# 7.6 Review of Road Management Plan

# Abstract

In accordance with the Road Management Act 2004 and Road Management (Gerneral) Regulations 2016, Council has conducted a review of its Road Management Plan (RMP). The review has been completed and we recommend it to council for consideration and adoption.

The review undertaken was extensive and focused on all road and road infrastucture related service standards, our performance in meeting these standards and our relative standards and performance in comparision to similar councils. A full report of the review can be found in Road Management Plan Review 2021 and is available in **(Attachment 1)**.

As a result of the RMP review we have prepared a Draft Road Management Plan (Attachment 2), that is consistent with the reviews findings and meets Council's current policy framework and directly addresses each of the four themes identified in the Code of Practice for Road Management Plans. Intervention standards in the current RMP were found to be appropriate, however additional interventions, increased detail for performance standards and revised response times have been included to reflect the range of activities carried out by Council in managing our road network.

To action these amendments, a public submission process is required to be initiated after adoption.

# **Officers' recommendation**

That Council resolve to:

- Approve the review of the Road Management Plan as outlined in (Attachment 1) Road Management Plan Review 2021.
- Commence the processes outlined in the Road Management (General) Regulations 2016, to progress the proposed draft Road Management Plan (Attachment 2), including public notice of its intention to amend the Road Management Plan and invite submissions to be made on the proposed plan.
- 3. Receive and consider a further report summarising any submissions prior to **consideration** of adopting a final Road Management Plan.

# Responsible director: Daniel Freer, Director Places and Spaces

#### 1. Purpose

Council is required to review its Road Management Plan (RMP) in accordance with the Road Management (General) Regulations 2016.

The purpose of this review is to ensure that the RMP accurately reflects the standards, policies and management system used by the City of Boroondara to discharge its duty to manage, inspect, repair, and maintain the roads for which it is responsible, and that the standards and priorities contained in the plan are appropriate and meet the need of the community in providing a safe, well presented and maintained road network.

#### 2. Policy implications and relevance to community plan and council plan

The draft Road Management Plan is consistent with the Boroondara Community Plan priority themes: Your Community, Services and Facilities; and Getting Around Boroondara and supports Council's Mission and Vision by addressing the following objective in the Council Plan 2017-2021:

"To ensure Council's assets are suitable for community use through proactive asset inspections, maintenance of asset data in the corporate asset system and development of Asset Management Plans"

The overiding objective is to ensure that the roads and associated infrastructure are safe, efficient, reliable, and meet community expectations.

Having a RMP in place provides Council with a Policy defence, provided actions have been taken in accordance with the plan and the provisions in the plan are not unreasonable. The RMP should be comprehensive and provide clarity around the activities undertaken to manage the road and associated infrastructure, for which the authority is responsible. Council must also be confident that it can meet the response times and standards identified within the RMP and any targets identified should be realistic and not aspirational, to ensure Council is in a defensible position.

#### 3. Background

The City Boroondara is the coordinating road authority and the responsible road authority for 567 kilometres of roads on its Road Register. VicRoads is the coordinating road authority, for the main road network and is responsible for 94 kilometres of roads within Boroondara.

As a designated Road Authority under the Road Management Act 2004, the City of Boroondara uses its RMP to document the standards, policies and management system used to discharge its duty to manage, inspect, repair, and maintain the roads for which it is responsible.

In managing the Road Network, Council's overiding objective is to ensure that the roads and associated infrastructure namely; pathways, car parks(within the road reserve), traffic control devices, signs, kerb and channel, bridges and roadside pits and storm water connections are safe and reliable and meet the expectations of the community. The purpose of the RMP is to establish a management system for the implementation of Council's road management functions based on policy and operational objectives that are within the available resources.

The Road Management (General) Regulations 2016 require each council to review its RMP during the same period as it is completing its Council Plan and make publicly available a written report summarising the findings and conclusions of the review.

Council's current RMP was last reviewed in June 2017, resulting in minor amendments that were adopted by Council on 21 July 2017. There is no statutory period for a RMP and the current RMP will remain in force until an amended RMP is adopted by Council.

#### 4. Outline of key issues

The Road Management Plan Review 2021 (Attachment 1) details the process undertaken to review the road management plan, taking into consideration, customer expectations, changes in Council's policy framework in recent years and to incorporate a range of improvements identified through: internal consultation; guidelines recommended by Council's insurer; and comparison with RMP's of other authorities.

The review process indentified areas where Council could improve our management approach and as such, recommends the inclusion of 15 new interventions with associated rectification performance standards and appropriate response times. The review report includes explanations as to why these new interventions should be included in the RMP.

The review also focused on rectification performance standards and response times for all for all interventions within the current RMP with updates incorporated within the draft RMP 2021.

These changes aligns Council's RMP with the Code of Practice for Road Management Plans and support officers in carrying out activities specified in the plan, providing greater clarity to stakeholders.

#### 5. Consultation/communication

Key staff from Maintenance, Capital Works and Risk & Assurance teams were actively involved in the review and the development of the draft RMP 2021. The Final draft was provided more broadly for comment to Managers and Coordinators in Places and Spaces involved with management of activities in the road reserve.

Subject to adopting the draft Road Management Plan and associate review, Council is required to give public notice of its intention to amend the Road Management Plan and allow 28 days for submissions to be made on the proposed plan. Council must then consider any submissions and may adopt them into the amended RMP.

# 6. Financial and resource implications

Additional standards have been incorporated into the proposed revised RMP, however in most cases this formalises work that is already being carried out. It is proposed to collect defects on more assets than documented in the current plan, although this is expected to be offset in the longer term by improvements in mobile inspection methods. The quantity of any the additional effort will be monitored and additional resources provided as necessary to meet the specified standards and timeframes.

#### 7. Governance issues

There are no direct or indirect conflicts of interest resulting from the adoption of this policy.

#### 8. Social and environmental issues

The continued development and implementation of the road management plan will have a positive effect on social wellbeing by contributing to a safe and efficiently maintained road network.

#### 9. Evaluation and review

Monitoring and review processes are included in the RMP. The RMP itself will be reviewed again in 2025.

#### 10. Conclusion

Changes to the RMP set out in the draft Road Management Plan 2021 are required to satisfy the outcomes of this review, which require the process outlined in Regulation 10 of the Road Management (General) Regulations 2016 to be followed.

#### Manager: Shaun Martin, Manager Asset and Capital Planning

**Report officer:** Eric Van Toor, coordinator Strategic Asset Management



# Review of Road Management Plan 2021

# 1 Purpose

The purpose of this document is to summarise the outcomes of the 2021 review of <u>Council's Road Management Plan 2017</u> (RMP). It is a requirement of the Road Management (General) Regulations 2016, that Council conduct and complete a review of its RMP during the same period as it is completing its Council Plan, and make publicly available a written report summarising the findings and conclusions of the review.

# 2 Scope

The Road Management (General) Regulations 2016 states that:

In conducting a review of its road management plan, a road authority must ensure that the standards in relation to, and the priorities to be given to, the inspection, maintenance and repair of the roads and classes of road to which the plan applies are appropriate.

The Code of Practice for Road Management Plans<sup>1</sup> requires that standards set in the plan take into consideration: infrastructure type, community expectations; risk; available resources; the use of temporary measures and warning systems; potential impacts on utilities; and environmental and cultural factors. The RMP has been reviewed in this context.

Council has also undertaken a complete review of the structure of the plan to align with Council's current standard policy structure. Changes have also been made to meet recommendations in the Guidelines for Road Management Plans prepared by Municipal Association Victoria Insurance.

In conjunction with our review Council has also prepared a draft Road Management Plan, addressing the outcomes of this review. Subject to adopting the review, Council is required to give public notice of its intention to amend the Road Management Plan and allow 28 days for submissions to be made on the proposed plan. Council may then consider any submissions and adopt an amended RMP.

# 3 Background

Council's RMP was developed in accordance with the Road Management Act (2004) and supporting regulations and codes of practice. It was last reviewed in June 2017.

<sup>&</sup>lt;sup>1</sup> Code of Practice for Road Management Plans:

http://www.gazette.vic.gov.au/gazette/Gazettes2004/GG2004S201.pdf



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The purpose of a Road Management Plan as set out in the Road Management Act is to:

- a) establish a management system for the road management functions of a road authority which is based on policy and operational objectives and available resources; and
- b) set the relevant standard in relation to the discharge of duties in the performance of those road management functions.

# 4 Outline of Review Process

The review process commenced with an initial assessment of the current RMP against the Code of Practice for Road Management Plans<sup>2</sup>. The following plan improvements that could be incorporated into the review were identified:

- Improvements to the identification of assets included in the RMP and clarity around demarcation of responsibilities between authorities
- The inclusion of more detail on the management system used by Council to discharge its duty to inspect, maintain and repair the assets for which it is responsible, including identifying hazards, assessing condition, prioritising work, and delivering and auditing work programs
- The inclusion of more detail on the type and nature of inspections and who will carry them out
- The inclusion of a broader range of defects to more fully reflect the maintenance activities required to keep the roads in an appropriate condition and identification of the standard to be achieved during maintenance or repair.

Because the required changes are substantial and Council's policy document framework has changed significantly since the current RMP structure was developed in 2013, a proposed revised RMP was completely rewritten as part of the review. The proposed RMP follows Council's current standard policy format with appendices addressing each of the four sections identified in the Code of Practice for Road Management Plans: a description of assets covered; details of the management system to manage those assets; a description of required inspections; and details of the maintenance and repair standards.

In determining the content of the proposed RMP we considered the following:

- LMI Road Management Plan Guidance Document (MAV Insurance, v4, Aug 2021)
- Content of Plans of other Metropolitan Councils
- Benchmark data on inspection frequencies, intervention levels and response times
- Active engagement with internal stakeholders from Maintenance, Capital Works, and Risk & Assurance teams.

<sup>&</sup>lt;sup>2</sup> Code of Practice for Road Management Plans: <u>Victoria Government Gazette No. S 201 Thursday 16</u> <u>September 2004</u>

<sup>16/01/2020 |</sup> Road Management Plan Review 2021



# 5 Summary of Key Changes

Appendix 1 of this review outlines the key proposed changes to the structure and content of the RMP. Appendix 2 includes the intervention levels proposed for the 2021 RMP compared to the current RMP. The proposed draft Road Management Plan 2021 is presented as a separate document.

The main changes proposed are discussed in following the sections:

# 5.1 Asset Hierarchy

Unmade laneways are currently included as a separate classification in the road hierarchy and are not routinely inspected. To meet Council's obligations to inspect all assets for which Council is responsible, it is proposed that the 15 km of unmade lanes be reclassified as Secondary Laneways and inspected annually.

# **5.2 Inspection Frequencies**

The following changes to inspection frequencies are proposed:

- Bridge Risk inspection intervals are to be reduced from 12 months to 6 months
- Condition inspection intervals for bridges are to be increased to a maximum of 5 years (3 years in existing plan), but with intermediate follow-up inspections for bridges where components are identified in the previous inspections as approaching the end of their life.

These proposed frequencies are consistent with VicRoads bridge inspection guidelines.

#### 5.3 Intervention Levels

Intervention levels identified in the current RMP are focussed on the following defect types:

- potholes and displacements in paths, kerbs, or the road surface: two or three severity levels are identified for each defect, with a faster response time for more severe defects.
- Damaged or illegible signs, flooded roads and missing or broken stormwater covers are identified for a 14 day response.

There is currently no detail of what tasks would be undertaken in response to each of these defects.

The current inspection regime requires two asset inspectors, who inspect all low priority activity paths and roads on a 12 monthly program and all high priority activity paths and Link (Secondary) and Collector roads on a 6 monthly program. The inspectors do pick up defects not specifically identified in the RMP, and it is recommended the RMP more fully documents the range of maintenance and repair activities undertaken to keep the road and path network in good condition.

The proposed changes identify several additional interventions: Table 1 lists the new interventions along with explanations as to why they should be included in the RMP.



TaskNew interventionResponse timeReaso includeSealed roads – isolated pavement failures (up to 5sq.m of pavement surface area)Pavement shows distress in the form of shoving, rutting or depressions of the surface exceeding 50mm at any location under a 1.2m straight edge42 daysImproves and redu further pavemer deterioraSealed roads - regulation of wheel ruts and depressionsWhen a depression holds water, or exceeds 50mm in depth under a 1.2m straight edge longitudinally42 daysImproves and redu further pavemer deteriora	
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Crack sealing Cracking on over 10% to 20% of road 12 months reduces	
length provided otherwise sound further	
pavemer	nt
deteriora	ition
Concrete Footpath Crack >20mm wide over 0.5m length 28 (High) or 42 Path use	er
slab repair or multiple cracking over most of slab days (Low) safety ar	nd
Footpath edge dropEdge drop-off > 75 mmActivity pathsamenity	
Asphalt path cracking Cracking exceeds 2m in length and 28 (High Reduce	further
10mm in width Activity) or 42 deteriora	ition
Asphalt path failure significant concentrated levels of days (Low	
distress Activity) paths	
Tactile repairs         Missing tactile or damage so that it         Safety	
causes a trip hazard or does not fulfil 42 days	
function.	
Gravel path When pavement shows significant Safety,	
maintenance concentrated levels of distress.	and
When scours of depth greater than 42 days reduce for	
50mm occur at any location. deteriora	ition
Clearance envelope to Whenever vertical clearance (e.g. tree Cyclist s	afety
shared paths branches, etc.) is less than 2.5m above	•
the ground or horizontal clearance 70 days	
from the edge of the path is less than	
1.0m to a potential hazard.	
Gravel lane re-sheeting Loss of gravel material and extensive Safety a	nd
depressions exceeding 75mm or 42 days amenity	
drop-offs exceeding 50mm	
Pedestrian and Timber posts to be replaced when 7 days Safety	
school crossing damaged or greater than 50% wood	
maintenance rot is evident	
Guard rail Guard rails in damaged condition 28 days	
maintenance (other than immediate safety Safety	
hazards)	
Sealed Roads line When line marking is faded, eroded Annual	
marking worn or non-reflective. Program Safety	
Bridge maintenance Visible damage on components 28 days	
likely to affect users or public safety Safety	

# 5.4 Response times

To accommodate these additional interventions and to ensure a consistent approach, it is also recommended that the current system of having varying response times based on two or three measures of displacement be simplified, using a single intervention for each defect with response times based on the asset hierarchy only. This approach is consistent with other road authorities.



The proposed treatment for sealed road potholes is for Council staff to fill the hole with cold mix within 7 days, for Secondary or Collector roads and 14 days, for Local Access roads, and for contractor to complete the repair in 42 days. The response in the current RMP is to respond in 28 days for Secondary/Collector roads and 42 days for Local Access Roads, but the treatment is not identified. The proposed response allows 42 days for a contractor to action regardless of road hierarchy, because this time frames are necessary to program the contractors work and safety issues have previously been addressed by filling the depression.

The treatment of footpath vertical displacements greater than 30mm are also considered in two stages. The trip hazard is addressed temporarily by repairing with asphalt within 7 days for high activity paths and 14 days for other paths and then programmed for replacement of the slab within 42 days. There is no change in the response to lower severity displacements (between 20 and 30mm), which are treated by grinding or slab replacement within 42 days.

# 5.5 Overall changes to standards

The standards proposed in this review are higher than in the current plan and a broader range of interventions have been identified and these are comparable to those of other inner metropolitan councils. Demonstrated compliance with each of the standards is required, so targets have been set on the basis that they are achievable rather than aspirational. Work completion will be monitored and used to adjust response times in future reviews.

# 6 Conclusion

While the standards set out in the current RMP are generally appropriate, it is proposed that additional standards also be included to reflect the broader range activities required to ensure a safe and well maintained network.

The draft Road Management Plan 2021 incorporates these additional standards and more detail for inspections and road management practices, and the assets for which Council is responsible. The additional detail will support Council staff in carrying out activities specified in the plan and provide clarity to stakeholders.

# 7 Recommendations

That a notice be given to amend the road Management Plan as in the attached revision, in accordance with Regulation 10 of the Road Management (General) Regulations 2016.

Road Management Plan Review 2021 - Appendix A: Proposed Changes to Road Management Plan



# Appendix A: Proposed Changes to Road Management Plan

Section # in RMP 2017	Road Management Plan 2017	Section # in proposed Plan	Issues	Changes in proposed Plan
1	Executive Summary	N/A	Not required under new policy structure	Plan has been restructured with a short overarching policy statement, with the legislated contents addressed in separate appendices.
2	Introduction			
2.1	Purpose	1.1,1.2		Focus on legislated requirements of the RMP.
2.2	Key Stakeholders	Appendix D		
2.3	Definitions	5.2		Reviewed, with minor changes
3	Rights and Responsibilities			
3.1	Register of Public Roads	2.1		Additional details and contents of a Road Register are defined.
3.2	Coordinating Road Authority	2.1		
3.3	Council's Assets on the Road Reserve	Appendix A		Greater detail provided on what Council is responsible for managing.
3.4	Non Council Assets	Appendix A		
3.5	Road Users	2.3		Include reference to s.17A of Road Safety Act <sup>3</sup>
4	Levels of Service			
4.1	Current Levels of Service	Appendix D		Information provided on how standards are determined

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<sup>&</sup>lt;sup>3</sup> Identified in LMI Road Management Plan Guidance Document (MAV Insurance, v4, Aug 2021)



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4.2	Asset Hierarchies	Appendix A	3 categories of laneways: primary, secondary, and unmade	Amalgamate Unmade Laneways into Secondary Laneways and treat "unmade" as a surface type.
4.3	Financial Resources	N/A	Advises that remediation of defects may be deferred due to insufficient resources	Delete clause, as this is covered by Exceptional Circumstances Clause and process below.
4.4	Exceptional Circumstances	Appendix B		Clause changed to align with LMI Guidance Document.
5	Management Systems			
5.1	Customer Requests	Appendix B	Little detail provided on	Includes how asset information is managed,
5.2	Asset Management System	Appendix B	asset activities are work is managed	hazards identified and condition assessed, and how work is prioritised and programs delivered
5.3	Inspections	Appendix C	Brief description of inspection types	Detail of inspections and who caries them out are documented
6	Audit and Review	Appendix B		Includes additional section on auditing maintenance programs
7	References	5.1		Includes reference to other Council road- related policies and documents.
Attachment 1	Road Hierarchy	Appendix A		Road Hierarchy description amended
Attachment 2	Levels of Service	Appendix D	Defects limited to potholes and kerb and path displacements. Standards to which defects are repaired are not identified.	Additional interventions added to include other tasks performed on road infrastructure. Details of comparison with current interventions in separate table
Attachment	Inspection	Appendix C		More detailed tables on the type and nature
3	Frequencies			on inspections and who they are done by.

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# Appendix B: Proposed Road Management Plan 2021 Intervention Levels

<b>EMERGENCY RI</b>	ESPONSE				
Key Task	Intervention levels	Performance standard	Response times	Difference cf Current	Notes
Response to emergency call outs	<ul> <li>Spill that could potentially create a slippery or other hazardous situation</li> <li>Roadwork controls and signage does not meet requirements</li> <li>Obstacles on roadway, shoulder, or path.</li> <li>Severe pavement subsidence or surface damage (on road or path)</li> <li>Flooding in road reserve</li> <li>Unserviceable guard rail Structural bridge damage reducing capacity or significant bridge surface defect</li> </ul>	Site inspected and risk reduced appropriately as required Assess situation and determine remedial treatment	6 hours 48 hours	Higher	Current response is to action within 24 hours, but there is no indication of rectification action. Proposed response clarifies that 24/7 response will be to attend and respond to safety issue within 6 hours, but that addressing the cause and planning the response may take up to 48 hours.



ROAD PAVEMENT	(excluding lane pavements)		Response	times		
Key Task	Intervention levels	Performance standard	Secondary & Collector	Local Access	Difference cf Current	Notes
Sealed roads pot-hole patching	Potholes greater than 300mm diameter and 50mm depth	Initial repair with cold mix to remove hazard	7 days	14 days	Faster initial response	Current response is to attend to 50mm potholes in 28/42
		Hole is to be repaired (by contractor) to provide a smooth, safe surface consistent to line and level of surrounding pavement	42 days	42 days		days, but deeper potholes attended to faster (14 days for >100mm) Proposal to initially fill with cold mix followed by contractor repair within 42 days for all potholes is simpler and reflects current practice.
Sealed roads – isolated pavement failures (up to 5sq.m of pavement surface area)	Pavement shows distress in the form of shoving, rutting or depressions of the surface exceeding 50mm at any location under a 1.2m straight edge	Smooth, safe pavement surface consistent with line and level of surrounding pavement	42 days	42 days	New	No current RMP intervention
Sealed roads - regulation of wheel ruts and depressions	When a depression holds water, or exceeds 50mm in depth under a 1.2m straight edge transversely or under a 3m straight edge longitudinally	Return to line, level, safe and trafficable surface, with no ponding of water evident	42 days	42 days	New	No current RMP intervention
Crack sealing	Cracking on over 10% to 20% of road length provided otherwise sound	No visible cracks remaining.	12 months	12 months	New	No current RMP intervention
KERB AND CHAN			Response			
Key Task	Intervention levels	Performance standard	Secondary & Collector	Local Access	Difference cf Current	Notes
Kerb and channel maintenance	Vertical or horizontal displacement <u>&gt;</u> 75mm		42 days	42 days	Slower response for	Currently 42 days for displacements between 75
	Missing kerb sections	Return to line and level	42 days	42 days	some severities	and 100mm but faster response for greater displacements. Proposal is to simplify by making the same for all.

Council Meeting Agenda

Road Management Plan Review 2021 - Appendix B: Proposed Road Management Plan 2021 Intervention Levels



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APPENDIX B



PATHS			Respons	se times		
Key Task	Intervention levels	Performance standard	High Activity	Low Activity	Difference cf Current	Notes
Footpath/shared path - concrete	Displacement ≥ 30mm	Temporary repair to remove hazard using asphalt	7 days	14 days	Faster response to temporarily	Currently 14 day response for all trips ≥ 30mm
		Replace slab	28 days	42 days	repair high activity paths	
	Crack >20mm wide over 0.5m length or multiple cracking over most of slab	Fill crack or replace bay ensuring surface is even and does not bold water	28 days	42 days	New	No current RMP intervention
	Edge drop-off > 75 mm	Reshape adjacent surface to remove drop-off	28 days	42 days	New	No current RMP intervention
Footpath/ //shared Path - Asphalt	Potholes greater than 200mm diameter and 25mm in depth.	Fill depressions and level.	28 days	42 days	Higher standard, but Slower for some severities	Currently 14 days for 300mm diameter x >75 deep, Proposal is to fix smaller defects at same response time as 300 x 50 potholes
	Cracking exceeds 2m in length and 10mm in width	Fill crack and level, or replace section	28 days	42 days	New	No current RMP intervention
	significant concentrated levels of distress		28 days	42 days	New	No current RMP intervention
Tactile repairs	Missing tactile or damage so that it causes a trip hazard or does not fulfil function.		42 days	42 days	New	No current RMP intervention
Gravel path maintenance	When pavement shows significant concentrated levels of distress. When scours of depth greater than 50mm occur at any location.	Prepare surface and reinstate with compacted gravel to match	N/A	42 days	New	No current RMP intervention



envelope to shared paths	Whenever vertical clearance (e.g. tree branches, etc.) is less than 2.5m above the ground or horizontal clearance from the edge of the path is less than 1.0m to a potential hazard.	Branches pruned, obstruction cleared and Cyclist envelope maintained (where practicable) and hazard mitigated.	N/A	70 days	New	No current RMP intervention MAV Guidelines strongly recommend inclusion of interventions on vegetation to ensure safe clearance envelope
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LANE PAVEME	NT (primary and secondary)	Response		Difference	
Key Task	Intervention levels	Performance standard	times	cf Current	Notes
Concrete or asphalt	Potholes greater than 300mm diameter and 50mm depth Vertical Displacement ≥ 75mm	Fill depressions and level.	42 days	Slower response for some severities	Currently 14 days for 150mm deep potholes, and 42 for 50 deep. Propose 42 days for all.
Bluestone	Vertical Displacement ≥ 75mm Deformation ≥ 75mm over 1m	Fill depressions and level.	42 days	Higher, but slower response for some severities	Currently 14 days or 28 days, but will not intervene until displacement > 100mm or deformation > 200mmm over 1m.
Gravel	≥ 750mm diameter & ≥ 200mm deep ≥ 300mm over 1m	Fill depressions and level.	42 days	Higher	Previously Gravel lanes were treated as unmade
	Loss of gravel material and extensive depressions exceeding 75mm or drop-offs exceeding 50mm	Gravel re-sheet to provided smooth surface	42 days	New	No current RMP intervention
Natural surface	Potholes > 750mm diameter and 200mm deep, or vertical deformation of > 300mm over 1 metre	Fill depressions and level.	42 days	slower	Slower response than current 28 days, to be consistent with above.



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ROAD-RELATED INFRASTRUCTURE					
Key Task	Intervention levels	Performance standard	Response times	Difference cf Current	Notes
Pedestrian and school crossing maintenance	Timber posts to be replaced when damaged or greater than 50% wood rot is evident	All crossings and related furniture to be in good condition and highly visible at all times	7 days	New	
Road regulatory and advisory signage maintenance	50% sign legend illegible at 150m under low beam or in daylight	Clean or replace damaged signs	7 days	Faster	Currently 14 days for damaged or illegible safety sign
Guard rail maintenance	Guard rails in damaged condition (other than immediate safety hazards)	Guard rails restored to provide safety to road users and protection of pedestrians and assets.	28 days	New	
Sealed Roads line marking	When line marking is faded, eroded, worn or non-reflective.	Works programmed for repainting in the next financial year	Program	New	
Drainage maintenance	Broken or missing Pit lid or lintel that renders the item structurally unsound or presents a safety issue to road users.	Replace Pit Lid	14 days	Same	
'	Ponding greater than 200mm deep and 3 meters across any direction) caused by blocked pits or drains or culverts	Remove debris and/or blockage	14 days	Same	
Bridge maintenance		Temporary repair and/or permanent repair/ replacement of the unsafe/ damaged components. If repair is not applicable, hazard is mitigated and repair is programmed for the next financial year.	28 days	New	

# Road Management Plan 2021

<Insert Policy date here>

Responsible Directorate: Places and Spaces Authorised By: Council Date of Adoption: <Date> Review Date: 30 June 2025 Policy Type: Council





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# 1 Introduction

#### 1.1 Purpose

The purpose of this document is to meet the requirements of a Road Management Plan as defined by the Road Management Act 2004. This plan documents the standards, policies and management system used by the City of Boroondara to discharge its duty to manage, inspect, repair and maintain the roads for which it is responsible.

# 1.2 Scope

The objective of this document is to clearly define:

- The road assets that Council maintains
- The standards, policies and procedures used to maintain those assets
- The processes used to establish the appropriate standards.

The scope of this plan is restricted to the specific requirements identified in the Code of Practice for Road Management Plans.

This plan covers only the roads and road sections on Council's Register of Public Roads that are identified as being the responsibility of the City of Boroondara.

# **1.3 Corporate framework**

This policy supports Council's Mission and Vision by addressing the following objective in the Council Plan 2017-2021:

"to ensure Council's assets are suitable for community use through proactive asset inspections, maintenance of asset data in the corporate asset system and development of Asset Management Plans."

# 2 Context

#### 2.1 Road Management Act 2004

The purpose of the Road Management Act 2004 (The Act) is to enable the coordinated management of public roads that will promote safe and efficient State and local public road networks, and the responsible use of road reserves for other legitimate purposes.

The City of Boroondra is the 'coordinating road authority' as defined by The Act for all roads within its boundaries, with the exception of roads identified on the VicRoads' Road Register. The Act requires Council to identify, on its Register of Public Roads, all roads for which it is the coordinating road authority that Council considers are reasonably required for general public use. A copy of the Register of Public Roads is available on Council's website. The City of Boroondara is the responsible road authority for all roads on the register, and also the specific road infrastructure within the VicRoads road reserve for which the Council is identified as



having care and management responsibility (such as paths, access roads and some assets at intersections).

The Act sets out the powers and duties of the road authority to install, manage and maintain infrastructure for which it is the responsible authority. The Act also provides a policy defence for road authorities where they can demonstrate responsible management through an adopted Road Management Plan.

#### 2.2 Council Responsibility

The Council has the power to determine the standard to which it will construct, inspect, maintain and repair roadways as set out in The Act. The Council is responsible for implementing processes and systems to ensure compliance with those standards.

#### 2.3 Road User Responsibilities

Road user obligations are set out in Section 17A of the Road Safety Act 1986 and summarised below.

A person who drives on or otherwise uses a road must do so in a safe manner, taking reasonable care to avoid conduct that may:

- endanger the safety and welfare of other road users
- damage any infrastructure on the road reserve
- harm the environment of the road reserve.

Factors that must be taken into account when driving on or using the road include (but are not limited to) the:

- physical characteristics of the road
- prevailing weather conditions
- level of visibility
- condition of the motor vehicle
- prevailing traffic conditions
- relevant road laws and advisory signs
- physical and mental condition of the driver.



# 3 Policy

The Code of Practice for Road Management Plans<sup>1</sup> outlines the contents for a Road Management plan. Those contents are included in this document as follows:

Heading	Location in this Document	Contents of a RMP as defined by Code of Practice
City of Boroondara's road infrastructure	Appendix A	A description of the types of road infrastructure for each of the classes of public roads for which the road authority is the responsible road authority.
Management System	Appendix B	Details of the management system, which is established or is to be established and implemented by the road authority to discharge its duty to inspect, maintain and repair.
Inspections	Appendix C	A description of the inspections required for different types of road infrastructure
Service Standards	Appendix D	The standard or target condition to be achieved in the maintenance and repair of different types of road infrastructure.

In setting these inspections, standards and systems the authority is required to take account of: community expectations; utilisation of assets; risk; environmental and cultural factors; and available resources. These factors are accounted for through Council's Asset Management Plans that take a long-term holistic view to managing Council's assets, and are considered in detail in the four-yearly review of this Road Management Plan.

# 4 Implementation and monitoring

# 4.1 Evaluation

The monitoring and auditing of the activities covered by this plan are carried out in accordance with Appendix B: Delivering and Auditing Maintenance Programs.

Road Management Plans are reviewed every four years in accordance with the Road Management Act, following each Local Authority election. Details of this review are available on Council's website along with the current Road Management Plan.

<sup>&</sup>lt;sup>1</sup> 1 Code of Practice for Road Management Plans: <u>Victoria Government Gazette No. S 201 16 Sept</u> 2004.



# 4.2 Accountabilities

The current version of Council's <u>Road Management Plan</u> is made available to the public on Council's Website, under Policies Plans and Strategies.

For all queries or feedback regarding this policy, please use the contact details for the responsible department below.

Position Title	Contact number	Contact department email
Coordinator Strategic Asset Management	(03) 9278 4356	Strategicassetmanagement@boroondara.vic.gov.au

# 5 References

#### 5.1 Related Documents

Council adopted policies and strategies that support this Plan include (but are not limited to):

- Traffic Management Policy 2018
- Traffic Management Procedures 2018
- Boroondara Bicycle Strategy 2008
- Public Lighting Policy 2005
- Discontinuance of Roads and Reserves Policy
- Parking Management Policy
- Unmade Lanes Policy
- Vehicular Crossings Policy 2013

This Plan is also supported by the following internal working documents:

- <u>Roads and Paths Asset Management Plan</u>; this document sets out the levels
  of service for the road and path networks and develops strategies to sustain
  these over the next ten to twenty years.
- <u>Proactive Asset Inspection guidelines;</u> these guidelines provide further details for asset inspectors to provide consistent assessments for the inspections and intervention levels specified in this plan

Previous Versions of the Boroondara Road Management Plan and the date each becomes effective are listed below:

Version	Date adopted by Council	
1	2/7/2007	
2	7/12/2009	
3.0	13/5/2013	
3.1	22/7/2013	
4	21/7/2017	





#### 5.2 Definitions

**Arterial Roads** - Freeways, Highways and Declared Main Roads which are managed by the State Government through VicRoads.

**Coordinating Road Authority** - the road authority that has the overall control and management functions for the whole road reserve

Council - Boroondara City Council

**Defect -** a localised failure of an asset that may create a hazard for users, e.g. a pothole

Intervention level - the size at which a defect will be repaired or remediated.

**Lane** - a narrow road typically less than 6 metres in width, usually providing rear or side access to properties

**Level of Service** - the standard at which an asset will be maintained in equal or better condition

**Path** - includes any footpath, shared path and bicycle path for which Council is the responsible road authority. Gravel paths are included in this definition, but trails of natural material without defined edges are not maintained by Council and are excluded.

**Pavement** - the materials the comprise the roadway: generally a surface material such as asphalt, spray seal, concrete, pavers or gravel, and underlying supporting materials such as gravel or crushed rock.

**Register of Public Roads** - a list of roads within the municipality for which Council accepts management responsibility. The Register includes for each road: the location; the hierarchy classification as defined in Appendix A; and the date it became a road.

**Reactive inspections** - unscheduled inspections performed in response to a customer request or complaint, and ad-hoc inspections undertaken by Council staff

**Response time** - the time taken to repair or remediate a defect following its identification by Council officers or after the notification of the defect to Council by members of the public

**Responsible Road Authority** - a road authority that has the management and maintenance responsibility for all or part of the road or of the assets that are in the road reserve

Roadside - any part of the road reservation that is not the road surface or footpath

Shared path - a path that is intended for use by both pedestrians and cyclists



# Appendix A: City of Boroondara's road infrastructure

#### Description

Boroondara is the coordinating road authority and the responsible road authority for approximately 567 kilometres of roads on its Road Register. VicRoads is the coordinating road authority for the main road network and is responsible for 94 kilometres of roads within Boroondara.

All of Boroondara's roads are in urban areas and usually include footpaths, road related infrastructure and kerb and channel that discharge into a drainage network.

#### **Road Hierarchy**

Roads within the City of Boroondara are given a road hierarchy classification based on factors including traffic volume, traffic type and accessibility, as shown in the table below. These classifications are recognised and adopted throughout Boroondara for classifying roads.

Road Categories	Primary Function
Link (Secondary) Road	These roads cater for significant traffic movements across suburbs and distribute traffic between the arterial roads and local street network. These roads are wider and longer than collector roads and tend to be signalised at intersections with arterial roads. The speed limit on these roads is typically 50-60km/h, and can be subject to time-based school and/or strip shopping centre speed zones. Footpaths are provided and bicycle movements can be accommodated on these roads. Access to abutting properties and lower order roads is typically limited.
Collector Road	These roads distribute traffic between the arterial/major roads and the local street network and provide access to abutting property. Collector roads are generally wider and longer than local access roads. They can provide access to local shops, local parks, schools and community facilities. A reasonable level of local amenity is maintained by restricting traffic volumes and vehicle speeds. The collector street may be used as a bus route, footpaths are provided and bicycle movements can be accommodated.
Local Access Road	Roads or streets not having a significant through traffic function. These roads provide access to abutting property. The local environment is dominant, traffic is subservient, speed and volume are low and pedestrian and cycling movements are facilitated.



Road Categories	Primary Function
Lane Primary Access	Provides side or rear access to properties, at least one of which has no alternative access to a higher order road, with shared vehicular traffic and pedestrian use. They are narrow with no on-street parking and no formal bicycle infrastructure. Laneways carry very low volumes of traffic at low speeds
Lane Secondary Access	Provides side or rear access to properties that have alternative access to a higher order road, with shared vehicular traffic and pedestrian use. They are narrow with no on-street parking and no formal bicycle infrastructure. Laneways carry very low volumes of traffic at low speeds.
Walkway	A narrow road reserve containing only a path for pedestrian traffic or pedestrian and bicycle traffic

Roads in Boroondara and their classifications are shown in the map in Figure 2.

# Path Hierarchy

Paths within the City of Boroondara are classified as High Activity and Low Activity. Paths around shopping/business districts, schools and other high visitation community facilities where displacements between path slabs could present a higher risk may be designated as High Activity and the remainder as Low Activity. Designated shared paths are maintained to the same standards as footpaths.

# **Register of Public Roads**

The City of Boroondara's Council's <u>Register of Public Roads</u> (Register) defines the public roads and their classifications for all roads for which Council is the coordinating road authority. The Register is maintained by Council as a controlled document and is available for public inspection on Council's website. Descriptions on the Register are supported by map information on Council's geographic information system.

Maps for specific roads showing the extent of the area maintained, can be provided on request from Council's Camberwell office.

For each road, the main details the Register records are:

- Name of each public road
- Date on the which the road became a public road
- · Identification of start and end points
- Locality
- Classification
- Details of changes to the status of the road as required by the Road Management Act.



#### Assets Covered by this Plan

The assets covered by this plan are confined to those for which Council has statutory responsibility under the Road Management Act 2004.

These assets are defined in the Road Management Act as:

- Roadway
- Pathway
- Shoulder
- Road-related infrastructure.

In keeping with these definitions, the following assets on roads identified in Council's Asset Register are covered by this plan:

- Road surface and supporting pavement
- Constructed pathways (pedestrian, shared and bike paths)
- Car parks within road reserves
- Traffic control devices (traffic signals, line marking, speed control devices)
- Bridges and large culverts as part of roads infrastructure
- Kerb and channel
- Roadside pits and connections to the urban stormwater system
- Signs (regulatory, warning and advisory).

Although Council also carries out inspection and maintenance of; roadsides, fire hydrants, street trees, and information signs; the maintenance and inspection of these assets is outside the scope of this plan. The operation and maintenance of these assets are covered by separate operational procedures.

Council has responsibility for specific assets in the road reserves on VicRoads road register, as set out in the Code of Practice for Operational responsibility for public roads<sup>2</sup>. In general, Council is responsible for access roads and paths, while VicRoads is responsible for the Carriageway, including the kerbs and street lighting.

Council's responsibilities regarding bridges and culverts owned by other authorities (e.g. railways, Melbourne Water), are limited to carrying out inspections and ensuring the appropriate authorities carry out maintenance.

Council is not responsible for utility assets (e.g. water and sewerage networks, telecommunications, electricity and gas) within the road reserve. These assets are the responsibility of their respective utility provider. Managers of these assets are required under the Road Management Act: to maintain them to a satisfactory state of repair; to avoid damaging the roadway or road infrastructure; and to ensure assets such as pit lids and access hole covers are flush with the surrounding surface and do not cause a hazard or adversely affect the smooth passage of traffic.

<sup>&</sup>lt;sup>2</sup> Code of Practice for Operational responsibility for public roads: http://www.gazette.vic.gov.au/gazette/Gazettes2017/GG2017S174.pdf



Streetlights in road reserves provide a service to the community and are funded by Council but are owned and maintained by the respective network provider. They are therefore not covered by this plan. The levels of service relating to these assets are considered through the Asset Management Plan and arrangements made directly with the appropriate utility.

#### **Roadside Vegetation**

A road authority does not have a statutory duty or a common law duty to maintain, inspect or repair land of any public highway that is not a constructed path or roadway (RM Act s.107). Council relies on the goodwill of property owners to maintain the nature-strip outside their property in an appropriate condition.

To ensure the safety of road and path users, Council will remove or trim vegetation within the following spaces where it interferes with the safe passage of path or road users, whether or not the vegetation is planted on private property.

- Encroaching 4.5 meters over road surfaces, and 2.5 meters over footpath surfaces

- Blocking line of sight to signage and at intersections.

# Access to Private Property

Access to private property is provided by a 'vehicle crossover', which is defined as infrastructure to allow the passage of vehicles between the road formation (or kerb and channel, where it exists) and the property boundary. Vehicle crossovers may serve several properties.

Section 107 of the Roads Management Act 2004 provides that Council is under no statutory duty to inspect, maintain or repair vehicle crossovers on road reserves that provide access to land adjoining a road. This responsibility rests with the adjoining landowner. The construction of a vehicle crossover requires a permit and must be carried out to Council standards. Where modifications to Council assets (e.g. paths and kerb and channel) are required, these shall be at the landowner's expense. The landowner is responsible for ensuring the vehicle crossover and the immediate surrounds that the crossover impacts on, are maintained in a safe condition. Council's responsibility is limited to requiring the landowner to rectify any hazards of which it becomes aware.

Council has ownership for any footpaths and kerbs and channels on Council's public roads. The landowner has ownership and responsibility for the remainder of the vehicle crossover on Council property.

Roadside maintenance responsibilities in urban areas are shown diagrammatically in Figure 1.



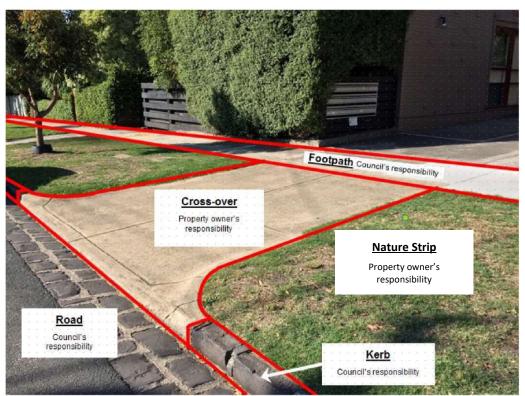


Figure 1: Maintenance Responsibilities for Urban Roadside

# **Utility Assets**

Should Council be made aware via a customer complaint or proactive inspection of a damaged utility asset, Council will advise the relevant asset owner within seven days. If the defect creates a vertical displacement in a footpath in excess of 30mm, Council will carry out a temporary repair within seven days to rectify the trip hazard.

# **Consent to Perform Works on Road Reserves**

Any person who wishes to undertake works in a road reserve must obtain consent from the relevant road authority, unless they are exempted under Roads Management Regulations 2005. To carry out any works on Council roads, a permit must be obtained from Council. Residents may obtain advice on road works by contacting council customer service during normal working hours by phone (03 9278 4444) or in person at Council Offices (8 Inglesby Road, Camberwell).

# Transfer of Responsibility between Neighbouring Authorities

The City of Boroondara has agreements in place with neighbouring Councils where roads run along the boundary or where bridges cross a boundary. These agreements assign maintenance responsibilities for the whole road or bridge to one or other of the authorities and the responsible authority is recorded in Council's asset register. The agreement also identifies how capital works responsibilities are shared.



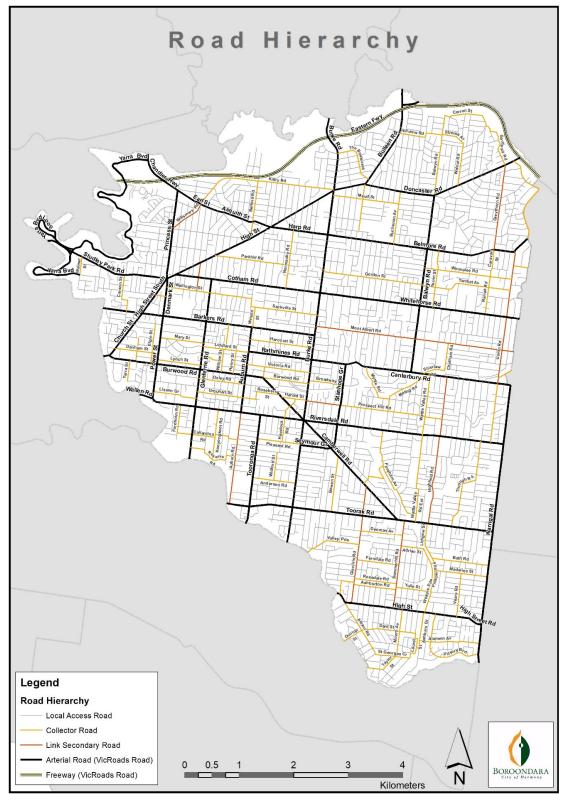


Figure 2: Map of Boroondara showing Road Hierarchy Classifications

#### Appendix B: Management System



# Appendix B: Management System

#### **Managing Asset Information**

Council's overall system for managing assets comprises an Asset Register to store asset information and a Works Management System to manage and record the tasks inherent in managing assets asset and is integrated with other key Council systems. These systems are continually being developed and enhanced. The systems and processes and the relationships between them that comprise the management system for Public Roads is shown in Figure 3.

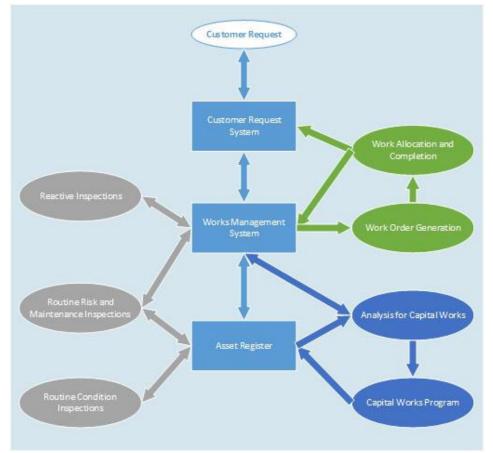


Figure 3: Relationship between Council systems and processes

#### **Identifying Hazards**

Hazards or defects in road infrastructure are identified through inspections and recorded in the Council's database. Inspections can be initiated either as part of a scheduled program as set out in Appendix C or by a request for service. Requests for service can either be generated internally or in response to a customer request. Inspections are generally conducted on foot rather than from within a vehicle. It is standard practice is to assess road defects from behind the kerb unless other staff are available to ensure traffic safety.

Appendix B: Management System



Frequencies for routine inspections are developed for each asset group based on risk and rates of deterioration, leading to different frequencies depending on the road or path hierarchy. For example, if not dealt with promptly, conditions on collector roads can rapidly change resulting in increased maintenance cost and safety hazards, justifying more frequent inspections. Footpaths adjacent to business districts, schools and facilities are designated as "High Activity" and are identified for 6 monthly inspections and faster maintenance response than other footpaths that have less use.

# Assessing Condition

The purpose of condition inspections is: to assess the remaining life of an asset; for financial purposes (calculation of depreciation); and for planning and prioritising prioritisation of the capital works program. Roads paths and bridges are inspected and rated for condition at least every five years, however roads that have shown signs of deterioration are inspected more frequently so that intervention takes place at the most appropriate time. Roads and paths are audited by an external contractors who usually utilise high-resolution digital imagery with off-site assessment.

# **Prioritising Work**

Requests for service and works orders are initially screened and 'high' risk situations are dealt with immediately to manage the risk. If immediate repairs are not practicable, steps are taken to reduce the risk and the appropriate intervention is then scheduled. Activities are programmed to meet the response times identified in Appendix D.

# **Delivering and Auditing Maintenance Programs**

Maintenance tasks are generated from routine inspections or reactively from reported incidents that are generated either internally or through customer requests. Maintenance activities identified in Appendix D are carried out by a combination of in-house resources and external staff.

The City of Boroondara has the following processes in place to ensure that planned processes and activities are actioned:

- The Contract Supervisor/Team Leader is responsible for monitoring works activities and recording results on a daily basis.
- Customer Service statistics (response times etc.) are measured and reported quarterly.
- Appropriate Team Leader/Manager carries out monthly spot checks to verify operation of data collection process.
- KPIs for the percentage of tasks carried out to required timeframes risk inspections and repairs are reported



The monitoring of work activities is carried out through the Work Management System through on-line queries and standard and customised reports. Noncompliance with standards will be reported to the Manager Asset and Capital Planning.

# Compliance Auditing

Council will complete an internal audit of the activities defined in this plan by 30 September each year. The review will include the following:

- Recording of requests relating to activities in this plan in the Customer Request System and transfer into the Asset Management System
- That requests have been investigated and assessed against the RMP intervention levels
- That programmed inspections are carried out as scheduled
- Relevant inspection reporting & recording mechanisms are in place
- Record of identified defects and maintenance activities is made in the database against the asset, including actual date of completion
- Procedures for collecting and storing information regarding road asset condition are in place and being followed
- Review of supporting documentation (internal and external) for changes and inconsistencies.

The internal review will be completed by Council's Asset and Capital Planning Department and reported to the Executive Leadership Team. Any non-compliance found during the audit or incidentally since the previous audit and steps to rectify the non-compliance will be included in the report.

#### **Replacement Programs**

Pavement resurfacing, rehabilitation and footpath renewals are the main replacement activities undertaken on City of Boroondara road assets.

The type and nature of replacement activity undertaken for road pavements depends on:

- Condition of the asset
- Road classification
- Traffic volumes
- Proportion of commercial vehicles
- Subgrade conditions
- Whether reshaping is required
- Existing pavement type and kerb and channel type
- · Economic factors.

In conjunction with inspection data and priority lists, the City of Boroondara utilises a pavement management system to model the timing and type of renewal and replacement activities that are undertaken to remove defects and manage the overall condition of roads within the municipality.

#### Appendix B: Management System



#### **Tactics for New and Upgraded Assets**

The Boroondara Community Plan 2017-27 is Council's key strategic document that outlines the community's vision and priorities, and incorporates the Municipal Public Health and Wellbeing Plan 2017-21.

As Council's key strategic document, it guides future planning, and directly informs the Council Plan, budget processes, Council strategies and plans, policies and operational actions. These strategies, plans, policies and actions provide guidance in regards to the upgrading of the existing roads network and associated assets. These adopted strategies include: Traffic Management Policy and Procedures; Parking Management Policy and Procedures; Integrated Transport Strategy; and the Bicycle Strategy. Other plans, policies and strategies may also result in improvements to the road reserve, such as strip shopping centre improvement plans.

The City of Boroondara's road network is effectively fully developed, however investment is required at times to effect safety improvements and address increase in traffic flows in some areas. New residential streets are occasionally created as a condition of subdivision or development and the roads vested in the Council.

Some Secondary Access Lanes (approximately 16 km total length) and a few local access roads (less than one kilometre total) have a gravel or natural surface. It is not Council's practice to construct and seal the roads unless Council determines it is of broader community benefit. Residents may apply to have unconstructed laneways constructed and sealed on the basis that such upgrades would be subject to full cost recovery from owners of land fronting the road through a special charge scheme established for that purpose.

The cost-effectiveness of maintaining assets in a safe and functional condition is a key driver in decisions to upgrade Council's road infrastructure. An example is gravel paths that are subject to frequent scouring which may result in a decision to construct the path with asphalt or concrete.

#### **Disposal Tactics**

As part of the delivery of cost-effective services, Council may consider the disposal of assets and, in doing so, will take into account risk, costs and benefits, and adverse effects. Council will dispose of assets only after appropriate notification and full consultation with affected parties.

#### Events Beyond the Control of Council

Council will make every effort to meet its commitments under its RMP. However, there may be situations or circumstances that affect Council's business activities to the extent that it cannot deliver on the service levels of the RMP. These include but are not limited to:

• natural disasters, such as fires, floods or storms

#### Appendix B: Management System



- pandemics
- government intervention, or
- a prolonged labour or resource shortage due to a need to commit or redeploy Council staff and/or equipment elsewhere.

In the event that the Chief Executive Officer (CEO) of Council has considered the impact of such an event on the limited financial resources of Council and its other conflicting priorities, and determined that the RMP cannot be met, then pursuant to Section 83 of the Wrongs Act, the CEO will write to Council's Officer in charge of its Plan and inform them that some, or all, of the timeframes and responses in Council's RMP are to be suspended.

Once the scope of the event/s have been determined, and the resources committed to the event response have been identified, then there will be an ongoing consultation between Council's CEO and Council's Officer responsible for the RMP, to determine which parts of Council's Plan are to be reactivated and when.

Council statements to residents about the suspension or reduction of the services under the RMP will include reference to how the work that will be done has been prioritised, and the period for which it is likely to be affected.

#### **Appendix C: Inspections**



# **Appendix C: Inspections**

#### **Reactive Inspections**

The table below describes reactive inspections carried out on road assets within the City of Boroondara in response to a request for service, whether generated externally through a customer request or internally form incidental observations by Council Staff.

Туре	Inspection details	Person	Method
Emergency /safety	A defect that presents a significant and imminent threat of personal injury or property damage. Risk reduced by repair, barricades or warnings as appropriate, within 6 hours from the time it's initiated through the 24 hours, 7 days a week Council call out service.	Council representative with knowledge of road maintenance techniques. Additional expertise brought in as required.	Identify specific defect, time first reported, time inspected, by whom, subsequent action and time of completion. Recorded in database.
Reactive maintenance	Non-urgent (potential risk but no immediate danger; e.g. street name plate missing) inspections carried out within 10 working days. Any work requirements are recorded and prioritised in conjunction with results of programmed inspections.	Technical officer or asset inspector with knowledge and experience of road maintenance techniques.	As above.

# **Routine Inspection Description**

The following table describes how routine inspections are carried out.

Туре	Inspection details	Person	Method
Condition	Routine inspections that determine overall asset condition and is used to populate capital works program through Asset Management prioritisation processes	Carried out under direction of qualified engineer or experienced technical officer with extensive knowledge and experience in road construction and maintenance practices	Details including digital imagery recorded electronically against asset or component level (as appropriate) and loaded into asset management system
Risk /maintenance	Routine inspections according to Council Asset Inspection Guidelines, specifically to determine priorities for maintenance works program	Technical officer or asset inspector with knowledge and experience of road maintenance techniques. Training provided in application of Council Asset Inspection Guidelines	Details recorded electronically including photos of each street /road detailing person completing, date time and description of defects. Inspections of paths and kerb defects are carried out from the roadside and not the carriageway

#### Appendix C: Inspections



#### **Routine Inspections – Condition**

The table below sets out the routine condition inspection regime used to estimate remaining life for establishing capital works programs and calculating depreciation.

Asset	Classification	Inspection description	Frequency
Pavement	Flexible and rigid sealed pavement	Surface inspection for defects, cracking, roughness, rutting	5 years maximum (depending on condition of last inspection)
Path	All	Visual condition survey	5 years - in conjunction with pavement condition inspection
Kerb and channel	All	Visual condition survey	5 years - in conjunction with pavement condition inspection
Bridges	All	Condition survey (Level 2)	5 years maximum (depending on condition of last inspection)
Bridges	All	Structural safety and load capacity (Level 3 and 4)	As determined from Level 1 and 2 inspections

# 5.3 Routine Inspections – Risk / Maintenance

The following tables identify the inspections and frequencies for each asset type.

Asset Category	Hierarchy	Risk Inspection Frequency
Roads and car parks	Link (Secondary)	6 months
(including road related infrastructure:	Collector	6 months
Kerbs, signs, traffic control devices	Local Access	12 months
line-marking and roadside pits.)		
Lanes	Primary Access	12 months
	Secondary Access	12 months
Paths and Walkways in road reserves	High Activity	6 months
	Low Activity	12 months
Bridges - Level 1 inspection	All	6 months



# **Appendix D: Service Standards**

#### The Development of Standards

Through the Council's Asset Management Plan, the expectations of the key stakeholders are identified in terms of accessibility, safety, responsiveness, quality, cost effectiveness and environmental considerations. Customer expectations have initially been inferred by Council staff involved in service delivery for road activities and are modified as information from ongoing research (customer requests and feedback analysis, focus groups and surveys) becomes available. Where appropriate, these expectations are translated into standards which are modified through the Council's asset management planning process to:

- Achieve Council's goals and objectives
- Meet minimum legislative requirements
- Reduce overall costs through timely response.

Inspection standards (nature and frequency) identified in this appendix are determined to meet the above requirements and are confirmed through a risk assessment in accordance with Council's risk management framework.

The technical standards are assessed prior to each review of this plan and the standards modified to minimise risk and take account of any legislative changes.

#### Key Stakeholders

The key stakeholder groups of the community who are both users of the road network and/or are affected by it include:

- Pedestrians, including the very young, those with disabilities, and the elderly with restricted mobility;
- Users of a range of miscellaneous smaller, lightweight vehicles such as cyclists, motorised buggies, wheel chairs, prams, etc;
- Vehicle users using motorised vehicles such as trucks, buses, commercial vehicles, cars and motor cycles;
- Emergency agencies (Police, Fire, Ambulance, VICSES);
- Business and commercial operators;
- Traffic & Transportation managers;
- Construction & maintenance personnel who build and maintain asset components;
- Construction & maintenance personnel who build and maintain asset components;
- Utility agencies that utilise the road reserve for their infrastructure (water, sewerage, gas, electricity, telecommunications);
- Council as the responsible Road Authority;
- State & Federal Government departments that periodically provide support funding to assist with management of the road network.



# **Road Safety**

A total of 279 reported crashes resulting in injury on Council's Council roads were reported in the 5 years to December 2018 with a decrease of around 5% each year during that period. Road safety is an important focus for Council's Traffic and Transport Department.

Specific sites identified with a recurring accident trend are assessed for suitability for remedial treatment under a range of Federal, State and Local Government safety programs. Traffic management devices to improve road safety throughout the municipality are considered using reported crash data to prioritise treatments for locations with higher risk.

# **Construction Standards**

The standards for the construction of road infrastructure are set out in the <u>VicRoads</u> <u>standard specifications for roadworks and bridgeworks</u>. While new infrastructure is designed and constructed in accordance with these standards, there is no obligation on Council to upgrade any existing infrastructure which may not be built according to this standard.

#### **Reactive Maintenance and Intervention Levels**

Intervention levels define the circumstances under which a defect is no longer tolerable for a stated level of service. The timeframe in which to address these defects once they are found is determined from an analysis of risk, benefits and costs. Intervention levels and the associated maintenance activities used by the City of Boroondara are described in the tables below. The nominated response times are inclusive of non-working days.

<b>RESPONSE TO E</b>	RESPONSE TO EMERGENCY CALLOUTS				
Key Task	Intervention levels	Performance standard	Response times		
Response to emergency call outs	<ul> <li>Spill that could potentially create a slippery or other hazardous situation</li> <li>Roadwork controls and signage does not meet requirements</li> </ul>	Site inspected and risk reduced appropriately as required	6 hours		
	<ul> <li>Obstacles on roadway, shoulder or path.</li> <li>Severe pavement subsidence or surface damage (on road or path)</li> <li>Flooding in road reserve</li> <li>Unserviceable guard rail</li> <li>Structural bridge damage reducing capacity or significant bridge surface defect</li> </ul>	Assess situation and determine remedial treatment	48 hours		



ROAD PAVEMEN	Response times			
Key Task	Intervention levels	Performance standard	Secondary & Collector	Local Access
Sealed roads -	Potholes greater than	Initial repair with cold	7 days	14 days
pot-hole	300mm diameter and	mix to remove hazard		
patching	50mm depth	Hole is to be repaired (by contractor) to provide a smooth, safe surface consistent to line and level of surrounding pavement	42 days	42 days
Sealed roads – isolated pavement failures (up to 5sq.m of pavement surface area)	Pavement shows distress in the form of shoving, rutting or depressions of the surface exceeding 50mm at any location under a 1.2m straight edge	Smooth, safe pavement surface consistent with line and level of surrounding pavement	42 days	42 days
Sealed roads - regulation of wheel ruts and depressions	When a depression holds water, or exceeds 50mm in depth under a 1.2m straight edge transversely or under a 3m straight edge longitudinally	Return to line, level, safe and trafficable surface, with no ponding of water evident.	42 days	42 days
Crack sealing	Cracking on over 10% to 20% of road length provided otherwise sound	No visible cracks remaining.	12 months	12 months
KERB AND CHANNEL			Response	
Key Task	Intervention levels	Performance standard	Secondary & Collector	Local Access
Kerb and channel	Vertical or horizontal displacement <u>&gt;</u> 75mm	Return to line and level	42 days	42 days
maintenance	Missing kerb sections	Replace section	42 days	42 days



PATHS			Respons	se times
Key Teels		Deufermenne eterreleud	High	Low
Key Task Footpath	Intervention levels Displacements ≥30mm	Performance standard	Activity	Activity
/shared path - concrete		Temporary repair to remove hazard using asphalt	7 days	14 days
		Replace slab(s)	28 days	42 days
	Displacement <30mm or ≥20mm	Grinding or replacing slab(s)	28 days	42 days
	Crack >20mm wide over 0.5m length or multiple cracking over most of slab	Fill crack or replace bay ensuring surface is even and doesn't bold water	28 days	42 days
	Edge drop-off >75 mm	Reshape adjacent surface to remove drop-off	28 days	42 days
Footpath/ //shared Path -	Potholes greater than 200mm diameter and 25mm in depth.	Fill depressions and level.		
Asphalt	Cracking exceeds 2m in length and 10mm in width	Fill crack and level, or replace section	28 days	42 days
	significant concentrated levels of distress	Repair damage and fill to match surrounds		
Tactile repairs	Missing tactile or damage so that it causes a trip hazard or doesn't fulfil function.	Replace tactile and/or repair surrounding material to be flush and level	42 days	42 days
Gravel path maintenance	When pavement shows significant concentrated levels of distress. When scours of depth greater than 50mm occur at any location.	Prepare surface and reinstate with compacted gravel to match	N/A	42 days
Clearance envelope to shared paths	Whenever vertical clearance (e.g. tree branches, etc.) is less than 2.5m above the ground or horizontal clearance from the edge of the path is less than 1.0m to a potential hazard.	Branches pruned, obstruction cleared and Cyclist envelope maintained (where practicable) and hazard mitigated.	N/A	70 days
	NE PAVEMENT (PRIMARY AND			
Key Task	Intervention levels	Performance standard	Respons	se times
Concrete or asphalt	Potholes greater than 300mm diameter and 50mm depth Vertical Displacement ≥ 75mm	Fill depressions and level.	42 d	ays
Bluestone	Horizontal Displacement ≥ 75mm Deformation ≥ 75mm over 1 m	Fill depressions and level.	42 d	ays
Gravel	<ul> <li>≥ 750mm diameter &amp; ≥ 200mm</li> <li>deep</li> <li>≥ 300mm over 1m</li> </ul>	Fill depressions and level.	42 d	ays
	Loss of gravel material and extensive depressions exceeding 75mm or drop-offs exceeding 50mm	Gravel re-sheet to provided smooth surface	42 d	ays
Natural surface	Potholes > 750mm diameter and 200mm deep, or vertical deformation of > 300mm over 1 metre	Fill depressions and level.	42 d	ays



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Key Task	Intervention levels	Performance standard	Response times
Pedestrian and school crossing maintenance	Timber posts to be replaced when damaged or greater than 50% wood rot is evident	All crossings and related furniture to be in good conditions and highly visible at all times	7 days
Road regulatory and advisory signage maintenance	50% sign legend illegible at 150 m under low beam or in daylight	Clean or replace damaged signs	7 days
Guard rail maintenance	Guard rails in damaged condition (other than immediate safety hazards)	Guard rails restored to provide safety to road users and protection of pedestrians and assets.	28 days
Sealed Roads line marking	When line marking is faded, eroded, worn or non- reflective.	Works programmed for repainting in the next financial year	Program
Drainage maintenance	Broken or missing Pit lid or lintel that renders the item structurally unsound or presents a safety issue to road users.	Replace Pit Lid	14 days
	Ponding greater than 200mm deep and 3 metres across in any direction) caused by blocked pits or drains or culverts	Remove debris and/or blockage	14 days
Bridge maintenance	Visible damage on components likely to affect users or public safety	Temporary repair and/or permanent repair/ replacement of the unsafe/ damaged components. If repair is not applicable, hazard is mitigated and repair is programmed for the next financial year.	28 days