



Walking and Cycling Strategy Action Plan

January 2009

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1. Introduction

The Walking and Cycling Action Plan has been developed to give effect to the broader outcome established by the Strategy.

**A Selwyn where more people walk and cycle safely
for transportation and enjoyment**

2. Plan Implementation

The Walking and Cycling Strategy establishes the following goals for this Plan to achieve:

- Goal 1:** Improved safety for pedestrians and cyclists
- Goal 2:** More people choosing to walk and cycle more
- Goal 3:** Convenient community environments and transport systems that encourage and support walking and cycling
- Goal 4:** A transport system that is more sustainable in the long term

In addition to these goals, the Strategy lists achievable objectives.

Achievement of all the objectives detailed for a particular goal is considered to be achievement of the goal itself. Similarly, achievement of all the goals is achievement of the Strategy's Outcome.

2.1 Actions

This Action Plan lists the projects the Council will undertake to achieve each goal of the Walking and Cycling Strategy.

In developing this plan, and the actions required to achieve each goal, it was recognised that many of the actions will affect multiple goals. Nevertheless, actions are detailed against the goals and objectives that they target.

As this Action Plan was prepared after the Council's 2006/16 LTCCP was adopted, it is subject to the allocation of funding. All proposed projects will be included in the Transport Activity Management Plan and future LTCCPs and their associated Annual Plans. It is therefore only indicative, rather than being a statement of firm commitments.

2.2 Financial and Implementation Programmes

2.1.1 Financial Programmes

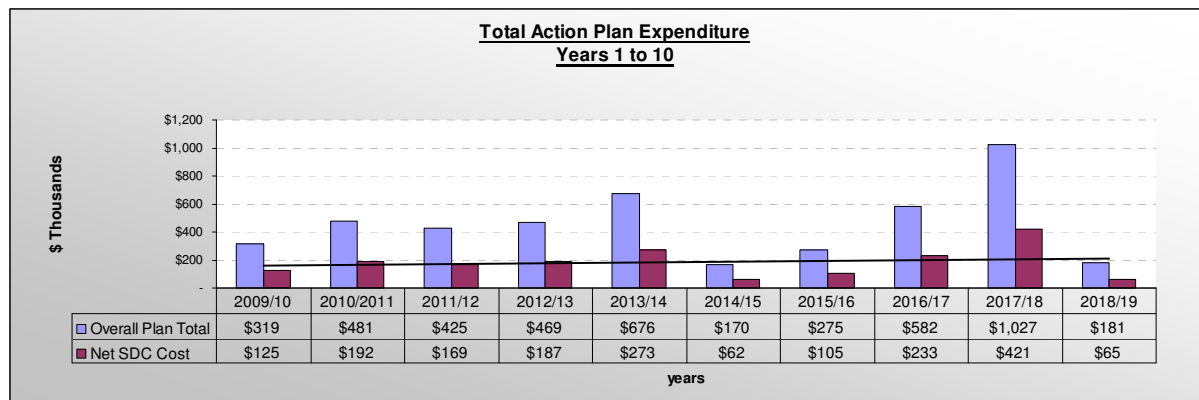
The detailed financial programme for the first three years is to follow. The outline 10-year financial programme is included in the same table as the detailed programme.

2.1.2 Financial Summary

The financial programmes are summarised in Figure 1. The financial projections shown for 2009/10 to 2018/19 are indicative and will be confirmed through the Long Term Council Community Plan processes.

The peak in 2013/14 is caused by including of clip-on cycle lanes on the Leeston Road/Selwyn River Bridge in the forward programme. The project is likely to be subsidised, reducing the cost to the Selwyn District Council to approximately 40% of this amount. The peak in 2017/18 is caused by the development of the Lincoln to Rolleston off road cycle/walk way. This project again is likely to be subsidised.

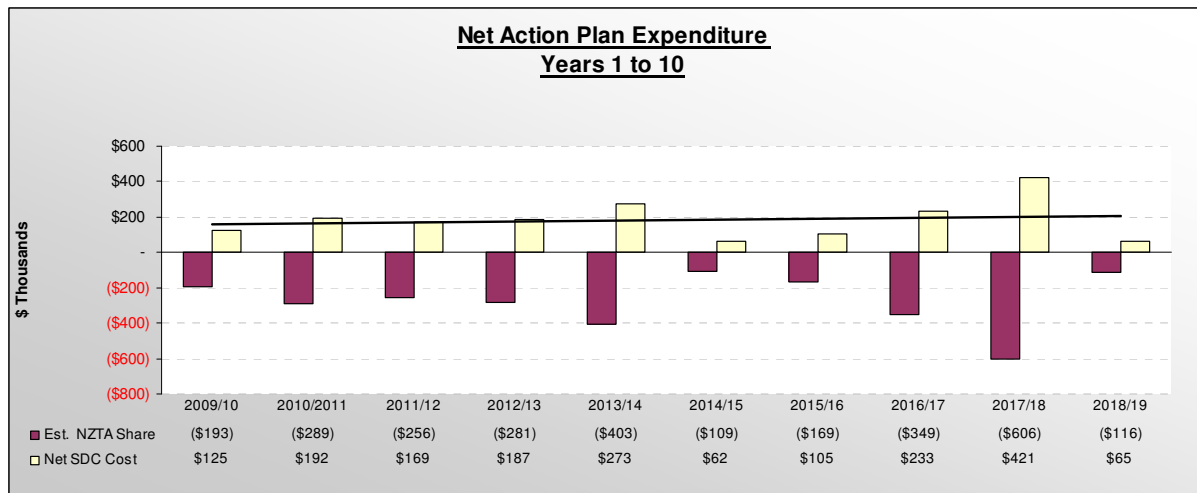
Figure 1 — Financial Summary



2.1.3 Funding

Implementation of the programmes contained in this Plan is through the Council's Transportation budgets. Most projects are likely to attract financial support from the Government and other agencies. The net funding requirement from the Council for the next ten years is summarised in Figure 2 below.

Figure 2 — Net Action Plan Expenditure to 2018/19



2.2 Network Maps

Maps of the current and proposed walking and cycling networks in the Selwyn district are attached.

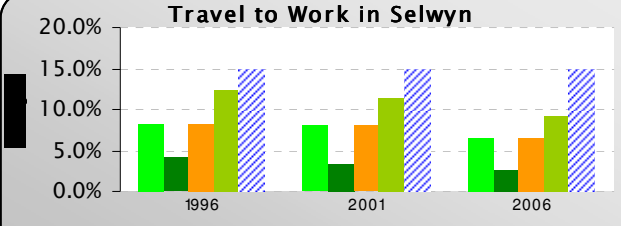
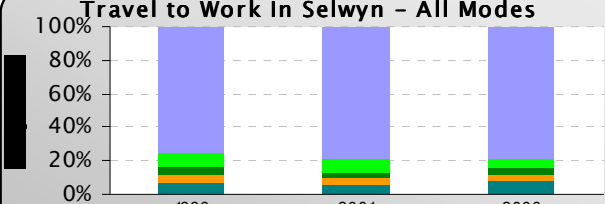
2.3 Engineering and Infrastructure Standards

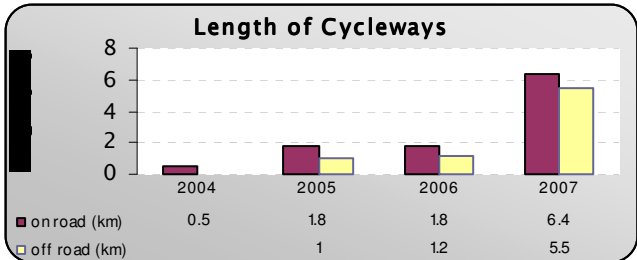
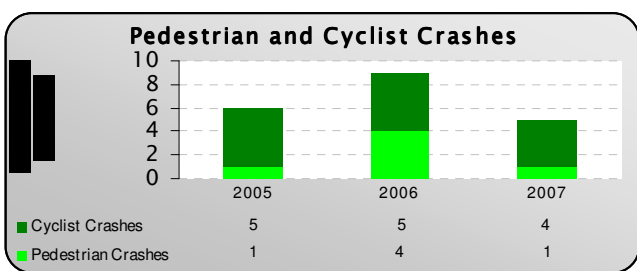
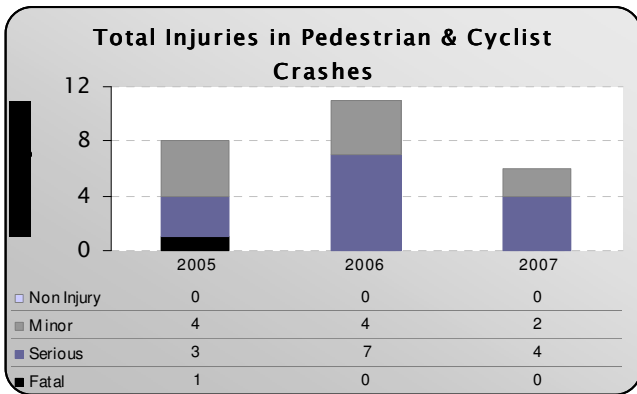
Appendix A details of the Council's current and proposed engineering standards for walking and cycling.

3. Financial Programmes

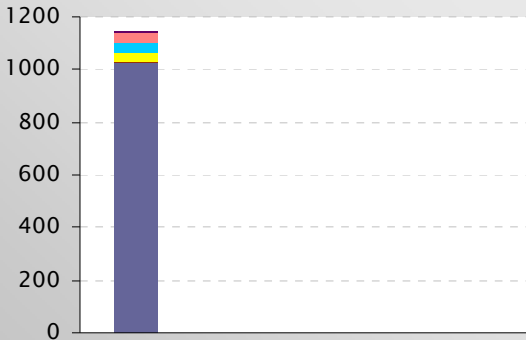
See attached Action Plan at this back of this document..

4. Monitoring Reports

Indicator	Target	Report																																																
<p>Increasing Values are sought from the following indicators:</p> <ul style="list-style-type: none">The percentages of people aware of the health and other benefits of walking and cyclingThe percentages of people walking or cycling to work within the district's towns	<p>+10% by 2011</p> <p>15% by 2011</p>	<p>Data not yet collected</p> <div><p>Travel to Work in Selwyn</p><table><tr><th></th><th>1996</th><th>2001</th><th>2006</th></tr><tr><td>Walk</td><td>8.3%</td><td>8.1%</td><td>6.5%</td></tr><tr><td>Cycle</td><td>4.2%</td><td>3.5%</td><td>2.7%</td></tr><tr><td>Passenger</td><td>8.3%</td><td>8.1%</td><td>6.5%</td></tr><tr><td>Walk+Cycle</td><td>12.5%</td><td>11.5%</td><td>9.2%</td></tr><tr><td>Target</td><td>15.0%</td><td>15.0%</td><td>15.0%</td></tr></table></div> <p>Data – © Statistics NZ</p> <div><p>Travel to Work In Selwyn – All Modes</p><table><tr><th></th><th>1996</th><th>2001</th><th>2006</th></tr><tr><td>Car</td><td>75%</td><td>78%</td><td>79%</td></tr><tr><td>Walk</td><td>8%</td><td>8%</td><td>6%</td></tr><tr><td>Cycle</td><td>4%</td><td>3%</td><td>3%</td></tr><tr><td>Passenger</td><td>5%</td><td>4%</td><td>4%</td></tr><tr><td>Other</td><td>7%</td><td>6%</td><td>8%</td></tr></table></div> <p>Data – © Statistics NZ</p>		1996	2001	2006	Walk	8.3%	8.1%	6.5%	Cycle	4.2%	3.5%	2.7%	Passenger	8.3%	8.1%	6.5%	Walk+Cycle	12.5%	11.5%	9.2%	Target	15.0%	15.0%	15.0%		1996	2001	2006	Car	75%	78%	79%	Walk	8%	8%	6%	Cycle	4%	3%	3%	Passenger	5%	4%	4%	Other	7%	6%	8%
	1996	2001	2006																																															
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Other	7%	6%	8%																																															
<ul style="list-style-type: none">The percentages of children walking or cycling to school in urban areas	+10% by 2011	Data not yet collected																																																
<ul style="list-style-type: none">The percentages of people using walking or cycling for short trips in and around selected towns	+10% by 2016	Data not yet collected																																																
<ul style="list-style-type: none">The percentages of people who think that walking and cycling facilities are adequate	20% by 2016	Data not yet collected																																																

Indicator	Target	Report																																
<ul style="list-style-type: none">The percentages of people who think that walking and cycling facilities are safeThe percentages of people choosing walking and cycling for recreationThe total lengths of on-carriageway¹ and off-carriageway cycleways	<p>20% by 2011</p> <p>15% by 2016</p> <p>Continual increase in length</p>	<p>Data not yet collected</p> <p>Data not yet collected</p> <div><p>Length of Cycleways</p><table><tr><th></th><th>2004</th><th>2005</th><th>2006</th><th>2007</th></tr><tr><td>onroad (km)</td><td>0.5</td><td>1.8</td><td>1.8</td><td>6.4</td></tr><tr><td>off road (km)</td><td></td><td>1</td><td>1.2</td><td>5.5</td></tr></table></div> <p>Notes:</p> <p>The increase in 2007 was largely due to the Railtrail.</p> <p>Data - SDC</p>		2004	2005	2006	2007	onroad (km)	0.5	1.8	1.8	6.4	off road (km)		1	1.2	5.5																	
	2004	2005	2006	2007																														
onroad (km)	0.5	1.8	1.8	6.4																														
off road (km)		1	1.2	5.5																														
<p>Decreasing Values are sought from the following indicators:</p> <ul style="list-style-type: none">Road-crashes involving pedestrians or cyclists	<p>Continual decrease</p>	<div><p>Pedestrian and Cyclist Crashes</p><table><tr><th></th><th>2005</th><th>2006</th><th>2007</th></tr><tr><td>Cyclist Crashes</td><td>5</td><td>5</td><td>4</td></tr><tr><td>Pedestrian Crashes</td><td>1</td><td>4</td><td>1</td></tr></table></div> <p>Data - Land Transport NZ</p> <div><p>Total Injuries in Pedestrian & Cyclist Crashes</p><table><tr><th></th><th>2005</th><th>2006</th><th>2007</th></tr><tr><td>Non Injury</td><td>0</td><td>0</td><td>0</td></tr><tr><td>Minor</td><td>4</td><td>4</td><td>2</td></tr><tr><td>Serious</td><td>3</td><td>7</td><td>4</td></tr><tr><td>Fatal</td><td>1</td><td>0</td><td>0</td></tr></table></div> <p>Data - Land Transport NZ</p>		2005	2006	2007	Cyclist Crashes	5	5	4	Pedestrian Crashes	1	4	1		2005	2006	2007	Non Injury	0	0	0	Minor	4	4	2	Serious	3	7	4	Fatal	1	0	0
	2005	2006	2007																															
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Serious	3	7	4																															
Fatal	1	0	0																															

¹ The carriageway is the formed part of the roadway travelled primarily by motor vehicles.

Indicator	Target	Report												
<ul style="list-style-type: none">The length of urban roads where footpaths do not comply with the Council's policy on the provision of footpaths	Continual decrease	Data not yet collected												
<p>"Report Only" Indicators</p> <ul style="list-style-type: none">The total length of footpaths		<div><p>Length of Footpaths</p><table><tr><td>■ Metal</td><td>6</td></tr><tr><td>■ Seal</td><td>37</td></tr><tr><td>■ Interlocking blocks</td><td>34</td></tr><tr><td>■ Concrete</td><td>33</td></tr><tr><td>■ Red AC</td><td>6</td></tr><tr><td>■ Asphaltic concrete</td><td>1028</td></tr></table></div>	■ Metal	6	■ Seal	37	■ Interlocking blocks	34	■ Concrete	33	■ Red AC	6	■ Asphaltic concrete	1028
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■ Interlocking blocks	34													
■ Concrete	33													
■ Red AC	6													
■ Asphaltic concrete	1028													
<ul style="list-style-type: none">Percentage of projects implemented as planned in each financial year		No data yet – too soon												
<ul style="list-style-type: none">Percentage of projects implemented as planned in each Long Term Council Community Plan period		No data yet – too soon												

Appendix A

Engineering Standards

A1. Background

This Appendix details the engineering standards and terminology that will be applied to footpaths, walkways and cycleways in the district. It also canvasses some associated terms and discusses them in the context of the Walking and Cycling Strategy.

A1.1 Urban Footpaths

Urban footpaths are the normal paths found in townships and cities throughout New Zealand. Urban footpaths provide safe, convenient, easily negotiated access to and from residential properties and business and commercial areas of towns.

There will be at least one footpath on each urban street, with two on streets that are busier in terms of vehicular or pedestrian traffic.

Each new or reconstructed path will be at least 1.5m wide with wider paths used and required in areas where there is greater pedestrian traffic or other special circumstances. All new and reconstructed urban paths will meet national accessibility standards wherever possible.

A1.2 Community Accessways

These may be only short links and will be mostly within towns, often linking:

- Key destinations such as community facilities, town centres, retail areas, tourist attractions and natural features.
- Roads, and especially cul-de-sacs, in towns to other nearby roads and reserves by providing more direct, convenient and pleasant routes for walkers, but suitable in some cases for cyclists too.

Community accessways will often follow the desire-lines of pedestrians and cyclists and often use, or cross, local reserves or follow other green corridors. They are probably used as transport corridors more than for recreation.

Community accessways will have the following features:

- Sufficient pathway width for use by two pedestrians walking side-by-side (minimum 1.5m) and, where practicable, for shared use by pedestrians and cyclists (desirable width 2.2m).
- Sufficient "reserve" width, that is width between boundaries, for users of these paths to feel comfortable and safe. Design of new accessways will follow CPTED (Crime Prevention through Environmental Design) principles.
- Sealed surfaces in urban zones and other high use areas.

- Obvious start-finish points.
- Appropriate signage indicating the accessway, its use (walking, cyclists or both), its destination if this is not immediately obvious, and, if it is named, a name-blade or other appropriate sign. Street signs may be used to direct people to them.
- Longer trails may have orientation panels at the start.
- Lighting, to appropriate standards for pedestrian areas, when they are in areas with street lighting or where they connect lit areas.

A1.3 Arterial Links

An arterial link is a walkway, cycleway or combined facility that:

- Links together two or more residential areas;
- Provides a link from a built up area to an important community facility outside it, e.g. to a school located outside 'town'; or
- Provides an inter-township link.

Arterial links may be used by non-motorised commuters and serve as recreational trails where there is a scenic outlook to be gained or a connection to be made between two recreational trails.

They will:

- Have at least a compacted aggregate surface, although some may be sealed.
- Have sufficient width for side-by side use, but not necessarily for continuous shared use i.e. when cyclists and pedestrians meet it may be necessary for the cyclist to slow down and stop and the pedestrians to adopt single-file.
- Be 'off-carriageway' in most cases, and especially on busy high-speed rural roads.
- Require some route-marking along their length.
- Be well sign-posted.
- Not be suitable for equestrian use, and horse traffic will usually be prohibited on them.

A1.4 Recreational Trails

These are the trails used in people's leisure time for walking, biking, running, walking the dog, and although not specifically included in this strategy, in some instances horse riding. They are often located where natural features occur and scenic opportunities, such as stream, lake or mountain views, feature. Alternatively, they may form part of a link between non-council trails and other facilities, such as the Mingha Valley to Arthur's Pass Village path.

A1.4.1 Recreational Trails

These are principally for walking and:

- will be largely off carriageway and away from busy roads
- will have either an aggregate or natural surface
- may provide for dual use but will not normally do so
- dogs may be prohibited if the trail crosses private property or DoC estate
- will have track marking where required
- will have signs at start and finish
- may require other facilities such as toilets, carparks and picnic tables
- trail standard may range from walking track to route
- there may be some periodic limits on access due to farming activities, e.g. lambing.

A1.4.2 Railtrail

The Christchurch to Little River Railtrail is a special recreational trail with its own standards. In places where it also serves as an arterial link it will have a sealed surface and provide for mixed pedestrian and cycling traffic. In more remote areas it will remain unsealed.

A1.5 On-Road Cycle Facilities

These are cycle facilities specifically provided on formed roads and may be either marked cycle lanes or a sealed road shoulder of adequate width "separated" from the traffic lanes by a painted edge-line; they may be located in built up areas or on country roads. These facilities could be more appropriately named "on-carriageway" facilities but to do so would introduce an unnecessary level of jargon.

Where there are suitable parallel routes between places the Council will encourage separation of vehicular and cycling traffic by providing facilities, and using other techniques, that lead to the appropriate choices being made by users.

Standards will vary depending on demand, but at a minimum:

- Marked cycle lanes will be at least 1.5m wide and conform to national standards.
- Sealed shoulders for cycling use will be between 750mm and 900mm wide and have at least an additional 500mm clearance to obstacles.

- Signage and roadmarking will be to national standards.

Many of the rural roads in the plains areas of the district have wide road verges and could be used for walking, running, biking and in some cases horse riding. A Rural Roadside Path is a separate walkway formed parallel to the road on which users will feel safer from any traffic hazards. An example of a Rural Roadside Path is that formed by mowing a strip of verge between Whitecliffs and Glentunnel each summer. Rural Roadside Paths can provide a good recreational resource for rural residents and others.

Standards will vary depending on demand but Rural Roadside Paths will:

- generally be between 1m and 1.5m wide;
- have an aggregate or natural surface. Where the surface is left in its “natural state” grass will be periodically mown;
- be signposted where the path is not obvious.

A1.6 Crossing Place

This is an additional term that needs to be clearly understood. A Crossing Place is a location where a road carriageway has been altered to improve safety for pedestrians crossing the road.

A crossing place will provide more than an illusory improvement to the safety of the people crossing the road and generally be specifically designed to cater for the needs of that particular location; it may include protrusion of kerbs into ‘parking lanes’ and/or construction of a refuge on the road centre-line.

While all pedestrian crossings (“zebra crossings”) are forms of crossing place all crossing places are not pedestrian crossings.

The principal standards applicable to the development of pedestrian and cycle facilities throughout the District, and that the Council endeavours to impose upon developers, are detailed in:

- The Selwyn District Plan, Volumes 1 and 2
- Selwyn District Council Code of Practice [for Engineering Design] – under review
- Towards a High Standard of Urban Design in New Subdivisions, Issues and Options Report Consultation draft: December 2005

When the revised Council Code of [Engineering] Practice is issued it will detail the applicable standards and [Guidelines] to be followed. Until that document is produced, the relevant NZ Standards used to guide implementation of this strategy include those listed in elsewhere in this Appendix.

Specific engineering standards will be applied to the construction and renewal of pedestrian and cycle facilities. These standards, which have been developed from the standards and guidelines, are listed below, along with the type of paths they apply to.

Table A1: Paths — Required Engineering Standards

Path Type	Engineering Standard
Urban Footpaths	Urban Footpath [or Footpath]
Community Accessways Some Arterial Links	Shared Path
Arterial Links	Rural Link
The Christchurch to Little River Railtrail Only	Railtrail
Recreational Trail	Track
Rural Roadside path	Rural Path

A1.7 Unformed Legal Roads

Although these are not part of the formed walking and cycling networks in the district, the Council receives regular enquiries about use of unformed legal roads. There are hundreds of kilometres of unformed, unmaintained, public road reserve in the district, these roads appear on legal survey plans and are commonly referred to as “paper” roads. They occur throughout the district but more generally in the hill and high country areas.

Unformed legal roads are corridors defined by legal survey, often dating back to the late 1800’s, as roads but which have not been formed or maintained as roads or pathways by the Council or its predecessors as there was no need to do so for either property access or as part of the development of the district’s overall roading network. Sometimes they may be delineated by fences on one or both boundaries but usually their alignments are not visible to observers.

In most cases, the land in question is farmed as part of the adjacent property and is periodically stocked, worked, and planted and has been amalgamated into the operation and use of an adjoining property. The Council acknowledges that this situation is mutually beneficial to it and the property owner in that vegetation is controlled, including noxious pests. Alternatively, the unformed legal road may still be in its natural form and covered with native bush, or it may be swamp, a cliff-face or even under a lake or river; regardless of its situation, drains, water-races and other obstacles may traverse it unexpectedly. In some cases, for example alongside rivers, lakes or the coast, the original land associated with the road has disappeared through subsidence or erosion.

Construction and maintenance of all these roads has, to date, been either uneconomic, impractical or both.

Some members of the public wish to use paper roads and actively seek them out to gain access into areas that normally would not otherwise be directly accessible by them. This can lead to problems when the public’s expectations of right of access along these roads conflicts with those of the adjoining property owner, who is concerned about land management or trespass issues. Tensions rise where the different parties try to assert their respective rights based on property boundaries that can not be easily be identified and rights and obligations that are often poorly understood.

The existence of a legal road is no indication of the feasibility, practicality or safety of passage along the corridor.

There is no clear legal right for vehicles or cycles to use unformed legal roads. The rights of pedestrians are clearer but these rights come with obligations:

- not to disrupt the legal activities of others, including the farmer whose land the road passes through;
- not to damage the roadway or vegetation on it;
- to look after their own health and safety;
- to be responsible for their own actions;
- to know the boundaries of the legal road's alignment; and
- not to trespass on private property.

A1.7.1 Council Position

The Council position is that it supports use of paper roads, in their unaltered states free of unreasonable obstacles that an adjoining property owner may have imposed on the road, for recreational walking.

Any support the Council lends to requests for use of a paper road by the public will take into account the nature of the adjacent property owners' operations. For example, the Council may consider it unwise to endorse access:

- within forestry blocks where there is degree of risk to the public from forestry operations or risk to plantations from arson;
- where there are stock control and management concerns, for example during lambing season;
- where there is an identified inherent danger for example steep drop offs, bluffs, hazardous structures etc;
- where access for non passive activities such as hunting, trail bike riding etc; or
- where illegal entry into private dwelling, building, or onto private property may occur and lead to theft or vandalism.

A1.7.2 Gates and Fences

Section 344 of the Local Government Act 1974 sets out situations where gates and fences can be erected across roads. This has particular relevance for paper roads where an adjoining property owner such as a farmer has fenced or erected a gate across a paper road that could deny the public reasonable access along a paper road. In situations such as this, the Council requires the gate to remain unlocked and/or a stile to be provided over the fence at the property owners' expense to maintain access on foot.

A1.7.3 Closure of Unformed Legal Roads

The Council regularly receives requests from adjoining property owners close paper roads, legally referred to as “stopping” the road. These requests are processed by Council in accordance with the mechanisms available under either the Public Works Act or Local Government Act 1974. One of the criteria the Council will consider in formulating its position is whether the paper road should be retained for any recognised or inherent value for walking.

A1.7.4 Development and Maintenance

The Council is not required to upgrade or improve these roads beyond their existing states. The Council will consider using appropriate sections of unformed legal road as one of the options reviewed whenever it investigates construction of a new walkway and/or cycleway.

A2. SDC Requirements for Walking and Cycling Facilities

Table A2: Detailed Engineering Requirements

Engineering Standard	Requirements	
	Construction	Renewal
Urban Footpath (or “Footpath”)	<ul style="list-style-type: none"> Width: <ul style="list-style-type: none"> 1.5m min. 2.4m min (or full width if kerb-boundary >2.4m) where there are high volumes of pedestrians such as near schools, in shopping centres and outside churches. In these areas there may be areas of “local narrowing” to permit landscaping and other features to be installed Other dimensions and gradients as detailed in NZS 4121:2001 	
	<ul style="list-style-type: none"> Materials <ul style="list-style-type: none"> Footpath unreinforced concrete with a broom finish; <i>or</i> interlocking concrete pavers Driveways crossing berms and/or footpaths: 	<ul style="list-style-type: none"> asphaltic concrete (hotmix) <i>or</i> unreinforced concrete with a broom finish <i>or</i> interlocking concrete pavers

Engineering Standard	Requirements	
	Construction	Renewal
	asphaltic concrete (hotmix); <i>or</i> interlocking concrete pavers	asphaltic concrete (hotmix) <i>or</i> interlocking concrete pavers if already present
	<ul style="list-style-type: none"> Prohibited materials (on footpaths or driveways) <ul style="list-style-type: none"> - Stamped concrete, - Concrete with a float finish (steel or wood) - Patterned concrete - Cobble stones 	
	<ul style="list-style-type: none"> Accessibility Standards <ul style="list-style-type: none"> - NZS 4121 Design for Access and Mobility: Buildings and Associated facilities 	
	<ul style="list-style-type: none"> Lighting <ul style="list-style-type: none"> - AS/NZS 1158.3.1:2005 Road lighting - Pedestrian areas - AS/NZS 1158.6:2004 Road lighting - Lighting for roads and public spaces – Luminaires - Higher levels of illumination than provided by NZS 1158.3.1 will be provided when adjacent carriageways are lit to high standards and if the Council considers that additional illumination is required to improve public safety. 	
Shared Path	<ul style="list-style-type: none"> Width <ul style="list-style-type: none"> - 2.2m min. - Paths wider than 2.5 m to have frequent measures to prevent the path's use by cars and/or trucks - Other dimensions and gradients as detailed in: NZS 4121:2001; Austroads: AP-11.14/99 Part 13: Pedestrians; and Austroads: AP-11.14/99 Part 14: Bicycles 	
	<ul style="list-style-type: none"> Materials <ul style="list-style-type: none"> - Path <ul style="list-style-type: none"> asphaltic concrete (hotmix) <i>or</i> unreinforced concrete with a broom finish small areas or lengths of concrete or interlocking concrete pavers are permitted. - Driveways crossing berms and/or footpaths: As for the section of path being crossed 	

Engineering Standard	Requirements	
	Construction	Renewal
	<ul style="list-style-type: none"> Prohibited materials (on footpaths or driveways) <ul style="list-style-type: none"> Stamped concrete, Concrete with a float finish (steel or wood) Patterned concrete Cobble stones Accessibility Standards <ul style="list-style-type: none"> As required by cycling standards and NZS 4121 Lighting <ul style="list-style-type: none"> Lit only in urban areas or where there is high night-time demand AS/NZS 1158.3.1:2005 Road lighting - Pedestrian areas AS/NZS 1158.6:2004 Road lighting - Lighting for roads and public spaces – Luminaires Higher levels of illumination than provided by NZS 1158.3.1 will be provided when adjacent carriageways are lit to high standards and if the Council considers that additional illumination is required to improve public safety. 	
Rural Link	<ul style="list-style-type: none"> Width <ul style="list-style-type: none"> 1.2m min, Paths wider than 2.5 m not permitted adjacent to road carriageways and are to have frequent measures to prevent the path's use by cars and/or trucks Materials <ul style="list-style-type: none"> Path <ul style="list-style-type: none"> chipseal, maximum size Grade 5, Grade 6 or slurry seal preferred small areas or lengths of interlocking concrete pavers, concrete or hotmix are permitted. Driveways crossing berms and/or footpaths: <ul style="list-style-type: none"> As for the section of path being crossed Prohibited materials (on footpaths or driveways) <ul style="list-style-type: none"> Stamped concrete Concrete with a float finish (steel or wood) Patterned concrete Cobble stones Any driveway surfacing that crosses the path and by its appearance suggests that the driveway traffic has precedence over that using the path. Accessibility Standards <ul style="list-style-type: none"> As required by cycling standards Compliance with NZS 4121 – Design for Access and Mobility: Buildings and Associated Facilities – is desirable but not essential in all circumstances 	

Engineering Standard	Requirements	
	Construction	Renewal
	<ul style="list-style-type: none"> Lighting <ul style="list-style-type: none"> Lit only in urban areas or where there is high night-time demand AS/NZS 1158.3.1:2005 Road lighting - Pedestrian areas AS/NZS 1158.6:2004 Road lighting - Lighting for roads and public spaces – Luminaires Higher levels of illumination than provided by NZS 1158.3.1 will be provided when adjacent carriageways are lit to high standards and if the Council considers that additional illumination is required to improve public safety. 	
Railtrail	<ul style="list-style-type: none"> Width <ul style="list-style-type: none"> 2.2m min, wider for medium volumes of users as suggested by: NZS 4121:2001; Austroads: AP-11.14/99 Part 13: Pedestrians; and Austroads: AP-11.14/99 Part 14: Bicycles Paths wider than 2.5 m not permitted adjacent to road carriageways and are to have frequent measures to prevent the path's use by cars and/or trucks 	
	<ul style="list-style-type: none"> Materials <ul style="list-style-type: none"> Path Hotmix, chipseal (maximum size Grade 5, Grade 6 preferred), slurry seal, <i>or,</i> in areas where volumes are relatively light, compacted metal. Small areas or lengths of interlocking concrete pavers, concrete or hotmix are permitted. Driveways crossing berms and/or footpaths: As for the section of path being crossed 	
	<ul style="list-style-type: none"> Prohibited materials (on footpaths or driveways) <ul style="list-style-type: none"> Stamped concrete, Concrete with a float finish (steel or wood) Patterned concrete Cobble stones Any driveway surfacing that crosses the path <u>and</u> by its appearance suggests that the driveway traffic has precedence over that using the path. 	
	<ul style="list-style-type: none"> Accessibility Standards <ul style="list-style-type: none"> As required by cycling standards Compliance with NZS 4121 is desirable but not essential in all circumstances 	

Engineering Standard	Requirements	
	Construction	Renewal
	<ul style="list-style-type: none"> Lighting <ul style="list-style-type: none"> - Lit only in urban areas or where there is high night-time demand - AS/NZS 1158.3.1:2005 Road lighting - Pedestrian areas - AS/NZS 1158.6:2004 Road lighting - Lighting for roads and public spaces – Luminaires - Higher levels of illumination than provided by NZS 1158.3.1 will be provided when adjacent carriageways are lit to high standards and if the Council considers that additional illumination is required to improve public safety. 	
Track	<ul style="list-style-type: none"> Width <ul style="list-style-type: none"> - Approximately 500mm minimum at ground level. Wider at shoulder level and at defiles. - as suggested by: - SNZ HB 8630:2004 Tracks and Outdoor Visitor Structures - Tracks wider than 2.5 m not permitted adjacent to road carriageways and are to have frequent measures to prevent the use by cars and/or trucks Materials <ul style="list-style-type: none"> - Track: <ul style="list-style-type: none"> Natural ground cleared of vegetation or short grass or, in areas where volumes are heavier or there are particular needs: <ul style="list-style-type: none"> - Compacted metal. - Timber 'board-walks', or - Other appropriate materials as determined by the Council's Asset Manager - Driveways crossing berms and/or footpaths: <ul style="list-style-type: none"> As for the section of track being crossed. If the driveway crossing is sealed the track should also be sealed for approx 3m on either side of the driveway to avoid the appearance of a right of way in favour of the driveway. 	

Engineering Standard	Requirements	
	Construction	Renewal
	<ul style="list-style-type: none"> Prohibited materials (on footpaths or driveways) <ul style="list-style-type: none"> Stamped concrete, Concrete with a float finish (steel or wood) Patterned concrete Cobble stones Any driveway surfacing that crosses the path <u>and</u> by its appearance suggests that the driveway traffic has precedence over that using the path (but see "Driveways crossing berms and/or footpaths" immediately above) 	
	<ul style="list-style-type: none"> Accessibility Standards <ul style="list-style-type: none"> SNZ HB 8630:2004 Tracks and Outdoor Visitor Structures NZS 4121:2001 Design for Access and Mobility: Buildings and Associated Facilities Compliance with NZS 4121:2001 Design for Access and Mobility: Buildings and Associated Facilities may be provided/required in some circumstances. 	
	<ul style="list-style-type: none"> Lighting <ul style="list-style-type: none"> Generally not lit If any lighting is provided the area is to be lit to AS/NZS 1158.3.1:2005 Road lighting - Pedestrian areas 	

A3. Other Applicable Engineering Standards

These documents are routinely used to inform engineering judgements made about these facilities and to guide and inform their designers and maintainers. This list is indicative, it is continually reviewed and amended/updated will be superseded when the Council adopts an Engineering Code of Practice.

- Land Transport Rule – Traffic Control Devices 2004 – Rule 54002 {Note: This Rule should be read in conjunction with Land Transport Rule: Traffic Control Devices Amendment 2005 and Land Transport Rule: Traffic Control Devices Amendment 2006}
- LTSA & Transit New Zealand: Manual of Traffic Signs and Markings, Part 1 Traffic Signs, September 1998 as amended
- LTSA & Transit New Zealand: Manual of Traffic Signs and Markings, Part 2 Markings, February 1997 as amended
- AS/NZS 1158.0:2005 Road lighting – Introduction
- AS/NZS 1158.1.1:2005 Road lighting - Vehicular traffic (Category V) lighting - Performance and design [Requirements]
- AS/NZS 1158.1.3:1997 Road lighting - Vehicular traffic (Category V) lighting - Guide to design, installation, operation and maintenance

- AS/NZS 1158.3.1:2005 Road lighting - Pedestrian area (Category P) lighting - Performance and design [Requirements]
- AS/NZS 1158.6:2004 Road lighting - Lighting for Roads and Public Spaces – Luminaires
- AS/NZS 1428.4:2002 Design for Access and Mobility - Tactile Indicators
- NZS 3116:2002 Concrete Segmental Paving
- NZS 4121:2001 Design for Access and Mobility: Buildings and Associated Facilities
- NZS 4404:2004 Land Development and Subdivision Engineering
- NZS 5828:2004 Playground Equipment and Surfacing
- NZS/AS 1657:1992 Fixed Platforms, Walkways, Stairways and Ladders. Design, construction and installation
- AS 3996:1992 Metal Access Covers, Road Grates and Frames
- SNZ HB 44:2001 Subdivision for People and the Environment
- SNZ HB 5828.1:2006 General Playground Equipment and Surfacing Handbook
- SNZ HB 8630:2004 Tracks and outdoor visitor structure

A4. Other Guidelines

Other guidelines used include those in the list below. This list is indicative, it is continually reviewed and amended/updated will be superseded when the Council adopts an Engineering Code of Practice.

- Austroads: AP-1/89 Rural Road Design – Guide to the geometric design of rural roads
- Austroads: AP-11.10/88 Part 10: Local area traffic management
- Austroads: AP-11.11/88 Part 11: Parking
- Austroads: AP-11.14/99 Part 13: Pedestrians
- Austroads: AP-11.14/99 Part 14: Bicycles
- Austroads: AP-11.5/91 Part 5: Guide to Traffic Engineering Practice - Intersections at grade
- Austroads: AP-11.6/93 Part 6: Roundabouts
- Austroads: AP-17/92 Pavement Design – A guide to the structural design of road pavements
- Austroads: AP-40/95 Austroads Strategy for Ecologically Sustainable Development
- Land Transport Safety Authority: RTS 11 Urban Roadside Barriers and Alternative Treatments
- Ministry for the Environment: [Guidelines] for Subdivision (1991)
- Transit New Zealand: State Highway Geometric Design Manual, NZ Supplement to the Austroads Pavement Design Guide, May 2002
- Transit New Zealand: SP/M/020 [Guidelines] for Highway Landscaping

- Land Transport NZ:
 - RTS 2 - [Guidelines] for street name signs (1990)
 - RTS 4 - [Guidelines] for flush medians (1991)
 - RTS 5 - [Guidelines] for rural road markings and delineation (1992)
 - RTS 6 - [Guidelines] for visibility at driveways (1993)
 - RTS 7 - Advertising signs and road safety: design and location [Guidelines]
 - RTS 8 - [Guidelines] for safe kerbline protection (1993)
 - RTS 9 - [Guidelines] for the signing and layout of slip lanes (1993)
 - RTS 10 - Road signs and markings for railway level crossings
 - RTS 11 - Urban roadside barriers and alternative treatments (1995)
 - RTS 14 - [Guidelines] for facilities for blind and vision-impaired pedestrians (2003)
 - RTS 15 - [Guidelines] for urban-rural speed thresholds
 - RTS 16 - Guide to heavy vehicle management
 - Traffic Note 1; Pedestrian crossings; September 2006; [Requirements]
 - Traffic Note 2; Platforms as crossing points; December 2004; [Guidelines]
 - Traffic Note 4; Land Transport New Zealand roading-related publications; December 2004; [Information]
 - Traffic Note 9; Railway level crossing signs and markings; December 2004; [Guidelines]
 - Traffic Note 11; No-passing lines against flush medians; December 2004; [Guidelines]
 - Traffic Note 15; Use of temporary speed limits for temporary hazards and special events; July 2004; [Guidelines]
 - Traffic Note 17; Traffic control devices on private roads; October 1999; [Information]
 - Traffic Note 18; Traffic [Information] signs: Black on white background; October 1999; [Information]
 - Traffic Note 22; New NZ/Australian road lighting standard; May 2000; [Information]
 - Traffic Note 23; Speed indicator devices; May 2000; Guideline
 - Traffic Note Road signs and markings for railway level crossings; May 2000; [Information]
 - Traffic Note 26; Fluorescent retro-reflective traffic sign material; January 2001; [Information]
 - Traffic Note 28; Pedestrian crossings and school crossing points on roads with speed limits of 60km/h or more; December 2004; [Requirements]
 - Traffic Note 29; School crossing points ('kea crossings'); December 2004; [Information]
 - Traffic Note 32; Use of fluorescent material on traffic signs; August 2001; [Guidelines]
 - Traffic Note 35; [Guidelines] for urban-rural thresholds; December 2004; [Information]
 - Traffic Note 36; Land Transport Rule: Traffic Control Devices 2004 (; September 2006; [Information]
 - Traffic Note 37; 40km/h variable speed limits in school zones; June 2005; [Guidelines]
 - Traffic Note 38; Land Transport Rule: Setting of Speed Limits 2003; September 2005; [Requirements]
 - Traffic Note 39; Overdimension permit notifications to road controlling authorities; September 2003; [Information]

- Traffic Note 40; Revision of [Guidelines] for facilities for blind and vision-impaired pedestrians; December 2003; [Information]
- Traffic Note 41; Level crossings on out of service railway lines; June 2004; [Guidelines]
- Traffic Note 42; Work sites at or near level crossings; September 2006; [Guidelines]
- Traffic Note 43; Speed limits less than 50 km/h; June 2004; [Guidelines]
- Traffic Note 44; Safe siting of school bus stops; December 2004; [Information]
- Traffic Note 45; Temporary masking of traffic signs; December 2004; [Information]
- Traffic Note 46; Voluntary traffic surveys; December 2004; [Guidelines]
- Traffic Note 47; Class C road classification; December 2004; [Information]
- Traffic Note 48; Light vehicle sizes and dimensions: street survey results and parking space [Requirements]; December 2004; [Information]
- Traffic Note 49; Limit line and Give Way markings; December 2004; [Guidelines]
- Traffic Note 50; Marking and signing of roundabouts; September 2005; [Information]
- Traffic Note 52; School traffic safety team manual; January 2005; [Information]
- Traffic Note 53; Revision of [Guidelines] for road safety audit and the treatment of crash locations; January 2005; [Information]
- Traffic Note 54; Linear delineation panels; April 2005; [Guidelines]