

# Knox City Council



## ROAD MANAGEMENT PLAN 2023

## PLAN ADOPTION RECORD

VERSION	DESCRIPTION	DATE
Draft	Draft plan accepted by Council for public consultation	June 2004
Version 1	First plan adopted by Council	November 2004
Version 2	Proposed amendments resulting from 2005 audit	January 2005
Version 3	Amended and adopted by Council following the 2009 audit	November 2009
Version 4	Amended and adopted by Council following the 2013 audit	July 2013
Version 5	Proposed amendments resulting from 2017 audit	September 2017
Version 6	Amended and adopted by Council following 2022 audit	April 2023

ISSUED BY	NAME	DATE
Coordinator Strategic Asset Management	Robin Cassidy	November 2022

The latest approved version of this document and the Knox Register of Public Roads may be viewed at the Knox City council civic centre during normal business hours. The Road Management Plan and Public Road Register may also be viewed on Council's website.

Knox City Council Civic Centre  
511 Burwood Hwy, Wantirna South VIC 3152

Knox City Council Operation Centre  
14 Henderson Rd, Knoxfield VIC 3180

Website:  
<https://www.knox.vic.gov.au>





## EXECUTIVE SUMMARY

Knox City Council is responsible for the management of the majority of the road network within the municipal boundary and is committed to the delivery of a safe and efficient road network for use by all members of the public. Council is also devoted to good asset management practices that deliver the best service available with regard to financial resources, policies and priorities.

This Road Management Plan was prepared in accordance with the Road Management Act 2004 incorporating amendments from Part 3 of the Road Management (General) Regulations 2016.

The RMP contains the following:

- o An outline of the types of road infrastructure managed by Council, the shared responsibilities with other road authorities and infrastructure not managed within this plan.
- o Levels of service and standards for inspection, maintenance and repair of road and road related infrastructure;

In defining Council's Road Management Practices, account is taken of competing priorities which may impact on deliverable outcomes. These priorities may include, but not be limited to, prevailing budgetary context, the current economic environment, social context and service delivery priorities.



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## BACKGROUND

### PURPOSE OF THE ROAD MANAGEMENT PLAN

The principal purpose of the Road Management Plan is to ensure that a safe and efficient integrated transport network is provided for the movement of persons and goods and that road reserves are available for other appropriate uses.

The purpose of the Road Management Act is to reform the law in relation to road management in Victoria. It establishes principles surrounding the management of roads by Road Authorities and outlines the rights and duties of road users. The Act imposes several precise obligations on Council as a “Road Authority”.

These include:

- o A description of the road infrastructure managed by Council, the shared responsibilities with other road authorities and the infrastructure not included in this plan.
- o Establishing appropriate asset management practices for its road infrastructure
- o Define levels of service to be delivered and apply targets for inspection, maintenance and repair.
- o Identifying and assessing needs and setting priorities
- o Allocating funds to meet those needs and priorities

### RELATED STRATEGIC DOCUMENTS

The Road Management Plan is developed as part of a suite of strategic documents developed by Council which should be read in conjunction. In addition to aligning its Road Management responsibilities with Council’s 4 year and annual planning documents, this plan attempts to align with the objectives of other strategic Council documents such as:

- o Community Plan
- o Council Plan
- o Asset Plan
- o Financial Plan
- o Workforce Plan
- o Rating and Revenue Plan
- o Climate Response Plan
- o Strategic Asset Management Plan
- o Integrated Transport Plan
- o Road Asset Management Plan
- o Principle Pedestrian Network and Bicycle plan

The RMP also seeks to respond to key themes in the Council Plan, which include:

- o Opportunity and innovation
- o Neighborhoods, housing and infrastructure
- o Natural environment and sustainability
- o Connection, resilience and wellbeing
- o Civic engagement and integrity

## DEMARCATIION AGREEMENTS

There are a number of roads which form the boundary between City of Knox and adjoining municipalities. In addition, there are approximately 100 kilometres of Arterial Roads within the municipality. In order to manage areas where road management responsibilities may be unclear, Council has demarcation agreements with the following organisations:

- o Casey City Council
- o City of Greater Dandenong
- o Maroondah City Council
- o Monash City Council
- o Whitehorse City Council
- o Yarra Ranges Shire Council
- o Parks Victoria
- o VicRoads
- o Victrack/Metro Trains Melbourne

The Road Management Code of Practice (Management of Infrastructure in Road Reserves), 2016 also provides guidance on demarcation of responsibility for road and roadside assets.

## LEGISLATIVE AND STATUTORY REQUIREMENTS

The RMP has been developed pursuant to the requirements of the following legislation:

- o Road Management Act 2004
- o Road Management (Works and Infrastructure) Regulations 2015
- o Road Management (General) Regulations 2016

The Road Management Act 2004, has been developed to govern alongside the principles of other Acts such as the Transport Act 1983, the Road Safety Act 1986 and the Local Government Act 2020, all of which set out principles and applicability to the management of the road network and the allocation of funding by Council. The Road Management Act 2004 identifies relevant amendments where it is deemed to supersede these other Acts.

A municipal Council must conduct and complete a review of its road management plan within the period referred to in section 54 of the Road Management Act 2004.





## KEY STAKEHOLDERS

The key stakeholders in this Plan include:

- o Residents and businesses, tourists and visitors to the area
- o Users of motor vehicles;
- o Pedestrians & Cyclists;
- o Emergency services (police, fire, ambulance, SES);
- o Utility agencies (water, sewerage, gas, electricity, telecommunications).
- o Council as the responsible road authority, and other State and Local Government road and transport authorities.

## TERMS AND DEFINITIONS

<b>Arterial Roads</b>	A road that is declared to be an arterial road under Section 14 of the Road Management Act, 2004.
<b>Asset Creation</b>	The provision of an asset to satisfy or improve a level of service, provide for new demand from customers, or to provide a commercial return, e.g. new subdivisions.
<b>Asset Disposal</b>	Removal of an asset that is no longer required or becomes uneconomical to maintain or rehabilitate.
<b>Asset Lifecycle</b>	The cycle of stages that an asset goes through from planning and design to construction, operation, maintenance, renewal and decommissioning or disposal.
<b>Asset Management System</b>	Computer based application that stores the Knox Public Road Register, the Knox Asset Register and other asset information used for financial, economic, engineering and management processes related to physical assets.
<b>Capital Expansion</b>	Expenditure on extending an existing infrastructure network to make the asset available to a new group of community users, e.g. extending a road or shared path network.
<b>Capital Renewal</b>	Expenditure on renewing an existing asset or a portion of an infrastructure network which increases the service potential or extends the life, e.g. resurfacing a sealed road, pavement rehabilitation.
<b>Capital Upgrade</b>	Expenditure on upgrading the standard of an existing asset or infrastructure network to provide a higher level of service to community users, e.g. widening the pavement and sealed area of an existing road, sealing an existing unsealed road.
<b>Coordinating Road Authority</b>	A road authority which has coordinating road functions as defined by The Road Management Act. I.e.
<b>Current Service Level</b>	Describes the maintenance activity to be undertaken and the intervention level that will serve as a trigger point to determine whether repair works are to be carried out.
<b>Maintenance</b>	Expenditure to maintain the asset in use without increasing its service potential or life, e.g. repairing a pothole in a road, repairs to prevent early failure of an asset

<b>Non-Road Infrastructure</b>	Infrastructure in, on, under or over a road which is not road infrastructure; i.e. gas pipes, water and sewerage pipes, cables, electricity poles and cables, tram wires, rail infrastructure
<b>Reactive Maintenance</b>	Maintenance works undertaken to provide temporary or permanent repair to provide protection against potential risks and /or to rectify a failure to restore the asset's intended functionality.
<b>Responsible Road Authority</b>	A road authority which has operational road functions as defined by the Road Management Act.
<b>Road Related Infrastructure</b>	Infrastructure which is installed or constructed by the relevant road authority for road-related purposes
<b>Roadside</b>	Any land that is within the boundaries of a road (other than the shoulders of the road) which is not a roadway or a pathway and includes the land on which any vehicle crossing or pathway which connects from a roadway or pathway on a road to other land has been constructed.
<b>Routine Maintenance</b>	Maintenance works undertaken to preserve the life of the asset and ensure that it retains its intended functionality
<b>Rural Arterial Roads</b>	Arterial roads through areas that are not considered to be urban areas as defined in the Road Management Act, 2004.
<b>Target time for initial Response</b>	Identified target period for a Council Officer to inspect the site if required, identify the defect and assess the associated public safety risk level
<b>Target time for Rectification Works</b>	Identified target period for completion of maintenance works necessary to rectify the failure or restore the asset's intended functionality.
<b>Temporary Protection Works</b>	Maintenance intervention measures intended to minimise localised risk until a defect can be repaired or returned to a functional status. May include warning signage, asset closure, or other appropriate measure.
<b>Arterial Roads</b>	High - capacity urban road that sits below freeways/motorways on the road hierarchy in terms of traffic flow and speed.



## DEVELOPING THE PLAN

### 1.1 FUNCTIONS OF A ROAD AUTHORITY

The Act establishes a statutory framework to facilitate and outline the roles and responsibilities that Council (as a Road Authority) must adhere to in order to adequately exercise its duty.

#### General Functions of a Road Authority

- To provide and maintain roads for use by the community served by the road authority.
- To manage use of a road effectively to meet its primary purpose of being a public road without having adverse effect on the safe and efficient operation of the road and on the environment.
- To manage traffic in a manner that enhances the safe and efficient operation of roads.
- To design, construct, inspect, repair and maintain roads and road infrastructure.
- To coordinate installation of infrastructure on roads and the conduct of other works in such a way as to minimise, as far as is reasonable, adverse impacts on the provision of utility and public transport services.
- To undertake works and activities which promote the functions referred to in the above paragraphs.

**Notes:** Extract from Road Management Act Section 34.1

Under the Act, road authorities can have responsibility both as a coordinating road authority and a responsible road authority. These functions are defined in Section 36 and 37 of the Act.

**Coordinating Road Authority:** The road authority with the responsibility for coordinating works within a particular road reserve.

**Responsible Road Authority:** The road authority with the responsibility for the operational functions within the road reserve.

### 1.2 OBLIGATIONS OF ROAD USERS

All road user have general responsibilities and obligations. Section 17A of the Road Safety Act 1986 defines and outlines these responsibilities.

These obligations recognise that while Council has a responsibility to manage its road network, there is also an onus upon road users to take due care when using the network. Table 2 below clarifies these obligations.

#### Table 2 - Obligations of Road Users

A person who drives a motor vehicle on a highway must drive in a safe manner having regard to all the relevant factors, including (without limiting the generality) the —

- (a) physical characteristics of the road;
- (b) prevailing weather conditions;
- (c) level of visibility;
- (d) condition of the motor vehicle;

- (e) prevailing traffic conditions;
- (f) relevant road laws and advisory signs;
- (g) physical and mental condition of the driver.

A road user other than a person driving a motor vehicle must use a highway in a safe manner having regard to all the relevant factors.

A road user must—

- (a) have regard to the rights of other road users and take reasonable care to avoid any conduct that may endanger the safety or welfare of other road users;
- (b) have regard to the rights of the community and infrastructure managers in relation to road infrastructure and non-road infrastructure on the road reserve and take reasonable care to avoid any conduct that may damage road infrastructure and non-road infrastructure on the road reserve;
- (c) have regard to the rights of the community in relation to the road reserve and take reasonable care to avoid conduct that may harm the environment of the road reserve

Notes: **Extract from Road Safety Act, 1986 – Section 17A**

### 1.3 BALANCING COUNCIL'S FUNDING PRIORITIES

Knox City Council's Financial Plan uses current financial information, economic factors, and long-term infrastructure planning and maintenance needs to guide Council in its financial decision-making. The strategy clearly identifies recurrent (operating) and capital (infrastructure) expenditure necessary to ensure that the needs of Council are met into the future.

Council's Capital Works program is set up to closely align with the asset categories used in the annual financial reporting of Council's infrastructure assets. As part of its Asset Plan, Council identified five key asset management categories in addition to a general maintenance category against which works should be recognised.

As it delivers its annual budget program, works on road and road related assets will be allocated to one of the following categories:



Council's annual operating and capital budget provides the framework for assigning maintenance funding for road management. The allocation of funding for road management related activities is made on an annual basis, taking account of the global range of services delivered by Council including aged care, youth, leisure and cultural services, family and children's services, community wellbeing, city strategic planning and environmental sustainability. The allocation of funding within the operational budget recognises that Council needs to provide a balanced level of service delivery across all competing service areas.

In documenting road maintenance service levels within this plan, Council has attempted to more accurately define when works will be carried out and timeframes for delivery of these tasks. Council is also obliged to incorporate a

proactive, whole of network approach when managing its road infrastructure, rather than the reactive approach employed prior to adoption of its Road Management Plan.

Roadworks can be funded from sources other than those directly provided by Council. These can include:

Special Rates schemes / Special Charge schemes, Developer Contribution Schemes and direct funding of assets by developers.

## 1.4 DEVELOPMENT OF THE ROAD MANAGEMENT PLAN

The Knox City Council Road Management Plan incorporates:

Inclusions within the Road Management Plan
Identification of responsibilities for roads managed by others but for which Council acts as the Responsible Road Authority;
Identification of asset categories that are maintained in accordance with the maintenance service levels set out in this plan but not listed on Council's Public Road Register as they are not 'public roads' as defined by the Act.
Road and footpath hierarchy classifications and associated desirable functional descriptions for all roads on the public road register;
Maintenance standards, inspection regimes, maintenance recording and risk-based prioritisation processes which take into account budget constraints and address Council's duties with respect to public roads and other assets maintained in accordance with this plan;
A service level review and implementation process.

**Table 1 – Road Management Plan Inclusions**

## 1.5 ROAD MANAGEMENT PLAN ADOPTION AND REVIEW

The recent review considered the following:

- o Amendments to relevant Acts and regulations since the introduction of the Road Management Plan
- o Staff feedback regarding implementation of the existing policy directives
- o Historic service delivery performance (inspection, repair and maintenance)
- o Benchmarking against Road Management Plans of neighbouring municipalities
- o Public feedback, Community satisfaction data
- o Recommendations from relevant internal/external audits/relevant Council plans and strategies
- o Road and path hierarchies
- o Maintenance demarcation responsibilities

All road management policies and procedures were reviewed including Council's approach to:

- o responding to reported incidents
- o monitoring hazards, asset condition, and analysing asset performance.
- o setting standards for inspection repair and maintenance, and establishing maintenance priorities



- o allocating resources
- o delivering and auditing maintenance and inspection programs

## 1.6 ASSET MANAGEMENT INFORMATION SYSTEM

To enable Council to effectively manage and maintain its assets, the inventory of each asset class is maintained in Council's Asset Management Information System (AMIS).

The local road network is divided into road segments of manageable lengths for asset management purposes. Each of these segments stored in the AMIS are uniquely identified and assigned a category in the hierarchy equivalent to its purpose and function.

Assets such as road pavement, kerb & channel, footpath are 'itemised' according to the road segment in which they are installed. Further detail relating to Council's Asset Management System can be found in the relevant Asset Management Plans.

Currently is currently introducing a new Asset Management System (Confirm) to replace the existing AMIS system (Lifecycle), with key modules of the system going live in November 2022.

The Confirm system fully integrates the AMIS with the Work Order System utilised by Council staff and contractors, enabling seamless updates to asset data and handover with direct integration to Council's Graphical Information System (GIS). Comprising performance dashboards, enhanced asset performance and modelling systems and supporting Road Management Plan compliance, the system will enabling real time workflows and operations to be managed, assisting officers to deliver service to the community within the statutory framework of the Road Management Act.

## 1.7 WORK ORDER SYSTEM

Through the new Asset Management System, Council has will manage a Works Order System to receive, manage and track inspection and maintenance works on Council's road and road-related assets. The system has been specified to process all reactive maintenance activities and inspection regimes.

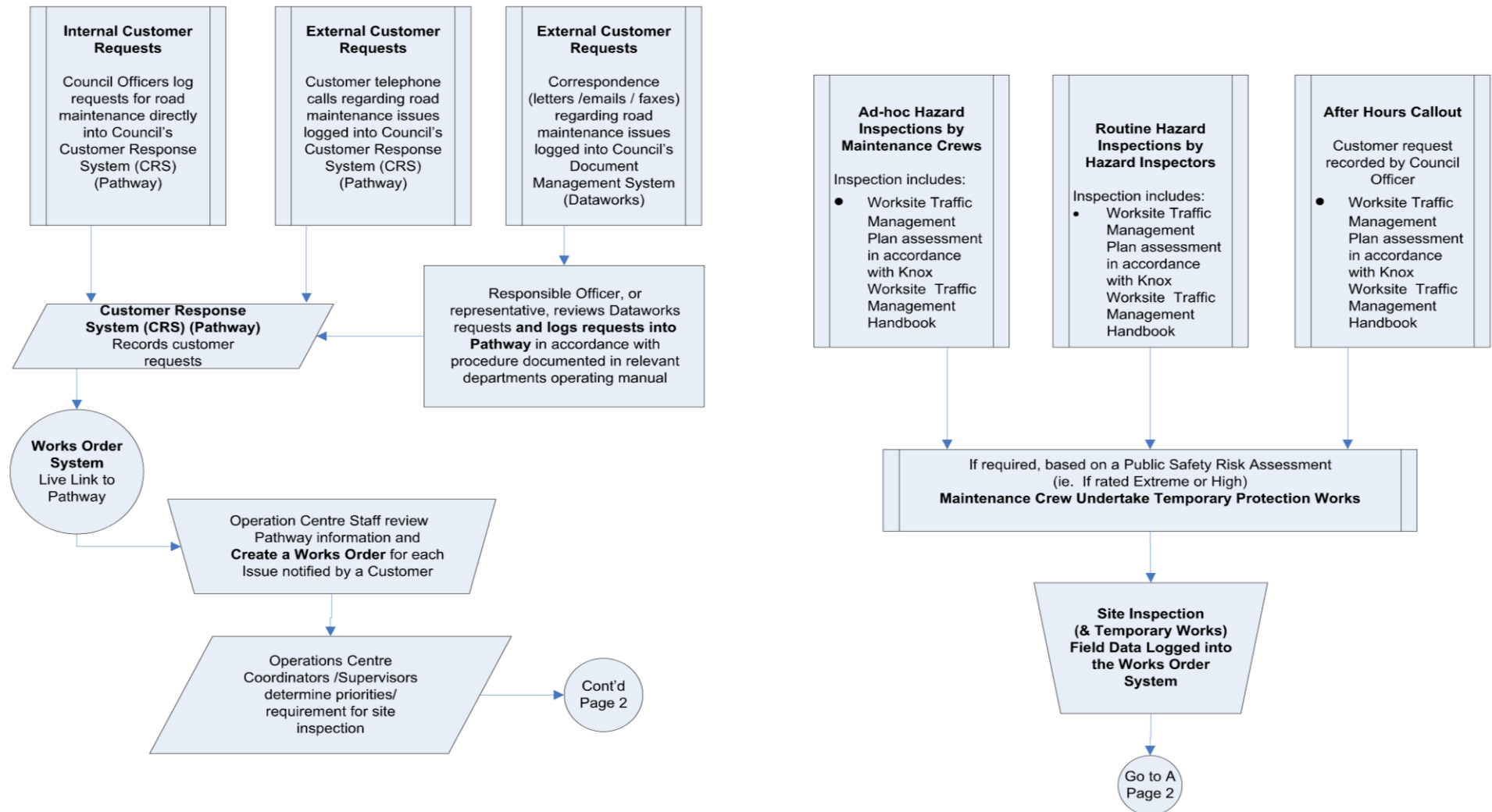
Council's AMIS system incorporates a direct link to Council's Customer Response System (CRS) - Pathway, enabling all relevant enquiries raised by Knox customers to be actioned by key staff as required. The Work Order System allows tracking of all identified maintenance issues from the moment the issue is received through to completion of individual tasks, be they inspections, temporary works and rectification works. It also has the capacity to record and report histories against individual tasks and assets.

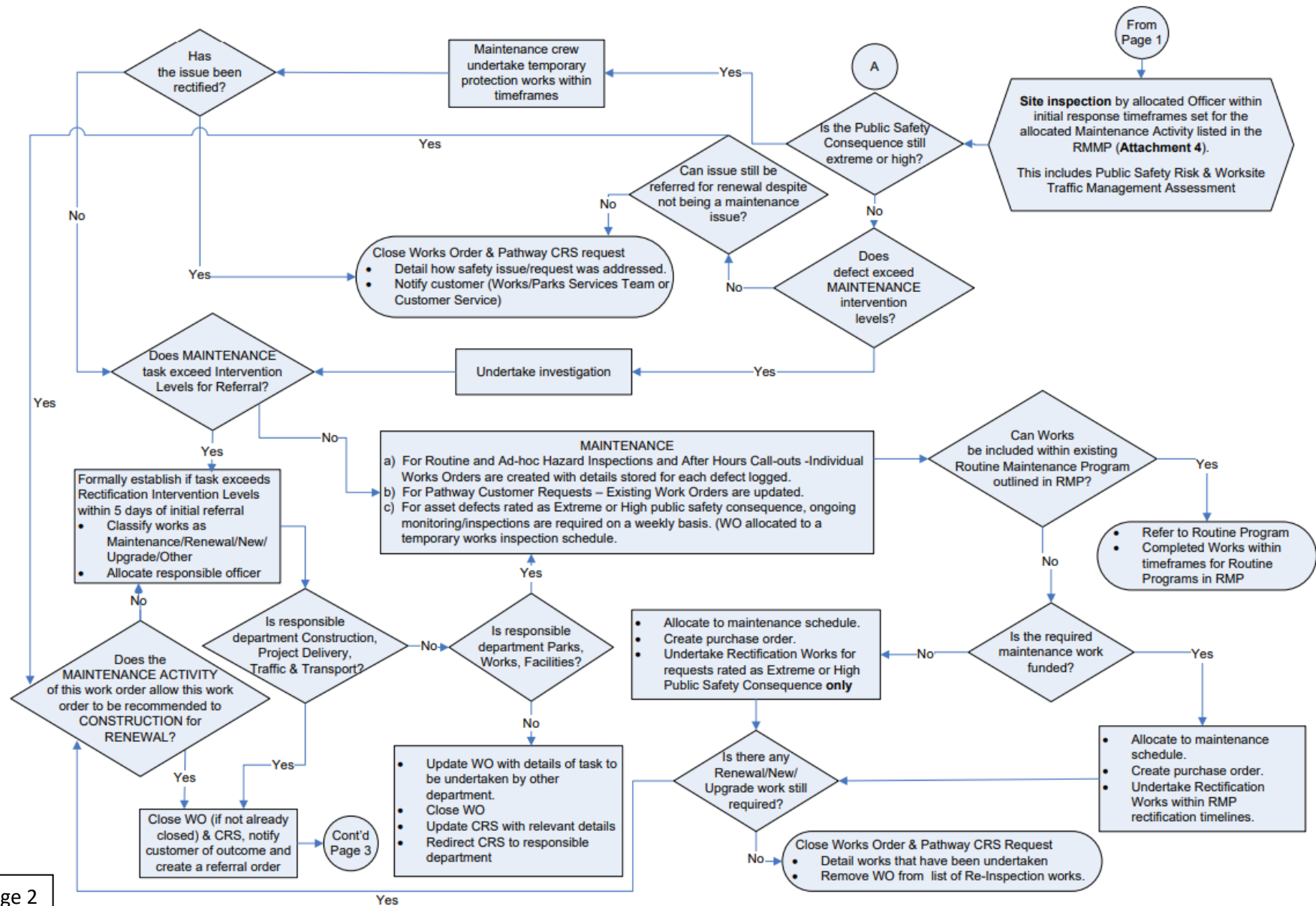
The system will measure Council's ability to meet the maintenance service levels as prescribed in this Road Management Plan and track maintenance activities and costs against each road asset. This will provide Council with an opportunity to identify efficiency gains in the management of its road and road-related assets.

The process chart on the following page shows how the Works Order System is used to record reactive maintenance activities undertaken in response to:

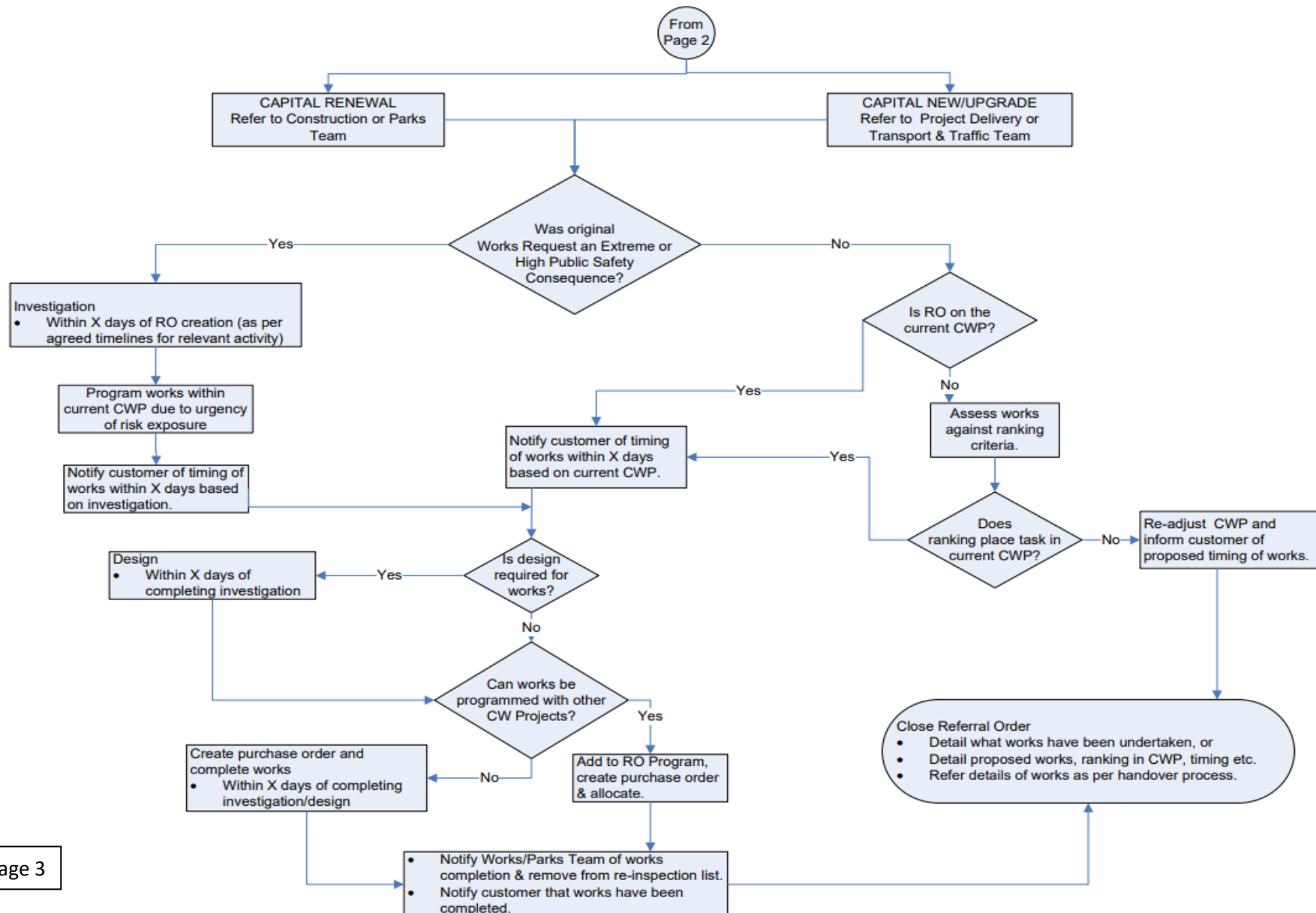
- o Customer requests for repair of a road asset (external customers including afterhours call outs);
- o Council officer requests for maintenance intervention (internal customers);
- o Defects identified by maintenance crews, including contractors, undertaking other maintenance activities within the Municipality (ad-hoc inspections); and
- o Defects identified by routine hazard inspections.

## Knox Management System – Inspection, Repair & Maintain Roads









# PUBLIC ROAD REGISTER

## 2.1 PUBLIC ROAD REGISTER DETAILS

The Knox City Council Public Road Register is separate to this document, and is publically available online. The register is prepared in accordance with and meets the requirements set out in Section 19 and Schedule 1 of the Road Management Act, which identifies matters that must be included in the register.

### Public Road Register Inclusions

The name of the public road, or if a road is unnamed, a description which enables the particular road to be easily identified;

The date on which a road becomes a public road if the road becomes a public road after 1 July 2004;

The date on which a road ceases to be a public road;

The classification, if any, of the public road;

The reference of any plan or instrument made on or after 1 July 2004 that fixes or varies the boundaries of a public road and ancillary areas;

A reference to any arrangement under which road management function in respect of any part of a public road or ancillary area is transferred from one authority to another.

The Knox City Council Road Register is available as a tabulated list for viewing at Council’s customer service centres during regular business hours or via Council’s website at [knox.vic.gov.au](http://knox.vic.gov.au)

Whilst not a requirement of the Road Management Act, the Knox City Council Public Road Register also includes a Geographical Information System (GIS) reference key to link Public Road Register entries to Council’s Asset Management System.

### ADDITIONAL ASSET DETAILS

Council possesses additional data pertaining to many of its road register inclusions. Stored in Council’s Asset Register, this data may relate to construction standards used for existing public roads, infrastructure in, on, over or under a public road and already established reference plans that fix boundaries of a road reserve.

Whilst relevant to the ongoing management of the road, the decision to exclude this additional data from the Public Road Register has been made by Council based on an assessment of the likely accuracy of available information. In addition, this decision has taken account of the magnitude of the task necessary to provide an up to date and accurate reflection of these elements within the Public Road Register.

## 2.2 INFRASTRUCTURE COVERED BY THIS PLAN

Within the public road reserve, Council is responsible for the following road related infrastructure:

- The constructed road including wearing surface, sub-surface drainage, base/pavement, and sub-base;
- Traffic Management devices (Local Area Traffic Management), pavement marking , regulatory traffic signs, warning and guide signs , safety barriers;
- Surface level drainage such as kerbs, channels , pits , swales and table drains;
- Footpaths and shared pathways within road reserve;
- Pedestrian and Vehicle bridges, Major Culverts, approaches and retaining walls.
- Roadside infrastructure – vehicle safety barriers, pedestrian safety fencing and council owned bus shelters
- Off road at-grade carparks –excluding removed off-street carparks.
- Council owned streetlights

## 2.3 INFRASTRUCTURE NOT COVERED BY THIS PLAN

Within the road reserve, certain infrastructure is maintained or managed by other road authorities and infrastructure managers:

- General Street Lighting, Electricity poles, pts and related equipment from electricity and telecommunication services.
- Entry roads that lead into parks, reserves, car parks, etc.
- Facility car parks such as pavilions, activity centres etc.
- Pathways, walkways, shared paths, furniture and lighting in reserves/parks and associated Council buildings but not within the road reserve
- Underground drainage and gas supply lines. Sewerage network, access pits, hydrants.
- Car Parks that are not within the road reserve.
- Roads Constructed by others or without Council approval, uninformed access tracks for purpose of local access or unconstructed right of ways not contained in the Public Road Register
- Public Transport assets and equipment owned by other transport authorities.
- Vegetation, Street Trees and landscaped garden beds located on the road reserve that are maintained by Council.



### COORDINATING VS RESPONSIBLE ROAD AUTHORITY

Among the primary objectives of the Act is the establish road management functions and responsibilities through designation of Coordinating and Responsible Road authority.

In a general sense, the Department of Transport (previously VicRoads) is the coordinating road authority for:

- Freeways;
- arterial roads

Knox City Council is the coordinating road authority for:

- municipal (local) roads (all roads listed in the Knox Public Road Register).
- service roads adjacent to arterial roads
- any part of the roadway not used by through traffic
- for any pathway (footpath or shared path), other than a pathway on a freeway road reserve
- for the outer separator strip between the roadway and the service road
- for the roadside in an urban area (defined by 50kph zone or street lights or abutting development).

Council may enter into management agreements with both the Department of Transport and neighbouring road authorities with respect to management of road and roadside related areas for operational purposes. These are operational in nature and may change by agreement over time.

Under the Road Management Act, 2004, a Code of Practice has been developed for the management of infrastructure in road reserves, with general responsibilities for road management as shown below.

## 2.4 DEMARCATION OF ROAD AUTHORITY RESPONSIBILITIES

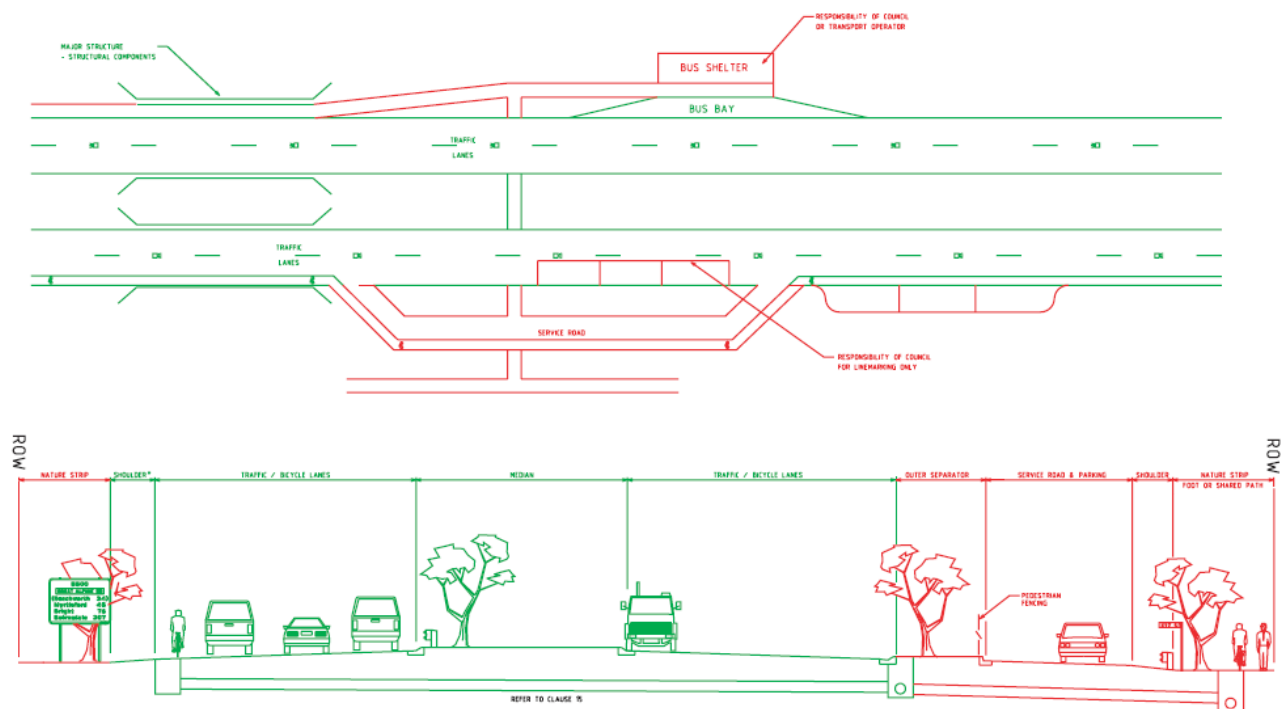
For all ancillary areas, reference is made to agreements in place between coordinating and responsible road authorities. These agreements are set in place to allow road authorities to manage each other's assets in a financially beneficial manner. The agreements are included, as outlined below, in Appendix 4. It is intended that the appropriateness of agreements entered into with other road authorities are reviewed whenever the Road Management Plan is reviewed.

### MUNICIPAL BOUNDARY AGREEMENTS

The Road Management Act makes provision for Council to enter into an arrangement with another road authority to transfer road maintenance responsibilities. In these agreements, Knox may take on either a coordinating and/or responsible road authority function

### RAIL AUTHORITY AGREEMENT

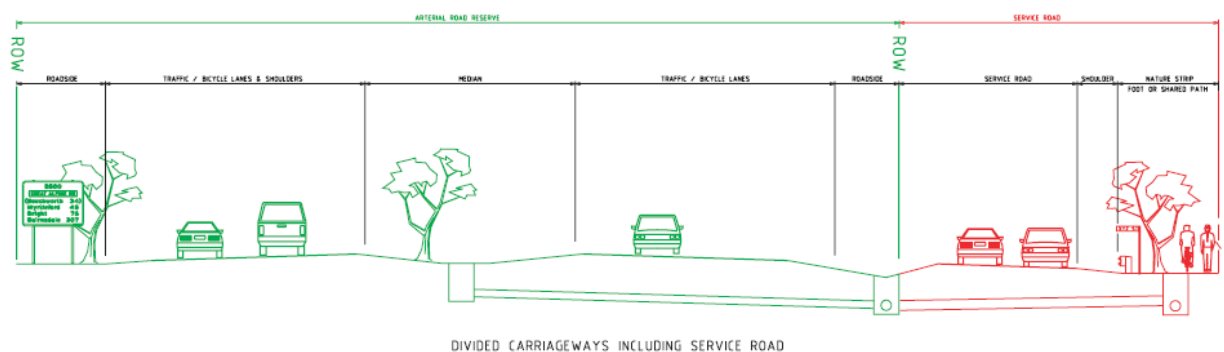
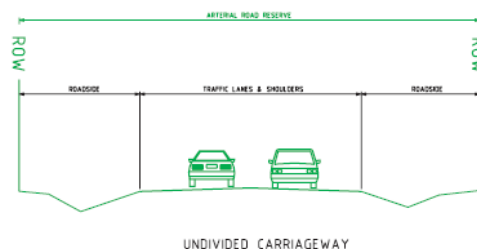
Recent changes to the Rail Safety Act have placed increased obligations on both road and rail authorities to manage public safety risks at road-rail interfaces. Road and rail authorities are now required to enter into Safety Interface Agreements which identify the roles and responsibilities of each party at the road-rail interface.



## LEGEND

- DEPARTMENT OF TRANSPORT RESPONSIBILITY
- COUNCIL RESPONSIBILITY

## **RESPONSIBILITY FOR URBAN ARTERIAL ROADS BETWEEN INTERSECTIONS**



## LEGEND

- DEPARTMENT OF TRANSPORT RESPONSIBILITY
- COUNCIL RESPONSIBILITY

## **RESPONSIBILITY FOR RURAL ARTERIAL ROADS BETWEEN INTERSECTIONS**

NOTE: WHERE THE BOUNDARY OF A ROAD HAS NOT BEEN FIXED, THE BOUNDARY IS DEEMED TO BE IN ACCORDANCE WITH SCHEDULE 5, CLAUSE 3 OF THE ACT

## CLASSIFICATION

### 3.1 REASONS FOR DEVELOPING A ROAD HIERARCHY

The Road Management Act, 2004 requires that Council's Public Road Register include a classification for each public road. Through the development of a road hierarchy and subsequent classification of roads, Council recognises that different roads within Knox perform differing functions. The establishment of a hierarchy will encourage efficient management practices, providing for variation of standards across each classification.

The adopted road hierarchy classifications inform inspection, maintenance, renewal, upgrade, disposal and capital expenditure programs. They also inform Council's traffic management strategies, land use planning activities, design and construction standards, and assist the co-ordination process across Council to enhance the community's understanding of Council's approach to road management.

### 3.2 FUNCTION/ FEATURES OF A ROAD HIERARCHY

Knox City Council has adopted the following five classification and functional standards for roads listed in its Public Road Register:

Road Hierarchy Classification	Current Function / Features
Link Roads	<ul style="list-style-type: none"> <li>Efficiently channel traffic through the Municipality</li> <li>Carry traffic between major commercial, industrial and residential areas</li> <li>Link Department of Transport (VicRoads) arterial roads</li> </ul>
Collector Roads	<ul style="list-style-type: none"> <li>Provide connectivity to commercial and residential areas from Link Roads or directly from the VicRoads arterial network</li> <li>Provide direct access to the local road network without necessarily acting as a through traffic route</li> <li>Carry local traffic to key attractors such as shops, schools, commercial districts, hospitals, sporting and other local facilities</li> </ul>
Industrial Roads	<ul style="list-style-type: none"> <li>Service industrial zoned land uses and supporting functions concentrated in these areas</li> <li>Channel traffic through an Industrial Zone</li> <li>Support regular heavy vehicle traffic and design requirements of such vehicles.</li> </ul>
Access Roads	<ul style="list-style-type: none"> <li>Provide access to abutting residential properties and/ or fire truck access</li> <li>Public amenity, safety and aesthetic aspects of these constructed roads take priority over speed and ease of movement of vehicles</li> </ul>
Unsealed Roads	<ul style="list-style-type: none"> <li>Generally have a gravel/crushed rock surface</li> <li>May function as Link, Collector or Access roads</li> </ul>

The adopted road hierarchy classifications are consistent with the Municipal Association of Victoria's (MAV) suggested road hierarchy and will readily allow for future comparisons and benchmarking of services across Victorian councils.



### 3.3 PATH HIERARCHY

Knox Council has developed a hierarchy for managing its shared paths and footpaths within road reserves to improve management processes across the path network. This path hierarchy aims to identify high use pedestrian areas that may require enhanced design and management practices when compared with lesser used paths. As with the road hierarchy, the path hierarchy has been linked to Council's GIS system with relevant details listed in Council's Asset Register.

Knox City Council has adopted the following categories and functional features for the path hierarchy.

Path Hierarchy	Current Function / Features
Commercial Access Routes	Provide service for commercial areas with high volumes of pedestrian traffic.
Key Access Routes	Provide a supporting network service to commercial access routes and other areas with medium volume pedestrian traffic.
Local Access Routes	Provide for low volume pedestrian access to service residential and other areas.
Shared Paths	Provide designated regional connectivity for both pedestrians, cyclists and mobility scooters
Reserve Access Routes	Provides frontage and direct access to reserves within Knox

**Table 2 – Path Hierarchy Functional Features**

#### Desirable Path Hierarchy Criteria

The classification of paths is based on Council's understanding of the current function of each path and a review of existing data relating to:

- o Locality;
- o Expected usage;
- o Pavement width;
- o Surface material; and
- o Disability Discrimination Act (DDA) compliance.

Due to the often informal/unstructured approach applied to the development of paths within the municipality, many footpaths are unlikely to conform to identify desirable criteria. Assessment of the footpath network has been used to set desirable physical and functional features for each hierarchy category.

### 3.4 APPLICATION OF HIERARCHIES

The desirable criteria specified when identifying road and path hierarchies sets minimum standards that Council will aim to provide for each road and path classification. As such, the development of road and path hierarchies will impact on a number of Council's road management activities. In particular, they will inform:

- o Inspection programs;
- o Capital expenditures programs for the expansion, renewal and upgrade of the road and path network;
- o Traffic management strategies;
- o Land use planning activities; and
- o Design and construction standards.

#### Inspection Programs

For the purposes of the Road Management Act, inspection programs need to be implemented to proactively manage risks. Two types of inspections have been identified as necessary for Council to manage its network of road and road related assets:

- o **Hazard Inspections** – to be undertaken between scheduled condition audits and specifically directed at identifying potential public safety risks.
- o **Condition Audits** - used to determine the structural condition of the asset and enable non-urgent maintenance needs to be assessed and prioritised. Subject to budget approval, Council will undertake regular condition audits of its assets. Condition Audits however predominantly serve and support long term asset management objectives, including financial modelling and renewal planning.

Hazard inspection frequencies are included overleaf and have been developed for each asset category by evaluating the highest risk associated with that category. Hazard inspection frequency is reflective of usage, service, and risk.

Frequencies for routine inspections are developed for each asset group based on risk and rates of deterioration. For example, if not dealt with promptly, conditions on unsealed roads and unsealed shoulders of sealed roads can rapidly change resulting in increased maintenance cost and safety hazards, justifying frequent inspections. Footpaths adjacent to business districts, schools and facilities are identified for 6 monthly inspections and higher maintenance activity than other footpaths that have less use.

The process of assigning risk to the various asset categories takes account of the proposed hierarchy of roads and footpaths. In recognising that different classes of roads and footpaths may perform different functions, they may also be deemed to represent a different risk to the community.

ASSET CATEGORY	HAZARD INSPECTION FREQUENCIES			
	ROAD HIERARCHY			
	LINK	COLLECTOR	INDUSTRIAL	ACCESS
BRIDGES / STRUCTURES	Road Bridges & Major Culverts - 6 month cycle Pedestrian Bridges & Boardwalks - 6 month cycle			
RETAINING WALLS, STAIRS, MINOR STRUCTURES (within Road Reserve)	6 month cycle	1 year cycle	1 year cycle	2 year cycle
BUS SHELTERS	All Council owned bus shelters - 1 year cycle			
DRAINAGE – External Inspection(Pit Lintel, Lid and Surrounds) within Road Reserves and along constructed shared paths	6 month cycle	1 year cycle	1 year cycle	2 year cycle
DRAINAGE – Internal Inspection (Side Entry Pits) within Road Reserves	All side entry pits in road reserves – 1 year cycle			
KERB AND CHANNEL	6 month cycle	1 year cycle	1 year cycle	2 year cycle
LOCAL AREA TRAFFIC MANAGEMENT DEVICES (LATMs)	6 month cycle	1 year cycle	1 year cycle	2 year cycle
ROAD FURNITURE				
BIKE RACKS	Nil - Reactive Service Only			
BINS	Nil - Reactive Service Only			
FENCING	6 month cycle	1 year cycle	1 year cycle	2 year cycle
FIRE PLUG MARKERS	Nil - Reactive Service Only			
GUARD RAIL	6 month cycle	1 year cycle	1 year cycle	2 year cycle
GUIDE POSTS	6 month cycle	1 year cycle	1 year cycle	2 year cycle
MISCELLANEOUS ROADSIDE FURNITURE	Nil - Reactive Service Only			
STREET LIGHT INFRASTRUCTURE	Nil - Reactive Service Only			
ROAD PAVEMENT	6 month cycle	1 year cycle	1 year cycle	2 year cycle
ROAD SURFACE	6 month cycle	1 year cycle	1 year cycle	2 year cycle
ROADSIDE VEGETATION	1 year cycle	1 year cycle	1 year cycle	2 year cycle
ROADSIDE VEGETATION IN VICINITY OF OVERHEAD CABLES	1 year cycle	1 year cycle	1 year cycle	2 year cycle
SCHOOL CROSSINGS (Linemarking and furniture)	All school crossings - 1 year cycle			
SHARED PATHS (including regulatory signage along shared paths)	All shared paths - 1 year cycle			
SIGNS - REGULATORY & WARNING	6 month cycle	1 year cycle	1 year cycle	2 year cycle
SIGNS - OTHER	Nil - Reactive Service Only			
TABLE DRAINS (excluding drainage pipes)	6 Roads – (Basin-Olinda Road, Cathies Lane, Quarry Road, Doongalla Road, Old Coach Road, Sheffield Road) - 1 year cycle Other unsealed Roads – 3 month cycle or in accordance with Grading Program (KNOX MAINTENANCE SCHEDULE III - Routine Grading Program)			
UNSEALED ROADS (excluding drainage pipes)	6 Roads – (Basin-Olinda Road, Cathies Lane, Quarry Road, Doongalla Road, Old Coach Road, Sheffield Road) - 1 week cycle Other unsealed Roads – 3 month cycle or in accordance with Grading Program (KNOX MAINTENANCE SCHEDULE III - Routine Grading Program)			
VICROADS ARTERIAL ROADS	Roadside Vegetation for arterials listed in Table 5 of Knox Public Road Register – 1 year cycle VicRoads Arterial Parking Bays listed in Table 3 of Knox Public Road Register – 2 year cycle Other Assets – in accordance with nominated asset class and responsibilities outlined in Code of Practice for Operational Responsibility on Public Roads			
	COMMERCIAL ACCESS ROUTES	KEY ACCESS ROUTES		LOCAL ACCESS ROUTES, INDUSTRIAL ROUTES, RESERVE ROUTES
FOOTPATHS	6 month cycle	1 year cycle		2 year cycle

The routine maintenance frequencies documented in the table above are not precise. Due to the operational nature of assigning inspection programs via inspection zone into monthly programs a  $\pm 1$  month latitude is allowable.

Table 6 – Hazard Inspection Frequencies

## 3.5 ROAD REGISTER REVIEW PROCESS

The values adopted in setting desirable hierarchy criteria have been chosen to represent a 'best available fit' for the Knox road and path networks. The Road Management Plan is a 'living' document updated as and when necessary.

Reviews of classification criteria for hierarchies, and road and path asset classification are constantly updated where evidence supports the decision. Opportunities exist to re-classify road and path assets at any time however such an assessment will generally be undertaken following serviceability audits. These audits determine whether roads and paths are fulfilling their intended function.

The two primary catalysts for updates and review are:

- o Election of new council. The Road Management Act requires the plan to be updated within 6 months of a change in governance after the Council Election
- o When changes are required to the plan due to resourcing, risk and service delivery impacts.





## SERVICE LEVELS

### WHAT ARE SERVICE LEVELS?

Council's Road Management Plan includes the identification of service levels as they relate to the inspection, initial response and rectification road and road related assets. Service levels define performance expectations and are formulated through an assessment of legislative requirements, organisational objectives, customer expectations and financial capacity.

The service levels frame the following activities:

- o The Inspection of road and road related assets
- o Intervention Standards, and frequency
- o Management Controls and Response Times

### WHY DO WE NEED SERVICE LEVELS?

Setting road management service levels has many applications for Council. Specifically, service levels can be used to:

- o Ensure legislative compliance;
- o Communicate Council's road management methodologies;
- o Measure performance of Council's maintenance practices, and evaluate community expectation;
- o Identify costs and benefits of the services offered; and
- o Strategically plan for ongoing asset management practices.

### INSPECTIONS

The Road Management Act requires Council's to proactively inspect road and road related assets. The primary reason for proactively inspecting road assets (including bridges, footpaths, bike lanes, and shared paths) is to identify hazards, as defined by Council's service levels and manage inherent risks in the interest of public safety.

Council and the community jointly identify any road defects. Inspections of road assets are performed in the modes as follows:

- o Proactive inspections – where trained Council officers proactively assess the condition of Council's assets to identify hazards in line with adopted service levels;
- o Reactive inspections – where Council responds to complaints as identified by the community, other road authorities to assess whether a hazard (exceedance of a service level) exists;

Hazards identified during both proactive and reactive inspection will be secured and made safe with the help of temporary or permanent safety measures in accordance with service level timeframes: Where response actions and maintenance is reasonable the defects will be scheduled for maintenance/repair.

Inspection data is collected during the inspection and imported into a maintenance management system for the generation of works instructions and ultimately the completion of action, reporting and recording.

### REACTIVE INSPECTIONS

Reactive inspections are initiated by the municipality notifying the council of a concern or danger relating to a street object. Trained operations officers are best placed to detect hazards and Document response actions during visual inspections. Where measures are appropriate, they are scheduled for repair. Hazards identified during inspection is secured with the help of provisional or permanent security measures or Warnings according to the deadlines in Appendix 1: Intervention standards

### REPAIR AND MAINTENANCE STANDARDS

The standards of repair and maintenance applicable to the road infrastructure subject to Council's Road Management Plan are detailed in **Appendix 1: Intervention Standards** and encompass:

- a) The circumstances under which intervention action is to be taken with respect to repair or maintenance needs for defects reported or found on inspection; and
- b) Provision, as far as practicable, for the unpredictable (e.g. emergencies, natural disasters, etc).

When a defect is identified by Council that does exceed the stated intervention standard then these will be addressed through an intervention action. From time to time, Council may, at its discretion, chose to address a defect that is below its intervention standards through programmed maintenance activities. It is important to note that this forms part of Council's long-term asset preservation and service strategy does not mean that such a defect represented an unreasonable hazard.

### MANAGEMENT DURING EMERGENCY SITUATIONS

On occasion throughout the year, natural events or emergency situations such as major storms, traffic accidents and other random events may result in increased impost on the resources of Council's Operations Centre. On such occasions, whilst attending to issues considered to be high or extreme risks and implementing temporary protection works, the ability to meet the timeframes and service levels designated may be impaired. A return to delivery of service levels as defined in the Appendix 1 will occur as soon as practicable.

### MANAGING NEW ASSETS

Knox City Council has an obligation to provide and maintain assets now and into the future. To achieve this, an accurate assessment and inclusion of all ongoing maintenance costs will be required in Council's Maintenance Operating Budget every financial year. This will require that financial assessment is made of both Capital Works projects delivered by Council and developer contributed assets to determine their maintenance requirements throughout their lifecycle.

The continuing provision of new assets for the community without adequate consideration for maintenance of existing assets is unsustainable. To alleviate this issue, future maintenance budgets will require indexation equivalent to the proportion of assets added to Council's asset portfolio or management responsibility. This will enable current service levels adopted by Council to be improved and refined to meet community expectations into the future.

#### 4.6 PERFORMANCE REVIEW

As the setting of service levels is an iterative process, it follows that those levels adopted by Council will evolve over time to meet the changing needs of the community, taking into account the level of risk, industry benchmarking and the financial capacities of Council. It is proposed that this road management plan be adopted as a draft for public consultation prior to being formally adopted by Council. Such a review process will ensure that Council is continually working towards providing the best road management service with its limited resources. It is expected that the Road Management Plan review process will utilise a variety of information and formats including:

- o formal and informal feedback received from the community via public opinion surveys and customer requests;
- o external audits undertaken by the Municipal Association of Victoria as part of the MAV Insurance Audit.
- o an annual review of current services through delivery of Council's budget;
- o asset performance monitoring, assessed in conjunction with the delivery of individual asset management plans;
- o independent audits of Council's performance relative to the Road Management Plan;
- o service reviews based on an assessment of Council's Works Order System, taking into account issues such as response times, inspection frequencies, intervention levels and costs to deliver services; and
- o ongoing review of Council's Risk Management processes.

Through use of the Works Order System, Council has established a process of recording all maintenance works undertaken against each road asset. This process will enable Council to identify the true costs of managing assets over their respective lifecycles and provide a means to monitor asset performance.

# 1. Appendix 1 –Maintenance Response Times

Maintenance Activity	Intervention Standard	Initial Response	Rectification Time
<b>Bridges &amp; Culverts</b>			
Bridge or Culvert damage poses injury or damage to users.	Component damage or deterioration is presenting a hazard to the bridges function posing potential harm to road or path users.	2 days	64 days
<b>Bus Shelters</b>			
Bus Shelter & Surrounds Repair	Temporary repair/ protective works to broken/damaged panels, seating of Council owned bus shelters which impact road reserve.	3 days	64 days
<b>Drainage/Stormwater</b>			
Flooding impacting road use.	Flooding across the travel path of a road surface to a depth of 50mm at left wheel path.	3 days	120 days
Structure Repair - Drainage Pit , Pit Lids, Lintel	Provide temporary and/or permanent repair when: • Pit covers or Lintel is missing, or dangerously broken or displaced to an extent that is likely to be a hazard to road users.	3 days	120 days
<b>Footpaths</b>			
Hazardous or Damaged Path	Provide Temporary or permanent repair of surface if: • Asphalt / Concrete : =>20mm Displacement • Brick : =>20mm Vert Displacement / =>10mm paver gap • Unsealed : >50mm deep pothole , 300mm in diameter	3 days	50 days
Hazardous Path Surrounds (Edge Drop/Shoulder Repair)	Reduce hazard so path is safe for residents via providing a repair of depressions at the interface of the nature strip and constructed paths or by appropriate signage, or tape, bollards, fencing. a) depressions >50mm for Commercial footpaths b) depressions >75mm for other footpaths	5 days	64 days
<b>Shared Path</b>			
Hazardous or Damaged Path	Provide Temporary or permanent repair of surface if: • Asphalt / Concrete : 20mm Displacement Clear dirt, silt & debris, or vegetation that is likely to cause slipping or is hazardous to the path user.	3 days	45 days
<b>Kerb &amp; Channel</b>			
Kerb & Channel Repair	Provide temporary repair measures for damaged kerb & channel which presents a direct hazard/or results in ponding of stormwater on trafficable areas along link, collector and industrial roads. 50mm at left wheel path (as above).	3 days	150 days

Maintenance Activity	Intervention Standard	Initial Response	Rectification Time
<b>Obstructions</b>			
Obstructions	Removal of litter/ dumped rubbish that poses a hazard to pedestrians and/or obstructs traffic movements, including visual obstructions to sightlines required to safely use the road. Temporary works may include placement of litter/ dumped rubbish on nature strips until litter can be removed.	3 days	7 days
<b>Signage</b>			
Hazardous, Damaged, Missing or obstructed Signage (Regulatory or Warning)	a) Provide temporary and/or permanent repair of illegible/damaged/missing sign. c) Repair school crossing signage and posts to meet AS1742.10-1990 Pedestrian Control & Protection. d) Prune foliage obstructing regulatory/ warning signs	3 days (Regulatory) 10 days(Directional/Street/Other)	45 days(Regulatory) 150 days (Directional/Street/Other)
<b>Road related Furniture</b>			
Hazardous or Damaged Fencing, Guideposts, or Guardrails	Provide temporary and/or permanent repair to maintain functionality of fencing, guideposts or guardrails posing hazard to the public.	3 days	64 days
Hazardous or Damaged Non-Standard Street Lighting.	Provide temporary and/or permanent repair where required to damaged poles/ arms & masts for street lights that are non-functional or a hazard to road users/ pedestrians or property.	5 days	150 days
<b>Road Surface</b>			
Hazardous Road Surface	Provide temporary repair when failed area is >300mm in diameter and >50mm in depth.	2 days	32 days
Pavement Line marking	Replace damaged/ dislodged or missing pavement markers (RRPMs & RPMs) on link, collector and industrial roads. Reinstate faded/non-serviceable line marking on link roads and stat-com markings associated with link roads, collector roads and designated school crossings.	3 days	150 days
Clear Hazardous Spill	Temporary measures to limit access and clear fuel spill from road surface where there is a potential danger to traffic.	1 day	1 day
<b>Unsealed Roads</b>			
Hazardous Unsealed Road (Grading / Edge drop)	a) Install temporary measures and/ or grade unsealed roads when rutting and corrugations exceed 50mm over 20% of the unsealed road surface and/or potholes exceed 300mm in diameter and 50mm deep over 20% of the unsealed road surface. b) Grade shoulder when edge drop from traffic lane to shoulder exceeds 50mm over 20m length under a 1.5m straight edge	3 days	32 days



Appendix 2:

Table 1 - Road Hierarchy Description

Classification	ResCode Equivalent	Current Function/ Features	Council’s current approach to managing these roads
Link Road	N/A	<ul style="list-style-type: none"> <li>Efficiently channel traffic through the Municipality.</li> <li>Carry traffic between major commercial, industrial and residential areas.</li> <li>Link VicRoads arterial roads.</li> <li>Provide for through traffic movements and heavy vehicle use.</li> </ul>	<ul style="list-style-type: none"> <li>Principal public transport and designated on-road bicycle routes are actively encouraged.</li> <li>Off-road shared paths and footpaths are encouraged, with controlled pedestrian crossings where required.</li> <li>LATMs, such as speed humps, chicanes or threshold treatments should be avoided. Preferred treatments include roundabouts, traffic splitter islands and lane markings.</li> <li>Restrictions to on-street parking may be used during peak hours to facilitate peak hour traffic movements.</li> </ul>
Collector Road	<ul style="list-style-type: none"> <li>Collector Street</li> <li>Trunk Collector Street</li> </ul>	<ul style="list-style-type: none"> <li>Provide connectivity to commercial and residential areas from Link Roads or directly from the VicRoads arterial network.</li> <li>Concentrate locally generated traffic to an outlet.</li> <li>Provide direct access to the local road network but road does not act as a through traffic route.</li> <li>Carries local traffic to shops, schools, commercial districts, hospitals, sporting and other local facilities.</li> </ul>	<ul style="list-style-type: none"> <li>Public transport vehicles may be expected.</li> <li>Designated on-road bicycle routes may be provided.</li> <li>Shared/ pedestrian paths are encouraged and pedestrian treatments considered to improve pedestrian safety and amenity.</li> <li>Traffic management treatments used to improve safety and residential amenity, reduce local traffic speeds and discourage through traffic use not generated from within the immediate local area.</li> <li>Restriction of on-street parking may be used during peak times.</li> </ul>
Industrial Road	<ul style="list-style-type: none"> <li>Industrial Zone Major Road</li> </ul>	<ul style="list-style-type: none"> <li>Service local light industries concentrated in small areas that tend to be adjacent to VicRoads arterial roads.</li> <li>Road is in an Industrial Zone.</li> </ul>	<ul style="list-style-type: none"> <li>Facilitate movement of numerous large heavy vehicles particularly during business hours.</li> <li>Provision of safe pedestrian and cyclist access where possible.</li> <li>Speed humps and chicanes should be avoided with preferred LATM treatments including roundabouts, traffic splitter islands and lane markings.</li> <li>Street parking may be restricted during business hours to facilitate access.</li> </ul>
Access Road	<ul style="list-style-type: none"> <li>Access Place</li> <li>Access Street Level 1</li> <li>Access Street Level 2</li> </ul>	<ul style="list-style-type: none"> <li>Provide access to abutting residential properties.</li> <li>Public amenity, safety and aesthetic aspects of these roads take priority over speed and ease of movement of vehicles.</li> </ul>	<ul style="list-style-type: none"> <li>Maximise aesthetic value.</li> <li>Local public transport services permitted where access to residential areas or route continuity is required and the road is of an acceptable width.</li> <li>Provide a safe environment for formal and informal use by both pedestrians and cyclists.</li> <li>LATMs considered if safety and amenity concerns warrant treatment.</li> <li>Informal all-day street parking encouraged.</li> </ul>
Right-of-Way/Laneways	N/A	<ul style="list-style-type: none"> <li>Easement, allowing access to other properties.</li> <li>Is numbered and named in Knox City Council Road Register.</li> </ul>	<ul style="list-style-type: none"> <li>Remove obstructions and maintain to facilitate movement through.</li> </ul>
Unconstructed Right-of-Way	N/A	<ul style="list-style-type: none"> <li>Easement, allowing access to other properties.</li> <li>Isn’t maintained or responsibility of council</li> </ul>	<ul style="list-style-type: none"> <li>Unmanaged – no responsibility</li> </ul>
Unsealed Road	N/A	These roads have a predominantly gravel/ crushed rock surface. They may function as Link, Collector or Access roads. Following formal construction of a sealed pavement, these roads will be re-classified into the appropriate class in accordance with their functional, physical and traffic characteristics.	

Table 2 - Road Hierarchy Desirable Traffic and Physical Conditions

Classification	Relevance to ResCode	Desirable Traffic Conditions			Desirable Physical Conditions		
		Two Way AADT (24 hours)	% Commercial Vehicles	Posted Speed Limit (km/hr)	Kerb Type	Pavement Width (m)	Pavement Type
Link Road <sup>5</sup>	N/A	Over 6,000	Less than 7%	50 to 80	Barrier / Rollover	7.4 to 12.0	Surface: Asphalt <u>Pavement Std Drawings:</u> S202.2 or S202.3
Collector Road <sup>5</sup>	• Collector Street • Trunk Collector Street	Less than 6,000	Less than 5%	50 to 60	Barrier / Rollover	6.4 to 11.3	Surface: Asphalt <u>Pavement Std Drawings:</u> S202.1 S202.2 S202.3
Industrial Road <sup>4</sup>	• Industrial Zone Major Road	Less than 6,000	Variable	50 to 60	Barrier	7.6 to 11.8	Surface: Asphalt <u>Pavement Std Drawings:</u> S203.1 S200.3
Access Road <sup>7</sup>	• Access Place • Access Street Level 1 • Access Street Level 2	Less than 2,000	Less than 3% <sup>6</sup>	15 to 50	Rollover / Plinth or no Kerb & Channel <sup>2</sup>	3.8 to 8.8	Surface: Asphalt/ Concrete <u>Pavement Std Drawings:</u> S200.1 S200.2 S201.1 S201.2 S201.3
Unsealed Road	N/A	Less than 1,000	Less than 1%	50	Shoulder with table drain	Variable	Gravel

**Note:**

1. The levels of service defined in the Knox Road Hierarchy do not conflict with the classifications included in the ResCode provisions. New roads will therefore continue to be designed and constructed in accordance with the ResCode Provisions.
2. Existing barrier kerb will be retained for Access Roads constructed prior to the standard introduction of rollover kerb into Knox. Where no kerb exists the current construction standard will be maintained.
3. L.O.K. - measurement of pavement width (Lip of Kerb)
4. Road is in an area zoned as Industrial
5. Link and Collector Roads within an industrial zone must have the pavement type as per standard drawing S203.1 or S200.3
6. Access Roads that accommodate a bus route may carry more than 3% commercial vehicles
7. Access Roads include right-of-ways located within a road reserve which have a constructed road.

Table 3 – Path Hierarchy - Description

Classification	Description	Desirable Physical Features		Desirable Physical Conditions Kerb Type	Pavement Width (m)
		Surface	Width (m)		
Commercial Access Routes	Footpaths surrounding, shopping strips, commercial centres, and transport hubs.	Asphalt or Concrete	2.5	Provide service for commercial areas with high volumes of pedestrian traffic.	Undertake six monthly hazard inspections • Encourage sealed pavements with low defect tolerances • Service with paths on both sides of road
Key Access Routes	Footpaths servicing community centres, tourist attractions, religious centres, schools recreational facilities, pre-schools, childcare centres hospitals and elderly citizen facilities.	Asphalt or Concrete	1.4-2.0	Provide a supporting network service to commercial access routes and other areas with medium volume pedestrian traffic.	• Undertake annual hazard inspections • Sealed pavements with low defect tolerances • Programmed assessment of need for DDA1 compliance • Service with paths on both sides of road
Industrial Access Routes	Footpaths located within Industrial precincts	Concrete	1.4-2.0	Provide network capable of withstanding additional vehicle loading within industrial precincts	Undertake hazard inspection audits on a 2 year cycle • Encourage sealed surfaces • Provide suitable construction to withstand use by heavy vehicles
Shared Paths	Designated shared paths for use by pedestrians and cyclists	Asphalt, Concrete or granitic material	3.0	Provides linkage for pedestrians and/or cyclists through parkland and between major trip generators.	Undertake hazard inspection audits on an annual cycle • Sealed or unsealed surfaces • Provide suitable construction to withstand use/access by maintenance vehicles
Reserve Access Routes	Footpaths located within and/ or adjacent to reserves	Asphalt or Concrete	1.4-2.0	Provides frontage and direct access to reserves within Knox	Undertake hazard inspection audits on a 2 year cycle • Provide connectivity with reserve paths • Provide suitable construction to withstand use/access by maintenance vehicles
Local Access Routes	All other constructed footpaths within the Municipality.	Asphalt, Concrete or granitic material	1.4	Provides for low volume pedestrian access to predominantly residential areas.	• Undertake hazard inspection audits on a 2 year cycle • Encourage sealed or unsealed surfaces • Service low use areas with paths on either one or both sides of road

1. DDA – Disability Discrimination Act

## Appendix 4: Local Boundary Roads & Structures Maintenance Agreements with Adjoining Councils 2022

Local Roads	Boundary of Responsibility	Structure	Adjoining Council	Coordinating Authority	Responsible Authority
Police Road, Lysterfield South	Stud Road to Churchill Park Drive	Local Road	Casey City Council	Knox	Knox (Boundary – south side)
Churchill Park Drive, , Lysterfield South	Bergins Road to Municipal Boundary	Local Road	Casey City Council	Knox	Knox
Providence Place, Rowville	Bergins Road to end	Local Road	Casey City Council	Knox	Knox (Boundary – south side)
Wantirna Road, Wantirna	Maroondah – North Bridge Abutment Knox – South Bridge Abutment	Local Roads	Maroondah City Council	Knox	Knox (Boundary – South of Bridge Abutment)
Bayswater Road, Bayswater North	Maroondah – North Bridge Abutment Knox – South Bridge Abutment	Local Roads	Maroondah City Council	Knox	Knox (Boundary - South of Bridge Abutment)
Dorset Road, Dandenong North	South Wall of Underpass	Local Roads	Maroondah City Council	Knox	Knox (Boundary - South of Bridge Wall)
Colchester Road, Boronia	South wall of underpass and to extent of concrete path to the south on east side of Colchester Road	Local Roads	Maroondah City Council	Knox	Knox (Boundary - South of Bridge Wall)
Liverpool Road, Boronia	South boundary of 420 Liverpool Road, Kilsyth South	Local Roads	Maroondah City Council	Knox	Knox (Boundary - South of 420 Liverpool Road , Kilsyth South)
Bungalook Road Pedestrian Bridge	Structure	Pedestrian Bridge	Maroondah City Council	Knox	Knox
Colchester Road Underpass	Structure	Vehicle Underpass	Maroondah City Council	Maroondah	Maroondah
Marlborough Road, Pedestrian Bridge	Structure	Pedestrian Bridge	Maroondah City Council	Maroondah	Maroondah
Bungalook Road Bridge - Railway underpass	Structure	Railway underpass	Maroondah City Council	Knox	Knox
Abbey Walk Pedestrian/ Bicycle Bridge over Dandenong Creek	Abbey Walk to Dandenong Creek Trail	Pedestrian Bridge	Whitehorse City Council	Whitehorse	Whitehorse
Boronia Road Bridge	Over Dandenong Creek	Vehicle Bridge	Whitehorse City Council	VicRoads	VicRoads
Boronia Road – Bicycle Underpass	East side of Dandenong Creek	Bicycle – Pedestrian underpass	Whitehorse City Council	Knox	Knox
Burwood Highway Bridge	Over Dandenong Creek	Vehicle Bridge	Whitehorse City Council	VicRoads	VicRoads
Liverpool Road, The Basin	Mountain Highway to Maroondah Municipal Boundary	Local Roads	Yarra Ranges Shire Council	Knox/Yarra Ranges	Knox (except for vegetation area on east side, north of Pavitt Lane – Yarra Ranges)
Pavitt Lane, The Basin	Liverpool Road to Park Gate, east of Sheffield Road	Local Roads	Yarra Ranges Shire Council	Knox/Yarra Ranges	Yarra Ranges (including south side)

Simpsons Road, The Basin	Doongalla Road to Park Gate	Local Roads	Yarra Ranges Shire Council	Knox	Knox
Doongalla Road, The Basin	Sheffield Road to Park Boundary	Local Roads	Yarra Ranges Shire Council	Knox	Knox
Basin-Olinda Road, The Basin	Old Coach Road to Municipal Boundary	Local Roads	Yarra Ranges Shire Council	Knox	Knox
Ferndale Road, The Basin	Mountain Highway to Old Coach Road	Local Roads	Yarra Ranges Shire Council	Yarra Ranges	Yarra Ranges
Ferndale Road, The Basin	Old Coach Road to Basin-Olinda Road	Local Roads	Yarra Ranges Shire Council	Knox/	
Old Coach Road/ Old Bayswater Road, The Basin	Basin-Olinda Road to Park Gate (approx. 400m east off Ferndale Road)	Local Roads	Yarra Ranges Shire Council	Yarra Ranges/	Knox (including road grading only beyond Ferndale Road)
Mountain Highway (Wantirna-Sassafras Road, The Basin)	Forest Road to Municipal Boundary	Local Roads	Yarra Ranges Shire Council	VicRoads	VicRoads (roadside 1458 to municipal boundary) Knox (roadside Forest Road to No.1458)
Government Road, The Basin	Old Forest Road to Park Gate	Local Roads	Yarra Ranges Shire Council	Knox	Knox
Bayview Crescent, The Basin	Nyora Avenue to end	Local Roads	Yarra Ranges Shire Council	Knox	Knox
Nyora Avenue, The Basin	Lachlan Road to Hansen Road	Local Roads	Yarra Ranges Shire Council	Knox / Yarra Ranges	
Lachlan Road, Boronia	Burston Road to Nyora Avenue	Local Roads	Yarra Ranges Shire Council	Knox	Knox
Hansen Road, Boronia	Burston Road to Philippa Road Philippa Road to Gate	Local Roads	Yarra Ranges Shire Council	Knox / Yarra Ranges	Knox
Philippa Road, Boronia	Hansen Road to end	Local Roads	Yarra Ranges Shire Council	Knox/Yarra Ranges	Knox
Heath Avenue/ Nyora Avenue, Boronia	North of Mont Albert Road	Local Roads	Yarra Ranges Shire Council	Knox/Yarra Ranges	
Arbor Avenue, Ferntree Gully	Heath Avenue to end	Local Roads	Yarra Ranges Shire Council	Knox/Yarra Ranges	Knox
Himalaya Road/ Track, Ferntree Gully	Olive Bank Road to Perra Street	Local Roads	Yarra Ranges Shire Council	Knox	Knox
Hatherly Grove, Ferntree Gully	Kia Ora Parade to Park Boundary	Local Roads	Yarra Ranges Shire Council	Knox	Knox
Boulevard, Ferntree Gully	North of Walbundry Avenue	Local Roads	Yarra Ranges Shire Council	Yarra Ranges	
Walbundry Avenue, Ferntree Gully	Kia Ora Parade to Butlers Road	Local Roads	Yarra Ranges Shire Council	Knox	Knox
Ladys Walk, Ferntree Gully	Butlers Road to The Boulevard	Local Roads	Yarra Ranges Shire Council	Knox/Yarra Ranges	Knox
The Boulevard, Upper Ferntree Gully	Ladys Walk to Jean Street	Local Roads	Yarra Ranges Shire Council	Knox/Yarra Ranges	Knox
Jean Street, Upper Ferntree Gully	The Boulevard to Hilltop Road	Local Roads	Yarra Ranges Shire Council	Knox/Yarra Ranges	Knox



Glass Road, Upper Ferntree Gully	Hughes Road to Park Boundary	Local Roads	Yarra Ranges Shire Council	Knox	Knox
Musk Grove, Upper Ferntree Gully	Barclay Avenue to Park Boundary	Local Roads	Yarra Ranges Shire Council	Knox/Yarra Ranges	Knox
Barclay Avenue, Upper Ferntree Gully	Musk Grove to Park Boundary	Local Roads	Yarra Ranges Shire Council	Knox/Yarra Ranges	Knox
Burwood Highway, Upper Ferntree Gully	Mt Dandenong Tourist Road to Hughes Street	Local Roads	Yarra Ranges Shire Council	VicRoads	VicRoads (including roadsides)
Royal Street, Upper Ferntree Gully	Old Belgrave Road to Municipal Boundary at No. 20 Royal Street	Local Roads	Yarra Ranges Shire Council	Knox/Yarra Ranges	Knox
Old Belgrave Road, Upper Ferntree Gully	Royal Street to Wynette Avenue	Local Roads	Yarra Ranges Shire Council	Knox/Yarra Ranges	Knox
Wynette Avenue, Upper Ferntree Gully	Albert Street to Old Belgrave Road	Local Roads	Yarra Ranges Shire Council	Knox/Yarra Ranges	Knox
Forest View Lane, Upper Ferntree Gully	Albert Street to Talaskia Road	Local Roads	Yarra Ranges Shire Council	Knox/Yarra Ranges	Knox
Victoria Ridge, Upper Ferntree Gully	Grandview Crescent to Talaskia Road	Local Roads	Yarra Ranges Shire Council	Knox/Yarra Ranges	Knox
33. Fern Road, Upper Ferntree Gully	Ferndale Road to Victoria Ridge	Local Roads	Yarra Ranges Shire Council	Knox/Yarra Ranges	Yarra Ranges
Ferndale Road, Upper Ferntree Gully	Fern Road to New Road	Local Roads	Yarra Ranges Shire Council	Knox/Yarra Ranges	Yarra Ranges
New Road, Upper Ferntree Gully	Glenfern Road to Ferndale Road	Local Roads	Yarra Ranges Shire Council	Knox/Yarra Ranges	Yarra Ranges
Glenfern Road, Upper Ferntree Gully	New Road to Lysterfield Road	Local Roads	Yarra Ranges Shire Council	Knox/Yarra Ranges	Yarra Ranges
Lysterfield Road, Lysterfield	Glenfern Road to Wellington Road	Local Roads	Yarra Ranges Shire Council	VicRoads	VicRoads
Wellington Road, Lysterfield	Lysterfield Road to Powells Road	Local Roads	Yarra Ranges Shire Council	VicRoads	VicRoads
Powells Road, Lysterfield	Wellington Road to Park Boundary/Gate	Local Roads	Yarra Ranges Shire Council	Knox/Parks Vic.	Knox/Parks Vic.

For further detail signed demarcation agreements can be accessed online at the [Knox City Council Website](#)

The **relevant Council** is to be responsible for:

- Maintenance of all sealed pavements including pothole patching, crack sealing, edge repairs, regulation and minor surface patching;
- Maintenance and management of all existing signs associated with traffic control and advice for through traffic movements on the roadway, bicycle paths and shared paths including supply and installation of new or replacement signs;
- Maintenance and management of line / pavement marking associated with through traffic movements on the roadway, bicycle paths and shared paths.

The **relevant Council** is to be responsible for the following within its own municipal district:

- Vegetation Management, including tree pruning;
- Serving of statutory notices on property owners to undertake works to remove overhanging vegetation;
- Maintenance and management of all existing signs not associated with traffic control and advice for through traffic movements on the pathway, including supply and installation of new or replacement signs;
- Maintenance of all existing street furniture and supply and installation of new furniture