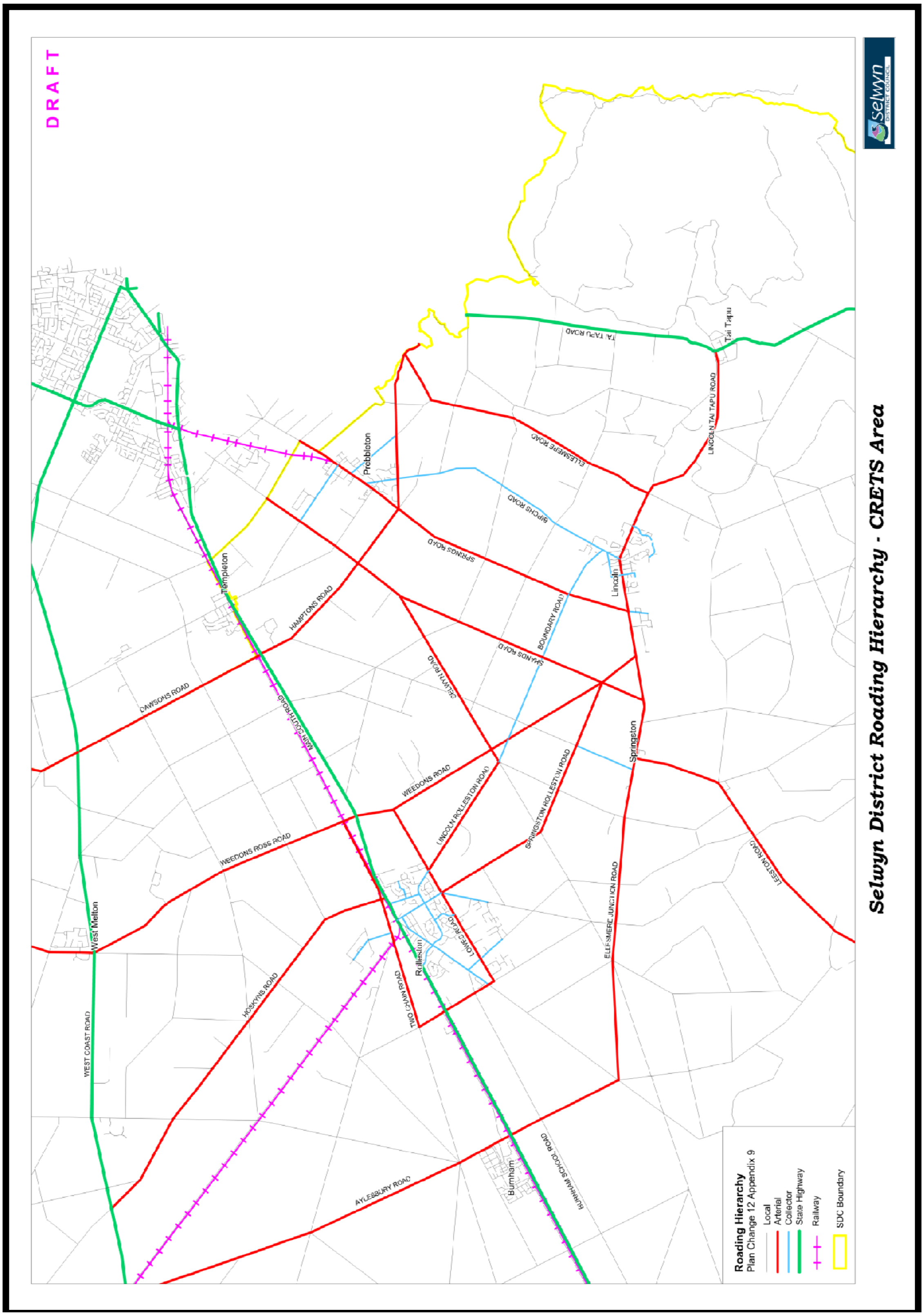
5.5. The Applicant is advocating that specific rules or changes in the District Plan are necessary to accommodate the standard and configuration of the roads being proposed. I do not believe this is necessary based on what is currently included in Draft Plan Change 12. I think further recognition and appreciation of PC12 is necessary by the Applicant to inform the plan change process beyond some of the details provided - that appear to be out of date in comparison.

5.6. The provision for walking and cycling are adequate although further consideration needs to given to connectivity to, and across, Dunns Crossing Road in relation to intersection placement from the roads within the development. The distance of the proposed developments from existing bus routes means in the foreseeable future that it is unlikely use would be made of these to enable sustainable transport choices to be made.

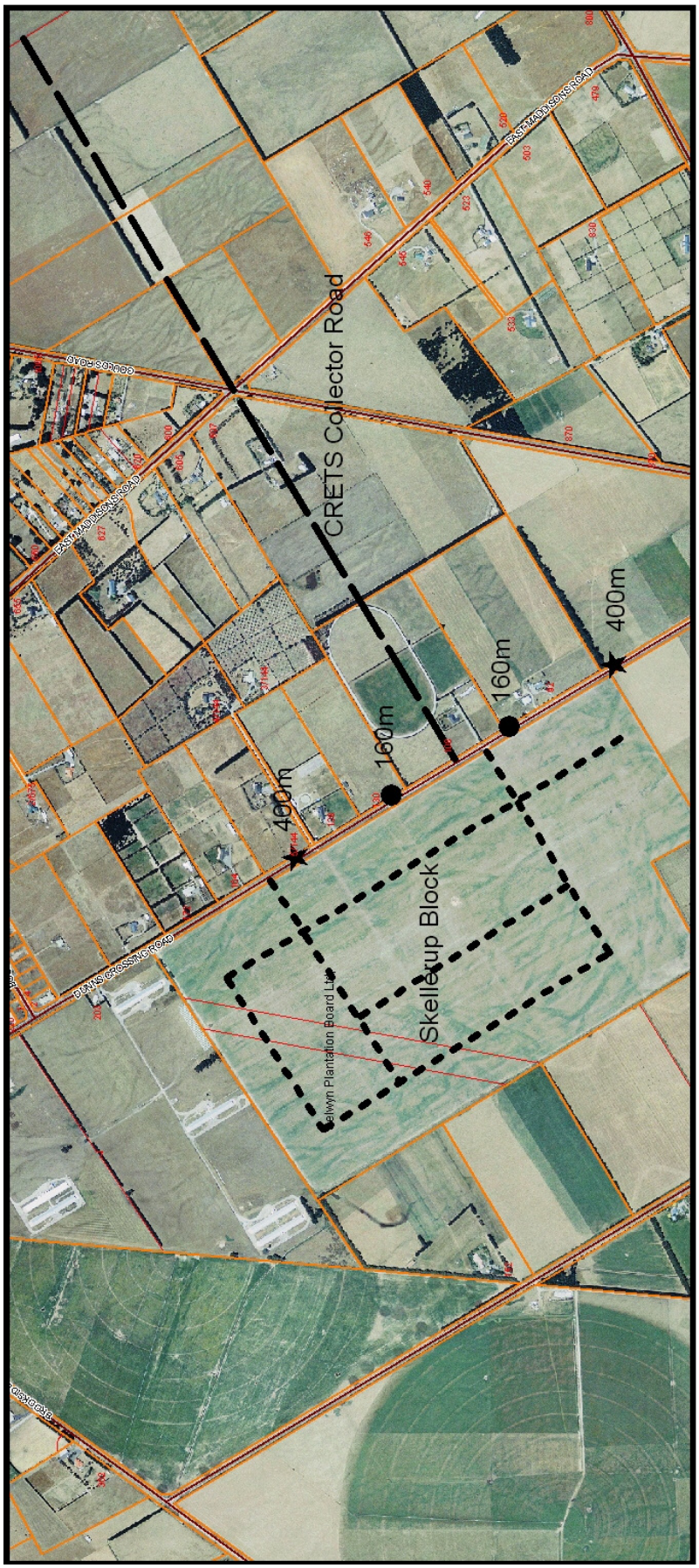
5.7. Finally I caution on the aspect of the Applicant seemingly relying on more strategic network improvement works occurring to justify or mitigate the effects of developments proposed as this is dependent on funding and wider influences beyond Council control.

5.8. I consider that the level of traffic generated by the developments is within reasonable expectations of overall growth, but will introduce localised effects that will require a response and mitigation measures to be provided by the Applicant to address. This will need to be cognisant of planned growth and arterial roading intentions for the area already in play through current Council planning processes.

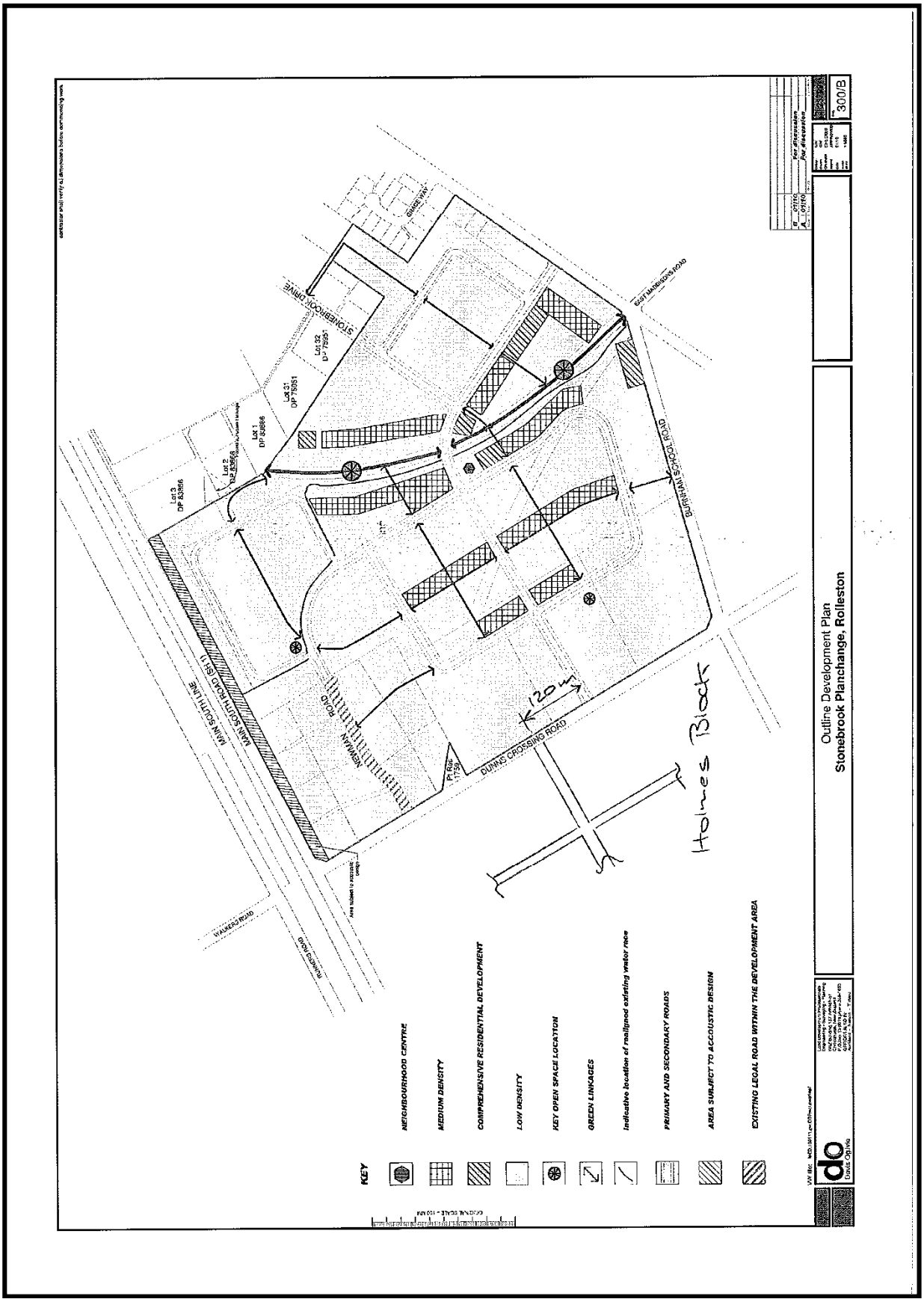
Andrew. McD. Mazey
ASSET MANAGER TRANSPORTATION


DRAFT
Selwyn District Roading Hierarchy - CRETS Area
Roading Hierarchy
Plan Change 12 Appendix 9
Local
Arterial
Collector
State Highway
Railway
SDC Boundary
Templeton
Prebbleton
Lincoln
Tai Tapu
Springston
Rolleston
West Melton
Burnham
TAI TAPU ROAD
ELLESMERE ROAD
LINCOLN TAI TAPU ROAD
SPRINGS ROAD
BOUNDARY ROAD
SHANDS ROAD
HAMPTONS ROAD
DAWSONS ROAD
SELWYN ROAD
WEEDONS ROAD
LINCOLN ROLLESTON ROAD
SPRINGSTON ROLLESTON ROAD
WEEDONS ROSS ROAD
LEESTON ROAD
ELLESMERE JUNCTION ROAD
LOWES ROAD
TWO CHAIN ROAD
HOSKYNS ROAD
WEST COAST ROAD
AYLESBURY ROAD
BURNHAM SCHOOL ROAD

Appendix A


CRETS Collector Road
400m
160m
160m
400m
Skellerup Block
Selwyn Plantation Board Ltd
EAST MADDISONS ROAD
DUNNS CROSSING ROAD

Appendix B


Outline Development Plan
Stonebrook Planchange, Rolleston
300/B
KEY
NEIGHBOURHOOD CENTRE
MEDIUM DENSITY
COMPREHENSIVE RESIDENTIAL DEVELOPMENT
LOW DENSITY
KEY OPEN SPACE LOCATION
GREEN LINKAGES
Indicative location of realigned existing water race
PRIMARY AND SECONDARY ROADS
AREA SUBJECT TO ACCOUSTIC DESIGN
EXISTING LEGAL ROAD WITHIN THE DEVELOPMENT AREA
STONEBROOK DRIVE
EAST MADDISONS ROAD
BURNHAM SCHOOL ROAD
DUNNS CROSSING ROAD
MAIN SOUTH ROAD (SH 1)
MAIN SOUTH LINE
WALKERS ROAD
NEWMAN ROAD
120m
Holmes Block

Appendix C