TMR/Local Government

Cost Sharing Arrangement

2022-27 EDITION

LGAQ

Queensland Government

Images courtesy of The State of Queensland (Department of Transport and Main Roads)

CONTENTS

Acknowledgements

Policies and practices related to cost-sharing arrangements between the Department of Transport and Main Roads (TMR) and local government have evolved over time through a long standing relationship that is based on trust and mutual understanding. In 2000, the then Department of Main Roads and the Local Government Association of Queensland (LGAQ) consolidated cost sharing policies and practices into a single, consistent, state-wide agreement. While the agreement has served TMR and local government well, in 2015, LGAQ and TMR agreed that a review was warranted.

This Cost Sharing Arrangement (CSA) is the result of a collaborative effort in undertaking a major detailed review in 2017 and a minor review in 2022-23, and has involved staff from TMR and LGAQ, along with representatives from a select group of Queensland local governments. Following broad consultation across all local governments and TMR, this CSA, which builds upon the success of the previous agreement, confirms the collaborative approach for the establishment of cost sharing arrangements.

It is important to acknowledge and thank all involved in the development of this CSA.

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2022-23 Review

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How to use this document

There are over 33,000 kilometres of state-controlled roads across Queensland and it is impossible for a State-wide arrangement to cover every single scenario. As such, this Cost Sharing Arrangement provides a framework for the determination of agreements between local governments and their respective TMR District office.

This document is comprised of two parts, as follows:

- Part 1 – Memorandum of Understanding (MOU) – establishes guiding principles for the determination of cost sharing agreements
- Part 2 – Cost Sharing Modules – contains modules that provide a starting point for sixteen (16) common activities where cost sharing agreements are typically established between TMR and local governments.

The MOU and the accompanying Modules have been designed to provide an overarching framework for the determination of cost sharing agreements at the local level. Both parts of this document are to be read together.

The guidance provided in the Modules (Part 2) serves as a starting point for negotiation and discussion between TMR Districts and local governments. The determination of agreements is to occur in accordance with the principles and the outlined processes as detailed in Part 1. Finalised agreements are to be documented, with the demarcation of responsibilities of both TMR and the relevant local government mapped so that any ambiguity is identified and resolved early.

PART 1

Memorandum of Understanding

Memorandum of Understanding for the determination of Cost-sharing Arrangements between the Department of Transport and Main Roads and Queensland's Local Governments

Preamble

Roads are critical in connecting land, transport, social, and environmental systems. While local roads are managed by local government and state-controlled roads by the Department of Transport and Main Roads (TMR), Queensland's road network must integrate seamlessly and efficiently to best serve communities and industry.

TMR and Queensland's Local Governments have a long standing history of collaboration and achievement in delivery of Queensland's road network. This Memorandum of Understanding (MOU) between TMR and the Local Government Association of Queensland (LGAQ), on behalf of Queensland local governments, supports the objectives of the:

- Queensland Government's Partners in Government Agreement, February 2023 and collaborative approach adopted through the Roads and Transport Coordination Accord.

This MOU has been developed to guide and support cost-sharing practices that relate to the construction and maintenance of works within Queensland's state-controlled road corridors.

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Director-General
Department of Transport and Main Roads

Alison Smith
Chief Executive Officer
Local Government Association of Queensland

dated: 14 February 2024

1. Introduction

Queensland is a geographically dispersed state with approximately 186,500km of public roads. Local government has control and administration over some 153,000km, with the remainder being state- controlled, the management of which is vested in TMR. The efficient and effective management of this vast network requires the cooperation and open sharing of information between TMR and local government. It is this collaborative approach that provides a safe, efficient and integrated transport network that delivers for the community – the one-network approach.

The formation of the Roads and Transport Alliance in 2002 furthered TMR and local governments' commitment to fostering collaborative management practices, a key tenet of the one-network approach. This MOU builds upon this collaborative approach to provide a framework that supports TMR and local government in engaging and reaching agreement regarding cost-sharing arrangements for works within state-controlled road corridors.

2. Purpose of the MOU

The purpose of this MOU is to:

- promote cooperation and good practice in the interaction between TMR and local governments about road related business on state-controlled roads (SCRs) and those areas immediately adjacent to and under the control of local government (including local roads)
- ensure statewide consistency and equity when entering into cost sharing arrangements
- provide a framework for resolving issues of concern
- provide guidance on how costs associated with road related activities and functions should be determined between TMR and local governments.

3. Scope of the MOU

This MOU is a policy document. It does not override any Local, State or Commonwealth legislative responsibilities, nor does it amount to an admission of responsibility or liability for any individual work undertaken on the road network. Instead, it provides guidance for continued cooperation between TMR and local government in delivering a safe, efficient and integrated transport network.

This MOU contains guidelines in regard to:

- the principles of cost sharing arrangements
- the responsibilities of both parties – Local Government and TMR
- an agreed process for issue resolution
- cost sharing modules for 16 common activities.

The scope of this MOU does not:

- apply to local government road corridors beyond their connection to the SCR network, the function of stock routes when located on a SCR, animals on roads or artesian water
- specify the standard for construction and/or maintenance
- cover non-road transport infrastructure (that is marine, busway and light-rail)
- include the determination of the works required or their cost
- compromise other arrangements between local government and TMR in the areas of:
  - other funding arrangements (ie, Principal Cycle Network Plans)
  - engineering standards (ie, Austroads guidance or TMR's *Road Planning and Design Manual*)
  - maintenance intervention levels (ie, Road Maintenance Performance Contract), or
  - relationships (ie, the Roads and Transport Alliance).

4. Principles

To ensure statewide consistency and equity, a set of overarching principles has been established to guide both parties in establishing cost sharing arrangements.

When applying the principles, both parties should be aware of the funding constraints applicable to that particular situation, ensure any agreed funding commitment reflects cost efficient delivery, and give fair consideration to its effect on competing priorities.

In striving to achieve a one-network outcome, the following four principles should be applied when establishing a cost sharing arrangement.

4.1 Collaboration

TMR and local government each have their specific responsibilities in delivering infrastructure within SCR corridors. Where these responsibilities intersect, a collaborative cost sharing approach is to be taken. Cost sharing arrangements should be based on the functionality of the corridor and the typical standard of service users should expect.

Negotiations on cost sharing should be based on developing a collaborative enduring relationship built on good faith, openness, responsiveness and communication.

4.2 Safe and integrated network

Any works must consider the operational needs of road users. It is important to ensure the road network is integrated and supports a productive economy and connected communities.

Safety is paramount. Sound traffic engineering practices should not be compromised through funding limitations. Both parties should take a one-network approach to delivering what is best for a safe transport network.

4.3 Planning

Generally, TMR and local government each take responsibility for the planning, construction, operation, maintenance and ownership of their respective projects.

Where TMR or local government works have an impact on the other party, consultation and negotiation of intended works, together with agreements on the proposed design standards, asset ownership and estimates of costs should be undertaken at the earliest opportunity. The decision making process is to recognise the rights, roles, responsibilities and standards of the other party.

4.4 Standards

The requirements of TMR's *Road Planning and Design Manual* should be achieved as a minimum standard for a SCR. Consideration should also be given to an appropriate standard of maintenance required to maximise asset life and utilisation.

If one party requires a higher standard of construction, or maintenance, the party requesting the higher standard will be required to fund the difference in costs. Otherwise, where one party performs construction, maintenance or other work which impacts on infrastructure under the control of the other party, the functionality of any elements affected shall be reinstated to at least a similar standard as existed previously.

5. Responsibilities of TMR and Local Government

Traditionally, the road corridor consists of a pavement for vehicular traffic (usually located in the centre of the corridor) flanked by nature strips, which at times may be used for pedestrian traffic, cyclists, provision of public utility services, passage of stock and ancillary works and encroachments.

TMR is responsible for planning, providing and managing Queensland's SCR network to create a single integrated transport network accessible to everyone. As steward of this network, TMR:

- manages SCRs in accordance with relevant legislation, policies, standards, codes of practice having regard to local government practice on adjacent local roads
- manages the movement of vehicular traffic in a safe and efficient manner onto, along, across and off the pavement of the SCR network
- provides and maintains the associated infrastructure appropriate to that role
- manages the provision of third party works, infrastructure and activities on the SCR corridor, including but not limited to:
    - access
    - ancillary works and encroachments
    - public utilities
    - other activities.
- works with local governments to undertake planning for both upgrades and new corridors for local and SCRs.

TMR operates within a limited budget and with competing priorities managed through the *Queensland Transport and Roads Investment Program* (QTRIP).

Local government has responsibility for a range of functions as defined under the ***Local Government Act 2009*** and other relevant legislation. Local government has responsibility to:

- govern their respective local government area in accordance with the Act
- coordinate, provide and maintain local government and community infrastructure, including road and transport infrastructure and services
- deliver community services, including non-transport related services such as water, sewerage, drainage, waste management and recreation
- Participate in planning for both upgrades and new corridors for local and SCRs.

Local governments deliver infrastructure and services to provide value for money within available budgets. At times, local governments seek to utilise the available space provided within SCR corridors to deliver their requirements in a cost effective manner.

6. Consultation and engagement

6.1 Planning

TMR and local government recognise that forward planning is an essential part of the one-network approach. This includes the future needs of the wider transportation network, such as active and public transport.

Early engagement between TMR and local government is crucial to ensure that each organisation is fully informed of the other's works program. This enables opportunities to identify and coordinate activities, consider potential impacts and costs. It is also important that responsibility for ownership and maintenance of infrastructure is agreed early in the planning phase.

6.2 Communications

Under the Memorandum of Agreement for the Roads and Transport Alliance, TMR District Directors provide their respective Regional Roads and Transport Groups with formal briefings at the commencement of each program cycle (focusing on but not limited to) TMR's investment priorities for the region. TMR Districts and local governments (within that TMR District) should adopt an appropriate process, as deemed locally acceptable, to build upon this annual briefing cycle. Such adopted processes would seek to, among other things:

- share information on each party's works program (current and future years, and spatially where available) that may have an impact on the other party's infrastructure in SCR corridors
- identify and document infrastructure (of both parties) that will be impacted by planned works
- where necessary, establish new cost sharing arrangements and monitor any existing cost sharing arrangements established by the parties.

6.3 Agreements

An essential part of preconstruction planning activities is the determination of, and agreement on, the quantum and timing of monetary contributions. Consultation between the parties on technical aspects, responsibilities, funding expectations and asset ownership need to start early in the planning phase.

The agreement on which party funds construction, who is the asset owner and who funds the maintenance and lifecycle replacement should be finalised before the project progresses to the detailed design phase. This agreement should be made in writing to prevent ambiguity later in the project.

6.4 Issue Resolution

Where the individual funding responsibilities of TMR and local government cannot be clearly defined and/or agreed, alternative arrangements should be reached through negotiation. Issues are to be dealt with in an expeditious manner in the spirit of collaboration and the principles contained in this MOU.

Issues are to be resolved at the lowest possible level in a way that promotes ongoing efficient and cooperative business relations between both parties. At each level, the issue must be resolved or passed on to the next highest level within a reasonable timeframe. Issues may only pass to the next management level during the escalation process – as per the following table.

Escalation Stage	Personnel involved		Timeframe - working days
	Department of Transport and Main Roads (TMR)	Local Government (LG)	
1	TMR Staff member	LG staff member	5
2	TMR Manager	LG Manager	10
3	TMR Regional/District Director	LG General Manager/ Director	10
4	TMR Director-General	LG CEO	30

7. Cost sharing modules for specific activities

This MOU is supported by a series of modules for cost sharing activities. These modules provide a starting point for discussions between TMR and local government. Each of the modules is intended to provide a baseline position from a policy perspective. The negotiated outcome may differ to the module provided.

8. Commencement and transitional arrangements

This MOU and its accompanying modules commence on the date of signing by both parties and replaces the previous Agreement between Local Government Association of Queensland and Department of Transport and Main Roads for Cost Sharing based on responsibilities within State controlled roads ***dated 7 March 2000.***

This arrangement does not apply:

1. Retrospectively except where provided for in this arrangement.
2. To any existing arrangement or contract agreement about the delivery of maintenance or project cost sharing agreed to prior to the commencement of this MOU unless otherwise mutually agreed by both parties.

Due to the potential impact on project costs and existing budget allocations, the following transitional arrangements apply at the date of commencement:

- There is to be no transfer of maintenance responsibility of existing 'legacy' infrastructure in accordance with this arrangement without discussion and written agreement of both parties
- In the cases of new roads and road upgrades, application of the new modules will be straight forward and should be utilised in the planning phase of each project.

9. Review

This MOU is a renewal of the 2017 agreement between LGAQ and TMR, and shall operate for a further four year period to 2027.

10. Amendments

From time to time, the cost sharing modules for the various activities may need to be updated to accommodate changes in technology, materials, planning methodology and inter-governmental relations.

Amendments may be made at any time throughout the life of this MOU. Any amendments to the MOU or to a cost sharing module/s, including the addition/deletion of modules must be authorised by the Chief Executives of TMR and LGAQ.

PART 2

Cost Sharing Modules

Overview

As noted in Part 1, the Memorandum of Understanding (MOU) is accompanied by supporting modules that outline a starting position from a policy perspective. This section, Part 2, contains modules that provide a starting point for sixteen (16) common activities where cost sharing agreements are typically established between TMR and Local Governments.

Glossary of Terms

AADT	Annual Average Daily Traffic
Access Road	A sealed pavement providing access from the SCR traffic lanes to private properties or a commercial property such as a roadside centre or service station
Austroads	The association of Australian and New Zealand road transport and traffic agencies whose purpose is to contribute to the achievement of improved road transport outcomes
Auxiliary lane	A portion of the carriageway adjoining the through traffic lanes, used for speed change or for other purposes supplementary to through traffic movement (Austroads)
Bridge	A structure designed to carry a road or path over an obstacle by spanning it (Austroads)
Bus stop	A collector point for pedestrians along a public transport route that allows for boarding and alighting, that also includes a portion of the roadway for the stopping of a bus
Carriageway	That portion of the road formation, including lanes, auxiliary lanes and shoulders that is set aside for the use of vehicles, either moving or stationary
Construction	The delivery of either new infrastructure or the rehabilitation of existing infrastructure
Clearway	A parking lane or section of carriageway that converts to a through traffic lane during peak periods
Cycle Lane	An on-road marked lane for the exclusive use of bicycles
Cycle Path	A dedicated facility for the exclusive use of cyclists that is considered off-road under the Australian road rules
Cycle track	A physically separated bicycle only facility within an urban road corridor with clear cyclist priority at intersections
Declaration	The outcome of the process for establishing what land area forms a SCR (in accordance with sections 24 and 25 of the *Transport Infrastructure Act 1994*)
Driveways	A defined area used by vehicles travelling between a public carriageway and a property adjacent or near to the road (Austroads)

Footpath	The area between the kerb and channel / table drain and the property boundary used for locating linear public utilities and pedestrian movements
Instigator	The entity that proposes or requests the works
LG	Local Government
Local Government road	See *Local Government Act 2009 (Section 59)*
Maintenance	Action necessary to maintain an asset in working order and/or to reduce its rate of deterioration
Median	The central strip of the road not intended for use by traffic which separates opposing traffic flows
MUTCD	Manual of Uniform Traffic Control Devices
Noise Barrier	A natural or artificial physical screen located between the source of the noise (road traffic) and a receptor (e.g. residence), which interrupts the path of the noise
Outer Urban Areas	Areas on the outskirts of towns and cities, typically with larger rural residential allotments
Parking area	A place set aside for the parking of vehicles (Austroads)
Pavement	That portion of a road designed for the support of, and to form the running surface for, vehicular traffic (Austroads)
Pedestrian crossing	A specially marked area giving legal rights to pedestrians crossing the road
Pedestrian refuge	A median island, or a section of median, on wide or heavily trafficked roads, provided as a staging area for pedestrians crossing the road
Property access	A sealed or unsealed (as approved by TMR) pavement providing access from the SCR traffic lanes to private properties or a commercial property such as a roadside centre or service station.
QTRIP	Queensland Transport and Roads Investment Program
Rehabilitation	All actions necessary for restoring an asset as near as practicable to its original condition
Replacement	When an asset has reached the end of its serviceable life and needs to be re-constructed
Road corridor	A major area of travel between two points. It may include more than one major route and more than one form of transport (Austroads)

Road Maintenance Performance Contract (RMPC)	A formal contract between TMR and service providers to undertake maintenance on the SCR
RPDM	TMR Road Planning and Design Manual
Rural area	Typically an area with a speed environment of 80 km/h or above
Service road	A standalone sealed/unsealed road that runs parallel to the SCR and services properties along the SCR, so that each property does not require their own individual access to the main carriageway
Shared path	A walking and cycling facility (sealed) with pedestrian priority that is considered off-road under the Australian road rules
Shoulder	The portion of formed carriageway that is adjacent to the traffic lane and flush with the surface of the pavement (Austroads)
State-controlled road (SCR)	A road or land, or part of a road or land declared under section 24 *Transport Infrastructure Act 1994*
Swale	An open vegetated drainage channel or shallow troughlike depression designed to carry, detain, partly treat and promote the filtration of stormwater run-off
Table drain	A lined or unlined drain that is located adjacent to the carriageway in cutting
TIDS	Transport Infrastructure Development Scheme
TMR	Department of Transport and Main Roads
Traffic	A generic term covering all vehicles, people and animals using a road (Austroads)
Traffic lane	Road lanes being used by through traffic. Includes general traffic lanes, bus lanes, cycle lanes, auxiliary lanes, clearways, turning lanes, overtaking lanes, and deceleration and acceleration lanes.
Urban areas	Typically an area with a speed environment of 70 km/h or below
Vehicle	Term encompassing motorised and wheeled road transport options, including cars, buses, freight vehicles, taxis, trams, bicycles, animal-drawn transport and motorised wheelchairs and bicycles. Excludes trains and other types of wheelchairs and wheeled recreational devices
Warrant	A criterion, usually numerical, used to determine whether the construction of a traffic facility or the installation of a traffic control device may be justified (Austroads)

Module 1:

Traffic Lanes

This module provides guidance as a starting point for the determination of agreements related to the management of traffic lanes. The determination of agreements is to occur in accordance with the overarching principles contained in Part 1 of this document.

1.1 Scope

This module sets out the responsibilities for the planning, design, construction, maintenance, rehabilitation and ownership of traffic lanes on the state-controlled road (SCR) corridors (including National Highways but excluding franchised roads).

The SCR corridor functions as a multi-modal transport conduit ensuring (where permitted) private vehicles, mass transit vehicles, freight vehicles, cyclists, personal mobility devices and pedestrians can move safely and efficiently between and through communities without adverse impact on local residents, businesses and other corridor users.

A traffic lane is the area of the carriageway that caters for through road traffic. Through traffic includes cars, taxis, buses, coaches, freight vehicles, motorcycles, bicycles, personal mobility devices and other road-based transport.

Some parallel parking areas along urban roads can also operate as a traffic lane catering for through movements at certain times of the day e.g. clearway.

This module should be read in conjunction with the following modules:

- Road shoulders – Module 2
- Parking – Module 3
- Cycleways – Module 4.
- Footways, Footpaths and Shared Paths – Module 5

1.2 Planning, Design, Construction and Rehabilitation

TMR as the instigator is responsible for funding the planning, design, construction, maintenance and rehabilitation of traffic lanes. Generally, TMR will construct, maintain, and rehabilitate the carriageway and depth of pavement that will service the forecast traffic volumes over the design life of the pavement.

As per the MOU, it is important that parties advise the scope of carriageway upgrade works to the other parties early in the planning phase, so that there is opportunity for parties to work together to deliver the optimum outcome.

1.3 Maintenance and Ownership

The costs of routine maintenance, including reseals, of the traffic and auxiliary lanes will be the responsibility of TMR. TMR contracts the maintenance of traffic lanes to third parties and the intervention levels for maintenance are set out in those contracts.

Areas of a carriageway within the SCR corridor that do not cater for through traffic (that is, they are used solely for parking) are not considered traffic lanes and maintenance of these areas is the responsibility of Local Government.

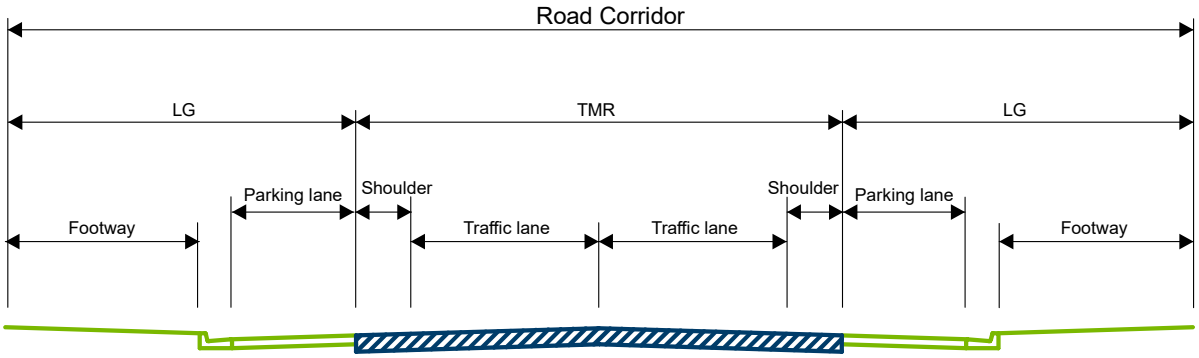
In locations where there are both through traffic lanes and areas used solely for parking, an agreement showing the limits of responsibility for maintenance (and rehabilitation) needs to be prepared so that there is no ambiguity amongst field staff from both organisations. The agreement can also be used for planning and coordinating road maintenance and repairs between both TMR and Local Government.

All carriageway pavement in the SCR corridor is owned by TMR, irrespective of whether it is a traffic lane, shoulder, cycle lane or parking area. However, the maintenance of this pavement area which is for a cycle lane and/or parking area shall be in accordance with the relevant applicable module and/or maintenance agreements endorsed by both TMR and the relevant Local Government.

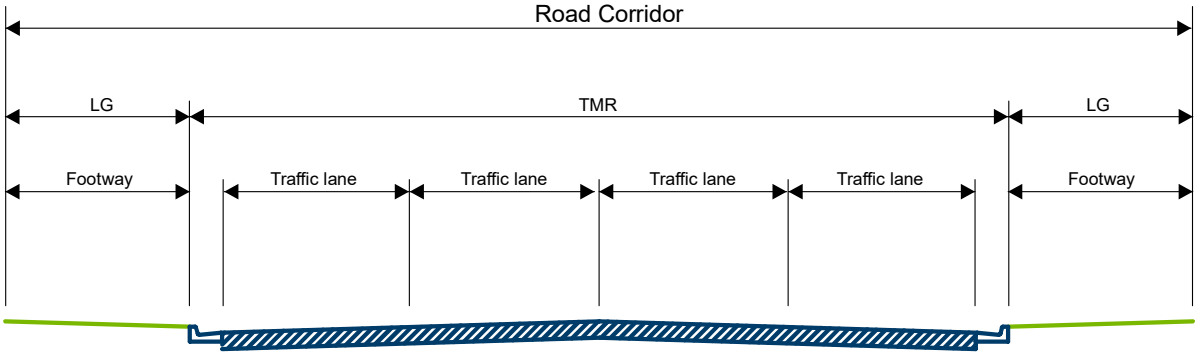
1.4 Illustrations

Examples of traffic lanes for typical carriageway configurations are shown in Figure 1.1

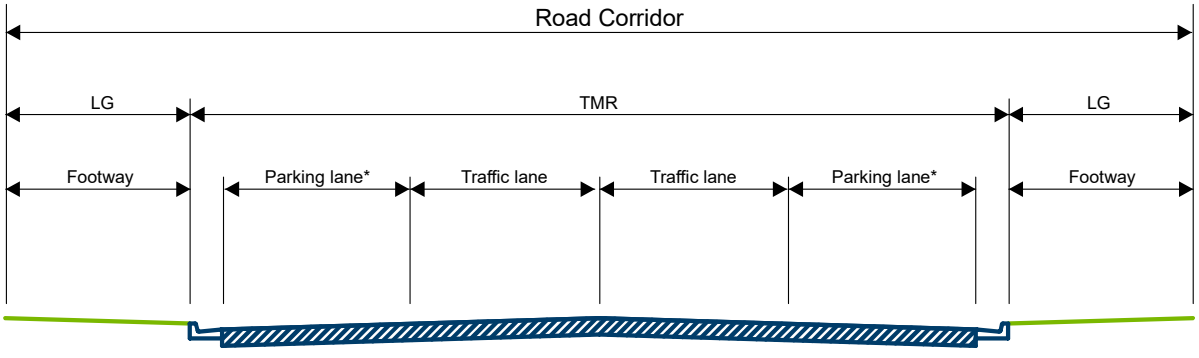
Figure 1.1: Responsibilities for Typical Carriageway Configurations



Road Corridor with Parking Lanes



Road Corridor with 4 Traffic Lanes



Road Corridor with Parking Lane / Clearway
***Parking Lane used as Clearway in peak periods**

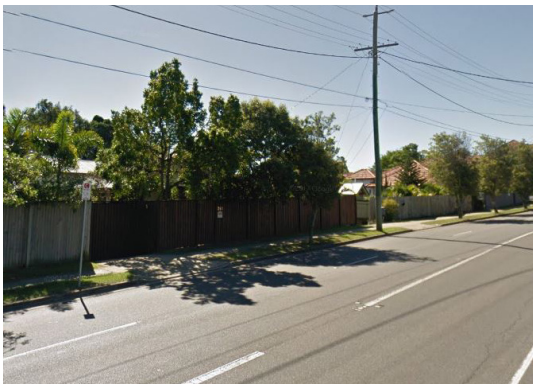
1.5 Summary of Cost Sharing Responsibilites

COST SHARING RESPONSIBILITY - TRAFFIC LANES						
Item	**Planning**	**Design**	**Funding of Construction**	**Funding of Rehabilitation**	**Funding of Maintenance**	**Ownership**
Traffic lanes	TMR with early advice to Local Government	TMR	TMR	TMR	TMR	TMR

1.6 Photo Library

Photo examples of traffic lanes – these images are indicative only.

The edge line widening at the bus stop provides demarcation of traffic lanes that are the responsibility of TMR.



Because the left hand lane is used as a clearway during peak hours, TMR is responsible for the full width of the carriageway.

This four lane urban arterial would see TMR responsible for all carriageway from channel to channel.

An example of deceleration and acceleration lanes at an intersection. TMR is responsible for the entire carriageway.

An example of auxiliary lanes at an intersection. TMR is responsible for the entire carriageway.

The edge line provides demarcation between the through traffic lane and the parking lane. Responsibilities for parking lanes are discussed in Module 3.

Module 2:

Road Shoulders

This module provides guidance as a starting point for the determination of agreements related to the management of road shoulders. The determination of agreements is to occur in accordance with the overarching principles contained in Part 1 of this document.

2.1 Scope

The road shoulder is an important component of the carriageway. Not only does a sealed shoulder provide structural protection to the pavement by providing lateral support to the pavement layers, it also reduces edge wear and moisture ingress into the pavement. It also provides safety to road users through increased separation of through and parked vehicles, wider recovery areas to reduce off-road crashes, as well as a sealed surface for cyclists and breakdowns.

This module should be read in conjunction with the following modules:

- Traffic lanes – Module 1
- Parking – Module 3
- Cycleways – Module 4.

2.2 Minimum Shoulder widths

It is acknowledged that in non-urban areas across the SCR network, there is a diversity of shoulder widths. In each situation, the width of shoulder is determined following rigorous consideration by engineers and designers.

If the Local Government requests a wider shoulder than what TMR considers necessary, there needs to be an agreement as to who funds and maintains the additional width. Hence a funding and maintenance agreement will need to be developed if the wide shoulder is to accommodate areas such as bus stops and or heavy vehicle stopping bays.

2.2.1 Mimimum sealed shoulders width for structural purposes

From a structural perspective, *Austroads Guide to Road Design (Part 3, Table 4.7)* details a minimum sealed shoulder width of 1.0 metre to ensure structural integrity of the pavement layers through lateral support and control of moisture.

2.2.2 Mimimum sealed shoulder width for traffic function

From a traffic perspective, the width of the shoulder is dependent on a number of factors including AADT, functional classification of the road speed environment, on-street parking, provision for cycles, clearance to obstacles and the need for additional width for large vehicles. *Austroads* and the *RPDM Supplement* detail the minimum widths.

2.3 Planning, Design, Construction and Rehabilitation

TMR is responsible for the planning, design, construction and rehabilitation of shoulders along SCRs.

Where a Local Government requires a wider shoulder than proposed, Local Government is to contribute to the additional costs of extending the carriageway. The cost of the shoulder pavement rehabilitation is to follow the same lines of demarcation as agreed between TMR and Local Government for maintenance.

2.4 Maintenance and Ownership

TMR is responsible for the costs of routine maintenance including reseals of all SCR sealed road shoulders.

TMR will be responsible for funding the costs of routine maintenance and rehabilitation of shoulders with Local Government responsible for funding the costs of maintenance and rehabilitation for those areas of carriageway that are outside the traffic lane/s, shoulder and cycle lane/s (where present).

In urban and outer urban areas with existing wide carriageways, some shoulders are wider than the minimum widths set out in relevant guidelines. Agreement needs to be reached between TMR and Local Government on the limits of the shoulder and how maintenance costs are shared. As a general guide, if the area is wide enough to provide parking for the neighbouring properties, or is used for bus stops, the responsibility will lie with the Local Government, while if there is insufficient room for parking, TMR will be responsible. In these situations, an agreement should be prepared showing the limits of each organisation's responsibility to ensure field staff understand the demarcation. All carriageway in the SCR corridor is owned by TMR, irrespective of whether it is a traffic lane or shoulder.

2.5 Illustrations

Examples of road shoulders for typical carriageway configurations are shown in Figure 1.1 and Figure 3.1.

2.6 Summary of Cost Sharing Responsibilities

COST SHARING RESPONSIBILITY - SHOULDERS						
Item	**Planning**	**Design**	**Funding of Construction**	**Funding of Rehabilitation**	**Funding of Maintenance**	**Ownership**
Shoulder on SCR	TMR with early advice to Local Government	TMR	TMR	TMR	TMR	TMR

2.7 Photos

Photo examples of traffic lanes – these images are indicative only.

As shown in this photo, TMR is responsible for the traffic and shoulder. Local Government is responsible for the parking area.

TMR has provided a shoulder that is appropriate to the road use.

Module 3:

Parking

This module provides guidance as a starting point for the determination of agreements related to the management of parking. The determination of agreements is to occur in accordance with the overarching principles contained in Part 1 of this document.

3.1 Scope

TMR may allow for parking at appropriate locations along SCRs. In urban areas, carriageways typically consist of:

- Traffic lanes including bus stops, clearways, and so on – Module 1
- Shoulders – Module 2
- Cycleways – Module 4
- Other areas of carriageway that do not fulfil the function of through traffic lane or shoulder/cycle lane.

These 'other areas' are often used as parking areas and serve no purpose other than providing parking for residential and commercial properties fronting the SCR corridor. Parking includes line marked or informal, parallel angled or median bays, or standing areas for multi-combination vehicles including heavy, freight and car/caravan combinations.

As discussed in Module 1, parallel parking along urban arterials can sometimes operate as a clearway during peak periods. In these cases where the parking lane caters for through movements, albeit on a part-time basis, these lanes are considered to be traffic lanes and do not apply to this module.

Consequently, this module applies only to those 'other areas' of carriageway which are in addition to traffic lanes and shoulders/cycle lanes, and are used for parking purposes and other kerb-side uses including loading zones, taxi zones, disabled parking bays, ride share, electric charging stations, bike hire, etc.

It should be noted that the traffic lane definition includes bus stops (including indented bus bays) and as such are also excluded from this module.

3.2 Planning, Design, Construction and Rehabilitation

TMR is responsible for the planning, design, construction and rehabilitation of traffic lanes. For new SCR carriageways, TMR will fund the construction of the carriageway that is capable of taking both the existing traffic demand and that into the future.

- Where there is no future demand for additional traffic lanes, it is TMR's prerogative as to whether it will construct the carriageway wider than that required for the traffic lanes (plus shoulders/cycles lanes).
- Where TMR determines there is no traffic requirement for additional width of the carriageway but Local Government would like to retrofit a parking lane, Local Government is to contribute the added cost of constructing the additional carriageway width. Should this require a realignment of kerb and channel, alterations to public utilities and/or resumptions, Local Government will be responsible for these additional costs.
- Where the project involves the major upgrade or rehabilitation of an existing SCR carriageway and includes areas where parking is currently permitted, TMR is to contact Local Government at the inception of the project to determine the ongoing need for the parking. If deemed necessary by Local Government, TMR will enter into a cost sharing arrangement for the capital works so that the construction/rehabilitation of the entire carriageway can be undertaken at one time and in doing so, realise efficiencies for both organisations.
- The cost of pavement rehabilitation follows the same lines of demarcation with TMR funding rehabilitation of traffic lanes and shoulders/cycle lanes, and Local Government funding the cost of pavement rehabilitation in those 'other areas' of carriageway.

3.3 Maintenance and Ownership

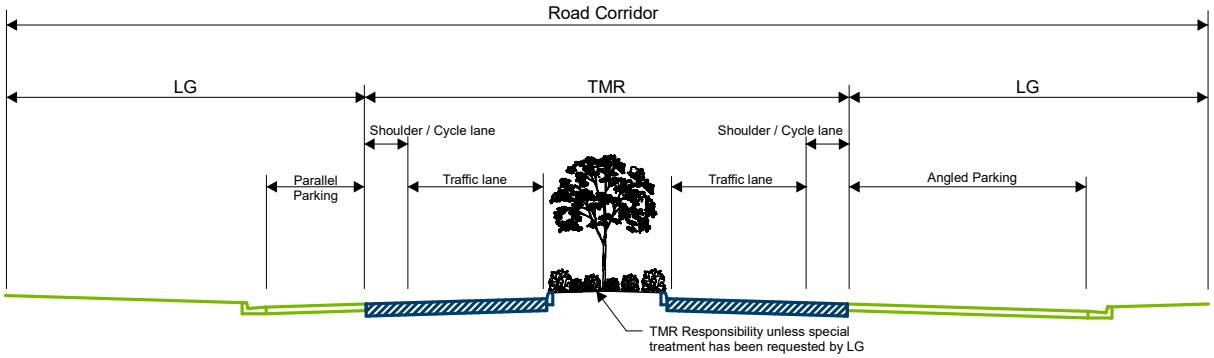
The maintenance funding for 'other areas' of carriageway typically being used solely for parking areas is the responsibility of Local Government.

This includes both routine maintenance and reseals of the pavement. An agreement should be prepared showing the limits of each organisation's responsibility. Irrespective of whether Local Government contributes to the costs of construction, maintenance or rehabilitation, the entire carriageway within the SCR is owned by TMR. Local Government owns parking meter equipment including meters, sensors and regulatory signage.

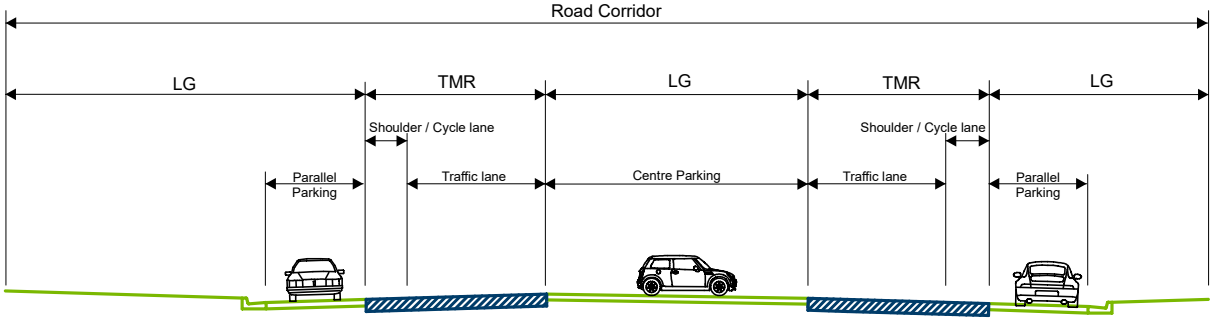
3.4 Illustrations

Examples of parking areas for typical carriageway configurations are shown in Figure 3.1.

Figure 3.1: Responsibilities for Typical Carriageway Parking Configurations



Typical Carriageway Parking Configurations
Example 1



Typical Carriageway Parking Configurations
Example 2

3.5 Summary of Cost Sharing Responsibilities

COST SHARING RESPONSIBILITY - PARKING						
Item	**Planning**	**Design**	**Funding of Construction**	**Funding of Rehabilitation**	**Funding of Maintenance**	**Ownership**
Parts of the carriageway other than traffic lanes,shoulders/ cycle lanes that is typically used solely for parking	Joint	Joint	Local Government funds the construction of that area of carriageway that is not a traffic lane or associated shoulder/cycle lane.	Local Government funds the rehabilitation of that area of carriageway that is not a traffic lane or associated shoulder/cycle lane.	Local Government funds the maintenance of that area of carriageway that is not a traffic lane or associated shoulder/cycle lane.	TMR with the exception of parking meter equipment, in-ground sensors and signs.

3.6 Photo Library

Photo examples of parking – these images are indicative only.

Local Government is responsible for the carriageway outside the shoulder or cycle lane where the angled parking is provided.

Given this road has a cycle lane and centre parking, TMR is responsible for the traffic lanes and cycle lane with Local Government responsible for that part of the carriageway being used for parallel and centre parking.

Local Government is responsible for this vast area of carriageway from the outer edge of the cycle lane to the channel.

The photo illustrates the limits of asphalt overlay for the shoulder/cycle lane and the demarcation of TMR and Local Government responsibilities.

Given the minimum widths of shoulder or cycle lane, Local Government is responsible for parking lane from the outer edge of the shoulder/cycle lane to the channel. To avoid the inefficiencies of both TMR and Local Government undertaking rehabilitation or reseals, a cost sharing agreement should be negotiated so the entire carriageway works can be undertaken at the same time.

Local Government is responsible for the area of carriageway from the outer edge of the shoulder/cycle lane and the channel.

TMR responsible for shoulder, LG responsible for residual area to kerb.

LG responsible for parking area including area in front of access unless covered in a separate agreement

Module 4:

Cycleways

This module provides guidance as a starting point for the determination of agreements related to the management of cycleways and their associated infrastructure. The determination of agreements is to occur in accordance with the overarching principles contained in Part 1 of this document.

4.1 Scope

Both Local Government and TMR have responsibilities to provide infrastructure that provides a safe environment for cyclists. This cycle infrastructure caters for a range of users including the recreational and commuter cyclist and can be either on-road cycle lanes, cycle tracks, off-road shared paths or off-road cycle paths. Due to the wide range of cycle infrastructure types, there will be anomalies to the scenarios outlined in this module that will need to be negotiated.

This module needs to be read in conjunction with the following modules:

- Traffic lanes – Module 1
- Shoulders – Module 2
- Parking – Module 3
- Footways, Footpaths, and Shared Pathways – Module 5.

4.2 Planning, Design, Construction and Replacement

The construction standard for all cycle paths should comply with the *Austroads Guide to Road Design – Part 6A Pedestrian and Cyclist Paths, and Part 3 Geometric Design Section 4.8 – Cycle Lanes*. TMR's suite of cycling design manuals and guidelines should also be taken into consideration.

If funded through TMR's Active Transport Investment Program (including grant funding provided to Local Governments through the Cycle Network Local Government Grants program), facilities must comply with the Technical requirements—Active Transport Investment Program. Grant funding is provided on the basis Local Governments will be responsible for maintaining the facility.

Responsibilities for funding the construction of cycleways is generally the instigator – refer to Section 4.5. This includes all features associated with the cycle path, such as culverts over watercourses, line markings and signs.

It is essential that both Local Government and TMR plan cycle facilities using an integrated one-network approach, so that infrastructure is not duplicated.

The cost to maintain, rehabilitate and replace an off-road cycle path is the responsibility of the instigator. If constructed through a funding grant, the provider of the grant is not the instigator.

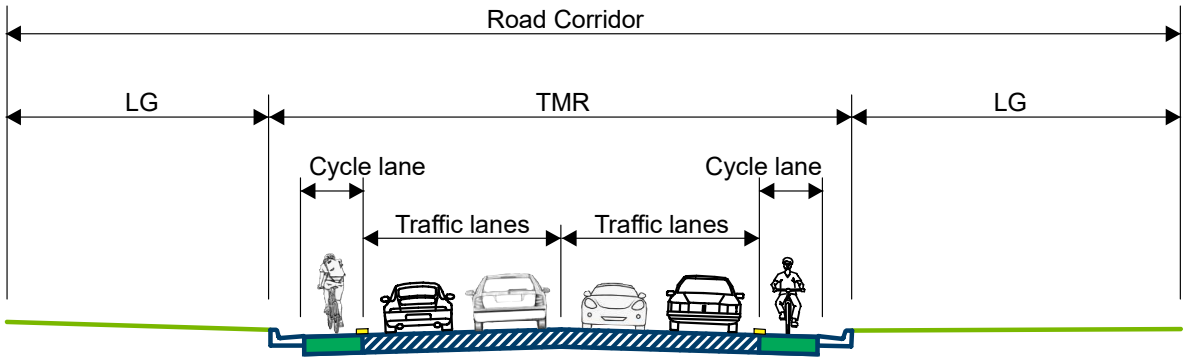
4.3 Maintenance and Ownership

Responsibilities for funding the maintenance of all cycle facilities and ownership are shown in Section 4.5.

4.4 Illustrations

Examples of cycle lanes for typical carriageway configurations are shown in Figure 4.1. In addition, Figure 1.1 and Figure 3.1 show the on-road cycle lane and shoulder as interchangeable and that where cycle lanes are provided, the limit of TMR responsibility is the width of the cycle lane rather than the shoulder. Figure 5.1 shows an off-road cycle path located in the footway.

Figure 4.1: Typical Configuration of Cycle Lanes on Carriageway



Typical Configuration of Cycle Lanes on Carriageway

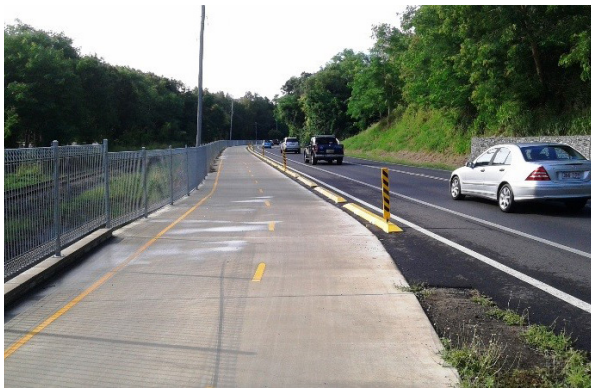
4.5 Summary of Cost Sharing Responsibilities

COST SHARING RESPONSIBILITY - CYCLE FACILITIES						
Item	**Planning**	**Design**	**Funding of Construction**	**Funding of Replacement**	**Funding of Maintenance**	**Ownership**
Cycle lane or cycle track on SCR carriageway (TMR is the instigator)	TMR	TMR	TMR as part of road upgrade Usually located on the sealed shoulder.	TMR	TMR	TMR with the exception of cycle equipment installed by LG
Off-road cycle path within SCR corridor (TMR is the instigator)	TMR	TMR	TMR	TMR	TMR	TMR
Alternative route along LG road or Crown Land (TMR is project instigator)	Joint	TMR (approved by LG)	TMR	By negotiation (and formal agreement)	By negotiation (and formal agreement)	By negotiation (and formal agreement)
Off-road cycle path within SCR corridor (LG is the project instigator)	Joint	LG and approved by TMR	LG	LG (Designed approved by TMR)	LG	By formal agreement: LG – cycle pavement and cycle equipment TMR - land

4.6 Photo Library

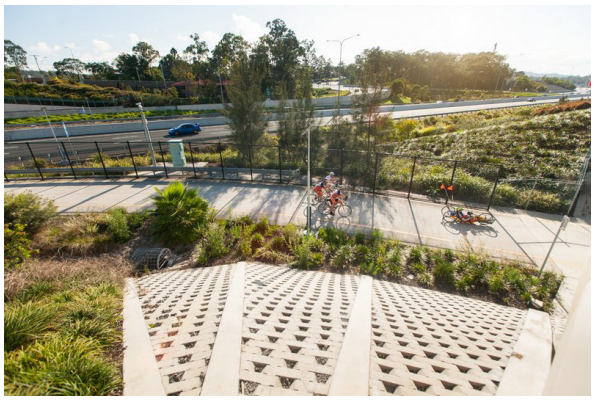
Photo examples of cycle lanes and cycle paths – these images are indicative only.

TMR is responsible for the cycle lane and traffic lane. Local Government is responsible for the carriageway where centre parking and parallel parking is provided (SCR).



An example of an off road cycle track where LG project instigator, LG responsible for maintenance.

TMR is responsible for the entire carriageway through the intersection (SCR).



TMR is responsible for dedicated cycle paths within the SCR that have been instigated by TMR as part of an upgrade.

TMR is responsible for the on-road cycle lane.

Local Government is responsible for maintenance and rehabilitation of the footpath along the SCR corridor.

Module 5:

Footways, Footpaths and Shared Paths

This module provides guidance as a starting point for the determination of agreements related to the management of footways, footpaths and shared paths. The determination of agreements is to occur in accordance with the overarching principles contained in Part 1 of this document.

5.1 Scope

This module establishes a negotiation starting point for activities associated with footways, footpaths and shared paths within the SCR corridor (but excluding franchised Motorways). It focuses on the safe off-road movement of pedestrians, cyclists and motorised mobility devices linearly along the SCR corridor.

The typical demarcation of responsibilities for footways and footpaths/shared paths along SCRs are as follows:

A. Where the carriageway includes kerb and channel in urban areas, Local Government has responsibility for the footway from the back of kerb to the property boundary, irrespective of whether there is a footpath or not. This includes Local Government being responsible for pedestrian ramps at road crossings.

B. Where there is a footpath/shared path but no kerb and channel, Local Government has responsibility for the footway from outer edge of the table drain to the property boundary.

C. In rural areas where there is no requirement for the provision of pedestrian facilities, TMR is responsible for the entire SCR area.

This module should be read in conjunction with the following modules:

- Cycleways – Module 4
- Surface Drainage – Module 6.

5.2 Planning, Design, Construction and Replacement

Rural Areas: Where there is light pedestrian traffic, TMR is usually responsible for management of vegetation along an unformed footway with no kerb and channel. Typically, this type of footway caters for the limited demand by residents living along the SCR and persons (including children) riding horses.

Outer Urban Areas: Local Government has a responsibility for imposing footway regulation and vegetation clearing along the frontage of any new subdivision or development fronting the SCR as a condition of the Development Application approval. Where it is apparent the cumulative pedestrian traffic from all subdivisions and developments along the SCR will be significant, the conditions of development should include a footpath strip in addition to formation correction of the footway.

A problem or difficulty can arise in developing outer urban areas where subdivisions are conditioned to provide footpath strips but subsequent developments are not constructed contiguous to one another. This creates a real safety issue for new residents and cooperation needs to occur between Local Government and TMR as to how to provide an interim linear footway around those adjacent parcels of land that are still to be developed/subdivided.

Urban Areas: Local Government may request special footpath treatments. It is important that the ongoing maintenance of these special treatments be discussed and agreed in the early stages of planning for the project. Should the construction costs be more than what TMR would normally pay for concrete or asphalt footpaths/shared paths, then Local Government is to meet the additional cost of construction.

The provision of refuges and barriers for crossing of the carriageway is the responsibility of TMR where the demand from pedestrians wanting to cross the SCR at a specific location is justified. For all other instances and particularly in the case of a new cycle path/pedestrian link initiated by Local Government, the construction costs are to be met by Local Government.

Where there is a high risk of conflict between pedestrians (particularly school children) and motor vehicles, TMR is to consider safety measures such as speed limit review, fences and barriers.

5.3 Maintenance and Ownership

Section 5.5 outlines the respective cost sharing arrangements for the maintenance of footways, footpaths and shared paths.

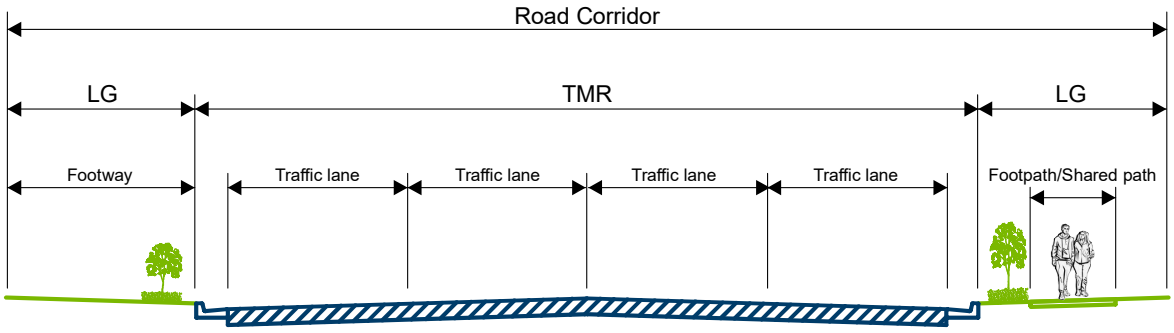
The instigator of the infrastructure, whether that be TMR or Local Government, has the responsibility to replace footpaths and shared paths when the asset reaches the end of its serviceable life.

As with cycleways, Local Governments own the footpath pavement and any associated features, including any street trees or landscaping requested/instigated by Local Government at any stage, while TMR owns the land.

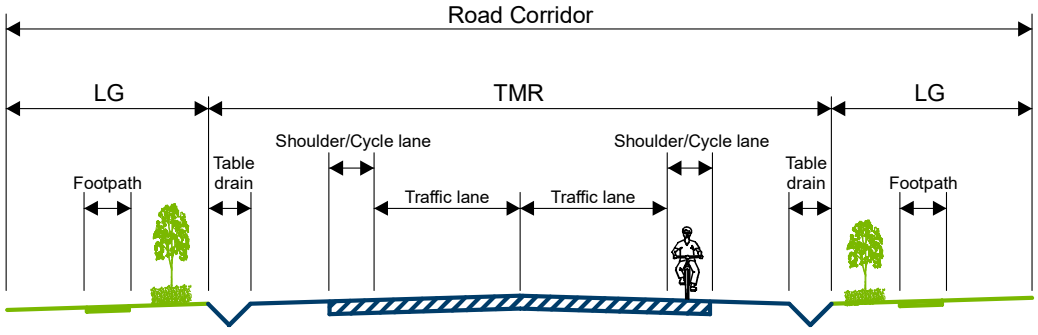
5.4 Illustrations

Examples of footways and footpaths showing the various responsibilities are shown in Figure 5.1 and Figures 1.1 and 3.1.

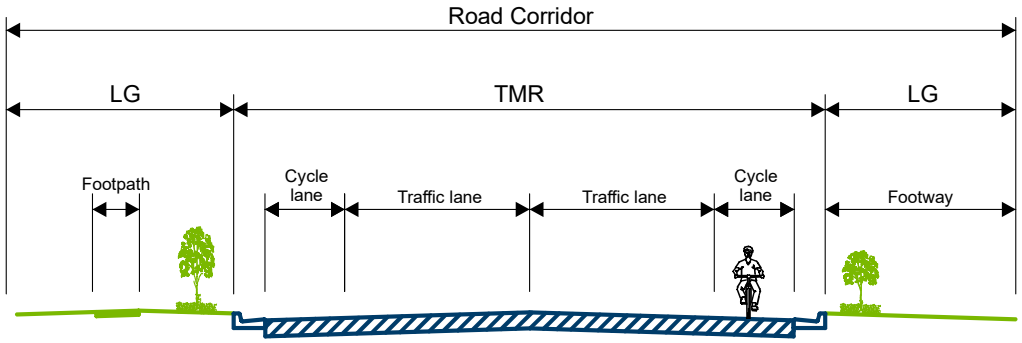
Figure 5.1: Typical Demarcations for Footways and Footpaths



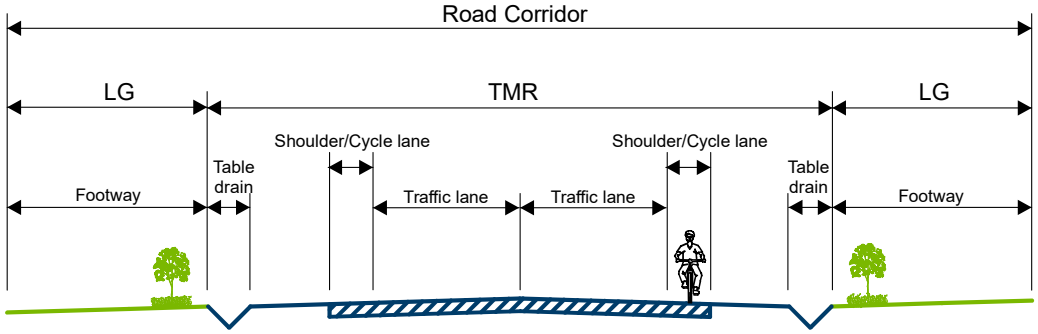
Footways / Footpaths Responsibilities
Example 1



Footways / Footpaths Responsibilities
Example 2



Footways / Footpaths Responsibilities
Example 3



Footways / Footpaths Responsibilities
Example 4

5.5 Summary of Cost Sharing Responsibilities

COST SHARING RESPONSIBILITY - FOOTWAYS, FOOTPATHS AND SHARED PATHWAYS						
Item	**Planning**	**Design**	**Funding of Construction**	**Funding of Replacement**	**Funding of Maintenance**	**Ownership**
Footpath/shared path with kerb and channel	Instigator of project based on consultation with other party	Instigator of project based on consultation with other party	Instigator of project based on consultation with other party	Instigator	LG	LG – paved surface and associated features TMR – land within SCR
Footpath/shared path with no kerb and channel	Instigator of project based on consultation with other party	Instigator of project based on consultation with other party	Instigator of project based on consultation with other party	Instigator	LG	LG – paved surface and associated features TMR – land within SCR
Grassed footway with kerb and channel	N/A	N/A	N/A	N/A	LG	TMR
Grassed footway with table drain	N/A	N/A	N/A	N/A	LG	TMR

5.6 Photos

Photo examples of footways, footpaths and shared pathways – these images are indicative only

Local Government is responsible for the footpath from the back of the kerb and channel.

TMR is responsible from the carriageway to the back of the table drain. Local Government is responsible for the footpath from the back of kerb to the property alignment, including the footpath bridge structure.

Local Government is responsible for the area (including footpath) from the back of kerb to the property alignment.

Local Government is responsible for the full width footpath through the town centre.

Local Government is responsible for the area (including shared path) from the back of kerb to the property.

Module 6:

Surface Drainage (Kerb and Channel/Table Drains)

This module provides guidance as a starting point for the determination of agreements related to the management of surface drainage (kerb and channel/table drains). The determination of agreements is to occur in accordance with the overarching principles contained in Part 1 of this document.

6.1 Scope

This module sets out the responsibilities for kerb and channel and table drains within the SCR corridor. Both provide important surface drainage of the carriageway preventing:

- Ponding of water on the surface of the carriageway;
- Moisture ingress into the pavement, by eliminating ponding and in the case of table drains, lowering of the water table.

Kerb and channel and table drains may also drain private property and as such are part of the urban stormwater network.

In some locations where there is no underground longitudinal stormwater drainage, a grassed or concrete/rock lined table drain runs along the road, providing substantially more stormwater capacity than kerb and channel.

Both kerb and channel and table drains are linear and provide longitudinal drainage parallel to the carriageway. In most cases, this longitudinal drainage will discharge into a stormwater gully or road culvert which can be part of either a larger underground stormwater network or an independent stormwater drainage system.

In some urban locations with wider carriageways and/or unsealed shoulders, the kerb and channel is separated some distance from the line of demarcation previously established in Modules 1, 2 and 3, that being the outer edge of traffic lane plus shoulder/cycle lane. In these locations where the kerb and channel borders these 'other' areas (sealed or unsealed), the demarcation of responsibilities will need to be agreed between TMR and Local Government and a plan developed indicating responsibilities for ease of interpretation by field staff. As per Module 2 (Road Shoulders), if the area is wide enough for parking, the responsibility lies with the Local Government, while if there is insufficient room for parking, TMR is responsible.

Both kerb and channel and table drains can contribute to issues with property owners gaining access to their properties. There are a variety of means to reduce grade conflicts and to bridge deep drains. These structures include channel infills, slabs and pipe crossings.

Surface drainage also includes standalone underground drainage such as road culverts and gullies, access pits, inlets and outlets associated with intersection drainage.

There has in recent years been an increase in the number of swales, bunds, levees, and retaining walls in low-lying areas to protect either residential properties or SCR infrastructure. There needs to be close cooperation between Local Government and TMR during the planning phase of new road upgrades, or alternatively the assessment of Development Applications, to ensure both Local Government and TMR agree on the ongoing maintenance and replacement of these infrastructures.

This module should be read in conjunction with the following modules:

- Stormwater Drainage Networks – Module 7
- Parking – Module 3.

6.2 Planning, Design, Construction and Replacement

It is difficult for these guidelines to address the funding arrangements for every situation across Queensland. The funding arrangement will be dependent on the function of the stormwater asset. The following examples illustrate the general approach that should be adopted in these negotiations.

Where there is existing kerb and channel, the responsibility for planning, design and construction of the replacement infrastructure lies with the instigator. This approach applies, even when both parties benefit from the kerb and channel – except for non-traffic lanes used for parking – refer to Module 3. For example with a major road upgrade

requiring the existing kerb and channel to be replaced, responsibility would lie with TMR. Alternatively, a footpath upgrade requiring replacement of the existing kerb and channel would see Local Government responsible.

For road upgrades where there is no existing kerb and channel, TMR is responsible for planning, design, and construction of surface drainage. Typically runoff from the SCR corridor would drain to kerb and channel in urban areas and table drains in outer urban and rural areas.

In locations where it is agreed the kerb and channel is mostly for surface drainage of the SCR corridor and the asset has reached its serviceable life, TMR is responsible for funding its replacement.

In locations where the kerb and channel is some distance from the outer edge of the shoulder/cycle lane and/or primarily for the drainage of private properties, Local Government is responsible for its replacement.

In locations where the upgrade of the SCR carriageway impacts on existing structures located in the kerb and channel or table drain (e.g. pipe crossings) to assist property owners gain access to their property, TMR is responsible for replacement of these at the time of upgrade.

For SCR carriageways not undergoing upgrade, the property owner is responsible for obtaining approval from TMR and for funding the construction/replacement of any structure necessary for access to a private property.

6.3 Maintenance and Ownership

TMR is responsible for the maintenance of:

- Kerb and channel outside urban areas. For urban areas, TMR is responsible for kerb and channel adjacent to traffic lanes (where there is no provision for parking). Where this is impractical due to responsibility changing frequently along a single stretch of road, a simplified agreement can be negotiated between TMR and LG to manage such as proportional percentage arrangement;
- Table drains;
- Minor gullies, access pits, inlets, outlets associated with independent drainage of an intersection; and
- Independent pipe culvert crossing under the SCR carriageway.

Local Government is responsible for the maintenance of:

- Kerb and channel adjacent to lane used solely for parking;
- Kerb and channel damaged by landscaping that has been undertaken through a Local Government beautification program (for example, damage caused by tree growth and roots);
- Kerb and channel where it is some distance from the outer edge of the shoulder/cycle lane and/or its primary function is to drain private properties; and
- Integrated underground stormwater drainage networks.

Private property owners are responsible for the maintenance of:

- Pipe crossings, infill and slabs under driveways to private property.

Where there is kerb and channel adjacent to clearway traffic lanes or as a result of development (post this arrangement) the maintenance costs shall be shared 50/50 between TMR and Local Government.

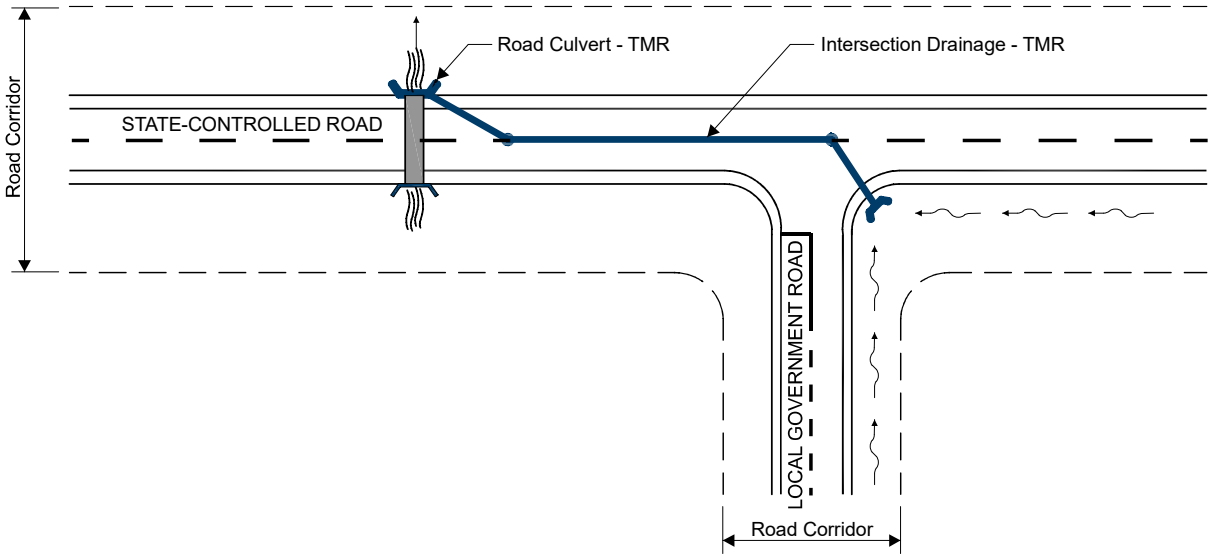
Maintenance includes sweeping of kerb and channel, cleaning of gully pits, grading of table drains and cleaning of underground drainage.

In regard to bunds/levees/retaining walls in low-lying areas where these measures protect private property from inundation or alternatively the carriageway, the maintenance of these areas is subject to negotiation between TMR and Local Government.

TMR owns kerb and channel, table drains and any independent localised drainage system draining the SCR corridor from surface stormwater.

6.4 Illustrations

Figure 6.1: TMR's Responsibility for Road Culvert and Intersection Drainage



6.5 Summary of Cost Sharing Responsibilities

COST SHARING RESPONSIBILITY - CARRIAGEWAY DRAINAGE						
Item	**Planning**	**Design**	**Funding of Construction**	**Funding of Replacement**	**Funding of Maintenance**	**Ownership**
Outside Urban Areas						
Kerb and channel and table drains draining the SCR carriageway – All elements	TMR or LG – depends on the instigator of the project.	TMR or LG – depends on the instigator of the project.	TMR	TMR	TMR	TMR
Urban Areas						
Kerb and channel adjacent to lane used solely for parking	TMR or LG – depends on the instigator of the project.	TMR or LG – depends on the instigator of the project.	TMR or LG – depends on the instigator of the project.	LG	LG	TMR
Kerb and channel adjacent to traffic lanes (no provision for parking)	TMR	TMR	TMR	TMR	TMR	TMR
Kerb and channel adjacent to clearway traffic lanes	TMR	TMR	TMR	TMR	50% TMR / 50% LG (where a trafficable lane is used for parking and is sign-posted as a clear way during peak traffic periods)	TMR
Kerb and channel adjacent to traffic lanes (as a result of development constructed post this cost sharing arrangement)	TMR	TMR	TMR	TMR	50% TMR / 50% LG (where an upgrade to a SCR occurs as a result of development approved by LG)	TMR

6.6 Photo Library

Photo examples of surface drainage – these images are indicative only.

TMR is responsible for maintenance of the rock lined/ concrete lined table drain.

Given there is room for parking next to the kerb and channel, Local Government is responsible for the replacement of the kerb and channel at the end of its serviceable life.

TMR is responsible for the stand-alone sub-surface drainage (gullies, access pits, inlets, outlets) of an intersection on the SCR where the sub-surface stormwater drainage is not connected to Local Government's stormwater drainage network.

Again, given there is room for parking next to the kerb and channel, Local Government is responsible for the replacement of the asset at the end of its serviceable life.

TMR is responsible for road culverts on SCR carriageways.

As there is insufficient space to park next to the kerb and channel, TMR is responsible for replacement of the kerb and channel at the end of its serviceable life.

Module 7:

Stormwater Drainage Networks

This module provides guidance as a starting point for the determination of agreements related to the management of stormwater drainage networks.The determination of agreements is to occur in accordance with the overarching principles contained in Part 1 of this document.

7.1 Scope

This module sets out the responsibilities for sub-surface stormwater drainage within the SCR corridor. Sub-surface drainage includes:

- Integrated underground stormwater drainage networks;
- Independent underground stormwater drainage (i.e. a standalone intersection drainage not connected to a drainage network but still containing gully pits, stormwater access pits, pipework, inlet and outlet); and
- Pipe and box culverts (i.e. cross-road structures transferring stormwater runoff from one side of the carriageway to the opposite side).

Generally, TMR is responsible for surface drainage and any independent stand-alone stormwater drainage system in the SCR corridor. Local Government is responsible for the management of the urban stormwater drainage network, including the integrated sub-surface stormwater drainage systems. These can be either longitudinal stormwater drains along the SCR corridor or a transverse crossing of the SCR corridor by the stormwater drainage network.

As a condition of the Development Application approval, it is normally a requirement that the development provides no net worsening of flood levels up and downstream. Consequentially, the collection and treatment of stormwater run-off from upstream properties is important to TMR to enable it to manage stormwater drainage in the SCR corridor. To avoid such circumstances, TMR relies on Development Approvals to condition the instigator of the development.

Likewise, TMR has a responsibility when upgrading a SCR to ensure no net worsening of impacts on upstream and downstream properties.

The Lawful Point of Discharge is sometimes a contentious issue and any increased discharge onto or from the SCR corridor also needs to be agreed early in the planning phase between Local Government and TMR.

Stormwater infrastructure in the SCR corridor is classed as an Ancillary Works and Encroachment (AWE). As such, the construction, maintenance, operation and relocation of stormwater infrastructure is regulated by Division 2 of the *Transport Infrastructure Act 1994*. Consequently, when a Local Government would like to install stormwater drainage in a SCR corridor, it must obtain approval from TMR.

This module should be read in conjunction with the following module:

- Surface Drainage – Module 6.

7.2 Planning, Design, Construction and Rehabilitation

TMR is responsible for funding the construction of:

- stand alone stormwater drainage infrastructure that drains the SCR corridor. This includes TMR constructing table drains and kerb and channel, intersection stormwater drainage, cross-road drainage structures; and
- any extension to a Local Government stormwater drainage network necessary to drain the SCR corridor.

Where a SCR upgrade requires alterations to existing Local Government stormwater infrastructure, TMR is to fund the full cost of replacement.

Local Government is responsible for funding the construction of sub-surface stormwater drainage networks. This includes the construction of relief drainage when capacity of the existing sub-surface stormwater network is exceeded.

Where Local Government needs to replace an ageing stormwater infrastructure or provide relief drainage through the SCR corridor, Local Government is to fund the full cost of the replacement/relief drainage.

7.3 Maintenance and Ownership

Where instigated by TMR, the department is responsible for the maintenance of:

- SCR corridor drainage including kerb and channel (unless on a parking lane used solely for parking), table drains, swales, open drains;
- Independent intersection stormwater drainage including gullies, access pits, minor pipework, inlets, outlets; and
- Independent cross-road structures including road culverts and bridges.

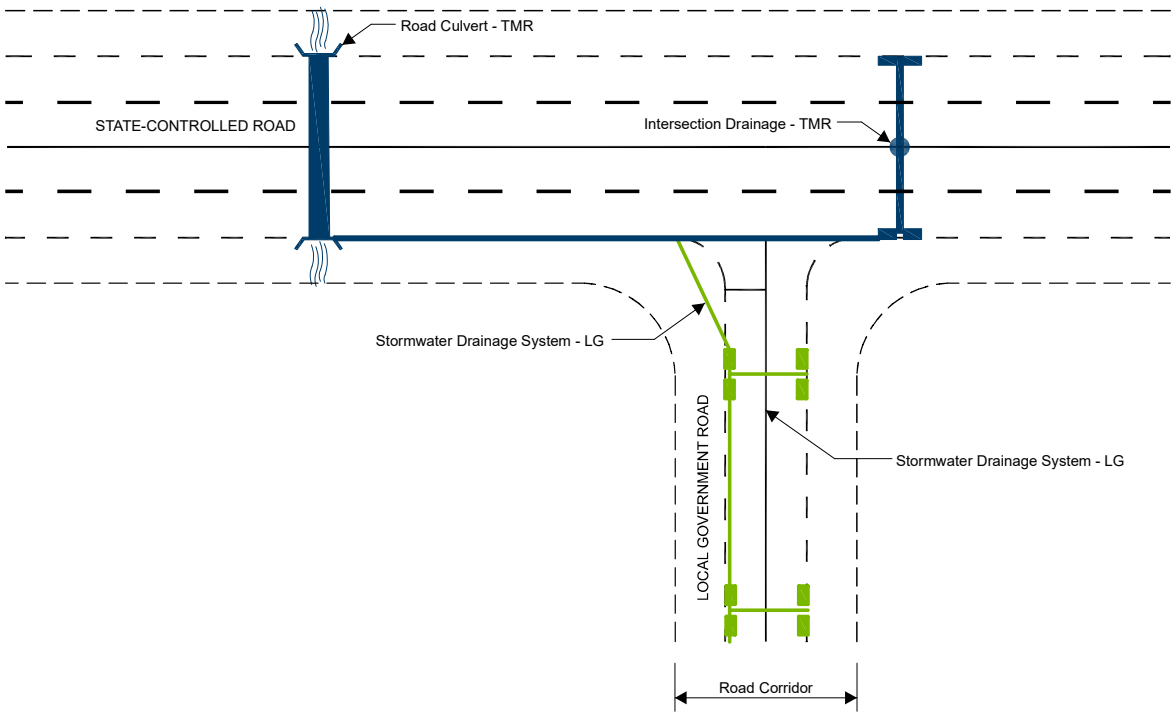
Local Government is responsible for the maintenance of:

- Integrated sub-surface stormwater networks infrastructure including gullies, access pits, pipework, inlets, outlets, gross pollutant traps, etc
- Kerb and channel where there is provision solely for parking.

Ownership of stormwater drainage infrastructure is as per the maintenance responsibilities.

7.4 Illustrations

Figure 7.1: Responsibilities when SCR Corridor Drainage Connects to a LG Stormwater Network.



7.5 Summary of Cost Sharing Responsibilities

COST SHARING RESPONSIBILITY - STORMWATER DRAINAGE NETWORKS						
Item	**Planning**	**Design**	**Funding of Construction**	**Funding of Rehabilitation and Replacement**	**Funding of Maintenance**	**Ownership**
TMR upgrade of SCR requiring new or upgraded stand-alone stormwater system to drain SCR corridor	TMR	TMR	TMR	TMR	TMR	TMR
LG upgrade or new integrated stormwater drainage network within SCR corridor. Includes relief drainage and replacement of aging infrastructure	TMR/LG	LG and approved by TMR	LG	LG	LG	LG
TMR upgrade of SCR requiring alterations to LG's integrated stormwater drainage network	Joint	TMR and approved by LG	TMR	LG	LG	LG
TMR upgrade of SCR with no major alteration but LG requires increased capacity of integrated drainage network within SCR corridor	Joint	Joint	LG contribution to TMR proportional to catchment areas of upstream areas to SCR	LG	LG	LG

7.6 Photo Library

Photo examples of stormwater drainage networks – these images are indicative only.

Given there is an existing sub-surface stormwater drainage network along this SCR and assuming that system drains more catchment than just the SCR corridor, TMR is responsible for upgrade of the SCR surface drainage only. This should include replacement of gullies, as well as new pipe connections to existing access pits.

Should the main longitudinal trunk drainage network require increased capacity, negotiations to establish a cost sharing arrangement will need to be held between TMR and Local Government.

Where instigated by TMR, TMR is responsible for the maintenance of swales.

Module 8:

Utility Services

This module provides guidance as a starting point for the determination of agreements related to the management of utility services. The determination of agreements is to occur in accordance with the overarching principles contained in Part 1 of this document.

8.1 Scope

This module only applies to situations where Local Government owns the utility infrastructure. Typical examples of utilities owned by Local Governments and addressed in this module include trunk and reticulation mains for potable water, sewerage and in a few isolated cases, Local Government owned gas reticulation.

This module does not apply to bulk, private or commercial water entity businesses. For example, Urban Utilities, Unitywater and SunWater, SEQwater.

This module does not apply to stormwater drainage mains which are considered in Modules 6 and 7.

8.2 Planning, Design, Construction, Rehabilitation and Replacement

Alterations to public utilities are expensive and any costs charged by Local Governments to TMR projects results in those costs being ultimately funded by the tax-payer. The MOU outlines the responsibility of both parties to work together to find a low-cost solution.

Typically the instigator of service alterations pays. Some common examples follow.

8.2.1 Main Relocation/Alteration Initiated by TMR Upgrades to SCR

The requirement to relocate a main predominantly occurs when TMR undertakes an upgrade of the SCR. TMR is not obliged to relocate an asset unless it is necessary for a project. Key to this cost sharing arrangement is the early liaison between Local Government and TMR on how best to alleviate any relocation of the main and service connections. This may require potholing by Local Government and TMR to ascertain the exact location and depth of the main. The early confirmation of exact location then allows the designers to develop solutions that avoid relocation where possible.

Where relocation cannot be avoided, there is no need to calculate the remaining life-expectancy of the main and service connections. Rather the following principles will apply:

- Local Government utility is to be fully transparent with TMR regarding
  - A. any planned upgrades of the main and service connections;
  - B. any deficiencies in its capacity; and
  - C. the true costs of any alterations necessary to the main and service connections as a result of SCR upgrades.
- Local Government shall provide written evidence by an appropriate representative, of the installation date, what has been undertaken by way of maintenance, and true costs.
- TMR is to pay the full cost of the alterations to the main and service connections, irrespective of its age, where the capacity remains unchanged.
- Where Local Government has need for capacity increase of the existing main and service connections, Local Government shall contribute to the cost of replacement, in proportion to the increased size. Local Government also to pay for labour and any resultant delay in scheduling costs that may be incurred by TMR as a result of betterment to increase capacity, provided TMR have given Local Government reasonable notice of the works, including reasonable time to allow Local Government to respond with their requirements.
- Where Local Government requests a parking lane as part of a TMR new road or upgrade, and the construction of the parking lane necessitates the relocation of utility infrastructure, Local Government is to pay the relocation costs – as per Module 3
- Where Local Government has planned future upgrades to the main and service connections (i.e. listed in publications such as the ***Local Government Infrastructure Plan,*** 10 year Financial Plan), TMR is to pay the bring forward costs of relocation.

- In situations where the main is in the wrong location or at depth or alignment unknown, and where TMR through its design process has reasonably tried to locate the main so as to avoid relocation of the main, Local Government will be responsible for the full cost of relocation. This places an onus on Local Government to keep accurate mapping regarding the alignment and depth of its utilities, and to assist TMR in the field to accurately locate its assets.

All arrangements shall be formally agreed in writing or by contractual arrangement or deed.

8.2.2 Main Replacement Initiated by Local Government

On occasions, a main within a SCR corridor may burst, or due to its age, may require replacement by Local Government. In these cases, Local Government is responsible for the full cost of replacement.

Should the burst main damage assets in the SCR corridor, Local Government will be responsible for compensating TMR for the costs of repairs to the road and related infrastructure.

8.2.3 New Main in State-controlled Road Corridor Initiated by Local Government

Where a Local Government utility wishes to install a new water asset along the SCR corridor, including bridges and culverts, it has responsibility to liaise with and to obtain approval from TMR for the alignment and depth, and to install the service at the nominated alignment and depth.

8.3 Maintenance and Ownership

Local Government utility owns their respective services along the SCR and is responsible for maintenance and replacement when the service life of the asset is reached.

Local Government should ensure that inspections and monitoring of infrastructure are undertaken regularly so as to avoid catastrophic failure of both parties' assets.

8.3.1 Local Government Infrastructure on TMR Bridges

Where Local Government infrastructure is attached to a bridge, the Local Government will be responsible for inspecting, maintaining and replacing the infrastructure. Where the Local Government infrastructure is damaged or deteriorates and the damage or deterioration is resulting in damage or potential damage/risk to the bridge, the Local Government is responsible for repairing the infrastructure.

Any maintenance, repair and replacement of Local Government infrastructure on a TMR bridge must be approved by TMR.

Where TMR is replacing a bridge as part of a SCR upgrade, Local Government is responsible for removal of any Local Government infrastructure attached to the bridge, within a timeframe that does not result in a delay to the TMR upgrade, provided TMR have given Local Government reasonable notice of the works.

8.4 Summary of Cost Sharing Responsibilities

COST SHARING RESPONSIBILITY - LOCAL GOVERNMENT UTILITIES (EXCLUDES SUB-SURFACE STORMWATER DRAINAGE)						
Item	**Planning**	**Design**	**Funding of Construction**	**Funding of Rehabilitation and Replacement**	**Funding of Maintenance**	**Ownership**
Main relocation/alteration initiated by TMR upgrade to SCR	Joint	Joint	By formal agreement between TMR and LG	LG	LG	LG
Main replacement initiated by Local Government	LG	LG	LG	LG	LG	LG
Installation of new main initiated by Local Government	LG	LG	LG	LG	LG	LG
Removal of redundant LG infrastructure in SCR	Joint	Joint	LG	LG	LG	LG

NB: The *Local Government Act 2009* together with the *Transport Infrastructure Act 1994* outline the full requirements for local government water assets, including mains and service connections, in the state-controlled road

Module 9:

Service Roads, Access Roads, Property Access

This module provides guidance as a starting point for the determination of agreements related to the management of service roads, access roads and property access. The determination of agreements is to occur in accordance with the overarching principles contained in Part 1 of this document.

9.1 Scope

It is acknowledged that when TMR undertakes a road upgrade project, some properties and businesses could be affected and that not all existing accesses and movements can be retained. The removal of driveways and the reconfiguration of intersections with possible restrictions on turning movements is part of TMR's responsibility to ensure the SCR remains safe to all users.

This module addresses the cost sharing arrangement for the following common range of private accesses to the SCR:

- Service Roads are the responsibility of Local Government (as shown in Figure 9.1) unless declared as part of a SCR
- Property Access can be required as a condition of the Development Approval and remain the responsibility of the developer/proprietor to construct and Local Government or proprietor to maintain in a serviceable condition (see Figure 9.1)
- Driveways and Property Accesses see Figure 9.2.

On some occasions there can be a bridge structure along the service road. These bridges are addressed in the following module:

- Bridges – Module 11.

9.2 Planning, Design, Construction and Rehabilitation

Typically, the construction of a service road will occur during an upgrade of the SCR carriageway. As such, the construction of the service road is the responsibility of TMR, even if the service road is to be formally handed over to Local Government.

In regards to private access roads and driveways, it is essential that any access to the SCR be authorised by TMR including the access standard. Ongoing maintenance of this infrastructure will be the applicant's responsibility

9.3 Maintenance

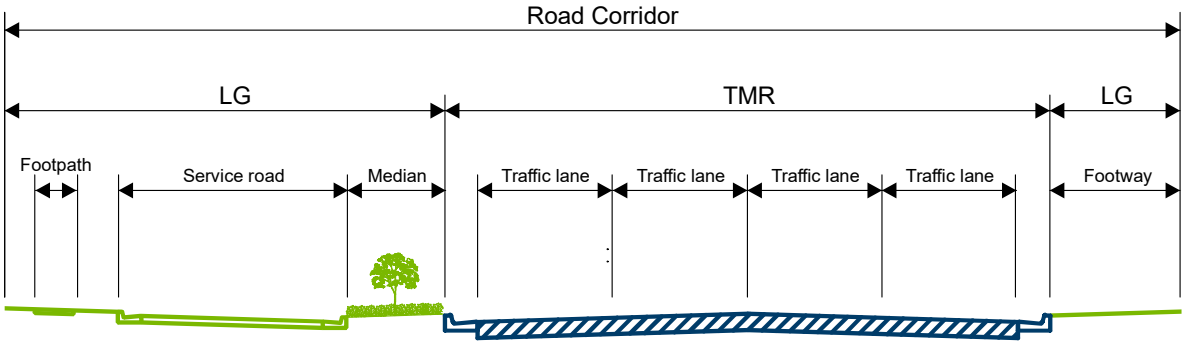
Although the authorisation for older property accesses and sometimes their respective maintenance has some historical arrangement, there is no requirement for Local Government and TMR to construct or maintain the access to properties.

For maintenance responsibilities, refer to Section 9.5.

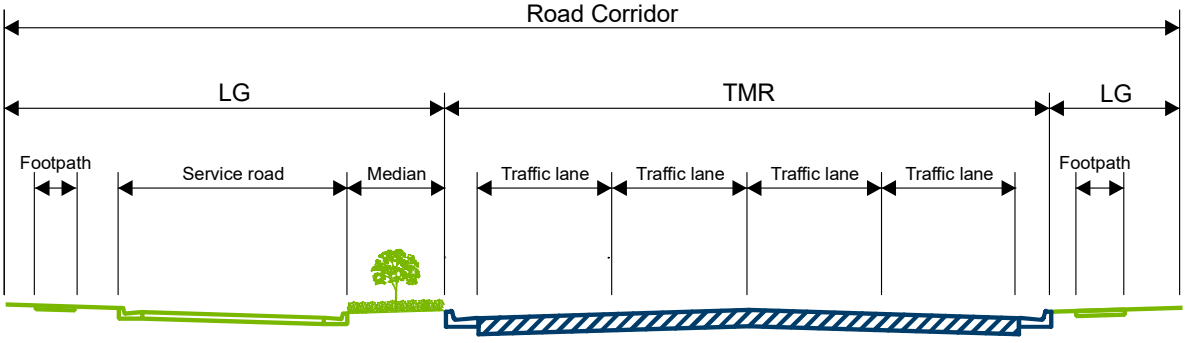
9.4 Illustrations

Examples of road cross sections showing the various responsibilities are illustrated in Figure 9.1

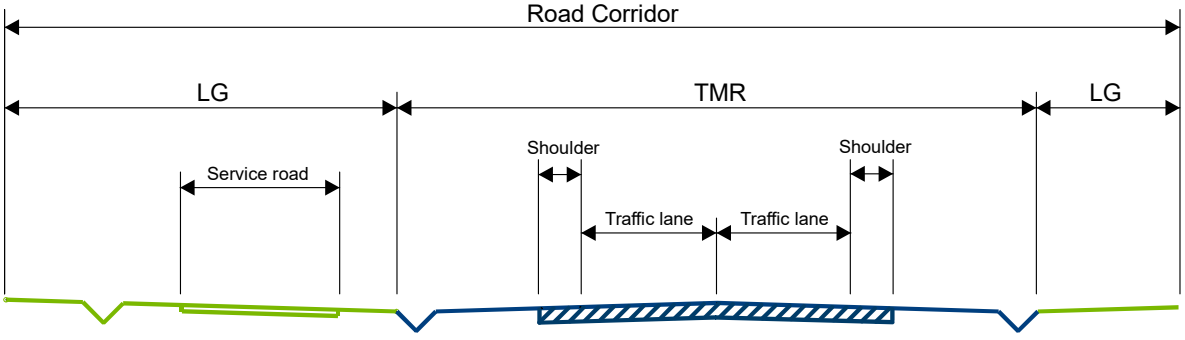
Figure 9.1: Responsibilities for Typical Service Road Configurations



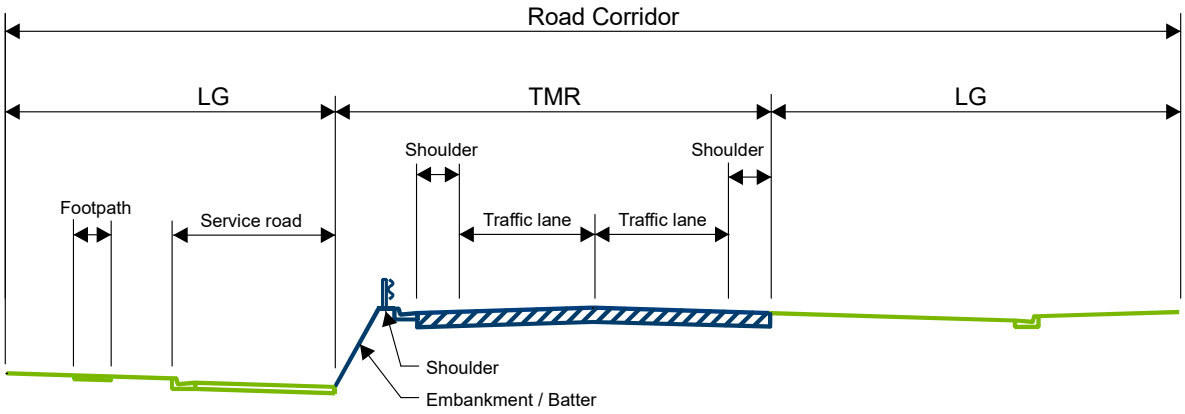
Service Road, Access Road and Property Access
Example 1



Service Road, Access Road and Property Access
Example 2

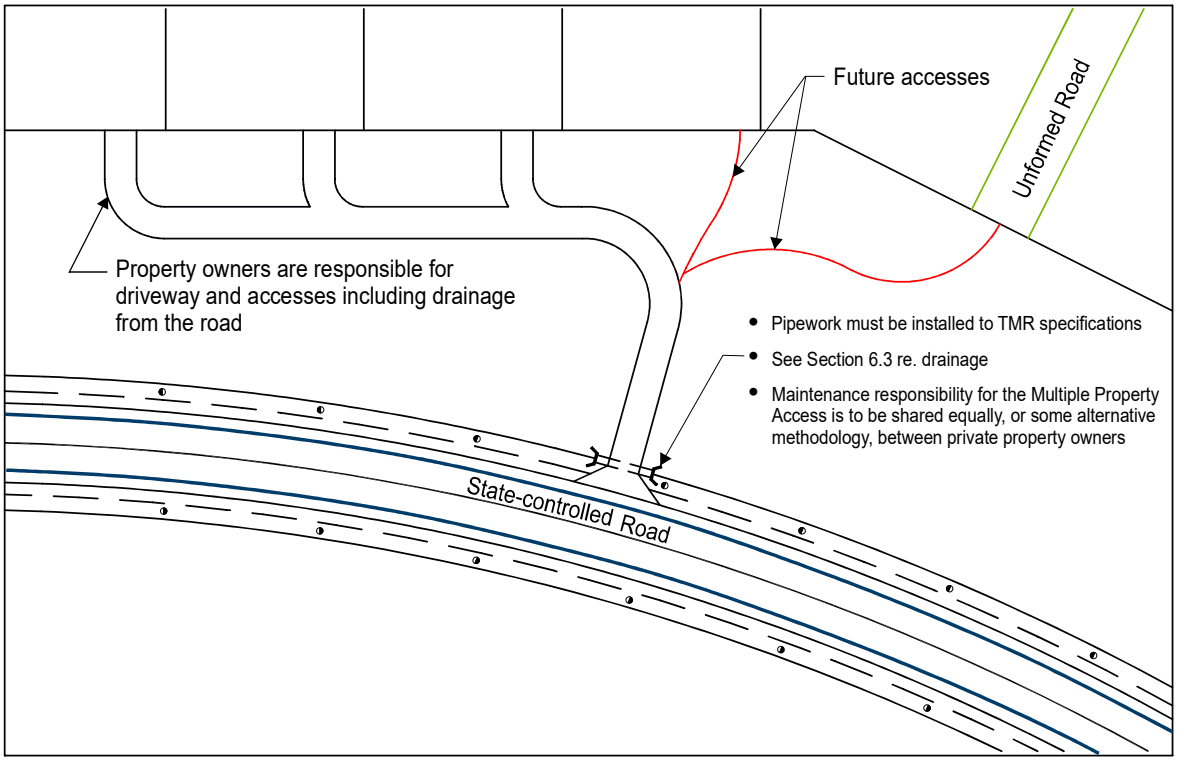


Service Road, Access Road and Property Access
Example 3



Service Road, Access Road and Property Access
Example 4

Figure 9.2: Multiple Property Accesses in Outer Urban and Rural Locations



9.5 Summary of Cost Sharing Responsibilities

COST SHARING RESPONSIBILITY FOR SERVICE ROADS, ACCESS ROADS, DRIVEWAYS AND PROPERTY ACCESSES						
Item	**Planning**	**Design**	**Funding of Construction**	**Funding of Rehabilitation and Replacement**	**Funding of Maintenance**	**Ownership**
Existing service road included in a SCR declaration	Existing – N/A	Existing – N/A	Existing – N/A	TMR	TMR	TMR
Existing service road not included in a SCR declaration	Existing – N/A	Existing – N/A	Existing – N/A	LG	LG	LG
Driveways and accesses (sealed and unsealed) from SCR carriageway to residential properties	Instigator to obtain approval from TMR	Instigator	Instigator	Property owner	Property owner	Constructed asset = property owner Land within SCR = TMR

9.6 Photo Library

Photo examples of service roads, access roads, driveways and property accesses – these images are indicative only.

TMR is responsible for the traffic lanes, shoulder and kerb on the main carriageway. Local Government is responsible for the service road and landscaped embankment.

The private property is responsible for maintenance and replacement of the driveway access.

TMR is responsible for the traffic lanes and the retaining wall/barrier structure. The responsibility of Local Government will start at the base of the structure and take in all of the service road.

TMR is responsible for the SCR carriageway. In this situation, a private business has been granted access to the SCR carriageway. The construction and maintenance of the access is the responsibility of the service station.

Module 10:

Intersections

This module provides guidance as a starting point for the determination of agreements related to the management of intersections. The determination of agreements is to occur in accordance with the overarching principles contained in Part 1 of this document.

10.1 Scope

This module addresses the situation where a Local Government road intersects with a SCR carriageway. The intersection can take many forms including:

- Conventional T-intersection (with or without auxiliary lanes and channelisation)
- Y-junction (typically found in rural areas)
- Roundabout
- A signalised intersection (typically three or four leg).

10.2 Planning, Design, Construction and Rehabilitation

When upgrading the SCR, there is a responsibility for TMR to extend the works along Local Government roads to sufficiently address traffic engineering issues. This requirement is specified in the *Austroad's Guide to Road Design* and TMR's supplementary *Road Planning and Design Manual*.

Funding for these necessary improvements to Local Government roads when part of a SCR road upgrade project is the responsibility of TMR.

Where Local Government (including developers of subdivisions) provide a new or an upgrade to a Local Government road that intersects with the SCR carriageway, Local Government and/or developer is to meet the full cost of upgrading the SCR carriageway so that the intersection meets traffic engineering requirements, as set out in *Austroad's Guide to Road Design* and TMR's supplementary *Road Planning and Design Manual*. The extent of pavement seal and line marking on a Local Government road approach to the intersection is to be agreed between Local Government and TMR. Should Local Government or TMR require additional work on the SCR or Local Government road, beyond what is reasonably expected, Local Government and TMR are to contribute respectively towards the cost of that additional work.

This module should be read in conjunction with the following module:

- Road lighting – Module 13
- Signs and road markings – Module 15.

10.3 Maintenance and Ownership

Maintenance responsibilities for intersections will depend on the features of the intersection. Therefore, it is essential that each case be considered on its merits.

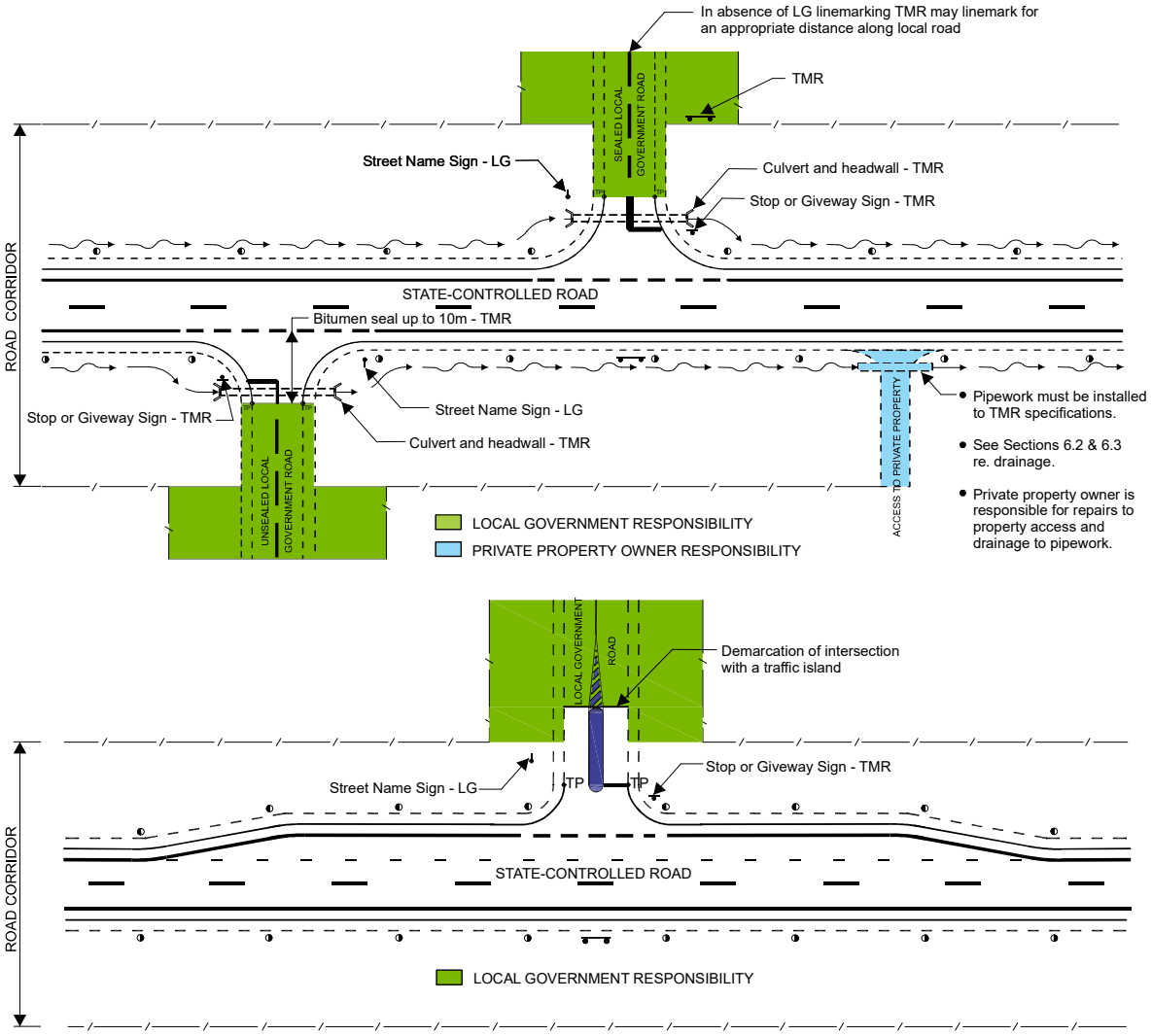
However to provide guidance, the following principles will apply:

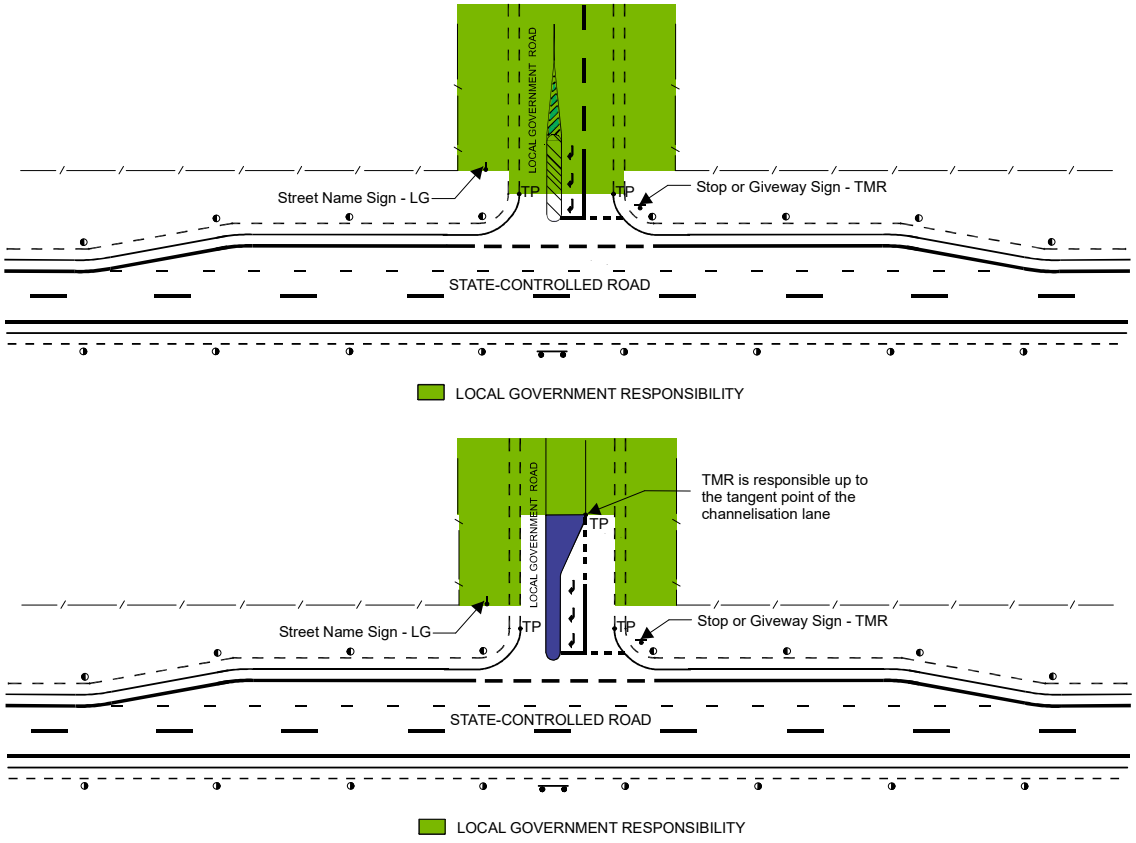
- For intersections where there is no channelisation extending down a sealed Local Government road, the demarcation will be the tangent point of the carriageway seal closest to the property boundary
- Where a Local Government road is unsealed, TMR is responsible for up to 10 metres of the sealed turnout from the SCR carriageway
- Where channelisation exists in a Local Government road, the demarcation between Local Government and TMR responsibilities will be the furthest face of the median as shown in Figure 10.1
- Where the median extends considerable length along a Local Government road and where channelisation exists, the demarcation will be the furthest tangent point of the channelisation lane from the intersection. In situations where this presents an unreasonable level of responsibility for TMR to absorb, parties are free to negotiate otherwise.

TMR owns all road infrastructure in the SCR corridor, with some exceptions as previously discussed where Local Government equipment is located in the corridor. Where the SCR is intersected by a Local Government road, the demarcation of ownership is the extension of the SCR property boundary. It is to be noted that this ownership can be different to the cost sharing arrangement for maintenance when channelisation exists at the intersection and that channelisation extends further along the Local Government road than the extension of the SCR property boundary.

10.4 Illustrations

Figure 10.1: Demarcation of Responsibilities at a SCR/Local Government Road Intersection





10.5 Summary of Cost Sharing Responsibilities

COST SHARING RESPONSIBILITY FOR INTERSECTIONS

Item	Planning	Design	Funding of Construction	Funding of Rehabilitation and Replacement	Funding of Maintenance	Ownership
Intersection of LG road with SCR (LG or developer instigated)	Joint – Subject to final approval by TMR	Joint – Subject to final approval by TMR	LG or Developer	Joint as per demarcations in Figure 10.1	Joint as per demarcations in Figure 10.1	TMR
Intersection of LG road with SCR (TMR upgrade)	Joint – Subject to final approval by TMR	Joint – Subject to final approval by TMR	TMR	Joint as per demarcations in Figure 10.1	Joint as per demarcations in Figure 10.1	TMR

10.6 Photo Library

Photo examples of intersections – these images are indicative only.

TMR is responsible for the local road pavement, kerb and channel and median to the furthest point of the centre median from the intersection. Local Government is responsible for the footpaths/footways from the extension of the SCR property alignment.

This photo highlights the importance of TMR and Local Government agreeing on the demarcation of intersections.

In this case, the centre median continues along the local road. TMR's responsibility ends at the end of the central island as shown in Figure 10.1.

TMR is responsible for the local road pavement, kerb and channel and median to the furthest point of the centre median from the intersection. Local Government is responsible for road marking and pavement from that point on along the local road.

With no channelisation at this intersection, the demarcation of responsibilities should be the tangent point.

Module 11:

Bridges

This module provides guidance as a starting point for the determination of agreements related to the management of bridges. The determination of agreements is to occur in accordance with the overarching principles contained in Part 1 of this document.

11.1 Scope

This module covers all bridges in the SCRs excluding rail bridges, which are outside the scope of this document. There are three typical grade separation situations namely:

- an overpass over the SCR corridor carrying a Local Government road
- an overpass over a Local Government road carrying a SCR
- a pedestrian/cycleway overbridge over the SCR corridor.

Figure 11.1 shows two typical at-grade bridge situations in a SCR corridor. These are:

- A free-standing shared cycle and/or pedestrian footbridge over a waterway within the SCR corridor
- A road bridge over a waterway within the SCR with a shared pedestrian/cycle footway on the same structure.

This module should be read in conjunction with the following modules:

- Utilities – Module 8
- Service Roads, Access Roads, Property Access – Module 9
- Landscaping Litter and Graffiti Control – Module 12.

11.2 Planning, Design, Construction and Rehabilitation

Bridges can be funded and constructed by either TMR, Local Government or a private developer. Of vital importance is early discussion and agreement between Local Government and TMR regarding the functionality of the structure, the structural design standards to be used, the long-term ownership of the structure, and the demarcation of bridge and surrounds maintenance.

While the instigator generally funds the construction or upgrade/extension of the bridge, this does not automatically award ownership and ongoing maintenance of the bridge to the instigator. While TMR, Local Government or others may fund the construction of a bridge or contribute funds to alterations, the ownership and future maintenance responsibility is governed by who is deemed to be the asset manager. Under the *Transport Infrastructure Act 1994*, a bridge is a road and therefore is required to be declared a SCR if TMR wishes to retain the management responsibility for that asset.

11.2.1 Grade-seperated road bridges

Generally, TMR will fund and construct bridges as part of a new interchange, to eliminate turning movements at an existing intersection or to reconnect local roads severed by a realignment of the SCR.

Local Government and developers will, on occasions, fund and construct a road bridge to connect new greenfield developments on either side of a major SCR.

11.2.2 Grade-seperated footbridges and underpasses

Both Local Government and TMR fund and construct pedestrian and cycle footbridges and underpasses across SCR corridors, particularly when a grade-separated active transport connection will save local residents vehicular trips and improve safety for cyclists and pedestrians crossing a busy SCR carriageway.

11.2.3 At-grade bridges

TMR is responsible for the funding and construction of at-grade road bridges that form part of a SCR carriageway.

The funding and construction of service road at-grade bridges and freestanding footbridges for cycles and pedestrians can be either TMR or Local Government and is dependent on the demand for such a structure. Generally, where there is an existing footway provision on the existing road bridge, the funding, construction and maintenance of a standalone footbridge is the responsibility of Local Government.

Section 11.5 outlines that the rehabilitation or replacement of a bridge that has reached the end of its serviceable life is the responsibility of the constructing authority, unless formal arrangements have been reached between Local Government and TMR regarding the transfer of these responsibilities.

11.3 Inspections, Maintenance and Ownership

Section 11.5 outlines the inspection, maintenance and rehabilitation responsibilities for road bridges and footbridges.

In order to alleviate the risk of catastrophic failure of a bridge over the SCR carriageway, TMR undertakes the inspection of all bridge structures, irrespective of the constructing authority or structure's owner, that go over a SCR. For example, if a Local Government bridge wholly or partly goes over a SCR, TMR accepts responsibility for inspecting that part of the Local Government bridge that is over the SCR. As noted in Section 11.5, TMR would be responsible for inspection, maintenance and ownership on a service road that is declared as a SCR. Similarly, the Local Government would be responsible for inspection, maintenance and ownership on a service road that is not declared a SCR. The only exception to this is if the service road bridge was over a SCR in which case TMR would inspect the bridge, while the Local Government would service, maintain and own the bridge.

Any capital improvements in the form of barriers or guardrails will be the responsibility of the authority responsible for the road pavement. All structural improvements must be authorised by TMR.

Where a bridge on a service road has an integrated footway for pedestrian and cycle movements and the service road has been formally handed over to Local Government, Local Government is responsible for preventative maintenance and replacement unless other arrangements have been negotiated.

Due to the unique nature of bridges and the significant costs involved, the ownership of the bridge remains with the instigator unless it has been formally handed over to another party by written agreement.

11.4 Illustrations

Figure 11.1: Typical Examples of At-grade Bridges within the SCR Corridor

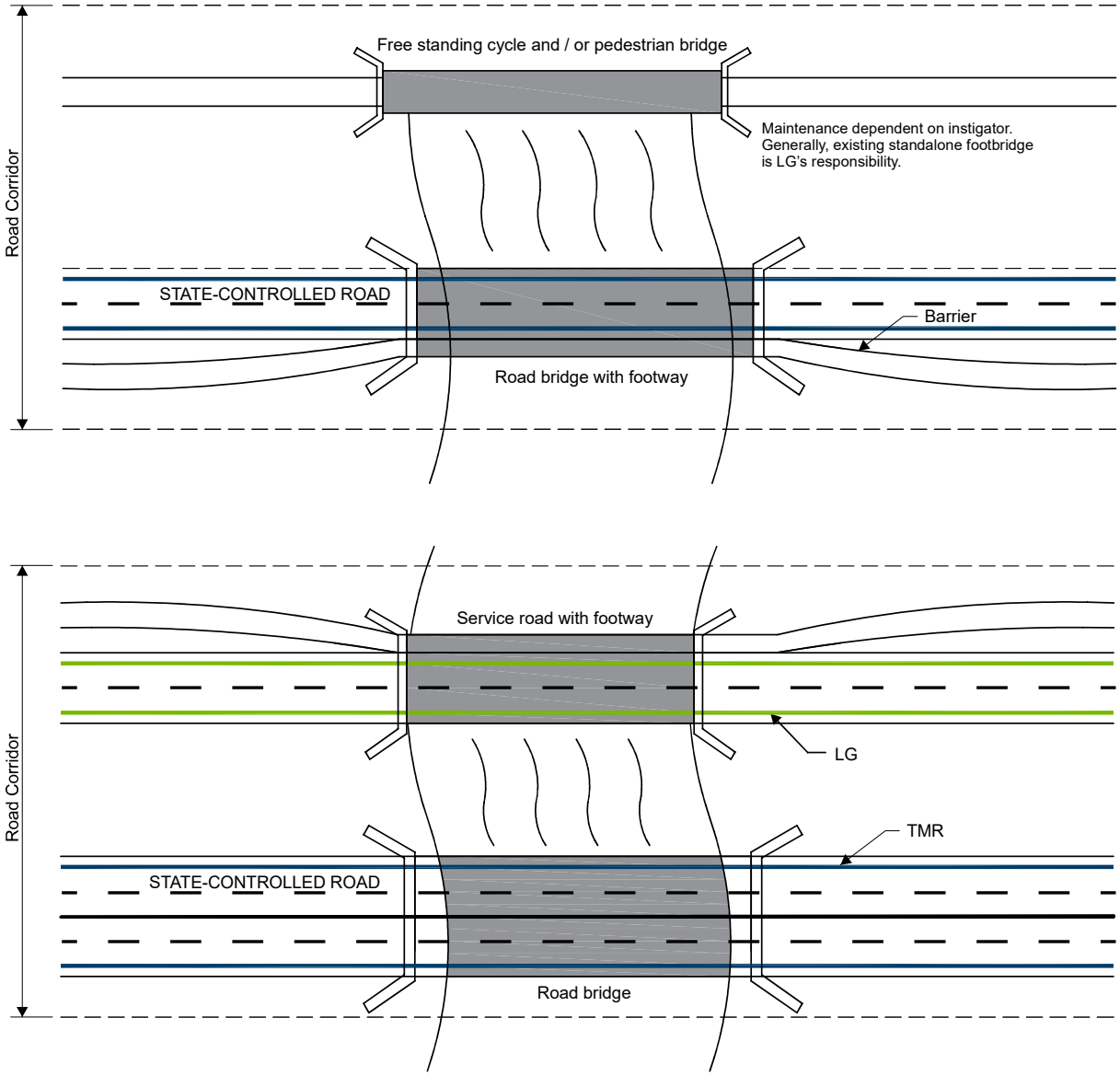
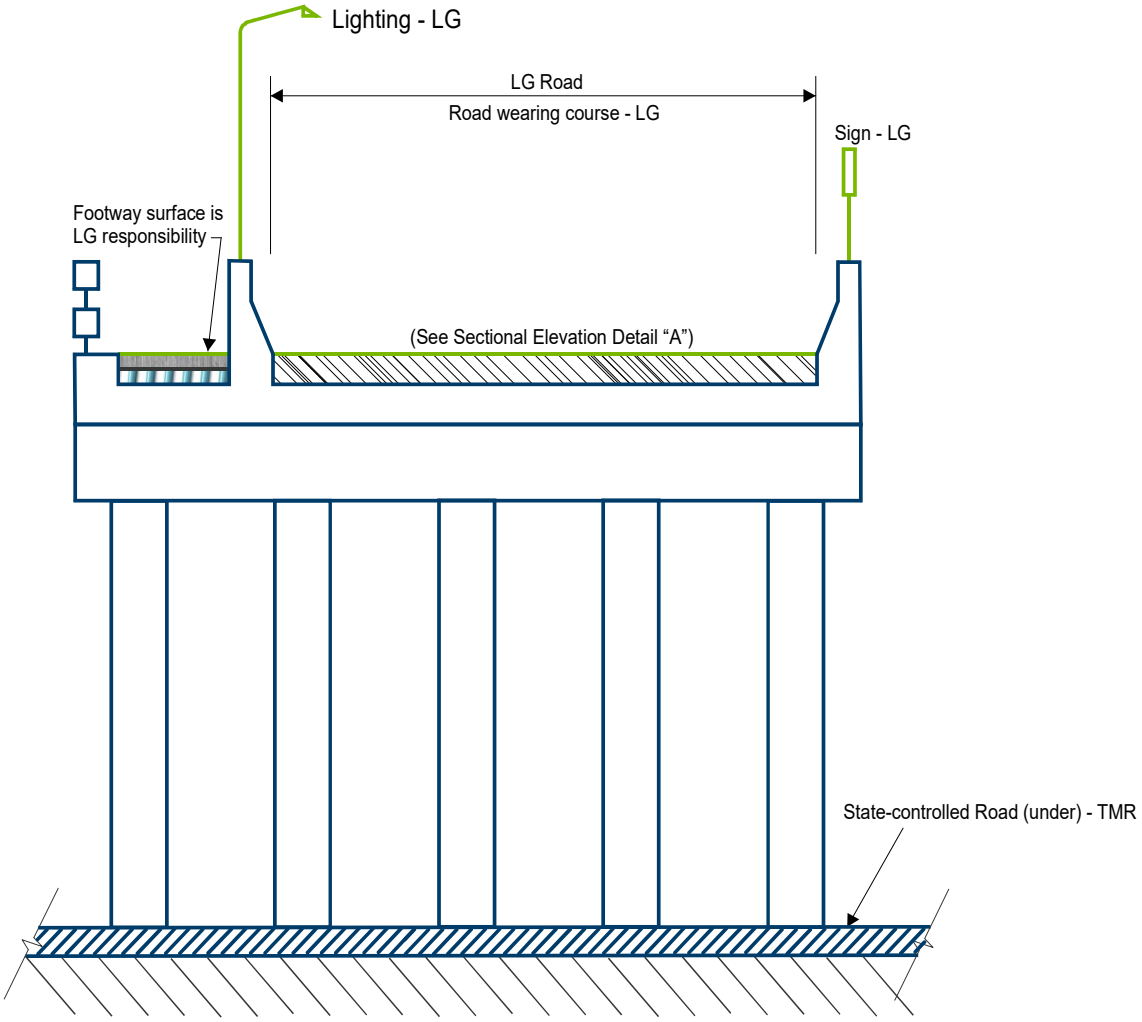
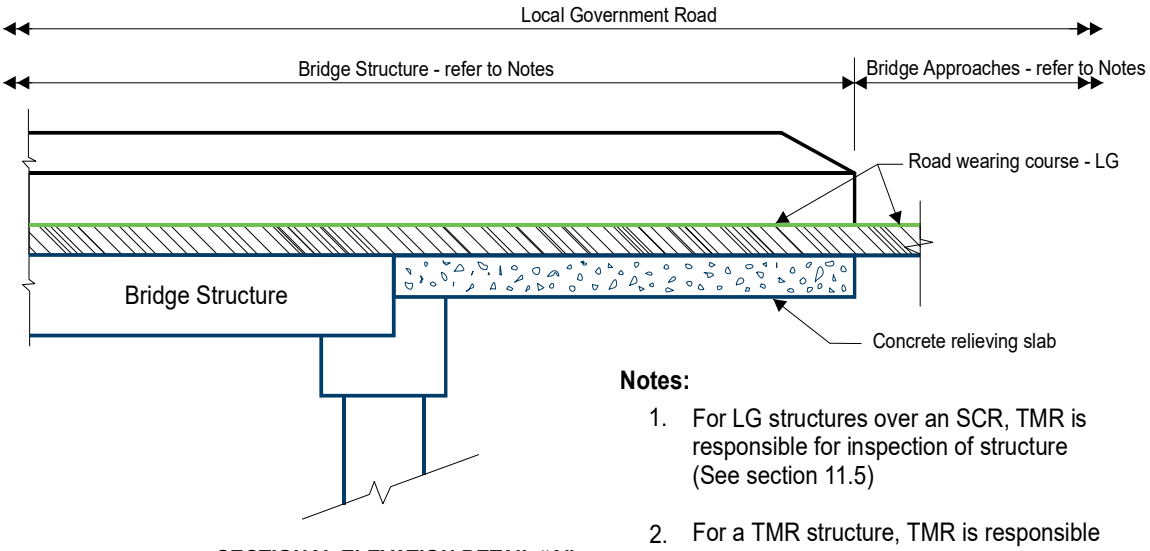


Figure 11.2: Responsibility for SCR Structures



SECTIONAL END DETAIL



SECTIONAL ELEVATION DETAIL "A"

Notes:

1. For LG structures over an SCR, TMR is responsible for inspection of structure (See section 11.5)
2. For a TMR structure, TMR is responsible for the bridge structure.
3. LG is responsible for the road wearing surface and local road related features.
4. In certain circumstances the approaches to a bridge may be a SCR.

11.5 Summary of Cost Sharing Responsibilities

Please note, the following table applies to vehicular and pedestrian bridges on or over the SCR.

COST SHARING RESPONSIBILITY FOR BRIDGES							
Item	**Planning**	**Design**	**Funding of Construction**	**Funding of Structure Inspection**	**Funding of Structure Servicing and Maintenance**	**Funding of Rehabilitation and Replacement of Structure**	**Ownership**
Bridges on Local Government roads within SCR (part of LG road network)							
LG service road with AT-GRADE bridge – not part of SCR upgrade	LG (in consultation with TMR)	LG	LG	LG	LG	LG	LG
Bridge conveying LG road OVER LG service road – not part of SCR upgrade	LG (in consultation with TMR)	LG	LG	LG	LG	LG	LG
Bridge conveying LG road OVER SCR – not part of SCR upgrade	LG or developer (in consultation with TMR)	LG or developer (approved by TMR)	LG or developer	TMR	LG	LG	LG
LG service road with AT-GRADE bridge – part of SCR upgrade	LG/TMR jointly	TMR	TMR	LG	LG	LG	LG
Bridge conveying LG road OVER LG service road – part of SCR upgrade	LG/TMR jointly	TMR	TMR	LG	LG	LG	LG
Existing bridge conveying LG road OVER SCR – upgraded/extended as part of SCR upgrade – formally accepted by LG	LG/TMR jointly	TMR	TMR	TMR	LG	LG	LG
New bridge conveying LG road OVER SCR – built as part of SCR upgrade – formally accepted by LG	LG/TMR jointly	TMR	TMR	TMR	LG	LG	LG
Bridges on TMR roads within SCR (declared as SCR)							
SCR with AT-GRADE bridge	TMR	TMR	TMR	TMR	TMR	TMR	TMR
Bridge conveying SCR OVER SCR	TMR	TMR	TMR	TMR	TMR	TMR	TMR
Bridge conveying SCR OVER LG road	TMR	TMR	TMR	TMR	TMR	TMR	TMR
Existing bridge conveying LG road OVER SCR – formally accepted by TMR	LG/TMR jointly	TMR	TMR	TMR	TMR	TMR	TMR
New bridge conveying LG road OVER SCR – part of SCR upgrade – formally accepted by TMR	LG/TMR jointly	TMR	TMR	TMR	TMR	TMR	TMR

11.6 Photo Library

Photo examples of bridges – these images are indicative only.

In situations where a Local Government bridge goes over a SCR, TMR will inspect the bridge, while the Local Government is responsible for the servicing and maintenance of the bridge.

If TMR accepts ownership of a bridge on a Local Government road that goes over a SCR, TMR will accept servicing, maintenance and replacement responsibilities for the bridge. In these situations, the Local Government retains responsibility for the pavement, kerb and channel, pedestrian facilities and local road features (signs and markings).

Module 12:

Landscaping, Litter and Graffiti Control

This module provides guidance as a starting point for the determination of agreements related to the management of landscaping, litter and graffiti control. The determination of agreements is to occur in accordance with the overarching principles contained in Part 1 of this document.

12.1 Scope

This module includes the following range of services:

- Landscaping
    - Median and roundabout landscaping
    - Urban amenity improvements (say for a regional township)
    - Entrance statements
- Litter collection including dead animal removal
- Graffiti removal.

However, this module does not include activities that are covered by TMR and/or Local Government routine maintenance delivery contracts.

12.2 Planning, Design and Construction

The construction of new landscaping along the SCR can be funded and delivered by:

- TMR as part of a SCR road upgrade project
- Local Government as part of an urban amenity project
- Private developers as part of a new subdivision or development entrance statement.

During the planning phase for a SCR road upgrade and where Local Government will be required to undertake the maintenance role of landscaping (and litter collection and graffiti control), there needs to be early discussions between TMR and Local Government regarding the standard of landscaping. Both entities should have a say on the standard of vegetation and any associated infrastructure, i.e., irrigation systems, garden bed edgings, etc, so that annual maintenance costs can be kept to a minimum.

In regard to entry statements and with reference to TMR's *Road Landscape Manual*, developers will often provide a higher standard of landscaping at entrances to their development/subdivision as a short-term marketing strategy to enhance marketing and increase sales. It is essential that in these cases, there is an agreement in place up front as to the standard and maintenance of this landscaping post the sale of the development.

This module should be read in conjunction with the following modules:

- Footways, Footpaths and Shared Pathways – Module 5
- Bridges – Module 11
- Noise Attenuation – Module 16.

12.3 Maintenance Responsibility

12.3.1 Standard of landscaping

It is recognised that there is a strong correlation between the standard of landscaping and the funding available for maintenance. As such, intervention standards as set out in TMR maintenance contracts are based on affordability and value for money.

Maintenance must be seen as a partnership where both Local Government and TMR work together to ensure the standard of landscaping generally reflects the community's expectation. This should minimise the variation in the standard of landscaping along the SCR and in surrounding Local Government roads.

12.3.2 Graffiti removal

Graffiti removal is based on the guiding principle that the responsible party is the owner of the road from which the graffiti can be seen. That is, if graffiti is directed at motorists on a local road, Local Government is responsible for its removal and likewise TMR is responsible for SCRs.

In cases where the graffiti cannot be seen by motorists, the owner of the infrastructure is responsible for its removal.

12.3.3 Efficiency

Stretching the maintenance dollar is essential and efficiencies in maintenance operations must be continuously sought. Rather than maintenance crews from both Local Government and TMR being mobilised to undertake works in the same location, it is recommended that agreement be reached between both entities, so that the most efficient, lowest-cost resources are used irrespective of maintenance responsibilities.

On highly trafficked roads, the cost of traffic control to provide a safe working environment for litter collection and landscaping maintenance can be significant. While the demarcation of responsibilities is different for each SCR corridor, there are locations where both Local Government and TMR are undertaking maintenance in relative close proximity, with each incurring costs for their own traffic control. The opportunity to significantly save on traffic control costs could be achieved with better planning by both entities and in undertaking the work simultaneously.

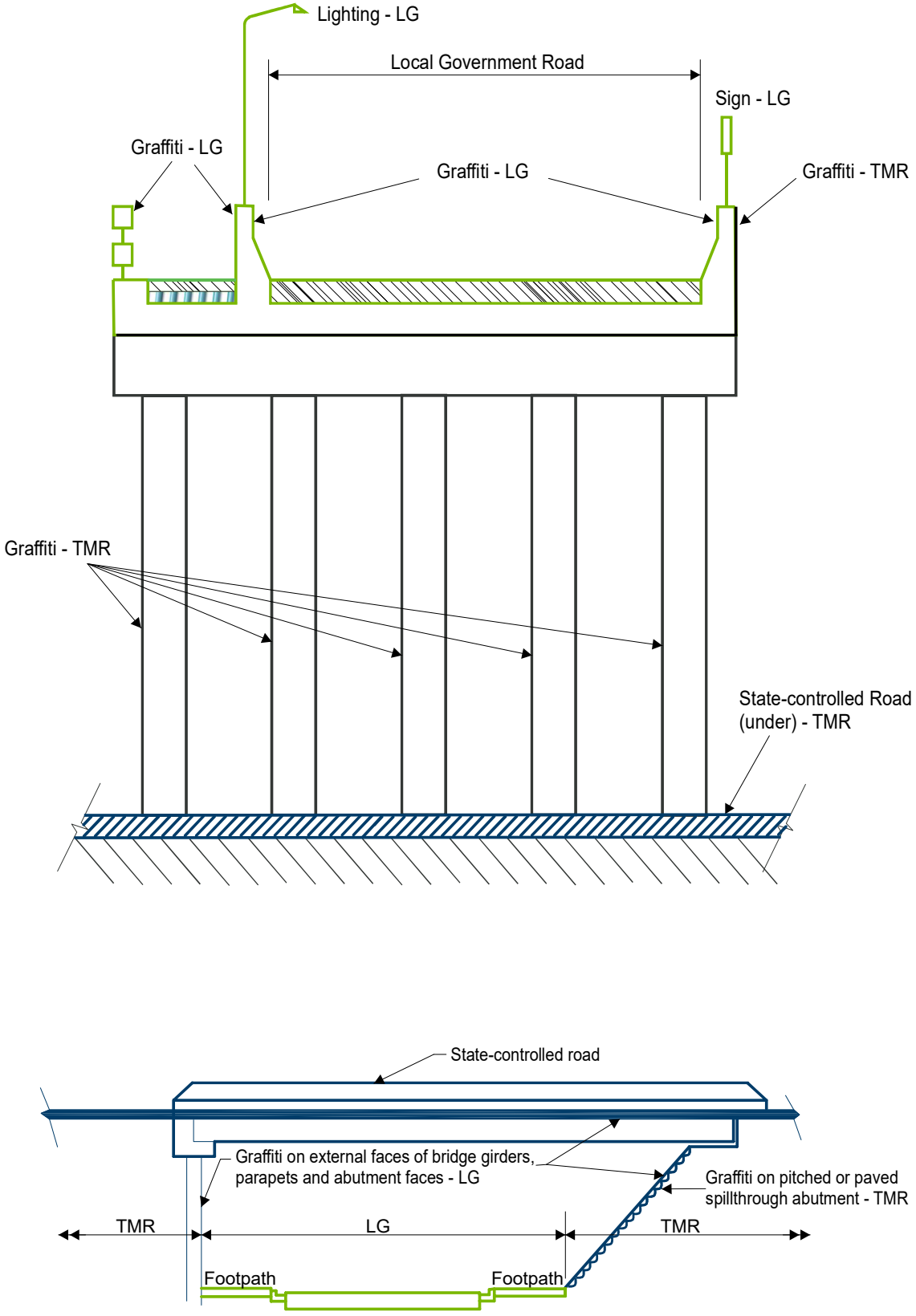
In the past, there have been issues with dead animal removal, which has seen staff from both Local Government and TMR being mobilised. This is a major issue in rural and remote townships where officers must travel significant distances to determine the organisation responsible for removing the animal. Agreement should be reached between Local Government and TMR so that the animal is removed by either crew irrespective of responsibility or specific location where the dead animal is located.

Graffiti is commonly applied to acoustic fencing and structures within the SCR corridor under both Local Government and TMR responsibility, prompting both organisations to dispatch their respective crews. Once again, agreement should be reached so that only one crew is mobilised to clean up graffiti covering both responsibilities.

Refer to Module 11 – Bridges and Module 16 – Noise Attenuation for specific areas of responsibility.

12.4 Illustrations

Figure 12.1: Responsibility for Graffiti Removal from SCR Structures.



12.5 Summary of Cost Sharing Responsibilities

COST SHARING RESPONSIBILITY FOR LANDSCAPING, LITTER AND GRAFFITI CONTROL						
Item	**Planning**	**Design**	**Funding of Construction**	**Funding of Replacement**	**Funding of Maintenance**	**Ownership**
Landscaping within SCR corridor	TMR	TMR	TMR	N/A	TMR	TMR
Special entrance statements to subdivisions and towns	Developer or LG in consultation with TMR	Developer or LG in consultation with TMR	Developer or LG	Developer or LG	Developer or LG	Developer or LG unless agreement with TMR
Special landscaping requested by Local Government (including street trees)	LG in consultation with TMR	LG in consultation with TMR	LG	N/A	LG	LG unless agreement with TMR
Litter collection	N/A	N/A	N/A	N/A	Refer to Module 5 for areas of responsibility for footways	N/A
Graffiti removal	N/A	N/A	N/A	N/A	Refer to Module 16 for areas of responsibility for noise barriers	N/A

12.6 Photo Library

Photo examples of landscaping, litter control and graffiti – these images are indicative only.

Usually entrance statements to regional and rural towns are installed by Local Government within the SCR corridor. Such landscaping is maintained by Local Government.

Special treatments of footpaths in regional and rural towns is maintained by the instigator i.e. TMR or LG.

Main street beautification works in regional and rural towns is maintained by the instigator i.e. TMR or LG.

Entrance statements to private developments should be maintained by the developer for the duration of sales. There needs to be agreement between TMR, LG and the developer regarding the standard of landscaping post development.

Module 13:

Road Lighting

This module provides guidance as a starting point for the determination of agreements related to the management of road lighting. The determination of agreements is to occur in accordance with the overarching principles contained in Part 1 of this document.

13.1 Scope

Australian Standard AS 1158 specifies the following categories of lighting applicable to the SCR:

- Lighting for vehicular traffic using roads and public spaces - Category V
- Lighting for pedestrian areas along roads and public spaces - Category P.

This module should be read in conjunction with the following modules:

- Intersections – Module 10
- Signs and Road Markings – Module 15.

13.2 Planning, Design and Construction

TMR has a responsibility to provide route lighting to Category V standard to ensure the safe operation of road traffic using the SCR. This responsibility includes construction, maintenance and operating costs of lighting on motorways and construction and operating costs for lighting on all other SCRs where the warrants are met.

The warrants for road lighting are detailed in the *TMR Road Planning and Design Manual 2nd Edition Volume 6: Lighting*, and design standards in AS 1158.

Where the route lighting on the SCR does not meet the warrants, the responsibility and costs for the planning, design and construction is to be agreed between Local Government and TMR. It is the general position that the costs of such lighting is to be met by Local Government.

Similarly, Local Government has a responsibility of funding the construction and operating costs of lighting along its local road system to ensure the safe operation of those roads.

For upgrades of Local Government road intersections within the SCR, the constructing authority is responsible for the provision of overhead lighting sufficient for the operational safety associated with road features, irrespective of whether the lighting is located within the SCR or Local Government road corridor.

Where in urban areas, the footpath demand is high and there is inadequate spillage from road lighting, Local Government is to fund the installation of additional footpath lighting meet to Category P standards.

13.3 Operational Costs

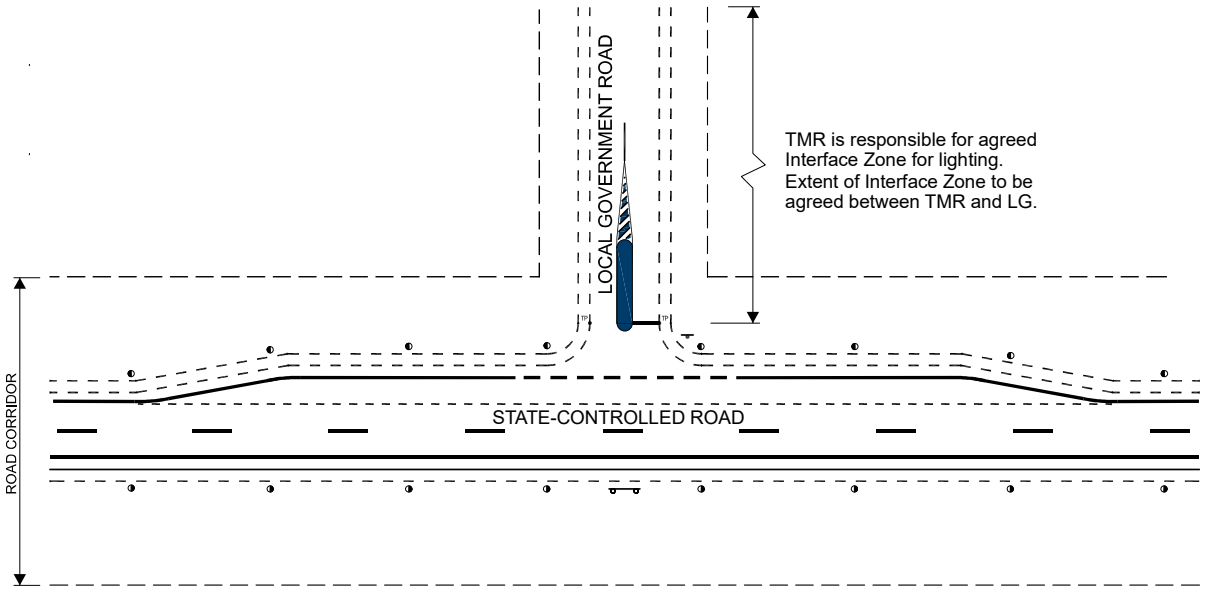
For SCR road upgrades, it is essential that during the planning phase, Local Government and TMR discuss and agree which organisation will meet the operational costs of road lighting.

Responsibility for funding operational costs will be as follows:

- Where the warrants are met, lighting of SCR carriageways will be the responsibility of TMR
- Where the warrants are not met, responsibility for lighting of the carriageways is to be agreed between Local Government and TMR and documented. It is the general position that the costs of such lighting is to be met by Local Government
- At intersections, the demarcation of responsibility will be as per Figure 13.1. This illustration raises the concept of an ‘interface zone’ extending back from the intersection along the Local Government road in which TMR will accept responsibility for road lighting, signs and road markings unless otherwise agreed. The interface zone is the area of the intersection that requires lighting to ensure the safe use and interaction with the road features. The limits of the zone need to be agreed and documented between Local Government and TMR so that maintenance responsibilities are clear. (Note: excludes the demarcation of pavement as detailed in Module 10)
- Any specific lighting of footpaths, footways, off-road cycle paths/shared path or service roads along the SCR will be the responsibility of Local Government.

13.4 Illustrations

Figure 13.1: Demarcation of Road Lighting Responsibilities at a SCR/Local Government Road Intersection.



13.5 Summary of Cost Sharing Responsibilities

COST SHARING RESPONSIBILITY FOR LIGHTING						
Item	**Planning**	**Design**	**Funding of Construction**	**Funding of Rehabilitation and Replacement**	**Funding of Maintenance**	**Ownership**
SCR route upgrade in accordance with warrants	TMR	TMR	TMR	TMR or DNSP if Rate 2	TMR	TMR or DNSP Note 1
SCR route upgrade not in accordance with warrants	TMR	TMR	To be agreed (default is LG)	To be agreed (default is LG) or DNSP if Rate 2	To be agreed (default is LG)	TMR or DNSP Note 1
Intersection of SCR and LG road initiated by TMR	TMR in consultation with LG	TMR in consultation with LG	TMR	TMR or DNSP if Rate 2	Shared TMR and LG	TMR or DNSP Note 1
Intersection of SCR and LG road initiated by LG	LG in consultation with TMR	LG in consultation with TMR	LG	LG or DNSP if Rate 2	Shared TMR and LG	TMR or DNSP Note 1
Special lighting of footpaths, footways, cycle paths, shared paths, service roads.	LG	LG	LG	LG or DNSP if Rate 2	LG	TMR or DNSP Note 1

Note 1: Ownership arrangement for road lighting can be either by the Public Body (in this case TMR or LG) or DNSP (Distribution Network Service Provider) Corporations that are responsible for electricity distribution in Queensland eg Energex Limited and Ergon Energy Limited. For electricity distribution networks that are serviced by Energex or Ergon, the Energy Queensland Public Lighting Design Manual sets out the basic requirements and responsibilities in relation to Public Body versus DNSP owned lighting.

13.6 Photo Library

Photo examples of carriageway lighting – these images are indicative only.

In the case of a local road with an extensive length of road lighting, the interface zone is to be agreed between Local Government and TMR. The costs of operating road lighting within the zone is met by TMR.

In the case of urban arterials, where warrants are met, TMR is to fund the costs of road lighting even though there will be some spillage from road lighting that illuminates the footpath for pedestrians.

Module 14:

Roadside Furniture and Facilities

This module provides guidance as a starting point for the determination of agreements related to the management of roadside furniture and facilities. The determination of agreements is to occur in accordance with the overarching principles contained in Part 1 of this document.

14.1 Scope

This module covers roadside furniture and roadside facilities excluding:

- Tourist information display boards
- Advertising signs
- Bus stations and interchanges.

14.2 Construction

14.2.1 Roadside Furniture

TMR is responsible for the provision of all roadside furniture along the SCR corridor that provides a safety function, for example safety barriers and pedestrian fences.

Other roadside furniture, such as signs, will be either TMR or Local Government, depending on the function of the asset/infrastructure.

14.2.2 Roadside Facilities

Examples of roadside facilities include safety ramps, picnic and vehicle rest areas, etc.

Historically, there is no simple arrangement regarding which entity undertakes improvements or maintains roadside facilities. Each facility has a history as to how it came into existence and who presently accepts responsibility for improvements and maintenance.

Funding of new bus stop furniture and facilities, including seating, shelters and concrete slabs, are the responsibility of TMR or Local Government, depending on the instigator of the facility.

14.3 Maintenance and Replacement

Where the maintenance of the furniture and facilities is the responsibility of TMR, this is usually included in the third party maintenance contracts.

Where Local Government or a community service organisation is responsible for the management of the facility, that entity has responsibility for the maintenance.

For bus stop furniture and facilities, a formal agreement on the responsibilities for the maintenance and replacement of the furniture/facilities will need to be implemented prior to the construction of the works.

14.4 Summary of Cost Sharing Responsibilities

COST SHARING RESPONSIBILITY FOR ROADSIDE FURNITURE AND FACILITIES						
Item	**Planning**	**Design**	**Funding of Construction**	**Funding of Rehabilitation**	**Funding of Maintenance**	**Ownership**
Roadside furniture (safety) along SCR	TMR	TMR	TMR	TMR	TMR	TMR
Roadside furniture (non safety) along SCR	TMR (in consultation with LG if LG function)	TMR (in consultation with LG if LG function)	TMR or LG (depending on function)	TMR or LG (depending on function)	TMR or LG (depending on function)	TMR or LG (depending on function)
Bus stop furniture and facilities	Instigator (unless another agreement has been made)	Instigator (unless another agreement has been made)	Instigator (unless another agreement has been made)	Instigator (unless another agreement has been made)	Instigator (unless another agreement has been made)	Instigator (unless another agreement has been made)
Roadside facilities (other than bus stops) within or adjacent to SCR corridor	TMR	TMR	TMR or LG	TMR or LG or private organisation	TMR or LG or private organisation	Dependent on whether within or adjacent SCR corridor and ownership has been accepted by TMR

Module 15:

Signs and Roadmarkings

This module provides guidance as a starting point for the determination of agreements related to the management of signs and roadmarkings. The determination of agreements is to occur in accordance with the overarching principles contained in Part 1 of this document.

15.1 Scope

15.1.1 Road Signs

The Manual of Uniform Traffic Control Devices (MUTCD), outlines the various signage that is commonly found in a SCR corridor. The MUTCD broadly categorises these signs as:

- Regulatory signs
- Warning signs
- Guide signs
- Temporary signs
- Hazard markers
- Tourist and service signs.

This module is to be read in conjunction with the following modules:

- Intersections – Module 10
- Road Lighting – Module 13 ('interface zone' = the necessary level of signs/road markings to ensure the operational safety).

15.1.2 Road Markings

Road markings are essential for the safe operation of traffic using the SCR. They provide for traffic separation, demarcation of traffic lanes including turning lanes, the safe operation of signalised and unsignalised intersections, the location of pedestrian crossings, approved regulatory parking and other kerbside management areas.

The effective management of kerbside also requires road marking to identify parking bays, loading zones, bus zones and no standing areas at intersections.

15.2 Planning, Design and Construction

TMR is responsible for the installation of road signs and road marking along the SCR and at intersections with Local Government roads to ensure the entry and exit from a SCR carriageway is performed in a safe and efficient manner. At these intersections, TMR is also responsible for road signs, including directional and wayfinding signs, and road marking in the 'interface zone'. This is the area of the intersection where specific road features are required on Local Government road for the safe use and interaction of the two roads. The limits of the zone need to be agreed and documented between Local Government and TMR so that maintenance responsibilities are clear.

It should be noted that this 'interface zone' for signs and road marking may be different to the demarcation of pavement responsibilities outlined in Module 10 – Intersections.

TMR is responsible for all road signs and road markings in the SCR corridor with the exception of the following signs that are the responsibility of Local Government:

- Community facility signs, i.e. churches, libraries, sporting facilities etc
- Local street name signs
- Local Government borders and Local Government welcome signs
- Regulated parking signs
- Clearways (Note 50/50 cost sharing between Local Government and TMR).

Local Government is responsible for the installation of road signs and road marking on local roads. Local Government is also responsible for kerbside management signs and road marking (e.g. parking bays, loading zones, no standing zones, etc) for those 'other' areas of carriageway as discussed in Module 3.

15.3 Maintenance and Ownership

Local Government and TMR are responsible for maintaining their respective signs and road marking along the SCR corridor. At intersections with a Local Government road, TMR will also maintain the road signs and road marking a distance down Local Government road as per the agreed 'interface zone'.

15.4 Summary of Cost Sharing Responsibilities

COST SHARING RESPONSIBILITY FOR SIGNS AND ROAD MARKINGS						
Item	**Planning**	**Design**	**Funding of Construction**	**Funding of Replacement**	**Funding of Maintenance**	**Ownership**
Signs and road markings in SCR corridor (excl LG signs)	TMR	TMR	TMR	TMR	TMR	TMR
LG signs and road marking in SCR corridor e.g. kerbside management.	LG in consultation with TMR	LG in consultation with TMR	LG in consultation with TMR	LG in consultation with TMR	LG in consultation with TMR	TMR/LG
TMR signs and road markings in 'interface zone' along LG road	TMR in consultation with LG	TMR in consultation with LG	TMR	TMR	TMR	TMR

Module 16:

Noise Attenuation

This module provides guidance as a starting point for the determination of agreements related to the management of noise attenuation. The determination of agreements is to occur in accordance with the overarching principles contained in Part 1 of this document.

16.1 Scope

A noise barrier is a natural or artificial physical screen located between the source of the noise (road traffic) and a receptor (e.g. residence), which interrupts the path of the noise. A noise barrier includes:

- earth mound
- earth mound and noise fence
- noise fence.

16.2 Planning, Design, Construction and Replacement

TMR's Transport Noise Management Code of Practice Volume 1 – Road Traffic Noise (November 2013) details TMR's position on noise attenuation measures.

TMR will be responsible for the planning, design, construction and replacement of noise barriers that have been installed as part of a SCR upgrade, unless an alternative agreement has been made.

Where a private developer has been required by TMR to provide noise attenuation for a new subdivision or development fronting the SCR corridor, the developer is to liaise with TMR during the planning and design phase.

While contentious and expensive, the cost and responsibility of replacing the noise barrier at the end of its serviceable life is the responsibility of the owner of the land upon which it is located (unless an alternative agreement has been made). Given that the usual practice for developments is to locate the barrier on private property, this means the homeowner will be responsible for replacement.

16.3 Location

Noise fences and/or earth mounds installed by TMR as part of a SCR road upgrade project must be constructed entirely within the road corridor. They must not encroach onto adjoining land. This includes footings and piling associated with the noise fences (See Fig 16.1 Diagram A).

Noise fences and/or earth mounds installed by a private property developer shall be placed entirely within the property (See Fig 16.1 Diagram B).

Where the size, access or location of the required noise fence/mound makes it unreasonable for the property owner to maintain the noise fence/mound the developer may negotiate with TMR to place the noise fence/mound within the SCR corridor. In this situation, TMR will accept responsibility for ownership and maintenance of the noise fence/mound using the developer's contribution as explained in the *Transport Noise Management Code of Practice*. Any such agreement is to be documented and maintained by TMR.

16.4 Ownership

Noise fences that have been installed by TMR as part of a SCR road upgrade project and are located within the SCR corridor are owned by TMR, unless an alternative agreement has been made.

Noise fences installed by a developer on private property are owned by the property owner.

For earth mounds that have been constructed as part of a private property development and are outside the SCR, the ownership of the mound shall lie with the property owner or Local Government (See Fig 16.1 Diagram C (as per the Transport Noise Management Code of Practice). This will need to be negotiated and agreed to as part of the development application.

16.5 Maintenance

16.5.1 Noise Fence

Where the noise fence has been installed by TMR as part of a SCR road upgrade project and is located within the SCR corridor, maintenance of the noise fence will be the responsibility of TMR, unless an alternative agreement has been made.

Where the noise fence has been installed by a developer on private property, the property owner is responsible for the maintenance of the noise fence.

Developers' noise barriers may only be permitted within the SCR in limited situations. Where the noise barrier has been placed within the SCR upon negotiation with TMR, TMR will accept responsibility for ownership and maintenance of the noise fence using the developer's contribution as explained in the *Transport Noise Management Code of Practice*. Any such agreements must be documented and retained by TMR.

16.5.2 Earth Mound

Any earth mounds installed by TMR as part of a SCR road upgrade project shall be placed entirely within the road corridor and maintained by TMR.

For earth mounds outside of the SCR, which are constructed as part of a private property development, maintenance will be the responsibility of the property owner or Local Government (as per the *Transport Noise Management Code of Practice*). This will need to be negotiated and agreed to as part of the development application (See Fig 16.1 Diagram C).

Like noise barriers, earth mounds may also be placed within the SCR corridor by private property developers upon negotiation with TMR (See Fig 16.1 (Diagram D).

In both situations, Diagram C and D, the property owner or Local Government will be required to maintain any earth mound within their property, acoustically and structurally. A registrable covenant should be placed on the title (covenants shall be supported by conditions of approval) for the portion of the land within the corridor required to maintain the earth mound. The portion of land within the corridor required for the mound, will be maintained and owned by the responsible authority (ie relevant Local Government or TMR).

16.5.3 Graffiti Removal

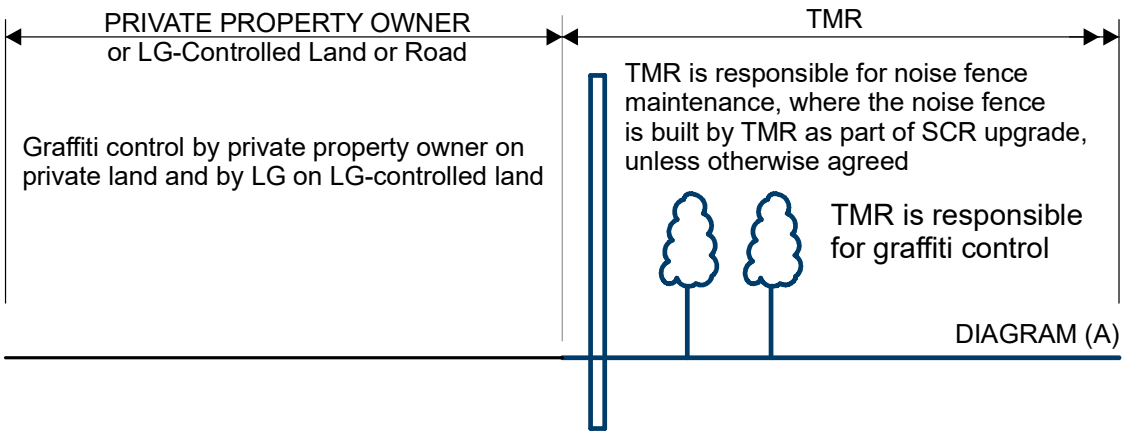
It is the responsibility of the property owner to remove graffiti that faces the property owner's land, while the removal of graffiti facing the road corridor is the responsibility of the road's owner (which in the case of a SCR is TMR).

For noise barriers located within the road corridor between a SCR and a local road, it is generally TMR's responsibility for graffiti removal on both sides of the noise barrier (also refer to Module 12 - Landscaping, Litter and Graffiti Control).

16.6 Illustrations

The various locations for noise attenuation infrastructure are shown in Figure 16.1.

Figure 16.1: Various Locations for Noise Attenuation.



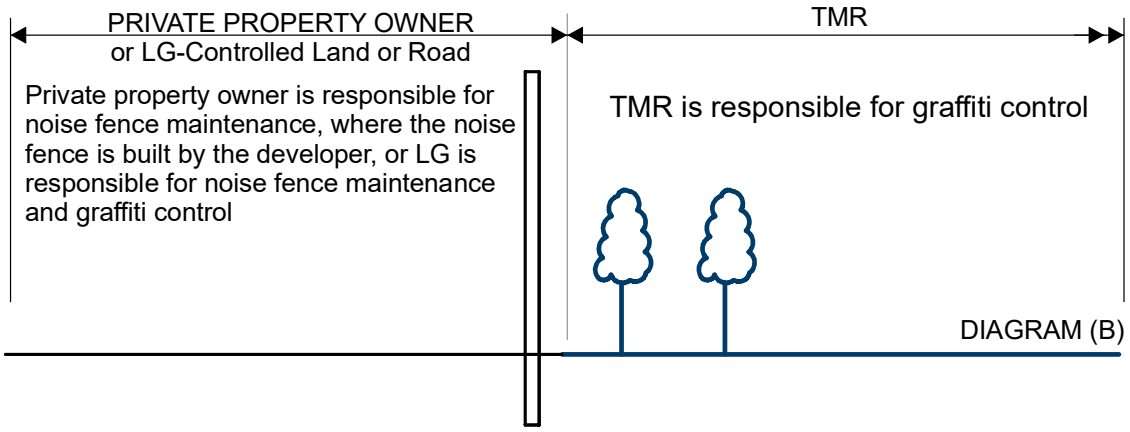
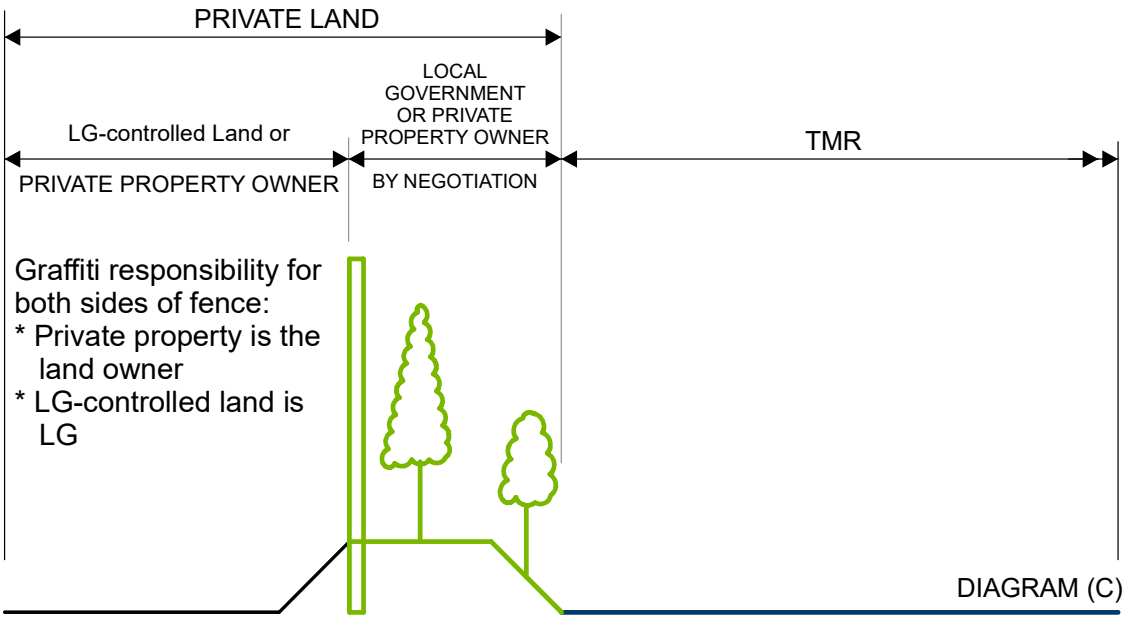
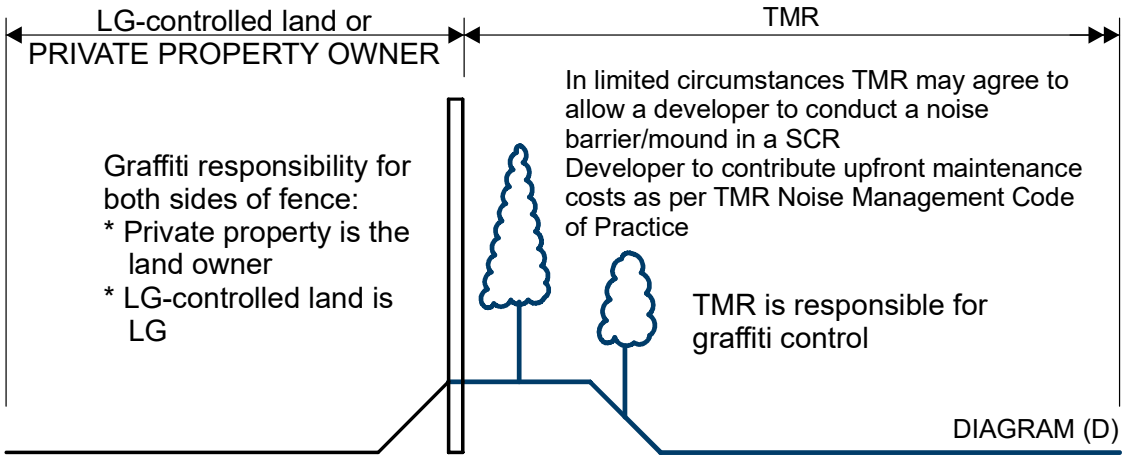


Figure 16.1 continued: Various Locations for Noise Attenuation continued





16.7 Summary of Cost Sharing Responsibilities

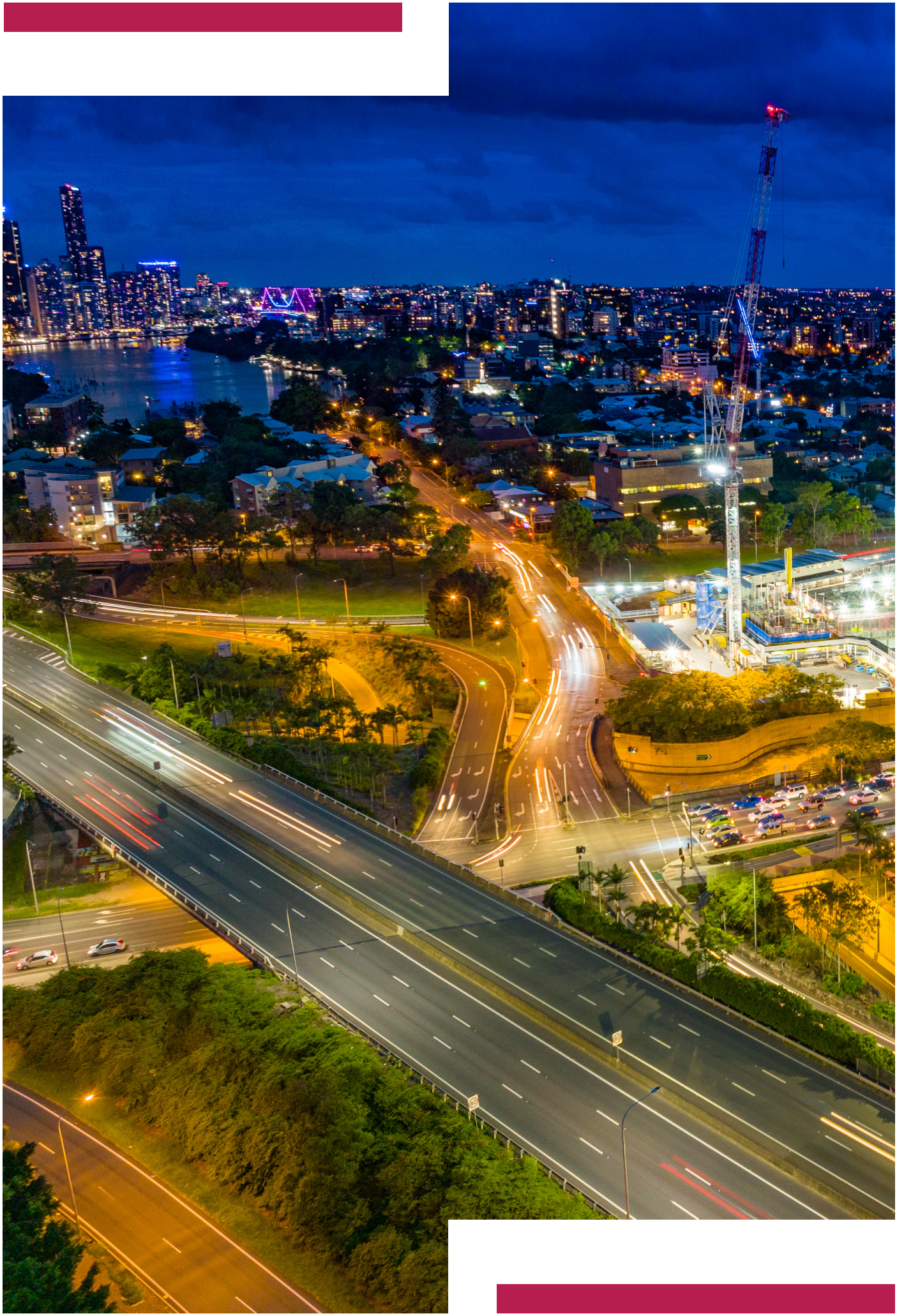
COST SHARING RESPONSIBILITY FOR NOISE ATTENUATION INFRASTRUCTURE						
Item	**Planning**	**Design**	**Funding of Construction**	**Funding of Replacement**	**Funding of Maintenance**	**Ownership**
Noise fence/mound provided by TMR as part of SCR upgrade – in SCR	TMR	TMR	TMR	TMR	TMR	TMR
Noise fence/mound provided by developers (on private land)	Developer	Developer and approved by TMR	Developer	Negotiated between private property owner and LG	Negotiated between private property owner and LG	Negotiated between private property owner and LG
Noise fence/mound provided by developer – in SCR (Only allowed when developer contribution for maintenance has been made.)	Developer	Developer and approved by TMR	Developer	TMR	TMR	TMR

16.8 Photo Library

Photo examples of noise attenuation infrastructure

TMR is responsible for the maintenance (including graffiti removal) of all noise barriers shown in the photos.

Responsibility for the replacement of the structure is dependent on who owns the land on which the existing noise barrier is located.



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