Road Management Plan

Version 1.1
Adopted – October, 2004
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Road Management Plan

GENERAL

Distribution

The General Manager of Infrastructure and Services shall be responsible for the –

- Control of this Plan,
- Distribution of the Plan, and
- Control and issue of any amendments.

Amendment Register

Issue	Date	Details	Amendment By
Version 1.1	Draft	Amendment No. 1 – Appendix B	Gary Dolan **General Manager Infrastructure & Services**

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1.0 INTRODUCTION

1.1 Background

Colac Otway Shire is the road authority for those roads within the municipality for which it accepts management responsibility. Colac Otway Shire exercises its duty of care to the public in a number of ways, including planning and undertaking repairs and maintenance to the road network that it manages.

Colac Otway Shire demonstrates its duty of care through having in place a reasonable regime to -

- Inspect the road network to discover defects, and
- Plan and implement repairs to overcome the defects

Where a dangerous condition in the road network is shown to exist, Council may satisfy its duty of care to road users which may include taking one or more of the following actions, depending on the circumstances of any particular case:

- Prioritising the condition in a capital works or maintenance program,
- Installing appropriate signs warning of the dangers,
- Closing the road, or
- Repairing the dangerous condition completely.

1.1.1 History

Negligent repairs and maintenance were known as *misfeasance.* Road authorities in the past may have been liable for injuries and loss caused by misfeasance.

Where a road authority fails to construct, repair or maintain a road under its control, this is known as *nonfeasance*. Under this long-standing common law rule, road authorities in Victoria were protected from findings of negligence in respect of the condition of a road due to any failure to maintain or carry out remedial or improvement works. The High Court of Australia abolished the nonfeasance immunity of highway authorities in May 2001 after their decision in the case of *Brodie vs Singleton Shire Council.*

In response, the State Government introduced legislation to temporarily reinstate this immunity, the *Transport (Highway Rule) Act 2002.* This immunity sunset on the 1 January 2005. The Road Management Act is seen as the long-term solution to road management issues.

For Council to show that it has satisfied its duty of care to road users, it is required to demonstrate that it has in place a reasonable regime for inspecting the road network to discover defects and a reasonable system for planning and implementing repairs to overcome those defects.

1.1.2 Legislative Requirements

Council has many obligations specified and its activities must fall within the powers provided by Acts of Parliament, associated Regulations and common law.

The foremost legislative powers and duties in relation to Council's management of its road assets are –

- *Local Government Act 1989*
- *Road Management Act 2004*
- *Transport Act 1983*

1.1.3 Local Government Act 1989

This Plan has been developed to reflect the purposes and objectives of Council as specified in *Sections 6* and *7* of the *Local Government Act 1989. Section 6 (1)* of this Act describes the purposes of a Council that includes the following –

- To provide equitable and appropriate services and facilities for the community and to ensure that those services and facilities are managed efficiently and effectively, and
- To manage, improve and develop the resources of its district efficiently and effectively.

The *Local Government Act 1989* contains the legislation relating to the care and management of all public highways vested in the Council and all roads that are the subject of a declaration under *Section 204(2)*.

Section 205(2) states 'A Council that has the care and management of a road-

a) Must ensure that if the road is required for public traffic, it is kept open for public use (subject to the exercise of any powers that it has to the contrary under *Schedules 10* and *11*),
b) May carry out work on the road, and
c) Is not obliged to do any particular work on the road, and in particular, is not obliged to carry out any surface or drainage work on an unmade road.

1.1.4 Victorian Road Management Act 2004

The *Road Management Act 2004* ('the Act') establishes improved road management legislation to provide a more efficient and safer road network for all road users.

The aim of the Act is to establish for road management authorities, management systems for the public road network that they manage. The Act assists Council, as a road authority, to determine its own appropriate management plan and standards in order to manage civil liability by defining and achieving its responsibilities.

The objectives of the Act are to –

- Specify the general rights of road users and their obligations in relation to responsible road use,
- Establish a system for the management of safe and efficient public roads that best meets the needs and priorities of the community within the limitations of Council's resources and budgetary frameworks,
- Establish a system of road classification for the division of responsibilities between State and local road authorities,
- Provide for the keeping of a register which records public roads to be constructed, maintained and managed by Council, and
- Clarify the law relating to civil liability for the management of public roads and other public highways.

As a Road Authority, Council has the general management functions of –

- Provision and maintenance of a network of public roads for use by the community,
- Management of the use of public roads having regard that the primary purpose of a road is use by member of the public,
- Management traffic on public roads, and
- Coordinating the installation of infrastructure on public roads in such a way to minimise adverse impacts on the provision of utility services.

1.1.5 Transport Act 1983

In response to the abolishment of 'Highway Rule' in May 2001 by the High Court of Australia, the Victorian State Government passed amendments to the *Transport Act 1983* in November 2002. These amendments temporarily reinstate the former 'Highway Rule' until 1 January 2005. This allows a road authority to operate under the former law while adopting the new road management requirements as legislated by the *Road Management Act 2004*.

1.2 Duties of the Road User

A road user has specific duties in the respect to the use of a public highway, including having regards to the rights of other road users. A road user must also take all due care to avoid causing the risk of damage to a public highway or any infrastructure located in the road reserve.

A person who drives a motor vehicle on a public highway must drive in a safe manner having regard to all the relevant factors including the –

- Standard of construction of the road,
- Prevailing weather conditions,
- Level of visibility,
- Condition of the motor vehicle,
- Prevailing traffic conditions,
- Relevant road laws and advisory signs, and
- Physical and mental condition of the driver.

1.3 Road Management Plan

The Road Management Plan ('the Plan') sets the relevant standards and policy decisions in relation to the discharge of Council's duties in the performance of its road management functions.

The Plan details the management systems that Council will implement to maintain, upgrade and operate its physical road assets cost-effectively.

Colac Otway Shire through the Plan accomplishes its duties by combining engineering principles with sound business practices, and providing tools to facilitate an organised logical approach to decision making.

The following basic elements are included in Council's Road Management Plan –

- The relevant standards and policies in relation to Council's performance of its road management functions,
- Descriptions of the road asset management systems that Council has established and will implement to effectively provide a road network that is safe and meets the needs of road users and the community,
- A schedule of maintenance processes and standards, taking into account affordable community needs, and
- Reference to all relevant Codes of Practice.

1.4 Codes of Practice

Council is guided in their application of the Plan through Codes of Practice, as part of the Act. The codes set out benchmarks of good practice in relation to the road management duties of councils and allow scope for individual councils to set standards and allocate road maintenance priorities according to their particular level of resources.

The Plan should include matters that a relevant Code of Practice specifies.

A Code of Practice objectives include,

- To set benchmarks for exercise of powers and conduct of utilities, service providers and infrastructure managers,
- To clarify and determine operational responsibility for different parts of the road reserve, and
- To provide practical guidance in determining how to allocate resources, develop policies, set priorities and make road management plans

A Code of Practice cannot,

- Impose a duty,
- Direct how operations may be done,
- Create an enforceable legal right, or
- Impose a liability or penalty.

2.0 COUNCIL OBJECTIVES/POLICY

The Colac Otway Shire is committed to continual improvement in the way it manages its road network and associated assets. A fundamental component of this task is maintenance or the management of the ongoing performance and condition of this infrastructure.

This Road Management Plan provides a vision for how Council plans to manage its road network. This vision will ensure that the community is provided with a road system that returns optimum economic benefit for the life of the asset while recognising social, safety, environmental and user needs.

This document provides a policy framework to guide Council's management of the road infrastructure under its authority. It defines roles and responsibilities for decision making, outlines the way management requirements should be assessed, and addresses appropriate methodologies for roads based funding.

2.1 Key Stakeholders

A stakeholder represents any groups or individuals having an interest, in this case, the service provided by Council's road network.

The stakeholders in the management of Council's road and other related assets are many and often their needs are wide-ranging. The relevant key stakeholders are –

- Local residents including private car drivers, cyclists, pedestrians, etc,
- Industrial and commercial operators and other transport services,
- Emergency Services,
- Other Government Departments, and
- Tourists.

The community's needs and expectations are subject to change frequently and are becoming more demanding manifested by demands for services that provide better quality, value for money, environmental awareness and relevant value adding.

2.2 Key Outcome Areas

The specific objectives of Council's vision are –

- To ensure sound road management decisions,
- To ensure that Council's road assets perform effectively throughout their service lives, to appropriate standards, which have been set with due consideration of community expectations,
- To enable a sound basis for establishing road funding requirements, and
- To ensure sound allocation decisions between capital works and maintenance.

2.3 Policy Framework

This policy framework provides that Colac Otway Shire apply a systematic approach to its road management responsibilities.

Maintenance and construction performance criteria are defined to ensure that a safe and efficient road network is provided to the community. Council approved funding levels corresponding to these performance criteria are allocated to achieve such standards.

2.4 Council Plan

The Road Management Plan is a key document in Council's overall strategic planning objectives and is structured to meet the requirements of the Road Management Act from its operational commencement date of 1 July 2004.

The Colac Otway Shire's Road Management Plan is consistent with Council's commitment and goals to plan, develop and maintain a sustainable road network, whilst providing Best Value to the community.

The specific strategies and outcomes identified in the Council Plan 2005 – 2009 include –

- Continue increased funding of infrastructure asset renewal, particularly on rural road resheeting, drainage, timber bridges and footpaths.

- Advocate for improved infrastructure services -

    - Upgrade Turtons Track as a major sealed 2WD Touring route,
    - Upgrade of the main access roads between Princes Hwy and the Great Ocean Road including the Colac – Forrest Road, Birregurra - Forrest Road, Forrest – Skenes Creek Road and the Colac – Lavers Hill Road consistent with actions contained in the Great Ocean Road Regional Strategy.
    - Location of the Geelong By-Pass connection with the Princes Highway to enable a continuous 100kmh speed zone.
    - Construction of a dual carriageway Princes Highway from Geelong to Colac and then beyond to the South Australian border.
    - Development of an alternative heavy vehicle route for the city of Colac.
    - Identification of a designated route for the future location of a Colac By - Pass along the Princes Hwy.

- Implementation of Road Safety Plan and Council approved road safety initiatives in partnership with Vic Roads and other agencies.

- Develop and implement the Asset Management Plans and Asset Management Systems for all infrastructure categories.

2.5 Council Policies & Strategies

The Colac Otway Shire applies a 'whole of life' approach to the management of its Infrastructure Assets. This provides for an encompassing view of asset management through the application of an Asset Management Policy and a Strategic Asset Management Plan.

In its simplest terms, asset management is about the way in which we look after the assets around us, both on a day-to-day basis (maintenance and operations) and in the medium to long term (strategic and forward planning).

2.6 Best Value

In association with Best Value, Council is required to comply with the Best Value Principles as defined by the *Local Government Act 1989, Section 208B*. Council has considered these fundamental principles in developing the relevant standards, policy and operational objectives as they relate to this Plan.

The principles that Council must observe are as follows:

- There must be quality and cost standards set for all services that a council provides to the community,
- All services provided by a council must be responsive to the needs of the community,

- Each service provided by a council must be accessible to those members of the community for whom the service is intended,
- A council must achieve continuous improvement when providing services to the community,
- A council must develop a program of regular consultation with its community in relation to the services it provides, and
- A council must report regularly to its community on its achievements in relation to the Best Value Principles.

2.7 Asset Management Policy

The Asset Management Policy states Council's commitment to working towards implementing Advance Asset Management principles to ensure that assets are planned, created, operated, maintained, replaced or disposed in accordance with Council's priorities for the service it delivers.

This policy provides a framework and guiding principles for the processes involved in managing Council assets. The policy provides clarity of expectations when planning, creating, maintaining/operating and reviewing Council's Assets.

2.8 Strategic Asset Management Plan

The Strategic Asset Management Plan outlines and guides Council's asset response to its service requirements, through the development of an asset portfolio, risk management strategies and asset performance measures.

The principal objective of strategic asset management is to ensure that Council meets its service delivery objectives efficiently and effectively.

This objective will be achieved by:

- Maximising the service potential of existing assets by ensuring they are appropriately used and maintained;
- Reducing the demand for new assets through demand management techniques and consideration of alternative service delivery options;
- Achieving greater value for money through a rigorous project initiation and evaluation process which takes into account life cycle costing, value management techniques and private sector involvement;
- Eliminating unnecessary acquisition and holding of assets by ensuring agencies are aware of, and required to pay for, the full costs of holding and using assets; and
- Focusing attention on results by clearly assigning responsibility, accountability and reporting requirements in relation to asset management.

This outcome will be supported by a comprehensive Strategic Asset Management Plan that address capital investment, the operation and maintenance of existing assets, and the rationalisation and disposal of assets.

2.9 Road Asset Management Plan

The objective of a Road Asset Management Plan is to outline the particular actions and resources necessary to manage our road network and associated assets to provide a defined level of service in the most cost effective manner. A significant component of the plan is a long-term cash flow projection for the activities.

The aim of this plan is to –

- Identify all assets within the class of roads and associated infrastructure,
- Develop a level of service to which these assets will be developed and maintained,
- Determine lifecycle costs based on current management techniques,

- Assess risks involved in the operation of these assets,
- Develop management strategies to enable Council to operate a sustainable road network that meets the communities expectations for performance, and
- Identify a short and long term improvement program so that financial costs and information may be modeled and refined.

Council's intention is to have this document finalised and adopted by March 2006.

2.10 Risk Management Policy

The Colac Otway Shire is committed to managing risk by logically and systematically identifying, analysing, assessing, treating and monitoring risks that are likely to adversely impact on Council's operations.

The purpose of this policy is to provide a framework for risk management, and to define the responsibilities of staff and management in the risk management process.

The Colac Otway uses the Risk Management Standard AS/NZ 4360 – Risk Management. For all significant risks associated with Council's road infrastructure appropriately planned actions are determined and implemented. These actions include capital development, maintenance and/or operational enhancement.

2.11 Road Management Review (Policy 13.6)

Council, as part of its overall objective of establishing clear and equitable policies for its community, has determined to review the functions and purpose of its entire local road network.

This review includes the establishment of construction and maintenance criteria for each particular classification.

This review also incorporates consideration of issues pertinent to road closure, road renaming and the establishment of processes to allow community feedback on these issues.

3.0 BUDGET PROCESS

This aim of Council's Financial Strategic Resource Plan is to assist it in understanding the medium to long term implications of its policies and strategies which are proposed each year and subsequently adopted in the annual budget process. The principles of this Strategy were incorporated into the 2005/2006 Budget.

The Financial Strategy is closely aligned to the Council Plan and it provides Council with a broader understanding of the financial implications of its strategic decisions. It guides Council and management in the preparation of future corporate strategies and associated allocation of budgets.

Council's Annual Budget Process is based on the following principles -

1. Deliver the results sought by Council as specified in the outcome statements in each program area.
2. Deliver outcomes as identified in Council's Annual Plan.
3. Reflect Council's capital expenditure priorities as identified in the Three-Year Capital Investment Program, including no new major capital projects.
4. Emphasise the implementation of adopted strategies and priorities identified in Business Plans.
5. Increase funding levels for infrastructure asset renewal and maintenance.
6. Increase working capital and cash reserves.
7. Minimise rates and charges increases.
8. Not exceed existing staff levels.
9. Undertake no new loan borrowing's

3.1 Maintenance Funding

Maintenance is all actions necessary for retaining an asset as near as possible to its original condition, excluding rehabilitation or renewal.

Maintenance activities are not only important to ensuring the maximum 'useful' life of an asset is achieved, but also impacts directly on aspects of risk management and the delivery of expected levels of service to the community.

Roads deteriorate as a result of repeated traffic loading and environmental influences such as climate and soils. Maintenance is a 'day to day' activity to provide an acceptable level of service for the road user and allow road assets to continue to function as built, taking into account seasonal conditions and activities.

Road maintenance involves remedying the defects that occur from time to time and providing treatments that retard the rate of deterioration. Also included under the heading of maintenance is the upkeep of road shoulders, verges, drainage facilities, signs, line marking and road furniture.

In most cases, the commencement of a maintenance or operational activity is triggered by the asset showing certain measurable defects or conditions. This trigger is termed the Maintenance Performance Criteria. Examples of these defects include size of potholes or corrugations in a road, or the length of grass on a roadside.

The principles outlined in this Road Management Plan ensure that the standard condition to which Council's assets are maintained will provide a safe and efficient road network.

Budget constraints may result in undesirable asset deterioration. Council is responsible to ensure that budget funding levels are allocated adequately to ensure undesirable asset deterioration does not occur.

Funding for roads must compete against a wide range of services that Council delivers. The following factors will be considered by Council during its annual budget process to determine and review its road maintenance funding levels –

- The ability to meet the specified levels of service in regards to its adopted maintenance performance criteria within the limitations of funding levels,
- Maximisation of asset life and reduction in whole of life costs,
- Priorities for maintenance are consistent with the objectives of the Road Management Plan,
- All relevant information relating to the gap between what maintenance works are funded by Council and listings of any deferred maintenance required to be completed, and
- Annual Community Satisfaction Survey outcomes (Council Plan – performance indicators)

3.2 Capital Works

Capital Works can be defined as expenditure that either creates a new asset or improves or restores the current function of an existing asset, eg. reconstruction of a road or bridge.

Capital Works may be split into three distinct categories, Renewal, Expansion and Upgrade. Capital Works, as it relates to Councils road related infrastructure includes renewal, expansion and upgrade of the following asset classes -

- Road Infrastructure
- Stormwater Drainage, Kerb & Channel and Footpaths
- Bridges and Major Culverts

3.2.1 Renewal

Capital renewal is those works required to refurbish or replace an existing asset with an asset of equivalent capacity or performance capability eg reconstruction of a 5-metre wide road to match the existing width and levels is considered a renewal project.

Some maintenance activities may also be considered as renewal. These activities significantly impact upon the condition and useful life of an asset. Only those maintenance activities that result in replacement of a significant asset or asset component are considered renewal.

Examples of such activities are:
- Gravel road resheeting
- Major patching of a failed section of sealed pavement
- Road resealing

3.2.1.1 Funding of Asset Renewal

Prioritised programs are developed in support of the budget. In the development of these programs, consideration is given to the following factors:

- Asset condition assessments,
- Asset hierarchy,
- Analysis of maintenance costs,
- Relative risk to the travelling public, and
- Available funding

Additional funding for asset renewal is available from Roads to Recovery funding. This is designed to bring forward renewal programs which would otherwise be difficult to fund.

The program has previously been used for rehabilitation of failed road pavements and replacement of bridges having a low load bearing capacity.

These funds could also be used to contribute to the upgrade of assets which could otherwise become backlog items. This is especially important where network capacity improvements are required to accommodate the effects of growth and demand changes.

3.2.2 Upgrade

Capital upgrade is work designed to deliver an improved level of service to existing ratepayers.

For example, the widening of an existing 5-metre wide road to a width of 7-metres, or the installation of a roundabout at an intersection to improve safety can be defined as capital upgrade projects.

Upgrade projects improve service delivery to the community; however, consideration must be given to their long-term sustainability. Most of the projects that fall into this category are fully or partially funded by external contributions.

3.2.3 Expansion

Capital expansion may be best described as the creation of new assets to service new ratepayers.

An example of this would be the construction of new infrastructure (roads, footpaths, drainage, etc) as part of a new subdivision development.

All expansion work is externally funded, and in some cases, can be termed as 'donated assets'. Long term operation, maintenance and renewal of these assets may be of concern because, as the asset portfolio increases, the annual cost of sustaining that portfolio increases respectively.

3.2.3.1 Funding of Asset Creation

Funding of new assets can come from -

- Developer contributions,
- Rate revenue and
- Special Charge Schemes targeted at specific improvements for property owners who gain special benefit from those improvements.

Whilst road asset acquisition through donated assets does not in itself create a capital cost it does create an on-going maintenance cost which must be factored into Council's long-term finance allocations.

3.2.4 Summary

All three classifications of Capital Investment, Renewal, Upgrade and Expansion are warranted in differing circumstances:

- Renewal works maintain assets,
- Expansion projects accommodate growth, and
- Upgrade works satisfy changes in demand or rectify assets that are perceived as insufficient in meeting community needs

Council has a current Budget strategy that responds to community demand and asset renewal requirements. Council's current emphasis is on asset renewal expenditure rather than asset development.

3.3 Evaluation of Capital Works

Council's Capital Evaluation Process provides the framework for an objective evaluation process for all projects to be considered for the Capital Works Program.

This process enables projects of competing priority being considered for inclusion within the Capital Investment Program to be evaluated in a coordinated approach involving the collation of project information, costings and business case assessments.

The outcome of this process provides a prioritised list of projects forming the basis of the Annual Capital Investment Program and future years within the 3-Year Capital Investment Program.

Capital Works Projects are assessed on the following criteria –

- Community Priority Survey
- Corporate Plan references
- Population benefiting
- Health and social issues
- Best Value process
- Risk level
- Legal liability
- Works funding
- Future maintenance costs
- Capital Works Type

3.3.1 Funding of Capital Works

Funding for Capital Works is viewed as an essential component of the Three-year Capital Investment Plan. Traditionally, Council's approach to Capital Works and other major non-recurrent expenditure have been to include funding in the Capital Investment Plan where identifiable. Identifiable Capital Works funding is regularly incorporated for most infrastructure expenditure.

4.0 COLAC OTWAY MUNICIPAL ROAD REGISTER

4.1 Introduction

A reliable inventory of road features is the basic component of any road management system. The most obvious road items that are normally recorded in a network asset register are the carriageway, footpaths, signage, kerb and channel, amongst many others.

4.2 Register of Public Roads

The *Road Management Act* requires Council to keep and maintain a register of public roads, and ancillary areas for which it has the responsibility for managing operational functions.

As prescribed by *Clause 19* and *Schedule 1* of the Act, Council will record the following information in its public roads register as it relates to those roads for which it is the principle authority.

The register must include –

(a) The name of each public road or, if a road is unnamed, a description which enables the particular road to be easily identified;
(b) If a road becomes a public road after 1 July 2004, the date on which the road became a public road;
(c) If a public road ceases to be a public road, the date on which the road ceased to be a public road;
(d) The classification, if any, of the public road;
(e) The reference of any plan or instrument made on or after 1 July 2004 that fixes or varies the boundaries of a public road;
(f) Any ancillary areas;
(g) A reference to any arrangement under which road management functions in respect of any part of a public road or ancillary area is transferred to or from another road authority;
(h) Any matter required to be included by the relevant road Minister under section 22;
(i) Any other matter required to be included by this Act;
(j) Any other matter which is prescribed for the purpose of this clause.

Council's Register of Public Roads is available for public inspection upon request. This document may be viewed at both the Colac and Apollo Bay Customer Service Centres during normal business hours.

4.2.1 Amendments to the Register of Public Roads

Developers generally fund the construction of new infrastructure eg. roads, footpaths, drainage, etc as part of new subdivision developments. This leads to an expansion in Council's asset portfolio for which it is responsible for.

The Colac Otway Shire assumes responsibility of public highways created though expansion at registration of subdivision, providing that all infrastructure is constructed to meet Council's minimum specifications.

A public highway is not a public road for the purposes of the Act unless and until it is registered on Council's register of public roads.

The register of public roads will need to be maintained on an ongoing basis. It is proposed that the register of public roads be maintained under delegation to ensure it is readily updated on a regular basis.

Council gives the right to review the status of public highways as public roads, should they not appear on its register of public roads.

As standard practice following completion of construction work on subdivision infrastructure all related information shall be documented and formally handed over to Council's maintenance staff. For example, drawings clearly showing as-constructed pavement details, locations of hidden features such as underground drainage systems, and other information critical to the ongoing management of the asset.

4.3 Road Discontinuance

Council may in accordance with *Schedule 10(3)* of the *Local Government Act 1989* discontinue a public highway or part of a public highway via a notice published in the Government Gazette.

Prior to gazettal, Council is obligated by its statutory process to call for public submissions. In addition, all abutting property owners shall be advised of the proposal in writing and advised of their right to make submission. All submissions will be considered in accordance with the provisions of *Section 223* of the *Local Government Act 1989*.

If a road or part of a public road is discontinued, Council must specify all details in its register of public roads.

4.4 Road Naming and Renaming

Where a road is required to be named or renamed the *Local Government Act 1989* provides an administrative procedure for Road Renaming.

The *Local Government Act 1989* clearly sets out the procedures for road naming, but the Road Renaming process is a very sensitive issue due to local residents, history, and pioneers of the district or acceptance of the existing name for keepsakes.

The provisions of the *Local Government Act 1989* relating to the naming of roads are contained in *Section 206* and Schedule *No. 10 Clause 5*.

With respect to Road Renaming, *Schedule No. 10, Clause 5* - The Council has the power to name roads, erect signs and require premises to be numbered:

A Council may –

- Approve, assign or change the name of a road,
- Erect signs on a road,
- Approve, assign and change the number of a road and any premises next to a road, and
- Require people to number their premises and to renew those numbers.

In exercising its power under *Clause 5*, Council must act in accordance with the guidelines in force for the time being under the *Geographic Place Names Act 1998* and must advise the Registrar under that Act of the naming or renaming of a road.

4.5 Road Hierarchy

Colac Otway Shire is a unique municipality with major topographical, climatic and geological differences within the shire that have a direct impact on the ability of Council to provide a suitable road network. If Council is to provide a sustainable road network system, its Road Classification system must take into account these differences. A Classification system and Hierarchy was adopted as part of this Plan.

A 'Functional' classification system has been adopted rather than a 'Structural' system. This is on the basis that current structural standards do not necessarily reflect the use and purpose of each road in the network. A functional classification system enables each road to be critically assessed based on agreed criteria to determine whether the road system is capable

of meeting the needs of the road users.

In a Functional Road Classification system, it is also necessary to clearly differentiate between the Urban and Rural road network. This allows consideration to be taken of the differences in use, intensity of abutting land development, speed and mass of vehicles and traffic volumes.

The Colac Otway Planning Scheme, Victorian Grants Commission and VicRoads definitions were reviewed for applicability to the Urban and Rural areas of the Colac Otway Shire.

4.5.1 Local Road Classification

The model detailed below takes into consideration the above key issues and establishes a clear distinction between each classification. A separate 4-tier functional classification system, for the Urban and Rural road networks is adopted with sub-functions, clearly defining the current use of a particular road within each category.

The 4-tier system is primarily based on the functions of **Link, Collector, Access** and **Minor** within the road system. The model below identifies each category and the criteria proposed to be used in evaluating each road in the network. The Technical Support Document identifies in detail how the classification system is applied in terms of the road function and its current or proposed use (sub-function). The classification system is divided into Rural & Urban localities to reflect the varying needs of these areas.

Rural Road Network

Hierarchy		Name	Explanatory Notes	Road Surface
Network	Identifier			
Rural	RL	Rural Link	Roads of this classification primarily provide a direct linkage between significant population centres and major traffic generators such as Residential, Industrial, Commercial, Agricultural and Tourist areas and/or Declared Roads. These roads have an Identifiable Origin and Destination.	Generally a sealed surface, may be a gravel surface
	RC	Rural Collector	Roads of this classification primarily provide a route between, and through, Residential, Industrial, Agricultural, Tourist and Forest traffic nodes and the Rural Link and /or Declared road network.	May be either sealed or gravel surface
	RA	Rural Access	A road in this category provides direct access for abutting properties and generally connects into the Collector road network. There is minimal to no through traffic.	May be either sealed or gravel surface
	RM	Rural Minor	These roads generally provide occasional access to non-residential property only.	Generally either gravel, formed or natural surface

Urban Road Network

Hierarchy		Name	Explanatory Notes	Road Surface
Network	Identifier			
Urban	UL	Urban Link	Roads of this classification primarily provide a linkage between significant Residential, Industrial and Commercial nodes and or the declared road network. These roads have an identifiable Origin and Destination	Sealed surface
	UC	Urban Collector	Roads of this classification primarily provide a route between and through Residential, Industrial and Commercial areas and convey traffic to the Urban Link or Declared Road network system.	Sealed surface
	UA	Urban Access	A road, street, court or laneway that primarily provides direct access for abutting Residential, Industrial and Commercial properties to their associated nodes	Maybe either sealed or gravel surface
	UM	Urban Minor	Provides secondary access to residential properties or provides access to non-residential property	Generally either gravel, formed or natural surface

Footpath Network

Hierarchy Identifier	Name	Explanatory Notes	Footpath Surface
HR	High Risk Area	Footpaths of this classification are primarily located in the near vicinity of shopping precincts, aged care centres, senior citizen centres, schools, kindergartens, hospitals and other community facilities.	Generally concrete, asphalt or modular paving
SR	Standard Risk Area	Footpaths of this classification provide pedestrian access in local residential streets.	Maybe concrete, asphalt, sealed or gravel
LR	Low Risk Area	These are seldom-used areas where there exist paths known by Council to be used by the public. Inspections on areas of this type are to identify specific defects. No additional maintenance is undertaken.	Generally natural surface

In demonstrating 'reasonable care' it is logical practice, in risk management terms, to consider the likelihood and consequence of an incident, and have a management system in place that caters for these eventualities.

It is suggested that the degree of risk on a footpath can be linked directly to the usage patterns and volumes of pedestrian traffic. To account for the risk associated with a footpath when determining maintenance programs, the above footpath hierarchy was developed considering the three defined risk categories.

4.6 Demarcation of Responsibility

Council is responsible for the majority of the roads within the municipality. These are known as Local Roads and are listed on Council's Register of Public Roads.

Previously, VicRoads were responsible for the management, maintenance and development of the major arterial component of Victoria's road network, known as the 'Declared Road Network'. These declared roads were classified as Freeways, State Highways, Main Roads, Tourists' Roads and Forest Roads under the *Transport Act 1983*.

From the 1 July 2004 VicRoads are the responsible road authority for all arterial roads within the Colac Otway Shire. An arterial road means a public road that is declared to be an arterial road under *Section 14* of the *Act*. The arterial roads for which VicRoads will be responsible include all roads that are currently Declared Main Roads.

Other roads in areas such as parks and forests within the municipality are managed by organisations such as the Department of Sustainability & Environment and Parks Victoria.

The Act assists road authorities to define and achieve their road maintenance responsibilities as a defence to the threat of civil liability. Each road authority may formulate its own road management plan, which includes the setting of appropriate and reasonable road management standards.

A Road Management Plan establishes the standards of care for the purposes of judging civil liability. Failure to protect or maintain a road to an appropriate standard may result in a road authority being found liable in the event of personal injury or loss as a direct result of inadequate inspection and maintenance systems.

The register of public roads and associated maps define the roads for which Council has operational duties as a road authority. Operational functions for the purposes of this road management plan relate to the establishment of standards for the construction, inspection, maintenance and repair of road infrastructure.

4.6.1 Urban Areas

In the situation where the public road is an arterial road, VicRoads is the responsible road authority, excepting the following instances where Council has responsibility for all local components of the road system. These are –

- Service road traffic lanes and shoulders,
- Pathways outside of through carriageways and central medians,
- Indented parking bays and any other part of the roadway located 'kerb to kerb' that could not be made available for through traffic (being located either on the side of the road, in the outer separator or in the central median), and adjacent kerb and channel,
- Drainage pits and underground drainage outside of through carriageways or outer separators and underground drainage that is part of a municipal drainage scheme,
- Off road bicycle paths,
- Off road furniture at bus stops,
- Road markings for all parking bays, plus road markings on service roads,
- Nature strips including vegetation,
- Local signage including street name signs, local direction signs, parking signs for the control of stopping or parking, and advance warning (but not advance direction) signs on municipal roads,
- pedestrian fencing outside of central medians,
- Tactile Ground Surface Indicators (TGSI's) in footpaths and kerb ramps and at bus stops (except at central medians), and
- Plantation reserves where council holds the title.

An urban region as defined by *Section 3* of the Act, is an area in which -

- A speed limit of 60 kilometres per hour or less applies not being a speed limit that applies only because of a temporary reason such as roadworks or a street event;
- There are buildings on land next to the road, or there is street lighting, at intervals not exceeding 100 metres for –

    - a distance of at least 500 metres; or
    - if the length of the road is less than 500 metres, over the length of the road.

4.6.2 Rural Areas

Council is responsible for service roads, off road bicycle paths, pathways, associated local signage, and underground drainage that is part of a municipal drainage scheme.

For definition of the limits of responsibility between VicRoads and Council, where local roads intersect with arterial roads in an urban and rural environment, refer to the Code Of Practice - Physical Limits of Responsibility for Declared Freeways and Arterial Roads.

4.7 Shared Responsibilities

The Act requires that a road authority be responsible for the operational functions of a road. In the instance of boundary roads with other municipalities, the responsibility is allocated according to an agreement between each municipality.

4.8 Non-Council Assets

Various infrastructure assets, for which Council has no management responsibility, may exist within the local road network. These assets are owned and managed by service authorities, individuals and other statutory bodies.

4.8.1 Utility Assets

Many Utility Agencies utilise a road for their infrastructure. A listing of typical utility assets found within a road reserve, and the relevant management authority is given below.

Asset Type	Management Responsibility
Telecommunication Infrastructure Assets	Telstra
Gas Infrastructure Assets	TRUenergy
Water & Sewerage Infrastructure Assets	Barwon Water
Electricity Infrastructure Assets	Powercor
Traffic Signal Installations	VicRoads
Rail Crossings	Freight Australia

Freight Australia is responsible for maintaining all rail crossings (ie. level crossings) in the Colac Otway Shire in the immediate vicinity of the railway line. Council is responsible for maintaining the road and signage on the approaches to the railway line on all local roads.

4.8.2 Other Assets

In relation to provision of access from adjoining properties, there are a number of assets within a road reserve for which Council has no obligation to construct or maintain. Assets of these types are described as follows.

4.8.2.1 Vehicle Crossings

The portion of a vehicle crossing (i.e. driveway) located between the carriageway and the property boundary is the responsibility of the adjoining property owner to construct and maintain to Council's minimum specifications.

The property owner is also responsible for maintenance of the immediate surrounds impacted on by the vehicle crossing in a safe condition.

4.8.2.2 Nature Strips, Infill Areas and Vegetation

Nature strips and infill areas are those residual areas between the edge of road or back of kerb and the property boundary not occupied by a footpath or vehicle crossing. These are normally sown to grass with responsibility for maintenance of the area generally left to the abutting property owner.

Street trees within the road reserve are however managed by Council. An abutting owner has the responsibility to keep a road or footpath clear of vegetation growing from their property. Council may direct the property owner to trim any overhanging branches under provisions of its Local Laws.

4.8.2.3 Property Stormwater Drains

Property stormwater drains are constructed within the road reserve from the property boundary to a discharge outlet in the kerb, table drain or connected directly to Council's underground drainage system. Property drainage lines directly benefits the property and as such are the responsibility of the owner of the property being served to maintain.

4.8.2.4 Cattle Underpasses

A landowner that constructs a cattle underpass on a local road must first sign an agreement with Council that includes requirements for the landowner to maintain the structure. A cattle underpass shall be designed in accordance with all relevant VicRoads Guidelines, Australian Standards and other design codes.

Regardless of maintenance obligations, Council has a duty of care to ensure that that these assets are in a condition safe to the general community. There often exists a point of conflict with residents who have an expectation that Council will maintain these assets as they are within the road reserve.

4.8.2.5 Fire Access Roads

Designated fire access roads throughout the Colac Otway Shire, which are open for traffic under a controlled level of service, however are infrequently used or dry weather access only. Maintenance of these roads is only carried out as directed by Council's Fire Prevention Officer.

Traditionally Council maintains these tracks to a standard that will cater for farm machinery and fire fighting vehicles to travel to and from non-residential properties as and when weather conditions allow.

These types of roads are damaged by inappropriate use by motorists during wet weather periods when conditions do not support the movement of any vehicles.

5.0 RISK MANAGEMENT MODEL

5.1 Introduction

The purpose of this section is to describe Council's risk management model and the manner in which it will manage risk associated with its road network and associated infrastructure.

It essential to note that it is not possible for Council to address all defects and eliminate all risks through remedial action. Rather, this model provides a basis for identifying and managing risks within the resources available to the community through clear priority setting and an appropriate system of responses.

5.2 Objective

Council's objective of road management to ensure that a safe and efficient road network is provided primarily for use by the members of the public and is available for other appropriate uses.

5.3 Systems Approach

The approach taken in developing Council's risk management system for its road network is to –

- Require routine inspections of the road network and associated assets at specified intervals to identify defects,
- Initiate additional inspections, as required, of issues raised by the community or Council employees through Council's corporate request system, Colac Otway Request System (CORS),
- Record defects that may result in a potential hazard to the public, or fail to meet Council's adopted Maintenance Performance Targets,
- Assess the potential risk to road users due to defects identified,
- Prioritise maintenance activities based on assessment of risk, taking into account the need to complete work in an efficient and cost effective manner, and the need to preserve the assets condition,
- Prepare appropriate work schedules,
- Undertake scheduled maintenance, and
- Record and document all actions taken at various stages throughout this process.

6.0 MANAGEMENT SYSTEMS

6.1 Maintenance Management

Maintenance management is a systematic approach to the planning and execution of maintenance activities. This management method delivers the benefits of operational efficiencies and reduced maintenance costs. Council's maintenance management process addresses the following areas –

- Inspection and data collection,
- Condition rating of road infrastructure to support strategic asset management,
- Keeping of proper records,
- Program preparation including proper planning, prioritising and scheduling, and
- Effective execution of maintenance operations

Roads are designed to varying standards and built out of natural processed materials to meet the needs of the community they serve. Like all other structures, they are subject to deterioration.

Ideally, maintenance would ensure that a road functioned as efficiently as when it was first constructed. However, when planning maintenance due regard must be paid to the limitations of the available resources. For this reason, maintenance programs are adjusted to control the rate of deterioration and to ensure the serviceability of the road, or related asset, does not fall below an adopted minimum standard. This is dependent on resources and policy decisions.

In determining the appropriate standards of road maintenance, existing practices, community expectations, use and function of the road, affordability and equity have all been considered. This is because the Colac Otway Shire road network supports a diverse industry including dairying, agriculture, forestry, timber processing, and tourism. These competing uses and operating expectations need to be considered in determining applicable maintenance standards, whilst providing a safe and sustainable road network.

Poor maintenance costs the community. The costs of major rehabilitation and replacement far outweigh the costs associated with continual good maintenance practices. Poor standard roads also incur a cost to road users through increased running and repair costs to vehicles. Safety of road users can also be compromised if the network is not maintained at a satisfactory level.

6.2 Maintenance Program

The are two main components of the Council's Maintenance Programs, these are -

- Proactive Routine Maintenance – programmed routine maintenance and repair work, and
- Reactive Maintenance – work carried out to rectify defects that are identified as exceeding 'tolerable levels' or where an emergency response is required.

6.2.1 Strategies for Planning Maintenance Work

A systematically planned approach is undertaken to ensure maintenance is effective. This includes the implementation of a maintenance strategy to key asset types, such as pavements, bridges, drainage, and other road related infrastructure.

For a particular asset type, the maintenance strategy includes the following considerations –

- A sound maintenance policy as a basis for planning all maintenance activity on that asset type,
- Consideration at both the design and constructions phases in order to reduce potential maintenance problems and in-service costs,

- A maintenance management system, including -
  - A current inventory for the asset type in question (e.g. pavements, signs, bridges, etc)
  - A regime of asset inspections to satisfy adopted schedules,
  - An effective asset condition and inspection recording system to produce informed decisions with regard to maintenance requirements, and
  - Maintenance performance criteria for the road network with consideration to community expectations.

6.2.2 Maintenance Policies

Council's maintenance policies for specific asset types are based upon the following principles -

- Road infrastructure assets being maintained to ensure that their whole-of-life performance is maximised, having regard to safety, community benefits, environmental and funding considerations,
- A collaborative approach taken to improve the performance and reduce maintenance costs of Council's road assets through team work by the Infrastructure and Services Units,
- A systematic, efficient and sustainable approach to maintenance management and work practices utilising best practice,
- Regular planned inspections of Council's assets undertaken to identify and monitor their overall condition over time, and
- Accessible information systems implemented for inventory control, condition identification of selected assets, and recording of inspections, service requests and all actions relating to maintenance activities.

6.2.3 Prioritising Works

Maintenance activities are objectively planned in order to achieve cost and operational efficiencies. The works program and schedule is based on seasonal/annual events and routine servicing.

The most effective maintenance is, based on forecasting a need and scheduling the available and proper resources and corrective actions at the appropriate time to achieve best results.

The following factors will be considered in preparing programs and scheduling of maintenance activities –

- Distance of work sites from the base of operations and time and expense to transport personnel, materials and equipment to sites,
- Weather conditions,
- Availability of suitable personnel, materials and equipment to handle intended jobs,
- Size and grouping of each work package and relationship to other works required on that area of the network,
- Response time requirements and defect ranking for prioritising the correction of defects that are either identified through customer requests or routine inspections, and
- Unplanned incidents and other emergencies that generally require immediate action by maintenance staff.

6.2.4 Maintenance Records

Accurate data is collected to make meaningful decisions and for the basis for making reliable judgements in the future. Records are computer-based, for ease of transfer and communication, as well as access and analysis.

The type and frequency of data collected during inspections is a direct reflection of the resources made available for this activity.

- **Inventory Registers** give information on assets such as location and type. Council's inventory registers include the following records, type of asset, dimensions, location, date of construction, and any specific features.
- **Inspection Records** document maintenance activities. Council's Inspection regimes include requirements for the format, scope, and storage of records of inspections against each particular asset.
- **Cost Records** or time cards are regarded also as a type of maintenance record. Time cards are able to detail the date, location and type of remedial work on defects identified by inspection or customer requests. Council's Financial system is able to generate reports to assist in identifying areas of relatively high expenditure.

Keeping current and comprehensive records of inspections and maintenance activities, including accurate location information, is essential for Council is to perform its statutory duties as a road authority.

In many cases, litigation can be commenced a number of years after the event which is subject of the claim. It is not possible to predict the timing or location of events that may become the subject of litigation against Council. Council must therefore ensure that records be kept of all maintenance inspections and activities and will be adequately archived for future reference.

6.3 Asset Inspections

In order for Council to carry out effective planning and competent management of its road infrastructure, both in a strategic and operational sense, it is essential to collect maintenance-related information through disciplined and regular inspections of the whole of the network.

Council's inspection activities can be grouped into the following categories based on definition and purpose –

- Routine Inspections,
- Request Inspections,
- Incident Inspections, and
- Condition Inspections

6.3.1 Routine Inspections

Inspections undertaken in accordance with the formal inspection schedule to determine if road asset complies with the levels of service as specified by the Maintenance Performance Criteria.

Identified defects are rated against the criteria adopted for routine maintenance works on the asset. These performance criteria indicate the magnitude of the undesirable condition for each defect requiring remedial action.

A record of each street/road is completed detailing the name of the inspector, the inspection date, time, road name/asset description and report of any defects found that are at the 'tolerable' defects level as defined by Council's Maintenance Performance Criteria.

In addition, a notation is recorded of any road/asset inspected where no defect was apparent under the specific rigour of the inspection.

6.3.2 Request Inspections

A maintenance request is any request to undertake maintenance on an infrastructure asset. Customers or users of the asset generally make these requests. To provide the highest level of service, Council's objective in relation to maintenance requests is to inspect and prioritise the work requests within the time frames as specified.

Upon record of a request for maintenance or report of a defect received from the public, Council Officers or Councillors, an inspection will be carried by an appropriately experienced Council Officer within ***1 day*** of notification, dependant on assessed urgency. As with routine maintenance inspections, any recorded defects beyond the maintenance performance criteria for that particular asset will be prioritised and rectified to satisfy established response times.

Council aims to obtain best value for its maintenance budget within the constraint of the resources made available. Maintenance works delivered under an 'Emergency Response' will inevitably cost more than maintenance delivered under the Routine or Periodic Maintenance Programs.

To ensure that the best value is obtained for the available maintenance dollar, work of the same nature must be grouped in a given area so that work is completed efficiently. Therefore, most maintenance work will be completed on the Routine and Periodic Maintenance Programs. Only true emergency works will be actioned immediately.

The benefit of adopting such a strategy means that for example, over a year, more potholes may be repaired from the limited funds available than if completed on a reactive basis. This provides an improved overall level of service and consequently reduces the risk to the community

If works identified are beyond what is considered maintenance, then the project will be referred to and be considered for inclusion in Council's 3–year Capital Investment Program. Council reviews projects for its Capital Investment Program annually, in conjunction with its budget planning process.

6.3.3 Incident Inspections

If a person proposes to commence legal proceedings or wishes to make a claim for damages in relation to an incident arising from the condition of a public road or infrastructure on a public road then the person must give written notice of the incident to Council within 30 days of its occurrence. This notice must provide sufficient information to enable Council undertake an inspection and prepare a condition report. Details to included, but not limited to, are –

- Nature of, and any defect that may have contributed to the incident,
- Brief description of the location of the incident,
- Date, time and prevailing weather conditions at which the incident occurred, and
- Any other information that may be deemed to be applicable.

Within 14 days of receipt of this notice, an inspection of the road or associated infrastructure specified in the notice will be undertaken by the Asset Inspection Officer or suitably qualified Council Officer. A report will then be prepared detailing the outcomes of this inspection, providing the following -

- A description of the condition of the relevant section of the public road or infrastructure, providing adequate photographic evidence of the site of the incident,
- Reference to Council's Road Management Plan and in particular its construction and maintenance criteria relating to the public road or infrastructure,
- A summary of, or any reference to, any records relating to the condition of the road or infrastructure from inspections and reports, and

- A summary of inspections relating to the condition and maintenance of that part of the public road or infrastructure conducted in the 12 months prior to the incident.

A copy of this report shall be provided within 21 days to the person giving notice and will be filed in Council's Electronic Document System for future reference.

6.3.4 Condition Inspections

Condition inspections are undertaken specifically to identify deficiencies in the structural integrity of the various components of the road infrastructure that if untreated, are likely to adversely affect network values. The deficiencies may well impact on short-term serviceability as well as the ability of the component to continue to perform at the level of service for the duration of its intended useful life.

The condition inspection process must also meet the requirements for accounting regulations and asset management.

Regular or periodic assessment, measurement and interpretation of the resulting condition data is required so as to determine the need for any preventive or remedial action and is used in the development of relevant programs of rehabilitation or renewal works.

The table below details the type of programmed and reactive inspections undertaken by Council in relation to its road infrastructure assets, the inspection frequency, and the resources utilised for the inspection.

Asset Class	Hierarchy	Inspection Type, Frequency & Responsibility			
		Routine	Relevant Department	Condition	Relevant Department
Urban Road Network * Includes sealed and unsealed roads	Urban Link	Not Applicable		Not Applicable	
	Urban Collector	4 months	Cosworks	3 years	Infrastructure & Services
	Urban Access	6 months	Cosworks	3 years	Infrastructure & Services
	Urban Minor	2 years	Cosworks	3 years	Infrastructure & Services
Rural Road Network * Includes sealed and unsealed roads	Rural Link	3 months	Cosworks	3 years	Infrastructure & Services
	Rural Collector	4 months	Cosworks	3 years	Infrastructure & Services
	Rural Access	12 months	Cosworks	3 years	Infrastructure & Services
	Rural Minor	3 years	Cosworks	3 years	Infrastructure & Services
Footpath	High Risk Area	6 months	Cosworks	2 years	Infrastructure & Services
	Standard Risk Area	12 months	Cosworks	2 years	Infrastructure & Services
	Low Risk Area	Request Inspection	Cosworks	No Inspection	Not Applicable
Kerb & Channel	All Road Categories (where applicable)	12 months	Cosworks	3 years	Infrastructure & Services
Bridges	All Road Categories	Level 1 Inspection 12 months	Cosworks	Level 2 Inspection 3years	Infrastructure & Services

Asset Class	Hierarchy	Inspection Type, Frequency & Responsibility			
		Routine	Relevant Department	Condition	Relevant Department
Road Furniture	Guard Rail	12 months	Cosworks	3 years	Infrastructure & Services
	Bus Shelters	12 months			
	Traffic Management Devices	2 years			
	Signs & Other Furniture	As per frequency for road category			
Vegetation	Roadside Vegetation	As per frequency for road category	Cosworks	No Inspection	Not Applicable
	Urban Street Trees	As per frequency for footpath category	Cosworks	3 years	Infrastructure & Services
Ancillary Areas	All Off Street Car Parks	12 months	Cosworks	3 years	Infrastructure & Services
	Ancillary Areas	12 months	Cosworks	3 Years	Infrastructure & Services

6.4 Customer Request System Description

Requests for maintenance of Council's engineering infrastructure assets are recorded on Council's Corporate Customer Request System, CORS. These requests are generally made by the public, Councilors and Council staff. Each request will be inspected to meet the established response time as detailed for that asset class.

The Colac Otway Request System *(CORS)* records each action associated with a particular maintenance request and is able to its show history through to completion. The costs, location, date and nature of the work completed by the Maintenance Department is recorded in Council's Job Card System.

The Customer Request System described above is able to provide management with measures of effectiveness by giving valuable data on the workload and the level of service being achieved in a given time period. CORS can report on:

- Time taken to complete inspection,
- Priority allocation made at inspection,
- An indication of the number of requests received for a particular locality,
- Number of requests complete,
- Average number of days to completion, and
- Requests for each maintenance activity.
- Responsiveness

7.0 LEVELS OF SERVICE

The foundation of the Road Management Plan includes setting of appropriate and reasonable standards as they relate to maintenance and construction of road assets.

Council has established maintenance and construction performance criteria that are equitable, sustainable and reflect the requirements for management of its road assets.

The defined levels of service have regard to -

- Community needs and aspirations,
- Industry standards,
- The need to provide a safe and efficient road network, and
- The Council's and its community's ability to fund such standards.

The implementation of an equitable road classification system also enables the community to readily identify the road system and have clear expectations as to the standard of construction and maintenance of the road system.

7.1 Community Consultation

An important objective of this Plan is to match the level of service provided by Council's road infrastructure with the expectations of its community given financial, technical and legislative constraints

7.1.1 Best Value Consultation

During 2003, Council completed a Best Value Review of the delivery of road services in accordance with the requirements of the *Local Government Act 1989.* Direct inputs from the community have been included in the preparation of the Road Management Plan and the development of the defined levels of service for Council's road network.

7.1.2 Future Consultation

Council, as a continued improvement process, will measure and review both its capacity to deliver road services and actual performance of its road network against a number of key outcome areas. These are -

- Annual Community Satisfaction Survey Outcomes (Council Plan – Performance Indicators),
- Quarterly Customer Surveys,
- Levels of expenditure and funding gaps,
- Analysis of Customer requests and responses (CORS), and
- Ongoing development of Council Policies

Community input into service delivery needs to be considered against its willingness to fund a desired level of service. It is also important that any decision to adopt any changes to the defined maintenance and construction performance criteria is in the best interest of the overall community.

The defined levels of service have in built performance measures that apply to the maintenance and construction performance criteria and response levels. These aspects will be monitored on an on-going basis and will be reviewed when required.

7.2 Maintenance Performance Criteria

The proposed maintenance standard is recommended to be generally the same across the network, whether the road is in the rural or urban area or its classification. The actual

maintenance effort required is directly effected by the amount of traffic using a particular road, the type of pavement and materials used together with its location.

A defect refers to the visible evidence of an undesirable condition in the road infrastructure asset. A defect may affect the safety, serviceability, structural capacity or appearance of the asset.

Council's maintenance performance criteria indicate the magnitude of the undesirable condition for each defect requiring maintenance work to be initiated. Standards relating to road network performance and Council's response upon notification of identification are specified in Appendix A – Maintenance Performance Criteria and Response.

Council, as part of its overall objective of establishing clear and equitable policies for its community, has determined to review the functions and purpose of its entire local road network.

7.3 Construction Performance Criteria

An integral part, in the establishment of the road classification model, is the inter-relationship with various physical and social factors, assessment of risk and applying industry benchmarks in a practical manner.

Topography, extent of vegetation, soil conditions, traffic volumes and type, practical width of roads, availability of suitable material, accident records, horizontal and vertical alignment, property access and what can practically be achieved at specific locations are all important factors that must be taken into consideration for road construction standards. Each road classification and in particular the sub-function, is directly related to (AADT) Annual Average Daily Traffic. The type of vehicles and axle loading on a pavement are considered as a separate exercise when designing the pavement. Depth and type of materials to be used will vary depending on whether heavy transport or light vehicles etc uses the road.

In assessing the requirements of the future road network, the Council needs to determine which roads it wishes to be used for the various functions. Undertaking an overall Traffic Management exercise is paramount, as this will provide the means to restrict or increase the traffic volumes to meet the designated road classification. Road standards need to match actual or proposed usage to ensure the limited funds available are expended in the most effective, efficient and equitable manner. Until this is undertaken the adopted Road Hierarchy will be utilised.

Council's construction standard models have been developed to identify the various standards necessary to accommodate the Urban and Rural road network. The model takes into consideration the extensive work previously undertaken by the various professional and industry bodies such as -

- Victorian Code for Residential Development 1992
- Rural Roads Design – Austroads 1989
- Pavement Design – Austroads 1992
- VicRoads Road Design Guidelines
- VicRoads Road Design Manual
- VicRoads Traffic Engineering Manual Vol 1 – Traffic Management 1997
- VicRoads Traffic Engineering Manual Vol 2 – Signs and Markings
- Existing Council standards

In considering any model, differing circumstances will determine the final road standard. For instance, a minimum standard has been developed for all roads in the network identified as being a transport route to provide for an increased dimensional capacity. School bus routes and Industrial roads

In instances where property owners and/or road users require a higher standard than

designated, and are prepared to meet the costs of this increased standard of construction, Council may be prepared to consider constructing the road at that standard.

Detailed standard drawings for each classification and standard are provided within Councils Road Asset Management Plan. Minimum widths are provided for in extenuating circumstances where the desired standard cannot be achieved. This may be due to a number of factors such as the non-availability of practical road reserve width, as occurs in steep terrain such as that exists in the Coastal areas of the municipality.

It is recognised that Rural and Urban areas have vastly different requirements. This is due to the nature, speed and volumes of vehicles, the density of development, distances to facilities etc. Road usage is also different with far greater intensity of pedestrian and bicycle movements on urban roads.

The implementation of consistent, practical and achievable standards, which provide for the safe passage of vehicles and pedestrians, is paramount. However, whereas minimum standards have been developed there may be special circumstances, which do not allow these standards to be achieved. In these instances attention to appropriate signage of roads particularly with roads of minimal standard is required.

8.0 COORDINATION OF WORKS

The primary purpose of public highway is for use by the public for transport. The provision of utility infrastructure is to be managed in such a way so as to minimise, as far as reasonably practicable, interference with a road primary purpose. In particular –

- Ensure that risks to the safety and property of road users and the public are minimised,
- Minimise any damage to roads and related infrastructure,
- Minimise disruption to road users, and
- Require that roads and related infrastructure be reinstated by utility and service providers to a condition as near as practicable to their prior condition.

8.1 Road Openings

All works carried out within the road reserve, including those by service authorities, are recorded on Council's Road Openings Register

For private individuals, upon completion of a Road Opening Application Form and payment of the appropriate fee, a Road Opening Permit is issued.

A Road Opening Permit allows contractors to perform civil works in a road reserve or make a connection to a drain, water main, gas, sewer or telecommunications service.

The issue of a Road Opening Permit signifies to Council that the Permit Holder undertakes to comply, including all reinstatement works, with the relevant conditions of Council's General Conditions.

Council Officer's inspect the works after four weeks from the date of proposed opening to ensure that reinstatement works have been completed adequately and that the area of works has not exceeded that as indicated on the permit application.

Council requires that road crossings be bored rather than opened trenched unless consent is granted.

8.2 Service Authorities

Service Authorities are required under the relevant legislation to provide Council with prior notification of planned works before commencement.

Council may make comment, in writing, regarding the impact of the proposed works on native vegetation, Council assets, safety and location. For Service Authorities, no Road Opening Permit is required for works; however a consent notice is issued providing Council with a record of the works.

Where Council is not satisfied with some aspects of the proposal outlined in the notice, it may provide consent to the works proceeding, subject to the utility/service provider complying with certain conditions. These conditions may involve –

- Management of traffic,
- Timing of works to minimise disruption to road users, and
- Timing of reinstatement, etc

In such cases Council will provide written advice to the utility/service provider that it consents to the proposed works subject to certain conditions.

9.0 PLAN IMPROVEMENT & MONITORING

The Act requires that Council's Road Management Plan be formally reviewed at prescribed intervals. However, it is proposed that Council review its Plan more frequently as part of the continuous improvement process being applied to this new road management system.

The Plan improvement and monitoring process is proposed as follows:

9.1 Internal Monitoring

The processes that are to be audited internally per annum are as follows -

- Collection and storage of condition information,
- Recording of complaints/requests in an appropriate database in the manner required,
- Each complaint/request is inspected and/or assessed in relation to safety & specified maintenance intervention levels,
- That programmed inspections are carried out as scheduled,
- Relevant inspection reporting & recording mechanisms are in place,
- That reported defects are being properly recorded in the system,
- Where required, appropriate rectification responses are determined & works orders issued,
- Where customer requests require scheduling of works onto annual maintenance programs or capital works programs, that the required listing takes place,
- Record of maintenance activities is made in the database against the asset, including actual date of completion,
- Record that maintenance works have been delivered as intended (i.e. someone has signed off on the satisfactory completion of the work),
- Procedure is in place for collecting and storing information regarding road asset condition for developing future maintenance programs,
- Management system in place to record and respond to customer enquiries, and
- Asset handover/update process is being managed as required.

The outcome of the internal audit is to be reported to the General Manager, Infrastructure & Services

9.2 Annual Performance Review

It is intended that this Plan will be updated on an annual basis in line with changes to the budget and results of predictive modelling of elements of Council's road infrastructure assets.

Council shall ensure that there is ongoing review of its asset management practices to ensure continued suitability and effectiveness having regard to –

- Asset performance following delivery of maintenance and construction programs,
- The level of achievement of Council's asset management strategies, and
- The consideration of any external factors, including legislative requirements, ongoing development of Council Policies and other major system implementations, that may effect the contents of this Plan.

The review will include, but not limited to -

- Audit and review of maintenance response times (to confirm whether maintenance works were delivered on time),
- Review of inspection frequencies (to ensure appropriateness),
- Review of levels of service (to ensure appropriateness),
- Review of road classifications (to ensure appropriateness),
- Review of customer feedback/contact, and

- Random audit of maintenance works (to confirm whether maintenance works were delivered to the specified quality).

9.3 Periodic Review

The Road Management Plan is a dynamic document and is subject to continuous improvement based on:

- The Council's 'Best Value' Review program,
- Changing legislative and government policy requirements,
- Economic, social and environmental impacts,
- Changing traffic patterns and community expectations,
- New road assets being continually acquired through subdivision of land,
- Updated assessments of the condition of road assets, and
- Updated predictive modelling of the funding requirements of road assets.

Should the need arise to update the Plan due to changing circumstances then this will be carried out at the relevant time.

9.4 Road Management Plan Amendment

To ensure the effective development and implementation of this plan all reviews will be undertaken in accordance with Part 3 of the *Road Management* (General) *Regulations 2005*.

Subject to the results of any review all amendments required to be made to the Plan will be undertaken pursuant to Section 54 of the *Road Management Act 2004*.

Records of all reviews and plan amendments will be maintained.

10. REFERENCES

Colac Otway Shire Council Plan 2005 – 2009

Asset Management Policy

Strategic Asset Management Plan 2001 – 2011

Risk Management Policy

Road Management Review (Policy 13.6)

Financial Strategic Plan 2005 – 2006

Road Asset Management Plan (to be finalised)

Appendix A

Maintenance Performance Criteria & Response

Defects Response Codes

Response Code	Target Response Time	Action, Response & Control
2D	Within **2 working days** of defect identification via inspection or notification	Inspect and rectify defect within defined target response time
10D	Within **10 working days** of defect identification via inspection or notification	Inspect and rectify defect within defined target response time
15D	Within **15 working days** of defect identification via inspection or notification	Inspect and rectify defect within defined target response time
20D	Within **20 working days** of defect identification via inspection or notification	Inspect and rectify defect within defined target response time
1W	Within **1 week** of defect identification via inspection or notification	Inspect and rectify defect within defined target response time
2W	Within **2 weeks** of defect identification via inspection or notification	Inspect and rectify defect within defined target response time
3W	Within **3 weeks** of defect identification via inspection or notification	Inspect and rectify defect within defined target response time
1M	Within **1 month** of defect identification via inspection or notification	Inspect and rectify defect within defined target response time
2M	Within **2 months** of defect identification via inspection or notification	Inspect and rectify defect within defined target response time
3M	Within **3 months** of defect identification via inspection or notification	Inspect and rectify defect within defined target response time
AP	Maintenance works to be considered within **annual programs** having regard to competing priorities, available resources and budget limitations.	
N/A	Not Applicable	
*	Appropriate response within **1 working day** if defect is assessed as exposing the travelling public to a high level of risk exposure Inspect, rectify defect if practicable, or provide appropriate warning. #	

 # Note – Where, because of the nature of the repair, availability of resources required or existing workload, it is not possible to rectify a defect within its prescribed response time, appropriate warning of the hazard is to be provided until necessary repairs can be completed.

An appropriate warning may include, but is not limited to –

- Provision of warning signage,
- Traffic control action,
- Diversion of traffic around the site,
- Lane closure,
- Restriction of use of road by vehicles of a certain size (eg. Load limit), or
- Temporary Road Closure.

An intermediate response of this type is to manage any risk associated with a particular defect until further remedial action may be undertaken.

MAINTENANCE PERFORMANCE CRITERIA

ACTIVITY	DEFINITION / DESCRIPTION	LEVEL OF SERVICE	TARGET RESPONSE TIMES					
			Urban			Rural		
			Link	Collector	Access	Link	Collector	Access
SEALED ROADWAY MAINTENANCE								
Minor Patching								
Potholes	Surface patching of potholes in travelled way using bituminous and other appropriate materials to restore riding surface to a smooth condition.	Repair when pothole exceeds 50mm in depth and/or 300mm in diameter or likely to deteriorate rapidly	10D*	15D*	1M*	10D*	15D*	1M*
Seal Edge Breaks	Repair of fretting along edge of seal to maintain correct overall pavement width.	Repair when edge break exceeds 100mm from the average existing seal width, or when drop off of pavement exceeds 75mm measured over a 20m length.	10D*	15D*	1M*	10D*	15D*	1M*
Stripped Seals	Loss of aggregate from a seal which can become sticky in hot weather and slippery when wet or frosty.	Emergency treatment where wearing course becomes hazardous to traffic, particularly on horizontal curves or approaches to intersections, or not waterproof. Other areas to be considered within annual reseal program.	AP*	AP*	AP*	AP*	AP*	AP*
Bleeding Surface	Surfaces resulting from too much bitumen on the surface, which becomes 'sticky' in hot weather, and often slippery in wet or frosty weather.		AP*	AP*	AP*	AP*	AP*	AP*
Slick Surfaces	Slick, fatty or smooth surfaces resulting from loss of aggregate or the wearing down of the aggregate with age, accompanied by an upward movement of bitumen to form a hard, smooth surface with little grip to motor tyres in wet weather.		AP*	AP*	AP*	AP*	AP*	AP*

ACTIVITY	DEFINITION / DESCRIPTION	LEVEL OF SERVICE	TARGET RESPONSE TIMES					
			Urban			Rural		
			Link	Collector	Access	Link	Collector	Access
Surface Waving or Shoving	Surface waving or shoving is caused by traffic shoving on unstable bitumen mixtures, resulting in shallow waves and hollows. Surface patching and regulation of adjacent surface irregularities <5sqm	Regulate if rutting depression holds water or exceeds 75mm in 60 km/h speed zones and 75mm in open speed zones under a 3m straight edge longitudinally.	10D*	15D*	1M*	10D*	15D*	1M*
Deformation or Heaving and Depressions	Depressions in the traffic lanes, with bulging of the surface outside the wheel tracks. Surface patching and regulation of adjacent surface irregularities <5sqm	Regulate if depression holds water or mounding exceeds 75mm in 60 km/h speed zones and 75mm in open speed zones under a 3m straight edge longitudinally.	10D*	15D*	1M*	10D*	15D*	1M*
Major Patching	Treatment of failed pavement over large areas requiring excavation of pavement and/or subgrade with plant and specialised repair procedures and materials.	When a failed area presents a hazard to the public, the sealed surface no longer holds, extensive shoving has occurred and road surface drainage is no longer effective. Repair when treatments have failed to solve problem or other treatment is inappropriate.	AP*	AP*	AP*	AP*	AP*	AP*
Resealing	The rejuvenation of a sealed surface through the fresh application of bitumen and aggregate or asphalt overlay.	Programmed basis only on a projected cycle of 12 years, or based on visual inspection, subject to budget approval.	AP	AP	AP	AP	AP	AP

ACTIVITY	DEFINITION / DESCRIPTION	LEVEL OF SERVICE	TARGET RESPONSE TIMES					
			Urban			Rural		
			Link	Collector	Access	Link	Collector	Access
SHOULDER MAINTENANCE								
Shoulder Grading	The regular grader maintenance of unsealed shoulders in accordance with the appropriate intervention levels, including spot gravelling to avoid pavement drop off, reworking existing materials to remove shoulder surface irregularities and maintain shoulder shape	Shoulders, potholed, rutted, holding water, pavement unsupported, drop from pavement > 100mm measured over a 20m length *Note - Grading of unsealed shoulders will only take place when moisture content of materials is sufficient to maintain cohesiveness of soil aggregates.	10D*	15D*	1M*	10D*	15D*	1M*
Resheeting Shoulders	The application of gravel or other approved imported material strengthening and reshaping unsealed shoulders	Insufficient shoulder material to maintain shoulder at pavement levels, over 40% of road length.	AP	AP	AP	AP	AP	AP

ACTIVITY	DEFINITION / DESCRIPTION	LEVEL OF SERVICE	TARGET RESPONSE TIMES					
			Urban			Rural		
			Link	Collector	Access	Link	Collector	Access
UNSEALED ROADWAY MAINTENANCE								
Potholing	The application of gravel or appropriate material to potholes exceeding 300mm in diameter and 75mm in depth where moisture content is too high for regular grading	Repair when pothole exceeds 75mm in depth and/or 300mm in diameter or likely to deteriorate rapidly	N/A	N/A	2W*	2W*	3W*	1M*
Grading Roads	Treatment to reduce corrugations, potholes, and rutting to maintain shape and crossfall of unsealed roadways and road shoulders and restore trafficable surface condition.	Road surface, scoured, potholed, rutted, corrugated to depth of 75mm over 30% of any 1km length of road. Treatment may include spot gravelling with appropriate materials. *Note - Grading of unsealed roads will only take place when moisture content of pavement materials is sufficient to maintain cohesiveness of soil aggregates.	N/A	N/A	2W*	2W*	3W*	1M*
Emergency Resheeting	The application of gravel or crushed rock to the wearing surface to strengthen and reshape the surface. Includes cleaning and reshaping of table drains.	Emergency treatment where road subgrade is exposed creating soft or slippery areas creating a hazard to traffic	N/A	N/A	2W*	2W*	3W*	1M*
Resheeting	The application of gravel or other approved imported material to the pavement strengthening and reshaping pavement while maintaining all weather trafficable road conditions. Approved materials will include but are not limited to soil aggregates, scoria and quarry rubble.	Road subgrade is exposed over 25% of section length or resheeting requirement is assessed by visual inspection.	N/A	N/A	AP	AP	AP	AP

ACTIVITY	DEFINITION / DESCRIPTION	LEVEL OF SERVICE	TARGET RESPONSE TIMES					
			Urban			Rural		
			Link	Collector	Access	Link	Collector	Access
ROAD FURNITURE								
Signs - Regulatory & Warning Signs	The minor repair, re-erection, straightening, and cleaning of signs and sole purpose supports.	▪ Straighten sign support when it becomes noticeable that it is not vertical. ▪ Replace when damage renders either the sign or support ineffective. ▪ Clean/ replace the sign face when: - There is a noticeable accumulation of dirt. - Graffiti covers more than 10% of sign or message on sign is defaced ▪ Replace missing or if incorrect sign is in place. ▪ Replace if sign is illegible at 150m under low beam or in daylight	2D	2D	2D	2D	2D	2D
Signs – Guide, Warning & Information			2M	2M	2M	2M	2M	2M
Guard Rail	The re-alignment, repair and replacement of isolated guardrail sections less than 10m in length, posts and hardware that is defective. Includes the cleaning of guardrail.	Replace damaged guard rail sections, end terminals and support posts, subject to the availability of materials.	1M*	2M*	2M*	1M*	2M*	2M*
Guide Posts / Delineators	Reinstatement, repair, cleaning of guide posts and delineators to ensure safe and acceptable condition.	Any missing or damaged guide posts (where existing) making them substantially ineffective in a hazardous location for the travelling public	N/A	N/A	N/A	10D	15D	3W
Guide Post Installation Program	Prioritised installation of new guide posts and delineators along road lengths to improve delineation.	Annual installation program subject to budget allocations	AP	AP	AP	AP	AP	AP

ACTIVITY	DEFINITION / DESCRIPTION	LEVEL OF SERVICE	TARGET RESPONSE TIMES					
			Urban			Rural		
			Link	Collector	Access	Link	Collector	Access
All Street Furniture e.g. Seating, Bollards, Bike Racks, etc	Covers reinstatement, repair, cleaning, and painting of street furniture to ensure aesthetic, safe and acceptable condition.	Provide emergency repairs or response depending on the extent of the damage when: - Asset becomes non-functional or causes potential danger to the public - Not fixed correctly to the ground or relevant support - Does not conform to Council's or manufacturer's specification and / or becomes unattractive in appearance Replacement of infrastructure considered as part of Annual Renewal Program.	AP*	AP*	AP*	N/A	N/A	N/A
Bus Shelters	Reinstatement, repair, cleaning and painting of shelters, associated infrastructure and surrounds to ensure safe condition.	Bus shelters, infrastructure and surrounds kept serviceable, safe, neat and tidy in appearance.	AP*	AP*	AP*	AP*	AP*	AP*
Pavement Markings								
Centre Line	Defined as remarking of all illegible/defective road marked symbols, signs, line work where existing.	When markings lack definition, loss of reflectivity and/or legibility at safe sight distances in a location assessed hazardous for the travelling public	3 Year Program					
STAT Cons			AP	AP	AP	AP	AP	AP
School Crossings			AP	AP	AP	AP	AP	AP
Railway Crossings			AP	AP	AP	AP	AP	AP
Parking Bays		Reinstate line marking to ensure and effective visibility/condition, subject to assessment.	2 Year Program					
Bicycle Lanes			3 Year Program					

ACTIVITY	DEFINITION / DESCRIPTION	LEVEL OF SERVICE	TARGET RESPONSE TIMES					
			Urban			Rural		
			Link	Collector	Access	Link	Collector	Access
VEGETATION MAINTENANCE								
Line Clearance	Prune street trees to provide adequate clearance around overhead cables. (This activity includes pruning within Arterial and Municipal Road Reserves, and Nature Strips).	Line Clearance in accordance with Code of Practice for Electrical Line Clearance (Vegetation) 1999.	AP	AP	AP	N/A	N/A	N/A
Tree & Shrub Obstruction - Roadway	The cyclic maintenance of trees and shrubs in road reserves not in urban areas, control provides for fuel reduction as part of annual fire prevention program.	Prune road side trees to comply with the following clearance limits: - Height Clearance: min. 5.0m above carriageway - Lateral Clearance: min. 1.0m from guide posts, back of shoulder, or kerb - Maintenance of safe sight distances at intersections and curves.	AP	AP	AP	AP	AP	AP
Tree & Shrub Obstruction - Other	Prune trees and/or shrubs to provide for long term desired height, lateral and sight clearances.	Tree obstructing safe sight distances, restricts viewing of warning signage, or assessed to be in an unsafe condition causing hazard to traffic or public.	2W	1M	2M	1M	2M	3M
Vegetation Control	The control of vegetation growth, predominantly grasses growth not including tree maintenance, in municipal road reserves. Control also provides for fuel reduction.	Areas where grass height restricts design sight distance to intersections, or obstructs viewing of warning signage, guideposts, etc	N/A	1M	1M	AP	AP	AP
Fuel Reduction (Fire Management)	Slashing carried out to reduce fire fuel loads and manage potential fire hazards on strategic network roads. CFA and Roadside Fire Management Guidelines set the selection and areas on these roads	Slashing or roadside areas as included within annual fire prevention program.	N/A	N/A	N/A	AP	AP	AP

ACTIVITY	DEFINITION / DESCRIPTION	LEVEL OF SERVICE	TARGET RESPONSE TIMES					
			Urban			Rural		
			Link	Collector	Access	Link	Collector	Access
BRIDGE AND STRUCTURES MAINTENANCE								
Routine Maintenance – Deck Cleaning	Cleaning and clearing of deck, expansion joints, drainage scuppers, etc.	Clear and clean when any accumulation of material causes interruption to the escape of drainage water or the operation of expansion joints.	AP*	AP*	AP*	AP*	AP*	AP*
Routine Maintenance – Substructure Clearance	Cleaning and clearing of dirt and debris from superstructure and substructure, and vegetation from in and around bridge.	Clear and clean when stream flows are obstructed at structure.	AP*	AP*	AP*	AP*	AP*	AP*
Minor Repair / Painting	Minor repair and minor painting, including repair of spalled posts and parapets. Includes repair, tightening and painting of railing.	Undertake minor repair or replacement, painting, etc to enure safe and effective condition of bridge components.	AP*	AP*	AP*	AP*	AP*	AP*
Running Deck Repair	Treatment of timber running planks rotted at the ends or edges, severely split and/or cracked through significantly loose or highly weathered.	Repair deck when timber running planks very loose, defective or missing to ensure safe running surface. Includes retightening of coach screws or re-driving of spikes.	AP*	AP*	AP*	AP*	AP*	AP*
Major Repairs	Replace or undertake major repairs or replacement when structure condition suggests that infrastructure is beyond repair and/or non- functional	Structure in dangerous condition, not serviceable, structurally unsound or unsafe.	AP*	AP*	AP*	AP*	AP*	AP*

ACTIVITY	DEFINITION / DESCRIPTION	LEVEL OF SERVICE	TARGET RESPONSE TIMES					
			Urban			Rural		
			Link	Collector	Access	Link	Collector	Access
DRAINAGE MAINTENANCE								
Surface Drains	Cleaning and minor reshaping of isolated ditches and surface drains >50 m long to maintain adequate drainage. Includes verge drains and back drains.	Reshape when there is ponding in drains or the drain is not functioning to 80% capacity.	AP*	AP*	AP*	AP*	AP*	AP*
Sub-Surface Drains	The removal of dirt and debris from sub-surface drain outlets and pits to ensure water is removed from subgrade. Includes checking of rodent and flood flaps.	Inspect and clean subsoil drains annually. Inspect known problem areas and free flowing subsoil drains at scheduled intervals.	AP*	AP*	AP*	AP*	AP*	AP*
Underground Storm Water Drains	Removal of dirt, tree roots and debris from underground pipes to maintain adequate drainage.	Inspect and clean underground drains annually. Inspect regularly known problem areas at scheduled intervals.	AP*	AP*	AP*	AP*	AP*	AP*
Culvert And Pit Cleaning	The removal of dirt and debris from culverts and pits to maintain adequate drainage.	Inspect and clean culverts and pits based on Annual Program. Inspect regularly known problem areas after heavy rain, and mouths of pits keeping such free of blockages. Inspect catch basins after heavy rains.	AP*	AP*	AP*	AP*	AP*	AP*
Kerb And Channel Cleaning	Clearance of any debris fouling the surface between the face of the kerb and 2.4-metres from the invert of the channel.	Clearance of kerb and channel undertaken to ensure effective drainage.	1M	1M	1M	1M	1M	N/A
Culvert And Pit Repair	The minor repair of damaged culverts and pits due to concrete deterioration or damage.	Repair or replace culverts and pits when they are damaged to the extent that they become a danger or become non-functional.	2D	2D	2D	1W*	2W*	1M*

ACTIVITY	DEFINITION / DESCRIPTION	LEVEL OF SERVICE	TARGET RESPONSE TIMES					
			Urban			Rural		
			Link	Collector	Access	Link	Collector	Access
Kerb And Channel Repair	Repair of damaged kerb and channel due to concrete deterioration or damage.	Replace or undertake major repairs when condition suggests that kerb and channel is non functional.	AP*	AP*	AP*	AP*	AP*	AP*
Pit Lid – Damaged Or Missing	Replacement or reseating of pit lid.	Repair or replace and pit lids and surrounds when they have deteriorated or are damaged to the extent that they become a danger.	2D	2D	2D	1W*	2W*	1M*
Pit Surround – Damaged Or Missing	Replacement or reseating of pit surround.		2D	2D	2D	1W*	2W*	1M*

ACTIVITY	DEFINITION / DESCRIPTION	LEVEL OF SERVICE	TARGET RESPONSE TIMES		
			High Risk	Standard Risk	Low Risk
FOOTPATH MAINTENANCE					
Differential Settlement	Replacement, repair, regulation and surface patching of footpath to ensure uniform safe condition.	Repair or regulate footpath surface where vertical displacement between concrete bays exceeds 20mm.	1W	1M	Reactive response to specific defect identification
Potholes	Repair of potholes in hard paved areas to restore the surface to a smooth and safe condition.	Repair or regulate where potholes exceed 20mm in depth.	1W	1M	Reactive response to specific defect identification
Depressions	Regulation of subsided areas exceeding 1-sqm and less than 5-sqm to restore the surface to a smooth and safe condition.	Repair or regulate where depressions exceed 30mm in depth over a 2 metre straight edge.	1W	1M	Reactive response to specific defect identification
Shoving	Regulation of raised surface exceeding 1-sqm and less than 5-sqm to ensure uniform safe condition.	Repair when mounding exceeds 50mm in height over a 2 metre straight edge.	1W	1M	Reactive response to specific defect identification
Unsealed Footpaths	Repair surface of unsealed footpaths to a safe and acceptable condition.	Repair of surface if corrugations and/or potholes exceed 50mm in depth. May include spot gravelling of surface.	1W	1M	Reactive response to specific defect identification

ACTIVITY	DEFINITION/DESCRIPTION	MAINTENANCE PERFORMANCE STANDARD	TARGET RESPONSE TIMES		
			High Risk	Standard Risk	Low Risk
FOOTPATH MAINTENANCE					
Brick Paved Areas	The maintenance of paved areas of various construction to remove and defects that may constitute a hazard to pedestrians and other users.	Distressed area kept in safe state of repair protecting pedestrians from injury due to tripping and falling. - Loose missing or dislodged pavers, - Vertical displacement greater than 20mm, or - Gaps exceeding 25mm Consideration given to replacement of paved areas within annual programs.	AP*	AP*	N/A
Edge Repair	Treatment to reduce depressions, holes or drop-off at the interface (edge) of constructed asphalt, concrete or brick paved footpaths.	Provide repair of depressions exceeding 75mm in depth at the interface of the nature strip and surrounding constructed paths with topsoil, gravel or sand	1W	1M	N/A
Tree & Shrub Obstruction	Street tree and/or shrub shaping to control future growth, provide for long term stability/health and maintain desired height, lateral and sight clearances. Pruning to address dead/diseased and/or damaged limbs.	Prune street trees and shrubs to comply with the following clearance limits: - Height Clearance: min. 2.4m above footpath Lateral Clearance: min. 500mm from edge of path	1M	1M	Reactive response to specific defect identification

Appendix B

Record of Amendments to Road Management Plan, October 2004

Variations between the Road Management Plan, October 2004 and the Revised Plan – April 2006

Table of Contents

Section 2

Item 2.4 changed from ***Corporate Plan to Council Plan***.

Section 7

Item 7.2 and Item 7.3 – the word ***Standards*** changed to ***Criteria.***

Section 4

4.8.2.5 Fire Access Roads added

Section 9

Section 9 ***Review*** is now headed ***Plan Improvement and Monitoring*** and reads as follows:

9.1 Internal Monitoring
9.2 Annual Performance Review
9.3 Periodic Review
9.4 Road Management Plan Amendment

2.4 Council Plan

2.4 should now read ***Council Plan*** and not ***Corporate Plan***.

Paragraph 3 now reads:

The specific strategies and outcomes identified in the Council's Plan 2005-2009 include:

- *Continue increased funding of infrastructure asset renewal, particularly on rural road resheeting, drainage, timber bridges and footpaths.*
- *Advocate for improved Infrastructure services:*
  - *Upgrade Turtons Tract as a major sealed 2WD Touring route,*
  - *Upgrade of the main access roads between Princes Hwy and the Great Ocean Road including the Colac-Forrest Road, Birregurra – Forrest Road, Forrest - Skenes Creek Road and the Colac-Lavers Hill Road consistent with actions contained in the Great Ocean Road Regional Strategy.*
  - *Location of the Geelong By-Pass connection with the Princes Highway to enable a continuous 100kmh speed zone.*
  - *Construction of a dual carriageway Princes Highway from Geelong to Colac and then beyond to the South Australian border.*
  - *Development of an alternative heavy vehicle route for the City of Colac.*
  - *Identification of a designated route for the future location of a Colac By-Pass along the Princes Hwy.*
- *Implementation of Road Safety Plan and Council approved road safety initiatives in partnership with Vic Roads and other agencies.*
- *Develop and implement the Asset Management Plans and Asset Management Systems for all infrastructure categories.*

2.8 Strategic Asset Management Plan

2.8 now reads:

The Strategic Asset Management Plan outlines and guides Council's asset response to its service requirements, through the development of an asset portfolio, risk management strategies and asset performance measures.

The principal objective of strategic asset management is to ensure that Council meets its service delivery objectives efficiently and effectively.

This objective will be achieved by:

- *Maximising the service potential of existing assets by ensuring they are appropriately used and maintained;*
- *Reducing the demand for new assets through demand management techniques and consideration of alternative service delivery options;*
- *Achieving greater value for money through a rigorous project initiation and evaluation process which takes into account life cycle costing, value management techniques and private sector involvement;*
- *Eliminating unnecessary acquisition and holding of assets by ensuring agencies are aware of, and required to pay for, the full costs of holding and using assets; and*
- *Focusing attention on results by clearly assigning responsibility, accountability and reporting requirements in relation to asset management.*

This outcome will be supported by a comprehensive Strategic Asset Management Plan that address capital investment, the operation and maintenance of existing assets, and the rationalisation and disposal of assets.

3. BUDGET PROCESS

1st Paragraph, last sentence, now reads ***2005/2006 Budget***.

3.1 Maintenance Funding

5th Paragraph, 2nd sentence, word ***Standard*** now reads ***Criteria***.

8th Paragraph, 1st dot point, word ***Standards*** now reads ***Criteria***.

4.2 Register of Public Roads

2nd Paragraph, 1st sentence, now reads ***Clause 19*** and not ***Clause 19(1)***

Dot points now removed. Replaced with the following:

The register must include –

(a) The name of each public road or, if a road is unnamed, a description which enables the particular road to be easily identified;
(b) If a road becomes a public road after 1 July 2004, the date on which the road becomes a public road;
(c) If a public road ceases to be a public road, the date on which the road ceased to be a public road;
(d) The classification, if any, of the public road;
(e) The reference of any plan or instrument made on or after 1 July 2004 that fixes or varies the boundaries of a public road;
(f) Any ancillary areas;
(g) A reference to any arrangement under which road management funding in respect of any part of a public road or ancillary area is transferred to or from another road authority;

(h) Any matter required to be included by the relevant road Minister under Section 22;
(i) Any other matter required to be included in this Act;
(j) Any other matter which is prescribed for the purpose of this clause.

4.2.1 Amendments to the Register of Public Roads

3rd Paragraph, 2nd sentence deleted. New sentence added:

The register of public roads will need to be maintained on an ongoing basis. It is proposed that the register of public roads be maintained under delegation to ensure it is readily updated on a regular basis.

4.8.2.1 Vehicle Crossings

1st Paragraph, 1st sentence ***(ie**. driveway)* now to read ***(i.e.** driveway).*

4.8.2.6 Fire Access Roads

New Paragraph included:

Designated fire access roads throughout the Colac Otway Shire, which are open for traffic under a controlled level of service, however are infrequently used or dry weather access only. Maintenance of these roads is only carried out as directed by Council's Fire Prevention Officer.

Traditionally Council maintains these tracks to a standard that will cater for farm machinery and fire fighting vehicles to travel to and from non-residential properties as and when weather conditions allow.

These types of roads are damaged by inappropriate use by motorists during wet weather periods when conditions do not support the movement of any vehicles.

Local Road Classification

Page 19 - Rural Minor Explanatory Note previously stated:

These roads generally provide occasional access to non-residential property only. Includes those roads identified as providing 'fire access'.

This has been changed to read,

These roads generally provide occasional access to non-residential property only

6.2.1 Strategies for Planning Maintenance Work

2nd Paragraph, 3rd dot point, 4th indent point – ***standards*** now reads ***criteria***

6.3.2 Request Inspections

2nd Paragraph, 2nd sentence – ***standard*** now reads ***criteria***

Inspection Type, Frequency & Responsibility

Page 30 previously read:

Asset Class	Hierarchy	Inspection Type, Frequency & Responsibility
		Routine
Urban Road Network * Includes sealed and unsealed roads	Urban Link	Not Applicable
	Urban Collector	3 months
	Urban Access	6 months
	Urban Minor	2 years
Rural Road Network * Includes sealed and unsealed roads	Rural Link	3 months
	Rural Collector	4 months
	Rural Access	12 months
	Rural Minor	3 years

Now reads:

Asset Class	Hierarchy	Inspection Type, Frequency & Responsibility
		Routine
Urban Road Network * Includes sealed and unsealed roads	Urban Link	Not Applicable
	Urban Collector	4 months
	Urban Access	6 months
	Urban Minor	2 years
Rural Road Network * Includes sealed and unsealed roads	Rural Link	3 months
	Rural Collector	4 months
	Rural Access	12 months
	Rural Minor	3 years

6.3.3 Incident Inspections

2nd Paragraph, 2nd dot point – ***standards*** now reads ***criteria***

7.1.2 Future Consultation

2nd Paragraph, 2nd sentence - ***standards*** now reads ***criteria***

3rd Paragraph, 1st sentence - ***standards*** now reads ***criteria***

7.2 Maintenance Performance Standards now reads ***Maintenance Performance Criteria***

3rd Paragraph, 1st sentence – ***standards*** now reads ***criteria***

3rd Paragraph, 2nd sentence - specified *in* ***the Road Management Review (Policy 13.6)*** now reads *specified in* ***Appendix A – Maintenance Performance Criteria and Response.***

5th Paragraph deleted.

7.3 Construction Performance Standards now reads ***Construction Performance Criteria***

7th Paragraph, 1st sentence - within ***Council's Road Management Review (Policy13.6)*** now reads ***within Councils Road Asset Management Plan.***

9. REVIEW now reads ***PLAN IMPROVEMENT & MONITORING***

9.1, **9.2**, and **Annual Update** now reads as follows –

The Act requires that Council's Road Management Plan be formally reviewed at prescribed intervals. However, it is proposed that Council review its Plan more frequently as part of the continuous improvement process being applied to this new road management system.

The Plan improvement and monitoring process is proposed as follows:

9.1 Internal Monitoring

The processes that are to be audited internally per annum are as follows –

- Collection and storage of condition information,
- Recording of complaints/requests in an appropriate database in the manner required,
- Each complaint/request is inspected and/or assessed in relation to safety & specified maintenance intervention levels,
- That programmed inspections are carried out as scheduled,
- Relevant inspection reporting & recording mechanisms are in place,
- That reported defects are being properly recorded in the system,
- Where required, appropriate rectification responses are determined & works orders issued,
- Where customer requests require scheduling of works onto annual maintenance programs or capital works programs, that the required listing takes place,
- Record of maintenance activities is made in the database against the asset, including actual date of completion,
- Record that maintenance works have been delivered as intended (i.e. someone has signed off on the satisfactory completion of the work),
- Procedure is in place for collecting and storing information regarding road asset condition for developing future maintenance programs,
- Management system in place to record and respond to customer enquiries, and
- Asset handover/update process is being managed as required.

The outcome of the internal audit is to be reported to the General Manager, Infrastructure & Services.

9.2 Annual Performance Review

It is intended that this Plan will be updated on an annual basis in line with changes to the budget and results of predictive modelling of elements of Council's road infrastructure assets.

Council shall ensure that there is ongoing review of its asset management practices to ensure continued suitability and effectiveness having regard to –

- Asset performance following delivery of maintenance and construction programs,
- The level of achievement of Council's asset management strategies, and
- The consideration of any external factors, including legislative requirements, ongoing development of Council Policies and other major system implementations, that may effect the contents of this Plan.

The review will include, but not limited to –

- Audit and review of maintenance response times (to confirm whether maintenance works were delivered on time),
- Review of inspection frequencies (to ensure appropriateness),
- Review of levels of service (to ensure appropriateness),
- Review of road classifications (to ensure appropriateness),
- Review of customer feedback/contact, and
- Random audit of maintenance works (to confirm whether maintenance works were delivered to the specified quality).

Periodic Update now reads –

9.3 Periodic Review

3rd Paragraph, deleted.

New Point added –

9.4 Road Management Plan Amendment

To ensure the effective development and implementation of this plan all reviews will be undertaken in accordance with Part 3 of the *Road Management* (General) *Regulations 2005.*

Subject to the results of any review all amendments required to be made to the Plan will be undertaken pursuant to Section 54 of the *Road Management Act 2004.*

Records of all reviews and plan amendments will be maintained.

10. REFERENCES

Colac Otway Shire Council Plan 2003 – 2006 now reads ***Colac Otway Shire Council Plan 2005 – 2009***

Financial Strategic Plan 2003 – 2004 now reads ***Financial Strategic Plan 2005 – 2006***