

Ruapehu District Council

Adopted Land Transport Programme July 2006 - June 2007





Ruapehu District Council
District Land Transport Programme
2006 – 2007

Copy No.

Adopted

Issued To:

Public Release

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CHIEF EXECUTIVE

Chris Ryan

Phone: (07) 895 8188

E-mail: info@ruapehudc.govt.nz

ADMINISTRATION CENTRE

Huia Street
Taumarunui

Phone: (07) 895 8188

Fax: (07) 895 3256

E-mail: info@ruapehudc.govt.nz

Office Hours: 8.00am to 5.00pm Monday to Friday

SERVICE CENTRES

Manuaute Street
Taumarunui

Phone: (07) 895 8188

Fax: (07) 895 3256

E-mail: info@ruapehudc.govt.nz

Office Hours: 8.00am to 5.00pm Monday to Friday

Miro Street
Ohakune

Phone: (06) 385 8364

Fax: (06) 385 8628

E-mail: info@ruapehudc.govt.nz

Office Hours: 8.00am to 5.00pm Monday to Friday

Cnr Seddon &
Duncan Streets
Raetihi

Phone: (06) 385 8364

Fax: (06) 385 8628

E-mail: info@ruapehudc.govt.nz

Office Hours: 8.30am to 4.00pm Monday to Wednesday and
8.30am to 3.00pm Tuesday Thursday and Friday

LIBRARIES

Hakiaha Street
Taumarunui

Phone: (07) 895 7538

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Clyde Street
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Phone: (06) 385 4014

VISITOR CENTRES

Hakiaha Street
Taumarunui

Phone: (07) 895 6117

Clyde Street
Ohakune

Phone: (06) 385 8527

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1.0 INTRODUCTION



1.0 INTRODUCTION

1.1 Introduction

The Land Transport Programme provides information for the community on the types of Land Transport New Zealand (LTNZ)¹ subsidised works that Ruapehu District Council (Council) are planning to undertake in relation to land transport between July 2006 and June 2007.

This document presents Council's District Land Transport Programme, which has been compiled in accordance with section 12 of the Land Transport Management Act 2003².

A land transport programme is required to be submitted to LTNZ on an annual basis and based on a set of criteria LTNZ approves, reschedules, or declines particular projects. Council is requesting community comment on this programme before the programme is submitted to LTNZ for their consideration.

This programme does not contain information on the non-subsidised components of the Land Transport activity such as kerb and channel and footpaths. Opportunities for public input in respect of the non-subsidised programme will be available during Council's Long Term Plan development process.

The definitions of maintenance and construction used in this document are based on the definitions contained within LTNZ New Zealand's Policy and Funding Manual and differ from those definitions used in Council's Future Ruapehu - Long Term Plan 2004-2014.

The remainder of this section provides an overview of the government strategies and legislation that have an affect on the way Council develops its land transport programme.

1.2 The Land Transport Management Act 2003

The Land Transport Management Act 2003 (the Act) was passed by Parliament in late 2003. The Act changed the way road-controlling authorities must apply to LTNZ for funding, and the objectives and criteria that LTNZ must consider in allocating money for projects.

The purpose of the Act is:

"To contribute to the aim of achieving an integrated, safe, responsive, and sustainable land transport system."

The Act has expanded the roles of LTNZ and Transit so that they must now focus on land transport as whole, and not just roads.

When considering funding applications LTNZ will now need to take into account the objectives of the New Zealand Transport Strategy³

Under the Act, land transport funding rules have also been changed to give more flexibility to fund projects other than roads, such as rail, public transport, and the promotion of cycling and walking. To enable funding from other sources for new

¹ LTNZ is the government agency that provides funding to councils around the country for land transport works

² The Land Transport Management Act 2003 can be viewed at www.legislation.govt.nz

³ For more information on the New Zealand Transport Strategy and its' objectives refer to section 1.3. Copies of the New Zealand Transport Strategy can be downloaded from the Ministry of Transport website <http://www.mot.govt.nz>

infrastructure, the Act also established a framework for the funding of toll roads and allows for public/private partnerships.

The Act requires that organisations (like Council) seeking funding from LTNZ prepare detailed land transport programmes and submit these for approval. All approved programmes will then be included in LTNZ's National Land Transport Programme.

1.3 New Zealand Transport Strategy

The New Zealand Transport Strategy (NZTS) sets out the government's vision for transport. It is a statement on the approach government will take for transport needs, now and in the future. The NZTS is required to be reflected in the activities of all government agencies that have responsibilities for, or an interest in, transport.

The government's overall vision for transport is communicated in the NZTS as:

“By 2010 New Zealand will have an affordable, integrated, safe, responsive, and sustainable transport system”.

This vision is supported by the following five objectives of the NZTS (which are also promoted by the Act):

1. Assisting economic development,
2. Assisting safety and personal security,
3. Improving access and mobility,
4. Protecting and promoting public health,
5. Ensuring environmental sustainability.

During the development of Council's land transport programmes Council must take into account these objectives and where possible illustrate how Council is promoting them.

1.4 Land Transport Programmes

Councils and other organisations seeking funding from LTNZ must prepare a land transport programme each year. After consultation, this District Land Transport Programme (LTP) is then submitted to LTNZ. LTNZ will decide which aspects of the submitted LTP are included in their National Land Transport Programme.

The Act sets out the requirements for establishing a LTP. Once Council has prepared a LTP it must then consult on this programme using the special consultative procedure. The procedure involves:

- Specifically informing certain organisations of the consultation on the LTP,
- Advertising to the general public that Council is wanting comment on the LTP,
- Allow at least one month for submissions on the LTP,
- If submitters would like to speak in support of their submission, they must be given a chance to do so,
- Council will then consider all submissions and make any changes to the LTP that they see fit.

Once Council has adopted the LTP it is submitted to LTNZ for their consideration.

Council adopted this 2006/07 LTP for consultation purposes on 18 November 2005. This is open for community comment from the 25 January 2006 – 22 February 2006. If necessary, hearings will be held on 14 March 2006 with decisions made on that day. Once adopted by Council, the Ruapehu District Council LTP will be submitted to LTNZ prior to 20 April 2006 for implementation beginning 1 July 2006.

1.5 Council's Land Transport Activity

1.5.1 Introduction

Council's Land Transport activity involves the maintenance and development of:

- Roads,
- Kerb and channel,
- Bridges,
- Street lighting,
- Footpaths, and
- Street furniture.

The Ruapehu road network consists of over 455km of sealed roads, over 880km of unsealed road and 334 bridges. The Ruapehu district has over 63km of footpaths (mostly concrete), and 1,625 streetlights, 87% of which are modern mercury vapour and high-pressure sodium lights.

Council manages the Land Transport activity to provide a road and pedestrian network that allows for the safe, reliable, efficient, and effective movement of people, goods, and vehicles.

1.5.2 Ruapehu Community Outcomes

Council consulted with the Ruapehu community to develop a set of desired community outcomes for the Ruapehu District. This consultation was carried out in 2004/05 and received by Council for inclusion in the 2006/16 LTP. The Land Transport activity aims to promote the following community outcomes:

CO37 A rail and roading network which is reliable, well-maintained and meets the needs of users.

CO10 Core facilities, services and infrastructure planning and provision (water, sewage, solid waste, power, roading and medical) keep pace with development.

CO18 Excellent standards of safety in the community are promoted and individuals take personal responsibility for their safety.

1.5.3 Strategic Goals

In order to target promotion of the community outcomes Council has developed Strategic Goals (SGs). Council aims to achieve these SGs and through their achievement will promote community outcomes. Council's SGs for the Land Transport activity are:

SG1 All District roads provide continuous all weather travel.

The road network of the Ruapehu District contains both sealed and unsealed roads. It services both urban centres and rural farm blocks. It is important for Ruapehu residents and businesses who rely on the road network that the network provides all weather access to the relevant site, regardless of the location or form of the road.

Council's strategic goal is to ensure that this is the case. Council operates a number of programmes aimed at ensuring the land transport network remains open to traffic at all times. These programmes include:

- Bridge Renewal Programme,
- Culvert Programme,

- Flood Damage Programme, and
- General Maintenance.

SG2 The land transport network provides for the safety of its users.

The safety of the Ruapehu community and its visitors is of utmost importance to Council. Each year Council allocates a sum of money to undertake safety improvement projects. With the change in emphasis from roads to land transport Council will be taking a more holistic approach to safety projects and these may include methods to provide for the safety of motorists, pedestrians and cyclists.

Council's minor safety works programme will be identified and consulted upon as part of the LTP annually. This provides the community with the opportunity to comment on these works and suggest other projects that they feel will improve the safety of the District's land transport network.

Public transport safety education is undertaken through the Regional Road Safety Coordinator. Council will work with this Coordinator to ensure that the safety of travellers in the Ruapehu District is advanced.

The Land Transport New Zealand (LTNZ) is responsible for the preparation of national road safety strategies and priorities. The LTNZ prepare annual reports highlighting road safety issues in each District. The most recent update for the Ruapehu District was released in July 2004. This report identified the following road safety priorities for the Ruapehu District:

- Speed,
- Loss of Control, and
- Road or Environmental Factors.

Council will continue to work with the LTNZ, the NZ Police, and other stakeholders in addressing these road safety priorities.

SG3 Changing traffic patterns are monitored and taken into consideration in preparing the Annual DLT programmes.

The direction being communicated through various central government strategies and guidelines is that Council is expected to work closely with Horizons Regional Council in the area of land transport. Funding has been made available for regional priorities.

Areas that will benefit from this approach include, infrastructure to support and grow economic development, funding to increase the capacity of rural roads so that land may be better utilised for forestry or agriculture activities, and planning for and addressing the needs and negative effects of growing tourist numbers. Council will take up any opportunity to work with Horizons Regional Council in planning for these issues and other issues of regional significance.

Whilst Council aims to promote Ruapehu land transport priorities, central government through the NZTS has developed national transport objectives including:

- Assisting Economic Development – This includes identifying and funding the priorities of congestion, public transport, walking and cycling, regional development, alternatives to roads, and safety.
- Assisting Safety and Personal Security – The government introduced the Road Safety 2010 Strategy in 2003. Road safety includes improving quality of life through promotion of walking, cycling, and

public transport and strengthening current commitments to road safety education and enforcement of the road code.

- Improving Access and Mobility – This includes increased funding for public transport and increased funding for alternatives to roads.
- Protecting and Promoting Public Health – Through increasing funding for walking and cycling initiatives, improving fuel specifications and placing greater emphasis on social and environmental responsibility in transport planning and funding.
- Ensuring Environmental Sustainability – Including increased funding for alternatives to roads and the implementation of the Vehicle Fleet Emission Control Strategy.

In preparing this LTP Council has considered its proposals against the above national priorities.

Council does not intend on extending the District's road network, instead Council's priority will be to raise the level of service that is provided by the existing network. Council operates several programmes that assist in raising the level of service of the network including:

- Seal extension programme,
- Reseal programme,
- Seal widening programme,
- Footpath development,
- Kerb and channel development,
- Bus shelters.

1.6 Structure of the Programme

This LTP is made up of four sections:

1. Introduction,
2. Road Maintenance,
3. Improvement and Replacement of Roads, and
4. Financial Summary.

Sections 2 and 3 provide information on the different activities under which Council carries out works, the costs of these works and where appropriate, when these works will be carried out.

Section 4 of this LTP provides an overview of the costs of Council's land transport programmes from 2006-2016.

2.0 ROAD MAINTENANCE



2.0 ROAD MAINTENANCE

2.1 Introduction

2.1.1 Maintenance

Road maintenance can be defined as the group of activities that preserve land transport assets in a condition that allows them to perform their required function. Maintenance is the regular work and immediate repair necessary to keep the Council's assets operational. The on-going efficiency of routine maintenance is critical to achieve optimum asset life cycle costs that best suit the required level of service.

The Road Maintenance activity is made up of three categories:

- Structural Maintenance,
- Corridor Maintenance, and
- Professional Services.

Regular road maintenance is essential to ensure that the District's network can continue to provide a consistent level of service to its users.

2.1.2 Strategic Goals

The Road Maintenance activities target the following land transport strategic goals:

SG1 All District roads provide continuous, all weather travel.

SG2 The land transport network provides for the safety of its users.

SG3 Changing traffic patterns are monitored and taken into consideration in preparing the Annual DLT programmes.

2.1.3 Funding

Council receives a 63% subsidy from LTNZ for maintenance works.

2.1.4 Emergency Works

Emergency works are those works that are needed in order to repair roads from damage caused by a natural weather event. When such an event occurs Council applies to LTNZ for assistance. Therefore this type of work is not covered in this LTP.

Council is budgeting for approximately \$500,000 of emergency works per year in anticipation of emergency events. These works are subsidised by LTNZ using a scaled system – the greater the value of the damage in a given financial year, the higher the level of subsidy given.

If damage occurs which costs in excess of the budget provided for emergency works, Council will compensate by the deletion of planned projects or by deficit funding of the local share of the costs.

2.2 Structural Maintenance

2.2.1 Introduction

The category of Structural Maintenance includes the following types of work:

- Pavement Maintenance provides for the normal care and attention of the roadway in order to maintain its structural integrity and serviceability, examples include:
 - Pavement patching and repairs,
 - Shoulder maintenance, including flanking,

- Routine maintenance, and repair of surface water channels and subsoil drainage,
 - Stream clearing to maintain water courses through culverts,
 - Renewal and installation of culverts 600mm in diameter or less, and
 - Grading of unsealed roads.
- Area-Wide Pavement Treatment provides for all pavement maintenance techniques where the least-cost maintenance option is an area - wide treatment including overlays, rip and relay and chemical stabilisation.
 - Major Drainage Control provides for drainage work which is not routine but which is clearly demonstrated to reduce future maintenance costs to Council. This category only applies to culverts over 600mm in diameter.
 - The Maintenance Chip Seals category provides for pavement resurfacing when the reseal is to be applied to an established sealed road.
 - Thin Asphaltic Surfacing provides for a surfacing treatment, which may be technically necessary as an alternative to conventional chip sealing to provide a stronger and smoother running surface.
 - The Seal Widening activity provides for widening existing seals where this is the least cost maintenance treatment necessary to overcome edge break or to reduce shoulder maintenance.
 - Bridge Maintenance provides for all work necessary to maintain the structural condition and appearance of bridges and retaining walls.

2.2.2 Structural Maintenance Application

The following table provides information on Council's Structural Maintenance works for the last year, the current year, and provides the intended breakdown of spending for the 2006/07 year.

| Category | Total Works Achieved 2004/05 (\$000) | Total Funding Allocated 2005/06 (\$000) | Total Funding Requested 2006/07 (\$000) |
|-------------------------------------|---|--|--|
| Pavement Maintenance | \$2,675 | \$3,142 | \$3,157 |
| Area Wide Pavement Treatment | \$324 | \$450 | \$1,300 |
| Major Drainage Control | \$328 | \$325 | \$136 |
| Maintenance Chip Seals | \$587 | \$721 | \$765 |
| Thin Asphaltic Surfacing | \$102 | \$52 | \$56 |
| Seal Widening | \$22 | \$52 | \$56 |
| Bridge Maintenance | \$255 | \$350 | \$309 |
| Total Structural Maintenance | \$4,293 | \$5,092 | \$5,779 |

2.2.3 Pavement Maintenance / Area Wide Pavement Treatment / Resurfacing / Major Drainage Control – Further Information

The following table provides a further breakdown of Structural Maintenance activities for the 2006/07 year.

| STRUCTURAL MAINTENANCE | |
|--|-----------------------------------|
| Category | Estimated Quantity 2006/07 |
| Pavement Maintenance (Unsealed Roads) | |
| (a) Metalling | 35,000m ² |
| (b) Other Unsealed Road Maintenance | - |
| Area Wide Pavement Treatments | |
| (a) Sealed (Urban) | 4,750m ² |
| (b) Sealed (Rural) | 5,000m ² |
| (c) Unsealed | 34,000m ² |
| Resurfacing | |
| (a) Chip Seals | 33km |
| (b) Thin Asphalt | 0.2km |
| Major Drainage Control | |
| (a) Kerb and Channel | - |
| Seal Widening | 13.2km |

2.2.4 Structural Maintenance – Special Purpose Roads

Council maintains the Ohakune Mountain Road as a Special Purpose Road. Special Purpose Roads attract a higher level of maintenance subsidy (100%) than standard local roads (63%).

The following table provides information on Council's Structural Maintenance works for the last year, the current year, and provides the intended breakdown of spending for the 2006/07 year for the Ohakune Mountain Road.

| Category | Total Works Achieved 2004/05 (\$000) | Total Funding Allocated 2005/06 (\$000) | Total Funding Requested 2006/07 (\$000) |
|-------------------------------------|---|--|--|
| Pavement Maintenance | \$84 | \$72 | \$75 |
| Area Wide Pavement Treatment | - | - | - |
| Major Drainage Control | - | - | - |
| Maintenance Chip Seals | \$90 | \$93 | \$50 |
| Thin Asphaltic Surfacing | - | - | \$100 |
| Seal Widening | \$0 | \$50 | \$100 |
| Bridge Maintenance | \$0.7 | \$2 | \$2.5 |
| Total Structural Maintenance | \$175 | \$217 | \$327 |

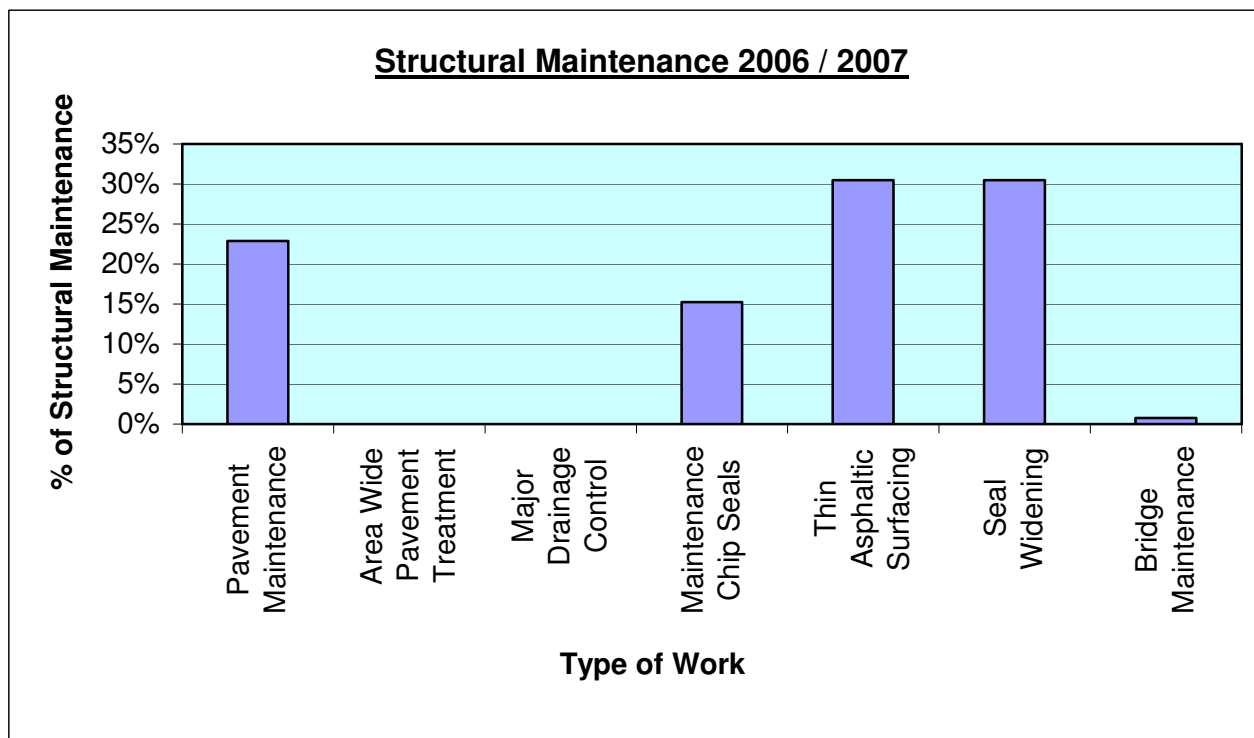
2.2.5 Pavement Maintenance / Area Wide Pavement Treatment / Resurfacing / Major Drainage Control – Further Information Special Purpose Roads

The following table provides a further breakdown of Structural Maintenance activities for the 2005/06 year for Ohakune Mountain Road.

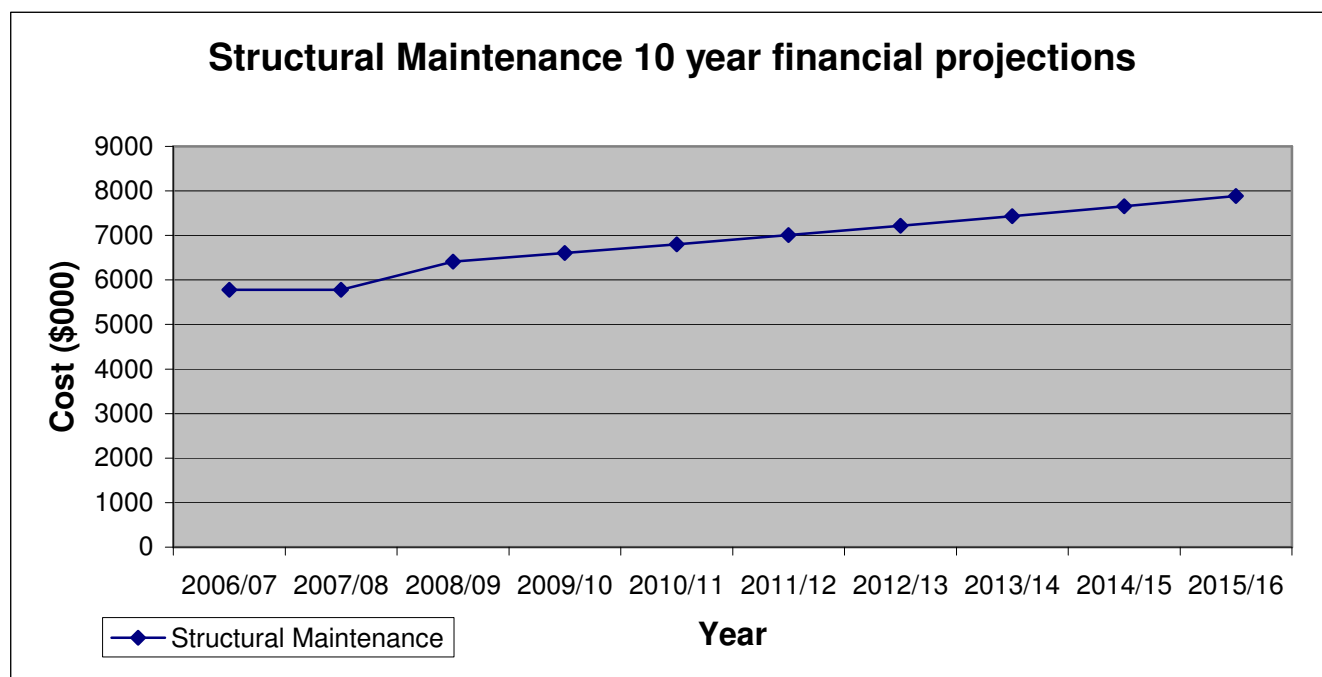
| SPECIAL PURPOSE ROADS | |
|--|-----------------------------------|
| Category | Estimated Quantity 2006/07 |
| Pavement Maintenance (Unsealed Roads) | |
| (a) Metalling | - |
| (b) Other Unsealed Road Maintenance | - |
| Area Wide Pavement Treatments | |
| (a) Sealed (Urban) | - |
| (b) Sealed (Rural) | - |
| (c) Unsealed | - |
| Resurfacing | |
| (a) Chip Seals | 2.6km |
| (b) Thin Asphalt | - |
| Major Drainage Control | |
| (a) Kerb and Channel | |
| Seal Widening | 55m |

2.2.6 Summary

The following graph illustrates the work categories that make up the Structural Maintenance activity for the 2006/07-year, including special purpose roads.



The graph below provides an overview of the 10-year financial projections for the Structural Maintenance activity.



2.3 Corridor Maintenance

2.3.1 Introduction

The category of Corridor Maintenance includes the following work types:

- Amenity / Safety Maintenance provides for the normal care and attention of the road corridor to maintain the safety and aesthetic standards (other than works covered by the pavement maintenance category). Examples of work in this category include:
 - Snow clearing and ice control, and
 - Vegetation control.
- Street Cleaning provides for the cleaning of channels, sumps, and cesspits in urban areas.
- Traffic Services provides for the normal care and attention of roading furniture and traffic control devices that promote a safe and efficient roading system eg. signs, road marking, and guardrails etc.
- Carriageway Lighting provides for the maintenance and power costs associated with the operation of lighting on local roads.
- Cycleway Maintenance provides financial assistance to councils for the maintenance of the pavement and furniture associated with cycleways, including the operation of associated lighting.

2.3.2 Corridor Maintenance Application

The following table provides information on Council's Corridor Maintenance works for the last year, the current year, and provides the intended breakdown of spending for the 2006/07 year.

| CORRIDOR MAINTENANCE | | | |
|-------------------------------------|---|--|--|
| Category | Total Works Achieved 2004/05 (\$000) | Total Funding Allocated 2005/06 (\$000) | Total Funding Requested 2006/07 (\$000) |
| Amenity / Safety Maintenance | \$309 | \$433 | \$400 |
| Street Cleaning (30% of total cost) | \$15 | \$28 | \$29 |
| Traffic Services | \$193 | \$196 | \$250 |
| Carriageway Lighting | \$189 | \$155 | \$170 |
| Cycleway Maintenance | - | - | - |
| Total Corridor Maintenance | \$706 | \$812 | \$849 |

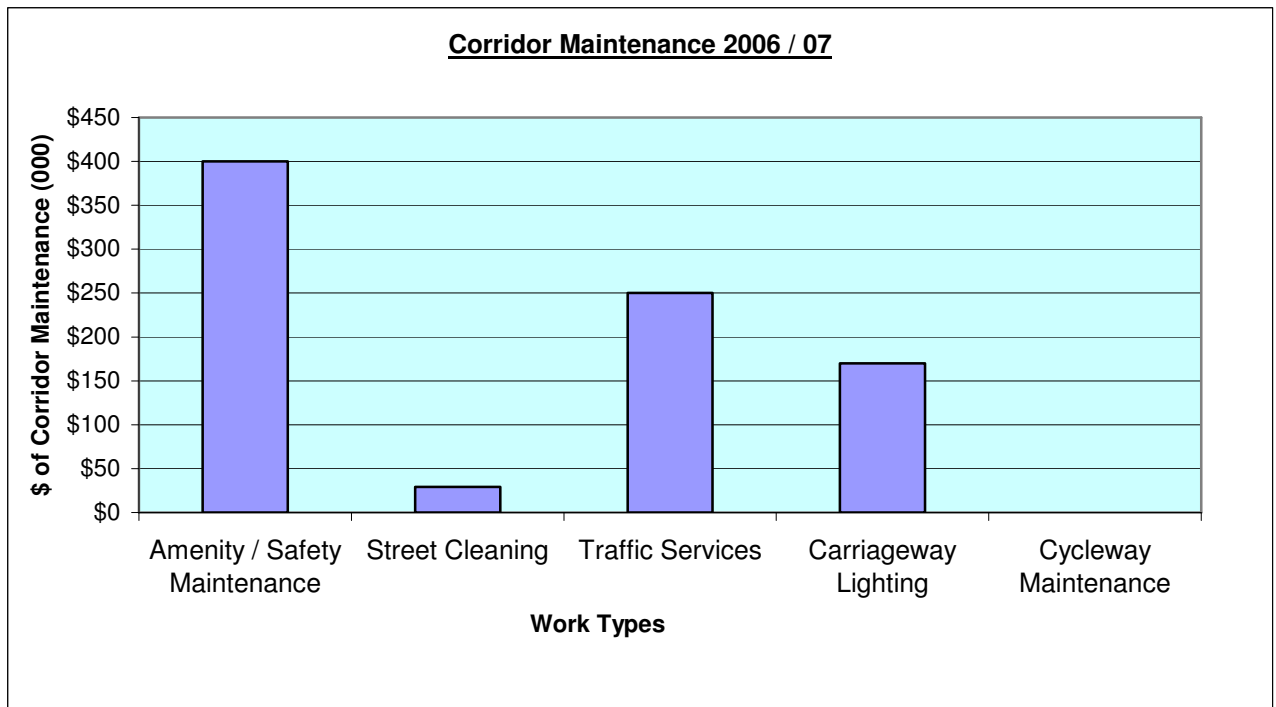
2.3.3 Corridor Maintenance Application – Special Purpose Roads

Council maintains Ohakune Mountain Road as a Special Purpose Road. The table below provides the breakdown of works categories within the Corridor Maintenance activity for this Special Purpose Road.

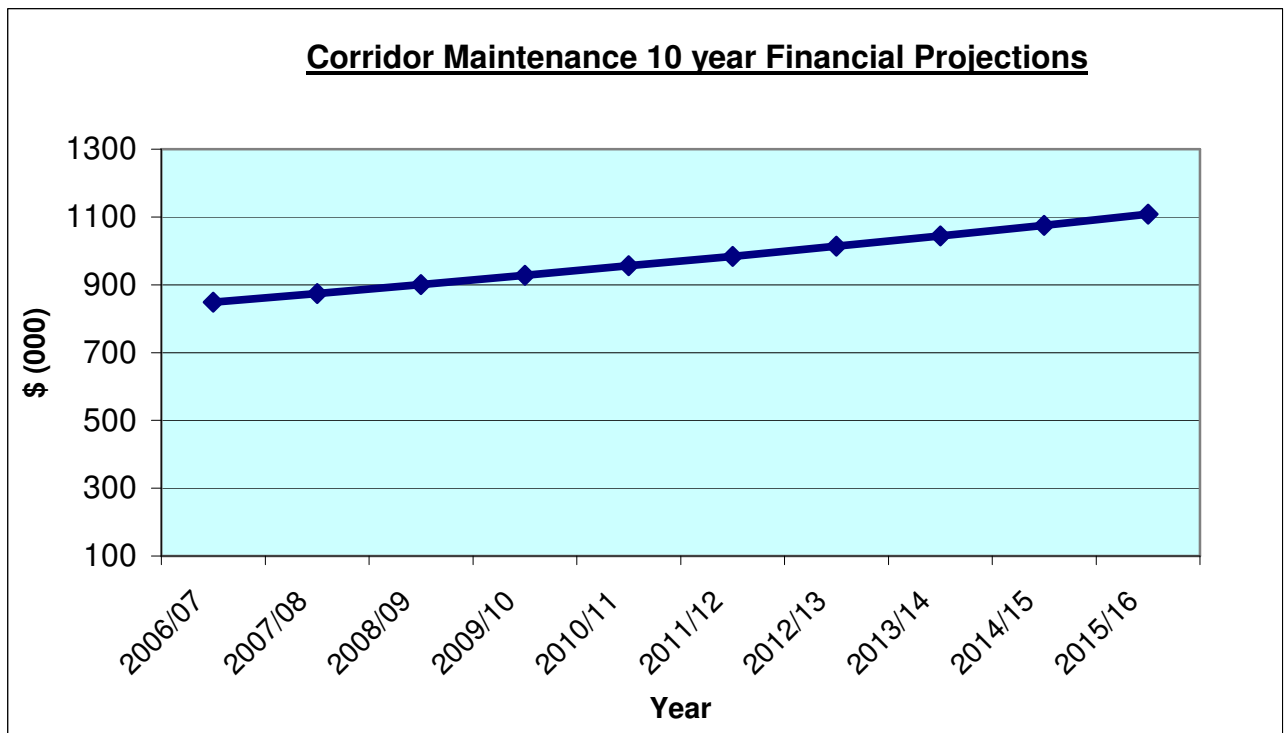
| CORRIDOR MAINTENANCE – SPECIAL PURPOSE ROADS | | | |
|---|---|--|--|
| Category | Total Works Achieved 2004/05 (\$000) | Total Funding Allocated 2005/06 (\$000) | Total Funding Requested 2006/07 (\$000) |
| Amenity / Safety Maintenance | \$77 | \$67 | \$70 |
| Street Cleaning (30% of total cost) | - | - | - |
| Traffic Services | \$56 | \$67 | \$70 |
| Carriageway Lighting | - | - | - |
| Cycleway Maintenance | - | - | - |
| Total Corridor Maintenance | \$133 | \$134 | \$140 |

2.3.4 Corridor Maintenance Summary

The table provided below illustrates the work categories that make up the Corridor Maintenance activity for the 2006/07 year, including special purpose roads.



The table below provides an overview of the 10-year financial projections for the Corridor Maintenance activity.



2.4 Professional Services

2.4.1 Introduction

The activity of Professional Services provides for the professional services fees and maintenance management activities relating to maintenance allocations that Council receives in lump sums. It also includes fees for the professional services necessary to:

- Manage the road network,
- Investigate certain projects,
- Undertake traffic counting surveys,
- Manage preventative maintenance, and
- Undertake roughness and rating surveys.

2.4.2 Professional Services

The following table provides information on Council's Professional Services budget for the last year, the current year, and provides the intended spending for the 2006/07 year.

| PROFESSIONAL SERVICES | | | |
|------------------------------|--|---|--|
| Category | Total Achievement 2004/05 (\$000) | Total Allocation 2005/06 (\$000) | Total Requested 2006/07 (\$000) |
| Professional Services | \$764 | \$670 | \$900 |

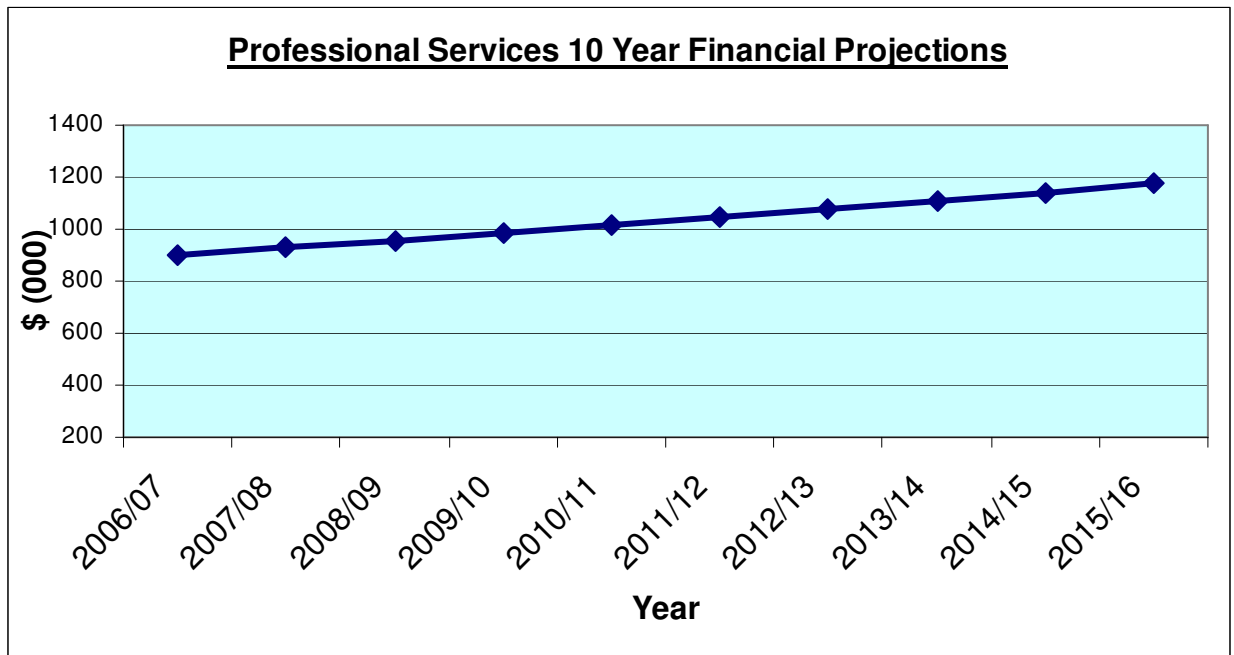
2.4.3 Professional Services – Special Purpose Roads

Council manages the Ohakune Mountain Road as a Special Purpose Road. The table below provides information on Council's Professional Services budget for the management of this Special Purpose Road.

| PROFESSIONAL SERVICES | | | |
|------------------------------|--|---|--|
| Category | Total Achievement 2004/05 (\$000) | Total Allocation 2005/06 (\$000) | Total Requested 2006/07 (\$000) |
| Professional Services | 11.42 | 21 | 20 |

2.4.4 Professional Services Summary

The following graph provides an overview of the financial projections for the Professional Services activity over the coming 10 years.



2.5 Road Maintenance Summary

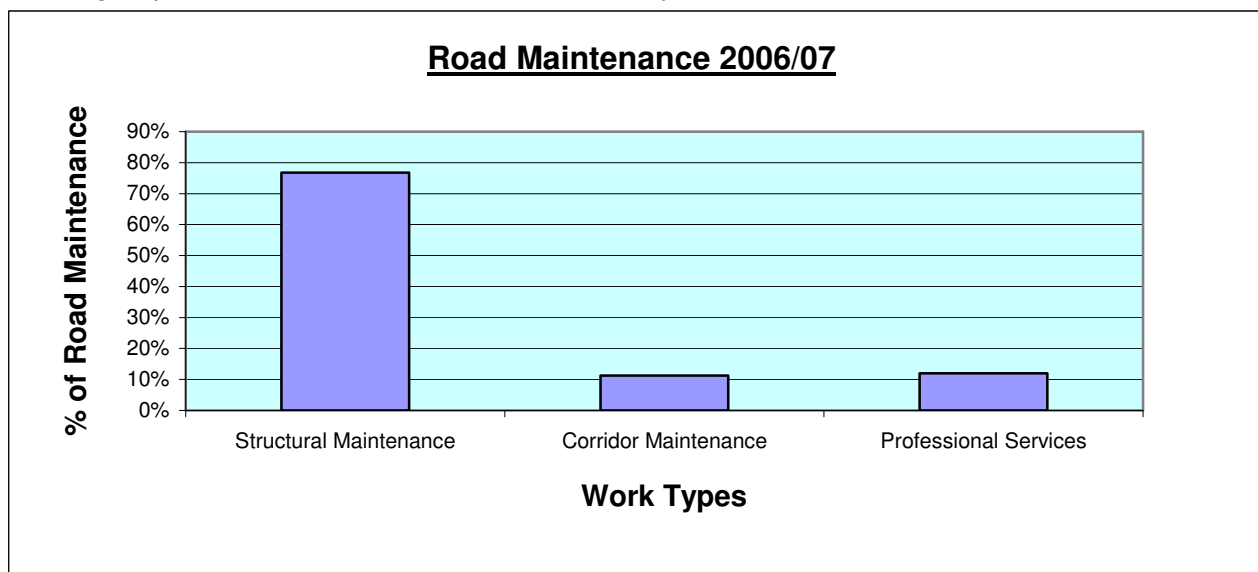
2.5.1 Options and Alternatives

In preparing this LTP, Council considered options and alternatives to the Road Maintenance activity however, Council considers that this activity represents the most effective and efficient method of achieving Council's Long Term Plan, Land Transport Asset Management Plan and community outcomes agreed by the community through consultation.

Appropriate levels of road maintenance is required to ensure that the Ruapehu road network continues to provide the required level of service at the lowest long term cost.

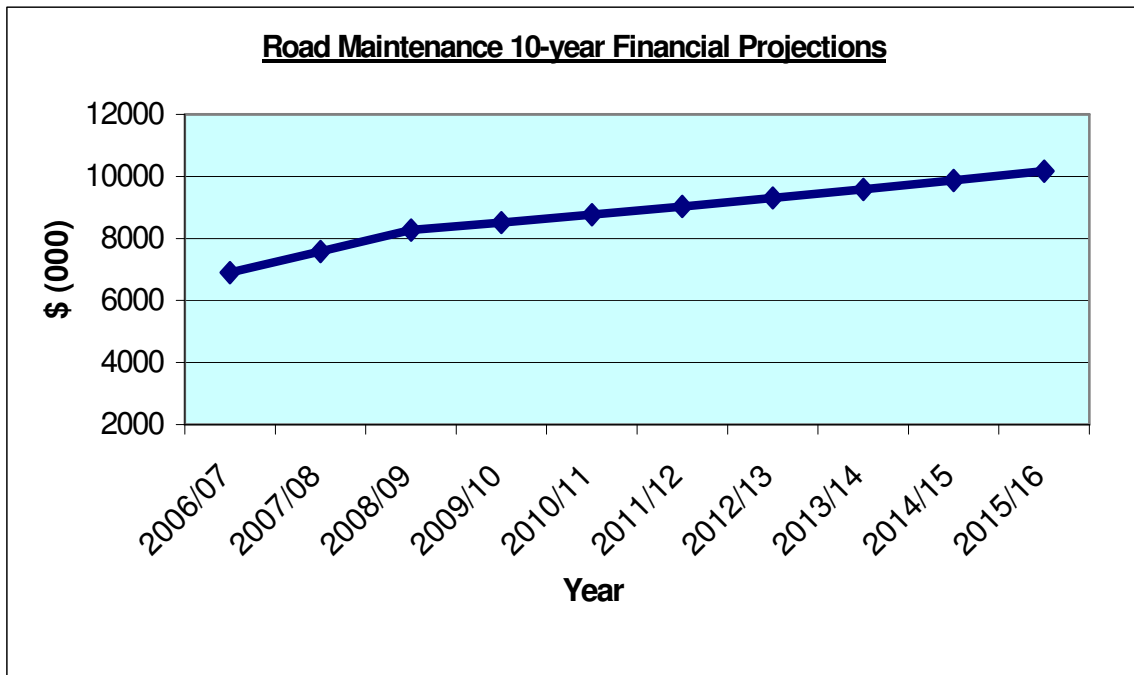
2.5.2 Road Maintenance 2006/07

The graph below provides a summary of the activities that make up the Road Maintenance group of activities for the 2006/ 07 financial year.

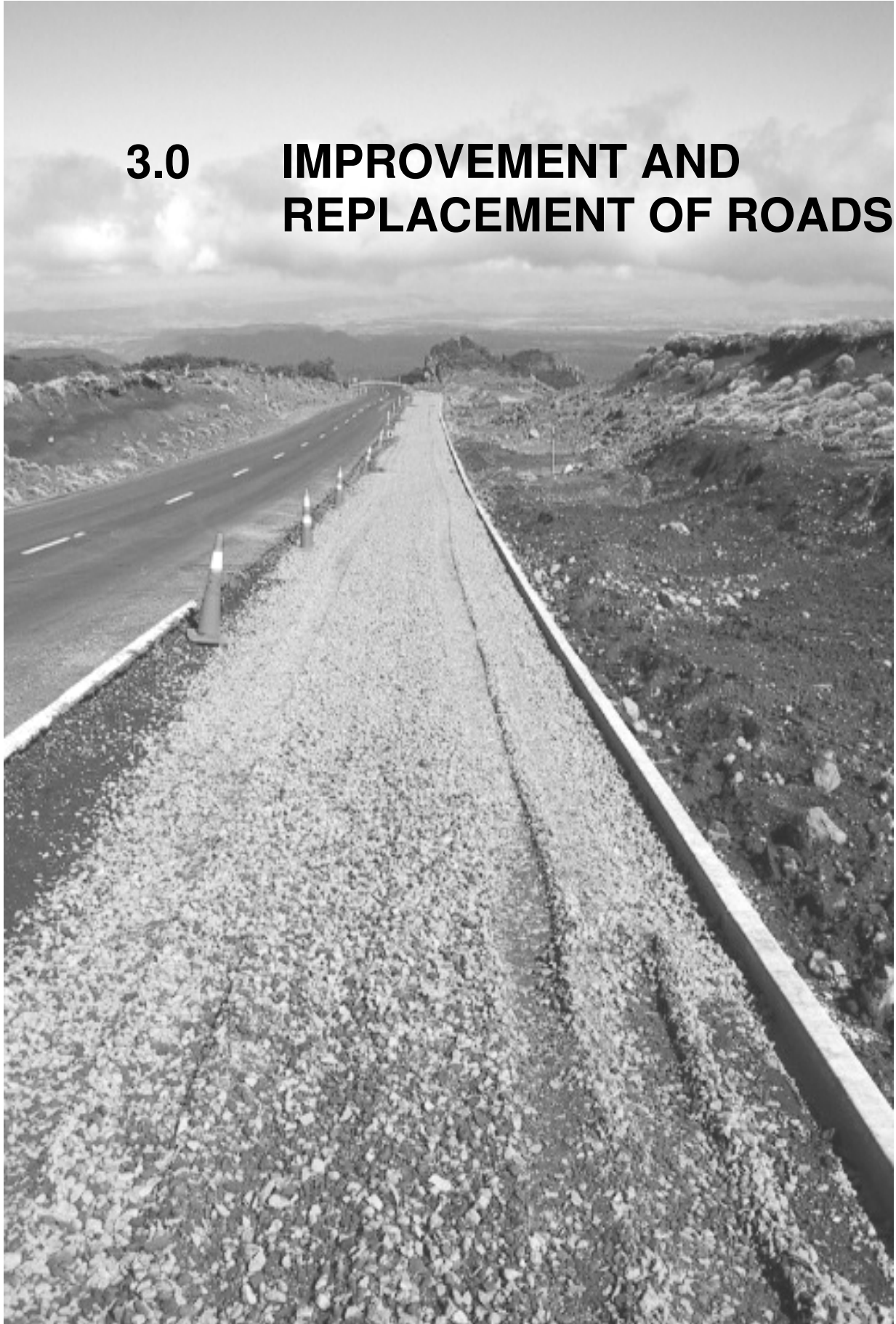


2.5.3 Road Maintenance 10-Year Financial Projections

The following graph provides an overview of the 10-year financial projections for all Road Maintenance activities.



3.0 IMPROVEMENT AND REPLACEMENT OF ROADS



3.1 Introduction

3.1.1 Improvement and Replacement of Roads

Works types covered by the Improvement and Replacement of Roads activity are:

- Construction, and
- Minor Safety Projects.

3.1.2 Strategic Goals

This group of activities contributes to the following strategic goals:

SG1 All District roads provide continuous all weather travel.

SG2 The land transport network provides for the safety of its users.

SG3 Changing traffic patterns are monitored and taken into consideration in preparing the Annual DLT programme.

3.1.3 Funding

LTNZ subsidises works in the Ruapehu District, in this group of activities at 68%, with the exception of Minor Safety Works that currently attracts a 73% subsidy.

3.2 Construction

3.2.1 Introduction

The Construction activity includes the following work categories:

- Traffic Management provides for projects that assist with the management of the road network.
- Bridge Renewals provides for replacing a structurally inadequate bridge, replacing a bridge for non-structural reasons, modifying a bridge, or widening a bridge.
- New Roads and Bridges provides for the construction of new roads that are additional to the existing roading system and may include new bridges.
- Road Reconstruction provides for the reconstruction of existing pavements within the existing or widened road reserve or deviations onto a new road reserve where the original road is closed. Examples of this work include:
 - Realignment,
 - Regrading,
 - Widening, and
 - Intersection improvements.
- Cycleway Construction provides financial assistance to territorial authorities to construct new cycle ways and provide lighting on existing cycle ways.
- Seal extension provides for sealing existing unsealed roads including any reconstruction.
 - Council reserves the right to renegotiate the seal extension programme with LTNZ if private stakeholder groups approach Council under the Privately Funded Road Improvements section of the draft Land Transport Policy. Council and the stakeholder groups must negotiate a fair and equitable share of the local funding before funding from LTNZ is sought.

3.2.5 Construction Projects

Council has three construction projects for which it is applying for funding in 2006/07. LTNZ requires that Council prioritise the works in this category. The project of the

highest priority is Okahukura Saddle Road Seal Extension, with the upgrade of Pipiriki –Raetihi Road / Whanganui Road being the second project, the third is the upgrade of Oio Road in particular the safety work to be carried out on Dobbs Bluff.

3.2.6 Okahukura Saddle Road – Upgrade and Seal

Okahukura Saddle Road has been identified as a priority to improve the efficiency and effectiveness of the major link and time saving route between Taumarunui, Ohura areas, and Taranaki. Increasing numbers of vehicles, including a significant number of heavy vehicles, are using this road; therefore work is proposed to ensure that the road is up to the required standard for the level of use.

This project will involve improving the road alignment, safety improvements and sealing the unsealed sections. This project was started in 2003/04 and is planned for completion in 2010/11.

| Okahukura Saddle Road (\$000) | |
|--------------------------------------|---------------|
| Start Date | July 2003 |
| Expenditure 2004/05 | \$0 |
| Expenditure 2005/06 | \$374 |
| Expenditure 2006/07 | \$385 |
| Expenditure 2007/08 | \$397 |
| Expenditure 2008/09 | \$409 |
| Expenditure 2009/10 | \$421 |
| Total Project Cost | \$1986 |

3.2.7 Pipiriki-Raetihi Road / Whanganui River Road – Upgrade and Seal

Pipiriki-Raetihi Road / Whanganui Road upgrade and sealing project is a joint venture between the Ruapehu and Wanganui District Councils. The road provides an inter-district tourist link, which gives access to the Whanganui River and National Park, as well as areas of high cultural and productive value. The estimated costs for this project are provided below. This project will encourage the regional and economic development of the Pipiriki–Raetihi / Whanganui Road area and improve safety. The sections of road to be upgraded are currently narrow, winding, unsealed and have significant safety issues.

100% funding is being sought from LTNZ for this project. Currently LTNZ has approved the project in principle at Council's normal construction subsidy rate of 68%.

In 2004/05 Council committed to the design phase of this project. On completion of the design, Council and LTNZ will reassess the project's future. Council has stated in the Future Ruapehu Long Term Plan 2004-14 that it will reassess its involvement in the project if 100% funding is not achieved.

| Pipiriki - Raetihi Road / Whanganui River Road (\$000) | |
|---|-----------|
| Start Date | July 2004 |
| Expenditure 2004/05 | \$110 |
| Expenditure 2005/06 | \$484 |
| Expenditure 2006/07 | \$773 |
| Expenditure 2007/08 | \$796 |

| | |
|---------------------------|----------------|
| Expenditure 2008/09 | \$820 |
| Expenditure 2009/10 | \$845 |
| Expenditure 2010/11 | \$870 |
| Total Project Cost | \$4,698 |

3.2.8 Oio Road

3.2.9 Oio Road has become increasingly utilised by tourist traffic travelling to Whakahoro and is a key access point to the Whanganui River and the Whanganui National Park. This project will encourage economic development and improve safety. Significant increases in traffic volumes are expected as the development encourages safe tourist access.

3.2.10 There are two discrete parts to the improvement work that will be undertaken on Oio Road. The first is the improvement of the notoriously unsafe Dobbs Bluff. The expenditure that is required to for this upgrade is highlighted in the table below. The work that is due to be carried out on Dobbs bluff is considered urgent and therefore is scheduled to be carried out in one year.

| Oio Road (Dobbs Bluff) (\$000) | |
|---------------------------------------|----------------|
| Start Date | July 2006 |
| Expenditure 2006/07 | \$1,185 |
| Total Project Cost | \$1,185 |

3.2.11 The second part of the Oio Road upgrade is the upgrading and sealing of the remaining unsealed sections of Oio Road. The remaining unsealed section of the road is currently narrow and winding with several other high and unstable bluffs. The expenditure required for this work is shown on the table below.

| Oio Road (Sealing) (\$000) | |
|-----------------------------------|----------------|
| Start Date | July 2006 |
| Expenditure 2006/07 | \$489 |
| Expenditure 2007/08 | \$504 |
| Expenditure 2007/08 | \$519 |
| Total Project Cost | \$1,512 |

3.2.12 Waitaanga Road (Route 40)

3.2.13 Waitaanga Road is an inter-district link to the Taranaki Region and is being used by increasing volumes of inter-district traffic as well as increasing volumes caused by logging operations served by the road.

3.2.14 The work that is due to be carried out on Waitaanga Road includes improvements and seal extensions to the Waitaanga Road. It is expected that improvement work will begin in 2010 and be completed in the 2014/15 financial year. The projected expenditure is detailed in the table below.

| Waitaanga Road | |
|-----------------------|-----------|
| Start Date | July 2006 |
| Expenditure 2009/10 | \$1126 |
| Expenditure 2010/11 | \$1159 |

| | |
|---------------------------|---------------|
| Expenditure 2011/12 | \$1194 |
| Expenditure 2012/13 | \$1230 |
| Expenditure 2013/14 | \$1267 |
| Total Project Cost | \$5976 |

3.2.15 Marsack Road

3.2.16 Marsack Road is located in the Taumarunui Ward. It has been identified as the highest priority for sealing of the remaining unsealed road network in the Taumarunui Ward.

3.2.17 The sealing work that is due to be undertaken on Marsack Road is planned to begin in 2013. It is expected that this improvement work will be carried out in one financial year.

| Marsack Road (\$000) | |
|-----------------------------|--------------|
| Start Date | July 2006 |
| Expenditure 2013/14 | \$150 |
| Total Project Cost | \$150 |

3.3 **Special Purpose Roads**

3.3.1 Ohakune Mountain Road is a special purpose road. The road rises and winds through one thousand meters, the Ohakune Mountain Road is one of the most picturesque drives in the Country, taking in lowland forest, alpine beach forest, then windswept alpine shrub lands and magnificent views of the surrounding countryside.

3.3.2 Ohakune Mountain Road is a key link that is used by many recreational user groups who use the Mountain. At times the road is closed in winter due to snow and ice. To allow access for skiers and other Mountain users the road is graded and gritted to enable access. This temperature extremes coupled with repeated grading and gritting degrades the road surface resulting in unique maintenance and construction needs.

3.3.3 To improve safety several new projects have been proposed over the next 7 years. A new bridge is proposed at the 9km mark, to be completed over the next two years. A daylight cutting to reduce ice is scheduled to be completed in the 2006/07 year.

3.3.4 The realignment of the hairpin corner at Arete Ridge is scheduled to begin in 2006 and due to be completed in 2011. Two passing lanes are scheduled to be developed in 2011 and 2012.

3.3.5 The capital improvement works on the Ohakune Mountain road are subsidised at a rate of 75% by LTNZ. Council is currently in negotiations with other stakeholders to decide on how the local share funding will be generated. The total costs of these improvement works are highlighted in the table below.

| Ohakune Mountain Road (Special Purpose Road) (\$000) | |
|---|-----------|
| Start Date | July 2005 |

| Ohakune Mountain Road (Special Purpose Road) (\$000) | |
|---|----------------|
| Expenditure 2005/06 | \$10 |
| Expenditure 2006/07 | \$247 |
| Expenditure 2007/08 | \$828 |
| Expenditure 2008/09 | \$765 |
| Expenditure 2009/10 | \$696 |
| Expenditure 2010/11 | \$716 |
| Expenditure 2011/12 | \$148 |
| Expenditure 2012/13 | \$152 |
| Total Project Cost | \$3,562 |

3.4 Minor Safety Projects

3.4.1 Introduction

Minor Safety Projects play a key role in improving the overall safety of the transport network. This works category is used to programme small safety projects including:

- Small road alignment improvements,
- Intersection improvements,
- Traffic calming measures,
- Lighting improvements,
- Provision of guard railing,
- Works to improve visibility,
- Pedestrian crossings, and
- Stock underpasses.

3.4.2 Land Transport Safety Authority Road Safety Issues 2004

The Land Transport New Zealand (LTNZ) annually prepares a road safety issues report for the Ruapehu District. The most recent report was released in July 2005, and is based on reported traffic crash data and trends from the 2000-2004 period. The report identifies the three major road safety issues for the Ruapehu district as:

- Speed,
- Loss of control, and
- Road or environmental factors.

Statistics for road crashes in the Ruapehu for 2004 are as follows:

- Deaths 6
- Serious Injuries 25
- Minor Casualties 76
- Fatal Crashes 6
- Serious injury crashes 17
- Minor injury Crashes 41
- Non-injury Crashes 138

It should be noted that these statistics consider both Council controlled roads and Transit administered state highways within the Ruapehu District.

Speed

Excessive speed was identified as a contributing factor in 69 rural injury crashes (21%) in the Ruapehu District during 2004. Speed was also a contributing factor in approximately 22% of crashes that occurred on urban roads.

Loss of Control

136 crashes occurred in the Ruapehu in 2004 because the drivers lost control of their vehicle, 46 of these crashes resulted in injury. Poor handling, speed too fast for the conditions and the presence of road or environmental factors were the most commonly recorded contributing factors in Ruapehu District's loss of control injury crashes in recent years.

Road / Environmental Factors

The Ruapehu District is affected by extreme seasonal weather conditions. This is just one aspect creating a difficult environment in which to build and maintain roads.

Circumstances where road or environmental factors are recorded in a crash include where the road surface is slippery due to rain, oil, or loose material such as gravel, or if the road is obstructed because of a slip or fallen tree. The road or environmental factors most commonly reported in crashes on Ruapehu District roads were rain, ice, or frost creating a slippery road surface, or where the road was undergoing maintenance or construction.

During 2004, road or environmental factors were recorded as contributing to 52 crashes within the Ruapehu District. This was a reduction compared with recent years, but road or environmental factors contributed to 24 percent of all reported injury crashes on Ruapehu District roads during 2004.

3.4.3 Funding of Minor Safety Projects

Prior to the 2003/04 financial year, LTNZ provided up to 4% of the value of the Road Maintenance budget for Minor Safety Projects, at a subsidy rate of 68% and with a maximum single project value of \$75,000.

The current LTNZ policy for Minor Safety Projects provides:

- Up to 8% of the value of the road maintenance budget,
- Individual projects can be up to \$150,000 in value, and
- A subsidy rate of 72%.

LTNZ has not yet indicated for how long these policy changes will remain in place.

3.4.4 Minor Safety Projects

Based on a continuation of the LTNZ funding policy for the Minor Safety Projects activity, Council is intending to undertake approximately \$550,000 of minor safety projects in the 2006/07 year. The 10-year projections for the spending are provided in the table below. If changes to LTNZ policy occur the following projections may need to be reviewed.

| Minor Safety Works \$000 | | | | | | | | | | |
|---------------------------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| 05/06 | 06/07 | 07/08 | 08/09 | 09/10 | 10/11 | 11/12 | 12/13 | 13/14 | 14/15 | 15/16 |
| 526 | 552 | 606 | 661 | 681 | 702 | 723 | 744 | 767 | 790 | 814 |

3.3.6 The methodology attributes a weighting from one to four to the various factors depending on their perceived importance when considering safety. Each work is then

scored against each of the factors as set out in the attached methodology and given a score from zero to four.

- 3.4.6 The priority for the work is then determined by multiplying the score by the weighting for the particular factor and summing all of the products giving a ranking value for each work.
- 3.4.7 The list of all works will then be arranged in descending order of priority in order to determine the order in which the works will be carried out.
- 3.4.8 In determining the factors to be considered it is necessary to remember that the purpose of the funding is to improve the safety of the network. This could be, for example, improving visibility at bends, improving the road surface or geometry, installing school crossings or improving lighting at intersections.
- 3.4.9 In preparing the list an attempt has been made to focus on factors leading to improved safety rather to road improvements per se. It needs to be remembered that the purpose of the fund is to improve safety and LTNZ would have concerns if the criteria for the funding were simply roading improvements in general.
- 3.4.10 One of the factors is “Safe access concerns”. The main focus here must be the safety of the access and would address the situation where large trucks are attempting to navigate narrow roads and may be in danger of toppling on corners.
- 3.4.12 In preparing the list of factors care was taken not to “double count” so to speak. Factor such as population, presence of schools or value of land served for example are traffic generators, which are represented in measured traffic or pedestrian numbers.
- 3.4.13 The adopted method for Scoring Evaluation for Minor Safety Works is detailed on the tables below.

Scoring Evaluation for Minor Safety Works

| Item | Weighting (1 - 4) | Score (0 - 4) | Ranking |
|----------------------------------|----------------------|------------------|---------|
| LTSA Accident history | 4 | | |
| Traffic volumes | 3 | | |
| Pedestrians | 3 | | |
| Percentage heavies | 2 | | |
| Cost | 2 | | |
| Visibility of oncoming vehicles. | 3 | | |
| Visibility dangers at night | 2 | | |
| Safe access concerns | 1 | | |
| Safety concerns expressed | 3 | | |
| Route hierachy | 3 | | |
| Total Ranking Value | | | |

| Item | Score | | | | |
|----------------------------------|-----------|-----------------|-----------------|-------|------|
| | 4 | 3 | 2 | 1 | 0 |
| LTSA Accident history | >3 | 3 | 2 | 1 | 0 |
| Traffic volume | > 150 | 150 - 100 | 50 - 100 | < 50 | NA |
| Pedestrians | > 50 | 30 - 50 | Jan-30 | < 10 | NA |
| Percentage heavies | > 20 % | 15 - 20 % | 10 - 15 % | < 10% | NA |
| Cost | < 10 | Oct-50 | 5 - 100 | > 100 | NA |
| Visibility of oncoming vehicles. | None | Limited | Fair | Good | NA |
| Visibility dangers at night | Major | Significant | Some | Minor | None |
| Access problem | Major | Significant | Some | Minor | None |
| Safety concerns expressed | Large Nos | Some | Few | 1 | None |
| Route hierachy | Arterial | Major Collector | Minor Collector | Local | NA |

3.5 Improvement and Replacement of Roads Summary

3.5.1 Options and Alternatives

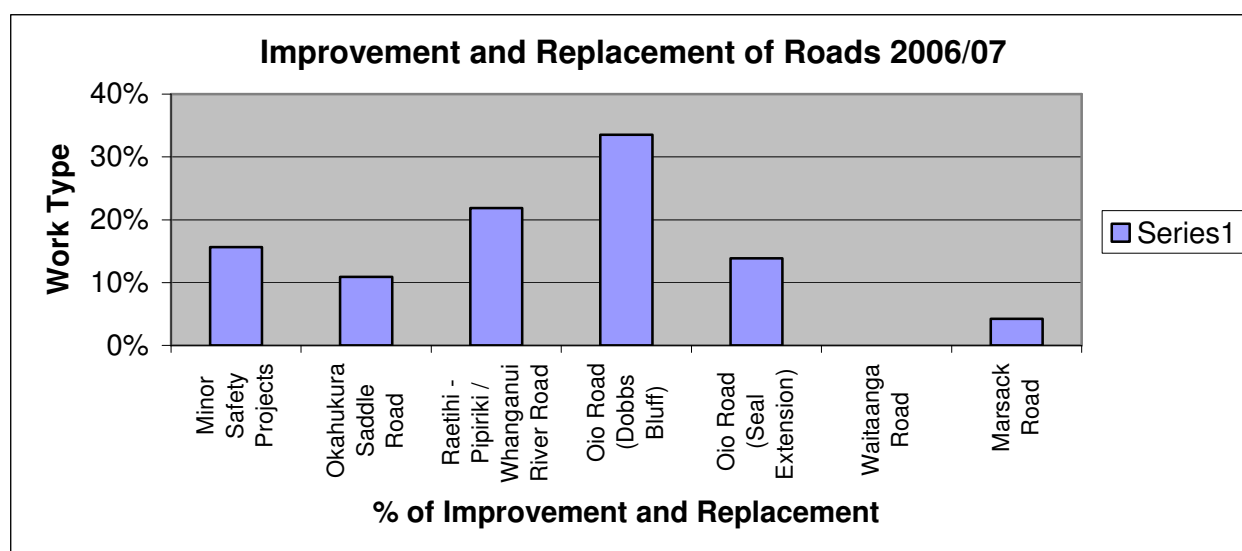
In preparing this LTP Council has considered options and alternatives to the Improvement and Replacement of Roads activity, and concluded that the proposed programme represents the most effective and efficient method of achieving Council's Long Term Plan, Land Transport Asset Management Plan and community outcomes as agreed with the community through consultation.

The current programme targets the promotion of

- Increased road user safety through Council's minor safety works programme,
- Regional Development through the proposed upgrade of Pipiriki–Raetihi / Whanganui River Roads (a key tourist route), and the continuing upgrade of Okahukura Saddle Road (identified as a potential major linkage between Taumarunui, Ohura and Taranaki).
- Providing the required level of service to Ruapehu communities in regards to the travel quality of District roads through Council's pavement smoothing programme.

3.5.2 Improvement and Replacement of Roads Projects 2006/07

The graph below illustrates the categories of work planned in the Improvement and Replacement of Roads activity for 2006/07.



3.5.3 Improvement and Replacement of Roads 10-Year Projections

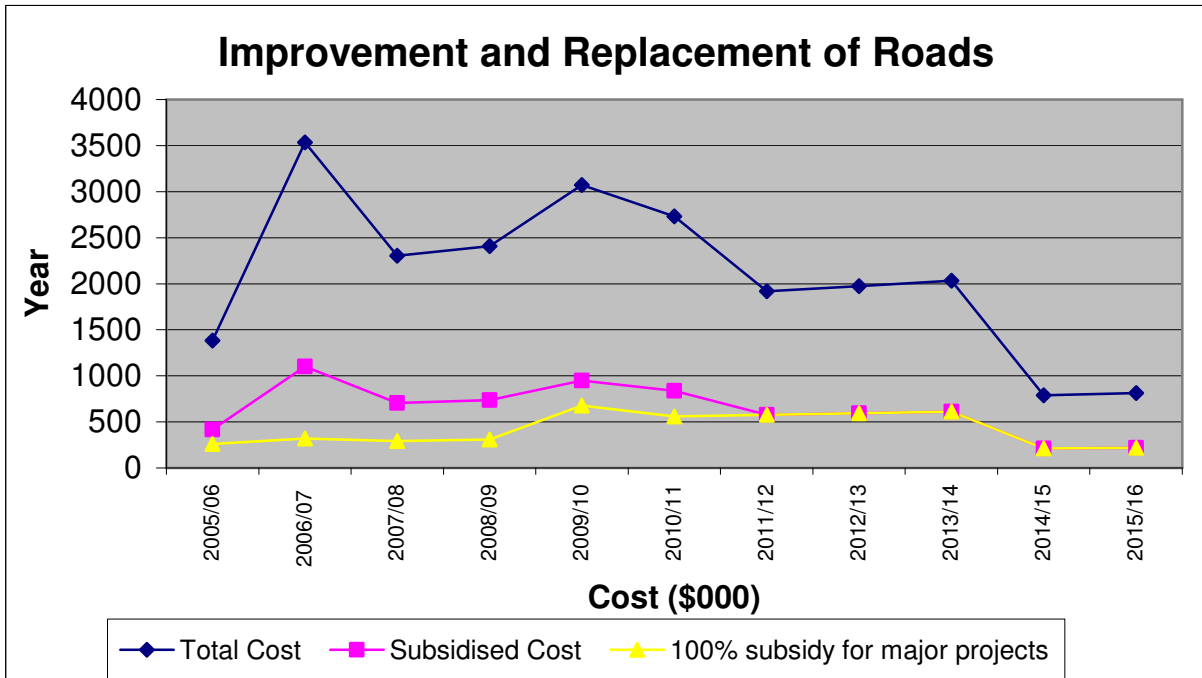
The table below provides an overview of the projected expenditure by project for the coming 10-year period.

| Priority | Project | Construction Activities \$(000) | | | | | | | | | | |
|---------------------------|---|---------------------------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|------------|------------|
| | | 05/06 | 06/07 | 07/08 | 08/09 | 09/10 | 10/11 | 11/12 | 12/13 | 13/14 | 14/15 | 15/16 |
| 1 | Minor Safety Projects | 526 | 552 | 606 | 661 | 681 | 702 | 723 | 744 | 767 | 790 | 814 |
| 1 | Okahukura Saddle Road | 374 | 385 | 397 | 409 | 421 | | | | | | |
| 1 | Raetihi - Pipiriki / Whanganui River Road | 484 | 773 | 796 | 820 | 845 | 870 | | | | | |
| 2 | Oio Road (Dobbs Bluff) | | 1185 | | | | | | | | | |
| 3 | Oio Road (Seal Extension) | | | 489 | 504 | 519 | | | | | | |
| 3 | Waitaanga Road | | | | | 1,126 | 1,159 | 1,194 | 1,230 | 1,267 | | |
| 4 | Marsack Road | | 150 | | | | | | | | | |
| Total Construction | | 1,384 | 3,045 | 2,288 | 2,394 | 3,592 | 2,731 | 1,917 | 1,974 | 2,034 | 790 | 814 |

The graph below illustrates the 10-year financial projections for the Improvement and Replacement of Roads activity. The uppermost line represents the total annual costs of the combined Improvement and Replacement of roads projects. The lower line represents the local share component of the total costs, based on 100% funding for

both the Pipiriki–Raetihi / Whanganui River Road and the Oio Road projects (scenario 1).

The middle line represents the local share component of the total costs based on LTNZ's normal construction subsidy of 68% and 73% for Minor Safety Works (scenario 2).



4.0 FINANCIAL SUMMARY



4.0 Financial Summary

4.1 Cost of Service Statement

This LTP covers only those work programmes that are subsidised by LTNZ. Opportunities for public consultation in respect of non-subsidised works, such as the renewal and development of footpaths and kerb and channel, are provided through Council's Annual Plan and Long Term Plan development processes.

4.2 Land Transport Subsidised Programme 10 year projections

The following tables provide the 10-year financial projections for Council's subsidised works contained within this LTP.

4.2.1 Road Maintenance Local Roads

The following table provides the 10-year financial projections for Council's subsidised road maintenance activities on local roads.

| Road Maintenance - Local Roads 10-year Financial Projections (\$000) | | | | | | | | | | |
|---|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|---------------|
| | 2006/07 | 2007/08 | 2008/09 | 2009/10 | 2010/11 | 2011/12 | 2012/13 | 2013/14 | 2014/15 | 2015/16 |
| Structural Maintenance | 5,779 | 5,778 | 6,413 | 6,605 | 6,803 | 7,007 | 7,218 | 7,434 | 7,657 | 7,887 |
| Corridor Maintenance | 849 | 874 | 901 | 928 | 956 | 984 | 1,014 | 1,044 | 1,075 | 1,108 |
| Professional Services | 900 | 927 | 955 | 983 | 1,013 | 1,043 | 1,075 | 1,107 | 1,140 | 1,174 |
| Total Road Maintenance | 7,528 | 7,579 | 8,269 | 8,516 | 8,772 | 9,034 | 9,307 | 9,585 | 9,872 | 10,169 |

4.2.2 Road Maintenance Special Purpose Roads

The following table provides the 10-year financial projections for Council's subsidised road maintenance activities on special purpose roads. Council receives 100% subsidy for maintenance works on special purpose roads.

| Road Maintenance - Special Purpose Roads 10-year Financial Projections (\$000) | | | | | | | | | | |
|---|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|
| | 2006/07 | 2007/08 | 2008/09 | 2009/10 | 2010/11 | 2011/12 | 2012/13 | 2013/14 | 2014/15 | 2015/16 |
| Structural Maintenance | 327 | 336 | 345 | 357 | 368 | 379 | 390 | 402 | 414 | 426 |
| Corridor Maintenance | 140 | 144 | 148 | 153 | 158 | 162 | 167 | 172 | 177 | 182 |
| Professional Services | 20 | 21 | 21 | 22 | 23 | 23 | 24 | 25 | 26 | 27 |
| Total Road Maintenance | 487 | 501 | 514 | 532 | 549 | 564 | 581 | 599 | 617 | 635 |

4.2.3 Improvement and Replacement of Roads

The following table provides the 10-year financial projections for Council's subsidised Improvement and Replacement of Roads projects. The category of "Special Construction Projects" in the following table relates to those projects that Council is targeting to achieve 100% funding from LTNZ (Pipiriki–Raetihi / Whanganui River Road and Oio Road). The Construction works category contains all other identified construction works, which Council receives the normal construction subsidy (currently 68%).

| Improvement and Replacement of Roads 10-year Financial Projections (\$000) | | | | | | | | | | |
|---|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| | 2006/07 | 2007/08 | 2008/09 | 2009/10 | 2010/11 | 2011/12 | 2012/13 | 2013/14 | 2014/15 | 2015/16 |
| Pavement Smoothing | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Minor Safety Works | 552 | 606 | 661 | 681 | 702 | 723 | 744 | 767 | 790 | 814 |
| Construction Projects | 782 | 1,379 | 1,334 | 2,242 | 1,876 | 1,342 | 1,382 | 1,267 | | |
| Special Construction Projects | 1,958 | 1,285 | 1,324 | 1,364 | 870 | | | | | |
| Total Construction | 3,292 | 3,270 | 3,319 | 4,287 | 3,448 | 2,065 | 2,126 | 2,034 | 790 | 814 |

4.3 Total Expenditure for LTNZ Subsidised Works

The following table provides a summary of Council's projected expenditure for subsidised works for the coming 10-year period, excluding emergency works

| Total Expenditure 10-Year Programme (\$000) | | | | | | | | | | |
|--|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| | 2006/07 | 2007/08 | 2008/09 | 2009/10 | 2010/11 | 2011/12 | 2012/13 | 2013/14 | 2014/15 | 2015/16 |
| Road Maintenance | 7,528 | 7,579 | 8,269 | 8,516 | 8,772 | 9,034 | 9,307 | 9,585 | 9,872 | 10,169 |
| Road Maintenance SPR | 487 | 501 | 514 | 532 | 549 | 564 | 581 | 599 | 617 | 635 |
| Improvement and Replacement | 3,292 | 3,270 | 3,319 | 4,287 | 3,448 | 2,065 | 2,126 | 2,034 | 790 | 814 |
| Total Expenditure | 11,307 | 11,350 | 12,102 | 13,335 | 12,769 | 11,663 | 12,014 | 12,218 | 11,279 | 11,618 |

4.4 Financial Assumptions

The approach taken to budget development is based on 'forecasts' of a best estimate of expected events and required responses to those events. Council has not taken an approach where hypothetical ("what if") projections are used.

This Programme is based on the assumption that all works will occur in the years in which they are programmed; however in practice some of these works may include carry over projects.

The major limitation of the forecasting approach as with any approach is that events may change over time that undermines the accuracy of assumptions made. These changes over time could be material.

The following assumptions are made:

- A 3% allowance has been made for inflation,
- No major changes in service demand and mode of service delivery,
- No change in the level of service provided by Council,
- No substantial asset disposals,
- No change in LTNZ funding policies.