 <p><b>Mackay</b> REGIONAL COUNCIL</p>	<b>ADMINISTRATIVE POLICY</b>	
	<b>Permit to Work in Road Reserve</b>	
	POLICY NO	065
	DEPARTMENT	Engineering & Commercial Infrastructure
	PROGRAM	Technical Services
APPROVED BY CEO	29 August 2017	

## 1.0 Scope

This Policy sets out relevant actions related to the construction of infrastructure and use of the road reserve in relation to:-

- Invert Crossings & Concrete Driveways;
- Rural Accesses;
- Bitumen Sealed turnouts/Shoulders;
- Concrete Footpaths;
- Stormwater Connections;
- Underground Utility Service Crossings;
- Tracked Cane Harvesting Equipment Crossings.

This Policy supports permits issued under Local Law No. 1 (Administration), Subordinate Local Law No. 1.1 (Alteration or Improvement to Local Government Controlled Areas and Roads) and Subordinate Local Law No. 1.16 (Carrying out Works on a Road or Interfering with a Road or its Operation).

## 2.0 Purpose

Mackay Regional Council (MRC) processes applications from individuals/corporations for approvals to undertake works within the road reserve. The purpose of the Policy is to set out guidelines for these works particularly in relation to traffic control and infrastructure construction standards.

## 3.0 Reference

- Mackay Regional Council – “*Permit to Work Within the Road Reserve*” *Guidelines*;
- Local Law No. 1 (Administration);
- Subordinate Local Law No. 1.1 (Alteration or Improvement to Local Government Controlled Areas and Roads);
- Subordinate Local Law No. 1.16 (Carrying out Works on a Road or Interfering with a Road or its Operation);

#### 4.0 Definitions

To assist in interpretation the following definitions shall apply:

**Council** shall mean the Mayor and Councillors of Mackay Regional Council.

**Long Term** shall mean when traffic guidance is required to operate for both day and night and may be left unattended.

**MRC** shall mean Mackay Regional Council.

**Short Term** shall mean when work is started and completed in one shift and the road is returned to normal conditions.

#### 5.0 Background

To define the procedures required and conditions attached to works involving temporary closures or infrastructure installation within the Road Reserve.

#### 6.0 Policy Statement

Guidelines for consideration of infrastructure construction and use of the road reserve in relation to the specified purposes are contained in the document "*Mackay Regional Council – Permit to Work Within the Road Reserve*".

In addition while there is no statutory requirements the application shall be submitted for consideration to all relevant Government authorities for comment prior to the application being determined and conditions applied

#### 7.0 Review of Policy

This policy will be reviewed when any of the following occur:

1. The related documents are amended or replaced.
2. The Chief Executive Officer can vary all administrative policies at any given time.

Notwithstanding the above, this policy is to be reviewed at intervals of no more than three (3) years.

#### Attachment

Permit to Work within the Road Reserve

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Version Control:

Version	Reason / Trigger	Change	Endorsed / Reviewed	Date
1	New Policy		CEO	29.08.17

A decorative graphic at the top of the page features green grass-like lines on the left, a green leaf-like shape in the center, and a blue and yellow abstract shape on the right.

# Permit to Work Within the Road Reserve

Version 6 | June 2017

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## REFERENCES:

### Standard Drawings

A3-845	Excavation, Bedding & Backfilling of Stormwater Drainage Pipes and Box Culverts
A4-25	Typical Minor Access Details
A2-500	Standard Concrete Footpath
A3-989	Standard Footpath Treatment Mackay CBD
A3-865	Kerb and Channel
A3-773	Invert Type Vehicle Crossing for Kerb and Channel
A3-4095	Service Corridor Cross Sections (Urban)
A3-4096	Service Corridor Cross Sections (Rural)



# MINOR WORKS PERMIT APPLICATION (Technical Services)

Local Law No. 1

Subordinate Local Law No. 1.16.

This application form should be submitted with all Minor Works Permit applications, assessable by Technical Services. For all other Minor Works Permit applications, assessable by Development Services, please utilise the Minor Works Application (Development Services) application form from [Council's website](#).

## APPLICANT DETAILS

Applicant Name:			
Postal Address:			
Contact Number:		Email:	

## SITE DETAILS WHERE WORK IS TO BE CARRIED OUT

Property Address:	
Lot and Plan:	

## APPLICATION TYPE

- Temporary Road Closure
- Tracked Cane Harvesting Equipment Crossing
- Underground Utility Service Connection
- Irrigation Pipes
- Other Works (Provide Description):

## LODGEMENT INSTRUCTIONS

Submit the following documentation to [council@mackay.qld.gov.au](mailto:council@mackay.qld.gov.au):

- This application form, completed and signed by the Applicant;
- A site plan indicating location details and dimensions of the proposed works, drawn to scale (1:100);
- Payment of application fees, as outlined within [Council's Cost Recovery Fees and Charges](#) >> Engineering and Commercial Infrastructure >> Technical Services >> Works in Road Reserve.

For Temporary Road Closure Applications, the following documentation is also required in addition to the documentation outlined above:

- A copy of your Public Liability Insurance policy with a minimum \$10million coverage;
- Plan designed in accordance with MUTCD Part 3 by a person currently accredited in "Work Zone Traffic Management" in accordance with the *Transport Operations (Road Use Management – Accreditation & Other provisions) Regulation 2005*.

## APPLICANT DECLARATION

I/WE understand that the Permit is granted under the terms and conditions attached and specifications included in Council's document 'Permit to Work Within Road Reserve' and 'Temporary Road Closures' (if applicable) and have read those conditions and understand their meaning.

Applicant Signature:		Date:	
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## COUNCIL USE ONLY

Date Received:		Receipt Number:	
Receipting Officer:		Receipt Code:	
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## 1.0 CONDITIONS OF APPROVAL

### The Applicant understands and agrees to comply with the following conditions and specification as part of the approval to work in the road reserve.

- 1.1 Submit Application for Permit and Traffic Management Plan no less than fourteen (14) days prior to work commencing. Site conditions may alter during the period of works whereby a reassessment of traffic control and other factors may need to be made. Such factors may be influenced by weather conditions, traffic density, presence of children etc.
- 1.2 Definitions

*Long term* – applies when traffic guidance is required to operate for both day and night and may be left unattended.

*Short term* – applies when work is started and completed in one shift and the road is returned to normal conditions.
- 1.3 Supply an image, preferably digital, of the site prior to the commencement of works. Provide a video image when the proposed works cover a large area.
- 1.4 Comply with the requirements of this Specification and all current standards relevant to the proposed work, and take all reasonable steps to ascertain the requirements of these Specifications.
- 1.5 Keep the road open to bi-directional traffic at all times unless the Manager Technical Services has given approval in writing for the road to be fully or partially closed.
- 1.6 Observe all necessary safety precautions and requirements relating to signs, barriers and warning devices for works in progress in accordance with the approved Traffic Management Plan designed in accordance with Australian Standard AS 1742.3 – Manual of Uniform Traffic Control Devices and complying with the requirements of Traffic Management for Construction or Maintenance Work Code of Practice 2008 and Queensland Department of Main Roads' Manual of Uniform Traffic Control Devices. Furthermore, provide safety lights, barricades and signs in accordance with any special requirements imposed by MRC that may be in addition to the preceding conditions. For example, working times are noted in this Specification.
- 1.7 The issue of this permit requires the Applicant to reinstate the '*Site of Works*' to its original condition at no cost to MRC. Backfill and reinstate excavations in accordance with the EARTHWORKS section of this Specification. Where the reinstatement works are not satisfactory, the Manager Technical Services will notify the Applicant in writing. The Applicant is required to deal with the issues immediately, otherwise a third party will complete the reinstatement at the Applicant's expense, including all costs incurred by MRC.
- 1.8 Accept complete responsibility for determining the location of all services and equipment of other Authorities in the vicinity of the described area and take steps to protect any such equipment and services that are located in the area. Immediately report any damage caused to both service authority and MRC and take responsibility for costs of repairs.
- 1.9 Pay all costs associated with repairs and reinstatement works due to the implementation of the requirements of this permit.

#### DECLARATION:

Signed:	<input type="text"/>	Date:	<input type="text"/>
Printed Name:	<input type="text"/>	Position:	<input type="text"/>
Company:	<input type="text"/>		



## 2.0 PROVISION FOR TRAFFIC

### 2.1 Standards

Conform to the following Standards and Publications unless specified otherwise:

- AS 1742.3 Manual of Uniform Traffic Control Devices – Traffic Control Devices for Works on Roads.
- AS/NZS 3845 Road Safety Barrier Systems
- MUTCD Part 3 Manual of Uniform Traffic Control Devices – Queensland Department of Transport & Main Roads
- AUSTROADS Guide to the Geometric Design of Rural Roads
- AUSTROADS Bridge Design Code AS5100

Traffic Management for Construction or Maintenance Works Code of Practice 2008

### 2.2 General

Minimal obstruction and inconvenience is to be caused to the public.

The applicant shall assume responsibility for the safe conduct of traffic through or around the works, 24 hours a day from possession of the site to completion of all works.

### 2.3 Work in Urban Areas

Accept complete responsibility for determining the location of all services and equipment of other Authorities in the vicinity of the described area and to take steps to protect any such equipment and services that are located in the area. Immediately report any damage caused to both service authority and MRC and take responsibility for costs of repairs.

#### 2.3.1 *Working Times*

Program work and install signs accordingly so that traffic is not impeded during the following peak traffic periods.

0700 hours to 0900 hours  
1500 hours to 1600 hours

Remove or cover signs as appropriate to prevent confusion during these hours.

General working hours for Regulated machinery shall be as specified by the Environmental Protection Act 1994 S440R in relation to work related noise generation in respect to both noise generation times and levels, ie

Monday to Friday	7.00 am – 7.00 pm
Saturday	7.00 am – 7.00 pm
Sunday and Public Holidays	8.00 am – 6.30 pm

Working hours for building works shall be as stated in S.440S of the above Act and shall be 6.30am - 6.30 pm Monday to Saturday only.

Any proposed works outside these hours may only be undertaken with MRC's approval.

### 2.4 Traffic Management Plan – Notice

Submit the Traffic Management Plan to the Manager Technical Services a minimum of fourteen (14) working days before the commencement of work.

The Traffic Management Plan must be designed, modified and supervised by persons who are accredited Traffic Management Design & Traffic Controllers appointed under the Transport Operations (Road Use Management – Accreditation & Other Provisions) Regulation 2005 and registered under the Traffic Management Registration Scheme.

Design the Traffic Management Plan in accordance with AS 1742 and Queensland Department of Transport & Main Roads Manual of Uniform Traffic Control Devices Part 3.1 'Traffic Control Devices for Works on Roads' and complying with the Traffic Management for Construction or Maintenance Work Code of Practice 2008. Produce the plan by electronic means, eg Computer Aided Drafting (CAD) and submit the plan to the Manager Technical Services via electronic means, eg. e-mail, computer disc etc.

Include the following details on the Traffic Management Plan:

- The name of the Traffic Management Plan designer;
- The name of the Traffic Management Plan supervisor;
- The registration number and expiry date of the Traffic Management Plan designer and supervisor's accreditation;
- Address all of the issues relevant to traffic conditions at the work site. The Manager Technical Services reserves the right to request modifications to the plan during the works.

As a minimum address the following issues:

- The work zone speed limit. Submit proposals to alter speed limits to the Manager Technical Services fourteen (14) working days prior to the erection of signs, for approval under the Transport Operations (Road Use Management) Act;
- Restriction to existing lane use;
- Changes to existing lane use;
- Works being carried out under traffic and traffic control arrangements;
- The need for detours;
- Night work and work site illumination;
- Separation of traffic and work areas;
- Sign spacing;
- Advance warning of the works;
- How to maintain and control the "Daily Routine Tasks and Record Keeping" – Appendix A of AS 1742.3;
- Development of traffic management as the work site develops;
- Separate traffic plans for discrete work elements, for example, lane closure arrangements for each stage of a multi lane rehabilitation project to be carried out under traffic.

#### 2.4.1 *Approval of Traffic Management Plan*

Subject to the Traffic Management Plan being acceptable and the applicant's provision of a Certificate of Currency for Public Liability Insurance and completion of a signed Deed of Indemnity, approval of the Traffic Management Plan may be granted by the issue of a 'Letter of No Objection'.

However, if part of a road is to be closed to facilitate the works, the Applicant will require a permit from the Queensland Police Service. MRC would issue a '*Letter of No Objection*' to the closure, so that this can be obtained.

#### 2.4.2 *Traffic Management Plan Audits*

A copy of the Traffic Management Plan and any amendments will be retained in a central register under the control of MRC.

Inspecting Officers may perform random audits of traffic management at work sites as part of their daily routine duties.

These audits will include assessment of the Traffic Management Plan in progress and observation of the routine daily tasks and record keeping for traffic control at the work site, including modifications to the Traffic Management Plan.

If traffic control is not being carried out in accordance with the Traffic Management Plan or the Inspecting Officer deems modifications to the Plan necessary, the Manager Technical Services will arrange for corrections to be carried out immediately at no cost to MRC.

## 2.5 Warning Devices

Take care when placing warning signs, work signs, traffic management devices, or plant and equipment within the road reserve to ensure that these do not interfere or restrict sight lines, particularly at intersections, or are obscured by trees.

Road work signs should reflect the current conditions of the site. Queensland Department of Main Roads MUTCD and Australian Standard AS 1742 provides guidance on appropriate use of these signs.

### 2.5.1 *Works in Progress Signs*

NB: Short term works in Mackay CBD are excluded from the requirements of Clause 2.5.1.

Whilst works are in progress display signs, sized 1200 x 900 mm with 100 mm high black Helvetica medium lettering on a white background will be installed displaying the following details:

- The nature of the works
- The start and end date of the works
- The Contractor's business name
- The Contractor's business phone number
- The Contractor's after hours phone number
- The name of the Traffic Management Plan Supervisor.

Display these signs prominently at the extremities of all works in progress and in addition to the work signs requirement. They will remain the contractor's property.

Place advisory works signs at the start and end of the works next to the project noticeboards.

## 2.6 Traffic Control

Carry out the works using traffic control as defined by the Traffic Management Plan under the supervision of an accredited Traffic Controller.

Modify the Traffic Management Plan during the works to suit site conditions if required or requested by the Manager Technical Services. The Manager Technical Services **must** endorse all changes to the Traffic Management Plan.

If an incident occurs within, on approach to or departure from the work site a photographic record of the traffic control should be made as soon as practical. Advise the Manager Technical Services of the incident as soon as possible.

Single lane operation of two-way traffic will only be permitted when traffic is directed by traffic controllers, signs or portable traffic signals, dependant on the site conditions.

## 2.7 Access to Adjacent Properties and Side Roads

Maintain access to adjacent properties and side roads at all times to a level appropriate for the type and frequency of traffic. Liaison **must** be undertaken with adjacent property owners to advise of proposed traffic flow modifications and ensure access to these properties is maintained.

Provide and erect signs detailing alternative access.

Ensure adequate access is maintained for pedestrians and cyclists as required, including delineated access if paths are closed.

## 2.8 Temporary Bridging

Design and construct any temporary bridging in accordance with the "AUSTRROADS" Bridge Design Code.

Provide and erect fence or guard rail to prevent accidental access to the feature being bridged.

## 2.9 Contractor's Plant and Equipment

Provide public traffic right of way at all times unless traffic control is in use.

Keep parking and materials storage clear of trafficked areas.

Do not leave equipment or tools unattended as a hazard to the public.

Floodlight the road and area within 50 m of the site when working at night, to a ground level illuminance of 10 lux minimum.

### 2.9.1 Rotating Beacons of Plant

Provide a rotating yellow beacon on the roof of all plant and equipment, fitted with a minimum 55 watt globe or equivalent strobe light, in accordance with Queensland Department of Main Roads MUTCD requirements.

Ensure that the light is operational whenever the plant or equipment is working on the roadway.

Ensure that the light is visible from all approaches and not obscured by exhaust stacks, back hoe arms etc., or covered in dust.

Protect the lights from damage by scrub etc.

Fit service vehicles with vehicle mounted warning devices in accordance with MUTCD and AS 1742.3.

## 2.10 Restoration

Upon completion of works:

- Remove all temporary warning devices and traffic control measures;
- Remove all temporary works and reinstate the areas to reflect their natural state;
- Reinstate permanent traffic control devices temporarily removed during the works.

## 2.11 Clearing and Grubbing

Any declared weeds identified at the site shall be treated before clearing work starts. MRC's Land Protection Officer can advise on appropriate identification and treatment.

Clearing and grubbing (for the proposed works) shall be the minimum needed for the installation of the works, either adjacent to the property, or on the approved alignment.

Materials cleared and grubbed shall be disposed of, as approved by the Manager Technical Services, or his representatives, in the following manner:

- (a) Millable timber, or other materials that have a commercial use, shall be separated and treated to permit its sale or re-use. The constructing authority shall liaise with the Department of Primary Industry and Forestry with respect to royalties and sale.
- (b) All trees and vegetable material up to 100 mm diameter shall be mulched for re-use on site, along the disturbed area as an aid to revegetation and to assist in stabilisation of the site.
- (c) Material not mulched or of commercial value shall be stockpiled at approved sites along the road reserve, to provide habitat for local fauna. No stockpiles are permitted adjacent to the property boundary (as this may create a fire hazard) or in drainage lines. All stockpiles shall

be outside of the clear zone – refer Section 8 of the Department of Transport and Main Roads Road Planning and Design Manual.

- (d) MRC may order all cleared and grubbed material to be burnt if the options above are impracticable.
- (e) Grub holes are to be backfilled and the whole of the disturbed area graded to maintain the shape of the existing terrain.
- (f) MRC may require all non-usable materials to be removed from the road reserve and disposed of at a site approved.

Such work is to be to the satisfaction of the Manager Technical Services or his representative.

## 2.12 Services

The Applicant shall verify the existence and location of any underground, or overhead, public utility services that construction of the proposed works may affect. If such services do exist, the Applicant is to liaise with the relevant Authority to prevent any damage to such service. The Applicant shall also maintain the minimum horizontal and/or vertical clearance (as stipulated by the service authority) from any underground, or overhead, services. Any relocation or protection of underground, or overhead, services shall be carried out at no cost to MRC.

## 2.13 Roadway and Road Reserve Repairs

The Applicant will be required to repair, or cause to be repaired, at his own expense any damage to the roadway and/or road reserve due to the existence of the service.

## 2.14 Enveloper Pipes

A steel, concrete or other approved enveloping pipe is to be installed for the full width of the road formation. Minimum coverage for the enveloping pipe and for the service throughout the road reservation shall be in accordance with the attached Appendix.

# 3. **EARTHWORKS**

## 3.1 Excavation

### 3.1.1 *Sealed Roads*

Open excavation within sealed pavements is not permitted without approval and will not be approved on major roadways. Install pipes, conduits, etc. by thrust boring under the road.

All thrust boring under sealed pavements shall conform to THRUST BORING section.

Do not excavate thrust boring pits closer than 3 m to the edge of the sealed road without prior written approval from the Manager Technical Services.

Depth of thrust boring to be no less than 1 m below the road surface.

### 3.1.2 *Unsealed Roads*

Open excavation within unsealed roads is permitted.

### 3.1.3 *Excavations*

Do not excavate within 1 m of any road element, eg kerb and gutter, drainage structure, etc, without the prior approval of the Manager Technical Services.

Reinstate any landscaping and/or structure damaged or disturbed as a result of the work.  
Undertake remedial works as directed by MRC.

Pay all fees associated with the location of all utilities in the vicinity of the excavation, prior to commencement of the works.

Pay all costs associated with the repairing of utilities damaged by the excavation works.

Fence the excavation as per the requirements of the Workplace Health and Safety Act.

Provide adequate shoring, conforming to the requirements of the Workplace Health and Safety Act to prevent the collapse of a trench where the trench walls are saturated or unstable.

Benching of trench walls is not permitted.

Provide all warning signs and lights.

### 3.2 Backfilling and Reinstatement

Backfilling of trenches and reinstatement of the pavement shall be in accordance with Plan A3-845 appended. The backfilled trench shall be levelled and checked with a straight edge to ensure that work is not '*proud*' of the existing road.

### 3.3 Future Works

Provision should be made for future extension of a service to avoid subsequent disruption of traffic and damage to road pavements.

### 3.4 Cost

The cost of all work, including the restoration of the road reserve to a clean and tidy condition acceptable to MRC shall be the responsibility of the owner/s.

### 3.5 Supervision

All work within the road reserve is to be carried out under the supervision of MRC's Maintenance Supervisor. In this regard, it will be necessary for contact to be made with MRC before commencing any work within the road reserve.

### 3.6 Certification

The Applicant is to provide written certification that all works have been constructed in accordance with these conditions, standard drawings and/or any other standard, or job specific, conditions specified at the time of approval for the works to be constructed.

The certification may be from either the MRC's Maintenance Supervisor, or the Registered Professional Engineer of Queensland (RPEQ), whoever supervises the works.

### 3.7 Future Works and/or Maintenance

#### 3.7.1 *By Applicant*

The Applicant shall be required to remove or protect the service during any rebuilding or maintenance operations of the road, and may be called on to do so at their own expense.

#### 3.7.2 *By MRC*

All reasonable care will be taken during future roadworks construction, however the installation of a service must in no way interfere with the work of maintenance personnel. MRC accepts no responsibility for damage to the service during any maintenance or reconstruction work.

### 3.8 Rural Road Accesses and Turnouts

Standards required by MRC in relation to construction of these items is shown on Plan A4-25. MRC's Maintenance Supervisor is required to certify acceptance for each stage of the works prior to the works progressing. Given the possible conflict with traffic flow the Applicant should ensure that a relevant traffic control plan is prepared and lodged together with other documentation as specified previously.

## 4. **THRUST BORING**

### 4.1 General

This section specifies the installation of piping beneath trafficked surfaces, buildings or other nominated areas without trenching, disruption to traffic or subsidence.

### 4.2 Standards

Conform to the following Standard unless specified otherwise:

AS 1579 Arc Welded Steel Pipes and fittings for Water and Waste Water

### 4.3 Proposed Method – Approval

Approval – Submit details of the proposed method of thrust boring not less than fourteen (14) days prior to commencement of construction using that method. Include details of proposed filling of cavities. No disruption or excavation of the surface is to take place over the length nominated.

#### 4.3.1 *Thrust Boring*

Keep dimensions of jacking pits to the minimum necessary.

Use pipe jacking equipment inspected and approved by the Department of Industrial Relations.

**HARD COMPETENT MATERIAL:** Material with sufficient strength to be self supporting without the use of a pipe casing, and must be accepted as hard competent material by DIPE.

#### 4.3.2 *Thrust Boring with Pipe Casing*

Use pipe casing for thrust boring greater than 200 mm in diameter and in material other than hard competent material.

Use a welded mild steel pipe casing manufactured in accordance with AS 1579 and of sufficient strength to withstand the forces generated irrespective of the nature of subsurface material encountered.

Ensure the inside diameter of the casing is double the maximum outside diameter of the pipe joints, skids, cradle runners or other protrusions related to pipe insertion.

#### 4.3.3 *Thrust Boring Without Pipe Casing*

Thrust boring less than 200 mm in diameter and in hard competent material.

Thrust bore the hole cleanly without projections to a diameter at least 50 mm greater than the maximum outside diameter of the pipe joints, skids or other protrusions related to pipe insertion.

Use plastic skids extending the whole length of the pipe apart from joints to ensure the pipe is at least 10 mm clear of the hole perimeter. Insert the pipe so that the joints are neither stressed nor pulled apart.

#### 4.3.4 Filling of Cavities

Carry out grouting of the pipe/casing cavity with pumped Cementous grout (Class N20) containing an appropriate plasticizing agent. Pipe to be full of water under a pressure equal to normal expected operation pressure.

## 5. PIPE WORK CONSTRUCTION AND INSTALLATION

### 5.1 General

The initial application to be submitted in writing shall indicate the following details:

- Pipe carrying water/effluent or other;
- Location of pipe (road, location, grade, etc);
- Plan of location showing roads, services and property alignments

When works have been completed for essentially private assets, an 'as constructed' plan of pipe location drawn to scale is to be submitted to MRC together with an Indemnity by the owner guaranteeing maintenance from the date of commissioning.

### 5.2 Standard Conditions for Pipe Construction

Conditions associated with applications of this nature shall meet those contained in the '*Standard Conditions for the Installation of Services Within the Boundaries of Council Controlled Roads/Lands*' and those indicated as follows:

- Pipes carrying water/effluent etc for public use shall be installed in accordance with conditions specified by Mackay Water.
- The pipe shall be placed in position and in a manner approved by the Manager Technical Services and shall be maintained to the satisfaction of that Officer.
- The pipe shall be placed so that there is minimum of 600 mm from the natural surface to the top of the pipe in non-trafficable areas and 1000 mm in trafficable areas.
- Where the pipe crosses, the table drain or at any point along a table drain it shall be at least 600 mm below the bottom of the table drain.
- Spatial alignment from property boundary shall be in accordance with those detailed on the following plans dependent on the hierarchal classification of the road involved:
  - A3-4095 - 'Standard Service Corridor – Cross Sections (Urban)'
  - A3-4096 - 'Standard Service Corridor – Cross Sections (Rural)'
- After laying the pipe the surface of the road reserve and roadway must be restored to their prior condition at the Applicant's expense and to the satisfaction of the Manager Technical Services and as previously indicated.
- Materials utilised in the installation including pipe, enveloping pipe and bedding/backfill materials shall be in accordance with the relevant Australian Standards.
- The work shall proceed without the interruption of traffic and the Applicant shall take any steps necessary for the protection of traffic, pedestrians, plan and workers, on or along the road.
- The Applicant will be required to remove or protect the pipe at his own expense during any rebuilding or maintenance operations on or along the road.
- MRC will not be responsible for the cost of any repairs to the installation damaged during maintenance operations or new works.



- The Applicant will be required to repair or cause to be repaired at his own expense any damage to the roadway due to the existence of the pipe.
- The location of the pipeline to be clearly marked by marker signs, on each end of the section running along the road reserve.
- These conditions are to be read in conjunction with any standard specifications relevant to the works, which may be nominated by MRC.
- The Applicant, by accepting the above conditions, indemnifies the MRC and its Officers against any claim, action or process for damage or injury which might arise during the progress of the work, and shall keep indemnified the MRC and its Officers against any claim, action or process for damage and/or injury which might arise for the existence of the pipe.
- This authority may be withdrawn by the MRC at any time giving thirty (30) days' notice in writing and if so required by the MRC, the Applicant shall remove the pipe at his own expense. If the Applicant fails to remove the pipe within the time specified, the MRC may cause the pipe to be removed and recover the cost from the owner.
- All pipework installation shall be undertaken such that clearances to water and sewerage assets are maintained in accordance with Mackay Water Policy No. MW 16 appended hereto.

## 6. LANDSCAPE

### 6.1 Standards

Conform to the following Standards and Publication unless specified otherwise:

- AS/NZS 3500.1.2 National Plumbing and Drainage – Water Supply
- AS 4419 Soils for Landscaping and Garden Use

### 6.2 Protection of Existing Vegetation

Ensure all trees, shrubs, and other vegetation to be retained within the limits of work are properly demarcated and protected prior to commencing work

Do not place, store or dump any chemical type materials including oil, paint, bituminous products, fuels, and cement/concrete near the vegetation. Prevent windblown chemical type materials, such as cement, from affecting vegetation. Do not mix any chemical type materials including oil, paint, bituminous products, fuels, and cement/concrete near the vegetation, on open soil and natural drainage lines.

Do not stockpile bulk materials – such as spoil from excavation, boulders, cleared vegetation near, against or within the dripline of trees identified to be retained and protected. Any excavation within the dripline of trees shall be done by hand. Care shall be taken to minimize root exposure during excavation.

All trees within the limit of works shall be inspected by MRC's arborist prior to commencing of works. Any root cutting and/or trimming of branches and vegetation shall be done by a certified arborist on approval from MRC's arborist.

Backfill excavation around tree roots with material of at least comparable quality to that excavated. Consolidate backfill and do not backfill around trunks above the original level. Thoroughly water backfilling.

### 6.3 Removal of Trees and Other Vegetation

Obtain MRC approval before the removal of any tree, shrub or other vegetation.

Replace any tree, shrub or other vegetation, that has been removed, with new vegetation of the same species and quality to the satisfaction of MRC.

Remove from site any tree, shrub, or other vegetation removed or destroyed as a result of the works and dispose of at an approved MRC rubbish dump.

### 6.4 Damage to Trees, Shrubs and Other Vegetation

Replace any tree, shrub or other vegetation, that has been damaged as a result of the work deemed by MRC to require replacement, with new vegetation of the same species and quality to the satisfaction of MRC.

Replant with trees of 100 litre bag size, and of the same species and quality as that removed, to the satisfaction of MRC. Failing availability of the same species at 100 litre bag size, MRC will advise of an alternative species. Trees and vegetation to be sourced from an approved and certified local nursery where possible.

### 6.5 Trenching in Grassed Areas

For backfilling of trenches in grassed areas, place topsoil for the last 100 mm of backfill, compact slightly so as to minimise subsidence.

Comply with AS 4419 for topsoil and seed using a mix of the following seed mix per hectare evenly spread:

- 50 kg Speedy Couch
- 20 kg Wimmera Meygrass (*Ulium rigidum*) (March to July only)
- 10 kg Japanese millet (August to February)
- Cropping 55 Fertiliser applied at 350 kg/ha

### 6.6 Damage to Irrigation Systems

Engage a Certified Irrigation Designer with competency in Landscape/Turf Commercial requirements, as recognized by the Irrigation Association of Australia, to carry out repairs to irrigation systems damaged as a result of the work.

Conform to AS/NZS 3500.1 when carrying out repairs.

Flush the irrigation systems after each repair.

Pressure test all repairs upstream of solenoid valves.

Carry out a final inspection using an approved irrigation installer prior to the placement of backfill.

After repairs to damaged wiring and conduit caused as a result of the work, test the entire electrical control system to ensure no adjacent faults, to the satisfaction of the approved Irrigation Installer.

### 6.7 Footpath/Driveway Restoration/Construction

Where removal/restoration of footpath is required, the following standards shall apply:-

- Concrete footpaths shall be broke out by saw-cutting for a minimum width of one bay and replaced with natural coloured concrete, or in the case of feature footpaths replace with existing colour and pattern. Slabs shall be generally reinstated in accordance with the requirements of Plans A2-500 or A3-989 (Mackay CBD) dependent on the site location.
- The minimum dimension of any remaining slab shall not be less than 1.5 metres in any direction.

- Feature driveways shall have the full slab replaced to the property boundary in existing colour and pattern.
- Pram ramps shall be replaced in their entirety and are to comply with MRC's standard drawing, attached.
- Asphalt paths shall be broken out to a minimum of 300 mm on each side of the trench and backfilled with compacted stabilised sand, crusher dust or crushed rock pavement material, finished with a minimum of 25 mm thickness of compacted asphalt.
- Kerb and channel details and invert details are appended on Plans A3-865 and A3 - 773.

## 7.0 TRACKED CANE HARVESTING EQUIPMENT CROSSINGS

At locations where such equipment is required to cross existing roadways the following conditions shall apply:

- Applications are to be approved on an annual basis
- The Applicant agrees to pay the cost of the maintenance and repair of any damage of the road pavement and surfacing at the site of the crossing where such damages occur as a result of the use of the crossing by the tracked harvester.
- The owner/operator of the harvesting equipment shall provide advance warning vehicles and signs 250 m minimum either side of the approved crossing site. The vehicles including the harvester must be equipped with flashing amber lights and must be in two (2) way radio contact with each other. The advanced warning signs shall be "SLOW VEHICLE CROSSING 250 M" (TC 9891 as per the *Manual of Uniform Traffic Control Devices*) and are to be displayed on or near advance warning vehicles.
- Tracked Harvesters shall give way to all traffic at all times.
- Track Harvesters are not permitted to cross road reserve in rainy or foggy weather.
- Tracked Harvester Operators are to avoid any sudden changes of direction when travelling on the road reserve so as not to cause damage to the road surface, open drains or any of MRC's infrastructure.
- Walking of machines along bitumen or shoulders of the road is not permitted.
- The Applicant shall take out Public Liability Insurance against any claims for any injury and property damage resulting from the use of this harvester crossing. This insurance is to show MRC as an interested party and have a minimum cover of \$20 Million. A copy of this Policy and current certificate is to be forwarded to MRC as per previous advice.
- The applicant shall pay all costs associated with the maintenance and repair of any damage to the road and causeway caused by the harvester crossing.
- Failure to comply with the conditions set out may result in the cancellation of the permit.

## 8.0 CULTURAL HERITAGE

The owner/s must undertake searches to determine whether there are any Cultural Heritage sites along the route of the proposed service. These sites may be of significance to either indigenous or non-indigenous persons or groups. All costs associated with complying with Cultural Heritage requirements shall be borne by the owner/s of the proposed service.



## DEED OF INDEMNITY

IN CONSIDERATION of MACKAY REGIONAL COUNCIL giving approval to:

\_\_\_\_\_

including its servants, agents and volunteers ("*the Applicant*"), to use a portion, or all, of the following Council-controlled roads, namely:

\_\_\_\_\_ ("*the Land*")

to \_\_\_\_\_

or until otherwise advised by either the Applicant or Mackay Regional Council ("*The Work*")

the Applicant indemnifies, and agrees to keep indemnified, Mackay Regional Council, its agents and employees from and against all losses, damages, costs and expenses which the Mackay Regional Council sustains or incurs in respect of any loss or damage to property or death or injury (including from the negligent use or misuse or the escape, overflow or leakage of water, fire, gas, electricity or other agent in or from the Land) which is caused or contributed to by the Applicant's carrying out the Work on, or the use or occupation of "*the Land*" except to the extent that such loss, damage, death or injury is caused or contributed to by the act or omission of the Mackay Regional Council or its agents or employees

Subject to law, the Applicant will enter the Land and carry out the Work on the land at its own risk.

### SIGNED SEALED AND DELIVERED BY:

\_\_\_\_\_ on behalf of )  
  (Print Name)

.....  
  [Signature/s]

\_\_\_\_\_ )

this \_\_\_\_\_ day of \_\_\_\_\_ 20 \_\_\_\_\_ )

in the presence of:- )

\_\_\_\_\_  
  [A Justice of the Peace/Commissioner for Declarations]



**STANDARD CONDITIONS FOR THE INSTALLATION OF SERVICES WITHIN THE BOUNDARIES OF COUNCIL CONTROLLED ROADS / LANDS  
(As per LL1 – Administration and SLL 1.1 – Alteration or Improvement to LG Controlled Areas and Roads)**

**1.0 General**

- 1.1 The work approved shall be limited to the locations shown on the application plans submitted to MRC.
- 1.2 Service alignments shall be in accordance with that specified on Standard Drawings A3-4095 and A3-4096.
- 1.3 If new alignments are being proposed, no services are to be placed within the existing roadway / streetworks formation width. Services are to be located clear of and on the boundary of existing structures (eg. Culvert Endwalls).
- 1.4 The work shall proceed without any unreasonable interruption of traffic and any steps necessary for the protection of the Public shall be undertaken. This shall include the provision of adequate warning signs, devices and traffic control in accordance with the *Manual of Uniform Traffic Control Devices*, as well as adherence to any Workplace Health & Safety legislative requirements.
- 1.5 The road reserve is to be returned to a neat finish, and similar to finish pre-existing the service being placed. The Applicant/Contractor/Authority/Carrier shall be required to repair, at his own expense, any damage to the road / road reserve due to the existence of the service. With boring operations across road/street formations, a minimum clearance of 1000 mm is required at the existing road crown.
- 1.6 All crossings under sealed roads and concrete, paved or sealed driveways and footpaths shall be bored, unless otherwise approved.
- Concrete footpath shall be restored in accordance with plans A2-500 or A3-989, dependent on location.
  - The minimum dimension of any remaining slab shall not be less than 1.5 metres in any direction.
  - Feature driveways shall have the full slab replaced to the property boundary in existing colour and pattern.
  - Kerb & Channel shall be restored in accordance with Plan A3-865.
  - Pram ramps shall be replaced in their entirety and are to comply with MRC's standard drawing.
  - Invert crossings shall be replaced in their entirety and are to comply with MRC's standard drawing A3-773.
  - Asphalt paths shall be broken out to a minimum of 300 mm on each side of the trench and backfilled with compacted stabilised sand, crusher dust or crushed rock pavement material, finished with a minimum of 25 mm thickness of compacted asphalt.

Where trenching across roadways is approved by MRC, reinstatement shall be in accordance with details shown on MRC's Standard Drawing A3-845.

- 1.7 It is the applicant's responsibility to verify the existence and location of any underground services which may be affected by the proposed work including, but not limited to, Telecommunication lines, Electrical cabling, Sewerage mains, Water mains, Drainage and Irrigation pipes. If such MRC services exist the applicant is to liaise with the Mackay Regional MRC to prevent any damage to such service. In addition separation distances specified by relevant industry code is as well as policy MW16 are to be maintained as a minimum.
- 1.8 If specified, provision should be made for future extension of a service to avoid subsequent disruption of traffic and damage to road pavements.
- 1.9 The cost of all work, including the restoration of the road reserve to a clean and tidy condition acceptable to MRC as specified above in clause 1.5, shall be the responsibility of the utility asset owner.
- 1.10 The applicant, by accepting the above conditions, hereby indemnifies the MRC against any claim, action or process for damage and/or injury which may arise during the progress of the work and shall keep indemnified the MRC against any claim, action or process for damage and/or injury which may arise from existence of the service.
- 1.11 The installation shall in no way interfere with the work of maintenance or construction personnel of the Mackay Regional Council.

- 1.12 If the proposed works involved access through or require the use of private lands, permission of the local landowner is to be sought prior to the commencement of these works.
- 2.0 **Electrical Infrastructure**
- 2.1 All conduits/cabling under constructed bitumen or asphalt-surfaced roads are to be bored unless specifically approved in writing by MRC under exceptional circumstances. Only roads with gravel surfaces may be trenched. Road crossings should be at 90 degrees to the road centreline wherever possible.
- 2.2 Trenching and reinstatement is to be in accordance with MRC's Standard Drawing A3-845.
- 2.3 All electrical infrastructure is to be constructed within the standard electrical alignments as shown on drawings A3-4095 and A3-4096.
- 2.4 Kerb markers are to be provided where underground installations cross under kerbs.
- 2.5 A minimum cover of 1000 mm is to be provided to all conduits within the trafficable areas of the road reserve. This cover is to be measured from the lowest of the following points:-
- Adjacent kerb level
  - Adjacent road shoulder level
  - Existing surface level above the conduits.
- 2.6 These minimum cover requirements are to be maintained under table drains and open drains.
- 2.7 Pad mount transformers or similar cabinets are not to be located within a footpath area unless specific MRC approval is obtained. MRC's preferred location for these facilities, in developed areas, is set back from the road reserve boundary either in parks or additional road reserve allocation. This may require liaison with developers and/or Queensland Department Environment Reserve Management prior to submitting proposal to MRC. Transformer slabs shall be set at such a level so as to not create a trip hazard.
- 2.8 Minimum clearances as required by Australian Standards are to be maintained to overhead lines.
- 2.9 Traffic control is to be provided and maintained in accordance with Queensland Transport & Main Roads' *'Manual of Uniform Traffic Control Devices'*.
- 2.10 All works within the boundaries of Declared Main Roads are to be approved by Queensland Department of Transport & Main Roads.
- 2.11 The contractor is to obtain current details of MRC's services from MRC. Any damage to MRC's services will be repaired at the contractor's cost.
- 2.12 MRC's 'As Constructed' data shows mains reticulation only. Service conduits may also be encountered during construction and these should be identified prior to excavating. Repairs to any damage to these services will be the responsibility of the contractor.
- 2.13 Satisfactory sediment and erosion controls are to be installed and maintained in accordance with Institute of Engineers Guidelines.
- 2.14 If existing concrete pathways need to be modified or cut, full width panels of pathway between existing joints are to be removed and reinstated. Should sections of driveways/pathways be removed, the reinstatement shall include the installation of 16 mm diameter x 400 mm long dowels at 20 mm centres to the cut face. Any pathways that need to be removed shall be replaced in their entirety and no paths are to be cut longitudinally in half of part thereof.
- 2.15 Any new poles installed should be frangible type.
- 2.16 At stream locations, MRC would prefer that the Energy Authority remain on correct alignment. Where services are attached through or to the outside of existing culverts, bridges or floodway structures at the convenience to the Energy Authority, the Energy Authority shall indemnify MRC against all future relocation costs should the culvert, bridge or floodway require to be reconstructed, widened or replaced.
- Where conduit provisions (or service ducts) are made within new bridge structures it shall be the bridge owners responsibility to bear relocation costs in the future, should the bridge be widened or reconstructed.
- 2.17 Tree Removal
- (a) Rural Areas – The removal of any trees greater than 200 mm diameter or clearing greater than 500 m<sup>2</sup> must be approved separately by MRC. The submission should include photographs of the site, statement of environmental effects and any environmental controls proposed.

- (b) Urban Areas – The removal of any tree must be approved separately by MRC. The submission must include photographs of each individual tree identified for removal. Any approval shall be subject to the following conditions.
- All debris associated with the work is to be removed from the site.
  - The stump is to be ground below the level of the nature strip and backfilled to original level of the nature strip.
  - No other vegetation is to be damaged.
  - A replacement street tree shall be planted and maintained to establishment for each tree removed.
  - Footpath to be left in a clean, tidy and safe condition.
- 2.18 Tree pruning shall comply with Australian Standard AS 4373 – 2007 Pruning of Amenity Trees.
- 2.19 All areas that are disturbed by the operations are to be restored to the original conditions which will include, but not be limited to, levelling, compaction to prevent future sinking, top soiling and turf (or seed with a compatible grass seed mixture in rural areas).
- 2.20 Aerial cable crossings or roads must achieve a minimum clearance of 5.5 m above the entire trafficked roadway.
- 2.21 Where the proposed works requires trenching through turf, destruction of vegetation, cutting of driveways, construction of pillars, pits or poles fronting private property, MRC recommends the Energy Authority consult with the affected property owner.
- 2.22 The Energy Authority / Contactor shall provide As Constructed details of non-standard alignments to MRC and MRC shall keep a record of all non-standard alignments granted.
- 2.23 Contact MRC's representative / inspector to arrange for inspection of the completed works by MRC.
- 2.24 Location of utility services on MRC-owned infrastructure such as culverts, bridges, boardwalks and water towers or on land owned by or under MRC control will not be permitted unless:-
- (i) The relevant service authority has indemnified MRC against future costs of relocation.
  - (ii) Works are undertaken at no cost to MRC.
  - (iii) Where a second party wishes to attach services to a MRC owned bridge or culvert, MRC's requirements regarding location, design and maintenance are to be met.
  - (iv) Ducting shall generally be galvanised steel tubing and mounted in brackets on the outside of the downstream deck / kerb unit. Brackets shall be hot dip galvanised and fastened using stainless steel fasteners into the ferrules cast into the outside of the units.
  - (v) Where ferrules do not exist, approval shall be sought from MRC to use Stainless Steel Chemset (epoxy type) anchors. If is method is required, care will be required not to damage the reinforcement of the structure when masonry drilling into the deck / kerb unit.
  - (vi) The Brackets used shall position the conduit to be clear of the waterway area, and shall not obstruct any transverse tensioning rods for the deck units.
  - (vii) All work shall be at no cost to MRC, and the design for the proposed brackets and conduit system shall be forwarded to MRC for approval.
  - (viii) Should the existing structure NOT have guardrail, the conduit shall be positioned so as to deflect away from both ends of the structure to allow for the future installation of guardrail.
- 3.0 **Gas Facilities**
- 3.1 All installations under existing or constructed bitumen or asphalt surfaced roads are to be bored unless specifically approved in writing by MRC under exceptional circumstances. Only roads with gravel surfaces may be trenched. Road crossings should be at 90 degrees to the road centreline wherever possible.
- 3.2 Trenching and reinstatement is to be generally in accordance with MRC's Standard Drawing A3-845.
- 3.3 Kerb markers are to be installed at all kerb crossings. Marker posts are to be installed at a maximum spacing of 200 metres.
- 3.4 All damaged and disturbed areas are to be reinstated to original condition. Concrete paths, damaged during construction, or if existing concrete pathways need to be modified or cut, full width panels or pathway between existing joints are to be removed and reinstated. Should sections of driveways/pathways be removed, the reinstatement shall include the installation of 16 mm diameter x 400 mm long dowels at 200 mm centres to the cut face. Any pathways that need to be removed shall be replaced in their entirety and no paths are to be cut longitudinally in half of part thereof.
- 3.5 All pipework and facilities are to be constructed within the standard gas / underground electricity alignment as shown on Drawings A3-4095 and A3-4096.

- 3.6 The design and installation of all pipework and ancillary facilities are to conform to all relevant Australian Standards.
- 3.7 A minimum cover of 1000 mm, to the top of pipework, is to be provided and maintained in the trafficable areas of the road reserve.
- 3.8 Traffic control, during construction and maintenance, is to be provided and maintained in accordance with Queensland Transport & Main Roads '*Manual of Uniform Traffic Control Devices*'.
- 3.9 MRC's future works may require the relocation of this installation and these relocation costs are to be met by the facilities' owner.
- 3.10 All works within the boundaries of State Controlled Roads also require approval from Queensland Department of Transport & Main Roads.
- 3.11 The carrier is to obtain current details of MRC's services from MRC. Any damage to MRC's services will be repaired at the carrier's cost.
- 3.12 MRC's 'As Constructed' data shows mains reticulation only. Service conduits may also be encountered during construction and these should be identified prior to excavating. Repairs to any damage to these services will be the responsibility of the contractor.
- 3.13 The Contractor is to ensure that satisfactory sediment and erosion controls are installed and maintained in accordance with Institute of Engineers Guidelines.
- 3.14 All areas that are disturbed by the operations are to be restored to the original conditions which will include, but not be limited to, levelling, compaction to prevent future sinking, top soiling and turf.
- 3.15 The Gas Authority shall provide As Constructed details of non-standard alignments to MRC and MRC shall keep a record of all non-standard alignments granted.
- 3.16 Contact MRC's representative / inspector to arrange for inspection of the completed works by MRC.
- 3.17 Tree Removal
- (a) Rural Areas – The removal of any trees greater than 200 mm diameter or clearing greater than 500 m<sup>2</sup> must be approved separately by MRC. The submission should include photographs of the site, statement of environmental effects and any environmental controls proposed.
- (b) Urban Areas – The removal of any tree must be approved separately by MRC. The submission must include photographs of each individual tree identified for removal. Any approval shall be subject to the following conditions:-
- All debris associated with the work is to be removed from the site.
  - The stump is to be ground below the level of the nature strip and backfilled to original level of the nature strip.
  - No other vegetation is to be damaged.
  - A replacement street tree shall be planted and maintained to establishment for each tree removed.
  - Footpath to be left in a clean, tidy and safe condition.
- 3.18 Tree pruning shall comply with Australian Standard AS 4373- 2007 Pruning of Amenity Trees and shall be done by a certified arborist on approval by MRC's arborist.
- 3.19 Location of utility services on MRC-owned infrastructure such as culverts, bridges, boardwalks and water towers or on land owned by or under MRC control will not be permitted unless:-
- (i) The relevant service authority has indemnified MRC against future costs of relocation.
- (ii) Works are undertaken at no cost to MRC.
- (iii) Where a second party wishes to attach services to a MRC owned bridge or culvert, MRC's requirements regarding location, design and maintenance are to be met.
- (iv) Ducting shall generally be galvanised steel tubing and mounted in brackets on the outside of the downstream deck / kerb unit. Brackets shall be hot dip galvanised and fastened using stainless steel fasteners into the ferrules cast into the outside of the units.
- (v) Where ferrules do not exist, approval shall be sought from MRC to use Stainless Steel Chemset (epoxy type) anchors. If this method is required, care will be required not to damage the reinforcement of the structure when masonry drilling into the deck / kerb unit.
- (vi) The Brackets used shall position the conduit to be clear of the waterway area, and shall not obstruct any transverse tensioning rods for the deck units.




- (vii) All work shall be at no cost to MRC, and the design for the proposed brackets and conduit system shall be forwarded to MRC for approval.
- (viii) Should the existing structure NOT have guardrail, the conduit shall be positioned so as to deflect away from both ends of the structure to allow for the future installation of guardrail.

#### 4.0 **Telecommunications Facilities**

- 4.1 All procedures and agreements are to be in accordance with the Telecommunications Act and Austroads Guidelines. Communication Alliance Ltd Guidelines G591 and ACIF Code C524.
- 4.2 All conduits / cabling under constructed bitumen or asphalt surfaced roads are to be bored unless specifically approved in writing by MRC under exceptional circumstances. Only roads with gravel surfaces may be trenched. Road crossings should be at 90 degrees to the road centreline wherever possible.
- 4.3 Trenching and reinstatement is to be generally in accordance with MRC's Standard Drawing A3-845.
- 4.4 Redundant pits, cables and conduits are to be removed and the area reinstated.
- 4.5 Cable installations will not be approved in MRC trustee reserves without prior approval of MRC's Technical Service Department and/or Mackay Water & Waste.
- 4.6 All facilities are to be constructed within the standard telecommunications alignment as shown on Drawing A3-4095 and A3-4096.
- 4.7 A minimum cover of 600 mm from top of the conduit is to be provided in level established grassed verge / footpath and 1200 mm under road pavements. Infrastructure markers are to be provided at all kerb crossings, footpaths and driveways. These will be set flush into all kerb crossings, footpaths and driveways.
- 4.8 Optical Fibre Network
  - 1. Rural Areas – Trenching, Conduit Installation and direct Buried Cable shall be installed at a minimum of 600 mm cover in formed verges and 1000 mm in unformed verges with road crossings at a depth of 1000 mm, with a detectable marker tape for the entire length of the construction.
  - 2. Urban Areas – All buried conduit shall have a minimum cover of 1000 mm under pavements at road crossings (i.e. concrete, asphalt and pavers) and minimum cover of 600 mm from top of the conduit in level established grassed verge / footpaths in road reserves. Infrastructure markers are to be provided at all kerb crossings, footpaths and driveways. These will be set flush into all kerb crossings, footpaths and driveways. A detectable marker tape to be installed at the time of construction or similar method so that the Optical Fibre Network is accurately locatable with a cable locator at all times.
- 4.9 In urban areas where the verge is not a nominal 2% from back of kerb. The MRC shall be contacted to determine final levels. Installation of Telecommunications infrastructure at the existing level may compromise MRC's ability for subsequent verge or footpath construction. Similarly, (in urban and rural areas) where the verge rises either side of a driveway, pit location / level and conduit depths shall be set at a level that allows the verge to be cut down to achieve a continuous accessible path of travel as defined in AS 1428.1 and AS2890.5.
- 4.10 Traffic control is to be provided and maintained in accordance with Queensland Transport & Main Roads' *'Manual of Uniform Traffic Control Devices'*.
- 4.11 The carrier is to ensure that the design meets co-location obligations contained within the Telecommunications Act. MRC's future works may require the relocation of this installation and these relocation costs are to be met by the responsible parties nominated in the Communications Guideline G591.
- 4.12 RIM, CMUX, ISAM or similar cabinets are not to be located within a footpath area unless specific MRC approval is obtained. MRC's preferred location for TRIM cabinets, in developed areas, is set back from the road reserve boundary either in parks or additional road reserve allocation. Concrete slab at rear of cabinet is to extend to property boundary. This may require liaison with Developers and/or Queensland Department of Environment and Resource Management prior to submitting the proposal to MRC. Concrete slabs to cabinets are to extend to the property boundary. Cabinet slabs shall be set at such a level so as to not create a trip hazard.
- 4.13 All works within the boundaries of Declared Main Roads are to be approved by Queensland Department of Transport & Main Roads.
- 4.14 The carrier is to obtain current details of MRC's services from MRC. Any damage to MRC's services will be repaired at the carrier's cost.
- 4.15 MRC's 'As Constructed' date shows mains reticulation only. Service conduits may also be encountered during construction and these should be identified prior to excavating. Repairs to any damage to these services will be the responsibility of the contractor/carrier.

- 4.16 The contractor/carrier is to ensure that satisfactory sediment and erosion controls are installed and maintained in accordance with Institute of Engineers Guidelines.
- 4.17 If existing concrete pathways need to be modified or cut, full width panels of pathway between existing joints are to be removed and reinstated. Should sections of driveway / pathways be removed, the reinstatement shall include the installation of 16 mm diameter x 400 mm long dowels at 200 mm centres to the cut face. Any pathways that need to be removed shall be replaced in their entirety and no paths are to be cut longitudinally in half of part thereof.
- 4.18 Where new services are pulled through existing conduits the Telecommunication Authority shall confirm that the existing conduits are at correct alignments and depths. The Telecommunication Authority shall indemnify Council against all future costs to lower or relocate to the correct alignment if required for works. Council or developers are required to meet all costs of relocation or lower for works impacting on existing Telecommunication Authority's plant, provided the plant is on correct alignment, or if the Telecommunication Authority has approval or written agreement for the Non-Standard alignment.
- 4.19 At stream locations Council, would prefer that the Telecommunication Authority remain on correct alignment. Where services are attached through or to the outside of existing culverts, bridges or floodway structures at the convenience to the Telecommunication Authority, the Telecommunication Authority shall indemnify MRC against all future relocation costs should the culvert, bridge or floodway require to be reconstructed, widened or replaced.
- Where conduit provisions (or service ducts) are made within new bridge structures, it shall be the bridge owner's responsibility to bear relocation costs in the future, should the bridge be widened or reconstructed.
- 4.20 **Tree Removal**
- (a) Rural Areas – The removal of any trees greater than 200 mm diameter or clearing greater than 500 m<sup>2</sup> must be approved separately by Council. The submission should include photographs of the site, statement of environmental effects and any environmental controls proposed.
- (b) Urban Areas – The removal of any tree must be approved separately by Council. The submission must include photographs of each individual tree identified for removal. Any approval shall be subject to the following conditions:-
- All debris associated with the work is to be removed from the site
  - The stump is to be ground below the level of the nature strip and backfilled to original level of the nature strip
  - No other vegetation is to be damaged.
  - A replacement street tree shall be planted and maintained to establishment for each tree removed
  - Footpath to be left in a clean, tidy and safe condition.
- 4.21 Tree Pruning shall comply with Australian Standard AS 4373-2007 Pruning of Amenity Trees.
- 4.22 All areas that are disturbed by the operations are to be restored to the original conditions which will include, but not be limited to, levelling, compaction to prevent future sinking, topsoiling and turf (or seed with a compatible grass seed mixture in rural areas).
- 4.23 Aerial cable crossings of roads must achieve a minimum clearance of 5.5 m above the entire trafficked roadway.
- 4.24 Where the proposed works requires trenching through turf, destruction of vegetation, cutting of driveways, construction of pillars, pits or poles fronting private property, Council recommends the Telecommunication Authority consult with the affected property owner.
- 4.25 The Telecommunication Authority shall provide As Constructed details of non-standard alignments to Council and Council shall keep a record of all non-standard alignments granted.
- 4.26 Contact Council's representative / inspector to arrange for inspection of the completed works by Council.
- 4.27 Location of utility services on Council-owned infrastructure such as culverts, bridges, boardwalks and water towers or on land owned by or under Council control will not be permitted unless:
- (i) The relevant service authority has indemnified Council against future costs or relocation.
  - (ii) Works are undertaken at no cost to Council.
  - (iii) Where a second party wishes to attach services to a Council owned bridge or culvert, Council's requirements regarding location, design and maintenance are to be met.
  - (iv) Ducting shall generally be galvanised steel tubing and mounted in brackets on the outside of the downstream deck / kerb unit. Brackets shall be hot dip galvanised and fastened using stainless steel fasteners into the ferrules cast into the outside of the units.

- (v) Where ferrules do not exist, approval shall be sought from Council to use Stainless Steel Chemset (epoxy type) anchors. If this method is required, care will be required not to damage the reinforcement of the structure when masonry drilling into the deck / kerb unit.
- (vi) The Brackets used shall position the conduit to be clear of the waterway areas, and shall not obstruct any transverse tensioning rods for the deck units.
- (vii) All work shall be at no cost to council, and the design for the proposed brackets and conduit system shall be forwarded to Council for approval.
- (viii) Should any existing structure NOT have guardrail, the conduit shall be positioned so as to deflect away from both ends of the structure to allow for the future installation of guardrail.

 <p><b>Mackay</b> REGIONAL COUNCIL</p>	<b>COUNCIL POLICY</b>	
	<b>Clearances to Water &amp; Sewerage Assets</b>	
	POLICY NO	063
	DEPARTMENT	Water and Waste Services
	PROGRAM	Infrastructure Delivery

## 1.0 Scope

This policy applies to developers, builders, contractors and Mackay Regional Council officers installing new service utility assets and structures, for which Council approval has been granted. The policy applies also for the design and construction of new water and sewer mains to existing third party assets.

## 2.0 Purpose

The following clearances to Mackay Water Services' sewerage and water assets became effective, September 2003. All new service utility assets and structures for which Council approval has been granted, shall comply. Clearance also applies for the design and construction of new water and sewer mains to existing third party assets.

## 3.0 Reference

- Water Supply (Safety and Reliability) Act 2008, Chapter 2, Part 7
- Plumbing Code of Australia
- Mackay City Council Policy No. 02 – Building Over and Adjacent to Sewers

## 4.0 Definitions

To assist in interpretation the following definitions shall apply:

**MRC** shall mean *Mackay Regional Council*.

## 5.0 Background

This policy was developed to provide guidelines for the information of developers, contractors and Mackay Water Services' staff regarding clearance requirements pertaining to water and sewerage assets.

## 6.0 Policy Statement

### 1. WATER MAINS

#### 1.1 Clearance to Utility Assets/Works

The clearance between service utility assets/works to Mackay Water Services' mains is to be maximised wherever possible, however shall not be less than that provided in Table 1.1 below.

<b>TABLE 1.1 – MINIMUM CLEARANCE TO UNDERGROUND WATER MAINS</b>			
<b>WORKS</b>	<b>MINIMUM HORIZONTAL CLEARANCE (mm)</b>		<b>MINIMUM VERTICAL CLEARANCE (mm)</b>
	<b>≤ DN200</b>	<b>&gt; DN200 - ≤ DN375</b>	<b>≤ DN375</b>
Gas Mains	300	600	150
Telecommunication conduits & cables	300	600	150
Electricity conduits & cables ≤ 415 V	500	1000	225
Electricity conduits & cables > 415 V	1000	2000	500
Stormwater & similar drainage conduits	300	600	150
Kerb & Channel	150	450	500
Sewers	1000	1000	500
Water Mains ≤ DN375	300	600	150
Water Mains > DN375	600	600	500
Poles, pits & small structures ≤ 2m long adjacent to main	150	300	-

Mackay Water Services' agreement shall be obtained in writing for minimum clearance to existing water mains of > DN375, any above ground mains and proposed services not covered in Table 1.1.

Clearance shall be taken as the nearest point of the service/works to the outside of the water main.

Services shall cross water mains at 90 degrees where possible but not less than 45 degrees.

Drainage conduits  $\geq$  DN450 crossing over water mains where vertical clearance is less than 750 mm shall be 'bridged' over the main supported on reinforced concrete stools or similar supports.

Sewer mains shall cross beneath water mains. Where no alternative exists, the sewer main shall be sleeved extending a minimum of 3 m either side of the water main. The sewer shall be located centrally within the sleeve.

## **1.2 Clearance to Structures**

The 45 degree 'Zone of Influence' of any structure including wall, post, foundation or similar shall be clear of the water main so as to prevent excessive loads being imposed, however clearances shall not be less than that provided in Table 1.2 below.

<b>TABLE 1.2 – MINIMUM WATER MAIN CLEARANCE TO STRUCTURE</b>	
<b>WATER MAIN DIAMETER (DN)</b>	<b>MINIMUM HORIZONTAL CLEARANCE (mm)</b>
< DN100	600
DN100 - DN150	1000
> DN150 - DN300	1500
> DN300 - DN375	2000
> DN375	Mackay Water Services' approval

Mackay Water Services' agreement shall be obtained in writing for minimum clearance to water mains > DN375 and any above ground mains.

Clearance shall be taken as the nearest point of the structure to the water main. Clearance to the water main may be reduced over a longitudinal distance of 2 m when adjacent to installations such as poles, pits and small structures as per Table 1.1.

## **2. SEWER MAINS & MAINTENANCE HOLES**

### **2.1 Clearance to Utility Assets/Works**

The clearance between service utility assets/works to Mackay Water Services' sewers (including MH's) shall be maximised wherever possible, however shall not be less than that provided in Table 2.1 below.

Clearance between buildings/structures to Mackay Water Services' sewers and system components shall be in accordance with Mackay City Council Policy No. 02 – *Building Over and Adjacent to Sewers*.

<b>TABLE 2.1 – MINIMUM CLEARANCE TO UNDERGROUND SEWERS</b>				
<b>WORKS</b>	<b>MINIMUM HORIZONTAL CLEARANCE (mm)</b>		<b>MINIMUM VERTICAL CLEARANCE (mm)</b>	
	<b>≤ DN300</b>	<b>&gt;DN300 - ≤ DN375</b>	<b>≤ DN300</b>	<b>&gt;DN300 - ≤ DN375</b>
Gas Mains	600	600	150	300
Telecommunication conduits & cables	600	600	150	300
Electricity conduits & cables ≤ 415 V	600	1000	225	300
Electricity conduits & cables > 415 V	1000	2000	500	500
Stormwater & similar drainage conduits	300	600	150	300
Kerb & Channel	150 to MH	150 to MH	500	500
Sewers	300	300	150	300
Water Mains ≤ DN375	1000	1000	500	500
Water Mains > DN375	1000	1000	500	500
Poles, pits & small structures ≤ 2m long adjacent to main	150	300	-	-

Clearance to sewer transfer mains (rising mains & pressure pipelines) shall be as per Tables 1.1 & 1.2.

Mackay Water Services' agreement shall be obtained in writing for minimum clearance to existing sewer mains of > DN375, any above ground mains and proposed services not covered in Table 2.1.

Clearance shall be taken as the nearest point of the service/works to the outside of the sewer conduit except as noted otherwise. A minimum horizontal clearance of 1000 mm to above ground obstructions shall be provided around maintenance structures clear of the opening to facilitate maintenance.

Services shall cross sewer mains at 90 degrees where possible but not less than 45 degrees.

Drainage conduits > DN450 crossing over sewer mains where vertical clearance is less than 750 mm shall be 'bridged' over the sewer supported on reinforced concrete stools or similar supports.

Water mains shall cross above sewer mains. Where no alternative exists, the water main shall be sleeved extending a minimum of 3m either side of the sewer main. The main shall be located centrally within the sleeve.

## **7.0 Review of Policy**

This policy will be reviewed when any of the following occur:

1. The related documents are amended or replaced.
2. Other circumstances as determined from time to time by a resolution of Council.

Notwithstanding the above, this policy is to be reviewed at intervals of no more than two years.



