Selwyn District Plan Review

Supplementary Transport Baseline Report

Selwyn District Council

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Quality Assurance Information

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Appendix A – KiwiRail Feedback

A1 – Letter of 25 September 2018

A2 – Letter of 17 October 2018

1. Introduction

Scope and process

Selwyn District Council has commissioned Abley to undertake a review of the Selwyn District Plan on specific matters relevant to the Transport topic that were not included in the Baseline Transport Report DW009 and related Preferred Options Report DW209.

The Baseline Transport Report (Abley, 2018) considered a range of transport issues, however some existing provisions, particularly engineering requirements were not included within that scope. This report is intended to be a supplementary report that makes recommendations as to the retention, amendment or removal of the rules. This targeted assessment does not repeat the high level discussion on where the transport provisions sit within the Operative Selwyn District Plan (Plan), the statutory context as it relates to the Transport Topic or background on Plan Change 12 – Integrated Transport Management (PC12).

The review has included collaboration with relevant Council staff who are knowledgeable regarding any relevant issues within the district, and co-ordination with topic leads for other District Plan work streams. KiwiRail, Environment Canterbury and the NZ Transport Agency have provided comments on the first draft of this report. These are reflected where appropriate in this final version. Further engagement with other stakeholders such as MKT will be required as part of the review process. Engagement with the Ministry for the Environment (with regard to National Planning Standards) on any recommendations made in this Baseline Report will be required as part of the District Plan Review process.

The primary focus of this baseline assessment is to evaluate a range of specific transport-related provisions against best practice transport engineering and contemporary transport design guidelines. The key guidelines reviewed were the NZ Transport Agency Traffic Control Devices manual and the NZ Transport Agency Planning Policy Manual (PPM). A comparative district plan review has also been undertaken, but is limited to the adjoining Christchurch District Plan (CDP) and Waimakariri District Plan (WDP) to determine any potential for consistency. Recommendations are presented that either support retaining the current provisions and/or design standards or outline where amendments are considered necessary. In two cases options are presented with a preferred option recommended.

Key issues

Two key issues that impact a number of the Plan requirements are outlined below for context:

Requirements linked to Speed limit

The NZ Transport Agency Speed Management Guide (2017) outlines the safe and appropriate speeds for various types of roads in NZ. This approach is supported by the Land Transport Rule: Setting of Speed Limits 2017. The speed management approach no longer allows 70km/hour as a speed limit, eventually all 70km/hour speed limits in the country will be changed to either 60km/hour or 80km/hour. It is understood that SDC are reviewing all speed limits with the intent of changing all 70km/hour speed limits to either 60km/hour or 80km/hour. The implication for District Plans is ensuring that all references to speed limits include 60km/hour and 80km/hour and remove 70km/hour. Also, where 70km/hour is used as a threshold for any rules this threshold will need to change to 60 or 80 km/hour depending on what the requirement is controlling.

State Highway access requirements

The NZ Transport Agency PPM outlines requirements for accesses on State Highways, this is currently being reviewed. The current version of the PPM includes sight distance values that were consistent with a previous version of Austroads Guide to Road Design Part 4A: Unsignalised and Signalised Intersections. However, this Austroads guide was updated in 2017 and the basis for calculating sight distances was changed. This will be addressed in the NZ Transport Agency review but the timing of that review concluding is unknown. The implication for District Plans is that many include diagrams directly from the PPM, if the diagrams are retained then the Plans will be inconsistent with the new version of the PPM when it is published. District Plans cannot directly reference the PPM as a version date would be required and again, once the new PPM is published Plans become inconsistent with the PPM. Another approach would be to exclude all State Highway requirements from the District Plan and note that all access matters require approval from NZ Transport Agency, then by default this requires applicants to use the current PPM version.

Report structure

This review has been structured to answer the following questions that formed the basis of the project brief:

Rail

- Are the objectives, policies and rules in relation to rail (new lines/sidings, crossings, sight lines etc) appropriate?

Road hierarchy

- Do any roads need a different hierarchy (Township Appendix E7 and Rural Appendix E9) (higher or lower) applied to them?
- Are there roads that have been upgraded or constructed to collector or arterial road standards since the hierarchy list was last reviewed and need to be included in the list, so that associated land uses can be appropriately managed?
- Where new collector/arterial-function roads are constructed, what planning process should be used to include them in the roading hierarchy (a deeming provision? Plan change? Something else?), and at what point should this happen?

Corner splays

- Are the provisions in relation to corner splays (sizes, matters for discretion where not complying) appropriate?

Vehicle crossings and access

- Are the rural vehicle crossing provisions adequate and appropriate?
- What is the difference between a standard and a heavy-duty crossing (Townships Appendix E13.2.5)? Should this difference be retained?
- Should the vehicle crossing standards be the same or different between townships and rural areas?
- Is Rural Rule 3.9 Buildings and access and parking adequate and appropriate?
- Are the provisions in Townships Appendix E13.2.2 and associated Table E13.5 (distance of vehicle crossings from road intersections) adequate and appropriate?
- Are the provisions in Townships Appendix E13 Table E13.7 (distance between vehicle crossings on same side of the road) adequate and appropriate?
- Are the provisions in Townships Appendix E13 Table E13.9 (minimum distance between intersections for new roads) adequate and appropriate?

Amenity strips in vehicle accessways

- Should amenity strips within private accessways be better enabled and if so determine how this is best achieved (i.e. increasing the minimum legal width of accessways, limiting the length of accessways)?

Rural

- In relation to Rural Rule C4 Roads and Transport, Rural Appendix E10 Transport and Rural Appendix E11 Traffic Sight Lines, are the existing provisions adequate and appropriate?

Diagrams

- Are the existing diagrams in Rural Appendices E10 Transport & E11 Traffic Sight Lines adequate and appropriate?
- Are the existing diagrams in Townships Appendix E13 adequate and appropriate?

2. Rail – objectives and policies

Are the objectives and policies in relation to rail (new lines/sidings, crossings, sight lines etc) appropriate?

2.1 Operative Plan

KiwiRail was asked to provide feedback on Transport aspects of the District Plan (See Appendix A). Their feedback and consideration of the recently replaced Christchurch District Plan, along with the initial Transport Baseline Report and the Update and Preferred Options Report, were used as the basis of the review below.

The current plan sets out the following objectives (**Table 2.1**) and policies (**Table 2.2**) in relation to Rail. The objectives and policies are the same for Townships and Rural volumes.

Note that the second letter from KiwiRail in Appendix A2 (Dated 17 October 2018) includes some wording changes to the 'Issues' and 'Anticipated Environmental Results'.

Transport Networks — Objectives

ROAD, PATHWAYS, RAIL AND AIRFIELDS

Table 2.1 Transport Networks (Road, Pathways, Rail and Airfields) - Objectives

Objective	Comment
Objective B2.1.1 An integrated approach to land use and transport planning to ensure the safe and efficient operation of the District's roads, pathways, railway lines and airfields is not compromised by adverse effects from activities on surrounding land or by residential growth.	Still appropriate as it supports KiwiRail feedback regarding safety of the network. KiwiRail suggest a wording change to include all forms of transport and acknowledge their relationship (see Appendix A2).
Objective B2.1.2 An integrated approach to land use and transport planning to manage and minimise adverse effects of transport networks on adjoining land uses, and to avoid "reverse sensitivity" effects on the operation of transport networks.	Still appropriate as it addresses KiwiRail feedback seeking various reverse sensitivity methods. KiwiRail suggest splitting this objective into two parts with an additional objective created to address the management of activities at any transport network/system interface (see Appendix A2).
Objective B2.1.3 Future road networks and transport corridors are designed, located and protected, to promote transport choice and provide for: a range of sustainable transport modes; and alternatives to road movement of freight such as rail.	Still appropriate as it promotes rail as a transport mode for freight and does not preclude rail for passenger transport. KiwiRail suggest the last part of the objective could be removed as it is implicit in the first part (see Appendix A2).
Objective B2.1.4 Adverse effects of land transport networks on natural or physical resources or amenity values, are avoided, remedied or mitigated, including adverse effects on the environment from construction, operation and maintenance.	Still appropriate, considers wider environmental issues. KiwiRail support this objective.

Table 2.2 Transport Networks (Railway Lines) - Policies and Methods

Policy	Explanation and Reasons	Method	Comment
Policy B2.1.17 *Encourage viable alternatives to road transport such as the movement of freight via rail.*	*Future solutions to transport particularly in and through rural areas may involve alternatives to road transport. The movement of freight via existing and future rail infrastructure may facilitate more efficient movement of freight.*	*District Plan Rules* • *Railways*	Appropriate. KiwiRail supports this policy and suggests some options which are equally acceptable (see Appendix A2).
Policy B2.1.18 *Ensure structures and plantings do not impair the visibility of railway lines and road/rail crossings for motorists, pedestrians or train drivers.*	*Railway crossings are hazardous places and not all crossings have alarm bells and/or barrier arms or other appropriate warning devices. Visibility of railway crossings is as important as visibility at any intersection. Some land alongside railway lines has building line restrictions to ensure visibility is not impaired.*	*District Plan Rule* • *Subdivision — Building Line Restrictions for Railway Crossings*	Appropriate. KiwiRail supports this policy and suggests some wording changes for clarity (see Appendix A2).
Policy B2.1.19 *Avoid any property having access to a formed, legal road over a railway line.*	*Pedestrians and vehicles should not have to cross a railway line to obtain access on to a formed legal road from their property. The crossing of railway lines is best undertaken at controlled road level crossings as other situations can be dangerous where the necessary standards and controls cannot be provided.*	*District Plan Rule* • *Property Access*	Appropriate. KiwiRail supports this policy and suggests adding 'direct' access to be more targeted (see Appendix A2).
Policy B2.1.20 *Ensure any new development is designed and located to minimise the need for pedestrians, cyclists or motorists to cross railway lines.*	*When rezoning land for new residential development, consideration should be given to the location of the land relative to any railway line: in particular; whether pedestrians or motorists need to cross the railway line to access the main road out of the town or to access business or community facilities. Where a township has been confined wholly or largely to one side of a railway line, this pattern should continue unless there are other resource management reasons to avoid continuing to expand the township in that area.* *Where new development necessitates the crossing of railway lines, infrastructure should be provided to allow crossing in a safe and efficient manner.*	*District Plan Rules* • *Property access* *District Plan Policy* • *To assess plan changes to rezone land for expansion of townships*	Appropriate. KiwiRail supports this policy.

2.2 Conclusion

The current objectives and policies are considered appropriate from a Rail perspective as they support KiwiRail's approach to safety and operation and are consistent with preliminary advice received on the Transport Baseline Report and the related Preferred Options. KiwiRail has offered some suggested wording changes in Appendix A2.

3. Rail – rules

Are the rules in relation to rail (new lines/sidings, crossings, sight lines etc) appropriate?

3.1 Operative Plan

The requirements for sight lines at level crossings are outlined in **Table 3.1**.

Table 3.1 Rail - Rules

Rule	Comments
Townships Volume *17.4 - TRAFFIC SIGHT LINES — ROAD/RAIL CROSSINGS* *Permitted Activities — Traffic Sight Lines Road/Rail Crossings* *17.4.1 - The following shall be permitted activities:* *17.4.1.1 - Any building if the building is positioned so that it does not encroach within the line of sight for any railway crossing as shown in Appendix 13, Diagram E13.3.* *17.4.1.2 - Any tree if the tree is planted so that it does not encroach within the line of sight for any railway crossing as shown in Appendix 13, Diagram E13.3.* *Non-Complying Activities — Traffic Sight Lines Road/Rail Crossings* *17.4.2 - Any building or tree which does not comply with Rules 17.4.1 shall be a non-complying activity.*	Update Appendix 13 Diagram E13.3 as per KiwiRail advice (Appendix A). Also see Section 14 regarding the associated diagram. It is worth noting that the rule relates to "any building or tree" and the definition of Building in the DP is; *'means any structure or part of any structure whether permanent, moveable or immoveable, but does not include any of the following:* *– Any scaffolding or falsework erected temporarily for maintenance or construction purposes.* *– Any fence or wall of up to 2m in height.* *– Any structure which is less than 10m2 in area and 2m in height.* *– Any vehicle, trailer, tent, caravan or boat which is moveable and is not used as a place of storage, permanent accommodation or business (other than the business of hiring the facility for its intended use).* *– Any utility structure'.* It is noted that some of the items that are excluded from the definition of a building could have an impact on the visibility/ sight lines at level crossings, e.g. billboards. Also, some of the excluded items could impact sight lines, for example a caravan. We note that billboards for example would be covered by the rules in C6 Signs and Notice boards. KiwiRail are comfortable that the definition of building can be used to limit most structures in the sightline area and this can be easily managed at the building consent stage. It is also noted the National Planning Standards definition of a 'building' is likely to resolve some the uncertainty around this issue
Rural Volume *5.4 - TRAFFIC SIGHT LINES — ROAD/RAIL CROSSINGS* *Permitted Activities — Traffic Sight Lines – Road/Rail Crossings* *5.4.1 - The following shall be permitted activities:* *5.4.1.1 - Any building if the building is positioned so that it does not encroach within the line of sight for any railway crossing as shown in Appendix 13, Diagram E13.3.*	Update Appendix 13 Diagram E13.3 as per KiwiRail advice (Appendix A). Also see Section 14 regarding the associated diagrams. Rule 5.4.1.2 states '*Any tree if the tree is planted so that it does not encroach within the line of sight for any railway crossing as shown in Appendix 13, Diagram E13.3'.* The definition of a tree according to the Plan is '*Tree: any woody perennial plant, typically with a distinct trunk (but sometimes multi-stemmed) from which branches arise well*

Rule	Comments
5.4.1.2 - Any tree if the tree is planted so that it does not encroach within the line of sight for any railway crossing as shown in Appendix 13, Diagram E13.3. *Non-Complying Activities — Traffic Sight Lines – Road/Rail Crossings* *5.4.2 - Any building or tree which does not comply with Rules 5.4.1.1 or Rule 5.4.1.2 shall be a non-complying activity*	*above ground level to form a crown and includes other plants of a tree-like size and form such as palms.'* KiwiRail acknowledge that shrubs and other planting not defined as 'trees' and which grow above 1m in height could obscure sightlines but appreciate that enforcing a rule to cover planting other than trees may be difficult.
Diagram E13.3 Traffic Sight Lines at Railway Crossings	Requires updating as per KiwiRail advice which was to adopt the Figures provided in Appendix A.
Diagram E10.E – Sight distance at railway lines	Requires updating as per KiwiRail advice which was to adopt the Figures provided in Appendix A.

3.2 Best practice review

The most up to date guidance on rail level crossings and sight lines for New Zealand is contained in Part 9 of the NZTA Traffic Control Devices Manual (TCD Manual). The KiwiRail advice below is consistent with the TCD Manual.

Sight Lines at vehicle crossings

KiwiRail have requested the update of the following two diagrams with its revised level crossing sightline diagrams as these are currently two outdated versions in the Operative Plan;

- Level crossing sightline diagram Rule 4.7.1 referring to Rural Diagram Appendix 10 Diagram E10.E
- Level crossing sightline diagram labelled Road/rail level crossings Urban Rule 5.4 Appendix 13 Diagram E13.3

These diagrams contained in the Christchurch District Plan and Auckland Unitary Plan, which reflect contemporary best practice.

Vehicle access way setbacks

KiwiRail have expressed their support to retain Operative Plan Rule E13.2.2.3 – 30 metre access way setback from level crossings; '*No part of any vehicle crossing shall be located closer than 30 metres to the intersection of any railway line as measured from the nearest edge of the vehicle crossing to the limit line at the level rail crossing.'*

If this Rule is not met the activity is Restricted Discretionary. The matters of discretion are:

- *5.3.3.1 - Any adverse effects on the ease and safety of vehicle manoeuvres, and on the visibility and safety of pedestrians, cyclists and motorists.*
- *5.3.3.2 - Any potential increase in the cost or difficulty of maintaining the road and vehicle crossings, including transporting of mud and chip on to any sealed road, if the vehicle crossing or vehicle accessway is not sealed.*
- *5.3.3.3 - Any visual effects on street design and residential amenity values from not forming the vehicle crossing or vehicle accessway to the specified standards.*

KiwiRail seek that the matters also include the following (as outlined in Appendix A1):

1. The extent to which the safety and efficiency of rail and road operations will be adversely affected
2. The outcome of any consultation with KiwiRail
3. Any characteristics of the proposed use that will make compliance unnecessary

3.3 Recommendation

It is recommended that the Plan be amended as per KiwiRail recommendations on the sight line diagrams. This will result in consistency with neighbouring CCC provisions and promote best practice safety outcomes.

The KiwiRail suggestion regarding matters of discretion will require further consideration by the District Plan Review Team to evaluate the practical application of the assessment matters.

4. Road Hierarchy – changes to schedule

Do any roads need a different hierarchy (Township Appendix E7 and Rural Appendix E9) (higher or lower) applied to them? And are there roads that have been upgraded or constructed to collector or arterial road standards since the hierarchy list was last reviewed and need to be included in the list.

4.1 Proposed Changes

With the substantial growth in Selwyn District since PC12, the initiation of Outline Development Plans and the network changes as a result the of Christchurch Southern Motorway 2 (CSM2) there has been a substantial increase in the number of Collector Roads, particularly in and around Lincoln and Rolleston.

The SDC Transportation Asset Management Team have identified that the roads listed in **Table 4.1** require reclassification changes due to network upgrades that have occurred since PC12 updated the road classification schedules. In summary, two roads will need to be upgraded from Local to Arterial Roads, a number of Local Roads will need to be upgraded to Collector Roads, while a section of Trices Road (Arterial) will be downgraded to a Local Road.

Table 4.1 Road Hierarchy Changes

Road	From	To	New Classification
Selwyn Road	Lincoln Rolleston Road	Dunns Crossing Road	Arterial
Dunns Crossing Road	Lowes Road	Selwyn Road	Arterial
Branthwaite Drive	Lincoln Rolleston Road	TBC	Collector
Dynes Road	Springston Rolleston Road	Goulds Road	Collector
Goulds Road	Broadlands Drive	Leeston Road	Collector
East Maddisons Road	Oak Tree Lane	Selwyn Road	Collector
Farringdon Boulevard	Dynes Road	Ledbury Drive	Collector
Shillingford Boulevard	East Maddisons Road	TBC	Collector
Russell Lilley Drive	East Maddisons Road	TBC	Collector
Broadlands Drive	Springston Rolleston Road	Lowes Road	Collector
Tiny Hill Drive	Lowes Road	Brookside Road	Collector
Granite Drive	Brookside Road	Dunns Crossing Road	Collector
Stonebrook Drive	Brookside Road	Granite Drive	Collector
Wards Road	Two Chain Road	Bealey Road	Collector
Link Drive	Hoskyns Road	Izone Drive	Collector
Kidman Street	Tennyson Street	Rolleston Drive	Collector

Road	From	To	New Classification
Norman Kirk Drive	Rolleston Drive	Kidman Street	Collector
Beaumont Drive	Levi Road	Kendon Drive	Collector
Kendon Drive	Beaumont Drive	Strauss Drive	Collector
Strauss Drive	Kendon Drive	Levi Road	Collector
Jones Road	Weedon Ross Road	Trents Road	Collector
Maddisons Road	Hoskyns Road	Dawsons Road	Collector
Curraghs Road	Main South Road	Maddisons Road	Collector
Robinsons Road	Main South Road	Waterholes Road	Collector
Berketts Road	Main South Road	Larcombs Road	Collector
Larcombs Road	Waterholes Road	Berketts Road	Collector
Waterholes Road	Selwyn Road	Hamptons Road	Collector
Trents Road	Main South Road	Birchs Road	Collector
Carnbrae Drive	Springs Road	Blakes Road	Collector
Central Avenue	Tosswill Road	Stationmasters Way	Collector
Stationmasters Way	Springs Road	Central Avenue	Collector
Trices Road	Ellesmere Road	Birchs Road	Collector
Trices Road	Springs Road	Birchs Road	Local
Tancreds Road	Ellesmere Road	Springs Road	Collector
Barton Fields Drive	Birchs Road	Faulks Drive	Collector
Faulks Drive	Barton Fields Drive	Carnaveron Drive	Collector
Carnaveron Drive	Faulks Drive	TBC	Collector
Craig Thompson Drive	Birchs Road	O'Reilly Road	Collector
O'Reilly Road	Eastfield Drive	Craig Thompson Drive	Collector
Eastfield Drive	O'Reilly Road	Edward Street	Collector
East Belt	James Street	Edward Street	Collector
Vernon Drive	Gerald Street	Southfield Drive	Collector

Road	From	To	New Classification
Tauhinu Avenue	Vernon Drive	Southfield Drive	Collector
Brinsworth Avenue	Weedons Ross Road	Rotherham Drive	Collector
Preston Avenue	Weedons Ross Road	Iris Taylor Avenue	Collector
Iris Taylor Avenue	Preston Avenue	West Coast Road	Collector
Courtenay Road	West Coast Road	150m south of Adelaide Street	Collector
Kimberley Road	Kowhai Drive	Old West Coast Road	Collector
Minchins Road	Old West Coast Road	Waimakariri Gorge Road	Collector
Mclaughlins Road	Cressy Place	Stott Drive	Collector
Greendale Road	Cardale Street	250m south of Snowdon Place	Collector

Furthermore, the roads in **Table 4.2** which are confirmed or 'in construction' could be included in the Road Hierarchy table as the completion of these roads is imminent.

Table 4.2 New roads to be included in Road Hierarchy

Road	From	To	New Classification
Branthwaite Drive Extension	Branthwaite Drive	TBC	Collector
Broadlands Drive Extension	Springston Rolleston Road	TBC	Collector
Carnaveron Drive Extension	Birchs Road	Faulks Drive	Collector
Iport Drive	Jones Road	Hoskyns Road	Collector
Link Drive	Hoskyns Road	Iport Drive	Collector
Northmoor Boulevard	East Maddisons Road	TBC	Collector
Southfield Drive	Southfield Drive	Springs Road	Collector

4.2 Recommendation

It is recommended that the schedule of classified roads in Appendix E7 (Townships) and E9 (Rural) is updated to reflect the changes identified in **Table 4.1** and **Table 4.2**. It is also recommended that a road hierarchy map is included in the District Plan. This would be consistent with other District Plans and best practice examples. This map could show existing roads and proposed roads as part of ODP's and have certainty over general alignment.

5. Road Hierarchy - adding new roads

Where new collector/arterial-function roads are constructed, what planning process should be used to include them in the roading hierarchy (a deeming provision? Plan change? Something else?), and at what point should this happen?

5.1 Discussion

We understand that there is no planning mechanism that enables the District Plan road hierarchy to be kept up to date with road upgrades without a plan change (carried out under the 1st Schedule of the RMA). Although feasible for other matters, such as vesting roads upon completion, deeming provisions cannot be used for this purpose.

The Christchurch City Council investigated this issue at the time of preparing the Replacement District Plan and concluded that unless there was a Plan Change associated with an area of development that included new collector or arterial roads (enabling the road hierarchy to be updated) then the road hierarchy will never be entirely up to date. A separate Plan Change to update the road hierarchy would be required from time to time. As there were a number of confirmed roads yet to be built at that time they took the approach of adding them to the District Plan, albeit showing them as 'potential' roads as shown in **Figure 5.1**.

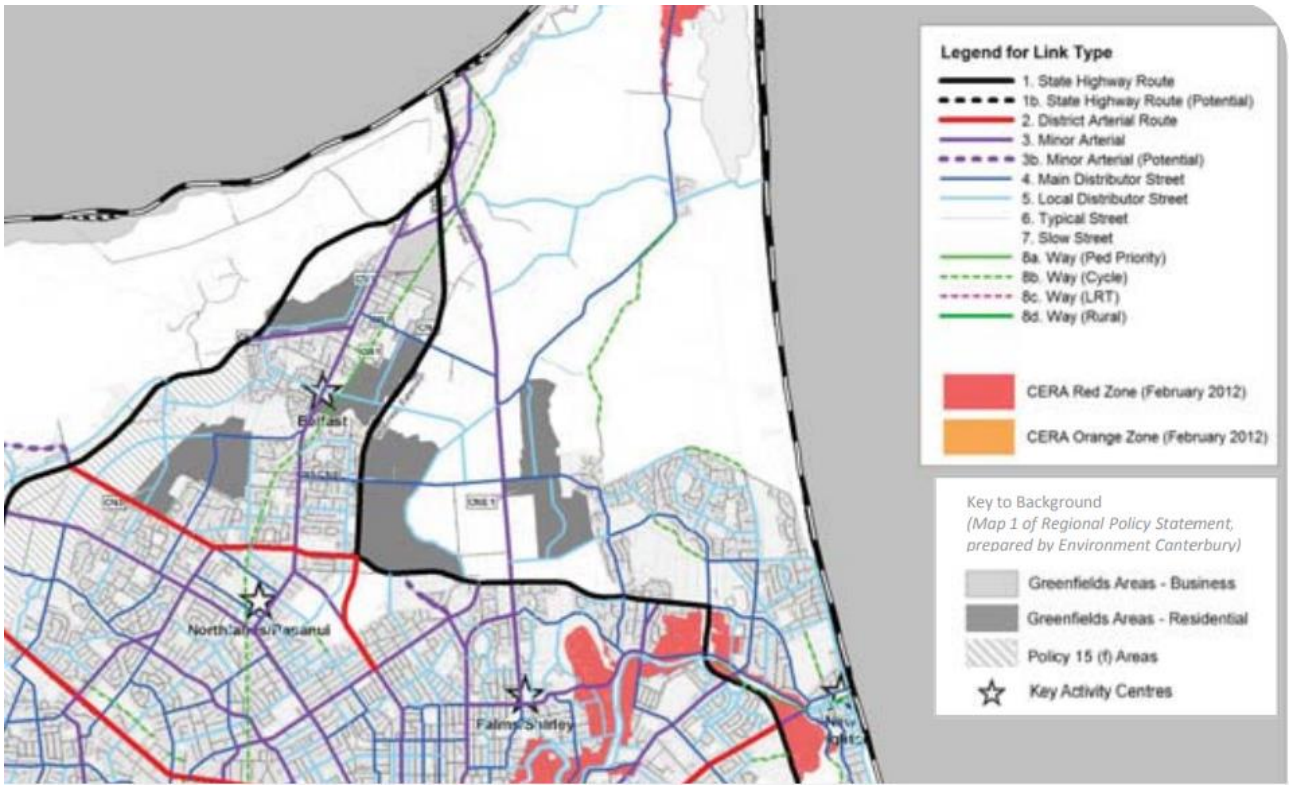


Figure 5.1 Extract from Christchurch City Road Classification

5.2 Conclusion

It is concluded that SDC should consider including proposed/confirmed roads in the District Plan hierarchy as discussed in Section 4. If in five years' time there are also further new collector and arterials to add to the District Plan then a specific Plan Change should be considered.

It is acknowledged that there may be a discrepancy between the District Pan hierarchy map and any other hierarchy map that Selwyn District Council progressively updates.

6. Corner splays

Are the provisions in relation to corner splays (sizes, matters for discretion where not complying) appropriate?

6.1 Operative Plan

Corner splays on the corner of road intersections serve the following purposes:

- allows the alignment of footpaths to be located to achieve the desired sight lines
- improves inter-visibility between pedestrians and other road users
- improves sight distances for drivers
- future proofs intersections for intersection upgrades

The requirements outlined in **Table 6.1** are supported by policy B2.1.9 and B2.1.10.

Table 6.1 Rules Associated with Corner Splays

Rule	Comments
Townships – Living – Subdivision and Boundary adjustments 12.1.3.2 and 12.2.1.5 *The corner of any allotment at any road intersection shall be splayed with a rounded **minimum radius of 3 metres.***	Appropriate as scale matches the context.
Townships – Business - Subdivision *24.1.3.2 –The corner of any allotment at any road intersection within a Business zone shall be splayed with a rounded **minimum radius of 6m.***	Appropriate as scale matches the context.
Rural – Subdivision and Boundary adjustments 10.1.1.7 and 10.12.1.5 *The corner of any allotment at any road intersection shall be splayed with a diagonal line reducing each boundary by a minimum of:* *(a) 6m x 6m for local roads* *(b) 10m x 10m for collector roads* *(c) 15m x 15m for arterial and State Highway roads*	Appropriate as the scale of the splay increases with the increase in classification.
The exercise of the Council's discretion shall be restricted to the matters listed in 12.1.5.4 and 12.1.5.5 below. *12.1.5.4 - Effects on the efficient functioning of any road, and the safety of road users;* *12.1.5.5 - The effect on the amenity of surrounding allotments.*	Appropriate as considers safety and amenity.
Under Rule 24.1.3.2 the Council shall restrict its discretion to consideration of: *(a) Effects on the efficient functioning of any road, and the safety of road users; and* *(b) The effect on the amenity of surrounding allotments.*	Appropriate as covers safety, efficiency and amenity.

SDC staff have not reported any issues with the current corner splay rules and it appears they are being provided at the time of subdivision in accordance with the rules (see **Figure 6.1** for an example). We understand there may be an issue with the application of the rules with respect to fencing, this will need to be addressed in the relevant DPR Topic to clearly reference how the fencing requirements apply to corner sites. Desired outcomes could also be identified in the Fencing Guide.

A 'corner splay' could be included in the definitions as currently it is not defined, if it is included a diagram to support this would be useful.

Figure 6.1 3m radius corner splays in a living zone (Faringdon)

6.2 Best practice review

Some Plans require corner splays and others do not.

The Waimakariri District Plan requires corner splays that are generally larger than the SDC requirements;

"*The corner of any allotment at any road intersection in any subdivision of Residential 1, 2 or 3 or Business Zone land shall be either: splayed with a diagonal line reducing each boundary by a minimum of 6m; or rounded to a radius of a minimum of 6m*, and*: The corner of any allotment at any road intersection in any subdivision of Residential 4A, 4B or any Rural Zone land shall be splayed with a diagonal line reducing each boundary by: a minimum of 6m on local, collector or urban collector roads; and a minimum of 15m on any strategic or arterial roads.*

The Christchurch City Plan has no specific requirement but outside the Central City has an assessment matter "*whether any corner allotments have an appropriate corner rounding.*"

Corner splays appear to be bespoke to a District's issues and needs.

6.3 Recommendation

It is recommended that the corner splays requirements are not amended as they are delivering the desired outcomes to meet Selwyn District needs from a safety and future proofing perspective.

7. Vehicle Crossings – General Questions

7.1 Introduction

A vehicle crossing is currently defined in the Plan as follows:

- *Vehicle Crossing: means the area within the road reserve over which vehicles move from the carriageway to a site. The width of a vehicle crossing shall be defined as the formed width at the property boundary. The length of the crossing is the distance from the edge of the carriageway to the property boundary.*
- *Vehicle Crossing: includes any formed vehicle entrance or exit point from any site on to any road, and includes that part of the road boundary across which the vehicle access is obtained and any culvert, bridge or kerbing.*

Note that the width of the vehicle crossing is also the width of an accessway where one exists, as both are measured at the road boundary.

A diagram that clarifies the measurements would help Plan users, such as the CCC diagram but modified as shown in red in **Figure 7.1**.

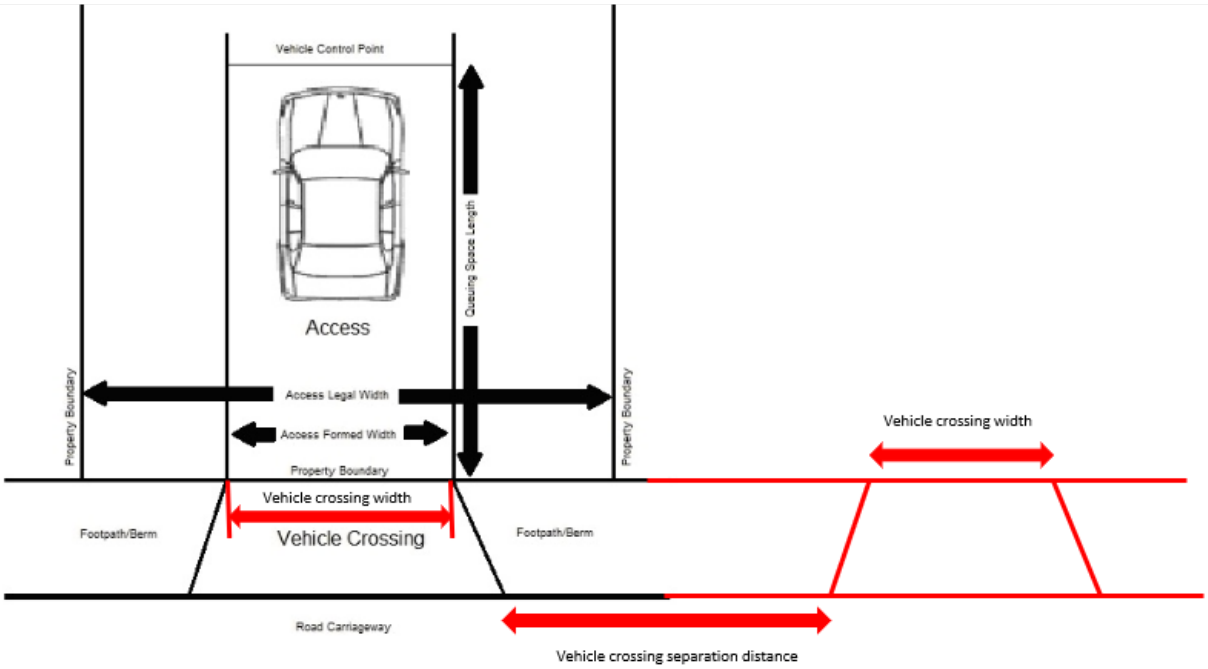


Figure 7.1 Methods of measuring widths and separation distances (adapted from CCC diagram)

The Plan currently outlines the requirements for the width of a vehicle crossing (reviewed in the main Transport Baseline Report), the separation distance from intersections (see Section 8), the distance between them (see Section 9) and layout requirements (see Section 13 and 14).

The ECoP includes vehicle crossing construction details.

If a vehicle crossing is not being formed as part of a District Plan process a permit is required. The SDC Vehicle Crossing Information Pack outlines the Specific Conditions required before making the application for a vehicle crossing permit.

Any changes to the District Plan requirements will need to be reflected in the ECoP and Vehicle Crossing Information Pack.

7.2 General questions

Are the rural vehicle crossing provisions adequate and appropriate?

Please refer to **Table 13.1** for changes the recommended to the Rural Vehicle Crossing Appendices. The matters of discretion related to rural vehicle crossings are considered appropriate.

What is the difference between a standard and a heavy-duty crossing (Townships Appendix E13.2.5)? Should this difference be retained?

The difference between a standard and a heavy-duty crossing is related to the depth of construction and kerb strength. The difference should be retained to ensure vehicle crossings are designed and constructed to accommodate the expected traffic type.

The construction details are included in the Council's Engineering Code of Practice Part 8: Roads and Transport. It is recommended that the following note is added to the rule.

'Note: refer to the Council's Engineering Code of Practice for the heavy-duty crossing design standard requirement.'

Should the vehicle crossing standards be the same or different between townships and rural areas? Why?

Vehicle crossing standards should be different between townships and rural areas. The speed environment, land use and vehicle movement are some of the characteristics that are considered when the vehicle crossing is designed. Some rules apply to both Townships and Rural vehicle crossings, however some only apply to Rural crossings.

Is Rural Rule 3.9 Buildings and access and parking adequate and appropriate?

The requirements of this Rule are outlined in **Table 7.1**. This rule differs from Rule C4.5 in that it covers 'legal access' to a road not the 'formed access'.

Table 7.1 Rural 3.9 Building and Access and Parking

Rule	Comments
Permitted Activities — Buildings and Access and Parking *3.9.1 Erecting any building or any additions or alterations to, or modification or demolition of any building shall be a permitted activity if the following conditions are met:* *3.9.1.1 Any dwelling or other principal building:* *(a) Is erected on a site which has legal access to a formed and maintained legal road other than a road listed as a Strategic Road in Appendix 9; and* *(b) Does not have its only access to a legal formed road by crossing a railway line.* *Notes:* *Any access to an allotment shall comply with Rule 4.5.1.* *Any carparking for activities associated with the building shall comply with Rule 4.6.1-4.6.5.*	This rule is considered appropriate. However, any reference to 'Strategic' needs to be replaced with 'State Highway or Arterial' to be consistent with C4.5.
Restricted Discretionary Activities — Buildings and Access to Parking	Matter b) could be linked to the vehicle access diagrams and the respective volumes for vehicle access.

Rule	Comments
3.9.2 Any dwelling or other principal building which does not comply with Rule 3.9.1.1(a) shall be a restricted discretionary activity if it complies with the following standards and terms: *3.9.2.1 The site has legal access to a legal road (whether a Strategic Road or an unformed or unmaintained road) and that access is not obtained by crossing a railway line.* *3.9.2.2 Under Rule 3.9.2.1, the Council shall restrict its discretion to all of the following matters:* *For all Sites:* *(a) Whether the site can have legal access to a formed and maintained legal road other than a Strategic Road;* *For Sites with Access on to Strategic Roads:* *(b) The design and location of the vehicle crossing;* *(c) The number and type of vehicles, pedestrian or stock using the access;* *(d) Any adverse effects, including cumulative effects, on traffic safety or flow on the Strategic Road;* *For Sites with Access on to an Unformed or Unmaintained Legal Road* *(e) The party who will be responsible for any forming or maintaining of the road.*	Replace any reference to 'Strategic Road' with 'State Highway and Arterial' to be consistent with Rule C4.5
Non-Complying Activities — Buildings and Access to Parking *3.9.3 Any activity which does not comply with Rule 3.9.1.1(b) or 3.9.2.1 shall be a non-complying activity.*	No change required.

7.3 Recommendation

The rules in Rural Volume 3.9 Buildings and access and parking are considered appropriate. However, any reference to 'Strategic Road' Highways should be removed and replaced with 'State Highway and Arterial'.

It is recommended that a diagram is added to the Plan to show the dimensions of a vehicle crossing with, formed access width, legal access width and distance between vehicle crossings.

8. Distance between vehicle crossings and intersections

Are the provisions in Townships Appendix E13.2.2 and associated Table E13.5 (distance of vehicle crossings from road intersections) adequate and appropriate?

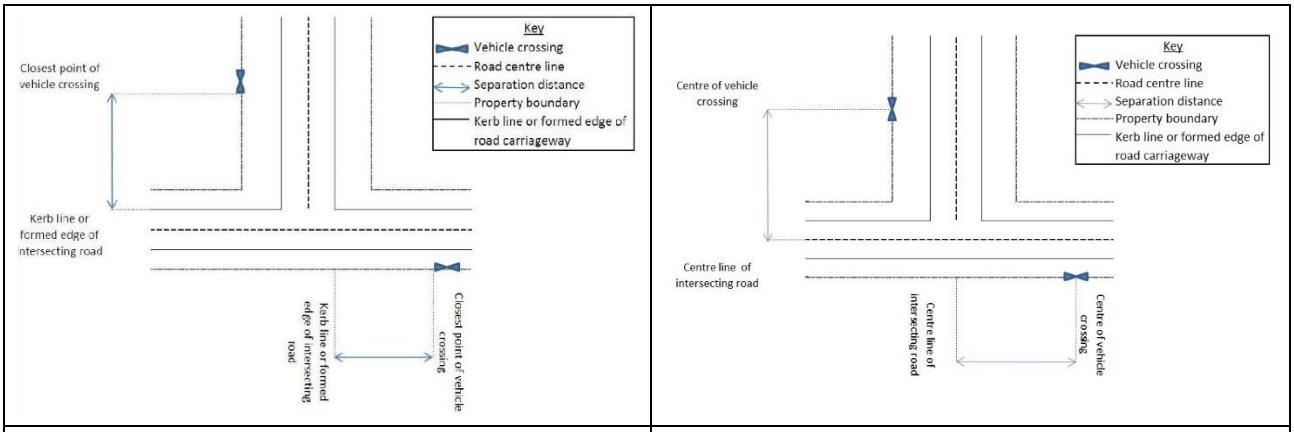
8.1 Operative Plan

A minimum distance between intersections and vehicle crossings is required to support good road safety outcomes. It limits the risk of conflict that may be created by vehicles queuing across the crossing. It also reduces any potential driver confusion due to turning movements at crossings or intersections, for example a driver indicating to turn at an access could be confused with indicating to turn at the closely spaced intersection. The traffic engineering basis for separation distances is related to sight distances.

The rules associated with Appendix E13.2.2 are outlined in **Table 8.1**.

Table 8.1 Rules associated with distance between vehicle crossings and intersections

Rule	Comments
E13.2.2.1 - No part of any vehicle crossing shall be located closer to the intersection of any roads than the minimum distances specified in Table E13.5 except that where the boundaries of a site do not allow the provision of any vehicle crossing whatsoever in conformity with Table E13.5, a single vehicle crossing may be constructed in the position which most nearly complies. (Note that the Road Hierarchy for the District is set out in Appendix 7). *E13.2.2.2 - In applying E13.2.2.1 the distances specified in Table E13.5 shall be measured along the road boundary parallel to the centre line of the roadway of the frontage road from the kerb line, or formed edge, of the intersecting road – refer to Diagram E13.5.* *E13.2.2.3 - No part of any vehicle crossing shall be located closer than 30 metres to the intersection of any railway line measured from the nearest edge of the vehicle crossing to the limit line at the level rail crossing.*	The method used to measure the minimum distance is inconsistent between the Township volume and the Rural volume. The Rural volume measures the minimum distance from the centreline of the intersecting road to the centre of the vehicle crossing whereas the Township volume measures the sight distance from the Kerb line or formed edge of intersecting road to the closest point of the vehicle crossing. See **Figure 8.1**. A consistent method for measuring the distance of vehicle crossings from intersections in both rural and township settings is suggested to avoid any ambiguity. For clarity a foot note could be added in the Rural, Business and Residential chapters stating that the rule only applies to vehicle crossings on the same side of the road as the intersection.
The exercise of the Council's discretion shall be restricted to the matters listed in 12.1.5.4 and 12.1.5.5 below. *12.1.5.4 - Effects on the efficient functioning of any road, and the safety of road users;* *12.1.5.5 - The effect on the amenity of surrounding allotments.*	The matters of discretion are appropriate.



Township volume method of measurement	Rural volume method of measurement

Figure 8.1 Selwyn District Plan – Methods of measuring access separation distance from an intersection

The minimum distances of any vehicle crossing from an intersection as per the District Plan, noting that E10.3 and E13.5 are the same table, are shown in **Figure 8.2**. There do not appear to be any issues with the current requirements however it is noted that the State Highway requirements are not consistent with the current NZ Transport Agency PPM (Appendix 5B - Table 5B/3) for speeds greater than 90km/hour.

Table E10.3 – Minimum Distances of any Vehicle Crossing from Road Intersections

		Intersecting Road Type Distances in Metres			
Vehicle Crossing Joins to	**Posted speed Km/hr**	**State Highway**	**Arterial**	**Collector**	**Local**
State Highway	> 50	100	100	100	100
	≤50	30	30	30	30
Arterial	> 50	100	100	100	100
	≤50	30	30	30	30
Collector	> 50	75	75	60	60
	≤50	30	30	30	25
Local	> 50	75	75	60	60
	≤50	25	25	25	10

Figure 8.2 Selwyn District Plan - Table E10.3 (same as Table E13.5)

8.2 Best practice review

Waimakariri District Council follows a similar approach to SDC however CCC have categorised the minimum distance to three speed limits < 70km/h, 70-90 km/h and > 90km/h (see **Figure 8.3**). The minimum distance required doubles from 70km/h to 100km/h for Arterial road to any road intersection which is not captured in the SDC Operative Plan. An issue with the CCC plan is that the Speed Management Guide approach (supported by the Land Transport Rule: Setting of Speed Limits 2017) no longer allows 70km/hour as a speed limit. Eventually all 70km/hour speed limits in the country will be changed to either 60km/hour or 80km/hour.

Table 7.5.11.4 - Minimum distance of vehicle crossings from intersections outside the Central City

	Speed limit < 70 km/h			
	Intersecting road type (distance in metres)			
	Frontage road	**Arterial road**	**Collector road**	**Local road**
a.	Arterial road	30	30	30
b.	Collector road	20	20	10
c.	Local road	20	15	10
	Speed limit 70 - 90 km/h			
	Intersecting road type (distance in metres)			
	Frontage road	**Arterial road**	**Collector road**	**Local road**
d.	Arterial road	100	100	100
e.	Collector road	45	45	45
f.	Local road	45	45	45
	Speed Limit > 90 km/h			
	Intersecting road type (distance in metres)			
	Frontage road	**Arterial road**	**Collector road**	**Local road**
g.	Arterial road	200	200	200
h.	Collector road	60	60	60
i.	Local road	60	60	60

Figure 8.3 Christchurch District Plan - Table 7.5.11.4

It is noted that the measurement of the separation distance is from the road boundary to the closet edge of the vehicle access (see **Figure 8.4**), this is considered a more appropriate measurement as it removes any issues that might arise with how tapers or splays are dealt with at the carriageway edge. It is also noted that the minimum distance of vehicle crossings from intersections only applies to an intersection on the same side of the road as the site as opposed to the current Selwyn District Plan diagrams that show accesses on the opposite side of the road, therefore implying the rule applies to accesses either side of the road.

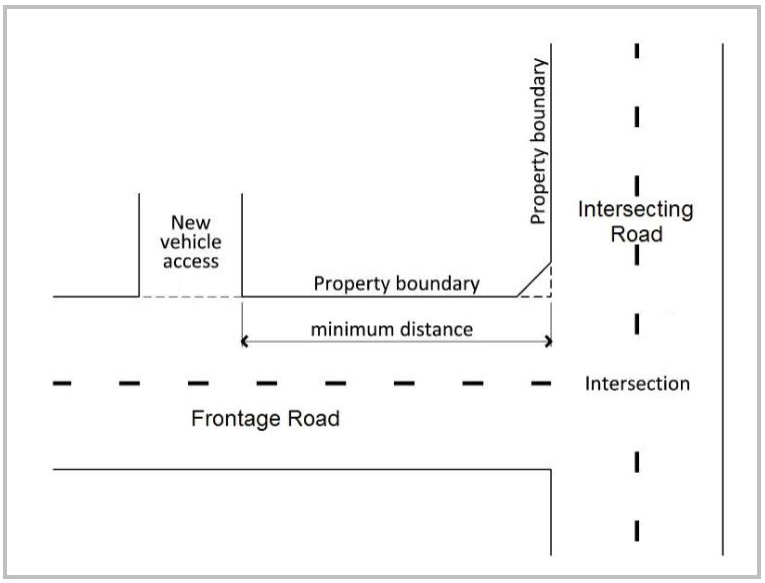


Figure 8.4 Christchurch District Plan – Figure 16 – Minimum distance of vehicle crossing from intersections outside the Central City

8.3 Recommendation

It is recommended that Tables E10.3 and Table E13.5 are amended as follows:

- Remove the State Highway minimum distances and refer to the NZ Transport Agency requirements, as these may change as part of the PPM review.
- Replace "Vehicle Crossing joins to" with "Frontage Road" to improve clarity

It is recommended that the method of measurement for both Township and Rural situations be replaced with the method used by the CCC. This requires a new diagram to be developed.

9. Distance between vehicle crossings

Are the provisions in Townships Appendix E13 Table E13.7 (distance between vehicle crossings on same side of the road) adequate and appropriate?

9.1 Operative Plan

The current required distances between vehicle crossings on the same side of the road was established to ensure sufficient space is available for on street parking and that space is not wasted by placing vehicle crossings between 1m and 7m apart. It has been observed that this rule has not been applied consistently at a number of properties but does not appear to be causing any major issues.

The Operative rules related to distance between vehicle crossings are outlined in **Table 9.1**.

Table 9.1 Minimum distance between vehicle crossings rules

Rule	Comments
Townships *E13.2.4.5 - The maximum spacing and width any vehicle crossing shall comply with Table E13.7.* *E13.2.4.6 - For the purposes of measuring the distance between crossings specified in Table E13.7 (see* **Figure 9.1***), the distance between two vehicle crossings shall be measured along the edge of the carriageway parallel to the road centre line, between the full height kerb or edge of crossing seal and the full height kerb or seal edge of the adjoining crossing.* *E13.2.4.7 - For the purposes of measuring crossing widths as specified in Table E13.7, the width of a vehicle crossing shall be measured at the property boundary (parallel with the road reserve).* *E13.2.4.8 - Notwithstanding E13.2.4.5 above, for vehicle crossings onto a State Highway or Arterial road with a posted speed limit of 70km/h or greater the distances between crossings shall be taken from Diagram E13.4.*	It is noted that the rule does not directly relate to any matters of discretion. Although the method of measuring the distance between the vehicle crossings and the width of this crossing are different, this is appropriate as the kerbside or edge of seal separation is the distance that is relevant. Rule E13.2.4.8 only applies to State Highways or Arterial Roads. Diagram E13.4 is from the NZTA PPM that is subject to review. This rule will need to be modified to specify roads 60km/hour or greater given that there will eventually be no 70km/hour roads.

Zone	Distance Between Crossings (m) on Same Side of Road	Width (m)	
		Minimum	Maximum
Living zones	Vehicle crossing to a shared accessway Greater than 7m; All other vehicle crossings; Less than 1m or greater than 7m	Residential activities – 3.5m Non-residential activities – 4m	Residential activities – 6m Non-residential activities – 7m
All Business zones except the B2A Zone (Izone)	Less than 1m or greater than 7m	5m	7m or 8m for shared crossings
B2A Zone (Izone)	Less than 1m or greater than 7m	5m	12m

Figure 9.1 Table E13.7

9.2 Best practice review

In the Waimakariri District Plan the separation between crossings on the same side of the road is subject to the speed limit and the land use zone. No restrictions apply to vehicle crossings on roads with a speed limit less than 70km/h.

The WDC DP requirements for each land use zone are in **Figure 9.2**. A separate rule applies to vehicle crossings on State Highways with a speed limit of 70km/h.

Table 30.4: Vehicle Crossings

Zone	Maximum Number of Crossings per Site per Road Frontage	Space Between Crossings (m) on the Same Side of the Road	Width (m)	
			Minimum	Maximum
Residential and Mapleham Rural 4B	1	Less than 1m or greater than 7m	4	6
Business	2	Less than 6m or greater than 12m	5	7m or 8m for shared crossings
Rural	NA	Less than or equal to 10m or greater than 180m	3.5	6

Figure 9.2 WDC District Plan Table 30.4

Similarly, in the CCC DP, the distance between vehicle crossing rule only applies to vehicle crossings on a road with a speed limit of 70km/h or greater. The minimum distance for a 70km/h speed limit is 40m as opposed to the SDC distance of 100m. The rule specifically notes that this condition applies to two vehicle crossings from the same site. The rule has specific distances for road hierarchy as shown in **Figure 9.3**.

Table 7.5.11.1 - Minimum distance between vehicle crossings (distance in metres)

	Type of road frontage			
	Frontage road speed limit (km/h)	Arterial	Collector	Local
a.	70	40	40	40
b.	80	100	70	50
c.	90	200	85	65
d.	100	200	105	80

Figure 9.3 CCC District Plan Table 7.5.11.1

The Auckland Unitary Plan requires the minimum distance between two vehicle crossings to be at least 2m for a pedestrian to stand if necessary.

9.3 Recommendation

It is recommended that current requirements are retained and this matter be considered in conjunction with the Street Design rule drafting. It may be appropriate to enable 'vehicle crossing distances' to be evaluated alongside the 'Street design' and 'Vehicle Crossing width' issues within the Local Minor and Intermediate Road Classification.

It is recommended that the following change is made to E13.2.4.8: - *Notwithstanding E13.2.4.5 above, for vehicle crossings onto a State Highway or Arterial road with a posted speed limit of* ***60*** ~~*70*~~*km/h or greater the distances between crossings shall be taken from Diagram E13.4*

10. Distance between intersections

Are the provisions in Townships Appendix E13 Table E13.9 (minimum distance between intersections for new roads) adequate and appropriate?

10.1 Operative Plan

Table 10.1 details the current rules that relate to Appendix E13 Table 13.9. It has been observed that this rule has not been applied consistently in living zones but does not appear to be causing any major issues.

Table 10.1 Minimum distance between Intersections

Rule	Comments
Townships *E13.3.2.1 - The spacing between road intersections shall comply with Table E13.9 below.* *E13.3.2.2 - In determining intersection spacing from Table E13.9* (see **Figure 10.1**) *in accordance with E13.3.2.1, where new roads are proposed as part of any Outline Development Plan, the intersection spacing can be designed for the proposed (future) speed limit (typically 50km/hr) within the Outline Development Plan area and on immediately adjoining roads.* *E13.3.2.3 - The distance between any two road intersections shall be measured along the centre line of the road which has both the intersections:* *(a) From the point where the centre lines of two of the roads intersect;* *(b) To the point where the centre lines of the other two roads intersect.*	The rule states that a minimum distance of 75m is required between intersections located on Local roads with a 50km/h speed limit. However, multiple examples exist where this rule has not been enforced, the safety and efficiency implications of this are not considered to be adverse.

Posted (Legal) Speed Limit (km/hr)	Road types	Distance (m)
100	All	800
90	All	248
80	All	214
70	All	181
60	All	151
50	State Highways, Arterials, Collector and Local Business Roads	123
50 (or less)	Local roads only	75

Figure 10.1 Table E13.9

10.2 Best practice review

The Waimakariri District Plan Table 30.7 lists the minimum distance between intersections for 50km/h to 100 km/h speed limits. With the exception of the distance for 100km/h the minimum separation distances between new vehicle crossings are more conservative than the SDC requirements. CCC do not require intersection separation distances for new intersections.

10.3 Recommendations

Two potential options are outlined in **Table 10.2**.

Table 10.2 Distance betw een intersections options assessment

Option	Advantages (Effectiveness and Efficiency)	Disadvantages (Limitations and Risks)
Option 1 – Status Quo	No known issues with existing rule as per SDC. Any issues captured at the Engineering Approval stage.	Inconsistent with neighbouring local authority policy.
Option 2 – Remove this rule for Local Roads that operate at a 50km/h speed limit or less and make it an assessment matter instead (allowing for consideration of safety matters) as subdivision already subject to discretion.	Consistent with existing best practice. For State Highways the distance from NZTA guidance could be used.	Requires updating SDC DP figures. Will need to update the Engineering Code of Practice

Option 2 is the recommended option.

11. Amenity strips in vehicle accessways

Should amenity strips within private accessways be better enabled and if so determine how this is best achieved (i.e. increasing the minimum legal width of accessways, limiting the length of accessways)?

11.1 Operative Plan

The issue of accessway amenity was raised in the initial Transport Baseline Report, but it was agreed that it was related to the Residential Topic and that further discussions were required.

The Residential Topic is investigating the appropriateness of the amenity strip widths and urban design requirements to deliver the desired levels of residential amenity and character. The outcomes of these investigations may result in recommendations to the vehicle accessway design standards.

This transport review will focus on the operational aspects of accessways, with the primary aim of identifying any possible design standards and subdivision assessment matters.

The Plan design requirements for Shared Private Vehicular Accessways in Townships are outlined in **Figure 11.1**. This table currently applies to accessways accessed by more than 1 site, hence 'shared'. Accessways serving a rear section are covered by E13.2.1.5. Most properties have direct road frontage access so do not require accessways but are subject to vehicle crossing rules.

Table E13.4 – Minimum Requirements for any Shared Private Vehicular Accessway

Zone	Potential No of Sites	Length (m)	Legal Width (m)	Carriageway Width (m)	Turning Area	Passing Bay
Living Zones	2-3	Any length	4.5	3.0	Optional	Optional
Living Zones	4-6	0-50	5.0	3.5	Optional	Required
Living Zones	4-6	Over 50	6.5	4.5	Required	Required
Business Zones	1-6	All lengths	7.0	5.0	Required	Optional

Figure 11.1 Minimum Requirements for any Shared Private Vehicular Accessway

The following rules and notes are associated with Table E13.4:

- *E13.2.1.2 - The minimum height clearance for any private vehicle access shall be 4.5m.*
- *E13.2.1.3 - Where a private vehicle access serves more than two allotments, in any zone, it shall be formed and sealed.*
- *E13.2.1.4 - Where turning areas are required in Table E13.4, this may be facilitated through the use of a hammerhead arrangement. Note: refer to the Council's Code of Practice for the design standard required.*
- *E13.2.1.5 - The minimum width of an accessway serving a single site in the Living Zones shall be 3.5m.*
- *Notes: Access to allotments with the potential to accommodate more than 6 dwellings in any Living zone or more than 6 sites in any Business zone shall be provided by way of a road, not a private way or access lot (refer to Rules C5.2.1.7 and C17.2.1.7). The legal width is greater than the carriageway width to ensure that there is space for suitable on-site stormwater management and landscaping.*

11.2 Best Practice Review

The Christchurch District Plan takes a different approach by categorising by activity rather than zone and uses the number of car park spaces (equating to number of residential properties) as a determinant of operational design requirements, see **Figure 11.2.** It also includes a maximum formed width that reflects the maximum vehicle crossings widths.

Table 7.5.7.1 - Minimum requirements for private ways and vehicle access

	Activity	Number of marked parking spaces provided (For residential activities, the number of residential units)	Minimum legal width (metres)	Minimum formed width (metres) (refer to b)	Maximum formed width (metres)	Central City Height (metres)
a.	Residential activity and offices	1 to 3	3.0 (refer to d)	2.7	4.5	3.5
b.	Residential activity and offices	4 to 8	3.6 (refer to d)	3.0	6.0	4.0
c.	Residential activity and offices	9 to 15	5.0 (refer to c and d)	4.0	6.0	4.0
d.	All other activities	1 to 15[1]	5.0 (refer to c)	4.0	7.0	4.0
e.	All activities	More than 15	6.5 (refer to c)	5.5	9.0	4.0

Figure 11.2 CCC Minimum Requirements for any Private ways and vehicle access

There are also notes associated with this table, with the following being of particular interest:

- *The difference between minimum formed width and minimum legal width may be utilised for planting.*
- *Any vehicle accesses longer than 50 metres and with a formed width less than 5.5 metres wide shall provide passing opportunities (with a minimum width of 5.5 metres) at least every 50 metres, with the first being at the site boundary.*
- *All vehicle access to and /or from a site in a residential zone, shall allow clear visibility above 1 metre within a triangle measured for a width of at least 1.5 metres either side of the entrance, and for a length at least 2 metres measured from the road boundary.*
- *For the purposes of access for firefighting, where a building is either:*
    - *located in an area where no fully reticulated water supply system is available; or*
    - *located further than 75 metres from the nearest road that has a fully reticulated water supply system including hydrants (as required by NZS 4509:2008),*
    - *vehicle access shall have a minimum formed width of 3.5 metres and a height clearance of 4 metres. Such vehicle access shall be designed to be free of obstacles that could hinder access for emergency service vehicles.*
- *Where a vehicle access serves nine or more parking spaces or residential units and there is no other pedestrian and/or cycle access available to the site then a minimum 1.5 metres wide space for pedestrians and/or cycle shall be provided and the legal width of the access shall be increased by 1.5 metres.*

11.3 Operative Plan Assessment

The Selwyn District Council ECoP includes a cross section detail (**Figure 11.3**) showing how the legal width relates to the formed width under two scenarios, one with kerb and channel and the other with a swale. There is no other detailed design guidance and this statement is included: "*As work within private ways, service lanes and accessways will not be taken over by the Council upon completion; the Council will be placing the onus for confirming both the suitability of design and construction on the developer.*"

There is no hammerhead turning area detail (as referred to in E13.2.1.4) within the ECoP however readers are directed to Figure 3.5 of NZS: 4404 Land development and subdivision infrastructure includes hammerhead details.

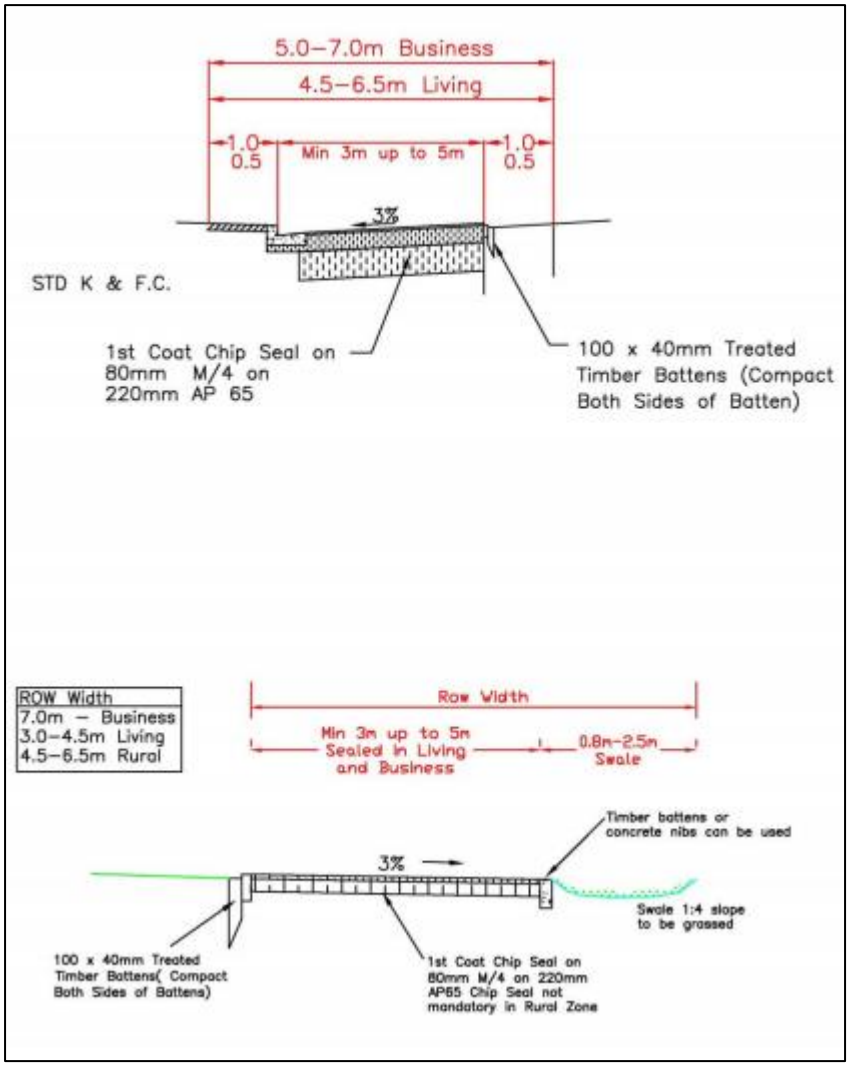


Figure 11.3 SDC ECoP Detail for ROW

The ECoP also states that "*Refuse and recycling collections will not be provided within private rights of way or service lanes unless the collection vehicles can safely negotiate the rights of way and exit or turn at their ends and in addition, the property owners indemnify Council against any damage to the carriageway that may occur as a result of use by the refuse/recycling vehicle. The specific requirements for either refuse/recycling truck access or refuse/recycling container storage areas at the road boundary needs to be considered. Council refuse and recycling trucks use a mechanical arm to lift and empty bins and need to be able to access the bins to lift these*."

There may be occasional delivery and furniture removal vehicles using accessways, the minimum widths allow for this albeit they would have to reverse in or out of the accessway.

Fire fighting vehicles may also require access. The Christchurch District Plan requires that buildings located further than 75 metres from the nearest road that has a fully reticulated water supply system including hydrants (as required by NZS 4509:2008), will require a vehicle access with a minimum formed width of 3.5 metres and a height clearance of 4 metres. Also, such vehicle accesses shall be designed to be free of obstacles that could hinder access for emergency service vehicles.

The width of accessways is also related to the width of vehicle crossings, the desired outcome for the latter is to keep the width narrow to reduce the adverse impacts on pedestrians along the frontage. Adverse impacts include the length of time pedestrians are exposed to motor vehicles entering and accessing private properties.

It is noted that there is no maximum length of accessway. However, as the maximum number of sites is six then the risk of long accessways is low. The adverse effects of long accessways is that they do not support a walkable environment and create issues for firefighting access.

Turning areas are required for long (more than 50m) Living and all Business accessways. It is not known if these are being provided and what form they take however one recent consented plan included accessways with mini cul de sac heads for turning. In reality the driveways off the end of an accessway can be used for turning.

A formed width of 5.5m will generally accommodate two-way traffic flow cars (when larger vehicles are present it is not comfortable). All of the minimum formed widths are less than this. Passing bays are only required for Living accessways (4-6 sites) of any length. There is no detail on how the passing bay can be facilitated.

It is not known if any passing bays are being provided for accessways of less than 5.5m width. Generally residential accessways are very low volume so that if two drivers travelling in opposite directions do meet in the accessway there is generally a driveway off the accessway that can be used for creating passing space.

The Operative Plan requirements are assessed below in **Table 12.1**. The assessment includes what aspects the widths can accommodate and the relationship to vehicle crossing widths. It is noted there is a vehicle crossing width requirement for non-residential activities in living zones but no accessway requirement for this scenario however it is unlikely that there would be multiple non-residential activities off an accessway in a living zone. It is also noted that E13.2.1.5 does not make sense as why should an accessway only serving 1 site be wider than an accessway serving 2 or more.

Table 11.1 Operative Plan requirement assessment

Zone	Potential number of lots	Minimum Legal width	Minimum Formed width	Assessment
Living 2-3 sites	Any length	4.5m	3.0m	This rule could apply to accessways serving 1-3 sites. Noting that this then includes driveways for rear sections that are currently covered by E13.2.1.5. It does not apply to sites with frontage to the road. This would require removing 'shared' from the table name. Allows for either kerb or swale stormwater management. The 1.5m space between the minimum legal width and formed width could be used for planting. Due to the low traffic volumes and speeds walking is acceptable within the formed width, sharing with motor vehicles. However, developers could choice to use the 1.5m space between legal width and formed to create a path for accessways users. Accommodating both planting and a path cannot be achieved in the minimum width. A maximum formed width of 6m could be specified to align with the SDC vehicle crossing width requirements,

Zone	Potential number of lots	Minimum Legal width	Minimum Formed width	Assessment
				like the CCC do, however this is only because they do not specify vehicle crossing widths. A width of 3.0m means two-way flow is not possible but given the low traffic volume this is not considered an issue. Minimum width is less than the Fire Fighting requirement of 3.5m if the access exceeds 75m in length.
Living 4-6 sites	Less than 50m long	5.0m	3.5m	Allows for either kerb or swale stormwater management. The 1.5m space between the minimum legal width and formed width could be used for planting. Due to the low traffic volumes and speeds walking is acceptable within the formed width, sharing with motor vehicles. However, developers could choice to use the 1.5m space between legal width and formed to create a path for accessways users. Accommodating both planting and a path cannot be achieved in the minimum width. A maximum formed width of 6m could be specified to align with the SDC vehicle crossing width requirements, like the CCC do, however this is only because they do not specify vehicle crossing widths. A width of 3.5m means two-way flow is not possible, a passing bay could be used for passing but this encroaches on any space that has been used for swales/planting.
Living 4-6 sites	More than 50 m long	6.5m	4.5m	Allows for either kerb or swale stormwater management. The 2.0m space between the minimum legal width and formed width could be used for planting. Due to the low traffic volumes and speeds walking is acceptable within the formed width, sharing with motor vehicles. However, developers could choice to use the 1.5m space between legal width and formed to create a path for accessways users. Minimum width is greater than the Fire Fighting requirement of 3.5m. A maximum formed width of 6m could be specified to align with the SDC vehicle crossing width requirements, like the CCC do, however this is only because they do not specify vehicle crossing widths. A width of 4.5m means two-way flow is not possible, passing bay/s could be used for passing this encroaches on any space that has been used for swales/planting.

Zone	Potential number of lots	Minimum Legal width	Minimum Formed width	Assessment
Business 1-6 sites	Any length	7.0	5.0	Allows for either kerb or swale stormwater management. Planting could be used in the 2m space between the minimum legal width and formed width. Depending on the nature of the activities being accessed (i.e. they may generate a high number of vehicle movements) walking may not be acceptable within the vehicle space, the 2m space between legal width and formed width could be used to form a path. The way to determine the vehicle movements would be via the number of visitor car park spaces, a suitable threshold could be applied as part of requiring a path. Accommodating both planting and footpaths cannot be achieved in the minimum width. Minimum width is greater than the Fire Fighting requirement of 3.5m. As the trip generation associated Business sites varies, the width should accommodate two-way flow, this would require an increase in minimum width to 5.5m (as per CCC requirement).

11.4 Recommendation

It is concluded that the accessway standards do to some extent allow for amenity through space between the minimum legal width and the minimum formed width for planting.

The requirements to cater for traffic movements and walking are generally acceptable from an operational perspective however the following recommendations are made to align with other Plan requirements, safety, efficiency and best practice:

- The Living Zones design requirements should be 1-3 sites not 2-3, making it clear that this does apply to sites with road frontage.
- Retain the minimum widths, a maximum formed width is not required as there are maximum vehicle crossing widths.
- Increase the Business Zone minimum formed width to 5.5m to accommodate two-way traffic flow.
- Introduce a requirement for a separate footpath in Business Zone accessways if there are more than a certain number of car park spaces as per the CCC requirement.
- Consider how passing could be facilitated and include a detail within the ECoP and Subdivision Design Guide.
- Turning areas are dependent on the driveway configuration at the end of accessways, consider the turning area being a subdivision assessment matter as opposed to a standard.
- Introduce a note regarding fire fighting access requirements (as per CCC).

A number of these may also apply to the Rural Shared Private Vehicle Accessway requirements, particularly the fire fighting aspect.

12. Rural

In relation to Rural Rule C4 Roads and Transport, Rural Appendix E10 Transport and Rural Appendix E11 Traffic Sight Lines, are the existing provisions adequate and appropriate?

12.1 Operative Plan

We note that operative Rural Rules C4.1 to C4.3 are concerned with the effect of roads on outstanding landscape areas, natural hazards and significance to Tangata Whenua. It is recommended that these provisions are reviewed by the relevant topic experts to confirm that they continue to remain relevant. These rules have not been reviewed in this Baseline Report.

Rural Rules C4.4 to C4.6 are assessed in this section with C4.7 and Appendix E11 assessed in Section 4. Within the District Plan Reasons for Rules the following is stated in regard to these rules;

Rules 4.4 to 4.6 set standards for the forming of roads, vehicle accessways, vehicle crossings and carparking as permitted activities. These standards are based on the Council's most recent Engineering Code of Practice. The rules apply irrespective of whether roads, vehicle accessways and vehicle crossings are formed when land is subdivided or when buildings are erected.

Road and Engineering Standards

A review of the rules associated with Road and Engineering Standards and comments are outlined in **Table 12.1Error! Reference source not found..**

Table 12.1 Road and Engineering Standards

Rule	Comments/ Recommendations
Permitted Activities — Road and Engineering Standards	
4.4.1 The forming, installation, upgrading, maintenance or replacement of any road shall be a permitted activity if the following standards are met: *4.4.1.1 Any part of any road does not have a gradient greater than:* *(a) 1:6 vertical; or* *(b) 1:20 horizontal.* *Rule 4.4.1.1 does not apply to private roads, vehicle accessways or tracks which are intended to be used solely by persons owning or occupying the property and are not located within the road reserve. The rules do apply to vehicle accessways or private roads which are shared between properties, or which are used to provide public access (with landholder's consent).*	The Selwyn District Council Engineering Code of Practice (ECoP) provides guidance on vertical and horizontal (crossfall) gradients. The vertical gradient is appropriate to be retained in the Proposed Plan because this aspect is considered safety critical and more problematic to change later. It is recommended that the horizontal gradient (crossfall) is not included in the District Plan as it is a detailed design matter and would be captured by the ECoP.
4.4.1.2 Any road is formed to the relevant standards set out in Appendix E10.3, except that E10.3.1 shall not apply to works to existing roads undertaken by Council pursuant to the Local Government Act;	The road standard associated with this rule are road reserve and carriageway widths. These widths reflect standard practice and no issues have been raised by SDC staff in relation to the widths. E10.3.2 is reviewed in Section 11.
Discretionary Activities — Road and Engineering Standards	
4.4.2 Any activity which does not comply with Rule 4.4.1 shall be a discretionary activity. *Notes: The Council may refer to its Engineering Code of Practice to assist it in deciding on any resource consent application made under Rule 4.4.2, where appropriate.*	No change required.

Vehicle Accessways and Vehicle Crossings

The rules associated with rural vehicle accessways and vehicle crossings and comments are outlined in **Table 12.2**.

Table 12.2 Vehicle Accessways and Vehicle Crossings

Rule	Comments/ Recommendations
Permitted Activities — Vehicle Accessways and Vehicle Crossings *4.5.1 The forming, installation, upgrading, maintenance or replacement of any vehicle accessway or vehicle crossing shall be a permitted activity if the following conditions are met:* *4.5.1.1Any part of any vehicle accessway does not have a gradient greater than:* *(a)1:6 vertical; or* *(b) 1:20 horizontal.* ***Note:** Rule 4.5.1.1 does not apply to private roads, vehicle accessways or tracks which are intended to be used solely by persons owning or occupying the property and are not located in the road reserve. The rules do apply to vehicle accessways or private roads which are shared between properties, or which are used to provide public access (with landholder's consent).* *4.5.1.2 Any vehicle accessway is formed to the relevant design and formation standards set out in Appendix E10.2.* *4.5.1.3 Any vehicle accessway complies with the relevant separation and sight distance standards set out in Appendix E10.2.* *4.5.1.4 Any vehicle crossing which has a gate positioned across the vehicle crossing, has the gate either opening inwards towards the property and away from the road; or setback a minimum distance of 10 metres from the road boundary;* *4.5.1.5 Any vehicle crossing providing vehicle access to a sealed road is sealed:* *(a) The full length of the vehicle crossing (from the edge of the sealed carriageway to the road boundary of the property), or;* *(b) For the first 10 metres from the sealed carriageway.* *4.5.1.6 Any access to a State Highway or Arterial Road complies with the following:* *(a) No legal access is available from another lower classification road;* *(b) For State Highways only, the traffic generated through the access to the State Highway is less than 100 ecm/d;* *(c) The vehicle accessway or vehicle crossing complies with the performance criteria given in Appendix E10.2.2, 10.2.3 and E10.2.4;* *(d) Provision is made for manoeuvring on site, so that reverse manoeuvring onto the State Highway or Arterial Road is not required.* *4.5.1.7 Shared access to more than six sites shall be by formed and vested legal road and not by a private accessway.* *4.5.1.8 Any site with more than one road frontage to a road that is formed and maintained by Council, shall have access to the formed and maintained (and legal) road with the lowest classification.*	All rules are considered appropriate. However, similar to the previous rule, it is recommended that the horizontal gradient (crossfall) is not included in the District Plan as it is a design matter and would be captured by the ECoP. Table E10.2, Rural Accessway, is subject to the same issues as outlined for the Township Volume equivalent in Section 11 of this report. These include updating design standards and referencing the ECoP. Table E10.3, Min distance between vehicle crossings and intersections, is subject to the same issues as outlined for the Township equivalent in Section 8 of this report. These include removing the State Highway minimum distances and referring applicant's to NZTA's requirements, replacing "vehicle crossing going to" with "Frontage Road" and including a diagram to illustrate how the design distances are to be met. It is noted that the following also apply for certain activities, it is assumed that there have been no issues with these requirements. E10.2.2.4 - Notwithstanding Rule E10.2.2.1 above, for any: (a) service station; or (b) truck stop; or (c) any activity which generates more than 40 vehicle movements in any one day; No part of any vehicle crossing onto any State Highway road or arterial road shall be located closer than: (d) 60m to the departure side of any intersection; and/or (e) 30m to the approach side of any intersection. Table E10.4, Sight distances from vehicle crossings, is subject to the same issues as outlined for the Township equivalent in Section 13 of this report. These include updates to the rural design diagrams.

Rule	Comments/ Recommendations
Note: *For example, where a site has frontage to both an arterial road and a local road access shall be to the local road.*	
Restricted Discretionary Activities — Vehicle Accessways and Vehicle Crossings *4.5.2 Any activity which does not comply with Rule 4.5.1.6 shall be a restricted discretionary activity.* *4.5.3 The Council shall restrict its discretion to the exercise of:* *4.5.3.1 Whether the crossing is sufficiently removed from an intersection having regard to traffic volumes on the roads, and any other factors that will prevent conflict and confusion between vehicles turning at the crossing or at the intersection;* *4.5.3.2 The adequacy of available sight distances having regard to the 85th percentile operating speed of vehicles on the road;* *4.5.3.3 Whether there is a need to separate entry and exit in order to reduce potential traffic confusion and conflict;* *4.5.3.4 Whether the physical form of the road will minimise the adverse effects of access (e.g. whether the road offers good visibility; whether a solid median barrier will stop unsafe right turns or a flush median will assist right hand turns etc);* *4.5.3.5 Whether particular mitigation measures such as a deceleration or turning lane are required due to speed or volume of vehicles on the road;* *4.5.3.6 The design of the crossing to enable traffic exiting the site to safely enter the traffic stream;* *4.5.3.7 The location and design of the crossing in relation to pedestrian and cycle safety;* *4.5.3.8 Whether there is adequate queuing and parking space on site so that vehicles do not queue over vehicle crossings or on the State Highway or Arterial Road;* *4.5.3.9 Any potential cumulative effects of extra access points on the function of the State Highway or Arterial Road;* *4.5.3.10 Any relevant accident history of the State Highway in the vicinity of the site; and* *4.5.3.11 The particular traffic characteristics of an existing or proposed activity, including expected traffic generation, types of vehicles etc*	The matters of discretion are considered appropriate.
Discretionary Activities — Vehicle Accessways and Vehicle Crossings *4.5.4 Any activity which does not comply with Rules 4.5.1.1, 4.5.1.2, 4.5.1.3, 4.5.1.5(a), 4.5.1.7 or 4.5.1.8 shall be a discretionary activity.* ***Note:*** *The Council may refer to its Engineering Code of Practice to assist it in deciding on any resource consent application made under Rule 4.5.4, where appropriate.*	The matters of discretion are considered appropriate.
Non-Complying Activities — Vehicle Accessways and Vehicle Crossings *4.5.5 Any activity which does not comply with Rules 4.5.1.5(b) or 4.5.1.6 shall be a non-complying activity.*	The matters of discretion are considered appropriate.

Rule	Comments/ Recommendations
Appendix E10.2	Amend E10.2.1.2 as below by deleting the reference to Table E10.2 as all shared private vehicle accessways require turning areas and add the word 'Engineering'; E10.2.1.2 - ~~*Where Table E10.2 requires turning areas.*~~ *Turning within the shared accessway may be facilitated through the use of a hammerhead arrangement. Note: refer to the Council's* ***Engineering*** *Code of Practice for the design standard required*. Also see Section 12 for an operational review of accessway requirements. All other Tables in E10.2 are reviewed in Section 13.

Vehicle Parking and Cycle Parking

A review of the rules associated with rural vehicle parking and cycle parking are outlined in **Table 12.3**.

Table 12.3 Vehicle Parking and Cycle Parking

Rule	Comments/ Recommendations
Permitted Activities — Vehicle Parking and Cycle Parking *4.6.1 Any activity in the Rural Zone which provides car parking in accordance with the following standards shall be a permitted activity.* *4.6.1.1 Two car parking spaces on-site for each dwelling without a family flat; or* *4.6.1.2 Three car parking spaces on-site for each dwelling with a family flat; and* *4.6.1.3 For any other activity:* *(a) all car parking associated with an activity must be located either on-site or on land adjoining the site and not on the road reserve; and* *(b) all loading (including unloading) associated with an activity must be undertaken on-site or on land adjoining the site and not within the road reserve; and* *4.6.1.4 All carparking and loading areas shall comply with all standards set out in Appendix E10.1.* *4.6.2 Any activity on a site which has a vehicle manoeuvring area of sufficient size to enable any vehicle to turn on the site and not have to reverse onto the road shall be a permitted activity if:* *4.6.2.1 The site is used for any activity other than residential activities; or* *4.6.2.2 The site has access to a State Highway or an arterial road listed in Appendix 9.* ***Note:** Refer to the Council's most recent Code of Practice for the design standards required for the manoeuvring of vehicles.* *4.6.3 Any activity which involves the provision of goods or services to the general public shall be a permitted activity if the following conditions are met:*	The rule heading includes cycle parking, but there are no rules associated with cycle parking. We recommend including a note in the rule stating that there is no requirement for cycle parking in the rural zone. However, any activity that is likely to attract cyclists must provide adequate cycle parking designed to the standard provided in the Engineering Code of Practice. Rule 4.6.1.3 states that parking should be provided on site or on land adjoining the site and not on the road reserve. However, in some instances due to the increase in business/ popularity, parking demand could overspill on to the road reserve compromising the operation and safety of the road corridor. Therefore, we recommend including a matter of discretion where the future parking demand of the activity should be considered when evaluating the car parking provision of the activity and that periodic parking monitoring could be imposed as a condition of consent. This issue and approach to the management of it is consistent with the Draft Parking Strategy.

Rule	Comments/ Recommendations
4.6.3.1 One disabled carpark is provided with the first 10 carparking spaces; and one additional disabled carpark space for every additional 50 carparking spaces provided. *4.6.3.2 The disabled carparks are:* *(a) Located as close to the entrance to the building or the site of the activity as practical;* *(b) Sited on a level surface; and* *(c) Clearly marked as being for mobility-impaired persons.*	This requirement is less than NZS 4121 but given the rural context there will be limited car parking on site for most activities, the implications of this are minimal.
Controlled Activities – Vehicle Parking and Cycle Parking *4.6.4 Any development of a parking area with a total of 40 or more parking spaces shall be a controlled activity, in respect to safety, circulation and access for pedestrians within the site and moving past vehicle crossings*	Appropriate
Restricted Discretionary Activities — Vehicle Parking and Cycle Parking *4.6.5 Any activity which does not comply with Rule 4.6.3 shall be a restricted discretionary activity.* *4.6.6 The Council shall restrict its discretion to consideration of:* *4.6.6.1 Whether there is likely to be a demand for parking for mobility impaired person, given the nature of the activities being undertaken on the site;* *4.6.6.2 Whether there is any need to provide specific carparking for mobility impaired persons on the site, given the size and nature of the carparking area and the location of the activity relative to the carparking area; and* *4.6.6.3 Any monitoring or review conditions.*	Consider amending matter of discretion 4.6.6.1 to the following text; '*Whether there is likely to be a lower demand for parking for mobility impaired person than required by Rule 4.6.3 given the nature of the activities being undertaken on site'*. Any reduction will need to be communicated to the Building Consents team if a building consent is required so they can see why the provision is less.
Discretionary Activities — Vehicle Parking and Cycle Parking *4.6.7 Any activity which does not comply with Rule 4.6.1 shall be a discretionary activity.*	Appropriate
Non-Complying Activities — Vehicle Parking and Cycle Parking *4.6.8 Any activity which does not comply with Rule 4.6.2 shall be a non-complying activity.*	Appropriate
Appendix E10.1	Table E10.1 column two needs to be amended as degrees are shown as zero values. The disabled parking stall width in Table E10.1 is 3.2m but is 3.6m in Figure E10. The table value should be changed to 3.6m. Recommend NZS 4121:2001 Design for Access and Mobility – Buildings and associated Facilities is referenced in the notes for Table 10.1 as this contains useful design aspects. However it suggests a minimum width of 3.5m as this allows for the car and wheelchair to be on the same level when a person is transferring from one to the other. Recommend retaining 3.6m in the Plan as it is consistent with industry best practice.

Rule	Comments/ Recommendations
	Diagram E10.F illustrates a 6.1m stall depth for parallel parking spaces. However, Table E10.1 permits parallel parking spaces with 5.4m stall depths. Amend Table E10.1 from 5.4 to 6.1m (also consistent with CCC). Also, Note 3 on overhang does not apply to parallel parking spaces. Table E10.1 should be laid out so the parking angle is in separate rows to avoid the multiple values being in each table cell – suggest the same format as the CCC Table 7.5.1.3. Revise E10.1.4 Gradient of Parking and Loading Spaces to include the following; *c) gradient of mobility parking spaces ≤1:50.*

12.2 Conclusion

These rules are generally appropriate however the following recommendations are made;

- Remove any reference to horizontal gradient (crossfall) in the District Plan as it is a design matter and would be captured by the ECoP.
- Amend Rule 4.6.1.3 to address the issue of car parking overflowing on to road reserves.
- Amend Matter of Discretion 4.6.6.1 wording to clarify a differing demand for mobility parking than the requirement.
- Amend Appendix E10.1 and E10.2 as recommended in this section and Section 14.
- Amend tables in E10 as per recommendations made for the Township equivalents in Sections 8, 11 and 13
- Restructure the parking design tables as per the Christchurch District Plan so they are clearer to read in terms of angle of parking and type of user.

13. Diagrams - Rural

Are the existing diagrams in Rural Appendices E10 Transport & E11 Traffic Sight Lines adequate and appropriate?

13.1 Operative Plan

The majority of vehicle accessway diagrams in the District Plan are from the NZ Transport Agency Planning Policy Manual (PPM), Appendix 5B – Accessway standards and guidelines (2007). Historically the values in these PPM diagrams were consistent with sight distances in Austroads Guide to Road Design Part 4A, however are now inconsistent as the Austroads guide was updated in 2017 and sight distances increased to reflect the object height being increased to 1.25m from 1.1m. The NZ Transport Agency have confirmed that the PPM is currently under review, the timing the reissue of the document is not known.

Table 13.1 reviews the diagrams in Appendix E10 and recommends any changes that are required.

Table 13.1 Rural Appendices E10 and E11 review

Diagram	Comments
E10.A1 – Sight Distances Measurement and State Highway/Arterial sight distance values	The diagram is consistent with '*Diagram A: Accessway Sight Lines*' of NZTA PPM Appendix 5B – Accessway standards and guidelines. The minimum sight distance values were consistent with Austroads Guide to Road Design Part 4A: Unsignalised and Signalised Intersections Table 3.2 until it was updated in 2017. This diagram is useful in that it shows how the sight distance is measured, however the sight distance values are likely to change as part of the PPM review. Consider removing this diagram given that the PPM is under review and it is likely that this diagram will be updated to reflect current Austroads values and speed management approach that does not include 70km/hour speed limits. A diagram showing the sight distance measurement would still be useful for Plan users.
E10.A2 – Access Separation From Intersections	A simplified diagram is required. The method used to measure the separation distance is inconsistent between the Township volume and the Rural volume. The Rural volume measures the minimum distance from the centreline of the intersecting road to the centre of the vehicle crossing whereas the Township volume measures the sight distance from the kerb line or formed edge of intersecting road to the closest point of the vehicle crossing. A consistent method should be used to avoid any ambiguity.
E10.B1 – State Highways - Low Use Access Standard (up to 30 ecm/day)	Consider removing this diagram given that the PPM is under review and it is likely that this diagram will be updated to reflect current Austroads values and speed management approach that does not include 70km/hour speed limits.
E10.B2 – State Highways - Moderate Use Access Standard (31-100 ecm/day)	Consider removing this diagram given that the PPM is under review and it is likely that this diagram will be updated to reflect current Austroads values and speed management approach that does not include 70km/hour speed limits.

Diagram	Comments
E10.C1 – Vehicle Crossing – Residential access standard for local roads	Remove the word 'Residential' from the diagram name to be consistent with the ECoP. This ensures that access to other building types or activities, such as barns or stockyards is covered.
E10.C2 – Vehicle Crossing - Residential access standard for arterial and collector roads	Remove the word 'Residential' from the diagram name to be consistent with the ECoP. This ensures that access to other building types or activities, such as barns or stockyards is covered.
E10.D – Vehicle Crossing – Commercial and heavy vehicle access standard for all roads	The diagram shows a measurement as 'Varies' however instructions on how to calculate that measurement is not included. The following options are recommended; 1. Update the diagram to include a specific length similar to the CCC diagram or 2. Include a note on how to calculate the required distance.
E10.E – Sight distance at railway lines	To be updated as per KiwiRail advice detailed in Section 4
E10.F – Car parking	Recommend including the kerb overhang line in the car parking layout diagram similar to CCC.
Table E10.4 – Minimum Sight Distances	The diagram heading states that the minimum distance only applies to State Highways and Arterials however the table heading includes Collector Roads. Remove reference to Collector Road from the table heading.

13.2 Recommendation

The following changes are recommended;

- Update diagrams to be consistent across the Rural, Residential and Business chapters, with neighbouring councils and as per KiwiRail advice relating to sightline design requirements and subdivision assessment matters.
- Amend text or include notes in diagrams for clarity.

14. Diagrams - Townships

Are the existing diagrams in Townships Appendix E13 adequate and appropriate?

14.1 Operative Plan

Table 14.1 reviews Appendix E13 diagrams and recommend changes as required based on best practice transport engineering, a comparison against other district plans and advice from Council staff and other relevant stakeholders.

Table 14.1 Township Appendix E13 Diagram Review

Diagram	Comments
E13.1 – Car Parking	We recommend including the kerb overhang line in the car parking layout diagram similar to CCC.
E13.2 – Sight Distance Measurement and State Highway/Arterial Sight Distance Values	This diagram is the same as E10.A1 and therefore subject to the same issues outlined in Section 13, which is to remove the SH requirements.
E13.3 Traffic Sight Lines at Railway Crossings	To be updated as per KiwiRail guidance detailed in Section 4.
E13.4 - State Highways and Arterial Roads - Access Separation From Other Accesses	The table within the diagram is inconsistent with the values in Table E13.5. Table E13.5 will be updated as per Section 11 by removing the State Highway values.
E13.5 – Access Separation From Intersection	Same issue as E10.A2 A simplified diagram is required. The method used to measure the sight distance is inconsistent between the Township volume and the Rural volume. The Rural volume measures the minimum distance from the centreline of the intersecting road to the centre of the vehicle crossing whereas the Township volume measures the sight distance from the kerb line or formed edge of intersecting road to the closest point of the vehicle crossing. A consistent method should be used to avoid any ambiguity.
Table E13.2 — Minimum Car Park Dimensions	The disabled parking stall width in table E13.2 is 3.2m but is 3.6m in Diagram E13.2. The table value should be changed to 3.6m. Recommend making reference to NZS 4121:2001 Design for Access and Mobility – Buildings and associated Facilities in the notes on Table 13.1 as this contains useful design aspects. However it suggests a minimum width of 3.5m as this allows for the car and wheelchair to be on the same level when a person is transferring from one to the other. 3.6m is used as an industry best practice so recommend retaining 3.6m in the Plan. Diagram E13.1 shows the stall depth of parallel parking spaces as 6.1m however Table E13.2 permits parallel parking spaces with 5.4m stall depths. Amend Table E13.2 to 6.1m stall depth. Also consider table reformatting as suggested in Section 2.

14.2 Recommendation

The following changes are recommended;

- Update diagrams to be consistent across the Rural, Residential and Business chapters and in accordance with stakeholder advice, best practice transport engineering, staff advice and comparison district plan review
- Amend text or include notes in diagrams for clarity.

15. Summary of Findings

High level issue

The State Highway requirements are generally from the NZ Transport Agency Planning Policy Manual (PPM). Historically the values in these PPM diagrams were consistent with sight distances in Austroads Guide to Road Design Part 4A, however are now inconsistent as the Austroads guide was updated in 2017 and sight distances increased to reflect the object height being increased to 1.25m from 1.1m. The NZ Transport Agency have confirmed that the PPM is currently under review, the timing the reissue of the document is not known. This creates an issue for Councils reviewing their Plans. One approach could be to remove the PPM diagrams and add a reference to the PPM, however this is problematic given a document date must be specific. This note as per the Auckland Unity Plan approach could be an alternative approach as by default this requires applicants to reference NZ Transport Agency documents:

> *Note: All access to the State Highway network (including changes to existing access and subdivision or change in land use utilising an existing access) require the approval of the New Zealand Transport Agency under the Government Roading Powers Act 1989. This approval is separate and additional to any land use or subdivision consent approval required. Refer to the New Zealand Transport Agency's Christchurch Office.*

Requirements that require no changes

It is concluded that there is no planning mechanism that enables the District Plan road hierarchy to be kept up to date with road upgrades without a plan change (carried out under the 1st Schedule of the RMA). Although feasible for other matters, such as vesting roads upon completion, deeming provisions cannot be used for this purpose. If in five years' time there are also further new collector and arterials to add to the District Plan then a specific Plan Change should be considered.

It was concluded that the corner splays requirements do not require amendment as they are delivering the desired outcomes to meet Selwyn District needs from a safety and future proofing perspective.

The review identified that there is a need to retain the difference between a standard and a heavy-duty crossing as this is related to the depth of construction and kerb strength. The difference should be retained to ensure vehicle crossings are designed and constructed to accommodate the expected traffic type.

It also identified that the vehicle crossing standards should be different between townships and rural areas as the speed environment, land use and vehicle movement volume and type are some of the characteristics that are considered when the vehicle crossing is designed.

Changes recommended

The review has identified a number of amendments that are required and also identified some options for consideration. **Table 15.1** outlines the aspects and required action.

Table 15.1 Summary of Changes required and options to consider

Volume	Rule/ Figure	Recommendation	Amendment required	Options to be considered
Township and Rural	*Rail – Objectives and Policies*	To be updated with consideration of KiwiRail and SDC staff recommendations.	**Yes**	
	Rail - Diagrams E13.3 and E10.E – Sight distance at railway lines	To be replaced with the diagrams as per KiwiRail advice detailed in Section 3.	**Yes**	
	Road Hierarchy - Appendix E7 and E9	Update the schedule of classified roads as per Section 4.	**Yes**	
	Road Hierarchy - all chapters	Replace reference to Strategic Roads to State Highway.	**Yes**	

Volume	Rule/ Figure	Recommendation	Amendment required	Options to be considered
	Parking - Diagram E13.1 and Table E13.1 and Diagram E10.F and Table E10.1	Update the diagrams and tables as per the recommendation in Section 11 (Rural) and Section 14 (Townships).	**Yes**	
Township	*Appendix E13.2.2 and associated Table E13.5 (distance of vehicle crossings from road intersections)*	Status Quo with amendments (remove SHs and make clear which is the frontage road). See Section 8.	**Yes**	
	Appendix E13 Table E13.7 (distance between vehicle crossings on same side of the road)	Status Quo and introduce an assessment matter. See Section 9. Introduce a diagram to show how is measured (see Section 7).	**Yes**	
	Appendix E13 Table E13.9 (minimum distance between intersections for new roads	Status Quo or consider removing the minimum requirement for intersections on roads with a speed limit of 50km/h or less and introduce an assessment matter. See Section 11.		**Yes**
	Townships Appendix E13.2.5	Add notes directing to Engineering Code of Practice.	**Yes**	
	E13.4 Accessways	Revise the minimum formed width requirements in the co-ordination with Residential Topic area. See Section 11 and consideration fire fighting requirement note and Business Zone path requirement related to number of visitor car parks provided. Introduce a diagram to show the various dimensions (see Section 7).	**Yes**	
Rural	*Rule 4.6.1*	Remove reference to cycle parking and include a matter of discretion regarding future car parking demand. See Section 12.	**Yes**	
	Rule 4.4.1.1	Remove any reference to horizontal gradient as this is a design issue covered by the Engineering Code of Practice. See Section 12.	**Yes**	
	E10.A2 – Access Separation from Intersections	Amend the method used to measure distance to be consistent between the two volumes. See Section 12.	**Yes**	
	E10.B1 and B2 – State Highways - Access Standards	Either retain these and update as a Plan Change when the PPM is reissued or remove from the Plan and add note that access from State Highway is subject to NZTA approvals		**Yes**
	E10.C1 and C2 – Access diagrams	Remove the word 'Residential' from the title.	**Yes**	
	E10.D – Vehicle Crossing – Commercial and heavy vehicle access standard for all roads	Include note in regard to calculations. See Section 12.	**Yes**	

Appendix A – KiwiRail Feedback

A1 – Letter of 25 September 2018

A2 – Letter of 17 October 2018

A1 – Letter of 25 September 2018

A1 – Letter of 25 September 2018

25 September 2018

Selwyn District Council

Selwyn District Plan Review Team

By email: Craig.Friedel@selwyn.govt.nz

KiwiRail feedback on transport Options

Dear Craig

1 KiwiRail appreciates the opportunity to comment on the draft Selwyn District Plan Options Reports and is keen to fully participate in the Plan development process.

2 KiwiRail has provided feedback based on the 22 August Options report and taken the opportunity to provide information about its latest technical standards at this time.

Background

3. KiwiRail Holdings Limited (KiwiRail) is the State-Owned Enterprise responsible for the management and operation of the national railway network. This includes managing railway infrastructure and land, as well as rail freight and passenger services within New Zealand. KiwiRail Holdings Limited is also the Requiring Authority for land designated "Railway Purposes" (or similar) in District Plans throughout New Zealand.

4. The key controls KiwiRail will seek to be included the Proposed Plan include;

- setbacks from the railway corridor boundary for amenity and safety reasons – 5metres(m) for all buildings in all zones, 10m for forestry replanting within 5 years (not covered by NES Forestry)
- level crossing safety sight line protection through a standard diagram (at stop and give way crossings), vehicle access way setbacks to 30m at level crossings;
- noise and vibration performance standard for noise sensitive activities in all zones within 100m of operational railway corridors
- provision for railway corridor operations to continue and to allow it to be maintained and upgraded usually through supportive 'Network Utility' provisions
- continued designation protection and an underlying zoning or transport zone for railway corridors which provides for rail activities and which allows for permitted activities from the zoning of adjacent sites to also be undertaken

Transport

5. KiwiRail manage two railway corridors through the district, the Main South line and the Midland line. There are 53 level crossings where the rail network interfaces with the road network in Selwyn District. The Rolleston Industrial Zone has two "Inland ports" with road and rail freight transport and distribution connectivity that includes rail sidings into some key activities in the industrial area.

Managing activities in the road reserve

6 KiwiRail is a requiring authority and a network utility operator under Section 176 of the Resource Management Act 1991. The 22 August Transport Options report notes that the Utilities chapter will be enhanced to include roading activities. KiwiRail is keen to ensure that activities permitted within road corridors which can equally apply to railways are treated similarly in the Plan. Examples of activities commonly found in both corridors include:

- roads, tracks and access ways
- footpaths, footways and footbridges, bridges for rail, tunnels, retaining walls for rail both above and below the road
- cycle facilities
- traffic operation and safety signs, direction signs, site name signs
- ancillary equipment and structures associated with public transport systems including seats, shelters, real time information systems and ticketing facilities, bicycle storage and cabinets and lighting
- traffic control devices including traffic signals and support structures, cabinets and ancillary equipment associated with traffic signals
- devices associated with intelligent transport systems including vehicle detection systems CCTV cameras, emergency telephones, cables and ducting etc

7 As you are aware, KiwiRail is actively involved in the Utilities Working Group which is developing draft Network Utility national standards. KiwiRail agrees that the new Transport and Infrastructure sections will need to be carefully coordinated to provide for the district's utilities logically, and without duplication.

Special Transport or Underlying zone

8 Section 6.1 discusses the options of an underlying zoning or a Special zoning for road reserves, selecting the former. KiwiRail have had experience of different types of zoning given to the railway corridor including both that of the adjacent zone (to the centreline), or a Special Transport Zone.

9 KiwiRail considers that a Transport zone provides a more efficient means of achieving national consistency and certainty for the community and KiwiRail. A Transport Zone would allow for a suite of land transport standards to be developed, a permitted baseline of effects to be established and can allow for permitted activities from the zoning of adjacent sites to be undertaken.

10 In KiwiRail's experience the adoption of an adjoining zoning, with zoning changes along its length, can cause confusion and make it inefficient at times to try and establish a permitted baseline for effects. However, in the absence of the recently notified draft National Planning Standard providing such a zone option, adopting proposed Option 2 does provide for the interim use of land held or not immedately required for the railway, and for the development of the corridor as a network utility. KiwiRail's main requirement for Plans on this issue is a consistent approach throughout the district.

11 It should be noted that issues can arise if there's no distinction made in Utilities provisions or in objectives/policies between state highways(SH's) , railways and 'local roads', as some standards or setbacks should only apply to SH's and railways.

Integrated Transport Assessments

12 Given the number of level crossings in the District, it would be prudent for the Plan to address the effects that new development has on crossing safety and the requirement that they may need to be upgraded (including the extent to which funds may be required from the developer towards upgrades). Level crossing grant arrangements with KiwiRail currently require contributions from the Council towards upgrades.

13 To quantify these assessments KiwiRail has developed a Level Crossing Risk Assessment Guideline (LCSIA). A key component of the process is the Level Crossing Safety Score (LCSS). Together with the traditional ALCAM level crossing risk model score, the LCSIA also looks at three additional data sources associated with crash risk: historical crash and incident data, safety observations made by locomotive engineers and road controlling authority engineers, and a more detailed site assessment of the impact of the existing level crossing layout on traffic/cyclists/pedestrians and their interaction with it and the surrounding transport network. A copy of the LCSIA Guidance document is enclosed. NZTA's Safer Roads project also uses LCSIA to identify what measures should be deployed at level crossings on/near State Highways to make them safer. As the Council is partly responsible for upgrades at public crossings there needs to be consideration of where and how these costs may be recovered and the LCSIA process provides a technical process to assess changes in risk levels and from there, to apportion upgrade costs.

14 KiwiRail is keen to ensure that ITA criteria address effects on level crossings and contain trigger levels - which we will further consider and provide in the next round.

Appendix 2: items where no change is recommended

15 On page 229 of the Options report the 3rd item notes that the *'protection of the Strategic Transport Network will be dealt with in the Noise and Vibration topic'*. This is acceptable for reverse sensitivity issues however the protection of the strategic transport network is an overarching Plan issue and certain technical standards may not logically 'fit' within the Nosie and Vibration section. For example, the 5m setback sought below is a safety and amenity control – it is not connected with acoustic protection. KiwiRail concur that Plan staff should work closely together on to ensure that these distinctions and interrelationships find the right Plan location; so rules are easy to find and fully supported by overarching objectives and policies.

KiwiRail transport related standards

16 KiwiRail like to take the opportunity to provide the Council with its revised Level Crossing sightline diagrams as there are currently two dated versions in the Operative Plan;

- Level crossing sightline diagram Rule 4.7.1 referring to Rural Diagram Appendix 10 Diagram E10.E

- Level crossing sightline diagram labelled Road/rail level crossings Urban Rule 5.4 Appendix 13 Diagram E13.3

17 The Plan review should take the opportunity to rationalise these diagrams and replace them with the following. It is noted that non-compliance with either rule is a non-complying activity. KiwiRail will support this approach however we generally seek Restricted Discretionary Activity (RDA) status for non-compliance with this standard.

Level crossing sightline controls

18 Revised level crossing sightline controls and RDA criteria are provided below. The sightline standard avoids the poor location of land uses which can obstruct sight lines for uncontrolled railway level crossings. One of the key factors in maintaining safety is to ensure road vehicle drivers are presented with sufficient visibility along the rail tracks and obstructions do not block the visibility of level crossing signs or alarms to approaching drivers. The larger 'approach' sightline controls apply at Give Way level crossings only, whereas the longer, but shorter 'restart' sightlines apply at both Stop and Give way controlled intersections.

Approach sight triangles at level crossings with Give Way signs

On sites adjacent to rail level crossings controlled by Give Way Signs, no building, structure or planting shall be located within the shaded areas shown in Figure 1. These are defined by a sight triangle taken 30 metres from the outside rail and 320 metres along the railway track.

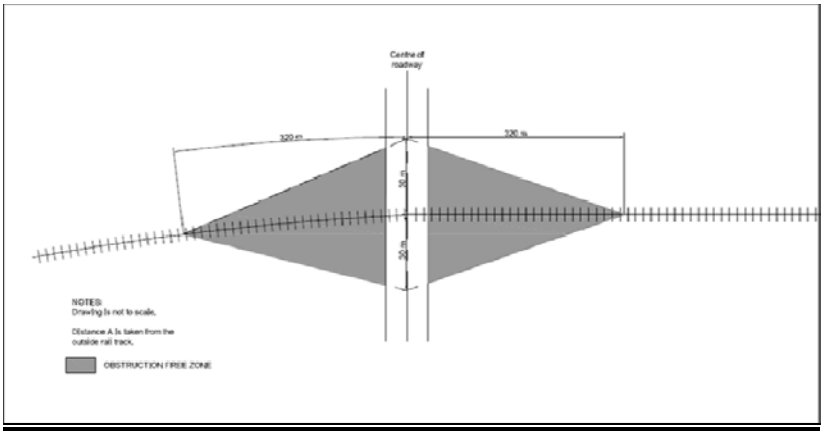


Figure 1: Approach Sight Triangles for Level Crossings with Give Way Signs

Advice Note:

The approach sight triangles ensure that clear visibility is achieved around rail level crossings with Give Way signs so that a driver approaching a rail level can either:

- *See a train and stop before the crossing; or*
- *Continue at the approach speed and cross the level crossing safely*

Of particular concern are developments that include shelter belts, tree planting, or a series of building extensions. These conditions apply irrespective of whether any visual obstructions already exist.

Restart sight triangles

On sites adjacent to rail level crossings controlled by Stop or Give Way Signs, no building, structure or planting shall be located within the shaded areas. These are defined by a sight triangle taken 5 metres from the outside rail and 677 metres along the railway track.

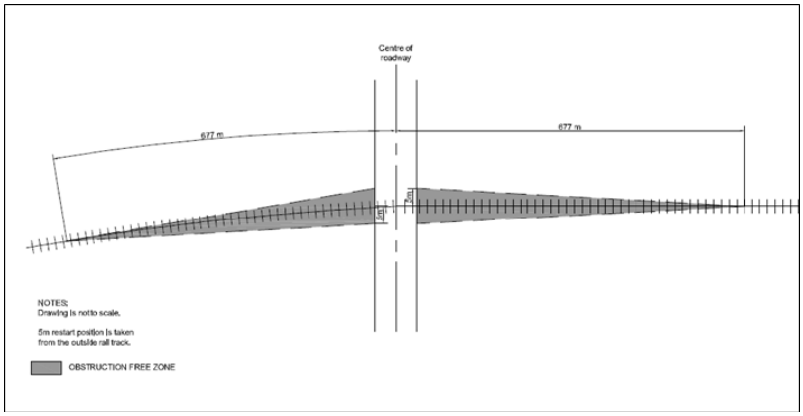


Figure 2: Restart Sight Triangles for Level Crossings

Table 1: Required Restart Sight Distances for Figure 2

Required approach visibility along tracks A (m)

Signs only	*Alarms only*
677 m	*677 m*

Advice Note:

The restart sight line triangles ensure that a road vehicle driver stopped at a level crossing can see far enough along the railway to be able to start off, cross and clear the level crossing safely before the arrival of any previously unseen train. Of particular concern are developments that include shelter belts, tree planting, or a series of building extensions.

Notes:

1. Figures 1 and 2 show a single set of rail tracks only. For each additional set of tracks add 25 m to the along-track distance in Figure 1, and 50 m to the along-track distance in Figure 2.

2. All figures are based on the sighting distance formula used in NZTA Traffic Control Devices Manual 2008, Part 9 Level Crossings. The formulae in this document are performance based; however, the rule contains fixed parameters to enable easy application of the standard. Approach and restart distances are derived from a:

- *train speed of 110 km/h*

- *vehicle approach speed of 20 km/h*
- *fall of 8 % on the approach to the level crossing and a rise of 8 % at the level crossing*
- *25 m design truck length*
- *90° angle between road and rail*

19 As previously noted, KiwiRail generally seeks that rules non-compliances be considered as RDA's. Matters of discretion can include;

- The extent to which the safety and efficiency of rail and road operations will be adversely affected
- The outcome of any consultation with KiwiRail
- Any characteristics of the proposed use that will make compliance unnecessary

Application for resource consent under this rule can be decided without public notification. KiwiRail is likely to be the only affected person determined in accordance with section 95B of the Resource Management Act 1991.

Vehicle access way setbacks

20 KiwiRail supports the retention of the Operative Plan rule E13.2.2.3 30metre access way setback from level crossings;

'*No part of any vehicle crossing shall be located closer than 30 metres to the intersection of any railway line as measured from the nearest edge of the vehicle crossing to the limit line at the level rail crossing.'*

21 This ensures that the potential conflicts between new vehicle access ways and level crossings are avoided. Level crossing accidents, whilst rare, are severe. The 30metre distance enables sufficient stacking distance between the level crossing and the adjacent access way and minimises the risk of traffic being stopped across the railway line. It allows space for vehicles to wait/stop at level crossings (including longer trucks and rural vehicles), without frustrating someone trying to get in or out of an adjacent site.

22 KiwiRail generally seeks that rule non-compliances be considered as RDA's.

Matters of discretion should be restricted to:

- The extent to which the safety and efficiency of rail and road operations will be adversely affected
- The outcome of any consultation with KiwiRail
- Any characteristics of the proposed use that will make compliance unnecessary

Application for resource consent under this rule will be decided without public notification. KiwiRail is likely to be the only affected person determined in accordance with section 95B of the Resource Management Act 1991.

5m building setback

23 KiwiRail seeks that a new 5m setback rule be added to the Plan applying to all new building development adjacent to operational railway corridor boundaries. The construction and alteration of a building meeting a setback of 5m from an operational railway corridor boundary would be a permitted activity.

Matters of discretion as a RDA where the 5m setback could not be met would be;

- Building location, design and use as it relates to the rail corridor
- Effects on the safety and efficiency of the rail network
- Building construction and maintenance as it relates to the rail corridor (whether a reduced setback from the rail corridor will enable buildings to be maintained without requiring access above, over, or on the rail corridor).

24 The new Plan will enable future development in towns, villages and other growth areas. Intensification will increase the numbers of people near operational rail corridors and therefore subject to greater safety risks and adverse amenity effects. Unrestricted public access to the rail network is not available. The rail corridor is not like roads where the public can gain access at many points. Trespass is a therefore common problem for KiwiRail in managing the rail corridor, and accidents and near misses can often result.

25 Ensuring structures are setback from the rail network allows access and maintenance to occur without the landowner or occupier needing to gain access to the rail corridor-potentially compromising their own safety. For these safety reasons setting back buildings from the rail corridor boundary is a means of ensuring people's health and wellbeing through good design. The construction of buildings near the rail corridor has significant safety risk if not managed in accordance the standard.

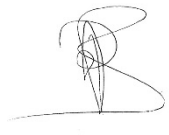
26 The 5m setback allows for vehicular access to the backs of buildings (e.g. a cherry picker) and would also allow scaffolding to be erected safely. This in turn fosters visual amenity as lineside properties can then be regularly (and easily) maintained. A setback is the most efficient method of ensuring development does not result in additional safety issues for activities adjacent to the rail corridor, whilst not restricting the ongoing operation and growth of activity within the rail corridor.

Conclusion

27 Thank you for the opportunity to comment on the Options report. Would you please add KiwiRail as a key stakeholder requiring engagement and information as the preferred options are developed and for the next stages of the Plan?

I’m happy to clarify any comments.

Kind regards



Pam Butler

Senior RMA Advisor

KiwiRail

A2 – Letter of 17 October 2018

17 October 2018

Selwyn District Council

Selwyn District Plan Review Team

By email: Craig.Friedel@selwyn.govt.nz

Dear Craig

KiwiRail feedback on Transport Options: 08 October 2018 Additional Matters Report

KiwiRail's feedback, based on the issues raised in the 08 October 2018 'Additional Matters' Report (the Report), is set out below.

KiwiRail transport related standards

a. 30m access way setback

KiwiRail provided initial feedback on the two main technical standards sought to be provided in the Transport section. The first is the retention of the Operative Plan rule E13.2.2.3 which requires a 30 metre access way setback from level crossings;

'*No part of any vehicle crossing shall be located closer than 30 metres to the intersection of any railway line as measured from the nearest edge of the vehicle crossing to the limit line at the level rail crossing.'*

This control needs appropriate RDA criteria as submitted in our first letter. This is adequately supported by the Objectives and Policies both existing and as proposed to be amended in the next section.

b. Level crossing sightlines

The second control is KiwiRail's level crossing sightlines. KiwiRail considers that the Operative Plan definition of 'building' can be used to limit most structures in the sightline area and this can be easily managed at the building consent stage. While some of the definition's excluded items could impact on sightlines (i.e. caravans) the problem is then one of enforcement (as these activities are generally permitted without District Plan formality).

Some planting starts small, but ends up growing much higher. Excluding any 'tree' as defined in the Plan would be a useful restriction. Shrubs and other planting not defined as 'trees' and which grow above 1metre in height could obscure the sightlines – but enforcing this rule may be difficult.

KiwiRail support the application of its level crossing sightline controls to all signs and billboards.

Objectives and Policies

I've provided comments on the Transport Objectives and Policy section and have noted some updates needed to the existing Plan text (if it's to be retained) below.

a. General/terminology updates

Consider using the term 'land transport networks' or 'land transport systems' to cover both road and rail, cycleways, footpaths, local roads in new Plan.

b. Operative District Plan Section B2.1 Railway Lines

There are two railway lines running through the District: the Midland line which runs east-west, and the South Island Main Trunk railway line which runs north-south. These are owned and managed by ~~ONTRACK (a division of NZ Railways Corporation).~~ **KiwiRail Holdings Limited (KiwiRail)**

c. Railway Lines

Road users moving across railway lines can also create potential safety hazards. The two main trunk railway~~s~~ lines in the Selwyn District cross many roads. Not all railway crossings in the District have bells or barrier arms, so visibility at railway ~~line~~ **level** *crossings is very important for ~~both train drivers and~~ road users. ~~Railway crossings need to be appropriately designed for the number and type of vehicles using them.~~* **Managing risks to both rail and road traffic at level crossings in the Plan is done by controlling development near these intersections.** *Where activities increase the number of people* or vehicles **using a level** *crossing ~~the railway line~~, any effects on the safety of the crossing need to be* **avoided or** *mitigated.*

d. Objectives

The Report asks a question about whether the Objectives, Policies and Rules in relation to rail (new lines/sidings, crossings, sight lines etc) are appropriate? The existing Transport Objectives and Policies can be altered to boost support for the subject KiwiRail standards and also the reverse sensitivity measures sought in the new Plan. Various changes are proposed to the Objectives and Policies below. KiwiRail may, however, suggest further changes once we view the entire range of Plan Objectives and Policies, including those for Utilities and Reverse Sensitivity.

Objective B2.1.1	**KiwiRail comment**
An integrated approach to land use and transport planning to ensure the safe and efficient operation of the District's roads, pathways, railway lines and airfields **(or, transport networks/systems)** is not compromised by adverse effects from activities on surrounding land or by residential growth.	KiwiRail agrees that Objective B2.1.1 is broadly acceptable as is. A possible change is proposed to include all forms of transport and acknowledge their interrelationship(s).

Objective B2.1.2	KiwiRail comment
*An integrated approach to land use and transport planning **is taken** to manage and minimise adverse effects of transport networks on adjoining land uses~~, and to avoid "reverse sensitivity" effects on the operation of transport networks.~~* **By managing the development of incompatible structures and activities avoid adverse effects, including reverse sensitivity effects, of subdivision, use and development on the operation, safety, maintenance, upgrade and development of transport networks/systems**	KiwiRail agrees that this Objective supports it's standards but that given there is a range of proposed reverse sensitivity controls to cover; i.e. noise and vibration controls, setbacks, level crossing controls and e.g. road intersection design standards all falling under this umbrella, that it should be split into two parts with an additional Objective created to address the management of activities at any transport network/system interface.

Objective B2.1.3	KiwiRail comment
Future road networks and transport corridors are designed, located and protected, to promote transport choice and provide for a range of sustainable transport modes; and alternatives to road movement of freight such as rail.	This Objective supports providing multi model transport options however the last phrase could be deleted as it is implicit in the first part. It does link to Policy B2.1.17, so could be retained.

Objective B2.1.4	KiwiRail comment
Adverse effects of land transport networks on natural or physical resources or amenity values, are avoided, remedied or mitigated, including adverse effects on the environment from construction, operation and maintenance.	KiwiRail supports this Objective.

e. Policies

Policy B2.1.17	**KiwiRail comment**
Encourage viable alternatives to road transport such as the movement of freight via rail. **Encourage multi modal approach to transport provision**; or **Provide good access to facilities and services by a range of transport modes through the provision of integrated networks of roads, rail, public transport, cycle, and pedestrian routes** (taken from the Waikato Proposed District Plan).	KiwiRail supports this Policy and suggests some options which are equally acceptable.

Policy B2.1.18	**KiwiRail comment**
Ensure structures and plantings do not impair ~~the~~ visibility **within sightlines** ~~of railway lines and~~ at road/rail level crossings. ~~for motorists, pedestrians or train drivers.~~	KiwiRail agrees that this Policy supports its standards but changes are suggested for clarity.

Policy B2.1.19	**KiwiRail comment**
Avoid any property having **direct** *access to a formed, legal road over a railway line.*	KiwiRail supports this Policy but it needs to be targeted to prevent direct access to the railway corridor, rather than potentially capture any property owner who might use one of the 46 public level crossings in the District (12 Main South Line and 34 on the Midland line) There are a number of existing properties with private level crossings subject to a grant of right from KiwiRail. KiwiRail is most interested in preventing the subdivision and development of new lots using private level crossings as this adds to rail and road risk.

Policy B2.1.20	**KiwiRail comment**
Ensure any new development is designed and located to minimise the need for pedestrians, cyclists or motorists to cross railway lines.	This Policy acts to prevent new development, including urban development from requiring new crossings. This policy supports safety by acting to prevent new crossings being established. This is supported. It would also seem to cover much of the intent of Policies B2.1.22 and B2.1.23 below.

Policies B2.1.22 and B2.1.23	**KiwiRail comment**
Policy B2.1.22 *Confine residential or business development in a township to one side of any State Highway or railway line where the township is already wholly or largely located on one side of the State Highway or railway line, unless that area is not suitable for further township expansion.* *Policy B2.1.23* *Where a township is already largely developed on both sides of a State Highway or railway line:* *–Discourage new residential or business development from extending the township further along the State Highway or railway line if there are alternative, suitable sites; or, if not,* *–Restrict new residential or business areas to extending further along one side of the State Highway or railway line only.*	The technical standards KiwiRail seeks aren't really affected by this Policy which addresses wider urban development and design issues. KiwiRail obviously support development which avoids new level crossings and avoids ribbon development alongside transport networks.

TRANSPORT NETWORKS — ANTICIPATED ENVIRONMENTAL RESULTS	**KiwiRail comment**
Railways *–The safe operation of the District's railway lines is not reduced or impeded by land use activities.* *–Properties do not have* **direct** *access ~~directly~~ over railway lines.* *–Visibility ~~along railway lines and~~ at road/rail crossings is maintained* *–Opportunities for movement of freight via rail are encouraged*	KiwiRail notes that this outcome is broadly acceptable but has suggested changes for greater clarity.

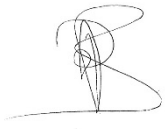
3 Conclusion

While KiwiRail is working with other network utilities on the on the development draft national planning standards the process is at an early stage and it should not be assumed that the sightline and other controls KiwiRail seeks will be addressed in that process. KiwiRail will support the new Plan providing a consistent strategy which includes a full suite of Objectives, Policies and Plan standards for both managing and protecting the rail network in Selwyn.

Thank you for the opportunity to comment on the Abley Report.

I’m happy to clarify any comments.

Kind regards



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