



# INSTALLATION OF UTILITY SERVICES WITHIN THE BOUNDARIES OF COUNCIL CONTROLLED ROADS



## **1. GENERAL**

These guidelines apply to the installation of utility services within road reserves which come under the control of Logan City Council. It does not apply to the installation of high pressure (> 490kPa) conduits, the conditions and approval for which will be considered separately.

## **2. WORK PROPOSALS**

Proposals for new Utility Authority installations and/or augmentation of existing plant should be forwarded at the earliest possible time during the planning and/or design stages. In any event, plans shall be forwarded in writing to Logan City Council for approval at least six (6) weeks prior to the commencement of works. This will allow Logan City Council adequate time to examine, and co-ordinate with any other activities as necessary, unless superseded by an agreement previously signed by both parties i.e. Logan City Council and the Utility Authority.

The notice of work is to be in writing and accompanied by a plan(s) clearly showing the proposed work. It shall state the anticipated date of commencement of works and be signed and dated by the Authority's responsible officer.

## **3. APPROVED WORKS**

Works shall be in accordance with plans and specifications and needs to be submitted at least six (6) weeks prior to the intended work commencing, and approved in writing by the Chief Executive Officer or authorised personnel unless approved otherwise, Logan City Council Standard Specifications and Standard Drawings shall apply.

Approved works shall be completed within a period of three (3) months from the date of Council's letter of approval for such works, or a new approval is required.

## **4. WORK ON TRANSPORT AND MAIN ROADS CONTROLLED ROADS**

Where approval from the Department of Transport and Main Roads (DTMR) is required, conduits shall be installed on an alignment, as directed by DTMR.

## **5. SUPERVISION**

The works shall be supervised by the Service Authority, or in the case of private works, by a qualified Consulting Engineer retained by the developer or owner. In any case, the Civil Infrastructure Officer must be contacted at least one (1) week prior to commencement, or construction of the approved works, to enable the necessary inspections to be carried out. The name and contact for the Civil Infrastructure Officer will be made available in the letter of approval.



## 6. INSTALLATION

### 6.1 Clearing

Clearing shall be in accordance with Logan City Council's Standard Specification (*Earthworks 2006*) or its successor, and shall be kept to the absolute minimum required for construction, as approved by the Road Infrastructure Planning Manager. All materials resulting from the clearing operation are to be removed from within the road reserve.

Any proposed clearing or trimming of trees or shrubs is to be indicated specifically or by way of a general note on the plan submitted for approval. The limits of clearing of vegetation are to be agreed upon with Logan City Council before commencing work.

### 6.2 Drainage

The work shall be carried out so as not to detrimentally affect the existing drainage provisions of the roadway. No existing drainage arrangements (e.g. culverts, table drains etc) are to be altered without the approval of Logan City Council. All utility authority works are to be adequately drained during construction so as not to cause damage to existing road facilities.

6.2.1 Uncased bore holes, exceeding 100mm diameter will not be permitted under existing roadways, unless it is established to the satisfaction of Logan City Council. The installation of the service will be completed and any cavity remaining backfilled, as stated above. This needs to be done in a time agreed allowing sufficient time to avoid any delay(s) to traffic to cause minimal structural damage to the roadway and/or embankment.

6.2.2 Protective conduits, ducts or enveloping pipes are to extend a suitable distance beyond the batters or table drains. On kerbed sections, they are to extend beyond the kerb. When required, the encasement is to provide for future widening of the roadway.

6.2.3 Encasement or other suitable protection of cable or services of a potentially hazardous nature shall be carried out if the installation is likely to be damaged during construction or maintenance operations, and in any of the following instances:

- where less than minimum cover is required
- near the footings of a bridge or other structure;
- near other locations where they may be a hazard.

Enveloping pipes and service tunnels shall be drained and vented to the satisfaction of Logan City Council. Liquids and heavy gases may be drained by gravity drains, and light gases shall be exhausted through stand pipes projecting above the ground surface. Vent standpipes should not be placed where they can interfere with maintenance operations, nor be concealed by vegetation. They should preferably be located at the 'right of way' line and outside limited access boundaries.



### 6.3 Pavement Crossings

All road pavement crossings are to be installed utilising trenchless technology, unless otherwise specifically approved by Logan City Council.

### 6.4 Trenching

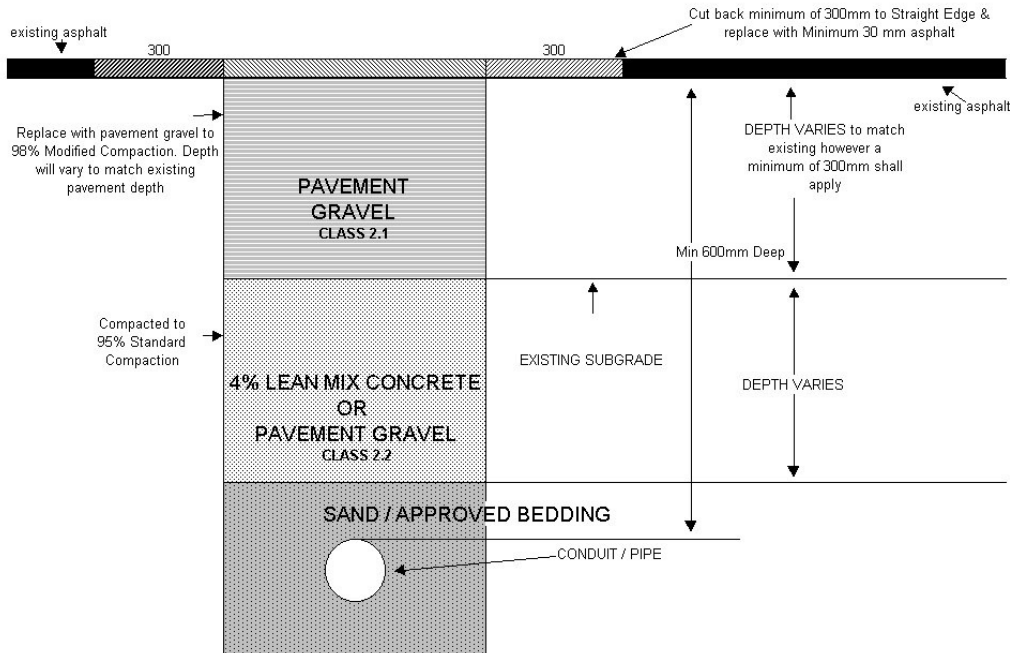
- a) Trenching is only to occur through a road pavement when explicit permission has been granted by Logan City Council.
- b) Trenching which is likely to reduce traffic flow shall be carried out between 9:00am and 3:00pm, or such other hours specified by the Roads Infrastructure Planning Manager. It shall be organised so as to cause minimum disruption to traffic, pedestrians and access to adjacent properties.
- c) Trenches shall not be left open overnight.
- d) Conduits shall be bedded in a 100mm to 150mm compacted sand surround or, where specified, 150mm (*minimum*) 20Mpa/20 concrete surround. Where UPVC or PE conduits are to be used, then installation shall also conform to the requirements of the relevant Australian Standards.
  - 2032 -1977 Installation of UPVC Pipe Systems
  - 2033 -1980 Installation of Polyethylene Pipe Systems
- e) Prior to excavation, straight saw cuts shall be made in the asphalt surface at least 150mm clear of the trench walls and the saw cut edges shall be maintained as neat, straight edges during the work.
- f) Backfill in trenches shall be as follows:

#### (i) Trenches Across Pavements & Along Sealed Road Shoulders

The backfill above the bedding sand or concrete surround shall be base course gravel, complying with base course material as specified in the Logan City Council Standard Specification for Pavements or its successor or as otherwise approved. It is to be compacted in layers of a minimum depth of 125mm and a maximum of 150mm. The finished surface of the pavement gravel is to be a minimum of 75mm below the existing road surface.

Compaction of layers shall be as follows:

- a) below a plane 300mm below the sub grade (i.e. the trimmed or prepared surface of the formation on which the pavement and shoulders are constructed). It is to be - 95% relative dry density (Standard Compaction Test - AS 1289 E1.1).
- b) above a plane 300mm below the sub grade at - 98% relative dry density (Modified Compaction Test - AS 1289 E2.1).



**(ii) Trenches Along Unsealed Road Shoulders**

The backfill above the bedding sand or concrete surround shall be base course gravel complying with base course material. As specified in the Logan City Council Standard Specification for Pavements or its successor or as otherwise approved, and placed in uniform layers of not more than 150mm to existing surface level.

Compaction of layers shall be as follows:

- a) below a plane 300mm below the sub grade (*i.e. the trimmed or prepared surface of the formation on which the pavement and shoulders are constructed*) - 95% relative dry density (*Standard Compaction Test - AS 1289 E1.1*).
- b) above a plane 300mm below the sub grade - 98% relative dry density (*Standard Compaction Test - AS 1289 E1.1*).

**(iii) Trenches in Unpaved Areas of the Road Reservation**

Backfill above the pipe surround may be compacted sand or earth compacted in uniform layers of not more than 150mm to a level of 100mm below natural surface. Compaction of the layers to 90% relative dry density (*Standard Compaction Test - AS 1289 E1.1*) shall be achieved.

The top 100mm of the trench shall be filled with an approved top soil, unless otherwise approved by the Road Infrastructure Planning Manager.

**(iv) Trenches in Paved/Formed Pathways**

Backfill above the pipe surround may consist of sand or earth compaction in uniform layers of not more than 150mm to a level of 100mm below natural surface. Compaction of the layers to 90% relative dry density (*Standard Compaction Test - AS 1289 E1.1*) shall be achieved.

The top 100mm of the trench shall be filled with approved gravel. Compaction of the layers to 95% relative dry density (*Standard Compaction Test - AS1289 E1.1*) shall be achieved.

g) Reinstatement of pavement and surfacing shall be as follows:

**i) Trenches across Pavements & Along Sealed Road Shoulders**

The surface of the backfill Refer Trenching (f) (i) and the remaining sides of the trench shall be dry and given a thorough **brooming** before being uniformly covered with a fine spray coating of bitumen emulsion.

The bitumen emulsion shall comply with the requirements of Logan City Council Standard Specification LCC Sprayed Bitumen Surfacing LCC or its successor.

The asphalt pavement surface layer shall comply with the requirements of Logan City Council Standard Specification LCC Asphaltic Concrete Surfacing Pavements or its successor, and shall be placed between the saw cuts carried out prior to excavation, and shall join smoothly to the existing pavement.

The depth of asphalt shall be a minimum 30mm or if the existing surface is greater than 30mm shall match the thickness of the adjacent pavement.

This work shall be carried out under the supervision of the Road Infrastructure Planning Branch representative.

Alternatively, subject to approval by the Road Infrastructure Management Manager temporary cold mix reinstatement may be made, with the permanent surfacing being carried out by Logan City Council on receipt of an order from the owner or utility operator to carry out the work at their expense.

In addition, the material shall have a maximum particle size of 25mm. It shall be compacted to 95% relative dry density (*Standard Compaction Test - AS 1289 E1.1*).

**(ii) Trenches along grassed Nature Strips**

- The surface of the backfill (Refer Trenching (f) (iii)).
- The surface shall be turfed with a minimum "B" grade turf unless otherwise approved by the Road Infrastructure Planning Manager.
- The grassed surface shall be keyed into the existing surface leaving no noticeable level difference.
- The grassed surface shall be maintained (watered, top dressed, fertilised etc) until the grass is fully established to the satisfaction of the Road Infrastructure Planning Manager.



### **(iii) Trenches in Paved/Formed Pathways**

The surface of the backfill (Refer Trenching (f) (iv)).

- a) **Asphalt Surface**  
The surface shall be reinstated as per (g) (i) other than the asphalt surface thickness shall be a minimum of 25mm thick.
- b) **Block Paved Surface**  
The reinstatement of the block paved surface shall be laid in a pattern and colour to match the existing surface. The pavers shall be bedded on approved sand with the surface free from irregularities as per Manufacturer's recommendations.
- c) **Concrete Surface**  
Irrespective of the existing standard of concrete path, all concrete paths shall be reinstated in accordance with Logan City Council Standard Specification Minor Concrete Works or its successor.

Joins to existing surface shall be saw cut full width to create a neat joint without steps or level differences. New concrete shall be dowelled to existing using galvanised R12 bar with minimum 200mm embedment.

### **6.5 Pits**

Unless specifically approved by the Road Infrastructure Planning Manager pits will not be permitted within the formed road pavement. Pits installed on the nature strip shall be installed to the levels as approved and shall be finished with a flush surface.

Minor earthworks may need to be undertaken to match this level with the existing surface. Reinstatement shall be the same as for trenching.

### **6.6 Attachment to Bridge Structures & Culverts**

- a) Where other routing has been shown to be either uneconomical or impractical, and where specific approval has been obtained in writing, conduits may be attached to bridges or culverts in a manner approved by the Road Infrastructure Planning Manager, Logan City Council and subject to the conditions set out in b), c) and d) below. All other relevant requirements of this specification must also be met.
- b) The owner shall remove or protect the conduit at his own expense during any of Council's rebuilding or maintenance operations.
- c) The owner shall maintain the conduit in good order and condition to the satisfaction of the Road Infrastructure Planning Manager.

- d) Unless specifically approved otherwise, closure of any part of the roadway or footpath, or the parking of service vehicles on the bridge or culvert during installation or maintenance, will not be permitted.
- e) A bridge load limit assessment may be warranted at the utility operator's expense.

## **6.7 Conduits through Drainage Culverts**

Where this method of installation is approved in writing, the conduit is to be attached to the soffit, with no appreciable sag and along the wings of the specified culvert and then underground to a depth so that the cover specified in Logan City Council Standard Drawings is achieved.

Except as provided above, the conduit is not to interfere with the existing drainage system in any way.

## **7. CONDUITS CARRYING COMBUSTIBLE LIQUIDS OR FLAMMABLE LIQUIDS**

Details of the design of an installation of conduits for the carrying of combustible liquids shall be approved by the Road Infrastructure Planning Manager. The pressure in such pipelines shall not exceed 490kPa.

## **8. TRAFFIC SAFETY & CONTROL**

The work involved in installing plants shall proceed with minimum interruption to traffic and pedestrians, and all steps necessary for the protection of the public during construction shall be taken. Road traffic shall not be diverted to sidetracks or detours without the written agreement of Logan City Council and the agreement of the Police, as may be necessary.

Warning signs, flashing lights and other traffic control devices shall be erected in accordance with the Manual of Uniform Traffic Control Devices (Queensland), and the Roadworks Signing Guide. All such devices must be promptly removed when no longer required.

In addition to the requirements of the MUTCD, if required by the Roads Infrastructure Planning Manager, the owner shall utilise the services of a Police Officer or qualified traffic controllers shall be used for traffic control.

## **9. CONSTRUCTION SAFETY**

The owner shall accept the responsibility of ensuring that the requirements of the *Workplace Health & Safety Act and Regulations* are observed.

## **10. DAMAGE TO ROADWAY MAINTENANCE**

The owner shall be required to repair, at his own expense, any damage to the roadway/footpath due to the installation or existence of the conduit. The owner shall bear any cost involved in maintaining the road surface over the installation for a period of 6 months from the date of completion of the work.





## **11. PRIVATE INSTALLATIONS**

In the case of privately owned installations (e.g. water pipes, poles, irrigation pipes etc), within the boundaries of Council controlled roads and prior to the consideration of final approval for installations, the applicant will be required to complete and return to Logan City Council, a Road Excavation Works Form.

- a) If the proposed works are approved, a permit will be issued for a specified term and in accordance with Council's conditions.
- b) The applicant shall provide evidence of a public liability insurance policy for a minimum of \$10,000,000 to cover the indemnity and shall maintain the policy for the term of the permit.
- c) Prior to the expiry of the permit, it is the responsibility of the owner of the installation to make application for a further permit for the continued approval of the installation.
- d) The owner shall remove or protect the installation at his own expense during any rebuilding or maintenance operation, if required.
- e) Permission for the installation is not transferable. A new owner must obtain a new permit.
- f) This Authority may be withdrawn by the Roads Infrastructure Planning Manager at any time by giving 30 days notice, in writing. If required, the owner shall remove the installation at his own expense.

If the owner fails to remove the installation within the time specified, the Road Infrastructure Planning Manager may cause the installation to be removed and recover the cost from the owner.

## **12. ENVIRONMENTAL ISSUES**

Prior to the commencement of works, the applicant is responsible for ensuring the proposed works are carried out in accordance with relevant legislation, addressing, but not limited to, Environmental, Cultural and Native Title issues.

Logan City Council makes no warrant as to the existence or non-existence of Native Title interests over any land within the boundaries of the Council controlled road reserve proposed to be used for the installation and/or maintenance of a utility service. It is a requirement that the utility service owner complies with Section 24 JB Subsection 6 of the *Native Title Act (Commonwealth) 1993*.

The applicant shall install and maintain siltation control devices to control the migration of silt from the site of the works. These devices shall be maintained until the area of disturbance from the works is re-established. When established, the siltation control devices shall be removed from site including any accumulated silt.

## **13. COSTS**



All costs shall be payable by the owner, including those attributed to inspections by Logan City Council, Traffic Control Police or a qualified traffic controller (if ordered).

#### **14. INDEMNITY**

The owner, by accepting the above conditions, indemnifies Logan City Council, against any claim, action or process for damage and/or injury which might arise during the progress of the work, and shall keep indemnified the Logan City Council against any claim, action or process for damage and/or injury which may arise due to the installation or existence of the installation.

#### **15. DIAL BEFORE YOU DIG**

The responsibility to identify and locate all services including water mains, sewerage, telecommunications, stormwater and gas, remains with your company. Confirmation for services / utility within the affected area can be obtained through DIAL BEFORE YOU DIG (DYED) on the website at [www.1100.com.au](http://www.1100.com.au) or phone on 1100. Information obtained from DYED services may need to be verified by engaging a qualified services locator and obtain "as constructed" plans or drawings from Council or other utility providers.