

CLUTHA DISTRICT COUNCIL POLICY

Policy Number	02 – 01 – 013	Stock Crossings, Races
Prepared by	Manager District Assets	on Road Reserve, and
Authorised by	Council	Stock Underpasses
Date Issued	1 May 2008	Page 1
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Policy on Stock Crossings, Races on Road Reserve, and Stock Underpasses

Purpose

To set out the procedures and standards required for stock movement on and around road reserve.

To set out standards for the implementation and construction of stock crossings, races on road reserve, and stock underpasses.

Policy

The procedures set out in this Policy are to be used to manage stock movement on and around road reserve within the Clutha District.

Council shall not be held responsible in any way for claims for damages, and it is a condition of issuing approvals for stock crossings, races, or underpasses on road reserve that the property owner/ lessee arranges and keeps current public liability insurance to protect his/her liability for damage to third parties.

Facilities on state highways, including siting of crossings, races, and underpasses shall be subject to scrutiny and approval by Transit New Zealand or their agents.

Procedures

1. STOCK CROSSINGS

A formal application for the creation of a stock crossing on road reserve has been attached at Appendix A. This form together with plans and specifications detailing any proposal to create a stock crossing shall be submitted to the Chief Executive, Clutha District Council, P O Box 25, Balclutha, for approval.

Road Crossing Requirements

A direct route perpendicular to road alignment shall apply.

Gates shall be erected at race entrance on each boundary.

Entrance and race shall be constructed of hardfill material with cambered free draining profile for 15 metres from edge of road formation each side of road.

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The stock crossing shall not impede roadside drainage or cause it to be diverted onto the roadway.

Obstructions impairing road user visibility of the full width of road reserve shall be avoided.

Crossings shall be sited to permit effective, safe stopping sight distance for road users relevant to the speed environment of the road (i.e. 100m for 70kph, 170m for 100kph).

Conditions included under clause 201 – Part 2 of the Roding Bylaw shall apply.

Unsafe Road Crossing

Where an existing or proposed road crossing is deemed unsafe and no reasonable alternative siting is available, the option of a stock underpass shall be considered (Refer to 3. Stock Underpasses).

Heavy Use Crossings

Where heavy use stock crossings apply (and underpasses are not warranted), Council may require landowner financial assistance to construct a durable road pavement (i.e. concrete or similar) over the extent of the crossing. This action by Council shall be limited to situations where excessive maintenance costs to sustain the pavement are incurred.

Stock Crossing Construction and Use Specifications

- 1) Warning signs shall be erected in accordance with the sign requirements for permanent and temporary crossings as outlined below.
- 2) Warning signs shall be kept covered or folded down at all times when the crossing is not in use.
- 3) A gate shall be erected at the race entrance on each boundary at least two metres back from the watertable.
- 4) The entrance and race shall be constructed of hardfill material with a cambered free draining profile for 15 metres from the edge of road formation each side of road.
- 5) A direct route perpendicular to road alignment shall apply unless otherwise permitted.
- 6) A temporary electric tape can be erected across the road reserve at a maximum height of 600mm to aid in stock movement. This must be removed in between stock crossings.
- 7) The cattle shall be under the control of a drover at all times when using stock crossings.
- 8) All stock movements shall take place during the hours of daylight except in the event of an escape or emergency; or for the purpose of regular milking as specified

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in clause 202 of the Clutha District Council Roding Bylaw – Part 2 – Stock Movement.

- 9) The permit holder and/or property owner shall be required to keep the stock crossing clear of surface detritus.
- 10) The stock crossing is installed at Councils pleasure and must be removed upon request.

Sign Requirements for Permanent Crossings

- The required signs are either a TW-6A (cattle) or a TW-6.1A (sheep) (as per Manual of Traffic Signs and Markings); whichever is the most appropriate for the majority of stock using the crossing.
- The sign will be a folding sign. A full-length stainless steel hinge is recommended.
- The symbol will be a black silhouette with a black border around a 750mm x 750mm diamond shaped sign (as per Manual of Traffic Signs and Markings).
- The orange background will be a minimum of High Intensity reflective material (class 1).
- Sign to be manufactured to meet the standards specified in the RSMA Standard for the Manufacture and Maintenance of Traffic Signs, Posts and Fittings.

Sign Installation Requirements for Permanent Crossings

- Sign to be mounted on a 100mm x 100mm square treated wooden post. The post will be painted white.
- The post will be located 1.0 to 2.0 metres off the outside edge of the gravel verge.
- The height from the road level to the underside of the sign shall be 1.50 metres minimum.
- As near as possible, signs should be located as per the following table:

Traffic Speed	50 km/hr	70 km/hr	100 km/hr
Distance of sign prior to the stock crossing	60 metres	90 metres	150 metres
Approaching drivers uninterrupted viewing distance of the sign	60 metres	80 metres	120 metres

Note: The signs must always be folded down or covered when not in use.

Sign Requirements for Temporary Crossings

- The required signs are either a TW-6A (cattle) or a TW-6.1A (sheep) (as per Manual of Traffic Signs and Markings); whichever is the most appropriate for the majority of stock using the crossing.
- The symbol will be a black silhouette with a black border around a 750mm x 750mm diamond shaped sign (as per Manual of Traffic Signs and Markings).
- The orange background will be a minimum of High Intensity reflective material (class 1).

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- Sign to be manufactured to meet the standards specified in the RSMA Standard for the Manufacture and Maintenance of Traffic Signs, Posts and Fittings.

Sign Location/Mounting Requirements for Temporary Crossings

- Sign to be mounted on a suitable stand and must be stable under adverse weather conditions and vehicle created draft.
- The sign and stand will be located in the gravel verge on a sealed road and up to 1.0 metres off the edge of a gravel road.
- The height from the road surface to the centre of the sign will be a minimum of 1.25 metres.
- As near as possible the signs should be located as per the following table:

Traffic Speed	50 km/hr	70 km/hr	100 km/hr
Distance of sign prior to the stock crossing	60 metres	90 metres	150 metres
Approaching drivers uninterrupted viewing distance of the sign	60 metres	80 metres	120 metres

Note: For vehicle or bike mounted signs, a 750mm x 600mm rectangle shaped sign may be used with an appropriate attachment. All of the other sign requirements as listed above must still be met.

2. RACES ON ROAD RESERVE

Roadside fence to comply with Council's conditions for 'Temporary Fence on Road Reserve' in the Policy on Road Occupation.

Race pavement formed with hardfill.

Siting of fence must give due regard to the requirements of all road users including pedestrians.

A road shall have a race on one side only.

Fence and edge of race shall be no closer than 1.25 metres from the edge of a road except existing watertables shall be avoided.

Construction and use of race shall not encroach into or foul watertables and drains.

The applicant and subsequent users shall be responsible for locating, avoiding, and provision for reinstatement of underground services and culvert drainage structures.

Stock shall not be left in the race during the hours of darkness.

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Reflective markers or road marker posts shall be maintained at 100m intervals along the race.

Council may require the fence and race to be removed and the flank reinstated at any time, subject to not less than three months notice being given.

If stock cross the road at the entrance or exit of a roadside race then conditions for road crossings shall apply (see 1. Road Crossings).

Due consideration is to be given to the effect of race and stock movement on properties fronting road reserve.

3. STOCK UNDERPASSES

General

An applicant intending to install a stock underpass that crosses under a Council road is advised, in the first instance, to contact the Engineering and Contracts Manager, Clutha District Council, P O Box 25, Balclutha, telephone (03) 419 0200 by making an appointment to inspect the likely site. An early indication of Council's requirements would be established and this will assist in the official application for the installation of a stock underpass. A standard application form has been developed for this purpose (attached at Appendix B).

There are no cost implications to the applicant with regard to the initial site inspection and processing of the application form and approval of construction drawings.

General Conditions

A building consent is not usually required. Should such consent be required, the applicant will be informed accordingly.

A formal application on the attached form (Appendix B), together with plans and specifications detailing the proposal shall be submitted to the Chief Executive, Clutha District Council, P O Box 25, Balclutha, for approval.

A one month approval period shall be allowed for within the applicant's programme. The applicant shall be responsible for making contact with **all** service authorities and obtaining location plans for water services, telephone, electricity and all other under and above ground services and overhead plants to ensure all conflicts with the work are identified.

During the course of all works within the road reserve the applicant is responsible for all damage and all costs of subsequent reinstatement of services.

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General Construction Requirements

The underpass shall be designed so that the minimum cover retained over the top of the structure below the road surface is not less than 400mm.

The minimum length of an underpass shall be 12 metres, with at least a 3 metre clearance to be maintained between the edge of seal and the end of the underpass. The minimum length is set at 6 metres either side of the road centreline. Therefore if an underpass does not run perpendicular to the road centreline the minimum length shall be increased to gain the full 6 metre clearance.

However, where the centreline of a formed road does not correspond with the centreline of the road reserve, it will be treated on its own merits and the final length of the structure shall be as approved by the Engineering and Contracts Manager.

Each application will be dealt with on its own merits, with the final total length of a stock underpass being determined by the following factors:

- Roading hierarchy
- Sealed or unsealed road
- Seal width
- In-situ soil conditions
- Construction of wingwalls
- Roadside drainage requirements
- Traffic safety/ risk assessment
- Any other factors Council deems necessary for consideration in order to ensure the structural integrity of the road.

In the case of a sealed road the trafficked road shall comprise the width of the seal. Where the road is unsealed a carriageway of 6 metres shall be allowed for.

A full design specification for the underpass shall be submitted with accompanying confirmation that the design is adequate to withstand applied traffic loads and other normal applied loads. The stock underpass structure shall at minimum be capable of carrying maximum Class I traffic loadings.

Supply and installation shall be carried out as per manufacture's specifications, plans and producer statement for the structures used to form the underpass.

Tests (at the applicant's expense) shall be carried out by a chartered engineer on the subgrade prior to the placement of the units or pipes to ensure that the bearing capacity complies with the design requirements.

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The groundwater level shall be below the invert level of the structure at all times during construction.

The excavation and installation of the underpass shall be carried out by a competent contractor familiar with Transit New Zealand specifications, safety procedures and relevant health and safety legislation which shall all be adhered to.

The site shall be signed and fenced as per the Transit New Zealand Code of Practice for Temporary Traffic Management (COPTTM) i.e.; Road Works, Temporary 30 km/hr, Metal Surface Signs, etc, until all works on the road have been completed.

Drainage with sufficient capacity to drain the underpass shall be installed at the site. The structures installed shall take into account the likely scouring of fill batters, and shall provide protective work (e.g. wingwalls) to prevent or minimize the effects of the scouring and subsequent damage to the road.

The installation contractor shall provide a producer statement (PS4) confirming on completion of all works that installation complies with all conditions laid down in the plan and specifications.

Council will consider temporary road closure for one day if warranted. All costs associated with temporary road closure including detour signing to Council's approval and the payment of newspaper advertising will be the applicant's responsibility. The contractor/applicant shall submit a Traffic Management Plan to the Engineering and Contracts Manager for approval, 5 days prior to work commencing.

The applicant shall obtain all resource consents required for the installation of the underpass eg; disposal of stormwater etc, at their own expense. No construction will be allowed to proceed until all such consents have been obtained.

Before any work commences within the road reserve a completed and signed Memorandum of Encumbrance (refer attachment) or a letter stipulating the applicant's commitment to complete such an Encumbrance, shall be submitted. The Encumbrance will include any further conditions that Council may wish to apply. Approval for proceeding with construction will be given in writing.

Upon satisfactory completion of the stock crossing, the applicant agrees to take over the maintenance of the structure, drainage, fencing, cleaning and maintenance of the underpass invert. The application shall maintain the reinstated carriageway for a period of 12 months from the date of the final reinstatement, whereafter normal carriageway maintenance will revert to Council.

Backfilling

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Backfill shall be imported material comprising well-graded aggregate free of organic material and generally with a maximum particle size of 65mm. In no case shall excavated material be used as backfill except with express written permission of the Engineering and Contracts Manager.

Backfill shall be placed in level layers no greater than 300mm of uncompacted thickness. Compaction shall be applied evenly to each layer before process to the next layer. Excavation of the road shall be wide enough to ensure compaction plant can access and compact the material surrounding the underpass satisfactorily.

Backfill shall only be placed by the applicant to a level and compacted, 300mm below the adjacent sealed surface. The road construction above this level shall be done by a Council Approved Contractor and shall at minimum be identical in design to the surrounding road. The proposed road design has to be submitted to the Engineer and Contract Manager for approval.

Road Sealing

All reinstatement shall be at the cost of the applicant.

Reinstatement of the road surfacing to a standard comparable to that of the site prior to excavation shall be done by a Council approved Contractor. All joints are to be sawcut to ensure smooth transitions.

Roadside Barrier Rails

The applicant shall, at the time of construction, install barrier rails sufficient to warn approaching traffic of the hazard, identify the position of the underpass and reduce the possibility of vehicles leaving the road and dropping into the openings adjacent to the road. The end of the barriers shall also be marked with bridge end hazard markers approved by the Council.

Fencing, Roadside Stock Control and Barriers

Adequate fencing and gates shall be supplied by the applicant to control stock movements when entering and leave the underpass and prevent the escape of stock onto the roadside. All costs associated with the maintenance of this fencing within the road reserve shall lie with the applicant and work shall be done to ensure stock **control** is maintained to the satisfaction of the Council at all times. This work will also include the provision of all required sightrails and Armco barriers as determined by the Engineer and Contracts Manager.

Clean up on Completion of Works

The site is to be left in a clean and tidy condition after the works are completed, with all surplus spoil removed and excavated road shoulder areas regrassed. No stockpiles of material are to be left within the road reserve.

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An initial contract maintenance period of 12 months is required. Prior to expiration of this period the Council will undertake a site inspection and advise any remedial works required at the Application's expense, before final acceptance is granted by the Council.

Once acceptance by Council is granted, the structure will be included in Council's Asset Register, but the Application shall still be responsible for repairs and reinstatement of structural defects detected by the Council periodic inspections of the underpass.

Funding

Financial assistance will be based on Land Transport NZ's Programme & Funding Manual and in order to qualify for such consideration, Land Transport NZ requires the form of structure not exceed the cost of an equivalent 3.0m x 2.2m box structure (unless specifically approved by the Land Transport NZ Board). Thus, maximum allowable funding will be based on Land Transport NZ's equivalent structure.

Funding will be based on the Land Transport NZ formula, for example:

Formulae:

Controlling Authority Share (CAS) = 0.05 x t (on roads having less than 500 Annual Average Daily Traffic (AADT))

Where:

CAS = maximum subsidy of 25% (on roads have greater than or equal to 500 AADT)

CAS = road controlling authority's contribution to the total construction cost of an access structure on an existing road (in percent)

t = annual average daily traffic volume of the road in question

This Controlling Authority Share is subsidised through Land Transport NZ as part of Council's Land Transport Programme as a Minor Improvement project.

Each application will be treated on its own merits and granting of such subsidies will depend on the amount of funding available within Council's current Minor Safety Works budget and may from time to time require Council approval.

Memorandum of encumbrance

It is a requirement that a Memorandum of Encumbrance be registered on the titles of the affected properties. The Memorandum of Encumbrance is to include the following information:

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- Legal description of the properties
- Type of stock underpass (pipe, precast box etc)
- Construction material (concrete, steel etc)
- Dimensions of structure
- Depth of cover over the structure
- Design loading data
- Location (ward, road, rapid no)

All costs relating to the registration of the Memorandum of Encumbrance are the responsibility of the applicant.

Definitions

Permanent Stock Crossings

Where there is a high frequency of stock movements (say on a regular daily basis – often perhaps several times a day).

Temporary Stock Crossings

Crossings used occasionally and short length droving

Relevant Legislation

Local Government Act 1974

Local Government Act 2002

Legal Compliance

Non compliance or breaches with respect to this policy may result in recovery of costs by Council, penalties, fines or prosecutions.

Related Policy and Documents

- Clutha District Council Roading Bylaw 2008 – Part 2 - Stock Movement
- Clutha District Council Policy on Road Occupation (Temporary fencing on road reserves)
- Clutha District Council Policy on Stock Crossings
- Transit New Zealand - Manual of Traffic Signs and Markings (MOTSAM)
- Transit New Zealand - Code of Practice for Temporary Traffic Management (COPTTM)

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- Land Transport NZ's *Programme & Funding Manual*, third edition, amendment 1, November 2007

Key Words

Stock movement, stock underpasses, stock crossings, installation of stock underpasses, construction of stock crossings, stock control, permanent stock crossing, temporary stock crossing, heavy use crossing, stock underpass specifications, road reserve, memorandum of encumbrance.

Appendix A

Application for creation of a Stock Crossing on Road Reserve

Clutha
District Council



Date: Permit no:

Applicant's name:

Applicant's address:

Permit Fee of \$75.00 GST inclusive attached **YES / NO**

Stock Crossing to be located on Road

metres from the intersection with

Road connecting my property(s), described as and

Signature: **Date:**

Definition: A Stock Crossing is a surface installation at a specific site approved by Council for the purpose of moving stock across a road or road reserve. It is not a Stock Underpass.

Note: The applicant must complete and return with the permit the attached indemnity form, a site plan showing the location of the crossing and signs with dimensions. Conditions for cleaning of the stock crossing may be imposed upon the applicant under this permit. Council may give permission for the crossing to be constructed of concrete to allow cleaning or allow the use of a removable cover to keep the roadway clean.

Office use only

Application: **APPROVED / NOT APPROVED**

Date:

Signed:

Northern/Southern Roding Supervisor

To be charged **YES / NO**

Copy sent to: Applicant YES / NO
Accounts Dept YES / NO
Filed YES / NO

Appendix B

**Stock Underpass Installation –
Application form**

**Clutha
District Council**



1. Applicant (Owner)

Name:	<input type="text"/>	Phone: (b/h)	<input type="text"/>
Address:	<input type="text"/>	Phone: (a/h)	<input type="text"/>
		Fax:	<input type="text"/>
		Mobile:	<input type="text"/>

2. Underpass Contractor (Earthworks/Roading)

Name:	<input type="text"/>	Phone: (b/h)	<input type="text"/>
Address:	<input type="text"/>	Phone: (a/h)	<input type="text"/>
		Fax:	<input type="text"/>
		Mobile:	<input type="text"/>

3. Underpass Contractor (Structural)

Name:	<input type="text"/>	Phone: (b/h)	<input type="text"/>
Address:	<input type="text"/>	Phone: (a/h)	<input type="text"/>
		Fax:	<input type="text"/>
		Mobile:	<input type="text"/>

4. Site Location & Prelim Installation Information

Road:	<input type="text"/>	Rapid No:	<input type="text"/>
Legal Description	Property 1: <input type="text"/>	Property 2:	<input type="text"/>
Depth below centre of carriageway (estimated to top of structure):	<input type="text"/>		m
Length of structure (estimated):	<input type="text"/>		m
Estimated start date:	<input type="text"/>	Contact Person:	<input type="text"/>
		Phone Number:	<input type="text"/>
Services contacted: (please ✓)	<input type="checkbox"/> Telephone	<input type="checkbox"/> Power	<input type="checkbox"/> Water
	<input type="checkbox"/> Sewer	<input type="checkbox"/> Stock water	<input type="checkbox"/> Irrigation
		<input type="checkbox"/> Other	
Signature:	<input type="text"/>	Date:	<input type="text"/>

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