**Operational Procedure 100**

Installation & Maintenance of Underground Services within Road Reserves

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Contents

[1 Purpose 3](#_Toc532910261)

[2 SCOPE 3](#_Toc532910262)

[3 Definitions 3](#_Toc532910263)

[4 Process 4](#_Toc532910264)

[4.1 Approval to Install & Maintain Underground Services 4](#_Toc532910265)

[4.2 Environmental and Heritage Approvals 4](#_Toc532910266)

[4.3 Traffic Management 4](#_Toc532910267)

[4.4 Installation Techniques 5](#_Toc532910268)

[4.5 Trenchless Technology Methods 5](#_Toc532910269)

[4.6 Using Existing Conduits or Culverts 5](#_Toc532910270)

[4.7 Location of Existing Underground Services 5](#_Toc532910271)

[4.8 Consideration for Utility Service Providers 5](#_Toc532910272)

[4.8.1 Utilities and Fixtures 5](#_Toc532910273)

[4.9 Installation and Reinstatement 5](#_Toc532910274)

[5 References and related Documents 6](#_Toc532910275)

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Amendments

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| Revision Number | Revision Date | Description of Key Changes | Section / Page No. |
| 1.0 | March 2007 | Original Issue |  |
| 2.0 | September 2012 | Various |  |
| 3.0 | November 2015 | Responsibility Changes |  |
| 4.0 | March 2017 | Standardise Format Asset Management Guidelines |  |
| 5.0 | December 2018 | New format based on text in D17#317409. Update to agency names, owner/custodian, various grammar/punctuation mistakes and simplified version. |  |

# Purpose

Main Roads Western Australia (Main Roads) are responsible for the delivery and management of a safe and efficient main road network in WA through operations including:

* Building the state's major government road infrastructure projects;
* Providing infrastructure and operations that improve road efficiency resulting in improvements in traffic and freight levels of service;
* Maintaining the state's major government roads, bridges, verges and reserves;
* Using technology to optimise the real-time management of the network.

Main Roads is committed to working cooperatively and productively across all levels of government, to ensure our road network meets the needs of the community, industry and stakeholders.

The purpose of this document is to outline Main Roads WA requirements for Utility Service Providers with respect to works being undertaken within the road reserve.

# SCOPE

***This document is a Main Roads Operational Procedure. It is for informative purposes only. It is available on the Main Roads external website for transparency and ease of access, however it is not a specification or a standard, and its use is not mandatory. It is intended to provide background information as an aid for the understanding and application of Main Roads’ requirements for the installation of underground services in road reserves.***

Main Roads policies for works in its road reserve are shown in the document “Utility Services in Road Reserves – Policy and Guidelines”[[1]](#footnote-1).

Underground services include buried pipes and cables owned by Utility Service Providers and by other organisations and individuals. In general, Utility Service Providers are organisations such as Western Power, Alinta, Telstra, Water Corporation and private organisations such as SingTel Optus Pty Ltd and Epic Energy that will need to install underground services within Main Roads’ road reserves. However, these guidelines also relate to those organisations other than Utility Service Providers that are planning to install underground services within Main Roads’ road reserves.

For installing underground services, refer to the ‘Utility Providers Code of Practice for Western Australia’[[2]](#footnote-2), managed by the Utility Providers Services Committee.

Note:

1. All references to specific documents are to the current editions of these documents; and
2. All references to Utility Service Provider also include its nominated contractor.

# Definitions

| **Term** | **Definition** |
| --- | --- |
| **TMP** | Traffic Management Plan |
| **Trenchless Technology** | The installation of underground services without the need to excavate a trench |
| **Freeway** | A divided highway with no access for traffic between interchanges and with grade separation at all intersections. |
| **Controlled access road** | A road for through traffic to which access from abutting properties or joining roads is controlled. |
| **TGS** | Traffic Guidance Scheme |

# Process

## Approval to Install & Maintain Underground Services

Under the *Main Roads Act (1930)*, the Commissioner of Main Roads is responsible for the care, control and management of the land over which a highway or main road is declared. The ‘Utility Providers Code of Practice for WA’ outlines the allocation of space for utility services within the road reserve, particularly the metropolitan area and built-up regional areas, including the minimum standard cover for underground services.

If required, Utility Service Providers are to undertake reinstatement works (both pavement and verge) in accordance with standards set by the road authority. Any individual, organisation or Utility Service Provider that intends to carry out the installation or Maintenance of underground services within the road reserve or beneath the road pavement of a highway or main road must seek approval from Main Roads prior to undertaking the works.

This approval is necessary so that Main Roads can advise and obtain agreement on matters relating to public safety, traffic management and reinstatement requirements. **Applicants must obtain the required approval in accordance with the guidance contained on Main Roads’ website[[3]](#footnote-3)**.

Specifications to be used during installation and reinstatement of utility services are to be agreed between Main Roads and the Utility Provider prior to the commencement of the works.

## Environmental and Heritage Approvals

Prior to any works commencing, the applicant must ensure that the works will be done in accordance with environmental and heritage legislative requirements. Refer to Section 20 of the Main Roads “*Procedure for Seeking Approval to Undertake Works within the Main Roads Reserve”* for guidance on these requirements and for assistance in determining whether any approvals are required prior to any works commencing. This procedure is available from Main Roads website[[4]](#footnote-4).

## Traffic Management

Traffic Management Plans (TMPs) at the roadworks site shall be in accordance with:

* AS 1742.3-2009 –’Manual of uniform traffic control devices, Part 3: Traffic control for works on roads’, and;
* Main Roads WA ’Traffic Management for Works on Roads Code of Practice’[[5]](#footnote-5).

Under section 297(2) (Power to erect Traffic-Control Signals and Road Signs) of the Road Traffic Code 2000, Utility Service Providers may authorise the implementation of temporary traffic management themselves, subject to the conditions of their instrument of Authorisation issued by Main Roads. Under this agreement, it is the responsibility of the TMP designer, and the person who reviews and endorses the TMP to ensure that the plan is compliant with AS1742.3-2009, this procedure and the Code of practise.

As Main Roads WA has a duty of care to the safety of road users and road workers within their jurisdiction, they may audit a Utility Service Providers TMP for quality control and to assess the TMP for suitability in catering for all road users, speed zone appropriateness, traffic efficiency, and ensuring after care and staging TGSs are provided.

## Installation Techniques

The following options are available where it is necessary to place underground services beneath the road pavement:

* Trenchless technology methods;
* Utilise existing conduits / culverts; and
* Trench excavation and reinstatement.

Where underground services are to be placed beneath the road and any existing conduits or culverts cannot be used**, preference should be given to the use of trenchless technology methods**.

## Trenchless Technology Methods

Refer to ‘Australian Society of Trenchless Technology’ for latest publications at: <https://www.astt.com.au/>

## Using Existing Conduits or Culverts

Where services can be installed in existing conduits or culverts, approval must be obtained from Main Roads Regional Manager or their delegate prior to any installation being undertaken. Generally, culverts should not be used for permanent installations as these interfere with water flow. Culverts should only be used for temporary situations where there is little risk to the road integrity.

## Location of Existing Underground Services

*Dial Before You Dig*, as detailed in the ’Utility Providers Code of Practice for WA’, can be used to establish the location of existing buried services in both metropolitan and regional areas.

## Consideration for Utility Service Providers

### Utilities and Fixtures

Permanent road signs (e.g. advisory, regulatory, warning, etc.) that obstruct operations are to be removed and stored once approval by Main Roads has been obtained. Any sign removed must be replaced at the completion of the works or as directed by Main Roads. Any Main Roads assets damaged by the Utility Service Provider or its agents shall be replaced at their cost.

## Installation and Reinstatement

Generally, it will be necessary to reinstate excavations with materials equivalent to the adjacent undisturbed in-situ condition, to the satisfactions of Main Roads and in accordance with agreed specification (see section 4.1).

Unless otherwise specified by Main Roads, the minimum cover of underground services within the road reserve shall be in accordance with Main Roads requirements as specified in the ‘Utility Providers Code of Practise for WA’.

In freeways, controlled access roads and roads in non-built up regional areas, no manhole(s), valve(s) or other utility service structure are to be installed within the road reserve unless an agreement with Main Roads has been obtained to install a utility service in these road reserves. Regarding other roads, including built-up regional areas, prior notification and approval of proposed location of utility services must be obtained from Main Roads. No manhole(s), valve(s) or other surface mounted structures located within the road pavement are to be installed directly beneath the ‘wheel path’ of road users.

# References and related Documents

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| **Document Number** | **Description** |
|  | Procedure for Seeking Approval to Undertake Works within the Main Roads Reserve (located on its external website under “Our Roads > Conducting Works on Roads) |
|  | Utility Services in Road Reserves – Policy and Guidelines” - (located on its external website in under “Our Roads > Conducting Works on Roads). |
|  | Utility Providers Code of Practice for Western Australia’, managed by the Utility Providers Services Committee. |
|  | Application Forms for Undertaking Works within the Road reserve |
|  | AS 1742.3 –’Traffic Control Devices for Works on Roads’ and its associated Field Guides |
|  | Main Roads WA ’Traffic Management for Works on Roads Code of Practice’ |
|  | AS 2187 – ‘Use of Explosives’. |
|  | *Main Roads Act 1930* |

1. https://www.mainroads.wa.gov.au/OurRoads/Pages/WorksOnMainRoads.aspx [↑](#footnote-ref-1)
2. https://www.1100.com.au/wa/state-regulations-information/ [↑](#footnote-ref-2)
3. https://www.mainroads.wa.gov.au/OurRoads/Pages/WorksOnMainRoads.aspx [↑](#footnote-ref-3)
4. https://www.mainroads.wa.gov.au/OurRoads/Pages/WorksOnMainRoads.aspx [↑](#footnote-ref-4)
5. https://www.mainroads.wa.gov.au/OurRoads/TrafficManagement/Pages/TrafficManagement.aspx [↑](#footnote-ref-5)